Happy Link Software
INSTRUCTION MANUAL

Ver. A4.01 ~
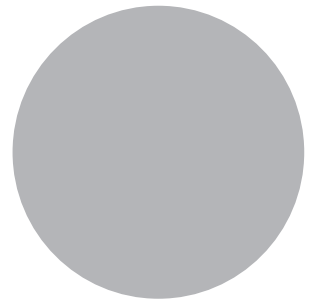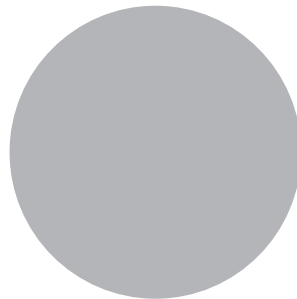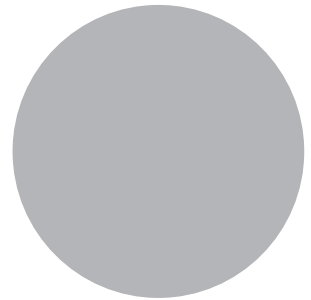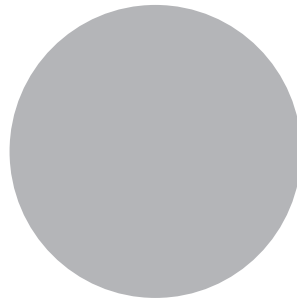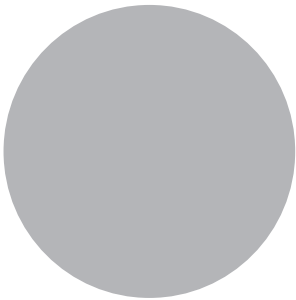
150101E-9

HAPPY

Contents

Trouble shooting

Glossary

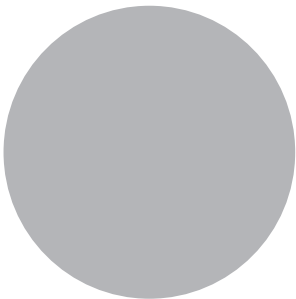# Regarding this software

Normal Operation

Please connect your personal computer to the embroidery machine to meet the following requirements.

Applicable PC

The following operating system is required.

      Windows Vista
      Windows 7
      Windows 8

Serial(RS232C) or USB port

There are two ways to connect HAPPY Link software to embroidery machine, one is USB connection and the other one is RS232C connection.
The USB cable is to use the cable of the USB2.0 standard(within 5m)
The connecting method may vary with different machine models.

Compatible A : HCS-Mono, HCS-Color, HCD, HCR
Compatible B : HCH, HCS2, HCD2, HCR2

Connecting method	Compatible A	Compatible B
USB connection	○	○
RS232C connection	○	×

Features

 [HAPPY Link] is our machine operation software, which allows many functions such as needle select, frame move and/or setting any data function like needle color, design adjust, offset and more.
Easily send your design data to your machine, from your PC.
Happy Link consists of two modes ([Operation mode], [Data send Mode).

Operation mode
      Selecting letters from internal fonts in the embroidery machine and stitching them.

Send design data mode
      You can send designs that are saved in the PC or on a diskette to the embroidery machine in this mode.
      You can adjust the designs settings in the PC, and send it to the machine with the design.
      You can make minor edits to the design.

How to set up

Note: In order to use this software, you need to have a basic knowledge of Windows.

Basic mouse operations   Wheel

Left button ——— 🖱 ——— Right button
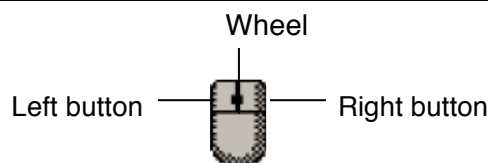
Click   : Press and release the left button one time quickly.
Double click   : Press and release the left button twice quickly.
Drag   : Move the mouse while the left button is pressed and release the left button.
Right click   : Press and release the right button one time quickly.
Wheel   : Turned up and down.

How to install in PC

Note:

Install this software after uninstall, if you have already installed Happy Link software.

Sample patterns are installed in the directory c:\Program files\Happy\HappyLink\Pattern.

(This process takes a few moments.)

When you install the driver, please connect your PC to the internet to activate the digital signature function.

Preparation:

PC side: Exit all programs that are running. Do not turn the PC off.

Embroidery machine side: Put the embroidery machine in [drive mode] (which is the mode you can start sewing in the embroidery machine). For information about [drive mode], refer to the Instruction manual of the embroidery machine. Do not connect the USB cable before installing the software.

1. Insert the CD in the CD-ROM drive.

   The installation program is started automatically then the message "User Account Control" is displayed as picture below. (This process takes a few moments.) Please select "Yes".
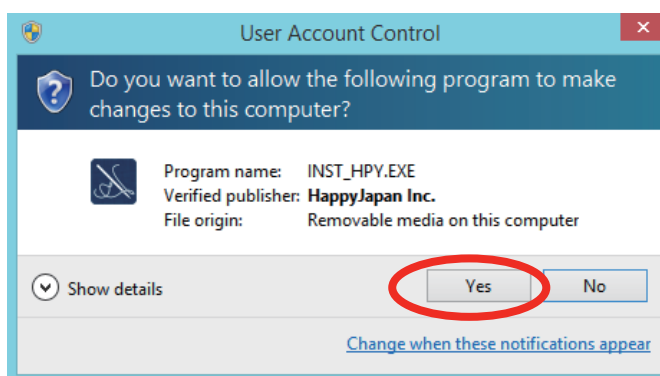
Depending on the environment of your computer, the above message may not be displayed.

If the installation software does not start automatically, please double-click 「INST_HPY.EXE」 file in the CD-ROM to start installer.

[Install menu] is automatically displayed.
Click on "HAPPY Link install".
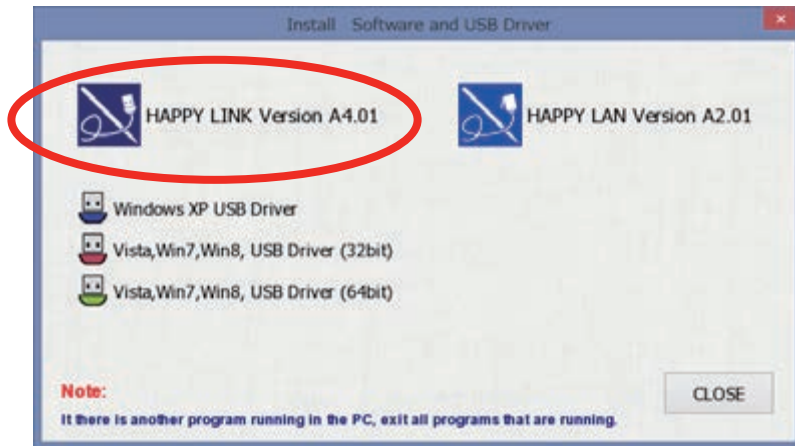
2. You are to remove an old version.
   Click on Continue when an old version isn't being installed, and the installation of "HAPPYLink" is Started.
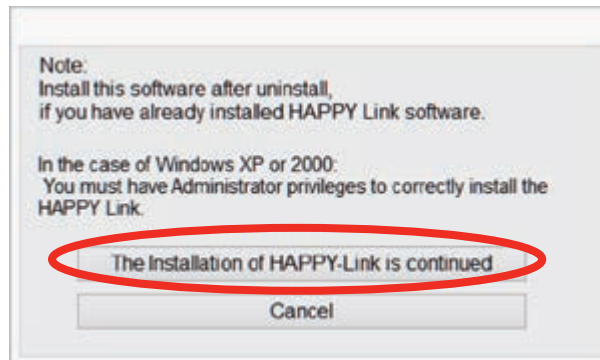
3. After the installation is completed [Install menu] is displayed again.
   When you prefer to use USB connection, you have to install USB driver to connect PC with USB port.
   Please note that the machine belongs to model category "Compatible B" have no RS232C port.
   Therefore, installing of USB driver is required.
   Click on following button in accordance with OS of your PC.

   e In case of RS232C connection, the USB driver is not required.
      Click on "Close" then go on step number 9.
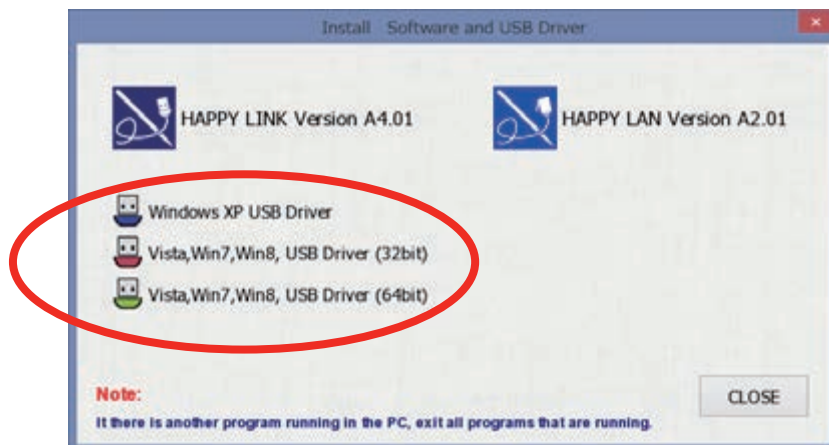
4 . Please click on [OK]

Several USB drivers will be installed, please install all drivers.

For installation of the driver.

⚠ Driver is more than one installation. Please have all installed.

OK   Cancel
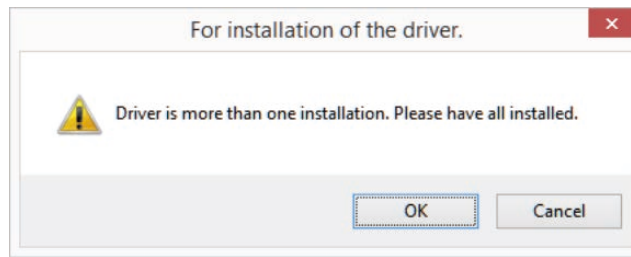
5 . Remove it if a USB cable is connected. And click [Next].

Remove it if a USB cable is connected.

USB

Note:
Click on[continue] although a warning message of [the compatibility with XP for the driver] is indicated after the designation of the folder to search in the driver in WindowsXP.

Next

Cancel
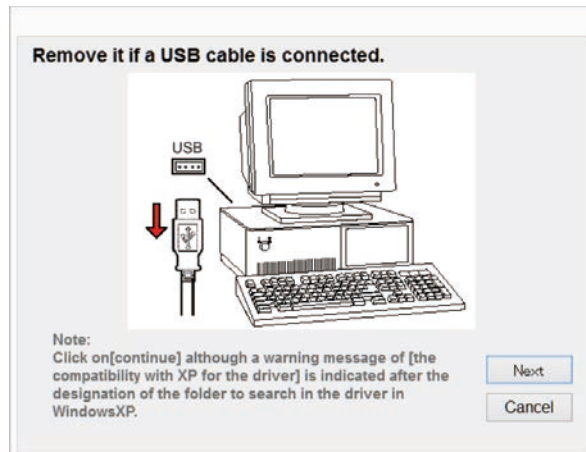
6 . Please click on [Next].

The installation of USB drivers will be started.

Please select "Yes" if the message of "User Account Control" is displayed.

Depending on the environment of your computer, the above message may not be displayed.

Device Driver Installation Wizard

Welcome to the Device Driver Installation Wizard!

This wizard helps you install the software drivers that some computers devices need in order to work.

To continue, click Next.

< Back   Next >   Cancel

7 . Please click on [Next].

Device Driver Installation Wizard

Completing the Device Driver Installation Wizard

The drivers were successfully installed on this computer.

You can now connect your device to this computer. If your device came with instructions, please read them first.

Driver Name   Status
✔ HAPPY Industrial Corpor...   Ready to use

< Back   Finish   Cancel

8 . To install all drivers, please repeat step no. 6 and 7 until [Install menu] is displayed again.
Install has been completed. Please click on [Close].
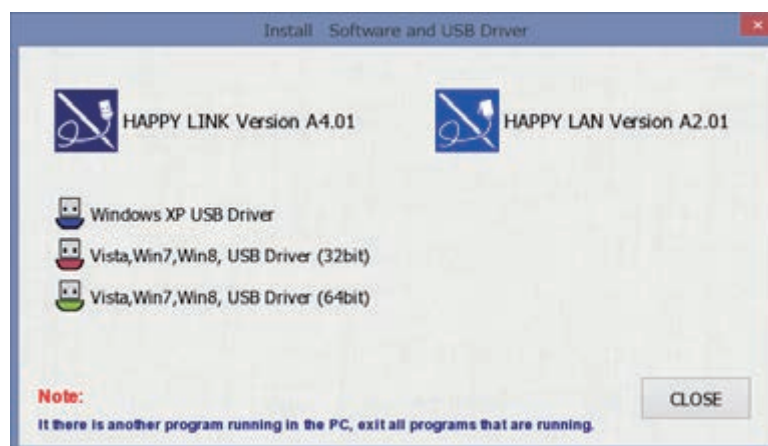
9. After you have finished the installation, please take out the CD-ROM.

USB communication setting

Machine setting (Compatible A)

If your machine belongs to model category "Compatible A", setting of embroidery machine is also required.

Please press [Menu] button and select [OPTION], then select [Machine setting].

Please set [USB communication] in accordance to your computer's environment.

Please refer to the Instruction manual of machine for the method of the setting.

Conditions (PC OS, mode)	USB communication
Vista, Win. 7 or Win. 8 (32 bit)	Normal
Vista, Win. 7 or Win. 8 (64 bit)	USB-COM

Happy Link setting

Please set machine menu to normal drive mode screen. Then connect PC and machine by USB Cable.

Please select [Yes] when the Dialog box [User Account Control] is displayed.
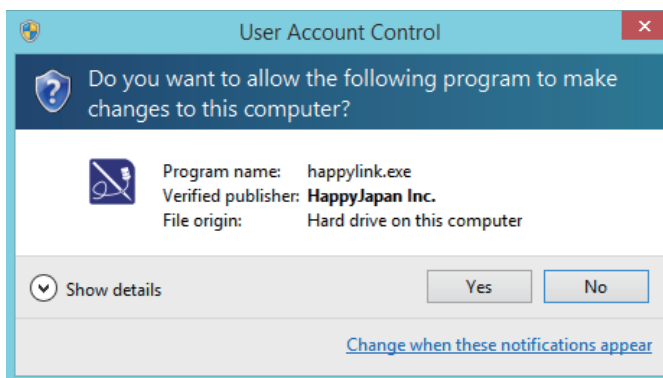
When booting [HAPPY Link], the window of [Communication select] appears.

Select communication method per the following table for the Conditions.

Set COM no. when you select USB-COM.

Please refer to the instruction manual pages for "COM No. display"or "Check COM no. and Change Setting".

	Conditions (PC OS, mode)	Communication method
Compatible A	Vista, Win. 7 or Win. 8 (32 bit)	USB
	Vista, Win. 7 or Win. 8 (64 bit)	USB-COM
Compatible B		USB-COM

Finish the progress.
You can still set or change communication method on [Options] from [File] menu after closing the widow.

Note:
The message of "USB is not ready." is shown, if you connected the machine after HappyLink program start-up. In this case, the PC cannot recognize the USB.   Close the HappyLink program and re-start it.
Don't use both RS232C and USB. Connect and use only one.

COM number display

When communication method is [USB-COM], you need to set COM.NO to correspond to port on PC connected with machine.
We suggest you to use one port as regular port for Happy Link.
Whenever you change port on PC to other port, you need to check COM No. to correspond to the port and change COM No. on Happy Link.

When USB driver is installed, the following message is shown on PC display.
In the message, showing the assigned USB-COM No. (Following example: COM3).
Please take note the COM#.
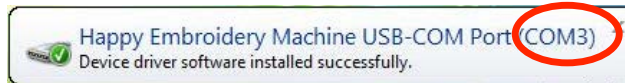
Please note that the COM number is displayed only at the time of first installation.
For PC (Win. 8), the message "Device driver installed successfully" with the COM No. used is not shown after the driver is installed.
If "completion of the installation" message (with "COM No.) is not shown for PC (Win. Vista or Win.7), follow the same procedure as the case of Win.8 to check the COM No.

Check COM No.and Change Setting (Vista Win.7 Win.8)

If you forget to take note COM No. or you need to change USB Port for connection to machine, please proceed following steps;

Check COM No.

On Windows [Start] menu, select [Computer] and right click of your mouse.
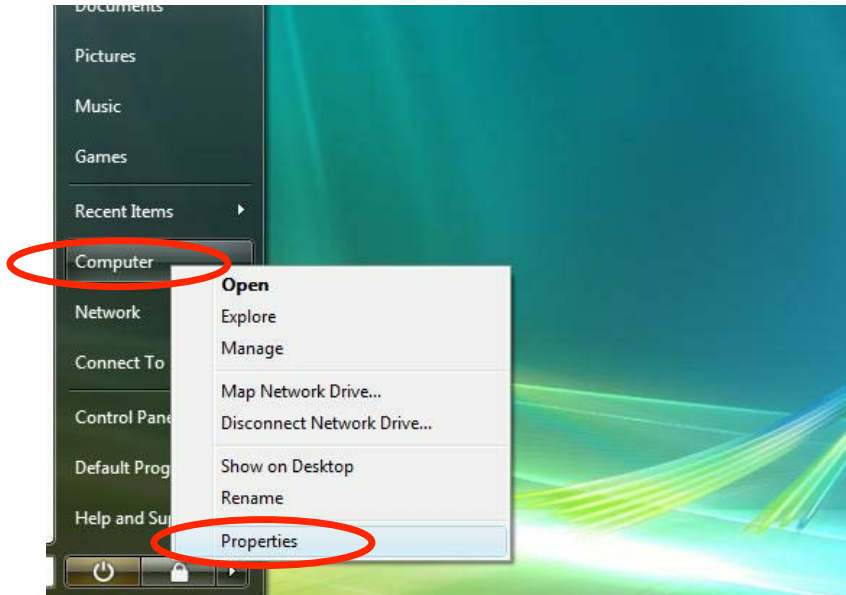
Select [Properties] of [Menu].
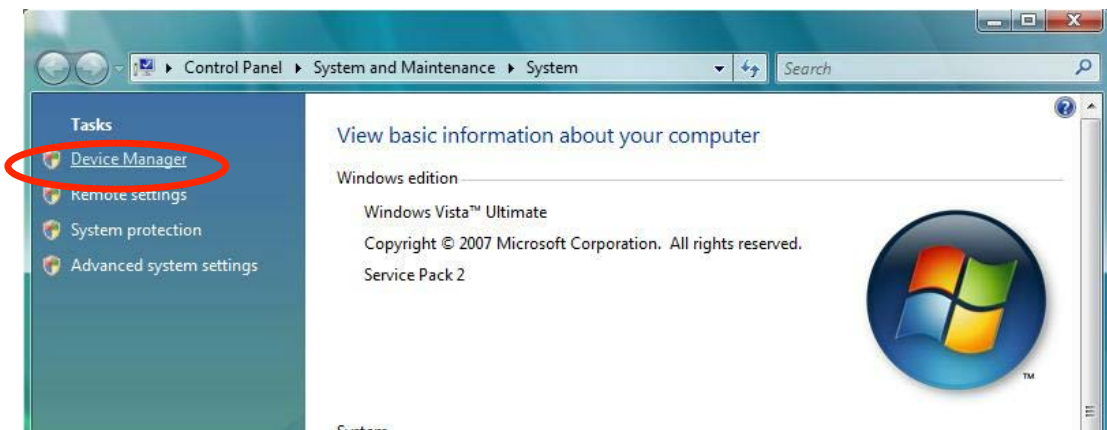
Select [Device Manager] of [Tasks] on left side.
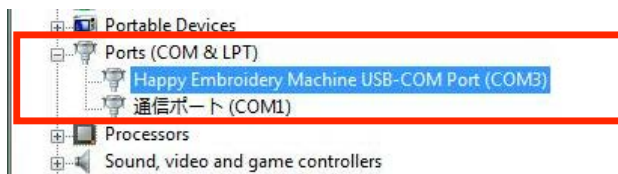
On [Ports], you have "Happy Embroidery Machine USB-COM Port (COM#)".
The number is COM No. for connect HAPPY-Link machine connection.

Change COM No. Setting

Happy Link : [File] menu and select [Options].
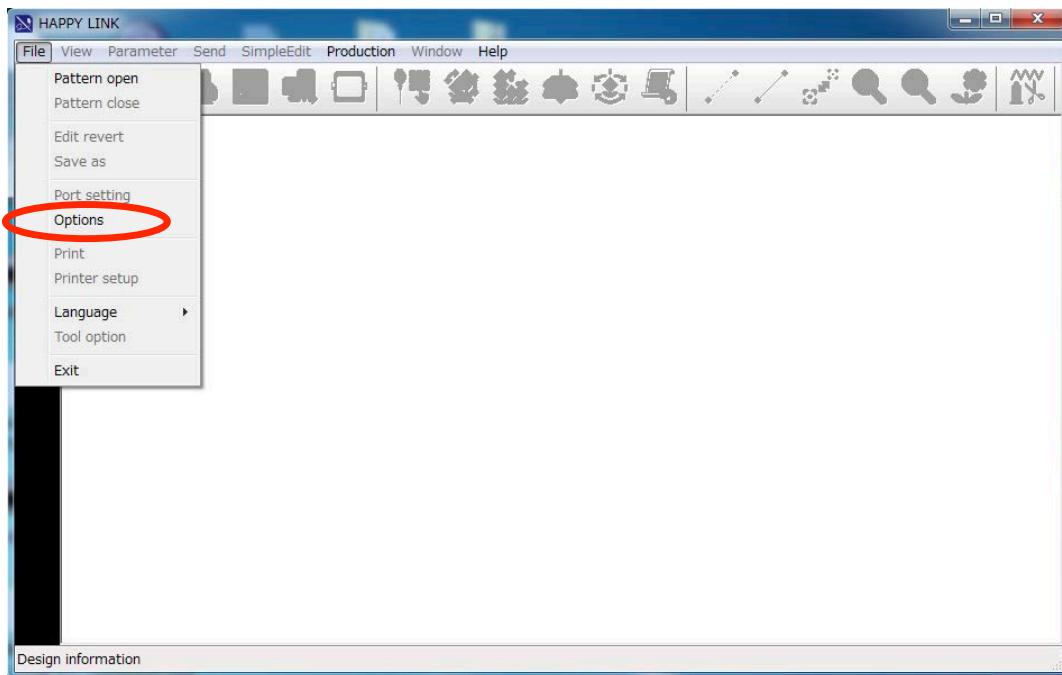
Select [USB-COM] of [Communication].

Then select [COM#] (COM1 ~ COM30) which you check by previous step.

Then click [OK] for finish setting.
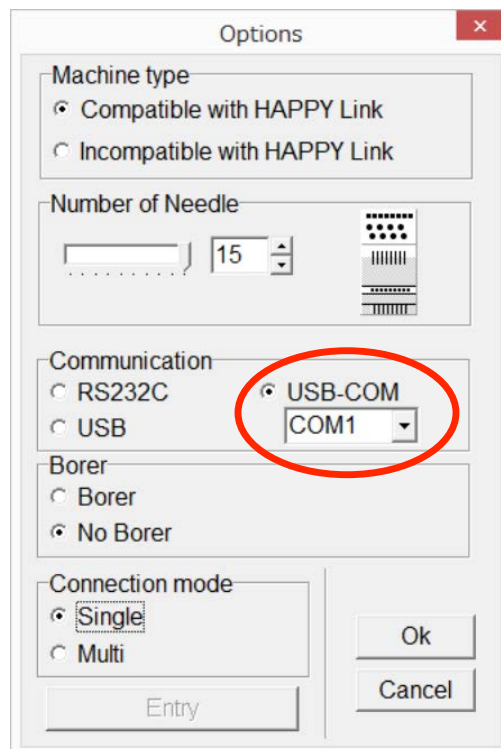
Options

Note:

Refer to the [Preparation] of the [Basic knowledge and operation] about the connecting the cable.

It is not necessary to set it up again every time the software is started.

How to set:

1. Click on the "File" in the menu bar then select "Options".
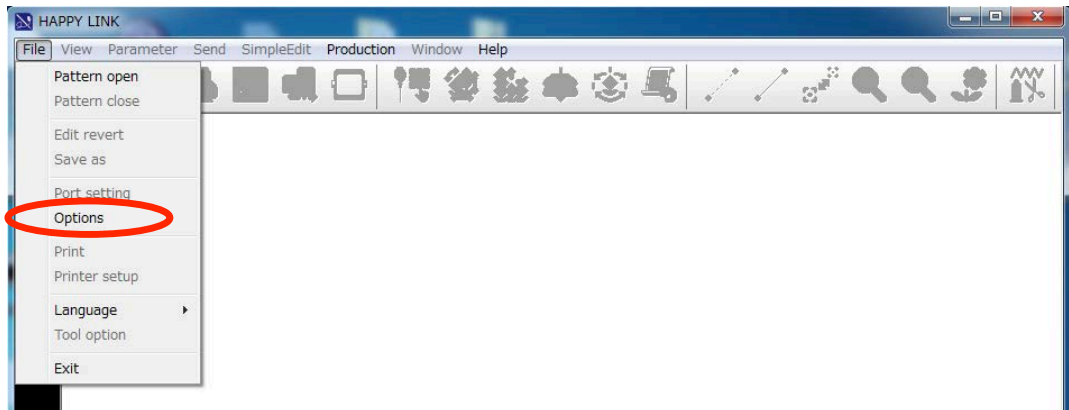
2. "Options" menu will open.
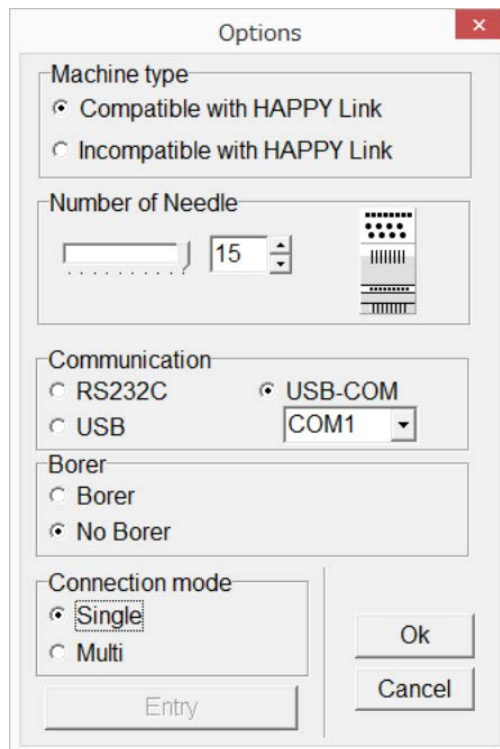
3. Please check the type of an embroidery machine in [Machine Type].

      If your machine is compatible with HAPPYLink

           Check [Compatible with HappyLink]. In this case, you can use Operation mode function.

      If your machine is incompatible

           Select "incompatible with HAPPYLink" .You cannot switch to "Operation mode" after selecting incompatible. However, you can use "Send patterning mode". In addition, Production information and Drive frame check will not work.

    Note:

           If you use "Operation mode" for incompatible machine, the Machine will give an error code.

4. Please set the number of needle bars with [Number of Needle].

      Please set number of needle each head has.

5. [Communication] will determine communication method with the embroidery machine.

      Please select from either RS232C or USB. Please set according to PC you use.

    Note:

           In case the machine is not installed with USB port, please select RS232C.

           The following message is indicated when you select the [USB] without connecting the USB. And, the setting returns to the [RS232C].
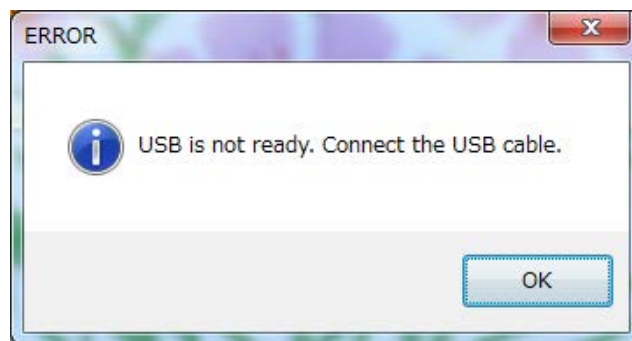
(USB is not ready.)

           Refer to the [Preparation] of the [Basic knowledge and operation] about the connecting the cable.

           Don't connect both RS232C and USB. Connect and use only one.

           USB-Serial converter on the market may not be able to communicate normally.

6. If the embroidery machine has a borer function, please set Borer.

7. Setting will finish with [OK].

RS232C connection setting

Connecting PC and machine (Preparation)

Please connect the RS232C serial port in your PC and the serial port on the machine using RS232C serial cross cable. A straight cable does not work. Regarding specifications, please refer to [Cable].

Note:

> Be sure to connect or disconnect the PC and embroidery machine when they are both turned off.
> If you connect while the PC and the embroidery machine are both turned on, it is possible to damage either one.
> Don't use both RS232C and USB. Connect and use only one.

Communication setting

You need to set "Port No." and "Baud rate" in this menu.

Note:

> The default setting of [Port No.] is Port1 and [Communication speed] is 38400 BPS.
> It is not necessary to set it up again every time the software is started.
> The communication speed of HAPPY Link can't communicate if it is not the same as the communication speed of the embroidery machine.
>
> After having used USB, if you change USB to RS232C, set up [Options] again. Refer to [Options].
> The message of [A COM port is being used with others] may be shown at the start-up or during the use. This message is shown when other software is using the serial port.
> Please exit HAPPYLink in this case and restart the HAPPYLink program after the software, which is using the port, has been exited. Or, try to set the computer to another COM Port.

1. Click on "File" on the menu bar and select 'Port Setting."
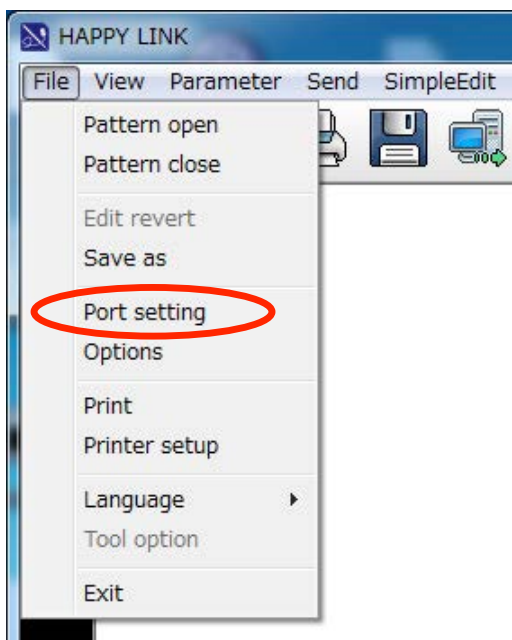
2. The port setting menu is as follows.
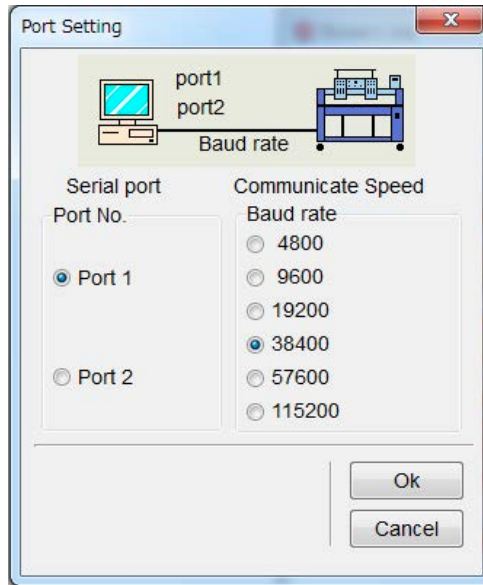
3. Select Port No.

 Match the connecting serial cable to the PC.

  Note:

   "Port No." is Serial port No. in your PC. You can select Port1 (COM1) or Port2 (COM2), the default setting is Port1 (COM1).

   Please look at your PC instruction manual to identify your Serial port.

4. Please adjust (Baud rate) to communication speed of the embroidery machine with Communication Speed.

5. Click on "OK" for return menu.

About Cable

The specifications for the cable are as follows:

1. Connection   D-sub9pin － D-sub9pin

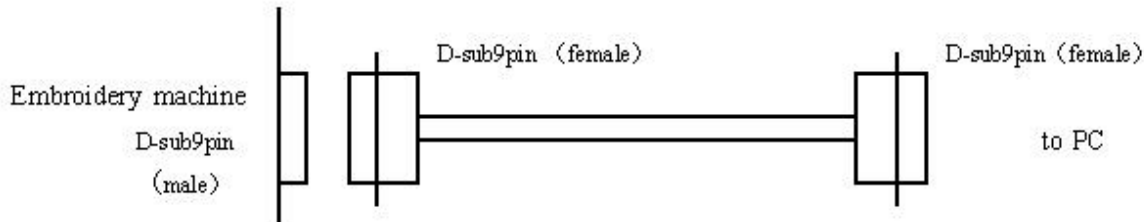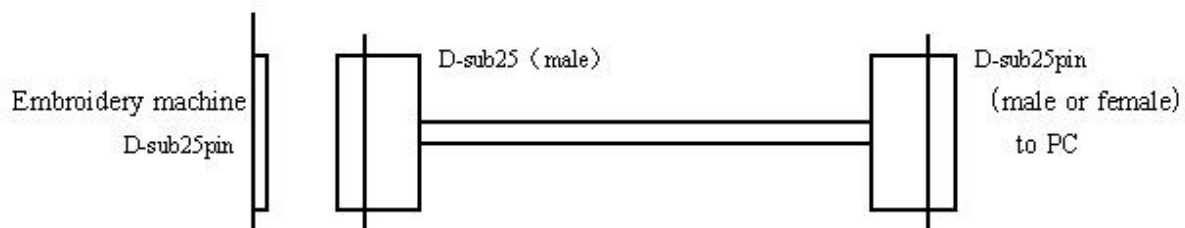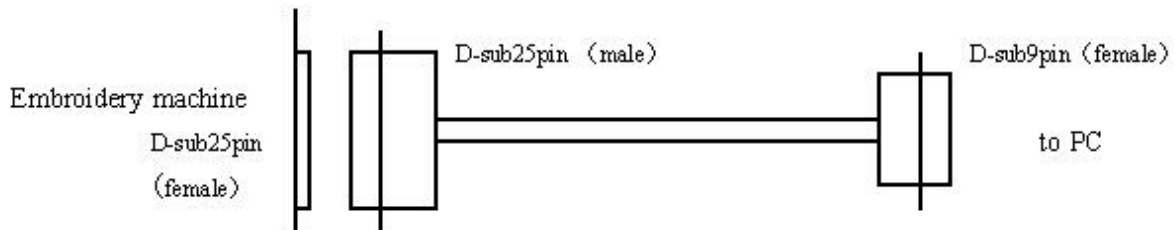| machine side D-sub 9pin					PC side D-sub 9pin		
Signal		pin number			pin number	Signal	
Signal name	EIA code					EIA code	Signal name
Receive data (RxD)	B B	2			2	B B	R x D
Transmit data (TxD)	B A	3			3	B A	T x D
Data terminal ready (DTR)	C D	4			4	C D	D T R
Signal ground (GND)	A B	5			5	A B	G N D
Data set ready (DSR)	C C	6			6	C C	D S R
Request to send (RTS)	C A	7			7	C A	R T S
Clear to send (CTS)	C B	8			8	C B	C T S

2. D-sub25pin － D-sub25pin

machine side D-sub 25pin					PC side D-sub 25pin		
Signal		pin number			pin number	Signal	
Signal name	EIA code					EIA code	Signal name
Transmit data (T x D)	B A	2			2	B A	T x D
Receive data (R x D)	B B	3			3	B B	R x D
Request to send (R T S)	C A	4			4	C A	R T S
Clear to send (C T S)	C B	5			5	C B	C T S
Data set ready (D S R)	C C	6			6	C C	D S R
Data terminal ready (DTR)	C D	2 0			2 0	C D	D T R
Signal ground (G N D)	A B	7			7	A B	G N D
Frame ground (F G)	A A	1			1	A A	F G

16

3.D-sub25pin － D-sub9pin

Machine side D-sub 25pin				
Signal		pin number		
Signal name	EIA code			
Transmit data （TxD）	BA	2		
Receive data （RxD）	BB	3		
Request to send （RTS）	CA	4		
Clear to send （CTS）	CB	5		
Data set ready （DSR）	CC	6		
Data terminal ready (DTR)	CD	20		
Signal ground （GND）	AB	7		

PC side D-sub 9pin		
pin numnber	Signal	
	EIA code	Signal name
2	BB	RxD
3	BA	TxD
4	CD	DTR
5	AB	GND
6	CC	DSR
7	CA	RTS
8	CB	CTS

Please use a cable that has suitable length from the embroidery machine.
Using a cable that is longer than 10 meters may cause malfunctions.
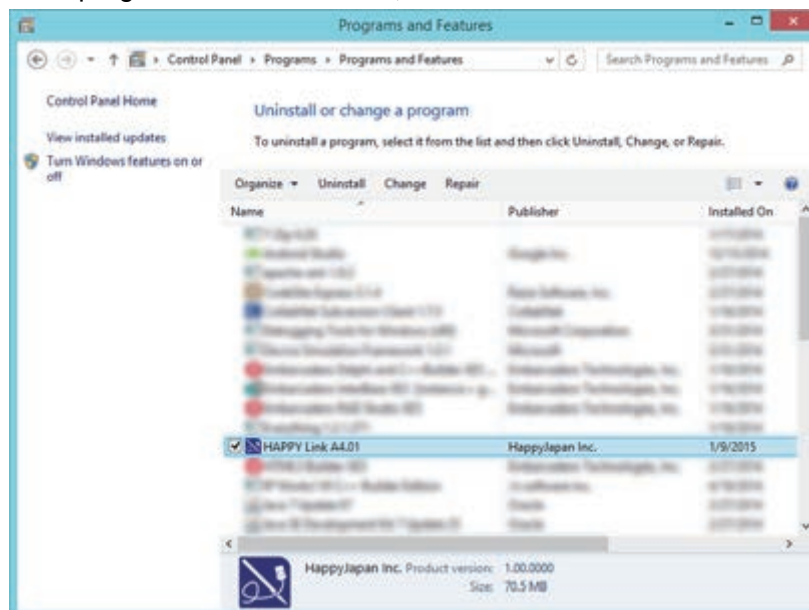
How to uninstall

1. Please click on in order: [Start] - [Control panel].
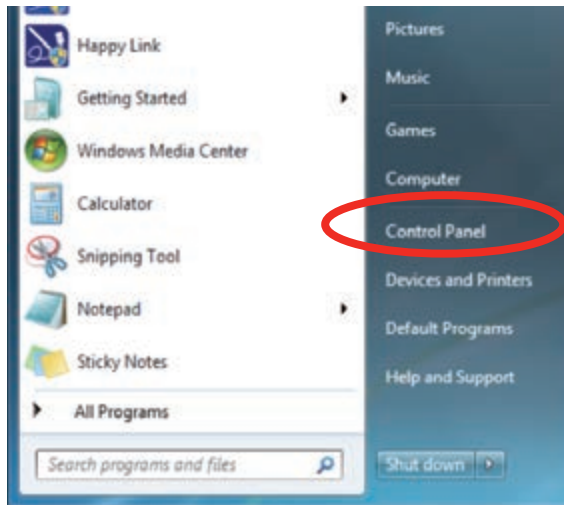
2. Please click on [Uninstall a program] in the control panel.

3. Please select HappyLink from program list now installed, then double click.

4. A message to confirm your desire to uninstall the software is shown. Click on [Yes].
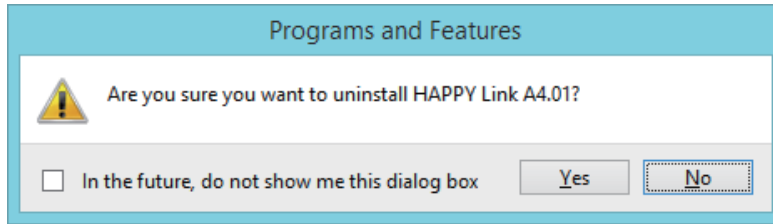
5. Click on [OK]

6. You have finished the uninstallation.

Note:

 If you are asked to delete common files, please select [All no].

In case USB drivers are installed, repeat step no. 3 to 5 until all the drivers are un-installed completely.

Operation

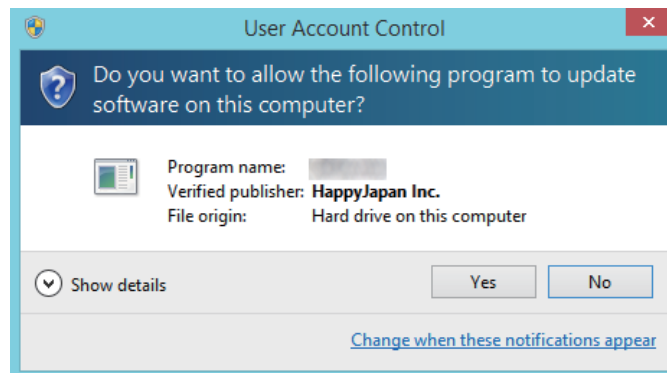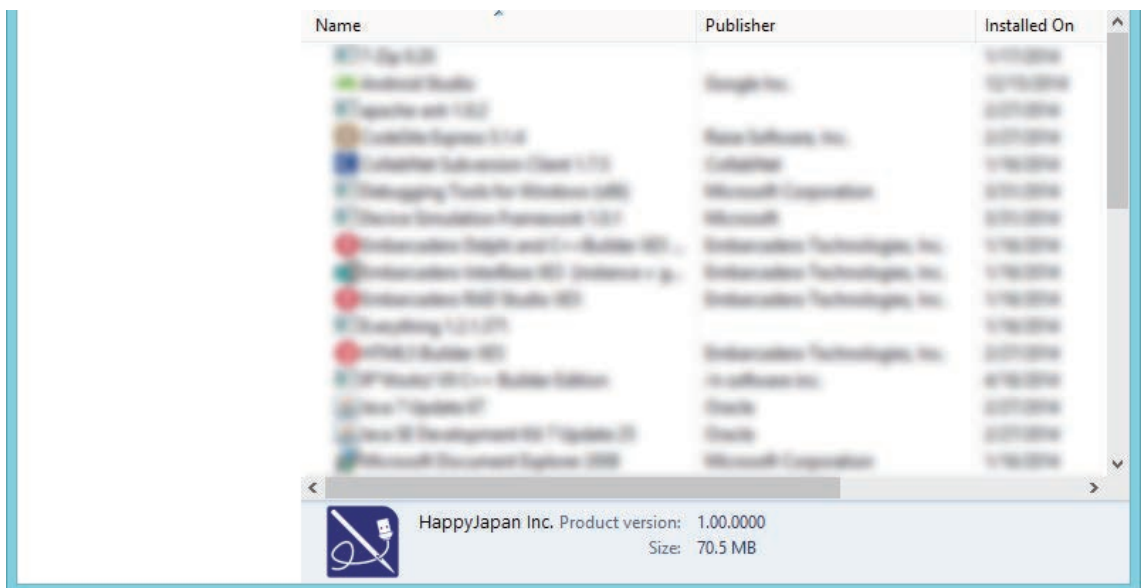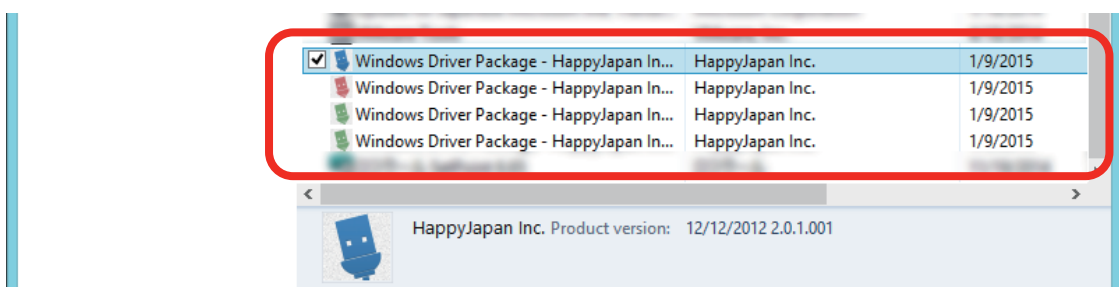## The screen after the HappyLink start-up (Always in Send design data mode)

The screen after the HappyLink start-up is shown as follows.

Please select "Yes" when the Dialog box "User Account Control" is displayed.

Tool bar   Menu bar

Indication display   Design information area
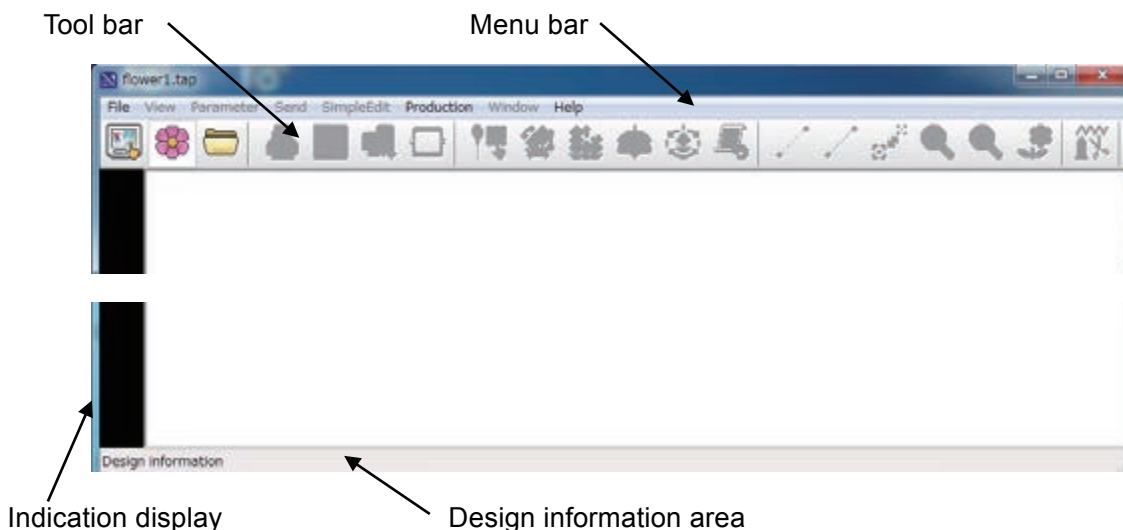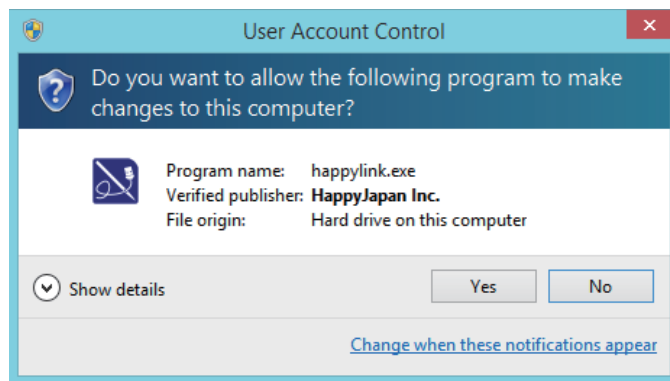
Indicator display area

The USB indicator will be shown only when the embroidery machine belongs to category "Compatible A" and the "communication method" of the machine is set "Normal".

USB **USB Indicator is gray color**

When HappyLink is first started-up or you select the USB in the [Options] Menu.

USB **USB Indicator is green color**

When you use a function which needs to send or receive data from the machine
Example: Operation mode, Send design etc.

 Send design data mode button

This button stays pushed when HappyLink starts up or the Operation mode is closed.

 Switching to the Operation mode button

Click on this to start the Operation mode.

Note:

Two messages are shown <u>in case the embroidery machine has no pattern.</u> ("Pattern is not found." and "It could not get data. Please try again."). And, the [Operation mode] is not started. Please try again after transmitting a pattern to the embroidery machine in the [Data send Mode.

The other gray menus and buttons will be functional, after you read the pattern design.

Operation of mouse:

Click mouse
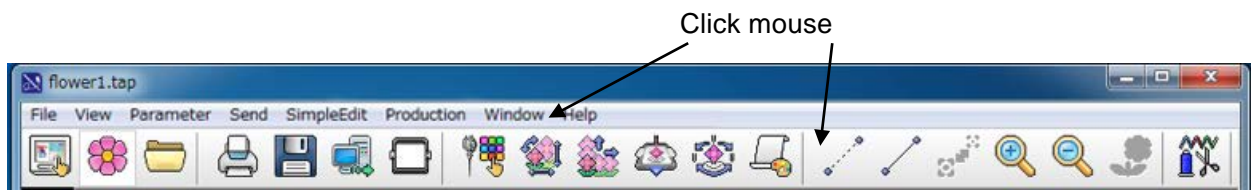
Exit

Click on "File" on the menu bar and "Exit." Or you can close HAPPYLink program window.
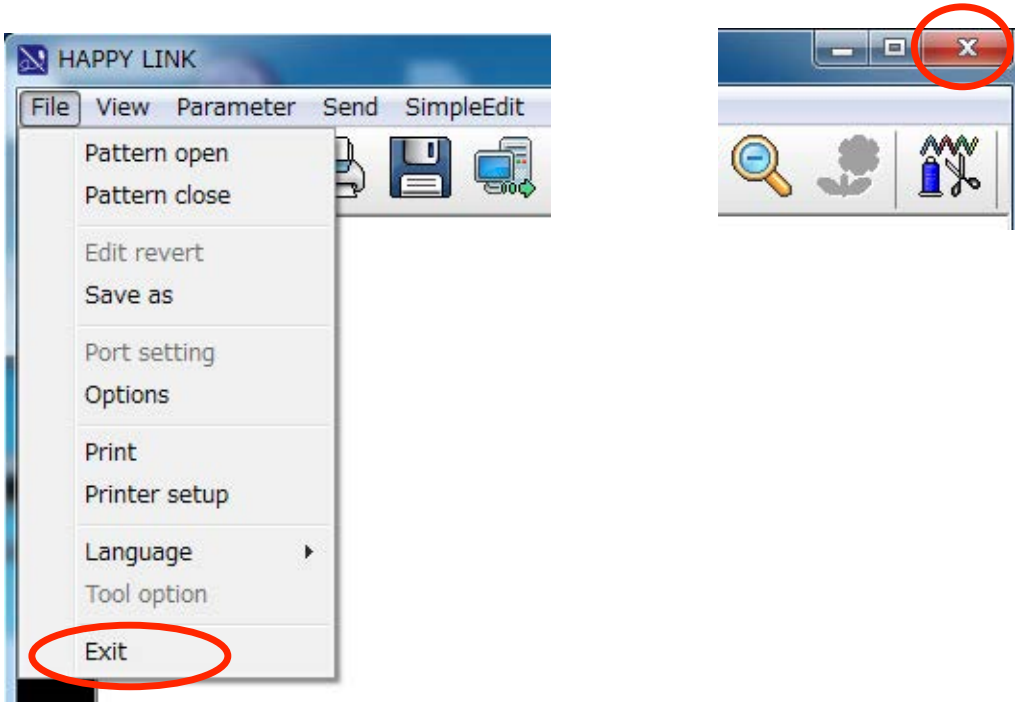
Multiple USB connection

With this function, you can connect plural embroidery machines to PC USB ports and can select a machine from PC.

Setup Multiple USB connection and register name of COM port

For identify connected embroidery machine easily, please give a port name to individual COM port number.

Click on the "File" in the menu bar then select "Options".
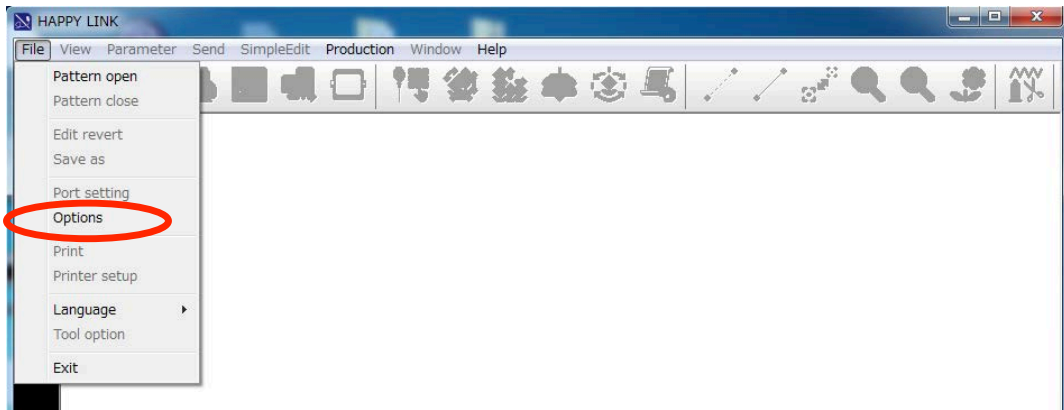
Select [USB-COM] from [Communication] field.

Check the mark of [Multi] at [Connection mode].
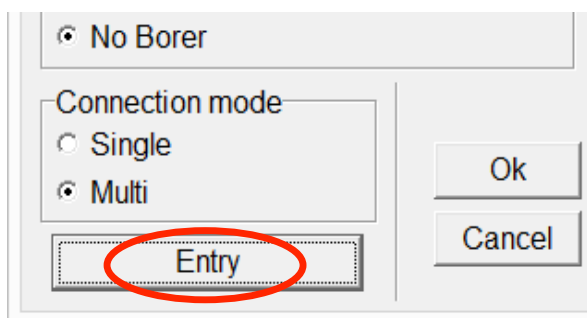
Push the [Entry] buttton.

Then, the list of COM port number will be displayed.

Enter name of COM port from keyboard. (Only English numbers and letters less than 64 characters)

If you would like to check COM port, please refer to [Check COM No.and Change Setting].

If you do not need to use registered COM port, just delete the name of COM port from the box.

After entering name of COM port, please be sure to click [Entry] for finish setup.

How to connect embroidery machine

Click [image] [Operation mode] or [image] [Send design data].
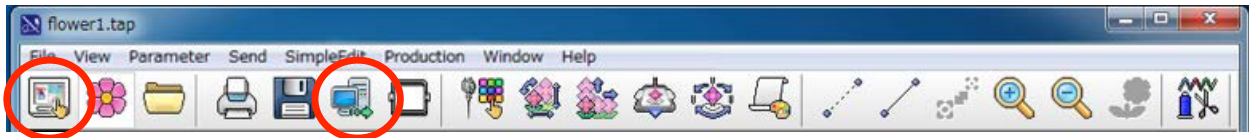
Select COM port which you prefer to connect.
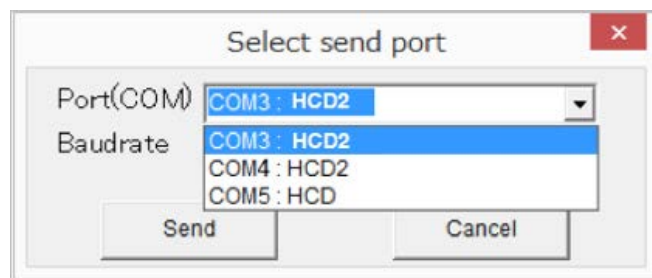
Select a baudrate.

In case USB connection, select baud rate [240,000bps].
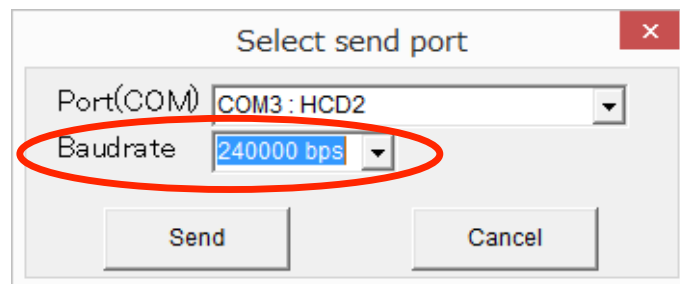
Click [Send] button, then PC will start communication with embroidery machine.

Note:

If you have an error message [Machine is busy] on the PC display, please check if embroidery machine is set to [Drive mode].

And please check if the machine is connected correct COM port which you have selected before.
I

Let's use

(Example) We will sew a sample pattern (flower1.tap).

      The pattern is installed in the directory c:\programFiles\Happy\HappyLink\pattern.

      Confirm that an embroidery machine is connected to the PC.

      Start an embroidery machine before HAPPYLink.

      And, when it is used with USB, it is a condition that the installation of the driver of USB is finished.

      Preparation:

            With cloth and drive frames being ready, the embroidery machine must be ready for sewing.

            Please set needle drop point in the center of the drive frame. And, you need to make the embroidery machine the [drive mode] (which is the mode you can start sewing in the embroidery machine).

            (Regarding preparation, please refer to instruction manual for the embroidery machine.)

STEPS

      To activate software - To read pattern - To transmit – To embroider

1. To activate software

      As illustrated below, you select [Start]-[Program]-[Happy]-[HappyLink].
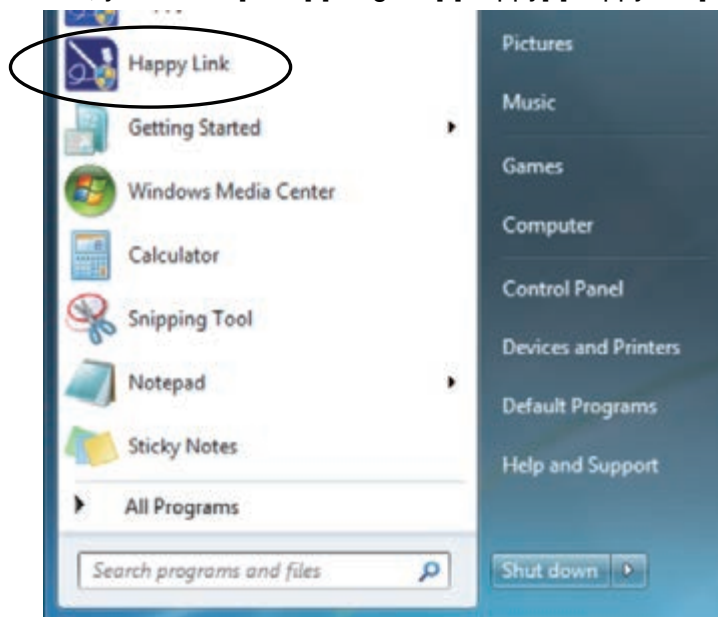
      Please select "Yes" when the Dialog box "User Account Control" is displayed.
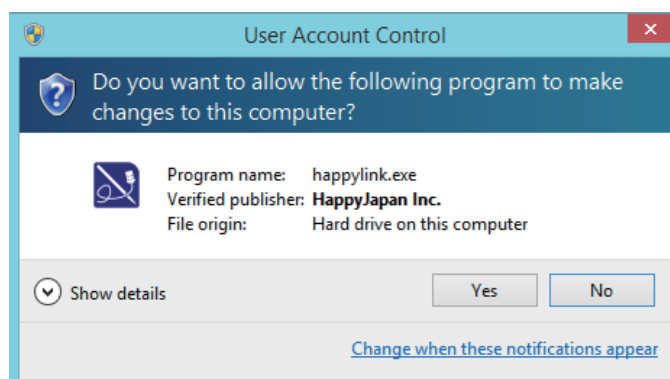
2. To select pattern

Please click on 📁 pattern read button to open as illustrated below.
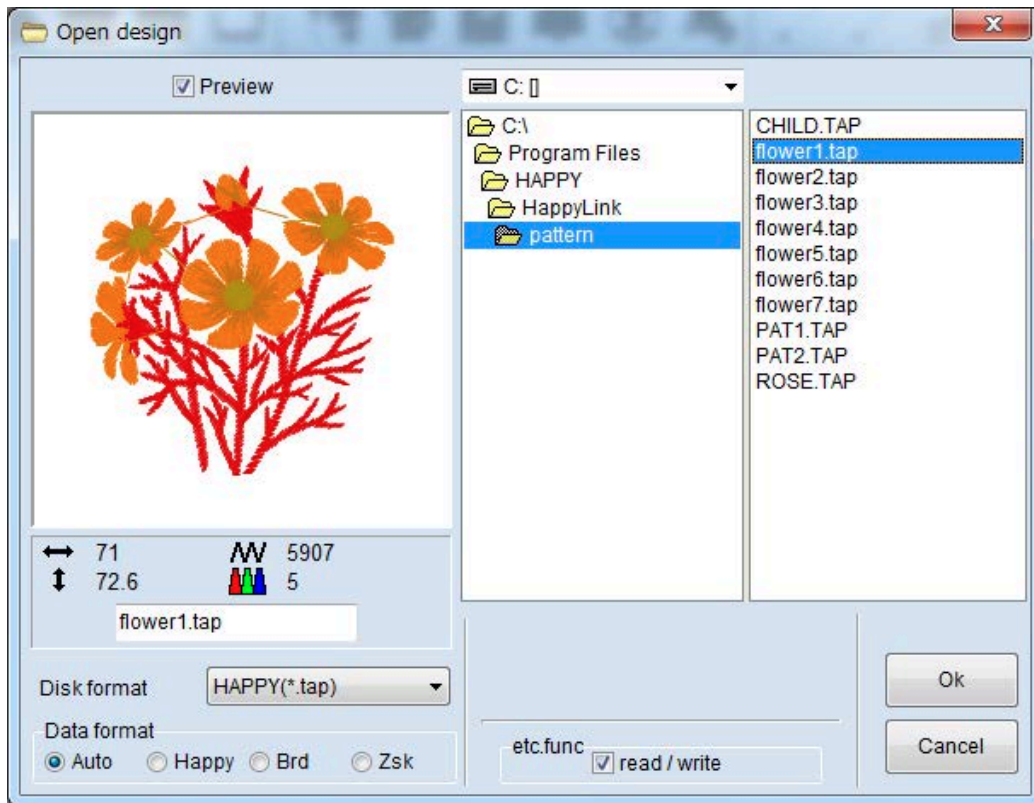
Please make sure C Drive is selected and double-click on the [Pattern] folder. Finally, select the pattern (flower1.tap) and click on [OK].

3. To transmit pattern

When you click on 🖥 the pattern transmission button, pattern data is transmitted to the embroidery machine. At first, you will hear a clicking sound. And then, when pattern has been transmitted, you will hear click sound again.

When the message [Complete] is displayed on the PC, please click on [OK]. (Please refer to [Send design data].

4. To embroider

When you press the start button on the embroidery machine, to start sewing.
Please refer to instruction manual for more details about operation of your embroidery machine.

Individual function and use

Operation mode

Please note that some models are able to use only limited operation.

```
Compatible A : HCS-Mono, HCS-Color, HCD, HCR
Compatible B : HCH, HCS2, HCD2, HCR2
```

Operation	Compatible A	Compatible B
Frame operation button	○（Except HCD, HCR)	○（Except HCD2, HCR2)
Machine setting operation button	○	○
Direct	○	×
Create	○	×
Letter	○（Except HCD, HCR)	×

You will switch to the Operation mode when you click on in the Send design data mode. At this moment, the Frame operation button is shown pressed. This setup is in effect for the pattern which is sewn with the embroidery machine.

The buttons to change the condition

ID number, name and total sitiches of the current pattern selection in the embroidery machine

Indicator of the selection pattern

The buttons to use in the frame operation
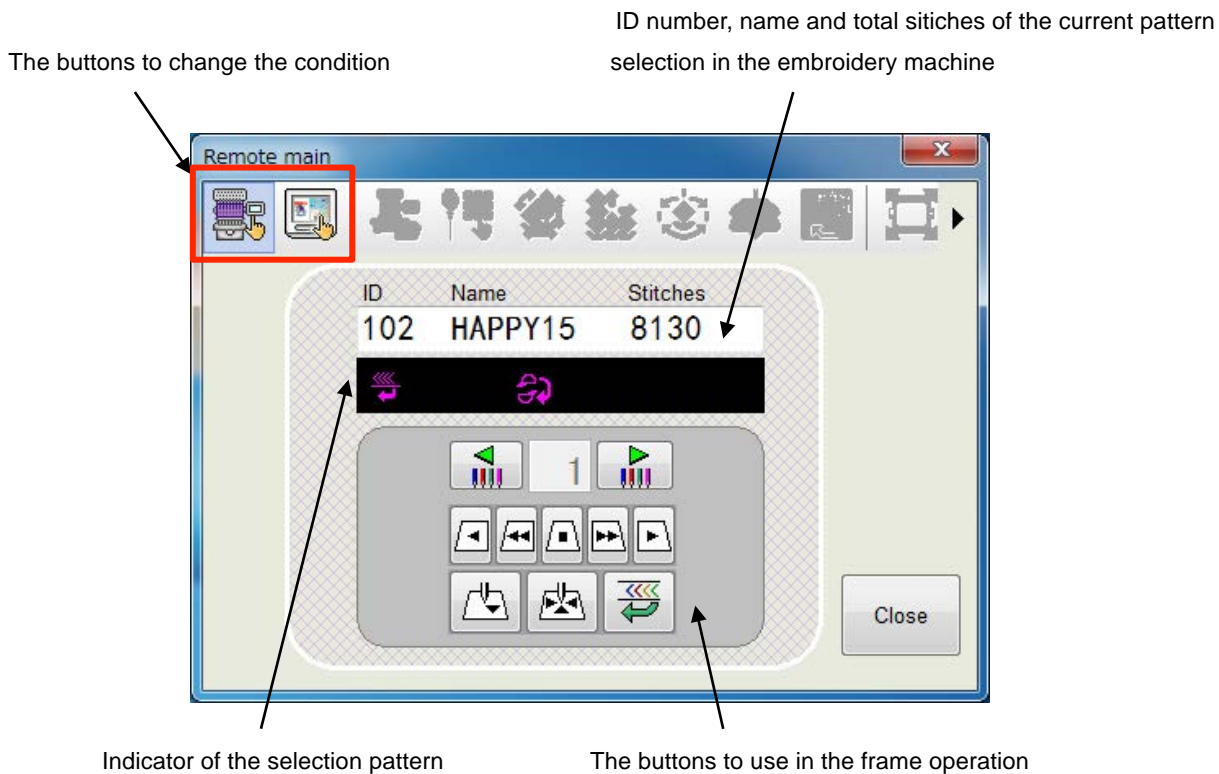
Note:

Two messages are shown if the embroidery machine has no pattern. ("Pattern is not found." and "It could not get data. Please try again.") And, the [Operation mode] will not start. Please try again after transmitting a pattern to the embroidery machine in the [Data send Mode.

In case of re-turn on the HCS machine, please re-turn on HAPPYLink too.

The frame operation button may not be used depending on Model.

Display

The ID number, name, total stitches and Indicator of the current pattern which is selected in the embroidery machine is displayed.

 Indicator

The condition of the currently selected pattern is indicated. They are [Top], [Cap frame] and [Convert cap] from the left.

[Top]: It is turned on when a pattern data is at the beginning.

[Cap frame]: If you have installed CAP DRIVE to the HCS machine, turn on the cap indicator. When you select wide cap mode, showing "W" mark in the screen.

[Convert cap]: It is turned on when the Convert cap (no.6 of the "create") is checked.

In this mode, you can use your PC to operate many machine functions. Use the left mouse button to control these remote-operations.

There are two conditions in this mode.

1. [Frame operation button] is pressed

Operating of frame and needle-change etc. in embroidery machine

2. [Machine setting operation button] is pressed

Pattern selection and needle selection functions of the embroidery machine

1. If the Frame operation button is pressed

You can use your PC to operate machine functions, Change Needles, move Forward in the Designs, etc.

Explanation of buttons(This function may not be used depending on Model.)

Change Needles

You can select the needle that you will use.

The Moving head will move in the direction of the arrow marks. The number indicates the needle bar in use.

Forward (10 stitches)

You can move the drive frame continuously along the stitches of the pattern.

When you click on the button, the frame moves along the design ten stitches without sewing. Push the stop button to stop.

Forward (1 stitch)

The drive frame goes forward only one stitch without sewing. Push the stop button to stop.

Stop

Stop moving Forward or Backward.

Back (1 stitch)

The drive frame moves back one stitch without sewing. Push the stop button to stop.

Back (10 stitches)

The drive frame backs up 10 stitches at a time. It will stop at the start of the pattern. Push the stop button to stop.

⬚ Position Return

You can cause the frame to return to its previous position.

If you move the drive frame with the frame movement keys after you have stopped the embroidery machine in the middle of sewing, when you click on this key, the drive frame will return to where it was before it was moved.

Note:

The following message is shown after clicking on this button.
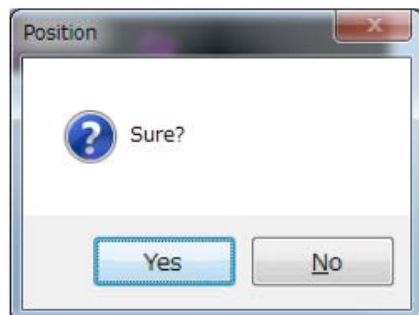
Be careful, as the frame will move after clicking on [Yes].

⬚ Origin

You can return the frame to its original starting position.

You can return the frame and design data to the Origin or start point, stitch count to 0 .If you click on it again, the frame and design will move back to the last position or stitch.

Note:

The following message is indicated after clicking on this button.
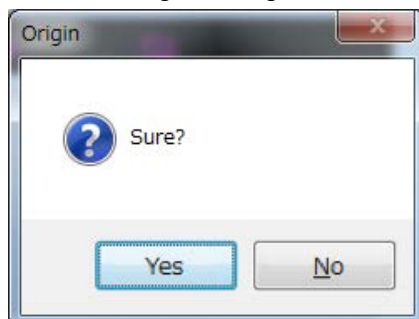
Be careful, as the frame will move after clicking on [Yes].

⬚ Top

This will reset the design to the first stitch, but the frame will not move to origin.

If you click on the Top key when the machine is stopped, the data of the pattern will go to the first stitch.

Top indicator of the embroidery machine will light.

If you click on it again, the pattern data will return to its original number. The top indicator of the embroidery machine will blink.

When you start sewing from the top, sewing resumes from the start of the pattern with the drive frame at its current position.

Explanation of tool buttons

2. When the [icon] machine setting operation button is pressed

Tool button is shown below.

Just click on an icon to set an operation.

[icon] **Pattern selection**

 For selecting, deleting or renaming a pattern that is saved in the embroidery machine's memory.

[icon] Needle selection

 For setting the order in which the needles will be sewn.

[icon] Adjust

 For editing the scaling, rotation, stitch width adjustment, and coordinate changes in the design.

[icon] Repeat

 For repeat sewing of the same pattern.

[icon] Offset

 Allows you to set the machine to have a starting position in which the frame may be located offset from the actual position that stitching will begin. This can allow for easy loading of the frame into the machine.

Frame out

This allows you to have the frame move out from under the needles after a certain color / needle has finished sewing. This will allow for trimming or the application of an appliqué.

Auto origin setting

When the design is completely finished the frame returns to its original starting position automatically instead of remaining at the last stitch of the design.

Direct (This function may not be used depending on Model.)

Move directly to a stitch or color change point or repeat number in the design.

Create (This function may not be used depending on Model.)

For the basic setup of the embroidery machine.

Letter (This function may not be used depending on Model.)

Selecting letters from internal fonts in the embroidery machine and stitching them.

Usage (Operation mode)

Pattern selection (Pattern)

When you click on the Pattern control button, the pattern control dialogue is displayed. The current pattern selected in the embroidery machine is displayed in Bold in the top of the window.
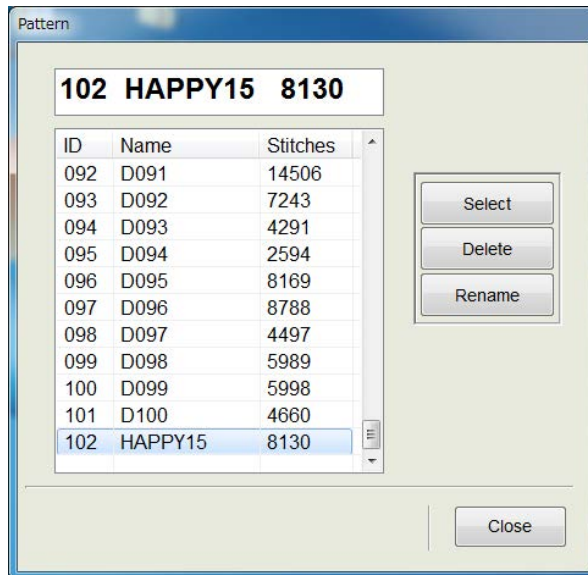
The pattern list in the embroidery machine's memory is displayed.
Function:

Selection of pattern

Select a pattern ID. Click on the ID number, and click on "Select."

Deletion of pattern

Deleting the pattern from the machines memory. Click on the ID number, and click on "Delete."
Note: The message of "Sure?" is displayed. Click on [Yes] to delete.

Renaming a pattern

Rename the design in the machine's memory. Click on the ID number, and click on "Rename." You can then type a new name not to exceed eight letters.
Please click on the OK button after inputting.

Input of new pattern name (Rename input form)
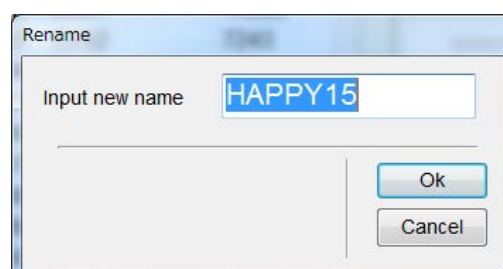
📍🎨 Needle selection (Needle)

You can designate the order of needles to be used for sewing.

1. You can set the needle for pattern color change.
2. You can insert a stop command in the color change process. You can make the machine stop at the stop command.
   If you change the number of the needle bar after having set a color change stop, the color change stop will go off. You will then need to reset it.
3. You can set the sewing speed at the color change.

Click on "Needle selection". The input window will open.

Needle and thread color   Stop mark   Place to be clicked   Change thread color

Reset   Color change number   Select needle number   Speed   Place to be clicked

How to select:

1. Select color change number.
2. Select the color you desire from the number of the needle bars above. Please repeat this process for every color change number.
   Please check "Stop" and/or "Borer" if you wish to use these functions. (Only embroidery machines that have Borers can use this function.)
3. Click on the "Set" button.

Stop

If you check the stop box after you selected the needle, an asterisk [*] will be displayed on the right side of the needle bar and a color change stop will be set.
The sewing continues to the end of the color and then stops.
Push the start button on the embroidery machine to restart.

Borer

If you check this mark, you will have a [B] symbol on the right side of the needle number. (If you use this function, you will need to install your boring device on the machine.) Please refer to [Options].

Alteration of speed

You can set a sewing speed at each color change. When you check it, the speed you set is shown.

Normal

Normal speed

sph

Cancellation of speed limit

sp1

Setting of speed limit at about 700rpm (different by machine model)

sp2

Setting of speed limit at about 600rpm (different by machine model)

spm

Setting of speed limit at about 300rpm (different by machine model)

Reset

Resets all of the needle numbers to "0" for color changes.
Other settings (stop etc.) will go off also.

Set

Puts the needle setup you selected into effect for the machine.

Close

Close "needle selection " window your Settings are not applied.

Change Thread color

You use this button for the Thread color change menu. You can change the display color that will represent each thread color.

How to change Thread color

1. Click on the [palette icon] Change Thread color button to open a Thread color change menu.
2. Select and click on the needle you wish to change the color of.
3. Select from the color pallet, this will change the needle color.
4. Click on "Return" to apply your setting.

Needle and Color table

Color pallet
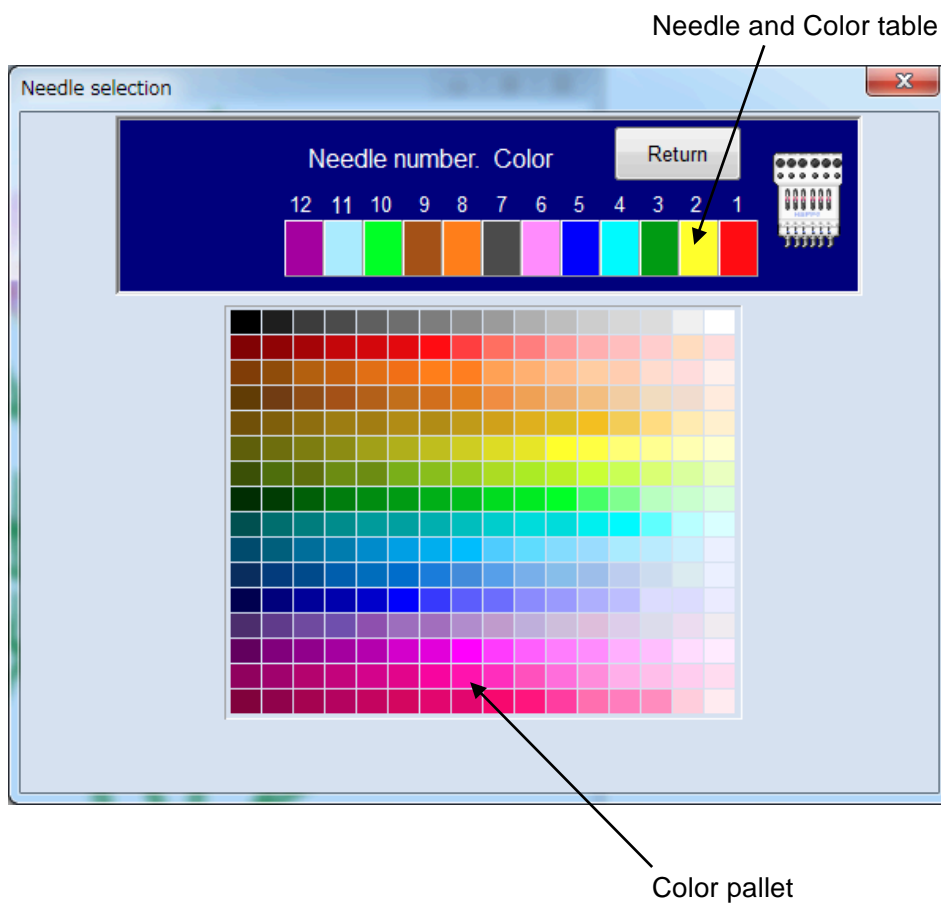
Adjust (Adjust)

Used to set (Scale), (Angle), (Width), and (Convert). Click on the Adjust button, the adjustment menu will open.
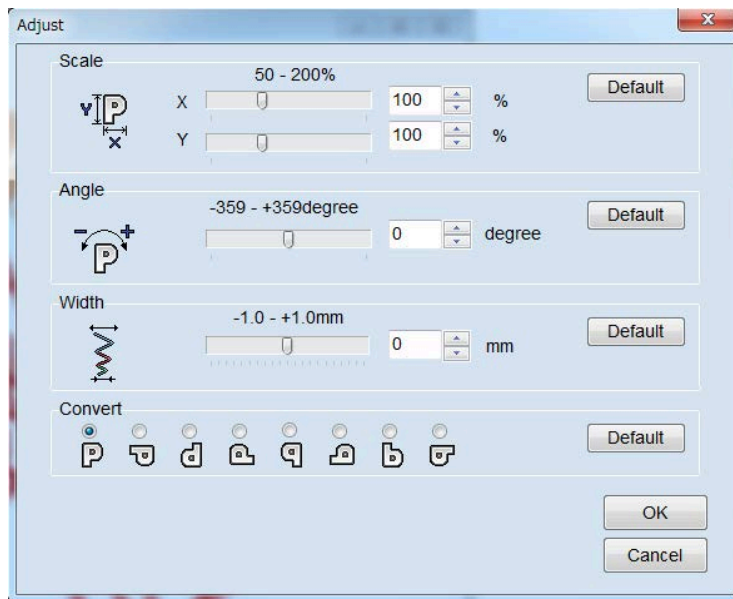
You can change the above items in the following ways:

1. Drag the Scrollbar.
2. Input data from your keyboard to the number box.
3. Click on Up/Down button with your mouse.

If you use "Convert" just click on a direction to rotate and/or mirror the design.

After you have finished inputting and click on [set], these functions will be set in the embroidery machine.

When you sew after having set the stitch width, it is possible that an error could occur at the final point.

If this occurs, please return the stitch width setting to "0.0".

[Function and adjustment]

Scale

The machine scales in X and Y directions for every 1% proportionately.

1. Scale adjust X side (Scale X) 50~200 %, Original size: 100 %
2. Scale adjust Y side (Scale Y) 50~200 %, Original size: 100 %

Angle

With the start point of the pattern as a pivot point, the design changes angle in 1-degree increments.

1. Angle: -359~359 degrees, Original position: 0 degree

Width

The machine adjusts satin stitch width in a design within range of –1.0~1.0mm in increments of 0.1 mm.

1. Width -1.0~1.0mm

Convert

Using the start point of the pattern as a pivot point, the design changes angles in 90-degree increments and it mirrors the design too.

![icon] Repeat (Repeat)

You can repeat the same design in the X and Y direction automatically. If you click on the repeat button, the Repeat menu will open.
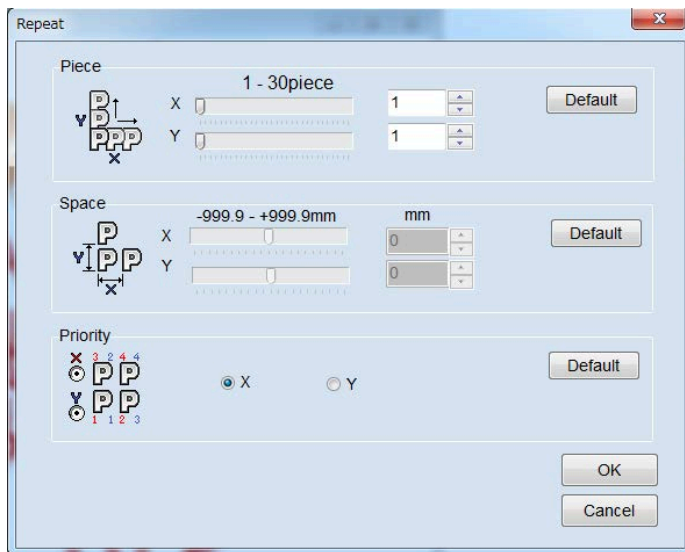
You set the number of pieces for the X and Y direction, and the space between each design, and the Priority on the start direction.

You can change the above items in the following ways:

1. Drag the Scrollbar.
2. Input data from your keyboard into the number box.
3. Click on the Up/Down button with your mouse.

After you have finished click on [Set] to load this function into the embroidery machine.

[Function and adjustment]

Piece

Set the number of pieces in the X and Y direction.

1. Pieces: X   1~30 pieces
2. Pieces: Y   1~30 pieces

Space

This sets X and Y distances between the start points of each pattern, when repeat are used. When a positive value is input, the machine sets each repeat toward the right or upward. If a negative value is used it will move to the left or downward.

1. Space: X -999.9~999.9mm
2. Space: Y -999.9~999.9mm

Priority

When sewing more than 2 pieces in the X or Y direction, a priority must be set to determine which piece to start first.

1. Priority: X - Left/Right, Y - Top/Bottom

X direction: horizontal direction is the first priority, and vertical direction will be the second.

Y direction: vertical direction is the first priority, and horizontal direction will be the second.

Offset (Offset)

The embroidery machine will start sewing after the drive frame is moved from a position where the offset is designated to the start point of the pattern. When you click on the offset button, the Offset Menu will open.
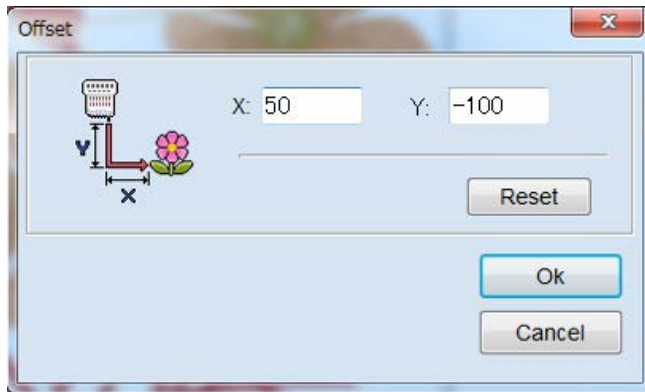
Please input numbers from keyboard.
Please set move distance to start point of pattern with start point of the drive frame as base point.

How to set offset
Example)
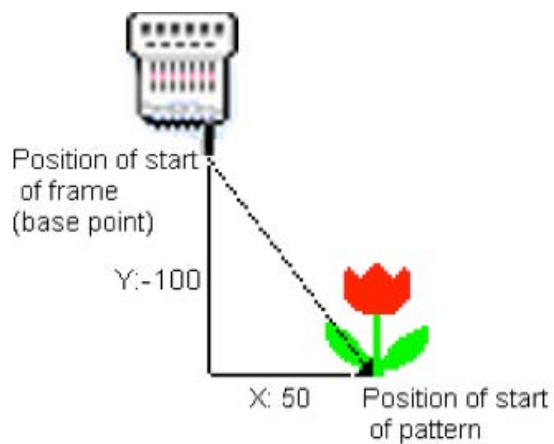
1. Please input X: 50, Y: -100.
2. After you have finished entering the numbers and click on [Set], this function will be set in the embroidery machine.

Frame out (Frame out)

After you have sewn a designated color in the pattern, the drive frame will automatically move to a frame out position to stop. When you restart it, the frame will move to the normal position and continue to work. When you click on the frame out button, the Frame out Menu will open.
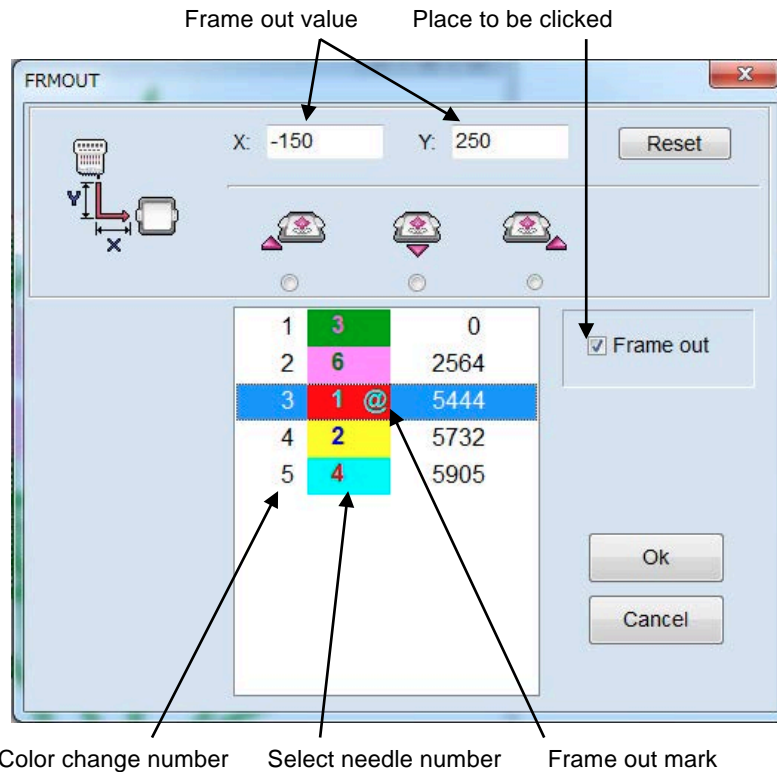
Input the frame out distance from the keyboard. Next you select a color change number and click on [Frame out]. The "@" symbol will appear on the right side of the needle number.

With the start Point of the pattern as the base point, please set the move distance to the frame out position.

How to set frame out
Example1
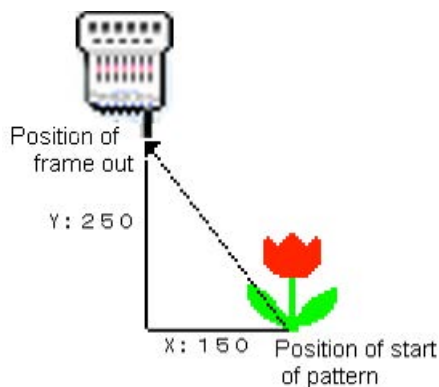
1. Please input X: -150, Y: 250.

2. Click on the color change number you want set to make the frame out.

3. Click on [Frame out]. When this function is set, an @ mark will be added to the needle bar number.

4. When you click on [Set], this function will be set in the embroidery machine.

Example 2. easy setting cautions [of an input]: -- it is necessary to perform the clauses 2-4 of Example 1 after a setup
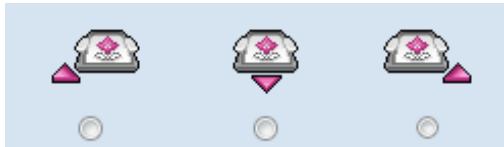
A check of a check button sets up the regular value.

Value

.X:100 out of which a frame comes to this side left-hand side, and Y:100 are set up at the time of a frame-out.

.X:0 out of which a frame comes to the front, and Y:100 are set up at the time of a frame-out.

.X:-100 out of which a frame comes to this side right-hand side, and Y:100 are set up at the time of a frame-out.

Auto origin setting (Origin)

If you select ON, the frame returns to its original position automatically after the sewing is finished.
When you click on the automatic original point return button, the Origin Menu will open.

Note:

When offset is set, this will return to the offset position.
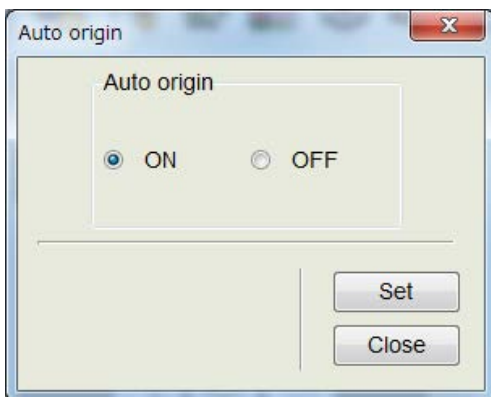
If necessary, please check ON.
When you click on [Set], this function will be set in the embroidery machine.

Direct (Direct) (This function may not be used depending on Model.)

This function moves the frame to the position, which is a stitch number or a color change number.
When you click on the Direct button, the set dialogue box is displayed.

Select with button of either Method 1 or Method 2.
> Method 1, By pointing out the number of stitch, the machine will move the frame to that position.
> Method 2, By pointing out the color change, the machine will move the frame to that position.

> Input the number from your keyboard in either way. After that, press the Action key.
> The message of "Attention. Frame will move." is displayed. Be careful, as the frame will move after clicking on [OK].

Note:
> There is no setting by the repetition number.

⚒ **Create (Create)** (This function may not be used depending on Model.)

This sets the basic settings of the machine. When you click on the ⚒ create function button, the create function setting dialogue box is displayed. There is an item of embroidery machine side which can be set up besides this. Please, See the instruction manual of the embroidery machine.

You can change these settings by clicking on each. If you need to input data, you can input from your PC or by adjusting the slide bar or Up/Down button in the menu. Note some items require set to be clicked on to activate them. Click on "Close" to go back to the previous menu.

You can click on [Default set] to change all items to their default values.

1. Keep null Stitch (CHG.)

> When the machine reads the data, it reads all jump stitch data including the jump stitches that are sewn before a color change.
>
> Null stitches are stitches that have no movement.

2. Skip null stitch

> When the machine reads the data, it reads only jump stitches that are sewn before the color change or that have movement. When reading in pattern data, the machine reads all data except for jump stitches other than jump stitches before a color change.

3. Combine jump

> When the machine reads the data, if there is a series of jumps, it will combine the series of jumps into one movement after adjusting the data to be less than 12.7 mm.

4. Thread break back

> When the thread breaks, the frame moves back a few stitches and then the machine stops.

5. Width data limit

This controls the maximum stitch length to 13mm at the default. If a stitch exceeds 13mm, it will then turn into a jump stitch to reach full stitch length. This number should be lowered if you are using caps or heavy garments.

6. Convert Cap

When the cap drive is installed in the embroidery machine, the machine will turn the design upside down.

(Only for embroidery machines with this function)

7. Quick start mode

After thread cut, or

After three stitches, the machine speed increases.

If not three stitches then after five stitches, the machine speed increases.

8. Auto thread cut

Automatically cuts when a trim code is detected.

9. Cut at jump data

When a series of continuous jumps exists in the design data; for example, three jumps, the machine will trim the thread before the jumps.

10. Cut at null jump

If there is one stitch of null (empty) jump in the design data and more than one stitch of jump thereafter, the machine will trim the thread before the null jump.

11. Change is always cut

This will force machine to cut at any color change, even if there is not a trim code inserted at the end of the color. Then the machine will trim even if the color change is set to the same needle.

12. Stitch sweeper

<u>When the machine reads the data</u>, it removes extremely short stitches that can cause thread breaks.

13. Sweep length

The width of the stitch sweep. Stitches shorter than the specified length or width will be removed.

14. Full length cut

The machine trims upper thread to a longer length.

15. Long lock stitch

Sets the lock stitch length longer.

16. Data format

Determines the data format <u>when the machine reads the data</u> disk or design.

The default setting is "Auto," but you can select others if the design could not be read correctly, and read the data again.

Auto   : Automatic judge (Normal setting)

Taj / Happy : Tajima, Happy Trinary data type

Brd   : Barudan Binary data type

Zsk   : Zsk Binary data type

17. Trace type

Select design trace type.

"Outline" which will show the rough outline or maximum size of the design or

"Square" this moves the frame in a square around the maximum design area.

18. Lock stitch at start

Machine inserts a lock stitch before and after a thread trim automatically.

19. Adjust width all pattern

Puts width data limit setting into effect for all designs.

It adjusts the width of the satin stitches for all patterns that are saved in the embroidery machines memory. It becomes the first priority. (Rather than stitch width of [adjust].)

20. Trace

(Design trace)

By outlining the pattern or its maximum size, and moving the frame, you can check the actual size and its position. Select "Make trace data" to trace.

(Only for an embroidery machine with this function.)

21. Make trace data

Build design trace data.

This function will make the trace data <u>when the machine reads the pattern</u> into memory. Select "Make trace data" to be able to use the trace feature.

(Only for an embroidery machine with this function.)

22. Wide cap mode

You can use Wide cap frame on the HCS-1201 machine only using HAPPYLink software version A2.**. (If your HAPPYLink software version A1.**, you can use semi wide cap frame only.)

You make select mode "Wide cap" or "Semi wide cap" on machine side. HAPPYLink may show your selection. (Machine responds best machine condition for Wide cap design when you select "Wide cap" mode. And in case of changing mode, please re-turn on HAPPYLink after re-turning on HCS machine.)

Check off: Normal for Semi wide cap frame

Check on: Wide cap mode (Sew field 290 X 70 mm)

In case of re-turn on the HCS machine, please re-turn on HAPPYLink too.

23. All head mending

This feature is designed only for multi-head machines, if it is set to "NO" only the head with the thread break will mend. If it is set to yes all heads will mend at a thread break.

(Only for an embroidery machine with this function.)

24. Slow mend out

For multi-head machines, when mending finishes and all heads start to sew again, the machine speed decreases to help the first few stitches be sewn.

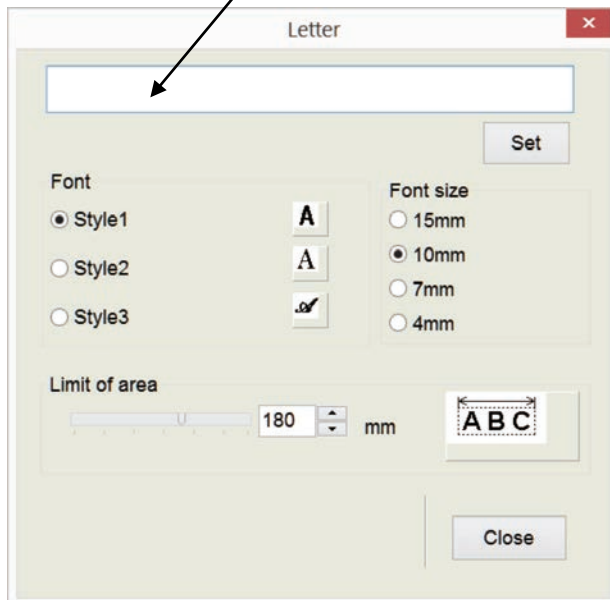(Only for an embroidery machine with this function.)

ABC **Letter (Letter)** (This function may not be used depending on Model.)

(This function may not be used depending on Model.)

The embroidery machine has characters stored in it. When you click on the Character sewing button, the character sewing setting dialogue box appears.

Place to put characters from a keyboard in

You need to determine the proportions of the font and the size of the characters as well as the length of a line.

Please input characters from the keyboard. You can put in up to 15 characters maximum.

Regarding which characters you can input please refer to the instruction manual for your embroidery machine.

When you click on [Set], it will be set in the embroidery machine. The characters are saved as the pattern in the machine. In Addition, the name of the pattern is the first eight characters typed.

When the length of a line is larger than that designated by the area selection, an error massage (Area Over) will appear. In such a case, reduce the number of characters; lengthen the line or both to clear the error. (Refer to the instruction manual of the machine, too.).

Explanation of items to be selected

Selection of font (Font)

Selection is to be made from Style1, Style2 and Style3.

Selection of size (Size)

15mm

10mm

7mm

4mm

Selection of area (Area)

This is to determine the line length (0 - 290mm) of the characters.

Note: When the area is set to 0, the space between the characters will become 0.8mm.
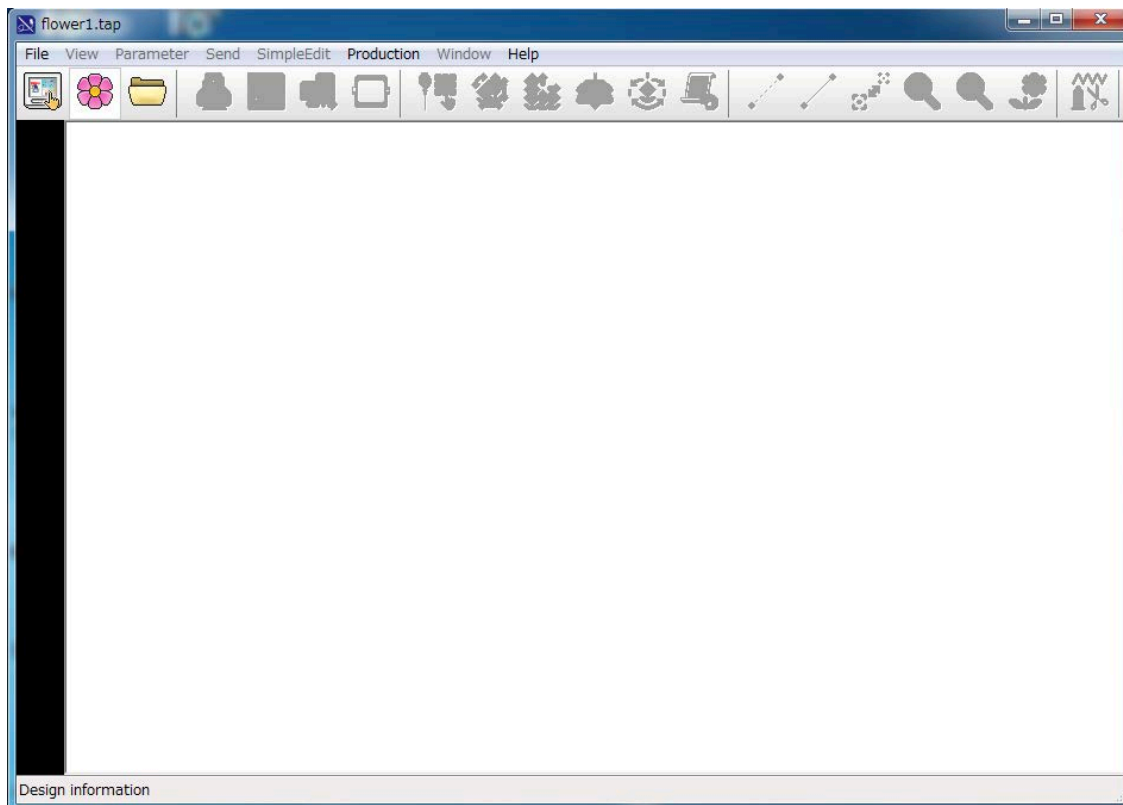
Data send mode

You can send designs that are saved in the PC or on a diskette to the embroidery machine in this mode.
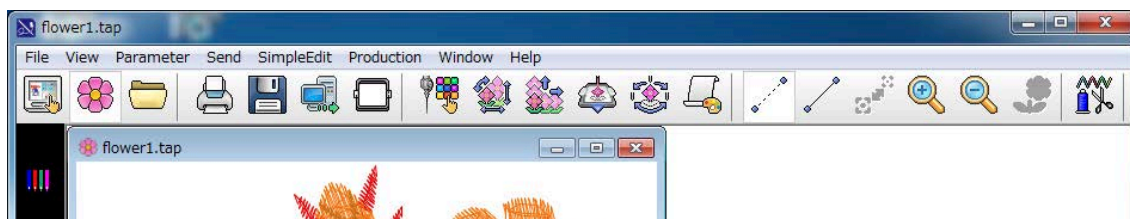
You can adjust the designs settings in the PC, and send it to the machine with the design.

You can make minor edits to the design.

When this software is started, the mode is [data send mode] and is shown as illustrated below.

After reading the design, you can use the menu and tool buttons.

Please select "Pattern Input" to select the pattern data in the PC.

After reading the data, you can set "Needle selection," or "adjust pattern," and send the pattern to the embroidery machine.

Options in this menu

1. Open design

   This function reads embroidery data stored in the personal computer or on a diskette and displays them.

2. Needle selection

   This function sets the order of needles to sew. At every color change, the machine changes to the next set needle.

3. Design adjust

   This function sets parameters for scaling, rotation and reversing etc.

4. Repeat

   This function enables the user to sew the same pattern multiple times on the same cloth.

5. Frame out

   After having sewn the designated color, this function moves the drive frame to a position previously designated. This function is used when you want to take care of something in the middle of sewing.

6. Offset

   Allows you to set the machine to have a starting position in which the frame may be located offset from the actual position that stitching will begin. This allows for easy loading of the frame into the machine.

7. Simple editing

   This function is to do simple data editing of stitches of pattern data, such as deletion, moving, or addition of a function, etc.

8. Send design data with functions to the machine

   This function transmits the pattern with the settings of needle color changes and edit settings etc. into the embroidery machine.

9. Save design data with functions

   This function saves the pattern with the settings of the Needle selection and the Simple editing, etc. in the personal computer or on a floppy disk.

10. Changing background color

   This function enables you to change the background color (cloth color) of pattern.

11. Frame Check (Transmission of data after confirming the pattern in the drive frame)

   Using this function, you can confirm the pattern's position in the drive frame with the display. You can also move of the drive frame, if you moved the frame in the display. Then, the pattern with the settings of needle color changes and edit settings etc. is transmitted to the embroidery machine.

12. View the production data

   Production data is displayed.

13. Print selected design

   You can print the selected design.

14. View the selected block by color

   Only the color block of the current stitches in [simple editing] is displayed.

Explanation of tool buttons

 Switching to operation mode

 Data send mode

(On start-up of this software, it is the data send mode.)

 Open design

 Print selected design. Click on this icon to open the print menu

 Save design data (Save in HAPPY style)

 Send design data with function to the machine

 Frame Check (Transmission after having confirmed with the drive frame)

    (This function may not be used depending on Model.)

 Needle selection

 Design adjust

 Repeat

 Frame out

 Offset

 Changing background color

 View jump (Show every jump in the design)

 Stitch Point (Show stitch points by dot)

 Change the size of the stitch point (effective after needle drop point was displayed)

 Zoom in

 Zoom out

 View the selected block by color (Effective only at time of editing)

About Indicator

A black frame on the left side of the screen is the indicator.
An icon is displayed here when using "Needle selection", "Design adjust", "Repeat"," Simple editing".

Needle selection

Design adjust (Scaling etc.)
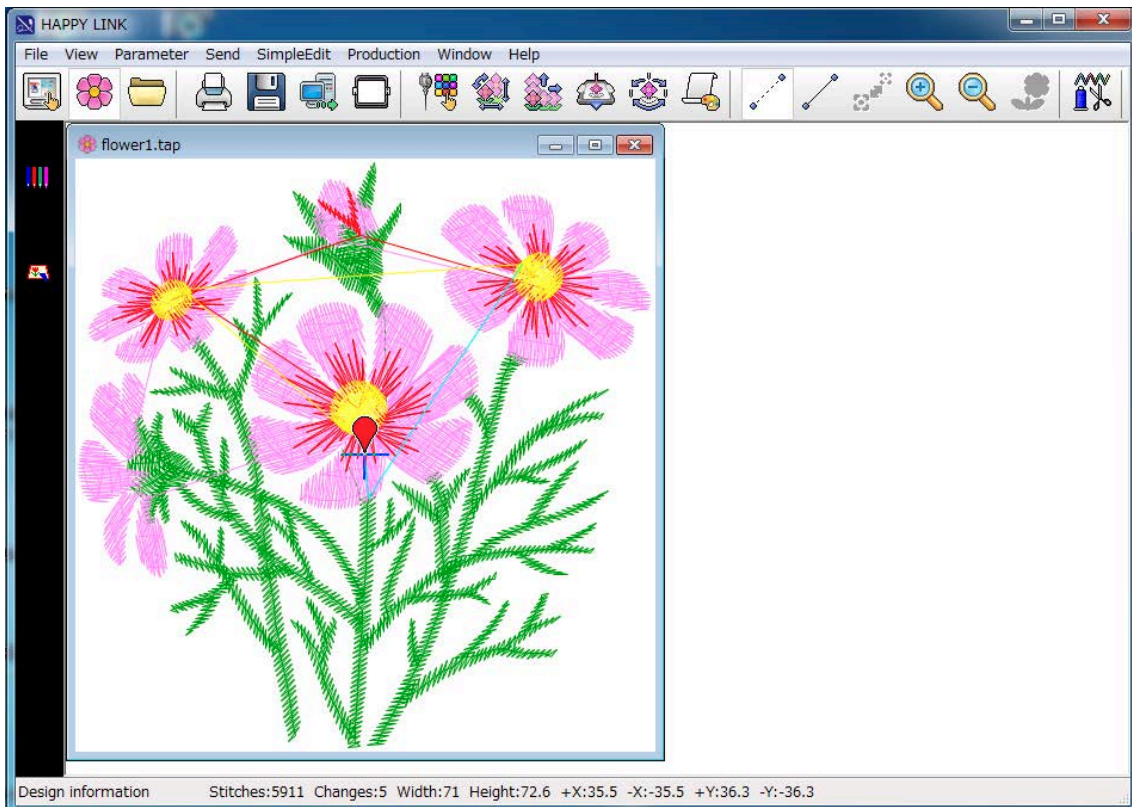

Repeat

Frame out

Offset

Simple editing

Usage (Data send mode)

Open design

Select the pattern that you want to sew from the data in the PC, and read it.

Open the data from your computer, CD or Floppy disc.

The pattern that is read appears in the window. (The following illustration)

Note:

The pattern will be shown in program window after adjusting its size. If a pattern is read after maximizing the window, the patterns' view size will be expanded.

The pattern that is read before maximizing the window will not be changed even if you maximize the window size. If you close the window, and open it again, the viewing size will be adjusted to the window size.

Reading (2 ways)

1. Open the pattern file select dialog box, and select the pattern from the list.
2. It is also possible to drag and drop from Windows Explorer.

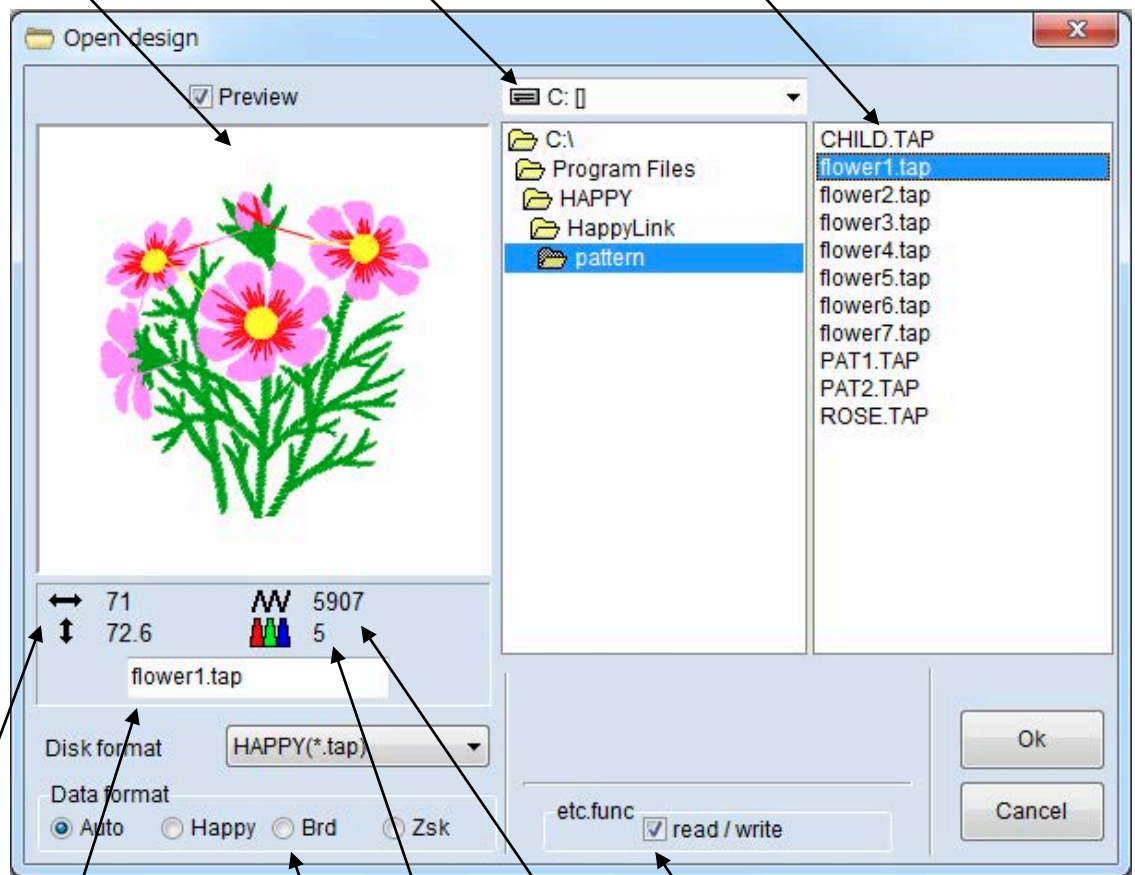# 1. 📁 Pattern open dialog

Open design menu by this button.

Preview   Drive select   Design list

Size   Pattern names to select   Format   Change   Stitches   etc.function option read

Reading a design is done by the following process.

1. Select Disk drive and double-click on the "Pattern Folder" that contains the design.

2. Select the desired design and you will see a preview, if the preview box is checked.

3. Click on the [OK] button to choose the design you selected.

You can open HAPPY (.tap) and TJM (.DST .DSB .DSZ) only.

Please select your type of disk format. (Usually "HAPPY (*tap))

Note: If you cannot open a design properly, please change the [Data format] select from [Auto] to [Brd] or [Zsk]. Then, try to open your design again.

If you selected a very large design, it could take a while to load. To avoid the wait, remove the check from the preview box.
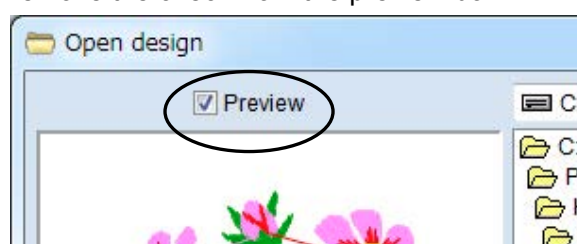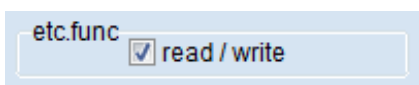
2. Drag & Drop

By dragging the pattern data from Explorer and dropping into the Happy Link window, you can open the pattern.

HAPPY (*.tap), and TJM (*.dst)(*.dsb)(*.dsz) are available.

Note:

Please don't drag and drop the pattern data into the HAPPY Link icon on the desktop. It does not work.

About etc.function option read/write

If it is checked

All settings of [Needle selection], [Design adjust], [Repeat], [Frame out] and [Offset], can be stored to the [Happy original setting file] .

When reading a design, settings that are saved can be read with the pattern. Therefore, the settings of [Needle selection], etc. do not need to be set again.

When sending design data, settings that are saved can be sent with the design pattern.

If it is not checked

The settings will neither be saved nor sent. It does not read any settings that were saved previously, either.

Note:

The following message is displayed after the pattern is sent, if [etc.func option read/write] is not checked or, although it is checked, a [Happy original setting file] has not been created yet.
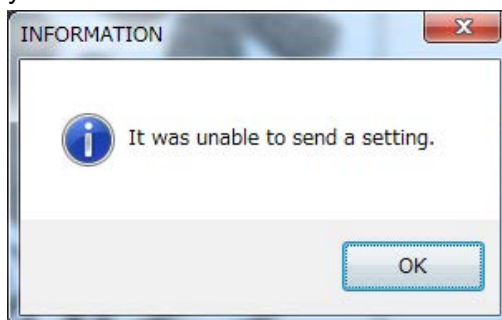
(It was unable to send a setting.)

Design information

Displayed design information

Marker (Cross cursor)

Shows your selected stitch point. (In pattern image in editing)

If the design is not being edited, the beginning of the pattern data is displayed.

Design information   Stitches:5911 Changes:5 Width:71 Height:72.6 +X:35.5 -X:-35.5 +Y:36.3 -Y:-36.3

Showing at the bottom of the screen.

[Stitches]

Showing the total number of stitches in the design

[Changes]

Showing the number of color changes in design.

[Width]

Showing the X size (left to right) of the design.

[Height]

Showing the Y size (top to bottom) of the design

+X

Showing right side length from the origin point of the design.

-X

Showing left side length from the origin point of the design.

+Y

Showing upper side length from the origin point of the design.
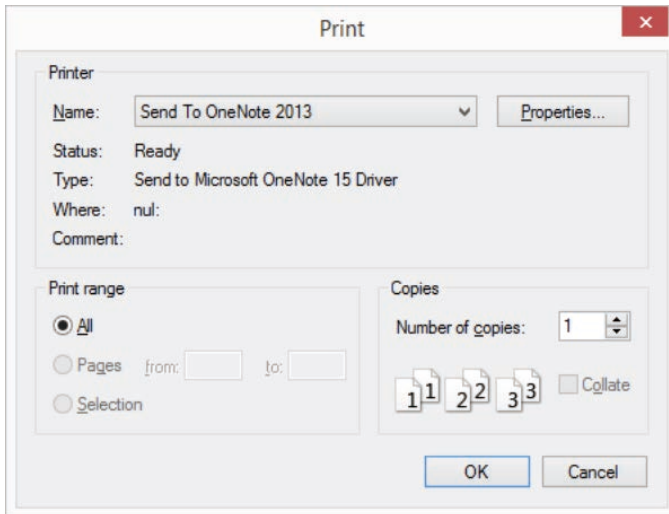
-Y

Showing lower side length from the origin point of the design.
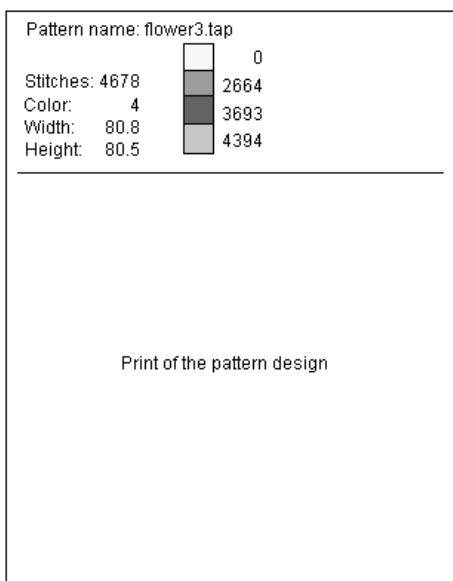
🖨 Print selected design

You can print the selected design. Click on this icon to open the print menu.

Contents of print:

1. Pattern name

2. Stitches

3. Color

4. Width

5. Height

6. Indication by color block and stitches

7. Print of the pattern design

An example of a print is indicated as follows.

Note:

> The detail settings of the printer are changeable if you click on [File] - [Printer setup] in menu bar.
> The indicated screen of the print menu or property of the driver varies by the printer driver used with the PC.

💾 Save design data

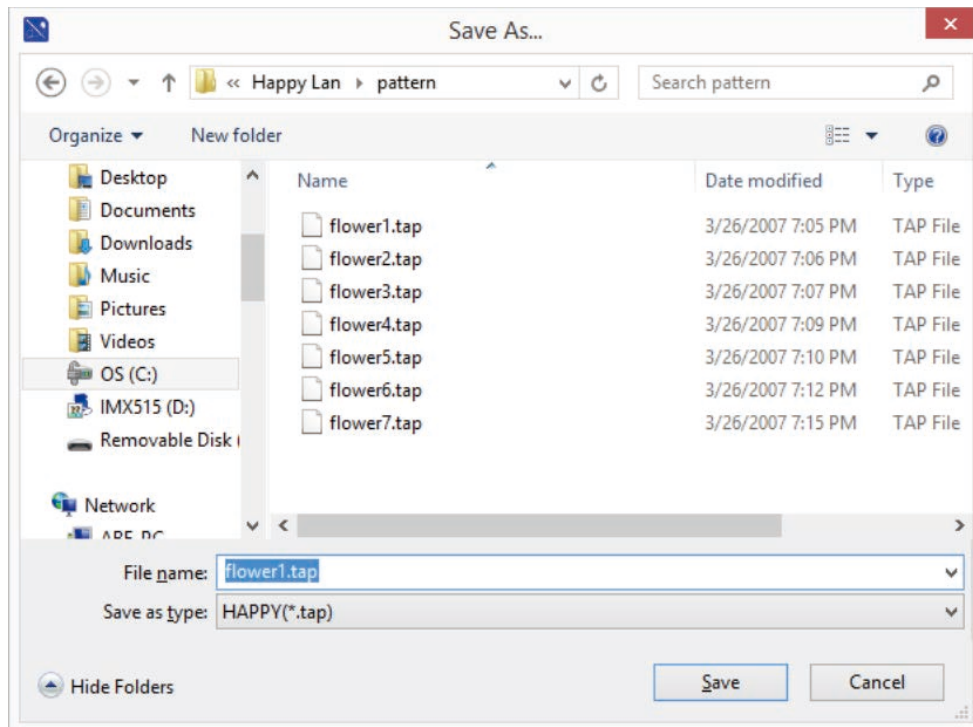You can save the currently selected design data.

Note:

> If [etc.func read/write] in the Open design is checked, the settings of [needle selection] etc. will be saved automatically.
> DST format will be converted to Happy format and saved.
> If you name this setting with the same name as the original file, it will replace the original file. Please backup the original data before editing.

If you click on this icon, a file name input dialog will appear.

> Select a drive and folder that you wish to save the design to. Then, input the name and click on [save].

Note:

> You cannot save the data on CD-ROM or CD-R.

Send design data

Sends the design data to the embroidery machine. (A design must be open for this menu to open.)
Please make sure the embroidery machine is ready to accept the data before sending the data to the machine.
Note:

> If [etc.func read/write] in the Open design is checked, the settings of [needle selection] etc. will be sent with the design. The number of stitches of the pattern in the embroidery machine (which is compatible with the HappyLink) will increase more than the stitches of the design because the stitches of the [Trace data] are added.
>
> For information about [Trace data], refer to the [Trace type] in the Instruction manual of the embroidery machine.

Preparation for reception of the data on the embroidery machine side.

> Please refer to the Instruction manual of the embroidery machine to know whether it has an auto-serial function or not. Any embroidery machine, which is compatible with HappyLink, has auto-serial function.
>
> **If the auto-serial function is installed in your embroidery machine**
>
>> You need to set the embroidery machine to <u>the [drive mode] (which is the mode you can start sewing in the embroidery machine)</u>. For information about the [drive mode], refer to the Instruction manual of the embroidery machine.
>>
>> This setting data will be sent with the pattern data.
>
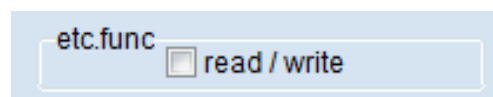> **If the auto-serial function is not installed in your embroidery machine**
>
>> Please accept the data with Tape input setting.
>>
>> Please follow instructions below for Tape input setting.
>>
>> **Note:**
>>
>>> Please deselect read/write box in "etc. func." If you have already opened your pattern, close it and re-open it as above.
>>>
>>> If the read/write box is selected, an error will occur.

> **Note:**
>
>> You must make the communication speed [baud rate] correspond in all the machines and PC. Refer to the [Serial port setting].

Transmission of a pattern

> Click on this button or "Send" in the menu bar to send the design to the embroidery machine.
> The following message is shown and the pattern is not sent, if the cable is not connected or the embroidery machine side is not ready. Click on [OK].
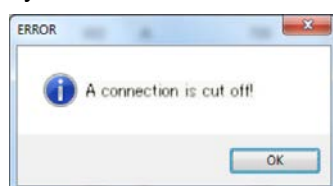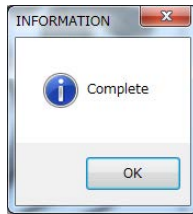
 (A connection is cut off!)

> **Note:** In USB, "Macine is busy." is shown.

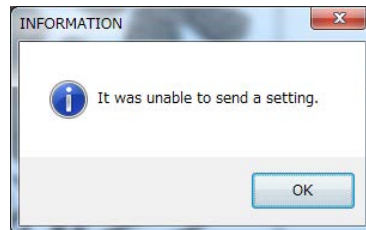Progress conditions are indicated with the [progress bar] in the middle of the transmission.
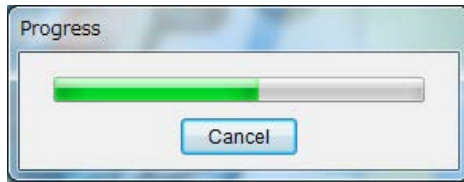
When the transmission is over, the following message is shown.

 (Complete.)

Note:

The following message is shown after the pattern is sent, if the [etc.func option read/write] is not checked or although it is checked, the [Happy original setting file] has not been created yet.

 (It was unable to send a setting.)

In this case, the name of the transmitted pattern is the eight characters of the number of total stitches. For example, the name saved in the embroidery machine is [2604], if the total stitches are 2604.

The transmission will be canceled when you click on "Cancel" during the transmission.

Then, click on [OK] as the following message is shown.
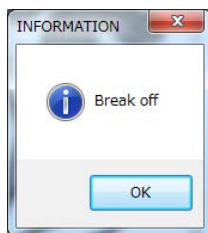
 (Break off.)

Note:

Error: E-090 is shown and data is not received by the embroidery machine, when you send the design if the communication speed (Baud rate) is different with the PC and the embroidery machine. Click on "Cancel" in the [progress bar], as the transfer is continued to the end by the PC.

The following message will be shown if the amount of memory of the embroidery machine is exceeded during sending of pattern data. (The pattern is not sent) Delete some designs from memory and re-send the design.
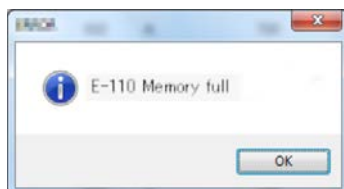
 (E- 110 Memory full.)

⬚ Frame check

(This function may not be used depending on Model.)
You can check whether the design will fit in the frame size on the dis play in PC. Then you can move the frame on the display and click on [set]. The drive frame will move to the set position and the design pattern data will be sent to the machine.

When you click on the [Transmission of data after confirming pattern and the drive frame] button, the scene opens for checking. (Or [Send] - [Frame check] in the menu bar.)
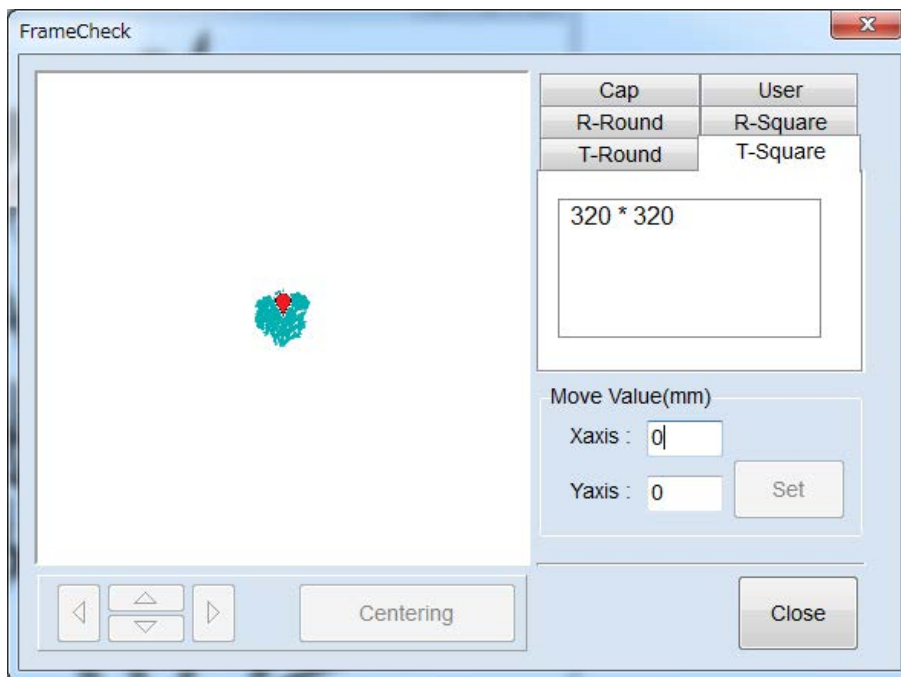
Frame:

R-Round: Regular round
R-Square: Regular square
T-Round: Tubular round
T-Square: Tubular Square
Cap: Cap frame
User: User's frame

Note:

Any frame, which cannot be used in the embroidery machine, is not shown.
The frame size that appears will be adjusted to show the allowable stitching area.
You can save five of your own frame sizes in "User."
Please click on "Close" to finish FrameCheck in the middle of the work.
In case of re-turn on the HCS machine, please re-turn on HAPPYLink too.
If [etc.func read/write] in the Open design is checked, all settings of [needle selection] etc. will be sent with the design to the embroidery machine.
Please take care to check that the [presser foot] doesn't hit the drive frame when tracing when you start sewing. Please refer to the [Trace type] in the Instruction manual of the embroidery machine about the [Trace] function.

How to check and set

1. Select the frame you expect to use in the embroidery machine from the list.

   After deciding on the frame, please select it from the frame size list and click on it. The present position of the frame on the embroidery machine is displayed on the screen.
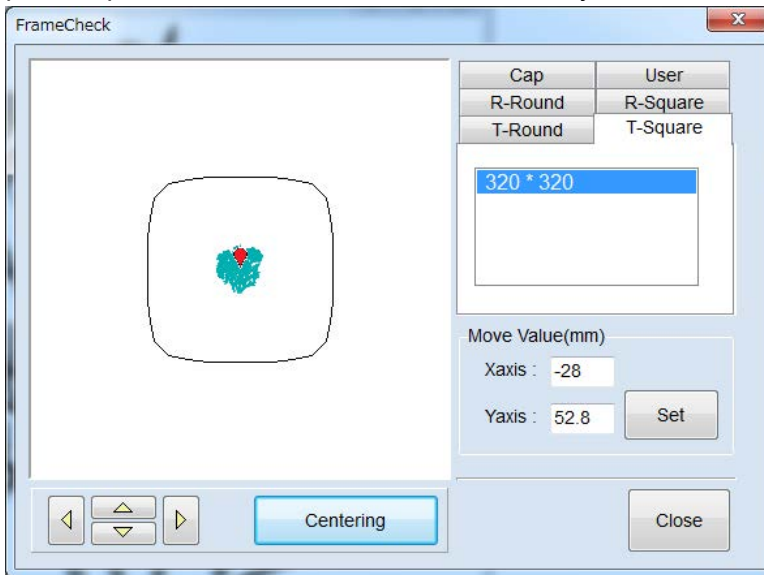
   At this moment, if the pattern is larger than the frame, you can't use it. Please use a bigger frame or use a smaller pattern.

   Please refer to [Design Adjust].

2. Move the frame on the screen. (The frame on the embroidery machine stays motionless).
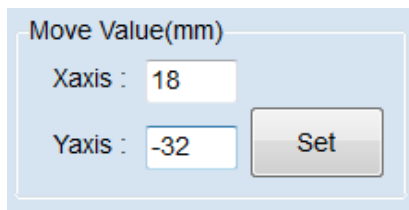
   Please keep pressing and move the displayed frame to a position you desire.

   When you stop pressing the button, the displayed frame will also stop.

   In addition, when you click on [Centering], the center of the frame will move to the center of pattern.
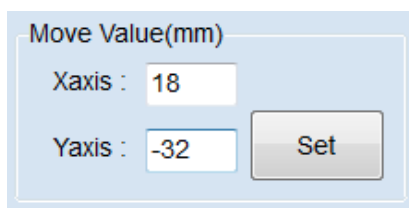
   As the frame moves, the display of the distance from the first position of the frame changes.
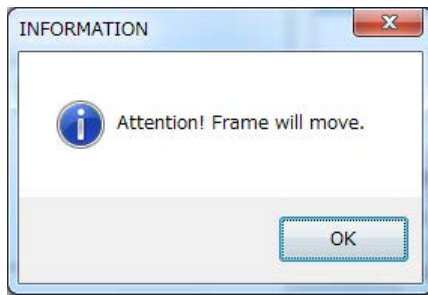

   Note: Please take care not to have the pattern go beyond the frame. The needles will hit the frame and the embroidery machine could be damaged.

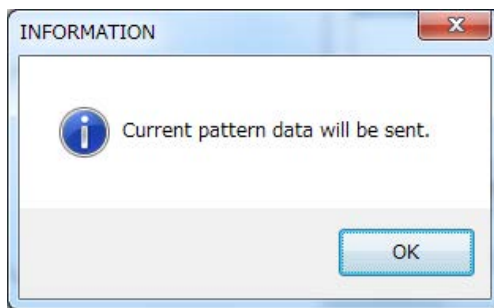3. Transmit the design data.

   Click on the set button.

4. The following message is shown. The moving value of the frame will be sent to the embroidery machine.

 (Attention! Frame will move.)

When you click on [OK], please be careful as the drive frame on the embroidery machine will move.
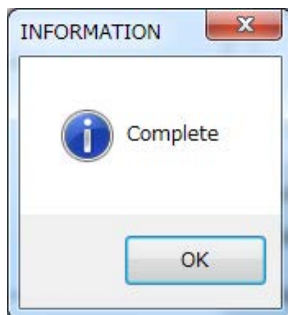
5. Another message is shown.

 (Current pattern data will be sent.)

When you click on [OK], the design data will be sent to the embroidery machine.

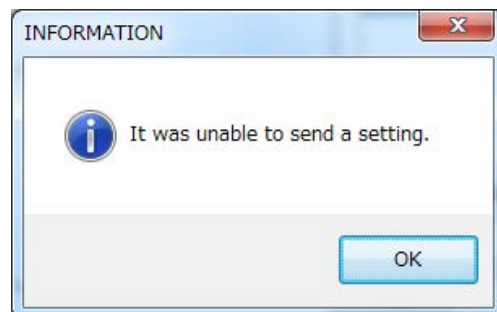6. When the transmission is finished, the following message is shown.

 (Complete.)

When you click on [OK], "FrameCheck" will be finished.

Note:

The following message is shown after the pattern was sent, if [etc.func option read/write] is not checked or although it is checked, the [Happy original setting file] has not been created yet.
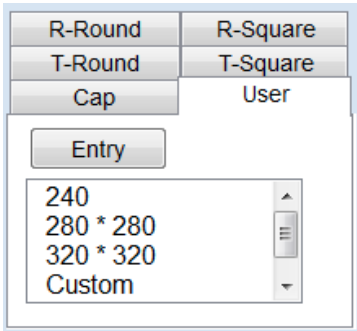
 (It was unable to send a setting.)

Refer to the [Send design data] about the transmission of a pattern.

User's frame

You can see the User list by selecting the User tab.


You can save five of your own frame sizes in "User."

You can input your own frame size. (An unregistered portion is displayed as [Custom].)

Input or Change

> After clicking on the list that you want to change or input, click on the Entry button. The Input form will be opened. Select one from round frames or square frames, and input the number. After inputting, entry finishes upon clicking on [OK].

> **Round frame**

>> **Please input the inner diameter of the frame. (Please downsize it by 40 mm from the actual frame size to prevent the needle or presser foot from hitting the frame.)**
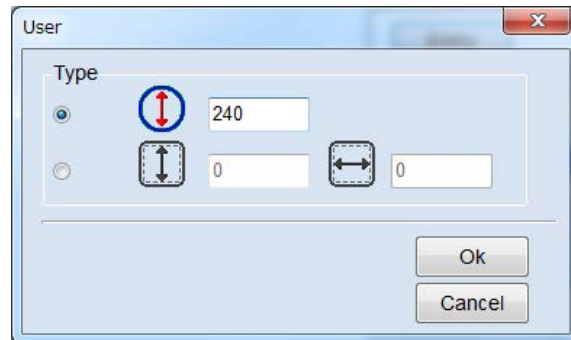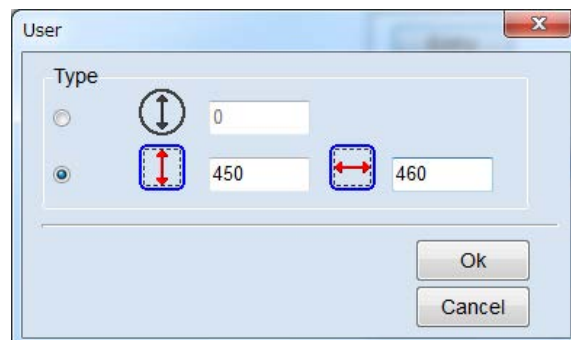

> **Square frame.**

>> **Please input the inner length and width of the frame. (Please downsize it by 40 mm from the actual frame size to prevent the needle or presser foot from hitting the frame.)**
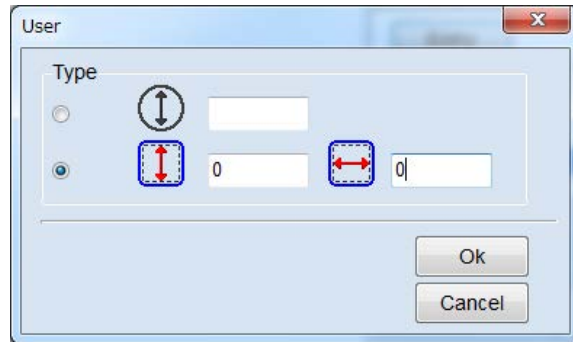
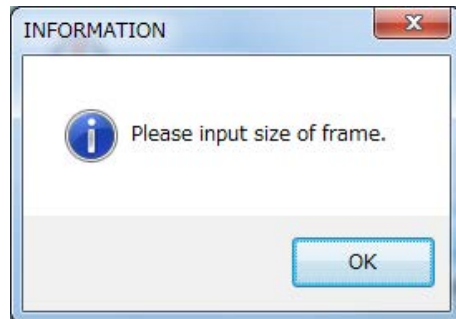 Vertical bore in the frame   Horizontal bore in the frame

To clear the input number, and return to custom display.

Please put "0", and click on "OK."

Note:

When you input nothing, the following message will be indicated.

Needle selection

You can designate the order of needles to be used for sewing.

Note:

If [etc.func read/write] in the Open design dialogue box is checked, the settings of [needle selection] will be saved automatically.

1. You can set the needle for pattern color change.
2. You can insert a stop command in the color change process. You can make the machine stop at the stop command.

   If you change the number of the needle bar after having set a color change stop, the color change stop will go off. You will then need to reset it.
3. You can set the sewing speed at the color change.

Click on "Needle selection". The input window will open. (A design must already be opened, or this key will not be active.)

Needle and thread color   Stop mark   Place to be clicked   Change thread color

Reset   Color change number   Select needle number   Number of start stitches of color   Speed

How to select:

1. Select color change number.
2. Select the color you desire from the number of the needle bars above. Please repeat this process for every color change number.

   Please check "Stop" and/or "Borer" if you wish to use these functions. (Only embroidery machines that have Borers can use this function)
3. Click on the "OK" button.

Stop mark

If you check the stop box after you selected the needle, a [*] mark appears on the right side of needle number and color change stop is set.
Sewing proceeds, but the embroidery machine will stop when this color has completed sewing.
Push the start button on the embroidery machine to restart.

Borer

If you check this mark, you will have a [B] symbol on right side of the needle number.
If you use this function, you need to install a borer device to the machine. Please refer to [Options].

Alteration of speed

You can set the speed of the embroidery machine at every change. The set machine speed is displayed.

Normal
> Normal speed

sph
> Release of speed limit

sp1
> Setting speed limit at 700rpm (different by machine model)

sp2
> Setting speed limit at 600rpm (different by machine model)

spm
> Setting speed limit at 300rpm (different by machine model)

Reset

Reset all of your needle numbers to "0" for color changes.
Other functions (stop etc.) will all go off.

OK

Input contents are saved in the [Happy original setting file].

Cancel

Without saving the input contents in the [Happy original setting file], the screen will be closed.

Change Thread color

You use this button for the Thread color change menu. You can change the display color that will represent each thread color.

How to change Thread color

1. Click on the [icon] Change Thread color button to open a Thread color change menu.
2. Select and click on the needle you wish to change the color of.
3. Select from the color pallet, this will change the needle color.
4. Click on "Return" to apply your setting.

Needle and Color table

Color pallet
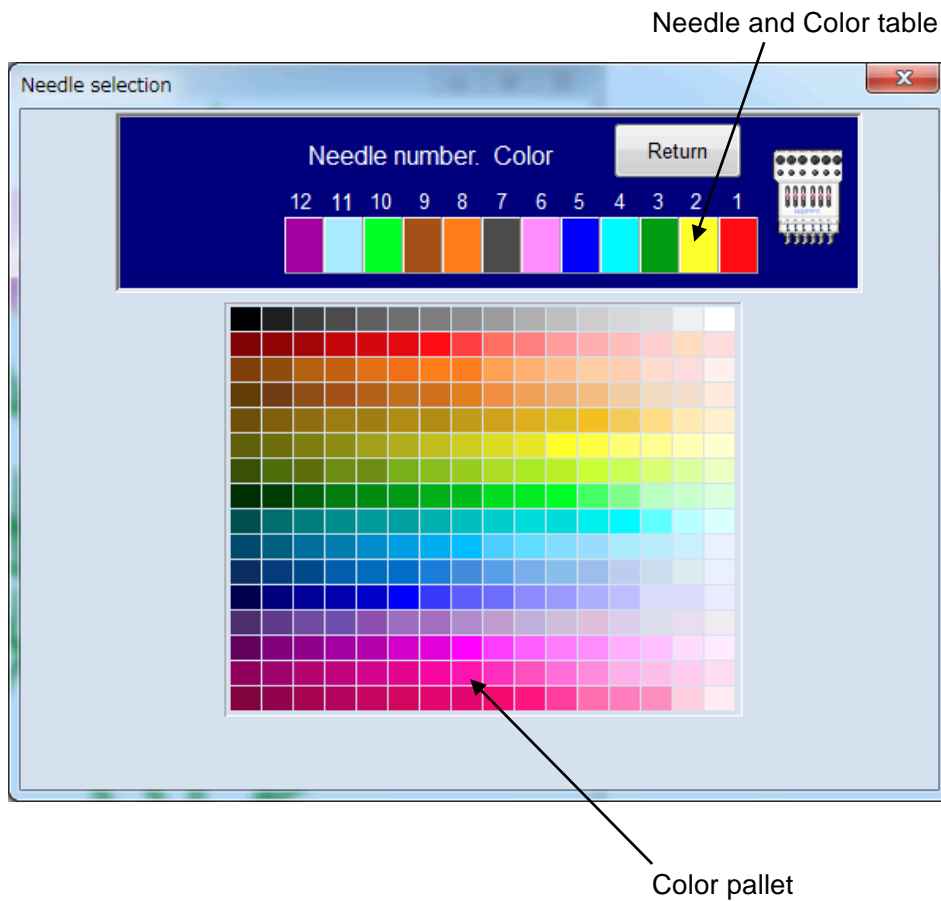
Design adjust

You can set the scale and alter the selected pattern. (Sewing data doesn't change itself. The data is changed only for sewing.)

Note: If [ect.func read/write] in the Open design is checked, settings of [Design adjust] will be saved automatically.

Click on this button to open a Design adjust menu in the Data send mode.

(A design must be open for this to work.)
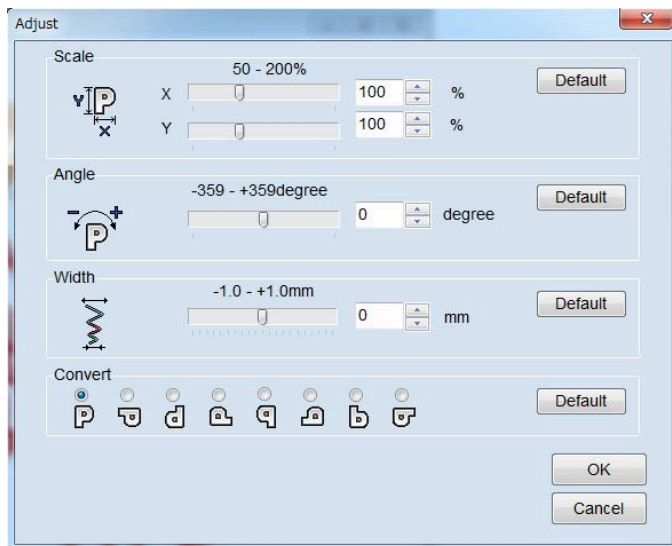
You can change the above items in the following ways:

1. Drag the Scrollbar.
2. Input data from your keyboard into the number box.
3. Click on Up/Down button with your mouse.

If you use "Convert" just click on a direction to rotate the design.

You will get the standard settings back by clicking on [Default].

Click on [OK] after having input. This menu will be closed.

When you sew with width adjustment setting, an error may occur at the end point.

In this case, please return the stitch width setting to "0.0".

Scale

The machine scales in X and Y directions for every 1% proportionately.

1. Scale adjust X side (Scale X) 50~200 %, Original size: 100 %
2. Scale adjust Y side (Scale Y) 50~200 %, Original size: 100 %

Angle

With the start point of the pattern as a pivot point, the machine changes the angle in 1degree increments.

1. Angle: -359~359 degree, Original size: 0 degree

Width

The machine adjusts stitch width in a design within range of −1.0~1.0mm in increments of 0.1 mm.

1. Width -1.0~1.0mm

Convert

Using the start point of the pattern as a pivot point, the machine changes the angle in 90-degree increments and it mirrors the design.

Repeat

The machine automatically embroiders a specified number of pieces in X and Y directions.
If [etc.func read/write] in the Open design is checked, they will be saved automatically.

Click on this button to open the repeat menu in the Data send mode.
(A design must be open for this menu to open.)
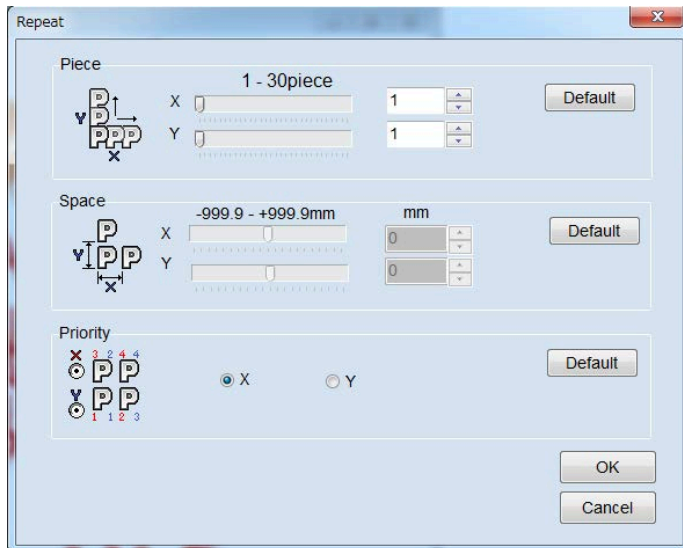
You can change the above items in the following ways:

1. Drag the Scrollbar.
2. Input data from your keyboard into the number box.
3. Click on Up/Down button with your mouse.

In the [Priority], please click on the button for the direction you prefer.

You will get the standard settings back by clicking on [Default].

Click on [OK] after having input. This menu will be closed.

[Function and adjustment]

Piece

Set the number of pieces in the X and Y direction.

1. Pieces: X   1~30 pieces
2. Pieces: Y   1~30 pieces

Space

This sets X and Y distance between the start point of each pattern, when repeat is used.
When a positive value is input, the machine makes repeat toward the right or upward. If a
negative value is used it will move to the left or downward.

1. Space: X -999.9~999.9mm
2. Space: Y -999.9~999.9mm

Priority

When using more than 2 pieces in the X or Y direction, a priority must be set to determine
which piece to start first.

1. Priority: X - Left/Right, Y - Top/Bottom

X direction: horizontal direction is the first priority, and vertical direction will be the second.

Y direction: vertical direction is the first priority, and horizontal direction will be the second.
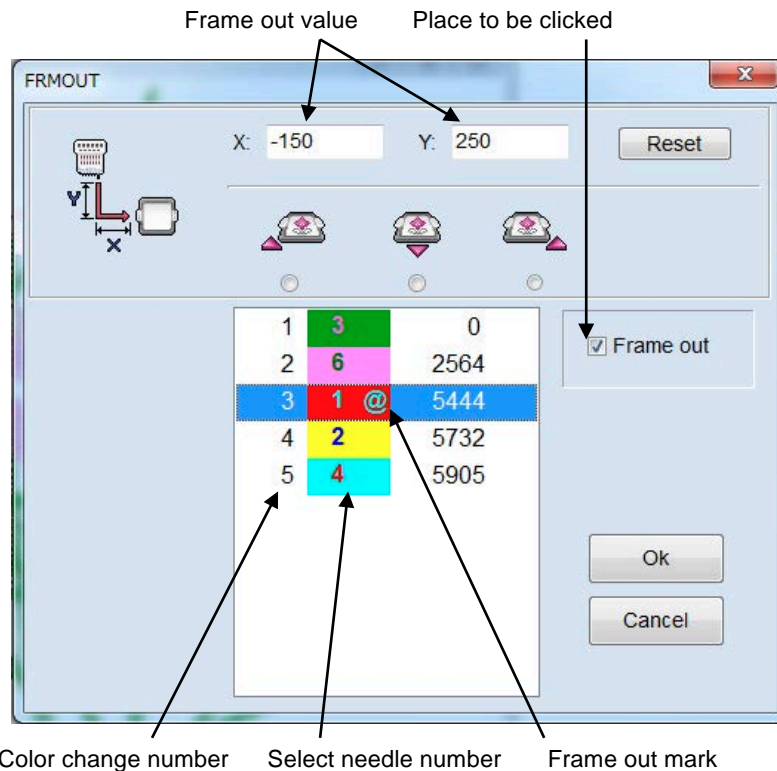
Frame out

By adding a "Frame out" command to the pattern color number, the machine can move the frame and stop it on the position that you set up after sewing all of a color. When you restart it, the frame will move to the normal stitching position and continue to work. This function is convenient for trimming of threads in the middle of sewing or placing an appliqué.

Note: If [etc.func read/write] in the Open design is checked, settings of [Frame out] will be saved automatically.

When you click on the frame out button, the menu opens.

Frame out value   Place to be clicked

Color change number   Select needle number   Frame out mark

Input the amount of the frame out by numbers, and select the color change that you want to move at the end of. Click on [Frame out]. The @ sign will appear on the right of the needle number.

With the start point of the pattern as a base point, please set the distance to move for the frame out.
How to set frame out
Example1
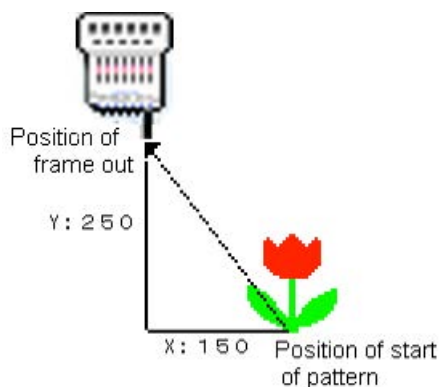
1. X: -150 Y: 250 Input these numbers.
2. Please click on the color change number you desire to add the frame out to.

3. Please click on [Frame out]. When this is set, an @ sign is put next to the needle bar number.

4. When you click on [OK] after input, the screen will close and the frame out is set.

Example 2. easy setting cautions [of an input]: -- it is necessary to perform the clauses 2-4 of Example 1 after a setup

A check of a check button sets up the regular value.

Value

.X:100 out of which a frame comes to this side left-hand side, and Y:100 are set up at the time of a frame-out.

.X:0 out of which a frame comes to the front, and Y:100 are set up at the time of a frame-out.

.X:-100 out of which a frame comes to this side right-hand side, and Y:100 are set up at the time of a frame-out.

![icon] Offset

If you set up an off set position, the frame moves from the off set position to its initial position and starts working.

Using the off set setting, you can start stitching from wherever you want.

Use the off set setting with the origin function, and the frame will move back to the off set position automatically after it completes stitching.

Note:

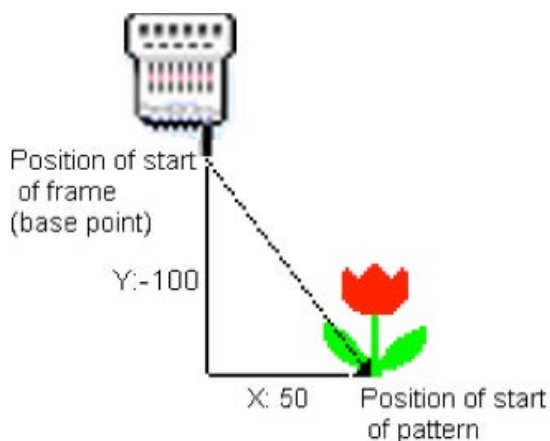If [etc.func read/write] in the Open design dialogue box was checked, the settings of [Offset] will be saved automatically.

When you click on the [Offset] button, the input screen will open.
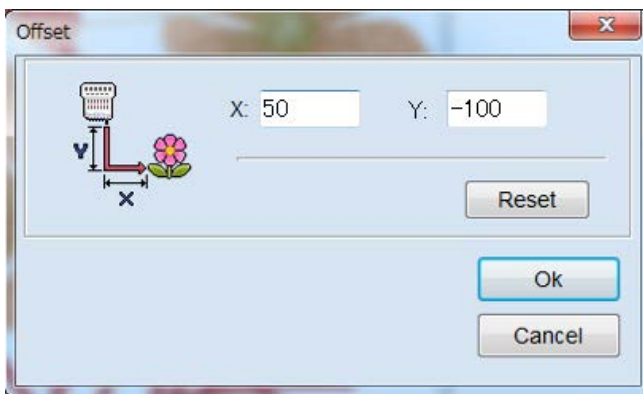
With the start point of the drive frame as a base point, please set the move distance to the start point of the pattern.

How to set offset

Example)

1. X: 50 Y: -100 Input these numbers.
2. When you click on [OK] after input, the screen will close.

Changing the background color

You can change the background color (cloth color).

When you click on the [Change of background color] button, the window of change of background color appears.
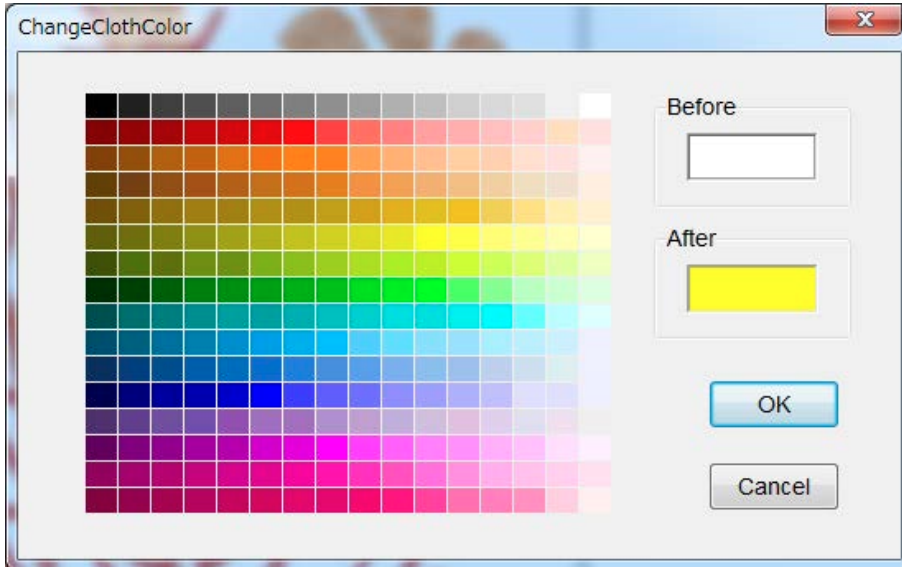
The color you set will remain unchanged until you change the background color.

The current background color is shown in the window marked [Before]. When you click on the color pallet, a new color appears in the window marked [After]. When you click on [OK], the background color changes.

View Jump

View every jump in the design.

When you wish to remove the jumps from the display, please click on it again.

Stitch point

Indicate stitch points by placing dots in each one.

If the pattern color is black, the dot will be yellow.

In a large pattern, the dot size might be small.

You can change the dot size with the next icon "Changing size of stitch point".

Changing size of stitch point

If the needle drop point display button has been pressed, when you click on this button, the needle drop point is displayed larger. To return it to its previous size, click on it again.
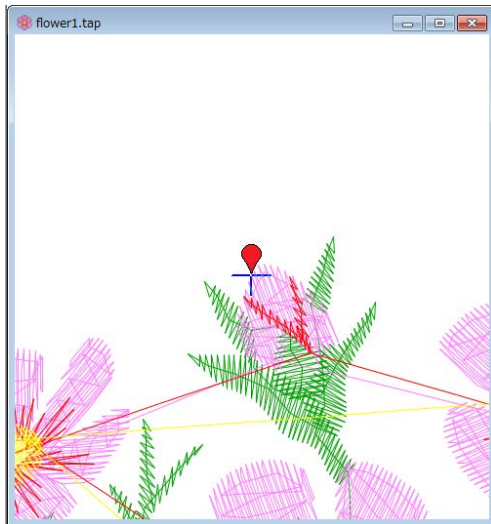
🔍🔍 Zoom-in, out

When you click on this button, the pattern in the display will be enlarged or reduced. A marker will indicate the center.

Please note that the mouse wheel performs the same function as above button.

(This function only affects the view, not your design.)
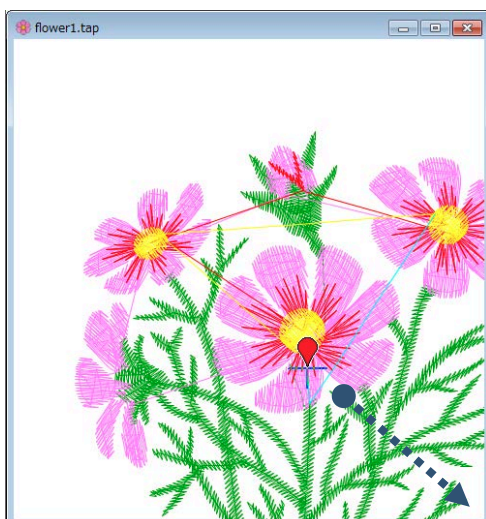

🌸 View the selected block by color

You can use this button if you have clicked on [Simple Edit]. Refer to [View the selected block by color] in [Simple Edit].

Viewpoint

Changes view of the design.

You can also move the viewpoint by dragging the mouse.

Simple editing

The program offers some basic editing functions such as moving a stitch, change a stitch function, changing the design size and searching for a stitch point. You can save this simple edited data.
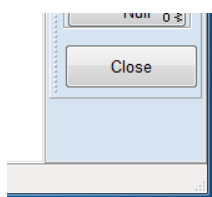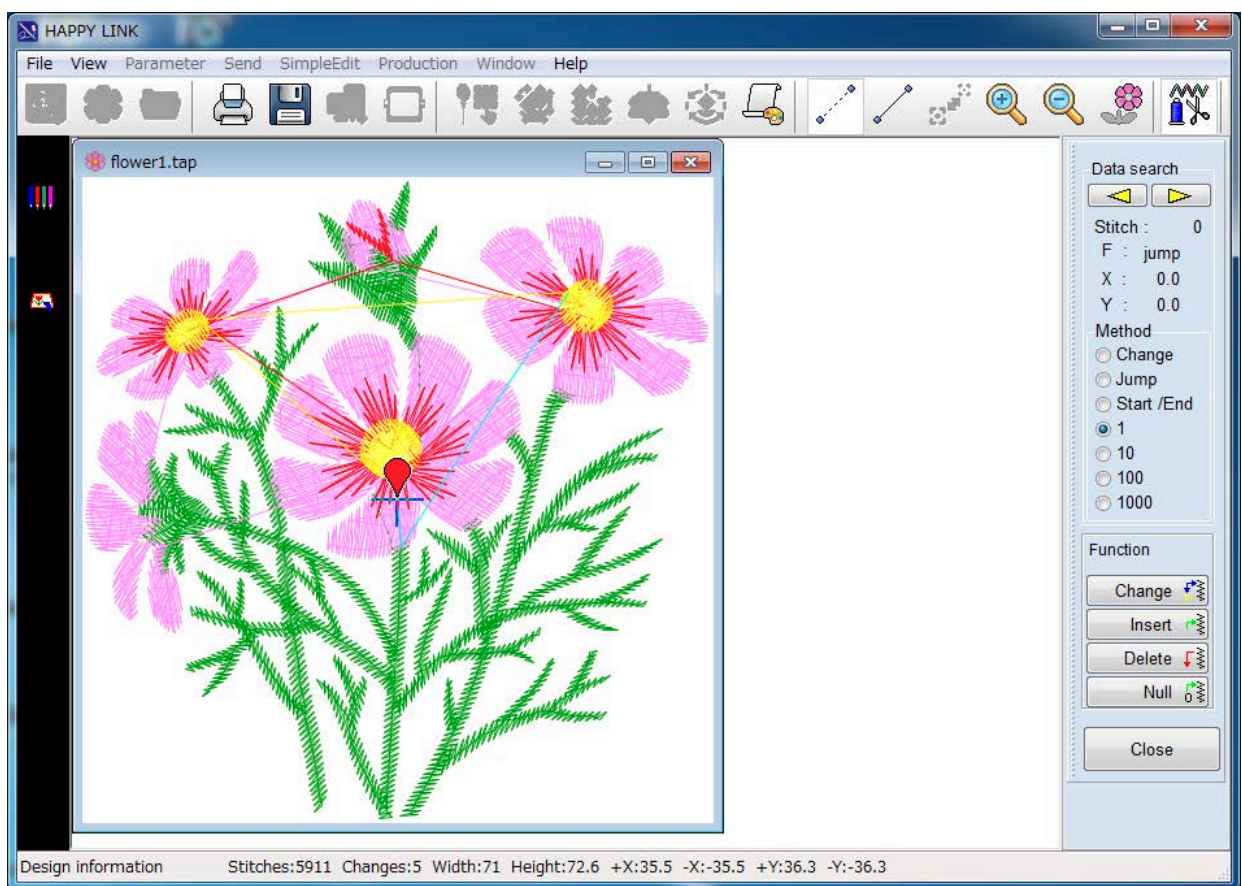
Note:

> **Please back up the data before the simple editing so as not to lose its original data.**
> **You can save it with the same file name on the original data after the simple editing.**
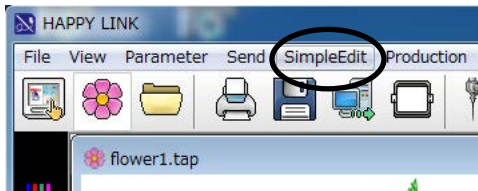
Click on "Simple edit" on the menu to open the Editing menu
You can only click on Simple edit in the Data send Mode. (A design must be open to view this menu)

 Click on this "Close" button and it will return to the "Data sending mode".

When you click on [Close] if you edited the file, the following message is displayed.
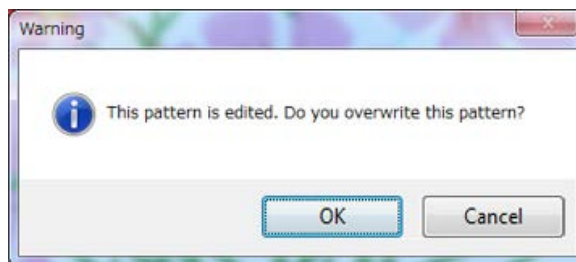
(This pattern is edited. Do you want to overwrite this pattern?)
When you click on [Yes], the contents of the design are replaced with the edited information.
When you click on [No], the edits are forgotten.

"Simple edit" has the functions below.

1. Data search

Move to the stitch you want to edit and have the stitches (the number of stitches) and data displayed.

2. Search Method

Select the method to search stitch data.

3. Function

Allows you to add, erase, or move selected stitches. The design data itself will be changed here. Please backup the original data before the simple edit.

Change stitch setting:
You can change the present stitch to a color change, jump, end, or a normal stitch.

Insert stitch:
You can insert a color change, jump, end, or a normal stitch in front of the present stitch position.

Delete:
You can delete the present stitch.

Null stitch (zero data):
You can insert a Zero stitch.

4. View the selected block by color

With this button pressed, you will get only the color block at the position of the current stitch displayed. (Usable only in editing).

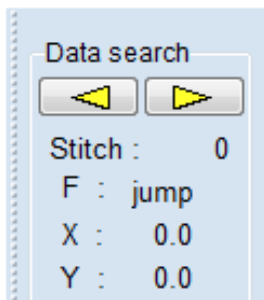## 5. Cancellation of edited contents (Edit revert)

You can cancel the [Simple Edit]. The design data and the settings of [Needle selection] return to the condition before you began.

Note:
If you are closing the pattern, the editing will be finished.
If you are finishing the editing without saving the data, you will be asked whether you want to save the data or not.

Data Search

Please move to the stitch you want to edit and have the stitches (the number of stitches) data in editing displayed. It also indicates the position of the stitches with a marker (shaped cursor).

The edit screen

Stitch

Showing stitch number as selected

F

Showing function of selected stitch

X

Showing X movement data

Y

Showing Y movement data

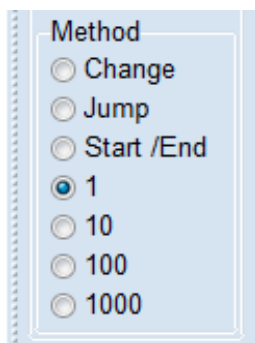**[Forward search] Key**

Scroll forward through stitch points.

[Backward search] Key

Scroll back through stitch points.

The method of searching can be selected from [Search Method].

Search Method

Please select how to select stitch (number of stitches) data from the following.

[Color change] search

This option will search forward or back color by color

If the pattern has a color change function, you can change the needle in embroidery.

[Jump] search

This option will search from one jump stitch function to the next.

Jump function will skip stitching without sewing.

[End Point] search

This option will take the cursor to the start point or end point.

[Move 1]

This option will search forward and back 1 stitch at a time.

[Move 10]

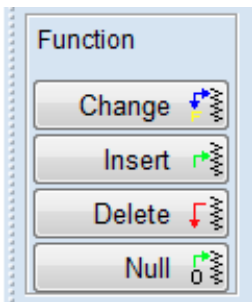This option will search forward and back 10 stitches at a time.

[Move 100]

This option will search forward and back 100 stitches at a time.

[Move 1000]

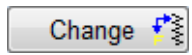This option will search forward and back 1000 stitches at a time.

Function

The Simple edit menu can add, erase, move a stitch and change a function.

Note:

> If you name this setting with the same name as the original file, it will replace the original file. Please backup the original data before editing.

 [Change] key

> Click on this icon to open the stitch change menu. You can change stitch data and functions for selected stitches.

> When selecting a Jump function or Stitch, You need to input "X data", "Y data".
>
> When selecting (Color change) or (End) function, you do not have to enter stitch data.
>
> Clicking on [OK] will save changes.
>
> The pattern will be changed when you change the setting.

Insert [Insert] Key

Click on this icon to insert a stitch before selected stitch point, and then the stitch inseart menu will open.
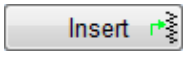

When selecting a Jump function or Stitch, You need to input "X data", and "Y data".

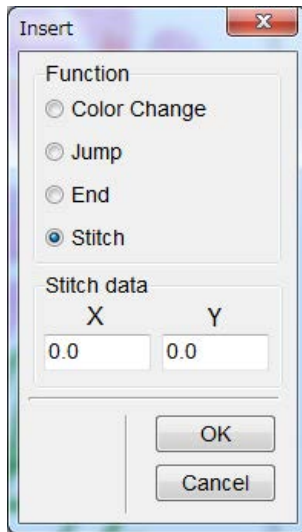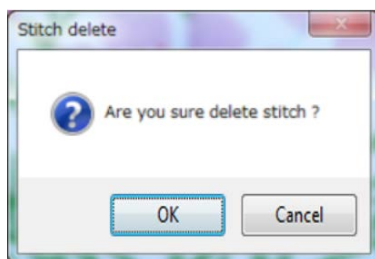When selecting (Color change) or (End) function, you do not have to enter stitch data.

Clicking on [OK] will accept changes.

The pattern will be changed when you insert the data.
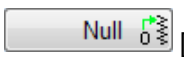
Delete [Delete] Key

Click on this icon to erase the selected stitch, and then a confirmation menu will open.

 (Are you sure erase stitch?)

Click on [Yes] to delete the stitch.

The pattern will be changed when you delete the data.

Null [Insert null stitch] Key

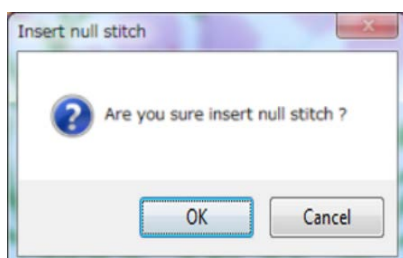Click on this icon to insert a null stitch (No X, or Y movement data) before the selected stitch and the confirmation menu will open.

 (Are you sure insert null stitch?)

Click on [Yes] to change design.

![flower icon] View the selected block by color

View the selected block by color (Usable only in simple editing)

Only the color block of the current stitches in [simple editing] is displayed.

Select [Change] in [Method]. The pattern displays only the color block at the position of the current when you search by [◁] [Forward search] or [▷][Back search], if this button is pushed,

(Example) the pattern of the figure 1 is shown by color blocks and is shown in the figure 2, and figure 3.

Figure 1 : Usual pattern display

Figure 2 : Display by color block (1)
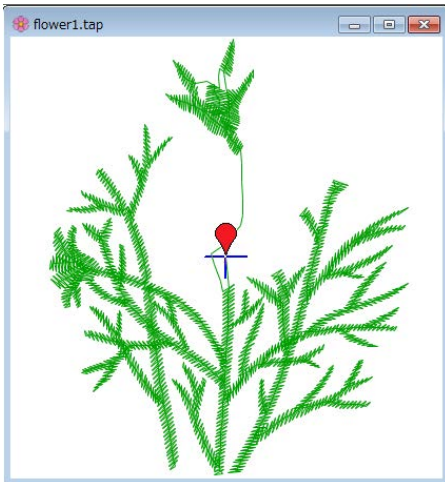
Figure 3 : Display by color block (2)
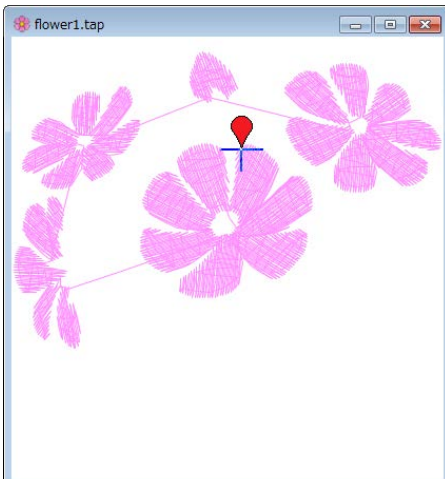
Cancel of edited contents (Edit revert)

You can cancel the [Simple Edit]. The design data and the setting of [Needle selection] return to the condition just before you changed them.

Note:

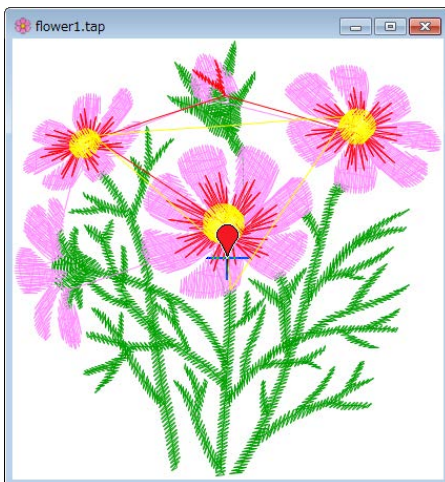If you saved the file you edited during the [Edit revert], you cannot use [Edit revert]. And, if you edit something, you can use this function again. In this case, the pattern data and the setting of [Needle selection] return to the condition of the last save.
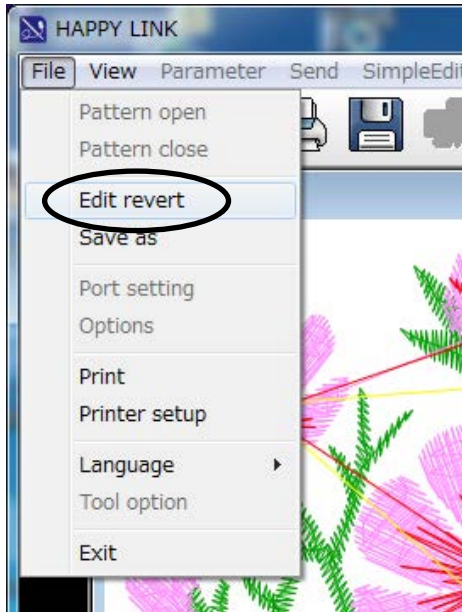
When you click on [File] – [Edit Revert] in the menu, the message [Lose all changes since your save?] is displayed.
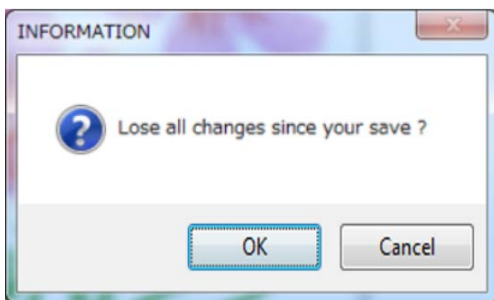
 (Lose all changes since your save?)

When you click on [Yes], the edited contents are canceled and the contents will return to those before editing.

 The indicator that indicated contents being edited goes off.

View the production data

(This function may not be used depending on Model.)

You can view, print out, and output the file of the production data that is collected if your machine has these features.

When you select [Production] in the menu, the production data dialogue is displayed.

Function of production data dialogue

Head: Head number of an embroidery machine. It shows each head number of the embroidery machine.

Production: Production capacity.

Thread break: Thread break frequency.

Per hour: Production capacity in an hour.

Per 8 hours: Production capacity in an eight hour shift.

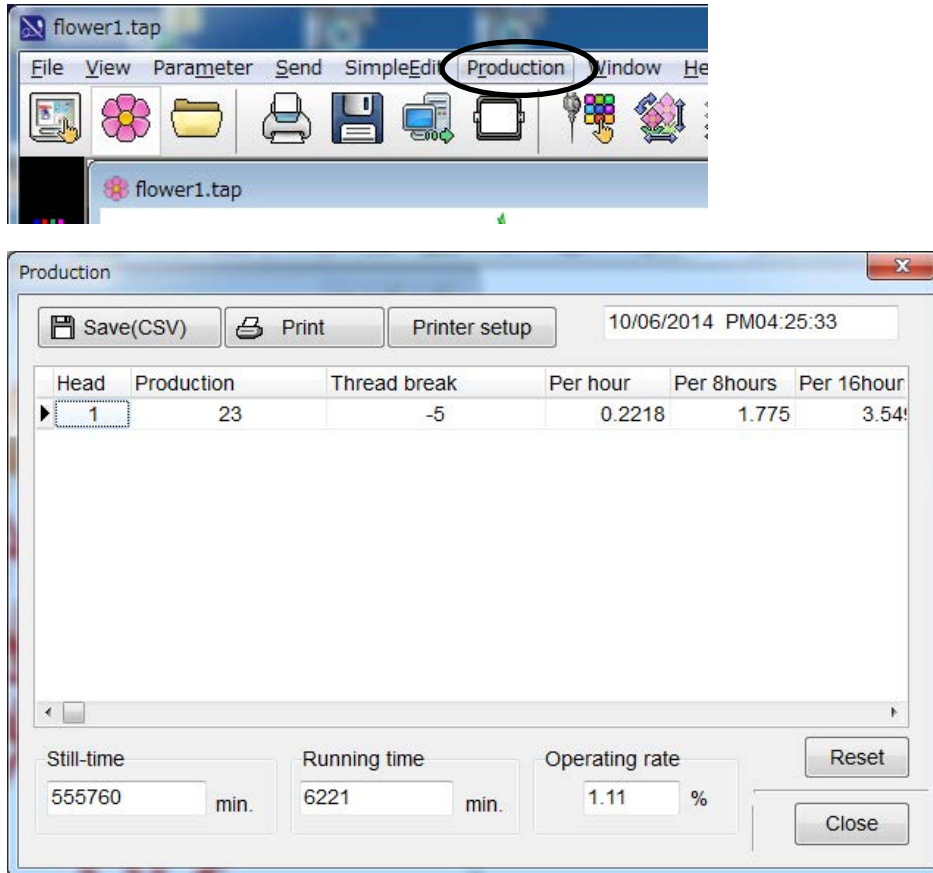**Per 16 hours:** Production capacity in a sixteen hour time frame.

Still-time: Interval. The time when the operation of the embroidery machine is stopped.

Running time: Operation hours. The time until operation stops after the start button of the embroidery machine is pushed and operation is begun.

Operating rate: The rate of operation.

Running time = Operating rate / total time

Total time is the time until the embroidery machine is turned off after it is turned on.

Total time = Running time + Still-time

Reset: Reset all data.

Save: Save the data in a CSV file.
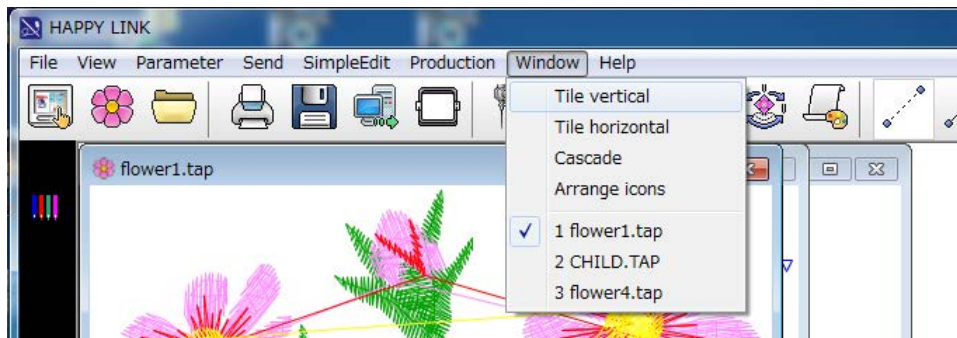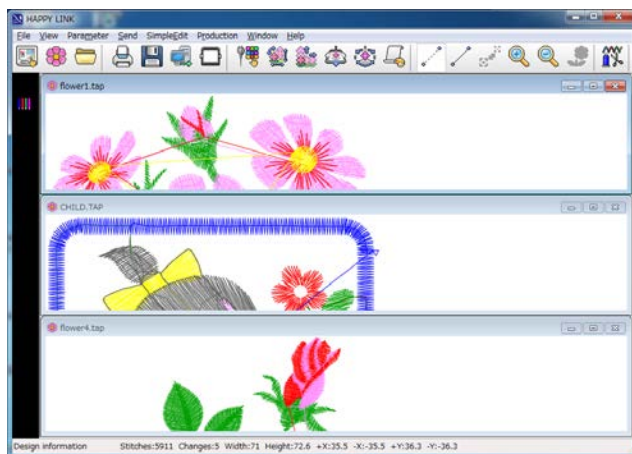
Print: Print out the data.

Printer setup: Setting up of printer.

Arrangement of files in window

Display arrangement can be changed in the "Window" of the menu bar after reading some pattern files.

[Tile vertical]

[Tile horizontal]

[Cascade] (arrangement like the cascade)
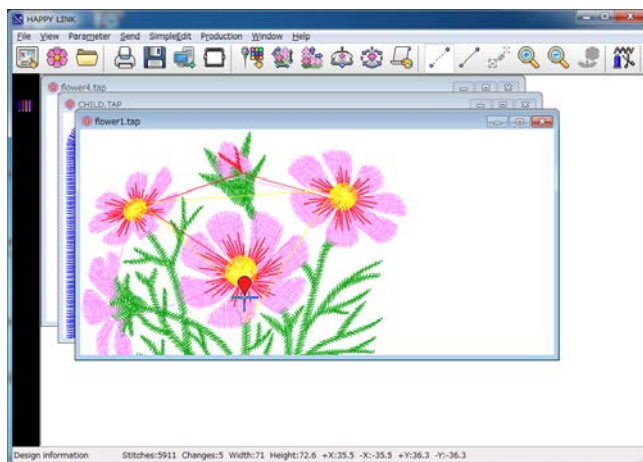
[Arrange icons] (The files are arranged when you minimize the pattern files and click on this.)
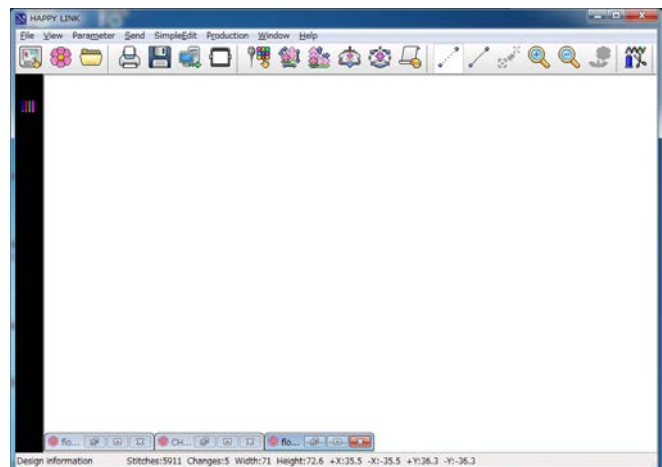
How to transfer design data stored on network computer

In order to transfer design data stored on network computer to embroidery machine, the following computer settings are required;

A) Register the folder which stores design data as "Shared Folder" on Design Host PC.
In order other computer (which transfers design data to embroidery machine) to access to the folder on network computer, the folder which stores design data should be registered as "Shared Folder".
B) Allocate "Shared Folder" to "Network Drive" on Machine Connection PC.
In order to access "Shared Folder" from a computer which is used for transfer design data to embroidery machine, "Shared Folder" should be allocated as "Network Drive" on a computer which has Happy-Link and Happy-LinkLAN software.
C) Select design data from "Network Drive" which is allocated by step B) and transfer to embroidery machine with usual process of Happy-Link and Happy LAN.
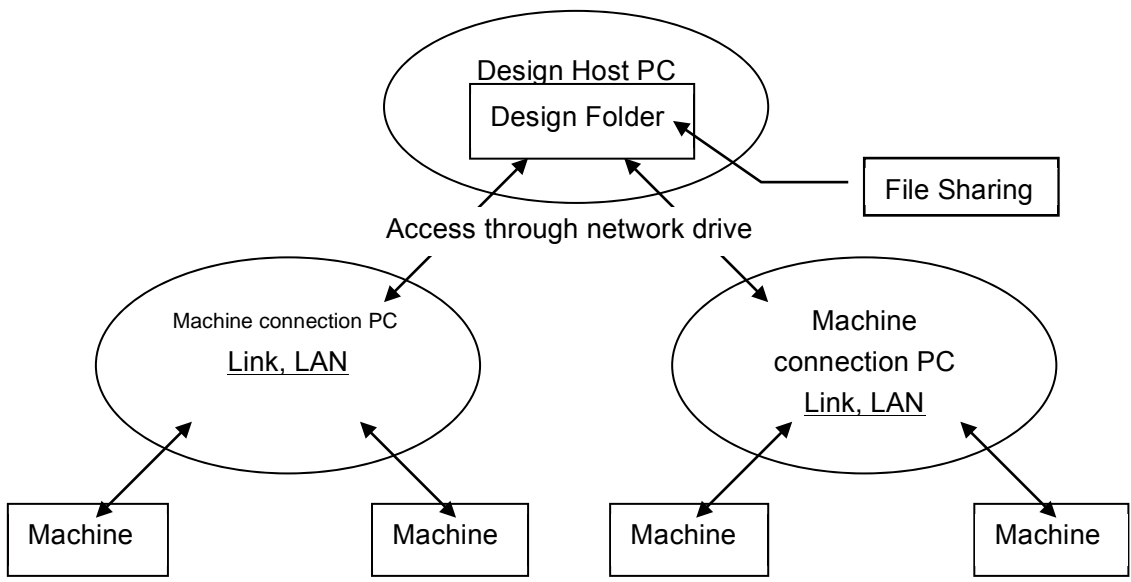
Image of connection

Setting example (Windows 7)

* Configuration details are varied by Windows type, please follow each Windows manual.

1. Setting of File Sharing

1-1)   Select "Computer" from Windows Start menu.

1-2)   Move the cursor to the folder to be registered as "Shored Folder", and right click..

1-3)   Select "Share with".

1-4)   Then select "Specific people...".
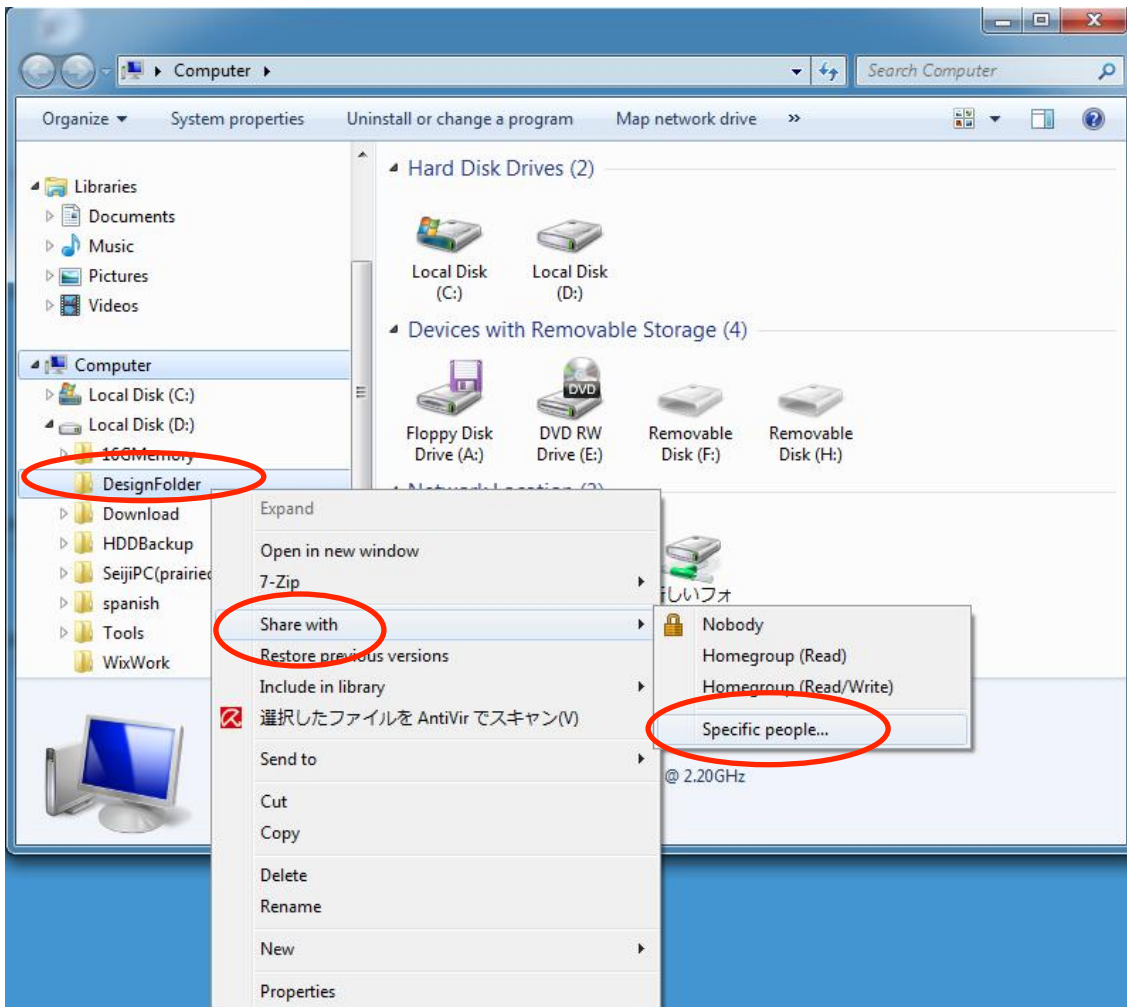
1-5)   Choose "Everyone" and click Add button.
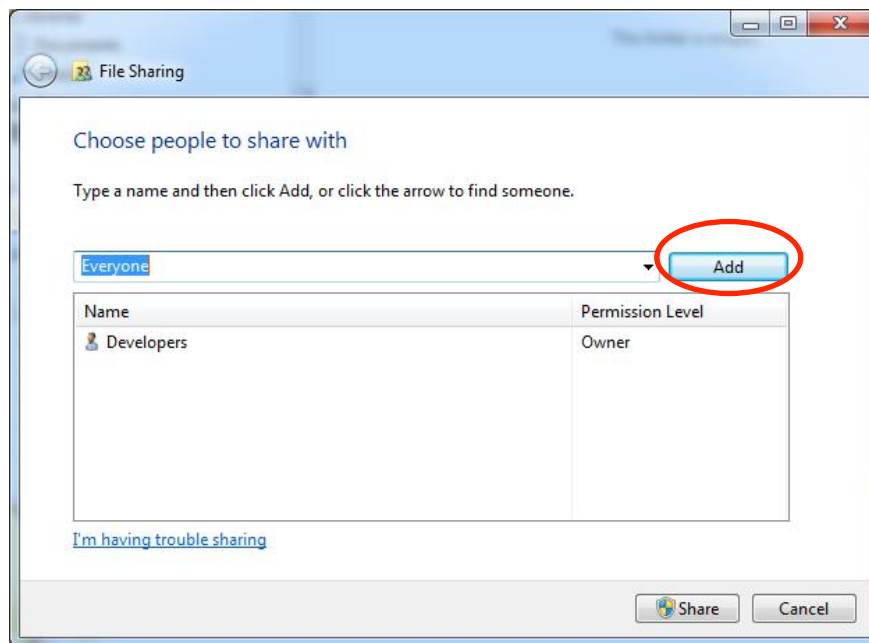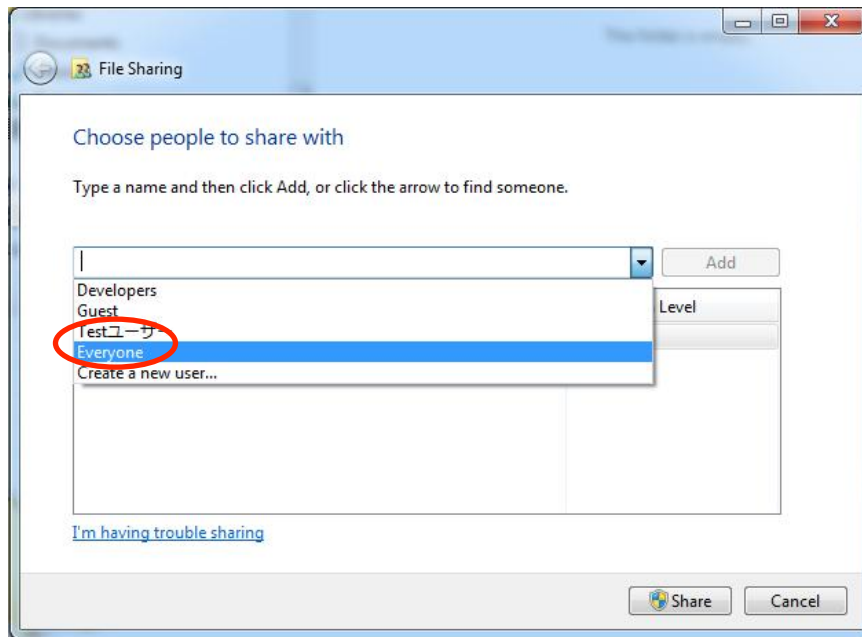
1-6)   Set Permission Level of "Everyone" to "Read/Write".

1-7)   Then click Share button.
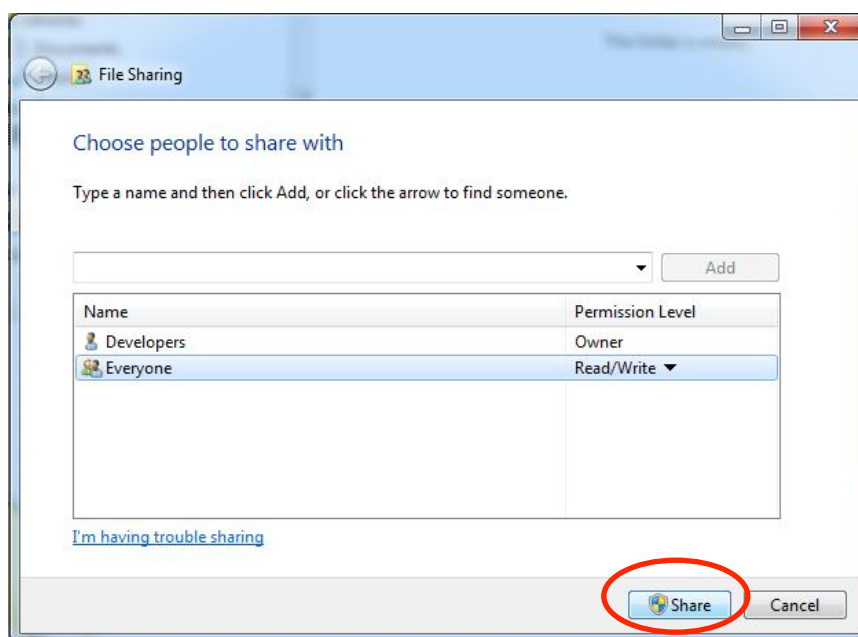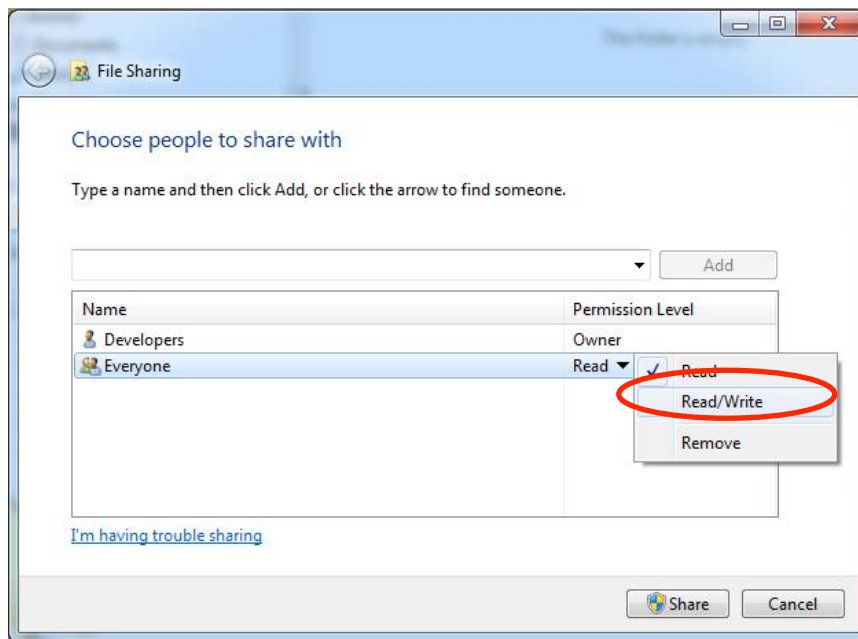
2. Setting of Network Drive

2-1)   Move the cursor to "Computer" from Windows Start menu and right click. Then select "Map network drive...".
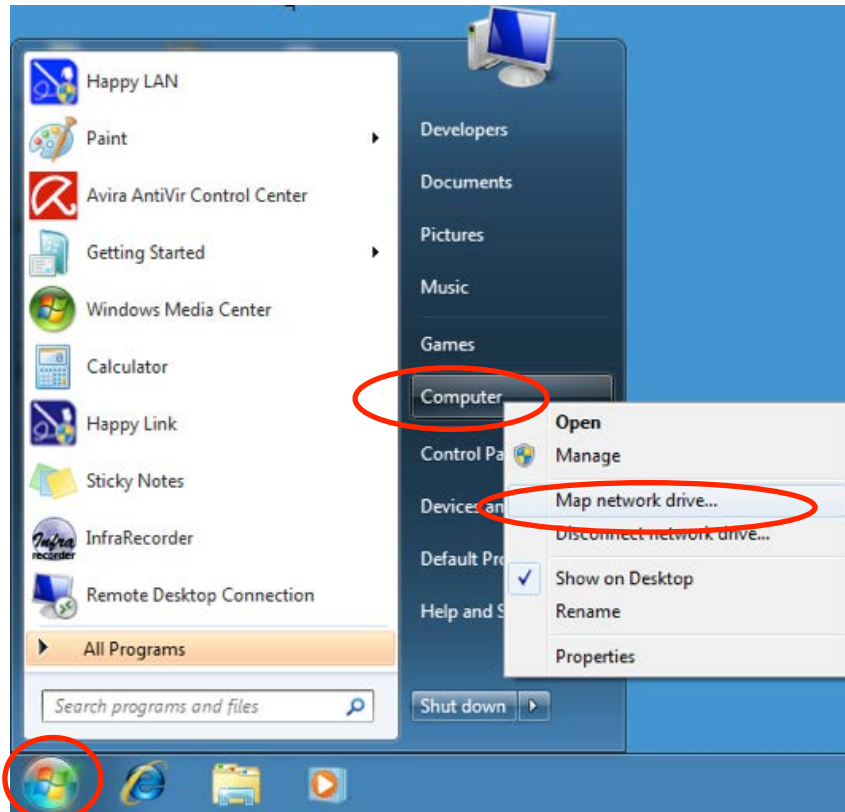
2-2)   Select drive (alphabet).
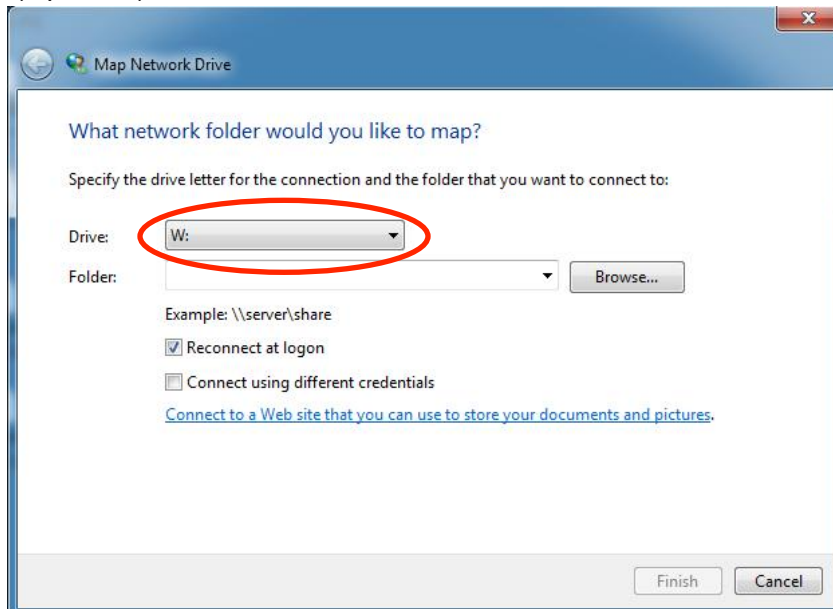
2-3)   Click "Browse..." button and select folder which stores design data.
       Then click OK button.
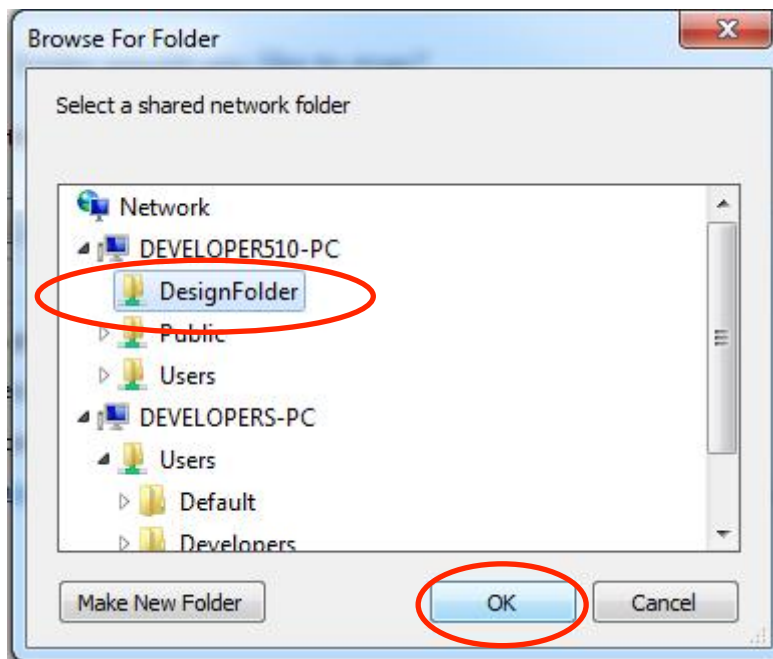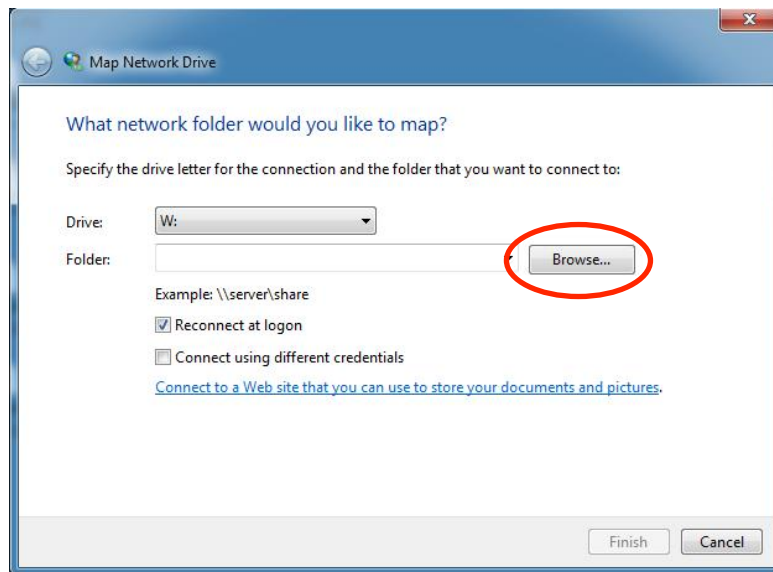
2-4) Then click Finish button for completing Network Drive Setting.
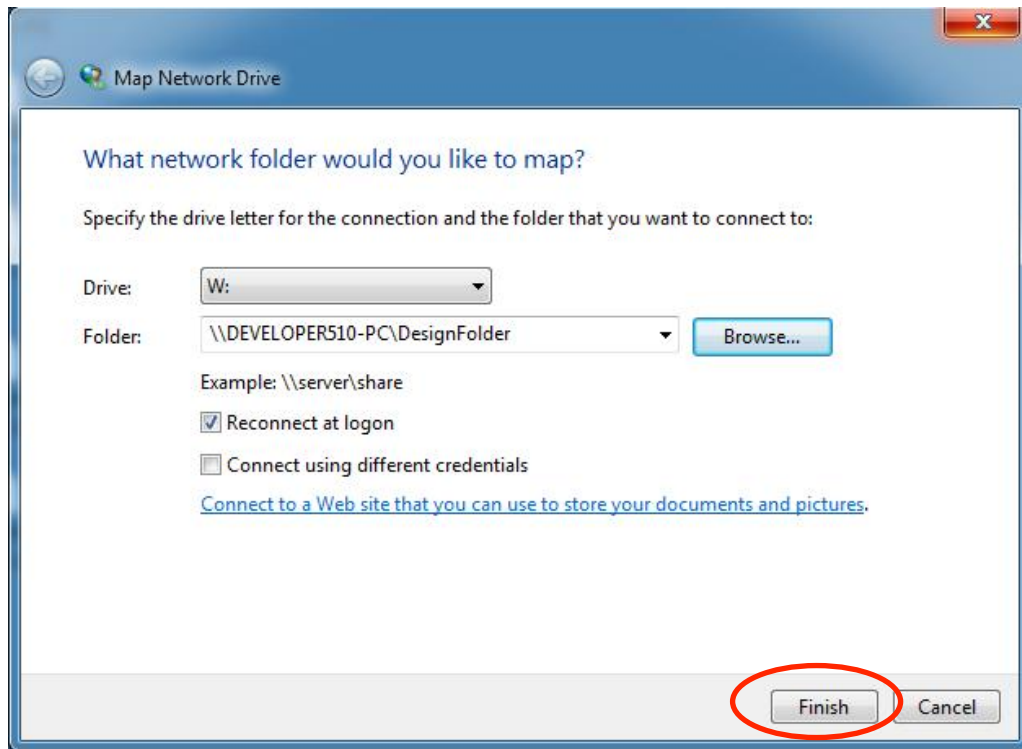
3. Transfer design data from network drive

On screen of design selection of Happy-Link or Happy-LAN, select network drive. Then select design data and transfer design data to embroidery machine as usual operation.

Please refer to manual of Happy-link and Happy-LAN for transfer design data to embroidery machine.

The followings are screens for network drive selection of Happy-link and Happy-LAN.
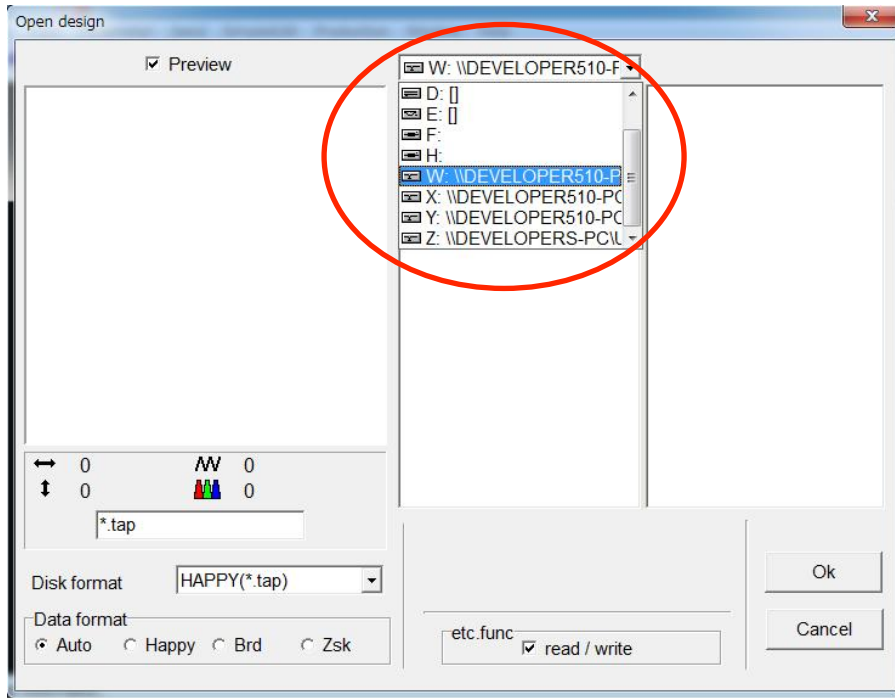
Design data selection screen of Happy-Link
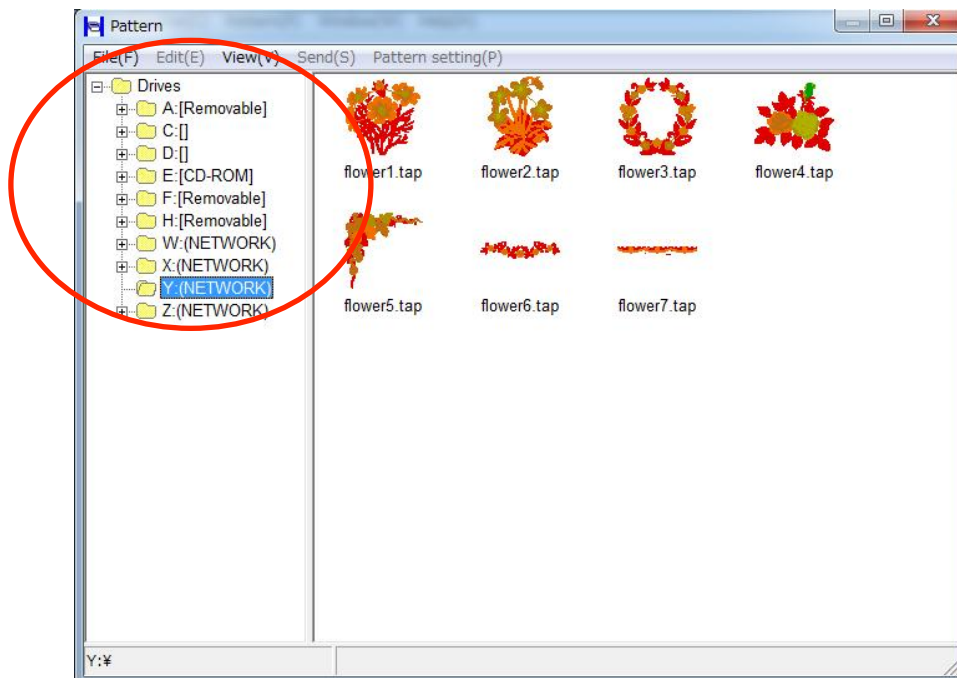
Design data selection screen of Happy-LAN

Trouble shooting Q/A

1."Operation Mode" field

Q1: You have a "Communication has been interrupted!", "A connection is cut off.", "Machine is busy.", or, "Machine is not ready." Message.

A1: Incorrect cable connection.

Please double-check the serial cable connection between the machine and PC.

A2: Are you using the proper cable?

Please use a "RS232C Crossover Cable".

A3: Is the "Port setting" correct on the PC?

Click on "Port setting" in the "File" on the menu bar. Set "Port No." in PC that you connect the serial cable to. Adjust the "Baud rate" to the communication speed of the embroidery machine.

A4: You don't set the embroidery machine to the [drive mode] after having turned the machine on.

Set the embroidery machine to the [drive mode].

Note:

About the [drive mode], refer to the Instruction manual of the embroidery machine.

A5: Connection check box in "Port setting" has been ticked. (Only HAPPYLink Ver.A1.04)

Take off the tick from the box.

Q2: "USB is not ready" is displayed.

The USB cable is to use the cable of the USB2.0 standard(within 5m).

A1: You did not connect the embroidery machine to the PC with a USB cable.

Please connect the embroidery machine to the PC with a USB cable before you activate the HappyLink. Refer to the [Preparation] of the [Basic knowledge and operation] about connecting the cable.

A2: USB driver is not recognized.

After doing the following 5 items, please restart the software again.

[a] Turn the embroidery machine off.

[b] Close the HappyLInk program.

[c] Remove the USB cable from the personal computer.

[d] Turn the embroidery machine on and set the embroidery machine to the [drive mode] (which is the mode you can start sewing).

[e] Connect the embroidery machine and the PC with the USB cable again.

Note:

If the [Add New Hardware Wizard] began, please install it in accordance with the driver installation. Refer to [Installing USB driver].

About the [drive mode], refer to the Instruction manual of the embroidery machine.

A3: USB driver is not installed.

Please check whether the driver has been installed.

How to check:

With the embroidery machine and PC connected with a USB cable

Please click on in order: [Start] - [Setting] - [control Panel] in Windows. Then open [System] and choose [Device Manager].

If "Happy Embroidery Machine" is displayed in the column under the Universal serial controller, the driver is installed.

1. When the driver is not installed.
    Please install it in accordance with the [Installing USB driver].

2. There is a device marked [Unknown…], or, there is a [!] mark (or red X mark) at the top of the device of [HAPPY Embroidery Machine].
    After you do the following 5 items, please check again whether the driver has been installed.
    [a] Turn the embroidery machine off.
    [b] Close the HappyLInk program.
    [c] Remove the USB cable from the personal computer.
    [d] Turn the embroidery machine on and put the embroidery machine into [drive mode] (which is the mode you can start sewing).
    [e] Connect the embroidery machine and the PC with the USB cable again.
Note:
    If the [Add New Hardware Wizard] began, please install it in accordance with driver installation. Please refer to [Installing USB driver].
    About the [drive mode], refer to the Instruction manual of the embroidery machine.

Q3: Cannot open "Operation mode".

A1: You select the machine type "Incompatible with HAPPY Link" in the "Mode setting" menu.
    If you have a compatible machine, change the setting to "Compatible with HAPPY Link" in "mode setting" menu then restart the "HAPPY Link" program.

A2: There is no pattern data in the embroidery machine. In this case, when you click on the Operation mode button, two messages are indicated. ("Pattern is not found." and "It could not get data. Please try again."). In addition, the [Operation mode] is not started.
    Please try again after transmitting a pattern to the embroidery machine in the [Data send mode].

2."Data send mode" field

Q1: You cannot read design data from data disk.
A1: This software only reads Happy format (.TAP) and DST format (.DST,.DSB,.DSZ). So you cannot read design data in other formats.

Q2: The embroidery machine emits beep sound.
A1: This sound is created when data is transmitted and transmission ends.

A2: This sound comes out when you click on a menu or tool button.

Q3: Pattern data is not transmitted.
A1: Baud rate of the machine and personal computer is not properly set.
Please set port settings properly. Then, try again.

Q4: The needle bar selection is not transmitted to the embroidery machine.
A1: There is no [Happy original setting file].
To check [read/write in etc.func] so that a [Happy original setting file] is created. After that, please set the [needle selection] to make the [Happy original setting file].

A2: You haven't checked [read/write in etc.func] for various settings
Please check [read/write in etc.func] for various settings

Q5: You have a "Communication has been interrupted!", "A connection is cut off.", "Machine is busy.", or, "Machine is not ready." Message.
A1: Refer to the "Operation mode field".

Q6: "USB is not ready." Message.
A1: A USB cable is not connected.
Please connect your HAPPY embroidery machine and your PC with a USB cable.
The USB cable is to use the cable of the USB2.0 standard(within 5m).

Glossary

Back up

    This is to store copied data in another location

Baud rate

    This is the RS232C communication speed.

Borer

    This device cuts a hole in the cloth.

CD-ROM drive

    This is a drive to read CD's.

Click

    This is to operate the left mouse button by pressing and releasing it.

Close

    This is to close a window or dialogue.

Common file

    This is a file to be used for other software.

COM port

    This is a serial port to connect the RS-232C cable with personal computer.

Communication speed

    This is speed for transferring data by RS232C and shown in bps. (baud rate)

Color block

    This is an area divided by color in a pattern.

Control panel

    This is a folder to conduct various settings of Windows.

CPU

    CPU: This is abbreviation for Central Processing Unit.

Cross cable

    This is a cable used when connecting a RS232C device.

Data format

    This is the means of storage of data in the pattern file.

Data send mode

This is one of two different sorts of basic modes in HappyLink. This enables you to read patterns, select the order of needle bars and transmit such data to the embroidery machine. (The other mode is operation mode)

Decompression

This is to return a compressed file to its previous size.

Desk top

This is a window with icons on display shown when activating Windows.

Dialogue

This is a box to input parameters and is displayed when selecting menu bar selections and tool buttons.

Directory

This is the concept of an area that holds files, or the base of a stratified structure in the disk. Same as folder

Disc format

This is expanded style of the pattern file.

Double-click

This is to make fast click twice in a row.

Drag

This is to move mouse with the mouse button depressed.

Drag & drop

This is to release the mouse button after dragging something to a new location.

Drive

This is a supplementary device for storing files.

Drive mode

This is the mode you can start sewing in the embroidery machine. Refer to the Instruction manual of the embroidery machine.

Driver

This is a program to control devices connected to a personal computer. (Device driver)

EIA

Abbreviation of American Electronic Industries Alliance

Explorer

This is the name of a window to list files and folders.

Export

This is to convert data to use file with other software and save it.

Floppy disk

Type of media to record data magnetically

Folder

This is a general name for a place to save files.

Font

The style of characters.

Form

This is the entire menu to be displayed after activation of software.

Happy original setting file

This is to save various settings (needle bar etc.) of patterns in Happy format.

Hard disk

This is a fixed disk of a personal computer used for primary storage.

Icon

This is a button to activate software as illustrated on the desktop in a simple drawing.

Indicator

This is a device to display the function in operation.

Location of installation

This is a place (folder) to store the program files of the software.

Maximization of window

This is to maximize a form on the entire computer screen.

Memory

This is storage space in a personal computer.

Menu bar

This is on the upper part of the window, where functions are listed by name.
Part of [File], [Editing], etc.

Needle bar selection

This machine is designed for multiple needle sewing. You will be able to pick any colored threads you desire for a pattern. Therefore, you will be able to allocate colors you desire to any area of the pattern and sew it automatically.

Generally, a pattern consists of a group of blocks of several colors, and you can designate any colored thread (needle bar number) for these color blocks in advance.

This designation is [Needle Bar Selection].

Number box
> This is a dialogue box to input numbers.

Open
> This is to open a form or dialogue box.

Operation mode
> This is one of two different sorts of basic modes in HappyLink. You can operate settings in the embroidery machine by using a personal computer. (The other mode is Data send mode.)

OS
> This is software to control of the computer. (Operating System)

PC
> This is the abbreviation for personal computer.

Port No
> This is the number for the connector to connect a personal computer and a peripheral device.

Rename
> To change the name of the pattern file

RS232C
> This is a standard used as communication and is used for transferring data between a personal computer and a peripheral device (embroidery machine).
> Personal computers have port numbers such as COM1, COM2.

Scroll bar
> When you can't see all of a window entirely, please drag this bar to move the internal position for display.

Serial cable
> This is a RS232C cable to communicate with the embroidery machine.

Serial communication
> This is communication method to transfer or receive data by RS232C cable.

Serial port
> This is connector to use when making RS232C connection.

Serial port No
> This is serial port number for COM1 or COM2 etc.

Set up
> This is to install software.

Slide bar

When you change a parameter number in a dialogue box, you can drag a slide bar by using a mouse.

Software

This is same as program.

Tool button

This starts part of the software and is illustrated by a button.

Uninstall

This is to remove software installed in personal computer.

USB

This is standard for interface to connect personal computer and some peripheral devices.

Window

This is square area divided on the form.

Wizard

This is to display a process that users answer questions in order to set up a particular situation within the program.

HappyJapan Inc.

HEAD OFFICE   3-3515, Tachiyagawa, Yamagata-city, 990-2251, Japan
Phone: +81-23-686-2272   Fax: +81-23-686-2243

TOKYO OFFICE   2-9-5, Taito, Taito-Ku, Tokyo 110-0016, Japan
Phone: +81-3-3834-0711   Fax: +81-3-3835-8917