



Digitizer EXjr

Digitizer EXjr V4

INSTRUCTION BOOK

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Chapter 1

SYSTEM SETUP

This chapter covers steps necessary to set up a new Digitizer EXjr system on your PC. You will also need to connect peripheral devices for use with Digitizer EXjr including, of course, your embroidery machine. Different devices are set up in different ways – some in Windows, via the Control Panel, others within Digitizer EXjr itself. For instructions on connecting devices to your computer and setting up in Windows, see the documentation for the device as well as your Microsoft Windows documentation.



Installation checklist

Use the following as a checklist of all necessary steps to follow when installing and configuring your new Digitizer EXjr.

❑ **Step 1:** Make sure your system meets the minimum requirements. See [System requirements for Digitizer EXjr](#) for details.

❑ **Step 2:** When installing Digitizer EXjr, read through **all** necessary installation steps carefully before getting started.

❑ **Step 3:** When the installation is complete, you will be prompted to restart your computer.

❑ **Step 4:** Attach your security dongle **only** when prompted. If you have an existing version of the software and have been provided with a new 'upgrade dongle', attach your old dongle as well. See [System security](#) for details.

❑ **Step 5:** Connect your machine to the PC. See [Supported machine models and memory cards](#) for details.

❑ **Step 6:** If you are a new user, read carefully through the introductory chapters in the Onscreen Manual provided with your Digitizer EXjr installation pack.

❑ **Step 7:** Both new and existing users should read through the onscreen Release Notes for an understanding of new and improved features in this software release. You can access the onscreen Release Notes through the Help menu of your Digitizer EXjr installation.

System requirements for Digitizer EXjr

To install Digitizer EXjr on your computer, it must meet the following system requirements:

Component	Recommended
CPU	2 GHz + Latest Intel or AMD 32-bit (x86) or 64-bit (x64) multicore processor
Operating System	Microsoft® Windows® 7 with latest service packs installed (32-bit or 64-bit editions)
Internet Browser	† I.E. 8.0 or higher
Memory (RAM)	2 GB (more if running multiple applications)
Hard Drive	80 GB or higher
Free Disk Space	At least 20GB after installation
Monitor	Dual monitors capable of displaying 1280 X 1024 or higher
Graphics Card	Support for DirectX 9 graphics with: <ul style="list-style-type: none">• WDDM driver• 512MB or higher of graphics memory (non-integrated)• Pixel Shader 2.0 in hardware• 32 bits per pixel• Dual monitor capable
Data drives	<ul style="list-style-type: none">• DVD-ROM drive for software installation• Dual layer DVD-ROM for Extras DVD
Scanner, Printer, Plotter Connection	Windows-compatible (any connection method – e.g. parallel, USB)
USB port	Dedicated USB port for a USB dongle
Mouse	PS/2 or USB

† Internet connection required by certain parts of the system as well as for access to product information and online support.



Warning You need to log on with Administrator level rights in order to install the software.

Adobe Acrobat Reader

In addition to Digitizer EXjr, you will require a recent version of Adobe Acrobat Reader. If not already installed on your system, this can be downloaded from the [Adobe website](#).

System security

Digitizer EXjr is controlled by a security device or 'dongle' attached to the computer. The software

will **not** work properly if the dongle is unplugged from the computer while Digitizer EXjr is open. In this event, the application may hang or crash and any open files may be corrupted.



Digitizer EXjr Full Kit is shipped with a USB security dongle. Each dongle has a unique serial number and identity code so your system can be uniquely recognized. The security device plugs into a USB port on your computer. If your computer does not have a USB port, you will need to install a USB card. Parallel port dongles are not supported.



Warning The dongle is the most important and valuable part of your system and should be treated with care. Always store it in a safe place when not in use. The dongle is guaranteed against defects in material and workmanship – under normal use and service when properly installed – for a period of 90 days from the date of delivery. If it is faulty, it may be exchanged. If it is physically damaged, return it to your distributor and a replacement can be purchased. However, in case of loss or theft, you will need to purchase an entire Digitizer EXjr replacement system. For this reason, you should consider insuring your dongle.

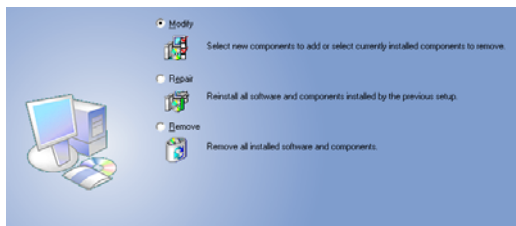
Modifying an existing Digitizer EXjr installation

Whether you are updating your **current** Digitizer EXjr or wanting to uninstall it, you follow the same procedure. When you run the installation program again, it will automatically detect if there is an existing copy of Digitizer EXjr on your system

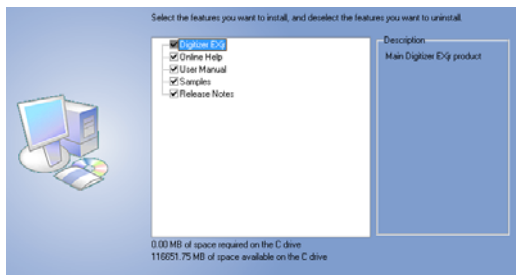
and give you to option to modify, repair or remove it.

To modify an existing Digitizer EXjr installation

- 1 Close all programs but leave MS Windows® running.
- 2 Insert the Digitizer EXjr Installation CD-ROM.
If Digitizer EXjr is already installed on the computer, the following Welcome screen will appear.



- 3 Choose the option you require – Modify, Repair, Remove – and click **Next**.
If you choose to modify or repair your current installation, the **Select Features** screen will appear.



- 4 Select the components to install or remove:

Component	Description
Digitizer EXjr	Main Digitizer EXjr product.
Online Help	Context-sensitive help – to invoke, use the F1 function key or click Help in the dialog boxes.
Onscreen Manual	An electronic Onscreen Manual – accessible via the Help menu.

Component	Description
Samples	Sample embroidery designs and images – installed to the Embroidery Album folder on your hard drive.
Release Notes	An electronic (onscreen) set of Release Notes – accessible via the Help menu.
Extra Languages	In the multilingual version, extra languages are available. If onscreen documents are available in the same language(s) you select here – e.g. French – these will be installed automatically. If documents are not available in your selected languages, English documents will be installed. After installation, you can switch between languages using the Switch Language utility in the Program folder.



Note Total available space is automatically detected and displayed. This updates automatically depending on items selected.

- 5 Click **Next**.
The **Ready to Install** screen appears.
- 6 Click **Install**.
Upon successful installation of the software and any additional MS Windows® files that need updating, the **Installation Complete** screen appears.

Connecting to your machine

Once you have successfully installed and tested your Digitizer EXjr, you can attach your machine to your computer. To connect supported machines to a PC, you need to use a USB cable connected to your PC USB port. See your machine manual for details on connecting to computer.

Supported machine models and memory cards

Digitizer EXjr gives you the option of sending designs directly to machine or to memory card. The option you choose depends, in part, on the machine you are using.



Note Before design files are sent to machine, they are automatically converted to JEF or JPX stitch file format.

Supported machine models

Digitizer EXjr is able to automatically detect which type of supported machine is currently connected to the PC USB port. Select one of the available machine model sets as desired. This becomes the default machine type until you change it. See also [Sending & writing designs](#).

Supported memory cards

Besides USB connection, you can write to an external media drive in a similar way as you would save to floppy disk. The ATA PC card is a PCMCIA standard PC memory card that is used for storing designs in JEF format to be read/written from/to machine. The ATA PC card is designated as a drive in your computer. The drive designation may become E: or F: or some other letter. After writing your design, you simply insert the card into the ATA PC card slot of your machine (if supported), and read the design.



Note If your computer is a laptop, there may be a slot where you can insert the ATA PC card and its adapter directly. If you have desktop computer, you may need an ATA PC card reader/writer connected to a USB port.

USB memory sticks

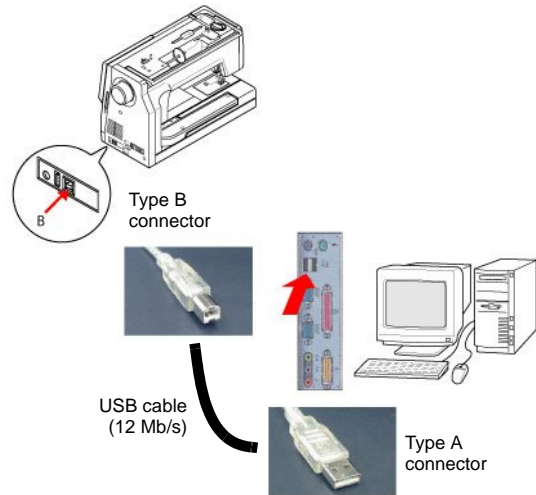
The latest machine models can read from and write to USB memory sticks. These are very convenient portable memory devices which can hold large amounts of data in a small 'stick'.

Linking your PC by USB cable

All the supported MS Windows® operating systems support the use of a USB cable to connect a supported machine directly to your PC, provided your PC has a USB port installed.

To link your PC by USB cable

- 1 Turn on your PC and sewing machine.
- 2 Connect the Type A connector to the PC and the Type B connector to the sewing machine.



Note Do not turn the PC or sewing machine off before setup is complete.

- 3 Install the USB driver for the sewing machine.



Note This setup procedure is only necessary on first usage. The cable can be disconnected with the power on or off.

Installing USB drivers for direct machine connection

USB drivers for direct machine connection are included on your Digitizer EXjr Installation CD. You need to install them when connecting your machine to PC. The Hardware Wizard automatically searches for the correct drivers and guides you through the process.



Note Acutools for eXpressive920 and EmbroideryEditor for eXpressive830 are not supported under Windows XP.

Installing drivers for Windows XP

If you are running Windows XP, use the following procedure to install the required USB drivers.

To install a USB driver for Windows XP

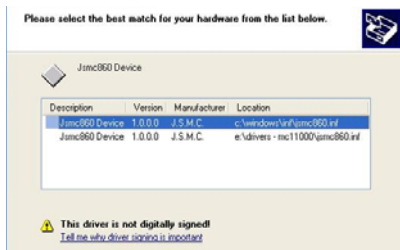
- 1 Connect your machine to the computer with the USB cable and turn on both.
The computer will search for new hardware and prompt you to install a device driver.



- 2 Select **No** to the MS Windows® Update and click **Next**.



- 3 Select the automatic installation options, insert your installation CD into the CD ROM drive, and click **Next**.
The installation will search for a suitable device driver and prompt you to choose if it finds more than one copy on your system.



Note The Jsmc860 device drivers are copied to the hard drive when the software is installed and don't actually require the installation CD. The multi-needle machine requires the installation CD while the wizard is running in order for the Jsmc860 device drivers to be installed.

- 4 Choose an option and click **Next** to start installing.

The following dialog appears when installation is complete.



- 5 Click **Finish** to close and restart your computer.

Installing drivers for MS Windows® Vista/7

If you are running MS Windows® Vista or 7, use the following procedure to install the USB drivers. The machine USB drivers for 64 bit operating systems are included on your Digitizer EXjr Installation CD. You need to install them when connecting your machine to PC.

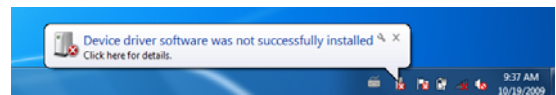


Note There are two drivers: 770 or JsmcMul Device (for multi-needle embroidery machine), and 860 or Jsmc860 Device. The dialogs below show the multi needle embroidery machine.

To install a USB driver for MS Windows® Vista/7

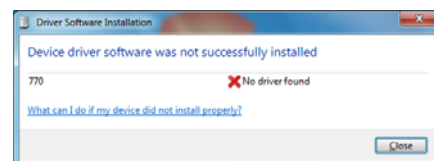
- 1 Connect your machine to the computer with the USB cable and turn on both.

The computer will detect the machine and **Windows Update** will search for a device driver. You will see the message below on the task bar.



Note This may take up to 10 minutes to display.

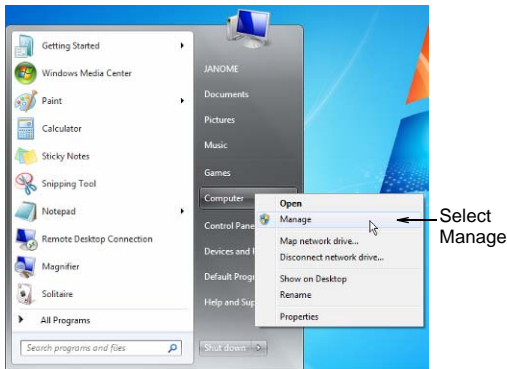
- 2 Click the message to display the following dialog.



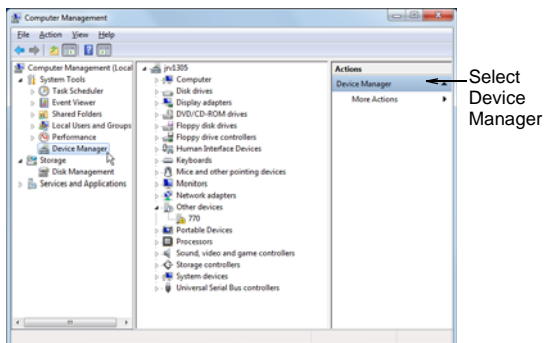


Note Do not be alarmed by this message – it is just part of the process. Just continue with the instructions below.

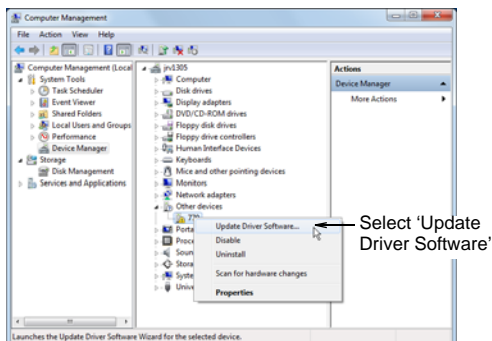
- 3 Click **Close**.
- 4 Click **Start**, right-click **Computer**, and select **Manage**.



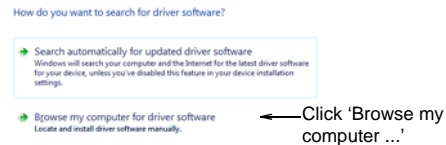
- 5 Select **Device Manager** in the left hand pane.



- 6 Under **Other Devices**, right click **770** and select **Update Driver Software**.



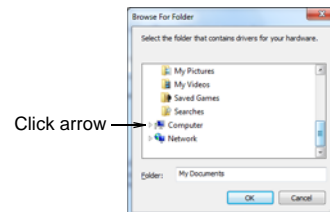
- 7 Click 'Browse my computer for driver software'.



- 8 Click the **Browse** button.



- 9 Select the arrow beside **Computer** and select the DVD/CD drive and insert the software disc if not already inserted.



Note For 32 bit operating systems you will have to browse to the specific 32 bit driver folder for your machine.

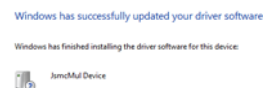
- 10 Click **OK** and then **Next**.



The **Windows Security** dialog is displayed when MS Windows® Vista/7 finds the drivers on the CD.

- 11 Click **Install**.

When successfully installed, the following dialog appears.



- 12 Click **Close**.

The driver installation is now complete and the machine can be accessed from within Digitizer EXjr. The machine can now be seen in Device Manager as JsmcMul Device or Jsmc860 Device.

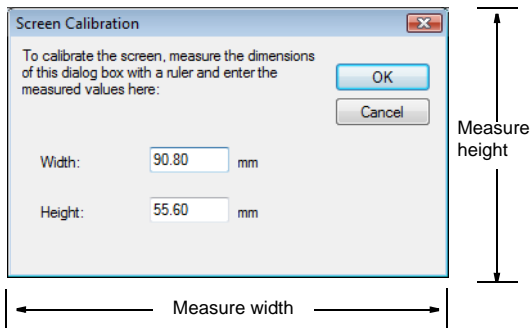
Calibrating the monitor

You need to calibrate your monitor so that designs at 1:1 scale appear at real size. Do this when you first install Digitizer EXjr or whenever you change your monitor.

To calibrate the monitor

- 1 Select **Setup > Screen Calibration**.

The **Screen Calibration** dialog opens.



- 2 Measure the height and width of the dialog box.
- 3 Enter the measurement in the **Width** and **Height** fields.
- 4 Click **OK** to confirm.

Part I

BASICS

Designs created in Digitizer EXjr are composed of 'embroidery objects'. They are called 'objects' because they are discrete entities which can be manipulated independently of each other. Each object has certain defining characteristics or 'details' such as color, size, position, and so on. The most important property of an embroidery object is its stitch type.

Basic procedures

This section describes how to start the software, how to open designs, start new ones and save designs. It covers the use of basic commands. It also explains how to turn on and off the grid and hoop and measure distances on-screen. See [Basic Procedures](#) for details.

Grids & hoops

This section describes how to display hoops and grids in Digitizer EXjr as well as how to change hoops. It also deals with hooping large designs. See [Grids & Hoops](#) for details.

Viewing designs

This section explains the design viewing modes available in Digitizer EXjr as well as the various design viewing settings. It describes how to view the stitching sequence in slow motion. It also deals with viewing and hiding images as well as accessing design information. See [Viewing Designs](#) for details.

Chapter 2

BASIC PROCEDURES

To start using Digitizer EXjr, you need to know a few basic procedures such as starting up, opening and creating designs, and saving. Others include showing and hiding the grid, displaying and using toolbars.

This section describes how to start the software, how to open designs, start new ones and save designs. It covers the use of basic commands. It also explains how to turn on and off the grid and hoop and measure distances on-screen.



Getting started

Digitizer EXjr can be launched from your Windows desktop or program group under the **Start** menu. Once started, you can open existing JAN files or create new files from scratch.

Starting Digitizer EXjr



Double-click to start Digitizer EXjr.

Digitizer EXjr is launched from your Windows desktop. Before you can start using the application, the security device or 'dongle' must be attached to your PC. See also [System security](#).



Warning If the security device is removed or loses connection while you are working in Digitizer EXjr, error messages will display. Cancel the messages, then exit Digitizer EXjr. You will lose any unsaved

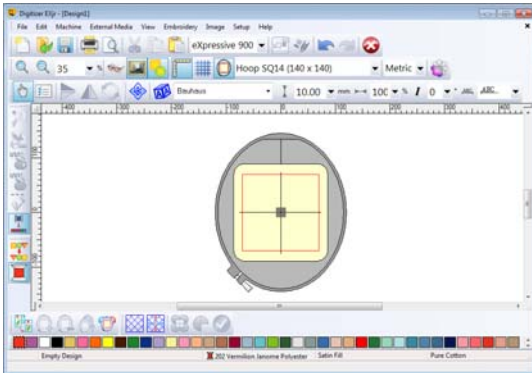
changes to your design. Re-attach the security device to your computer, making sure that it is firmly secured, then restart Digitizer EXjr.

To start Digitizer EXjr

- 1 Double-click the Digitizer EXjr shortcut icon on the Windows desktop.

Alternatively, select **Programs > Digitizer EXjr > Digitizer EXjr** from the **Start** menu.

Digitizer EXjr opens with a new, blank design.



- 2 Choose from a set of pre-defined fabrics as required. See [Changing fabrics & backgrounds](#) for details.
Digitizer EXjr provides a set of optimized fabric settings so that the software will take into account the type of fabric you are stitching on.
- 3 Customize the design window by showing or hiding the grid, changing the grid dimensions, and showing and hiding toolbars. See [Displaying hoops & grids](#) and [Showing or hiding toolbars](#) for details.

Opening designs



Use Standard > Open to open an existing design.

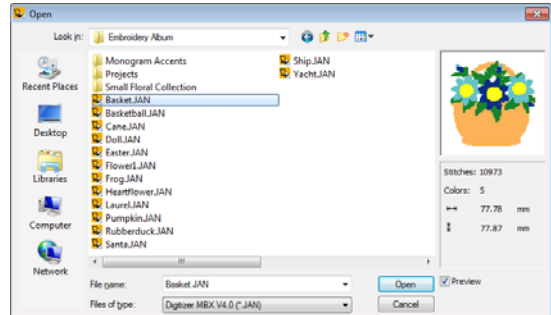
Digitizer EXjr opens JAN files. See [Embroidery design formats](#) for details.



Warning You cannot open files created with a later version of the software to the one you are running.

To open a design

- 1 Click the **Open** icon.
The **Open** dialog opens.



- 2 Select a folder from the **Look In** list.
- 3 If the design is not in JAN format, select a file type from the **Files of Type** list.
- 4 Select a design or designs.
 - ♦ To select a range of items, hold down **Shift** as you select.
 - ♦ To select multiple items, hold down **Ctrl** as you select.
- 5 Select the **Preview** checkbox to preview the design (for supported file formats) together with design data. This includes stitch and color numbers, design height and width.



Try this! For more information about a selected file, right-click in Windows Explorer and select **Properties** from the popup menu.

- 6 Click **Open**.

Creating new designs



Click Standard > New to start a new design with the NORMAL template.

When you start Digitizer EXjr, a new file is automatically created. By default, the blank design is based on the NORMAL template. Templates contain preset styles, defaults or objects, to make digitizing quicker and easier.



Try this! Whenever you create a new design, save it with a new name. See [Saving designs](#) for details.

To create new designs

- ♦ Click the **New** icon.
A blank design opens in the design window. See also [Digitizing with Artwork](#).

Using commands

Once you start Digitizer EXjr, you use commands or tools, and dialogs to complete your tasks. You select commands in the same way as other Windows applications – from menus, toolbars, or popup menus.



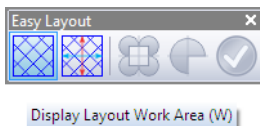
Try this! Keyboard shortcuts are also available for the most frequently used commands. See [Quick Reference](#) for details.

Selecting commands from toolbars

Toolbars provide quick and easy access to Digitizer EXjr commands. Some of these commands are also available from dropdown menus. Click a toolbar icon to activate a command. Digitizer EXjr provides 'flyout toolbars' from the **Digitize** toolbar in order to minimize crowding. Selecting a tool on the flyout toolbar causes it to become the active tool on the **Digitize** toolbar.

To select commands from toolbars

- Rest the pointer over a tool icon to see its name in a 'tooltip'.



- Click the icon to activate the command.

Showing or hiding toolbars

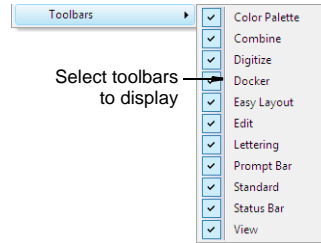
Toolbars provide quick and easy access to Digitizer EXjr commands. You can choose to show or hide them for convenience.



Try this! To increase your working area, hide unwanted toolbars and use the menu and keyboard commands instead. See [Quick Reference](#) for details.

To show or hide toolbars

- Select **View > Toolbars**.
The following toolbars are available to you in Digitizer EXjr.



- Select the toolbars you want to display.
- Deselect the toolbars you want to hide.



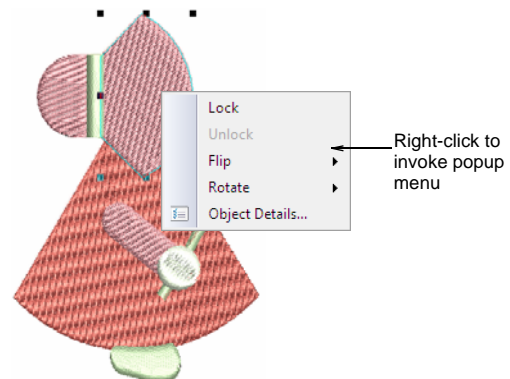
Note Digitizer EXjr toolbars are dockable. To move a toolbar to a more convenient location, click and drag it. To dock it in its normal position, double-click the toolbar title.

Using popup menus

Right-clicking a selected object opens a popup menu containing frequently used commands.

To use popup menus

- Right-click a selected object.
The popup menu opens.



- Select a command from the menu.

Undoing & redoing commands



Use **Standard > Undo** to undo a command.



Use **Standard > Redo** to reapply a command which has been 'undone'.

You can undo the effects of most commands. If you change your mind, you can redo them again. Digitizer EXjr remembers the last few commands you used.

To undo & redo commands

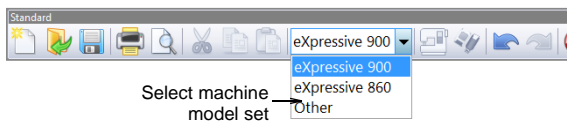
- To undo a command, click the **Undo** icon.
When Digitizer EXjr cannot remember more commands, **Undo** is dimmed.
- Click **Redo** to re-apply an 'undone' command.

Selecting machine models

Digitizer EXjr supports various sets of machine model. Some Elna machines can be connected by cable directly to your PC via the USB port. Older-style machines do not support direct connection but they do read ATA PC cards and/or USB memory sticks. See also [Sending & writing designs](#).

To select a machine model

- Click the **Machine Model** dropdown list on **Standard** toolbar.



- Select one of the available machine model sets.

Displaying hoops & grids

A representation of the selected hoop is displayed in the design window. This provides a guideline for sizing and positioning designs. Use grid lines to help accurately align or size embroidery objects.

Displaying the hoop



Click View > Display Hoop to hide or show the hoop.

Hoops are required to hold the fabric tight while stitching on your machine. They are available in different sizes. A representation of the selected hoop providing a guideline for sizing and

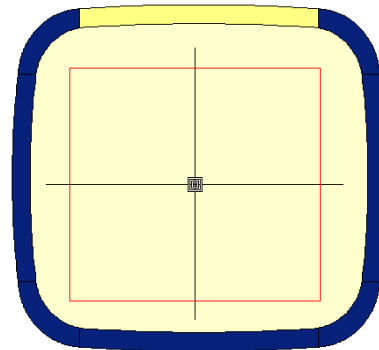
positioning your design is displayed in the design window.



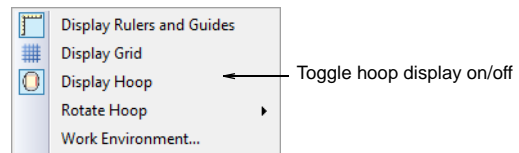
Note The boundary of the working area within the hoop is displayed as a thin red line. If any part of the design lies outside the stitching area for the selected hoop, a warning appears when saving. This prevents you from accidentally stitching outside this area and damaging your machine by hitting the hoop with the needle. You can show or hide the hoop at any time.

To display the hoop

- Click the **Display Hoop** icon to toggle hoop display on or off.



- Alternatively select **View > Display Hoop**.
- Alternatively, right-click a blank part of the design window. This brings up a popup menu:



Displaying the grid



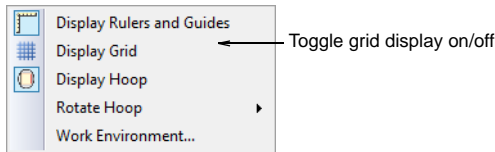
Click View > Display Grid to hide or show the grid.

You can show or hide the grid at any time.

To display the grid

- Click the **Display Grid** icon to toggle grid display on or off.

- ♦ Alternatively select **View > Display Grid**.
- ♦ Alternatively, right-click a blank part of the design window. This brings up a popup menu:



Displaying rulers & guides

- Click View > Display Rulers and Guides to toggle on rulers and guides.
- Drag the Ruler Zero Point to reset a new ruler zero point.

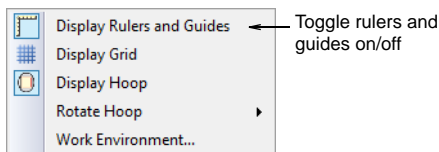
Rulers are located to the top and left side of the design window. The unit of measurement – mm or inches – depends on the regional settings in the Windows Control Panel. The ruler scale, illustrated with numbers and ticks, depends on the zoom setting. Guides are dotted vertical and horizontal lines placed across the design window to help you align objects. Each guide has a yellow guide handle on the ruler that can be used to move or delete it. Guides are displayed 'on top' of the grid, if present, but 'beneath' **vector** objects and **embroidery objects**. Rulers must be displayed before a guide can be created.



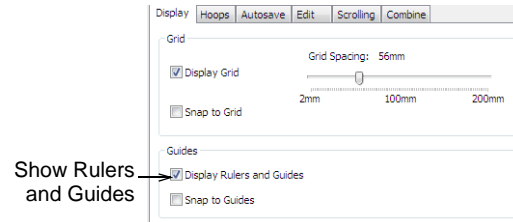
Note By default, rulers and guides are switched on. When they are switched off, guides are hidden but are stored in the design and will reappear when switched back on.

To display rulers & guides

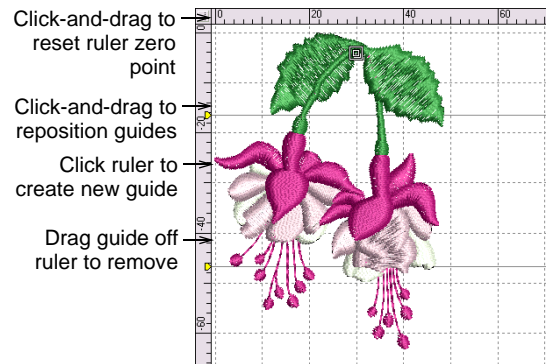
- ♦ Toggle ruler display by any of the following means:
 - ♦ Click the **Display Rulers and Guides** icon.
 - ♦ Right-click a blank part of the design window. This brings up a popup menu:



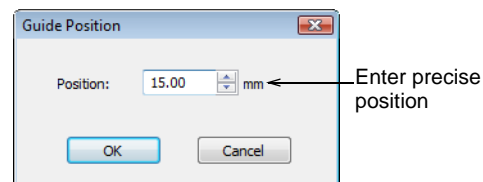
- ♦ Select **Setup > Work Environment > Display** tab and select the **Display Rulers and Guides** option.



- ♦ Select **View > Display Rulers and Guides** option.



- ♦ Reset the ruler zero point by clicking and dragging the box in the top left-hand corner of the design window to the required point in the design.
The point where you release the mouse becomes the new zero point – X,Y (0,0). The grid always aligns with the rulers. See also [Adjusting grid and guide settings](#).
- ♦ To create a guide, click on either ruler – horizontal or vertical – and click-and-drag it into position. Multiple guides can be created and just as easily removed.
- ♦ For more accurate positioning of guides, double-click the yellow handle. In the **Guide Position** dialog, enter a precise distance from the zero point, and click **OK**.



Note The ruler zero and the design zero are **not** the same and in general do not coincide. When the zero point of the rulers is changed, the guides maintain their current displacement from the zero point of the design, **not** the zero point of the rulers.

- ♦ To remove a guide, drag the yellow guide handle off the design window.



Try this! You can turn **Snap to Grid** and **Snap to Guide** on or off in the **Work Environment** dialog. See also [Adjusting grid and guide settings](#).

Measuring distances on screen

Use **View > Measuring Tape** to measure distances on-screen.

Measure the distance between two points on screen using the **Measuring Tape** command. Measurements are shown in millimeters or inches, depending on the option selected in the Windows Control Panel. See your Windows documentation for more information.



Try this! For more accurate results, zoom in before you measure. The measurement is always the actual size, and is not affected by the zoom factor.

To measure a distance on-screen

- 1 Select **View > Measuring Tape**.
- 2 Click the start point.
- 3 Move the pointer to the end point and hold the mouse still.

The tooltip displays the length of the measured line together with the stitch angle.

43.2
26

- 4 Press **Esc** to finish.



Note You can also check the width and height of your design in the status bar.

184.68 223.20

Setting measurement units

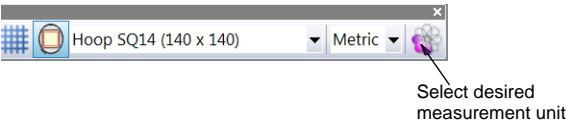
Use **View > Design Measurement System** to change the measurement system used by the software.

You can use different measurement units within Digitizer EXjr without having to exit and change system settings. This is useful, for example, if you receive orders from places that use a different measurement system. The most common scenario is where a US customer orders lettering in inches

– say $\frac{3}{4}$ " – and the digitizing is to be done in metric. The digitizer can then easily enter '3/4"' without having to first do any mathematical conversion to mm.

Changing the measurement system

The measurement system may be changed via a dropdown list on the **View** toolbar:



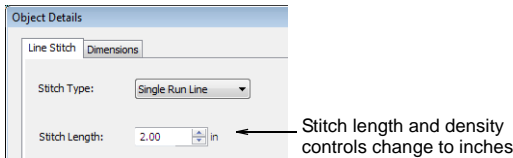
The first time you run Digitizer EXjr, the measurement system will default to whatever the operating system is using. If you change it in the software, the selected measurement system will default the next time you run it.



Note Technically, when you select 'U.S.', you will get the imperial measurement system – inches, feet, and yards.

Ripple-on effects

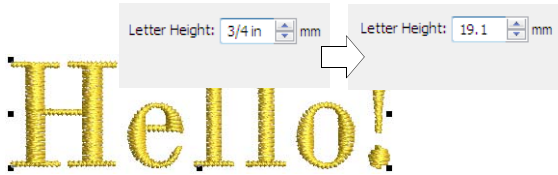
Changing the measurement system will change the units used by most (but not all) controls. Stitch length and density controls will change to reflect the measurement system.



Note Elna machines have a dual measurement system which allows them to show stitch lengths as fractions of inches.

Specifying measurement units on-the-fly

As an alternative to changing the overall measurement system used in Digitizer EXjr, you can specify units of measurement when typing values into a measurement control. When you include the unit of measurement, the software automatically converts the entered value into the units of the control.



Say, for example, you are using the metric measurement system so your lettering heights are in mm. And say you get an order for $\frac{3}{4}$ " lettering. Simply enter ' $\frac{3}{4}$ in' or ' $\frac{3}{4}$ in' into the **Lettering Height** field and it is automatically converted to 19.1mm. See also [Adding lettering to embroidery designs](#).



Note Digitizer EXjr supports both proper and improper fractions – e.g. ' $1 \frac{1}{3}$ ' as well as ' $\frac{4}{3}$ '. It does not, however, support mixed units – e.g. ' $1'3"$ '. Nor does it display values as fractions **after** they are entered, only during.

Supported units

Supported units include:

- ♦ millimeters, mm
- ♦ inches, in
- ♦ feet, ft
- ♦ yards, yd
- ♦ centimeters, cm
- ♦ meters, m

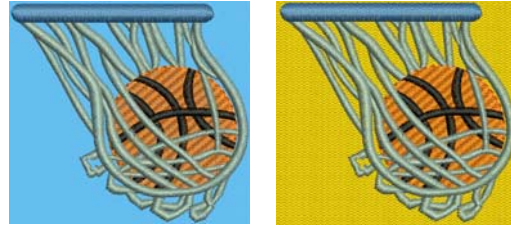


Try this! Digitizer EXjr also allows entering units in text form, both English and the language the software is currently running in.

Changing fabrics & backgrounds

Embroidery stitches pull fabric inward where the needle penetrates. This can cause fabric to pucker, and gaps to appear in the embroidery.

Digitizer EXjr provides a set of optimized fabric settings so that the software will take into account the type of fabric you are stitching on. You can also set colors both inside and outside the hoop to match the fabric you intend to stitch on.



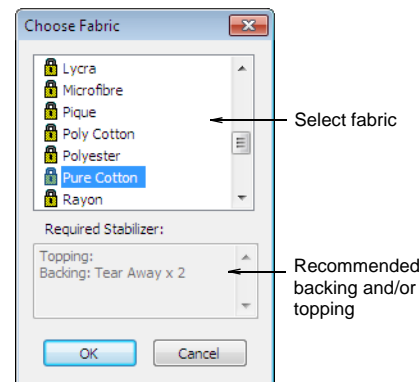
Changing fabric settings

You can change fabric settings of existing designs. Choose from a set of pre-defined fabrics aimed at minimizing stitching defects when designs are sewn out. These make the necessary changes to the system settings – e.g. 'stretchiness'. The new settings can be applied to all applicable objects – all object types other than Motif Fill, Appliqué, or Run. Objects can subsequently be modified via **Object Details**. See [Editing Objects](#) for details.

To change fabric settings

- 1 Select individual objects in your design as required.
- 2 Select **Setup > Choose Fabric**.

The **Choose Fabric** dialog opens.



- 3 Select a fabric type from the list.

The **Required Stabilizer** field displays the name of one or more recommended stabilizers and any other relevant information.

- 4 Click **OK**.

Stitch settings will be automatically adjusted for **all** applicable objects – i.e. all object types other than Motif Fill, Appliqué, Photo Click and Single Run.

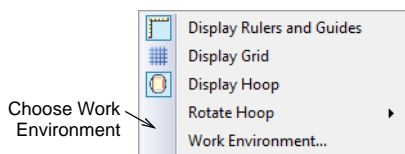
Changing background colors

Use Setup > Work Environment to change background colors.

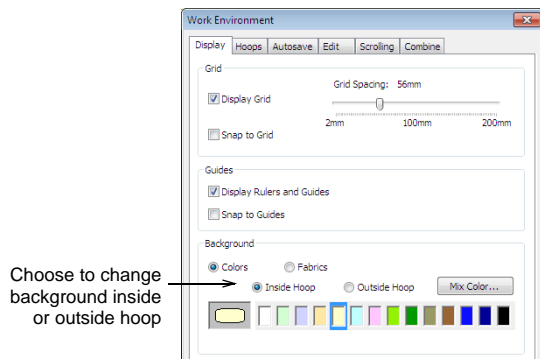
Set the color inside the hoop to match the fabric you intend to stitch out on. You can also set a background color outside the hoop. See also [Changing fabric settings](#).

To change the background color

- 1 Select **Setup > Work Environment** or right-click the design window and select from the popup menu.



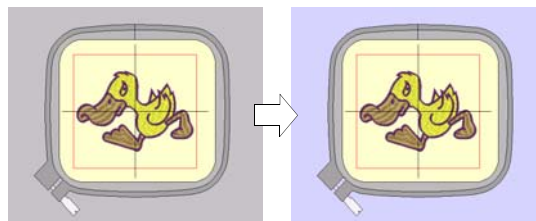
The **Work Environment** dialog opens.



- 2 If not already selected, select the **Colors** option.
- 3 Select the **Inside Hoop** or **Outside Hoop** option as required:

Option	Purpose
Outside Hoop	When selected, you choose a background color to apply to the area outside the hoop, or when the hoop is not displayed, to the whole design window.
Inside Hoop	When selected, a background color can be applied within the hoop.

- 4 Select a color from the palette or mix your own. See [Mixing your own background color](#) for details.
- 5 Click **OK**.



Outside hoop area recolored

Changing background fabrics

Set the color inside the hoop to match the color of the fabric you intend to stitch out on. See also [Changing fabric settings](#).

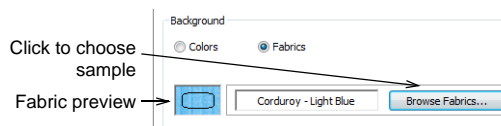
To change the background fabric

- 1 Select **Setup > Work Environment** or right-click the design window and select from the popup menu. The **Work Environment** dialog opens.

- 2 Select the **Inside Hoop** or **Outside Hoop** option as required.

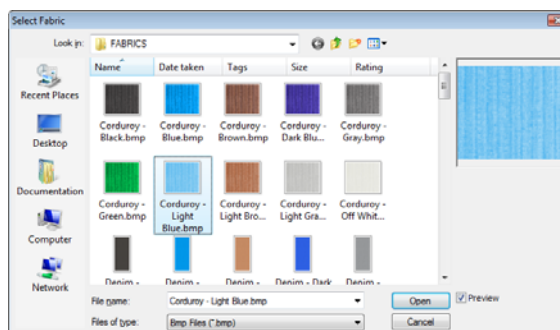
- 3 Select the **Fabrics** option.

The dialog changes as shown.



- 4 Click the **Browse Fabrics** button.

The **Select Fabric** dialog displays a selection of fabric samples to choose from.





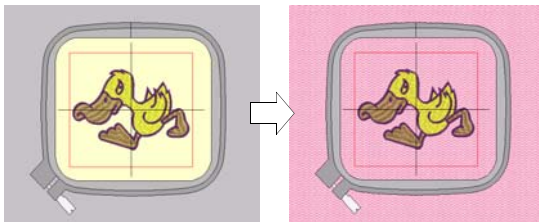
Try this! You can add your own fabric samples to the **Fabrics** folder in any of the supported file formats. You can also browse to another folder on your PC and select a file in any of these formats. See also [Supported embroidery file formats](#).

- 5 Select a fabric sample and click **Open** or simply double-click the file.

The selected fabric is displayed in the hoop preview in the **Work Environment** dialog.

- 6 Click **OK**.

The selected fabric is applied to the whole design window.



Fabric applied to hoop and background

Mixing your own background color

Use **Setup > Work Environment** to mix a new background color.

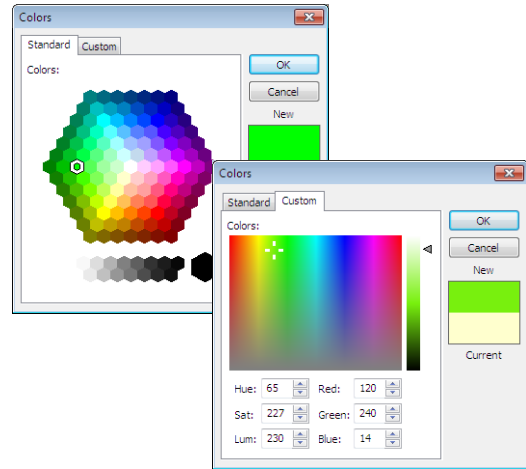
You can create a new background color for use with the current design. Each new design uses the default colors.

To mix your own background color

- 1 Select **Setup > Work Environment**.
The **Work Environment** dialog opens.



- 2 Select a color slot in the palette.
- 3 Click **Mix Color**.
The **Colors** dialog opens.



- 4 In the **Standard** tab, select a color that most closely matches the color you want.
- 5 In the **Custom** tab, click and drag the crosshairs on the color spectrum to get the exact color you require.
- 6 Drag the slider on the right of the color spectrum to adjust color brightness.

The Hue, Luminosity and Saturation (HLS) and Red, Green and Blue (RGB) values appear in the bottom right-hand corner of the dialog. Enter these values directly if you want to define an exact color.

- 7 When you have mixed your color, click **OK**.

The new color appears in the selected color slot.



Note The new color is only saved with this design. New designs use the default colors.

Setting up color palettes



Click **Docker > Color Palette** to open the Color Palette. Use this to change colors of selected objects or set default color for new objects.

Digitizer EXjr lets you manage thread colors for each design you create or modify. Select from a wide range of commercial thread charts. Add or remove colors – you can assign up to 128 color slots. Find and sort specific colors by Color Code. See also [Changing colors of selected objects](#).

To set up a color palette

- 1 Click the **Color Palette** icon or press **Ctrl+R**.

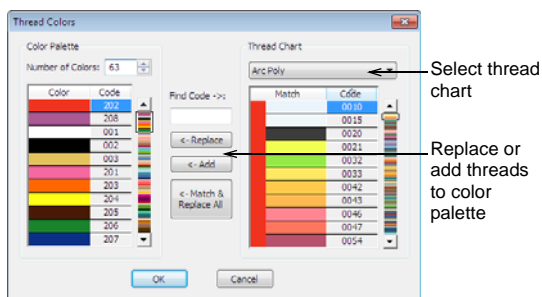


Try this! Resize and click-and-drag the **Color Palette** anywhere within the design window.

- 2 Access the **Thread Colors** dialog by one of the following means:

- Select **Setup > Thread Colors**, or
- Right-click a color in the color palette.

The **Thread Colors** dialog opens. The left-hand column represents the colors in the actual color palette. The right-hand column represents the threads available for use in the selected thread chart.



Note If a color is already being used by one or more objects in the current design, a tick will appear in the color field of the **Color Palette** list.

- 3 Set the exact number of colors required in the **Number of Colors** field.
If you are only using six colors, limit the number in the Color Palette to those six. Add extra slots as required.
- 4 In the left-hand column, select the color slot you want to assign a thread to.
- 5 In the left-hand column, select a thread chart from the **Thread Chart** dropdown list.
- 6 Locate the color you want to use by scrolling down the list.



Try this! If you know the exact code of the color you are looking for, key it into the **Find Code** field.

- 7 Use one of the following buttons to transfer the selected color to the **Color Palette**:

Button	Purpose
Replace	The color will replace the currently selected color in the Color Palette list. Double-clicking a thread in the Thread Chart list has the same effect.
Add	The color will be appended to the Color Palette list. The Number of Colors field will increase by one.
Match & Replace All	All colors in the Color Palette list will be replaced by the nearest matching color from the selected Thread Chart. This provides a quick way to switch between thread brands.

- 8 Repeat for other color slots in the color palette.



Note The color palette you define here is saved with the current design.

Saving designs

Digitizer EXjr lets you save designs in native JAN as well as other 'outline' and 'stitch' file formats. See [Embroidery design formats](#) for details.

Saving current design



Use **Standard > Save** to save the current design.

Saving a design records its file name, location and format, and updates it with any changes you make. When you save an existing design under a new name, to a different location or format, you create a copy of the original design. See [Saving designs for machine](#) for details.



Try this! Save your design early and often. Do not wait until you finish working. You can also set Digitizer EXjr to save automatically while you work. See [Setting automatic save options](#) for details.

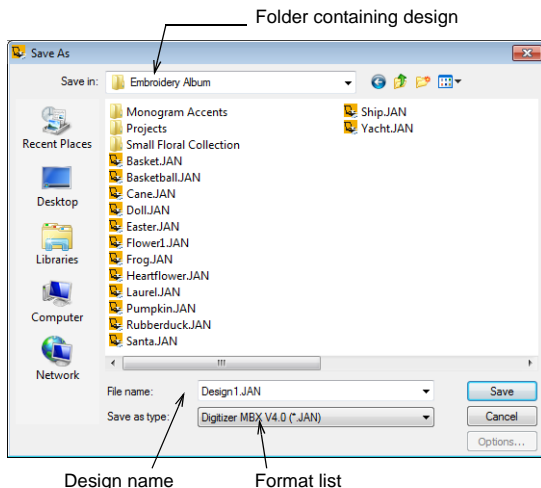
To save a design

- 1 Click the **Save** icon.

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



Try this! To save changes to an existing file but preserve the original, use **Save As**.



- 2 Select the folder where you want to save the design from the **Save In** list.
- 3 Enter a name for the design in the **File name** field.
- 4 Select a file format from the **Save as type** list. See [Supported embroidery file formats](#) for details.
- 5 Click **Save**.

Once you have saved a design, every time you click **Save** on the toolbar the file will be updated.



Note Files saved in JAN format are automatically compressed when saved and decompressed when re-opened. This reduces the storage space required, and makes it possible to save large files for sending as email attachments.

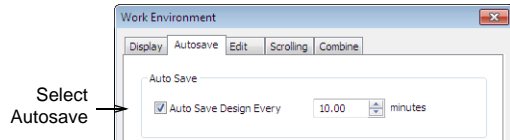
Setting automatic save options

Select **Setup > Work Environment** to set automatic save options.

Save your work automatically at regular intervals using **Auto Save** to protect you from losing work in the event of hardware or software failure.

To set automatic save options

- 1 Select **Setup > Work Environment**.
The **Work Environment > Display** dialog opens.
- 2 Select the **Autosave** tab.



- 3 Select the **Auto Save Design Every** checkbox.
- 4 Enter the auto-save frequency in the **Minutes** field.
The design will be saved in the **BACKUP** folder of your Digitizer EXjr installation. It will have the same name as the original file with the extension **BAK**.



Warning Backup files remain in the **Backup** folder until you delete them. To prevent the folder from using too much hard disk space, delete unwanted files regularly.

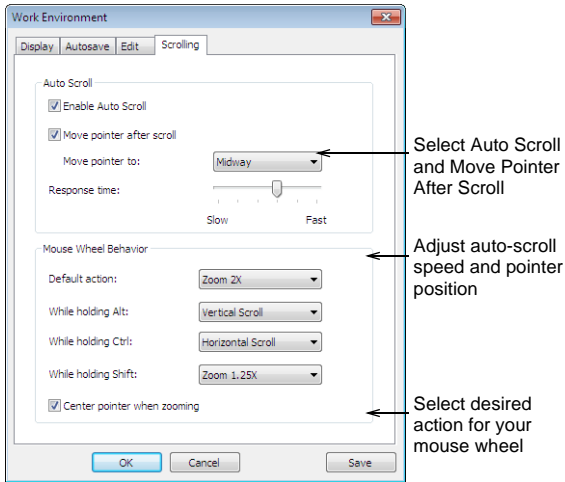
- 5 Click **OK**.

Setting scrolling options

The **Work Environment > Scrolling** tab allows you to control the behavior of both mouse and mouse wheel within Digitizer EXjr. Use **Auto Scroll** to scroll automatically within the design window while digitizing. This can be more convenient than using panning or scroll bars, especially when working on large designs. The dialog also allows you to set four different mouse wheel behaviors based on your selection of default options. Whenever a setting is changed, the system will recommend the other mouse wheel behaviors, but you have complete control to change as desired.

To set scrolling options

- 1 Select **Setup > Work Environment**.
The **Work Environment** dialog opens.
- 2 Select the **Scrolling** tab.



The same four options are available for use when deploying the mouse wheel on its own or in combination with **Alt**, **Ctrl**, and **Shift** keystrokes. That is, you can program the wheel to scroll horizontally, vertically, or zoom by preset factors.

- 6 Tick **Center Pointer when Zooming** to ensure that the pointer stays centered on screen at all times.
- 7 Click **OK**.



Try this! Hold down the **Shift** key to temporarily deactivate **Auto Scroll**.

- 3 Adjust **Auto Scroll** options as required:

Option	Purpose
Auto Scroll	Tick checkbox to enable automatic scrolling while digitizing.
Move Pointer After Scroll	Tick checkbox to force pointer to move with the current cursor position after each scroll.
Response Time	Enter smaller values to increase scrolling speed.

The effect of the **Auto Scroll** setting only becomes apparent when you start to digitize. The design window automatically scrolls to follow the current cursor position.

- 4 Select the pointer position after scrolling from the **Move Pointer To** list:

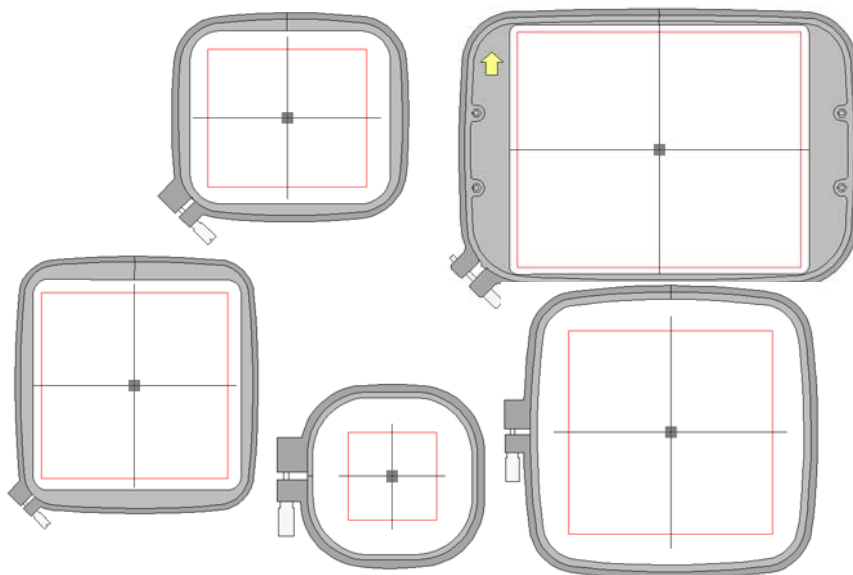
Option	Purpose
Center	Center of the window. Use this setting for large movements.
Midway	Halfway between the original pointer position and the center of the window. Use this setting for smaller movements – e.g. when zooming into a small area of the design.
Corner	The edge of the screen. Use this setting for slow scrolling.

- 5 Set the precise behavior of your mouse wheel action as desired.

Chapter 3

GRIDS & HOOPS

Hoops are required to hold the fabric tight while stitching on your machine. They are available in different sizes. Digitizer EXjr allows you to select from a wide range of standard factory-supplied hoops. A representation of the selected hoop providing a guideline for sizing and positioning your design is displayed in the design window.



This section describes how to display hoops and grids in Digitizer EXjr as well as how to change hoops. It also deals with hooping large designs.

Adjusting grid and guide settings



Click View > Display Grid to hide or show the background grid.



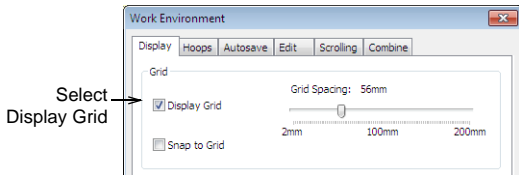
Click View > Display Rulers and Guides to show or hide rulers and guides. Right-click to change the Guides settings.

Use grid and guide lines to help accurately align or size embroidery objects. Turn on or off the grid, or change grid spacing as required.

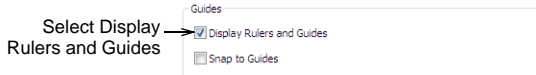
To adjust grid and guide settings

- ♦ Select **Setup > Work Environment**.
The **Work Environment > Display** tab opens.

- Select the **Display Grid** checkbox to display the grid.



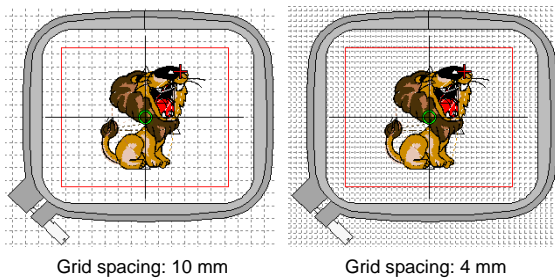
- Adjust **Grid Spacing** by moving the slider. The spacing value is displayed above the slider.
- Select the **Snap to Grid** checkbox as required. Reference points, control points or leading edges of objects snap to the grid during digitizing, sizing, reshaping, or positioning operations.
- Select the **Display Rulers and Guides** checkbox as required. The **Snap to Guides** control can be set independently of **Snap to Grid**.



Try this! To use these settings as **defaults** for the current template, click **Save**. See also [Creating new designs](#).

- Click **OK**.

Selecting hoops



Whenever you create a new design, a single hoop representing the embroidery hoop you connect to your embroidery machine appears by default in the middle of the design window. The selected hoop is saved with the design in the native JAN file format. It is also saved to the JEF file which the machine reads. A range of hoop sizes is available for a wide variety of design types. You can also change hoop orientation on screen for ease of digitizing. See also [Rotating hoops](#).

Make sure you have the correct hoop selected and that your design fits within the design area on your embroidery machine. When the machine reads the JEF file, the stitching area is limited by the selected hoop type. See also [Hooping large designs](#).

Changing hoops

Hoop SQ14 (140 x 140) Use Hoop Type dropdown list to change hoops.

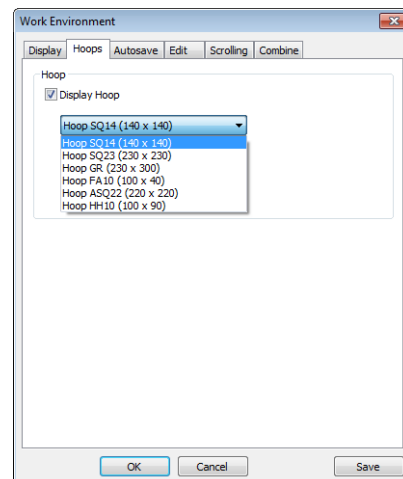
It is a good idea to have the correct hoop selected before you stitch out a design. But sometimes you may wish to change hoops before stitching out. The **Hoop Type** dropdown list control lets you quickly confirm what hoop is currently being used and change it at any time. Select the smallest hoop which fits the design from the available range. See [Supported hoop types](#) for details.

To change hoops

- Select a hoop type by either of the following means:
 - Select from the **Hoop Type** dropdown menu on the **View** toolbar.



- Select **Setup > Work Environment** and select a hoop from the **Hoop** list.





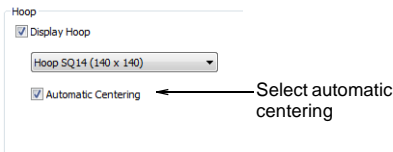
Try this! The hoop background color can be changed. See [Changing fabrics & backgrounds](#) for details.

Centering hoops

The **Automatic Centering** function ensures that the center of the hoop (or offset center for older style hoops – i.e. Hoop No.1&3), is automatically positioned at the center of the current design, or at the (0, 0) point of the current design window while the design contains no stitches. Otherwise the hoop center – or offset center for old hoops – is fixed at the (0, 0) point of the current design window.

To center the hoop

- 1 Open the **Work Environment** dialog:
 - ♦ Select **Setup > Work Environment**.
 - ♦ Right-click on the design window with nothing selected and select **Work Environment**.
- 2 Click the **Automatic Centering** checkbox in the **Hoops** tab.



Rotating hoops

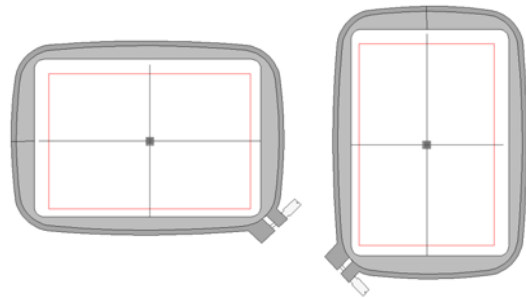


Use **Combine > Rotate Hoop 90° CCW / CW** to rotate the hoop 90° in either direction.

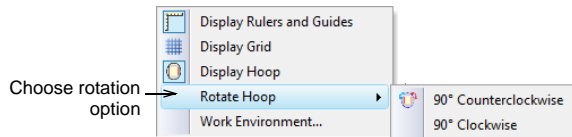
The **Rotate Hoop** tool allows you to rotate the hoop for ease of digitizing. The attachment mechanism is indicated, both on screen and printed worksheets. You can thereby tell the orientation of the design with respect to the hoop and decide how to position it. Rotate the current hoop by any one of the means described below.

To rotate the hoop

- ♦ Click the **Rotate Hoop 90° CCW / CW** icon.



- ♦ Right-click anywhere in the design window with nothing selected and select **Rotate Hoop > 90° Counterclockwise** or **90° Clockwise**.



Hooping large designs

A problem arises when you create a large design which has multiple design elements spread over a large area which cannot fit in a single hoop. Using the **Combine** toolbar functions, you can combine one or more designs in a single hoop or place multiple hoops over a large design layout. These can then be sent to the embroidery machine as a single JEF file per hooping. You can also print a template which can be used to position each of the hooped portions of a design. See also [Printing design layouts](#).



Note Digitizer EXjr supports the Giga hoop. This is a two-position hoop which expands the available sewing area. When sending to machine, in most

cases Digitizer EXjr will only create one file as the two hoop positions are saved in a single JEF file. See [Sending designs with a Giga Hoop](#) for details.



Try this! Digitizer EXjr allows you to define a work area of up to 3m x 3m. See [Creating ornamental layouts](#) for details.

Creating a multi-hooping sequence



Use **Combine > Combine Mode** to activate the Combine functions.



Use **Combine > Add Hoop** to center a new hoop in the design window in an upright orientation.



Use **Combine > Delete Hoop** to remove selected hoops from the design window.



Use **Combine > Calculate Hoopings** to evaluate the hoopings that will result from the current hoop layout.



Click **Combine > Rotate Hoop** with left or right mouse buttons to rotate a selected hoop 90° in either direction.

When a large design or design layout requires multiple hoopings, it is important to establish the stitching order so that objects in the foreground are sewn after those in the background. Digitizer EXjr allows you to set up the position and sequence of each hoop. Multiple hoops are color-coded as follows, according to their position in the sequence:

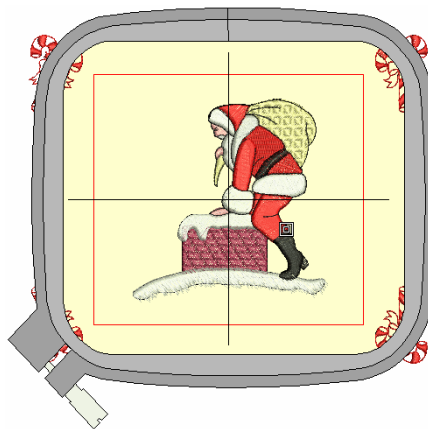
Hoop	Color
1	Dark Green
2	Blue
3	Red
4	Brown
5	Orange
6	Purple
7	Teal
8	Aqua



Note In the unlikely event that you use more than eight hoopings, the color sequence is repeated, as long as none of the previously created hoop positions is deleted.

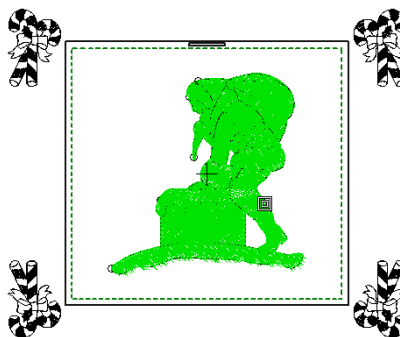
To create a multi-hooping sequence

- 1 Open or create the large design or design layout you want to sew out. See also [Creating ornamental layouts](#).

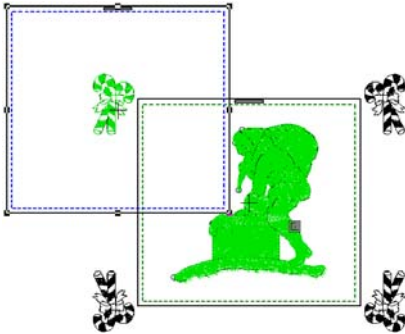


- 2 Choose the hoop you want to work with from the dropdown list. See [Selecting hoops](#) for details.
- 3 Click the **Combine Mode** icon.

This places the design in **Combine Mode** view and enables the **Add Hoop** and **Calculate Hoopings** tools.



- 4 Click the **Add Hoop** button to add another hoopings.
- 5 Position this over the design elements you want to stitch first.



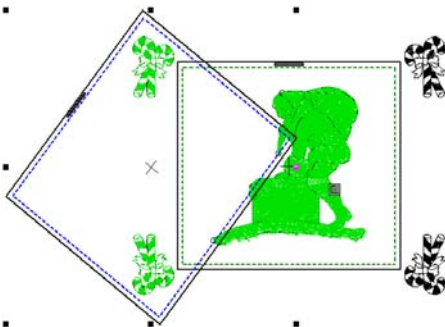
6 Repeat these steps as required.



Try this! You can select a different hoop at any time. This will change all hoopings in the design.

7 Re-position additional hoops and, if necessary, rotate them so that they completely cover all objects in the design.

- Click the **Rotate Hoop** icon with left or right mouse buttons to rotate a selected hoop 45° in either direction.
- Alternatively, click the hoop again and rotate hoops by means of rotation handles and rotation center-point.

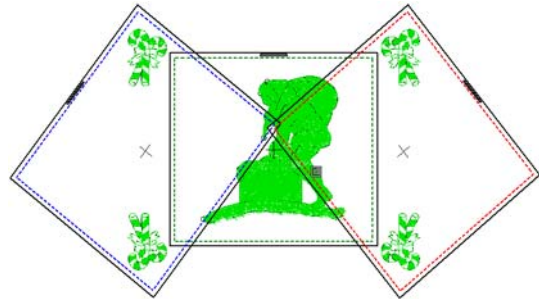


Try this! Nudge selected hoops into position using the Arrow keys.

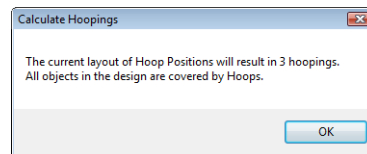
8 Delete hoops as required with the **Delete Hoop** icon or **Delete** key on your keyboard.

9 Repeat these steps until all design elements are covered.

All covered design elements are displayed in green.



10 Finally, click the **Calculate Hoopings** icon to evaluate the hoopings that will result from the current hoop layout.



You are now ready to save the design to one or more files or send it to machine. See [Reading & Writing Design Files](#) for details.



Try this! Print a copy of the design showing the hoop positions to help you stitch it in the correct hooping order. See [Printing design layouts](#) for details.

Outputting alignment marks

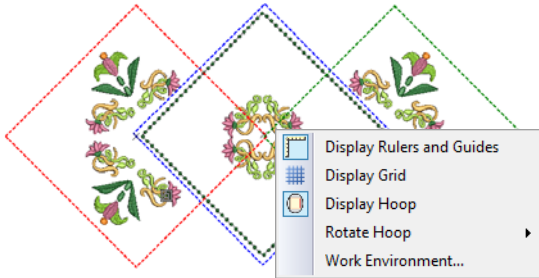
In order to help you correctly align multiple hoopings during stitchout, Digitizer EXjr can stitch out alignment marks for each hooping. These do not form part of the design and are not saved with the design file. However, they are added during output and are viewable in the production worksheet hooping list.



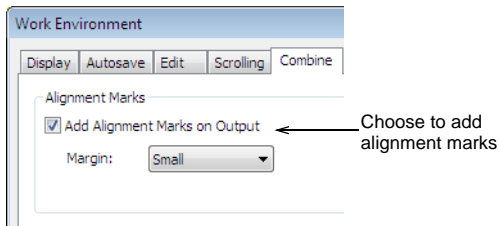
Try this! Correct alignment of multi-hooped designs requires some practice. Third-party training programs are available on the internet which demonstrate correct technique. Most recommend using a sticky-back tear-away stabilizer, heavy enough so that the alignment marks do not tear the stabilizer. Use pins through the alignment marks of one hooping to align the corresponding marks of the next hooping.

To output alignment marks

- 1 Open or create the large design or design layout you want to sew out. See also [Creating ornamental layouts](#).



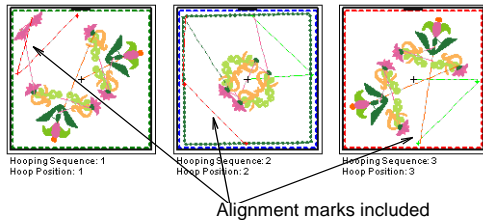
- 2 Right-click the design window and select **Work Environment** from the popup menu.



- 3 Select the **Combine** tab and choose the **Add Alignment Marks on Output** option.
- 4 Adjust the margin settings as required.
The larger the margin, the greater the distance between the alignment mark and the maximum embroidery area of the hoop. This makes it easier to align but there may be some tradeoff in precision.



Try this! To check that alignment marks have been added, activate the hooping list in **Print Preview**. See [Printing multi-hooped designs](#) for details.



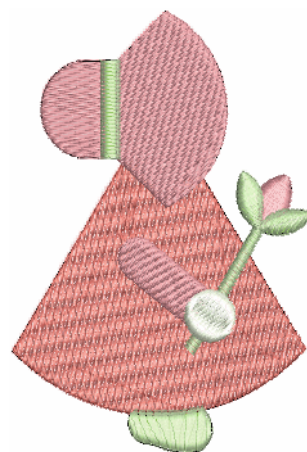
Chapter 4

VIEWING DESIGNS

Digitizer EXjr provides many viewing features to make it easier to work with your design. Zoom in on an area to see more detail or view the design at actual size. Show or hide various design elements with the available display settings.

Digitizer EXjr also provides information about designs in a variety of ways and formats. Before even opening Digitizer EXjr or your design, you can check the design information for JAN or JEF files directly from Windows Explorer. The design printout too provides essential production information, including a design preview, the size of the design, color sequence and any special instructions.

This section explains the design viewing modes available in Digitizer EXjr as well as the various design viewing settings. It describes how to view the stitching sequence in slow motion. It also deals with viewing and hiding images as well as accessing design information.



Viewing design elements

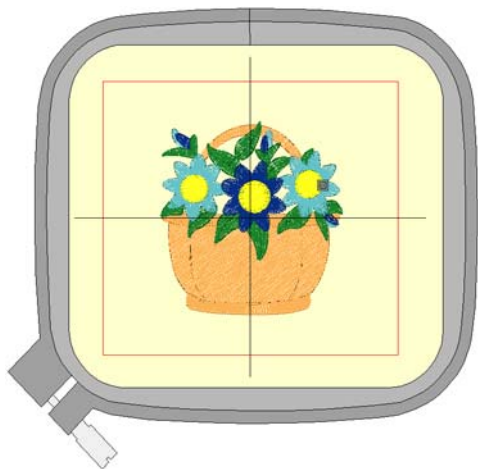
Digitizer EXjr provides many viewing modes to make it easier to work with your design. Zoom in on an area to see more detail or view the design at actual size. You can show or hide design elements with a variety of display settings.

Viewing parts of a design

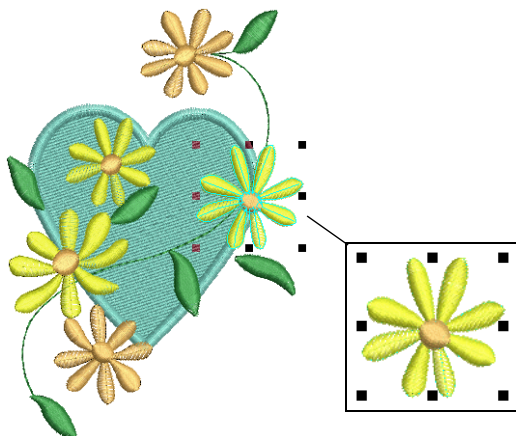
Digitizer EXjr provides a number of techniques for quickly displaying the whole design in the design window. You can set your system to display all embroidery objects in a design, or hide all but the selected objects.

To view parts of a design

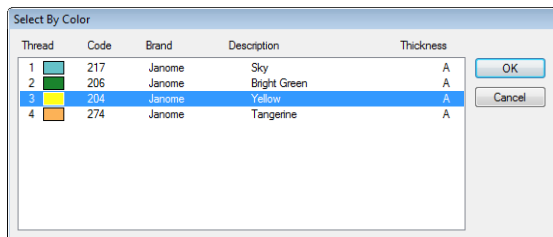
- ♦ To view the whole design, select **View > Zoom > Whole Design** or press [0].
- ♦ To view the whole hoop, select **View > Zoom > Whole Hoop** or press [1].



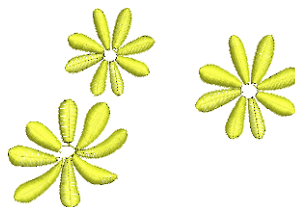
- ♦ Select object/s to show.



- ♦ Select **View > Show > Selected Objects Only**. Only objects that are currently selected are visible. This option is only available when objects are selected.
- ♦ To display selected colors in the window, select **View > Show > Selected Colors Only**.



- ♦ Select the colors to display and click **OK**. See also [Viewing and selecting colors](#).



- ♦ To fit the objects in the design window, press **0**.
- ♦ To view the whole design again, select **View > Show > All Objects**.



Note This option is only available when one or more objects are already hidden.

Zooming & panning designs



Click **View > Zoom In** to display a design at twice its current size.



Click **View > Zoom Out** to display a design at half its current size.



Click **View > Zoom Box** and enter a percentage value to zoom in on a section of a design.

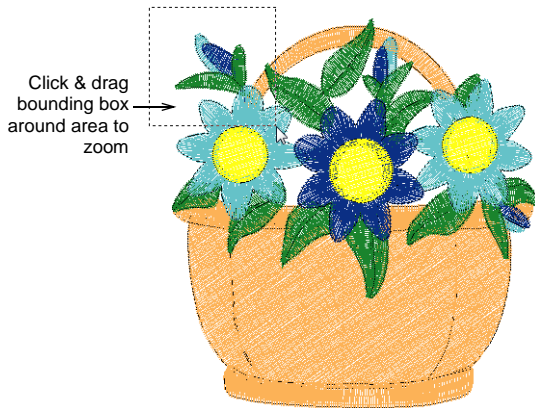
Select **View > Zoom > Whole Hoop** to view the whole hooped area.

Select **View > Zoom > Whole Design** to view the whole design.

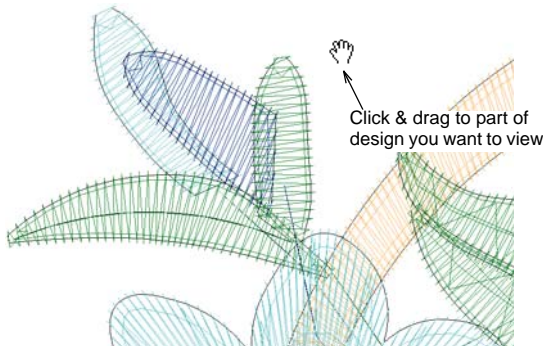
Magnify your view of the design by zooming in on individual stitches or details, or zoom out to display more of the design in the window. In addition to the scroll bars, panning provides a quick way to view parts of a design which are not currently visible in the design window. Panning is typically used after zooming in on an area.

To zoom & pan a design

- ♦ To display a design at twice its current size, select **View > Zoom In**.
- ♦ To display a design at half its current size, select **View > Zoom Out**.
- ♦ To zoom in on a section of the design, select a zoom percentage from the **Zoom Box**.
- ♦ To zoom in on a section of the design, press the **[B]** key on your keyboard, then drag a bounding box around the zoom area.



- ♦ To pan across a design in the design window, select **View > Pan** or press **P**.
The cursor changes to a grabbing hand symbol. When you click and hold, you can drag the image around to reveal different parts of the design.



- ♦ Click and hold again to pan to a different location. To release the command, click **Pan** or press the 'P' key again, or select another tool.
- ♦ Press **Esc** to cancel tool selection.

Design viewing modes

Digitizer EXjr provides a number of viewing modes to selectively display design details.

Viewing designs with Visualizer

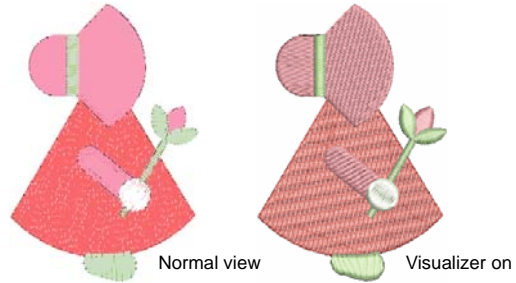


Click **View > Visualizer** to change between normal view and Visualizer view.

Visualizer offers a graphical representation of what the final embroidery will look like.

To view designs with Visualizer

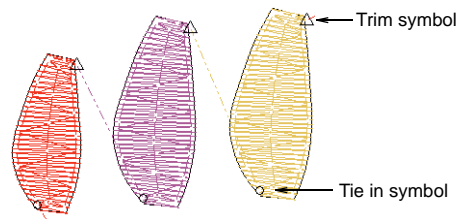
- ♦ Click the **Visualizer** icon to switch between Visualizer and normal view.



Try this! Use Visualizer together with a background fabric to see how your design will look when stitched out. See [Changing fabrics & backgrounds](#) for details.

Viewing connectors

The software automatically adds connectors between objects in a design. When connectors become long enough to trim, the software automatically adds tie-in and trim commands indicated by the symbols shown below.

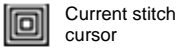


Your machine has a mechanism to trim by distance internally according to the stitch data it receives. Sometimes, however, it does not actually trim even though there is a trim symbol in the design. But it will always create a tie-off.

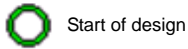


Note Old designs which have different connector settings do not display trim symbols at all in some cases where the machine actually trims. You can overcome this by inserting the old design into a new blank design. The old design will inherit the new connector settings.

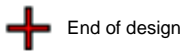
The symbols shown below may also appear and are helpful in understanding what appears on-screen.



Current stitch cursor



Start of design



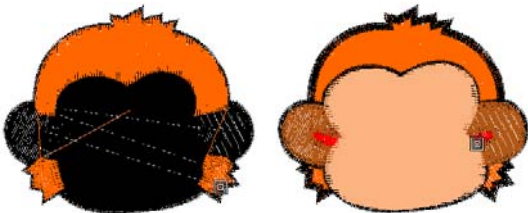
End of design

Traveling through designs

When working with embroidery designs, you need to understand the stitching sequence. You can view a design's stitching sequence in Digitizer EXjr by 'traveling' through it by colors. Digitizer EXjr simulates stitching out by changing stitches from black to their allocated thread color as they are 'stitched'.

Traveling by color

Use the **Jump by Color** function to travel through the design by color. This is useful if you need to locate a specific color change in order to insert an object or delete it from the stitching sequence.



To travel by color

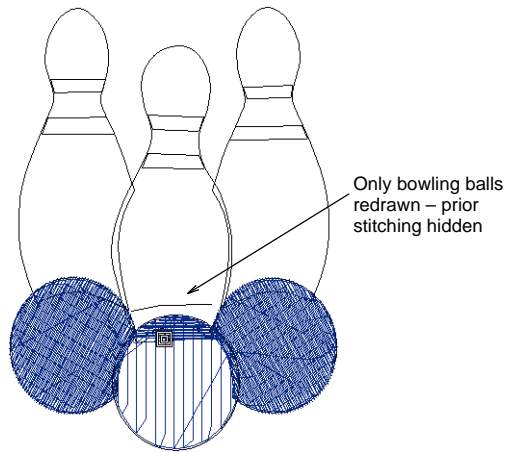
- ♦ To travel to the start of the design, press the **Home** button on your keyboard.
- ♦ To travel to the next color, press the **PageDown** button on your keyboard.
- ♦ To travel to the previous color, press the **PageUp** button on your keyboard.
- ♦ To travel to the end of the design, press the **End** button on your keyboard.

Simulating design stitchout



Use **View > Slow Redraw** to view the stitching and color sequence of a design in slow motion.

The **Slow Redraw** tool lets you simulate the actual embroidery design stitchout on screen. Use it to view design stitching and color sequence in slow motion. Simulation can be started from any stitch in the design. Hide previously stitched areas as required. With larger designs, scroll automatically so that the area being stitched remains on screen.



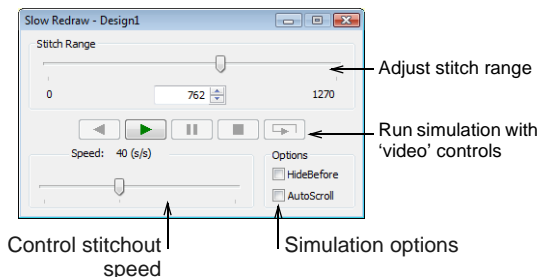
Because **Slow Redraw** emulates the movements of the embroidery machine, you are able to make decisions about how to optimize your design in order to lessen the load on the machine. This is particularly important if you intend to make multiple stitchouts of the same design. It is good practice to perform **Slow Redraw** on completed designs for this reason.



Note **Slow Redraw** cannot be used with **Visualizer**.

To simulate design stitchout

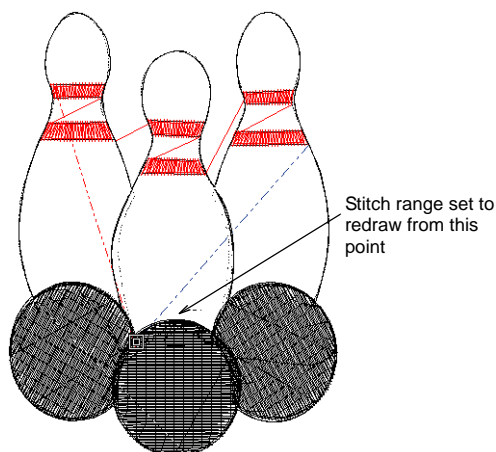
- ♦ Click the **Slow Redraw** icon or press **Shift+R**. The **Slow Redraw** dialog opens.



- Click the **Play** button.
The design is redrawn on screen according to stitching sequence.
- Use the slider bar to adjust the simulation speed.
- Adjust control buttons as required:

Control	Function
Reverse	Play backwards from current stitch.
Play	Play forwards from current stitch.
Pause	Pause simulation at current stitch.
Stop	Stop simulation and return to beginning of design.
Back to Start	Redraw from start of design.

- To redraw only a section of the design, specify a start point for either forward or backward stitching in the **Stitch Range** field or via the slider control.



- Select simulation options as required:

Control	Function
Hide Before	Hide all stitching prior to the current cursor position. Only design outlines are shown.
Auto Scroll	With larger designs, scroll automatically so that the area being stitched remains on-screen.

Viewing & hiding images



Use View > Display Images to show and hide backdrops.

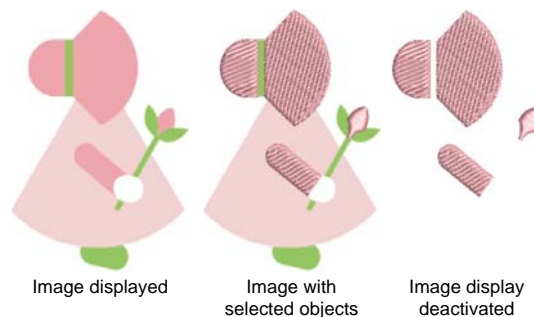


Click View > Display Vectors to toggle on/off display of vector graphics.

You can show or hide a bitmap backdrop temporarily while you work. Hiding backdrops does not delete them from the design. See also [Inserting images](#).

To view or hide images

- Click the **Display Images** icon or press **D**.
When selected, backdrop images are visible. See also [Viewing parts of a design](#).



- To hide the image, click **Display Images** or press **D** again.
- Click the **Display Vectors** icon or press **Shift + D** to display or hide vector graphics.

Viewing design information

Digitizer EXjr provides information about designs in a variety of ways. Before even opening Digitizer EXjr, you can check design information

directly from Windows Explorer. The **Open** dialog also gives you important file information. The status bar in the design window is another source of information about designs. The print preview provides complete design information.

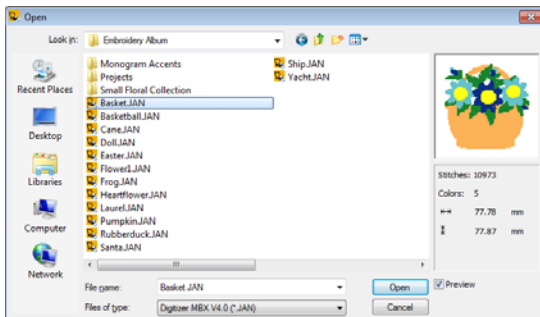
Viewing design details

Within Digitizer EXjr, the **Open** dialog gives you important file information as well as the status bar in the design window.

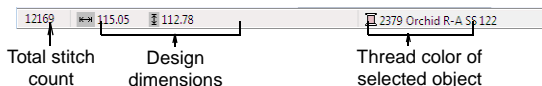
To view design details

- Click the **Open** icon.

The **Open** dialog shows limited information about selected designs in the preview panel.



- When you open a design, the status bar shows design information such as total stitch count.



Previewing design printouts



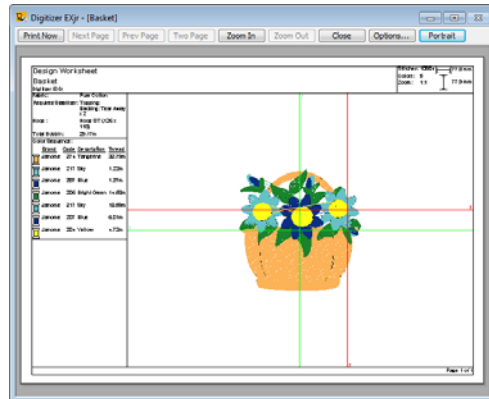
Click **Standard > Print Preview** to preview the design printout on screen.

The print preview contains a design preview and essential information, including the size of the design, color sequence and any special stitching instructions. See also [Printing Designs](#).

To preview a design printout

- Click the **Print Preview** icon.

The design printout displays in a preview window.



- Adjust the view as required:

- To change the orientation of the paper, click **Landscape** or **Portrait**.
- To change the information that displays, click **Options**. See also [Setting print options](#).
- To print the design, click **Print**.
- To close the print preview, click **Close**.



Try this! Zoom in to view the design preview more closely. Large designs may be displayed over a number of pages.

Part II

DIGITIZING ESSENTIALS

In Digitizer EXjr, designs are composed of basic shapes or 'embroidery objects'. These are like ordinary drawing objects in that they have certain defining characteristics or 'details' such as color, size, position, and so on. They also have settings unique to embroidery such as stitch type and density.

Digitizing with artwork

This section describes how to import suitable artwork into Digitizer EXjr and convert it automatically to embroidery. It also explains how to automatically generate outlines and borders. See [Digitizing with Artwork](#) for details.

Editing objects

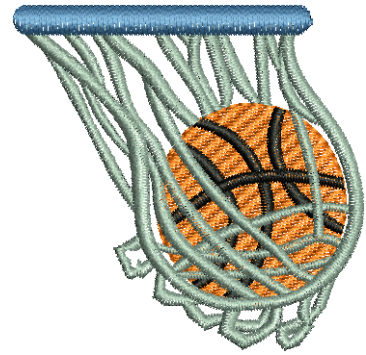
This section describes how to select objects using the selection tools. It also covers modifying object details, including line stitch and fill stitch details. See [Editing Objects](#) for details.

Chapter 5

DIGITIZING WITH ARTWORK

Artwork can be inserted or pasted into Digitizer EXjr for use as digitizing templates or 'backdrops'. Digitize complete images automatically with the **Click-to-Design** tool. You select the image and the tool automatically determines the shapes and stitches needed to digitize the design.

This section describes how to import suitable artwork into Digitizer EXjr and convert it automatically to embroidery. It also explains how to automatically generate outlines and borders.



Choosing suitable artwork

For both manual and automatic digitizing purposes, 'clean' images, sometimes referred to as 'cartoons', work best. Such images have a limited number of solid colors which in turn have well-defined outlines. Ideally, they are:

- Well defined, where each shape is made up of pixels of the same color
- Clearly 'blocked', where each shape is a stitchable size, at least 1 sq mm
- Saved at a color depth of at least 256 colors (8 bit), or preferably millions of colors (16 bit). (Images are automatically reduced to 256 colors or less when loaded into Digitizer EXjr.)



Clean picture with well-defined outlines



Clean picture with well-defined color blocks



Complex picture, needs editing to remove background and clean color blocks

Automatic digitizing techniques produce best results with images of the type found in clipart

libraries or created from scratch in a graphics package. Automatic digitizing can work with images from other sources but they require some preparation. This is because most commonly available images are **not** made up of solid colors. Scanners introduce noise, while graphics packages perform 'dithering' and 'anti-aliasing' to improve image print quality.

Automatic digitizing works least effectively with photographic images which may contain many dithered colors and complex forms. With photographs, however, you can pick out shapes that you want to embroider, leaving out unnecessary detail.

Scanned images

Images scanned from hardcopy drawings or existing embroidery typically contain a lot of introduced 'noise'. While they can be used as input to automatic digitizing, once again, best results are achieved with relatively clean images consisting of solid color blocks. Typically, logos and simple drawings scanned from business cards, letterheads, books, magazines, cards fall into this category.

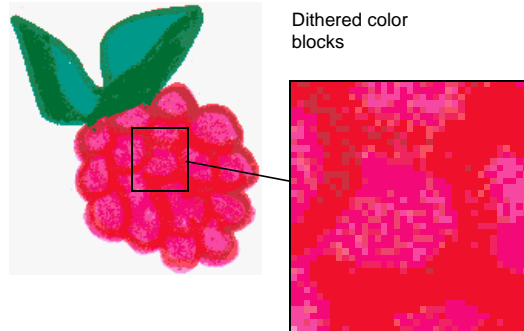


Image containing a lot of scanner 'noise'

Noisy images typically need to be prepared by reducing the color count and sharpening the outlines.

Dithered images

Dithering is a software technique which combines existing colors in a checkerboard arrangement of pixels. It is typically used to simulate colors that are missing from an image palette.

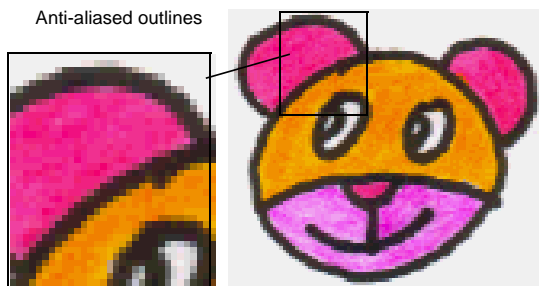


Dithered color blocks

Like noisy images, dithered images need to be color-reduced before use. Be aware, however, that while the software is excellent at processing dithered colors within a defined outline, it does not work so well with non-outlined images.

Anti-aliased images

Anti-aliasing is a software technique similar to dithering which is used to soften hard outlines where color blocks intersect. It produces smoother outlines by 'blurring' the pixels where colors join.



Anti-aliased outlines

Where anti-aliasing is deliberately used to blur outlines, these need to be 'sharpened' before use with automatic digitizing.

Importing images into Digitizer EXjr

Bitmap images can be inserted or pasted into Digitizer EXjr for use as digitizing backdrops. For digitizing purposes, 'clean' images, sometimes referred to as 'cartoons', work best.



Traced image



Auto-digitized



Try this! You can scale and transform images after importing, but it is generally better to do so during scanning. Scaling afterwards may distort the image.

Inserting images

Use **Image > Insert Image** to insert an image for use as a backdrop.

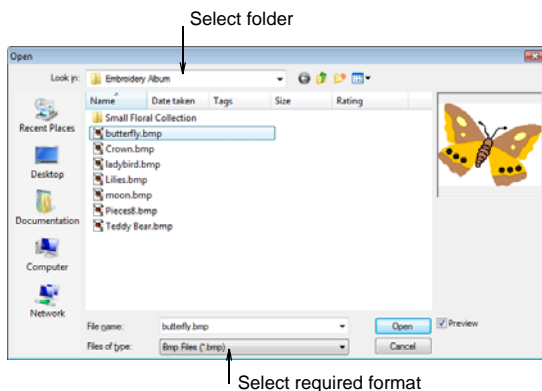
You can load bitmap images of various formats for use as digitizing backdrops. See also [Choosing suitable artwork](#).



Note Vector drawings are converted to bitmap images when loaded into Digitizer EXjr.

To insert an image

- 1 Select **Image > Insert Image**.
The **Open** dialog opens.



- 2 Select a folder from the **Look In** list.

- 3 Select a file type from the **Files of Type** list – e.g. BMP.
- 4 Select the file you want to insert.
- 5 Click **Open**.



Try this! Select the **Preview** checkbox to preview the selected file.

Copying & pasting images



Click **Standard > Paste** to paste copied images in the design.

You can copy and paste an image into Digitizer EXjr by copying it from another embroidery design or graphics application, and pasting it into your design.

To copy and paste an image

- 1 Select the image you want to copy and paste.
- 2 Copy it to the Windows clipboard by pressing **Ctrl+C**.
- 3 Create a new file in Digitizer EXjr or open the design file into which you want to insert the image.
- 4 Click the **Paste** icon or press **Ctrl+V**.
The image is pasted into the design.



Note You may need to resize the image to fit within the dimensions of the selected hoop. See [Scaling objects via settings](#) for details.

Preparing images for digitizing



Use **Digitize > Image Preparation** to reduce the number of colors and remove image 'noise' in non-outlined images.

Use the **Image Preparation** tool to prepare images for automatic digitizing. The tool

automatically reduces color blocks in bitmap images to a single color, removing anti-aliasing and noise. You can let the software reduce the color count automatically or specify a precise number. The latter is useful if you want to match design colors to an exact number of thread colors.



Try this! Depending on the quality of the scanned image, you may need to touch it up manually before processing in Digitizer EXjr. You would normally do this in order to eliminate backgrounds, flood-fill solid areas with color, or add outlines, close gaps, crop areas or reinforce outlines.

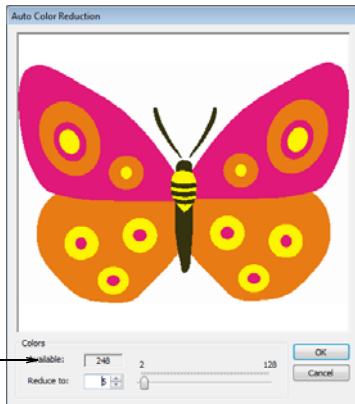
To prepare images for digitizing

- 1 Scan or load an image.



Image scanned in RGB color mode – converted to 256 colors upon loading

- 2 Click the **Image Preparation** icon.
The **Auto Color Reduction** dialog opens.



Enter number of colors

The image appears in the preview panel. The **Available** field shows the number of image colors.



Reduced to 3 colors



Reduced to 5 colors

- 3 Check how many colors are in the image.
This is indicated by **Available**. If there appear to be too many, the image probably contains noise.
- 4 Enter the number of colors you require.
The preview shows you how the design will look.
- 5 Click **OK** to apply the changes.

Digitizing images with Click-to-Stitch



Use Digitize > Click-to-Parallel Weave Fill to digitize large artwork shapes with Parallel Weave Fill, preserving any holes within.



Use Digitize > Click-to-Parallel Weave Fill without Holes to digitize large artwork shapes with Parallel Weave Fill, ignoring any holes within.



Use Digitize > Click-to-Centerline to digitize centerlines in artwork with run line stitches.



Use Digitize > Match to Palette to find the nearest match between a selected image color and thread color.

The **Click-to-Stitch** tools provide everything necessary to digitize shapes in bitmap images automatically without using manual input methods. These tools are useful for quickly creating embroidery objects from scanned images that do not require particular artistic effects or embroidery-specific knowledge.



Note Even if your artwork looks ready to stitch, it needs to be image-processed first. See [Preparing images for digitizing](#) for details.

Matching palette colors to an image



Use Digitize > Match to Palette to find the nearest match between a selected image color and thread color. If not selected, the color is digitized in the current palette color.

Use the **Match to Palette** tool to find the nearest match between a selected image color block and a palette color. If **Match to Palette** is not selected, the color block is digitized in the current palette color.

To match palette colors to an image

- 1 Scan or load an image.



- 2 Select the image and process it. See [Preparing images for digitizing](#) for details.
 - 3 Click the **Match to Palette** icon.
 - 4 Select a **Click-to-Stitch** digitizing method.
 - 5 Click the shape you want to digitize.
- The object is digitized in the nearest palette color.



Matched to palette



Digitized in current color



Note If **Match to Palette** is not selected, the object is digitized in the current palette color.

Digitizing fills with Click-to-Stitch



Use Digitize > Click-to-Parallel Weave Fill to digitize large artwork shapes with Parallel Weave Fill, preserving any holes within.



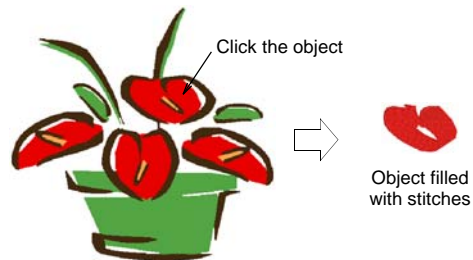
Use Digitize > Click-to-Parallel Weave Fill without Holes to digitize large artwork shapes with Parallel Weave Fill, ignoring any holes within.

Click-to-Stitch can be used to create 'closed' Weave Fill objects. Use **Click-to-Parallel Weave**

Fill to digitize large areas in your artwork with **Weave Fill** stitching, preserving any holes within them. If you want holes ignored, use the **Click-to-Parallel Weave Fill without Holes** tool. Current properties are applied. You can modify these as required before or after using the tools.

To digitize fills with Click-to-Stitch

- 1 Scan or load an image.
 - 2 Select the image and process it. See [Preparing images for digitizing](#) for details.
 - 3 Select a thread color from the color palette. Alternatively, use the **Match to Palette** tool to find the nearest matching thread color. See [Matching palette colors to an image](#) for details.
 - 4 Select the required **Click-to-Stitch** fill input method.
 - 5 Click the shape you want to digitize.
 - 6 Press **Enter**.
- The shape is immediately filled with stitches.



- 7 Digitize other filled shapes in the artwork in the same way changing thread color and input method as required.



All filled areas digitized and shown in Visualizer

- 8 Click **Visualizer** to check the result.



Note Stitches are generated according to current stitch settings. These can be modified.

Digitizing outlines with Click-to-Stitch

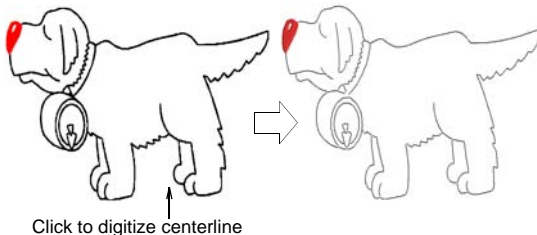


Use Digitize > Click-to-Centerline to digitize centerlines in artwork with run line stitches.

Use **Click-to-Stitch** to digitize boundaries and details with run stitching. Current properties are applied. You can modify these as required before or after using the tools.

To digitize outlines with Click-to-Stitch

- 1 Scan or load an image.
- 2 Select the image and process it. See [Preparing images for digitizing](#) for details.
- 3 Select a thread color from the color palette.
Alternatively, use the **Match to Palette** tool to find the nearest matching thread color. See [Matching palette colors to an image](#) for details.
- 4 Select **Click-to-Centerline** to digitize centerlines in your artwork with run stitching.
Stitches are generated according to current stitch settings.



Digitizing images with Click-to-Design

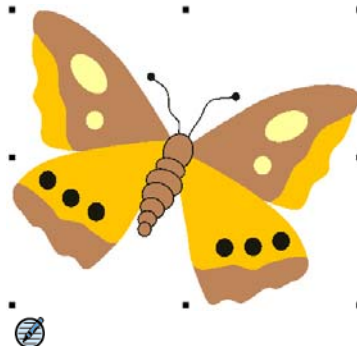


Use Click-to-Design (Digitize toolbar) to create embroidery designs directly from imported images using default settings.

In essence, creating an embroidery design with the **Click-to-Design** tool is simply a matter of selecting the image you want to convert, and clicking the tool. The system automatically determines the color to omit, fill colors, detail color and most suitable stitch types to apply to an image using the default settings. Click-to-Design also determines the stitching sequence based on closest join.

To create a whole design with Click-to-Design

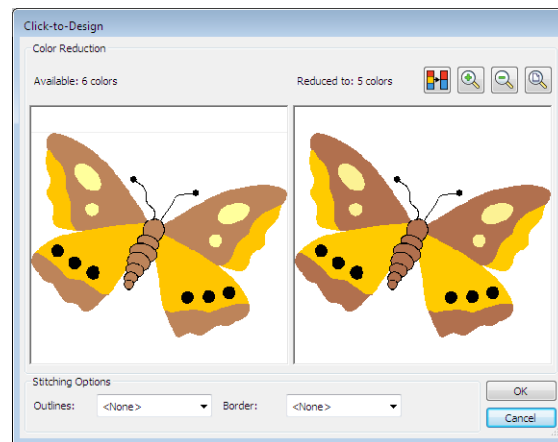
- 1 Insert an image into Digitizer EXjr and select it. See [Importing images into Digitizer EXjr](#) for details.
The **Click-to-Design** tool becomes available for use.



Note Only one image may be selected at a time. The tool is disabled if the selection contains anything other than an image.

- 2 Click the **Click-to-Design** icon.





The **Click-to-Design** dialog opens. The dialog combines two primary functions – color reduction and stitching options.



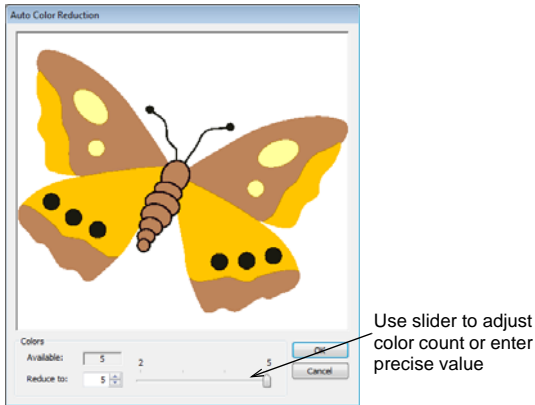
The **Color Reduction** panel provides two views of the selected image:

- ♦ Left panel: displays the original image color count.
- ♦ Right panel: displays the processed image color count. This automatically updates as settings are adjusted.

The **Color Reduction** panel also includes these buttons:

Tool	Description
	Use Auto Color Reduction to adjust the default color count for the processed image. See below.
	Click Zoom In to zoom into both preview panels.
	Zoom Out similarly affects both preview panels.
	Click Show All to display the whole image in both preview panels.

- 3 Check how many colors are in the image.
This is indicated in the **Available** field. If there appear to be too many, the image probably contains unwanted noise.
- 4 Use the **Auto Color Reduction** control to reduce the color count to a precise number.
This is useful if you want to match design colors to an exact number of thread colors.



- 5 Enter the exact number of colors you require.
The preview panel updates immediately.

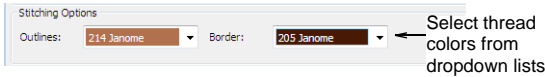


- 6 Click **OK** to apply the changes.
You are returned to the **Click-to-Design** dialog. The **Stitching Options** options are now available.




By default, outlines and borders are set to 'none'. If your artwork is suitable, enable outlines and/or borders as desired:

- Generated outline stitching uses Run Line stitching to surround separate color blocks in the source image. The Run Line stitching has the same stitch settings as any details generated during conversion. See also [Changing line stitch details](#).
 - Generated border outlines are created as Satin Line objects with the current design settings for width and other details. The border is oriented clockwise for consistent stitching with objects such as appliqué. See also [Changing line stitch details](#).
- 7 Select thread colors for outlines and/or borders from the dropdown lists as required.



- 8 Click **OK**.
Click-to-Design converts the artwork to embroidery objects and generates stitches.



 **Try this!** The software matches colors from the existing palette. If the design does not seem to convert colors properly, check that your monitor is set for 16 Bit Colors.

Chapter 6

EDITING OBJECTS

Embroidery objects have certain defining characteristics or 'details' such as color, size, position, and so on. They also have settings unique to embroidery such as stitch type and density. Details are defined when objects are created but they can be modified at any time. The most important property for an embroidery object is its stitch type. Different stitch types are suited to different shapes.

This section describes how to select objects using the selection tools. It also covers modifying object details, including line stitch and fill stitch details.



Object types

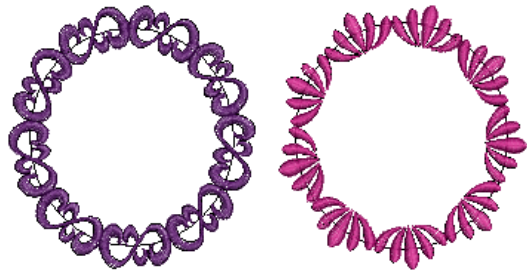
Embroidery objects divide broadly into two categories – **Line Stitch** and **Fill Stitch**. Line stitching is used for outlines, borders and details, while fill stitching is used to fill larger areas of color.

Line stitch objects

Digitizer EXjr supports three styles of line stitch:

Line Style	Purpose
Single Run	Single row of run stitches along a straight or curved line. Typically used to add outlines or details to designs.
Satin Line	Satin Line is typically used for borders and outlines of larger shapes. Border width can be adjusted.

Other types of line stitch, such as Motif Run, can be opened and viewed in Digitizer EXjr, but details cannot be modified.

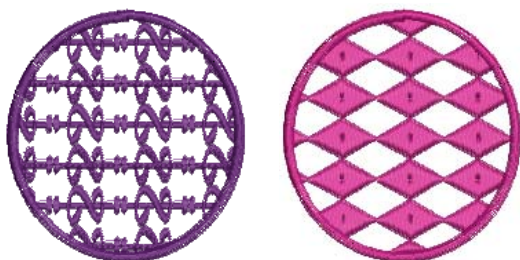


Fill stitch objects

Larger, closed shapes are known as **Parallel Fill** objects. Most shapes are in fact formed by this type of object. Parallel Fill objects can be filled with different types of fill stitch. Digitizer EXjr supports three styles:

Line Style	Purpose
Satin Fill	Satin stitch is well-suited to narrow columns and shapes. Satin stitches are almost parallel, with every second stitch slightly slanted, where the length of each stitch forms the width of the column. Because there are generally no needle penetrations breaking up the fill, Satin stitch creates a glossy, high-quality effect.
Weave Fill	Weave Fill stitch consists of rows of run stitches and is suitable for filling large, irregular shapes. Stitches are laid in rows going back and forth across the shape. These can be parallel or slightly turning.
Embossed Fill	Embossed Fill is a decorative stitch type used to fill wide and large areas with decorative patterns while keeping the appearance of a solid field of stitching.

Other types of fill stitch, such as Motif Fill, can be opened and viewed in Digitizer EXjr, but details cannot be modified.



Selecting objects in designs

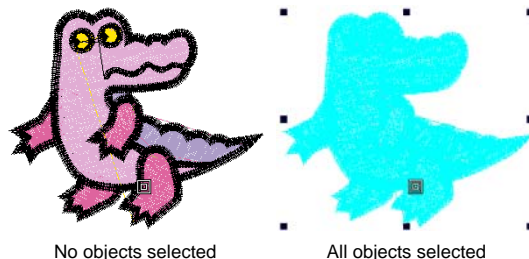
Digitizer EXjr provides various ways to select the objects that comprise an embroidery design. You can select all objects to modify the design as a whole, or individual objects for more precise modification.

Selecting all objects in a design

The **Select** tool provides various means for selecting objects including point and click, bounding box selection, and – in conjunction with **Shift+Tab** keys – first/last and next/previous object selection. You can also select all objects to apply changes to a whole design. See also [Quick Reference](#).

To select all objects in a design

- ♦ Select **Edit > Select All** or press **Ctrl+A**.
Sizing handles appear around the entire design.



- ♦ To deselect, press **X** or **Esc**.

Selecting objects by point and click



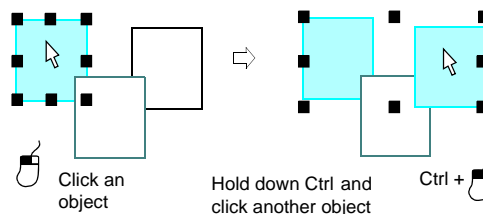
Click Edit > Select and click an object to select it.

The simplest way to select objects is by pointing and clicking with the mouse with the **Select** tool activated. With **Shift** and **Ctrl** keys, you can select multiple objects.

To select objects by point and click

- 1 Click the **Select** icon.
- 2 Click the object you want to select.

When you click an object, selection handles appear around it. You can click anywhere within these extents to click and drag the object.



- ♦ To select a range of items, hold down **Shift** as you select.
- ♦ To select multiple items, hold down **Ctrl** as you select.



Try this! To select an object which is behind another object, zoom in and click the outline. Alternatively, position the pointer over the object, hold down the **2** key, and click until the object is selected. Each click selects the next overlapping object.

Selecting objects with a bounding box

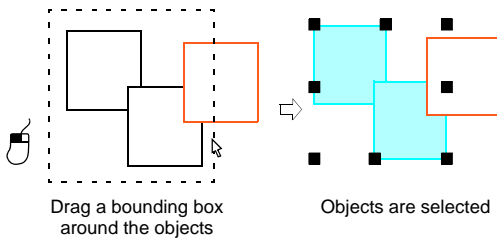


Click **Edit > Select** and drag a bounding box around the object to select.

With the **Select** tool activated, you can select objects by dragging a bounding box around them.

To select objects with a bounding box

- 1 Click the **Select** icon.
- 2 Drag a bounding box around the objects you want to select.
Objects are selected when you release the mouse button.



Note Unless they have already been grouped, only objects completely within the bounding box will be selected when you release the mouse button. See also [Grouping objects](#).

Selecting a range of objects by point and click



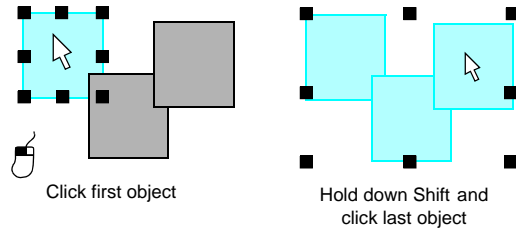
Click **Edit > Select together** with the **Shift** key to select a range of objects.

You can select a range of objects by holding down **Shift** while you click the first and last objects in the range.

To select a range of objects by point and click

- 1 Click the **Select** icon.
- 2 Click the first object in the range and hold down **Shift**.
- 3 Click the last object in the range.

All objects in the stitching sequence between first and last selected objects are selected.



Note It helps to know the design stitching sequence for this method. See [Simulating design stitchout](#) for details.

Viewing and selecting colors



Use **Docker > Resequencing** to select design objects.

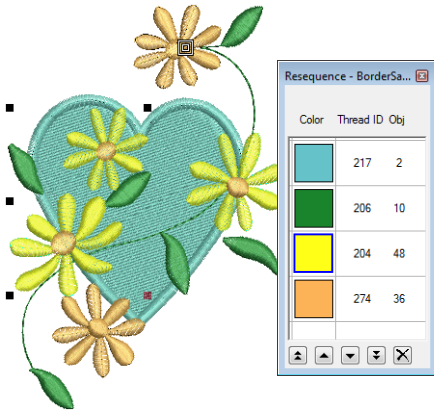
The **Resequencing List** provides a sequential list of embroidery objects as digitized, grouped by color block. It offers an easy way to select and view colors. It is normally docked on the right but can be dragged to any position you require.



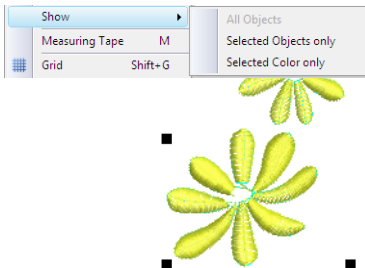
Try this! You can use the **Resequencing List** to lock objects as well as flip and rotate them. See also [Arranging & Transforming Objects](#).

To view and select colors

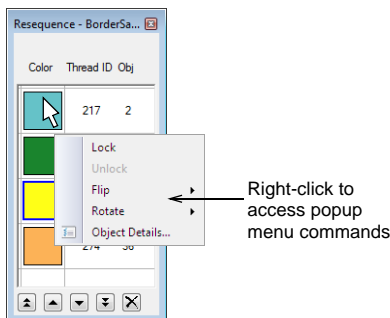
- ◆ Click the **Resequencing** icon.
The **Resequencing List** opens. It can be docked to the right side of the design window or floated in any position. A separate icon for each color block in the design appears in order of stitching sequence.
- ◆ Click a color corresponding to the color block you want to select.



- ♦ Select more colors as required:
 - ♦ Holding down **Ctrl**, select multiple objects to resequence.
 - ♦ Holding down **Shift**, select a range of objects to resequence.
- ♦ View selected colors via the **View > Show** options.



- ♦ Access commands via the **Resequence List** including lock/unlock and object details.

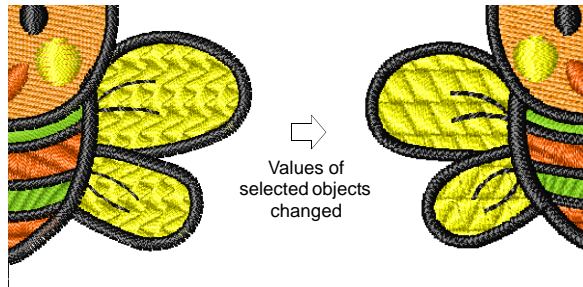


Warning Any changes to object details, such as flipping, rotating, or changing stitch types, will affect **all** objects in the selected color.

- ♦ To deselect all objects, click the design window.

Changing object details

Embroidery objects divide broadly into two categories – **Line Stitch** and **Fill Stitch**. You can change the details of selected objects via the **Object Details** dialog.



Changing details of selected objects

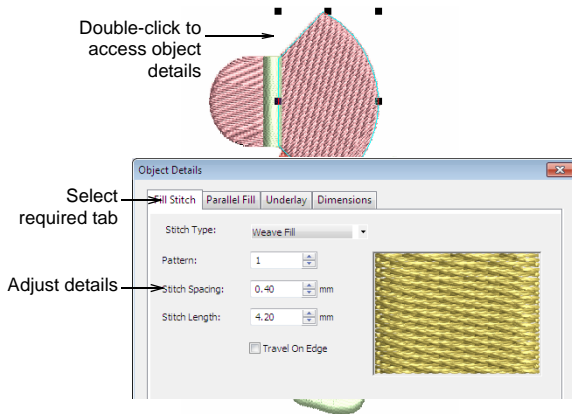
- ♦ You can change the details of selected objects individually or as a group. If you select more than one object, the **Object Details** dialog will only display tabs that include details relevant to **all** selected objects. If selected objects have different current values for the same setting, the field will be blank. If you enter a new value, it will apply to all selected objects.



Note Changing the details of existing objects does **not** affect the current or default settings, nor the details of any objects **not** currently selected. See also [Changing fabrics & backgrounds](#).

To change details of selected objects

- 1 Select the object/s whose details you want to change.

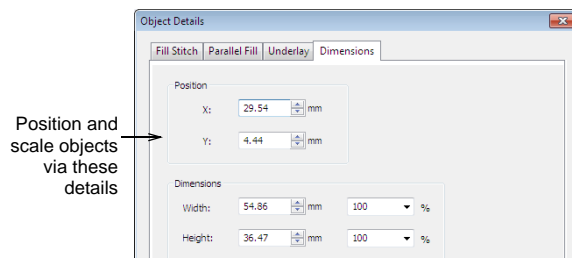


- 2 Double-click to open the **Object Details** dialog.
- 3 Select the tab you want and adjust details as required.
- 4 Click **OK**.

The selected object/s updates according to the new details.

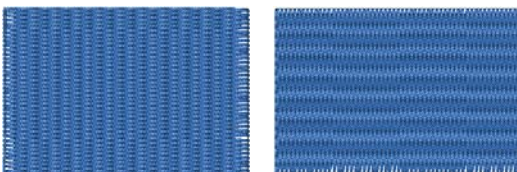


Note All objects have dimensions. These can be modified via the **Object Details** dialog as well. See [Scaling objects via settings](#) for details.



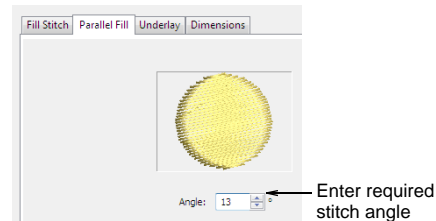
Changing Parallel Fill details

Larger, closed shapes are known as **Parallel Fill** objects. Most shapes are in fact formed by this type of object. Parallel Fill objects can be filled with different types of fill stitch. Digitizer EXjr supports three styles – Satin Fill, Weave Fill, and Embossed Fill. You can change the stitch angle of Parallel Fill objects via **Object Details**.

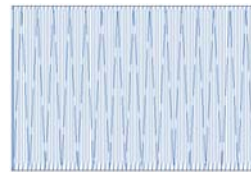


To adjust Parallel Fill stitch angles by object details

- 1 Select and double-click a **Parallel Fill** object. See [Selecting objects in designs](#) for details.
The **Object Details** > **Fill Stitch** tab opens.
- 2 Select the **Parallel Fill** tab.



- 3 Enter the required stitch angle in the **Fill Stitch Angle** field.
- 4 Click **OK**.



Angle: 90°



Angle: 0°

Changing colors of selected objects



Click **Docker** > **Color Palette** to open the Color Palette. Use this to change colors of selected objects or set default color for new objects.

Change the color of one or more selected objects in your design at any time. You can select all objects of the same color with a single command. Use this feature to apply a change across all objects of the same color. See also [Setting up color palettes](#).



Try this! When you insert one design in another, the two color palettes are merged. See also [Inserting designs](#).

To change colors of selected objects

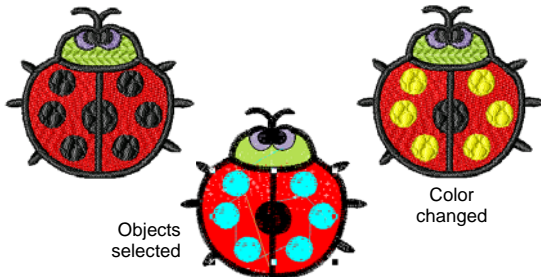
- 1 Deselect all objects.
- 2 Click the **Color Palette** icon or press **Ctrl+R**.



Try this! Resize and click-and-drag the color palette anywhere within the design window.

- 3 Update the color palette to use the exact threads you want to use as required. See [Setting up color palettes](#) for details.
- 4 Select the object (or objects) you want to recolor.
- 5 Hover the mouse pointer over a color in the color palette to view its brand, code and description in a tooltip.
- 6 Select the color you want.

The selected objects update accordingly.



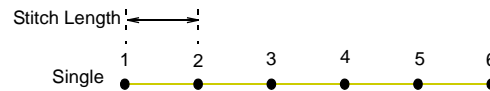
Changing line stitch details

Digitizer EXjr supports two styles of line stitch – Single Run Line and Satin Line. Other types, such as Motif Run, can be opened and viewed but details cannot be modified.



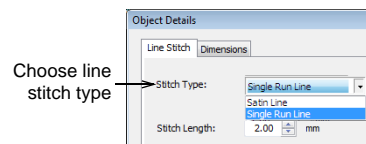
Changing line stitch type

You can change line stitch type at any time. If scaling up, you may want to change an outline from Run to Satin. See also [Scaling objects](#).

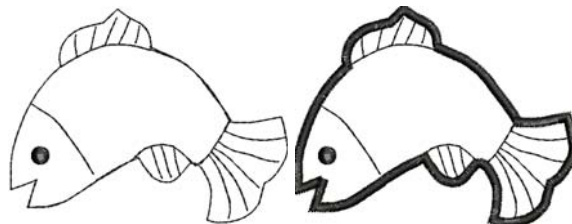


To set Run Line stitch type

- 1 Double-click the **Run Line** object.
The **Object Details > Line Stitch** dialog opens.



- 2 Select a line stitch type from the dropdown list.



- 3 Click **OK**.

Setting Run Line stitch length

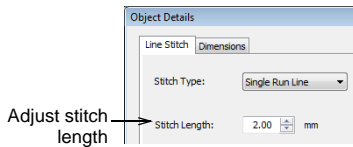
For **Run Line** stitches, set the stitch length to suit the digitized shape. Where the object has tight curves, select a shorter stitch length. To reduce the stitch count for flatter curves, increase the stitch length.



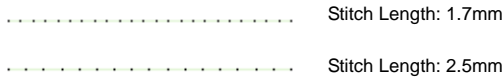
Note These values only apply to objects created with the **Run Line** digitizing methods. They do not affect travel runs, or underlay stitching.

To set Run Line stitch length

- 1 Select and double-click a **Run Line** object. See [Selecting objects in designs](#) for details.
- 2 The **Object Details > Line Stitch** dialog opens.



- 3 Enter a stitch length in the **Stitch Length** field.



If a line has tight, sharp curves, reduce the length, for example to 1.8mm, so that the stitches follow the line.

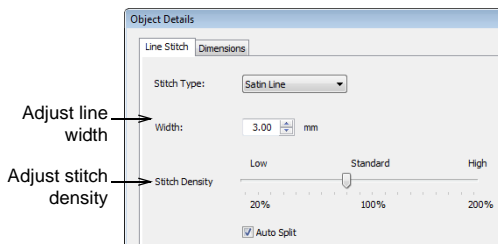
- 4 Click **OK**.

Setting Satin Line width and density

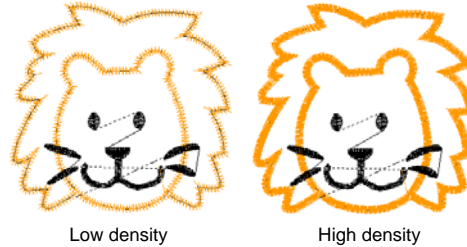
You can set the exact width of **Satin Line** columns in the **Object Details** dialog.

To set Satin Line width and density

- 1 Select and double-click a **Line Stitch** object – Run or Satin. See [Selecting objects in designs](#) for details. The **Object Details > Line Stitch** dialog opens.
- 2 Select **Satin Line** if not already selected.



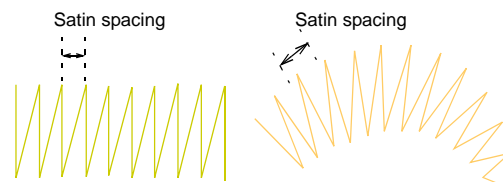
- 3 Enter a new width in the **Width** field.
- 4 Drag the slider to set the stitch density:
 - ♦ Use a lower density for a zigzag effect.
 - ♦ Use a higher density when using thin thread.
- 5 Click **OK**.



Note If a Satin shape is wide, some stitches may exceed the maximum stitch the embroidery machine can produce. When the **Auto Split** setting applied, Digitizer EXjr breaks any long Satin stitches into shorter ones. It also distributes needle penetrations in a random pattern so that they do not form a line in the middle of the shape.

Changing Satin Fill details

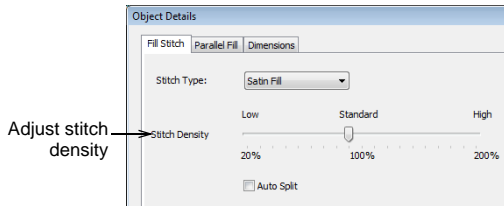
Satin Fill creates a glossy, high-quality effect. It is well suited to stitching narrow shapes or 'columns', where each stitch traverses the width of the column. Stitch spacing is the distance in millimeters between two needle penetrations on the same side of a column. Where a column is narrow, stitches are tight, thus requiring fewer stitches to cover the fabric. Where a column is very narrow, stitches need to be less dense because too many needle penetrations can damage the fabric.



Change the stitch density in Satin fills by dragging the slider in the **Object Details** dialog. The larger the spacing between stitches, the lower the density. The smaller the spacing, the higher the density.

To change Satin Fill spacing

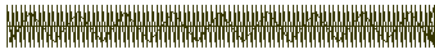
- 1 Select and double-click a Satin Fill object. See [Selecting objects in designs](#) for details. The **Object Details > Fill Stitch** dialog opens.



- 2 Move the slider to adjust stitch density:
 - ♦ To increase density, move the slider to the right.
 - ♦ To reduce density for more open stitching, move the slider to the left.
- 3 Click **OK**.



Density reduced



Density increased



Note If a Satin Fill shape is wide, some stitches may exceed the maximum stitch the embroidery machine can produce. When the **Auto Split** setting applied, Digitizer EXjr breaks any long Satin stitches into shorter ones. It also distributes needle penetrations in a random pattern so that they do not form a line in the middle of the shape.



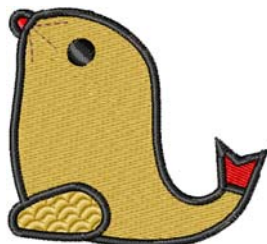
Auto Split OFF



Auto Split ON

Changing Weave Fill details

Digitizer EXjr supports three styles of fill stitch – Satin Fill, Weave Fill, and Embossed Fill. Weave Fill stitch consists of rows of run stitches and is suitable for filling large, irregular shapes. You can select from many attractive Weave Fill



patterns. Generally the default size and spacing will produce the best results, but you may like to change the stitch angle.



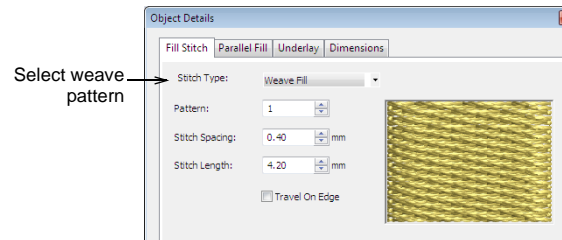
Note Other types, such as Motif Fill, can be opened and viewed, but details cannot be modified.

Selecting Weave Fill patterns

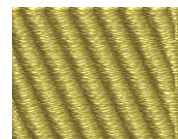
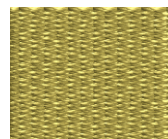
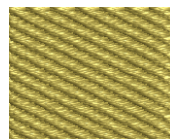
You can select from various Weave Fill patterns. Generally the default size and spacing will produce the best results, but you may like to change the stitch angle.

To select a Weave Fill pattern

- 1 Select and double-click a **Weave Fill** object. See [Selecting objects in designs](#) for details. The **Object Details > Fill Stitch** dialog opens.



- 2 Click the 'spin box' to cycle through a list of patterns, or enter the number directly into the field. A sample appears in the preview panel.



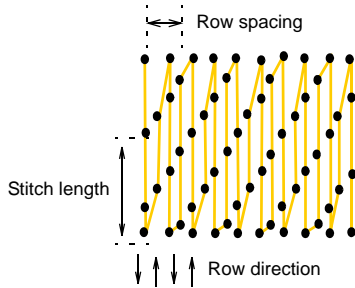
- 3 Click **OK**.



Try this! You can affect pattern orientations by adjusting the **Parallel Fill** angle. See [Changing Parallel Fill details](#) for details.

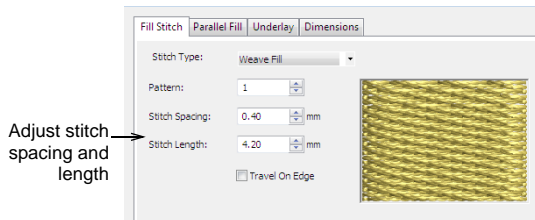
Adjusting Weave Fill details

For Weave Fill, stitch density is determined by the distance between each row of stitches. The spacing setting is the distance between two forward rows. You can also adjust Weave Fill stitch length.



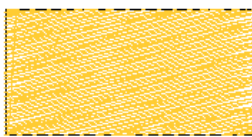
To adjust Weave Fill details

- 1 Select and double-click a **Weave Fill** object. See [Selecting objects in designs](#) for details.
The **Object Details > Fill Stitch** dialog opens.

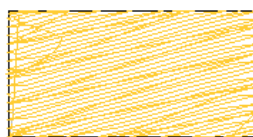


- 2 In the **Stitch Spacing** field, enter the new spacing value.
This value is the distance between each forward row of stitching.

- To increase the density, enter a smaller value.
- To decrease the density, enter a larger value.

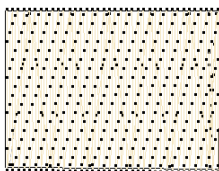


Stitch Spacing: 0.4 mm

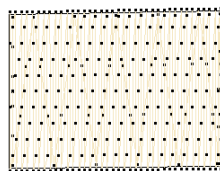


Stitch Spacing: 0.8 mm

- 3 In the **Stitch Length** field, enter a stitch length.
This setting varies slightly in order to ensure that small stitches are not generated at object edges.



Length: 2.5 mm
Minimum Stitch: 0.4 mm

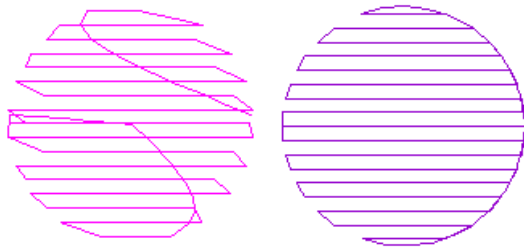


Length: 4.5 mm
Minimum Stitch: 0.4 mm

- 4 Click **OK**.

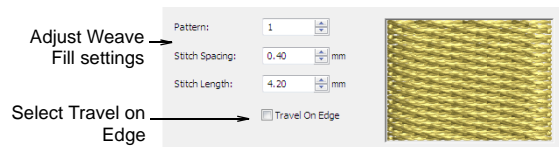
Creating open weave effects

In Digitizer EXjr, the **Travel on Edge** feature is typically used in combination with open Weave Fill stitching to fill backgrounds or for shading effects where the absence of travel runs under the fill is more important than exact spacing. Travel on Edge automatically moves underlying travel runs to the edges of an object so they can't be seen.



To create open weave effects

- 1 Select and double-click a Weave Fill object.
The **Object Details > Fill Stitch** dialog opens.



- 2 With Weave Fill selected as the stitch type, tick the **Travel on Edge** checkbox.

Travel on Edge is automatically checked when Stitch Spacing is greater than 0.80 mm or when Gradient Fill is selected, but it can be unchecked at any time.

- 3 Adjust the **Stitch Spacing** setting as required.
The larger the value, the more open the spacing.



Spacing: 5 mm

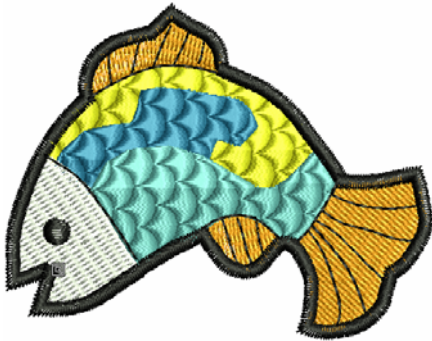


Spacing: 3 mm

- 4 Adjust other Weave Fill settings as required. See [Changing Weave Fill details](#) for details.
- 5 Click **OK**.
Travel runs and overlapping rows are removed and consistent row spacing applied.

Changing Embossed Fill details

Digitizer EXjr supports three styles of fill stitch – Satin Fill, Weave Fill, and Embossed Fill. Embossed Fill is a decorative fill stitch in which the needle penetrations form a tiled pattern. Select from a variety of available patterns.



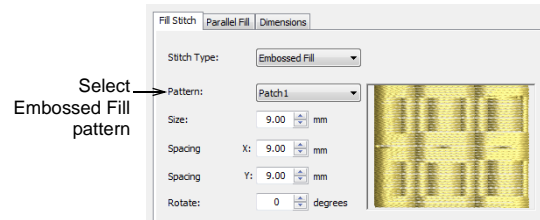
Note Other types, such as Motif Fill, can be opened and viewed, but details cannot be modified.

Selecting Embossed Fill patterns

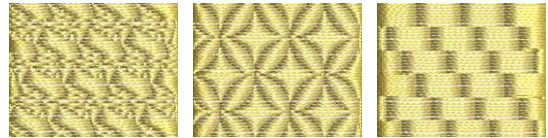
You can select from various Embossed Fill patterns. Generally the default size and spacing will produce the best results, but you may like to change the stitch angle.

To select an Embossed Fill pattern

- 1 Select and double-click an **Embossed Fill** object. See [Selecting objects in designs](#) for details.
The **Object Details > Fill Stitch** dialog opens.



- 2 From the **Pattern** dropdown list, select the required pattern.
A sample appears in the preview panel.



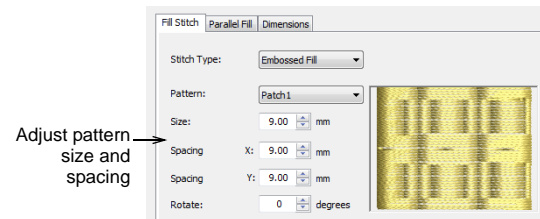
- 3 Click **OK**.

Adjusting Embossed Fill size and spacing

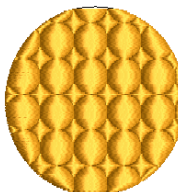
You can change the size of **Embossed Fill** patterns to get different effects. The spacing setting determines the distance between patterns.

To adjust Embossed Fill size and spacing

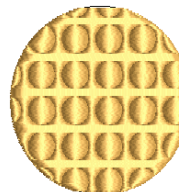
- 1 Select and double-click an **Embossed Fill** object. See [Selecting objects in designs](#) for details.
The **Object Details > Fill Stitch** dialog opens.



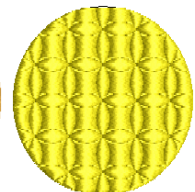
- 2 In the **Size** field, enter the size you require.
- 3 Click **OK**.



Size 5.00 mm



Size 4.00 mm

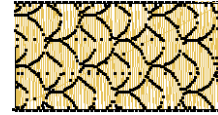


Size 7.00 mm

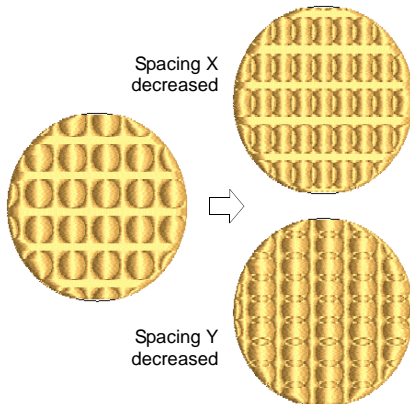
- 4 In the **Spacing** fields, enter a new spacing value.
This value is the distance between patterns – X is the horizontal and Y the vertical spacing.
 - ♦ To increase spacing, enter a smaller value.
 - ♦ To decrease spacing, enter a larger one.
- 5 Click **OK**.



Rotation Angle 0°

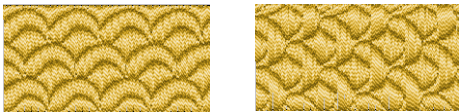


Rotation Angle 90°



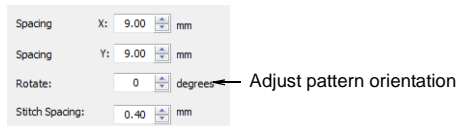
Adjusting Embossed Fill stitch angle

You can change the stitch angle to get the best results for each angle.



To adjust Embossed Fill stitch angle

- 1 Select and double-click the Embossed Fill object.
The **Object Details > Fill Stitch** dialog opens.



- 2 In the **Rotate** field, enter the rotation angle you require.



Try this! You can also affect pattern orientations by adjusting the **Parallel Fill** angle. See [Changing Parallel Fill details](#) for details.

- 3 Click **OK**.

Part III

MODIFYING DESIGNS

After digitizing a design, you can modify it as a whole or even edit individual objects.

Combining & resequencing objects

This section describes how to combine objects and designs by copying and pasting, duplicating, and inserting techniques. It also describes how to resequence objects by cut and paste, by color or object. See [Combining & Sequencing Objects](#) for details.

Arranging & transforming objects

This section describes how to position objects, lock and group, as well as how to scale, rotate, skew, and flip objects. See [Arranging & Transforming Objects](#) for details.

Chapter 7

COMBINING & SEQUENCING OBJECTS

Digitizer EXjr lets you add to designs quickly by duplicating and copying existing objects. It also lets you combine designs by inserting the contents of one file into another.

Stitching sequence usually occurs in the order in which the design was digitized. However, you can change this by a variety of methods.

This section describes how to combine objects and designs by copying and pasting, duplicating, and inserting techniques. It also describes how to resequence objects by cut and paste, by color or object.



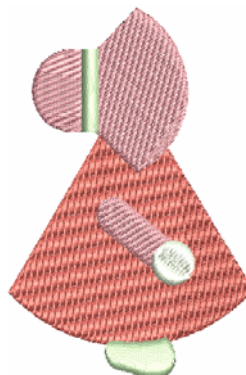
Inserting designs

Use Embroidery > Insert Design to combine two or more designs.

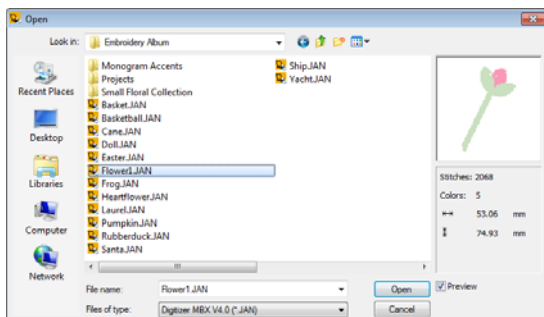
Digitizer EXjr lets you insert one design into another. The two (or more) designs can then be saved as a combined design.

To insert designs

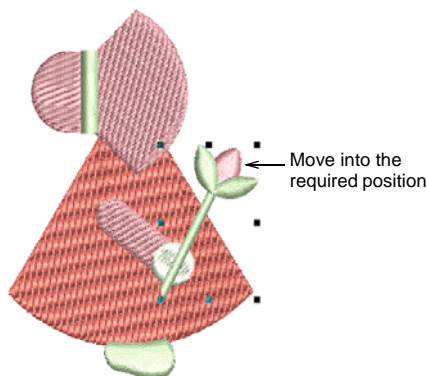
1 Open the first design.



2 Select **Embroidery > Insert Design**.
The **Open** dialog opens.

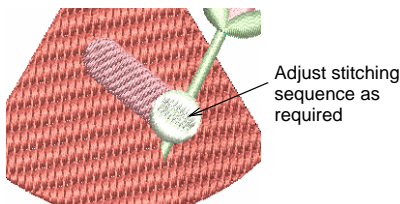


- 3 From the **Look In** dropdown list, select the folder where the design you want to insert is stored, and select the required format from the **Files of type** dropdown list.
- 4 Select the design file to insert, and click **Open**.
The design is inserted at the current needle position.
- 5 Move the second design into the required position. See [Positioning objects on screen](#) for details.



Try this! To ensure that all the objects in the inserted design stay together, group the design while working with it. See [Grouping objects](#) for details.

- 6 Adjust the stitching sequence as required. See [Resequencing designs by color](#) for details.



- 7 Save the combined design under the original or different name.
The designs you have inserted are now combined into one design.



Try this! If the two designs share colors, you may want to resequence them for efficient stitchout. See [Resequencing designs by color](#) for details.

Duplicating & cloning objects

A design or design objects can be copied or cut and placed on the Windows clipboard for temporary storage. It can then be pasted any number of times, within either the same or another design, until replaced on the clipboard. You can also cut, copy and paste lettering objects within and between designs. When you insert one design in another, the two color palettes are merged.

Copying & pasting objects

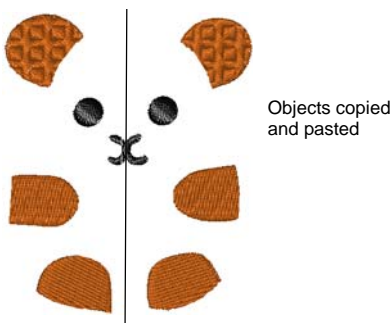


Click Copy (Standard toolbar) to copy selected objects to the clipboard.



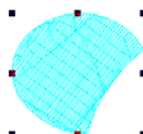
Click Paste (Standard toolbar) to paste copied objects in the design.

You can copy objects to create multiple, identical objects, or to insert objects from other designs.



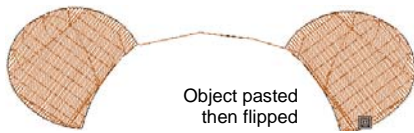
To copy & paste objects

- 1 Select the object/s to copy.



- 2 Click the **Copy** icon.
The selected object is copied to the clipboard.
- 3 Click the **Paste** icon.

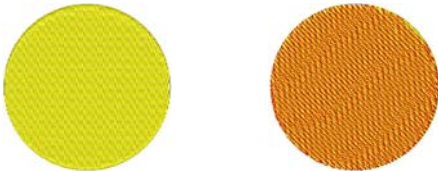
The object is pasted in the design. The object remains on the clipboard and can be pasted repeatedly until the next **Copy** or **Cut** command.



Duplicating objects

Select **Edit > Duplicate** to duplicate selected objects.

Objects can be duplicated rather than copied. When an object is duplicated, it is not copied to the clipboard. This leaves the clipboard free for you to cut or copy other objects.



Duplicated object spacing increased and color changed to create blending effect

To duplicate objects

- 1 Select the object/s to duplicate.
- 2 Select **Edit > Duplicate**.

The duplicate object is placed directly on top of the original, in the specified position in the stitching sequence.



Warning Make sure that there is only one copy of an object at any one position. If an object is pasted twice into the same position, it will be stitched twice.

Cloning objects



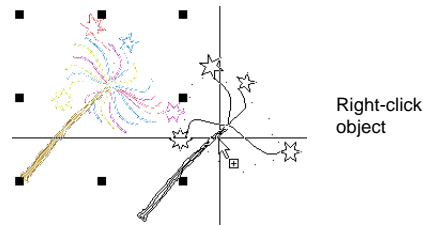
Click **Edit > Select** and click an object to select it.

The **Quick Clone** feature lets you quickly duplicate selected objects by right-clicking, dragging and releasing at a new position.

To clone objects

- 1 Select an object or objects.
- 2 Holding down the right mouse button, drag the object(s) to a new position.

A black outline of the object appears. The cursor icon includes a plus symbol.



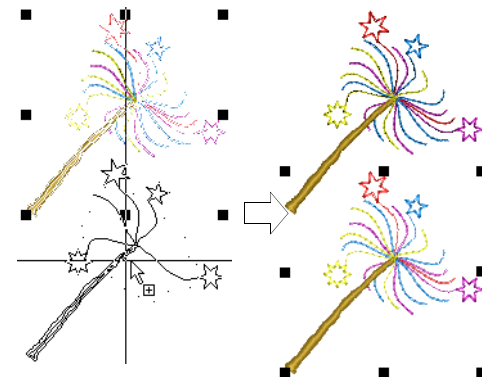
Drag-and-drop



Try this! For more precise positioning, hold down the **Ctrl** key while dragging – movement is thereby constrained to X or Y axes.

- 3 Release the mouse.

A duplicate object(s) is created at the release point.



Right-click, hold down Ctrl key, and drag-and-drop object

Release it



Try this! Clone objects to another window by the same method. To temporarily deactivate automatic scrolling, hold down the **Shift** key while dragging. An identical copy of the selection is created at the same coordinates as the first window, no matter where the mouse is released.

Deleting objects

Various methods are available for deleting objects.

To delete objects

- Select the object/s to delete, and do one of the following:
 - ♦ Press **Delete**.
 - ♦ Select **Edit > Delete**.

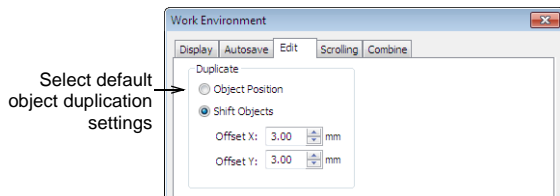
Setting duplication options

Select **Setup > Work Environment > Edit** to set object duplication options.

The **Duplicate** feature allows you to create effects like drop shadows for lettering or other objects. It allows you to add an X and Y offset when duplicating. Duplicate objects are placed according to settings in the **Edit** tab of the **Work Environment** dialog.

To set duplication options

- 1 Select **Setup > Work Environment**.
The **Work Environment** dialog opens.
- 2 Select the **Edit** tab.



- 3 Select required **Duplicate** option:

Option	Effect
Object Position	When activated, cloned objects are duplicated in the same location as the selected object/s. This is the default behavior.
Shift Objects	When activated, selected object/s are duplicated with horizontal and vertical offsets as indicated. Use these to create precise offsets for effects such as drop shadows.

- 4 Click **OK**.

Resequencing designs by color



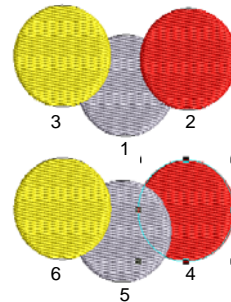
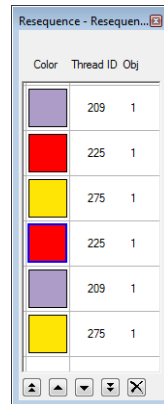
Click **Docker > Resequence** to resequence objects by color.

You can resequence designs by color. This reduces the number of color changes required. The **Resequence List** is 'modeless' meaning that it stays on the design window as long as you need it.

To resequence a design by color

- 1 Click the **Resequence** icon.

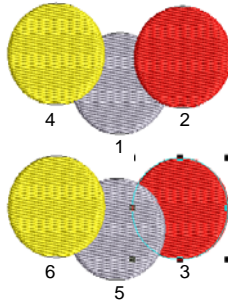
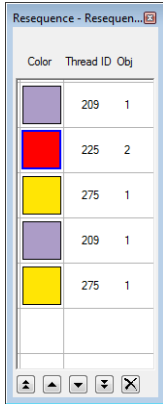
The **Resequence List** opens. In the sample below, the stitching sequence is labelled. Note that each color is stitched twice.



- 2 Select the first color you want to resequence.
- 3 Use the dialog buttons to reposition selected color/s in the stitching sequence:

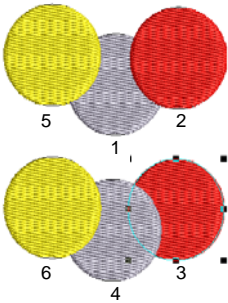
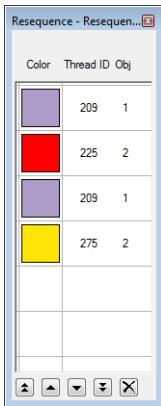
Button	Purpose
	Top: moves it to the start of the sequence.
	Up: moves it up one place up in the sequence.
	Down: moves it one place down in the sequence.
	Bottom: moves it to the end of the sequence.
	Delete: removes it from the sequence.

Alternatively, click and drag selected colors to the required locations.



- 4 Repeat as many times as required to optimize the color stitching sequence.

Notice in the sample below that color changes have been reduced to four – only the purple color still needs to be stitched twice.



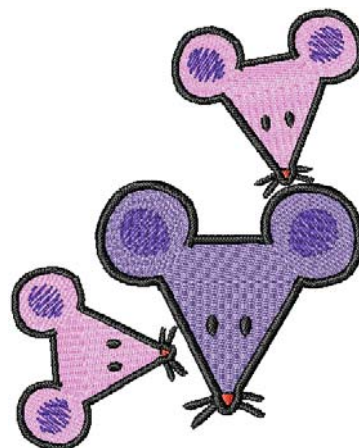
Chapter 8

ARRANGING & TRANSFORMING OBJECTS

You can change the position, size and orientation of objects in a design by moving, scaling and transforming them. Group objects together to apply a change to them all at once, or lock them to avoid unintentional modification. You can modify objects directly on-screen or by changing their settings. You can also access some of these functions using the popup menu.

The scalability and stitching quality of a design ultimately depend on its original source. Only native JAN designs contain the complete set of design information required for 100% perfect scaling and transformation. See also [Embroidery design formats](#).

This section describes how to position objects, lock and group, as well as how to scale, rotate, skew, and flip objects.



Positioning objects

Position objects in your design using the mouse to drag them to a new position, nudging them with the arrow keys or by specifying the X:Y coordinates in the **Object Details** dialog.

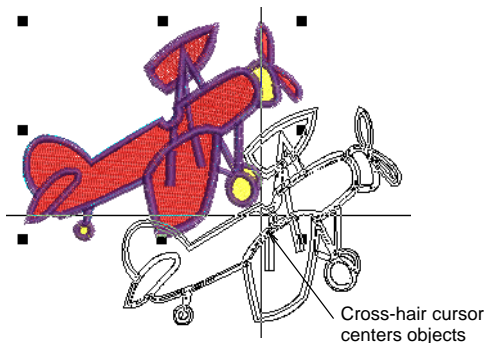
Positioning objects on screen

The simplest way to move an object in your design is to click and drag it to a new position. Alternatively, use the arrow keys to 'nudge' objects into position.

To position objects on screen

1 Select the object/s to move.

2 Click and drag the object to a new position.



3 For more accurate positioning, press the arrow keys to 'nudge' the object into the required position.



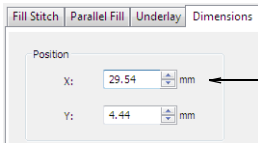
Try this! Zoom in to make small adjustments. The distance the object moves depends on the current zoom factor. The greater the zoom factor, the smaller the distance moved.

Positioning objects via settings

You can position selected objects relative to the center of a design by entering its X:Y coordinates in the **Object Details** dialog.

To position objects via settings

- 1 Select the object/s to move.
- 2 Double-click the object to open the **Object Details** dialog, and select the **Dimensions** tab.



- 3 Enter the new object coordinates in the **Position** fields.
- 4 Click **OK**.

The object is centered over the coordinates you set.

Locking & grouping objects

When you lock objects, you can prevent them from being moved or modified by accident. When you group objects, you can apply a change to all objects at once, saving time, and ensuring that the change is consistent across all.

Locking objects

Select **Edit > Lock** to lock selected objects. Select **Edit > Unlock** to unlock objects.

Lock objects to prevent them from being moved or modified by accident. For example, locking backdrop images or vector drawings holds them in place as you manipulate embroidery objects around them. Locked objects can be unlocked for modification at any time.

To lock objects

- ♦ Select the object you want to lock and select **Edit > Lock**.

The selection handles disappear, indicating that the object can no longer be selected or modified.

- ♦ To unlock objects, select **Edit > Unlock**. All locked objects in the design are unlocked.



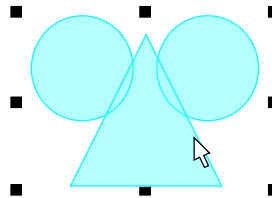
Try this! Right-click the selected objects and select lock from the popup menu.

Grouping objects

You can group selected objects or the whole design to keep them together for moving, scaling and transforming actions.

To group objects

- 1 Select the objects to group.
- 2 Select **Edit > Group**.



Select, move, resize, transform grouped objects as a single object

Selected objects are combined into a group. This can be selected, moved, resized and transformed as a single object.



Try this! To select with a bounding outline, simply drag the outline over one component object and the whole group will be selected. See also [Selecting objects with a bounding box](#).

Ungrouping objects

Select **Edit > Ungroup** to ungroup selected objects.

When you have finished making changes to a group, you can ungroup it and work with the objects individually.

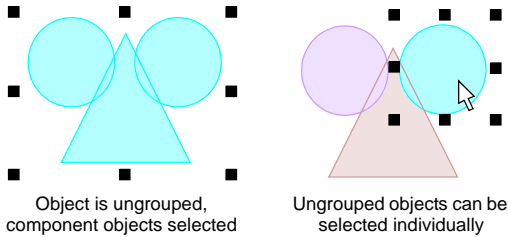


Note You need to ungroup before you can set embroidery details for any individual object in the group.

To ungroup objects

- 1 Select the grouped object.
- 2 Select **Edit > Ungroup**.

The object is ungrouped, and the component objects selected.



Scaling objects

You can scale objects by dragging the selection handles with the mouse, specifying the exact dimensions in the **Object Details** dialog, or by setting the distance between reference points on the design. As an object is scaled, the stitch count changes to preserve the current stitch spacing.



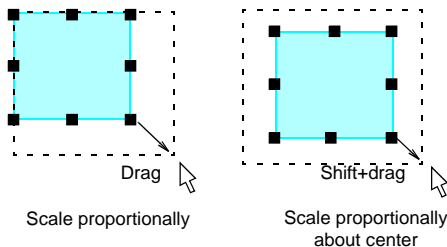
Note Only native JAN designs contain the complete set of design information required for 100% perfect scaling and transformation.

Scaling objects on screen

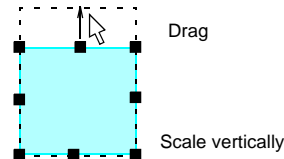
You can change the height and width of an object, or scale it proportionally using the selection handles. Scale objects individually, or select multiple objects and scale them together.

To scale objects on screen

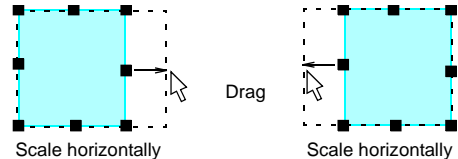
- 1 Select the object/s to scale.
Eight selection handles appear around the object.
- 2 Click and drag a selection handle to resize the object.



- To scale height and width proportionally, use a corner handle.



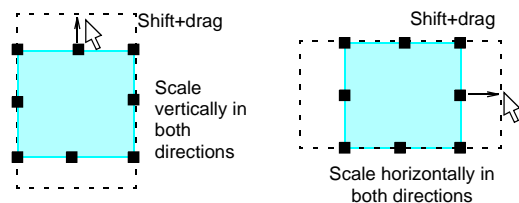
- To change the height, use the handles at the center-top or center-bottom.



- To change the width, use the handles at the center-sides.



Try this! To resize around a center anchor, hold down **Shift** while you resize.



Scaling objects via settings

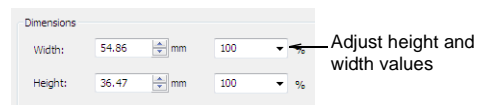
You can scale selected objects or a whole design using **Object Details**. This allows stitches to be regenerated and the original stitch density preserved.



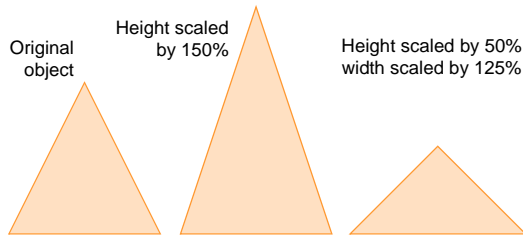
Warning If you scale a stitch design by more than 5%, changes to stitch density will affect the design quality. See also [Embroidery design formats](#).

To scale objects via settings

- 1 Select the object/s to scale.
- 2 Double-click the object to open the **Object Details** dialog, and select the **Dimensions** tab.

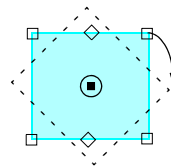


- 3 In the **Dimensions** panel, scale the object as required. Either:
 - ♦ Enter exact height and width values
 - ♦ Enter the new height and width as a percentage of the current dimensions.
- 4 Click **OK**.

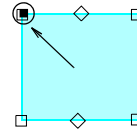


Note After scaling, the new object size is reset to 100%.

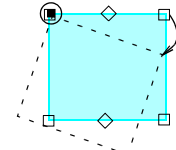
- 4 Click a rotation handle, and drag it clockwise or anti-clockwise. An outline and cross-hairs display as you rotate.



Drag a corner to rotate about the anchor point



Drag the anchor point



Drag a corner to rotate about the anchor point



Try this! You can also rotate objects by a precise angle via the **Object Details** dialog. Double-click the object and select the **Dimensions** tab. Enter the rotation angle and click **OK**.



Rotating objects

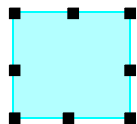
You can rotate objects directly on-screen or by using the Rotate tool.

Rotating objects on screen

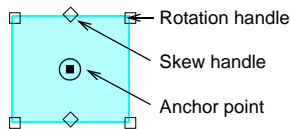
When you select an object, selection handles display at its extremities. If you click the object again, the handles change to rotation handles.

To rotate objects on screen

- 1 Select the object/s to rotate.
 - 2 Click the object a second time.
- Rotation handles appear at the corners of the object and an anchor point displays at the object's center.



First click displays selection handles



Second click displays rotation handles



Note If you click too quickly, the **Object Details** dialog opens.

- 3 If required, drag the rotation anchor from the center to a new position.

Rotating objects using Rotate

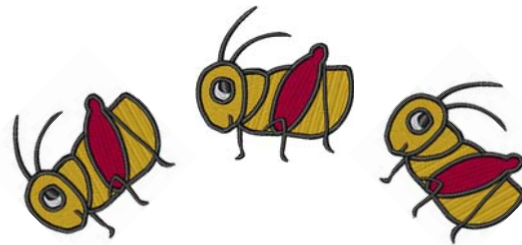


Click **Edit > Rotate 45° CCW/CW** to rotate a selected object or design by 45° clockwise. Right-click to rotate by 45° counter-clockwise.

Use the **Rotate 45° CCW/CW** tool to rotate objects by 45° rotations in either direction.

To rotate objects using Rotate

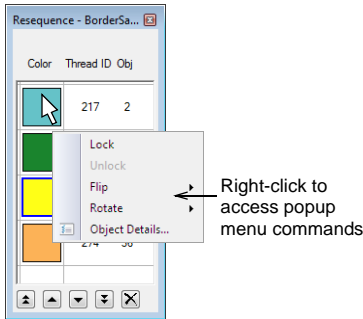
- 1 Select object/s with the **Select** tool.



- 2 Click **Rotate 45° CCW/CW** on the toolbar.
 - ♦ Click to rotate 45° counter-clockwise.
 - ♦ Right-click to rotate 45° clockwise.



Try this! You can also access the commands via the **Resequene List**. See also [Resequencing designs by color](#).

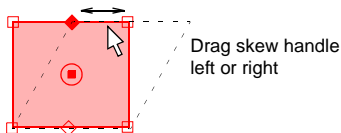


Skewing objects

You can skew objects along the horizontal plane by clicking skew handles and dragging to the required angle.

To skew objects

- 1 Select the object/s to skew.
- 2 Click the object a second time.
Rotation and skew handles appear around the object. Skew handles are diamond-shaped and appear at the center-top and bottom of the object.
- 3 Drag the skew handles left or right.
The object skews along the horizontal plane. An outline and cross-hairs show the change to the object's shape.



Flipping objects



Click Edit > Flip Vertically to flip a selected object or design up/down.



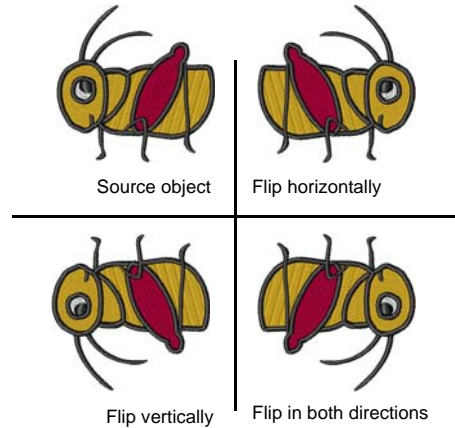
Click Edit > Flip Horizontally to flip a selected object or design left/right.

You can flip selected objects horizontally or vertically using the dedicated tools.

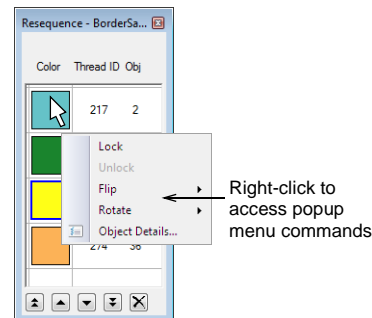
To flip objects

- ♦ Select the object/s to flip.

- ♦ Click the **Flip Horizontally** tool to flip the object left/right.
- ♦ Click **Flip Vertically** to flip up/down.
Alternatively, right-click the object and select **Flip Horizontally** or **Flip Vertically** from the popup menu.



Try this! You can also access the commands via the **Resequencing List**. See also [Resequencing designs by color](#).



Creating ornamental layouts

The **Easy Layout** feature allows you to arrange multiple embroidery designs on the item or fabric to be sewn. You can create a large embroidery layout using **Easy Layout** and any selected design/s or object/s. Designs are automatically copied, rotated and placed in the work area according to the chosen transformation method.



You can also print out the layout with Cloth Setter marks to enable them to use the Cloth Setter to physically layout the designs on the item or fabric you wish to embroider. You can also print the template which can be used to position each of the hooped portions of the design. See [Printing Designs](#) for details.



Try this! When used in conjunction with the **Combine** toolbar, you can place multiple hoops in a single design. See [Hooping large designs](#) for details.

Defining work areas



Use Easy Layout > Display Layout Work Area to toggle display of the defined work area.



Use Easy Layout > Define Layout Work Area to access the Easy Layout Work Area dialog.

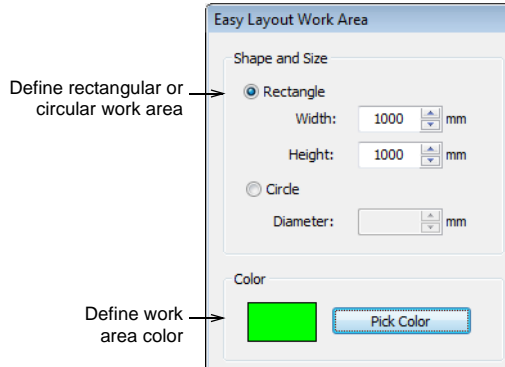


Use Apply to generate the object/s and stitches of copies created by Easy Layout operations. Pressing the Enter key has the same effect.

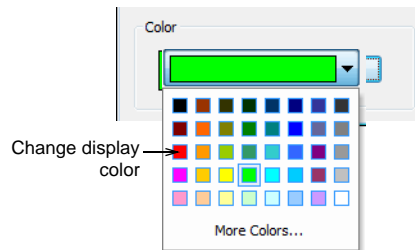
Before you can create a design layout, you first need to define a work area according to the characteristics of the item or fabric you intend to sew to. Work areas may be defined as rectangular or circular spaces. Digitizer EXjr allows you to define a work area of up to 3m x 3m.

To define a work area

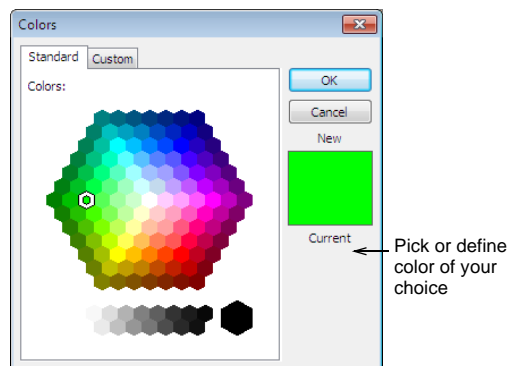
- 1 Click the **Define Layout Work Area** button to create a new work area.
The **Easy Layout Work Area** dialog is displayed.



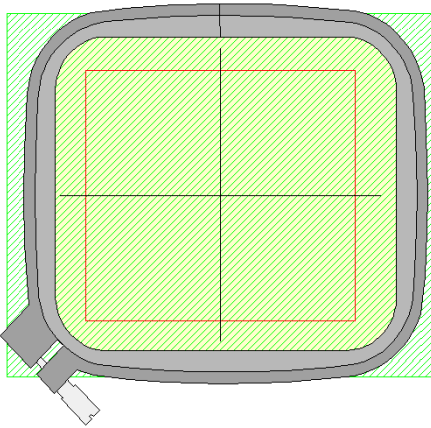
- 2 Select either a rectangular or round work area and enter the required size.
- 3 Optionally click the color droplist to change the display color.



- 4 Optionally, click **More Colors** to select another color or create a new color of your choice.
The **Colors** dialog opens.



- 5 Click **OK** to confirm selections.
- 6 Click the **Display Layout Work Area** button to display the layout.



Creating layouts



Use Easy Layout > Copy And Mirror To Corners to automatically create copies of any selected object/s in each corner of the layout work area.



Use Easy Layout > Move To Center to automatically move selected object/s to the center of the work area.



Use Apply to generate the object/s and stitches of copies created by Easy Layout operations. Pressing the Enter key has the same effect.

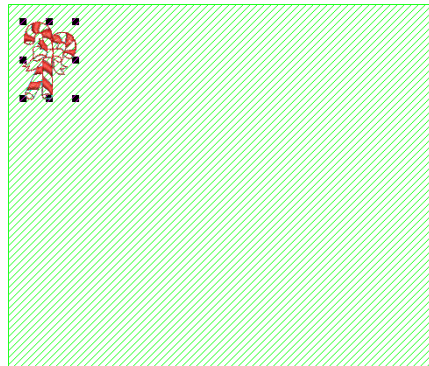
Create large embroidery layouts using **Easy Layout** together with selected design/s and/or object/s. Designs are automatically copied, rotated and placed in the work area according to the chosen transformation method. Designs are always placed equidistant around the center of the work area based on the reference design/s or object/s – i.e. the design/s or object/s selected to perform the operation.



Note There is no merging of overlapping designs and there is no optimization of color changes.

To create a layout

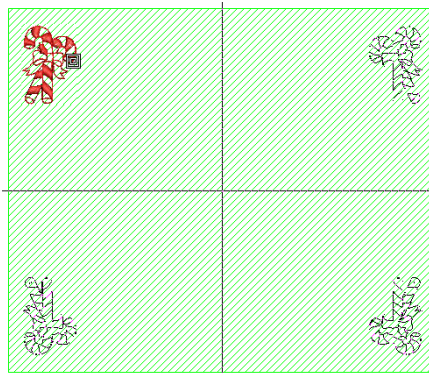
- 1 Define a work area as required, and click the **Display Layout Work Area** icon. See also [Defining work areas](#).
- 2 Insert a design and/or select a design/s or object/s already on-screen.
- 3 Move them to the desired position in the work area.



Warning If you want the selected objects to sew out in separate hoopings, make sure they are grouped before proceeding. Otherwise, they will be color-optimized for a single stitchout – i.e. color block by color block. See also [Hooping large designs](#).

- 4 Click the **Copy And Mirror To Corners** tool.

Four wireframe copies are displayed and placed equidistant around the center of the work area. Each copy is mirrored about the vertical or horizontal plane depending on the location of the reference design.



- 5 Click the **Apply** button or press **Enter** to confirm.
- 6 Insert or create additional designs as required.



- 7 Use the **Move To Center** tool to automatically move selected object/s to the center of the work area.



- 8 Press **Enter** to confirm.

Part IV

EMBROIDERY LETTERING

Create top-quality lettering quickly and simply. Digitizer EXjr provides a large range of scalable closest-join alphabet styles and multi-color and fancy stitching alphabets to choose from.

Creating embroidery lettering

This section describes how to add lettering, change formatting settings, and set lettering orientation. It also covers adding special characters as well as the creation of monogram designs. See [Creating Embroidery Lettering](#) for details.

Editing embroidery lettering

This section describes how to edit lettering including stitch type and letter spacing. It also covers scaling and transforming lettering. See [Editing Embroidery Lettering](#) for details.

Chapter 9

CREATING EMBROIDERY LETTERING

Digitizer EXjr lets you add lettering to designs quickly and easily using the built-in library of embroidery fonts. Apply formatting to lettering objects in the same way as a word processor, including italics.

Orientation determines the shape of lettering objects in a design. You can place lettering on a straight horizontal or vertical baseline, curve lettering around a circle or arc baseline, or digitize your own.

Digitizer EXjr gives you interactive control over many baseline settings.

Embroidery fonts generally contain many more characters than are available via your keyboard. Use the Windows Character Map to provide quick access to special characters and symbols.

Create monogram designs using special monogramming fonts. These provide three sets of the upper-case alpha characters.

This section describes how to add lettering, change formatting settings, and set lettering orientation. It also covers adding special characters as well as the creation of monogram designs.



Adding lettering to embroidery designs

Digitizer EXjr lets you add lettering to designs quickly and easily using the built-in library of embroidery fonts. Apply formatting to lettering objects in the same way as a word processor, including italics.



Creating embroidery lettering



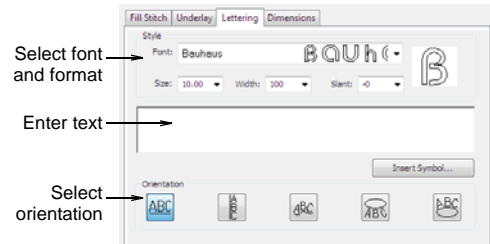
Use Lettering > Lettering to add embroidery lettering to designs or edit selected lettering.

You can change lettering characteristics before or after you digitize. You can also modify lettering objects directly on-screen to achieve various artistic effects. Digitizer EXjr provides a font range suitable for many applications.

Bauhaus
Bauhaus
Bauhaus

To create embroidery lettering

- 1 Click the **Lettering** icon.
The **Object Details > Lettering** dialog opens.



- 2 Enter the text you want to embroider in the text entry panel.

To start a new line of lettering, press **Enter**.



Try this! You can insert a color change between two letters by keying a caret (^) symbol. Subsequent letters default to the next color in the palette.

- 3 Select a font from the **Font** list.

A sample character of the chosen font appears in the preview window. For samples of the complete selection of standard fonts, see [Packaged Fonts](#).

- 4 Adjust the lettering **Size**, **Width**, and **Slant** settings as required. See also [Editing Objects](#).

Bauhaus
Bauhaus
Bauhaus



Try this! Consider the font before changing letter size. Some fonts look best in a smaller size. Others can be stitched at a larger size. See also [Packaged Fonts](#).

- 5 Select a lettering orientation. See [Setting lettering orientations](#) for details.
- 6 Click **OK**.
- 7 Click where you want to place the lettering, or mark reference points for the selected baseline.
- 8 Press **Enter**.



Note Letters are filled with stitches according to current settings in the **Fill Stitch** tab of the **Object Details** dialog. You can change these at any time. See [Changing lettering stitch types](#) for details.

Adding special characters



Click Lettering > Lettering to add lettering directly on-screen.

You can quickly add special characters and symbols to your lettering designs. If you know the keyboard shortcut for a symbol, add it to your lettering by entering the combination on-screen or in the **Object Details > Lettering** dialog.

!"#\$%&'()*

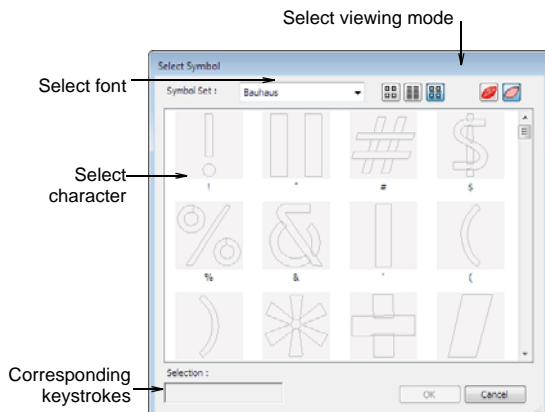
To select special characters

- 1 Right-click the **Lettering** icon.
The **Object Details > Lettering** dialog opens.



Try this! If you know the **Alt** key code for the special character you require, you can key it directly into the text entry field. The Windows Character Map gives you codes for all characters.

- 2 Click **Insert Symbol**.
The **Select Symbol** dialog opens.



Try this! Select a viewing mode – you can list fonts by picture, character, or both.

- 3 Select a font from the **Symbol Set** list.
- 4 Select the character(s) you want to use.



Try this! When you select a character, a keystroke appears in the **Selection** field. This indicates the key combination required to type the character directly on-screen. For example, 'm' means press the **m** key while '**M**' means press **Shift+M**.

- 5 Click **OK** to close the dialog.

The selected characters are displayed in the text entry panel. See [Creating embroidery lettering](#) for details.

Setting lettering orientations

Orientation determines the shape of lettering objects in a design. You can place lettering on a straight horizontal or vertical baseline, curve lettering around a circle or arc baseline, or digitize your own. Different reference points are needed depending on the orientation you use.



Baselines use default settings to determine their size, spacing and angles. Digitizer EXjr gives you interactive control over many baseline settings. Techniques are available to modify baseline type, length, radius and angle, as well as baseline position.

Selecting lettering orientation



Click Lettering > Lettering to select orientation and adjust baseline settings.

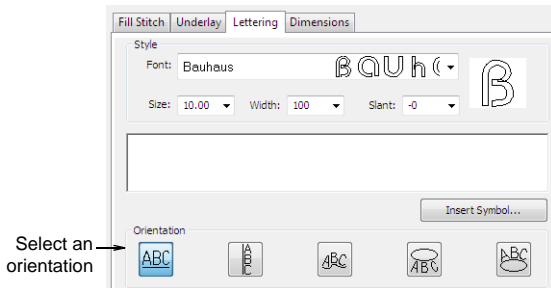
You can select different orientation through the **Object Details** dialog. You can also adjust baseline settings. You can apply orientation to new or selected objects.



Try this! Create identical baselines by duplicating or copying them in your design.

To select a lettering orientation

- 1 Double-click a selected lettering object.
The **Object Details > Fill Stitch** dialog opens.
- 2 Select **Lettering** tab.
- 3 In the **Orientation** panel, click an orientation icon.



The orientation you choose depends on the effect you want to achieve. You need to digitize different reference points depending on the type selected. Options include:

- Horizontal: See [Creating horizontal orientations](#) for details.
- Vertical: See [Creating vertical orientations](#) for details.
- Any Shape: See [Creating custom orientations](#) for details.
- Circle CCW: See [Creating circular orientations](#) for details.
- Circle CW: See [Creating circular orientations](#) for details.

- 4 Click **OK**.

Creating horizontal orientations

Free Line baselines are straight, horizontal baselines. Free Line does not have a fixed or pre-determined length – the baseline extends as long as you keep adding letters.

Bauhaus

To create a horizontal orientation

- 1 Create a new lettering object. See [Creating embroidery lettering](#) for details.

- 2 In the **Object Details > Lettering** dialog, select **Free Line** as the orientation.



- 3 Click **OK** and click on-screen to establish the start-point of the baseline.

Bauhaus

Creating vertical orientations

Vertical orientation does not have a fixed or pre-determined length – the baseline extends as long as you keep adding letters. Line spacing is calculated horizontally while letter spacing is calculated vertically. Letters, by default, are centered along vertical lines. New lines are placed by default from right to left to suit Asian languages. Vertical orientation is effective for embroidering on sleeves, as a decorative effect, and for Asian text.

Heissel



Try this! Vertical lettering best suited to uppercase for Western languages because descenders in lowercase letters are not accommodated in the letter spacing.

To create a vertical orientation

- 1 Create a new lettering object. See [Creating embroidery lettering](#) for details.
- 2 In the **Object Details > Lettering** dialog, select **Vertical** as the orientation.



- 3 Enter your text in the text entry box.
- 4 Click **OK** and click on-screen to establish the start-point of the baseline.

Creating circular orientations

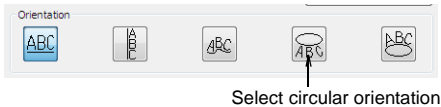
Use the **Circle CCW** or **Circle CW** orientation to place letters around a full circle.



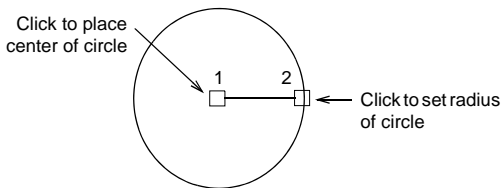
For a circle you need to mark two reference points, while for an oval you need to mark three. The position of the second reference point determines the justification point of the text. The text is centered around this point.

To create a circular orientation

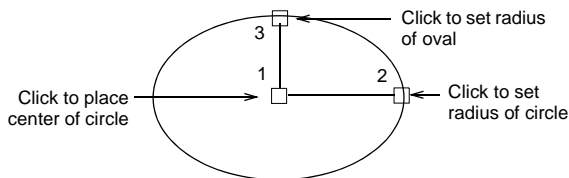
- 1 In the **Object Details > Lettering** dialog, click the **Circle CCW** or **Circle CW** orientation icon as required.



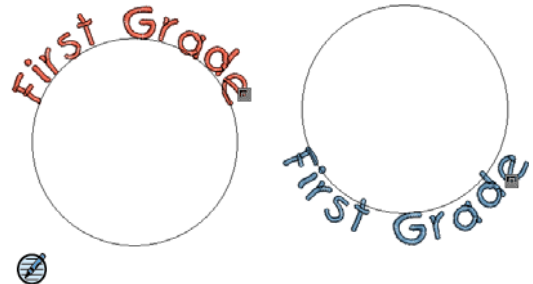
- 2 Enter your text in the text entry box.
- 3 Click **OK**.
- 4 Mark the center of the circle on-screen.
- 5 Mark a point on the circumference to define the radius.



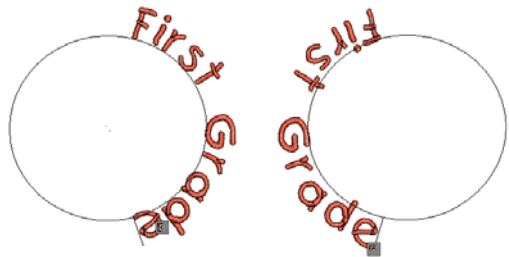
- 6 Press **Enter** for a perfect circle, or click again to form an oval.



- 7 Press **Enter** to close the oval.
The letters of your text are positioned around the circle according to the chosen orientation – **Circle CCW** or **Circle CW**.

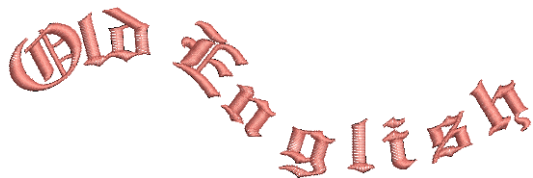


Note Orientation of the text around the oval is affected by both orientation method and where you mark the reference points.



Creating custom orientations

Use **Free Line** orientation to shape lettering around elements in your design. Digitize **Free Line** baselines by marking reference points to form the required line. The number of reference points and length of baseline are practically unlimited.



Try this! If the baseline has tight curves, or sharp corners, the letters may overlap. For best results, only mark curve points, and digitize lines which have shallow, gentle curves.

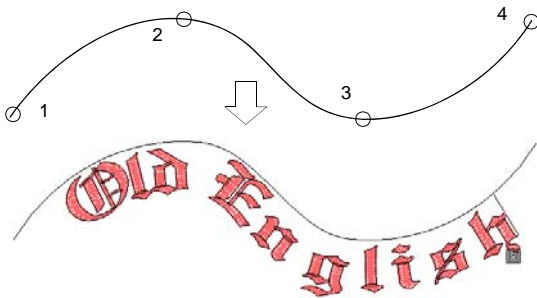
To create a custom orientation

- 1 In the **Object Details > Lettering** dialog, click the **Any Shape** orientation icon.



Select Any Shape orientation

- 2 Enter your text in the text entry box.
- 3 Click **OK**.
- 4 Mark the baseline reference points.
 - ♦ Mark curve points with the right mouse button.
 - ♦ Mark corner points with the left mouse button.
- 5 Press **Enter** to complete.



Creating monogram lettering

The **Monogramming** tool allows you to create personalized monograms with up to three initials, including special characters and symbols, or unlimited lines of characters.



Creating monogram lettering with initials



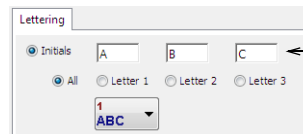
Use Lettering > Monogramming to create personalized monograms using a selection of pre-defined styles, border shapes and ornaments.

Up to three initials can be entered into your monogramming design, including special characters and symbols. Change settings for each one or all together, or apply pre-defined layout styles.



To create monogram lettering with initials

- 1 Click the **Monogramming** icon.
The **Monogramming** dialog opens with the **Lettering** tab selected. The **Initials** option is selected by default.



Enter initials in each field



Note The **All Letters** option is selected by default. This means that any changes to lettering properties will affect **all** initials in the monogram. If you want to specify different settings for each one, select the button corresponding to the letter you want to modify before proceeding. This step is repeated for each letter.

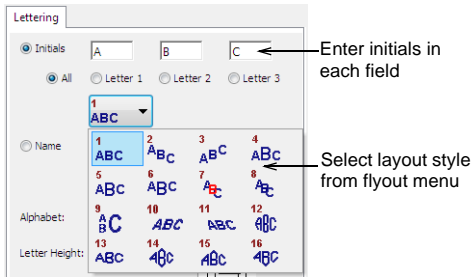
- 2 Enter the first initial for the monogram in the **Letter #1** field.

The letter simultaneously appears in the design window.



Note When using a single letter, it should be placed in the **Letter #1** field.

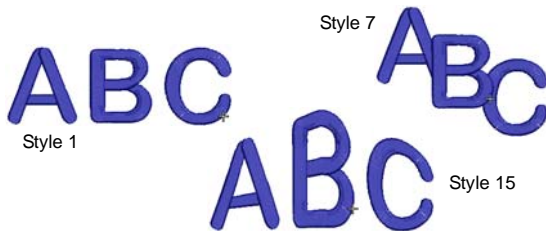
- 3 Tab to the next fields and enter second and third initials as required.
These letters appear in the design window.



Enter initials in each field

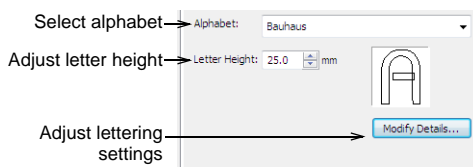
Select layout style from flyout menu

- Optionally, click the **Style** button and select the style you want from the flyout menu – scroll to the desired item and release the mouse button.
The current height of Letter #1 is used as the 'base setting' for the style.



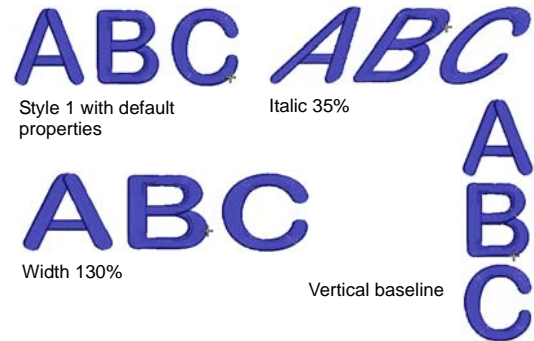
Note The **Style** button is only applicable to initials. (Style 1 is applied by default.) When the **Name** option is selected, this button is disabled. See also [Creating monogram lettering with names](#).

- Use the **Alphabet** dropdown list to change alphabets and adjust the **Letter Height** setting as required.



Note The default values for monogram lettering **Alphabet** and **Height** are distinct from those for conventional lettering.

- Click **Modify Details** to make any further adjustments to your lettering stitch properties. See [Changing lettering stitch types](#) for details.



- Click **OK** to complete.



Note The zoom factor is automatically adjusted to show the whole monogram.

Creating monogram lettering with names



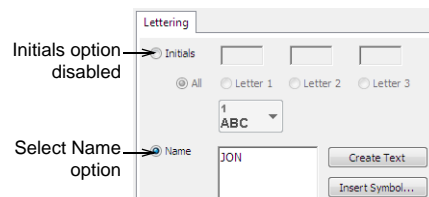
Use Lettering > Monogramming to create personalized monograms using a selection of pre-defined styles, border shapes and ornaments.

The monogram **Name** option allows unlimited lines of characters to be entered.



To create monogram lettering with a name

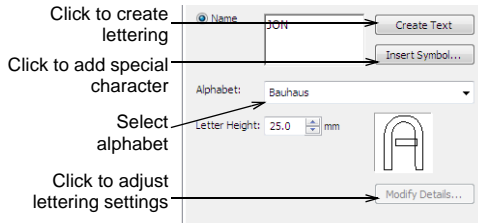
- Click the **Monogramming** icon.
The **Monogramming** dialog opens with the **Lettering** tab selected. The **Initials** option is selected by default.
- Click the **Name** option.
The **Initials** option is disabled.



- Enter your text in the **Name** field.

Pressing **Enter** starts a new line. When more than one line is created, the default baseline type is used.

- 4 Click the **Insert Symbol** button if you want to add special characters and symbols. See [Adding special characters](#) for details.
- 5 Select a thread color from the **Color** field.



Try this! You can edit the name using **Backspace** or **Delete** keys, using left and right arrow keys, or **Home** and **End** keys to move the insertion point.

- 6 Use the **Alphabet** dropdown list to change alphabets and adjust the **Letter Height** setting as required.



Note The default values for monogram lettering **Alphabet** and **Height** are distinct from conventional lettering.

- 7 Click **Modify Details** to make any further adjustments to your lettering stitch properties. See [Editing Embroidery Lettering](#) for details.



Selected font with default settings

Slant - 45



Circle CW baseline

Font changed

- 8 Click **OK**.
The monogram lettering object is added to the design window, replacing any that might already be there.
- 9 Click **OK** to complete.

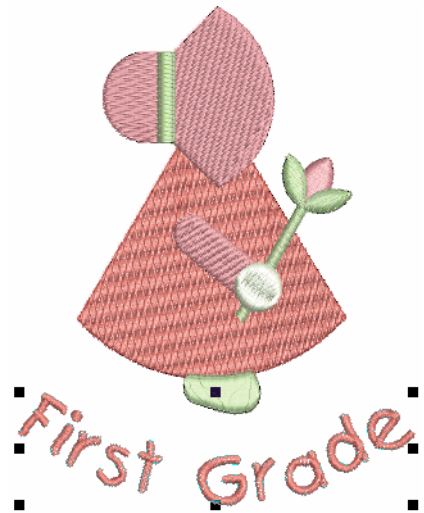
Chapter 10

EDITING EMBROIDERY LETTERING

Digitizer EXjr gives you interactive and precise numeric control over many settings affecting lettering objects. You can adjust lettering objects as a group as well as the individual letters comprising a lettering object. Letter and line spacings can be determined before or after creating lettering objects and placing them in your design.

When you first create lettering, it may be too big or too small. Size can be adjusted both interactively and via settings. Apart from scaling, you can interactively skew and rotate lettering objects.

This section describes how to edit lettering including stitch type and letter spacing. It also covers scaling and transforming lettering.



Editing lettering



Click Lettering > Lettering to edit lettering on-screen.

When you have created a lettering object, you can select it and make changes to it directly on-screen or by adjusting object details.



To edit lettering

- Select a lettering object, and click the **Lettering** icon. An I-beam appears after the last letter of the object. You can move it using arrow keys.

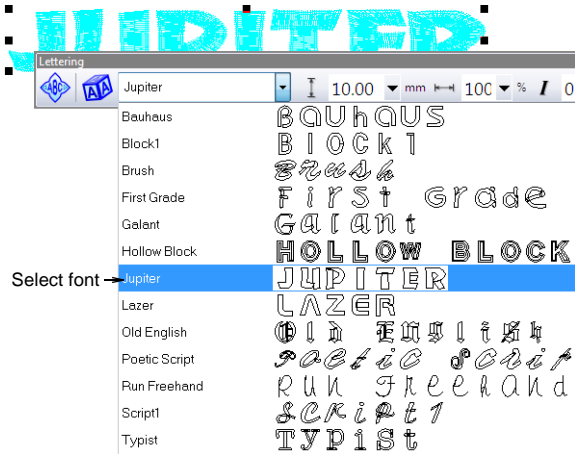


- Edit the text as required:
 - Use the arrow keys to move between letters.
 - Use **Backspace** and **Delete** keys to remove letters.
 - Press **Enter** to complete.



Try this! Press **Shift+Enter** to start a new line.

- With the lettering object selected, change fonts by selecting another font from the **Font** list on the **Lettering** toolbar.



- Adjust lettering **Size** and **Width** settings as required. See also [Scaling lettering](#).



Adjust Size and Width settings

Change slant

Change orientation

- Change slant settings as required.



- Change orientation settings as required. See [Setting lettering orientations](#) for details.



Try this! Alternatively, double-click a selected lettering object or objects. The **Object Details > Fill Stitch** dialog opens. Select the **Lettering** tab and edit settings as required.



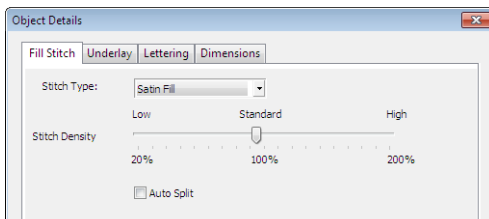
Note Letters are filled with stitches according to current details in the **Object Details > Fill Stitch** tab. See also [Changing lettering stitch types](#).

Changing lettering stitch types

By default, lettering objects are filled with **Satin Fill**. You can also apply other fill stitch types, such as **Weave Fill** and even **Embossed Fill**, as with other embroidery objects. See [Editing Objects](#) for details.

To change lettering stitch types

- Double-click a selected lettering object.
The **Object Details > Fill Stitch** dialog opens.



- To adjust Satin settings, move the slider to adjust the lettering stitch density.

By default, lettering objects are filled with **Satin Fill**. Where a letter is narrow, stitches are tight, thus requiring fewer stitches to cover the fabric. Where a column is very narrow, stitches need to be less dense because too many needle penetrations can damage the fabric. See also [Changing Satin Fill details](#).

Galant
Galant
Galant

- Select a **Weave Fill** and adjust settings as required.
Weave Fill is suitable for large, irregular lettering shapes. See also [Changing Weave Fill details](#).

Brush
Brush
Brush



Try this! You can even select from various **Embossed Fill** patterns. Generally these are only suitable for large, block lettering objects. See [Changing Embossed Fill details](#) for details.

Scaling lettering

When you first create lettering, it may be too big or too small. Size can be adjusted via:

- Resize handles available with the **Select** tool,
- Size and height settings in the **Lettering** toolbar,
- Size and height settings in the **Object Details > Lettering** dialog, or
- Width and height settings in the **Object Details > Dimensions** dialog.



Try this! You can change the appearance of a font by changing the letter width in proportion to the height. The original width value is 100%.

Scaling lettering on screen



Use Edit > Select to scale lettering objects on-screen.

You can scale your lettering objects vertically, horizontally and proportionally with the **Select** tool. See also [Transforming lettering](#).

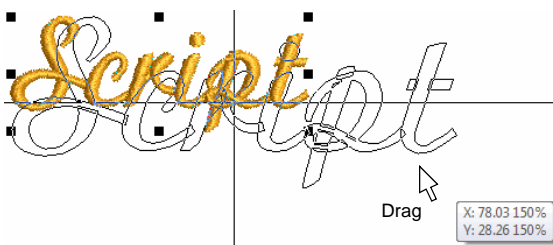
Script
Script

To scale lettering on screen

- 1 Click the **Select** icon and select the lettering object.



- 2 Click and drag one of the square control points to resize the object horizontally, vertically or proportionally.
A shadow outline shows the new size of the lettering object as you drag.



- 3 Release the mouse to complete.

Script



Try this! Alternatively, adjust lettering **Size** and **Width** settings via the **Lettering** toolbar. See [Editing lettering](#) for details.



Adjust Size and Width settings

Scaling lettering via settings

You can scale your lettering objects vertically, horizontally and proportionally via the **Object Details > Lettering** tab or **Object Details > Dimensions** tab. The **Dimensions** tab is easier for scaling height and width settings independently of each other.

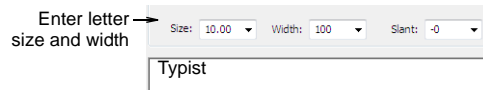
Typist
Typist



Try this! You can change the appearance of a font by changing the letter width in proportion to the height. The original width value is 100%.

To scale lettering via settings

- 1 Double-click selected lettering object/s.
The **Object Details > Fill Stitch** dialog opens.
- 2 Select the **Lettering** tab.



- 3 Enter the size of your lettering object in the **Size** field.
- 4 Enter the width of your lettering object in the **Width** field as a percentage of the height.
 - ♦ For wide letters, increase the percentage – e.g. 140%.
 - ♦ For narrow letters, decrease the percentage – e.g. 70%.

Typist
Typist Typist



Try this! Alternatively, select the **Dimensions** tab and adjust width and height settings either as absolute values (mm) or as a percentage of current settings.



Transforming lettering



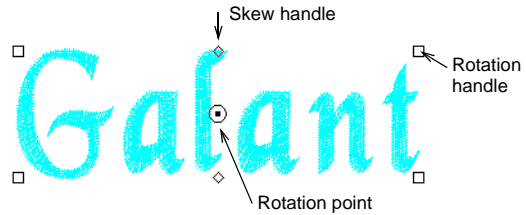
Use Edit > Select to transform lettering objects on-screen.

You can transform lettering objects by manipulating control points on-screen with the **Select** tool. See also [Scaling lettering on screen](#).

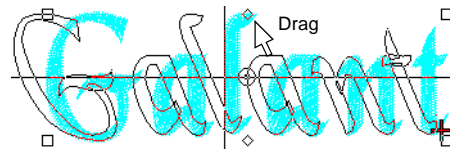
Galant
Galant Galant

To transform lettering

- 1 Click the **Select** icon and select the lettering object. The resizing control points appear. See also [Scaling lettering on screen](#).
- 2 Click the lettering object again. Another set of control points appear. These let you rotate and skew the lettering object.



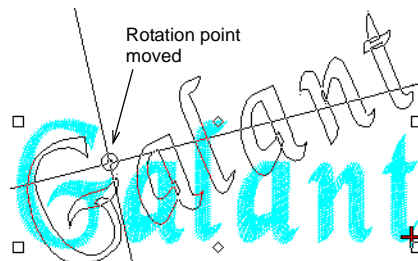
- 3 Click and drag one of the diamond-shaped control points to skew the lettering object horizontally. A shadow outline shows the skewed lettering object as you drag.



- 4 Click and drag one of the hollow square control points to rotate the lettering object. A shadow outline shows the rotated lettering object as you drag.



- 5 Click and drag the rotation point itself to a new position before rotating.



- 6 Press **Esc** to complete.

Part V

DESIGN PROCESSING

You can output embroidery designs in a variety of ways – saving to disk or sending directly to machine for stitching. Designers frequently want to distribute their designs so that they can be seen in real colors, in Visualizer or otherwise. In Digitizer EXjr you can save both design images and production worksheets to disk or email them.

Printing designs

This section describes how to preview printouts, set print options, print embroidery elements, appliqué patterns, as well as color layers. See [Printing Designs](#) for details.

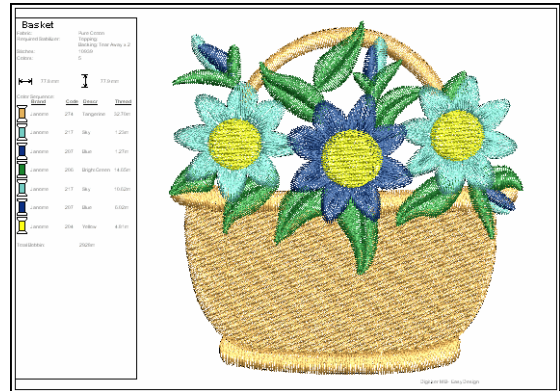
Reading & writing design files

This section describes embroidery stitch and outline design formats, as well as how to open embroidery files in Digitizer EXjr. It also describes saving designs for machine as well as sending and receiving designs by direct connection. Writing designs to an external media drive is also covered. See [Reading & Writing Design Files](#) for details.

Chapter 11

PRINTING DESIGNS

You can create a hard copy of your designs using default or custom printer options. Preview designs before printing. Set print options to display the exact information you require. There are options to include or exclude start/end point crosshairs, connectors, background color/fabric as well as the current hoop. Print a copy of the appliqué pattern to use to cut out the fabric pieces. A Color Layers option allows you to include a list of color layers together with color and stitch information for each layer. If you are using a color printer, you can print in Visualizer mode.



This section describes how to preview printouts, set print options, print design elements, appliqué patterns, as well as color layers.

Previewing printouts



Use Standard > Print Preview to preview a design printout.



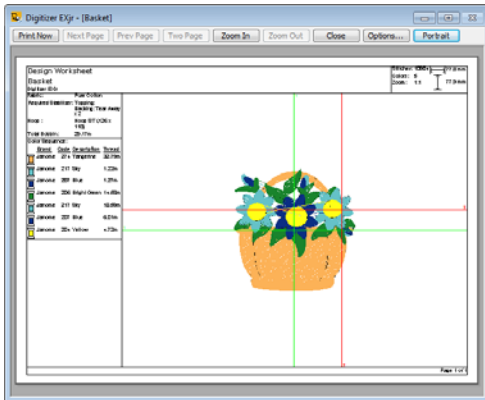
Use Standard > Print to print a design using current settings.

Use **Print Preview** to view stitching information. Use it to check the sewing sequence before you stitch out your design. You can create a hard copy of your designs using default or custom printer options.

To preview a printout

- 1 Click the **Print Preview** icon.

Your design displays as it will be printed. Large designs may be displayed over a number of pages if printed at actual size.



- 2 Use the **Preview** buttons as required:

Button	Purpose
Next Page	View the next page.
Prev Page	View the previous page.
Two Page	Display two pages in the Preview Window.
Portrait / Landscape	Toggle design display between landscape and portrait views.
Zoom In/Out	Use to examine portions of the design or to read production information.

- 3 Click **Options** to set any **Print Options**. See [Setting print options](#) for details.
- 4 Click **Print Now** to proceed with printing. The MS Windows® **Print** dialog opens allowing you to choose a printer and adjust any other print settings you require. See also [Setting print options](#).
- 5 Click **Close** to return to the design window.

Setting print options

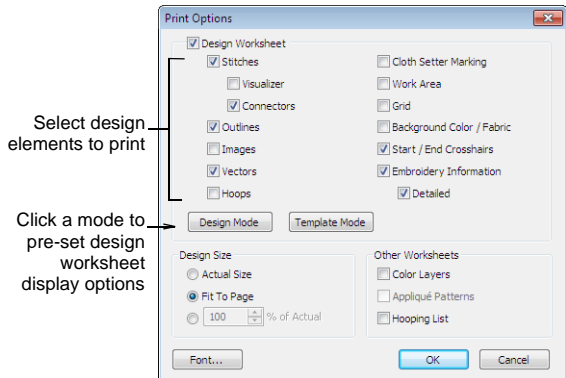
Print options give you precise control over your design printout. You can include templates or designs, design elements, and cloth setter markings. You can include a copy of the appliqué pattern as well as a list of color layers in the current design. Design information includes author, estimated length of upper thread per color and total bobbin usage.

To set print options

- 1 To access the **Print Options** dialog, either select **File > Print** or **File > Print Preview**.

- 2 Click **Options**.

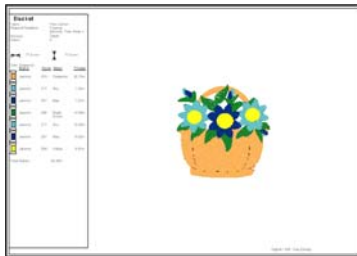
The **Print Options** dialog opens.



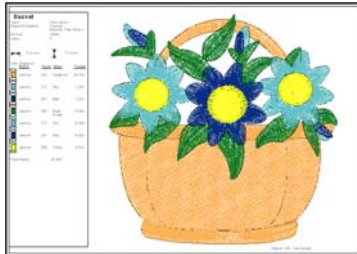
- 3 Click a **Design** or **Template** mode button to pre-set the design worksheet display options.

Mode	Purpose
Design Mode	Shows the design as it appears in the design window. You can turn on or off the preset options as required. See also Printing design elements .
Template Mode	Shows the design outlines with no stitches. See also Printing design layouts .

- 4 Select additional worksheets to include in the printout as required:
- Check **Color Layers** for a list of colors in the design, together with color and stitch information for each color layer. See [Printing color layers](#) for details.
 - Check **Appliqué Patterns** if you want a copy of the appliqué pattern as a guide to cutting out fabric pieces. See [Printing appliqué patterns](#) for details.
 - Check **Hooping List** if there is more than one hooping in the design. This displays hoopings in their correct color sequence. See [Printing multi-hooped designs](#) for details.
- 5 Select a sizing option from the **Design Size** panel. This option applies to both **Template** and **Design** modes. When selecting **Template** mode, the **Actual Size** option is automatically selected.



Actual Size



Fit to Page

6 Click **OK**.



Note While the cloth setting marking is supported in JEF and SEW files, outlines are not. Since JEF and SEW are stitch file formats, they only contain stitch data, no outlines. The workaround is to display JEF and SEW files with stitches and cloth setter marking turned on.

Printing design elements

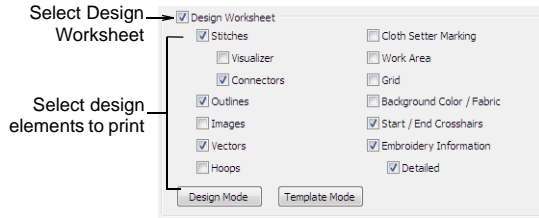
If you choose to print the **Design Worksheet**, there are options to include or exclude start/end point crosshairs, connectors, background color/fabric as well as the current hoop. Design information includes author, estimated length of upper thread per color and total bobbin usage.



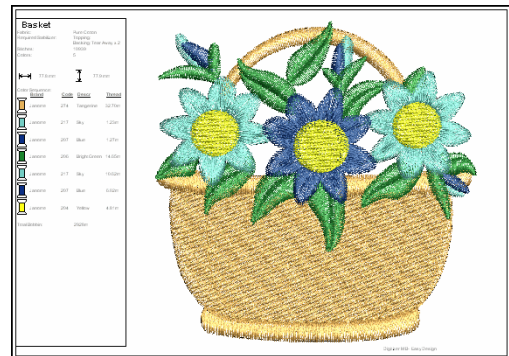
Try this! Using **Design Worksheet** options, you can also choose to print only design outlines without stitch information. You can also print only design images – vector or bitmap – as desired.

To print design elements

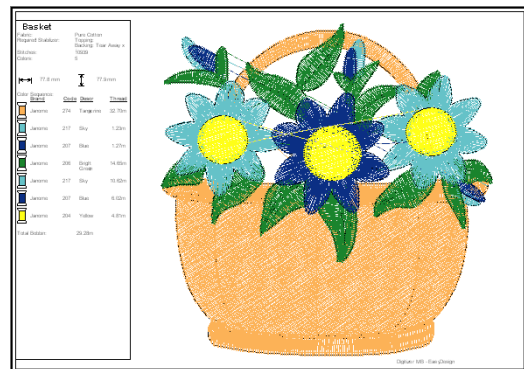
- In the **Print Options** dialog, select the **Design Worksheet** option if not already selected. See [Setting print options](#) for details.



- Choose the **Stitches** option if you want to include stitch data in your worksheet. Further options include:
- Visualizer**: Choose this option to print a representation of the final embroidery.



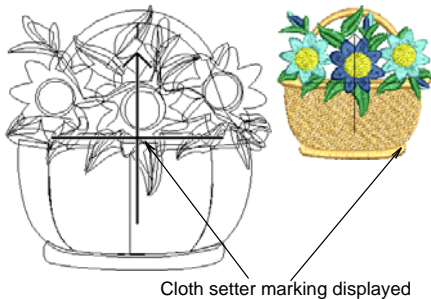
- Connectors**: All connecting stitches in the design are displayed, including jumps.



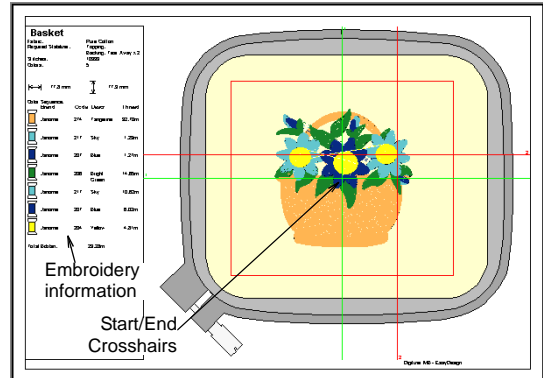
Note With **Visualizer** on, the **Connectors** option only shows actual connecting stitches. It does not show jumps which are displayed in normal stitch view.

- Include or exclude other design elements as required:
- Image**: If you want to include any bitmap images in the printout, select this option – e.g. design backdrop. See also [Digitizing with Artwork](#).

- ♦ **Outlines:** Select if you want to highlight design shapes with a dark outline. These are more obvious with **Visualizer** turned off. Alternatively, print design outlines with no stitches showing. See also [Printing design layouts](#).
- ♦ **Vectors:** If you want to include any vector graphics in the printout, select this option. See also [Digitizing with Artwork](#).
- ♦ **Hoops:** If you want to include a representation of the hoop in the printout, select this option. Not to be confused with the **Hooping List** used for multi-hooped designs. See also [Printing multi-hooped designs](#).
- ♦ Check the **Cloth Setter Marking** as required.
Cloth setter marks are printed for each hooping in the design. These allow accurate placement of designs within layouts on the item or fabric to be sewn. See also [Printing design layouts](#).



- ♦ Check **Work Area** to include an outline of the work area on the worksheet. See [Creating ornamental layouts](#) for details.
- ♦ **Try this!** When printing a large layout the software will display a warning dialog if the number of pages needed for the printout exceeds 10. Use the **Fit To Page** option or choose a **% of Actual** size to reduce the page count.
- ♦ Check the **Grid** option to include the background grid on the worksheet. See also [Measuring distances on screen](#).
- ♦ If you want to include the **Background Color/Fabric**, select this option. See also [Changing fabrics & backgrounds](#).
- ♦ **Start/End Crosshairs:** If you want to include start and end needle positions, select this option. The green crosshairs indicate the start point of the design, while the red crosshairs, the end point. By default, the green crosshairs are usually set to the center of the hoop.



- ♦ Check **Embroidery Information** to toggle the display of embroidery details on/off. In **Template** mode, detailed information is excluded from the worksheet by default.

Printing design layouts



Use **Standard > Print Preview** to preview a design printout.

You can sew embroidery out by sending the design directly to a sewing machine or saving it to removable media and stitching out using a layout template and the cloth setter. The device has a transparent plastic bar with marked cross.



Printing in **Template Mode** shows the design outline with no stitches. You can include cloth setter marks to allow accurate placement of designs within predefined layouts on the item or fabric to be sewn. These allow you to position the device for accurate design centering within a hoop.

Printing large layouts

Digitizer EXjr allows you to define layout work areas of up to 3m x 3m. Large layouts may print to many pages. To save paper, you may choose to print at a percentage of actual size. You must then remember to multiply the template dimensions by

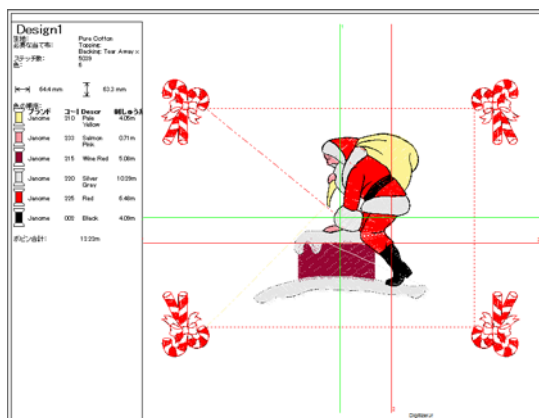
a scale factor. For example, if you print at 50%, you need to double the measurements on the worksheet when transferring to the fabric. Use the table below as a guide.

%	Scale	Factor
50%	2:1	x 2
25%	4:1	x 4
20%	5:1	x 5
10%	10:1	x 10

To print a design layout

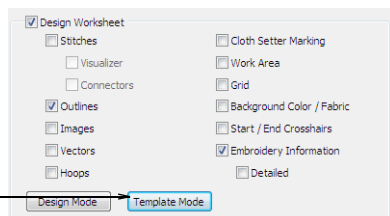
- 1 Click the **Print Preview** icon.

Your design layout displays as it will be printed. See also [Creating ornamental layouts](#).



- 2 Click **Options**.

The **Print Options** dialog opens.



- 3 Select **Template Mode**.

These settings show the design outline with no stitches.



Note While the cloth setting marking is supported in JEF and SEW files, outlines are not. Since JEF and SEW are stitch file formats, they only contain stitch

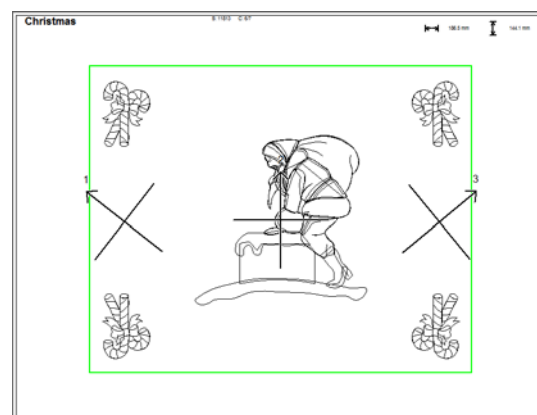
data, no outlines. The workaround is to display JEF and SEW files with stitches and cloth setter marking turned on.

- 4 Make sure **Cloth Setter Marking** and **Work Area** options are checked.

The cloth setter marking indicates the hooping center. They are printed for each hooping in the design.

- 5 Select the **Actual Size** option in the **Size** group.
- 6 Click **OK**.

Each hooping has a number printed near the cloth setter mark to indicate the hoop sequence.



Try this! You can print out an overview of the layout by selecting **Fit to Page** or entering a value in the **% of Actual** field.

Printing color layers



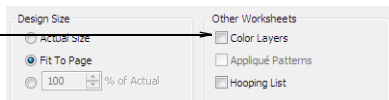
Use **Standard > Print Preview** to preview a design printout.

The **Color Layers** option lets you include a list of color layers in the current design, together with color and stitch information for each layer.

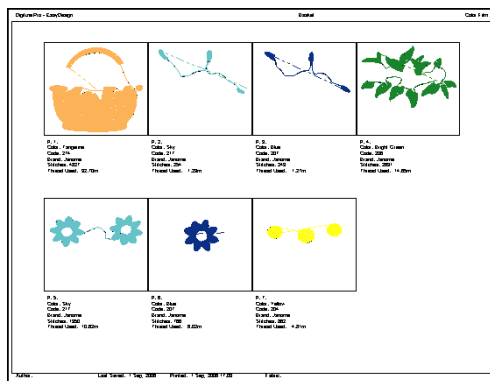
To print color layers

- 1 Click the **Print Preview** icon.
Your design displays as it will be printed.
- 2 Click **Options** button.
The **Print Options** dialog opens.

Check to print
color layers



- 3 In the **Other Worksheets** group, select the **Color Layers** checkbox and click **OK**.
- 4 Click the **Next Page** button, as required.
A list of color layers is displayed together with color and stitch information for each layer.



The following information is included:

Item	Description
Number	Number in the stitching sequence.
Color	Color name listed in the associated thread chart.
Code	Thread code for ease of ordering.
Brand	Thread brand – e.g. Isacord 40.
Stitches	Total stitch count for individual color layer.
Thread Used	Total stitch length of the individual color layer in the measurement unit currently set for the system – e.g. 'meters'.

- 5 Click **Print**.

Printing appliqué patterns



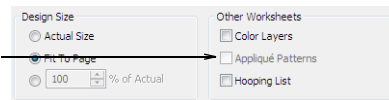
Use **Standard > Print Preview** to preview a design printout.

Print a copy of the appliqué pattern to use as a template for cutting out fabric pieces. Each appliqué pattern piece is numbered according to the stitching sequence.

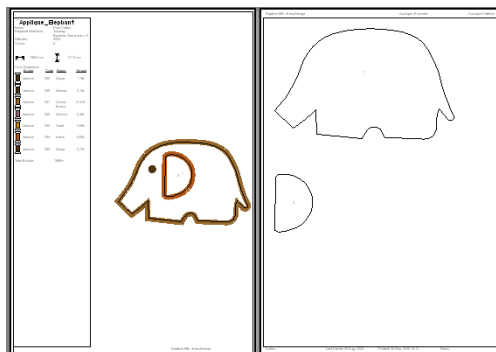
To print appliqué patterns

- 1 Click the **Print Preview** icon.
Your appliqué design displays as it will be printed.
- 2 Click **Options** button.
The **Print Options** dialog opens.

Check to print
appliqué patterns



- 3 In the **Other Worksheets** group, select the **Appliqué Patterns** checkbox and click **OK**.
Each appliqué pattern piece is numbered according to the stitching sequence.

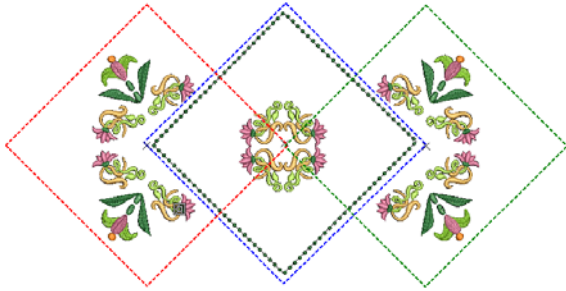


Note If the **Actual Size** option is selected, both an assembled appliqué layout and individual patterns in the actual size are created on separate pages. If the **Fit to Page** or **% of Actual** options are selected, the assembled appliqué layout is created in the selected size, but individual patterns are still printed in the actual size on separate pages.

- 4 Click **Print**.

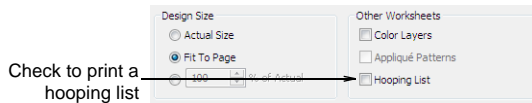
Printing multi-hooped designs

If there is more than one hooping in the design, you have the option of printing hoops in multi-hooping view in their correct color sequence. The **Hooping List** option shows the objects in each hooping. See also [Hooping large designs](#).

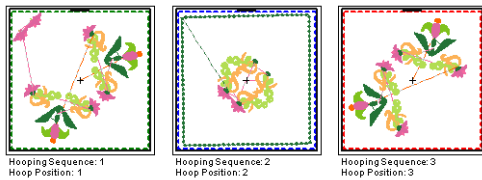


To print a multi-hooped design

- 1 Select **File > Print Preview**.
- 2 Click **Options** icon.
The **Print Options** dialog opens.
- 3 Select the **Hooping List** checkbox.



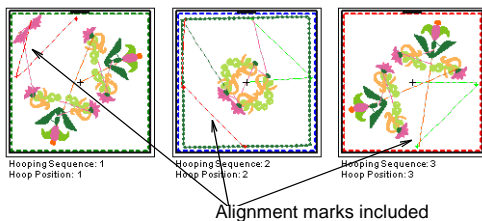
- 4 Click **OK**.
The following information is included showing the objects in each hooping.



- 5 Click **Print**.



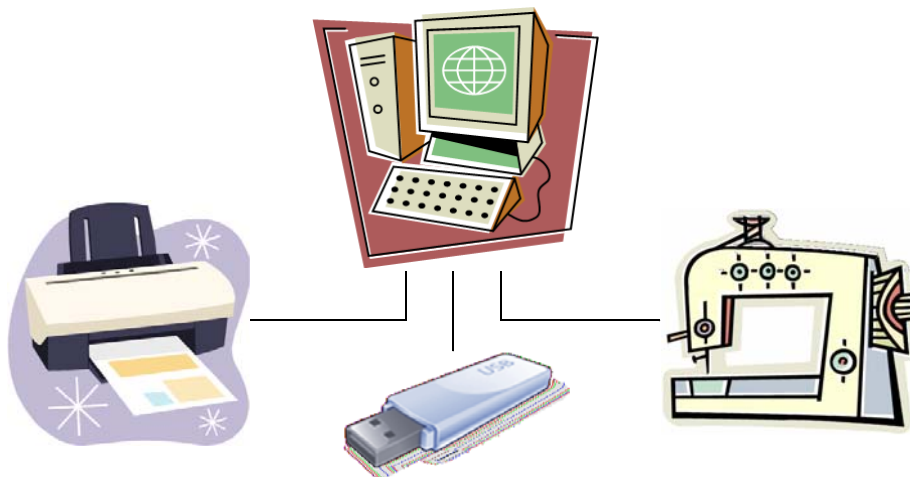
Try this! It is a good idea to include alignment marks with multi-hooped designs. These can be activated via the **Work Environment < Combine** tab. See [Outputting alignment marks](#) for details.



Chapter 12

READING & WRITING DESIGN FILES

You can output embroidery designs in a variety of ways – saving to computer, USB memory stick, ATA PC card, or sending directly to machine for stitching.



Digitizer EXjr uses three native embroidery file formats – JAN, JEF and SEW – which allow you to make the most of both outline and stitch formats. JAN format is an object-based format while JEF and SEW formats are stitch-based. By default, Digitizer EXjr saves to JAN format. These formats contain all information necessary both for stitching a design and for later modification. When opening designs created or saved in other formats, Digitizer EXjr converts the design internally to JAN format. You can then modify it using the full range of Digitizer EXjr features. See also [Supported embroidery file formats](#).

This section describes embroidery stitch and outline design formats, as well as how to open embroidery files in Digitizer EXjr. It also describes saving designs for machine as well as sending and receiving designs by direct connection. Writing designs to an external media drive is also covered.

Embroidery design formats

Embroidery designs are saved in one of two formats – ‘outline’ format or ‘stitch’ format. JAN is an outline format while JEF and SEW are stitch formats.



Note For details of specific formats supported by Digitizer EXjr, see [Supported embroidery file formats](#).

Outline files

Outline files such as JAN are high-level formats which contain object outlines, object details and stitch data. They can be scaled and transformed without affecting stitch density or quality. After modification in Digitizer EXjr, you can save your design to the native JAN format, or to a different format altogether.

Stitch files

Different embroidery machines speak different languages. Before you can stitch a design, it must be in a format which can be interpreted by the machine. Stitch files such as JEF and SEW are low-level formats for direct use by embroidery machines. In their raw form, they are not suited to modification because stitches are not regenerated. However, Digitizer EXjr by default converts stitch files to outlines and objects upon opening. They can then be saved in JAN format. Processing is effective for most stitch designs but cannot produce the same level of quality as original outlines and may not handle some fancy stitches.

File sources

While embroidery files are broadly classified as ‘outline’ or ‘stitch’, Digitizer EXjr internally tags files as belonging to one of four types – **Native Design**, **Imported Outlines**, **Processed Stitches**, or **Imported Stitches**.

Source	Description
Native Design	Designs created in Digitizer EXjr (or equivalent).
Imported Outlines	Designs read from non-JAN outline files where stitches have been generated in Digitizer EXjr (or equivalent) from original outlines and stitching data.
Processed Stitches	Designs read from stitch files where stitches have been regenerated by processing.

Source	Description
Imported Stitches	Designs read from stitch files, where outlines may or may not have been recognized, but stitches have not been regenerated through stitch processing. Note, however, that if you change a stitch design – e.g. add a lettering object – the status changes to ‘Processed Stitches’ even though the imported stitches may not have been regenerated.

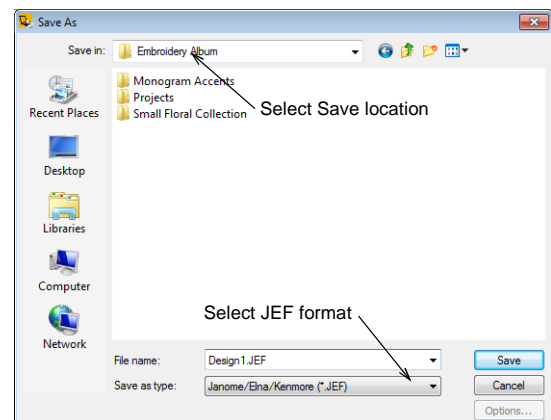
Saving designs for machine

Different embroidery machines understand different languages. Each has its own control commands for the various machine functions. Before you can stitch a design, it must be in a format which can be interpreted by the machine. Before design files are sent to machine, they are automatically converted to JEF stitch file format. They can also be saved directly to hard disk. When saving in JEF format, you must choose the particular machine type you wish to save for. See also [Sending & writing designs](#).

To save a design for machine

- 1 Select **File > Save As**.

The **Save As** dialog opens.



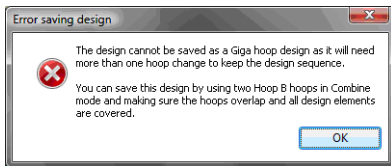
- 2 Select the folder where you want to save the design from the **Save In** list.
- 3 Enter a name for the design in the **File name** field.
- 4 Select JEF as the file format from the **Save as type** list.
- 5 Select the required machine type and click **OK**.

6 Click **Save**.



Note Digitizer EXjr supports Wilcom MA and Giga hoops. These are two-position hoops which expand the available sewing area. When sending to machine, in most cases Digitizer EXjr will only create one file as the two hoop positions are saved in a single JEF file.

- With Giga hoop designs, the red area is stitched first, the hoop is rotated, and then the blue area is stitched. If, in the design sequence, the blue area is stitched before the red area, it cannot be saved as a Giga hoop design. See also [Sending designs with a Giga Hoop](#).
- If the design will not stitch as a single Giga hoop design – i.e. it would require more than one rotation of the Giga hoop in order to preserve the stitching sequence – the following message is displayed:



In this case, you need to use **Combine** mode to create two Hoop B hoopings as instructed. See [Hooping large designs](#) for details.

Sending & writing designs

Digitizer EXjr supports various sets of machine model. Some Elna machines can be connected by cable directly to your PC via the USB port. Older-style machines do not support direct connection but they do read ATA PC cards and/or USB memory sticks.



Note Before design files are sent to machine, they are automatically converted to JEF [stitch file](#) format. See also [Saving designs for machine](#).

Direct connection

Digitizer EXjr is able to automatically detect which type of supported machine is currently connected to the PC USB port. The **Machine** menu items are determined by the type of machine connected to the PC. If no machine is detected, all menu items will be grayed out. Your distributor will advise you about supported machine types. See also [Supported machine models](#).



Note Before design files are sent to machine, they are automatically converted to JEF or JPX [stitch file](#) format. See also [Saving designs for machine](#).

Supported storage devices

Besides USB connection, you can write to an external media drive in a similar way as you would save to floppy disk. The ATA PC card is a PCMCIA standard PC memory card that is used for storing designs in JEF format to be read/written from/to machine. The ATA PC card is designated as a drive in your computer. The drive designation may become E: or F: or some other letter. After writing your design, you simply insert the card into the ATA PC card slot of your machine (if supported), and read the design.

USB memory sticks

The latest machine models can read from and write to USB memory sticks. These are very convenient portable memory devices which can hold large amounts of data in a small 'stick'.

ATA PC cards

- It is recommended to save data stored in the machine's built-in memory to hard disk or ATA PC card to prevent accidental loss of data due to improper operations or malfunctions.
- If an ATA PC card is formatted on PC or on your machine, all information on the card will be lost. Check the contents of any used cards before formatting them.
- Only use approved ATA PC cards or SanDisk CompactFlash with ATA PC card adapter for updating the system program of your embroidery machine. Memory capacity should be 8Mb or more.



Note If your computer is a laptop, there is a slot where you can insert the ATA PC card and its adapter directly. If you have a desktop computer, you will need an ATA PC card reader/writer connected to a USB port.

Sending designs to machine



Use **Standard > Send to Machine** to send a design to a machine for stitching.

Depending on the machine model, the direct machine connection option may be available to you. This means you can send individual or multiple design files directly to three possible destinations:

- Built-in: internal machine memory
- ATA PC Card: PC memory card slot on machine which can be used as an ATA PC card reader/writer
- USB Memory: USB stick attached to your machine.



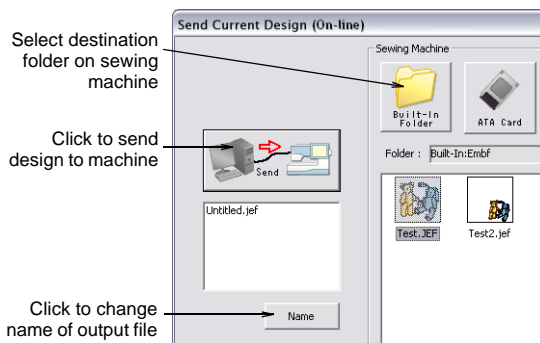
Try this! Alternatively, you can use an external media drive to write designs in JEF format directly to card. See [Writing to external media](#) for details.

Sending the current design to machine

The procedure for sending a single design to machine varies slightly with the machine model, but the principle is the same. Whichever machine you are using, the steps will involve one or all of the following:

- Insert the ATA PC card or USB stick into your machine as required.
- Open or create the design you want to send.
- Click the **Send to Machine** icon or select **Machine > Send Current Design**.

The particular dialog which opens will depend on the selected machine model.



- Select a storage location on the sewing machine – machine memory (built-in folder), ATA PC card, or USB memory stick.
- Start the file transfer.

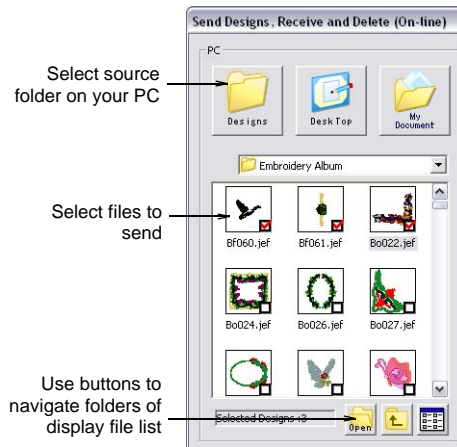
In the unlikely event that a file exceeds the limits set, it will be split into two or more files.



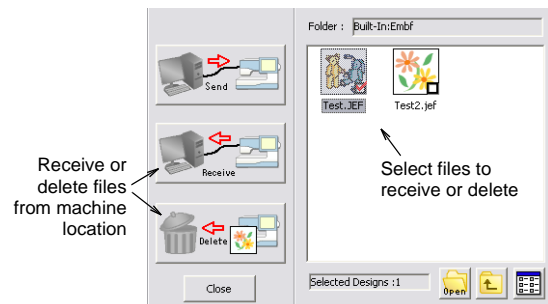
Note For detailed procedures relating to your particular machine, refer to your machine documentation.

Sending or receiving multiple designs

As with single designs, the procedure for sending multiple designs to machine varies slightly with the machine model you are using.



In addition to sending design files to machine, you can generally receive or delete files from the destination folder.



Note For detailed procedures relating to your particular machine, refer to your machine documentation.

Writing to external media



Use **Standard > Write to External Media** to send a design to an external media drive.

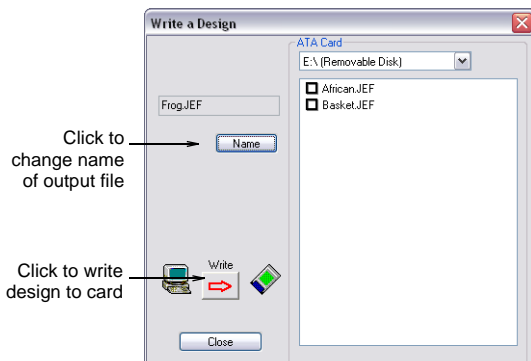
You can use an external media drive to write designs in JEF format directly to a drive. Some machines do not support direct connection, in which case you will need to use this method to transfer design files to machine. Depending on the machine model the card is intended for, make sure this is selected as your current machine. After writing your design, simply attach the external media to your machine and read it.

Writing a design to ATA PC card

The procedure for writing a single design to card varies slightly with the machine model, but the principle is the same. Whichever machine you are using, the steps will involve one or all of the following:

- Select the machine model you intend to write to. See [Selecting machine models](#) for details.
- Make sure the reader/writer is securely plugged into the USB port of your PC.
- Open or create the design you want to send.
- Click the **Write to External Media** icon or select **External Media > Write a Design**.

The particular dialog which opens will depend on the selected machine model.



- Start the file transfer.
In the unlikely event that a file exceeds the limits set, it will be split into two or more files.



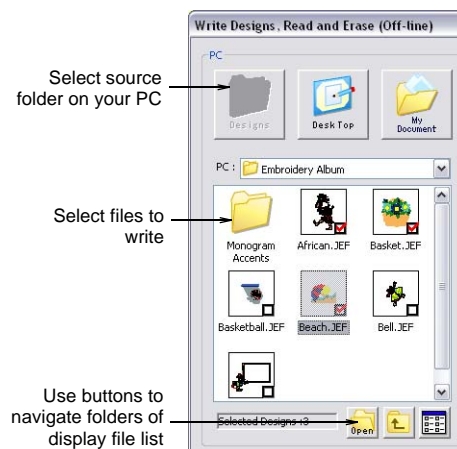
Note For detailed procedures relating to your particular machine, see [Outputting to Machine](#).



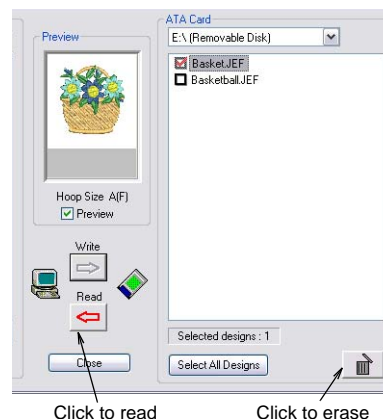
Note For detailed procedures relating to your particular machine, refer to your machine documentation.

Writing multiple designs to ATA PC card

As with single designs, the procedure for writing multiple designs to ATA PC card varies slightly with the machine model. Select the machine model you intend to write to and select **External Media > Write Designs, Read and Erase**. The particular dialog which opens will depend on the selected machine model. See [Selecting machine models](#) for details.



In addition to writing design files to machine, you can generally receive or delete files from the destination folder.





Note For detailed procedures relating to your particular machine, refer to your machine documentation.

Sending designs with multi-position hoops

Digitizer EXjr supports both MA and Giga hoops. These are two-position hoops which expands the available sewing area of the machine for which it is supplied.

Sending designs with an MA Hoop



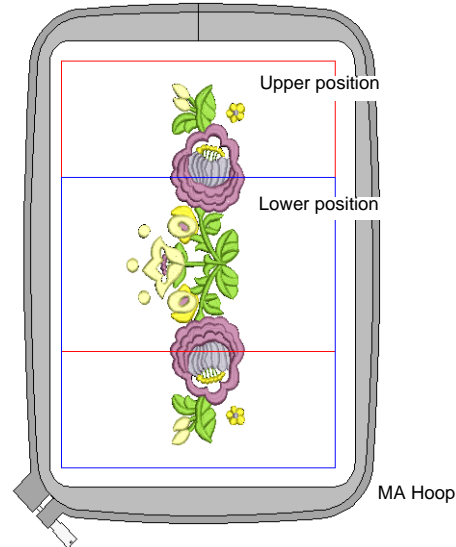
Use **Standard > Send to Machine** to send the current design directly to machine for stitching.

Digitizer EXjr supports the MA Hoop. This is a two-position hoop which expands the available sewing area of the machine for which it is supplied. In the list of available hoops, the MA Hoop is identified as 'Hoop MA (200 x 280)'. The two sewing fields are shown in red and blue. When digitizing, each embroidery object must fit entirely into one or other hoop position.

The behavior of the MA Hoop during loading and editing of embroidery designs is exactly the same as for a normal rectangular hoop of size 200 x 280. The fact that there are two sewing fields has no effect until you save the design or send it to a machine. When sending to machine, in most cases Digitizer EXjr will only create one file as the two hoop positions are saved in a single JEF file. However, if a return to hoop position 1 is required, Digitizer EXjr will create two (or on rare occasions, more) files.

To send a design with an MA Hoop

- 1 Open the design to send to machine.
The two sewing fields are shown in red and blue. When digitizing, each embroidery object must fit entirely into one or other hoop position.



Note Sizes are shown in mm for a 1:1 display. At other display scales, values are scaled proportionally.

- 2 Click the **Send to Machine** icon on the **Standard** toolbar or select **Machine > Send Current Design**.
If the machine is correctly linked, the **Send Current Design** dialog opens. See [Sending & writing designs](#) for details.
- 3 Click the **Send** button.
Digitizer EXjr determines whether there are any objects that do not lie wholly within one of the hoop's two positions:
 - ♦ If there are, they are selected in the design window and you are prompted to edit or delete them. Otherwise Digitizer EXjr determines how many hoopings are needed.
 - ♦ If only one is needed, or two with the upper position first, Digitizer EXjr creates a single JEF file containing these hoopings and sends it to the machine.
 - ♦ Otherwise it calculates the number of hooping position changes and prompts you to proceed. If you agree, it creates multiple JEF files and sends them to machine.
- 4 Click **OK**.

The JEF file names are numbered with a hyphen – 'My Flower- 1.JEF' and 'My Flower- 2.JEF'.



Note When the machine loads the first of the multiple JEF files, it stitches the upper-position first, then prompts you to move the hoop to the lower position. Always have the hoop in the upper position when the

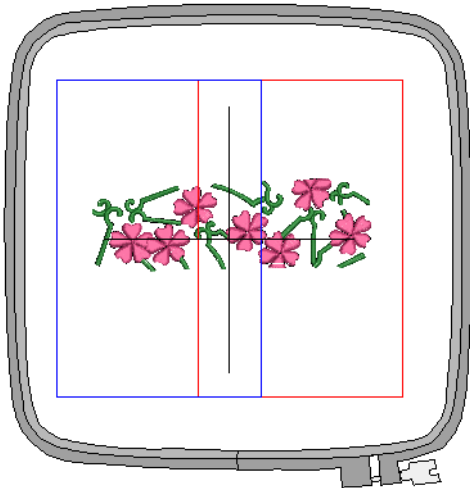
machine starts stitching a new JEF file unless you are explicitly prompted to shift frame. This may be necessary in cases where a hooping pair must be split because it has too many stitches or too many color changes.

Sending designs with a Giga Hoop



Use **Standard > Send to Machine** to send the current design to a machine for stitching.

Digitizer EXjr supports the Giga Hoop. This is a two-position hoop which expands the available sewing area of the machine for which it is supplied. In the list of available hoops, the Giga Hoop is identified as 'Hoop D (220 x 190) (Giga)'. The two sewing fields are shown in red and blue. The red area is normally stitched first then, after rotating the hoop, the blue area is stitched. When digitizing, each embroidery object must fit entirely in one or other hoop position. If the design in the blue area is sequenced before the red area, you cannot save the design as a Giga hoop design.



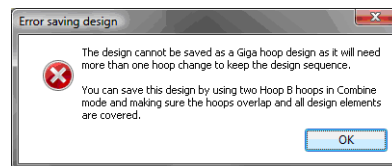
Note The original embroidery area of the Giga Hoop is 230 x 200 mm, however when the hoop is rotated, it may cause a small positioning gap. To avoid this problem a margin of 5mm is put inside the hoop which makes the actual embroidery area 220 x 190 mm.

To send a design with a Giga Hoop

- 1 Open the design to send to machine. The two sewing fields are shown in red and blue. When digitizing, each embroidery object must fit entirely into one or other hoop position.
- 2 Click the **Send to Machine** icon on the **Standard** toolbar or select **Machine > Send Current Design**. If the machine is correctly linked, the **Send Current Design** dialog opens. See [Sending & writing designs](#) for details.
- 3 Click the **Send** button.

Digitizer EXjr determines whether there are any objects that do not lie wholly within one of the hoop's two positions.

- ♦ If the design can be stitched in the Giga hoop, the **Send a Design** (on-line) dialog opens.
- ♦ If the design will not stitch as a single Giga hoop design – i.e. it would require more than one rotation of the Giga hoop to preserve the stitching sequence – the following message is displayed:



Click **OK** and use **Combine** mode to create two Hoop B hoopings as instructed. See also [Combining & Sequencing Objects](#).

- 4 Select the design name and click the **Send** button.



Note The design will be sent to the machine as two individual JEF files – Hoop position A and Hoop position B. However, the machine display will show the design as a single design unless the file cannot be stitched in two files due to the object stitching sequence.

Outputting multi-hooped designs

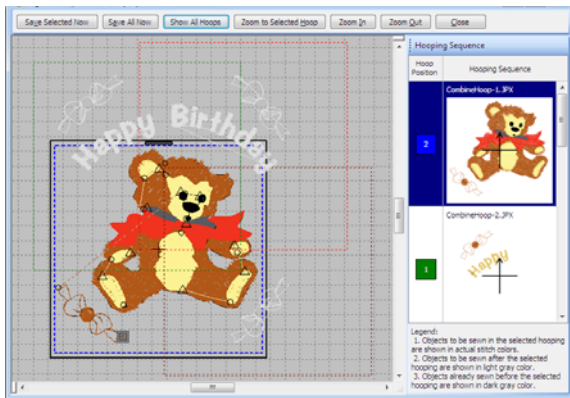
When working with designs that are larger than the available physical hoop, you can split them into parts in **Combine** mode, each containing an object or group of objects. When a multi-hooped design is output, each part is stitched separately after the fabric has been re-hooped. See [Hooping large designs](#) for details.

The following commands are all available in **Combine** mode:

- Save As
- Send to Machine
- Write to External Media

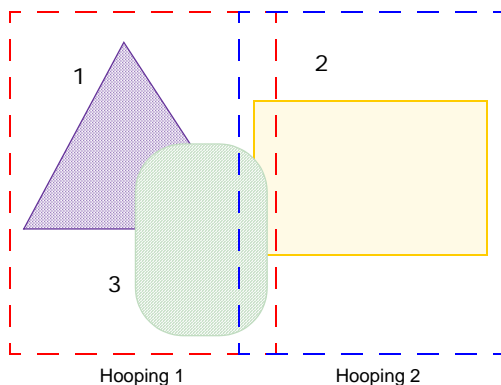
When any of these commands is invoked, multi-hoopings and split lines are applied.

Hoop Sequence mode is activated, showing the separate hoopings. See also [Printing multi-hooped designs](#).



Hoopings vs output files

It is important to realize the numbers of hoopings in a multi-hooped design do not necessarily correspond to the number of output files. It all depends on the layering of objects within the design. In order to preserve the digitized stitching sequence, the same hooping may need to be visited more than once.



Take the simple scenario illustrated above. Here we have one design with three objects and two hoopings. Object #1 gets stitched first. But then a change of hooping is required to stitch Object #2. To stitch Object #3, we need to return to our first hooping. That's how we come to have more output files than we have hoopings.

Sending multi-hooped designs to machine



Use **Combine > Combine Mode** to activate the combined hooping functions.

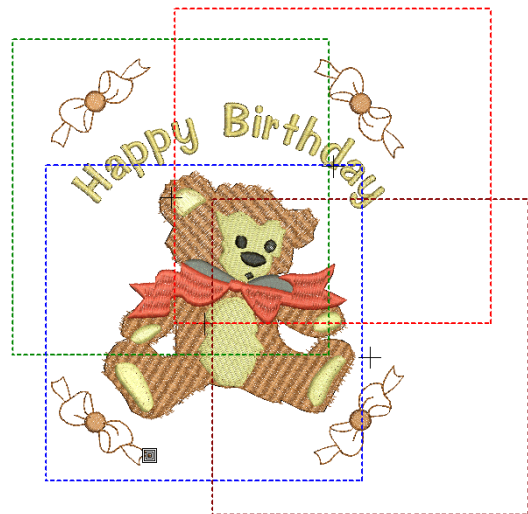


Use **Standard > Send to Machine** to send the current design directly to machine for stitching.

With a multi-hooped design, you can send one or more stitch files to sewing machine or memory card. The software automatically calculates which files are to be sent and shows you how they will look.

To send a multi-hooped design to machine

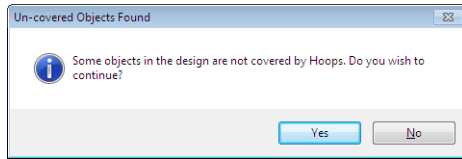
- 1 Switch to **Combine** mode and create your multi-hooped design. See [Hoop large designs](#) for details.
- 2 Ensure that the embroidery machine or reader box have been correctly attached.



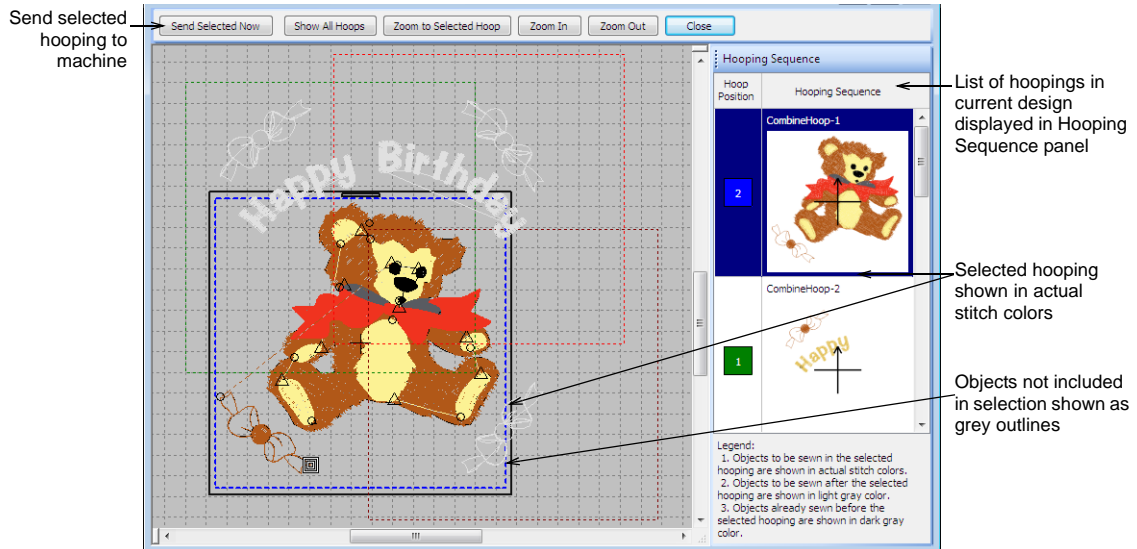
- 3 Click the **Send to Machine** icon.

The system checks whether there is more than one hoop in the design and if all objects are covered.

- If some objects are uncovered, you are prompted to continue or otherwise.



- All hoopings needed to stitch the design are displayed in **Hoopings Sequence** mode. All toolbars are hidden, leaving only the **Hoopings Sequence** panel. This displays a list of all hoopings required to stitch the design.



Note Fabric in covered appliques is hidden, leaving stitchable items only.

- 4 Select any hooping in the list.
Objects within the selected hooping are shown in their actual stitch colors. Objects not included in the selection are shown as grey outlines.
- 5 Use the zoom controls at the top to inspect the hoopings.
- 6 Click the **Send Selected Now** button to send the selected hooping to machine.
The system outputs a file containing everything to be stitched within the current hooping.



Note Depending on your selected machine, you may have the option to 'send all now'. With this option, the individual hoopings are controlled by the machine connection software. See [Outputting to Machine](#) for details.

- 7 Repeat this process as many times as necessary to send all hoopings.

8 Click **Close** to end.

Saving multi-hooped designs



Use **Combine > Combine Mode** to activate the combined hooping functions.

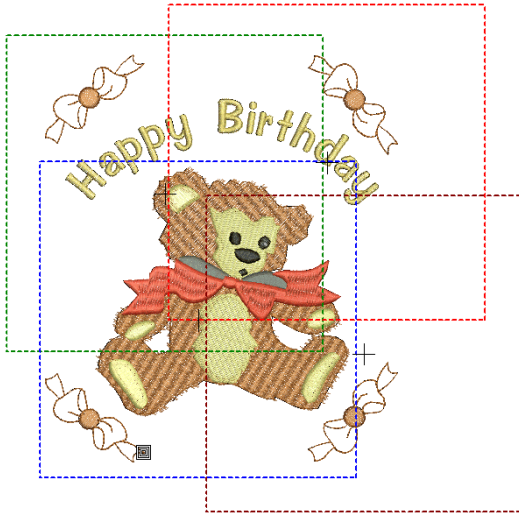


Use **Standard > Save** to save the current design.



Use **Standard > Write to External Media** to send a design to an external media drive.

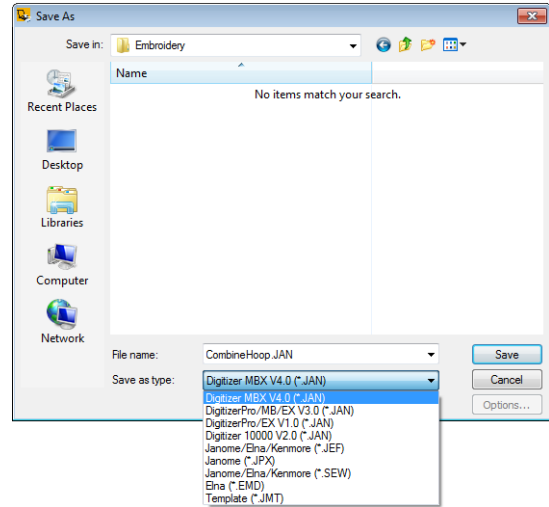
If more than one hooping is needed to cover your design, you may split it into separate files for each. See [Hoopings large designs](#) for details.



To save a multi-hooped design

- 1 Switch to **Combine** mode and create your multi-hooped design. See [Hooping large designs](#) for details.
- 2 Select **File > Save As**.

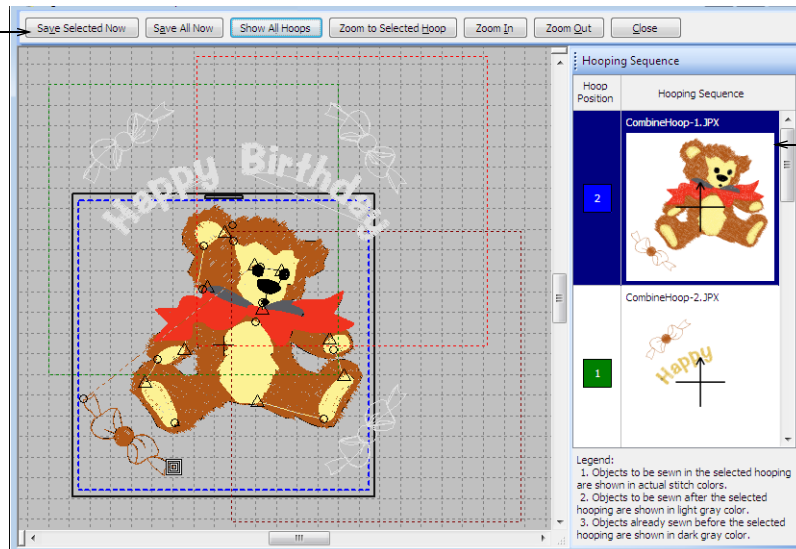
A standard MS Windows® **Save As** dialog appears allowing you to browse to any folder, choose any name for the exported file, and choose a file format from a dropdown list.



Note Alternatively, use the **Write to External Media** command to save output files to memory card. See [Writing to external media](#) for details.

- 3 Change the file name as required, and choose a destination folder and/or file format, and click **Save**.
The system checks that all embroidery objects are covered. You will be warned if they are not. Otherwise, all hoopings needed to stitch the design are calculated and displayed in the **Hooping Sequence** dialog. Hoopings are named as files with the chosen file extension.

Save all or selected hoopings to machine



Hoopings named as files with chosen file extension

- 4 Select a hooping and click **Save Selected Now**.
Alternatively, click **Save All Now** to save all files in the list, named as indicated in the **Hooping Sequence** panel. Digitizer EXjr outputs the hoopings to their individual files.
- 5 Click **Close**.
Digitizer EXjr exits **Hooping Sequence** mode and displays the design in the design window in its original state.

Part VI

APPENDICES, GLOSSARY & INDEX

Appendix A

QUICK REFERENCE

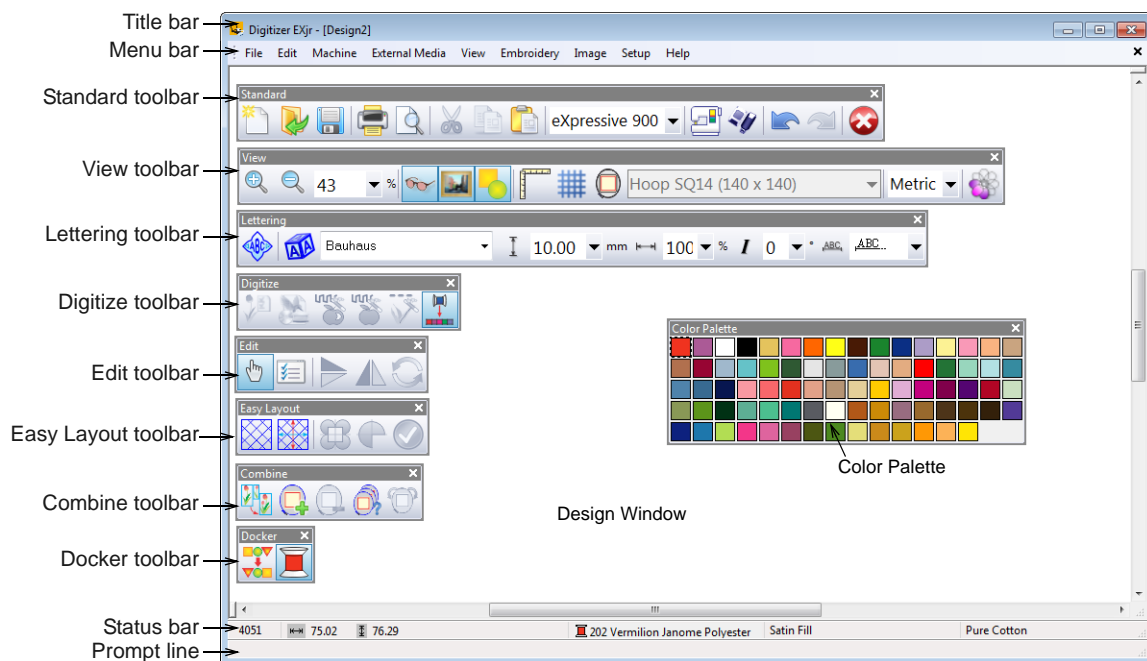
Digitizer EXjr uses toolbars and shortcut keys to provide quick and easy access to common commands. This section provides a list of all keyboard shortcuts available in the software, as well as short descriptions of the tools you will find in the toolbars.

Digitizer EXjr Design Window



Double-click to start Digitizer EXjr.















Digitizer EXjr can be launched from your Windows desktop or program group under the **Start** menu. Once started, you can open existing JAN files or create new files from scratch. The screen image below displays an exploded view of **all** toolbars in the Digitizer EXjr Design Window.









Tools and toolbars

You can access commands using the toolbar buttons on the toolbars on your design window. To use a tool, simply move the mouse pointer over it, and click with the left mouse button.



Standard toolbar

Tool	Description
	Click New to start a new design with the NORMAL template.
	Use Open to open an existing design.
	Use Save to save the current design.
	Use Print to print a design using the current settings.
	Click Print Preview to preview the design printout on screen.
	Click Cut to cut selected objects to the clipboard.
	Click Copy to copy selected objects to the clipboard.
	Click Paste to paste copied objects in the design.
MC14000	The software supports various sets of machine model. Some machines can be connected by cable directly to your PC via the USB port.
	Use Send to Machine to send a design to a machine for stitching.
	Use Send to EmbLink to send the current design to the external HorizonLink application.
	Use Write to External Media to send a design to an external media drive.
	Use Undo to undo a command.
	Use Redo to reapply a command which has been 'undone'.
	Click Stop to cancel the function you are using or cancel all selections in a design.






Digitize toolbar

Tool	Description
	Use Click-to-Design to create embroidery designs directly from imported images using default settings.
	Use Image Preparation to reduce the number of colors and remove image 'noise' in non-outlined images.
	Use Click-to-Parallel Weave Fill to digitize large artwork shapes with Parallel Weave Fill, preserving any holes within.
	Use Click-to-Parallel Weave Fill without Holes to digitize large artwork shapes with Parallel Weave Fill, ignoring any holes within.
	Use Click-to-Centerline to digitize centerlines in artwork with run line stitches.
	Use Match to Palette to find the nearest match between a selected image color and thread color. If not selected, the color is digitized in the current palette color.






Docker toolbar

Tool	Description
	Use Resequence to resequence selected objects by color.
	Click Color Palette to open the Color Palette. Use this to change colors of selected objects or set default color for new objects.






Edit toolbar

Tool	Description
	Click Select and click an object to select it. Alternatively, drag a bounding box around the object to select.
	Use Object Details to set details for selected objects or the current design as a whole.
	Click Flip Vertically to flip a selected object or design up/down.
	Click Flip Horizontally to flip a selected object or design left/right.
	Click Rotate 45° CCW/CW to rotate a selected object or design by 45° clockwise. Right-click to rotate by 45° counter-clockwise.




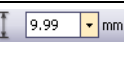

Easy Layout toolbar



Tool	Description
	Use Display Layout Work Area to toggle display of the defined work area.
	Use Define Layout Work Area to access the Easy Layout Work Area dialog.
	Use Copy And Mirror To Corners to automatically create copies of any selected object/s in each corner of the layout work area.
	Use Move To Center to automatically move selected object/s to the center of the work area.
	Use Apply to generate the object/s and stitches of copies created by Easy Layout operations. Pressing the Enter key has the same effect.

Combine toolbar












Tool	Description
	Use Combine Mode to activate the Combine functions.
	Use Add Hoop to center a new hoop in the design window in an upright orientation.
	Use Delete Hoop to remove selected hoops from the design window.
	Use Calculate Hoopings to evaluate the hoopings that will result from the current hoop layout.
	Click Rotate Hoop with left or right mouse buttons to rotate a selected hoop 90° in either direction.

Lettering toolbar

Tool	Description
	Click Monogramming to add monograms directly on-screen.
	Use Lettering to add embroidery lettering to designs or edit selected lettering.
	Use Font List to change font of selected lettering.
	Use Font Size setting to adjust size (in mm or inch) of selected lettering objects.
	Use Font Width setting to adjust size (in %) of selected lettering objects.

Tool	Description
	Use Italics Slant Angle setting to change the angle of selected lettering.
	Use Orientation droplist to change orientation of selected lettering.

View toolbar

Tool	Description
	Click Zoom In to display a design at twice its current size.
	Click Zoom Out to display a design at half its current size.
	Click Zoom Factor to zoom in on a section of a design.
	Click Visualizer to change between normal view and Visualizer view.
	Use Display Images to show and hide backdrops.
	Click Display Vectors to toggle on/off display of vector graphics in Embroidery mode.
	Click Display Grid to hide or show the grid.
	Click Display Rulers and Guides to toggle on rulers and guides.
	Click Display Hoop to hide or show the hoop.
	Use Design Measurement System to change the measurement system used by the software.
	Use Slow Redraw to view the stitching and color sequence of a design in slow motion.

Keyboard shortcuts

General functions

To	Press
Create a new design	[Ctrl]+[N]
Open an existing design	[Ctrl]+[O]
Save a design	[Ctrl]+[S]
Print a design	[Ctrl]+[P]

To	Press
Exit an application	Alt + F4
Show/hide Color Palette	Ctrl + R
Open Thread Colors	Alt + T
Open Object Details	A
Set work area	Ctrl + W
Show/hide Resequenece List	Shift + L
Apply/select Satin	Shift + I
Apply/select Weave	Shift + M
Apply/select Run	Shift + N then press ↩

Selection functions

To	Press or Click
Choose Select tool	O
Select multiple objects	Ctrl + ⌘
Select a range of objects	Shift + ⌘ First and last objects
Select next object	Tab ↩
Select previous object	Shift + Tab ↩
Add next object to selection	Ctrl + Tab ↩
Add previous object to selection	Ctrl + Shift + Tab ↩
Select all objects	Ctrl + A
Deselect all objects	Esc or X

Viewing functions

To	Press
Show/hide images	D
Measure a distance on screen	M
Show/hide hoop	Shift + H
Show/hide whole hoop	/
Show/hide whole design	0 (zero)
Show/hide stitches	S
Show/hide needle points	. (period)
Show/hide connectors	Shift + C
Show/hide grid	Shift + G
Show/hide work area	W
Redraw the screen	R or F4
Redraw slowly	Shift + R
Turn on/off Visualizer	T

Editing functions

To	Press or click
Cut an object	Ctrl + X
Copy an object	Ctrl + C
Paste an object	Ctrl + V
Duplicate an object	Ctrl + D
Delete selected objects or last object	Delete
Group selected objects	Ctrl + G
Ungroup selected objects	Ctrl + U
Lock selected objects	K
Unlock selected objects	Shift + K
Nudge selected object	⌘ + ↑ ↓ ← →
Undo a command	Ctrl + Z
Redo a command	Ctrl + Y
Cancel command	Esc

Travel functions

To travel	Keyb'rd [†]	Keypad [‡]
To start of design	Home	7
To end of design	End	1
To next color	PageDown	3
To previous color	Page Up	9

[†] Press Esc first [‡] Num Lock OFF

Appendix B

SUPPORTED FILES & HOOPS

Details are provided here of the embroidery file types, and vector and bitmap formats supported by Digitizer EXjr as well as supported hoop types.

Supported embroidery file formats

There are two types of embroidery file formats:

- **Outline files:** Outline or 'condensed' files usually contain digitized shapes and lines, selected stitch types and stitch values and effects.
- **Stitch files:** Stitch files contain only stitches and machine functions and are suited to specific embroidery machines.

See also [Reading & Writing Design Files](#).

The following file formats are supported by Digitizer EXjr:

Extension	Format	Read	Write
JAN	JANOME Design	●	●
JAN	Digitizer Jr./Pro/MB V3.0	●	●
JAN	DigitizerPro V1.0/V2.0	●	●
JAN	Digitizer 10000 V2.0	●	●
JPX	JANOME/Elna/Kenmore	●	●
JEF	JANOME/Elna/Kenmore	●	●
JEF+	JANOME/Elna/Kenmore	●	
JMT	JANOME template	●	●
SEW	JANOME/Elna/Kenmore	●	●
EMX	Janome Cross Stitch	●	●
CSD	POEM/Singer/Huskygram EU	●	●
DST	Tajima	●	●
EMD	Elna	●	●
† Digitizer EX only			

Extension	Format	Read	Write
EXP	Melco	●	●
HUS	Husqvarna/Viking	●	●
PCM	Pfaff	●	●
PCS	Pfaff	●	●
PEC	Deco, Brother, Babylock	●	●
PES	Deco, Brother, Babylock	●	●
VIP	Husqvarna/Viking/Pfaff	●	●
VP3	Husqvarna/Viking/Pfaff	●	●
XXX	Singer	●	●
DSB	Barudan	†	●
U??	Barudan	†	●
100	Toyota	†	●
† Digitizer EX only			

JPX file format

The JPX production file format includes a JPG image, in addition to the embroidery, of any graphics included in the design. This provides you with a better means of visually aligning embroidery on a printed item when hooped in the machine.

Older machines display only thread codes and not the specific brand. This causes confusion as the same code across two (or more) different brands of thread may be completely different colors. With the newer Elna machines, a thread brand ID identifying the thread chart is now recognized by the machine. The specific thread brand is now displayed on the machine itself. A brand designation for the thread chart is written to the JPX file so the machine knows which brand of thread the design is using.

Supported electronic artwork formats

Artwork can be imported into Digitizer EXjr in both vector and bitmap formats. Generally speaking, vector images preserve the picture quality when resized, whereas bitmap images cause problems of pixilation and image degradation when enlarged or scaled down. However, any scaling required should be done before importing into Digitizer EXjr as the importing operation automatically transforms vector images into bitmaps. See [Digitizing with Artwork](#) for details.

Supported vector formats (Embroidery mode)

Digitizer EXjr **Embroidery** mode supports the following vector formats:

Extension	Format	Read	Write
EMF	Enhanced Metafile	●	
EPS	Encapsulated PostScript	●	
WMF	Windows Metafile	●	

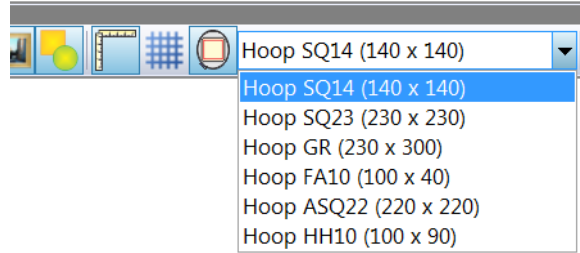
Supported bitmap formats (Embroidery mode)

Embroidery mode also supports the following bitmap formats:

Extension	Format	Read	Write
BMP	Windows Bitmap	●	●
JPG	JPEG File Interchange	●	●
PCX	ZSoft	●	●
PNG	Portable Network Graphics	●	

Supported hoop types

Digitizer EXjr supports a variety of hoop types used with the different machine models. See also [Selecting machine models](#).



The **Hoop List** is automatically filtered according to current machine type. Only those hoops supported by the current machine are available. See [Grids & Hoops](#) for details.



Note If you attempt to save a design in a hoop size not supported by the machine, Digitizer EXjr will prompt you to select a different hoop. If you attempt to send a design to machine with a hoop not supported by the machine, you will be prompted to select a different hoop. See also [Saving designs for machine](#).

Hoop Type	Machine Model	
	eXp. 860	eXp. 900
Hoop SQ14a (140 x 140)	●	
Hoop RE20a (170 x 200)	●	
Hoop FA10a (100 x 40)	●	
Hoop SQ14 (140 x 140)		●
Hoop SQ23 (230 x 230)		●
Hoop GR (230 x 300)		●
Hoop FA10 (100 x 40)		●
Hoop ASQ22 (220 x 220)		●
Hoop HH10 (100 x 90)		●

Appendix C

PACKAGED FONTS

The table below includes all fonts that are standard with your Digitizer EXjr software. For best results when stitching, do not exceed the recommended maximum or minimum sizes. Recommended maximum and minimum heights refer to UPPER CASE letters. Some lower case letters – e.g. **a** and **c** – are about 70% the height of a capital letter. Thus you may need to make these characters larger than the recommended minimum.

You can create special characters in each font by holding down the **Alt** key on your keyboard and typing **0** (zero), its code, using the numbers on the keypad. For example, to type **ê** with the code **234**, type **Alt+0234**. The accented letter will appear when you release the **Alt** key. Note that not all characters are available in all fonts. See also [Adding special characters](#).

Standard fonts

Font	Sample	Recommended Sizes			
		Min		Max	
		in.	mm	in.	mm
Art Block	ABCDEF abcdef 1234567890	0.4	10	3.0	75
Bauhaus	ABCDEF abcdef 0123456789	0.4	10	2.0	50
Block1	ABCDEF abcdef 0123456789	0.27	7	1.8	45

Font	Sample	Recommended Sizes			
		Min		Max	
		in.	mm	in.	mm
Brush	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.32	8	2.0	50
First Grade	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.5	12	1.15	30
Galant	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.5	13	2.0	50
Hollowblock	<i>ABCDEFGH !"#\$%&'</i> <i>ÆÇÈÌÑ</i>	0.4	10	2.4	60
Jupiter	<i>ABCDEFGH</i> <i>0123456789</i>	0.25	6	1.2	30
Lazer	<i>ABCDEFGH</i> <i>0123456789</i>	0.24	6	2.0	50
Old English	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.3	8	2.0	50
Poetic Script	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.6	15	3.1	80
Run Freehand	<i>ABCDEFGH abcdef</i> <i>0123456789</i>	0.2	5	0.5	12

Font	Sample	Recommended Sizes			
		Min		Max	
		in.	mm	in.	mm
Script 1	<i>ABCDEF abcdef</i> <i>0123456789</i>	0.5	13	3.0	75
Typist	ABCDEF abcdef 0123456789	0.5	13	2.0	50
Western	ABCDEF abcdef 0123456789	0.4	10	1.4	35

Monogramming fonts

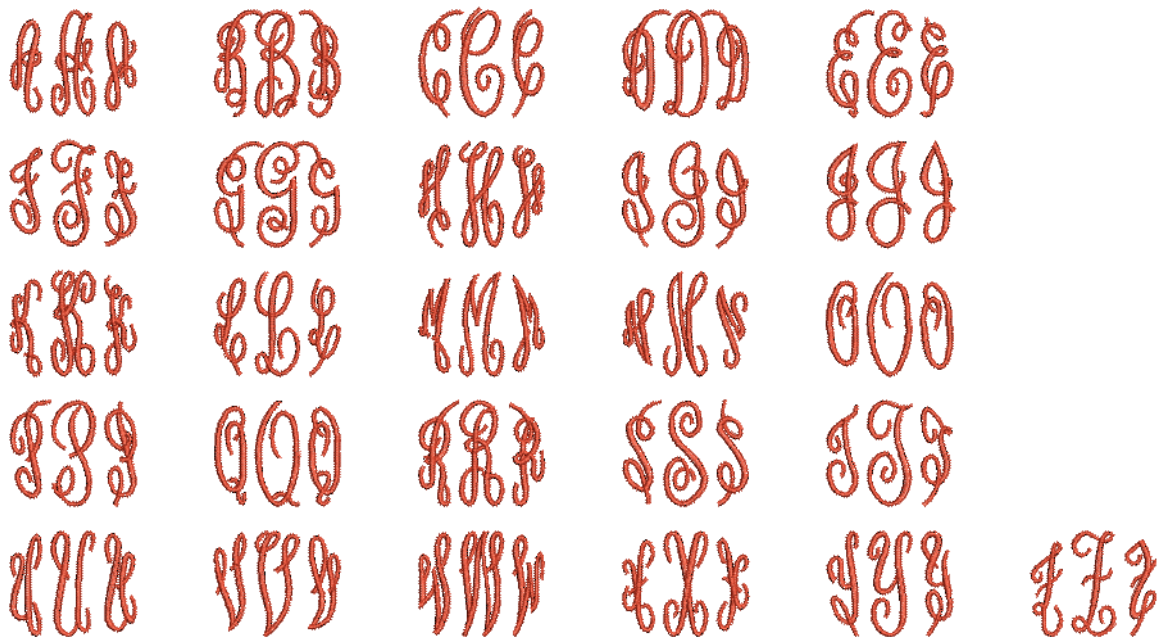
Digitizer EXjr contains four legacy Monogram Alphabets – Fancy Monogram, Octagon Monogram, Point Monogram and Seal Monogram. Monogram alphabets provide three sets of the upper-case alpha characters. The first, known as the ‘left set’, is designed to appear on the left side of a monogram. The second, or ‘middle set’, is designed for the middle position(s) of a monogram. The ‘right set’ is designed to appear on the right side of a monogram. Each set is mapped to a specific set of character equivalents in the alphabet.

Letter	A	B	C	D	E	F	G	H	I	J	K	L	M
Left	!	“	#	\$	%	&	‘	()	*	+	,	-
Middle	A	B	C	D	E	F	G	H	I	J	K	L	M
Right	a	b	c	d	e	f	g	h	i	j	k	l	m

Letter	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Left	.	/	0	1	2	3	4	5	6	7	8	9	:
Middle	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Right	n	o	p	q	r	s	t	u	v	w	x	y	z

Fancy Monogram

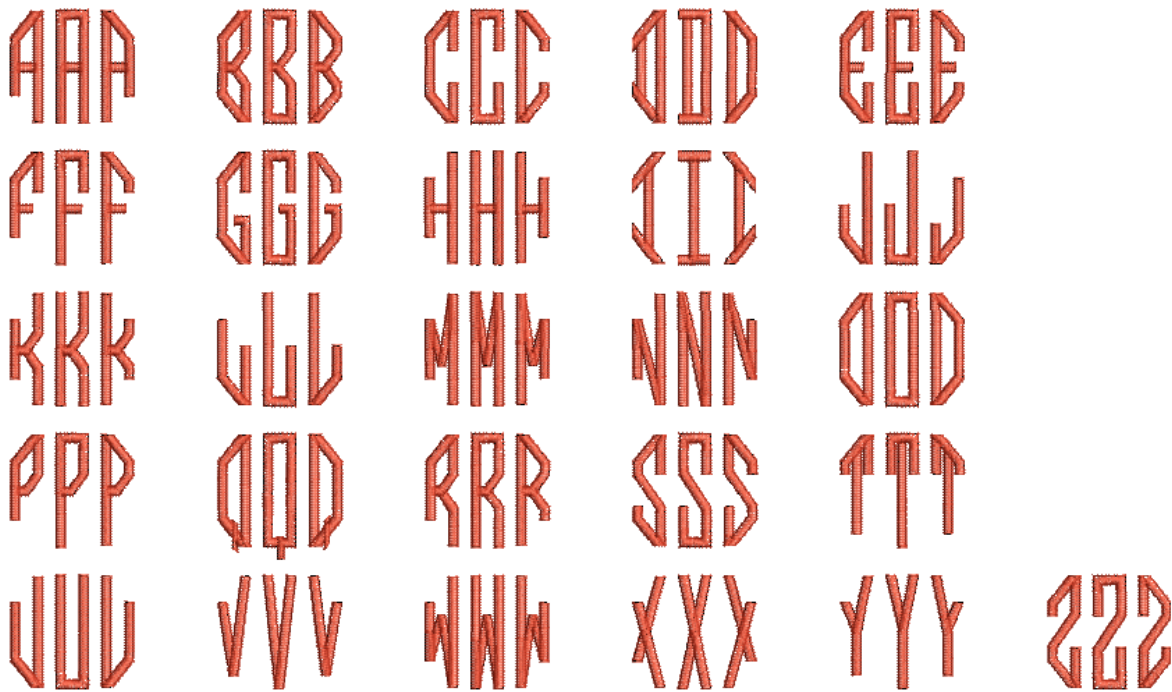
Fancy Monogram is a special monogramming alphabet using three sets of the upper-case alpha characters.



Alphabet contains	Left, Center and Right letters for 3-letter monogram. Use symbols for the left letter, upper case for the center letter, and lower case for the right letter.		
Colors	1 color		
Stitching	Satin		
Recommended height	Minimum	1.0 in	25 mm
	Maximum	4.0 in	100 mm

Octagon Monogram

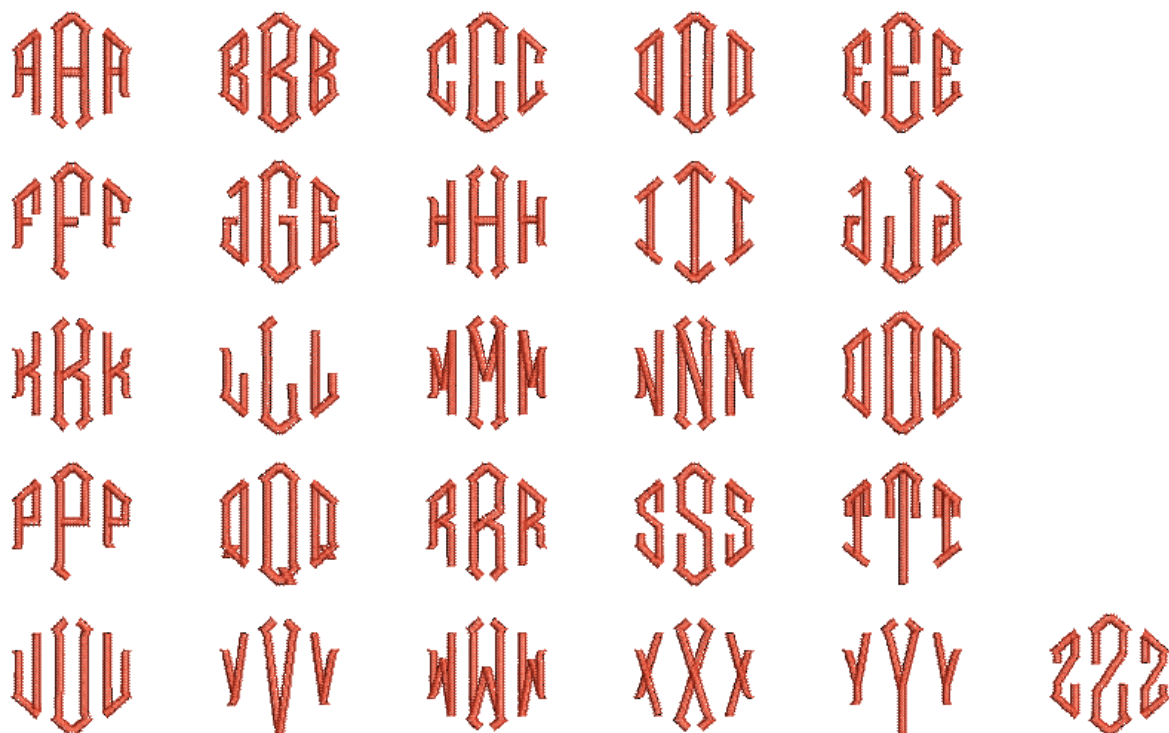
Octagon Monogram is a special monogramming alphabet using three sets of the upper-case alpha characters.



Alphabet contains	Left, Center and Right letters for 3-letter monogram. Use symbols for the left letter, upper case for the center letter, and lower case for the right letter.		
Colors	1 color		
Stitching	Satin		
Recommended height	Minimum	0.7 in	18 mm
	Maximum	4.0 in	100 mm

Point Monogram

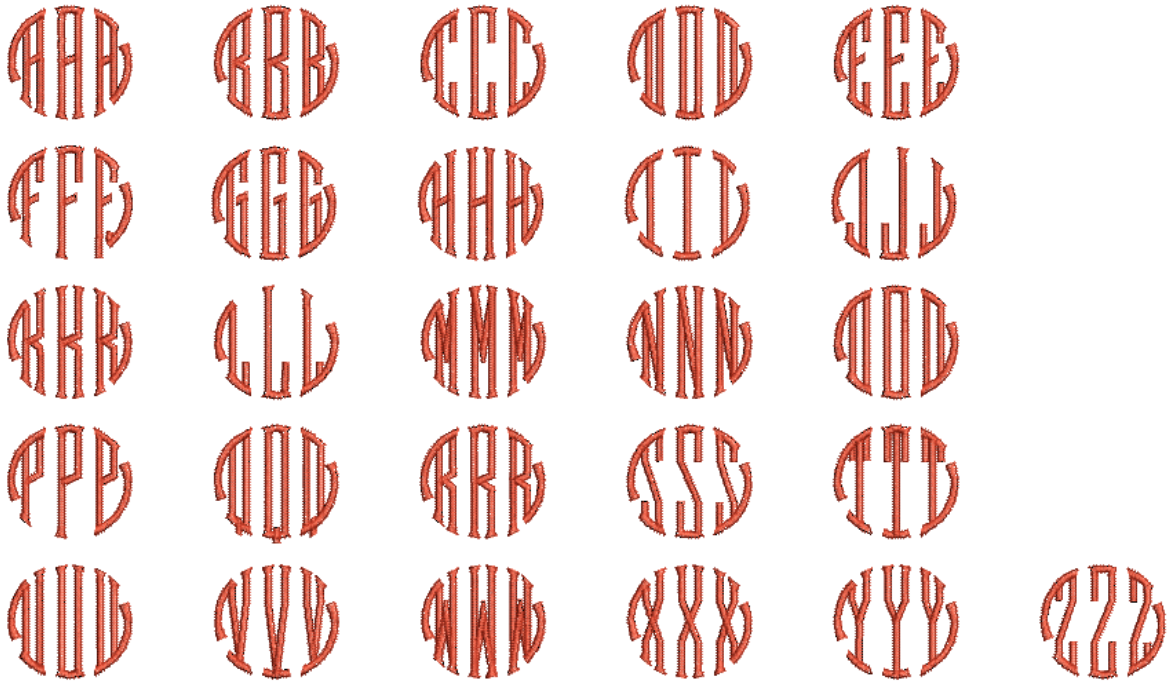
Point Monogram is a special monogramming alphabet using three sets of the upper-case alpha characters.



Alphabet contains	Left, Center and Right letters for 3-letter monogram. Use symbols for the left letter, upper case for the center letter, and lower case for the right letter.		
Colors	1 color		
Stitching	Satin		
Recommended height	Minimum	0.7 in	18 mm
	Maximum	4.0 in	100 mm

Seal Monogram

Seal Monogram is a special monogramming alphabet using three sets of the upper-case alpha characters.



Alphabet contains	Left, Center and Right letters for 3-letter monogram. Use symbols for the left letter, upper case for the center letter, and lower case for the right letter.		
Colors	1 color		
Stitching	Satin		
Recommended height	Minimum	0.7 in	18 mm
	Maximum	4.0 in	100 mm

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