WILCOM®

EMBROIDERY STUDIO e4.5

Cross Stitch Supplement

Copyright © 1998-2022 Wilcom Pty Ltd. All rights reserved.

No parts of this publication or the accompanying software may be copied or distributed, transmitted, transcribed, stored in a retrieval system or translated into any human or computer language, in any form or by any means, electronic, mechanical, magnetic, manual, or otherwise, or disclosed to any third party without the express written permission of:

Wilcom International Pty Ltd. (a.c.n. 119 508 575)
Level 3, 1-9 Glebe Point Rd, Glebe
Sydney, New South Wales, 2037, Australia
PO Box 1094, Broadway, NSW 2007
Phone: +61 2 9578 5100
Fax: +61 2 9578 5108
Web: http://www.wilcom.com

Wilcom Pty Ltd makes no representation or warranties with respect to the contents of this publication and specifically disclaims any implied warranties of merchantable quality or fitness for any particular purpose.

Further, Wilcom Pty Ltd reserves the right to revise this publication and to make changes in it from time to time without obligation of Wilcom Pty Ltd to notify any person or organization of such revisions or changes.

The screen illustrations in this publication are intended as representations, not exact duplicates of screen layouts generated by the software. The samples used to illustrate software features and capabilities may not be exactly duplicable, depending on inclusions provided with your software model or product level. Some artwork for design samples is kindly provided by Digital Art Solutions.

The Product Differentiation Table which appears in the appendices of this manual itemizes features which are relevant to each product level. While every effort has been made to maintain this table up to the current release, late changes may not be precisely reflected. For purchasing advice, please consult the marketing literature or talk to a Wilcom representative.

Copyright © 2021 Corel Corporation. Corel, the Corel logo, the Corel Balloon logo, the Corel logo and the Corel Balloon logo combination (stacked and side-by-side), CorelDRAW, Capture, Connect, Corel PHOTO-PAINT, Font Manager, LiveSketch, PowerTRACE, Smart Carver and Website Creator are trademarks or registered trademarks of Corel Corporation and/or its subsidiaries in the United States and/or other countries.

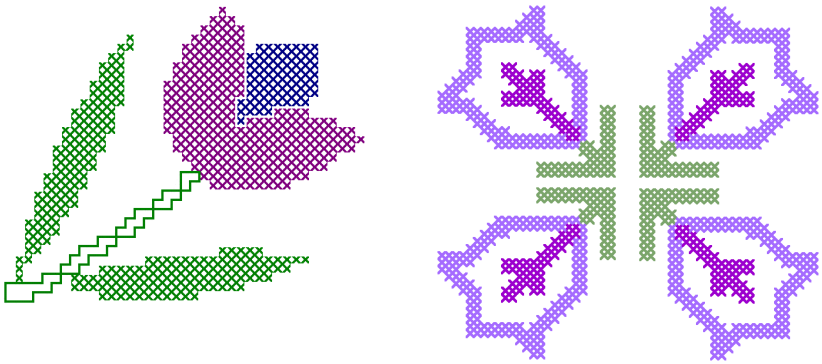
Subject to any warranties implied by law which are incapable of limitation or exclusion, the software is purchased ‘as is’ without any warranty as to its performance, accuracy, freedom from error or to any results generated through its use and without any implied warranty of merchantability or of fitness for any particular purpose for which the software is being acquired. The purchaser relies on its own skill and judgement in selecting the software for its own use and assumes the entire risk as to the results and performance of the software. Wilcom Pty Ltd specifically does not warrant that the software will meet the purchaser’s requirements or operate without interruption or error.

Rev 4 March 2022

Chapter 1

Introduction to ES Cross Stitch

Cross stitching is a popular technique for filling large areas with low stitch counts. It can also be used for outlines and borders. It is suitable for homeware, tablecloths, children's clothes and folk designs. Cross stitch is also sometimes combined with appliqué.



Machine embroidery can be enhanced with a myriad of stitch types, angles, needle patterns, and effects. But with cross stitch, you can only add dimension with simple stitch types and colors. For this reason, cross stitch designs often use many more colors than machine embroidery.

Note: ES Cross Stitch is an add-on cost option for most levels of Wilcom ES. You must have the cross stitch option activated in your software to use cross stitch. If you do not see the command under the correct menu, contact your dealer to upgrade and add the cross stitch features.

This section provides an overview of the various cross stitch types.

Types of cross stitch

Cross stitches are created on a matrix of squares or 'pixels'. Any part of the square can be stitched, from the edges to the diagonals. The full range of cross stitches is listed below.

Full cross	Upright cross

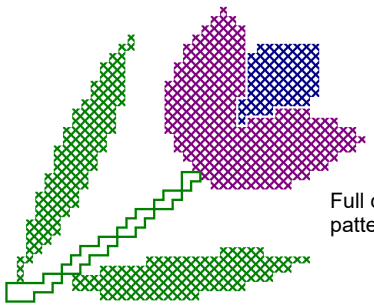
	Three-quarter cross		Double cross
	Half cross		Elongated vertical cross
	Quarter cross		Elongated horizontal cross
	Mini cross		Single line
	French knot		

Cross stitch fills

When using cross stitch as a fill you can select from any of the cross stitch fill types.

Full cross stitch

Full cross stitches are made up of two equal-length stitches that cross at the center to form an X. The overall effect depends on which stitch within the X lies beneath or on top. You can also mix and match for special effects.

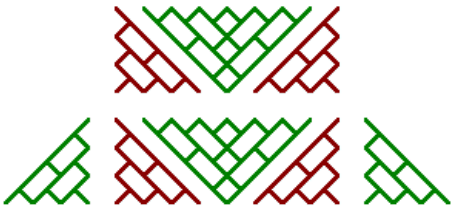


Full cross stitch pattern

Three-quarter cross stitch

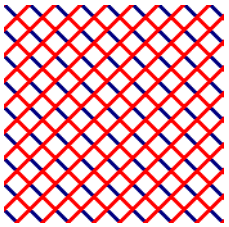
A three-quarter stitch is most often created by stitching a quarter stitch followed by a half stitch. A different effect is achieved by stitching the half stitch first and anchoring it with the quarter stitch.

Note: The long arm of the three-quarter stitch can go either / or \ directions.

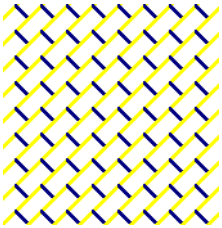


Three-quarter cross stitch pattern

Frequently a quarter stitch and a three-quarter stitch of different colors share a single square. Mix and match their positions to give different effects.

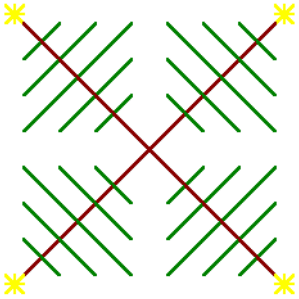


mixtures of quarter and a three-quarter stitches



Half cross stitch

A half stitch is simply a diagonal stitch that looks like / or like \. Half stitches are usually used for shadows and background shading. The stitch can start from any corner. Sometimes two half stitches of different colors are used to make one full cross stitch.

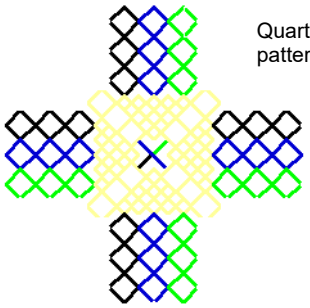


Half cross stitch pattern

Half stitches can go in either direction depending on the effect you want to achieve. For example, half stitches used to represent feathers would slant in the direction of the feathers themselves.

Quarter cross stitch

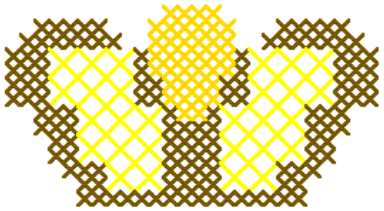
Quarter stitches are used to stitch more intricate patterns.



Quarter cross stitch pattern

Mini cross stitch

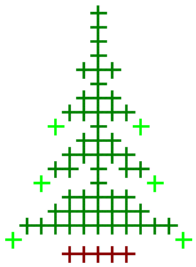
Mini cross stitches are two equal-length stitches that cross at the center to form an X but they only fill quarter of the square. Use mini cross stitch for details such as eyes or for a denser look in parts of your design.



Mini cross stitch pattern

Upright cross stitch

Upright cross stitches are comprised of a vertical and horizontal stitch.



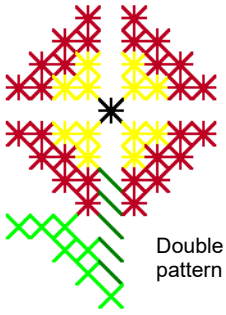
Upright cross stitch pattern

The stitches can be worked diagonally across the canvas, or in a horizontal or vertical line.

Double cross stitch

Double cross stitch is comprised of two full cross stitches stitched at 45º to each other. A double cross stitch resembles a star. It is generally used in a scattered fashion or worked into a row to form a decorative border.

Typically the top thread of the bottom cross is the stitch which lies at 135º to the horizontal, while the top thread of the overlapping cross is the horizontal stitch.



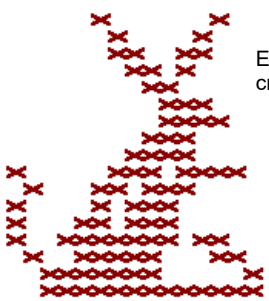
Double cross stitch pattern

Elongated cross stitch

Elongated cross stitch consists of two equal-length stitches that cross to form an X. There are two types:

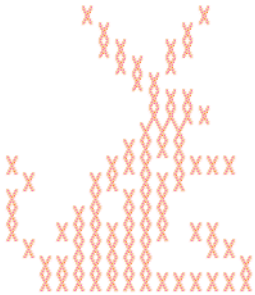
- elongated horizontal cross stitch
- elongated vertical cross stitch.

Elongated horizontal cross stitches are only half the height of normal cross stitch and elongated vertical cross stitches are only half the width of normal cross stitch.



Elongated horizontal cross stitch pattern

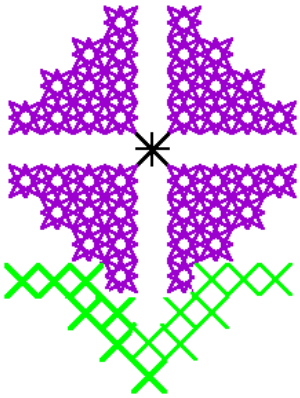
Elongated vertical cross stitch pattern



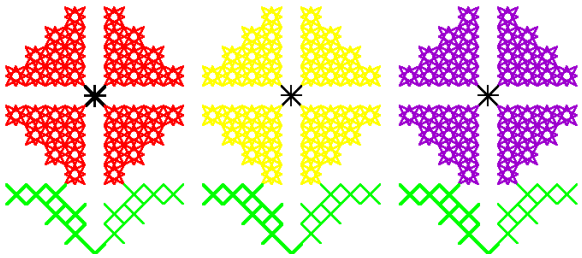
French knots

French knots were originally a hand-stitch used for a raised look for embellishment in Europe. It was traditionally used in 'whitework' with very exclusive cotton, and fine silk threads. French knots can be used in combination with other cross-stitch types.

Use french knots for eyes, door knobs, dots for flower pistils or in the place of beads used in hand-work designs, e.g. ornaments on a Christmas tree, to dot the letter **i**. Use it as an outline border. Try it with colorful metallic or variegated threads. French knots are better sewn in larger grids.



Petals stitched as french knots



Cross stitch borders

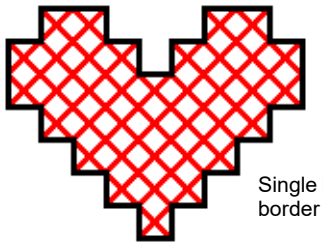
Cross stitch can be used as an embroidery outline. You can also combine cross stitching with other stitch types to achieve special effects.

You can make outlines with **Single Line** or **Full Cross** stitches or a combination of both for a denser border. A **Single Line** outline is treated by the software as a border while a **Full Cross** outline is treated as a fill.

This is important if you need to delete a border because a single line can be deleted as a single object while a full cross stitch border cannot.

Single line border

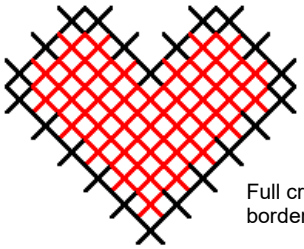
Single line stitches are only used to create borders or add details. The single line can be placed on any side of the square. Click on the side you want to place the line. You can place a single line border on one side or all four sides of the square. The single line border can be placed in a square which already has a cross stitch in it.



Single line black border

Full cross border

Full crosses can also be used as a decorative outline stitch. If you use full cross as a border it will be the same cross stitch type as selected in the fill stitch type list. You can change this by changing the fill stitch type.



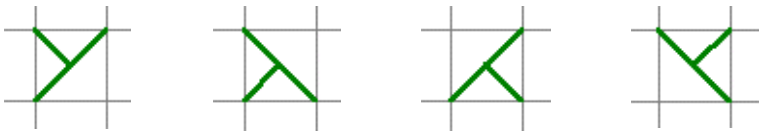
Full cross black border

Cross stitch variations

The orientation of fractional cross stitches can be varied to create different patterning effects. You do this directly pixel-by-pixel, or by setting a fill stitch orientation. You can also combine fractional cross stitches in a variety of ways. See also Types of cross stitch.

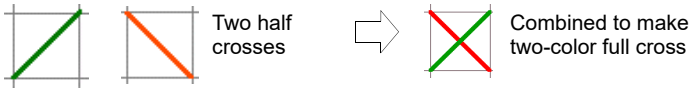
Three-quarter cross stitches

Quarter and three-quarter cross stitches can be used to create rounded edges. See also Cross stitch fills.



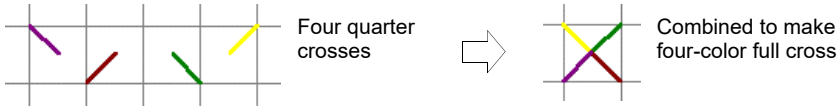
Half cross stitches

Half cross stitches can be used to give objects an 'airy' look. You can also use half cross stitches to make a full cross stitch with two colors. See also Combination stitches.



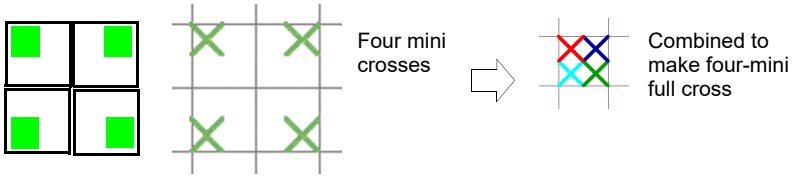
Quarter cross stitches

Quarter and three-quarter cross stitch can be used to smooth rounded edges. You can also use quarter cross stitch to make a full cross stitch with up to four colors. See also Combination stitches.



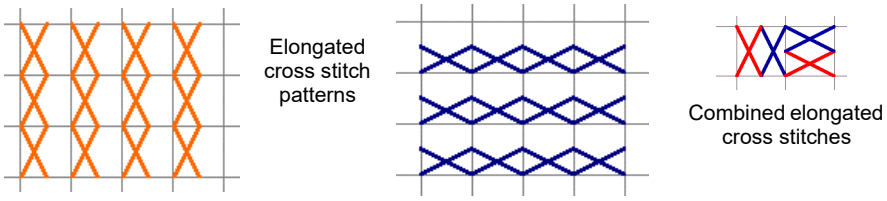
Mini cross stitches

Use mini cross stitch for details such as eyes or for a denser look in parts of your design.



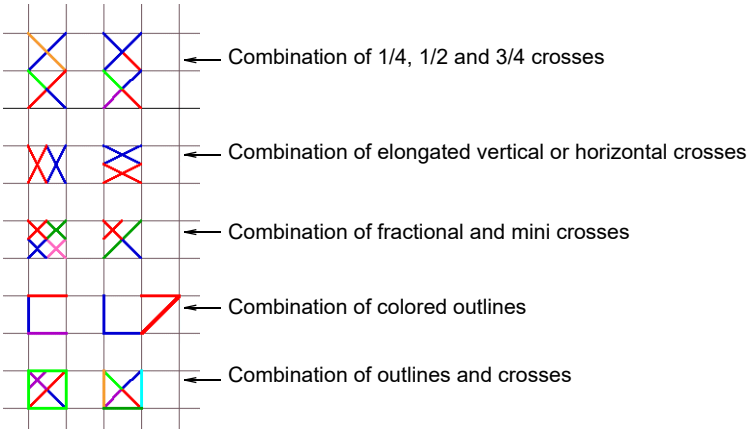
Elongated cross stitches

Vertical and horizontal elongated cross stitches are made up of two equal-length stitches that cross to form an X. They fill either the left, right, top or bottom of the square.



Combination stitches

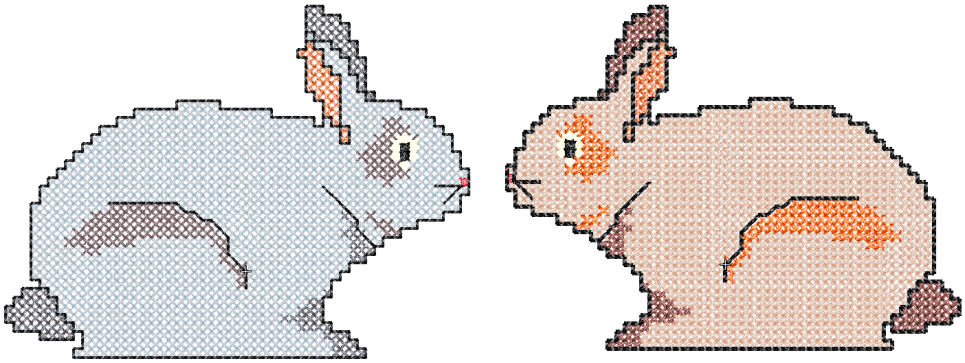
Quarter, half and three-quarter cross stitches can be combined to make crosses comprised of multiple colors. You can also combine mini crosses, elongated vertical or horizontal crosses and outline stitches.



Chapter 2

Cross Stitch Essentials

Cross stitch design involves a different digitizing technique to ordinary embroidery design. For this reason, ES Cross Stitch is a separate application to the main EmbroideryStudio application. It also has a different work environment with different settings for design size and density. Like the main application you will do most of your work with digitizing backdrops. Design viewing is also different to EmbroideryStudio.



This section describes the use of the ES Cross Stitch design window, as well as techniques for setting up your work environment and design size and density. It also covers working with backdrops and viewing cross stitch designs. It also discusses handling of cross stitch design files.

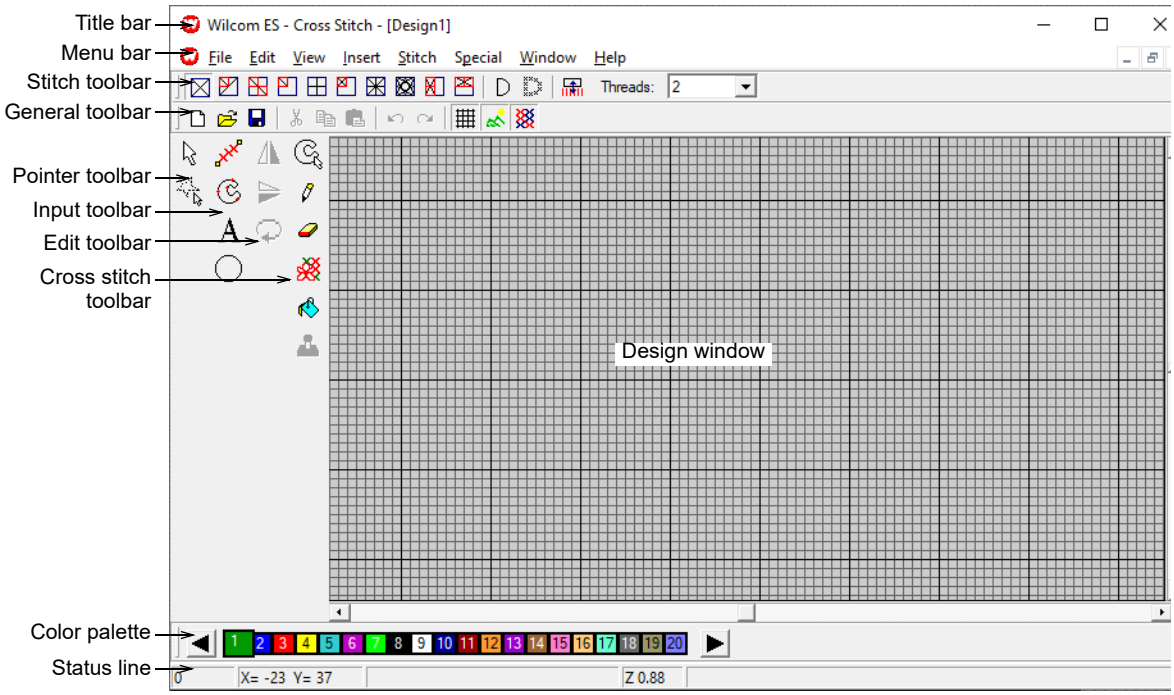
Opening ES Cross Stitch

Cross stitch design involves a different digitizing technique to ordinary embroidery design. For this reason, the cross stitch application has its own design window which you open from within EmbroideryStudio.

To open ES Cross Stitch

- Run EmbroideryStudio.

- Select **File > Cross Stitch**. The **ES Cross Stitch** design window opens.

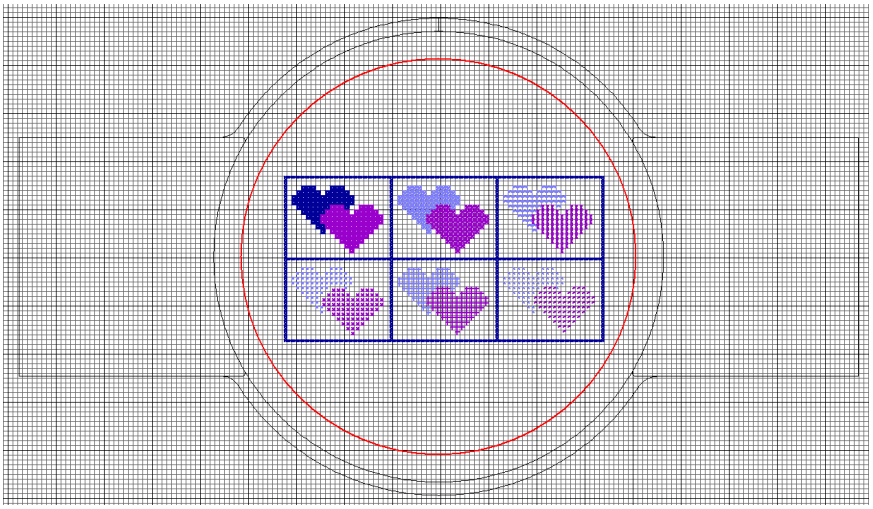


- Cross stitch toolbars include the **Standard** and **Stitch** toolbars across the top of the design window.
- **Pointer**, **Input**, **Edit** and **Cross Stitch** toolbars are located at the left of the design window.
- Click and drag toolbars into the design window as necessary.
- Double-click the title area of a toolbar to return it to its original position.

Setting up work environment

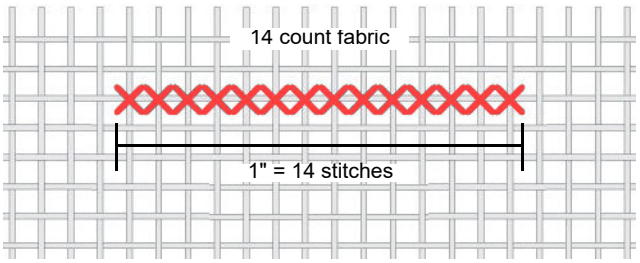
In ES Cross Stitch, design size is determined by 'fabric count'. The more stitches per inch, for example, the smaller and more compact the design. In addition, you need to set up your design grid for easy visualization and cross stitch placement. You can also visualize your design within a target

hoop. Similarly, you can select a background color or fabric for more realistic previews and presentations.



Set design size

You set cross stitch design size by adjusting the 'fabric count', generally defined as 'holes per inch'. This actually changes the scale of your finished design. The more stitches per inch, the smaller and more compact the resulting design.



Cross stitch fabric used in handcraft is woven with the same number of threads in each direction to create evenly-sized squares. There are two

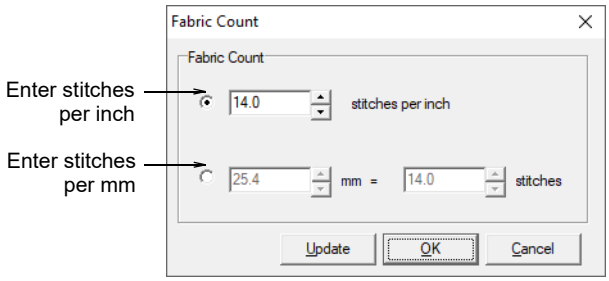
main types – aida and linen. Aida is the most popular. It is made from 100% cotton and comes in various fabric counts.

Different cross stitch fabrics with varying fabric counts

Known commercially as 'evenweave', these fabrics are suited to traditional cross stitch because they produce evenly-sized thread blocks in both directions. Stitches appear as squares or parts of squares. The higher the fabric count, the tighter the weave, and therefore the smaller the cross stitches produced. Fabric count in machine embroidery still determines design size – the more stitches per inch, the smaller and more compact the design. However, fabric count in the software does not necessarily coincide with fabric count on the machine.

To set the design size...

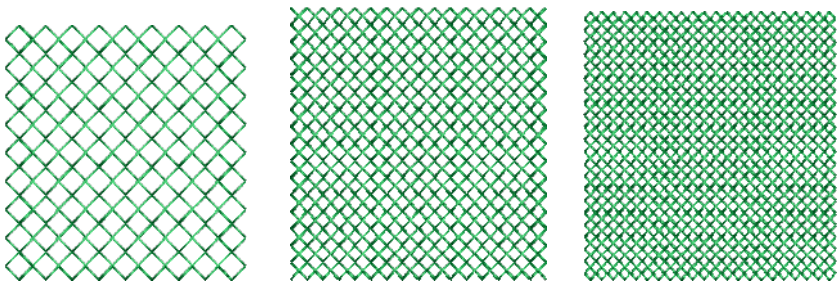
1 Select **Special > Fabric Count**. The **Fabric Count** dialog opens.



2 Select a fabric count option, inches or millimeters:

Option	Purpose
Stitches per inch	The fewer stitches per inch, the bigger the resulting design.
Stitches per mm	Because a cross stitch is bigger than a millimeter, you can adjust the mm and stitch settings in relation to each other. The higher the mm value, or smaller the stitch value, the bigger the design.

Tip: By clicking **Update**, you get an immediate conversion of any values you have entered. For example, change the **stitches per inch** value, click **Update**, and the corresponding **stitches per mm** value will be updated.

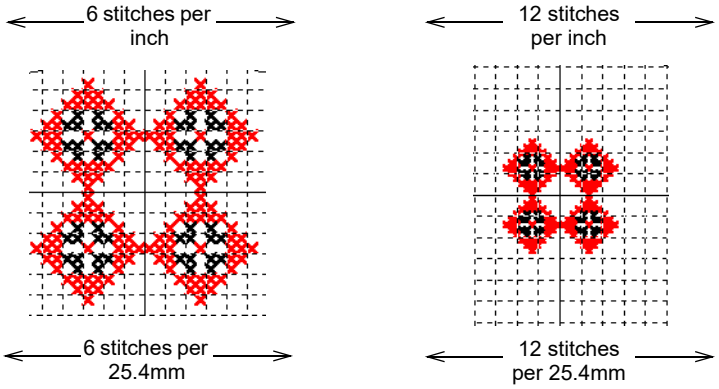


Fabric count:
6.0 stitches/inch

Fabric count:
10.0 stitches/inch

Fabric count:
14.0 stitches/inch

3 Click **OK**.



Tip: If you create a design where every square has a stitch, remember to baste and stabilize the fabric.

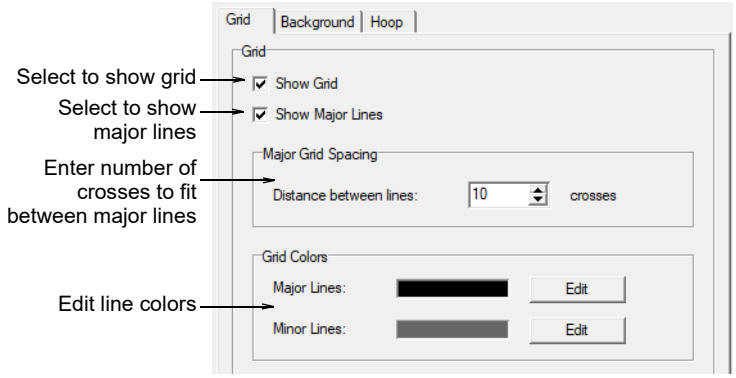
Adjust grid settings

Click General > Grid to show or hide the grid. Select Special > Options to change grid settings.

Set up your design grid for easy visualization of cross stitch placement.

To adjust grid settings

1 Select **Special > Options** and click the **Grid** tab.

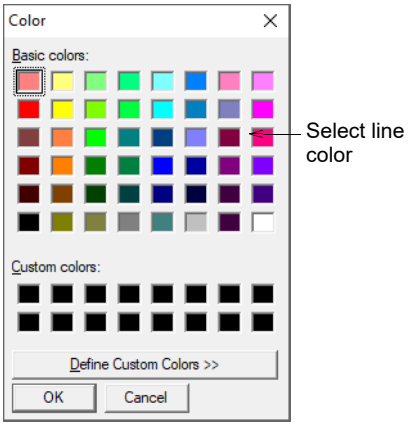


2 Activate grid lines with the **Show Grid** checkbox.

3 Select **Show Major Lines** and set the number of crosses to fit between them.

Tip: If you've set a fabric count of, say, 14 stitches per inch, set the distance between major grid lines to 14 as well. That way you can visualize better each square inch of your design.

4 Click **Edit** to change the color of the major and minor lines.



5 Select from the available colors or define your own. Click **Define Custom Colors** to mix your own colors from the color wheel.

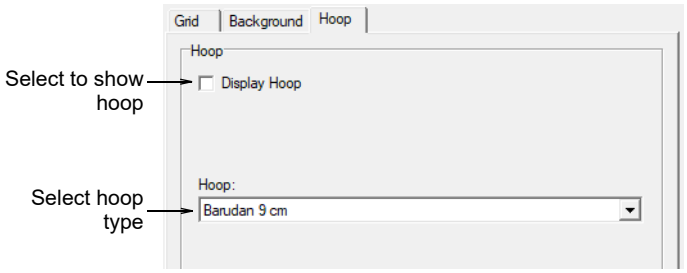
6 Click **OK**.

Change hoop settings

You can show or hide selected hoops in ES Cross Stitch for use as backdrops to help in laying out designs.

To change hoop settings

1 Right-click the **Hoop** icon. The **Options > Hoop** tab opens.



2 Select the **Display Hoop** checkbox.

3 Select a hoop type from the list.

4 Click **OK**.

Tip: If you resize a design to fit inside the hoop, stitches may be stacked on top of each other and pull the fabric. You can avoid this problem by reducing the number of crossovers to single (2 threads) for both fills and outlines. You can also use a thinner weight thread. See also Set stitch density.

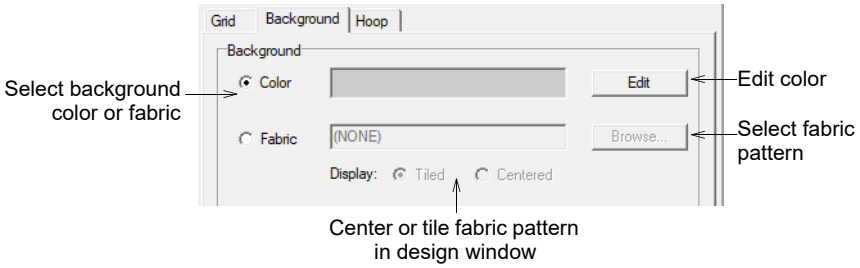
Set background colors & fabrics

In ES Cross Stitch you can change the background color of the design window to match the color of your fabric. Or you can select a background fabric for more realistic previews and presentations.

To set background color or fabric

1 Select **Special > Options**.

2 Select the **Background** tab.

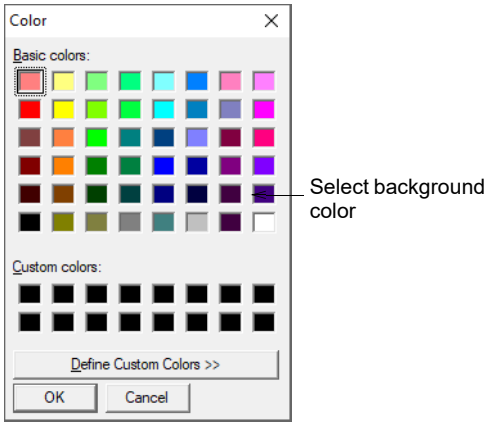


3 Select the design window background type.

- **Color**: uses the selected color.
- **Fabric**: uses an image of a fabric.

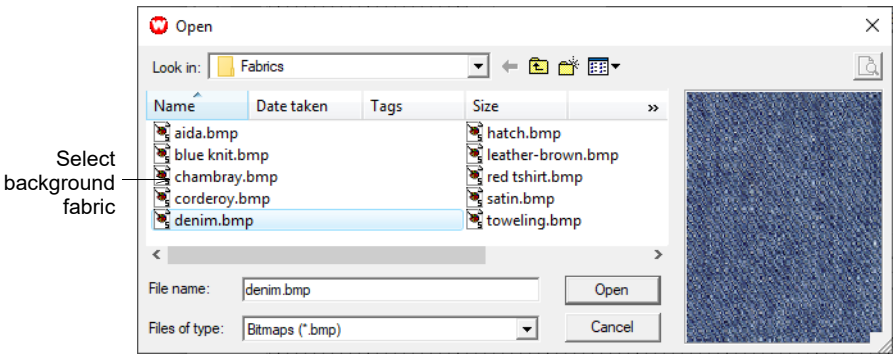
4 Select a color or fabric to use.

- To select a background color, click **Edit**. Select a color from the **Color** dialog and click **OK**.



- To select a fabric, click **Browse**. Select a fabric type from the **Open** dialog and click **OK**.

You can center or tile the fabric bitmap in the design window. If the bitmap is large enough to fill the entire window, select **Center**. Otherwise, select **Tile**.



5 Click **OK**.

Working with backdrops

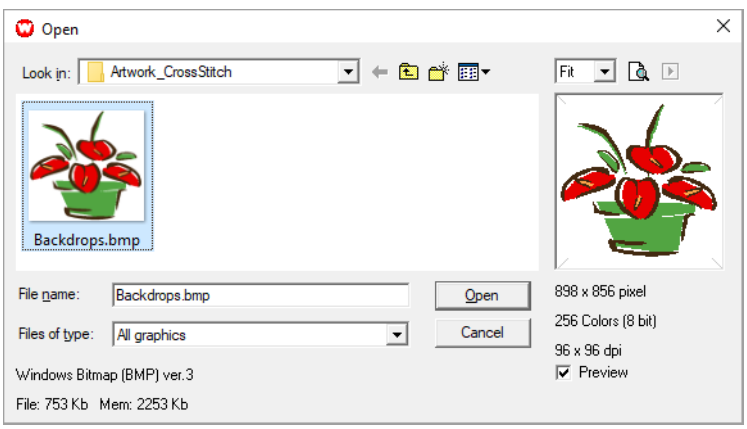
Bitmap images can be inserted, pasted or scanned into ES Cross Stitch for use as digitizing backdrops. You can digitize backdrop images automatically using **Auto Stitch Image**. Use solid color bitmaps to make suitable color blocks for cross stitches.

Insert bitmap images

You can insert bitmap images of various formats for use as digitizing backdrops.

To insert bitmap images

1 Select **Insert > Drawing File**. 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.

Tip: Select the **Preview** checkbox to preview the selected file.

5 Click **Open**.

Tip: You can also use **Edit > Paste Drawing > As Vector/As Bitmap** if the drawing is on the clipboard.

View or hide backdrops

Click General > Picture to show or hide the picture.

You can show or hide a bitmap backdrop temporarily while you digitize.

To view or hide backdrops

- Click the **Picture** icon to show the image.
- Click it again to hide the image.

Scale & transform bitmap images

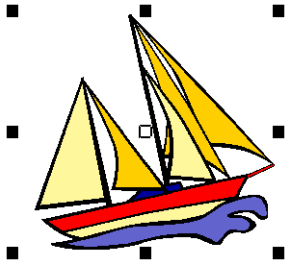
You can scale and reshape images once they are loaded into ES Cross Stitch. This is useful for sizing artwork precisely to the grid.

Tip: If an image needs to be significantly resized or rotated, it's best to do so during scanning or in a graphics application.

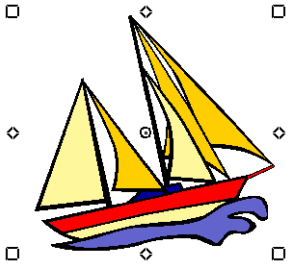
To scale and transform bitmap images

1 Insert the image in the normal way. See Insert bitmap images for details.
2 Click the **Select** icon.

3 Holding down the **Alt** key, click the image. Eight resize handles appear around the image. Click and drag these to size the image as you would any other object.

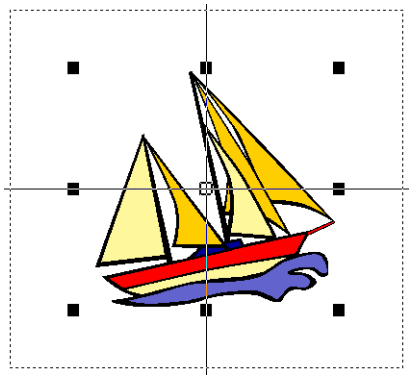


Resize handles

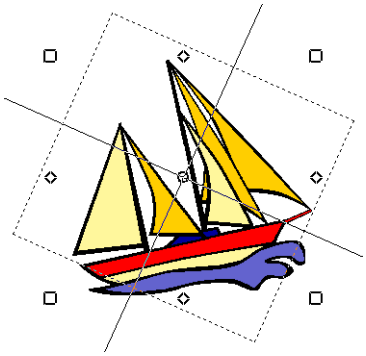


Transform handles

4 Still holding down the **Alt** key, click the image again. Eight transform handles appear around the image. Use these to rotate the image. An additional center point lets you move the whole design.



Resize image

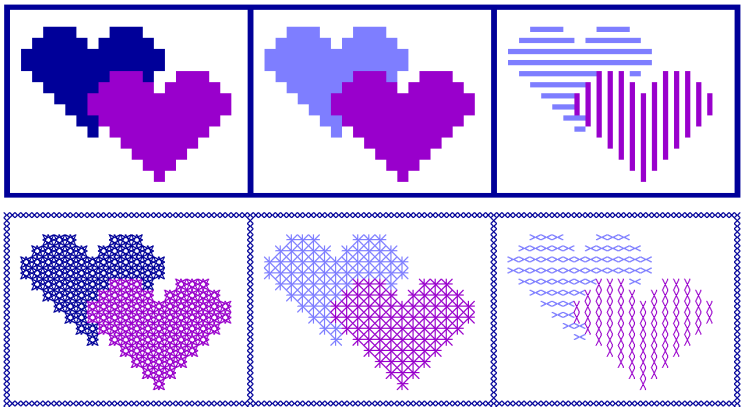


Transform image

Viewing cross stitch designs

While you are working in ES Cross Stitch, you will toggle between different viewing modes to better visualize and understand your design.

You will also routinely consult the **Status Bar** for important information about the design.



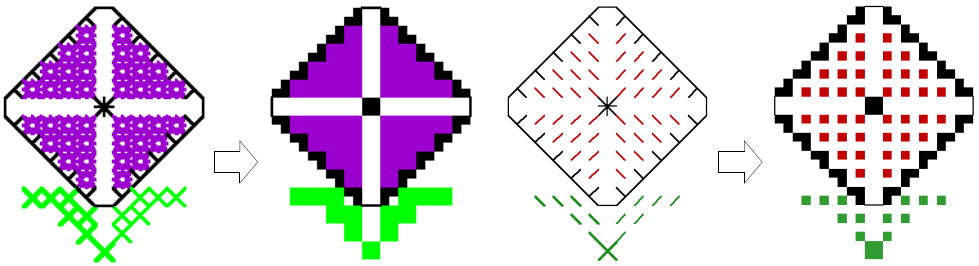
View stitches as crosses or tiles

Click General > Crosses to show stitches as colored tiles or cross stitches.

There are two display modes for ES Cross Stitch – crosses or colored tiles. When you change to tile mode, you see the design in colored blocks without stitch details as appear in stitch mode. See also Generate stitches.

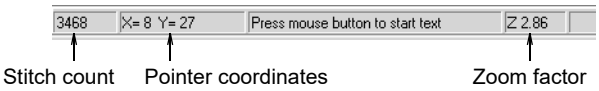
To view stitches as crosses or tiles

1. Click the **Crosses** icon. Any digitized areas are shown as crosses (or lines for line borders).
2. Click again to show stitches as colored tiles.



View design information

The **Status Bar** provides design information such as individual stitch information, approximate stitch count and thread usage as well as the zoom factor of the design.



Handling cross stitch design files

Cross stitch designs have their own EMX file format. This can be read by EmbroideryStudio. You can also combine EMX with designs in other formats.

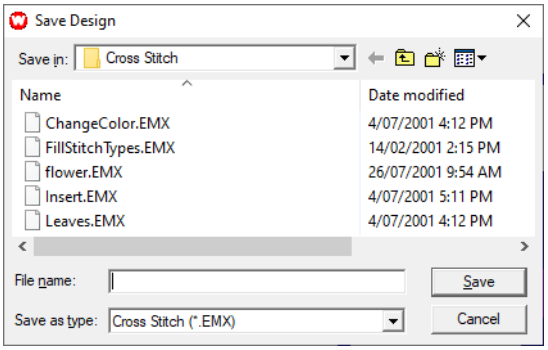
Generate stitches

Select Stitch > Generate to generate stitches from crosses.

What appears on-screen when you digitize is actually a 'painting' of the design. You are not digitizing so much as coloring the boxes with crosses. Thus you need to 'generate' your design in order to translate the crosses on screen into actual stitches. See also View stitches as crosses or tiles.

To generate stitches

- Click the **Generate** icon. Stitches are generated and the design saved as an EMX file. If this is the first time you have saved the design, you will be prompted to name the file.



Note: You can only save as EMX.

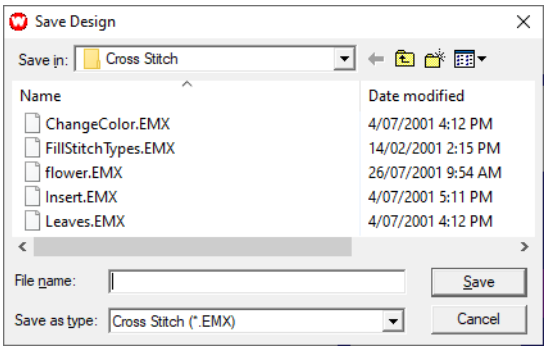
Save cross stitch designs

Click General > Save to save cross stitch files.

Save your design early and often. Use the EMX extension for saving cross stitch files.

To save cross stitch designs

1 Select **File > Save**. If this is the first time you have saved the design, the **Save As** dialog opens. The file is saved as an EMX file.



2 Type a new name for the design and click **Save**.

Use cross stitch with EmbroideryStudio

To include cross stitch in your EMB designs, you need to save and close any cross stitch designs as EMX then open them in EmbroideryStudio.

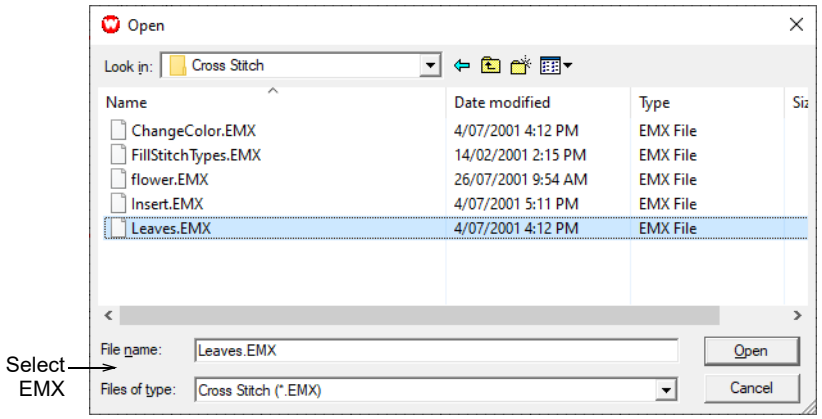
Tip: You cannot view your cross stitch design in TrueView in the cross stitch program. However you can do so by saving the design and opening it in EmbroideryStudio.

To use cross stitch with EmbroideryStudio

1 Save your design as EMX.

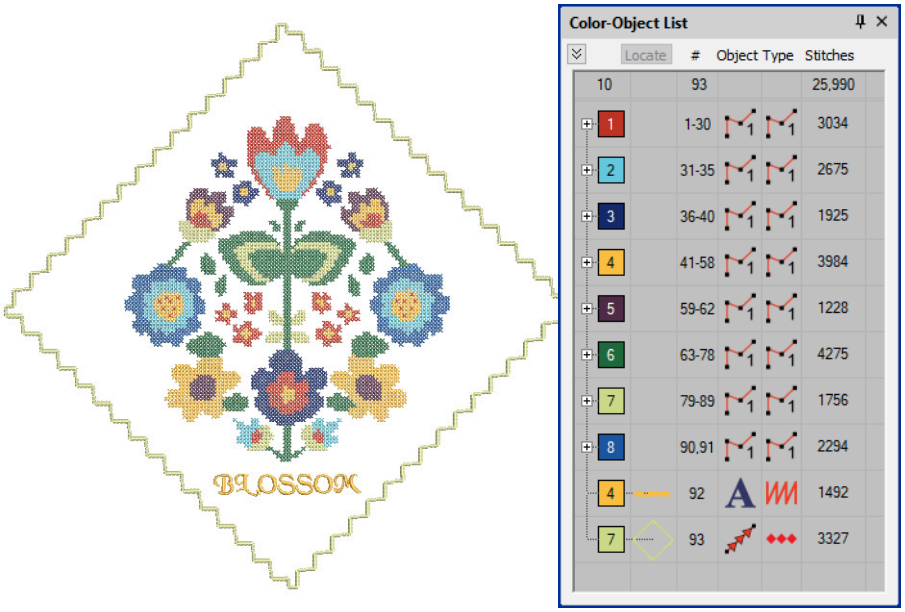
2 Open EmbroideryStudio.

3 Select **File > Open**. The **Open** dialog opens.



4 Select EMX files from the **Files of Type** list.

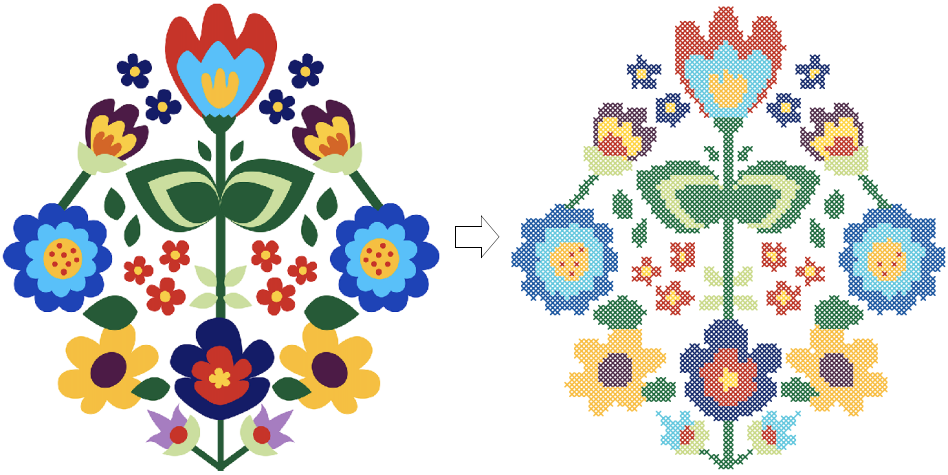
5 Select your file and click **Open**. The cross stitch file opens in EmbroideryStudio and can be further embellished with regular embroidery. Note that the EMX file is treated as manual stitch blocks. For this reason, scaling is not advisable.



Chapter 3

Cross Stitch Digitizing

In ES Cross Stitch you can add cross stitches either to an entire design or selected areas. Or you can place them individually. There are two stitch types, **outline** and **fill**. An outline stitch can be a single run, or a line of cross stitches. A fill can be any of the cross stitch types. You can pre-set stitch type, length and the number of times each stitch is sewn.

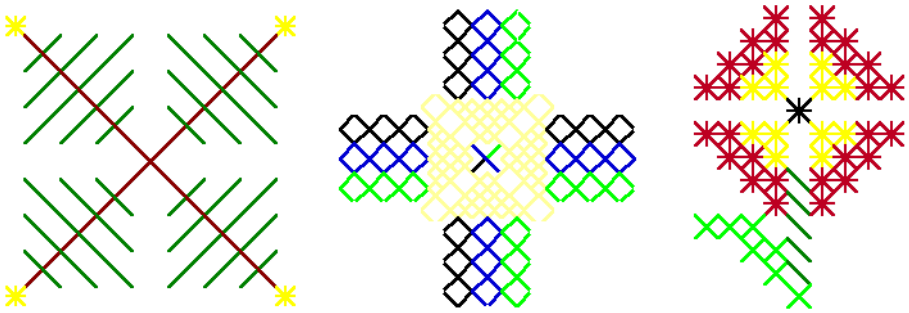


This section describes techniques for manual cross stitch digitizing. It also covers automatic techniques and cross stitch lettering.

Digitizing with cross stitches

ES Cross Stitch provides the full range of cross stitch types which you can use to create outlines and fills of any color. You can also control the orientation of fractional cross stitches to create different patterning

effects. You can also adjust the density of individual cross stitches by stitching them once, twice or three times.



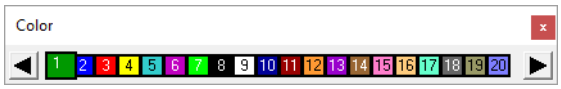
ES Cross Stitch provides techniques for digitizing single stitches or lines of stitches, filled and unfilled rectangles or circles, or filled and unfilled 'closed' free-form shapes. You can also create free-form outlines or borders.

Set stitch color & type

You can select stitch colors from the **Color Palette** before digitizing, or apply a new color to selected areas. Similarly, if you are creating a cross stitch fill or border, you can preset the cross stitch type from the **Stitch** toolbar.

To select a stitch color and type...

- Select a color from the color palette to apply to newly digitized areas.

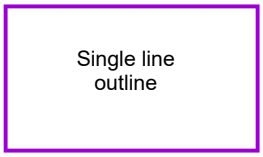


Tip: The color palette can be dragged and floated anywhere within the design window.

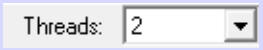
- To change colors, select a stitch block by dragging a marquee around it. Then select a new color.
- If you are creating a cross stitch fill or border, select a cross stitch type from the **Stitch** toolbar.

Tip: The stitch palette can be dragged and floated anywhere within the design window.

- If you are creating a cross stitch outline, click the **Single Line** or **Full Cross** icon. If you are using **Full Cross**, the currently selected cross stitch type applies.



Set stitch density

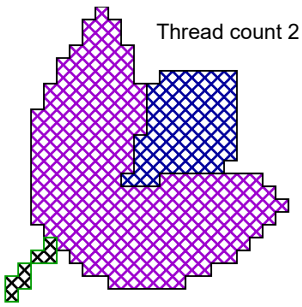


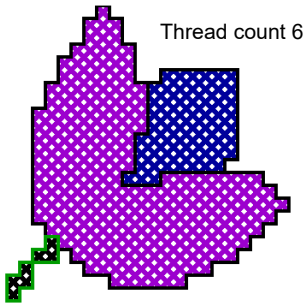
Use the Stitch > Threads list to set stitch density.

A common problem with cross stitch designs is that they 'pull', especially with smaller, closely packed stitches. Cross stitch designs tend to pull in a uniform way with gaps usually forming in straight lines. Sometimes holes appear giving the impression of missing stitches. To mitigate these problems, you can adjust cross stitch density by stitching once, twice or three times. The number of 'crossovers' correspond to the values **2**, **4** and **6** in the **Threads** list. You can change these values at any time.

To set stitch density...

- Select a value from the dropdown **Threads** list. The value **2** corresponds to a single stitch, **4** is double, while **6** is triple. This is represented on screen by line thickness.





Tip: When you move your mouse over the stitch, a tool tip will tell you the type and color of stitch used.

Digitize cross stitch fills

Use Input > Cross Stitch Fill to draw and digitize closed shapes.

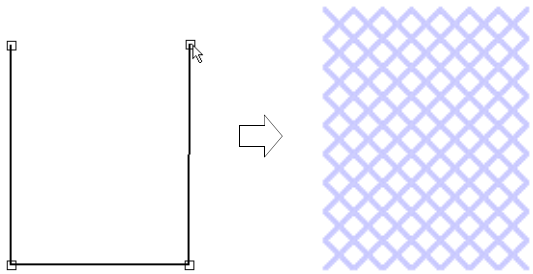
You can create free-form filled shapes using the **Cross Stitch Fill** tool. Fill stitches are all cross stitches. A variety of fill stitch types is available from the **Stitch** toolbar. You can control the orientation of fractional cross stitches to create different patterning effects.

To digitize a cross stitch fill...

1 Click the **Cross Stitch Fill** icon.

2 Select a color from the palette and cross stitch type from the **Stitch** toolbar. See Set stitch color & type for details.

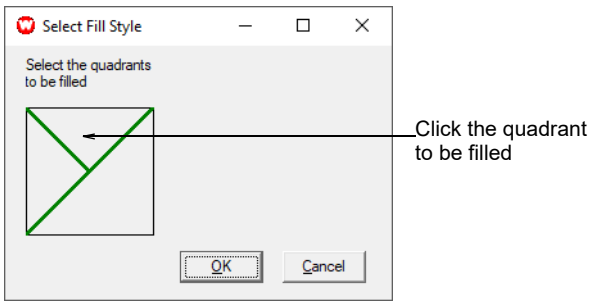
3 Mark reference points on your design. Left-click for sharp corners and right-click for round corners.



Marked reference points

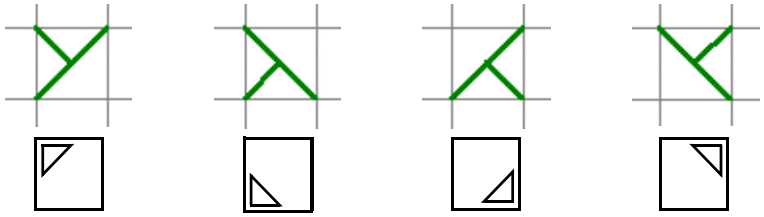
Full cross stitch fill

4 Press **Enter**. Depending on the stitch type selected, you will be prompted to set cross stitch orientation via the **Select Fill Style** dialog.

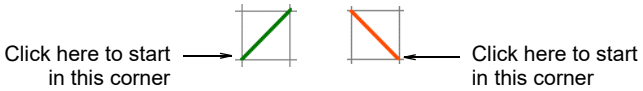


5 To set cross stitch orientation, click the quadrant to be filled.

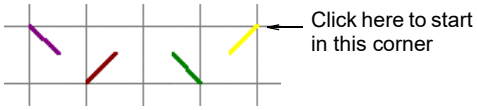
- To create three-quarter cross stitches, click the corner where you want the quarter stitch to be.



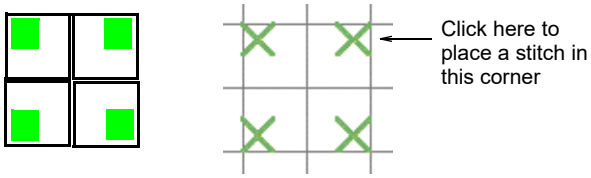
- To create half cross stitches, click the corner where you want your stitch to start.



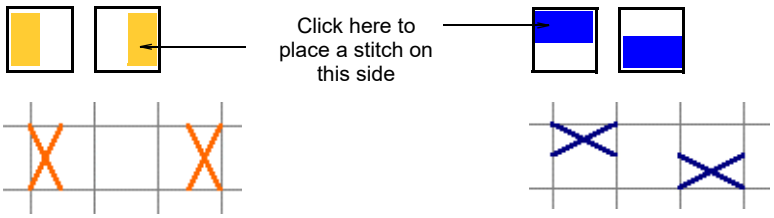
- To create quarter cross stitches, click the corner where you want your stitch to start.



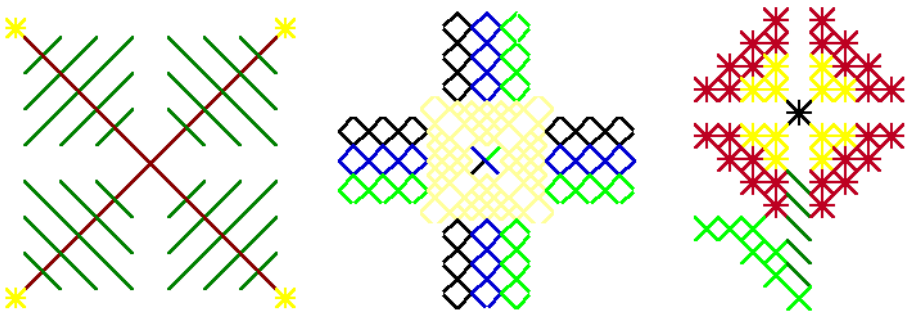
- To create mini cross stitches, click the corner where you want to place the stitch.



- To create vertical elongated cross stitches, click the side where you want to place the stitch.



6 Click **OK**. The shape is filled with the selected stitch type.



Half cross pattern | Quarter cross pattern | Double cross pattern

Related topics

- Types of cross stitch
- Set stitch color & type

Digitize cross stitch outlines

	Use Input > Cross Stitch Run to draw and digitize open shapes.
	Select Stitch > Single Line for a single line.
	Select Stitch > Full Cross for lines of crosses.

You can create free-form outlines and borders using the **Cross Stitch Run** tool. There are two types of line stitch, **Single Line** and **Full Cross**, both available from the **Stitch** toolbar.

To digitize cross stitch outlines...

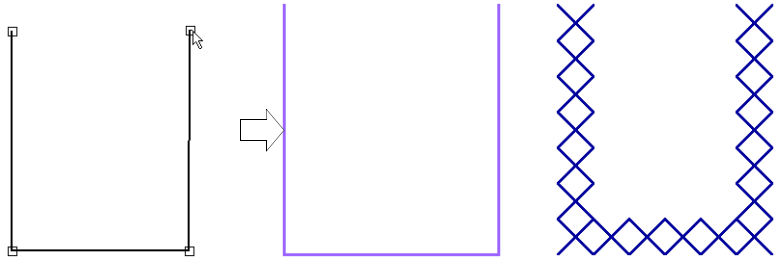
1 Click the **Cross Stitch Fill** or **Cross Stitch Run** icon.

2 Select a color from the color palette.

3 Click the **Single Line** or **Full Cross** icon. If you are using **Full Cross**, the currently selected cross stitch type applies.

Tip: The stitch palette can be dragged and floated anywhere within the design window.

4 Mark reference points on your design. Left-click for sharp corners and right-click for round corners.



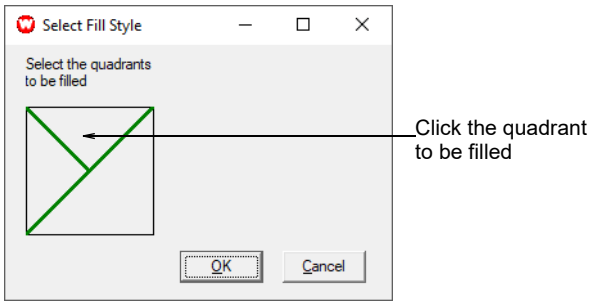
Marked reference points

Single-line outline with Cross Stitch Run

Full cross outline with Cross Stitch Run

5 Press **Enter**. The shape is filled or outlined depending on the stitch type selected. If you are using **Full Cross**, the currently selected cross stitch type applies.

Note: Depending on the stitch type you select, you can also set the stitch direction.



Related topics

◂ Set stitch color & type

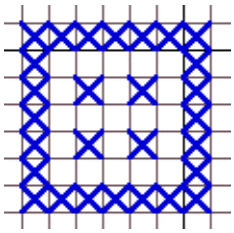
Digitize single stitches or lines

	Use Cross Stitch > Pencil to draw a single stitch or line of stitches.
	Select Stitch > Single Line for a single line.
	Select Stitch > Full Cross for lines of crosses.

As an alternative to **Cross Stitch Run**, you can digitize a single stitch or line of stitches with the **Pencil** tool. Depending on the stitch type you select, you can also set the stitch direction.

To digitize a single stitch or line...

1. Click the **Single Line** or **Full Cross** icon. If you are using **Full Cross**, the currently selected cross stitch type applies.
2. Select a color from the color palette.
3. Click the **Pencil** icon.
4. Click a square to make a single stitch, or click and drag the pencil to make a line. Press **Ctrl** and drag to draw straight vertical lines.



Single stitches and lines

Tip: You can also use the **Pencil** tool to create combinations of partial crosses comprised of multiple colors.

Related topics

- Set stitch color & type
- Create combination stitches

Digitize circles

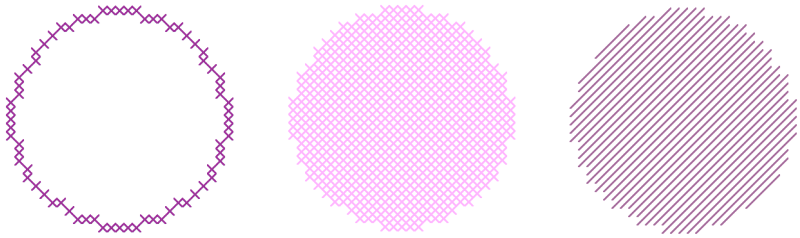
Use Input > Circle to draw and digitize ovals or circles.

The **Circle** tool provides a quick way to digitize filled or unfilled circles.

To digitize a circle...

1. Click the **Circle** icon.
2. Select a color from the color palette.
3. Select an **Outline** or **Fill** stitch type.
4. Mark the center point then mark a point on the circumference.
   - If you want a perfect circle, press **Enter**.
   - If you want an ellipse, mark a third reference point.

The circle or oval is filled or outlined depending on the stitch type selected.



Full cross border | Full cross fill | Half cross fill

Related topics

- Set stitch color & type

Digitizing backdrops automatically

Digitize the entire backdrop image automatically using the **Auto Stitch Image** function. Alternatively, using **Flood Fill**, you can create cross stitch fills from image color blocks.

Digitize images automatically

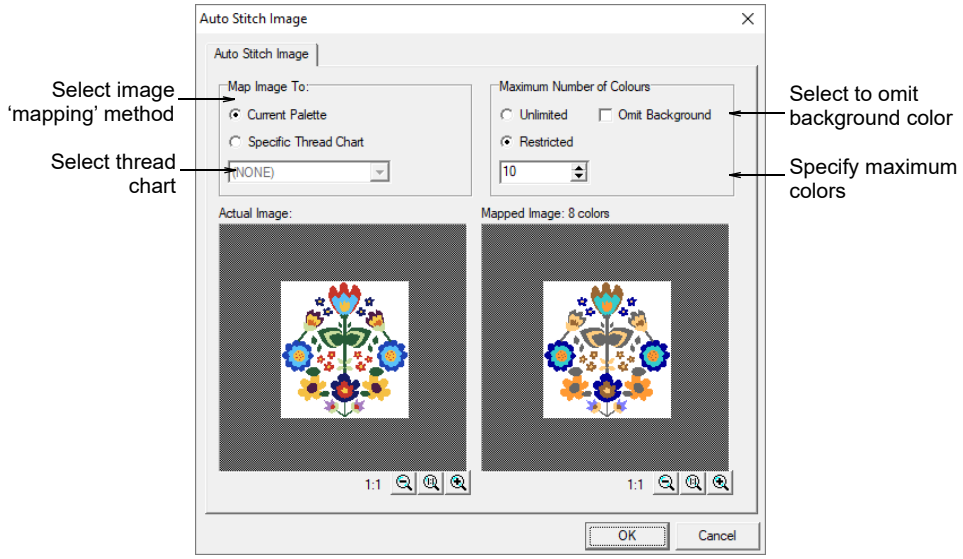
Use Cross Stitch > Auto Stitch Image to automatically create cross stitch designs from pictures.

Digitize the entire backdrop image automatically using **Auto Stitch Image**. You can change the stitch type manually later as required.

To digitize images automatically...

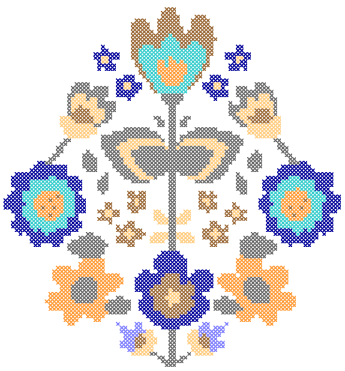
1. Prepare your image as necessary. Use a third party paint program to clean up the image.
2. Insert the image using **Insert > Drawing File**.

3 Click the **Auto Stitch Image** icon and click the image. The **Auto Stitch Image** dialog opens.

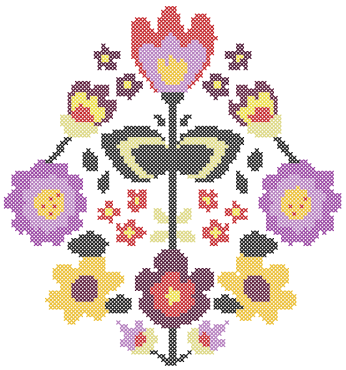


4 Select to map the picture colors to:

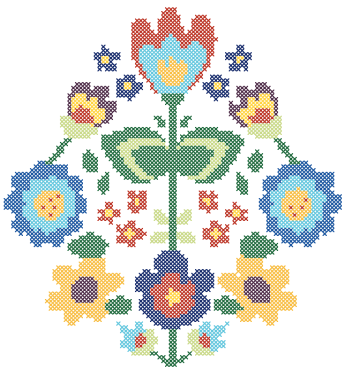
- **Current Palette**: only colors in the current palette are used.
- **Specific Thread Chart**: only colors in a selected thread chart are used.



Current palette: default



Selected thread chart: Sakura



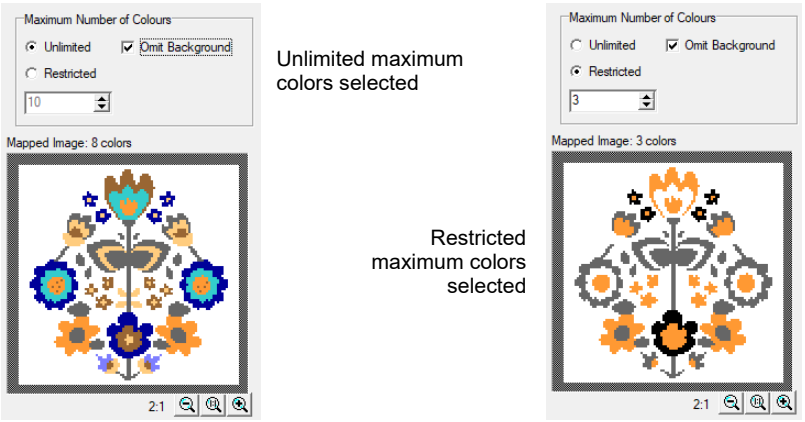
Selected thread chart: Madeira40-shades

5 Specify the maximum number of colors to be used:

Option	Purpose
Unlimited	Thread colors will be allocated according to the number of colors in the palette selected in the first dialog.

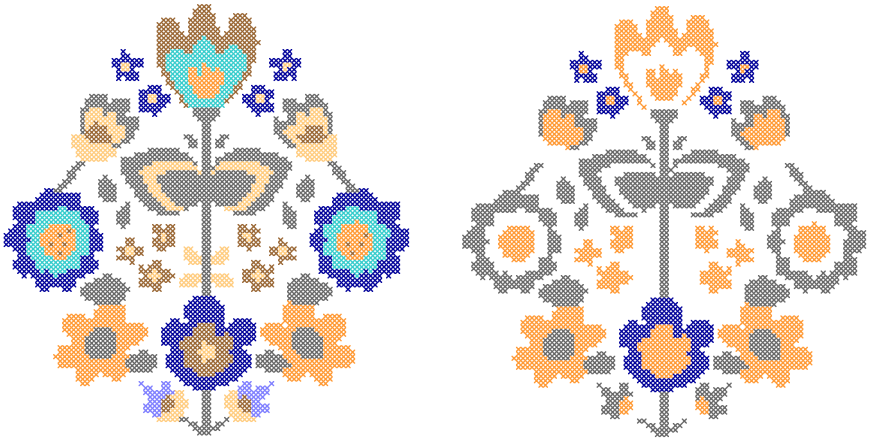
Option	Purpose
Restricted	Enter the number of colors you want to use.
Omit background	select to omit the background color.

The results display in the preview pane.



6 Click **OK**.

The image is digitized. You may need to touch up some areas manually.



Unlimited maximum colors selected

Three colors selected

Note: Auto Stitch Image is disabled if no image is loaded.

Related topics

- Working with backdrops

Flood-fill color blocks

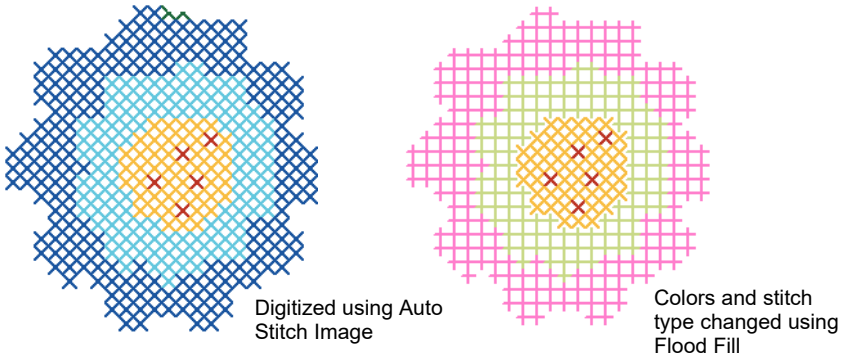
Use Cross Stitch > Flood Fill to fill a closed shape or color block with stitches.

Fill closed areas with stitches using the **Flood Fill** tool. You can also use the tool to change the color and stitch type of **Full Cross** outlines. This tool is ideally suited to editing stitch blocks in auto-digitized artwork but can be used with any cross stitch design.

Note: The **Flood Fill** tool only works with cross stitches. **Flood Fill** will not work with bitmap images used as backdrops.

To flood-fill color blocks...

1. Select a color from the color palette.
2. Select a **Fill** stitch type.
3. Click the **Flood Fill** icon.
4. Click within a closed area. The stitch block is converted to the selected stitch type and color.



Warning: Flood Fill will not work within single line outlines. Some shapes with angled sides may not fill correctly.

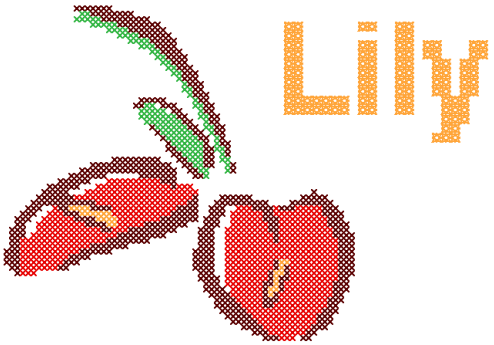
Related topics

- Set stitch color & type
- Working with backdrops

Digitizing cross stitch letters

Use Input > Lettering to add letters to your design. Right-click Lettering to open the Font dialog.

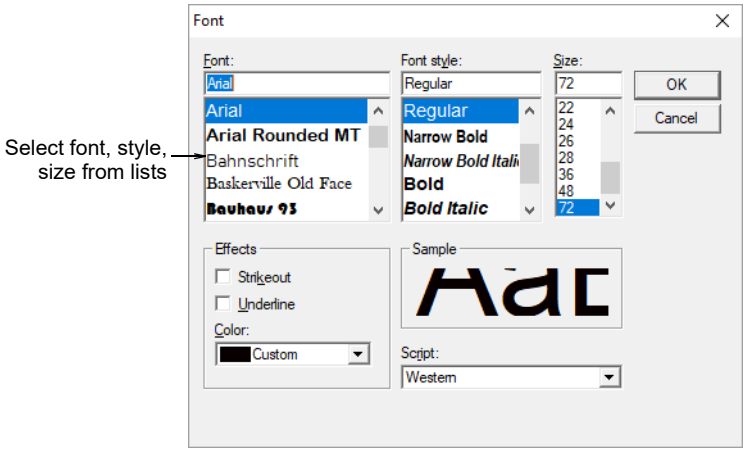
As with EmbroideryStudio, ES Cross Stitch lets you add lettering to a design by typing it directly in the design window. Use the **Font** dialog to select font, size and style. Select either outline or fill to digitize letters. Once typed, you cannot edit letters. Each letter is treated as a stitch block.



Tip: Lettering in ES Cross Stitch may appear thicker than the original TrueType font. This is generally due to 'ClearType' font smoothing which is turned on by default in Windows Vista or later. Temporarily turning off ClearType produces better lettering in ES Cross Stitch although this may affect its appearance in other applications.

To digitize cross stitch letters...

1 Right-click **Lettering**. The **Font** dialog opens.

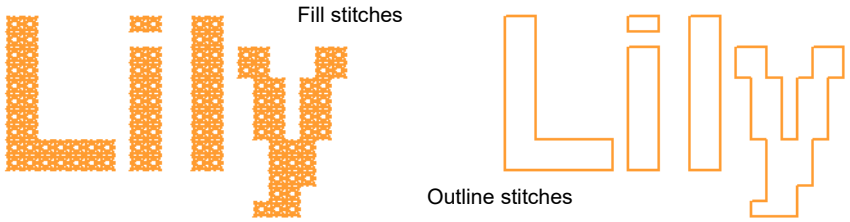


2 Select a font type, style and size and click **OK**.

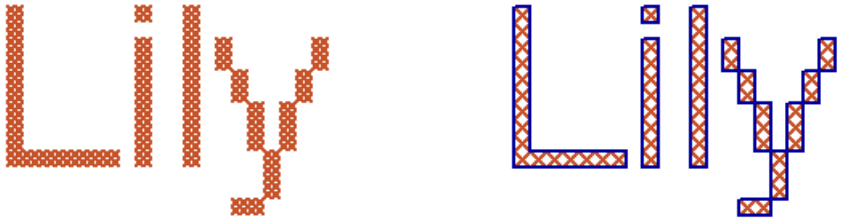
Regular font Bold font Italic font

3 Select a fill or outline stitch type from the **Stitch** toolbar.

4 Click a start point in the design window, type the letters and press **Enter**.



Tip: To edit letters, use the **Select** tool with the **Ctrl** key to select, then change the stitch type or color as required.



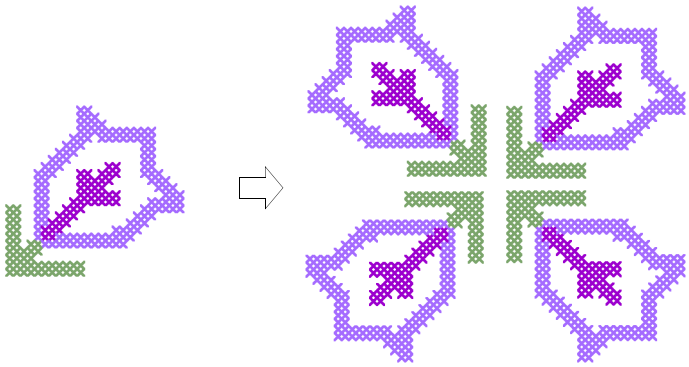
Related topics

- Working with backdrops

Chapter 4

Cross Stitch Editing

ES Cross Stitch provides techniques for editing cross stitch designs, including moving, rotating, and mirroring stitch blocks. You can erase stitches as well as change colors and stitch types of selected areas. You can clone a selection for re-use as a 'rubber stamp' and fill large areas with motifs or special composite stitches. You can also edit stitches to create combinations of partial crosses comprised of multiple colors.



This section provides details of cross stitch editing features including selecting and locking stitches as well as simple stitch editing. It also covers transforming stitch blocks. It also deals with special editing techniques as well as adjusting thread colors.

Selecting & locking stitches

In order to edit an area of a design, you must first select it. ES Cross Stitch provides a number of ways to select cross stitches. It also lets you lock cross stitches and/or outlines so that they are not moved or edited by accident.

Select cross stitches with Select tools

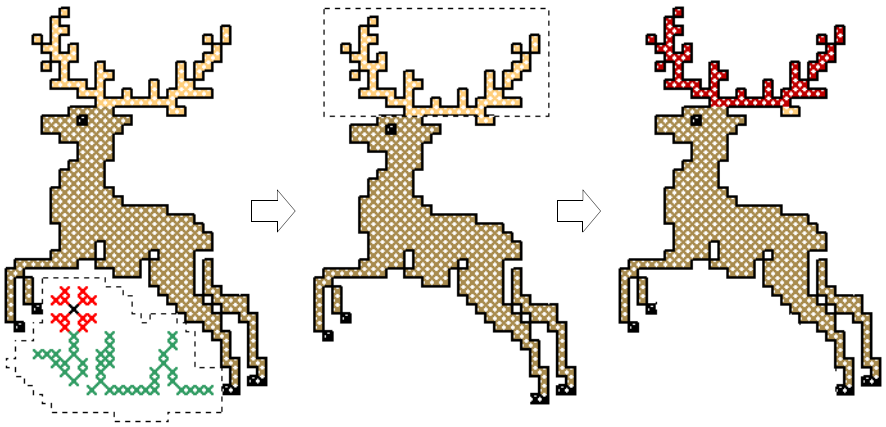
	Use Pointer > Select to select a single stitch or block of stitches.

Use Pointer > Polygon Select to select irregular areas or shapes.

The **Select** and **Polygon Select** tools work in a similar way to EmbroideryStudio. The difference is that in ES Cross Stitch you work with stitch blocks or areas rather than design objects.

To select cross stitches with Select tools...

- With the **Select** tool selected, simply drag a bounding box around the area to be selected.
- With the **Polygon Select** tool selected, mark reference points around the area you want to select and press **Enter**.



Polygon Select tool used | Select tool used | Selected parts edited

Tip: Hold down **Ctrl** to select multiple areas.

Select cross stitches with Auto Select

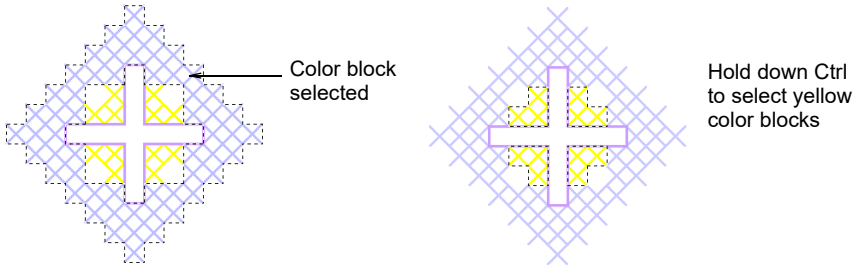
Use Cross Stitch > Auto Select to select a single color block or an undigitized area.

Auto Select is specific to ES Cross Stitch. It allows you to select a single color block or a closed undigitized area. Only adjoining stitches of the same color are selected.

To select cross stitches with Auto Select...

1. Click the **Auto Select** icon.
2. Click a block of stitches. Only adjoining stitches of that color are selected.

Tip: Hold down **Ctrl** to select multiple blocks.



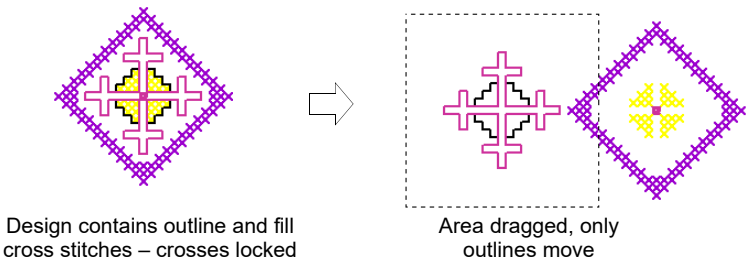
Tip: You can change the color of the selection completely, by selecting a color from the palette.

Lock cross stitches

You can lock cross stitches and/or outlines so that they are not moved or edited by accident.

To lock cross stitches...

1. Select **Edit > Crosses** or **Edit > Outlines**. When **Crosses** is ticked in the menu, cross stitches can be moved. Likewise, when **Outlines** is ticked, outlines can be moved.
2. Select an area and click and drag to move stitches.



3. Select **Crosses** or **Outlines** again to uncheck it and lock all crosses or outlines.

Simple stitch editing

ES Cross Stitch lets you change the color or stitch type of selected stitch blocks at any time. You can also remove stitches at any time.

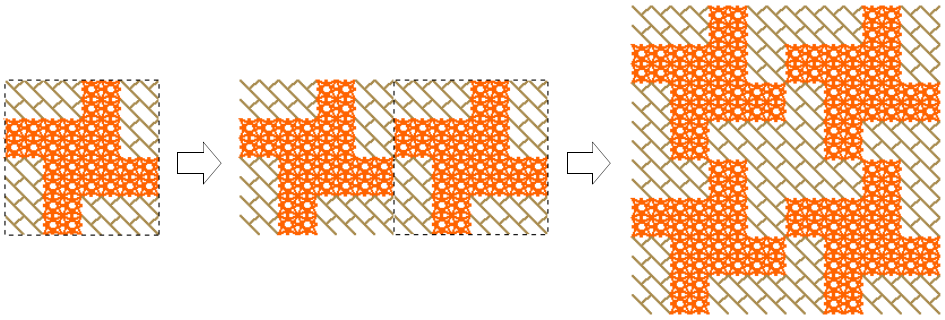
Copy, cut & paste stitch blocks

	Use General > Copy to copy selected stitch blocks to the clipboard.
	Use General > Cut to cut selected stitch blocks to the clipboard.
	Use General > Paste to paste copied stitch blocks from the clipboard.

In ES Cross Stitch you work with stitch blocks or areas rather than design objects. You can copy, cut and paste selected stitch blocks at any time. See also Rubber stamp fills.

To copy, cut and paste stitch blocks...

1. Select the stitch block to copy or cut. See Selecting & locking stitches for details.
2. Click the **Copy** or **Cut** icon. The selected area or areas are copied to the clipboard.
3. Click the **Paste** icon. The duplicate area is pasted over top of the selected area.
4. Click and drag to move the pasted stitch block.



Tip: Duplicate and rotate blocks of stitches to make patterns.

Related topics

- Transforming stitch blocks

Change stitch block settings

	Use Edit > Auto Select to change the color and/or stitch type of selected stitch blocks.

You can change the color and/or stitch type of selected stitch blocks at any time.

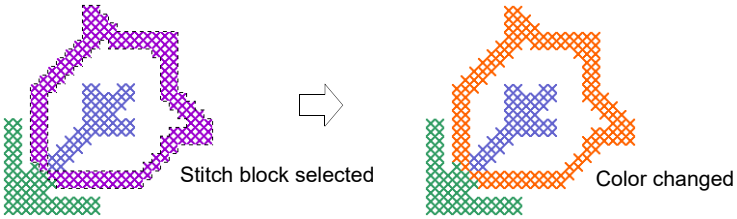
To change stitch block settings...

1 Use **Auto Select** to select the stitch block/s.

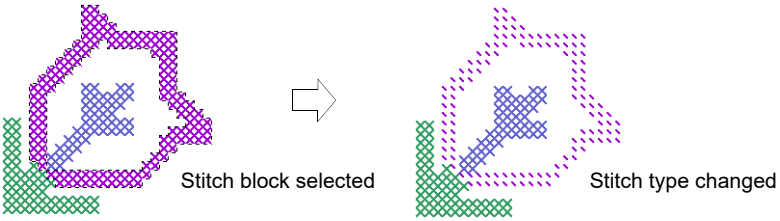
Tip: Hold down **Ctrl** to select multiple blocks.

2 Change color and/or stitch type as required:

- Select a new color from the palette. The color fills the selected area/s. The area remains selected.



- Select a new stitch type from the **Stitch** toolbar. The stitch type fills the selected area/s.



3 Press **Esc** to deselect the selected area/s.

Related topics

- Select cross stitches with Auto Select

Erase fills & single lines

Use Cross Stitch > Eraser to erase fills and single lines.

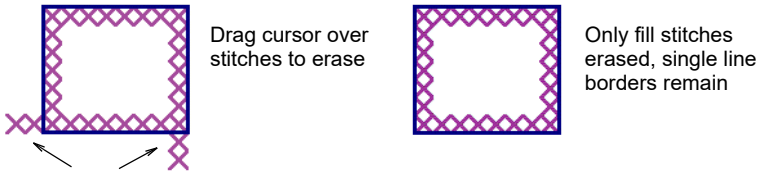
Use the **Eraser** tool to remove stitches. The eraser will remove either fill stitches or single line borders depending on the stitch type selected. Cross-stitched borders are treated as fill stitches.

To erase fills and single lines...

1 Click the **Eraser** icon.

2 Click **Full Cross** on the **Stitch** toolbar.

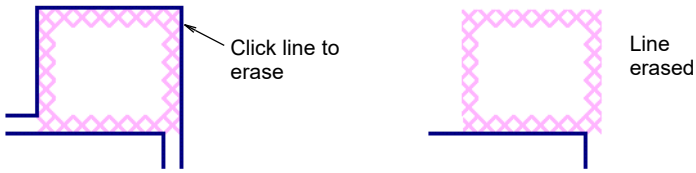
3 Click and drag the cursor across the stitches you want to remove. Only fill stitches are removed. Single line borders remain.



Tip: You can also erase cross stitches by selecting them and pressing the **Delete** key.

4 Click **Single Line** on the **Stitch** toolbar.

5 Click anywhere on a single line. The line is removed. Cross stitches remain.



Note: A single line border is removed in one click.

Transforming stitch blocks

ES Cross Stitch lets you perform various transformations on selected blocks of cross stitches. You can move them, rotate them in a clockwise or counter-clockwise direction. You can also mirror blocks of cross stitches either horizontally or vertically.

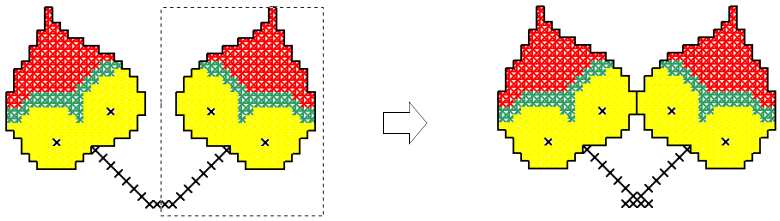
Move cross stitch blocks

You can move blocks of cross stitches at any time.

To move blocks of cross stitches...

1 Select the stitch block to move.

2 Click and drag it to a new location.



Related topics

◂ Selecting & locking stitches

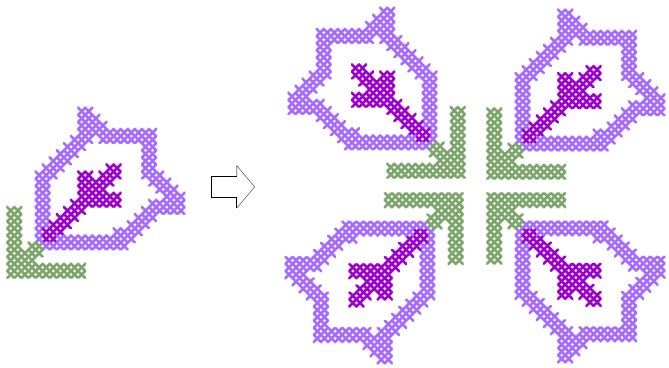
Rotate cross stitch blocks

Use Edit > Rotate Selection to rotate selected stitches.
Click to rotate clockwise. Right-click to rotate counter-clockwise.

You can rotate blocks of cross stitches in a clockwise or counter-clockwise direction. Duplicate and rotate blocks of stitches to make patterns.

To rotate blocks of cross stitches...

1 Select the stitch block to rotate.
2 Click the **Rotate Selection** icon.



Related topics

◂ Selecting & locking stitches

Mirror cross stitch blocks

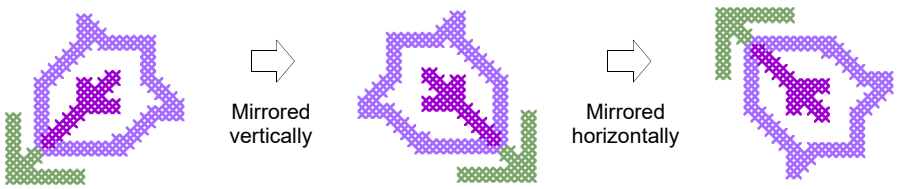
Click Edit > Mirror Selection Horizontal to mirror selected stitches horizontally.

Click Edit > Mirror Selection Vertical to mirror selected stitches vertically.

You can mirror blocks of cross stitches either horizontally or vertically.

To mirror blocks of cross stitches...

1 Select the stitch block to mirror.
2 Click the **Mirror Selection Horizontal** icon.



Related topics

- Selecting & locking stitches

Special editing techniques

ES Cross Stitch provides a number of editing techniques which are especially helpful for cross stitch digitizing. You can clone a selection for re-use as a 'rubber stamp' and fill large areas with motifs or special composite stitches. You can combine fractional cross stitches in a variety of ways. You can also add a cross stitch border or a single line border, or both, to areas of a design.

Rubber stamp fills

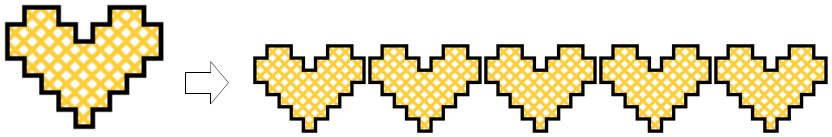
Use Cross Stitch > Rubber Stamp to clone a selection for re-use as a 'rubber stamp'.

Clone a selection for re-use as a 'rubber stamp' and fill large areas with motifs or special composite stitches.

To rubber stamp fills...

1 Click the **Select** icon and select the area to be cloned.
2 Click the **Rubber Stamp** icon. The selected area is copied and attached to the pointer.

3 Click to place the stamp as many times as you want.



Motif created

Rubber Stamp used to create border

4 Press **Esc** or select another icon to turn off **Rubber Stamp.**

Create combination stitches

	Use Cross Stitch > Pencil to add combination stitches.

Fractional cross stitches – ¼, ½, or ¾ – can be combined to make crosses comprised of multiple colors. You can also combine mini crosses, elongated vertical or horizontal crosses and outline stitches. See also Cross stitch variations.

To create combination stitches...

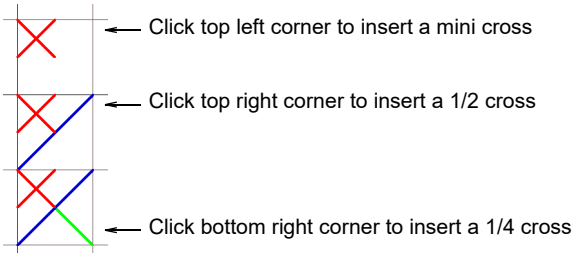
1 Select a stitch type.

	Select 3/4 for three quarter crosses.
	Select 1/2 for half crosses.
	Select 1/4 for quarter crosses.
	Select Mini Cross for mini crosses.
	Select Elongated Vertical Cross for vertical crosses.
	Select Elongated Horizontal Cross for horizontal crosses.

2 Select a color from the color palette.

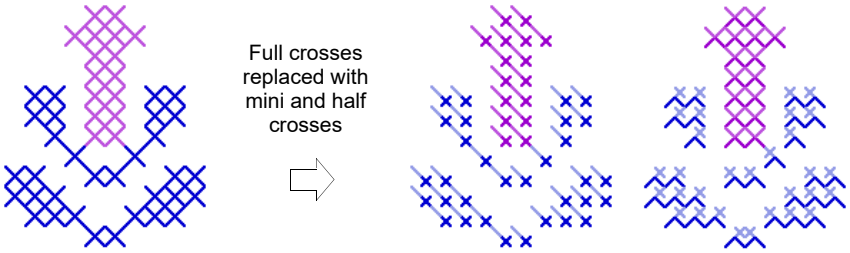
3 Click the **Pencil** icon.

4 Click where you want the stitch to be inserted.



Note: If you do not have **Insert** selected, the whole stitch will be replaced.

5 Repeat as many times as needed.



Related topics

◂ Set stitch color & type

Add borders to selected areas

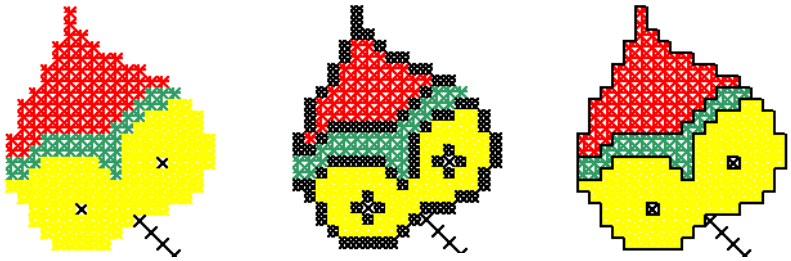
Add a cross stitch border or a single line border, or both, to selected areas of a design.

To add borders to selected areas...

1 Select either the **Single Line** or **Full Cross** icon.

2 Click the **Flood Fill** icon and click inside an area. A line of outline stitches is added around the edges of the selection.

Tip: Click again in the selection to add another line of stitches inside the first line.



No border | Mini cross stitch border | Single line border

Tip: To combine a cross stitch with a line border, select **Full Cross** stitch type and **Flood Fill**, then select **Single Line** and **Flood Fill** again.

Adjusting thread colors

ES Cross Stitch lets you change the thread colors of an existing design. You can also mix your own colors to more closely match the required design colors.

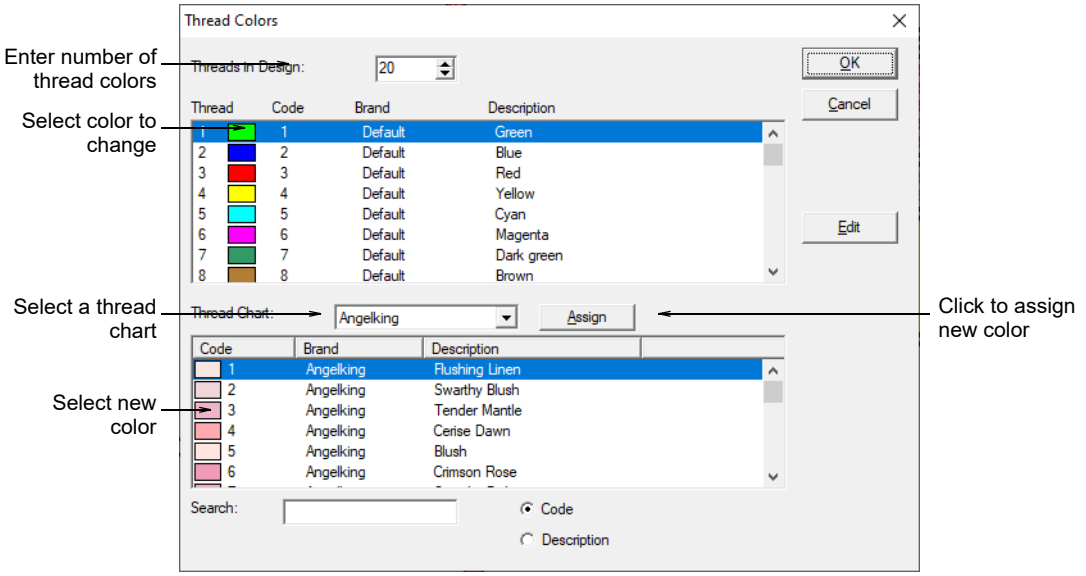
Warning: The representations of commercial thread charts are approximate, and the computer simulations are not intended to exactly match the identified thread color.

Change thread colors

ES Cross Stitch lets you reassign design colors using the design's thread chart. You can choose colors from pre-defined thread charts or mix your own.

To change thread colors...

1 Select **Edit > Colorways**. The **Thread Colors** dialog opens.



2 Enter the total number of colors you want to use in the **Threads in Design** field.

Tip: Color palettes are limited to 128 colors. 36 will fit comfortably at 800 x 600 resolution.

3 Select a thread chart from the **Thread Chart** list.

4 In the upper panel, select the thread color to change.

Tip: To mix your own color, use the **Edit** button.

5 In the lower panel, select the new thread color and click **Assign**.

Tip: To find a required color, search using the **Search** field.

Related topics

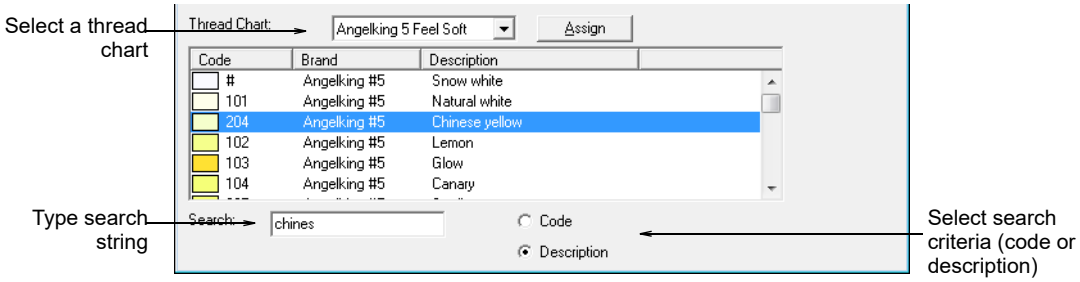
- Edit thread colors
- Search for threads

Search for threads

You can search for threads by code or description in the **Thread Colors** dialog.

To search for a thread...

1 Select **Edit > Colorways**. The **Thread Colors** dialog opens.



2 Select a thread chart from the **Thread Chart** list.

3 Select either **Code** or **Description** to search on.

Note: Code is the identification number of a thread color in a brand.

4 In the **Search** field, key in the first few characters of the required code or description. As you type, the cursor will highlight the closest match in the thread chart.

5 Scroll through the list to find the exact shade you want. Check your threads and select the color according to whatever shade most closely matches the color in the chart.

Edit thread colors

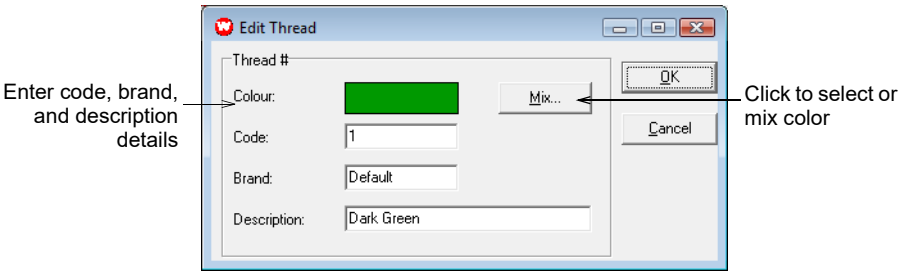
You can edit the existing colors in a design without selecting a new color from a thread chart.

To edit a thread color...

1 Select **Edit > Colorways**. The **Thread Colors** dialog opens.

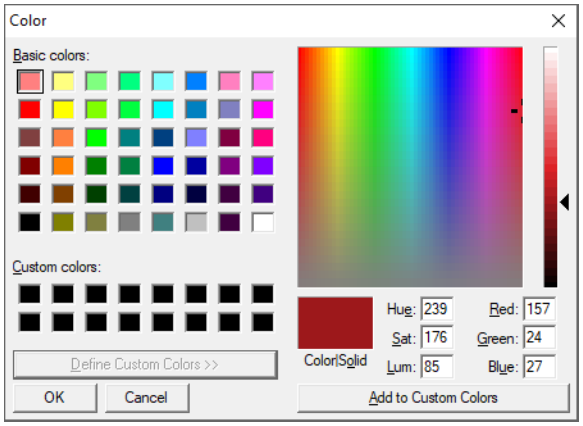
2 In the upper panel, select the thread color to edit.

3 Click **Edit**. The **Edit Thread** dialog opens.



4 Enter code, brand, and description details for the thread color. Code is the identification number of a thread color in a brand.

5 Click **Mix**. The **Color** dialog opens.



6 From the **Basic colors** table, select a color that closely matches the color you require.

7 Click and drag the cross hairs on the color spectrum to get the exact color.

8 Drag the slider on the right of the color spectrum to adjust color brightness. The HLS and RGB values appear in the bottom right-hand corner of the **Color** dialog. Enter these values directly to define exact colors.

9 When you have mixed the required color, click **Add to Custom Colors**.

10 Click **OK**. The new color appears in the **Color** preview box.

11 Click **OK**. The new color appears in the **Threads** list.

Index

A

adding
  borders 47
Auto Select tool 39, 41
Auto Stitch Image dialog 32
Auto Stitch Picture tool 32
automatic digitizing 17, 32

B

backdrops
  digitizing 17
  digitizing automatically 32
backgrounds, changing 15
bitmap images
  hiding 18
  inserting 17
  reshaping 18
  scaling 18
  using 17
  viewing 18
borders 5
  adding 47
  full cross 6
  single line 6
brands, thread 51

C

changing stitch settings 41
Circle tool 31
circles, digitizing 31
closed shapes, digitizing 27, 29
codes, thread 51
color blocks, flood fill 35
Color dialog 50
color palette 25
color, stitches 25
colors, changing backgrounds 15
combination stitches 8
combining stitches 46
Copy tool 41
copying stitch blocks 41
cross stitch
  Auto Stitch 32
  automatic digitizing 32
  digitizing pictures
    automatically 32
  hoop settings 15
cross stitch borders 5
Cross Stitch Fill tool 27
cross stitch fills 2
Cross Stitch Run tool 29
Cross Stitch toolbar
  Auto Select 39
  Auto Stitch Picture 32
  Eraser 42
  Flood Fill 35
  Pencil 46
  Pencil tool 30
  Rubber Stamp 45
cross stitch types 1
Crosses tool 20
crosses, view stitches as 20
cut stitch blocks 41
Cut tool 41

D

density, setting stitches 26
design files, handling 21
design information, viewing 21
design size, setting 11
dialogs
  Auto Stitch Image 32
  Color 50
  Display 15
  Edit Thread 50
  Fabric Count 12
  Font 36
  Thread Colors 49, 50
digitizing
  automatic 17
  circles 31
  closed shapes 27, 29
  lines 30
  open shapes 27, 29
Display dialog 15
Double Cross stitch 4
duplicating stitch blocks 45

E

Edit Thread dialog 50
Edit toolbar
  Auto Select 41
  Mirror Selection Horizontal 45
  Mirror Selection Vertical 45
  Rotate Selection 44
editing cross stitches 40
editing, special techniques 45
elongated cross stitch 4, 7
Elongated Horizontal Cross
  stitch 46
Elongated Vertical Cross stitch 46
EMB files, integrating with cross
  stitch 22
EMX files 22
EMX files, and EMB 22
Eraser tool 42
erasing stitches 42

F

Fabric Count dialog 12
fabrics, changing background 15
files, design handling 21
fills, erasing 42
flood fill color blocks 35
Flood Fill tool 35
Font dialog 36
French Knot stitch 5
full cross border 6
full cross stitch 2
Full Cross tool 29, 30

G

General toolbar
  Copy 41
  Crosses tool 20
  Cut 41
  Grid tool 13
  Paste 41
  Picture 18
  Save 22
generate stitches 21
Generate tool 21
grid settings 13
Grid tool 13

H

Half stitch 3, 7, 46
hiding bitmap images 18
hoops, automatic centering 15

I

images
  inserting 17
  reshaping 18
  scaling 18
  viewing 18
Input toolbar
  Circle tool 31
  Cross Stitch Fill 27

Cross Stitch Run 29
Lettering 35
inserting bitmap images 17
integrating cross stitch with EMB files 22

L

Lettering tool 35
letters, digitizing 35
lines
digitizing 25
locking stitches 38, 40

M

Mini Cross stitch 4, 7, 46
Mirror Selection Horizontal tool 45
Mirror Selection Vertical tool 45
mirroring stitches 45
moving stitches 43

O

open shapes, digitizing 27, 29
opening Cross Stitch 9

P

palette, color 25
paste stitch blocks 41
Paste tool 41
Pencil tool 30, 46
Picture tool 18
Pointer toolbar
Polygon Select 39
Select 38
Polygon Select tool 39

Q

Quarter stitch 3, 7, 46

R

reshaping bitmap images 18
Rotate Selection tool 44
rotating stitches 44
Rubber Stamp tool 45
rubber stamping 45

S

Save tool 22
saving design 22
scaling bitmap images 18
Select tool 38
selecting stitches 38
Auto Select 39
Polygon Select 38
Select 38
settings, changing stitch blocks 41
single line border 6
Single Line tool 29, 30
single lines, erasing 42
single stitches, digitizing 25
size, setting design 11
Status Bar 21
stitch blocks
changing settings 41
duplicating 45
mirroring 45
moving 43
rotating 44
transforming 43
stitch color, selecting 25
stitch density, setting 26
Stitch toolbar
1/2 stitch 46
1/4 stitch 46
3/4 stitch 46
Elongated Horizontal Cross stitch 46
Elongated Vertical Cross stitch 46
Full Cross tool 29, 30
Generate 21
Mini Cross stitch 46
Single Line tool 29, 30
Threads list 26
stitch types, combinations 46

T

thread colors
adjusting 48
changing 48
editing 50
searching 49
Thread Colors dialog 49, 50
threads
brands 51
code 51
Threads list 26
Three-quarter stitch 2, 6, 46
tiles, view stitches as 20
transforming stitch blocks 43
types of cross stitch
combination stitches 8
double cross 4
elongated cross 4, 7
French knot 5
full cross 2
half cross 3, 7
mini cross 7
mini-cross 4
quarter cross 3, 7
three-quarter 6
three-quarter cross 2
upright cross 4

U

Upright Cross stitch 4

V

viewing bitmap images 18
viewing stitches 20