

PE-DESIGN

Version 5.0

Instruction Manual



brother®

IMPORTANT INFORMATION: REGULATIONS

Federal Communications Commissions (FCC) Declaration of Conformity (For USA Only)

Responsible Party : Brother International Corporation
100 Somerset Corporate Boulevard
Bridgewater, NJ 08807-0911 USA

declares that the product

Product Name: Brother USB Writer
Model Number: PE-DESIGN

complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the manufacturer or local sales distributor could void the user's authority to operate the equipment.

Canadian Department of Communications Compliance Statement (For Canada Only)

This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Department of Communications

Radio Interference (Other than USA and Canada)

This machine complies with EN55022 (CISPR Publication 22) /Class B.

Congratulations on choosing our product!

Thank you very much for purchasing our product. To obtain the best performance from this unit and to ensure safe and correct operation, please read this Instruction Manual carefully, and then keep it in a safe place together with your warranty.

Please read before using this product

For designing beautiful embroidery patterns

- This system allows you to create a wide variety of embroidery patterns and supports a wider range of sewing attribute settings (thread density, sewing pitch, etc.). However, the final result will depend on your particular sewing machine model. We recommend that you make a trial sewing sample with your sewing data before sewing on the final material.

For safe operation

- Avoid dropping a needle, a piece of wire or other metallic objects into the unit, or into the card slot.
- Do not store anything on the unit.

For a longer service life

- When storing the unit, avoid direct sunlight and high humidity locations. Do not store the unit close to a heater, iron or other hot objects.
- Do not spill water or other liquids on the unit or cards.
- Do not drop or hit the unit.

For repairs or adjustments

- In the event malfunction occurs or adjustment is required, please consult your nearest service center.

Notice

This Instruction Manual does not explain how to use your computer under Windows. Please refer to the Windows manuals.

Copyright acknowledgment

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Important

Using this unit for unauthorized copying of material from Embroidery Cards, newspapers and magazines for commercial purpose is an infringement of copyright which is punishable by law.

Caution

The software included with this product is protected by copyright laws. This software can be used or copied only in accordance with the copyright laws.

“SAVE THESE INSTRUCTIONS”

“This product is intended for household use.”

**“For additional product information and updates, visit our web site at:
www.brother.com”**

New Features of Version 5.0

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- Automatic stitch direction recognition 98, 207

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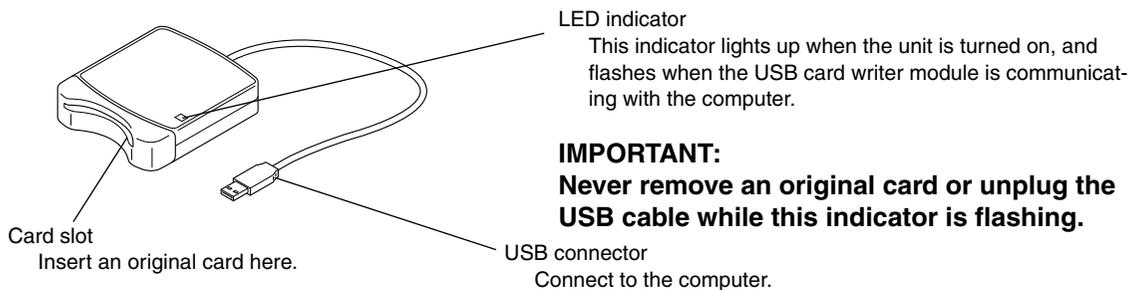
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Before Using

Principal Parts

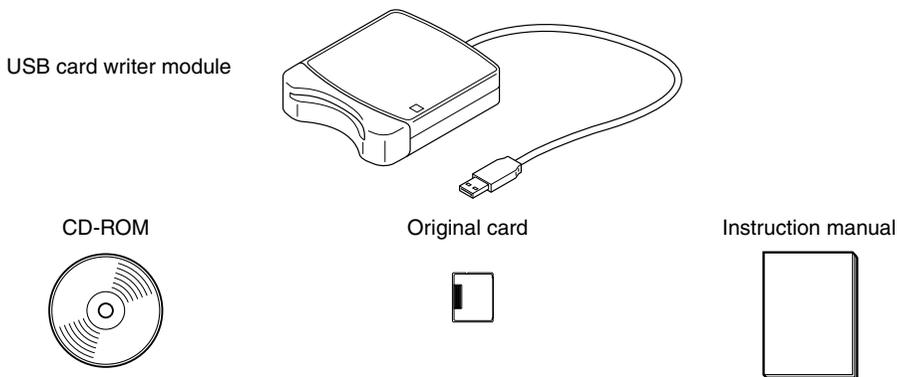


IMPORTANT:
Never remove an original card or unplug the USB cable while this indicator is flashing.

NOTE:
Since power is supplied to the USB card writer module through the USB connection with the computer, there is no power supply cable or power switch.

Package Contents

Check that the following items are included. If anything is missing or damaged, contact your service representative.



NOTE:
The USB card writer module and the original card are not included with the kit for upgrading from other models.

Optional Supplies



IMPORTANT:
The only original cards that can be used with this USB card writer module are those like the one enclosed or optional original cards of the same type.

Installing the Software

System Requirements

Before installing the software on your computer, make sure that the computer meets the following requirements.

Computer	IBM-PC or compatible computer originally equipped with a USB port
Operating system	Windows 98, ME, XP or 2000
Processor	Pentium 133 MHz or higher
Memory	Minimum 32 MB (64 MB or more is recommended)
Hard disk free space	Minimum 100 MB
Monitor	SVGA (800 × 600), 16-bit color or higher
Port	USB Ver. 1.1
Printer	A graphic printer that is supported by your system (if you wish to print your images)
CD-ROM drive	Required for installation

NOTE:

- *Power is supplied to this USB card writer module through the USB connection. Connect the USB card writer module to a USB connector of the computer or to a self-powered USB hub that can supply enough power to the card writer module. If the card writer module is not connected in this way, it may not operate correctly.*
- *This product may not operate correctly with some computers and USB expansion cards.*

Installation

This section describes how to install the driver and application software.

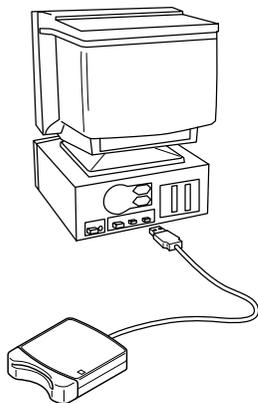
IMPORTANT:

Be sure to perform the installation according to the following instructions. If the installation is interrupted or not performed according to the instructions, the software will not be installed correctly.

NOTE:

The following installation procedure includes descriptions and dialog boxes for Windows 98. The procedure and dialog boxes for other operating systems may be slightly different.

- 1 Turn on the computer and start Windows. Quit all other applications.
- 2 Plug the USB connector into the USB port on the computer.
Make sure that the connector is fully inserted.



- 3 After a short while, the first Add New Hardware Wizard dialog box appears.

Click **Next**.

IMPORTANT:

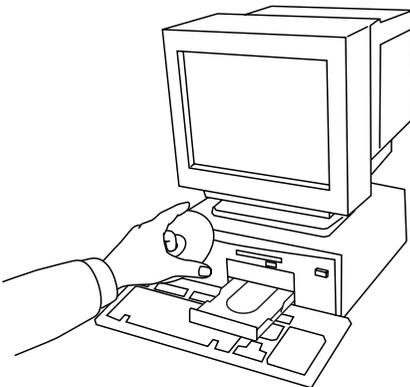
When using XP, select “Install from a list or specific location (Advanced)” on the first Wizard screen and click **Next**.



- 4 Make sure that “Search for the best driver for your device. (Recommended)” is selected, and then click **Next**.



- 5 Insert the enclosed CD-ROM into the computer's CD-ROM drive.



- 6 Select “CD-ROM drive”, and then after 5 to 10 seconds, click **Next**.

IMPORTANT:

Depending on the operating system, the dialog box shown in step 9 may also appear; however, the operation described in step 8 should be performed before continuing to step 9.



- 7 When UsbWriter appears, click **Next**.

IMPORTANT:

Depending on the operating system, the message “No digital signature.” may appear; however, the installation can be continued.



- 8 When the dialog box shown at the right appears, click **Finish**.

This completes the installation of the driver software.

NOTE:

A message may appear, indicating that the computer should be restarted; however, it is not necessary to restart yet, so click **Cancel**.

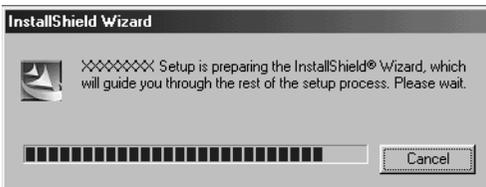


- 9 The Choose Setup Language dialog box appears. Select the desired language, and then click **OK**.

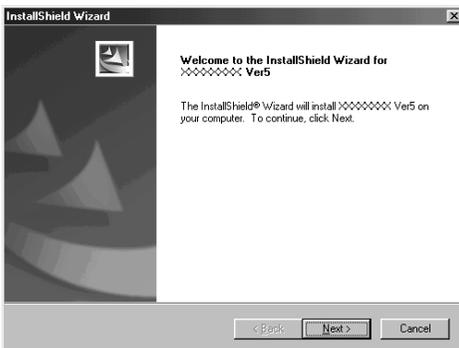


- 10 After a short while, the application installer automatically starts up. If the installer does not automatically start up:

- Click the **Start** button.
- Click **Run**.
The Run dialog box appears.
- Type in the full path to the installer, and then click **OK** to start up the installer.
For example: D:\Setup (where "D:" is the name of the CD-ROM drive)



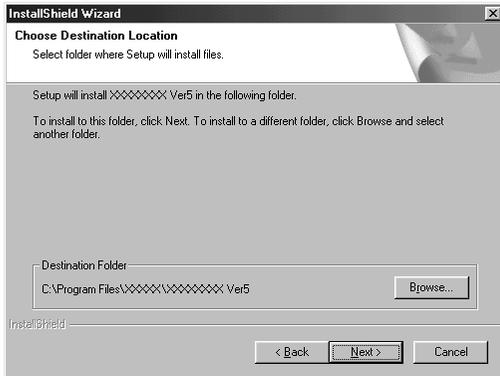
- 11 When the InstallShield Wizard appears, click **Next** to continue with the installation.



- 12 Click **Next** to install the application into the default folder.

To install the application into another folder:

- Click **Browse**. Select the drive and folder (if necessary, type in the name of the new folder).
- When the desired folder is selected, click **OK**.
- The “Choose Destination Location” shows the selected folder. Click **Next** to install the application into that folder.
- Click **Back** to return to the previous step.
- Click **Cancel** to exit.



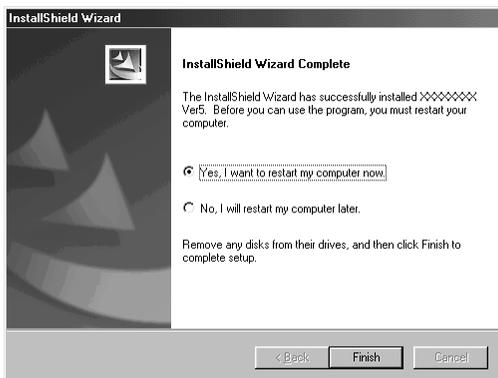
- 13 When the installation is completed, the dialog box shown at the right appears.

IMPORTANT:

With Windows 98 and ME, the computer must be restarted. Be sure to click Restart to complete the setup.

NOTE:

*With other operating systems, it is not necessary to restart the computer. Click **Finish** to complete the setup.*



This completes the entire setup operation.

Online Registration

If you wish to be contacted about upgrades and provided with important information such as, future product developments and improvements, you can register your product online by following a simple registration procedure.

Click Online Registration on the Help menu to start up the installed Web browser and open the online registration page on our Web site.

If you wish to be contacted about upgrades and provided with important information such as, future product developments, you can register your product online by following a simple registration procedure.

IMPORTANT:

Online registration may not be available in some areas.

Uninstallation

- 1 Turn on the computer and start Windows.
- 2 Click the Start button in the task bar, select **Setting**, and then click **Control Panel**.
- 3 In the Control Panel window, double-click "Add/Remove Programs".
- 4 In the Add/Remove Programs Properties dialog box, select program, and then click **Add/Remove**.

Technical Support

Please contact Technical Support if you have a problem.

Please check the company web site to find the Technical Support address for your area.

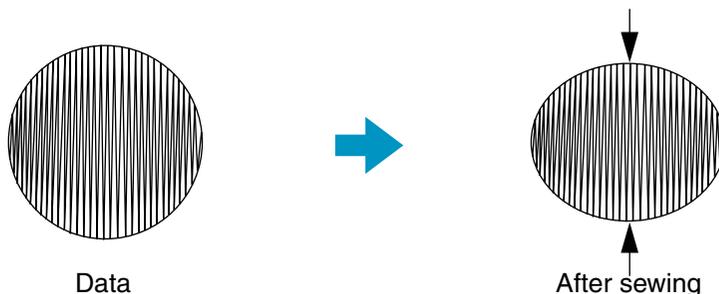
IMPORTANT:

Have the following information ready before contacting Technical Support.

- The make and model of your PC you are using as well as the Windows version. (Please check the system requirements for this product once again. See page 2.)
- Information on any error messages that appear.

Tips and Techniques for Creating Embroidery Patterns

When Satin stitch is used in a wide area, the stitched area may shrink after sewing, depending on the material and the type of thread used. When this happens, switch to this alternate method: Select Fill stitch and use a stabilizer material on the reverse side of the fabric.

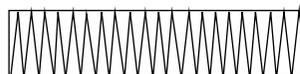


Note: When using Satin stitch in a wide area, the needle may move out of position by about 10 mm with some machines. To avoid this, use the above mentioned alternate method.

To limit shrinking, set the stitch direction perpendicular to the larger edge of the area.



Shrinking more likely to occur



Shrinking less likely to occur

After creating an embroidery pattern made of several different parts (in Design Center or Layout & Editing), make sure that you check the sewing order and correct it if necessary.

With Design Center, the default sewing order is the order in which the sewing attributes are set.

With Layout & Editing, the default sewing order is the order in which the elements are drawn.

There are two ways of enlarging or reducing an imported embroidery pattern in Layout & Editing. You may choose to simply scale your pattern with the selection cursor or apply the Stitch to Block function to the pattern and then scale it.

When you scale an imported pattern, the number of stitches that will be sewn remain the same, resulting in a change of embroidery quality if the size of the pattern is greatly changed.

Selecting the Sew – Stitch to Block command, then scaling a pattern allows you to keep the original embroidery quality of the pattern, as the number of stitches that will be sewn automatically adapt to the new size. Selecting the “Normal” sensitivity setting of the Stitch to Block function will allow you to maintain the embroidery quality in most cases. Selecting a finer density setting in the Stitch to Block Sensitivity dialog will allow you to obtain a more complex embroidery; selecting a coarser density will create a simpler embroidery.

When a pattern is scaled only moderately, it may not be necessary to apply the Stitch to Block function.

This system allows you to create a wide variety of embroidery patterns and supports wider ranges for the setting of the sewing attributes (thread density, sewing pitch, etc.). However, the final result also depends on your particular sewing machine model. We recommend that you make a trial sewing sample with your sewing data before sewing on the final material. Remember to sew your trial sample on the same fabric, using the same needle and the same machine embroidery thread as your final material.

Getting Started

Introduction

This package contains three applications.

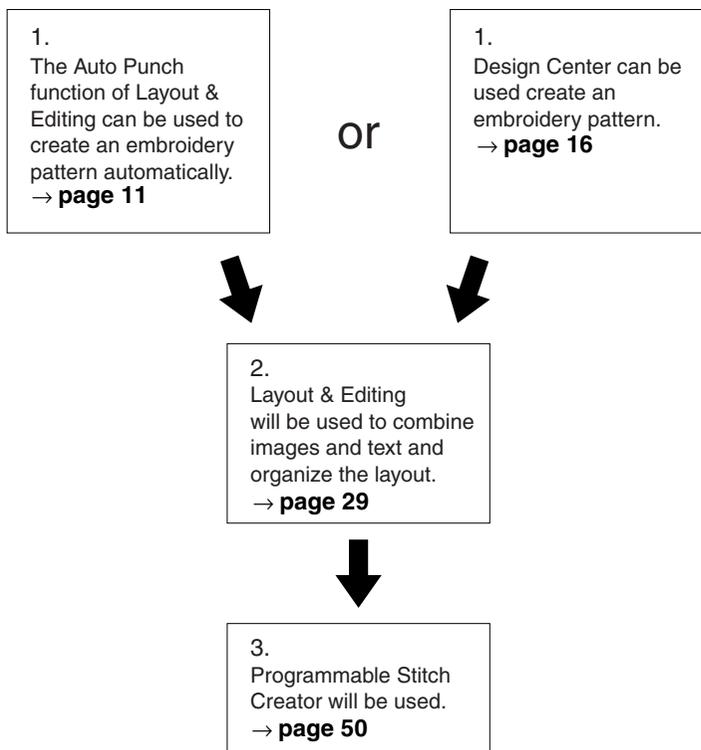
About this Chapter

The next three sections of this chapter are organized as a tutorial to provide you with a hands-on introduction to the different features of the applications.

First, using the Auto Punch function in Layout & Editing, you will create an embroidery pattern automatically from an image. The embroidery pattern can also be created in Design Center using the 4-stage procedure described later.

Next, the pattern will be imported into Layout & Editing. You will learn how to add a few components to the embroidery image and to organize the layout.

In the third section, you will then learn how to use Programmable Stitch Creator to edit a programmable stitch in order to create your own.



■ Layout & Editing

Layout & Editing is used to automatically create embroidery patterns from images, combine images and text, and create embroidery data that can be written to an Original card. The images may come from scanning a printed image or can be created with an application like Paint[®]. The extension of the image files must be **bmp, tif, jpg, j2k, pcx, wmf, png, eps, pcd, or fpx**. In addition, the following type of embroidery data can be incorporated into the embroidery pattern.

- ◆ Embroidery patterns created with Design Center
- ◆ Embroidery patterns on Embroidery cards purchased from your dealer (Note that some patterns cannot be read.)
- ◆ Embroidery patterns in the Tajima, Melco, Pfaff and Husqvarna formats
- ◆ Patterns created within Layout & Editing itself (These patterns include text, circles and related shapes, rounded boxes, polygonal lines, curves and manual punching patterns.)

After gathering the different components of your embroidery picture, you can use the layout functions to modify their relative position, orientation and scale.

When an embroidery image is complete, you can save it (the file name extension will be **pes**) and write it to an Original card. The Original card can then be inserted into your sewing machine and the embroidery process continued.

■ Design Center

Design Center is used to manually create embroidery patterns from images. The images may come from scanning a printed image or can be created with an application like Paint[®]. The extension of the image files must be **bmp, tif, jpg, j2k, pcx, wmf, png, eps, pcd, or fpx**. Design Center automatically detects outlines in the image and replaces them with broken lines that can be edited and assigned sewing attributes.

The procedure is divided in four stages:

- ◆ **Stage 1 – Original Image:** You open the image file and select one or more colors that the application will use to retrace the outlines.
- ◆ **Stage 2 – Line Image:** The original color image is replaced with a black and white image (the colors selected in Stage 1 become black, and all the other colors become white). You can edit this image using pens and erasers of different thicknesses. (You can also start at this step and draw a complete black and white image by hand.)
When the image is ready, you set and start the automatic retracing process.
- ◆ **Stage 3 – Figure Handle:** The black and white image is replaced with a set of outlines made of editable broken lines. You can edit the broken lines by moving, inserting or deleting points.
- ◆ **Stage 4 – Sew Setting:** In this final step, you apply sewing attributes (thread color and stitch type) to the outlines and regions inside.

At any stage, you can save your work to retrieve it later. Up to stage 2, the file will be saved with the extension **pel**. In stages 3 and 4, the file will be saved with the extension **pem**.

Saving your work as you move through the stages will be helpful if you make changes, then later decide to use the original pattern.

When your image has reached stage 4, you can import it in Layout & Editing. The image will be considered a single object by Layout & Editing, which means that you will be able to move and scale it, but you will not be able to edit the outline. You can however change the pattern and some of the sewing attributes after applying the Stitch to Block function.

■ Programmable Stitch Creator

Programmable Stitch Creator allows you to create, edit and save fill stitch patterns, which you can apply to the enclosed regions of patterns, both in Design Center and Layout & Editing. The fill stitch pattern files are saved as **pas** files. The application comes with a number of **pas** files, which you can use as such or edit to enhance your embroidery patterns.

Using the Auto Punch Function

In this section, we are going to create an embroidery pattern automatically. That pattern will be created by automatic retracing of an image. This pattern will be used later as the stepping stone to creating a more complex embroidery picture.

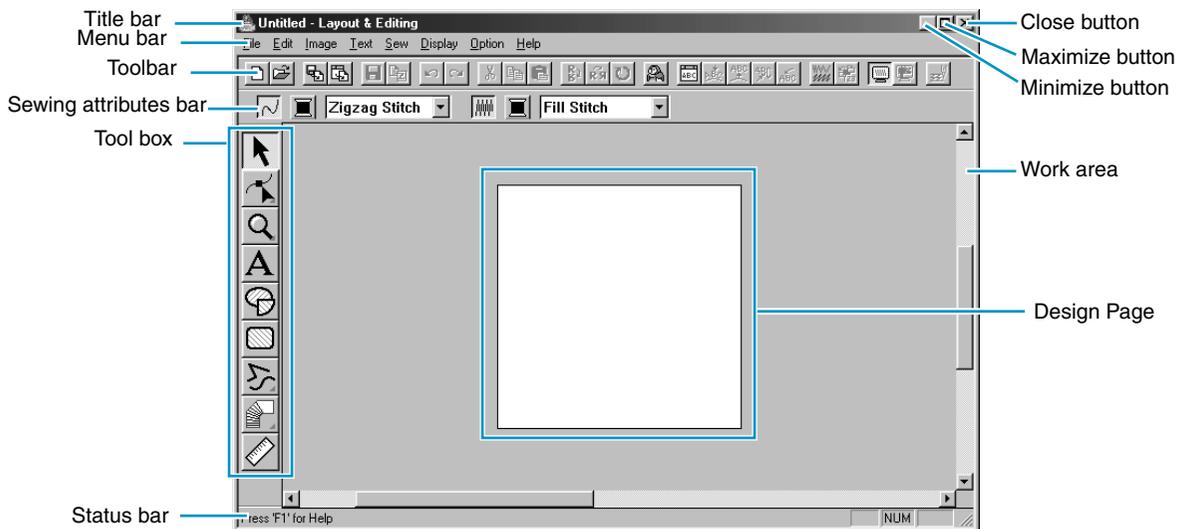
Please follow these instructions step by step, in the sequence given. If you have to interrupt your training for any reason, it is recommended to save the file. You will be able to retrieve it later and resume your work.

The complete procedure will take us through the different steps of a normal working session with Design Center and will introduce you to its most important features.

Step 1	Starting Layout & Editing	page 11
Step 2	Opening an Image	page 12
Step 3	Editing the Image	page 13
Step 4	Using the Wizard and Selecting the Auto Punch Function	page 14
Step 5	Automatically Extracting Pattern Outlines	page 14
Step 6	Automatically Creating an Embroidery Pattern	page 15

Step 1 Starting Layout & Editing

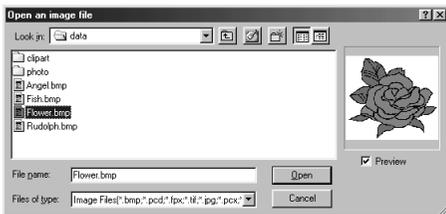
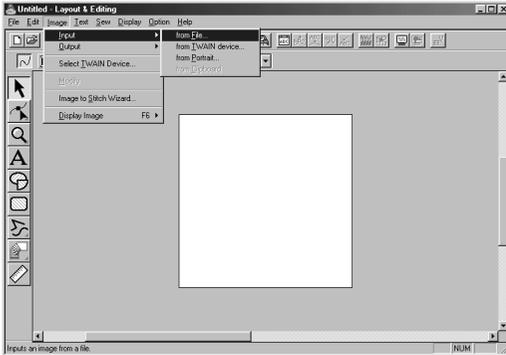
- 1 To start Layout & Editing, click the  button, select Programs, then Version 5.0, and then click Layout & Editing to open the Layout & Editing window.



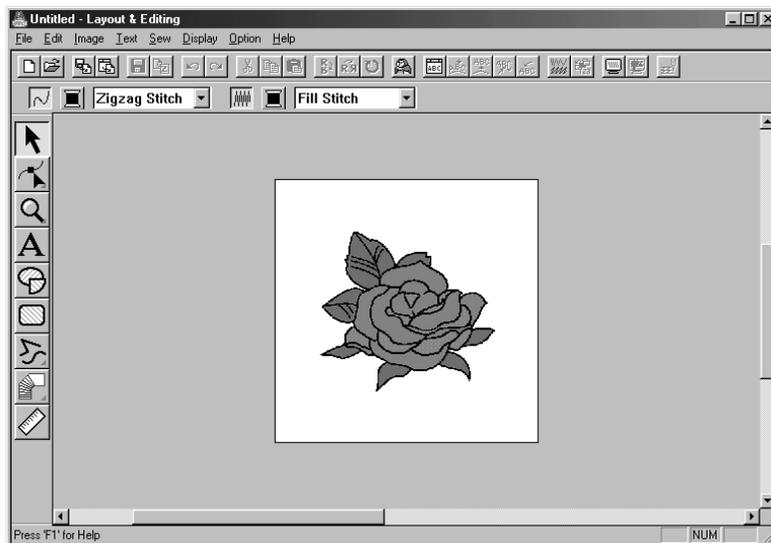
Step 2 Opening an Image

We are now going to open an image and convert it into an embroidery image.

- 1 Click **Image** on the menu bar, select **Input** on the submenu, then click **from File**.
The **Open** dialog appears.



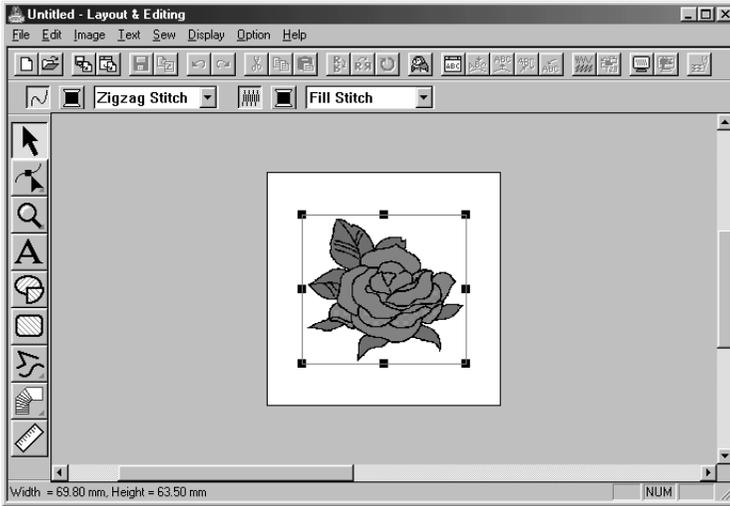
The image displays and is maximized to fit the work area.



- ◆ Select the sample file **Flower.bmp** in the **Data** folder.
- If the **Preview** check box is checked, the contents of the selected file displays in the **Preview** window.
- ◆ Click **Open** to open the file and close the dialog.

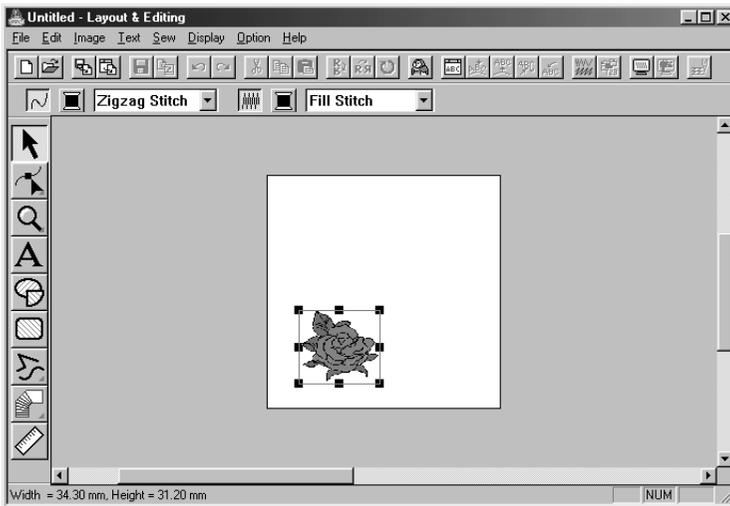
Step 3 Editing the Image

- 1 Click **Image** on the menu bar, then click **Modify**.
- 2 Handles appear around the selected image.



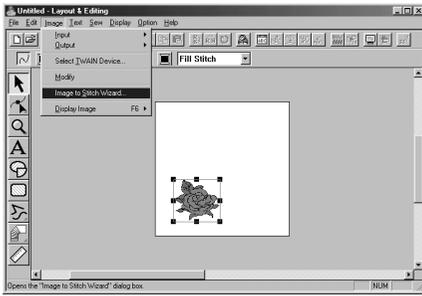
The Status bar shows the dimensions (width and height) of the selected pattern.

- 3 Move the cursor over a handle of the selected pattern, and then after the cursor changes to , , , or , adjust the size of the pattern.
- 4 Move the cursor over the selected pattern, and then after the shape of the cursor changes to , drag the pattern to the desired location.

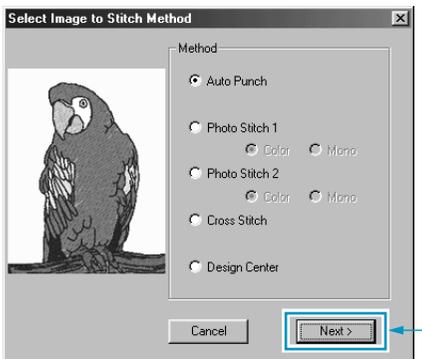


Step 4 Using the Wizard and Selecting the Auto Punch Function

- 1 Click **Image** on the menu bar, then click **Image to Stitch Wizard**. Otherwise, click  on the Toolbar.



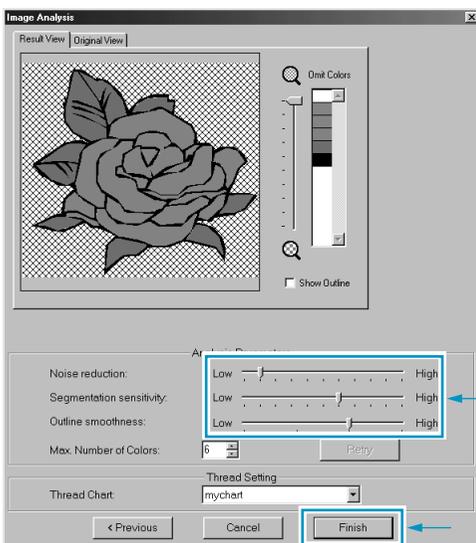
- 2 On the **Select Image to Stitch Method** dialog that appears, click the **Auto Punch** check box to select it, and then click **Next**.



- The following stitch methods are also available.
 - *Photo Stitch 1 (Color and Mono)*
See the function details on page 183.
 - *Photo Stitch 2 (Color and Mono)*
See the function details on page 190.
 - *Cross Stitch*
See the function details on page 195.
 - *Design Center, Starting Design Center*
See "Using Design Center" on page 16 or the function details on page 61.

Step 5 Automatically Extracting Pattern Outlines

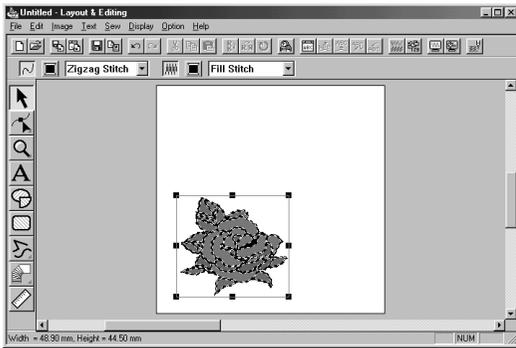
- 1 Outlines are automatically extracted from the image and the **Image Analysis** dialog appears.



- ◆ Detailed settings for the imported image can be adjusted and, if **Retry** is clicked, the new settings can be applied.
- ◆ Areas that are not to be sewn appear with a crosshatch pattern. Click each area to set whether it should be sewn or not.

- 2 After the necessary settings are selected, click **Finish**.

Step 6 Automatically Creating an Embroidery Pattern



- ◆ The embroidery pattern appears.
- ◆ The stitching and thread colors of the finished embroidery pattern can be changed as you wish.
- ◆ To continue editing the embroidery pattern, continue with step 5 of “Using Layout & Editing” on page 36.

Using Design Center

In this section, we are going to create an embroidery pattern. That pattern will be created by automatic retracing of an image. This pattern will be used later as the stepping stone to creating a more complex embroidery picture.

The complete procedure will take us through the different steps of a normal working session with Design Center and will introduce you to its most important features.

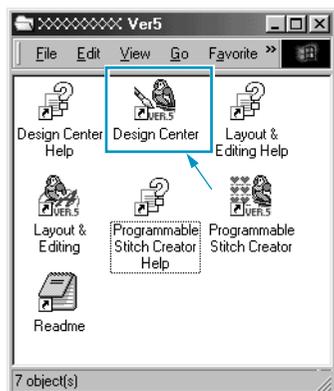
Please follow these instructions step by step, in the sequence given. If you have to interrupt your training for any reason, it is recommended to save the file (see Step 9). You will be able to retrieve it later and resume your work.

Step 1	Starting Design Center	page 17
Step 2	Opening an Image	page 18
Step 3	Converting to Line Image	page 19
Step 4	Editing Lines	page 20
Step 5	Converting to Figure Handle Image	page 22
Step 6	Moving to Sew Setting	page 23
Step 7	Setting Sewing Attributes	page 23
Step 8	Previewing the Image	page 28
Step 9	Saving the File	page 28

Step 1 Starting Design Center

- 1 To start Design Center, click the **Start** button, select Programs, then Version 5.0, and then click Design Center to open the Design Center window.

You may also double-click the Design Center icon in the program group.



If the shortcut icon for Design Center is created, for example, on computer desktop, double-click it to start program.

You can also click **Option** on the menu bar of Layout & Editing, then click **Design Center** on the sub-menu.

The Design Center window appears.



The window size will be smaller than the display area on the screen of your personal computer.

- 2 To make the Design Center window fill up the available space on your screen, click the maximize button on the right side of title bar.

If you are working with other programs, you can reduce the Design Center window temporarily to an icon (see icon below) by clicking the minimize button on the right side of the title bar. You can then access the other windows and icons on the display screen by using the mouse.

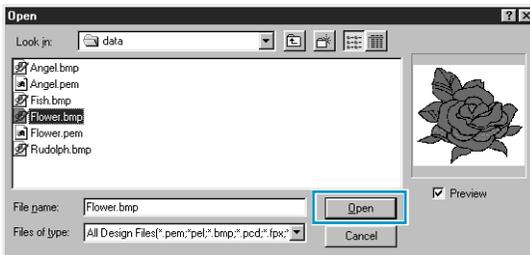
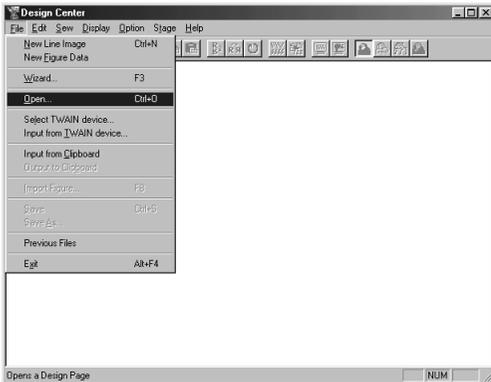


To return to the Design Center window, click the icon, bearing the name of the opened document, at the bottom of your screen.

Step 2 Opening an Image

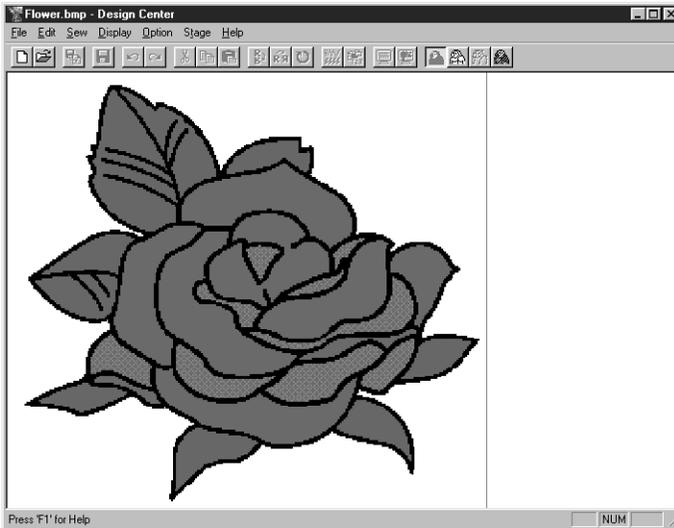
We are now going to open an image and convert it into an embroidery image. If the Wizard dialog appears, click **Cancel** to close it.

- 1 Click **File** on the menu bar, then click **Open** on the submenu.
The **Open** dialog appears.



- ◆ Select the file **Flower.bmp** in the **Data** folder.
- If the **Preview** check box is checked, the contents of the selected file displays in the **Preview** window.
- ◆ Click **Open** to open the file.
- *Double-clicking the file name will also open the file and close the dialog.*

The image displays and is maximized to fit the work area.



Step 3 Converting to Line Image

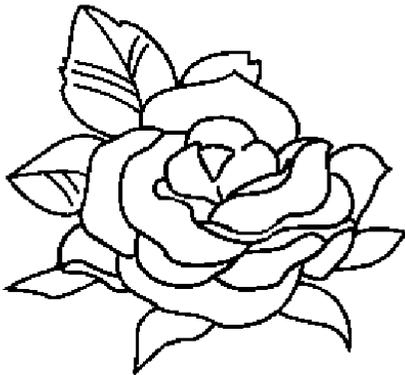
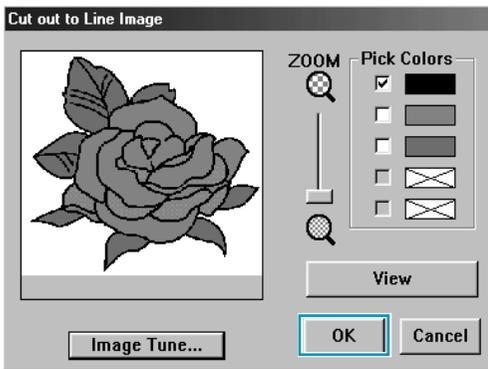
- 1 Move to line image: Click **Stage** on the menu bar, then click **To Line Image** on the submenu. You can also click the button of the Toolbar shown below:



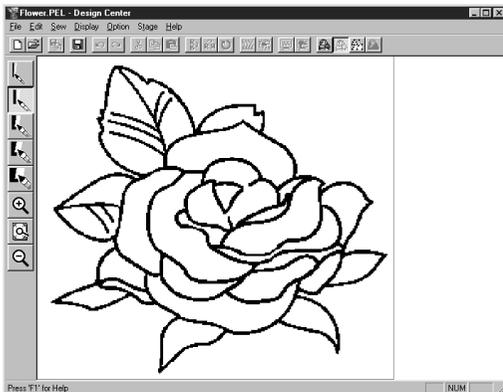
To Line Image

NOTE: Many menu functions can be activated by clicking a button on the Toolbar.

The **Cut out to Line Image** dialog will display. In this dialog, you will select the color(s) that will be used to make the outline of the image.



- 2 When you click **OK**, the line image displays.



- ◆ If necessary, scroll and zoom the image.
- ◆ Move the cursor over the image. Its shape changes to . Click on any point of the outline. The selected color displays in the upper box under **Pick Colors** and a appears in the check box to show that the color is selected.
- When the outline of the image uses more than one color, you can repeat to select a total of five colors. If you try to select more, colors are scrolled down, and the color that was at the bottom is deselected.
- If you selected a color by mistake, simply click its check box to deselect it.
- ◆ Click **View** to see the effect of your selection.
- If you wanted to select another choice of color, click **Cancel**. The image displays again and you can repeat this step with another color.
- ◆ If your preview image looks like the one shown here, click **OK** to confirm the outline of your pattern.
- ◆ Click **Cancel** to exit and go back to the image.
- ◆ If necessary, click **Image Tune** to reduce the colors or the noise. (page 109)
- At this stage, the data can be saved as a *.pel file.

Step 4 Editing Lines

At this step, you might normally need to correct a few lines. You should especially make sure that the lines around regions are completely closed or intersect to form a region. You may also wish to edit a line image and either add or remove some details or your image. You can do this at this stage using the pens and erasers of the Tool Box.

In this example, you are going practice how to use an eraser to remove some of the outline.



- 1 To make your editing job easier, enlarge the image using the zoom function.
Click  on the Tool Box. The shape of the cursor changes to  when you move it over the work area.
- 2 Drag the cursor over the pattern and click. The area is enlarged as soon as you release the mouse. You can repeat this step several times. To zoom in on a specific area, position the cursor to a point just next to the area, then click the left mouse button and hold it down as you move the cursor diagonally. A dotted box appears as you drag and the selected area will be magnified when you let go of the mouse button.
For a more complete description of the zoom features, see “Zoom-in Mode”, “Zoom-out Mode” and “Fit Design Page to Window” on page 64.
- 3 Click  on the Tool Box. The shape of the cursor changes to  when you move it over the work area.
- 4 Position the cursor over the first line you want to erase. Click and hold the right button of the mouse. The shape of the cursor changes to .
- 5 Carefully erase the line, then move the cursor to the next line to erase and scroll the image as needed. Repeat this procedure to delete a few petals and leaves.

NOTE:

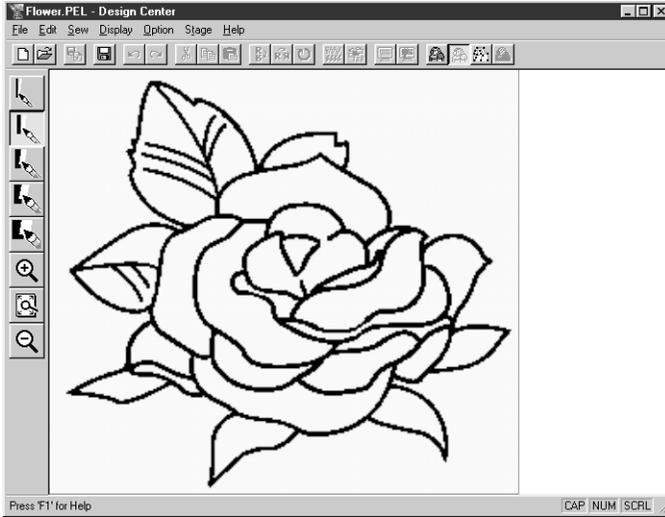
If you deleted parts of the outline by mistake, you may need to redraw some of lines. To do this, simply hold down the left mouse button and start drawing the line.

If you are not satisfied with your editions, you can go back to Stage 1, convert your pattern and start editing again.

- 6 After editing your image, you will want to zoom out again to view the whole picture. There are two ways of proceeding.

Click  on the Tool Box. The shape of the cursor changes to  when you move it over the work area. Click a point of the Design Page and the image shrinks toward that point. Repeat this step several times.

Click  on the Tool Box. The Design Page fits the Design Center window automatically. Your window may now look like the following:



Step 5 Converting to Figure Handle Image

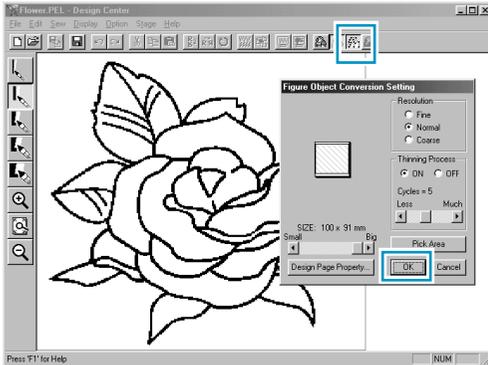
In Stage 2, the image is just a collection of dots or pixels. Editing in Stage 2 means adding or removing black dots. When you move to Stage 3 (figure handle image) the application automatically follows adjacent black dots to detect paths and replaces them with broken lines. Those broken lines can then be edited.

- 1 Click **Stage** on the menu bar, then click **To Figure Handle** on the submenu.
You can also click the button of the Toolbar shown below:



To Figure Handle

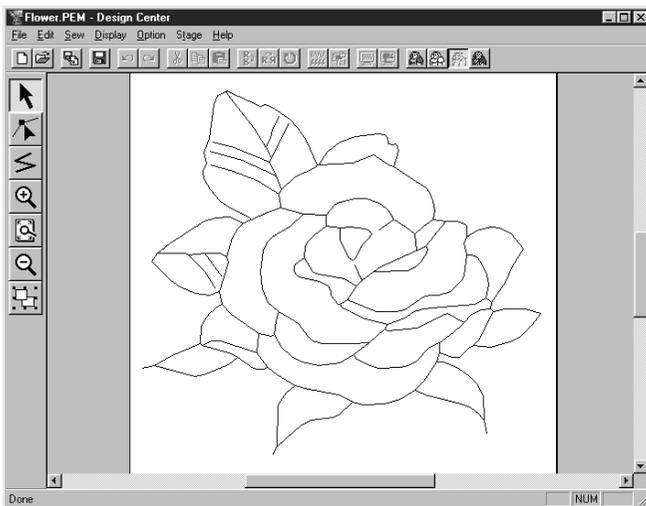
The following dialog will display.



This dialog allows you to preview how the image will fit in the selected Design Page. The Design Page size is the actual size of the area to be sewn.

- ◆ Leave all settings unchanged and click OK.
- For more details about the settings, see “Design Page Property” on page 106 and “To Figure Handle” on page 110.

- 2 When you click **OK**, the conversion process starts. After a while, the figure handle image appears.



The Tool Box provides editing tools to draw lines, move, delete points or insert new points, as well as zooming tools. In this example, we will however leave the image as is. For details on how to edit the figure handle image, see “Using the Stage 3 Tool Box” page 65.

NOTE:

You may also change the Design Page properties at this stage using the menu command **Option - Design Page Property**, which will open the Design Page Property dialog.

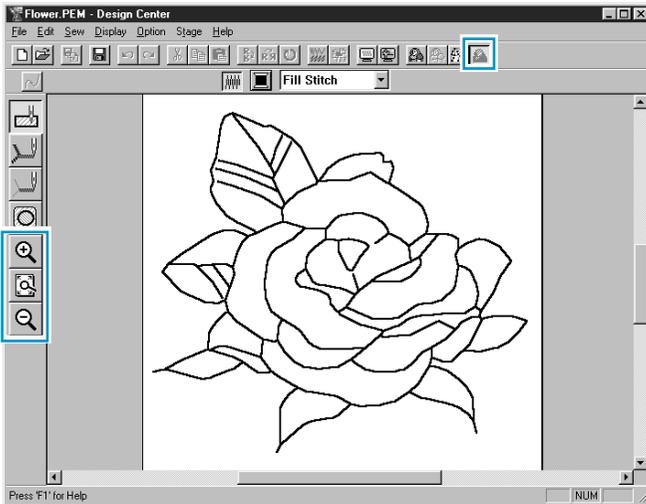
Step 6 Moving to Sew Setting

- 1 Click **Stage** on the menu bar, then click **To Sew Setting** on the submenu. You can also click the button of the Toolbar shown below:



To Sew Setting

The Sew Setting window appears.



In this stage, you can set and check the sewing attributes of each part of the pattern. You can also set a pair of patterns for hole sewing in order to avoid sewing twice at the same place. The other tools available are for zooming.

- 2 To zoom in and out, use the  and  buttons on the Tool Box in the same way as you did at the Figure Handle stage.
- 3 To maximize the Design Page so that it fits the window, click  on the Tool Box.

Step 7 Setting Sewing Attributes

We are now going to apply sewing attributes to the different parts on the picture.

■ Setting the outlines



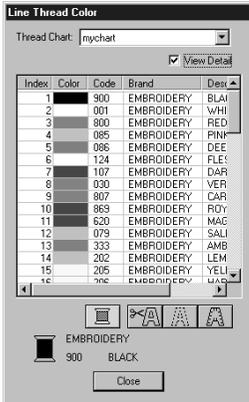
- 1 Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button.

The Sewing Attributes bar now looks like this:



- 2 To set the outline color: Click the **Line color** button  on the Sewing Attributes bar to display the **Line Thread Color** dialog.



- ◆ Click the desired color if you want a color other than black.
- ◆ Click **Close** only if you want to remove the dialog from the screen.
- ◆ Place the cursor on the title bar; click and drag the dialog box to a more convenient place on the screen.

The **Line color** button  shows the selected color.

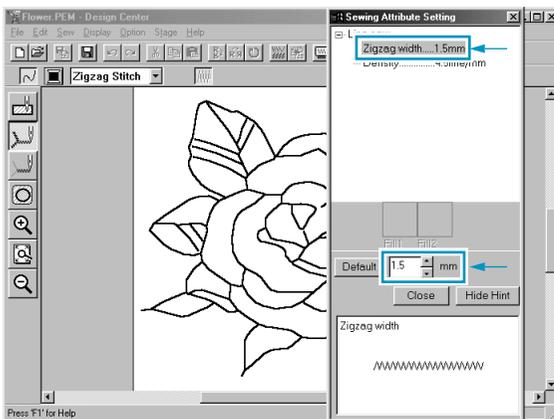
- 3 To set the stitch type: Click the **Line sew type** selector  on the Sewing Attributes bar, then click **Zigzag Stitch**.



- 4 To set the characteristics of the zigzag stitch, click **Sew** on the menu bar, then click **Sewing Attribute** on the submenu. You can also click the button of the Toolbar shown below.

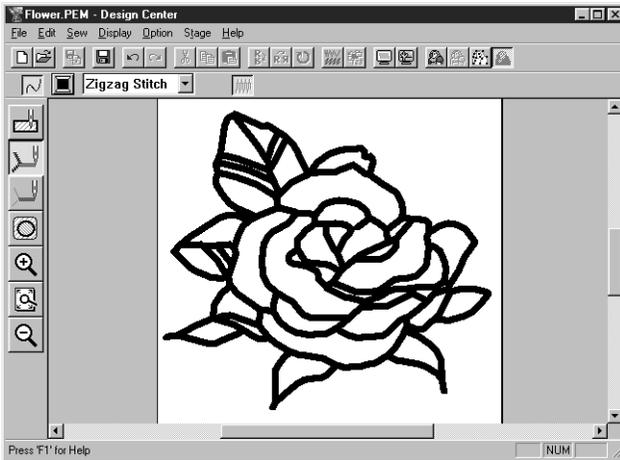


The **Sewing Attribute Setting** dialog appears. The dialog displays the default settings for the line stitch.



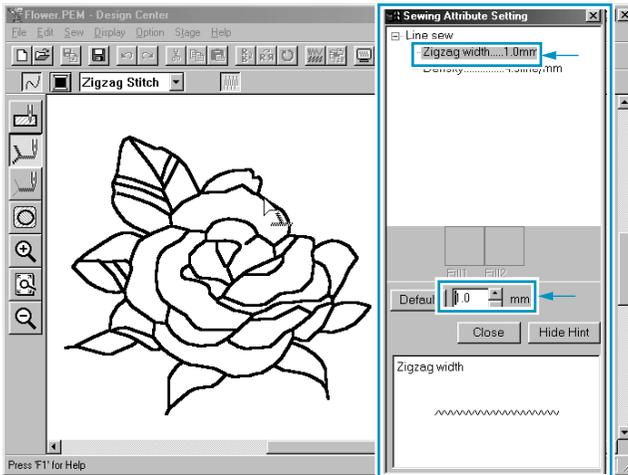
- ◆ To change the width from 2.0 mm to 1.5 mm, for example, type or select 1.5 in the **Zigzag width** selector.
- ◆ Click **Close** if you want to remove the dialog from the screen.

- Click on the outline of the pattern to apply the settings (color and stitch type) to the outlines. Your image now looks like this:



If you think that the outline is still too thick, you can change it now.

- To change the width of the outline: Click on the outline using the mouse's right button. The **Sewing Attribute Setting** dialog displays. Proceed in the same way as described in point 4 to change the Zigzag width from 1.5 mm to 1 mm.
- Click on the outlines to apply the new setting. Your image now looks like this:



■ Setting the regions

- Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small rectangle. The Sewing Attributes bar now looks like this:



For the leaves:

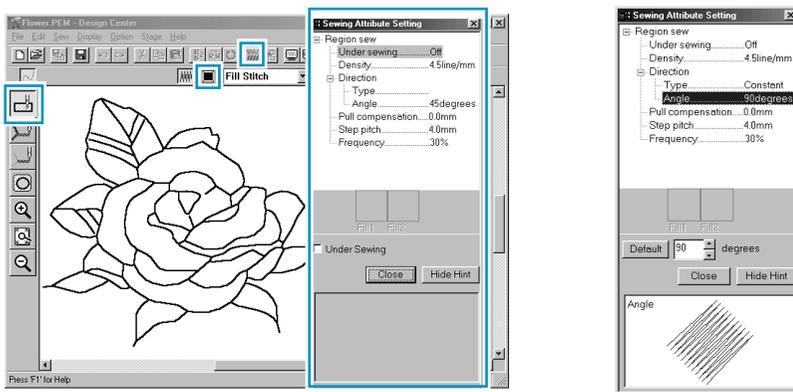
Click the **Region color** button  on the Sewing Attributes bar to display the **Region Thread Color** dialog, then select the **LEAF GREEN** color.

The **Region color** button  shows the selected color.

Click the **Region sew type** selector  on the Sewing Attributes bar, then click **Fill Stitch**. To set the characteristics of the fill stitch, click **Sew** on the menu bar, then click **Sewing Attribute** on the submenu. You can also click the button of the Toolbar shown below.



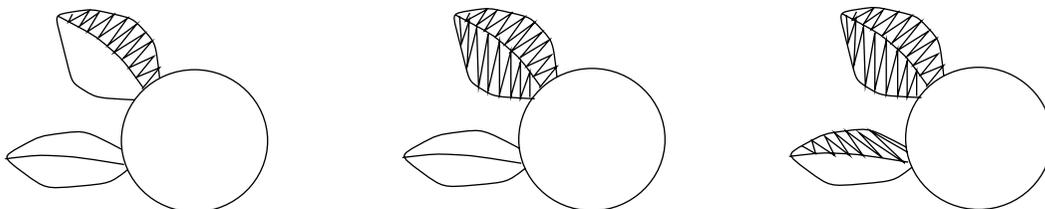
The **Sewing Attribute Setting** dialog appears. The dialog displays the default settings for the region stitch.



- ◆ Set the direction of the fill stitch as explained in the “NOTE” below.
- ◆ Click on the regions of the leaves to which you want to apply a setting.
- ◆ Repeat the same operation for each stitch direction.

NOTE:

Using different directions for different regions can add contrast and improve the appearance of the embroidery.

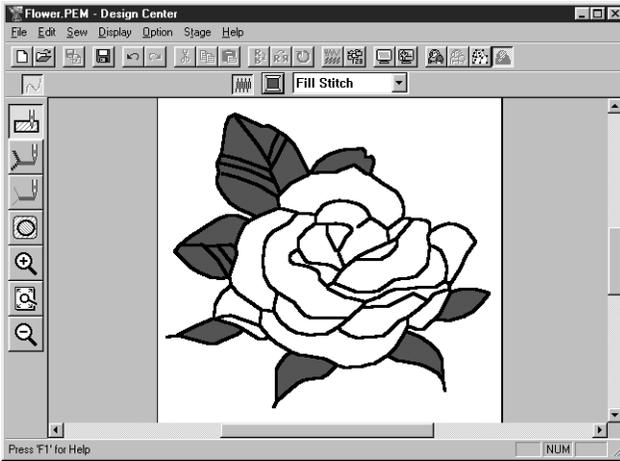


Set the direction to 45° and click. Set the direction to 90° and click. Set the direction to 135° and click.

NOTE:

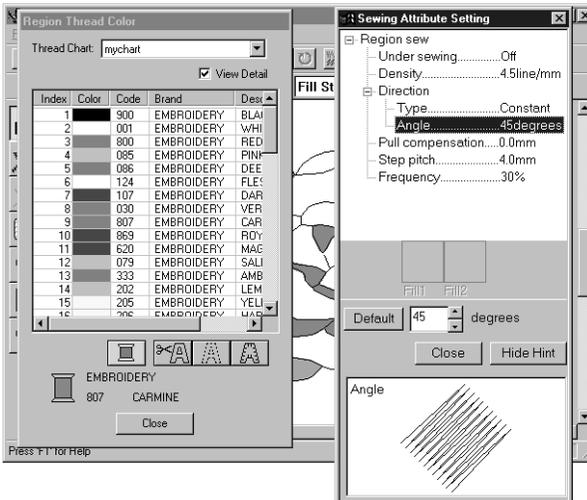
To be able to apply the sewing settings to a region, the region has to be closed. If you cannot apply any setting to a given region, go back to the Figure Handle stage and make sure that region is closed. Edit any faulty line with the Point Edit tool. For details on how to edit the figure handle image, see “Point Edit Mode” on page 68.

After applying the sewing setting to the leaves, your image will look like this:



2 For one side of the petals:

Select the **CARMINE** color and set the direction, then click each region you want to apply the settings to.



3 For the other side of the petals:

Select the **RED** color and set the direction, then click each region you want to apply the settings to.

Step 8 Previewing the Image

To see how the pattern will look like once sewn, you can use the preview feature.

Toolbar:

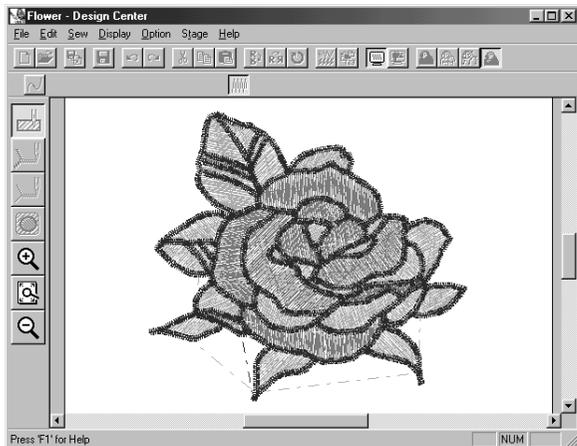


Operation:

- 1 Click **Display**, then **Preview**.

You can also click on the button of the Toolbar shown above.

A preview of your embroidery pattern will appear.



- 2 To return to the normal working screen, click **Display**, then **Preview** or the Toolbar button again.

NOTE:

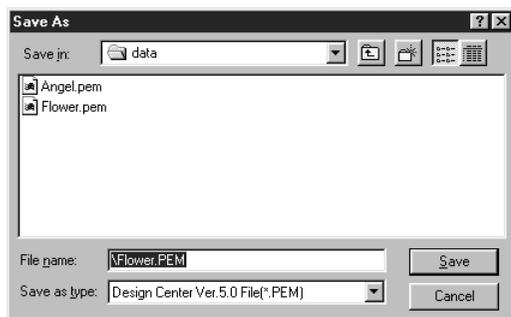
You cannot do any editing on the preview screen.

Step 9 Saving the File

This image will be used as the basis of a more complex embroidery picture. For that reason, we need to save it.

- 1 Click **File** on the menu bar, then click **Save As** on the submenu.

This dialog displays.



- ◆ A default name **Flower.pem** is displayed.
- ◆ If necessary, change the drive and folder.
- ◆ Click **Save** to save the file.

NOTE:

*To save the file under its default file name and in the same folder as the original file, you could use **Save** instead of **Save As**.*

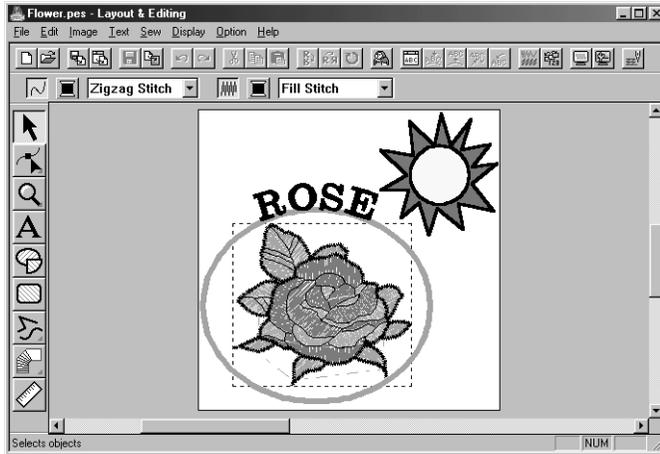
*If you did not save the line image data, you will be asked whether you want to save it as a *.pel file.*

Using Layout & Editing

In this section, we are going to compose a complete embroidery file combining a pattern imported from Design Center as well as patterns created with Layout & Editing, one of which we will apply a programmable stitch to.

The complete procedure will take you through the different steps of a normal working session with Layout & Editing and will introduce you to some of its most important features.

At the end of this session, your embroidery picture will look like this:



Step 1	Starting Layout & Editing	page 30
Step 2	Importing Embroidery Patterns from Design Center	page 31
Step 3	Zooming In and Out	page 32
Step 4	Moving the Embroidery Pattern	page 35
Step 5	Adding an Oval	page 36
Step 6	Adjusting the Size and Location of the Oval	page 37
Step 7	Adding Text	page 38
Step 8	Fitting the Text around the Oval	page 40
Step 9	Moving the Oval and Text	page 41
Step 10	Adding a Circle for Drawing the Sun	page 41
Step 11	Selecting a Programmable Fill Stitch	page 43
Step 12	Adding Broken Lines for Drawing the Sun Rays	page 45
Step 13	Changing the Sewing Order of Sun and Rays	page 46
Step 14	Adjusting the Rays	page 46
Step 15	Setting Hole Sewing	page 47
Step 16	Previewing the Sewing Image	page 48
Step 17	Transferring the Data to a Card	page 49
Step 18	Saving the File	page 49

Please follow these instructions step by step, in the sequence given. If you have to interrupt your training for any reason, feel free to save the file (see Step 18). You will be able to retrieve it later and resume your work.

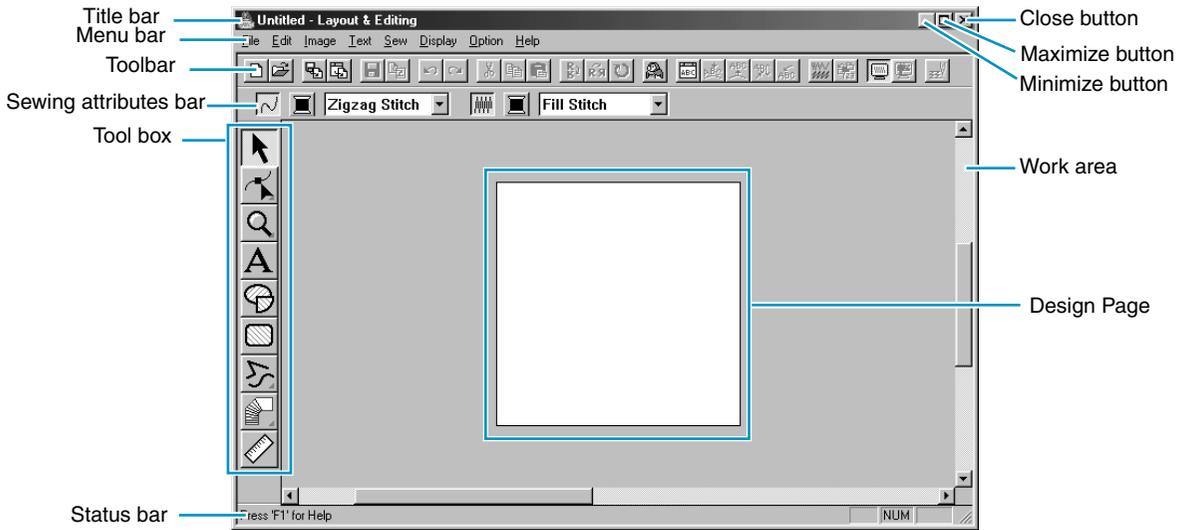
Step 1 Starting Layout & Editing

- 1 To start Layout & Editing, click the  button, select Programs, then Version 5.0, and then click Layout & Editing to open the Layout & Editing window. You may also double-click the Layout & Editing icon in the program group.



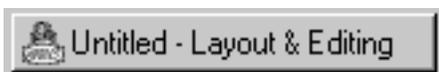
If the shortcut icon for Design Center is created, for example, on computer desktop, double-click it to start program.

The Layout & Editing window appears.



The window size will be smaller than the display area on the screen of your personal computer.

- 2 To make the Layout & Editing window fill up the available space on your screen, click the maximize button on the right side of title bar. If you are working with other programs, you can reduce the Layout & Editing window temporarily to an icon by clicking the minimize button on the right side of title bar. You can then access the other windows and icons on the display screen by using the mouse.



To return to the Layout & Editing window, click the icon.

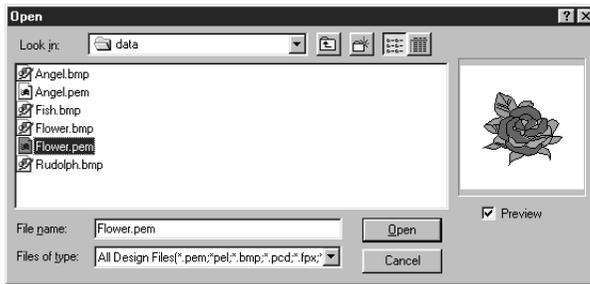
NOTE:

If needed, you may change the Design Page properties at this point using the menu command **Option - Design Page Property**, which will open the **Design Page Property** dialog. However, we will leave the settings as is in this example.

Step 2 Importing Embroidery Patterns from Design Center

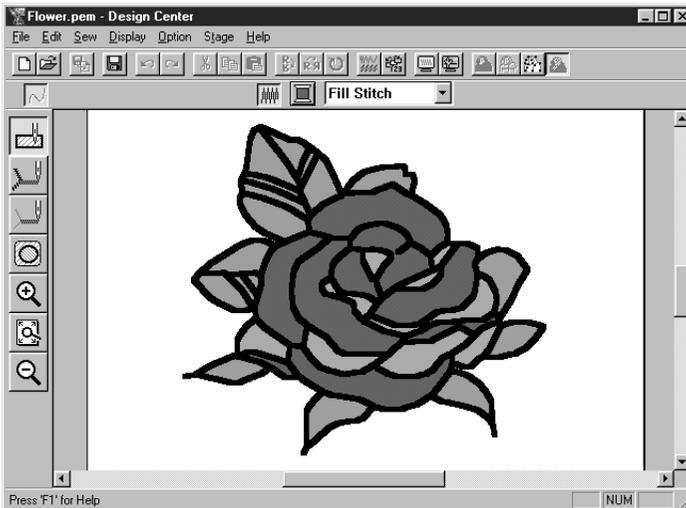
The first components of our embroidery picture will be a pattern imported from Design Center. If you interrupted the exercise and closed the Design Center window, you will have to start the application again and open the saved **Flower.pem** file again.

- 1 To start Design Center, click **Option** on the menu bar, then click **Design Center** on the submenu. The **Design Center** window displays.
- 2 Click **File** on the Design Center menu bar, then click **Open** on the submenu. An **Open** dialog similar to this will display.



- ◆ Select the drive, the folder and the file name (**Flower.pem**), then click **Open**.
- If the **Preview** check box is checked, you may view your files in the **Preview** window.
- Be sure to select a **pem** file saved in stage 4. You cannot import another file type from Design Center.

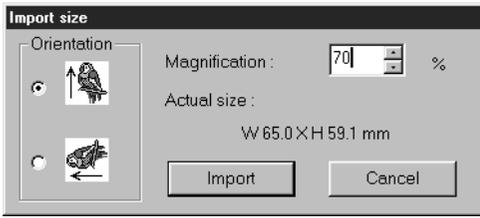
- 3 The embroidery pattern appears on the Design Page of the Design Center application.



- 4 Click on the Layout & Editing window to bring it in the foreground of the screen.
- 5 Click **File** on the Layout & Editing menu bar, click **Import** on the submenu, then click **from Design Center**. You can also click the button of the Toolbar shown below.

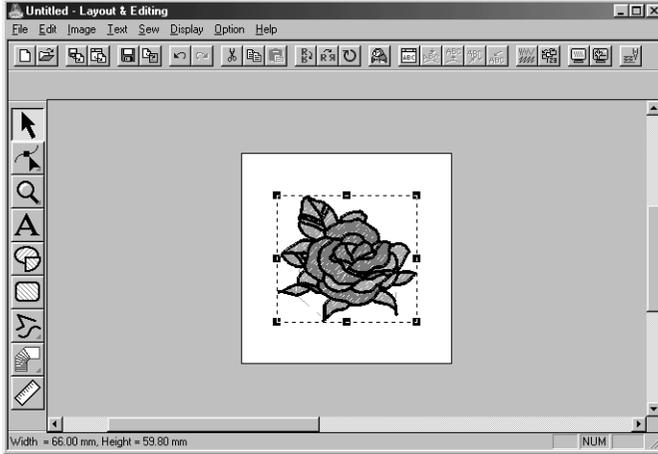


6 The **Import Size** dialog appears.



- ◆ Select **70 %**, for example.
- ◆ Leave the default orientation setting as is.
- ◆ Click **Import**.

7 The embroidery pattern is imported into the **Design Page** of **Layout & Editing**.



The dotted line and the handles that appear around the image mean that the image is selected. An imported image is always selected as a single object. It is not possible to select a part of an imported image separately.

Step 3 Zooming In and Out

The quality of the display depends on the screen resolution of your computer. By default, the window is set so that the entire **Design Page** is visible. If you need to work on a specific part of the **Design Page**, you might wish to see a more detailed display of that part. This can be achieved by zooming in. When you want to see the whole **Design Page** again, you can zoom out.

We are going to show how to zoom in on a portion of the picture and how to return to the standard display.

For a more complete description of the zoom features, see “Zoom Mode” on page 125.

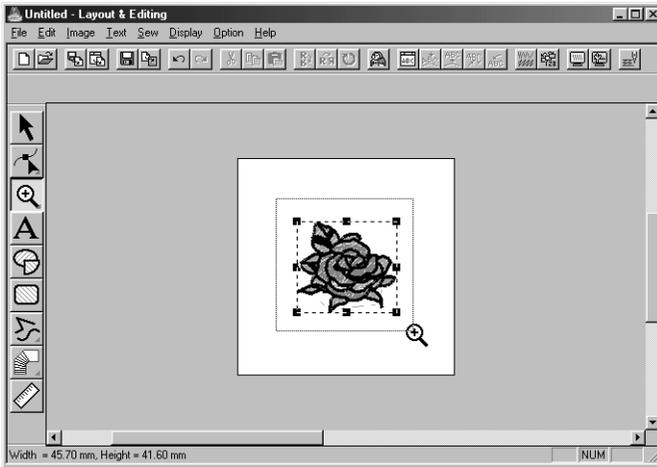
1 Click  on the Tool Box.

Five buttons appear:     .

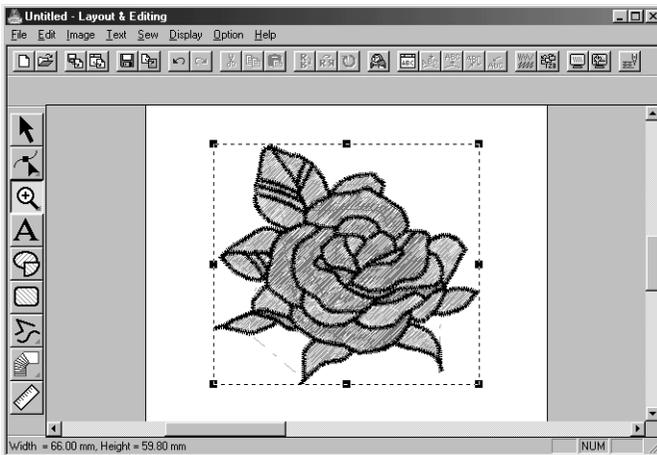
2 Click .

The shape of the cursor changes to .

- 3 Drag the cursor across the area that you want to enlarge and click. Alternatively, position the cursor at a corner of the rectangular area that you want to enlarge, then click the mouse's left button and keep the button down while moving the mouse toward the opposite corner of the area. A dotted-line rectangle showing the selected area appears.



Release the mouse's button when the dotted-line rectangle matches the area that you want to enlarge. When you release the mouse's left button, the selected area is enlarged.

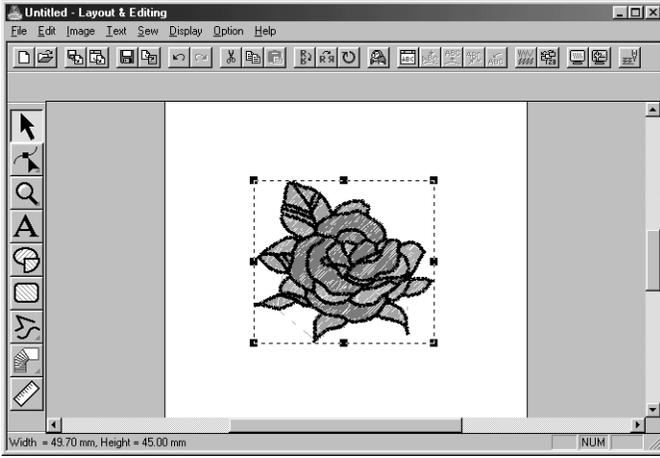


The whole picture is enlarged at the same time. Repeat this procedure to enlarge the pattern even more.

- 4 To display the image with its real dimensions, click  on the Toolbar.

Five buttons appear:     .

5 Click **1:1**.



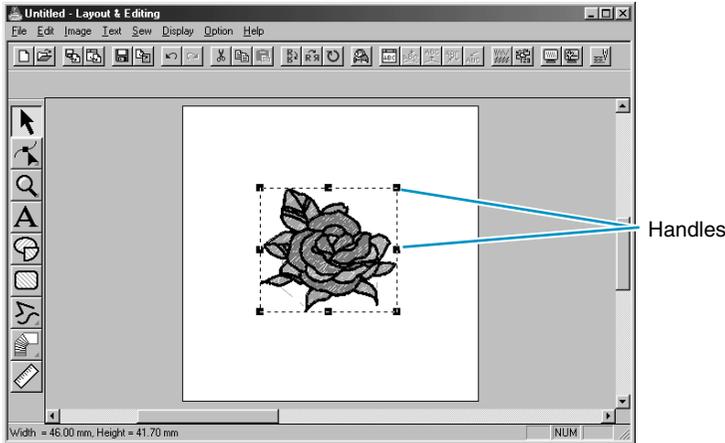
Step 4 Moving the Embroidery Pattern

When you import a pattern from Design Center, Layout & Editing puts the pattern at the center of the Design Page. We are now going to see how to move the imported pattern to a different location.

- 1 Click  on the Tool Box.

The shape of the cursor changes to  .

- 2 Click the pattern.

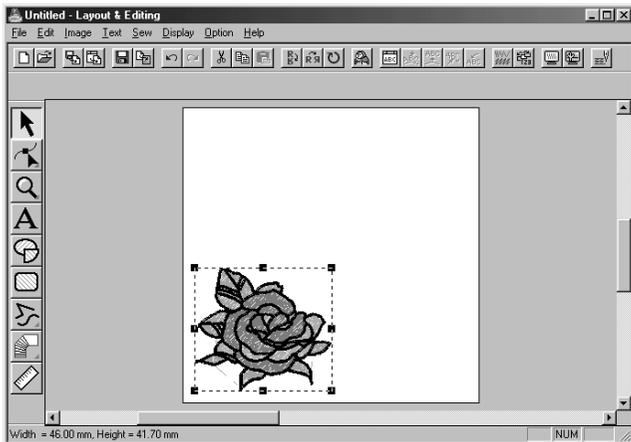


The Status bar shows the dimensions (width and height) of the selected pattern.

- 3 Move the cursor over the selected pattern.

The shape of the cursor will change to  .

You can now drag the pattern to another location.

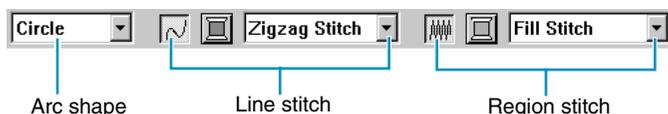


Step 5 Adding an Oval

The next component of our embroidery picture will be an oval. Since this oval will be used only as a guide to fit text that we will add later, we must set it so that it is not sewn.

- 1 Click  on the Tool Box.

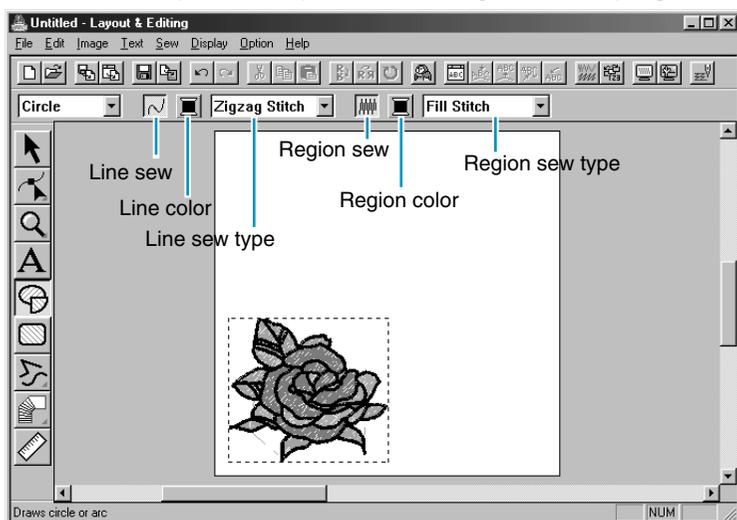
The shape of the cursor changes to  and displays together with a small ellipse. The Sewing Attributes bar now looks like this:



If you keep the cursor for a while on a button or selector of the Sewing Attributes bar, a small label indicating the function of the button will display.

The **Arc shape** selector allows you to select the shape of the pattern. For example, **Circle** is used to draw circle and ellipses. The other options are used to draw circle-related patterns such as arcs. *For more details, see “Circle and Arc Drawing Mode” on page 128.*

The Line stitch and Region stitch groups of buttons are for setting the stitch type and thread color for the outline (Line stitch) and for the region inside (Region stitch).



If you click on the **Line sew** button, the **Line color** button and the **Line sew type** selector disappear. This means that the outline will not be sewn. To make the **Line color** button and the **Line sew type** selector reappear, click the **Line sew** button again.

- 2 **Select the shape:** Since the default shape is **Circle**, you don't need to change the setting in the **Arc shape** selector.
NOTE:
When drawing a circle or other circle-related pattern, you must always select the shape that you want before drawing. You cannot, for example, draw a circle and change it to an arc afterward.
- 3 **Disable the outline:** Click the **Line sew** button. The **Line color** and **Line sew type** buttons disappear.
- 4 **Disable the region inside:** Click the **Region sew** button. The **Region color** and **Region sew type** buttons disappear.
- 5 **Draw the oval:** Move the cursor to a point, click and drag.
As you drag, an outline of the oval is drawn. The final oval (outline and region inside) appears when you release the mouse's button.
Do not worry now about the position, size or aspect ratio (ratio between the height and width) of the oval. We will adjust them later.

If, for any reason, you want to delete the oval and draw it again, click  on the Tool Box, click on the oval to select it, then press **Delete** or click **Edit – Delete** on the menu bar.

If you wanted to attribute a color or a stitch type to the oval after drawing it, click  on the Tool Box, then click on the oval to select it and click on the **Line sew** and **Region sew** buttons. The Sewing Attributes bar for the oval will show the current settings and allow you to change them.

Step 6 Adjusting the Size and Location of the Oval

We are going to adapt the size and aspect ratio of the oval and move it to its final position.

To change the size of the oval

If your oval looks very different from the one shown in the illustration above, proceed as follows to modify its size and proportions.

① Click  on the Tool Box.

② Click the oval to select it. The shape of the cursor changes from  to .

③ Move the cursor over one of the handles of the oval.

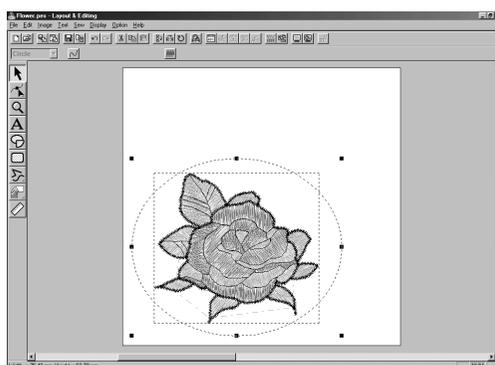
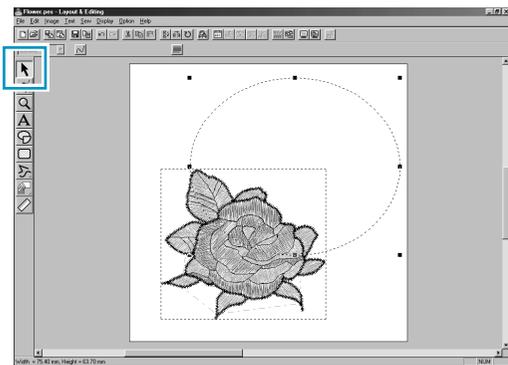
The shape of the cursor will change to , ,  or , depending on the handle the cursor is on.

④ Drag the handle in the direction of the arrow to scale the pattern.

 is for scaling the width.

 is for scaling the height.

 and  are for scaling both dimensions at the same time.



■ To center the oval on the pattern

If your oval is not well centered, on the pattern, proceed as follows to move it.

- 1 Click  on the Tool Box.

The shape of the cursor changes to .

- 2 Click the oval to select it.

- 3 Move the cursor over the oval.

The shape of the cursor will change to .

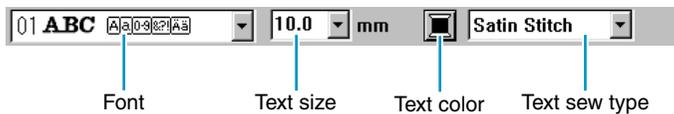
- 4 You can now drag the oval to its final location.

Step 7 Adding Text

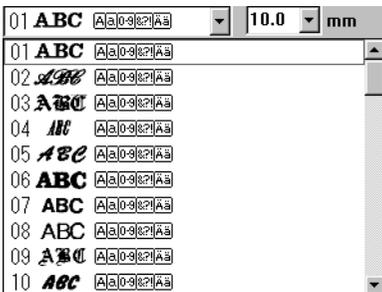
The next component of our embroidery picture is a piece of text.

- 1 Click  on the Tool Box.

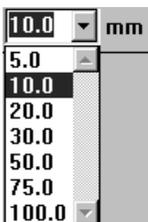
The shape of the cursor changes to  and this appears on the Sewing Attributes bar:



- 2 **Set the text color:** You can set the text color at this step. For this example, we are not going to change the default black color.
- 3 **Set the font:** You can set the font at this step. For this example, we are not going to change the default font, but if you click on the **Font** selector, you can scroll through the many different font styles available.



- 4 **Set the text size:** Click on the **Text size** selector and select the desired size of the characters (for this example, we will keep the default size of **10.0 mm**). The value indicates the height of the characters.

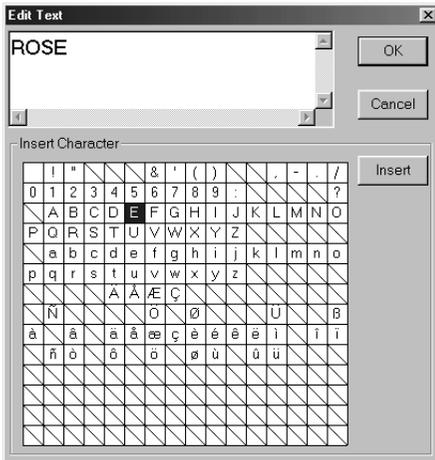


- 5 **Set the text stitch:** Click on the **Text sew type** selector and select the desired stitch for the text. For this example, we will keep the default stitch **Satin stitch**.



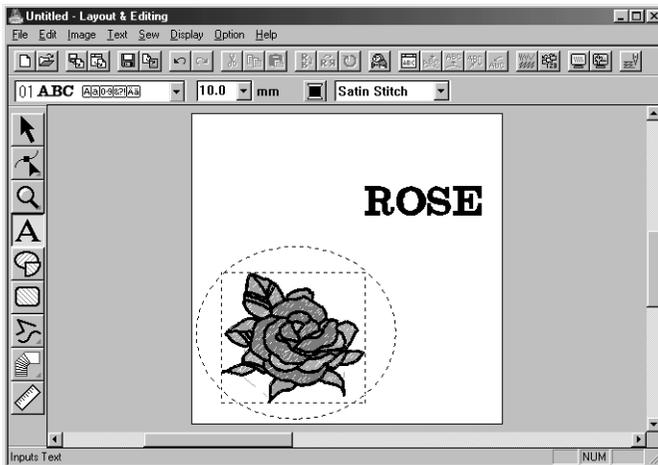
For more precise setting of the text attributes, see “Text Attribute Setting” on page 198.

- 6 **Enter the text:** Click anywhere in the Design Page. The actual location does not matter, because we can move the text after creating it. The **Edit Text** dialog displays.



- ◆ Type your text (“ROSE”, for example).
- ◆ You can also enter a character by clicking it on the character table, then clicking **Insert** or simply by double-clicking it. This is specially useful if you have to enter accented characters that are not available on your keyboard.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

The text appears on your Design Page when you click **OK**.

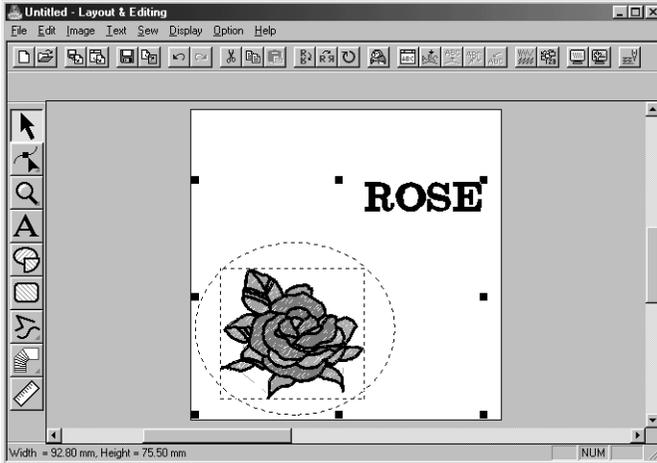


If you want to edit the entered text, click  on the Tool Box, then click on the text to select it and click **Text – Edit Text Letters** on the menu bar to open the **Edit Text** dialog. You may then edit your text as necessary. If you simply wanted to delete the text, select it, then press **Delete** . If you want to change the text color, font or other attributes after entering the text, you can do so while in the text mode or after clicking  on the Tool Box, and selecting the text. The Sewing Attributes bar for the text pattern will show the current settings and allow you to change them.

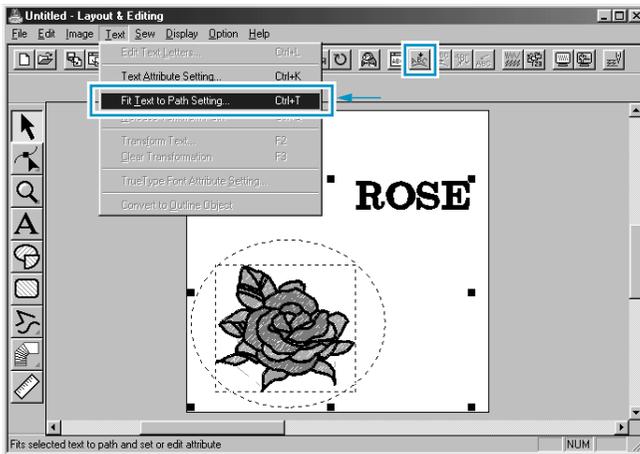
Step 8 Fitting the Text around the Oval

We are going to fit the text around the oval.

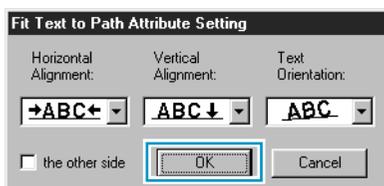
- 1 Click  on the Tool Box to set the cursor in selection mode .
- 2 Click the text **ROSE** to select it.
- 3 Press the **Ctrl** key and hold it down while clicking on the oval. This allows you to select the oval without deselecting the text.



- 4 Click **Text** on the menu bar, then click **Fit Text to Path Setting** on the submenu. You can also click the button of the Toolbar shown below.

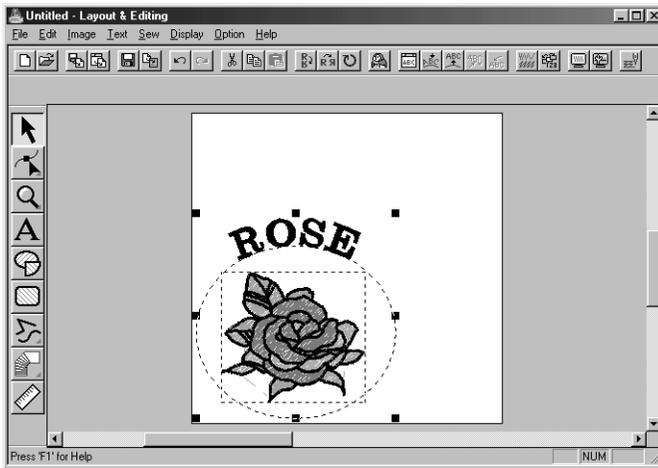


This dialog appears.



- ◆ Click **OK** without changing any setting.
- For more details about this setting, see "Fit Text to Path Setting" on page 199.

- 5 Your text now fits nicely on the oval.



Step 9 Moving the Oval and Text

Once the text is fit to the oval, you can move both patterns as a group, without affecting their relative position, or you can move the text alone to change its position on the oval.

To move both patterns as a group

- 1 Click  on the Tool Box, then click on the oval to select it.
- 2 Move the cursor over the oval, to change the shape of the cursor to .
- 3 Drag the oval: The text moves together with the oval.

To move the text over the oval

- 1 Click  on the Tool Box, then click on the text to select it.
- 2 Move the cursor over the text to change the shape of the cursor to .
- 3 Drag the text: The text can only move along the oval.

Step 10 Adding a Circle for Drawing the Sun

The next component will be a sun. We will first draw a circle to get the basic shape.

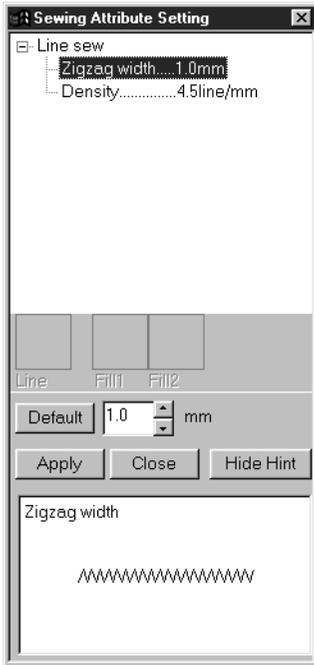
- 1 Draw a circle.
To draw a circle, proceed as you did to draw the oval, but hold the **Shift** key down while dragging.
If you need to modify the size of the circle, drag a handle at one of the corners.
- 2 Set the stitch color and type of the outline.

To do this, you must first select the circle using the  button. Next, click on the **Line sew button**  so that the **Line color**  button and the **Line sew type selector**  appear and select a line color and stitch.

- 3 Set the sewing attributes of the outline stitch.
 Select **Sew – Sewing Attribute Setting**. You can also click the button of the Toolbar shown below.

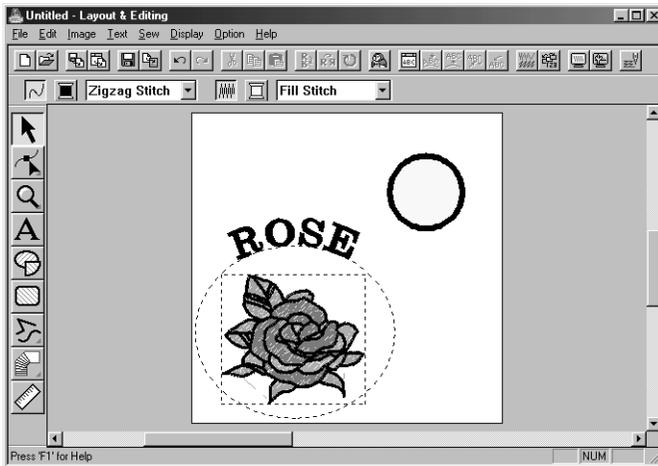


The **Sewing Attribute Setting** dialog opens.



- ◆ Set the width of the zigzag stitch to **1.0 mm**.
- ◆ Click **Apply**.

- 4 Set the sewing attributes of the region. Click on the **Region sew** button  so that the **Region color**  button and the **Region sew type** selector **Fill Stitch** appear and select a region color and a stitch. In this example, we will leave the other sewing attributes of the region as is. Your display will look as follows.



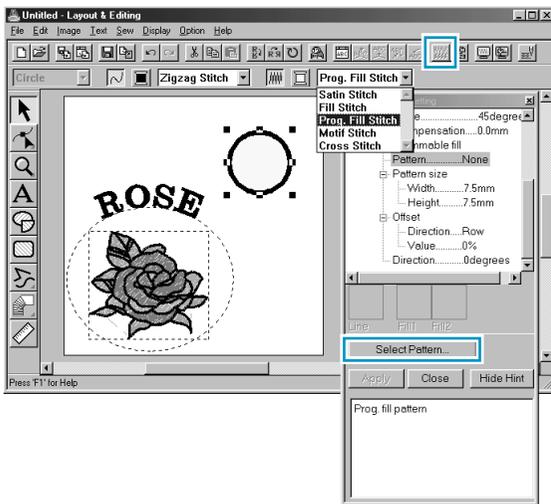
Step 11 Selecting a Programmable Fill Stitch

You are going to see how to select a special stitch pattern (fill stitch) created with the Programmable Stitch Creator application, how to change its settings and how to apply it as the region stitch for the rays, which you will draw in Step 12. Stitch patterns are arranged in a tile-like manner within the selected regions, creating very decorative fill stitches.

- 1 Select **Prog. Fill Stitch** in the **Region sew type** selector.
- 2 Click **Sew – Sewing Attribute Setting** on the menu bar to open the **Sewing Attribute Setting** dialog. You can also click on the Toolbar button shown hereafter.



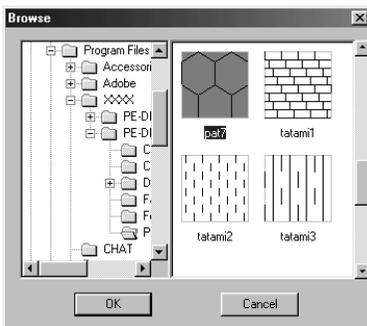
- ◆ Select **Pattern** in the **Programmable Fill** category.
- ◆ Click **Select Pattern** to open the **Browse** dialog.
- ◆ Select the path **Program Files/Version 5.0/Pattern**.



The **Pattern** folder contains the programmable stitch files. These files have the extension **.pas**. The **Browse** dialog shown hereafter now allows you to preview and browse through the existing **.pas** files.

Note:

*“.pas” files are patterns for Programmable Fill.
“.pmf” files are patterns for Motif.*



- ◆ Browse through the illustrated stitches and click on the **pat 7** illustration, which is then highlighted.
- ◆ Either double-click the illustration or click **OK** to select that stitch. The dialog closes and the selected stitch can now be previewed in the **Sewing Attribute Setting** dialog.

- 3 Change the stitch pattern size. Select a width and height of **10.0 mm** (3/8 inch) by clicking on the “up” arrow.

NOTE:

As soon as you click an arrow in this dialog, an illustration of the stitch pattern as well as the type of setting you are selecting are displayed in the other preview window of the dialog. You can see how each click on an arrow affects the pattern.

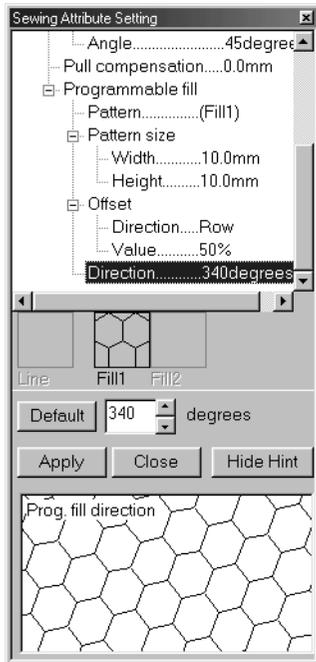
You may also type in a value. In that case however, you cannot preview the setting immediately as you set it.

- 4 Change the row offset. Under the **Offset** category, set the **Direction** as **Row** and set the value at “50%”, and holding the mouse button down on either arrow or by typing the value directly in the edit box window.

NOTE:

You can only choose to change either the row or the column offset for a given pattern. You cannot select both for the same stitch pattern.

- 5 Change the direction of the pattern. Rotate the pattern to the right by clicking on the “down” arrow until a value of **340 degrees** is selected. The **Sewing Attribute Setting** dialog will look like this:



- For more information on the different settings of a programmable stitch, see “Sewing Attribute Setting” on page 204.

- 6 Click **Apply**.

The stitch and its settings are set. Until they are changed again, those sewing settings, just like any other, will be applied to every new region that you draw.

- 7 Finish setting the remaining sewing attributes for the ray pattern that you will create in the following step.

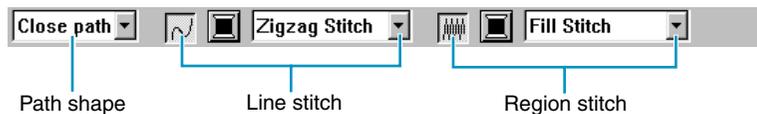
Select a region color using the **Region color**  button.

- 8 Select a line color and stitch using the **Line color**  button and the **Line sew type** selector . (You can also set the characteristics of the pitch in the **Line sewing** tab of the **Sewing Attribute Setting** dialog.)

Step 12 Adding Broken Lines for Drawing the Sun Rays

Let's draw a few rays around the sun. There are, of course, many ways to do this. You could, for example, draw a single straight line for each ray. Here, we are going to use a closed polygonal line (broken line) to make all the rays in one star-like pattern.

- 1 Click  on the Tool Box, then click . The shape of the cursor changes to  and displays together with a miniature image of the tool button. The Sewing Attributes bar now looks like this:



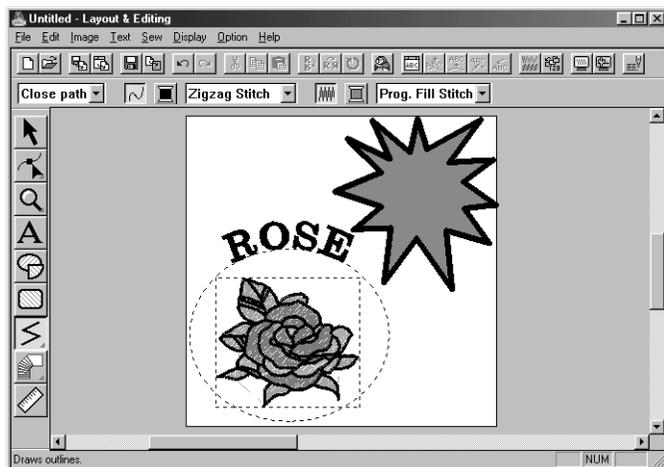
- 2 Be sure **Close path** is selected in the **Path shape** selector. When drawing a closed path, the first point and the last point are automatically joined. The pattern has an outline and a region and you can apply sewing settings to both. With an open path, the broken line is left open (the first and last point are not automatically joined). The pattern will not have a region, thus you can only apply sewing settings to the outline.

- 3 Draw the broken line around the circle using the circle as a guide. Move the mouse to the starting point and click. Move the mouse to the end point of the first straight line and click again.

NOTE:

You can always remove the last-entered point by clicking the mouse's right button.

- 4 Repeat until you arrive at the last ending point. At that point double-click. As soon as you have double-clicked, the display will look like the following.



If, for any reason, you want to delete the pattern and draw it again, click  on the Tool Box, click on the pattern to select it, then press **Delete** or click **Edit – Delete** on the menu bar.

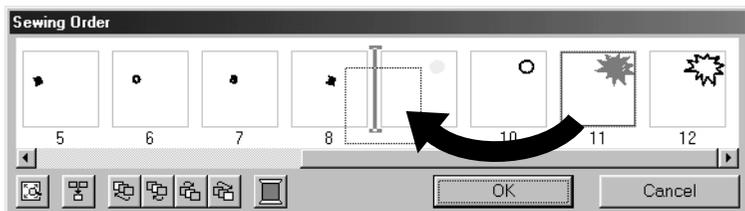
If you want to change the pattern path shape, color, or stitch after drawing it, click  on the Tool Box, then click on the pattern to select it. Then change the settings at the Sewing Attributes bar or the **Sewing Attribute Setting** dialog.

Now that the rays are drawn, you might want to have a quick preview of the programmable stitch pattern at this stage and come back to this exercise later. To see how to preview an embroidery pattern, refer to Step 16 "Previewing the Sewing Image".

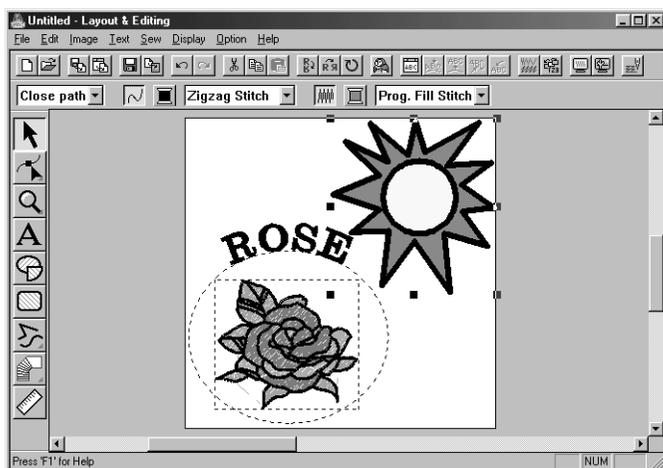
Step 13 Changing the Sewing Order of Sun and Rays

Since we have drawn the broken line after drawing the circle, the broken line pattern is in the foreground of the screen, and the circle is behind. A pattern that is in the foreground of the screen is sewn last. Since we do not want the embroidery to show the part of our broken line that is inside the circle of the sun, we are going to reverse the sewing order.

- 1 Click **Sew** on the menu bar, then click **Sewing Order** on the submenu. You can also click on the Toolbar button shown hereafter.



This will move the ray pattern to the back of the circle.



If necessary, move the circle so that it looks centered relative to the ray pattern.

Step 14 Adjusting the Rays

At this step you might wish to modify the rays. You can do that by moving, deleting and adding points on the broken line pattern.

- 1 Click  on the Tool Box and select the ray pattern.

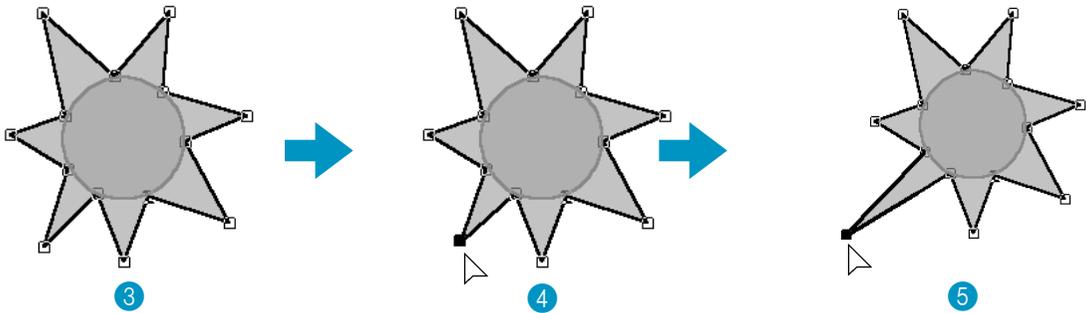
- 2 Click  on the Tool Box.

Three buttons appear: .

- 3 Click .

The shape of the cursor changes to  and the existing points of the pattern are marked with small empty squares.

- 4 Click the point that you want to move.
The selected point is marked with a small black square.
- 5 Drag the point to a new position.
The point remains selected, so that you can drag it again.



To add or delete a point, see “Inserting points” on page 121 and “Deleting points” on page 122.

Step 15 Setting Hole Sewing

If the sun is sewn according to the current setting, the complete broken line for the rays will be sewn first, then the circle will be sewn on top of the pattern of the rays. To avoid sewing twice at the same place, you can set the pair of patterns (circle and broken line) for hole sewing. This way, the part of the rays that is hidden behind the circle will not be sewn.

- 1 Click  on the Tool Box, then click on the sun’s circle to select it.
- 2 Hold the **Ctrl** key down and click on the sun’s rays.
The circle and the broken line are now selected together.
- 3 Click **Sew** on the menu bar, then click **Set Hole Sewing** on the submenu. This message displays:



- ◆ Click **OK** to remove the message.

When a pair of patterns are set to hole sewing, they cannot be moved separately. If you need to readjust their relative position, you must first select the circle or the broken line with the selection cursor , then release the hole sewing setting by clicking **Sew** on the menu bar, then **Cancel Hole Sewing**.

NOTE:

The Hole Sewing setting is not possible if one of the patterns in the pair is not completely inside the other pattern.

Step 16 Previewing the Sewing Image

Our embroidery image is now complete. You can preview it to have a more realistic view of how it will look once sewn. The preview function also shows how sewing will actually proceed. For example, you will be able to see clearly that the part of the broken line that is behind the circle is not sewn and how the selected programmable stitch fills the rays.

- 1 To preview the entire embroidery picture, deselect everything by clicking on the white space with the selection cursor .

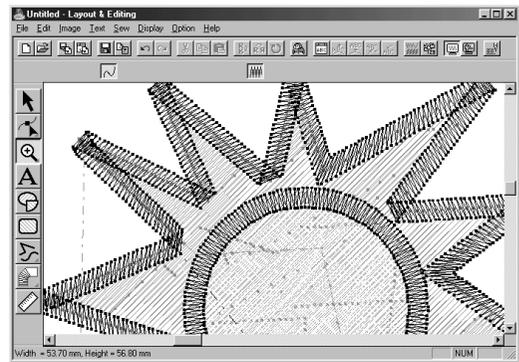
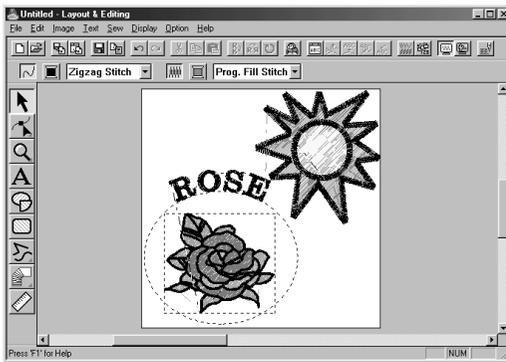
To preview a single pattern, or a group of patterns, select the pattern(s).

To preview a region for which you selected programmable stitch pattern, select it and zoom in on it.

- 2 Click **Display** on the menu bar, then click **Preview** on the submenu.
You can also click on the button of the Toolbar shown below:



The preview display will appear.



- 3 To return to the normal display, repeat step 2 or press the **Esc** key.

NOTE:

You cannot do any editing on the preview screen.

Step 17 Transferring the Data to a Card

Before you can actually sew your embroidery pattern, you must transfer it to an Original card.

- 1 Insert an Original card in the module.
- 2 Click **File** on the menu bar, then click **Write to Card** on the submenu.
You can also click on the button of the Toolbar shown below:



This dialog will display.



- ◆ If the card is not brand new, make sure that you want to erase the data that is already stored on the card and click **OK**.
- ◆ Click **Cancel** to exit.

If the card module is not correctly connected or powered, if the card is not inserted or is defective, you will see an error message. Refer to “Write to Card – Current Design” on page 157 for more details.

Step 18 Saving the File

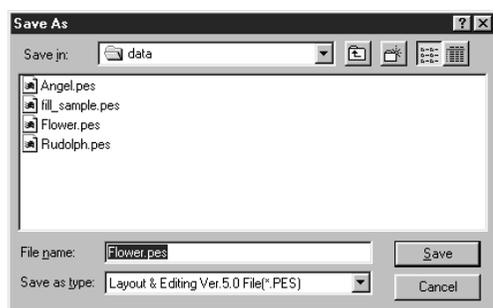
Before quitting the application, you should save your file on disk to be able to retrieve it later.

- 1 Click **File** on the menu bar, then click **Save** on the submenu.
You can also click on the button of the Toolbar shown below:



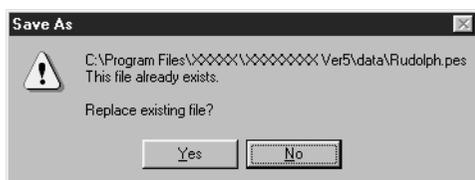
If the file already exists on the disk (the file has been saved at least once), the file is saved immediately.

- 2 If the file name is still **Untitled** or if, for any other reason, the file cannot be found on the disk, the application will ask you to enter a file name and select a target folder.



- ◆ Select the drive, the folder and type the file name.
- ◆ Click **Save** to save.
- ◆ Click **Cancel** to exit.

If the new file name already exists, this dialog will appear:



- ◆ Click **Yes** to overwrite.
- ◆ Click **No** if you do not want to overwrite the existing file. You can then enter another file name.

The new file name displays in the title bar of the Layout & Editing window.

Using Programmable Stitch Creator

This application allows you to design your own fill stitch patterns, which you can set as sewing attributes to enclosed regions of patterns, both in Design Center and Layout & Editing. The stitch patterns fill the regions in a tile-like manner, resulting in particularly decorative embroidery patterns. You may create your own fill stitch patterns or use the many stitches delivered with this application with or without editing them.

In this exercise, you are going to see how to edit an existing stitch pattern.

The complete procedure will take you through the different steps of a normal working session with Programmable Stitch Creator and will introduce you to its most important features.

Step 1	Starting Programmable Stitch Creator	page 51
Step 2	Opening a Programmable Stitch File	page 52
Step 3	Drawing Lines to Edit the Programmable Stitch	page 53
Step 4	Saving the Edited Programmable Stitch	page 54
Step 5	Quitting Programmable Stitch Creator	page 54

Please follow these instructions step by step, in the sequence given. If you have to interrupt your training for any reason, feel free to save the file (see Step 4). You will be able to retrieve it later and resume your work.

Step 1 Starting Programmable Stitch Creator

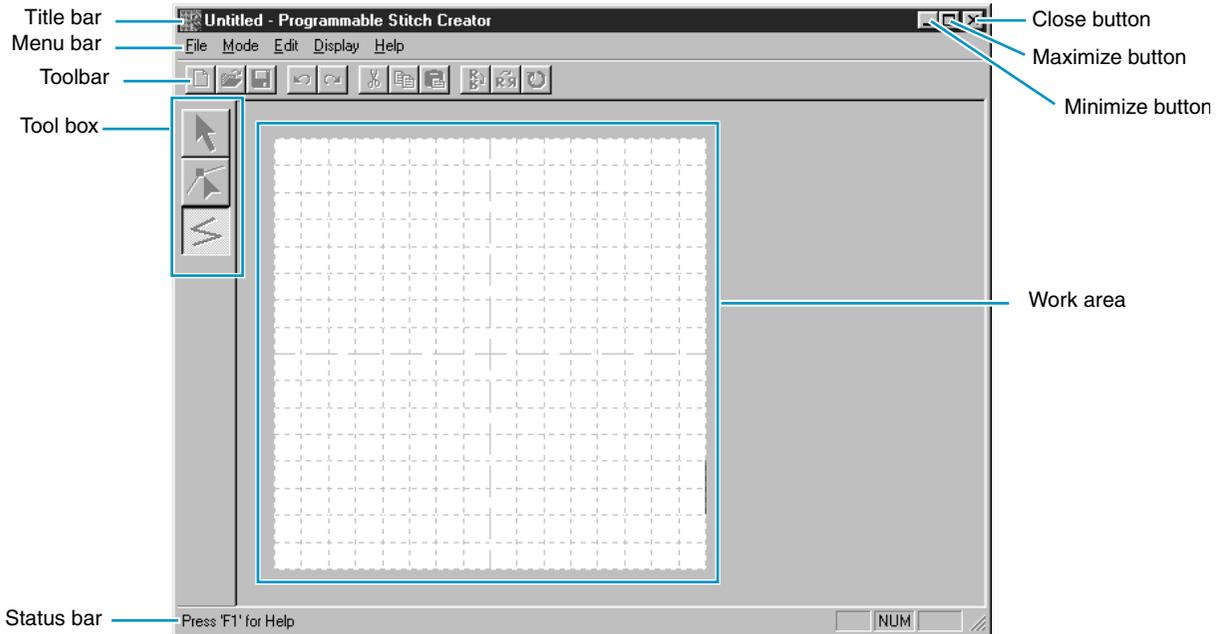
- 1 To start Programmable Stitch Creator, click the  button, select Programs, then Version 5.0, and then click Programmable Stitch Creator to open the Programmable Stitch Creator window. You may also double-click the Programmable Stitch Creator icon in the program group.



Programmable
Stitch Creator

If the shortcut icon for programmable stitch creator is created, for example, on computer desktop, double-click it to start program.

The Programmable Stitch Creator window displays.



The window size will be smaller than the display area on the screen of your personal computer.

- 2 To make the Programmable Stitch Creator window fill up the available space on your screen, click the maximize button on the right side of title bar.

If you are working with other programs, you can reduce the Programmable Stitch Creator window temporarily to an icon by clicking the minimize button on the right side of title bar. You can then access the other windows and icons on the display screen by using the mouse.



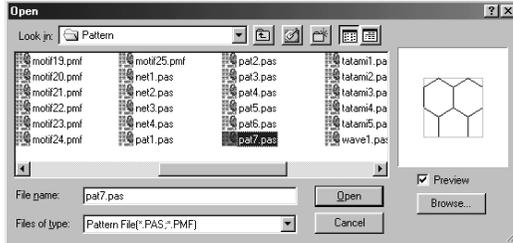
To return to the Programmable Stitch Creator window, click the icon.

Step 2 Opening a Programmable Stitch File

- 1 Click **File** on the menu bar, then click **Open** on the submenu. You can also click on the Toolbar button shown below.



The **Open** dialog opens.



NOTE:

You will create a pattern for **Programmable Fill** here.

If you know which file you want to open:

- ◆ Select a **pas** file in the **Pattern** folder by clicking on it. The contents of the selected file displays in the **Preview** window, provided its check box is checked.
- ◆ Double-click the selected **pas** file or click **Open** to open the file.

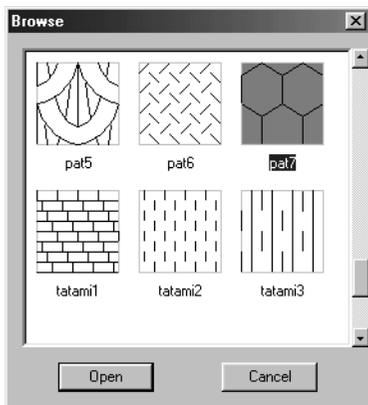
If you want to scroll through the available files before opening one:

- ◆ Click **Browse** to preview all the available **pas** files in the selected folder.
- ◆ Browse through the files with the help of the scroll bar.
- ◆ Select a stitch pattern by clicking on it. The selected pattern is highlighted.
- ◆ Double-click the selected pattern or click **Open** to open the file and to close both the **Open** and the **Browse** dialogs.

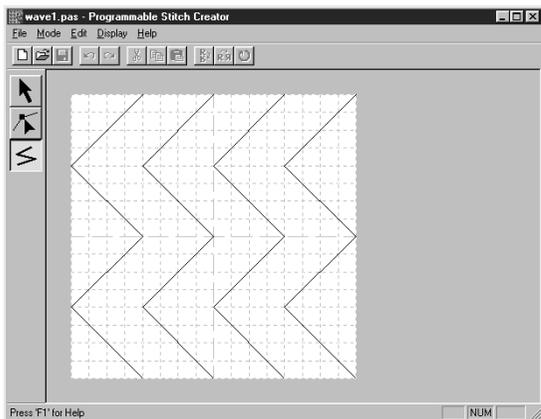
NOTE:

.pas* files are patterns for **Programmable Fill.
.pmf* files are patterns for **Motif. Use the *Mode* menu to change the type of file to create.

The **Browse** dialog opens.



The stitch pattern displays on the work area of the Programmable Stitch Creator application.



Step 3 Drawing Lines to Edit the Programmable Stitch

We are going to draw a wave between the displayed ones using the Line drawing tool of the Tool Box. To draw these waves, we will use the grid setting **medium** with which the **pes** file stitch pattern was saved.

NOTE:

Grid types should be selected according to the details you want to draw. Select a narrower grid for more detailed stitches and a wider grid for more simple ones.

For more information on the grids and on how to select them, refer to “Grid” on page 248.

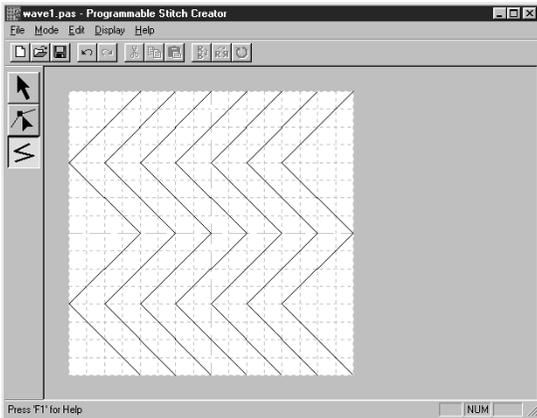
- 1 Click  on the Tool Box. Move the cursor over the work area. The shape of the cursor changes to  and displays together with a miniature illustration of the tool button.
- 2 Move the mouse to the second vertical grid line following a wave and click.

NOTE:

The horizontal and vertical lines that you draw on the work area always follow the grid. The points you create by clicking the mouse are inserted at the intersection of the horizontal and vertical lines of the grid, enabling you to draw diagonal lines as well. So, regardless on where you click, a point will automatically be inserted at the nearest intersection.

- 3 Move the mouse to the first angle and click again.
NOTE:
You can always remove the last-entered point by clicking the mouse’s right button.
- 4 Repeat until you reach the end of the line and double-click.

- Repeat the procedure to add two more waves.
Your display may look somewhat like the following.



If you want to edit some points of the pattern that you drew, you can do so in the Point edit mode, which you were introduced to in the Layout & Editing window. The Point edit mode lets you move, insert and delete points (see “Point Edit Mode” on page 235 or go back to Step 14 “Adjusting the Rays” on page 46).

Step 4 Saving the Edited Programmable Stitch

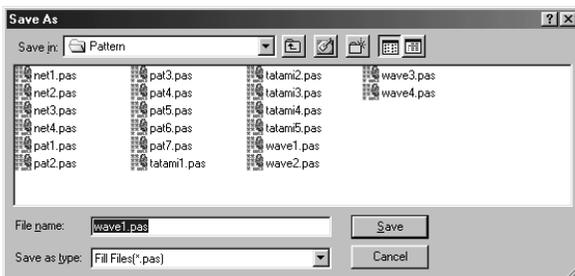
In order to apply your edited stitch pattern to a region in Layout & Editing or Design Center, you must first save it as a **pas** file. To do this, proceed as follows.

- Click **File** on the menu bar, then click **Save** on the submenu.
You can also click on the button of the Toolbar shown below:



Since the **pas** files that come with your program are “Read Only” files and cannot be overwritten, the **Save as** dialog opens.

- Type in a file name and select another target folder if you want to save your own stitch pattern files separately.



- ◆ Select the drive, the folder and type the file name.
- ◆ Click **Save** to save.
- ◆ Click **Cancel** to exit.

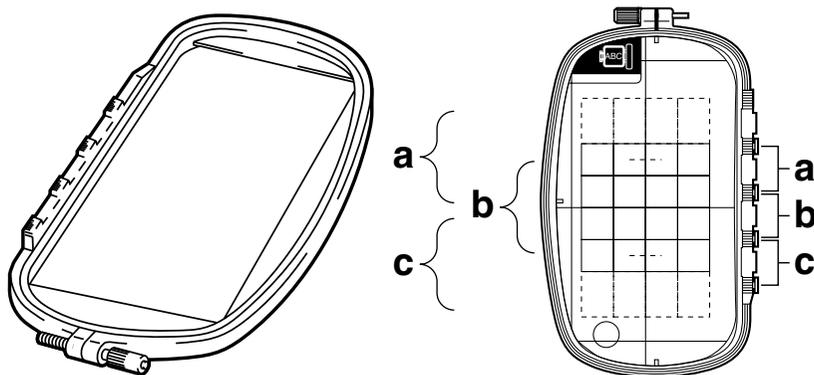
Step 5 Quitting Programmable Stitch Creator

Now that you have created a stitch pattern, you may close this application as you will no longer need it for this exercise.

- Click **File** on the menu bar, then click **Exit** on the submenu.
If you have saved your file as recommended in the previous step, the application will close immediately. If you have changed anything after the last time you saved the file, you will be asked whether you want to save the file. Click **Yes**, then proceed as explained in the previous step.

Creating data for the multi-position frame

By attaching the enclosed (or optional) **multi-position frame** (130 × 300 mm or 100 × 172 mm) at each of its three installation positions, multi-position designs can be embroidered. With this program you will be able to create designs that you can stitch in any multi-position hoop (Jumbo Hoop and Extra Large Hoop)



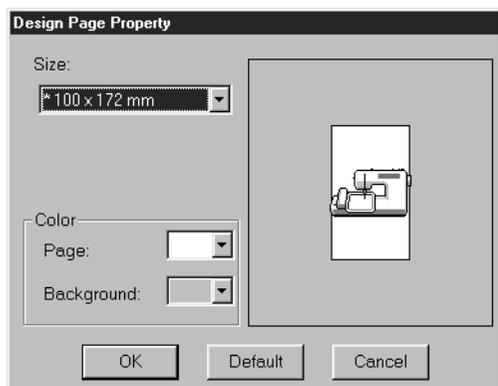
Example of Multi-Position Frame: 100 × 172 mm embroidery frame

Although the size of the pattern that can be embroidered using an multi-position frame is 130 × 180 mm (or 100 × 100 mm, depending on the sewing area of the embroidery machine), first determine which of the three installation positions (indicated as a, b, and c in the illustration above) the multi-position frame will be installed at and determine the orientation of the data.

When creating the pattern, each design section can only be as large as the sewing field of the machine.

Select the Design Page size

1 In **Layout & Editing**, click **Option**, then **Design Page Property**.



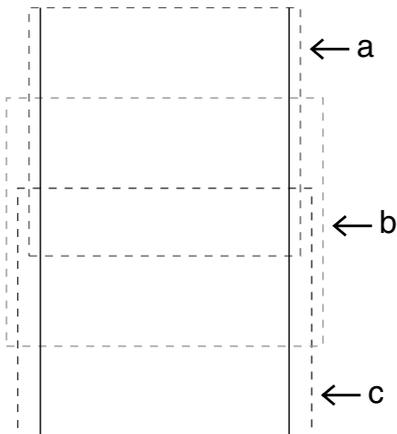
- ◆ From the **Size** selector, choose a Design Page size of 130 × 300 mm, 300 × 130 mm, 100 × 172 mm, or 172 × 100 mm. (Settings for multi-position frames are indicated by “*”).
- Choose the appropriate setting after checking the size of the embroidery frame available for your machine.

NOTE:

The Design Page size in dialog shown above is not available in Design Center since the maximum sizes for a single pattern are 260 × 160 mm, 130 × 180 mm, and 100 × 100 mm. Remember that 260 × 160 mm size cannot be used for a multi-position frame.

■ Create the pattern

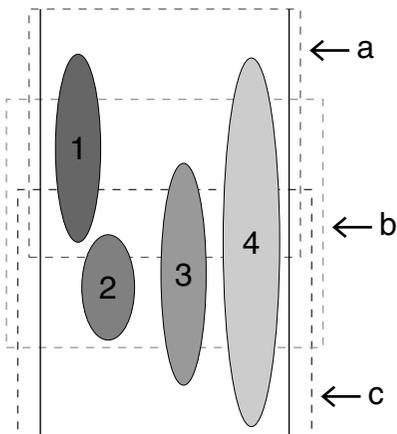
① The Design Page appears on the screen as shown below.



- ◆ Explanation of a, b, and c:
 - a: Embroidering area when the embroidery frame is installed at the top installation position.
 - b: Embroidering area when the embroidery frame is installed at the middle installation position.
 - c: Embroidering area when the embroidery frame is installed at the bottom installation position.

The broken lines indicate each area.

② Create the pattern, making sure that it meets the following conditions.



- ◆ The size of one pattern must be no bigger than 100 × 100 mm (or 130 × 180 mm). (If the pattern is imported from Design Center, only these size settings are available.)
- ◆ Each pattern must completely fit within one single area (a, b, or c).
 - 1: This pattern is correct since it fits completely within area a.
 - 2: This pattern is correct since it fits completely within either area b or area c.
 - 3: The size of this pattern is acceptable, but its position must be corrected since it does not fit completely within any of the areas.
 - 4: This pattern must be corrected since it is too large.

NOTE:

If a pattern does not meet the conditions mentioned above, a warning will appear when continuing to the next step.

- ◆ Specify the sewing order in the same way that it is specified for a normal frame.

With the **Optimize hoop change** setting, the actual sewing order (including the embroidery frame installation order) is optimized as explained on page 57.

(The **Optimize hoop change** setting can be found on the Sew menu. The setting is turned on when a check mark appears in front of the setting.)

Optimize Hoop Change

- 1 Click on **Sew**.
- 2 Select **Optimize Hoop Change**.

By Selecting **Optimize Hoop Change**, you are minimizing the number of times the hoop is repositioned while stitching the entire design. When **Optimize Hoop Change** is turned off, each design is sewn in the order the designs are placed in the design page.

NOTE:

Since the pattern may not be sewn correctly or the fabric may not feed evenly if the embroidery frame installation position is changed too often, we recommend turning on the Optimize hoop change setting. Since turning on this setting will change the sewing order that you have set, check the sewing order before you begin embroidering.

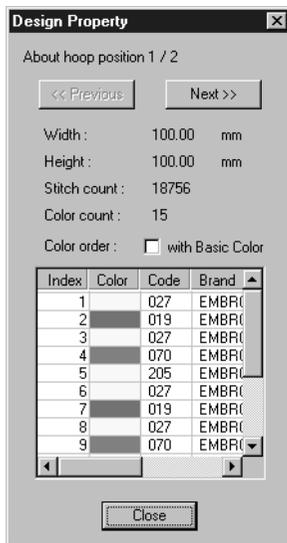
Check the design

NOTE:

Make sure that no pattern has been selected before clicking this command. If a pattern has already been selected, only the information for that pattern is displayed.

- 1 Click **Option**, then **Design Property**.

At the same time that the **Design Property** dialog appears, the Design Page is automatically enlarged or shrunk to fit in the entire window.



- ◆ The first line of the dialog shows the position in the embroidery frame installation order for the currently displayed design.
- *Only the designs that would be sewn at the current position in the embroidery frame installation order appear in the Design Page. In addition, the embroidering area for the current frame installation position is outlined in red.*
- ◆ Click **Previous** or **Next** to display information for the designs at other positions in the embroidery frame installation order.
- *At this time, the corresponding pattern and embroidery frame position appear in the Design Page.*

NOTE:

If an object is larger than the embroidering area or if an object is positioned so that it does not completely fit within an embroidering area, the error message "Please change the object size or position." is displayed instead of this dialog. After the object causing the error appears selected, change its size or position. (If more than one object causes the error message to appear, the objects will appear selected in the sewing order.)

NOTE:

Make sure that no pattern has been selected before clicking this command. If a pattern has been already been selected, only the information for that pattern is displayed.

- To preview the image, click **Display**, then **Preview** or click  on the Toolbar.

NOTE:

*Just like for the command **Option – Design Property**, if an object is larger than the embroidering area or if an object is positioned so that it does not completely fit within an embroidering area, the error message “Please change the object size or position.” is displayed instead of displaying a preview of the image. After the object causing the error appears selected, change its size or position. (If more than one object causes the error message to appear, the objects will appear selected in the sewing order.)*

NOTE:

Make sure that no pattern has been selected before clicking this command. If a pattern has been already been selected, only that pattern is previewed.

■ Save the data

- Click **File**, then **Save** or **Save As**, and then save the data.

All of the data is saved as one file (*.pes).

If the file size or the number of color changes is larger than the specified number or if one of the patterns do not completely fit within an embroidering area, the message “Please change the object size or position. Do you want to save the data anyway?” is displayed.

NOTE:

The saved file cannot be opened in a previous version (ver. 2.0x or earlier) of Layout & Editing.

NOTE:

If a Design Page for a Multi-position embroidery frame (130 × 300 mm, 300 × 130 mm, 100 × 172 mm, or 172 × 100 mm) is selected, you can select only “PES Version 2.5, PES Version 3.0, or PES version 4.0 as the File Type.

■ Write the data to an original card

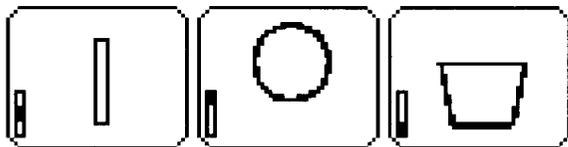
- Click **File**, then **Write to Card** or click  on the Toolbar, and then write the data to an original card.

Data for an multi-position embroidery frame is created by considering the data for each embroidery frame installation position as one pattern and combining them.

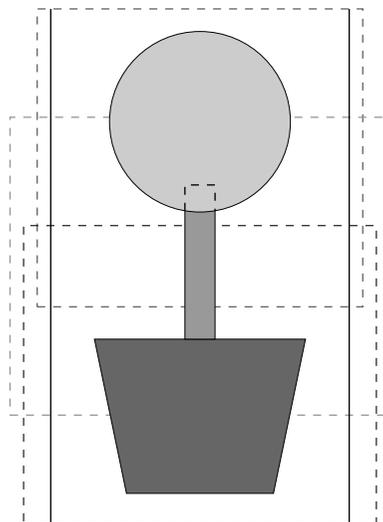
Therefore, when this type of data is written to an original card, all of the data for one multi-position embroidery frame pattern is saved as a combination of multiple patterns.

(For more details on the number of patterns that is written to a card, refer to “3. Check data”.)

If the pattern shown below at the right is written to an original card and the written pattern is checked on the embroidering machine, it will appear as follows.



-  : This pattern is sewn when the embroidery frame is installed at the top installation position (position a).
-  : This pattern is sewn when the embroidery frame is installed at the middle installation position (position b).
-  : This pattern is sewn when the embroidery frame is installed at the bottom installation position (position c).



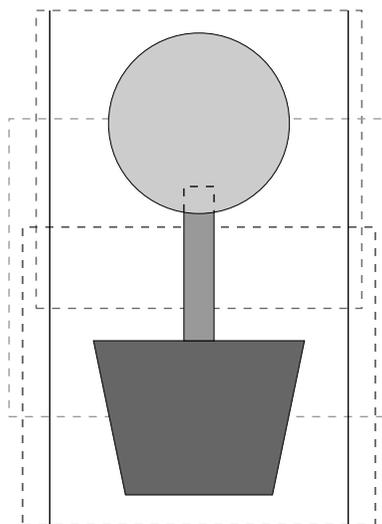
Therefore, the frame installation position sewing order for the pattern shown above is b, a, then c.

Notes on embroidering using the multi-position embroidery frame:

- Before embroidering your project, sew a trial sample of the pattern on a scrap piece of fabric that is the same as that used for your project. In addition, use the correct needle and thread.
- Be sure to affix stabilizer material to the back of the fabric and tightly stretch the fabric within the embroidery frame. When embroidering on thin or stretch fabrics, use two layers of stabilizer material. If no stabilizer material is used, the fabric may become over-stretched or wrinkled or the embroidery may not be sewn correctly.
- Use the zigzag stitch for sewing the outlines in order to prevent embroidering outside the outlines.



- *For patterns that require the embroidery frame to be installed at different installation positions, design the embroidery pattern data so that the various parts of the pattern overlap in order to prevent misalignment while embroidering.*



Design Center

Design Center is used to create individual patterns from image files created with other applications. You can also apply stitch patterns created with Programmable Stitch Creator to regions of images displayed in Design Center. The resulting embroidery pattern can then be imported into the Layout & Editing Design Page and combined with other patterns.

The embroidery pattern is created in four stages:

◆ **STAGE 1:** Original image

You can open an image that you purchased from a commercial source, created using an application such as Paintbrush or scanned from a printed source using a scanner and the appropriate software.

The image file must be in the uncompressed format, its file name extension must be **bmp**, **tif**, **jpg**, **j2k**, **pcx**, **wmf**, **png**, **eps**, **pcd**, or **fpx**.

Note that graphic files in other formats can be converted into the specified format if you have the proper conversion software.

In Stage 1, the image is displayed with its original colors and you cannot modify it.

◆ **STAGE 2:** Line image

To move from Stage 1 to Stage 2, you select maximum 5 colors of the image data that will be converted into black outlines. Unselected colors will be converted into white. You can then correct the black and white image using pens and erasers of different thicknesses.

If you save the file in Stage 2, its file name extension will be **PEL**.

◆ **STAGE 3:** Figure handle image

When you move to Stage 3, the application automatically detects the outline of the black areas and replaces it with a set of broken lines. The broken lines can be edited (you can move and delete points or insert new points).

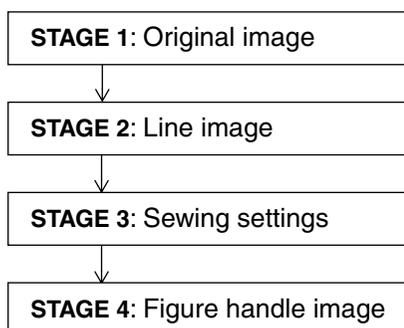
If you save the file in Stage 3, its file name extension will be **PEM**.

◆ **STAGE 4:** Sewing settings

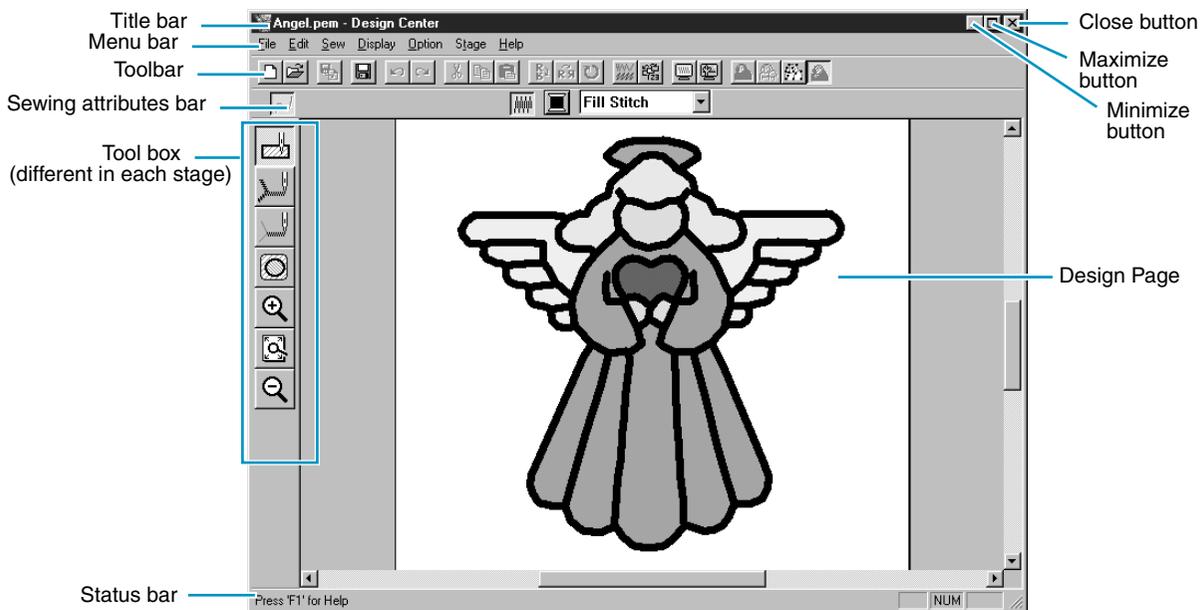
You can set the stitch, thread color, etc. for the outlines and regions to complete the embroidery data

If you save the file in Stage 4, its file name extension will be **PEM**.

If you have to interrupt your work at stage 2, 3 and 4, save the file and retrieve it later to resume working.



The Screen



Menu bar	Gives access to the functions.
Toolbar	Shortcut for the menu functions.
Sewing attributes bar	Sets the sewing attributes (color, stitch) of the patterns (displays in Stage 4 only)
Tool box	Used to select and edit the image. Stage 1 has no Tool Box; the other stages all have a different Tool Boxes.
Status bar	Provides short information.
Design Page	The actual part of the work area that can be saved and sewn.

Using the Stage 2 Tool Box

In Stage 2, the Tool Box is used to modify the line image generated from the original image or to create a line image from scratch.

	<p>The five first buttons are used as pens and erasers of different thicknesses. Cursor shape when moved or dragged over the work area:</p> <p> for the pens and  for the erasers.</p> <p>When you start the application, the number 2 Pen tool is active by default.</p>
	<p>Sets the cursor in zoom-in mode. Cursor shape: </p>
	<p>Maximizes the selected Design Page to fit in the window.</p>
	<p>Sets the cursor in zoom-out mode. Cursor shape: </p>

Drawing and Erasing

■ Drawing

- 1 Click the button with the desired pen thickness on the Tool Box. The cursor changes to .
- 2 To add a dot, click; to draw a line, drag with the mouse's left button.
If the **Shift** key is held down while moving the mouse, only vertical or horizontal lines will be drawn.

■ Erasing

- 1 Click the button with the desired eraser thickness on the Tool Box.
- 2 To erase, drag while pressing the mouse's right button. The cursor changes to .

Zoom-in Mode

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click on the area you want to enlarge or drag the cursor across the area that you want to enlarge, then release it. You can repeat this step several times.

Fit Design Page to Window

This feature allows you to maximize the selected Design Page so that it will fit in the window.

- 1 Click  on the Tool Box. The Design Page is enlarged or shrunk automatically to fit the window.

Zoom-out Mode

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click on the area you want to shrink or drag the cursor across the area that you want to shrink, then release it. The image shrinks toward that point. You can repeat this step several times.

Using the Stage 3 Tool Box

In Stage 3, outline data that has been generated automatically can be edited using the Tool Box. Clicking a button of the Tool Box changes the cursor mode and shape. The left side of the Status bar tells you what you can do in each cursor mode.

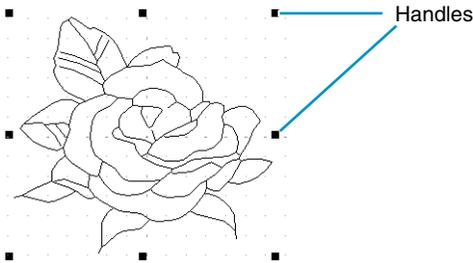
	Sets the cursor in selection mode. When you start the application, the selection mode is active by default. Cursor shape: 	page 66
	Sets the cursor in point edit mode. Cursor shape: 	page 68
	Sets the cursor in line drawing mode. Cursor shape: 	page 69
	Sets the cursor in zoom-in mode. Cursor shape: 	page 69
	Maximizes the selected Design Page to fit in the window.	page 70
	Sets the cursor in zoom-out mode. Cursor shape: 	page 70
	Fills the display with the selected objects.	page 70

Selection Mode

The cursor selection mode is used to select one or more outlines. Once an outline is selected, you can move it, scale it, and change its direction by rotating it or inverting it.

Selecting patterns

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the pattern that you want to select. The cursor changes  when it touches an outline. You know that the object is selected when handles are displayed and the outlines display in blue. Note that a pattern will not be selected if you click on a transparent part of it.



- 3 To deselect the pattern, select another one, click on the white space or click another button of the Tool Box, except a Zoom tool.
- 4 To select an additional pattern, click it while holding the **Shift** key down. Note that you can also select patterns by dragging the cursor across the whole pattern that you want to select. As you drag, a dotted rectangle appears. When you release the mouse button, all patterns that are completely contained in that rectangle will be selected.

Moving patterns

- 1 Select the data that you wish to move.
- 2 Position the cursor over the data and click (a dotted box appears around the data), then drag to a new destination. Holding down the **Shift** key while dragging the pattern moves the pattern horizontally or vertically. **NOTE:** *By pressing the arrow keys, the selected pattern can be moved 0.5 mm (about 0.02 inch) to the left, right, up or down.*

Scaling patterns

- 1 Move the cursor over one of the handles of a selected pattern or group of selected patterns. The shape of the cursor will change to , ,  or , depending on the handle the cursor is on.
- 2 Drag the handle in the direction of the arrow to scale the pattern.
 -  is for scaling the width.
 -  is for scaling the height.
 -  and  are for scaling both dimensions at the same time.

Flipping a pattern horizontally or vertically

- 1 Select the data that you wish to flip horizontally (up/down) or vertically(left/right). The buttons below become active.



- 2 To flip horizontally, select the command **Edit – Mirror – Horizontal** or click  on the Toolbar.
To flip vertically, select the command **Edit – Mirror – Vertical** or click  on the Toolbar.

Rotating a pattern

- 1 Select the data that you wish to rotate. The button below becomes active.



- 2 Select the menu command **Edit – Rotate** or click  on the Toolbar. The handles around the selected pattern are replaced by smaller boxes on the four corners of the selected area.
- 3 To rotate the pattern, move the cursor on one of the four rotation handles.

The shape of the cursor changes to  as soon as your cursor touches a rotation handle. Click on a rotation handle and a lined box appears around the selected the pattern.

You can rotate the pattern clockwise or counterclockwise by dragging the mouse.

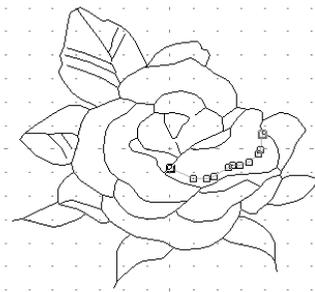
A simple dragging of the mouse will rotate the pattern by 1° increments. Pressing the **Shift** key will rotate it by 15° increments.

Point Edit Mode

The point edit mode allows you to move, insert and delete points in an outline.

Moving points

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the outline that you want to edit.
The selected line displays in pink and existing points of the selected line are marked with small empty squares. The starting and ending points of a line are marked by bigger squares.



- 3 Click the point that you want to move.
To select an additional point, click that point while holding the **Shift** key down. The selected points are marked by filled squares.
NOTE:
If you click on the line instead of a square, a new point is inserted.
- 4 Drag the cursor to a new position. All the selected points move in the same direction. Holding down the **Shift** key while dragging the point moves the point horizontally or vertically.
NOTE:
By pressing the arrow keys, the selected point can be moved 0.1mm (about 0.01 inch) to the left, right, up or down.

Inserting points

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the outline that you want to edit.
The selected line displays in pink and existing points of the selected line are marked with small empty squares. The starting and ending points of a line are marked by bigger squares.
- 3 Click where you want to insert a new point on the outline.
A new point appears, marked by a filled black square. The new point can be edited.

Deleting points

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the outline that you want to edit.
The existing points of the outline are marked with small empty squares.
- 3 Click the point that you want to delete.
To select an additional point, click that point while holding the **Shift** key down. The selected points are marked by filled squares.

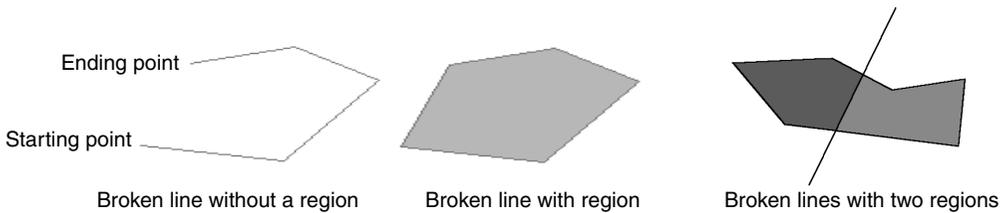
- Press the **Delete** key to remove the point from the outline.
Note that the points marked by red squares cannot be deleted.

Line Drawing Mode

The line drawing mode allows you to add broken lines to your pattern. A broken line is made of one or more contiguous straight lines, the ending point of a straight line being the starting point of the next one. If the broken line you drew did not create enclosed regions, it remains a simple outline and you can only set sewing attributes for the line itself in Stage 4.

If the broken line did create enclosed regions, you can assign stitches and colors to both the outline and the regions in Stage 4.

If you draw a line through an existing region, creating two separate regions, you will be able to set sewing attributes to both separately, as well as to the separating line.



Drawing a broken line

- Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small image of the tool button.

- Draw the line.

Move the mouse to the starting point and click.

Move the mouse to the ending point of the first straight line and click again.

NOTE:

You can always remove the last-entered point by clicking the mouse's right button.

If needed, use the grid to help you draw the lines. You can set the grid so that each of its vertical and horizontal lines are visible. For more information on the grid, refer to "Grid Setup" on page 103.

- Repeat until you arrive at the last end point. At that point double-click.

If the **Shift** key is held down while moving the mouse, only vertical or horizontal lines will be drawn.

Zoom-in Mode

The zoom-in mode is used to magnify a part of the outline so that you can check it and edit it more easily.

- Click  on the Tool Box.

The shape of the cursor changes to .

- Click on the area you want to enlarge or drag the cursor across the area that you want to enlarge, then release it. You can repeat this step several times.

Fit Design Page to Window

This feature allows you to maximize the selected Design Page so that it will fit in the window.

- 1 Click  on the Tool Box. The Design Page is enlarged or shrunk automatically to fit the window.

Zoom-out Mode

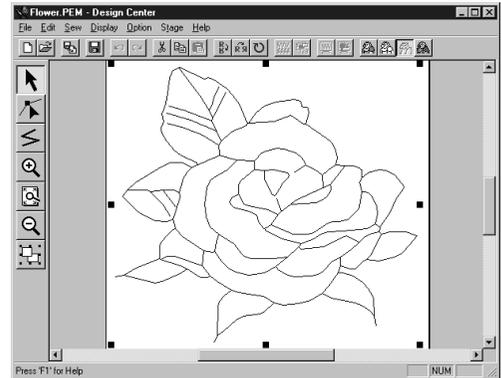
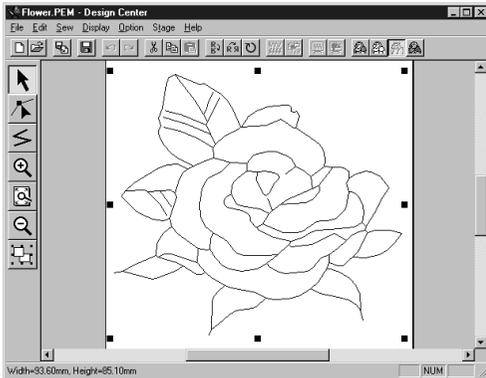
The zoom-out mode is used to return to the normal display after zooming in.

- 1 Click  on the Tool Box.
The shape of the cursor changes to .
- 2 Click on the area you want to shrink or drag the cursor across the area that you want to shrink, then release it. The image shrinks toward that point. You can repeat this step several times.

Enlarging Selected Outlines to the Screen Size

The last button of the Tool Box allows you to quickly enlarge a selected outline to the screen size.

- 1 Select one or more outlines.
- 2 Click  on the Tool Box.
The selected outlines now occupy all the available space on the screen.



Using the Stage 4 Tool Box

In Stage 4, outline data from Stage 3 are assigned line and region sewing attributes. This is done by using the Tool Box and the Sewing Attributes bar. Clicking a button of the Tool Box changes the cursor mode and shape. The left side of the Status bar tells you what you can do in each cursor mode.

	Sets the cursor in region setting mode. When you start the application, this tool is active by default Cursor shape:  , with a miniature of the button	page 71
	Sets the cursor in line (all) setting mode. Cursor shape:  , with a small image of the button	page 73
	Sets the cursor in line (part) setting mode. Cursor shape:  , with a small image of the button	page 74
	Sets the cursor in hole sewing mode. Cursor shape:  , with a small image of the button	page 76
	Sets the cursor in zoom-in mode. Cursor shape: 	page 76
	Maximizes the selected Design Page to fit in the window.	page 76
	Sets the cursor in zoom-out mode. Cursor shape: 	page 76

Region Setting Mode

In this mode, you can apply the current sewing attributes to an enclosed region. You can also change the sewing attributes applied to a region.

■ Applying the sewing attributes to a region

- 1 Click  on the Tool Box.

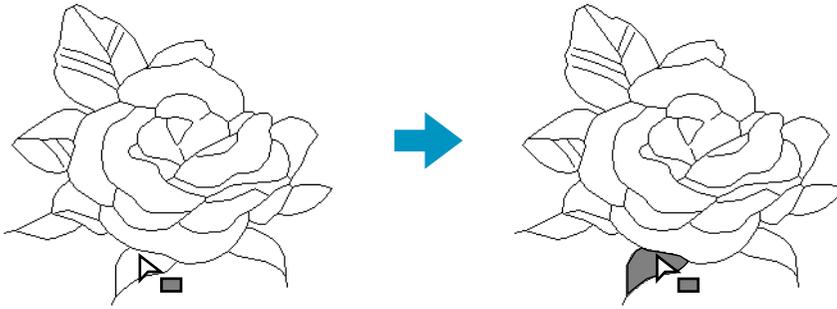
The shape of the cursor changes to  and is displayed together with a small rectangle. The Sewing Attributes bar now looks like this:



You can select the color and stitch at this step or after applying them to the region. See “Color” on page 79 and “Stitch” on page 80.

You can also use the menu (see “Sewing Attributes” on page 96) or the following method to define the density and other characteristics of the stitch. If you do not make these settings at this stage, the current settings will be applied, but you can modify them later.

- Click the enclosed region that you want to set.
The color and stitch selected on the Sewing Attributes bar are applied to the region.

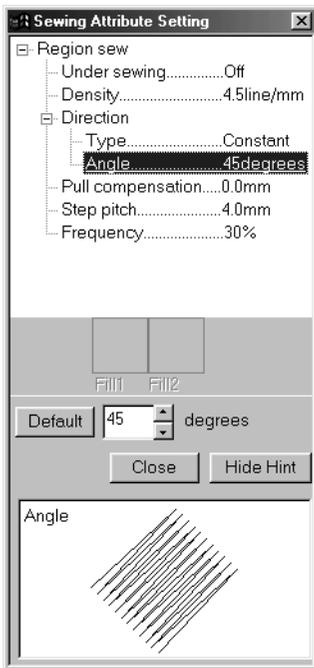


■ Checking the sewing attributes of a region

- Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small rectangle.

- Click the enclosed region using the mouse's right button.
The Sewing Attributes bar shows the color and stitch for the selection. You can change the color and stitch at this step (see "Applying the sewing attributes to a region" on page 71).
The **Sewing Attribute Setting** dialog for the selected stitch displays.



- ◆ If necessary, change the settings.
See "Sewing Attributes" on page 96.
- To restore the default value of a setting after changing it, click the **Default** button at the left of that setting.
- ◆ To apply the new settings to the region, click each region you want to apply those settings to using the left button.
- ◆ Click **Close** to remove the dialog from the screen.

Line (all) Setting Mode

In this mode, you can apply the current sewing attributes to the outline of patterns. You can also change the sewing attributes applied to outlines.

■ Applying the sewing attributes to an outline

- 1 Click  on the Tool Box.

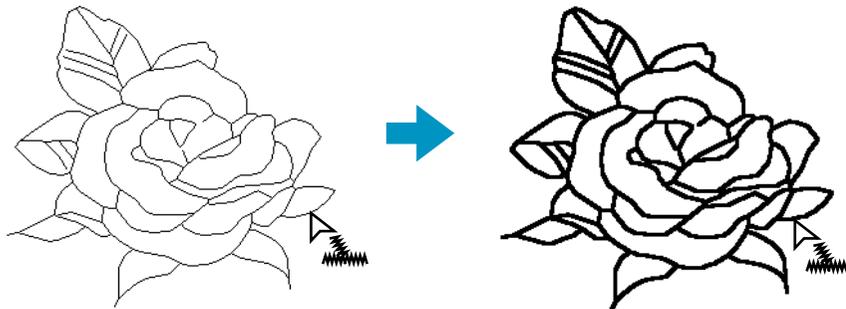
The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button. The Sewing Attributes bar now looks like this:



You can select the color and stitch at this step or after applying them to the outline. See “Color” on page 79 and “Stitch” on page 80.

You can also use the menu (See “Sewing Attributes” on page 96) or the following method to define the characteristics of the stitch. If you do not make these settings now, the current settings will be applied, but you can modify them later.

- 2 Click the outline that you want to set.
The color and stitch selected on the Sewing Attributes bar are applied to the clicked outline.



■ Checking the sewing attributes of an outline

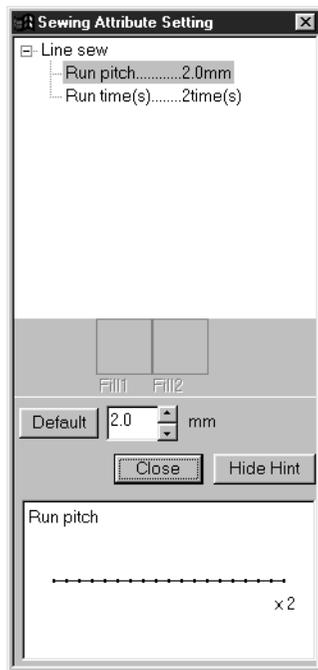
- 1 Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button.

- Click the outline using the mouse's right button.

The Sewing Attributes bar shows the color and stitch for the selection. You can change the color and stitch at this step (see “Applying the sewing attributes to an outline” on page 73).

The **Sewing Attribute Setting** dialog for the selected stitch displays.



- ◆ If necessary, change the settings. See “Sewing Attributes” on page 96.
- To restore the default value of a setting after changing it, click the **Default** button at the left of that setting.
- ◆ To apply the new settings to the outline, then click the outline of the pattern(s) using the left button.
- ◆ Click **Close** to remove the dialog from the screen.

Line (part) Setting Mode

In this mode, you can apply the current sewing attributes to a portion of the outline. You can also change the sewing attributes applied to a portion of the outline.

A single line of the outline extends from both sides of the cursor position to the next branch points.

Applying the sewing attributes to a portion of the outline

- Click  on the Tool Box.

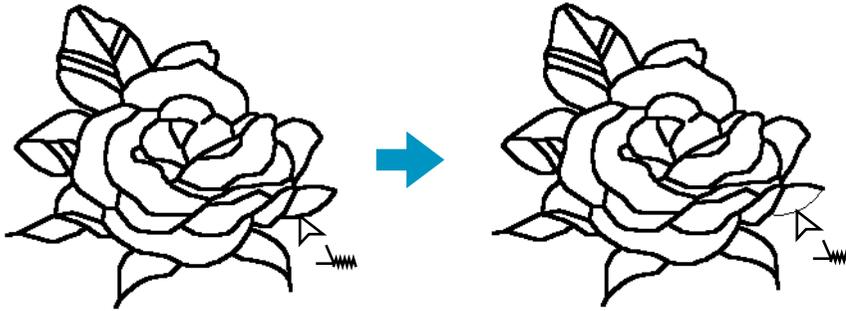
The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button. The Sewing Attributes bar now looks like this:



You can select the stitch at this step or after applying them to a portion of the outline. See “Stitch” on page 80. The color cannot be set separately for a portion of the outline. If you set a portion of the outline before setting the whole outline, the default color will be black.

- You can also use the menu (see “Sewing Attributes” on page 96) or the method described on page 75 (Checking the sewing attributes of a portion of an outline) to define the characteristics of the stitch. If you do not make these settings now, the current settings will be applied, but you can modify them later.

- Click the line of the outline that you want to set.
The stitch selected on the Sewing Attributes bar are applied to the line.



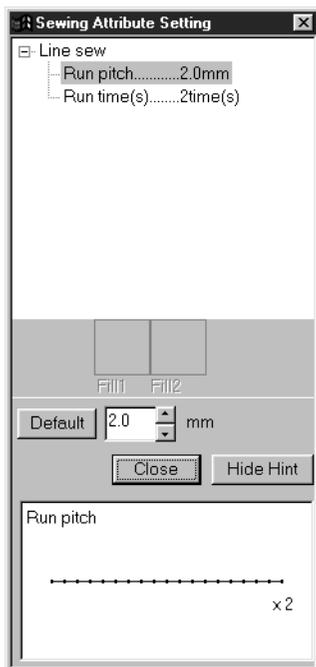
■ Checking the sewing attributes of a portion of an outline

- Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button.

- Click the line you want to check using the mouse's right button.
The Sewing Attributes bar shows the color and stitch for the selection. You can change the stitch (not the color) at this step (see "Applying the sewing attributes to a region" on page 71).

The **Sewing Attribute Setting** dialog for the selected stitch displays.



- ◆ If necessary, change the settings.
See "Sewing Attributes" on page 96.
- *To restore the default value of a setting after changing it, click the **Default** button at the left of that setting.*
- ◆ To apply the new settings to single lines, click the lines you want to apply the settings to with the left button.
- ◆ Click **Close** to remove the dialog from the screen.

Hole Sewing Mode

The hole sewing mode is used to avoid sewing overlapping areas twice. It can be set only when one of the overlapping areas is completely enclosed in another area.

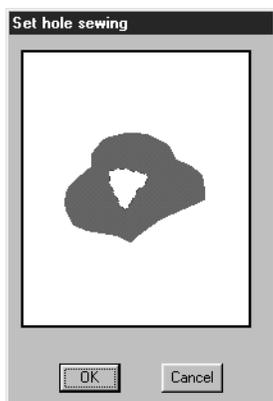
- 1 Click  on the Tool Box.

The shape of the cursor changes to  and is displayed together with a small figure of the Tool Box button.

- 2 Click on the enclosing part of a pattern comprised of a region completely enclosed into another one.



- 3 This dialog will display.



- ◆ Click on the central region to toggle hole sewing on/off.
- ◆ Click **OK** to set hole sewing.
- ◆ Click **Cancel** to exit without setting hole sewing.

Zoom-in Mode

The zoom-in mode is used to magnify a part of the outline so that you can inspect it and edit it more easily.

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click on the area you want to enlarge or drag the cursor across the area that you want to enlarge, then release it. You can repeat this step several times.

Fit Design Page to Window

This feature allows you to maximize the selected Design Page so that it will fit in the window.

- 1 Click  on the Tool Box. The Design Page is enlarged or shrunk automatically to fit the window.

Zoom-out Mode

The zoom-out mode is used to return to the normal display after zooming in.

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click on the area you want to shrink or drag the cursor across the area that you want to shrink, then release it. The image shrinks toward that point. You can repeat this step several times.

Using the Sewing Attributes Bar

The Sewing Attributes, available in Stage 4, bar allows you to set the color and stitch of a region or outline.

The sewing attributes which are available depend on the cursor mode.

Example 1: The cursor is in the region setting mode.



Example 2: The cursor is in the line setting mode.



When the cursor is left for a while on an element of the Sewing Attributes bar, a label indicating the function of that element appears.

	Region sew: Switches the inside region on/off.	page 77
	Line sew: Switches line sew on/off.	page 78
	Region color, Line color: Sets the thread color for outline or region inside.	page 79
 	Region sew type, Line sew type: Sets the stitch for outline or region inside.	page 80

Setting the Thread Color and Stitch

Region sew

Purpose: Switches the inside region on/off.
When the inside region is switched off, it is not sewn (and you cannot set its color or stitch).

Available: When you click  on the Tool Box to put the cursor in the Region sewing mode.

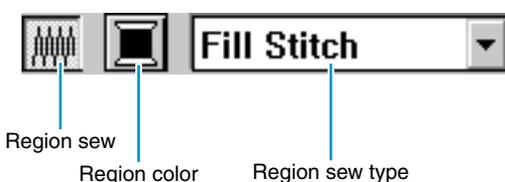
Operation:

1 Click the **Region sew** button.

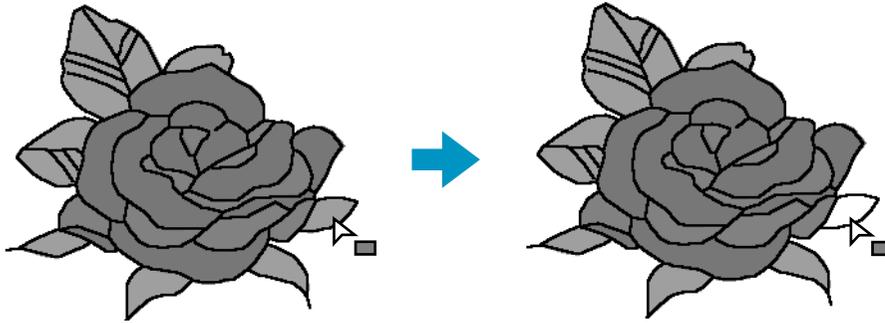
This button has two states:

on: the Region color button and the Region sew type selector are displayed.

off: the Region color button and the Region sew type selector are not displayed.



- 2 Click inside a region to turn it on or off.
When you turn off the region, the region disappears.



When you turn on the region, the region gets the color displayed on the **Region color** button, and the stitch displayed on the **Region sew type** selector.

See also: “Color” on page 79 and “Stitch” on page 80

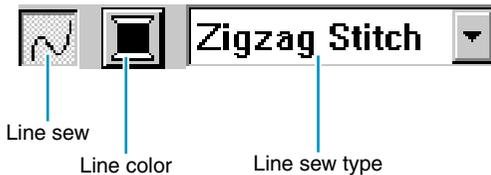
Line sew

Purpose: Switches the outline on/off.
When the outline is switched off, it is not sewn (and you cannot set its color or stitch).

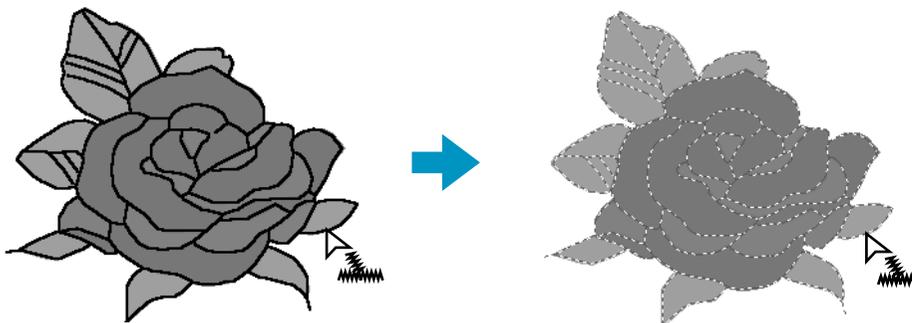
Available: When you click  or  on the Tool Box to put the cursor in the Line (all or parts) sewing mode.

Operation:

- 1 Click the **Line sew** button.
This button has two states:
on: the Line color button and the Line sew type selector are displayed.
off: the Line color button and the Line sew type selector are not displayed.



- 2 Click an outline to turn it on or off.
When you turn off the outline, it is replaced by a dotted line that will not be sewn.



When you turn on the outline, the outline gets the color displayed on the **Line color** button, and the stitch displayed on the **Line sew type** selector.

See also: “Color” on page 79 and “Stitch” on page 80

■ Color

Purpose: Sets the thread color for outline or region inside.

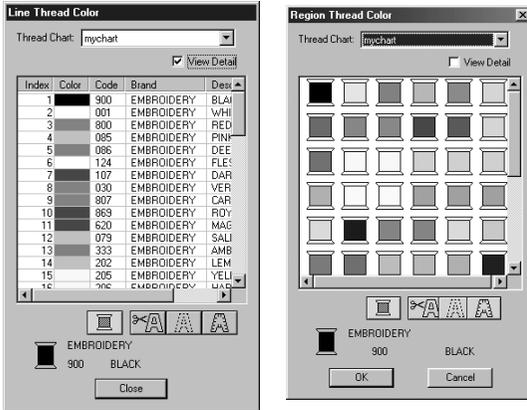
Available: When the cursor is in Region setting mode or Line setting mode.

Operation:

① Click the **Color** button.

A **Thread Color** dialog similar to the one shown below appears.

Clear the View Details check box to view a list of only the thread colors.



- ◆ From the Thread Chart list, select a system chart or a user thread chart.
- ◆ From the list below, select the desired color. The name of the selected color appears at the bottom of the dialog.
 - *Descriptions for the four buttons under the list are provided in “Special colors” on page 145.*
- ◆ Click **Close** to remove the dialog from the screen.

When you click the desired color, the new color is displayed on the **Region color** button or **Line color** button.

NOTE:

For details on specifying a user thread chart or for information on how machines handle thread colors, refer to “Edit User Thread Chart” on page 225.

See also: “Region sew” on page 77, “Line sew” on page 78 and “Special colors” on page 145.

■ **Stitch**

Purpose: Sets the stitch for outline or region inside.

Available: When the cursor is in Region setting mode or Line setting mode.

Operation:

- 1 Click the **sew type selector**.
The available options display.



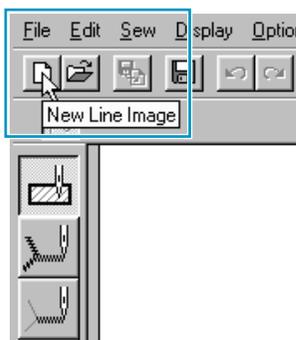
For outlines, Running Stitch and Zigzag Stitch are available. For regions Fill Stitch, Satin Stitch, Programmable Fill Stitch, Motif Stitch and Cross Stitch are available.

- 2 Click the desired stitch.
The new setting displays on the selector.
“Region sew” on page 77 and “Line sew” on page 78

Using the Menu Bar and the Toolbar

File	Handles file input/output, such as opening and saving.	page 81
Edit	Performs simple actions on selected objects, such as cutting and pasting.	page 91
Sew	Allows you to control the way the pattern will be sewn.	page 96
Display	Modifies the appearance of the screen.	page 103
Option	Allows you to start the other applications and to set the Design Page size and unit system.	page 106
Stage	Allows you to move from one stage to the next or previous one.	page 108
Help	Gives you access to the on-screen help information system.	page 113

Many functions available on the menu can also be accessed by clicking an icon on the Toolbar or by pressing a shortcut key or key combination. When you leave the cursor for a while on a button of the Toolbar, a label indicating the function of the button displays.



File Menu

The **File** menu handles file input/output, such as opening, saving and printing.

New Line Image	Creates a new blank Design Page and switches to Stage 2.	page 82
New Figure Data	Creates a new blank Design Page and switches to Stage 3.	page 82
Wizard	Gives a step-by-step guide for creating pattern data, according to the type of data you want to create.	page 83
Open	Opens a previously saved file (*.PEM, *.PEL) or image file (Windows BMP (*.bmp), Exif (*.tif, *.jpg), ZSoftPCX (*.pcx), Windows Meta File (*.wmf), Portable Network Graphics (*.png), Encapsulated PostScript (*.eps), Kodak PhotoCD (*.pcd), FlashPix (*.fpx), JPEG2000 (*.j2k).	page 85
Select TWAIN device	Selects which TWAIN device installed in the computer to use.	page 86
Input from TWAIN device	Operates a TWAIN standardized scanner or other device to import an image.	page 86
Input from Clipboard	Opens a new design page in Stage 1, and puts the image data on the clipboard.	page 87
Output to Clipboard	Copies the Stage 1 image data to the clipboard.	page 88
Import Figure	Adds a *.pem file to your Design Page (available only in Stage 3).	page 88
Save	Saves your Design Page on the disk as latest Version file (default).	page 89

Save As	Saves the current file under a new file name. Savable files are: in Stage 1, Bitmap files (*.bmp); in Stage 2, PEL files; and in Stage 3 and 4, PEL and PEM files.	page 89
Exit	Exits the application.	page 90

■ New Line Image

Purpose: Creates a new blank Design Page and switches to Stage 2.

Shortcut key: **Ctrl** + **N**

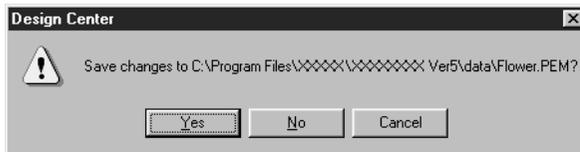
Toolbar: 

Operation:

❶ Click **File**, then **New Line Image**.

If the current Design Page is not edited, a new blank Design Page (Stage 2) appears immediately.

❷ If the current Design Page is edited, you will be asked whether you want to save the changes, for example:



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modifying the current Design Page or saving it with another file name).

Depending on the stage you are currently using and the editing you did, the file to be saved is a *.pel file or a *.pem file or both.

A new file opens automatically in Stage 2. In Stage 2, you can use the pens and erasers to create black and white drawings. You may also want to use this feature to create patterns that are easier to draw by hand, for example, free-hand writing.

See also: “Open” on page 85, “Save” and “Save As” on page 89 and “New Figure Data” below

■ New Figure Data

Purpose: Creates a new blank Design Page and switches to Stage 3.

Shortcut key: No shortcut key for this function

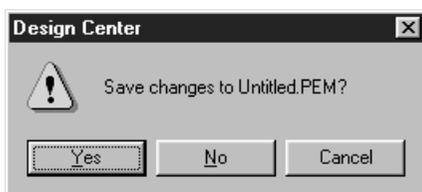
Toolbar: No button for this function

Operation:

❶ Click **File**, then **New Figure Data**.

If the current Design Page is not edited, a new blank Design Page (Stage 3) appears immediately.

❷ If the current Design Page is edited, you will be asked whether you want to save the changes, for example:



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modify the current Design Page or saving it with another file name).

Depending on the stage you are currently using and the editing you did, the file to be saved is a *.pel file or a *.pem file or both.

A new file opens automatically in Stage 3. The size of the Design Page is the currently set size. In Stage 3, you can use the line drawing tool to draw lines, or you can use Import Figure to retrieve the data from a saved pem file.

See also: “Open” on page 85, “Save” and “Save As” on page 89 and “New Line Image” on page 82

■ Wizard

Purpose: Gives a step-by-step guide for creating pattern data, according the type of data you want to create.

Shortcut key: **F3**

Toolbar: No button for this function

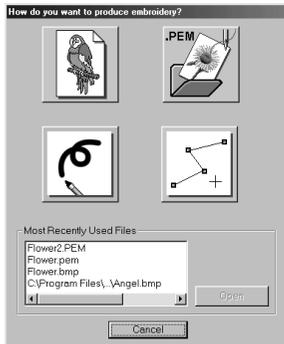
Operation:

❶ Click **File**, then **Wizard**.

A step-by-step selection guide dialog similar to this will display.

(The same type of dialog will display when Design Center is running.)

However, if the current Design Page is edited, you will be asked whether you want to save the changes.



Position the mouse pointer over any button and the name of the action will display. The functions for each button are described below.

◆ From Image

Use this button when creating normal embroidery data from an image.

Click the button, and the From Image dialog is displayed showing the next necessary step.

(See below)

◆ Open PEM

Use this button when you want to edit a saved (previously created) PEM file.

Click the button and the File Open dialog will open to select a PEM file.

For details, see the section in File – “Open” about PEM files (page 85).

◆ New Line Image

Opens a new Stage 2 Design Page.

Use this button when you want to use the black and white Pen tool to draw an image, then create embroidery data from the image.

For details, see File – “New Line Image” (page 82).

◆ New Figure

Opens a new Stage 3 Design Page.

Use this button when you want to create data from vector data from the beginning, or when you want to create data from vector data taken from a previously saved PEM file. For details, see File – “New Figure Data” (page 82).

◆ **Most Recently Used Files**

Displays a list of the most recently edited files.

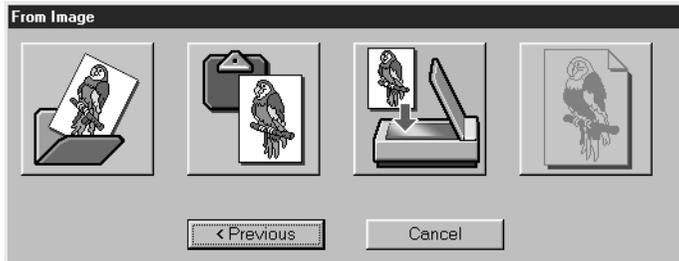
From the list, click the name of the file that you wish to edit, and then click **OPEN**.

◆ **Cancel**

Closes this dialog.

When From Image is selected

When you click the From Image button from the dialog on page 83, the following dialog opens.



Position the mouse pointer over any button and the name of the action will display. The functions for each button are described below.

◆ **Open Image File**

Opens a previously saved image file and pastes it in the Design Page.

For details, see the section in File – “Open” about image files (page 85).

◆ **From TWAIN device**

Import an image from a TWAIN device and paste it in the Design Page.

For details, see File – “Input from TWAIN device” (page 86).

◆ **From Clipboard**

Pastes an image from the clipboard in the Design page. This function can only be used when there is an image on the clipboard.

For details, see File – “Input from Clipboard” (page 87).

◆ **Use Current image**

Use an image opened in Stage 1. This function can only be used when an image is opened in Stage 1.

◆ **Previous**

Closes the current dialog, and returns to the selection dialog from the previous step.

◆ **Cancel**

Closes this dialog.

If any button other than **Previous/Cancel** is clicked, the image importing operation will take place, and the image will be pasted on the Stage 1 Design Page. After that, the Cut out to Line Image dialog, which lets you choose colors for outlines, will open. You can then continue with creating normal embroidery data.

For directions on that topic, see Stage – “To Line Image” (page 108).

After that, continue through the steps Stage – “To Figure Handle” (page 110) and Stage – “To Sew Setting” (page 112) to create the data. For details, see those sections in the manual.

Open

Purpose:

Opens a previously saved file (*.PEM, *.PEL) or image file (Windows BMP (*.bmp), Exif (*.tif, *.jpg), ZSoftPCX (*.pcx), Windows Meta File (*.wmf), Portable Network Graphics (*.png), Encapsulated PostScript (*.eps), Kodak PhotoCD (*.pcd), FlashPix (*.fpx), JPEG2000 (*.j2k)).

NOTE:

For pcd and fpx files that are saved on many pages, only the first page can be opened. Tif files that have used LZW compression can not be opened.

Shortcut key:

Ctrl + **O**

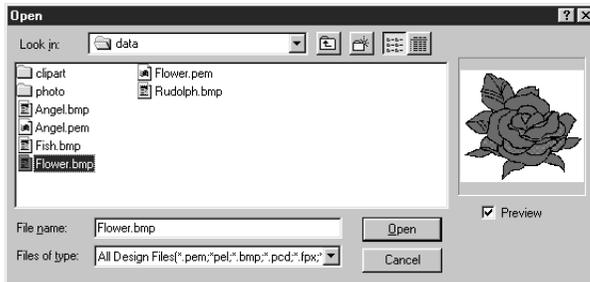
Toolbar:



Operation:

1 Click **File**, then **Open**.

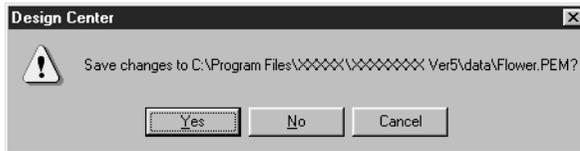
A **Open** dialog similar to this will display.



- ◆ Select the drive, the folder and the file name.
- *Be sure to select the right type of file extensions in **List Files of Type**.*
- *If the **Preview** check box is checked, the content of the selected file displays in the preview window.*
- ◆ Click **Open** or double-click the file name to open the file in Design Center.
- ◆ Click **Cancel** to exit.

2 The selected file opens immediately if your current Design Page is not edited.

If the current Design Page is edited, you will be asked whether you want to save the changes.



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modifying the current Design Page or saving it with another file name).

3 Depending on the stage you are currently using and the editing you did, the file to be saved is a *.pel file or a *.pem file or both.

See also:

“New Line Image” on page 82, “Save” and “Save As” on page 89

■ Select TWAIN device

Purpose: Selects which TWAIN device installed in the computer to use.

Shortcut key: No shortcut key for this function

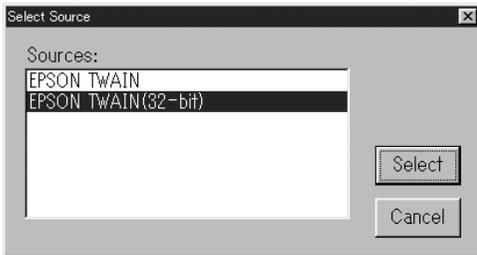
Toolbar: No button for this function

Operation:

- 1 Click **File**, then **Select TWAIN device**.

A dialog similar to this will display.

From the devices in the display, select which device to use and highlight that device.



- ◆ Click **Select** to choose the selected device and close the dialog.
- ◆ Click **Cancel** to ignore the operation done to change the device and close the dialog.

NOTE:

If there is no TWAIN device installed, there will be no names displayed on the Sources list. Use this function after installing the driver software for the TWAIN device you want to use.

See also: “Input from TWAIN device” below

■ Input from TWAIN device

Purpose: Operates a TWAIN standardized scanner or other device to import an image.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Check that the scanner or other device is correctly connected.
- 2 Click **File**, then **Input from TWAIN device**.

The driver interface set in the **Select TWAIN device** dialog is displayed.

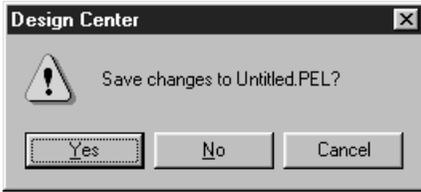
Operate that interface, make the settings for importing an image, and import the image.

NOTE:

For information on using the interface, see the help manual for that interface, or contact the manufacturers of the interface.

- ③ When the image transfer between the scanner (or other device) and the driver is complete, the imported image will be pasted in Stage 1.

If you were editing a pattern on the design page before the transfer, you will be asked whether you want to save the changes, for example:



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modify the current Design Page or saving it with another file name).

NOTE:

TWAIN is an application interface (API) standardization for software controlling scanners, etc. Also, the software itself is called TWAIN.

This software supports TWAIN standardized devices, so you can control the scanner and import the image directly.

Before using this function, you must go to the "Select TWAIN device" dialog to select a TWAIN device.

See also: "Select TWAIN device" on page 86

■ Input from Clipboard

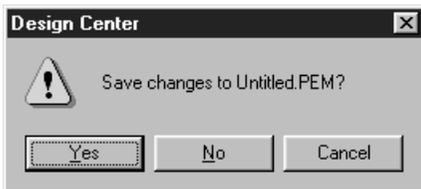
Purpose: Opens a new design page in Stage 1, and puts the image data on the clipboard.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- ① Click **File**, then **Input from Clipboard**. (This can only be done when there is image data on the clipboard.)
If the current Design Page is not edited, the Stage 1 design page will open and will show the image data as it was on the clipboard.
- ② If the current Design Page is edited, you will be asked whether you want to save the changes, for example:



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modify the current Design Page or saving it with another file name).

- ③ Depending on the stage you are currently using and the editing you did, the file to be saved is a *.pel file or a *.pem file or both.

See also: "Open" on page 85, "Save" and "Save As" on page 89

Output to Clipboard

Purpose: Copies the Stage 1 image data to the clipboard.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **File**, then **Output to Clipboard**. (This can only be done when there is image data in the Stage 1 design page.)
The image data in the design page is copied to the clipboard.

Import Figure

Purpose: Adds a *.pem file to your Design Page (available only in Stage 3).

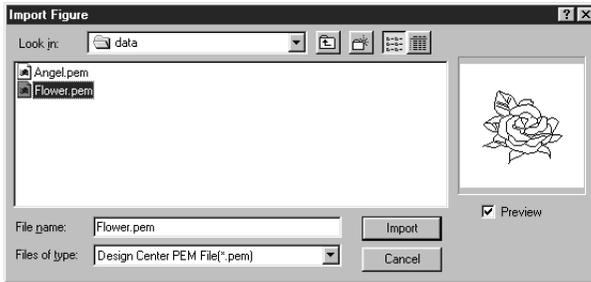
Shortcut key: **F8**

Toolbar:



Operation:

- 1 Click **File**, then **Import Figure**.
A dialog similar to this will display.



- ◆ Select the drive, the folder and the file name.
- ◆ Click **Import** to open.
- ◆ Click **Cancel** to exit.

The selected pattern will be added to your Design Page.

See also: “Open” on page 85

Save

Purpose: Saves your Design Page on the disk as latest Version file (default).

Shortcut key: **Ctrl** + **S**

Toolbar: 

Operation:

❶ Click **File**, then **Save**.

If the file already exists on the disk (the file has been saved at least once during the same stage as the current one), the file is saved immediately.

❷ If the file name is still **Untitled** or if, for any other reason, the file cannot be found on the disk, the application automatically switches to **Save As**.

See also: “Save As” below

Save As

Purpose: Saves the current file under a new file name.
Savable files are: in Stage 1, Bitmap files (*.bmp); in Stage 2, PEL files; and in Stage 3 and 4, PEL and PEM files.

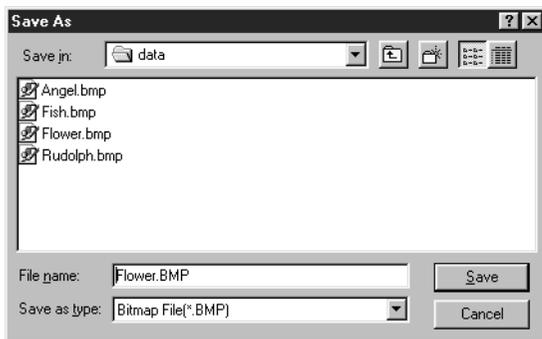
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

❶ Click **File**, then **Save As**.

A **Save As** dialog similar to this will display.

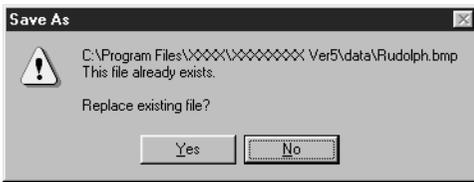


- ◆ Select the drive, the folder and type the file name.
- *The correct extension is automatically set.*
- ◆ Click **Save** to save.
- ◆ Click **Cancel** to exit.

Stage1 image data can only be saved as a Bitmap file (*.bmp).

From Stage 2 to 4, black and white data can be saved as a PEL file, and pattern data can be saved as a PEM file.

② If the new file name already exists, this dialog will appear.



- ◆ Click **Yes** to overwrite.
- ◆ Click **No** if you do not want to overwrite the existing file.

See also: “Save” on page 89

NOTE:

*If you select a previous version, saved *.pem files can be opened with a previous version of the software. However, some information may be lost.*

■ Exit

Purpose: Exits the application.

Shortcut key: **Alt** + **F4**

Toolbar: No button for this function

Operation:

① Click **File**, then **Exit**.

If the current Design Page is not edited, the application closes immediately.

② If the current Design Page is edited, you will be asked whether you want to save the changes.

See also: “Save” and “Save As” on page 89

Edit Menu

The functions of the **Edit** menu perform simple actions on selected patterns, such as cutting and pasting.

Undo		Undoes the last operation.	page 91
Redo		Cancels the effect of the last Undo.	page 91
Cut		Removes the selected data from the screen while saving a copy in the clipboard.	page 91
Copy		Saves the selected data in the clipboard without removing them from the screen.	page 92
Duplicate		Makes a copy of the selected data.	page 92
Paste		Pastes the contents of the clipboard on the screen.	page 92
Delete		Removes the selected data from the screen without saving them in the clipboard.	page 92
Mirror	Horizontal	Flips the selected data up/down.	page 93
	Vertical	Flips the selected data left/right.	page 93
Rotate		Allows you to change the direction of the pattern.	page 94
Numerical Setting	Size	Resizes the selection numerically.	page 94
	Rotate	Rotates the selected pattern numerically.	page 95
Select All		Selects all the data.	page 95

Undo

Purpose: Undoes the last operation.

Shortcut key: **Ctrl** + **Z**

Toolbar: 

Operation:

- 1 Click **Edit**, then **Undo**.
The last operation is automatically undone.

See also: “Redo” below

Redo

Purpose: Cancels the effect of the last **Undo**.

Shortcut key: **Ctrl** + **A**

Toolbar: 

Operation:

- 1 Click **Edit**, then **Redo**.
The effect of the last **Undo** is cancelled.

See also: “Undo” above

Cut

Purpose: Removes the selected data from the screen while saving a copy in the clipboard.

Shortcut key: **Ctrl** + **X**

Toolbar: 

Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Cut**.

The selected outline data disappear. Since they are saved in the clipboard, you can paste them back using **Edit – Paste**.

See also: “Copy”, “Paste” and “Delete” below

Copy

Purpose: Saves the selected data in the clipboard without removing them from the screen.

Shortcut key: **Ctrl** + **C**

Toolbar: 

Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Copy**.

The outline data are copied into the clipboard and are ready to be pasted.

See also: “Cut” on page 91, “Duplicate” and “Paste” below

Duplicate

Purpose: Makes a copy of the selected data.

Shortcut key: **Ctrl** + **D**

Toolbar: No button for this function

Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Duplicate**.

A copy of the outline data appears on the screen.

See also: “Copy” above and “Paste” below

Paste

Purpose: Pastes the contents of the clipboard on the screen.

Shortcut key: **Ctrl** + **V**

Toolbar: 

Operation:

① Click **Edit**, then **Paste** (Stage 3 only).

The outline data saved in the clipboard (using **Cut** or **Copy**) are pasted on the screen.

See also: “Cut” on page 91, “Copy” and “Duplicate” above

Delete

Purpose: Removes the selected data from the screen without saving them in the clipboard.

Shortcut key: **Delete**

Toolbar: No button for this function

Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Delete**.

The selected outline data are removed from the screen. Since they are not saved in the clipboard, the only way to make them reappear is to use **Edit – Undo**.

See also: “Undo” and “Cut” on page 91

■ Mirror – Horizontal

Purpose: Flips the selected data up/down.

Shortcut key: **Ctrl** + **H**

Toolbar:

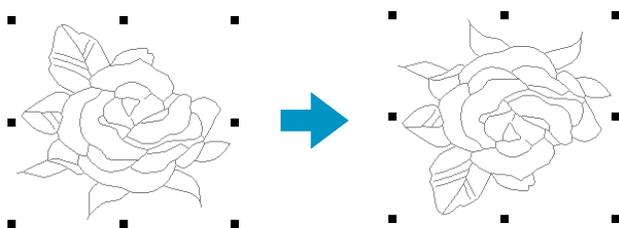


Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Mirror**, then **Horizontal**.

A horizontal mirror image (top and bottom inverted) of the outline data appears on the screen. Two successive executions of this command restores the original image.



See also: “Flipping a pattern horizontally or vertically” on page 67 and “Mirror – Vertical” below

■ Mirror – Vertical

Purpose: Flips the selected data left/right.

Shortcut key: **Ctrl** + **J**

Toolbar:

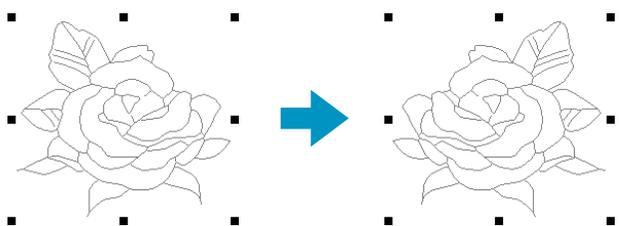


Operation:

① Select one or more outline data (Stage 3 only).

② Click **Edit**, then **Mirror**, then **Vertical**.

A vertical mirror image (left and right inverted) of the outline data appears on the screen. Two successive executions of this command restores the original image.



See also: “Flipping a pattern horizontally or vertically” on page 67 and “Mirror – Horizontal” above

Rotate

Purpose: Allows you to change the direction of the pattern.

Shortcut key: **Ctrl** + **Y**

Toolbar: 

Operation:

- ❶ Select one or more outline data (Stage 3 only).
- ❷ Click **Edit**, then **Rotate**.
The handles around a selected pattern are replaced by smaller rectangle on the four corners of the selected area.
- ❸ To rotate a pattern, move the cursor on one of the four rotation handles.

The shape of the cursor changes to  as soon as your cursor touches a rotation handle. Click a handle and a lined box appears around the selected pattern.

You can rotate the pattern clockwise or counterclockwise by dragging the mouse.

A simple dragging of the mouse will rotate the pattern by 1° increments. Pressing the **Shift** key will rotate it by 15° increments.

See also: “Rotating a pattern” on page 67

Numerical Setting-Size

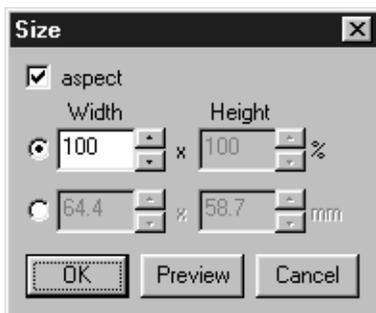
Purpose: Resizes the selection numerically.

Shortcut key: No shortcut key for this function.

Toolbar: No button for this function.

Operation:

- ❶ Select one or more patterns. (Stage 3 only)
- ❷ Click **Edit**, then **Numerical Setting**, then **Size**.
The **Size** dialog appears.



- ◆ To change the width and height proportionally, check **aspect**.
- ◆ Select the units (% or mm/inch) for the width and height.
- ◆ Either typing in a value or clicking the arrows to select the desired value can enter the width and height. Select **100%** to leave the pattern unchanged. If **aspect** is selected, changing one dimension automatically changes the other so the proportion of the width and height remains unchanged.
- ◆ Click **OK** to confirm.
- ◆ Click **Preview** to view the pattern at the new size in the Design Page.
- ◆ Click **Cancel** to exit without making any changes.

NOTE:

The maximum value that can be entered is the largest value that will not allow the pattern to exceed the size of the Design Page.

The minimum value is 1 mm (0.04 inch).

See also: “Select System Unit” on page 107

■ Numerical Setting-Rotate

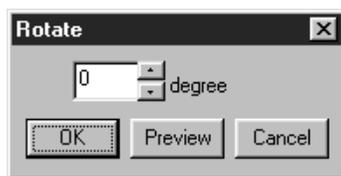
Purpose: Rotates the selected pattern numerically.

Shortcut key: No shortcut key for this function.

Toolbar: No button for this function.

Operation:

- ❶ Select one or more patterns. (Stage 3 only)
- ❷ Click **Edit**, then **Numerical Setting**, then **Rotate**. The **Rotate** dialog appears.



- ◆ The desired rotation angle can be entered by either typing in a value or clicking the arrows to select the desired value. Select **0 degree** to leave the pattern unchanged.
- ◆ Click **OK** to confirm.
- ◆ Click **Preview** to view the pattern rotated the specified angle in the Design Page.
- ◆ Click **Cancel** to exit without making any changes.

NOTE:

The range of values that can be entered is between 0 and 359 degrees, in 1-degree increments.

■ Select All

Purpose: Selects all the data.

Shortcut key: **Ctrl** + **E**

Toolbar: No button for this function

Operation:

- ❶ Click **Edit**, then **Select All** (Stage 3 only).

Sew Menu

The **Sew** menu allows you to control the way the pattern will be sewn.

Sewing Attributes	Sets the sewing attributes for outlines and regions.	page 96
Sewing Order	Allows you to check and modify the sewing order of the different colors of a pattern as well as the sewing order of each color individually.	page 100

Sewing Attributes

Purpose: Sets the sewing attributes for outlines and regions.

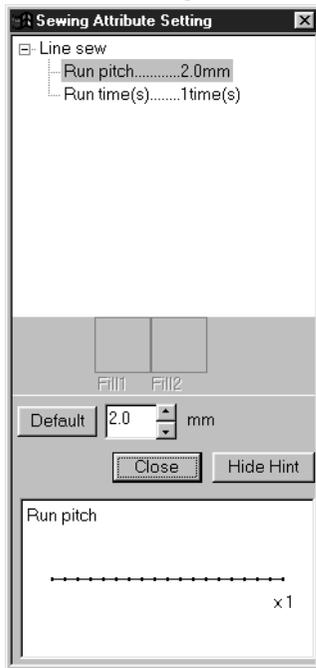
Shortcut key: **Ctrl** + **W**

Toolbar: 

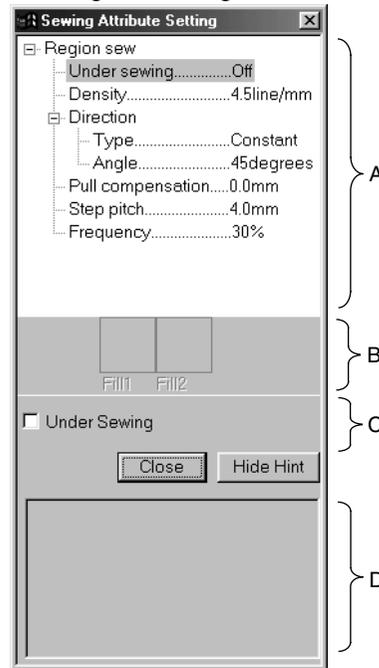
Operation:

- Click **Sew**, then **Sewing Attribute**.
A Sewing Attribute dialog similar to this will display.
You can freely change the size of this dialog.

For Line Sewing Mode



For Region Sewing Mode



- ◆ Select the item you want to change or set in the Sewing attribute display area (A), then enter the change or setting in the Edit box (C)
- ◆ The method for entering the setting varies according to the item. If entering numerical values, you can click on the arrow buttons to select values or enter the values directly. If the Default button is displayed in the Edit box (C), click the button to apply the Default setting to the selected item.
- ◆ When in Line Sewing Mode, click on the outline to apply the contents of the settings to the outline. When in Region Sewing Mode, click on the region to apply the contents of the settings to the region.
- ◆ Click **Close** to exit.
- ◆ Click Show Hint/Hide Hint to turn the hint image display on or off (D).

When in Line Sewing Mode, only Line sewing items are displayed. When in Region Sewing Mode, only Region sewing items are displayed.

- A: Sewing attribute display area: Displays the present settings for each of the sewing attributes.
- B: Selected pattern display area: When a pattern for Programmable Fill or Motif sewing is selected, that pattern is displayed.
- C: Edit box: Displays the setting values to be changed for the item selected in the Sewing attribute display area.
- D: Hint image display area: When set to display a hint, a hint image showing the settings in the edit box is displayed.

Line sewing attribute

Setting items according to the selected stitch

Zigzag stitch

- Line sewing
 - └ Zigzag width
 - └ Density

Running stitch

- Line sewing
 - └ Run pitch
 - └ Run times

Zigzag width	Sets the width of the zigzag. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)
Density	Sets the number of lines per mm (inch). Range: 1 - 7 lines per mm (25 - 178 lines per inch) Default: 4.5 lines per mm (114 lines per inch)
Run pitch	Sets the pitch of the line sewing. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)
Run times	Sets the number of times the border will be sewn. Range: 2, 4, 6 Default: 2

Region sewing attribute

Setting items according to the selected stitch

Satin stitch

- Region sewing
 - └ Under sewing
 - └ Density
 - └ Direction
 - └ Type
 - └ Angle
 - └ Pull compensation

Fill stitch

- Region sewing
 - └ Under sewing
 - └ Density
 - └ Direction
 - └ Type
 - └ Angle
 - └ Pull compensation
 - └ Step pitch
 - └ Frequency

Programmable fill

- Region sewing
 - └ Under sewing
 - └ Density
 - └ Direction
 - └ Type
 - └ Angle
 - └ Pull compensation
 - └ Programmable Fill
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ Offset
 - └ Direction
 - └ Value
 - └ Direction

Motif stitch

- Region sewing
 - └ Motif
 - └ Use Pattern
 - └ Pattern1
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ H-Arrange
 - └ V-Arrange
 - └ Pattern2
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ H-Arrange
 - └ V-Arrange
 - └ Row offset
 - └ Direction
 - └ Run pitch

Cross stitch

- └ Size
- └ Times

Under Sewing	Sets Under Sewing on/off. Try to use Under Sewing for wide areas, in order to prevent shrinking during stitching. Depending on the shape of the region, however, it may not be possible to make this setting. On: Under Sewing will be done Off: Under Sewing will not be done
Density	Sets the number of lines per mm. Range: 1 - 7 lines per mm (25 - 178 lines per inch) Default: 4.5 lines per mm (114 lines per inch)

Direction	Type	Specifies the type of sewing direction. Constant: Sews at a fixed angle. The angle is specified by the Angle setting. Variable: Varies the sewing direction according to the object being sewn.
	Angle	Specifies the sewing angle. (If Variable is selected as the Type setting, this setting is not available.) Range: 0 - 179 degrees Default: 45 degrees
Pull Compensation	Lengthens the sewing region in the stitch pattern's sewing direction to prevent pattern shrinkage during sewing. Range: 0 - 2 mm (0.00 - 0.08 inch) Default: 0 mm (0.00 inch)	

Fill stitch only:

Step Pitch	Sets the pitch of the steps. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 4.0 mm (0.16 inch)	Step pitch 
Frequency	Sets the spacial frequency steps. Range: 0 - 99% Default: 30%	0%  30% 

Programmable fill stitch only:

Pattern	Select a pattern for Programmable Fill Stitch. Click Select Pattern , and the Browse dialog opens. Select the folder containing the pas file you want to open. Scroll through the available stitch patterns and double-click the desired pattern or click OK to select the pattern.	
Pattern Size	Width	Sets the stitch pattern width. Range: 5 - 10 mm (0.20 - 0.39 inch) Default: 7.5 mm (0.30 inch)
	Height	Sets the stitch pattern height. Range: 5 - 10 mm (0.20 - 0.39 inch) Default: 7.5 mm (0.30 inch)
Offset	Direction	Sets the offset arrangement of the pattern, and sets the direction of offset as Row/Column.
	Value	When the pattern's arrangement is offset, sets the amount of offset. Range: 0 - 99% Default: 0%
Pattern Direction	Allows you to rotate the angle of the stitch patterns. Range: 0 - 359 degrees Default: 0 degrees	

Motif stitch only:

Use Pattern		Selects whether to use pattern 1 or pattern 2 for Motif. If you choose to use both patterns, the data is created so that sewing is alternated between them after each row. Pattern1 only: Uses only pattern 1 (Default) Pattern2 only: Uses only pattern 2 Pattern1 and 2: Uses pattern 1 and pattern 2
Pattern		Select a pattern for Motif sewing. Click Select Pattern , and the Browse dialog will display. Select the folder containing the pmf file you want to open. Scroll through the available stitch patterns and double-click the desired pattern or click OK to select the pattern
Pattern Size	Width	Sets the pattern width (the direction along the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)
	Height	Sets the pattern height (the direction perpendicular to the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)
H-Arrange (Horizontal Arrange)		Sets the horizontal arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown to the right. Normal:  Mirror:  Alternate: 
V-Arrange (Vertical Arrange)		Sets the vertical arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown to the right. Normal:  Mirror:  Alternate: 
Row Offset		When the pattern arrangement is offset, sets the amount of offset for each row. Range: 0 - 10 mm (0.00 - 0.39 inch) Default: 0 mm (0.00 inch)
Direction		Allows you to rotate the angle of the Motif patterns. Range: 0 - 359 degrees Default: 0 degrees
Run Pitch		Sets the pitch of the sewing. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)

Cross stitch only:

Size		Sets the horizontal and vertical size of the pattern. Range: 1.5 - 5 mm (0.06 - 0.20 inch) Default: 2.5 mm (0.10 inch)
Times		Sets the number of times that the pattern will be sewn. Sews twice per time. Range: Single, Double, Triple Default: Single

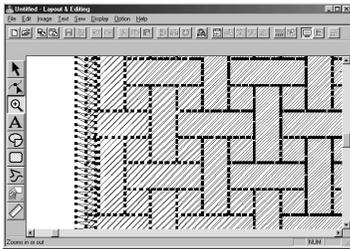
Note on the Programmable Fill Stitch:

When setting the stitch and pattern directions of a programmable stitch, take note that whenever the stitch and pattern direction settings cause the stitch to be sewn in the same direction as a line in a stitch pattern, that line will not be sewn.

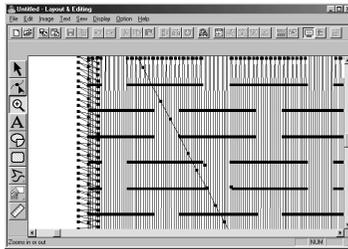
Use the preview function of your application to view exactly how your stitch pattern will be sewn and set the stitch direction and pattern direction according to the selected stitch or to the effect that you want to produce. To get an even better view, make test samples of different settings.

Example of a programmable fill stitch:

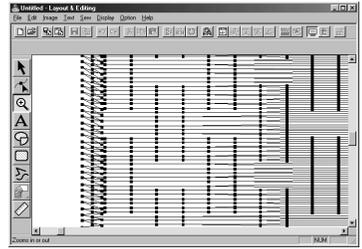
Example 1:
Stitch direction: Default: 45°



Example 2:
Stitch direction: 90°



Example 3:
Stitch direction: 0°



See also: "Preview" on page 104, "Programmable Stitch Creator" on page 233

■ Sewing Order

Purpose: Allows you to check and modify the sewing order of the different colors of a pattern as well as the sewing order of each color individually.

Shortcut key: **F10**

Toolbar:

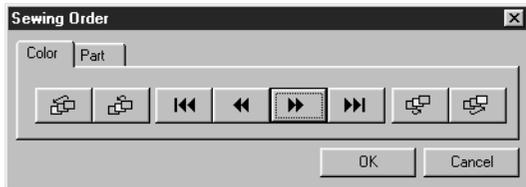


Operation:

1 Click **Sew**, then **Sewing Order**.

The **Sewing Order** dialog opens and displays the **Color** tab. The embroidery pattern is grayed.

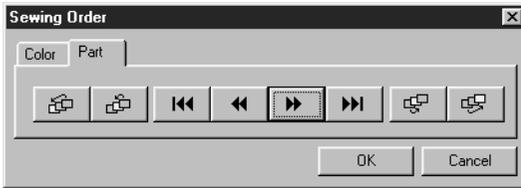
- 2 To check and review the sewing order of the different colors of a pattern:
Make sure the **Color** tab is displayed.



- ◆ Click . The color that will be sewn first displays.
- ◆ Click or to review the colors that will be sewn between the first and last.
 - *As you click , , , or , the corresponding colors display.*
- ◆ Click to see the color that will be sewn last.
- ◆ Click if you want the selected color to be sewn last.
- ◆ Click if you want the selected color to be sewn first.
- ◆ Click to move the selected color back one spot in the sewing order.
- ◆ Click to move the selected color forward one spot in the sewing order.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

- 3 To check and review the sewing order of the parts of the same color, select a color in the **Color** tab, then click the **Part** tab.

The parts to which you attributed the selected color are displayed in gray.



- ◆ Click . The part that will be sewn first displays.
- ◆ Click or to review the parts that will be sewn between the first and last.
- *As you click , , , or , the corresponding parts display.*
- ◆ Click to see the part that will be sewn last.
- ◆ Click if you want the selected part to be sewn last.
- ◆ Click if you want the selected part to be sewn first.
- ◆ Click to move the selected part one spot back in the sewing order.
- ◆ Click to move the selected part one spot forward in the sewing order.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

Note that all inside regions are always sewn before the outlines. If you set an outline to be sewn first, it will be the first outline to be sewn, but will still be sewn after all inside regions.

See also: "Preview" on page 104

Display Menu

The Display menu lets you modify the appearance of the screen.

Grid Setup	Allows you to set up the grid, to switch it on or off and to display it with or without the horizontal and vertical lines.	page 103
Preview	Displays a realistic image of how the patterns will look like when embroidered.	page 104
Refresh Window	Updates the screen.	page 104
Realistic Preview	Displays a realistic image of how either selected patterns or all patterns will look after being embroidered.	page 104
Realistic Preview Attribute Setting	Sets the preview attributes for Realistic Preview.	page 104
Toolbar	Turns the Toolbar on/off.	page 105
Status Bar	Turns the Status bar on/off.	page 105

■ Grid Setup

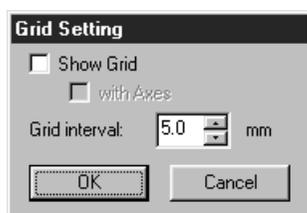
Purpose: Allows you to set up the grid, to switch it on or off and to display it with or without the horizontal and vertical lines.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Display**, then **Grid Setup** (Stage 3 only).
This dialog displays.



- 2 To set the grid interval, click the up and down arrows or type in the value.
Setting range: 1 - 10 mm (0.04 - 0.39 in)
Click **OK** to confirm or **Cancel** to exit.
- 3 To switch the grid on or off, click the **Show grid** check box.
The grid will display when the **Show grid** check box is checked.
- 4 To switch the horizontal and vertical lines of the grid on and off, click the **with Axes** check box.
The lines will display when the **with Axes** check box is checked.

NOTE:

When the **Show grid** check box is checked and the **with Axes** check box is not checked, only the intersection points of the grid will be displayed.

See also: "Select System Unit" on page 229

Preview

Purpose: Displays a realistic image of how the patterns will look like when embroidered.

Shortcut key: **F9**

Toolbar: 

Operation:

- 1 Click **Display**, then **Preview** (Stage 4 only).
A preview of your embroidery patterns will appear.
You cannot make any settings while previewing a pattern.
- 2 To return to the normal working screen, click **Display**, then **Preview** again or press the **Esc** key.

See also: "Sewing Order" on page 100

Refresh Window

Purpose: Updates the screen.

Shortcut key: **Ctrl** + **R**

Toolbar: No button for this function

Operation:

- 1 Click **Display**, then **Refresh Window**.
Use this function when the screen does not seem to update correctly.

Realistic Preview

Purpose: Displays a realistic image of how either selected patterns or all patterns will look after being embroidered.

Shortcut key: **Shift** + **F9**

Toolbar: 

Operation:

- 1 Click **Display**, then **Realistic Preview** (Stage 4 only).
The patterns on the Design Page are displayed realistically according to the settings in the **Realistic Preview Attribute Setting** dialog.
- 2 To return to the normal working screen, click **Display**, then **Realistic Preview** again or press the **Esc** key.

NOTE:

The Realistic Preview function cannot display a beautiful preview of the pattern if the monitor is set to 256 colors or less. The monitor should be set to at least 16-bit High Color (65536 colors).

See also: "Realistic Preview Attribute Setting" below

Realistic Preview Attribute Setting

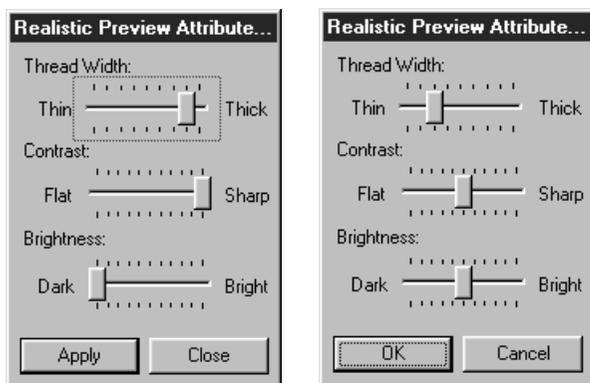
Purpose: Sets the preview attributes for Realistic Preview.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Display**, then **Realistic Preview Attribute Setting** (Stage 4 only).
The following dialog appears.



- ◆ Use **Thread Width** to set how wide the thread will appear.
- ◆ Use **Contrast** to set the contrast.
- ◆ Use **Brightness** to set how bright the display is.
- ◆ Click **Apply** to display a Realistic Preview of the patterns with the new settings. (When Realistic Preview is displayed)
Or, click **OK** to save the settings for the next time Realistic Preview is displayed. (When Realistic Preview is not displayed)
- ◆ Click **Close** or **Cancel** to exit.

See also: "Realistic Preview" on page 104

■ Toolbar

Purpose: Turns the Toolbar on/off.
Shortcut key: No shortcut key for this function
Toolbar: No button for this function
Operation:

- 1 Click **Display**, then **Toolbar**.
The Toolbar will be toggled on/off.

See also: "Status Bar" below

■ Status Bar

Purpose: Turns the Status bar on/off.
Shortcut key: No shortcut key for this function
Toolbar: No button for this function
Operation:

- 1 Click **Display**, then **Status bar**.
The Status bar will be toggled on/off.

See also: "Toolbar" above

Option Menu

The Option menu allows you to select the Design Page size and the unit system.

Layout & Editing	Starts Layout & Editing and displays its window up front.	page 106
Programmable Stitch Creator	Starts Programmable Stitch Creator and displays its window up front.	page 106
Design Page Property	Allows you to change the size of the Design Page and the color of the Design Page and the Design Page background.	page 106
Select System Unit	Allows you to select the system unit (mm or inch).	page 107

■ Layout & Editing

Purpose: Starts Layout & Editing and displays its window up front.

Shortcut key: **F5**

Toolbar: No button for this function

Operation:

① Click **Option**, then **Layout & Editing**.

Layout & Editing starts if its window wasn't open and if it was open, the window comes up front.

■ Programmable Stitch Creator

Purpose: Starts Programmable Stitch Creator and displays its window up front.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

① Click **Option**, then **Programmable Stitch Creator**.

Programmable Stitch Creator starts if its window wasn't open and if it was open, the window comes up front.

■ Design Page Property

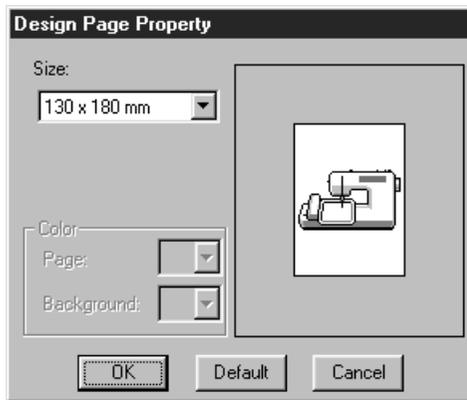
Purpose: Allows you to change the size of the Design Page and the color of the Design Page and the Design Page background.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

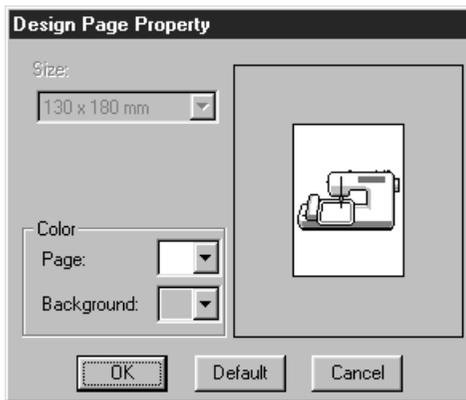
Operation:**1** Click **Option**, then **Design Page Property**.

At the Stage 3 only, the dialog will display as follows.



- ◆ Select the size by clicking its selector arrow, then by clicking the size. The preview area allows you to view the setting changes. The sewing machine picture shows the direction of the Design Page (frame) on the machine.
- ◆ Click **OK** to confirm.
- ◆ Click **Default** to go back to the default setting.
- ◆ Click **Cancel** to exit.

At the Stage 4 only, the dialog will display as follows.



- ◆ Select the Page color or the Background color by clicking its selector arrow, then by clicking the color. The preview window allows you to view the selected colors.
- ◆ Click **OK** to confirm.
- ◆ Click **Default** to go back to the default setting.
- ◆ Click **Cancel** to exit.

See also: "Select System Unit" below

Select System Unit

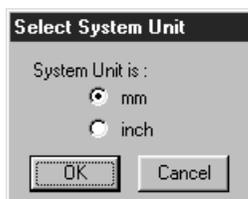
Purpose: Allows you to select the system unit (mm or inch).

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:**1** Click **Option**, then **Select System Unit**.

This dialog will display.



- ◆ Select the unit.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

Stage Menu

The **Stage** menu allows you to move from one stage to the next or previous one.

To Original Image	Moves back to Stage 1.	page 108
To Line Image	Moves to Stage 2.	page 108
To Figure Handle	Moves to Stage 3.	page 110
To Sew Setting	Moves from Stage 3 to Stage 4.	page 112

■ To Original Image

Purpose: Moves back to Stage 1.

Shortcut key: No shortcut key for this function

Toolbar:



Operation:

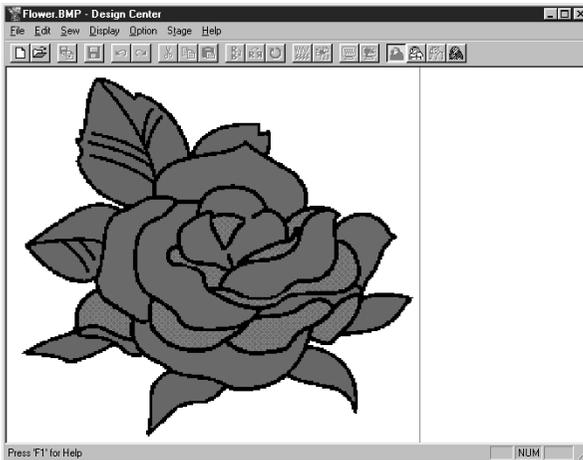
① Click **Stage**, then **To Original Image**.

You are back to Stage 1 (the original color image displays).

NOTE:

This function can only be used if there was image data in Stage 1 (if image data was opened, if image data was pasted from the clipboard, etc.)

If you have started with a new file (Stage 2), for example, the function is not enabled.



See also: "To Line Image" below, "To Figure Handle" on page 110, "To Sew Setting" on page 112

■ To Line Image

Purpose: Moves to Stage 2.

Shortcut key: No shortcut key for this function

Toolbar:



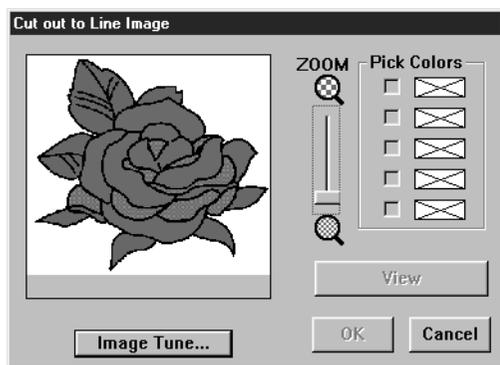
Operation:

① Click **Stage**, then **To Line Image**.

If you were in Stage 3, you are returned to Stage 2, except when you have modified the image in Stage 3. In that case, a message will ask you to confirm that you want to abandon the changes made in Stage 3.

NOTE:

If you started in Stage 3 by opening a Stage 3 file, you cannot go to Stage 2.

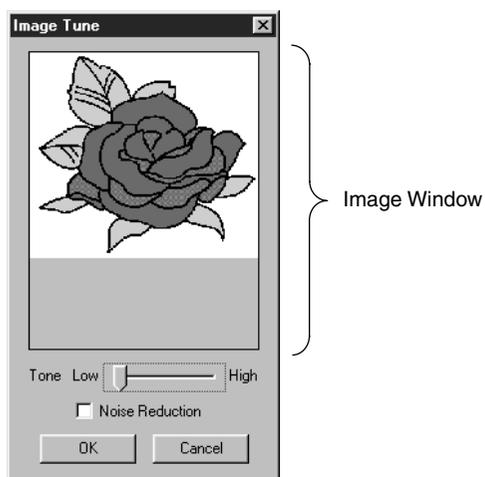


- ◆ If necessary, scroll and zoom the image.
- ◆ Select the color(s) that you want to convert into black. To do this, move the cursor over the image. The shape changes to . Click on a color. The color moves to the upper box under **Pick Colors** and a  appears in the check box to show that the color is on. You can repeat to select a total of five colors. If you try to select more, colors are scrolled down, and the color that was at the bottom is deselected.
 - If you selected a color by mistake, simply click its check box to deselect it.
- ◆ Click **View** to see the effect of your selection. You can repeat this step after clicking on the check boxes of the selected colors to toggle them on/off, or after selecting different colors.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

[Color Reduction function]

If you click the **Image Tune** button in the above dialog, a **Image Tune** dialog similar to this will display, and you can reduce the colors of the image data (posterize) or reduce the noise.

With this function, you can apply an even gradation to make the image smoother. You can use **Pick Colors** to select colors easily, even from image data that was taken from a scanner or other device, and does not have clear outlines.

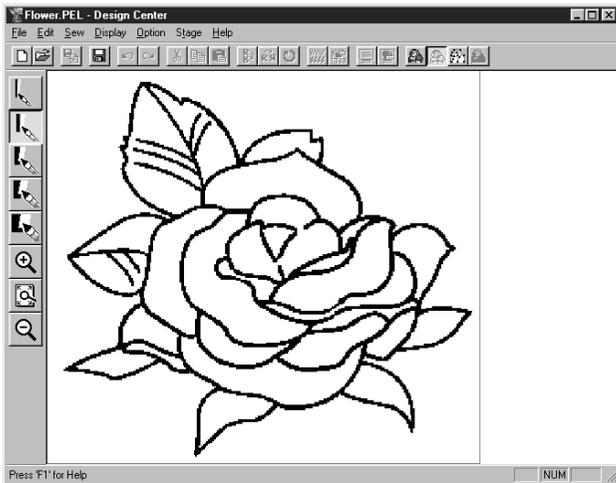


- ◆ Image Window displays the image resulting from the current operations.
- ◆ **Tone** sets the amount of color reduction (posterization). The right side (High) shows the original image. The farther to the left side (Low) the setting is made, the greater the amount of color reduction.
- ◆ If **Noise Reduction** is checked, the very small areas of noise are deleted.
- ◆ Click **OK** to show the finished image on the Design Page and on the Cut Out to Line Image dialog, and close the dialog. Before you open this dialog, the Pick Colors that were picked out in the Cut Out to Line Image dialog are reset.
- ◆ Click **Cancel** to close the dialog.

NOTE:

This operation is done so that the operations in the Cut Out to Line Image dialog can be done, so the image that results from these operations cannot be saved.

- 2 When you click **OK**, the black and white image is displayed and you are in Stage 2.



Note that all the colors that you selected and turned on are converted to black. It is recommended to select just as many colors as necessary to have a good outline of the image. In the above example, a single color was selected.

In Stage 2, you can edit the image using the pens and erasers and use the zooming tools.

Note that if you do not like the result, you can go back to Stage 1 and select different colors.

See also: "To Original Image" on page 108, "To Figure Handle" below and "To Sew Setting" on page 112

■ To Figure Handle

Purpose: Moves to Stage 3.

Shortcut key: No shortcut key for this function

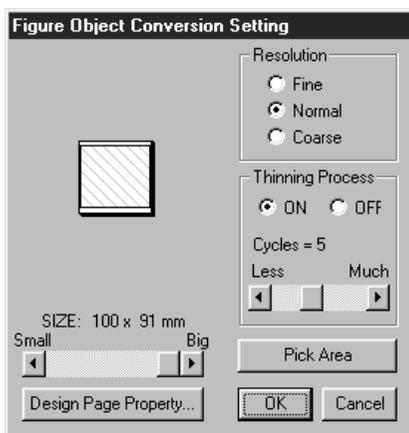
Toolbar: 

Operation:

- 1 Click **Stage**, then **To Figure Handle**.

If you were in Stage 4, a message warns you that you may lose some data if you go back to Stage 3. If you want to make sure no data is lost, click **Cancel** in that dialog and save your settings. Otherwise, click **OK** and you are returned to Stage 3.

If you were in Stage 2, this dialog displays.

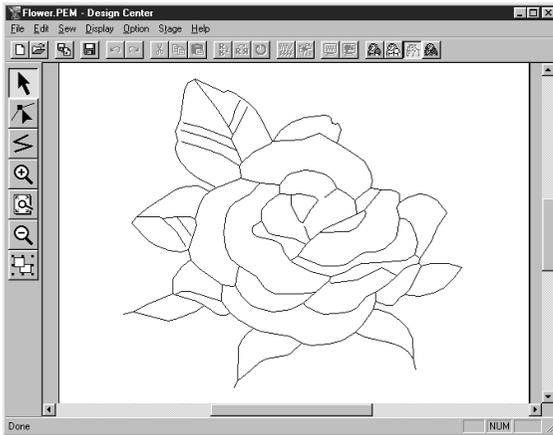


- ◆ Set the resolution. For details, see the following table.
- ◆ Set the thinning process. For details, see the following table.
- ◆ Set the size as a percentage of the original using the **SIZE** slider (setting range: 25% - 400 %). You will not be able to enlarge the image beyond the limits of the Design Page area. If necessary, set the Design Page size by clicking **Design Page Property** and selecting one of the two other Design Page sizes in the dialog that opens.
- *The preview window reflects the setting changes you make.*

- ◆ If necessary, click **Pick Area**. A cross-shaped cursor will appear. Select the desired area by moving the cursor across the image. You will return to this screen as soon as you release the mouse.
 - *The preview window reflects the setting changes you make.*
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

Resolution	<p>This setting determines how detailed the generated pattern image will be. Basically, the outline of the line image is converted into pieces of broken lines. To make a more detailed pattern, you need more points on the broken lines, which also increases the length of the file.</p> <p>In general, Normal provides a sufficient resolution without making the file too large. If Coarse gives a satisfactory result for a particular image, select Coarse in order to keep the file as small as possible.</p> <p>Select Fine only if the image contains many small details, and Normal does not give a satisfactory result.</p>
Thinning Process	<p>This setting determines how the black lines of the line image are converted into pattern lines.</p> <p>ON: the black lines are replaced with pattern lines following the center of the black lines. You can set the degree of detailedness with the slider (if the degree is high, even very thick black lines will be replaced with a center line).</p> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="margin: 0 10px; text-align: center;"> <p>ON</p>  </div>  </div> <p>OFF: the black lines are replaced with pattern lines following the border of the black lines.</p> <div style="display: flex; align-items: center;">  <div style="margin: 0 10px; text-align: center;"> <p>OFF</p>  </div>  </div>

2 When you click **OK**, the Figure Handle Image displays and you are in Stage 3.



In Stage 3, you can edit the patterns, by moving, deleting and inserting points and by drawing lines. Use the zooming tools available whenever you need to zoom your pattern.

See also: "To Original Image" and "To Line Image" on page 108, "To Sew Setting" below, "Grid Setup" on page 103 and "Design Page Property" on page 106

■ To Sew Setting

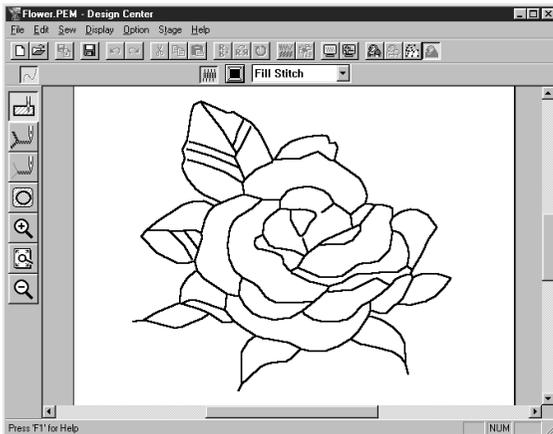
Purpose: Moves from Stage 3 to Stage 4.

Shortcut key: No shortcut key for this function

Toolbar: A screenshot of the software toolbar. The icon for 'To Sew Setting', which depicts a sewing needle and thread, is highlighted with a blue rectangular border.

Operation:

- 1 Click **Stage**, then **To Sew Setting**.
You are now in Stage 4.



You can set the sewing attributes. Use the zooming tools available whenever you need to scale your pattern.

See also: "To Original Image" and "To Line Image" on page 108 and "To Figure Handle" on page 110

Help Menu

The **Help** menu gives you access to the on-screen help information system.

Contents	Starts the on-screen help information for this application.	page 113
Customer Support	Opens the FAQ (Frequently Asked Questions) page in this company's Web site.	page 113
About Design Center	Gives information about the version of this application.	page 113

■ Contents

Purpose: Starts the on-screen help information for this application.

Shortcut key: **F1**

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **Contents**.
A table of contents of the on-screen help information displays.
- 2 Refer to your Windows manual for the next operation.

See also: "About Design Center" below

■ Customer support

Purpose: Opens the **FAQ** (Frequently Asked Questions) page in this company's Web site.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **Customer support** from the menu.
- 2 The browser installed in the computer will start, and open the FAQ page of this company's Web site.

NOTE:

This function cannot be used if there is no Internet browser correctly installed in the computer.

■ About Design Center

Purpose: Gives information about the version of this application.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **About Design Center**.
A dialog will display.
- 2 Click **OK** to remove it.

See also: "Contents" above

Contents

Before Using

Getting Started

Design Center

Layout & Editing

Programmable
Stitch Creator

Quick Reference

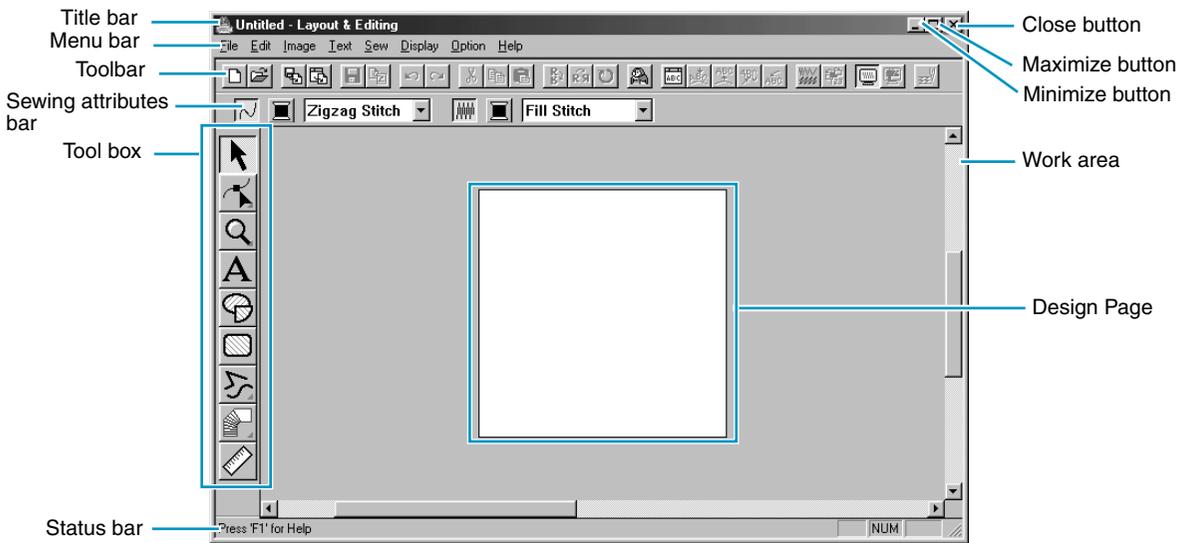
Alphabetic Index

Layout & Editing

Layout & Editing is used to assemble an embroidery Design Page from different elements. The most complex elements are created with Design Center and imported in the Design Page. You can then add text, boxes, circles, broken lines, curves and manual punching patterns. You can move all the patterns to obtain the best layout, and define sewing attributes (thread color and stitch type, including a stitch pattern created by Programmable Stitch Creator) for the different components of your Design Page.

When you have finished, you can save your work on your hard disk, print it, and transfer it to a card. The card can be inserted in your sewing machine to automatically embroider your creation.

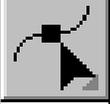
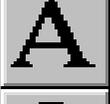
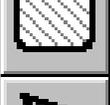
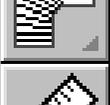
The Screen



Menu bar	Gives access to the functions.
Toolbar	Shortcut for the menu functions.
Sewing attribute bar	Sets the sewing attributes (color, stitch) of the patterns.
Tool box	Used to select and create patterns.
Status bar	Provides short information.
Design Page	The actual part of the work area that can be saved and sewn.

Using the Tool Box

Patterns are created and edited using the Tool Box and the Sewing Attributes bar. Clicking a button of the Tool Box changes the cursor mode and shape. The left side of the Status bar tells you what you can do in each cursor mode.

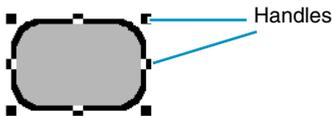
	Sets the cursor in selection mode. When you start the application, the selection mode is active by default. Cursor shape: 	page 117
	Sets the cursor in point edit mode. Cursor shape: 	page 120
	Sets the cursor in zoom mode. Cursor shape:  or 	page 125
	Sets the cursor in text input mode. Cursor shape: 	page 127
	Sets the cursor in circle and arc drawing mode. Cursor shape:  with a miniature of the tool button	page 129
	Sets the cursor in rectangle drawing mode. Cursor shape:  with a miniature of the tool button	page 131
	Sets the cursor in outline drawing mode. Cursor shape:  with a miniature of the tool button	page 132
	Sets the cursor in manual punching mode. Cursor shape:  with a miniature of the tool button	page 133
	Sets the cursor in measure mode. Cursor shape:  with a miniature of the tool button	page 135

Selection Mode

To apply settings to an existing pattern, you must first select it. The cursor selection mode is used to select one or more patterns. Once a pattern is selected, you can move it, scale it, and change its direction by rotating it or inverting it.

Selecting patterns

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the pattern that you want to select.
You know that the object is selected when handles are displayed.



The Status bar shows the dimensions (width and height) of the selection.

- 3 To deselect the pattern, select another one, click on the white space or click another tool button of the Tool Box.
- 4 To select an additional pattern, click that pattern while holding the **Ctrl** key down.
Note that you can also select patterns by dragging the cursor across the Design Page. As you drag, a dotted rectangle appears. When you release the mouse button, all patterns that overlap that rectangle will be selected.
If you select other patterns than you wanted to, click on the white space to deselect all, and start again.

Selecting patterns 2

With  is selected, press the **Tab** key to select the next object in the sewing order. Hold down the **Shift** key and press the **Tab** key to select the previous object in the sewing order.

If the **Tab** key (or the **Shift** and **Tab** keys) are pressed:

- and no object is selected, the first object (or the last object) in the sewing order becomes selected.
- and multiple objects are selected, all objects become deselected except the soonest (or latest) object within the sewing order.
- and the last (or first) object in the sewing order is selected, the first (or last) object in the sewing order becomes selected.

Moving patterns

- 1 Move the cursor over a selected pattern or group of selected patterns.

The shape of the cursor will change to .

- 2 You can now drag the pattern to another location.

Holding down the **Shift** key while dragging the pattern moves the pattern horizontally or vertically.

NOTE:

By pressing the arrow keys, the selected pattern can be moved 0.5 mm (about 0.02 inch) to the left, right, up or down.

- *If **Snap to Grid** is selected, each press of an arrow key moves the pattern 1 grid mark in the specified direction.*

- *The arrow keys cannot be used to move text on a path if just the text is selected. The path must also be selected in order to move using the arrow keys.*

■ Scaling patterns

- 1 Move the cursor over one of the handles of a selected pattern or group of selected patterns.

The shape of the cursor will change to , ,  or , depending on the handle the cursor is on.

- 2 Drag the handle in the direction of the arrow to scale the pattern.

 is for scaling the width.

 is for scaling the height.

 and  are for scaling both dimensions at the same time.

As you drag the handle, you can check the changing size on the Status bar.

Note that some patterns imported from cards cannot be scaled.

When you scale imported patterns, the number of stitches remain the same, resulting in a quality loss. To maintain the quality of the embroidery, you need to adjust the number of stitches after scaling the pattern. This can be done in the **Stitch to Block Sensitivity** dialog, which you open by selecting the **Sew – Stitch to Block** command. For more information on how to select this function, see “Stitch to Block” on page 213.

■ Flipping a pattern horizontally or vertically

- 1 Select the data that you wish to flip horizontally or vertically. The buttons below become active.



- 2 To flip horizontally, select the command **Edit – Mirror – Horizontal** or click  on the Toolbar.

To flip vertically, select the command **Edit – Mirror – Vertical** or click  on the Toolbar.

NOTE:

Images imported from embroidery cards cannot be flipped if they were designed with the mirror function turned off.

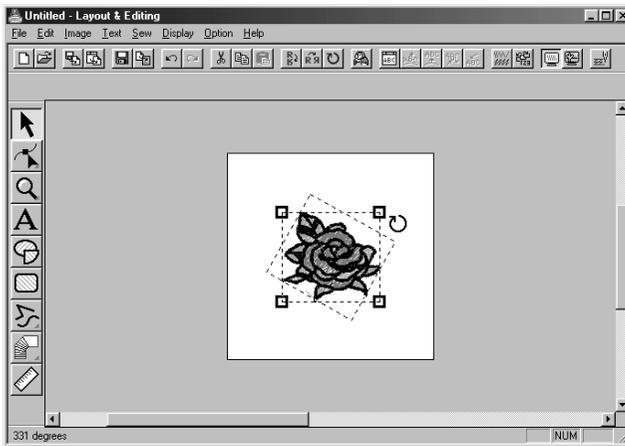
Rotating a pattern

- 1 Select the data that you wish to rotate. The button below becomes active.



- 2 Select the menu command **Edit – Rotate** or click  on the Toolbar. The handles around the selected pattern are replaced by smaller boxes on the four corners of the selected area.
- 3 To rotate the pattern, move the cursor on one of the four rotation handles.

The shape of the cursor changes to  as soon as your cursor touches a rotation handle. Click on a rotation handle and a lined box appears around the selected the pattern. Rotate the pattern clockwise or counterclockwise by dragging the mouse. A simple dragging of the mouse will rotate the pattern by 1° increments. Pressing the **Shift** key will rotate it by 15° increments.



Point Edit Mode

The point edit mode is used to:

- ◆ move a point of a broken line, a curve, an arc, fan shape and arc & string or of a manual punching pattern;
- ◆ reorient the tangent to a point of a curve;
- ◆ insert a new point in a broken line, curve or manual punching pattern;
- ◆ delete a point in a broken line, curve or manual punching pattern;
- ◆ realign the part of a broken line or a curve on both sides of a point;
- ◆ select and set a character in a text pattern.
- ◆ move, insert or delete stitch data of a stitch object
- ◆ edit the entry points and exit points of stitching for a shape object

Moving points

1 Click  on the Tool Box.

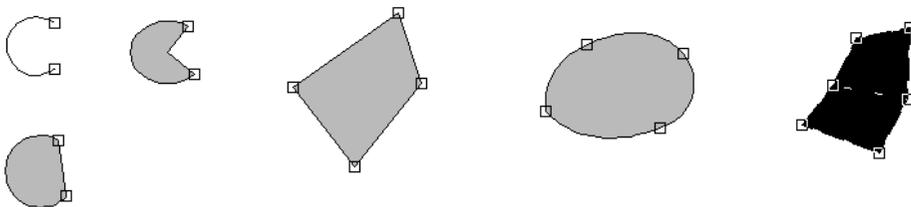
Three buttons appear: .

2 Click . The shape of the cursor changes to .

3 Click the pattern that you want to edit.

The pattern can be a broken line, a curve, an arc, a fan shape, an arc & string or a manual punching pattern.

The existing points of the pattern are marked with small empty squares



4 Click the point that you want to move.

The selected point is marked with a small black square.

You can select more than one point by clicking them while holding the **Ctrl** key down, or by dragging the mouse across the area.

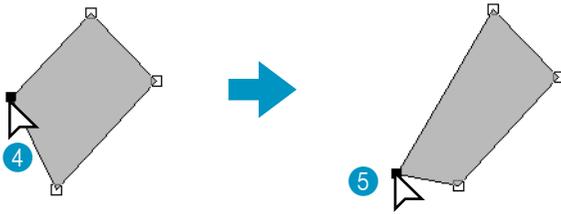
NOTE:

If you click on the line of the pattern instead of a square, a new point is inserted.

5 Drag the point to a new position.

All the selected points move in the same direction if more than one is selected. The point remains selected, so that you can drag it again.

Holding down the **Shift** key while dragging the point moves the point horizontally or vertically.



Note that you must drag a point that is selected. If you start dragging by clicking elsewhere on the outline, a new point will be inserted or the selected point(s) will be deselected.

NOTE:

By pressing the arrow keys, the selected point can be moved 0.5 mm (about 0.02 inch) to the left, right, up or down.

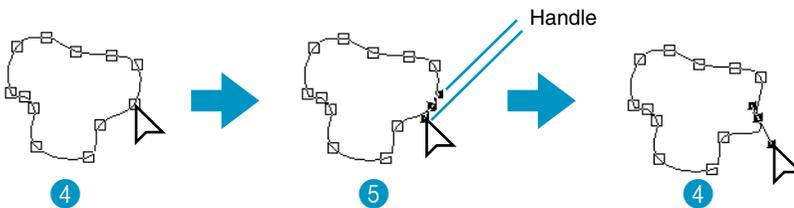
- *If Snap to Grid is selected, each press of an arrow key moves the point 1 grid mark in the specified direction.*
- *The arrow keys cannot be used to move the endpoints of an arc or text on a path if just the text is selected.*

■ Reorienting a tangent to a point

- 1 Click  on the Tool Box.

Three buttons appear: .

- 2 Click . The shape of the cursor changes to .
- 3 Click the pattern that you want to edit.
The pattern can only be a curve.
The existing points of the pattern are marked with small empty squares.
- 4 Click the point at which you want to reorient the tangent to the curve.
The selected point is marked with a small black square and a control handle.
- 5 Click on one end of the handle and drag it without releasing the mouse.



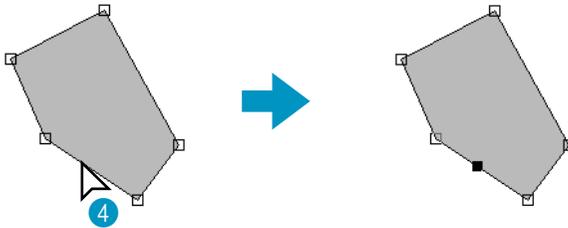
■ Inserting points

- 1 Click  on the Tool Box.

Three buttons appear: .

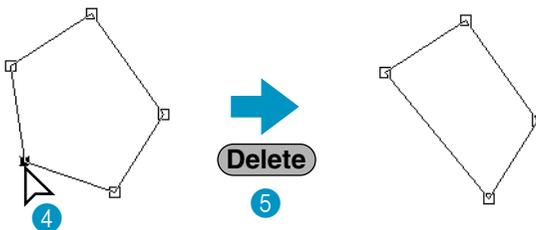
- 2 Click . The shape of the cursor changes to .

- 3 Click the pattern that you want to edit.
The pattern can be a broken line, a curve or a manual punching pattern.
The existing points of the pattern are marked with small empty squares.
- 4 Click at a point of the contour other than an existing point.
A new point appears and is automatically selected (marked with a small black square and in the case of a curve, with a control handle).
When a manual punching pattern is selected, a pair of new points is inserted.
The new point can be immediately moved. In the case of a new point on a curve, you can also use the handle to reorient the tangent to the new point.



■ Deleting points

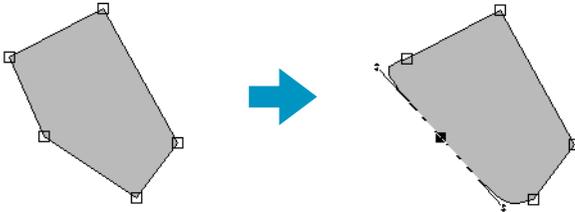
- 1 Click  on the Tool Box.
Three buttons appear: .
- 2 Click . The shape of the cursor changes to .
- 3 Click the pattern that you want to edit.
The pattern can be a broken line, a curve or a manual punching pattern.
The existing points of the pattern are marked with small empty squares.
- 4 Click the point that you want to delete.
The selected point is now marked with a small black square.
You can select more than one point by clicking them while holding the **Ctrl** key down, or by dragging the mouse across the area.
- 5 Press the **Delete** key to remove the point from the path. When a manual punching pattern is selected, a pair of points is deleted.



■ Realigning

- 1 Click  on the Tool Box.
Three buttons appear: .

- 2 Click . The shape of the cursor changes to  and displays together with a small image of the Tool Box button.
- 3 Click the pattern that you want to edit.
The pattern can be a broken line or a curve.
The existing points of the pattern are marked with small empty squares.
- 4 Click the point that you want to realign.
If the point was on a curved part, it is now on a broken line and vice versa.



NOTE:

When the point is on a curved part, you can use the handle to reorient the tangent (see “Reorienting a tangent to a point” on page 121).

Selecting characters on a text pattern

- 1 Click  on the Tool Box.
Three buttons appear: .
- 2 Click . The shape of the cursor changes to .
- 3 Click the text pattern that you want to edit.
The existing points of the text are marked with small empty squares.
- 4 Click the square of the character that you want to select.
If you want to select more than one character, hold the **Ctrl** key while clicking other squares or drag the cursor across.
The selected characters are marked with black squares.
- 5 When some characters of a text pattern are selected, you can apply a font, size, color, stitch and other attributes different from the rest of the text pattern.



Editing stitch data of a stitch object

- 1 Click  on the Tool Box.
Three buttons appear: .
- 2 Click . The shape of the cursor changes to .

- 3 Click the stitch object that you want to edit.

The existing stitch data in the stitch object are marked with small empty squares.

NOTE:

Stitch objects are patterns surrounded with a dotted line.

*If the shape object is not surrounded with a dotted line, it cannot be edited. Select the menu command **Sew – Convert to Stitch** to convert the pattern to a stitch object.*

- 4 Selecting stitch points

Click the points that you want to select, or drag the cursor across them.

The selected points are marked with black squares.

Other selection methods

- Select more points by holding down the **Ctrl** key while clicking the additional points or by dragging the cursor across the area.
- If the **Shift** key is held down while another point is clicked, all points between the two selected points (within the stitching order) are selected.
- Hold down the **Shift** key and press the → or ↓ key to select additional points in the sewing direction from the current point, or hold down the **Shift** key and press the ← or ↑ key to select additional points in the opposite direction of sewing from the current point.
- Hold down the **Ctrl** key and press the → or ↓ key to move the selection in the sewing direction, or hold down the **Ctrl** key and press the ← or ↑ key to move the selection in the opposite direction of sewing.
- Press the **Tab** key to select all points in the next color. Hold down the **Shift** key and press the **Tab** key to select all points in the previous color.

Moving stitch points

The selected points can be dragged to the new position.

If the **Shift** key is held down while the points are dragged, the selection can only be moved horizontally or vertically.

If the ←, ↑, ↓ or → key is pressed, the selection is moved in the corresponding direction by 0.1 mm.

Inserting stitch points

Click on a line between two points to add a new point at that position.

Deleting stitch points

Press the **Delete** key to delete the selected point.

Editing entry/exit points of a shape object

- 1 Click  on the Tool Box.

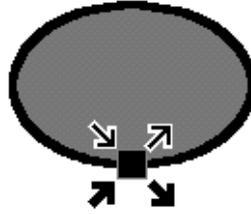
Three buttons appear: .

- 2 Click . The shape of the cursor changes to  and displays together with a small image of the Tool Box button.

NOTE:

*If a check mark appears in front of the **Optimize Entry/Exit points** setting on the Sew menu (the setting is turned on), this button cannot be selected. To use this tool to manually edit the entry and exit points, turn off the **Optimize Entry/Exit points** setting.*

- 3 Click the shape object that you want to edit.
The entry points and the exit points of the shape object appear as shown below.

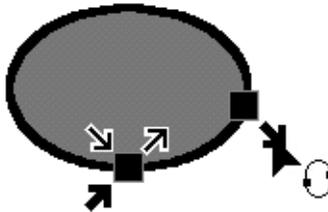


The symbols representing the four overlapping points shown above are described below:

- : This is the entry point for sewing the outlines. The previous pattern is connected to this point.
- : This is the exit point for sewing the outlines. From this point, sewing continues to the next pattern.
- : This is the entry point for sewing the inside regions. The previous pattern is connected to this point.
- : This is the exit point for sewing the inside regions. From this point, sewing continues to the next pattern.

If the outlines or the inside regions are not set to be sewn, the corresponding point does not appear.

- 4 Drag the arrow mark for the point that you want to edit along the outline to the desired position.



Continue this step until all points are moved to the desired positions.

NOTE:

- *Shape objects that can be edited in this way are data created with the Circle, Rectangle and Outline tools. Objects created with the Text or Manual punch tools cannot be edited.*
- *If the **Optimize Entry/Exit points** setting on the Sew menu is turned on, all manual adjustments of the entry points and exit points will be lost, and the points will be automatically optimized.*

Zoom Mode

The zoom mode is used to control the scale of the display. You can zoom in to work on details of a pattern with higher precision and you can zoom out again to see and work on parts of your Design Page that is hidden.

Zooming in

- 1 Click .

Five buttons appear:     .

- 2 Click .

The shape of the cursor changes to .

- 3 Drag the cursor across the area that you want to enlarge.
The area is enlarged as soon as you release the mouse. You can repeat the entire operation.

Zooming out

- 1 Click .

Five buttons appear: .

- 2 Click .

The shape of the cursor changes to .

- 3 Click a point of the Design Page where you want to do the next work.
The image shrinks toward that point.
You can repeat this step until the image has returned to its normal size.

Zooming to the real size

- 1 Click .

Five buttons appear: .

- 2 Click .

Your Design Page now appears in (almost) real size.

Enlarging selected objects to the screen size

- 1 Select one or more patterns.

- 2 Click .

Five buttons appear: .

- 3 Click .

The selected objects now occupy all the available space on the screen.

Return to the standard scale

- 1 Click .

Five buttons appear: .

- 2 Click .

The Design Page is zoomed in or out to return to the standard scale.

Text Input Mode

The text input mode is used to enter strings of text in your Design Page. You can enter accented characters for European languages, that are not directly available on your keyboard. The basic settings for the text strings include font and size.

■ Entering text

- 1 Click  on the Tool Box.

The shape of the cursor changes to . The Sewing Attributes bar now looks like this:

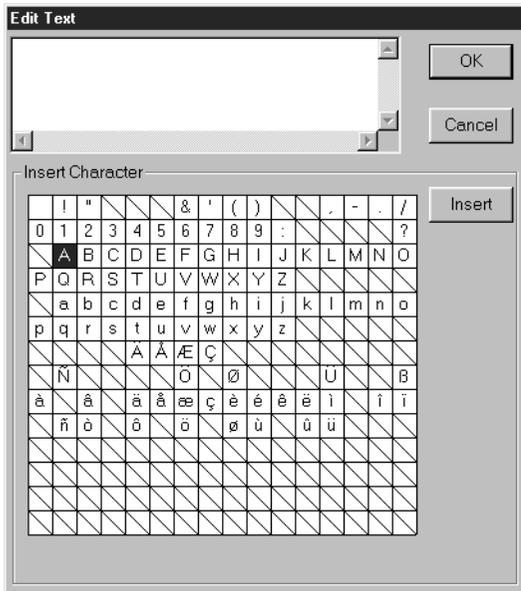


You can select a color, a font and a size at this step or after creating the pattern.

See “Color” on page 144, “Font” on page 138 and “Text size” on page 140.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204) and the text attributes using the **Text** menu (see “Text Attribute Setting” on page 198).

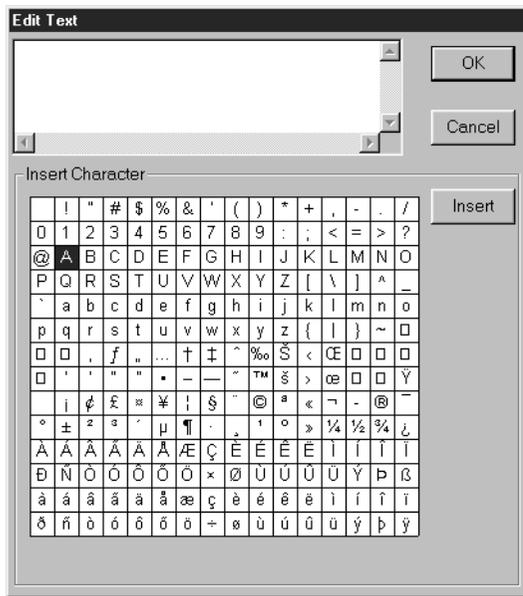
- 2 Click at a point where you want the text to appear.
The **Edit Text** dialog displays.



- ◆ Type your text. Press the **Enter** key to enter new lines of text.
- ◆ You can also enter a character by clicking it on the character table, then clicking **Insert** or simply by double-clicking it. This is specially useful if you have to enter accented characters that are not available on your keyboard.
- ◆ Click **OK** to confirm. Your text opens on the Design Page.
- ◆ Click **Cancel** to exit.
- *If a character that you entered is not available for the selected font, a warning message displays. Click **OK** in that dialog to close it and to return to the **Edit Text** dialog where you can correct your text.*

(If a TrueType Font is selected)

If a TrueType Font is selected, a dialog similar to the one shown below will appear.



Based on the set attributes, all characters for the selected font appear in the **Insert Character** chart. Enter characters in the same way that you would enter characters with a built-in font (as explained above).

NOTE:

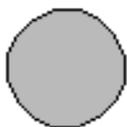
With some TrueType fonts, the text cannot be converted correctly into embroidery data due to the shape of the design or the text cannot be embroidered correctly. Before sewing your project, embroider a trial piece of fabric. In addition, text of some TrueType fonts cannot be converted. In this case, the area containing the converted text will be empty or a message warning that the text cannot be converted will appear.

NOTE:

*If you need to edit the entered text, you can do so in the **Edit Text** dialog which opens when you execute the **Text – Edit Text Letters** command. See “Edit Text Letters” on page 197.*

Circle and Arc Drawing Mode

The circle or arc drawing mode allows you to create several patterns related to the circle: normal circles (or ellipses), arcs, fan shapes and arc & strings.



Circle



Ellipse



Arc



Fan shape



Arc & string

All these patterns, except arcs have an outline and a region inside can independently be assigned different sewing attributes. Arcs are simple outlines.

Note that you have to decide which pattern type you want to draw before drawing it. You cannot, for example, draw a normal circle and change it into an arc afterwards.

Drawing a circle or an ellipse

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small ellipse. The Sewing Attributes bar now looks like this:



You can select the colors and stitches at this step or after creating the pattern. See “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

You must decide now which kind of circle-related graphic you need.

- 2 Click the **Arc shape** selector, then click **Circle**.
- 3 Move the mouse to a point, click and drag the mouse.

The point where you start dragging is considered a corner of an imaginary rectangle. The point where you release the mouse will be the diagonally opposed point of the rectangle. The ellipse will fit inside the imaginary rectangle (its great axis equal to the larger edge of the rectangle, and its small axis equal to the smaller edge).

Note that you can draw a perfect circle by holding the **Shift** key down while dragging the mouse.

Drawing an arc

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small ellipse. The Sewing Attributes bar now looks like this:

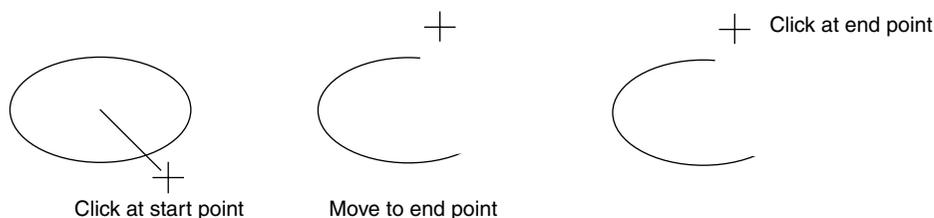


You can select the colors and stitches at this step or after creating the pattern. See “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

You must decide now which kind of circle-related graphic you need.

- 2 Click the **Arc shape** selector, then click **Arc**.
- 3 Proceed as you would to draw a circle or an ellipse.
When you release the mouse, a radial line appears on the ellipse.
- 4 Move the cursor (without dragging) to the start point of the arc and click.
The radial line disappears.
- 5 Move the cursor (without dragging) to the end point of the arc and click.



Drawing a fan shape

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small ellipse. The Sewing Attributes bar now looks like this:



You can select the colors and stitches at this step or after creating the pattern. See “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204). You must decide now which kind of circle-related graphic you need.

- 2 Click the **Arc shape** selector, then click **Fan shape**.



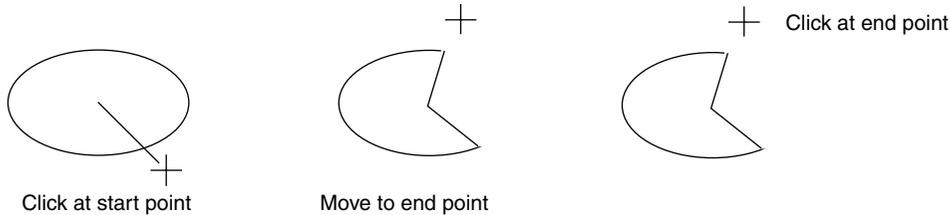
- 3 Proceed as you would to draw a circle or an ellipse.

When you release the mouse, a radial line appears on the ellipse.

- 4 Move the cursor (without dragging) to the start point of the fan shape and click.

The radial line disappears.

- 5 Move the cursor (without dragging) to the end point of the fan shape and click.



Drawing an arc & string

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small ellipse. The Sewing Attributes bar now looks like this:



You can select the colors and stitches at this step or after creating the pattern. See “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

You must decide now which kind of circle-related graphic you need.

- 2 Click the **Arc shape** selector, then click **Arc & String**.



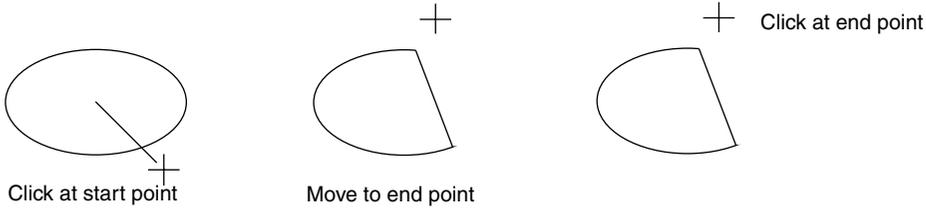
- 3 Proceed as you would to draw a circle or an ellipse.

When you release the mouse, a radial line appears on the ellipse.

- 4 Move the cursor (without dragging) to the start point of the arc & string and click.

The radial line disappears.

- 5 Move the cursor (without dragging) to the end point of the arc & string and click.



Rectangle Drawing Mode

With the rectangle drawing mode, you can create rectangles (boxes) with sharp or rounded corners. A box will automatically have an outline and a region inside that can independently be assigned different sewing attributes.

Drawing a box

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small rounded box. The Sewing Attributes bar now looks like this:



You can set the edge radius, colors and stitches at this step or after creating the pattern. See “Edge radius” on page 137, “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

- 2 Move the mouse to a point, click and drag the mouse.
The point where you start dragging is considered a corner of the box. The point where you release the mouse will be the diagonally opposed corner of the box.
Note that you can draw a perfect square by holding the **Shift** key down while dragging the mouse.

Outline Drawing Mode

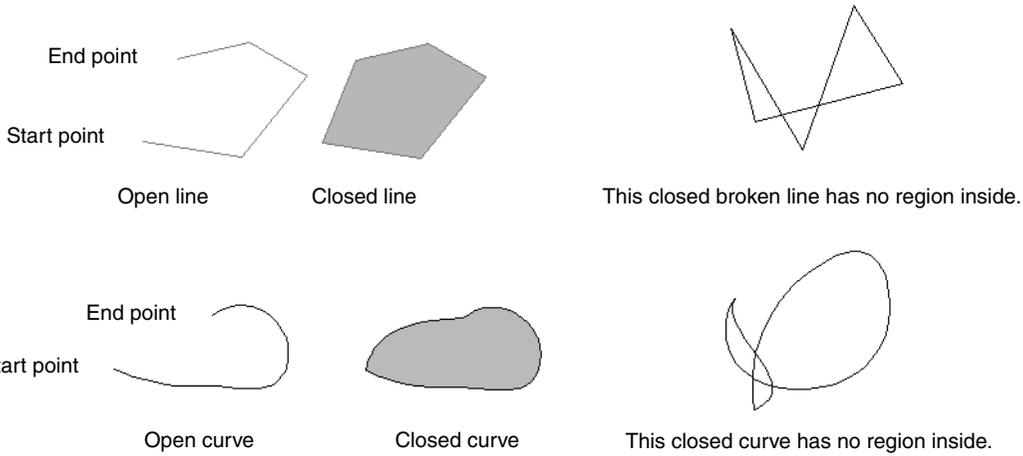
The outline drawing mode allows you to add lines and curves to your pattern.

If the pattern is open, it will end at the last point entered. Since this type of pattern does not have an inside region, it is considered a simple outline when setting the stitch and color.

If the pattern is closed, the last point will be automatically joined with the first one. Since this type of pattern has an outline and an inside region, each part can be assigned different stitches and colors. However, if the line of the pattern crosses itself, the inside region cannot be determined.

While creating the pattern, you can freely switch between drawing straight lines or curves.

Furthermore, if an image is used as a template, there is a tool that automatically extracts the image boundary.



■ Drawing a line

- 1 Click  on the Tool Box.

Three buttons appear:   

 is for drawing straight lines. (Shortcut key: **Z**)

 is for drawing curves. (Shortcut key: **X**)

 is for semi-automatically drawing lines. (Shortcut key: **C**)

- 2 Click the button for the type of line that you want to draw. The shape of the cursor changes to  and displays together with the symbol for the selected line type. The Sewing Attributes bar now looks like this:



You can select the path shape, colors and stitches at this step or after creating the pattern. See “Path shape” on page 138, “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

- 3 Draw the outline.

Move the mouse to the start point and click.

Move the mouse to the end point of the first line and click again.

NOTE:

You can always remove the last-entered point by clicking the right mouse button.

- 4 Repeat until you arrive at the last end point. At that point double-click.

NOTE:

- While drawing the pattern, you can freely switch between the different line types either by clicking a different button or by pressing the shortcut key.
- When drawing a straight line, hold down the **Shift** key while moving the mouse to draw vertically or horizontally.
- A template image is needed in order to draw using the semi-automatic line drawing tool. If there is no image, this tool will draw like the normal straight line drawing tool.

Manual Punching Mode

This mode is used to create patterns that look like manual embroidery. When you use the standard Fill or Satin stitch to fill a region, the thread in the whole region has the same direction. Some patterns, however, look better when the thread direction “follows” the curves of the pattern. The Manual Punching mode provides such a feature.

Letters that you design yourself constitute a typical example of patterns that look better when using the Manual Punching mode. The illustrations below show the preview of two letters “O”.

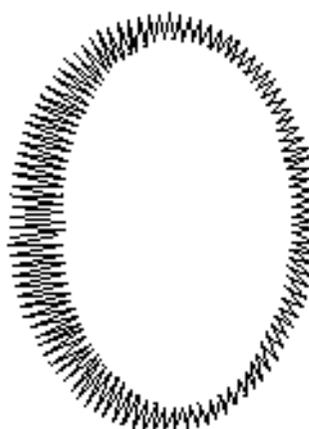
The first one has been designed using two concentric ovals without a line sew setting, filling the larger oval with Fill stitch and turning off the region sew setting inside the small oval. The pair was then set for hole sewing.

The second letter has been redrawn using Manual Punching. To do this, we duplicated the first letter, removed the region inside, and created a manual punching pattern using the outlines of the ovals as guides. The ovals were then deleted.

The stitch density for both letters was set to a minimum in order to make it easier to see the difference between the two patterns on the preview display.



Fill stitch
(the thread has a constant direction)



Manual Punching
(the direction of the thread follows the curve)

When creating a manual punching pattern, it is easier to use something in the background as a guide. In the above example, we used two ovals that we removed after completing the manual punching pattern. Another possibility is to load a template image and redraw it using manual punching patterns. The advantage of this method over the automatic conversion provided by Design Center is that you have a better control on the thread orientation.

■ Creating a manual punching pattern

① Open a template or prepare a pattern that you will use as a guide.

② Click  on the Tool Box.

Five buttons appear: 

 is for creating block-type punching patterns. (Shortcut key: **Z**)

 is for creating curved block-type punching patterns. (Shortcut key: **X**)

 is for semi-automatically creating block-type punching patterns. (Shortcut key: **C**)

 is for creating running-type punching patterns (the broken line is sewn). (Shortcut key: **V**)

 is for creating feed-type punching patterns (the broken line is not sewn). (Shortcut key: **B**)

While creating a manual punching pattern, you can alternate the types. For example, you can start with a block-type pattern, then switch to a running-type pattern (to draw an outline of the block-type pattern) then switch to the feed type to move to the beginning of the next block-type pattern. The whole pattern, consisting of different types, will be considered a single object (all parts will have the same stitch and color).

In the example below, we start with a block-type pattern, use the feed type to move the cursor, then create a run-type pattern.

- Click  to start creating a block-type pattern.

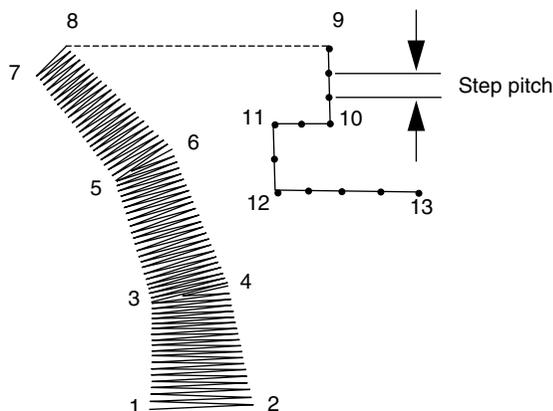
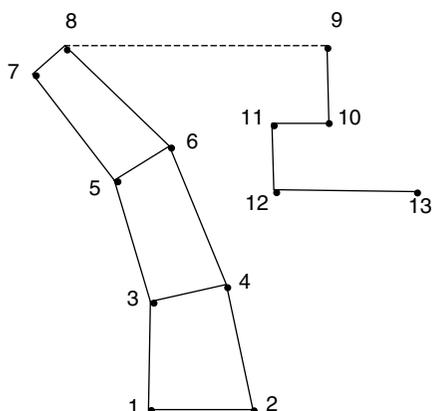
The shape of the cursor changes to  and displays together with a small image of the block-type button. The Sewing Attributes bar now looks like this:



You can select the color and stitch at this step or after creating the pattern. See “Color” on page 144 and “Stitch” on page 146.

You can also set the sewing attributes using the **Sew** menu (see “Sewing Attribute Setting” on page 204).

- Click point 1 on the Design Page (start point).
Click point 2 and next points referring to the illustration below.



Note that you can always click the mouse’s right button to remove the last entered point.

- After clicking at point 8 (the last point of the above block-type pattern), click  (feed-type pattern button), then click at point 9 (the start point of the running-type pattern).
- Click  (running-type pattern button) and click at points 10, 11, and 12 shown in the above illustration.
- When you reach point 13, (the last point of the entire pattern), double click to complete the pattern.

NOTE:

- You can freely switch between the block-type and the curved block-type punching pattern by using the Point Edit tool.
- When entering points, change the punch type by pressing the appropriate shortcut key.
- A template image is needed in order to use the semi-automatic block-type punch tool. If there is no image, this tool will create a punching pattern like the normal block-type punch tool.

Measure Mode

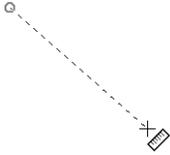
The measure mode allows you to measure the distance between any two points.

■ Measuring the distance between two points

- 1 Click  on the Tool Box.

The shape of the cursor changes to  and displays together with a small ruler.

- 2 Click one end of the length that you want to measure. A small circle appears to indicate the starting point of the distance.
Drag the cursor to view the length in the status bar between the starting point and the cursor's position.



Using the Sewing Attributes Bar

The Sewing Attributes bar allows you to set the following characteristics:

- ◆ geometric attributes (arc shape, rectangle edge radius, and path shape);
- ◆ text attributes (font, size and transformation level);
- ◆ embroidery attributes (thread color and stitch, outline and region inside on/off).

The sewing attributes which are available depend on the cursor mode and the type of embroidery pattern selected.

Example 1: The cursor is in selection mode, but nothing is selected.



Example 2: The cursor is in text input mode, or in selection mode with text selected.



When the cursor is left for a while on an element of the Sewing Attributes bar, a label indicating the function of that element appears. In the following instructions, we will name the components of the Sewing Attributes bar according to these labels, for easier identification.



As a general rule, the different characteristics available for a given pattern can be set either just before creating the pattern, or after the pattern is created. For example, when drawing a rectangle, you can set the colors and the corner radius just after starting the Rectangle Drawing mode. When the rectangle is created, you can select it and change its characteristics.

The only exception to that rule is when you use the Circle and Arc Drawing mode: you must decide what kind of pattern you want (circle, arc, etc.) before actually creating it. And you will not be able to change that once the pattern is created.

Geometric attributes

	Arc shape: Selects the type of arc.	page 137
	Edge radius: Sets the corners of rectangles.	page 137
	Path shape: Opens and closes broken lines and curves.	page 138

Text attributes

	Font: Selects a font for text.	page 138
	Text Size: Selects the size for text.	page 140
	Transform level: Selects the level of transformation.	page 141

Embroidery attributes

	Line sew: Switches the outline on/off. When the outline is switched off, it is not sewn (and you cannot set its color or stitch).	page 142
	Region sew: Switches the inside region on/off. When the inside region is switched off, it is not sewn (and you cannot set its color or stitch).	page 143
	Line color, Region color, Text color, Punch color: Sets the thread color for outline, region inside, text, manual punching pattern and imported pattern (after the Stitch to Block function has been applied).	page 144
	Special colors	page 145
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Running Stitch ▾</div> <div style="border: 1px solid black; padding: 2px;">Fill Stitch ▾</div>	<p>Line sew type: Sets the stitch for the outlines.</p> <p>Region sew type: Sets the stitch for outline, region inside, text, manual punching pattern and imported pattern (after the Stitch to Block function has been applied).</p>	page 146

Setting Geometric Attributes

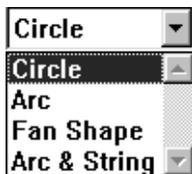
■ Arc shape Circle ▾

Purpose: Selects the type of arc.

Available: When you click  on the Tool Box to start the Circle and Arc Drawing mode.

Operation:

- 1 Click the Arc shape selector.
The options display.



- 2 Click one of the options.
The setting applies to all the patterns that you will create in the Circle and Arc Drawing mode until you change the setting.

See also: “Circle and Arc Drawing Mode” on page 128

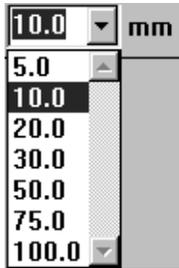
■ Edge radius 0.0 ▾ mm

Purpose: Sets the corners of rectangles.

Available: When you click  on the Tool Box to start the Rectangle Drawing mode.
When you select an existing rectangle with the cursor in Selection mode.

Operation:

- 1 Type the desired value on the Edge radius selector (0 - 100 mm or 0 - 3.93 inches) and press the **Enter** key or click on the Edge radius selector to display the available values.



- 2 Click the desired value.
The setting applies to all the patterns that you will create in the Rectangle Drawing mode until you change the setting.
If a rectangle is selected, the setting also applies to that rectangle.

See also: “Rectangle Drawing Mode” on page 131

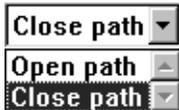
■ Path shape

Purpose: Opens and closes broken lines and curves.

Available: When you click  on the Tool Box to start the outline Drawing mode.
When you select an existing broken line or curve with the cursor in Selection mode.

Operation:

- 1 Click on the Path shape selector.
Two options are available.



- 2 Click the desired option.
The setting applies to all the patterns that you will create in the outline Drawing mode until you change the setting.
If a broken line or curve is selected, the setting applies to that broken line or curve.

See also: “Outline Drawing Mode” on page 131

Setting Text Attributes

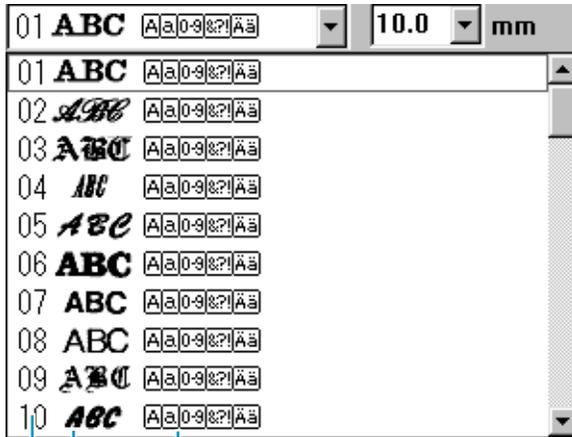
■ Font

Purpose: Selects a font for text.

Available: When you click  on the Tool Box to start the Text Input mode.
When you select existing text patterns with the cursor in Selection mode.
When you select characters with the cursor in Point Edit mode.

Operation:

- 1 Click on the **Font** selector.
A list of fonts displays.



Font number Font sample Types of characters available

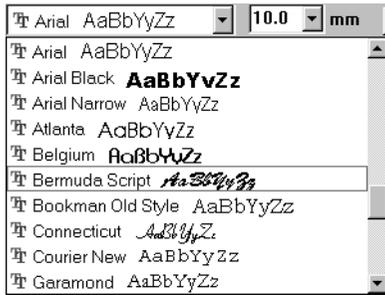
- 2 Click the desired font.
The setting applies to all the text patterns that you will create in the Text Input mode until you change the setting.
If text patterns or characters of a text pattern are selected, the setting also applies to the selection.
The following illustration shows the fonts available and, for each font, the kind of characters available:

01 ABC [Aa 0-9 &?! Ää]	13 ABC [Aa 0-9 &?!]	25 ABC [A]
02 <i>ABC</i> [Aa 0-9 &?! Ää]	14 <i>ABC</i> [Aa 0-9 &?!]	26 A.B.C. [A]
03 ABC [Aa 0-9 &?! Ää]	15 ABC [Aa 0-9 &?!]	27 ABC [A]
04 <i>ABC</i> [Aa 0-9 &?! Ää]	16 ABC [Aa 0-9 &?!]	28 ABC [A]
05 <i>ABC</i> [Aa 0-9 &?! Ää]	17 <i>ABC</i> [Aa 0-9 &?!]	29 ABC [A] [0-9]
06 ABC [Aa 0-9 &?! Ää]	18 <i>ABC</i> [A]	30 <i>ABC</i> [Aa 0-9 &?! Ää]
07 ABC [Aa 0-9 &?! Ää]	19 <i>ABC</i> [A]	31 ABC [Aa 0-9 &?! Ää]
08 ABC [Aa 0-9 &?! Ää]	20 ABC [Aa 0-9 &?!]	32 ABC [Aa 0-9 &?! Ää]
09 ABC [Aa 0-9 &?! Ää]	21 ABC [A]	33 ABC [Aa 0-9 &?! Ää]
10 <i>ABC</i> [Aa 0-9 &?! Ää]	22 ABC [Aa]	34 ABC [Aa 0-9 &?! Ää]
11 ABC [Aa 0-9 &?!]	23 A.B.C. [A]	35 <i>ABC</i> [Aa 0-9 &?! Ää]
12 <i>ABC</i> [Aa 0-9 &?!]	24 ABC [A]	

- [A] Uppercase letters of the English alphabet
- [a] Lowercase letters of the English alphabet
- [0-9] Numerals

- [Aa|0-9|&?!|Ää] Uppercase and lowercase accented letters
- [Aa|0-9|&?!] Punctuation, brackets and other symbols

In addition, the names and samples of installed TrueType fonts appear after the fonts listed in the table above.



If one of these TrueType fonts are selected, the font data is automatically converted to embroidery data. Font settings can be changed in the **TrueType Font Attribute Setting** dialog, which is displayed by clicking **Text - TrueType Font Attribute Setting**.

NOTE:

Some TrueType fonts may not convert well into beautiful embroidery data due to their design and shape.

See also: "Text Input Mode" on page 127, "Point Edit Mode" on page 120, "TrueType Font Attribute Setting" on page 202

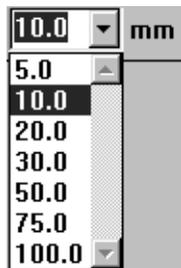
Text size mm

Purpose: Selects the size for text.

Available: When you click  on the Tool Box to start the Text Input mode.
When you select existing text patterns with the cursor in Selection mode.
When you select characters with the cursor in Point Edit mode.

Operation:

- 1 Type the desired value in the Text size selector (5 - 100 mm or 0.20 - 3.93 inches) and press the **Enter** key or click on the Text size selector to display the available values.



- 2 Click the desired value.
The setting applies to all the text patterns that you will create in the Text Input mode until you change the setting.
If a text pattern or characters of a text pattern are selected, the setting also applies to the selection.

See also: "Text Input Mode" on page 127, "Point Edit Mode" on page 120

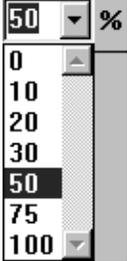
■ Transform level %

Purpose: Selects the level of transformation.

Available: When you select an existing transformed text with the cursor in Selection mode.

Operation:

- 1 Type the desired value in the Transform level selector (0 - 100%) and press the **Enter** key or click on the Transform level selector to display the available values.



- 2 Click the desired value.
The setting applies to all the transformed text patterns that you will create in the Text Input mode until you change the setting.
If a text pattern is selected, the setting also applies to the selection.

AAAAA

50%

AAAAA

100%

See also: “Text Input Mode” on page 127 and “Transform Text” on page 201

Setting the Thread Color and Stitch

All patterns can be assigned at least one color. Patterns with an outline and a region inside can be assigned two different thread colors. Characters in a text pattern can be assigned individual thread colors.

All patterns can be assigned at least one stitch type. Patterns with an outline and a region inside can be assigned two different stitch types.

Patterns with an outline and a region inside are: Text converted from True Type Font, Circle, Fan Shape, Arc & String, Rectangle, Closed Broken Line, and Closed Curve. For these patterns, it is possible to switch the outline and the regions on and off.

Patterns with only an outline are: Arc, Open Broken Line, and Open Curve. For these patterns, it is still possible to switch the outline on and off.

Patterns with only a region are: Text included this software, manual punch patterns and converted imported patterns (to which the Stitch to block function has been applied). For those three types of patterns, it is not possible to switch the region inside on and off.

Manual punch patterns: You can set a color to all three manual punch pattern types (block, running and feed), but you can only set a stitch sew type to the block patterns.

Imported patterns converted with the Stitch to Block function: You can modify globally the sewing attributes of the blocks of the same color.

■ Line sew

Purpose: Switches the outline on/off.
When the outline is switched off, it is not sewn (and you cannot set its color or stitch).

Available: When the cursor is in Selection mode with nothing selected.
When you select a pattern that has an outline (Text converted from True Type Font, Circle, Arc, Fan Shape, Arc & String, Rectangle, Broken Line, Curve)

When you click  ,  ,  ,  on the Tool Box to start drawing such a pattern.

Operation:

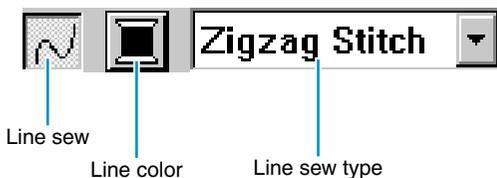
① Click the **Line sew** button.

This button has two states:

on: the **Line color** button and the **Line sew type** selector are displayed

off: the **Line color** button and the **Line sew type** selector are not displayed.

Clicking the button toggles between the two states.



The setting applies to all the patterns with an outline that you will create until you change the setting.

If a pattern is selected, the setting applies to that pattern.

Line sew on:



Line sew off:



- 2 To restore the outline click the **Line sew** button again.

NOTE:

If the fonts included in this software (font number 1-35) are selected, the Line sew setting can not be made.

See also: “Color” on page 144 and “Stitch” on page 146

■ Region sew

Purpose:

Switches the inside region on/off.

When the inside region is switched off, it is not sewn (and you cannot set its color or stitch).

Available:

When the cursor is in Selection mode with nothing selected.

When you select a pattern that has an inside region (Text converted from True Type Font, Circle, Fan Shape, Arc & String, Rectangle, closed Broken Line and Curve)

When you click  ,  ,  ,  on the Tool Box to start drawing such a pattern.

Operation:

- 1 Click the Region sew button.

This button has two states:

on: the **Region color** button and the **Region sew type** selector are displayed

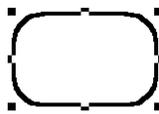
off: the **Region color** button and the **Region sew type** selector are not displayed.

Clicking the button toggles between the two states.



The setting applies to all the patterns with an inside region that you will create until you change the setting.

If a pattern is selected, the setting applies to that pattern.



- 2 To restore the inside region click the **Region sew** button again.

See also: “Color” on page 144 and “Stitch” on page 146

Color

Purpose: Sets the thread color for outline, region inside, text, manual punching pattern and imported pattern (after the Stitch to Block function has been applied).

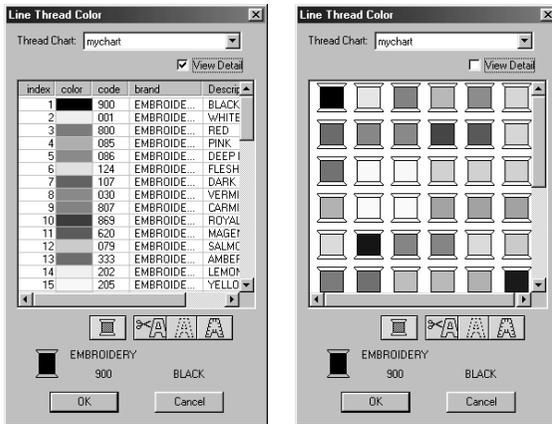
Available: When the cursor is in Selection mode with nothing selected, the **Line color** and **Region color** buttons are displayed (if they have not been turned off with the **Line sew** or **Region sew** buttons).
When you start one of the drawing modes or Text Input mode, or select an existing pattern, the Color button for the corresponding pattern appears.

Operation:

1 Click the **Color** button.

A **Thread Color** dialog similar to the one shown below appears.

Clear the View Details check box to view a list of only the thread colors.



- ◆ From the Thread Chart list, select a system chart or a user thread chart.
- ◆ From the color list, select the desired color. (The color can also be selected by double-clicking it.)
 - *Descriptions for the four buttons under the list are provided in “Special colors” on page 145.*
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

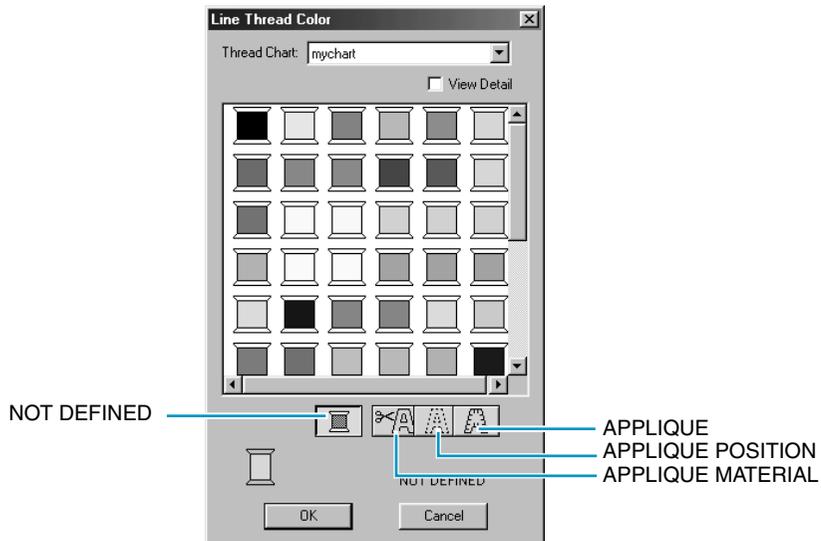
The setting applies to all the patterns of the same categories that you will create until you change it. The color button of each category shows the current color for that category.
If a pattern is selected, the setting also applies to that pattern.

NOTE:

For details on specifying a user thread chart or for information on how machines handle thread colors, refer to “Edit User Thread Chart” on page 225.

See also: “Line sew” on page 142 and “Region sew” on page 143

Special colors



- ◆ **NOT DEFINED:** Sewing machines that feature automatic thread color display will automatically switch the display to the specified color. If you are using such a machine and if you wish to be able to select manually the color for a monochrome pattern, you can select the “**NOT DEFINED**” color.
- ◆ **Colors for creating appliqués:** You can create appliqués using the three special colors shown in the above illustration.

APPLIQUE MATERIAL marks the outline of the region to cut from the appliqué material.

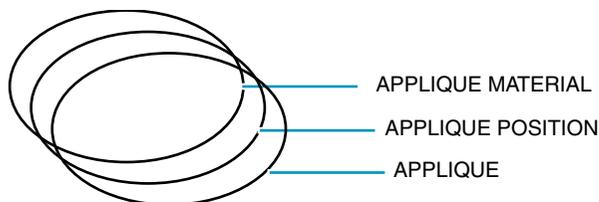
APPLIQUE POSITION marks the position on the backing material where the appliqué must be sewn.

APPLIQUE sews the appliqué on the backing material.

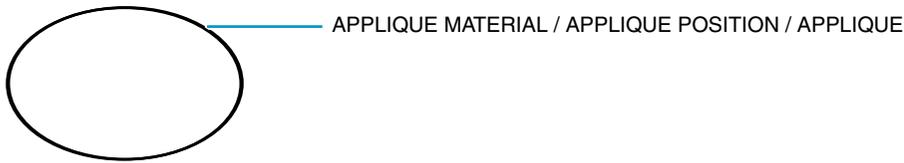
Example:

- 1 Create an oval.
- 2 Duplicate the oval and move it apart from the first one. Repeat this step to obtain a total of three identical ovals.
- 3 Select the ovals one by one and make the following settings:

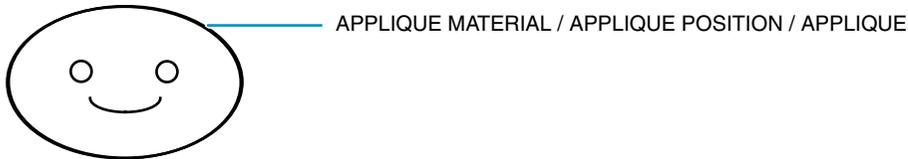
Oval	Sewing Attributes bar			Sewing Attributes
	Region sew button	Line color	Line sew type	
1	OFF	APPLIQUE MATERIAL	Running	RUN TIME = 1
2	OFF	APPLIQUE POSITION	Running	RUN TIME = 1
3	OFF	APPLIQUE	Zigzag	–



- 4 Bring the **APPLIQUE POSITION** oval and the **APPLIQUE** oval at the same position as the **APPLIQUE MATERIAL** oval (using the grid can make this operation easier). You can confirm the appliqué position using the preview function (see “Preview” on page 220).



- 5 Add details as you would with a normal embroidery picture.



When sewing, proceed as follows:

- 1 Place the appliqué material on the machine and start sewing. At this step, only the **APPLIQUE MATERIAL** outline will be sewn.
- 2 Remove the appliqué material from the machine and cut along the outline.
- 3 Place the backing material on the machine and start sewing. At this step, only the **APPLIQUE POSITION** outline will be sewn.
- 4 Affix the appliqué on the marked position with a small amount of fabric glue.
- 5 Restart sewing. At this step, the **APPLIQUE** outline will be sewn.
- 6 Sew the other details of the picture.

Note that the sewing order will be **MATERIAL** → **POSITION** → **APPLIQUE**.

Stitch Running Stitch Fill Stitch

Purpose: Sets the stitch for outline, region inside, text, manual punching pattern and imported pattern (after the Stitch to Block function has been applied).

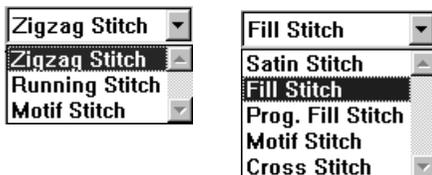
Available: When the cursor is in the selection mode, the Line sew type and Region sew type selectors are displayed (if they have not been turned off with the Line sew or Region sew buttons).

When you start one of the drawing modes or select an existing pattern, the sew type button for that pattern appears.

When you are in the text or manual punching mode or after applying a Stitch to block setting to an imported pattern.

Operation:

- 1 Click the sew type selector.
The available options display.



For outlines, Zigzag Stitch, Running Stitch and Motif Stitch are available.

For regions, Satin Stitch, Fill Stitch, Programmable Fill Stitch, Motif Stitch and Cross Stitch are available.

- 2 Click the desired stitch.

The setting applies to all the patterns of the same categories that you will create until you change it. If a pattern is selected, the setting also applies to that pattern.

NOTE:

*You can set the stitch attributes for the selected line and region stitches in the **Sewing attribute Setting dialog**.*

*When you select **Prog. fill Stitch** or **Motif Stitch**, you also need to select a pattern in the **Sewing Attribute Setting dialog**, as there is no default programmable stitch setting.*

See also: “Line sew” on page 142, “Region sew” on page 143 and “Sewing Attribute Setting” on page 204

Using the Menu Bar and the Toolbar

File	Handles file input/output, such as opening, saving and printing.	page 149
Edit	Performs simple actions on selected patterns, such as cutting and pasting.	page 166
Image	Imports and exports image data and creates embroidery data from image data.	page 175
Text	Performs actions on text patterns, such as fitting text to a curved path.	page 197
Sew	Defines how each pattern will be sewn.	page 204
Display	Modifies the appearance of the screen.	page 219
Option	Provides additional options.	page 223
Help	Gives you access to the on-screen help information system.	page 230

Most functions available on the menu can also be activated by clicking a button on the Toolbar or by pressing a shortcut key or key combination. When you leave the cursor for a while on a button of the Toolbar, a label indicating the function of the button displays.



File Menu

The **File** menu handles file input/output, such as opening, saving and printing.

New		Creates a new blank Design Page.	page 149
Open		Opens a previously saved Design Page file (*.pes file).	page 150
Import	from File	Imports embroidery patterns from embroidery cards (*.pec), original cards (*.pes) and files created in the Tajima (*.dst), Melco (*.exp), Pfaff (*.pcs) and Husqvarna (*.hus) formats and adds them to your current Design Page.	page 151
	from Design Center	Imports an embroidery pattern from Design Center.	page 153
	from Card	Imports an embroidery pattern from an embroidery card.	page 154
Save		Saves your Design Page on the disk as a latest version file (default).	page 156
Save As		Saves your Design Page on the disk under a new file name.	page 156
Export		Exports the data shown in the Design Page as a file of a different format (dst, hus, exp, and pcs).	page 157
Write to Card	Current Design	Writes your Design Page to an original card.	page 157
	Other PES files	Writes multiple PES files to an original card at the same time.	page 158
Property		To enter comments in a saved PES file.	page 161
Print Setup		Allows you to change the printing settings for previewed embroideries.	page 161
Print Preview		Allows you to preview the contents of the Design Page and check the sewing color order, the dimensions and the needle count before printing.	page 163
Print		Prints your Design Page and some sewing information.	page 164
Exit		Exits the application.	page 165

■ New

Purpose: Creates a new blank Design Page.

Shortcut key: **Ctrl** + **N**

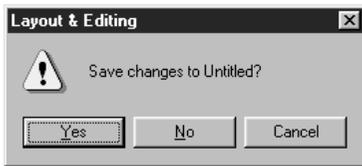
Toolbar: 

Operation:

① Click **File**, then **New**.

If the current Design Page is not edited, a new blank Design Page appears immediately.

2 If the current Design Page is edited, you will be asked whether you want to save the changes.



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modify the current Design Page or saving it with another file name).

See also: “Open” below and “Save” and “Save As” on page 156

Open

Purpose: Opens a previously saved Design Page file (*.pes file).

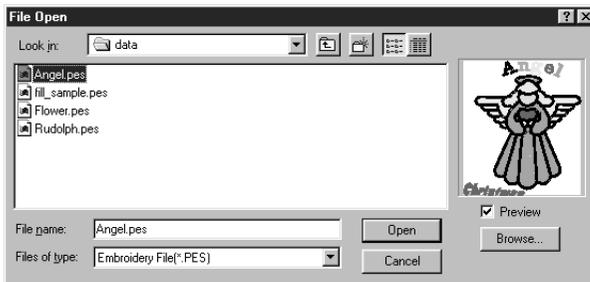
Shortcut key: **Ctrl** + **O**

Toolbar:

Operation:

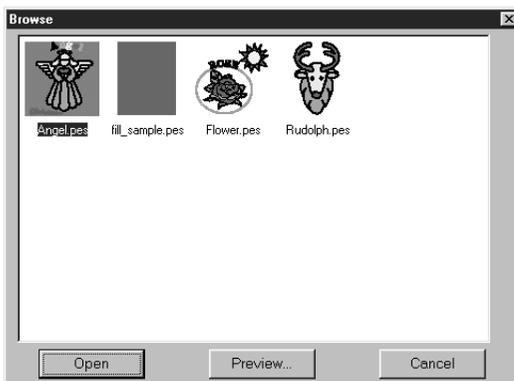
1 Click **File**, then **Open**.

A **File Open** dialog similar to this will display.



- ◆ Select the drive, the folder and the file name.
- *Be sure to select a folder containing **pes** files.*
- *The contents of the selected file displays in the **Preview** window, provided its check box is checked.*
- ◆ Click **Open** or double click the file name. The file will appear on the Design Page.
- ◆ You can also select the drive and folder only and then click **Browse** to display a graphic contents of the currently selected folder (provided it contains *.pes files).
- ◆ Click **Cancel** to exit.

2 If you choose to browse, a **Browse** dialog similar to this will display:



- ◆ To select a file, click on its icon.
- ◆ To open the file, click **Open** or double-click the icon.
- ◆ To see a more detailed image, click **Preview**.
- ◆ To return to the **File Open** dialog, click **Cancel**.

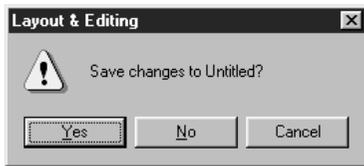
3 If you choose to preview, a **Preview** dialog similar to this will display.



- ◆ Click **Open** to open the file.
- ◆ Click **Cancel** to return to the **Browse** dialog.

4 When you click **Open** while viewing the **File Open**, **Browse** or **Preview** dialog, the selected file opens immediately if your current Design Page is not edited.

If the current Design Page is edited, you will be asked whether you want to save the changes.



- ◆ Click **Yes** to save the Design Page first.
- ◆ Click **No** to abandon the Design Page.
- ◆ Click **Cancel** to do anything else (for example, modifying the current Design Page or saving it with another file name).

Note that parts of the embroidery picture which are not within the Design Page cannot be previewed.

See also: "New" on page 149, "Save" and "Save As" on page 156

■ Import – from File

Purpose: Imports embroidery patterns from embroidery cards (*.pec), original cards (*.pes) and files created in the Tajima (*.dst), Melco (*.exp), Pfaff (*.pcs) and Husqvarna (*.hus) formats and adds them to your current Design Page.

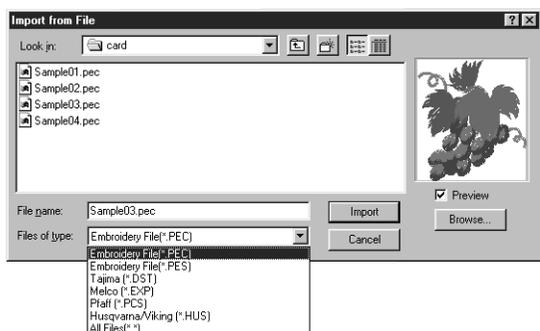
Shortcut key: **F8**

Toolbar:



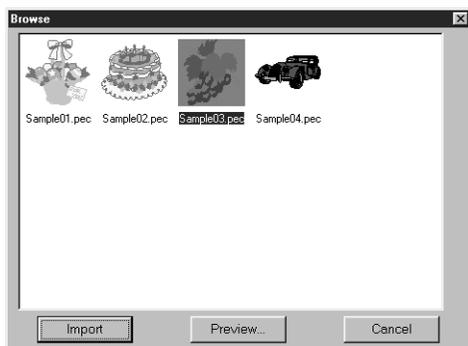
Operation:

- 1 Click **File**, then **Import**, then **from File**.
An **Import from File** dialog similar to this displays.



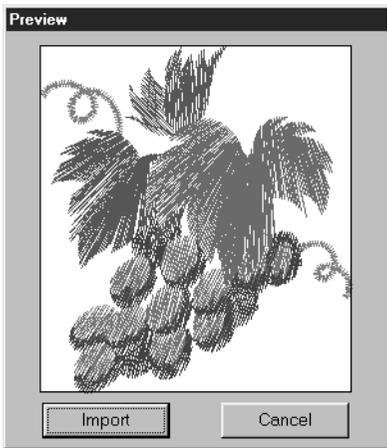
- ◆ Select the drive, the folder and the file name.
- *Be sure to select the right type of file extension in **Files of Type**.*
- *If the **Preview** check box is checked, the content of the selected file displays in the preview window.*
- ◆ Click **Import** or double-click the file name to display the file on the Design Page.
- ◆ You can also select the drive and folder only and then click **Browse** to display a graphic contents of the currently selected file format.
- ◆ Click **Cancel** to exit.

- 2 If you choose to browse, a **Browse** dialog similar to this will display:



- ◆ To select a file, click on its icon.
- ◆ To open the file, click **Import** or double-click the icon.
- ◆ To see a more detailed image, click **Preview**.
- ◆ To return to the **Import from File** dialog, click **Cancel**.

3 If you choose to preview, a **Preview** dialog similar to this will display.



- ◆ Click **Import** to import the file.
- ◆ Click **Cancel** to return to the **Browse** dialog.

When you import a file, its contents are added to your current Design Page. You can repeat the operation and assemble your Design Page from a library of patterns that you have created.

NOTE:

When importing patterns from other makers, make sure to choose a pattern whose size will fit in the Design Page.

*When converted for this application, the colors of patterns imported from **dst** (Tajima), **exp** (Melco), **pcs** (Pfaff) and **Hus** (Husqvarna) files may be slightly changed. When this happens, you can change the color with the **Sew – Change colors of a stitch object** function.*

4 When importing some **pec** files from embroidery cards, the **Select Import size** dialog will display. If this happens, select the import size by clicking the appropriate radio button, then click **OK** to import the data.

See also: “Save As” on page 156

■ Import – from Design Center

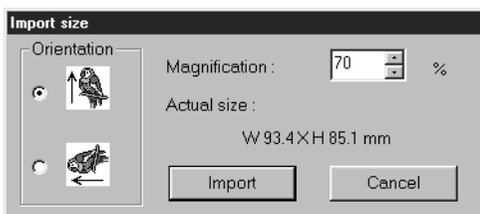
Purpose: Imports an embroidery pattern from Design Center.

Shortcut key: **F7**

Toolbar:

Operation:

- 1 Start Design Center and open the file that you want to import into Layout & Editing.
- 2 Click **File**, then **Import**, then **from Design Center**.
The **Import size** dialog displays.



- ◆ Select the magnification factor. You can type it or increase/decrease it using the arrow buttons.
- *The application will not allow you to magnify the embroidery data to a size such that it would not fit in your Design Page area.*
- ◆ Select the Orientation by clicking the **Orientation** radio button opposite the appropriate icon.
- ◆ Click **Import** to import the data.
- ◆ Click **Cancel** if you want to exit the function.

- 3 If you are not running Design Center or if it does not contain a **pem** file, the first or the second message will appear.



- ◆ Click **OK** to exit.

See also: “Design Center” on page 61

■ Import – from Card

Purpose: Imports an embroidery pattern from an embroidery card.

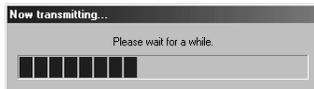
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **File**, then **Import**, then **from Card**.

If a card writer module is connected and if an embroidery card is inserted into the card writer module, the following message appears and the embroidery patterns are read from the card.

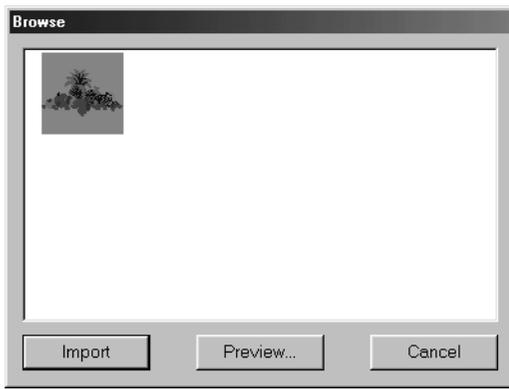


If a card writer module is not connected or if one is connected but an embroidery card is not inserted, one of the following messages appear.



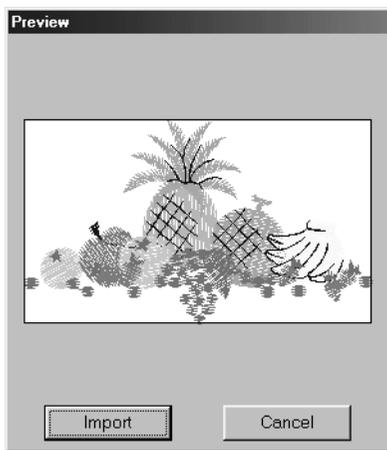
- ◆ Correct the problem, and then click **Retry**.
- ◆ Click **Cancel** if you want to quit the operation.

2 After the data has been read, the following dialog appears.



- ◆ To select a pattern, click on its icon or drag the pointer over it.
- ◆ To import a pattern, click **Import** or double-click the pattern icon.
- ◆ To see a more detailed image of the pattern, click **Preview**.
- ◆ Click **Cancel** if you want to quit the operation.

3 If you choose to preview a pattern, a **Preview** dialog similar to this will appear.



- ◆ Click **Import** to import the pattern.
- ◆ Click **Cancel** to return to the previous dialog.

4 While importing some patterns, the **Select Import size** dialog may appear. If this happens, select the import size by clicking the appropriate radio button, and then click **OK** to import the pattern.

NOTE:

Due to copyright issues, some embroidery cards cannot be used with this function.

Save

Purpose: Saves your Design Page on the disk as a latest version file (default).

Shortcut key: **Ctrl** + **S**

Toolbar:



Operation:

① Click **File**, then **Save**.

If the file already exists on the disk (the file has been saved at least once), the file is saved immediately.

② If the file name is still **Untitled** or if, for any other reason, the file cannot be found on the disk, the application automatically switches to **Save As**.

See also: “Save As” below, “Write to Card – Current Design” on page 157

Save As

Purpose: Saves your Design Page on the disk under a new file name.

NOTE:

*If you select a previous version, saved *.pes files can be opened with a previous version of the software. However, all saved data will be converted to stitch data.*

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

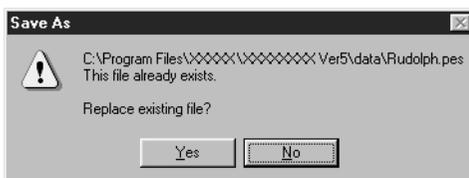
① Click **File**, then **Save As**.

A **File Save As** dialog similar to this will display.



- ◆ Select the drive, the folder and type the file name.
- ◆ Click **Save** to save.
- ◆ Click **Cancel** to exit.

② If the new file name already exists, this message will appear:



- ◆ Click **Yes** to overwrite.
- ◆ Click **No** if you do not want to overwrite the existing file.

The new file name displays in the title bar of the Layout & Editing window.

See also: “Save” above and “Write to Card – Current Design” on page 157

Export

Purpose: Exports the data shown in the Design Page as a file of a different format (dst, hus, exp, and pcs).

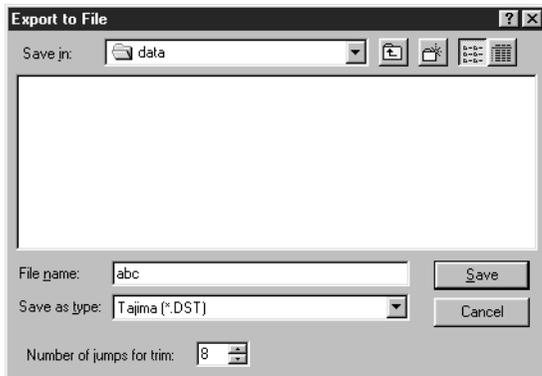
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

1 Click **File**, then **Export**.

A dialog like the one shown below appears.



- ◆ Select the drive and the folder, and then type the file name.
- ◆ Select the format (DST,EXP,PCS,HUS) in which you wish to export the file.
- ◆ Number of jumps for trim: With the DST format, jump codes are used to indicate when the thread must be cut in order to change the thread color. Since the number of codes differ depending on the sewing machine being used, this setting allows you to select the appropriate value. (This setting can only be specified if the DST format is selected.)

NOTE:

Some patterns installed from a card cannot be exported.

Write to Card – Current Design

Purpose: Writes your Design Page to an original card.

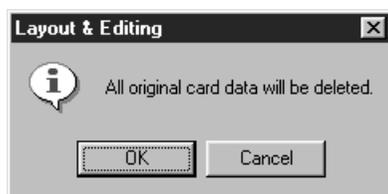
Shortcut key: **F4**

Toolbar:

Operation:

1 Click **File**, then **Write to Card**, then **Current Design**.

This message will display.



- ◆ If the card is not brand new, make sure that you want to erase the data that is already stored on the card and click **OK**.
- ◆ Click **Cancel** to exit.

If the card module is not connected, this message displays.



- ◆ Correct the problem, then click **Retry**.
- ◆ Click **Cancel** to exit.

- If you click **OK**, your current embroidery patterns will be saved on the card. A **Now writing** message displays while the data is being transferred to the card. After a while, the following message will appear.



◆ Click **OK**.

See also: “Save” and “Save As” on page 156

■ Write to Card – Other PES files

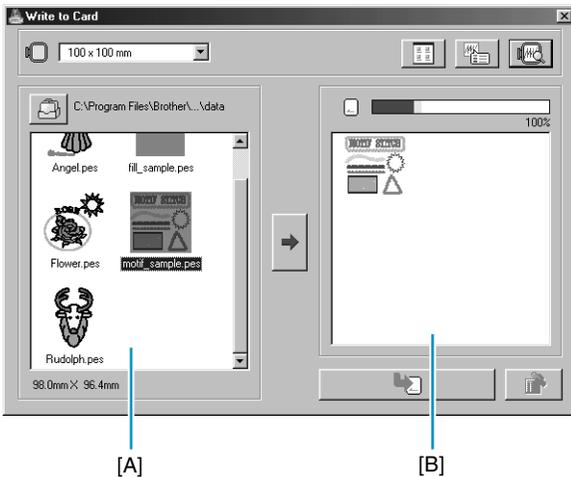
Purpose: Writes multiple PES files to an original card at the same time.

Shortcut key: **Shift** + **F4**

Toolbar: No button for this function

Operation:

- Click **File**, then **Write to Card**, then **Other PES files**. This following dialog appears.



- ◆ Use 130 X 180 mm to select the size of the embroidery hoop that can be used with your embroidery machine.

NOTE:

Do not select a hoop size larger than the embroidery hoop that can be used with your embroidery machine. Otherwise, the created card will not work correctly with the embroidery machine.

- ◆ Click , and then select the folder where the pattern file (.pes) is saved.

- ◆ Click to switch between the large and small display size of the pattern images shown in the lists.

- ◆ Click to display the information (size, number of stitches, and colors) for the pattern selected in the Available patterns list or the Selected patterns list. This is available only if one pattern is selected.
- ◆ Click to display a three-dimensional image of the pattern selected in the Available patterns list or the Selected patterns list.
- ◆ 100% shows the capacity of the patterns selected in the Selected patterns list.
- ◆ The Available patterns list [A] displays the images of the pattern files (.pes) saved in the folder selected after clicking . The name of the file appears below the image.
- *Patterns that are either too large or have too many stitches for the embroidery hoop size, selected with the Hoop size selector, are crossed out with a red .*

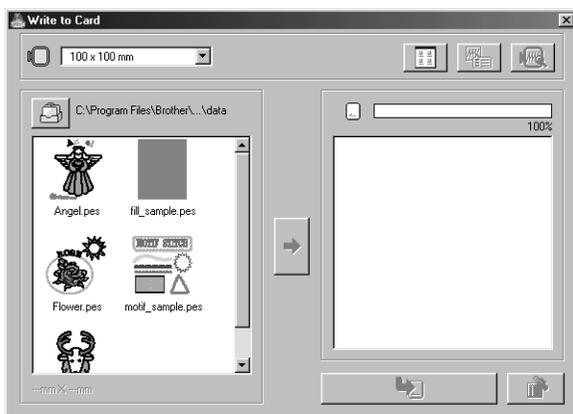
- Patterns created for the optional extra-large embroidery hoop are marked with the  symbol.
 - ◆ The Selected patterns list [B] displays the patterns selected with . The data will be written to an original card in the order displayed.
 - ◆ Click  to add the pattern selected in the Available patterns list to the Selected patterns list.
 - ◆ Click  to write to an original card the patterns displayed in the Selected patterns list.
 - ◆ Click  to remove the pattern selected in the Selected patterns list.
- ② With the Hoop size selector, select the size of the embroidery hoop that can be used with your embroidery machine.



NOTE:

Do not select a hoop size larger than the embroidery hoop that can be used with your embroidery machine. Otherwise, the created card will not work correctly with the embroidery machine.

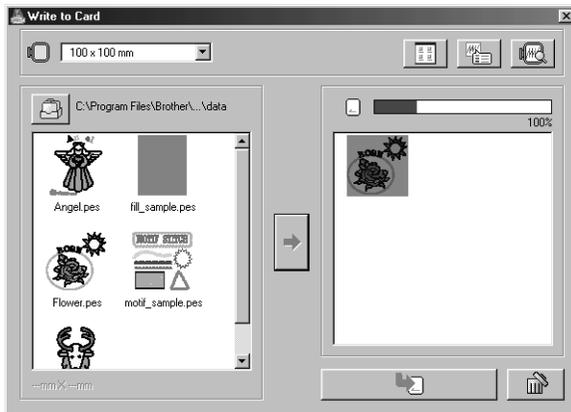
- ③ Click . The Folder dialog appears. Select the folder where the pattern file (.pes) is saved, and then click **OK**. Images and file names for the patterns files saved in the selected folder appear in the Available patterns list.



- If an original card was selected , the patterns saved on the inserted card can be seen.

- 4 From the Available patterns list, click the pattern that you want to write to the card. The highlighted pattern is selected.

Then, click  to add the selected pattern to the Selected patterns list.



- 5 Continue this operation for all patterns that you wish to write to an original card. Viewing the Card capacity indicator during this process will allow you to plan which designs you would like to save an original card.

Reading the Card capacity indicator:

The part indicating selected patterns is shown in blue, and the part indicating the pattern being selected is shown in light blue.

If the part indicating the pattern being selected appears in red, the size of the selected patterns has exceeded the capacity of an original card.



- 6 After the patterns to be written to the card are selected, click  to write the data to the card. The data is written to an original card after all data already on the card is erased.



After a short while, the data is finished writing to an original card. Now, the card containing the data can be used with the embroidery machine.

- *If there are any patterns on the card that you do not wish to erase, be sure to select the card in the Folder dialog box, and then add the patterns to the Selected patterns list.*
- *Do not remove the card or unplug the USB cable while data is being written to the card (while the LED indicator is flashing).*

Property

Purpose: To enter comments in a saved PES file.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **File**, then **Property**.
The File Property dialogue appears.



- ◆ Enter or revise the necessary points in text format. Design Name, Category, Author, Keywords, and Comment.
- ◆ Click **OK** to save the entered data and finish. The entered data will be saved to the file the next time you Save.
- ◆ Click **Cancel** to finish without saving the entered data.

Print Setup

Purpose: Allows you to change the printing settings for previewed embroideries.

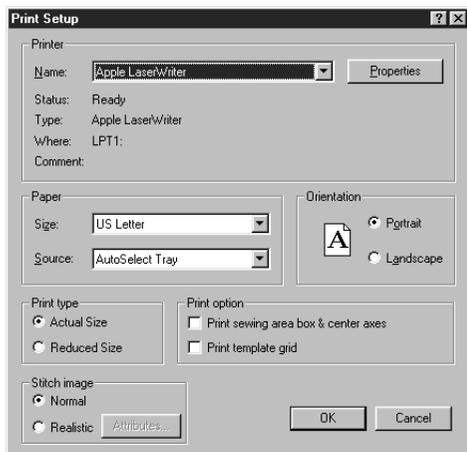
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

1 Click **File**, then **Print Setup**.

A **Print Setup** dialog similar to this will display.



- ◆ Click **Properties** to set the printer properties.
- ◆ Choose the appropriate **Paper** and **Orientation** settings.
- ◆ Choose the **Print type** and **Print Option** of the preview image and sewing information.
- ◆ Click **OK** to confirm the settings.
- ◆ Click **Cancel** to exit.

You can choose to print the preview image on one or two pages for one pattern or one hoop position.

The **Actual Size** will print two pages:

The image in its actual size on the first and the dimensions of the embroidery, the sewing color order and the needle count on the second page. The file name is printed on both pages.

The **Reduced Size** will print a reduced illustration of the image and all the above mentioned items on a single page.

NOTE:

If a Design Page for a multi-position embroidery frame (130 × 300 mm, 300 × 130 mm, 100 × 172 mm, or 172 × 100 mm) is selected, each Print type will print the whole image of Design Page on the first page.

And in this case, the number of pages depends on your design.

Print sewing area box & center axes

Select **Print sewing area box & center axes** to print black lines to indicate the sewing area (see “Select Sewing Area”) and the center axes for the data.

This setting is only available when **Actual Size** is selected.

Print template grid

Select **Print template grid** to print green lines to represent the grid printed on the embroidery sheet included with the embroidery frame.

NOTE:

The size of the grid that is printed may be slightly different from the grid printed on the embroidery sheets for some embroidering machines.

If **Stitch Image** is set to **Normal**, the pattern is printed as lines and dots.

If **Stitch Image** is set to **Realistic**, the pattern is printed as a realistic image.

NOTE:

*To change the settings of a realistic image, click **Attributes**.*

See “Realistic Preview Attribute Setting” for more details.

These attributes are stored separately from the Realistic Preview attributes.

See also: “Realistic Preview Attribute Setting” on page 221

Print Preview

Purpose: Allows you to preview the contents of the Design Page and check the sewing color order, the dimensions and the needle count before printing.

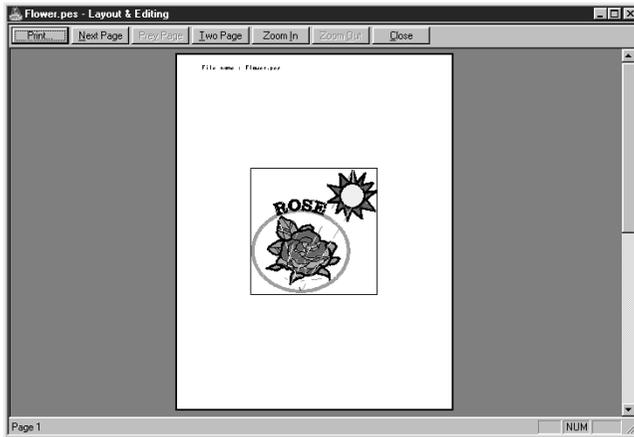
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **File**, then **Print Preview**.

If **Actual Size** was selected in the **Print Setup** dialog, the **Layout & Editing** window changes to the following.



The buttons that are selectable display in black and the other ones are grayed.

- ◆ Click **Print** to open the **Print** dialog and print.
- ◆ Click **Next Page** to display the next page.
- ◆ Click **Prev Page** to display the previous page.
- ◆ Click **Two Page** to display both pages at the same time.
- ◆ Click **Zoom In** and **Zoom Out** to enlarge and reduce the page.
- ◆ Click **Close** to return to the Design Page.

- 2 Enlarge the image either by clicking **Zoom In** or by clicking directly on the point of the page that you want to enlarge. Scroll the page as needed to view its hidden parts. When you reach the limit of the zooming in function, the **Zoom In** button becomes inactive and the **Zoom Out** button becomes active. Click the **Zoom Out** button or the image to reduce its size again. One of the zooming function is always active.
- 3 Click **Next Page** to display page 2 containing the sewing information (not available if **Reduced Size** was selected in the **Print Setup** dialog). This button becomes inactive and the **Prev Page** button becomes active.
- 4 Click **Prev Page** to go back to the display of the embroidery (not available if **Reduced Size** was selected in the **Print Setup** dialog). This button becomes inactive and the **Next Page** button becomes active.
- 5 Click **Two Page** to display both pages at the same time. The **Two Page** button is replaced by the **One Page** button. Click **One Page** to display one page at a time. The **Next Page** and **Prev Page** become inactive.

NOTE:

If you need to view an image in detail, displaying only one page at a time allows you to enlarge it more.

*If you want to check the sewing information for individual objects composing your embroidery, you can do that by clicking **Option – Design Property**.*

See also: “Print Setup” on page 161, “Print” below and “Design Property” on page 223

Print

Purpose: Prints your Design Page and some sewing information.

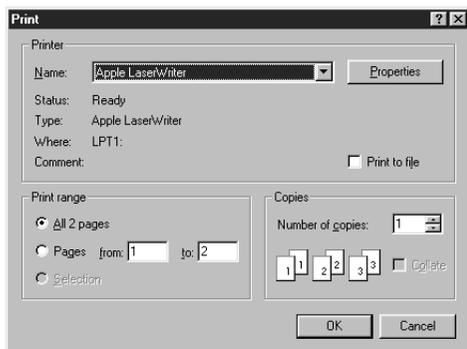
Shortcut key: **Ctrl** + **P**

Toolbar: No button for this function

Operation:

① Click **File**, then **Print**.

A **Print** dialog similar to this will display.



- ◆ Make the necessary setting.
- ◆ Click **OK** to print.
- ◆ Click **Cancel** to exit.
- ◆ Click **Properties** to change the default settings of the printer.

② Follow the instructions in the Windows manuals and in the manuals of your printer for the next operations.

Depending on the **Print Type** setting, one or two pages will be printed for one pattern or one hoop position.

Printing a Design Page for a multi-position embroidery frame (130 × 300 mm, 300 × 130 mm, 100 × 172 mm, or 172 × 100 mm)

If a Design Page for a multi-position embroidery frame is selected, each section of the design is printed on a separate page.

- If a 130 × 300 mm or 300 × 130 mm Design Page is selected, the design is divided into sections of 130 × 180 mm or 180 × 130 mm and each section is printed on a separate page.
- If a 100 × 172 mm or 172 × 100 mm Design Page is selected, the design is divided into sections of 100 × 100 mm and each section is printed on a separate page.

Printing a Design Page for a multi-position embroidery frame

When **Actual Size** is selected:

- ① Prints the entire Design Page at actual size
(However, for a 130 × 300 mm or 300 × 130 mm Design Page, a reduced image of the Design Page is printed.)
- ② Prints the pattern in the section of the Design Page that would be sewn with the first embroidery frame installation position
- ③ Prints the color order for the pattern in the section of the Design Page that would be sewn with the first embroidery frame installation position
- ④ Prints the pattern in the section of the Design Page that would be sewn with the second embroidery frame installation position

- Prints the color order for the pattern in the section of the Design Page that would be sewn with the second embroidery frame installation position

:

This continues until all of the sewing data is printed.

When **Reduced Size** is selected:

- Prints the entire Design Page at actual size
(However, for a 130 × 300 mm or 300 × 130 mm Design Page, a reduced image of the Design Page is printed.)
- Prints the pattern and its color order for the section of the Design Page that would be sewn with the first embroidery frame installation position
- Prints the pattern and its color order for the section of the Design Page that would be sewn with the second embroidery frame installation position

:

This continues until all of the sewing data is printed.

NOTE:

*In addition, when the **File – Print Preview** command is selected, each section of the pattern is displayed as mentioned above.*

■ Exit

Purpose: Exits the application.

Shortcut key: **Alt** + **F4**

Toolbar: No button for this function

Operation:

- Click **File**, then **Exit**.
If the current Design Page is not edited, the application closes immediately.
- If the current Design Page is edited, you will be asked whether you want to save the changes. See “Open” on page 150.

See also: “Save” and “Save As” on page 156

Edit Menu

The functions of the Edit menu perform simple actions on selected patterns, such as cutting and pasting.

Undo		Undoes the last operation.	page 166
Redo		Cancels the effect of the last Undo.	page 166
Group		Turns several selected objects into one object.	page 167
Ungroup		Cancels the grouping for grouped objects.	page 167
Cut		Removes the selected pattern(s) from the screen while saving a copy in the clipboard.	page 167
Copy		Saves the selected pattern(s) in the clipboard without removing them from the screen.	page 168
Duplicate		Makes a copy of the selected pattern(s).	page 168
Paste		Pastes the contents of the clipboard on the screen.	page 168
Delete		Removes the selected pattern(s) from the screen without saving them in the clipboard.	page 168
Mirror	Horizontal	Flips the selected pattern(s) up/down.	page 169
	Vertical	Flips the selected pattern(s) left/right.	page 169
Rotate		Allows you to manually rotate the selected pattern(s) by an arbitrary angle.	page 170
Numerical Setting	Size	Resizes the selected pattern numerically.	page 171
	Rotate	Rotates the selected pattern numerically.	page 172
Center		Moves the selected object to the center of Design Page.	page 172
Align		Aligns the selected patterns as indicated.	page 173
Select All		Selects all the patterns.	page 174

Undo

Purpose: Undoes the last operation.

Shortcut key: **Ctrl** + **Z**

Toolbar: 

Operation:

- 1 Click **Edit**, then **Undo**.

The last operation is automatically undone. For example, if you have mistakenly deleted an pattern, this function will make it reappear.

See also: “Redo” below

Redo

Purpose: Cancels the effect of the last **Undo**.

Shortcut key: **Ctrl** + **A**

Toolbar: 

Operation:

- 1 Click **Edit**, then **Redo**.

The effect of the last **Undo** is cancelled. For example, you have used **Undo** just after drawing a circle. **Undo** deleted the circle. Using **Redo** will make the circle reappear.

See also: “Undo” above

Group

Purpose: Turns several selected objects into one object.

Shortcut key: **Ctrl** + **G**

Toolbar: No button for this function

Operation:

① Select several objects.

② Click **Edit** then **Group**.

The selected objects will become one object.

You can treat the objects as one object for any further editing functions.

NOTE:

When this function is operated, the sewing order for the selected objects will change. The grouped objects will be moved to the sewing position of the last object in the group, and will be sewn in order in that position. The sewing order of the grouped objects can not be changed, nor can another object be inserted in the sewing order of the grouped objects. If you want to change the sewing order in those ways, cancel the grouping.

NOTE:

- If you select either a path, or text fit to a path, both will be included in the grouping.
- When selecting an object set as part of a hole sewing pattern, the entire hole sewing pattern will be included in the grouping.

See also: “Ungroup” below

Ungroup

Purpose: Cancels the grouping for grouped objects.

Shortcut key: **Shift** + **G**

Toolbar: No button for this function

Operation:

① Select a grouped object.

② Click **Edit** then **Ungroup**.

The grouping of the selected object is cancelled.

After completing this operation, you can carry out editing operations on each object individually.

See also: “Group” above

Cut

Purpose: Removes the selected pattern(s) from the screen while saving a copy in the clipboard.

Shortcut key: **Ctrl** + **X**

Toolbar: 

Operation:

① Select one or more patterns.

2 Click **Edit**, then **Cut**.

The selected patterns disappear. Since they are saved in the clipboard, you can paste them back using **Edit – Paste**.

See also: “Copy”, “Paste” and “Delete” below

Copy

Purpose: Saves the selected pattern(s) in the clipboard without removing them from the screen.

Shortcut key: **Ctrl** + **C**

Toolbar: 

Operation:

1 Select one or more patterns.

2 Click **Edit**, then **Copy**.

The patterns are copied into the clipboard and are ready to be pasted.

See also: “Cut” on page 167, “Duplicate” and “Paste” below

Duplicate

Purpose: Makes a copy of the selected pattern(s).

Shortcut key: **Ctrl** + **D**

Toolbar: No button for this function

Operation:

1 Select one or more patterns.

2 Click **Edit**, then **Duplicate**.

A copy of the patterns appears on the screen.

See also: “Copy” above and “Paste” below

Paste

Purpose: Pastes the contents of the clipboard on the screen.

Shortcut key: **Ctrl** + **V**

Toolbar: 

Operation:

1 Click **Edit**, then **Paste**.

The patterns saved in the clipboard (using **Cut** or **Copy**) are pasted on the screen.

See also: “Cut” on page 167, “Copy” and “Duplicate” above

Delete

Purpose: Removes the selected pattern(s) from the screen without saving them in the clipboard.

Shortcut key: **Delete**

Toolbar: No button for this function

Operation:

① Select one or more patterns.

② Click **Edit**, then **Delete**.

The selected pattern(s) are removed from the screen. Since they are not saved in the clipboard, the only way to make them reappear is to use **Edit – Undo**.

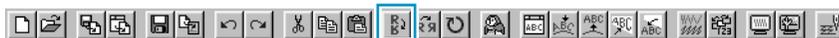
See also: “Undo” on page 166, “Cut” on page 167

■ Mirror – Horizontal

Purpose: Flips the selected pattern(s) up/down.

Shortcut key: **Ctrl** + **H**

Toolbar:

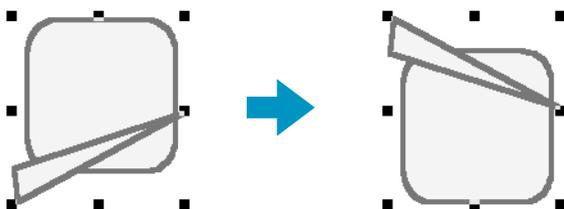


Operation:

① Select one or more patterns.

② Click **Edit**, then **Mirror**, then **Horizontal**.

The selected pattern(s) are replaced by their horizontal mirror image (top and bottom inverted). Two successive applications of this function restores the original image.



Note that some patterns installed from a card cannot be flipped.

See also: “Mirror – Vertical” below, “Rotate” on page 170

■ Mirror – Vertical

Purpose: Flips the selected pattern(s) left/right.

Shortcut key: **Ctrl** + **J**

Toolbar:

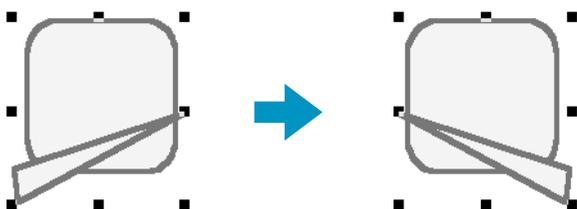


Operation:

① Select one or more patterns.

② Click **Edit**, then **Mirror**, then **Vertical**.

The selected pattern(s) are replaced by their vertical mirror image (left and right inverted). Two successive applications of this function restores the original image.



Note that some patterns installed from a card cannot be flipped.

See also: “Mirror – Horizontal” above, “Rotate” on page 170

■ Rotate

Purpose: Allows you to manually rotate the selected pattern(s) by an arbitrary angle.

Shortcut key: **Ctrl** + **Y**

Toolbar:



Operation:

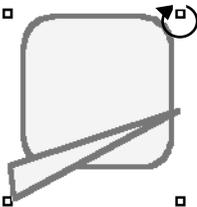
- 1 Select one or more patterns.



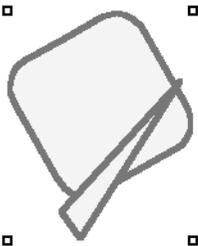
- 2 Click **Edit**, then **Rotate**.
The shape of the handles changes.



- 3 Move the cursor to one of the handles.
The shape of the cursor changes.



- 4 Drag the handle to rotate the pattern the desired angle and release the mouse button.



A simple dragging of the mouse will rotate the pattern by 1° increments. Pressing the **Shift** key will rotate it by 15° increments.

See also: “Mirror – Horizontal” and “Mirror – Vertical” on page 169

Numerical Setting-Size

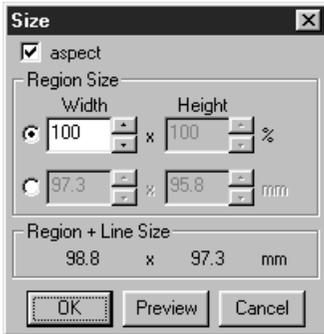
Purpose: Resizes the selected pattern numerically.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

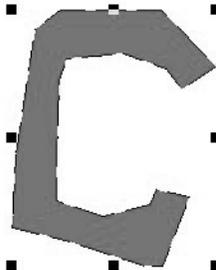
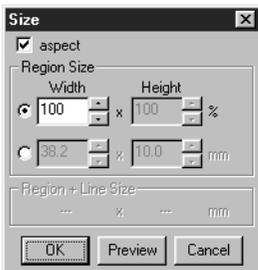
Operation:

- 1 Select one or more patterns.
- 2 Click **Edit**, then **Numerical Setting**, then **Size**.
The **Size** dialog appears.

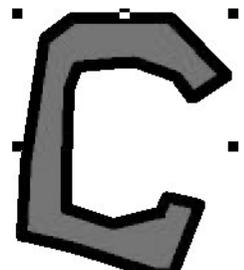
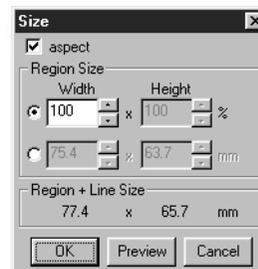


- ◆ To change the width and height proportionally, check **aspect**.
- ◆ Select the units (% or mm/inch) for the width and height.
- ◆ Either typing in a value or clicking the arrows to select the desired value can enter the width and height. Select **100%** to leave the pattern unchanged. If **aspect** is selected, changing one dimension automatically changes the other so the proportion of the width and height remains unchanged. The specified size is for the region. If the pattern has a line, the size of the entire pattern can be checked under **Region + Line Size** at the bottom of the dialog.
- ◆ Click **OK** to confirm.
- ◆ Click **Preview** to view the pattern at the new size in the Design Page.
- ◆ Click **Cancel** to exit without making any changes.

Region (without line)



Region + line



NOTE:

The maximum value that can be entered is the largest value that will not allow the pattern to exceed the size of the Design Page.

The minimum value is 1 mm (0.04 inch).

See also: “Select System Unit” on page 229

■ Numerical Setting-Rotate

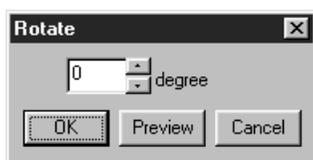
Purpose: Rotates the selected pattern numerically.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- ❶ Select one or more patterns.
- ❷ Click **Edit**, then **Numerical Setting**, then **Rotate**.
The **Rotate** dialog appears.



- ◆ The desired rotation angle can be entered by either typing in a value or clicking the arrows to select the desired value. Select **0 degree** to leave the pattern unchanged.
- ◆ Click **OK** to confirm.
- ◆ Click **Preview** to view the pattern rotated the specified angle in the Design Page.
- ◆ Click **Cancel** to exit without making any changes.

NOTE:

The range of values that can be entered is between 0 and 359 degrees, in 1 degree increments.

■ Center

Purpose: Moves the selected object to the center of Design Page.

Shortcut key: **Ctrl** + **M**

Toolbar: No button for this function

Operation:

- ❶ Select one or more objects.
- ❷ Click **Edit**, then **Center**.
The entire selected object moves to the center of Design Page.

NOTE:

For Letters Fit to a Path

If you select either the letters or the path only, the selected object will be moved to the center of Design page, but the unselected object will not be moved with it.

For Objects set for Hole Sewing

When selecting an object set as part of a hole sewing pattern, the selected object will be moved to the center of Design Page, but the unselected objects will not be moved with it.

Align

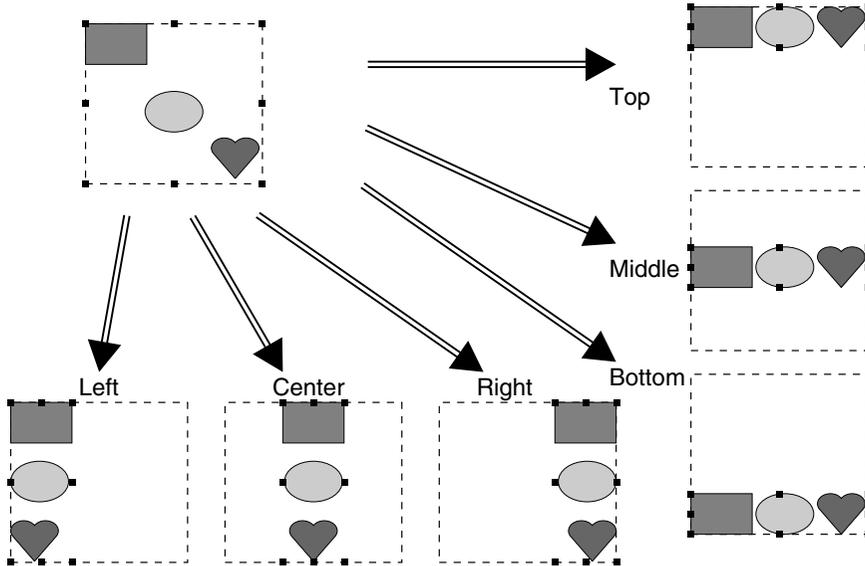
Purpose: Aligns the selected patterns as indicated.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Select the patterns which you want to Align.
- 2 Click **Edit**, then **Align**, then **Left**, **Center**, **Right**, **Top**, **Middle**, or **Bottom**, depending on how you wish to align the patterns.
The selected patterns are aligned as shown below.
- 3 To choose a different alignment, click **Undo** and repeat 2.

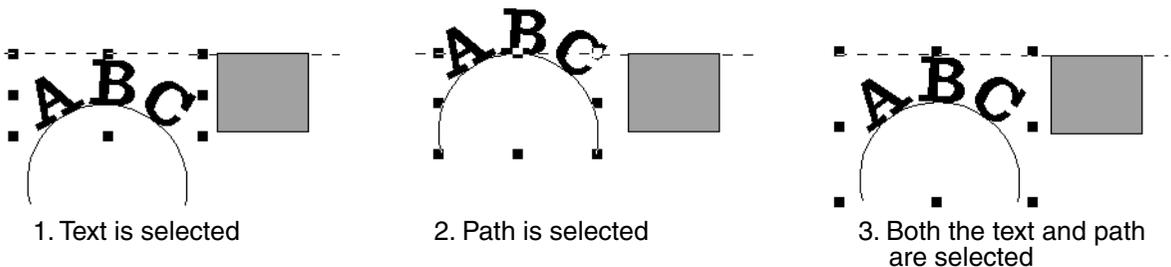


Text on a path:

Text on a path can be aligned by selecting other objects on the design page as well as the text, the path, or both the text and the path. Each selected pattern is aligned on its outline. In order to align with object(s) on the design page all the object(s) must be selected with text and/or path.

NOTE:

Refer to index for related topics, if necessary.

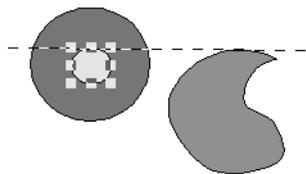


Objects set for hole sewing:

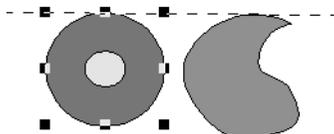
If just the inside of a pattern is selected, the pattern is aligned on the outline of the inside area. If the outside of the pattern is also selected, the pattern is aligned on the outline of the outside area. In order to align with object(s) on the design page all the object(s) must be selected.

NOTE:

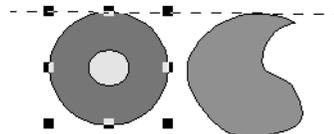
Refer to index for related topics, if necessary.



1. Inside area is selected



2. Outside area is selected



3. Both the inside and outside areas are selected

Select All

Purpose: Selects all the patterns.

Shortcut key: **Ctrl** + **E**

Toolbar: No button for this function

Operation:

- 1 Make sure that the cursor is in Selection mode.
- 2 Click **Edit**, then **Select All**.

Image Menu

The Image menu contains commands for importing and exporting image data and creating embroidery data from image data.

Input	from File	Imports image data from an existing file so that it can be used as a guide for creating embroidery data	page 176
	from TWAIN device	Operates a TWAIN standardized scanner or other device to import an image.	page 176
	from Portrait	Combine images of facial features that are built in to the program to create an original portrait.	page 177
	from Clipboard	Import image data from the clipboard.	page 178
Output	to File	Saves the image data as a file.	page 179
	to Clipboard	Copies the image data onto the clipboard.	page 179
Select TWAIN device		Selects which TWAIN device installed in the computer to use.	page 179
Modify		Adjusts the size and position of the image data.	page 180
Image to Stitch Wizard		Gives step-by-step instruction for creating embroidery data from image data.	page 181
Display Image	On, Faded, Off	Turns on or off the template image or displays it faded.	page 196

Input – from File

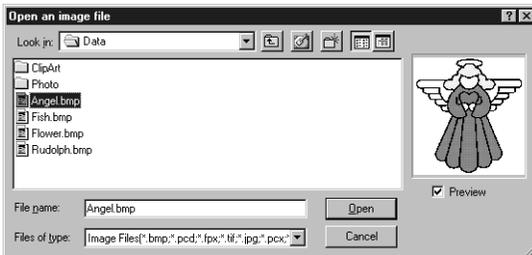
Purpose: Imports image data from an existing file so that it can be used as a guide for creating embroidery data

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Input**, then **from File**.
A dialog similar to the one shown below appears.



- ◆ Select the drive, the folder and the file name.
 - If the **Preview** check box is checked, the contents of the selected file displays in the Preview window.
- ◆ Click **Open** to open the file.
 - Double-clicking the file name will also open the file and close the dialog.
- ◆ Click **Cancel** if you want to exit the function.
 - The file extension must be one of the following: Windows BMP (*.bmp), Exif (*.tif, *.jpg), ZSoftPCX (*.pcx), Windows Meta File (*.wmf), Portable Network Graphics (*.png), Encapsulated PostScript (*.eps), Kodak PhotoCD (*.pcd), FlashPix (*.fpx), JPEG2000 (*.j2k).

NOTE:

For *pcd* and *fpx* files that are saved on many pages, only the first page can be opened. *Tif* files that have used *LZW* compression can not be opened.

NOTE:

If image data that has previously been edited is selected, the image data is corrected to the previously edited position and size, then opened.

- 2 Your Design Page will display the image.
If the current image is not saved, you will be asked whether you want to save it.



- ◆ Click **OK** to save the image.
- ◆ Click **Cancel** to finish without saving the image.

Input – from TWAIN device

Purpose: Operates a TWAIN standardized scanner or other device to import an image.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Check that the scanner or other device is correctly connected.
- 2 Click **Image**, then **Input**, then **from TWAIN device**.
The driver interface set in the **Select TWAIN device** dialog is displayed.
Operate that interface, make the settings for importing an image, and import the image.

NOTE:

For information on using the interface, see the help manual for that interface, or contact the manufacturers of the interface.

- 3 When the image transfer between the scanner (or other device) and the driver is complete, the imported image will be pasted in Design Page.
If the current image is not saved, you will be asked whether you want to save it.



- ◆ Click **OK** to save the image.
- ◆ Click **Cancel** to finish without saving the image.

NOTE:

TWAIN is an application interface (API) standardization for software controlling scanners, etc. Also, the software itself is called TWAIN.

This software supports TWAIN standardized devices, so you can control the scanner and import the image directly.

*Before using this function, you must go to the **Select TWAIN device** dialog to select a TWAIN device.*

■ Input – from Portrait

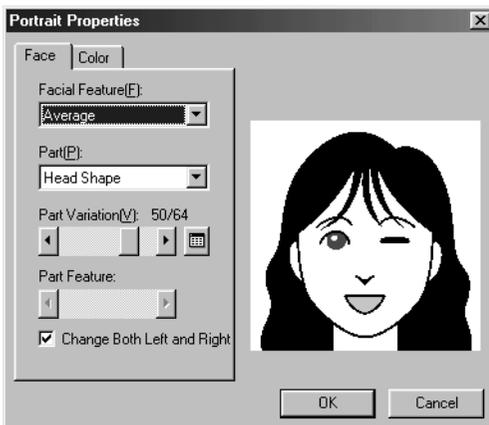
Purpose: Combine images of facial features that are built in to the program to create an original portrait.

Shortcut key: No shortcut key for this function

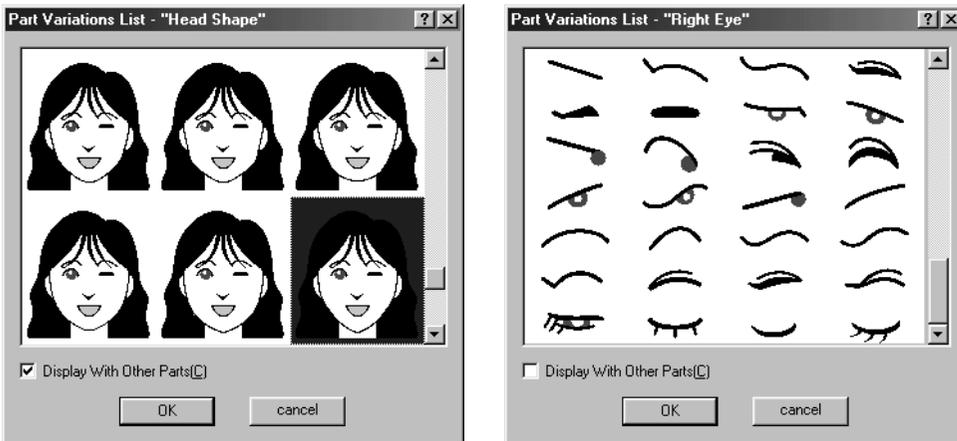
Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Input**, then **from Portrait**.
A dialog similar to the one shown below appears.



- 2 While checking the sample image on the right side of the dialog, select the various facial features.
 - ◆ Select the overall contour (appearance) of the portrait from the Facial Feature list. Select from narrow, wide, child-like, etc.
 - ◆ Select a part of the portrait from the Part list. The part of the portrait to be changed can also be selected by clicking it in the sample image.
 - ◆ Drag the Part Variation slider to select the part variation. The selected part variation is shown in the sample image. Select the **Change Both Left and Right** check box to change both sides of a part, such as the eyes or ears.
 - ◆ Click  to display all variations of the selected part.



If the **Display With Other Parts** check box is selected, images of all parts combined are displayed. If the check box is not selected, only the variations of the selected part are displayed. Select a part from the list, and then click **OK**.

- ◆ Drag the Part Feature slider to change the part feature. Select from making the part standard size, slightly larger, slightly smaller, wider or taller.
 - ◆ Click the Color tab to change the color of the part.
- 3 After the portrait is created, click **OK**. The portrait image appears in Design Page. If the current image is not saved, you will be asked whether you want to save it.



- ◆ Click **OK** to save the image.
- ◆ Click **Cancel** to finish without saving the image.

■ Input – from Clipboard

- Purpose:** Import image data from the clipboard.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function
- Operation:**

- 1 Click **Image**, then **Input**, then **from Clipboard**. (This can only be done when there is image data on the clipboard.)
- 2 Your Design Page will display the image.
If the current image is not saved, you will be asked whether you want to save it.



- ◆ Click **OK** to save the image.
- ◆ Click **Cancel** to finish without saving the image.

Output – to File

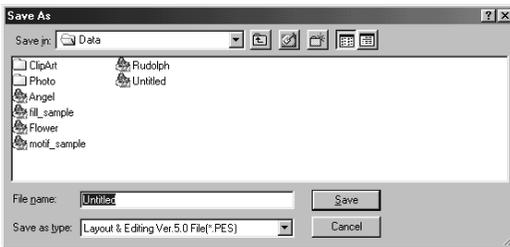
Purpose: Saves the image data as a file.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Output**, then **to File**.
A dialog similar to the one shown below appears.



- ◆ Select the drive, the folder and the format in which you wish to save the image data.
- ◆ Type the file name.
 - *The correct extension is automatically set.*
 - *The image data can be saved in any of the following formats: Windows BMP (*.bmp), Exif (*.jpg).*
- ◆ Click **Save** to save the data.
- ◆ Click **Cancel** to exit the function.

Output – to Clipboard

Purpose: Copies the image data onto the clipboard.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Output**, then **to Clipboard**.
The image data in the Design Page is copied onto the clipboard.

Select TWAIN device

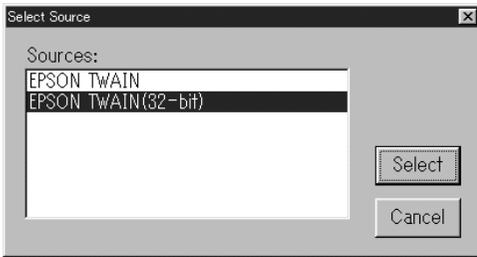
Purpose: Selects which TWAIN device installed in the computer to use.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Select TWAIN device**.
A dialog similar to this will display.



- 2 From the devices in the display, select which device to use and highlight that device.
 - ◆ Click **Select** to choose the selected device and close the dialog.
 - ◆ Click **Cancel** to ignore the operation done to change the device and close the dialog.

NOTE:

If there is no TWAIN device installed, there will be no names displayed on the Sources list. Use this function after installing the driver software for the TWAIN device you want to use.

Modify

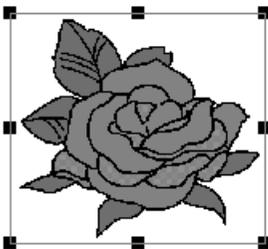
Purpose: Adjusts the size and position of the image data.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Image**, then **Modify**.
The image to be edited will appear surrounded with a red line and handles. In addition, the size of the image data is displayed in the status bar.

**Moving an image:**

Move the cursor over an image. The shape of the cursor will change to . Drag the image to the desired location.

Scaling an image:

Move the cursor over one of the handles. The shape of the cursor will change to , , , or , depending on the handle the cursor is on.

Drag the handle in the direction of the arrow to scale the image.

 is for scaling the width.

 is for scaling the height.

 and  are for scaling both dimensions at the same time.

Deleting an image:

Press **Delete**. The image will be deleted from the Design Page.

Image to Stitch Wizard

Purpose: Gives step-by-step instruction for creating embroidery data from image data.

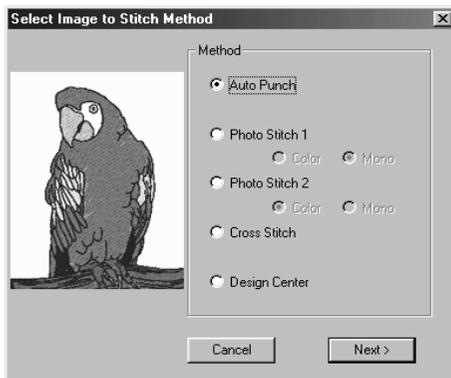
Shortcut key: No shortcut key for this function

Toolbar:



Operation:

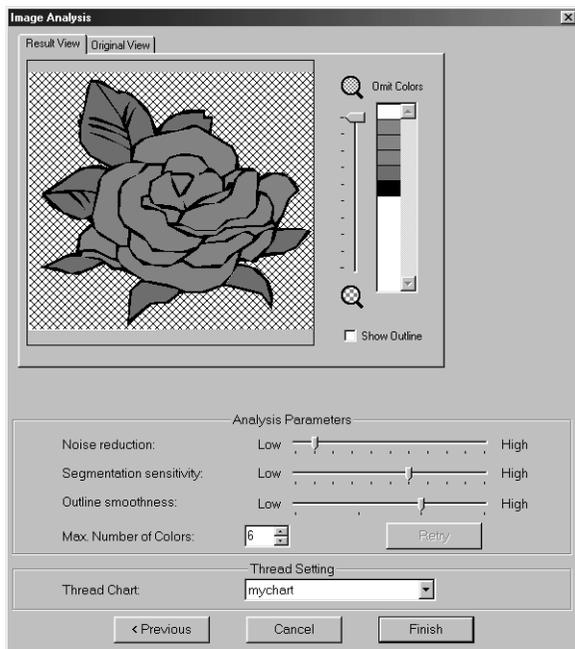
- 1 Use one of the commands on the **Input** sub-menu of the **Image** menu to prepare the image data that will be used to create the embroidery data.
- 2 Click **Image**, then **Modify**, and then re-size and re-position the image data for creating the embroidery data.
- 3 Click **Image**, then **Image to Stitch Wizard**.
The following dialog will appear. (If there is no image in the Design Page, the dialog appears after an image is imported from a file.)



- ◆ Select **Auto Punch** to automatically extract the image boundaries in order to create the embroidery data.
- ◆ Select **Photo Stitch 1** to automatically create realistic photo embroidery. This can be set to color or black and white.
- ◆ Select **Photo Stitch 2** to automatically create realistic photo embroidery in 4 colors or 1 color.
- ◆ Select **Cross Stitch** to create cross-stitch.
- ◆ Select **Design Center** to run Design Center with the Design Page Image.
- ◆ Select the type of embroidery that you wish to create, and then click **Next**.
- ◆ Click **Cancel** to quit the operation.

If Auto Punch is selected:

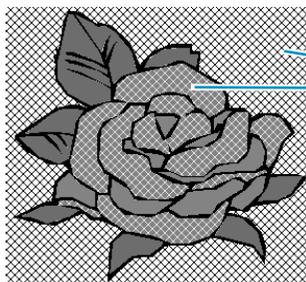
1 After the image characteristics are analyzed, a dialog similar to the one shown below appears.



- ◆ Click the **Result View** tab to display the resulting analyzed image. The embroidery data will be created with this image.
- ◆ Click the **Original View** tab to display the original image.
- ◆ Drag the  slider to adjust the zoom ratio that the image is displayed in.
- ◆ Select the **Show Outline** check box to display the outline extracted from the analyzed image.
- ◆ Select the desired image-analyzing settings under Analysis Parameters.
Noise reduction: Sets the level of noise that is removed from the image.
Segmentation sensitivity: Sets the smoothness of the extracted outline.
Outline smoothness: Sets the smoothness of the extracted outline.
Max. Number of colors: Sets the number of colors used.
After the necessary settings are selected, click **Retry** to re-analyze the image. If **Retry** is not clicked, the new settings are not applied.
Thread Chart: Selects the thread chart for selecting the thread color. The most appropriate thread color from the selected thread chart is selected. A user thread chart can also be selected.

2 Select the areas that are to be sewn.

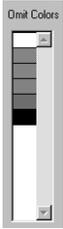
In the image on the **Result View** tab, areas not set to be sewn are shown filled with a crosshatch pattern.



These areas will not be sewn

Click in the areas to specify whether or not they will be sewn.

In addition, whether all areas in certain colors will or will not be sewn can be specified in the Omit Colors list in the upper-right corner of the dialog.



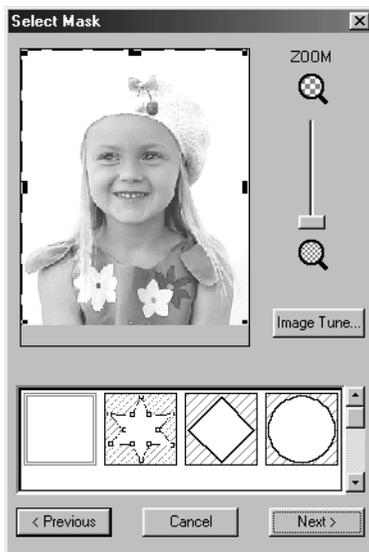
Colors that are crossed out are set to not be sewn.
Click on a color to specify whether or not it will be sewn.

- After the necessary settings are selected, click **Finish**.
Embroidery data is created from the outline of the analyzed data, the appropriate thread color and stitch settings are applied, and then the data is pasted into the Design Page.

The stitch settings of the created embroidery data can later be changed in the same way as the settings for other shape objects are.

If Photo Stitch 1 (Color) is selected:

- A Select Mask dialog similar to the one shown below appears.



- ◆ Click **Image Tune** to open the Image Tune dialog, where you can edit the image (see below).
- ◆ Click **Next** to display the next dialog.
- ◆ Click **Cancel** to close this dialog.
- ◆ Click **Previous** to return to the previous dialog.

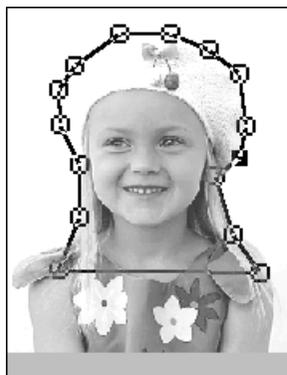
In this dialog, set the boundaries of the Photo Stitch and make adjustments to the image data.

- ◆ Use the ZOOM slider to zoom in and out on the image, as necessary.
- ◆ In the Mask Type section in the bottom of the dialog, select the trimming shape you want to use for the mask, and edit the mask in the shape you want to use. When the dialog opens, the square mask is selected.

Change the size of the mask by dragging the handles on the outside of the mask.

If you select the Arbitrary Shape Mask , the first display shows white square handles in the four corners of the square mask.

You can move points, enter points, delete points, or edit this square mask however you like in the Point Edit mode.



(Pattern edited with the round mask) (Pattern edited with the arbitrary shape mask)

NOTE:

The mask size can be set in the range from 64×64 dots to the size of the image data.

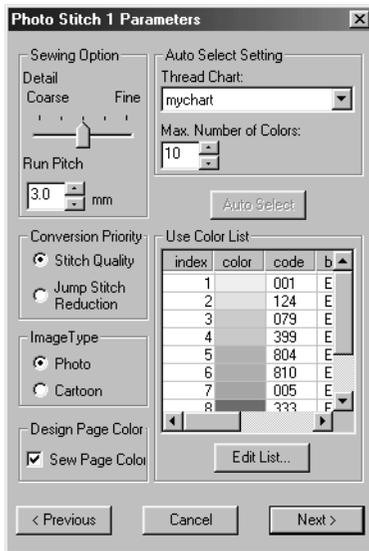
[Emphasizing the Outline]

In the Select Mask dialog above, click **Image Tune**. An Image Tune dialog similar to the one shown below appears. You can make the image brighter or darker (clearer or less sharp).



- ◆ The image window displays the image resulting from the current operations.
- ◆ Use **Original – Sharp** to adjust the sharpness of the image's outlines. A setting more towards **Sharp** makes a more noticeable boundary between bright and dark areas.
- ◆ Use **Dark – Bright** to adjust the brightness of the image.
- ◆ Use **Contrast Low – High** to adjust the contrast of the image.
- ◆ Click **OK** to show the finished image on the Design Page and on the Select Mask dialog, and close this dialog.
- ◆ Click **Cancel** to close this dialog.

- 2 In the Select Mask dialog, click **Next** to display the Photo Stitch Parameters dialog similar to the one shown below.



- ◆ Specify the settings for creating Photo Stitch data.
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to apply the settings to the Photo Stitch data, and display the next dialog.
- ◆ Click **Cancel** to close this dialog.

Sewing Option:

Detail	Specifies how detailed the created embroidery data will be. Selecting a setting closer to Fine creates more details in the data and increases the number of stitches.
Run pitch	Sets the sewing pitch. The pattern is created with this setting value as the minimum length. Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 3 mm (0.12 inch)
Conversion Priority	Select what parameter is given priority when converting to embroidery data. Stitch Quality: Creates data while giving priority to the stitching quality. However, many jump stitches will result. Jump Stitch Reduction: Creates data while giving priority to reducing the number of jump stitches in order to reduce complications during embroidering. However, the stitching quality will be slightly reduced.

Image Type:

Photo/Cartoon	If Photo is selected, the thread colors will be mixed together, which will result in a more natural look. If Cartoon is selected, the thread colors will not be mixed together, which will result in a more simply colored look. Select Photo for image data from a photograph, etc. Select Cartoon for image data from an illustration, etc. (If there are less than 16 colors in the image data, the default selection is Cartoon .)
----------------------	--

Design Page Color:

Sew Page Color	If this item is checked, the data for parts of the pattern that are the same color as the Design Page will be created. Remove the check from the item if you will keep the fabric color the same as the Design Page. The default setting is checked (ON).
-----------------------	--

Auto Select Setting:

Thread Chart	Selects the thread chart for selecting the thread color with the Auto Select function. The most appropriate thread color from the selected thread chart is selected. A user thread chart can also be selected.
Color Count	Sets the number of colors selected by the Auto Select function. Range: 1 - 50 Default: 10

Auto Select:

Click this button to use the settings specified for Auto Select Setting and automatically select from the selected thread chart the most appropriate thread colors for creating photo embroidery data. The selected thread colors appear in the Use Color List mentioned below. This button can be clicked if the settings for Auto Select Setting have been changed.

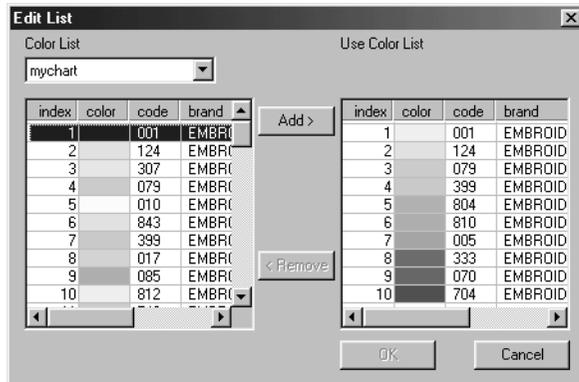
Use Color List:

Allows the selected thread colors to be checked and edited.

Use Color List Summary	Thread colors selected for creating the data are displayed in order by level of brightness. This order is the sewing order. The order can not be changed. The maximum number of colors is 50.
Edit List	Click this button to open the Edit List dialog, which lets you manually set the thread colors to be used when creating the data (see below).

[Manual Color Selection]

If you click **Edit List** in the Photo Stitch Parameters dialog above, an Edit List dialog similar to this will display, and you can manually set the thread colors to be used in the Photo Stitch.



- ◆ Click **Add** to add a selected color from the System Color List to the Use Color List. If there is no color selected, or if the Use Color List already has 50 colors, this button can not be used.
- ◆ Click **Remove** to delete a selected color from the Use Color List. If there is no color selected in the Use Color List, this button can not be used.
- ◆ Click **OK** to apply the edited contents of the list and close the dialog. The edited settings will be shown in the Photo Stitch Parameters dialog. This button can not be clicked when the Use List display is empty.
- ◆ Click **Cancel** to close the dialog without applying the edited contents of the list.

In the **System Color List**, the thread colors in the selected thread chart are listed in order by the level of brightness. (Thread colors displayed in the Use Color List are not displayed in the System Color List.)

In the **Use Color List**, thread colors selected for use in the Photo Stitch data are displayed in order from the brightest. This order is the sewing order. The order can not be changed. The maximum number of colors that can be added to this list is 50.

From this point, the colors in the lists can be selected by clicking on them, or several colors can be selected by holding the **Shift** key or **Ctrl** key and clicking on the colors.

- 3 Click **Next** in the Photo Stitch Parameters dialog to display a Preview dialog similar to the one shown below.

The created embroidery data can be previewed in this dialog.

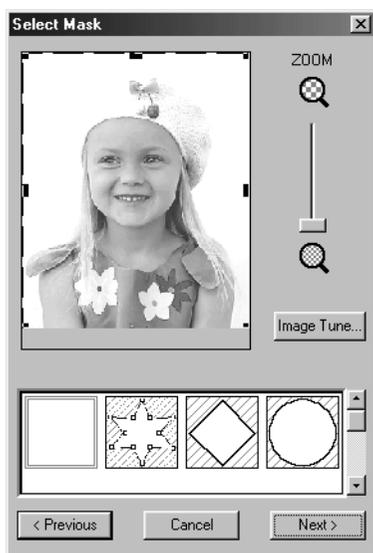
In addition, you can return to previous dialogs in order to change the settings.



- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Finish** to paste the created embroidery data into the Design Page.
- ◆ Click **Cancel** to close this dialog.

If Photo Stitch 1 (Mono) is selected:

- 1 A Select Mask dialog similar to the one shown below appears.



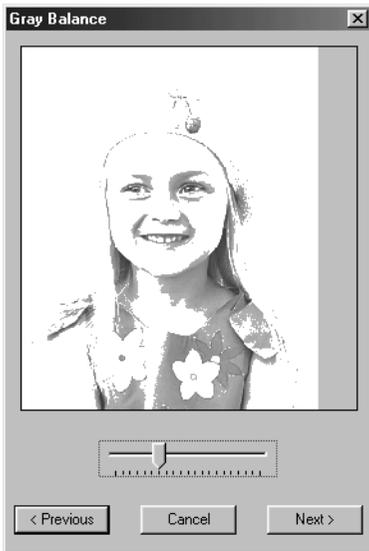
For details on the settings, refer to 1 of “If Photo Stitch 1 (Color) is selected:”.

In this dialog, set the boundaries of the Photo Stitch and make adjustments to the image data.

- 2 In the Select Mask dialog, click **Next** to display the Gray Balance dialog similar to the one shown below.

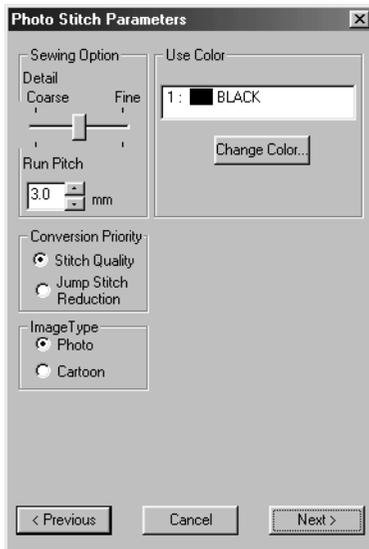


Drag the slider to specify which parts of the image embroidery data will be created for. Data will be created for any areas remaining in black.



- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to display the next dialog.
- ◆ Click **Cancel** to close this dialog.

- 3 In the Gray Balance dialog, click **Next** to display the Photo Stitch Parameters dialog similar to the one shown below.



- ◆ Specify the settings for creating Photo Stitch data.
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to apply the settings to the Photo Stitch data, and display the next dialog.
- ◆ Click **Cancel** to close this dialog.

Sewing Option:

Detail	Specifies how detailed the created embroidery data will be. Selecting a setting closer to Fine creates more details in the data and increases the number of stitches.
Run pitch	Sets the sewing pitch. The pattern is created with this setting value as the minimum length. Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 3 mm (0.12 inch)
Conversion Priority	Select what parameter is given priority when converting to embroidery data. Stitch Quality: Creates data while giving priority to the stitching quality. However, many jump stitches will result. Jump Stitch Reduction: Creates data while giving priority to reducing the number of jump stitches in order to reduce complications during embroidering. However, the stitching quality will be slightly reduced.

Image Type:

Photo/Cartoon	If Photo is selected, the thread colors will be mixed together, which will result in a more natural look. If Cartoon is selected, the thread colors will not be mixed together, which will result in a more simply colored look. Select Photo for image data from a photograph, etc. Select Cartoon for image data from an illustration, etc. (If there are less than 16 colors in the image data, the default selection is Cartoon .)
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Use Color:

Specifies the color of thread used to create the embroidery data. The default setting is the darkest color in the current thread chart.

Change Color

Click this button to open the Thread Color dialog, which lets you change the thread color used in the embroidery data.

- 4 Click **Next** in the Photo Stitch Parameters dialog to display a Preview dialog similar to the one shown below.

The created embroidery data can be previewed in this dialog.

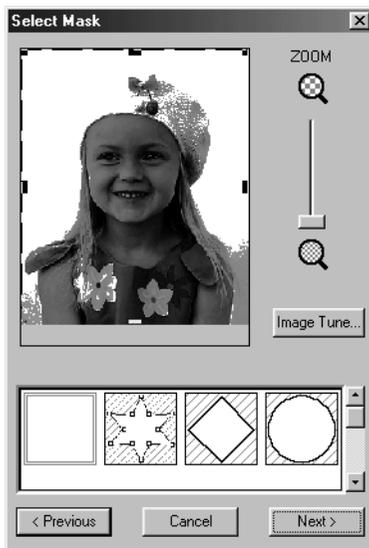
In addition, you can return to previous dialogs in order to change the settings.



- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Finish** to paste the created embroidery data into the Design Page.
- ◆ Click **Cancel** to close this dialog.

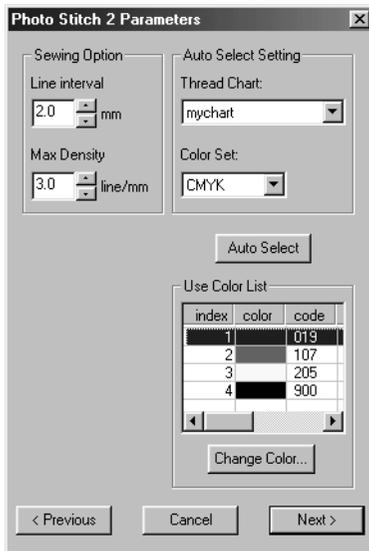
If Photo Stitch 2 (Color) is selected:

- 1 A Select Mask dialog similar to the one shown below appears.



For details on the settings, refer to 1 of "If Photo Stitch 1 (Color) is selected:" on page 183. In this dialog, set the boundaries of the Photo Stitch and make adjustments to the image data.

- 2 In the Select Mask dialog, click **Next** to display the Photo Stitch Parameters dialog similar to the one shown below.



- ◆ Specify the settings for creating Photo Stitch data.
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to apply the settings to the Photo Stitch data, and display the next dialog.
- ◆ Click **Cancel** to close this dialog.

Sewing Option:

Line Interval	<p>Specifies the interval of parallel lines used to create embroidery data. Range: 1.2 - 5 mm (0.05 - 0.2 inch) Default: 2 mm (0.08 inch)</p> 
Max. Density	<p>Specifies the maximum density for areas of the created embroidery data sewn with the zigzag stitch. The embroidery data will be created with a density smaller than that set here. Range: 2.5 - 5 lines per mm (64 - 127 lines per inch) Default: 3 lines per mm (76 lines per inch)</p>

Auto Select Setting:

Thread Chart	<p>Selects the thread chart for selecting the thread color with the Auto Select function. The most appropriate thread color from the selected thread chart is selected. A user thread chart can also be selected.</p>
Color Set	<p>Sets the combination of four colors used when creating embroidery data. The color choices are: cyan (C), magenta (M), yellow (Y), black (K), red (R), green (G) and blue (B). Select one of the following combinations that contains the colors most used in the image. Color combinations: CMYK, RGBK, CRYK, BMYK</p>

Auto Select:

Click this button to select from the selected thread chart the thread colors closest to the four colors in the selected color set. The selected thread colors appear in the Use Color List mentioned below. This button can be clicked if the settings for Auto Select Setting have been changed.

Use Color List:

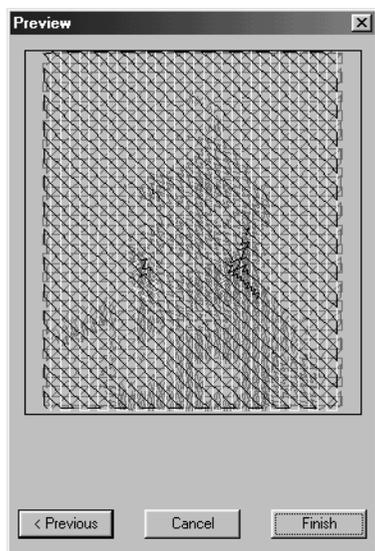
Allows the selected thread colors to be checked and edited.

Use Color List Summary	Displays the four selected thread colors.
Change Color	Select the color that you want to edit from the list, and then click this button to open the Thread Color dialog, which lets you edit the thread color used in the embroidery data.

- Click **Next** in the Photo Stitch Parameters dialog to display a Preview dialog similar to the one shown below.

The created embroidery data can be previewed in this dialog.

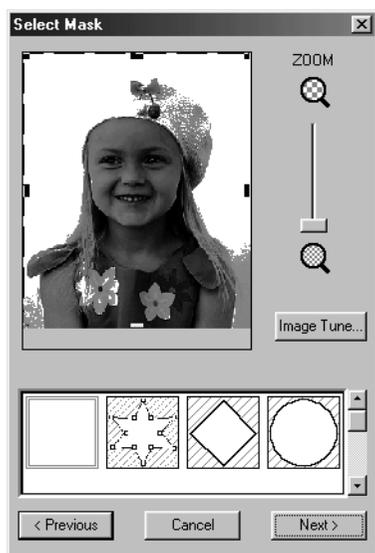
In addition, you can return to previous dialogs in order to change the settings.



- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Finish** to paste the created embroidery data into the Design Page.
- ◆ Click **Cancel** to close this dialog.

If Photo Stitch 2 (Mono) is selected:

- A Select Mask dialog similar to the one shown below appears.



For details on the settings, refer to ❶ of “If Photo Stitch 1 (Color) is selected:” on page 183. In this dialog, set the boundaries of the Photo Stitch and make adjustments to the image data.

- 2 In the Select Mask dialog, click **Next** to display the Gray Balance dialog similar to the one shown below.

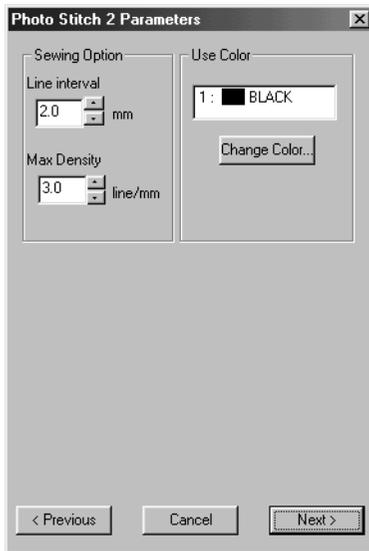


Drag the slider to specify which parts of the image embroidery data will be created. Data will be created for any areas remaining in black.



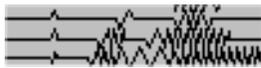
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to display the next dialog.
- ◆ Click **Cancel** to close this dialog.

- In the Gray Balance dialog, click **Next** to display the Photo Stitch Parameters dialog similar to the one shown below.



- ◆ Specify the settings for creating Photo Stitch data.
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Next** to apply the settings to the Photo Stitch data, and display the next dialog.
- ◆ Click **Cancel** to close this dialog.

Sewing Option:

Line Interval	<p>Specifies the interval of parallel lines used to create embroidery data. Range: 1.2 - 5 mm (0.05 - 0.2 inch) Default: 2 mm (0.08 inch)</p> 
Max. Density	<p>Specifies the maximum density for areas of the created embroidery data sewn with the zigzag stitch. The embroidery data will be created with a density smaller than that set here. Range: 2.5 - 5 lines per mm (64 - 127 lines per inch) Default: 3 lines per mm (76 lines per inch)</p>

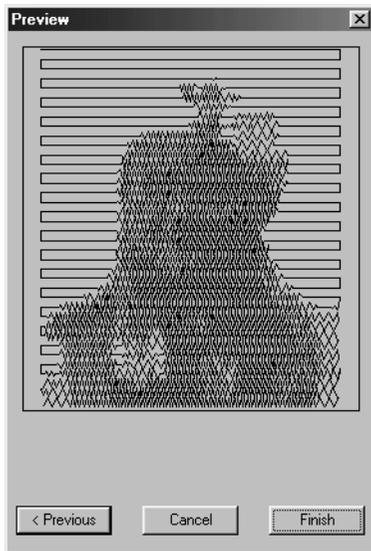
Use Color:

Specifies the color of thread used to create the embroidery data. The default setting is the darkest color in the current thread chart.

Change Color	<p>Click this button to open the Thread Color dialog, which lets you change the thread color used in the embroidery data.</p>
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- Click **Next** in the Photo Stitch Parameters dialog to display a Preview dialog similar to the one shown on page 195.

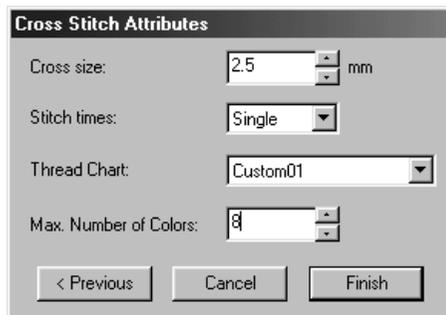
The created embroidery data can be previewed in this dialog.
In addition, you can return to previous dialogs in order to change the settings.



- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Finish** to paste the created embroidery data into the Design Page.
- ◆ Click **Cancel** to close this dialog.

If Cross Stitch is selected:

1 The following Cross Stitch Attributes dialog appears.



- ◆ Specify the settings for cross stitches.
- ◆ Click **Previous** to return to the previous dialog.
- ◆ Click **Finish** to paste the created embroidery data into the Design Page.
- ◆ Click **Cancel** to close this dialog.

Cross size	Sets the horizontal and vertical size of the pattern. Range: 1.5 - 5 mm (0.04 - 0.39 inch) Default: 2.5 mm (0.08 inch)
Stitch times	Sets the number of times that the pattern will be sewn. Sews twice per time. Range: Single, Double, Triple Default: Single
Thread Chart	Selects the thread chart for selecting the thread color. The most appropriate thread color from the selected thread chart is selected. A user thread chart can also be selected.
Max. Number of Colors	Sets the number of colors used in the created data. Embroidery data is created using no more than the number of colors specified. Range: 2 - 15 Default: 8

■ Display Image – On/Faded/Off

Purpose: Turns on or off the template image or displays it faded.

Shortcut key: **F6**

Toolbar: No button for this function

Operation:

❶ Click **Display**, then **Template**, then select the desired setting.

- ◆ Click **On** to display the original image.
- ◆ Click **Faded** to fade the image before displaying it.
- ◆ Click **Off** to hide the image.

This function is not available if a image is not open.

Press the shortcut key to switch between displaying the template image to displaying it faded to hiding the image.

Text Menu

The functions of the Text menu performs actions on text patterns, such as fitting text to a curved path.

Edit Text Letters	Allows you to edit an entered text.	page 197
Text Attribute Setting	Allows for precise control of character attributes.	page 198
Fit Text to Path Setting	Fits a line of text along a path.	page 199
Release Text from Path	Release the text from the path.	page 201
Transform Text	Applies a preset transformation to text.	page 201
Clear Transformation	Restores the original shape of the text.	page 202
True Type Font Attribute Setting	Sets the attributes, such as the style, for TrueType fonts that are converted to embroidery data.	page 202
Convert to Outline Object	Creates outline data from text data converted from a TrueType font	page 203

■ Edit Text Letters

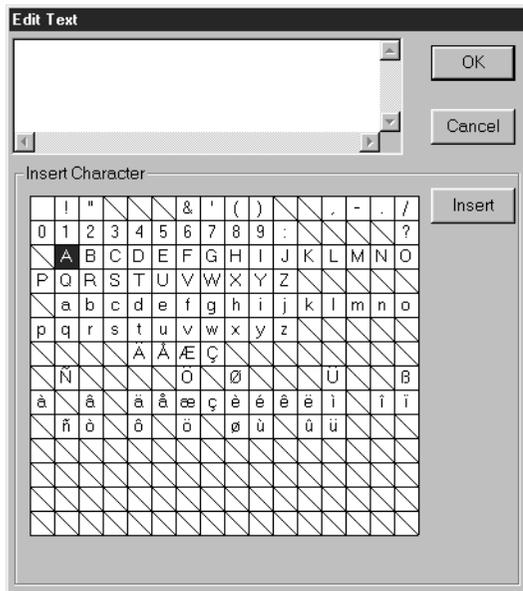
Purpose: Allows you to edit an entered text.

Shortcut key: **Ctrl** + **L**

Toolbar: No button for this function

Operation:

- 1 Select the text you want to edit. You cannot edit more than one text pattern at a time. If you select more than one text pattern, this function is not available.
- 2 Click **Text**, then **Edit Text Letters**.
The **Edit Text** dialog displays.



NOTE:

If text converted from a TrueType font is selected, the list of characters displayed is for the font of the first letter of the text.

- ◆ The selected text is highlighted in the text field.
- ◆ Edit your text as needed by deleting unwanted characters and typing or entering other characters by clicking them one at the time on the character table, then clicking **Insert** or simply by double-clicking them. Press the **Enter** key to enter new lines of text.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.
 - If a character that you entered is not available for the selected font, a warning message displays. Click **OK** in that dialog to close it and to return to the **Edit Text** dialog where you can correct your text.

If text made from multiple TrueType fonts is selected, the list of characters displayed is for the font of the first letter of the text.

See also: “Entering text” on page 127

Text Attribute Setting

Purpose: Allows for precise control of character attributes.

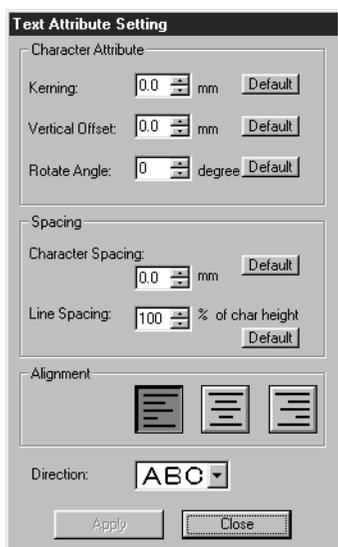
Shortcut key: **Ctrl** + **K**

Toolbar:



Operation:

- 1 Select one or more text patterns.
- 2 Click **Text**, then **Text Attribute Setting**. The **Text Attribute Setting** dialog displays.



- ◆ Enter the desired values for each setting.
- ◆ To restore the default value of an individual setting, click its **Default** button.
- ◆ Click **Apply** to confirm the effect of the setting.
- ◆ Click **Close** to remove the dialog.

Kerning	Sets the spacing between individual characters. Range: -100 - 100 mm (-3.94 - 3.94 inches) Default: 0	0.0 mm Abcdef	5.0 mm (between "A" and "b") A bcdef
Vertical Offset	Moves the text vertically. Range: -100 - 100 mm (-3.94 - 3.94 inches) Default: 0	0.0 mm <u>Abcdef</u>	2.0 mm <u>Abcdef</u>
Rotate angle	Rotates the characters. Range: 0 - 359 degrees Default: 0	0 degree Abcdef	20 degree Abcdef
Character Spacing	Sets the spacing between all characters. Range: -100 - 100 mm (-3.94 - 3.94 inches) Default: 0	0.0 mm Abcdef	2.0 mm A b c d e f
Line Spacing	Sets the spacing between lines in percents of the character height. Range: 0 – 1000% Default: 0	100% A b c d e f g h i j k l	150% A b c d e f g h i j k l

Alignment	Aligns several lines of text to the left, center or right.	Center A b c d e f g h i j k l	Right A b c d e f g h i j k l
Direction	Specifies whether characters will be positioned horizontally or vertically.	Horizontal A B C	Vertical A B C

NOTE:

The vertical letters will be displayed in a vertical manner on design page.

NOTE:

Both **Kerning** and **Character Spacing** set the spacing between characters. The difference is that **Character Spacing** is always applied to the entire text pattern, while **Kerning** can be applied to individual characters. If you apply **Kerning** to the entire text pattern, it works exactly like **Character Spacing**. See “Selecting characters on a text pattern” on page 123 for more details about selecting individual characters in a text pattern.

See also: “Fit Text to Path Setting” below and “Transform Text” on page 201

Fit Text to Path Setting

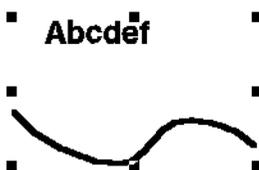
Purpose: Fits a line of text along a path.

Shortcut key: **Ctrl** + **T**

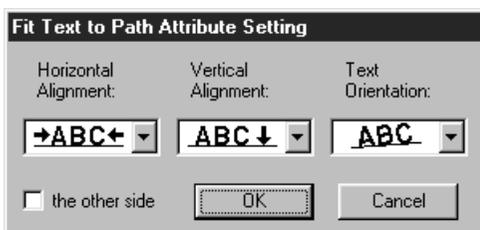
Toolbar: 

Operation:

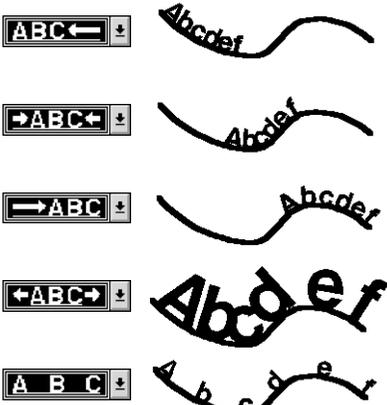
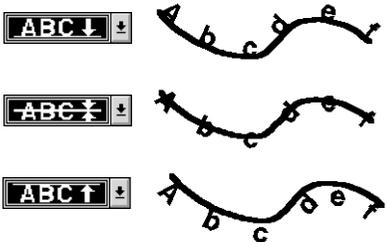
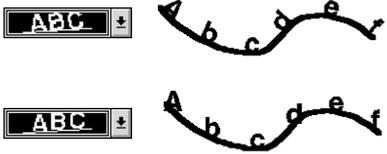
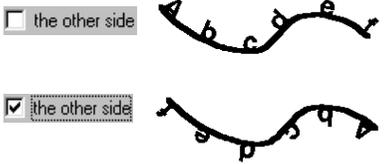
- 1 Select a line of text and a path.



- 2 Click **Text**, then **Fit Text to Path Setting**.



- ◆ Select **Horizontal** and **Vertical Alignment** and **Text Orientation**.
- ◆ Check **the other side** if you want the characters to be reversed.
- ◆ Click **OK** to confirm the setting.
- ◆ Click **Cancel** to exit.

<p>Horizontal Alignment</p>	<p>Sets the distribution of characters along the path.</p>	
<p>Vertical Alignment</p>	<p>Sets the distance between the text and the path.</p>	
<p>Text Orientation</p>	<p>Sets the orientation of the characters relative to the path.</p>	
<p>The other side</p>	<p>Reverses the characters.</p>	

See also: "Release Text from Path" on page 201

Release Text from Path

Purpose: Release the text from the path.

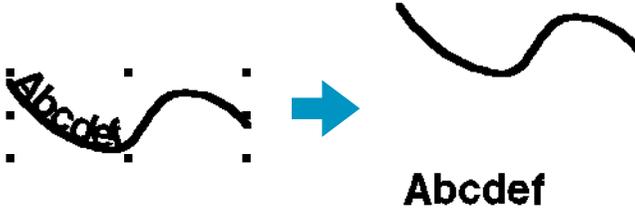
Shortcut key: **Ctrl** + **Q**

Toolbar:



Operation:

- ❶ Select a text fitted to a path.
- ❷ Click **Text**, then **Release Text from Path**.



See also: “Fit Text to Path Setting” on page 199

Transform Text

Purpose: Applies a preset transformation to text.

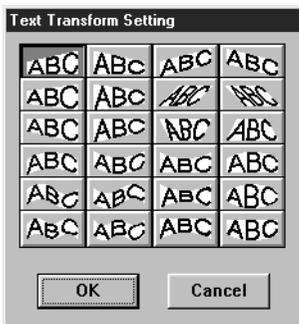
Shortcut key: **F2**

Toolbar:



Operation:

- ❶ Select a line of text.
- ❷ Click **Text**, then **Transform Text**.
The **Text Transform Setting** dialog displays.



- ◆ Click on the desired transformation.
- ◆ Click **OK** or double-click to apply the transformation.
- ◆ Click **Cancel** to exit.



- ❸ If necessary, set the level of transformation. See “Transform level” on page 141.

NOTE:

Take note that text data that has been changed from True Type font has data for both line and region sewing, so if you use this function, depending on the form of the True Type font, there may be a gap between the line and the region of the text.

See also: “Clear Transformation” on page 202

■ Clear Transformation

Purpose: Restores the original shape of the text.

Shortcut key: **F3**

Toolbar: 

Operation:

- ❶ Select transformed text.
- ❷ Click **Text**, then **Clear Transformation**.

ABCDE  **ABCDE**

See also: “Transform Text” on page 201

■ TrueType Font Attribute Setting

Purpose: Sets the attributes, such as the style, for TrueType fonts that are converted to embroidery data.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- ❶ Click **Text**, then **TrueType Font Attribute Setting**
A dialog similar to the one shown below appears.



If any characters converted from a TrueType font is selected, the attributes for the selected characters are displayed.

- ◆ The **Font** attribute indicates the name of the selected font.
- ◆ The **Sample** box shows a sample of the font with the selected attributes.
- ◆ Use **Font Style** to select the desired font style.
- ◆ Use **Script** to select the desired character set for the font.
- ◆ Click **OK** to set the attributes and close the dialog.
Any entered TrueType font text will be converted to embroidery data with the font's new attribute settings.
In addition, selecting text data converted from a TrueType font creates embroidery data based on the new attribute settings.
- ◆ Click **Cancel** to close the dialog without changing any settings.

For details on entering text, refer to “Text Input Mode” (page 127).

NOTE:

*The settings for **Font Style** and **Script** may differ depending on the TrueType font that is selected.*

NOTE:

If text created from multiple TrueType fonts is selected, this dialog cannot be displayed.

In addition, if text of the same font but different font styles or scripts is selected, this dialog appears with the attribute settings for the first letter in the text.

In either case mentioned above, selecting only one character from within text displays a dialog containing only that character’s attributes.

See also: “Text Input Mode” on page 127, “Setting Text Attributes” on page 138

■ Convert to Outline Object

Purpose: Creates outline data from text data converted from a TrueType font

Shortcut key: No shortcut key for this function

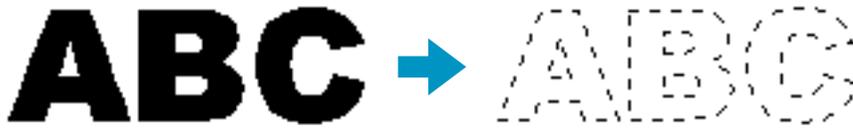
Toolbar: No button for this function

Operation:

① Select one or more text data converted from a TrueType font.

② Click **Text**, then **Convert to Outline Object**.

The selected text data is converted to outline data.



None of the stitching settings are specified for the converted outline data; therefore, it appears as dotted lines. Specify the stitching settings as necessary.

In order to prevent the pattern from losing its shape, group the objects or set them for hole sewing.

Sew Menu

The Sew menu allows you to control the way each pattern will be sewn.

Sewing Attribute Setting	Sets the sewing attributes of the regions and the outlines of a pattern.	page 204
Sewing Order	Allows you to check and change the sewing order of patterns	page 210
Set hole sewing	Sets a pair of patterns for hole sewing (to avoid sewing twice at the same place when a pattern covers another one).	page 212
Cancel hole sewing	Cancels hole sewing setting.	page 213
Stitch to Block	Converts imported stitch patterns into blocks (manual punching data), allowing you to set sewing attributes and to keep the stitching quality when scaling.	page 213
Convert to Stitch	Converts a shape object to a stitch object.	page 214
Change colors of a stitch object	Changes the color of imported stitch data.	page 215
Select Sewing Area	Sets the sewing area	page 216
Optimize hoop change	Optimizes the sewing order of patterns in a Design Page for multi-position embroidery frames (100 × 172 mm, 172 × 100 mm, 130 × 300 mm, or 300 × 130 mm)	page 217
Optimize Entry/Exit points	Optimizes the positions of the entry points and the exit points for the sewing data	page 218

■ Sewing Attribute Setting

Purpose: Sets the sewing attributes of the regions and the outlines of a pattern.

Shortcut key: **Ctrl** + **W**

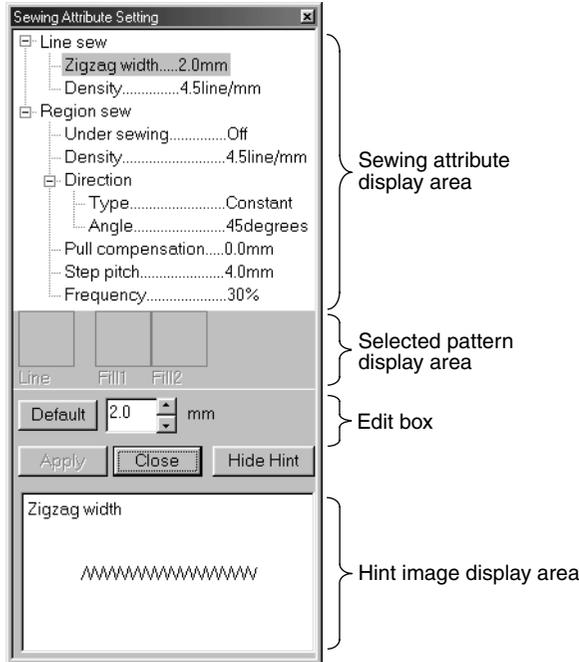
Toolbar: 

Operation:

- 1 Select one of the buttons of the Tool Box used to draw or select an existing pattern.

2 Click Sew, then Sewing Attribute Setting.

A Sewing Attribute Setting dialog similar to this will display.
You can change the size of this dialog as you like.



- ◆ Select the item you want to change or set in the Sewing attribute display area, then enter the change or setting in the edit box.
- ◆ The method for entering the setting varies according to the item. If entering numerical values, you can click on the arrow buttons to select values or enter the values directly. If the Default button is displayed in the Edit box, click the button to apply the Default setting to the selected item.
- ◆ Click **Apply** to confirm the setting.
- ◆ Click **Close** to exit.
- ◆ Click Show Hint/Hide Hint to turn the hint image display on or off.

Sewing attribute display area: Displays the present settings for each of the sewing attributes.

Selected pattern display area: When a pattern for Programmable Fill or Motif sewing is selected, that pattern is displayed.

Edit box: Displays the setting values to be changed for the item selected in the Sewing attribute display area.

Hint image display area: When set to display a hint, a hint image showing the settings in the edit box is displayed.

Line sewing attributes

Setting items according to the selected stitch

Zigzag stitch

- Line sewing
 - └ Zigzag width
 - └ Density

Running stitch

- Line sewing
 - └ Run pitch
 - └ Run times

Manual Punch

- Line sewing
 - └ Run pitch

Motif stitch

- Line sewing
 - └ Run pitch
 - └ Motif
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ H-Arrange
 - └ V-Arrange

Zigzag width	Sets the width of the zigzag. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)
Density	Sets the number of lines per mm (inch). Range: 1 - 7 lines per mm (25 - 178 lines per inch) Default: 4.5 lines per mm (114 lines per inch)

Run pitch	Sets the pitch of the line sewing. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)
Run times	Sets the number of times the border will be sewn. Range: 1 - 5 Default: 1

Motif Stitch only:

Pattern		Select a pattern for Motif sewing. Click Select Pattern , and the Browse dialog will display. Select the folder containing the pmf file you want to open. Scroll through the available stitch patterns and double-click the desired pattern or click OK to select the pattern	
Pattern Size	Width	Sets the pattern width (the direction along the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)	
	Height	Sets the pattern height (the direction perpendicular to the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)	
H-Arrange (Horizontal Arrange)		Sets the horizontal arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown to the right.	Normal:  Mirror:  Alternate: 
V-Arrange (Vertical Arrange)		Sets the vertical arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown to the right.	Normal:  Mirror:  Alternate: 

Region sewing attribute

Setting items according to the selected stitch

Satin stitch

- Region sewing
 - Under sewing
 - Density
 - Direction
 - Type
 - Angle
 - Pull compensation

Fill stitch

- Region sewing
 - Under sewing
 - Density
 - Direction
 - Type
 - Angle
 - Pull compensation
 - Step pitch
 - Frequency

Programmable fill

- Region sewing
 - Under sewing
 - Density
 - Direction
 - Type
 - Angle
 - Pull compensation
 - Programmable Fill
 - Pattern
 - Pattern size
 - Width
 - Height
 - Offset
 - Direction
 - Value
 - Direction

Motif stitch

- Region sewing
 - Motif
 - Use pattern
 - Pattern1
 - Pattern
 - Pattern size
 - Width
 - Height
 - H-Arrange
 - V-Arrange
 - Pattern2
 - Pattern
 - Pattern size
 - Width
 - Height
 - H-Arrange
 - V-Arrange
 - Offset
 - Direction
 - Run pitch

Cross stitch

- Size
- Times

Text Satin stitch

- Region sewing
 - └ Density
 - └ Pull compensation

Text Fill stitch

- Region sewing
 - └ Density
 - └ Pull compensation
 - └ Step pitch
 - └ Frequency

Text Programmable Fill

- Region sewing
 - └ Density
 - └ Pull compensation
 - └ Programmable Fill
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ Offset
 - └ Direction
 - └ Value
 - └ Direction

Manual Punch Satin stitch

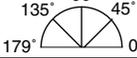
- Region sewing
 - └ Density
 - └ Pull compensation
 - └ Feathered edge
 - └ Feathered side
 - └ Top side
 - └ Pattern
 - └ Max length
 - └ Bottom side
 - └ Pattern
 - └ Max length

Manual Punch Fill stitch

- Region sewing
 - └ Density
 - └ Pull compensation
 - └ Step pitch
 - └ Frequency
 - └ Feathered edge
 - └ Feathered side
 - └ Top side
 - └ Pattern
 - └ Max length
 - └ Bottom side
 - └ Pattern
 - └ Max length

Manual Punch Programmable Fill

- Region sewing
 - └ Density
 - └ Pull compensation
 - └ Programmable Fill
 - └ Pattern
 - └ Pattern size
 - └ Width
 - └ Height
 - └ Offset
 - └ Direction
 - └ Value
 - └ Direction
 - └ Feathered edge
 - └ Feathered side
 - └ Top side
 - └ Pattern
 - └ Max length
 - └ Bottom side
 - └ Pattern
 - └ Max length

Under Sewing	Sets under sewing on/off. Try to use Under sewing for wide areas, in order to prevent shrinking during stitching. Depending on the shape of the region, however, it may not be possible to make this setting. On: Under sewing will be done Off: Under sewing will not be done	
Density	Sets the number of lines per mm. Range: 1 - 7 lines per mm (25 - 178 lines per inch) Default: 4.5 lines per mm (114 lines per inch)	
Direction	Type	Specifies the type of sewing direction. Constant: Sews at a fixed angle. The angle is specified by the Angle setting. Variable: Varies the sewing direction according to the object being sewn.
	Angle	Specifies the sewing angle. (If Variable is selected as the Type setting, this setting is not available.) Range: 0 - 179 degrees Default: 45 degrees 
Pull Compensation	Lengthens the sewing region in the stitch pattern's sewing direction to prevent pattern shrinkage during sewing. Range: 0 - 2 mm (0.00 - 0.08 inch) Default: 0 mm (0.00 inch)	

Fill stitch only:

Step Pitch	Sets the pitch of the steps. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 4 mm (0.16 inch)	Step pitch 
Frequency	Sets the spacial frequency steps. Range: 0 - 99% Default: 30%	0%  30% 

Programmable fill stitch only:

Pattern		Select a pattern for Programmable Fill Stitch. Click Select Pattern , and the Browse dialog opens. Select the folder containing the pas file you want to open. Scroll through the available stitch patterns and double-click the desired pattern or click OK to select the pattern
Pattern Size	Width	Sets the stitch pattern width. Range: 5 - 10 mm (0.20 - 0.39 inch) Default: 7.5 mm (0.30 inch)
	Height	Sets the stitch pattern height. Range: 5 - 10 mm (0.20 - 0.39 inch) Default: 7.5 mm (0.30 inch)
Offset	Direction	Sets the offset arrangement of the pattern, and sets the direction of offset as Row/Column.
	Value	When the pattern's arrangement is offset, sets the amount of offset. Range: 0 - 99% Default: 0%
Direction		Allows you to rotate the angle of the stitch patterns. Range: 0 - 359 degrees Default: 0 degrees

Motif Stitch only:

Use Pattern		Selects whether to use pattern 1 or pattern 2 for Motif. If you choose to use both patterns, the data is created so that sewing is alternated between them after each row. Pattern1 only: Uses only pattern 1 (Default) Pattern2 only: Uses only pattern 2 Pattern1 and 2: Uses pattern 1 and pattern 2
Pattern		Select a pattern for Motif sewing. Click Select Pattern , and the Browse dialog will display. Select the folder containing the pmf file you want to open. Scroll through the available stitch patterns and double-click the desired pattern or click OK to select the pattern.
Pattern Size	Width	Sets the pattern width (the direction along the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)
	Height	Sets the pattern height (the direction perpendicular to the line). Range: 2 - 10 mm (0.08 - 0.39 inch) Default: 5 mm (0.20 inch)

H-Arrange (Horizontal Arrange)		Sets the horizontal arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown below.	Normal:  Mirror:  Alternate: 
V-Arrange (Vertical Arrange)		Sets the vertical arrangement of the pattern. For patterns like  , patterns will be arranged along the line as shown below.	Normal:  Mirror:  Alternate: 
Row Offset		When the pattern arrangement is offset, sets the amount of offset for each row. Range: 0 - 10 mm (0.06 - 0.20 inch) Default: 0 mm (0.10 inch)	
Direction		Allows you to rotate the angle of the Motif patterns. Range: 0 - 359 degrees Default: 0 degrees	
Run Pitch		Sets the pitch of the sewing. Range: 1 - 10 mm (0.04 - 0.39 inch) Default: 2 mm (0.08 inch)	

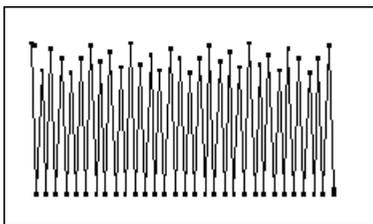
Cross stitch only:

Size		Sets the horizontal and vertical size of the pattern. Range: 1.5 - 5 mm (0.06 - 0.20 inch) Default: 2.5 mm (0.10 inch)
Times		Sets the number of times that the pattern will be sewn. Sews twice per time. Range: Single, Double, Triple Default: Single

Feathered Edge only:

Feathered Side		Sets which side of the sewing direction to apply the Feathered edge setting to. When creating data in Manual Punch mode, the Topside has organization points 1-3, and the Bottom side has organization points 2-4. Top: Feathered Edge is sewn on the Topside. Bottom: Feathered Edge is sewn on the Bottomside.
Pattern		Selects a pattern to use with the Feathered Edge. Click Select Pattern , and the Browse dialog will open. Scroll through the available Feathered Edge patterns and double-click the desired pattern or click OK to select the pattern
Max length		Sets the length of feathered edge. Range: 0.2 - 100 mm (0.01 - 3.94 inch) Default: 3 mm (0.12 inch)

(Example of a feathered side pattern)



Note on the Programmable Fill Stitch:

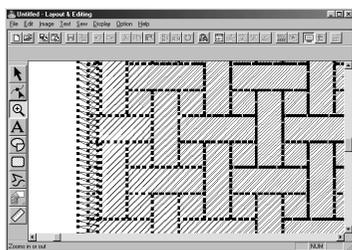
When setting the stitch and pattern directions of a programmable stitch, take note that whenever the stitch and pattern direction settings cause the stitch to be sewn in the same direction as a line in a stitch pattern, that line will not be sewn.

Use the preview function of your application to view exactly how your stitch pattern will be sewn and set the stitch direction and pattern direction according to the selected stitch or to the effect that you want to produce. To get an even better view, make test samples of different settings.

Example of a programmable fill stitch

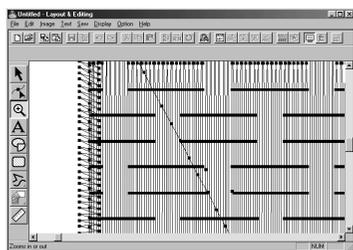
Example 1:

Stitch direction: Default: 45°



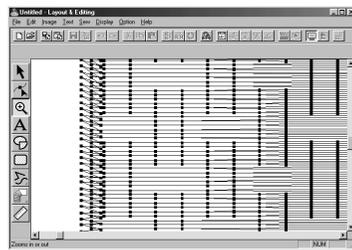
Example 2:

Stitch direction: 90°



Example 3:

Stitch direction: 0°



See also:

“Preview” on page 220, “Programmable Stitch Creator” on page 233

■ Sewing Order

Purpose:

Allows you to check and change the sewing order of patterns

Shortcut key:

F10

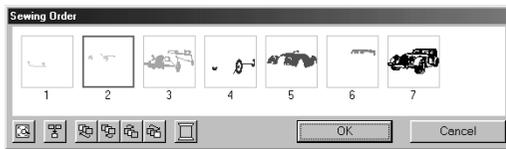
Toolbar:



Operation:

1 Click **Sew**, then **Sewing Order**.

A dialog similar to the one shown below appears. The dialog can be made longer so that all parts of the pattern can be viewed.



- ◆ Click  to enlarge each pattern to fill its frame.
- ◆ Click  to display in one frame all patterns of the same color that will be sewn together. If multiple patterns are displayed in a frame, a plus sign (+) appears beside the number of that frame.
- ◆ Click **OK** to apply the settings and close the dialog.
- ◆ Click **Cancel** to close the dialog without changing the settings.

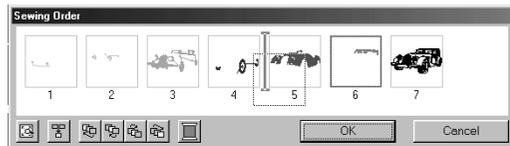
Selecting data:

Select a pattern by clicking it. The selected pattern is framed with a thick line and the corresponding area in the Design Page is surrounded with a dotted line.

To select multiple patterns, hold down the **(Shift)** and **(Ctrl)** keys while clicking the patterns. In addition, multiple patterns can be selected by dragging the pointer over them.

Changing the sewing order:

The sewing order can be changed by selecting a pattern and dragging it to the desired location. The destination location is indicated by the red line while the pattern is being dragged, and the selected data is moved to the indicated location once the pattern is released.



In addition, after a pattern is selected, its sewing order can be changed by clicking the following buttons.

- ◆ Click  to move the selected pattern to the beginning of the sewing order.
- ◆ Click  to move the selected pattern ahead one position in the sewing order.
- ◆ Click  to move the selected pattern back one position in the sewing order.
- ◆ Click  to move the selected pattern to the end of the sewing order.

Changing the color:

Select a pattern, and then click  to display the **Thread Color** dialog that allows the thread color to be changed.

NOTE:

The frames around whole objects (with no hole settings applied) or objects with no sewing settings applied will be a dotted line. In addition, there will be no number for the sewing order below the frame.

■ Set hole sewing

Purpose: Sets a pair of patterns for hole sewing (to avoid sewing twice at the same place when a pattern covers another one).

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

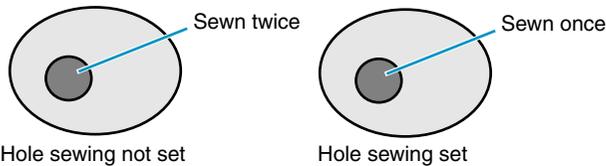
Operation:

- 1 Select a pair of patterns, for example, a rectangle included in another rectangle.
- 2 Click **Sew**, then **Set Hole Sewing**.
This message will display.



◆ Click **OK** to remove the message.

- 3 Once a pair of patterns has been set for hole sewing, they are grouped and will move together if you try to move one of the patterns. To change their relative position, you will have to cancel hole sewing first.

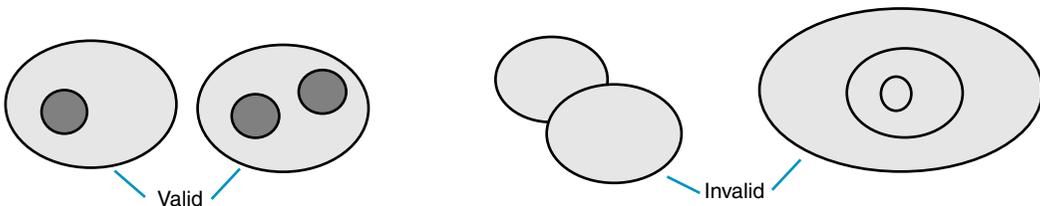


If the selected pair cannot be set for hole sewing, this message displays.



◆ Click **OK** to remove the message.

For a pair to be valid, one of the pattern must be completely enclosed within the other pattern of the pair.



Note that you can see better what the hole sewing setting does by previewing the pair before and after setting the pair for hole sewing (see "Preview" on page 220).

See also: "Cancel hole sewing" on page 213

■ Cancel hole sewing

- Purpose:** Cancels hole sewing setting.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function

Operation:

- ❶ Select a pattern that has been set for hole sewing.
- ❷ Click **Sew**, then **Cancel Hole Sewing**.
The pair of patterns can now be moved independently.

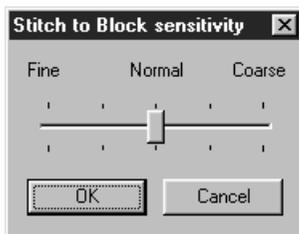
See also: “Set hole sewing” on page 212

■ Stitch to Block

- Purpose:** Converts imported stitch patterns into blocks (manual punching data), allowing you to set sewing attributes and to keep the stitching quality when scaling.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function

Operation:

- ❶ Select the imported stitch data opened in the Design Page to which you want to apply the setting to.
- ❷ Click **Sew**, then **Stitch to Block**.
This dialog displays.



- ◆ Select the sensitivity by dragging the slider.
- *The normal setting should provide satisfactory results in most cases, but depending on the complexity of a pattern, you may need to select a coarser or a finer stitch density.*
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

NOTE:

*Applying this function may affect the content of some patterns.
You may further modify the pattern if needed with the help of the **Point Edit Mode**.*

- ❸ After applying this function, the Sewing Attributes bar displays as follows:

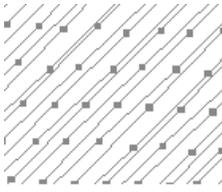


You can select and modify the sewing settings of the blocks of the same color. To do this, select a block whose color or sewing settings you want to change. All the blocks of that color are selected and the block color and stitch type display in the Sewing Attributes bar.

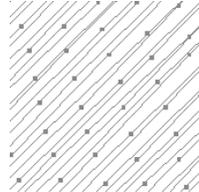
NOTE:

*The sewing setting changes apply globally to the blocks of the same color.
Immediately after the operation, the data of the blocks is grouped, so they become one object.*

- 4 When you enlarge or reduce a converted pattern with the selection cursor, the number of stitches sewn automatically adapt to the new size of the pattern, allowing you to keep the original embroidery quality.



Without Stitch to Block



With Stitch to Block

NOTE:

The selected color blocks can be moved or scaled individually, therefore, if you want to move the whole pattern once it has been converted, be sure to select the whole pattern.

See also: “Sewing Attribute Setting” on page 204, “Scaling patterns” on page 118 and “Point Edit Mode” on page 120

■ Convert to Stitch

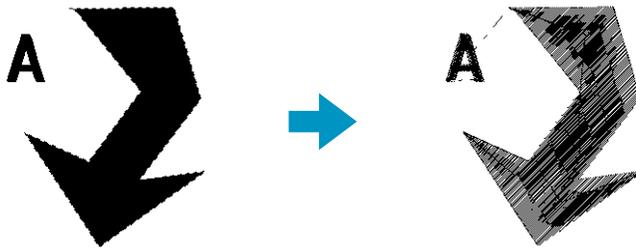
Purpose: Converts a shape object to a stitch object.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Select one or more shape objects.
- 2 Click **Sew**, then **Convert to Stitch**.
The selected shape data is converted to stitch data.



The dotted line around the converted data indicates that it is stitch data. Each stitch of the converted data can be edited with the point edit tool.

- Shape objects that can be converted are data created with the Circle, Rectangle, Outline, Manual punch or Text tools.
- Related text, paths and objects set for hole sewing are all converted to stitch data, even if some of the objects can be selected separately.
- If an object that does not have stitching settings applied is converted, that object is deleted.

■ Change colors of a stitch object

Purpose: Changes the color of imported stitch data.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

❶ Select the pattern.

❷ Click **Sew**, then **Change colors of a stitch object**.

The **Change colors** dialog appears, listing and displaying the colors used for the selected pattern.



- ◆ Click the color you want to change.
- ◆ Click the **Change Colors** button.
- ◆ Select the desired color in the **Region Thread Color** dialog which displays. The new color displays in the **Change Colors** dialog and the pattern displays the new setting. Repeat this procedure for each color you want to change.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

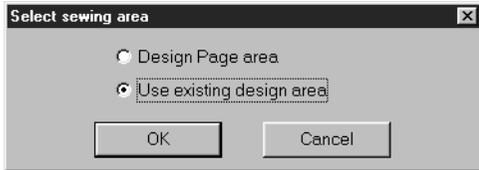
See also: "Color" on page 144

■ Select Sewing Area

- Purpose:** Sets the sewing area
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function

Operation:

- 1 Click **Sew**, then **Select Sewing Area**.
This dialog displays.



- ◆ Select **Design Page area** or **Use existing design area**.
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

With **Design Page area**, the patterns will be sewn so that the place where the needle is when you start coincides with the center of your Design Page.

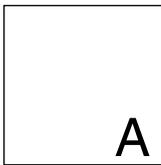
NOTE:

*When **Design Page area** is selected, the dimension of the pattern matches the size of the Design Page, therefore reducing the ability to move a pattern around the layout screen of your embroidery machine.*

With **Use existing design area**, the patterns will be sewn so that the place the needle is when you start coincides with the center of the actual patterns.

NOTE:

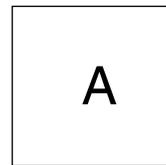
*When **Use existing design area** is selected, the actual pattern size is maintained, therefore allowing greater mobility when using the layout function of your embroidery machine.*



Design Page (on your screen)



Sewing area = Design Page



Sewing area = Use existing design

See also: "Design Page Property" on page 225

■ Optimize hoop change

Purpose: Optimizes the sewing order of patterns in a Design Page for multi-position embroidery frames (100 × 172 mm, 172 × 100 mm, 130 × 300 mm, or 300 × 130 mm)

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

① Click **Sew**, then **Optimize hoop change**.

This setting can be turned on or off. A check mark appears when this setting is turned on; no check mark is displayed when this setting is turned off.

When the **Optimize hoop change** setting is turned on:

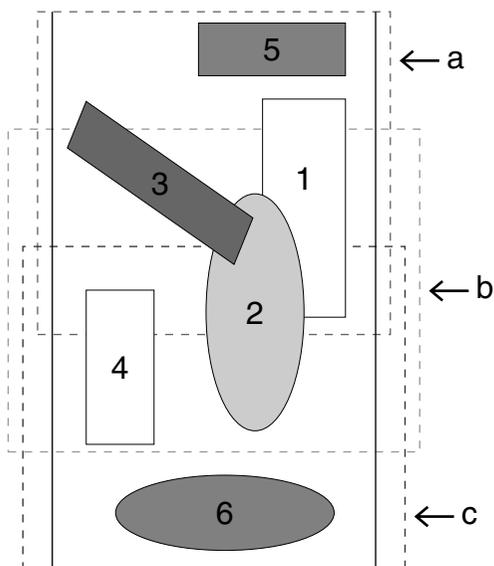
The sewing order that you have set is optimized to reduce the number of times that the embroidery frame installation position is changed.

For the example shown at the right, the sewing order is: a (pattern 1) → b (pattern 2) → a (patterns 3 & 5) → c (patterns 4 & 6)

When the **Optimize hoop change** setting is turned off:

Each pattern is sewn according to the sewing order that you have set. Therefore, since the number of times for changing the embroidery frame installation position is not optimized, it may be changed more often than if it was optimized.

For the example shown at the right, the sewing order is: a (pattern 1) → b (pattern 2) → a (pattern 3) → c (pattern 4) → a (pattern 5) → c (pattern 6)



NOTE:

Depending on the pattern, turning on the *Optimize hoop change* setting may reduce the number of times that the embroidery frame installation position is changed. More importantly, it reduces the chances of the embroidery not being sewn correctly or the fabric becoming wrinkled when the embroidery frame installation position is changed too often.

■ Optimize Entry/Exit points

Purpose: Optimizes the positions of the entry points and the exit points for the sewing data

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

① Click **Sew**, then **Optimize Entry/Exit points**.

This setting can be turned on or off. A check mark appears when this setting is turned on; no check mark is displayed when this setting is turned off.

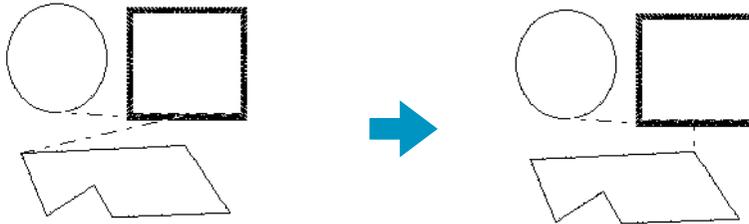
When the **Optimize Entry/Exit points** setting is turned on:

The entry points and exit points for the sewing data of connected objects with the same color are optimized (connected with the shortest distance possible).

- Objects that can be optimized are data created with the Circle, Rectangle and Outline tools.
- When the **Optimize Entry/Exit points** setting is turned on, the entry point and the exit point cannot be changed with the entry/exit point edit tool.

When the **Optimize Entry/Exit points** setting is turned off:

The entry points and exit points are not optimized. If the **Optimize Entry/Exit points** setting is changed from on to off, the last entry point and exit point positions are maintained. In addition, the positions of the entry points and the exit points can be manually changed with the entry/exit point edit tool.



Optimize Entry/Exit points turned off

Optimize Entry/Exit points turned on

Display Menu

The Display menu lets you modify the appearance of the screen.

Grid Setup	Controls the display and characteristics of the grid.	page 219
Preview	Specifies whether the patterns appear as stitches or in the normal view.	page 220
Refresh Window	Updates the screen.	page 220
Realistic Preview	Displays a realistic image of how either selected patterns or all patterns will look after being embroidered.	page 220
Realistic Preview Attribute Setting	Sets the preview attributes for Realistic Preview.	page 221
Stitch Simulator	Displays a simulation of the machine stitching.	page 221
Toolbar	Turns the Toolbar on/off.	page 222
Status Bar	Turns the Status bar on/off.	page 222

■ Grid Setup

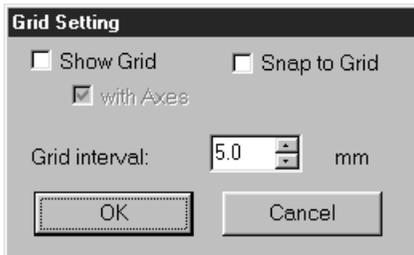
Purpose: Controls the display and characteristics of the grid.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Display**, then **Grid Setup**.
The **Grid Setting** dialog appears.



- ◆ Check **Snap to Grid** when you want to use the grid for aligning patterns or creating patterns of the same size. The cursor will move by the amount set in **Grid Interval**.
- *The snap feature works whether or not the grid is displayed.*
- ◆ Check **Show Grid** to see the grid on your Design Page.
- ◆ Type in the **Grid Interval** to set both horizontal and vertical steps of the grid.
Grid interval range: 1 - 10 mm (0.04 - 0.39 inch)
- ◆ Check **with Axes** to turn the horizontal and vertical lines of the grid on.
- *When the **Show grid** check box is checked and the **with Axes** check box is not checked, only the intersection points of the grid will be displayed.*
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

See also: “Select System Unit” on page 229

Preview

Purpose: Specifies whether the patterns appear as stitches or in the normal view.

Shortcut key: **F9**

Toolbar:



Operation:

① Click **Display**, then **Preview**.

A preview of your embroidery patterns will appear.

Even while this preview is displayed, other editing operations can be performed.

② To return to the normal view, click **Display**, then **Preview** again or press the **Esc** key.

See also: “Sewing Order” on page 210

Refresh Window

Purpose: Updates the screen.

Shortcut key: **Ctrl** + **R**

Toolbar: No button for this function

Operation:

① Click **Display**, then **Refresh Window**.

Use this function when the screen does not seem to respond correctly, for example, when residue of a pattern remains on the screen after the pattern has been cut.

Realistic Preview

Purpose: Displays a realistic image of how either selected patterns or all patterns will look after being embroidered.

Shortcut key: **Shift** + **F9**

Toolbar:



Operation:

① Click **Display**, then **Realistic Preview**.

The patterns on the Design Page are displayed realistically according to the settings in the **Realistic Preview Attribute Setting** dialog.

② To return to the normal working screen, click **Display**, then **Realistic Preview** again or press the

Esc key.

NOTE:

The Realistic Preview function cannot display a beautiful preview of the pattern if the monitor is set to 256 colors or less. The monitor should be set to at least 16-bit High Color (65536 colors).

See also: “Realistic Preview Attribute Setting” on page 221

Realistic Preview Attribute Setting

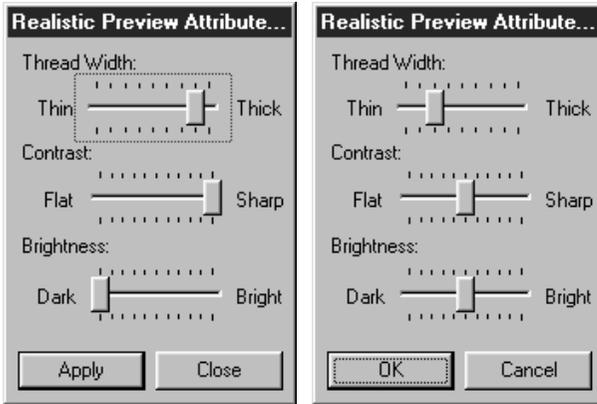
Purpose: Sets the preview attributes for Realistic Preview.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Display**, then **Realistic Preview Attribute Setting**.
The following dialog appears.



- ◆ Use **Thread Width** to set how wide the thread will appear.
- ◆ Use **Contrast** to set the contrast.
- ◆ Use **Brightness** to set how bright the display is.
- ◆ Click **Apply** to display a Realistic Preview of the patterns with the new settings. (When Realistic Preview is displayed.) Or, click **OK** to save the setting for the next time it is displayed. (When Realistic Preview is not displayed.)
- ◆ Click **Close** or **Cancel** to exit.

See also: “Realistic Preview” on page 220

Stitch Simulator

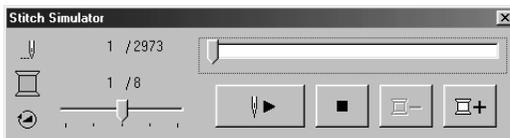
Purpose: Displays a simulation of the machine stitching.

Shortcut key: No shortcut key for this function

Toolbar: 

Operation:

- 1 Click **Display**, then **Stitch Simulator**.
The following dialog appears and the embroidery data in the Design Page is cleared.



- ◆ Click  to begin the stitching simulation. During the stitching simulation, this button changes to a pause button ().
- ◆ Click  to advance the simulation to the beginning of the next color.
- ◆ Click  to reverse the simulation to the beginning of the previous color.
- ◆ Click  to stop the simulation and return the display to the previous view.

- ◆ The slider shows the current location in the simulation. In addition, adjusting the slider can change the position in the simulation.



- ◆ The simulation stitching speed can be adjusted by dragging the slider indicated by .
- ◆ The numbers beside  indicate the number of the stitch being drawn/the total number of stitches, and the numbers beside  indicate the number of the color being drawn/the total number of colors.
- ◆ To close the dialog, click  in the upper-right corner of the dialog.

NOTE:

If a pattern is selected when this function is selected, only the selected pattern is drawn in the simulation.

■ Toolbar

- Purpose:** Turns the Toolbar on/off.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function
- Operation:**
- 1 Click **Display**, then **Toolbar**.
The Toolbar will be toggled on/off.
- See also:** “Status Bar” below

■ Status Bar

- Purpose:** Turns the Status bar on/off.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function
- Operation:**
- 1 Click **Display**, then **Status bar**.
The Status bar will be toggled on/off.
- See also:** “Toolbar” above

Option Menu

The Option menu provides additional options.

Design Center	Starts Design Center and displays its window up front.	page 223
Programmable Stitch Creator	Starts Programmable Stitch Creator and displays its window up front.	page 223
Design Property	Opens a dialog containing sewing information for the selected pattern(s).	page 223
Design Page Property	Allows you to change the size of the Design Page and the color of the Design Page and the Design Page background.	page 225
Edit User Thread Chart	Allows original thread charts to be created and edited.	page 225
Select System Unit	Allows you to select the unit of length (mm or inch).	page 229

■ Design Center

Purpose: Starts Design Center and displays its window up front.

Shortcut key: **F5**

Toolbar: No button for this function

Operation:

① Click **Option**, then **Design Center**.

Design Center starts if its window wasn't open and if it was open, the window comes up front. After creating a pattern with the Design Center Application, you can import it in Design Page of Layout & Editing.

See also: "Import – from Design Center" on page 153

■ Programmable Stitch Creator

Purpose: Starts Programmable Stitch Creator and displays its window up front.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

① Click **Option**, then **Programmable Stitch Creator**.

Programmable Stitch Creator starts if its window wasn't open and if it was open, the window comes up front.

■ Design Property

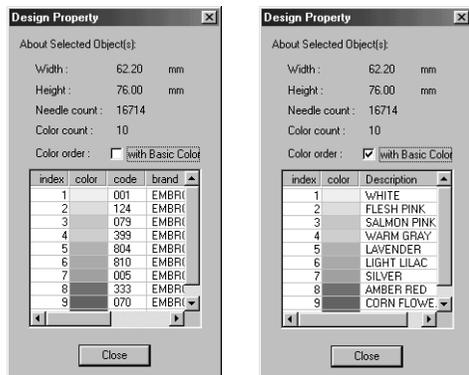
Purpose: Opens a dialog containing sewing information for the selected pattern(s).

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Option**, then **Design Property**.
The **Design Property** dialog displays.



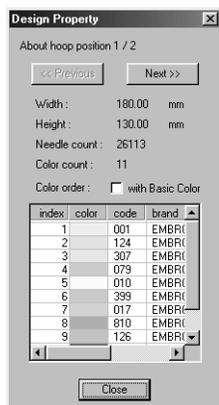
- ◆ If the **With Basic Color** check box is selected, the display can be switched with the machine's preset color names.
- ◆ Click **Close** to close the window.

This dialog allows you to quickly check the dimensions, the needle count, the color count and color order of the selected pattern(s).

You can select and check the properties of individual objects composing your embroidery pattern.

If a Design Page for a multi-position embroidery frame (130 × 300 mm, 300 × 130 mm, 100 × 172 mm, or 172 × 100 mm) is selected:

If no object in the Design Page is selected, the following Design Property dialog displays.



- ◆ The first line of the dialog shows the position in the embroidery frame installation order for the currently displayed design.
- *Only the designs that would be sewn at the current position in the embroidery frame installation order appear in the Design Page. In addition, the embroidering area for the current frame installation position is outlined in red.*
- ◆ Click **Previous** or **Next** to display information for the designs at other positions in the embroidery frame installation order.

When this dialog appears, the Design Page is automatically enlarged or shrunk to fit in the entire window.

The **Previous** button cannot be clicked when the design corresponding to the first embroidery installation position is already displayed. In addition, the **Next** button cannot be clicked when the design corresponding to the last embroidery installation position is already displayed.

NOTE:

If an object is larger than the embroidering area or if an object is positioned so that it does not completely fit within an embroidering area, the error message "Please change the object size or position." is displayed instead of this dialog. After the object causing the error appears selected, change its size or position. (If more than one object causes the error message to appear, the objects will appear selected in the sewing order.)

■ Design Page Property

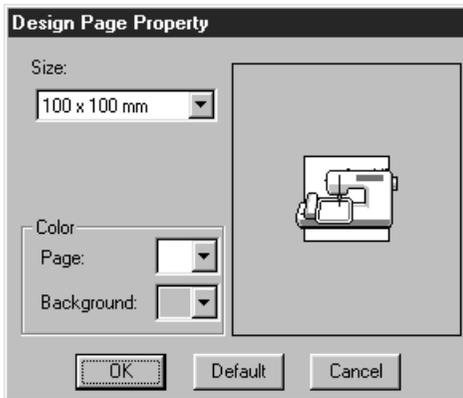
Purpose: Allows you to change the size of the Design Page and the color of the Design Page and the Design Page background.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Option**, then **Design Page Property**.
The **Design Page Property** dialog displays.



- ◆ Select the size by clicking the appropriate radio button.
Select the Page color or the Background color by clicking its selector arrow, then by clicking the color.
- *The preview area allows you to view the setting changes. The sewing machine picture shows the direction of the Design Page (frame) on the machine.*
- ◆ Click **OK** to confirm.
- ◆ Click **Default** to go back to the default setting.
- ◆ Click **Cancel** to exit.

The Design Page sizes 130 × 300 mm, 300 × 130 mm, 100 × 172 mm, and 172 × 100 mm, indicated by “**”, are used to embroider multi-position designs using a special embroidery frame attached to the sewing machine at three installation positions. Check that you have the multi-position embroidery frame and that these multi-position designs can be embroidered using your sewing machine.

See also: “Select System Unit” on page 229

■ Edit User Thread Chart

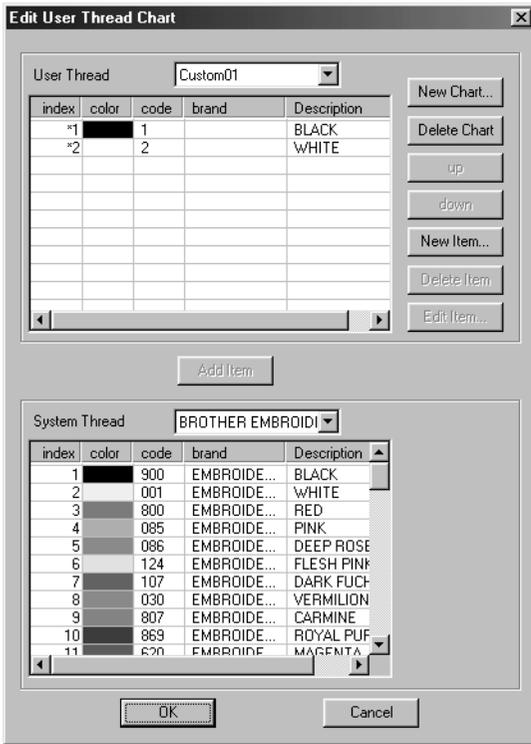
Purpose: Allows original thread charts to be created and edited.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Option**, then **Edit User Thread Chart**.
A dialog similar to the one shown below appears.

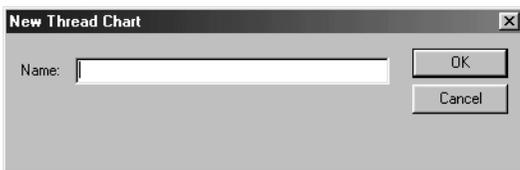


User thread charts can be created and edited to contain a list of threads that you use most often or a list of all threads that you have. Thread data from system thread charts can be included or new thread data can be added.

[Creating a New Thread Chart]

Click **New Chart**. The following dialog appears.

Type in the name of the chart, and then click **OK** to save the chart with the entered name.



The saved chart can be selected from the User Thread Chart list, then edited.

[Deleting a Chart]

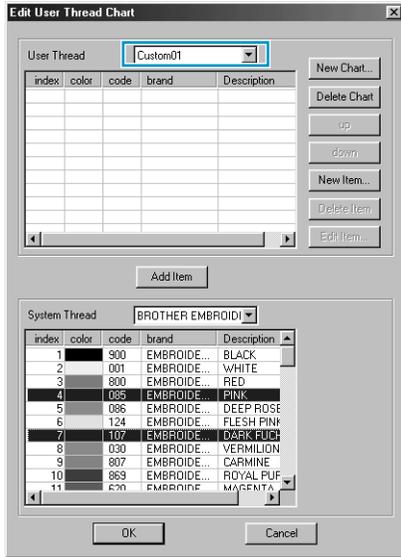
From the User Thread Chart list, select the chart that you want to delete.



Click **Delete Chart** to delete the selected chart.

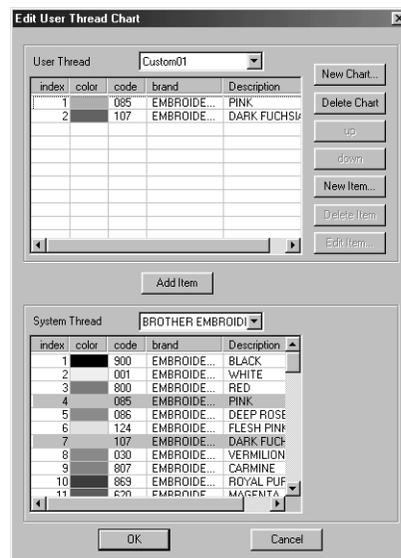
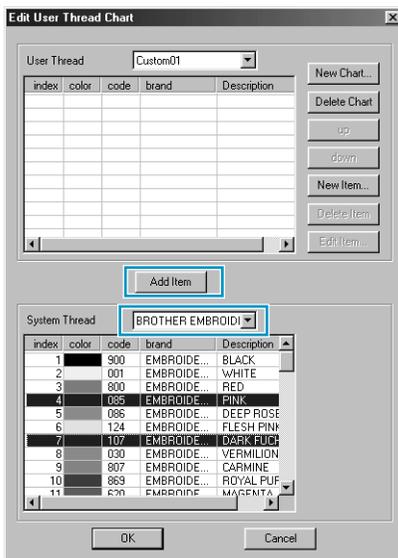
[Editing a Chart]

From the User Thread Chart list, select the chart that you want to edit.
If no chart is selected, the editing operation cannot be performed.



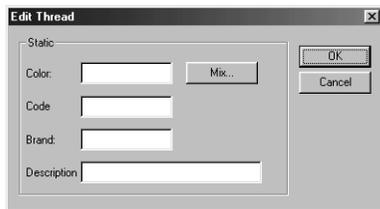
•Adding an item from a system thread chart

From the System Thread Chart list, select the brand of thread that you want to add.
From the list at the bottom of the dialog, click the thread item that you want to add. (To add multiple items, hold down the **Shift** and **Ctrl** keys while selecting thread items.)
Click **Add Item** to add the selected items to the list in the user thread chart.

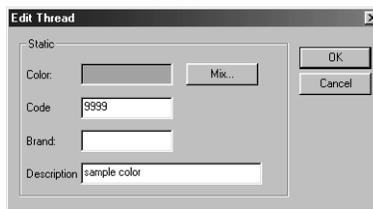
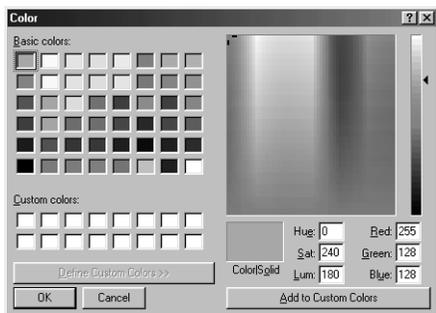


•Adding a new item

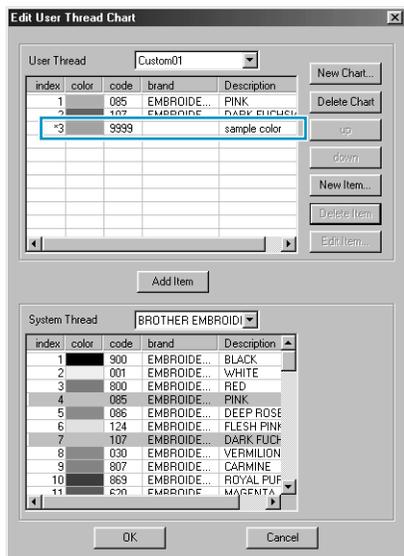
Click **New Item**. The following dialog appears.



To create a new color, click **Mix**. A dialog similar to the one shown below appears. Specify the color, and then click **OK** to add the specified color to the previous dialog.



If necessary, type in the code, brand and description into the appropriate text boxes. Only numbers can be entered for the code. Click **OK** to add the new item to the user thread chart.



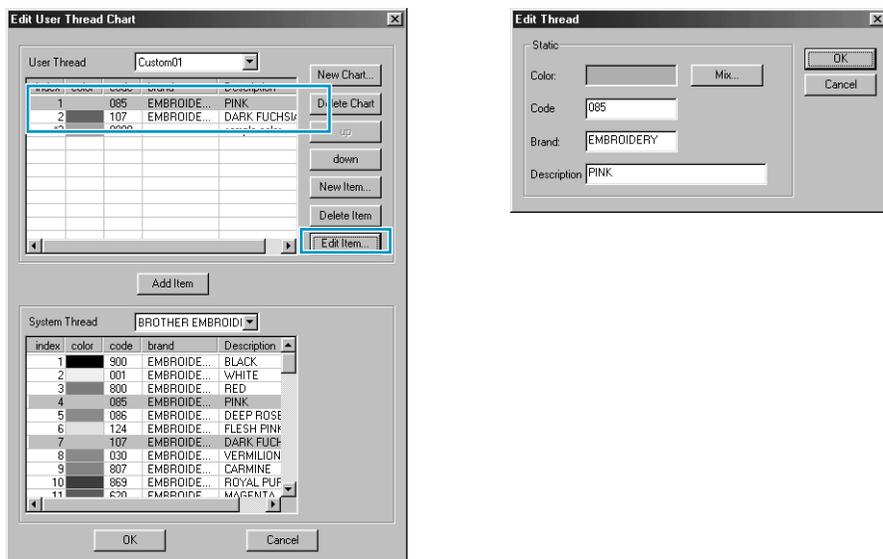
An asterisk (*) appears in front of the index number of newly added items.

•Deleting an item

From the list for the user thread chart, select the item to be deleted, and then click **Delete Item** to delete the item from the user thread chart.

•Editing an item

An item registered in the list for a user thread chart can be edited to change the color or thread number. From the list for the user thread chart, select the item to be edited, and then click **Edit Item**. The following dialog appears. Edit the item details in the same way as adding an item.



As with newly added items, an asterisk (*) appears in front of the index number of edited items.

•Changing the order of items

From the list for the user thread chart, select the item to be moved, and then click **up** or **down** to change the order of the item.

NOTE:

Thread colors in embroidery data created with this software may appear differently on the embroidering machine. Refer to the following.

1. Embroidering machines without a function for displaying color information

The specified thread information may not be displayed with some machines.

2. Embroidering machines with a function for displaying thread colors

Of the thread information specified in the embroidery data, only the thread colors are displayed on the machine. However, the thread color name that are displayed are limited to the machine's preset thread color names. Therefore, use thread color names in the embroidery data that are closest to the machine's preset thread color names.

3. Machines with a thread color index

Some machines can display the thread information specified with this software. Of the thread information specified in the embroidery data, those machines can display the brand name and thread number in addition to the information described in 2 above.

However, for items edited or added by the user (items marked with an asterisk ()), only the thread number is displayed.*

■ Select System Unit

Purpose: Allows you to select the unit of length (mm or inch).

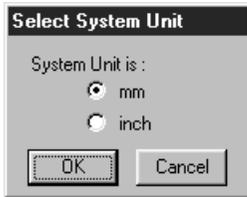
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Option**, then **Select System Unit**.

This dialog will appear.



- ◆ Select the unit (mm or inch).
- ◆ Click **OK** to confirm.
- ◆ Click **Cancel** to exit.

See also: “Grid Setup” on page 219, “Design Page Property” on page 225.

Help Menu

The **Help** menu gives you access to the on-screen help information system.

Contents	Starts the on-screen help information for this application.	page 230
Customer support	Opens the FAQ (Frequently Asked Questions) page in this company's homepage.	page 230
Online Registration	Displays the online registration page from our Web site.	page 231
About Layout & Editing	Gives information about the version of this application.	page 231

■ Contents

Purpose: Starts the on-screen help information for this application.

Shortcut key: **F1**

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **Contents**.
A table of contents of the on-screen help information displays.
- 2 Refer to your Windows manual for the next operation.

See also: “About Layout & Editing” on page 231

■ Customer support

Purpose: Opens the **FAQ** (Frequently Asked Questions) page in this company's homepage.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **Customer support** from the menu.
- 2 The browser installed in the computer will start, and open the FAQ page of this company's homepage.

NOTE:

This function cannot be used if there is no internet browser correctly installed in the computer.

■ Online Registration

Purpose: Displays the online registration page from our Web site.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **Online Registration** from the menu.
- 2 The installed browser is started and the online registration page is opened from our Web site.

NOTE:

This function only works if the Internet browser is correctly installed and the Internet connection environment is established.

**Online registration is not possible in certain countries and regions.*

■ About Layout & Editing

Purpose: Gives information about the version of this application.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **About Layout & Editing**.
A dialog will display.
- 2 Click **OK** to remove it.

See also: "Contents" on page 230

Contents

Before Using

Getting Started

Design Center

Layout & Editing

Programmable
Stitch Creator

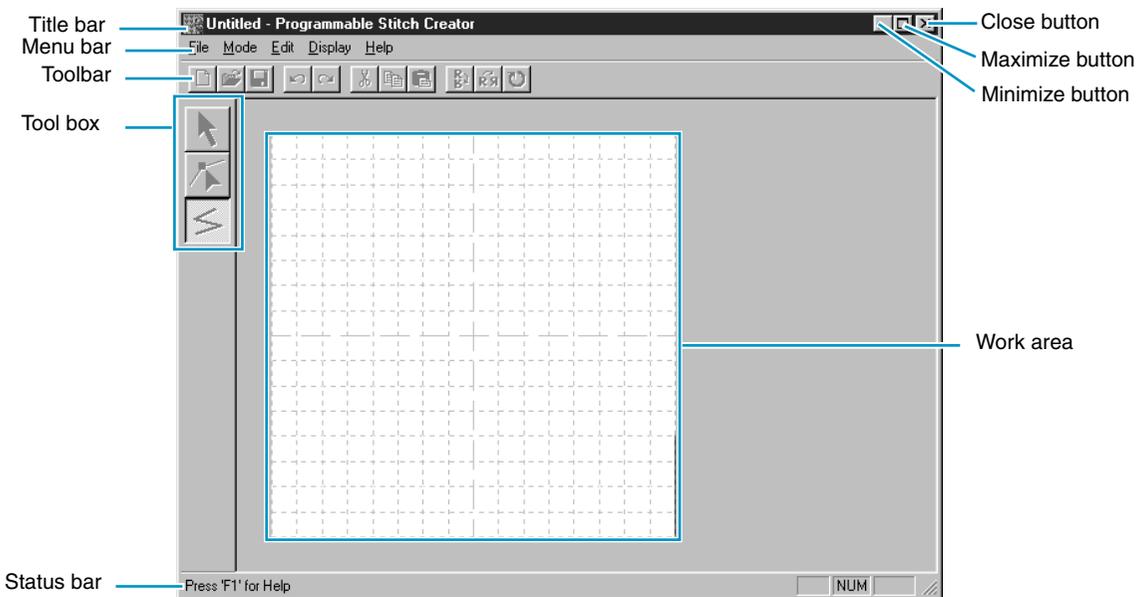
Quick Reference

Alphabetic Index

Programmable Stitch Creator

This application allows you to design your own fill stitch patterns, which you can set as sewing attributes to enclosed regions of patterns, both in Design Center and Layout & Editing. The fill stitch patterns fill the regions in a tile-like manner, resulting in particularly decorative embroidery patterns. You may create your own fill stitch patterns or use the many stitches delivered with this application with or without editing them. This application also allows you to design patterns for motif sewing. You can use Layout & Editing to apply line stitch or fill stitch sewing attributes, or you can use Design Center to apply fill stitch attributes to the motif pattern.

The Screen



Menu bar	Gives access to the functions.
Toolbar	Shortcut for the menu functions.
Tool box	Used to select and create fill stitch patterns.
Status bar	Provides short information.

Using the Tool Box

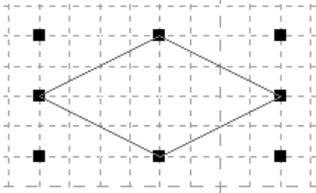
	Sets the cursor in select mode. Cursor shape: 	page 234
	Sets the cursor in point edit mode. Cursor shape: 	page 235
	Sets the cursor in line drawing mode. When you start the application, the drawing mode is active by default. Cursor shape:  with a miniature of the tool button	page 237

Selection Mode

The cursor selection mode is used to select one or more lines. Once a line is selected, you can move it, scale it, and change its direction by rotating it or inverting it.

Selecting lines

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the line that you want to select.
You know that the line is selected when handles are displayed.



NOTE:

A pattern will not be selected if you do not click on a part of it.

- 3 To deselect the line, select another one, click on an empty space or click another button of the Tool Box.
- 4 To select an additional line, click that line while holding the **Shift** key down.

NOTE:

You can also select lines by dragging the cursor across the Work Area. As you drag, a dotted rectangle appears. When you release the mouse button, all lines that are completely contained in that rectangle will be selected.

If other lines that you did not want selected are selected, click on an empty space to deselect all lines, and then start again.

Moving lines

- 1 Move the cursor over a selected pattern or group of selected patterns.
The shape of the cursor will change to .
- 2 You can now drag the pattern to another location.
Holding down the **Shift** key while dragging the line moves the line horizontally or vertically.

NOTE:

Pressing the up, down, left, or right arrow keys will move the line one grid space each time the key is pressed. If the grid is not displayed, the line moves the distance of the smallest grid space in the direction shown on the key.

■ Scaling lines

- 1 Move the cursor over one of the handles of a selected line or group of selected lines.

The shape of the cursor will change to , , , or , depending on the handle the cursor is on.

- 2 Drag the handle in the direction of the arrow to scale the pattern.

 is for scaling the width.

 is for scaling the height.

 and  are for scaling both dimensions at the same time.

Point Edit Mode

The point edit mode allows you to move, insert and delete points of a stitch pattern.

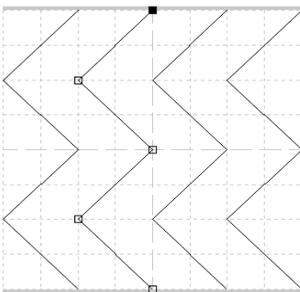
The points you move or insert are positioned at the intersection of the horizontal and vertical lines of the grid. So, regardless on where you drag a point to or insert a point on the line, it will automatically position itself at the nearest intersection.

Depending on the stitch you want to create, you may need to select a different working grid. For more information on the grids and on how to select them, refer to “Grid” on page 248.

■ Moving points

- 1 Click  on the Tool Box. The shape of the cursor changes to .

- 2 Click the broken line that you want to edit. You can only select one broken line at a time. The existing points of the selected broken line are marked with small empty squares.



- 3 Click the point that you want to move.

To select an additional point, click that point while holding the **Shift** key down. You may also click and drag the cursor over the area which includes all the points that you want to select. When you release the mouse, the points included in that area are selected. The selected points are marked by filled squares.

NOTE:

If you click on the line instead of a square, a new point is inserted.

Pressing **Ctrl** + \rightarrow or \leftarrow will move the selection to the previous or next point in a line.

- 4 Drag the cursor to a new position. All the selected points move in the same direction.
Holding down the **Shift** key while dragging the point moves the point horizontally or vertically.

NOTE:

Pressing the up, down, left, or right arrow keys will move the point one grid space each time the key is pressed. If the grid is not displayed, the point moves the distance of the smallest grid space in the direction shown on the key.

When in Motif Mode, if you move the start point (blue rectangle) or the end point (red rectangle) up or down, the other point will automatically move up or down. Also, the start and end points can not be moved closer than a certain fixed distance.

■ Inserting points

- 1 Click  on the Tool Box. The shape of the cursor changes to .
- 2 Click the broken line that you want to edit. You can only select one broken line at a time. The existing points of the selected broken line are marked with small empty squares.
- 3 Click where you want to insert a new point on the broken line.
A new point appears, marked by a filled black square. The new point can be edited.

■ Deleting points

- 1 Click  on the Tool Box. The shape of the cursor changes to  when you move it over the Work page.
- 2 Click the broken line that you want to edit. You can only select one broken line at a time. The existing points of the broken line are marked with small empty squares.
- 3 Click the point that you want to delete.
To select an additional point, click that point while holding the **Shift** key down. The selected points are marked by filled squares.
- 4 Press the **Delete** key to remove the selected points from the outline.
If the point is composed of a single line, the line is deleted.

NOTE:

When in Motif Mode, the start point (blue rectangle) and end point (red rectangle) can not be deleted.

Line Drawing Mode

The line drawing mode allows you to draw broken lines to create your stitch pattern. A broken line is made of one or more contiguous straight lines, the ending point of a straight line being the starting point of the next one.

The horizontal and vertical lines that you draw on the work area always follow the grid. The points you create by clicking the mouse are inserted at the intersection of the horizontal and vertical lines of the grid, enabling you to draw diagonal lines as well. So, regardless of where you click, a point will automatically be inserted at the nearest intersection.

Depending on the stitch pattern you want to draw, you may need to select a different working grid. For more information on the grids and on how to select them, refer to “Grid” on page 248.

■ Drawing a broken line

- 1 Click  on the Tool Box. When you move it over the Work page, the cursor changes to  and is displayed together with a small image of the tool button.
- 2 Move the mouse to the starting point of your broken line and click.
- 3 Move the mouse to the ending point of the first straight line and click again.
NOTE:
You can always remove the last-entered point by clicking the mouse's right button.
- 4 Repeat until you arrive at the last end point. At that point double-click.
Repeat the whole procedure if you want to include other broken lines in a stitch pattern.

File Menu

The **File** menu allows you to execute commands regarding the files, such as opening and saving.

New	Creates a new blank work area.	page 238
Open	Opens a previously saved programmable stitch file.	page 238
Template Open	Opens a background image file that can be used as a guide to draw a new pattern for Programmable Fill and Motif.	page 240
Save	Saves your work area on the disk.	page 240
Save As	Saves the current stitch pattern under a new file name.	page 241
Exit	Exits the application.	page 241

New

Purpose: Creates a new blank work area.

Shortcut key: **Ctrl** + **N**

Toolbar: 

Operation:

- 1 Click **File**, then **New**.
If the current work area is not edited, a new blank work area appears immediately.
- 2 If the current work area is edited, you will be asked whether you want to save the changes, for example:



- ◆ Click **Yes** to save the work area first.
- ◆ Click **No** to abandon the work area.
- ◆ Click **Cancel** to do anything else (for example, modify the current work area or saving it with another file name).

A new blank work area appears.

See also: “Open”, “Save” and “Save As” in this section

Open

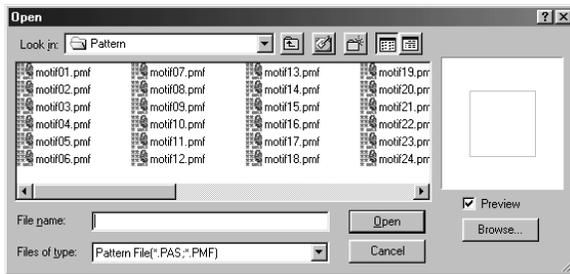
Purpose: Opens a previously saved programmable stitch file.

Shortcut key: **Ctrl** + **O**

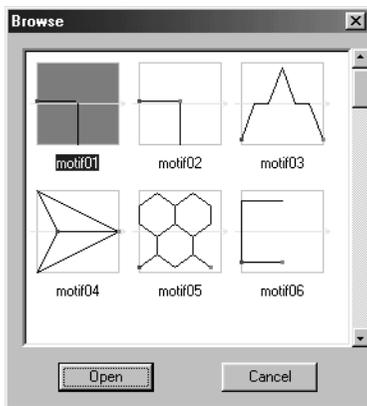
Toolbar: 

Operation:**1** Click **File**, then **Open**.

A **Open** dialog similar to this will display.



- ◆ Select the drive, the folder and the file name.
- *Be sure the folder you select contains **pas** or **pmf** files.*
- *If the **Preview** check box is checked, the content of the selected file displays in the preview window.*
- ◆ Click **Open** or double-click the file name to open the file in the work area.
- ◆ Click **Browse** to preview all the available **pas** or **pmf** files in the selected folder.
- ◆ Click **Cancel** to exit.

2 When you click **Browse**, the **Browse** dialog opens.

- ◆ Browse through the files with the help of the scroll bar.
A green → in the middle of the pattern display area shows that this is data for Motif (*.pmf). Otherwise, the data is for Programmable Fill (*.pas).
- ◆ Select a stitch pattern by clicking on it. The selected pattern is highlighted.
- ◆ Double-click the selected pattern or click **Open** to open the file and to close both the **Open** and the **Browse** dialogs. The mode will automatically change to match the selected pattern (**pas** or **pmf**).
- ◆ Click **Cancel** to go back to the **Open** dialog.

3 The selected file opens immediately if your current work area is not edited.

If the current work area is edited, you will be asked whether you want to save the changes.



- ◆ Click **Yes** to save the work area first.
- ◆ Click **No** to abandon the work area.
- ◆ Click **Cancel** to do anything else (for example, modifying the current work area or saving it with another file name).

4 The edited stitch pattern is now saved and the selected file opens.

See also: “New” on page 238, “Save” on page 240, and “Save As” on page 241

■ Template Open

Purpose: Opens a background image file that can be used as a guide to draw a new pattern for Programmable Fill and Motif.

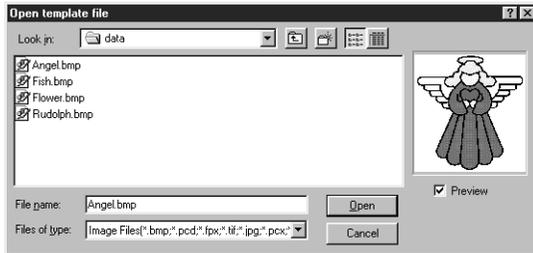
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

❶ Click **File**, then **Template Open**.

An Open Template dialog similar to this will display.



- ◆ Select the drive, the folder and the file name.
 - If the *Preview* check box is checked, the content of the selected file displays in the *Preview* window.
- ◆ Click **Open** to open the file. The following file formats can be opened: Windows BMP (*.bmp), Exif (*.tif, .jpg), ZsoftPCX (.pcx), Windows Meta File (*.wmf), Portable Network Graphics (*.png), Encapsulated PostScript (*.eps), Kodak PhotoCD (*.pcd), FlashPix (*.fpx).

NOTE:

For **pcd** and **fpx** files that are saved on many pages, only the first page can be opened. **Tif** files that have used **LZW** compression can not be opened.

- Double-clicking the file name will also open the file and close the dialog.
- ◆ Click **Cancel** if you want to exit the function.

See also: “Template-On, Faded, Off” on page 249

■ Save

Purpose: Saves your work area on the disk.

Shortcut key: **Ctrl** + **S**

Toolbar: 

Operation:

❶ Click **File**, then **Save**.

If the file already exists on the disk (the file has been saved at least once), the file is saved immediately.

❷ If the file name is still **Untitled**, if it is one of the “Read Only” **pas** or **pmf** files which come with this application or if, for any other reason, the file cannot be found on the disk, the application automatically switches to **Save As**.

See also: “Save As” on page 241

Save As

Purpose: Saves the current stitch pattern under a new file name.

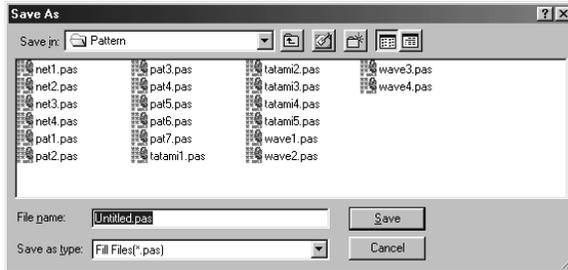
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

❶ Click **File**, then **Save As**.

A **Save As** dialog similar to this will display.



- ◆ Select the drive, the folder and type the file name.
- *The file extension is automatically set to match the Mode setting.*
When Mode = Fill: *.pas
When Mode = Motif: *.pmf
- ◆ Click **Save** to save.
- ◆ Click **Cancel** to exit.

❷ If the new file name already exists, this dialog will appear.



- ◆ Click **Yes** to overwrite.
- ◆ Click **No** if you do not want to overwrite the existing file.

See also: “Save” on page 240

Exit

Purpose: Exits the application.

Shortcut key: **Alt** + **F4**

Toolbar: No button for this function

Operation:

❶ Click **File**, then **Exit**.

If the current stitch pattern is not edited, the application closes immediately.

❷ If the current stitch pattern is edited, you will be asked whether you want to save the changes.

See also: “Save” on page 240 and “Save As” above

Mode Menu

You can use Programmable Stitch Creator to create patterns for Programmable Fill, and patterns for Motif Fill or Motif Line. However, the method and Work Area are different for each. Use this mode menu to make the setting for which pattern you will create.

Purpose: Changes the Mode for creating data.

Shortcut key: No shortcut key for this function.

Toolbar: No button for this function

Operation:

- 1 From the menu, click **Mode**, then select the heading that matches the pattern you want to create.
 - ◆ Click **Fill**: the mode changes to create a pattern for Programmable Fill.
 - ◆ Click **Motif**: the mode changes to create a pattern for Motif.
- 2 If the current work area is edited, you will be asked whether you want to save the changes, for example:



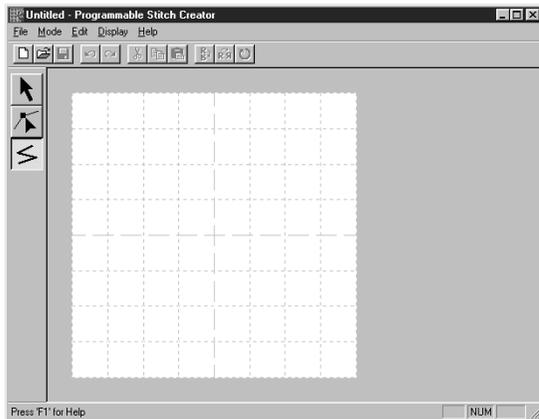
- ◆ Click **Yes** to save the work area Page first.
- ◆ Click **No** to abandon the work area.
- ◆ Click **Cancel** to do anything else (for example, modify the current Design Page or saving it with another file name).

Fill Mode

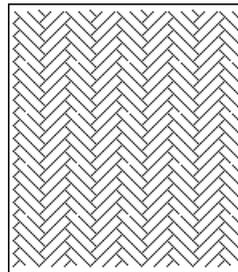
In Fill Mode, you can make a pattern out of one line or many lines.

In the tool box, there is a selection mode tool, a point edit mode tool, and a line drawing mode tool. Using these tools, you can freely input and edit lines in the Work Area to create your pattern.

The sewing method for Programmable Fill is different from the regular Fill, where the thread is constantly sewn in a set direction. Instead, the pattern will be sewn in such a way that the needle drops directly over the created pattern.



(Example of a pattern)



Motif Mode

In Motif Mode, you can create outline patterns efficiently using just one line.

In the center of the Work Area, a green arrow is displayed, showing the direction that the pattern (stitch) will be sewn.

Also, in the center of the left edge of the box, there is blue rectangle, that shows the start point. In the center of the right edge of the screen there is a red rectangle that shows the end point. These points are connected by a line.

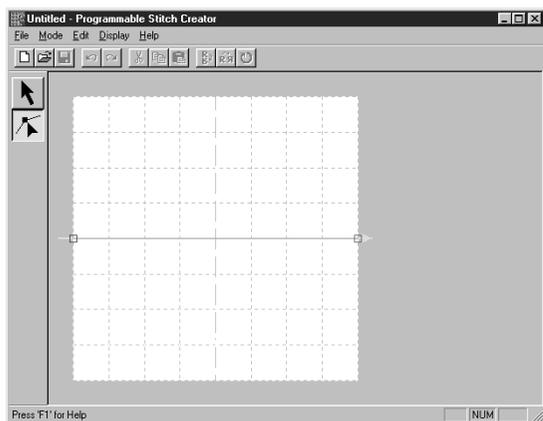
The selection tool and the point edit tool are in the tool box. Using the line already shown, you can create a pattern by inserting points, moving, or editing the line in other ways.

You can not delete the start or end points. Also, the points must be in the same up/down position, so if you move one point up or down, the other point will automatically move the same.

The sewing method for these patterns is done with the efficiency of outline patterns, like created patterns.

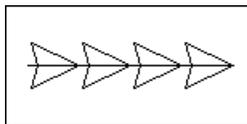
(You can use **Ctrl** + →, ← to check the order of the points.)

Also, you can set these patterns to be sewn for Line sewing or Region sewing. (In Design Center, Region sewing only.)

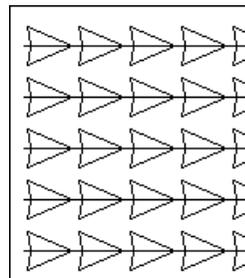


(Example of a pattern)

Line sewing



Region sewing



Undo	Undoes the last operation.	page 244	
Redo	Cancels the effect of the last Undo.	page 244	
Cut	Removes the selected line(s) from the screen while saving a copy in the clipboard.	page 245	
Copy	Saves the selected line(s) in the clipboard without removing them from the screen.	page 245	
Duplicate	Makes a copy of the selected line(s).	page 245	
Paste	Pastes the lines of the clipboard on the screen.	page 245	
Delete	Removes the selected line(s) from the screen without saving them in the clipboard.	page 246	
Mirror	Horizontal	Flips the selected line(s) up/down.	page 246
	Vertical	Flips the selected line(s) left/right.	page 246
Rotate	Allows you to manually rotate the selected line(s) by an arbitrary angle.	page 246	
Select All	Selects all the patterns.	page 247	

■ Undo

Purpose: Undoes the last operation.

Shortcut key: **Ctrl** + **Z**

Toolbar: 

Operation:

① Click **Edit**, then **Undo**.

The last operation is automatically undone. For example, if you have mistakenly deleted a line, this function will make it reappear.

See also: “Redo” below

■ Redo

Purpose: Cancels the effect of the last Undo.

Shortcut key: **Ctrl** + **A**

Toolbar: 

Operation:

① Click **Edit**, then **Redo**.

The effect of the last **Undo** is canceled. For example, if you have used **Undo** just after drawing a line, the line is deleted. Using **Redo** will make the line reappear.

See also: “Undo” above

Cut

Purpose: Removes the selected line(s) from the screen while saving a copy in the clipboard.

Shortcut key: **Ctrl** + **X**

Toolbar: 

Operation:

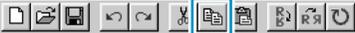
- 1 Select one or more lines.
- 2 Click **Edit**, then **Cut**.
The selected lines disappear. Since they are saved in the clipboard, you can paste them back using **Edit - Paste**.

See also: “Copy”, “Paste” below, “Delete” on page 246

Copy

Purpose: Saves the selected line(s) in the clipboard without removing them from the screen.

Shortcut key: **Ctrl** + **C**

Toolbar: 

Operation:

- 1 Select one or more lines.
- 2 Click **Edit**, then **Copy**.
The patterns are copied into the clipboard and are ready to be pasted.

See also: “Cut” above, “Duplicate” and “Paste” below

Duplicate

Purpose: Makes a copy of the selected line(s).

Shortcut key: **Ctrl** + **D**

Toolbar: No button for this function

Operation:

- 1 Select one or more lines.
- 2 Click **Edit**, then **Duplicate**.
A copy of the lines appears on the screen.

See also: “Copy” above and “Paste” below

Paste

Purpose: Pastes the lines of the clipboard on the screen.

Shortcut key: **Ctrl** + **V**

Toolbar: 

Operation:

- 1 Click **Edit**, then **Paste**.
The lines saved in the clipboard (using **Cut** or **Copy**) are pasted on the screen.

See also: “Cut”, “Copy” and “Duplicate” above

Delete

Purpose: Removes the selected line(s) from the screen without saving them in the clipboard.

Shortcut key: **Delete**

Toolbar: No button for this function

Operation:

① Select one or more lines.

② Click **Edit**, then **Delete**.

The selected line(s) are removed from the screen. Since they are not saved in the clipboard, the only way to make them reappear is to use **Edit - Undo**.

See also: “Undo” on page 244 and “Cut” on page 245

Mirror – Horizontal

Purpose: Flips the selected line(s) up/down.

Shortcut key: **Ctrl** + **H**

Toolbar: 

Operation:

① Select one or more lines.

② Click **Edit**, then **Mirror**, then **Horizontal**.

The selected line(s) are replaced by their horizontal mirror image (top and bottom inverted). Two successive applications of this function restores the original image.

See also: “Mirror – Vertical” and “Rotate” below

Mirror – Vertical

Purpose: Flips the selected line(s) left/right.

Shortcut key: **Ctrl** + **J**

Toolbar: 

Operation:

① Select one or more lines.

② Click **Edit**, then **Mirror**, then **Vertical**.

The selected line(s) are replaced by their vertical mirror image (left and right inverted). Two successive applications of this function restores the original image.

See also: “Mirror – Horizontal” above and “Rotate” below

Rotate

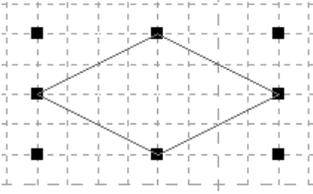
Purpose: Allows you to manually rotate the selected line(s) by an arbitrary angle.

Shortcut key: **Ctrl** + **Y**

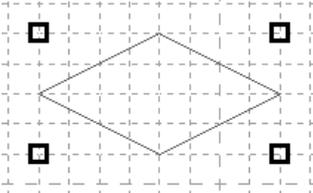
Toolbar: 

Operation:

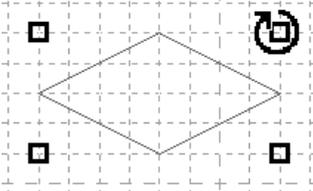
- 1 Select one or more patterns.



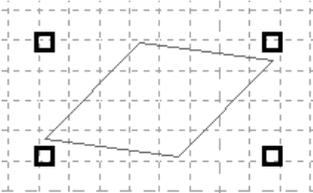
- 2 Click **Edit**, then **Rotate**. The shape of the handles changes.



- 3 Move the cursor to one of the handles. The shape of the cursor changes.



- 4 Drag the handle to rotate the pattern the desired angle, and then release the mouse button.



A simple dragging of the mouse will rotate the line by 1 degree increments. Pressing the **Shift** key will rotate it by 15 degree increments.

■ Select All

Purpose: Selects all the patterns.

Shortcut key: **Ctrl** + **E**

Toolbar: No button for this function

Operation:

- 1 Make sure that the cursor must be in Selection mode.
- 2 Click **Edit**, then **Select All**.

Display Menu

Grid	Selects the work grid.	page 248
Template-On, Faded, Off	Turns on or off the template image or displays it faded.	page 249
Preview	Turns the repeating image display of the pattern being created on/off.	page 249
Toolbar	Turns the Toolbar on/off.	page 249
Status bar	Turns the Status bar on/off.	page 250

■ Grid

Purpose: Selects the work grid.

Shortcut key: No shortcut key for this function.

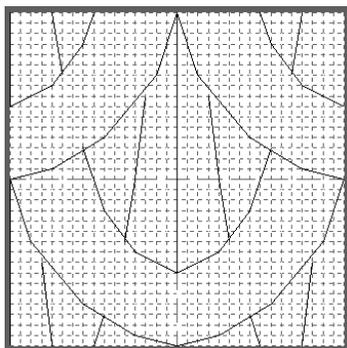
Toolbar: No button for this function

Operation:

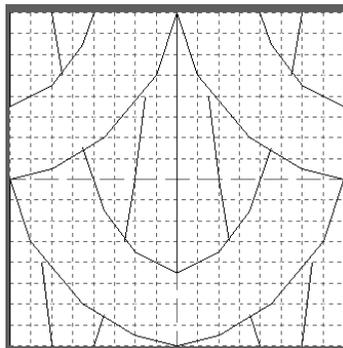
- 1 Click **Grid**. The selected grid is preceded by a radio button.
- 2 Click the grid setting you need for the stitch pattern that you are creating or editing. You can also switch grids while you are working on a stitch pattern, then continue drawing.
Click **Wide**: The grid step changes to 1/8 of a work area's side.
Click **Medium**: The grid step changes to 1/16 of a work area's side.
Click **Narrow**: The grid step changes to 1/32 of a work area's side.
Click **None**: The grid disappears.

The grid setting will be saved when the application is turned off, so when the application is turned on the next time, the same settings will be applied.

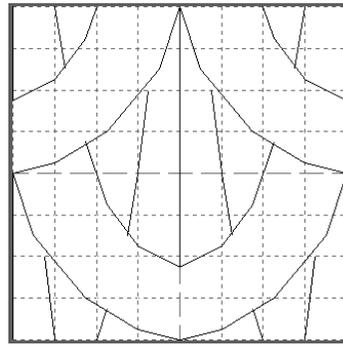
Example 1: **Narrow** grid



Example 2: **Medium** grid



Example 3: **Wide** grid



The horizontal and vertical lines that you draw on the work area always follow the grid. The points you create by clicking the mouse are inserted at the intersection of the horizontal and vertical lines of the grid, enabling you to draw diagonal lines as well. Regardless of where you click, a point will automatically be inserted at the nearest intersection.

Select a different work grid according to the type of stitch you want to draw. Select a narrower grid for drawing finer details or to give curve-like or circle-like looks to your stitch lines and select a wider grid if you want to draw a simpler stitch pattern.

■ Template-On, Faded, Off

Purpose: Turns on or off the template image or displays it faded.

Shortcut key: **F6**

Toolbar: No button for this function

Operation:

① Click **Display**, then **Template**, then select the desired setting.

- ◆ Click **On** to display the original image.
- ◆ Click **Faded** to fade the image before displaying it.
- ◆ Click **Off** to hide the image.

This function is not available if a template image is not open. Press the shortcut key to switch between displaying the template image to displaying it faded to hiding the image.

See also: “Template Open” on page 240

■ Preview

Purpose: Turns the repeating image display of the pattern being created on/off.

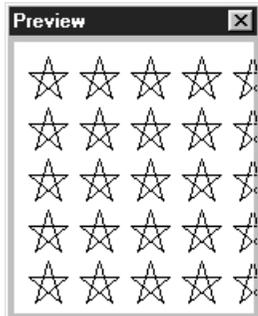
Shortcut key: No shortcut key for this function

Toolbar: No button for this function

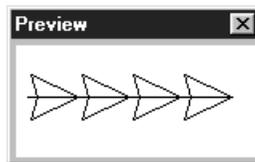
Operation:

① Click **Display**, then **Preview**.

If the Preview dialogue was not displayed, the Preview dialogue matching the mode setting will be displayed, as shown in the examples below.



(Mode = Fill)



(Mode = Motif)

When the application is turned off, the Preview dialog display's On/Off condition and the display position will be saved, so the next time the application is opened the same conditions will be shown.

■ Toolbar

Purpose: Turns the Toolbar on/off.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

① Click **Display**, then **Toolbar**.

The Toolbar will be toggled on/off.

See also: “Status bar” on page 250

■ Status bar

- Purpose:** Turns the Status bar on/off.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function
- Operation:**
- 1 Click **Display**, then **Status Bar**.
The Status Bar will be toggled on/off.
- See also:** “Toolbar” on page 249

Help Menu

The **Help** menu gives you access to the on-screen help information system.

Contents	Starts the on-screen help information for this application.	page 250
Customer support	Opens the FAQ (Frequently Asked Questions) page in this company’s Web site.	page 250
About Programmable Stitch Creator	Gives information about the version of this application.	page 251

■ Contents

- Purpose:** Starts the on-screen help information for this application.
- Shortcut key:** **F1**
- Operation:**
- 1 Click **Help**, then **Contents**.
A table of contents of the on-screen help information displays.
 - 2 Refer to your Windows manual for the next operation.
- See also:** “About Programmable Stitch Creator” on page 251

■ Customer support

- Purpose:** Opens the **FAQ** (Frequently Asked Questions) page in this company’s Web site.
- Shortcut key:** No shortcut key for this function
- Toolbar:** No button for this function
- Operation:**
- 1 Click **Help**, then **Customer support** from the menu.
 - 2 The browser installed in the computer will start, and open the FAQ page of this company’s Web site.

NOTE:

This function cannot be used if there is no Internet browser correctly installed in the computer.

■ About Programmable Stitch Creator

Purpose: Gives information about the version of this application.

Shortcut key: No shortcut key for this function

Toolbar: No button for this function

Operation:

- 1 Click **Help**, then **About Programmable Stitch Creator**.
A dialog will display.
- 2 Click **OK** to remove it.

See also: “Contents” on page 250

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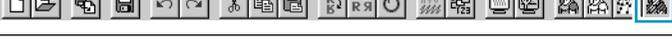
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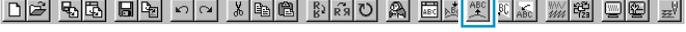
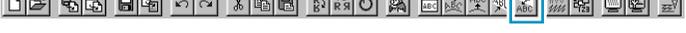
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