



EMBROIDERY
STUDIO



Cross Stitch Supplement



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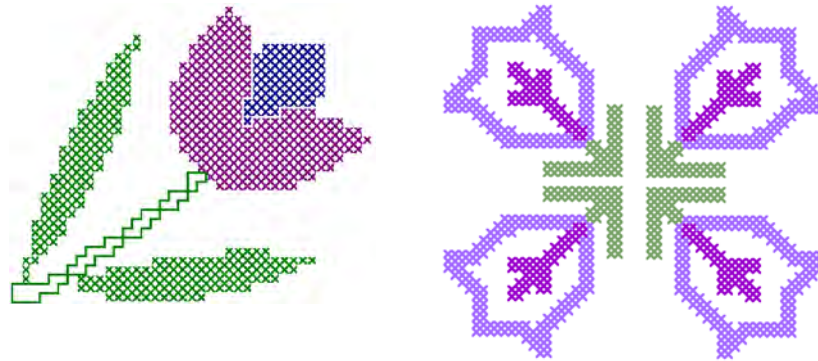
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Chapter 1

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.

Unlike machine embroidery where designs are enhanced with different stitch types, angles, and effects, in cross stitch you can only add dimension to the design with shades of colors. For this reason, most cross stitch designs 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

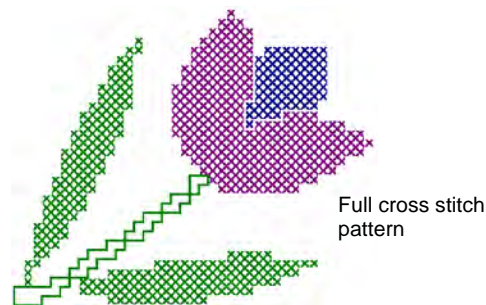
	Three-Quarter Cross		Double Cross
	Half Cross		Elongated Vertical Cross
	Quarter Cross		Elongated Horizontal Cross
	Mini Cross		Single Line
	French knot		

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.



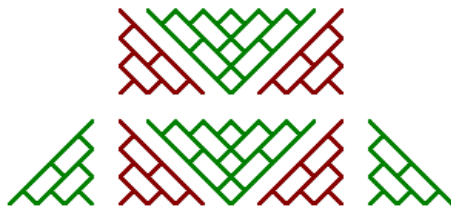
Full cross stitch pattern

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.

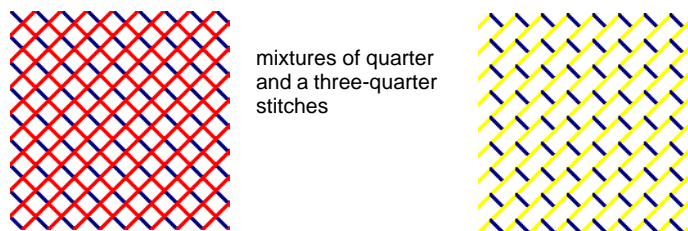


Note The long arm of the three-quarter stitch can go either / or \ directions.



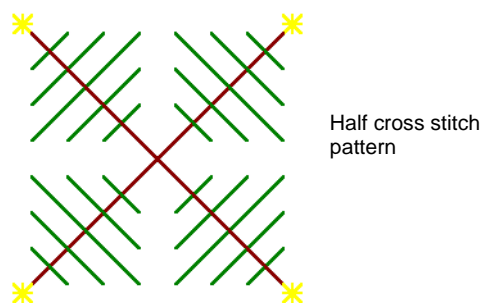
Three-quarter cross stitch pattern

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.



Half cross stitch

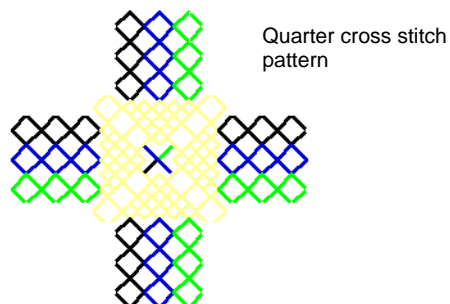
A half stitch is simply a diagonal stitch that looks like / or like \. Half stitches are usually used for shadows and background shading. The stitch can start from any corner. Sometimes two half stitches of different colors are used to make one full cross stitch.



Half 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.



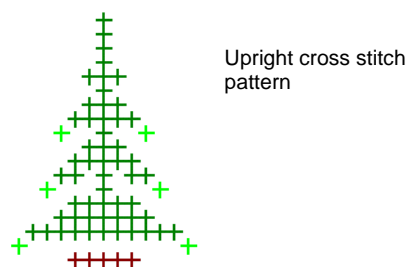
Mini cross stitch

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.



Upright cross stitch

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

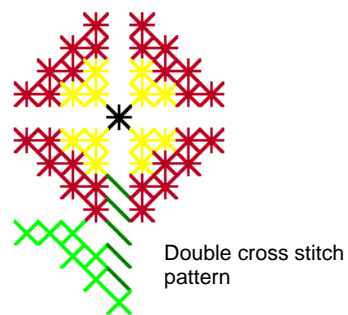


The stitches can be worked diagonally across the canvas, or in a horizontal or vertical line.

Double cross stitch

Double cross stitch is comprised of two full cross stitches stitched at 45° 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 135° to the horizontal, while the top thread of the overlapping cross is the horizontal stitch.

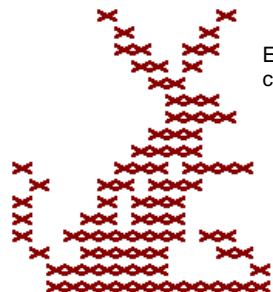


Elongated cross stitch

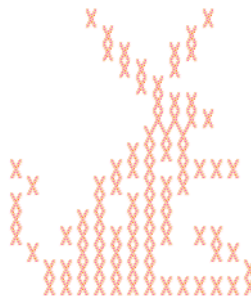
Elongated cross stitch consists of two equal-length stitches that cross to form an X. There are two types:

- ◀ 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

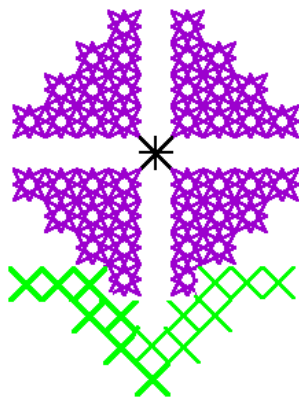


Elongated vertical cross stitch pattern

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

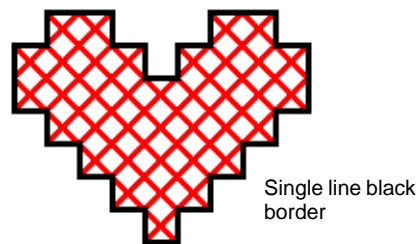
Cross stitch can be used as an embroidery outline. You can also combine cross stitching with other stitch types to achieve special effects.

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.

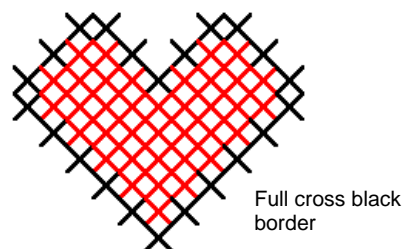
Single line border

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.



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.



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](#).

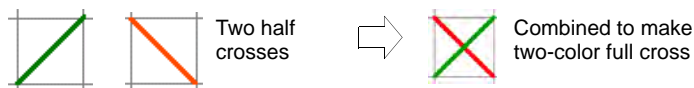
Three-quarter cross stitches

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



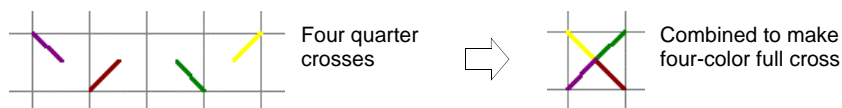
Half cross stitches

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](#).



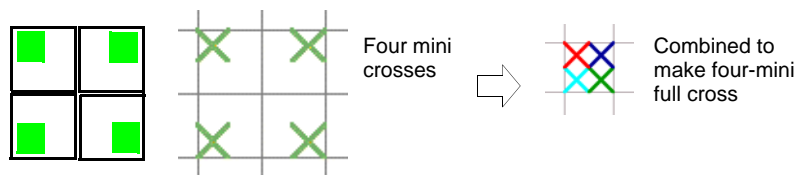
Quarter cross stitches

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](#).



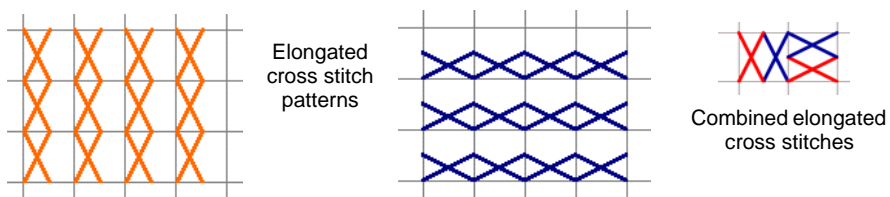
Mini cross stitches

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



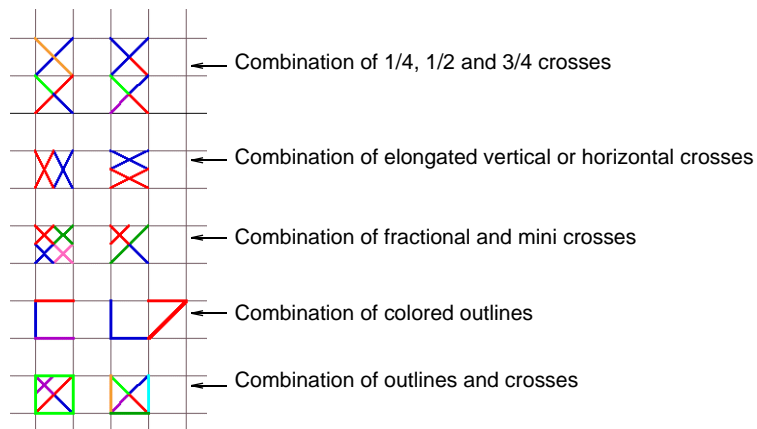
Elongated cross stitches

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

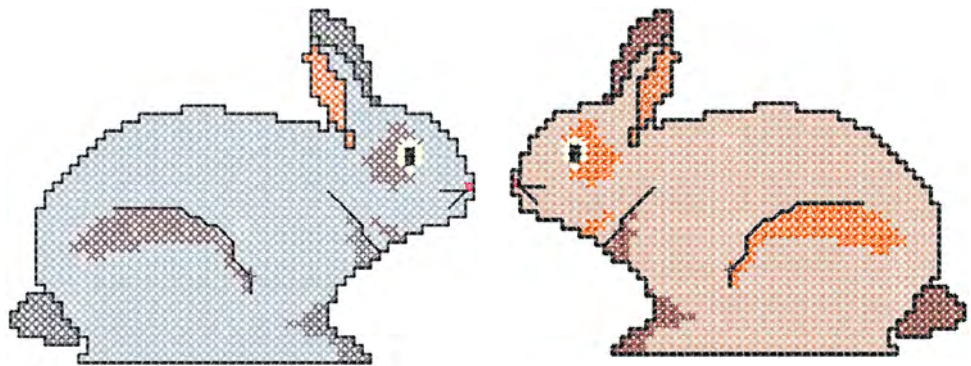
Quarter, half and three-quarter cross stitches can be combined to make crosses comprised of multiple colors. You can also combine mini crosses, elongated vertical or horizontal crosses and outline stitches.



Chapter 2

Cross Stitch Essentials

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 the use of the cross stitch design window, techniques for manual cross stitch digitizing, and cross stitch design file handling.

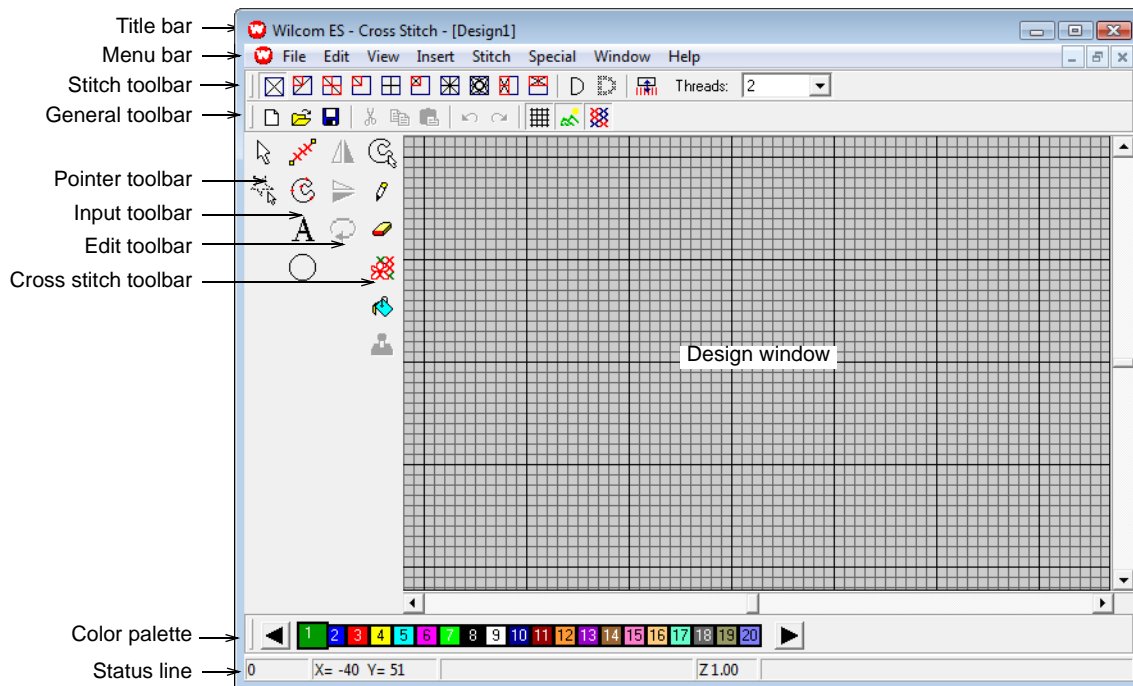
Opening ES Cross Stitch

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

- 1 Run EmbroideryStudio.

2 Select **Special > ES Cross Stitch**. The **ES Cross Stitch** design window opens.



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

Changing grid settings



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

Use the **Options > Grid** dialog to change grid settings:

- ◀ show or hide the grid
- ◀ show major lines (when grid is on)
- ◀ set the grid spacing
- ◀ change the color of major and minor lines.

To change grid settings

1 Select **Special > Options**.

2 Select the **Grid** tab.

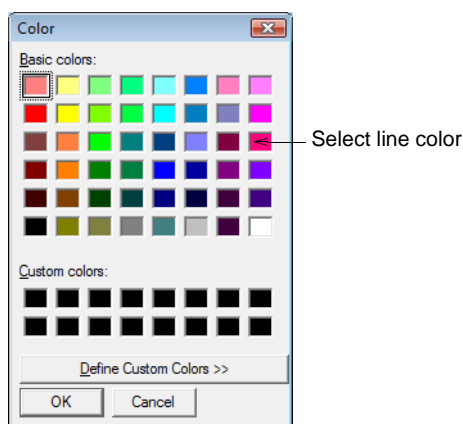


3 Select the **Show Grid** checkbox to show grid lines.

4 Select **Show Major Lines** to show major grid lines.

5 Enter the number of crosses to fit between the major grid lines.

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



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

8 Click **OK**.

Changing background colors and 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 change background color or fabric

1 Select **Special > Options**.

2 Select the **Background** tab.

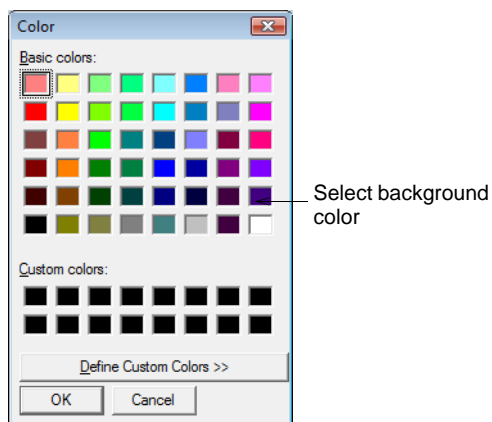


3 Select the design window background type.

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

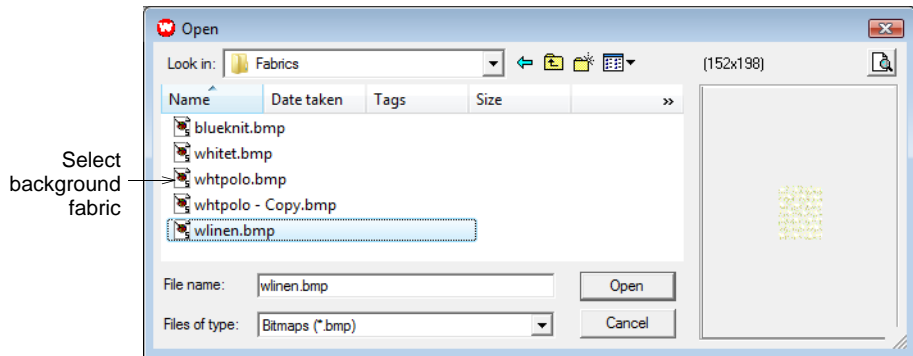
4 Select a color or fabric to use.

- ◀ 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**.

Viewing stitches as crosses or tiles

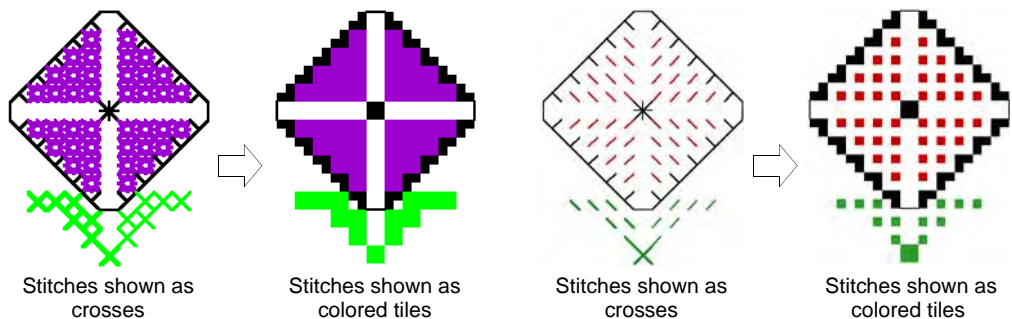


Click **General > Crosses** to show stitches as colored tiles or cross stitches.

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 [Generating stitches](#).

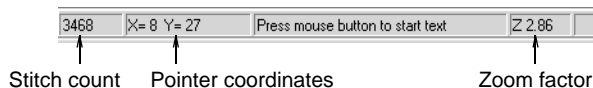
To view stitches as crosses or tiles

- 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.



Viewing design information

The ES Cross Stitch 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.



Setting design size and density

In ES Cross Stitch, design size is controlled by the 'fabric count'. The more stitches per inch, for example, the smaller and more compact the resulting design. You can also adjust the density of individual cross stitches by stitching them once, twice or three times.

Setting the design size

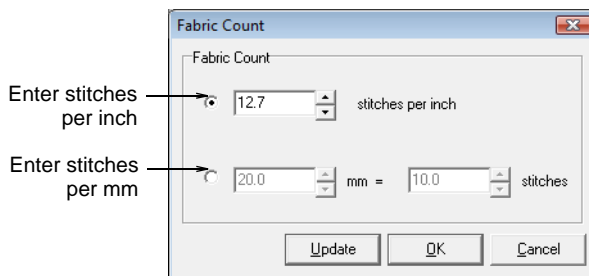
You set cross stitch design size by adjusting the 'fabric count'. This actually changes the scale of your finished design. The more stitches per inch, for example, the smaller and more compact the resulting design.



Caution 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. See also [Setting the stitch density](#).

To set the design size

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



2 Select a fabric count option, inches or millimeters:

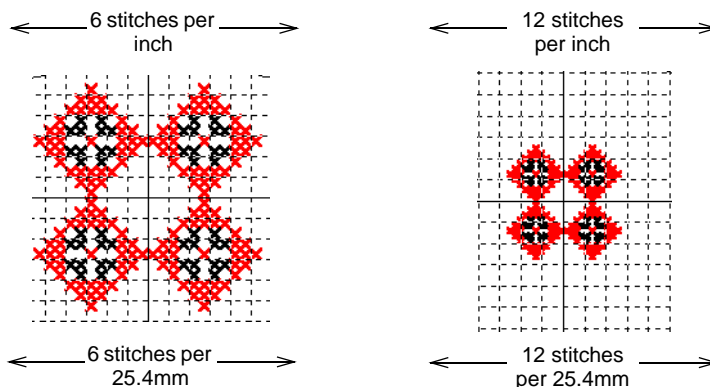
- ◀ **Number of stitches per inch:** the fewer stitches per inch, the bigger the resulting design.
- ◀ **Number of millimeters per number of stitches:** because a cross stitch is bigger than a millimeter, you can adjust the **mm** and

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.

3 Click **OK**.



Setting the stitch density



You can adjust the density of a cross stitch by stitching it 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.



Note If you make a design smaller 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.

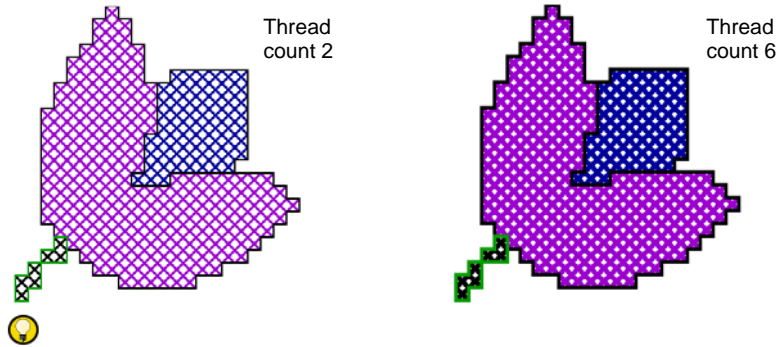


Tip If you create a design where every square has a stitch, remember to baste and stabilize the fabric.

To set the 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.

Selecting cross stitch types

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.

Selecting a stitch color



You can select stitch colors from the **Color Palette** before digitizing, or apply a new color to selected areas.

To select a stitch color

- ◀ Select a color from the color palette to apply to newly digitized areas. Stitches will be digitized in that color.
- ◀ Select a stitch block by dragging a marquee around it. Then select a new color.



Selecting a line stitch type

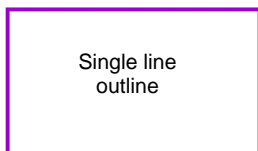
-  Select Stitch > Single Line for a single line.
-  Select Stitch > Full Cross for lines of crosses.

There are two types of line stitch, **Single Line** and **Full Cross**, available from the **Stitch** toolbar. Select a cross stitch type before clicking the **Full Cross** icon.

To select a line stitch

- ◀ Select **Single Line** or **Full Cross** from the **Stitch** toolbar.

New stitches will be digitized as single lines or crosses. If you are using **Full Cross**, the currently selected cross stitch type applies. See [Selecting a fill stitch type](#) for details.



Note Depending on the stitch type you select, you can set the direction of the stitch. See [Setting cross stitch orientation](#) for details.

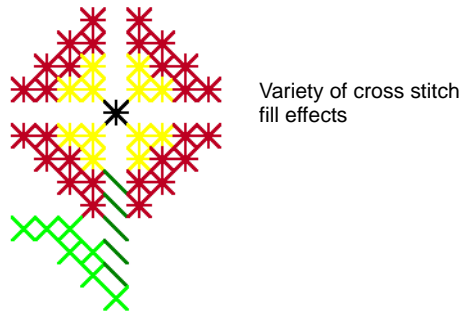
Selecting a fill stitch type

-  Select Stitch > Full for full crosses.
-  Select Stitch > 3/4 for three quarter crosses.
-  Select Stitch > 1/2 for half crosses.
-  Select Stitch > 1/4 for quarter crosses.
-  Select Stitch > Mini Cross for mini crosses.
-  Select Stitch > Upright Cross for upright crosses.
-  Select Stitch > Double Cross for double crosses.
-  Select Stitch > French Knot for French knots.
-  Select Stitch > Elongated Vertical Cross for vertical crosses.
-  Select Stitch > Elongated Horizontal Cross for horizontal crosses.

Fill stitches are all cross stitches. Choose from among the following types – Full Cross, Three-quarter Cross, Half Cross, Quarter Cross, Mini Cross, Upright Cross, Double Cross, Elongated Vertical Cross, and Elongated Horizontal Cross. See also [Cross stitch fills](#).

To select a fill stitch

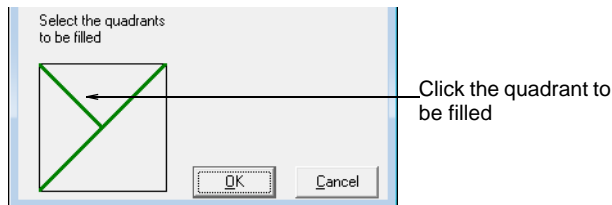
- ◀ Select a cross stitch type from the **Stitch** toolbar.
Selected and new stitches will be digitized as that stitch type.



Note Depending on the stitch type you select, you can set the direction of the stitch. See [Setting cross stitch orientation](#) for details.

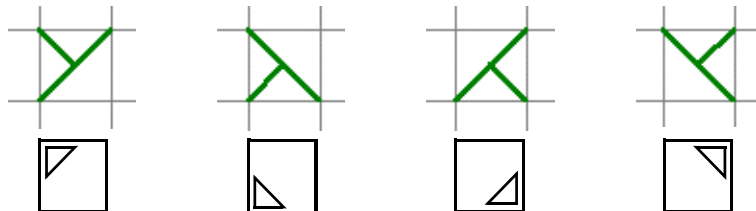
Setting cross stitch orientation

You can control the orientation of fractional cross stitches to create different patterning effects. When digitizing individual stitches, you do this directly pixel-by-pixel. When digitizing a fill, you do so via the **Select Fill Style** dialog. The method is the same. See also [Types of cross stitch](#).

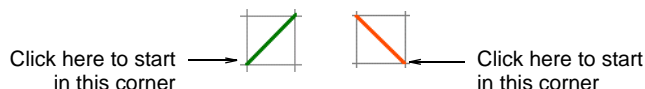


To set cross stitch orientation

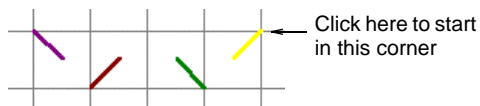
- ◀ To create three-quarter cross stitches, click the corner where you want the quarter stitch to be.



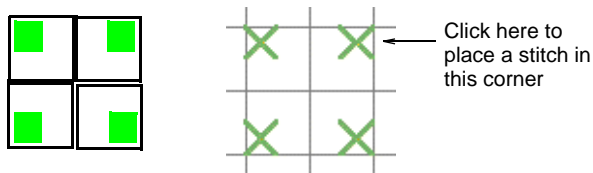
- ◀ To create half cross stitches, click the corner where you want your stitch to start.



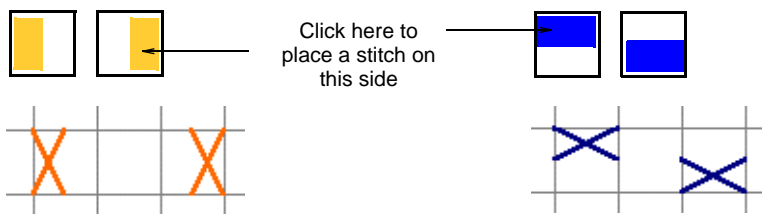
- ◀ To create quarter cross stitches, click the corner where you want your stitch to start.



- ◀ 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.



Digitizing with cross stitches

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. The **Flood Fill** feature lets you fill closed shapes or 'color blocks' with stitches.

Digitizing single stitches or lines

 Use Cross Stitch > Pencil to draw a single stitch or line of stitches.

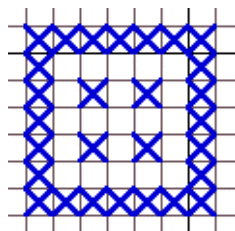
You can digitize a single stitch or line of stitches. Depending on the stitch type you select, you must also set the stitch direction. See also [Creating combination stitches](#).

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. See also [Selecting a fill stitch type](#).
- 2 Select a color from the color palette. See [Selecting a stitch color](#) for details.
- 3 Click the **Pencil** icon.
- 4 Click a square to make a single stitch, or click and drag the pencil to make a line.



Note 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. See [Creating combination stitches](#) for details.

Digitizing circles



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

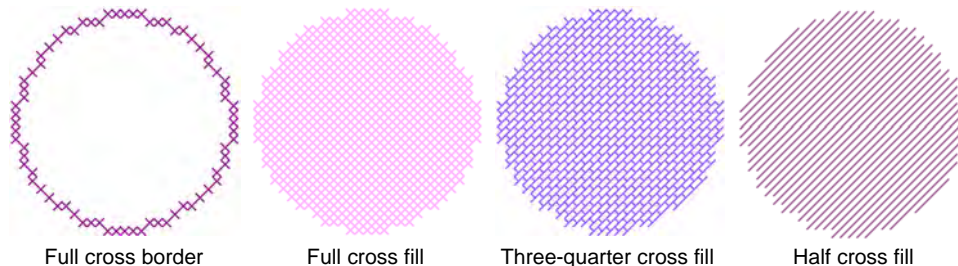
The **Circle** tool provides a quick way to digitize filled or unfilled circles.

To digitize a circle

- 1 Click the **Circle** icon.
- 2 Select a color from the color palette. See [Selecting a stitch color](#) for details.
- 3 Select an **Outline** or **Fill** stitch type. See [Selecting cross stitch types](#) for details.
- 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.



Digitizing open and closed shapes



Use Input > Cross Stitch Run to draw and digitize open shapes.



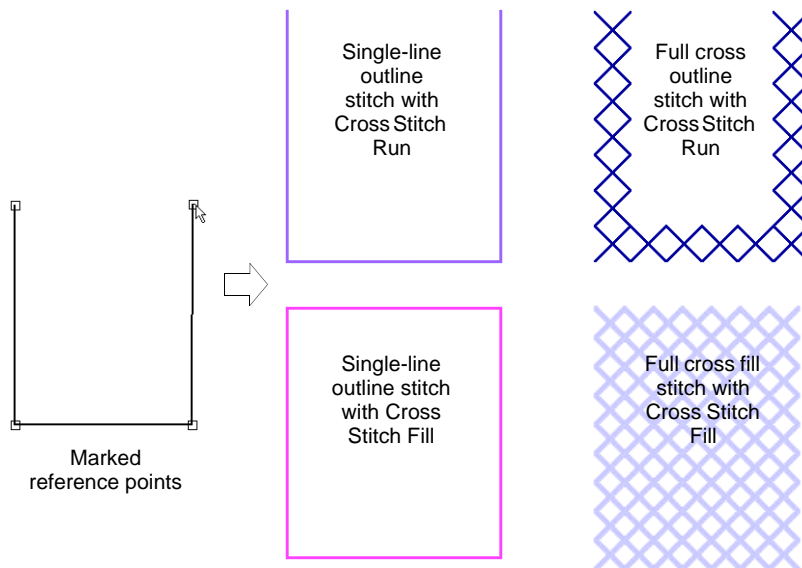
Use Input > Cross Stitch Fill to draw and digitize closed shapes.

You can create free-form outlines or borders using the **Cross Stitch Run** icon. You can create freeform filled shapes using the **Cross Stitch Fill** icon. Select an outline stitch for unfilled shapes and a fill stitch for filled shapes.

To digitize an open or closed shape

- 1 Click the **Cross Stitch Fill** or **Cross Stitch Run** icon.
- 2 Select a color from the color palette. See [Selecting a stitch color](#) for details.
- 3 Select an **Outline** or **Fill** stitch type. See [Selecting cross stitch types](#) for details.
- 4 Mark reference points on your design. Left-click for sharp corners and right-click for round corners.

- 5 Press **Enter**. The shape is filled or outlined depending on the stitch type selected.



Flood-filling color blocks



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

Fill closed areas with stitches using Flood Fill. You can also use the tool to change the color and stitch type of Full Cross outlines.



Note The **Flood Fill** tool only works with cross stitches. **Flood Fill** will not work with bitmap images used as backdrops. See also [Digitizing backdrops automatically](#).

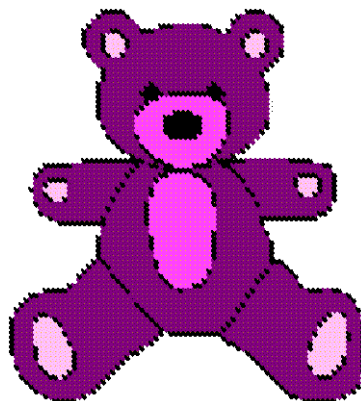
To flood-fill color blocks

- 1 Select a color from the color palette. See [Selecting a stitch color](#) for details.
- 2 Select a **Fill** stitch type. See [Selecting a fill stitch type](#) for details.
- 3 Click the **Flood Fill** icon.

- 4 Click within a closed area. The shape is flood-filled in the selected stitch type and color.



Digitized using Auto Stitch Image



Colors changed using Flood Fill



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

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.

Generating stitches

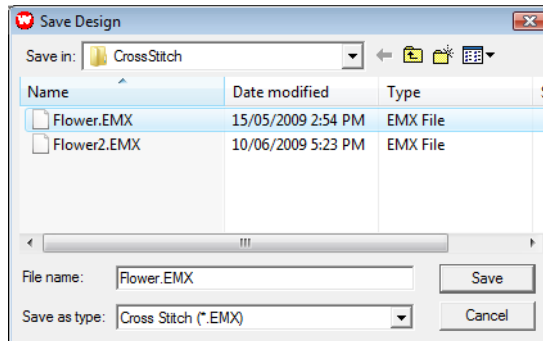


Select Stitch > Generate to generate stitches from crosses.

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 [Viewing 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 asked to name the file.



Note You can only save as EMX.

Saving cross stitch designs

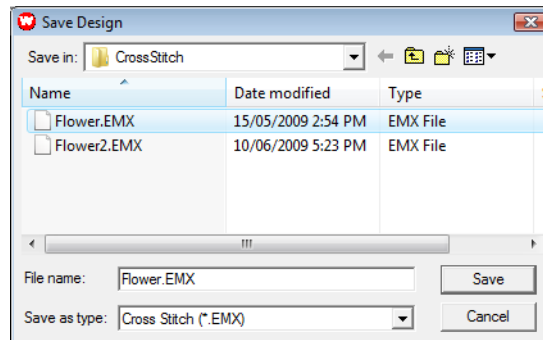


Click **General > Save** to save cross stitch files.

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**.

Using cross stitch with EmbroideryStudio

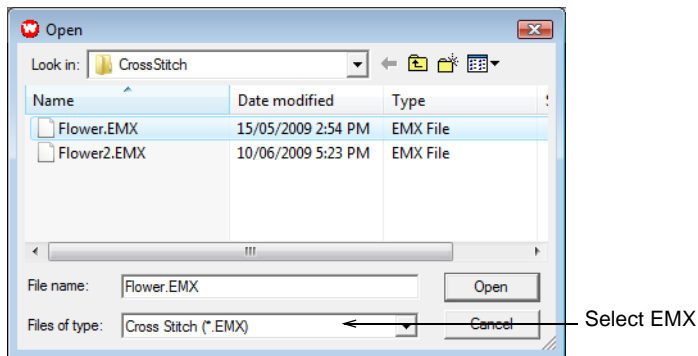
To include cross stitch in your EMB designs, you need to save and close any cross stitch designs as EMX then open them in EmbroideryStudio.



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.



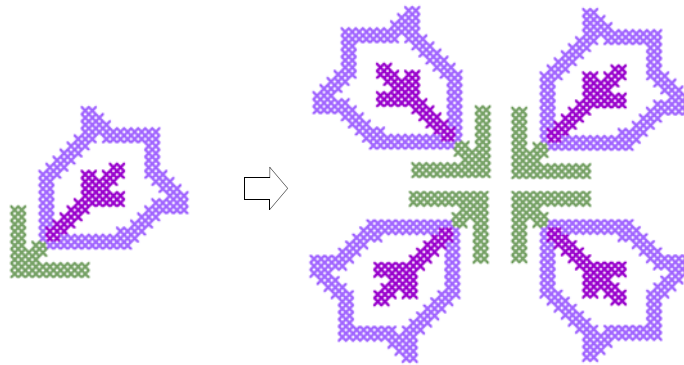
- 4 Select EMX files from the **Files of Type** list.
- 5 Select your file.
- 6 Click **Open**.



Chapter 3

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.

Selecting and 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.

Selecting stitches with Select or Polygon Select



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

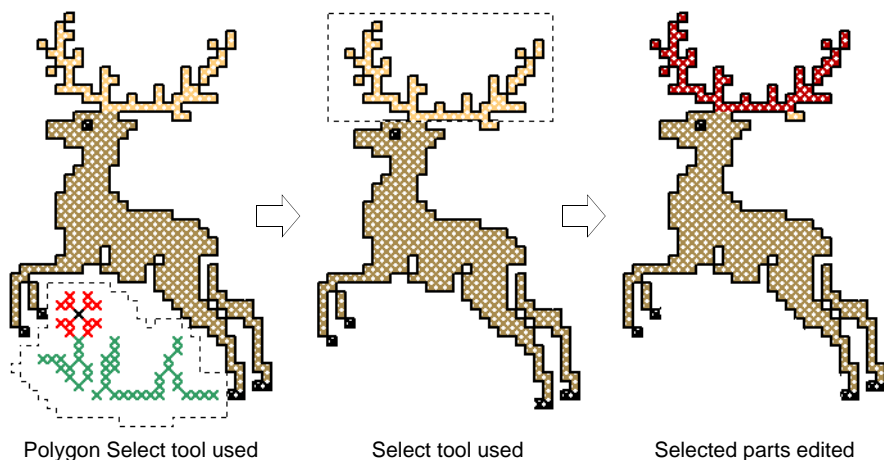


Use Pointer > Polygon Select to select irregular areas or shapes.

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** or **Polygon Select**

- ◀ 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**.



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

Selecting 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.



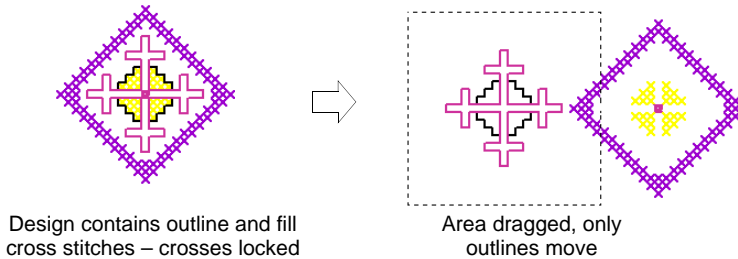
Tip You can change the color of the selection completely, by selecting a color from the palette.

Locking stitches

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

To lock 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.

Copying, cutting and pasting stitch blocks



Use General > Copy to copy selected stitch blocks to the clipboard.



Use General > Cut) to cut selected stitch blocks to the clipboard.

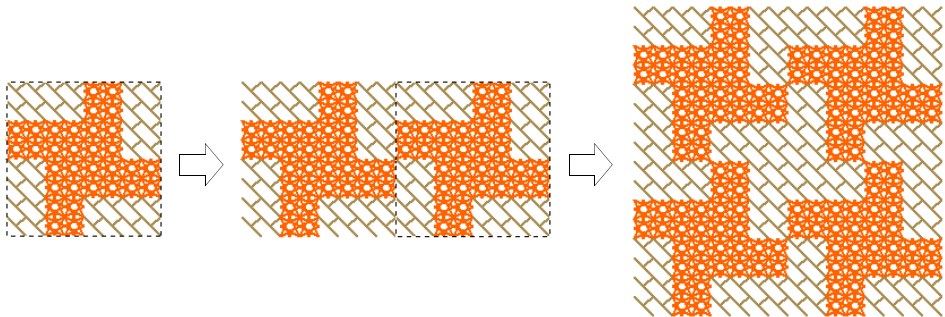


Use General > Paste to paste copied stitch blocks from the clipboard.

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 stamping fills](#).

To copy, cut and paste stitch blocks

- 1 Select the stitch block to copy or cut. See [Selecting and 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. See [Transforming stitch blocks](#) for details.

Changing 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

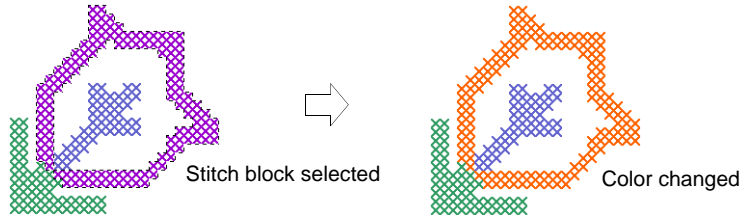
- 1 Use **Auto Select** to select the stitch block/s. See [Selecting stitches with Auto Select](#) for details.



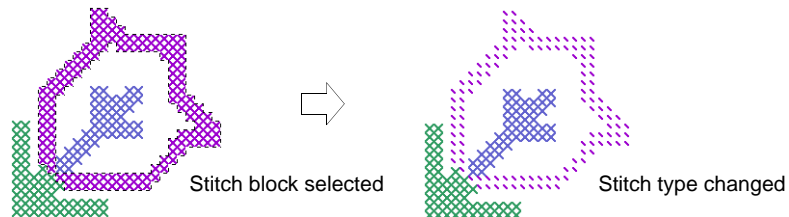
Tip Hold down **Ctrl** to select multiple blocks.

- 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.

Erasing fills and single lines



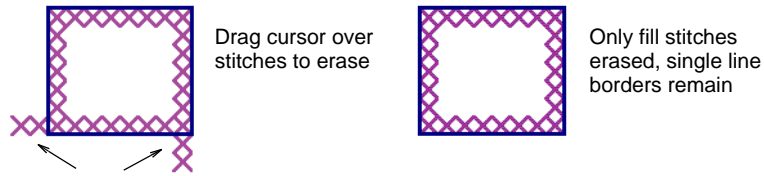
Use Cross Stitch > Eraser to erase fills and single lines.

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.

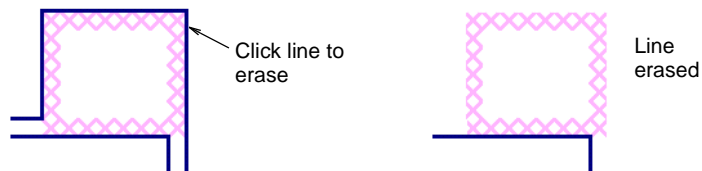
Only fill stitches are removed. Single line borders remain.



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.

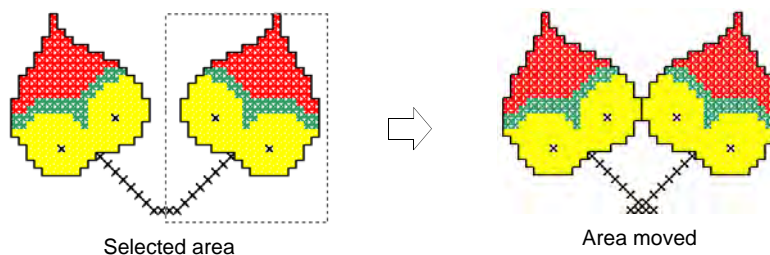
Moving blocks of cross stitches

You can move blocks of cross stitches at any time.

To move blocks of cross stitches

1 Select the stitch block to move. See [Selecting and locking stitches](#) for details.

2 Click and drag it to a new location.



Rotating blocks of cross stitches

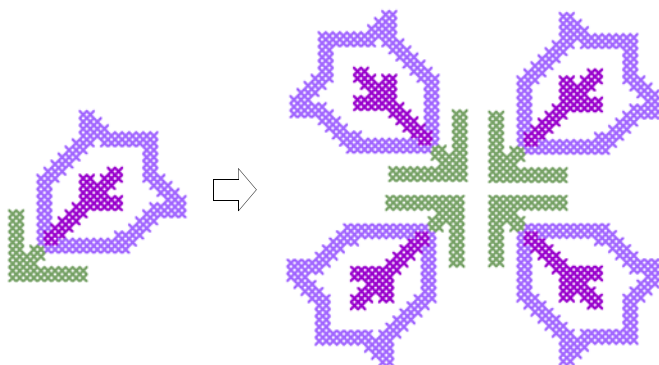


Use Edit > Rotate Selection to rotate selected stitches.
Click to rotate clockwise. Right-click to rotate counter-clockwise.

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. See [Selecting and locking stitches](#) for details.
- 2 Click the **Rotate Selection** icon.



Mirroring blocks of cross stitches



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

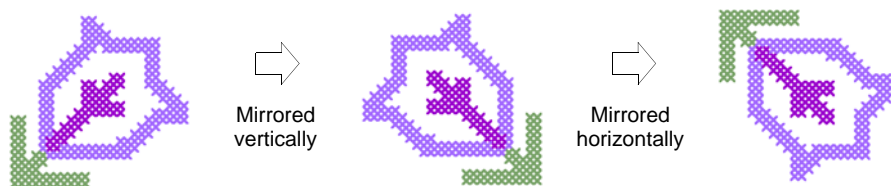


Click Edit > Mirror Selection Vertical to mirror selected stitches vertically.

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

To mirror blocks of cross stitches

- 1 Select the stitch block to mirror. See [Selecting and locking stitches](#) for details.
- 2 Click the **Mirror Selection Horizontal** icon.



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 stamping fills

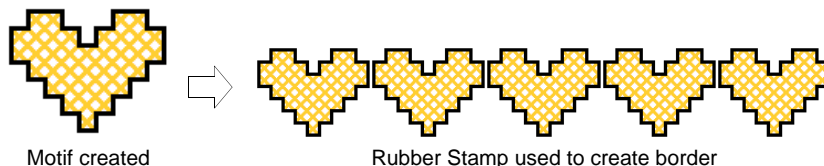


Use Cross Stitch > Rubber Stamp to clone a selection for re-use as a 'rubber stamp'.

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.



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

Creating combination stitches



Use Cross Stitch > Pencil to add combination stitches.

Fractional cross stitches – $\frac{1}{4}$, $\frac{1}{2}$, or $\frac{3}{4}$ – 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. See [Selecting a fill stitch type](#) for details.



Select 3/4 (Stitch toolbar) for three quarter crosses.



Select 1/2 (Stitch toolbar) for half crosses.



Select 1/4 (Stitch toolbar) for quarter crosses.



Select Mini Cross (Stitch toolbar) for mini crosses.



Select Elongated Vertical Cross (Stitch toolbar) for vertical crosses.

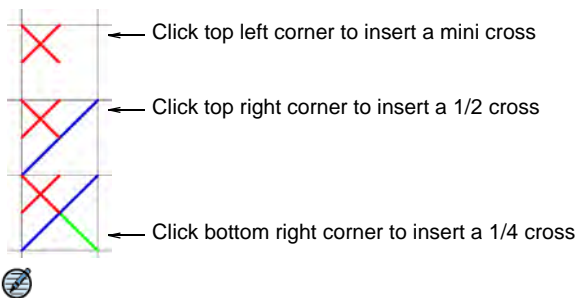


Select Elongated Horizontal Cross (Stitch toolbar) for horizontal crosses.

2 Select a color from the color palette. See [Selecting a stitch color](#) for details.

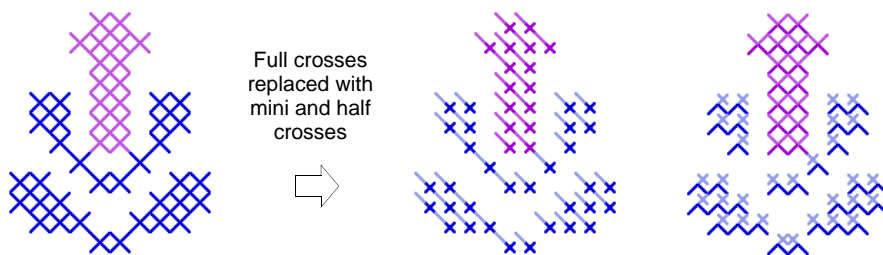
3 Click the **Pencil** icon.

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.



Adding borders to selected areas

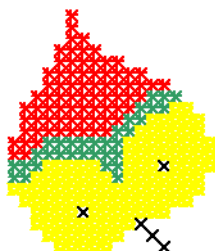
Add a cross stitch border or a single line border, or both, to selected areas of a design.

To add borders to selected areas

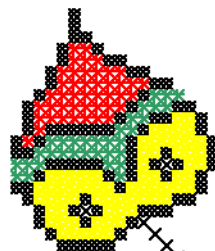
- 1 Select either the **Single Line** or **Full Cross** icon.
- 2 Click the **Flood Fill** icon and click inside an area. A line of outline stitches is added around the edges of the selection.



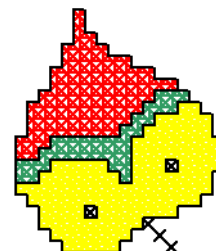
Tip Click again in the selection to add another line of stitches inside the first line.



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.



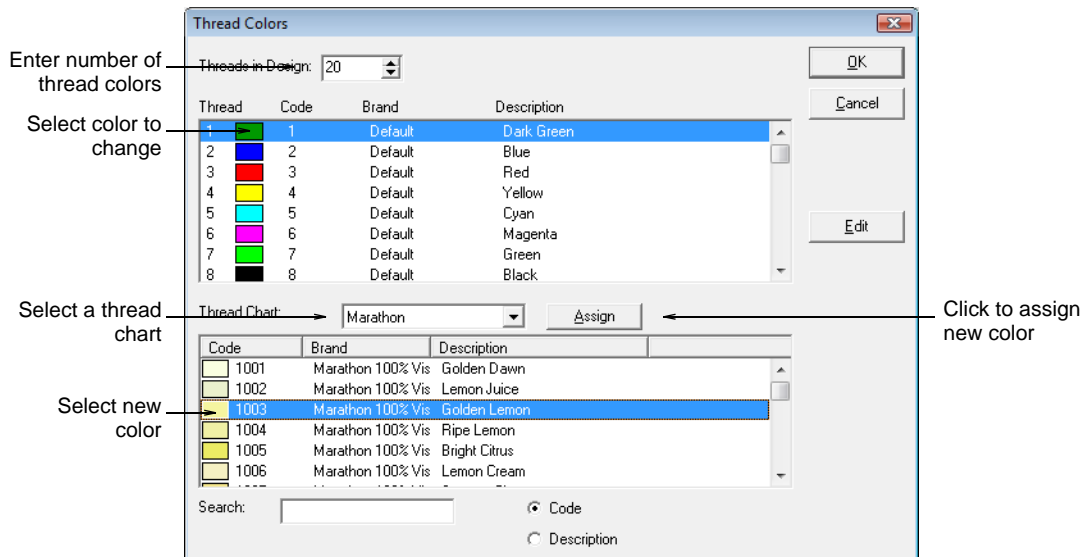
Caution The representations of commercial thread charts are approximate, and the computer simulations are not intended to exactly match the identified thread color.

Changing 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. See [Editing thread colors](#) for details.

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



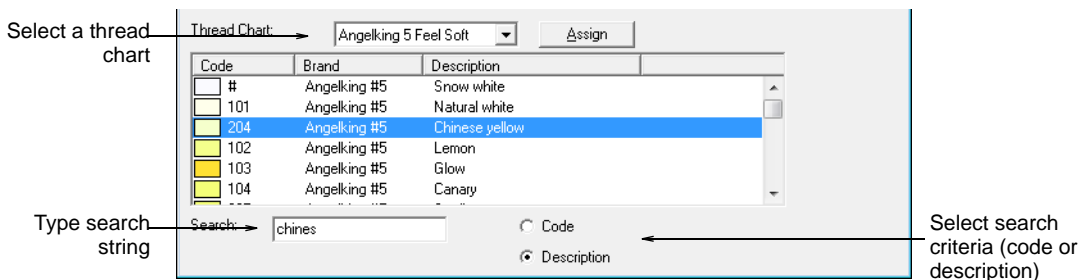
Tip To find a required color, search using the **Search** field. See [Searching for threads](#) for details.

Searching 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.

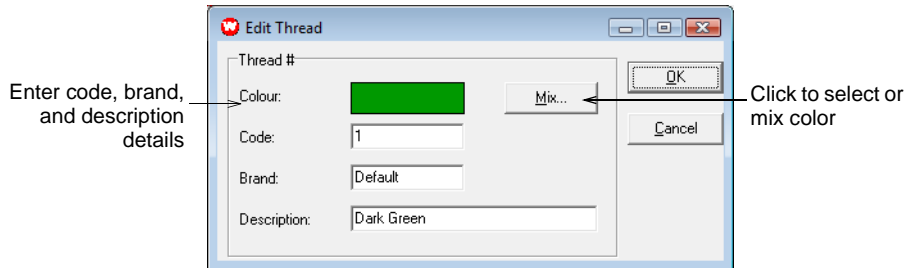
Editing thread colors

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

To edit a thread color

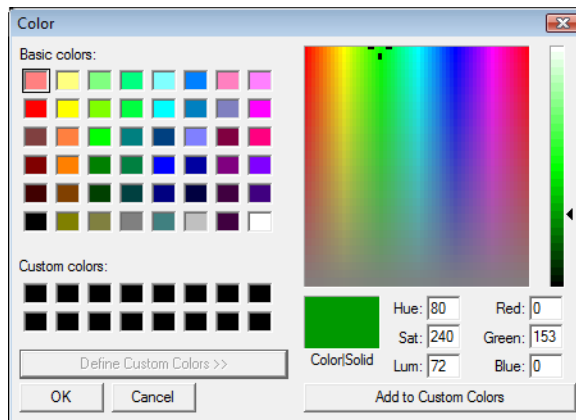
- 1 Select **Edit > Colorways**. The **Thread Colors** dialog opens.
- 2 In the upper panel, select the thread color to edit.

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**.

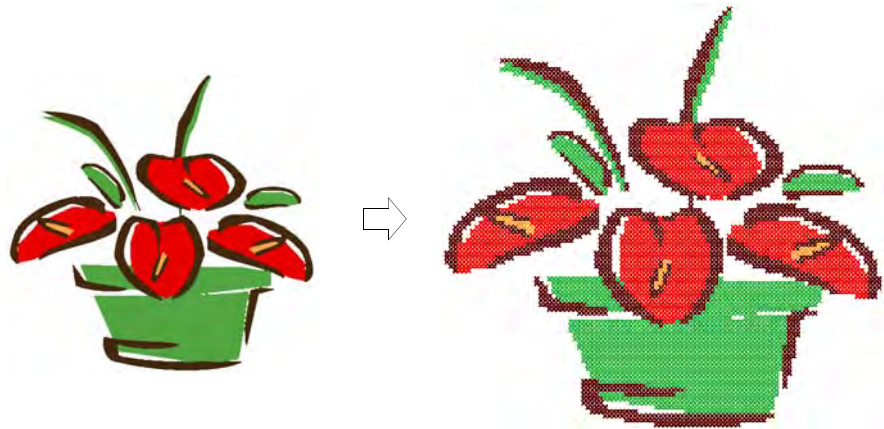
10 Click **OK**. The new color appears in the **Color** preview box.

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

Chapter 4

Advanced Cross Stitching

The ES Cross Stitch design window also lets you import pictures to use as backdrops or for automatic digitizing. You can also create special cross stitch lettering.



This section provides details of advanced cross stitch features including automatic digitizing and lettering.

Digitizing with backdrops

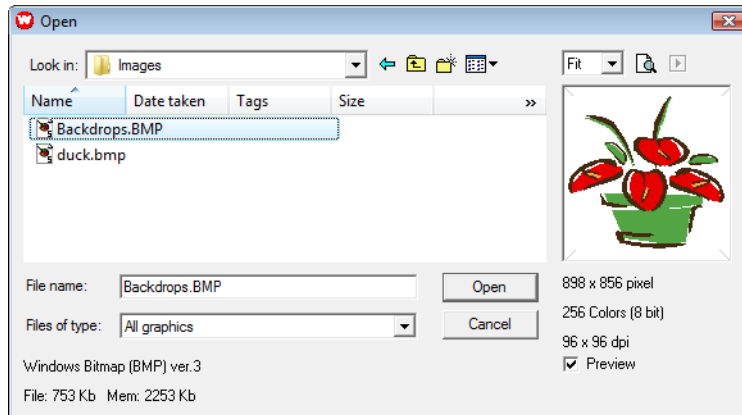
Bitmap images can be inserted, pasted or scanned into ES Cross Stitch for use as digitizing backdrops. You can digitize backdrop images automatically using **Auto Stitch Image**. Use solid color bitmaps to make suitable color blocks for cross stitches.

Inserting bitmap images

You can insert bitmap images of various formats for use as digitizing backdrops. See the **User Manual** for a list of supported file types.

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.

Viewing or hiding 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.

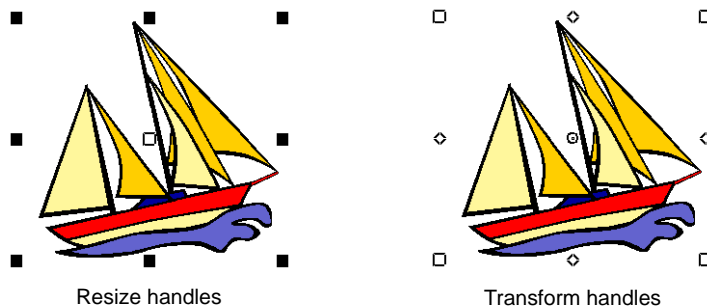
Scaling and reshaping bitmap images

You can scale and reshape images once they are loaded into ES Cross Stitch. However, if an image needs to be resized or rotated, it is best to do so during scanning. Scaling afterwards may distort the image. See the **User Manual** for details.

To scale and transform bitmap images

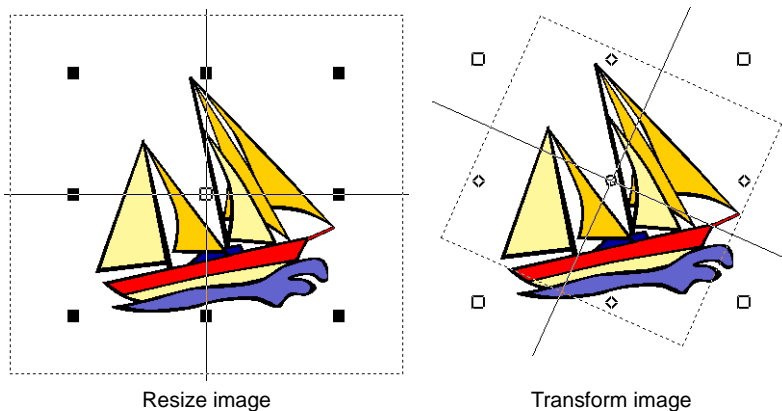
- 1 Insert the image in the normal way. See [Inserting bitmap images](#) for details.
- 2 Click the **Select** icon.
- 3 Holding down the **Alt** key, click the image.

Eight resize selection handles appear around the image. Click and drag these to scale the image as you would any other object. See **Scaling Objects** in the EmbroideryStudio User Manual for details.



- 4 Still holding down the **Alt** key, click the image again.

Eight transform selection handles appear around the image. Click and drag these to reshape the image. An additional center point lets you move the whole design. See **Arranging and Transforming Objects** in the EmbroideryStudio User Manual for details.



Digitizing backdrops automatically



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

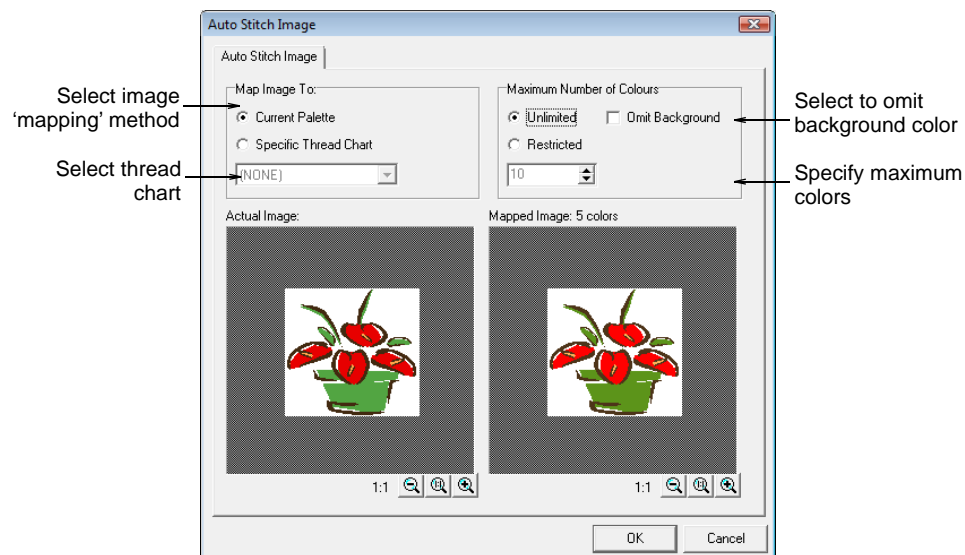
Digitize the entire backdrop image automatically using **Auto Stitch Image**. You can change the stitch type manually later as required.

To digitize backdrops 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**. See [Inserting bitmap images](#) for details.



- 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

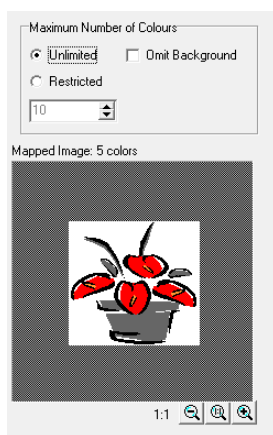


Selected thread chart: Madeira40-shades

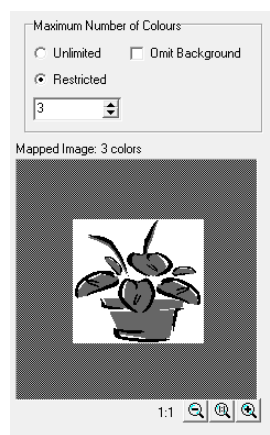
5 Specify the maximum number of colors to be used:

- ◀ **Unlimited:** thread colors will be allocated according to the number of colors in the palette selected in the first dialog.
- ◀ **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.



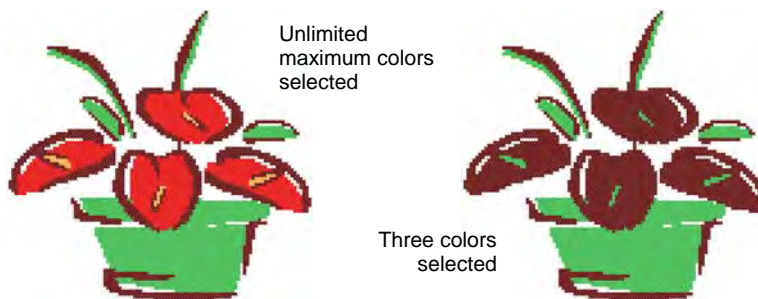
Unlimited maximum colors selected



Restricted maximum colors selected

6 Click **OK**.

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



Note Auto Stitch Image is disabled if no picture is loaded.

Digitizing cross stitch letters

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

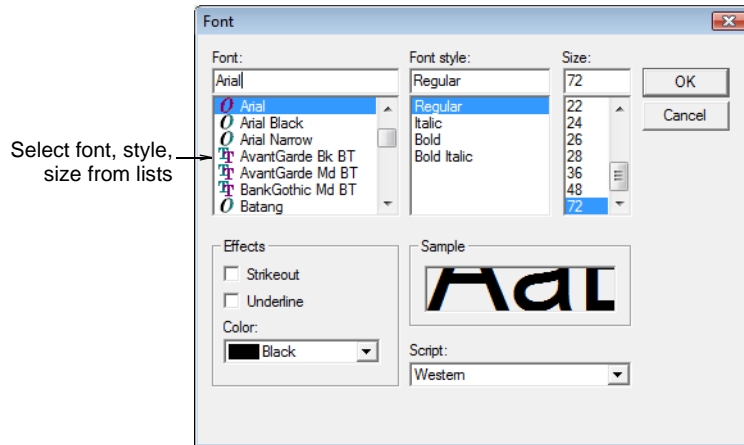
As with EmbroideryStudio, ES Cross Stitch lets you add lettering to a design by typing it directly in the design window. Use the **Font** dialog to select font, size and style. Select either outline or fill to digitize letters. Once typed, you cannot edit letters. Each letter is treated as a stitch block.



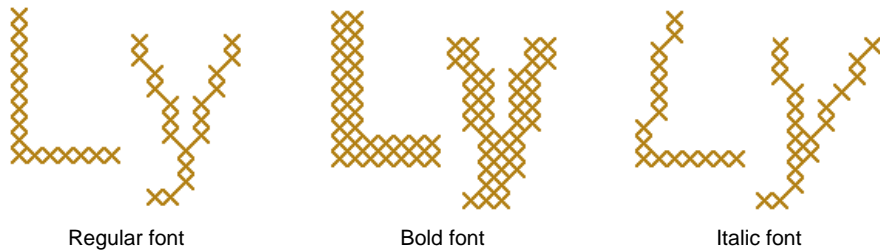
Tip Lettering in ES Cross Stitch may appear thicker than the original TrueType font. This is generally due to 'ClearType' font smoothing which is turned on by default in Windows Vista or later. Temporarily turning off ClearType produces better lettering in ES Cross Stitch although this may affect its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

To digitize cross stitch letters

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

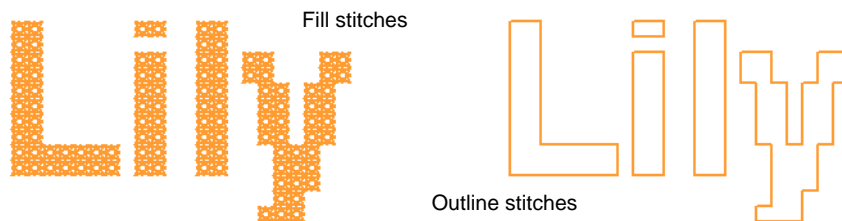


2 Select a font type, style and size and click **OK**.



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.

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