DesignaKnit8

Stitch Designer
Complete

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Stitch Designer Overview

This section of the program is for designing stitch patterns on a grid which is proportional to the actual knitting and producing charts and text instructions as well as downloading to domestic knitting machines via the appropriate cable link.

Original patterns are created and modified using a variety of drawing tools and other powerful features. Patterns from other sources can be entered into the work area, and photos and other graphics transformed into knitting patterns using both color and symbols to indicate specific knitting procedures.

To open the section, click on the Stitch Designer button on the main opening screen or, from within the program, on the button on the left-hand tool bar.

What's New In DesignaKnit 8 Stitch Designer

Version 8 is crammed with new and improved features to help you design your pattern and present or publish it.

New Symbols and Smart Symbols

There is a new font of knitting symbols called KnitWriteDK™ which includes a variety of symbols to represent both machine and hand knitting techniques. Symbols used in a pattern will generate both charts and text knitting instructions which can be printed directly from the program or pasted as into word processing or other publishing software to enable you to publish your own patterns.

The font contains a number of **Smart Symbols** which have special functions:

Machine Knitting

- Smart Symbols control the way in which the needles are selected: DesignaKnit will recognize the symbols and will manage the needle selection accordingly, so that Tuck and Slip stitches do not select, but Thread Lace and Weave stitches will. In Interactive Knitting, it, will remind you to set the carriage or lock for the appropriate technique. For Japanese machines, where there are two colors in a row, DesignaKnit will know that area is Fair Isle, but if the selecting color also has the Thread Lace symbol, it will recognize that and give the appropriate instructions

- Symbols which are not directly connected to stitch selection are Memo Symbols and they can be added to patterns to indicate manual procedures such as shaping instructions without affecting the downloading.

- There are symbols for setting up charted instructions for double-bed techniques

Hand Knitting

- Symbols to indicate a wide variety of plain and decorative knitting and shaping techniques both knitwise and purlwise.

- Smart Symbols to indicate where to turn in short row knitting and other special functions

- As well as charts for both color charts and symbol charts, and text patterns, you can print out keys to the meaning of symbols and their associated abbreviations to include with your charts and text patterns.

- You can change the text instructions and the abbreviations which accompany the symbols to suit your style, so that the pattern text is as you want it to be. Those changes will be embedded in any patterns you make, but you can also create sets of instructions which you can apply when needed.

Cables

You can now add cables and other types of crossings to your pattern. DesignaKnit has a built-in collection, but if you can't find the one you want, you can design your own and add it to the collection. Any cables you use will be embedded in the pattern, so if it is used by someone else, your cables will be readable by them.

New Tool Bars and Tools

- There is an improved Tool Bar on the left of the work area with additional shortcut buttons for many routine tasks as well as improved drawing tools and options.

- There is a new Tool Bar along the top of the work area which has shortcut buttons to many of the view options

- The Palette is now able to show symbols and colors simultaneously so that you can quickly change from one to another.

- The Palette now has its own Tool Bar for palette-related functions

- The Thumbnails browser has added functionality - it can now be used to search for and sort stitch patterns according to a number of criteria. It can also be used to open, search for an sort graphics files and palette files as well as searching for shape or garment files

- Additional notes, such as the yarn used, machine tension or needle size can be saved with the pattern and will be printed with the text knitting instructions.

- New ways to create color schemes, whether randomly for inspiration or using a custom palette for a collection

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Tool Bars

Like most programs, DesignaKnit has toolbars with buttons linking directly to the features and tools you use most often. There are two main tool bars - one at the left side of the work area and one above, underneath the menu bar.

There is a third tool bar on the palette with links to features directly related to working with color and stitch symbols.

Side Tool Bar

Files and Printing

Open Thumbnails

Open a stitch pattern file using the DesignaKnit Stitch Designer Thumbnails Browser. This browser offers you search, sorting and information options which are not readily available in the normal Windows dialogue.

File Save/ Save as

Saves the current stitch pattern, overwriting the existing copy without any prompts. If this is the first time you have saved the file (the current filename in the Title Bar of the Window will be "Untitled") the **Save As** dialogue will be displayed.

Print Stitch Pattern

Starts the series of Print dialogues which guide you through the various print formats and printout options.

Help

Opens the Help for this section.

Editing tools

Undo

Takes you back to where you were before the last action, which is specified on the menu option Edit/Undo. You can go back through the last 20 actions. Each action that you undo offers you the option to redo it by clicking on the Redo button or on Edit/Redo.

If this button is unavailable, it is because there are no actions to be undone.

Redo

This reverses the last action which was undone, which will be specified on the menu option Edit/Redo. You can redo up to 20 actions which have been undone. Each action that you redo offers you the option to undo it by clicking on the Undo button or on Edit/Undo.

If this button is unavailable it is because there are no actions to be redone.

✂ Cut

Removes the selected pattern area and places it on the Clipboard.

Alternatively, right-click in the work area and select Cut from the menu.

Note: if you have either Fabric View switched on or are displaying Stitch Symbols in any view, you must select the option in the next dialogue to convert the symbols to text.

If you opt not to convert, you can paste the pattern as a bitmap into DesignaKnit Graphics Studio or into any other program which accepts pictures.

Copy

Places a copy of the selected area onto the Clipboard.

Alternatively, right-click in the work area and select Copy from the menu.

Note: if you have either Fabric View switched on or are displaying Stitch Symbols in any view, you must select the option in the next dialogue to convert the symbols to text. This text can then be pasted into a word processor or other text editor where you will have to select the text and change the font to KnitWriteDK.

If you opt not to convert, you can paste the pattern as a bitmap into DesignaKnit Graphics Studio or into any other program which accepts pictures.

Paste

Pastes the contents of the Clipboard into the work area. If this button is unavailable it is because there is either nothing on the clipboard, or the format is incompatible with DesignaKnit.

Alternatively, right-click in the work area and select Paste from the menu.

Note: you can only paste stitch symbols back into DesignaKnit if they were converted to text when copying.

Text from other sources will be converted to the KnitWriteDK font, but will only display if the appropriate symbols have first been placed into the Stitch Symbols Palette.

Pattern Tools

These are a range of tools which you can use to configure or add pattern elements, such as yarns, symbols, cables or lace, or give you additional ways of controlling or enhancing the drawing tools.

Yarn Color Setup

Opens the Yarn Color Setup dialogue, where you can use various tools to choose, modify and organize the colors you want in the Yarn Colors Palette for your stitch pattern.

You can also use the Yarn Color Setup to configure and save any number of palettes for future use.

Click here for a more detailed explanation of how to use the Yarn Color Setup.

Stitch Symbols Organizer

Opens the Stitch Symbols Organizer where you can select the symbols you need for the current palette from the KnitWriteDK font.

Advanced users can use this to customize knitting instructions allocated to the symbols.

Click here for a more detailed explanation of how to use this feature.

Cables Organizer

Find the cables you want for your pattern and place them in the Cables Palette, ready to use in your design.

You can choose from the 'DesignaKnit Collection or create your own custom cables.

Click here for a more detailed explanation of how to use this feature.

Trace

The Trace Tool makes it possible to use a graphics tablet and stylus to trace a design or picture directly into the stitch pattern and at the same time maintaining the correct aspect ratio of the original.

Lace Tool

 The Lace Tool is an optional extra especially for drawing lace patterns. For machine knitting, the tool automatically checks for errors and then does all the hard work of separating the pattern into transfer and knit passes of the carriage. Interactive Knitting will show you which carriage, and where appropriate, at what setting, to use for each row.

If when you click on this button you see a request for an Authorization number, you do not already have the lace-enabled version of DesignaKnit 8; in order to activate it you will need to purchase the Lace Upgrade.

Once you have purchased and installed the Lace facility, you must enter the Lace Authorization Number, which will have been provided at the time of purchase. If you are not able to locate this, you can email Soft Byte Ltd or your country's distributor with your name and DesignaKnit 8 licence number to obtain a copy.

Authorizing the Lace Tool

Once you have authorization code, click on the Lace Tool to bring up the Lace Authorization dialogue. Enter your Lace Authorization number and click on OK. The Lace Tool is now enabled.
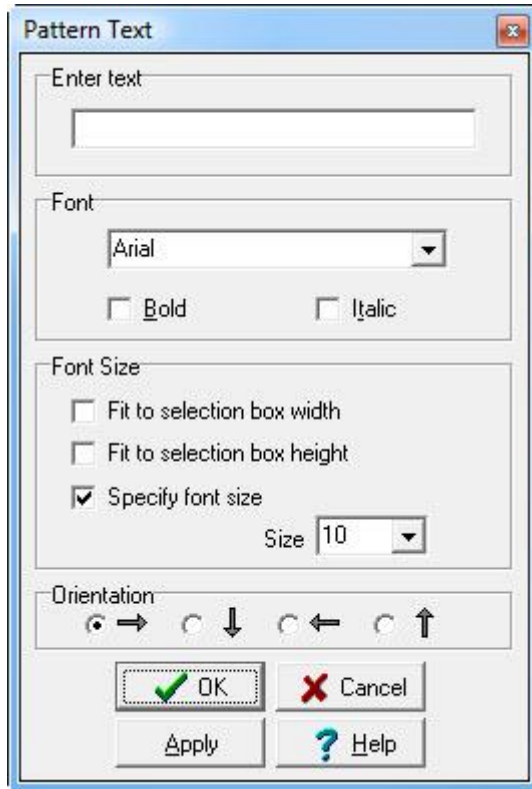
Text

Click on this button to open the Text dialogue so you can add words to your pictures!

Start by entering your text into the text field.

Choose the font from the drop-down list of the fonts on your system.

If you want the characters to be **bold** or *italic* (or ***both***), tick the relevant options.

Next you should choose how DesignaKnit sizes the characters:

- **Fit to selection box width**: the characters will be scaled to the best fit for the width of the box, with some allowance at the side edges. If the height of the box is insufficient for the size of the text, the characters will overflow the box boundary.

- **Fit to selection box height**: the characters will be scaled to the best fit for the height of the box, with some allowance at the top and bottom edges. If the width of the box is insufficient for the size of the text, the characters will overflow the box boundary.

- **Specify font size**: select the font size from the drop-down list. If the size you pick is larger than the current box, the text will overflow the box boundaries.

- The default Orientation for text is Left to Right. You can choose to rotate the text by 90°, 180° or 270°. Note that this option rotates the entire word. If you want to change the actual reading order of the characters, then you should place each one separately on to the design.

Any options you make or change will be reflected immediately in the pattern area until you do one of these actions:

- **Click on the pattern**: this will apply the current text in that position, but will leave the text dialogue open so you can

  o   move the text box to apply the same contents elsewhere

  o   move the text box and change the text

  o   move the text box and change the attributes of the contents

- **Click the Apply button**: this will apply the current text in that position but will leave the text dialogue open so you can

- o   move the text box to apply the same contents elsewhere

- o   move the text box and change the text

- o   move the text box and change the attributes of the contents

- **Click the OK button**: set the text and close the dialogue

- **Click on the Cancel button**: removes the currently active text box and its contents. Any text you have stamped down while the dialogue was open will remain in place - you can use **Undo** to remove it.

Bird's-eye

This tool modifies all the other drawing tools, including the Text tool, so that they draw in 1x1 bird's-eye pattern, using either the left and right mouse button colors or the left and right mouse button stitch symbols.

Once the button has been clicked on, it remains active until clicked again to turn off the effect.

- **Drawing and Filling with Left Mouse Button**
  No matter where in the pattern area you start to use Bird's-eye, the order of the pattern will relate to the pattern starting at row 1, stitch 1 (bottom left hand stitch) with the RMB color

- **Drawing and Filling with the Right Mouse Button**
  The effect of drawing or filling with the right mouse button is to reverse the pattern.

Pattern Fill

This tool modifies all the other drawing tools, including the Text tool so that they draw using a previously saved pattern. When you click on the button, the Thumbnails dialogue will open for you to select the one you want.

Once the button has been clicked on, it will remain active until clicked again to turn off the effect.

- **Drawing and Filling with Left Mouse Button**
  No matter where in the pattern area you start to use Pattern Fill, the order of the pattern will relate to the pattern starting at row 1, stitch 1 (bottom left hand stitch) with the RMB color

- **Drawing with the Right Mouse Button**
  No matter where in the pattern area you start to use Pattern Fill, the order of the pattern will relate to the pattern starting at row 1, stitch 1 (bottom left hand stitch) with the RMB color

- **Filling with the Right Mouse Button**
  Using the RMB in conjunction with one of the Fill Tools will center the pattern over the starting stitch.

Mirrors

Draw symmetrical patterns automatically by using the various mirror configurations.

A single spot at the top left of the button indicates that Mirrors are off.

- Click once for a horizontal mirror

- Click twice for a vertical mirror

- Click three times for horizontal and vertical mirrors

- Click four times for horizontal, vertical and diagonal mirrors

- Click once more to turn the mirrors off.

NB - if you hold down the Ctrl key while you click, the order is reversed.

Shuffle

This is a 4-way button to shuffle the pattern up or down by one row at a time, or left or right by one stitch at a time. Click the arrow on the button that corresponds with the direction you want.

Redefine Pattern Area

Redefine the area of a single pattern repeat in one of three ways:

- Draw a selection box around the area you want to be the single pattern repeat, then click on this button to finish the operation.

- Use the button to the right of this one to set the number of pattern repeats vertically and/or horizontally, then click on this one to redefine the entire area as a single pattern repeat
  - o If a selection box has been drawn, this button will set the area of a single pattern repeat to the area within the box.
  - o If there is no box, this button will set the area of a single pattern repeat to the current number of repeats, whatever the zoom level.

- Position a shape block on the pattern area and click Redefine to create a pattern area which fits the width and length of the piece

Add or Remove Pattern Repeats

To view your pattern as it will look repeated horizontally and/or vertically:

- Click **left** to add a horizontal repeat
- Click **right** to remove a horizontal repeat
- Click **down** to add a vertical repeat
- Click **up** to remove a vertical repeat

Click as many times as is necessary to add or remove repeats.

Insert Rows or Stitch Columns

Increase the size of the pattern area or pattern repeat by adding extra stitch columns or rows.

Inserting Blank Rows
Click on the Insert tool and position the precision cursor on the row where the insertion should start. Left click and drag up or down to the height of the number of rows to be inserted. It doesn't matter if you don't drag across the width of the pattern area as the rows will be inserted right across the pattern. The status bar at the bottom of the window shows the position and number of the extra rows. Release the mouse button when the number of rows you want to add is displayed.

Blank rows will be inserted using the current RMB color and stitch type and any patterning above the start of the insertion will be shuffled upwards.

Inserting Blank Stitch Columns

Click on the Insert tool and position the precision cursor on the stitch where the insertion should start. Right click and drag to the left or right to cover the number of stitch columns to be inserted. It doesn't matter if you don't drag to the full height of the pattern area as the columns will be inserted all the way up the pattern. The status bar at the bottom of the window shows the position and number of the extra stitch columns. Release the mouse button when the number of columns you want to add is displayed. Blank columns will be inserted using the current RMB color and stitch type and any stitches to the right of the insertion point will be shuffled rightwards.

Inserting Duplicate Rows or Stitch Columns

Holding the Shift key down while performing either of the above actions will result in the insertion of duplicate rows or stitch columns instead of blank ones.

This means that whatever is in the area over which the insert selection box is dragged will be reproduced in the newly inserted rows or stitch columns.

NB: This tool does not work with the Selection Box because it is not possible to change the number of stitch columns or rows in part of the pattern. If you want to change the dimensions, position or otherwise correct an element of the pattern, you can use the selection box in combination with any of the drawing tools, the Lasso and Shuffle buttons.

Remove Rows or Stitch Columns

Decrease the size of the pattern area or pattern repeat by removing superfluous stitch columns or rows.

Deleting Rows

Click on the Delete tool and position the precision cursor on the row where the deletion should start. Left click and drag up or down over the rows to be deleted. It doesn't matter if you don't drag across the width of the pattern area as the rows will be deleted right across the pattern. The status bar at the bottom of the window shows the position and number of the selected rows. Release the mouse button when the number of rows you want to delete is displayed. The remaining pattern will then be shuffled upwards to close the gap.

Deleting Stitch Columns

Click on the Delete tool and position the precision cursor on the stitch where the deletion should start. Right click and drag to the left or right to cover the number of stitch columns to be deleted. It doesn't matter if you don't drag to the full height of the pattern area as the columns will be deleted all the way up the pattern, The status bar at the bottom of the window shows the position and number of the selected stitch columns. Release the mouse button when the number of columns you want to delete is displayed. These columns will be removed and any stitches to the right will be shuffled leftwards to close the gap.

NB: This tool does not work with the Selection Box because it is not possible to change the number of stitch columns or rows in part of the pattern. If you want to change the dimensions, position or otherwise correct an element of the pattern, you can use the selection box in combination with any of the drawing tools, the Lasso and Shuffle buttons.

Lasso

The Lasso is for selecting pattern elements, colors or textures. Unlike the Selection Box tool, it is not rectangular and does not include the surrounding area. The lasso is a quick way to move or to capture and stamp pattern elements without having to use the clipboard.

Selecting an area or motif

When you click on the tool, you must then choose one of the options from the lower part of the Tool Bar. The options available to you depend on which elements are used in the current pattern.

Yarn Colors Only

- The **left** lasso will pick up any single contiguous area of color

- The **right** lasso will pick up any contiguous area of opaque colors from surrounding transparent colors.

Stitch Symbols Only

- The **left** lasso will pick up any single contiguous area of a stitch symbol

- The **right** lasso will pick up any contiguous area of opaque symbols from surrounding transparent symbols.

Yarn Colors & Stitch Symbols

The lassos behave in the same way as above. If you want to move a colors and stitch symbols, this must be done in a two-stage operation.

Moving a motif

Drag the lassoed area to its new position and let go of the mouse button. If you want to flip the motif, you must do this while the mouse button is still held down.

- o Use the **Tab** key to flip the motif **vertically**
- o Use the **Ctrl** key to flip the motif **horizontally**

Copying a motif

If you don't want to move the original motif, you must first stamp it in place. Capture the motif and, with the left mouse button held down, press the **Shift** key to stamp the first copy.

Now, move the motif to a new area and press the shift key to stamp a copy. You can repeat this as many times as necessary. When you have finished, let go of the mouse button.

You can flip the motif vertically and horizontally, on the fly. Before you stamp a copy down with the Shift key, use the **Tab** key to flip it **vertically** and the **Ctrl** key to flip it **horizontally**.

Using a combination of these keys you can build up a symmetrical pattern from a single element.

Drawing tools

When you activate a drawing tool, it remains active until you click on it again to turn it off.

All the tools, with the exception of the **Dropper** have additional options which are shown at the bottom of the Tool Bar.

Select the color or symbol you want to use with the tool by clicking with the appropriate mouse button(s) on that color or symbol. If you have already used that element in your pattern, you can quickly return to it without having to click on the palette: hover the mouse over the color or symbol in the pattern, hold down the shift key and click.

Drawing Mode

The current drawing mode (symbols or colors) is dictated by a) the active selection and b) the mouse button. Thus, if the active selection is a yarn color for the LMB and a symbol for the RMB, the mode will adapt to the mouse button you use.

- You can quickly toggle all the active symbols from one mode to the other by pressing **Ctrl+Shift** simultaneously at any time during the Stitch Designer session.

- Whether or not you have a drawing tool selected at the time, if you hover the cursor over a symbol or color, hold down the **Ctrl key and click with either the left or right mouse button**, that mouse button will be assigned to that color or symbol in the palette. To toggle from color to symbol mode, press Ctrl+Shift.

Line

Use this tool to draw a straight line, one stitch wide, in any of the three active colors or stitch symbols.

- Use the **Left Mouse button** to draw with the active **LMB** Yarn Color or Stitch Symbol

- Use the **Right Mouse Button** to draw with the active **RMB** Yarn Color or Stitch Symbol

- Use the **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, to draw with the active **MMB** Yarn Color or Stitch Symbol.

The setting you choose from the Options Panel at the bottom of the Tool Bar determines the kind of line you get.

Options

Freehand: You can drag the line in any direction and DesignaKnit will automatically adjust it to the proportions of your stitches to rows.

Stits -= Rows: This option produces a diagonal line across an equal number of stitches and rows. The result will not be exactly 45°.

Xcm=Ycm: If you are working with metric measurements, this option will constrain a diagonal line to 45°. DesignaKnit will automatically adjust the rows and stitches to fit.

or

Xins = Yins: If you are working in imperial measurements, this option will constrain a diagonal line to 45°. DesignaKnit will automatically adjust the rows and stitches to fit.

Brush

The paint brush is similar to the Pencil, but will place a color or symbol on any stitch that the brush cursor touches.

- Use the **Left Mouse button** to draw with the active **LMB** Yarn Color or Stitch Symbol

- Use the **Right Mouse Button** to draw with the active **RMB** Yarn Color or Stitch Symbol

- Use the **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, to draw with the active **MMB** Yarn Color or Stitch Symbol.

Options
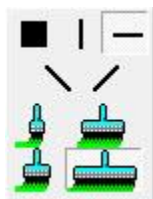
From the Options Panel which appears at the bottom of the Tool Bar when this tool is active, select the angle of the brush and the width. Note that the actual width of the brush when drawing is affected by the number of stitches/rows which it touches as well as the zoom level.

Pencil

Free-hand drawing tool one stitch wide. To change a single stitch, position the cursor and click once.

- Use the **Left Mouse button** to draw with the active **LMB** Yarn Color or Stitch Symbol

- Use the **Right Mouse Button** to draw with the active **RMB** Yarn Color or Stitch Symbol

- Use the **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, to draw with the active **MMB** Yarn Color or Stitch Symbol.

With the Pencil tool selected, you can use the keyboard to enter either colors or symbols into the pattern, depending on the mode you are currently using (use Ctrl+Shift to toggle from one mode to the other). The direction in which the colors or symbols are drawn is according to the direction in which the chart is read.

Color Mode The numbers 1 - 9 on the keyboard will draw in the colors the first nine colors in the palette, counting from the top left.

Symbols Mode   The keyboard will draw in the symbols ordinarily associated with those keys.

The main (blank) stitch is the Space Bar, and the • is the full stop (point)

The machine Smart Symbols are assigned to these keys:

 1 and 2: Tuck

 3: Thread Lace

 4:Slip

 - (minus):Weave

Any characters inserted in this way which are not already there will be added to the palette.

Options

With this option selected, if you draw quickly with the pencil, especially when zoomed out, you may get gaps in the line.

With this option selected, if you draw quickly, there will be no gaps in the line.

Left-handers can change the angle of the pencil to a more natural angle by selecting Options/Left-handed Pencil.

Eraser/Replacer

This tool is used to change colors painted with the current Left Mouse Button color to the current Right Mouse button color, and vice versa, or the current Left Mouse Button symbol to the current Right Mouse Button symbol, and vice versa.

- **Left Mouse Button** changes current **RMB** color **to** current **LMB** color
- **Right Mouse Button** changes current **LMB** color **to** current **RMB** color

or

- **Left Mouse Button** changes current **RMB** symbol **to** current **LMB** symbol
- **Right Mouse Button** changes current **LMB** symbol **to** current **RMB** symbol

N B

 If you want to change colors into symbols, you should use the Palettes/Convert Yarn Colors feature
If you want to change symbols into colors, then you should use the Palettes/Convert Stitch Symbols feature
If you want to add symbols to colors, or colors to symbols, use the Combine feature

Options
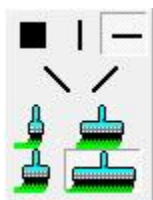
From the Options Panel which appears at the bottom of the Tool Bar when this tool is active, select the angle of the eraser and the width. Note that the actual width of the eraser when drawing is affected by the number of stitches/rows which it touches as well as the zoom level.

Flood fill

Use this tool to

- fill a single color area with another color

- fill a single stitch-type area with another stitch symbol

  NB: to apply a symbol to a color area, or to apply a color to a symbol area, use the Combine button on the Palette.

Select the color/symbol you want from the palette:

- **Left Mouse button** draws with the active **LMB** Yarn Color or Stitch Symbol

- **Right Mouse Button** draws with the active **RMB** Yarn Color or Stitch Symbol

- **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, draw with the active **MMB** Yarn Color or Stitch Symbol.

When you use the Flood fill tool in conjunction with a selection box, you can either fill only the area inside the box or you can fill the only area outwith the box.

Options

Choose this option if you want to restrict the fill to stitches vertically and horizontally adjacent but don't want the fill to 'leak' across stitches which touch diagonally.
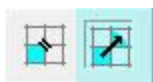
Choose this option if you want the fill to include diagonally touching stitches.

Dropper

The dropper is used to identify a color, stitch symbol , or cable type in the pattern and, if desired, allocate a mouse button to that color or symbol. It works in two ways:

1. **Hovered** over a stitch it will display on the status bar at the bottom of the window:
   - In **color mode**, the RGB Value of the color of the stitch and, if you have allocated a Name to the color that will be shown too.

o In **symbols mode**, the knitting instruction for that symbol or cable.

2. **Clicked** on a stitch, it will allocate the button(s) you clicked with (Left, Right or Middle/Left & Right) to

- o In **color mode**, the color to that mouse button

- o In **symbols mode**, the symbol to that mouse button

- o With the **Cable Palette open, and in symbols mode**, it will find that cable in the palette. (When the cable palette is open, clicking on the dropper will always start it in symbols mode.)

While the dropper is hovered over a stitch, you will see it shown on the relevant color or symbol in the palette.

Recognizing and Changing the Mode

When you click on the dropper, it will always start in the mode associated with the *currently active Left Mouse Button* - so if that is a color, then it will start in color mode, but if it is a stitch symbol, then it will start in symbols mode - no matter where in the palette the RMB or MMB are active.

To change the mode, do one of these:

- o **Press once on the Shift key**. To change it back, press again, press Shift again. This method will change all the mouse button allocations to active in the selected mode.

- o **Click with the LMB** on a color to change to color mode or on a symbol to change to symbols mode. This method will not change the active status of the other mouse buttons.

Rectangle/Square

Select this tool, then click and drag in the pattern area to draw a rectangle or square, then select from the options at the bottom of the Tool Bar.

Outline Rectangle/Square

- **Left Mouse button** draws with the active **LMB** Yarn Color or Stitch Symbol

- **Right Mouse Button** draws with the active **RMB** Yarn Color or Stitch Symbol

- **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, draws with the active **MMB** Yarn Color or Stitch Symbol.

Choose whether to draw freehand or constrain the rectangle/square:

Freehand: You can drag in any direction and DesignaKnit will draw a rectangle where you place it.

Stits -= Rows: This option produces a rectangle across an equal number of stitches and rows. The result will not be an exact square unless your current working tension has an equal number of stitches to rows.

Xcm=Ycm: If you are working with metric measurements, this option will produce a square at the current tension.

or

Xins = Yins: If you are working in imperial measurements, this option this option will produce a square at the current tension.

Filled Rectangle/Square

- **Left Mouse Button** draws the **outline** with the active **LMB** Yarn Color or Stitch Symbol and **fills** with the active **RMB** Yarn Color or Stitch Symbol.

- **Right Mouse Button** draws the **outline** with the active **RMB** Yarn Color or Stitch Symbol and **fills** with the active **LMB** Yarn Color or Stitch Symbol.

- **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, draws the **outline and fill** with the active **MMB** Yarn Color or Stitch Symbol.

To draw a rectangle in a combination of Yarn Color and a Stitch Symbol, first draw one either in two colors or two symbols and then use either the Palette/Convert Yarn Colors or Palette/Convert Stitch Symbols feature to change one or other of the elements.

Choose whether to draw freehand or constrain the rectangle/square:

Freehand: You can drag in any direction and DesignaKnit will draw a rectangle where you place it.

Stits -= Rows: This option produces a rectangle across an equal number of stitches and rows. The result will not be an exact square unless your current working tension has an equal number of stitches to rows.

Xcm=Ycm: If you are working with metric measurements, this option will produce a square at the current tension.

or

Xins = Yins: If you are working in imperial measurements, this option this option will produce a square at the current tension.

Ellipse/Circle

Select this tool, then click and drag in the pattern area to draw an ellipse or circle, then select from the options at the bottom of the Tool Bar.
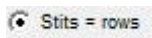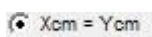
Outline Ellipse/Circle

- **Left Mouse button** draws with the active **LMB** Yarn Color or Stitch Symbol

- **Right Mouse Button** draws with the active **RMB** Yarn Color or Stitch Symbol

- **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, draws with the active **MMB** Yarn Color or Stitch Symbol.
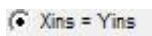
Choose whether to draw freehand or constrain the ellipse/circle:

Freehand: You can drag in any direction and DesignaKnit will draw an ellipse where you place it.

`⊙ Stits = rows` **Stits -= Rows**: This option produces an ellipse across an equal number of stitches and rows. The result will not be an exact circle unless your current working tension has an equal number of stitches to rows.

`⊙ Xcm = Ycm` **Xcm=Ycm**: If you are working with metric measurements, this option will produce a circle at the current tension.

or

`⊙ Xins = Yins` **Xins = Yins**: If you are working in imperial measurements, this option this option will produce a circle at the current tension.
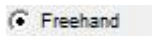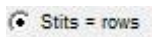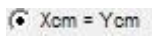
Filled Ellipse/Circle

- **Left Mouse Button** draws the **outline** with the active **LMB** Yarn Color or Stitch Symbol and **fills** with the active **RMB** Yarn Color or Stitch Symbol.

- **Right Mouse Button** draws the **outline** with the active **RMB** Yarn Color or Stitch Symbol and **fills** with the active **LMB** Yarn Color or Stitch Symbol.

- **Left and Right Mouse Buttons together**, or **Middle Mouse Button**, draws the **outline and fill** with the active **MMB** Yarn Color or Stitch Symbol.

To draw an ellipse in a combination of Yarn Color and a Stitch Symbol, first draw one either in two colors or two symbols and then use either the Palette/Convert Yarn Colors or Palette/Convert Stitch Symbols feature to change one or other of the elements.
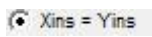
Choose whether to draw freehand or constrain the ellipse/circle:

`⊙ Freehand` **Freehand**: You can drag in any direction and DesignaKnit will draw an ellipse where you place it.

`⊙ Stits = rows` **Stits -= Rows**: This option produces an ellipse across an equal number of stitches and rows. The result will not be an exact circle unless your current working tension has an equal number of stitches to rows.

`⊙ Xcm = Ycm` **Xcm=Ycm**: If you are working with metric measurements, this option will produce a circle at the current tension.

or

`⊙ Xins = Yins` **Xins = Yins**: If you are working in imperial measurements, this option this option will produce a circle at the current tension.

Top Tool Bar

The buttons on the top tool bar offer shortcuts to a number of viewing options for the workspace, the pattern area, palettes and shape pieces.

Zoom Tools

Zoom in

Zoom in, increasing the width of each stitch by one pixel with each click. Use the Zoom menu if you want to specify the number of pixels.

Zoom Out

Zoom out, decreasing the width of each stitch by one pixel with each click. Use the Zoom menu if you want to specify the number of pixels.

Zoom to Selection Box

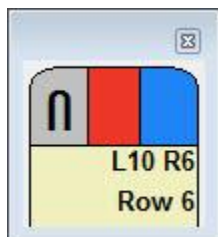Zooms in to the selection box. If there is no selection box, this button will be unavailable.

Maximum View

Zoom to fit the whole pattern or, if you are viewing more than one repeat, as many repeats as possible, into the work area.

Pointer Position in Stitch Pattern Viewer

Use this button to toggle the Pointer Position Viewer on and off.

This shows which buttons are allocated to which color or symbol in the current palette, as well as the precise position of the cursor in a single repeat of the pattern in stitches and rows.

Stitch position is shown from both the right and left edges of the repeat and the row position counting from row 1.

If Options/Floating Windows is selected, and Stitch Designer is not full-screen, you can move this viewer away from the pattern area.

Rulers

Horizontal Ruler

Once this tool is activated, you can drag it anywhere in the work area to measure across your pattern.

Drag the ruler horizontally to move the point of origin (zero) to where you want it.

If you hover your mouse over the pale yellow rectangles at either end of the device, the cursor will change to a ruler, you can then click to toggle between measuring in stitches or in centimeters or inches, according to the setting in Options/Units of Measurement..

Vertical Ruler

Once this tool is activated, you can drag it anywhere in the work area to measure the length of your pattern.

Drag the ruler vertically to move the point of origin (zero) to where you want it.

If you hover your mouse over the pale yellow rectangles at either end of the device, the cursor will change to a ruler, you can then click to toggle between measuring in rows or in centimeters or inches, according to the setting in Options/Units of Measurement.

Stitch Pattern View Options

Stitch Grid

Select this option to work with a grid drawn to match the current Tension setting. Each grid cell represents one stitch.

You can work with both yarn colors and stitch symbols in this view.

Turning this option on will automatically turn off Fabric Texture, and turning it off again will give you a blank drawing area.

Fabric Texture View

This option turns on the knitted stitch appearance. If the pixels per stitch are too small for the knitted stitch texture to be shown, a warning message will be displayed.

If stitch symbols which have an associated fabric view have been used, they will be show as texture too. These symbols are identified in the Stitch Symbol Organizer by a dark yellow triangle.

Stitch types without an associated texture will either display as a blurred cell or, if either View/Stitch Symbols is checked on, or the Stitch Symbols button is on, the symbols themselves will be superimposed onto the fabric.

Turning this option on will automatically turn off Grid view, and turning it off again will give you a blank drawing area.

Stitch Symbols

Check this option to see the KnitWriteDK Stitch Symbols for any stitch types used in the pattern.

In **Fabric View**, the symbols are superimposed where there is no texture for that stitch. If you uncheck this option, where there are stitch types which do not have a texture, you will just see a non-specific indication that the a stitch symbol has been applied.

In **Grid View**, this option either displays or hides all stitch symbols.

Yarn Colors

Check this option to see the yarn colors in the design. You can turn them off if you want to see the Stitch Symbols on their own.

Yarn Colors must be checked in order to see Memo numbers or Yarn Color Symbols.

Checking this option will automatically display the current colors in the palette.

Palettes

Yarn Colors

Displays the palette containing colors chosen from the Yarn Color Setup Dialogue in the palette, ready for use.

You can activate three colors at a time allocating them to the mouse buttons by clicking on the color with the relevant button(s):

- LMB (Left Mouse Button - indicator shows in the top left corner of the color
- RMB (Right Mouse Button) - indicator shows in the top right corner of the color
- MMB (Middle Mouse Button (or LMB and RMB simultaneously) - indicator shows top Centrex of the color

If you have symbols as well as colors in the palette, you can allocate a combination of colors and symbols to the mouse buttons. The active one for each mouse button is shown with a large white indicator, and the inactive allocation by a small white spot in the same position.

Once the colors have been allocated, use the correct mouse button(s) with the drawing tool of choice.

Click here for more information on how to set up other palette options.

Stitch Symbols

Displays any stitch symbols selected from the Stitch Symbols Organizer into the current palette ready for use.

- LMB (Left Mouse Button - indicator shows in the top left corner of the symbol
- RMB (Right Mouse Button) - indicator shows in the top right corner of the symbol
- MMB (Middle Mouse Button (or LMB and RMB simultaneously) - indicator shows top center of the symbol

If you have colors as well as symbols in the palette, you can allocate a combination of symbols and colors to the mouse buttons. The active one for each mouse button is shown with a large white indicator, and the inactive allocation by a small white spot in the same position.

Once the symbols have been allocated, use the correct mouse button(s) with the drawing tool of choice.

Click here for more information on how to set up other palette options.

Cables Palette

This button opens the Cables Palette, which contains any cables you have set up in advance via the Cables Organizer. If the Cables Palette is empty, or if you want to add or remove cables, clicking the + button will open the Cables Organizer.

Selection Tools

Draw a Selection Box

Selecting part of a pattern area is the first step in a variety of editing tasks. You can copy a selection, clear it, change the stitch colors within it, flood fill it, fill it with text and more.

To select an area

1. Click on the Selection Box tool

2. Position the cursor at a corner of the area you want selected

3. Click with the LMB and drag the Selection Box in until it encloses the area you wish to change

4. Release the left mouse button and the area will be outlined with a solid white line. (You can change the color of the selection box in **Options/Color Scheme**)

Status Bar Information

While the selection box is being drawn, the following information is displayed at the left hand side of the status bar:

> Leftmost..rightmost stitch of the pattern repeat, bottommost..topmost row of the pattern repeat (stitches x rows inside box) (width x height in current measurement units)

Once you have drawn the box, this information will no longer be shown, but you can use the Selection Box Position Viewer for a graphic representation of the box position.

Once the box has been drawn, this button is deactivated and the Show Selection Box button becomes active. You can then choose to hide the box or change to a tagged box using the buttons or right-click menu.

Show Selection Box

As soon as a box has been drawn, this button is activated. You can hide the box by clicking this button off.

If you activate this button again, the box will be shown at the last location.

For more information on how to use the selection box, click here.

Show Tagged Selection Box

Click on this button to:

- Change an untagged box to a tagged selection box
- Recall a selection box at the last location and display with tags

Use the tags on the edges of the box and on the corners to resize the box or click on the center tag to drag the box to a new location, retaining the current dimensions and without moving the contents.

If you click inside the main area of the box, it will behave in the same way as the untagged box, so you can drag the box and contents without having to change the box type.

Status Bar Information

While the selection box is being moved or resized, the following information is displayed at the left hand side of the status bar:

Leftmost..rightmost stitch of the pattern repeat, bottommost..topmost row of the pattern repeat (stitches x rows inside box) (width x height in current measurement units)

Show Selection Box Position Viewer

This button toggles the Selection Box Position Viewer on and off.
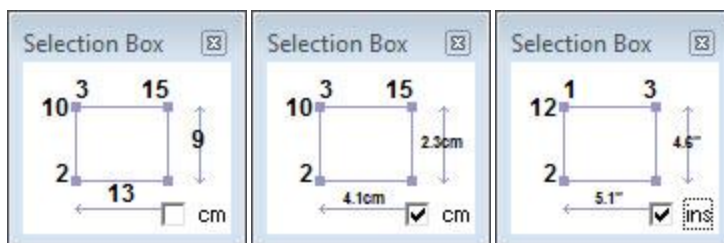
The information shown is organized thus:

- **Left side**: (bottom) row of pattern repeat where bottom left corner of box is positioned and (top) row of pattern repeat where top left corner of box is positioned

- **Top**: (left side) stitch column of pattern repeat where left side of box is located and (right side) stitch column of pattern repeat where right side of box is located

- **Bottom**: total number of stitches spanned across pattern repeat(s) or, if cm/ins is ticked, the width in centimeters or inches.

- **Right side**: total number of rows spanned across pattern repeat(s) or, if cm/ins is ticked, the height in centimeters or inches.

Right-click Menu

You can also access the options **Draw a Selection Box**, **Show/Hide the Untagged Box** and **Show/Hide the Tagged Box** by right-clicking anywhere in the work area.

You can also choose **Cut**, **Copy** and **Paste** from this menu. If a box (tagged or untagged) is active, only the contents will be cut or copied, and if paste is selected, this will be restricted to within the box.

Shape Piece Options

This group of buttons is related to displaying and moving shape pieces (blocks) on the stitch pattern so that you can place them so that the pieces lie in exactly the right place for each one.

If you then save the shape file, the pieces will be integrated with the stitch pattern and their positions remembered. This means that if you download the stitch pattern to a knitting machine each piece will be centered on the needle bed and, for charted and hand knitting instructions, the printouts will be correct for each block.

Select and Display Specific Pieces

Select the piece or pieces you want to view from the list of all those in the current shape file. DesignaKnit will then place the pieces on the stitch pattern and, if necessary, create a sufficient number of pattern repeats to display your selection. The Zoom level will be set automatically to incorporate the piece(s) you selected.

If you want more than one piece, hold down the Ctrl key to select individual items from the list, or hold down the Shift key to select a range.

If you then click on the Move Piece button on the side tool bar, you can then drag the active piece to wherever you want it on the stitch pattern. Use the keyboard arrow keys to shuffle the piece exactly. The position of the pieces on the stitch pattern will be retained in the shape file, if you select **Shape/Save** from the menu bar. If you do not want to overwrite a previous association with another pattern, select **Shape/Save As** and give the shape a new file name.

If you have not yet loaded a stitch pattern file, clicking on this button will open the Shapes Thumbnail browser.

Display All Pieces

Click on this button to display all the pieces from the current shape file. If you have not yet loaded a shape, the Shapes Thumbnail browser will open so that you can select one.

Move Piece

When you are integrating shapes with the current stitch pattern, and you have one or more pieces from the shape file on the screen, activating this button allows you to move the pieces in one of two ways:

- Click on any piece and drag it to where you want it on the pattern
- Use the arrow keys on your keyboard to move the currently active piece one stitch or one row at a time.

Double-clicking on a piece activates this tool and the piece.

The button remains active until you click on it again to turn it off, or you click on the pattern outside the piece.

 If you have not yet loaded a shape, the Shapes Thumbnail browser will open so that you can select one.

Cut Out Pieces

The Cut Out Pieces button can only be used when the pattern pieces are displayed. Clicking the Cut Out Tool removes all excess stitch pattern from around the pieces, providing a scale representation of the finished knitting.

With the Cut Out tool active, you can continue to move pieces on the pattern if you have the Move Pieces button activated.
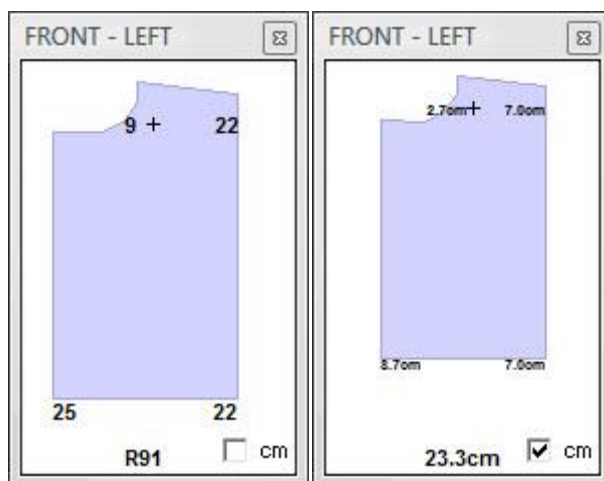
If you have not yet loaded a shape, the Shapes Thumbnail browser will open so that you can select one.

Pointer Position in Active Piece

Click on this option to open a window which tracks the position of the cursor in the active pattern piece.

You can view the position in terms of stitches and rows or, depending on the measurement units you have chosen, in inches or centimeters.

The cursor position is marked with a +, and the values shown underneath the piece show the distance from right or left of the maximum width and the distance from the start in rows or in cm/ins. The figures by the cursor show the distance from the nearest edges.

If you have not yet loaded a shape, the Shapes Thumbnail browser will open so that you can select one.

Close Shape file

This closes the shape file: if you were to return to Standard Garment Styling or Original Pattern Drafting, the shape would no longer be open and clicking on any of the Shape menu items in Stitch Designer, or the tool bar buttons would prompt you to open a new Shape file.
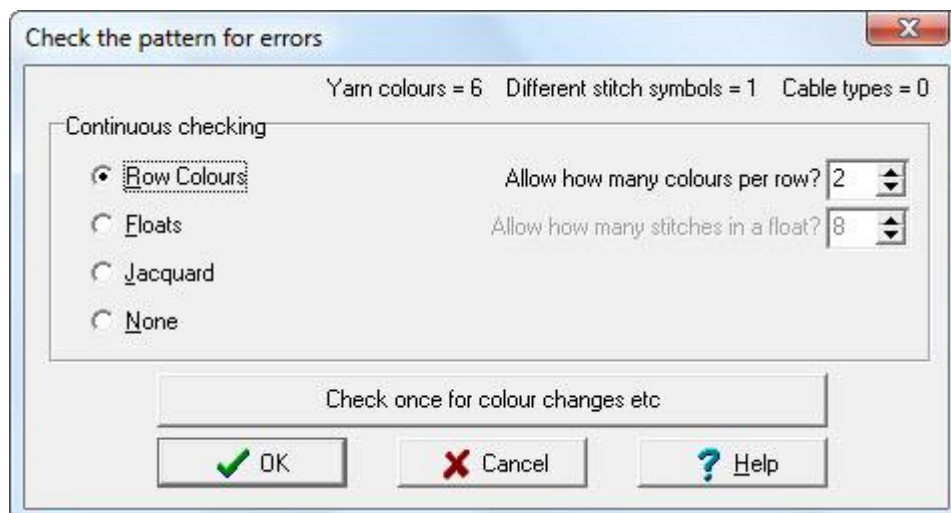
If the button is unavailable, this means a shape file is not currently open.

Check Stitch Pattern

Opens the **Check Dialogue** to check the pattern for inconsistencies and errors which could cause conflicts with the intended knitting method.

The Check Dialogue displays status information regarding the overall number of colors, stitch types and, if appropriate, cables used in the current pattern.
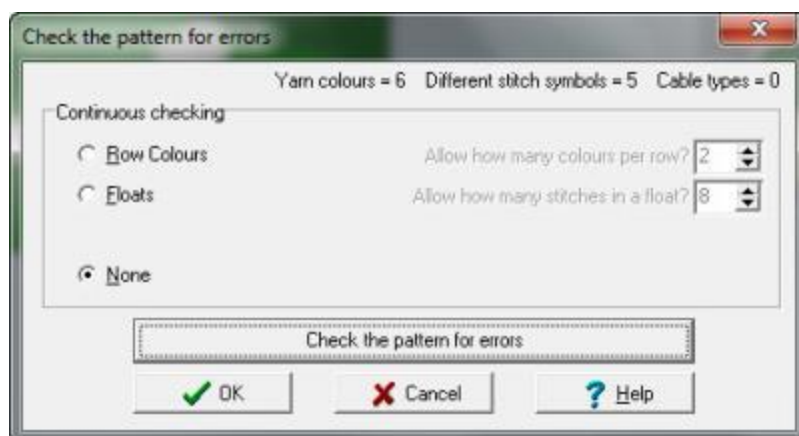
Machine Knitting

- **Row Colors**:For Fair Isle and Jacquard patterns, check the number of colors in a row by setting the maximum number on the right of the dialogue.Click OK.All rows which have more than the set number of colors will be marked by a line across the row. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Float Length**: for Fair Isle patterns, check the length of floats by setting the maximum number of stitches you want to allow for floats. Click OK. Any which exceed this setting will be marked with a horizontal line. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Jacquard**: for machine Jacquard patterns of more than 2 colors per row, this function checks for pattern errors, which are marked on each pair of rows by a vertical line. You then have the choice of amending the pattern manually or allowing DesignaKnit to make the necessary changes automatically. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

Once you have clicked on OK for any of these options, DesignaKnit will remain in Check mode until you switch it off by reopening the Check dialogue and selecting **None**, then **OK**.

- **Check once for color changes etc**: Click on this button for DesignaKnit to scan the pattern for errors:

  o For machine patterns, DesignaKnit will check for awkward color changes

  o For machine tuck stitch patterns, DesignaKnit will check for tuck symbols on adjacent stitches. This is not a problem if the pattern is for double-bed knitting at half pitch, but is not workable for single bed machines.

  If the check you are making is not appropriate for the currently configured knitting method, DesignaKnit will show a warning or open the Knitting Method dialogue to give you the opportunity to change the knitting method. If you don't want to do this, cancel this dialogue.

Hand Knitting

- **Row Colors**:Check the number of colors in a row by setting the maximum number on the right of the dialogue.Click OK.All rows which have more than the set number of colors will be marked by a line across the row. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Float Length**: for patterns such as traditional Fair Isle, where the yarn not being knitted is carried across the back, check the length of floats by setting the maximum number of stitches you want to allow for floats. Click OK. Any which exceed this setting will be marked with a horizontal line. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

Once you have clicked on OK for any of these options, DesignaKnit will remain in Check mode until you switch it off by reopening the Check dialogue and selecting **None**, then **OK**.

- **Check the pattern for errors**: Click on this button for DesignaKnit scan the pattern for errors, such as:

  o If Turn Smart Symbols and/or arrows are incorrectly placed for short row knitting, DesignaKnit will warn you so that you can edit the pattern. You will not be able to proceed to print out charts or instructions or to Interactive Knitting if these errors are not corrected because the instructions would not make sense.

  o DesignaKnit will warn you if you have used Smart Symbol Brackets and they are not paired. If you intended to use them in this way, then you can close the warning and proceed. If, on the other hand, your intention was to use them in pairs to denote multi-stitch tasks, then you should go back and alter the pattern accordingly. The brackets do not, by default, have an instruction, so if you have used them without adding an abbreviation and instruction, this may be the cause of the problem.

  o DesignaKnit will warn you if you have used any other symbols which do not have an abbreviation or instruction. If this was not your intention, then you can go to the Text Editor to put this right.

  If the check you are making is not appropriate for the currently configured knitting method, DesignaKnit will show a warning or open the Knitting Method dialogue to give you the opportunity to change the knitting method. If you don't want to do this, cancel this dialogue.

Related Topics

Menus

Menus

The Menu bar gives you access to all the functions and options in Stitch Designer. Some of these also have equivalent shortcut buttons on the Tool Bars underneath the Menu bar and on the left side of the window.

File

New Pattern Setup

Selecting File/New Pattern Setup opens the New Stitch Pattern dialogue, where you set up the parameters for your new pattern. If you do not yet know what you want the settings to be, you can always make changes later on via the Options menu.

When you have made your choices, click OK and the Tensions dialogue will open.

You can also open this dialogue using the keyboard shortcut **Ctrl+N**

New from Default

Select this option to start a new pattern with the default template with all the default settings. The default pattern is the basic template and the one that is on the screen when you first run DesignaKnit and enter Stitch Designer. If you want to change the default settings, use the New Pattern Setup dialogue to configure a new pattern and check the option to Save as the default pattern template.

You can quickly reload the default template using the keyboard shortcut **Ctrl+D**

New from Current

This option starts a new pattern with all the current settings: size, palette, method, etc. This is especially useful if you are working on a collection of patterns or are experimenting with the same yarns or stitch symbols but you do not want to change or revert to the default template.

You can also use the keyboard shortcut **Ctrl+R** to reload your current settings for a new pattern.

Thumbnails

Open a stitch pattern file using the DesignaKnit Stitch Designer Thumbnails Browser. The browser offers you search, sorting and information options which are not readily available in the normal Windows dialogue.

Alternatively, open the Thumbnails dialogue by clicking on the **File/Open**button on the Tool Bar.

Open Stitch Pattern

Open a stitch pattern or a graphic file using the normal Windows File/Open dialogue.

Save

Saves the current stitch pattern, overwriting the existing copy without any prompts. If this is the first time you have save the file (the current filename in the Title Bar of the Window will be "Untitled") the Save As dialogue will be displayed.

Alternatively, use the File/Save button on the Tool Bar.

Save As

Use this command to save your pattern for the fist time, or to save it with a new file name.

Delete

Use this command to clear out any unwanted pattern files using the Thumbnails Browser. When you select a pattern file it is marked for deletion with a large red cross. You can make multiple selections and if you change your mind about any or all, just click again on the thumbnail to remove the cross. Click the Delete button to finish the operation.

Print

Starts the series of Print dialogues which guide you through the various print formats and printout options.

Alternatively, click on the Print button on the Tool Bar.

Exit

Closes this session of DesignaKnit 8.

Edit

Undo

Takes you back to where you were before the last action, which is specified on the menu. You can go back through the last 20 actions. Each action that you undo offers you the option to redo it by clicking on Edit/Redo. If this menu item is unavailable, it is because there are no actions to be undone.

Alternatively, you can use the Undo button on the Tool Bar. If this is grayed out, it is because there is nothing to be undone.

Redo

This option reverses the last action which was undone., which will be specified on the menu. You can redo up to 20 actions which have been undone. If this menu item is unavailable it is because there are no actions to be redone.

Alternatively, you can use the Redo button on the Tool Bar. If this is grayed out, it is because there is nothing to be redone.

Select All

Places a tagged selection box around the entire area of the pattern.

When viewing a repeating pattern, the box will be placed around the top left repeat, so if you are zoomed in on another area, you may have to zoom out to see it.

Clear Yarn Colors

Replaces all colors with the current Right Mouse Button color.

Clear Stitch Symbols

Clears all symbols, leaving the current main stitch type. The main stitch has no symbol and is determined by the knitting method.

Redefine

Redefine the area of a single pattern repeat in one of two ways:

1. Draw a selection box around the area you want to be the single pattern repeat, then click on this button to finish the operation.

2. Use the button to the right of this one to set the number of pattern repeats vertically and/or horizontally, then click on this one to redefine the entire area as a single pattern repeat

Thus:

-   If a selection box has been drawn, this button will set the area of a single pattern repeat to the area within the box.

-   If there is no box, this button will set the area of a single pattern repeat to the current number of repeats, whatever the zoom level.

Alternatively, click on the ![button] button on the left tool bar.

Cut

Removes the selected pattern area and places it on the Clipboard.

Note: if you have either Fabric View switched on or are displaying Stitch Symbols in any view, you must select the option in the next dialogue to convert the symbols to text.

If you opt not to convert, you can paste the pattern as a bitmap into DesignaKnit Graphics Studio or into any other program which accepts pictures.

![scissors icon] Alternatively, use the Cut button on the Tool Bar, or right-click in the work area and select Cut from the menu.

Copy

Places a copy of the selected area onto the Clipboard.

Note: if you have either Fabric View switched on or are displaying Stitch Symbols in any view, you must select the option in the next dialogue to convert the symbols to text.

If you opt not to convert, you can paste the pattern as a bitmap into DesignaKnit Graphics Studio or into any other program which accepts pictures.

![copy icon] Alternatively, use the Copy button on the Tool Bar or right-click in the work area and select Copy from the menu.

Paste

Pastes the contents of the Clipboard into the work area. If this menu option is grayed out it is because there is either nothing on the clipboard, or the format is incompatible with DesignaKnit.

Note that you can only paste stitch symbols back into DesignaKnit if they were converted to text when copying.

Text from other sources will be converted to the KnitWriteDK font, but will only display if the appropriate symbols have first been placed into the Stitch Symbols Palette.

Alternatively, use the Paste button on the Tool Bar or right-click in the work area and select Paste from the menu.

Scaled Paste

Use the Scaled Paste option to reduce or increase the size of an image pasted from the Clipboard.

Export

Motif

This option is only available when the selection box is active.

Select the area you wish to save using the Selection Box. Selecting Export opens the Save As dialogue box. Enter a new name for the stitch pattern and click OK.

Palette

Save the current palette for future use.

Import

Imports a previously saved pattern into the current design in various ways.

Single Motif

Import a single instance of a previously saved pattern or motif anywhere into the current design.

Horizontal Border

Import a previously saved pattern or motif so that it repeats horizontally.

Vertical Border

Import a previously saved pattern or motif so that it repeats vertically.

Tile

Import a previously saved pattern or motif so that it repeats across a selected area.

Palette

Add colors and/or stitch symbols to your palette either from a previously saved palette file or from a previously saved stitch pattern.

Notes

Any notes you add here will be saved with the stitch pattern for future reference.

It will also be added to the pattern text printout, so you can include essential knitting information in the text, such as needle sizes, tensions, yarn brands and weights as well as any other relevant information for the knitter.

If you need to find a pattern or set of patterns containing specific words in the attached Notes, you can use the Thumbnails search feature to search for text.

View

The View Menu contains all the tools that affect what is displayed on the screen.

Yarn Colors

Check this option to see the yarn colors in the design. You can turn them off if you want to see the Stitch Symbols on their own.

Yarn Colors must be checked in order to see Memo numbers or Yarn Color Symbols.

Checking this option will automatically display the current colors in the palette.

Alternatively, use the Yarn Colors button on the top Tool Bar.

Stitch Symbols

Check this option to see the KnitWriteDK Stitch Symbols for any stitch types used in the pattern.

In Fabric View, the symbols are superimposed where there is no texture for that stitch. If you uncheck this option, where there are stitch types which do not have a texture, you will just see a non-specific indication that the a stitch symbol has been applied.

In Grid view, this option either displays or hides all stitch symbols.

Alternatively, use the Stitch Symbols button on the top Tool Bar

Yarn Color Palette

Displays the current palette containing colors chosen from the Yarn Color Setup Dialogue in the palette, ready for use.

Alternatively, use the Yarn Palette button on the top Tool Bar.

Stitch Symbols Palette

Displays the current palette containing stitch symbols selected from the Stitch Symbols Organizer into the current palette ready for use.

Alternatively, use the Stitch Symbols palette on the top Tool Bar.

Fabric Texture

This option turns on the knitted stitch appearance. If the pixels per stitch are too small for the knitted stitch texture to be shown, a warning message will be displayed.

If stitch symbols which have an associated fabric view have been used, they will be show as texture too. These symbols are identified in the Stitch Symbol Organizer by a dark yellow triangle.

Stitch types without an associated texture will either display as a blurred cell or, if either View/Stitch Symbols is checked on, or the Stitch Symbols button is on, the symbols themselves will be superimposed onto the fabric.

Turning this option on will automatically turn off Grid view, and turning it off again will give you a blank drawing area.

Alternatively, use the Fabric Texture button on the top Tool Bar.

Grid

Select this option to work with a grid drawn to match the current Tension setting. Each grid cell represents one stitch.

You can work with both yarn colors and stitch symbols in this view.

Turning this option on will automatically turn off Fabric Texture, and turning it off again will give you a blank drawing area.

Alternatively, use the Grid View button on the top Tool Bar.

Grid Divisions

Grid Divisions turns on the option to outline larger areas of the pattern. Each grid division represents an equal number of stitches and rows. You can set the grid division size in the Options menu.

Boundary

This option puts a boundary line around a single pattern repeat. If you are viewing more than one repeat of the pattern, you can see exactly where one ends and the next begins.

If you want to redefine multiple pattern repeats into a single one, the boundary display will help you draw your selection box accurately.

Horizontal Ruler

Once this tool is activated, you can drag it anywhere in the work area to measure across your pattern.

Drag the ruler horizontally to move the point of origin (zero) to where you want it.

If you hover your mouse over the pale yellow rectangles at either end of the device, the cursor will change to a ruler, you can then click to toggle between measuring in stitches or in centimeters or inches, according to the setting in Options/Units of Measurement.

Alternatively, toggle the ruler on and off with Horizontal ruler button on the top Tool Bar.

Vertical Ruler

Once this tool is activated, you can drag it anywhere in the work area to measure the length of your pattern.

Drag the ruler vertically to move the point of origin (zero) to where you want it.

If you hover your mouse over the pale yellow rectangles at either end of the device, the cursor will change to a ruler, you can then click to toggle between measuring in rows or in centimeters or inches, according to the setting in Options/Units of Measurement.

Alternatively, toggle the ruler on and off with Horizontal ruler button on the top Tool Bar.

Yarn Symbols

This option displays symbols, letters or numbers assigned to yarns using the Palettes/Yarn Symbols option.

This function should not be confused with **Stitch Symbols***, so you will find that the* **KnitWriteDK™** *font which is specifically designed for stitch pattern charts and not yarns, has been removed from the list of available fonts*

You cannot display yarn symbols at the same time as either memo or stitch symbols.

Memo

This option displays memo numbers which have been assigned to yarns using the Palettes/Memo option.

You cannot display memo and yarn symbols, or memo and stitch symbols at the same time.

Pointer Position in Pattern

Opens a viewer which shows which buttons are allocated to which color or symbol in the current palette, as well as the precise position of the cursor in a single repeat of the pattern in stitches and rows.

Stitch position is shown from both the right and left edges of the repeat and the row position counting from row 1.

If Options/Floating Windows is selected, and Stitch Designer is not full-screen, you can move this viewer away from the pattern area.

Alternatively, toggle this viewer on and off with the Pointer in Pattern Position button on the top Tool Bar.

Pointer Position in Shape

Opens a viewer which shows you which piece of the current shape pattern is selected, and where in the shape the cursor is located. Use the Shapes menu or the Pattern Piece button to choose a piece to display on its own.

The cursor position can be shown either by stitches and rows or, depending on the units of measurements set in the Options menu, in centimeters or inches.

If a shape has not yet been loaded, clicking on this option will open the Shapes Thumbnail dialogue

If Options/Floating Windows is selected, and Stitch Designer is not full-screen, you can move this viewer away from the pattern area.

Selection Box Position

Opens a viewer which show the size and position of the selection box.

If no area of the pattern is currently selected, choosing this option will place the tagged box at the last known position, so you can move or resize it.

You can change to the untagged box, either by clicking on the button on the top tool bar, or by right-clicking on the pattern area and choosing Show the Untagged Selection Box from the menu.

If the selection box is currently the untagged one, selecting this option will change the box to the tagged one.

Yarn Numbers / Feeders

For machine knitting, this option displays the yarns in use throughout the pattern, and the feeders to which they are allocated, depending on the selected technique and whether a color changer has been configured.

Drawing directly onto the pattern area is disabled, as are any incompatible menu options or tools, while the Yarn Numbers/Feeders are displayed. However, the colors in the feeders may be changed either with the pencil for single rows or with the fill tool for an entire section. Select the color from the palette and then click in the relevant feeder at the place where you want the color to be changed. The dropper may also be used to identify a color in the palette.

Repeats

Selecting View/Repeats opens the Enter Number of Pattern Repeats dialogue box . Enter the number of horizontal and vertical repeats of the stitch pattern you want displayed on the screen. You can show where the edges of the repeats are if you also select View/Boundary.

Any alterations you make to the pattern will be reflected in all the other repeats at the same time, whichever one you choose to work with. This is particularly useful when you are working with an all-over pattern as you can see instantly the effect of your changes over a larger area.

As well as drawing on a single repeat, Cut and Paste functions will also be reflected in all the repeats.

To see the effects of alterations, enter a number of repeats which will display well on the screen - this will depend on the size of a single element, but you could try setting 3 x 3 or 5 x 5.

Entering an impossibly high number will produce the largest possible number of repeats onto which garment pieces can be arranged. This number of repeats may be impractical to work on may be better to estimate the number of repeats required for positioning the garment pieces. Where the repeats displayed are larger than the visible area of the screen, the initial screen redraw will always position the original repeat in view, at the top left of the pattern area and scroll bars will appear on the bottom and right of the screen. When garment pieces are displayed, they are initially positioned at the bottom left of the pattern repeats and it may be necessary to scroll to the area where they are visible.

 You can add or subtract repeats manually, one at a time, by clicking on the appropriate symbol on the Repeats button on the left tool bar.

 If you want to amalgamate two or more repeats into one unit, set up the number you want to include vertically and/or horizontally, either via the View/Repeats dialogue or using the tool bar button and then click on the Redefine button on the side tool bar. If you are joining whole repeats, there is no need to draw a box.

If you want to change the pattern element so that the boundary of a single repeat (i.e. the size in stitches and rows) is either smaller than the original or expands to include elements of surrounding repeats, draw a selection box around the desired area - using the tagged box if necessary for accuracy - and then select Edit Redefine or click on the Redefine button.

Info

This item is only available if a Shape file has been loaded. It displays a list of the pieces in the file along with the maximum number of stitches and rows required for each piece at the current tension.

Hints

This is useful if you are new to the program - when you pause the cursor over a button, DesignaKnit will show a caption explaining what it is for.

Zoom

Use the Zoom menu to determine the magnification level of your pattern. The resulting size of the stitches or grid cells will affect the area which is covered by the paintbrush and eraser tools.

Pixels Per Stitch

Select Zoom/Pixels Per Stitch to adjust the magnification level of the current view on a pixel per stitch-width ratio. The Zoom Level dialogue box opens and the current number of pixels per stitch indicated in the relevant check box.

• To increase the size of the image on the screen: select more pixels per stitch

• To reduce the size of the image on the screen: select fewer pixels per stitch

For example: when 13 pixels per stitch are chosen, at a tension of 30 stitches and 40 rows per 10 cm, the default 40 stitch by 40 row pattern fills a screen at 640 x 480 resolution . The same pattern at 7 pixels per stitch will occupy approximately one quarter of the pattern area, while at 26 pixels per stitch only one quarter of the stitch pattern will be visible. The same pattern at the same number of pixels per stitch will occupy less of the pattern area where the screen resolution is 800 x 600 or more.

More pixels make the stitches larger, fewer pixels make them smaller.

Selection Box

Automatically zooms into the area surrounded by the selection box.

 Alternatively, use the Zoom to Selection Box button on the top Tool Bar.

In

Zooms in by increasing the magnification of the stitch by 1 pixel.

 Alternatively, use the Zoom In button on the top Tool Bar.

Out

Zooms out by decreasing the magnification of the stitch by 1 pixel.

Alternatively, use the Zoom Out button on the top Tool Bar.

Maximum View

Zooms to show as much of the pattern as can be fitted into the work area. If you are currently viewing multiple repeats of the pattern, the zoom level will be set to show as many as can be fitted into the work area.

Alternatively, use the Maximum View button on the top Tool Bar.

Modify
Shuffle

You can shuffle the pattern, or the selected area vertically or horizontally (or both ways at once) by entering the number of stitches and rows by which you want to move it.

The Shuffle button on the Tool Bar can be used instead - click on the arrows to move the pattern or selection one stitch or one row at a time.

Turn

Use this option to rotate the pattern. Enter the number of degrees by which you want to rotate the pattern and click OK.

When a pattern is rotated though 90° or 270° , the length will become width and the width will become length. It is therefore, essential to make sure that there are sufficient stitches and rows to accommodate the new size.

To obtain a turned image where each stitch becomes a row and each row becomes a stitch, it is advisable first to set the tension so that the grid is square. Select Tensions from the Options Menu and make sure the number of stitches equals the number of rows for the tension sample. This will help prevent too much distortion during the rotating process. Don't forget to re-set the tensions to the correct ones for knitting after you have finished turning the pattern.

If you only want to rotate a part of the pattern, use the selection tool to draw a box around the area you want to rotate. Again, make sure there is enough room within the box to turn the pattern so that you do not accidentally lose part of the pattern.

Rescale

The Rescale option has two functions:

- To resize the stitch pattern to a smaller or larger area
- To insert one or more blank rows between the pattern rows, which may be used to chart pattern instructions for the ribber or second bed. To read more about how to create patterns for a double-bed machine, click here.

The current number of stitches and rows are shown in the Rescale dialogue on the left.

You then have the option of entering the factor by which you want to rescale your pattern, or of entering the number of stitches and or rows you want to be the final result.

If the Maintain Aspect Ratio box is ticked, this will constrain the result to be directly proportional to the current pattern size in both stitches and rows. Uncheck the option if you want to rescale the stitches and rows independently.

Thus if you want to make the pattern half as wide again, or 50% wider, you need to rescale the width by a factor of 1.5, and if the Maintain Aspect Ratio box is ticked, the number of rows will also be rescaled by the same amount.

Alternatively, if the current pattern is, say, 20 stitches wide and 30 rows high, you could enter 30 stitches and the program will automatically change the rows to 45. At this point, you might want to uncheck Maintain Aspect Ratio and nudge the rows up to 46, if your pattern depends on having an even number of rows.

If you are rescaling an area within a selection box, and the finished result will be bigger than the current box, the box will expand to accommodate the new pattern.

Flip

Flip Vertically

Flips the pattern, or the selected area, from top to bottom

Flip Horizontally

Flips the pattern, or the selected area, from side to side.

Variations

Offers the icons familiar to EC1 users to modify the pattern:

Reverses the needle selection

Flips the pattern Horizontally

Doubles the pattern length

Doubles the pattern width

Mirrors the pattern exactly

Mirrors the pattern and removes the central column of Stitches

Changes the Knitting Method to 2-Color Jacquard

Palettes
Yarn Color Setup

Opens the Yarn Color Setup dialogue, where you can use various tools to choose, modify and organize the colors you want in the Yarn Colors Palette for your stitch pattern.

You can also use the Yarn Color Setup to configure and save any number of palettes for future use.

Click here for a more detailed explanation of how to use the Yarn Color Setup.

Stitch Symbols Organizer

Opens the Stitch Symbols Organizer where you can select the symbols you need for the current palette from the KnitWriteDK font.

Advanced users can use this to customize knitting instructions allocated to the symbols.

Click here for a more detailed explanation of how to use this feature.

Cables Organizer

Find the cables you want for your pattern and place them in the Cables Palette, ready to use in your design.

You can choose from the 'DesignaKnit Collection or create your own custom cables.

Click here for a more detailed explanation of how to use this feature.

Export

Save the current palette as a palette file for future use.

Import

Add colors and/or stitch symbols to your palette either from a previously saved palette file or from a previously saved stitch pattern.

Yarn Symbols

You can assign symbols, letters or numbers to yarns so that you can print out a chart for a color pattern in black and white, using symbols to denote the color or type of yarn.

If you are designing a hand knit pattern in colors, you must assign symbols for the text instructions to specify which color is to be knitted at any time, whether this is for Fair Isle type patterns, Intarsia or stripes. It is recommended that capital letters (e.g.: B=Blue; Y=Yellow, M=Main etc) are used rather than graphic symbols to avoid any confusion with stitch instructions on charts or numbers which could be confused with the number of stitches to be worked. It's also a good idea to avoid letters which are already used in the text, such as K or P.

You must select the View/Yarn Symbols option to see them displayed in the palette and the work area.

This function should not be confused with Stitch Symbols*, so the KnitWriteDK™ font which is specifically designed for stitch pattern charts and not yarns, has been removed from the list of available fonts for yarn symbols.*

Memo

You can assign memo numbers 1 to 9 to yarn colors which are configured as selecting colors.

Brother electronic machines and the Silver Reed PE1 pattern controller can display these numbers while knitting to indicate which color should be in use on any particular row.

Names

This dialogue shows all the yarn colors in the current palette. You can add text up to a maximum of 15 characters (including spaces) to help identify the yarns. The information entered here will be saved with the stitch pattern.

Vary at Random

Open the Vary at Random dialogue which you can use to rearrange the existing colors in your pattern or inspire you with suggestions for new color combinations

Reset Palette

If you have resized the palette, click here to return it to its default view including all current colors and stitch symbols.

Combine

Use this command to combine

- a symbol with a color
- a color with a symbol

To do this, either over the whole pattern, or within a selection box:

1. Select the color with the left mouse button
2. Select the symbol with the left mouse button
3. If you want to add the color to the symbol, make sure that the color is the dominant selection
4. If you want to add the symbol to the color, make sure that the symbol is the dominant selection
5. Select **Combine** from the **Palettes menu**

T I P

Use the button on the Palette tool bar to do this quickly.

Replace

Use this command to *replace*:

- one yarn color with another
- one stitch symbol with another
- a yarn color with a stitch symbol
- a stitch symbol with a yarn color

either in the entire pattern or within a selection box.

To do this:

1. Select the yarn color or symbol you want to replace by clicking on it in the palette with the **Right Mouse Button**

2. Select the yarn color or symbol you want to replace it with by clicking on it in the palette with the **Left Mouse Button**

3. Select **Replace** from the **Palettes menu.**

T I P

Use the button on the Palette tool bar to do this quickly.

Exchange

Use this command to *exchange*

- The current Left Mouse Button yarn color with the current Right Mouse Button yarn color

- The current LMB yarn color with the current RMB symbol

- The current LMB symbol with the current RMB symbol

- The current LMB symbol with the current RMB yarn color

To do this, make sure that the items you want to change places have been selected in the palette with the Right and Left Mouse buttons.

T I P

Use the button on the Palette tool bar to do this quickly.

Convert Yarn Colors

This command converts the yarn color assigned to the Left Mouse Button to the stitch symbol which has the Left Mouse Button assigned, in the whole pattern or within the selection box.

Select the both elements in the palette with the Left Mouse Button, then select **Palettes/Convert Yarn Colors**.

Convert Stitch Symbols

This command converts the stitch symbol assigned to the Left Mouse Button to the yarn color which has the Left Mouse Button assigned, in the whole pattern or within the selection box.

Select the both elements in the palette with the Left Mouse Button, then select **Palettes/Convert Stitch Symbols**.

Check

Opens the **Check Dialogue** to check the pattern for inconsistencies and errors which could cause conflicts with the intended knitting method.

The Check Dialogue displays status information regarding the overall number of colors, stitch types and, if appropriate, cables used in the current pattern.

Machine Knitting

- **Row Colors**:For Fair Isle and Jacquard patterns, check the number of colors in a row by setting the maximum number on the right of the dialogue.Click OK.All rows which have more than the set number of colors will be marked by a line across the row. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Float Length**: for Fair Isle patterns, check the length of floats by setting the maximum number of stitches you want to allow for floats. Click OK. Any which exceed this setting will be marked with a horizontal line. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Jacquard**: for machine Jacquard patterns of more than 2 colors per row, this function checks for pattern errors, which are marked on each pair of rows by a vertical line. You then have the choice of amending the pattern manually or allowing DesignaKnit to make the necessary changes automatically. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

Once you have clicked on OK for any of these options, DesignaKnit will remain in Check mode until you switch it off by reopening the Check dialogue and selecting **None**, then **OK**.

- **Check once for color changes etc**: Click on this button for DesignaKnit to scan the pattern for errors:

    o   For machine patterns, DesignaKnit will check for awkward color changes

    o   For machine tuck stitch patterns, DesignaKnit will check for tuck symbols on adjacent stitches. This is not a problem if the pattern is for double-bed knitting at half pitch, but is not workable for single bed machines.

    If the check you are making is not appropriate for the currently configured knitting method, DesignaKnit will show a warning or open the Knitting Method dialogue to give you the opportunity to change the knitting method. If you don't want to do this, cancel this dialogue.

Hand Knitting

- **Row Colors**:Check the number of colors in a row by setting the maximum number on the right of the dialogue.Click OK.All rows which have more than the set number of colors will be marked by a line across the row. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

- **Float Length**: for patterns such as traditional Fair Isle, where the yarn not being knitted is carried across the back, check the length of floats by setting the maximum number of stitches you want to allow for floats. Click OK. Any which exceed this setting will be marked with a horizontal line. To remove the markers, reopen the Check dialogue, select **None**, then **OK**.

Once you have clicked on OK for any of these options, DesignaKnit will remain in Check mode until you switch it off by reopening the Check dialogue and selecting **None**, then **OK**.

- **Check the pattern for errors**: Click on this button for DesignaKnit scan the pattern for errors, such as:

  o   If Turn Smart Symbols and/or arrows are incorrectly placed for short row knitting, DesignaKnit will warn you so that you can edit the pattern. You will not be able to proceed to print out charts or instructions or to Interactive Knitting if these errors are not corrected because the instructions would not make sense.

  o   DesignaKnit will warn you if you have used Smart Symbol Brackets and they are not paired. If you intended to use them in this way, then you can close the warning and proceed. If, on the other hand, your intention was to use them in pairs to denote multi-stitch tasks, then you should go back and alter the pattern accordingly. The brackets do not, by default, have an instruction, so if you have used them without adding an abbreviation and instruction, this may be the cause of the problem.

  o   DesignaKnit will warn you if you have used any other symbols which do not have an abbreviation or instruction. If this was not your intention, then you can go to the Text Editor to put this right.

  If the check you are making is not appropriate for the currently configured knitting method, DesignaKnit will show a warning or open the Knitting Method dialogue to give you the opportunity to change the knitting method. If you don't want to do this, cancel this dialogue.

Shapes

This menu gives you access to all the options for integrating or laying out shapes on the stitch pattern. If you select any of these commands and you haven't already opened a shape file, the Shapes Thumbnails dialogue will open first.

Thumbnails

Open a Shape file using the Thumbnails dialogue.

Select the shape file you want from the thumbnails, or use the **Search** button to help find the one you want.

The tension for the stitch pattern and shape must match, so if the tension settings saved with the shape file do not match the current settings for the stitch pattern, a dialogue will offer you the following choices:

- Use the shape file tension [1]
- Use the current Stitch Designer tension[2]
- Use the default tension[3]
- Set new tension[4]

Tick the **Show Details** option to see all the relevant information so you can make an informed choice.

Alternatively, click on the **Open Shape File** command to use the standard Windows File/Open dialogue.

Open Shape File

Open a shape file using the standard Windows File/Open dialogue.

Alternatively, select the **Thumbnails** command to access DesignaKnit's Shape File Thumbnails dialogue.

Save Shape

Adds any information regarding positioning of pieces of the currently open stitch pattern to the shape file. This will overwrite any previous information, so if you want to keep a copy, you should use the **Save Shape As** command to save the current file with a new name.

Save Shape As

Use this command to save the shape with a new file name. This is useful if you have used the same shape with different stitch patterns and wish to keep a record of positioning of pieces on each one.

Delete

Use this command to clear out any unwanted shape files using the Thumbnails Browser. When you select a shape file it is marked for deletion with a large red cross. You can make multiple selections and if you change your mind about any or all, just click again on the thumbnail to remove the cross. Click the Delete button to finish the operation.

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[1]- this changes the current stitch pattern tension to match the tension saved with the shape.

[2] - this changes the shape tension to match the current stitch pattern tension. If you want to keep this setting, you will have to save the changes to your shape file.

[3] - applies the default tension to both shape and stitch pattern. If you want to keep this setting, you will have to save the changes to your shape file.

[4] - this option opens the tension dialogue so you can enter the new tension values.

Close Shape File

This closes the shape file: if you were to return to Standard Garment Styling or Original Pattern Drafting, the shape would no longer be open and clicking on any of the Shape menu items in Stitch Designer, or the tool bar buttons would prompt you to open a new Shape file.

Print Shapes

Opens the Print Shapes dialogue. If changes have been made to the position of the pieces, you will be offered the Save Shape As dialogue first , in case you want to save it with a new filename.

Select the piece(s) you want to print, and then the type of printout(s) you require. If you want to include the stitch pattern in your print using the **Garment Picture**, **Garment Symbols or Integrated Changes** formats and they are not available, this is because you must first use the Integrate command to associate the pattern pieces with the stitch pattern.

View Piece(s)

Select the piece or pieces you want to view from the list of all those in the current shape file.

If you want more than one piece, hold down the Ctrl key to select individual items from the list, or hold down the Shift key to select a range.

Alternatively, click on the View Piece button on the top Tool Bar.

View All

View all the shape file pieces. DesignaKnit will automatically display sufficient pattern repeats to accommodate all the pieces.

Alternatively, click on the 'View All Pieces button on the top Tool Bar.

Integrate

Use this dialogue to associate the shape pieces with stitch patterns.

The purpose of integrating shapes with stitch patterns is to ensure that the stitch pattern is correctly placed on each piece of the shape.

The Integrate information will be stored with the shape file, as will the position of the piece(s) on the pattern.

Integrating a pattern for machine knitting: if you download an unintegrated stitch pattern, DesignaKnit arranges it so that the pattern, as drawn, is centered on the needle bed. By integrating the pattern with the individual pieces of the shape file, and then downloading either to the machine's memory or directly in real time to a Silver Reed/Studio or Creative machine, the piece is centered on the needle bed, and the pattern is downloaded so that it is in the correct place.

After creating or opening a stitch pattern, the first step to integration is, having created the shape file, to bring it into Stitch Designer and reconcile the tensions of the shape and stitch pattern.
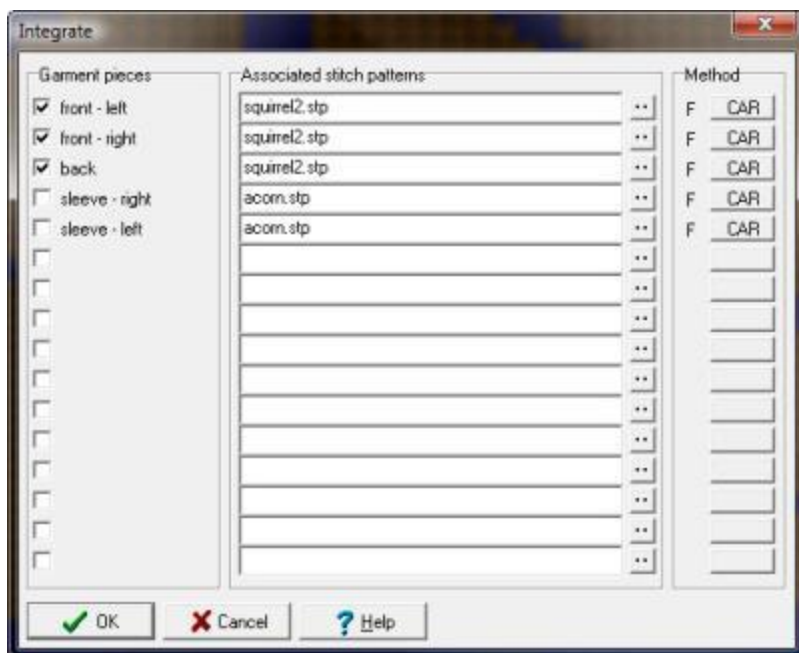
Associate a piece with the current stitch pattern: Tick the pieces you want to associate with the open stitch pattern

 Associate a piece with another stitch pattern: Click the button to the immediately to right of the pattern file name field. The stitch pattern Thumbnails browser will open so you can find another pattern to associate with this piece.

 Note that this will not open the pattern in Stitch Designer - if you want to open it, you will have to return to the main window and open the stitch pattern in the normal way. You will be prompted to save the shape file with any changes, and to save the stitch pattern. If you want to save either of these as new files, cancel these prompts and use Shapes/Save Shape As for the shape file and File/Save As for the stitch pattern.

Set the Carriage/Lock starting position: The default starting position for machine knitting is Carriage at Right (CAR), but you can change this to Carriage at Left (CAL) by clicking on the Carriage position button for each piece.

If the Color Changer is switched on, that will determine the starting position.

Cut and Sew

Cut and Sew is used to mark a permanent shape outline onto a stitch pattern by outlining or by filling the area outside the shape with plain or birds eye fabric, giving a clear outline of where to cut and sew the piece.

Use Cut and Sew after integrating a single shape piece onto the stitch pattern and then **save the resulting Cut and Sew stitch pattern with a new name.**

Cut and Sew shapes are normally downloaded and knitted as Color Pattern Only designs, since the shape has been marked into the stitch pattern and saved as such. However, it is possible that you may wish to Integrate the shape with its Cut and Sew pattern to allow shaping at edges while using the Cut and Sew feature just for the neckline or interior seams.

AutoChart

This is a quick way of producing a symbols chart for a shape by redefining the pattern or pattern repeats to fit the shape piece but without having to integrate the shape file.

If you haven't already done so, open a shape file and select the piece you want to chart. Move the piece to the desired place on the current stitch pattern and click on **Shapes/AutoChart**. DesignaKnit will then surround the outline of the piece with 'no stitch' symbols and at the same time redefine the stitch pattern so that the single repeat begins at the first row of the shape piece, and then encloses it with a border of two stitches at the widest and highest points of the pattern. Notice that the title bar will have changed so that this is now an untitled stitch pattern, so you will need to save it: choose a different name to the original so that you don't overwrite this.

Transfer

The Transfer Menu contains all the necessary functions for transferring information, via the appropriate Cable Link, to or from your knitting machine.

Upload

Select **Transfer/Upload** to transfer stitch patterns from a Brother electronic knitting machine, Brother Pattern Programming Device (PPD), or Silver Reed PE1 Design Controller, into the computer.

Extract

This command enables you to extract any or all of the patterns from an uploaded batch and save them as DesignaKnit stitch patterns.

Download

This command is for downloading patterns to Brother electronic machines and PPD, the Silver Reed PE1 and PC10 pattern devices and the Pfaff or Passap E6000 and E8000 consoles.

Integrated Download

The Integrated Download option downloads a version of the stitch pattern for each piece of a shape file. The pattern is automatically shuffled to the left or right so that the piece is centered on the needle bed, and shuffled up or down so that the knitting starts on the correct row for the start of the piece.

Restore

The Restore option is used when you want to restore a previously uploaded batch of uploaded patterns to a Brother machine or PPD.

Options
Method of Knitting

This is where you set up the method of knitting and all the options related to that choice. Once you have configured the settings for your pattern, DesignaKnit will make sure that any messages, warnings or options available are appropriate for the chosen method.

The configuration for each stitch pattern is embedded in that pattern, so if you often use the same pattern in different ways - for instance, as a machine knit Fair Isle, a 2-color jacquard for a different knitting machine, at a different tension and a hand knit version, you might like to

consider saving three versions of the pattern rather than change the settings each time you use the pattern.

This dialogue also gives you access to the knitting machine setup.

Units of Measurement

Select the units of measurement you want to work with: centimeters or inches and, if the latter, choose between showing your tension per inch or per 4 inches.

Note that unless the option you choose is changed, it will be consistent throughout all sections of the program, and if you make changes via Options/Units of Measurement in any other section, this will change the settings in all sections of DesignaKnit.
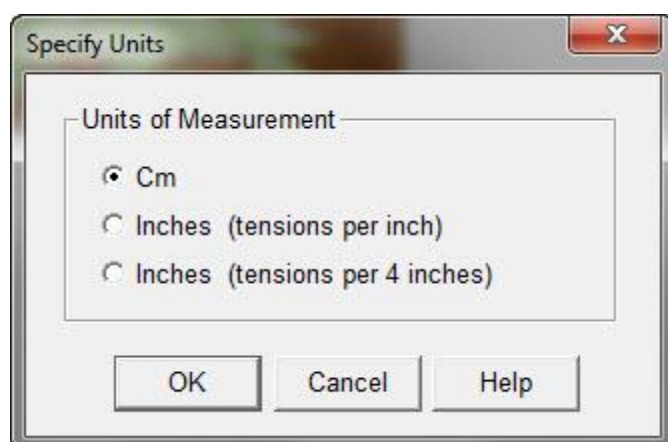
In most dialogues which require measurements to be entered, both they are displayed to one decimal place, so that if two figures are entered, DesignaKnit will round value up or down to the nearest single place, so that e.g. 15.25 will become 15.3, and 15.24 will become 15.2. The exception to this is in the Tensions dialogues, where values are accepted to two decimal places, allowing for more precise calculations.

Tensions

Opens the Tensions dialogue.

The Tensions dialogue displays in two versions, the simple form and the a larger one where you can enter information on machine settings, needle size or other notes. If you do not have a shape file open, the simpler version of this dialogue will open.

When you have measured your swatch, you can enter the exact tensions, either as stitches and rows per 10 cm, 1 inch or 4 inches or the measurement in centimeters or inches of 40 stitches and 60 rows.

A new session of Stitch Designer will open at the default tension. You can use the Tensions dialogue to set your own default. If you start a new file, after you have configured the other options, you will be directed to the Tensions dialogue.

Tension settings are not saved with the stitch pattern files. This is so that the patterns are adaptable to different yarns, methods, machines and needles. Once you have a swatch, you can enter the precise information.

Grid Division Size

Use this dialogue to set the size of the grid division area. Each division will represent an equal number of stitches and rows. The minimum value is 2 - i.e. 2 stitches x 2 rows, and the default is 10 x 10. Use the grid divisions as a handy charting aid for judging pattern size, especially when zoomed out.

Left-handed Pencil

This option offers a more natural drawing position for left-handers: the cursor is angled so that you can draw with the pencil to the left of the stitch.

Floating Windows for Palette etc.

If this option is checked on, if DesignaKnit is not full screen, or if you are working with multiple monitors, the palette and mouse position windows can be moved outwith the main DesignaKnit window so they don't obscure the work area.

If this option is not checked, these windows will be confined within the main DesignaKnit window, however it is sized.

Color Scheme

Here, you can control the appearance of DesignaKnit and make sure that the various aids to drawing and remain visible by contrasting well with the current pattern. You can control whether they display from the View menu. The following elements can be customized:

- Screen Background
- Palette Background
- Pattern Boundary
- Grid
- Grid Divisions
- Selection Box
- Pattern Check Marks
- Current Pattern Piece
- Other Pattern Pieces

Clicking on any of these will open the Color Adjustment dialogue.

Keyboard Shortcuts

There are a number of keyboard shortcuts which you can use in Stitch Designer, some of which are the default Windows shortcuts, and others are specific to Stitch Designer:

F5	Shortcut to Standard Garment Styling
F6	Shortcut to Original Pattern Drafting
F8	Shortcut to Interactive Knitting
F9	Shortcut to DesignaKnit Graphics Studio
Ctrl+N	Opens New Pattern Setup
Ctrl+D	Starts new pattern with the default size, method and palette settings
Ctrl+R	Starts new pattern with the current size, method and palette settings
Ctrl+T	Opens Stitch Designer Thumbnails browser
Ctrl+O	Windows file opening dialogue
Ctrl+S	Save current pattern (or Save As if hasn't yet a file name)
Ctrl+P	Opens Print format dialogue to start the printing process
Ctrl+Z	Undo
Ctrl+Y	Redo
Ctrl+A	Select All
Ctrl+X	Cut
Ctrl+C	Copy
Ctrl+V	Paste
Ctrl+E	Swaps needle selection for yarn colors in the palette
Ctrl+Shift	Toggles Color Drawing Mode and Symbols Drawing Mode
Ctrl+Left Click	Picks up the color or symbol under the cursor to match the left mouse button (Use Ctrl+Shift to change mode)
Ctrl+Right Click	Picks up the color or symbol under the cursor to match the right mouse button (Use Ctrl+Shift to change mode)

Start A New Stitch Pattern File

When you first enter Stitch Designer, the session will start with the default blank pattern on the screen.

To begin again with a new pattern you can do one of the following:

New Pattern with New Settings

To start a new stitch pattern with new settings, select **File/New** (or use the keyboard shortcut **Ctrl+N**) to set the options for the new pattern.
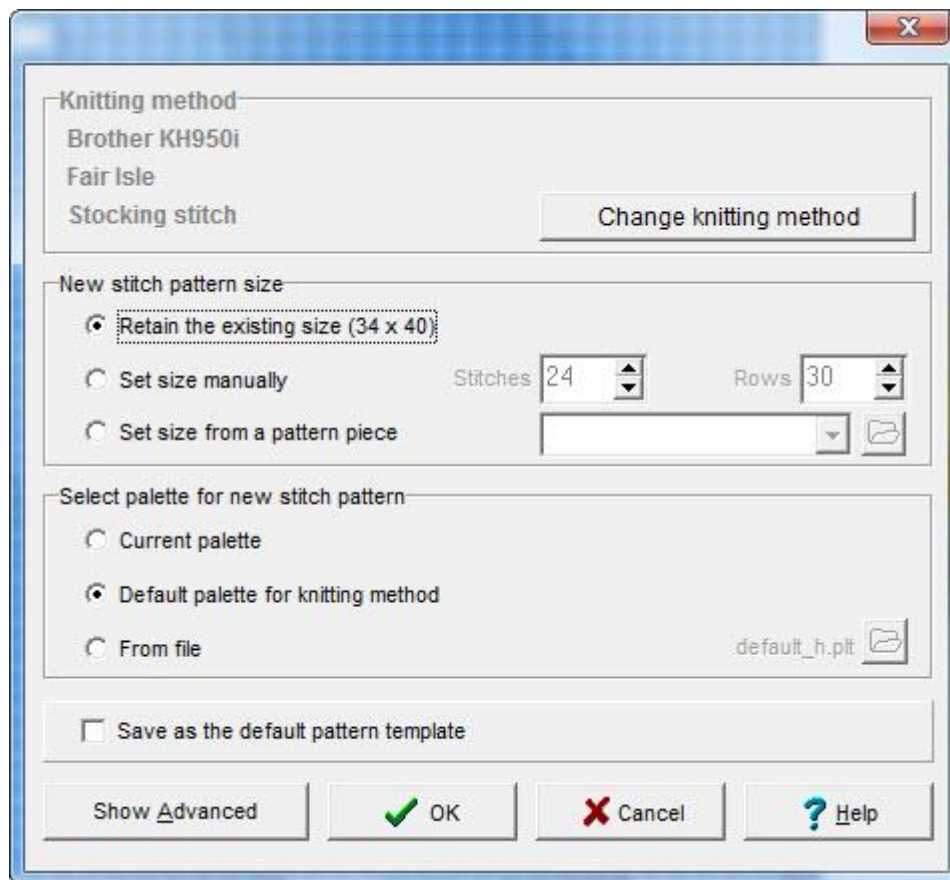
Knitting Method

DesignaKnit needs to know the intended method for this pattern so that any warning messages are tailored to the method. You can change the method at any time in the future, by selecting Options/Knitting Method from the menu bar.

The current settings are shown - if they are incorrect, then click on the **Change Knitting Method** button.

Machine Knitting

If the current method is already set to one of the machine knit options, this dialogue will open and you can select your machine from the first drop-down list and the appropriate machine knit method from the one below.
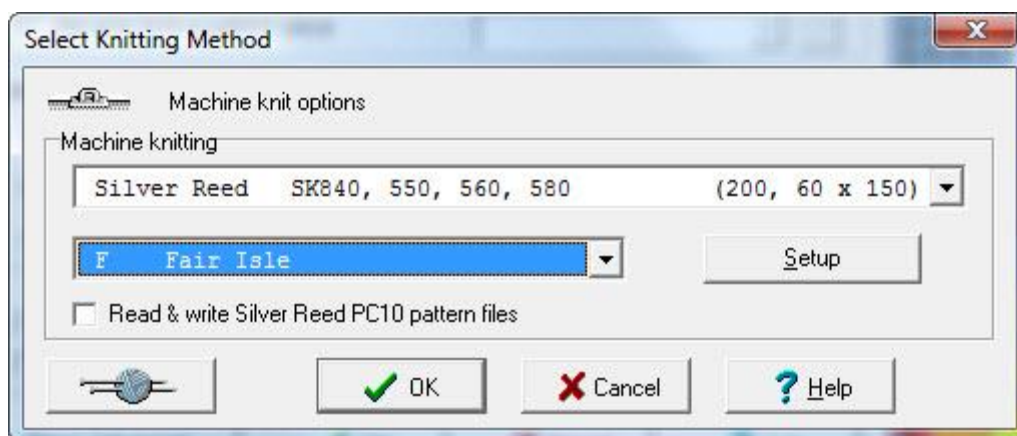
If the current method is Hand Knitting, then click on the Machine button at the bottom left to see the machine knitting options.

Hand Knitting

If the current method is already Hand Knitting, this dialogue will open and you can configure the options for hand knitting method and background type.

If the current method is Machine Knitting, click on the Hand Knitting button at the bottom left of the options dialogue to see the hand knitting options.

New Stitch Pattern Size

Select one of the options:

Retain the existing size

o To retain the current pattern size, select this option.

o The dimensions of the current pattern are shown in brackets, stitches first, then rows.

Set size manually

o Enter the number of stitches and row you want in your pattern or single pattern repeat (DesignaKnit will remember the last values you entered, in case you want to use them again)

Set size from pattern piece

o If you want to start with a another shape file, or if you have not yet opened one, as soon as you select this option the shapes thumbnails dialogue will open.

o If you already have a shape file open, the pieces will be listed on the drop-down menu to the right of the option.If you want to open a *different* shape file from the one already open, click on the file open button to the right.

Select Palette for New Stitch Pattern

If you want to start off with a particular selection of yarn colors or stitch symbols, choose one of the following options. You can always edit the palette once you've started designing.

Current palette
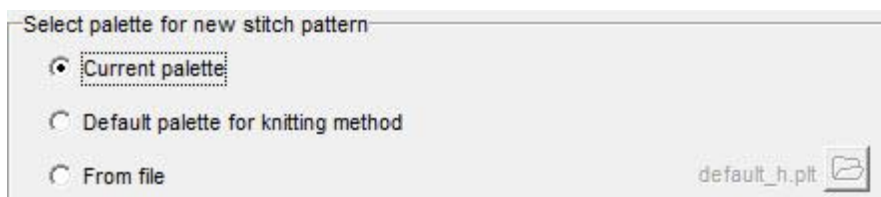
o If you have been working already in Stitch Designer and you want to keep the current selection of yarn colors and/or stitch symbols, choose this option

Default palette for knitting method
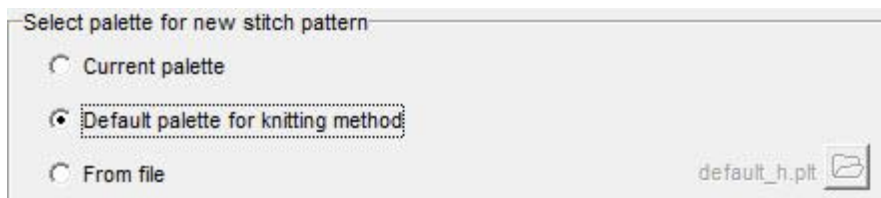
o   Choose this option to load the default palette for the knitting method you have chosen. The yarn colors in the supplied defaults are the same as the default stitch template, but the symbols which are included in the palette are appropriate to the chosen method.

From file
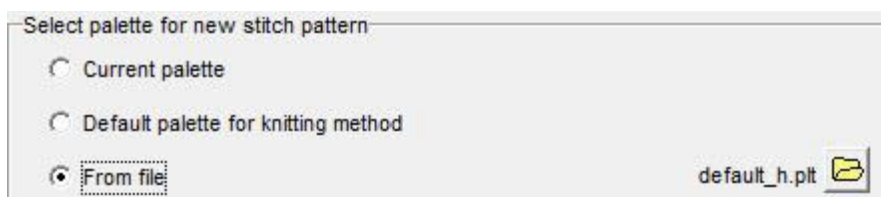
o   Clicking on this option opens the Palettes thumbnails dialogue. You can either select a previously saved palette (.plt) file or you can change the file type to .stp and load the palette associated with a saved stitch pattern. The pattern itself will not be opened, but the yarn colors and any stitch symbols will form the palette for your new file.

Advanced Options

 To specify a particular set of symbol definitions for your palette, click on the **Show Advanced button**. Unless you have changed the definitions for the current pattern and want to use them for the new file, or have saved an alternative set which you want to load, there is no need to use this part of the new file set up as the default definitions/instructions will be used.

Current settings

o   Continue with the current settings, including any alterations you have made to the stitch symbol definitions.

From stitch pattern file
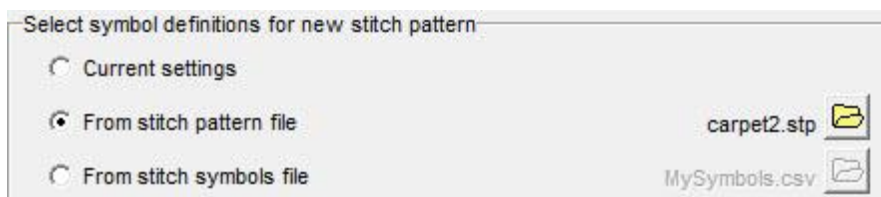
o   If you changed any of the symbol definitions for a previous pattern, the alterations will have been saved with that pattern, and you can reload them for the palette you have chosen.

When you select this option, the file icon on the right will activate: clicking on it will open the stitch pattern thumbnails dialogue.

From stitch symbols file
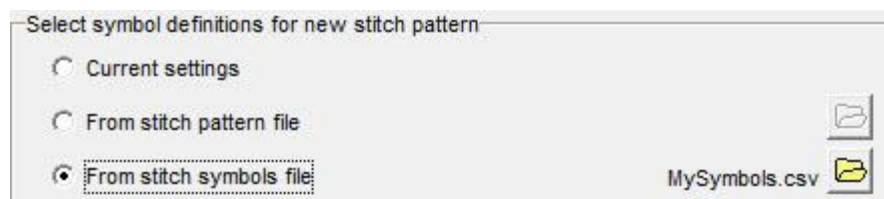
If you have saved a file of new definitions, you can load it by clicking on the file button on the right.

 Click on this button to hide these options.

Save As Default Pattern Template

The **Default Pattern Template** is the empty pattern which opens when you first go into Stitch Designer in a new session.

The template determines:

- The number of stitches and rows in the pattern
- The colors and symbols in the palette and the definitions of the symbols
- The knitting method

You can set up your own default template from the options you have chosen above so that this is:

- what is on the screen when you first open Stitch Designer in a new session
- the template for a new pattern when you select **File/New from Default**
- use the keyboard shortcut **Ctrl+D** to start a new stitch pattern

New Pattern with Default Settings

To start a new pattern using the default settings, select **File/New from Default** or use the keyboard shortcut **Ctrl+D**.

You can configure your own defaults using the New File dialogue to enter the settings and save them as the default template. DesignaKnit will use this template when you enter Stitch Designer for the first time in a new session.

New Pattern with Current settings

To start a new pattern using the current settings, select **File/New from Current** or use the keyboard shortcut **Ctrl+R**.

This is similar to using the Edit Clear/Yarn Colors and Edit/Clear Stitch Symbols commands, but instead of editing the existing pattern, you will have a new, untitled pattern file and you will be invited to save the current one before proceeding.

You will be able to continue with the same size, tension, palette and method.

When you have selected the options you require for your new pattern, click on OK. The next dialogue will ask you to confirm or enter tension information so that DesignaKnit can offer you a stitch proportioned design grid.

Stitch Designer Tensions

DesignaKnit needs to know the tension at which you will be working so that a stitch grid can be created in order to create a proportional representation of your design on the screen, in printed charts, and to generate accurate knitting instructions. The tension, or gauge, is the number of stitches and rows to a given measurement (10 cm or 4 inches), or the dimensions of a set number of a set number of stitches and rows (40 stitches x 60 rows).

Ideally, therefore, you should test the pattern and measure it carefully. Then, when you have the measurements, these can be entered into the tensions dialogue. However, this is a bit of a chicken-and-egg situation in that you cannot knit the pattern in order to measure it until it has been designed, so you may have to start off with an estimate of what the final values are likely to be and this can then be corrected when you have been able to knit a sample swatch: a stocking stitch sample will give you an idea of what the finished tension should be.

DesignaKnit deals with tensions differently according to whether you are working with a stitch pattern only or a stitch pattern associated with a shape file. The way in which tension options are offered will depend whether:

- You already have a shape file open

- You open a shape file during your session in DesignaKnit

- You do not have a shape file open at all

The tension set for a shape file is saved with that file and when that file is reopened in Standard Garment Styling, Original Pattern Drafting, or in Interactive Knitting, it will open at the saved tension setting.However, if you have determined a tension for the stitch pattern which is not the same as the one for the saved shape, the shape can be changed to match the stitch pattern, or the stitch pattern to the shape, or both can be changed to match at a new set of tension figures, or the default ones.
The tension set for a stitch pattern file is *not* saved with the file, but can be recorded in the pattern notes for future reference.As the tension will vary according to the yarn you will be using and, if the pattern is to be integrated with a shape file, the tension gauge will be the values associated with the shape which will take precedence. Thus the tension values you set for the stitch pattern are not saved with that pattern, and the pattern can then be adapted to work with any gauge you choose.

Starting a new Stitch Designer pattern

If you are starting from scratch, with no shape file open, after you have selected the options you want in the New File dialogue and clicked **OK**, the next dialogue asks you to enter the tension gauge for the pattern. If you have used the same yarn in a similar pattern, you may already know this, but if not, at this stage you will have to make an educated guess. Most yarns give a guide tension for plain stocking stitch produced on a given needle size or machine tension setting. This is a reasonable starting point and after you have designed the pattern and knitted a swatch, you can then enter exact figures by choosing Options/Tensions. The current tension setting is shown on the title bar of the window in the format Tensions: Stitches x Pattern Rows (e.g. T:32 x 42) or, if you have a Pfaff or Passap machine configured, Tensions: Stitches x Lock Passes (e.g. T:32 x 160).
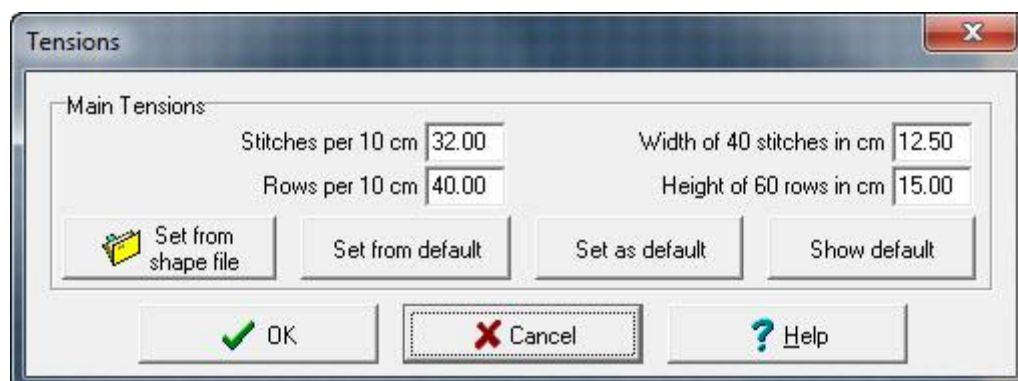
To set or change the tension for a stitch pattern

This dialogue box is opened immediately after closing the New Pattern set up box.

If you want to access it later on in the design process, go to **Options/Tensions**

You now have the following options:

Enter the tension values directly

If you have a sample swatch, or if you are estimating the tension, you can choose to enter either the number of stitches or rows or the measurement of 20 stitches and 60 rows - whichever one you choose, DesignaKnit will automatically update the other set so that they agree.

Pfaff/Passap Tensions

If you have a Pfaff or Passap machine configured, the measurement requirements are consistent with the operation of these machines:
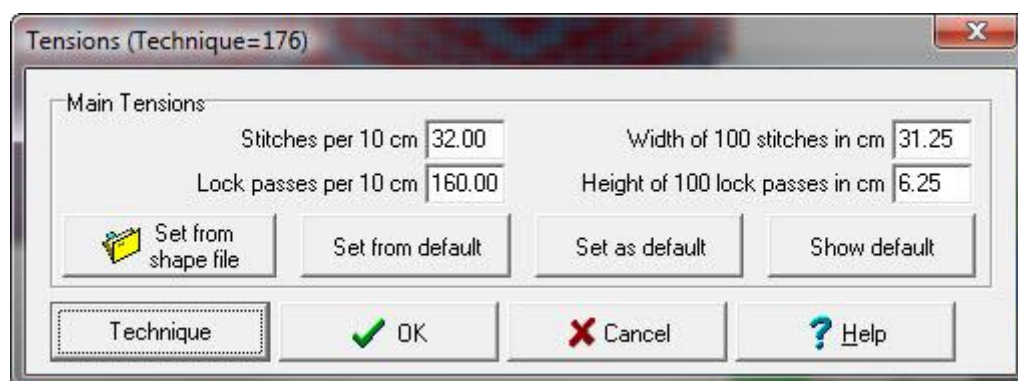
Enter the tension values directly

Pfaff and Passap machines' tensions are measured either horizontally in stitches and vertically in lock passes per 10 cm / 4 inches or the measurement of 100 stitches and 100 lock passes.

Set the Technique

 Click on the Technique button to enter the technique number you will be using. The technique determines how many lock passes are required to achieve a pattern row. If you are in doubt, refer to your machine's manual.

E6000 Tension Swatches and Pattern Distortion

Compensating for pattern distortion according to technique

Passes of the locks are not usually the same as rows of stitch pattern (which are grid rows on the screen). The E6000 (and Duomatic) machines generally knit two complete rows for every row drawn on the reader/punch card or downloaded via the computer. For example, a color pattern of ten rows designed on screen will usually be twenty rows when knitted. There are of course exceptions to this rule when choosing a technique that does not double the rows: for example, techniques 129, 135, 172, 179, 252, 253, 254, and 255.

When knitting a swatch for calculating the tension gauge, there is a further complication: there may be additional lock passes required to knit each row or pair of rows, according to the technique. In order to avoid confusion and to ensure that your gauge is correct for both stitch pattern and garment shape designing, it is recommended that you adhere to one of the following methods of calculating and entering the stitch and row tension.

There is a chicken and egg situation here: until you have designed your stitch pattern, knit a test swatch, and measured the tensions, you do not know the exact tensions to enter into DesignaKnit. However, it is best to start with a grid on the screen which has approximately the correct dimensions for your stitch pattern and technique before you start designing, otherwise your color pattern could be elongated or compressed.

Estimating tensions

If you don't mind a little distortion, and you are using a common combination of yarn and technique, you can enter an approximate tension as in **method 1**, but for exact proportion grids follow **method 2**.

Method 1: for Bird's-eye Jacquard

- For 2 color Jacquard using technique 180 and 3 ply yarn, enter 28 stitches and 23 rows to 10 cm.

- For 3 color Jacquard using technique 195 and 2 ply yarn, enter 32 stitches and 23 rows to 10 cm.

- For 4 color Jacquard using technique 207 and 2 ply yarn, enter 32 stitches and 18 rows to 10 cm.

Method 2: for any technique and yarn

1. Choose a pattern, or roughly design one, which is similar in construction to the one you wish to design and which uses the same knitting technique - this is important! Knit a 40 stitch by 60 row TEST swatch which should start and end with 20 rows in waste knitting (the 60 rows are 60 lock passes, not 60 complete rows of pattern). E6000 knitters should program the console until TEST appears, and then ENT, to knit the swatch following instructions on the console. You should program a cast on method suitable for the knitting technique, for example cast on 6 is suitable for single bed knitting and cast on 2 for full needle rib (Jacquard) knitting.

2. Let the swatch rest, as is usual for a tension swatch, and then measure it with a centimeter rule. Make a note of the exact measurements (3.8 cm must NOT be rounded to 4 cm!).

3. In the Options menu of Stitch Designer, select Units of Measurement and set them to centimeters.

4. To calculate the number of stitches in 10 cm, divide 400 by the measurement of the 40 stitches:

- Stitches per 10 cm = 400 / measurement

The number of rows must be adjusted according to the technique of knitting and so is a little more complicated:

To determine the number of passes per grid row if you are unsure, you can open any stitch pattern with the same method of knitting in Interactive Knitting. Select E6000 Technique from the Options menu, enter the technique number and a dialogue box will open listing the number of passes per row and the color sequence.

5.   Multiply the measurement of the 60 pass swatch by the number of lock passes per grid row, and divide 600 by the result:

- Pattern rows per 10 cm = 600 / (measurement x passes-per-row)

The number of stitches and rows per 10 cm, obtained by the above calculations, are the numbers to be entered in the Tensions dialogue box of either Stitch Designer, Standard Garment Styling or Original Pattern Drafting.

By following this method you will be designing in the correct proportions and will not be disappointed with your knitted garments.

Final Tension Swatch

Once you have designed your stitch pattern using the roughly correct tensions, it will be necessary to knit another swatch in this pattern to determine the exact tension to be used for calculating the garment pattern. At this stage it is recommended that you use at least 100 lock passes for the swatch to ensure that a more accurate measurement is taken. As before:

- Pat rows per 10 cm = (10 x passes knitted) / (measurement x passes-per-row)

Simple swatch measuring method

This is a very simple and accurate method of knitting and measuring a tension swatch but one which requires many lock passes for multicolored knitting:

- Cast on 80 stitches and halve the width measurement on completion of the swatch.

- Multiply 60 by the number of passes per row and knit the resulting number of lock passes. For example 4 passes per row would require 240 lock passes.

- Measure the length and that is the exact measurement of the 60 pattern rows as shown on the computer.

Recall the tensions from a previously saved shape file.

Note that this does not open the shape file, just applies the tension to the current stitch pattern

To do this, click on the button **Set from shape file**.
The next dialogue offers you the last 5 shape files you have opened, whether in Stitch Designer, one or other of the pattern drafting sections or in Interactive Knitting. If you recognize the one you want, select it and click on OK, or double click on the file name. .

If the file you want is not listed - or if you need to be reminded what the tension settings were for any of your shape files, click on the Browse Shape Files button. This opens the Shape Thumbnails browser. Make sure that Details is ticked, and the file information will display the tension for each shape file in this format T: Stitches x Rows per 10 cm (or, if you're working in imperial measurements, per 4 inches)

Scroll through the shape files and click on the one you want - if you know the name, you can enter it into the File Name Field and the browser will jump to that location - just typing in the first letter will jump to the first patterns starting with that letter.

If you have a large number of files, you can use the Search and Sort options to find the one you want.

Set from default

Choose this option to apply the default tension setting. If you do not have a shape loaded in memory (if you're not sure, look at the title bar - if a shape is open, its file name and tensions are shown to the right of the stitch pattern name), then the default tension is the one that is applied to stitch patterns at the start of a session. If you can't remember what the default tensions are, click on **Show default**, and if you want to change them, edit the fields in the main dialogue and then click on **Set as default**

Set as default

If you want to change the tensions in the main dialogue to the default settings, you can do this by clicking on the **Set as default** button: the old values will now be replaced. You can reconfigure the default values as often as you like. If you can't remember what the default tensions are, click on **Show default**.

Show default

If you want to check exactly what the default values are, click on this button. You can't edit the defaults in this dialogue, so if you want to change the tensions, return to the main dialogue, edit the fields as required and then click on Set as default.

That said, it must be appreciated that DesignaKnit assumes an overall average tension within the same stitch pattern or shape but, as any knitter knows, different elements of the pattern can produce varying tensions within those elements which can affect the overall length or width of the finished item, so you will have to use your judgement as to whether to alter the stitch pattern to fit a given measurement or adjust the finished measurements to accommodate the stitch pattern. DesignaKnit allows you to do either or both. If you need to change the shape you can do this using Exact Stitch Layout in Original Pattern Drafting. If you only have Standard Garment Styling or prefer to edit the stitch pattern you can do this in Stitch Designer using the + and - buttons to add or subtract stitch columns (wales) with the Right Mouse Button and rows (courses) with the Left Mouse Button to make the number of stitches and rows fit your stitch pattern.

It is *essential* that you make a note of your tension for the stitch pattern as it is *not* stored with the stitch pattern file, and you should note also the yarn(s) used and needle sizes and/or machine settings associated with this pattern. You can do this in the Notes dialogue (select **Edit/Notes**) so this information will then be saved with the Stitch pattern and will be included in the pattern text print format. You can use the search feature in the Thumbnails browser to search for text in the pattern notes, so you may find it helpful to develop a particular format or style for adding this kind of information. If this stitch pattern is associated with different shapes files, you might like to make a note of these too, although there is a limit to the amount of text which can be entered here.

Applying a Shape File to a Stitch Pattern

Working with an already open shape file

If you open a shape file - or create a new one - in Standard Garment Styling or Original Pattern drafting, and *then* go into Stitch Designer, unless the current default tension is the same as that of the shape, you have a number of options as to how you reconcile the different tensions so that they match.

Match tension

Whichever option you choose, DesignaKnit will match both the shape and the stitch pattern to that gauge.

Use the shape file tension: choose this option to set the Stitch Designer tension to that of the shape file

Use the current Stitch Designer setting: This option is not available when entering Stitch Designer with an already opened shape file. You can therefore either make a note of the Stitch Designer tensions you want and choose to Change to new values or use the Close Shape File button, and then re-open the shape file from within Stitch Designer, when this option will be available.

Change to the default tension: this option changes both the stitch pattern and the shape to the default tension.

Change to new values: select this option to **open the shape tension dialogue** to enter new tensions and edit any notes.
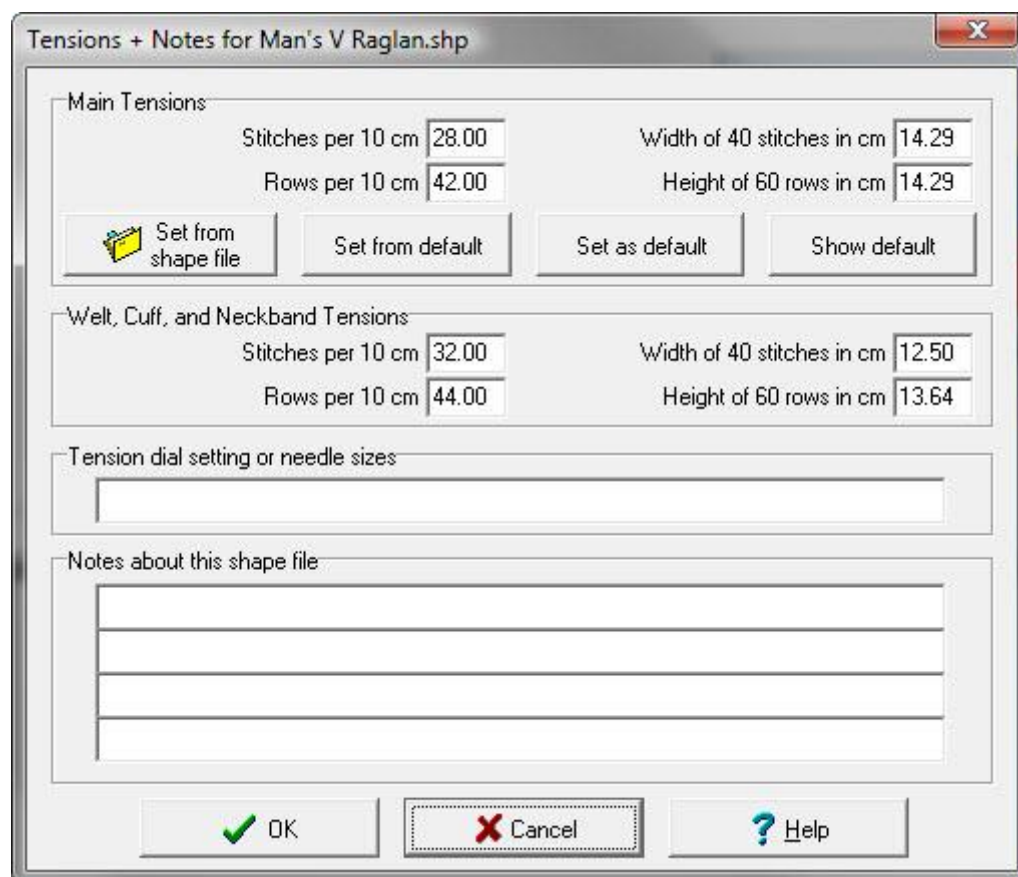
Main Tensions

 Enter the new tensions here, either as stitches and rows per 10 cm / 4 inches or the width in cm or inches or 40 stitches (wales) and height of 60 rows (courses).

Set from shape file

Use this option to apply the gauge of another shape file to this one.

Note that this does not open the shape file, just applies the tension to the current stitch pattern

To do this, click on the button **Set from shape file**.
The next dialogue offers you the last 5 shape files you have opened, whether in Stitch Designer, one or other of the pattern drafting sections or in Interactive Knitting. If you recognize the one you want, select it and click on OK, or double click on the file name. .

If the file you want is not listed - or if you need to be reminded what the tension settings were for any of your shape files, click on the Browse Shape Files button. This opens the Shape Thumbnails browser. Make sure that Details is ticked, and the file information will display the tension for each shape file in this format T: Stitches x Rows per 10 cm (or, if you're working in imperial measurements, per 4 inches)

Scroll through the shape files and click on the one you want - if you know the name, you can enter it into the File Name Field and the browser will jump to that location - just typing in the first letter will jump to the first patterns starting with that letter.

If you have a large number of files, you can use the Search and Sort options to find the one you want.

Set from default

Choose this option to apply the default tension setting. If you do not have a shape loaded in memory (if you're not sure, look at the title bar - if a shape is open, its file name and tensions are shown to the right of the stitch pattern name), then the default tension is the one that is applied to stitch patterns at the start of a session. If you can't remember what the default tensions are, click on **Show default**, and if you want to change them, edit the fields in the main dialogue and then click on **Set as default**

Set as default

If you want to change the tensions in the main dialogue to the default settings, you can do this by clicking on the **Set as default** button: the old values will now be replaced. You can reconfigure the default values as often as you like. If you can't remember what the default tensions are, click on **Show default**.

Show default

If you want to check exactly what the default values are, click on this button. You can't edit the defaults in this dialogue, so if you want to change the tensions, return to the main dialogue, edit the fields as required and then click on Set as default.

Welt, Cuff and Neckband Tensions

DesignaKnit requires correct tension information for welts if you intend using the program's calculations to generate instructions for knitting them.

Welt is a general term to describe the finished edge of a knitted fabric which is created either at the beginning of the main piece, or at the end but is usually formed by a different technique, such as ribbing or a hem. It can also mean a piece made independently and attached either by a seam or by picking up stitches, in which case it can be attached anywhere - a neckband, is an example, as is a cuff attached after the sleeve has been made, or a pocket binding.

For ribbed welts and cuffs, experienced knitters, who know how difficult it is to measure the tension of any elastic fabric, tend to use their own preferred techniques, such as using the same number of needles on the machine as for the main section but at a tighter tension. In this case, if you add 10-20% more stitches and rows per measured unit than used for the main tension, the welts and cuffs will be represented in Standard Garment Styling realistically as using the same figures as the main tension will display the welts and cuffs in the same proportions as the main fabric without indicating any elasticity,

For hand knitting you also have the option, if you will be using fewer stitches for the welts and cuffs than you would for the main part, to set the increase options in Standard Garment Styling for welts and the instructions and representations will portray this. You can then, if appropriate, use whichever symbol you prefer to indicate increases or decreases on the main pattern. Neckbands, however will be calculated according to the length required at the welt tension setting which may not be easy to measure if it is ribbed.

Notes

You can add notes to include machine tension dial settings or needle sizes, and any additional text which will be helpful. This text is searchable via the Shapes Thumbnails browser.

Show details

Tick here to show all the current settings: In this situation, when entering Stitch Designer from another section of the program, with a shape file opened, the 'Current Stitch Designer Settings' are always the same as the default settings. This view is for information only - you cannot edit the tensions here, so if you want to alter the gauge, choose one of the Change options or Use the shape file tension - you can always change it later from Stitch Designer via the Options/Tensions menu item.

Match tension

- ( ) Use the shape file tension
- ( ) Use the current Stitch Designer setting
- ( ) Change to the default tension
- ( ) Change to new values

[x] Show details

Shape File Tensions

Stitches per 10 cm	28.00	Width of 40 stitches in cm	14.3
Rows per 10 cm	42.00	Height of 60 rows in cm	14.3

Current Stitch Designer Settings

Stitches per 10 cm	32.00	Width of 40 stitches in cm	12.5
Rows per 10 cm	40.00	Height of 60 rows in cm	15.0

Default Tensions

Stitches per 10 cm	32.00	Width of 40 stitches in cm	12.5
Rows per 10 cm	40.00	Height of 60 rows in cm	15.0

✓ OK   ✗ Close Shape File   ? Help

Close shape file: click on this button if you change your mind and choose not to carry the shape file into Stitch Designer.

Click **OK** to carry on into Stitch Designer.

When you are ready to view any piece or pieces from the shape file on your stitch pattern, use the shape buttons on the top tool bar:

View Specific Pieces

View all Pieces

Move Active Piece

Cut out Pieces

View Pointer Position

If you have changed the tension settings for the shape file, if you do not want to lose the original, you should save it straight away with a new file name. You can do this from within Stitch Designer: click on **Shapes/Save Shape As.**

Opening a Shape File from Stitch Designer

If you have a stitch pattern open in Stitch Designer and you now want to view and position the pieces on this you can open a shape file from within stitch Designer and, if the tension saved with the shape file is not the same as the current settings, you will have the option to adapt the shape to these settings.

To open the shape file using the normal Windows dialogue, select **Shapes/Open Shape File**

To open the shape file using the Thumbnails Browser, select **Shapes Thumbnails** or click on any of these buttons on the tool bar:

The Thumbnails Browser will open:
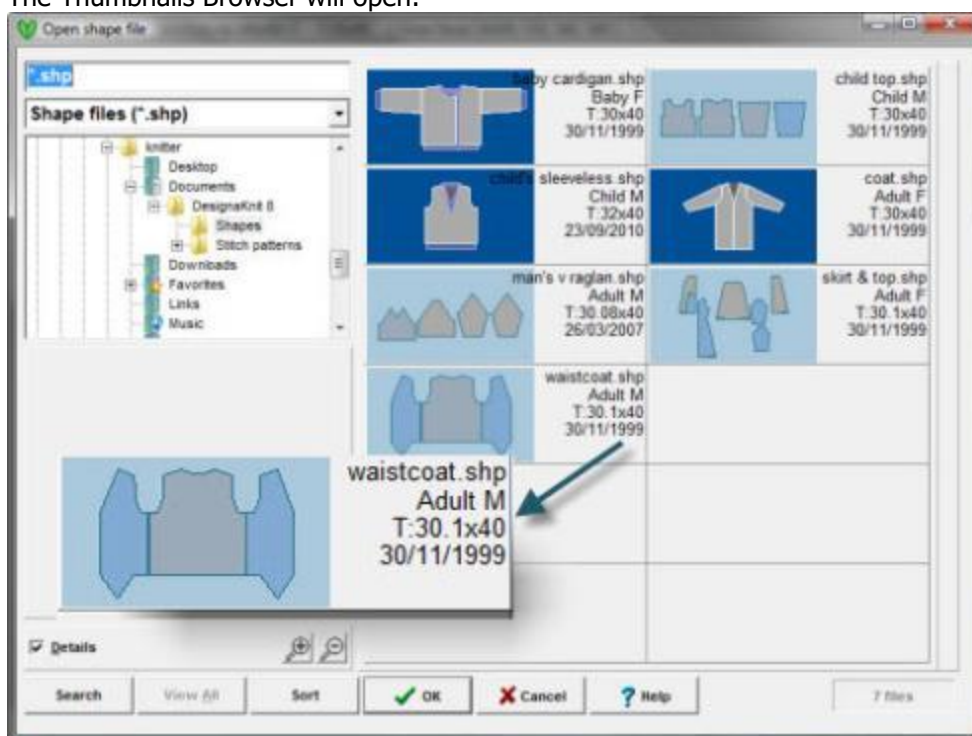
Scroll through the shape files and click on the one you want - if you know the name, you can enter it into the File Name Field and the browser will jump to that location - just typing in the first letter will jump to the first patterns starting with that letter.

If you have a large number of files, you can use the Search and Sort options to find the one you want.

Click **OK** to move onto the next stage.

Match Tension

When you open a shape file from within Stitch Designer, the assumption is that you will want to match the shape file to the tension you are working at in Stitch Designer, so this option is the default setting.
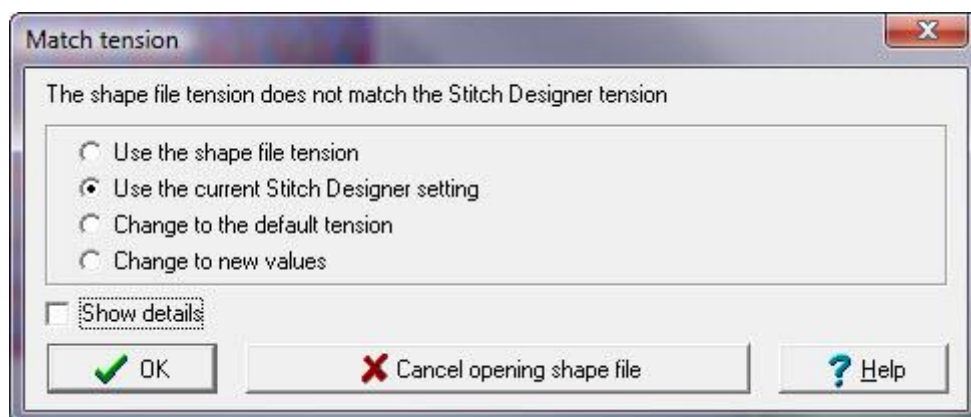
Compare tension options

Tick Show details to see the details of the various options before making your choice.

This information is for reference only and cannot be edited.
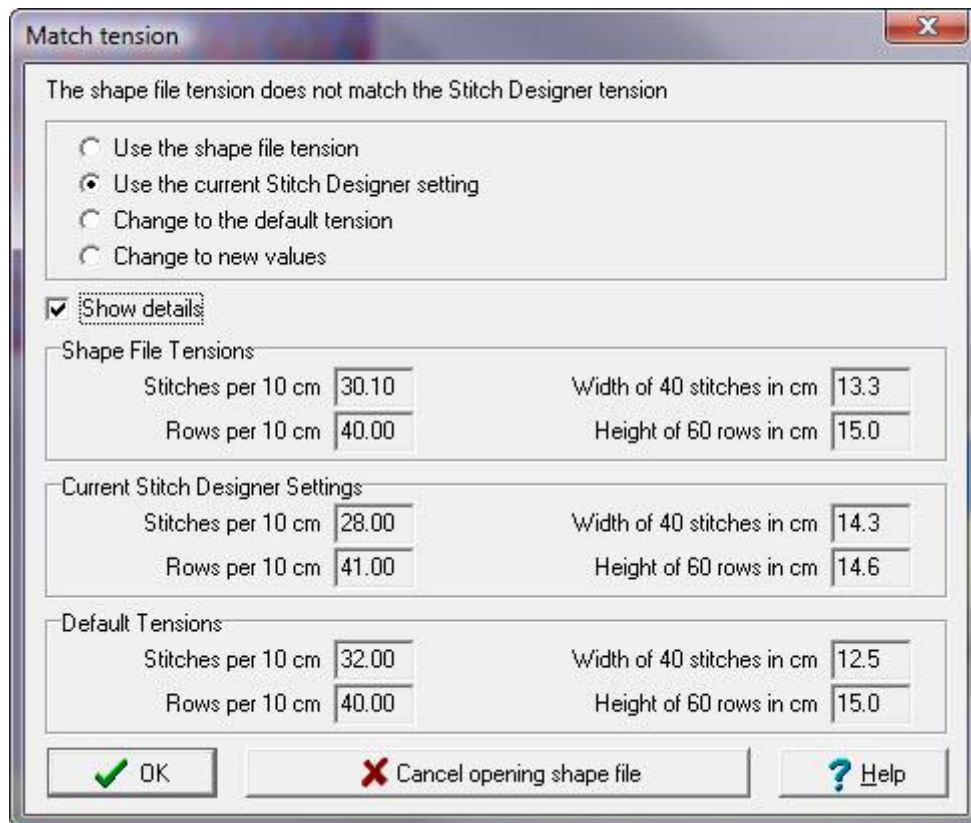
Click Cancel opening shape file to return to Stitch Designer, but be aware that the tension may have been changed, according to the match tension settings at the time of canceling. If you want to be sure of returning to the current Stitch Designer configuration, then make sure that this is selected before canceling opening the shape file.

Click OK to open the shape file at the chosen tension.

The next stage will depend on how you started the process of opening the shape file:

Menu	Button	Result
Shapes/Thumbnails		The shape is now in memory but you will have to go on to choose one of the display options in order to view and position any or all of the pieces on the stitch pattern.
Shapes/Open shape file		
Shapes/View piece(s)		You will now be asked to select the pieces you want to display.
Shapes/View all pieces		All pieces are shown; the active piece is highlighted.
(Move Piece)		All pieces are shown; the active piece is highlighted and ready to be moved.
(Cut out Piece(s))		All pieces are shown cut out of the stitch pattern; the active piece is highlighted.
		All pieces are shown; the active piece is highlighted; the pointer position gadget is opened.
Shapes/Close Shape		Close shape file

Once the shape file is open and the tensions are matched, you can go on to integrate the shape with the stitch pattern.

Related Topics

Starting a New Pattern File	Shapes Thumbnails
Stitch Pattern Notes	View piece (s)
Method of Knitting	View all pieces
Integrate a Shape with a Stitch Pattern	Move piece
Integrated Download	Cut out pieces
Print Stitch Pattern Chart	Pointer Position Gadget
Print Pattern Text	Close Shape file.
Units of Measurement	

Thumbnails Browsers In Stitch Designer

This is DesignaKnit's alternative to the Windows File browser dialogue for opening a saved pattern file and offers you a number of ways of searching, filtering and ordering your stitch pattern files which are not available in the ordinary Windows dialogue.

In Stitch Designer, the Thumbnails browser can be used for opening Stitch Patterns, Palettes and Graphics and compiling a batch of patterns for downloading. You can also access the Shapes Thumbnails browser for opening Shape files or extracting tension settings.

All of these modes have the same facilities for sorting or searching for specific patterns, types of pattern or ranges. It can also be used to delete unwanted stitch patterns, palettes, picture as well as delete shape files.

Viewing, Finding and Sorting Pattern, Palette and Graphics Files
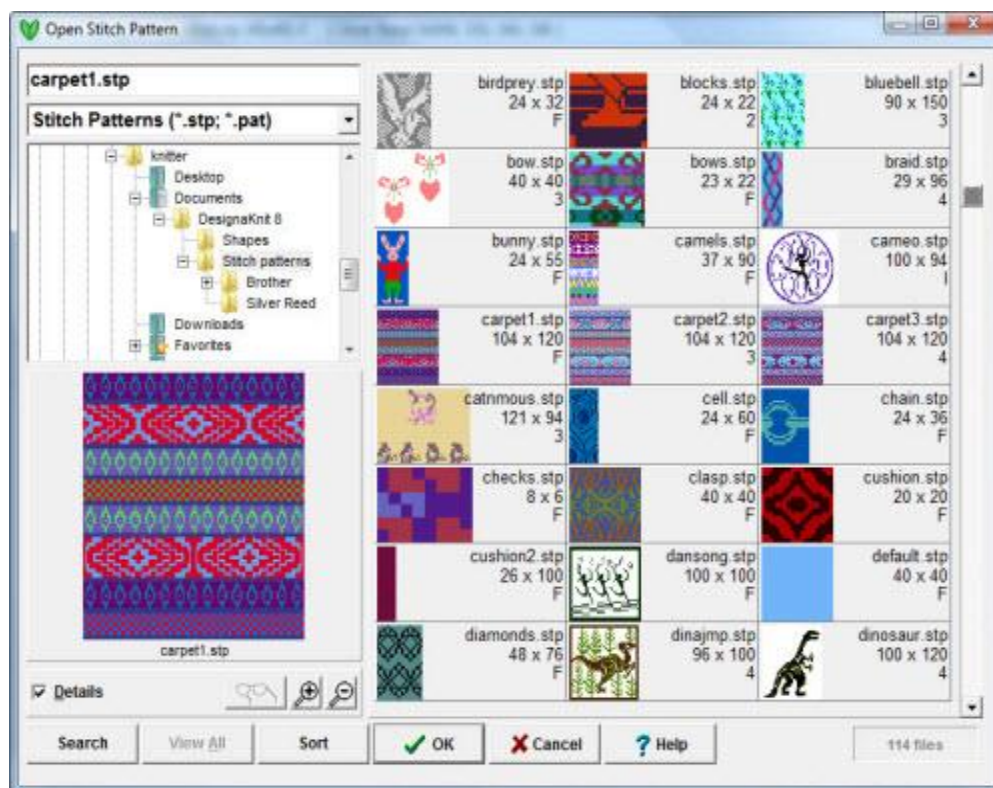
File Name Field

```
*.stp;*.pat
```

When you select a pattern from the browser, the file name appears in this field.

```
carpet1.stp
```

(If you know the name of the pattern you want to open, you can start to enter it into this field and the browser will jump to that location - just typing in the first letter will jump to the first patterns starting with that letter.)

File Type Drop Down List

Stitch Patterns (*.stp; *.pat)

By default, the Thumbnails Browser shows all stitch .stp and .pat patterns, but if you want to limit the display to all .stp files or all .pat files, click on the arrow at the right of the File Type field to open the drop down list and select the type you want.

Stitch Patterns (*.stp; *.pat)
Ver 7/8 Stitch Patterns (*.stp)
Ver 5/6 Stitch Patterns (*.pat)
Palette Files (*.plt)
Graphic Files

- You can also change the file type so that you can view only palette (.plt) files in the browser.

- You can open image files directly into Stitch Designer by selecting the Graphic Files option. You should use the File Tree to navigate to your Pictures folder.

Folder Tree

Your stitch pattern files are stored in the DesignaKnit section of your Documents folder. If you have saved them elsewhere, on removable media such as a USB flash drive, for instance, you can navigate there using the folder tree. Use the scroll bar at the right of the tree to find other folders, and click once to open a folder.
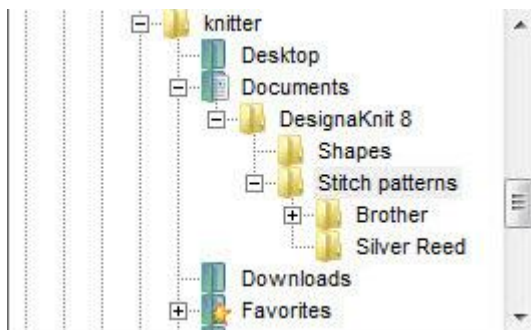
Details

☑ Details

Tick this option to display detailed information about the pattern or palette files.

With this option unchecked, only the file name and extension are shown, but when this option is checked, the size in stitches and rows, the knitting method and the date the file was last saved are also shown.

carpet1.stp ← File name & type
104 x 120 ← Stitches x Rows
F ← Knitting Method
29/06/2010 ← Date last saved
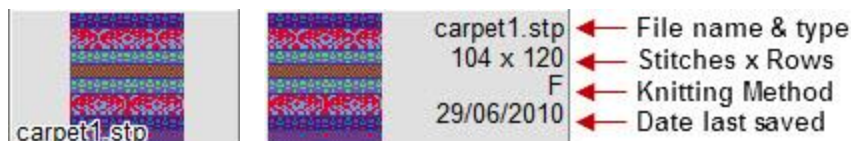
Preview

When you click on a file, it is shown in the preview area. If the spectacles button becomes active, it means that a high resolution preview of a large image is available - click on the button to show it. If the button is grayed out, do not be concerned as this means that the preview is already showing the highest possible resolution.

Zoom

Click on the Zoom in button to enlarge the thumbnails and display fewer to a row, and on the Zoom out button to shrink them and see more per row. If the Details option is unchecked you can fit a larger number of images per row than when the information is displayed.
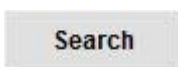
Search

Click on the Search button to search for a file or files according to a variety of criteria:
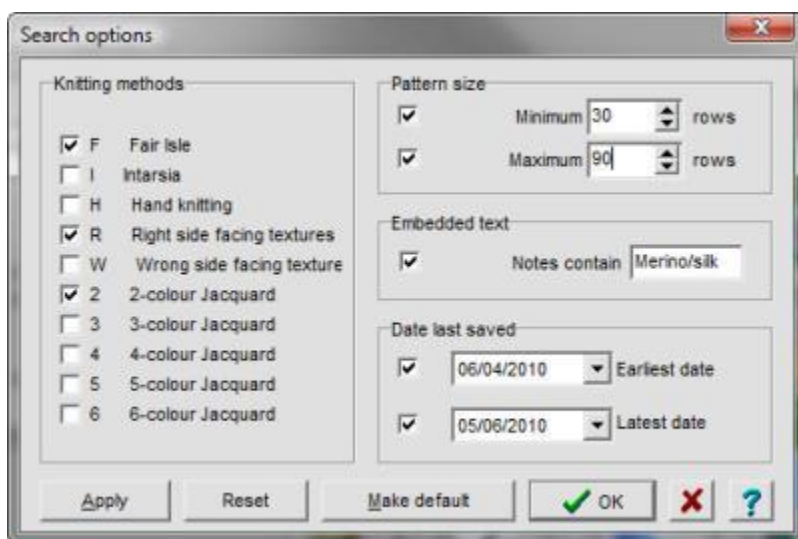
- **Knitting methods**: to filter your search according to knitting method, check only those you wish to include.

- **Pattern size**: to search by the length of the pattern, you can check either or both of the minimum or maximum number of rows in the pattern repeat.

- **Embedded text**: if you have added information to the notes section, DesignaKnit will search for a word or text string if you tick this option and enter a search term or string in the 'Notes contain' field.

- **Date last saved**: limit the search according to the date or range of dates when the pattern or patterns were last saved.

  Click on the arrow to the right of the date field to open a **calendar**. Use the arrows to flick back and forth through the

months and click on a day to set the date, or click on Today to reset the current date.

Apply Search: click the Apply button to run the search, without closing the dialogue, so you can redefine the criteria while the search is active.

Reset: click the Reset button to clear all the search fields on the right and re-check all knitting methods.

Make default: If you want to keep your search criteria for another session, click on the Make Default button. The next time you click on Search, the dialogue will open with your saved settings. To clear them, click on Reset.

Click **OK** to run the search and close the dialogue. The thumbnails browser will now display only those files found by your search until you click on the **View All** button. If this button is not active, this means that there are no filters and all the files in the folder are already included.

Sort

By default, the thumbnails are listed in alphabetical order, but you may want to group your patterns in a different way. Click on the Sort button to view the options:

If you want to retain the option you have chosen so that the Thumbnails dialogue always sorts the files in this way, click on the **Make default** button - and if you later change your mind and decide to revert to alphabetical sorting, click on **Reset**.

Open a stitch pattern

Select the **File menu** and click on **Thumbnails** to open the Thumbnails browser.

 or click on the File/Open button (or press Ctrl +T from within Stitch Designer)

- To browse through your stitch pattern files, use the scroll bar on the left.

- Click the option to show or hide additional details

- Zoom in or out to see more or fewer patterns

- Search for a specific pattern, pattern type or range

- Sort the patterns into a different order

To open a pattern:

click on the one you want in the section on the right and then on the OK button

or click on the preview of the pattern on the left

or double-click on the pattern to open it straight away

Open a Palette File as a New File

Select the **File menu** and click on **Thumbnails** to open the Thumbnails browser.

 or click on the File/Open button (or press Ctrl +T from within Stitch Designer)

Click on the down arrow in File Types field and select Palette Files (*.plt) to show the palette files.
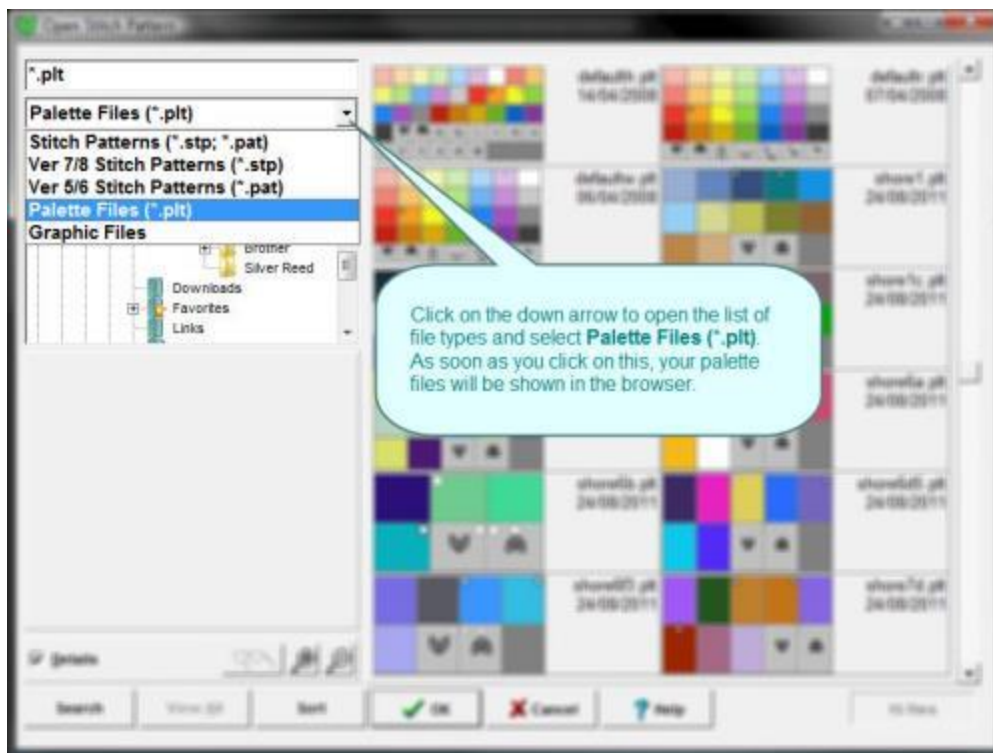
When you open a palette file in this way, any pattern you had open will be closed and you will get a new pattern in two of the imported colors in an area based on the minimum size of 2 stitches x 2 rows - if there are more stitches and rows, this is because when the palette was exported the pattern from which it is derived was displaying a number of repeats.

To prepare the pattern for designing, first you can set the background color you want to work with: click in the palette with the RMB on the color you want to be your starting background and then use the pencil tool to change the second color.

You can quickly increase the size, either by using the Add button to add rows (LMB) and stitch columns (RMB) or you can use the repeats button to add more repeats vertically and horizontally and then use the Redefine button to consolidate them into a single area.

Import a Palette Into the Current Pattern

 Click on this button on the Palette Tool bar instead of the Main Tool Bar, or select **Edit/Import/Palette**.

This opens the Thumbnails Browser in Palette file mode.

Instead of replacing the currently open pattern, this option adds colors and symbols from the saved palette to the one for your current pattern, and gives you the choice of keeping some or all of the current colors and symbols, or of removing ones which are unused in the pattern.
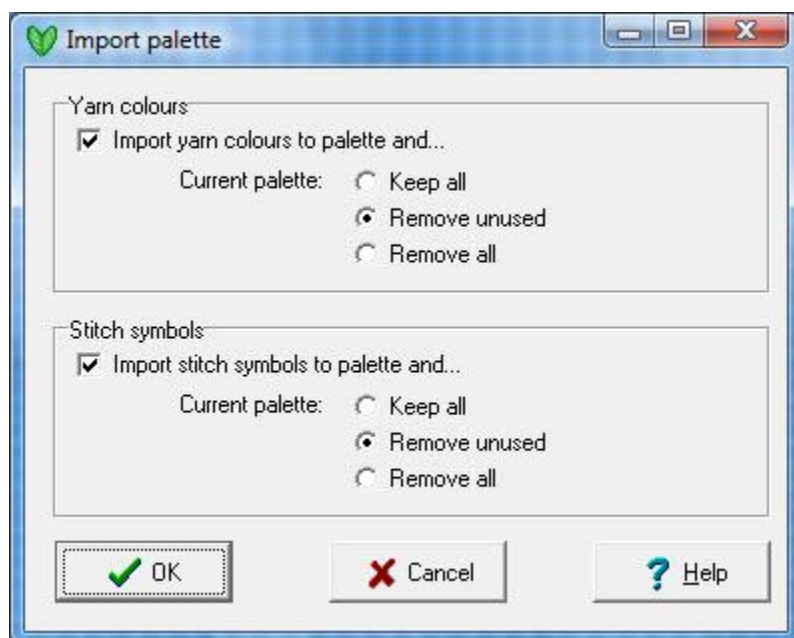
Make the selections you want and click **OK**, or **Cancel** to close the dialogue without importing any part of the palette.

Open a Picture File

You can open a picture file, or graphic, directly into Stitch Designer to convert it into a stitch pattern. All the major picture formats are supported and you can view them in the Thumbnails Browser. This option is most suitable for simple pictures without too much detail and with well-defined color areas. For more complex pictures and photographs, DesignaKnit Graphics Studio offers much better control over the conversion process.

Select the **File menu** and click on **Thumbnails** to open the Thumbnails browser.

 or click on the File/Open button (or press Ctrl +T from within Stitch Designer)

Use the file tree on the left to navigate to the folder where your pictures are stored, then click on the down arrow in File Types field and select Graphics Files to show all compatible graphics files.
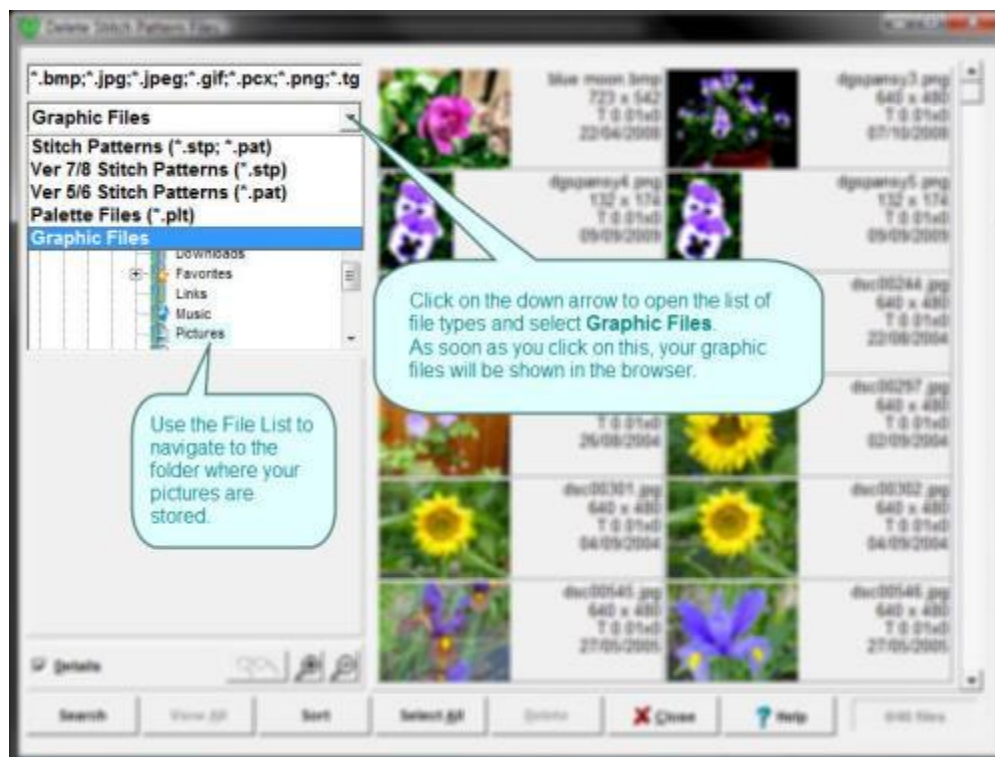
Find the file you want and proceed to the next stage of conversion.

Converting the Picture to Stitches and Rows

The next dialogue asks you how many stitches and rows you want the picture to fit.
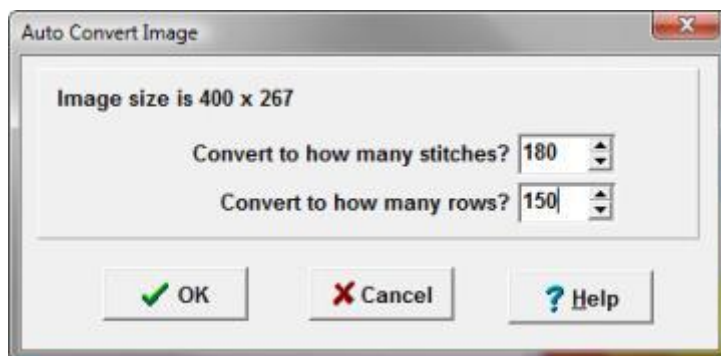
Enter the number of stitches and rows for the pattern and click OK

T I P

To find out the number of stitches and rows to keep your picture in proportion to the current tension settings, it's a good idea to view the picture in DesignaKnit Graphics Studio first. More

1. From DesignaKnit Graphics Studio, open the picture you want

2. Click on the Grid Settings Button
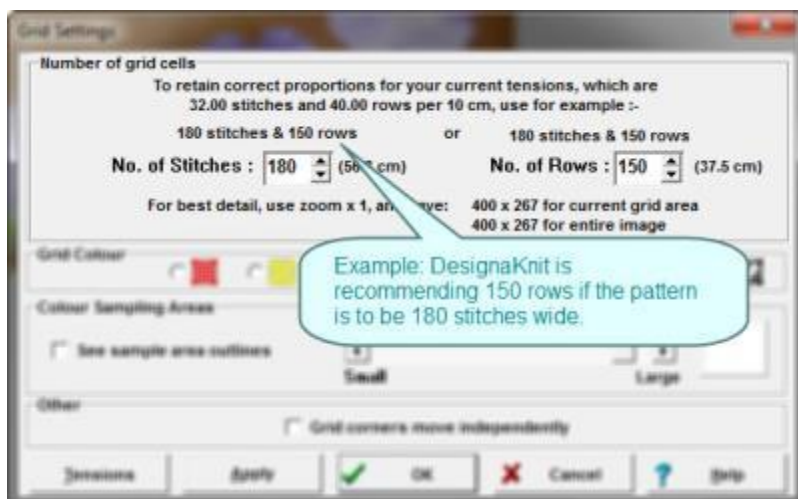
3. Enter the number of stitches you want for the width of the pattern or, if you want to fit it to a set number of rows, then enter this figure in the rows field. As soon as you have entered one of these dimensions, DesignaKnit will tell you what you need for the other to keep it in proportion.

4. Make a note of these, cancel the dialogue and return to Stitch Designer

5. Now open the file in Stitch Designer, and you can enter the number of stitches and rows in the next dialogue/

Reducing the Number of Colors and Setting the Knitting Method

Next, you are asked to configure the maximum number of colors per row and the maximum number of colors in the whole pattern
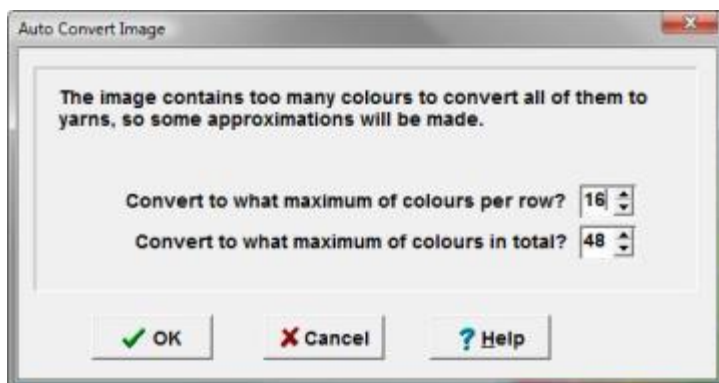
If your picture is very simple with few colors in well defined areas, enter the number of colors in each field and then click OK.

If your picture is less well defined, then it's a good idea to start with a much larger number than you will actually use so that you can control how the colors are used via the palette Replace and Exchange features.

The largest number of colors you can have in any one row is 16, and the most in the whole pattern is 48. DesignaKnit will automatically merge similar colors.

Next, DesignaKnit will ask you to set the Method of Knitting.
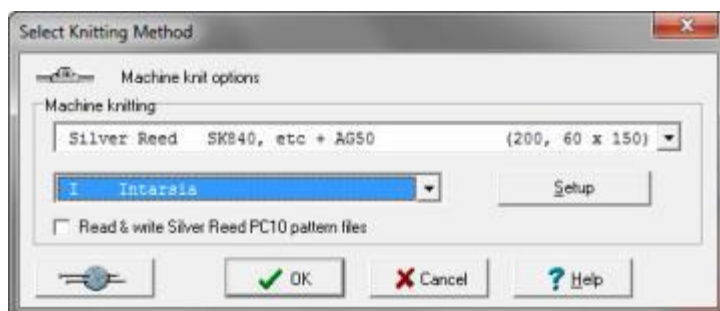
For **Machine knitting**, unless you know for certain that the picture will translate well into Fair Isle or Jacquard, it would be better to configure the method as Intarsia, so that DesignaKnit will allow you up to 16 colors per row. You can always change the method later on, when you have reduced the colors to a workable number.

For **Hand Knitting**, the best background for conversion is Stocking Stitch. You can change this later if you wish after you have edited the pattern.

Click OK and picture will open in DesignaKnit. Save your work straight away, in case you are interrupted so that you don't have to go through the import process again.

If necessary you can now start to reduce the number of colors in the pattern. The quickest way to merge similar colors is to use the replace feature:

- Select the one you want to keep with the LMB, and the first one you want to replace with the RMB, then click on the Replace button on the Palette Tool Bar

- Repeat this process until sufficient colors have merged.

- Then select a color from a different group and use it to replace similar colors

The advantage of doing it this way is that you can use the drawing tools to replace detail which may be lost in the color replacement process.

Use the Check function on the Menu bar to check from time to time the number of colors in the rows and then, when you are ready, change the knitting method, if necessary, to the one you will use and save the pattern.

Delete Stitch Patterns, Palette Files or Graphics

Select the **File Menu**, then click on **Delete**.

You can, of course, delete pattern files in the same way as you would any other Windows file, but the advantage of using DesignaKnit's Thumbnails Browser is that you have more than just the file name: you can see a picture of your pattern, and that means you are less likely to delete the wrong one(s).

- Select the file type you want to find and delete by clicking on the arrow in the File Types Field. If necessary, use the File Tree to navigate to the folder or sub-folder which contains the file or files you want to delete.

- To browse through your files, use the scroll bar on the left.

- Click the option to show or hide additional details

- Zoom in or out to see more or fewer patterns

- Search for a specific pattern, pattern type or range

- Sort the patterns into a different order

To delete files:

- **One file**: click on the pattern you want to delete. A red cross will mark that pattern.

- **More than one file**: click on each pattern you want to delete - each will be marked with a red cross

  If you change your mind, click again to remove the cross.

When you have selected the pattern or patterns you want to delete, click on the **Delete** button.

DesignaKnit will ask for confirmation of each one you have marked - so you still have time to change your mind - but if you click on the All button, all the marked patterns will be deleted at once, without asking for further confirmation.

> **NB**: If you use this method to delete patterns, the files will not be placed in the Recycle Bin and will not be recoverable.

When the patterns have been deleted, click on the **Close** button to close the Thumbnails Browser.

Assemble a Batch of Patterns for Downloading to a Brother Machine or PPD

Batches of patterns can be downloaded to the KH930, KH940, KH950i, PPD or, with the BrotherLink 4, to the KH270 or KH965.

Click on the **Transfer Menu** and select **Download**. If one of these machines or a PPD is the selected machine, instead of downloading only the currently open pattern, you can set up a batch of patterns to download in a single operation.

Click on the **More Files** button to open the Thumbnails Browser.

Click on the pattern or patterns you want to download - each will be marked with a tick. If you change your mind, click again to remove the tick.
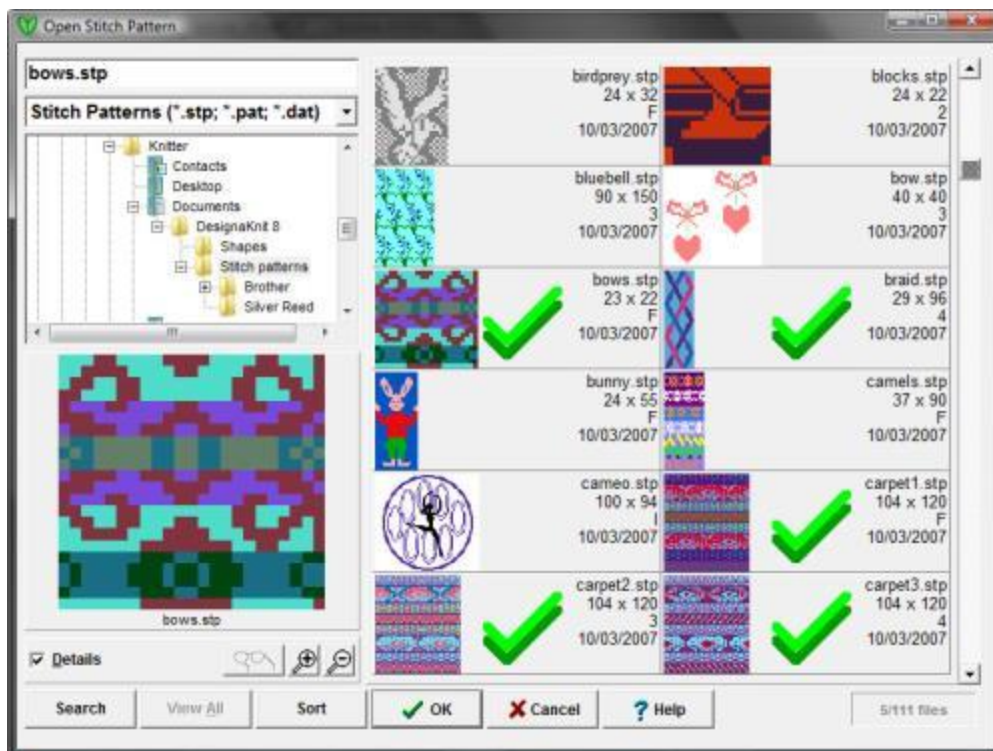
When you have chosen the patterns you want to download, click OK and they will be listed in the Batch Download dialogue. You can add more patterns to the list by clicking on the More Files button again.

To find and open a shape file to apply (integrate) it to the current stitch pattern

Open a shape file: if you have not already loaded the shape file you want to work with in one of the pattern drafting sections, you can open the Shapes Thumbnails browser from within Stitch Designer in one of these ways:

- Select **Shapes/Thumbnail**s from the menu
- Click on any of the Shapes buttons on the top tool bar:
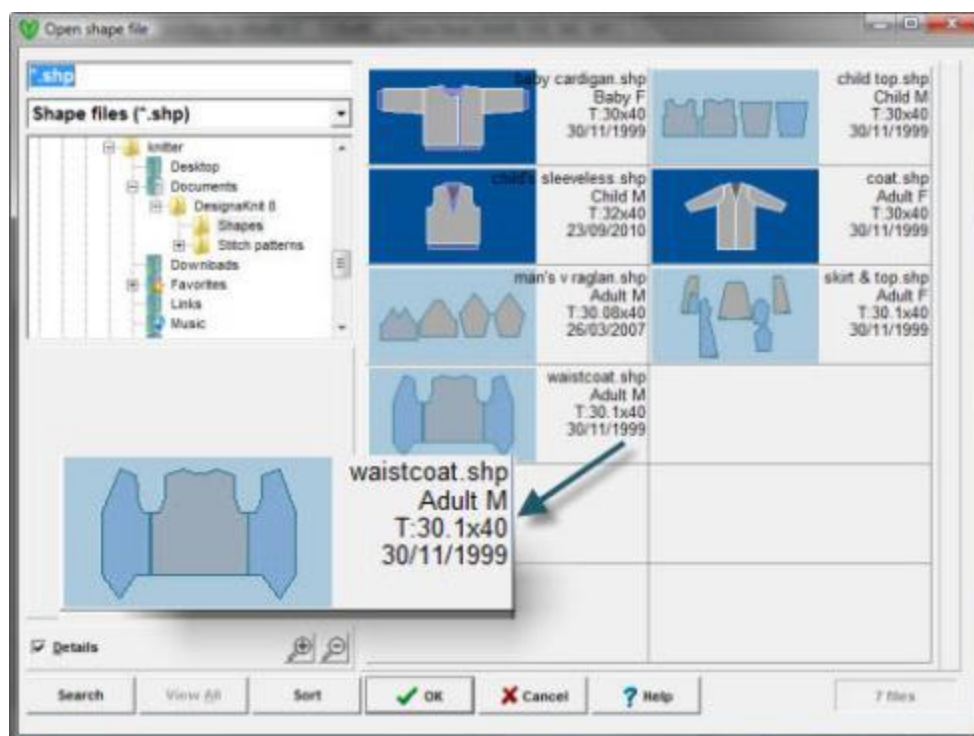
Scroll through the shape files and click on the one you want - if you know the name, you can enter it into the File Name Field and the browser will jump to that location - just typing in the first letter will jump to the first patterns starting with that letter.

After you have chosen your shape file, you will be asked if you want to import the tension settings associated with the shape file or reconfigure them for both the shape and the stitch pattern.

Folder Tree

Your shape files are stored in the DesignaKnit section of your Documents folder. If you have saved them elsewhere, on removable media such as a USB flash drive, for instance, you can navigate there using the folder tree. Use the scroll bar at the right of the tree to find other folders, and click once to open a folder.
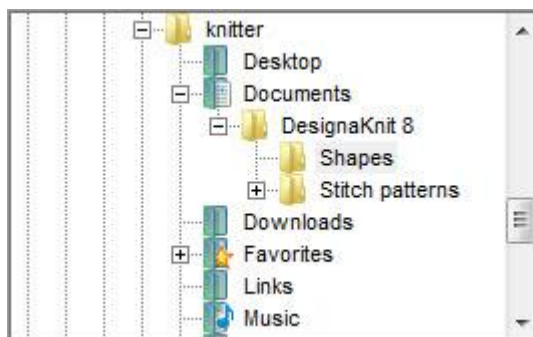
Details

Tick this option to display detailed information about the pattern or palette files.

With this option unchecked, only the file name and extension are shown, but when this option is checked, the Standard Garment Styling type is shown for files started in that part of the program or the number of pieces for those created entirely in Original Pattern Drafting. The tension in Stitches x Rows or, for Pfaff/Passap machines, Stitches and Lock Passes, and the date the file was last saved are also shown.
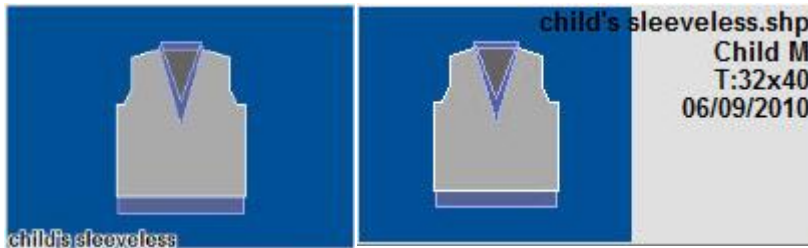
Preview

When you click on a file, it is shown in the preview area at the left of the browser.

Zoom

Click on the Zoom in button to enlarge the thumbnails and display fewer to a row, and on the Zoom out button to shrink them and see more per row. If the Details option is unchecked you can fit a larger number of images per row than when the information is displayed.
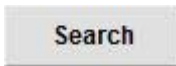
Search

Click on the Search button to search for a file or files according to a variety of criteria:
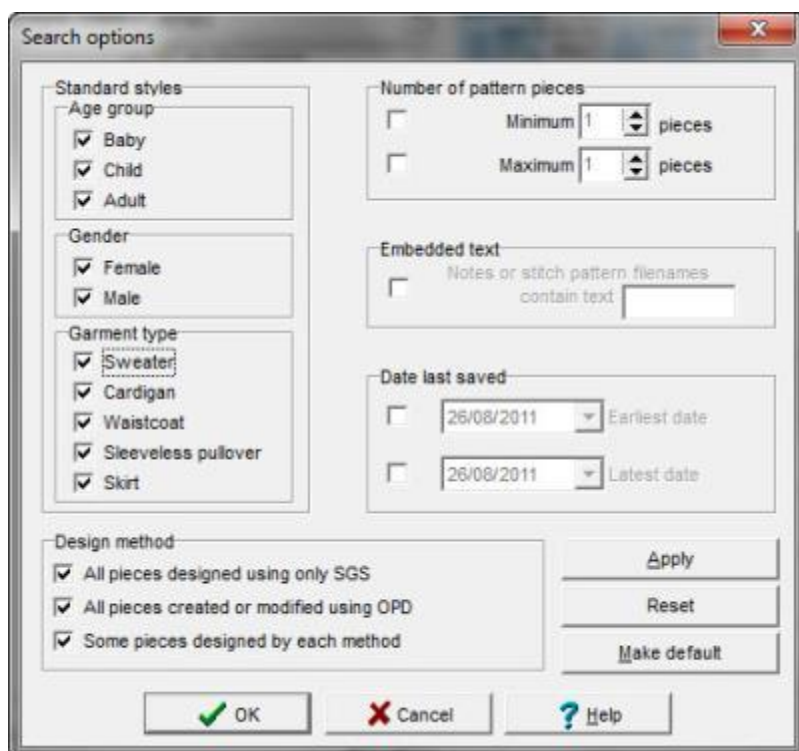
- **Standard styles - Age group**: to filter your search according to an age group, check only those you wish to include.

- **Standard styles - Gender**: if you want to search for patterns for only males or only females, tick the category you want.

- **Standard styles - Garment Type**: tick the Standard Garment types you want to include in your search.

- **Design method**: specify which of the pattern drafting sections of the program were used in creating the file

- **Number of pattern pieces** - set a maximum and minimum number and tick the boxes on the left if you want DesignaKnit to take these factors into account when searching

- **Embedded text**: if you have added some notes to the pattern, you can search for a key word or phrase.

- **Date last saved**: limit the search according to the date or range of dates when the pattern or patterns were last saved.

  Click on the arrow to the right of the date field to open a **calendar**. Use the arrows to flick back and forth through the months and click on a day to set the date, or click on Today to reset the current date.

Apply Search: click the Apply button to run the search, without closing the dialogue, so you can redefine the criteria while the search is active.

Reset: click the Reset button to clear all the search fields on the right and re-check all age group, gender and garment type options.

Make default: If you want to keep your search criteria for another session, click on the Make Default button. The next time you click on Search, the dialogue will open with your saved settings. To clear them, click on Reset.

Click **OK** to run the search and close the dialogue. The thumbnails browser will now display only those files found by your search until you click on the **View All** button. If this button is not active, this means that there are no filters and all the files in the folder are already included.

Sort

By default, the thumbnails are listed in alphabetical order, but you may want to group your patterns in a different way. Click on the Sort button to view the options:

If you want to retain the option you have chosen so that the Thumbnails dialogue always sorts the files in this way, click on the **Make default** button - and if you later change your mind and decide to revert to alphabetical sorting, click on **Reset**.

To find a shape file with the tension settings you want to use for the current stitch pattern

This is a way of applying the tension associated with a shape file to the current stitch pattern without actually opening the shape file.

When you select **Options/Tensions** from the menu bar this opens the Tensions dialogue. Click on the Set from Shape File button and at the next dialogue click on the Browse Shape Files to open the Shapes Thumbnails browser.

You can browse through your shapes, or search for a specific file as explained above.

Delete Shapes

From the File menu select Shapes/Delete.
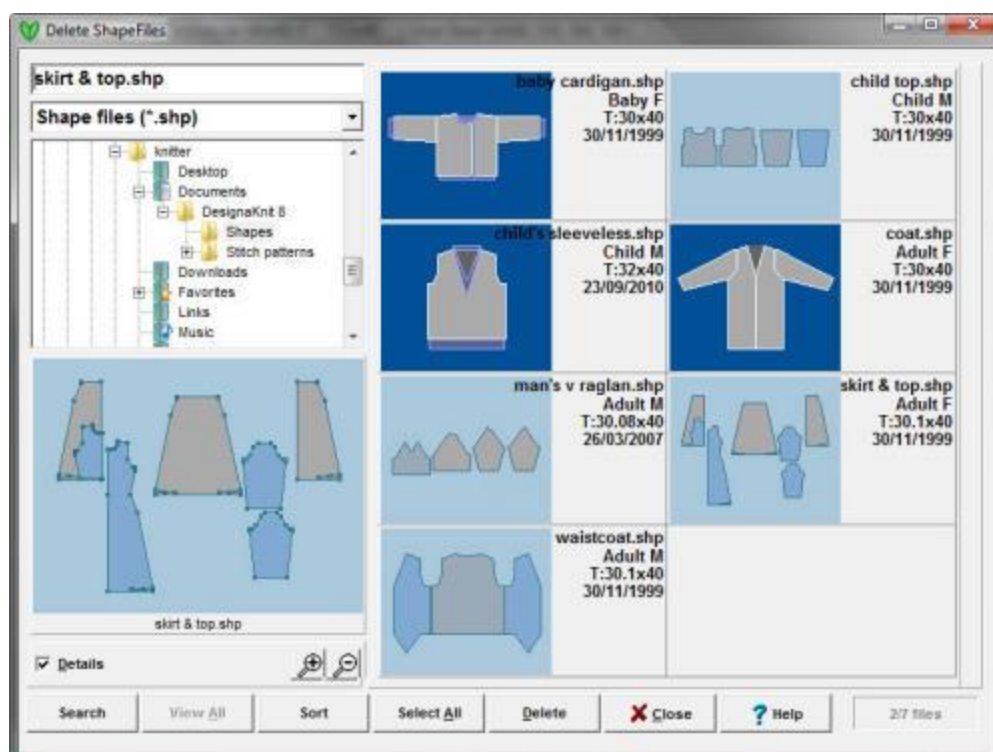
You can, of course, delete pattern files in the same way as you would any other Windows file, but the advantage of using DesignaKnit's Thumbnails Browser is that you have more than just the file name: you can see a picture of your pattern, and that means you are less likely to delete the wrong one(s).

- Select the file type you want to find and delete by clicking on the arrow in the File Types Field. If necessary, use the File Tree to navigate to the folder or sub-folder which contains the file or files you want to delete.

- To browse through your files, use the scroll bar on the left.

- Click the option to show or hide additional details

- Zoom in or out to see more or fewer shapes

- Search for a specific shape, shape type or range

- Sort the shapes into a different order

To delete files:

- **One file**: click on the pattern you want to delete. A red cross will mark that pattern.

- **More than one file**: click on each pattern you want to delete - each will be marked with a red cross

    If you change your mind, click again to remove the cross.

When you have selected the shape or shapes you want to delete, click on the **Delete** button.

DesignaKnit will ask for confirmation of each one you have marked - so you still have time to change your mind - but if you click on the All button, all the marked shapes will be deleted at once, without asking for further confirmation.

NB: If you use this method to delete shapes, the files will not be placed in the Recycle Bin and will not be recoverable.

When the shapes have been deleted, click on the **Close** button to close the Thumbnails Browser.

Related Topics

   File Menu

   Export and Import Stitch Patterns

Export And Import Stitch Patterns Or Palettes

Many stitch patterns consist of a variety of different motifs or smaller patterns which repeat themselves horizontally or vertically. It makes sense, therefore, to prepare these in advance and in this way build up a library of pattern elements which can be used again and again in many different ways. Thus, you can build a library of motifs and pattern elements by exporting whole or parts of patterns, and these can be imported into a new or an existing pattern. You can also export and import palettes of colors and symbols.

Export

You should use the Export command

- when you want to save a specific part of the current stitch pattern, not the whole pattern area. Use a box to draw around the part you want to save. This will then allow you to save the area within the box only, and will not affect the rest of the pattern.

- when you want to save a version of the pattern with a new name at the current stage of development, without affecting the current file name.

When you export (save) a pattern element, it is saved with its own color and symbols palette and when you import it into a different pattern you have the option of adding any colors or symbols which are not already in your palette.

You can also export customized palettes for later use and you can import these palettes or any palette associated with a previously saved pattern without having to import the pattern itself.

Export a Stitch Pattern

Before saving or exporting a pattern for later use, you should give some consideration as to how you want the colors or main stitch type to behave when they are imported and set the transparency indicators on the palette accordingly.

- Any color or stitch type you *do not wish to overwrite an existing color or stitch type* in the pattern to which you are importing the motif or border should be marked as **transparent** before saving the pattern.

  It is usually a good idea to make sure that the background color is transparent, especially if the motif is an irregular shape: this allows the motif to be pasted onto any other background without obscuring any other parts of the new pattern which lie underneath the selection box.

- Any color or stitch type which you *do want to import* into a new pattern should be marked as **opaque**.

If the stitch pattern you are working on is represents the complete area you want to export, then you can just save it in the normal way.

If you want to save a part of the pattern, and you do not wish to include surrounding areas, you have two approaches:

1. This is most suited to saving a single 'tidied up' area of pattern:
   Use a selection box to enclose the area you want to save and click on the Redefine button
   (or Edit/Redefine). This will remove all the surrounding pattern, leaving just the

selection area. You can then save the pattern in the normal way. If you later regret cutting away the surrounding pattern, you can use the Undo button to get it back - you will not lose the pattern you have saved.

2. This method is better for saving a sequence of motifs from your pattern area, without disturbing the main pattern:

   Make any necessary changes to transparency settings in the palette, then draw a selection box around the area you want to export. You can change to a tagged box if you want to make precise adjustments to the selected area.

   Select **Edit/Export/Motif**. Give your motif a new file name in the next dialogue and click on Save. By default, DesignaKnit will save the pattern to your Stitch Patterns folder.

   Repeat these steps for any other areas you wish to export as stitch patterns.

Export a Palette

When you save or export a stitch pattern, any colors or symbols in the palette at that time will be saved with the pattern. However, while you are working on a pattern, you can set up any number of combinations palette of colors and/or stitch symbols and save them as a palette file for future use, without saving the actual pattern.

- You can save the current palette by clicking on **Edit/Export/Palette**

- You can make and save one or a series of palette files from within the Yarn Color Setup dialogue - when you have adjusted the colors, click on the Save As button. Note that the palette will save with whatever stitch symbols are currently in the palette, so if you want to change these, you will first have to exit the Yarn Color Setup and select the symbols you want using the Stitch Symbols Organizer.

Import

You can choose to import:

A single motif which can be stamped once or repeatedly

The imported motif will appear at the top left of the pattern area, surrounded by a dotted line boundary. Do not be concerned if there is pattern underneath this as it will not be disturbed when you move the import - as long as the box around the motif has a dotted line, it is moveable and will not affect the pattern you have already drawn.

If you only want one instance of the motif, drag it to where you want it to be and then set in place by clicking outside the box or by pressing the **Enter key**.

If you want more than one instance, drag the motif to its first position, press the **Shift key to stamp a copy**, then drag it to the next position. As long as you don't click outside the motif's boundary, you can do this any number of times - pressing Shift stamps a copy on the current pattern area. Click outside the motif boundary or press the **Enter key to finish**.

You can also use the **Shift** key in combination with the **Tab and Ctrl keys** to stamp copies which have been flipped: **Tab flips vertically**; **or Ctrl flips horizontally**.

- If you want to build up a symmetrical pattern, you can either do this manually, using the Tab and Ctrl keys to flip the pattern and the Shift to stamp each one down, or you can work in conjunction with the Mirrors button ▭. Set the button to the type of mirroring you want. At this stage, you will still only see a single copy of the import. Drag it to the first position, pressing Tab or Ctrl if you want it flipped, and then press Shift - other copies will be added automatically to conform with the mirror settings.

A horizontal border across the width of the pattern

Select this option creates a tagged box the height of the imported pattern along the bottom of the pattern area and repeats the motif across the entire width of the box.
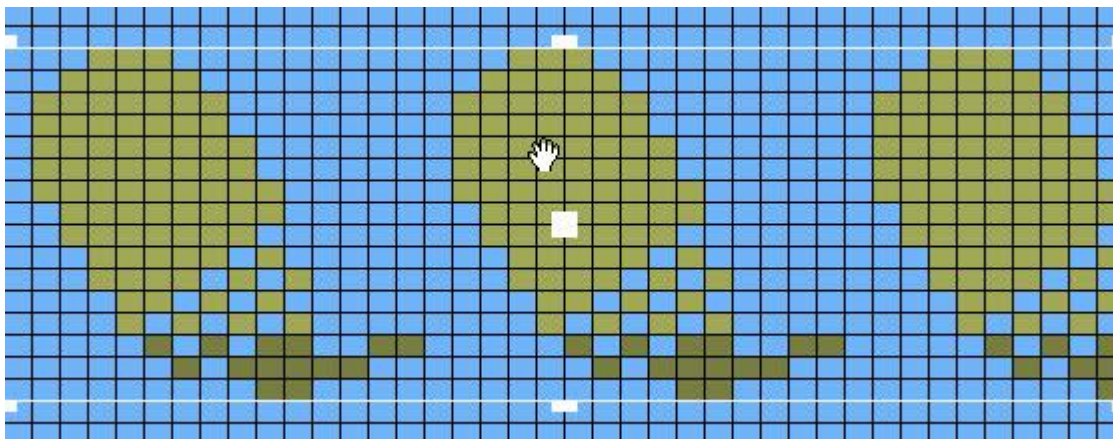
You can now adjust size or position of the border in any or all of these ways:

- Move the tagged box to a new position, picking it up by the central tag- the cursor will change to a cross when it is hovered over the center tag.

- Narrow the width of the box by picking up the left or right tags and dragging inwards. Fewer repeats will then be shown in the selected area. (If you can't see the tags because

the box is the same color as the work area background, you can change the color of the box while it is still active by selecting Options/Color Scheme/Selection Box which will open the Color Adjustment dialogue. If you don't want to change the color scheme, hover the cursor over the edge of the pattern area half way up the height of the box until it changes to a double-pointed arrow over the tag.)

- Raise or Shorten the height of the by dragging either the top center tag or the bottom to resize the selected area. This will then allow more or fewer vertical repeats, according to how you resized the box.

- Reposition the pattern within the box: hovered over any part of the pattern within the box, the cursor changes to a hand. You can use this to drag the pattern horizontally or vertically. The relationship of the repeats remains true. For more precise dragging, hold down the main mouse button, but instead of dragging the contents of the box, use the arrow keys to nudge the pattern into place.

- Use the **Shift key** to stamp copies of the border, the **Tab key** to flip vertically and the **Ctrl key** to flip horizontally. Note that the Mirror button is disabled for border and tiled imports.

Fix the imported pattern by clicking either once outside the box or double-clicking within it, or pressing the **Enter** key.

A vertical border along the height of the pattern

Select this option creates a tagged box the width of the imported pattern at the left-hand side of the pattern area and repeats the motif along the entire height of the box.
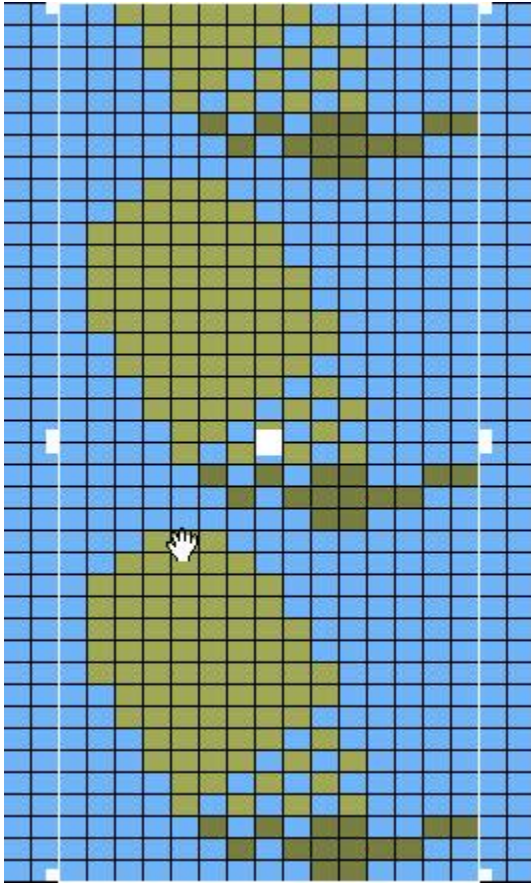
You can now adjust size or position of the border in any or all of these ways:

- Move the tagged box to a new position, picking it up by the central tag- the cursor will change to a cross when it is hovered over the center tag.

- Shorten the height of the box using the tags at the center top or bottom to show fewer vertical repeats. (If you can't see the tags because the box is the same color as the work area background, you can change the color of the box while it is still active by selecting Options/Color Scheme/Selection Box which will open the Color Adjustment dialogue. If you don't want to change the color scheme, hover the cursor over the edge of the pattern area half way up the height of the box until it changes to a double-pointed arrow over the tag.)

- Change the width of the box by picking up the left or right tags and dragging to the right to show more columns of repeats in the selected area. Raise or Shorten the height of the by dragging either the top center tag or the bottom to resize the selected area. This will then allow more or fewer vertical repeats, according to how you resized the box.

- Reposition the pattern within the box: hovered over any part of the pattern within the box, the cursor changes to a hand. You can use this to drag the pattern horizontally or vertically. The relationship of the repeats remains true. For more precise dragging, hold down the main mouse button, but instead of dragging the contents of the box, use the arrow keys to nudge the pattern into place.

- Use the **Shift key** to stamp copies of the border, the **Tab key** to flip vertically and the **Ctrl key** to flip horizontally. *Note that the Mirror button is disabled for border and tiled imports.*

Fix the imported pattern by clicking either once outside the box or double-clicking within it, or pressing the **Enter** key.

A motif tiled horizontally and vertically over the whole pattern or in a user-defined area

Whereas the border options assume a starting point of a single line of repeats either across the full width or along the full height of the stitch pattern, the Tile option will either tile the imported repeats over the whole pattern area or within an area defined by a selection box.
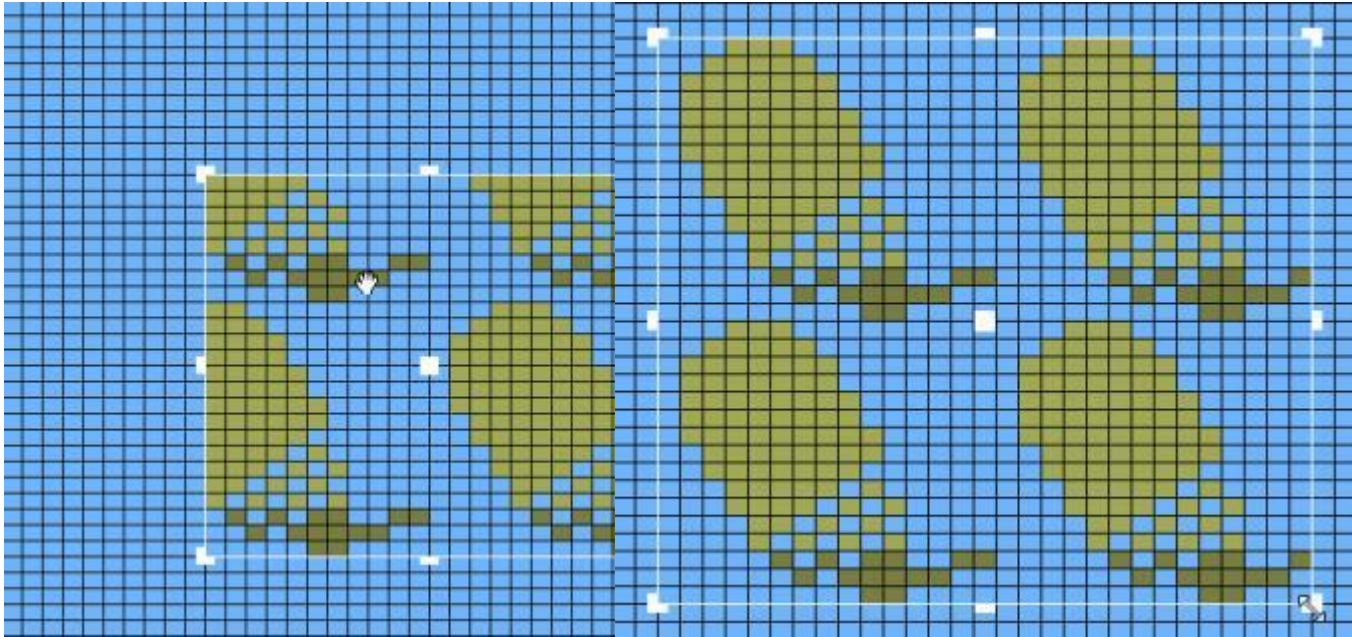
To confine the tiled import to a specific area, first draw a selection box, then select Edit/Import/Tile and choose the pattern or motif you want from the Thumbnails Viewer.

- Move the tagged box to a new position, picking it up by the central tag- the cursor will change to a cross when it is hovered over the center tag.

- Change the height or width of the box by dragging the tags on the borders - this will affect the number of repeats shown within the box.

- Reposition the pattern within the box: hovered over any part of the pattern within the box, the cursor changes to a hand. You can use this to drag the pattern horizontally or vertically. The relationship of the repeats remains true. For more precise dragging, hold down the main mouse button, but instead of dragging the contents of the box, use the arrow keys to nudge the pattern into place.

- Use the **Shift key** to stamp copies of the border, the **Tab key** to flip vertically and the **Ctrl key** to flip horizontally. *Note that the Mirror button is disabled for border and tiled imports.*

Fix the imported pattern by clicking either once outside the box or double-clicking within it, or pressing the **Enter** key.

To cover the whole pattern area, make sure there is no selection box and then select **Edit/Import/Tile**. Select the pattern you want from the Thumbnails Viewer.

With this option, there is no box to resize, but you can use the hand cursor to change the position of the pattern repeats and use the handles in the same way as a boxed import to change the position of the repeats. When you have finished, fix the pattern by double-clicking within the pattern area or pressing the **Enter** key.

Import a palette of yarn colors and/or stitch symbols

To import a palette, select **Edit/Import/Palette**.

This will open the Thumbnails Browser in Palette mode, showing any saved palette files. Select the one you want, and click OK.

For more details on how to search and sort your files, click here.

If you want to import a palette associated with a specific stitch pattern, use the drop down menu in the browser's file type field to change from Palette Files (.plt) to Ver 7/8 Stitch Patterns (.stp), select the pattern you want and click OK. This will not import the pattern itself to your current design, but will offer you the options of adding colors and/or symbols or replacing the existing ones.

When you have selected the file you want, click on OK and the following dialogue will offer you further import options:
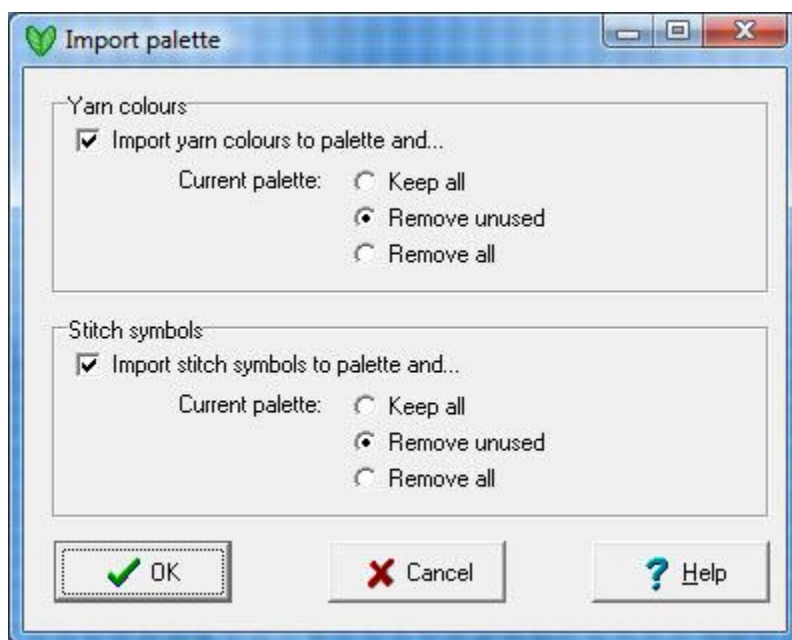
Check the options you want and click **OK**.

You can also import a previously saved palette by clicking on the import button on the palette tool bar.

Cut, Copy And Paste

Cut, copy and paste work slightly differently in DesignaKnit than in other applications. This is because DesignaKnit's Stitch Designer is actually working in two modes simultaneously: colored stitch patterns are bitmaps, whereas stitch symbols are text, and if you are using both in your stitch pattern, you may need to do some preparation before using the cut or copy feature: DesignaKnit offers you more than one way of copying/cutting and the one you choose must be governed by what you intend to do with the clipboard contents.

- If you are cutting or copying existing parts of the pattern in order to paste into a different part of the same stitch pattern, whether in order to move the section or to create additional motifs or build up a symmetrical pattern, you should consider using the quick methods with either the lasso or a selection box, bypassing the clipboard.

- If you are cutting or copying existing parts of the pattern in order to paste into this or another stitch pattern, then you may need to do this in two stages so that the colors and stitch symbols are cut or copied then pasted separately.

- If you are cutting or copying the pattern because you want to paste it into another application - for instance, as an illustration of the stitch pattern - then you can do this whether you are in fabric, grid or plain view, and the colors and texture (fabric view) or colors and stitch symbols (grid or plain view) will be copied together and pasted as a bitmap into your other application.

- If you are cutting or copying the stitch types only, you can place these on the clipboard as text. The text can then be pasted back into DesignaKnit, where it will appear as stitch symbols, or you can paste them into a word processor or spread sheet.

✂ Cut

Cut the whole pattern area to the clipboard using whichever one of these methods you prefer:

- o   click on the **Cut button**
- o   select **Edit/Cut**
- o   **Right-click** anywhere in the pattern area and select **Cut** from the menu
- o   Press **Ctrl+X**

Cut a section of the pattern Select the area you want by drawing a selection box around it. Then place it on the clipboard using whichever one of these methods you prefer:

- o   click on the **Cut button**
- o   select **Edit/Cut**
- o   **Right-click** anywhere in the pattern area and select **Cut** from the menu
- o   Press **Ctrl+X**

The pattern area within the box will be removed and replaced with the current Right Mouse Button color. It is a good idea to set up the RMB color first, but don't worry if it's not the color you wanted - you can either use the fill tool to fill the selection box with the one you want, or you can use the Undo button, set the RMB to the correct color and cut again.

📷 Copy

If you want to copy both stitch types (symbols) and yarn colors in order to past them into another part of the pattern, you will need to do this in two stages:

- to copy the stitch symbols, either to paste them back into the pattern or to paste into another application, click the **Yes** button when asked if you want to convert them to text.

- to copy the colors only to paste back into the pattern, turn off both fabric view (texture) and symbols before copying. Click on the **No** button if asked if you want to convert symbols to text.

- to copy the pattern with both symbols and colors to paste into another application, including fabric view and/or grid if you wish, click the **No** button when asked if you want to convert the symbols to text.

Copy the whole pattern area to the clipboard using whichever one of these methods you prefer:

- o click on the **Copy** button
- o select **Edit/Copy**.
- o **Right-click** anywhere in the pattern area and select **Copy** from the menu
- o Press **Ctrl+C**

Cut a section of the pattern Select the area you want by drawing a selection box around it. Then place it on the clipboard using whichever one of these methods you prefer:

- o click on the **Copy** button
- o select **Edit/Copy**.
- o **Right-click** anywhere in the pattern area and select **Copy** from the menu
- o Press **Ctrl+C**

📋 Paste

Use one of the following options to paste from the clipboard:

- o Click on the **Paste** button (If the Paste button is grayed out, this means the clipboard is either empty or contains data which is not compatible with DesignaKnit.)
- o Select **Edit/Paste**
- o **Right-click** in the pattern area and select **Paste** from the menu
- o Press **Ctrl+V**

The **paste** options available to you will depend on the type and source of the material on the clipboard.

Paste Stitch Symbols:

- If you converted stitch symbols into text, the stitch symbols from the area cut or copied will be pasted into the top left corner of the pattern area, surrounded by a dotted line boundary. Do not be concerned if there is pattern underneath this as it will not be disturbed when you move the past- as long as the box around the motif has a dotted line, it is moveable and will not affect the pattern you have already drawn.

- If you only want one instance to be pasted, drag it to where you want it to be and then set in place by clicking outside the box or by pressing the **Enter key**.

- If you want more than one instance, drag the pasted pattern to its first position, press the **Shift key** to stamp a copy, then drag it to the next position. As long as you don't click outside the dotted line boundary, you can do this any number of times - pressing Shift stamps a copy on the current pattern area. Click outside the motif boundary or press the **Enter key** when you have finished.

Note: if the symbols you see when you paste are not what you expected, especially if they appear to be a random selection and they stretch across the whole pattern area, you are probably pasting in some other text which is on the clipboard - DesignaKnit will convert any text on the clipboard into the KnitWriteDK font.

Paste colors from the current pattern

- The pattern area cut or copied will be pasted into the top left corner of the pattern area, surrounded by a dotted line boundary. Do not be concerned if there is pattern underneath this as it will not be disturbed when you move the past- as long as the box around the motif has a dotted line, it is moveable and will not affect the pattern you have already drawn.

- While the pasted area is active, two paste options become available on the side tool bar:
  When you first paste, by default all the colors in the motif will be included, but you can choose to exclude any which are marked as transparent in the palette.

Select the option on the **left** if you do not want to paste transparent colors

Select the option on the **right** if you want all the colors to paste

- If you only want one instance to be pasted, drag it to where you want it to be and then set in place by clicking outside the box or by pressing the **Enter key**.

- If you want more than one instance, drag the pasted pattern to its first position, press the **Shift key** to stamp a copy, then drag it to the next position. As long as you don't click outside the dotted line boundary, you can do this any number of times - pressing Shift stamps a copy on the current pattern area. Click outside the motif boundary or press the **Enter key** when you have finished.

- While the pasting area is active, you can use the **Tab** key to flip it vertically and the **Ctrl** key to flip it horizontally.

Paste into a different pattern

- Any colors which are not already in your palette will be added automatically

- If you do not want some of those colors to paste, you must first mark them as transparent in the palette and then, while the pasted area is still active, choose the option not to paste transparent colors.

Select the option on the left if you do not want to paste transparent colors

Select the option on the right if you want all the colors to paste

Scaled Paste

Scaled Paste is a quick way of converting images or graphics from other sources into stitch patterns. First, open your image in the appropriate application (or in DesignaKnit Graphics Studio) and then copy it to the clipboard. You can then use **Edit/Scaled Paste** to maintain or reduce the size of the image and/or reduce the number of colors in the image.
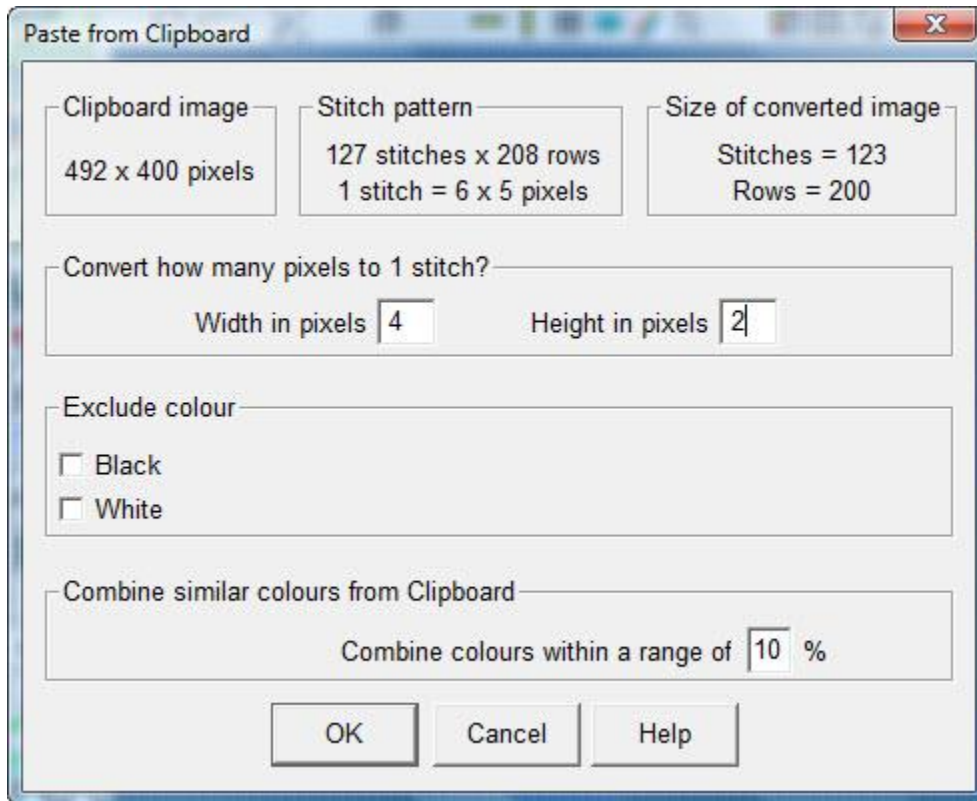
Image Information

The information boxes at the top of the dialogue box, from left to right, show:

- the number of pixels in the whole image on the clipboard
- the size of the current stitch pattern in stitches and rows and the number of pixels per stitch at the current zoom level
- the size of the converted image in stitches and rows, according to the values entered in the next section - this information will be updated as you make changes.

Scaling the Image

To reduce the size of the image, increase the number of pixels per stitch.

In the example above, the size of the clipboard image has been changed to 4 pixels wide by 2 pixels high, thus reducing the width to a quarter and the height by a half of its original size.

The amount of distortion which could occur will depend on the tension and the proportion of stitches to rows - remember that pixels are square, but stitches rarely are.

Excluding Black and/or White

If the image contains a black or white area that you wish to exclude from the pasted image, simply check the Exclude color box for the appropriate color. This feature is very useful for removing unwanted outlines around a design.

Combine Colors

Combine similar colors is used when a colored picture has been copied to the clipboard and you want to reduce the number of colors used when it is pasted into Stitch Designer. The maximum range that can be combined is 20% which should allow most of the similar colors to be combined into a single color. If you still have too many colors, then you can use Palette/Replace to eliminate the unnecessary ones.

Pasting patterns or text into another application

- To paste a copy of your stitch design into another application, choose 'No' when asked if you want to copy the stitch symbols as text. This places a copy of the pattern onto the clipboard as a bitmap which can be pasted into any application which accepts bitmaps, such as a graphics program, word processor or publishing program.

- If you want to copy the stitch symbols as text, when you paste them into the other application they will not be in the KnitWriteDK™ font so, after pasting the text, select it all and use the other application's formatting options to change the font to the KnitWriteDK™ symbols.

Selection Box

A selection box is used to isolate an area of the pattern so that:

- Any effect will apply to the contents only and not the surrounding area

- Any tool used will be confined to the enclosed area - with the exception of the Flood Fill tool, which can be used to fill either the area inside, or the area *outside* the box

- Only the part of the pattern inside the box will be copied to the clipboard

- Imported patterns will be confined to, or tile within, the box

- The enclosed area can be moved or stamped using Quick Copy-and-Paste

To draw a new (untagged) box[5]

To show the *untagged* box at its last position[6]

To show the *tagged* box at its last position[7]

For information on the size and position of the box[8]

To hide the Selection Box[9]

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[5]: click on the button on the top Tool Bar or **right-click** anywhere in the pattern area and select **Draw a new selection box** from the menu.

[6], click on the button on the top Tool Bar or **right-click** anywhere in the pattern area and select **Show the untagged selection box** from the menu.

[7], click the button on the top Tool Bar or **right-click** anywhere in the pattern area and select **Show the tagged selection box** from the menu.

[8], click on the Box Viewer button on the top tool bar. This updates as you resize and reposition the selection box. You can also see the co-ordinates on the status bar at the bottom of the window.

The first set of figures tells you the left and right stitch columns on which the box is placed, and the second set the lower and upper row numbers. The figures in brackets then tell you the width of the box in stitches and the height in rows and, in relation to the current tension setting, the measurement in whichever units of measurement you have set up.

e.g.: 18..74 , 1..112   (57S x 112R = 17.8 x 28cm) translates as:
The area within box is stitch 18 to stitch 74 (Counting from the left), and row 1 to row 112 (Counting from bottom to top)
The box measures 57 stitches wide by 112 rows high and, at the current tension setting that is equal to 17.8 x 28 cm (or 7 x 11 inches)

[9], click on whichever button is active on the top Tool Bar to turn it off, or **right-click** anywhere in the pattern area and select **Hide the** *(tagged or untagged)* **selection box** from the menu. If you later click on one of the Show Box options, the box will reappear at its last position

Untagged Selection Box

The area within the untagged selection box can be:

- Dragged to a new position[10] This option will move or paste opaque colors only, omitting any transparent colors. When moving the contents, the space left by the moved colors will be filled with the current RMB color.

   This option will move or paste all the colors in the box. When moving the contents, the entire box area will be filled with the current RMB color.

- Copied or cut to the clipboard[11]

- Used to confine the area into which elements can be pasted[12]

- Used to confine the effect of any drawing tools to within the selected area[13]

- Used to stop a fill from entering the box[14]

- Used to confine an imported pattern or to define the area of a tiled import[15]

- Flipped horizontally or vertically[16]

- Used to set up Quick Copy-and-Paste[17]

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[10]: Select options for moving transparent colors on the side tool bar:

[11]: if you are working in fabric view and/or you are using stitch symbols as well as color and you intend to paste the area back into the stitch pattern, DesignaKnit will warn you that you need to copy and paste in two stages: symbols and then, with stitch symbols view turned off, colors.

[12]: when you paste an area larger than the box into which you are pasting, the area will be trimmed to fit. Any colors which are marked as transparent in the palette will not be pasted.

[13]: if the box is showing, any drawing or fill tools used inside the box will not affect the area outside the box.

[14]: if the box is showing, and you use the fill tool outwith the box, the area within the box will not be affected.

[15]: if you use any of the Edit/Import options, they will be confined to within the box.

[16]: make sure that you do not have a drawing tool selected, then click inside the box with the LMB, then hit the Ctrl key to flip horizontally or the Tab key to flip vertically

[17]: click inside the box and hold down the LMB. Press the Shift key if you want to retain a copy in the current position, then drag the box to a new position and press Shift to stamp a new copy. Do this as many times as you want to build up your pattern. Press Tab or Ctrl at any time to clip the contents.
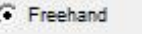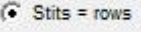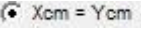
To copy or move a non-rectangular area, use the Lasso

Tagged Selection Box

If you want to **resize** or **move the box** (without redrawing it) change to the **tagged box** by clicking on the button or selecting the tagged option from the right-click menu.

You can quickly change from the untagged to the tagged box by clicking on the tagged box button on the tool bar, or you can **right-click** anywhere in the pattern area and select **Show tagged selection box** from the menu.

You can do all the same things with the tagged box that you can do with the untagged one, but in addition the tagged box has some special functions:

- Resize the box in one direction[18]

  - Resize the box diagonally[19] to resize without constraining the size

  to resize to an equal number of stitches and rows

  to resize to equal horizontal and vertical measurements - the actual number of stitches and rows will be determined by the current tension.

- Move the box, but not the contents[20]

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[18] by dragging one of the tags on the side.

[19] by clicking on a corner tag. Select one of the options available on the side Tool Bar:

[20], by clicking on the center tag and dragging the box to a new position. This is especially useful when tiling imports horizontally or vertically - once you've imported one pattern band and fixed it, move the box to the next place ready to import the next pattern element. If you want to move the contents as well as the box, click anywhere inside the box other than on the center tag.

Pointer Position And Mouse Button Viewer

This is an optional tool providing a quick reference to the mouse button allocation and the exact position of the cursor in the pattern. If this gadget is not displayed, turn it on by clicking on the [icon] button on the top tool bar.

If your Stitch Designer window is not maximized, or if you are working with more than one monitor, you may want to move the Mouse Button Viewer out of the window so that you can see the whole pattern area: Select Options/Floating Windows to enable this feature - turning it off will snap all the 'child' windows, such as the Mouse Button Viewer and the Palette, back into the main window.

Mouse Button Allocation
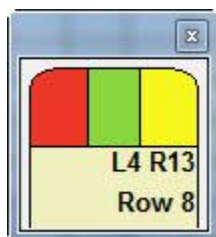
The top part of the Viewer shows you which are the current allocations for the mouse buttons. In the example above, the Left Mouse Button is allocated to a stitch symbol, and the Right and Middle Mouse buttons to yarn colors.

Quick Clicks

Right Click

You can quickly change from the color allocated to a mouse button in the palette to the symbol allocated to that button, or vice versa by clicking with the Right Mouse Button on the relevant button indicator. Note that the main stitch, which in grid/symbol view is a blank cell is represented as plain gray.
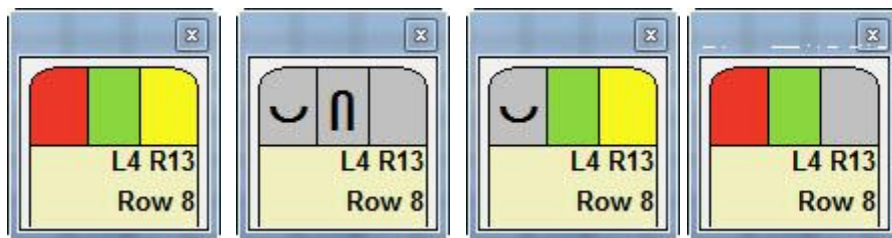
Left Click

Click with the Left Mouse button on a color to open the Color Adjustment window.
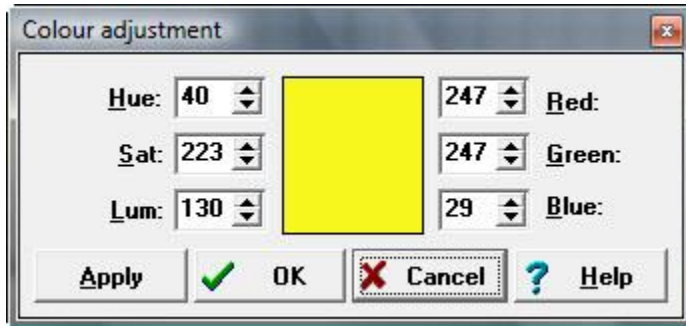
- click **Apply** to preview the effect in the stitch pattern and the palette
- click **OK** to keep the changes
- click Cancel to cancel and revert to the original color.

Cursor Position

The lower part of the Viewer reports the exact position of the cursor when it is over the pattern area. When only one pattern repeat is shown, the cursor position information is displayed thus:

If there is more than one repeat, even if you are zoomed in to show only one of these, you will know which repeat the cursor is over and the stitch and row within that repeat. Remember that if you make any change, for instance with a drawing tool, that change will occur at the same position in every repeat.

Shows exact cursor position:
1st Horizontal Repeat
(counts from left)
2nd Vertical Repeat
(counts from the bottom of the pattern, where the knitting starts)

Within the repeat:
4th stitch from Left
6th stitch from Right
8th row Up
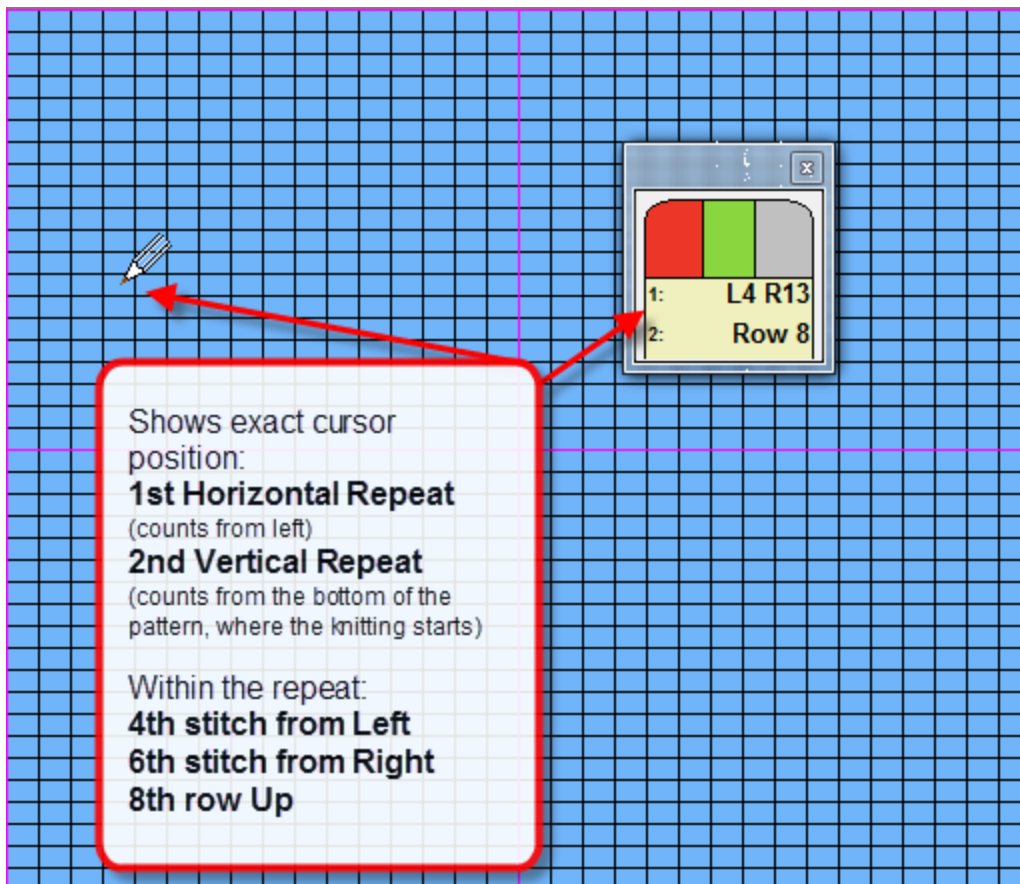
Trace Tool

The Trace Tool makes it possible to use a graphics tablet and stylus to trace a design or picture directly into the stitch pattern on screen, producing a motif with the correct aspect ratio of any size within the fabric area.

Tensions

It is essential that the correct knitting tensions are entered before beginning a tracing as the ratio of stitches to rows has a direct bearing on the finished drawing; altering the tensions after tracing can have an adverse effect on the proportions of the drawing. To check your tensions, click on Options/Tensions.

Preparing To Trace

First, place the item to be traced on the tablet (some tablets have an acetate sheet to overlay the item and keep it in place). The picture should be attached to the tablet in such a way that the area to be traced does not lie over the part of the graphic tablet which maps to the main window title, the menus, the tool bar or the status bar - make sure that it lies within the area of the tablet which maps to the drafting area and not beyond.

Now make sure that the DesignaKnit palette is not lying on the part of the stitch pattern you wish to use. You can do this in any one of **several ways**:

o   Move the palette by clicking on its title bar and dragging it out of the way. If you select Options/Floating windows, you can drag it right out of the DesignaKnit window - this is useful if your DesignaKnit window is not maximized or you have more than one monitor and the desktop is spread across both or all.

o   Click on the cross at the top right of the palette to close it completely. Click one or both of the palette buttons on the top tool bar to bring it back again.

Using The Trace Tool

Select the tool to activate the Tracer Mode dialogue box:
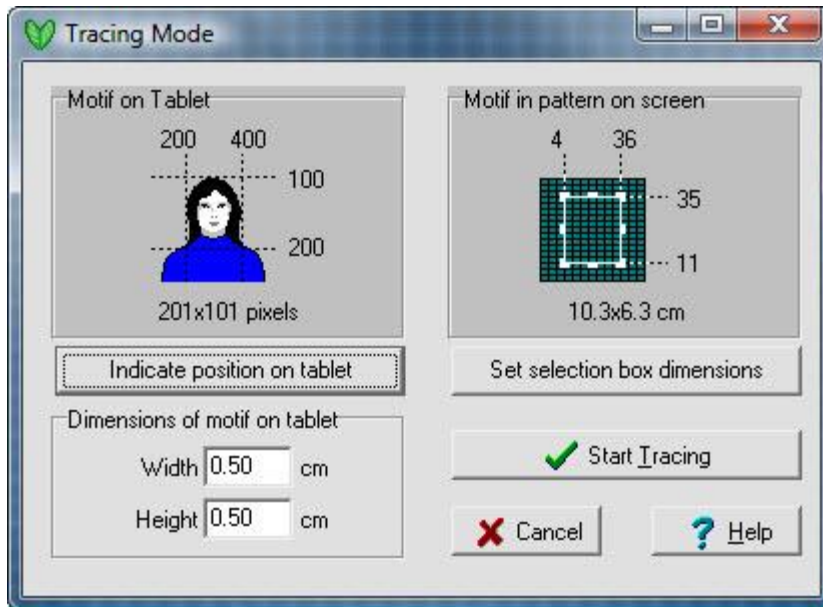
Map the drawing area on the tablet to Stitch Designer

1. Map the drawing area on the tablet

   The area of the picture or design on the tablet must be defined. Click on the **Indicate Position** button. The Stitch Designer screen will turn white and instructions for defining the area will appear. Move the stylus to the left hand edge of the picture on the tablet and make sure that the cursor is in the design area of Stitch Designer and click the stylus point. Do the same for the right hand edge and the top and bottom edges, in each case making sure that the cursor is within the pattern area of Stitch Designer. As soon as you have finished mapping the position on the tablet, the workspace will return to normal and the Tracing dialogue will reappear.

2. Select Area of Pattern

   Now DesignaKnit needs to know where on the pattern area you want to place your tracing, so click on the Select Area button. The tagged selection box is now on the workspace - by default it covers the left half of a single pattern repeat and may cause the zoom level to change at first - you can alter this if any of the tags are obscured by the instructions. The Box Viewer will also open so you can see the exact size and position of the selection box, even if the zoom level is such that the individual stitches are difficult to see. (If you don't need it, you can close it)

    If the box is not in the correct place on your pattern, drag it using the center tag to where you want it. The box may now be re-sized to enlarge or reduce the final drawing. Dragging a corner tab will re-size the box but will constrain it to retain the correct aspect ratio of the defined tracing area. The size and position of the box will be shown as usual on the status bar at the bottom left of the screen as well as graphically in the Box Viewer.

   The precise dimensions of the defined pattern area will depend on the size of the graphics tablet, the size of the tracing and the tensions which have been set.

Tracing

To begin tracing, click again on the Trace Tool and when the Tracer Mode Dialogue box opens, click on the Trace Button. The Tracer Tool cursor now replaces the pointer and, when the stylus is on the defined area of the tablet, a second cursor, a cross, appears in the selection box. The Trace Tool cursor remains on the screen. It is the Trace Tool cursor which will change to a pointer when over the Yarn palette, enabling the selection of colors. The default drawing tool while in Trace Mode is the pencil; other tools are disabled.

Make certain that the cross cursor is showing in the box when tracing. If the stylus goes outside the defined area of the tablet, the cross will disappear. When tracing a pattern from a graphed or charted original, it may be more accurate to click once on each square of the graph rather than trace the outline of the shape.

NB Make certain that you only trace when the cross-hair cursor is within the box and when the trace tool cursor is shown in tracing mode (like a miniature graphics tablet and stylus) because if this cursor is over the tool bar or palette and has changed to another mode (i.e. a pointer or hand), the cursor will function in that mode when the stylus is pressed. For instance, if the stylus is pressed while the pointer shows over the palette, the color will change to the one under the pointer. If you wish to change the color of one of the buttons during tracing, make certain that the main cursor is over the palette and is showing as a pointer before making a selection.

Returning to Stitch Designer

When you have finished tracing, click again on the Trace button and then click on Cancel. This ends the tracing session.

Retaining Settings

The diagrams on the Tracer Mode Dialogue Box showing the selected areas of both tablet and stitch pattern show the most recently made selections. DesignaKnit retains this information which means that it is not necessary to finish a tracing in one session; if you have not made any alterations to the configuration or settings in the dialogue, you may continue a tracing at a later date simply by clicking on the tracer tool and then on the Trace Button.

T I P

Tablet styli with a single button can be made to behave like a two-button stylus; holding down the Control (Ctrl) key while pressing the single button results in the emulation of the second button.

Tracing from a Graph or Charted Design

If copying from a graph or grid, before selecting the Trace tool button, draw a Selection Box on the pattern grid covering the number of stitches and rows to match the one on the tablet. Now click on the Trace button and, ignoring the invitation to select the tracing area, click on Start Tracing. Use the stylus point to "dot" in each of the grid cells to be marked in that color. Please note that the non-linearity of some budget graphics tablets may not result in a perfectly matched graph on screen, especially if the cells measure less than 2.5mm (1/10th inch) in either direction.

Yarn Color Setup

The Yarn Color Setup is where you can select and organize the colors for your stitch pattern. Any changes you make here will update the current palette. You can also save a set of colors and their attributes as a palette (.plt file) from within this dialogue.

To begin setting up your yarn colors, click on the Yarn Color Setup button [image] either on the main tool bar on the left of the work area, or the one on the Palette - or you can select **Palettes/Yarn Color Setup** from the Menu bar.
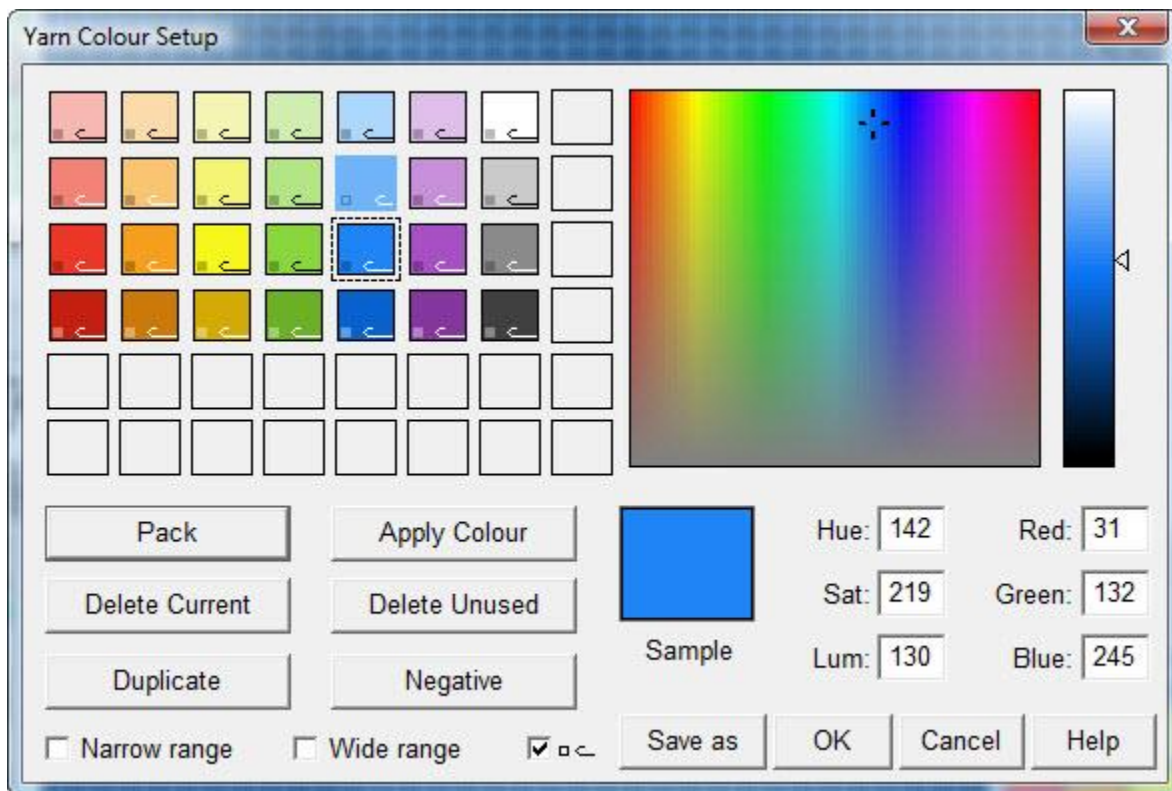
Add new, or adjust existing colors

To add a new color, first select an empty cell by clicking on it - a dotted line around the cell indicates that it is active. The sample area will still show the last selected color because this is the current position of the color picker. As soon as you start to adjust the color, the sample area will update to reflect the changes.

To adjust an existing color, select the one you want to change.

To duplicate a color, select the color cell you want and click on the **Duplicate** button. The New color will be placed in the next free cell.

To create the negative of a color, select the color cell you want and then click on the Negative button. The new color will be placed in the next free cell.

Note: *Some graphics and photo-editing programs will refer to negative colors as* complimentary *colors, but this refers to* light *values, not* pigment *or* dyes.

To move a color, drag the color cell to a new position. You can either place it in an empty cell or, if you place it onto another color, they will exchange places.

Color Picker

Click anywhere in the color area to select that color, or drag the color picker cursor to where you want it to be. You can then adjust the color finely using one or more of the other controls.

When you are ready, click on the **Apply Color** button.

Adjust Lightness/Darkness

Use the slider at the right side of the color picker to lighten the tint or darken the tone.

When you are ready, click on the **Apply Color** button.

Adjust Color

You can use the Hue, Saturation and Luminosity (HSL) values or the Red, Green and Blue (RGB) ones to control the display of the colors on your screen. The exact effect will depend on your display settings, and for printing, your printer may need to be adjusted to get an exact match. Any adjustment you make will update the color sample to the left.

When you are ready, click on the **Apply Color** button.

Create a Range of Colors

DesignaKnit will create a range of colors automatically, over a wide or a narrow spectrum, based on a single color or a range between two which you have already set up. The number of colors included in the range will depend on how many color cells you place between the start and finish of the range.

To create a range, you must first have a color selected - if the currently selected cell is blank, the options will not be available.

First set up or select the color you want to start the range, and then click on Wide range or Narrow Range, then select the cell you want to be the end of the range - this can either be another color cell, or it can be an empty cell. As soon as you click on the cell to mark the end of the range, the cells in between will fill with color according to the range option you chose. The colors produced will not be affected by the previous state of those cells, whether they were blank or colored.

Ranges are created using Hue, Saturation and Luminance (HSL) values, which range from 0 to 255. Hue is circular: this means that Red is at both ends of the spectrum, so a value of 0 and one of 255, with the same Saturation and Luminance values will be identical colors. This means that when you select two hues, DesignaKnit can either take the shortest route between them to produce the range, or it can go the long way round. Thus two colors which are quite close to each other on the spectrum, such as red and violet, would produce a narrow range like this:

whereas, if wide range were chosen, DesignaKnit will take the longer route via other colors to produce this range:

You can create a range from a color to a blank cell, in which case it is the luminosity which is changed. If your range is created rightwards or downwards, the luminosity decrease across the range, whereas if you create it leftwards or upwards, then the luminosity decreases and the colors are darker.

In the example pictured below, the starting point is this blue

The top two rows show narrow ranges created first to the right and secondly to the left. The bottom two rows show wide ranges created first to the right and then to the left.
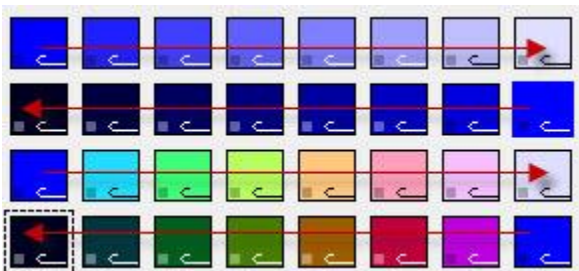
Transparent and Opaque Colors

Each color has a small square at the bottom left. This is the **transparency indicator**. If it is opaque, then the color is regarded as opaque, and if just an outline, then the color is transparent. Click on the indicator to toggle the status.

Whether a color is transparent or opaque is important when copying and pasting and when moving elements with the lasso but it has no direct impact on the knitting, whether for hand or machine.

Opaque colors will be pasted, but transparent ones will not. This is particularly important when selecting a motif for copying: if the background is transparent, it will not matter if it is included within the selection box because it will not be pasted.

Transparent/opaque settings may also have some effect on which color DesignaKnit perceives as the actual yarn color if you have used additional color(s) to highlight or enhance R or W method designs.

- If you do not see the transparency indicators on the color cells, it is because you have not checked

  the option to display them.

Needle Selection for Machine Fair Isle Method

The machine Fair Isle method requires no more than two colors in a row, one of which will be knitted on non-selecting needles (rear feeder), and the other on selecting needles (front feeder).

To toggle a color from selecting to non-selecting and back, click on the needle in the relevant color: if the needle juts forward, it will select, and if not then it will not select. In the above illustration, all the colors are selecting ones, with the exception of the right mouse button color, which is non-selecting.

If your design uses a yarn which is sometimes in the front feeder, and sometimes in the rear one, then you should place **two** instances of the color into the palette and set one as selecting and the other as non-selecting.

If the needle symbols are not visible it could be for one of these reasons:

- you have not configured the program for machine knitted Fair Isle or, if you have,

- ,the knitting method or machine is not compatible: jacquard, for instance, does not require you to specify a selecting color.

- you have not checked the option on the dialogue that toggles the display on and off

Tidying, Sorting and Saving the Palette
Rearrange Colors

You can drag the color cells so they are in the order you want them. You can move a color onto an empty cell or you drag it onto an adjacent cell to swap places

Delete Current

Click on this button to remove the currently selected cell.

Delete Unused

This removes any colors which are not in the current pattern. If you have not yet used any colors in your design, all except the background color will be deleted.

Pack

This button removes any empty cells between the colors and packs the remaining ones from the top left, horizontally, then vertically.

Save the palette

To save the palette for future use, click on the **Save As** button and give the palette a new name. Note that this command saves the current palette, including any symbols, but does not save the pattern itself.

Yarn Symbols

If it is impractical to print a colored chart, you can produce one in black-and-white using symbols to indicate the colors or types of yarn for your stitch pattern. You can use characters from any font on your system, *except the KnitWriteDK™ font*, which is disabled for this function so that there is no conflict between symbols used to indicate knitting instructions and those representing yarns.

To set up Yarn Symbols, select **Palette/Yarn Symbols**

- **Select the font you want to use**
   from the drop-down list at the bottom of the dialogue. All symbols will be in the same font, so if you change fonts, all allocated characters will change to match the new font.

- **To allocate a yarn symbol**
   to a color, drag the character you want from the left hand side onto the color square on the right hand side.

- **To change a yarn symbol**
   drag a new character from the left hand side onto the relevant color square at the right.

- **To remove a yarn symbol**
   drag the blank square at the top left of the numbers section onto the color square on the right hand side.

A   To display Yarn Symbols both on the Palette and on the grid, either select **View/Yarn Symbols** or click the **Memo/Yarn Symbols button** on the Palette Tool Bar until it displays **A**

Please note that the options View/Yarn Symbols, View/Memo and View/Stitch Types are mutually exclusive and therefore selection of any one will cancel any other. This does not mean that you cannot apply both Yarn Symbols and Memo numbers to a palette, just that you can't view them both in the palette at the same time.
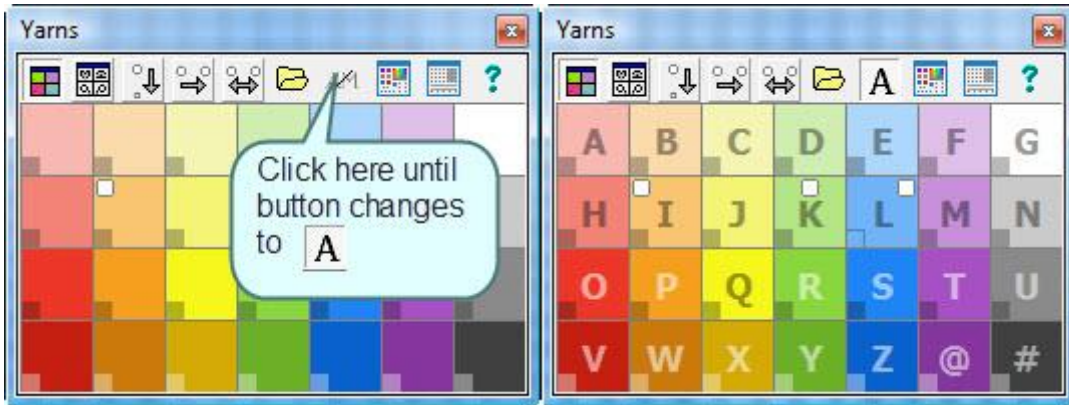
Memo Numbers

If you are using a Brother knitting machine, the Silver Reed PE1 Pattern Controller or a Passap E6000/E8000 you can assign Memo Numbers to colors. These numbers will display on the console as you knit, to warn you when to change color.

Silver Reed PE1 Design Controller

The Silver Reed PE1 only shows Memo information when a pattern has been transferred, for Jacquard or AG50 Intarsia knitting, using method D Jacquard separation.

Brother Electronic Machines

The yarn numbers allocated in the Memo Numbers dialogue box will appear in the memo window on the machine's console.

- o When knitting **Jacquard**, every color can be allocated a number.

- o For **Fair Isle** knitting, normally only the contrast yarns carry memo information.

Passap/Pfaff E6000 and E8000 Machines

For multi-colored Jacquard, colors must have Memo numbers allocated.

- o For 4-color patterns, you may use the numbers 1 to 4 only.

- o For 3-color patterns, you may use the numbers 1 to 3 only

- o For 2-color patterns you may use the numbers 1 and 2 only

For these machines, the numbers refer to the yarns within a row, so as your pattern may consist of more colors overall than the method allows in a single row, you can re-use the numbers for other colors.

e.g.: Rows 1 to 10 use Red, Green, Blue, Yellow, whilst rows 11 to 20 use Red, Black, White, Green:

This could be set up as: Red=1, Green=2, Blue and Black=3 and Yellow and White=4

To set up memo numbers, click on **Palettes/Memo**
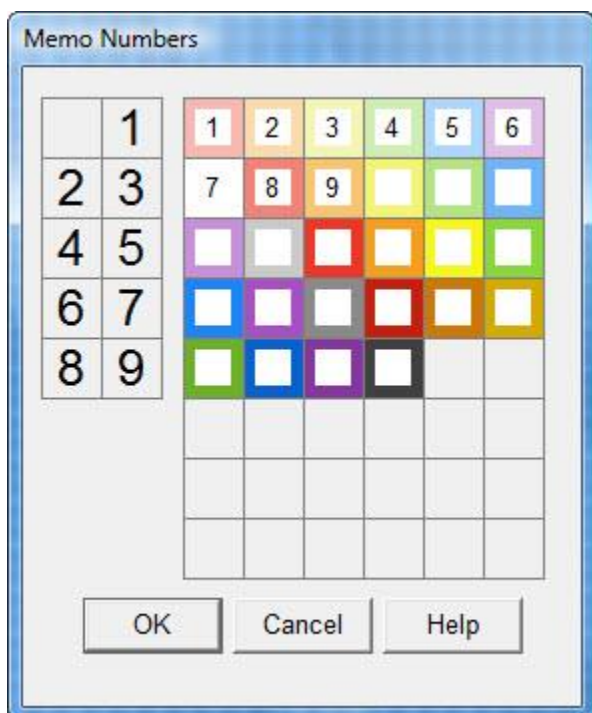
Memo numbers are from 1 to 9. The same number can be used several times to allow for situations where more than ten colors are used in a design and where a color changer is used and several colors are changed to the same feeder(s).

To allocate a memo number to a color, drag the number you want from the left hand side onto the color square on the right hand side.

To remove memo information, drag the blank square at the top left of the numbers section onto the color square on the right hand side.

M In order to display Memo numbers on the palette, you can either check **View/Memo**, or click the **Memo/Yarn Symbols button** on the Palette Tool Bar until it displays **M**.

Please note that the options View/Yarn Symbols, View/Memo and View/Stitch Types are mutually exclusive and therefore selection of any one will cancel any other. This does not mean that you cannot apply both Yarn Symbols and Memo numbers to a palette, just that you can't view them both in the palette at the same time.

Stitch Designer Palette

The palette is where you place the yarn colors and/or stitch symbols that you want to use in your design.

If the palette is not already showing, click on one or both of these buttons on the top tool bar:

to show Yarn Colors in the palette

to show Stitch Symbols in the palette

- If neither of these buttons is switched on, the palette will not be visible, and if both are active, then both elements will be shown in the palette.

- These buttons are also available on the Palette tool bar, but in that instance whilst they can show or hide the respective elements, cannot be used to switch the palette off altogether.

The default palette contains a range of basic colors and symbols according to the knitting method you have chosen and, when starting a new design (File/New) any options you have selected.

If you open a previously saved pattern, then the colors and symbols you saved with that pattern will load, and you can import colors and stitch symbols from previously save palette files (.plt) as well as stitch patterns (.stp) which can be added to any already existing in the palette.

- If you find the palette gets in the way of your designing, you can select Options/Floating Windows to allow you to drag it outwith the main Stitch Designer window.

- You can resize the palette by dragging the edges or corners. The menu option Palette/Reset Palette will reset the palette to the optimum size according to the number of colors and/or stitch symbols.

- You can quickly close the palette by clicking on the X in the top right corner - and reopen it with either or both of the tool bar buttons.

Palette Tool Bar

The palette has its own tool bar for quick access to features concerned with setting up and using yarn colors and stitch symbols.
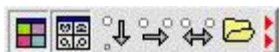
NB: If you only have a few colors and/or symbols displayed in your palette, you may not be able to see the entire tool bar. If this is the case, you will see two red arrowheads on the right: click here and the palette will expand to show the whole tool bar.

You can resize the palette manually by hovering the mouse over a corner or side edge until the double-pointed resize cursor appears, then drag and let go when the palette is the size you want. Use the option Palettes/Reset Palette to reset the palette to the default size for your pattern, which will be determined by the number of colors and/or symbols it contains.
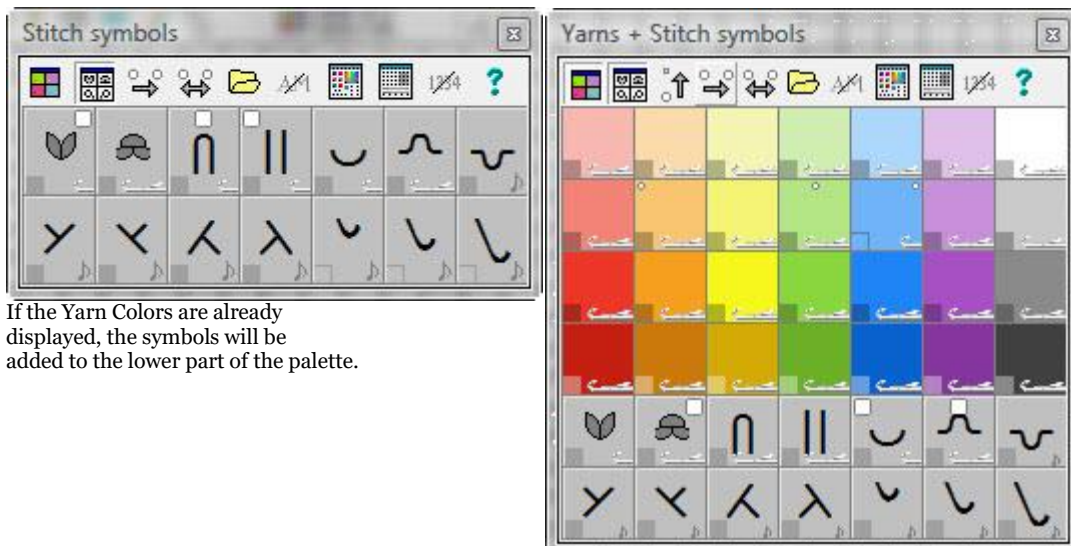
Show/Hide Yarn Colors

Click on this button to display the Yarn Colors palette. Click again to hide the yarns.
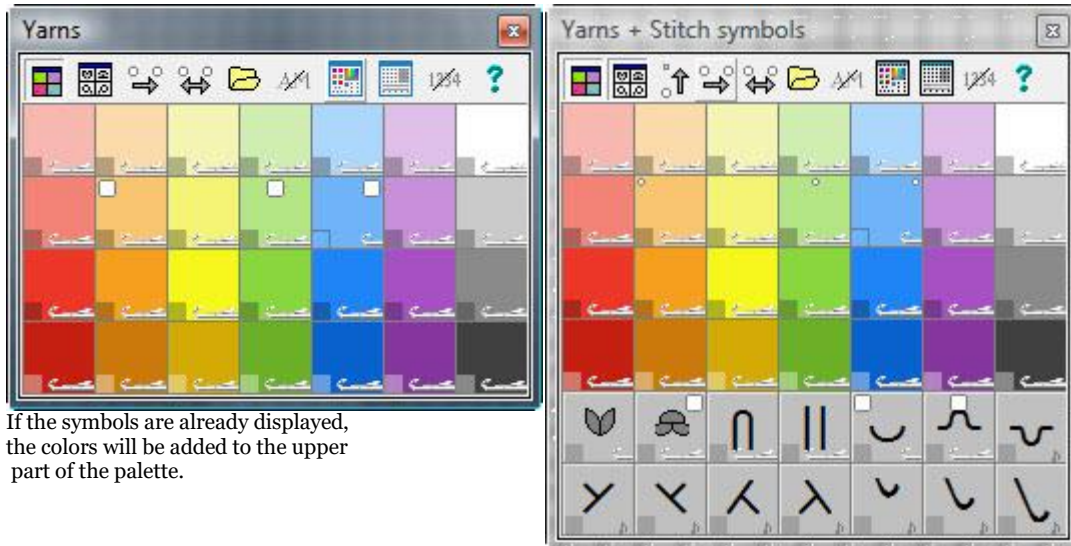
If the symbols are already displayed, the colors will be added to the upper part of the palette.

Show/Hide Stitch Symbols

Click on this button to display the Stitch Symbols palette. Click again to hide the symbols.

If the Yarn Colors are already displayed, the symbols will be added to the lower part of the palette.

Combine Yarn Color with Symbol or Symbol with Yarn Color

The Combine button is only available when both yarn colors and stitch symbols are shown in the palette.

Use this button to apply a specific symbol to a specific color or vice versa.

Apply a color to a specific symbol.

First select the symbol with the Left Mouse Button. Next, select the color you want to combine with that symbol with the LMB. The color will now have the active LMB indicator and the arrow on the button will be pointing downwards to show that it is the color which will be applied to the symbol.

To restrict the effect to a particular area, first draw a selection box where you want the color to be applied. If necessary, you can then use the pencil tool to adjust any individual stitches.

Apply a symbol to a specific color.

First select the color with the Left Mouse Button. Next, select the symbol you want to combine with that color with the LMB. The symbol will now have the active LMB indicator and the arrow on the button will be pointing upwards to show that it is the symbol which will be applied to the color.

To restrict the effect to a particular area, first draw a selection box where you want the symbol to be applied. If necessary, you can then use the pencil tool to adjust any individual stitches.

Replace Yarn Color or Replace Stitch Symbol

Use this button to replace one color in the pattern with another, or one symbol with another.

Replace a Color

Click on the color you want to replace with the Right Mouse Button, and then select the new color with the Left Mouse Button. Now click on the Replace button.

To restrict the effect to a particular area, first draw a selection box where you want the symbol to be applied. If necessary, you can then use the pencil tool to adjust any individual stitches.

You can also use the Eraser tool to replace colors

Replace a Symbol

Click on the symbol you want to replace with the Right Mouse Button, and then select the new symbol with the Left Mouse Button. Now click on the Replace button.

To restrict the effect to a particular area, first draw a selection box where you want the symbol to be applied. If necessary, you can then use the pencil tool to adjust any individual stitches.

You can also use the Eraser tool to replace symbols.

Exchange Yarn Colors or Exchange Stitch Symbols

Use this button to swap one color in the pattern with another, or to swap one symbol with another

Exchange Yarn Colors

Select the two colors you want to exchange in the pattern with the Left and Right Mouse buttons, then click on the Exchange button to swap them over.

Exchange Symbols

Select the two symbols you want to exchange in the pattern with the Left and Right Mouse buttons, then click on the Exchange button to swap them over.

Import Palette

Click on this button to import a saved palette or one associated with a saved stitch pattern.

This will open the Thumbnails Browser showing any saved palette files. If you want to import a palette associated with a stitch pattern, then use the drop down menu in the browser's file type field to change from Palette Files (.plt) to Ver 7/8 Stitch Patterns (.stp).

When you have selected the file you want, click on OK and the following dialogue will offer you further import options:
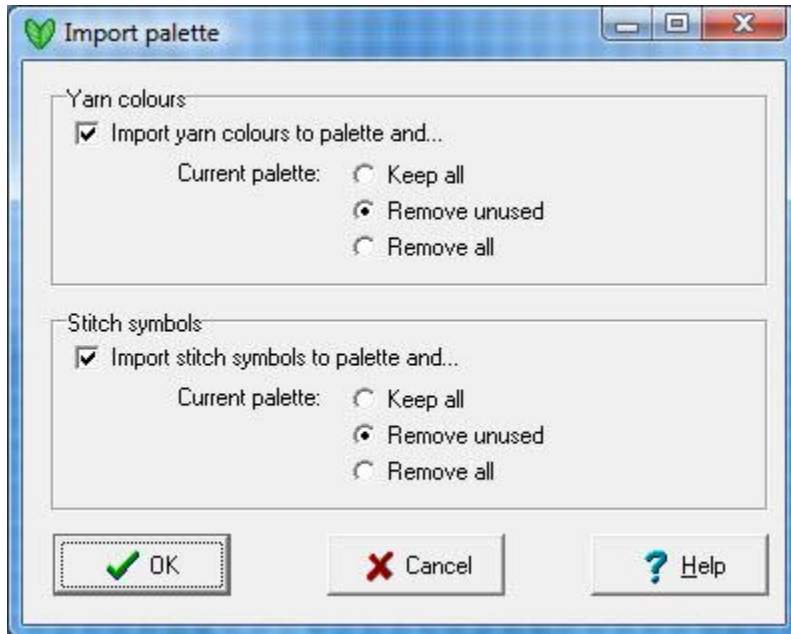
Check the options you want and click OK.

If you want to save your palette, use Edit/Export/Palette.

Show/Hide Memo Numbers or Yarn Symbols

If you have set up Memo Numbers or Yarn Symbols you can show them both on the palette and in the pattern grid by clicking on this button until it changes to the mode that you want.

Activating this button will automatically hide the Stitch Symbols section of the palette as these cannot be displayed on the pattern at the same time. If you turn the Stitch Symbols back on, Memo Numbers or Yarn Symbols will be turned off.

Memo Numbers and Yarn Symbols are hidden.

- If Yarn Symbols are displayed, click twice to hide them.
- If Memo Numbers are displayed, click once to hide them.

Show Yarn Symbols

Click **once** on the button to show Yarn Symbols. These will display in the pattern as well as in the palette. To assign symbols to colors, select Palette/Yarn Symbols.

> **Note**: *these are symbols to denote yarn types or colors and should not be confused with Stitch Symbols which are displayed by clicking on the Stitch Symbols button*

Click **twice** on the button to turn off the display of Yarn Symbols.

M Show Memo Numbers

Click **twice** on the button to show Memo Numbers. These will display in the palette only, and not in the pattern area. To assign numbers to yarns, select Palette/Memo Numbers.

Click **once** again on the button to turn off the display of Memo Numbers.

Open Yarn Color Setup

To set up the colors in the Yarn Color Setup dialogue, you can click on this button on the palette or use the one on the main tool bar.

Open Symbol Organizer

Click on this button to open the Symbols Organizer to select stitch symbols for your palette.

1234 Toggle Color Changer On/Off

If you will be using a Color Changer with your knitting machine, or if you want to preview the yarn selection configuration for a color changer, you can activate this button, which will also update the Knitting Machine Setup and add CC to the filename shown on the Title Bar of the Stitch Designer Window.

If you have configured Fair Isle method for Japanese knitting machines, activating the Color Changer option will automatically reverse the needle selection indicators in the palette so that they accord with the way in which the yarns will be threaded into the feeders, so that the changing colors are threaded into the rear feeder of the carriage. If you have set the method to R or W or to one of the Jacquard options, the needle selection will not change - the reversal of the selection applies only to Fair Isle.

Note that whatever the status of the Color Changer button on the palette, the pattern itself will be downloaded to machines with an independent memory with the needle selection configured for normal knitting. When you knit the pattern, you should switch on the negative button on the machine's console to reverse the selection for knitting with the Color Changer. You should also make sure that the Color Changer option in Interactive Knitting is switched on for the correct yarn changing instructions.

T I P :

To reverse the selection status of the yarn colors *without* changing the current status of the Color Changer, press Ctrl+E.

Yarn Color Palette

If the palette doesn't not already contain the colors you want to use, you can select the ones you want in the Yarn Color Setup dialogue

Select the colors you want to use with the drawing and painting tools

Click on the colors you want to use with the appropriate mouse button. When you then use a drawing tool, the color you draw on the pattern will be the one associated with the mouse button you use with that tool. To select a different color for a mouse button, just click on the new color.

You can activate three colors at a time allocating them to the mouse buttons by clicking on the color with the relevant button(s):

- LMB (Left Mouse Button - indicator shows in the top left corner of the color
- RMB (Right Mouse Button) - indicator shows in the top right corner of the color
- MMB (Middle Mouse Button (or LMB and RMB simultaneously) - indicator shows top center of the color

If you have symbols as well as colors in the palette, you can allocate a combination of colors and symbols to the mouse buttons. The active one for each mouse button is shown with a large white indicator, and the inactive allocation by a small white spot in the same position.

Once the colors have been allocated, use the appropriate mouse button(s) with the drawing tool of choice.

T I P

If you are changing colors frequently, you can quickly pick a color from the pattern to use with either the left or right mouse button:

1. Make sure that yarn colors have focus (press Ctrl + Shift keys together to toggle focus from colors to symbols and back again)
2. Pause the cursor over the color you want in the pattern, hold down the Ctrl key and click with the mouse button you want to use.
Note that you cannot use this feature to set the Middle Mouse Button color.

Adjusting Colors

To adjust a specific color, using RGB or HSL values, double click on the color to bring up the adjustment dialogue.
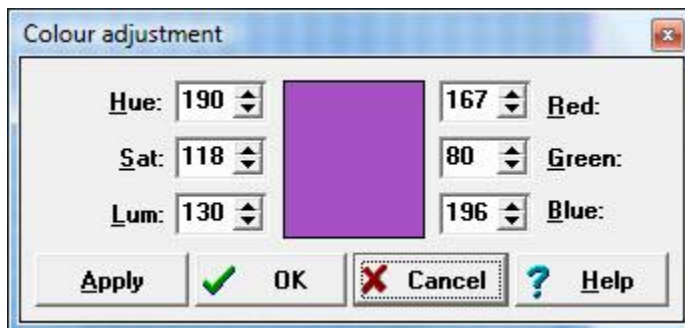
To see a preview of the new color, click Apply. If you then change your mind, you can either Cancel to return the original color, or continue tweaking the values. When you are satisfied, click OK to make the changes permanent... but if you change your mind at this point, you can use the Undo button to get back to where you were.

Transparent/Opaque Colors

Whether a color is transparent or opaque is important when copying and pasting and when moving elements with the lasso but it has no direct impact on the knitting, whether for hand or machine.

Opaque colors will be pasted, but transparent ones will not. This is particularly important when selecting a motif for copying: if the background is transparent, it will not matter if it is included within the selection box because it will not be pasted.

Each color has a small square at the bottom left. This is the **transparency indicator**. If the indicator is opaque, then the color is regarded as opaque, and if just an outline around the color, then it is transparent. Click on the indicator to toggle the status from opaque to transparent and back again.
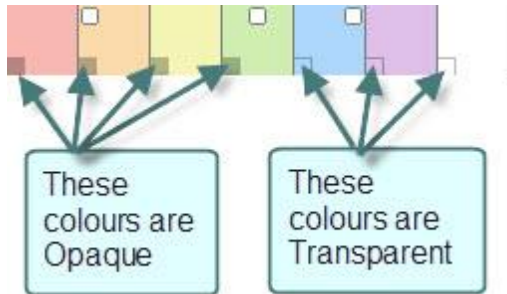
Transparent/Opaque for Machine Knit R and W methods

All non-Fair Isle patterns are based on the main yarn being in the rear feeder and, with the exception of Thread Lace, it is the only yarn fed through the carriage. This means that there only needs to be a single color shown across the entire row as it is the Smart Symbol which will determine the selection of the needles for Tuck, Slip/Skip, Thread Lace Weave and Garter Stitch.

However, it is sometimes helpful to use additional colors as 'memo' colors either to highlight the Smart Symbols, but especially for Weave, Thread Lace or plated patterns where a second yarn is used. DesignaKnit then needs to work out which is the knitting color so that it can give the correct color changing instructions in Interactive Knitting.

This is how DesignaKnit will know which is the knitting yarn:

Colors in the row	status	main/knitting yarn
One	opaque or transparent	this color
Two	one opaque, one transparent:	opaque color
Two	both opaque:	first stitch at right
Two	both transparent:	first stitch at right
Three +	One opaque, two transparent:	opaque color
Three +	Two or more opaque:	first opaque stitch at the right
Three +	All transparent:	first stitch at right

However, in a band of pattern where the color is used throughout, its status as the knitting or memo color is established until the last row where it appears. If it reappears later on in the pattern, and it is used for the opposite reason, as long as the knitting yarn is correctly designated, then it can adapt.

Sometimes it may be necessary to set up a second instance of the color or colors which are used in different situations in the pattern, with the opposite setting. An example might be for a weaving pattern where the knitting yarn and the weaving yarn change places.

Needle Selection for Machine Fair Isle Knitting

The machine Fair Isle method requires no more than two colors in a row, one of which will be knitted on non-selecting needles (rear feeder), and the other on selecting needles (front feeder).

When the knitting method is set to Machine Fair Isle, each color on the palette will show a needle symbol which is used to set the selection status of that color.
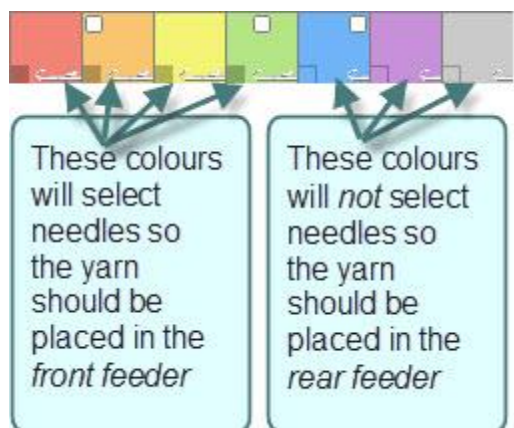
> ### T I P
>
> The selection status of the color only applies to rows in which there are two colors and to the plain rows above, until the next band of Fair Isle is reached or the use of a Smart Symbol indicates a change of technique.
>
> This makes it possible to use a color which is designated as non-selecting for Fair Isle as the main color in a band of Tuck or Slip.
>
> If you do not want to have to make sure that plain rows between Fair Isle bands have only non-selecting colors, use the Technique Change Control Smart Symbol on the first and last of the plain rows. During knitting, DesignaKnit will remind you to 'Set Carriage to Plain' before knitting these rows.

To toggle a color from selecting to non-selecting and back, click on the needle in the relevant color: if the needle extends forward, it will select, and if not then it will not select.

These colours will select needles so the yarn should be placed in the *front feeder*

These colours will *not* select needles so the yarn should be placed in the *rear feeder*

If your design uses a yarn which is sometimes in the front feeder, and sometimes in the rear one, then you should place two instances of that color into the palette and set one as selecting and the other as non-selecting.

If the needle symbols are not visible it is because you have not configured the program for machine knitting or, if you have, the knitting method or machine is not compatible: Fair Isle is the only method which requires needle selection to be set for the colors.

Yarn Symbols

If you want to display symbols you have allocated to the yarn colors, click on the button on the tool bar until it is in Yarn Symbols mode.

Memo Numbers

If you want to display the Memo Numbers you have allocated to the yarn colors, click on the button on the tool bar until it is in Memo Numbers mode.

Stitch Symbols Palette

 If the palette does not already contain the stitch symbols you want to use, you can select the ones you want from the Symbols Organizer.

Select the symbols you want to use with the drawing and painting tools

Click on the symbols you want to use with the appropriate mouse button. When you then use a drawing tool, the symbol you draw on the pattern will be the one associated with the mouse button you use with that tool. To select a different symbol for a mouse button, just click on the new symbol.

You can activate three symbols at a time allocating them to the mouse buttons by clicking on a symbol with the relevant button(s):

- LMB (Left Mouse Button - indicator shows in the top left corner of the symbol

- RMB (Right Mouse Button) - indicator shows in the top right corner of the symbol

- MMB (Middle Mouse Button (or LMB and RMB simultaneously) - indicator shows top center of the symbol

If you have symbols as well as colors in the palette, you can allocate a combination of colors and symbols to the mouse buttons. The active one for each mouse button is shown with a large white indicator, and the inactive allocation by a small white spot in the same position.

Once the symbols have been allocated, use the appropriate mouse button(s) with the drawing tool of choice.

T I P

If you are changing symbols frequently, you can quickly pick a symbol from the pattern to use with either the left or right mouse button:

1. Make sure that symbols have focus (press Ctrl + Shift keys together to toggle focus from colors to symbols and back again)
2. Pause the cursor over the symbol you want in the pattern, hold down the Ctrl key and click with the mouse button you want to use.
Note that you cannot use this feature to set the Middle Mouse Button symbol.

Transparent/Opaque Symbols

Whether a symbol is transparent or opaque is important when copying and pasting and when moving elements with the lasso but it has no direct impact on the knitting, whether for hand or machine.

Opaque symbols will be pasted, but transparent ones will not. This is particularly important when selecting a motif for copying: if the background is transparent, it will not matter if it is included within the selection box because it will not be pasted.

Each symbol has a small square at the bottom left. This is the **transparency indicator**. If the indicator is opaque, then the symbol is regarded as opaque, and if just an outline, then the symbol is transparent. Click on the indicator to toggle the status from opaque to transparent and back again.

These symbols are opaque

These symbols are transparent
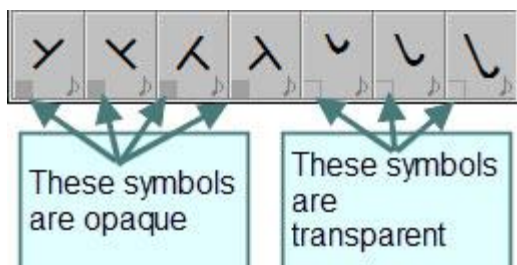
Needle Selection for Machine Textured Patterns

The Smart Symbols control the needle selection according to the technique they represent, so cannot be changed. Each one has an indicator to remind you of whether that technique selects the stitch type or not. You can only have one Smart Symbol in any row, as by definition, every stitch which does not have the Smart Symbol for that technique will be the Main Stitch - either knit (plain) or purl (back loop), depending on the Method of Knitting.

The Main stitch symbol will not have an indicator - this is because in a pattern row its selection status is determined by the Smart symbol. This means that if you have different techniques in your pattern, the main stitch may behave differently according to the Smart Symbol selection status.
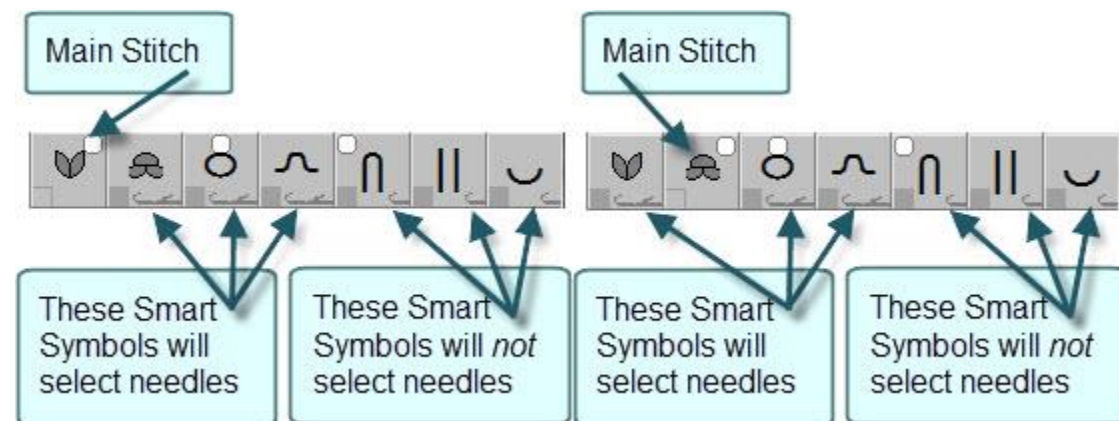
Main Stitch

Main Stitch

These Smart Symbols will select needles

These Smart Symbols will *not* select needles

These Smart Symbols will select needles

These Smart Symbols will *not* select needles

If the needle symbols are not visible it is because you have not configured the program for machine knitting or, if you have, the knitting method or machine is not compatible: jacquard, for instance, does not allow you to specify a symbol as the outer surface of the fabric is always stocking stitch, so if you want to combine knitting methods which DesignaKnit regards as incompatible, you should create separate patterns for each section.

Memo Symbol Alerts

 Each memo symbol has a small musical note at the bottom right. This is the **alert control**.

Toggle the Alerts on or off by clicking on the music icon.

When the Alert for a symbol is switched on, the musical note is black, and when it is switched off it is gray. If you can't see the note clearly, you can either enlarge the palette or you can hover the cursor over the Alert Control for a symbol and the hint will tell you whether it is switched on or off:

Toggle the Alerts on or off by clicking on the music icon.

You can select the sound for your Alerts in the Symbols Organizer.

Stitch Symbols Organizer

The Stitch Symbols Organizer is where you can select the symbols you need for your stitch pattern and place them in the Palette, ready to use with the drawing tools. The symbols are from the new font, KnitWriteDK™, which was installed with your program.

Click on this button on the main Tool Bar, or the one on the Palette Tool Bar, or select **Palettes/Symbols Organizer**.
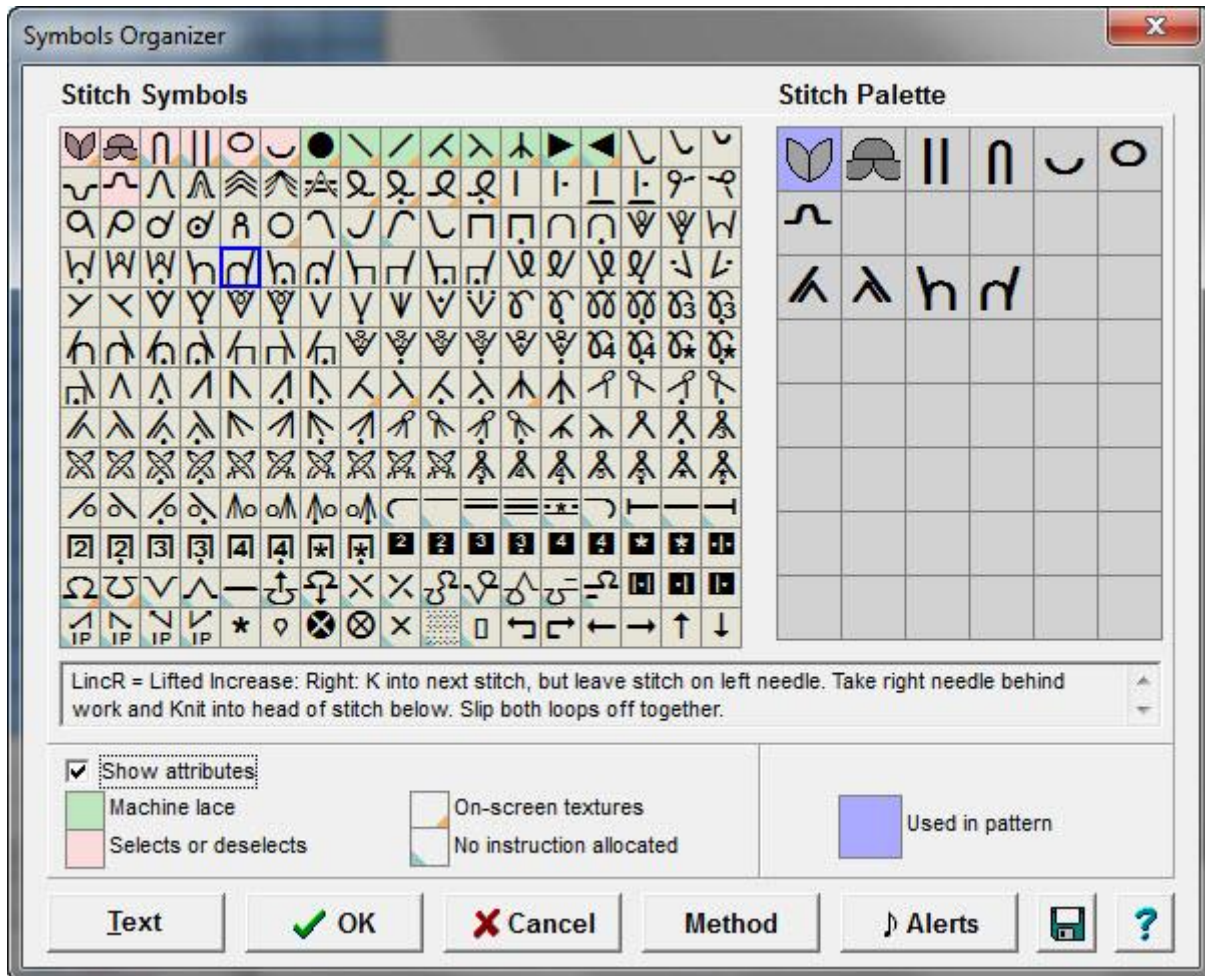
Symbol Attributes

Tick the Show attributes option to see the color coded information about the symbols.

Pink Background

The Knit and Purl symbols are fundamental to all knitting patterns, whether hand or machine, and are automatically included in all palettes. Neither of these can be removed from the palette.

For machine knitting methods, the pink background denotes a Smart Symbol which can be downloaded as a selecting or non-selecting needle for Fair Isle, Tuck, Slip, Weave or Garter Stitch methods.

These symbols can be used for hand knitting too.

Green Background

These are the Smart Symbols which are associated with the Lace Tool and are used to draw machine lace as it will look when knitted. The Lace tool will organize the separation of the pattern into transfer passes for the lace carriage and knit passes for the main carriage.

If you have the Lace Tool, you should not use these symbols for machine patterns for anything other than automatic lace as DesignaKnit recognizes their special functions.

If you do not have a Lace Tool, you can use one of the other selectable symbols to indicate lace transfers, but you will have to set up the separated rows manually as without the Lace Tool these symbols cannot be set for selection.

Blue Background

On the palette side of the dialogue, a blue background indicates a symbol which is already used in the pattern. This is helpful in case you try to delete it!

Orange Flag (lower right corner)

These indicate symbols which show up as a texture in Fabric View. Knit and Purl stitches show up as true textures, as do the lace eyelet symbols, but you should bear in mind that the textures for others are an indication - especially the ones which indicate sloping decreases, which are necessarily applied only to a single stitch, whereas in fact a decrease must involve at least two stitches.

Blue Flag (lower left corner)

This indicates that an instruction has not been allocated to the symbol.

If the method is set to machine knitting, the majority of symbols will not have an instruction allocated as the symbols are not especially appropriate for machine knitting. This, however, does not mean that you cannot use a symbol if you want to - you can use the Text Editor to add an instruction and abbreviation if necessary. Some of the symbols have a reserved function and cannot be edited.

If the method is set to hand knitting, all the symbols have an instruction or a function, but you can edit these in the Text Editor.

Text Instructions Preview

To preview the instruction associated with a symbol, click on the symbol in either the font or the palette area. The selected symbol will be bounded by a blue box in the font area and the instruction will be displayed in the area below.

The knitting instruction displayed will be the one appropriate to the configured knitting method.
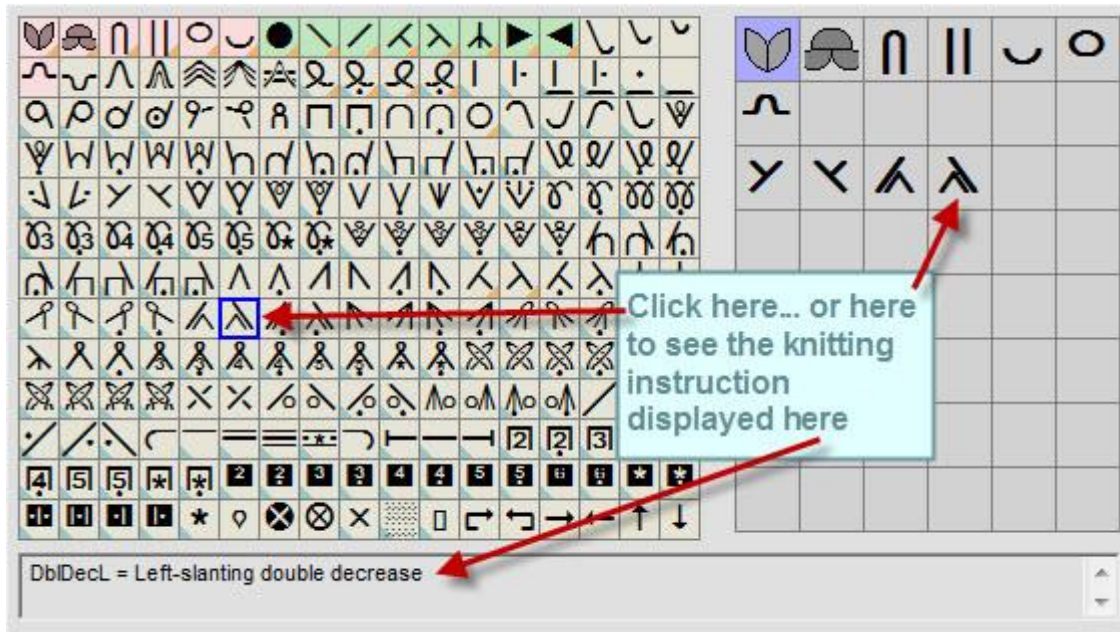
If the method were changed to Hand Knitting, Reverse Stocking Stitch, the instruction would read:

P2togSPSSOS = Purl 2 tog, Slip 1 Knitwise and return to left needle. Slip P2tog back to left needle and Pass Slipped Stitch Over. Slip 1 Purlwise

If you would prefer to describe the action in another way, or you have quite another use for the symbol, you can edit the text and change the abbreviations for most of the symbols (except knit and purl) at any time.

Select Symbols for Palette

Click on the symbol you want in the font window on the left and drag it onto the palette area on the right

To remove a symbol from the palette, either:

- Right click on the symbol and select Delete
- Drag another symbol from the font window onto the one you don't want to replace it
- Drag one of the symbols already in the palette area onto the one you don't want

Alerts

You can add a "beep" to a Memo (non-selectable) symbol so that when you are knitting interactively you get an audible reminder to follow the instructions associated with that symbol.

In the Symbols Organizer dialogue:

1. Select the memo symbol you want, either in the main symbols area or in the Stitch Palette area. The selected character will be outlined in blue.
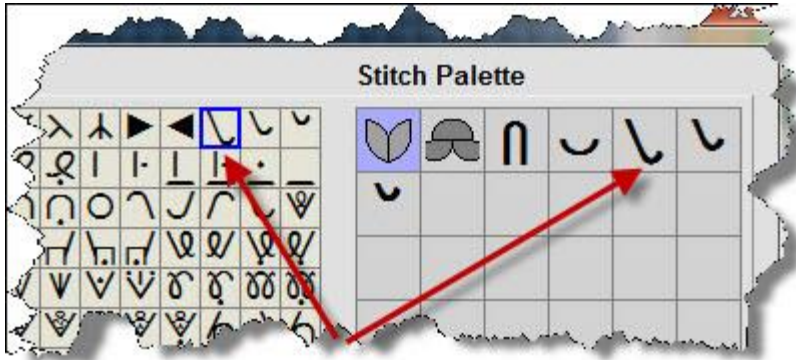
2. Click on the **Alerts** button ♪ **Alerts** at the bottom right of the dialogue.

3. Select the Alert type you want from the list available.

   Click on the musical notes button ♪ to hear a sample.The sounds are taken from your current Windows Sound Scheme, which you can configure in **Control Panel/Sounds**.
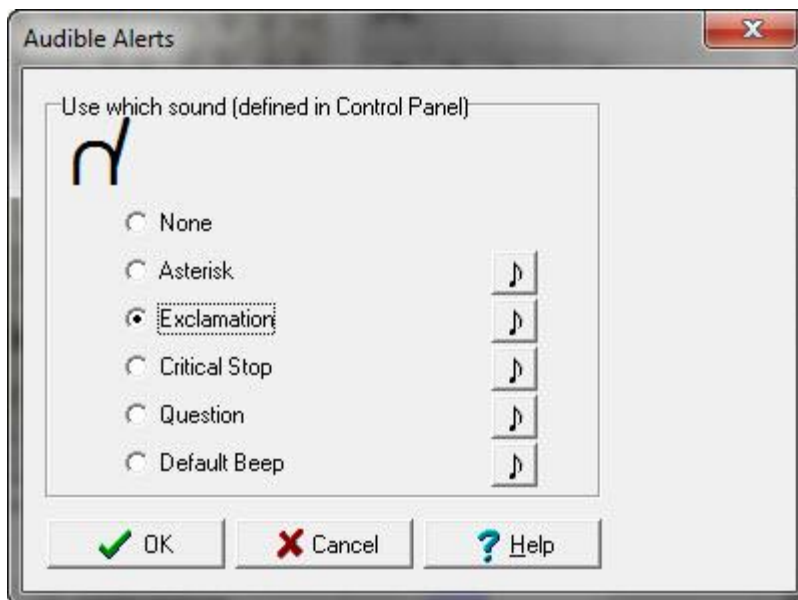
Stitch Symbols Text Editor

The Text Editor is where you can view the instructions and abbreviations for all the symbols in the KnitWriteDK™ font and, if necessary, make changes.
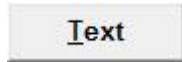
Text   Click on the Text button at the bottom left to open the Text Editor.

When you open the Text Editor, the instructions and abbreviations shown will be those associated with the current pattern. You can view or edit these data for the current pattern only, or you may use the Text Editor to set up a new file of symbols information for future use.

For most purposes, it will not be necessary to alter any of the text as it already includes clear instructions as to what each symbol means and there are numerous variations to cover most eventualities.

 If you publish patterns, particularly for hand knitting, and wish to conform to a 'house style' you might prefer to use your own abbreviations and instructions to match the symbols of your choice. If this is the case, you should consider creating a new file of pattern text. Before you do this, you should acquaint yourself with the rationale behind the design of the symbols so that you understand the way in which the instructions 'migrate' across the hand knit methods.

T I P S

Any changes you make to the instructions or abbreviations for the current pattern will be embedded in that pattern.

This means that whenever you or anyone else opens that pattern in DesignaKnit, the symbols data will be whatever you input and saved with the pattern. This means that you do not have to create a whole new text file, you can just 'tweak' the bits you need.. You can also save the palette for the pattern as a separate file for use at any future time so that, when starting a new pattern, you can opt to load the palette either from the exported palette file, or from the pattern. The alterations you have made will overwrite the original entries, and all others will be drawn from the default set, so there will be no missing entries.

If you want to keep the changes and use them for all future patterns, once you've made your alterations and applied them to the current pattern, you can use the File/New Pattern Setup dialogue to start a new file with the current palette, and tick the option to save as the Default Template.

If you only sometimes use your adaptations, you can save the file as a .csv text file which you can call up at any future time.

If you are quite sure that you will always use your version, you can overwrite the MySymbols.csv file so that your file becomes the default.

If someone else then opens one of your patterns, this will not alter or damage their settings, but while the pattern is open, the text associated with the symbols in the palette will be available to them temporarily. If they then want to save this version, they can do so through the text editor.

And if you open a file from another source where the designer has changed the text for the symbols in the pattern, you can save this version, but we suggest that you do not overwrite your default MySymbols.csv file.

View Instructions and Abbreviations

Show only the stitch symbols that are selected for the palette

The Text Editor always opens showing only the symbols contained in your Palette - or in the palette area of the Symbols Organizer if you have not yet confirmed the addition to the actual Palette. If you want to see the instructions and abbreviations for the rest of the font, uncheck this option.

All the characters in the font will then be displayed at the top of the Text Editor. If you want to see the information for a specific symbol, click on it in the top panel and the editor will jump to that symbol.

Show instructions for Knitting Method

When you first open the Text Editor, the instructions and abbreviations shown will relate to the knitting method assigned to the current pattern. If you want to see or edit the data for another method, use the drop-down list at the lower left corner to select the method you want. Note that changing the method here will *not* affect the current pattern, but if you opt to apply any changes to the current pattern, any you have made to symbols for an alternative knitting method will be stored with the pattern but will only affect the pattern if the knitting method is changed via the Knitting Method dialogue. This can be accessed from the Symbols Organizer, after you have closed the text editor or when both have been closed by selecting Options/Knitting Method.

Viewing the contents of the text editor

Machine Knitting has only two columns for each symbol: an Abbreviation and an Instruction. This is because the knitting is not turned at the end of every row so that whether you have the back or front of the fabric facing you as you knit, it does not change.
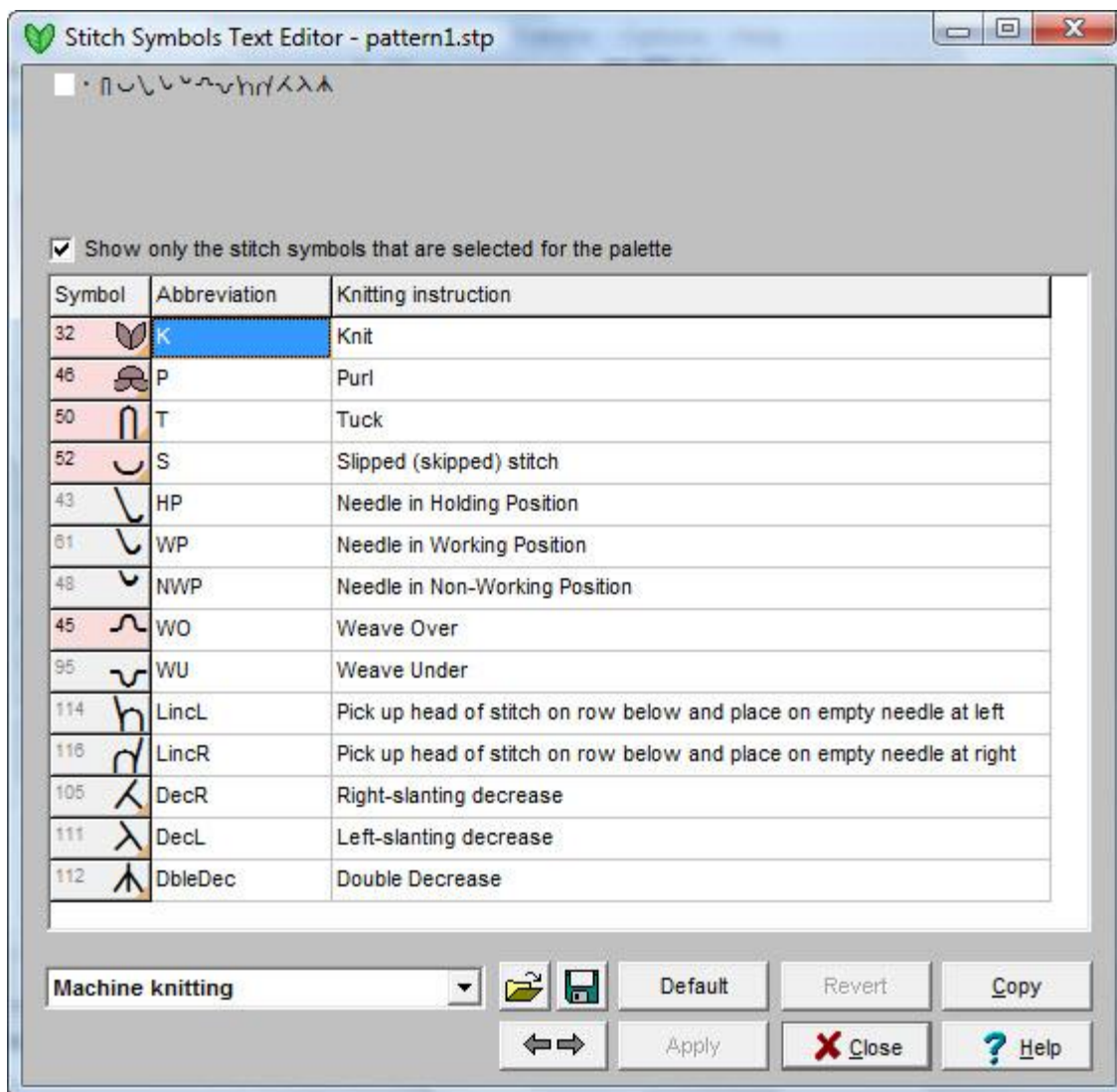
Hand Knitting options have four columns for each symbol: an Abbreviation and an Instruction for each symbol for both the front (right side) and back (wrong side) of the knitting. This is because the meaning of the symbol changes according to whether it is on a right or wrong side row. For instance, in stocking stitch, the blank symbol is for the *expected* stitch, and on the front of the fabric that is a Knit stitch, whereas worked from the back it will be a Purl stitch. You can read more about the stitch symbol system here.

Symbol		RS-K Abbreviation	RS-K Knitting instruction	WS-P Abbreviation	WS-P Knitting instruction
32		K	Knit	P	Purl
46		P	Purl	K	Knit
50			Machine Tuck		Machine Tuck
52			Machine Slip		Machine Slip
43		Tr	Treble Crochet	Tr	Treble Crochet
61		Dc	Double Crochet	Dc	Double Crochet
48		Sc	Single Crochet	Sc	Single Crochet
45		WO	Weave Over	WO	Weave Over
95		WU	Weave Under	WU	Weave Under
114		LincL	Lifted Increase: Left: K int	LincPR	Slip 1 Purlwise. Use left ne
116		LincR	Lifted Increase: Right: K in	LincPL	Lifted Increase: Purl into h
105		KSPSSO	Knit 1, slip back onto left n	PSPSSO	P1, Slip 1 knitwise and ret
111		SKPSSO	Slip 1 knitwise, Knit 1, Pas	SP-PSSO	Slip 1 purlwise, Purl 1, pas
112		S2KPSSO	Slip 2 together Knitwise, K	SSP1PSSO	Slip 1 Knitwise twice, ther

NB: Selecting a different knitting method here will *not* change that of the current pattern.

View Columns

For hand knitting methods, the text editor has two main view modes and you can quickly switch from one to the other by clicking on the

buttons. The first will display all the columns in the window, but may not show all of the contents. The second will expand the columns to their full width - though you may have to use the scroll bars in order to read the contents.

You can resize the columns manually by hovering the cursor between two column headings until it shows a double-pointed arrow and then dragging the boundary to the size you want.

Edit the Text

- Click inside a column once to highlight the whole text entry. Any text you now enter will replace all the previous text.

- Click inside the column twice to highlight a single word for replacement

- Click again to place the cursor anywhere in the text to add or edit the current entry.

- Click the Copy button to place the contents of the highlighted cell onto the clipboard.

- To replace the contents with text copied from another source, highlight the cell you want to past into, right click and select Paste from the menu.

- Click on the Apply button to apply any changes you made to the current pattern.

- Click on the Revert button to undo the changes you made and revert to the previous set. You will be given the opportunity to apply these changes to the current pattern before you revert to the previous settings.

- Click on the Default button to replace any alterations you have made with the ones from the default MySymbols file - you will then be given the opportunity to apply the changes you made to

the current pattern before reverting to the default instructions or to save the changes as a new symbols file for later use. If you don't want to apply these changes, untick the box and click on Continue - the text will revert to the default, and the current pattern will be unaffected.

Vary At Random

Click on **Palettes/Vary at Random** to access this feature.

When the dialogue opens, you will see all the colors you have in your palette: those already used in the stitch pattern are surrounded by a solid line, while any not so far used are surrounded by a dotted line.

If you want more colors to choose from, you can use the Import Palette feature (click on the 📁 button on the palette tool bar to import previously saved or default palette files) before you open the Vary at Random dialogue.

You can then chose to vary only the colors in the pattern or to include any others in the palette as well. If you have used the tidy feature in the Yarn Color Setup dialogue to remove any unused colors, then you will only have the stitch pattern colors to vary.
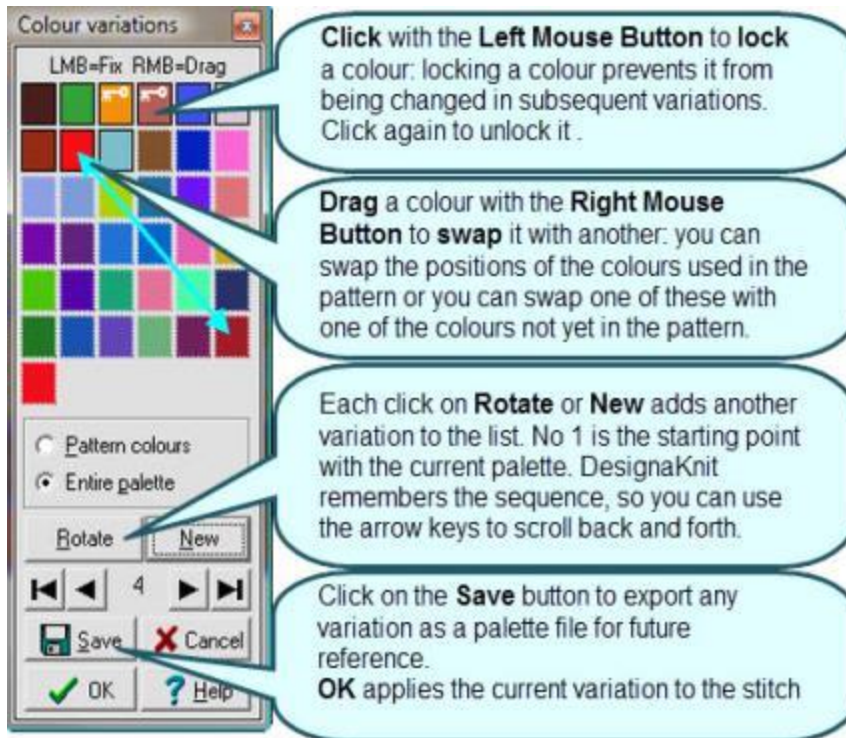
> **T I P**
> It's a good idea to set up and save palettes to match the actual range of yarns you use in your designs.
> The Vary at Random feature can then be used to experiment with possible combinations
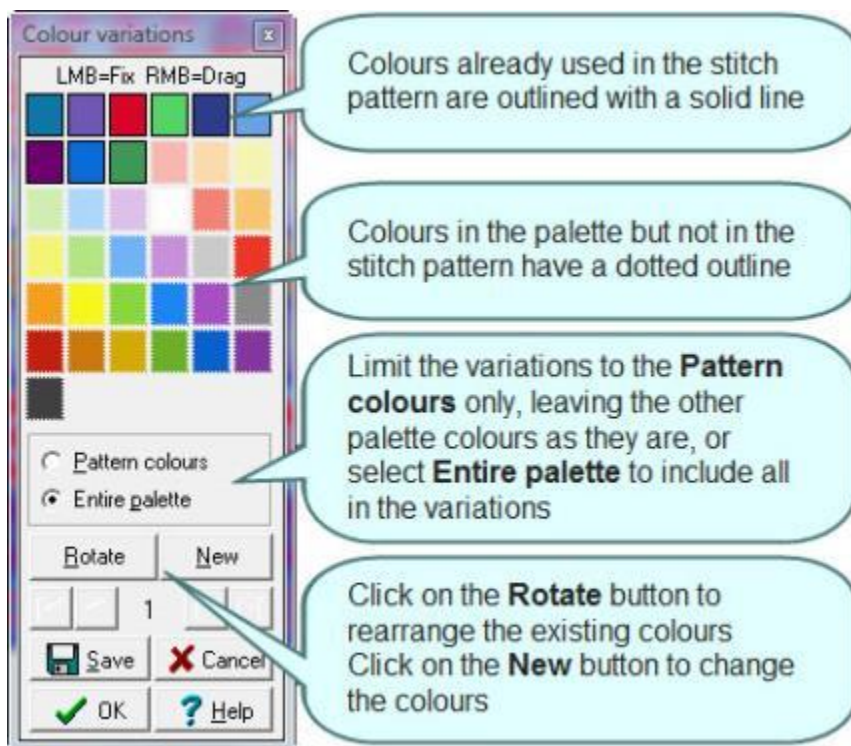
The starting point of all variations is the current color combination in the stitch pattern. This is No 1, and every subsequent click on New or Rotate adds a new reference number. You can use the arrow buttons to go back and forth through the variations you have created.

Click with the **Left Mouse Button** to **lock** a colour: locking a colour prevents it from being changed in subsequent variations. Click again to unlock it .

Drag a colour with the **Right Mouse Button** to **swap** it with another: you can swap the positions of the colours used in the pattern or you can swap one of these with one of the colours not yet in the pattern.

Each click on **Rotate** or **New** adds another variation to the list. No 1 is the starting point with the current palette. DesignaKnit remembers the sequence, so you can use the arrow keys to scroll back and forth.

Click on the **Save** button to export any variation as a palette file for future reference.
OK applies the current variation to the stitch

If you want to continue with one of the new variations for the current stitch pattern, scroll to the one you want and click OK. If you want to return to your original colors, either click Cancel or use the far left arrow key to return to the start and click OK.

Once you have closed this dialogue, DesignaKnit will not remember the sequence of variations you created, so if you want to keep any of the color variations you have created, then you can use the Save button to export them to a new palette (.plt) file. If you open the dialogue again, DesignaKnit will create a new random series of variations.

Stitch Type Symbols

With the exception of Knit and Purl, which are the basic stitches in all knitting, these symbols generally represent what is to be done to one stitch, or adjacent stitches, when hand knitting. They can, however, also be used as 'memo' symbols when creating machine knitting patterns, to alert you to a manual procedure and of course you can add your own or edit the existing associated instructions and abbreviations.

Knit And Purl Stitches

Machine Knitting

The knit side is properly called the Technical Front and the purl side the Technical Back, irrespective of which of these is intended to be the front of the fabric. However, for knitters using domestic machines, when the Method of Knitting is set, DesignaKnit asks you to indicate whether the side facing you as you knit is the 'right side' or actual front of the fabric, or the 'wrong side' which is the back, or inside of the fabric. Whether the side facing you as you knit is the knit or purl side depends on your machine. When you have set the method, DesignaKnit will then determine whether the actual front of the knitting is knit or purl and will set the background stitches accordingly:

Single Bed: Silver Reed, Brother and Toyota Machines
Fair Isle	Knit
Jacquard	Knit
Intarsia	Knit
Wrong Side Facing	Knit
Right Side Facing	Purl

Pfaff/Passap
Jacquard	Knit
Intarsia	Knit
Right Side Facing	Knit
Wrong Side Facing	Purl

When your design is downloaded, if it needs to be flipped horizontally, DesignaKnit will do this automatically so that you can design the pattern as it will look when finished without having to worry about reversing the pattern.

Hand Knitting

The background you choose for your pattern not only determines how the • is interpreted in fabric view, but also ensures that the text instructions generated will be the correct way around.

Stocking Stitch Background

Thus a chart for basic stocking stitch with no variation would not need any symbols at all because all the stitches would be expected. If you were knitting in the round, whether on a circular needle or a set of double-pointed needles, the chart would be the same: you would expect to knit every stitch, so every stitch is the expected type.

The instructions for this pattern would read: Row 1 Knit; Row 2 Purl... etc.
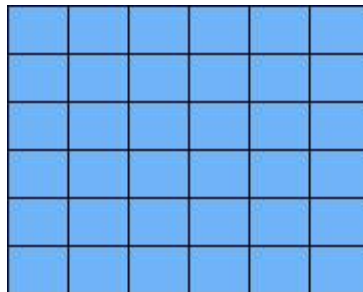
If, however, you were to introduce an element of patterning by working some stitches in the opposite way - that is, purl on a mainly knit row or knit on a mainly purl row, then those stitches would be *unexpected* and require a symbol to indicate this - and so we have used • to show a basic unexpected stitch.

The instructions would now read:

Row 1 (RS) K3, P1, K2; Row 2 (WS) P1, K3, P2; Row 3: K1, P5; Row 4: as Row 2; Row 5: as Row 1; Row 6: P
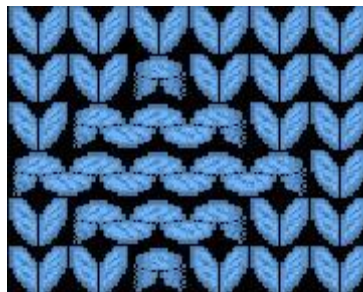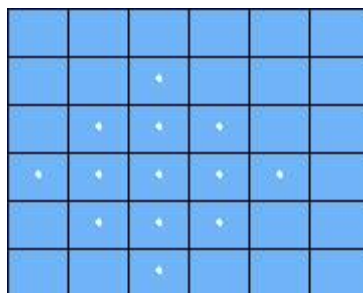
If the knitting starts on the 'wrong' side, then the instructions would be altered so that the first row is the Purl row, read from left to right, but the chart remains the same.
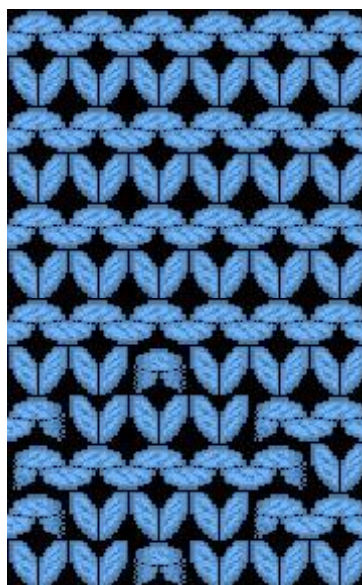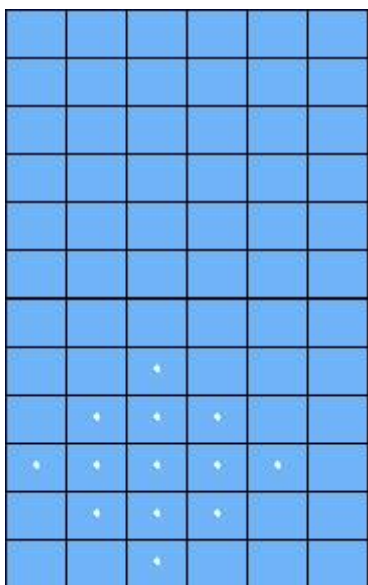
Reverse Stocking Stitch Background

If the pattern has a predominately purl background, in order not to have to fill it with unnecessary symbols, you could chose to allocate the Reverse Stocking Stitch method, in which case the same chart would produce the opposite effect - in fact the same as the reverse side of the Stocking Stitch knitting. Thus the *expected* stitch becomes a *purl* stitch on the *front* of the fabric, and a *knit* stitch on the *back*.
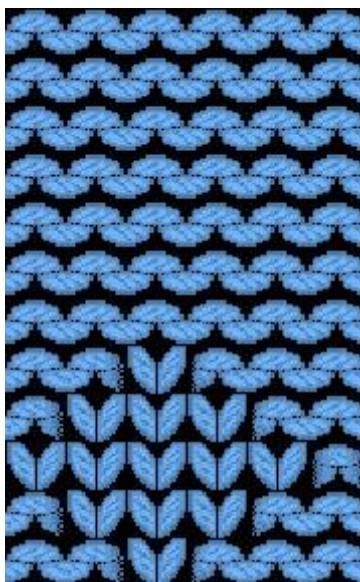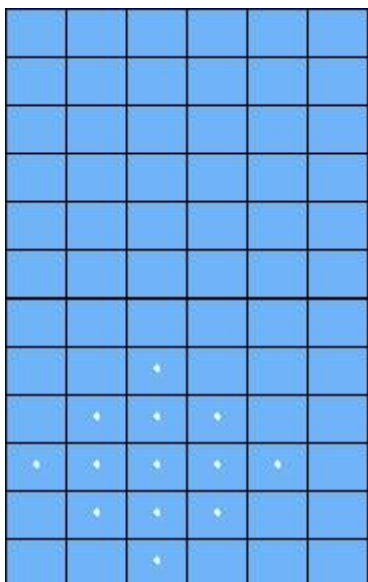
Garter Stitch Background

These methods (all knit or all purl) are most useful for flat-knitted traditional lace projects, which are reversible fabrics. This is so that the important lace patterning is not overcomplicated or obscured by having a line of dots on every other row - you would only need to use them when the reverse of the main stitch is used on any row and they therefore represent an important pattern stitch rather than part of the background.

If Garter Stitch is knitted in the round, then the symbols have to work in the same way as either Stocking Stitch or Reverse Stocking Stitch, so that rows are alternately knitted or purled, according to which side you want the loops to fall. If the entire project is to be knitted in the round, there is no advantage to choosing either Garter Stitch method, as this would mean that every second row has to be represented by dots in any case, thus you would lose the benefit of having empty background cells and make the pattern less clear. If your project is part knitted in the round, and part flat - such as the main body part of a sweater, it might be better to make two patterns: the circular part on a Stocking Stitch or Reverse Stocking Stitch background and the flat part on a Garter Stitch background

Slipped Stitches

There is one major exception to the assumption of expected/unexpected stitch type, and that is when stitches are slipped.

Hand Knit Slipped Stitches

In hand knitting, in order to progress along the row, every stitch must somehow be passed from the needle holding the previous row to the working needle. If the stitch is not to be worked on that row, and it doesn't form part of a decrease or other multi-stitch procedure, then it must be slipped, and with slipped stitches there can be no expectation that the stitch will be slipped knitwise on a knit row, or purlwise on a purl row.

This is because when a stitch is knitted or purled in the normal way, the process ensures that the new stitch retains the same lack of bias as the old one, with the front 'leg' of the stitch (the part facing you as you knit) slightly forward of the back of the loop. If you slip the stitch knitwise, then you place a twist on the stitch so that when you meet it on the return row, the back 'leg' of the loop will be forward of the front and if then worked in the normal way, the stitch will take on a bias. Slipping purlwise, however, keeps the stitch straight as if it has been worked normally so that on the next row it will present in the same way as other stitches.

Thus it is necessary in a hand knit pattern to specify the way in which a stitch is slipped so that the desired effect is obtained and, importantly, you do not get the wrong effect as this could be noticeable in the pattern.
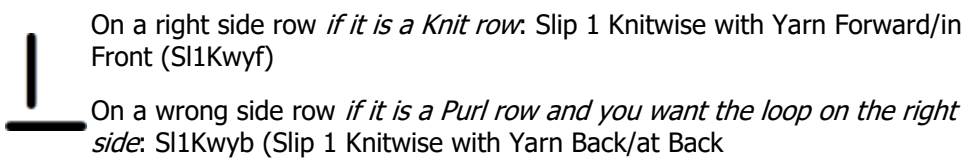
Stitches are sometimes slipped as part of a more complex process, such as a sloping decrease, in which case the instruction of how to slip the stitch(es) will form part of the total instruction attached to the symbol for that process, but for slipping a single stitch onto the working needle in order to continue to the next one, these symbols apply:
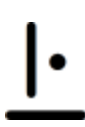
Slip 1 Knitwise (Sl1K)

Slip 1 Purlwise (Sl1P)
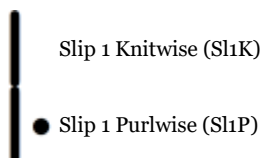
The instructions are the same whichever side of the knitting the symbol appears on: the dot, this time, refers always to the purlwise direction of the slip.

There is, however, another aspect to slipping stitches, and that is what you do with the yarn if you are not using it to make a new stitch. The above symbols imply that the yarn is in the expected place: at the back on a knit row, and at the front on a purl row. so that the loop of yarn which will appear across the knitting is on the 'wrong' side, on the back of the fabric.

However, it may well be that the pattern requires the loop to appear on the 'right' side or front, so if that is the case, although the lack of expectation re knit- or purlwise direction of the slip remains, there is an additional instruction to place the yarn at the front or back of the work when slipping:

On a right side row *if it is a Knit row*: Slip 1 Knitwise with Yarn Forward/in Front (Sl1Kwyf)

On a wrong side row *if it is a Purl row and you want the loop on the right side*: Sl1Kwyb (Slip 1 Knitwise with Yarn Back/at Back

On a right side row *if it is a Knit row:*Slip 1 Purlwise with Yarn Forward/in Front (Sl1Pwyf)

On a wrong side row *if it is a Purl row and you want the loop on the right side* Sl1Pwyb (Slip 1 Purlwise with Yarn Back/at Back

If the right side is a purl row, then the first set of symbols would apply because the yarn would in any case be at the front of the work.

Machine slipped stitches

Because machine knitting presents the stitches facing the knitter, there is no issue with bias. In addition, slipping stitches on the machine always causes a horizontal strand of yarn to appear on the purl side of the fabric, whether this is the front (right side) or back (wrong side) of the fabric, whether you download a pattern which knits the selected needles and slips (skips) the un-selected ones, or whether you manually move the desired slipped stitch needles into Holding Position, or take needles out of work entirely.

This symbol is used for downloaded slip-stitch patterns

This symbol is used to indicate needles placed manually into Holding Position

This symbol is used to indicate needles placed in Non-Working Position

Twisted Or Biased Stitches

Working through the back of the stitch or changing the direction of the yarn produces biased knitting

Left Bias

Working a stitch through the back of the loop twists it, producing a bias to the left (as you look at the front of the fabric).

This is the *expected* stitch:

On a Knit row: Knit 1 through the back of the loop (K1tbl)

On a Purl row: Purl 1 through the back of the loop (P1tbl)

This is the *unexpected* stitch:

On a Knit row: Purl 1 through the back of the loop (P1tbl)

On a Purl row: Knit 1 through the back of the loop (K1tbl)

Whenever this symbol appears as part of another symbol, it indicates that somewhere in the working of that symbol there will be a tbl - *through the back of the loop.*

Right Bias

If you want to produce a twist which gives a bias to the right (as you look at the front of the fabric), then you work the stitch in the normal way, through the front, but reverse the direction in which the yarn is thrown around the needle to form the next stitch, so that for a knit stitch, the yarn goes top to bottom over the needle, and for a purl stitch it goes from bottom to top.

This is the *expected* stitch:

On a Knit row: Knit 1, reversing direction of yarn (K1rev)

On a Purl row: Purl 1, reversing direction of yarn (P1rev)

This is the *unexpected* stitch:

On a Knit row: : Purl 1, reversing direction of yarn (P1rev)

On a Purl row: : Knit 1, reversing direction of yarn (K1rev)

Note that if you were to reverse the direction of the yarn and at the same time work through the back of the loop, then the stitch would remain straight. So if you knit that way anyway, then you can twist the stitches by knitting the left bias stitches by reversing your yarn direction, and the right bias stitches by knitting through the front of the stitches.

Machine Twisted Stitches

Machine stitches are always presented facing the knitter, so there is no way of choosing to knit into the front or back of the stitch. The yarn which forms the new stitch can only be laid across the hook of the needle, so twisted or biased stitches cannot be formed in the same way as hand-knitted ones. Stitches can be biased manually by removing them individually with a transfer tool, twisting and then replacing them. If you want to do this, you can of course use the above symbols to indicate the direction of the twist.
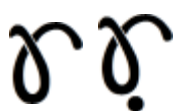
୪ Long Stitches

This is a way of changing the length, or height, of the stitch without greatly affecting the width. When you knit or purl a long stitch, instead of pulling the yarn through the loop in the normal way, you wrap it one or more times around the needle and *then* pull it through the stitch. On the return row, you work the stitch in the normal way, but when you slip it off the needle, you drop the extra loop or loops, which then gives you a long stitch. The more times the yarn is wrapped around the needle, the longer the eventual stitch.

Single or Double Long Stitch

In the normal course of creating a knit or a purl stitch you use the needle to pull a loop of yarn through the old stitch to create a new one, but if you wrap the yarn two or more times around the needle and then pull all those loops through the stitch and, on the return row, drop those extra wraps, you will create a long stitch.

The • has its normal function of indicating the unexpected stitch type: purlwise on a knit row, knitwise on a purl row.

Expected: wrap the yarn *twice* around the needle when making the stitch, and on the return row, drop the extra loop to form a long stitch

Unexpected: wrap the yarn *twice* around the needle when making the stitch, and on the return row, drop the extra loop to form a long stitch
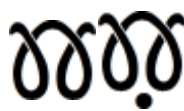
Expected: wrap the yarn *three times* around the needle when making the stitch, and on the return row, drop the extra loop to form a long stitch *Unexpected*: wrap the yarn *three times* around the needle when making the stitch, and on the return row, drop the extra loop to form a long stitch

You can make undulating patterns by varying the length of the 'long' stitches, wrapping the yarn round the needle the number of times required to make the length of the stitch - plus 1 wrap for the stitch itself. So the Triple Long stitch will have four wraps, the Quadruple Long Stitch will have 5 wraps - and you can edit the * for a customized number.
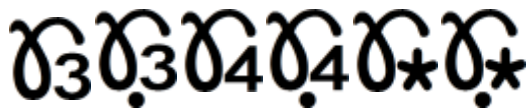
You may also find these symbols useful to represent multiple wrapped increases which will later be decreased: in order to retain the single stitch column you can then use the temporary stitch symbols to indicate what should happen to those stitches collectively.

⊓⊓ Knit (or Purl) Below, Pick Up & Tuck

There are so many variations on these techniques that you could dedicate a whole font to the possibilities. However, it is unlikely that you would be using more than a few in any single project, so you can use whichever of these symbols suits your needs best. Remember that if you edit the knitting instructions and/or abbreviations for a symbol, those instructions will be embedded in the pattern for whoever opens the pattern in DesignaKnit 8 - and you also have the option of saving a separate files of instructions for future use.

Knit Below

Instead of working into the loop of the next stitch on the needle, the working needle is inserted into the center of the stitch on the row below. Both are slipped off the needle so that the loop of the stitch above is caught in the yarn forming the new stitch.

A deeper texture is formed by working into the stitch two or more rows below, and symbols to represent this are available.

The • has its normal function of indicating the unexpected stitch type: purlwise on a knit row, knitwise on a purl row.

Expected (if it is a Knit row): Knit into center of stitch on row below next stitch, dropping stitch above as it is transferred to right needle so that both loops are caught in new stitch (K1b)
(if it is a Purl row): Purl into center of stitch on row below next stitch, dropping stitch above as it is transferred to right needle so that both loops are caught in new stitch (P1b)

Unexpected (if it is a Knit row): Purl into center of stitch on row below next stitch, dropping stitch above as it is transferred to right needle so that both loops are caught in new stitch (P1b)
(if it is a Purl row): Knit into center of stitch on row below next stitch, dropping stitch above as it is transferred to right needle so that both loops are caught in new stitch (K1b)

Where you see this symbol as a part of another symbol, such as one for an increase, then it is an indicator that part of that procedure will involve knitting into the center of the stitch below.

Note that while the knitted result of this technique is equivalent to machine-knitted tuck stitch, there is a major difference between the ways in which hand and machine tucks are achieved:

- **Machine**: The needle with the stitch to be tucked is *not* selected for as many rows as you want to tuck, and the tuck is finally achieved when the needle is selected and knitted normally. This means the tuck symbol must be used on the rows when the needle is tucking, but on the row when the tuck is actually achieved, the background stitch is used.

Machine Tuck Stitch Symbols

You can of course use these for hand-knit pattern charts.

If you apply instructions and abbreviations to them they will produce pattern text in the same way as other symbols.

However, this does not work both ways, as only the designated machine knit symbols can control the selection of needles for a downloaded pattern or a punch card printout.

- **Hand**: The stitch is dealt with normally on every row *until* the row when you want to knit into a stitch below - this is the row when you use the symbol.

Pick up Stitches

This symbol, although similar to the machine tuck symbol is not the same. It cannot be used to select needles and, unlike the machine symbol has its 'unexpected' counterpart. It is intended be used in one of two ways:

o To show stitches which are to be picked up from a previously cast off or held area or another pattern piece. This would probably be an alternative to using a cast on symbol. In this mode, it is useful as a 'memo' symbol for machine knitting too.

o As an alternative to the Knit Below symbol, especially when the head of the stitch only is lifted (whether from the front or back of the fabric) and either worked together with or instead of the stitch on the needle - depending on whether you are creating a tucked stitch or a ridge or pleat.

The • element of the symbol has its normal function of indicating the unexpected stitch type: purlwise on a knit row, knitwise on a purl row.

Expected (if it is a Knit row): Pick up and Knit (PUK)
(if it is a Purl row): Pick up and Purl (PUP)

Unexpected (if it is a Knit row): Pick up and Purl (PUP)
(if it is a Purl row): Pick up and Knit (PUK)

Crossed Stitches

This technique is for crossing the next stitch over or behind the one following. Whilst the first examples are identical to a 1 over 1 cable (and indeed you could use the cables palette to show this) the rest involve twisting one or both of the crossed stitches.

Whilst twisting and crossing the stitches requires a certain amount of dexterity with the working needle, you don't need a cable or double-pointed needle.

You may need to bear in mind that because the symbol sits on a single stitch in the pattern grid, rather than traversing both the stitches involved, depending on how your pattern is set up, as with some of the increase and decrease techniques, you may need to use these symbols in conjunction with one or other of the 'No Stitch' symbols in order to get sensible text pattern instructions.

Only the basic, untwisted, cross has a purl version - the texture is at its best when the stitches are worked knitwise, but this does not of course prevent you from inventing your own version, using one or more of these symbols and editing the instructions accordingly.

You can see from the symbols which stitches pass in front and behind and which, if any, are twisted and you will find the detailed instructions in the Stitch Symbols Organizer and in the Text Editor.
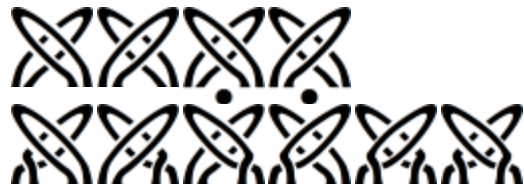
In addition to the more graphic symbols, these basic ones are useful for a plainer chart or for machine knitting memo symbols (you would have to cross the stitches manually)

Smart Symbols

These are symbols which have a special function when creating text patterns and charts - click here to read more about them.

✱ Miscellaneous Symbols

These symbols are primarily intended to use for charts, but they can be used individually to specify a particular action, such as applying a bead, wrapping a group of stitches, or picking up and knitting in floats in a Fair Isle or multi-colored pattern, in which case you can apply the appropriate text using the text editor. They are especially useful for charting bracketed instructions which apply to a group of needles.
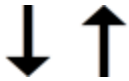
These two symbols will not generate any text instructions, nor will they influence the pattern. They are included because they might just be useful when creating a pattern chart, possibly to indicate the eventual orientation of the pattern or, on an integrated piece to show the direction in which an edge may be picked up - you should only use them on a 'background' or blank, expected stitch so that you do not lose another instruction and DesignaKnit will ignore the arrow as a stitch instruction, if you intend to print pattern text.

KnitWriteDK™ Font

KnitWriteDK™ is a new font created specially for use with DesignaKnit. It is, however, more than just a set of knitting symbols: it is a means of generating both meaningful pattern charts and text instructions, whether for a single pattern repeat or a whole garment piece.

Symbols can be applied to a pattern either using the drawing tools and palette or by activating the pencil too and typing directly into the pattern - or a combination of both techniques.

For Interactive Knitting, especially for machine knitting, it provides a way of downloading needle selection data specific to the knitting method, but it also provides a way of annotating patterns with instructions for manual techniques, such as the type of decrease technique to use and where on the needle bed to do this and, because you can add beeps to these symbols, when to do it.

Symbols For Machine Knitting

The symbols are divided into two main groups:

> Smart Symbols which can control the selection of needles for textured patterns such as Tuck, Slip, Thread Lace Weave and, for the Lace Tool, Lace.

> Memo Symbols which can provide additional information for text instructions or printed charts as well as alerts for Interactive Knitting, but do not control needle selection.

Symbols For Hand Knitting

All the symbols in the font are relevant to hand knitting. Most provide an instruction as to what to do to a particular stitch or group of stitches, but the way in which the instructions are presented depends on which knitting method you have chosen. A few of the symbols are used to control *how* DesignaKnit reads the pattern in order to produce a text version of the pattern - for instance, if you are setting up short row knitting, a Turn symbol will tell DesignaKnit not to include any symbols behind it when generating text instructions; a 'no stitch' symbol will tell DesignaKnit to ignore that grid cell, such as when it follows one with a decrease instruction or precedes an increase.

For most people and most patterns, the basic Stocking Stitch method is the most convenient method to use as a basis for designing your pattern, unless you have a specific reason not to choose stocking stitch as the main background.

You can read more about the implications of choosing a particular method, or stitch background here, but for a full explanation of how the symbols work with the methods, click here.

Symbols and Knitting Instructions

A set of default instructions has been allocated to the font. These will vary according to which knitting method has been assigned to the pattern, but they are allocated according to a system which is explained here.

In addition, depending on the knitting method, some symbols will have no instruction at all. This is usually because it is a Smart Symbol with a fixed function in the creation of the pattern, such as indicating a short row turn so that DesignaKnit doesn't read the pattern beyond the turn symbol, or it may be that the symbol's instructions have no relevance for that particular knitting method.

However, if you want to use a particular symbol but you want to add a new or different instruction to it, you can do that in the Symbols Text Editor. You can then choose to apply the new information just to the current pattern and/or save the new instructions as a symbol instruction file for later reference.

Any changes you make to the instructions for the current pattern will be embedded in that pattern both for you and for any other DesignaKnit 8 user who opens it on their computer: you will not need to supply other DesignaKnit 8 users with a separate symbols file to read that pattern, and you will not need to refer to one either.

If you have a set of instructions you use often, if you are a pattern publisher and you have a particular style of presentation or if you translate patterns into other languages, you can create as many symbol instruction files as you need and when you use any one, the instructions from that file will apply to any patterns you associate with it. If you wish to pass on your edited instructions file to other DesignaKnit users, you may do so without breaching your licence agreement.

Typing With KnitWriteDK

You can use the keyboard to type in some of the more common knitting symbols, both in DesignaKnit's Stitch Designer and, of course in an ordinary word processor application.

The Space Bar is for the main 'expected' stitch - either Knit or Purl, depending on the 'method' or background stitch you have chosen, and the Full Stop or Point is the opposite stitch.

Machine Method	Space Bar (Expected)	Full Stop/Point (Unexpected)	
FI, W, I	Knit	Purl	(Garter Carriage)
R	Purl	Knit	(Garter Carriage)

Hand Knit	Space Bar (Expected)		Full Stop/Point (Unexpected)	
Stocking Stitch	RS	Knit	RS	Purl
	WS	Purl	WS	Knit
Reverse Stocking Stitch	RS	Purl	RS	Knit
	WS	Knit	WS	Purl
Garter Stitch (Knit)	RS	Knit	RS	Purl
	WS	Knit	WS	Purl
Garter Stitch (Purl)	RS	Purl	RS	Knit
	WS	Purl	WS	Knit

As the symbols themselves have no relevance to the letters or symbols on the keyboard, it will be difficult to remember all of them and indeed you are likely only to use a few of them in any one pattern, so those which are likely to be most useful, such as machine Smart Symbols and those for increasing and decreasing, have been given keyboard positions, but if you look at the diagram below you will see that there is a logic to the way in which they have been applied:

- The symbols shown in Purple are equivalent to the numbers, lower case letters and keys used without the shift key

- The symbols shown in Red are equivalent to capital letters and symbols typed with the Shift key.

- The common machine knit symbols are all on the top row and are typed without the Shift key

- The biased stitches are associated with the back and forward slashes (\ and /) and slope in the same direction

- The symbols associated with the letters are mostly paired, with the expected version applied to the lower case letter and the unexpected applied to the capital letter: so without the shift key you get the expected symbol, and its opposite dotted version with the shift key.

- The symbols on the letters at the left of the keyboard are generally types of increase

- The symbols on the letters at the right of the keyboard are generally types of decrease

(Click here if you'd like to download a larger copy of this diagram in pdf format from the Soft Byte Ltd web site.)

Using the keyboard in DesignaKnit
Stitch Symbols

To type directly into the grid in Stitch Designer, first turn on the Pencil tool and make sure that the drawing mode is set to Symbols (if the LMB is active on a symbol, the you are in symbols mode or you can toggle quickly from one mode to the other by pressing Ctrl+Shift) then hover it over the stitch where you want the symbol to be... and type it. You can continue to type across the whole row using the space bar to skip through the background stitch - and DesignaKnit will determine the *default* direction in which the stitches are filled in according to the direction in which the chart would be read or the direction of the carriage:

Starting position	Odd Numbered Rows	Even Numbered Rows
Machine CAR	Right to Left	Left to Right
Machine CAL	Left to Right	Right to Left
Hand: Right edge	Right to Left	Left to Right
Hand: Left edge	Left to Right	Right to Left

You can change the direction at any time by pressing the arrow key on the keyboard for the direction in which you want to draw, and you can move the pencil up and down a row at a time with the up and down arrows.

Yarn Colors

With the pencil in Yarn Colors mode (active LMB selector is on a color, or toggle the mode by pressing Ctrl+Shift), only the keys from 1-9 can be used. These are associated with the first nine colors in the palette, counting from left to right. Use the Space Bar to jump over stitches without changing the color.

The direction in which DesignaKnit starts to draw is in the default direction of the reading of the chart, but you can change this with the arrow keys.

Starting position	Odd Numbered Rows	Even Numbered Rows
Machine CAR	Right to Left	Left to Right
Machine CAL	Left to Right	Right to Left
Hand: Right edge	Right to Left	Left to Right
Hand: Left edge	Left to Right	Right to Left

You can change the direction at any time by pressing the arrow key on the keyboard for the direction in which you want to draw, and you can move the pencil up and down a row at a time with the up and down arrows.

Using the keyboard outside DesignaKnit

If you want to type in symbols in other applications, you need first to set the font to KnitWriteDK, then you can type in your symbols. There are, however, some things that you need to bear in mind:

Word processors are designed to help you write in your language, so the direction of the text is consistent with the language - and in English and other European languages, it is left to right and top to bottom, while flat knitting charts are read from bottom to top and alternately left to right and right to left , so unless you are copying a chart directly into the word processor, it's not very easy just to type it straight in.

The best way, therefore, is either to set up a table in the word processor, with sufficient columns and rows for your chart or to use a spreadsheet and enter one character per cell - this can later be pasted into a document. If you are working in a table, then you can control the direction of the text, either with the arrow keys or TAB to the next cell/row and Shift + TAB to the previous cell/row.

This can be most useful, not so much when starting from scratch, but for editing a pattern from DesignaKnit and as an alternative to copying the chart as a picture, either directly from Stitch Designer's work area or from the Print dialogue.

- With Stitch Designer open, and the pattern symbols showing, copy the pattern (or selected area) to the clipboard using one of these methods: click on the Copy button, select Edit/Copy or use the keyboard shortcut Ctrl+C.

- The next dialogue will ask if you want to copy the symbols to the clipboard as text: click on the Yes button

- Open a new document or spreadsheet and set the font to KnitWriteDK and the size to about 10 pt. If the pattern is to be pasted into a word processor, the maximum number of stitches will be about 60-63 to fit on a page, whether it's portrait or landscape, but in a spreadsheet there is no maximum, but when you come to print it, the chart may spread across more than one page - you can determine the order in which the pages are printed, and the direction in the Print Setup options.

- Paste in the text.

- If pasting into a word processor, and the pattern you copied is wider than about 24 stitches, the word processor will wrap the symbols, but this will be rectified when the text is converted to a table. How you do this, will depend on your application, but in Microsoft Word select all the text (Edit/Select All or Ctrl+A), then from the Insert menu choose Table, and from the sub-menu select Convert Text to Table. The next dialogue shows how many rows and columns in your table, and the option to separate is set at Tabs. Click OK and the text will be turned into a table.

- If pasting into a spreadsheet, such as Microsoft Excel, the quick way to select all the cells is to click on the Select All button above row 1 and to the left of column A. If you then select Format you can set the height of the rows and width columns to AutoFit, which will give you a neater grid.

Method Of Knitting

In order to function correctly, a stitch pattern should have a knitting method assigned, and in the case of machine knitting, a knitting machine configured. This is so that DesignaKnit can:

- use the Check function to check for errors specifically for that method
- show Yarn Numbers and Feeders
- print appropriate charts and instructions
- generate templates for mylar sheets or punch cards
- download to a knitting machine

Once you have selected Machine Knitting or Hand Knitting as the main method, you can then configure the other options.

Configuring A Knitting Method

The currently configured method of knitting is shown as an abbreviation on the title bar of the Stitch Designer window, after the name and size of the current file.

Machine Knitting Methods		Hand Knitting Methods		
F	Fair Isle	Hk		Stocking Stitch (Flat)
I	Intarsia	Hk	O	Stocking Stitch (Circular)
2	2-color Jacquard	Hp		Reverse Stocking Stitch (Flat)
3	3-color Jacquard	Hp	O	Reverse Stocking Stitch (Circular)
4	4-color Jacquard	Hgk		Garter Stitch (knitted) (Flat)
5	5-color Jacquard	Hgk	O	Garter Stitch (knitted) (Circular)
6	6-color Jacquard	Hgp		Garter Stitch (purled) Flat)
R	Right Side Facing	Hgp	O	Garter Stitch (purled) (Circular)
W	Wrong Side Facing			

To set up or modify the knitting method, or choose a knitting machine, click on **Options/Method of Knitting**.

When starting a new stitch pattern, these options can be configured at the outset by clicking on the Change Knitting Method button on the Start a New Stitch Pattern dialogue (File/New).

Machine Knitting Options

This is where you configure the knitting machine you will be using, along with the method for your stitch pattern.

If the current method is Hand Knitting, click on the Machine button at the bottom left of the options dialogue to see the machine knitting options.

If the current method is already Machine Knitting, then you will see this dialogue straight away:
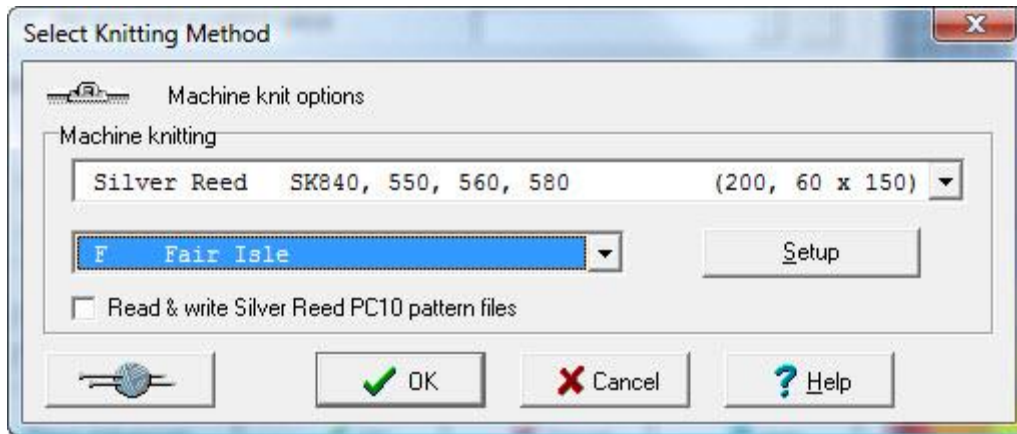
Knitting Machine

Select the machine you will be using from the drop down list - if you need to make changes to the setup of the machine, then click on the Setup button

Knitting Method

It is essential to assign a Method of Knitting to a stitch pattern before you can:

- View Yarn Numbers and Feeders
- Check for Jacquard errors
- Download or knit a pattern

Select the method from the next drop down list. The methods available will depend on the machine that has been selected.

Although the actual knitting method is controlled by how you set up the controls on the carriage, DesignaKnit needs to know how you intend to knit the pattern so that it can determine how to download to your machine and can help you by pointing out any errors for that particular method.

Fair Isle (F)

You should select this method for machines that will knit the two colors in a single pass. You can mix color pattern and stitch texture, but not in the same row. When you select this method, the rules are:

- You may not have more than two colors in any one row
- You must have one Non-Selecting (Rear Feeder) and one Selecting (Front Feeder) color in a Fair Isle row
- You may not have more than two Smart Symbols for stitch textures in any one row
- Smart Symbols will automatically set the selections for themselves and the main stitch for the rows in which they are used
- You can only have one color in a row which has Smart Symbol textures, with the exception of Thread Lace. For this technique you can use a selecting color underneath the Thread Lace Symbols
- If you are using a Garter Carriage, the Purl Stitch is the selecting stitch

- The Main Stitch is always Knit, but the needles will select either according to the colors in Fair Isle rows or according to any Smart Symbols used in texture rows

Choose the Fair Isle Method for:

- Fair Isle knitted on a Brother, Silver Reed or Toyota machine. Design the pattern as it will look when finished, with the Knit (plain) side facing you - DesignaKnit will flip the pattern horizontally when downloading because the programmable bed on these machines is the back bed and the reverse side of the fabric faces you as you knit.

- Any pattern of mixed techniques but which includes a band or bands of Fair Isle

- Thread Lace patterns, if your machine has a Thread Lace setting.

- Lace knitting and (for Brother electronic machines and Silver Reed machines) lace which is combined with Fair Isle and Fair Isle and textured knitting.

- Garter stitch patterns knit with the Brother Garter Carriage

- Hand knitting patterns which follow the same rules as those for machine Fair Isle (see above).

Do *not* **choose Fair Isle Method when:**

- patterns with a maximum of two colors in a row are knitted with the colors separated rather than simultaneously. For this method, select 2-color Jacquard.

- a Pfaff/Passap machine is configured: the Fair Isle option will not be available as these machines cannot knit two colors simultaneously, so choose 2-color jacquard instead.

Intarsia (I)

This is a method of knitting separate areas of color without floats - that is, each color area is knitted from a separate cone or ball. The yarns must then be crossed on each row at the point where one finishes and the next one starts in order that holes or gaps are not created between the colors.

With the exception of the Silver Reed AG50 Intarsia carriage which is specially designed for Intarsia knitting, you cannot download Intarsia patterns to a knitting machine, as this is an entirely manual technique whereby all the needles in use must be brought forward manually and the yarns laid across the needle bed according to the pattern. Please see your machine manual for specific instructions, particularly with regard to carriage settings.

There are no rules about the number of colors or stitch types you can show in any row which means you have complete freedom to mix color and texture how you will, but there are some restrictions as to how the pattern will behave when downloaded and in Interactive Knitting:

- When downloaded to the AG50 Intarsia Carriage, the **colors** will select needles for knitting but the stitch types will be ignored

- In Interactive Knitting only the instructions for color changing will be given.

Intarsia is primarily a method of producing multicolored work, but stitch textures, including cables can also be used, but any such technique will usually have to be performed by hand. If you are following Interactive Knitting, any stitch or cable symbols in the pattern will be displayed on the needle bed window, so that you can follow the chart - and of course you can configure them to give you an audible alert if you wish.

Jacquard (2, 3, 4, 5 or 6)

Jacquard patterns are achieved by knitting each color separately onto selecting needles, with the main carriage set to 'slip'. You can knit either single or double-bed Jacquard, but if the latter, then you should understand that DesignaKnit can only program the main needle bed, not the ribber or secondary needle bed.

When you assign a Jacquard method, you should choose the one that is consistent with the maximum number of colors in a row, not in the whole pattern. Use the Check function to determine the number of colors in a row, and to mark any rows where there are too many, as well as checking for any errors in the pattern. You should then use the View/Yarn Numbers and Feeders to make any final adjustments.

When you download to the machine, or print a punch card template, DesignaKnit will separate the colors and if you follow Interactive Knitting, it will tell you the order in which to knit them.

You cannot use texture in a Jacquard pattern, but you may have up to six colors in any one row. If you want to use texture in the project or on part of a garment piece, then this must be downloaded as a separate pattern.

Jacquard Separation Methods

Click the Jacquard button on the Setup dialogue to view and select the methods available. DesignaKnit will automatically allocate the method most suited to your machine, but you may change this if you wish.
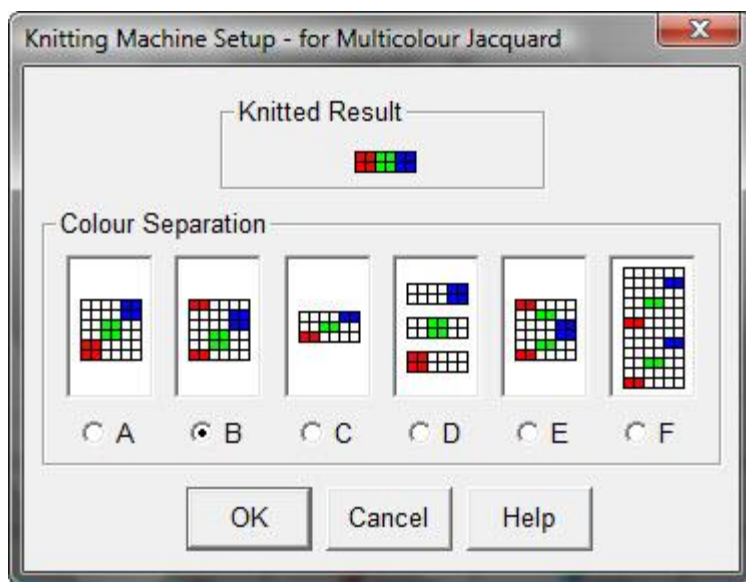
For more information on the separation of colors, see the section on Yarns Numbers and Feeders.

Right or Wrong Side Facing (R or W)

NB
In this context, Right and Wrong side are the terms commonly used outwith the industry and refer to the finished *effect* side, which is outermost on the finished piece (right side) and *reverse* side, which is opposite to the effect side ((wrong side) of the fabric, not the *technical* face or back.

Right Side = Effect Side
Wrong Side = Reverse Side

These methods are for textured knitting, such as slip or tuck, with one color being knitted in a row, one selecting and one non-selecting stitch type.

- Choose Right Side Facing or Wrong Side Facing for Tuck or Slip stitch patterns and garter stitch patterns *which do not include a band or bands of Fair Isle (that is, two colors in row)*

- Use Right Side Facing or Wrong Side Facing for all-over Lace patterns and (Brother electronic and Silver Reed machines) Lace combined with stitch texture.

You specify which side will face you as you knit and, according to which knitting machine you are using, then DesignaKnit will know whether to flip the pattern for downloading and will set the background to knit or purl stitches accordingly. As most textures are produced using Tuck or Sip techniques, by default, the main stitch will be the *selecting* stitch and the other symbols will be non-selecting, but you can change these settings in the palette.

For tuck, slip, thread lace, weave or garter carriage patterns, you must use the correct Smart Symbols so that DesignaKnit knows how to arrange the selection for downloading. These are shown in the Stitch Symbol Organizer on a salmon-colored background, and in the palette they have the needle indicator. Other symbols can be used, but they will not affect the downloaded pattern: their purpose is to provide reminders of hand techniques, such as cables or shaping.

If you use the Smart Symbols which have been assigned to these specific techniques, then DesignaKnit will indicate the carriage settings and, where necessary, when to change them, as you work through the pattern in Interactive Knitting as well as including this information in the printed instructions

Color is used differently from Fair Isle or Jacquard patterns - you can use as many colors as you like in a row, but the row itself will be knitted in one color only. You can use additional colors to indicate contrast yarns for, say, weaving patterns, or you can use a color to clarify or highlight the position of a symbol, but they will not influence the selection of the needles. You will, however, have to set the transparent/opaque status of the colors so that DesignaKnit knows which is the knitting yarn color and which is the 'memo' color.

For Brother Garter carriage patterns, you can use either Right or Wrong Side Facing, but you should take into account:

- **Wrong Side Facing (W)**: the knit side will be the effect side of the fabric facing away from you as you knit, so any purl stitches will be formed on *selecting* needles. DesignaKnit will flip the pattern from left to right before downloading.

- **Right Side Facing (R)**: the purl side will be the effect side of the fabric facing you as you knit, so any knit stitches will be formed on *selecting* needles. DesignaKnit will not flip the pattern before downloading.

Reverse Fair Isle Patterns: these are patterns where the floats form the outer pattern and may be used to create pull-up or faux weave effects. If you want to create such a pattern, you must configure the Fair Isle method so that DesignaKnit will recognize that you are knitting two colors simultaneously, but in order to ensure that the pattern is the correct way round if it is not entirely symmetrical, you will need to use **Modify/Flip/Flip Horizontally** before saving, integrating and downloading.

Click on the Setup button to configure advanced options for your knitting machine.

Hand Knitting Options

This is where you set the background stitch for the pattern and specify the direction in which the symbols on the rows should be read for generating text instructions.

If the current method is Machine Knitting, click on the Hand Knitting button ![hand knitting button] at the bottom left of the options dialogue to see the hand knitting options.

If the current method is already Hand Knitting, then you will see this dialogue straight away:

Knitting Method

Flat: This is for knitting on two needles

Circular: This for knitting in the round, whether on one or two circular needles, or a set three or more double-pointed needles.

These choices do not affect the design process, or a chart, but if you are intending to print text instructions, this tells DesignaKnit whether to read rows in alternate directions for flat knitting, or always in the same direction, for circular knitting.

Background Stitch Type

According to the background stitch type you select, DesignaKnit will offer you a starting background in the correct stitch in Fabric View - in Grid (chart) View, the background will be blank, whichever method you choose as the blank cells represent the 'expected' stitch.

However, the choice you make has other implications too as this will determine the expected and unexpected stitch types and in turn this will affect the knitting instructions and abbreviations and make sure they reflect your choice. For detailed information, you can read about how the Stitch Symbols system works here.

The background type you select will be shown on the Title Bar of the Stitch pattern.

Stocking Stitch (flat) (Hk), or (circular) (Hk O)

This is the most usual basic method, and would conform with most published charts and patterns. Unless you have a specific reason *not* to choose this background, it is recommended that you choose Stocking Stitch for all patterns.

Knit is the *expected* **stitch on the right side**(front) of the fabric, and the ***unexpected*** stitch on the reverse side:

- Chart cells are **blank** for **knit** stitches on a **knit row** and **purl** stitches on a **purl row**.
- Stitches which are formed **knitwise on knit rows** and **purlwise on purl rows** are *un-dotted* symbols

Purl is the *unexpected* **stitch on the right side** (front) of the fabric and the ***expected*** stitch on the reverse side:

- Chart cells are **dotted** for **purl** stitches on a **knit row** and **knit** stitches on a **purl row**.
- Stitches which are formed **purlwise on knit rows** and **knitwise on purl rows** are *dotted* symbols.

Reverse Stocking Stitch (flat) (Hp) or (circular) (Hp O)

For most patterns which are based on a purl background, the stoking stitch method works well, but where the purl dots become a distraction and prevent the chart from being read easily, you have the option of setting the base stitch to Reverse Stocking Stitch.

Purl is the expected stitch on the right side (front) of the fabric and the ***unexpected*** stitch on the reverse side:

- Chart cells are **blank** for **purl** stitches on a **purl row** and **knit** stitches on a **knit row**.
- Stitches which are formed **knitwise on purl rows** and **purled on knit rows** are *dotted* symbols.

Knit is the unexpected stitch on the right side (front) of the fabric and the ***expected*** stitch on the reverse side:

- Chart cells are **dotted** for **knit** stitches on a **purl row** and **purl** stitches on a **knit row**.
- Stitches which are formed **purlwise on purl rows** and **knitwise on knit rows** are *un-dotted* symbols

Garter Stitch K (flat) (Hgk) or (circular) (Hgk O)

This is formed by knitting every row in flat knitting or, for circular knitting, you would knit one row and purl the next to produce the purl ridges on the front of the fabric. Whilst you could easily use the Stocking Stitch method, whereby every second row is shown as a row of dot symbols, when Garter Stitch is a background to more complex patterns, such lace, the pattern chart can be rather 'busy' . If you set the main stitch to garter stitch then the chart may be easier to read as the background will be shown as blank cells.

Knit is the expected stitch on the both sides of the fabric

- Chart cells are **blank** for **knit** stitches on **all rows**
- Stitches which are formed **purlwise on all rows** are *dotted* symbols.
- Chart cells are **dotted** for **purled** stitches on a **all rows**
- Stitches which are formed **knitwise on all rows** are *un-dotted* symbols

Garter Stitch P (flat) (Hgp) or (circular) (Hgp O)

This is essentially the same as knitted Garter Stitch, but for those knitters who prefer to knit purlwise it is formed by purling every row in flat knitting or, for circular knitting, you would purl

one row and knit the next to produce the purl ridges on the front of the fabric. Whilst you could easily use the Stocking Stitch method, whereby every second row is shown as a row of dot symbols, when Garter Stitch is a background to more complex patterns, such lace, the pattern chart can be rather 'busy' . If you set the main stitch to garter stitch then the chart may be easier to read as the background will be shown as blank cells.

Purl is the expected stitch on the both sides of the fabric

- Chart cells are **blank** for **purl** stitches on **all rows**

- Stitches which are formed **knitwise on all rows** are *dotted* symbols.

- Chart cells are **dotted** for **knit** stitches on a **all rows**

- Stitches which are formed **purlwise on all rows** are *un-dotted* symbols

Start of Knitting

These options determine the direction in which the chart is to be read, particularly for printing text instructions, depending on whether the method is set to Flat or Circular.

If the chart begins with Row 1 as a right side row, and it is read from right to left, then do not select either of these options

Knitting starts at left edge of Row 1

Tick this option if only one of these situations applies:

- The method is Flat knitting and Row 1 is a wrong side (reverse) row and you are knitting conventionally, from the left needle to the right. You must also tick the next option to confirm that this is a wrong side row. DesignaKnit will then continue so that the next row and all subsequent right side rows are read from right to left and wrong side rows from left to right.

- The method is Flat knitting and you normally knit from the right needle to the left and this is a right side (front) row. DesignaKnit will then read all subsequent right side rows from left to right, and all wrong side rows from right to left.

- The method is Circular knitting and you knit from the right needle to the left, in which case every row will be read from left to right.

Row 1 is Wrong Side

- This option will not be available if the method has been set to Circular knitting as all rows will be right side rows.

- For Flat knitting, tick this option if you want the first row to be a wrong side (reverse side) row. If you are knitting from the left needle to the right, you must also tick the box confirming that the knitting starts at the left edge of Row 1.

Symbols For Machine Knitting

DesignaKnit has two kinds of symbols for designing machine knit patterns:

- **Smart Symbols** which are an alternative to using yarn colors to control needle selection, especially where the pattern is for texture, rather than contrasting colors. DesignaKnit uses specific symbols for each machine technique,to control the needle selection for patterns for all machine techniques as well as for producing templates for punch cards and mylar sheets.

   Smart Symbols will also make sure that Interactive Knitting gives you the correct instructions to set the carriage for each technique.

- If you have the Lace Tool, and use a lace carriage, the Lace Smart Symbols will also arrange the lace separation and in Interactive Knitting tell you when to change carriages and how to set them.

- **Memo Symbols** which add additional patterning information, such as specific instructions for shaping and other manual procedures.

- Both types of symbol can be used to create charts for domestic single and double-bed machines as well as to provide basic information for operators of hand-flats, V-bed and industrial machines.

KnitWriteDK Smart Symbols

Patterns made up of selecting symbols can be used to create mylar sheet templates or downloaded directly via the appropriate cable link to domestic electronic machines. For non-electronics, they can be used to create punch card templates or charts.

Using Smart Symbols

Machine knitting only has a limited number of automatic stitch techniques. Needles are selected (or not selected) according to the pattern that is downloaded, but what actually happens to the stitches on those needles is determined by the setting on the carriage. DesignaKnit recognizes these symbols as being specific to the stitch type and will arrange the needle selection for that type of pattern.

The following symbols are for specific stitch types. When you download a pattern to the knitting machine, DesignaKnit will make sure that the needle selection is correct so that tuck and slip stitches are non-selecting and weave stitches are selecting. If you then knit the pattern interactively, DesignaKnit will remind you to set the carriage buttons for the technique. For details on how DesignaKnit deals with mixed techniques, and how to control or modify this, click here.

If you want to use the keyboard to type the symbols directly into the pattern, you can do this in combination with the pencil tool.

N OTE FOR UPGRADERS
If you have used the texture symbols from the Roosmalen1 font in earlier versions of DesignaKnit, then they will work in the same way in DesignaKnit 8. You should, however, once you have opened a pattern save it from DesignaKnit 8.
If you used some of the more obscure symbols, you may find that these have been changed, possibly to a memo symbol which does not control selection. If this is the case, you should use the Symbols Organizer to add appropriate symbols to the palette and then use the Replace function to replace the old ones with selectable symbols.

Knit and Purl

These represent the main stitches, depending on the Method of Knitting you have chosen which determines the front, or effect side of the knitting.

For patterns prepared for download to domestic electronic machines or to create punch cards, whether or not these are designated as selecting or non-selecting stitches will depend on the other Smart Symbols used in the pattern as the main stitch selection will always be opposite to that of the contrasting stitch type. If you have more than one kind of technique in a pattern, DesignaKnit will arrange the selection accordingly.

Knit side is: **'Right side'** **(Effect side)**	Knit stitch is represented on the chart as a blank cell. Purl stitch is represented by •	o Single Bed machines: Wrong Side Facing:*selecting* stitch for tuck or slip techniques *non-selecting* for Brother Garter Carriage o Passap and other front bed machines: Right Side Facing: *selecting* stitch for tuck or slip techniques

For domestic machines which can knit Fair Isle using two colors simultaneously, and the knitting method is set to Fair Isle, the default background stitch is always Knit and it is the *colors* which determine the needle selection. If you have a pattern consisting of two colors per row, one of which you have set as a selecting color and the other as non-selecting color, DesignaKnit will recognize this as Fair Isle. If those colors are used in pattern areas which are not Fair Isle, DesignaKnit will let them select - or not - according to the pattern type.

If you are using bands of texture and Fair Isle, then you should set the method to Fair Isle and not to W.

Purl side is: **'Right side'** **(Effect side)**	Purl stitch is represented on the chart as a blank cell. Knit stitch is represented by •	o Single Bed machines: Right Side Facing:*selecting* stitch for tuck or slip techniques *non-selecting* for Brother Garter Carriage o Passap and other front bed machines: Wrong Side Facing: *selecting* stitch for tuck or slip techniques

Tuck Stitch

o Tuck Stitch
For both Purl and Knit fabrics, all tuck symbols are non-selecting.
You should also take care not to have two such symbols adjacent to each other if you are intending to knit the pattern on a single bed machine.

Tuck Stitch symbols will behave as Smart Symbols in FI, R or W methods, but will behave as Memo symbols in Intarsia and all Jacquard methods and will not affect the needle selection

o   This is another symbol which can be used for Tuck Stitch. You can use this symbol for the lower end of a continued tuck stitch, especially for a printed chart

DesignaKnit will allow you to use both of these symbols in a single row as they both mean the same thing - the only difference is to provide clarity in a printed chart.
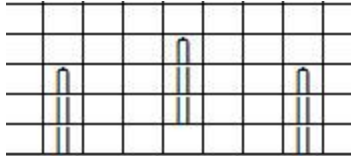
For single bed knitting, you should not have two adjacent needles tucking, so DesignaKnit will show a reminder when you save the pattern or open it in Interactive Knitting.

If the pattern is intended for double bed knitting you can ignore the warning as long as either the ribber is set to half-pitch or if at full pitch, needles between tucked stitches are in non-working position on the main bed and in working position on the ribber bed.

In a pattern, or section of a pattern, assigned the Tuck technique, DesignaKnit will make sure that all plain rows select the needle regardless of the selection status of the color in Fair Isle patterns.

Slip Stitch

Slip Stitch symbols will behave as Smart Symbols in FI, R or W methods, but will behave as Memo symbols in Intarsia and all Jacquard methods and will not affect the needle selection

o   Slip (skip or missed) stitch. You can have two or more adjacent needles for slipped stitch patterns. If this is a pull-up pattern, you can use whichever is the most appropriate of the memo symbols to indicate where exactly to hook up the floats.In a pattern, or section of a pattern, assigned the Slip technique, DesignaKnit will make sure that all plain rows select the needle regardless of the selection status of the color in Fair Isle patterns.

Thread Lace

Thread Lace symbols will behave as Smart Symbols in FI, R or W methods, but will behave as Memo symbols in Intarsia and all Jacquard methods and will not affect the needle selection

o   Thread Lace
For Japanese machines which have a thread lace setting. Thread lace is a variation of Fair Isle, but instead of having two colors, one of which knits on selecting needles and the other on non-selecting ones, the fine thread in the front feeder knits alone on selecting needles and combines with the main yarn on non selecting needles, creating the illusion of eyelets on the selecting needles.

o   Thread Lace can be use in any of the following methods: Fair Isle, R or W side facing.When preparing a pattern for download, if you set the method to Fair Isle, you can either use a single color for the entire row and use this symbol for the needles you want the needles to select or, if it makes it clearer, place the symbol on top of a second, selecting, color.

Weave

Weave symbols are only appropriate for the R method on single bed machines, so the purl side is facing the knitter.

o   Weave. Use this symbol only for selecting needles. The Weaving yarn is caught in the needle hook and knitted with the main yarn.

T I P

For Weaving patterns,set the method to Right Side Facing and use the selectable symbol above for the selecting needles. The yarn is caught in the needle hook and knitted with the main yarn.

For the non-selecting stitches, you can either leave them with the default purl background stitch or you can choose an appropriate 'float' symbol to indicate either that the yarn goes under the needle or is floated under more than one needle.

These 'memo' symbols will not affect the needle selection in any way, but may be helpful to clarify a chart.

In addition, you can use colors to indicate the passage of the weaving yarn. When using Right or Wrong Side Facing methods, the colors do not affect the selection of the needles. For Woven Pull-up patterns, you can choose from a variety of symbols for both charts and interactive knitting reminders.

Technique Change Control

This symbol is not for any particular stitch, but rather to tell DesignaKnit to change the technique assigned to a plain (stocking stitch in FI and W methods, reverse stocking stitch in R) between two areas determined by one or other of the above smart symbols.

If left to its own devices, DesignaKnit will assume that the method assigned to the last pattern band will continue through any plain rows until the next row where it meets the same or a different Smart Symbol.

By placing this symbol on a single stitch on a plain row, this will mean that DesignaKnit will change to the next technique indicated by the next Smart Symbol from this row onwards, instead of waiting until the actual row where the Smart Symbol appears. DesignaKnit will then adjust the pattern for downloading if necessary, and treat these plain rows as if they were part of the next section - and will warn you in interactive knitting to set the carriage accordingly.

If you place another of these symbols higher up the pattern, but before the next technique dictated either by a Smart Symbol or Fair Isle colors, DesignaKnit will give you an instruction to knit the rows up to the next symbol with the carriage set to plain knitting. This is particularly useful if your plain rows follow a Fair Isle band and you do not want DesignaKnit to object to you using what would have been selecting colors either by reminding you to set the carriage for plain knitting so that a) the selection is ignored and all the needles knit anyway or b) if the following technique is Slip or Tuck, making sure that the plain rows are downloaded as all-selecting as well as reminding you to reset the carriage for these methods so that they knit correctly.

Examples of using the Technique Change Control

Fair Isle method for Japanese machines

The following pattern, designed in the FI method, consists of:

Rows 1-4   Fair Isle (i.e. 2 colors per row)
Rows 5-8   Single color stocking stitch
Rows 9-11   Tuck stitch Smart Symbols
Rows 12-17 Single color stocking stitch
Rows 18-20 Slip/Skip stitch Smart Symbols
Rows 21-22 Single color stocking stitch
Row 23   Thread Lace Smart Symbols
Row 24   Single color stocking stitch

The charts below show how the use of the Technique Change Control affects how the selection is passed to the knitting machine, whether downloaded or in real time.

Without the Technique Change Control

If the TCC is not used at all, DesignaKnit retains the technique dictated by the last combination either of two colors per row or a Smart Symbol until it meets the next change, always going in the direction of the knitting, i.e upwards on the chart.

The instruction at Row 1 will be to set the carriage for Fair Isle, and the next instruction will be at Row 9, to change to Tuck stitch. Thus DesignaKnit treats the next four rows as part of the Fair Isle band. The plain stripes between the last row containing two colors and the first Tuck row consist of non-selecting colors, but if selecting colors had been used, they would have downloaded as such, with a warning.
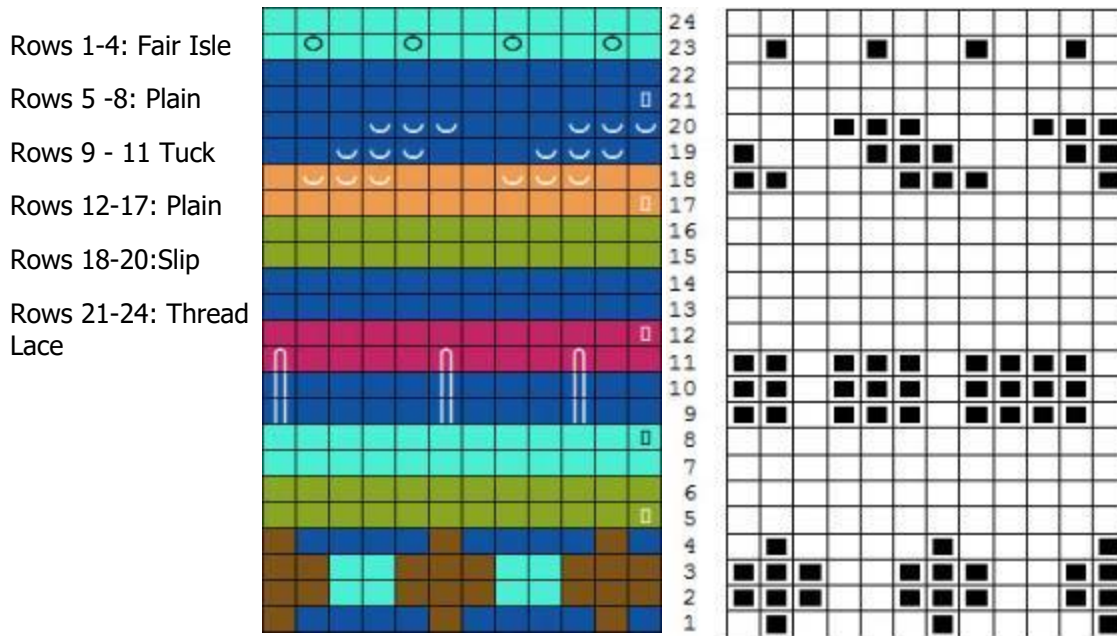
NB: If the Color Changer is switched on, Silver Reed machines will automatically reverse the needle selection for the Fair Isle band only - other machines and devices will invoke an instruction in Interactive Knitting to put the Negative Switch on.

At Row 9, there is an instruction to change to Tuck, and as you can see, DesignaKnit has automatically made those needles non-selecting, and all the others selecting, disregarding the selection status of those colors when in a Fair Isle band.

DesignaKnit regards all the rows from Row 9 to 17 inclusive, as part of the Tuck stitch band.

At Row 18, there are Slip/Skip stitch Smart Symbols, so there will be an instruction in Interactive Knitting to set the carriage for Slip stitch. The needles with Smart Symbols will not select, but the others will, regardless of the selection status of the colors when used in a Fair Isle band.

Rows 21 and 22 are regarded as part of the Slip/Skip stitch band, so all the needles will select

Row 23 has the Smart Symbol for Thread Lace, so at the start of this row there will be an instruction to set the carriage for Thread Lace. These needles will select, but the others will not. The color used is a non-selecting color when used for Fair Isle, and if you want to highlight the Thread Lace stitches in a color, this must be a selecting color in order not to conflict with the main color.

The next Smart area is the first row of the next pattern is repeat, so the instruction at Row 25 will be to set the carriage for Fair Isle.

Rows 1-8 Fair Isle

Rows 9-17 Tuck

Rows 18-22 Slip/Skip

Rows 23-24 Thread Lace
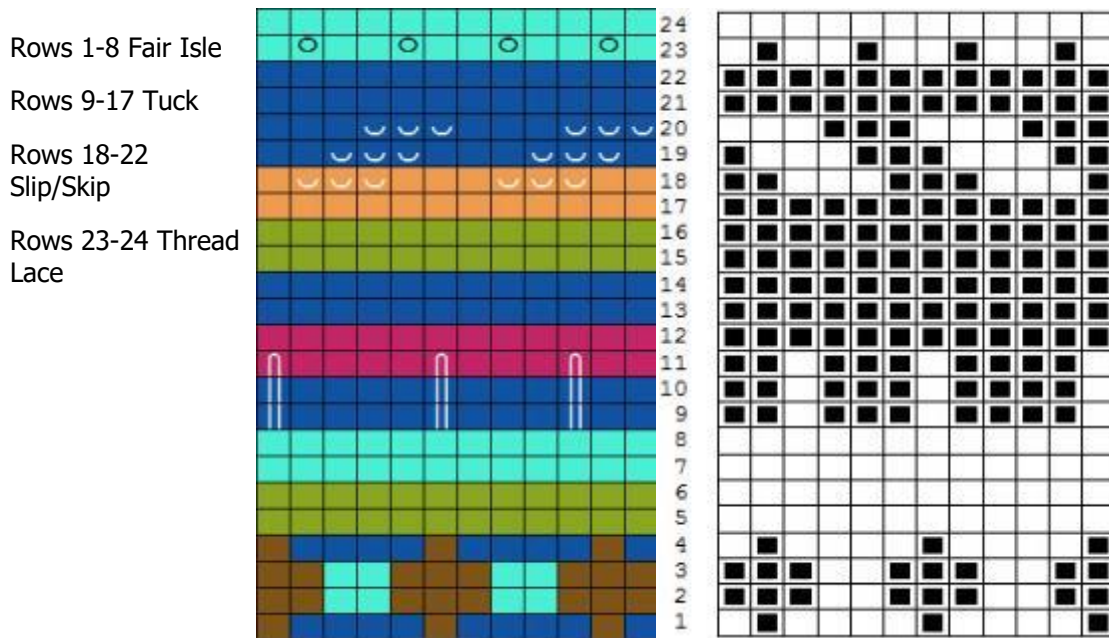
Technique Change Control Method 1: Change Technique Direction

If you would prefer the technique to change at any other point during the plain rows between techniques, you can tell DesignaKnit where you want to this to happen by placing a single TCC Smart Symbol anywhere on the first plain row where you want the technique to change. This will not affect the instructions invoked either by the presence of Smart Symbols or two colors in a row.

The instruction at Row 1 will be to set the carriage for Fair Isle.

NB: If the Color Changer is switched on, Silver Reed machines will automatically reverse the needle selection for the Fair Isle band only - other machines and devices will invoke an instruction in Interactive Knitting to put the Negative Switch on.

On Row 5 there is a TCC Smart Symbol, so DesignaKnit will look for the next pattern band, which in this example is determined by the Smart Symbols on Row 9, so at Row 5, Interactive Knitting will tell you to set the carriage for Tuck. Note that in extending the Tuck area down the chart, the plain rows between the Fair Isle band and the first row where stitches are actually tucked, the needles will select.

The next Smart Symbol is on Row 18, so Interactive Knitting will tell you to set the carriage to Slip.

On Row 21, there is a TCC Smart Symbol, so DesignaKnit will look to see what the next technique is, and at the beginning of this row will tell you to set the carriage for Thread Lace. This then allows you to control the row in which you want to include the thread with the main yarn and because the Thread Lace area has been extended downwards, this means that the main stitch needles do not select.

The next Smart area is the first row of the next pattern is repeat, so the instruction at Row 25 will be to set the carriage for Fair Isle.

Rows 1-4: Fair Isle

Rows 5 - 17: Tuck

Rows 18 - 20: Slip

Rows 21-24: Thread Lace
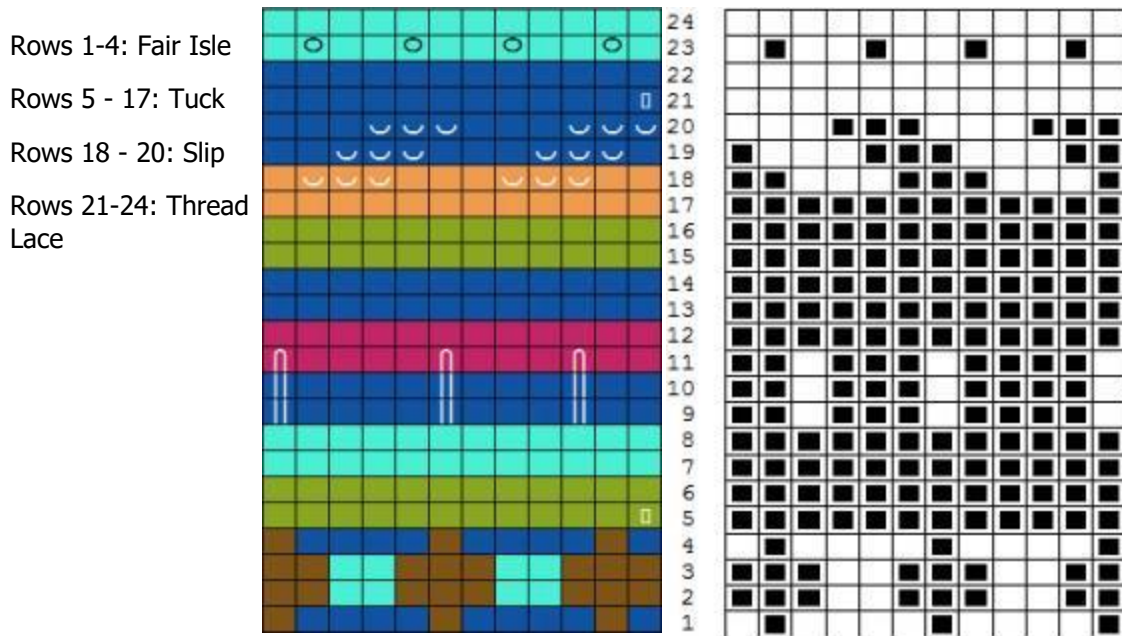
Technique Change Control Method 2: Insert Plain Rows

If the next Smart Symbol after a TCC is another TCC, at the row on which the first is placed, Interactive Knitting will instruct you to set the carriage to Plain. The second instance is to instruct DesignaKnit to look for the next Smart Symbol, thus:

Row 1, the instruction will be to set the carriage for Fair Isle.

> NB: If the Color Changer is switched on, Silver Reed machines will automatically reverse the needle selection for the Fair Isle band only - other machines and devices will invoke an instruction in Interactive Knitting to put the Negative Switch on.

At row 5, the instruction will be to set the carriage to Plain. The TCC on row 8 does not invoke an instruction, but it tells DesignaKnit that the next technique starts with the next Smart Symbol, in this case on Row 9.

At Row 9 the instruction will be to set the carriage for Tuck, and on Row 12, to set it to Plain. The TCC on row 17 marks the end of the plain section, so the next instruction is to set the carriage to slip on Row 18. (If the TCC had been placed on row 15 instead, the instruction to set to slip would have been on Row 16, and rows 16 and 17 would have downloaded as selecting.)

The TCC on row 21 is not followed by another, so the next Smart Symbol is the Thread Lace symbol on Row 23, so the instruction to set the carriage for Thread Lace will come on Row 21.

The next Smart area is the first row of the next pattern is repeat, so the instruction at Row 25 will be to set the carriage for Fair Isle.

Rows 1-4: Fair Isle

Rows 5 -8: Plain

Rows 9 - 11 Tuck

Rows 12-17: Plain

Rows 18-20:Slip

Rows 21-24: Thread Lace

Right or Wrong Side Facing Methods

These methods do not allow Fair Isle: if you use more than one color in a row, it will not be treated as Fair Isle, but as a memo, so your second color will not affect needle selection, which will be determined by Smart Symbols only.

Without the Technique Change Control

The instruction for Row 1 will be to set the carriage to Tuck. The next Smart Symbol in the pattern is the Thread Lace one on row 7, so the instruction to set the carriage for this technique will be at Row 7. The next Smart Symbol is on Row 13, so the setting for Thread Lace will continue until then, when the instruction will be to set the carriage for Slip/Skip stitch. This will remain until Row 19 when the instruction will be to set the carriage for Thread Lace until the end of the pattern repeat. The next repeat will start with the instruction to set the carriage for Tuck.

Rows 1-6: Tuck

Rows 7-12: Thread Lace

Rows 13-18:Slip

Rows 19-24: Thread Lace
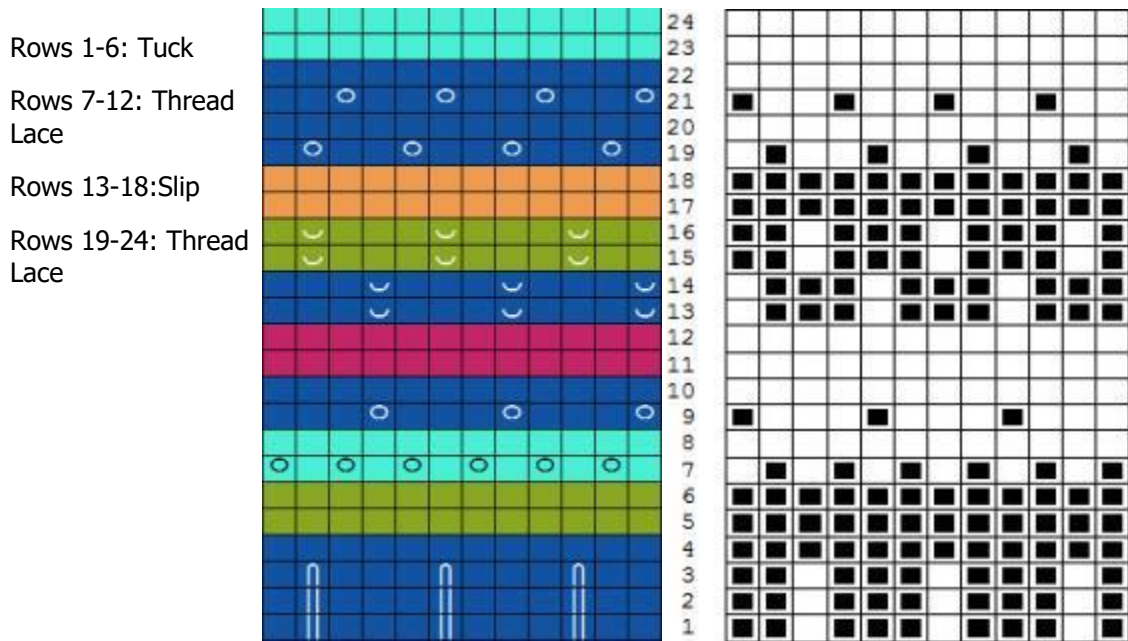
Technique Change Control Method 1: Change Technique Direction

The presence of the TCC Smart Symbol on Rows 5 and 14 means that instead of the previous technique continuing until the next Smart Symbol, that technique is started earlier, on the row designated by the Technique Change Control.

So, in this instance of the pattern, the instruction at Row 1 is for Tuck but instead of continuing to the end of Row 6, by placing the TCC on Row 5 the instruction for the Thread Lace is invoked at that row, and by placing one on Row 17, the Thread Lace instruction is given immediately after the last Slip stitch row, rather than waiting until Row 19.

Apart from changing the row at which the carriage setting instruction is given, the download has been altered so that the rows designated as Thread Lace do not cause the main stitch needles to select.
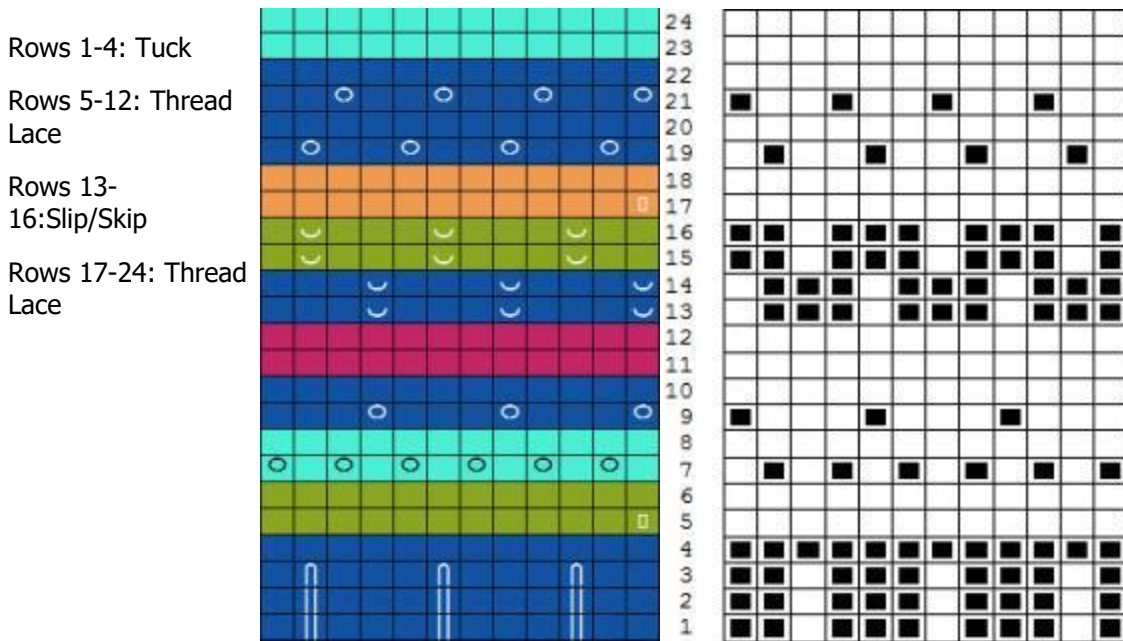
Rows 1-4: Tuck

Rows 5-12: Thread Lace

Rows 13-16:Slip/Skip

Rows 17-24: Thread Lace

Technique Change Control Method 2: Insert Plain Rows

If the next Smart Symbol after a TCC is another TCC, at the row on which the first is placed, Interactive Knitting will instruct you to set the carriage to Plain. The second instance is to instruct DesignaKnit to look for the next Smart Symbol indicating a technique. In this sample this is on the row above, but this does not have to be the case.

Rows 1-3: Tuck

Rows 4-6: Plain

Rows 7-9: Thread Lace

Rows 10-12: Plain

Rows 13-16: Slip/Skip

Rows 17-18: Plain

Rows 19-21: Thread Lace

Rows 22-24: Plain
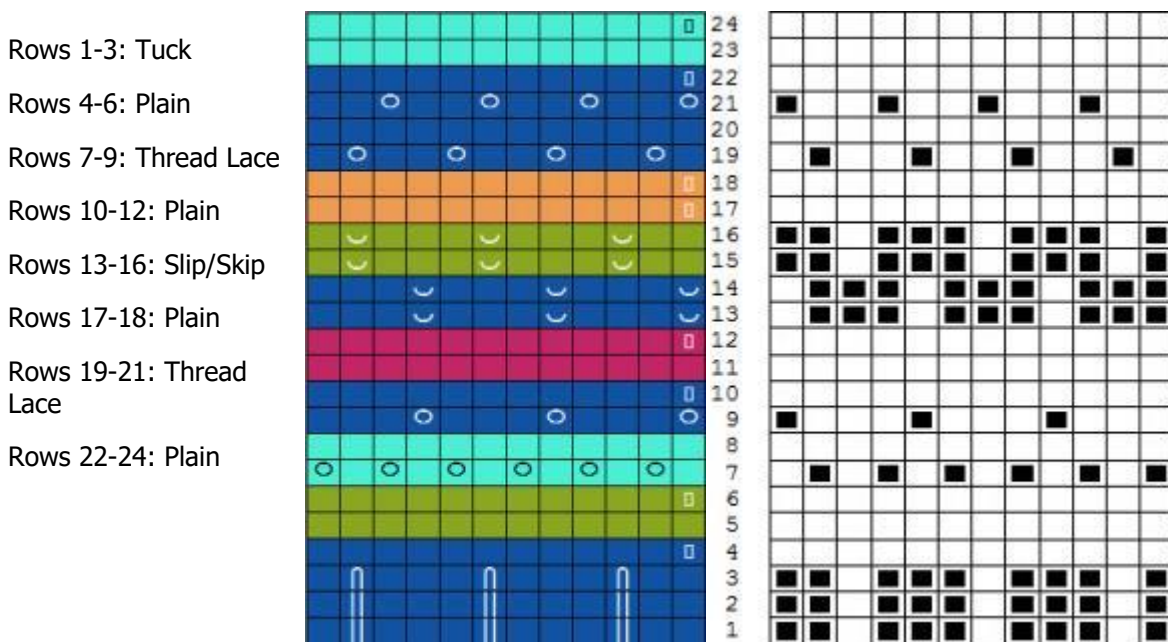
The use of this symbol is entirely optional, but it allows you to determine how plain areas between pattern bands are treated by DesignaKnit.

Multi-colored Jacquard

For Jacquard methods, none of the symbols are able to select needles. This is because the method is in any case a full-color slip stitch technique whereby all the stitches in a row will be knitted in one or other of the colors. DesignaKnit will separate the colors according to the settings you have chosen in Yarn Numbers and Feeders.

If you want to combine Jacquard with other types of technique, the best way to do this is to knit the patterns in sequence rather than try to combine them in a single download.

You can, however, use memo symbols on a Jacquard pattern as they will not affect the needle selection.

Machine Lace Symbols

These symbols are specifically for use with the Lace Tool and will be added to the palette automatically when you click on the lace tool button. If you do not have the Lace Tool, you can still use these symbols as they have an associated 'texture' which shows when Fabric View is turned on, but they will not control the selection of needles, nor will they separate the lace pattern for knitting.
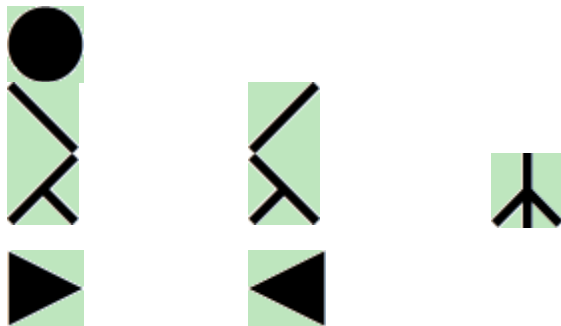
This shows the empty needle where the lace eyelet will be created on the next knitted row in full transfer lace.

These symbols show the stitches that are to be transferred, in the direction of the slope.

These symbols show the decreases which are formed when the sequence of transfers is complete from either or, for the double decrease, both directions.

These symbols indicate Fine Lace transfers (Brother only), which do not transfer the entire loop to the next needle, but share it between the original needle and its neighbor.

L A C E   T I P

Because the machine lace symbols work in a special way, it is recommended that you only use them for drawing machine lace patterns. For other types of pattern, there are other symbols which show the same kind of texture but which will not govern needle selection.

Read how to use the Lace Tool with your machine here.

Memo Symbols

This definition applies to all the other symbols in the font. They do not interact with the machine and cannot therefore select needles, but they can be used to indicate specific manual techniques, such as increasing or decreasing and can supplement those general instructions given in Interactive Knitting by specifying the exact type of increase or decrease and, importantly, the exact location on the needle bed.

Only those symbols which have an obvious use for machine knitters have been given default instructions. To see what these are, click on the Text button in the Symbols Organizer and make sure the option to show only the symbols in the current palette is not ticked. If you want to change or add instructions to symbols you can do so in this dialogue.

These can be used on any stitch cell which does not already have a symbol applied to it, and can be superimposed onto any color for Fair Isle, Intarsia or Jacquard knitting.

- **For Right of Wrong Side Facing methods**, as it is the Smart Symbols that control needle selection, memo symbols can only be applied to the *main stitch* so that they do not interfere with the pattern needle selection.

- **For Right and Wrong Side Facing methods**, yarn colors do not select needles, so you can use colors if you wish to highlight any symbol or symbols, whether selecting or memo types.

- **For Fair Isle method**, it is the *colors* which control the selection of the needles: you may use memo symbols on either color in the row, but if you use any of the selectable symbols, such as thread lace or tuck, you must place a selecting symbol on a selecting color and a non-selecting symbol on a non-selecting color.

Needle Position Symbols

The default machine knitting palettes also contain symbols which can be used to indicate needle position, especially for Interactive Knitting. These symbols do not control selection, only serving as a reminder to change the needle position manually.

- Non-Working Position (NWP)
  Take the needle out of work. There are a number of reasons why needles might not be included, such as an open tuck stitch pattern.

- Holding Position (HP)
  This is a useful symbol to indicate held needles for pull-up stitch patterns or short-row shaping.

- Working Position (WP)
  Use this symbol to show when to return held or non-working needle to normal or upper (selected) working position.

- Empty Needle - after transferring the stitch to the left or right, leave the needle in working position. *(NB. This is intended for manual transfers, as an alternative to the Lace eyelet symbol)*

Floats, Woven Pull-up, Wrapped or Wound Stitches

These symbols are useful for manual patterns, such as those whereby floats are picked up and hung onto a working needle, or when a second yarn is wrapped around a group of manually selected needles.

Decreases

If you have the Lace Tool, it is not advisable to use the machine lace symbols for decreasing as DesignaKnit will interpret them as part of a lace pattern, and if it doesn't find the matching eyelets, will generate error messages - and even if you do not have the lace tool, if you pass the pattern on to someone else who has, they will be affected. The Lace Tool symbols are marked in the Symbols Organizer in green, but their straight ends distinguish them from the similar non-Lace Tool symbols

There are, however, a number of better alternatives to indicate decreases,but these are probably the most suitable for machine knitting charts:

These symbols can indicate simple decreases.

These could be used to indicate a single decrease made with the double or triple transfer tool.

And these could be used either for a single decrease with the double or triple transfer tool, or a double increase made with the triple transfer tool

These are for double decreases

These can also be used for double decreases.

Cast off

Increases

There is also a range of increase symbols which are especially useful for machine knitting patterns

These symbols can be used for the simplest of decreases: bring an additional needle into working position so the yarn will wrap around it on the next pass of the carriage

Use these to indicate simple or sloping transferred single increases inside the edge of the knitting
These symbols can be used to indicate a transferred increase where the head of the stitch below is placed on the empty needle to the left or right of the current stitch.

Memo Symbol Alerts

You can add a "beep" to a memo symbol so that when you are knitting interactively you get an audible reminder to follow the instructions associated with that symbol. Click on the Alerts button in the Symbols Organizer dialogue to configure the alert tones.

To turn the alerts on or off, click on the Alerts icon on the individual symbols in the palette.

Symbols For Double Bed Rib Patterns

If you are using a double-bed technique, whether by attaching a ribber or using a dedicated double-bed machine, or are designing for an industrial machine, you can use special symbols to indicate the needle selection and technique for the second bed. You can then create a chart so that you can see clearly an special instructions relating to the second bed/ribber. Click here to read more about creating double bed pattern charts.

All the symbols for double-bed machines are memo symbols and cannot be used to download or to produce punch cards: their purpose is solely to create charted instructions. However, the main stitch types for the technical face and back will show as plain (knit) and back loop (purl) respectively if Fabric View is turned on.

> **NOTE**
> Remember that you can only download patterns to the main bed of domestic knitting machines, whether single with attached ribber, or double bed. Any patterning on the ribber involves manual needle selection and/or specific carriage settings.

Symbols for Full Pitch Patterns

Full Pitch is when the needles of each bed are directly opposite each other. This means that if a needle is in working position (WP) on one bed, its opposite needle on the second bed must be in non-working position (NWP).

Note that if you are downloading a pattern to the main bed of the knitting machine, you should make your pattern using either the selectable symbols or colors for jacquard. Please read the notes on how to set up a chart for a double-bed machine or machine with ribber.

Stitch formed on Front Bed. This is the Technical Face of the knitting and is shown as a Knit, or plain stitch.

Stitch formed on the Back Bed. This is the Technical Back of the knitting and is shown as a Purl, or back loop stitch

Tuck on Front Bed

Tuck on Back Bed
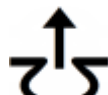
Transfer stitch from Front Bed to opposite needle on Back Bed

Transfer stitch from Back Bed to opposite needle on Front Bed

Double and V-bed machines transfer stitches horizontally in two stages: first to the opposite bed and then back to the original bed. Depending on the direction of the transfer, this could take several passes.
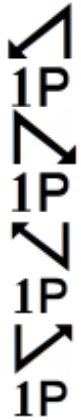
Transfer Front Bed stitch to next needle on left (i.e transfer 1 Pitch left)

Transfer Front Bed stitch to next needle on right (i.e. transfer 1 Pitch right)

Transfer Back Bed stitch to next needle on left (i.e transfer 1 Pitch left)

Transfer Back Bed stitch to next needle on right (i.e. transfer 1 Pitch right)

Slip

Cross stitches left over right.

Cross stitches right over left.

Needle out of work on either bed

Needle returned to work on either bed
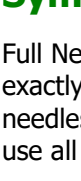
Needle in holding position on either bed
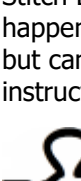
Empty Needle on either bed

Symbols for Fully Interlocked (Full Needle Rib) Patterns

Full Needle Rib is when the ribber or second bed is set at Half Pitch so that, instead of the needles being exactly opposite those on the main bed, they are half-way between the needles. This means that all the needles on both beds can be used to form a double-sided or reversible fabric. Whether you do actually use all the needles will depend on the pattern you are knitting.

Stitch Designer cannot shift the grid by a half pitch, but you can use a single symbol to show what happens to the matching needles on each bed. The system doesn't allow for every pattern combination, but can be adapted for most circumstances - you can use other 'memo' symbols if necessary and edit the instructions accordingly

Knit on both beds

You could also use a single instance of this symbol to indicate that the beds are set at half pitch.

Tuck on Back Bed, Knit on Front Bed

Knit on Back Bed, Tuck on Front Bed

Slip on Back Bed, Knit of Front Bed

Knit on Back Bed, Slip on Front Bed

Use this symbol to indicate a missed (slipped) stitch on both beds.

If using a racking pattern, use this symbol to indicate the direction.

Transfer stitch in direction indicated on front or back bed, according to symbol.

If using a domestic machine, and are using a single row to indicate both beds and you are *not* transferring stitches sideways, you can adapt the pitch symbols to indicate shifting the needle bed to left or right, otherwise use the plain horizontal arrow symbols.

Alternatively, if you are only transferring on one bed, the opposite symbols could be used to indicate racking.

Yarn Numbers And Feeders

Yarn Numbers and Feeders allows you to see how DesignaKnit will allocate the yarn colors in your pattern to the feeders on the carriage or color changer, and the order in which they will be used.

To see how the colors will be arranged, from the menu bar select **View/Yarn Numbers / Feeders** (The keyboard shortcut F2 toggles this view on and off, but when switching on, always offers the Knit Method dialogue. To toggle the view on and off without having to confirm the method every time, use F3 instead. This shortcut can be used to quickly refresh the view if you have made changes).

The yarns are then displayed in columns at the left of the pattern area. Note that while using this view, most tools and menu options are disabled, but those which are either relevant to this option or do not affect it are still active. Also, whilst you cannot edit the pattern in the pattern area, you can use the Pencil tool to change the color in an entire row by clicking on the column where you want the change to be, or use the fill tool to change an entire block of color shown in one of the columns.

The number of columns displayed and they way in which they are labeled will depend on the configured knitting machine, the method of knitting and whether or not a color changer is being used. These factors will also determine whether the columns refer to the feeders of the carriage and/or the color changer or the order in which yarns are used for multi-colored jacquard. More details are given in the sections relating to the specific knitting methods.

Rearranging the Columns or Colors

The yarn colors can be moved from one column to another using one of these methods:

- ⟺ Move or exchange individual bands of color:

  Hover the cursor over the band you want to move, and when the cursor changes to a double-ended arrow, then drag the block to another column. If that space is not empty, the color will swap places with the one onto which it is dropped. If you attempt to swap bands of different heights, the taller of the two will move intact, rather than be split over two columns. This, in turn, may mean that other bands of color will be moved to compensate.

- ⬚ Move an entire column:

  Hover the cursor underneath the column until it changes to an arrow with a white box, click on the column number or letter and drag it to its new position. (If the cursor doesn't change when you hover it near the column label, it's because the zoom level is such that the entire column isn't visible. In which case you can either zoom out until it is, or use the next option.)

  or

  Double-click anywhere in the column then drag it to the new position.

Fair Isle

T I P

Adding Memo numbers to the contrast colors is useful for patterns downloaded to Brother machines or to the PE1.

Fair Isle without a Color Changer

The columns show the two feeders on the carriage and the yarns threaded through them at any given point in the pattern. Fair Isle refers to a the machine technique whereby you can knit two colors simultaneously and the yarn colors will be shown so that those designated for non-selecting needles will be shown in Feeder A (Brother or Toyota machines) or Feeder 1 (Silver Reed machines). This is the rear feeder. The colors to be knitted on selected needles are shown in Feeder B (Brother or Toyota) or Feeder 2 (Silver Reed machines). This is the front feeder.

Yarn Feeders for Silver Reed machines
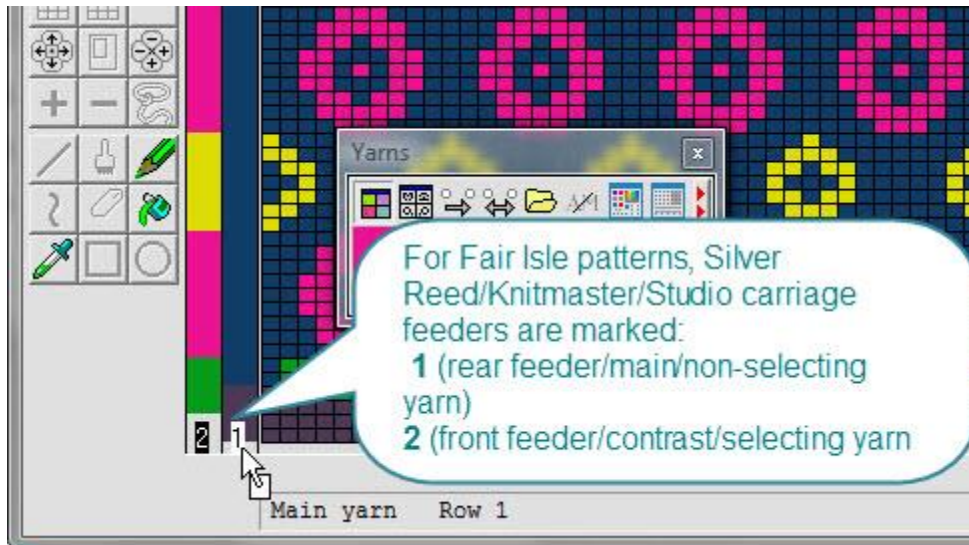
Yarn Feeders for Brother machines
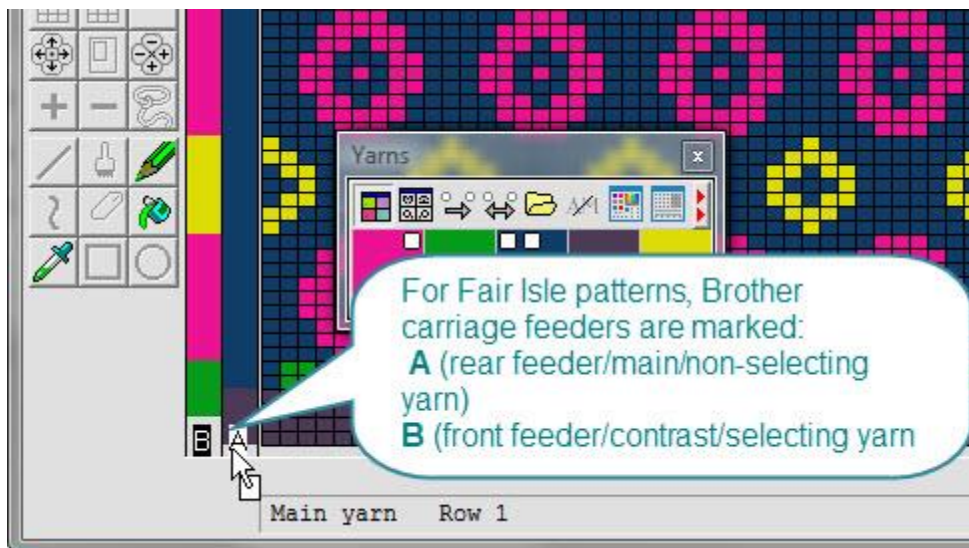
Fair Isle using a Color Changer

With the color changer configured on, the rightmost column represents the front feeder of the carriage but the columns to the left represent the color changer up to a maximum of four columns. If you only have four tension wires available, then you can only feed three colors through the color changer so you will only see a maximum of three columns.

When you use a color changer to knit using the Fair Isle technique, the needle selection has to be reversed so that the *rear* feeder connects with the color changer. Both the Brother single bed color changer and the Silver Reed changer in single bed mode have a front feeder to carry a second yarn, which is the background color. As this feeder is difficult to thread up once knitting has started, it is recommended that if you are using the color changer you have a single background color throughout: certainly you do not want a pattern where this yarn is changed frequently. If your pattern has more colors than can be threaded through the color changer, you should consider whether it is worth using it at all as it is considerably more awkward to have to re-thread the color changer than to rethread the ordinary carriage feeders. If you have more than four tension wires available, you can thread four contrast colors into the color changer and use a fifth tension wire for the front feeder yarn. *Note that the main yarn is not threaded through the color changer itself.*

If your pattern was originally designed without the color changer configured on, you can turn it on by clicking on the button on the palette tool bar or you can go into the machine setup either via Options/Method of Knitting/Setup or, having selected View/Yarn Numbers and Feeders, in the next dialogue you can click on the Knitting Machine button and then choose Setup. Whichever method you choose to turn the color changer on, DesignaKnit will automatically update the palette and the machine setup - and if you turn it off again, this will be updated throughout as well.

Turning the color changer on will immediately swap the selection status of the colors so that those which had been destined for selecting needles using the ordinary carriage will now be designated non-selecting so that they can be changed with the color changer, and the original non-selecting background color(s) will be changed to selecting - but you should note that any color changes here could present difficulties. Look at the title bar of the window: you will see that CC has been added to the file name to show you that the color change is configured on - this is a useful reminder if the palette has been closed - and this information will be saved with the pattern if you choose to save while the color changer is on.

If you had already set the selection correctly for the color changer, but without turning it on, you can quickly reverse the selection status of all the colors in the palette by pressing Ctrl+E.

Yarn Feeders for Silver Reed machines

Silver Reed/Singer/Studio Colour Changer feeders are numbered 1,2,3 and 4. These connect with the rear feeder. If you have more than 4 tension wires, you can use all four feeders for contrast colours.

2 refers to the front carriage feeder. When you use the colour changer, the main yarn is the selecting yarn.

A B C 2

Yarn in colour changer feeder C   Row 1
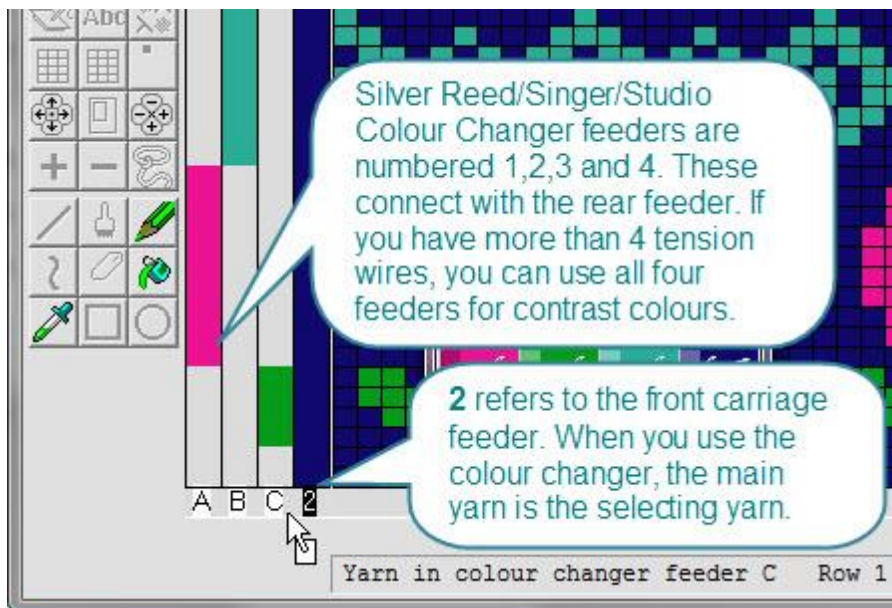
Yarn Feeders for Brother machines
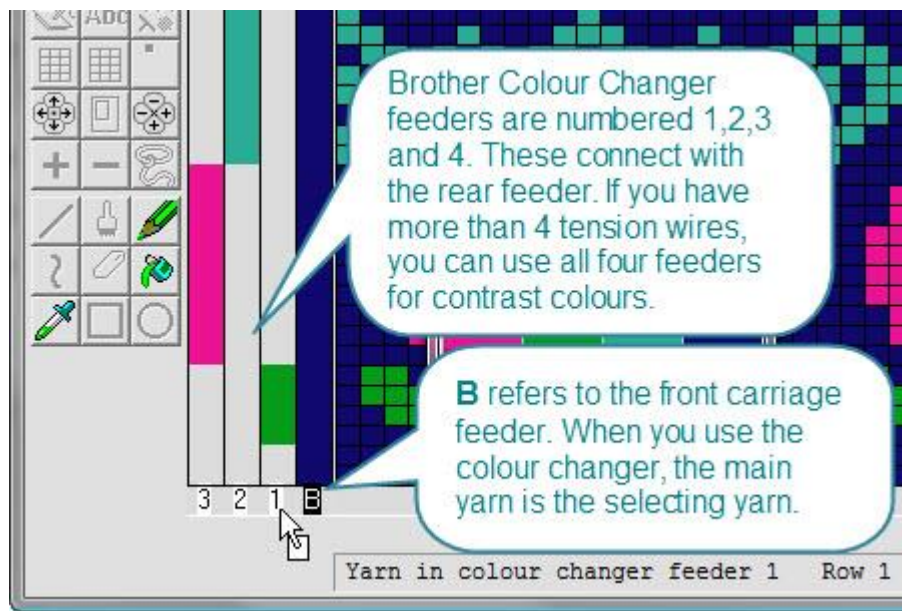
Downloading a Fair Isle pattern to a Brother Electronic Knitting Machine or PPD, or the Silver Reed PE1

Whatever the status of the color changer, the pattern will be downloaded as if the color changer were off. This is because once downloaded, there is no way of telling what the selection status of the color changer was at the time of downloading and as the pattern may be held indefinitely in the machine or pattern device's memory, you may not remember how it was configured when you come to knit the pattern. So, for these devices, if you do decide later to knit with the color changer. you should use the negative switch on your machine or device. If you then knit the pattern interactively, click on the color changer icon at the bottom left of the yarns window to show how the yarns should be fed.

If a pattern was saved with the color changer on, when it's opened in Interactive Knitting, the yarn instructions will be for the color changer, but you will still have to use the negative switch on the machine or pattern device to make the selection match the Interactive Knitting instructions. If, however, you change your mind, you can click the color changer icon off and the yarn instructions will be for the ordinary feeder and you can knit the pattern as downloaded, without using the negative switch.

N B

If you are knitting a Fair Isle method pattern which also contains bands of other techniques, in Interactive Knitting, DesignaKnit will remind you when to turn the negative switch on and off.

Silver Reed Electronic Machines

The way in which the needles select will be determined by the status of the color changer in the Interactive Knitting screen. If the pattern was saved with the color changer on, it will open in this mode and the pattern will be downloaded via the SilverLink to match. If you choose not to use the color changer, then all you have to do is to click the color changer icon at the bottom left of the yarn window to turn it off. This will cause the pattern to download with the selection changed back to ordinary Fair Isle. If you are using a SilverLink 4 or 5, there will be a pause while the pattern held in the box is replaced.

If you have more than four tension wires available, you can thread four contrast colors into the color changer and use a fifth tension wire for the front feeder yarn.

Toyota and Other Punch Card Machines

If the color changer is configured *on* at the time of printing a template for the punch card, the needle selection for the card will be arranged for use with the color changer.

If the color changer is configured *off* at the time of printing, the needle selection will be arranged for use with the ordinary carriage.

Stripes and Multi-colored Textures

As only one yarn is knitted at a time across the entire row, if you are not using a color changer, there is nothing to preview with yarn numbers and feeders.

If you are using a color changer, you can configure up to four colors to be knitted in stripes, whether for plain fabric or for Tuck or Slip patterns, whether for single- or double-bed work (note that DesignaKnit cannot program the ribber). As only the rear carriage feeder is used to knit one yarn at a time, when you set the method as Right or Wrong Side Facing, the columns will represent the four feeders of the color changer, so you can have up to four yarns threaded at any one time.

DesignaKnit will place the first color in the pattern in the leftmost feeder, the next color in the feeder to the right and so on. If you would prefer to thread them in a different order, you can swap the position either of entire columns or of specific blocks of color, as described above.

Yarn Feeders for Silver Reed machines
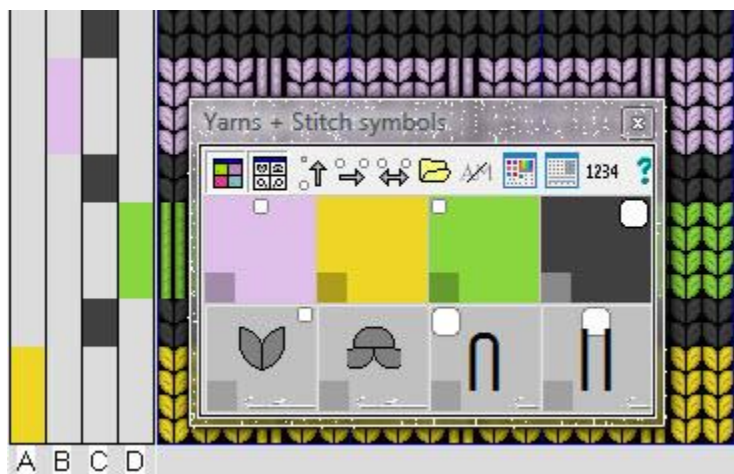
Yarn Feeders for Brother machines
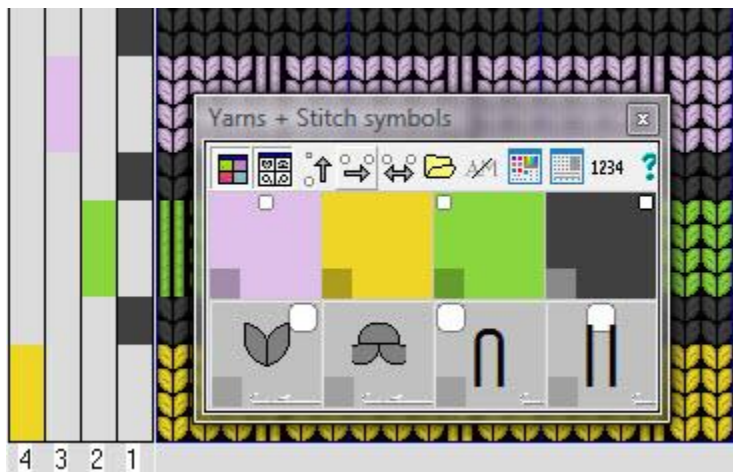
Multi-color Jacquard

Jacquard refers to patterns in which some or all rows have two or more colors. Unlike Fair Isle, the colors are laid in separately. DesignaKnit will select only the needles to be knitted in any given color, and the carriage, or lock, will be set to slip past the unselected needles. The method chosen will be dictated by the maximum number of colors (up to 6, or 4 for the Passap/Pfaff 6000 or 8000) in any one row, not the maximum in the pattern as a whole. Jacquard may be knitted on a single bed, but it is more usual to use both the main bed and the ribber (back bed for the Pfaff/Passap) to create a float-less fabric. Note that DesignaKnit cannot program the ribber so if you want to control which needles knit and which do not, you must make the selection manually or, when available, use the manufacturer's settings.

When the method is set to Jacquard, whether the color changer is on or off, the columns at the left *do not represent the yarn feeders or the color changer*. Instead, they represent the *order in which the colors are to be used*. If you want to see how they are to be threaded, this will be shown in Interactive Knitting.
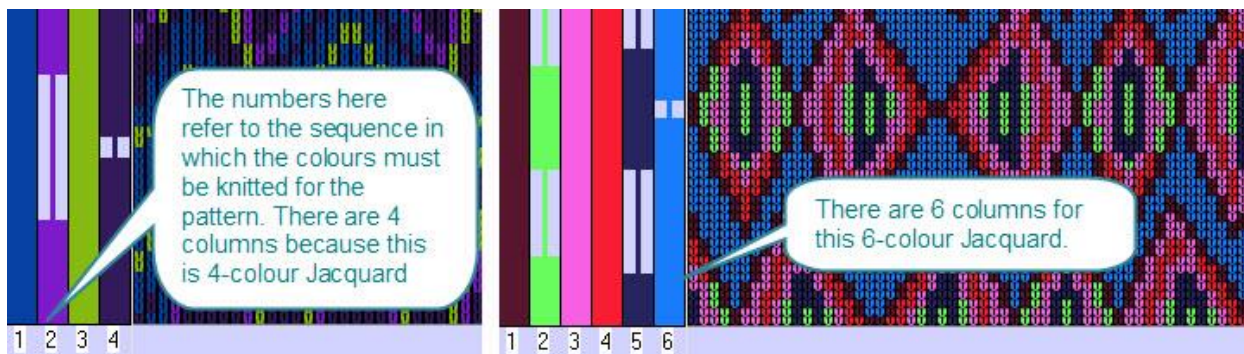
The main purpose of previewing the yarn numbers for jacquard knitting is to make sure that the order in which the yarns are knitted will not result in any pattern errors. With the color changer on, DesignaKnit will arrange the color changer positions for Interactive Knitting so that they are as closely related as possible to the knitting sequence in order to minimize any re-threading. The actual sequence of knitting is determined by the method of separation.

Please note that if you are using a color changer with four feeders and you have more than four colors in a row, DesignaKnit will show you which color to use and when in Interactive Knitting, but you will have to change the additional colors manually.

Jacquard Color Separation Methods

When you download a pattern to your machine, or print a template for a mylar sheet or punch card, for a Jacquard pattern, DesignaKnit will automatically work out the needle selection for each color and the sequence in which the colors must be knitted. I order for the program to separate the colors correctly, your pattern should have an even number of rows. If your pattern depends on an odd number and you are not able either to add an extra row or to remove one, the quickest way to solve this problem is to redefine the pattern to include two vertical repeats, thus doubling the number of rows in the pattern.
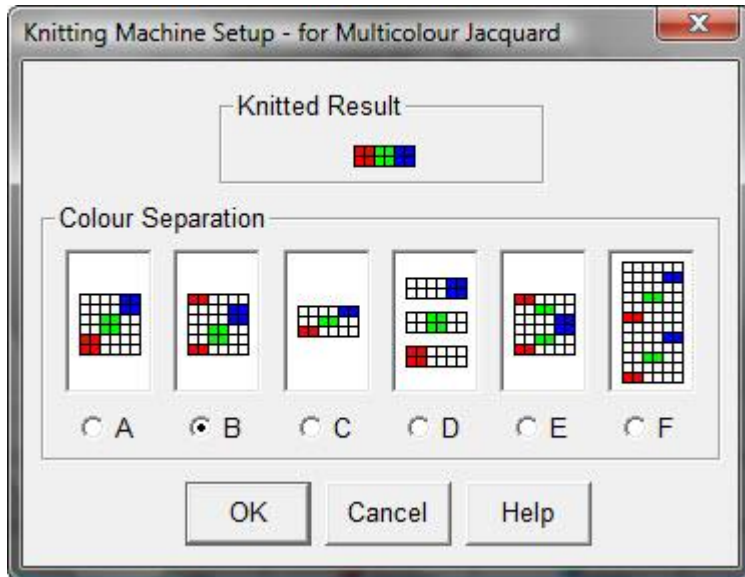
Methods A and B

Both methods A and B are for use on Japanese machines, depending on the type of pattern. Both work in pairs of rows but A is only suitable for patterns where each pair of rows is identical.

Method A

This method works in pairs of rows, so that there are two passes for each color.

 For 3-Color Jacquard, it would work like this:

Pass 1 = Color 1, Row 1

Pass 2 = Color 1, Row 2

Pass 3 = Color 2, Row 1

Pass 4 = Color 2, Row 2

Pass 5 = Color 3, Row 1

Pass 6 = Color 3, Row 2...etc

If you are using 4-, 5- or 6- color Jacquard, these would work in the same way, with two passes of each color for each pair of rows.

Method B

This method also works by separating the rows in pairs. The main color is the first and last in the sequence, with other colors knitted in pairs of passes sandwiched between.

E.g. for 2-Color Jacquard:

Pass 1 = Color 1, Row 1

Pass 2 = Color 2, Row 1

Pass 3 = Color 2, Row 2

Pass 4 = Color 1, Row 2

2-Color Jacquard with this method does not create any errors and consequently does not require checking. This is the method used by Japanese machines to convert Fair Isle patterns to Jacquard using the switch on the console - you should *not* use this switch with DesignaKnit patterns as, by allocating a Jacquard method, DesignaKnit will perform the separation of rows before downloading.

or for 3-Color Jacquard:

Pass 1 = Color 1, Row 1

Pass 2 = Color 2, Row 1

Pass 3 = Color 2, Row 2

Pass 4 = Color 3, Row 1

Pass 5 = Color 3, Row 2

Pass 6 = Color 1, Row 2

If you have additional colors, these will follow in paired sequence between the single passes of color 1. With three or more colors, errors occur if a later color in the sequence occurs on row 1 than the earlier color on row 2. You can use the Check menu to identify if and where any errors occur, but where a pattern does not consist of identical row pairs, this method generally produces fewer separation errors than method A.

Method C

This method deals with each row separately, but doubles the number of passes per pattern row. Unlike method A, this means that the pairs of pattern rows do not have to be identical.

This method is used by Pfaff/Passap Duomatic knitters with the Deco set to 2 so that the rows are doubled, by Pfaff/Passap E6000 knitters where the pattern is over 40 stitches wide.

Knitters using Japanese machines must use the Double Row (elongate) switch to double the downloaded pattern rows.

This example shows how a 4-Color Jacquard pattern would be knitted.

Pass 1 = Color 1, Row 1

Pass 2 = Color 1, Row 1

Pass 3 = Color 2, Row 1

Pass 4 = Color 2, Row 1

Pass 5 = Color 3, Row 1

Pass 6 = Color 3, Row 1

Pass 7 = Color 4, Row 1

Pass 8 = Color 4, Row 1

Pass 9 = Color 1, Row 2

Pass 10 = Color 1, Row 2

Pass 11 = Color 2, Row 2

Pass 12 = Color 2, Row 2

Pass 13 = Color 3, Row 2

Pass 14 = Color 3, Row 2

Pass 15 = Color 4, Row 2

Pass 16 = Color 4, Row 2

Method D

This separates each color onto a separate reader card and is used for Silver Reed electronic machines which have the PE1 attachment and for the Pfaff/Passap E6000 machine.

Method E

This method is suitable for the Brother CK35 which has a color changer at both ends of the needle bed.

This works on pairs of rows but separates each row into one pass for each color, but with the colors for the second row in reverse order. For example, in a 3-color Jacquard design there are six passes, with the colors of rows 1 and 2 separated as follows:

Pass 1 = Color 1, Row 1

Pass 2 = Color 2, Row 1

Pass 3 = Color 3, Row 1

Pass 4 = Color 3, Row 2

Pass 5 = Color 2, Row 2

Pass 6 = Color 1, Row 2

For 4 colors per row the 4th color would become the central pair of passes, sandwiched between the two passes of color 3.

Method F

This is a Half Milano separation method, in which each pattern row is separated into a pair of passes for each color: the first pass knits the appropriate needles on the main bed and working needles on the ribber, but the return pass will only knit working needles on the ribber.

For a 3-color pattern, the sequence is as follows:

Pass 1 = Color 1, Row 1, Main Bed + Ribber

Pass 2 = Color 1, return, Ribber only

Pass 3 = Color 2, Row 1, Main Bed + Ribber

Pass 4 = Color 2, return, Ribber only

Pass 5 = Color 3, Row 1, Main Bed + Ribber

Pass 6 = Color 3, return, Ribber only

Pass 7 = Color 1, Row 2, Main Bed + Ribber

Pass 8 = Color 1, return, Ribber only

Pass 9 = Color 2, Main Bed + Ribber

Pass 10 = Color 2, return, Ribber only

Pass 11 = Color 3, Main Bed + Ribber

Pass 12 = Color 3, return, Ribber only

Jacquard Separation for the KH970

The KH970 machine incorporates the facility to separate 3- and 4-color jacquard patterns within the console. Thus the download command for this machine includes an option to download without first separating the colors so that the knitting machine will perform this function. However, there are implications in this which affect how the knitting machine should be configured for knitting the pattern and whether DesignaKnit's Interactive Knitting facility can be used. Consider carefully these implications before choosing this option.

Knitting Method

Whichever downloading option is eventually chosen, the knitting method must be set in Options/Method of Knitting. Please note that all patterns which have more than two colors per row, whether they will be separated by DesignaKnit or by the knitting machine, must have a jacquard method allocated: DesignaKnit cannot allow any other technique when there are more than two colors in a row.

Downloading Jacquard patterns to the KH970

When downloading a pattern with three or four colors in a row, DesignaKnit offers the following options:

Downloading as a ready-separated pattern

This option must be chosen if you intend to follow the Interactive Knitting instructions.

When you choose this method, DesignaKnit handles the color separation, allowing you the freedom to set the Jacquard Separation method as well as the ability to allocate specific colors to specific yarn feeders. When choosing to follow Interactive Knitting, the yarn change and, in an integrated pattern, the shaping instructions will be fully synchronized with the carriage movement and selection of needles. Before starting to knit make sure that the machine is correctly set up; follow the machine manual instructions as for patterns 484 to 498 - that is with both the double length button and the MCRib button OFF.

NB: With this method of downloading, no matter how many colors per row, after DesignaKnit has separated the colors, the CB - 1 will list the patterns as 2-color.

Downloading as an unseparated 3- or 4-color pattern

Choose this option to download a pattern which will have the colors separated by the knitting machine. In this case, set up the machine following the manual instructions for patterns 479 to 483 - that is with both the double length button and the MCRib button ON.

NB: if you choose this method of downloading you will not be able to follow the interactive knitting instructions for color changing in DesignaKnit, or print them out, but must follow those displayed on the CB - 1. If you wish to follow the Interactive Knitting instructions for the shaping, then you should treat the project as knitting a shape only with a built-in pattern. The special considerations for measuring tensions for this method also apply to printing shaping instructions.

Downloading with Color Changer On

When downloading a pattern to this machine, with the color changer configured on, it is necessary for every color used in the pattern to have been assigned a Memo number in order to drive the automatic color changer. To assign Memo information, go to Palettes/Memo and drag Memo numbers onto the palette colors. To view the Memo information, select View/Memo.

Checking Jacquard Patterns for Errors

The first check you should make is for the number of colors in a row. If you haven't already done this, when you apply the Jacquard Method if there are too many or two few colors, you will get a warning. Click on the Check menu and in the next dialogue select Row Colors then set the maximum number of colors allowed in any one row (this is not necessarily the total number of colors in the entire pattern) and click OK.
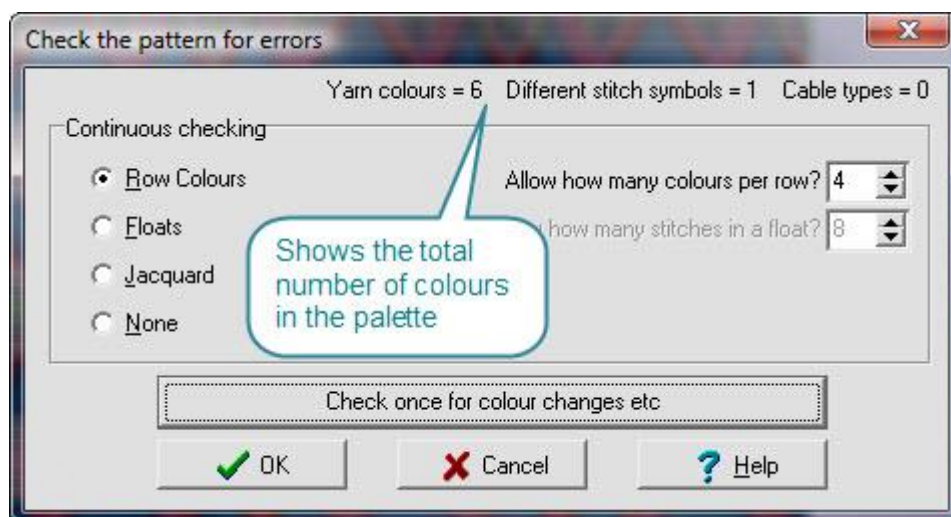
Rows where the allowed number of colors is exceeded are marked with a horizontal white line.

You can then choose to change the colors in the affected rows so that you have the right number of colors or, if it is practicable, to change the Jacquard method to allow for more colors.
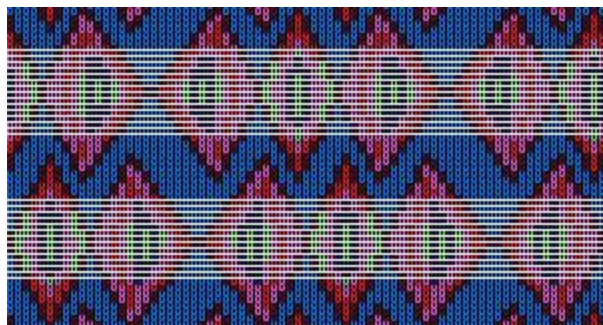
Jacquard errors only occur in patterns with three or more colors in row in methods which deal with rows in pairs. An example of an error is when a stitch should be in color no. 3 on row no. 1, but in color no. 2 on row no. 2 - this is because color no. 2 must be knitted before color no.3.

If you have not yet checked the pattern for errors, you can either do this before turning on Yarn Numbers and Feeders, or while they are in view. Click on Check and choose Jacquard from the list. If there are errors, DesignaKnit will offer to rearrange the color sequence to get the fewest number of errors. This does not make any changes to the pattern, just to the order in which the yarns will be knitted. You should accept this option as it makes the next stage easier to deal with.
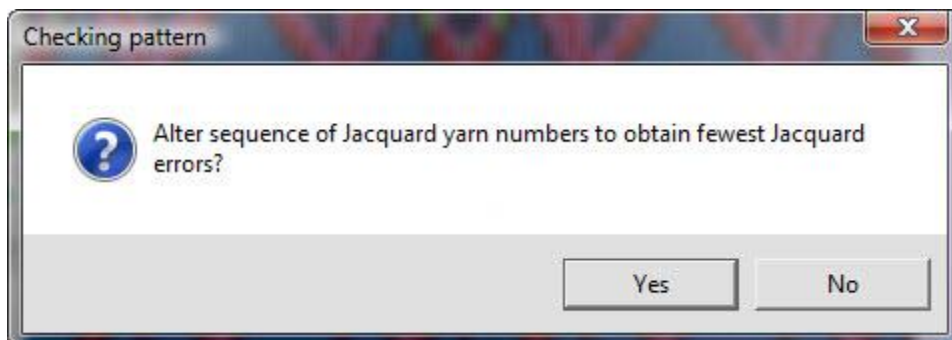
DesignaKnit will then generate a message which tells you the total number of errors in the pattern and offer to correct them automatically.
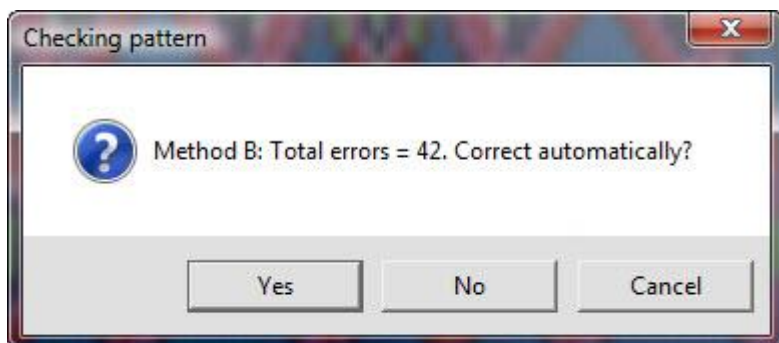
 If you accept this, then changes will be made to the pattern in order to eliminate them. Depending on the number of errors and the type of pattern, this may be useful, but if the pattern is geometric or symmetrical or if there are a large number of errors, it would be better to choose No, in which case the errors will be marked on the pattern so that you can make the necessary changes yourself either by moving colors or color blocks to different columns or by editing the pattern itself.

Errors are marked with vertical lines. These indicate that the colours on these stitches in this pair of rows are knitted in the wrong order.

You can use the pencil tool while the yarn numbers are displayed to change the yarn across an entire row, but you must close Yarn Numbers and Feeders if you want to edit individual stitches. When you correct an error, the mark will disappear.
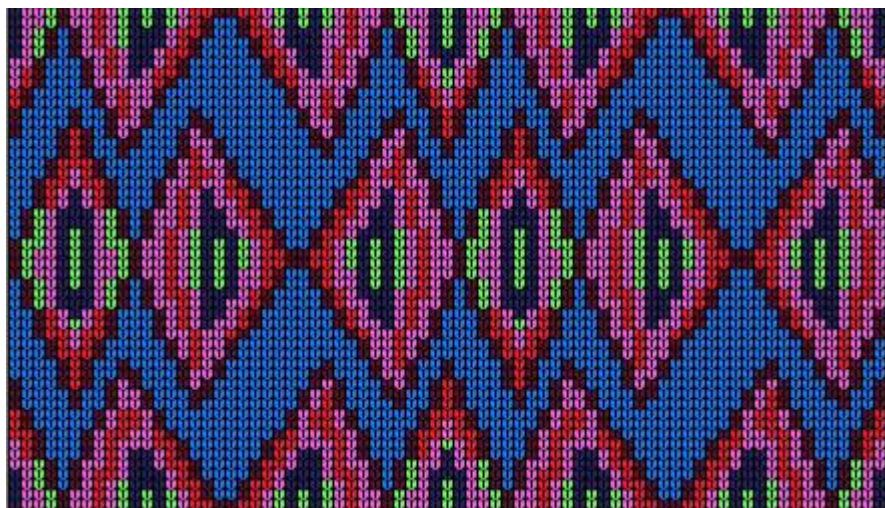
If you later decide to correct the errors automatically, open the Check dialogue, select None, then open it again and re-select Jacquard to start the checking sequence again.

Manual Correction

If you have answered No to Automatic Correction, before editing the pattern, you might like to try some other methods of adjustment which could be helpful in minimizing the separation errors:

- Different method of separation: use Options/Knitting Method/Setup and click the Jacquard button to select a different method.
- Shuffle the pattern up or down by one row
- Change the sequence of colors

Suppressing Unused Colors

If you do not use the maximum colors per row in a part of the fabric, it is possible to suppress unused colors.

When Yarn Numbers and Feeders is switched on, any color which is not used in a pair of rows or larger area is represented by a thin line of color instead of a solid block. This indicates that the color will be knitted into the back of the fabric even though it does not form part of the design on the front.

If you would prefer to omit the color altogether, hover the mouse over the thin line until you see the cursor change to a cross. Click on the line and it will be removed. If you change your mind, you can replace it:hover over the empty space and click.
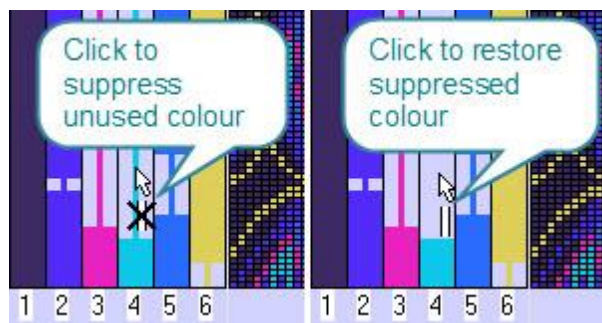
When you download the pattern to the machine, DesignaKnit will take any suppressions into account when separating the colors and will remove the carriage passes required for that color at that point in the pattern. This means that when knitting you must take extra care to follow the Interactive Knitting instructions or, if not connected to the computer at the time of knitting, to follow the Memo information on the machine.

If you choose not to suppress colors, and the colors in a feeder change you may wish to specify the point at which they are changed in order to control the appearance of the back of the fabric. By default, DesignaKnit will continue the first color until the second color is used in the pattern. Hover over the thin line of the unused color and right-click where you want the color to change.

Pattern Charts For Double Bed Machines

If you are using a double-bed technique, whether by attaching a ribber or using a dedicated double-bed machine, or you are designing for an industrial machine, you can use special symbols to indicate the needle selection and technique for the second bed.

> **N O T E**
> Remember that you can only download patterns to the main bed of domestic knitting machines, whether single with attached ribber, or double bed. Any patterning on the ribber involves manual needle selection and/or specific carriage settings. This means that if you will be using a downloaded pattern on the main bed, you must make two patterns: one to download and a second one as a chart to follow for the settings for the second bed.

Below are some suggestions as to how you can use the symbols font to indicate the needle setup for double-bed knitting. The symbols used in the examples are suggestions - you can use others if you wish and, of course, you can edit the instructions associated with the symbols and abbreviations to conform to your requirements, so the important thing is to provide a key to the symbols you have used.

Creating a chart for a ribbed pattern

If the rib you are creating does not involve any selected patterning on the main bed, you will not need to download a pattern for the main bed, but you can make a chart for how to set up the ribber and any special techniques or settings you need to use.

Set up the palette

- It is helpful to use a different background color for the second bed so that you can be sure to match the appropriate symbols to the correct bed. If you already have a color code you wish to use, then set up the palette colors accordingly. If not, then use the Yarn Color Setup to add a new color that is not used in the pattern to the palette. Make this the RMB color.

- If you have not already done so, use the symbols organizer to add the appropriate symbols to your palette. Make sure that the background stitch for the method you have assigned is the current RMB color too so that you will have blank cells to work with.

Insert the second bed/ribber rows

- If you only have a small pattern and you are starting from scratch, then it's easy to make every other row the one for the second bed, either by drawing a line in the ribber color across every second row or by using the Add Row button + the Ctrl key to insert blank rows one at a time in the RMB color and RMB symbol (blank)

For a larger pattern, after you've set up the palette, you can insert alternate rows in one operation:

- Set up the palette as above, so that the RMB allocations are to the new color and the default stitch.

- Choose **Modify** from the menu bar and select **Rescale**

  Make sure that **Maintain aspect ratio** is *not* ticked, then change the **rescale factor** for the number of rows to **2**. If you now tick the box labeled **Insert blank rows**, instead of doubling the pattern, empty rows will be inserted between the pattern rows.

Rescale Stitch Pattern

☑ Maintai[n]

Current number of stitches and rows at scaling factor of 1

Stitches
15 x 1.000 = 15

Rows
15 x 1.000 = 15

☐ Insert blank rows

✔ OK   ✘ Cancel   ? Help

1. Make sure this option is **not ticked** - you do not want to change the number of stitches.

2. Change the value here to 2 - you **must have a whole number**. Note that the number of rows has doubled.

3. Tick the option to insert blank rows

Rescale Stitch Pattern

☐ Maintain aspect ratio

Stitches
15 x 1.000 = 15

Rows
15 x 2.000 = 30

☑ Insert blank rows

✔ OK   ✘ Cancel   ? Help

Rows are then inserted below the pattern rows:

Whichever kind of machine you have, note that the chart is more naturally understood if the Front bed is the lower of the pair of rows and the Back bed is the upper row - so if your machine's programmable bed is the back bed, you can accept the default insertion, which is below the pattern row. However, if your main or programmable bed is the front one, when you have inserted the additional rows, use the Shuffle button on the tool bar to shuffle the pattern downwards by one row.

Click once
to shuffle
the pattern
downwards
by one row

Full Pitch Ribs (e.g. 1 x 1, 2 x 2 etc

This is a simple rib knitted on full pitch, with alternate needles on both beds in work.Whichever machine you are using, the front bed will produce knit stitches facing you and the back bed needles will produce the purl stitches. The fabric is reversible, so it is up to you to decide which is the front or back of the fabric.

If you draw the pattern in Fabric View, it will look like this:

For a simple rib like this, or a 2 x 2 or other full pitch rib with no additional patterning, you can use the chart DesignaKnit creates to show the pattern. DesignaKnit will have allocated a default stitch for the background on the main bed according to the method you have selected (FI, W and Jacquards have a knit stitch, and R has a purl background, but please note that whilst you can assign the FI method for selection purposes only, you cannot knit two colors simultaneously while the ribber is engaged) so you can read the • symbol as being the stitch on the second bed:

Blank cells indicate
Main bed needles

Dotted cells indicate
Second bed needles

However, when creating a chart for both beds, fabric view is not appropriate as it shows the finished fabric and you need to have two lines of symbols for each pattern row - one for each bed - so turn fabric view off and work on the grid. DesignaKnit will still assume that there is a correct background stitch for whichever method you have assigned to the pattern, but this will no longer be accurate as you are dealing with both beds and will be using symbols only for the chart.

For a simple rib pattern, it is only necessary to add a symbol to the needles which are actually in use - in the above example, the • shows the active needle on the main bed, but this can be changed to one of the dedicated double-bed symbols. Select the current • stitch (knit or purl) with the RMB and then select the symbol you want to use with the LMB and then click on the Replace button on the palette tool bar - in this example, the method is R so the • symbol is the Knit stitch.

The symbols refer specifically to the respective needle beds and the blank cells indicate needles in Non-Working Position.

Whereas 2 x 2 rib would look like this:

English Rib

This is a stitch wherein the working needles on one bed always knit, but on the opposite bed rows are alternated with one row always knitted and the return row always tucked. For domestic machines, it doesn't matter which bed is the has the tucked stitches - the carriage will simply be set to tuck in one direction or the other and as the needles do not need to be selected for tucking, there is no requirement to program either bed.

The same principles apply as for the plain ribs above:

Back Bed is Main Bed

Front Bed tucks all working needles on every other row
Back Bed Knits on every row

Back Bed tucks all working needles on every other row
Front Bed Knits on every row

Front Bed is Main Bed

Front Bed tucks all working needles on every other row
Back Bed Knits on every row

Back Bed tucks all working needles on every other row
Front Bed Knits on every row

Fisherman's Rib

This is similar to English Rib, but involves tucking on both beds. Again, for domestic machines, this does not require programming as the tucking is across an entire row and therefore only requires that the carriage be set to tuck in one direction only - each bed tucks in the direction opposite to the other bed - so ensuring that the return row is knitted.

Back Bed

Front Bed

Racked Fisherman's Rib

Although this pattern is knitted with alternate needles on both beds in Non-Working Position, the beds are set at half-pitch. DesignaKnit cannot show a grid with the rows shifted to the left or right by half a pitch, so you will need to add another symbol to indicate when, and in what direction, to move the racking handle. When you have empty needles, you can place the racking symbol on one of these cells, otherwise you can add one or more stitch columns at the side of the pattern for these instructions - preferably using a color to highlight the added instructions so that it is clear that this column (or columns) in the grid is for instructions only.

If you are not using the transfer symbol to indicate stitch transfers, it could be used to specify which bed is to be racked and in what direction - most machines (particularly domestic ones) rack the front bed only, but some machines rack on the back bed and some on both. Alternatively, use the arrow symbols to indicate the direction of racking.

For this pattern, however, it will be made clear that the beds are set at half pitch if you use a single row to indicate both beds and use the appropriate half-pitch symbols:

Tuck on Front bed on alternate rows. Front bed is racked 1 pitch as indicated.

Tuck on Back bed on alternate rows. Front bed is racked 1 pitch as indicated

Double-racking

This pattern is another one where the beds are set to half pitch and the pattern is racked every two rows, but by two pitches instead of one. In this example, the back bed is the main bed, and the front bed is the ribber. *All the main bed needles are in use throughout*, but after casting on or knitting a border in full needle rib on both beds, some stitches are transferred to the back bed. For this chart, the first two rows show the needle set up. The rest of the pattern area then concentrates on what happens on the front ribber bed - this is so that the chart doesn't get so crowded with symbols that it becomes difficult to read, but of course if you want to show a symbol for every stitch, then you can:

Indicates the front bed must be racked 2 pitches in the direction of the arrow - or you could use the ← → symbol instead.

Chart shows working front bed needles only. All back bed needles are in work throughout.

After casting on on both beds, some of the front bed stitches are transferred to the back bed and the front bed needles removed from work, as in the diagram above. The same needles are in work throughout but as the bed is racked back and forth, as per the racking instructions, so the needles change their position, as you can see above.

Using the Second Bed/Ribber with a downloaded pattern on the Main Bed

If you are using a pattern which requires needles to be selected/not selected on the main bed, and you also need instructions for the ribber, this will require two versions of the pattern: the first is the pattern to be downloaded and the second is a chart with instructions for the second bed, the amount of detail on which will depend on the pattern

In this example the pattern can be knitted either as a 1 x 1 rib pattern on full pitch with alternate opposing needles out of work on each bed, or as an interlocked (Full Needle Rib) pattern at half pitch, using all the needles on each bed, but it is the main bed only which is tucked.

For the downloadable pattern (or to produce a punch card template), you must use the designated symbols for downloading:

DesignaKnit will recognize the tuck symbols. Whether you download as R or W will depend on which side of the knitting you decide is the front of the fabric - the knit side created by the ribber, or the knit side created on the main bed.

If you now make a second version the pattern to include two extra rows at the start on which you can use memo symbols to indicate the needle set up on both beds.

1 x 1 rib version on Full Pitch
After cast on, alternate needles on ribber are transferred to the main bed.

Alternate needles are in Non-Working-Position on the back bed, which is the main bed.

The same pattern chart organized as a 1 x 1 rib for a machine with the front bed as main bed would look like this:

The FNR version, however, could be portrayed like this irrespective of whether the front or back bed is the one which has been programmed, to show that all needles on both beds are in working position. Using the double-bed symbols rather than two lines of needles in working position indicates that one of the beds has been racked to half pitch.The programming will control the needle selection for tucking on the main bed:

However,if you need specific instructions for both beds, you could show the pattern like this:

Tuck on Back bed

Tuck on Front bed

Textured Transfer Pattern

This pattern is knitted with the ribber bed at half pitch and involves transferring stitches from the ribber to the main bed before knitting the next row. On the next row, new needles are brought into working position and when the carriage is passed across, these needles will pick up a loop which on the next pass will be knitted. The symbols used below are a suggestion as to how such a pattern could be charted using the available symbols, however, in order to be absolutely clear as to their meaning you might want to edit the text instructions or change the abbreviation for your chart key.

The purl side is the front of the fabric, and that will be on the main bed which knits every needle, but whether this is the front or back bed will depend on your machine and your preference - and of course if you are using automatic transfer, the direction in which the transfer carriage operates. For Japanese machines, this is from the front (ribber) bed to the back.

Bring these needles forward to working position before knitting row

Transfer these front bed stitches to back bed *and* *return needles to NWP*

Starting needle arrangement: some needles on front bed are in non-working position

Full Needle Rib setting

Bring these needles forward to working position before knitting row

Transfer these front bed stitches to back bed *and* *return needles to NWP*

Starting needle arrangement: some needles on front bed are in non-working position

Full Needle Rib setting

Simple Pin-tuck patterns

Pin tucks are created on double bed machines by knitting more passes on all or some of the needles on one bed than on the other. This creates a highly textured pattern. In spite of its name, pin-tuck patterns are usually created using a slip, or missed, stitch technique on the ribber bed and knitting either all the needles on the main bed or using a selecting pattern.

This simple pattern consists of knitting on both beds for four rows, then four further rows on the main bed only (i.e. the second bed is set to slip in both directions on these rows).

Programmed Pin-tuck patterns

This example is for a slipped pin-tuck pattern where the main bed is programmed. The beds are set at half pitch for Full Needle Rib and all needles on both beds are in work. The main bed slips stitches according to the pattern downloaded and, of course, all the floats are trapped between the beds. The front of the fabric is produced on the bed which is programmed to slip.

This is the pattern which is downloaded to domestic machines:

When the rear bed is programmed, the chart looks like this:

When the front bed is the one which is programmed to slip or miss, the chart would look like this:

Combining Rib and Lace

You can combine double-bed techniques with lace, but for domestic machines, this will mean transferring the stitches manually as you cannot use the lace carriage when the ribber is engaged. You should not use the Lace Tool to draw the pattern if it is to be downloaded, as it will not be necessary to separate the lace pattern: if done manually, all transfers can be done before knitting the next row.

In this example, shown with three horizontal repeats, the beds are set at half pitch and all needles on the ribber bed are in work, but so that your stocking stitch lace can stand out against a purl background, some needles may be put into non-working position on the main bed after transferring the stitches to the second bed.

Double-bed machines, including the Passap, do not transfer the stitches horizontally in one operation like the single bed Japanese machines, but take them first to the opposite bed and then back to the original bed, as indicated by the transfer symbol.

This example has the lace pattern worked on the back bed:

Needles knit on both beds at half pitch

Needles knit on front bed only

Transfers: move stitches on the back bed to the next needle in the direction indicated.

Transfer these stitches from the back bed to the front bed, and place back bed needles in non-working position

Set front bed at half pitch

This is the same pattern, but the lace is worked on the front bed.

The chart contains the following labels:
- Needles knit on both beds at half pitch
- Needles knit on back bed only
- Transfers: move stitches on the front bed to the next needle in the direction indicated.
- Transfer these stitches from the front bed to the back bed, and place front bed needles in non-working position
- Set front bed at half pitch

T I P

You can also work ribbed lace patterns with the beds set a full pitch, but you must make sure that if a needle is in working position on one bed, its opposite needle on the other bed must be in non-working position.

Double-bed Jacquard

Whilst DesignaKnit can separate a Jacquard pattern according to the method selected, it takes no account of whether the pattern is to be knitted on a single or double bed machine, leaving the choice to the user along with the needle setup on the second bed.

Using the double-bed symbols, you can now indicate whether the pattern is to be full needle rib on every row or whether only specific needles are in work, and whether the needle setup changes. Whilst you cannot download this information to a domestic machine, an accompanying chart is useful for your own records or to indicate to another knitter or technician how you want the back of the fabric to be formed.

The number of passes per row on the main bed will depend on the method, which is based on the maximum number of colors per row, and whether, if rows do not always have the full number of colors, any have been suppressed. However, it is highly unlikely that you will need to show the second bed needle arrangement for every pass or even every pattern row or pair of rows. It is more likely that either the needle arrangement will be the same throughout or that any changes will occur on a regular basis, so you can show one set of instructions and indicate, if necessary, that they are to be repeated.

Some machines have an automatic setting on the ribber bed which knits alternate needles only in each direction, giving a bird's-eye effect for the reverse of the fabric. Whilst you may not need to do any manual selection, you may wish to keep a record of how that pattern was set up for the machine. If the pattern doesn't change during the knitting, it will suffice to show the set up only at the beginning of the chart:

This shows how the needle selection would work when the back bed is the one which knits the main jacquard pattern. On the front bed, alternate needles knit on one row and slip on the next.

The same pattern knitted on the front bed shows how all the needles on that bed are knitted on every row, but on the back bed alternate needles know on one row and slip on the next.

If you don't want a fully interlocked fabric, you can reduce the finished weight by taking needles out of work on the ribber, and you can indicate which needles are active either by leaving the inactive cells blank on the chart or by using the needle symbols to show which ones are out of use. If you have more than two colors per row, you can slip some rows entirely on the second bed, but the floats created by the pattern will be trapped by the colors which are knitted. The examples below show how you could indicate how to set up a 3-color jacquard pattern - all needles on the main bed are in work, but only every 5th needle on the second bed which are slipped for four passes of the six required to produce the pattern, and knitted on the other two.

This example has the pattern knitted on the back bed, with every fifth needle only in work on the ribber.

This example has the pattern knitted on the front bed, with every fifth needle only in work on the back bed.

Symbols For Increasing And Decreasing

There are so many ways of increasing and decreasing the number of stitches in a row, and so many reasons why you would do this at a particular point that you need more than a couple of symbols to represent the various techniques not only so that they can be differentiated on a chart, but so that DesignaKnit can generate the appropriate instructions.

For example, if you are knitting a lace pattern, you will probably have sloping decreases and yarn-overs for the stitch pattern itself, and if you then have to form, say, an armhole, you might find a different decrease method is more suited to your purpose or, if you are increasing, you might want the pattern shaping to be separate from the pattern itself - or you might want some of your increases to create eyelets, and some not.

Where the increase or decrease is used for shaping the outline of the piece, even if the actual shaping procedure does not happen at the very edge, DesignaKnit will show you the outcome at the edge of the piece, it will have more or fewer stitches at one or both sides, but the pattern drafting section does not show you where to place those increases or decreases, but you can do this in the stitch pattern by placing a symbol in the exact place where you want this to occur. Even if the rest of the knitting is plain stocking stitch and you do not want a stitch pattern as such, you can still use Stitch Designer to create the correct knitting instructions by placing shaping symbols on the grid and integrating with the pattern.

For machine knitters using Interactive Knitting, these will act as 'memo' symbols and alert you as to which technique to use for the shape.

For most all-over patterns or single pattern repeats which involve increasing and decreasing, such as eyelet or other lace patterns, the number of stitches in any particular row remains stable, in that the number of stitches created by increasing is counterbalanced by the number of stitches eliminated by decreasing, but this is not true of all patterns. Some patterns may involve having a different number of stitches on some rows than others, although there will be an underlying basic number which will eventually be regained. Where this is the case, you can either create a grid which is equal to the maximum number of stitches used on a row and where these stitches either do not yet exist or are eliminated you can use one or other of the 'no stitch' symbols, so that DesignaKnit will know not to include those chart cells in the pattern text. Read more about this here.

Increases

There are four basic ways of increasing the number of stitches in a row:

Cast on

This can be done at either the beginning or the end of the row, depending on the type of cast on used. Casting on mid row is usually restricted to bridging gaps created by casting off on the previous row, such as when creating a buttonhole, but can be used to create a slit without casting off earlier. As you may use more than one type of cast-on in a piece or project, there are symbols to specify the exact method, which will be governed by the type of edge and ease on the edge you want to achieve.

Casting on is usually done knitwise whichever side of the work you are on, so for the one symbol which uses the • , it specifically means purl.

Simple loop cast-on. Twist a loop of yarn onto the left needle

Simple loop cast-on. Twist a loop of yarn onto the right needle.

Cast on - Knit method. Start with a loop on the left needle, work a knit stitch and replace it onto the left needle. Use this stitch to make the next one. The cast on is completed by knitting across all the stitches to form the first - usually right side -row.

Cast on - Purl method. Start with a loop on the left needle, work a purl stitch and replace it onto the left needle. Use this stitch to make the next one. The cast-on is completed by purling the next row.

Cast on - Cable Method. This is based on the basic Knit method, but to give a tighter edge, instead of inserting the working needle into the last stitch formed, you insert it between the last two stitches on the right needle, work the stitch and replace it onto the left needle. The cast-on is then completed by knitting the next row, which is usually the right side.

Cast on - Long tail method, otherwise known as 'Thumb and Knit'. Unlike the two methods above, the casting on process places the stitches on the right needle and, as they have been knitted, this usually counts as the first row of the fabric. The next row is usually a wrong side row.

Invisible cast-on: this method is useful if, after continuing the knitting, you are going to pick up the stitches to work in the opposite direction. It is either worked around a spare piece of yarn or the flexible part of a circular needle - especially for 'toe-up' socks.

Yarn over or round the needle

Before working the next stitch, the yarn is brought over the needle, making a loop which, when worked on the next row, will form an eyelet. The direction in which the yarn is thrown over or wrapped around the needle to form this loop is mainly determined by whether the yarn is at the front or back of the work which in turn is determined by the type of stitch before, and the type to be worked after. Generally this is obvious to the knitter and the general eyelet symbol can be used, but there may be instances when it is necessary to specify how the loop is formed, in which case there are specific symbols to indicate the method.

General yarn-over "eyelet" symbol.

Open Yarn Over Increase: Bring yarn forward under needle and then over to Knit next stitch

Open Yarn Over Increase:Take yarn back under needle then over to Purl next stitch

Twisted Yarn Over Increase: Bring yarn over needle to front, then under to Knit next stitch

Open Yarn Over Increase:Take yarn over needle and then under to Purl next stitch

Machine Knit Lace eyelet symbol. For hand knitting, this can be used in addition to or instead of the general eyelet symbol, if you prefer a solid circle on your chart.

Making a stitch between two existing stitches.

This is done by picking up the horizontal bar between two stitches and working into it. In order to prevent a visible hole, you can either twist the strand or work into the back of it. This kind of increase is usually done where a leaning or biased increase is not desired and is therefore particularly suitable for increasing evenly across a row, for instance on or after the last row of a ribbed welt.

Expected: (knit row) Insert needle from front under horizontal bar between last stitch on right needle and next on left and Knit (M1)

Expected: (purl row) Insert needle from back under horizontal bar between last stitch on right needle and next on left and Purl (M1P)

Unexpected: (knit row) Insert needle from back under horizontal bar between last stitch on right needle and next on left and Purl (M1P)

Unexpected: (purl row) Insert needle from front under horizontal bar between last stitch on right needle and next on left and Knit (M1)

Expected: (knit row) Use left needle to pick up horizontal bar between last stitch on right needle and next on left from front, Knit into the back of loop (M1tbl)

Expected: (purl row) Use left needle to pick up horizontal bar between last stitch on right needle and next on left from front, Purl into the back of loop. (M1Ptbl)

Unexpected: (knit row) Use left needle to pick up horizontal bar between last stitch on right needle and next on left from front, Purl into the back of loop. (M1Ptbl)

Unexpected: (purl row) (knit row) Use left needle to pick up horizontal bar between last stitch on right needle and next on left from front, Knit into the back of loop (M1tbl)

Making two or more stitches from a single existing stitch.

There are several ways to increase from a stitch, but a common reason for doing this is to create a slanted increase, or pairs of increases slanting in opposite directions, whether as a shaping feature or part of a stitch pattern.

Most of these types of increase are paired, and some have two sets of paired slants: two knitwise and two purlwise. Generally, increases of this type are worked either on odd numbered or even numbered rows only. This is so that there is at least one row between to consolidate the stitches but also because it is usually easier to work these on the knit side for the simple reason that the knit procedures tend to be easier than the purl. That said, there are often good reasons to work the purl version, either because it fits in with the pattern or because they are in fact being worked on both knit and purl rows.

In addition to non-specific increase symbols, you have the option of using others which are more indicative of specific increase techniques.

Note that when you are placing slanting increase symbols on the Stitch Designer grid, you should use the ones which are correct for the fabric as you look at it, but bear in mind that if you are using a flat knitting technique and working increases on both sides, the instructions will be to produce the actual slant so

may be the opposite of the drawn symbol. For instance, if a slant looks like this **/** on the right side, if it is worked on the wrong side, the knitting will have been turned, so you will in fact work this slope: ****, but of course when the work is turned back to the right side, the slant will be correct.

Single Increases: 2 stitches from 1

General symbols to indicate sloping increases for machine or hand knitting.

For all of the following symbols, the • has its normal function of indicating the unexpected stitch type: purlwise on a knit row, knitwise on a purl row:
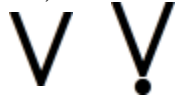
General symbols for single increases.

Knit, then purl into next stitch

Purl, then knit into next stitch

Knit into the front then back of the next stitch

Knit into the back then front of the next stitch
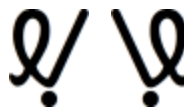
Purl into the front then back of the next stitch

Purl into the back then front of the next stitch
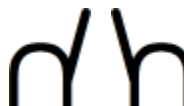
Lift head of stitch below the next stitch and place on left needle, Knit (or purl) lifted stitch, then Knit or Purl next stitch
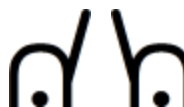
Slip next stitch onto right needle purlwise. Lift head of stitch below slipped stitch and place on left needle. Return slipped stitch to left needle. Knit (or purl) both stitches through the back of loop.
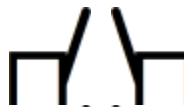
These are similar to the group above, but instead of picking up the head of the stitch below, work directly into the center of the lower stitch to make the new stitch, working it before or after the stitch above, according to the symbol.
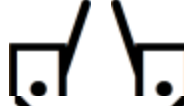
These increase symbols are appropriate for flat-knitted edge shaping, especially for traditional lace patterns. Yarn is brought round the needle at the start of the row, before working the first stitch, forming a loop at the outside edge of the fabric which, because it will be worked only on every other row (usually against a garter stitch background) is idea for picking up for knitting the edging.

Knit version: Yarn round needle, knit next stitch

Purl version: Yarn round needle, Purl next stitch.

Double Increases: 3 stitches from 1

General double increase symbol,

Knit, purl, knit into next stitch

- or purl, knit, purl into next stitch

Knit (or purl) into front, back and front again of next stitch

Knit, yarn fwd, knit into next stitch

- or purl, yarn round, purl.

Knit, yarn fwd,, knit into back of next stitch

-or purl into back, yarn round and then purl into front of next stitch

Multiple Increases For Textured Patterns

These are almost never (never say never in knitting!) part of any shaping routine, but are created as temporary stitches used for pattern and textural effects, such as creating a bobble or ruching.

In both of these instances, and in others, the effect of the increase is likely to last for several rows, when the original number of stitches will be restored with a decrease to finish the procedure and restore the original single stitch. Sometimes extra stitches are made and *only* those stitches are worked on for several rows before moving along to the next instance in that row. The strategy here allows for the procedure to be attached to a single column of stitches, starting with an increase instruction, and a decrease to finish, and whatever patterning is needed on the stitches on the rows in between indicated with a single symbol for each row.

First, choose a symbol which illustrates the type of increase and, if necessary, edit the text instructions.

To increase at the row level at which you are knitting:

Knit (or purl) into the front then back of the next stitch twice (makes four stitches), three times (makes six stitches - or knit into front then back twice, then front again for five stitches) or customize the instruction with the * symbol.

To work the increases into the row below:

Knit (or purl) into the next stitch, then the one below twice (makes four stitches), three times (makes six stitches), four times (makes eight stitches) - or you can change the instructions to make an odd number of stitches, or customize the * symbol.

Note: You could also use these symbols to indicate knitting once into a stitch n rows below to form a deep tuck stitch.

Wrapped or cast on increases
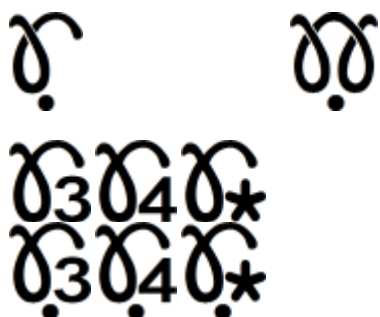
One way of creating a detached group of stitches is to use one of the cast-on methods, so you can use these symbols to indicate a number of cast on stitches forming a loop between two other stitches.

If you increase using multiple wraps around the needle, you must either knit and purl alternately on the return row or work alternately into the front and back of the new stitches. If you decide to use the symbols for this purpose, then you will need to edit the instructions and change the abbreviation in the symbols organizer.

You can also use these symbols for long stitches made by dropping the extra loops on the return row.

Symbols for Temporary Stitches

The next stage is to select an appropriate symbol to represent the temporary stitches created on this stitch column.
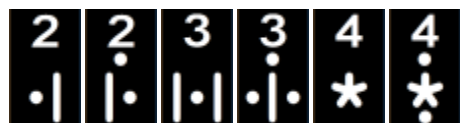
Choose a symbol which best represents the number of temporary stitches and enter an appropriate instruction in the text editor or, if you have more, customize the * symbols.

If alternate stitches are worked in knit and purl, you could use the appropriate symbol from this group, according to whether you have an odd or even number of stitches, and edit the text instructions accordingly.

To indicate the return to a single stitch column, use one of the multiple decrease symbols.

Decreases

Decreases may be part of a stitch pattern, usually balanced by an equal number of increases in the same row. They are also essential to shaping.

Cast-Off

Casting off is not just used to finish a whole piece of knitting. It can be done at the edge of a piece to modify the shape, in which case it should be done at the beginning of a row so that the yarn is in the right place to carry on with the rest of the row, though if you use a spare length of yarn, you can use that to cast off at the end.

You can also cast off during a row, whether it is to finish a section of the piece, such as the base of a neckline, or the base of a button hole - in which case, you will probably cast on again on the return row.

You have the choice of two cast-off symbols so that you can include two different types in your pattern if necessary. If the manner of cast off is important, you will need to enter the instruction in the text editor.

Single Decreases: 2 stitches become 1

Most single decreases result in a bias either to right or left, so may be used in pairs. As with paired increases, the knit version is frequently less complicated than the purl version. In the examples below, the • indicates the *unexpected* version - though whether this is Knit or Purl will depend on which is the expected technique. Remember also that if you are knitting on two needles, while the text instructions for the decrease may vary according to the direction of knitting/reading of the row. You should always use the symbol which shows the slant correctly on the front of the fabric and DesignaKnit will find the correct instruction.
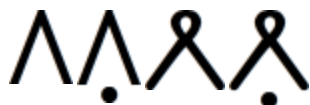
If it's not necessary to emphasize the slant, you can use these symbols for e.g:
Knit 2 together, Purl 2 together or
Knit 2 together tbl, Purl 2 together tbl

These four symbols are specifically for use as machine lace symbols and control the needle selection process. You can of course use them for hand knitting patterns, but you may find better alternatives from the selection below.

Right slant, Knit version: Knit 2 together
Left slant, Knit version: S1 Knitwise twice. Insert left needle from back through both stitches and K2tog
Right slant, Purl version: Purl 2 together
Left slant, Purl version: Slip 1 Knitwise twice. Insert left needle from front through both stitches and slip back onto left needle then P2togtbl

Right slant, Knit version: Knit 1, slip back onto left needle without twisting, use right needle to lift second stitch over slipped stitch. S1 Purlwise
Left slant, Knit version: Slip 1 knitwise, Knit 1, Pass Slip Stitch Over
Right slant, Purl version: Slip 1 purlwise, Purl 1, pass slip stitch over
Left slant, Purl version: P1, Slip 1 knitwise and return to left needle. Slip purled stitch back to left needle without twisting and then pass slipped stitch over. S1 purlwise

Right slant, Knit version: S1 Knitwise twice, return to left needle and K2tog
Left slant, Knit version: Knit two together through back of loops
Right slant, Purl version: Slip 1 Knitwise twice, slip back to left needle and P2tog
Left slant, Purl version: Purl 2 together through back of loops

Instead of reducing two stitches to one, these symbols represent a technique which reduces three stitches to two, so are in effect single decreases. Their best use is at the start of row.

These decrease symbols are appropriate for flat-knitted edge shaping, especially for traditional lace patterns. Yarn is brought round the needle at the start of the row, before working the next three stitches together, forming a loop at the outside edge of the fabric which, because it will be worked only on every other row (usually against a garter stitch background) is idea for picking up for knitting the edging.

Knit version: Yarn round needle, knit next three stitches together.

Purl version: 'Yarn round needle, purl next three stitches together.

Double Decreases: 3 stitches become 1

Double decreases are often part of a stitch pattern, such as lace. Often, such a decrease has a straight center stitch , with the two outer stitches leaning inwards. It is also possible to make biased double decreases, which may be used as a shaping device.

This symbol is specifically for use for machine lace and indicates the needle where transferred stitches converge from opposite directions. You can of course use it for hand knitting patterns, but you may find better alternatives from the selection below.
These can either represent a basic Knit 3 together or Purl 3 together, or you can use them to indicate a double decrease with an upright center stitch:
Knit version: Slip 2 together Knitwise, Knit 1, Pass 2 slipped stitches over
Purl version: Slip 1 Knitwise twice, then return stitches to left needle. Insert right needle from back and slip 2 together onto right needle. Purl 1 and pass slipped stitches over
If it's not necessary to emphasize the slant, use these to represent Knit or Purl 3 together through the back of loops.

Right slant, Knit version:S1 Knitwise twice. Insert left needle from front through both stitches and K2togtbl
Left slant, Knit version:S1 Knitwise, K2tog, Pass Slip Stitch Over
Right slant, Purl version: S1 Purlwise, P2togtbl and Pass Slip Stitch Over
Left slant, Purl version: Purl 2 tog, Slip 1 Knitwise and return to left needle. Slip P2tog back to left needle and Pass Slipped Stitch Over. Slip 1 Purlwise

Right slant, Knit version: Knit 3 together
Left slant, Knit version: S1 knitwise 3 times. Insert left needle from back through all 3 stitches and K3tog
Right slant, Purl version: Purl3tog

Left slant, Purl version: Slip 1 knitwise 3 times. Insert left needle from front through all 3 stitches and slip back onto left needle then P3togtbl

Right slant, Knit version: Knit 3 together through back of loops
Left slant, Knit version: Slip 1 Knitwise 3 times. Return to left needle and K3 tog tbl
Right slant, Purl version: Purl 3 together through back of loops
Left slant, Purl version: Slip 1 Knitwise 3 times. Return to left needle and P3 tog tbl

Multiple Decreases: 4 or more stitches become 1

These types of decrease are rarely for shaping, but are more likely to be a part of a stitch pattern which has had multiple increases from a single stitch followed by temporary stitches for one or more rows and the primary purpose would be to return to a single stitch column. The likelihood of needing symbols to indicate a variety of techniques in a single pattern is fairly low, so the range of suggested symbols concentrates on allowing for different widths, or numbers of stitches involved in the decrease, though you could of course use the numbers as a reference to the type of decrease.

If you are working through all the stitches at once, it is easier to work knitwise decreases through the back of the stitches and purl stitches through the front. You can, of course, edit the text if you prefer to use a more complex decrease technique.

Knit version: Knit 4 (5, *n*) stitches together through the back of the loops

Purl version: Purl 4 (5, *n*) stitches together

Knitting Machine Setup

In order to design for or connect to a knitting machine or machines, it is important to configure the correct settings for those machines. This then allows DesignaKnit to generate appropriate error messages and advice and to find and activate the appropriate attached cable link(s) to interact with the machines.

The machine setup is integral to the knitting method as it is the *method* which determines how the patterns should be prepared for knitting, so you will find the set up dialogue by selecting **Options/Method of Knitting**.

(If the current knitting method is Hand Knitting, click on the machine button at the bottom left corner to see the machine options)
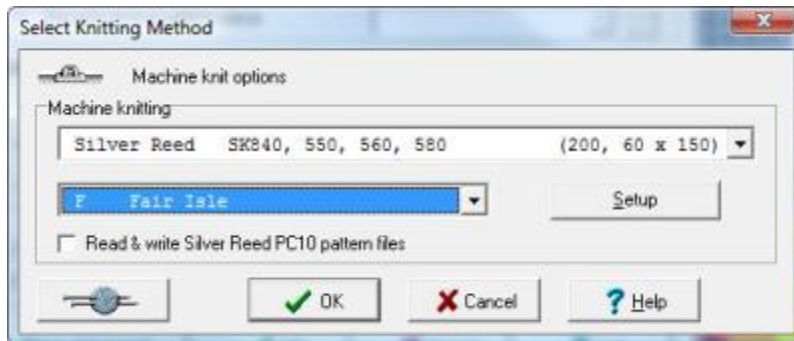
To change the knitting machine, click on the arrow at the right of the field to open the list and click on the machine you want to configure. Machines are listed alphabetically, so if you can't see the machine you want, use the scroll bar at the right to find the one you want.

Next, click on the **Setup** button. The options for the link will be relevant to the machine you have chosen and, where there is a choice, the specific link: click on the arrow to view the drop-down list of available links.

If you need to refresh the firmware for the SilverLink 4 or 5, click on the **Refresh firmware**button.

The first time you connect your machine via a link, you need to set up the USB or serial port number so that DesignaKnit can interact with the cable. Click on the **Find Link** button.

The middle selection is common to all machines and if any option is not appropriate for that machine it will be grayed out.

- Color changer in use[21]

- Start with CAL (if changer not used)[22]

- More than 4 tension wires available for Fair Isle[23]

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[21]: automatically determines the side of the needle bed at which the first knitting row occurs - and for those machines which pre-select the needles, the side at which the carriage must start the first pre-selection row.

Click this option so that you can preview the yarn colors and feeders as they will be for the current pattern. The change will not take place until you have clicked OK in this dialogue and the parent Select Knitting Method dialogue. If you change your mind later, you do not have to reopen this dialogue, you can use the color changer toggler on the palette tool bar to switch it on or off.

Note that for machines and pattern devices with an independent memory, such as the Brother electronics, PPD and Silver Reed PE1 and PC10, the pattern will be downloaded *as if the color changer is off* - this is so that there is consistency in the way in which patterns are transferred. To knit the pattern with the color changer, you need to program the machine or device so that the selection is reversed and in Interactive Knitting, make sure that the color changer icon on the yarn screen is switched on so that the yarn changing instructions match the selection.

For Silver Reed electronic machines, the pattern is downloaded in real time, so if you change the status of the color changer, the needle selection will be adjusted straight away. For Silver Link 4 and 5 there may be a slight delay while the pattern is re-loaded.
[22]: Click this is you want to force the first row to be knitted with the carriage starting at the left side of the needle bed, traveling across to the right. If this item is not checked, the starting position for the first row will be determined by the default settings for the selected knitting machine.
[23]: If you are using more than four yarns for a Fair Isle pattern, clicking this option will affect the number of columns used when the Yarn Feeders and Numbers are displayed as well as the number displayed in the color change instruction window of the Interactive Knitting window.

- End Needle Selection used for Fair Isle[24]

Jacquard **Select method of Jacquard separation**

Jacquard methods require the colors in a row to be knitted one at a time so that, depending on the number of colors in the row, several passes of the carriage are required to complete the row. In order to facilitate color changing, most Jacquard patterns are constructed in pairs of rows, unlike Fair Isle which is restricted to two colors per row which are worked simultaneously in a single pass of the carriage.

Below is a brief description of each method, but for more detail of how the colors are separated, click here.
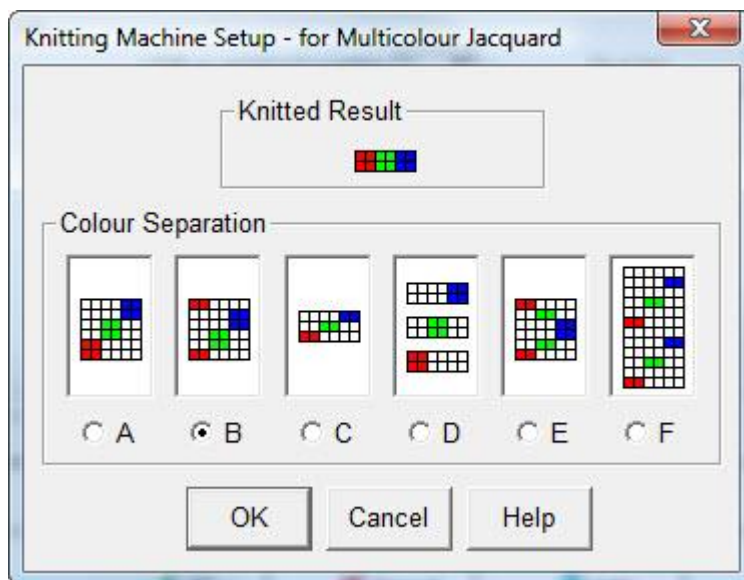
- **Method A** separates in pairs of rows therefore the pattern on rows 1 and 2 becomes 2 rows color 1, 2 rows color 2, 2 rows color 3 and so on. It will generally only work reliably where the stitch pattern consists of identical pairs of rows.

- **Method B** separates the main color from the first two rows, placing the first row at the beginning of the separation and the second row at the end (like the bread of a sandwich). All other colors are knitted in pairs, like method A, between the outer main yarn rows. Where a pattern does not consist of identical row pairs, this method generally produces fewer separation errors than method A.

  Both methods A and B are used on Japanese machines.

- **Method C** separates each color from a single row onto a separate row. For example, a four-color pattern would have the first row separated onto 4 rows, followed by the second row onto another 4 rows and so on. This method is used by Pfaff/Passap Duomatic knitters with the Deco set to 2, by Pfaff/Passap E6000 knitters where the pattern is over 40 stitches wide, or by knitters with Japanese machines when the double row (elongate) switch is used.

More than 4 Tension Wires may be used for Fair Isle knitting when the Color Changer is switched ON and there is an extra tension mast attached to the machine. The extra tension mast allows the main yarn to be threaded separately via the front feeder, freeing all four color changer holders for the contrast yarns. This option applies to Japanese machines only.

24: If your machine automatically selects end needles to upper working position, when this option is checked DesignaKnit will not instruct you to remove the contrast yarn from the front feeder if plain rows are knitted between two patterned sections. You should, however, remember that if the yarn is not removed, you will create a float across the whole width of the pattern.

- **Method D** separates each color onto a separate reader card and is used for Silver Reed electronic machines which have the PE1 attachment and for the Pfaff/Passap E6000 machine.

- **Method E** works on pairs of rows separating each row into one pass for each color, but with the colors for the second row in reverse order. For example, in a 3 colors-per-row design there are six passes, with the colors of rows 1 and 2 separated as follows:

   Pass 1 - row 1 - color 1

   Pass 2 - row 1 - color 2

   Pass 3 - row 1 - color 3

   Pass 4 - row 2 - color 3

   Pass 5 - row 2 - color 2

   Pass 6 - row 2 - color 1

   For 4 colors per row the 4th color would become the central pair of rows, sandwiched between two passes of color 3.

   This method is suitable for the Brother CK35 which has a color changer at both ends of the needle bed.

- **Method F** is a Half Milano separation method in which every single row is separated into 2 passes for each color. In this method the yarn is knitted on the main bed on one of each pair of passes but knits in both directions on the ribber. The passes are arranged thus:

   If the knitting machine is one which pre-selects the needles, the pre-select row or rows must first be worked and the carriage placed in position ready to knit the first pass of the pattern. The pre-select process will select needles on the main bed. If the machine does not pre-select, this paragraph does not apply.

    The first pass of each color knits the selected needles on the main bed and all working needles on the ribber. Pre-select machines do not select needles on the main bed for the next pass.

   The second (return) pass will knit all working needles on the ribber but will not knit at all on the main bed. Pre-select machines will select the needles for the first pass of the next color.

Templates   Configure the reader card / punch card / mylar sheet printouts

DesignaKnit 8 produces scaled template printouts for punch cards, mylar sheets and reader cards. To configure the number of rows to be printed, click the Templates button on the Knitting Machine Setup dialogue box.

- **Rows**: you can enter the number of rows to match your stitch pattern, especially if you wish to prevent the printing of several vertical repeats on punch card templates.

- **Stitch columns**: you can change the number of stitch columns you want to include if you're printing a template for a mylar sheet and will not be using the full width of the sheet or only want a single repeat, but changing the number of stitch columns for punch cards is inadvisable because a punch card needs the pattern to be repeated across the full width of the card.

- **Row Height/Column Width**: these figures are displayed for information only and may not be altered. The width of the stitch columns and height of the rows varies according to the machine for which the template is intended. The sizes are precisely configured so that the templates are an

exact fit so you can use them to trace over onto a mylar sheet or punch through to make a punch card.

Add a new machine or copy of existing one

You can use this feature to create a copy of your machine so that you can have it set up with different settings - for example, a different way of separating Jacquard patterns.

Once the copy has been created, select it and click on the Advanced button to make any changes to the configuration.

You can also use it if you design for a different type of machine which is not supported by DesignaKnit, such as a hand flat, V-bed or other industrial machine. You can change the name of the machine, enter the number of needles and the maximum number of colors which can be separated for Jacquard. By doing this, you can avoid many of the error messages which DesignaKnit would normally throw up if you, say, exceeded the number of needles for the configured domestic machine.

Delete Custom or Copy machine

This button is only available if the currently selected machine is one you have added via the Copy machine feature - you cannot delete any of the built-in machines!

View additional information about the selected knitting

The information includes technical details about the knitting machine's memory, DesignaKnit's interface method, number of needles, maximum number of colors in a row for Jacquard knitting, pre-selection method, carriage passes calculation type and color changer type. For machines on the DesignaKnit default list, his panel is for reference only and cannot be changed by the user.

For machines which have been copied, you can edit the following settings: Name of Machine, Number of Stitches and Maximum Number of Colors per row for Jacquard.

Related Topics

Method of Knitting

Downloading Patterns to a Knitting Machine Memory

Uploading Patterns from a Knitting Machine

Jacquard Separation

Color Changer

Download And Upload Patterns To/From An Electronic Machine

NB: The following information is relevant only to knitting machines and pattern devices which have an independent memory. DesignaKnit downloads to Silver Reed Knitting machines only in "Real Time" - that is, row by row, as you knit, rather than storing the pattern. This is done through the Interactive Knitting section of the program.

Using the appropriate DesignaKnit cable link,stitch patterns can be downloaded to and stored in the following:

- Brother electronic knitting machines and PPD
- Silver Reed PE1 Design Controller
- Silver Reed PC10
- Pfaff/Passap E6000 and E8000 Consoles

Patterns can be uploaded into DesignaKnit via the cable from the following devices:

- Brother electronic knitting machines and PPD
- Silver Reed PE1

Download

Selecting **Transfer/Download** will open the **Select Knitting Equipment for Transfer** dialogue. Choose your machine or pattern storage device from the list. The first time you do this, you should click on the Setup button to make sure your machine or storage device is configured to transfer through the correct COM port.

Before transferring, the appropriate knitting method must be allocated to each pattern, as this will affect how the pattern is downloaded: for instance, a jacquard or lace pattern will be separated into multiple carriage passes before downloading. Before starting to download or set up a batch of patterns, it may be worth your while to open the pattern files to check that the saved method is correct and, especially for Fair Isle patterns, that the correct colors have been marked for selecting and non-selecting needles.

DesignaKnit always downloads a saved file, so if changes have been made since the last save, the program will prompt you to save the file again. If you wish to download this latest version you should click on **YES**. If you want to keep the original version and save this one as a new file, you should click on **CANCEL** and then choose **File/Save As** and give the pattern a new name.You will then be able to choose this the new file at the next dialogue. If you simply want to download the older version without saving any alterations, choose **NO**.

Downloading to Brother Machines

You can download a single pattern or a batch of patterns in one operation to all Brother machines and PPD modes, with the exception of the KH965i and KH970 which will only accept patterns one at a time.

Before starting to knit a downloaded pattern, you must program the machine with the number which has been allocated to the downloaded pattern you want to knit. The pattern is now in the knitting machine's memory and it is the way in which you program the knitting machine's console which dictates how the needles are selected, not the computer - and it is the carriage settings which determine the knitting technique.

Note that whatever the status of the Color Changer button on the palette, the pattern itself will be downloaded to machines with an independent memory with the needle selection configured for normal knitting. When you knit the pattern, you should switch on the negative button on the machine's console to reverse the selection for knitting with the Color Changer. You should also switch on the Color Changer option in Interactive Knitting for the correct yarn changing instructions.

Choose a pattern or set up a batch of patterns to download

Click on **Transfer/Download**, select the correct machine or the PPD and click on OK. The next dialogue is where you assemble the list, or batch, or patterns to be downloaded.

You can download a single pattern or, depending on their size, you can download up to 98 patterns in a single batch. However many patterns you will be downloading, you set up the procedure in this way:

1. Click on the **More Files** button to open the **Thumbnails** dialogue .

2. In the **Thumbnails** dialogue, click on the pattern you want to download - this will then be marked with a green tick to confirm the selection.

3. If you want to download a batch, click on any other patterns you want to include: each one will be marked with a green tick. If you change your mind, click again on the pattern to de-select it. You can use the **Search** and **Sort** buttons to find or group your pattern files if it makes it easier to make your selection.

4. When you are ready to add the patterns to the download list, click on **OK**

The pattern or patterns you have chosen will now be listed in the batch download. By default, DesignaKnit lists them alphabetically according to the file name, and each is allocated a pattern number, starting with no 901. If you want to change the order of patterns on the list:

1. Select the pattern you want to move and click on the **Cut** button (the button is disabled if no selection has been made)

2. Click on the pattern *below* where you want to replace it and then click on the **Paste** button. If you do not select a file, then the pasted file(s) will be added to the top of the list.

   The 900-series pattern numbers will be adjusted automatically.

F A I R   I S L E   P A T T E R N S   A N D   C O L O R - C H A N G E R

Note that if you have used the color-changer button to preview the needle selection and yarn-feeder allocation, the pattern *will always be downloaded as if the color-changer was **not** configured*. If you then decide to use the color changer, you should use the **Negative Switch** on the machine console to reverse the needle selection and when using Interactive Knitting, make sure that the Color-Changer button is switched on so that the color changer instructions are correct.

When the batch of patterns is assembled, click **OK** and follow the on-screen instructions for the actual transfer. To cancel downloading, click on the **Cancel** button which closes the Batch Download dialogue.

Printing, Saving and Retrieving a Batch Download List

When you come to knit any of the downloaded patterns, you will have to program the machine's console in the usual way. The pattern number you select will be the one allocated by DesignaKnit on the list, so for future reference, a printed copy of the list is helpful.

Whilst DesignaKnit will maintain the list on the Batch Download dialogue until such time as you change it, you can keep records of downloaded batches in this way:

1. Open a text editor such as Notepad or WordPad, or start a new document in Word or similar word processor.

2. Click on the Copy All button in the Batch Download dialogue.

3. Paste the text into the document.

4. Use the document to print the list.

5. Use the application's file menu to select Save As to keep a permanent copy of the list.

You can quickly restore a list:

1. Open the saved document or text file.

2. Select the list of patterns and click on Edit/Copy (or press Ctrl+C).

3. In the Batch Download dialogue, click on Paste. If there are already patterns listed, you can add the saved patterns at a particular place if you select an existing pattern first - the pasted patterns will show above this selection. If you make no selection, the files will be listed from the top.

Brother 930, 940, 950i or PPD

Downloading to Brother 930, 940, 950i or PPD will erase all 900 series patterns previously stored in the memory (or memory page for the PPD in 900/930 mode), even if only a single pattern is transferred. If you have patterns which you have programmed into the machine from a source other than DesignaKnit and you do not want to lose them, please upload them to the computer before doing your first download. Note that the Stitch World patterns which are built into the machine/PPD are in a separate memory area and are not affected by downloading.

Brother 965 with BrotherLink 4

When you have assembled a list of patterns to download, click on OK and then follow the on-screen instructions. Unlike the other machines, the patterns are not transferred directly to the machine in one operation and unlike the other machines, downloading new patterns does not . The first part of the procedure sends the patterns to the KnitLink box component of the BrotherLink 4 - it is important that the power is not turned off as the patterns are only held as long as the link is switched on - and then you must add each pattern individually to the knitting machine's memory.

For each pattern, you have to press **Load** on the machine, then **Step**, enter the pattern number which DesignaKnit gave it, then **Step** again. The main window will then show a flashing pattern number: this is the next free number in the machine's memory which is now being assigned to your color pattern. It is a good idea to make a note of this new number! Press **Exec** to accept and the pattern will be transferred into the machine, usually without a noticeable delay. Repeat the Load, Step and Exec sequence for each pattern that you want to transfer.

If you want the patterns to keep the numbers which DesignaKnit gave them, you need to begin by deleting all the existing patterns from the machine so that the new downloaded patterns start at 901. You can do this by using the 888 function to clear the memory - see your machine's manual for instructions on how to do this.

Brother 270 with BrotherLink 4

When you have assembled a list of patterns to download, click on OK and then follow the on-screen instructions. Unlike the other machines, the patterns are not transferred directly to the machine in one operation and unlike the other machines, downloading new patterns does not . The first part of the procedure sends the patterns to the KnitLink box component of the BrotherLink 4 - it is important that the power is not turned off as the patterns are only held as long as the link is switched on - and then you must add each pattern individually to the knitting machine's memory.

For each pattern, you have to press **Load** on the machine, then **Exec**. Each pattern you download will overwrite the pattern with the same number in the machine's memory, so to keep a copy of the patterns you should upload them first.

Downloading to the PPD in 940 or 950i mode

This is exactly the same as downloading to the KH940 or KH950 machines: the downloaded patterns will overwrite any 900- series patterns currently in the memory, so if you want to keep these patterns, you should upload them first.

Downloading to the PPD in 900 or 930 mode

The PPD's memory is much larger than that of the KH930 or KH900 machines, and can hold a number of *pages* (16 for the 930, and 8 for the 900), each of which is the same size as the memory of the machine. You are asked to select a PPD page number to which to download. When you download, any 900 series pattern numbers already in that PPD page are lost. This is the case even if you have many patterns in the PPD page and you only want to download a single pattern. Other PPD pages are unaffected

Using the PPD in KH900 mode

It is not possible to download to the PPD if the Stitch Pattern Extras cartridge is installed, but you can upload from it.

Brother 965i

Patterns are downloaded one at a time to this machine, directly from the Stitch Designer screen.

1. Open the pattern you want to transfer and select **Transfer/Download** and make sure the KH965i (or if appropriate the KH965i Special Cable) is selected and click on **OK**.

2. Click on the **Download** button on the next dialogue to start downloading; a progress bar appear on the screen to indicate the progress of the download. The transfer can be complete in a few seconds, depending on the size of the pattern.

3. The pattern will be allocated the next available 900-series number, so you will need to make a note of it for future reference.

4. To continue downloading, open the next pattern in Stitch Designer and repeat the process.

Whilst patterns already in the machine are not overwritten by newly downloaded ones, if there is insufficient memory to accommodate the new pattern you will have to delete one or more patterns to create space.

Brother 970

Patterns are downloaded individually, directly from the Stitch Designer Screen.

1. Open the pattern you want to transfer and select **Transfer/Download** and make sure the KH970 (or if appropriate the KH970 Special Cable) is selected and click on **OK**.

2. Click on the **Download** button on the next dialogue to start downloading. Follow the on-screen instructions precisely to load the pattern into the CB-1 - a progress bar appear on the screen to indicate the progress of the download. The transfer can be complete in a few seconds, depending on the size of the pattern.

3. The pattern will be allocated the next available 900-series number, so you will need to make a note of it for future reference.

4. To continue downloading, open the next pattern in Stitch Designer and repeat the process.

    When downloading 3- or 4-color jacquard patterns to this machine, please take note of the options for color separation.

    NB When you have finished downloading, switch off the CB - 1 and remove the cable from the socket; Interactive knitting cannot take place while the downloading cable is connected.

Knitting Machine and PPD Memory Limitations

A pattern can be too large to fit in the knitting machine memory or PPD page all at once. This could be because it requires more than 999 passes of the carriage (this limit does not apply to the CK35), or because the total number of stitches is more than the available memory space. The latter is especially likely with the KH930 and PPD in KH930 mode.

If you are downloading a large pattern that is to be knitted in Jacquard or created with the Lace Tool, it is quite possible that it will need to be downloaded in sections, even for a machine with a large memory such as the KH940 or KH950i. This is because the colors have been separated so that each pair of pattern rows will consist of two carriage passes for each color in that row. Thus a pattern with e.g. three colors per row will require six passes of the carriage to knit two pattern rows, so what is actually downloaded is triple the length of the actual pattern.

If you get a message on the screen that the pattern is too large, or that there is insufficient memory, you should download it on its own not as part of a batch of patterns. This will then enable DesignaKnit to work out how the pattern is to be divided into sections, and you will be asked which section is to be downloaded. Interactive Knitting will then give you the instruction to download the second and subsequent sections at the appropriate time.

Downloading a Memo Information

You can assign Memo numbers to a color pattern prior to downloading. These will display in the window on the machine console and can serve as a reminder to change color - see your knitting machine manual for details on how to display them.

To use this feature, select Palette/Memo. You may number colors from 1 to 9, however, if you have more than 9 colors in your pattern, you may assign the same memo number to more than one color.

Restore a Batch of Patterns

Use the **Transfer/Restore** command to select a saved batch file uploaded from a Brother machine or PPD and restore it to the knitting machine in its entirety.

This is a useful device for keeping related patterns together, especially for batches of integrated patterns - having once assembled a batch and downloaded to the machine, you can upload it and keep it on the computer ready for downloading again without having to reassemble the batch.

> **NB**: Although you can use Restore to transfer a batch of patterns uploaded from one machine to another of the same type, you cannot use this method to copy a batch of patterns to a fundamentally different machine. If you want to do this, you must first upload the batch, then extract the patterns and then download them to the second machine, either as a batch or, depending on the machine, one at a time.
> If you have tried to download a batch to a different type of machine from the one where it originated, the memory will be corrupted, so you will have to do an 888 procedure to clear the memory of the recipient machine to restore it to normal use.

When using the Restore option for the KH965i or KH970, which only accept patterns one at a time, you will need to repeat this procedure for each pattern that you want to restore from the batch: the first and subsequent patterns will be added to those already in the machine's memory. Therefore, to return the memory to its original state it is necessary first to clear the memory and then restore each pattern in sequence.

BrotherLink 4 special instructions

The Brother KH270 will have all the color patterns in the downloaded batch transferred to it with the patterns keeping the same numbers that they used to have. With the Brother KH965 on the other hand, you would have to first clear the machine memory using an 888 procedure, then load each color pattern in the batch into the knitting machine memory, one by one. You can share batch files between these two machines, as long as you bear in mind that any patterns downloaded or restored to the KH270 cannot be wider than the number of needles available on that machine.

Downloading to the Silver Reed PE1

Patterns are downloaded to the PE1 one at a time.

Transferring a pattern to the PE1

1. Open the stitch pattern you want to download to the PE1 and select Transfer/Download.

2. Select the appropriate PE1 option: if you will be knitting with the ordinary carriage, choose PE1+machine, but if you will be using the AG50 Intarsia carriage, select PE1+machine+AG50.

3. Click on OK.

4. Click the Download button on the next dialogue: a bar will indicate the progress of the download. Note that the speed will vary according to the size of the pattern: stitch patterns wider than 60 stitches take longer to download than they do to upload.

Large patterns

Patterns wider than 60 stitches or having more than 150 rows will be downloaded in sections. If this is the case, the computer will prompt you to press the = key on the PE1 when necessary. Occasionally it is necessary to press the = key a second time before the download continues.

If you interrupt the downloading procedure by pressing the Esc on the computer keyboard, turn the EC1 or knitting machine power off for a few seconds to reset the PE1.

After downloading, the PE1 will beep, briefly display COMPLETED, beep again, and finally show OK.

Jacquard Patterns

The PE1 can accept Jacquard color patterns with a maximum of 5 colors per row. Methods A to D and F of color separation may be used according to preference. Select Options/Method of Knitting/Setup/Jacquard to configure the method.

If you wish to download a highly detailed color pattern, configure method B in the Options/Method of Knitting/Setup/Jacquard dialogue and then use the Check/Jacquard option to ensure the pattern will separate correctly. This color separation method results in fewer errors than other methods, therefore fewer corrections and more fine detail is preserved. Use the View/Yarn Numbers and Feeders option to arrange the yarn order for the fewest errors.

Jacquard Patterns with Memo Information

If it is more important to you to transfer memo information to the PE1, configure separation method D and select Memo from the Palette menu to add numbers 1 to 7 to the colors used in the design. Do **not** use numbers 8 and 9 as the PE1 will not recognize them.

If method D is used, the screen instructions for downloading are slightly different and include pressing the F3 key on the PE1 to indicate Jacquard knitting.

DesignaKnit does not use the buzzer column.

Transferring Patterns to the Silver Reed PC10

Patterns for the PC10 are saved in a special format and, instead of transferring them via a cable link, they are saved or copied from your computer onto a CompactFlash Memory card which can then be read by the PC10 Pattern Controller. If the card is not the one supplied with the PC10, it must first be formatted using the PC10, not the computer, otherwise the PC10 will not be able to read the files.

Your computer may have a built-in card reader, but if not you can get one from any computer store for very little outlay. External (i.e. not built-in) card readers are generally connected to a USB port.

Enabling PC10 pattern files

If you will be dealing with patterns for the PC10, whether for the PC10 itself or for conversion for use in DesignaKnit and downloading to other machines and devices, the first thing you should do is to enable DesignaKnit to read and preview these pattern files. Go to Options/Method of Knitting and, making sure that the dialogue is in machine knit mode, tick the option to read and write PC10 files. Note that you do not have to select a Silver Reed machine in order to enable this feature.
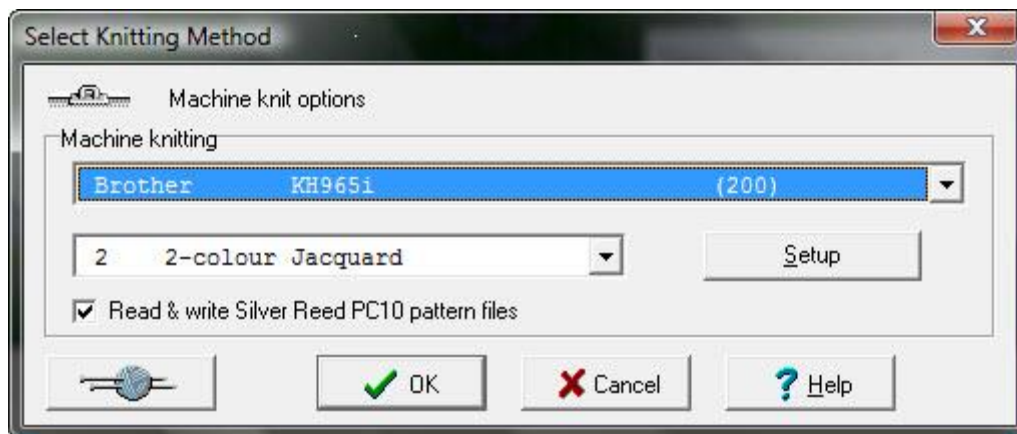
Once you have done this, PC10 format files, which have a .dat extension will be visible in the Thumbnails viewer along with your other patterns and listed in the Windows File/Open dialogue - and you will be able to save your patterns in this format too.
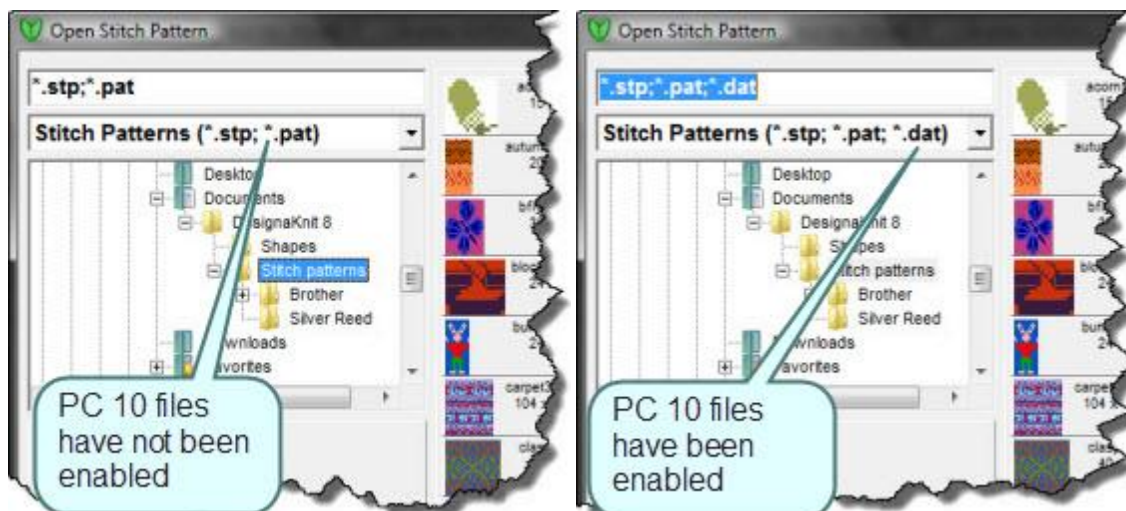
Saving directly to the PC10 Compact Flash Card

This option saves the currently open pattern only.

1. Insert the PC10 CompactFlash memory card into the card reader.

2. Click on Transfer/Download and then make sure that the Silver Reed PC10 (.dat files) option is selected, and click on OK.

3. The next dialogue will ask you to select the location for saving your file. Click on the + sign next to Computer to open the list of drives, and then select the drive letter associated with the CompactFlash card - depending on the card and your version of Windows, it will probably be listed as Removal Disk and will have been assigned the next free drive letter after the one(s) allocated to your CD/DVD drive(s).

4. Click on OK

5. The current pattern will be converted to PC10 .dat format and saved to the CompactFlash Card and DesignaKnit will inform you of the number of that pattern so that when the card is returned to the PC10 you will know which one to select for knitting.

Downloading to the Passap E6000 and E8000

Only two options on the Transfer menu apply to the E6000 and E8000: Download and Integrated Download. It is not possible to upload from the console to DesignaKnit.

E6000
Check Console Chip

If you haven't already done so, you need to establish that the console has the correct chip to enable communication with the knitting machine. Both the E6000Link 1 and E6000Link 2 cables operate only with E6000 consoles made after March 1991 (serial numbers 6025980 or later), or with older machines which have had the chips updated. If you have an old machine which has been repaired and you aren't sure whether it has the new chips, use the following procedure to determine your setup:

Disconnect the console from the knitting machine (or from any other cable), program as far as ST.PATT A, then press the unlabelled key and 0. Consoles with the later chips will display ERR 213. Consoles with old chips will display a different message or flash between ST.PATT A and 0.

If the serial number of your machine is 7037001 or higher you have the newer 32K console.

Transferring a pattern to the E6000

Using the DesignaKnit E6000Link 1 or 2 you can download stitch patterns from the computer to the E6000 console *one at a time*. If you have more than one pattern to transfer, repeat the process, but please read the section on memory available in the E6000 console.

For downloading using the E6000 Link 2 cable, make sure that the switch on the cable box is switched away from the red spot. The switch has 2 positions: away from the red spot for downloading, and towards the red spot for knitting. The other red spot on the KnitLink box will remind you that red spots mean knitting. If using the E6000 Link 2, make sure that the locks are at the start position (or at least not opposite the red spot on the KnitLink box), and that the cable is connected to the computer's serial port.

1. Open the stitch pattern in Stitch designer and check that it has the correct knitting method allocated. View the Yarn Numbers/Feeders and change the order if necessary, and save the pattern. Then select Transfer/Download and make sure the correct knitting machine is highlighted. Click on OK.

2. The next dialogue will ask you to confirm the method of knitting. Click OK.

3. The next dialogue will ask you to enter the technique number you will be using - consult your knitting machine instruction book for further information on available techniques. DesignaKnit needs this information so that it can work out the number of carriage passes required to knit a pattern row or, in the case of jacquard knitting, the number of passes of each color.

4. Click OK and a message will confirm these details: technique number, passes per pattern row and color sequence. If you change your mind or have made a mistake, click Cancel to go back to the previous dialogue where you can enter a different technique number. Otherwise, click OK to proceed.

5. At the next dialogue, if you have not already done so, make sure that the correct port number has been assigned to the cable, then click on the Download button to transfer the pattern to the console.

6. Follow the screen instructions for preparing the E6000 console for downloading. The E6000 should display the message PC START after you press 0 on the console. When you press Download at the computer to begin downloading, the message on the E6000 should change to WAIT. You will see a progress bar fill as the color pattern is transferred to the E6000.

7. The entire transfer should take a maximum of 4 minutes for a large pattern. When the transfer is complete, the E6000 should show the message ALTER, to which you should reply NO. Enter the knitting technique, then reply NO to the ENLARGE / POSITION option if you will be knitting from the screen. When the console prompts you to enter left and right needle positions, make sure that your work will fit inside these limits. If unsure, err on the high side for these numbers, but remember that they can easily be changed later on.

Stitch techniques

After downloading, the E6000 prompts you for the stitch technique. There are certain technique numbers which you should not use:

- Specify a three color technique using the numbers 195-206, **not** 219-230

- Specify a four color technique using the numbers 207-218, **not** 231-242

- Ignore the indication in the E6000 manual that 195-218 are to be used for small patterns only. The lower numbers enable a more efficient use of the E6000's memory. The different number ranges represent different ways of separating the colors, and the lower ranges use a more memory-efficient method. You do in fact have the same range of actual techniques available, as the range 195-218 are duplicated in the range 219-242.

Knitting machine memory limitations

The memory of the E6000 is not very large, and you should not normally try to use its memory for long term storage of your color patterns - these can continue to be stored in your Stitch Patterns folder, and of course you can back these up to other media for safekeeping.

When preparing to download, it is usually best to select ERASE at the E6000 console. This will make sure that you have the maximum amount of memory available for the pattern you want to download.

- A single pattern area (referred to by the E6000 as A, B, C etc.) is not usually large enough for a large picture design, in which case you will need to download the color pattern in sections. DesignaKnit will work out how the pattern is to be divided into sections, and you will be asked which section is to be downloaded.
  Download the first section, then knit it, download the second section and knit that, and so on. There is no point in trying to load more than one section of the pattern into different memory areas: the pattern is split into sections only if there is insufficient memory available in the console. Use more than one E6000 pattern area (A, B, C etc.) only if all of your patterns are reasonably small and do not need splitting into sections. Each section will need to start with SX / GX rows as normal.

- In addition to the limited size of the memory, you need to be aware of an additional separate restriction of the E6000: that any one downloaded pattern must not contain more than 255 rows.
  A single pattern area in the E6000 console is large enough for a three or four color pattern with a total of about 26000 stitches. In a single operation you can download a pattern which is, for example, 100 stitches by 255 rows, or 140 stitches by 185 rows, or 180 stitches by 144 rows, and so on.

- A pattern with 2 colors per row occupies half as much memory space as one with 3 or 4 colors per row. This means that in one operation you can download a two color pattern which is 180 stitches by 255 rows.

- Machines with the newer 32K chips and board can also accommodate 3- and 4- color patterns of up to 180 stitches by 255 rows in a single operation. They can also download a greater number of patterns into the separate pattern areas than was possible with the 8K console.

You may be aware that if you use software other than DesignaKnit for downloading to the E6000 console, the maximum size of color pattern that you can download is considerably less than the above sizes. DesignaKnit is able to use the E6000 memory more efficiently.

Reserving memory for the Form computer

Some of the E6000 memory is used up if you use the Form option. DesignaKnit supplies shaping instructions, either while you knit from screen or else in the form of printouts. Therefore, when working out how much memory in the E6000 is available for color patterns, DesignaKnit assumes

that you are *not* using the Form option and that all of the memory is available for color patterns. If you do want to use the Form option, you should download 3-color or 4-color patterns containing a total of no more than about 20000 stitches (multiply rows by stitches to obtain total stitches). otherwise the Form information may be lost.

Downloading Jacquard patterns

The method of Jacquard separation which you have selected in Options/Knitting Machine/Jacquard is not used for downloading to the E6000, or for knitting from the screen. Your choice of Jacquard separation method is used only for reader template printouts as far as the E6000 is concerned. Similarly, suppression of blank rows is never used when downloading to the E6000 or knitting from the screen with the E6000.

DesignaKnit works out which yarns go in which feeder positions and the printout shows the result . You can preview this allocation on screen by selecting Yarn Numbers/Feeders from the View menu.

E8000

You can download stitch patterns, or integrated stitch patterns, to the E8000, but you cannot upload a pattern from the E8000 to DesignaKnit.

Patterns must be downloaded one at a time or, in the case of integrated patterns, one piece at a time and it is the pattern currently on the screen which is downloaded. Depending on the memory available, the Control Unit may be able to accept several patterns downloaded separately.

Downloading a pattern

Set the switch on the cable box so that the switch lever points towards the front of the machine (away from the red spot). The switch has two positions:

- **away** from the red spot for **downloading**
- **towards** the red spot for **Interactive Knitting**.

(*NB: Some computers may allow downloading works even if the switch is left pointing towards the red spot: if this is the case, the switch may be left in that position permanently*)

1. Make sure that the locks are at the start position (or at least not opposite the red spot on the KnitLink box), and that the cable is connected to the computer's serial port whether directly or via a USB-to-Serial converter.

2. Open the stitch pattern in Stitch designer and check that it has the correct knitting method allocated. The sequence of colors is controlled by the Memo numbers. Each yarn must have a Memo number and the total Memos available must equal the maximum number of colors in a row. This means that for a 4-color pattern, you must use numbers 1 to 4, for a 3-color pattern, numbers 1 to 3. You can re-use numbers so that if, for instance, one or more of the colors change for a different part of the pattern, the new colors can be allocated numbers which are not yet in use in that sequence.

3. Select **Transfer/Download** or Transfer/ Integrated Download. If the pattern has changed since it was last saved, you will be prompted to save it before downloading.

4. If DesignaKnit complains that the cable is not detected, check that the correct port number has been allocated in Options/Knitting Method/Setup. If you are using a USB-Serial Converter, you can find the port number via Windows Control Panel.

- Click on Device Manager (you may need Administrator permissions to view this dialogue or make changes) and then on Ports (COM and LPT). Locate the USB-to-Serial Device in the list and check that the port number is the same as the one in DesignaKnit's machine setup.

If they match, but DesignaKnit does not recognize the cable, you may need to change the port number for the device:

- Double click on the device to view the properties, then select the Port Settings tab, click on the Advanced button and in the next dialogue, change the port to another number. Then change the port number in DesignaKnit to match.

5. Next, DesignaKnit then asks you to enter the knitting technique number. For information about how the techniques work, consult the Help Topic entitled "Technique Data".

6. DesignaKnit then requests that the E8000 Control Unit is programmed until it shows "ON THE PC, SELECT KNIT A PATTERN".

The following steps should be done using the E8000 Control Unit.

1. Select ProgS, enter a memory sector number (for example 1) and press the large ENT key. Enter 3 (meaning from ROM). If necessary use the cursor down key to get to the place where you can enter a technique number. Enter the number of the technique which you will use for knitting, and press the large ENT key.

2. Select 4 (meaning from PC). If necessary, use the cursor down key to get to the place where you can enter a design number. Enter your own design number and press the large ENT key. The E8000 Control Unit should then display the message "ON THE PC, SELECT KNIT A PATTERN". It is then ready to accept a pattern download from DesignaKnit.

In DesignaKnit, select OK, and *within 2 seconds* press the large ENT key on the E8000 Control Unit.

If NO DATA TRANSFERRED 4140 is displayed on the E8000 Control Unit, it indicates that you did not press ENT quickly enough. (This can be corrected by getting back to the point where the E8000 Control Unit displays "ON THE PC, SELECT KNIT A PATTERN" and trying again.)

Otherwise, "PATTERN BEING TRANSFERRED" is displayed on the E8000 Control Unit and in DesignaKnit a progress bar fills as the stitch pattern is transferred to the E8000 Control Unit. The time taken for the transfer depends on the size of the pattern.

Continue programming the control unit, entering the technique number. If you are using a technique that requires two patterns, one for the front bed and another for the rear, the E8000 Control Unit will at this point request the second pattern. If the second pattern is also to be downloaded from the PC, proceed as from the paragraph beginning "Select 4 (meaning from PC)".

N B

It is recommended that the number that you enter into the E8000 Control Unit as the pattern number, forms part of the DesignaKnit filename (only for identification purposes).To save confusion, reserve the use of pattern numbers from 3000 to 4000 for patterns which are downloaded from DesignaKnit.

If the PC is remote from the E8000 Control Unit, do the following after downloading:

1. Program your sector(s).

2. Unplug the power supply from the E8000 Control Unit.

3. Remove the cable from socket II.

4. Shut down the computer.

5. Remove the cable from the PC port.

6. Replace control unit on E8000, putting the appropriate cable into socket I, taking great care NOT to put it into socket II. Putting it into socket II would result in destroying the processing board in the E8000 Control Unit. The down load cable is the larger plug and will not go into any socket other than II, but it is possible to put the cable meant for socket I into socket II.

7. Plug in the power cable.

8. Knit the sector when ready.

Downloading Jacquard Patterns

Note that it is the Passap Technique number you allocated to the pattern at the start of the download which controls the sequence of color changes and needle selection for the actual knitting.

The Jacquard separation method configured in DesignaKnit's machine setup is used only for showing the yarn numbers and feeders on any printouts. You can preview these using View/Yarn Numbers and Feeders.

Control Unit Memory Limitations

The Control Unit has a large memory, but the size of a pattern it can store will depend on the number and size of patterns already in the memory. If the Control unit displays an error message during the download process, this may be because there is not sufficient capacity for the current pattern, in which case you should try deleting one or more of the patterns already held before attempting the transfer again. You can't upload to DesignaKnit, but as long as you have the patterns still on your computer they can be downloaded again at any time in the future.

Downloading an Integrated Pattern

An integrated pattern is one which has had a piece from a shape file applied to a stitch pattern. The stitch pattern is then downloaded to the knitting machine memory or to the pattern device with the stitch pattern for the piece correctly positioned at the center of the needle bed so that there is no need for you to work this out.

As the position of the pattern may be different for each piece of the shape file, you will need to download a separate stitch pattern for each piece that you have integrated in Stitch Designer.

For those machines and devices which allow a batch download, you can download as many pieces as the memory will accommodate, but for those which only accept patterns one at a time, you must select the piece which you want to download and repeat the process for each additional shape piece. Please note that the shape itself cannot be transferred to the machine's memory.

When downloading in integrated stitch pattern, DesignaKnit will take into account the knitting method you have allocated and in Interactive Knitting will indicate the shaping instructions at the appropriate times as well as showing you when to change color, etc. Thus, for jacquard patterns and those drawn with the lace tool, DesignaKnit will separate the pattern into carriage passes but also make sure that the shaping instructions are shown on the correct rows.

Preparing an Integrated Download

1. First, open the shape file you are going to use either in the appropriate shaping section of the program (Standard Garment Styling or Original Pattern Drafting, depending on the type of shape) or from the Shapes menu in Stitch Designer.

2. In Stitch Designer, open the stitch pattern you want to associate with the shape or the pattern for the first piece.

3. Go to Shapes/View Piece(s) or click on the View Piece(s) button [icon] on the tool bar.

4. Select a piece from the list and click on the Move Piece button [icon] to move the piece to the position you want on the stitch pattern.

5. Do this with all the pieces you want to integrate with the current pattern.

6. Save the Shape file. The position of the shape pieces on the stitch pattern is now saved with the shape file.

7. If any pieces are to be integrated with a different stitch pattern, open that stitch pattern and position the relevant pieces.

8. Click on Shapes/Integrate to open the Integrate dialogue and check that each piece has the correct stitch pattern allocated. Tick the selection box at the right to associate the piece with the pattern currently open in Stitch Designer - if a pattern file name is shown, but the selection box is not ticked, this means that the pattern is not that which is open in Stitch Designer, or that the pattern has been displayed on the piece in Original Pattern Drafting. To change to the current Stitch Designer Pattern, tick the selection box - unticking it will restore the previous associated pattern.
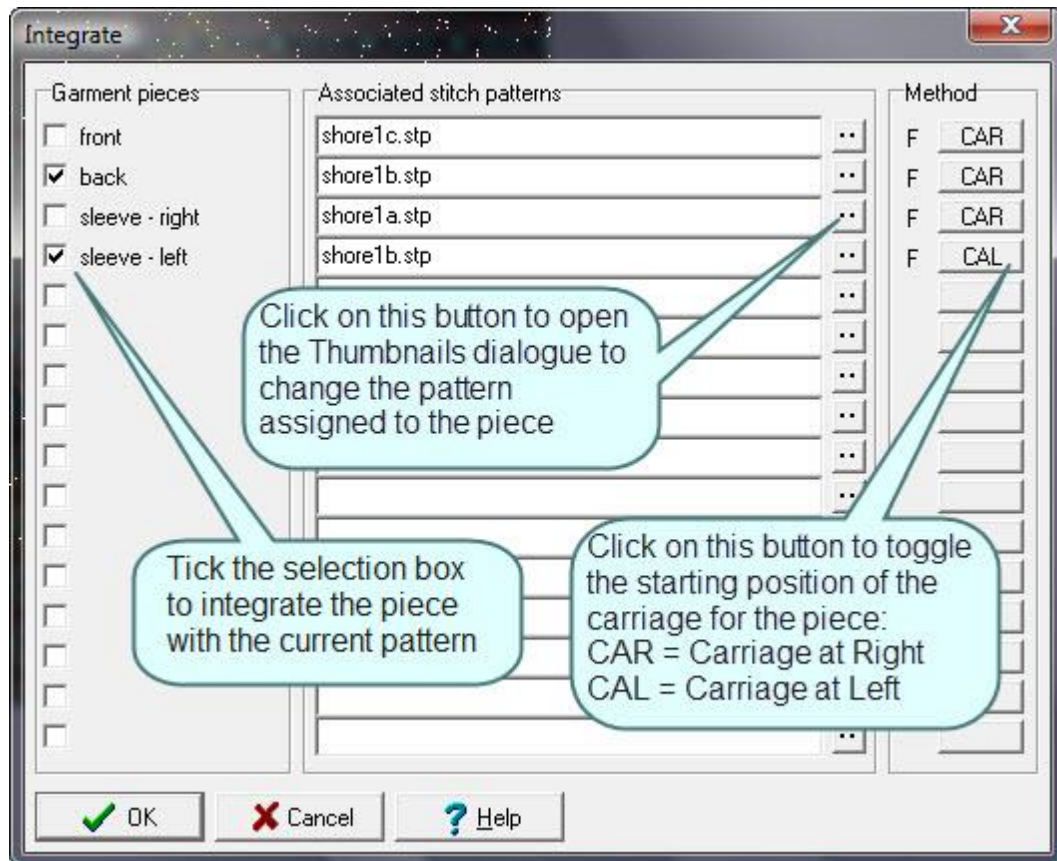
9. Save the shape file.

Integrated Download

1. Select **Transfer/Integrated Download.**

2. Select your knitting machine or pattern device from the list and click on OK

3. Select Piece(s)

Brother 930, 940, 950i or PPD

In the next dialogue, tick all the integrated patterns you want to download. Select your knitting machine or pattern device from the list and click on OK. Provided the machine or PPD has sufficient memory, the patterns for the pieces will be downloaded as a batch: one stitch pattern per shape piece. The patterns will be downloaded so that each piece is centered on the needle bed. If there is insufficient memory DesignaKnit will warn you , in which case you should remove one or more pieces from the list and download again. If the stitch patterns are multi-colored jacquard or lace, you may find you have to download them individually and if any single pattern is too large to download in one go, DesignaKnit will split the pattern and warn you in Interactive Knitting when to download the next section.

Passap E6000 and E8000

Whilst there may be room for more than one integrated piece in the Control Unit's memory, only one integrated pattern can be downloaded at a time.

The stitch patterns allocated to those pieces (using Shapes/Integrate in Stitch Designer) are shuffled upwards so that the first row of each color pattern is correct for the first row of the relevant garment shape, and sideways so that the stitch pattern will be positioned on the shape piece exactly as it appeared on the computer. DesignaKnit assumes that the garment piece will be centered on the knitting machine's needle bed.

All other Brother machines and PPD modes, Passap E6000 and 8000, Silver Reed PE1 and PC10

In the next dialogue, tick pattern piece you are going to knit. DesignaKnit will download the stitch pattern associated with that piece so that the piece is centered on the needle bed. If the stitch pattern is multi-colored jacquard or lace, and is too large to download in one go, DesignaKnit will split the pattern and warn you in Interactive Knitting when to download the next section.

Note: It is the stitch pattern for the shape piece which is downloaded - not the shape piece itself.

4. **All machines**

Click on the **Download** button and follow the on-screen instructions to complete the download.

Upload

Select **Transfer/Upload** to transfer stitch patterns from a Brother electronic knitting machine, Brother Pattern Programming Device (PPD), or Silver Reed PE1 Design Controller, into the computer.

Note that if you download a color-separated Jacquard pattern or a pattern created with the Lace Tool and then upload it, the pattern will have changed as DesignaKnit automatically separates the colors before

downloading. Once a stitch pattern is uploaded from the knitting machine, DesignaKnit has no way of recognizing a color-separated pattern from any other kind and will not be able to put the separated colors back together again.

Brother

Uploading from a Brother machine or PPD, with the appropriate link, will transfer all the 900 series patterns which are stored in your machine.

It is recommended that you do this before downloading any patterns to your machine if you have a 930, 940, 950i or PPD, in which you have stored the sole copy of your personal patterns. Downloading from DesignaKnit to these machines will not affect the built in patterns, but will overwrite any existing 900 series patterns.

You will be asked to enter a file name for the batch of uploaded patterns. This filename will be suffixed with the extension .BRO and saved in the Stitch Patterns folder in your profile. The Upload countdown counts the data in Kilobytes during the transfer - it does not refer to the number of patterns.

The stitch pattern files cannot be opened in Stitch Designer until they have been extracted, individually named and saved as a stitch pattern in DesignaKnit.

The Brother built-in patterns are not accessible and cannot be directly uploaded into the computer.

Silver Reed

To upload from the Silver Reed PE1, with the SilverLink 3, the stitch pattern must first be in the memory of the PE1. A single pattern is uploaded at a time and is immediately placed on the Stitch Designer workspace, where it can be saved for future use by choosing **File/Save As**. Patterns can be transferred from mylar sheets by first reading them into the PE1's memory and then uploading them.

Extract Patterns from an Uploaded Batch

Brother machines and PPD upload all the 900 series patterns stored in the memory into DesignaKnit in a single batch. The patterns must be extracted from this batch before they can be used in the Stitch Designer.

Select **Transfer/Extract** to open the **Knitting Equipment Selection dialogue**. Highlight the correct knitting machine, click OK and the **Brother Pattern Batches dialogue** will open. Choose the batch file you want from the list of names on the left and click OK.

The **Uploaded Patterns List** opens:

- select a single pattern by with the Left Mouse Button
- select all patterns by clicking on the Select All button
- de-select all by clicking on the Clear button
- select a group of patterns by holding down the shift key and left clicking on the ones you want to extract.

The first stitch pattern of the batch will be displayed on the screen and the Uploaded Pattern Name dialogue box will open. DesignaKnit will automatically allocate the fist 4 letters of the batch name followed by a dash and the number 901 (where the pattern was 901 in the batch). You can opt to accept this name or enter the name you want to use for the pattern and click OK. Subsequent patterns extracted will be given the same name with the next number, in sequence, unless you choose to change each one.

Memo information will be uploaded with the pattern. If the pattern had been transferred originally from DesignaKnit with needle selection reversed (main yarn selecting to upper working position) you may need

to tick the Inverted Needle Selection box to retrieve that information. For patterns directly entered into the machine or PPD, or downloaded without reversing the needle selection, do not check this option. Please note that although DesignaKnit will upload the memo information, the knitting machine only recognizes colors as being different from each other and cannot retain information pertaining to a specific color. Thus the extracted pattern will display only in the relevant number of colors and not in any particular color scheme and will use colors from the current palette.

Please note that when extracting from a batch of patterns uploaded from the KH970, the Inverted Needle Selection option is ignored (but not disabled) for patterns which were originally downloaded as unseparated 3- or 4-color patterns. Patterns downloaded as Fair Isle, unseparated 2-color patterns and 3- or more color Jacquard patterns which have been separated by DesignaKnit will respond to this option.

Jacquard patterns which were separated by DesignaKnit will be shown in their separated format when they have been uploaded from machine or PPD and cannot be viewed as a complete color pattern.

3- or 4-color Jacquard patterns downloaded to the KH970 for separation in that machine's native format will upload as complete patterns.

Pattern Charts For Double Bed Machines

If you are using a double-bed technique, whether by attaching a ribber or using a dedicated double-bed machine, or you are designing for an industrial machine, you can use special symbols to indicate the needle selection and technique for the second bed.

> **N O T E**
> Remember that you can only download patterns to the main bed of domestic knitting machines, whether single with attached ribber, or double bed. Any patterning on the ribber involves manual needle selection and/or specific carriage settings. This means that if you will be using a downloaded pattern on the main bed, you must make two patterns: one to download and a second one as a chart to follow for the settings for the second bed.

Below are some suggestions as to how you can use the symbols font to indicate the needle setup for double-bed knitting. The symbols used in the examples are suggestions - you can use others if you wish and, of course, you can edit the instructions associated with the symbols and abbreviations to conform to your requirements, so the important thing is to provide a key to the symbols you have used.

Creating a chart for a ribbed pattern

If the rib you are creating does not involve any selected patterning on the main bed, you will not need to download a pattern for the main bed, but you can make a chart for how to set up the ribber and any special techniques or settings you need to use.

Set up the palette

- It is helpful to use a different background color for the second bed so that you can be sure to match the appropriate symbols to the correct bed. If you already have a color code you wish to use, then set up the palette colors accordingly. If not, then use the Yarn Color Setup to add a new color that is not used in the pattern to the palette. Make this the RMB color.

- If you have not already done so, use the symbols organizer to add the appropriate symbols to your palette. Make sure that the background stitch for the method you have assigned is the current RMB color too so that you will have blank cells to work with.

Insert the second bed/ribber rows

- If you only have a small pattern and you are starting from scratch, then it's easy to make every other row the one for the second bed, either by drawing a line in the ribber color across every second row or by using the Add Row button + the Ctrl key to insert blank rows one at a time in the RMB color and RMB symbol (blank)

For a larger pattern, after you've set up the palette, you can insert alternate rows in one operation:

- Set up the palette as above, so that the RMB allocations are to the new color and the default stitch.

- Choose **Modify** from the menu bar and select **Rescale**

  Make sure that **Maintain aspect ratio** is *not* ticked, then change the **rescale factor** for the number of rows to **2**. If you now tick the box labeled **Insert blank rows**, instead of doubling the pattern, empty rows will be inserted between the pattern rows.

Rows are then inserted below the pattern rows:

Whichever kind of machine you have, note that the chart is more naturally understood if the Front bed is the lower of the pair of rows and the Back bed is the upper row - so if your machine's programmable bed is the back bed, you can accept the default insertion, which is below the pattern row. However, if your main or programmable bed is the front one, when you have inserted the additional rows, use the Shuffle button on the tool bar to shuffle the pattern downwards by one row.

Full Pitch Ribs (e.g. 1 x 1, 2 x 2 etc

This is a simple rib knitted on full pitch, with alternate needles on both beds in work.Whichever machine you are using, the front bed will produce knit stitches facing you and the back bed needles will produce the purl stitches. The fabric is reversible, so it is up to you to decide which is the front or back of the fabric.

If you draw the pattern in Fabric View, it will look like this:

For a simple rib like this, or a 2 x 2 or other full pitch rib with no additional patterning, you can use the chart DesignaKnit creates to show the pattern. DesignaKnit will have allocated a default stitch for the background on the main bed according to the method you have selected (FI, W and Jacquards have a knit stitch, and R has a purl background, but please note that whilst you can assign the FI method for selection purposes only, you cannot knit two colors simultaneously while the ribber is engaged) so you can read the • symbol as being the stitch on the second bed:

However, when creating a chart for both beds, fabric view is not appropriate as it shows the finished fabric and you need to have two lines of symbols for each pattern row - one for each bed - so turn fabric view off and work on the grid. DesignaKnit will still assume that there is a correct background stitch for whichever method you have assigned to the pattern, but this will no longer be accurate as you are dealing with both beds and will be using symbols only for the chart.

For a simple rib pattern, it is only necessary to add a symbol to the needles which are actually in use - in the above example, the • shows the active needle on the main bed, but this can be changed to one of the dedicated double-bed symbols. Select the current • stitch (knit or purl) with the RMB and then select the symbol you want to use with the LMB and then click on the Replace button on the palette tool bar - in this example, the method is R so the • symbol is the Knit stitch.

The symbols refer specifically to the respective needle beds and the blank cells indicate needles in Non-Working Position.

Whereas 2 x 2 rib would look like this:

English Rib

This is a stitch wherein the working needles on one bed always knit, but on the opposite bed rows are alternated with one row always knitted and the return row always tucked. For domestic machines, it doesn't matter which bed is the has the tucked stitches - the carriage will simply be set to tuck in one direction or the other and as the needles do not need to be selected for tucking, there is no requirement to program either bed.

The same principles apply as for the plain ribs above:

Fisherman's Rib

This is similar to English Rib, but involves tucking on both beds. Again, for domestic machines, this does not require programming as the tucking is across an entire row and therefore only requires that the carriage be set to tuck in one direction only - each bed tucks in the direction opposite to the other bed - so ensuring that the return row is knitted.

Racked Fisherman's Rib

Although this pattern is knitted with alternate needles on both beds in Non-Working Position, the beds are set at half-pitch. DesignaKnit cannot show a grid with the rows shifted to the left or right by half a pitch, so you will need to add another symbol to indicate when, and in what direction, to move the racking handle. When you have empty needles, you can place the racking symbol on one of these cells, otherwise you can add one or more stitch columns at the side of the pattern for these instructions - preferably using a color to highlight the added instructions so that it is clear that this column (or columns) in the grid is for instructions only.

If you are not using the transfer symbol to indicate stitch transfers, it could be used to specify which bed is to be racked and in what direction - most machines (particularly domestic ones) rack the front bed only, but some machines rack on the back bed and some on both. Alternatively, use the arrow symbols to indicate the direction of racking.

For this pattern, however, it will be made clear that the beds are set at half pitch if you use a single row to indicate both beds and use the appropriate half-pitch symbols:

Tuck on Front bed on alternate rows. Front bed is racked 1 pitch as indicated.

Tuck on Back bed on alternate rows. Front bed is racked 1 pitch as indicated

Double-racking

This pattern is another one where the beds are set to half pitch and the pattern is racked every two rows, but by two pitches instead of one. In this example, the back bed is the main bed, and the front bed is the ribber. *All the main bed needles are in use throughout*, but after casting on or knitting a border in full needle rib on both beds, some stitches are transferred to the back bed. For this chart, the first two rows show the needle set up. The rest of the pattern area then concentrates on what happens on the front ribber bed - this is so that the chart doesn't get so crowded with symbols that it becomes difficult to read, but of course if you want to show a symbol for every stitch, then you can:

Indicates the front bed must be racked 2 pitches in the direction of the arrow - or you could use the ← → symbol instead.

Chart shows working front bed needles only. All back bed needles are in work throughout.

After casting on on both beds, some of the front bed stitches are transferred to the back bed and the front bed needles removed from work, as in the diagram above. The same needles are in work throughout but as the bed is racked back and forth, as per the racking instructions, so the needles change their position, as you can see above.

Using the Second Bed/Ribber with a downloaded pattern on the Main Bed

If you are using a pattern which requires needles to be selected/not selected on the main bed, and you also need instructions for the ribber, this will require two versions of the pattern: the first is the pattern to be downloaded and the second is a chart with instructions for the second bed, the amount of detail on which will depend on the pattern

In this example the pattern can be knitted either as a 1 x 1 rib pattern on full pitch with alternate opposing needles out of work on each bed, or as an interlocked (Full Needle Rib) pattern at half pitch, using all the needles on each bed, but it is the main bed only which is tucked.

 For the downloadable pattern (or to produce a punch card template), you must use the designated symbols for downloading:

DesignaKnit will recognize the tuck symbols. Whether you download as R or W will depend on which side of the knitting you decide is the front of the fabric - the knit side created by the ribber, or the knit side created on the main bed.

If you now make a second version the pattern to include two extra rows at the start on which you can use memo symbols to indicate the needle set up on both beds.

1 x 1 rib version on Full Pitch
After cast on, alternate needles on ribber are transferred to the main bed.

Alternate needles are in Non-Working-Position on the back bed, which is the main bed.

The same pattern chart organized as a 1 x 1 rib for a machine with the front bed as main bed would look like this:

The FNR version, however, could be portrayed like this irrespective of whether the front or back bed is the one which has been programmed, to show that all needles on both beds are in working position. Using the double-bed symbols rather than two lines of needles in working position indicates that one of the beds has been racked to half pitch.The programming will control the needle selection for tucking on the main bed:

However,if you need specific instructions for both beds, you could show the pattern like this:

Tuck on Back bed

Tuck on Front bed

Textured Transfer Pattern

This pattern is knitted with the ribber bed at half pitch and involves transferring stitches from the ribber to the main bed before knitting the next row. On the next row, new needles are brought into working position and when the carriage is passed across, these needles will pick up a loop which on the next pass will be knitted. The symbols used below are a suggestion as to how such a pattern could be charted using the available symbols, however, in order to be absolutely clear as to their meaning you might want to edit the text instructions or change the abbreviation for your chart key.

The purl side is the front of the fabric, and that will be on the main bed which knits every needle, but whether this is the front or back bed will depend on your machine and your preference - and of course if you are using automatic transfer, the direction in which the transfer carriage operates. For Japanese machines, this is from the front (ribber) bed to the back.

The two charts are annotated with the following callouts:

Top chart:
- Bring these needles forward to working position before knitting row
- Transfer these front bed stitches to back bed *and return needles to NWP*
- Starting needle arrangement: some needles on front bed are in non-working position
- Full Needle Rib setting

Bottom chart:
- Bring these needles forward to working position before knitting row
- Transfer these front bed stitches to back bed *and return needles to NWP*
- Starting needle arrangement: some needles on front bed are in non-working position
- Full Needle Rib setting

Simple Pin-tuck patterns

Pin tucks are created on double bed machines by knitting more passes on all or some of the needles on one bed than on the other. This creates a highly textured pattern. In spite of its name, pin-tuck patterns are usually created using a slip, or missed, stitch technique on the ribber bed and knitting either all the needles on the main bed or using a selecting pattern.

This simple pattern consists of knitting on both beds for four rows, then four further rows on the main bed only (i.e. the second bed is set to slip in both directions on these rows).

Knit all rows on Back bed, knit 4 rows, slip/miss 4 rows on Front bed

Knit all rows on Front bed, knit 4 rows, slip/miss 4 rows on Back bed

Programmed Pin-tuck patterns

This example is for a slipped pin-tuck pattern where the main bed is programmed. The beds are set at half pitch for Full Needle Rib and all needles on both beds are in work. The main bed slips stitches according to the pattern downloaded and, of course, all the floats are trapped between the beds. The front of the fabric is produced on the bed which is programmed to slip.

This is the pattern which is downloaded to domestic machines:

When the rear bed is programmed, the chart looks like this:

When the front bed is the one which is programmed to slip or miss, the chart would look like this:

Combining Rib and Lace

You can combine double-bed techniques with lace, but for domestic machines, this will mean transferring the stitches manually as you cannot use the lace carriage when the ribber is engaged. You should not use the Lace Tool to draw the pattern if it is to be downloaded, as it will not be necessary to separate the lace pattern: if done manually, all transfers can be done before knitting the next row.

In this example, shown with three horizontal repeats, the beds are set at half pitch and all needles on the ribber bed are in work, but so that your stocking stitch lace can stand out against a purl background, some needles may be put into non-working position on the main bed after transferring the stitches to the second bed.

Double-bed machines, including the Passap, do not transfer the stitches horizontally in one operation like the single bed Japanese machines, but take them first to the opposite bed and then back to the original bed, as indicated by the transfer symbol.

This example has the lace pattern worked on the back bed:

Needles knit on both beds at half pitch

Needles knit on front bed only

Transfers: move stitches on the back bed to the next needle in the direction indicated.

Transfer these stitches from the back bed to the front bed, and place back bed needles in non-working position

Set front bed at half pitch

This is the same pattern, but the lace is worked on the front bed.

Needles knit on both beds at half pitch

Needles knit on back bed only

Transfers: move stitches on the front bed to the next needle in the direction indicated.

Transfer these stitches from the front bed to the back bed, and place front bed needles in non-working position

Set front bed at half pitch

TIP

You can also work ribbed lace patterns with the beds set a full pitch, but you must make sure that if a needle is in working position on one bed, its opposite needle on the other bed must be in non-working position.

Double-bed Jacquard

Whilst DesignaKnit can separate a Jacquard pattern according to the method selected, it takes no account of whether the pattern is to be knitted on a single or double bed machine, leaving the choice to the user along with the needle setup on the second bed.

Using the double-bed symbols, you can now indicate whether the pattern is to be full needle rib on every row or whether only specific needles are in work, and whether the needle setup changes. Whilst you cannot download this information to a domestic machine, an accompanying chart is useful for your own records or to indicate to another knitter or technician how you want the back of the fabric to be formed.

The number of passes per row on the main bed will depend on the method, which is based on the maximum number of colors per row, and whether, if rows do not always have the full number of colors, any have been suppressed. However, it is highly unlikely that you will need to show the second bed needle arrangement for every pass or even every pattern row or pair of rows. It is more likely that either the needle arrangement will be the same throughout or that any changes will occur on a regular basis, so you can show one set of instructions and indicate, if necessary, that they are to be repeated.

Some machines have an automatic setting on the ribber bed which knits alternate needles only in each direction, giving a bird's-eye effect for the reverse of the fabric. Whilst you may not need to do any manual selection, you may wish to keep a record of how that pattern was set up for the machine. If the pattern doesn't change during the knitting, it will suffice to show the set up only at the beginning of the chart:

This shows how the needle selection would work when the back bed is the one which knits the main jacquard pattern. On the front bed, alternate needles knit on one row and slip on the next.

The same pattern knitted on the front bed shows how all the needles on that bed are knitted on every row, but on the back bed alternate needles know on one row and slip on the next.

If you don't want a fully interlocked fabric, you can reduce the finished weight by taking needles out of work on the ribber, and you can indicate which needles are active either by leaving the inactive cells blank on the chart or by using the needle symbols to show which ones are out of use. If you have more than two colors per row, you can slip some rows entirely on the second bed, but the floats created by the pattern will be trapped by the colors which are knitted. The examples below show how you could indicate how to set up a 3-color jacquard pattern - all needles on the main bed are in work, but only every 5th needle on the second bed which are slipped for four passes of the six required to produce the pattern, and knitted on the other two.

This example has the pattern knitted on the back bed, with every fifth needle only in work on the ribber.

This example has the pattern knitted on the front bed, with every fifth needle only in work on the back bed.

Cut And Sew

"Cut and Sew" refers to a process whereby the pattern block, or shape, is cut out from a (usually rectangular) piece of fabric. This could of course be done by knitting the fabric then overlaying a paper pattern and cutting around the edge, just as you would in dressmaking, but using DesignaKnit's Cut and Sew feature, you can apply the block to the stitch pattern so that it is accurately placed and you can clearly see the cutting and/or seaming outline. Whether you are intending to use an overlocker, a sewing machine or to hand-sew the pieces, there are a number of ways in which the block can be outlined and/or outfilled to suit your purpose.

Cut and Sew is particularly useful for double-bed Jacquard patterns not just because shaping as you knit is sometimes impractical, especially for necklines, but also because keeping a consistent number of needles in use allows you to keep a consistent tension throughout the knitting and the same is true for patterns knit with the Brother/KnitKing Garter Carriage. It is also useful for single bed patterning, not just for tension issues, but for speed of production. It is not suitable for fully fashioned shaping. Seams usually have to be overlocked to prevent unraveling, which makes a bulkier seam, but this is not always necessary, especially if the yarn is woollen-spun or the finished project will be felted.

For Hand Knitting, you can use the 'steek' technique for Fair Isle knitting. This is a traditional technique used for jumpers or cardigans which are knit in the round, but instead of reverting to flat knitting once the armholes have been reached, circular knitting continues, filling the armholes with bird's-eye which is then cut when the sleeves are in place, whether they are joined with a seam or picked up and knit downwards.

Preparing a Cut and Sew Pattern

First, you need to have the stitch pattern you want to use open in Stitch Designer. If necessary, use the Check menu to make sure that there are no pattern errors which should be corrected before continuing.
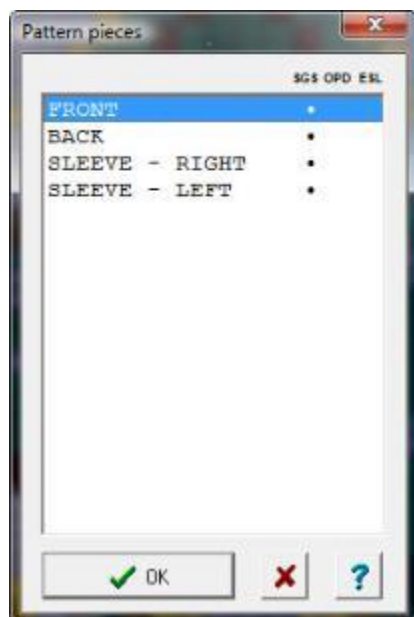
Select **Shapes/View Piece**. If you have not already opened a shape file, selecting this option will open the Shapes Thumbnails Browser so that you can find the pattern you want to use.

Alternatively, you can click on the **View Piece button** on the top Tool Bar.

The next dialogue will ask you to choose which piece you want to work with. The pieces have to be processed separately as each one will form a unique pattern.

Highlight the first piece you want to work with, then click OK.

Click on the Move Piece button and move the block until you have it positioned where you want it on the stitch pattern.

When you are ready, select **Shapes/Cut and Sew**.

You may then be prompted to save changes to the stitch pattern file. If you choose yes, you will be offered the opportunity to save it with a new name. You can of course overwrite the existing file, or you may opt not to save the changes. If you have not made any alterations to the stitch pattern itself, the changes referred to may just be the number of repeats shown to accommodate the shape. Next, you will be warned that the position of the piece(s) has changed and

asked if you want to save this information with the shape file. You will then see the piece dialogue again so that you can confirm the piece you want to work with.

The next dialogue offers a number of options for creating the new Cut and Sew stitch pattern:

In the **Selection of Color** box you choose whether to mark the Cut and Sew area in the default colors chosen by DesignaKnit as most appropriate, or in left/right mouse button color.

T I P

Use the LMB/RMB option only where the color assigned to those buttons is used throughout the pattern (as in multi-color Jacquard with no suppressed rows). It should not be used for Fair Isle where several color changes occur throughout the pattern since this will cause a third color to mark the outline in some areas.

Selection of Outline or Fill provides 5 different options:

Outline marks a single stitch/row outline around the outside of the garment piece leaving the stitch pattern as it is everywhere else.

Birds Eye Outside produces a 1x1 birds eye pattern all around the shape, providing a clear marking with stable edge stitches where Fair Isle knitting is produced.

Fill Outside produces a plain fabric outside the shape edges.

Fill Inside/Outside is useful if you want part of the Jacquard shape to be knit in plain Jacquard using the same number of colors per row as the patterned fabric.

Side Edges (end needle selection) marks the last stitch around the inside edges of the shape. It is used for pieces which are to be shaped in the traditional method (increasing and decreasing) rather than cut and sew. This function is very useful for machines with no automatic end needle selection. It provides a very neat edge stitch, and ensures that both yarns are carried right to the edges of the fabric when knitting in Fair Isle. For tuck and slip stitch it will ensure the end needles knit throughout. It should only be used after inverting needle selection, if you are inverting them , otherwise the end needles will tuck or slip continuously!

T I P

If you want to crop the pattern to fit the width/length of the piece before setting the Cut and Sew fill, position the piece where you want it on the pattern and then click the Redefine button on the side tool bar

Using Cut and Sew for Machine Textured patterns.

Although Cut and Sew is most useful for multi-colored Jacquard, you can also adapt it for textured knitting, such as weave, slip or tuck, and it is especially useful for double-bed work or knitting produced with the automatic garter carriage.

Because you will be knitting with one color per row, and therefore need to define the outline in texture, the process takes a little more time, but is not difficult.

First, open the shape file, select the piece and place it where you want it to be. You should then save the shape file so that the position is remembered, then save the stitch pattern with a new name (File/Save As) so that you don't lose the original pattern.

Whether you only have one yarn, or are working in stripes of two or more colors, you must now make sure that your palette contains one additional color which contrasts well against the other colors - this is so that you can see the markings of the outline clearly while you work. Set this color as the RMB color. Save the stitch pattern.
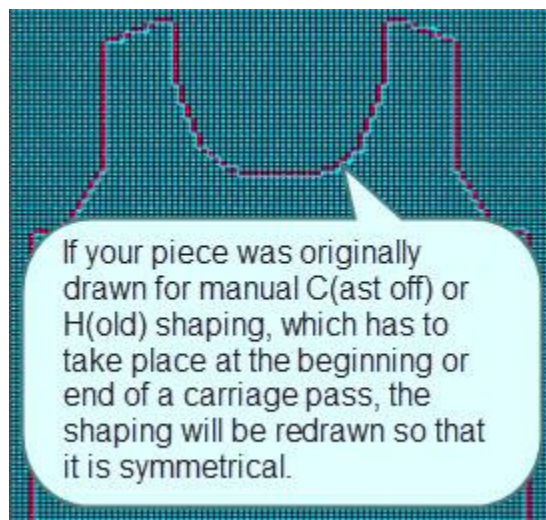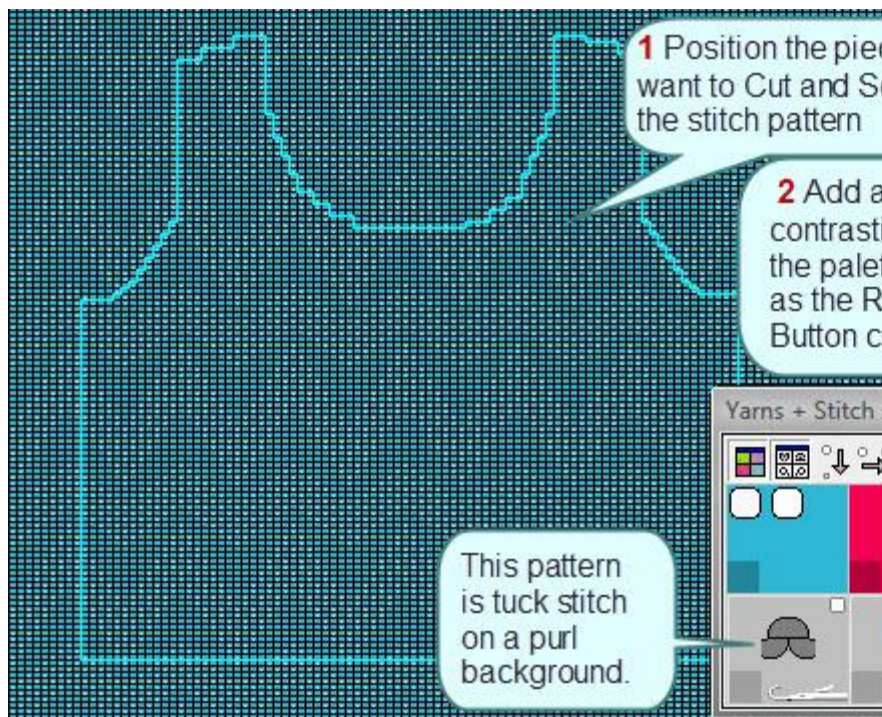
Next, select **Shapes/Cut and Sew** and make sure that **Default color** and **Outline** are selected.

It is advisable to select a **Border size** of at least 4 stitches - you can always remove stitch columns later on, but it's a good idea to have a little extra room to work.

When you have made the selections, click on **OK**.

DesignaKnit will draw a line in the contrast color around the edge of the piece.

Now, select the **Fill Tool** - and make sure that the option not to flood diagonally is selected:

The next stage is to change the color beyond the outline to the contrast color. Click anywhere in that area with the *Right Mouse Button.*
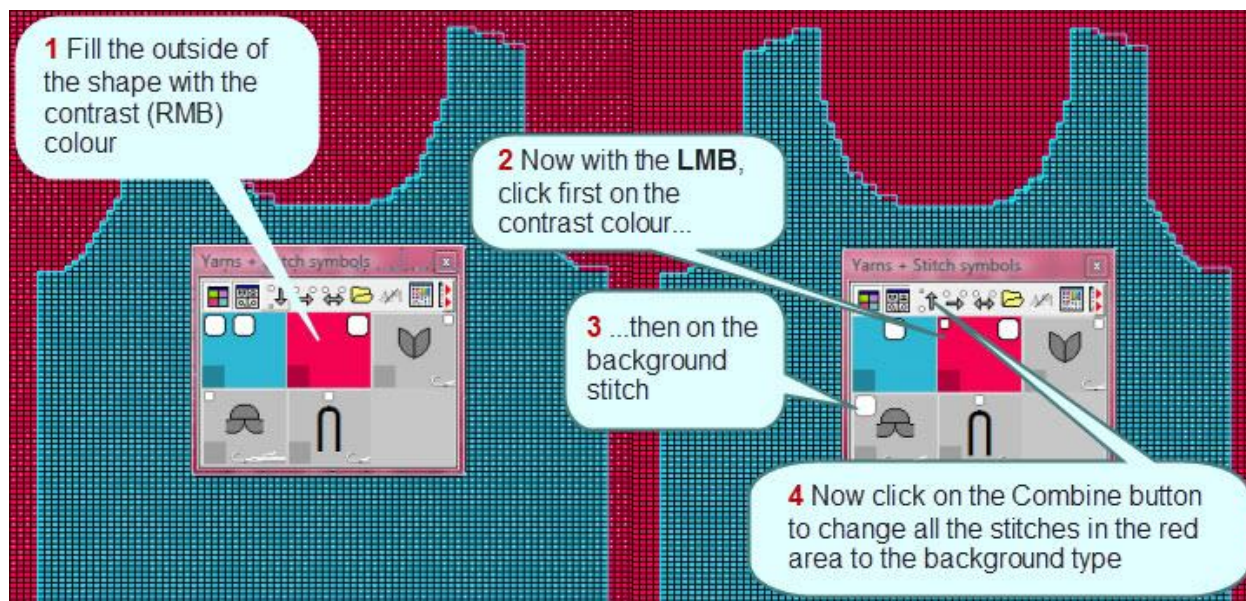
Now that the area is a different color from the main pattern, you can use the Combine feature to change any stitch types outside the piece to the background stitch - in this example it will be the Purl stitch. Click first on the contrast color to make it the LMB color (it doesn't matter if it is also the RMB color), then click on the main stitch with the LMB which will make the active LMB feature. On the palette tool bar, click on the **Combine** button.

The next thing to do is to change the temporary contrast color back to the main color: click on the main color with the LMB, then on the Replace button on the palette tool bar, or you can use the fill tool with the appropriate button to flood the area.

If your pattern is worked in stripes, you must make sure that the plain area surrounding the shape is striped in the same way. You can either use the drawing tools to achieve this, or you can make use of the selection box and the replace tool to change the temporary contrast color to the knitting color.
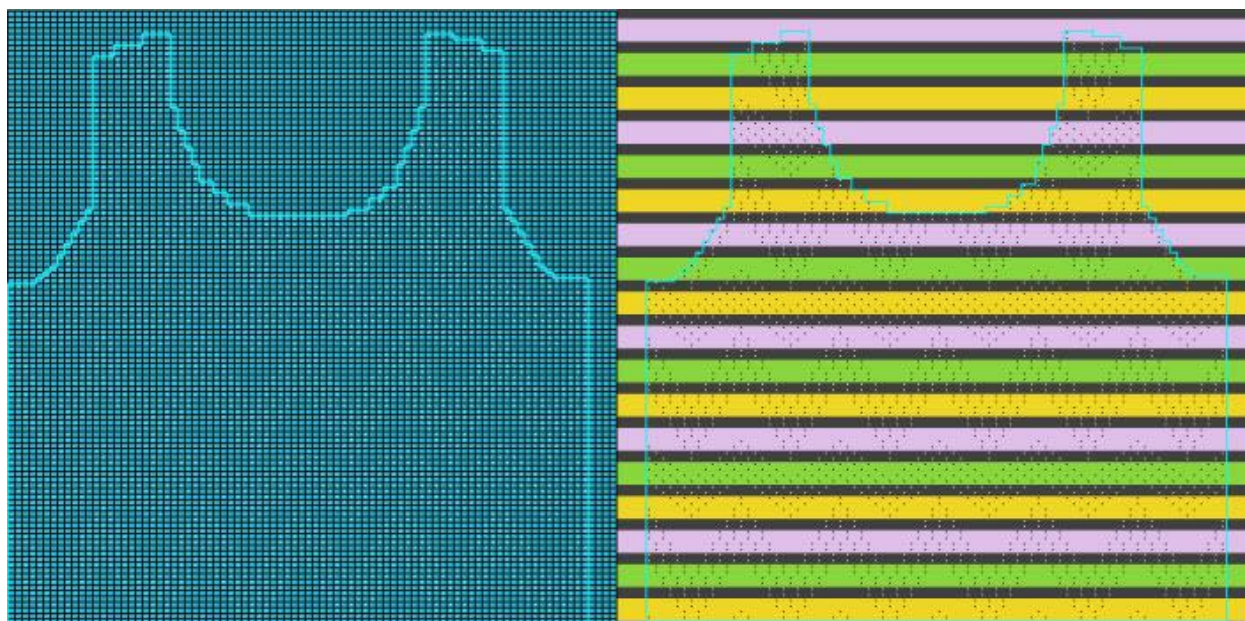
If you then want to trim the side and top edges, you can use the Delete button on the main tool bar - Right Mouse Button to remove stitch columns and Left Mouse Button to remove rows.

Tuck and Slip techniques do not usually give a hard edge to the shape - as demonstrated in the examples shown, because unlike color-only patterns, tuck and slip stitches cannot be used across an entire row or stitch column, but you move an edge needle to non-working position to help define a vertical edge. For garter stitch patterns, you could use the line tool to draw a single or double line of contrast stitches around the edge of a piece. If you find the stitch pattern does not give a sufficiently clear sewing outline, you still have the option of printing the garment shape outline pattern - or the relevant pages - at full size.

Symbols For Hand Knitting

Symbols are essential for producing charted designs, whether for personal use or publication and the KnitWriteDK font provides a range of symbols to represent a wide variety of stitches and techniques while creating patterns in Stitch Designer. Once the pattern has been created, apart from being able to print such a chart, DesignaKnit can use the information associated with the symbols - abbreviations and instructions - to produce row-by-row text instructions. These can either be printed direct from DesignaKnit or pasted into a word processor for further editing.

Most of the characters in the font are designed to represent specific knit procedures, but some have special functions which control the way in which the text instructions are generated.

Key To Understanding And Using The Stitch Symbols

Everything a hand knitter does to a stitch, whether it is worked individually or combined with others, must be either a knit or purl technique, determined by whether the yarn is at the front or back of the work and whether the direction from which the working needle is inserted into the stitch or stitches. If a stitch is not worked, and it has not been cast off, it must still be transferred to the working needle by slipping it across, either purlwise or knitwise depending on whether you wish to maintain or change the 'twist' on the stitch.

The logic behind the symbols is predicated on the idea that on a given row it would be *expected* that a stitch or stitches should be approached either knitwise or purlwise and that the opposite techniques is therefore *unexpected*.

This means that basic *expected* stitch does not need a symbol at all. So, for instance, if you are knitting a plain stocking stitch piece on two needles, with the front of the fabric facing you, you will expect to work knit stitches all across the row, so the loop falls to the back of the fabric. Then, when you turn the work to start the next row, you expect to purl all the way across, so the loop falls towards you.

Following this line of reasoning, you only need symbols for *unexpected* stitches. These will fall broadly into two groups:

1. Stitches which are worked in the opposite way to the expected stitch, such as a purl stitch on a knit row or a knit stitch on a purl row. These stitches are indicated on the chart with the dot symbol: • so that they contrast with and are easily recognized against the blank cells representing the expect stitch.

2. Other types of stitches, such as those worked through the back of the loop, increases, decreases and all other techniques which are not basic knit or purl stitches. The majority of these can also be worked either knitwise or purlwise, so can also be categorized as expected or unexpected, according to the expectation for that row. Thus a symbol is required to show that something other than a basic knit or purl stitch is to be worked and the addition of a • to such a symbol indicates that the stitch or stitches are worked in the unexpected way.

This is considerably less complicated than it sounds! For the majority of knitting projects the Stocking Stitch method is appropriate and conforms to most charting conventions, but there are always exceptions to this rule, and you have the choice of using one of the other methods if the resulting chart is more readily understood.

- Read more about Stitch Type Symbols
- Read more about Symbols for Increasing and Decreasing
- Read more about the Smart Symbols with Special Functions

Smart Symbols For Hand Knitting

Some of the symbols in the KnitWriteDK font have special functions which control how DesignaKnit reads the pattern and how the pattern text is generated.

There may be occasions when you want a stitch to be skipped over in the pattern text, perhaps because it has been incorporated into a decrease, or will not exist until it is created in an increase procedure - or because the symbol and associated instruction on a specific stitch cell refers not just to that stitch but to adjacent ones too, in which case, you would not want DesignaKnit to interpret them individually. For these situations, there is the "no stitch" symbol.

If you are knitting short rows, you would want to prevent DesignaKnit including instructions for the stitches beyond this, and you also need the pattern for the return row to begin in the correct place, and to be able to re-introduce the "held" stitches keeping the pattern correct. KnitWriteDK has some special characters to do just this.

For "multi-stitch" procedures, such as wrapping stitches, or other complex knitting instructions which refer to a contiguous group of stitches, you can bracket the group and apply a single instruction to refer to that group.

'No Stitch' Symbols

A pattern or pattern repeat will be based on a specific number of stitches, and in most cases this number remains constant throughout, with the overall number changing only according to shaping instructions. However, some stitch patterns involve increasing and decreasing across the row and whilst the majority will balance so that the increases are balanced by the decreases, for some patterns it may take one or more rows to return to the base number.

Thus, when you set the number of stitches for your pattern or pattern repeat, as you cannot vary the number of stitch cells, you will need to specify the maximum number of stitches. In order to show on a chart that certain stitches columns are not active - i.e. do not yet exist, or are temporarily removed, you can choose either or both of these two symbols:

When DesignaKnit reads the pattern for the Pattern Text printout, the stitch with the 'no stitch' symbol is omitted, so that the pattern is correct as in this example which alternates between eight and nine stitches in a row:

Row 1:(RS) K1tbl, P1, (YO, K1tbl) twice; P1, K1tbl, P2tog.
Row 2:(WS) SSP2tog, K1, P1tbl, (P1tbl, K1) twice; P1tbl.
Row 3:(RS) (K1tbl, P1) twice; (YO, K1tbl) twice; P2tog.
Row 4:(WS) SSP2tog, (P1tbl, K1) three times; P1tbl.

If you use a symbol which refers to two or more adjacent stitches, you may need to use a 'no stitch' symbol to prevent DesignaKnit including all those stitches in the text, as well as making the procedure clear on a charted pattern.

Row 1:(RS) K1, TwL, K1, TwR.
Row 2:(WS) P6.
(Repeat Rows 1 and 2)

Without the 'no stitch' symbol, the text for Row 1 would read: K1, TwL, K2, TwR, K1, which is incorrect because the Twists use two stitches.

You can also use these symbols to indicate stitches gained or lost through increasing or decreasing. The following example illustrates a modular technique, whereby a central double decrease is used to form a square or rectangle. You can then choose to place the 'no stitch' symbols so that they represent the exact stitches which have been removed, or to arrange them so that they better reflect the overall shape. In the examples below, you can see that although the positioning of the 'no stitch' symbols is different, their number is consistent and so is their symmetry, so the text printout is identical.

Row 1:(RS) K9.	Row 1:(RS) K9.	Row 1:(RS) K9.
Row 2:(WS) P9.	Row 2:(WS) P9.	Row 2:(WS) P9.
Row 3:(RS) K3, S2KPSSO, K3.	Row 3:(RS) K3, S2KPSSO, K3.	Row 3:(RS) K3, S2KPSSO, K3.
Row 4:(WS) P7.	Row 4:(WS) P7.	Row 4:(WS) P7.
Row 5:(RS) K2, S2KPSSO, K2.	Row 5:(RS) K2, S2KPSSO, K2.	Row 5:(RS) K2, S2KPSSO, K2.
Row 6:(WS) P5.	Row 6:(WS) P5.	Row 6:(WS) P5.
Row 7:(RS) K1, S2KPSSO, K1.	Row 7:(RS) K1, S2KPSSO, K1.	Row 7:(RS) K1, S2KPSSO, K1.
Row 8:(WS) P3.	Row 8:(WS) P3.	Row 8:(WS) P3.
Row 9:(RS) S2KPSSO 1.	Row 9:(RS) S2KPSSO 1.	Row 9:(RS) S2KPSSO 1.
Row 10:(WS) P1.	Row 10:(WS) P1.	Row 10:(WS) P1.

This means that, as with this example, as long as the 'lost' stitch is accounted for, it doesn't actually matter where in the row the 'no stitch' symbol is placed, which in turn means that you can arrange the symbols on the next row so that it is clear what the effect is - because the yarn-overs and decreases distort the pattern, unless you can see what type of stitch is presented from the row below, you would not be able to keep the pattern correct.

The examples above all illustrate situations where the stitch count across the row decreases, but you can also use no stitch symbols to keep the graph correct when stitches do not yet exist, but will be included when an increase technique is used

If you don't get the text results you expected, check that the number of 'no stitch' symbols is correct and, especially where the pattern or procedure is not symmetrical, you may have more success if you place the symbol on the first stitch of the sequence and the no -stitch symbol(s) immediately afterwards - in which case you should take account of the direction in which the row is to be read.

Stop

Short-row Knitting

Whilst it is possible to set the outside edges of shapes to 'hold' for short-rowing, it is not possible to do this for internal shaping. Instead, you can use special stitch symbols to indicate when to turn the work on short rows within a stitch pattern in order to create both charted and pattern text. You do, however, need to bear in mind that the row count on the shape piece, whilst it will be correct on the outside, the internal row count will not be accurate and you will need to take this into account when putting together pattern instructions.

Turn symbols:		to be placed on the stitch *after* the last stitch to be worked on a row being read from right to left		to be placed on the stitch *after* the last stitch to be worked on a row being read from left to right
Start return row symbols:		If the first stitch on the return row (reading left to right) is *not* the one above the last worked stitch, use the arrow on the stitch before the first stitch		If the first stitch on the return row (reading right to left) is *not* the one above the last worked stitch, use the arrow on the stitch before the first stitch

When DesignaKnit generates the pattern text it will read the pattern up to the stitch before the Turn mark, give the instruction to Turn and will ignore any pattern beyond the Turn mark, which makes it unnecessary to use any 'no stitch' symbols.

For the return row, unless directed otherwise, DesignaKnit will start to read the pattern from the stitch above the last stitch worked.

The instructions for this chart, starting at the bottom right hand corner with a right side row (stocking stitch method) will read:

Row 1:(RS) P1, K1, P3, K1, (K1, P1) three times; K1.
Row 2:(WS) (P1, K1) twice; (P1, K2, P1) twice; K1.
Row 3:(RS) P3, K1, (K1, P1) three times; K1, Trn.
Row 4:(WS) P1, (K1, P1, K1) twice; P2, Trn.
Row 5:(RS) K1, (P1, K1) three times; Trn.
Row 6:(WS) P1, K2, P1, K1, Trn.
Row 7:(RS) K1, P1, K1, Trn.
Row 8:(WS) K1, P1, Trn.

The next row then starts picking up the held stitches:

Row 9:(RS) P1, K1, P1, Trn.
Row 10:(WS) K1, (K1, P1) twice; Trn.
Row 11:(RS) (P1, K1) three times; K1, Trn.
Row 12:(WS) K1, P3, (P1, K1) three times.

In this version of the same pattern, pink is used to represent the held stitches.

Note that the stitch underneath the Turn symbol is *not* worked and the return row starts on the stitch *immediately above the last one worked*.

Unless you take steps to include instructions as to how to deal with the first stitch of the row after the turn, or how to rejoin, or meld the last stitch into the held stitches when working them back to the knitting, there will be a gap. You can fix this by using symbols for special instructions.

You override the default first stitch of the return row by placing an arrow symbol on the stitch *before* the knitting resumes. If there is no arrow pointing in the correct direction, DesignaKnit will default to the stitch above the last one worked on the previous row,

Row 1:(RS) P1, K1, P3, K1, (K1, P1) three times; K1.
Row 2:(WS) (P1, K1) twice; (P1, K2, P1) twice; K1.
Row 3:(RS) P3, K1, (K1, P1) three times; K1, Trn.
Row 4:(WS) s1P, (K1, P1, K1) twice; P2, Trn.
Row 5:(RS) s1P, (P1, K1) three times; Trn.
Row 6:(WS) s1P, K2, P1, K1, Trn.
Row 7:(RS) s1P, P1, K1, Trn.
Row 8:(WS) s1P, P1, Trn.
The next row then starts picking up the held stitches:
Row 9:(RS) s1P, K1, Meld-R, Trn.
Row 10:(WS) K2, P1, K1, Meld-RP, Trn.
Row 11:(RS) (P1, K1) three times; Meld-R, Trn.
Row 12:(WS) K1, P3, (P1, K1) three times.

Working Back - Avoiding the Gaps

If you're not careful, when working back, you can create gaps, holes or loose stitches if you don't take steps to prevent this happening.

A common way to overcome the problem of unwanted gaps when picking up held stitches is to wrap around the last stitch and pick this loop up and work together with the first held stitch. If you choose this method,you can edit the instructions for the symbols shown below, but you might prefer to use the methods already assigned to those symbols.

If you choose an alternative method, such as melding (combining) the last worked stitch with the first held stitch, either by working the final stitch together with the head of the stitch below the held stitch or by pulling a loop through the center of the stitch below, you can use these symbols to indicate the join. The ones with the curved tops indicate picking up the top of the loop (head) of the stitch, and the square symbols indicated knitting into the center of the stitch on the row below. The first of these is very neat indeed and works best if, when short rowing down, you slip the first stitch of very row purlwise.

Short Rows in Circular Knitting

If you are knitting in the round, you have to revert to flat knitting in order to shape using short rows.

If you place a Turn symbol, then even if you have set the method to Circular knitting and hitherto DesignaKnit has been reading the pattern rows in the same direction, it will read the next row in the opposite direction, and will continue to read in alternate directions as long as the Turn or Arrow symbols are used to change/confirm direction of the pattern. If, as in sock knitting, you then revert to knitting in the round, once you have stopped using the Turn or Arrow marks, DesignaKnit will continue to read the pattern as circular knitting, as long as the following rules are observed:

- The first Turn mark must be at the end of the first turn row (as in the examples above) and this row must also be one which will be a right side(front of the fabric) row once you change to flat knitting, because when you turn to knit back to the next turn mark, you will be working with the back facing you.

- The last Turn mark must be at the end of a wrong side row - this is so that the return row will be the right side, and therefore the front of the fabric and, if there is no Turn mark at the end of that row, DesignaKnit will assume that you have reverted to circular knitting

- If you are using Arrows to determine the first stitch of a flat-knitted short row, the last arrow must be at the beginning of a right side row and it should be the row following the last Turn symbol.

Multi-Stitch Pattern Elements

Some knitting patterns involve working several stitches to create a particular effect, but it may be neither practical nor feasible to treat the stitches individually. An example of this is a cable which involves crossing one set of stitches over another, so that they are worked in a different order. DesignaKnit has a collection of ready-made cables, and you can create your own in the Cables Organizer, but there are other types of multi-stitch procedures which you may wish to use in your design, such as wrapped stitches or multiple twists - or of course your own invention.

The KnitWriteDK™ font provides two pairs of brackets which you can use either on their own or to enclose symbols which help illustrate the pattern element you want to include in your design.

How to use Brackets

You must use the brackets in their correct pairs, otherwise DesignaKnit will not recognize that the enclosed stitches form part of a single instruction.

Use the text editor to attach the instruction for the entire pattern element to the first bracket: this will be the one that you will come to first according to the direction in which the row is to be read. For example, if this is to happen on a right side row, and the row is being read from right to left., then the instruction must be attached to the right hand bracket. If the row is to be read from the left, then attach it to the left bracket. Place the opening bracket on the first stitch of the pattern element and then place the matching closing bracket on the last stitch. If you want to use any symbols between the brackets to enhance the chart, you can choose whichever ones will provide the best illustration. When the text instructions are generated, DesignaKnit will apply the instruction attached to the opening bracket, and will ignore any text associated with the closing bracket and any symbols enclosed between the brackets - even if they normally generate an instruction.

Example:

The knitting method is flat knitted stocking stitch:

Wr5: Knit the next five stitches, then slip them onto a double-pointed needle, wrap the yarn 3 times around. Slip the stitches back onto the right needle.

Wr9: Using Red yarn, Purl the next 4 stitches, Knit 1, Purl 4, slip onto double-pointed needle wrap the yarn twice around, slip the stitches back onto the right needle.

The arrows show the direction in which the pattern is read.

Row 3 (RS): K3, P1, Wr9, P1, K4

Row 5 (RS) as Row 3

Row 8 '(WS): P3, Wr9, P2

The instructions for Rows 3 and 5 are identical -the Wrap instruction is associated with the rightmost bracket. DesignaKnit recognizes that there is a closing bracket and ignores that stitch and all the stitches enclosed within the bracket, so there is no need to apply any symbols to these stitches.

On Row 5, for the purpose of printing a chart, symbols have been added to help illustrate the procedure, to emphasize the contrast with the background.

On Row 8, this is a wrong side row, so as it is read from left to right, the Wrap instruction is added to the left edge bracket and DesignaKnit will read this and ignore all the other stitches up to and including the closing (right edge) bracket. The color and symbols are purely for decoration as all the information necessary is associated with the bracket.
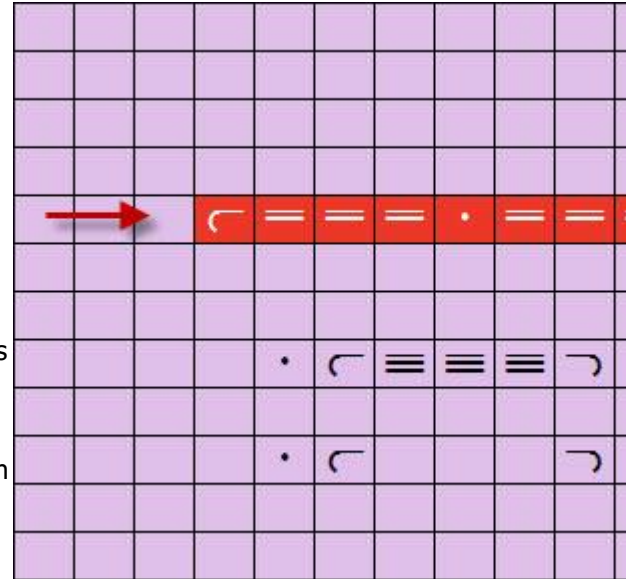
Because the knitting method is flat, this means that different instructions can be applied to each half of the bracket pair, and the first on encountered while reading across the row will be used, and the opposite half ignored.

These are valid bracket pairs
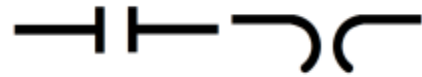
These are not valid bracket pairs. DesignaKnit would treat them as individual symbols.
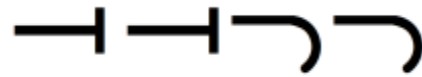
If DesignaKnit detects that there is no opposite bracket, then it will treat the bracket symbol as an ordinary one and apply whatever instruction is attached to it to the stitch beneath only, and will continue to read the pattern from the next stitch.

If you do not want to use the bracketed option, you should take care not to use opposing brackets of the same type in a single row when you are intending to generate text instructions from the symbols, or DesignaKnit will assume that you wish it to ignore the stitches between. You can of course use them as you wish for the purpose of creating a pattern chart.

AutoChart

This is a quick way of producing a symbols chart for a shape by redefining the pattern or pattern repeats to fit the shape piece but without having to integrate the shape file.

If you haven't already done so, open a shape file and select the piece you want to chart. Move the piece to the desired place on the current stitch pattern and click on **Shapes/AutoChart**. DesignaKnit will then surround the outline of the piece with 'no stitch' symbols and at the same time redefine the stitch pattern so that the single repeat begins at the first row of the shape piece, and then encloses it with a border of two stitches at the widest and highest points of the pattern. Notice that the title bar will have changed so that this is now an untitled stitch pattern, so you will need to save it: choose a different name to the original so that you don't overwrite this.

How to use Auto Chart to generate continuous text instructions for neckline sections

The principles here can be applied to any pattern which is knitted in sections, not just necklines.

If you were following the shape file knitting instructions for, say, the front of a V-neck sweater, DesignaKnit will tell you when you need to 'hold' the stitches for the second side of the neck, but this does not happen with Auto Chart, which will simply ignore the 'no stitch symbols' and, in the printed text instructions, carry on with the second side as if it were part of the first. This is fine when following a pictorial chart, but if you want coherent text, you need to spend a few more minutes preparing the pattern. The next stages are easier if the shape piece is still on view, so that you can clearly see the outline.

1. Extra Symbols: AutoChart will have added the no-stitch symbols to the palette, but there are a few more you will need:

   In the Stitch Symbols Organizer, when you have added these to the palette at the right hand side, click on the Text button and change the instructions for the brackets and cast off symbols so that the leading bracket for the right side row says "Place remaining stitches on a stitch holder" and the same for the leading bracket for the wrong side row. In the pattern example, right side rows are read from right to left and wrong side from left to right. For this pattern, the cast off symbol did not need a special instruction, so it was just changed to say Cast off for both sides. The pick up symbol was change to read just Pick up for both directions.

   When you have made the changes, click Apply and then close the text editor and click OK on the symbols organizer to update the palette.

2. **Highlight the no-stitch symbols**: these can make the outline look a bit unclear, especially if you are zoomed out, so it's a good idea to add a color to them - a color which is completely different from those used in the pattern and a really high contrast:

   Add a spare color to your palette. If it isn't already transparent, click on the transparency indicator to make sure it is.

Click on the 'no-stitch' symbol in the palette with the Left Mouse Button, then click on the new contrast color with the Left Mouse Button - this is now the active LMB element. Now, click on the Combine button. The arrow will be facing downwards to show that the color will be added to the symbol.
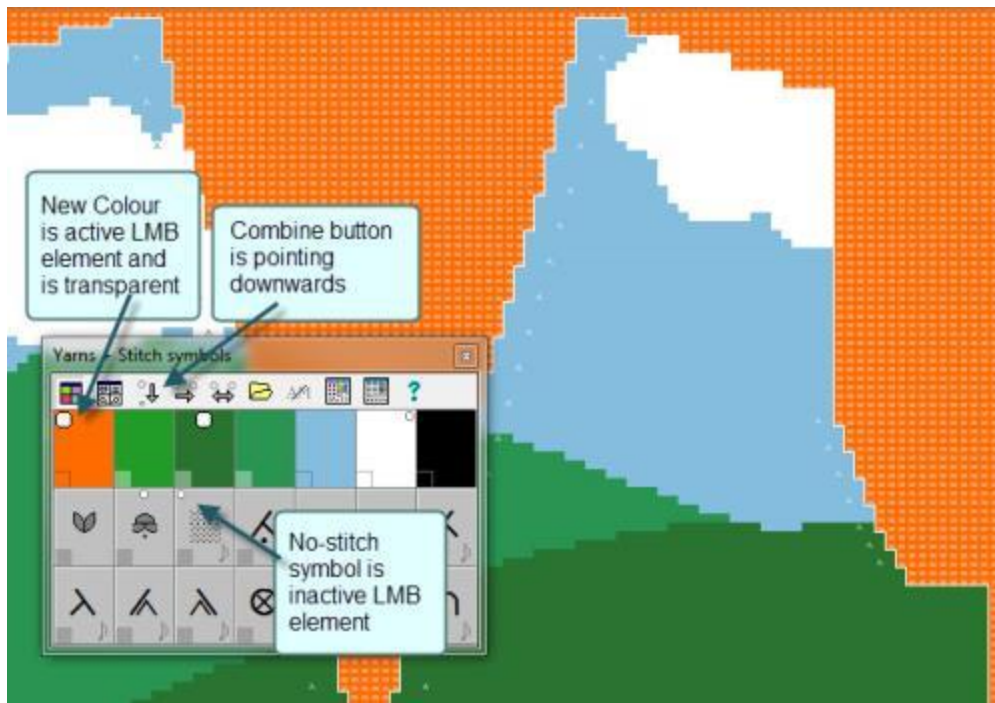
3. **Shaping Instructions**: If you haven't already done so, add any relevant shaping symbols the pattern.

4. Add cast off instructions: for cast off edges, the symbols must be placed along the top of the cast off edge - this is because they are actually the beginning of that row. To make things absolutely clear, when you've done that, change the color of the stitches underneath the cast off symbols to match the yarn you will be using.
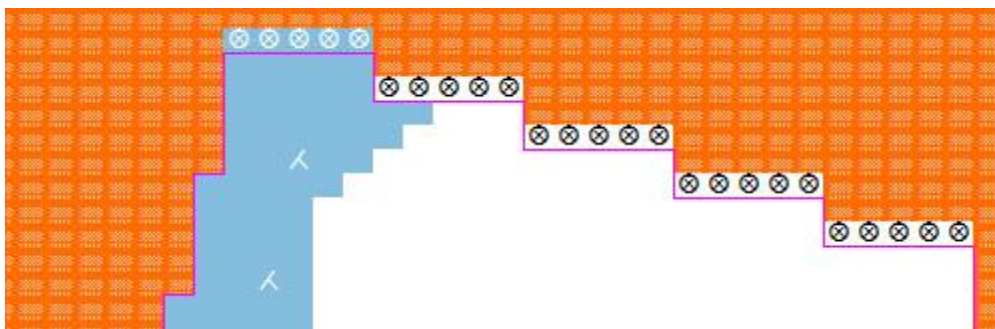
5. Now you need to add more rows at the top of the pattern. The quickest way to do this is:

   i. Click on the + at the bottom of the Repeats button to add one more vertical repeat.You will see that your piece is on the lower pattern repeat.

   ii. Click on the View Piece button to remove the piece from the pattern.

It's very important that neither the selection box nor the piece is visible before proceeding to the next stage.

iii. Click on the Redefine button ⬛ to render this a single pattern. (The zoom level will change to show both repeats, or as much as can be fitted onto the screen. If the new background you added has changed to white or black, it's because the no-stitch symbols are obscuring the color - don't worry, it will come back when you zoom in)

iv. Go to Edit/Select All - or press Ctrl+A- to place a box around the whole pattern. If you make this a tagged box, the next stage is quick and easy.

v. Pick up the tag at the center bottom of the box and move it upwards so that the top repeat of the pattern is fully enclosed, but make sure that none of the bottom part is in the box.

vi. Now, you need to make some adjustments to the palette:

    a. Click on the contrast color under the no-stitch symbols with the Right Mouse Button to make it the RMB color - and make sure it is transparent.

    b. Make sure that all the main background stitch (in this example, it's the knit stitch) is transparent, and the no-stitch symbol should be transparent too, but all the other symbols must be opaque.

    c. Make sure that all the pattern colors are opaque.

vii. With the box showing on the top repeat, go to Edit and select Clear Stitch Symbols.

viii. With the box showing still, go to Edit and select Clear Yarn Colors.

ix. The area inside the box should now be filled with the contrast color you chose and no additional stitch symbols.

x. Go back to the palette and select the no-stitch symbol and use the fill tool to fill the box area with this symbol.

6. Now, turn off the box and zoom in to your original pattern, so that you can see the neck section clearly.

7. On the row where you will knit to the center and then place the rest of the stitches on a spare needle, put an opening bracket on the first of those stitches - which one you use will depend on the direction of the row (use the mouse position gadget to make sure you're on the right row). Place the opposite bracket on the last stitch of that row, next to the first no-stitch symbol.

In this example this is an even numbered row, so is a wrong side (purl) row, read from left to right, so the leading bracket is this one, and the closing bracket is at the right.
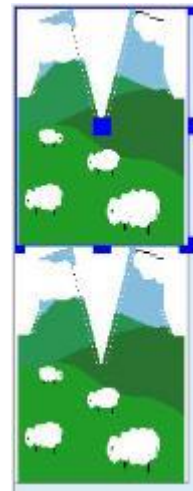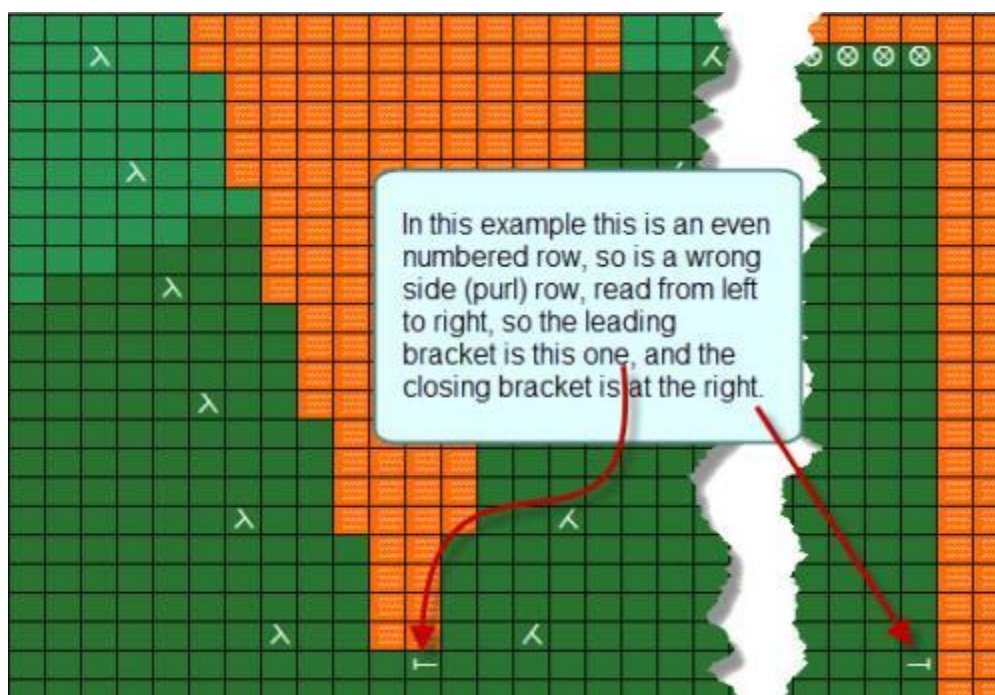
8. Next, draw a box around the section which will be held. In this case, it's the right hand side of the neck, starting from the row above the brackets and lining up the sides with the stitch columns above the bracket symbols. Using the tagged box will make it easier to be accurate.

9. Now drag the box into the empty area at the top of the pattern so that it rests with the bottom row on the same side - right or wrong - as it would have been if it had been left in place. This example was an even numbered row, so it needs to be an even row.

   It doesn't matter where you put it horizontally because the no-stitch symbols will be ignored in the pattern instructions.

10. Remove the box and to make sure that all the background is filled with no-stitch symbols, add the symbol to the color: this time, click first on the background color with the LMB, then the no-stitch symbol also with the LMB so that it is the active LMB element. The Combine button will be pointing upwards - click on it and the background will be filled.

11. Now draw a line of Pick-up symbols along the bottom row of the moved section or, if you have other symbols on that row, change the instruction to say just Pick up and place the line on the row underneath the pattern section, along the exact width of the section.

12. You can now trim the pattern so that there are no extraneous rows at the top - either use the

    Remove Rows button ▬ and drag down from the top with the left mouse button to remove the

    rows, or redraw the box around the pattern area and then click on the Redefine button 🔳.

13. When you come to print out the text for your pattern, the instructions the instructions for the sections will be separated and in the correct order. However, because DesignaKnit views this as a single stitch pattern, the row numbering will continue on from the first section. You can change this if you opt to copy the text to the clipboard, paste it into a word processor and change the numbers yourself.

This process might have seemed a bit long-winded, but with practise, it is in fact a lot quicker than reading this through!

Cables Organizer

The Cables Organizer is where you can find all the built in cable combinations and can set up your own variations. You can select from these the ones you want in the Cables Palette ready for placing in your pattern. To read more about cables and crossings, click here.
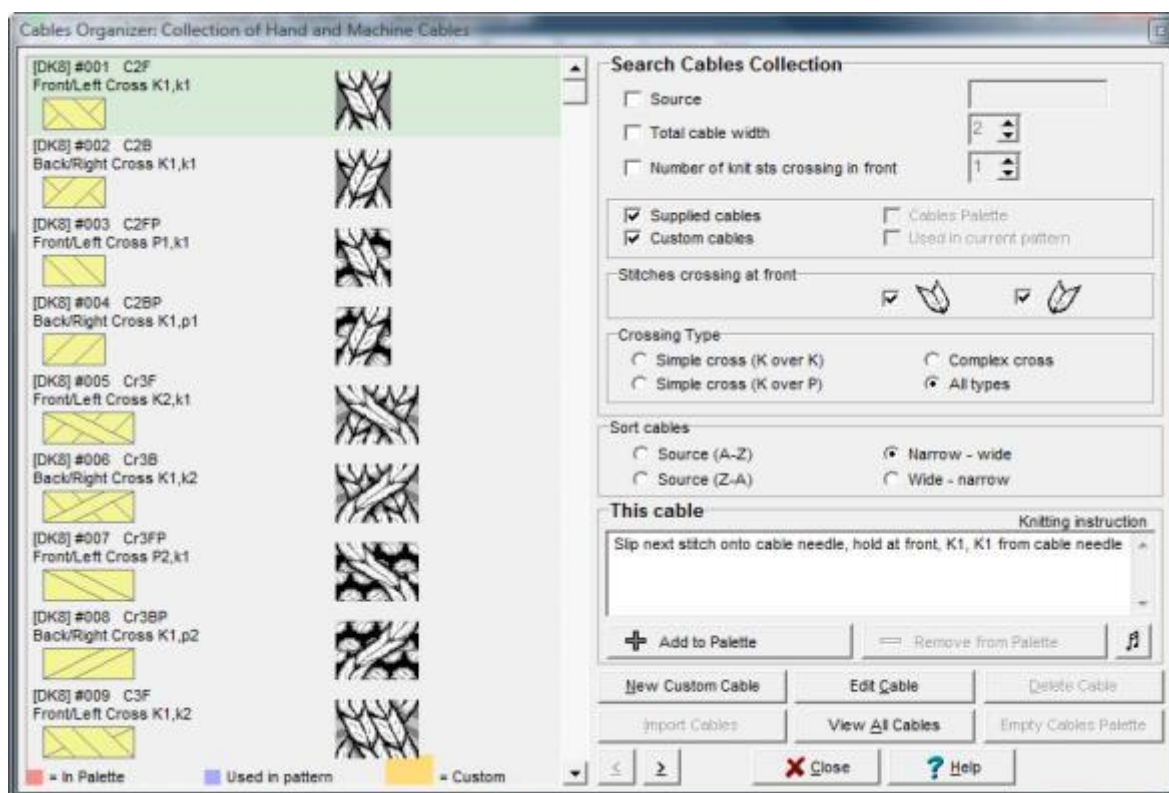
The left hand side of the Cables Organizer displays the cable crossings according to the search criteria. If there are more results than can be displayed on a single page, you can either scroll through them using the bar at the right of the illustration or you can use the arrow buttons just to the right of the lower scroll button to flip through the results a cable at a time.

When you place a cable on the pattern area, the Cables Palette will offer you the option of displaying either the graphic on the left, or the cable abbreviation in Symbols View. In Fabric View you will see the illustration shown on the right.

Searching for a cable

You can narrow down the search for cables by entering various criteria:

Source: If you have entered custom cables from a variety of sources, you can enter part or all of a specific source reference here. Left blank, all sources, including the default DesignaKnit collection will be included in the search.

Total Cable Width: You can confine the search to cables which cover a specific width - note that this figure includes all the stitches involved in the crossing.

No. of Stitches Crossing in Front: This does not define the entire width of the cable, just the stitches that will cross in front. Note that the supplied cables only have Knit stitches crossing in front, but the back ones can be knit or purl.

You are not obliged to select any of these options, but if you do, by default these three options are mutually exclusive so that if you select one, the others are automatically de-selected. However, you can override this and choose any or all of these criteria by holding down the Ctrl key while you select the options.

For example, if you know you want a 7 stitch wide cable, but you only want 3 stitches crossing at the front, then hold the Ctrl key down while you click on Total Cable Width and No. of Stitches Crossing in Front - you can then set the number to 3.

You can then further narrow the search by ticking one or more of the following options:

Supplied Cables: these are the cables which are supplied with DesignaKnit.

Custom Cables: these are the cables you have defined yourself.

Cables Palette: these are the cables which are contained in the current Cables Palette.

Used in Current Pattern: if the current pattern contains cable crossings, you can limit your search to these. This option will not be available if the current stitch pattern does not contain any cables.

Note that if you select Supplied or Custom Cables, and the Cables Palette contains crossings from that group, it will also show up in the search. When you look at the list of cables, you will be able to identify those in the palette, custom cables or those included in the current pattern according to their markings.
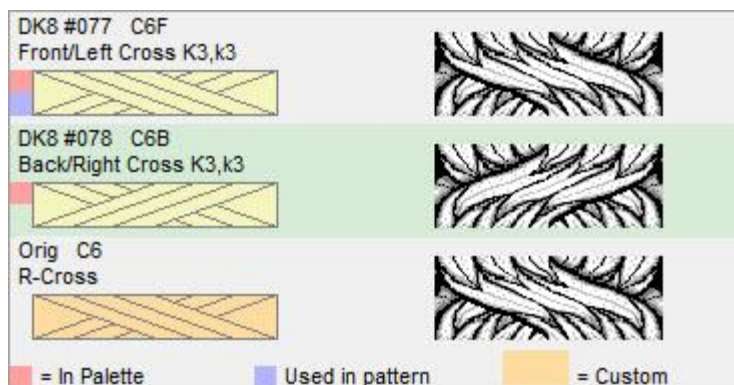
A pink square on the left indicates that the cable is **in the Cables Palette**

A mauve square on the left indicates that the cable is used **in the current pattern**

A pale orange graphic indicates **a custom cable**

A pale green highlight marks the **currently selected cable** - details are shown on the right of the dialogue.

You can clear all the search criteria by clicking on the View All Cables button at the bottom of the dialogue.

Sorting the cables

You can also choose to sort the cable collection and/or the search results according to the **Source** or the **Width**. Within those main categories, DesignaKnit shows the cables in the following order:

Source A —> Z

1. **Source Name**
   *All the included cables have (DK8) as the source, followed by the unique number of the cable. If these are included in your search, they will always be listed **first**.*

2. **Total width** (narrow to wide)

   1. **Simple Cables (K over K)**, Front/Left then Back/Right

   2. **Simple Cables (K over P)**, Front/Left then Back/Right

   3. **Complex Cables (K central column)**, Front/Left then Back/Right

   4. **Complex Cables (P central column)**, Front/Left then Back/Right

Source Z —> A

1. **Source Name**
   *All the included cables have (DK8) as the source, followed by the unique number of the cable. If these are included in your search, they will always be listed **last**.*

2. **Total width** (narrow to wide)

   1. **Simple Cables (K over K)**, Front/Left then Back/Right

   2. **Simple Cables (K over P)**, Front/Left then Back/Right

   3. **Complex Cables (K central column)**, Front/Left then Back/Right

   4. **Complex Cables (P central column)**, Front/Left then Back/Right

Narrow —> Wide

1. **Total width** (narrow to wide)

   1. **Simple Cables (K over K)**, Front/Left then Back/Right

   2. **Simple Cables (K over P)**, Front/Left then Back/Right

   3. **Complex Cables (K central column)**, Front/Left then Back/Right

   4. **Complex Cables (P central column)**, Front/Left then Back/Right

2. **Source Name** (A –> Z)

Wide —> Narrow

1. **Total width** (narrow to wide)

   1. **Simple Cables (K over K)**, Front/Left then Back/Right

   2. **Simple Cables (K over P)**, Front/Left then Back/Right

   3. **Complex Cables (K central column)**, Front/Left then Back/Right

   4. **Complex Cables (P central column)**, Front/Left then Back/Right

2. **Source Name** (A –> Z)

Cable Descriptions and Instructions

Each cable has an identifier which is shown in the text above the graphic symbol, to the left of the texture illustration. For more information on how this system works, click here.

The description is made up of three sections:

- **Source and Number**: e.g. DK8 #78. All the included cables have DK8 as the primary source and each has a unique number. If you add your own variations, then you can name these as you please and you can use this part of the identifier as a search term.

- **Abbreviation**: e.g. C6B This is the abbreviation which will appear in the text instructions printout.

- **Description**: e.g. Back/Right Cross K3,k3. All the included cables have a description which follows a defined system.

The **Source** and **Description** are not required for the chart or pattern text instructions - their purpose is solely to identify and categorize the cables, and to help you make sure that you have the exact cables you want in your pattern.

The **Abbreviation** is used for the text printout and is shown in the row by row knitting instructions. When a cable is highlighted in the cable list pane on the left, the full knitting instructions for that cable are shown in the pane on the right had side. This text will be shown in the key to abbreviations in the text instructions printout.

You cannot change the text for a supplied cable, so if you want to use that crossing, but have a preferred way of expressing how to achieve it, you can make a custom cable which has a copy of the graphic and the texture and you can write your own instructions.
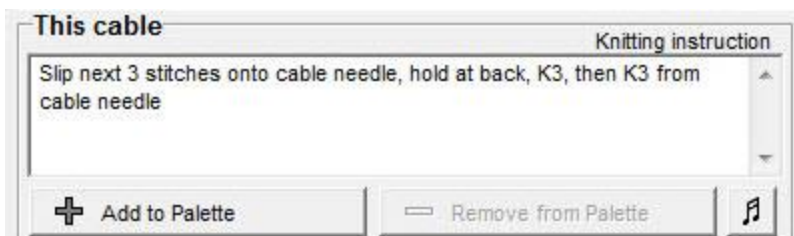
Creating a Cables Palette

Adding Cables to the Palette: click on the **Add to Palette button**. If the selected cable is already in the palette, it will be marked with a pink square to the left of the symbol and the Add to Palette button will be disabled.

Removing Cables from the Palette: click on the **Remove from Palette button**. If this button is disabled, it is because the cable is not in the palette.

If you open a pattern which contains cables which are already in the Organizer list, but not in the current palette, DesignaKnit will warn you and ask if you want to add them to the palette. If you choose Yes, then it/they will be added to the palette without the need to open the organizer.

Audible Alerts

You can add a sound warning to a cable so that, if you are using Interactive Knitting, you will get a warning when you get to the row where the crossing occurs. This is primarily for machine knitters, but hand knitters have been known to follow the onscreen instructions too!

Select the sound you want from the list in the dialogue box.

Creating Your Own Custom Cables

If a cable type is not already included in the Organizer collection, you can add your own from scratch using the Custom Cable button. You can also import cables which are in a pattern you have obtained from another source.

Adding or Editing a Custom or Imported Cable

To add a new cable, click on the New Custom Cable button (or use the keyboard shortcut Alt+N) to start the process.

To edit an existing or imported cable, first select the custom cable you want to edit and then click on the Edit Cable button. Please note that you cannot edit the supplied cables. If you want to create a copy or a variation of a supplied cable, select the one you want and then click on the New Custom Cable button.

The dialogue will open showing the details for the currently selected cable (highlighted in green on the left of the Cables Organizer). If this is not the crossing you want to use as a base for your new one, you can change the details without having to close the dialogue by changing the criteria relating to width etc.

Enter the origin in the Source field. You will be able to search for cables using Source in the Cables Organizer, which will group identical sources together. (Max 10 characters)

Enter an abbreviation for the cable. This is the abbreviation which will be shown in the row-by-row text instructions printout. It does not have to be unique. You can invent your own abbreviation, or you can follow or adapt the cable abbreviation conventions used in DesignaKnit for the different crossing types. (Max 8 characters)

Enter a description of the cable: *this must be unique*. DesignaKnit cable descriptions follow a specific format - e.g. Back/Right Cross K5, k2. To differentiate between the cables or crossings, DesignaKnit includes the knitting instructions, with the stitches Knit from the main needle shown first (in the example in the picture above: K5 - note the capital K), followed by the number of stitches worked from the cable needle (k2 in the above picture - note the lowercase k). You can read more about this here. If you want to use the same description as a DesignaKnit, then you must do something to change the description, such as include your initials, or a number as a prefix. (Max 40 characters)

Set the Total Width of the Cable: if the total width is 12 stitches or fewer, DesignaKnit will give you the option (which you don't have to take!) of using one of the included bitmaps as a stitch texture. Whatever the width, DesignaKnit will produce a symbol to cover the chosen number of stitches when in chart view, or when printing a chart.

Set the number of stitches crossing in front and the direction: DesignaKnit will show these as Knit stitches if you choose a bitmap, but if you want these to be some or all purl, then you can opt not to have a bitmap texture.

Choose the kind of crossing from the list: Simple cables involve one set of stitches crossing over another. Complex cables have two sets of stitches crossing in front of a central column. If you choose Complex Cross, you will then be invited to specify the number of stitches in the central column and whether they are to be purl or plain. If your intention is to have both types, then you can make this clear in the instructions. Bear in mind that the instruction relates only to the actual row of the crossing maneuver, not to any previous or subsequent rows.

Select Graphic for texture: if the width of the crossing is 12 stitches or fewer, you can choose one of the supplied cable graphics to indicate the cable in fabric view. Click on the arrow to the right to view the drop-down list of cables which conform to the criteria you have set above. If you don't want to use one of these, then scroll to the bottom of the list and select 'None'. DesignaKnit will not try to show the actual cable, but you will show a symbol covering the width of the cable both in fabric and in chart view.

Enter knitting instructions: you have up to 500 characters to describe how to knit your cable or crossing - as you type, so you will see a countdown showing the remaining spare characters at the top right of this field. These instructions will be shown in full in the key to abbreviations in the text instructions printout.

Audible Alert: you can set up an audible alert if you want one. Click on the button and choose the sound you would like.

Save your Custom Cable: click Save to add the crossing to the list in the Cables Organizer. Once the cable is in the Organizer, you can access it at any time in the future - unless and until you choose to delete it. If you then want to use it now, after you have saved the cable, you can locate it in the Cables Organizer and then click on the Add to Palette button.

Note that if adding a new cable, the Save button will not be available until the essential information that DesignaKnit needs to list the cable has been entered into the dialogue.

Deleting Custom Cables

You cannot delete the supplied cables, but if you have no further use for an imported or customized cable, first find and select it in the panel on the left, then click on the Delete Cable button. If the button is not available, it is because the current selection cannot be removed.

Importing Cables from Other Patterns

This button is enabled only if DesignaKnit detects that the currently open stitch pattern contains one or more cables which are either not listed in the Organizer or conflict with ones that are. This will only happen if you have previously deleted the cable(s) from the Organizer list, or if you have opened a pattern which contains custom cables from another source or user.

When a pattern is saved, the information relating to any custom cables is saved with the pattern, so if this is then opened by another DesignaKnit 8 user, that information will be accessible and the new custom cable(s) can be added to the second user's collection.

DesignaKnit will activate the Import Cables button if:

- There is a new cable
- There is a cable with the same Description as one already in the Organizer, but the details differ.

To import the cable(s), click on the button. A window will open, showing all the cables that DesignaKnit does not recognize from the current Organizer collection.

Related Topics

Cables

Cables Palette

Print Stitch Patterns

Cables

DesignaKnit now has a collection of stitch crossings and cables which can be placed into patterns. You can add to this collection by creating your own custom cables. The various types of crossing or 'traveling stitches' are generally referred to in DesignaKnit as *cables* for simplicity's sake.

All the cables, both supplied and custom, are listed in the Cables Organizer. This is where you can set up the ones you need for your pattern by placing them in the Cables Palette, ready for use in your design, and where you can design and save new crossings.

The cables are listed according to width and type, but you can control various search criteria to include or exclude a variety of features to make it easy to find a specific cable, or to browse through a variety of crossings for inspiration.

All the supplied cables have abbreviations for use in a printed pattern and each comes with instructions on how to knit it.

Supplied Cables

The supplied cables range from simple 2-stitch wide crossings, to crossings totaling 12 stitches wide. All the supplied cables have a graphic which can be used in Stitch Symbols view and which can be used in a printed chart or, if you prefer the clarity, a box around the stitches involved showing the abbreviation. There is also a textured representation which can be used in Fabric View.

All cables supplied with DesignaKnit 8 have Knit stitches crossing in front, whether to the left or right, but the stitches crossing behind may be Knit or Purl.

 If you wanted to create a new cable, say, a crossing with purl stitches at the front, or ribbed stitches at the front or back, you can do this in the Cables Organizer. If the width of the cable is within the range of the supplied cables, then you can base this on an existing graphic if you wish (though the accompanying texture will not be strictly accurate) or you can leave it to DesignaKnit to generate a graphic which will indicate the number of stitches covered by the crossing and the direction and number of front and back stitches. You can also opt to show the cable as a boxed abbreviation.

Types Of Crossings And Cables

Even very complicated cable patterns tend to be made up of only a few different types of crossing, so there is generally little danger of duplicate abbreviations in one pattern. However, because DesignaKnit has a wide range of supplied cables, in an effort to keep the abbreviations as simple as possible, we have used a system of identifying cables and crossings which has resulted in some duplicated abbreviations. It is not very likely that you would find you have two different crossings which have the same abbreviation, but it is possible that this could happen: if it does, the remedy is to make a custom copy of one of them which would allow you to use the same graphic and symbol as well as the instructions, but supply your own abbreviation for the pattern text.

Whilst abbreviations may be duplicated, the actual cables are unique and so are their descriptions. If you make your own custom cables, you might want to follow the system we used for categorizing and describing the included cables.

The crossings are categorized as follows:

Simple Crossings and Cables:

Cables

Total width is an even number of stitches: half the number of stitches in the total width cross over the other half , so in a 6 stitch wide cable, 3 stitches will cross over the other 3.

Total width is an uneven number of stitches: the nearest number to half the width will cross over the other half. The number may be rounded up or down. Thus, if the total width is 7 stitches, either 4 stitches will cross over 3, or 3 stitches will cross over 4.

Abbreviations and Descriptions

Examples: **C6F**, **C6FP**, **C6B**, **C6BP**

C indicates a simple **cable**, as described above.

6: the figure here indicates the total width of the cable, in this case 6 stitches in all.

F or **B**: indicates whether the stitches slipped onto the cable needle at the beginning of the operation are held at the **Front** or **Back** of the work.

> E.g. as you look at the work, in hand knitting, the top stitches in a **Front** cross cable go to the **Left**, while those in a **Back** Cross , lean to the **Right**.

> For machine knitting, patterning on the back bed, stitches placed on the right hand transfer tool will cross in **Front** of or **Behind** those held on the left hand transfer tool, and the reverse for patterning on the front bed.

P: if the abbreviation terminates with a P, this indicates that the stitches *crossing behind* are to be purled. If Purl is not specified, then the stitches are to be Knitted.

The description of the cable also includes a quick way of interpreting the knitting instructions:

> **C6F: Front/Left Cross K3,k3**or **C6BP: Back/Right Cross K3,p3**-

> Following the abbreviation, the first part of the description tells hand-knitters whether the cable needle is held at the front or the back of the work - and this will reflect in the F or B of the abbreviation. Left or Right indicates the direction in which the front stitches travel as you face the fabric - so for machine knitters, the way in which you cross the stitches held on the transfer tools will depend on whether you have the front (right side) or the back (wrong side) of the fabric facing you as you knit.

> This information is then followed by two sets of knitting instructions separated by a comma: the first one tells you how many stitches to work from the main needle, which always happens first, and the second how many to work from the cable needle, and whether they are Knit or Purl stitches - thus by implication, this second group shows the number of stitches which should have been slipped onto the cable needle at the start of the operation. The main needle instruction is always uses a capital letter, and the cable needle a lower case one - the easy way to remember is that the small letter refers to the cable needle and the large one to the main needle! *Please note however, that knitting abbreviations are always capitalized in the main knitting instructions - this device of using lower case to indicate stitches worked from the cable needle is only to help codify the cable descriptions.*

> If you were to make a custom cable in, for example, rib, you might choose to use an abbreviation based on the one above (assuming it did not conflict with any other cable in your pattern), but using this format, the description might read **C6FR: Front/Left Cross K1 P1 K1, k1 p1 k1**.

Crossings

Total width is an even number of stitches: less or more than half the total number of stitches cross over the rest. Thus, in a 6 stitch crossing, this could be 4 stitches over 2, or 2 stitches over 4.

Total width is an uneven number of stitches: the number of stitches crossing in front is more or less than the nearest number to half the width. If the total width is 7 stitches, then this could be 2 stitches crossing over 5, or 5 crossing over 2, but not 3 over 4, or 4 over 3 stitches.

Where a combination is less likely to be used for practical reasons (e.g. unwarranted strain on the yarn or too much distortion of the fabric), such as 1 stitch over 6, or 6 stitches over 1, these have not been included, but if this is what you want for your stitch pattern, then you can make a custom cable.

Abbreviations and Descriptions

Examples: **Cr7F**, **CR7FP**, **Cr7B**, **CR7BP**

Cr at the beginning of the abbreviation indicates a **crossing** of an uneven number of stitches, as described above.

7 the figure here indicates the total width of the cable, in this case 7 stitches in all.

F or **B**: indicates whether the stitches slipped onto the cable needle at the beginning of the operation are held at the **Front** or **Back** of the work.

> E.g. as you look at the work, in hand knitting, the top stitches in a **Front** cross cable go to the **Left**, while those in a **Back** Cross , lean to the **Right**.

> For machine knitting, patterning on the back bed, stitches placed on the right hand transfer tool will cross in **Front** of or **Behind** those held on the left hand transfer tool, and the reverse for patterning on the front bed.

P: if the abbreviation terminates with a P, this indicates that the stitches *crossing behind* are to be purled. If Purl is not specified, then the stitches are to be Knitted.

The description of the crossing also includes a quick way of interpreting the knitting instructions:

> **Cr7F: Front/Left Cross K2,k5**or **Cr7BP: Back/Right Cross K5,p2**-

> Following the abbreviation, the first part of the description tells hand-knitters whether the cable needle is held at the front or the back of the work - and this will reflect in the F or B of the abbreviation. Left or Right indicates the direction in which the front stitches travel as you face the fabric - so for machine knitters, the way in which you cross the stitches held on the transfer tools will depend on whether you have the front (right side) or the back (wrong side) of the fabric facing you as you knit.

> This information is then followed by two sets of knitting instructions separated by a comma: the first one tells you how many stitches to work from the main needle, which always happens first, and the second how many to work from the cable needle, and whether they are Knit or Purl stitches - thus by implication, this second group shows the number of stitches which should have been slipped onto the cable needle at the start of the operation. The main needle instruction is always uses a capital letter, and the cable needle a lower case one - the easy way to remember is that the small letter refers to the cable needle and the large one to the main needle! *Please note however, that knitting abbreviations are always capitalized in the main knitting instructions - this device of using lower case to indicate stitches worked from the cable needle is only to help codify the cable descriptions.*

If you were to make a custom cable in, for example, rib, you might choose to use an abbreviation based on the one above (assuming it did not conflict with any other cable in your pattern), but using this format, the description might read **Cr7FR: Front/Left Cross K2 P1 K2, k1 p1**.

Complex Crossings

Crossovers

These are crossings where two sets of stitches cross in front of a (usually) central column of one or more stitches. The supplied crossover cables always have Knit stitches at both the back and front of the crossover, but the central column can be either Knit or Purl. They're called complex because they do involve a bit more maneuvering than a simple cross or cable, but once you've got used to the routine, they're really not that complicated!

As with the other types of cable and crossings, if you want purl stitches in the crossing, a wider background column, or one of both knit and purl, then you can specify a custom cable.

Abbreviations and Descriptions

Examples: **FCr8**, **FCr8P**, **BCr8**, **BCr8P**

To differentiate between the crossovers and the simple crossings and cables, whether the cable needle is held to the Front or Back is shown first, before the Cr, which in these instances stands for Crossover. Some of these crossings require two cable needles in order to place the crossing stitches in front of the background .

F or **B**: indicates whether the stitches slipped onto the cable needle at the beginning of the operation are held at the **Front** or **Back** of the work. As you look at the work, in hand knitting, the stitches in front cross to the left.

Cr: *after the F or B direction* indicates a *crossover* or *complex cross* where two sets of stitches cross in front of a central column. Working this type of cable, depending on the direction of the uppermost part of the crossing, will involve slipping stitches back from the cable needle to the main needle and/or the use of two cable needles.

7the figure here indicates the total width of the cable, in this case 7 stitches in all.

P: if the abbreviation terminates with a P, this indicates that the stitch(es) in the background column are to be Purled. If Purl is not specified, then the stitches are to be Knit.

The description of the crossover also includes a quick way of interpreting the knitting instructions:

Example: **FCr8: Front/Left Crossover K3(k2)k3**

> *Slip next 3 stitches onto cable needle, hold at front; slip next two stitches onto second cable needle, hold at back, K3, P2 from rear cable needle, then K3 from front cable needle*

As with the simple crossings, the first part of the description tells you where to place the cable needle holding the crossing stitches, in this case at the front of the work. Because this is a front crossing you will need two cable needles: first, three stitches are placed on one, which will be held at the front of the work - this is the front crossing element referred to in the abbreviation and description - then two stitches onto the other cable needle which will be held at the back and will form the central column.

The capitalized instruction tells you how many stitches to knit first from the main needle. The next (bracketed) instructions are for the central column, in this case they are knit stitches and as this is

a Front crossover, then these will have been placed on the second cable needle and held at the back. These stitches are worked next. The last set are the final crossing (knit) stitches which are from the first cable needle.

You can produce a similar result by slipping all the cable stitches onto one cable needle then, having knit the stitches from the main needle, slip the central stitches back from the left-hand end of the cable needle onto the main needle, work those, then work the rest of the stitches from the cable needle, however this is not the exact mirror of the back/right crossover, as the front crossing stitches do not lie flat over the central column, so you would be better advised to create a custom cable if that is what you want to do.

Please note however, that knitting abbreviations are always capitalized in the main knitting instructions - this device of using lower case to indicate stitches worked from the cable needle is only to help codify the cable descriptions.

Example **BCr8P: Back/Right Crossover K3(p2)k3**

> *Slip next 5 stitches onto cable needle, hold at back, K3, slip 2 stitches back onto left needle, bring cable needle to front, K2, then K3 from cable needle*

Again, the first part of the description tells you where to place the cable needle with the crossing stitches, in this case at the back of the work. Because this is a back crossing, all 5 stitches will be placed on one cable needle which will initially be held at the back of the work.

The capitalized instruction tells you how many stitches to knit from the main needle, then the lower case bracketed stitches are slipped from the left end of the cable needle back onto the main left needle, the cable needle is brought to the front of the work and held there while you work the two center stitches from the main needle, then you knit the last three stitches from the cable needle.

Cables Palette

Before you can use cables or crossings in your design, you must first choose the ones you want (or design your own) in the Cables Organizer.

Once you have placed cables in the palette they will remain there, across DesignaKnit sessions, until such time as you delete them, so you can store a range of frequently used cables if you wish.

When you are ready to add cables to your stitch pattern, click on the Cables Palette Button on the top Tool Bar.

Choosing A Cable
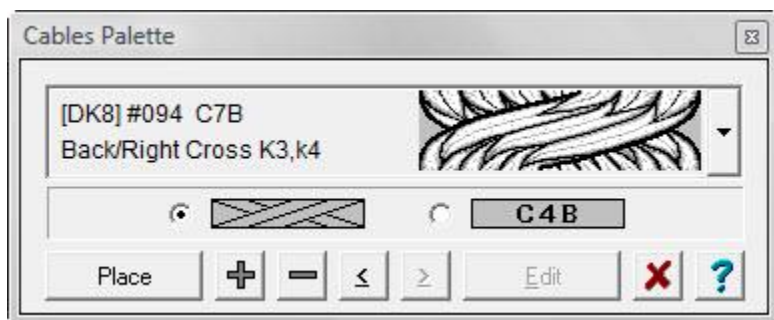
- Click on the arrow to the right to open the list and select a cable

- or click on the browse buttons to flick through the list one at a time.

- If the cable you want is not there, click on the button to open the Cables Organizer

- If you want to remove a cable from the palette, select it and then click on the button. (*Note that doing this does* not *delete it from the Cables Organizer*).

- Select the display type you want for Stitch Grid View and printed charts - choose between a graphic symbol and a simple box containing the appropriate cable abbreviation. (This will apply to all cables in the pattern)

  ### Graphic view:
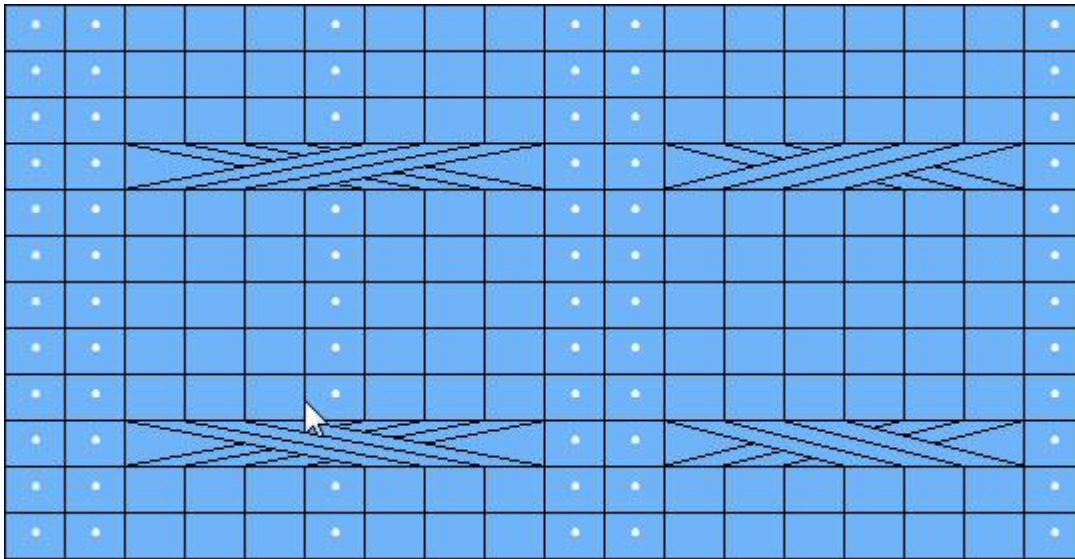
Abbreviation view
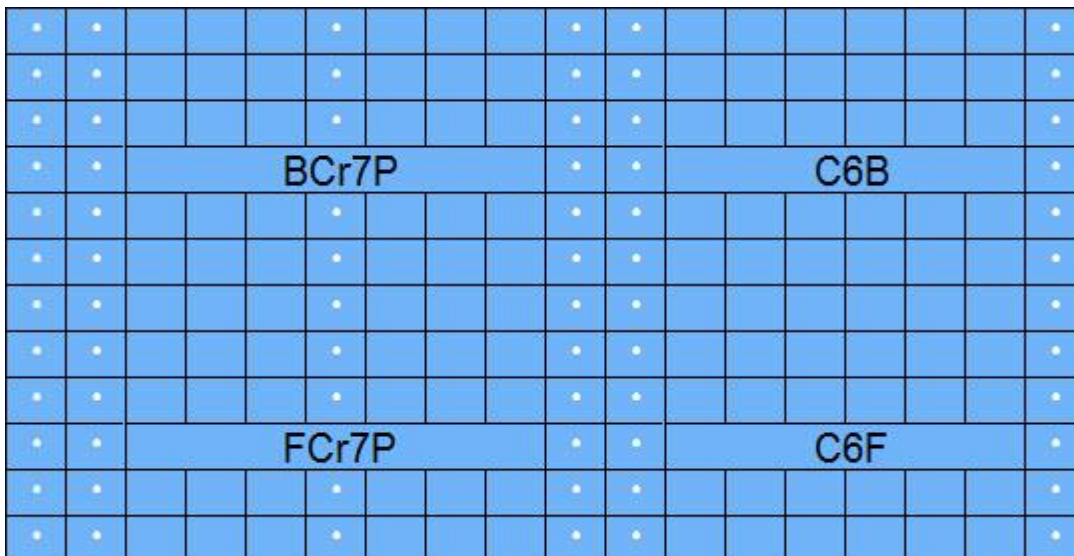
- If the cable is a Custom Cable, the Edit button will be available so you can make any changes to the information or instructions.

Placing A Cable

After you have chosen a cable, click on the [Place] button.

DesignaKnit will place the first cable at the top left of the visible stitch area, and you can then proceed as follows:

1. Drag the cable to its correct position, bearing the following in mind:

   o If you have set the method to Flat Hand Knitting, then you can only place the cable on a right side row - this is usually an odd numbered row, unless you have specified that the first row is a wrong side row, inc which case it will be an even numbered row. All subsequent cables must then be placed on right side rows.

   o If the method is Machine or Circular Hand Knitting, the cable can be placed on an odd or even numbered row.

2. Fix a single copy of the cable in position:

   If this is the only instance you want of this cable, **double-click** anywhere in the pattern area, outside the cable. This will fix the cable in position and close the palette.

   If you change your mind before the cable is stamped down, either click the **Cancel** button on the Palette or press **ESC** to close the Palette and remove the unplaced cable.

3. Fix multiple copies of the cable:

   a **single click** outside the cable will stamp a copy down (or you can click the Place button again), and you can then drag the top copy to a new position and stamp it down. Do this as many times as you need - but bearing the following in mind:

   o You cannot place cables directly above each other - there must be at least one row between crossings.

   o If the method is Flat Hand Knitting, DesignaKnit will prevent cables from being stamped onto wrong side rows.

   o If the method is Machine or Circular Hand Knitting, DesignaKnit will allow you to place cables on both odd and even rows, but if you place a cable on the row directly above a previously place cable, DesignaKnit will assume that the latest cable is the one you want and will delete the old one. If this is not what you wanted to happen, use the Undo button to get back to where you were.

4. To start stamping a different cable, just choose the one you want from the palette.

   o If the palette is still open, DesignaKnit will offer the cable first of all in the same place as the last one as soon as you select the new cable. Don't worry, if you stamped the last one, it will not have changed and you can just drag the active cable to its new position. If you did want to replace the previous cable, then you can just stamp the new one in the usual way.

   o If the palette has been closed and re-opened, the cable will appear at the top left of the visible stitch pattern area.

T I P
Use the Shift key to stamp the cable in place.
If the mirror version of your cable is also in the Palette, use the Ctrl key to flip the cable.

When you place a cable, DesignaKnit will automatically change the stitch types to match the cable type, including setting up the correct stitch types on both the row below and the row above. If you then want to change these stitches, you can do this using the **Pencil Tool**, but if you try to alter the stitches on the cable crossing itself, DesignaKnit will assume that you no longer want that cable and will delete it in favor of the new stitches.

This means that if you have set up a custom cable which includes stitch types which DesignaKnit cannot display, such as one with purl stitches crossing in front, or a ribbed cable, you will not get an accurate rendition in Fabric View, but you can of course apply the relevant instructions to one of the symbol options.

Lace Tool

If this button is not on your Tool Bar, then you do not already have the lace-enabled version of DesignaKnit 8; in order to activate it you will need to purchase the Lace Upgrade.

Authorizing the Lace Tool

Once you have purchased and installed the Lace facility, you must enter the Lace Authorization Number, which will have been provided at the time of purchase. If you are not able to locate this, you can email Soft Byte Ltd with your name and DesignaKnit 8 licence number to obtain a copy.

Click on the Lace Tool to bring up the Lace Authorization dialogue. Enter your Lace Authorization number and click on OK. The Lace Tool is now enabled.

The lace tool can be used to draw lace patterns for both machine and hand knitting, but its real power is in creating patterns for machine knitting. You, the designer, can easily draw the pattern straight onto the stitch grid so you see the finished result. DesignaKnit will then do the hard work of separating the pattern into transfer and knit rows and, after you have downloaded, you will be able to follow the knitting instructions in Interactive Knitting so you will know when to use the lace carriage (for transferred lace) and, where necessary, how to set the carriage, and when to knit with the normal carriage. DesignaKnit will also check for and warn you of any errors in the pattern.

You can use lace in combination with other patterns, such as slip, tuck, Fair Isle, or weave, so you should configure the knitting method accordingly.

You can use the lace tool for creating patterns for Brother, Silver Reed and Toyota machines as well as for hand knitting.

Click on the **Lace Tool button** on the left tool bar to activate the lace tool. The first time you do this in a session, the machine lace symbols will be added to the pattern automatically. In the Symbols Organizer they are displayed with a green background.

The Lace Symbols for Machine Knitting
These symbols all have an associated 'texture' which you can use if you want to see a representation of the finished knitting. Bear in mind though, that it cannot be entirely accurate as the decrease texture has to be shown on a single stitch cell rather than across both the affected stitches. The bias caused by the transferred stitches is well represented, as are the eyelets, so you can have a very good idea of how the pattern will look when knitted.

The symbols for lace knitting are highlighted in green in the stitch types palette set-up dialogue and in the stitch type palette itself. When setting up a stitch type palette which includes the green symbols, you should remember that, as far as machine knitting is concerned, DesignaKnit recognizes these as having a specific meaning and will separate the pattern and select needles accordingly, therefore

you should not assign these symbols to other stitch types, whether you are knitting lace or not.

Eyelet created by transferring a stitch onto the adjacent needle so that when the knitting carriage leaves a loop in the empty needle on the next pass and knits the loop on the return row. (See also special instructions for Brother and Silver Reed Machines) When you are drawing the lace, this symbol is placed at the point at which you first click. You can then drag with the *Left Mouse Button* across the stitches you want to transfer, and let go at the point you want the actual decrease to occur

Stitch transferred to empty needle immediately to the left. As you drag leftwards with the LMB from the eyelet, this symbol will be placed on each stitch you cross.

Stitch transferred to empty needle immediately to the right. As you drag rightwards with the LMB from the eyelet, this symbol will be placed on each stitch you cross.

Stitch transferred to needle immediately on the left, so that there are two stitches on one needle. When knitting single transfer lace, this will place the decrease adjacent to the eyelet, but in multiple transfer lace this is the last in a sequence of transfers and may be some distance from the eyelet. When drawing the lace, this symbol is placed automatically at the end of a leftwards 'drag' - when you let go of the mouse button.

Stitch transferred to needle immediately on the left, so that there are two stitches on one needle. For single transfer lace, this will place the decrease adjacent to the eyelet, but in multiple transfer lace this is the last in a sequence of transfers and may be some distance from the eyelet. When drawing the lace, this symbol is placed automatically at the end of a rightwards 'drag' - when you let go of the mouse button.

This symbol represents a double decrease - that is, three stitches on one needle - and will be placed automatically on the grid where transfers from opposite directions converge.

For Brother machines only: this symbol represents a Fine Lace transfer to the left. Fine Lace is drawn with the Right Mouse Button and can only occur on adjacent needles. Fine Lace can be combined with Transferred Lace in a single row.

For Brother machines only: this symbol represents a Fine Lace transfer to the right. Fine Lace is drawn with the Right Mouse Button and can only occur on adjacent needles. Fine Lace can be combined with Transferred Lace in a single row.

Drawing With The Lace Tool

The first time you click on the Lace Tool, the machine lace symbols will be added to the palette (and at any other time, if symbols are missing they will be replaced) and the cursor will change to the Lace Cursor - an arrow with the lace symbol to the lower right. It is the *arrow point* which is the active part of the cursor.

Place the tip of the cursor arrow over the stitch where you want your first eyelet to be and drag in the direction of the intended transfer(s). An eyelet will be drawn at the start position and a decrease symbol at the end position. The stitches in between, and the final decrease will show the direction of the transferred stitches.

 Other than making sure that you are drawing lace according the general lace rules, or those imposed by your knitting machine, you do not have to perform any further calculations for lace separation.

The tool will:

1. automatically insert the eyelet, transfer and decrease symbols in the direction of the drawing.

2. automatically insert a double decrease symbol where lace transfers from opposite directions meet.

3. prevent you from placing eyelets on adjacent stitches within the same row.

4. you will also be warned when saving the pattern if there are invalid lace sequences for the configured machine.

It is important to remember that when drawing a lace pattern in Stitch Designer you are drawing the *finished* pattern, as it will look when knitted, not the process by which this is achieved. Thus your drawing will not resemble any punch card or mylar sheet templates because these map out the transfer rows, not the pattern.

Drawing with the Left Mouse Button

Brother machine selected: this will produce a full eyelet lace, where the entire stitch is transferred to the adjacent needle and as many transfers between the empty needle (eyelet) and the decrease and the point at which you stop dragging and let go of the mouse button, where a decrease symbol will be placed automatically. This indicates two stitches on one needle, or three on one needle at the meeting point of a series of transfers from opposite directions.

Brother refer to this technique as *Lace* and it is achieved using the lace carriage set at N. All transfers for a pair of rows must be completed with the lace carriage before the rows are knitted with the normal knitting carriage. The Interactive Knitting screen will tell you which carriage to use and at what setting for each stage of the knitting process.

More about Lace on Brother Machines

Silver Reed machine selected: this will produce a full eyelet, where the entire stitch is transferred to the adjacent needle and as many transfers between the empty needle (eyelet) and the decrease and the point at which you stop dragging and let go of the mouse button, where a decrease symbol will be placed automatically. This indicates two stitches on one needle, or three on one needle at the meeting point of a series of transfers from opposite directions.

Silver Reed refer to this technique as *Fashion Lace*, and it is achieved with the Lace Carriage set to P until all the transfers for a pair of rows are completed and then the carriage can be set to knit. The Interactive Knitting screen will tell you which carriage to use and at what setting for each stage of the knitting process.

Drawing with the Right Mouse Button

Brother machine selected: this produces a pattern where the stitch is *partially* transferred to the adjacent needle - that is, the stitch is stretched across two needles, rather than leaving the original needle empty. As this is not a full transfer, the tool will prevent you from dragging any further than the immediately adjacent stitch - it is not possible to have a series of adjacent transferred stitches using this technique.

Brother refer to this technique as *Fine Lace* and it is achieved with the lace carriage set at F.

You may use both Lace and Fine Lace within a single row, but you cannot place a Fine Lace transfer within a sequence of full transfers. The Interactive Knitting screen will tell you which carriage to use and at what setting for each stage of the knitting process.

Silver Reed machine selected: this will produce an eyelet by transferring the stitch to the immediately adjacent needle. Whilst you can have as many of these 2-stitch sequences in a row, you cannot use this technique for multiple transfers between eyelet and decrease.

Silver Reed refer to this technique as Simple Lace and it is achieved with the carriage set to L. Simple Lace allows you transfer and knit in a single pass of the carriage as long as the following criteria apply:

a. no multiple transfers

b. all transfers are in the direction of the knitting carriage.

Any other mouse button settings will be overridden while the Lace Tool is active - this is so that it can function correctly according to the selected machine. As soon as you turn it off, by clicking on the button again, or by selecting another tool, the previous mouse button settings for color or symbol will be restored. If you click on a color in the palette, or if you click on any symbol, including a lace symbol, DesignaKnit will assume you want to start using that color or symbol with another drawing tool and will turn off the Lace Tool, as well as allocating whichever button you used to the color or symbol.

Removing or deleting lace

A single click on an eyelet symbol with either the right or the left mouse button will remove the eyelet, its matching decrease and any transfers in that sequence.

Lace Tool For Hand Knitting

The Lace Tool is not essential hand knitting patterns, as these do not need to be processed in the same way as machine downloads. You can draw lace patterns using the pencil tool to place decrease and eyelet symbols where you want them on the pattern grid.

However, if you have the Lace Tool installed, you can use it to draw hand knitting patterns too, as it is a good way of making sure that the number of decreases match the number of eyelets, if your pattern retains a set number of stitches across the row. However, there are some things which you need to bear in mind:

- Unlike machine knitted lace, hand knitted lace does not transfer stitches but, depending on the relationship between the decreases and the eyelets, it can produce a strong bias for the stitches and you may wish to illustrate this. In fabric view you can therefore use the **/** and **** symbols automatically inserted by the Lace Tool to create the impression of the finished fabric for the purposes of illustration.

- The **/** and **** symbols would generate additional instructions for decreasing and increasing, which would be confusing - so after drawing the pattern and before printing either text instructions or a chart, you should use the Replace function to change these back to Knit or Purl stitches. This would leave the eyelets and decreases in place, and where these are not adjacent to each other you could then insert other stitch types, cables etc.

- If you have removed the **/** and ****symbols, clicking on an eyelet will not remove it or its associated decrease symbol.

-

Brother Machine Lace

The Brother system allows two kinds of automatic lace knitting, **Lace** and **Fine Lace** both of which require the lace carriage to transfer all the stitches for a single row; the knitting carriage is then used to complete the sequence. Both Lace and Fine Lace can be used in a single lace row. For further details on lace techniques, you should consult your Brother knitting machine manual.

When drawing lace patterns for Brother machines you may have lace transfers either on odd rows (conventional system - lace carriage at left) or on even rows, but not on both; neither may you have lace transfers on consecutive rows; bands of lace pattern must always be on either odd or even rows and may not alternate. This is to make sure that the docking positions of the carriages are a) consistent and b) always at opposite ends of the needle bed.

Electronic Machines

You may draw patterns that incorporate a second technique within the lace row as long as this involves either a contrast color (Fair Isle) or a textured technique, such as slip or tuck, (W or R side facing texture) and, if the latter, that the texture does not occur within a sequence of transferred stitches.

The following methods will work with a Brother electronic machine

- You may draw lace with Fair Isle, Right or Wrong Side Facing methods.

- You may have transfers in both directions within a single row.

- You may have adjacent Fine Lace eyelets, where the transfers go in opposite directions.

- You may have both Lace and Fine Lace within a single row

- You may have lace and Fair Isle color patterns within the same row, provided that the Fair Isle knitting method has been selected.

- You may have lace and textured stitch patterns within the same row, provided that the additional stitch type appears only on otherwise plain stitches between the lace sequences and does not interfere with the sequence of transfers between the eyelet and its matching decrease.

However, the following rules apply:

- You may not use the lace symbols to indicate any other type of stitch texture.

- You may not have Lace eyelets on adjacent needles; if you attempt to draw this combination, the lace tool will delete the first eyelet in favor of the second.

- You may not have Lace eyelets and Fine Lace eyelets on adjacent needles; if you attempt to draw this combination, the lace tool will delete the first eyelet in favor of the second.

- You may not draw another lace transfer, whether Fine or Lace, within a sequence of Lace transfers.

- You may not program eyelets on successive rows; you will be warned before saving or attempting to download or interactively knit a pattern that has been saved with this error.

- Within a single piece, you may have eyelets on odd rows or even rows, but not on both. Thus you may not have one band of lace pattern with eyelets on odd rows and another with eyelets on even rows. This is because the lace and knitting carriages must be parked at opposite ends of the needle bed to allow each other to function.

- If you have the Fair Isle method selected, you may draw the transfer stitches in a contrast color, but for Right and Wrong Side Facing texture patterns, while you may use a contrast stitch texture (using a symbol other than one of the lace symbols) between lace sequences, you may not draw a contrast texture within a sequence of transfers.

Creating A Lace Pattern

Drawing Lace

Use the Left Mouse Button to draw Lace transfers: click on the stitch where you want the eyelet to be and drag in the direction of the transfers and let go on the stitch where you want the corresponding decrease to be. DesignaKnit will fill in the transfer stitches.

Drawing Fine Lace

Use the Right Mouse Button to draw Fine Lace transfers for Brother machines: click on the stitch where you want the Fine Lace eyelet to be and drag in the direction of the transfer. You can transfer Fine Lace in either direction. The Fine Lace setting does not transfer a whole stitch, but places the stitch loop so that it lies in both the original needle and the adjacent one. Unlike Lace, Fine Lace only transfers to the next needle.

Deleting Lace

Delete a lace sequence by clicking once on the eyelet with either mouse button.

Punch Card Machines

The following limitations apply to punch card lace:

- DesignaKnit does not support combining other types of pattern with lace for punch card machines

- DesignaKnit will only include lace carriage passes on the template for the punch card, leaving out any plain rows. This is because it is the lace, and not the knit, carriage, which advances the pattern. Unlike electronic machines, where the system can recognize that a different carriage has passed the turn mark and can update the pattern row accordingly, punch card machines do not respond when the second carriage follows the first, which is what happens as the knit carriage follows the direction of the last lace carriage pass.

- Although DesignaKnit will allow you to design the finished pattern on screen and integrate it with a garment pattern, for the reasons given above, it will not support integrated interactive knitting.

-

Silver Reed Machine Lace

The Silver Reed machine allows two types of lace knitting: Simple Lace and Fashion Lace. Simple Lace describes the technique whereby a lace sequence consists of a single stitch transferring to the adjacent needle, in the direction of the movement of the carriage, and the row is knitted in the same pass, whereas Fashion Lace describes the process whereby a series of transfers in either or both directions take place in a series of transfer-only passes of the carriage, and which are knitted on the last pass of the sequence. For further details, please refer to your Silver Reed machine manual.

Electronic Machines

- When drawing lace patterns for the Silver Reed machine, you may have transfers on both odd and even rows, as long as the eyelets on consecutive rows are not directly above one another.

- When designing lace patterns for the Silver Reed you may have bands of pattern that are Fair Isle or a texture, but you may not combine patterned knitting (either Fair Isle or texture) with lace in the same row.

Creating A Lace Pattern

Drawing Fashion Lace

Use the Left Mouse Button to draw Lace transfers: click on the stitch where you want the eyelet to be and drag in the direction of the transfers and let go on the stitch where you want the corresponding decrease to be. DesignaKnit will fill in the transfer stitches.

Drawing Simple Lace

Use the Right Mouse Button to draw Simple Lace transfers: click on the stitch where you want the Simple Transfer to be and drag in the direction of the transfer. Note that Simple Lace transfers can only transfer in the direction of the carriage and that such a transfer can only be onto the next needle.

If DesignaKnit finds any transfers in the opposite direction to that in which the carriage is traveling, you will be warned before saving or knitting that this sequence can only be knitted as Fashion Lace. If this is a mistake, then you have the opportunity to go back and correct it. You will not be warned where the only instances of RMB transfers in different directions are when the transfers converge on the single stitch between them as DesignaKnit will assume this to be intentional.

Deleting Lace

Delete a lace sequence by clicking once on the eyelet with either mouse button.

Punch Card Machines

The following limitations apply to punch card lace:

- DesignaKnit does not support combining other types of pattern with lace for punch card machines.

- DesignaKnit will only include lace carriage passes on the template for the punch card, leaving out any plain rows. This is because it is the lace, and not the knit, carriage, which advances the pattern. Unlike electronic machines, where the system can recognize that a different carriage has passed the turn mark and can update the pattern row accordingly, punch card machines do not respond when the second carriage follows the first, which is what happens as the knit carriage follows the direction of the last lace carriage pass.

- Although DesignaKnit will allow you to design the finished pattern on screen and integrate it with a garment pattern, for the reasons given above, it will not support integrated interactive knitting.

Toyota Machine Lace

There is a separate lace carriage to select and transfer the stitches, which are then knitted with the normal knitting carriage as soon as all the transfers for a single row are completed. For further details of lace knitting, please see your Toyota machine manual.

When drawing lace patterns for Toyota machines you may have lace transfers either on odd rows (conventional system - lace carriage at left) or on even rows, but not on both; neither may you have lace transfers on consecutive rows; bands of lace pattern must always be on either odd or even rows and may not alternate. This is to make sure that the docking positions of the carriages are a) consistent and b) always at opposite ends of the needle bed.

Lace Methods

The following knitting methods will work with the Toyota machine

- You may draw lace with Fair Isle, Right or Wrong Side Facing methods.

- You may have transfers in both directions within a single row.

However, the following rules apply:

- You may not use the lace symbols to indicate any other type of stitch texture.

- You may not have Lace eyelets on adjacent needles; if you attempt to draw this combination, the lace tool will delete the first eyelet in favor of the second.

- You may not program eyelets on successive rows; you will be warned before saving or attempting to download or interactively knit a pattern that has been saved with this error.

- Within a single piece, you may have eyelets on odd rows or even rows, but not on both. Thus you may not have one band of lace pattern with eyelets on odd rows and another with eyelets on even rows. This is because the lace and knitting carriages must be parked at opposite ends of the needle bed to allow each other to function.

Creating A Lace Pattern

Multiple Transfers

Use the Left Mouse Button to draw Lace transfers: click on the stitch where you want the eyelet to be and drag in the direction of the transfers and let go on the stitch where you want the corresponding decrease to be. DesignaKnit will fill in the transfer stitches.

Single Transfers

Use the Right Mouse Button to draw Single Lace transfers: click on the stitch where you want a single stitch to transfer to the adjacent needle, and drag in the direction of the transfer.

Deleting Lace

Delete a lace sequence by clicking once on the eyelet with either mouse button.

Punch Card Limitations

The following limitations also apply to punch card lace:

- DesignaKnit does not support combining other types of pattern with lace for punch card machines.

- DesignaKnit will only include lace carriage passes on the template for the punch card, leaving out any plain rows. This is because it is the lace, and not the knit, carriage, which advances the pattern. Unlike electronic machines, where the system can recognize that a different carriage has passed the turn mark and can update the pattern row accordingly, punch card machines do not respond when the second carriage follows the first, which is what happens as the knit carriage follows the direction of the last lace carriage pass.

- Although DesignaKnit will allow you to design the finished pattern on screen and integrate it with a garment pattern, for the reasons given above, it will not support integrated interactive knitting.

Print Stitch Patterns

DesignaKnit offers a number of ways in which you can print your patterns in diagram or text format, or a combination of both, so that you can have an exact record of the knitting instructions both for your personal use as well as for others.

In addition to printing directly from the program, you can copy all the various formats to the clipboard and then paste them, as pictures or, where appropriate as text, into other applications which gives you the freedom to edit the text, resize the graphics and create page layouts so that you can publish your patterns as you wish, whether on paper or in formats which can be distributed electronically, such as .pdf

For upgraders, you will notice that unlike earlier versions of the program, the print command refers *only* to the currently open stitch pattern, not to previously saved patterns.

To start the printing process, Click on the print button 🖨 on the left hand tool bar or select **File/Print**. If any changes have been made to the pattern since you last saved it, you will be asked if you want to save them.

Choose Print Format

The next dialogue lists the available print formats for the current pattern.

Stitch pattern picture

Stitch pattern symbols

Stitch pattern template

Color changes

Pattern text

Key to symbols

Click **Next** to open the Page Setup dialogue.

Setup Page and Print Format Options

Select the one you want and the **Page Setup dialogue** then opens. Unless you will be using a variety of different sized papers, you probably won't need to make changes to the page dimensions and margins once you have set them up, but you can choose the orientation by clicking either on Portrait or Landscape.
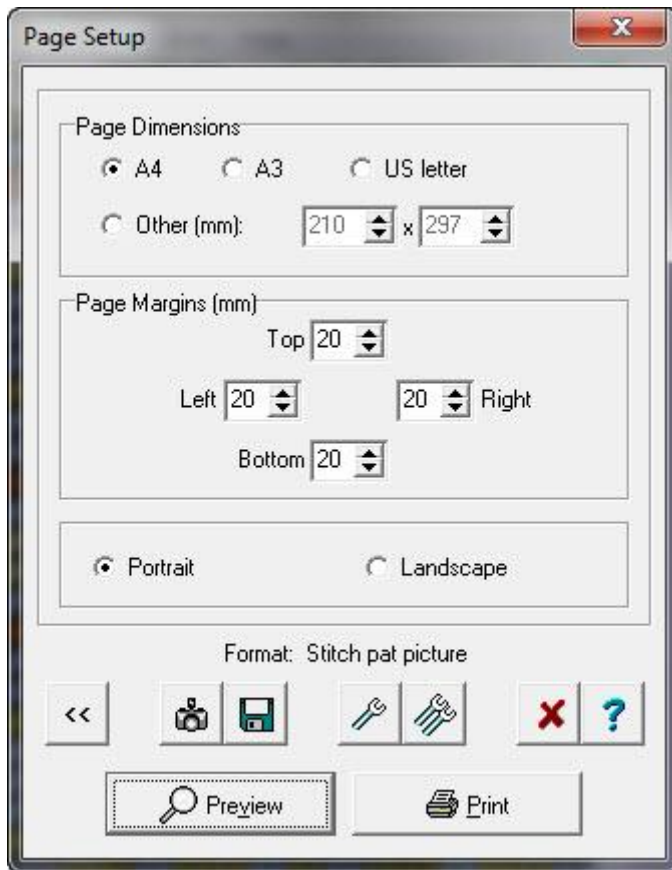
‹‹ Back

If you change your mind about the format you want to print, click on the Back button to go back to the previous dialogue.

Copy

Click on this button to copy the format you selected onto the clipboard so that it can be pasted into another application, such as a word processor or publishing program.

Stitch Pat Picture	Copies as a picture
Stitch Pat Symbols	Copies the chart a picture
Stitch Pat Template	Copies the chart as a picture
Color Changes	Copies as text
Pattern Text	Copies as text
Key to Symbols	Copies as text

Save

Click on the button to save the selected format as a bitmap.

General Output Options

Select the additional information you want to include in the header of your printout:

Your Company Name: enter the name or any other text you want to include in the header if Company Name is selected in the header items.

Header items

Tick the items you want to use in the header of your print.

Company Name	This will use the text you have entered in the *Your Company Name* field
Pattern Identifier	This is the filename of your pattern and includes the method of knitting
Format	This is the printout format you have chosen
Date	The date of printing
Time	The time of printing

Japanese Notation: The symbols here govern the way in which shaping information is presented on a Garment Notation print.

For a sloping edge, the default arrangement shows the symbols in this order:

@: = this displays the row number at which the shaping takes place. This is followed by a colon (:) so that the row number is not confused with the stitch increase/decrease instructions.

+ = this will show as either **+** to indicate an increase/cast on; or **-** to indicate a decrease/cast off

> = here, the number of stitches to be cast on/increased or cast off/decreased is inserted

s = adds the abbreviation **s** (stitch/es) for clarity

^ = this will show the number of rows to knit straight following the shaping

x = if the sequence is to be repeated, the **x** (times) symbol is shown

* = and this symbol is replaced by the total number of times the sequence will be worked.

Example:

@:+>s^x*

110: -3s 4 x 3

Translates as: At **row 110**, decrease/cast off **3 stitches** then work **4 rows straight**. **Repeat** this sequence **3 times in all**.

For a horizontal edge

at the start of a piece these symbols show the number of stitches/needles which should be in work

at the finish, the row at which to end and the number of stitches to cast off (or hold on waste yarn, if that is what you prefer).

@ = this displays the row number, followed by a colon (:)
> = this symbol is for the number of stitches. The figure is shown in brackets.

Example:

@:(>)

0: (150)

Translates as: **start** with **150** stitches (it will depend on the pattern whether these are cast on, picked up or continued from the welt)

or

150: (32)

Translates as: at **row 150**, **cast off remaining 32 stitches**

[All Formats] **Click this button** to gain access to all the options for each type of printout.

Printout format options

- Shaping as X's
- Text summary
- KnitLeader
- KnitRadar
- Garment outline
- Garment notation
- Garment text
- Yarn calculation
- Garment picture
- Garment symbols
- Integrated template
- Integrated changes
- Stitch pat picture
- Stitch pat symbols
- Stitch pat template
- Pattern text
- Key to symbols

[Test Page] [Close ✗] [?]
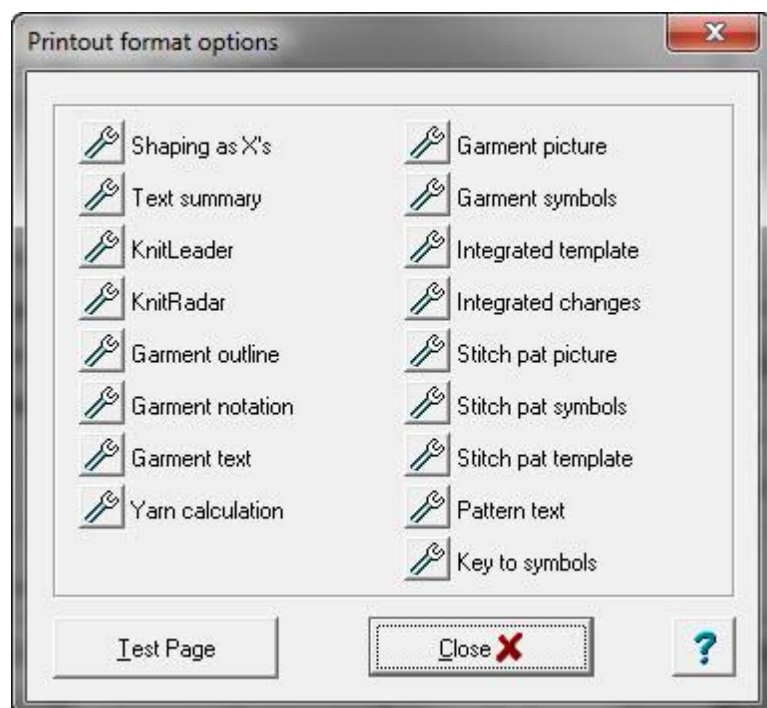
Alternatively, click on the Print Setup options button to open the setup for the format you chose in the last dialogue.

Test Page | ## Test Page Settings

Click here to open the Test Page settings dialogue and print a test page on your current default printer.
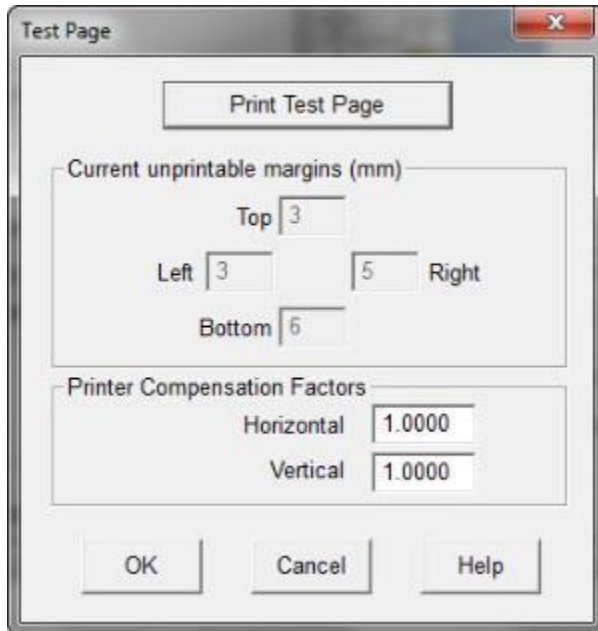
Print Test Page: in most circumstances the default settings shown here don't need to be changed as they will be drawn from the setup for your printer, but you can print a test page to see how the settings will be applied, and of course as well as to see how your page will look.

Current unprintable margins: these are unprintable areas set by your printer driver, in addition to the margins you have set in the Page Setup dialogue. Some printers offset an image rather than center it on the page - as you can see in this example. This information then allows you to adjust the margin settings in the Page Setup dialogue to compensate for any offset.

Printer Compensation Factors: if you are printing a chart which needs a precise grid, such as for a template for a Mylar sheet, but most especially for reader cards intended for posting directly or Singer or Pfaff/Passap machines, it may be necessary to adjust minutely the alignment of the printout. If you have to make an adjustment which is outwith the range of 0.990 to 1.0010, you should check that you are in fact using the correct driver for your printer and that the driver is the most up-to-date version for your operating system. Refer to your printer dealer for further information on printer drivers.

Print Setup Options

Click on this button to see the setup options for the print type you chose in the last dialogue

Stitch Pattern Picture

This is a picture of a single pattern repeat of the current pattern.
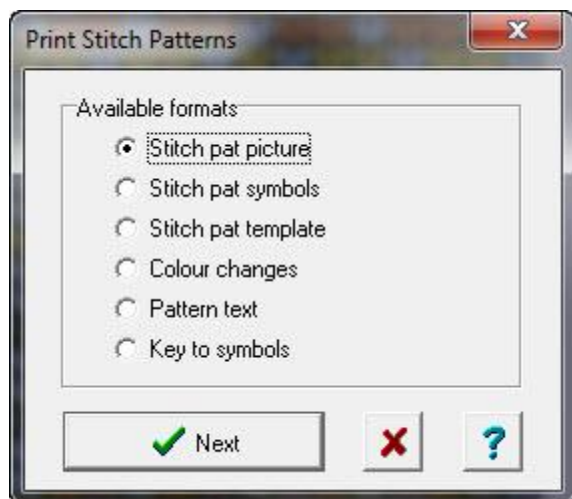
Select the **Stitch pat picture** option and click **Next** to open the Page Setup dialogue.

Stitch Pattern Picture Options

View or change the options for this format:
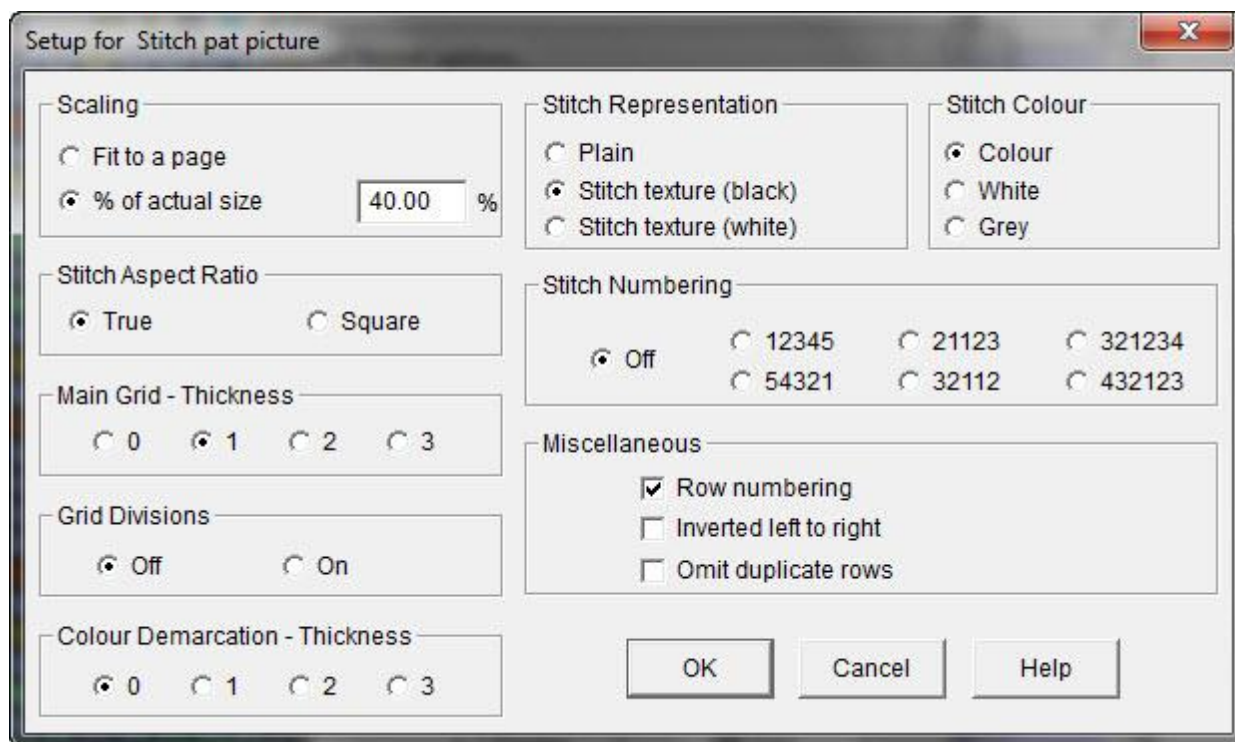
Scaling

Fit to a page: DesignaKnit will scale the picture to the largest size that will fit onto a single page

% of actual size: You control the scale of the print : enter the percentage you want in the field. If it will be too large to fit on a single page, DesignaKnit will spread it over as many as necessary. You can preview the page(s) before printing.

Stitch Representation		Stitch Color	
Plain	No texture is shown	Color	Pattern is shown in color
Stitch Texture (black)	Fabric texture superimposed in black	White	White background
Stitch Texture (white)	Fabric texture drawn in white	Gray	Gray background
			Use Color Demarcation for Gray or White background

Stitch Aspect Ratio

True: Draws the stitches in proportion to the tension.

Square: Draws the stitches square, which may distort the pattern.

Stitch Numbering

If you want to have the stitches numbered you can choose one of the following:

12345 *Hand Knitting*: Numbers the stitches from Left to Right
54321 *Hand Knitting*: Numbers the stitches from Right to Left
21123 *Machine Knitting*: Numbers from the center outwards, placing the middle stitch of a pattern with an odd number of stitches at the Left
32112 *Machine Knitting*: Numbers from the center outwards, placing the middle stitch at the Right
321234 *Hand Knitting*: Starts the numbering in the center of the pattern. If the pattern repeat has an odd number of stitches it will default to this option.
432123 *Hand Knitting*: Starts the numbering in the center of the pattern. This option can only be chosen if the pattern has an even number of stitches.

Miscellaneous

Row Numbering: Select to show row numbers

Inverted Left to Right: Check this option to reverse the stitch pattern for a machine which has the "wrong" side of the work facing the knitter

Omit Duplicate Rows: This option produces a printout showing only the rows where a change take place, so it is essential to have row numbering selected in order to know how many identical rows to knit.

Main Grid Thickness

Choose the thickness of the grid lines.

Select 0 to remove the grid altogether. 1 is the finest line and 3 the thickest. If your pattern has been scaled down, be careful not to obscure it with thick lines.

Grid Divisions

If you want to mark or highlight defined areas of the grid in stitches and rows, selecting this option matches the divisions set in Options/Grid Division Size in Stitch Designer.

Color Demarcation Thickness

If you are printing the pattern with gray or white stitch colors, this will draw a line to separate areas of color. This is most likely to be useful for intarsia patterns or patterns with large blocks of color. Selecting 0 turns the option off altogether.

Stitch Pattern Symbols

This format produces a chart of a single repeat of the stitch pattern, showing either the KnitWriteDK™ stitch symbols or, for a color pattern, the symbols allocated to the Yarn Colors
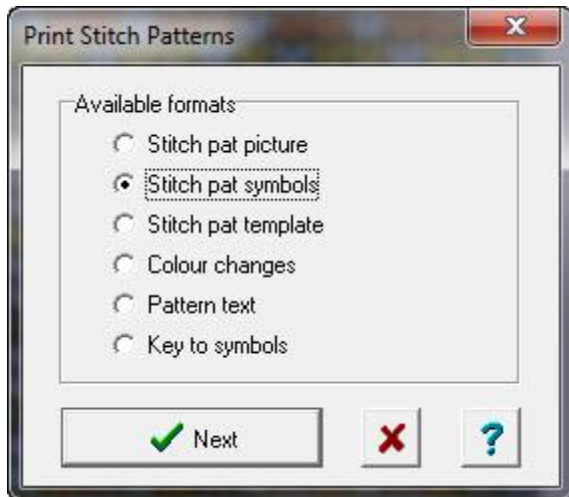
Select the **Stitch pat symbols** option and click **Next** to open the main print dialogue.

🔧 Stitch Pattern Symbols Chart Options

View or change the options for this print format.
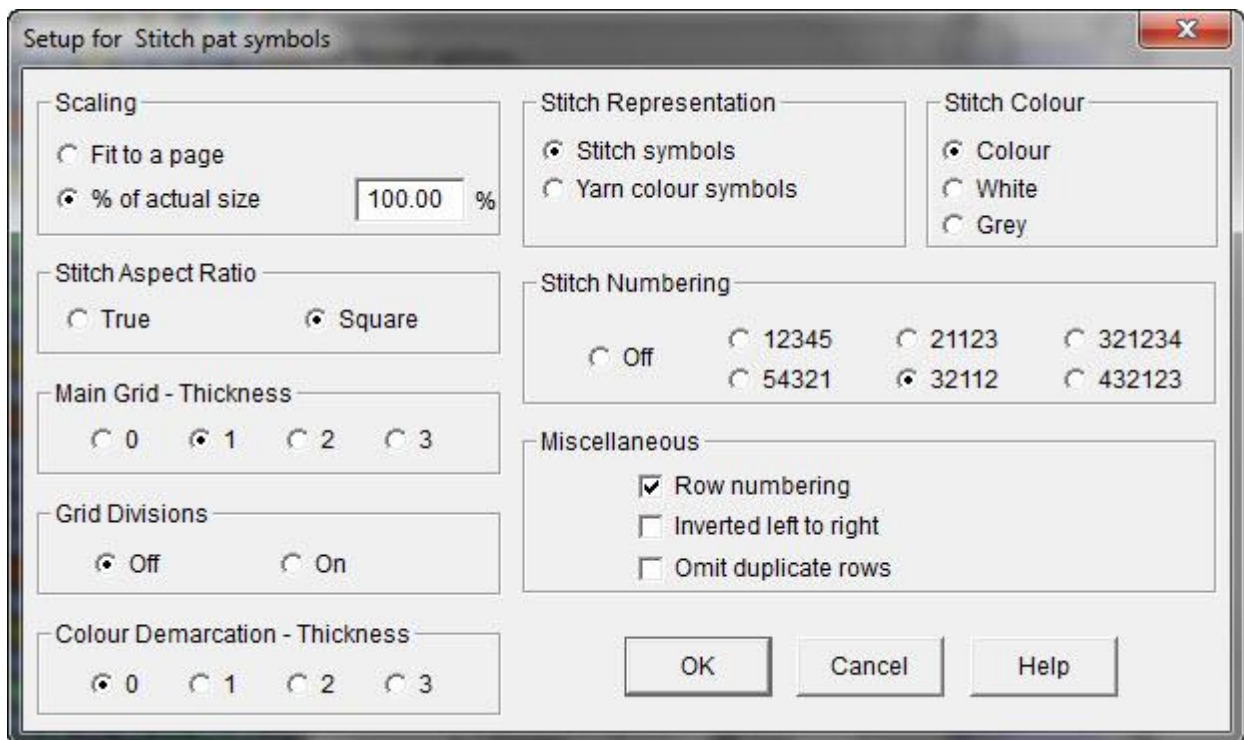
Scaling

Fit to a page: DesignaKnit will scale the picture to the largest size that will fit onto a single page

% of actual size: You control the scale of the print : enter the percentage you want in the field. If it will be too large to fit on a single page, DesignaKnit will spread it over as many as necessary. You can preview the page(s) before printing.

Stitch Representation		Stitch Color	
Stitch Symbols	Uses the KnitWriteDK™ stitch symbols	**Color**	Pattern is shown in color
Yarn Color Symbols	Uses the Yarn Color symbols	**White**	White background
		Gray	Gray background
		Use Color Demarcation for Gray or White background	

Stitch Aspect Ratio

True: Draws the stitches in proportion to the tension.

Square: Draws the stitches square, which may make the chart easier to read.

Stitch Numbering

If you want to have the stitches numbered you can choose one of the following:

12345   *Hand Knitting*: Numbers the stitches from Left to Right

54321   *Hand Knitting*: Numbers the stitches from Right to Left

21123   *Machine Knitting*: Numbers from the center outwards, placing the middle stitch of a pattern with an odd number of stitches at the Left

32112   *Machine Knitting*: Numbers from the center outwards, placing the middle stitch at the Right

321234 *Hand Knitting*: Starts the numbering in the center of the pattern. If the pattern repeat has an odd number of stitches it will default to this option.

432123 *Hand Knitting*: Starts the numbering in the center of the pattern. This option can only be chosen if the pattern has an even number of stitches.

Miscellaneous

Row Numbering: Select to show row numbers

Inverted Left to Right: Check this option to reverse the stitch pattern for a machine which has the "wrong" side of the work facing the knitter

Omit Duplicate Rows: This option produces a printout showing only the rows where a change take place, so it is essential to have row numbering selected in order to know how many identical rows to knit.

Main Grid Thickness

Choose the thickness of the grid lines.

Select 0 to remove the grid altogether. 1 is the finest line and 3 the thickest. If your pattern has been scaled down, be careful not to obscure it with thick lines.

Grid Divisions

If you want to mark or highlight defined areas of the grid in stitches and rows, selecting this option matches the divisions set in Options/Grid Division Size in Stitch Designer.

Color Demarcation Thickness

If you are printing the pattern with gray or white stitch colors, this will draw a line to separate areas of color. This is most likely to be useful for intarsia patterns or patterns with large blocks of color. Selecting 0 turns the option off altogether.

Stitch Pattern Template

This format is available for machine patterns only.

It will produce template for a punch card, reader card or mylar sheet, depending on the configured knitting machine, with a single repeat of the current pattern.
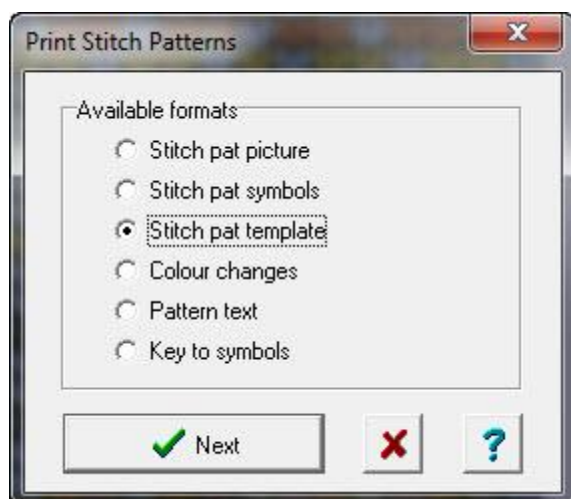
Select the **Stitch pat template** option and click **Next** to open the main print dialogue.

Stitch Pattern Template Options

View or change the options for this format.
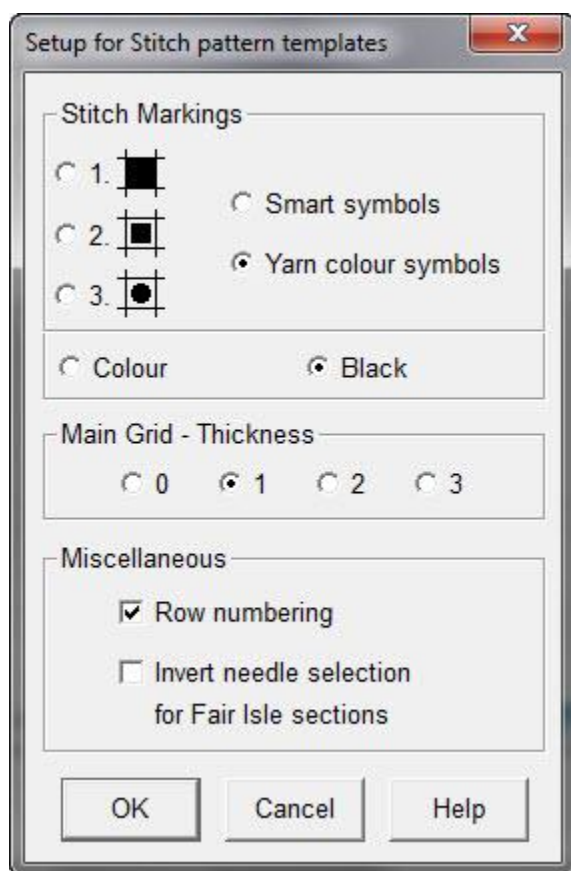
Stitch Markings:

To mark all the selecting stitches, choose between:

(**1**) filling the entire cell

(**2**) a square mark in the center of the cell

(**3**) a round dot in the Centrex of the cell

Stitch symbols: This option will show only the Smart Symbols used in the pattern - it will ignore colors for Fair Isle. For Tuck and Slip, you could choose to punch the card or mark the sheet for those non-selecting cells and then use the Negative Switch when knitting.

Yarn color symbols: This option will show only the Yarn Color Symbols, for Fair Isle patterns.

Main Grid - Thickness: The overall size of the grid is determined by the selected machine and will match the punch card or mylar sheet. The thickness of the lines dividing the grid can be altered by you: 0 removes the lines completely, while 3 gives the thickest line.

Miscellaneous

Row Numbering: This option ensures that the row numbers are shown to the left of the chart

Inverted needle selection for Fair Isle: This inverts the needle selection for the Fair Isle sections of a pattern with the FI method. For electronic machines, you can ignore this and use the Negative Switch when necessary, but for punch card machines you will need to invert the needle selection.

Color Changes

This format is for machine patterns only.

It lists the row numbers at which yarns are changed and the names (as set up in Palette/Names) of the yarns to use.

There are no additional options for this format.

Click on the **Next** button to continue.

Pattern Text

The pattern text option is a feature which designed to help you publish your own patterns in your own style.

If you access this option via the Stitch Designer File/Print command, or the Print button, the text will be for a single repeat of the current pattern.

Garment Text

If you want the full instructions for the garment, piece by piece, then you should use the Print Shapes command from the Shapes menu and select the Garment Text option for the each piece for which you want the instructions, but you must remember to redefine the pattern to fit the piece, otherwise any shaping symbols you place on the pattern will be repeated across any stitch pattern repeats.

It is advisable to preview the text as it will highlight any pattern errors - such as cables which overlap the edges and cannot therefore be worked - with three exclamation marks at the beginning and end of each row where this occurs.

Another way of creating a text pattern for a garment piece is to position the piece on the pattern, then choose Shapes/AutoChart. This fills the area around the edge of the shape piece with 'no stitch' symbols, so the only stitches which will count for the text pattern are the ones enclosed within the shape. You should save the pattern as a separate stitch pattern, but there will be no need to integrate it with the shape file as DesignaKnit will treat the whole thing as a stitch pattern - but you will have to use shaping symbols in order to achieve the correct results.

You can combine the text instructions with copies of the charts, keys to the symbols and to the abbreviations as well as screen shots of the patterns and, of course your own illustrations and photographs.

The KnitWriteDK symbols are translated into text, using the associated abbreviations to produce a stitch-by-stitch and row-by-row text pattern which you can either print directly from DesignaKnit or you can copy the text to the clipboard and paste it into any other application, such as a word processor or publishing program where you can edit and format it to your own requirements.

Machine patterns: this format provides basic text instructions regarding the number of stitches to cast on and rows to knit. If stitch symbols have been used, these will be translated into text so that you will know how and where to apply any shaping instructions.

Hand Knit patterns: this format translates the stitch symbols you have used into text instructions.
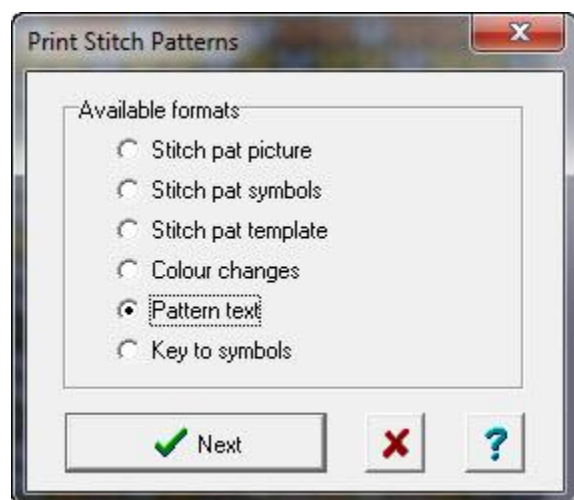
Select the **Pattern text** option and click **Next** to open the main print dialogue.

Pattern Text Options

View or change the options for this format.
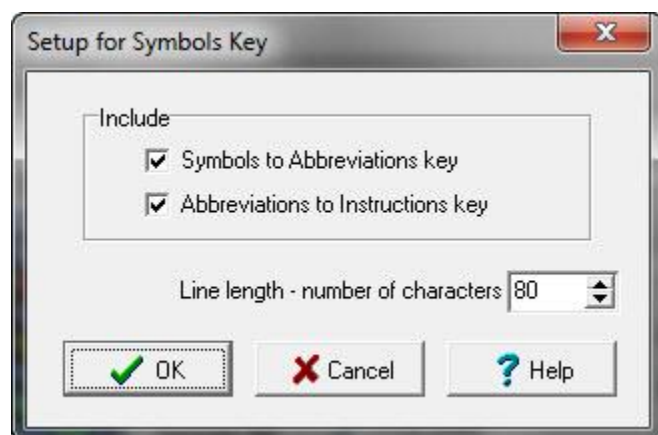
If you select either or both of these options they will be inserted at the start of the text instructions.

Symbols to Abbreviations key: You can add this to the text instructions if you are also using a chart of the symbols in your pattern.

Abbreviations to instructions key: This is the key to what the abbreviations mean and is essential to be able to understand the text pattern.

Line length: This is the number of characters before a line break. If you are printing directly from DesignaKnit, this gives you some control over what the page will look like. DesignaKnit's characters are not proportionally spaced, so the number is fixed. For pasting into another application as text, if your rows contain long instructions, you might need to increase the number of allowed characters to give longer lines before the forced break.

Key to Symbols

This option is for when you just want to print the key to the symbols or abbreviations. This is useful for adding to a symbols chart.
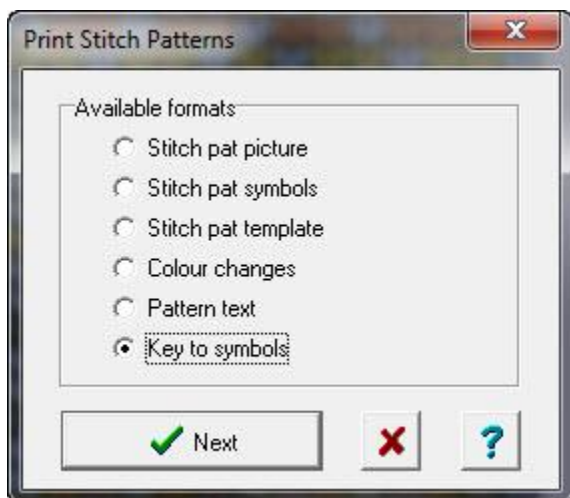
Select the **Key to Symbols** option and click **Next** to open the main print dialogue.

Options for Keys

Click on this button to view or change the options for this format.
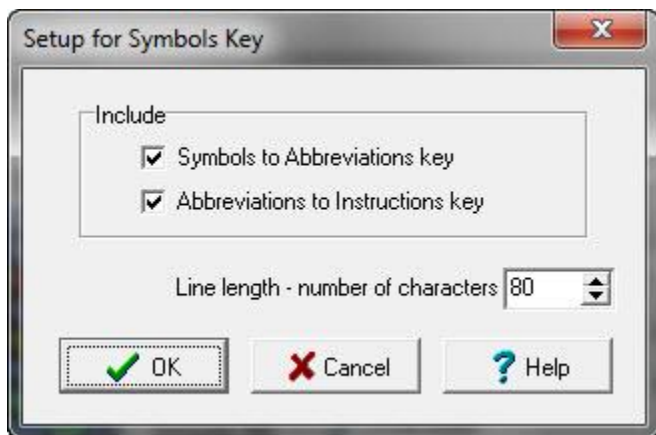
Symbols to Abbreviations key: You can add this to the text instructions if you are also using a chart of the symbols in your pattern. The table shows the abbreviation used for each symbol in the palette for that pattern. If you are either printing only a chart for your pattern, or are including a chart with your text instructions, you will need both keys to make sense of the chart.

Abbreviations to instructions key: This is the key to what the abbreviations mean and is essential to be able to understand the text pattern. If you are not including a chart in your pattern, you will not need the symbols to abbreviations key, just the key for abbreviations to instructions.

Cancel

To cancel the print process and return to Stitch Designer, click the Cancel button. Note that any changes to print options you made and accepted will not be canceled.

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T

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