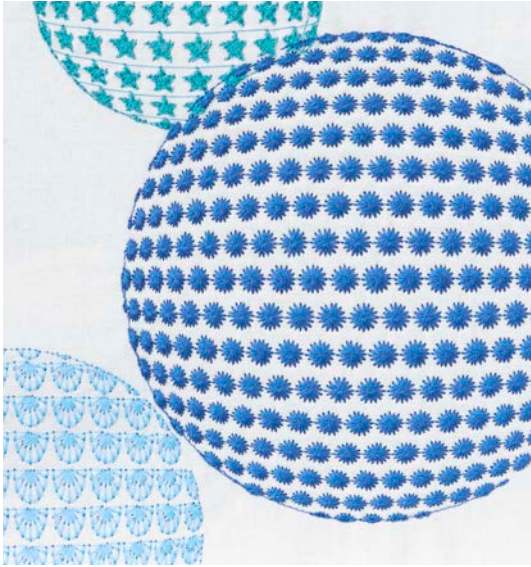
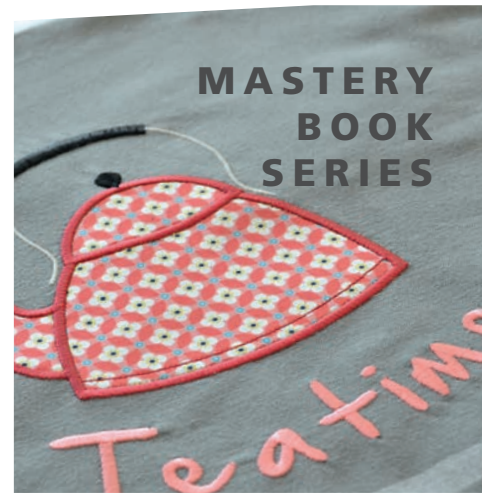


# MY BERNINA



# EMBROIDERY SOFTWARE



**BERNINA EMBROIDERY SOFTWARE 8.1**  
WORKBOOK 1  
Basic Features

made to create **BERNINA**

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## Introduction

Congratulations on your purchase of BERNINA Embroidery Software 8!

This workbook is designed to be used in conjunction with the classes you will take at your BERNINA dealership, and contains a series of exercises intended to familiarize you with the features of your new BERNINA Embroidery Software 8.

Complete the information in the box below so that you will have this information if you need to install the software on a new computer.

My Product Key Code \_\_\_\_\_

Dongle Number (if updated) \_\_\_\_\_

I purchased my software on: \_\_\_\_\_ (date)

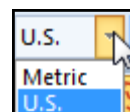
Store \_\_\_\_\_

## Software Basics

### SOFTWARE BASICS TOPICS:

Setting the Measurement System  
 Calibrating Your Screen  
 Using the Reference Manual  
 Reference Files  
 Sending Designs to the Machine  
 Sample Pages  
 Good Software Habits  
 Tour of Screen & Icons

### SETTING THE MEASUREMENT SYSTEM

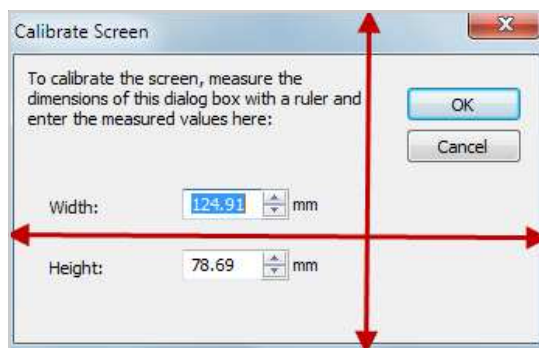


- You may choose U.S. or metric in the software.
- In the middle of the top tool bar, there is a drop down arrow next to the Options icon that will switch between the type of measurements, regardless of what is set in your Control Panel.
- Simply click on the arrow and choose the measurement unit you wish to use.
- While working in the software, if you enter either “mm” or the inch symbol (“”) or “in” in a value box, the measurement will automatically be calculated for the corresponding measurement in the other system.
- Stitch settings that relate to your embroidery machine (stitch length and stitch width for example) will remain in metric even if you have chosen inches, but design measurements (size of design and height of letters for example) will change based on what system you have chosen.
- Measurements found in Cross Stitch are affected by the system you have chosen in the Control Panel of your computer. Measurements found in Quilter are in inches.

### CALIBRATING YOUR SCREEN

Setting the screen calibration will allow you to view designs in a 100% scale and the on-screen designs will be the same size as the finished embroidery.

- Select Settings> Calibrate Screen.
- Measure the dialog box that opens from outline to outline, both across and up and down.
- Enter these values in the corresponding width and height boxes.
- Click OK.
- Repeat this process any time you update or reinstall your software.



#### Note:

- ◆ Windows 8 and 10 computers do not need to be calibrated.
- ◆ It is best to measure in Metric.

# Software Basics

## USING THE REFERENCE MANUAL

The Reference Manual and Help Topics contain a wealth of information.

- Select Help > Reference Manual.
- The Manual is an Adobe Acrobat PDF file. It is a “linked” manual, meaning that it may be searched for information. Simply click on a page number or words written in **red** and the manual will automatically open to that particular piece of information.
- Make sure that you have the Bookmark View as the active view by clicking on the Bookmark icon shown to the left.
- In the left hand column, select Index.
- Use the Next Page icon (downward arrow) to find the alphabetical listing for “C” in the Index.
- Under “C”, locate “calibrate screen dialog.”
- Note that there is a page number listed after this. Hover the mouse over the page number until it turns into a “hand with a pointing finger.”
- Click on the page number.
- Step-by-step information is given to calibrate the monitor.
- To close the manual, click the X in the upper right-hand corner.
- Quilter & Cross Stitch programs have their own Reference Manual, found in their Help Menu.
- You may wish to download the Reference Manuals to your iPad or tablet.



## REFERENCE FILES



- Click on Open Design.
- Built-in designs are located in Libraries> Embroidery> Public Embroidery> BERNINA 8 Embroidery. For Windows 8.1 and 10, libraries will need to be added to file explorer. For these operating systems, designs are located in C: Users> Public> Public Embroidery> BERNINA 8 Embroidery.
- Select the Reference Files folder in the BERNINA 8 Embroidery folder. Double click to open the folder or select the folder; then select Open.
- This folder contains examples of the different fills, outlines, and alphabets that you will find in the software. They may be sent to your machine to stitch as examples of what is included in the software.
- To open a file, double click on the file or select the file and then select Open. Close the file.

## SENDING A DESIGN TO THE MACHINE



- To send a design to the machine, click on the Write to Card/Machine icon or select File> Write to Card/Machine.
- The Device Selection dialog box will open.
- Choose your method of exporting the design.
  - ◊ Select the exp USB for sending the design to a USB stick for machines that read exp format. (All BERNINA machines except those listed below and on the next page.)
  - ◊ Select the Deco button if you are sending the design to a Deco 330, 340, or a bernette Chicago. Trim information is not sent to these machines.
  - ◊ Select the serial port button if you are sending the design to a 165, 170, 180, or 185. Trim information is not sent to these machines.
  - ◊ Select the art USB if you are sending the design to a 200 or 730. These machines also read exp format, so the first option can be used as well.

## Software Basics

- If you are connected to a BERNINA Embroidery machine, you will have additional options for sending the design to the machine to stitch out without saving (the needle icon) or saving the design in the machine's memory (the file folder and machine icon). The direct connect option must be used for the aurora 430, 440, or 450. Trims are not sent to these machines.
- To close the dialog box without sending a design, click on the X in the upper right hand corner.



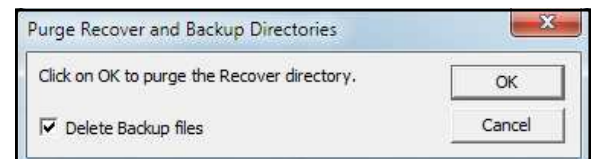
### SAMPLE PAGES TO PRINT

- Select Help> Reference Manual.
- Click on the + sign in front of Appendices, Glossary, & Index.
- Select the Step Fill Samples page.
- The Reference Manual has several pages that can be printed and used as a reference for types of fills, outlines, patterns, and craft stitches.
- To print the pages, select File> Print and enter the page numbers as shown at the top of the Reference Manual.
- Some of the reference information you may wish to print include:
  - Embroidery Fonts
  - Step Fill Samples
  - Fancy Fill Samples
  - Pattern Stamp, Run and Fill Samples
  - Craft Stitch Pattern Samples
- Close the Reference Manual by clicking on the X in the upper right corner.

### GOOD SOFTWARE HABITS

When you work in the software, it is a good idea to end your session with deleting back-up files that are saved in the background.

- In the Search box for your computer, type, Purge.
- Double click on Purge.
- Place a check mark in front of Delete Backup Files.
- Click OK.
- A dialog box will appear saying that the files have been successfully deleted. Click OK.
- This will help keep your computer clean of unnecessary files.



You will want to do this after working a few hours in the software or after a software crash. You can do this process when the software is open or when it is closed.

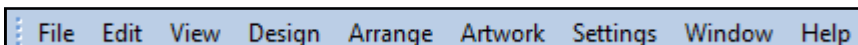
# Software Basics

## SCREEN DISPLAY & ICONS

**Title Bar:** This bar will display the name of the software.



**Menu Bar:** This has pull-down menus to access various software features.



**Canvas Tool Bar:**



This toolbar toggles between Artwork Canvas, Embroidery Canvas, and Embroidery Library. You can convert a selected embroidery design to vector artwork by clicking on the Convert Embroidery to Artwork icon.

**General Tool Bar**

The General tool bar contains basic Windows tools, such as Cut, Copy, Paste as well as icons that launch special dialog boxes and docker dialog boxes within the software.



**Zoom Tool Bar:**



This tool bar will change the zoom level on screen and the Pan icon can be used to move the design on screen. You can select the Zoom icon and left click on the design screen to zoom in, right click on the design screen to zoom out, or click and drag a box around an object to zoom in on that object. Additionally, you can zoom to the selected object, zoom to article, zoom to fit the screen, or zoom to the hoop. In order to zoom to an article or hoop, those must be visible on the screen. To zoom to a selected object, an object must be selected.

A quick way to zoom to selected is to right click on an object and select Zoom to Selected.

# Software Basics

**Transform Tool Bar:** This tool bar is used in editing your design.



**View Tool Bar:** This tool bar contains icons to change your view on the design screen. Highlighted objects are active.



## Toolboxes:



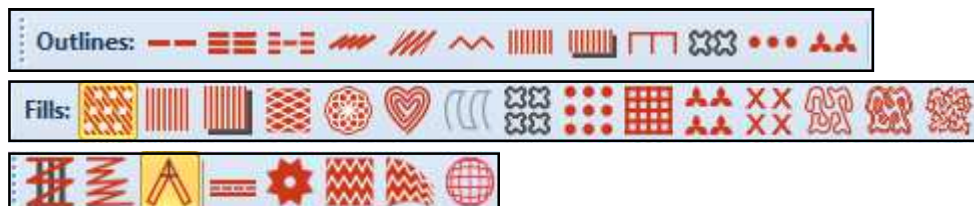
On the left of the screen, there are toolboxes. By clicking on the title bar of the toolbox, the icons grouped in that toolbox will appear.

If there are icons that are hidden, scroll arrows will appear. Icons that are grayed out are not activated until something is selected.



## Software Basics

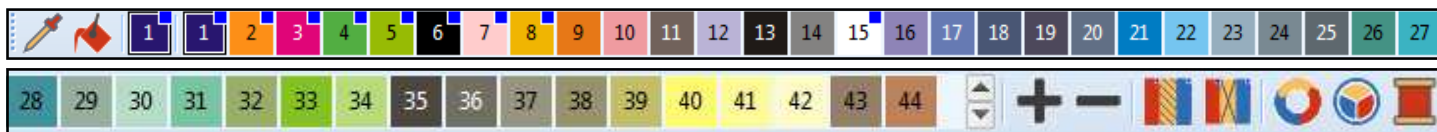
**Stitch Bar:** At the bottom of the screen, you will find a selection of stitch types. There are outlines, fills, and effects.



### Color Toolbar:

Under the stitch toolbar is the Color Palette Toolbar.

Available colors from your default palette are shown when you open a new blank design. If you open a design, rather than insert a design, only colors used in the design are shown. The colors used in the design are designated by a blue box in the upper right-hand corner of the color chip.



With the Pick Color icon, you can select a color by clicking on a color that is part of an object. The symbol changes into a paint bucket icon and you can change another object to the selected color by clicking on the new object.



The Apply Current Color icon allows you to change a color in the design to the color currently selected in the palette. The Current Color is shown in the color chip just to the right of Apply Current Color icon.



The scroll arrows will show additional colors. There are 56 default colors in the BERNINA color palette, which is the default color palette.



Add colors to the palette, by clicking on the plus sign; delete the last color in the palette by clicking on the minus sign.



Hide the unused colors by clicking on Hide Unused Colors. Bring colors back by clicking on the icon again. Remove Unused Colors removes color chips from the palette. Bring the colors back by clicking Undo.

## Software Basics



Cycle Used Colors, at the end of the Palette, rotates through the colors used in the design to different objects.

Color Wheel will change the color of individual parts of a design or the design in total.

A left click on My Threads/Thread Colors will open the My Threads Docker while a right click will open the Design Properties dialog box, Thread Colors tab.

### Docker Tabs:

There are Docker tabs on the right side of the screen. The number of tabs will be determined by which dockers you have activated.

Rest your mouse or stylus on one of the tabs to display the docker dialog box. Dockers will be hidden and shown as tabs if the Auto Hide (thumbtack icon) is turned on its side. The Dockers will remain open if the Auto Hide icon is in an upright position.



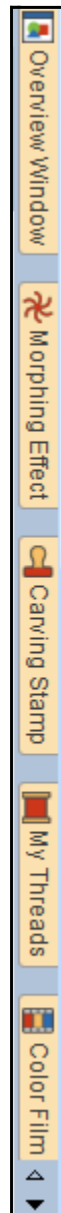
To close the dialog box, click on the X in the upper right-hand corner of the dialog box. To reopen, click on the corresponding icon in the General Toolbar or click on My Threads/Thread Colors icon in the Color Toolbar.



Docker dialog boxes can be moved to any position on the screen by clicking on the title bar of the dialog box and dragging it to another position. This can only be done if the Auto Hide icon is in an upright position. To re-dock the dialog box, double click on the title bar.

### Status Bar:

The Status bar is located at the bottom of your screen. The left side of the status bar will give you information about the next step in the process for your selected icon, if appropriate. On the right side of the status bar, you will see information about the design; including size, location, number of stitches, and type of fabric (if one has been selected).



Enter point 1 on the curve. W 8.85 H 9.17 X= 7.53 Y=-1.23 L= 7.63 A= -9 38295 F7 Woven Medium Weight

# BERNINA Software 8 Icons

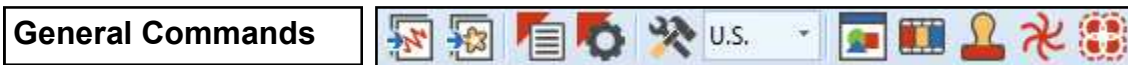
## Toolbars



- ◆ Artwork Canvas
- ◆ Embroidery Canvas
- ◆ Embroidery Library
- ◆ Convert Embroidery to Artwork



- ◆ New Blank Design
- ◆ Open Design
- ◆ Open Recent Design
- ◆ Save Design
- ◆ Print
- ◆ Print Preview
- ◆ Write to Card/Machine
- ◆ Cut
- ◆ Copy
- ◆ Paste
- ◆ Undo
- ◆ Redo



- ◆ Insert Embroidery
- ◆ Insert Artwork
- ◆ Properties (Object)
- ◆ Effects
- ◆ Options
- ◆ Measurement Units
- ◆ Overview Window
- ◆ Film (Color)
- ◆ Stamp
- ◆ Morphing
- ◆ CutWork



- ◆ Zoom
- ◆ Zoom Scale
- ◆ Pan



- ◆ Select While Traveling
- ◆ Travel Backward
- ◆ Travel Forward
- ◆ Jump by Object
- ◆ Jump by Color
- ◆ Jump to Start/End

## Transform Toolbar



- ◆ Select
- ◆ Polygon Select
- ◆ Reshape
- ◆ Size +20%
- ◆ Size -20%
- ◆ Mirror X
- ◆ Mirror Y
- ◆ Rotate Left 45°
- ◆ Rotate Right 45°
- ◆ Rotate
- ◆ Skew
- ◆ Center X
- ◆ Center Y
- ◆ Width
- ◆ Height
- ◆ Width %
- ◆ Height %
- ◆ Proportional Scaling



- ◆ Show Artistic View
- ◆ Dim
- ◆ Show Stitches
- ◆ Show Outlines
- ◆ Points
- ◆ Connectors
- ◆ Bitmaps
- ◆ Vectors
- ◆ StumpWork
- ◆ Show Appliqué Fabric
- ◆ Show Hoop/Settings
- ◆ Show Hoop Template
- ◆ Show Grid/Settings
- ◆ Show Rulers & Guidelines/Settings
- ◆ Show Work Area/Settings
- ◆ Show Quilt Block/Settings
- ◆ Stitch Player

### Outline Stitch Types



- ◆ Single Outline
- ◆ Triple Outline
- ◆ Sculpture Run Outline
- ◆ Backstitch Outline
- ◆ Stemstitch Outline
- ◆ Zigzag Outline
- ◆ Satin Outline
- ◆ Raised Satin Outline
- ◆ Blanket Outline
- ◆ Blackwork Outline
- ◆ Candlewicking Outline
- ◆ Pattern Run Outline

### Fill Stitch Types



- ◆ Step Fill
- ◆ Satin Fill
- ◆ Raised Satin Fill
- ◆ Fancy Fill
- ◆ Sculptured Fancy Fill
- ◆ Ripple Fill
- ◆ Contour Fill
- ◆ Blackwork Fill
- ◆ Candlewicking Fill
- ◆ Lacework Fill
- ◆ Pattern Fill
- ◆ Cross Stitch Fill
- ◆ Stipple Run Fill
- ◆ Stipple Stemstitch Fill
- ◆ Stipple Backstitch Fill

### Stitch Effects



- ◆ Auto Underlay
- ◆ Textured Edge
- ◆ Automatic Corners
- ◆ Couching
- ◆ Star Fill
- ◆ Wave Fill
- ◆ Elastic Fancy Fill
- ◆ 3D Globe Effect

### Color Palette



- ◆ Pick Color
- ◆ Apply Current Color
- ◆ Current Color
- ◆ Add Palette Color
- ◆ Remove a Palette Color
- ◆ Hide Unused Colors
- ◆ Remove Unused Colors
- ◆ Cycle Used Colors
- ◆ Color Wheel
- ◆ My Threads/ Thread Colors

### Color Film



- ◆ Show Objects
- ◆ Back 1 Object
- ◆ Forward 1 Object
- ◆ Back 1 Color
- ◆ Forward 1 Color
- ◆ Move to Start
- ◆ Move to End
- ◆ Sequence by Selects
- ◆ Sequence by Color

### Morphing



- ◆ Pinch
- ◆ Ripple
- ◆ Skew Horizontal
- ◆ Wave Horizontal



- ◆ Punch
- ◆ Twirl
- ◆ Skew Vertical
- ◆ Wave Vertical

## Toolboxes

**Edit**

- Add Holes
- Remove Holes
- Add Stitch Angles
- Remove Stitch Angles
- Double Run
- Blackwork Run
- Color Blending
- Fill Holes
- Outlines and Offsets
- Quilting Background
- Create Trapunto Outlines
- Break Apart
- Remove Overlaps
- Remove Appliqué Overlaps
- Knife
- Stitch Edit

**Digitize**

- Open Object
- Closed Object
- Open Freehand
- Closed Freehand
- Block
- Ellipse
- Rectangle
- Lettering
- Monogramming
- Appliqué
- Advanced Appliqué
- PunchWork
- Buttonhole
- Buttonholes
- Pattern Stamp
- Basting Stitch Marker
- Insert Graphic Marker

**Mirror-Merge**

- Mirror-Merge Horizontal
- Mirror-Merge Vertical
- Mirror-Merge Horizontal & Verti...
- Array
- Reflect
- Wreath
- Mirror Alternate**

**Auto-Digitize**

- Insert Artwork
- Crop Background
- Adjust
- Touch Up Bitmap Artwork
- Color PhotoStitch
- PhotoSnap
- Auto-Digitize
- Instant Auto-Digitize
- Magic Wand
- Magic Wand Block Digitizing
- Magic Wand Fill without Holes
- Magic Wand Centerline
- Matching Method

**CutWork**

- Add CutWork Border
- Digitize Cut
- Digitize Piece
- Digitize Hole
- Cut Closed Border
- Cut Buttonhole Slit

**StumpWork**














- Create Stumpwork Sub-design
- Open Stumpwork Sub-design
- Save Stumpwork Sub-design As
- Digitize Wireline

**Layout**


- Layout to Rectangular Work Area...
- Layout Around Circular Work Area
- Auto Center to Work Area
- Define Work Area
- Layout to Rectangular Quilt Bloc...
- Auto Center to Quilt Block
- Auto Fit to Quilt Block
- Define Quilt Block

## Toolboxes Continued

**Arrange**

-  Group
-  Ungroup
-  Lock
-  Unlock All
-  Align Left
-  Align Vertical Centers
-  Align Right
-  Align Top
-  Align Horizontal Centers
-  Align Bottom
-  Align Centers
-  Space Evenly Across
-  Space Evenly Down














**Multi-Hooping**






-  Select a Hoop
-  Automatically Add Hoops
-  Add Splitting Line
-  Preview Hoopings
-  Calculate Hoopings
-  Multi Hooping Options
-  Add Hoop
-  Delete Hoop
-  Add Hoop Right
-  Add Hoop Left
-  Add Hoop Right
-  Add Hoop Left
-  Add Hoop Down
-  Add Hoop Up
-  Add 4 Hoops Around
-  Add 8 Hoops Around

**Applications**

-  Cross Stitch
-  Quilter

# BERNINA Artwork Canvas Icons

<b>Pick</b>			
<b>Zoom Flyout</b>		<ul style="list-style-type: none"> <li>◆ Zoom</li> <li>◆ Pan</li> </ul>	
<b>Reshape Vector Object</b>			
<b>Curve Flyout</b>		<ul style="list-style-type: none"> <li>◆ Freehand Draw</li> <li>◆ Artistic Media</li> <li>◆ Pen</li> <li>◆ Smart Drawing</li> </ul>	
<b>Object Flyout</b>		<ul style="list-style-type: none"> <li>◆ Vector Rectangle</li> <li>◆ Vector Ellipse</li> <li>◆ Vector Polygon</li> <li>◆ Vector Star</li> <li>◆ Graph Paper</li> <li>◆ Vector Spiral</li> </ul>	
<b>Perfect Shapes Flyout</b>		<ul style="list-style-type: none"> <li>◆ Basic Vector Shapes</li> <li>◆ Arrow Vector Shapes</li> <li>◆ Banner Vector Shapes</li> <li>◆ Callout Vector Shapes</li> </ul>	
<b>Vector Lettering</b>			
<b>Crop Flyout</b>		<ul style="list-style-type: none"> <li>◆ Crop Bitmap Artwork</li> <li>◆ Knife</li> </ul>	<ul style="list-style-type: none"> <li>◆ Segment</li> <li>◆ Erase</li> </ul>
<b>Interactive Tool Flyout</b>			<ul style="list-style-type: none"> <li>◆ Blend Vector Object</li> <li>◆ Contour</li> <li>◆ Distort</li> <li>◆ Envelope</li> <li>◆ Extrude</li> <li>◆ Interactive Fountain Fill</li> </ul>
<b>Drop Flyout</b>		<ul style="list-style-type: none"> <li>◆ Drop Shadow</li> <li>◆ Transparency</li> </ul>	
<b>Eyedropper Flyout</b>		<ul style="list-style-type: none"> <li>◆ Pick Color</li> <li>◆ Apply Color</li> </ul>	
<b>Outline Flyout</b>			<ul style="list-style-type: none"> <li>◆ Outline Pen</li> <li>◆ Outline Color</li> <li>◆ No Outline</li> <li>◆ Hairline Outline</li> <li>◆ 2- 8- 16- 24- Point</li> <li>◆ Color Docker</li> </ul>
<b>Fill Flyout</b>		<ul style="list-style-type: none"> <li>◆ Uniform Fill</li> <li>◆ Fountain Fill</li> <li>◆ Pattern Fill</li> <li>◆ Texture Fill</li> <li>◆ No Fill</li> <li>◆ Color Docker</li> </ul>	

<b>Insert Artwork</b>	
<b>Scan Artwork</b>	
<b>Edit Artwork</b>	
<b>Save Artwork</b>	
<b>Convert Artwork to Embroidery</b>	



<b>Artwork Canvas</b>
<b>Embroidery Canvas</b>
<b>Show Embroidery</b>
<b>Convert Artwork to Embroidery</b>

# Lettering Basics

**Note:** Click means left click; Right click is specified.

## Open a Blank Design File



- Open BERNINA Embroidery Software 8 by double clicking on the desktop icon.
- Select File/Save As.
- Navigate to the location you wish to save the file.
- Name the file, Lettering Basics and click on Save.

## Adding Lettering



- In the Digitize Toolbox, click on the Lettering icon.
- Click in the center of the screen; type the word BERNINA.
- Press Enter on the keyboard to generate the lettering.
- While the lettering is selected, double click on the lettering to open the Object Properties dialog box.
  - ◊ Select the Ketchikan alphabet from the drop-down choices in the Font field.
  - ◊ Enter 15 mm (.59 inches) in the height field.
  - ◊ Press OK to confirm changes and close the dialog box.
- In the Zoom Scale box, the software defaults to 100%. This shows the lettering in actual size if you have calibrated the screen.
- While the lettering is selected, right click and drag to make a quick clone.
- Repeat until there are four sets of lettering.
- If the hoop is not visible, right click on Show Hoop.
  - ◊ For the machine, choose BERNINA 7 series.
  - ◊ From the Hoop choices, choose the Large Oval Hoop, 255 x 145.
  - ◊ Choose the #26 foot.
  - ◊ Make sure there is a check mark in front of Show Hoop.
  - ◊ Click OK.
- Move the top set of letters toward the top of the hoop and the bottom set toward the bottom of the hoop by clicking and dragging on the words.



## Alignment & Spacing of Objects

- Select Edit> Select All or Ctrl + A.
- Open the Arrange Toolbox by clicking on the title bar.
- Click on Align Centers Vertically.
- Click on Space Evenly Down.



## Changing Colors of Lettering

- Deselect the lettering by clicking outside the black boxes.
- Click on the second set of lettering.
- In Color Palette, select the turquoise color chip.

## Notes:



### Lesson covers:

- ◆ Adding lettering
- ◆ Cloning
- ◆ Show Hoop
- ◆ Alignment & Spacing
- ◆ Deselecting
- ◆ Changing lettering properties (font type, size, color, skew, rotate)
- ◆ Break Apart
- ◆ Reshape

*For best results when resizing lettering, remember to stay within the recommended size range for each selected style (see Appendices in Reference Manual).*

*Within the Object Properties box, you can change the alphabet style, the height, width, justification or baseline. Clicking OK will make the changes and close the dialog box; clicking Apply will make the changes and keep the dialog box open for more changes.*

*Left clicking on the Show Hoop icon will toggle the hoop on and off; right clicking will open the dialog box.*

*There must be at least three objects selected to use the Space Evenly Across and Space Evenly Down tools.*



- The color of the letters change and there is now a blue box in the upper right corner of the turquoise color chip, indicating that the color has been used in the design.
- Repeat for the third and fourth group of letters, choosing a new color for each of the words.
- Select the first BERNINA.
- In the Edit Toolbox, select Break Apart.
- Select the second letter and click on a color chip in the Color Palette.
- Select a new color for each letter in BERNINA by selecting the letter first; then select a different color chip.
- Double click on the letter B. In Object Properties, notice that the software still sees this as lettering.
- Click on the drop down arrow for the font and choose Castle.
- Change the size of the font to 20 mm (.79 inches) while the letter is selected. Press OK.
- Move the letter using the left arrow key on the keyboard.



### Scaling Lettering Visually

- Select Lettering Group 2.
- Click and drag a corner resizing handle (black square) to resize the word. Holding the Shift key while dragging the corner will resize from center out.
- Notice the flag indicates the size and the % of change.
- Release mouse to complete.

### Transforming Lettering Objects

- Select Lettering Group 3.
- Click the lettering again— another set of selection handles appears around the lettering (outlined squares).
- Click and drag one of the diamond-shaped handles (at the middle top or middle bottom of the lettering) to skew the lettering object horizontally. The diamond at either side of the word will skew the lettering group vertically.
- Click and drag one of the hollow corner square handles to rotate the object around the center of the word.
- Release the mouse to set the position.

### Spacing Individual Letters (Kerning)

- Select Lettering Group 4.
- Select Reshape Object.
- Click on a magenta diamond at the center of the letter R.
- Move the letter toward the letter N.
- You can use this feature to manipulate the spacing between the letters. Touch Esc.
- Since you have previously named the file, click on Save.
- Close the file.



### Notes:

*To change the individual colors of the letters, you may break apart the lettering and each letter can then have its own properties—the type of font, the width, the height, etc., in addition to the color.*

*The corner sizing handles rescale letters or objects proportionally. The resizing handles in the middle (top and bottom) of the letters will rescale the letters in height; the ones at either side will rescale only the width of the letters.*

*The Transform Tool Bar can also be used to rescale, rotate, and skew objects. You may lock proportions to rescale both width and height to maintain proportions or unlock to make individual changes to the width and height.*



*In addition, there are Scale +20% and Scale -20% icons that will rescale in 20% increments.*



*Rotate Left/Right will rotate objects or letters by 45°.*



*You can rotate a specific amount by entering a value in the Rotate box.*



*You can skew by entering a value in the Skew box.*

# Lettering Baselines



## Open a Blank Design File

- Click on the New Blank Design icon or select File> New.
- Select File/Save As.
- Name the file, Lettering Baselines.

## Changing the Background Color

- Select Design> Background.
- In the dialog box, click on the drop down arrow next to the color box for Solid Color and select a color from the color chips shown.
- Click OK. The background color will change and will be saved as part of this file.
- If a hoop is visible, click on Show Hoop to hide the hoop..



## Working with Baselines: Vertical Baseline

- In the Digitize Toolbox, right click on the Lettering icon,
- This will open Object Properties for lettering.
- Type BERNINA using the keys on your keyboard.
- Select the Chicago style alphabet from the Font categories.
- Change the Height to .75". Enter the " symbol in the lettering value box if your system is set for metric; or, just enter the .75 value if your system is set for U.S.
- Select Free Line Vertical for the baseline.
- Change the Letter Spacing to 0.05. Click Apply.
- Notice the prompt in the lower left corner of the status bar.
- Click on the screen to generate the lettering.



## Working with Baselines: Predefined Baseline

- Activate the grid by clicking on the Show Grid icon if the grid is not visible on your screen.
- Deselect the lettering by clicking on the design screen outside the black selection handles.
- In the Object Properties box, click inside the white box; type in Embroidery; press Enter.
- Type in 8, then Enter; then type in Software.
- Enter places each segment on a new line.
- For the font, choose London.
- Change the height of the lettering to .5". The value converts to the comparable metric value if your software is set for metric.
- Select the Predefined Baseline.
- Click Apply.
- Click on the intersection of a grid and drag 3 grid squares to the right. Click at the perimeter of the circle.
- Press Enter to generate the lettering.
- While this lettering is all selected, move as desired to the right of the word, BERNINA.



## Notes:



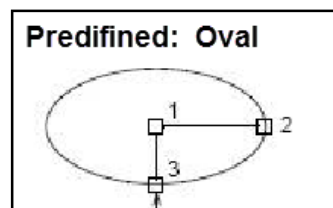
### Lesson covers:

- ◆ Changing background color
- ◆ Ways to add lettering
- ◆ Baselines
- ◆ View Grid
- ◆ Deselecting

Lettering can be added in three ways.

1. Left mouse click on the Lettering icon and type directly on the design screen following the prompts in the lower left corner.
2. Right click on the Lettering icon to open the Lettering Object Properties window. Type the words in the window. Click OK.
3. Press "A" on the keyboard to open the Lettering Object Properties window. Type the words in the window. Click OK.

If you wish to make the lettering form an oval shape, three clicks are necessary. Click first in the center, then to the right to set one dimension of the oval shape, then drag the mouse down and click again to set the next dimension of the oval shape. Press Enter to activate.



- Deselect the words; then select the 8.
- In the Object Properties dialog box, type in 1" for the Height.
- Click OK. OK closes the Object Properties dialog box.

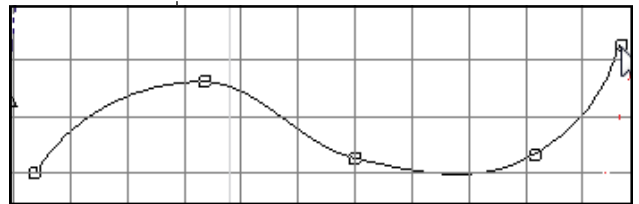
### Working with Baselines: Any Shape Baseline

- Press the A key on your keyboard.
- Enter "best of the best" in the dialog box.
- Enter .5" or 12.7 mm in the Height box.
- Click in the Font drop-down window and type an A; then L. the software scrolls to the Alice font. Press Enter to select this font.
- Select the Any Shape baseline.
- Select The Left Justification.
- Click OK.
- Follow the prompts on the status bar to form a shaped line that the lettering will follow. Place this below Embroidery Software 8.
- Begin with a left click, follow with three right clicks, and finish with a left click (see the line at the right).
- Press Enter to generate the lettering.
- If letters need to be kerned (spaced), review the information in the Lettering Basics exercise.
- Save the file. Close the file.



### Notes:

*When creating the Any Shape baseline, left mouse click to create straight lines, right mouse click to create curves in the line. To eliminate a point just created, use the backspace key.*



### Additional Notes:

There are two other baseline possibilities, one is Circle Clockwise; the other is Circle Counterclockwise.

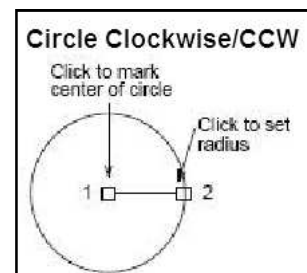


To enter this type of baseline, select Circle Clockwise or Circle Counterclockwise after typing the word in the Lettering Object Properties dialog box. Click OK; then click in the center to place the circle; then drag to the right and click again. Press Enter to activate the lettering.

Circle Clockwise will place the lettering above the circle; while Circle Counterclockwise will place the lettering below the circle.

You may edit these types of baselines by changing the Baseline Radius values in Object Properties. The higher the value, the less arced the circle.

To make the lettering form an oval shape, three clicks are necessary, click in the center, then to the right to set the perimeter, then drag your mouse down and click again.



## Editing Overview



### Open a Design File

- Click on New Blank Design.
- Select Insert Embroidery.
- Navigate to Libraries> Embroidery> BERNINA 8 Embroidery> Animals & Bugs. Select WP099. Click Open.

### Adding an Article

- Select Design> Background.
- Place a radio dot in front of Factory Article.
- In the drop down box, select Kids> T-shirt> Girls Short Sleeves (Front).
- From the Color drop down, choose Sky Blue (6 over; 4 down). Click OK.

### Creating Duplicates



- Click on Show Artistic View or select T on the keyboard to toggle the view between Artistic View and Design View.
- Make sure you are viewing the design in Design View.
- Select the design. Notice how the design turns pink.
- Click Copy to place a copy of the design on the computer's clipboard.
- Click Paste to generate a copy of the design.
- While the duplicate is selected, click Mirror X.
  - ◊ Drag the duplicate to the left and below the original.
  - ◊ Click on the selected bird to change the control handles from black squares to outlined squares.
  - ◊ Click on a corner outlined square and drag to the left to rotate the selected bird 15°. Notice the flag that appears as you rotate, indicating the degree of rotation.

### Re-coloring the Design



- While the copy is selected, click on Color Wheel.
- The default Color Scheme is Harmonious.
- Select various nodes and drag the nodes to new positions to re-color the design as you wish.
- Click OK if you like the way it was re-colored or click Cancel to return to the original colors.

### Changing Stitch Types



- Deselect the bird. While holding the Alt key, click on the head of the original bird. Zoom in with your mouse wheel to make it easier to select.
- Change to Artistic View by clicking on the Show Artistic View icon. Notice that the head is no longer pink, but the boxes still appear around the selected object.
- Click on Show Artistic View again to change to Design View.

### Notes:



#### Lesson covers:

- ◆ Adding an article
- ◆ Mirror, copy, paste, & rotate
- ◆ Combining designs
- ◆ Color Wheel
- ◆ Changing stitch types
- ◆ Remove Overlap
- ◆ Reshape of objects
- ◆ Changing stitch angles
- ◆ Adding a Guideline
- ◆ Measurement Tool
- ◆ Stitch Player

**Add the Library Folder to Windows 8 .1& 10:** After selecting Insert Embroidery, right click on the left side of the dialog box in an empty space. Select Show Libraries. Now the same file path can be used to find designs.

#### Rotating:

Another option for rotating is to input the degree of rotation in the Rotate box.



**The Alt key** will let you select pieces and parts of a grouped design, without ungrouping. An alternative is to open the Arrange Toolbox and click on Ungroup or right click on the object and select Ungroup.

- Double click on the selected object to open Object Properties.
- Place a radio dot in Step Pattern #6 and select Apply.
- Hold the Alt key and select the copied bird's lower wing.
- Click on the drop down arrow next to Fill Type in the dialog box and select the Fancy.
- Click on the Pattern drop down arrow and select 179 Wild. Click Apply. Deselect.
- Hold the Alt and Ctrl keys and click on the copied bird's outlined tail feathers (triple stitch swirls). Zoom in.
- Change the stitch length in Object Properties to 2.5 mm. Click OK.

**Notes:**

*Apply keeps the dialog box open so additional changes can be made while OK will close the dialog box.*



**Inserting Designs & Remove Overlap**

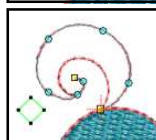
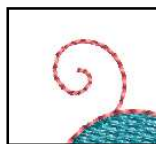


- Select Insert Embroidery.
- Select BERNINA 8 Embroidery at the top of the dialog box. Select Alphabets & Monograms Folder; open the folder.
- Select Gilded Silver 3. Click on Open.
- Click on the decorative scroll and place it on the copied bird at the bottom of the wing over the filled tail feathers.
- While the scroll is selected, click on Remove Overlaps in the Edit Toolbox. (Use scroll arrows to the right of the toolbox).
- Change the color of the scroll by clicking on a color chip in the Color Palette while the scroll is selected.



**Reshape**

- While holding the Alt key, click on the original bird's outlined swirl at the top of the head.
- Right click and select Zoom to Selected.
- Select Reshape.
- There are two outlines that can be moved and reshaped. See notes at right for information about reshaping objects.
- Click on the control points and move to reshape the swirled outline similar to the one shown.
- Select the Zoom icon and right click on screen to zoom out.
- In the Zoom Toolbar, select To Fit.
- Press Esc.



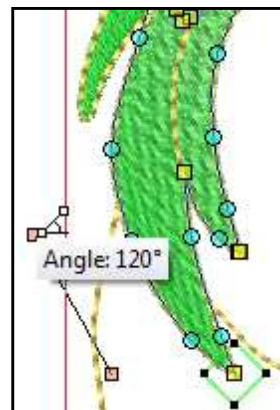
**Reshape:**

*Click and drag to move points and reshape the boundary of the object. Right or left click on the boundary outline to add control points. Select a point and press Delete to eliminate a point. To change the type of control point, select the point and press the spacebar.*

*To change the angle of the stitches, click on one end of the angle bar and drag the orange square to a new location.*

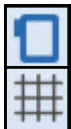
**Changing Stitch Angles**

- Select the Select tool. Hold the Alt key and select the copied bird's longest filled tail feather.
- Select Reshape.
- Click and hold on one of the peach-colored squares connected by a line. This shows the stitch angle of the selected object.
- Click and drag until the flag shows 120°. Release the mouse and the stitches are automatically updated.
- Select Esc to deactivate Reshape.



### Placing the Finished Design

- Select Zoom to Article in the Zoom Toolbar.
- Make sure you are in Design View, not Artistic View.
- Select Edit> Select All.
- Click on the selected design and move it on the T shirt to the desired location.
- Hide the hoop and grid if visible by clicking on Show Hoop & Show Grid.
- Select M on the keyboard (or View> Measure) to measure the distance from the neck/ shoulder seam to the + sign in the center of the design. Click at the neckline and drag to the + sign. Record the distance.
- Select Esc.



### Adding a Guideline

- Activate Show Rulers and Guidelines if the rulers are not visible.
- Add a vertical guideline by clicking close to the 0 on the horizontal ruler across the top of the design screen.
- Double click on the yellow triangle at the top of the guideline.
- Input 0 in the dialog box that opens. Click OK.
- Select M on the keyboard to measure the horizontal distance from the guideline to the + sign in the center of the design. Record the distance.
- Press Esc to deactivate the tool.



### Notes:

Use the recorded measurements to place a crosshair on the T shirt that represents the location of the center of the design. Place the T shirt on the hoop so that the mark is in the approximate center of the hoop.

When the design is sent to the machine, the needle will move to the center of the hoop. You may use your Move Motif icon on the machine to move the design as needed to align with the mark on the T shirt. .



### Previewing the Finished Design

- Select Stitch Player.
  - ◇ The design begins to stitch on the screen.
  - ◇ Click on Pause to stop.
  - ◇ Press Play Forward to resume.
  - ◇ Click and drag on the slider to change the speed.
  - ◇ Click and drag on the slider in the color bar to pass by colors you don't want to see stitch out.
  - ◇ Beginning will take the redraw back to the beginning.
  - ◇ Previous Color and Next Color can be used as a quick way to view the stitch out by color.
  - ◇ End will end the process.
  - ◇ Stop will end the process and close Stitch Player. You can also click on Stitch Player will close Stitch Player.



- Select File> Save As.
- Name the file, Editing Overview. Select Save. Close the file.

Articles should be deleted from designs before sending to an artista 200 or 730.

To delete, place a radio dot in front of custom. Select None from the drop down menu. Click OK.

# Monogramming

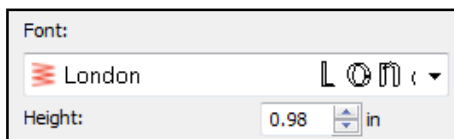


## Selecting the Monogram

- Select New Blank Design.
- In the Digitize Toolbox, select Monogramming.
- A Monogramming Docker opens on the right side of your screen. The Designs Tab is selected.
- There are 23 styles of quick monograms available with different options.
- The first 23 have a border, ornament, and lettering; the next 23 have a border and lettering, and the last 23 have only lettering.
- Choose Style18bo.
- It automatically appears with border, ornaments, and letters on the design screen.

## Editing the Monogram

- Click on the Letters Tab of the Monogramming Docker.
- In the box, highlight ABC and type your initials in the box.
- Change the font by clicking on the drop-down arrow next to Font to choose your new lettering.
- Choose Medley.
- The monogram automatically updates.
- At this point, you could save the monogram if you liked the ornaments and border that are part of the default design, but you can also edit this monogram further.



## Editing the Ornaments

- Click on the Ornaments Tab of the Monogramming docker.
- Make sure the monogram is selected.
- The current monogram ornament is shown in the display.
- Click on Change to change the ornament.
- You can choose from Patterns or Design.
- Select From Design.
- In the Decorative Accents folder, Choose NZ943.
- Click on Open. The ornament is updated.
- Notice that the new ornament takes on the color and the properties of the original ornament.

## Notes:



### Lesson covers:

- ♦ **Creating Monograms from Templates**
- ♦ **Kerning letters in monograms**
- ♦ **Break Apart for monograms**
- ♦ **Cycle Used Colors**
- ♦ **Measurement Tool**

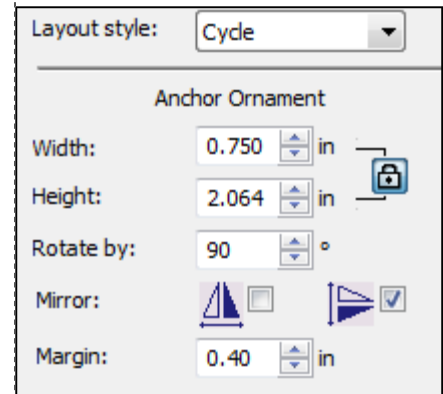


### Editing Advanced Settings

- To change the size of the ornament, click on Advanced in the Monogramming Docker.
- Change the Width to .75 inches.
- Press Enter.
- For Layout Style, select Cycle from the drop-down choices.
- Change the Rotate value to 90°.
- Change the Margin to 0.4 inches.
- Press Enter.



### Notes:



### Editing Borders

- Make sure that the monogram is selected.
- Select the Borders tab.
- Select Add.
- Select the first border in the Monogramming docker box.
- Place a dot by Fill Type.
- Click on the drop-down arrow for Fill Type and select Lacework.
- Select the second border in the docker box.
- Change the Offset to .06 inches. Press Enter.
- Close the Monogramming Docker by clicking on the x in the upper right corner.
- Select File> Save As and name the file, Monogram.



*You can add up to four borders of the same shape to a monogram design.*

*The screen automatically resizes to show the total monogram when the border is added.*

	Add...	Delete	Change...
#	Name	Category	
1	KB13	Borders	
2	KB13	Borders	

*Use Outline and Fill tool buttons to change outline or fill stitch type for selected borders.*

*Stitch Properties of the Pattern Fill can be changed if desired in Object Properties.*



# Mirror Merge Tools



## Open a Design File

- Click on New Blank File to refresh the screen.
- Click on Insert Embroidery.
- From Libraries> Embroidery> BERNINA Embroidery 8> Decorative Accents, select NA471.
- Click Open.



## Deleting Designs

- Right click on the design and select Ungroup.
- Select the Polygon Select icon.
- Click around the shape of the design, including all but one of the blue swirl designs along the outside of the flower.
- Press Enter and allow the software to close the shape.
- Press Delete on the keyboard.
- This leaves the single design element shown at the right.

## Grouping Designs

- Select Edit> Select All or Ctrl + A on the keyboard.
- Right click and select Group.



## Mirror Merge Horizontal

- Open the Mirror Merge Toolbox. Select the design.
- Select Mirror-Merge Horizontal.
- Move the mouse onto the design screen to see a shadow copy of the design.
- When you see a configuration that you like, click on the screen to set the stitches. Make sure the designs do not overlap.



## Stitch Sequence

- Open Color Film if it is not open.
- Notice there are unnecessary color changes.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Colors are combined to decrease the number of thread changes.



- Save the file as Mirror-Merge Horizontal.
- Select Undo twice to leave the single design.

## Mirror Merge Vertical



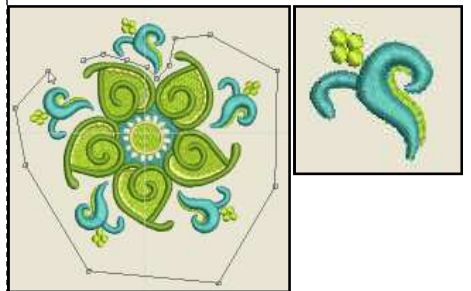
- Select the design by clicking on it.
- Select Mirror-Merge Vertical.
- Move the mouse to form a shadow copy of the design.
- When you see a combination that you like, click on the screen to set the stitches.
- Once again, make sure that the designs do not overlap.

## Notes:

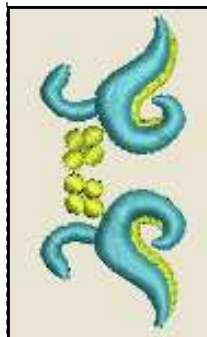
### Lesson covers:

- ♦ Polygon Select
- ♦ Group/Ungroup
- ♦ Deleting Objects
- ♦ Mirror Merge tools
- ♦ Optimizing Color Changes
- ♦ Measurement tool

*To use Polygon Select, you do not need to click close to the object except in areas where the objects are very close to other objects. Zoom in to increase your accuracy. Let the software close the selection line by pressing Enter.*



*Optimize Color Changes will combine colors that can be combined, but will not re-sequence colors that overlap and have to be stitched in a certain order.*



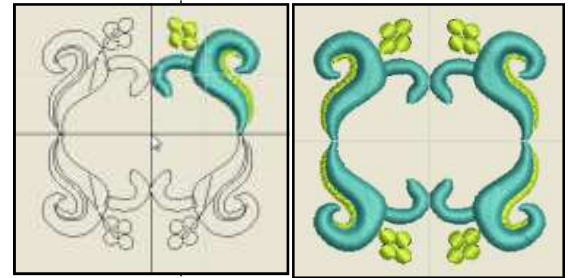
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Save the file as Mirror-Merge Vertical.
- Select Undo twice.



**Notes:**

**Mirror Merge Horizontal & Vertical**

- Select the design.
- Select Mirror-Merge Horizontal & Vertical.
- Move the mouse to form shadow copies of the design.
- When you see a combination that you like, click on the screen to set the stitches.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- The status bar will give you the height and the width of the designs, but if you need another measurement, you can use the measurement tool in the software.
- Select M on the keyboard.
- Click at the corner of the design and drag to the opposite corner to measure the diagonal measurement of this design.
- Press Esc to deactivate the tool.
- Save the file as Mirror-Merge Horizontal & Vertical.
- Select Undo twice.



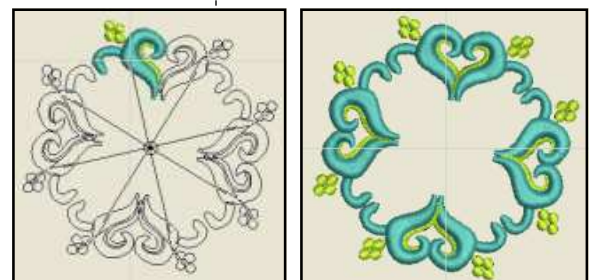
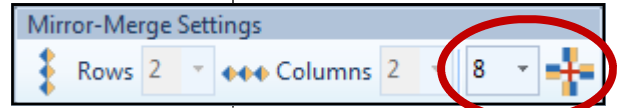
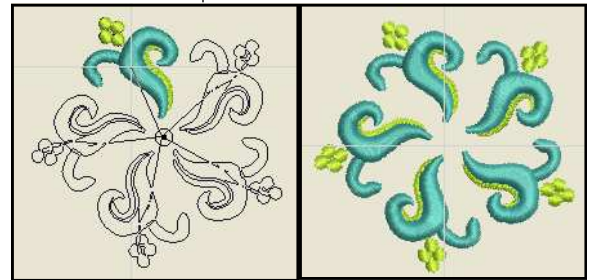
**Wreath**

- Select the design.
- Click on the Wreath icon and change the number of repeats to 5 in the Mirror-Merge Settings floating dialog box. This is the last value box as shown at the right.
- Move the mouse and rotate the objects until you see a combination that you like.
- Click to set the design.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Select File> Save As and name the file, Mirror Merge Wreath.
- Select Undo twice.



**Mirror Alternate**

- Select the design.
- Click on the Wreath icon; change the repeats to 8.
- When the number is even, then the Mirror Alternate icon next to the number of points becomes highlighted.
- Select it and rotate the mouse until you see a combination you like.
- Click on the screen to set the design.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Select File> Save As and name the design Mirror Merge-Mirror Alternate.
- Don't close the design.



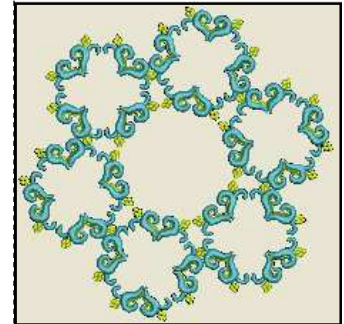
*You can also access this tool through the View Menu. The Wreath tool will work with even or odd numbers and places the repeats in a cyclical form; Mirror Alternate works only with an even number and mirrors the designs.*

## Multiple Wreaths

- You can also make a wreath of a wreath or mirror alternate by selecting the original and applying another wreath or mirror alternate.
- Select Edit> Select All.
- Select Wreath.
- Change the number of wreaths to 6.
- Move the mouse and rotate the objects until you see a combination that you like.
- Click to set the design.
- Notice in Color Film that the colors don't need to be combined.
- Right click on Show Hoop.
- Select BERNINA 8 Series, BERNINA Jumbo Hoop, and the #26 Foot.
- Click OK.
- Select File> Save As and name the file, Mirror Merge-Multiple Wreaths.
- Select Undo four times or until you have the single design.



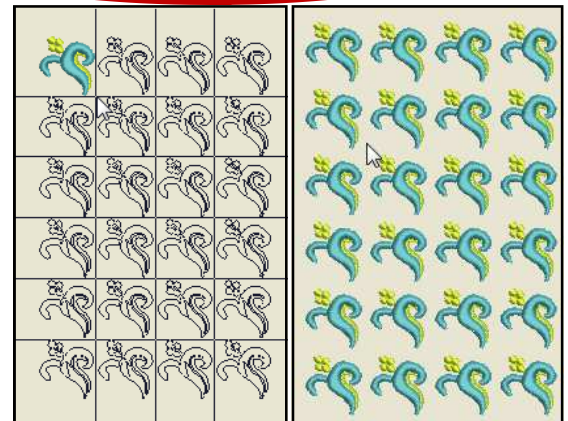
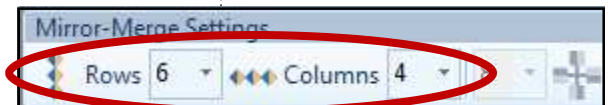
## Notes:



*Array will orient the designs in the same direction; Reflect mirror images the design sets.*

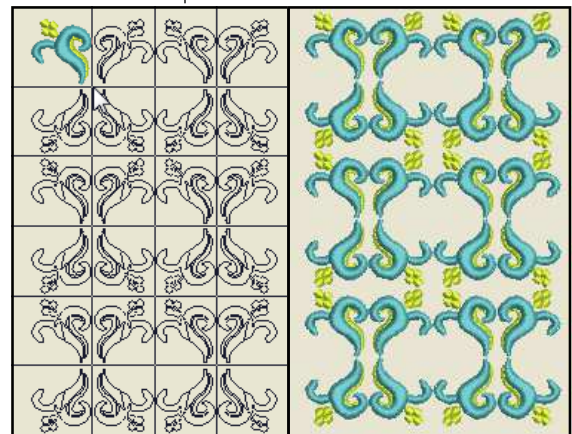
## Array

- Select the design.
- In the Mirror Merge Toolbox, select Array while the design is selected.
- In the Mirror-Merge Settings, select 6 in rows and 4 in columns from the drop-down choices.
- Move the mouse to form shadow copies of the design.
- When you see a combination that you like, click on the screen to set the stitches.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Select File> Save As and name the design Mirror Merge -Array.
- Select Undo twice.



## Reflect

- Select the design.
- In the Mirror Merge Toolbox, select Reflect while the design is selected.
- In the Mirror-Merge Settings, select 6 in rows and 4 in columns as you did for Array.
- Move the mouse to form shadow copies of the design.
- When you see a combination that you like, click on the screen to set the stitches.
- Select Design> Optimize Color Changes.
- In the dialog box that opens, select OK.
- Select File> Save As and name the design Reflect.



## True Type Fonts

You can create embroidered lettering from fonts that are installed on your computer. These are known as TrueType or Open Type fonts.

**IMPORTANT TIP:** Remember that some TrueType & Open Type fonts may not be suitable for embroidery. Experiment with the fonts and settings to find one that works for your creation.



### Creating Lettering from True Type or Open Type Fonts

- Select the New Blank Design icon.
- Press A on your keyboard to open Lettering Object Properties. box.
- Type BERNINA in the text box.
- Place a dot in front of True Type in the Type section of Object Properties. The Font choices will only list True Type fonts.
- Select Block for the Group.
- Click on the drop-down arrow by the fonts and select a Block True Type font of your choice. Only Block style alphabets will be shown.
- Change Height to 20 mm (If U.S. is selected for Measurement Units, add mm after the number 20).
- Click OK; click on the screen to generate the lettering.
- While the lettering is selected, click on Color 5, Red in the Color Palette Toolbar.
- Experiment with additional fonts, adding them as outlined above.
- Select File> Save As and name the file True Type Fonts.
- Close the file.



### Notes:

#### Lesson covers:

- ◆ Using Open & True Type fonts
- ◆ Auto Kerning

*Look for fonts that don't have thick and thin areas for successful stitching.*

*If the selected font can be Auto Kerned, place a check mark in front of Auto Kerning in the Object Properties dialog box. If the font has not been coded in this way, the option will be grayed out. Auto Kerning respaces the letters within the word.*