

brother®



PE-DESIGN

PERSONAL EMBROIDERY DESIGN SOFTWARE SYSTEM

Instruction Manual

8



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 Class B digital apparatus complies with Canadian ICES-003.

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 that a malfunction occurs or adjustment is required, please consult your nearest service center.

Notice

Neither this Instruction Manual nor the Installation Guide explains how to use your computer under Windows[®]. Please refer to the Windows[®] manuals.

Copyright acknowledgment

Windows[®] is a registered trademark of Microsoft Corporation. Other product names mentioned in the Instruction Manual and Installation Guide may be trademarks of registered trademarks of their respective companies and are hereby acknowledged.

Important

Using this unit for unauthorized copying of material from embroidery cards, newspapers and magazines for commercial purpose is an infringement of copyrights 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:
<http://www.brother.com/> or <http://solutions.brother.com/>

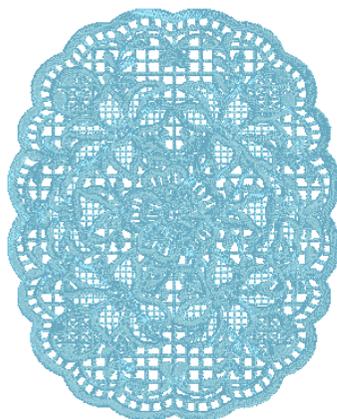
Turn Any Design Into Original Embroidery With PE-DESIGN

This software provides digitizing and editing capabilities, allowing you the creative freedom to design original embroidery. Easily turn illustrations, photos and lettering into custom embroidery designs.



■ **Layout ready-made designs**
(p. 15)

■ **Large-sized patterns**
(p. 176 in the Instruction Manual (PDF format))



■ **Photo Stitch function** (p. 24, p. 127)

Embroidery can easily be created from photos taken with a digital camera.

Photo Stitch 1 (Color)



Photo Stitch 1
(Sepia)



Photo Stitch 1
(Mono)



Photo Stitch 2
(Color)



Photo Stitch 2
(Mono)



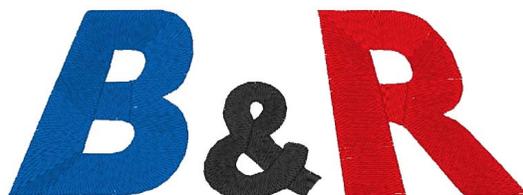
■ **Combining with background images**

(p. 42)



■ **Creating custom logos**

(p. 20, p. 70, p. 77, p. 80, p. 90 and p. 126)



What You Can Do With PE-DESIGN

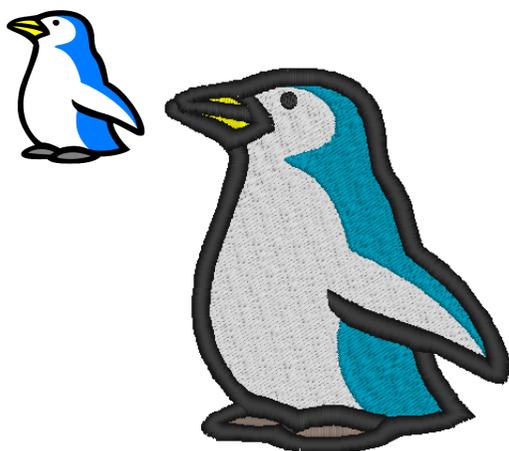
Make Vivid Embroidery From Any Illustration or Photo

With Layout & Editing, images and photos can be automatically converted into embroidery patterns that can be sewn with the desired stitches.

■ Auto Punch function

(☞ p. 20, p. 126)

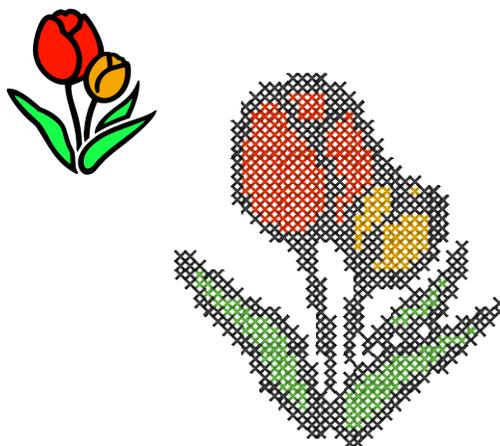
Illustration and images can easily be converted into embroidery. In addition, the color and sew type can be changed as desired.



■ Cross Stitch function

(☞ p. 27, p. 134)

Illustration and images can easily be converted into cross-stitch embroidery. In addition, the size of the cross-stitches can be changed as desired.



■ Drawing Shapes to Create an Embroidery Design

(☞ p. 29, p. 70)



■ Combining Embroidery Patterns

(☞ p. 38, p. 47, p. 52)



Increased Variety With the Many Stitches and Colors

This software includes 10 stitches for region sewing and 5 stitches for line sewing. By changing the stitches and colors, the same design can be given a different appearance. Try combining various settings.

 For more details, refer to “Setting the thread color and sew type” on page 94.



Increased Variety of Fonts

Embroidery can be created using not only the built-in fonts, but also the TrueType fonts on your computer.

■ Monograms

( p. 90, p. 171 in the Instruction Manual (PDF format))

Create monograms by simply selecting a font, typing in the text, then selecting a decorative pattern. A wide variety of decorative patterns are available.



■ Easy editing

( p. 35, p. 80)

Change the text arrangement to edit the text as you wish.



Sew Types

The sewing attributes for each sew type are first set to their default settings; however, by changing the settings of the sewing attributes, you can create custom stitching.

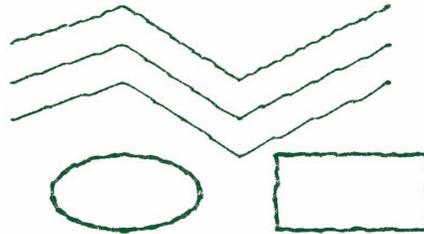
 For more details, refer to "Line sewing attributes" on page 98 and "Region sewing attributes" on page 101.

Line sew types

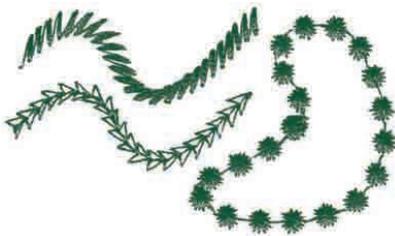
Zigzag Stitch



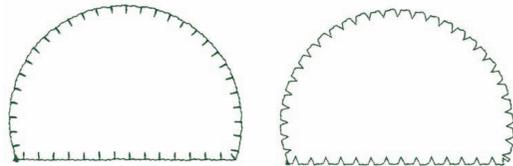
Running Stitch/Triple Stitch



Motif Stitch



E/V Stitch



Region sew types

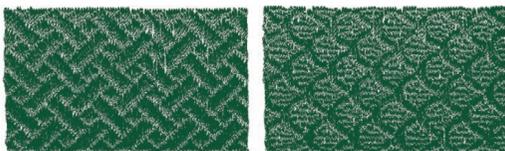
Satin Stitch



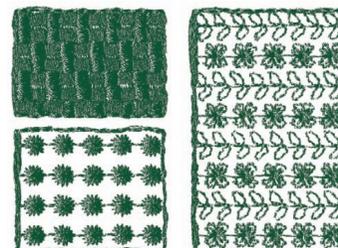
Fill Stitch



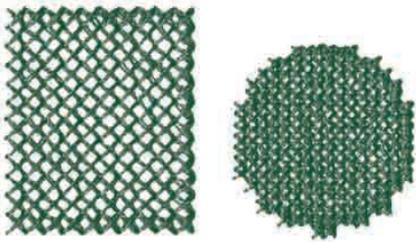
Programmable Fill Stitch



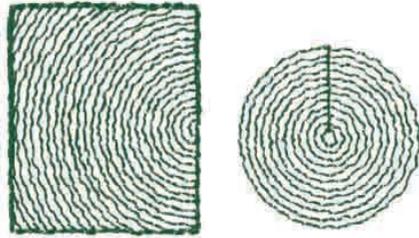
Motif Stitch



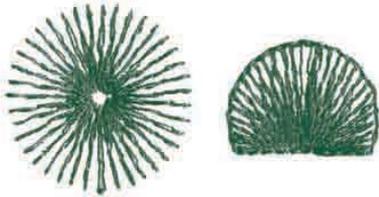
Cross Stitch



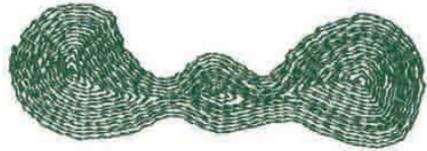
Concentric Circle Stitch



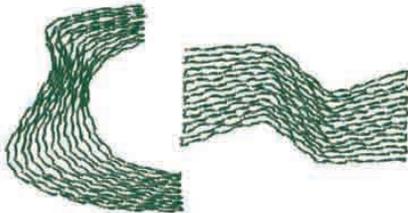
Radial Stitch



Spiral Stitch



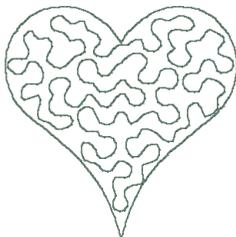
Piping Stitch



Piping Stitch (motif setting)



Stippling Stitch



Stippling Stitch (motif setting)



Memo:

The stitching for the programmable fill stitch and the motif stitch depends on the selected stitch pattern.



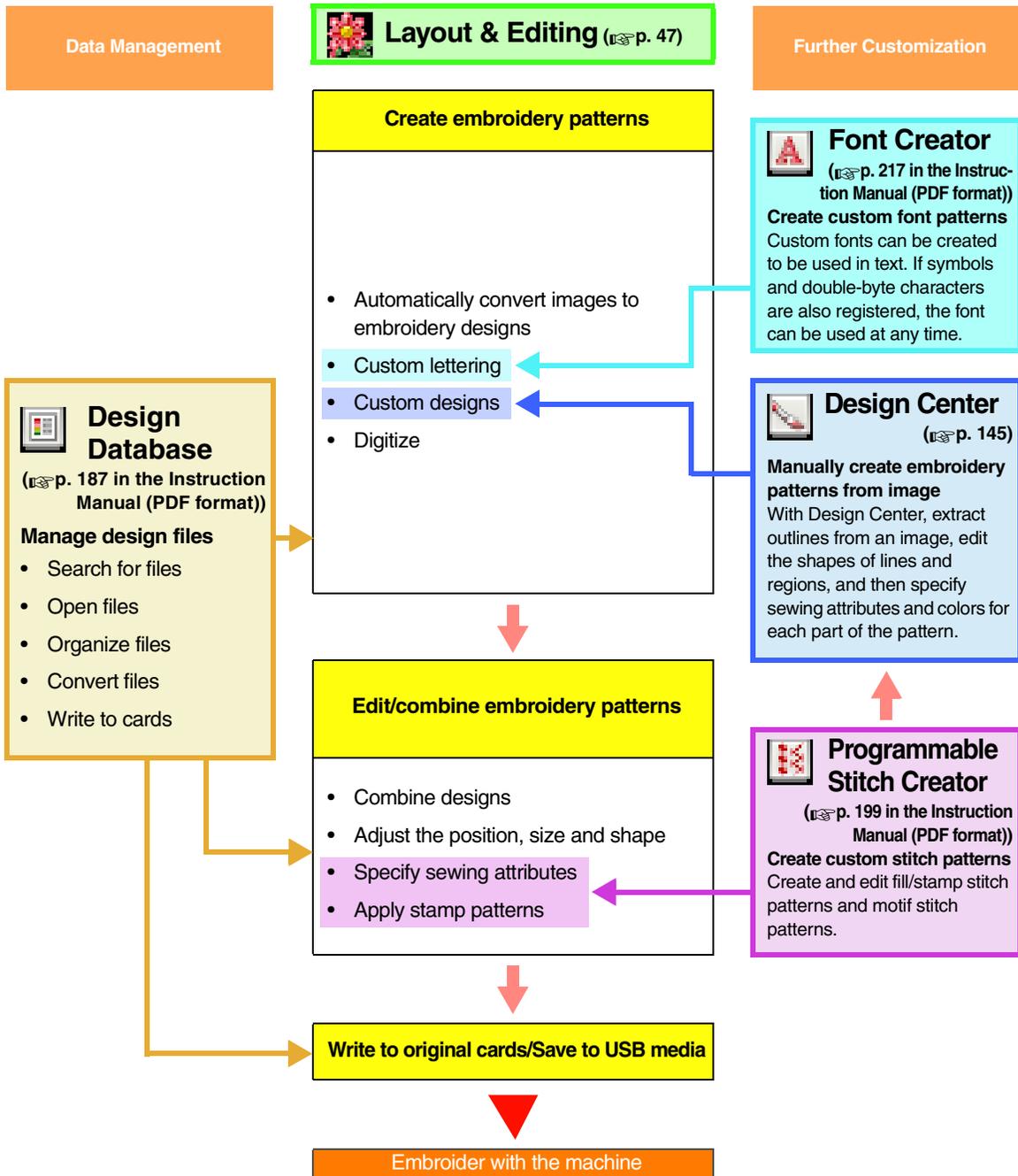
For more details, refer to "Programmable fill stitch" on page 103, "Piping stitch" on page 105, "Motif stitch" on page 106, and "Stippling stitch" on page 108.

Basic Operation Map

This package consists of five applications.

Create Embroidery Patterns Using All Four Applications

The main application (Layout & Editing) is supported by Design Center, Font Creator, Programmable Stitch Creator and Design Database.



New Features of Version 8

■ Stitch Generation Features

- A motif pattern can be applied to the stippling stitch.
- The underlay stitching function has been improved.
 - New underlay stitching patterns have been added to the settings available for region sewing of text and manual punching patterns.
 - The density for underlay stitching of regions can be set to **Dense**, **Medium** or **Light**.

■ Editing Functions and User Interface

Layout & Editing

- The **Remove Overlaps** and **Merge** commands have been added for editing shapes.
 - Remove Overlaps: The overlapping regions of the shapes are removed.
 - Merge: The overlapping regions of the shapes are merged.
- Designs can be created that combine embroidery with an image used in the background. Print the image on the fabric by using an iron-on transfer sheet or printable fabric, and then embroider on this fabric. The positioning sheet allows you to easily align the embroidering position.
- Rulers have been added at the top and left side of the Design Page. Measurement units when checking sizes and positions can be switched between millimeters and inches.
- Multiple files can be opened. Data can be copied and pasted between files.
- The **Sewing Attribute Setting** dialog box, **Thread Color** dialog box, and **Text Attribute Setting** dialog box are in a combined dialog box, which is easier to use.
- The functions in the **Import** dialog box for importing embroidery designs have been improved.
- The functions in the **Sewing Order/Lock** dialog box have been improved.
 - Embroidery patterns can be locked (no changes, such as moving, enlarging/reducing or editing, can be performed).
 - The sewing attribute of the objects in each color can be changed.
- The functions in the Image to Stitch Wizard have been improved.
 - Sepia modes have been added to the Photo Stitch and Cross Stitch functions.
 - A feature has been added to convert regions to lines when automatically converting to an embroidery pattern with the Auto Punch function.
 - Single cross-stitches and backstitches can be edited when automatically converting an image to an embroidery pattern with the Cross Stitch function.
- The image can be rotated in 90° increments.
- Tools for drawing lines freehand have been added.
- Arranged text on an arc can be selected from transform text pattern.
- Stitch data can be divided by color.

Design Center

- An eraser tool has been added to the Tool Box in the Line Image Stage.
- The maximum setting for **Thinning Process** when converting a line image to a figure handle image has been increased. This allows thicker figure handle lines to be created.

Font Creator

- A TrueType font character can be opened as a template. In addition, a custom font can be created automatically from a TrueType font.
- Characters other than letters of the alphabet, numbers and symbols can be registered.
- If a template image was open when custom font data is saved in PEF file, the template image will be saved with the data.

■ General

- New sample embroidery files have been added to the Design Library.
- The estimated sewing time has been added to the design properties.
- Embroidery hoop sizes 200 × 200 mm(7.3/4 × 7.3/4 inches) and 200 × 300 mm(7.3/4 × 11.3/4 inches) have been added to the **Design Page Property** dialog box.
- File formats have been added to those available for images that can be opened as templates or original images.
 - GIF(.gif) format is supported.
 - LZW-compressed .tif is also supported.

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How To Use Manuals

The following manuals are included with this software.

Installation Guide

This guide contains descriptions about the preparations necessary to begin using the software. Follow the instructions provided in this guide to complete the preparation and installation of the software.

Instruction Manual (Basic/this manual)

This manual contains descriptions of Layout & Editing and Design Center.

In order to understand how to use these applications, basic operations are first introduced through examples. Follow these procedures to gain an understanding of the general operations of these applications.

Precautions, additional information, and details on useful functions and the various settings are described later. Customer service information is also provided in this manual.

Instruction Manual (Basic and Advanced/PDF format)

This manual is provided in a PDF format on the enclosed CD-ROM. The following information is provided in addition to the Instruction Manual described above.

Details on Design Database, Programmable Stitch Creator and Font Creator are provided. Refer to this manual for information on these applications. Basic operations for each of these applications are described through examples. Then, precautions, additional information, and details on useful functions and the various settings are provided.

For a better understanding of the PE-DESIGN operations, an advanced tutorial, tips and techniques, and lists of menus/tools for each application are provided. In addition, this manual contains a troubleshooting section. Refer to this section if you have any problems while using this software.

■ Opening the Instruction Manual (PDF format)

Click **All Programs**, then **PE-DESIGN 8**, then **Instruction Manual**.

Otherwise, click **Help**, then **Instruction Manual** in the menu of any application.



Memo:

- *Adobe® Reader® is required for viewing and printing the PDF version of the Instruction Manual.*
- *If Adobe® Reader® is not on your computer, it must be installed. It can be downloaded from the Adobe Systems Incorporated Web site (<http://www.adobe.com/>).*

■ Printing the Instruction Manual (PDF format)

For details on printing from Adobe® Reader®, refer to the Help for Adobe® Reader®.

Contact Technical Support if you have a problem. Please check the company web site (<http://www.brother.com/>) to find the technical Support in your area. To view the FAQ and information for software updates, visit the Brother Solutions Center at (<http://solutions.brother.com/>).



Note:

- On the above website, first select your country and next choose product.
- Have the information ready before contacting Technical Support.
 - Make sure your computer's operating system is current with all updates.
 - Have the make and model of your computer and Windows® Operating System. (Refer to the Installation Guide for system requirements.)
 - Information on error messages that appear. This information will help expedite your questions more quickly.

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 of Layout & Editing to start up the installed Web browser and open the online registration page on our Web site.

The online registration page on the Web site appears when the following address is entered in the **Address** bar of the Web browser.

<http://www.brother.com/registration/>



Memo:

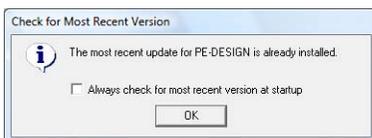
Online registration may not be available in some areas.

Checking for the Latest Version of the Program

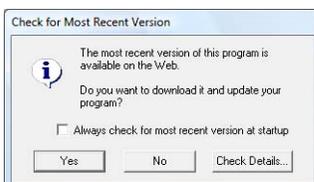
Click **Help** in Layout & Editing, then **Check for updates**.

The software is checked to determine whether or not it is the latest version.

If the message shown below appears, the latest version of the software is being used.



If the message shown below appears, the latest version of the software is not being used. Click **Yes**, and then download the latest version of the software from the Web site.



Memo:

If the **Always check for most recent version at startup** check box is selected, the software is checked at startup to determine whether or not it is the latest version.

This section describes the operations of Layout & Editing through the procedures for making embroidery patterns. First, follow the procedures to create the embroidery patterns and learn the basic operations.

1 Importing Embroidery Patterns (☞ p. 15)

Start up Layout & Editing, and import an embroidery pattern. Then, transfer the created embroidery pattern to an original card.

2 Automatically Converting an Image to an Embroidery Design (☞ p. 19)

Create an embroidery pattern with the Image to Stitch Wizard.

3 Drawing Shapes to Create an Embroidery Design (☞ p. 29)

Use the Shape tools to draw a design, and then specify the sewing attributes.

4 Entering Text (☞ p. 35)

Create a text pattern, and then arrange it on a shape.

5 Combining Embroidery Patterns (☞ p. 38)

Create an original design by combining various embroidery patterns.

6 Print and Stitch (☞ p. 42)

Create an original design by combining a printed image and an embroidery pattern.

1. Importing Embroidery Patterns

Sample embroidery patterns are provided with this software. These embroidery patterns can be imported into the Layout & Editing, written to an original card, and used with the embroidery machine.

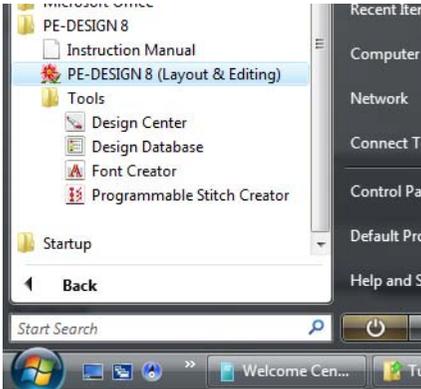
Here, we will start up Layout & Editing, import an embroidery pattern, then write the pattern to a card.



Step 1	Starting up Layout & Editing
Step 2	Importing embroidery patterns
Step 3	Transferring the design to an original card

Step 1 Starting up Layout & Editing

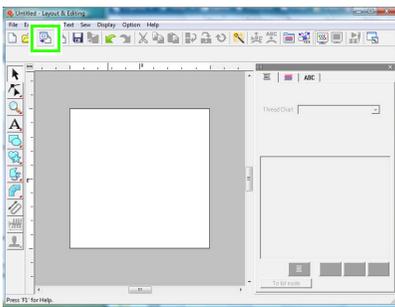
- 1 Click , and then select **All Programs**, then **PE-DESIGN 8**, then **PE-DESIGN 8 (Layout & Editing)**.



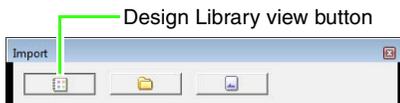
Step 2 Importing embroidery patterns

Now, we will import the patterns for the flower, butterfly and sun.

- 1 Click  on the Toolbar.



- 2 Click .

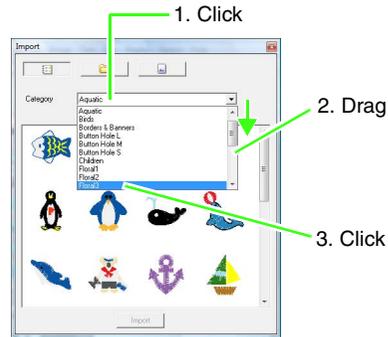


If  has not been clicked, click it.

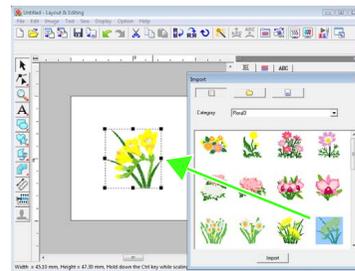
→ The contents of Design Library are displayed.

 *"Importing embroidery designs" on page 48.*

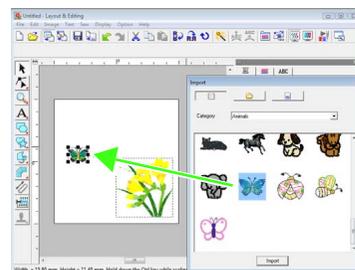
- 3 Click **Category** selector. Move the scroll bar until **Floral3** appears, and then click it.



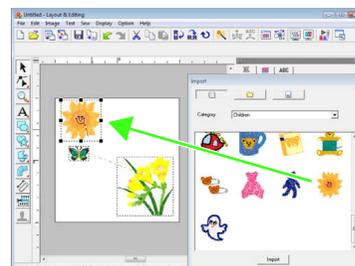
- 4 Drag the flower to import it into the Design Page, as shown in the illustration.



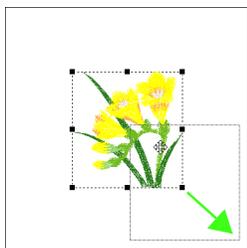
- 5 From the **Category** selector, select **Animals**, and then drag the butterfly into the Design Page.



- 6 From the **Category** selector, select **Children**, and then drag the sun into the Design Page.



- To adjust the positions of the embroidery patterns, click the pattern to be moved, and then position the pointer over the pattern. When the shape of the pointer changes to , drag the pattern to the desired location.



Note:

When imported stitch patterns are enlarged or reduced, the embroidering quality may be reduced. Therefore, we recommend not enlarging or reducing stitch patterns.



“Enlarging/Reducing Stitch Patterns” on page 237 in the Instruction Manual (PDF format).

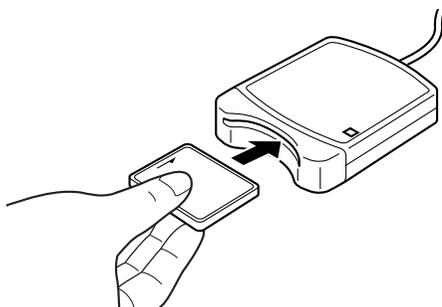
Step 3 Transferring the design to an original card

You can sew a pattern transferred to your sewing machine by writing it to media that can be used with your machine. For this example, we will transfer the design to an original card.

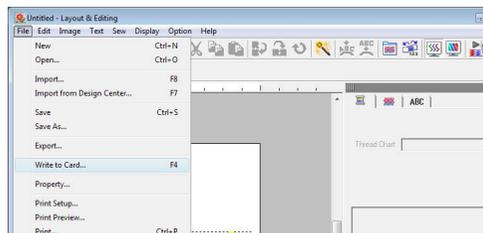
Memo:

You can also transfer designs to a floppy disk, CompactFlash card, and USB media. You will need to check your machine for the correct media to use.

- Insert an original card into the USB card writer module.



- Click **File**, then **Write to Card**.



- Click **OK**.



Note:

When writing to an original card that already contains data, all data on the card will be deleted. Before using an original card, check that the designs on the card are no longer needed, and be sure to store all necessary data to a hard disk or other storage media.



“From an embroidery card” on page 49.

- When the writing is finished, the following message appears. Click **OK**.



Note:

- If the card writer module is not correctly connected, the error message “No card writer module is connected. Please connect card writer module.” will appear.
- If the original card is not inserted or is defective, the error message “No original card is inserted. Please insert an original card.” will appear.

Memo:

Stitch data is compressed to fit on an original card. Depending on the compression method, the size of the data may change. On average, a maximum of 200,000 stitches can fit on one card. However, the number of stitches in a pattern can vary depending on the type of machine that is used.



Note:

Precautions for using the card writer module/original cards

- *The original card is inserted correctly when you hear it snap into place.*
- *Never remove an original card or unplug the USB cable while the LED indicator is flashing.*
- *Correctly insert or remove the original card according to the Instruction Manual for the embroidery machine.*



For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22.

2. Automatically Converting an Image to an Embroidery Design

An embroidery pattern can be created from a digital camera photo, a scanned illustration, or clip art image. Using the Image to Stitch Wizard in Layout & Editing, an image can be converted to an embroidery pattern. First, we must select which of the following three types of embroidery that we wish to sew.

■ Auto Punch

This creates an embroidery pattern from a clip art image or a scanned illustration.

Images with few and distinct colors are most appropriate.

■ Photo Stitch

This creates an embroidery pattern from a photo. This type of embroidery pattern has detailed and overlapping stitching.

Photos that are bright and sharp and where the subject to be embroidered appears clearly are most appropriate. When embroidering portraits, the size of the face in the photo should be at least 100 × 100 mm (4 × 4 inches) for best results.

■ Cross Stitch

This creates a cross-stitch embroidery pattern from an image.

Images with few and distinct colors and where the subject to be embroidered appears clearly are most appropriate.

Memo:

- For details on using the Image to Stitch Wizard, refer to “Automatically Converting an Image to an Embroidery Pattern (Image to Stitch Wizard)” on page 125.
- The sizes of embroidery patterns and images appear in the status bar. In addition, the measurement units for the sizes can be displayed in either millimeters or inches.



“Measuring the distance between two points” on page 51, and “Changing the measurement units (mm or inch)” on page 69.

- Sizes are shown in this manual in millimeters.

■ Image file formats

Images in the following formats can be imported.

- Windows bitmap (.bmp), Exif (.tif, .jpg), ZSoftPCX (.pcx), Windows Metafile (.wmf), Portable Network Graphics (.png), Encapsulated PostScript (.eps), Kodak PhotoCD (.pcd), FlashPix (.fpx), JPEG2000 (.j2k), GIF (.gif)

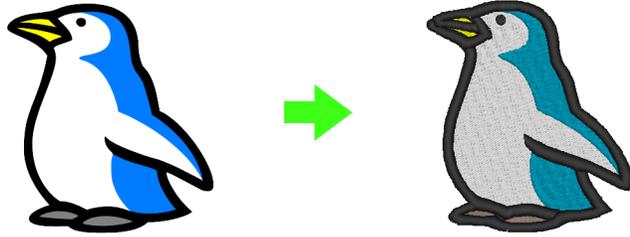
Memo:

- If an EPS file doesn't contain a "Preview" image, it can not be displayed correctly. When you create a file in EPS format, be sure to save it with preview image.

In addition, files in these formats can be imported as images for printing on iron-on paper, as an original image in Design Center, and as templates for creating manual punching patterns, custom fonts and custom stitch patterns.

In this section, we are going to use the Auto Punch function to automatically create an embroidery pattern from an image. In addition, this section will describe how to view a preview and how to save the created embroidery pattern.

Auto Punch Function

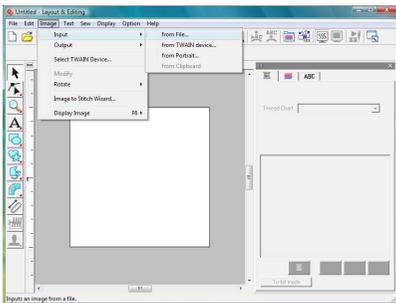


Step 1	Importing image data into Layout & Editing
Step 2	Automatically converting the image to an embroidery pattern
Step 3	Displaying a preview of the embroidery
Step 4	Saving the embroidery design

Step 1 Importing image data into Layout & Editing

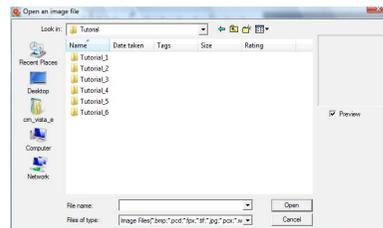
First, we need to import the image that will be converted into an embroidery pattern. For this example, we will use the penguin image (penguin.bmp) provided with this application.

- 1 Click **Image**, then **Input**, then **from File**.

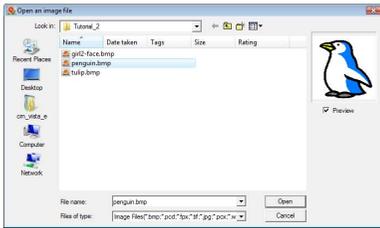


- 2 Double-click the **Documents (My Documents)\PE-DESIGN8\Tutorial\Tutorial_2** folder to open it.

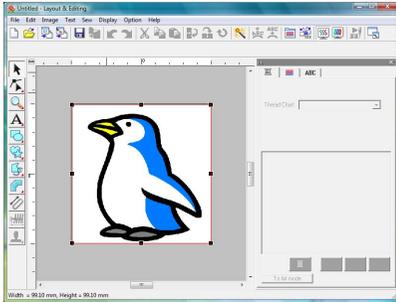
When this application is installed, the **PE-DESIGN 8** folder is installed in the **Documents (My Documents)** folder. When an image is imported for the first time, the contents of this folder are displayed.



- 3 Select the sample file **penguin.bmp**, and then click **Open**, or double-click the file's icon.



→ The image appears in the work area.

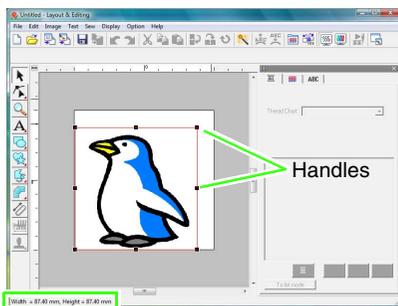


Memo:

Repeat steps 1 to 3 to choose another picture image. If you change the way to import data from in step 1, you can import picture images from a scanner, digital camera or clipboard, or even create images with the portrait function and import that image.

"Importing Image Data" on page 120.

- 4 Drag the handle to adjust the selected image to the desired size.

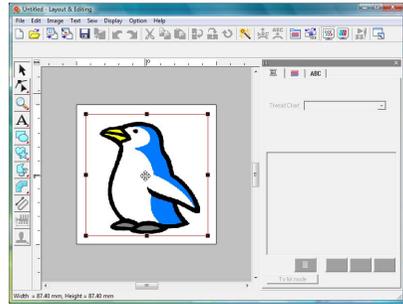


Status bar shows the dimensions (width and height) of the image.

Memo:

If the handles have disappeared, right-click the image, and then click **Modify Image** in the menu that appeared.

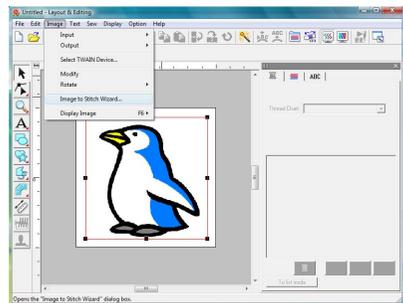
- 5 Move the pointer over the selected image, and then drag the image to the desired position.



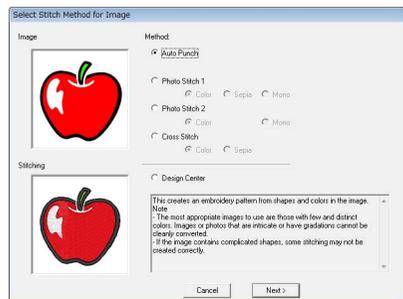
Step 2 Automatically converting the image to an embroidery pattern

Next, the image will automatically be converted to an embroidery pattern.

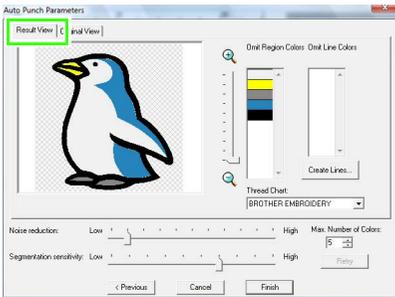
- 1 Click **Image**, then **Image to Stitch Wizard**.



- 2 Select **Auto Punch**, and then click **Next**.



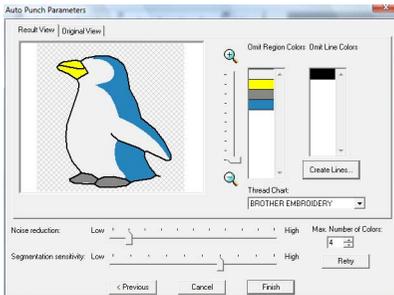
- 3 Check the **Result View** of the conversion, and then click **Finish**.



Memo:

Selected regions can be converted to line sewing, for example, using zigzag stitches.

👉 "If Auto Punch is selected" on page 126.



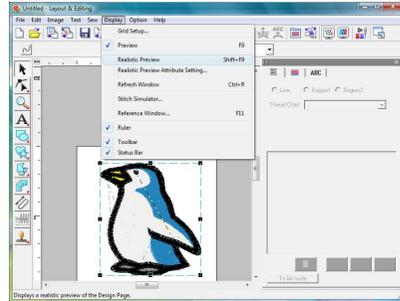
→ The generated embroidery pattern is displayed.



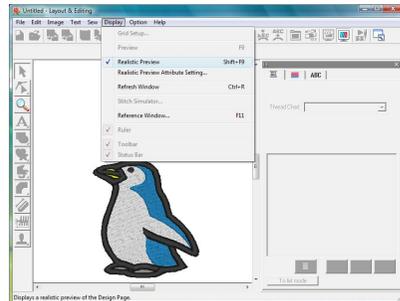
Step 3 Displaying a preview of the embroidery

Preview the finished embroidery.

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



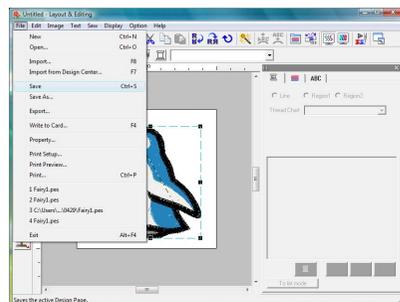
- 2 To return to the normal view, click **Display**, then **Realistic Preview**, or press the **(Esc)** key.



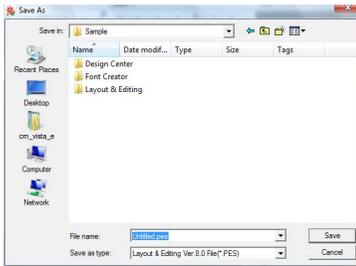
Step 4 Saving the embroidery design

Once the embroidery design is finished, you may want to save it in order to retrieve it later.

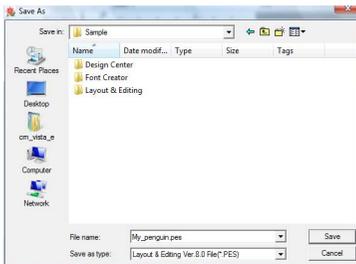
- 1 Click **File**, then **Save**.



- 2 Select the drive and the folder, and then type in the file name.



- 3 Click **Save**.



Memo:

Various clip art images can be found in the **ClipArt** folder, which can be found in the folder where PE-DESIGN was installed. (For example, click the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **ClipArt**.) Try these image samples for great results.

 For details on transferring designs to original cards, refer to "Transferring the design to an original card" on page 17.

Photo Stitch Function

By using the Photo Stitch function, embroidery patterns can be created from photos. The following two conversion methods are available, and the color can be selected.

Photo Stitch 1:

This creates an embroidery pattern very similar to the image in one or many colors. This type of embroidery pattern has detailed and overlapping stitching.

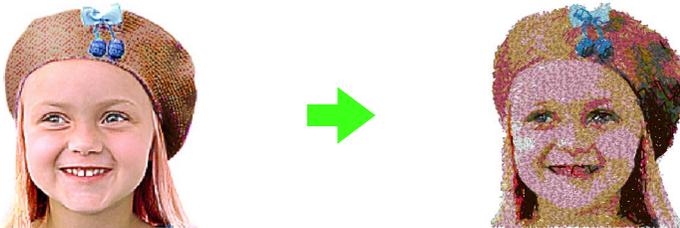
The embroidery pattern can be created in color (**Color**), sepia or grayscale (**Sepia**), or in one color (**Mono**).

Photo Stitch 2:

This creates an embroidery pattern in one or four colors. The embroidery pattern contains repeating zigzag stitches.

The embroidery pattern can be created in four colors (**Color**) or in one color (**Mono**).

For this example, we will create an embroidery pattern using **Color** and **Photo Stitch 1**. This procedure describes how to select the desired preview image from the six "candidates" that are created with automatic corrections applied in order to create the embroidery pattern.



Step 1	Importing photo data into Layout & Editing
Step 2	Automatically converting the image to an embroidery pattern

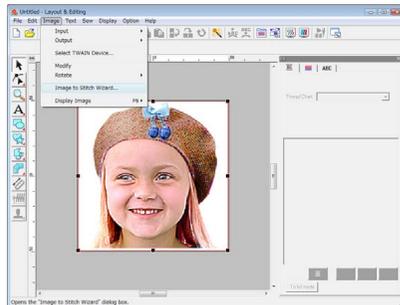
Step 1 Importing photo data into Layout & Editing

Refer to "Importing image data into Layout & Editing" on page 20. Select the **Tutorial_2** folder, and then select **girl2-face.bmp** as the image.

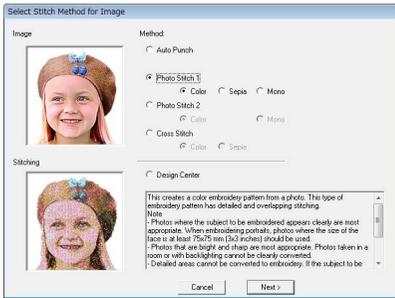
Step 2 Automatically converting the image to an embroidery pattern

Next, the image will automatically be converted to an embroidery pattern.

- 1 Click **Image**, then **Image to Stitch Wizard**.



- 2 Click **Photo Stitch 1**, then **Color**, and then click **Next**.

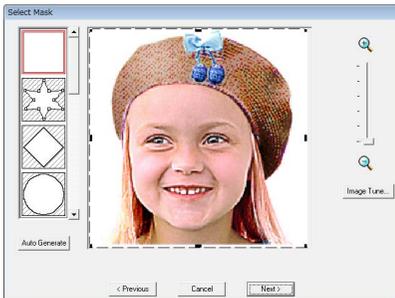


Memo:

The *Sepia* choice means you can create *sepia* tone or *grayscale* tone embroidery. The selection of *mono* is for *black-and-white monotone* embroidery.

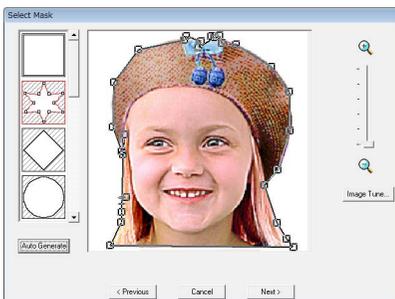
“If *Photo Stitch 1 (Sepia)* is selected” on page 129, “If *Photo Stitch 1 (Mono)* is selected” on page 130.

- 3 Click **Auto Generate**.



→ With a single-colored background, as in this example, click **Auto Generate** to automatically detect the outline of the image.

- 4 Click **Next**.

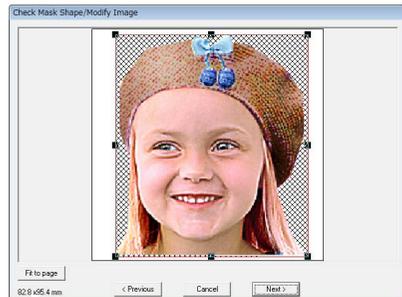


Memo:

- The shape of the mask line can be edited by moving, adding or deleting the point of the mask line.
- It is also possible to select the mask shape from various template shapes already available.

“If *Photo Stitch 1 (Color)* is selected” on page 127.

- 5 Click **Fit to page** to change the final finishing size.



Embroidery pattern size

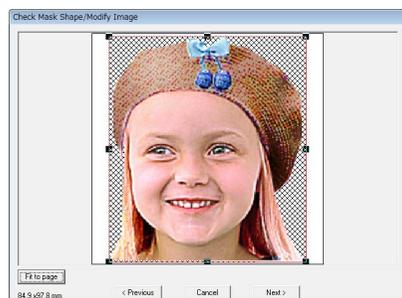
→ This is a size where the design fills the entire design page.

Memo:

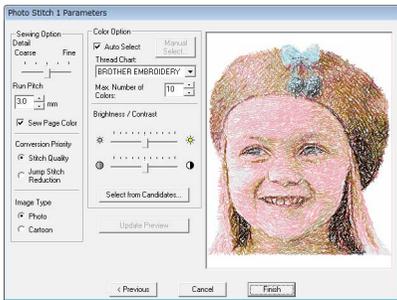
- The size of the embroidery pattern appears in the lower left corner of the dialog box. The user can change the size freely with this display.
- For best results, change the size of the embroidery pattern to the sizes listed below.
 - Face only: 100 × 100 mm
 - Head and shoulders: 130 × 180 mm

“If *Photo Stitch 1 (Color)* is selected” on page 127.

- 6 Check the preview of the area to be converted then click **Next**.

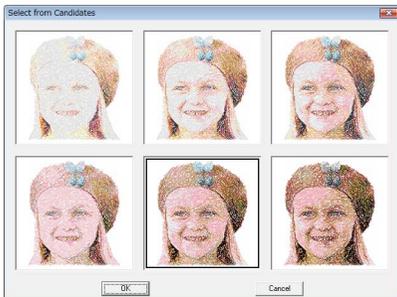


7 Click **Select from Candidates**.



→ There are six patterns with different brightness and contrasts based on the original image.

8 Select one of the candidates and click **OK**.

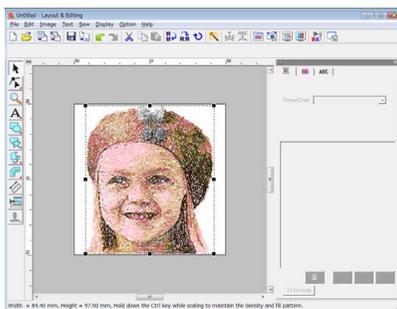


→ This preview changes to the selected image.

9 Click **Finish**.



→ The generated embroidery pattern is displayed.



 For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22. For details on transferring designs to original cards, refer to “Transferring the design to an original card” on page 17.

■ Creating Beautiful Photo Embroidery

- Select a photograph that shows a large image. (A photograph with an intricate image, for example, one that contains many objects, is not suitable.)
- Increase the contrast.
- An image with a width and height between 300 and 500 dots is suitable.
- Check the photo.
The following types of photos are not appropriate for creating embroidery patterns.

- Photos where the subject is small, such as in photos of gatherings
- Photos where the subject appears dark, such as photos taken in a room or taken with backlighting

- If the embroidery pattern is not created as expected, change the settings in the **Photo Stitch 1 Parameters** dialog box.
Brightness: Increase the brightness of the image.
Max. Number of Colors: Increase the number of colors that are used.

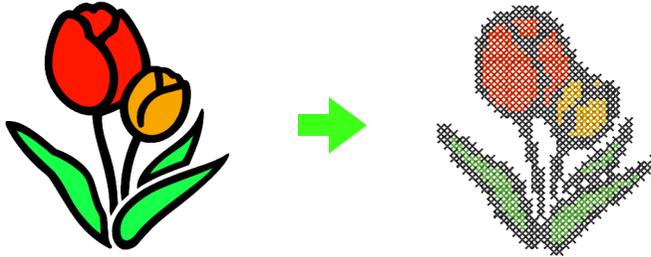
 “Color Option” on page 131.

- If the created embroidery pattern contains colors that you do not wish to emphasize (for example, grays in the face), change the sewing order in the **Sewing Order/Lock** dialog box so that the undesirable color is sewn before all other colors.

 “Editing the sewing order” on page 118.

Cross Stitch Function

Cross Stitch embroidery patterns can be created from images. For example, clip art image can be used.



Step 1	Importing image data into Layout & Editing
Step 2	Automatically converting an image to a cross-stitch pattern

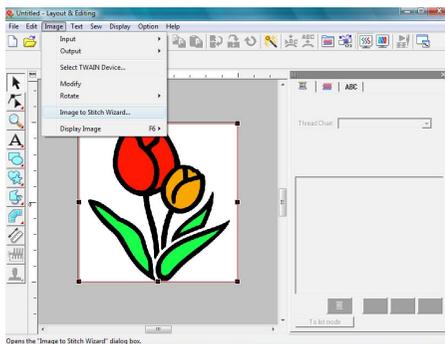
Step 1 Importing image data into Layout & Editing

Refer to “Importing image data into Layout & Editing” on page 20. Select the **Tutorial_2** folder, and then select **tulip.bmp** as the image.

Step 2 Automatically converting an image to a cross-stitch pattern

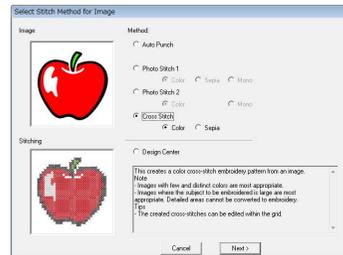
Next, the image will automatically be converted to an embroidery pattern.

- 1 Click **Image**, then **Image to Stitch Wizard**.



Opens the "Image to Stitch Wizard" dialog box.

- 2 Select **Cross Stitch**, then **Color**, and then click **Next**.



Memo:

The *Sepia* choice means you can create *sepia tone* or *grayscale tone* embroidery.

☞ “If *Cross Stitch (Sepia)* is selected” on page 136.

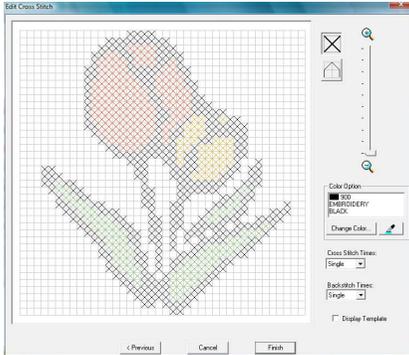
- 3 Click **Next**.

In this dialog box, the cross size and the number of colors can be specified. For this example, we will use the default settings.



4 Click **Finish**.

In this dialog box, stitches can be added, deleted or edited, and colors and the number of times each stitch is sewn can be specified. For this example, we will use the default settings.

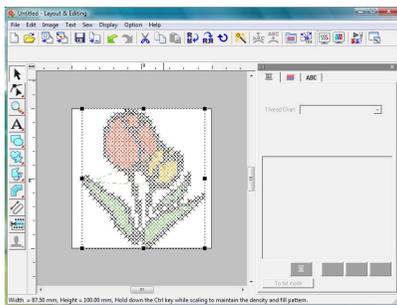


 **Memo:**

It is possible to edit stitch by stitch in one unit of the cross stitch.

 *"If Cross Stitch (Color) is selected" on page 134.*

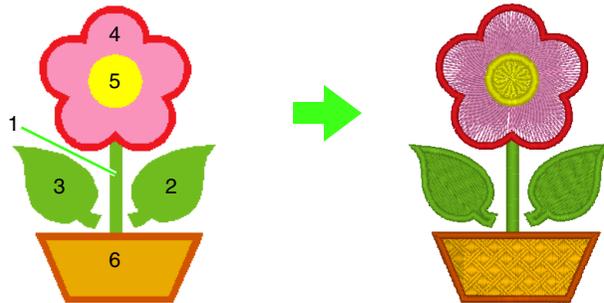
→ The generated embroidery design is displayed.



 *For details on saving embroidery patterns, refer to "Saving the embroidery design" on page 22. For details on transferring designs to original cards, refer to "Transferring the design to an original card" on page 17.*

3. Drawing Shapes to Create an Embroidery Design

This section will describe how to draw various shapes and combine them to create an embroidery design. The Shape tools in Layout & Editing allow you to draw various shapes. Using these tools, we will draw the stem, leaves, flower and flower pot.

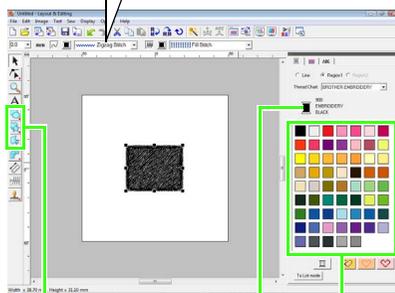
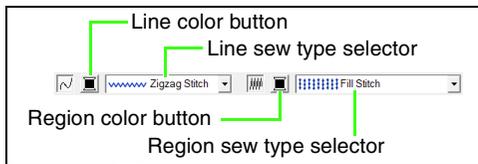


Step 1	Drawing and moving shapes
Step 2	Duplicating, flipping and moving shapes
Step 3	Specifying hole sewing
Step 4	Applying a pattern to stitching
Step 5	Editing points and modifying shapes

Step 1 Drawing and moving shapes

We will follow the procedure described below to draw shapes.

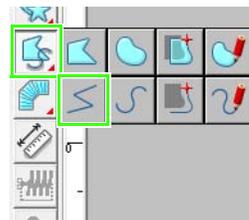
- 1 Select the Shape tool.
- 2 Specify the thread color and sew type for the lines.
- 3 Specify the thread color and sew type for the regions.
- 4 Drag the pointer in the Design Page to draw the shape.



Shape tools
Selected thread color and color name

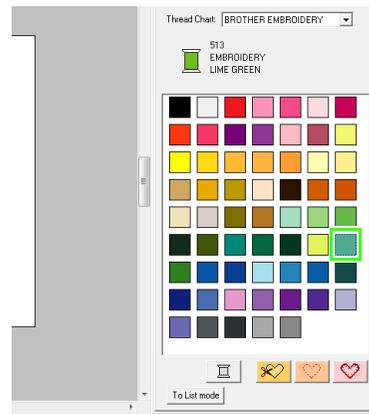
1 Draw the stem.

- (1) Click , then .

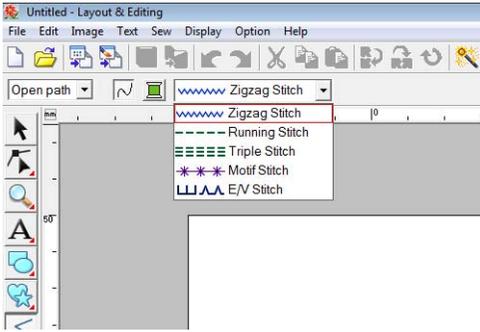


- (2) Click to display the color palette.

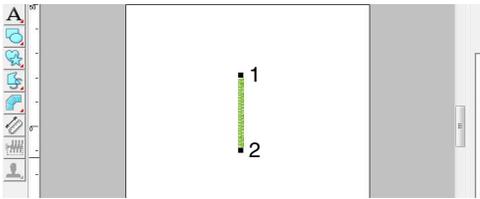
- (3) Click **LIME GREEN**.
If the desired color is not displayed, move the scroll bar until it appears.



- (4) Click in the **Line sew type** selector, and then click **Zigzag Stitch**.



- (5) Click the start point 1, and then double-click the end point 2.

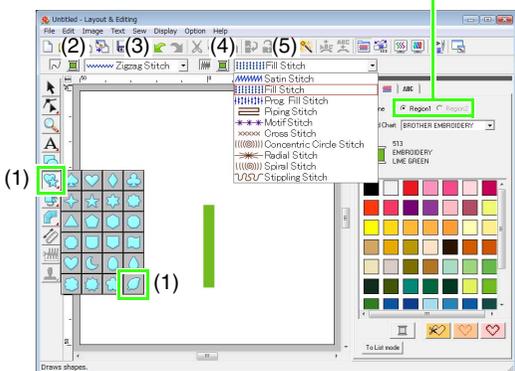


- 2 Draw the leaf on the right.

As with the stem, we will specify the color and sew type, then draw the shape. This time, since the shape will have a region, we will also specify the color and sew type for the region.

- (1) Click , then .
- (2) Click , and then click **LIME GREEN** in the color palette.
- (3) Click in the **Line sew type** selector, and then select **Zigzag Stitch**.
- (4) Click , and then click **LIME GREEN** in the color palette.
- (5) Click in the **Region sew type** selector, and then select **Fill Stitch**.

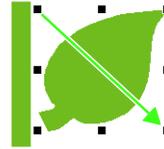
To specify whether the color is being selected for line sewing or region sewing, click a **Color button**, or select the type of sewing here.



 **Memo:**

The color, sewing attributes and size can also be changed after the shape is drawn.

- (6) While holding down the **Shift** key, drag the pointer in the Design Page, as shown in the illustration.



 **Memo:**

To draw the shape while maintaining its height-to-width proportion, hold down the **Shift** key while dragging the pointer.

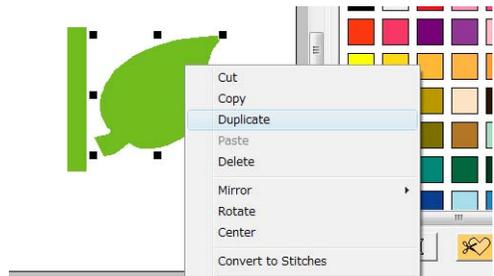
- (7) Place the pointer over the leaf so that the shape of the pointer changes to , and then drag the leaf to the desired position.

Step 2 Duplicating, flipping and moving shapes

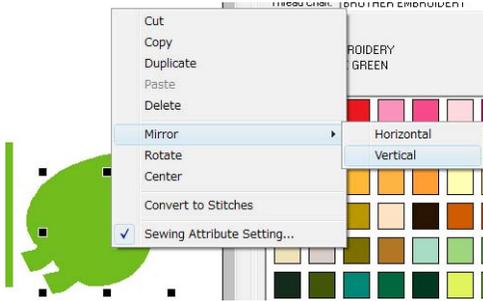
Now, we will duplicate the leaf on the right side, flip it horizontally, and then move it to the left side of the stem.

- 1 Duplicate the leaf on the right.

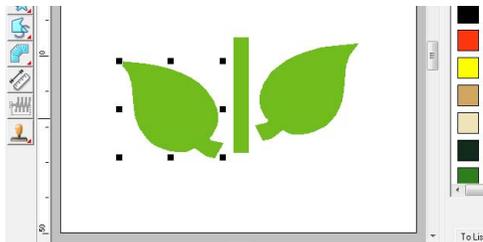
- (1) Right-click the leaf.
- (2) Click **Duplicate**.



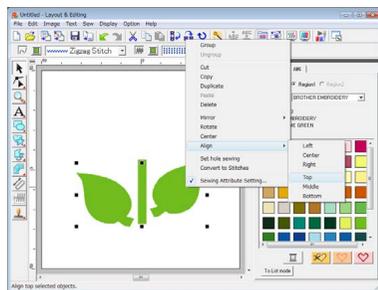
- 2 Flip the duplicated leaf horizontally.
 - (1) Right-click the duplicated leaf.
 - (2) Click **Mirror**, then **Vertical**.



- 3 Drag the duplicated leaf to the left side of the stem.
 - (1) Drag the duplicated leaf to the left side of the stem.



- 4 Align the leaves on the left and right sides.
 - (1) While holding down the **(Ctrl)** key, right-click on the leaf on the right side and then click on the leaf on the left side.
 - (2) Click **Align**, then **Top**.



Memo:

Multiple embroidery patterns can be selected in any of the following ways.

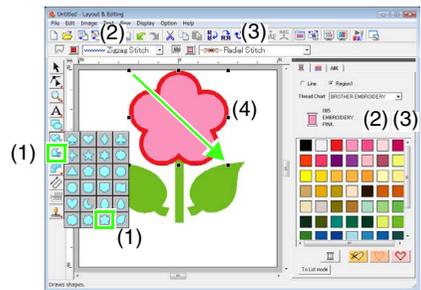
- Click the first pattern, and then, while holding down the **(Ctrl)** key, click the next pattern.
- Drag the pointer to draw a selection frame across the patterns to be selected.

Step 3 Specifying hole sewing

Now, we will draw the flower and a circle at the center. Then, we will apply a setting so that the overlapping areas are not sewn twice.

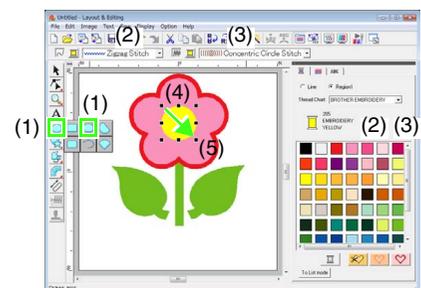
- 1 Draw the flower petals.

- (1) Click , then .
- (2) Select **RED** as the line color and **Zigzag Stitch** as the sew type.
- (3) Select **PINK** as the region color and **Radial Stitch** as the sew type.
- (4) While holding down the **(Shift)** key, drag the pointer in the Design Page, as shown in the illustration.



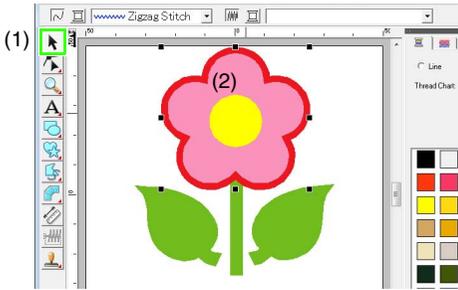
- 2 Draw the circle at the center.

- (1) Click , then .
- (2) Select **YELLOW** as the line color and **Zigzag Stitch** as the sew type.
- (3) Select **YELLOW** as the region color and **Concentric Circle Stitch** as the sew type.
- (4) While holding down the **(Shift)** key, drag the pointer in the Design Page, as shown in the illustration.
- (5) Drag the circle to the center of the flower petals.



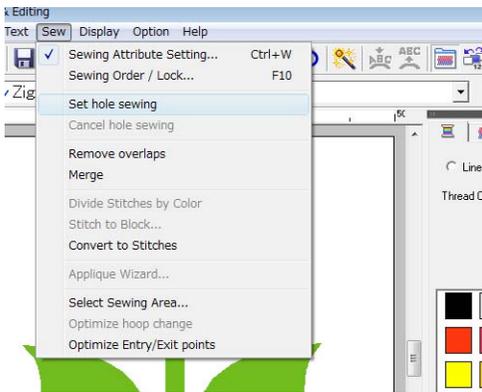
3 Select the patterns where hole sewing is to be applied.

- (1) Click .
- (2) Click the yellow circle, then while holding down the **Ctrl** key, click the flower petals.



4 Specify hole sewing.

- (1) Click **Sew**, then **Set hole sewing**.



- (2) Click **OK**.



Note:

Hole sewing cannot be applied if one of the patterns is not completely enclosed within the other pattern.

 "Preventing overlapping stitching (hole sewing)" on page 75.

Memo:

Overlapped patterns can also be set so that the overlapping region is removed or they can be merged.

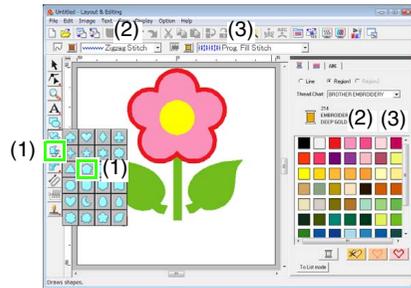
 "Changing shapes of overlapped patterns" on page 75.

Step 4 Applying a pattern to stitching

Detailed line and region attribute settings can be specified from the **Sewing Attribute Setting** dialog box. Now, we will specify settings for region sewing for the flowerpot.

1 Specify the color and sew type for the line and region of the flowerpot.

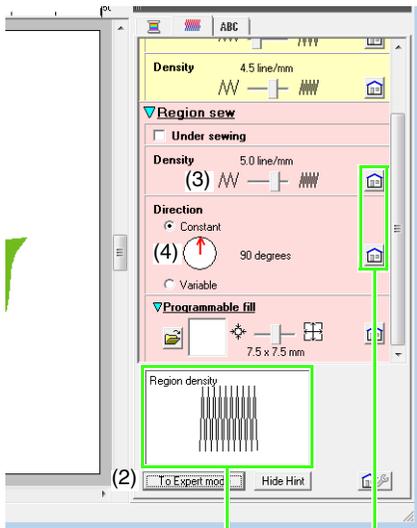
- (1) Click , then .
- (2) Select **CLAY BROWN** as the line color and **Zigzag Stitch** as the sew type.
- (3) Select **DEEP GOLD** as the region color and **Prog. Fill Stitch** as the sew type.



2 Specify the sewing attributes.

- (1) Click .
- (2) There are two display modes for the Sewing Attribute Setting dialog box. For this example, we will specify settings in Beginner mode. If the dialog box is displayed in Expert mode, click **To Beginner mode** to display the dialog box in Beginner mode.

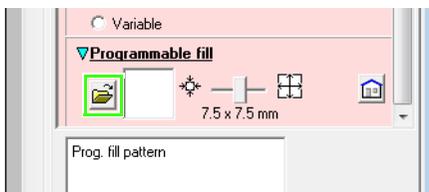
- (3) Drag the **Density** slider to specify 5.0 line/mm.
- (4) Drag the red arrow in **Direction** area to 90 degrees.



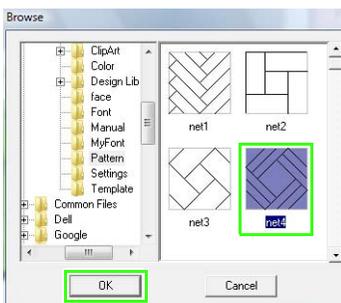
The effects of the specified settings can be previewed. This preview can be displayed/hidden by clicking the Show Hint/Hide Hint button.

Click this button to return the attribute to its default setting.

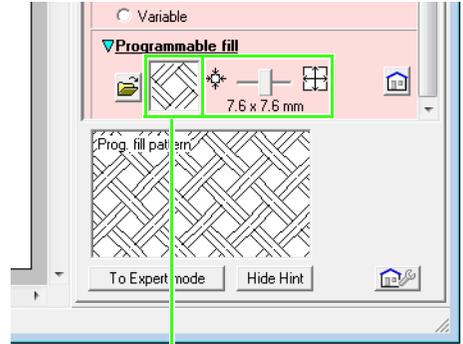
- (5) Click  in the **Programmable fill** section.



- (6) Select **net4**, and then click **OK**.



- (7) Move the slider to specify 7.6 x 7.6 mm.

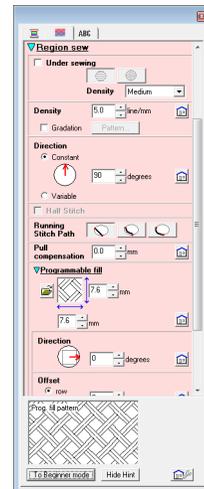


The selected pattern is displayed.

Memo:

More detailed settings can be specified in Expert mode.

 "Specifying sewing attributes" on page 96.

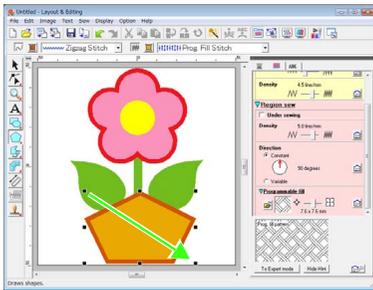


Step 5 Editing points and modifying shapes

Now, we will delete one corner from the pentagon to create a flowerpot.

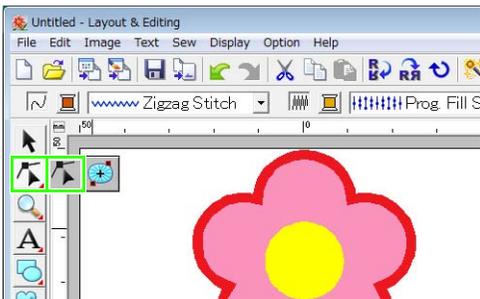
1 Draw the flowerpot.

Drag the pointer in the Design Page, as shown in the illustration.



2 Delete a point.

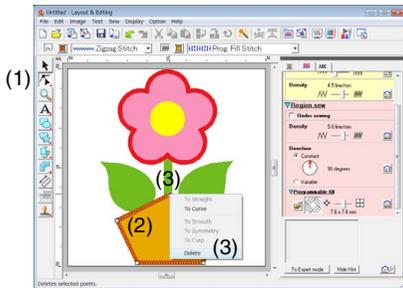
(1) Click , then .



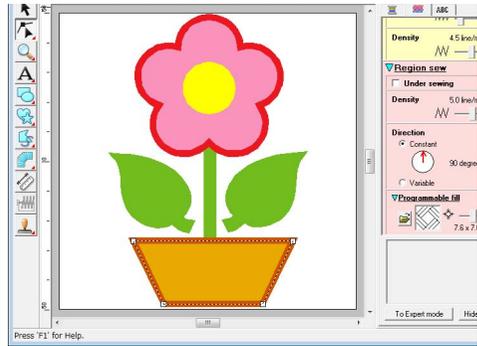
(2) Click the shape for the flowerpot.

→ The points in the shape appear.

(3) Right-click the top point to be deleted, and then click **Delete**.



→ The point is deleted to form a trapezoid.



This completes the pattern.

 For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22. For details on transferring designs to original cards, refer to “Transferring the design to an original card” on page 17.

4. Entering Text

In this example, we will create an embroidery pattern for text.

From Layout & Editing, various embroidery patterns can be created for text.

- Built-in fonts: This software is provided with 35 built-in fonts.
- TrueType fonts: TrueType fonts installed on your computer can be used to create embroidery patterns.
- Small fonts: These small fonts have sizes between 3 and 6 mm (0.12 and 0.24 inch). Because of their size, these fonts are useful for beautifully sewing small text.
- Monograms: Design custom monograms by combining text and decorative patterns.
- Custom fonts: User-defined fonts can be created by using the Font Creator.
- Text arrangement: The text can be arranged along an outline or an arc.
- Transforming: Text can be transformed into any of the 26 Transform styles.

 For details, refer to "Adding Text" on page 80.

This section describes the procedures for entering text and arranging it on a circle.

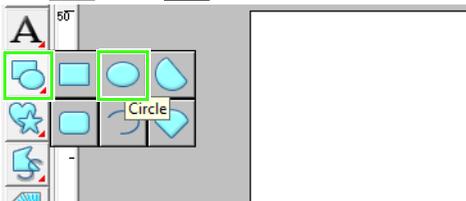


Step 1	Drawing a circle
Step 2	Entering text
Step 3	Arranging text on a shape

Step 1 Drawing a circle

Draw the circle that the text will be arranged on.

- 1 Click , then .



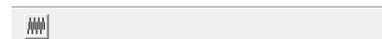
- 2 Select **YELLOW** as the line color and **Zigzag Stitch** as the line sew type.

Refer to "Drawing and moving shapes" on page 29.

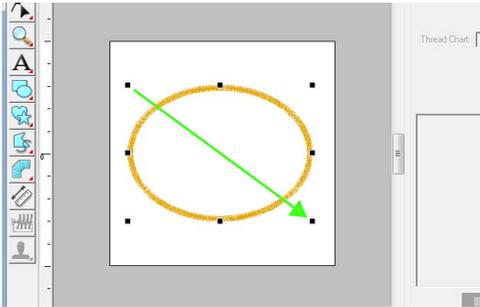


- 3 Turn off region sewing.

Click  so that  and the **Region sew type** selector are no longer displayed.

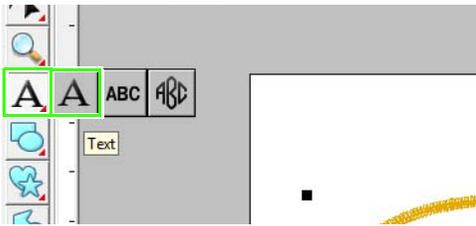


- 4 Drag the pointer in the Design Page, as shown in the illustration.



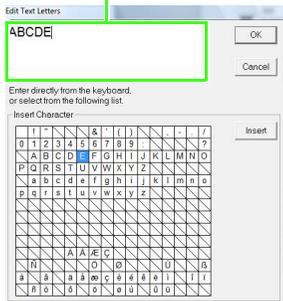
Step 2 Entering text

- 1 Click **A**, then **A**.



- 2 Click the Design Page.
- 3 From the keyboard, type in "ABCDE".

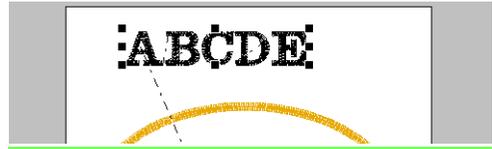
The entered text appears.



Memo:

Text can also be entered by clicking a character under **Insert Character**, then clicking **insert**.

- 4 Click **OK**.
→ The text appears in the Design Page.



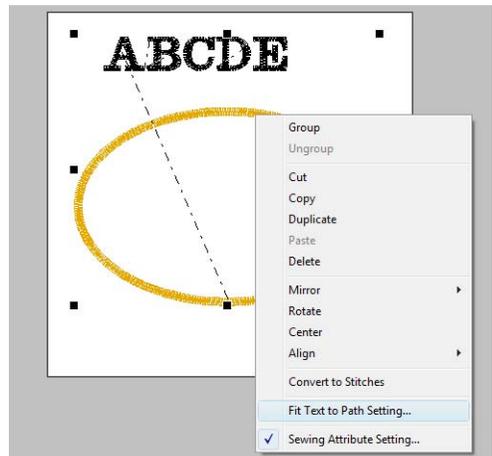
Memo:

The character font, size, color and sew type can be changed.

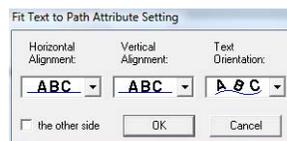
 "Selecting text attributes" on page 81.

Step 3 Arranging text on a shape

- 1 Select the text and the circle.
 "Memo" on page 31.
- 2 Place the pointer over the ellipse or text so that the shape of the pointer changes to , right-click it, and then click **Fit Text to Path Setting**.

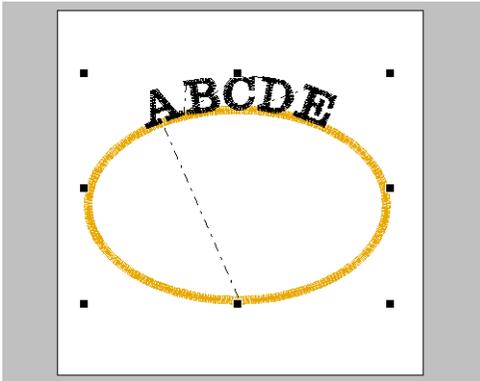


In the **Fit Text to Path Attribute Setting** dialog box, select the text arrangement. For this example, we will leave the default setting unchanged.



3 Click **OK**.

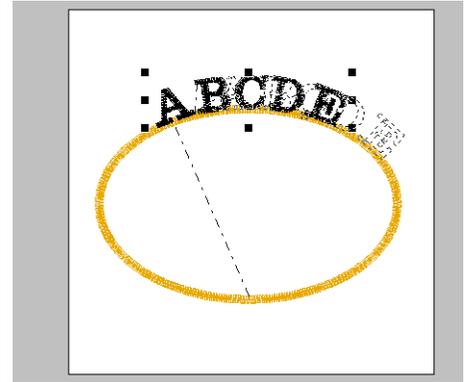
→ The text is arranged along the circle.



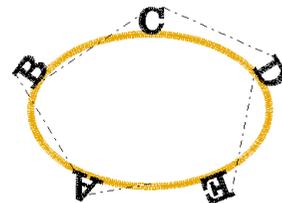
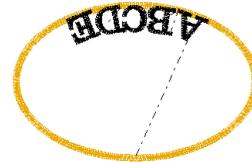
This completes the pattern.

Memo:

- The arranged text can be moved to the desired location on the shape. Select only the text that is arranged on the shape, and then drag it along the shape (path) as shown below.



- The text can be arranged in a variety of ways.



“Specifying text arrangement” on page 87.

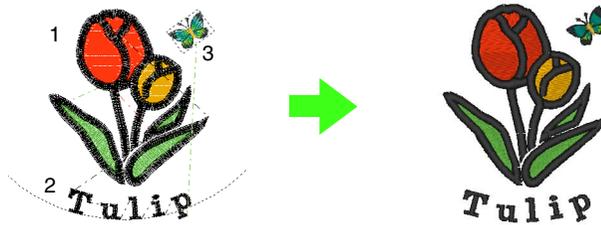
- The text can be arranged on an arc using a different method.

“Transforming text” on page 84.

For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22. For details on transferring designs to original cards, refer to “Transferring the design to an original card” on page 17.

5. Combining Embroidery Patterns

In this example, we will create an original embroidery pattern by combining an embroidery pattern created from an image 1, an embroidery pattern created from entered text 2, and an embroidery pattern included with this software 3. At the same time, we will resize each embroidery pattern and rearrange them.

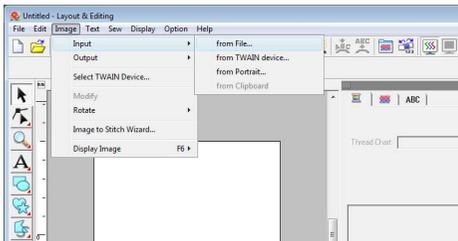


Step 1	Using the Auto Punch function to create an embroidery pattern from an image
Step 2	Adding text and adjusting character spacing
Step 3	Adding an oval and adjusting the text
Step 4	Importing and rotating an embroidery pattern

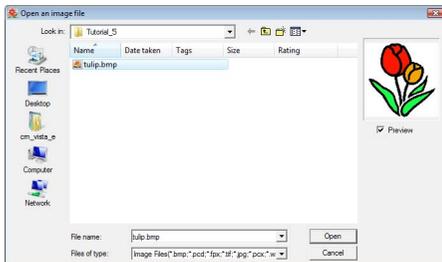
Step 1 Using the Auto Punch function to create an embroidery pattern from an image

Now, we will open the image of the tulip and convert it to an embroidery pattern.

- 1 Click **Image**, then **Input**, then **from File**.

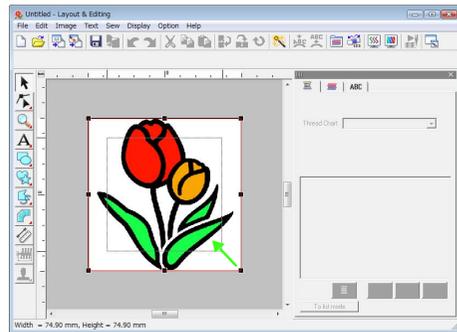


- 2 Import the file **tulip.bmp**.
Select the file **tulip.bmp** by clicking the **Documents (My Documents)** folder, then **PE-DESIGN 8**, then **Tutorial**, then **Tutorial_5**.

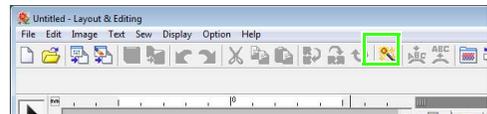


"Importing image data into Layout & Editing" on page 20.

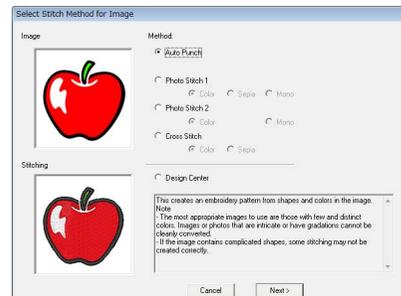
- 3 While holding down the **(Shift)** key, drag a handle to reduce the size of the image.



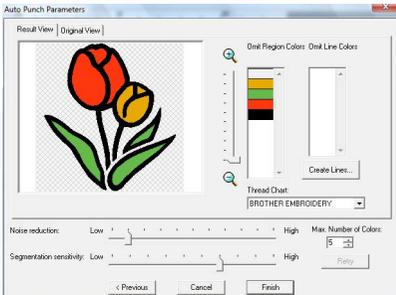
- 4 Click on the Tool Box.



- 5 Select **Auto Punch**, and then click **Next**.



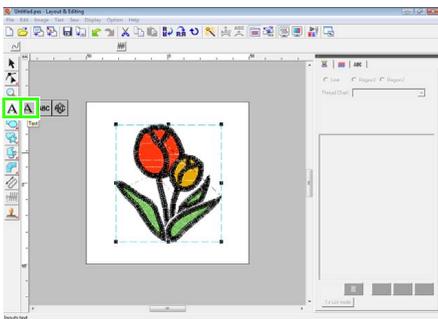
- 6 Click **Finish**.



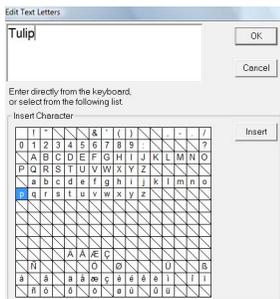
→ An embroidery pattern of the tulip is created.

Step 2 Adding text and adjusting character spacing

- 1 Click , then . Click the bottom edge of the tulip.

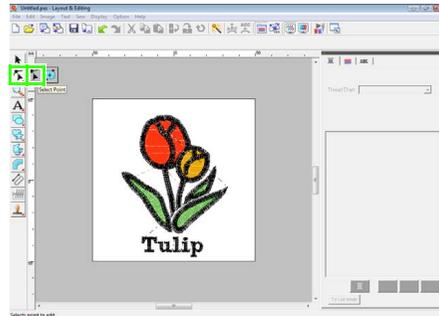


- 2 From the keyboard, type in "Tulip", and then click **OK**.



→ The text is entered.

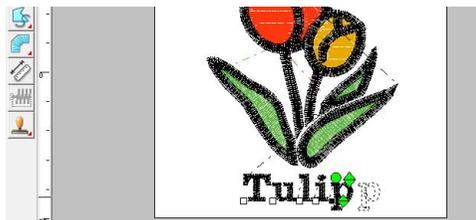
- 3 Click , then .



- 4 Click the text, and then click the lower-left point of "p".

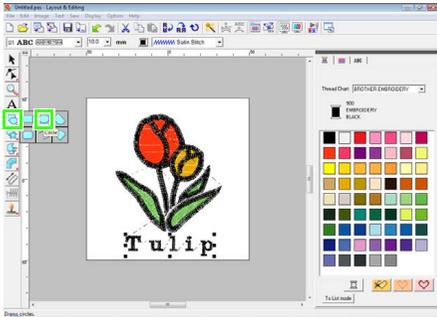
- 5 Place the pointer over "p" so that the shape of the pointer changes to , and then drag the character to the right to adjust the character spacing.

In the same way, move points of other characters to adjust the overall character spacing.



Step 3 Adding an oval and adjusting the text

- 1 Click , then .

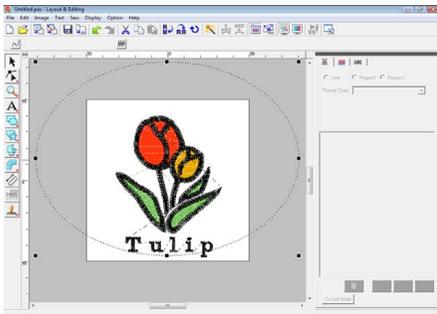


- 2 Turn off line and region sewing.

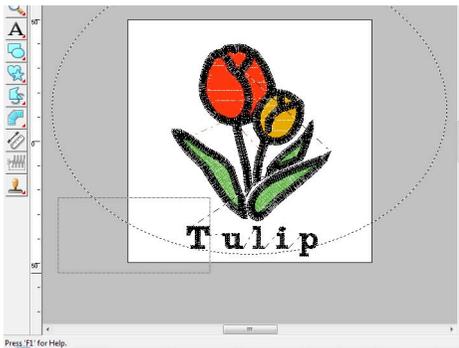
 "Drawing a circle" on page 35.



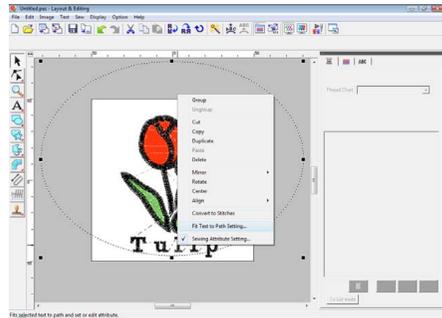
- 3 Draw an oval and adjust its position. Drag the pointer within the work area to draw a large circle, and then adjust its position.



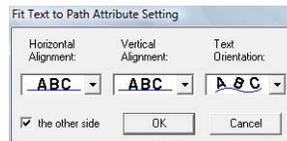
- 4 Select the word Tulip. Hold the **(Ctrl)** key down and select the oval.



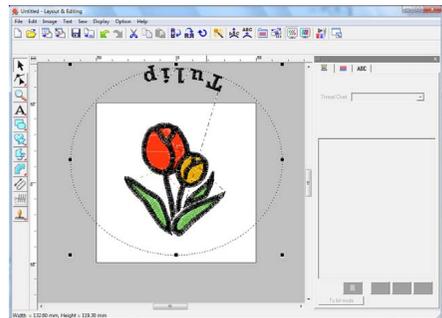
- 5 Place the pointer over the oval or text so that the shape of the pointer changes to , right-click it, and then click **Fit Text to Path Setting**.



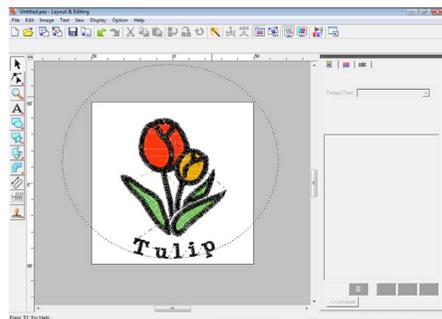
- 6 Select the **other side** check box, and then click **OK**.



→ The text is arranged along the inside of the circle.



- 7 Click outside of the currently selected object so that nothing is selected, and then select the text and drag it along the circle.

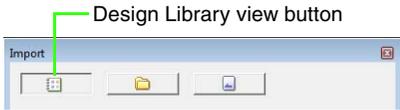


 "Memo" on page 37 and "Specifying text arrangement" on page 87.

Step 4 Importing and rotating an embroidery pattern

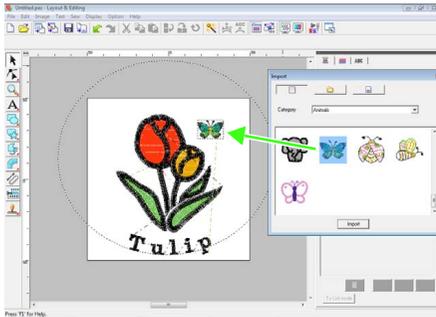
Now, we will import the embroidery pattern for the butterfly, and then adjust its angle.

- 1 Click **File**, then **Import**.
- 2 Click  .

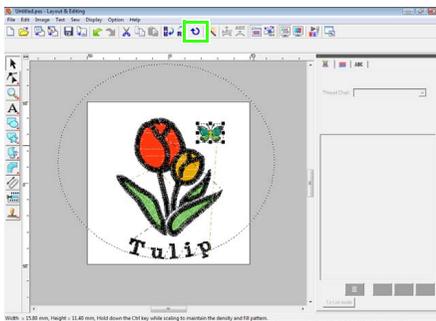


If  has not been clicked, click it.

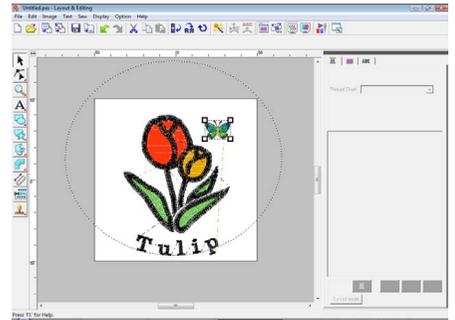
- 3 From the **Category** selector, select **Animals**, and then drag the butterfly into the Design Page.



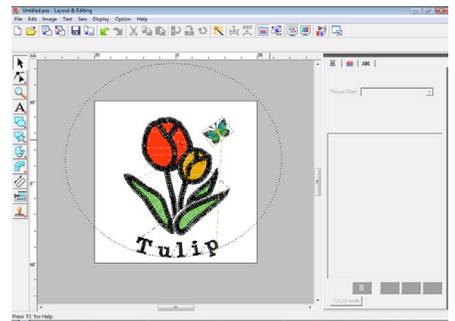
- 4 Click the butterfly to select it, and then click  on the Toolbar.



- 5 Drag a rotation handle that appeared to adjust the angle of the pattern.



This completes the pattern.



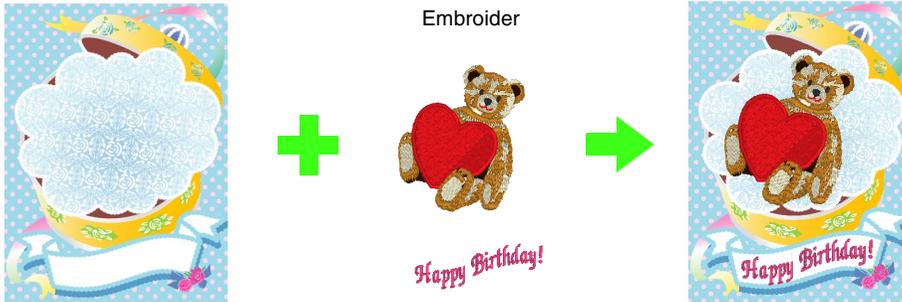
 For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22. For details on transferring designs to original cards, refer to “Transferring the design to an original card” on page 17.

6. Print and Stitch

In this example, we will create a design that combines embroidery and an image.

We will import an image into Layout & Editing, and then create an embroidery design that combines it with the image. Next, we will print the image on an iron-on transfer sheet or printable fabric, and then use the embroidery machine to sew the embroidery on top of printed fabric.

Print the background image on fabric.



Step 1	Creating a design combined with a background image
Step 2	Printing the background image
Step 3	Printing the positioning sheet
Step 4	Embroidering

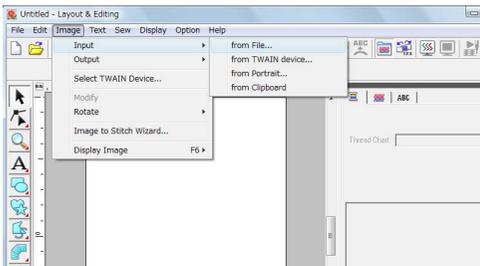
Step 1 Creating a design combined with a background image

These designs can be created by importing an image, then creating an embroidery pattern or importing an existing embroidery pattern. For this example, we will use the gift box image (Bear_Background.jpg) and the embroidery pattern of the bear (Bear.pes) provided with this software.

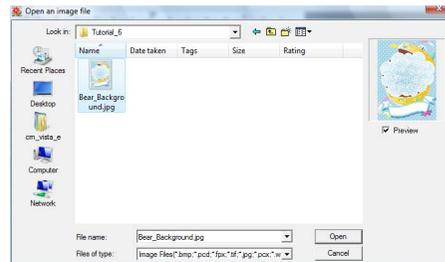
- 1 Start up Layout & Editing.
Specify a Design Page size of 130 x 180 mm.

"Specifying the Design Page Size and Color" on page 68.

- 2 Click **Image**, then **Input**, then **from File**.

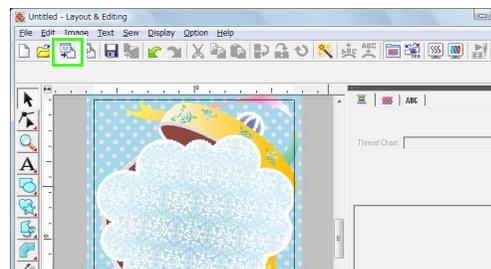


- 3 Import the file **Bear_Background.jpg**.
Select the file **Bear_Background.jpg** by clicking the **Documents (My Documents)** folder, then **PE-DESIGN 8**, then **Tutorial**, then **Tutorial_6**.



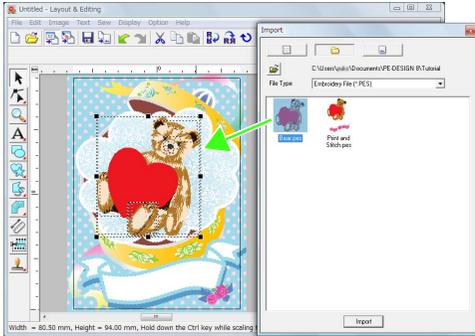
"Importing Image Data" on page 120.

- 4 Click .



5 Import the file **Bear.pes**.

Select the file **Bear.pes** by clicking the **Documents (My Documents)** folder, then **PE-DESIGN 8**, then **Tutorial**, then **Tutorial_6**.



👉 *“Importing embroidery designs” on page 48.*

6 Enter the text.

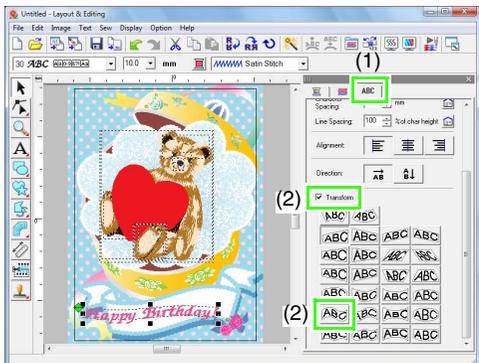
Select built-in font **No. 30**, and thread color **DEEP ROSE**.



👉 *“Entering text/Small text” on page 80.*

7 Transform the text to fit with the design of the image.

- (1) Click **ABC**.
- (2) Select the **Transform** check box, and then click **ABC**.



- (3) Click , and then drag the rotation handle to adjust the angle of the pattern.
- (4) Drag  or a handle to adjust the size of the pattern.



👉 *“Transforming text” on page 84, “Rotating patterns” on page 54.*

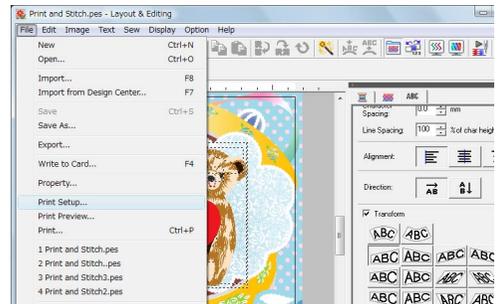
8 After the design is finished, save the embroidery data onto media so it can be transferred to the embroidery machine.

👉 *For details on saving embroidery patterns, refer to “Saving the embroidery design” on page 22. For details on transferring designs to original cards, refer to “Transferring the design to an original card” on page 17.*

Step 2 Printing the background image

Print the background image on an iron-on transfer sheet or printable fabric.

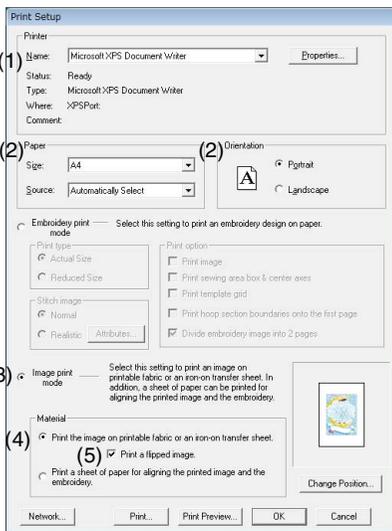
1 Click **File**, then **Print Setup**.



- 2 Specify the print settings.
 - (1) Select the printer to be used.
 - (2) Under **Paper** and **Orientation**, select the appropriate settings for the iron-on transfer sheet or printable fabric to be printed on.
 - (3) Select **Image print mode**.
 - (4) Select **Print the image on printable fabric or an iron-on transfer sheet**.
 - (5) To print a flipped image on an iron-on transfer sheet, select the **Print a flipped image** check box.

Some printers will automatically print an image flipped if an iron-on transfer sheet is selected as the paper. If this type of printer is being used, clear the **Print a flipped image** check box.

For details, refer to the instructions for the printer being used.



- 3 Click **Change Position**.

- 4 Check the image position.

If any part of the image extends out of the print area, drag the image to adjust its position.



- 5 Click **OK**.

- 6 Click **Print**.

Memo:

To check the print image, click **Print Preview**.

- 7 Specify the appropriate settings in the Print dialog box, and then click **OK**.

"Printing" on page 143.

→ Printing begins.



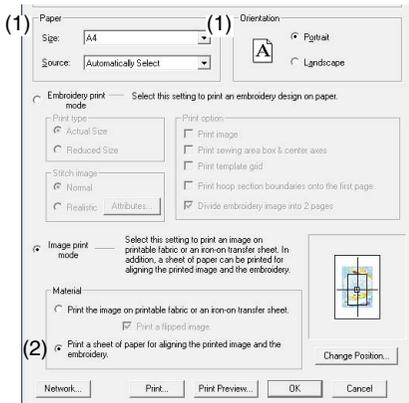
Memo:

For details on printing on iron-on transfer sheets or printable fabric, refer to the instructions for the iron-on transfer sheets and printable fabric.

Step 3 Printing the positioning sheet

Print a sheet for aligning the image and the embroidery.

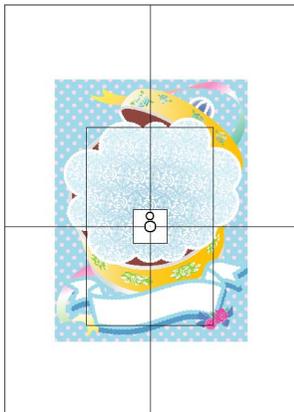
- 1 Specify the print settings.
 - (1) Under **Paper** and **Orientation**, select the appropriate settings for the paper to be printed on.
 - (2) Select **Print a sheet of paper for aligning the printed image and the embroidery**.



- 2 Click **Print**.
- 3 Specify the appropriate settings in the Print dialog box, and then click **OK**.

"Printing" on page 143.

→ Printing begins.



Memo:

To check the print image, click **Print Preview**.

Step 4 Embroidering

- 1 If an iron-on transfer sheet is used, transfer the image onto fabric.

Memo:

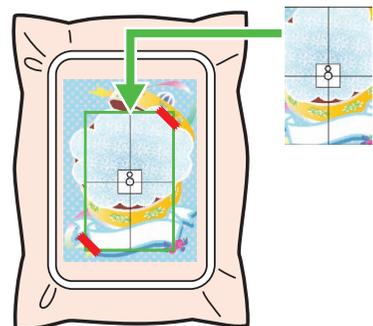
For details on transferring from iron-on transfer sheets, refer to the instructions for the iron-on transfer sheets.

- 2 Hoop the fabric in the embroidery frame.



- 3 Place the positioning sheet on the fabric to be embroidered so that it is aligned with the printed image.

- If the positioning sheet is too large, cut it to an appropriate size so it can easily be used for aligning the positions.
- Tape the positioning sheet to the fabric to secure it in place.



- 4 Attach the embroidery frame to the embroidery machine.

Be sure that the positioning sheet does not move out of place.

- 5 Align the needle with the mark at the center of the positioning sheet.
 - If the embroidery machine has a built-in camera, press the start positioning button to detect the positioning mark and automatically align the embroidering position.
 - With other embroidery machines, manually align the positions.
- 6 After positioning is finished, remove the positioning sheet from the fabric.
- 7 Start the embroidery machine to embroider the pattern.

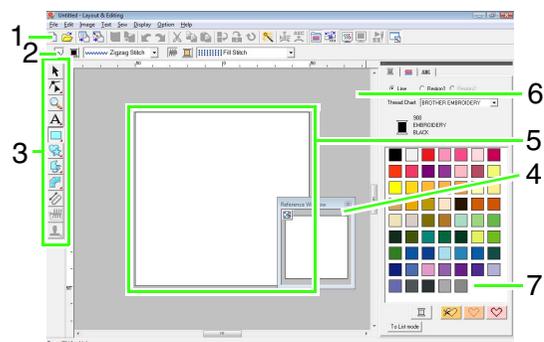


Memo:

- For details on using the embroidery machine, refer to the Operation Manual included with the machine.
- Six patterns of completed samples for Print and Stitch are provided in the following folder.

**Documents (My Documents)\
PE-DESIGN 8\Sample\Layout & Editing\
Print and Stitch**

Layout & Editing Window



- 1 Toolbar**
Provides shortcuts for the menu commands.
- 2 Sewing Attributes bar**
Sets the sewing attributes (color and sew type) of lines and regions in the pattern.
- 3 Tool Box**
Used to create, select and edit patterns.
- 4 Reference Window**
Displays all patterns in the work area, giving you an overview while you work on a detailed area.

 "Viewing design in the reference window" on page 66.

5 Design Page

The actual part of the work area that can be saved and sewn.



Memo:

The default value for the design page size in this example is 100 x100 mm (4 x 4 inches).

6 Work area

7 Thread colors, sewing attributes and text attributes

This dialog box combines tabs for specifying thread colors, sewing attributes and text attributes. Click a tab to display the parameters.



Memo:

- To display this dialog box, click  or , or select the menu command **Sew - Sewing Attribute Setting** or **Text - Text Attribute Setting**.

To close this dialog box, click .

- When the application is first started, this combined dialog box is attached at the right side of the window. This dialog box can be moved by dragging it or double-clicking its title bar (bar at the top of the dialog box). To return the dialog box to its original attached position, drag it to the right side of the window or double-click its title bar.

Opening/Importing Embroidery Designs



Memo:

Multiple files can be opened in Layout & Editing. In addition, data can be copied and pasted between files that are open at the same time.

Creating a new embroidery design

Toolbar button:



1. Click , or click **File**, then **New**.

→ A new Design Page appears.



Memo:

The size of the Design Page can be changed.



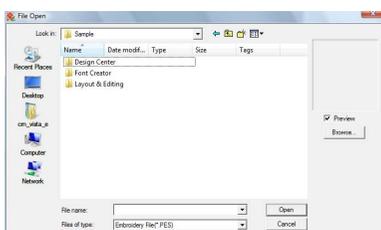
"Specifying the Design Page Size and Color" on page 68.

Opening a Layout & Editing file

An embroidery design that has previously been saved as a Layout & Editing file (.pes file) can be opened.

Toolbar button: 

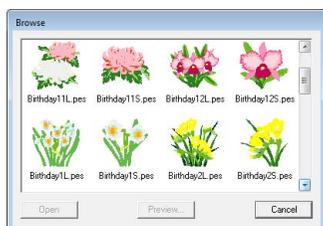
1. Click , or click **File**, then **Open**.
2. Select the drive and the folder.



- If the **Preview** check box is selected, the contents of the selected file will appear in the **Preview** box.

Memo:

- To view the data in the selected folder as thumbnails in the **Browse** dialog box, click **Browse**.



To see a more detailed design, select a file, and then click **Preview**.



- To open the displayed file, click **Open**.

Note:

- If no files are listed, there are no .pes files in the selected folder. Select a folder containing a .pes file.
- If the selected file is in a format other than the .pes format, the message "Unexpected file format" appears in the **Preview** box.

3. To open a file, select it, and then click **Open**, or double-click the file's icon.
→ The contents of the selected file appear in the Design Page.

Memo:

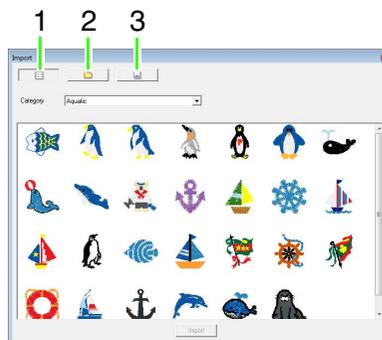
A file can be opened in any of the following ways.

- Display the embroidery design file in Windows Explorer, and then drag the file into the Layout & Editing window.
- Display the embroidery design file in Windows Explorer, and then double-click the file.

Importing embroidery designs

Toolbar button: 

1. Click , or click **File**, then **Import**.
2. Select the category from the drop down menu then select the view mode.



- 1 Design Library view mode
- 2 Folder view mode
- 3 Card view mode

3. Select the file icon for the design to be imported, and then click **Import**, or double-click the file icon.
→ The embroidery design is displayed in the Design Page.

Memo:

- The design can be imported by dragging its file icon from the **Import** dialog box to the Design Page.
- Multiple files cannot be selected to be imported at the same time.

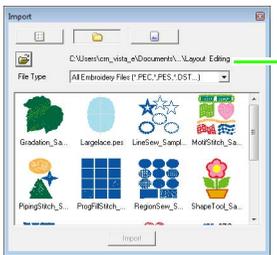
4. Click  in the upper-right corner of the **Import** dialog box to close it.

■ From Design Library

1. Click  to display the dialog box in Design Library view mode.
2. From the **Category** selector, select a category to display the corresponding embroidery data.

■ From a folder

1. Click  to display the dialog box in folder view mode.



Indicates the path to the currently selected folder.

2. Click .
→ The **Browse** for folder dialog box appears.
3. Select a folder, and then click **OK**.
4. From the **File Type** box, select a file name extension to display the corresponding embroidery data.

Note:

When importing designs from other vendors, be sure to choose a design that will fit in the Design Page.

Memo:

Since .dst files do not contain thread color information, the colors are temporarily assigned when the design is imported into Layout & Editing. Therefore, the colors of an imported .dst file may not appear as expected. You can change the thread colors using functions in the **Sewing Order/Lock** dialog box.

 "Changing colors" on page 118.

■ From an embroidery card

1. Insert an embroidery card into the USB card writer module.
 Refer to "Transferring the design to an original card" on page 17.
2. Click .
→ After the card has been read, the dialog box appears in card view mode, and the embroidery designs on the card are displayed.

Note:

Due to copyright issues, some embroidery cards cannot be used with this function.

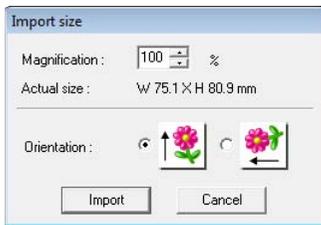
Importing embroidery design from Design Center

An embroidery design in Design Center can be imported directly into the Layout & Editing Design Page.

 *"Manually Creating Embroidery Patterns From Images (Design Center)" on page 153.*

Toolbar button: 

1. Start up Design Center and open the file.
 *"Original Image Stage" on page 146 and "Opening a file" on page 155.*
2. Click , or click **File**, then **Import from Design Center**.
3. In the **Magnification** box, type or select the magnification factor.



 **Note:**

The maximum magnification ratio that can be specified is the ratio that enlarges the design to the size of the Design Page. The minimum magnification ratio is 25%.

4. Under **Orientation**, select the desired orientation.
5. Click **Import** to import the embroidery design.

Checking Embroidery Patterns

Zooming

You can zoom in to work on details of the embroidery pattern or you can zoom out to work on any part of the embroidery pattern that cannot be viewed in the work area.

After clicking  on the Tool Box,

  **1:1**   appear. Click the button for the desired operation.

 : Click in the Design Page to display the area enlarged.

To zoom in on a specific area, move the pointer near the desired area, and then drag the pointer diagonally over the desired area.

 : Click in the Design Page to display the area reduced.

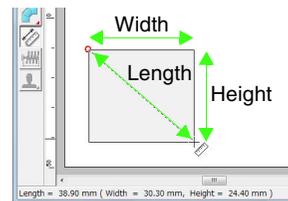
1:1 : The Design Page is displayed at its actual size.

 : Select an object, and then click the button. The Design Page is zoomed to display only the selected objects.

 : The entire Design Page is displayed to fit within the window.

Measuring the distance between two points

1. Click  on the Tool Box.
2. Move the pointer to the beginning of the part of the object, and then hold down the mouse button.
 - A small circle appears, indicating the start point of the measurement.
3. Drag the pointer to view the measurement in the status bar.

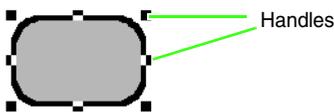


Editing Embroidery Designs

This section describes various editing operations, such as moving, enlarging/reducing or rotating patterns. A pattern must first be selected before it can be edited.

Selecting patterns

1. Click  on the Tool Box.
2. Click the pattern.
→ Handles appear around the pattern.



Memo:

- The status bar shows the dimensions (width and height) of the pattern.
- To deselect the pattern, select a different pattern, click a blank area of the Design Page, or click any other button in the Tool Box.

3. To select an additional pattern, hold down the **Ctrl** key and click the other pattern.

Memo:

You can also select patterns by dragging the pointer across the pattern.

Memo:

Press the **Tab** key to select the next pattern in the order that they were created.

■ Selecting all embroidery patterns

1. Click  on the Tool Box.
2. Click **Edit**, then **Select All**.

Moving patterns

1. Move the pointer over a selected pattern or group of selected patterns.
2. Drag the pattern to the desired location.

Memo:

- To move the pattern horizontally or vertically, hold down the **Shift** key while dragging it.

Memo:

- Pressing the arrow keys moves the selected pattern 0.5 mm (about 0.02 inch) in the direction of the arrow on the key. Holding down the arrow key for the desired direction continues moving the outline in that direction.
- If **Snap to Grid** is selected from **Display : Grid setup**, each press of an arrow key moves the pattern one grid mark in the direction of the arrow on the key.

 “Changing the grid settings” on page 69.

- 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.

 “Specifying text arrangement” on page 87.

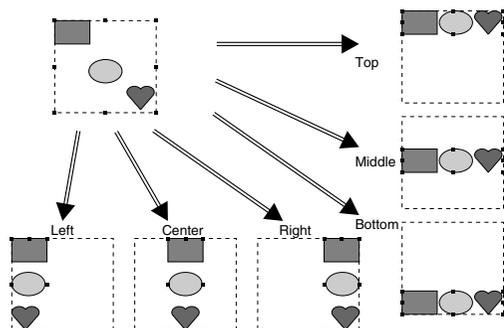
■ Moving embroidery patterns to the center

1. Select one or more patterns.
2. Click **Edit**, then **Center**.
→ All selected patterns move to the center of Design Page.

■ Aligning embroidery patterns

1. Select the patterns.
2. Click **Edit**, then **Align**, then **Left**, **Center**, **Right**, **Top**, **Middle**, or **Bottom**.

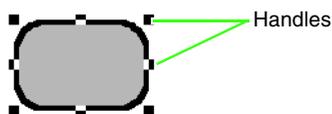
→ The selected patterns are aligned as shown below.



Scaling patterns

■ Scaling manually

1. Select the pattern(s).



2. Drag the handle to adjust the selected pattern(s) to the desired size.

📖 Memo:

- If the **Shift** key is held down while a handle is dragged, the pattern is enlarged or reduced from the center of the pattern.
- As you drag the handle, the current size is displayed on the status bar.

! Note:

- Stamp settings remain independent from the patterns that they are applied to. If a pattern containing a stamp is edited, be sure to check the stamp after editing is finished.

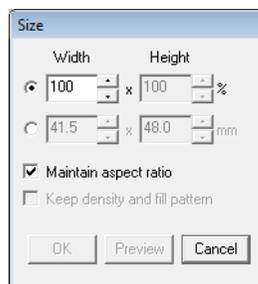
👉 “Applying and editing Stamps” on page 114.

- Some patterns imported from embroidery cards cannot be scaled.
- When scaling stitch patterns, the number of stitches remains the same, resulting in a loss of quality. To keep density and fill pattern of the embroidery pattern, hold down the **Ctrl** key while scaling.

👉 “Enlarging/Reducing Stitch Patterns” on page 237 in the Instruction Manual (PDF format).

■ Scaling numerically

1. Select the patterns.
2. Click **Edit**, then **Numerical Setting**, then **Size**.
3. To change the width and height proportionally, select the **Maintain aspect ratio** check box.



4. Select the whether the width and height will be set as a percentage (%) or a dimension (millimeters or inches).
5. Type or select the desired width and height.
6. To resize the selected pattern while maintaining the original density and fill pattern, select the **Keep density and fill pattern** check box.

📖 Memo:

The **Keep density and fill pattern** check box is available only if stitch data is selected.

👉 “Enlarging/Reducing Stitch Patterns” on page 237 in the Instruction Manual (PDF format).

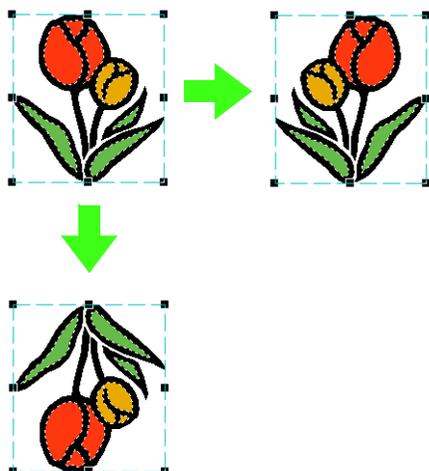
7. Click **OK**.

Flipping patterns horizontally or vertically

Toolbar button: , 

1. Select the pattern(s).
2. Click **Edit**, then **Mirror**, then **Horizontal**, or click .

Click **Edit**, then **Mirror**, then **Vertical**, or click



Note:

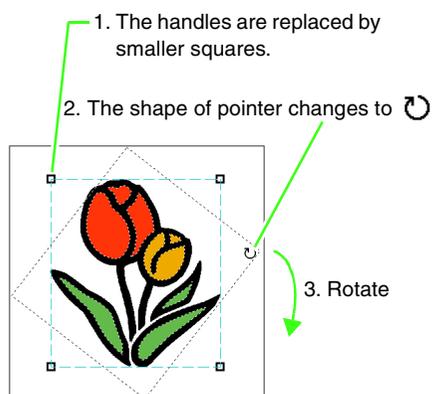
Some patterns imported from embroidery cards cannot be flipped.

Rotating patterns

Rotating manually

Toolbar button: 

1. Select the pattern(s).
2. Click **Edit**, then **Rotate**, or click .
3. Drag the rotation handle.

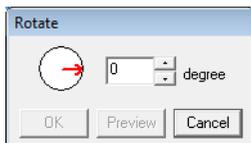


Memo:

To rotate the pattern in 15° increments, hold down the **(Shift)** key while dragging the handle.

■ Rotating numerically

1. Select the pattern(s).
2. Click **Edit**, then **Numerical Setting**, then **Rotate**.
3. Type or select the desired rotation angle.



Memo:

- An angle can also be selected by dragging  in the **Rotate** dialog box.

4. Click **OK**.

Grouping/Ungrouping embroidery patterns

■ Grouping patterns

Several individual patterns can be grouped so that the same changes apply to all of the patterns within the group.

1. Select several patterns.
2. Click **Edit**, then **Group**.
→ The selected patterns are grouped.

Memo:

If part of a pattern with hole sewing or any other path arrangement applied is selected to be grouped, the entire pattern is grouped.

■ Ungrouping patterns

1. Select a grouped embroidery pattern.
2. Click **Edit**, then **Ungroup**.
→ The patterns are ungrouped.

■ Editing grouped patterns individually

Even after patterns are grouped, they can be edited individually.

1. To select a single pattern within a group, hold down the **Alt** key while clicking the pattern. To select multiple patterns within a group, hold down the **Alt** and **Ctrl** keys while clicking the patterns.

Memo:

A light blue frame appears around the grouped patterns whenever the group or an individual pattern is selected.

2. Edit the object as desired.

Memo:

Grouping is cancelled if patterns are deleted to leave only one.

Reshaping Embroidery Patterns

Selecting points

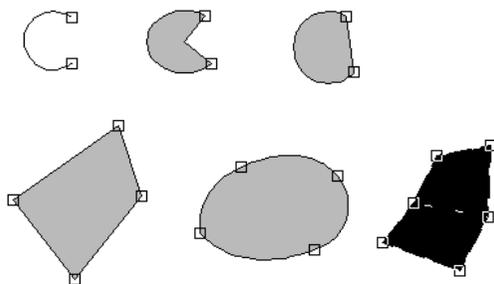
1. Click  on the Tool Box.

→ Two buttons appear .

2. Click .

3. Click the pattern.

→ The points in the pattern appear as small empty squares.



Memo:

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

4. To select a single point, click an empty square.

- The selected point appears as a small black square.

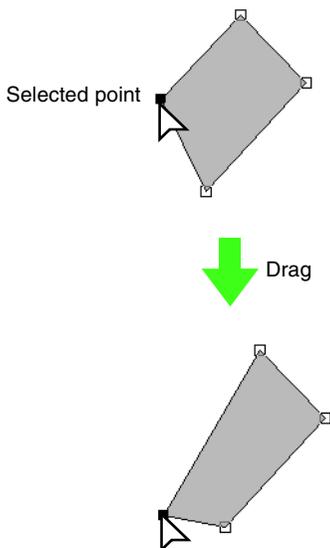
Memo:

Multiple points can be selected in any of the following ways.

- Drag the pointer.
 - All points within the box are selected.
 - Hold down the **(Ctrl)** key while clicking the points.
 - Each point that is clicked is added to the selection.
 - To deselect a point, click the selected point.
 - Hold down the **(Shift)** key while clicking the points.
 - All points between those that were clicked are selected.
 - Hold down the **(Shift)** key while pressing the  or  key.
 - The next point toward the end point is added to the selection.
 - To deselect a point, press the  or  key.
 - Hold down the **(Shift)** key while pressing the  or  key.
 - The next point toward the start point is added to the selection.
 - To deselect a point, press the  or  key.
- In addition, the direction for selecting points can be changed toward the start point or toward the end point as described below.
- Hold down the **(Ctrl)** key while pressing the  or  key.
 - The selection direction changes to the end point.
 - Hold down the **(Ctrl)** key while pressing the  or  key.
 - The selection direction changes to the start point.
 - For details on selecting points in a stitch pattern, refer to "Selecting stitch points of stitch pattern" on page 62.

Moving points

1. Select the point.
 "Selecting points" on page 56.
2. Drag the point to the new location.



Note:

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

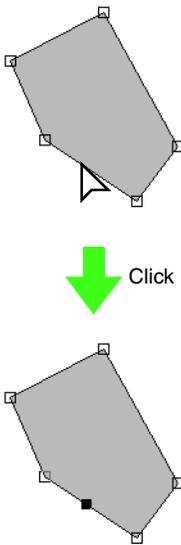
Memo:

- All of the selected points move in the same direction.
- To move the point of a broken line, a curve, a manual punching pattern, or stitch data horizontally or vertically, hold down the **Shift** key while dragging it.
- Pressing the arrow keys moves the selected point 0.5 mm (about 0.02 inch) in the direction of the arrow on the key. Holding down the arrow key for the desired direction continues moving the outline in that direction.
- If **Snap to Grid** is selected, each press of an arrow key moves the point one grid mark in the direction of the arrow on the key.
- The arrow keys cannot be used to move the end points of an Arc, Arc & String, and Fan.
- Points in patterns set for hole sewing can also be moved. However, the point cannot be moved to cross an outline. In order to move the point in this way, cancel hole sewing first.

Inserting points

New points can be inserted in order to change the shape of a pattern. In the case of a new point on a curve, you can also use the handle to reorient the tangent to the new point.

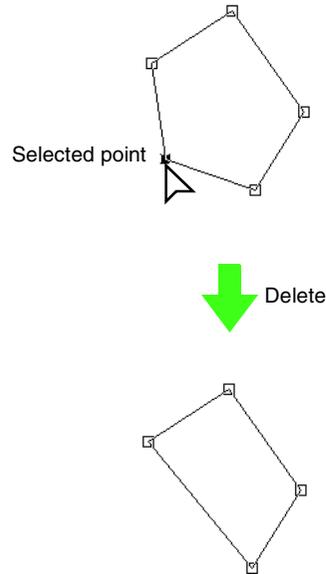
1. Click , then .
2. Click the pattern.
3. Click the outline to add a point.



Deleting points

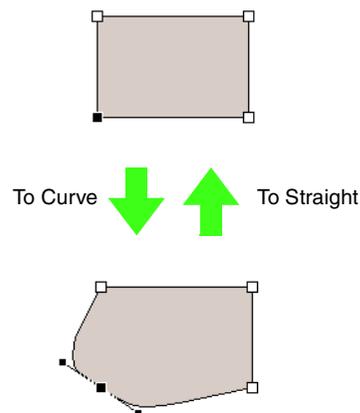
1. Select the point.
 "Selecting points" on page 56.

2. Click **Edit**, then **Delete**, or press the **Delete** key to remove the point.



Transforming straight lines into curves or curves into straight lines

1. Select the point.
 "Selecting points" on page 56.
2. Click **Edit**, then **Point**, then click **To Curve**, or click **To Straight**.



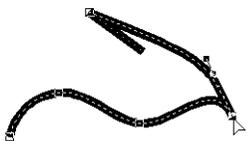
Memo:

To transform a curve to a straight line, click a point on the curve, and then click **Edit**, then **Point**, then **To Straight**.

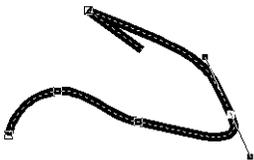
Smoothing out the path at a point

1. Select the point where the path is to be smoothed out.

 "Selecting points" on page 56.



2. Click **Edit**, then **Point**, then **To Smooth**.
→ The path at the point is smoothed out.



3. Drag the path to adjust it.

Symmetrically adjusting the control handles of a point

1. Select the point where the control handles are to be adjusted symmetrically.

 "Selecting points" on page 56.



2. Click **Edit**, then **Point**, then **To Symmetry**.

3. Drag the path to adjust it.
→ The control handles of the point are moved symmetrically.



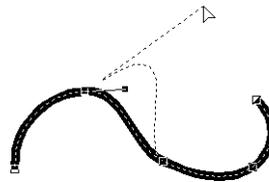
Transforming to a pointed path

1. Select the point where the path is to be transformed to a pointed one.

 "Selecting points" on page 56.



2. Click **Edit**, then **Point**, then **To Cusp**.
→ The path is transformed to a pointed one at the selected point.



3. Drag the path to adjust it.

Moving entry/exit points and the center point

Moving the entry/exit points

You can reposition the entry and exit points of objects created with the tools on the Tool Box in order to adjust the stitching.

1. Click  on the Tool Box.
→ Two buttons appear  .
2. Click .

Note:

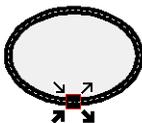
If the entry and exit points have been optimized (a check mark appears in front of the **Optimize Entry/Exit points** command on the **Sew** menu), the entry and exit points of the patterns cannot be edited. In order to use this tool for editing the entry and exit points, select the menu command **Sew – Optimize Entry/Exit points** to cancel the setting.

3. Click the object.
→ The entry and exit points of the object appear.

Memo:

If the region has the concentric circle stitch or radial stitch applied, the center point of the stitching also appears.

 "Moving the center point" on page 61.



Note:

The entry and exit points of stitch data, text, and manual punching patterns cannot be edited.

 This is the entry point for the outline stitching. The previous pattern is connected to this point.

 This is the exit point for the outline stitching. Stitching continues from this point to the next pattern.

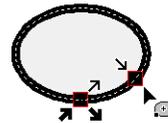
 This is the entry point for the inside region stitching. The previous pattern is connected to this point.

 This is the exit point for the inside region stitching. Stitching continues from this point to the next pattern.

Memo:

If the outline or the inside region are set to not be sewn, the corresponding point does not appear.

4. Drag the arrow for the point to the desired location on the outline.



Note:

- Only entry and exit points for patterns created with the Circle or Arc, Rectangle and Outline tools can be edited. Stitch pattern or patterns created with the Text tools or Manual Punch tools cannot be edited.
- If the menu command **Sew – Optimize Entry/Exit points** is selected to optimize the entry and exit points, all manual adjustments of the entry and exit points will be lost, and the positions of the points will be automatically optimized.

Optimizing the entry/exit points

The positions of the entry and the exit points for the objects can be adjusted automatically in order to optimize stitching.

1. Click **Sew**, then **Optimize Entry/Exit points**.

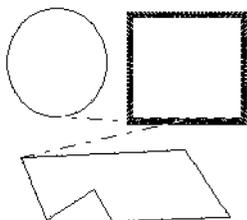
To optimize the entry and exit points, select this command so that a check mark appears. To cancel optimizing, select this command so that no check mark appears.

→ If a check mark appears beside **Optimize Entry/Exit points**, the entry and exit points for the stitching of connected objects with the same color are optimized (in other words, they are connected by the shortest distance possible).

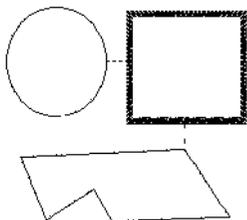
Note:

- Only entry and exit points for patterns created with the Circle or Arc, Rectangle and Outline tools can be optimized.
- If the menu command **Sew – Optimize Entry/Exit points** is selected to optimize the entry and exit points, the entry and exit points cannot be moved with the Entry/Exit point tool.

→ If the check mark does not appear beside **Optimize Entry/Exit points**, the entry and exit points are not optimized. If the optimizing of the entry and exit points is cancelled, the entry point and exit point positions are retained. In addition, the positions of the entry and the exit points can be manually changed with the Entry/Exit/Center point tool.



Optimize Entry/Exit points not selected



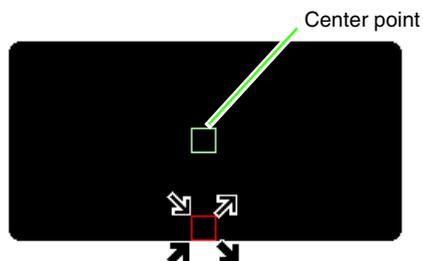
Optimize Entry/Exit points selected

Moving the center point

The center point for regions set to the concentric circle or radial stitch can be repositioned for a more decorative effect.

1. Click , then .
2. Click the region set to the concentric circle or radial stitch.

→ The entry and exit points and the center point of the object appear.



3. Drag the center point to the desired location.

Editing a Stitch Pattern

In stitch patterns, stitches appear as solid lines (——), and jump stitches appear as dotted lines (---).

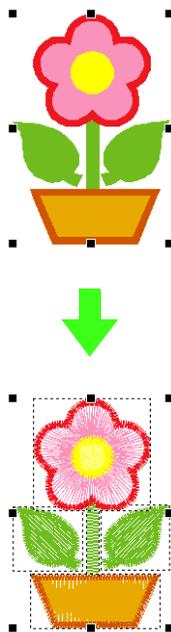
Converting objects to a stitch pattern

Objects drawn with the tools in Layout & Editing can be converted into a stitch pattern, allowing you to make detailed changes by modifying the position of individual stitches.

 "Drawing Shapes" on page 70.

1. Select the object.
2. Click **Sew**, then **Convert to Stitches**.

The selected object is converted to stitch pattern.



→ The dotted line around the converted pattern indicates that it is a stitch pattern. Each stitch of the converted pattern can be edited with the Edit Point tool.

Memo:

- If any part of grouped objects, objects set for hole sewing, and text arranged on shapes is selected, all objects in the entire group are converted to stitch patterns.
- Patterns that do not have sewing attributes applied are deleted when the object is converted to stitch pattern.
- Object means patterns created with Shape tools or Text tools or Manual Punch tools.

Selecting stitch points of stitch pattern

1. Click , then .
2. Click the object.

→ The stitch points in the stitch pattern appear as small empty squares.

Note:

Stitch pattern are surrounded with a dotted line.
If the object is not surrounded by a dotted line, it cannot be edited. Stitch points cannot be edited if the pattern is not a stitch pattern.

3. To select a single stitch point, click an empty square.
→ The selected stitch point appears as a small black square.

Memo:

- If you click on a jump stitch, the points at both ends are selected.
- Multiple stitch points can be selected in the same way that embroidery pattern points are selected.

 "Selecting points" on page 56.

- To select all stitch points in the next color, press the **Tab** key. To select all stitch points in the previous color, hold down the **Shift** key and press the **Tab** key.

 **Memo:**

- Press the **Ctrl** and **Home** keys.
→ The entry point of the first thread color is selected.
- Press the **Ctrl** and **End** keys.
→ The exit point of the last thread color is selected.
- Select at least one point in a given color, and then press the **Home** key.
→ The entry point of the color is selected.
- Select at least one point in a given color, and then press the **End** key.
→ The exit point of the color is selected.

 **Note**

When selecting stitch points, be sure to click the stitch point (do not click a blank area of the Design Page), otherwise all of the selected points will be deselected.

■ Moving stitch points

1. Drag the selected stitch points to the new location.

 **Memo:**

Stitch points are moved in the same way that embroidery pattern points are moved. However, if the arrow keys are used, each press moves the stitch point 0.1 mm (0.004 inch).

 "Moving points" on page 57.

■ Inserting stitch points and jump stitches

1. Click a line between two stitch points to add a new point at that position.

 **Memo:**

To insert a stitch point and change the previous line into a jump stitch, hold down the **Ctrl** and **Shift** keys while clicking on the line.

■ Deleting stitch points

1. Press the **Delete** key to delete the selected stitch point.

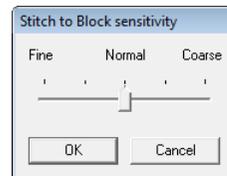
 **Memo:**

If the end point of a jump stitch is deleted, that jump stitch segment is deleted and the stitches before and after the jump stitch are connected.

Converting a stitch pattern to blocks

Imported stitch data or patterns converted to stitch pattern can be converted into blocks (manual punching data), allowing you to change some of their sewing attributes and to scale individual colors while keeping their stitching quality.

1. Select the stitch pattern.
2. Click **Sew**, then **Stitch to Block**.
3. Move the slider to select the desired sensitivity.



 **Memo:**

The **Normal** setting should provide satisfactory results in most cases, but depending on the complexity of the pattern, you may need to select a setting more towards **Coarse** or **Fine**.

4. Click **OK**.
→ The stitch pattern is converted to grouped manual punching data.

For details on grouping or ungrouping manual punching data or editing a part of grouped manual punching data, refer to "Grouping/ Ungrouping embroidery patterns" on page 55.

 **Note:**

The **Stitch to Block** command cannot be used with some stitch pattern imported from embroidery cards.

 "Enlarging/Reducing Stitch Patterns" on page 237 in the Instruction Manual (PDF format).

Splitting off parts of a stitch pattern

1. Click  on the Tool Box.

Memo:

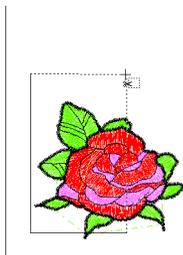
This tool is available only for stitch data.

Note:

Patterns created with the drawing or Text tools of Layout & Editing need to be converted into stitches before they can be cut with the Split stitch tool.

 "Converting objects to a stitch pattern" on page 62.

2. Click the stitch data.
→ All other stitch data disappear from the display.
3. Click in the Design Page at the point where you want to start drawing the enclosing lines.
4. Continue clicking in the Design Page to specify each corner of the enclosure around the area to be cut off.
→ The dotted line that is drawn when you move the pointer changes to a solid line when the next point is specified.



Memo:

- To remove the last point that was entered, click the right mouse button. Each successive right-click removes points, one by one, in the opposite order that they were entered. Once all points are deleted, the Tool Box buttons are available again, however, the application remains in Split stitch mode.
- An enclosure is valid only if it contains stitch data. If it contains no stitch data, an error message appears, and the enclosure is erased, but the application remains in Split stitch mode.

5. Double-click in the Design Page to specify the section to be split off.
6. Edit the cutoff section as desired.

Note:

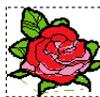
- Only one cutoff section can be specified from the pattern at one time. Repeat the procedure for each piece of the pattern that you want to cut off.
- The cutoff piece moves to the end of the sewing order and the thread color order appears in the order selected for the original pattern.

Dividing stitch data by color

■ Dividing stitch data by color

Stitch data can be divided according to the various colors.

Before dividing



After dividing



1. Select the one or more stitch data.
2. Click **Sew**, then **Divide Stitches by Color**.
→ Dotted lines appear around each part of the stitch data.

Memo:

This function is not available if data other than stitch data is selected or if grouped embroidery data containing data other than stitch data is selected.

Displaying a preview of the embroidery

Once the embroidery design is complete, you can display a preview of it in order to see how the stitching is connected, or you can display a realistic preview of it in order to see how the design will appear once it is sewn.

Preview

Toolbar button: 

1. Click , or click **Display**, then **Preview**.

→ A preview of the embroidery design appears.



2. To leave the preview display, repeat step 1., or press the **Esc** key.

Realistic Preview

Toolbar button: 

1. Click , or click **Display**, then **Realistic Preview**.

→ A realistic preview of the embroidery design appears.



2. To leave the realistic preview display, repeat step 1., or press the **Esc** key.

Note:

- The embroidery design cannot be edited while the realistic preview is displayed.
- The image imported into the Design Page can also be displayed in the preview if the appropriate Display Image setting is selected.

 "Changing the display of the background image" on page 123.

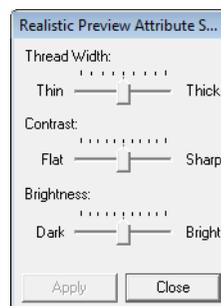
Memo:

Changing realistic preview settings

Set the realistic preview settings for the desired realistic preview display.

1. Click **Display**, then **Realistic Preview Attribute Setting**.

→ A **Realistic Preview Attribute Setting** dialog box similar to the ones shown below appears.



2. If necessary, specify settings for **Thread Width**, **Contrast** and **Brightness**.
3. Click **Apply** to display a realistic preview of the patterns with the new settings (when the realistic preview is displayed).

Or, click **OK** to save the settings for the next time that the Realistic Preview function is select (when the realistic preview is not displayed).

 "Displaying a preview of the embroidery" on page 65.

Checking the stitching

The actual stitching as it will be performed by the embroidery machine can be viewed using the stitch simulator.

Toolbar button: 

1. Click , or click **Display**, then **Stitch Simulator**.

The **Stitch Simulator** dialog box appears, and the embroidery design is cleared from the Design Page.



2. Click  to begin the stitching simulation.

Memo:

- The slider shows the current location in the simulation. In addition, the slider can be moved to change the position in the simulation.

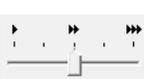


- To get a better view of the stitching, zoom in on the design before opening the **Stitch Simulator** dialog box.

The following operations can be performed if the corresponding button is clicked.

 : Stops the simulation and returns to the previous display.

 : Temporarily stops the simulation. To restart the simulation, click .

 : Drag the slider to adjust the simulation stitching speed.

 : Returns to the beginning of the previous color.

 : Advances to the beginning of the next color.

 - : Reverses the stitching by the number of stitches specified in the **stitches/step** selector.

 + : Advances the stitching by the number of stitches specified in the **stitches/step** selector.

 - *: Returns to the beginning of the design in the previous hoop section.

 + *: Advances to the beginning of the design in the next hoop section.

* Appear only for patterns created on customized Design Pages.

The numbers indicate the following.

 42607 — Number of the current stitch
90655 — Total number of stitches

 4 — Number of the color being drawn
10 — Total number of colors used

 2 — Pattern section that is displayed
4 — Total number of hoop sections in the pattern

This indicator appears only for patterns created on custom-sized Design Pages.

3. Click  in the upper-right corner of the dialog box to close the dialog box.

Memo:

If a pattern was selected when the **Stitch Simulator** dialog box was displayed, only the selected pattern is drawn in the simulation.

Viewing design in the reference window

A design in the Design Page is displayed in the Reference Window, giving you an overall view of the design while you work on a detailed area. The display area frame (red rectangle) indicates the part of the pattern displayed in the Design Page.

Toolbar button: 

To switch between displaying and hiding the

Reference window, click , click **Display**, then

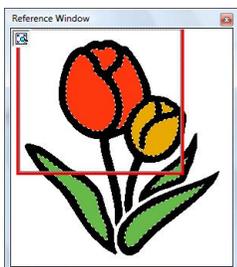
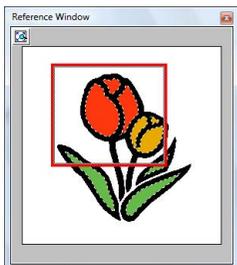
Reference Window, or press the shortcut key (**F11**).

■ Zooming

The Reference Window can be switched to display either the entire Design Page or only the embroidery pattern.

1. Click .

→ The image displayed in the Reference Window changes.



■ Moving the display area frame

The part of the design displayed in the Design Page can be selected from the Reference Window.

1. Move the pointer over the display area frame.
2. Drag the display area frame so that it surrounds the desired part of the design.

→ The selected part of the design is displayed in the Design Page.

■ Redrawing the display area frame

Instead of moving the display area frame, the frame can be redrawn to display the desired part of the pattern in the Design Page.

1. Click the area to be displayed, or drag the pointer over the desired part of the design in the Reference Window.

→ The display area frame is redrawn, and the selected part of the design is displayed in the Design Page.

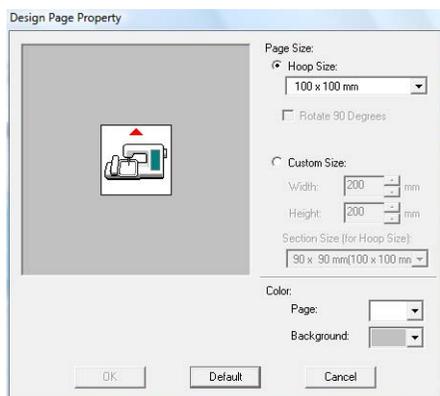
■ Scaling the display area frame

1. Move the pointer over a corner of the display area frame.
2. Drag the corner to adjust the display area frame to the desired size.

Specifying the Design Page Size and Color

The color and size of the Design Page in addition to the color of the background can be changed. You can select a Design Page size according to the size of hoop that you will be using with your embroidery machine. You can also specify a custom size for the Design Page for embroidery patterns that will be split and embroidered in multiple sections.

1. Click **Option**, then **Design Page Property**.
2. Select the Design Page size.



To adjust the Design Page size according to the hoop size, select **Hoop Size**, and then select the desired hoop size from the selector.

Memo:

To arrange the pattern in a Design Page rotated 90 degrees, select the **Rotate 90 Degrees** check box.

To specify a custom Design Page size, select **Custom Size**, and then type or select the desired width and height for the Design Page.

“Creating Split Embroidery Designs” on page 176 in the Instruction Manual (PDF format).

3. From the **Page** selector, select the desired color for the Design Page.
4. From the **Background** selector, select the desired color for the background.
5. Click **OK**.

Memo:

To return to the default settings (**100 × 100 mm (4" × 4") of Hoop Size**), click **Default**.

Note:

- The Design Page sizes **130 × 300 mm**, **100 × 172 mm** indicated by the “**”, are used to embroider multi-position designs using a special embroidery hoop attached to the embroidery machine at three installation positions.

“Creating Design for Multi-Position Hoops” on page 182 in the Instruction Manual (PDF format).

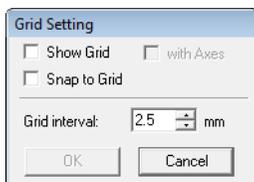
- Do not select a hoop size larger than the embroidery hoop that can be used with your machine.

Changing Application Settings

Changing the grid settings

A grid of dotted lines or solid lines can be displayed or hidden, and the spacing for the grid can be adjusted.

1. Click **Display**, then **Grid Setup**.
2. To display the grid, select the **Show Grid** check box.
To hide the grid, clear the **Show Grid** check box.



3. To use the grid for aligning patterns or creating patterns of the same size, select the **Snap to Grid** check box.

Memo:

*The pointer will move by the amount set in **Grid interval**.
The snap feature works whether or not the grid is displayed.*

4. To set the grid spacing, type or select a value in the **Grid interval** box.
5. To display the grid as solid lines, select the **with Axes** check box.
To display the grid as dots (intersecting points of the grid) and center lines, clear the **with Axes** check box.
6. Click **OK** to apply the changes and to close the dialog box.

Changing the measurement units (mm or inch)

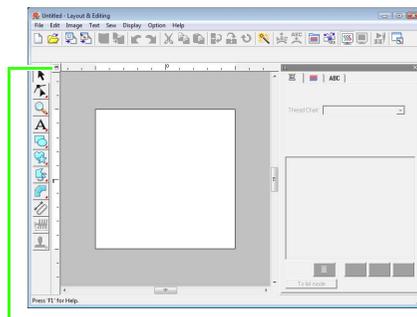
The measurements for values displayed in the application can be in either millimeters or inches.

1. Click **Option**, then **Select System Unit**, and then select the desired measurement units (**mm** or **inch**).

Changing the ruler settings

The ruler can be displayed or hidden.

1. Click **Display**, then **Ruler**.
→ A check mark appears beside the command, and the ruler appears.
To hide the ruler, click **Display**, then **Ruler** again so that the check mark disappears.



Click to switch the measurement units between millimeters and inches.

Drawing Shapes

Rectangles, rectangles with rounded corners, and curved patterns (regular circles, ovals, arcs, fan shapes, and arc & strings) can be drawn by using the Rectangle, Circle or Arc tools.

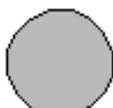
Memo:

- You can change the color and sew type either before or after drawing the shape.
 -  "Setting the thread color and sew type" on page 94.
- You can also use the settings in the **Sewing Attribute Setting** dialog box to define other attributes of the shape.
 -  "Specifying sewing attributes" on page 96.

About rectangle, circle and arc



Rectangle



Circle



Oval



Arc



Fan shape



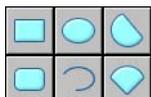
Arc & string

All of these patterns, except arcs have an outline and a inside region, and can independently be assigned different sewing attributes. Arcs are simple outlines.

Note:

When drawing a shape with this tool, select the shape before drawing. You cannot, for example, draw a circle, then change it to an arc afterward.

Drawing rectangle, circle or arc Shape

- Click  on the Tool Box.
 - Six buttons appear .
- Click the button for the shape to be drawn.
 - The Sewing Attributes bar appears.
- Drag the pointer to draw the shape.

Rectangle

The point where you start dragging is considered a corner of the rectangle. The point where the mouse button is released is the diagonally opposite corner of the rectangle.

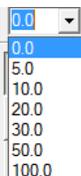
Memo:

To draw a square, hold down the **Shift** key while dragging the pointer.

Rectangle with rounded corners

Click  to view the current corner radius setting in the Edge radius selector.

To change the radius of the corners, click the **Edge radius** selector, and then type the desired radius and press the **Enter** key, or select the desired value.



Drag the pointer to draw a rectangle with corners of the currently specified radius.

Example 1
Edge radius: 0.0 mm



Example 2
Edge radius: 20.0 mm



Memo:

Even if an object drawn with the Rectangle tool is selected, the **Edge radius** selector appears so that the setting for the radius of the corners can be changed.

■ Circle or Oval

The point where you start dragging is considered a corner of an imaginary rectangle around the oval. The point where you release the mouse button is the diagonally opposite point of the rectangle. The oval will fit inside this imaginary rectangle (its greater axis is along the longer edge of the rectangle, and its smaller axis is along the smaller edge).

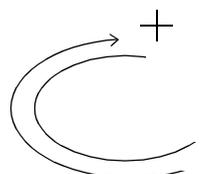
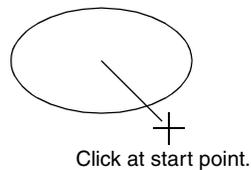
Memo:

To draw a circle, hold down the **Shift** key while dragging the pointer.

■ Arc , Arc & String or Fan

1. Proceed as you would to draw a circle or an oval.
 - A radial line appears on the oval when the mouse button is released.
2. Move the pointer to the start point of the arc, and then click.
 - The radial line disappears.
3. Move the pointer until the arc/arc & string/fan has the desired shape, and then click.

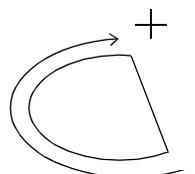
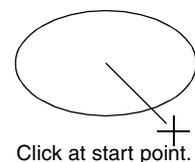
Arc



 Click at end point.



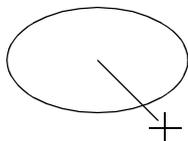
Arc & String



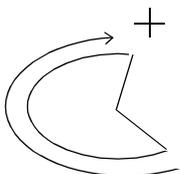
 Click at end point.



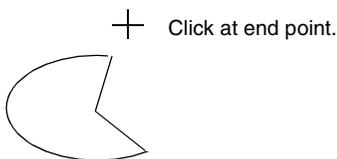
Fan



Click at start point.



Move to end point.

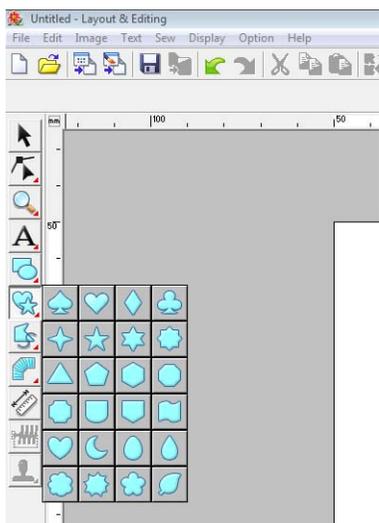


Drawing various shape

The Shape tools allow you to draw 24 types of shapes, such as hearts, stars or polygons. These shapes will have an outline and an inside region that can independently be assigned different sewing attributes.

1. Click  on the Tool Box.

→ The buttons for the 24 types of shapes appear.



2. Click the button for the shape to be drawn.

3. Drag the pointer in the Design Page.

The point where you start dragging is considered a corner of an imaginary rectangle around the shape. The point where you release the mouse button is the diagonally opposite point of the shape. The shape will fit inside this imaginary rectangle.

Memo:

To draw the shape while maintaining the original height-to-width proportion, hold down the **Shift** key while dragging the pointer.

About straight line and curve

The Outline tools allow you to add straight lines and curves to your pattern.



Using the tools available with these buttons draws a closed path. Since this type of pattern has an outline and an inside region, each part can be assigned different sew types and colors.

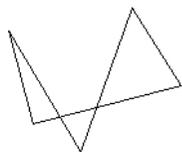
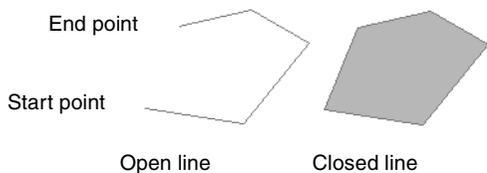
Memo:

If the line of the pattern crosses itself, the inside region cannot be filled, and the line must be uncrossed so that the fill can be applied.

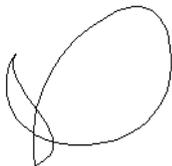
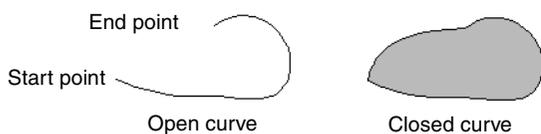


Using the tools available with these buttons draws an open path. Since this type of pattern is a simple outline and does not have an inside region, line sew type and color settings can only be applied to the line itself.

Furthermore, if an image is used as a template,  and  can be used to semi-automatically extract the image boundary.



This closed line crosses itself, so the regions will not be filled.



This closed curve crosses itself, so the regions will not be filled.

Drawing straight line and curve

1. Click  on the Tool Box.

→ Eight buttons appear:



-  : Click points to draw a closed line constructed of straight lines. (Shortcut key: **Z**)
-  : Click points to draw an open line constructed of straight lines. (Shortcut key: **Z**)
-  : Click points to draw a closed curve. (Shortcut key: **X**)
-  : Click points to draw an open curve. (Shortcut key: **X**)

 : When a template image is displayed, click along the outlines of the image to draw closed lines tracing the image. (Shortcut key: **C**)

 : When a template image is displayed, click along the outlines of the image to draw open lines tracing the image. (Shortcut key: **C**)

 : Drag the pointer to draw a closed freehand line.

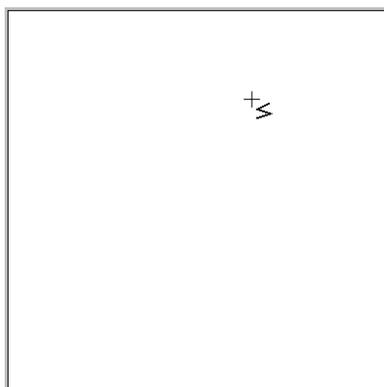
 : Drag the pointer to draw an open freehand line.

2. Click the button for the shape to be drawn. → The Sewing Attributes bar appears.
3. Click in the Design Page or drag the pointer to draw the line.

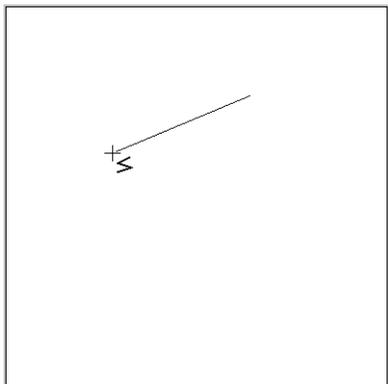
■ Straight lines/curves

Although the procedure for using the Straight Line tool is described below, the Curve tool and Semi-Automatic tool are used in the same way.

1. Click in the Design Page to specify the start point.



- Click in the Design Page to specify the next point.

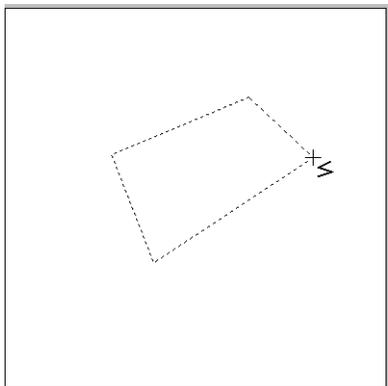


Memo:

To remove the last point that was entered, click the right mouse button, or press the

BackSpace key.

- Continue clicking to specify every point, and then double-click the last point, or press the **Enter** key.



Memo:

- 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 pointer to draw vertically or horizontally.
- A template image is needed in order to draw using the Semi-Automatic tool. If there is no image, this tool will draw like the Straight Line tool.

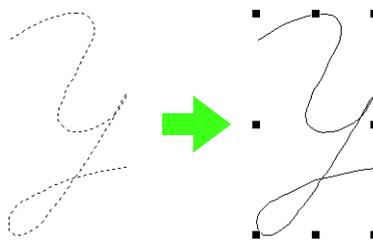
"Importing Image Data" on page 120.

- Even after the pattern is drawn, you can transform straight lines into curves and vice versa.

"Transforming straight lines into curves or curves into straight lines" on page 58.

Freehand lines

- Drag the pointer to draw the line.
- Release the mouse button to finish drawing.



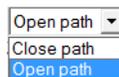
Changing the attributes of line ends

The attribute of the ends of lines drawn with the Outline tool can be changed.

- Select an object drawn with an Outline tool.

"Selecting patterns" on page 52.

→ The **Path shape** selector appears in the Sewing Attributes bar.



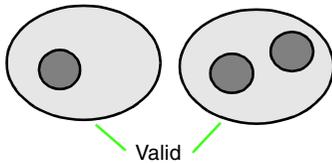
- From the selector, select the desired attribute of the line ends.

→ The line changes to the selected line end attribute.

Preventing overlapping stitching (hole sewing)

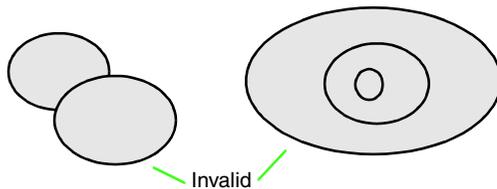
By specifying hole sewing, the stitching in overlapping regions will not be sewn twice. Hole sewing can be set only when one region completely encloses another.

1. Select a pair of patterns, for example, a circle included in an oval.



Memo:

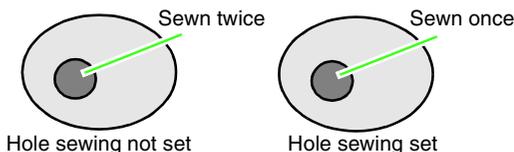
For a pair to be valid, one of the patterns must be completely enclosed within the other pattern, and not contain text, manual punching patterns or stitch data.



2. Click **Sew**, then **Set hole sewing**.
→ If the selected pair can be set for hole sewing, the following message appears.



- If the selected pair cannot be set for hole sewing, the error message appears.



3. Click **OK** to remove the message.

Memo:

- Once a pair of patterns has been set for hole sewing, they will move together if you try to move one of the patterns.
- When setting hole sewing to three or more objects, first set hole sewing to two objects. After this, select the first two grouped objects and the next one object and repeat the hole sewing setting.
- The outline of patterns created with the Outline, Fan Shape and Arc & String tools can be edited with the Point Edit tool.

Note:

To see better what the hole sewing setting does, previewing the patterns before and after setting hole sewing.

"Displaying a preview of the embroidery" on page 65.

Canceling hole sewing

1. Select a pattern that has been set for hole sewing.
2. Click **Sew**, then **Cancel hole sewing**.
The pair of patterns can now be moved independently.

Changing shapes of overlapped patterns

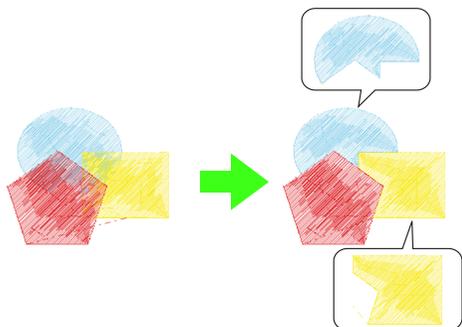
Embroidery patterns created with the Rectangle, Circle or Arc tools, Shape tools or the Outline tools can be selected to remove overlapping regions or to be merged.

Removing overlapping

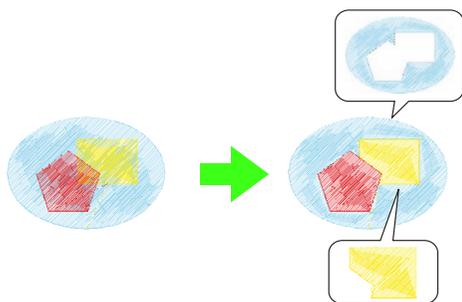
Overlapped patterns can be set so that the overlapping region is removed. When this is applied to multiple patterns, the region overlapped by other patterns is cut out.

1. Select two or more overlapped patterns.
2. Click **Sew**, then **Remove Overlaps**.
→ The region overlapped by other patterns is removed.
→ If this cannot be applied to the selected patterns, an error message appears.

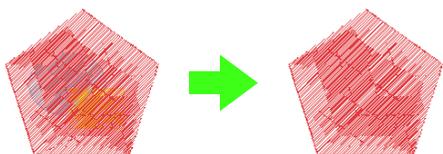
- When partially overlapped



- When enclosed



- When enclosed by the last pattern in the sewing order

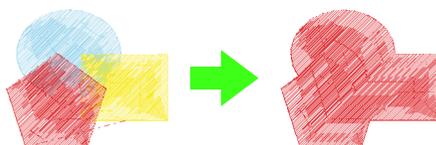


- First pattern in the sewing order
- Second pattern in the sewing order
- Third pattern in the sewing order

Merging

Overlapped patterns can be merged together. When this is applied to multiple patterns, the color and sew type of the last pattern drawn (topmost pattern) is applied to the merged pattern.

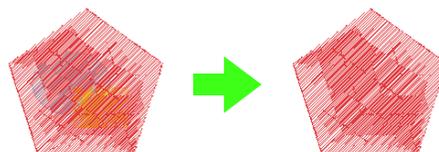
1. Select two or more overlapped patterns.
 - All of the selected patterns are merged together.
 - If this cannot be applied to the selected patterns, an error message appears.
2. Click **Sew**, then **Merge**.
 - When partially overlapped



- When enclosed



- When enclosed by the last pattern in the sewing order

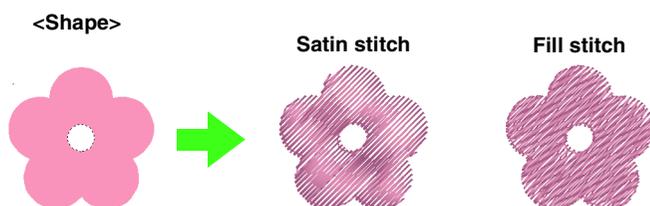


- First pattern in the sewing order
- Second pattern in the sewing order
- Third pattern in the sewing order

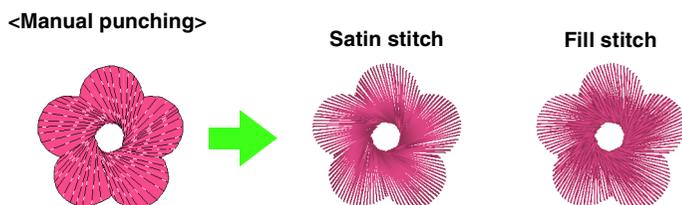
Manually Creating Professional-Level Embroidery Patterns (Manual Punching)

When fill stitches or satin stitches have been specified for region sewing, the angle of the stitching over the region is either all in the same direction or in a direction depending on the shape. However, if the Manual Punch tools are used, the sewing angle can be adjusted as desired to create patterns that appear more like manual embroidery.

For example, if fill stitches or satin stitches have been specified for a region with the following shape, the stitching will appear as shown below.



If a manual punching pattern is created using the above image as a guide, the stitching will appear as shown below.



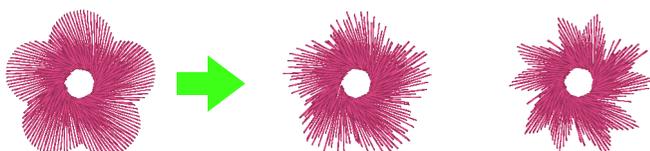
The lines drawn in the pattern show the direction of the stitching. The stitching is created so that it turns around the center of the radial stitching.

A three-dimensional appearance, like the flower petals, can be created for the flat design of this shape.

In addition, feathered edge settings can be specified for manual punch patterns. By reducing the stitch density or specifying the length of the stitching, a feathered outline can be applied to the pattern.

 Refer to "Featherd edge" in "Manual punch" on page 108.

Example: Fill stitch

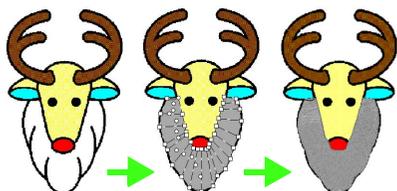


Different variations can be applied to the flower petals.

The following example shows how the Manual Punch tools are used to draw a beard over image of the reindeer (**Rudolph.bmp**), which is used as a template.

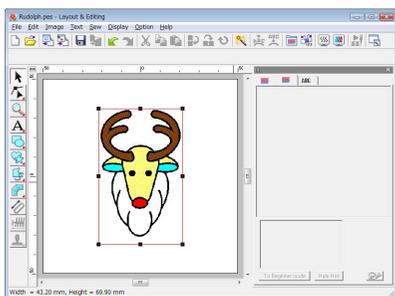
The template and finished pattern are provided in the following folder.

Documents (My Documents)\PE-DESIGN8\Sample\Layout & Editing\Manual Punch



1. Import the file **Rudolph.bmp**.

"Importing Image Data" on page 120.



Memo:

If the semi-automatic block-type punch tool is used for drawing, an image must be imported to be used as a template.

2. Click on the Tool Box.

→ Five buttons appear:



: This is used for creating straight block-type punching patterns (region sewing).
(Shortcut key: **Z**)

: This is used for creating curved block-type punching patterns (region sewing).
(Shortcut key: **X**)

: This is used for semi-automatically creating straight block-type punching patterns.

By semi-automatically tracing, points can be specified along the lines of a template.

(Shortcut key: **C**)

: This is used for creating running-type punching patterns (line sewing).

(Shortcut key: **V**)

: This is used for creating feed-type punching patterns (jump stitches).

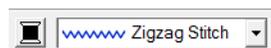
(Shortcut key: **B**)

"Jump Stitch and Jump Stitch Trimming" on page 238 in the Instruction Manual (PDF format).

While creating a manual punching pattern, you can switch between the various tools. This is very easy if the shortcut keys are used.

3. Click to start drawing a running-type pattern.

→ The Sewing Attributes bar appears.



4. Select **Fill Stitch** as the block sew type and **SILVER** as the punch color.

Memo:

- The color and sew type can be also be changed after the pattern is created.

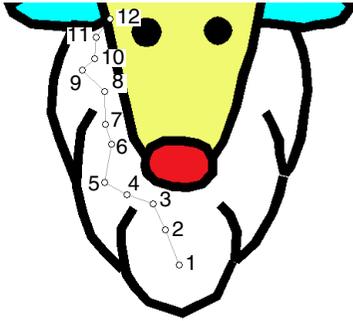
"Color" on page 95 and "Sew type" on page 96.

- You can also use the settings in the **Sewing Attribute Setting** dialog box.

"Specifying sewing attributes" on page 96.

If you do not change these settings at this time, the current settings will be applied. However, you can modify the sewing attributes at any time.

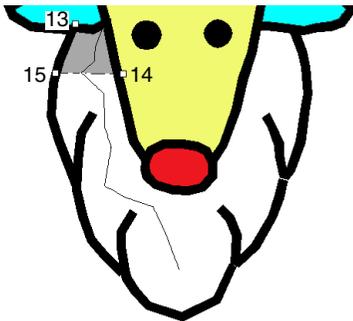
5. Click in the Design Page to specify points 1 (start point) through 12.



Memo:

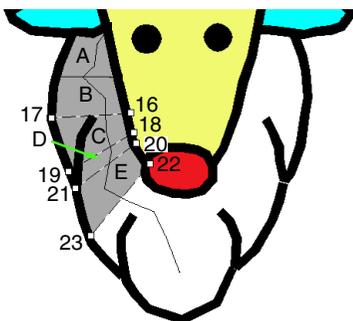
To remove the last point that was entered, press the **BackSpace** key, or click the right mouse button.

6. After clicking point 12 (the last point of the running-type pattern), click , and then click in the Design Page to specify point 13 through 15.



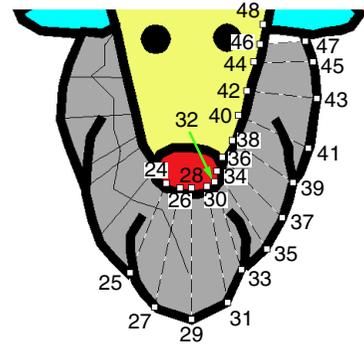
→ The area surrounded by the line is specified as a block.

7. Click in the Design Page to specify points 16 through 23.

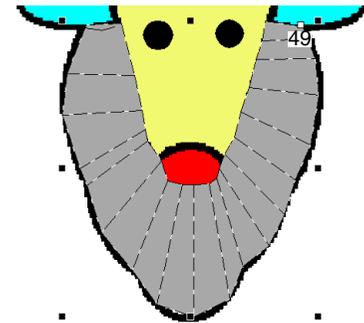


→ The blocks A through E will be created, in order.

8. Click in the Design Page to specify points 24 through 48.



9. Click point 49 (the last point of the pattern), and then press the **Enter** key or double-click the point to complete the pattern.



Memo:

- If the shape cannot be drawn with the Manual Punch tools as desired, points can be edited to adjust the shape.
 - ➡ *"Reshaping Embroidery Patterns" on page 56.*
- Line sewing is not created along outlines of patterns drawn with , , or .

Adding Text

Entering text/Small text

1. Click  on the Tool Box.

→ Three buttons appear:   .

2. Click  or .

 : Text

 : Small text

→ The Sewing Attributes bar appears.



3. If necessary, change the font, text size, color and sew type.

Memo:

- You can change the font, text size, color, and sew type either before or after creating the text.

 "Font" on page 81, "Text Size" on page 83, "Color" on page 95 and "Sew type" on page 96.

- You can also use the settings in the **Text Attribute Setting** dialog box to define other attributes of the text.

 "Specifying text attributes" on page 83.

- You can also use the settings in the **Sewing Attribute Setting** dialog box to define other attributes for text.

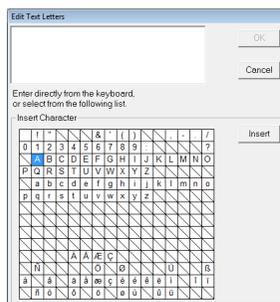
 "Specifying sewing attributes" on page 96.

Note:

- If one of the fonts provided with this application (01 to 35) or custom fonts is selected, the line sew type cannot be selected.
- A sew type cannot be selected for small text.

4. Click in the Design Page.

→ The **Edit Text Letters** dialog box appears, containing a chart with all characters available with the selected font.



5. Type the text.

Memo:

- Press the **Enter** key to enter a new line of text.
- You can also enter a character by selecting it in the character table, then clicking **Insert**, or simply by double-clicking it. This is particularly useful if you have to enter accented characters that are not available on your keyboard.

6. Click **OK**.

→ The text is displayed in the Design Page.

Memo:

- If you want to edit the entered text, select it, and then select the menu command **Text – Edit Letters**. Edit the text in the **Edit Text Letters** dialog box that appears.
-  "Editing entered text" on page 83.
- The **Small Text** tool is used to create text patterns where the jump stitches between the characters do not need to be cut.

Note:

- If the entered characters are not available with the selected font or if the text cannot be converted to an embroidery pattern, an error message appears. Click **OK** to close the message and return to the **Edit Text Letters** dialog box, where you can correct the text.

Note:

Precautions for small text

- Reduce the thread tension to less than what is used when embroidering normal designs.
- Sew at a speed slower than what is used when embroidering normal designs. (For details on adjusting the thread tension and sewing speed, refer to the Instruction Manual provided with your embroidery machine.)
- For best results when sewing small font patterns, do not cut the jump stitches between the characters. (For details on setting the machine for thread cutting, refer to the Instruction Manual for the embroidery machine.)

Selecting text attributes

Text attributes can be specified with the **Font** selector and **Text Size** selector.

Memo:

The **Font** selector and **Text Size** selector appear when **A** on the Tool Box is selected. It also appears when text or a character in the Design Page has been selected.

Note:

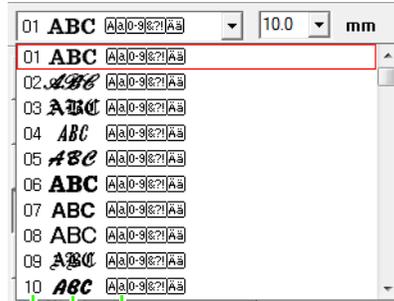
Embroidering text

- A font other than small text set to a small character size may not be embroidered correctly. We recommend setting the character size to 10 mm or more.
- Depending on the design, text using a TrueType font may not be correctly converted to an embroidery pattern. Select a TrueType font where characters have an even line thickness, such as with Arial.



1. Click in the **Font** selector.

→ A list of fonts appears when clicking on the menu arrow at the right.



Font number Font sample Types of characters available

2. Click the desired font.

→ The setting is applied to all text patterns that you will create, until the setting is changed.

→ If text patterns or characters in a text pattern were selected, the setting is also applied to the selected text.

The available fonts and the types of characters available with each font are listed below.

- Built-in Fonts

Text	
01	ABC Aa0-9&? Aa
02	ABC Aa0-9&? Aa
03	ABC Aa0-9&? Aa
04	ABC Aa0-9&? Aa
05	ABC Aa0-9&? Aa
06	ABC Aa0-9&? Aa
07	ABC Aa0-9&? Aa
08	ABC Aa0-9&? Aa
09	ABC Aa0-9&? Aa
10	ABC Aa0-9&? Aa
11	ABC Aa0-9&? Aa
12	ABC Aa0-9&? Aa
13	ABC Aa0-9&? Aa
14	ABC Aa0-9&? Aa
15	ABC Aa0-9&? Aa
16	ABC Aa0-9&? Aa
17	ABC Aa0-9&? Aa
18	ABC A
19	ABC A

Text	
20	ABC [Aa0-9&?!]
21	ABC [A]
22	ABC [Aa]
23	ABC [A]
24	ABC [A]
25	ABC [A]
26	ABC [A]
27	ABC [A]
28	ABC [A]
29	ABC [A 0-9]
30	ABC [Aa0-9&?!Ää]
31	ABC [Aa0-9&?!Ää]
32	ABC [Aa0-9&?!Ää]
33	ABC [Aa0-9&?!Ää]
34	ABC [Aa0-9&?!Ää]
35	ABC [Aa0-9&?!Ää]
Small text	
SL 01	ABC [Aa0-9&?!Ää] (5-6 mm)
SL 02	ABC [Aa0-9&?!Ää] (5-6 mm)
SL 03	ABC [Aa0-9&?!Ää] (5-6 mm)
SL 04	ABC [Aa0-9&?!Ää] (3-4 mm)
SL 05	ABC [Aa0-9&?!Ää] (3-4 mm)

-  Uppercase letters of the English alphabet
-  Lowercase letters of the English alphabet
-  Numerals
-  Punctuation marks, brackets and other symbols
-  Uppercase and lowercase accented letters

(5-6 mm) Size for small text (appears only for small text)

 **Memo:**

Only built-in fonts can be used with small text.

• Custom Fonts

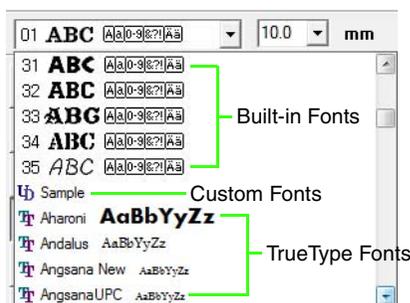


PEF files created with Font Creator and saved in the **MyFont** folder where PE-DESIGN was installed appear as user-defined fonts after the fonts listed in the table above. The UD icon appears on custom fonts.

 “Creating Custom Fonts (Font Creator)” on page 225 in the Instruction Manual (PDF format).

• TrueType Fonts

The names and samples of installed TrueType fonts appear after the Custom Fonts.



 **Memo:**

TrueType font settings can be changed in the **TrueType Font Attribute Setting** dialog box, which is displayed by clicking the menu command **Text – TrueType Font Attribute Setting**.

 “Specifying TrueType text attributes” on page 89.

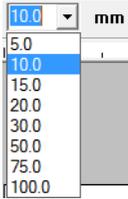
 **Note:**

Text created using certain TrueType fonts may not be converted correctly into an embroidery pattern due to the shape of the character. These characters cannot be embroidered correctly. Test sew before embroidering on your project. In addition, text created using some TrueType fonts cannot be converted at all.

 “Entering text/Small text” on page 80.

Text Size

1. Click in the **Text Size** selector.



2. Type the desired height and press the **Enter** key, or click the desired value.
 - The setting is applied to all text patterns that you will create, until the setting is changed.
 - If text patterns or characters in a text pattern were selected, the setting is also applied to the selected text.

"Entering text/Small text" on page 80.

Editing entered text

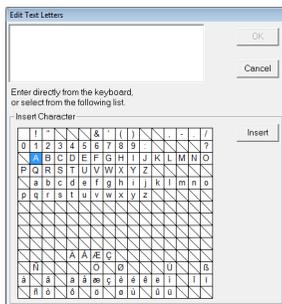
Text that has been entered can easily be edited.

1. Select the text or small text.

Note:

You cannot edit more than one text pattern at a time. If you select more than one text pattern, this menu command is not available.

2. Click **Text**, then **Edit Letters**.
3. The selected text is displayed in the text field.



4. Edit the text as needed.
5. Click **OK**.
 - The edited text is displayed in the Design Page.

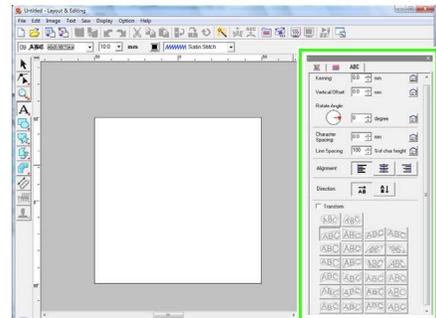
"Entering text/Small text" on page 80.

Specifying text attributes

Various character attributes for text can be set in the **Text Attribute Setting** dialog box.

The settings are applied to the text pattern each time the settings are changed.

1. Select the text or small text.
2. Click **Text**, then **Text Attribute Setting**.
 - "Thread colors, sewing attributes and text attributes" on page 47.
3. If necessary, change the text attributes.



Memo:

To return a parameter to its default setting, click beside it.

Kerning	Sets the spacing between individual characters.	0.0 mm
		A b c d e f
Vertical Offset	Moves the text vertically.	5.0 mm (between "A" and "b")
		A b c d e f
Rotate angle	Rotates the characters.	0.0 mm
		A b c d e f
Rotate angle	Rotates the characters.	2.0 mm
		A b c d e f
Rotate angle	Rotates the characters.	0 degree
		A b c d e f
Rotate angle	Rotates the characters.	20 degrees
		A b c d e f

Character Spacing	Sets the spacing between all characters.	0.0 mm A b c d e f
		2.0 mm A b c d e f
Line Spacing	Sets the spacing between lines as a percentage of the character height.	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.	Left A b c d e f g h i j k l
		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

Memo:

- Vertical text will be displayed vertically on the Design Page.
- Both **Kerning** and **Character Spacing** set the spacing between characters. **Character Spacing** is always applied to the entire text pattern, while **Kerning** can be applied to individual characters. Applying **Kerning** to the entire text in the pattern is the same as specifying **Character Spacing**. Refer to "Selecting characters" on page 85 for more details about selecting individual characters in a text pattern.

■ Transforming text

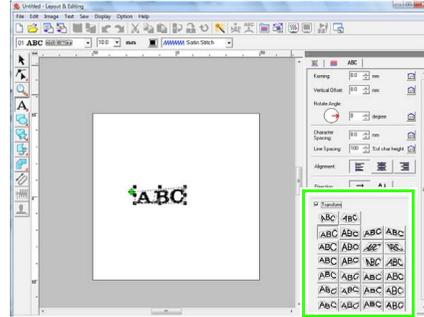
A preset transform shape can be applied to text.

Memo:

Small text cannot be transformed.

1. Select the text.

2. Select the **Transform** check box, and then click the transformation shape button.



→ Depending on the selected shape, a dotted line and  or  appear around the text.



Note:
A text pattern created from a TrueType font contains data for both line and region sewing. Therefore, if this command is selected, depending on the form of the TrueType font, there may be a gap between the line and the region in the text.

3. Drag  to transform the text.



Memo:

-  can only be dragged vertically.
-  can only be dragged horizontally.

To return the transformed text to its original shape, clear the **Transform** check box.



Memo:

- Text can be arranged on an arc if  or  is selected.
- The settings specified in the **Text Attribute Setting** dialog box are applied to all text patterns that you create, until the settings are changed.

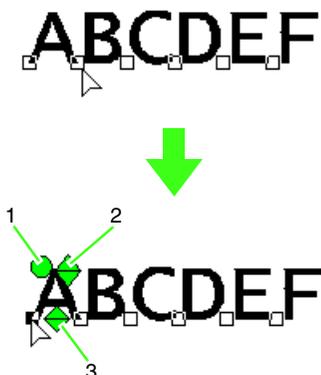
Selecting characters

The font, character size, thread color, sew type and other attributes can be changed for each character that is selected.

1. Click , then .
2. Click the text or small text.
 - The points in the text appear as small empty squares.
3. To select a single character, click the point for the character.

To select multiple characters, hold down the **Ctrl** key and click each point for the other characters, or drag the pointer over the points of characters.

- The points for the selected characters appear as a small black squares.
- The handles appear on the character.
- The Sewing Attributes bar appears.



- 1 Rotation handle
- 2 Size handle
- 3 Vertical offset handle

Memo:

- Multiple points can be selected and the selected points can be changed in the same way that embroidery pattern points are selected.

 "Selecting points" on page 56.

- With TrueType fonts, the outline can be set to be sewn or not, and settings can be selected for the color and sew type.

Easy changes to the character size and attributes

You can easily use drag operations to change the size and text attributes (character spacing, vertical offset, rotation) for text, small text, and monogram characters.

■ Changing the size

1. Bring the pointer onto the upper right  handle.
2. Drag the handle.



→ The size of the character outline displayed with dotted lines changes.



3. When you release the mouse button, the character size is changed.
 - The new size is displayed on the Sewing Attributes bar.



Memo:

The character size of small text can be increased. However the stitching will become coarse.

■ Changing the character spacing

1. Place the pointer onto the character body other than the    handles and drag the character horizontally.



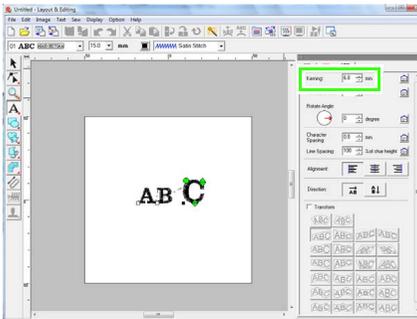
→ The character outline displayed with dotted lines moves.



2. When you release the mouse button, the character spacing is changed.



→ When the **Text Attribute Setting** dialog box is opened, the new kerning is displayed.



■ Changing the vertical offset

1. Bring the pointer onto the lower  handle.
2. Drag the handle vertically.



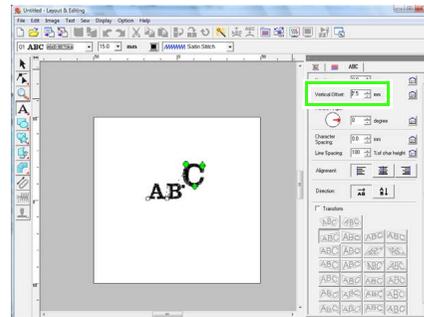
→ The character outline displayed with dotted lines moves.



3. When you release the mouse button, the character offset is changed.



→ When the **Text Attribute Setting** dialog box is opened, the new vertical offset is displayed.



Rotating the characters

Memo:

Monogram characters can not be rotated.

1. Bring the pointer onto the  handle.



2. Drag the handle.

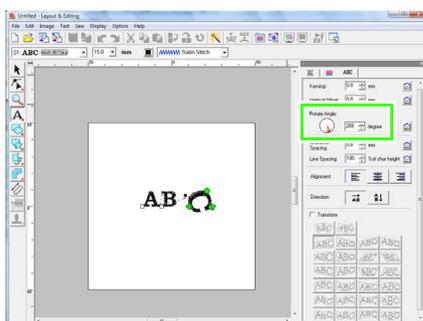
→ The character outline displayed with dotted lines rotates.



3. When you release the mouse button, the character angle is changed.



→ When the **Text Attribute Setting** dialog box is opened, the new rotation angle is displayed.



Memo:

- Settings specified in the **Text Attribute Setting** dialog box are applied to all selected characters.
- To return to the default settings, click .
- The settings specified in the **Text Attribute Setting** dialog box are applied to all text patterns that you create, until the settings are changed.

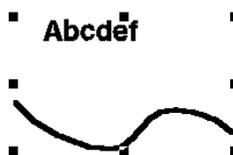
Specifying text arrangement

A line of text can be arranged along a path.

 "Drawing Shapes" on page 70.

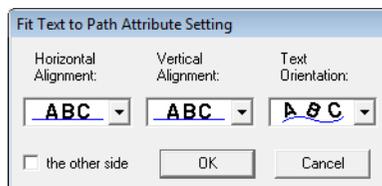
Toolbar button: 

1. Select the text or small text and a path.



2. Click , or click **Text**, then **Fit Text to Path Setting**.

3. From the **Horizontal Alignment**, **Vertical Alignment** and **Text Orientation** selectors, select the desired settings.



Memo:

To position the text on the other side of the path, check **the other side** check box.

4. Click **OK** to apply the settings.

Note:

When text arrangement is specified, the text transformation is cancelled. Only one string of text can be arranged on a single path.

Memo:

To change the position of text on the path, select the text, and then drag it.

 "Memo" on page 37.

Horizontal Alignment	Sets the distribution of characters along the path.	
Vertical Alignment	Sets the distance between the text and the path.	
Text Orientation	Sets the orientation of the characters relative to the path.	
the other side	Sets the side for arrangement.	

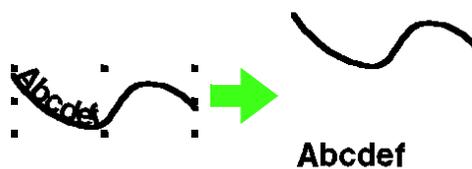
■ Canceling text arrangement

The text arrangement on a path can be cancelled.

Toolbar button: 

1. Select text or small text that is arranged on a path (Fit to Path).

2. Click , or click **Text**, then **Release Text from Path**.

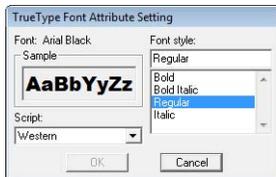


 "Specifying text arrangement" on page 87.

Specifying TrueType text attributes

Various character attributes, such as the style, can be specified for TrueType fonts converted to an embroidery pattern.

1. Select the TrueType text.
2. Click **Text**, then **TrueType Font Attribute Setting**.
→ A dialog box appears. If any characters converted from a TrueType font are selected, the attributes for the selected characters are displayed.



3. To change the font style, select the desired style from the **Font style** list.
4. To change the character set for the font, select the desired character set from the **Script** selector.
5. Click **OK** to set the attributes and to close the dialog box.
→ The attribute settings are applied to all text patterns that you will create from a TrueType font, until the setting is changed.

Note:

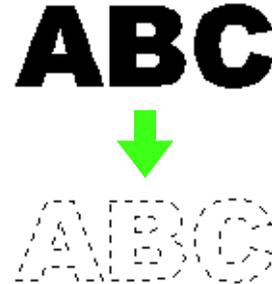
- The settings for **Font style** and **Script** differ depending on the TrueType font that is selected.
- If text created from multiple TrueType fonts is selected, this command is not available.
In addition, if text of the same font but different font styles or scripts is selected, this dialog box appears 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 box containing only that character's attributes.

👉 “Entering text/Small text” on page 80 and “Specifying text attributes” on page 83.

Converting text to outline pattern

Text in a TrueType font can be converted to an outline pattern.

1. Select text in a TrueType font.
2. Click **Text**, then **Convert to Outline Object**.
→ The selected text is converted to outlines.



No sewing attributes are specified for the converted outline; therefore, it appears as dotted lines. Specify the sewing attributes as necessary.

Memo:

In order to prevent the pattern from losing its shape, group the outlines or specify hole sewing.

👉 “Creating Outlined Characters (Using Text Converted to Outline Object)” on page 240 in the Instruction Manual (PDF format).

Entering Monograms

The monogram function allows you to create monograms composed of one to three or less uppercase letters and arrange a decorative pattern around them.

1. Click  on the Tool Box.

→ Three buttons appear:   .

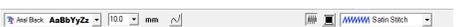
2. Click .

→ The Sewing Attributes bar appears.



Memo:

- **Diamond** and **Script** are fonts exclusively for monograms. You can also use other fonts.
- If a TrueType font was selected, the Sewing Attributes bar appears as shown below so the thread color and sew type for the line can be selected.



3. If necessary, change the font, text size, color and sew type.

Memo:

- You can change the font, text size, color, and sew type either before or after creating the monogram.



“Monogram font” on page 91,
“Monogram Size” on page 91,
“Color” on page 95 and “Sew type” on page 96.

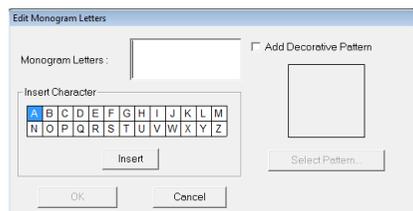
- You can also use the settings in the **Sewing Attribute Setting** dialog box to define other attributes of the monogram.



“Specifying sewing attributes” on page 96.

4. Click in the Design Page.

5. Type the monogram text (uppercase characters).



Memo:

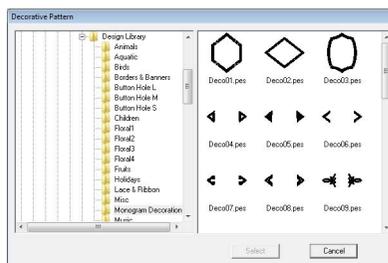
- You can also enter a character by selecting it in the character table, then clicking **Insert**, or simply by double-clicking it.
- You can enter up to three uppercase characters with the monogram function.

Note:

You cannot insert multiple lines. If you press the **(Enter)** key, the dialog closes and the monogram pattern is displayed in the Design Page.

6. To add a decorative pattern around or at the sides of the monogram, select **Add Decorative Pattern** check box, and then click **Select Pattern**.

7. Click a decorative pattern to select it, and then click **Select** (or double-click the pattern) to close the **Decorative Pattern** dialog box and display the pattern in the preview box of the **Edit Monogram Letters** dialog box.



8. Click **OK**.

→ The monogram is displayed in the Design Page with the selected decorative pattern.



9. Click  on the Tool Box, select the decorative pattern, and then adjust its size and position.

Memo:

- Drag the handle to adjust the selected pattern to the desired size.
- *“Scaling patterns” on page 53.*
- The shape of the pointer changes to  when the selected object can be moved.

10. If necessary, change the thread color and sew type in the Sewing Attributes bar for the monogram.

Editing monograms

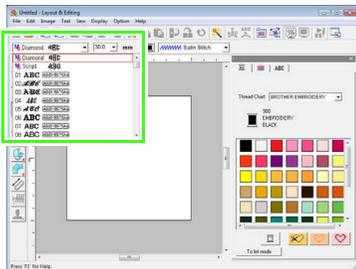
Attributes can be specified with the **Monogram font** selector and **Monogram Size** selector.

Memo:

The **Monogram font** selector and **Monogram Size** selector appear in the Sewing Attributes bar when  on the Tool Box is selected. It also appears when a monogram pattern in the Design Page has been selected.

Monogram font

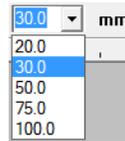
1. Click in the **Font** selector.
→ A list of monogram fonts appears.



2. Click the desired font.
→ The setting is applied to all monogram patterns that you will create, until the setting is changed.
→ If a monogram pattern was selected, the setting is also applied to the selected monogram.

Monogram Size

1. Click in the **Monogram Size** selector.



2. Type the desired height and press the **Enter** key, or click the desired value.
→ The setting is applied to all monogram patterns that you will create, until the setting is changed.
→ If a monogram pattern was selected, the setting is also applied to the selected monogram.

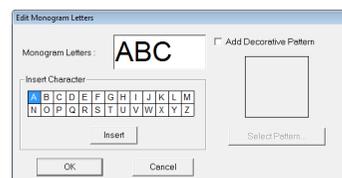
Editing the monogram text

1. Select the monogram pattern.

Note:

You cannot edit more than one monogram pattern at a time. If you select more than one monogram pattern, this menu command is not available.

2. Click **Text**, then **Edit Letters**.
→ The **Edit Monogram Letters** dialog box appears, where the characters of the selected monogram pattern are displayed in the text field.



3. Edit the text as needed.

Memo:

- To change the decorative pattern, click **Select Pattern**, and then select the new pattern in the **Decorative Pattern** dialog box that appeared. Then, select the old decorative pattern in the Design Page and delete it.
- To remove the decorative pattern, select it in the Design Page, and then delete it.

4. Click **OK**.

→ The edited monogram pattern is displayed in the Design Page.

 *“Entering Monograms” on page 90.*

■ **Editing single characters**

The thread color, character size, character spacing and vertical offset for each letter in a monogram can be specified in the same way that attributes are specified for text patterns. The characters cannot be rotated.

 *“Selecting characters” on page 85 and “Easy changes to the character size and attributes” on page 85.*

Applying Sewing Attributes to Lines and Regions

The Sewing Attributes bar allows you to set the following attributes:

- geometric attributes (rectangle edge radius, and path shape)
- text attributes (font, size)
- embroidery attributes (thread color and sew type, outline and inside region on/off)

The sewing attributes that are available depend on the tool selected in Tool Box, and the type of embroidery pattern selected.

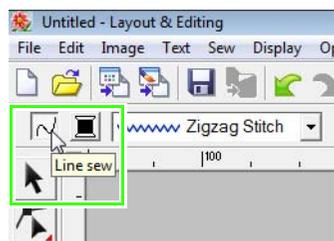
Example 1: When a rectangle is selected



Example 2: When a text is selected



When the pointer is positioned over a button or selector in the Sewing Attributes bar, a label indicating the name of that element appears. In the following instructions, we will refer to the elements of the Sewing Attributes bar according to these labels.



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.

Geometric attributes

	Edge radius: Sets the corner radius of rectangles. <i>"Rectangle with rounded corners" on page 70.</i>
	Path shape: Opens and closes broken lines and curves. <i>"Changing the attributes of line ends" on page 74.</i>

Text attributes

	Font: Selects a font for text. <i>"Font" on page 81.</i>
	Text Size: Selects the size for text. <i>"Text Size" on page 83.</i>

Embroidery attributes

	Line sew: Switches on/off sewing for the line. When sewing for the outline is switched off, it is not sewn (and you cannot set its color or sew type). <i>"Line sew / Region sew" on page 94.</i>
	Region sew: Switches on/off sewing for the region. When sewing for the inside region is switched off, it is not sewn (and you cannot set its color or sew type). <i>"Line sew / Region sew" on page 94.</i>
	Line color, Region color, Text color, Punch color: Sets the thread color for outlines, inside regions, text and manual punching patterns. <i>"Color" on page 95.</i>
	Special colors <i>"Special colors" on page 95.</i>
	Line sew type: Sets the sew type for the outlines. <i>"Sew type" on page 96.</i>
	Region sew type: Sets the sew type for an inside region, text and manual punching patterns. <i>"Sew type" on page 96.</i>

Setting the thread color and sew type

All patterns can be assigned at least one color and sew type. Patterns with an outline and an inside region can be assigned two different thread colors and sew types. If a gradation is applied to an area, an additional color can be specified to create a blending effect. (For details on gradations, refer to “Creating a gradation/blending” on page 115.) In addition, each character in a text pattern can be assigned individual thread colors and sew types.

Patterns with an outline and a inside region: text converted from TrueType fonts, circles, fan shapes, arcs & strings, rectangles, 24 shapes, closed broken lines, and closed curves. For these patterns, it is possible to switch on and off sewing for the outline and the regions.

Patterns with only an outline: arcs, open broken lines, and open curves. For these patterns, it is still possible to switch on and off sewing for the outline.

Patterns with only a region: text created with fonts provided with this application, text created with custom fonts and manual punching patterns. For these patterns, it is not possible to switch on and off sewing of the inside region.

Manual punching patterns: You can set a color and a sew type for manual punching patterns.

Memo:

- The color and sew type are applied to all patterns of the same type that you create, until the settings are changed. The color button of each category shows the current color for that category.
- If a pattern is selected, the color and sew type are applied to the selected pattern.

Line sew / Region sew

 switches on/off line sewing,  switches on/off region sewing.

Memo:

- When line sewing or region sewing is switched off, it is not sewn (and the color or sew type cannot be selected).

Clicking the button switches between the two settings.

On: The **Line color/Region color** button and the **Line sew type/Region sew type** selector are displayed.

Off: The **Line color/Region color** button and the **Line sew type/Region sew type** selector are not displayed.



Line sew
Line color
Line sew type

Line sewing on:



Line sewing off:



Region sew
Region color
Region sew type

Region sewing on:



Region sewing off:



 “Color” on page 95 and “Sew type” on page 96.

Note:

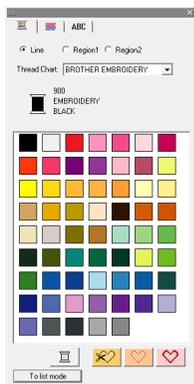
The Region sewing attribute cannot be set inside the closed path region in case a pattern outline across by itself although the pattern is drawn by the straight line or the curved line tool with closed path attribute.

Color

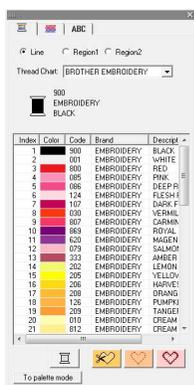
Click this button to set the thread color for outlines, inside regions, texts and manual punching patterns.

1. Click the **Color** button.

- Palette mode



- List mode



Memo:

- To view the details about the thread colors, click on **To List mode** button in the bottom left corner of the **Thread Color** dialog.
- To view the colors without the details, click on **To Palette mode** button in the bottom left corner of the **Thread Color** dialog.

- From the **Thread Chart** selector, select a thread brand or your user thread chart.
- From the list of thread colors, select the desired color.

Memo:

At the top of the **Thread Color** dialog box for TrueType font character patterns and outline data, you can select the type of stitching (**Line**, **Region1** or **Region2**) whose color is being selected.

Line: Line color

Region1: Region color

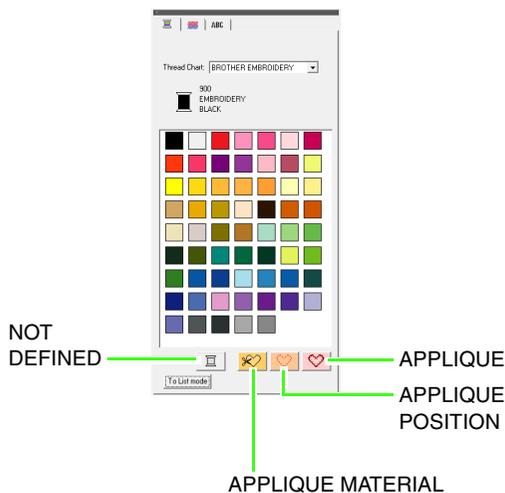
Region2: Additional color for blending (**Region 2** can only be selected if a gradation with a blending effect is specified.)

 "Creating a gradation/blending" on page 115.

 For details on specifying a user thread chart or for information on how machines handle thread colors, refer to "Editing user thread color lists" on page 110.

 For details on changing thread colors for stitch patterns, refer to "Changing colors" on page 118.

Special colors



- **NOT DEFINED:** Embroidery 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 want to be able to select manually the color for a monochrome pattern, you can select **NOT DEFINED**.
- **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.



Memo:

By using the Applique Wizard, appliqués can easily be created.



“Creating appliqués (Applique Wizard)” on page 137.

Specifying sewing attributes

Various sewing attributes for lines and regions can be set in the **Sewing Attribute Setting** dialog box.

1. Select an embroidery stitch pattern, the Draw tool or the Text tool.
2. Click **Sew**, then **Sewing Attribute Setting**.
 “Layout & Editing Window” on page 47.

■ Sew type



Use these to set the sew type for outlines, inside regions, text, and manual punching patterns.

1. Click in a sew type selector.

→ The available settings that appear differ depending on the object that is selected.

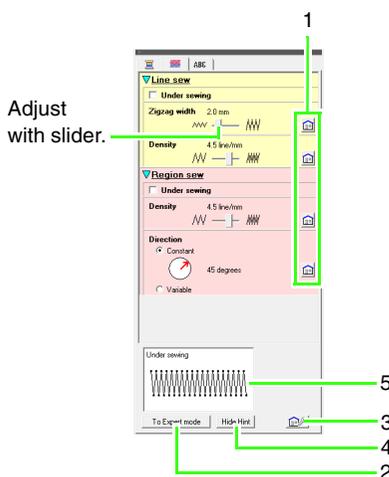
Object type	Line sew type settings	Region sew type settings
Text (built-in fonts, custom fonts)	None	Satin, Fill, and Prog. Fill (programmable fill) Stitch
Text (TrueType fonts)	Zigzag, Running, Triple, Motif, and E/V Stitch	
Text (Small font)	None	None
Manual punching pattern	None	Satin, Fill, Prog. Fill (programmable fill stitch), Piping, and Motif Stitch
Others	Zigzag, Running, Triple, Motif, and E/V Stitch	Satin, Fill, Prog. Fill (programmable fill), Piping, Motif, Cross, Concentric Circle, Radial, Spiral, and Stippling Stitch

2. Click the desired sew type.

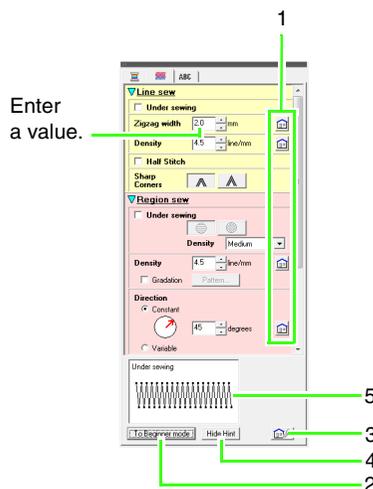


“Line sew / Region sew” on page 94 and “Specifying sewing attributes” below.

Beginner mode:



Expert mode:



- 1 Click to return to the default setting.
- 2 Click to switch the mode.
- 3 Click to load/save the sewing settings.
- 4 Click to switch between displaying and hiding the hint view.

5 Hint view

With each change in the settings, a preview of the stitching can be checked here.



Memo:

The sewing attributes displayed in the dialog box depend on the selected sew type.

3. To display only basic sewing attributes and simpler settings, click **To Beginner mode**. To display all of the sewing attributes and settings available for the selected sew type, click **To Expert mode**.



Memo:

Settings that cannot be selected in Beginner mode are retained from the previous setting in Expert mode.

4. If necessary, change the sewing attributes displayed under **Line sew** or **Region sew**.
→ The settings are applied to the embroidery pattern each time the settings are changed.



For details on the different sewing attributes and settings, refer to "Line sewing attributes" on page 98 and "Region sewing attributes" on page 101. In addition, frequently used sewing attributes can be saved. For details, refer to "Saving the settings in a list" on page 109.



Note:

- All settings made in the dialog box are retained and will be applied regardless of the mode, until they are changed.
- The sew type cannot be selected for small text.

Line sewing attributes

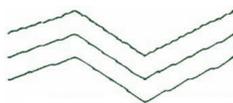
The available attributes differ depending on the selected sew type.

Zigzag stitch



Under sewing	To specify underlay stitching, select the check box. Use underlay stitching to prevent shrinking during stitching.	Off 	On
Zigzag width	Specify the width of the satin stitching.	Narrow 	Wide
Density	Specify the stitch density as the number of threads per millimeter.	Coarse 	Fine
Half Stitch	To specify half stitching, select the check box. If one side of the zigzag stitching is dense, half stitches will be sewn automatically to provide a more even stitch density. Available for text and objects created with the drawing tools.	Off 	On
Sharp Corners	Specify how pointed corners are sewn.		

Running stitch



Run pitch	Specify the run pitch (length of one stitch).	Short 	Long
Run time(s)	Specify the number of times the outline is sewn.	1 time 	5 times

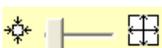
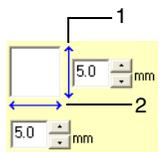
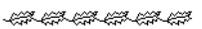
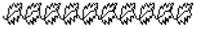
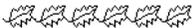
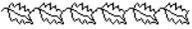
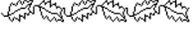
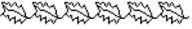
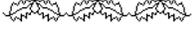
Triple stitch



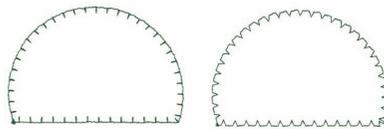
Run pitch	Specify the run pitch (length of one stitch).	Short 	Long
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Motif stitch



	Select a pattern for the motif stitch. Click  to display the Browse dialog box. Select a folder, and then select the desired pattern (.pmf file) from the list of patterns that appears.			
	Specify the pattern size. The pattern can be enlarged or reduced while maintaining the width-to-height proportion.			
	1 Height (vertical length)	Specify the pattern height.	Short 	Larger 
	2 Width (horizontal length)	Specify the pattern width.	Short 	Tall 
H-Arrange (horizontal arrangement)	Specify the arrangement of the patterns along a horizontal axis. All patterns or each pattern can be flipped along the horizontal axis.		 Normal   Mirror   Alternate 	
V-Arrange (vertical arrangement)	Specify the arrangement of the patterns along a vertical axis. All patterns or each pattern can be flipped along the vertical axis.		 Normal   Mirror   Alternate 	
Spacing	Specify the spacing of the patterns.		Narrow 	Wide 
Run pitch	Specify the run pitch (length of one stitch).		Short 	Long 

E/V stitch



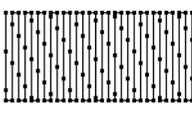
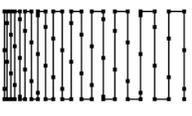
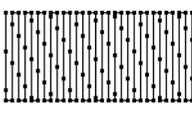
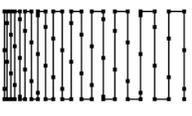
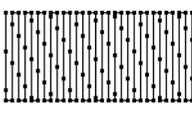
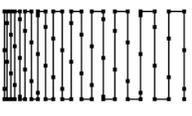
<input type="text" value="E Stitch"/>	Select the E stitch or the V stitch.		
E Stitch			
	1 Interval	Specify the distance between strokes.	Narrow Wide
	2 Stroke width	Specify the stroke height.	Short Long
	3 Run pitch	Specify the run pitch (length of one stitch) of the line.	Narrow Wide
Run time(s)	Specify the number of times the line is sewn.		1 time 5 times x1 x5
Stroke time(s)	Specify the number of times each stroke is sewn.		1 time 3 times x1 x3
Arrange	Specify the stroke direction (inside/outside).		<input type="checkbox"/> <input type="checkbox"/>
V Stitch			
	1 Interval	Specify the distance between strokes.	Narrow Wide
	2 Stroke width	Specify the stroke height.	Short Long
	3 Run pitch	Specify the run pitch (length of one stitch) of the line.	Narrow Wide
Run time(s)	Specify the number of times the stitching is sewn. With the V stitch, the line and the strokes are sewn the same number of times.		1 time 5 times x1 x5
Arrange	Specify the stroke direction (inside/outside).		<input type="checkbox"/> <input type="checkbox"/>

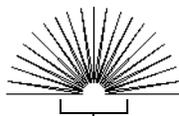
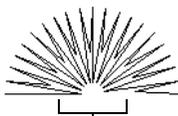
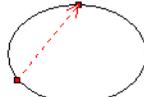
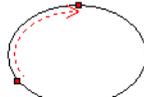
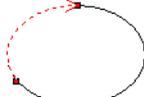
■ Region sewing attributes

The available attributes differ depending on the selected sew type.

Satin stitch



Under sewing	<p>To specify underlay stitching, select the check box, and then specify settings for the following attributes. Use underlay stitching to prevent shrinking during stitching.</p> <p>Specify the type of underlay stitching to be sewn.</p> <ul style="list-style-type: none"> • With text and manual punching patterns • With other patterns 														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"></td> <td>Edge only</td> </tr> <tr> <td style="text-align: center;"></td> <td>Region only (single layer of zigzag shaped stitches)</td> </tr> <tr> <td style="text-align: center;"></td> <td>Region only (single layer of piping stitches)</td> </tr> <tr> <td style="text-align: center;"></td> <td>Edge and region (single layer of zigzag shaped stitches)</td> </tr> <tr> <td style="text-align: center;"></td> <td>Region only (double layer of zigzag shaped and piping stitches)</td> </tr> </table>		Edge only		Region only (single layer of zigzag shaped stitches)		Region only (single layer of piping stitches)		Edge and region (single layer of zigzag shaped stitches)		Region only (double layer of zigzag shaped and piping stitches)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"></td> <td>Single: Sews perpendicular to the specified sewing direction.</td> </tr> <tr> <td style="text-align: center;"></td> <td>Double: Sews at a 45° and -45° angle to the specified sewing direction.</td> </tr> </table>		Single: Sews perpendicular to the specified sewing direction.	
	Edge only														
	Region only (single layer of zigzag shaped stitches)														
	Region only (single layer of piping stitches)														
	Edge and region (single layer of zigzag shaped stitches)														
	Region only (double layer of zigzag shaped and piping stitches)														
	Single: Sews perpendicular to the specified sewing direction.														
	Double: Sews at a 45° and -45° angle to the specified sewing direction.														
	<p>Density Select Dense, Medium or Light as the density for the underlay stitching.</p>														
Density	<p>Specify the stitch density as the number of threads per millimeter.</p> <p>Gradation To specify a gradation (shading) for the density, select the check box. This cannot be specified under the following conditions.</p> <ul style="list-style-type: none"> • The sewing direction is set to Variable • Text and manual punching patterns <p>Click Pattern to set the gradation pattern.</p> <p> "Creating a gradation/blending" on page 115.</p>	<table style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;">Coarse</td> <td style="width: 50%;">Fine</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td>Off</td> <td>On</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Coarse	Fine			Off	On							
Coarse	Fine														
															
Off	On														
															

<p>Direction</p>	<p>Specify the sewing direction course. This cannot be specified for text and manual punching patterns. Constant: Sews at a fixed angle. Drag  or select a value to specify the angle.</p> <p>Variable: Automatically varies the sewing direction according to the shape of the region.</p>	<p>Constant</p>  <p>Variable</p> 
<p>Half Stitch</p>	<p>To specify half stitching, select the check box. If one side of the zigzag stitching is dense, half stitches will be sewn automatically to provide a more even stitch density. This cannot be specified if the sewing direction is set to Constant.</p>	<p>Off On</p>  <p>The inside stitching is dense.</p>  <p>The stitching is adjusted to a more even density.</p>
<p>Running Stitch Path</p>	<p>Specify the running path of the inside region.</p> <p> Inside of region (shortest route inside the shape)</p> <p> Along outline (shortest route along the inside of the shape outline)</p> <p> On outline (shortest route on the outline of the shape)</p> <p>The inside of region setting is not available if the Gradation check box is selected. This cannot be specified under the following conditions.</p> <ul style="list-style-type: none"> • The sewing direction is set to Variable. • Text and manual punching patterns 	<p> Inside of region </p> <p> Along outline </p> <p> On outline </p>
<p>Pull compensation</p>	<p>Lengthen the sewing region in the sewing direction to adjust for pattern shrinkage during sewing.</p>	<p>No compensation Longest compensation</p>  



Memo:

“Manually Creating Professional-Level Embroidery Patterns (Manual Punching)” on page 77.

Fill stitch

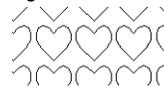
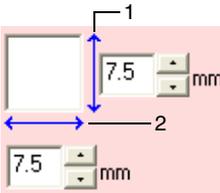
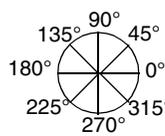
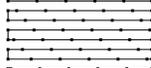
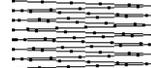
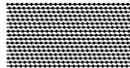
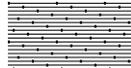
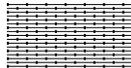


Under sewing	"Satin stitch" on page 101.					
Density						
Direction						
Stitch Type	Specify the shape of the returning ends of the stitching. This cannot be specified if the sewing direction is set to variable.					
Half Stitch	"Half Stitch" and "Running Stitch Path" on page 102.					
Running Stitch Path						
Step pitch	Specify the stitching pitch (length of one stitch).	<table border="0"> <tr> <td style="text-align: center;">Short</td> <td style="text-align: center;">Long</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Short	Long		
Short	Long					
Frequency	Specify the shift in the stitches.	<table border="0"> <tr> <td style="text-align: center;">0%</td> <td style="text-align: center;">50%</td> </tr> <tr> <td></td> <td></td> </tr> </table>	0%	50%		
0%	50%					
Pull compensation	"Pull compensation" on page 102.					

Programmable fill stitch



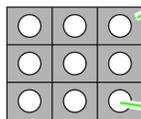
Under sewing	"Region sewing attributes" on page 101 and 102.
Density	
Direction	
Half Stitch	
Running Stitch Path	
Pull compensation	

Programmable fill											
	<p>Select a pattern for the programmable fill stitch.</p> <p>Click  to display the Browse dialog box. Select a folder, and then select the desired pattern (.pas file) from the list of patterns that appears.</p>										
	<p>Specify the pattern size. The pattern can be enlarged or reduced while maintaining the width-to-height proportion.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Smaller</p>  </div> <div style="text-align: center;"> <p>Larger</p>  </div> </div>										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; text-align: center; vertical-align: top;">1 Height (vertical length)</td> <td style="padding: 5px;">Specify the pattern height.</td> </tr> <tr> <td style="width: 20%; text-align: center; vertical-align: top;">2 Width (horizontal length)</td> <td style="padding: 5px;">Specify the pattern width.</td> </tr> </table>	1 Height (vertical length)	Specify the pattern height.	2 Width (horizontal length)	Specify the pattern width.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;">Short</td> <td style="width: 50%; text-align: center; vertical-align: top;">Tall</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </table>	Short	Tall			
	1 Height (vertical length)	Specify the pattern height.									
2 Width (horizontal length)	Specify the pattern width.										
Short	Tall										
											
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;">Short</td> <td style="width: 50%; text-align: center; vertical-align: top;">Long</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </table>	Short	Long								
Short	Long										
											
Direction	<p>Drag  or select a value to specify the angle of the pattern.</p> <div style="text-align: center;">  </div>										
Offset	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: middle;">row</td> <td style="padding: 5px;">Specify the offset (shift) direction of the pattern alignment.</td> <td style="width: 80%; text-align: center; vertical-align: top;"> <p>0%</p>  </td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">column</td> <td style="padding: 5px;">Specify the offset (shift) amount of the pattern alignment.</td> <td style="text-align: center; vertical-align: top;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;">Row 50%</td> <td style="width: 50%; text-align: center; vertical-align: top;">Column 50%</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </table> </td> </tr> </table>	row	Specify the offset (shift) direction of the pattern alignment.	<p>0%</p> 	column	Specify the offset (shift) amount of the pattern alignment.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;">Row 50%</td> <td style="width: 50%; text-align: center; vertical-align: top;">Column 50%</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </table>	Row 50%	Column 50%		
row	Specify the offset (shift) direction of the pattern alignment.	<p>0%</p> 									
column	Specify the offset (shift) amount of the pattern alignment.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; vertical-align: top;">Row 50%</td> <td style="width: 50%; text-align: center; vertical-align: top;">Column 50%</td> </tr> <tr> <td style="text-align: center;"></td> <td style="text-align: center;"></td> </tr> </table>	Row 50%	Column 50%							
Row 50%	Column 50%										
											
Base Sewing	<p>To specify base stitching, select the check box, and then specify settings for the following attributes.</p>										
Stitch Type	<p>Specify the shape of the returning ends of the stitching.</p> <p>This cannot be specified if the sewing direction is set to variable.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div>										
Step Pitch	<p>Specify the stitching pitch (length of one stitch).</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">Short </div> <div style="text-align: center;">Long </div> </div>										
Frequency	<p>Specify the shift in the stitches.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">0% </div> <div style="text-align: center;">50% </div> </div>										

Pattern



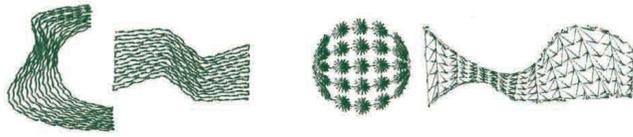
Area where the embossing or engraving effects are applied



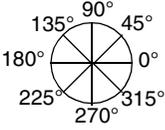
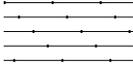
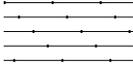
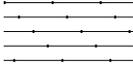
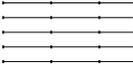
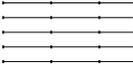
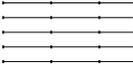
This area is sewn with the stitching settings specified for the base sewing of the programmable fill stitch.

This area is sewn with the stitching settings specified by the pattern file.

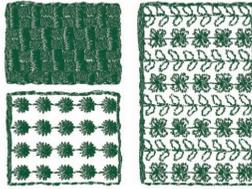
Piping stitch



Stitching is created to run through the length of blocks.

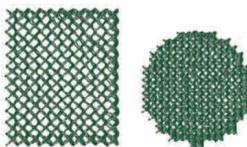
Direction	Specify the sewing angle. Drag  or select a value to specify the angle. This cannot be specified for manual punching patterns.						
Specify settings for the following if the motif stitch pattern is not used.							
Density	Specify the number of threads per millimeter.	<table border="0"> <tr> <td>Coarse</td> <td>Fine</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Coarse	Fine			
Coarse	Fine						
							
Run pitch	Specify the run pitch of the lines.	<table border="0"> <tr> <td>Short</td> <td>Long</td> </tr> <tr> <td></td> <td></td> </tr> </table>	Short	Long			
Short	Long						
							
Frequency	Specify the shift in the stitches.	<table border="0"> <tr> <td>0%</td> <td>50%</td> </tr> <tr> <td></td> <td></td> </tr> </table>	0%	50%			
0%	50%						
							
Use Motif To use a motif stitch in the pattern, select the check box, and then specify settings for the following attributes.							
Motif <input type="text" value="Pattern1 only"/>		 "Motif stitch" in the "Region sewing attributes" on page 106.					
Pattern1/Pattern2 <table border="1"> <tr> <td>Type and size of the motif stitch patterns</td> </tr> <tr> <td>H-Arrange</td> </tr> <tr> <td>V-Arrange</td> </tr> <tr> <td>H-Spacing</td> </tr> <tr> <td>V-Spacing</td> </tr> </table>		Type and size of the motif stitch patterns	H-Arrange	V-Arrange	H-Spacing	V-Spacing	 "Motif stitch" in the "Line sewing attributes" on page 99.
Type and size of the motif stitch patterns							
H-Arrange							
V-Arrange							
H-Spacing							
V-Spacing							
<table border="1"> <tr> <td>Row offset</td> </tr> <tr> <td>Run pitch</td> </tr> </table>		Row offset	Run pitch	 "Motif stitch" in the "Region sewing attributes" on page 106.			
Row offset							
Run pitch							

Motif stitch



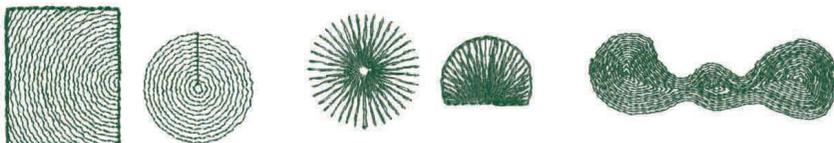
Motif <input type="button" value="Pattern1 only"/>	Select the pattern to be used for the motif stitch. Pattern1 only: Only pattern 1 is used. Pattern2 only: Only pattern 2 is used. Pattern1 and 2: Patterns 1 and 2 are used to sew alternating rows of each pattern.	Pattern1 only Pattern1 and 2 	Pattern2 only
Pattern1/Pattern2	Specify settings for each pattern.		
Type and size of the motif stitch patterns H-Arrange V-Arrange H-Spacing (horizontal spacing) V-Spacing (vertical spacing)	"Motif stitch" in the "Line sewing attributes" on page 99.		
V-Spacing (vertical spacing)	Specify the vertical spacing of the patterns.	Narrow 	Wide
Direction	Drag or select a value to specify the angle.		
Row offset	Specify the offset (shift) amount of the pattern alignment.	Smaller 	Larger
Run pitch	"Motif stitch" in the "Line sewing attributes" on page 99.		

Cross stitch

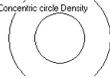
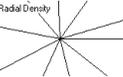
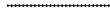


Size	Specify the horizontal and vertical size of the grid pattern. In Expert mode, specify the value in millimeters or counts. If the value is specified in only one of the measurement units, it is automatically converted and displayed in the other measurement units.	Smaller	Larger
			
Times	Select Single , Double or Triple as the number of times that the pattern is sewn. Sews twice per time.	Single	Triple
		 x 2	 x 6

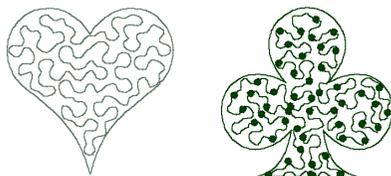
Concentric circle stitch, radial stitch and spiral stitch



For details on moving the center point of the concentric circle stitch and the radial stitch, refer to “Moving the center point” on page 61.

Density	Specify the stitch density as the number of threads per millimeter.	Concentric Circle Stitch Coarse 	Concentric Circle Stitch Fine 
		Radial Stitch Coarse 	Radial Stitch Fine 
Run pitch	Specify the run pitch (length of one stitch).	Spiral Stitch Coarse 	Spiral Stitch Fine 
		Short 	Long 

Stippling stitch



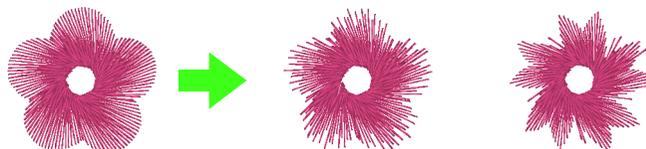
Run pitch	Specify the run pitch (length of one stitch). This cannot be specified if the motif stitch is used.	Short The turns are smoother.	Long The turns are more angled.
Spacing	Specify the spacing between adjacent stitches.	Narrow The pattern is finer.	Wide The pattern is coarser.
Use Motif	To use a motif stitch in the pattern, select the check box, and then specify settings for the following attributes.		
<input type="checkbox"/> Type and size of the motif stitch patterns <input type="checkbox"/> H-Arrange <input type="checkbox"/> V-Arrange <input type="checkbox"/> Spacing <input type="checkbox"/> Run pitch	"Motif stitch" in the "Line sewing attributes" on page 99.		

Manual punch

If Satin Stitch, Fill Stitch or Prog. Fill Stitch is selected as the region sew type for the manual punching pattern, feathered edge settings can be specified.

Feathered edge settings not specified

Feathered edge settings specified



Feathered edge	<p>Specify the edge of the stitching where the feathered edge is to be applied. When the check box is selected, a feathered edge is applied to the embroidery pattern in the Design Page. Check the preview, and then select the edge where the feathered edge is to be applied.</p> <p>Select a pattern for the feathered edge.</p> <p>Click to display the Browse dialog box. Select the desired pattern from the list of patterns that appears.</p>	Top side of pattern For <pattern11> Bottom side of pattern For <pattern18> 	Top edge only Bottom edge only Top and bottom edges
	<p>Specify the width of the feathered edge</p>	Short 	Long

Region sewing attributes

Notes on programmable fill stitches and stamps

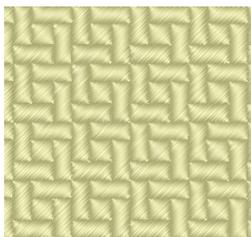
When setting the sew type and pattern directions of a programmable fill stitch or a stamp, lines will not be sewn if the sew type and pattern direction settings cause a stitch to be sewn in the same direction as a line in the stitch pattern.

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

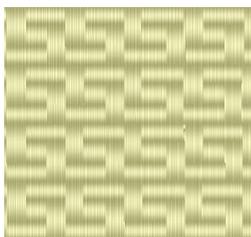
Examples of programmable fill stitching:



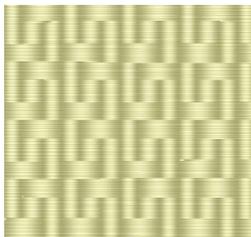
Example 1
Stitch direction: 45° (default)



Example 2
Stitch direction: 90°



Example 3
Stitch direction: 0°



 “Displaying a preview of the embroidery” on page 65 and on “Creating Custom Stitch Patterns (Programmable Stitch Creator)” on page 205 in the Instruction Manual (PDF format).

Saving frequently used sewing attributes

Frequently used sewing attributes can be saved together, and recalled when specifying sewing attributes.



Memo:

Settings in both **Beginner mode** and **Expert mode** can be saved.

Saving the settings in a list

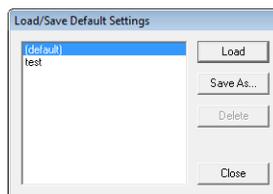
1. Open the **Sewing Attribute Setting** dialog box.



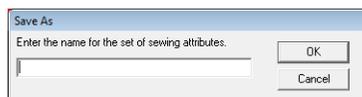
“Specifying sewing attributes” on page 96.

2. If necessary, change the settings in the **Sewing Attribute Setting** dialog box, and then click .

3. Click **Save As**.

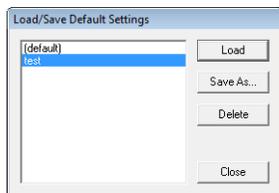


4. Type in a name for the group of settings, and then click **OK** to register the group in a list.



■ Deleting a group of settings from the list

1. In the **Load/Save Default Settings** dialog box, select the group of settings to be deleted.



2. Click **Delete** to delete the selected group of settings from the list.

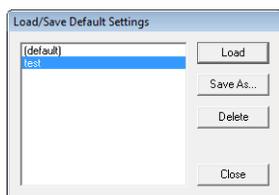


Memo:

(default) cannot be deleted.

■ Recalling a group of settings from the list

1. In the **Load/Save Default Settings** dialog box, select the group of settings to be recalled.



2. Click **Load**.

→ The settings in the **Sewing Attribute Setting** dialog box change to the saved settings.



Memo:

- To change the saved settings and save the changes, change the settings in the **Sewing Attribute Setting** dialog box, click , then click **Save As**, and then click **OK** without changing the group name for the settings.
- The saved setting can also be used on a different computer. Simply copy **sastu.txt** from the **Settings** folder in the **PE-DESIGN 8** folder (program folder) on the original computer to the **Settings** folder at the same path on the destination computer.

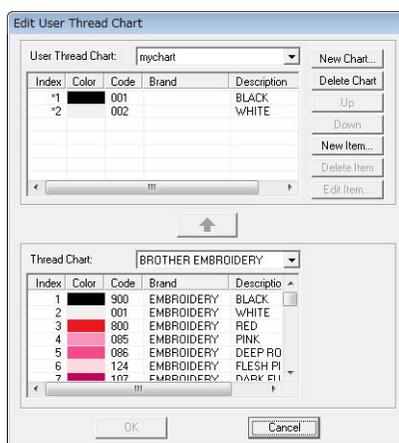
Editing user thread color lists

User thread charts can be created and edited to contain a list of threads that are used 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.

1. Click **Option**, then **Edit User Thread Chart**.

■ Creating a new thread chart

1. Click **New Chart**.



2. Type in the name of the chart, and then click **OK** to save the chart with the entered name.



Memo:

*A saved chart can be selected from the **User Thread Chart** selector, then edited.*

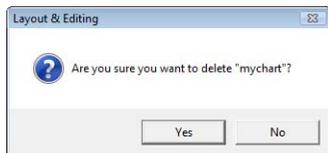
■ Deleting a chart

1. From the **User Thread Chart** selector, select the chart.



2. Click **Delete Chart**.

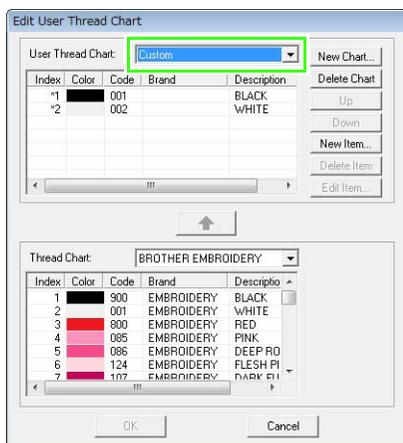
→ The following message appears.



3. Click **Yes** to delete the selected chart.

■ Editing a chart

1. From the **User Thread Chart** selector, select the chart.



! Note:

If no chart is selected, the editing operation cannot be performed.

■ Adding an item from a thread chart

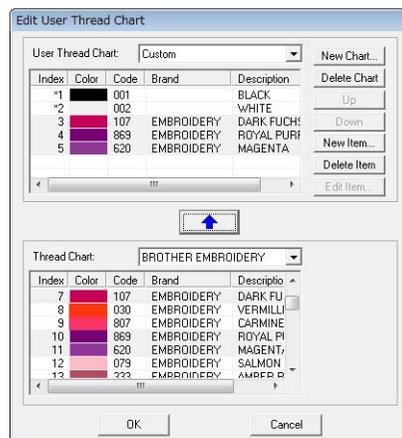
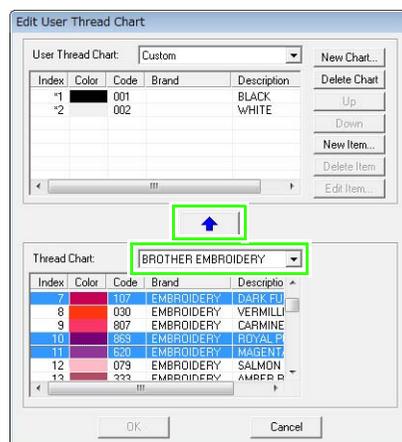
1. From the **Thread Chart** selector, select the brand of thread.
2. From the list at the bottom of the dialog box, click the thread colors.

📖 Memo:

*To add multiple items, hold down the **(Shift)** or **(Ctrl)** keys while selecting thread colors.*

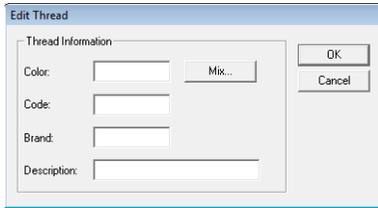
3. Click .

→ The selected items are added to the list in the user thread chart.

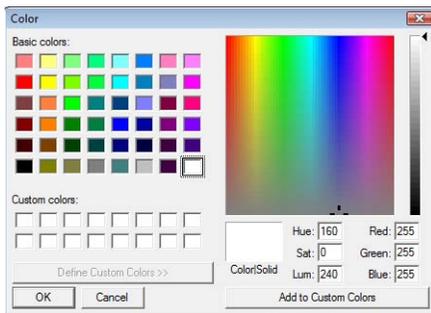


■ Adding a new item

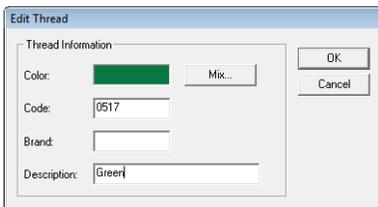
1. Click **New Item**.
2. To create a new color, click **Mix**.



→ A dialog box similar appears.



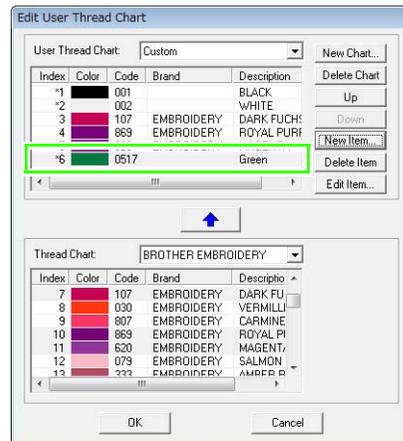
3. Specify the color, and then click **OK** to add the specified color to the **Edit Thread** dialog box.
4. If necessary, type in the code, brand and description into the appropriate boxes.



📖 Memo:

Only numbers can be entered for the code.

5. Click **OK** to add the new item to the user thread chart.



📖 Memo:

An asterisk (*) appears in front of the index number for items created or edited by the user.

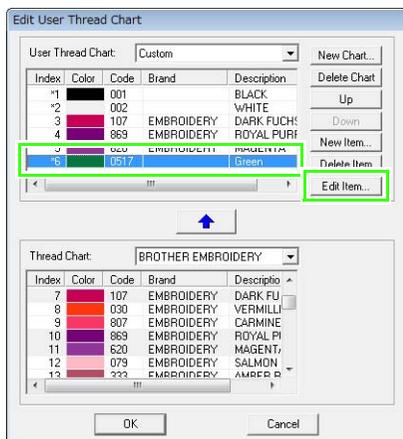
■ Deleting an item

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.

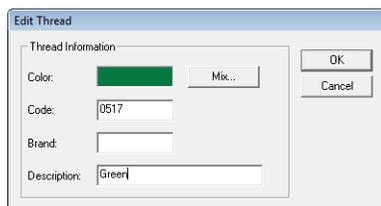
■ Editing an item

An item registered in the list for a user thread chart can be edited to change the color or thread number.

1. From the list for the user thread chart, select the item to be edited, and then click **Edit Item**.



→ The following dialog box appears.



2. Edit the item details in the same way as adding an item.

Memo:

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 patterns created with this application may appear differently on the embroidering machine.

1. Embroidery machines without a function for displaying thread color information

The specified thread information cannot be displayed on some machines.

2. Embroidery machines with a function for displaying thread colors

Of the thread information specified in the embroidery pattern, only the thread colors are displayed on the machine. However, the thread color names that are displayed are limited to the machine's preset thread color names. Therefore, use thread color names in the embroidery pattern 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 (such as the color, the color name as well as the brand name and thread number) specified with this application. The machines can display the color, the color name as well as the brand name and thread number.

However, for items edited or added by the user (items marked with an asterisk (*)), only the thread number is displayed.

Memo:

The edited user thread chart can also be used on a different computer. Simply copy **chart2.btc** from the **Color** folder in the **PE-DESIGN 8** folder (application folder) on the original computer to the **Color** folder at the same path on the destination computer.

Editing Regions

Applying and editing Stamps

Stamps can be applied to regions of objects drawn with the Rectangle, Circle or Arc tools, Shape tools, Outline tools, Text tools and the Manual Punch tools and that have the satin stitch, fill stitch and programmable fill stitch applied. Some stamp patterns are provided with this application.

Memo:

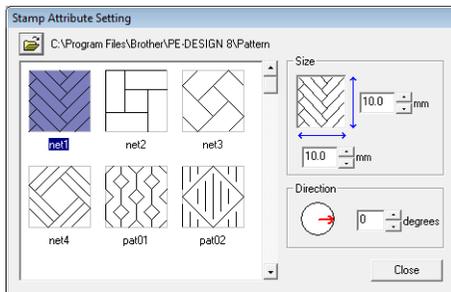
Using Programmable Stitch Creator, you can edit patterns that have been provided or you can create your own.



"Creating Custom Stitch Patterns (Programmable Stitch Creator)" on page 205.

Applying a stamp

1. Click  on the Tool Box.
→ Two buttons appear: .
2. Click .
3. In the dialog box, select a stamp pattern (.pas file with stamp settings applied).



Memo:

Engraving and embossing stamp settings appear as red- and blue-filled areas.

To select a different folder, click .

4. To change the width and height of the stamp, type the desired size into **Size** in the **Stamp Attribute Setting** dialog box.

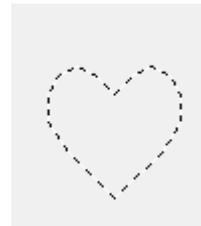
5. To change the orientation of the stamp, move the pointer over the red arrow inside of the circle under **Direction**, and then drag the red arrow to the desired angle.

Memo:

The dialog box remains displayed so that the size and orientation of the stamp can be adjusted at any time.

To open the dialog box again after closing it, click .

6. Click the object to select it.
→ "Marching lines" appear around the selected object.
7. Click the desired locations within the object.
→ The stamps appear as dotted lines in the object.



Memo:

The whole stamp appears, even if it is larger than the object that it has been applied to, however, only the parts that are enclosed within the object will be sewn.

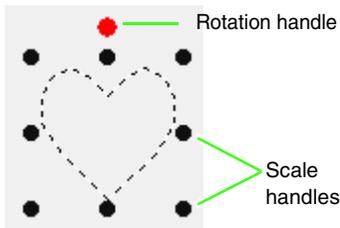
To apply several stamps within the same object, continue clicking the object as often as needed.

If the pointer cannot fit within the selected object, the stamp cannot be applied.

The **Stamp Attribute Setting** dialog box appears only after a stamp tool is selected.

■ Editing a stamp

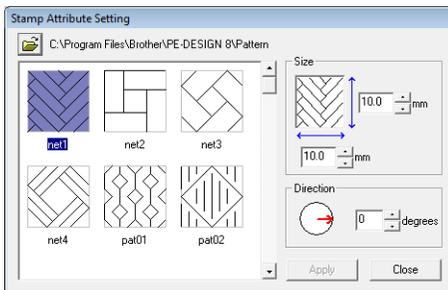
1. Click  on the Tool Box.
→ Two buttons appear:  .
2. Click .
→ Stamps that have been applied are indicated by pink dotted lines.
3. Click the object with the stamp.
→ “Marching lines” appear around the selected object.
4. Click the stamp.
→ Round handles appear around the stamp, and a rotation handle appears at the top of the stamp.



! Note:

Only one stamp can be selected at a time. If you select another stamp, the previously selected stamp becomes deselected.

5. Editing the stamp.



- To change the stamp pattern, select a different pattern in the **Stamp Attribute Setting** dialog box, and then click **Apply**.
- To change the stamp size and orientation, specify the desired settings in the **Stamp Attribute Setting** dialog, or adjust it by dragging the handles or rotation handle.

- To move a stamp, drag it to another location within the object or partially positioned on the object.
- To delete the stamp, select the menu command **Edit – Delete**, or press the **Delete** key.

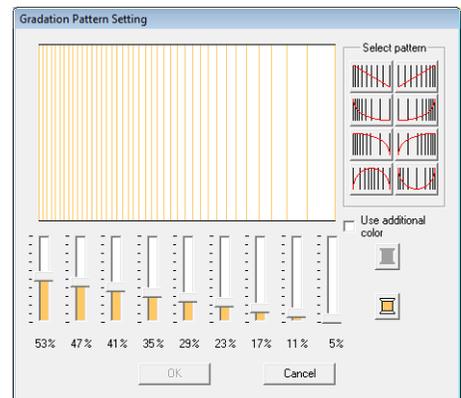
📖 Memo:

- When an object with a stamp applied is moved or rotated, the stamp is also moved or rotated. However, if the size of an object is changed, the size of the stamp does not change.
- Stamps are only sewn within the region that they have been applied to.

Creating a gradation/ blending

The density of one or two colors can be adjusted at various locations to create a custom gradation pattern.

1. In Expert mode of the **Sewing Attribute Setting** dialog box, select the **Gradation** check box under **Region sew**.
2. Click **Pattern**.
3. To change the thread color, click . Select a color in the **Thread Color** dialog box that appeared, and then click **OK**.



4. To select a preset gradation pattern, click the desired pattern under **Select pattern**.

5. Move the sliders to adjust the density of the gradation pattern.



Memo:

The preview area shows the setting changes that you make.

6. To blend two colors, select the **Use additional color** check box, click  under **Use additional color**. Select a color in the **Thread Color** dialog box that appeared, and then click **OK**.

7. Click **OK**.



Memo:

- If the **Use additional color** check box is cleared, the gradation settings are applied to the remaining color.
- The first and second colors of the gradation can also be changed by selecting **Region1** or **Region2** in the **Thread Color** dialog box.



“Color” on page 95.

Checking and Editing the Sewing Order/ Lock

The sewing order of an embroidery pattern can be viewed or changed. In addition, from the same dialog box, the color and sew type for each color can be changed, or the embroidery pattern can be locked.

Toolbar button: 

1. Click , or click **Sew**, then **Sewing Order/Lock**.



 :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.



Memo:

- When multiple patterns are combined into one frame,  appears to the left of the number of that frame.

Click  to display the combined patterns in separate frames.



 appears under the first frame, and each frame is displayed with a subnumber following the first, to indicate its sewing order within the patterns of the same color.

Click  to recombine all of the patterns back into one frame.

- To close the **Sewing Order/Lock** dialog box, click  in the upper-right corner of the dialog box.

Selecting a pattern

1. Select a pattern in the **Sewing Order/Lock** dialog box.

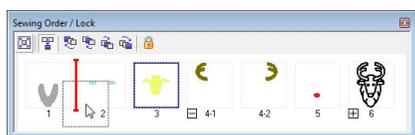
→ The selected pattern has a blue line around it, and “marching lines” appear around the corresponding pattern in the Design Page.

Memo:

- To select multiple patterns, hold down the **Shift** or **Ctrl** key while clicking the frames for the desired patterns. In addition, multiple frames can be selected by dragging the pointer over them.

Editing the sewing order

The sewing order can be changed by selecting the frame containing the pattern, then dragging the frame to the new location. A vertical red line appears, indicating the position where the frame is being moved.



An alternative method for moving the frames is by clicking the buttons at the top of the dialog box.

 :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.

■ Combining patterns of the same color

When a Design Page contains a combination of patterns, those patterns with the same color can be grouped together from the **Sewing Order/Lock** dialog box. Simply drag the frame of the patterns with the same color to position them beside each other.

Memo:

Check the stitching after changing the sewing order to be sure that overlapping patterns will not be sewn in the wrong order.

Changing colors

The color of the objects for each color can be changed. The thread colors can also be changed in stitch patterns. The procedure for changing colors in an embroidery pattern is described below.

 "Memo" on page 49.

1. Select a pattern in the **Sewing Order/Lock** dialog box.

2. Click  on Sewing Attributes bar.

 "Layout & Editing Window" on page 47.

3. Click the desired color.



→ The object appears in the new color in the **Sewing Order/Lock** dialog box and in the Design Page.

 "Color" on page 95.

Changing sewing attributes

The sew type for the objects in each color can be changed.

1. Select a pattern in the **Sewing Order/Lock** dialog box.
2. Click **Sew**, then **Sewing Attribute Setting**.
 -  "Layout & Editing Window" on page 47.
 - The **Sewing Attribute Setting** dialog box appears.
3. Change the sew type.
 -  "Sew type" and "Specifying sewing attributes" are on page 96.

Locking embroidery patterns

Embroidery patterns can be locked to prevent them from being moved or deleted. Locked embroidery patterns cannot be selected, and editing operations.

1. Select a pattern in the **Sewing Order/Lock** dialog box.
2. Click  .
 -  appears at the bottom of the frame.
 - The embroidery pattern is locked.

To unlock the embroidery pattern, select the frame, and then click  again.

Memo:

- Frames with  to the left of the number contain multiple patterns of the same color. If these frames are selected to be locked, all patterns in the frame are locked.
- Locking either the line or region of an embroidery pattern made up of an outline and inside region locks the entire embroidery pattern.
- Locking any part of a combined pattern, such as grouped patterns, text arranged on a curve or patterns with hole sewing specified, locks the entire embroidery pattern.

Importing Image Data

An imported image is needed to create an embroidery pattern, a template for manual punching, or as a pattern that can be printed onto iron-on paper.

An image can be imported using any of the following four methods.

- 1 From a file
- 2 From a scanner or digital camera
- 3 From a portrait image
- 4 From the Clipboard

Note:

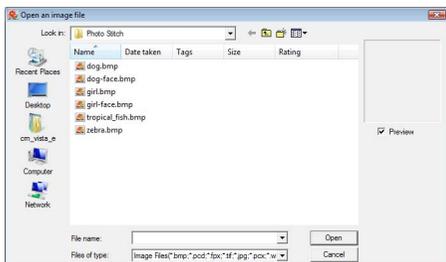
Only one image can be added to the work area. If you try to display a different image, it will replace the previous one.

Importing image/photo from a file

Different types of clip art or photos can be imported into Layout & Editing to create embroidery patterns. There are many different types of files that can be imported.

☞ “Image file formats” on page 19.

1. Click **Image**, then **Input**, then **from File**.
2. Select the drive, the folder and the desired file.



Memo:

If the **Preview** check box is selected, the contents of the selected file will appear in the **Preview** box.

3. Click **Open** to open the file.
→ The image appears in the work area.

Memo:

Various clip art images can be found in the **ClipArt** folder, which can be found in the folder where PE-DESIGN was installed. (For example, click the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **ClipArt**.)

Importing image data from a scanner or digital camera

Images can be imported into the current Design Page from a scanner or other TWAIN device and used as a template for creating an embroidery pattern.

Memo:

TWAIN is an application interface (API) standardization for software that controls scanners and other devices.

1. Check that the scanner or other TWAIN device is correctly connected to your computer.
2. Click **Image**, then **Select TWAIN Device**.
3. From the **Sources** list, click the desired device to select it.



Note:

If no TWAIN device is installed, there will be no names displayed in the **Sources** list. First, install the driver software for the TWAIN device.

4. Click **Select** to choose the selected device and to close the dialog box.
5. Click **Image**, then **Input**, then **from TWAIN device**.
→ The driver interface for the device selected in the **Select Source** dialog box appears.
6. Specify the necessary settings for importing an image, and then import the image.

Note:

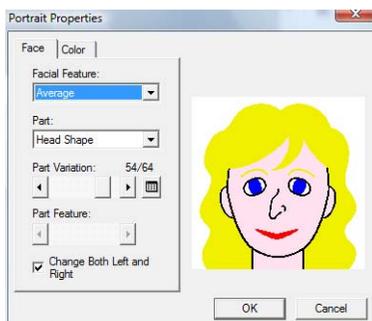
For information on using the driver interface, refer to the help manual for that interface, or contact the manufacturer of the interface.

→ When the image transfer between the scanner (or other device) and the driver is completed, the imported image will be pasted into the Design Page at its original size.

Creating a portrait image

Combine images of facial features provided with the application to create an original portrait image.

1. Click **Image**, then **Input**, then **from Portrait**.
2. From the **Facial Feature** selector, select the overall contour (appearance) of the portrait (for example, narrow, wide, or child-like).



3. From the **Part** selector, select the part of the portrait to be changed.

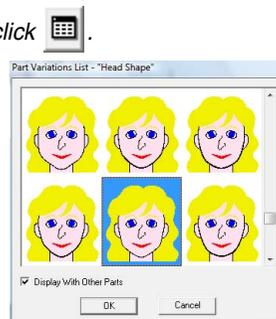
Memo:

The part of the portrait to be changed can also be selected by clicking it in the preview area.

4. Move the **Part Variation** slider to select the desired part variation.

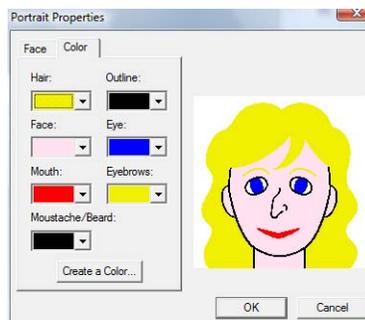
Memo:

- To change both sides of a part together, such as the eyes or ears, select the **Change Both Left and Right** check box.
- To display all variations of the selected part, click .



- To display the images of all parts combined, select the **Display With Other Parts** check box in the **Part Variations List** dialog box that appeared.
- Select a part from the list, and then click **OK**.

5. To select a part feature (for example, standard size, slightly larger, slightly smaller, wider or taller), move the **Part Feature** slider, if it is available.
6. To change the color of the parts, click the **Color** tab, click the selector for the color, and then select the desired color from the color list that appeared.



7. Click **OK**.
→ The portrait image is displayed in the Design Page.

Importing image data from the clipboard

Image data can be imported into the Design Page from the Clipboard. This allows you to import an image without saving it first.

1. Click **Image**, then **Input**, then **from Clipboard**.



Note:

This can only be done when there is image data on the Clipboard.

→ The image is displayed in the Design Page.



Memo:

The image is displayed with a resolution of 100 dpi for both the height and width.

Changing the Image Settings

Changing the display of the background image

The image that remains in the work area can be displayed or hidden, or a faded copy of the image can be displayed.

1. Click **Image**, then **Display Image**, and then select the desired setting.
 - To display the original image, click **On (100%)**.
 - To display a faded copy of the image, click the desired density (**75%**, **50%** or **25%**).
 - To hide the original image, click **Off**.

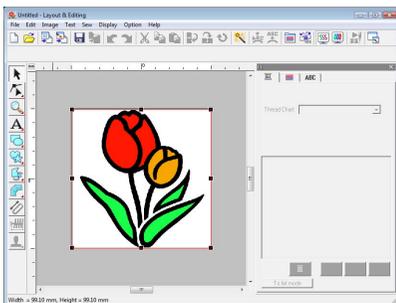
Memo:

Press the shortcut key (**F6**) to switch between displaying the image (**On (100%)**) to displaying it faded at each density (**75%**, **50%** and **25%**) to hiding the image (**Off**).

Changing the size, angle and position of the image

The size, angle and position of the image can be adjusted.

1. Click **Image**, then **Modify**.
 - A red line and handles appear around the image.



Memo:

The status bar shows the dimensions (width and height) of the image.

Moving an image:

1. Move the pointer over the image.
2. Drag the image to the desired location.

Scaling an image:

1. Move the pointer over one of the handles.
2. Drag the handle to adjust the image to the desired size.

Memo:

If the **Shift** key is held down while a handle is dragged, the image is enlarged or reduced from the center of the image.

Rotating an image:

An image can be rotated in 90-degree increments.

1. Click **Image**, then **Rotate**. Select **90 Degrees Clockwise** or **90 Degrees Counterclockwise**.
 - The image is rotated in the specified direction.

Deleting an image:

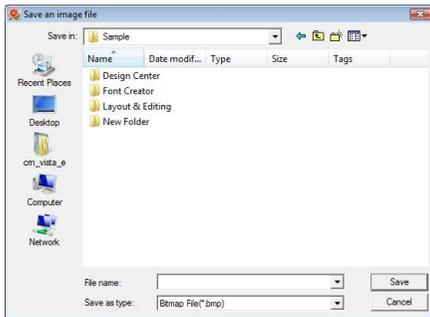
1. Press the **Delete** key, or click **Edit**, then **Delete**.
 - The image will be deleted from the Design Page.

Saving the image data

The image can be saved as a file or outputted to the Clipboard.

■ Saving as a file

1. Click **Image**, then **Output**, then to **File**.
2. Select the drive, the folder and the format in which you want to save the image data.



3. Type in the file name.



Memo:

The image data can be saved in either of the following formats: Windows bitmap (.bmp), Exif (.jpg).

4. Click **Save** to save the data.

■ Outputting to the Clipboard

1. Click **Image**, then **Output**, then to **Clipboard**.
→ The image data in the Design Page is copied onto the Clipboard.

Automatically Converting an Image to an Embroidery Pattern (Image to Stitch Wizard)

The Image to Stitch Wizard gives step-by-step instructions for converting an image into an embroidery pattern.

Toolbar button:



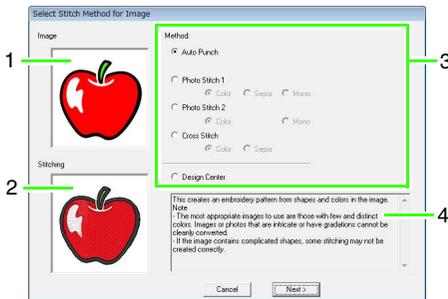
1. If no image is displayed in the Design Page, use one of the commands on the **Input** sub-menu of the **Image** menu to display the image.

"Importing Image Data" on page 120.

2. Click **Image**, then **Modify**, and then re-size and re-position the image for creating the embroidery pattern.

3. Click , or click **Image**, then **Image to Stitch Wizard**.

→ The following dialog box appears.



- 1** Current image
- 2** Embroidery pattern after being converted
- 3** Type of embroidery data to be created
- 4** Description of the selected embroidery type

Note:

The dialog box will not appear if no image is displayed in the Design Page. Instead, a dialog box appears, allowing you to open an image file.

4. Select the type of embroidery, and then click **Next**.

Auto Punch:

Select this option to automatically extract the outline for creating the embroidery pattern. (Proceed to **"If Auto Punch is selected"**)

Photo Stitch 1:

Select this option to automatically create a realistic photo embroidery pattern. This option can be used to create embroidery patterns in color (**Color**), sepia or grayscale (**Sepia**) or black and white (**Mono**).

(Proceed to **"If Photo Stitch 1 (Color) is selected"**, **"If Photo Stitch 1 (Sepia) is selected"** or **"If Photo Stitch 1 (Mono) is selected"**)

Photo Stitch 2:

Select this option to automatically create realistic photo embroidery in 4 colors (**Color**) or 1 color (**Mono**).

(Proceed to **"If Photo Stitch 2 (Color) is selected"** or **"If Photo Stitch 2 (Mono) is selected"**)

Cross Stitch:

Select this option to create a cross stitch pattern. This option can be used to create embroidery patterns in color (**Color**), or sepia or grayscale (**Sepia**).

(Proceed to **"If Cross Stitch (Color) is selected"** or **"If Cross Stitch (Sepia) is selected"**)

Design Center:

Select this option to start up Design Center with the Design Page image.

(Proceed to **"If Design Center is selected"**)

Memo:

The following types of images are appropriate for embroidery patterns.

Auto Punch/Cross Stitch/Design Center

- Images with few and distinct colors

Photo Stitch

- Photos where the subject to be embroidered appears clearly
- Portraits should be resized so that the size of the face is at least 100 x 100 mm (4 x 4 inches).
- Photos that are bright and sharp

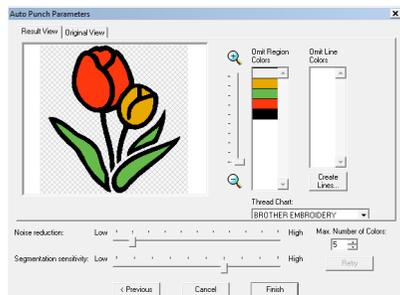
Automatically converting an image to an embroidery pattern (Auto Punch)

A tutorial describing basic operations is also available.

 “Auto Punch Function” on page 20

■ If Auto Punch is selected

1. Select the desired settings.



The resulting analyzed image appears in the image preview box on the **Result View** tab. The embroidery pattern will be created with this image.

To adjust the zoom ratio that the image is displayed in, move the slider between  and .



Use the following sliders to specify the settings for analyzing the image.

Noise reduction: Sets the level of noise (distortions) that is removed from the image.

Segmentation sensitivity: Sets the sensitivity for the image analysis.

Max. Number of Colors: Sets the number of colors used.

From the **Thread Chart** selector, select the desired thread color chart. The most appropriate thread colors from the selected thread chart are selected. A user thread chart can also be selected.

To display the original image, click the **Original View** tab.

Check the resulting image and, if it appears as desired, continue with step **6**.

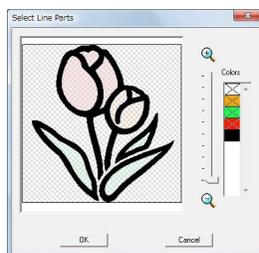
To convert regions to lines or change the areas to be sewn, continue with step **2**.

Memo:

After changing the settings, click **Retry** to display the image with the new settings applied. If **Retry** is not clicked, the new settings are not applied.

2. To convert the regions to lines, click **Create Lines**.

3. Click the areas to be converted to lines.



Memo:

To select all areas of a certain color to be converted to lines, click the color under **Colors** so that x is removed.

4. Click **OK**.

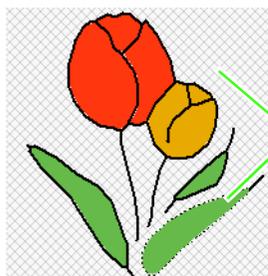
→ The image with areas converted to thin lines appears.

5. On the **Result View** tab, click the areas of the image to select whether or not they are to be sewn.

Whether or not to sew areas converted to lines can also be selected.

Memo:

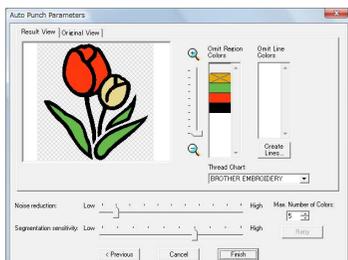
Areas not set to be sewn are shown filled with a crosshatch pattern and appear as a dotted line are not sewn.



These areas will not be sewn.

Memo:

- If necessary, in the **Omit Region Colors** list and **Omit Line Colors** list, click the colors to select whether or not they will be sewn. You can select whether or not areas will be sewn by selecting their colors.



- Colors that are crossed out are set to not be sewn.

6. After selecting the desired settings, click **Finish**.
 - An embroidery pattern is created from the analyzed data, the appropriate thread colors and sew type settings are applied, and then the pattern is displayed in the Design Page.
 - The image is automatically hidden.

Memo:

The sew type settings of the created embroidery pattern can later be changed in the same way as the settings for other patterns.

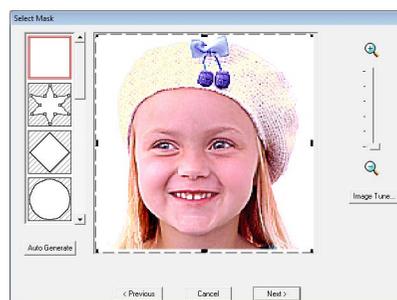
Automatically converting a photo to an embroidery pattern (Photo Stitch 1/Photo Stitch 2)

■ If Photo Stitch 1 (Color) is selected

A tutorial describing basic operations is also available.

"Photo Stitch Function" on page 24

1. From the list at the left side of the dialog box, select the desired shape that the image will be trimmed to (mask).

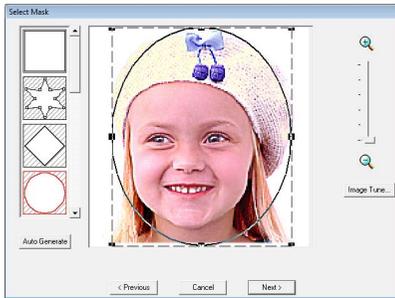


2. In the image preview box, move the handles of the mask until it surrounds the desired part of the image.

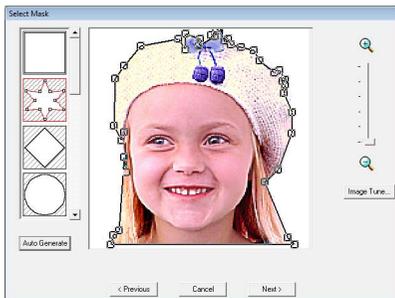
Memo:

- To display the **Image Tune** dialog box, where you can adjust the image, click **Image Tune**.
- To display the image enlarged (or reduced), move the **ZOOM** slider up (or down).
- To create any shape of mask, select , and then move, enter or delete points to adjust the mask shape. To add points, click the outline of the mask. To delete points, select the point, and then press the **Delete** key.
- If **Auto Generate** was clicked, is selected and an outline of mask was automatically detected from the image.
- With a single-colored background, click **Auto Generate** to automatically detect the outline of the image. The outline can be adjusted by moving or deleting points.

Pattern edited with the round mask



Pattern edited with the adjustable mask



Note:

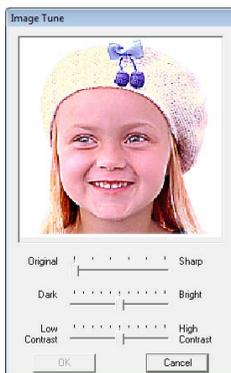
With a small original image, it may not be possible to reduce the size of the mask.



Memo:

Image Tune

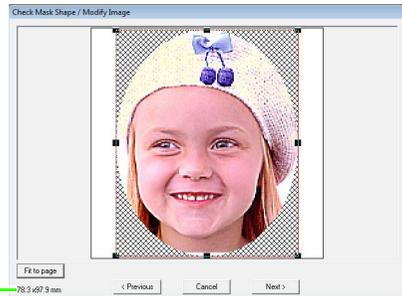
- Clicking the **Image Tune** button in the **Select Mask** dialog box displays an **Image Tune** dialog box.



- Move the **Original – Sharp** slider to adjust the sharpness of the image's outlines. A setting more towards **Sharp** makes a more noticeable boundary between bright and dark areas.
- Move the **Dark – Bright** slider to adjust the brightness of the image.
- Move the **Low – High Contrast** slider to adjust the contrast of the image.

- In the **Select Mask** dialog box, click **Next**.

- Adjust the image size and position.
 - Drag the image to the desired position.
 - Drag the handle to adjust the image to the desired size.
 - Embroidery pattern size that will be created can be checked in the lower left corner of the dialog box.



Memo:

Click **Fit to Page** to adjust the mask to the size of the Design Page.

- Click **Next**.

- Specify the settings for creating the embroidery pattern.

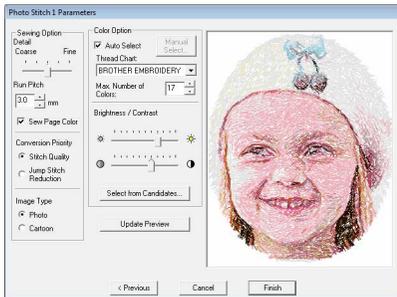


"Sewing Option" and "Color Option" on page 131.



For details on clicking **Select** from **Candidates**, refer to step **7** on page 26.

7. In the **Photo Stitch 1 Parameters** dialog box, click **Update Preview**.
→ The previewed image is updated.

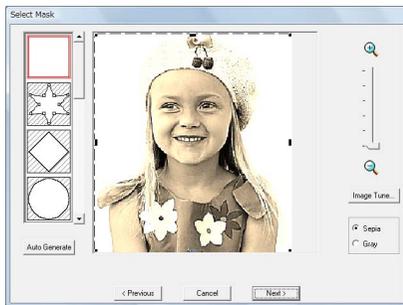


8. Click **Finish**.
→ An embroidery pattern is created and displayed in the Design Page.
→ The image is automatically hidden.

■ If Photo Stitch 1 (Sepia) is selected

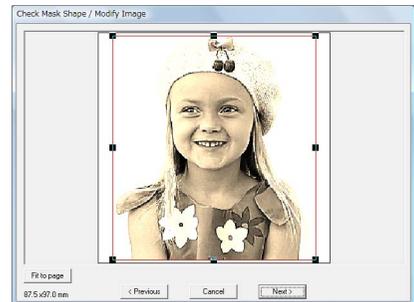
The basic operations for this function are the same as those for the Photo Stitch 1 (Color) function.

1. From the list at the left side of the dialog box, select the desired shape that the image will be trimmed to (mask).

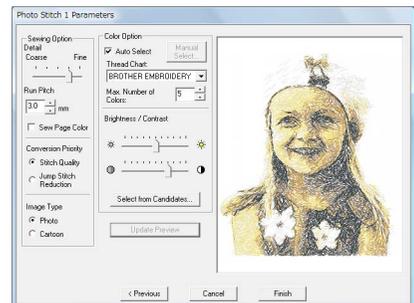


2. In the image preview box, move the handles of the mask until it surrounds the desired part of the image.
☞ See step 2. on page 127.
3. Click **Sepia** or **Gray** to select the color tone.

4. Click **Next**.
5. Adjust the image size and position.
☞ See step 4. on page 128.



6. Click **Next**.
7. Specify the settings for creating the embroidery pattern.
☞ "Sewing Option" and "Color Option" on page 131.
8. Click **Update Preview**.
→ The previewed image is updated.

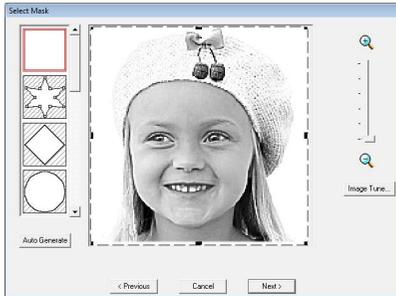


9. Click **Finish**.
→ An embroidery pattern is created and displayed in the Design Page.
→ The image is automatically hidden.

■ If Photo Stitch 1 (Mono) is selected

The basic operations for this function are the same as those for the Photo Stitch 1 (Color) function.

- From the list at the left side of the dialog box, select the desired shape that the image will be trimmed to (mask).



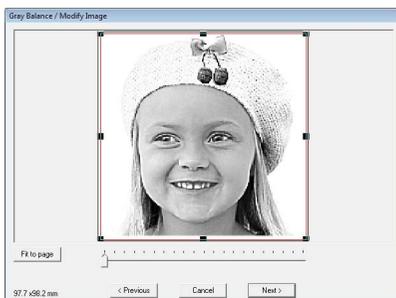
- In the image preview box, move the handles of the mask until it surrounds the desired part of the image

☞ See step 2. on page 127.

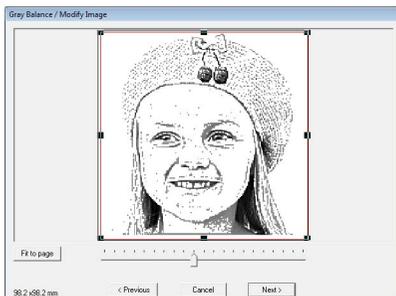
- Click **Next**.

- Adjust the image size and position.

☞ See step 4. on page 128.

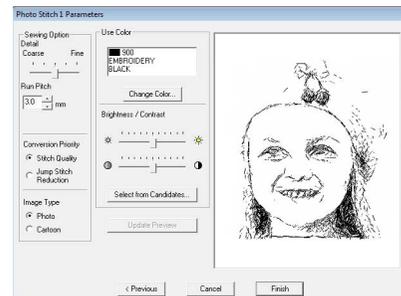


- Move the slider to specify which parts of the image to create the embroidery pattern for.



- Click **Next**.

- Specify the settings for creating the embroidery pattern.



☞ "Sewing Option" and "Color Option" on page 131.

- Click **Update Preview**.

→ The previewed image is updated.



- Click **Finish**.

→ An embroidery pattern is created and displayed in the Design Page.

→ The image is automatically hidden.

Sewing Option

Detail	Specifies how detailed the created embroidery pattern will be. Selecting a setting closer to Fine creates more details in the pattern and increases the number of stitches. (The stitches will overlap)
Run Pitch	Sets the sewing pitch. The pattern is created with this setting value as the minimum length. When the value is lowered, the sewing pitch will be shortened, resulting in finer stitching.
Sew Page Color (Available only with Color and Sepia)	If this check box is selected, the data for the parts of the pattern that are the same color as the Design Page will be created. Clear the check box to keep the fabric the same color as the Design Page. Default: Selected
Conversion Priority	Select what parameter is given priority when converting to embroidery pattern. Stitch Quality: Creates a pattern while giving priority to the stitching quality. However, many jump stitches will result. Jump Stitch Reduction: Creates a pattern 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	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.

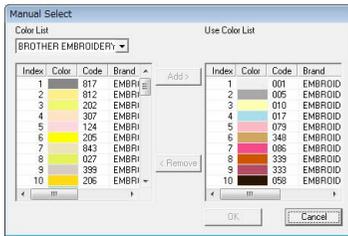
Color Option

Color/Sepia	
Auto Select	Select this check box to automatically select the thread colors. As a default, this check box is selected. If this check box is cleared, select the thread colors manually.
Manual Select	Appears when the Auto Select check box is cleared. Click this button to open the Manual Select dialog box, which lets you manually set the thread colors to be used when creating the pattern (see below).
Thread Chart	Selects the thread chart for selecting the thread color with the Auto Select function. The most appropriate thread colors from the selected thread chart are selected. A user thread chart can also be selected.
Max. Number of Colors	Sets the number of colors selected by the Auto Select function.
Mono	
Change Color	Click on the Change Color button to open the Thread Color dialog box if you wish to change the color of the photo stitching. You can also change the brand of thread you wish to sew with. Select the color and click OK to make the color change.
Color/Sepia/Mono	
Brightness / Contrast	The top slider is used to adjust the brightness. Move the slider to the right to increase the brightness or to the left to decrease the brightness. The bottom slider is used to adjust the contrast. Move the slider to the right to increase the contrast or to the left to decrease the contrast. Click on Update Preview to see changes made.
Select from Candidates	Click this button to open the Select from Candidates dialog box. Variations of the image with different degrees of brightness and contrast are displayed. Click one of the variations, and then click OK to apply the settings and display a preview of the image.
Update Preview	Click this button to update the previewed image after settings have been changed.



Memo:

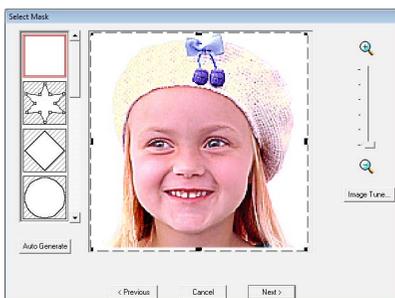
About the **Manual Select** dialog box



- To move the color selected in the **Color List** to the **Use Color List**, click **Add**.
- To delete the color selected in the **Use Color List**, click **Remove**.
- The thread colors in the **Color List** and **Use Color List** are listed, in order, starting from the brightest. This order is the sewing order and cannot be changed.
- The maximum number of colors that can be added to the **Use Color List** is 50.
- Thread colors displayed in the **Use Color List** are not displayed in the **Color List**.
- To select several colors, hold the **Shift** key (to select adjacent colors) or the **Ctrl** key (to select colors that are not adjacent), and then select the desired colors.

■ If Photo Stitch 2 (Color) is selected

1. From the list at the left side of the dialog box, select the desired shape that the image will be trimmed to (mask).



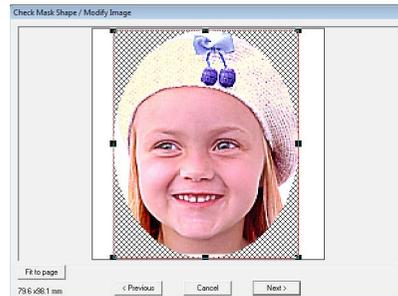
2. In the image preview box, move the handles of the mask until it surrounds the desired part of the image.

See step 2. on page 127.

3. Click **Next**.

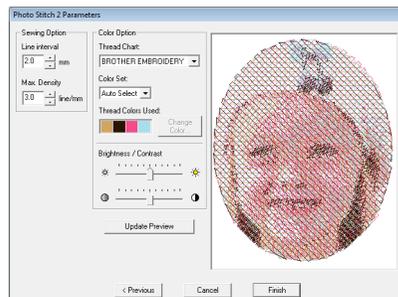
4. Adjust the image size and position.

See step 4. on page 128.



5. Click **Next**.

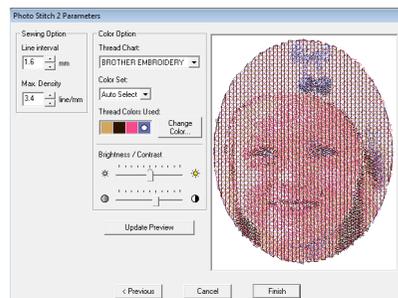
6. Specify the settings for creating the embroidery pattern.



"Sewing Option" on page 133 and "Color Option" on page 134.

7. Click **Update Preview**.

→ The previewed image is updated.



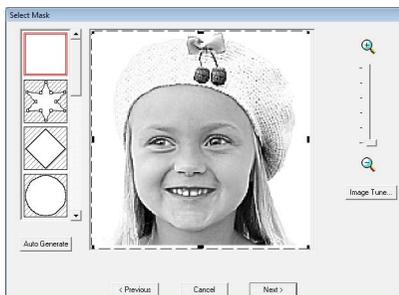
8. Click **Finish**.

→ An embroidery pattern is created and displayed in the Design Page.

→ The image is automatically hidden.

■ If Photo Stitch 2 (Mono) is selected

- From the list at the left side of the dialog box, select the desired shape that the image will be trimmed to (mask).



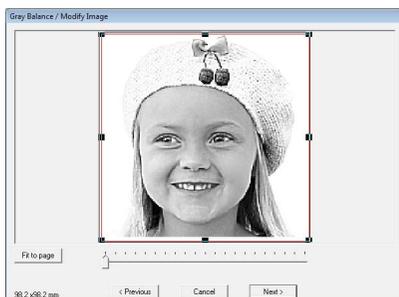
- In the image preview box, move the handles of the mask until it surrounds the desired part of the image.

☞ See step 2. on page 127.

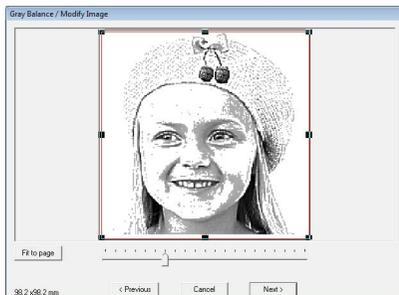
- Click **Next**.

- Adjust the image size and position.

☞ See step 4. on page 128.

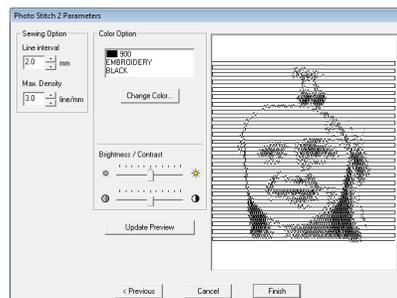


- Move the slider to specify which parts of the image to create the embroidery pattern for.



- Click **Next**.

- Specify the settings for creating the embroidery pattern.



☞ "Sewing Option" on page 133 and "Color Option" on page 134.

- Click **Update Preview**.

→ The previewed image is updated.



- Click **Finish**.

→ An embroidery pattern is created and displayed in the Design Page.

→ The image is automatically hidden.

Sewing Option

Line interval	Specifies the interval between parallel lines used to create the embroidery pattern. 
Max. Density	Specifies the maximum density for areas of the created embroidery pattern sewn with the zigzag stitch. The embroidery pattern will be created with a density smaller than that set here.

Color Option

Color	
Thread Chart	You can select the brand of thread to use with the Color Set function. The colors will be selected automatically correspond with the Color Set selection. A user thread chart can also be selected.
Color Set	If Auto Select is selected, the most appropriate four colors will automatically be selected. Selecting a different option specifies the four colors used when creating the embroidery pattern. 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
Thread Colors Used	Displays the four selected thread colors.
Change Color	In Thread Colors Used click on the color. Then click on Change Color to open the Thread Color dialog box. Select the new color and click OK . You will see the color change within the photo in the preview box within the Photo Stitch 2 Parameters dialog.
Mono	
Change Color	Click on the Change Color button to open the Thread Color dialog box if you wish to change the color of the photo stitching. You can also change the brand of thread you wish to sew with. Select the color and click OK to make the color change.
Color/Mono	
Brightness / Contrast	The top slider is used to adjust the brightness. Move the slider to the right to increase the brightness or to the left to decrease the brightness. The bottom slider is used to adjust the contrast. Move the slider to the right to increase the contrast or to the left to decrease the contrast. Click on Update Preview to see the changes made.
Update Preview	Click this button to update the previewed image after settings have been changed.

Automatically converting an image to a cross stitch pattern (Cross Stitch)

A tutorial describing basic operations is also available.

["Cross Stitch Function" on page 27](#)

■ If Cross Stitch (Color) is selected

1. In the image in the dialog box, click the areas to select whether or not they are to be sewn.



Memo:

- Areas not set to be sewn are shown filled with a crosshatch pattern.



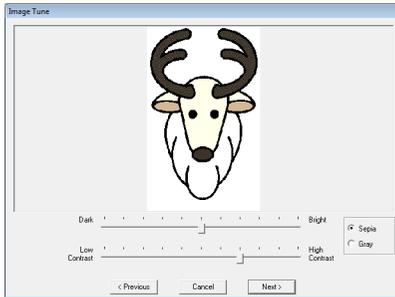
- To adjust the zoom ratio that the image is displayed in, move the slider between and .

2. If necessary, in the **Omit Colors** list, click the colors to select whether or not they will be sewn.



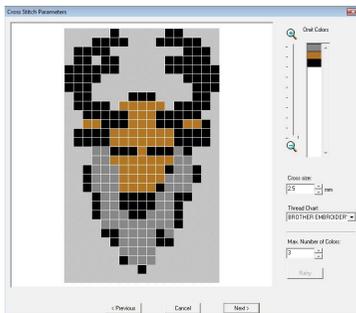
■ If Cross Stitch (Sepia) is selected

1. Adjust the brightness and contrast of the image.

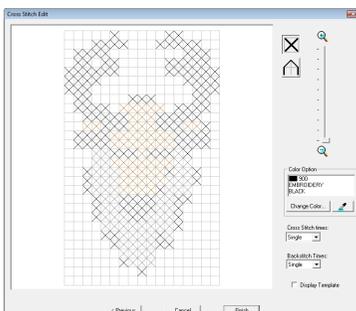


The top slider is used to adjust the brightness. Move the slider to the right to increase the brightness or to the left to decrease the brightness. The bottom slider is used to adjust the contrast. Move the slider to the right to increase the contrast or to the left to decrease the contrast.

2. Click **Sepia** or **Gray** to select the color tone.
3. Click **Next**.
4. Specify the sewing attributes and the settings for creating the embroidery pattern.



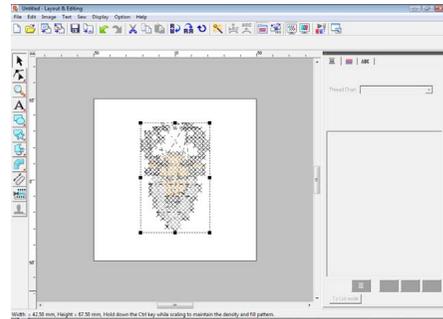
5. Click **Next**.
6. If necessary, edit the stitches.



7. Specify the number of times each stitch is sewn.

8. After selecting the desired settings, click **Finish**.

→ The cross stitch pattern is created and displayed in the Design Page.



The operations described starting with step 4 are the same as those starting with step 1 when **Cross Stitch (Color)** is selected.

👉 "If Cross Stitch (Color) is selected" on page 134.

Manually create embroidery patterns from images (Design Center)

■ If Design Center is selected

→ Design Center starts up, and a Design Page is displayed with the image imported into it.

👉 "Manually Creating Embroidery Patterns From Images (Design Center)" on page 153.

Creating appliqués (Applique Wizard)

The Applique Wizard provides instructions for easily creating appliqués.

A tutorial describing basic operations is also available.

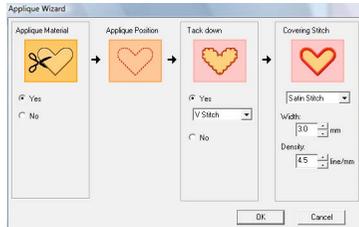
 "Creating Appliqués" on page 174 in the Instruction Manual (PDF format).

1. Select a pattern with a closed shape, such as a circle or square.

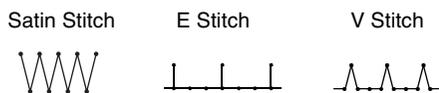
Memo:

- A pattern with lines that cross over themselves cannot be selected.
- The pattern selected for creating the appliqué will be deleted after the Applique Wizard is used.

2. Click **Sew**, then **Applique Wizard**.
3. Under **Applique Material**, select whether (**Yes**) or not (**No**) the outline of the appliqué is to be sewn onto the appliqué fabric as a guide for cutting it out.



4. The **Applique Position**, (guideline for attaching the appliqué piece) is set to be sewn automatically.
5. Under **Tack down**, select whether (**Yes**) or not (**No**) the appliqué is to be basted onto the base fabric. If **Yes** is selected, select the basting stitch from the selector. You can also select which stitch (Satin Stitch, E Stitch or V Stitch) to use for the basting.



6. Under **Covering Stitch**, select the sew type and other attributes for finishing the appliqué.
7. Click **OK** to finish the Applique Wizard and display the design in the Design Page.

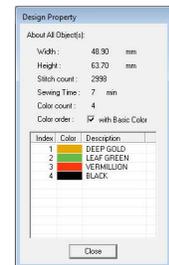
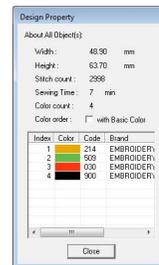
Checking embroidery design information

Sewing information such as dimensions, needle count, sewing time, color count and color order of patterns can be checked in the **Design Property** dialog box.

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

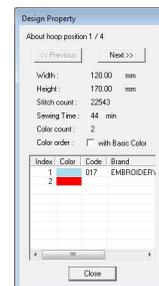
Note:

The displayed sewing time is an estimate. The actual sewing time depends on the machine model used and the specified settings.



Memo:

- You can select and check the properties of individual objects within the embroidery pattern by selecting the pattern before opening this dialog box.
- To display the colors as the machine's preset color names, select the **with Basic Color** check box.
- If the Design Page was set to **Custom Size** or **Hoop Size** is multi-position hoop (100 x 172 mm, 130 x 300 mm), and no object in the Design Page is selected, the sewing information for the entire Design Page is displayed hoop by hoop, and a **Design Property** dialog box appears.



Saving and Printing

Saving

Overwriting

Once the image or design has been saved, changes can easily be saved so that the latest version can be retrieved later.

Toolbar button: 

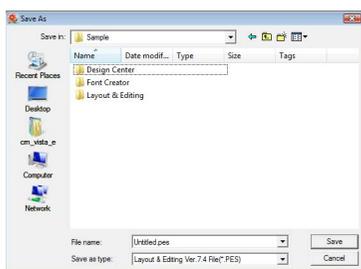
1. Click , or click **File**, then **Save**.

- If the image or design has already been saved at least once, the file is saved.
- If no file name has been specified or if the file cannot be found, the **Save As** dialog box appears.

Saving with a new name

The current file can be saved with a different file name in order to keep the original unchanged or to keep various versions of the same image or design. The files are saved as .pes files.

1. Click **File**, then **Save As**.
2. Select the drive and the folder, and then type in the file name.



Note:

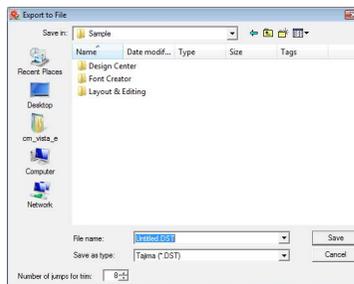
If you select a file type of a previous software version, saved .pes files can be opened with that version of the software; however, all saved design will be converted to stitch pattern.

3. Click **Save** to save the data.
 - The new file name appears in the title bar of the Layout & Editing window.

Outputting design in a different format

The data shown in the Design Page can be exported as a file of a different format (.dst, .hus, .exp, .pcs, .vip, .sew, .jef, .csd, .xxx, and .shv).

1. Click **File**, then **Export**.
2. Select the drive and the folder, and then type in the file name.



3. Select a format (.dst, .hus, .exp, .pcs, .vip, .sew, .jef, .csd, .xxx, or .shv) that the file can be exported as.

Memo:

With the DST format, you can specify whether or not the jump stitches are cut according to the number of jump codes. Since the number of codes differ depending on the embroidery machine being used, type or select the appropriate value in the **Number of jumps for trim** box. (This setting can only be specified if the .dst format is selected.)

Note:

- Some patterns imported from embroidery cards cannot be exported.
- Patterns designed on a custom-sized Design Page will be exported as a simple file, and will not be split into sections.

■ Writing an embroidery design to an original card

You can save a displayed embroidery design onto an original card in order to transfer it to a embroidery machine.

📖 Memo:

For details on writing two or more files to an original card, refer to "Writing Embroidery Design Files to an Original Card" on page 194 in the Instruction Manual (PDF format).

⚠ Note:

Be sure that the hoop size of the design does not exceed the hoop that will be used on the embroidering machine.

Toolbar button:



1. Insert an original card into the USB card writer module.

👉 "Transferring the design to an original card" on page 17.

2. Click  , or click **File**, then **Write to Card**.

→ The following message appears.



⚠ Note:

When writing to an original card that already contains data, all data on the card will be deleted. Before writing to a card, save all necessary data to a hard disk or other media, and check that no necessary data remains on the card.

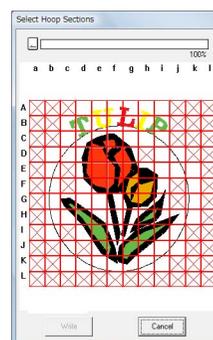
👉 "From an embroidery card" on page 49.

📖 Memo:

Designs created on a custom-sized Design Page are written to cards split into their various sections.

If the total size of the design exceeds the capacity of the original card or if your Design Page is set to a custom size of 90 × 90 cm (35.4" × 35.4"), and is split into over 80 sections, you will need to split the design into sections and write them onto several original cards.

In this case, the **Select Hoop Sections** dialog box appears to let you select the sections that can be written in the available space on the card.



The progress bar at the top of the dialog box shows the available space on the card as you select design sections to be written to the card. The space used by the selected design sections appears in blue. If you select several pattern sections which exceed the size limit, the space used appears in red.

Click each design section to select it, and then click **Write** to write the selected design sections to the card. To deselect a design section, simply click it again. (The **Write** button is available only when a section is selected and the space on the card is sufficient to receive the selected design.)

3. Click **OK**.

→ The message “Now transmitting” appears while the current embroidery design is transferred to the original card, and then the following message appears.



4. Click **OK** to close the message.

👉 “Overwriting” on page 138 and “Saving with a new name” on page 138.

■ Adding comments to saved .pes files

You can enter comments and information about the pattern to a saved .pes file.

1. Click **File**, then **Property**.

→ The **File property** dialog box appears.



2. To enter or change the information, type it in.

3. Click **OK** to save the entered information.

📖 Memo:

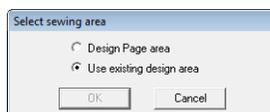
- The entered information will be saved to the file the next time that it is saved.
- Files can be searched for in Design Database according to the entered information.

Specifying the sewing area

The sewing area can be specified.

1. Click **Sew**, then **Select Sewing Area**.

2. Select the desired sewing area (**Design Page area** or **Use existing design area**).



3. Click **OK**.

→ If **Design Page area** was selected, the patterns will be sewn so that the needle position when you start sewing is aligned with the center of your Design Page.

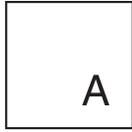
📖 Memo:

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 embroidering machine.

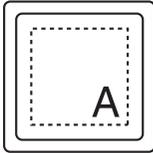
→ If **Use existing design area** was selected, the patterns will be sewn so that the needle position when you start sewing is aligned with the center of the actual patterns.

📖 Memo:

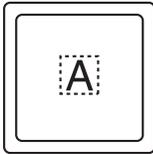
When **Use existing design area** is selected, the actual pattern size is maintained, therefore allowing greater mobility when using the layout functions of your embroidering machine.



Design Page (on your screen)



Sewing area = Design Page area



Sewing area = Use existing design area



“Specifying the Design Page Size and Color” on page 68.

Printing

For details on printing when combining print and embroidery, also refer to the tutorial.

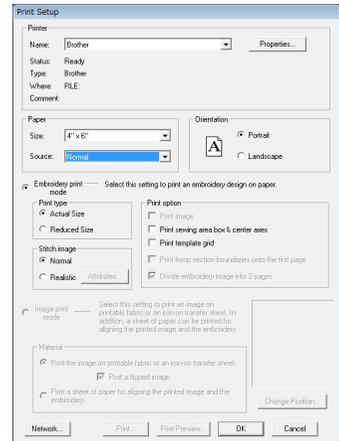


“6. Print and Stitch” on page 42.

■ Specifying print settings

Before printing, you may need to change the print settings for the embroidery design files.

1. Click **File**, then **Print Setup**.
2. Under **Paper** and **Orientation**, select the appropriate settings.



3. To print the embroidery pattern, select **Embroidery print mode**.

Under **Print type**, **Print option** and **Stitch image**, select how the data is to be printed.

Print type

Actual Size: Select this option to print the design in actual size and the sewing information (dimensions of the embroidery, the sewing color order and the stitch count, the hoop position) on separate pages.

Reduced Size: Select this option to print a reduced image together with all of the above-mentioned information on a single page.

Print option

Print image: Select this check box to print the image imported into the Design Page in addition to the embroidery pattern. However, any part of the image extending out of the print area for the embroidery will not be printed.

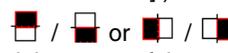
Print sewing area box & center axes: Select this check box to print black lines to indicate the sewing area (refer to “Specifying the sewing area” on page 140) and the center axes for the data. (This setting is only available when **Actual Size** is selected.)

Print template grid: Select this check box to print green lines to represent the grid printed on the embroidery sheet included with the hoop.

Print hoop section boundaries onto the first page: Select this check box to print the design sections of a design for which the Design Page has been set to a custom size or to a multi-position hoop. The pattern sections are printed in red.

Divide embroidery image into 2 pages:

Select this check box to print in actual size and on A4- or Letter-size paper design that is larger than the paper size by dividing them in two and printing each half on different pages. (This setting is only available when **Actual size** is selected in the **Print Setup** dialog box and when the Design Page is set to the larger hoop sizes [300 × 200 mm (11 3/4" × 7 3/4"), 200 × 300 mm (7 3/4" × 11 3/4"), 180 × 300 mm (7" × 11 3/4") when set to **Hoop Size**, and 170 × 290 mm (180 × 300 mm) 6.69" × 11.41" (7" × 11 3/4") or 290 × 190 mm (300 × 200 mm) 11.41" × 7.48" (11 3/4" × 7 3/4") when set to **Custom Size**].) With this split printing feature,

 is printed in the lower-right corner of the paper to indicate which half is printed.

Stitch image

Normal: Select this option to print the design as lines and dots.

Realistic: Select this option to print a realistic image of the design. To change the settings of the realistic image, click **Attributes**.

 “Memo” on page 65.



Note:

If the **Divide embroidery image into 2 pages** check box is cleared and you print on a larger paper size, the design does not print in two halves. Likewise, if you print on a smaller paper size, the design might be cut off.

- When printing an imported image onto iron-on paper or printable fabric, or when printing the sheet for positioning the embroidery in the printed image, select the **Image print mode** check box, and then select an option under **Material**.

Material

Print the image on printable fabric or an iron-on transfer sheet: Select this option to print the background image on iron-on material or fabric that can be printed on. Only the image is printed.

Print a flipped image: Select this option to print the image flipped on a vertical axis. When printing on iron-on paper, the image is normally printed flipped (mirror image). (For details, refer to the instructions for the iron-on paper that you are using.)

Select this option if your printer does not have a function for printing a flipped (mirror) image. (For details, refer to the instructions for your printer.)

Print a sheet of paper for aligning the printed image and the embroidery: Select this option to print a sheet for aligning the positions of the image and embroidery. Positioning marks and guidelines indicating the embroidering area are printed on the image.

Change Position: The position where the image is printed on the paper can be changed. (Any part of the image extending out of the print area of the paper is not printed.) Click **Change Position** to display the **Image Print Position Setting** dialog box, and then drag the image to the desired printing position in the paper.

- Click **OK**.



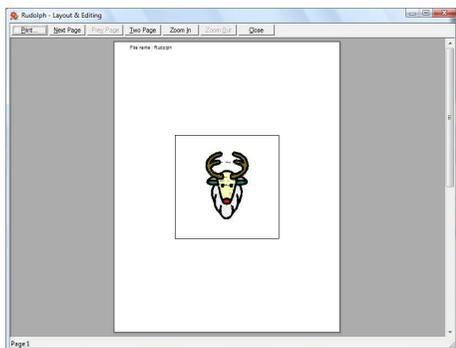
“Displaying a preview of the embroidery” on page 65.

■ Checking the print image

You can preview the contents of the Design Page before printing.

1. Click **File**, then **Print Preview**.

→ The print image is displayed.

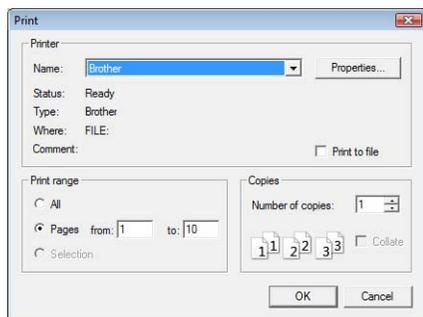


 *“Specifying print settings” on page 141, “Printing” on page 143 and “Checking embroidery design information” on page 137.*

■ Printing

You can print the Design Page together with its sewing information.

1. Click **File**, then **Print**.
2. Select the necessary settings.



3. Click **OK** to begin printing.
4. Follow the instructions for the printer to finish printing.

Creating an Embroidery Design From an Image

Design Center is used to create an embroidery design from an image. During this procedure, the image design can be modified, the outlines and regions can be edited in detail, and sewing attributes can be specified.

The most appropriate images to use are those with few and distinct colors. Images or photos that are intricate or have gradations are not suitable since it is difficult to extract their outlines.

An embroidery design is created in the following four stages.

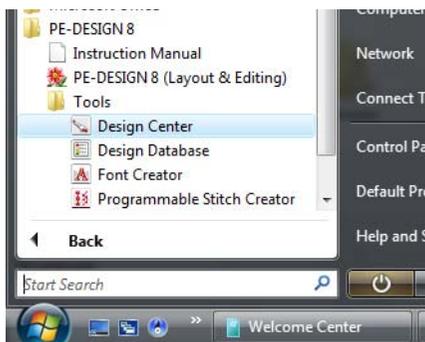
Stage 1 Original Image Stage	Stage 2 Line Image Stage	Stage 3 Figure Handle Stage	Stage 4 Sew Setting Stage
			
<p>Open an image file, and select the colors to be used for creating the outlines.</p>	<p>The original image is converted to a black-and-white line image. Outlines can be drawn or erased.</p> <p>Example: The stripes in the scarf are erased. Stripes are added to the scarf.</p>	<p>The line image is converted to a figure handle image. Points in the figure handle image can be edited to change the design.</p> <p>Example: The eyes are moved, and the facial expression is changed. A star is added to the tail of the plane.</p>	<p>The sew type and thread colors are specified in the outline to complete the embroidery design.</p> <p>Example: By applying colors different than in the original image, the design is given a different appearance.</p>
<ul style="list-style-type: none"> • If the data is saved, work can be stopped at each stage, then started again. • Line image data is saved in the .pel format, and figure handle data is saved in the .pem format. • The embroidery data is saved in the .pem format. To transfer .pem data created in Design Center to an embroidery machine, import the pattern into Layout & Editing, and then write the data to an original card. <p> <i>"Importing into Layout & Editing" on page 152" and "Transferring the design to an original card" on page 17".</i></p>			

This section describes the basic operations performed in Design Center. For details on the procedures or settings, refer to "Manually Creating Embroidery Patterns From Images (Design Center)" on page 153.

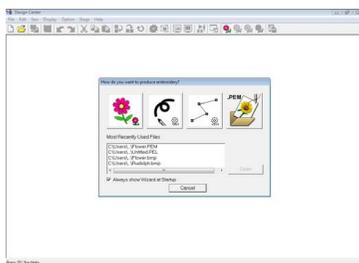
Step 1 Original Image Stage

We will import an image and convert it to a line image.

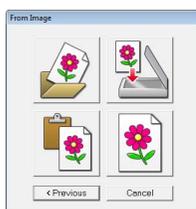
- 1 Click , and then select **All Programs**, then **PE-DESIGN 8**, then **Tools**, then **Design Center**.



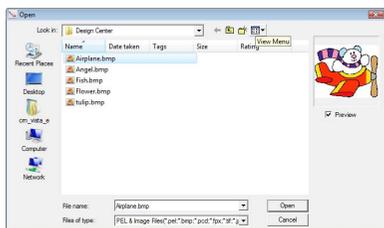
- 2 Click .



- 3 Click .

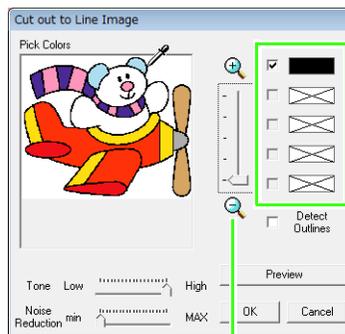


- 4 Select the desired image file, and then click **Open**.



- 5 In the **Cut out to Line Image** dialog box, click the colors to be used for the outlines (embroidery lines).

→ The selected color appears in a box on the right side, and appears in the check box to show that the color is selected.



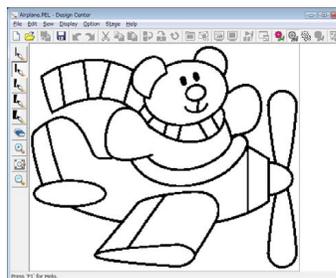
The desired color can be selected more easily if the **Zoom** slider is used to enlarge the image.

If a color other than that for the outline was selected, clear the check box beside the color to deselect it.

 For details on other settings in the **Cut out to Line Image** dialog box, refer to "Extracting the outlines of an image" on page 156.

- 6 After selecting the colors to be used for the outlines, click **OK**.

→ The line image appears in the Design Page.

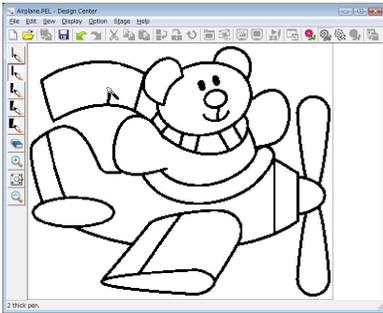


Step 2 Line Image Stage

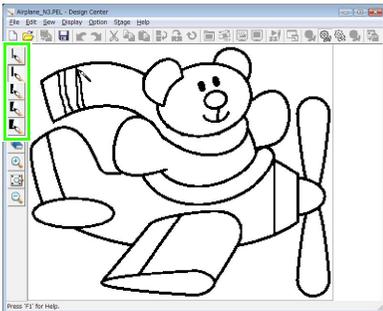
In Line Image Stage, lines can be easily edited. Lines can be drawn freehand with pen tools and can easily be erased with the eraser tool.

- 1 To erase a line, right-click with a Pen tool selected, or hold down the right mouse button and drag the pointer.

Lines can also be erased with  .



- 2 To draw lines, click a **Pen tool**. Select the Pen tool with the desired thickness of the line to be drawn. Drag the pointer to draw a line.



Memo:

To draw vertical or horizontal lines, hold down the **Shift** key while moving the pointer.

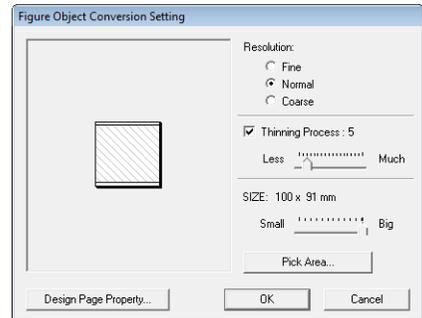
Memo:

- If lines are drawn or erased incorrectly, click **Edit**, then **Undo**, or click  (Undo button) to undo the last operation.

- To change the display size, click  ,  or  .

- 3 When the line image is finished, click  , or click **Stage**, then **To Figure Handle**.

- 4 Click **OK**.



 For details on other settings in the **Figure Object Conversion Setting** dialog box, refer to “Changing settings for converting to outlines” on page 158.

→ The line image is converted to a figure handle image.



Memo:

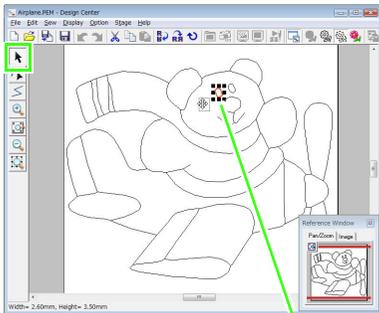
Even after the line image is converted to a figure handle image, you can return to the Line Image Stage to edit the line image.

Step 3 Figure Handle Stage

Points in the figure handle image can be moved, added or deleted to change the design. Sewing attributes cannot be applied to regions if the region is not completely enclosed in an outline. In this stage, fully enclose areas to be sewn as regions.

Moving outlines

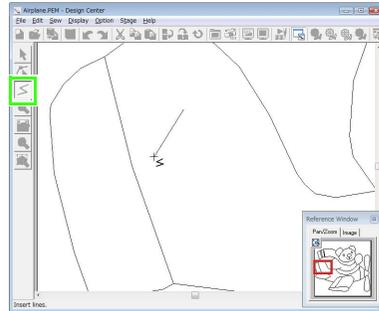
- 1 Click , and then click the outline to be moved.
→ Handles appear, and the outline appears in red.
- 2 Move the pointer over the outline so that the shape of the pointer changes to , and then drag the outline.



Handle

Adding lines to the figure handle image

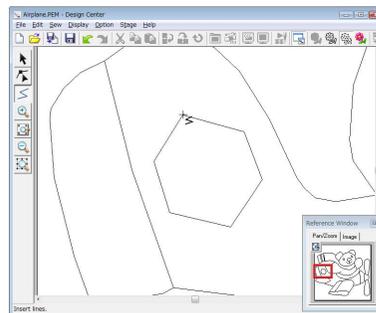
- 1 Click  on the Tool Box.
- 2 Click in the Design Page to specify the start point, and then click in the Design Page to specify the next point.
→ A line is drawn connecting the two points.
Continue clicking to draw additional lines.



Memo:

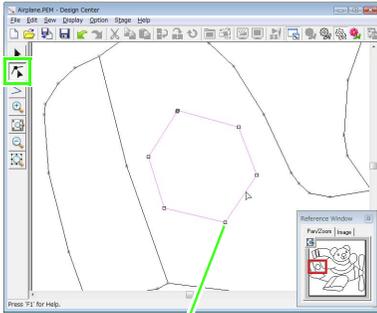
- To remove the last point that was entered, right-click.
- To draw vertical or horizontal lines, hold down the **Shift** key while moving the pointer.

- 3 Double-click the end point.



Reshaping outlines

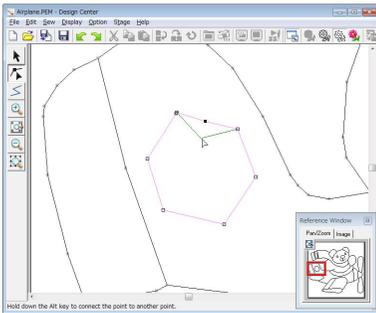
- 1 Click  on the Tool Box.
- 2 Click an outline.
→ The selected line appears in pink, and the points appear as small squares.



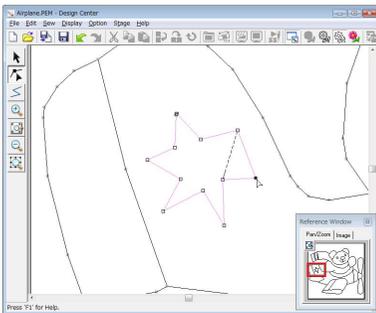
Point

Point at the end of line

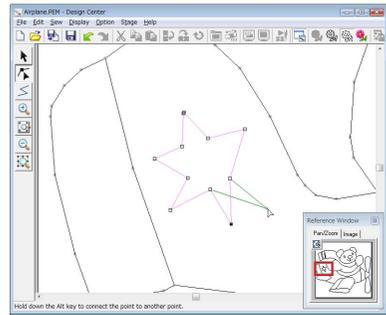
- 3 To add a point, click the outline.
To create a corner, drag the point.



- 4 If the point is deleted, the corner is removed. Click the point, and then press the **Delete** key, or click Edit, then Delete.



- 5 To change the shape of the line, drag the point.



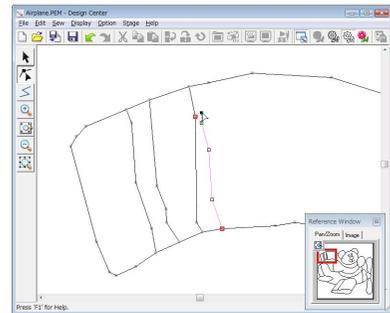
Memo:

If multiple points are selected, all of the points will be moved or deleted. To select additional points, hold down the **Ctrl** key and click each point, or drag the pointer over the points.

Splitting lines

Lines can be split at a point.

- 1 Perform steps 1 and 2 in “Reshaping outlines” to select a line.
- 2 Click a point, and then click **Edit**, then **Split** to split the line.



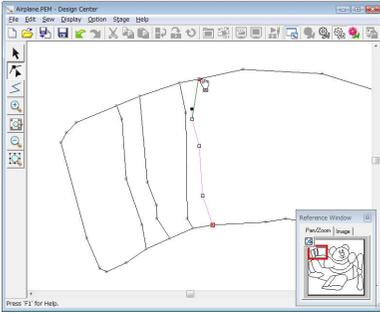
Connecting lines

Two points can be connected to form a line.

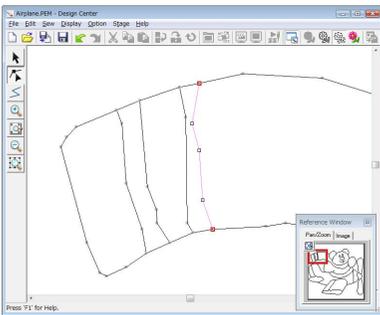
- 1 Perform steps 1 and 2 in “Reshaping outlines” to select a line.

- While holding down the **Alt** key, drag the selected point to the other point that you want to connect to it.

→ The shape of the pointer changes to , and a red square appears when the two points are overlapping.



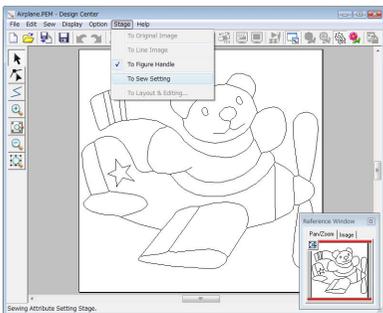
- Release the mouse button to connect the two points.



Continuing to the Sew Setting Stage

When the figure handle image is finished, continue to stage 4.

- Click , or click **Stage**, then **To Sew Setting**.



Memo:

Even after continuing to the Sew Setting Stage, you can return to the Figure Handle Stage to edit the figure handle image.

Step 4 Sew Setting Stage

We are now going to apply sewing attributes to the different parts of the outline to create the embroidery pattern.

Using the Reference Window

This allows you to select colors while checking the colors in the original image.

- Click .
- Click the **Image** tab.
→ The image opened in stage 1 appears.



Memo:

If **Reference** has been clicked, click **Original**.

Specifying sewing attributes

To specify attributes, first select the color and sew type, and then click the line or region where the sewing attributes are to be applied.

- Click , , or .

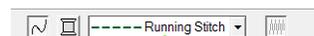
 : Click this button to apply sewing attributes to the entire outline.

 : Click this button to apply sewing attributes to a portion of the outline.

 : Click this button to apply sewing attributes to a region.

→ The Sewing Attributes bar appears as shown below.

For  or 



Line sew type selector

For 



Region sew type selector

- 2 Click .
- 3 Click the desired color.



- 4 Click in a **sew type** selector, and then select the desired sew type.
- 5 When using  or , click the outline where the sewing attributes are to be applied.



→ The sewing attributes are specified.



- 6 When using , click the region where the sewing attributes are to be applied.



→ The sewing attributes are specified.



To change the sewing attributes, repeat steps 1 through 6.



Note:

Sewing attributes for region cannot be applied to open regions (regions not fully enclosed in an outline), as shown in the illustration below.



If attributes cannot be applied to a region, return to the Figure Handle Stage and make sure that region is closed. Edit any broken lines with the Point Edit tool.

"Drawing a broken line" on page 161.

Memo:

From the **Sewing Attribute Setting** dialog box, detailed settings for attributes, such as the width of satin stitches and the run pitch, can be specified.

"Specifying sewing attributes" on page 165.

Importing into Layout & Editing

The embroidery pattern created in Design Center can be imported into Layout & Editing, where it can be edited and combined with other embroidery patterns.

Note:

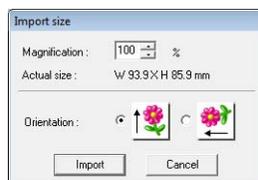
If the sewing attributes of an outline or region are not set, the embroidery pattern cannot be imported.

- 1 Click , or click **Stage**, then **To Layout & Editing**.

→ Layout & Editing starts up.

- 2 Specify settings for **Magnification** and **Orientation**.

The maximum magnification ratio that can be specified is the ratio that enlarges the design to the size of the Design Page. The minimum magnification ratio is 25%.



- 3 Click **Import**.

→ The embroidery pattern created in Design Center is imported into Layout & Editing.

Memo:

An embroidery pattern (.pem data) created in Design Center cannot be written to an original card. Import the embroidery pattern into Layout & Editing, and then write the data to a card in order to transfer the pattern to an embroidery machine.

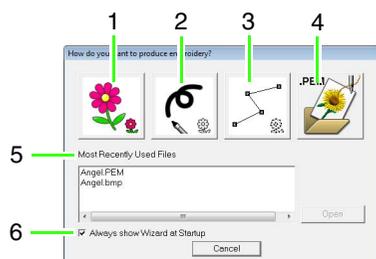
Original Image Stage

Using the wizard

This wizard provides a step-by-step guide for creating embroidery patterns.

1. Click **File**, then **Wizard**.

→ The **How do you want to produce embroidery?** dialog box appears.



1 From Image

Click this button when creating embroidery pattern from an image.

Clicking this button displays the **From Image** dialog box, and then continues with a step-by-step guide for creating embroidery patterns.

“Opening an image” on page 155.

2 New Line Image

Clicking this button opens a new Design Page in the Line Image Stage.

Click this button when you want to use the black pen and eraser tools to draw an image, then create an embroidery pattern from that image.

“Drawing a new line image freehand” on page 157.

3 New Figure

Clicking this button opens a new Design Page in the Figure Handle Stage.

Click this button when you want to draw a figure handle image, or when you want to create patterns from outlines taken from a previously saved .pem file.

“Drawing a new figure handle image freehand” on page 160.

4 Open PEM

Click this button when you want to edit a saved .pem file (saved in the Figure Handle Stage or the Sew Setting Stage).

Clicking this button displays the **Open** dialog box so that a .pem file can be selected.

5 Most Recently Used Files

A list of the most recently edited files are displayed.

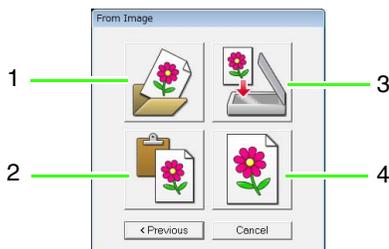
From the list, click the name of the file, and then click **Open**.

6 Always show Wizard at Startup

Select this check box to start up the wizard each time Design Center is started up.

Opening an image

When you click the **From Image** button in the **How do you want to produce embroidery?** dialog box, the **From Image** dialog box appears.



1 Open Image File

Click this button to open a previously saved image file and paste the image in the Design Page.

There are many different types of files that can be imported.

"Image file formats" on page 19.

2 From Clipboard

Clicking this button pastes the image on the Clipboard into the Design Page. This function can only be used when there is an image on the Clipboard.

3 From TWAIN device

Click this button to import an image from a TWAIN device (such as a scanner or digital camera) connected to your computer, then paste it in the Design Page.

4 Use Current image

Click this button to use an image opened in the Original Image Stage. This function can only be used when an image is opened in the Original Image Stage.

Memo:

To import an image from a file TWAIN device

- Connect the TWAIN device to the computer, and then click **File**, then **Select TWAIN Device**, or click **From TWAIN device** in the **From Image** dialog box. When the **Select Source** dialog box appears, select a device. Next, click **File**, then **Input from TWAIN device**.
- For information on using the driver interface, refer to the help manual for that interface, or contact the manufacturer of the interface.

Tips for scanning illustrations for Design Center

- If the outline is not clear, trace the outline on tracing paper.
- Better scanning results may be produced by reducing the tone of the image.

Opening a file

A file can be opened directly without using the wizard.

1. Click , or click **File**, then **Open**.
2. Select the drive and the folder.
3. From the **Files of type** box, select **Image file**.
4. To open a file, select it, and then click **Open**, or double-click the file's icon.

Memo:

- If a *.pel* file is selected, the file is opened in the **Line Image Stage**.
- If a *.pem* file is selected, the file is opened in the **Figure Handle Stage** or the **Sew Setting Stage**.

Line Image Stage

After opening the image, continue to the Line Image Stage, where the color(s) that will be used to create the line image (outline of the image) will be selected. In the Line Image Stage, you can edit the image using the pen and eraser tools. You may also want to use these tools to create outlines that are easier to draw by hand, for example, free-hand writing.

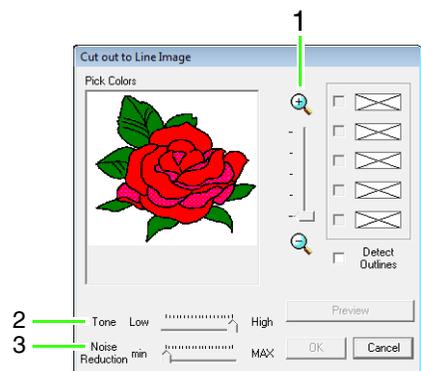
For details on drawing and erasing outlines, refer to Step 2, “Line Image Stage”, on page 147.

Extracting the outlines of an image

Toolbar button: 

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

→ The **Cut out to Line Image** dialog box appears.



1. **ZOOM** slider
Use this slider to adjust the zoom ratio for displaying the image.
2. **Tone** slider
Use this slider to reduce color tones in images where it is difficult to select the outline color.
3. **Noise Reduction** slider
Use this slider to reduce image noise (distortions) in images where the outline is not clear.

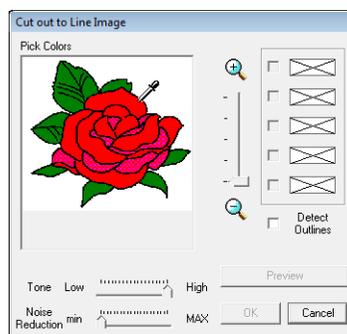
Memo:

- We recommend using a 16-color image, since it may be difficult to pick colors from a 256-color or truecolor image during the conversion to the Line Image Stage. When using a 256-color or truecolor image, use the **Tone** slider to adjust the image.

Note:

If you started with the Figure Handle Stage by opening a Figure Handle Stage file, you cannot go to the Line Image Stage.

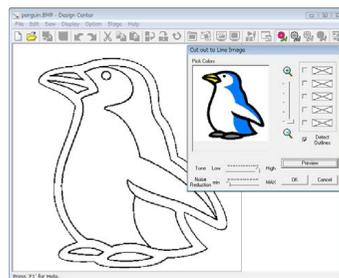
2. Click the outline color(s) to convert into black outlines.



To extract the color boundaries, click **Detect Outlines** check box.

Memo:

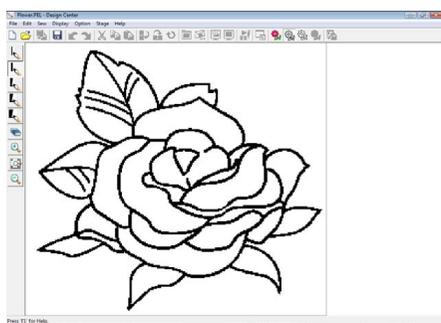
- When the extracting color boundaries using **Detect Outlines**, the colors are converted to line image as shown below.



- To deselect a color, clear the corresponding check box.

3. Click **Preview** to preview the line image in the Design Page.

4. Click **OK**.



 **Memo:**

If you do not like the result, click  to go back to the Original Image Stage, and then create the line image again.

Drawing a new line image freehand

Toolbar button:



1. Click , or click **File**, then **New Line Image**.

→ A new Design Page immediately appears in the Line Image Stage.

Using the Pen and Eraser tools, the line image can be drawn freehand in the Design Page.

 "Line Image Stage" on page 156.

 **Memo:**

In the Line Image Stage, the file will be saved as a .pel file.

 "Saving embroidery patterns" on page 169, and "Drawing a new figure handle image freehand" on page 160

Figure Handle Stage

After creating the outline, which is simply a collection of dots (or pixels) in the Line Image Stage, continue to the Figure Handle Stage, where the dots are automatically connected to create lines that can be edited. In the Figure Handle Stage, you can use the Point Edit tool to move, delete and insert points, or you can use the Line tool to draw lines.

Changing settings for converting to outlines

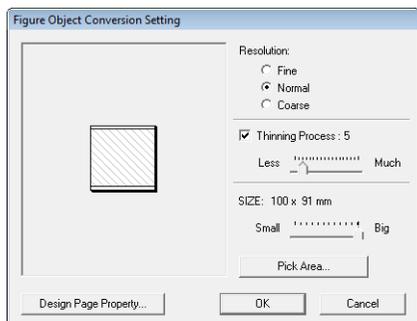
Toolbar button:



1. Click , or click **Stage**, then **To Figure Handle**.

2. Select a setting under **Resolution**.

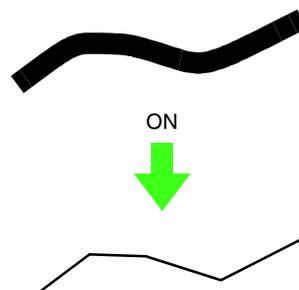
In general, **Normal** provides a sufficient resolution without making the file too large. If selecting **Coarse** gives a satisfactory result for a particular image, select this setting in order to keep the file as small as possible. Select **Fine** only if the image contains many small details, and the **Normal** setting does not give a satisfactory result.



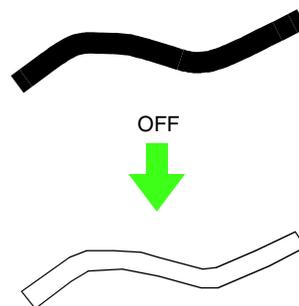
3. To replace the black outlines with figure handle lines along the center of the outlines, select the **Thinning Process** check box, and then use the slider to select the degree of detail.

Memo:

When the slider is set to **Much**, even very thick black lines will be replaced with a line along the center.



To replace the black lines with figure handle lines following the border of the outlines, clear the **Thinning Process** check box.



4. Use the **SIZE** slider to set the size.

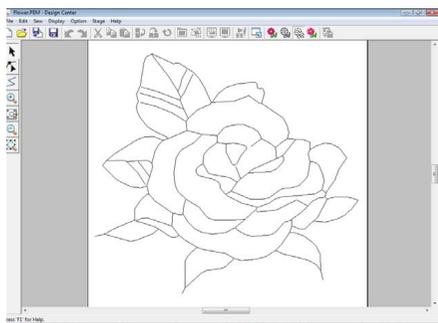
Note:

You will not be able to enlarge the image beyond the limits of the Design Page area. If necessary, click **Design Page Property**, and then change the Design Page size.

Memo:

To create outline data from a part of the image, select the specific area by clicking **Pick Area**, then dragging the pointer (+) to draw a selection frame around the area to be selected.

5. Click **OK**.



Note:

If the outline data cannot be created from the image when moving from the **Line Image Stage** to the **Figure Handle Stage**, even after various outline conversion settings are specified, return to the **Line Image Stage**, and correct the outlines in the line image or apply corrections to the image.

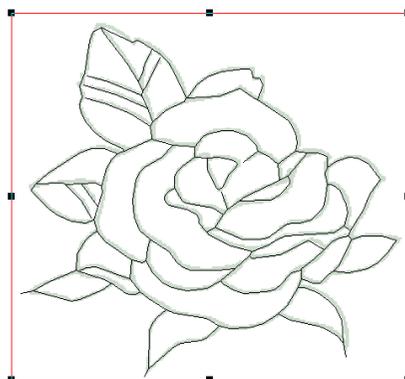
Changing the background image

■ Changing the display of the background image

1. Click **Display**, then **Display Template**, and then select the desired setting.
 - To display the line image, click **On**.
 - To display a faded copy of the line image, click **Faded**.
 - To hide the line image, click **Off**.

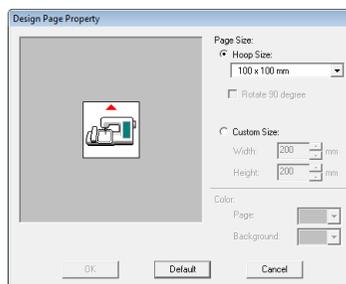
■ Changing the size and position of the background image

1. Click **Display**, then **Modify Template**.
2. Drag the template image to move it to the desired location.
Drag a handle to enlarge or reduce the size of the template image.



Specifying the Design Page size

1. Click **Option**, then **Design Page Property**.
2. Select the Design Page size.



To adjust the Design Page size according to the hoop size, select **Hoop Size**, and then select the desired hoop size from the selector. To specify a custom Design Page size, select **Custom Size**, and then type or select the desired width and height for the Design Page.

3. Click **OK**.

Memo:

To return to the default settings (**100 × 100 mm (4" × 4") of Hoop Size**), click **Default**.

Note:

Do not select a hoop size larger than the embroidery hoop that can be used with your machine.

Drawing a new figure handle image freehand

An empty Design Page can be created in order to draw a figure handle image or to create patterns from outlines taken from a previously saved .pem file.

1. Click **File**, then **New Figure Data**.
→ A new Design Page appears.



Memo:

- In the Figure Handle Stage, the file will be saved as a .pem file.
- To retrieve data from a saved .pem file, use the menu command **File – Import Figure**.

Editing outlines

Selecting outlines

1. Click .
2. Click the outline.
3. To select an additional outline, hold down the **Ctrl** key and click the other outline.

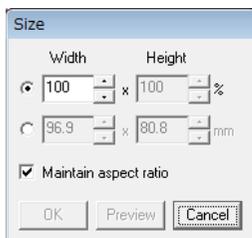
Reshaping outlines

For details on moving points, inserting points, deleting points and splitting/connecting points, refer to “Figure Handle Stage” on page 148.

Scaling outlines

Scaling numerically:

1. Select the outline.
2. Click **Edit**, then **Numerical Setting**, then **Size**.
3. To change the width and height proportionally, select the **Maintain aspect ratio** check box.



4. Select whether the width and height will be set as a percentage (%) or a dimension (millimeters or inches).
5. Type or select the desired width and height.
6. Click **OK**.

Flipping outlines horizontally or vertically

1. Select the outline.
2. Click **Edit**, then **Mirror**, then **Horizontal**, or click on the Toolbar.
Click **Edit**, then **Mirror**, then **Vertical**, or click on the Toolbar.

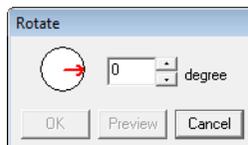
Rotating outlines

Rotating manually:

1. Select the outline.
2. Click **Edit**, then **Rotate**, or click .
3. Move the pointer over one of the handles. And then drag the rotation handle.

Rotating numerically:

1. Select the outline.
2. Click **Edit**, then **Numerical Setting**, then **Rotate**.
3. Type or select the desired rotation angle.



Memo:

- An angle can also be selected by dragging in the **Rotate** dialog box.

4. Click **OK**.

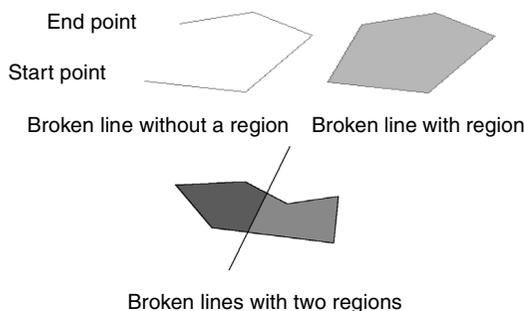
Drawing a broken line

The line drawing mode allows you to add broken lines to your pattern. A broken line is made of one or more adjacent straight lines, in other words, the end point of one straight line is the start point of the next one.

If the broken line that you drew did not create enclosed regions, it remains a simple outline, and you can only set sewing attributes for the line itself in the Sew Setting Stage.

If the broken line created enclosed regions, you can assign sew types and colors to both the outline and the regions in the Sew Setting Stage.

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



For details on drawing lines, refer to “Adding lines to the figure handle image” on page 148.

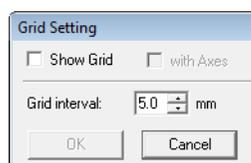
Changing application settings

■ Changing the grid settings

A grid of dotted lines or solid lines can be displayed or hidden, and the spacing for the grid can be adjusted. (This function is available only in the Figure Handle Stage.)

1. Click **Display**, then **Grid Setup**.

2. To display the grid, select the **Show Grid** check box.
To hide the grid, clear the **Show Grid** check box.



3. To set the grid spacing, type or select a value in the **Grid interval** box.
4. To display the grid as solid lines, select the **with Axes** check box.
To display the grid as dots (intersecting points of the grid), clear the **with Axes** check box.
5. Click **OK** to apply the changes and to close the dialog box.

■ Changing the measurement units

The measurements for values displayed in the application can be in either millimeters or inches.

1. Click **Option**, then **Select System Unit**, and then select the desired measurement units (**mm** or **inch**).

Viewing outlines in the Reference Window

All outlines in the Design Page are displayed in the Reference Window, giving you an overall view of the outline while you work on a detailed area. The display area frame (red rectangle) indicates the part of the outline displayed in the Design Page.

In addition, the image being used to create the embroidery pattern or the embroidery pattern being created and a different image can be displayed in the Reference Window in the Figure Handle Stage and the Sew Setting Stage.

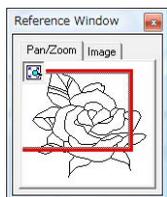
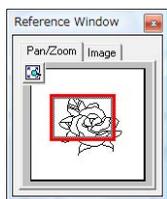
To switch between displaying and hiding the Reference window, click **Display**, then **Reference**

Window, or click , or press the shortcut key (**F11**).

Zooming

The Reference Window can be switched to display either the entire Design Page or only the embroidery pattern.

1. Click the **Pan/Zoom** tab, click .



Moving the display area frame

The part of the outline displayed in the Design Page can be selected from the Reference Window.

1. Move the pointer over the display area frame.
2. Drag the display area frame so that it surrounds the desired part of the outline.
→ The selected part of the outline is displayed in the Design Page.

Redrawing the display area frame

Instead of moving the display area frame, the frame can be redrawn to display the desired part of the outline in the Design Page.

1. Click the area to be displayed, or drag the pointer over the desired part of the outline in the Reference Window.

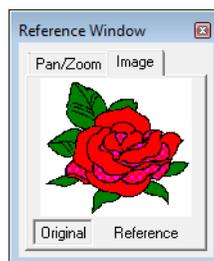
Scaling the display area frame

1. Move the pointer over a corner of the display area frame.
2. Drag the corner to adjust the display area frame to the desired size.

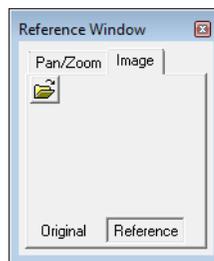
Displaying a different reference image

The embroidery pattern being created and a different image can be displayed in the Reference Window.

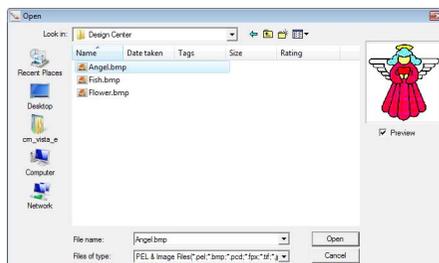
1. Click the **Image** tab.



2. Click **Reference**, then click .



3. Select the reference image, and then click **Open**.



Sew Setting Stage

After editing the outline in the Figure Handle Stage, continue to the Sew Setting Stage, where the sewing attributes can be set. Use the zooming tools available to display the pattern enlarged or reduced.

Memo:

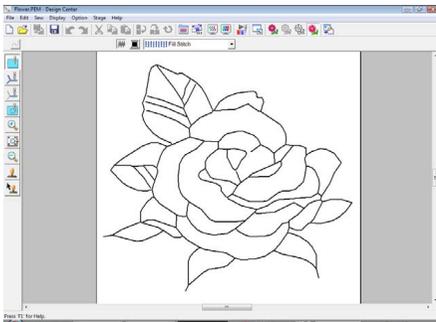
- You can change the color and sew type either before or after applying sewing attributes to the region.
 - ➔ “Color” on page 165 and “Sew type” on page 165.
- You can also use the settings in the **Sewing Attribute Setting** dialog box to define other attributes of the sew type.
 - ➔ “Specifying sewing attributes” on page 165.

Toolbar button:



1. Click  , or click **Stage**, then **To Sew Setting**.

→ The pattern is displayed in the Design Page of the Sew Setting Stage.



Memo:

In the Sew Setting Stage, the colors of the Design Page and background can be changed from the **Design Page Property** dialog box (displayed by clicking **Option**, then **Design Page Property** in the menu).

Applying sewing attributes to lines and regions

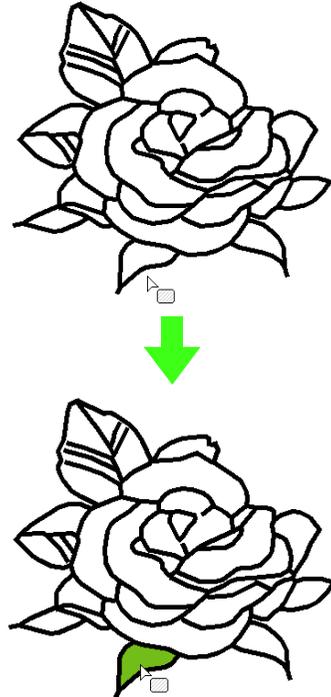
■ Region sewing

Applying sewing attributes to regions

1. Click  on the Tool Box.
2. If necessary, change the color and sew type.
 - ➔ “Using the sewing attributes bar” on page 164

3. Click the enclosed region to apply the sewing attributes.

→ “Marching lines” appear around the selected region, and the color and sew type selected on the Sewing Attributes bar are applied to the region.



Note:

If the attributes cannot be applied to a region, go back to the Figure Handle Stage and make sure that region is closed. Edit any broken lines with the Point Edit tool.

 **Memo:**

- Although a region may seem closed, if the sewing attributes cannot be specified for the region, the region may not actually be closed. To find the opening in the region, use the line drawing mode in the Figure Handle Stage to divide the region into smaller regions, and then check which region sewing attributes cannot be applied to in the Sew Setting Stage.
- Point edit mode is useful for closing regions.
- After sewing attributes have been specified, right-clicking an area where settings have been specified displays the **Sewing Attribute Setting** dialog box so that detailed sewing attribute settings can be viewed.

 **Memo:**

- When  on the Tool Box is selected, settings are applied only to a portion of the clicked outline.
- After sewing attributes have been specified, right-clicking a line where settings have been specified displays the **Sewing Attribute Setting** dialog box so that detailed sewing attribute settings can be viewed.

Using the sewing attributes bar

The Sewing Attributes bar, available in the Sew Setting Stage, allows you to set the color and sew type of region and outlines.

The sewing attributes that are available depend on the tool selected in the Tool Box.

Example 1: When  on the Tool Box is selected

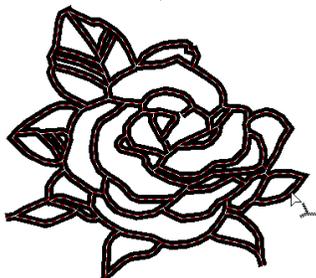
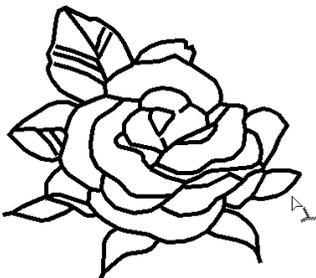


Example 2: When  or  on the Tool Box is selected



Line sewing

1. Click  or  on the Tool Box.
2. If necessary, change the color and sew type.
 "Using the sewing attributes bar" on page 164.
3. Click the outline to apply the sewing attributes.
 → "Marching lines" appears along the selected outline, and the color and sew type selected on the Sewing Attributes bar are applied to the outline.



	Region sew: Switches on/off sewing for the region.
	Line sew: Switches on/off sewing for the line.
	Region color, Line color: Click this button to set the thread color for lines or regions.
	Region sew type, Line sew type: Use these selectors to set the sew type for lines or regions.

Region sew / Line sew

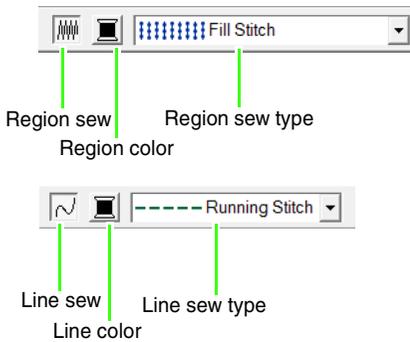
 switches on/off region sewing;  switches on/off line sewing.

Memo:

When line sewing or region sewing is switched off, the lines or regions are not sewn.

1. Clicking the button switches between the two settings. Click the button to switch on or off sewing.

On: The **Region color/Line color** button and the **Region sew type/Line sew type** selector are displayed.



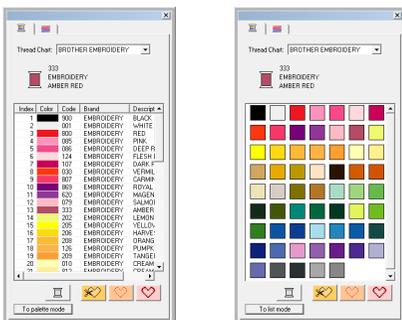
2. Click the region or outline where the sewing attributes are to be applied.

If region sewing or line sewing has been switched on, the regions or lines appear in the selected thread color. If it has been switched off, the regions appear in white or the outlines appear as dotted lines.

Color

Click this button to set the thread color for lines or regions.

1. Click the **Color** button.
2. From the **Thread Chart** selector, select a thread color chart or a user thread chart.



3. From the list of thread colors, click the desired color.

→ The new color is displayed on the **Region color** button or **Line color** button.

Memo:

For details on the four buttons under the list, refer to "Special colors" on page 95.

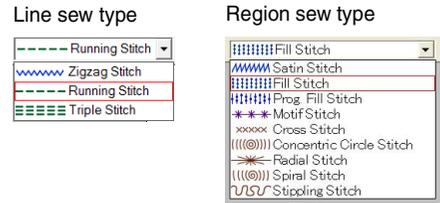
4. Click the region or outline to apply the color setting.

Sew type



Use these selectors to set the sew type for lines or regions.

1. Click in a sew type selector.
2. Click the desired sew type.



3. Click the region or outline to apply the sew type setting.

Specifying sewing attributes

Various sewing attributes for lines and regions can be set in the **Sewing Attribute Setting** dialog box.

Toolbar button: 

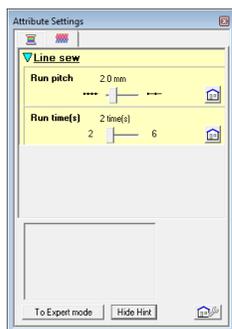
1. Click .

Memo:

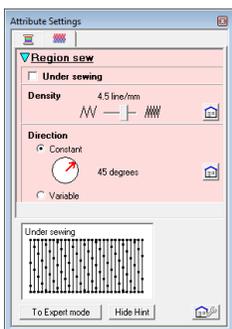
The region sew attributes appear in the **Sewing Attribute Setting** dialog box when  on the Tool Box is selected. The line sew attributes appear in the **Sewing Attribute Setting** dialog box when  or  on the Tool Box is selected.

Beginner mode:

For line sewing

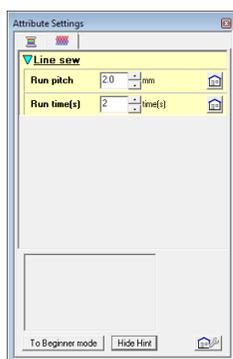


For region sewing

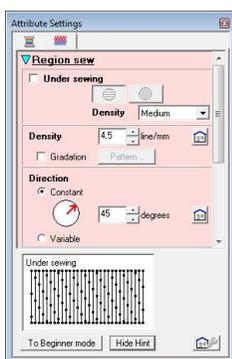


Expert mode:

For line sewing



For region sewing



Click to return to the default setting.

To Expert mode/To Beginner mode:

Click to switch the mode.



Click to load/save the sewing settings.



“Saving frequently used sewing attributes” on page 109.

Hide Hint/Show Hint:

Click to switch between displaying and hiding the hint view. With each change in the sewing attributes, a preview of the stitching can be checked here.



Memo:

- The sewing attributes displayed in the dialog box depend on the selected sew type.

2. To display only basic sewing attributes and simpler settings, click **To Beginner mode**. To display all of the sewing attributes and settings available for the selected sew type, click **To Expert mode**.



Memo:

- Settings that cannot be selected in **Beginner mode** are retained from the previous setting in **Expert mode**.

3. If necessary, change the sewing attributes displayed under **Line sew** or **Region sew**.



For details on the different sewing attributes and settings, refer to “Line sewing attributes” on page 98 and “Region sewing attributes” on page 101 and “Region sewing attributes” on page 109. In addition, frequently used sewing attributes can be saved. For details, refer to “Saving the settings in a list” on page 109.



Note:

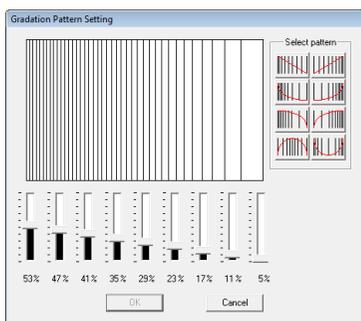
All settings made in the dialog box are retained and will be applied regardless of the mode, until they are changed.

4. When the line sewing attributes are displayed, click an outline to apply the line sewing attributes to the outline. When the region sewing attributes are displayed, click a region to apply the region sewing attributes to the region.

■ Creating a gradation

With a satin stitch, fill stitch or programmable fill stitch, the density of the color can be adjusted at various locations to create a custom gradation pattern.

1. In Expert mode of the **Sewing Attribute Setting** dialog box, select the **Gradation** check box.
2. Click **Pattern**.
3. To select a preset gradation pattern, click the desired pattern under **Select pattern**.



4. Move the sliders to adjust the density of the gradation pattern.
5. Click **OK**.

! Note:

An additional color (used for blending in Layout & Editing) cannot be specified with the gradation setting in Design Center.

Saving frequently used sewing attributes

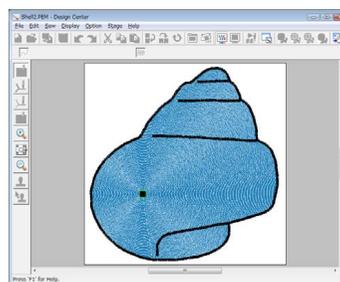
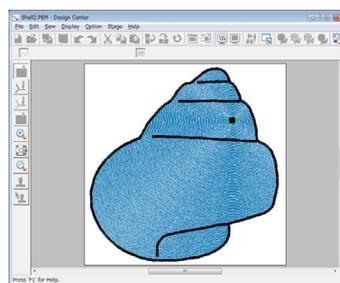
Frequently used sewing attributes can be saved together, and recalled when specifying sewing attributes.

Perform this operation in the same way that it is performed in Layout & Editing. For details, refer to "Saving frequently used sewing attributes" on page 109.

Applying effects to concentric circle and radial stitches

In order to increase the decorative effect, you can move the center point of regions set to the concentric circle stitch or radial stitch.

1. Click  on the Tool Box.
2. Select the desired color and sew type (**Concentric Circle Stitch** or **Radial Stitch**).
3. Click the region.
→ The center point () appears.
4. Drag the center point to the desired location.



📖 Memo:

To move the center point later, click , and then right click the region with the concentric circle stitch or radial stitch applied. The center point appears and can be moved.

Preventing overlapping stitching of regions (hole sewing)

By specifying hole sewing, the stitching in overlapping regions will not be sewn twice. Hole sewing can be set only when one region completely encloses another.

1. Click  on the Tool Box.
2. Click the region that completely encloses another region.



3. Click **OK** to set hole sewing.



Memo:

To cancel hole sewing, click the white inner region. The inner region will be sewn twice when it appears in the same color as the outer region.



Applying stamps

Stamps created with Programmable Stitch Creator can be applied to regions in the Sew Setting Stage of Design Center. Some stamp patterns are provided with this application; however, by using Programmable Stitch Creator, you can edit the patterns that are provided or you can create your own.

- Click  to apply a stamp. To edit the applied stamp, click .

Settings for stamps are specified in the same way that they are in Layout & Editing.

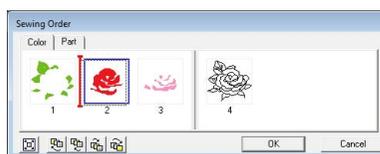
 "Applying and editing Stamps" on page 114.

Checking and editing the sewing order

The sewing order of pattern colors as well as the sewing order of pattern objects of the same color can be checked and modified as necessary.

1. Click , or click **Sew**, then **Sewing Order**.
2. To change the sewing order of a color, select the frame for the color, and then drag the frame to the desired position.

→ A red line appears, indicating the position where the frame is being moved.

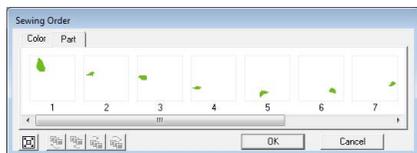


Memo:

- To select additional frames, hold down the **Shift** or **Ctrl** key and select each frame.
- The frames containing regions are separated from the frames containing outlines with a thick vertical line. Frames from one side of the line cannot be moved to the other side.
- To enlarge the pattern for better viewing, click .

- To view the sewing order of multiple patterns of the same color, select the frame, and then click the **Part** tab.

→ The individual patterns with the same color appear in different frames.



- To change the sewing order of a pattern, select the frame for the pattern, and then drag the frame to the desired position.
- Click **OK** to apply the changes and to close the dialog box.

Checking the stitching

The actual stitching as it will be performed by the sewing machine can be viewed using the stitch simulator.

To view stitching using the stitch simulator, click , or click **Display**, then click **Stitch Simulator**.

The stitch simulator is used in the same way that it is in Layout & Editing.

 "Checking the stitching" on page 66.

Viewing embroidery patterns in the Reference Window

Embroidery patterns can be viewed in the Reference Window in the Sew Setting Stage in the same way that they are in the Figure Handle Stage.

 "Viewing outlines in the Reference Window" on page 161.

Saving embroidery patterns

The file can be saved at each stage.

Overwriting

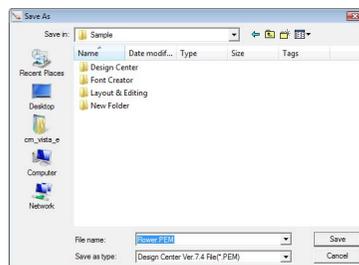
- Click , or click **File**, then **Save**.

→ The file is saved.

Saving with a new name

The current file can be saved with a different file name in order to keep the original unchanged or to keep various versions of the same image or pattern.

- Click **File**, then **Save As**.
- Select the drive and the folder, and then type in the file name.



Memo:

- The correct extension is automatically selected.
- Image data from the Original Image Stage can be saved as a bitmap file (.bmp).
In the Line Image Stage, image data is saved as a .pel file.
In the Figure Handle Stage and the Sew Setting Stage, pattern data is saved as a .pem file.
- If a .pem file is not imported into Layout & Editing, the pattern cannot be written to an original card in order to transfer it to an embroidery machine.

 "Importing into Layout & Editing" on page 152.

Note:

If you select a file type of a previous software version, saved .pem files can be opened with that version of the software; however, some information may be lost.

- Click **Save** to save the data.

About the Instruction Manual (PDF Format)

For details on Design Database, Programmable Stitch Creator and Font Creator, refer to the Instruction Manual (PDF format).

For a better understanding of the PE-DESIGN operations, an advanced tutorial, tips and techniques, and lists of menus/tools for each application are provided in the Instruction Manual (PDF format). In addition, this manual contains a troubleshooting section. Refer to this section if you have any problems while using this software.

Contents of the Instruction Manual (PDF format)

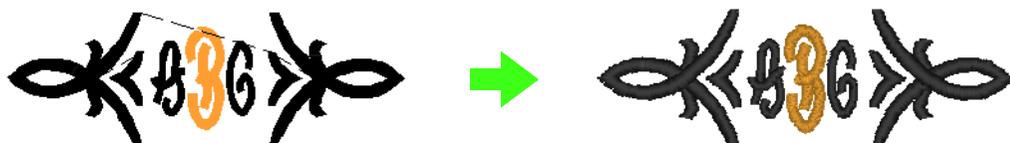
Tutorial (Advanced)	171	Tips and Techniques	237
Entering Monograms.....	171	Enlarging/Reducing Stitch Patterns	237
Creating Appliqués	174	Sewing Direction	237
Creating Split Embroidery Designs.....	176	Sewing Order	237
Creating Design for Multi-Position Hoops	182	Sewing Wide Areas.....	238
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Basic Programmable Stitch Creator		Creating Outlined Characters (Using Text	
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		Troubleshooting	262

Tutorial (Advanced)

Entering Monograms

Using the monogram function, ornamented characters arranged in a decorative pattern can be created. This procedure will go through each step of the basic operation.

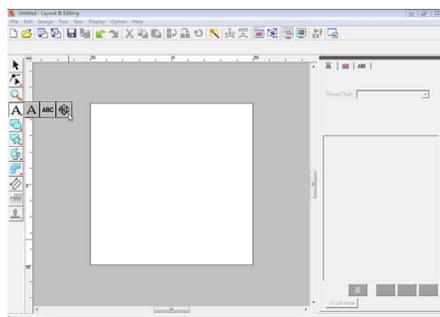
The sample file for this tutorial can be found at the following location.
Documents(My Documents)\PE-DESIGN 8\Tutorial\Tutorial_7



Step 1	Creating monograms
Step 2	Changing the font and character size
Step 3	Changing the thread color and sew type
Step 4	Adjusting the size and position of the decorative pattern

Step 1 Creating monograms

- 1 Start up Layout & Editing.
- 2 Click , then .

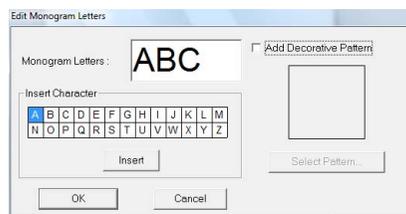


Diamond  20.0 mm  Satin Stitch

Diamond and script fonts are exclusively used for monograms. But you can use other built-in fonts and TrueType Fonts.

The illustration above allows you to change the font, size and sew type.

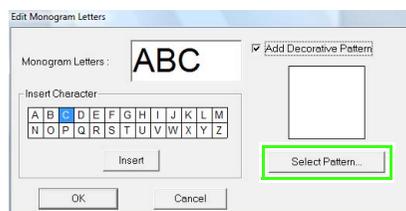
- 3 Click in the Design Page where you want the monogram to appear.
- 4 Type "ABC" using the computer key board.



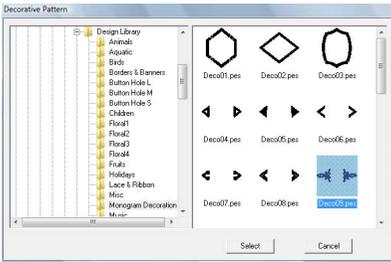
Note:

- You can also enter a character by selecting it in the character table, then clicking **Insert**, or simply by double-clicking it.
- You cannot insert line feeds. If you press the **Enter** key, the dialog closes and the monogram pattern is displayed in the Design Page.

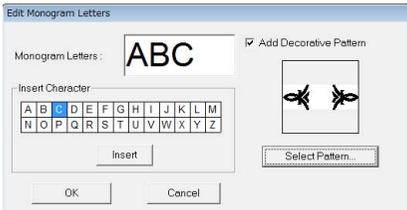
- 5 To add a decorative pattern around or at the sides of the monogram, select the **Add Decorative Pattern** check box. And then, click **Select Pattern**.



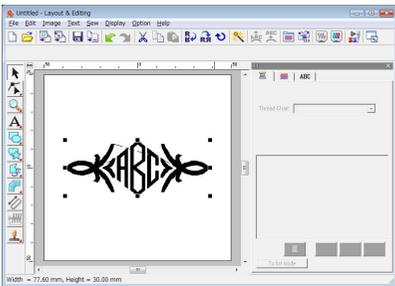
- 6 Click a decorative pattern to select it, and then click **Select**.



- 7 Click **OK**.



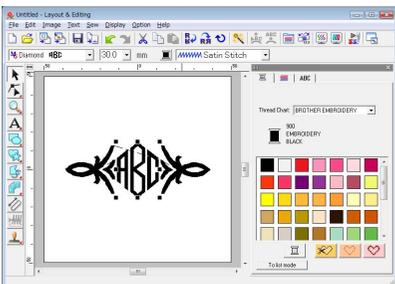
→ The monogram is displayed in the Design Page with the selected decorative pattern.



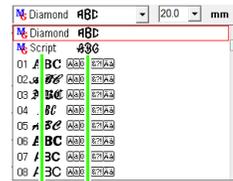
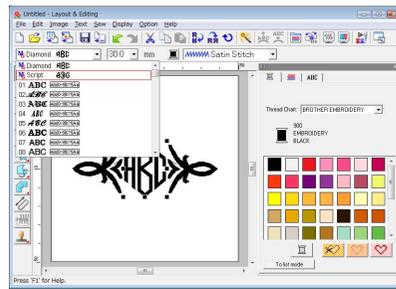
Step 2 Changing the font and character size

Next, we will change the font and character size of the monogram.

- 1 Click . Then click the monogram.



- 2 Change the font by clicking on the pulldown arrow and selecting a font.

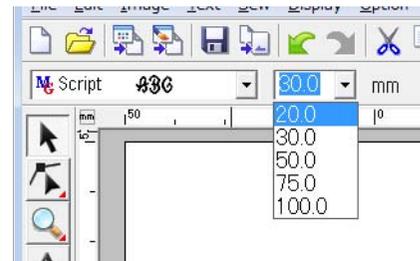


Monogram font name Monogram font sample name

Memo:

Diamond and Script are fonts exclusively for monograms. You can also use the built-in fonts or TrueType fonts. (For more details, refer to "Entering Monograms" on page 90.)

- 3 Change the character size.



Step 3 Changing the thread color and sew type

The thread color and sew type for the monogram can be changed.

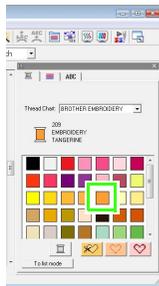
- 1 Click , then . Then Click the monogram.



- To select a single character, click the point for the character that you want to select.

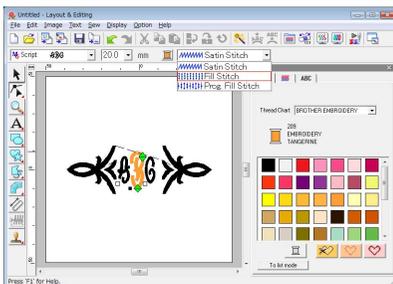


- Click . Clicking a color in the color palette changes the thread color for the selected character.



- Click **Stitch Selector**, then click the pulldown arrow on the right side, and then select a sew type.

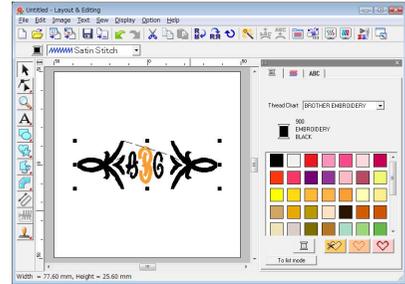
→ The thread sew type for the selected character is changed.



Step 4 Adjusting the size and position of the decorative pattern

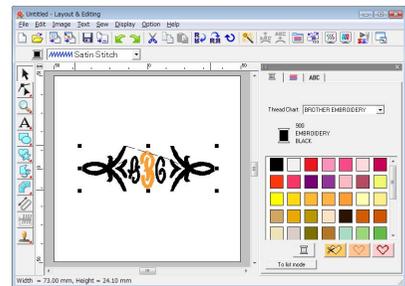
The size and position of the decorative pattern can be adjusted.

- Click . Then Click the decorative pattern.

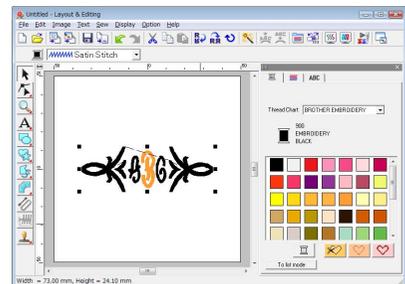


- Move the pointer over one of the handles of the selected pattern.

Drag the handle to adjust the pattern to the desired size.

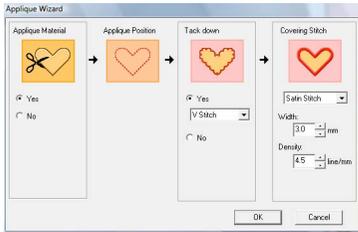


- Move the pointer over the selected pattern so that the shape of the pointer changes to , and then drag the pattern to the desired position.



Creating Appliqués

The Applique Wizard provides instructions for easily creating appliqués. This procedure will go through each step of the basic operation.



When creating appliqués, data will be specified in the following order.

- 1 Applique Material
- 2 Applique Position
- 3 Tack down
- 4 Covering Stitch

For details on embroidering appliqués, refer to the Operation Manual included with the machine.

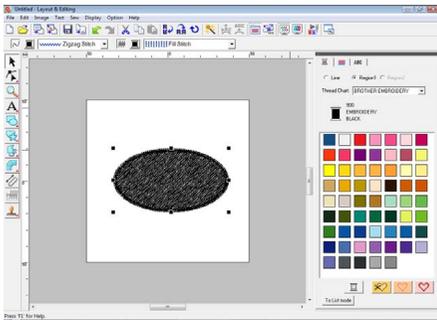
The sample file for this tutorial can be found at the following location.
Documents(My Documents)\PE-DESIGN 8\Tutorial\Tutorial_8

Step 1	Creating an appliqué pattern
Step 2	Using the Applique Wizard

Step 1 Creating an appliqué pattern

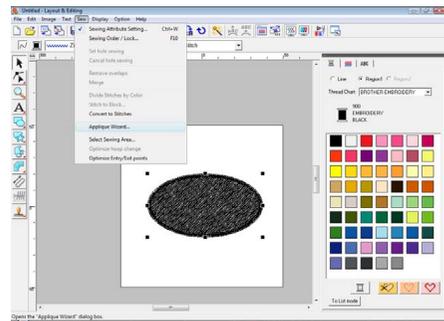
An appliqué can be created from any shape. In the following steps, we will draw a circle and create an appliqué.

- 1 Start up Layout & Editing.
- 2 To draw a circle click on , then .
- 3 Then drag the pointer in the Design Page to the desired size.

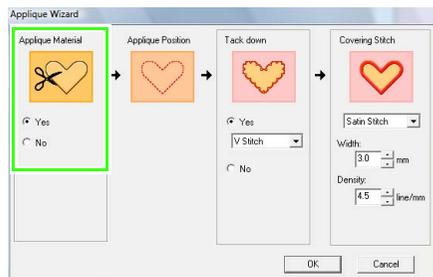


Step 2 Using the Applique Wizard

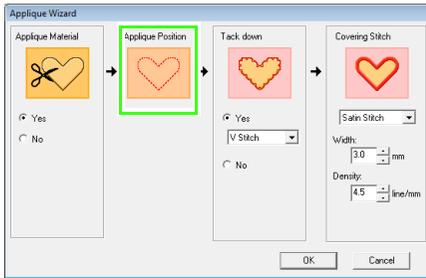
- 1 Click **Sew**, then **Applique Wizard** menu.



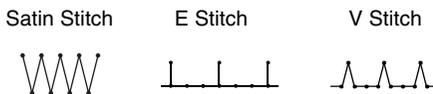
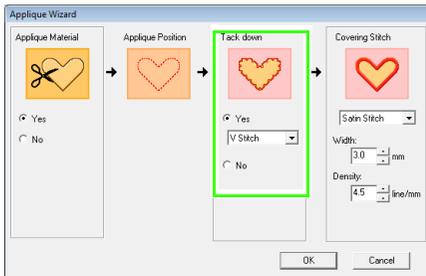
- 2 Under **Applique Material**, select whether (**Yes**) or not (**No**) the outline of the appliqué is to be sewn onto the appliqué fabric as a guide for cutting it out.



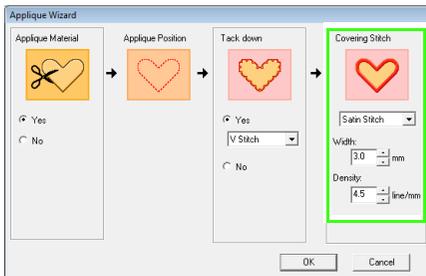
- 3 The **Applique Position**, (guideline for attaching the appliqué piece) is set to be sewn automatically.



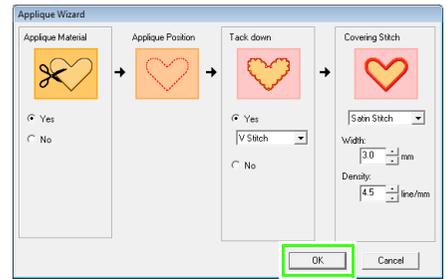
- 4 Under **Tack down**, select whether (**Yes**) or not (**No**) the appliqué is to be basted onto the base fabric. If **Yes** is selected, select the basting stitch from the selector. You can also select which stitch (Satin Stitch, E Stitch or V Stitch) to use for the basting.



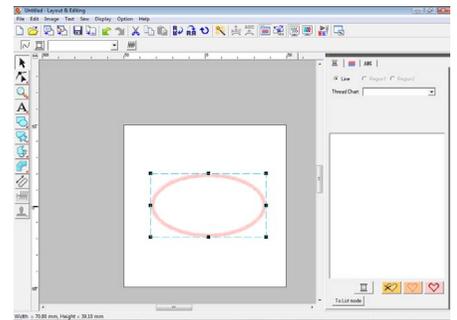
- 5 Under **Covering Stitch**, select the sew type and other attributes for finishing the appliqué.



- 6 Click **OK** to finish the Applique Wizard and display the design in the Design Page.



→ The generated appliqué pattern is displayed on the Design Page of Layout & Editing.



Creating Split Embroidery Designs

Layout & Editing has a function for creating split embroidery designs when the embroidery pattern being created is larger than the embroidery hoop.

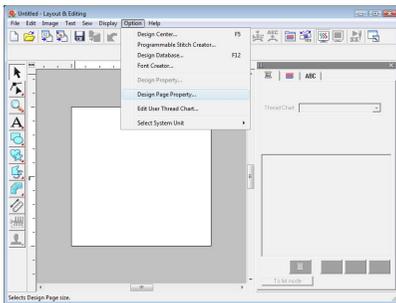
The sample file for this tutorial can be found at the following location.
Documents(My Documents)\PE-DESIGN 8\Tutorial\Tutorial_9

Step 1	Specifying the Design Page size in Layout & Editing
Step 2	Creating the embroidery design
Step 3	Checking the embroidering order
Step 4	Attaching stabilizer to the fabric
Step 5	Marking the embroidering position
Step 6	Hooing the fabric
Step 7	Embroidering

Step 1 Specifying the Design Page size in Layout & Editing

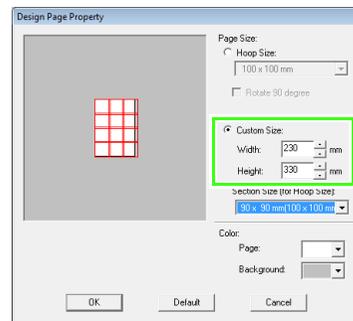
First, we will specify the size of the Design Page to match the size of the embroidery design.

- 1 Start up Layout & Editing.
- 2 Click **Option**, then **Design Page Property**.

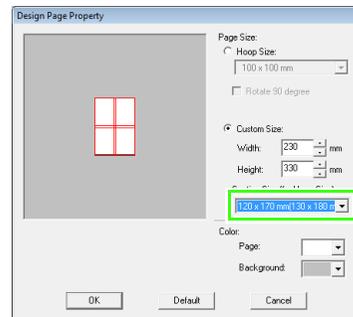


- 3 Select **Custom Size**, and then type or select the desired width and height for the Design Page.

The setting range for **Width** and **Height** is 100 mm to 1000 mm (3.9 inch to 39.4 inch). This setting is to specify the exact width and height of a design.
For this example, set width to 230 mm and height to 330 mm.



- 4 Click in the **Section Size (for Hoop Size)** selector, and then select the size of the sections (your embroidery hoop). For this example, select **120 × 170 mm (130 × 180 mm)**.



Memo:

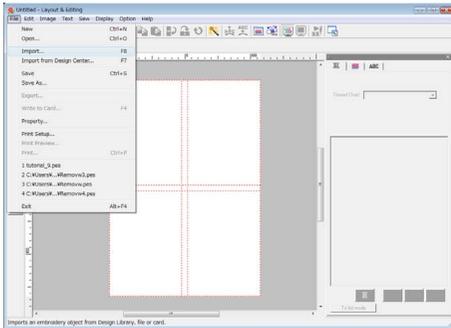
- With the **Section Size (for Hoop Size)** setting, the width and height of the sections are 10mm smaller than the actual hoop size in order to provide space for fine positioning adjustments with adjustment sections. The 10mm is for overlapping.
- It is not necessary for the **Section Size (for Hoop Size)** to match the Design Page size. Select the hoop size to be used for sewing.

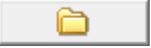
- 5 Click **OK**.

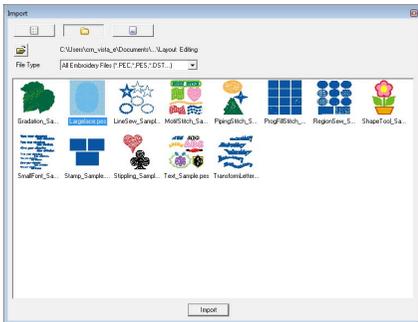
Step 2 Creating the embroidery design

For this example, we will use one of the lace embroidery patterns provided with the software.

- 1 Click **File**, then **Import** or click .



- 2 Click , then , and then click the **Documents (My Documents)** folder, then **PE-DESIGN 8**, then **Sample**, then **Layout & Editing**. Then, select the file **Largelace.pes**.

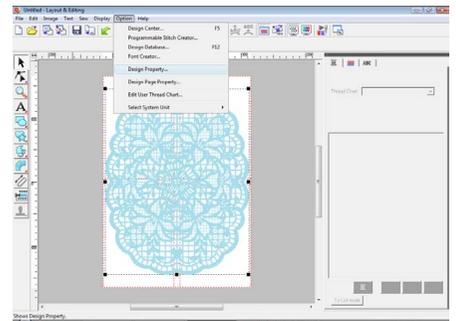


 "Importing embroidery designs" on page 48.

Step 3 Checking the embroidering order

Before the embroidery pattern is sewn, check the embroidering order to see the order that the design sections are sewn and determine which parts of the fabric should be hooped. The design sections are sewn in order from left to right, top to bottom.

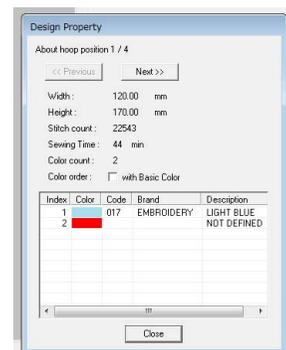
- 1 Click **Option** on the menu bar, and then click **Design Property**.



Memo:

The embroidery order cannot be checked while the pattern is selected; therefore, be sure to deselect the pattern before trying to check the embroidery order.

- 2 To display information for the other design sections in the embroidery, click on **Next** and **Previous** to move back and forth through each section. Check the design, and then click **Close**.



Note:

Before an embroidery pattern created in a custom Design Page is saved or transferred to an original card, running stitches are added at the edges of the design sections so that the design sections can easily be aligned during sewing. This alignment stitching appears in the **NOT DEFINED** color and cannot be edited.

 "Memo" on page 181.

Step 4 Attaching stabilizer to the fabric

Stabilizer must always be used when embroidering to stabilize the fabric. There are many types of stabilizer; the type that you will use depends on the type of fabric that you are embroidering on. For large-size designs that are split into sections, the stabilizer must be adhered to the fabric, for example, by using iron-on stabilizer, sticky stabilizer or spray adhesive.

When using spray adhesive, spray the adhesive onto a hooped piece of stabilizer that is strong enough for the entire large-size embroidery. In some cases, you may need to use two pieces of stabilizer for your embroidery.

Note:

- For best results, attach the stabilizer to the fabric (as described on this page). Without the correct stabilizer, the design may become misaligned due to puckering in the fabric.
- Be sure to check the recommendations on the stabilizer package.

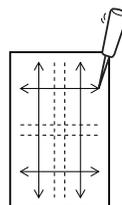
Step 5 Marking the embroidering position

Using the template for the size of hoop that you are using, mark the embroidering position on the fabric.

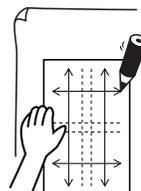
Memo:

- The templates are included in the package.
- The templates are also in the **Template** folder and can be printed out with a printer.
- Template PDF files have been described within actual size completely. Please confirm the printing property of your Adobe® Reader® program. If some printing properties such like "Reduce/Enlarge to fit page" would be "Checked", the Adobe® Reader® will resize the PDF automatically. So, please "Uncheck" these properties before your printing out.

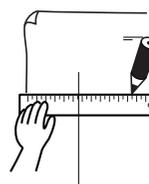
- 1 Punch a hole at the end of each arrow on the template.



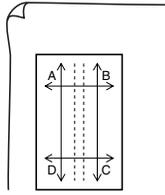
- 2 Place the template on the fabric, and then insert the tip of a marking pen into each hole to mark the fabric.



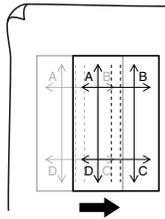
- 3 Connect the points marked on the fabric to draw reference lines.



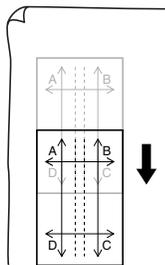
- 4 Place the template on the fabric, and mark points A, B, C and D.



- 5 To mark an area to the right of the previously marked area, align points A and D on the template with marks B and C on the fabric.



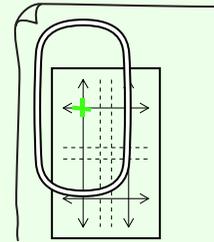
- 6 To mark an area below the previously marked area, align points A and B on the template with marks C and D on the fabric.



- 7 Repeat steps 4 through 6 to reposition the template and draw the embroidering position for each section of the embroidery pattern.

Note:

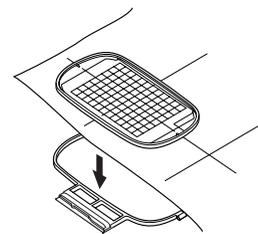
- **The intersection of the horizontal and vertical line indicates the center of the embroidery hoop.**
- *While carefully considering how the fabric will be hooped, place the template on the fabric, and then draw lines to indicate the embroidering position. In addition, because all embroidery areas are not drawn on the template for large embroidery hoops, be careful that the embroidery area does not extend from the marked area on the fabric as shown below.*



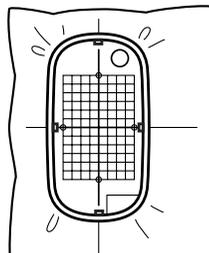
Step 6 Hooping the fabric

Using the hoop's plastic embroidery sheet, align the reference lines on the embroidery sheet with the marks on the fabric. Then, hoop the fabric while making sure that the fabric remains correctly aligned.

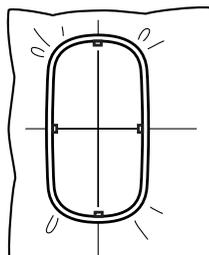
- 1 Insert the embroidery sheet into the inner ring of the embroidery hoop, and then place them on top of the fabric with the centerline on the embroidery sheet aligned with the reference lines (drawn on the fabric) for the first pattern section to be sewn.



- 2 Keeping the reference lines on the embroidery sheet aligned with the reference lines for the first pattern section, place the fabric and inner ring of the embroidery hoop into the outer ring of the hoop, and then pull the fabric so that it is tight.



- 3 Finish hooping the fabric, and then remove the embroidery sheet.



Note:

- Place the fabric and hoop on a level surface, and then make sure that the inner ring is pressed in well enough that the top edge of the inner ring aligns with the top edge of the outer ring.
- If the embroidery sheet is not used, the marks on the embroidery hoop can be used to hoop the fabric vertically and horizontally. However, since the center point on some embroidery machines is off center, the embroidery sheet should be used for best results.
- Another way to hoop the fabric is to use sticky stabilizer that can be hooped separately, tear away the protective paper, then carefully align the fabric onto the sticky surface using the embroidery sheet as a guide.
- Tip: The fabric can be hooped more easily if double-sided tape is affixed to the back of the inner ring, which is placed on top of the fabric, and then the fabric is clamped between the inner ring and the outer ring.

Step 7 Embroidering

Now, we are ready to embroider the design.

- 1 When large-size embroidery design are transferred to the embroidery machine, the patterns appear on the embroidery machine display as shown below. For this example, select the first embroidery pattern section (Aa).



Memo:

If there is no stitching in section Aa, select the first section that contains stitching. Select the menu command **Option – Design Property** to check the embroidering order.

- 2 Attach the embroidery hoop to the embroidery machine, and then using the machine's layout adjusting functions, align the needle position with the intersection of the lines drawn on the fabric.
- 3 Embroider the selected pattern.
- 4 Remove the embroidery hoop from the embroidery machine, and then remove the fabric from the hoop.
- 5 Hoop the fabric for the next design section.

"Hooping the fabric" on page 179.

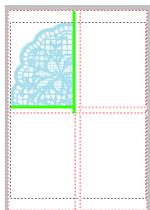
 **Memo:**

When an embroidery design created in a custom Design Page is saved or transferred to an original card, alignment stitching (single lines of running stitches with the color **NOT DEFINED**, with a pitch of 7.0 mm, and starting with fixed stitches with a pitch of 0.3 mm) is added at the edges of the design sections. (The alignment stitching appears in the print preview and is printed in red.)

Example for hooping fabric using the alignment stitching with **Largelace.pes** (**Largelace.pes** can be found in the **Documents (My Documents)\PE-DESIGN8\Sample\Layout & Editing** folder.):

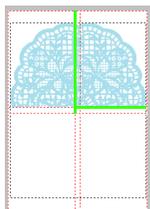
1) Embroider the upper-left design section.

→ Alignment stitching is sewn below and on the right side of the embroidered design section.



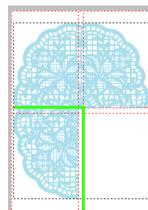
2) Hoop the fabric for the upper-right design section with the left side of the hoop aligned on the alignment stitching on the right side of the design section sewn in step 1, and then embroider the design.

→ Before the design section is embroidered, alignment stitching is sewn on the left side. Make sure that this alignment stitching aligns with the alignment stitching sewn in step 1. After the design section is embroidered, alignment stitching is sewn below the design section.



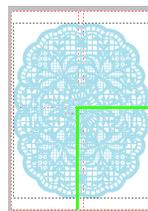
3) Hoop the fabric for the lower-left design section with the top of the hoop aligned on the alignment stitching at the bottom of the design section sewn in step 1, and then embroider the design.

→ Before the design section is embroidered, alignment stitching is sewn at the top. Make sure that this alignment stitching aligns with the alignment stitching sewn in step 1. After the design section is embroidered, alignment stitching is sewn on the right side of the design section.



4) Hoop the fabric for the lower-right design section with the left side of the hoop aligned on the alignment stitching on the right side of the design section sewn in step 3 and with the top of the hoop aligned on the alignment stitching at the bottom of the design section sewn in step 2, and then embroider the design.

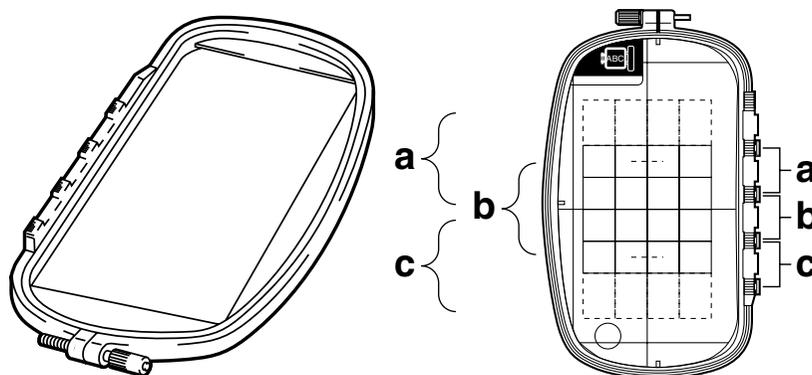
→ Before the design section is embroidered, alignment stitching is sewn on the left side and at the top. Make sure that this alignment stitching aligns with the alignment stitching sewn in step 3 and in step 2.



6 Continue hooping the fabric and embroidering until the entire embroidery design is sewn.

Creating Design for Multi-Position Hoops

This program enables you to create multi-position design that you can stitch in any multi-position hoop attached to your embroidery machine.



Example of multi-position hoop: 100 × 172 mm hoop

Although the size of the design that can be embroidered using an multi-position hoop 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 hoop will be installed at and determine the orientation of the design.

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

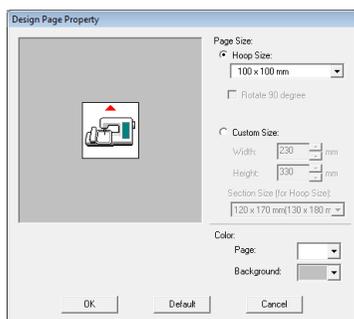
The sample file for this tutorial can be found at the following location.
Documents(My Documents)\PE-DESIGN 8\Tutorial\Tutorial_10

Step 1	Selecting the Design Page size
Step 2	Creating the design
Step 3	Optimizing hoop changes
Step 4	Checking the pattern

Step 1 Selecting the Design Page size

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

→ The **Design Page Property** dialog box appears.



2 Select **Hoop Size**, and then choose a Design Page size of 130 × 300 mm, or 100 × 172 mm, from the selector.

Memo:

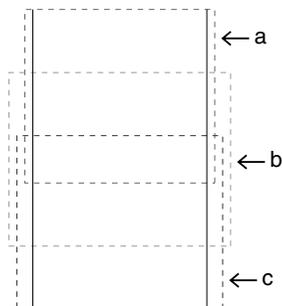
- Settings for multi-position hoops are indicated by “*”.
- Choose the appropriate setting after checking the size of the hoop available for your machine.

Note:

Multi-position hoop settings are not available in the **Design Page Property** dialog box of Design Center.

Step 2 Creating the design

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



Memo:

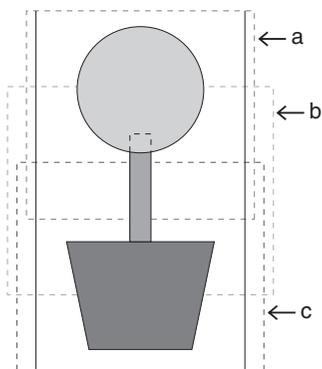
Area a: Embroidering area when the multi-position hoop is installed at the top installation position.

Area b: Embroidering area when the multi-position hoop is installed at the middle installation position.

Area c: Embroidering area when the multi-position hoop is installed at the bottom installation position.

The dotted lines separate each area.

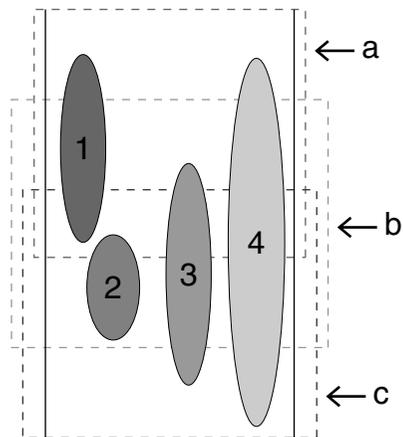
- 2 Create the design, making sure that it meets the following conditions.



If this design is written to an original card and the written pattern is checked on the embroidery machine, it appears as shown below.

- The size of one pattern must be no larger than 100 × 100 mm (or 130 × 180 mm).
- Each pattern must completely fit within a single area (a, b, or c).

Memo:



1: The position of this pattern is correct since it fits completely within area a.

2: The position of 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. (It will be necessary to correct the position in order to fit in either b or c.)

4: This pattern must be corrected since it is too large. (It will be necessary to correct the position and size in order to fit in either a, b, or c.)

Note:

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

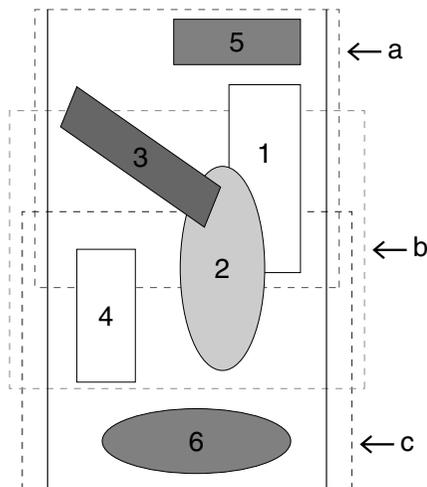
Step 3 Optimizing hoop changes

With the Optimize hoop change function, the sewing order of patterns in a Design Page for multi-position hoops is automatically optimized, therefore reducing the risk of the embroidery being sewn incorrectly or the fabric not feeding evenly when the hoop position is changed too often.

1 Click **Sew**, then **Optimize hoop change**.

 **Memo:**

- A check mark appears when this function is turned on; no check mark is displayed when this function is turned off.



- When the **Optimize hoop change** function is turned on, the sewing order that you have set is optimized to reduce the number of times that the hoop installation position is changed.

For the example shown on this page, the sewing order is: a (pattern 1) → b (pattern 2) → a (patterns 3 & 5) → c (patterns 4 & 6). If the **Optimize hoop change** function is turned off, each pattern is sewn according to the sewing order that you have set.

For the example shown on this page, the sewing order is: a (pattern 1) → b (pattern 2) → a (pattern 3) → c (pattern 4) → a (pattern 5) → c (pattern 6).

Therefore, since the number of times for changing the hoop installation position is not optimized, it may be changed more often than if it was optimized.

 **Note:**

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

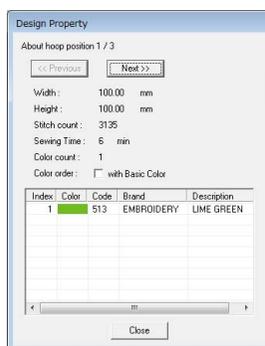
Step 4 Checking the pattern

 **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 box appears, the **Design Page** is automatically zoomed in or out to fit in the entire window.



 **Memo:**

- The first line of the dialog box shows the position in the hoop installation order for the currently displayed pattern.
- Only the patterns that would be sewn at the current position in the hoop installation order appear in the **Design Page**, and the embroidering area for the current hoop position is outlined in red.
- To display information for patterns at other positions in the hoop installation order, click **Previous** or **Next**. At this time, the corresponding pattern and hoop position appear in the **Design Page**.

 **Note:**

If a pattern is larger than the embroidery area or if a pattern is positioned so that it does not completely fit within an embroidery area, the error message "Please change the object size or position." appears instead of this dialog box. After the pattern causing the error is displayed, select the pattern and change its size or position.

■ Saving the design

The entire design is saved as a single file (.pes).

Memo:

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

■ Writing the design to an original card

A design for a multi-position hoop is created by considering the pattern in each hoop installation position as one pattern, then combining them.

Therefore, when this type of design is written to an original card, one multi-position hoop design is saved as a combination of multiple patterns.



 : This pattern is sewn when the hoop is installed at the top installation position (position a).

 : This pattern is sewn when the hoop is installed at the middle installation position (position b).

 : This pattern is sewn when the hoop is installed at the bottom installation position (position c).

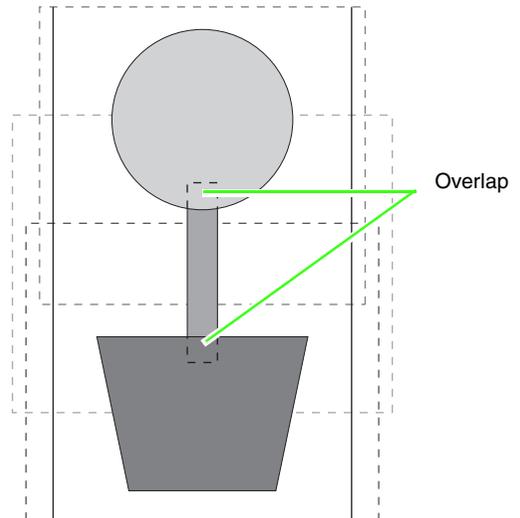
Therefore, the frame installation position sewing order for the pattern shown above is b, a, then c.

Notes on embroidering using the multi-position hoop

- Before embroidering your design, sew a trial sample of the design on a scrap piece of fabric from your design, making sure to use the same needle and thread.
- Be sure to affix stabilizer material to the back of the fabric and tightly stretch the fabric within the hoop. 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.
- For more ways to stabilize large designs, refer to "Attaching stabilizer to the fabric" on page 178
- Use the zigzag stitch for sewing the outlines in order to prevent embroidering outside the outlines.



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



■ Printing a Design Page for a multi-position hoop

If a Design Page for a multi-position hoop is selected, a complete image of the Design Page is printed on the first page, followed by an image of each design section and its sewing information (dimensions of the embroidery, the hoop position, the sewing color order and the stitch count), so the number of pages depends on your design.

- If a 130 × 300 mm Design Page is selected, the pattern is divided into sections of 130 × 180 mm with each section printed on a separate page.
- If a 100 × 172 mm Design Page is selected, the pattern is divided into sections of 100 × 100 mm with each section printed on a separate page.

The Design Page is printed as described below.

When **Actual Size** is selected:

On the first page, the entire Design Page is printed at actual size. (However, for a 130 × 300 mm Design Page, a reduced image of the Design Page is printed.) Afterwards, the pattern in each section of the Design Page is printed, starting with that sewn with the first hoop installation position, and is followed by the sewing information for that pattern on separate pages.

When **Reduced Size** is selected:

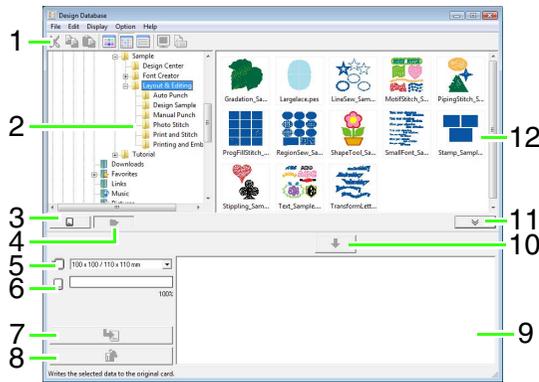
On the first page, the entire Design Page is printed at actual size. (However, for a 130 × 300 mm Design Page, a reduced image of the Design Page is printed.) Afterwards, the pattern in each section of the Design Page is printed, starting with that sewn with the first hoop installation position, on the same page as the sewing information for that pattern.



Memo:

*When the menu command **File – Print Preview** is selected, each section of the design is displayed as described above.*

Design Database Window



1 Toolbar

Provides shortcuts for the menu commands.

2 Folder pane

Provides access to the folders on the computer and the results of any searches that were performed.

3 Card reading button

Reads an original card.

4 Folder content display button

The folder pane and contents pane display are switched to the folder contents.

5 Hoop size selector

This selects the hoop size when writing a design to an original card.

6 Card capacity indicator

Displays the selected design (displayed in the Writing list) for the capacity of the original card.

7 Write button

The selected pattern (displayed in the Writing list) is written to the original card.

8 Remove button

Returns the selected design (displayed in the Writing list) to the unselected state.

9 Writing list

The list of designs to be written to the original card is displayed.

10 Add button

The design selected in the contents pane is displayed in the Writing list.

11 Card writing box display/non-display button

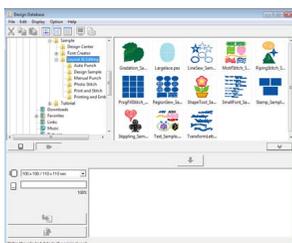
Press when writing the design to an original card. Click this button to hide or display the Writing list.

12 Contents pane

Displays thumbnails of all embroidery design in the selected folder.

Starting Up Design Database

1. Click , then select **All Programs**, then **PE-DESIGN 8**, then **Tools**, then **Design Database**.
2. Click a folder in the folder pane.
→ All embroidery files in the folder are displayed in the contents pane on the right.



Memo:

- The displayed files have the following extensions.
.pes, .phc, .dst, .exp, .pcs, .hus, .vip, .shv, .jef, .sew, .csd, .xxx, .pen
- .pem files are not displayed since they cannot be read by the machine. Import the embroidery pattern into *Layout & Editing* from *Design Center*, and then save it as a .pes file.



“Importing into *Layout & Editing*” on page 152.

Checking Embroidery Designs

Previewing files

A preview of the embroidery design can be displayed.

Toolbar button: 

1. In the folder pane, select the folder containing the embroidery design that you want to preview.
2. In the contents pane, select the embroidery design.
3. Click , or click **Display**, then **Preview**.



 **Memo:**

Files in the .pen format cannot be previewed.

Checking file information

Sewing information such as the file name, size, stitch count, sewing time, color count and modification date can be checked in the **Property** dialog box. With .pes file, additional information about the embroidery design can be viewed.

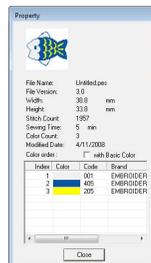
 **Note:**

- The displayed sewing time is an estimate. The actual sewing time depends on the machine model used and the specified settings.
- The sewing time is not displayed with .pen files.

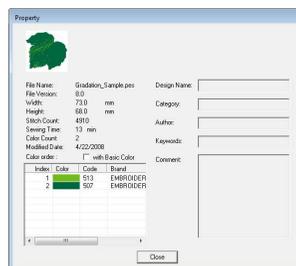
Toolbar button: 

1. In the contents pane, select the embroidery design corresponding to the information that you want to view.
2. Click , or click **Display**, then **Property**.

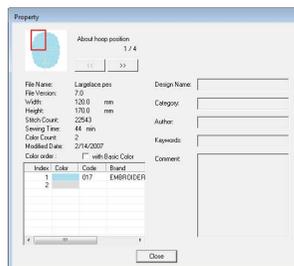
Non-PES files and PES files (version 3.0 or earlier)



PES files (version 4.0 or later)



→ If the Design Page was set to Custom Size or Hoop Size is multi-position hoop (100 x 172 mm, 130 x 300 mm), a **Property** dialog box similar to the one shown below appears.



 **Memo:**

- The red box in the dialog box shows the position of the displayed pattern section.
- To display information for other hoop positions, click  or .

Opening Embroidery Designs

Opening files with Layout & Editing

You can easily open any selected .pes file with Layout & Editing.

1. In the folder pane, select the folder containing the embroidery design that you want to open in Layout & Editing.

 **Note:**

Be sure to select a folder that contains .pes files.

2. In the contents pane, select the .pes file.
3. Click **File**, then **Open in Layout & Editing**.
→ The selected embroidery pattern appears in a new Design Page.

Importing files into Layout & Editing

You can easily import any selected embroidery design into Layout & Editing. Files in the following formats can be imported.

.pes, .phc, .dst, .exp, .pcs, .hus, .vip, .shv, .jef, .sew, .csd, or .xxx

1. In the folder pane, select the folder containing the embroidery design that you want to import into Layout & Editing.
2. In the contents pane, select the embroidery design.
3. Click **File**, then **Import Into Layout & Editing**.
→ The selected embroidery design appears in the Layout & Editing window.

 **Note:**

Files in the .pen format cannot be imported into Layout & Editing.

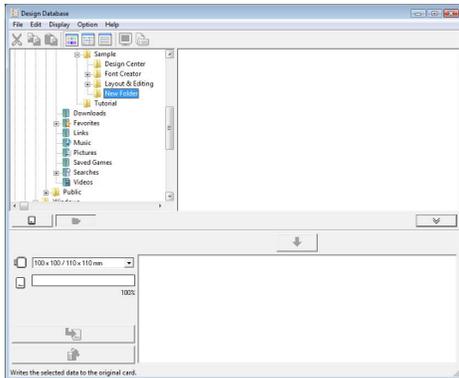
Organizing Embroidery Designs

You can move your embroidery designs to different folders in order to organize them. In addition, you can choose to display the embroidery designs by thumbnails or by the pattern details.

Creating new folders

New folders can be created in order to better organize the embroidery patterns.

1. In the folder pane, on the left, select the folder.
2. Click **File**, then **Create New Folder**.
→ A **New Folder** appears as a sub-folder of the one that was selected.



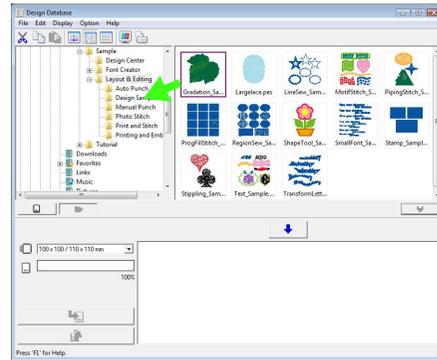
3. Type in the name of the new folder, and then press the **Enter** key.
→ The name of the folder changes to the one that was typed in.

Moving/copying files to a different folder

From Design Database, embroidery design can easily be moved from one folder to another.

1. In the folder pane, locate the folder where you want to move the embroidery design.
2. In the folder pane, click the folder that contains the embroidery design.

3. Drag the embroidery design in the contents pane to the folder you previously located in the folder pane.



- If the two folders are on the same drive, the selected embroidery design is **moved** to the other folder.
- If the two folders are on separate drives, the selected embroidery design is **copied** into the other folder.

Memo:

- To copy the file from one folder to another on the same drive, hold down the **(Ctrl)** key while dragging the embroidery design.
- To move the file from one folder to another on different drives, hold down the **(Shift)** key while dragging the embroidery design.
- The file can also be removed from the current folder (or copied) by selecting the menu command **Edit - Cut** (or **Edit - Copy**). Then, the file can be added to the new folder by selecting it in the folder pane, then selecting the menu command **Edit - Paste**.

Changing file names

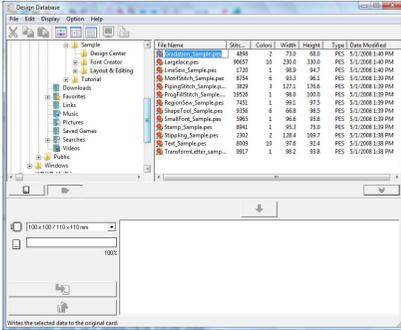
In the Design Database, the names of embroidery designs can easily be changed.

Note:

The names of embroidery designs can be changed from Design Database only when the sewing information (menu command **Display - Details**) is displayed.

 "Changing how files are displayed" on page 191 .

1. In the folder pane, select the folder containing the embroidery design.
2. Select the embroidery design. Then click again.
→ The name will be highlighted inside a box.



3. Type in the new name of the embroidery design, and then press the **Enter** key.

Memo:

When renaming a file, the file extension cannot be changed.

Deleting files

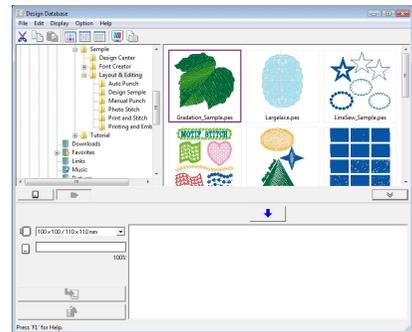
From Design Database, embroidery designs can easily be deleted.

1. In the folder pane, select the folder containing the embroidery design that you want to delete.
2. In the contents pane, select the name of the embroidery design.
3. Press the **Delete** key.
→ The file is moved to the Recycle Bin.

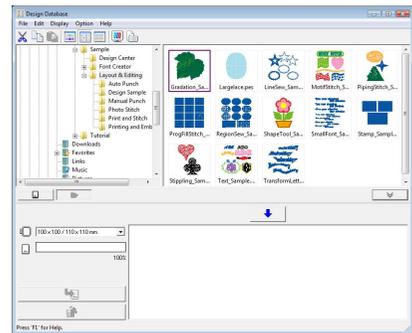
Changing how files are displayed

The embroidery designs in the contents pane can be displayed as large thumbnails or small thumbnails, or they can be listed by their sewing information.

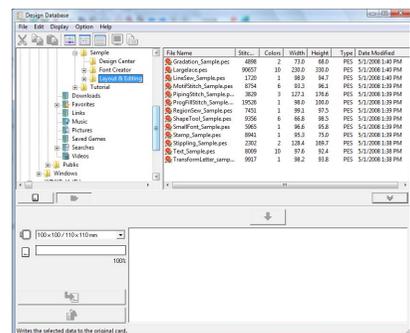
1. Click **Display**, and then click the display setting from the menu that appeared.
To display the embroidery designs as large images, click **Large Thumbnails** or .



To display the embroidery designs as small images, click **Small Thumbnails** or .



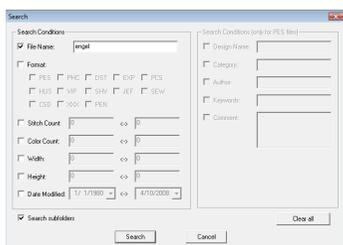
To display the sewing information for the embroidery designs, click **Details** or .



Searching for an Embroidery Design

The Search function allows you to quickly search for the desired embroidery design (.pes, .phc, .dst, .exp, .pcs, .hus, .vip, .shv, .jef, .sew, .csd, .xxx, or .pen) within the selected folder according to the various search conditions that you can specify.

1. In the folder pane, select the folder.
2. Click **File**, then **Search**.
3. Specify the search conditions. Select the check box of the search conditions to be specified.



File Name

Select to search for files with a specific file name. Type the file name in the box.



Memo:

Wildcard characters (“?” to represent a single character and “*” to represent multiple characters) can also be used.

Format

Select to search for files with a specific format. Select the check box beside the desired file format.

Stitch Count

Select to search for files with the specified number of stitches. In the boxes, type the lower and upper limits of the range for the number of stitches.

Color Count

Select to search for files with the specified number of color. In the boxes, type the lower and upper limits of the range for the number of thread colors.

Width

Select to search for files with a specific embroidering width. In the boxes, type the lower and upper limits of the width range.

Height

Select to search for files with a specific embroidering height. In the boxes, type the lower and upper limits of the height range.

Date Modified

Select to search for files with a specific modification date. In the boxes, type the modification date range (from when to when).

When searching for .pes files, the following conditions can also be specified.

Design Name

Select to search for files with a specific design name. Type the design name in the box.

Category

Select to search for files with a specific category. In the box, type specific characters or the embroidery category.

Author

Select to search for files with a specific author's name. In the box, type the characters to be searched for.

Keywords

Select to search for files with a specific keyword. In the box, type the characters to be searched for.

Comment

Select to search for files with a specific comment. In the box, type the characters to be searched for.

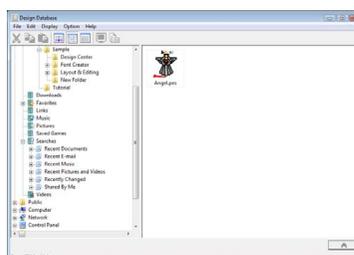


Memo:

- To also search through the subfolders (folders within the selected folder), select the **Search subfolders** check box.
- All characters entered in the box beside **File Name** will be considered as a single set of characters. However, you can search for files matching multiple words in the boxes below **Search Conditions (only for PES files)** by separating the words with a space.

4. Click **Search**.

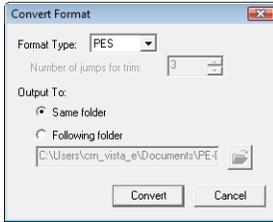
→ A list of files matching the specified search conditions appears.



Converting Embroidery Design Files to Different Formats

Embroidery design files can easily be converted to a file of one of the other formats (.pes, .dst, .exp, .pcs, .hus, .vip, .shv, .jef, .sew, .csd, or .xxx).

1. In the folder pane, select the folder containing the embroidery design that you want to convert.
2. In the contents pane, select the embroidery design file.
3. Click **File**, then **Convert Format**.
4. From the **Format Type** selector, select the format that.



 **Memo:**

With the DST format, you can specify whether or not the jump stitches are cut according to the number of jump codes. Since the number of codes differ depending on the sewing machine being used, type or select the appropriate value in the **Number of jumps for trim** box. (This setting can only be specified if the .dst format is selected.)

5. Under **Output To:**, select whether the new file is added to the same folder as the original file (**Same folder**) or to a specified folder (**Following folder**).

 **Memo:**

- If multiple files with different formats are selected to be converted while **Same folder** is selected, any file with the same format as the new one will not be converted. However, if the files are being added to a different folder than the original one, any file with the same format as the new one will be copied to the different folder, instead of being converted.
- To change the folder where the new file will

be added, click  .

6. Click **Convert**.

→ The file is converted, and the new file is added to the specified folder.

 **Memo:**

- If the file is converted to a .pes file, the thread colors are converted as if the file was imported into Layout & Editing.

 **Note:**

Files cannot be converted to the .phc and .pen format.

Writing Embroidery Design Files to an Original Card

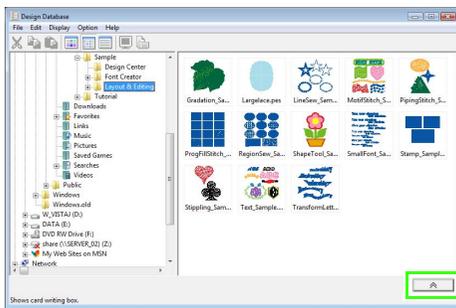
Selected files can be written to original cards. The embroidery patterns written to original cards can then be transferred to an embroidery machine and sewn.

1. Insert an original card into the USB card writer module.

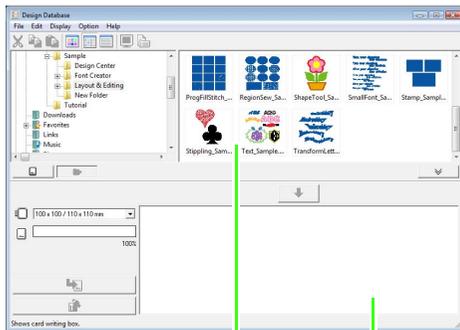
Files other than .phc files can be written.

 "Transferring the design to an original card" on page 17.

2. Click .



→ The **Card writing box** appears.



Contents pane
(Available patterns)

Writing list
(Selected patterns)

Memo:

- To hide the card writing box, click .

3. From the **Hoop size** selector, select the appropriate size of embroidery hoop.



Note:

Do not select a hoop size larger than the embroidery hoop that can be used with your embroidery machine. Otherwise, the created original card will not work correctly with the embroidery machine.

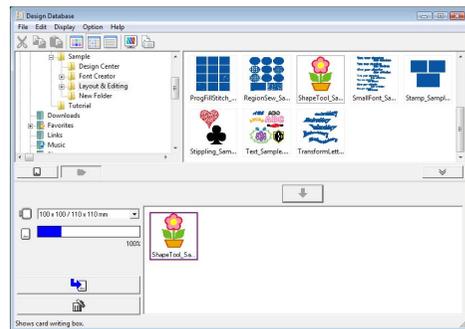
4. Click , and then select the folder where the desired design file is saved.

→ All embroidery files in the selected folder are displayed in the contents pane.

5. In the contents pane, select the embroidery file.

6. Click  or right-click the file, and then click **Add to Writing List**.

→ The selected file is added to the writing list.



Memo:

A file can also be added to the writing list by selecting it in the contents pane, then dragging it to the writing list.

Note:

If the pattern in the selected embroidery file is larger than the hoop size selected in step 3 or the number of stitches or number of colors for the pattern exceeds the maximum for the hoop selected in step 3, that file cannot be added to the writing list.

Only the embroidery designs displayed in the writing list will be written to the original card.

 **Memo:**

- To remove an embroidery design, select the design to be removed, and then click , or right-click the design, then click **Remove from Writing List**.
- Patterns created on a custom-sized Design Page are written to cards split into their various hoop sections.

 "Memo:" on page 139.

- 7.** Continue until all embroidery designs that you want to write to an original card are selected.

 **Memo:**

- During this process, the card capacity indicator allows you to plan which designs you would like to save on an original card. The space used by designs in the writing list appears in blue.



- To rewrite the embroidery files written on the original card, click  to select those files, and move files to the writing list in the same manner.

- 8.** After the embroidery designs to be written to the original card appear in the writing list, click  to write the designs to the card.

- 9.** Click **OK**.

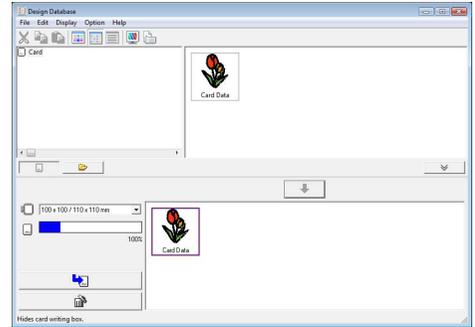


→ The embroidery design in the writing list are written to the original card.

 **Note:**

Do not remove the card or unplug the USB cable while patterns are being written to the card (while the LED indicator is flashing).

- 10.** To check the embroidery design file being written to the original card, click .
-  appears in the folder pane, and all embroidery designs written to the original card appear in the contents pane.



 **Memo:**

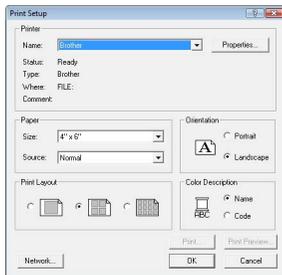
- Embroidery designs written to the original card appear as "**Card Data**" in the contents pane.
- To display the contents of the folder in the contents pane, click . Switch the display by clicking  and .

Outputting a Catalog of Embroidery Designs

Printing

Images of all embroidery designs in the selected folder can be printed as a catalog.

1. In the folder pane, select the folder containing the embroidery designs.
2. Click **File**, then **Print Setup**.
3. Under **Print Layout**, select whether each design is printed on a separate page, 4 designs are printed on a page or 12 designs are printed on a page.



4. Under **Color Description**, select whether the thread colors appear as the name of the color or as the brand and thread number.

Memo:

If the brand name and thread number are long, some of the text may not be printed.

5. Click **Print**.

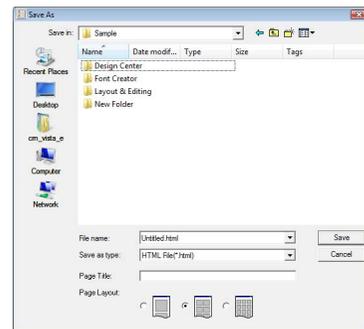
Memo:

- If one or more embroidery designs were selected in the contents pane, only the selected designs are printed.
- The catalog can be printed by clicking the menu command **File – Print**. The embroidery designs are printed according to the settings already selected in the **Print Setup** dialog box.

Outputting as an HTML file

Instead of being printed, the catalog of embroidery designs can be outputted as an HTML file.

1. In the folder pane, select the folder containing the embroidery designs.
2. Click **File**, then **Create HTML**.
3. Select the drive and the folder, and then type in the name of the HTML file.

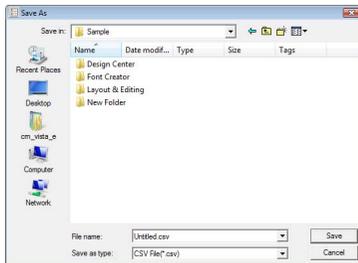


4. To add a title at the top of the file and in the title bar, type the title in the **Page Title** box.
5. Under **Page Layout**, select how the designs appear on the page.
6. Click **Save**.

Outputting as a CSV file

A .csv file containing the sewing information (file name, dimensions, number of stitches, number of colors, file path, file properties (.pes files only) and the names of thread colors and thread numbers) for selected embroidery designs can be outputted.

1. In the folder pane, select the folder containing the embroidery designs.
2. Click **File**, then **Create CSV**.
3. Select the drive and the folder, and then type in the name of the .csv file.

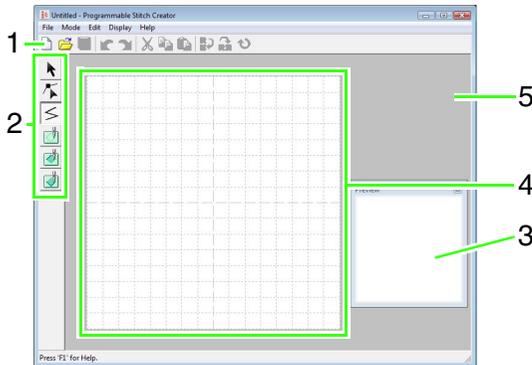


4. Click **Save**.

Basic Programmable Stitch Creator Operations

Programmable Stitch Creator allows you to create and edit fill/stamp stitch patterns and motif stitch patterns, which can be used in both Layout & Editing and Design Center. Fill/stamp stitch patterns are used with programmable fill stitches and stamps. More decorative stitch patterns can be designed by using these patterns.

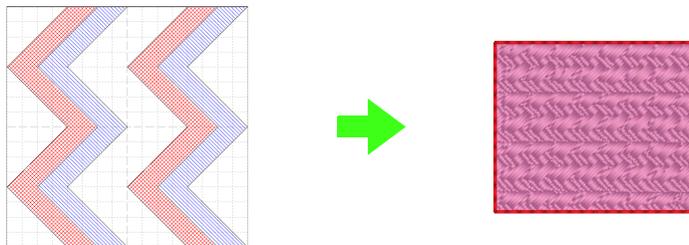
Programmable Stitch Creator Window



- 1 Toolbar**
Provides shortcuts for the menu commands.
- 2 Tool Box**
Used to select and create fill/stamp and motif stitch patterns.
(The bottom four buttons do not appear in Motif mode.)
- 3 Preview window**
Shows how the pattern will be sewn.
- 4 Design Page**
The actual part of the work area that can be saved.
- 5 Work area**

Creating Fill/Stamp Stitch Pattern

Existing programmable stitch patterns can be edited to create new patterns.

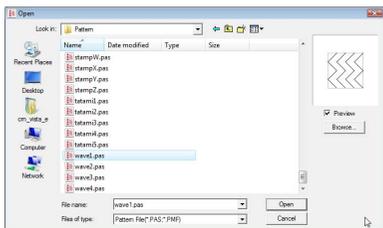


Step 1	Opening a fill/stamp stitch pattern
Step 2	Drawing lines to edit the fill/stamp stitch pattern
Step 3	Applying embossing/engraving effects to the fill/stamp stitch pattern
Step 4	Saving the edited fill/stamp stitch pattern
Step 5	Using the edited fill/stamp stitch patterns in Layout & Editing

Step 1 Opening a fill/stamp stitch pattern

First, we will open the fill/stamp stitch pattern to be edited. In this example, we will use pattern wave1.pas.

- 1 Click , then select **All Programs**, then **PE-DESIGN 8**, then **Tools**, then **Programmable Stitch Creator**.
- 2 Click **File**, then **Open**.
- 3 Select the pattern file **wave1.pas** in the **Pattern** folder where PE-DESIGN was installed. (For example, clicking the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **Pattern**) Click **Open**, or double-click the files icon.



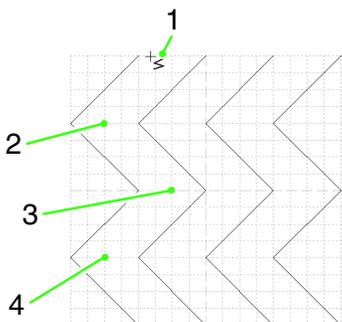
Step 2 Drawing lines to edit the fill/stamp stitch pattern

Now, we are going to draw lines between the displayed ones using the Line tool of the Tool Box.

Memo:

For this example, we will use the grid setting **Medium** with which the pattern was saved. For more information on the grid settings, refer to “Changing the grid settings” on page 215.

- 1 Click .
- 2 Click in the Design Page to specify points 1 through 4.



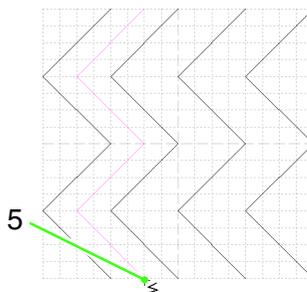
Memo:

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

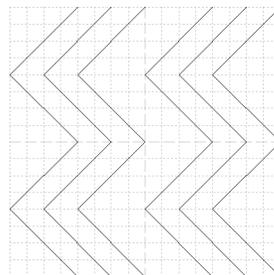


“Creating a Pattern in Fill/Stamp Mode” on page 208.

- 3 Double-click the Design Page to specify point 5 (end point).



- 4 Repeat the previous operations to add another wave between the first and second waves on the right side.



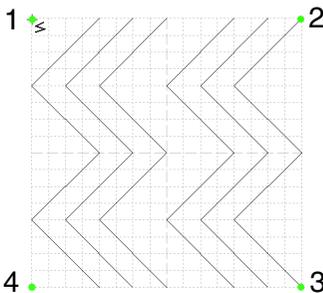
Step 3 Applying embossing/engraving effects to the fill/stamp stitch pattern

By applying embossing or engraving effects to a pattern used as a programmable fill stitch or a stamp, an embossed or engraved finish can be created in the embroidery pattern.

In order to do this, the lines of the pattern must form closed regions. In our example, the lines do not form closed regions, so we will need to add enclosing lines.

- 1 Click , click in the Design Page to specify point 1, and then double-click the Design Page to specify point 2.

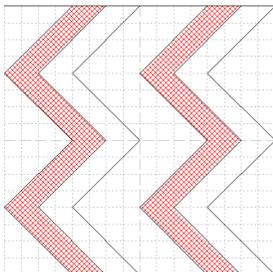
Next, click in the Design Page to specify point 3, and then double-click the Design Page to specify point 4.



→ Lines are drawn along the top and bottom edges of the Design Page.

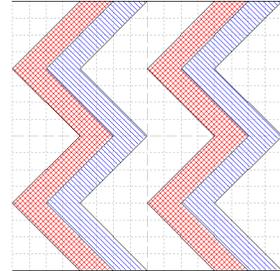
- 2 Click , then click the first and fourth wave regions.

→ These regions appear in red and will be sewn with short stitches to give the effect of engraving.



- 3 Click , then click the second and fifth wave regions.

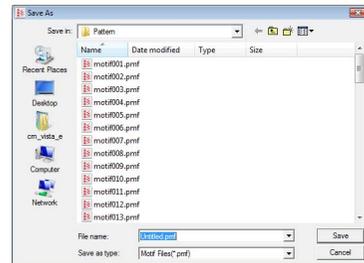
→ This region appears in blue and will be sewn with no dropped stitches to give the effect of embossing.



Step 4 Saving the edited fill/stamp stitch pattern

The edited pattern can be saved. Fill/stamp stitch patterns are saved in the .pas format.

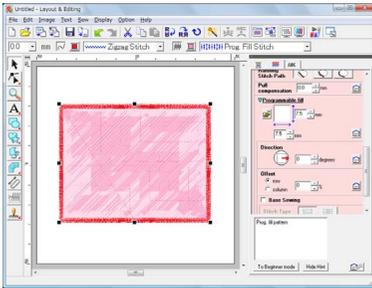
- 1 Click **File**, then **Save As**.
- 2 Select the drive and the folder, and then type in the file name.
Click **Save**.



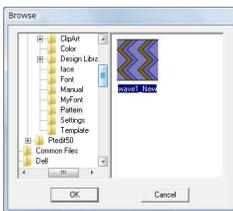
- 3 Click **File**, then **Exit**.

Step 5 Using the edited fill/stamp stitch patterns in Layout & Editing

- 1 Start up Layout & Editing.
- 2 Select an embroidery pattern.
- 3 From the **Region sew type** selector, select **Prog. Fill Stitch**.
- 4 Click **Sew**, then **Sewing Attribute Setting**.
 "Layout & Editing Window" on page 47.
- 5 Click  beside **Programmable fill**.

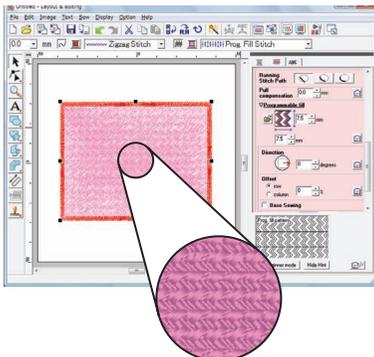


- 6 Select the drive and folder where the pattern was saved in Step 4.



- 7 Click the edited fill/stamp stitch pattern, and then click **OK**.

→ The pattern is applied to the inside regions of the embroidery pattern.



- 8 If necessary, change any other sewing attributes.

Memo:

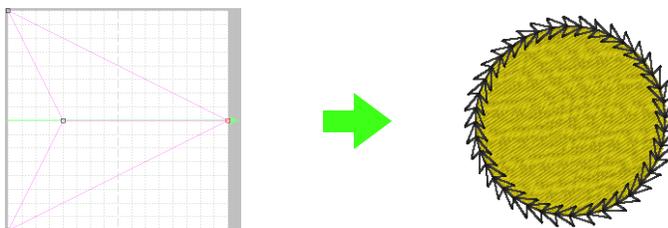
- A fill/stamp stitch pattern can also be applied as a stamp by using .

 "Applying and editing Stamps" on page 114.

- For best results, refer to "Notes on programmable fill stitches and stamps" on page 109.

Creating Motif Stitch Pattern

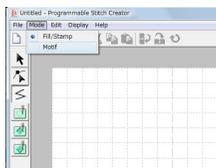
Now, we will create a new motif stitch pattern. Motif stitch patterns are created in Motif mode.



Step 1	Enter motif mode
Step 2	Shaping a single line to create motif stitch pattern
Step 3	Saving the created motif stitch pattern
Step 4	Using the edited motif stitch pattern in Layout & Editing

Step 1 Enter motif mode

- 1 Start up Programmable Stitch Creator.
- 2 Click **Mode**, then **Motif**.
→ The application enters Motif mode.

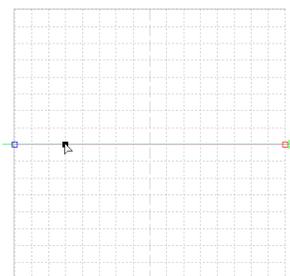


Step 2 Shaping a single line to create motif stitch pattern

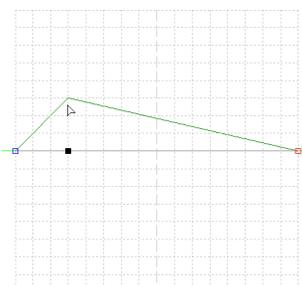
In Motif mode, you can create original patterns by changing the shape of a single line. These patterns can be applied in line sewing and region sewing in Layout & Editing, and region sewing in Design Center.

- 1 Click , then click the base line between the start point (blue square) and end point (red square).

→ A block square appears.



- 2 Drag the point.
The line that moves turns green when moving a point.





Memo:

- To move the point horizontally or vertically, hold down the **(Shift)** key while dragging it.
- Pressing the arrow keys moves the selected point one grid mark in the direction of the arrow on the key. If the grid is not displayed, the pattern moves a distance smaller than the smallest grid interval in the direction of the arrow on the key.
- To delete a selected point, press the **(Delete)** key.

Step 3 Saving the created motif stitch pattern

The created pattern can be saved. Motif stitch patterns are saved in the .pmf format.

These patterns are saved in the same way that fill/stamp stitch patterns are saved.



“Saving the edited fill/stamp stitch pattern” on page 201.

Step 4 Using the edited motif stitch pattern in Layout & Editing

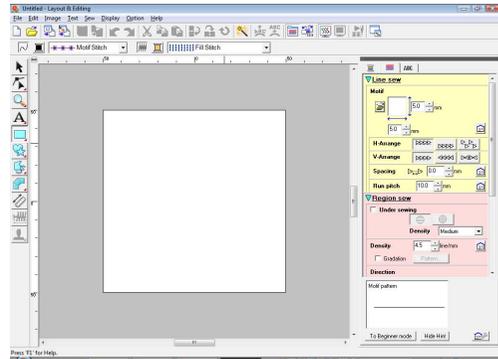
- 1 Start up Layout & Editing.
- 2 Select an embroidery pattern.
- 3 From the **Line sew** type selector, select **Motif Stitch**.
- 4 Click **Sew**, then **Sewing Attribute Setting**.



“Layout & Editing Window” on page 47.

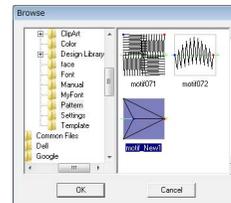
5

Click beside **Pattern**.



6

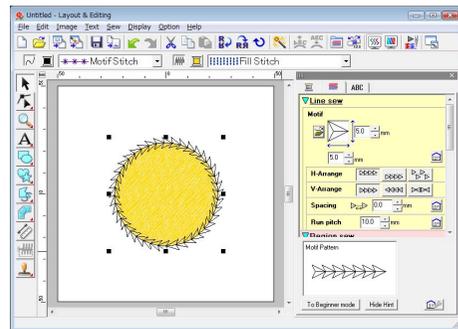
Select the drive and folder where the pattern was saved in Step 4.



7

Click the created motif stitch pattern, and then click **OK**.

→ The pattern is applied to the outlines of the embroidery pattern.



8

If necessary, change any other sewing attributes.



Memo:

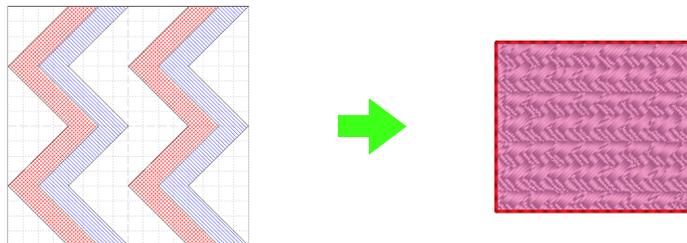
A motif stitch pattern can be used when the motif stitch, piping stitch or stippling stitch has been selected as the sew type of a region.

Creating Custom Stitch Patterns (Programmable Stitch Creator)

This section provides detailed descriptions on the various operations, settings and precautions for Programmable Stitch Creator. In addition, many useful functions are introduced.

Programmable Stitch Creator is an application for creating, editing and saving stitch patterns that can be used for programmable fill stitch or motif stitch sewing. The following two types of patterns can be created in their corresponding mode.

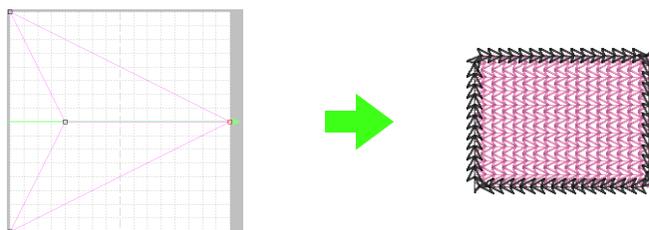
Fill/stamp stitch patterns



- These patterns can be used as stamp patterns and for sewing with the programmable fill stitch in Layout & Editing or Design Center.
- These patterns can be created with a single line or with multiple lines. In addition, these patterns can be used to create an embossing/engraving effect in sewn regions.
- These patterns are created in Fill/Stamp mode.



Motif stitch patterns



- These patterns can be used for sewing lines with the motif stitch and for sewing regions with the motif stitch, piping stitch and stippling stitch in Layout & Editing or Design Center.
- These patterns are created with a single line, which gives the look of a single-stroke drawing, and they are used for decorative machine sewing.
- These patterns are created in Motif mode.

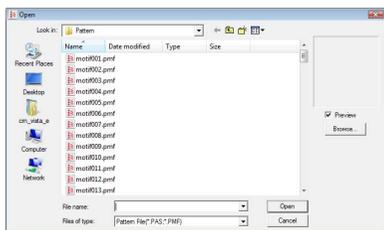
Opening a Pattern File

A previously saved pattern file can be opened to be edited.

Toolbar button:



1. Click , or click **File**, then **Open**.
2. Select the drive and the folder.

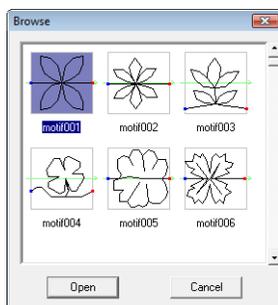


Note:

To open a fill/stamp stitch pattern, be sure to select a folder that contains .pas files. To open a motif stitch pattern, be sure to select a folder that contains .pmf files.

Memo:

- To view the data in the selected folder as thumbnails in the **Browse** dialog box, click **Browse**.



- A green arrow through the middle of the stitch pattern indicates motif stitch patterns (.pmf). Otherwise, the data is a fill/stamp stitch pattern (.pas).
- Stamps are identified by the red- (engraving effect sewn with the fill stitch) and blue-filled areas (embossing effect sewn with satin stitching).

3. To open a file, select it, and then click **Open**, or double-click the file's icon.

→ The contents of the selected file appear in the work area.

Memo:

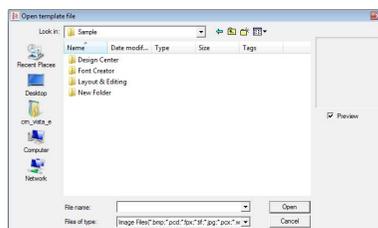
The mode will automatically change to match that of the selected pattern (**Fill/Stamp** for .pas files or **Motif** for .pmf files).

Opening an image in the background

You can open a background image that can be used as a guide to draw a new fill/stamp and motif stitch pattern. There are many different types of files that can be opened.

 "Image file formats" on page 19.

1. Click **File**, then **Template Open**.
2. Select the drive, the folder and the desired file.



3. Click **Open** to open the file.

→ The image fills the work area.

Note:

Only one image can be added to the work area. If you try to display a different image, it will replace the previous one.

Creating a New Pattern

You can begin with a blank work area in order to design a new stitch pattern.

Toolbar button: 

1. Click , or click **File**, then **New**.
→ A new work area appears.

Selecting the type of pattern to be created

Enter the appropriate mode according to the type of pattern to be created.

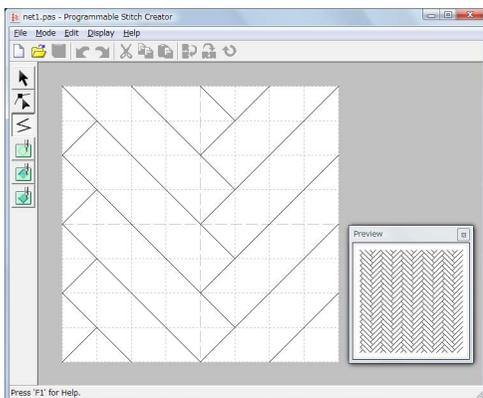
1. To enter Fill/Stamp mode, click **Mode**, then **Fill/Stamp**.
To enter Motif mode, click **Mode**, then **Motif**.
→ A blank work area appears in the selected mode.

■ Fill/Stamp mode

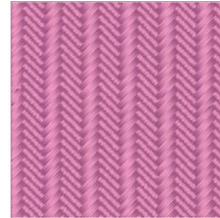
In Fill/Stamp mode, you can make a pattern out of a single line or sets of lines, and you can then choose to fill the areas enclosed by the lines to create an embossing/engraving effect.

The Line tool in the Tool Box allows you to draw the lines of a fill stitch pattern or a stamp, and the Region (engrave), the Region (emboss) and the Region (reset) tools allow you to fill and edit the enclosed areas of the stitch or stamp that you draw.

The sewing method for a programmable fill stitch is different from the regular fill stitch, 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 selected for a programmable fill stitch



■ Motif mode

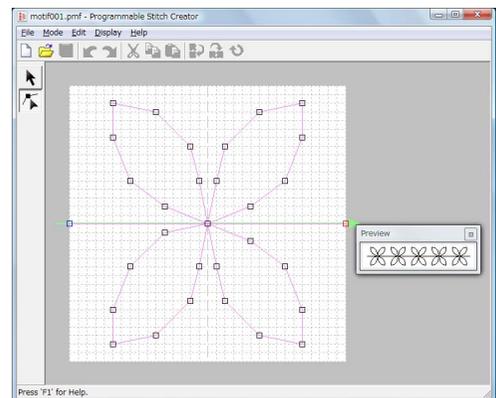
In Motif mode, you can create motif stitch patterns by changing the shape of a single line.

A green arrow appears at the right center edge of the work area, showing the direction that the pattern (stitch) will be sewn.

A single pink line appears along with the green arrow. This line indicates the base for the motif stitch, which can be altered by inserting points with the Edit Point tool, and then moving them to form custom designs.

The blue square at the left edge of the work area indicates the start point of that line and the red square at the right edge indicates the end point of the stitch.

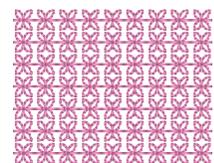
The start and end points cannot be deleted, and they must be aligned vertically. Therefore, if you move one point up or down, the other point will automatically move in the same direction.



Example of a pattern
Line sewing



Region sewing

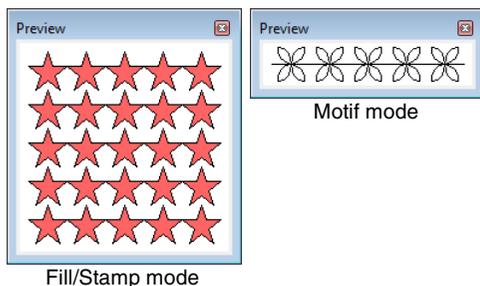


Viewing the Pattern While Creating It

You can display the Preview window to view a repeating image of the pattern as you create it.

1. If the Preview window isn't displayed, click **Display**, then **Preview**.

The Preview window for the selected **Mode** setting appears, as shown in the examples below.



The image in the Preview window is updated as you enter the changes in the work area.

2. To close the Preview window, click its  button, or click the menu command **Display Preview** to remove the check mark.

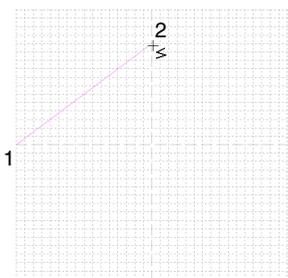
Creating a Pattern in Fill/Stamp Mode

The Line tool allows you to draw broken lines to create your fill/stamp stitch pattern.

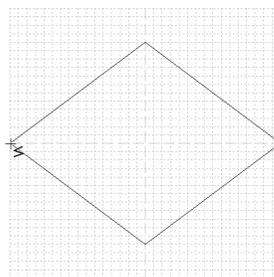
The horizontal and vertical lines that you draw on the work area always follow the grid. The points that you create by clicking the mouse button are inserted at the intersection of the horizontal and vertical lines of the grid, enabling you to draw diagonal lines as well. Regardless of where you click,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

Depending on the pattern that you want to draw, you may need to select a grid of a different size. In addition, by selecting **None**, the point will no longer be inserted at the nearest intersection, allowing you to create curved patterns. For details on the grids and adjusting them, refer to "Changing the grid settings" on page 215.

1. Click .
2. Click in the work area to specify the start point 1. And then, click in the work area to specify the next point 2.



3. Continue clicking to specify every point, and then double-click the last point, or click the last point and press the **Enter** key.



4. Repeat the entire procedure until the fill/stamp stitch pattern is completed.



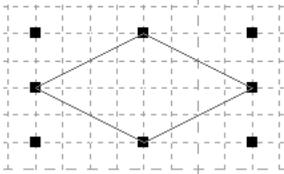
Memo:

To remove the last point that was entered, click the right mouse button, or press the **BackSpace** key.

Editing a Pattern in Fill/Stamp Mode

Selecting patterns

1. Click .
2. Click the pattern that you want to select.
→ Handles appear around the pattern to show that it is selected.



3. To select an additional pattern, hold down the **Ctrl** key and click the other pattern.

Memo:

- You can also select patterns by dragging the pointer across the pattern.
- If you selected patterns that you did not want, click a blank area of the work area to deselect all patterns, and start again.

Moving patterns

1. Move the pointer over a selected pattern(s).
2. Drag the pattern(s) to the desired location.

Memo:

- To move the pattern horizontally or vertically, hold down the **Shift** key while dragging it.
- Pressing the arrow keys moves the selected pattern one grid mark in the direction of the arrow on the key.

Scaling patterns

1. Move the pointer over one of the handles of a selected pattern(s).
2. Drag the handle to adjust the selected pattern(s) to the desired size.

Memo:

- If the **Shift** key is held down while a handle is dragged, the pattern is enlarged or reduced from the center of the pattern.
- To flip the selected pattern(s) along a horizontal axis, click , or click **Edit**, then **Mirror**, then **Horizontal**.
To flip the selected pattern(s) along a vertical axis, click , or click **Edit**, then **Mirror**, then **Vertical**.

- To rotate the selected pattern(s), click , or click **Edit**, then **Rotate**, then drag the rotation handle.

- Using toolbar buttons and menu commands other than those mentioned above, selected patterns can be edited in other ways, for example, duplicated or deleted.



“Menus/Tools” of “Programmable Stitch Creator” on page 256.

Reshaping a fill/stamp stitch patterns

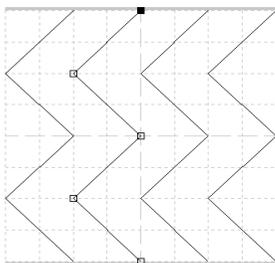
The points that you move or insert are positioned at the intersection of the horizontal and vertical lines of the grid. Regardless of where you drag a point to or insert a point on the line, it will automatically be positioned at the nearest intersection.

Depending on the stitch that you want to create, you may need to select a grid of a different size. For details on the grids and adjusting them, refer to “Changing the grid settings” on page 215.

1. Click .

2. Click the broken line.

→ The points in the broken line appear as small white squares.



Memo:

You can only select one broken line at a time.

3. To edit a point, click the point to select it.

→ The selected point appears as a small black square.

- To move the point, drag it to the new location.
→ All of the selected points move in the same direction.
- To insert a point, click the line to add a new point.
→ A new point appears selected (as a small black square).
- To delete the point, click **Edit**, then **Delete**, or press the **Delete** key to remove the point.

Memo:

If a line is composed of two points and you delete one of them, the entire line is deleted.

Memo:

- To select multiple points, hold down the **Ctrl** key while clicking the points, or dragging the pointer over the points.
- Hold down the **Ctrl** key while pressing the  key or  key. The selection direction changes to the end or start point.
- Hold down the **Shift** key while dragging the points. The points are moved horizontally or vertically.
- Press an arrow key. The points move in the direction of the arrow on the key.

Creating Embossing/Engraving Effects in Fill/Stamp Mode

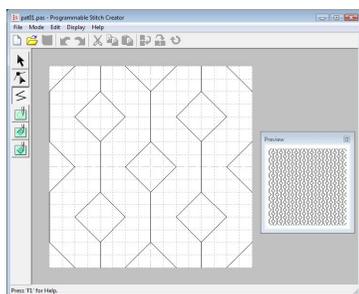
In Fill/Stamp mode, an embossed or engraved effect can be created by specifying the sew type of an enclosed region.

1. Open an existing fill/stamp pattern file (.pas file) or draw a new pattern with the Line tool in the Fill/Stamp mode.

Note:

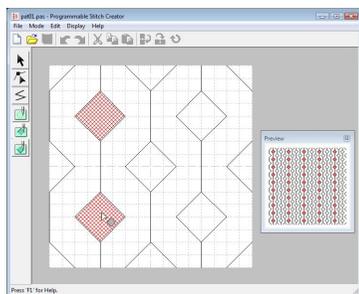
In order to apply the region settings (embossing/engraving effects), make sure that the lines of the pattern form an enclosed area.

The edge of the work area does not enclose regions. In order to use the edge of the work area as a limit for regions, lines must be drawn over it first.



2. To create an engraving effect, click  (**Region (engrave)**).
3. Click each region.

→ The regions appear in red, which is the color for the tool.



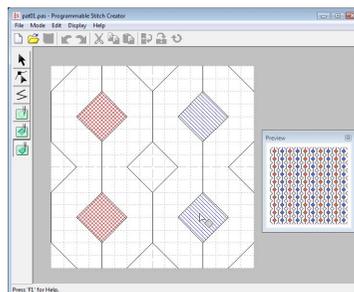
Memo:

This type of region will be sewn with the fill stitch set to a pitch of 2.0 mm (0.08 inches) and a frequency of 30%, and the needle drop point will be set on the outline.

4. To create an embossing effect, click  (**Region (emboss)**).

5. Click each region.

→ The regions appear in blue, which is the color for the tool, and will be sewn with stitching that appears like satin stitching.



6. To remove the embossing/engraving effect applied to a region, click  (**Region (reset)**).

7. Click each region where you want to remove the engraving or embossing setting.

→ The region appears in white, which is the color for the tool, and will be sewn in the direction set for the base stitch.

Note:

- If you edit stitch lines after a region has been filled, make sure that the lines still form a region, otherwise the embossing/engraving effects are canceled.
- .pas files with region settings applied cannot be used with versions of the software earlier than version 6, but .pas files created with an earlier version can be used as a base to create stamp files.

Creating a Pattern in Motif Mode

In Motif mode, patterns are created by inserting points on the base line of the motif stitch, then moving them in order to change the shape of the stitch and give it the look of a single-stroke drawing.

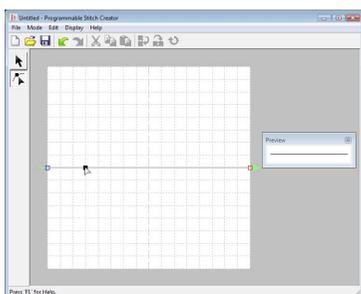
The points you move or insert are positioned at the intersection of the horizontal and vertical lines of the grid. Regardless of where you drag a point to or insert a point on the line, it will automatically be positioned at the nearest intersection.

Depending on the stitch you want to create, you may need to select a grid of a different size. For details on the grids and adjusting them, refer to “Changing the grid settings” on page 215.

1. Click  .

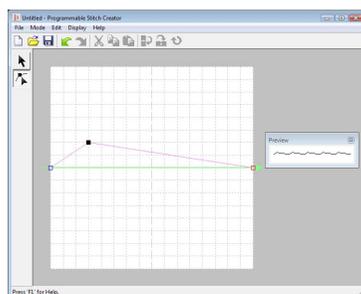
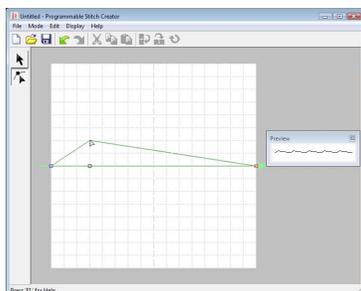
2. Click the base line between the start point (blue square) and end point (red square).

→ A new point appears selected (as a small black square). The new point can be edited.



3. Drag the point.

→ The stitch line moves with the newly created point.



Memo:

- To move the point horizontally or vertically, hold down the **Shift** key while dragging it.
- Pressing the arrow keys moves the selected point one grid mark in the direction of the arrow on the key.
- To delete a selected point, press the **Delete** key.

4. Repeat steps 2. and 3. until the motif stitch pattern is completed.

Memo:

- If you move the start point (blue square) or the end point (red square), the other point will automatically move in the same direction.
- The start and end points cannot be moved closer together than a certain fixed distance.

Editing a Pattern in Motif Mode

After creating a pattern, or after opening an existing motif file, you may want to change its shape or position. To do so, you can proceed in the same way as described above, but in addition, you can select and move or delete several points at the same time.

Moving and deleting several points at a time

1. Click  on the Tool Box.
2. Click the point.
 - The selected point appears as a small black square. The start point and end point appear as filled squares in their corresponding colors.

To select multiple points, hold down the **Ctrl** key while clicking the points, or dragging the pointer over the points.

Memo:

Hold down the **Ctrl** key while pressing the

 key or  key. The selection direction changes to the end or start point.

3. Edit the points.
 - To move the points, drag them to the desired location.
 - All of the selected points move in the same direction.
 - To delete the selected points, press the **Delete** key.
 - All of the selected points are deleted.

Note:

The start point (blue square) and end point (red square) can not be deleted.

Scaling patterns

1. Click  on the Tool Box.
 - The motif stitch is selected.
2. Move the pointer over one of the handles of the pattern.

Memo:

If the **Shift** key is held down while a handle is dragged, the pattern is enlarged or reduced from the center of the pattern.

3. Drag the handle to adjust the selected pattern(s) to the desired size.

Memo:

To flip the pattern along a horizontal axis, click , or click **Edit**, then **Mirror**, then **Horizontal**.

To flip the pattern along a vertical axis, click , or click **Edit**, then **Mirror**, then **Vertical**.

Saving Patterns

Overwriting

Once the pattern has been saved, changes can easily be saved so that the latest version can be retrieved later.

Toolbar button: 

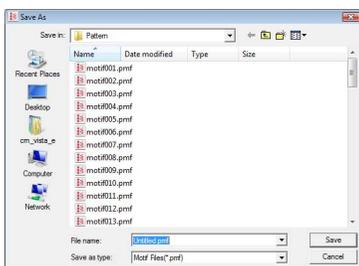
1. Click , or click **File**, then **Save**.

→ The file is saved.

Saving with a new name

The current file can be saved with a different file name in order to keep the original unchanged or to keep various versions of the same image or pattern. The files are saved as .pas files in Fill/Stamp mode, and as .pmf files in Motif mode.

1. Click **File**, then **Save As**.
2. Select the drive and the folder, and then type in the file name.



3. Click **Save** to save the pattern.

Changing the Settings

Changing the grid settings

The line spacing in the grid displayed in the work area can be adjusted.

1. Click **Display**, then **Grid**.
 - A submenu showing the current grid setting appears.
2. Click the grid setting that you need for the stitch pattern that you are creating or editing.

The horizontal and vertical lines that you draw in the work area always follow the grid. The points you create by clicking in the work area 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 grid size according to the type of stitch that you want to draw. Select a narrower grid for drawing finer details or to give a curved or circular appearance to your stitch lines, and select a wider grid if you want to draw a simpler stitch pattern.

Changing the display of the background image

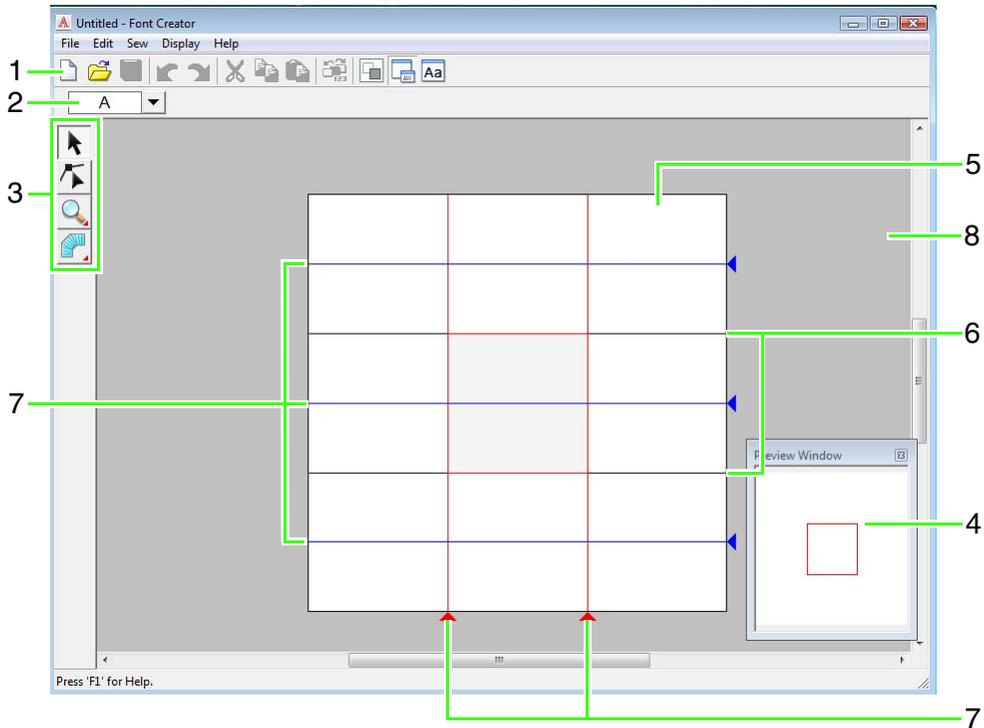
The template image that remains in the work area can be displayed or hidden, or a faded copy of the image can be displayed.

1. Click **Display**, then **Template**, and then select the desired setting.
 - To display the template image, click **On (100%)**.
 - To display a faded copy of the image, click the desired density (**75%**, **50%** or **25%**).
 - To hide the template image, click **Off**.

Memo:

- *This function is not available if no template image has been imported into the work area.*
- *Press the shortcut key (**F6**) to switch between displaying the image (**On (100%)**) to displaying it faded at each density (**75%**, **50%** and **25%**) to hiding the image (**Off**).*

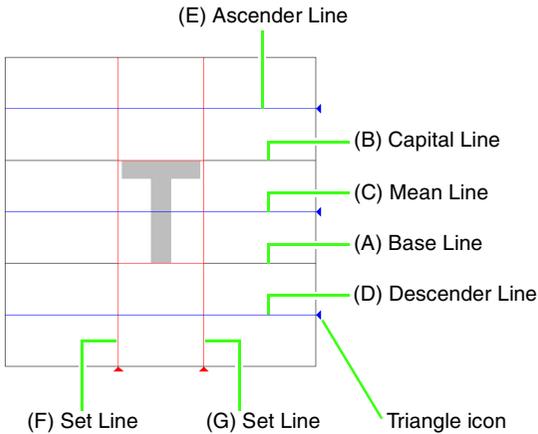
Font Creator Window



- 1 Toolbar**
Provides shortcuts for the menu commands.
- 2 Select Character bar**
Allows characters from created fonts to be selected.
- 3 Tool Box**
Used to select and create font pattern.
- 4 Preview window**
Shows how the stitch pattern will be sewn.
- 5 Design Page**
The actual part of the work area that can be saved.
- 6 Guidelines (fixed)**
The distance between the two guidelines becomes the height of the font created.
- 7 Guidelines (movable)**
These guidelines can be moved according to the shape of the created font. The distance between the two red guidelines becomes the width of the font created. The three blue guidelines are positioning lines for accent positions, the height of small characters, and the bottom edge of small characters.
- 8 Work area**

The Design Page guidelines

The standard guidelines for creating fonts are shown in the Design Pages. The contents of each of the guidelines are as shown below.



(A) Base Line

This line is the reference for positioning the font character. Normally, from this line to the **Capital Line** will be the font height. This line cannot be moved.

(B) Capital Line

The font's standard height will be from the **Base Line** to this line. This line cannot be moved.

(C) Mean Line

When in lower case, the standard height of the font will be from the **Base Line** to this line. It can be moved by dragging the triangle icon on the right edge.

(D) Descender Line

This line is the standard for characters with parts that hang down (descenders) such as "g" and "y". It can be moved by dragging the triangle icon on the right edge.

(E) Ascender Line

This line is the standard for characters with parts that extended above (ascenders) such as the accent mark. It can be moved by dragging the triangle icon on the right edge.

(F/G) Set Line

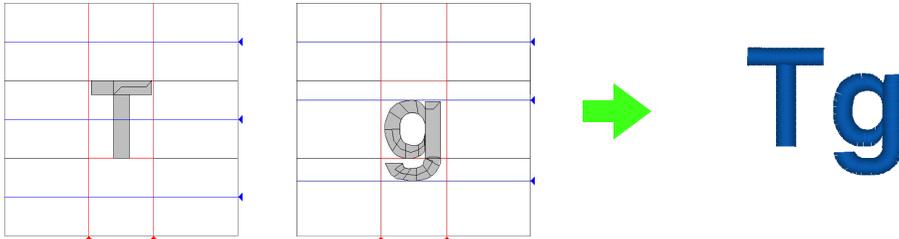
This line will be the font width. The font width can be adjusted by dragging the triangle icon on the bottom edge.

Memo:

- The heights and widths specified for the **Base Line**, **Capital Line** and **Set Lines** are the reference mask for creating the font character.
- When characters created with Font Creator are imported into Layout & Editing, the width and height of the characters will be in the following area.
 - Character height: from Base Line (A) to Capital Line (B)
 - Character width: from Set Line (F) to Set Line (G)
- In order to align the height of the characters, the **Ascender Line**, **Mean Line** and **Descender Line** appear the same with all characters. Therefore, if the height of any of these lines is changed, the setting is maintained, even when a different character is selected to be edited.
- The widths of the **Set Lines** can be set separately for each character.

Manually Creating Custom Font

With Font Creator, custom font characters that can be used in Layout & Editing can be created and edited. Using these custom characters, original embroidery patterns can be created.

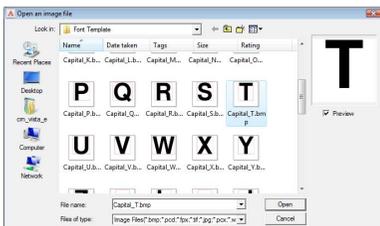


Step 1	Opening a background image
Step 2	Creating a font character pattern
Step 3	Creating other font character patterns
Step 4	Save the font character pattern
Step 5	Creating an embroidery pattern using the created font characters

Step 1 Opening a background image

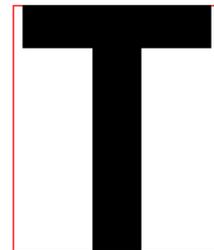
In order to create the custom font, we will open an image in the background. For this example, we will use the provided background image to create a pattern for the letter "T".

- 1 Click , then select **All Programs**, then **PE-DESIGN 8**, then **Tools**, then **Font Creator**.
- 2 Click **File**, then **Template Open**, then **from File**.
- 3 Import the **Capital_T.bmp**. Select the file **Capital_T.bmp** by clicking the **documents** folder (**My documents**), then **PE-DESIGN8**, then **Sample**, then **Font Creator**, then **Font Template**.

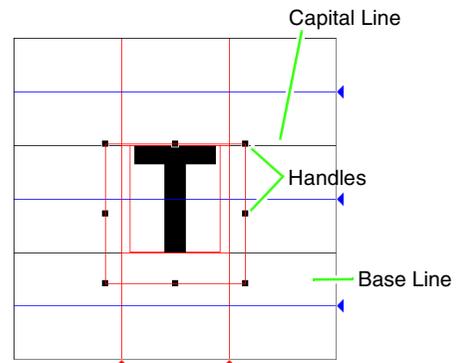


Memo:

The **Base Line**, **Capital Line** and **Set Lines**, which appear as red lines in the sample bitmap, have been added as guidelines so the background image can be positioned more easily.



- 4 Move the character so that the top aligns with the **Capital Line**. To adjust the height of the character, drag a handle to adjust the height between the **Capital Line** and the **Base Line**.





Memo:

If the handles have disappeared, right-click the image, and then click **Modify Template** in the menu that appeared.

Step 2 Creating a font character pattern

- 1 Select the character to be created.

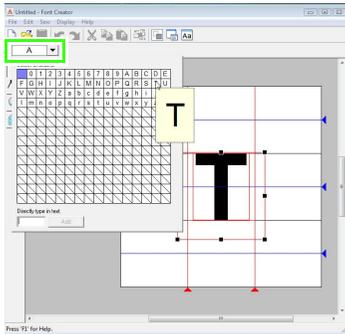


Memo:

The character must be registered in the **Select Character** table in order for the created font to be used in Layout & Editing.



"Entering text/Small text" on page 80.

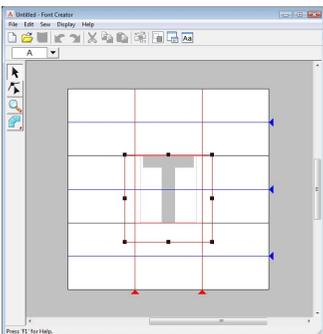


Click the **Select character** button, and then select the character to be created. For this example, select "T".



Memo:

The template image that remains in the work area can be displayed or hidden, or a faded copy of the image can be displayed. For this example, click **Display-Display Template**, then select **25%**.



2

Click , then .



Memo:

Five buttons appear when  is clicked.



: Straight block-type pattern



: Curved block-type pattern



: Semi-automatically created straight block-type pattern

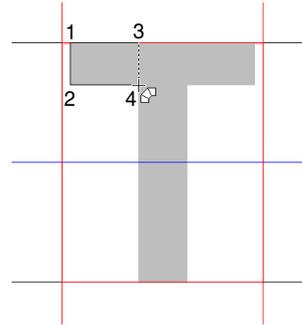


: Running-type pattern



: Feed-type pattern

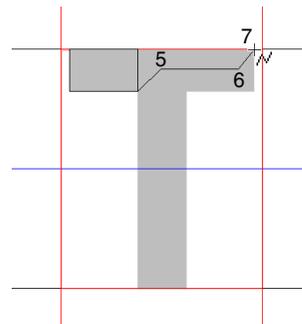
Click in the Design Page to specify points 1 (start point) through 4.



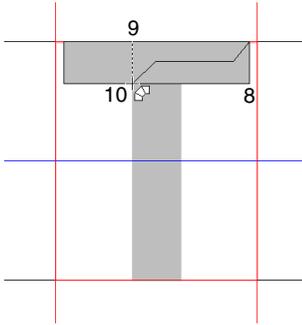
3

Click , then .

And then click point 5 through 7.



- 4 Click , then . And then click points 8 through 10.



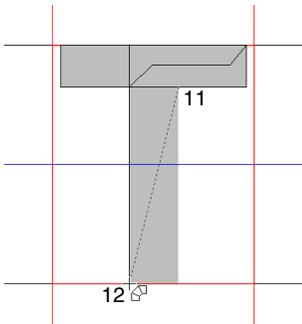
- 5 Click , then .

 **Memo:**

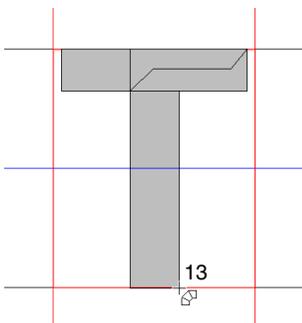
By clicking  at this point, overlapping stitching can be prevented.

- 6 Click , then .

And then click points 11 through 12.



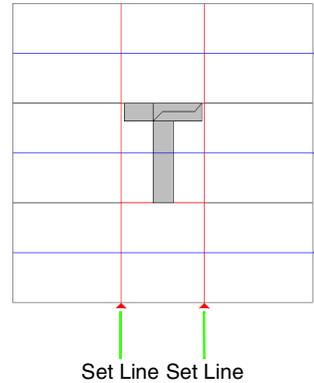
- 7 Double-click point 13 (the last point of the entire pattern), or click point 13 and press the **Enter** key.



 **Memo:**

To remove the last point that was entered, click the right mouse button, or press the **BackSpace** key.

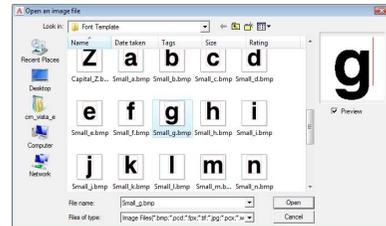
- 8 Click , then drag **Set Line** to adjust the character width.



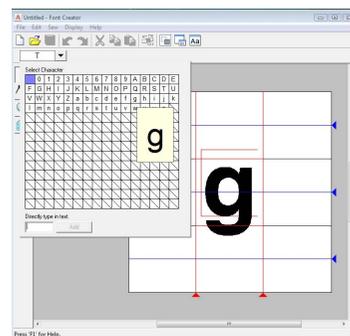
Step 3 Creating other font character patterns

Next, we will create another font character pattern. For this example, we will create a pattern for the letter “g”.

- 1 Import file **Small_g.bmp** in the same way that “T” was imported.

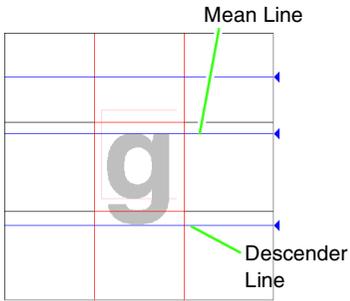


- 2 Click the **Select Character** button, and then select the character to be created. For this example, select “g”.



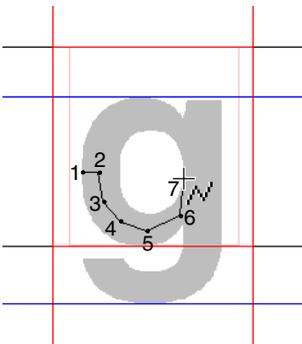
- 3 Adjust the character size and position in the same way that "T" was adjusted.

Drag the triangle icons to move the blue reference lines so that they are aligned with the top and bottom of the character.



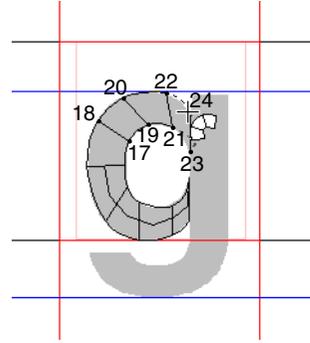
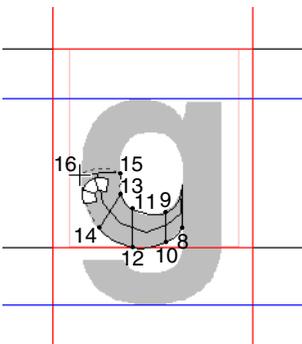
- 4 Click , then .

And then click points 1 through 7.



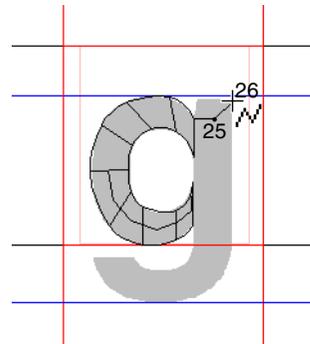
- 5 Click , then .

And then click points 8 through 24.



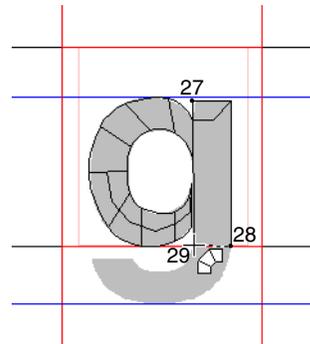
- 6 Click , then .

And then click points 25 and 26.

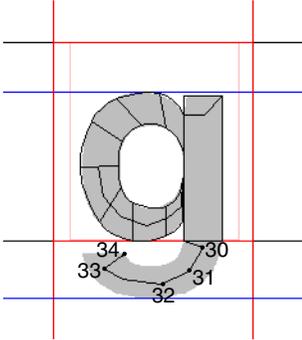


- 7 Click , then .

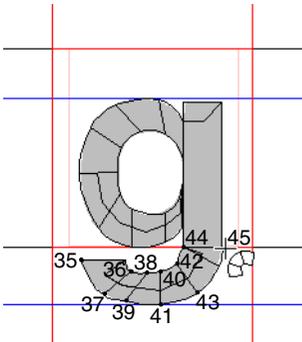
And then click points 27 through 29.



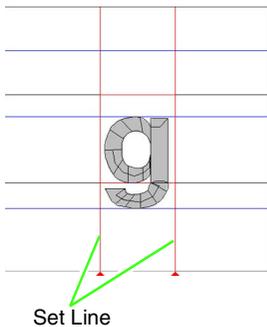
- 8 Click , then . And then click points 30 though 34.



- 9 Click , then . Next, click points 35 though 44, and then double-click point 45 (end point), or click point 45 and press the **Enter** key.



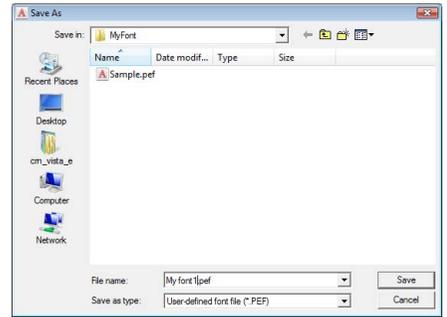
- 10 Drag **Set Line** to adjust the character width.



Step 4 Save the font character pattern

- 1 Click **File**, then **Save**.
- 2 Select the **MyFont** folder in the folder where PE-DESIGN was installed. (For example, clicking the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **MyFont**) And then type in the file name. For this example, type in the name "My font1".

Click **Save**.



Note:

Save the font created in the location below. The font will not be usable in the Layout & Editing if it's stored in a different folder. For example, (Drive where PE-DESIGN was installed) \Program Files\Brother\PE-DESIGN 8\MyFont.

Step 5 Creating an embroidery pattern using the created font characters

The created font characters can be used in Layout & Editing.

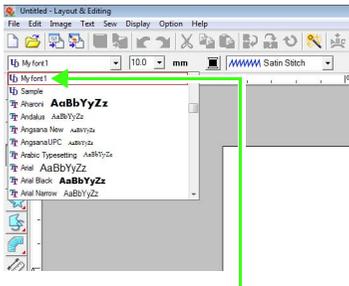
- 1 Start up Layout & Editing.

 **Memo:**

If Layout & Editing is already started, exit it, and then start it again. The new font is detected when the application starts up.

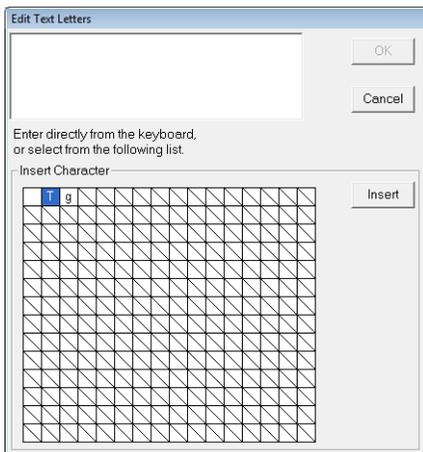
- 2 Click  , then .

- 3 Click in the Font selector, and then select "My font1".

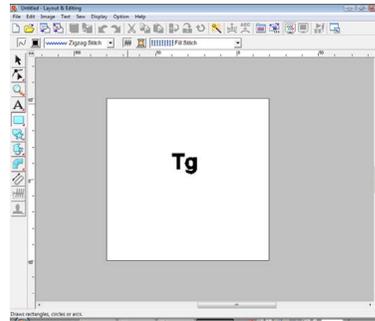


Fonts created in Font Creator appear with the  icon in front of the font name.

- 4 Click in the Design Page.
Input the text, and then click **OK**.



→ The text is displayed in the Design Page.



 "Adding Text" on page 80.

Creating Custom Fonts (Font Creator)

This section provides detailed descriptions on the various operations, settings and precautions for Font Creator. In addition, many useful functions are introduced.

Opening a File

Creating a new font

You can begin with a blank work area to design a new font.

Toolbar button: 

1. Click  , or click **File**, then **New**.
→ A new work area appears.

Opening a font file

A previously created or saved font file can be opened to be edited.

Toolbar button: 

1. Click  , or click **File**, then **Open**.
2. Select the **MyFont** folder in the folder where PE-DESIGN was installed. (For example, clicking the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **MyFont**)



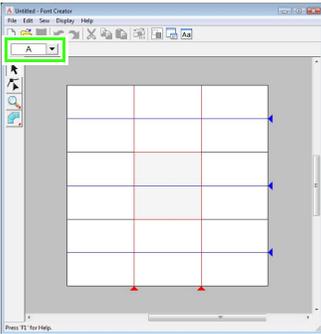
3. To open a file, select it, and then click **Open**, or double-click the file's icon.
→ The contents of the selected file appear in the work area.

Selecting a Character and Preparing the Template

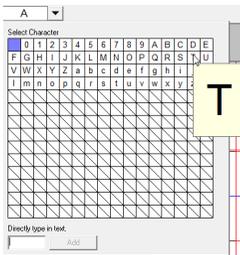
Selecting the character to be created

The character to be created can be selected.

1. Click the **Select Character** button in the Select Character bar.



2. In the **Select Character** dialog box that appeared, click the character to be created.



If the desired character does not appear in the list, a character can be selected by typing it in the text box at the bottom of the dialog box, then pressing the **Enter** key.

Memo:

- Characters where pattern has already been created appear with a blue background.
- The blank box in the upper-left corner is a space. Click this box to select a space.

Note:

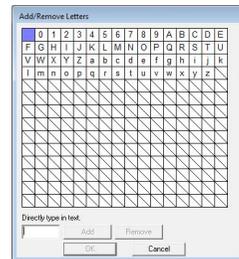
If any part of the character pattern extends off the Design Page when a different character is selected, a message appears. Before selecting a different character, edit the character pattern so that no part extends off the Design Page.

■ Adding/deleting registered characters

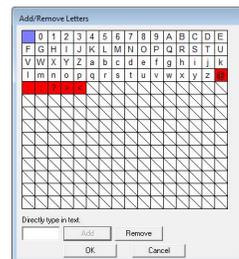
As a default, space, numbers (0 to 9), uppercase letters (A to Z) and lowercase letters (a to z) are registered in the **Select Character** dialog box.

Characters such as “?” and “!” can be added, and unnecessary characters can be deleted. A maximum of 1,024 characters can be registered with each custom font.

1. Click **File**, then **Add/Remove Letters**.
2. From the keyboard, enter the character to be registered.
→ The entered character appears in the box under **Directly type in text**.



3. Click **Add**.
→ The entered character is added to the character list.



If the character is already registered or if the same character is entered multiple times, an error message appears. Only characters that have not yet been registered can be registered.

4. To delete a registered character, select the character, and then click **Remove**.

The box is selected in red. Each click of the character switches between selecting and deselecting it.

- When the settings can be applied, click **OK**.

 **Memo:**

- To not register the changes, click **Cancel**.
- If a character is registered even though a font has not been created, the information for the registered character is saved in a font file.

Opening an image in the background

Existing image data or a TrueType font character can be displayed in the Design Page to be used as a template. Open an image of the selected character to use it as a background image.

 **Memo:**

- Only one image can be added to the work area. If you try to display a different image, it will replace the previous one.
- The display density of the background image can be changed.

 “Changing the display of the background image” on page 235.

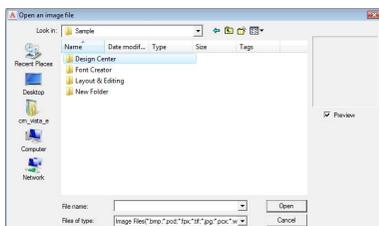
- If the background image is displayed, the information for the background image will be saved with the font file. The next time that the font file is opened, the background image is displayed.

Opening a template (image file)

There are many different types of files that can be opened.

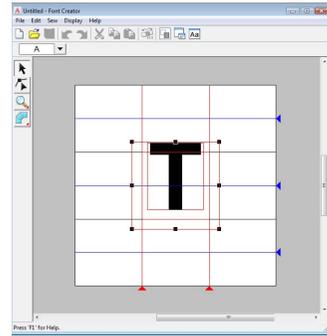
 “Image file formats” on page 19.

- Click **File**, then **Template Open**, then from **File**.
- Select the drive, the folder and the desired file.



- Click **Open** to open the file.

→ The image fills the work area.



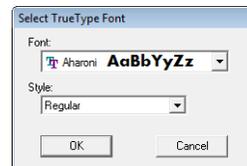
 **Memo:**

The background image can be dragged to move it, or a handle can be dragged to change the size of the image. If the handles have disappeared, right-click the image, and then click **Modify Template** in the menu that appeared.

Opening a template (TrueType font)

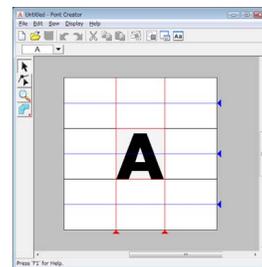
TrueType fonts installed on your computer can be opened to be used as a template.

- Click **File**, then **Template Open**, then **Select TrueType Font**.
- From the **Font** selector, select the font. From the **Style** selector, select the character style.



- Click **OK**.

→ The character selected in the **Select Character** dialog box appears in the work area.



- While working on a character in a font, the same TrueType font appears until a different template is selected for the background. Each time a different character is selected in the **Select Character** dialog box, the template of the character in the same TrueType font appears.
- If the character selected in the **Select Character** dialog box is not available in the TrueType font, “?” appears as the template.



Memo:

- *If a TrueType font was selected as the template, it cannot be moved or resized. And in this case, it can automatically be converted to a font character pattern.*



“Automatically converting TrueType fonts” on page 229.

- *In addition, the character cannot be drawn with the semi-automatic block-type punch tool.*

Creating a Font Character Pattern

Creating patterns using the Manual Punch tools

Using the Manual Punch tools, create the font character pattern.

A background image can be displayed so that the font character pattern can be created more easily.

 *"Opening an image in the background" on page 227.*

Use  on the Tool Box to create the patterns.

When this button is clicked, the following five buttons appear.

 : This is used for creating straight block-type punching patterns (region sewing).
(Shortcut key: **Z**)

 : This is used for creating curved block-type punching patterns (region sewing).
(Shortcut key: **X**)

 : This is used for semi-automatically creating straight block-type punching patterns.
By semi-automatically tracing, points can be specified along the lines of a template.
(Shortcut key: **C**)

 : This is used for creating running-type punching patterns (line sewing).
(Shortcut key: **V**)

 : This is used for creating feed-type punching patterns (jump stitches).
(Shortcut key: **B**)

 *"Manually Creating Custom Font" on page 219.*

Memo:

- When entering points, you can switch between the various tools. This is very easy if the shortcut keys are used.
- 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 straight block-type punch tool. In addition, this tool cannot be used if a TrueType font is used as the template.
- Once the pattern is drawn, you can still transform straight block-type patterns into curved block-type patterns and vice versa. For details, refer to "Editing points" on page 231.

Automatically converting TrueType fonts

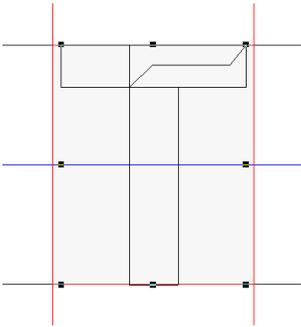
If a TrueType font is used as a template, it can simply be converted into font character patterns.

1. Open the TrueType font to be used as a template.
 *"Opening a template (TrueType font)" on page 227.*
2. Click **Sew**, then **Convert TrueType Font to Data**.
→ A font character pattern is created from the background image.

Editing Font Character Patterns

Selecting patterns

1. Click  on the Tool Box.
2. Click the pattern.
→ Handles appear around the pattern to show that it is selected.



3. To select an additional pattern, hold down the **Ctrl** key and click the other pattern.

Memo:

- You can also select patterns by dragging the pointer across the pattern.
- If you selected patterns that you did not want, click a blank area of the work area to deselect all patterns, and start again.

Moving patterns

1. Move the pointer over a selected pattern(s).
2. Drag the pattern(s) to the desired location.

Memo:

- To move the pattern horizontally or vertically, hold down the **Shift** key while dragging it.
- Pressing the arrow keys moves the selected pattern one grid mark in the direction of the arrow on the key. If the grid is not displayed, the pattern moves a distance smaller than the smallest grid interval in the direction of the arrow on the key.
- Holding down the arrow key for the desired direction continues moving the outline in that direction.

Scaling patterns

1. Move the pointer over one of the handles of a selected pattern(s).
2. Drag the handle to adjust the selected pattern(s) to the desired size.

Memo:

- If the **Shift** key is held down while a handle is dragged, the pattern is enlarged or reduced from the center of the pattern.
- To flip the selected pattern(s) along a horizontal axis, click **Edit**, then **Mirror**, then **Horizontal**.
To flip the selected pattern(s) along a vertical axis, click **Edit**, then **Mirror**, then **Vertical**.
- To rotate the selected pattern(s), click **Edit**, then **Rotate**, then drag the rotation handle.
- Using toolbar buttons and menu commands other than those mentioned above, selected patterns can be edited in other ways, for example, duplicated or deleted.

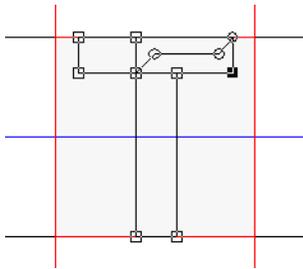


“Menus/Tools” of “Font Creator” on page 259.

Editing the Points of a Font Character Pattern

Editing points and reshaping patterns

1. Click  on the Tool Box.
2. Click the pattern that you want to edit.
 - The points in the pattern appear as small white squares or circles.



Memo:

You can only select one pattern at a time.

3. To edit a point, click the point to select it.
 - The selected point appears as a small black square or circle.
 - To move the point, drag it to the new location.
 - All of the selected points move in the same direction.
 - To insert a point, click the line to add a new point.
 - A new point appears selected (as a small black square).
 - To delete the point, click **Edit**, then **Delete**, or press the **Delete** key to remove the point.

Memo:

- To select multiple points, hold down the **Ctrl** key while clicking the points, or dragging the pointer over the points.
- Hold down the **Ctrl** key while pressing the  key or  key. The selection direction changes to the end start point.
- Hold down the **Shift** key while dragging the points. The points are moved horizontally or vertically.
- Press an arrow key. The points move in the direction of the arrow on the key.

Editing points

The lines connected to a point can be changed to either straight lines or curves. In addition, the lines at a point can be smoothed out or straightened.

1. Select a point in the same way that a point is selected in “Moving points”.
2. Click **Edit**, then **Point**.
3. Click the desired command.
 - Click **To Straight** to transform the lines at the selected point to straight lines.
 - Click **To Curve** to transform the lines at the selected point to curves.
 - Click **To Smooth** to smooth out the lines at the selected point on a curve.
 - Click **To Symmetry** to symmetrically transform the lines at the selected point on a curve.
 - Click **To Cusp** to transform the selected curve to a pointed path.

Checking the Created Font Patterns

The sewing order and preview of the font character patterns and the list of created characters can be checked.

Checking and editing the sewing order

The sewing order for the font character pattern can be viewed and modified.

Toolbar button: 

1. Click , or click **Sew**, then **Sewing Order**.
→ A **Sewing Order** dialog box similar to the one shown below appears.



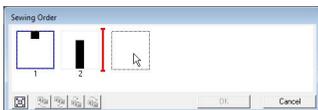
 : Click to enlarge each pattern to fill its frame.

Selecting pattern

1. Select a pattern in the **Sewing Order** dialog box.
→ The selected pattern has a pink line around it, and marching lines appear around the corresponding pattern in the Design Page.

Editing the sewing order

The sewing order can be changed by selecting the frame containing the pattern that you want to move, then dragging the frame to the new location. A vertical red line appears, indicating the position where the frame is being moved.



An alternative method for moving the frames is by clicking the buttons at the bottom of the dialog box.

 : 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.

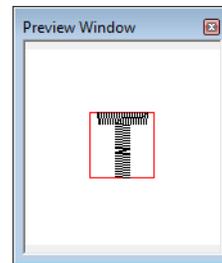
To change the sewing order, click **OK**.

Previewing the embroidery pattern

A preview of the Font pattern can be viewed in the Preview window.

Toolbar button: 

1. Click , or click **Display**, then **Preview Window**.
→ The Preview window appears.



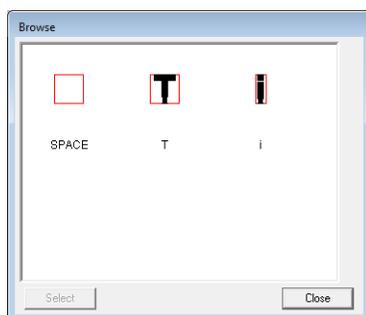
Checking the list of created characters

A list of characters included in the font file currently being edited can be viewed.

Toolbar button: 

1. Click , or click **Display**, then **Browse Window**.

→ The **Browse** window appears.

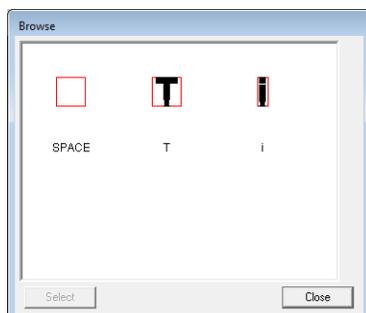


■ Selecting characters

A different character can be displayed in the Design Page by selecting a character in the **Browse** window.

1. Click , or click **Display**, then **Browse Window**.

2. Click a character, and then click **Select**.



→ The **Browse** window is closed, and the selected character appears in the Design Page.

Saving Font Character Patterns

Overwriting

The font character pattern being edited is overwritten when saving any changes that have been made.

Toolbar button: 

1. Click , or click **File**, then **Save**.

→ The file is saved.

→ If no file name has been specified or if the file cannot be found, the **Save As** dialog box appears.

 **Note:**

If any part of the character pattern extends off the Design Page, a message appears. Edit the character pattern so that no part extends off the Design Page, and then save it again.

Saving with a new name

The current file can be saved with a different file name in order to keep the original unchanged or to keep various versions of the same font character pattern.

The font character patterns are saved as .pef files.

1. Click **File**, then **Save As**.

2. Select the **MyFont** folder in the folder where PE-DESIGN was installed. (For example, clicking the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **MyFont**) And then type in the file name.



 **Note:**

- Save the font created in the **MyFont** folder. (For example, clicking the drive where PE-DESIGN was installed, then **Program Files**, then **Brother**, then **PE-DESIGN 8**, then **MyFont**) The font will not be usable in the Layout & Editing if it's stored in a different folder.
- If Layout & Editing has already started up when a new character is saved in Font Creator, that character will not appear in the Font selector list in Layout & Editing. In this case, exit Layout & Editing, and then start it up again.

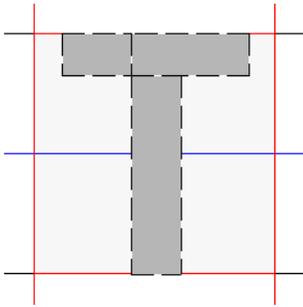
3. Click **Save** to save the font character patterns.

Changing the Settings

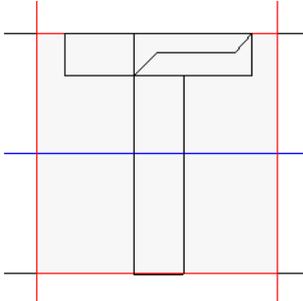
Changing the drawing mode

There are two drawing modes in Font Creator.

- **Fill mode**
Blocks appear filled in. In this mode, the overlapping positions of patterns can be viewed better.



- **Outline mode (Fill mode Off)**
Blocks do not appear filled in. In this mode, points can be edited more easily.



Perform the operation described below to switch between these modes.

Toolbar button:

1. Click , or click **Display**, then **Fill Mode**.
→ The mode switches between the fill mode and the outline mode.

Changing the display of the background image

■ Changing the density of the background image

The template image that remains in the work area can be displayed or hidden, or a faded copy of the image can be displayed.

1. Click **Display**, then **Display Template**, and then select the desired setting.
 - To display the template image, click **On (100%)**.
 - To display a faded copy of the image, click the desired density (**75%**, **50%** or **25%**).
 - To hide the template image, click **Off**.

Memo:

- This function is not available if no template image has been imported into the work area.
- Press the shortcut key (**F6**) to switch between displaying the image (**On (100%)**) to displaying it faded at each density (**75%**, **50%** and **25%**) to hiding the image (**Off**).

■ Scaling/Moving the background image

1. Click **Display**, then **Modify Template**.
→ The background image is selected.
The background image can be moved or resized in the same way that font character patterns are edited.

"Editing Font Character Patterns" on page 230.

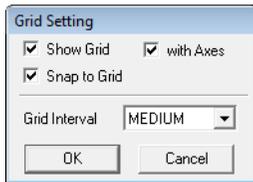
Memo:

The background image cannot be scaled or moved if a TrueType font is used as the template.

Changing the grid settings

The line spacing in the grid displayed in the work area can be adjusted.

1. Click **Display**, then **Grid Setup**.
2. To display the grid, select the **Show Grid** check box.
To hide the grid, clear the **Show Grid** check box.



3. To input the font in a uniform thickness or match vertical and horizontal positions, select the **Snap to Grid** check box.

Memo:

*The pointer will move by the amount set in **Grid Interval**.
The snap feature works whether or not the grid is displayed.*

4. In the **Grid Interval** box, select the grid spacing.
5. To display the grid as dots (intersecting points of the grid), select the **with Axes** check box.
6. Click **OK** to apply the changes and to close the dialog box.

Enlarging/Reducing Stitch Patterns

Imported stitch patterns can be enlarged or reduced in Layout & Editing in the following three ways.

- 1 Stitch patterns can be simply enlarged/reduced.
- 2 Stitch patterns can be enlarged/reduced while the **Ctrl** key is held down.
- 3 Using the Stitch to Block function, stitch patterns can be enlarged/reduced after being converted to a manual punching pattern.

With method **1**, the stitching will become more dense or light without the number of stitches sewn changing. In other words, greatly enlarging or reducing the pattern changes the quality of the embroidery since the thread density is adjusted. Use this method when only slightly enlarging/reducing the stitch pattern.

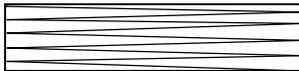
With method **2**, the size of the pattern is changed while maintaining the thread density and needle drop point pattern. However, if the original thread density and needle drop point pattern in the stitch pattern are not uniform, the thread density and needle drop point pattern may not be maintained, even by using this method. Enlarge/reduce the pattern while checking the preview. Do not use this method when only slightly enlarging/reducing the stitch pattern.

With method **3**, the thread density is maintained while the pattern is enlarged/reduced. However, the needle drop point pattern is not entirely maintained. Use this method when you wish to change the stitching or shape. Do not use this method when only slightly enlarging/reducing the stitch pattern.

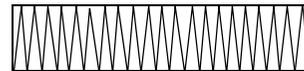
This software allows you to create a wide variety of embroidery patterns and supports wider ranges for the setting of the sewing attributes (thread density, sewing pitch, etc.). However, the final result also depends on your particular embroidery machine model. We recommend that you make a trial sewing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

Sewing Direction

In order to limit shrinking, select a stitch direction perpendicular to the larger edge of the area.



Shrinking more likely to occur



Shrinking less likely to occur

Sewing Order

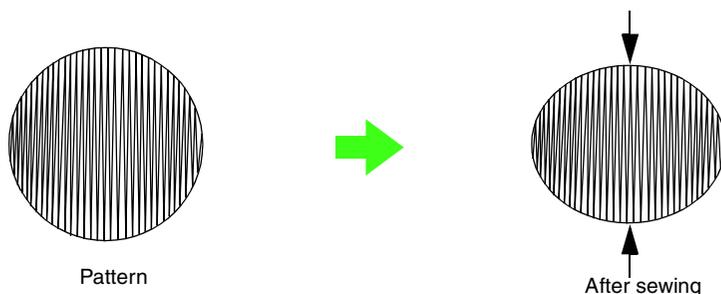
After creating an embroidery pattern made of several different parts (in Layout & Editing or Design Center), be sure to check the sewing order and correct it if necessary.

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

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

Sewing Wide Areas

- For best sewing results, set **Under sewing** to **On** when sewing wide regions.
 - 👉 For more details, refer to “Under sewing” on page 98.
- Changing the **Sewing Direction** setting prevents shrinkage of the stitching.
- When embroidering, use stabilizer material specifically for embroidering. Always use stabilizer material when embroidering lightweight or stretch fabrics, otherwise the needle may bend or break, the stitching may shrink, or the pattern may become misaligned.
- When satin stitching is sewn in a wide area, the stitched area may shrink after sewing, depending on the material and the type of thread used. If this happens, switch to this alternate method: Select the fill stitch and use stabilizer material on the reverse side of the fabric.



Note:

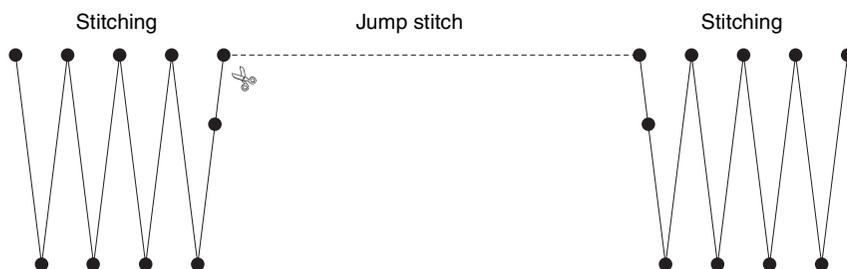
When using the satin stitch in a wide area, the needle may move out of position by about 10 mm with some machines. In order to avoid this, use the above-mentioned alternate method.

Jump Stitch and Jump Stitch Trimming

If the jump stitch trimming function is turned on in embroidery machines equipped with these functions, the thread will automatically be cut at jump stitch.

Depending on the embroidery machine being used, the thread may not be cut at jump stitch shorter than a set length.

For details on the jump stitch trimming function, refer to the Instruction Manual provided with your embroidery machine.



Fonts Suitable for Embroidering

■ When sewing small fonts

For best results when embroidering designs containing small font patterns, follow the recommendations described below.

- 1.** Reduce the thread tension to less than what is used when embroidering normal designs.
- 2.** Sew at a speed slower than what is used when embroidering normal designs.
(For details on adjusting the thread tension and sewing speed, refer to the Instruction Manual provided with your embroidery machine.)
- 3.** Do not cut the jump stitches between the characters.
(For details on setting the machine for thread cutting, refer to the Instruction Manual for the embroidery machine.)

■ When converting TrueType fonts to embroidery patterns

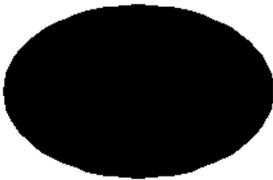
For best results when converting TrueType fonts to embroidery patterns, select a font where all lines are as thick as possible, such as with a Gothic font.

Creating Outlined Characters (Using Text Converted to Outline Object)

Outlined characters within a shape can be created by applying the **Convert to Outline Object** command to a character of a TrueType font.

1. Use a **Shape tool** to draw a shape.

 For more details, refer to “Drawing Shapes” on page 70.



2. Select a character in a TrueType font.

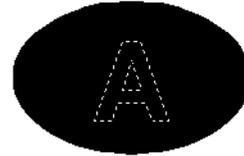


3. Right-click the character, and then select **Convert to Outline Object** from the menu that appeared.

 For more details, refer to “Converting text to outline pattern” on page 89.



4. Position the character so that it is framed by the shape.



5. After selecting the outlined character pattern, hold down the **Ctrl** key and select the background of the shape. Click on **Sew** then **Set hole sewing**.

 For more details, refer to “Preventing overlapping stitching (hole sewing)” on page 75.



6. Select the outlined pattern inside the character, and then click the **Region sew** button . (Since the background color in this example is black, the color selected with the **Region color** button  is black.)



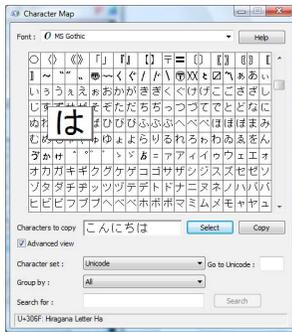
→ The outlined character is completed.

Converting Characters (Japanese, Chinese, Korean, etc) to Embroidery Patterns

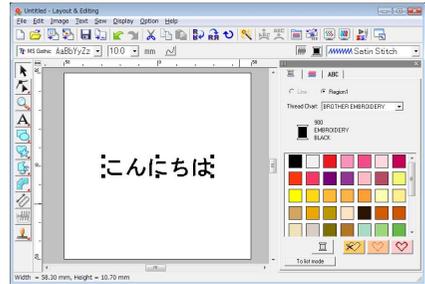
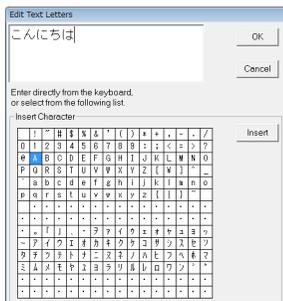
Embroidery patterns can be created from various characters, such as Japanese, Chinese, Korean etc, using TrueType fonts.

For this example, we will create an embroidery pattern from Japanese characters.

1. Select a Text tool, and then select a Japanese TrueType font (for example, “MS Gothic”).
2. Click in the Design Page where you want to enter the text. The **Edit Text Letters** dialog box appears.
3. Display a character code table different from the one that appeared in step 2. (**Start – All Programs – Accessories – System Tools – Character Map**)
4. Select **MS Gothic** from the **Font** list in **Character Map**, and then select the **Advanced view** check box. Next, select **Windows: Japanese** from the **Character set** list, select the desired character, and then click **Select**.
(This example shows the Japanese hiragana for the word meaning “Good Afternoon”.)



5. After selecting all of the desired characters, click **Copy** to copy the characters.
6. Paste the characters into the **Edit Text Letters** dialog box in Layout & Editing, and then click **OK**.



Memo:

- The following procedure describes how to install Japanese, Chinese and Korean fonts on the English operating system for Windows® XP.
 - 1) Click **Start**, select **Control Panel**, and then click **Date, Time, Language, and Regional Options**.
 - 2) Click **Regional and Language Options**, and then click the **Language** tab.
 - 3) Select the **Install files for East Asian languages** check box under **Supplemental language support**, and then click **OK**.
 - 4) Complete the Windows® installation by following the instructions that appear.
- If Japanese or Korean can be entered directly from the computer keyboard, those characters can be entered directly into the **Edit Text Letters** dialog box.

Layout & Editing

List of tool box buttons

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	Sets the pointer in selection mode.	p. 52		Sets the pointer in outline drawing mode.	p. 73
	Sets the pointer in point edit mode.	p. 56 p. 60 p. 62		Sets the pointer in manual punching mode.	p. 78
	Sets the pointer in zoom mode.	p. 51		Sets the pointer in measure mode.	p. 51
	Sets the pointer in text, small text and monogram input mode.	p. 80		Sets the pointer in split stitch mode.	p. 64
	Sets the pointer in rectangle, circle, arc, fan shape and arc & string drawing mode.	p. 70		Sets the pointer in stamp input or stamp edit mode.	p. 114
	Sets the pointer in various shape drawing mode.	p. 72			

List of menus

File menu

Menu	Toolbar	Purpose	Shortcut key	Reference
New		Creates a new Design Page.	Ctrl + N	p. 47
Open		Opens a previously saved embroidery design.	Ctrl + O	p. 48
Import		Imports embroidery designs from Design Library, folder or original card.	F8	p. 48
Import from Design Center		Imports an embroidery pattern from Design Center.	F7	p. 50
Save		Saves your embroidery design on the computer's hard disk as a latest version file (default).	Ctrl + S	p. 138
Save As	—	Saves your embroidery design on the computer's hard disk under a new file name.	—	p. 138

Menu	Toolbar	Purpose	Shortcut key	Reference
Export	—	Exports the design shown in the Design Page as a file of a different format (.dst, .exp, .pcs, .hus, .vip, .shv, .jef, .sew, .csd and .xxx).	—	p. 138
Write to Card		Writes your embroidery design to an original card.	F4	p. 17 p. 139
Property	—	Used to enter comments in the .pes file being edited.	—	p. 140
Print Setup	—	Allows you to change the printing settings for previewed embroidery design and image.	—	p. 43 p. 141
Print Preview	—	Allows you to preview your embroidery design and image before printing.	—	p. 143
Print	—	Prints your embroidery design and image.	Ctrl + P	p. 143
Exit	—	Exits the application.	Alt + F4	

Edit menu

Menu	Toolbar	Purpose	Shortcut key	Reference	
Undo		Undoes the last operation.	Ctrl + Z		
Redo		Cancels the effect of the last Undo.	Ctrl + Shift + Z		
Group	—	Turns several selected patterns into one object.	Ctrl + G	p. 55	
Ungroup	—	Cancels the grouping for grouped patterns.	Shift+ G		
Cut		Removes the selected pattern(s) from the screen while saving a copy in the Clipboard.	Ctrl + X		
Copy		Saves the selected pattern(s) in the Clipboard without removing them from the screen.	Ctrl + C		
Duplicate	—	Makes a copy of the selected pattern(s).	Ctrl + D		
Paste		Pastes the contents of the Clipboard on the screen.	Ctrl + V		
Delete	—	Removes the selected pattern(s) from the screen without saving them in the Clipboard.	Delete	p. 123	
Point	To Straight	—	Straightens the two rounded lines that meet at a point on a curve.	—	p. 58
	To Curve	—	Rounds off the two straight lines that meet at a corner point.	—	p. 58
	To Smooth	—	Smooths out the path at a point.	—	p. 59
	To Symmetry	—	Adjusts the control handles of a point symmetrically.	—	p. 59
	To Cusp	—	Transforms to a pointed path.	—	p. 59
	Delete	—	Removes the selected point(s).	—	p. 58

Menu		Toolbar	Purpose	Shortcut key	Reference
Mirror	Horizontal		Flips the selected pattern(s) up/down.	Ctrl + H	p. 54
	Vertical		Flips the selected pattern(s) left/right.	Ctrl + J	
Rotate			Allows you to manually rotate the selected pattern(s) by an arbitrary angle.	Ctrl + Y	p. 54
Numerical Setting	Size	—	Resizes the selected pattern numerically.	—	p. 53
	Rotate	—	Rotates the selected pattern numerically.	—	p. 55
Center		—	Moves the selected pattern to the center of the Design Page.	Ctrl + M	p. 52
Align	Left	—	Aligns the selected patterns on their left sides.	—	p. 53
	Center	—	Aligns the selected patterns on their left/right centers.	—	
	Right	—	Aligns the selected patterns on their right sides.	—	
	Top	—	Aligns the selected patterns on their top edges.	—	
	Middle	—	Aligns the selected patterns on their top/bottom centers.	—	
	Bottom	—	Aligns the selected patterns on their bottom edges.	—	
Select All		—	Selects all of the patterns.	Ctrl + A	p. 52

■ Image menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Input	from File	—	Imports image data from an existing file.	—	p. 120
	from TWAIN device	—	Operates a TWAIN standardized scanner or other device to import an image.	—	p. 120
	from Portrait	—	Combines images of facial features that are provided with the application to create an original portrait.	—	p. 121
	from Clipboard	—	Imports image data from the Clipboard.	—	p. 122
Output	to File	—	Saves the image data as a file.	—	p. 124
	to Clipboard	—	Copies the image data onto the Clipboard.	—	p. 124
Select TWAIN Device		—	Selects which TWAIN device installed in the computer to use.	—	p. 120
Modify		—	Adjusts the size, direction and position of the image data.	—	p. 123
Rotate	90 Degrees Clockwise	—	Rotates the image data to clockwise in 90 degree.	—	p. 123
	90 Degrees Counterclockwise	—	Rotates the image data to counterclockwise in 90 degree.	—	p. 123

Menu		Toolbar	Purpose	Shortcut key	Reference
Image to Stitch Wizard			Gives step-by-step instruction for creating embroidery pattern from image data.	—	p. 125
Display Image	On (100%)	—	Displays the template image (density: 100%).	F6	p. 123
	75%	—	Displays a faded copy of the template image (density: 75%).	F6	
	50%	—	Displays a faded copy of the template image (density: 50%).	F6	
	25%	—	Displays a faded copy of the template image (density: 25%).	F6	
	Off	—	Hides the template image.	F6	

■ Text menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Edit Letters		—	Allows you to edit entered text.	Ctrl + L	p. 91
Text Attribute Setting		—	Sets the text attributes of the text pattern.	Ctrl + K	p. 83
Fit Text to Path Setting			Fits a line of text along a path.	Ctrl + T	p. 87
Release Text from Path			Releases the text from the path.	Ctrl + Q	p. 88
TrueType Font Attribute Setting		—	Sets the attributes, such as the style, for TrueType fonts that are converted to embroidery pattern.	—	p. 89
Convert to Outline Object		—	Creates outline data from text pattern converted from a TrueType font.	—	p. 89

■ Sew menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Sewing Attribute Setting			Sets the sewing attributes of the regions and the outlines of a pattern.	Ctrl + W	p. 96
Sewing Order/Lock			Allows you to check and change the sewing order of pattern colors and individual patterns. In addition, locks the embroidery pattern.	F10	p. 118
Set hole sewing		—	Sets a pair of patterns for hole sewing (to avoid sewing twice at the same place when a pattern encloses another one).	—	p. 75
Cancel hole sewing		—	Cancels hole sewing.	—	p. 75
Remove Overlaps		—	Removes the overlapping area of the bottom embroidery pattern when multiple embroidery patterns are overlapped.	—	p. 75
Merge		—	Merges together multiple overlapped embroidery patterns.	—	p. 76
Divide Stitches by Color		—	Divides the stitch data according to the various colors.	—	p. 64
Stitch to Block		—	Converts stitch patterns into blocks (manual punching data), allowing you to set sewing attributes and to keep the stitching quality when scaling.	—	p. 63

Menu	Toolbar	Purpose	Shortcut key	Reference
Convert to Stitches	—	Converts a shape pattern to a stitch pattern.	—	p. 62
Applique Wizard	—	Provides step-by-step instructions for easily creating appliqués.	—	p. 137
Select Sewing Area	—	Sets the sewing area.	—	p. 140
Optimize hoop change	—	Optimizes the sewing order of patterns in a Design Page for multi-position embroidery frames (100 × 172 mm or 130 × 300 mm).	—	p. 183
Optimize Entry/Exit points	—	Optimizes the positions of the entry points and the exit points for the embroidery pattern.	—	p. 60

■ Display menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Grid Setup	—	Controls the display and characteristics of the grid.	—	p. 69
Preview		Specifies whether the patterns appear as stitches or in the normal view.	F9	p. 65
Realistic Preview		Displays a realistic image of how either selected patterns or all patterns will look after being embroidered.	Shift + F9	p. 65
Realistic Preview Attribute Setting	—	Sets the preview attributes for the Realistic Preview function.	—	p. 65
Refresh Window	—	Updates the screen.	Ctrl + R	
Stitch Simulator		Displays a simulation of the machine stitching.	—	p. 66
Reference Window		Hides/displays the Reference Window.	F11	p. 66
Ruler	—	Hides/displays the rulers.	—	p. 69
Toolbar	—	Hides/displays the Toolbar.	—	p. 47
Status Bar	—	Hides/displays the status bar.	—	

Option menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Design Center		—	Starts up Design Center and displays its window up front.	F5	p. 145 p. 153
Programmable Stitch Creator		—	Starts up Programmable Stitch Creator and displays its window up front.	—	p. 199 p. 205
Design Database		—	Starts up Design Database and displays its window up front.	F12	p. 187
Font Creator		—	Starts up Font Creator and displays its window up front.	—	p. 217 p. 225
Design Property		—	Displays a dialog box containing sewing information for the selected pattern(s).	—	p. 137
Design Page Property		—	Allows you to change the size of the Design Page, and the color of the Design Page and the background.	—	p. 68
Edit User Thread Chart		—	Allows original thread charts to be created and edited.	—	p. 110
Select System Unit	mm	—	Allows you to change the system units to millimeters.	—	p. 69
	inch	—	Allows you to change the system units to inches.	—	

Help menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Instruction Manual		—	Starts up the Instruction Manual.	F1	p. 13
Check for Updates		—	Checks for the updated version on the Web.	—	p. 14
Customer Support		—	Opens the Customer Support Page on our Web site.	—	p. 14
Online Registration		—	Opens the online registration page from our Web site.	—	p. 14
About Layout & Editing		—	Gives information about the version of this application.	—	

Design Center

List of tool box buttons

■ Line Image Stage

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	The five first buttons are used as pens and erasers (when the right mouse button is held down) of different thicknesses.	p. 147		This button is used as eraser.	p. 147
				Sets the pointer in zoom-in mode.	
				Maximizes the selected Design Page to fit in the window.	
				Sets the pointer in zoom-out mode.	
					

■ Figure Handle Stage

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	Sets the pointer in selection mode.	p. 148		Sets the pointer in zoom-in mode.	
	Sets the pointer in point edit mode.	p. 149		Maximizes the selected Design Page to fit in the window.	
	Sets the pointer in line drawing mode.	p. 148		Sets the pointer in zoom-out mode.	
				Fills the display with the selected objects.	

Sew Setting Stage

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	Sets the pointer in region sewing mode.	p. 163		Sets the pointer in zoom-in mode.	
	Sets the pointer in line (all) sewing mode.	p. 164		Maximizes the selected Design Page to fit in the window.	
	Sets the pointer in line (part) sewing mode.			Sets the pointer in zoom-out mode.	
	Sets the pointer in hole sewing mode.	p. 168		Sets the pointer in stamp input mode.	p. 168
				Sets the pointer in stamp edit mode.	

List of menus

File menu

Menu	Toolbar	Purpose	Shortcut key	Reference
New Line Image		Creates a new Design Page and switches to the Line Image Stage.	Ctrl + N	p. 157
New Figure Data	—	Creates a new Design Page and switches to the Figure Handle Stage.	—	p. 160
Wizard	—	Gives a step-by-step guide for creating pattern, according to the type of data you want to create.	F3	p. 154
Open		Opens a previously saved file (.pem, .pel) or image file.	Ctrl + O	p. 155
Select TWAIN Device	—	Selects which TWAIN device installed in the computer to use.	—	p. 155
Input from TWAIN device	—	Operates a TWAIN standardized scanner or other device to import an image.	—	
Input from Clipboard	—	Opens a new Design Page in the Original Image Stage, and imports the image data from the Clipboard.	—	
Output to Clipboard	—	Copies the Original Image Stage image data to the Clipboard.	—	
Import Figure		Adds a .pem file to your Design Page (available only in the Figure Handle stage).	F8	
Save		Saves your Design Page on the disk as latest version file (default).	Ctrl + S	p. 169
Save As	—	Saves the current pattern under a new file name.	—	p. 169
Exit	—	Exits the application.	Alt + F4	

Edit menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Undo			Undoes the last operation.	Ctrl + Z	
Redo			Cancels the effect of the last Undo.	Ctrl + Shift + Z	
Cut			Removes the selected pattern from the screen while saving a copy in the Clipboard.	Ctrl + X	
Copy			Saves the selected pattern in the Clipboard without removing them from the screen.	Ctrl + C	
Duplicate		—	Makes a copy of the selected pattern.	Ctrl + D	
Paste			Pastes the contents of the Clipboard on the screen.	Ctrl + V	
Delete		—	Removes the selected pattern from the screen without saving them in the Clipboard.	Delete	
Split		—	Splits the line at a point into two.	—	p. 149
Mirror	Horizontal		Flips the selected pattern up/down.	Ctrl + H	p. 160
	Vertical		Flips the selected pattern left/right.	Ctrl + J	
Rotate			Allows you to change the direction of the pattern.	Ctrl + Y	p. 160
Numerical Setting	Size	—	Resizes the selected pattern numerically.	—	p. 160
	Rotate	—	Rotates the selected pattern numerically.	—	p. 160
Select All		—	Selects all of the pattern.	Ctrl + A	

Sew menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Sewing Attribute Setting			Sets the sewing attributes for outlines and regions.	Ctrl + W	p. 165
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.	F10	p. 168

■ Display menu

Menu	Toolbar	Purpose	Shortcut key	Reference
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.	—	p. 161
Modify Template	—	Adjusts the size and position of the background image.	—	p. 159
Display Template	On	—	Displays the template image.	p. 159
	Faded	—	Displays a faded copy of the template image.	
	Off	—	Hides the template image.	
Preview		Specifies whether the patterns appear as stitches or in the normal view.	F9	
Realistic Preview		Displays a realistic image of how the patterns will look after being embroidered.	Shift + F9	
Realistic Preview Attribute Setting	—	Sets the preview attributes for Realistic Preview.	—	
Refresh Window	—	Updates the screen.	Ctrl + R	
Stitch Simulator		Displays a simulation of the machine stitching.	—	p. 169
Reference Window		Hides/displays the Reference Window.	F11	p. 161
Toolbar	—	Hides/displays the Toolbar.	—	p. 153
Status Bar	—	Hides/displays the status bar.	—	

■ Option menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Layout & Editing	—	Starts up Layout & Editing and displays its window up front.	F5	p. 47
Programmable Stitch Creator	—	Starts up Programmable Stitch Creator and displays its window up front.	—	p. 199 p. 205
Design Page Property	—	Allows you to change the size of the Design Page and the color of the Design Page and the background.	—	p. 159
Select System Unit	mm	—	Allows you to change the system units to millimeters.	p. 161
	inch	—	Allows you to change the system units to inches.	

■ Stage menu

Menu	Toolbar	Purpose	Shortcut key	Reference
To Original Image		Moves back to the Original Image Stage.	—	p. 146
To Line Image		Moves to the Line Image Stage.	—	p. 156
To Figure Handle		Moves to the Figure Handle Stage.	—	p. 158
To Sew Setting		Moves from the Figure Handle Stage to the Sew Setting Stage.	—	p. 163
To Layout & Editing		Exports the embroidery pattern from the Sew Setting Stage to Layout & Editing.	—	p. 152

■ Help menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Instruction Manual	—	Starts up the Instruction Manual.	F1	p. 13
Customer Support	—	Opens the Customer Support Page on our Web site.	—	p. 14
About Design Center	—	Gives information about the version of this application.	—	

Design Database

List of menus

File menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Open in Layout & Editing	—	Opens the embroidery design file with Layout & Editing.	—	p. 189
Import into Layout & Editing	—	Imports the embroidery design file into Layout & Editing.	—	p. 189
Create New Folder	—	Creates a new folder in the selected folder.	—	p. 190
Convert Format	—	Converts the embroidery design file to one of a different format.	—	p. 193
Delete	—	Deletes the selected embroidery design file.	Delete	p. 191
Search	—	Allows the desired embroidery design file to be searched for.	Ctrl + F	p. 192
Print Setup	—	Allows you to change the printing settings for catalogs of embroidery design files.	—	p. 196
Print Preview	—	Allows you to preview the catalog of embroidery design files before printing.	—	
Print	—	Prints the catalog of embroidery design files.	Ctrl + P	p. 196
Create HTML	—	Outputs the catalog of embroidery design files as an HTML file.	—	p. 196
Create CSV	—	Outputs the catalog of embroidery design files sewing information as a CSV file.	—	p. 197
Exit	—	Exits the application.	Alt + F4	

Edit menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Cut		Removes the selected embroidery design file(s) from the folder while saving a copy in the Clipboard.	Ctrl + X	p. 190
Copy		Saves the selected embroidery design file(s) in the Clipboard without removing them from the folder.	Ctrl + C	
Paste		Pastes the embroidery design file(s) from the Clipboard into the selected folder.	Ctrl + V	
Select All	—	Selects all files displayed in the contents pane.	Ctrl + A	

■ Display menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Large Thumbnails		Lists the embroidery design file(s) in the contents pane as large thumbnails.	—	p. 191
Small Thumbnails		Lists the embroidery design file(s) in the contents pane as small thumbnails.	—	
Details		Lists the embroidery design file(s) in the contents pane by their sewing information.	—	
Preview		Displays a preview of the selected embroidery design file.	—	p. 188
Property		Displays the sewing information for the selected embroidery design file.	—	p. 188
Refresh	—	Refreshes the display of embroidery design file(s) in the contents pane.	Ctrl + R	
Toolbar	—	Hides/displays the Toolbar.	—	p. 187
Status Bar	—	Hides/displays the status bar.	—	

■ Option menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Select System Unit	mm	Allows you to change the system units to millimeters.	—	p. 69
	inch	Allows you to change the system units to inches.	—	

■ Help menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Instruction Manual	—	Starts up the Instruction Manual.	F1	p. 13
Customer support	—	Opens the Customer Support Page on our Web site.	—	p. 14
About Design Database	—	Gives information about the version of this application.	—	

Programmable Stitch Creator

List of tool box buttons

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	Sets the pointer in selection mode.	p. 209 p. 213		Sets the pointer in region (reset) mode.	p. 211
	Sets the pointer in point edit mode.	p. 203 p. 209 p. 212		Sets the pointer in region (engrave) mode.	p. 201 p. 211
	Sets the pointer in line drawing mode.	p. 200 p. 208		Sets the pointer in region (emboss) mode.	

List of menus

File menu

Menu	Toolbar	Purpose	Shortcut key	Reference
New		Creates a new work area.	Ctrl + N	p. 207
Open		Opens a previously saved stitch pattern file.	Ctrl + O	p. 206
Template Open	—	Opens a background image file that can be used as a guide to draw a new pattern for a programmable fill or motif stitch.	—	p. 206
Save		Saves your work area on the disk.	Ctrl + S	p. 214
Save As	—	Saves the current stitch pattern under a new file name.	—	p. 214
Exit	—	Exits the application.	Alt + F4	

Mode menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Fill/Stamp	—	Enters Fill/Stamp mode for creating stitch patterns for programmable fill stitches and stamps.	—	p. 207
Motif	—	Enters Motif mode for creating stitch patterns for motif stitches.	—	

Edit menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Undo			Undoes the last operation.	Ctrl + Z	
Redo			Cancels the effect of the last Undo.	Ctrl + Shift + Z	
Cut			Removes the selected line(s) from the screen while saving a copy in the Clipboard.	Ctrl + X	
Copy			Saves the selected line(s) in the Clipboard without removing them from the screen.	Ctrl + C	
Duplicate		—	Adds a copy of the selected line(s) to the work area.	Ctrl + D	
Paste			Pastes the lines of the Clipboard on the screen.	Ctrl + V	
Delete		—	Removes the selected line(s) from the screen without saving them in the Clipboard.	Delete	
Mirror	Horizontal		Flips the selected line(s) up/down.	Ctrl + H	p. 213
	Vertical		Flips the selected line(s) left/right.	Ctrl + J	
Rotate			Allows you to manually rotate the selected line(s) by an arbitrary angle.	Ctrl + Y	
Select All		—	Selects all of the lines.	Ctrl + A	

■ Display menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Grid	Wide	—	Displays the grid interval of 1/8 of a work area's edge.	—	p. 215
	Medium	—	Displays the grid interval of 1/16 of a work area's edge.	—	
	Narrow	—	Displays the grid interval of 1/32 of a work area's edge.	—	
	None	—	Hides the grid.	—	
Template	On (100%)	—	Displays the template image (density: 100%).	F6	p. 215
	75%	—	Displays a faded copy of the template image (density: 75%).	F6	
	50%	—	Displays a faded copy of the template image (density: 50%).	F6	
	25%	—	Displays a faded copy of the template image (density: 25%).	F6	
	Off	—	Hides the template image.	F6	
Preview		—	Hides/displays the repeating image display of the pattern being created.	—	p. 208
Toolbar		—	Hides/displays the Toolbar.	—	p. 199
Status Bar		—	Hides/displays the status bar.	—	

■ Help menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Instruction Manual	—	Starts up the Instruction Manual.	F1	p. 13
Customer support	—	Opens the Customer Support Page on our Web site.	—	p. 14
About Programmable Stitch Creator	—	Gives information about the version of this application.	—	

Font Creator

List of tool box buttons

Tool Box	Purpose	Reference	Tool Box	Purpose	Reference
	Sets the pointer in selection mode.	p. 230		Sets the pointer in zoom mode.	
	Sets the pointer in point edit mode.	p. 231		Sets the pointer in manual punching mode.	p. 229

List of menus

■ File menu

Menu	Toolbar	Purpose	Shortcut key	Reference	
New		Creates a new work area.	Ctrl + N	p. 225	
Open		Opens a previously saved font file.	Ctrl + O	p. 225	
Template Open	from File	—	Opens a background image file that can be used as a guide to draw a Font Pattern.	—	p. 227
	Select TrueType Font	—	Opens a TrueType font to be used as a template or for converting.	—	p. 227
Save		Saves created font pattern on the disk.	Ctrl + S	p. 234	
Save As	—	Saves the current font pattern under a new file name.	—	p. 234	
Add/Remove Letters	—	Adds/deletes registered characters.	—	p. 226	
Exit	—	Exits the application.	Alt + F4		

Edit menu

Menu		Toolbar	Purpose	Shortcut key	Reference
Undo			Undoes the last operation.	Ctrl + Z	
Redo			Cancels the effect of the last Undo.	Ctrl + Shift + Z	
Cut			Removes the selected pattern(s) from the screen while saving a copy in the Clipboard.	Ctrl + X	
Copy			Saves the selected pattern(s) in the Clipboard without removing them from the screen.	Ctrl + C	
Duplicate		—	Adds a copy of the selected pattern(s) to the work area.	Ctrl + D	
Paste			Pastes the contents of the Clipboard on the screen.	Ctrl + V	
Delete		—	Removes the selected pattern(s) from the screen without saving them in the Clipboard.	Delete	
Point	To Straight	—	Straightens the two rounded lines that meet at a point on a curve.	—	p. 231
	To Curve	—	Rounds off the two straight lines that meet at a corner point.	—	
	To Smooth	—	Smooths out the path at a point.	—	
	To Symmetry	—	Adjusts the control handles of a point symmetrically.	—	
	To Cusp	—	Transforms to a pointed path.	—	
	Delete	—	Removes the selected point(s).	—	
Mirror	Horizontal	—	Flips the selected pattern(s) up/down.	Ctrl + H	p. 230
	Vertical	—	Flips the selected pattern(s) left/right.	Ctrl + J	
Rotate		—	Allows you to manually rotate the selected pattern(s) by an arbitrary angle.	Ctrl + Y	p. 230
Align	Left	—	Aligns the selected patterns on their left sides.	—	
	Center	—	Aligns the selected patterns on their left/right centers.	—	
	Right	—	Aligns the selected patterns on their right sides.	—	
	Top	—	Aligns the selected patterns on their top edges.	—	
	Middle	—	Aligns the selected patterns on their top/bottom centers.	—	
	Bottom	—	Aligns the selected patterns on their bottom edges.	—	
Select All		—	Selects all of the patterns.	Ctrl + A	

Sew menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Sewing Order		Allows you to check and change the sewing order of individual patterns.	F10	p. 232
Convert TrueType Font to Data	—	Converts a template of a TrueType font to a custom font character patterns.	—	p. 229

Display menu

Menu	Toolbar	Purpose	Shortcut key	Reference	
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.	—	p. 236	
Fill Mode		Switches the display mode between fill mode (blocks appear filled in) and outline mode (blocks do not appear filled in).	F9	p. 235	
Preview Window		Hides/displays the Preview Window.	F11	p. 232	
Browse Window		Displays the Browse Window.	—	p. 233	
Modify Template	—	Adjusts the size and position of the background image.	—	p. 235	
Display Template	On (100%)	—	Displays the template image (density: 100%).	F6	p. 235
	75%	—	Displays a faded copy of the template image (density: 75%).	F6	
	50%	—	Displays a faded copy of the template image (density: 50%).	F6	
	25%	—	Displays a faded copy of the template image (density: 25%).	F6	
	Off	—	Hides the template image.	F6	
Toolbar	—	Hides/displays the Toolbar.	—	p. 217	
Status Bar	—	Hides/displays the status bar.	—		

Help menu

Menu	Toolbar	Purpose	Shortcut key	Reference
Instruction Manual	—	Starts up the Instruction Manual.	F1	p. 13
Customer Support	—	Opens the Customer Support Page on our Web site.	—	p. 14
About Font Creator	—	Gives information about the version of this application.	—	

Troubleshooting

If a problem occurs, click **Help**, then **Customer Support** in the menu to visit the following Web site, where you can find causes and solutions to various problems and answers to frequently asked questions.

If you have a problem, check the following solutions. If the solutions suggested do not correct the problem, contact your authorized dealer or Brother Customer Service.

Problem	Estimated Cause	Solution	Page
The software is not installed correctly.	An operation not described in the installation procedure was performed. (For example, Cancel was clicked or the CD-ROM was removed before the procedure was completed.)	Follow the instructions and correctly perform the procedure.	
	The installer does not automatically start up.	Refer to memo: "If the installer does not automatically start up".	
The message "No card writer module is connected. Please connect card writer module." appeared.	The driver for the USB card writer module is not installed correctly.	When the USB connector is correctly plugged into the USB port, the installer for the driver of the USB card writer module starts up.	If the operation described at the left does not correct the problem, go to the Web site mentioned under "Support/Service". (Refer to page 14.)
When trying to upgrade from an older version, the message "Cannot connect to the Internet." or "The server could not be connected to. Wait a while, and then try connecting again." appeared and the USB card writer module could not be upgraded.	The computer with the USB card writer module connected to its USB port could not establish a connection to the Internet.	To upgrade the USB card writer module, the computer with the card writer module connected to its USB port must connect to the Internet. If firewall software is being used, it must be temporarily disabled during the upgrade. If a connection to the Internet cannot be established, contact your authorized dealer.	
The USB card writer module does not operate correctly.	Not enough power is being supplied.	Connect the USB card writer module to a USB port on the computer or to a self-powered USB hub that can supply enough power to the card writer module.	

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