

MY BERNINA



BERNINA DESIGNWORKS SOFTWARE
WORKBOOK 1
BASICS



made to create **BERNINA**

DesignWorks Workbook Table of Contents

Introduction.....	3
Getting Started.....	4
Setting Your Options.....	5
Things to Know.....	7
Workspace Tour.....	8
Icon Cheat Sheet.....	11
Selection Methods.....	13
Screen View.....	15
Zoom Tools.....	16
View Menu.....	17
Working with the Wizard.....	18
More on Fabric Type.....	20
Color Reduction.....	21
Saving a File.....	22
Exporting a Design.....	23
More on Colors.....	24
More on Hoops.....	26
Default Settings.....	27
Software Exercises.....	29
Printing.....	51



Introduction

Congratulations on your purchase of BERNINA DesignWorks Software!

This workbook is designed to be used in conjunction with the classes you will take at your BERNINA dealership, and contains helpful information to get you started using the features of your BERNINA DesignWorks Software.

You may wish to stitch, paint, or punch the designs you create while working through the exercises and place them in page protectors as reference to the exercises.

My BERNINA DesignWorks Software:

My dongle serial number is: _____

I purchased my software on: _____ (date)

At _____

made to create **BERNINA**

Getting Started

Class Overview

Setting up the Computer
Setting Your Options
Setting Your Monitor
Setting the Measurement System
Changing the Icon Size

Things to Know
Overview of Features
Workspace Tour
Icon Cheat Sheet
Selection Methods
Screen View

Software Exercises:

These exercises will teach use of the tools and features of the DesignWorks software. Special information and notes are included with the exercises.

Help Features



The Help Menu provides an easy way to read additional information about the tools and features of the software. Click on the Help icon; then click on the screen to access information about any icon on the screen.

In addition, you can go to Help> Help Topics and find a table of contents, an index, and a search function. Click on the Search tab and type in the topic. All information related to that topic will be displayed.

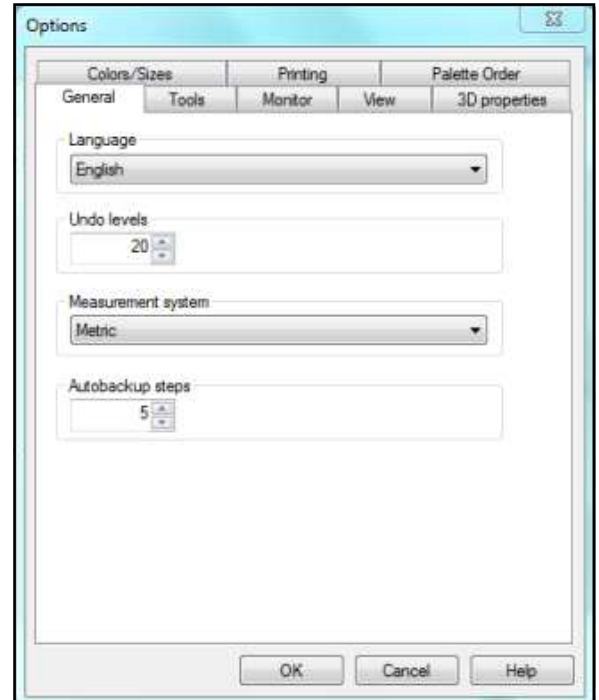
To find out what version of software you have, click on Help > About BERNINA DesignWorks. The version is found in the upper right corner of the dialog box.

Setting Your Options

Setting your Options

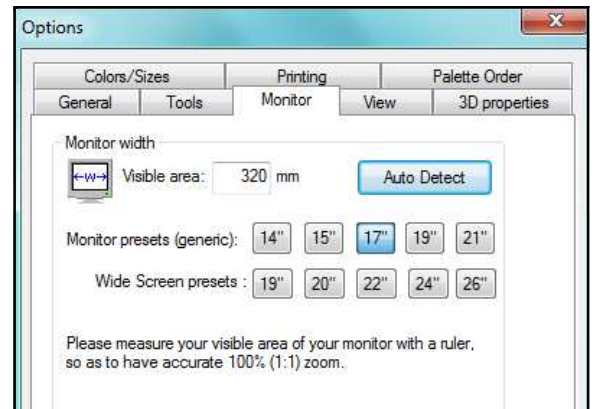
Go to *Tools > Options*.

You will find different tabs available to customize the software.



Setting Monitor Size

Select the Monitor tab. Set the exact size of your monitor so that you can view the design in actual size with the 100% zoom preset.

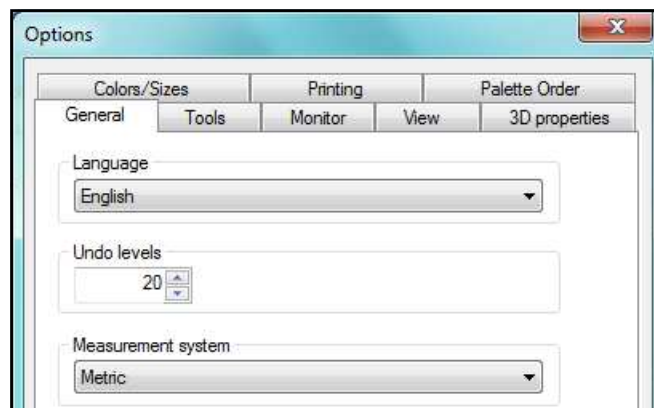


Setting the Measurement System

To change the measurement system in the software, go to *Tools > Options > General*. Click on the drop down arrow and select either Metric or U.S. Click on OK.

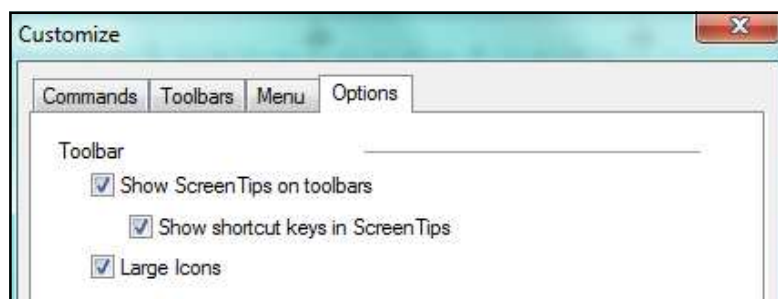
The rulers will not update until you hide them and then unhide them. Go to *View > Rulers*. Uncheck to hide; re-check to show.

Values shown in Tool Options will be updated, but the value labels will not update until the software is restarted.



Changing the Size of the Icons

To change the size of the icons on the screen, go to *View > Toolbars > Customize*. Click on the *Options* tab and place a check mark in front of *Large icons*. Icons update automatically.



For more option set-up information

There are many other options that you can set up in the software. In the On Screen Help Manual, go to Chapter 12 to find out more about the options.

Go to *Help > Help Topics*.

Click on *Contents* tab.

Open Settings.

Select Options.

Use the Next Page icon to read through this section.



Things to Know

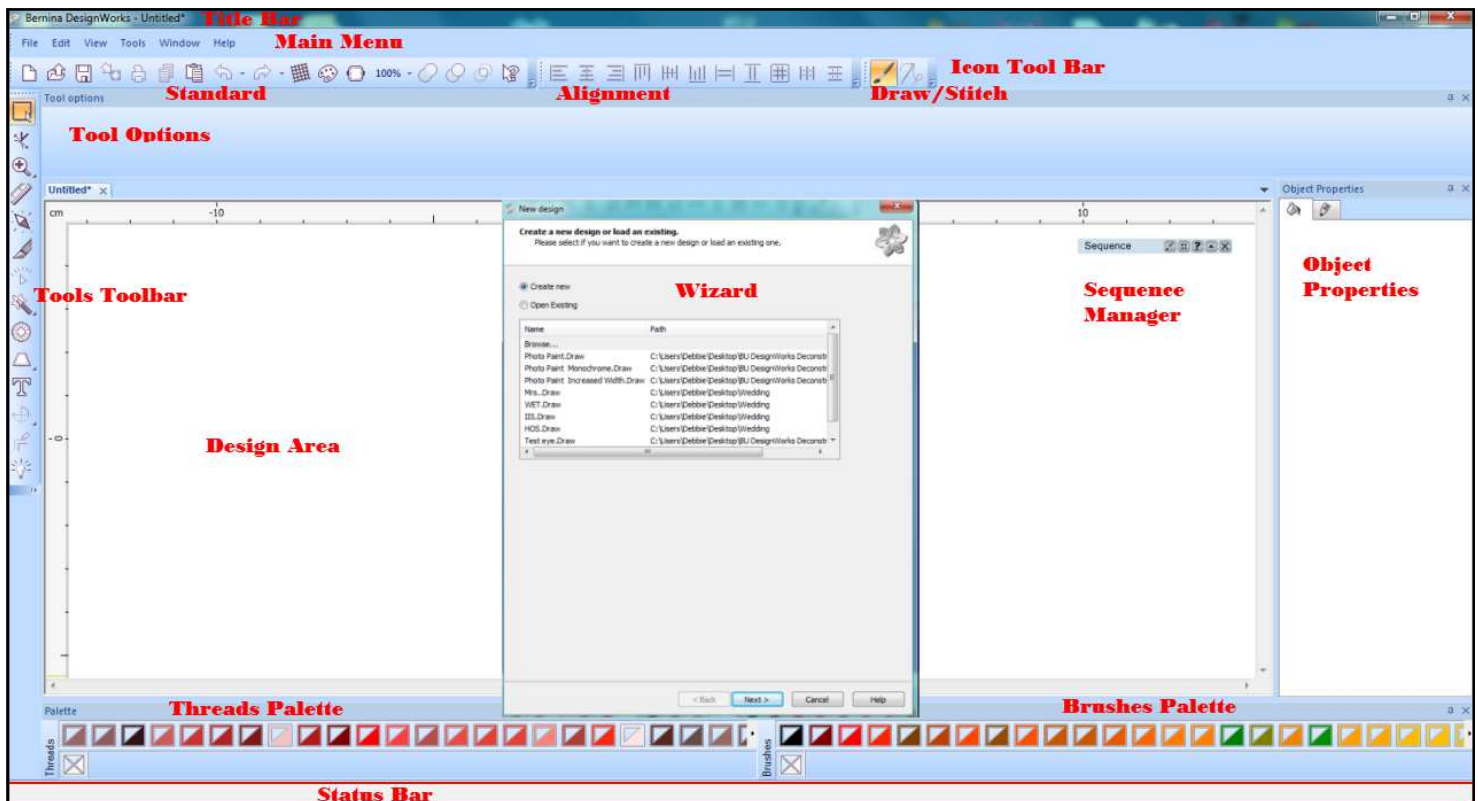
Overview of Features

BERNINA DesignWorks is an embroidery software that converts vector and bitmap images to outline embroidery, appliqué, cutwork, crystal, or painted designs. The options available depend upon the modules that have been activated in the software with a code card. It allows you to create outline stitches from images, add cutwork to existing embroidery designs, scan your own images or use a webcam to create designs, create appliqué designs, or create your own designs with built-in drawing tools.

Workspace Tour

Below the DesignWorks screen is pictured.

The **Title bar** is located at the top of the window. The **Main Menu bar** consists of several menus and menu commands. The **Icon tool bar** consists of several tools used to create your designs. By pausing your mouse on the icon, a popup appears to provide information about the icon.

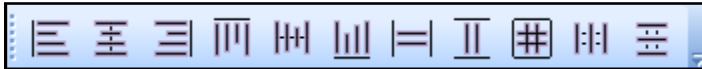


Workspace Tour

The **Standard Toolbar** is comprised of familiar functions—create new design, open design, save design, copy, and paste. There are also zoom presets, shaping tools, fabric, hoop, color, and help icons in this toolbar.



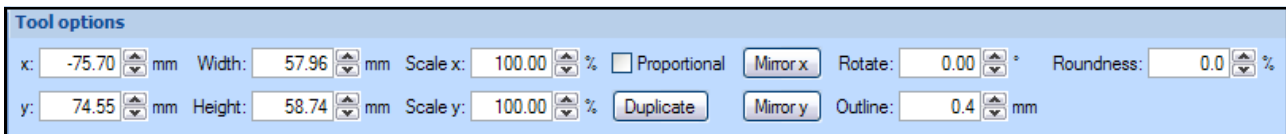
The **Align Toolbar** contains aligning, distributing, and auto-sizing tools.



The **Draw-Stitch bar** can be used to select the working mode. The Draw mode is for creating and editing artwork and the Stitch mode is used to convert the artwork to stitches and make color adjustments. The software opens in the Draw mode and that is where you will spend most of your time.



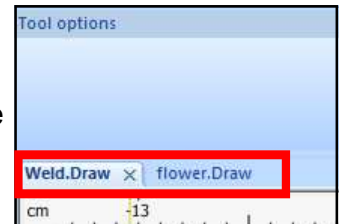
The **Tool options** will change according to what tool is selected. You can change the properties of the selected object using options in this toolbar.



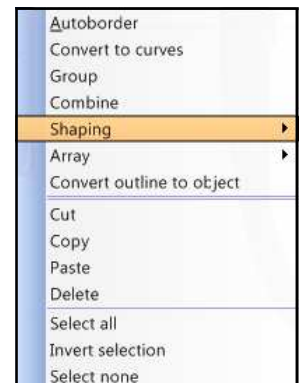
The **Tools toolbar** has shortcuts for viewing and designing and is located along the left side of the screen. Some of the tools have hidden tools. You can rest your cursor on the lower right hand triangle and the hidden tools will appear. Drag your mouse to select a hidden tool.



The **Design area** is the large area for creating and editing designs. You can have multiple designs open in the software; each will have its own design areas. Along the top of the design area, just under the Tool Options, tabs will appear for each design. By choosing the appropriate tab, you can select the design you want to be visible. The active design is indicated by an asterisk next to the title.



Context menus are pop up menus that appear when right clicking an area within the design area. The available options in this menu vary depending upon the item selected and which tool is active.



Workspace Tour

At the bottom of the screen, you will find a **Threads Palette** and a **Brushes Palette**. Here, you can select and set the colors of the design. The top palette row shows the available colors and the bottom palette row shows the colors used in the design. The **Thread Palette** will set stitch colors while the **Brushes Palette** will set paint pen colors.

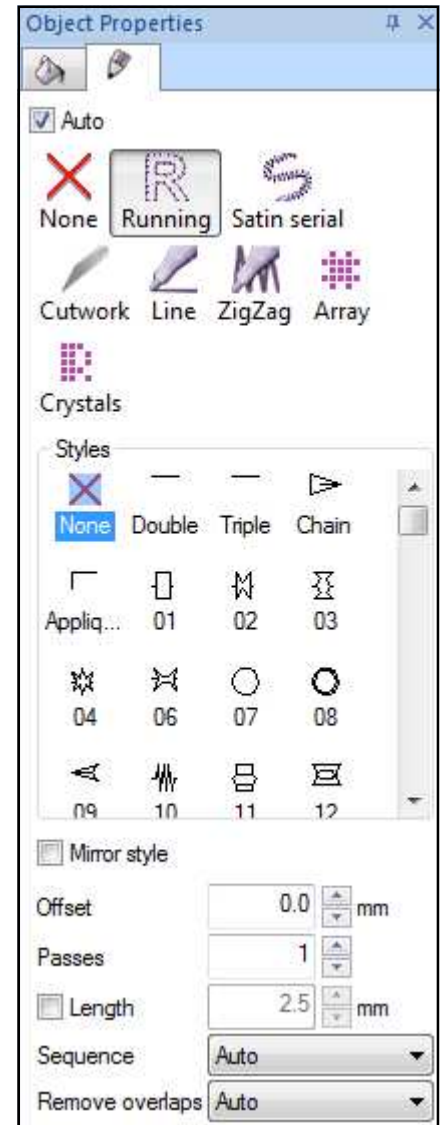


If any of these options or toolbars are not visible, go to *View > Toolbars* and make sure there is a check mark in front of any bar that is missing.

The **Status bar** displays information about selected objects—width, height, number of stitches and colors. It is located at the bottom of the screen.

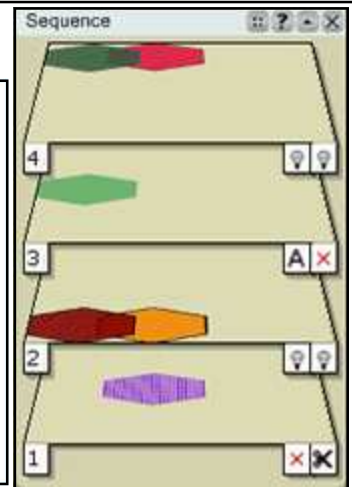


The **Object Properties** dialog box consists of two tabs—fill and outline. You can change the stitch type of the design through Object Properties. Each stitch type has a different set of parameters that can be changed as well. Parts of the design must be selected before changes can be made to that part of the design and something must be selected before you have access to the options in Object Properties.



The **Sequence Manager** illustrates the embroidery sequence. Each layer of the sequence manager shows the type of objects along the right hand side of the layer. The left symbol corresponds to the fill; the right symbol, to the outline. Numbers on the left side indicate the sequence. The sequence manager provides a quick way to select objects. By clicking on a layer, the objects appearing in that layer are selected. You can quickly re-sequence a design by clicking on a layer and dragging it to a new location.

- Normal stitch objects(Running, Satin serial, Netfill)
- CutWork objects
- Appliqué objects
- Imported artwork from stitch files
- Paint objects
- Photo paint objects
- none Fill or Outline
- Array fill or Outline
- Crystal fill or Crystals on outline



Workspace Tour

Customizing the Workspace

The dialog boxes are docked by default, but can also be floated to customize your screen. You can move, resize, dock, and auto hide most of the components of the screen.

To **undock** a dialog box, click and drag on the title bar to its new location. To **re-dock** the title bar, double click on the title bar and it will dock to its last position.

To **move** a dialog box, click on the title bar and drag it to its new position.

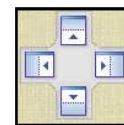
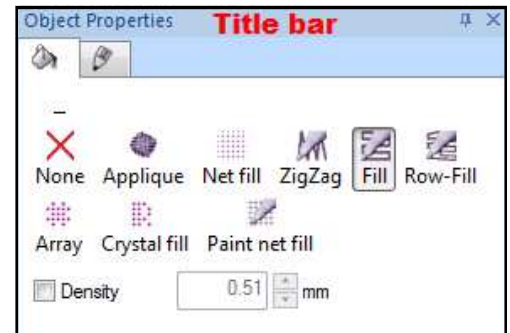
To **resize** the dialog boxes, rest the cursor on the border of the dialog box until the double pointed arrow shows and drag to its new size. Sometimes dialog boxes must be resized to make more icons visible in the dialog box.

To **close** the dialog box, click on the “X” in the upper right corner.











































To **re-open** the dialog box, go to the *View > Toolbar* menu and place a check in front of the closed toolbar.

Set the dialog box to **auto hide** by clicking on the push pin symbol so that it is on its side. This will allow the dialog box to disappear when not in use. By clicking on the push pin symbol, it changes to an upright position and the dialog box will remain open.

You can dock windows by using **docking guides**. These become visible when a dialog box is moved. Simply click on the title bar and drag it to one of the arrow positions. A shaded area appears to show you where the dialog box will be located. When you release the mouse, the dialog box will appear in the new location.



Icon Cheat Sheet

	New: Create a new document		Align Centers Horizontally
	Open: Open an existing document		Align Bottom
	Save: Save the active document		Make Same Width
	Export: Send to BERNINA CutWork		Make Same Height
	Print: Send current design to printer		Make Same Size
	Copy: Copy the selection & send to clipboard		Equal Horizontal Spacing
	Paste: Paste the contents of the clipboard		Equal Vertical Spacing
	Undo: Undo the last action		Draw Mode
	Redo: Redo the previously undone action		Stitch Mode
	Select Fabric: Change the fabric options		Rectangle Selection
	Edit Palette: Manage color options		Edit Shape Nodes: Edit nodes
	Manage Hoop Options: Change the hoop		Zoom In: Magnifies the design view
	Zoom Presets		Zoom Previous: Zooms to previous zoom state
	Weld: Weld Shapes		Zoom All: Magnifies the view to fit the window
	Trim: Trim Shapes		Pan: Moves the view area of the design
	Intersect: Intersect Shapes		Measure: Measures an object
	Help		Directions
	Align Left		Divide
	Align Centers Vertically		Slow Redraw
	Align Right		Create Freehand Shapes
	Align Top		Create Bezier Shapes

Icon Cheat Sheet



Create Outline Shapes



Magic Wand



Create Crystal Shape



Create Rectangle



Create Ellipse



Create Pie



Create Star Shape



Create Trapezoid/Parallelogram



Create Polygon



Edit Text



Create Rectangular Array



Create Circular Array



Auto Border & Cut



Auto Sequence Control

OBJECT PROPERTIES



Fill Tab



Outline Tab

FILL TAB



None



Appliqué Fill



Net Fill



Zigzag Fill (paint)



Fill (paint)



Row Fill (paint)



Array



Crystal Fill



Paint Net Fill



Photo

OUTLINE TAB



No Outline



Running



Satin Serial



Cutwork



Line



Zigzag



Array



Crystal Outline

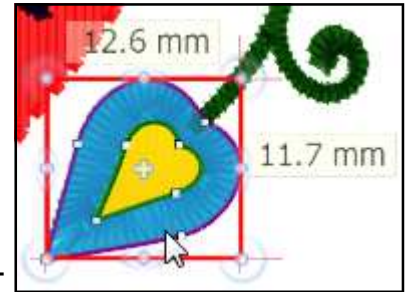
Selection Methods

To make changes in a design or to part of a design, it must be selected. There are many ways to select objects in BERNINA Design-Works software.

Selection with a Mouse

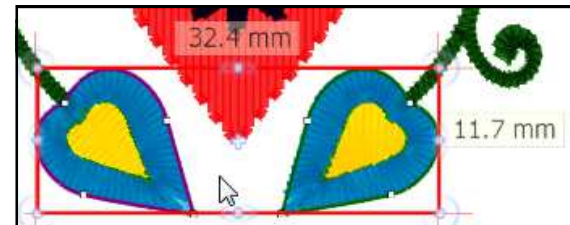


By selecting the *Rectangle Selection* icon and then clicking on the object with your mouse, you can select that object. A rectangle borders the current selected object. The dimensions of the selection rectangle will also appear on each side of the rectangle if the cursor is rested within the boundary. You can change the color of the selection box by going to Tools> Options and select the Color/Sizes tab. Make your changes; then click OK.



Selecting Multiple Objects

Select the *Rectangle Selection* icon and hold down the *Shift* key and click on each object you wish to select.



Click and Drag

By selecting the *Rectangle Selection* icon and clicking and dragging around an area of the design, objects will be selected within the drawn box. Objects outside the drawn area will not be selected; only objects completely within the drawn rectangle will be selected.

Large and Irregular Shapes

To select large and irregular shapes, hold down the *Alt* key and drag the *Selection Rectangle* over just a small portion of the design.

Edit > Invert Selection

This option will select all unselected objects. It is activated within the *Edit* menu. Sometimes it is easier to select just a small portion of the design and use this option to select the larger portion of the design.



Selection Methods

Select All

Go to *Edit > Select All* or use the *Shortcut key Ctrl + A*. This will select all objects in the design.

Select by Stitch Type

You can make selections by stitch type by right clicking on the *Fill tab* or *Outline* tab. Add to your selection all embroidery objects of a specific type. Any adjustments will be made to all objects of that particular stitch type.

You can also remove a type from your selection following this same procedure, but select *Remove from Selection*.

By right clicking on the stitch type within Object Properties, you can also choose to add or remove from the selection.

Select by Stitching Order

Ctrl + Home: Selects the first object of the design.

Ctrl + End: Selects the last object of the design.

Tab: Selects the next object of the design. Each time the tab key is pressed, the next object will be selected.

Shift + Tab: The previous object is selected. Each time the Shift + Tab key is selected, the previous object will be selected.

Select by Color

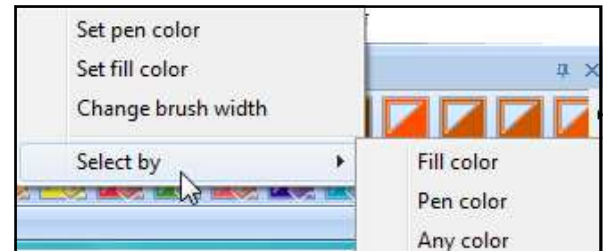
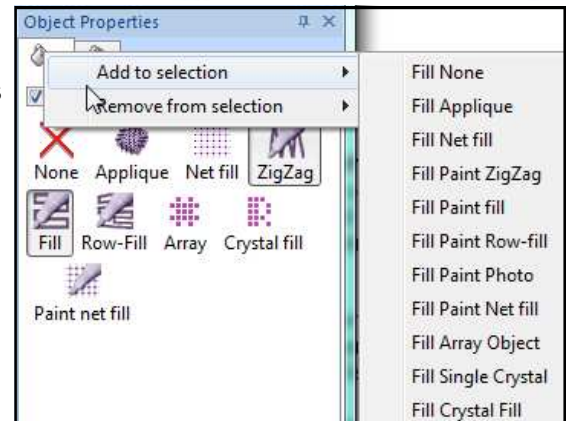
You can select objects by color through the *Thread or Brushes Palette* Toolbar. You can select object by Fill color, by Outline color, or by Any color. Right click on the color you want from those that are used in your design. Expand the *Select By* menu and select one of the three available options. *Fill color* will select all the objects that have the fill color you selected; *Pen color* will select all the objects that have the outline color you selected; and *Any color* selects objects that have the fill or pen color you selected. Any change you make affects all of these objects.

Sequence Manager

By clicking on the layer of the *Sequence Manager*, all objects in that layer will be selected.

Deselect

Click outside the design area on the blank fabric background.



Screen View

There are many ways to view designs in BERNINA DesignWorks software. In the *View* menu, you have choices to activate Outline Design, 3D view, Stitches, Stitch points, Realistic Paint, and Overlapping Crystals. If you are not seeing something that you think you should see, remember to check to see what is activated in the View menu. Also, check to make sure what type of design you have on screen, painted, stitched, or crystal.

By checking **Realistic Paint** in the View Menu, a painted design will appear to have paint strokes.

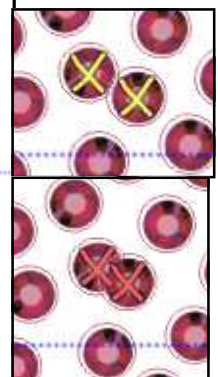
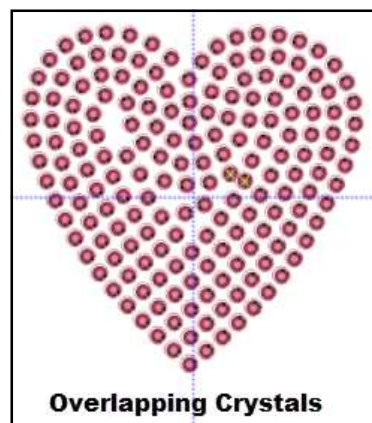
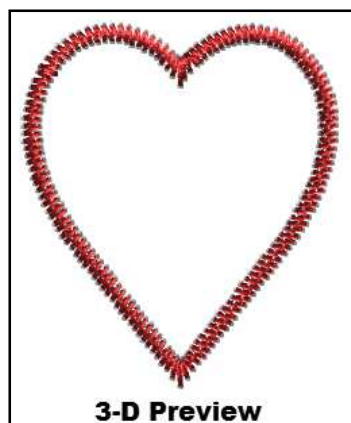
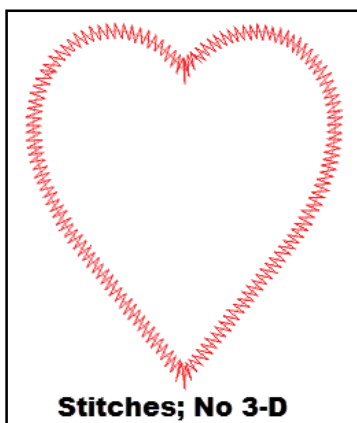
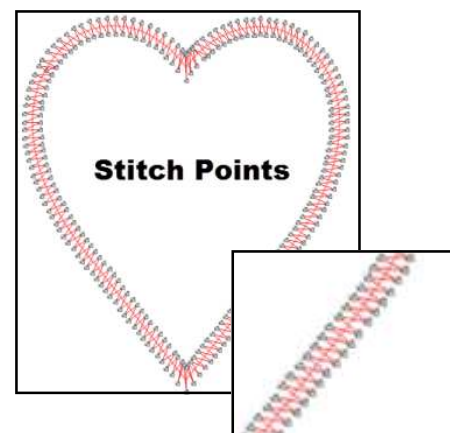
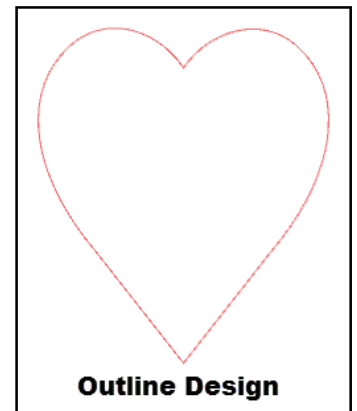
When the **Outline Design** is the only item checked in the View menu, you will see only the outline of the Vector artwork. This type of view will only appear when stitches are in the design.

When **Stitches** is the only thing checked in the View Menu with a stitched design, you will see flat stitches in the design. The stitches don't have as much depth in this view as in 3-D view. (see below)

When the **3D View and Stitches** are activated, the design is pictured as a real embroidered design. The threads are thicker and you can see the actual stitch type. (see below)

To see the stitch points of the design, **Stitch Points** must be activated. Zoom in close to the design elements to view the stitch points.

If **View> Overlapping Crystals** is checked, you will see the crystals that are too close together marked with either a yellow X or red X. These crystals will need to be moved so there is no overlap.



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Zoom Tools



Zoom In



Click on the *Zoom In* icon; then click and drag on an area to zoom in. The area you mark will be the area that is shown after releasing the mouse. The cursor changes to a magnifying glass when this tool is activated.

Your mouse wheel also zooms in when the wheel is rotated backward.



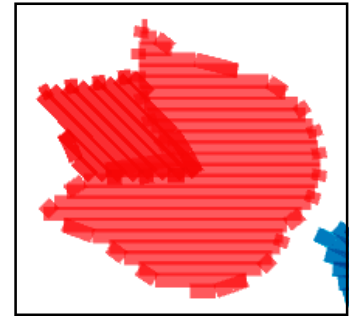
Zoom Out

Rotate the mouse wheel forward to zoom out.

Zoom Previous



This icon is found by resting your cursor on the lower right black triangle of the *Zoom In* icon. Drag your mouse to the *Zoom Previous* icon. The *Zoom Previous* then becomes the current zoom tool on the toolbar. When you click this icon, the zoom factor returns to the previous view of the design.



Zoom All

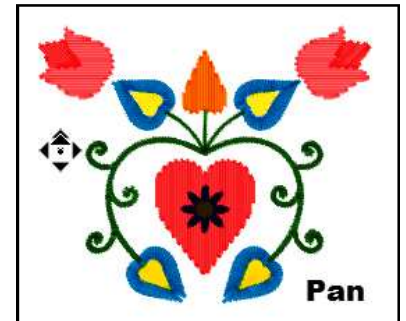


This will place the entire design into the visible screen. This tool is activated by clicking on the black triangle of the current zoom tool and dragging to select *Zoom All*.

Actual Size



You can view the design in actual size by clicking on the *100%* in the Standard Tool bar. Other zoom presets are available by selecting from the drop down menu choices. See page 5 of this workbook for instructions to set your monitor size so the actual size will be accurate.



Pan

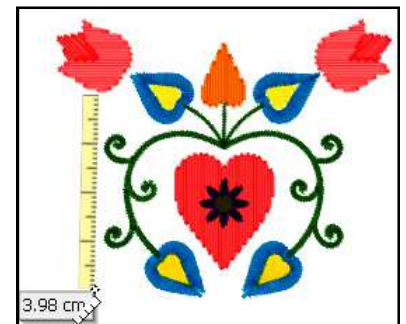


This tool lets you move a design on your screen. Select the icon, then click on the design to move it on the screen. You can also pan by pressing the mouse wheel until the cursor changes to a four directional arrow. Move the mouse slowly in the direction you want. To deactivate, click the mouse wheel again.

Measure Tool



The *Measure tool* calculates the distance between two points in the design area. Click on the first point and drag the ruler. The ruler out will show the distance. You may measure in inches or metric. See page 6 of this workbook for instructions to change the measurement system.

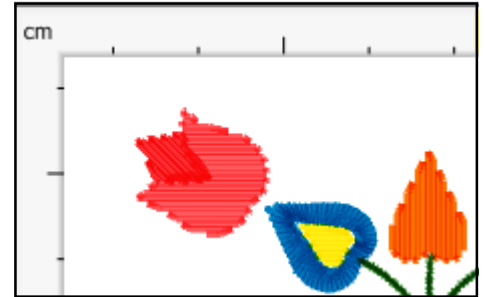


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View Menu

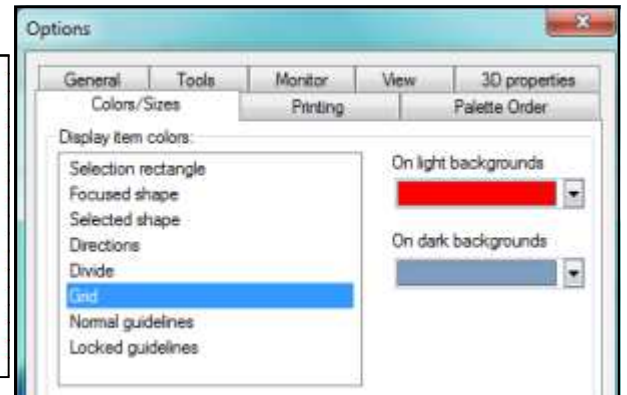
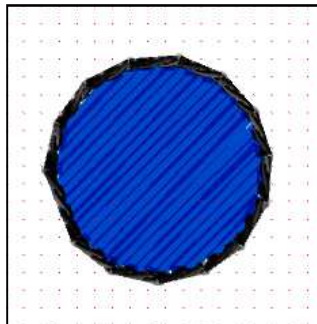
View Ruler

Rulers appear at the top and the left side of the design screen. The ruler shows the X and Y coordinates based on centimeters or inches. (See page 6 of this workbook for instructions on how to alter the measurement system.) The values on the ruler will change based on the zoom you are using. If the rulers are not visible, go to *View > Ruler* and place a check mark in front of the option.



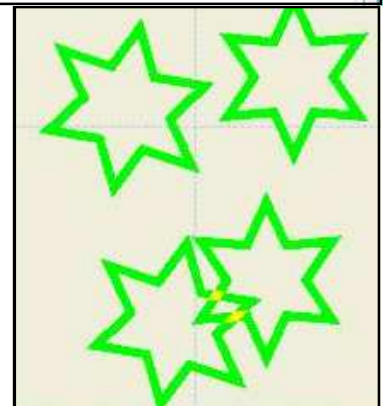
View Grid

The grid will appear as small dots across the design area in vertical and horizontal lines. You must be zoomed in close to view these dots and Grid must be activated in the View menu by placing a check mark in front of Grid. You may change the color of the grid dots by selecting *Tools > Options* and choosing Grid from the list. Make your selection of color and click OK.



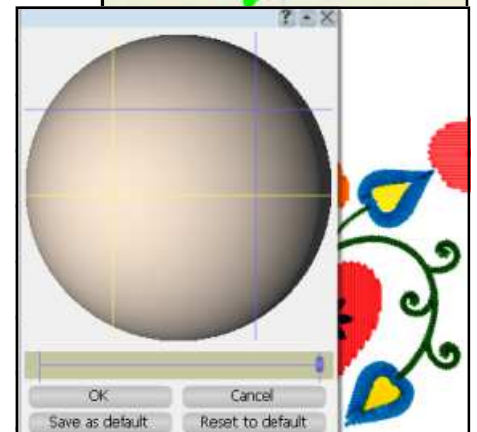
View Hoop

You can choose to hide or view the hoop in the View menu. To hide the hoop, make sure that there is no check mark in front of Hoop.



Thickness View

The thickness view shows areas of a design that will be embroidered more than once. See the yellow area in the design at the right.



View Light Source

When 3D view is enabled, you can select *View > Set Light source*. By moving the mouse, you will get different effects on the design as it illuminates the design from different angles.

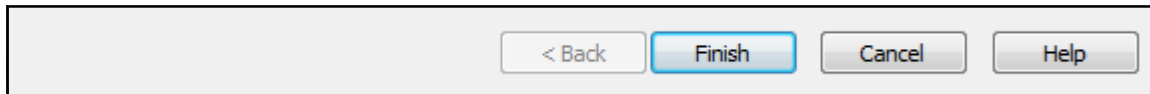
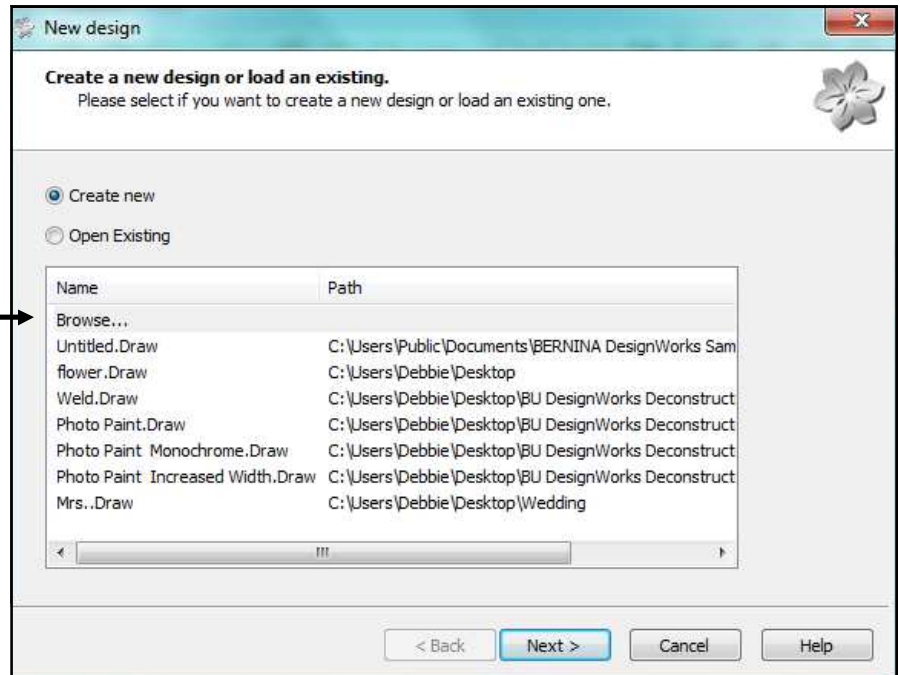
Working with the Wizard

When the BERNINA DesignWorks software first opens, it starts with a wizard and always prompts you to choose between loading an existing design or creating a new design.

OPEN EXISTING

If you are opening an existing design, you can click on *Browse* then navigate to the BERNINA DesignWorks sample folder to select a design or you may choose from a listing of recently opened designs.

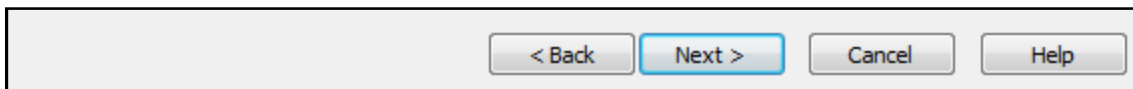
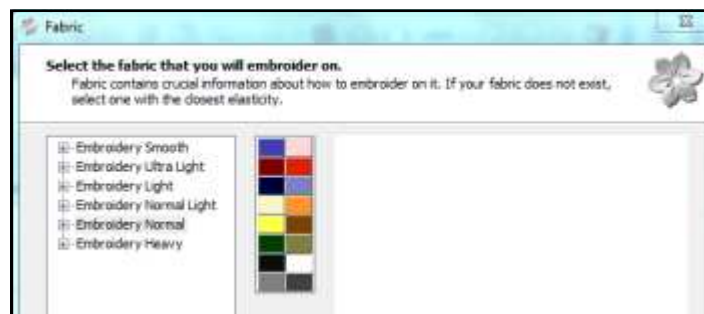
Once you select your design, you can click Finish to place the design on the design screen. You can then edit or export your design.



After the software is opened and you wish to open another existing design, go to File> Open. Navigate to the BERNINA DesignWorks sample folder to open the desired file.

CREATE NEW


If you choose Create New when you first open the software; then click Next at the bottom of the dialog box, the Fabric dialog box will open. You may choose among six fabric types. The fabric choice is important for the embroidery part of the design and is influences the density of the embroidery design. You may select your fabric or accept the default and select Next at the bottom of the Fabric dialog box. See more details about fabric choice on page 20.



If you wish to create a new design after the software is open, go to File> New and work through the steps in the wizard.

Working with the Wizard

The next dialog box to open when you select Create New is the Artwork source dialog box. You will be given five choices for the artwork source.

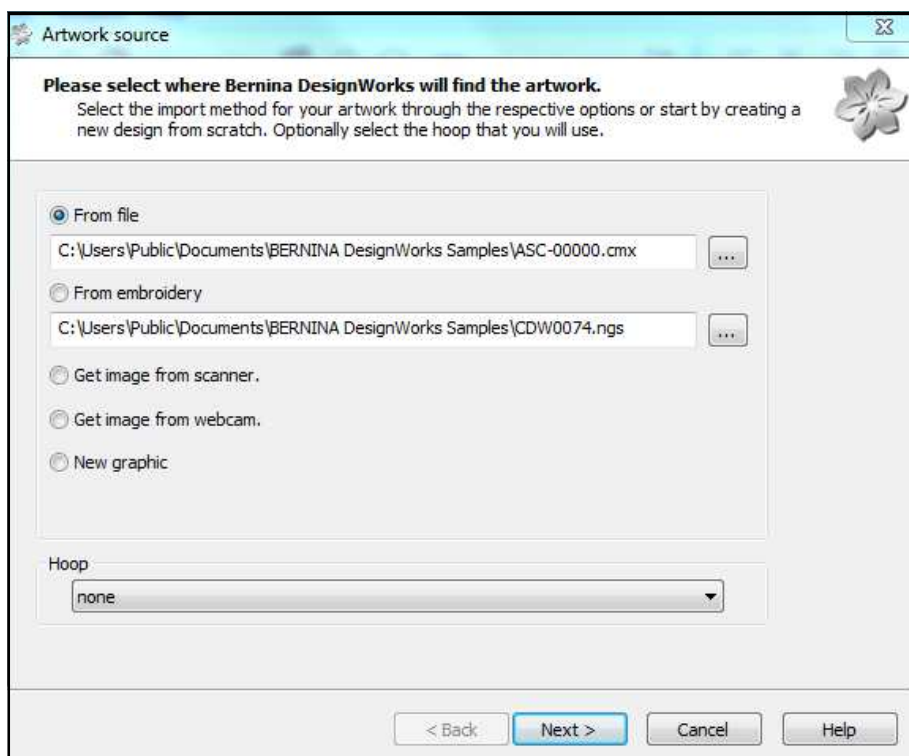
 Click on the *Browse* icon to find your selection.

From file is used to open a picture file—either vector artwork or a bitmap file.

From embroidery opens an embroidery design.

Get image from scanner and **Get image from webcam** are used when you are directly connected to the corresponding device.

New graphic is used to get a blank design screen for creating lettering or your own design with drawing tools.

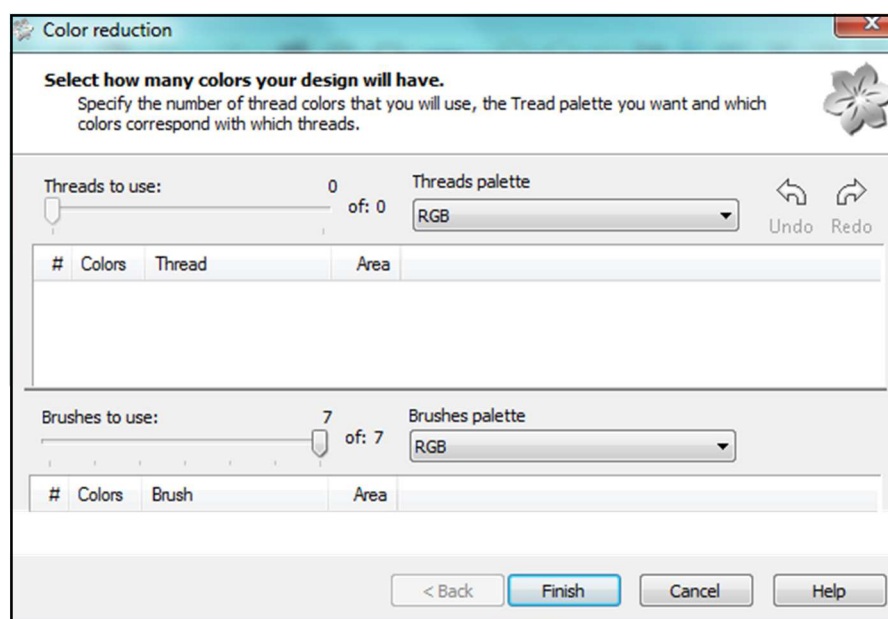


SELECT HOOP

You can also select a hoop size for the new design in the Artwork Source dialog box. You are able to choose your size hoop with different feet, based on the technique you will be using. Foot 43, 44C, 48, and 93 will allow a slightly smaller design area within the hoop and will protect the foot from hitting the rim of the hoop. Click on *Next* at the bottom of the dialog box to go to the next screen.

COLOR REDUCTION

The Color Reduction dialog box opens next and will allow you to manipulate the available colors. See more information on page 21. Click *Finish* at the bottom of this dialog box to begin editing or creating your new design.



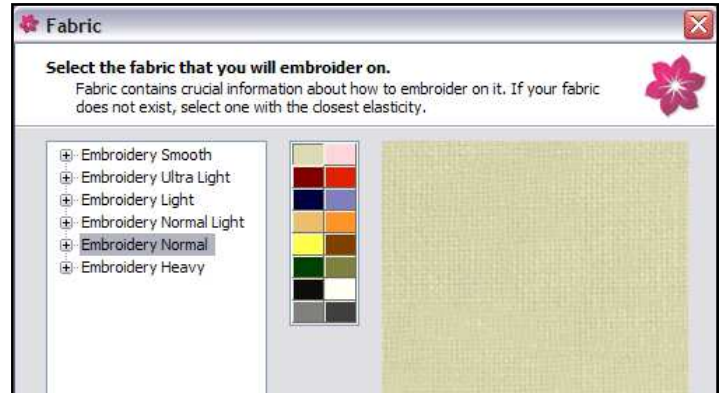
More on Fabric Type

In the Fabric dialog box of the Wizard, you may choose among six fabric types. The fabric choice is important for the embroidery part of the design and is based upon the desired density of the embroidery design.

These are the embroidery parameters set for the six categories:

- Embroidery Smooth should be chosen for 40 wt. thread with a desired density of 55. This choice will keep the fabric soft and the embroidery light and smooth.
- Embroidery Ultra Light should be chosen for thick threads like wool and will provide a density of 85. The embroidery will appear to be low density.
- Embroidery Light is for 30 wt. thread with a density of 55. The embroidery will appear to be low density.
- Embroidery Normal Light is for 40 wt. thread with a density of 40 and with lighter underlay. The embroidery will appear on screen to be a normal density.
- Embroidery Normal is for 40 wt. thread with a density of 40 and the embroidery will appear to have a normal density on screen.
- Embroidery Heavy is for thin thread like metallic or heavy textured fabrics with a density of 35. The on-screen embroidery will appear to be high density.

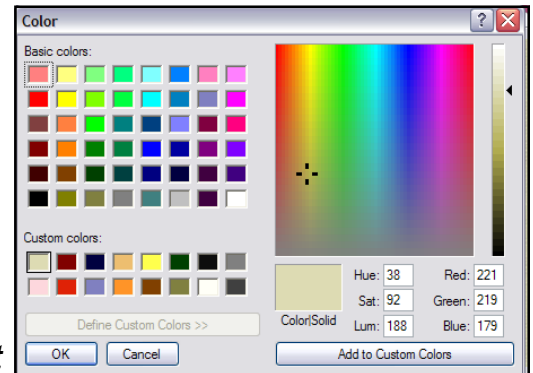
Choose your embroidery category by clicking on the + sign and choose the fabric name that closely resembles your fabric. There is a Standard category within each embroidery type if your particular fabric is not listed.



Fabric Color

You can also choose the color of the fabric background from the 16 colors in the dialog box.

By double clicking on a color chip, more color choices are made available. You can choose an RGB value or select a color in the spectrum. Select *Add to Custom Colors* and *OK* and the new color will replace the selected color chip in the wizard.

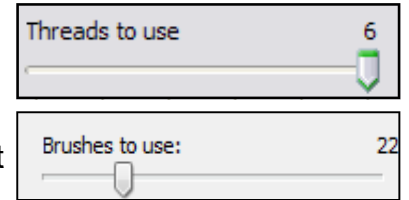


These selections can be made while working through the wizard or after opening a design by clicking on the *Select Fabric* icon. Simply select the new fabric type and/ or color and click on *OK*.

Color Reduction Dialog Box

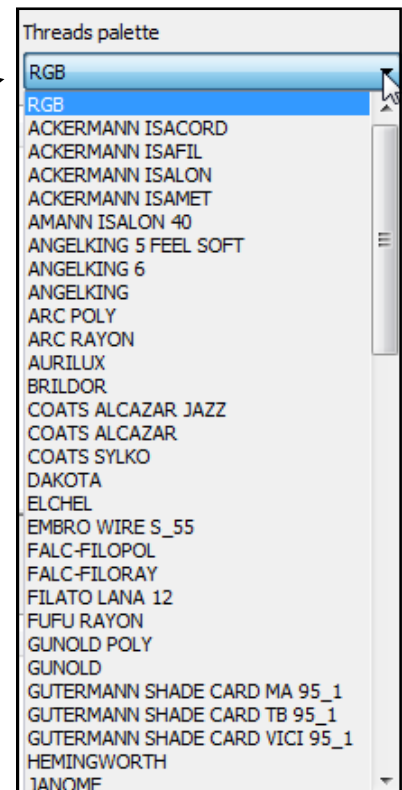
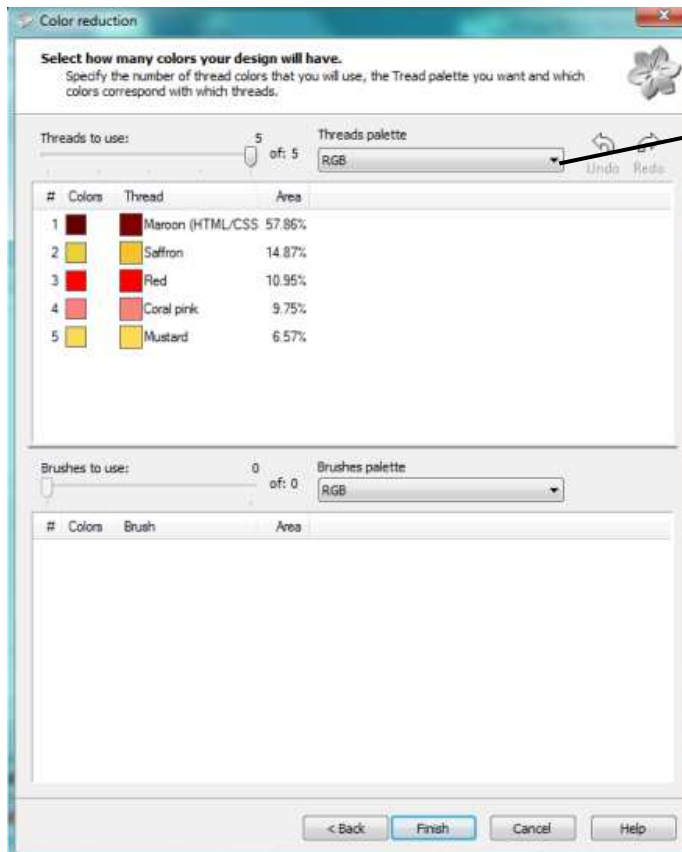
COLOR REDUCTION

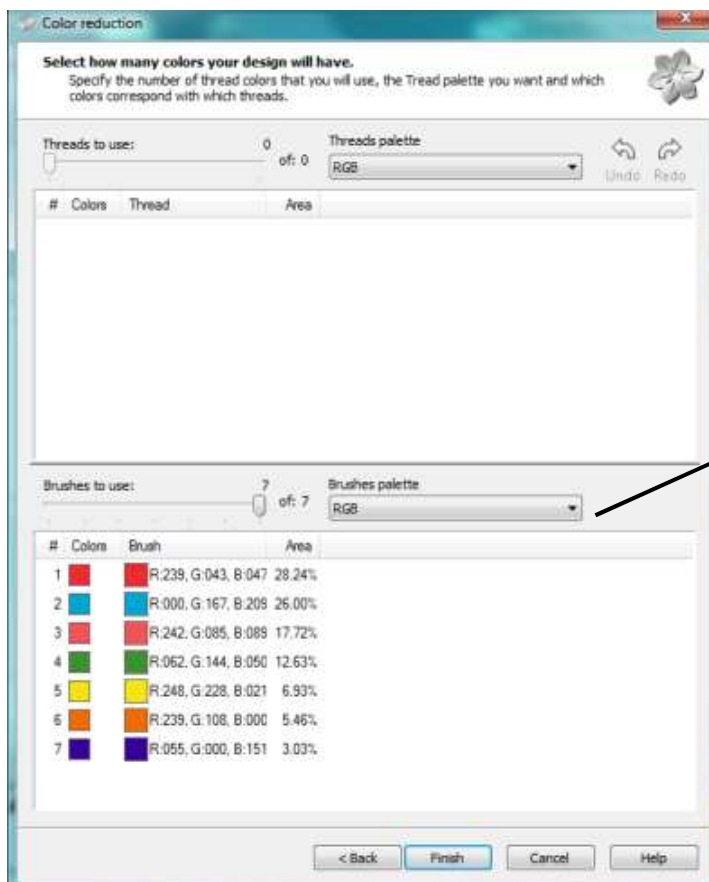
The Color Reduction dialog box has two sections; one is for Threads; the other, for Brushes. You can choose to decrease the number of colors in your design by clicking on the appropriate slider and moving it to the left. The software determines what colors are combined. You can also choose to wait and change the thread colors later within the software.



You can also choose the brand of thread you wish to use from the *Palette* drop down menu. The *Thread Palette* at the bottom of the screen is automatically updated with the new colors.

The closest match of your selected brand will be listed in the thread column.







When painted designs are the default application, colors will appear in the Brushes to Use section of the Color Reduction dialog box. You may select from different Brushes Palettes by clicking on the drop down menu.

Click *Finish* and the design +/or artwork will appear on screen depending on the type of file you have selected. What appears on your screen will depend on what options you have elected to have activated in DesignWorks.

Saving the File

 After editing the file as desired, navigate to the desired location to save the file. Name and Save the file.

 When finished, send the design to your embroidery machine through the *Export* tool. Instructions for exporting are found on the following page.

Always save a file before exporting it to the machine. The file is saved in the DesignWorks software as a .draw file and further changes can be made to the file.

After it is exported as a stitch file, the file will have limitations in editing, so it is best to always save the file in both .draw and .exp formats.

Note: These basic steps for the wizard will appear with any type of design you create in the software.

Exporting a Design

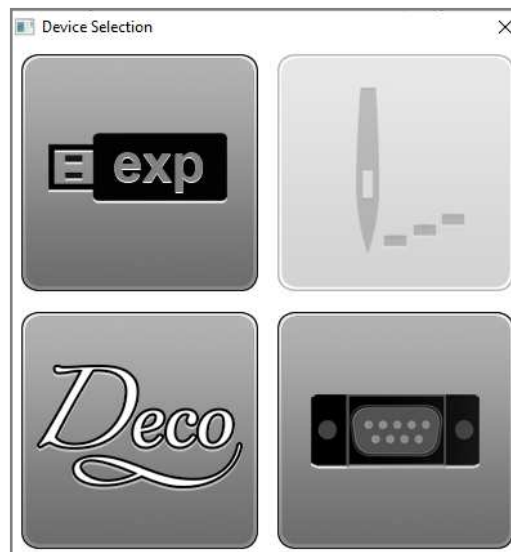


Exporting a stitched or a cutwork design:

1. To export the design to be stitched or cut, click on the *Export* icon.
2. A dialog box will open that will allow you to choose the type of connection you have.

- Choose the EXP connection if you have an artista embroidery machine (630, 635, 640, 730, updated 200), or a BERNINA 500, 535E, 560E, 570 QEE, 580E, 590, 700, 750 QEE, 770 QEE, 780, 790, 830, or 880.
- Choose the Deco box to send the stitch or cut file to your Deco 340.
- Choose the Direct Connection option if you have an aurora embroidery machine (430, 440, or 450).
- Choose the serial port to connect to an artista 180 or 185.

3. You will receive a message that the design has been successfully sent.



Exporting a painted design:

1. To export the design to be painted, click on the *Export* icon.
2. Use the EXP connection to send the painted design to the BERNINA 5 series, 7 series, and 8 series machines. (Older 5 series models that don't embroider will not work with PaintWork. Deco 340 and artista models cannot use PaintWork.)

Exporting a crystal design:

1. To export a crystal design, select File> Export> Crystals to Machine. In the dialog box that opens, click on the Export icon.
2. Use the EXP connection to send the painted design to the BERNINA 5 series, 7 series, and 8 series machines. (Older 5 series models that don't embroider will not work with CrystalWork. Deco 340 and artista models cannot use CrystalWork.)

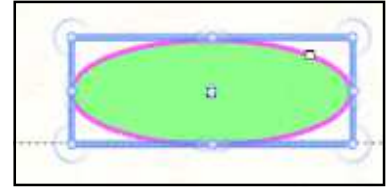
Exporting a crystal design combined with stitches, paint, or cutwork:

1. To export a crystal design combined with another type of design, click on the *Export* icon to send the stitched, cut, or painted design to the USB stick (use EXP).
2. To send the crystal portion of the design, follow the directions for exporting a crystal design.

More on Colors

Changing Colors

1. To change the color of an object, first select the object.
2. By right clicking on a selected color chip in the *Threads or Brushes Palette* and selecting Set Pen Color or Set Fill color, you can change the pen (outline) color or the fill color.
3. You may also change a color by selecting the object; then clicking in the upper left corner of a color chip to change the pen color; the lower right corner to change the fill color.
4. The colors you have selected for the object will be shown in the bottom row of the *Thread or Brushes Palette*—the bucket will show the fill color; the pen will show the outline. These symbols appear when an object has been selected.



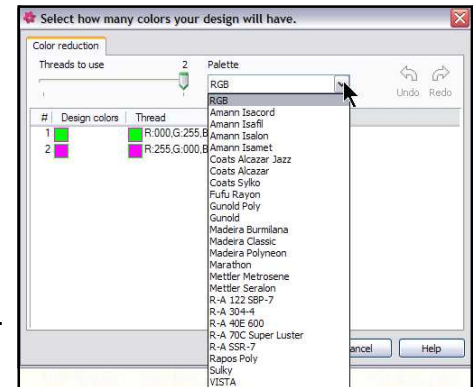
Removing Colors

1. You can remove color from an object by selecting the object; then select the appropriate corner of the *Empty or None* square in the *Thread or Brushes Palette*.



Changing Palettes

1. Available thread or brush colors can be changed through *Edit Palette*.
2. By clicking on this icon, a dialog box opens to give you access to many thread brands or brush palettes. Simply choose your brand and the thread or paint pen that is the closest match to the color will be listed in the thread or brush column of the dialog box.



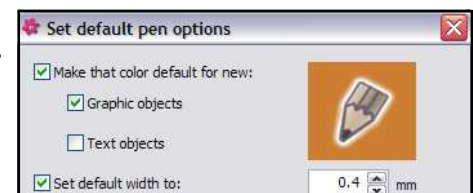
To Preset Colors or Change Default Colors

1. To set a color before drawing an object, make sure nothing is selected; then click on the bottom right corner for changing the fill (upper left corner for the outline) of the color you want to use. A dialog box opens.
2. You may choose to apply that color for that specific design or for every new design, thereby changing the default color for the fill or outline.
3. You can choose to make it the color for graphic or text objects.
4. Click *OK* to confirm the changes.



To Change the Outline Width

1. In the pen options dialog box, you can also change the default pen width by placing a check mark in front of the option and altering the value in the selection box. Changing this value will also change the default width of the Satin Serial stitch.
2. See more information in *Help > Help Topics* on Editing existing colors.

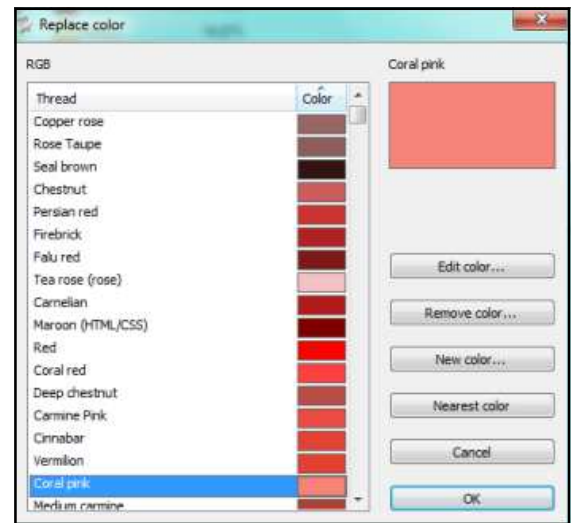
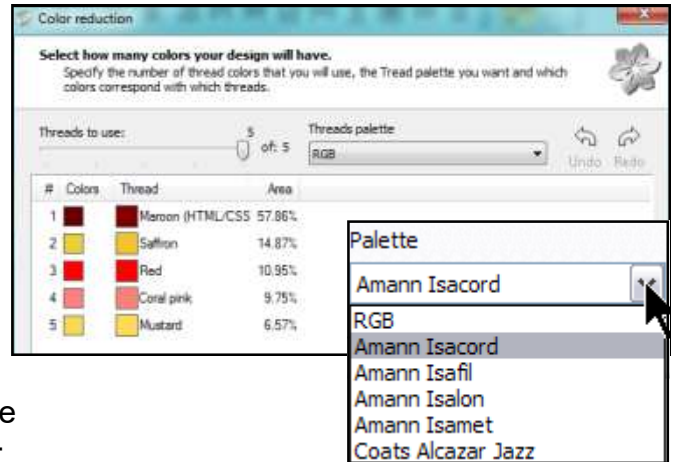


More on Colors



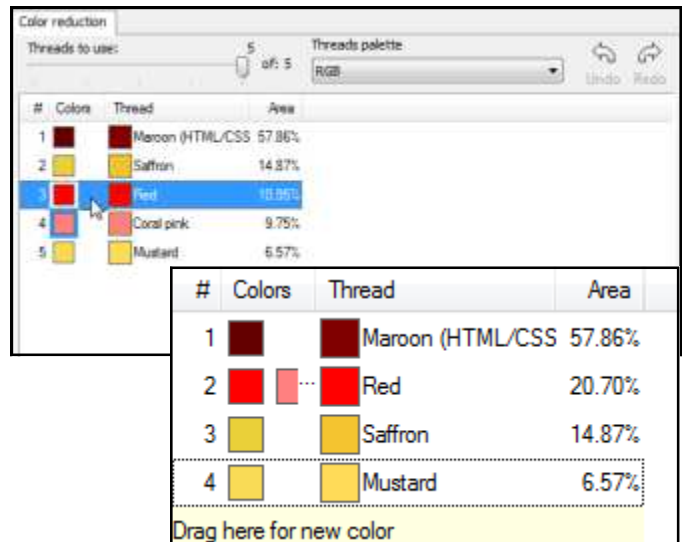
To View all the Thread Colors of a Palette

1. Click on *Edit Palette* in the toolbar.
2. Choose the thread brand you wish from the drop down list.
3. Double click on any of the colored chips shown in the Color Reduction dialog box.
4. Another dialog box will open showing all of the colors for that brand.
5. You can click on any of the color chips to replace the selected color. Click OK to change the color. You may also just double click on the desired color in the dialog box. The thread color chip in the *Color Reduction* dialog box will change to the new color.
6. In the Replace Color dialog box, clicking on the heading of the columns (thread or brush or color) will reorder the lists.



Combining Colors

1. You can also combine colors by clicking and dragging on the color chips and moving them to a combine with another color.
2. The percentage of area that each thread or brush color covers is also indicated in this dialog box and updates when colors are combined.



More on Hoops

Changing a Hoop

1. If the hoop is not visible on the screen, select *View > Hoop*.
2. After working through the wizard, you may decide to make a change in the hoop.
3. Select the *Manage Hoop Options* icon from the toolbar. A dialog box will open.
4. You can select a hoop from the drop down choices.
5. Press *OK* to confirm the choice.



Note: Selecting *None* from the drop down box will remove any existing hoop.

Rotate the Hoop

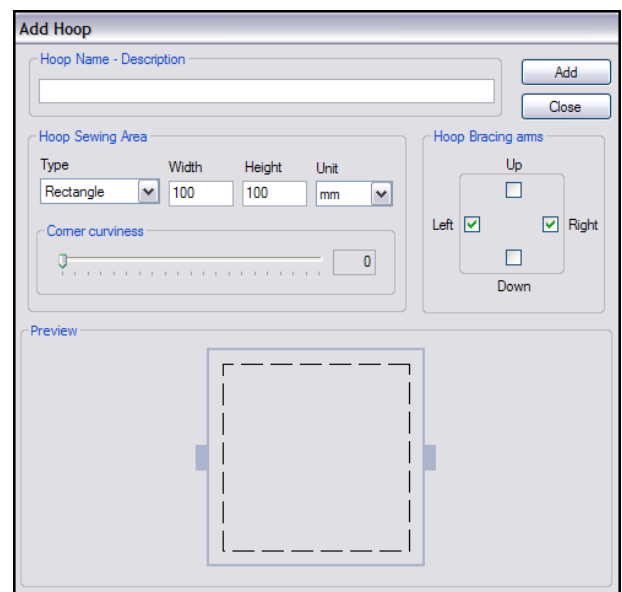
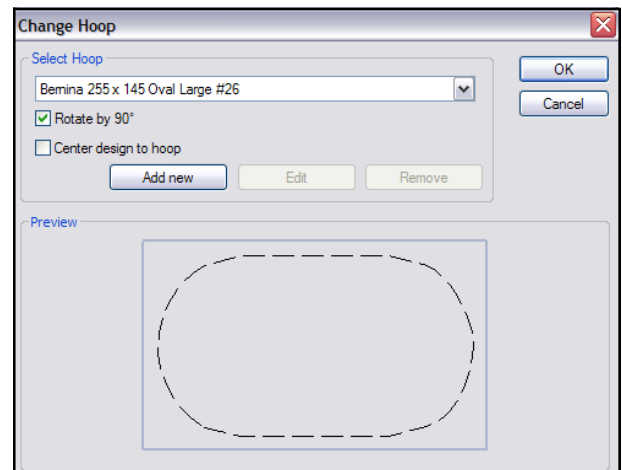
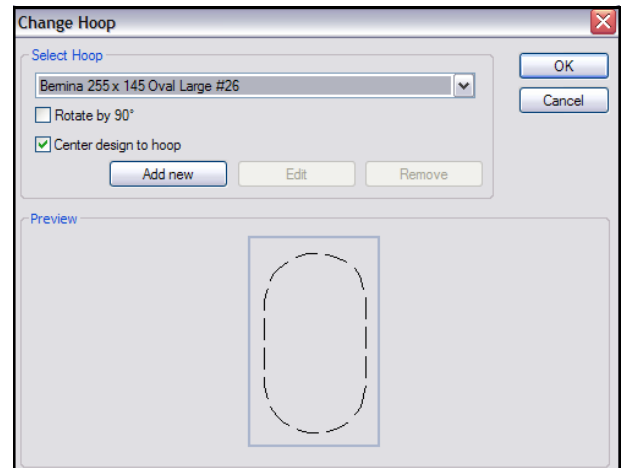
1. Place a check mark in front of *Rotate by 90°*.
2. Confirm with *OK*.
3. The hoop will be rotated on screen.
4. When the design is exported to the machine, it will be sent in the same relationship to the hoop arm as is shown on screen.

Centering Design

1. By checking the box, *Center design to hoop*, designs imported will be centered in the hoop.
2. Additional objects drawn or inserted will not be automatically centered.
3. Repeat the steps to center these objects.

Add a Custom Hoop


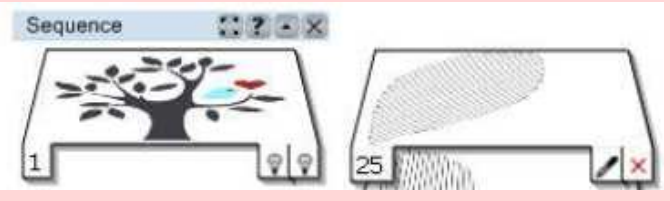

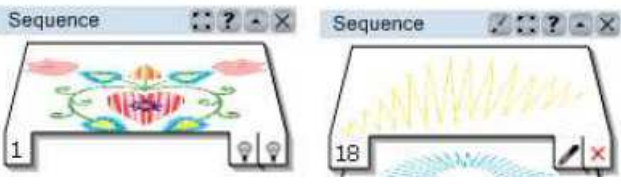

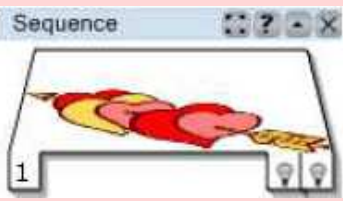




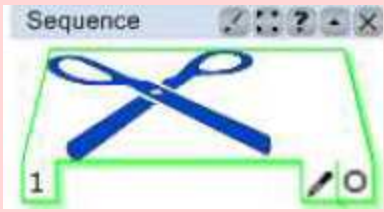
1. Click on *Add new*.
2. A dialog box opens and you can add a custom hoop with the dimensions you specify from the manufacturer of the hoop.
3. Specify the name, type, the location of the hoop brace, the curvature of the hoop.
4. See more information in the *Help > Help Topics* under *Add New Hoop*.
5. Custom hoops can also be edited and removed.
6. Built-in hoops cannot be edited or removed.


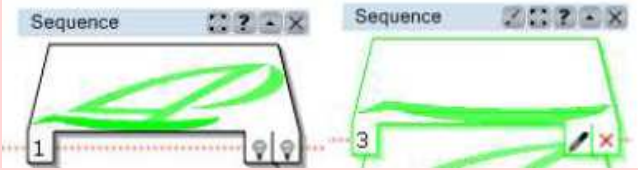

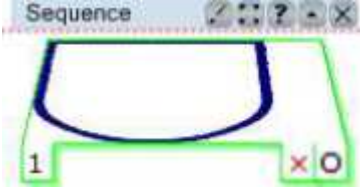


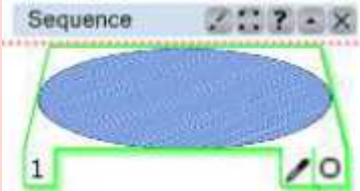

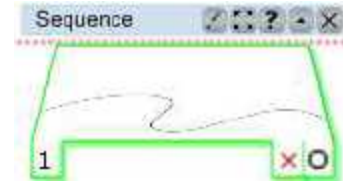


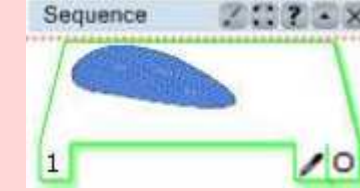




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Default Settings in Software

When creating designs in the software, default settings will depend upon the type of file you open. Use the following chart to become familiar with the different settings of the software.

TYPE	FILL	OUTLINE	SEQUENCE MANAGER
Bitmap	Painted Fill 	No Outline	
Vector	Painted Fill 	No Outline	
Embroidery Design	Raw 		
Lettering	Painted Fill 	No Outline	
Insert Symbol	Painted Fill 	Running Stitch 	

TYPE	FILL	OUTLINE	SEQUENCE MANAGER
Clipart with uneven lines	Painted Fill 	No Outline	
Clipart with even lines	No Fill	Satin Serial 	
Create Shapes Tools	Painted Fill 	Running Stitch 	
Freehand Draw Tools—Unclosed objects	No Fill	Running Stitch 	
Freehand Draw Tools—closed objects	Painted Fill 	Running Stitch 	
Array	Painted Design	Running Stitch 	

Software Exercises

BERNINA DesignWorks Software offers many options for the embroidery enthusiast. There are many .draw files ready to send to the machine for cutwork, painting, crystal, embroidery, or combinations. The ready-to-stitch embroidery designs included with the software can be sent to the machine to stitch as embroidery files or edited to create other designs. There are many vector image files that can be transformed to cutwork, appliqué, net fill, painted, crystal, or outline designs. Images can be imported into the software to be traced or to be used as a backdrop for creating cutwork, appliqué, net fill, or outline designs. In addition, there are Clipart files that can be converted into designs. You can use your scanner or a webcam to import files as well. In addition, you can use built-in shapes and drawing tools to create your own unique designs.

Each of the following exercises has been designed to take you through the process of creating different types of designs. For each exercise, please note the list of what the lesson covers by looking at the topics—this will help guide you as you learn the software.

Class Exercises:

Editing Draw Files	30-31
Editing Draw Files 2.....	32-33
Vector to CutWork.....	34
Photo Paint Bitmap.....	35
Traced Bitmap.....	36-37
Adding Crystals to Embroidery.....	38-39
Adding CutWork to Embroidery.....	40-41
Appliqué Lettering.....	42-43
Clipart.....	44
Symbols.....	46
Bitmap as Backdrop.....	47-48
Crystal Editing.....	49-50
Printing.....	51

Editing Draw Files:

Open DesignWorks



- Select Open Existing. Click Browse.
- Navigate to BERNINA DesignWorks Samples> CutWork> Bernina_044_butterfly.draw. Select Open.
- *Note: The file path for locating the BERNINA DesignWorks Samples is C: Users> Public> Public Documents.*

Resizing and Rotating



- Select Edit> Select All.
- Right click and select Group.
- Change the size by resting your cursor on a corner resizing handle and click and drag inward to decrease the size of the design.
- Rest your cursor on a corner of the design until you see the Rotate symbol.
- Rotate the design as desired.

Changing the Hoop



- Select Manage Hoop Options.
- From the drop-down selection, choose BERNINA Jumbo Hoop 7 series, 256 x 400, #26.
- Press OK.

Duplicating, Moving, Mirroring, & Skewing



- While the design is selected, select Duplicate in Tool Options.
- Drag the duplicate below the first butterfly and while it is selected, click on Mirror X.
- Select Zoom In and drag a bounding box around the second butterfly.
- Rest your cursor on the top middle control point until a skew symbol appears.
- Drag the design to the right and release.

Centering Design

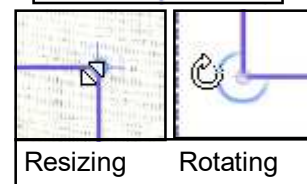
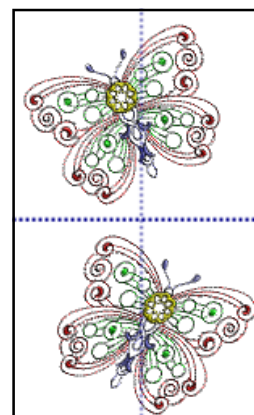


- Select Manage Hoop Options.
- Place a check mark in front of Center Design to Hoop.
- Click OK.

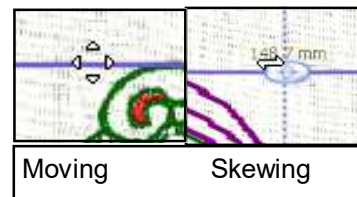
Eliminating the CutWork

- Select each design and right click and select Ungroup.
- Select each CutWork layer in Sequence Manager and press Delete.

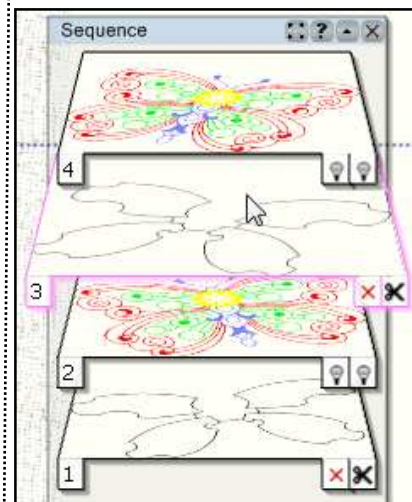
Notes



Designs that you purchase must be edited in DesignWorks software since they cannot be resized or rotated in the machine.



You may visually mirror a design by clicking on a control point and moving it across the design.



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Slow Redraw

- Select Slow Redraw.
- Press the Start button to watch the design stitch out.

Re-sequencing the Design



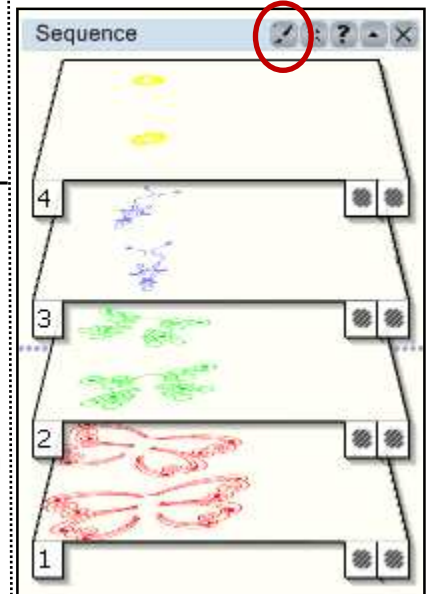
- To combine the thread colors of the design, re-sequencing is necessary.
- Deactivate Auto Sequence Control.
- In the dialog that opens, click OK.
- Click and drag on the color trays to combine the thread colors in the design.
- You can use the scroll bar at the right of the Sequence Manager to access additional layers.
- To combine the layers by color, click on the small paintbrush icon in the Sequence Manager.

Saving & Exporting



- Select File> Save As.
- Navigate to the location to save the file.
- Name the file Editing Draw Files 1.
- Select Save.
- Click on the Export icon to send the design to the machine of your choice.
- Select the icon for your method of transfer. Click OK.

Notes



The Paint brush icon in the Sequence Manager (first icon) toggles between collapsing the colors into one color tray for each color and separating each object into separate trays.

Editing Draw Files 2:

Open DesignWorks

- Select File> Open.
- Navigate to BERNINA DesignWorks Samples> PaintWork> Bernina_011_bird with flowers.draw. Select Open.

Selecting Multiple Items

- Zoom in to the orange flower with your mouse wheel.
- Hold the Ctrl key and click on the black border around each of the orange petals.
- While the outlines are selected, click on the Running Stitch in Object Properties and select Chain for the Style.
- Deselect by clicking outside the box surrounding the selected design.



Break Apart

- Click inside the upper right petal as shown in the illustration.
- Notice that multiple objects are selected when you click on this petal.
- This must first be broken apart before you can select only the orange petals. Right click and select Break Apart from the options listed in the Context Menu. Deselect.

Adding Appliqué

- Hold the Ctrl key and click on the inside of each orange petal.
- In the Fill Tab of Object Properties, select Appliqué.
- While the objects are selected, place a check mark in front of Cleaning.
- Leave the type of cleaning at the default, During Embroidery.



Help Menu

- While the appliqué is still selected, click on Help.
- Click on the Appliqué icon in Object Properties..
- Scroll down to read about the different methods of cleaning.
- Close the Reference Manual by clicking on the X.

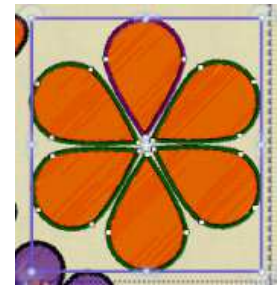


Selecting by Color

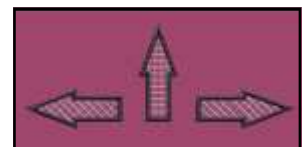
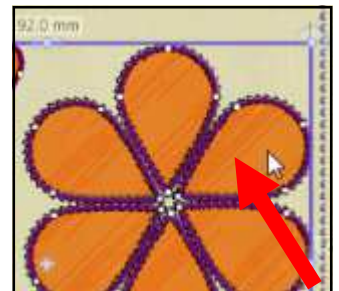
- In the Brushes Palette, right click on the teal color chip.
- Choose Select By> Fill Color.
- While selected, press on Zigzag in the Fill Tab of Object Properties.
- Use the Help icon again to read about the different paint fills by selecting Help; then click on the Fill icon in Object Properties.
- Use the scroll arrows at the top of the page to read about the different types of paint fill. Close the Reference Manual.



Notes



When objects are selected, a box surrounds those objects.



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Adding Crystals



- Zoom in on the large purple petal flower.
- Select the painted outline in the center of the flower.
- Click on Crystals in the Outline Tab of Object Properties.
- Repeat this process for the black outline around the purple center of the magenta petal flower.
- In Object Properties, change the size of the crystals to 6 SS.

Deleting Painted Fill



- Select the painted fill in the center of the magenta petal flower.
- Press None in the Fill Tab of Object Properties.

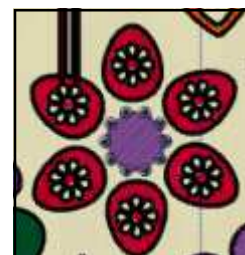
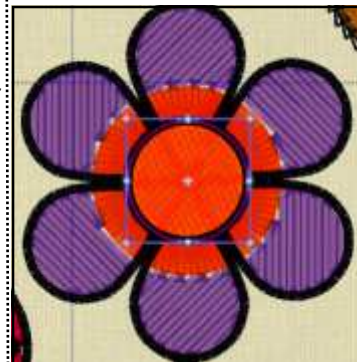
Saving & Exporting



- Select File> Save As.
- Navigate to the location to save the file.
- Name the file Editing Draw Files 2.
- Select Save.
- Click on the Export icon to send the design to the machine of your choice.
- To send crystals to the machine, you must export through the File menu.
- Select File> Export> Crystals to Machine.
- In the dialog box that opens, click on Export.
- Select the USB stick. Click OK.



Notes



Vector to CutWork

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- From File is selected by default.
- Click on Browse.
- In the BERNINA DesignWorks Samples folder, navigate to ASC-00266.cmx.
- Click on Open.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #93. Click Next.
- In the Color Reduction dialog box, click Finish.



Editing the File

- Select Edit> Select All.
- In Tool Options, make sure Proportional is checked.
- Change the size to 200%.
- Press Enter to activate the change.
- Select File> Save As, name the file Vector to Painted Design.
- Export to the machine of your choice.

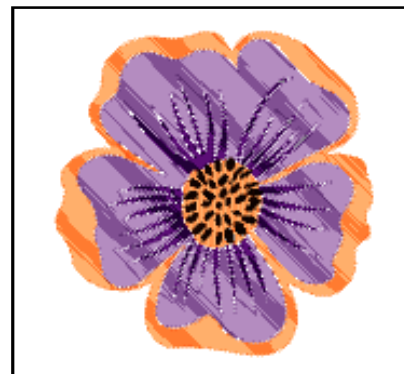


Converting to a CutWork Flower

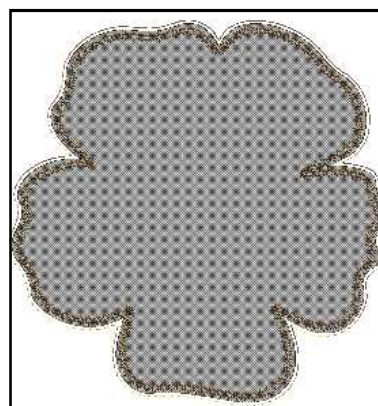
- Select the light orange part of the flower around the outside edge of the flower by clicking on that part of the design.
- Select Edit> Invert Selection.
- Press Delete to eliminate all but the orange flower.
- Reselect the flower.
- Click in the upper left corner of the orange color chip in the Brushes Palette to add an outline to the flower.
- Click on None in the Fill Tab of Object Properties.
- In the Outline Tab of Object Properties, select CutWork.
- Place a check mark in front of Running Before and change the Offset to 1mm.
- Place a check mark in front of Running and change the Offset to -2 mm.
- Select Stitch 04.
- This creates a three-dimensional flower with an inset decorative stitch.
- Select Manage Hoop Options and choose BERNINA Large Oval Hoop 255 x 145 #44C.
- Click OK.
- Select File> Save As. Name this file CutWork Flower from a Vector. Save the design.



Notes:



The hoop can be selected in the Artwork Source dialog box or later, through the icon, Manage Hoop Options.



To stitch this in the correct order, you will have to bypass the running before and CutWork portions of the stitch out after transferring the design to the machine. Then work back in the design to finish the CutWork. This is because the CutWork file cannot be broken apart to resequence prior to sending the design to the machine.

*Second Option:
If you Copy the CutWork outline; then Paste and change the copy to a Running Stitch with an offset of -2 mm, the decorative stitch will be separate and the order can be changed in Sequence Manager.*

Photo Paint Bitmap:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None. Click Next.
- Place a radio dot in front of From File.
- Click on Browse.
- Navigate to BERNINA DesignWorks Samples> Training folder.
- Select Bird & Tree.tif.
- Click Open.
- In the Hoop selection drop-down, select BERNINA Jumbo Hoop 8 series, 256 x 400, #93.
- Click Next.
- In the Artwork Image dialog box, place a radio dot by Open as Photo Paint.
- Click Next.
- In Color Reduction, click Finish.



Editing the Design

- Select Edit> Select All.
- In Tool Options, make sure there is a check mark by Proportional.
- Change the Width to 7.5”.
- Press Enter to activate the changes.
- In Object Properties, change the Width to 2 mm.
- Press Enter.
- Select Slow Redraw to watch the design paint.
- Select File> Save As and name the file Photo Paint.



Notes:

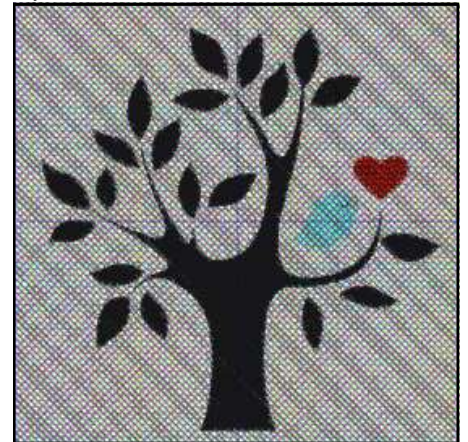


Photo Paint designs may be edited in Object Properties by changing the design to a monochromatic design. You can also change the width and the stitch density of the design.

Traced Bitmap:

Open a New File/Blank File



- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None. Click Next.
- Place a radio dot in front of From File.
- Click on Browse.
- Navigate to BERNINA DesignWorks Samples> Training folder.
- Select Flower.jpg. Open.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #93.
- Click Next.
- In the Artwork Image dialog box, place a radio dot by Trace.
- Click Next.
- In the Trace Image dialog box, click Trace.
- In Color Reduction, click Finish.

Editing the PaintWork Design

- Select Edit> Select All.
- Increase the size of the design by clicking and dragging a corner resizing handle. Hold the Shift key to keep the design in the center as you change the size.
- Select View> Backdrop> Hide to hide the picture.
- Eliminate the background fill color outside the flower by clicking on the white corners around the flower and pressing Delete. This is done in two steps for this design.
- Select the flower and fill the flower with color by clicking in the lower right hand corner of a color chip.
- Select the flower center and fill the flower center with a contrast color.
- In Object Properties, Fill Tab, click on Paint Net Fill.
- Change the Cell Size to 1.5 mm.
- Press Enter to activate the change.
- Select File> Save As and name the file as Traced Bitmap.

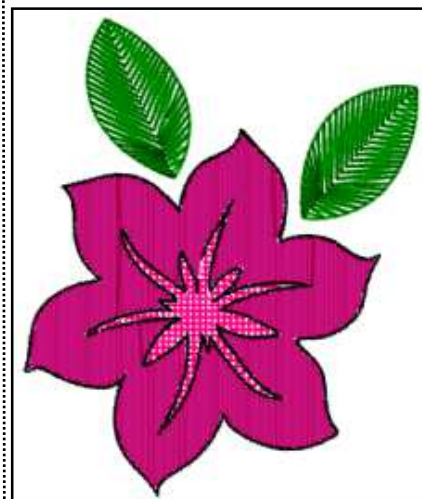


Create Outline Shape

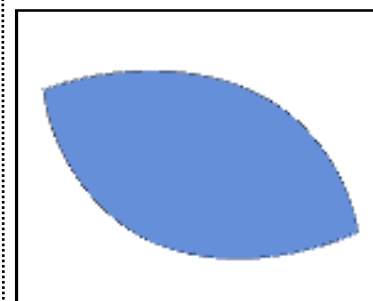
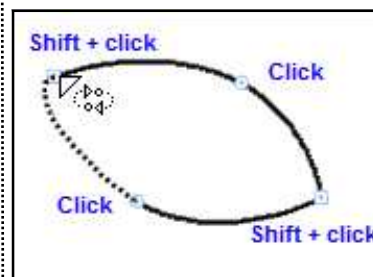
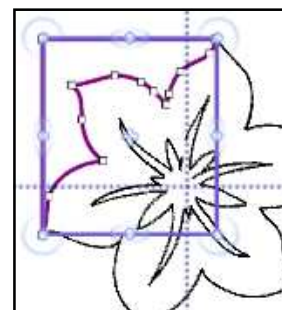


- Select Create Outline Shape.
- Draw a leaf shape next to the flower design:
 - ◊ Begin at one of the points of the leaf.
 - ◊ Use Shift + Click to set points for the leaf.
 - ◊ Use click without Shift key for curves.
 - ◊ Use Shift + Click on the original point to close the shape.

Notes:



A bitmap will always add a white painted background to the design. The parts must be selected and deleted to eliminate the background.



- Press the space bar to select the leaf.
- Resize the leaf as desired to coordinate with the size of the flower using the resizing handles.
- While selected, click on the lower right hand corner of a green color chip in the Brushes Palette.
- Click on the upper left corner of the green color chip to add an outline.
- In Object Properties, Fill Tab, click on Zigzag.
- Place a check mark in front of Density.
- Change the density to 2.5 mm.
- Press Enter to activate the change.



Dividing and Changing Direction

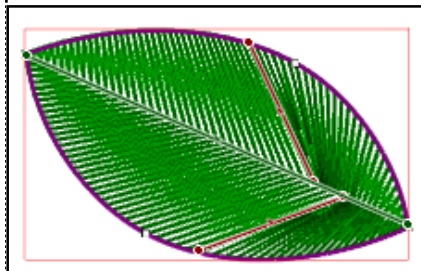
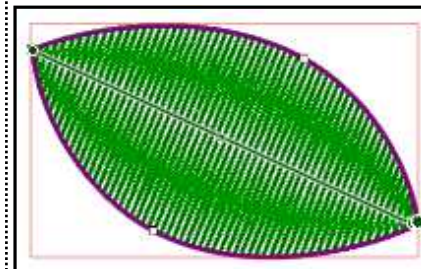
- While the leaf is selected, click on Divide and place a division mark along the length of the leaf, from point to point.
- Click at one point of the leaf and drag to the opposite point. Release the mouse to set the dividing line.
- You may move the ends by clicking and dragging on the circle at the end of the division mark.
- Select Direction and change the direction of the paint for each side of the leaf. See the red marks across the leaf in the picture.
- Click at one point of the leaf and drag to the second point. Releasing the mouse will set the angle.
- Press the space bar to select the leaf.
- Select Duplicate in the Tool Options.
- Move and rotate the leaves as desired around the flower. Use the rotation handle to rotate the leaves visually.
- Save the file as Traced Bitmap.



Notes:

You can only divide Zigzag or Row Fills.

To delete a Divided or Direction line, click on the X in the middle of the line.



Adding Crystals to Embroidery:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of From Embroidery.
- Click on Browse.
- Navigate to BERNINA DesignWorks Samples.
- Select CDW0016.ngs. Open.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #48.
- Click Next.
- Click Finish.



Editing the Design

- Select Edit> Select All.
- Increase the size of the design in Tool Options.
- Make sure Proportional is checked.
- Change the size of the Height to 7.5”.

Adding a Single Crystal

- Select Create Crystal Shape.
- Choose these options in Tool Options:
 - ◊ Swarovski Round
 - ◊ Light Siam AB for Color
 - ◊ SS16/PP for Size
- Click on the Eiffel tower to set the crystal in the “crown” of the center section.
- Select Black Diamond and SS10 and set stars in the sky.
- When you are finished adding crystals, right click to end.



Adding a Row of Crystals

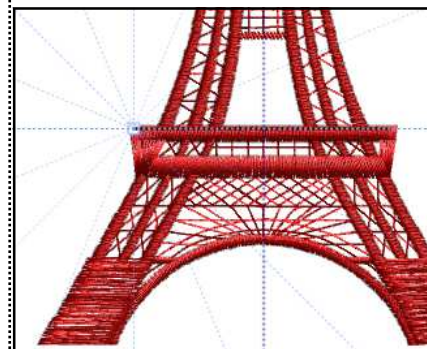
- Select Create Bezier Shape.
- You will draw a line with two left clicks across the satin stitch while holding down the Ctrl key. To draw the line, left click, release the mouse, press the Ctrl key, drag the mouse along the straight line, left click to set the end point of the line.
- Right click to end the line.
- Press the space bar.
- In Object Properties, select Crystals.



Notes:



The Ctrl key keeps the line straight.



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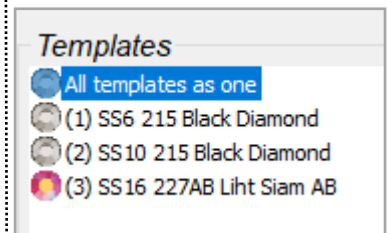
- Choose these options in Object Properties:
 - ◊ Size 6 SS
 - ◊ Black Diamond for color
- Select File> Save As and name the file, Adding Crystals to Embroidery.

Notes:

Exporting the Design



- Select Export.
- Select your method for exporting the design.
- Using the Export icon only sends the embroidery file to the machine.
- Select File> Export> Crystals to Machine.
- In the dialog box that opens, click on the Export icon.
- This will send the crystal part of the design to the machine.
- Notice that in the Export to Machine dialog box, by default, all templates will be cut as one.
- If you want the templates to be punched separately, you may select each template by selecting each in the list and clicking on export for each template.



Adding CutWork to Embroidery:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of From Embroidery.
- Click on Browse.
- In BERNINA DesignWorks Samples folder, navigate to CDW0069.ngs. Open.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #44C.
- Click Next.
- Click Finish.



Rotating and Centering the Hoop

- Select Manage Hoop Options.
- Place a check mark by Rotate by 90° and by Center Design to Hoop.
- Click OK.

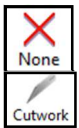


Grouping the Design

- Select Edit> Select All.
- Right click and select Group.

Adding CutWork

- Select Create Ellipse.
- Hold the Shift key down and click in the center of the oval shape and drag to form an oval shape.
- Press the space bar to select the painted oval.
- Move the oval to place it in the center of the embroidered oval.
- Delete the painted fill by selecting None in the Fill Tab of Object Properties.
- While it is selected, click on the Outline Tab in Object Properties. Select CutWork.
- Place a check mark in front of Running Before and change the Offset to 1 mm.

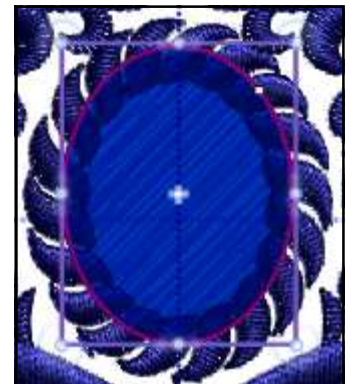
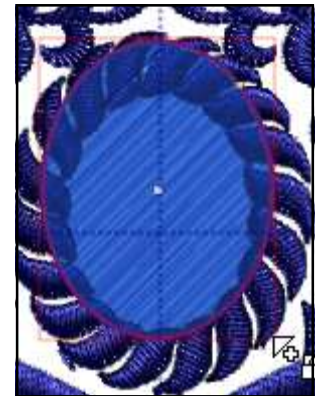


Slow Redraw & Re-sequencing

- Select Slow Redraw.
- Click on Start. Notice the CutWork happens after the embroidery.
- In Sequence Manager, click and drag the CutWork layer to position one.



Notes:



Adding a Net Fill

- Select the CutWork layer in Sequence Manager.
- Place a check mark by Net Fill in Object Properties.
- Change the Cell size to 2.5 mm.
- Change the Offset to 1.5 mm.
- Change the Angle to 45°.
- Select File> Save As and name the file, Adding CutWork to Embroidery.

Notes:



*Rest your cursor on the different layers of Sequence Manager.
Note that a zoom feature is built into the Sequence Manager.
Shift + 1 is the shortcut for Zoom All.*

Appliqué & CutWork Lettering

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of New Graphic.
- Click Finish.

Add Lettering



- Select Edit Text.
- Click on the screen and type in “Quilt”.
- While Edit Text is highlighted, choose the type of font you wish from the Font Name category in Tool Options. For this design, choose Arial Black.
- Change the Font Size to 4”.

Rotating the Hoop & Centering the Design



- Select Manage Hoop Options.
- Select BERNINA Large Oval Hoop, 255 x 145, #44C from the drop-down choices.
- Place a check mark by Rotate by 90° and by Center Design to Hoop. Click OK.
- You can visually change the size of the letters to fill the hoop by selecting the letters; then clicking and dragging on a corner resizing handle.

Converting to Appliqué



- Select the Rectangle Selection icon.
- In Object Properties, notice that the letters default to a painted fill.
- Notice in the Sequence Manager, there is no outline around the letters (noted by the X)

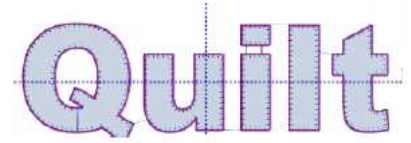


- In the Fill Tab of Object Properties, click on Appliqué.
- Place a check mark next to Cleaning.
- From the drop-down choices, choose Laser Cut.
- Rest your cursor on the letters and notice that there is a blanket stitch placed around the letters by default.



- To change the size of the blanket stitch, first click in the upper left corner of the color chip in the Threads Palette to add an outline.
- In the Outline tab of Object Properties, select Appliqué for the Style of stitch.
- Place a check mark by Length and change to 2.5mm.
- Press Enter.
- Select File> Save As and name the file, Appliqué Letters.
- Navigate to the location to save the file and press Save.

Notes:



Look for fonts that do not have thin areas for best results.

If Tool Options is not visible, select View> Toolbars and make sure there is a check mark in front of Tool Options.

You may select the size in Tool Options or visually change the size on the design screen by clicking and dragging on a corner resizing handle.

OTHER OPTIONS:

If you wish to have a zigzag stitch around the letters, check Default Fixing and select Zigzag. Check the Position and change the Position to Inside or Inside with Overlap.

To change the density of the satin stitch or the width of the stitch, you must add an outline around the letters by clicking in the upper left hand corner of a threads color chip.

Select the Outline tab of Object Properties and choose Satin Serial. Change the width by changing the value of the Outline in Tool Options.

To add a decorative stitch appliqué, click on Running and select the desired stitch. You can mirror stitches and change the offset to place the stitch where you want it to be in relation to the fabric edge.



Slow Redraw

- Click on Slow Redraw to watch the design stitch.
- Notice that a placement line stitches first; then the blanket stitch.
- Close Slow Redraw.

Creating the CutWork File

- For appliqué files, there are two files needed—one file stitches the placement line and cover stitch and the other file will create the cutwork letters.
- It is important that the second file be created from the first file so that all letter sizes are exact.
- To create the cutwork letters, an outline needs to be added to the Appliqué file if you used the default blanket stitch width. (Select the letters. Click on the upper left hand corner of a color chip in the Threads Palette.)
- Remove the fill stitch by selecting None in the Fill tab of Object Properties.
- In the Outline tab, select CutWork.
- Place a check mark in front of Running Before.
- Change the Offset to 1 mm.
- Press Enter.
- Select File> Save As and navigate to the location to save the file.
- Name the file, CutWork Letters and click Save.
- Export the file to the machine of your choice.



Notes:

Clipart for DesignWorks:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None. Click Next.
- Place a radio dot in front of New Graphic.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #93. Click Finish.

Select Clipart

- Select Tools> Clipart Library> Insert Clipart.
- In the Name box of the dialog box, type in Sun. Select Sun 01.
- Click on Insert.
- Click and drag from left to right on the screen to add the clipart.
- Notice that there are Threads as well as Brushes in the clipart design. (Look at the Color Palettes)

Auto Sequence & Editing the Clipart



- Click on Auto Sequence Control if it is activated.
- In the dialog box that opens, leave the radio dot in Nothing and click OK.
- The Sequence Manager breaks into layers and by looking at each layer, you can determine if it is a painted fill or stitched outline.
- Notice that the sun layers (layers 3-7) have a painted fill + no outline.
- Right click on the design and select Ungroup.
- Scroll to layer 2 and select the layer in Sequence Manager.
- While selected, select Running in the Outline Tab of Object Properties and select a Triple stitch.
- Select layer 8, the sail.
- Change the stitch to a Chain stitch and change the color to red by clicking in the upper left corner of the red color chip in the Threads Palette.

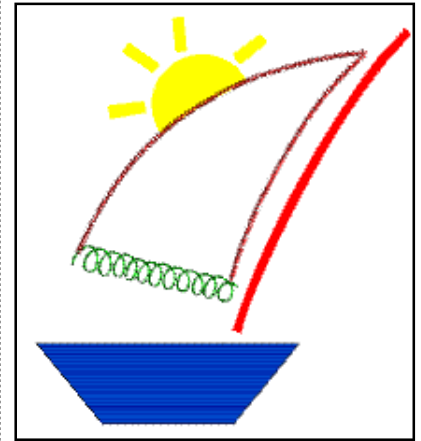


Smoothing a Painted Line

- Select the mast of the sailboat.
- Notice that it is very jagged.
- If you wish to make a painted fill smoother along the edges, an outline can be added.
- Try switching to the Outline tab of Object Properties.
- Click in the upper left corner of the red color chip in the Brushes Palette to add an outline.
- Switch to the Outline tab and notice that a Line (painted) has been added. Notice that the mast is smoother.



Notes:



The directional arrow on the clipart picture lets you know the direction to click and drag. As you continue to drag, the clipart increases in size.

Add a Shape



- Select Create Trapezoid/Parallelogram.
- Make sure that Trapezoid is checked in Tool Options.
- Change the slant to 50%.
- Click and drag below the sail to create the boat.
- Press the space bar to select the boat.
- Click Mirror Y in Tool Options.
- Notice that drawing a shape creates a painted fill with a stitched outline.
- In Object Properties, Outline Tab, click on Line. This changes the stitched line to a painted line.
- To make the outline the same color as the boat, click in the upper left corner of the blue color chip in the Brushes Palette.



Resequencing the Design

- In Sequence Manager, the stitch order may be changed by clicking and dragging on the tray of the stitched objects so stitching occurs after painting.
- Select Layer 2 (the triple stitch spiral) and move it to stitch next to last.
- Select the sail layer and move to stitch after the spiral.
- To collapse the trays by color, click on the Paintbrush icon in Sequence Manager.
- Select File> Save As, navigate to the location to save the file, and name the file Clipart. Click on Save. Export.

Notes:

Rest your cursor on the black triangle of the exposed shape tool and drag your mouse to select the Trapezoid/Parallelogram.

Clipart designs can be edited to become paint, cut, crystal, or combination designs.

Insert Symbol:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of New Graphic.
- From the drop-down hoop options, choose the appropriate hoop for your type of DesignWorks project you want to create.
- Click Finish.

Insert a Symbol

- Select Tools> Insert Symbol.
- Select the type of font you wish to use from the Font drop-down category.
- Select Wingdings; scroll to find the symbol you wish to use.
- Select it.
- Click on Insert.
- Click and drag on the screen until the symbol is the size you want.
- Close the dialog box by clicking on the x in the upper right corner.
- The inserted symbol has a painted fill and a running stitch outline around the design.

Edit the Design

- While the design is selected, open the Outline Tab of Object Properties.
- Click on Zigzag to add a zigzag painted outline around the object. Line will create a thinner painted outline around the object.
- Change the color by clicking in the upper left hand corner of the outline color you wish to have in the Brushes Palette.
- If you wish to change the color of the fill, click in the lower right hand corner of the color chip you wish to have in the Brushes Palette.
- Select File> Save As and navigate to the location to save the file.
- Name the file Inserted Symbol. Click Save.
- Export to the machine of your choice.



Notes

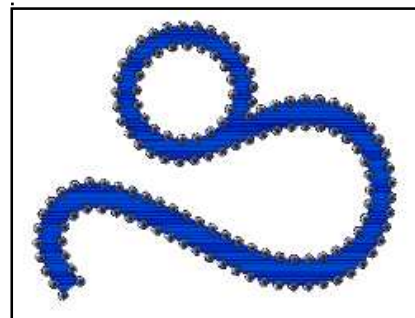


You may add additional Webdings and Wingdings to your computer for converting to DesignWorks paint, crystal, or cut designs.



This symbol is found in the Webdings category.

These symbols can be used to create cutwork, appliqué, painted, crystal, or combination designs. This symbol is found in the Wingdings category.



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Bitmap as Backdrop:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of From File.
- Click on Browse.
- In the BERNINA DesignWorks Samples folder, open the Training folder.
- Select the Flower.jpg. Click on Open.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #93.
- Click Next.
- Leave Open as Backdrop selected.
- Click Finish.



Drawing the Flower

- Select Zoom In and click and drag a bounding box around the flower to zoom in.
- Select the Create Outline shape.
- Using left clicks, digitize around the shape. At corners and points hold the Shift key down as you left click.
- Go around the flower and when you come around to where you started, click on the first click to enclose the shape.



Editing the Nodes

- Press the space bar to select the flower.
- Click on Edit Shape Nodes.
- You can now move, add, delete, or change the nodes as needed.
 - ◊ Click and drag on a node to move the node.
 - ◊ Add a node by double clicking on the line. A smooth node is always added.
 - ◊ Select a node and press delete to delete the node.
 - ◊ To change a node, right click on the node and select the opposite type. (Smooth or Cusp)
- Selecting the node gives you control arrows that can also be moved to change the shape.

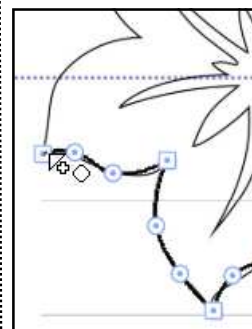
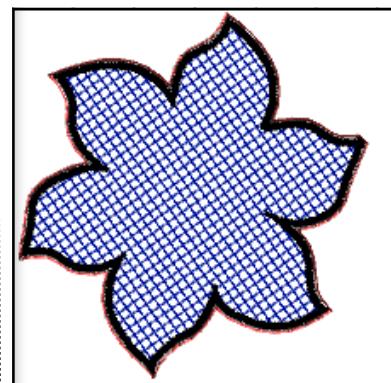


Changing to Painted Net Fill

- Press the Rectangle Selection icon.
- In the Fill Tab of Object Properties, select Paint Net Fill.
- Change the Cell Size to 1.5 mm and the Angle to 35°.
- In the Outline Tab of Object Properties, select ZigZag.

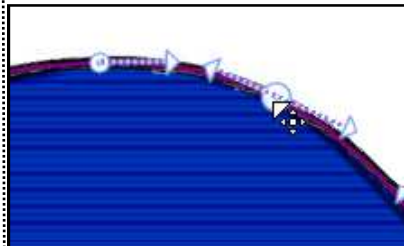
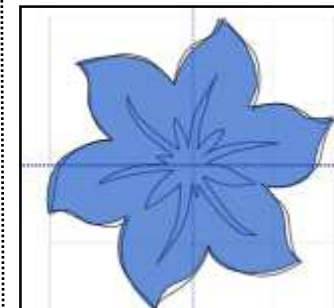


Notes:



You may also click and hesitate at the points of the flower.

Backspace erases one click at a time.



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Adding a Cutting Line

- Right click on the black color chip.
- Choose Select By> Pen Color.
- Select Copy.
- Select Paste.
- While the copy is selected, click on the upper left corner of a contrast color.
- Click on CutWork.
- Change the Cutting Offset to .7 mm.
- Place a check mark in front of Running Before.
- Change the Offset to 1 mm.
- Press Enter.

Save the File

- Select File> Save As.
- Name the file Bitmap as Backdrop.
- Save the file.
- Export to the machine of your choice.

Notes:

Changing the Cutting Offset to a positive number changes the size of the flower from the original digitized line.

Crystal Editing:

Open a New File/Blank File

- Select File> New.
- In the Wizard, open the Embroidery Normal category and select None.
- Click Next.
- Place a radio dot in front of New Graphic.
- In the Hoop selection drop-down, select BERNINA Large Oval Hoop, 255 x 145, #48.
- Click Finish.

Drawing Tools

- Rest your cursor on the black triangle in the lower right hand corner of the visible shapes tool.
- Use each tool to draw a shape within the boundaries of the hoop.
- To draw the shapes, just click and drag on the design screen.
- Holding the Shift key down as you draw will draw the shape from the center out.
- Holding the Ctrl key down as you draw will make a circle with the Ellipse tool or a square with the rectangle tool.
- Draw a circle, square, pie shape, trapezoid, star, hexagon, and a triangle.
- The default shape has a painted fill, with a running stitch outline.

Adding Crystals

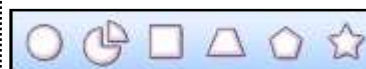
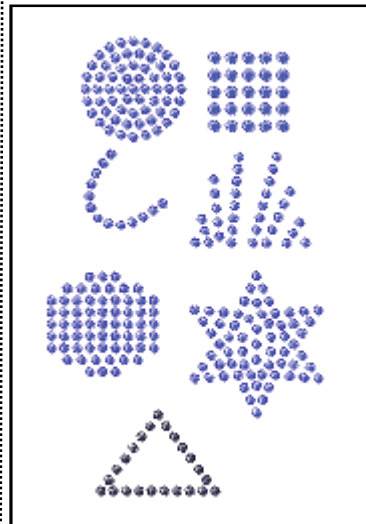


- Press the space bar.
- Select Edit> Select All.
- Eliminate the outline by clicking on None in Object Properties.
- Add crystals by clicking on Crystal Fill in the Fill Tab of Object Properties.
- Change the size of the crystals to 10SS.

Editing the Fill

- The default Fill Type is Shape Fit.
- Deselect; then select the circle shape.
- Change the size of the circle to 1.75”.
- In the Fill Type in Object Properties, select Circular.
- Select the Square.
- Change the Fill Type to Rectangle.
- Change the Horizontal & Vertical Spacing to 3 mm.
- Press Enter.
- Change the size of the crystals to 16SS.

Notes:



To draw a triangle, select Create Polygon and choose three sides in Tool Options.

You can edit the crystal fill by changing the size of the shape.

You can edit crystal fills by changing the way the crystals fill in the shape by selecting another type from the Fill drop-down categories.

You can edit the crystal fill by changing the spacing and angle of the crystals.

You can edit the crystal fill by changing the size of the crystals.

Editing the Fill

- Select the Pie Shape.
- Change the Fill Type to Single Line.
- Select the Trapezoid.
- Change the Fill Type to Line Fit.
- Select the hexagon shape.
- For the Fill Type, leave it as Shape Fit.
- Place a check mark next to Offset.
- Change the Offset to –1 mm. Press Enter.
- Select the Star.
- Change the Fill Type to Contour.
- Change the Horizontal and Vertical Spacing to 2 mm.
- Press Enter.
- Select the Triangle.
- Change the Fill to None and the Outline type to Crystals.
- Select File> Save As and name the file, Crystal Editing.

Notes:

Exporting the Crystals



- Select File> Export> Crystals to Machine.
- Click on the Print icon.
- The printed worksheet will list the total number of crystals needed.

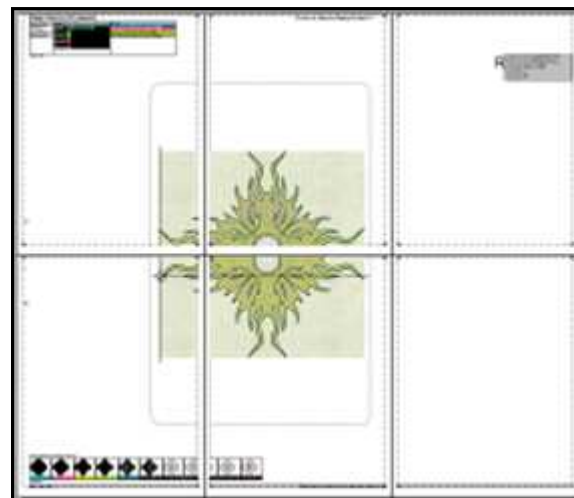


- Close the Print Preview.
- Click on the Export icon in the Export to Machine dialog box.

Printing

Printing A Guide Sheet

1. Select File> Open.
2. Navigate to the DesignWorks Sample folder.
3. Open the DesignWorks folder.
4. Open the design, Bernina_008_Abstract.Draw.
5. Select File> Print or click on the Print icon.
6. Press OK to print the design sheet from your printer.
7. All the information is listed on this design sheet.



Header

The header provides information on the size of the design, the color changes, the amount of thread needed, the colors of the design, and the position of the knife if cutwork has been added.



The stitch sequence is shown graphically at the bottom of the design sheet.



There are numerous print options that can be changed through the listed properties (see picture at the right). To find out about these options, go Help> Help Topics. Select the Search Tab. Type "print" in the search field. Press Enter.

Click on Print Your Design and read the information listed in this section.

Printing Artwork

You can also print the artwork onto fabric printing sheets. Select File> Print Artwork. You will get a preview with available options to adjust.

