



# Hatch<sup>®</sup>

*Bring embroidery to life*

**WILCOM**

**MICROW**

USER GUIDE  
USER GUIDE

GETTING STARTED  
GETTING STARTED

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## GETTING STARTED

If you are new to embroidery design software or machine embroidery, you are probably asking yourself 'where do I start?!'.

It's safe to say that you will spend many hours, both rewarding and at times frustrating, learning how to get the most out of your embroidery machine and the design software which supports it. The two work together hand-in-hand and it takes practice and patience to master both the creation and production of fine embroidery.

The results, however, will speak for themselves, making the time you invest all the more valuable. With each project you complete, you will gain in experience and confidence and be ready to tackle the next challenge.



### Working with embroidery

Let's take a look at the scenarios that you will find yourself working with. Typically, you will be involved in one or all of the following:

- Take a ready-made design and sew it out
- Make global changes to a design
- Combine lettering with a design
- Create a monogram design
- Adapt an existing design
- Create embroidery from artwork using automated techniques
- Create embroidery manually
- Use special embroidery features

Let's look at those cases one by one. This section outlines the main uses you will make of your embroidery software, together with references to sections of the User Guide where you can obtain more in-depth information.

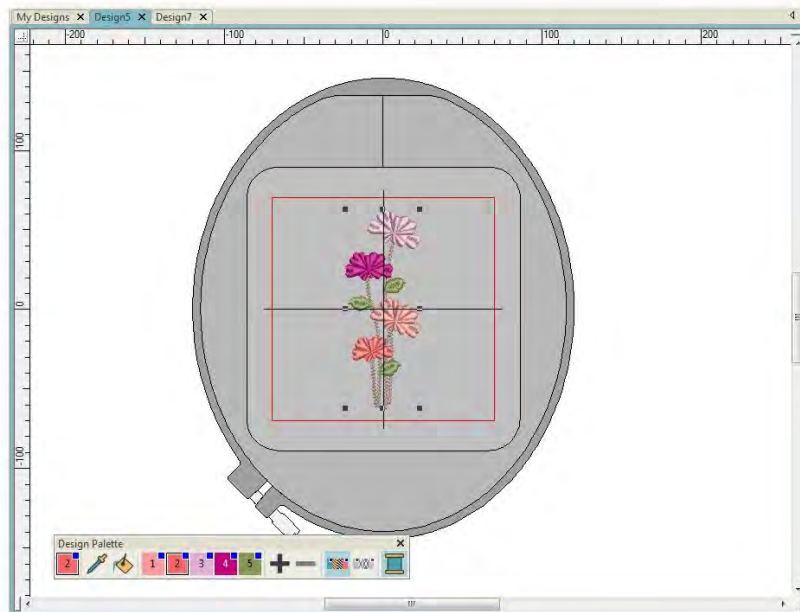
## THE USER INTERFACE

The embroidery software can be opened via the desktop icon or MS Windows® Start menu.



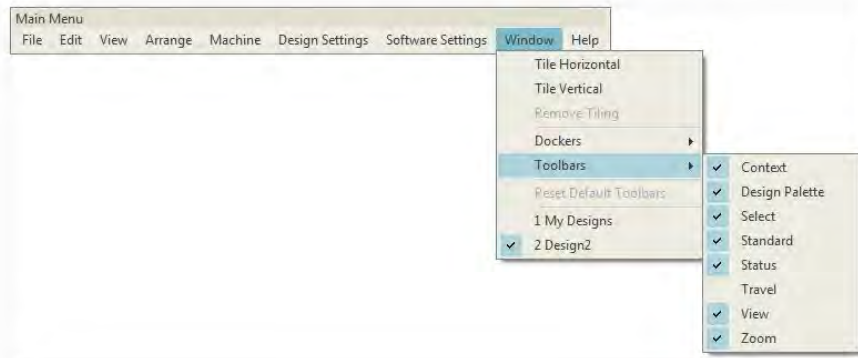
### Design window

Your embroidery software has a single workspace or 'design window'. This allows you to modify or create embroidery designs using the extensive toolset. You can have multiple designs open simultaneously and toggle between each via the design tabs.

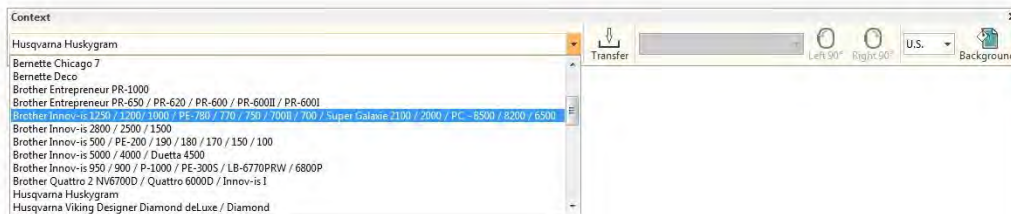


## Menu & toolbars

The main menu and toolbars are normally docked at the top of the screen above the design window. Use both to access common commands. As you get more familiar with them, you can speed things up by using keyboard shortcuts. For a list of available toolbars, go to the Window menu...



The software includes a 'Context' toolbar which changes according to the selected tool. If you have no tools selected, you will see a machine list as well as a hoop list. Here you can also set your measurement units – Metric or U.S. – and adjust screen background settings.

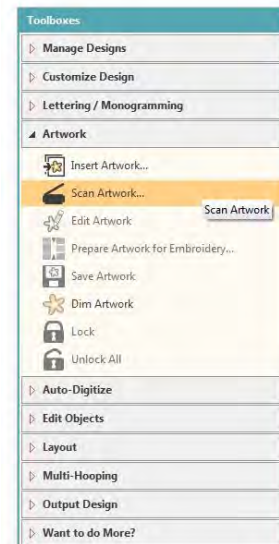


## Toolboxes

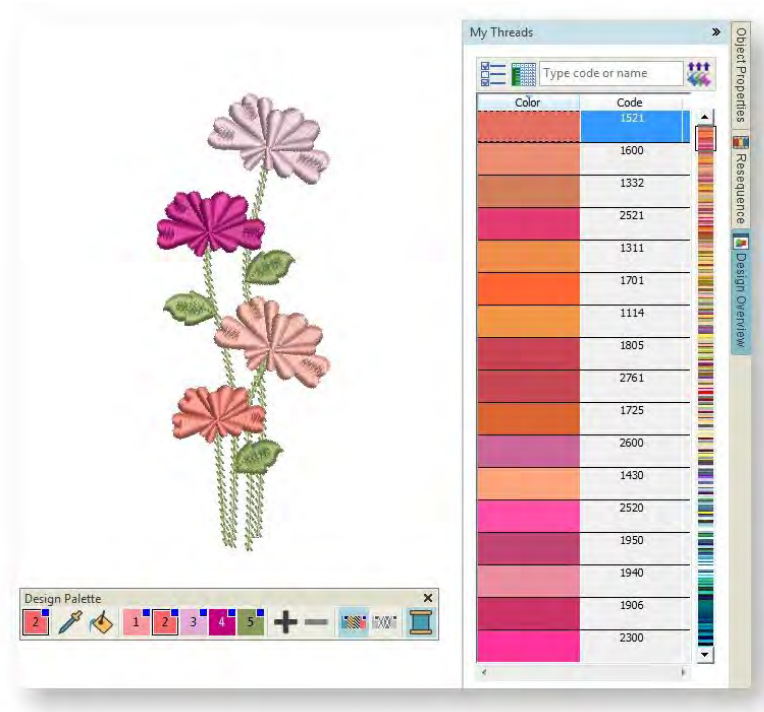
Toolboxes are like toolbars in that they contain software tools. However, each toolbox represents a typical scenario you will be engaged in, such as customizing designs or editing objects. Some tools may appear in more than one context. As such, toolboxes are organized in order of common operations, starting with managing your designs.

## Dockers

The software includes a number of 'dockers' for key functions. These include operations to do with thread selection, object sequencing, cutwork, 'carving stamps', as well as viewing and modifying object properties. Dockers are normally docked to the right of the design window. They may also be 'floated' by dragging the caption bar to the design window or double-clicking. For a list of available dockers, go to the Window menu.







There are three dockers you will make constant use of:

Docker	Purpose
Object Properties	The most important of these is the Object Properties docker. Use this together with the Context toolbar to access and modify the many properties of selected embroidery objects.
Resequencing	The Resequencing docker offers an easy way to selectively view and resequence color blocks and objects in designs.
My Threads	The My Threads docker allows you to select thread charts and assign threads to the current design. The My Threads docker works in conjunction with the Design Palette toolbar.

## Status bar

A Status Bar at the bottom of the design window provides continuous display of current cursor position status as well as instructions for use of selected tools.

Click and drag to draw; and release to finish	W 224.8 H 119.6	X= 1.1 Y= 1.3 L= 1.7 A= 49	18849	Pure Cotton
---	-----------------	----------------------------	-------	-------------

Information displayed includes...

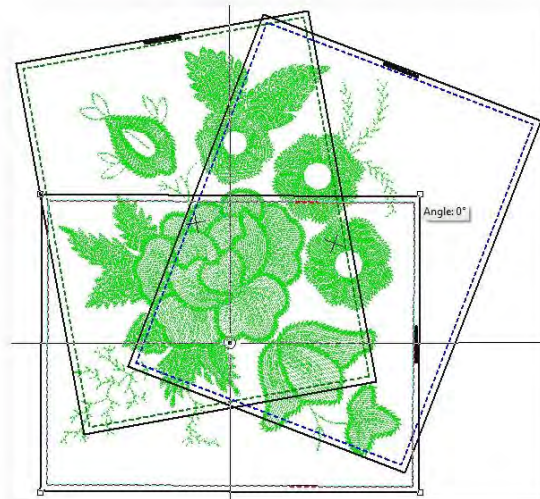
Field	Notes
Prompt message	To guide you through use of selected functions
Design size	Width and height



Field	Notes
Coordinates	Current needle position (X/Y), and length (L) and angle (A) of current stitch. See also Grids & guides.
Stitch count	Total number of stitches in design
Current fabric	Fabric settings take into account the type of fabric you are stitching on. See also Auto fabrics & densities.
Grade of design	Native EMB designs are classified in four grades depending on how the file was created. See Supported embroidery files.

## Multi-hooping mode

Here is a screen image from the multi-hooping workspace which is accessed via the Multi-Hooping toolbox. If your embroidery is too large or contains a number of designs spaced around an article, you can split it into multiple hooppings. This means you can create embroidery designs that are larger than can be stitched in a single hooping. The multi-hooping workspace allows you to set up the position and sequence of each hoop.

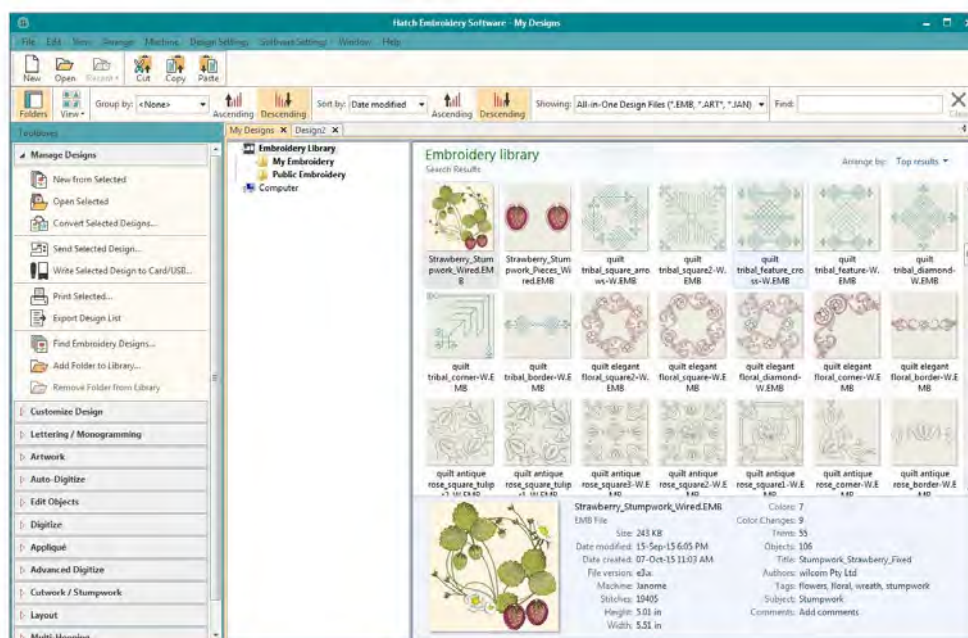


## FIRST THINGS FIRST

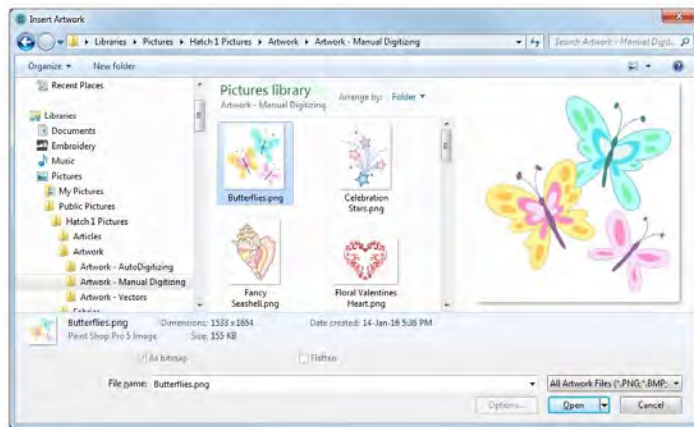
You don't need experience to start using your software. You can simply open a design and send it to machine for 'stitchout'. And this is the best place to start. As you gain experience, you will be able to 'read' designs and identify which are good and which may cause problems.

### Sample designs & artwork

Your software contains many ready-to-stitch designs, samples and projects. These can be found in the installed Embroidery Library. The most valuable thing when starting out as a new user, is to spend some time exploring these designs and getting to know what's available.



There are also artwork files for use as digitizing backdrops. These are installed to your Pictures folder. See also Import Images in the online user guide.



There are many other sources of ready-made embroidery designs which you can purchase online and adapt as you wish. Just be aware of any copyright issues that may be attached to designs you find on the web.

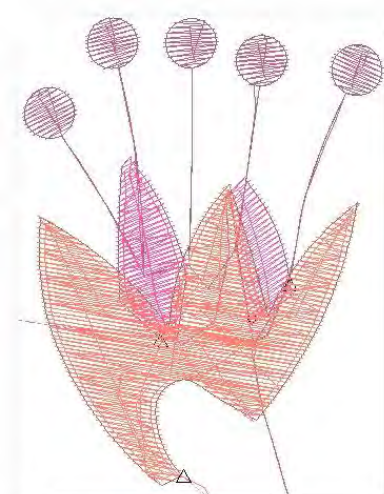
## Rules of good embroidery

Keep the following points in mind when looking at embroidery designs, both your own and others:

- Stitches are neat, smooth and even
- Design looks good – shapes, colors, balance
- Shapes are filled with correct fill and outline stitches
- Stitches are angled to match shapes
- Shapes are stitched correctly – no unwanted gaps
- Details are clearly defined
- Lettering is clear and easy to read.

The stitchout should also have the following characteristics:

- The design sews efficiently on the machine
- The fabric does not pucker around stitched areas
- The design is free of loose ends.



Good embroidery quality starts with good design. You then need a good quality machine to stitch it out. But even that is not enough if you do not use the correct fabric, threads, backings, tension, and so on. Consult your machine manual for advice and get as much advice from other embroiderers as you can.

## STITCH OUT AN EXISTING DESIGN

For many embroiderers, it is enough to take an existing design and stitch it out. This is certainly where most will start. Once you have found a design you like, you will want to preview it to see how it will sew out. A number of steps are involved. We outline the main ones here with reference to the online User Guide.

### Study sample designs

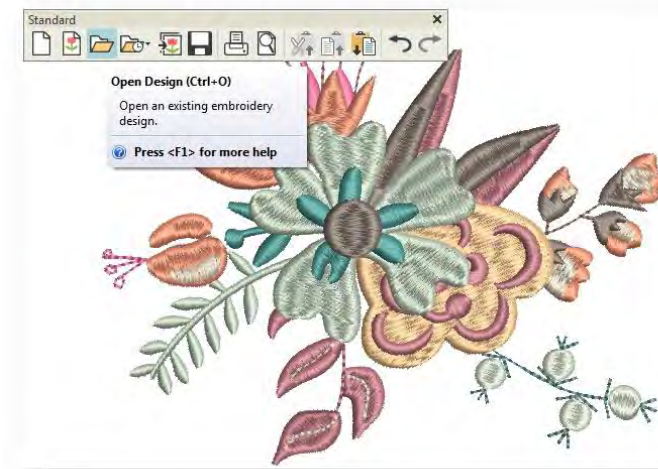


Use Manage Designs > Open Selected to open design(s) selected in the embroidery library.



Use Manage Designs > New From Selected to create new designs based on designs or artwork selected in the embroidery library.

Open a design from your Embroidery Library. See Open Design Files.



### Adjust view settings



Use View > Show Design to show or hide design elements. Click to open droplist of view settings.

Adjust viewing settings as preferred. See View Designs.

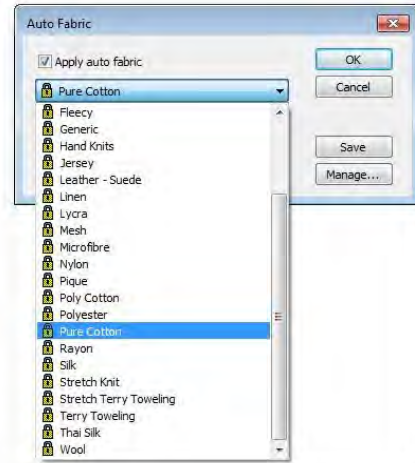


## Change fabric type



Use Customize Design > Auto Fabric to change the properties of the design for stitching on a different fabric.

Check the fabric type and change as necessary via the Customize Design toolbox or Design Settings menu. See Auto Fabrics & Densities.

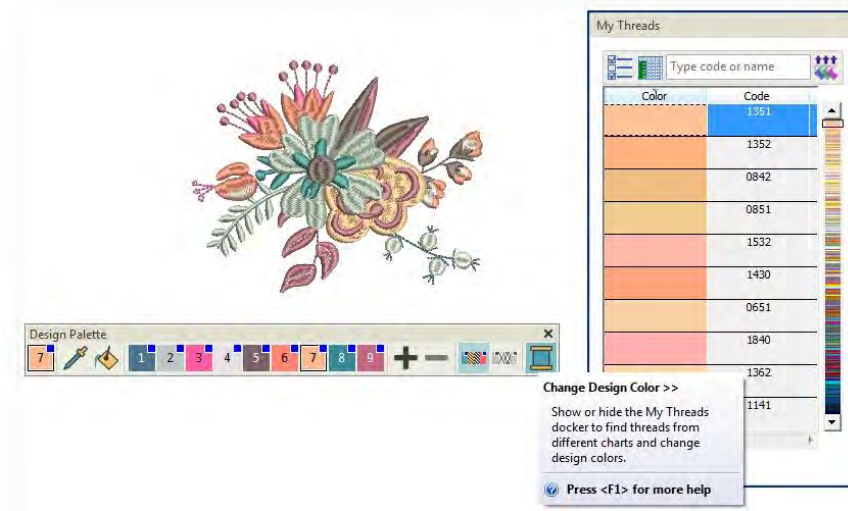


## Assign threads



Use Design Palette > Change Design Color to show or hide the My Threads docker to find threads from different charts and change design colors.

Go to the Design Palette and check the thread colors. If necessary, change charts to suit one you are using. See Design Colors.



## Preview stitchout



Use View > Stitch Player to simulate embroidery design stitchout onscreen in either stitch or TrueView.



Press <Shift + R> to preview the stitchout so you understand how the design will sew on the machine. See Travel Through Designs.




## Preview design worksheet




Use Output Design / Standard > Print Preview to preview design worksheet. Print from preview window.

Preview the design via the Standard toolbar or Output Design toolbox and print a design worksheet as preferred. See Print Designs.

**Design Worksheet**  
Janome Home Embroidery  
  
Design: Design2  
Colorway: Colorway 1

Stitches: 16859  
Colors: 9  
Height: 100.1 mm  
Width: 124.6 mm  
Zoom: 1:1



**Flowers:**  
Machin format: Janome  
Color changes: 16  
Stops: 17  
Trims: 29  
Hoop: Hoop SD14 (140 x 140)  
Fabric type: Pure Cotton  
Required stabilizer: Topping  
Backing: Tear Away x2  
Left: 62.3 mm  
Right: 62.3 mm  
Up: 50.0 mm  
Down: 50.0 mm  
EndX: 0.0 mm  
EndY: 0.0 mm  
Area: 12465.7 mm²  
Max Stitch: 11.8 mm  
Min Stitch: 0.2 mm  
Max jump: 7.0 mm  
Total Thread: 101.83m  
Total bobbin: 39.35m

**Stop Sequence:**  

#	St	Code	Name	Chart
1.	0	2641	1919	Madeira PolyNeon 40
2.	5	881	1854	Madeira PolyNeon 40
3.	3	140	1595	Madeira PolyNeon 40
4.	6	1519	1777	Madeira PolyNeon 40
5.	4	233	1898	Madeira PolyNeon 40
6.	6	612	1854	Madeira PolyNeon 40
7.	8	302	1652	Madeira PolyNeon 40
8.	1	422	1760	Madeira PolyNeon 40
9.	4	500	1886	Madeira PolyNeon 40
10.	3	475	1595	Madeira PolyNeon 40
11.	6	1206	1777	Madeira PolyNeon 40
12.	7	1671	1752	Madeira PolyNeon 40
13.	9	862	1919	Madeira PolyNeon 40
14.	2	4352	1811	Madeira PolyNeon 40
15.	8	602	1652	Madeira PolyNeon 40

Created by: Wilcom Pty Ltd  
Last saved: 27/05/2015 11:55:58 AM  
Printed: 27/05/2015 12:07:44 PM  
Page 1 of 2

## Output design

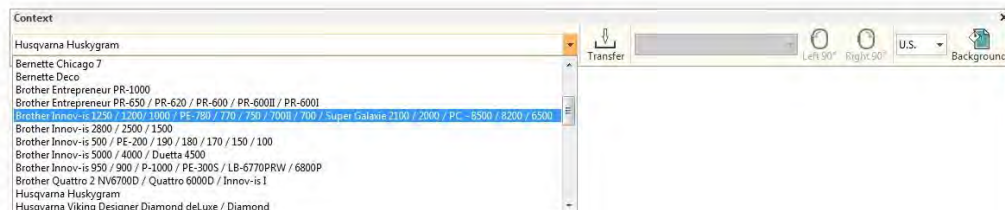


Use Output Design > Export Design to convert current design to a format other than your selected machine.



Use Output Design / Context > Transfer Design to transfer current design to the design folder. Right-click for settings.

Send the design to machine via data media (usually memory stick). Or by file transfer. See Output Designs.



Check your machine documentation for steps involved after transferring the design to machine.



## MODIFY A DESIGN

Once you are used to the steps involved in sewing out designs – either clipart or ones you have purchased – you will soon want to make global design modifications such as resizing, or changing thread colors and fabric types. These are all relatively simple operations. We outline some of the common ones here with reference to the online User Guide.



### Open design



Use Manage Designs > Open Selected to open design(s) selected in the embroidery library.



Use Manage Designs > New From Selected to create new designs based on designs or artwork selected in the embroidery library.

- Open the design you want to use. See Open design files.
- Press <Ctrl + A> to select all objects and press <Ctrl + G> to group them.

### Adjust thread colors

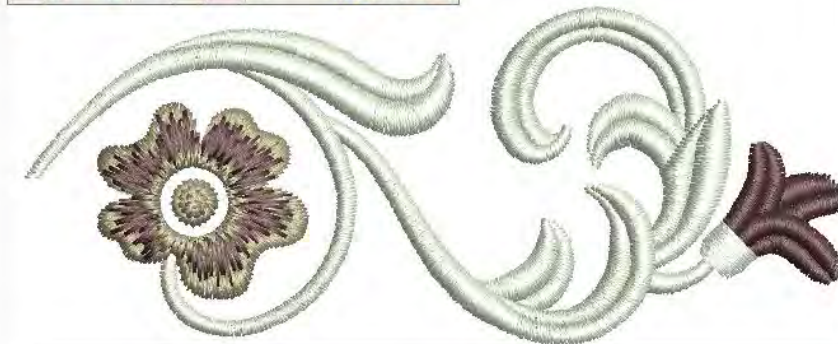
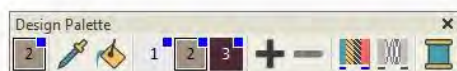


Use Design Palette > Change Design Color to show or hide the My Threads docker to find threads from different charts and change design colors.



Use Customize Design > Cycle Used Colors to cycle through combinations of used colors. Left- or right-click.

Adjust design thread colors as preferred. Try cycling used colors to find a combination that suits the background color of the fabric. See Design Colors.



## Resize design

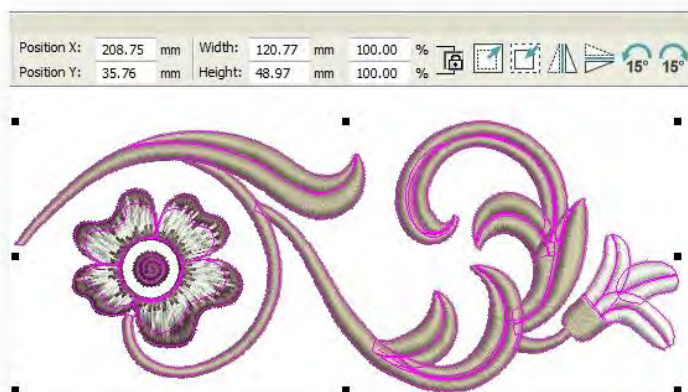


Use Context > Size + 10% to increase the size of selected objects in 10% increments.



Use Context > Size - 10% to decrease the size of selected objects in 10% increments.

Check design dimensions, and resize as required. For example, if you are stitching a left chest design, maximum size will be approximately 4.25" or 108 mm square. See Transform Objects.



## Rotate objects

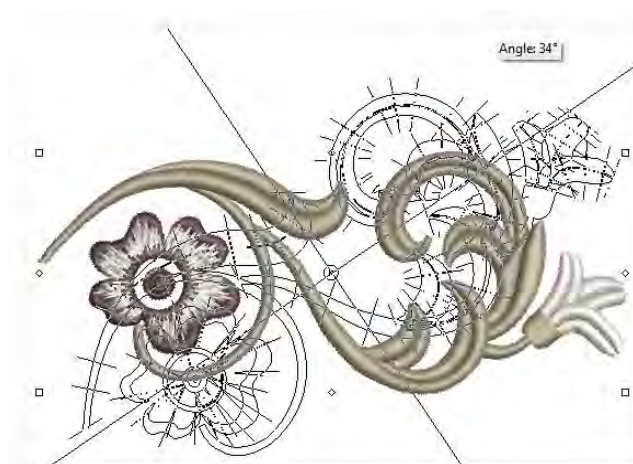


Use Context > Rotate Left 15° to rotate selected objects in 15° anti-clockwise increments.



Use Context > Rotate Right 15° to rotate selected objects in 15° clockwise increments.

Use selection handles or the Context toolbar to rotate objects into position. See Transform Objects.



## Visualize design



Use Customize Design / Context > Background and Display Colors to set colors, fabrics, or articles as design backgrounds.

Go to the Customize Design toolbox and use the Design Background tool to visualize the design on a garment or article. See Backgrounds.

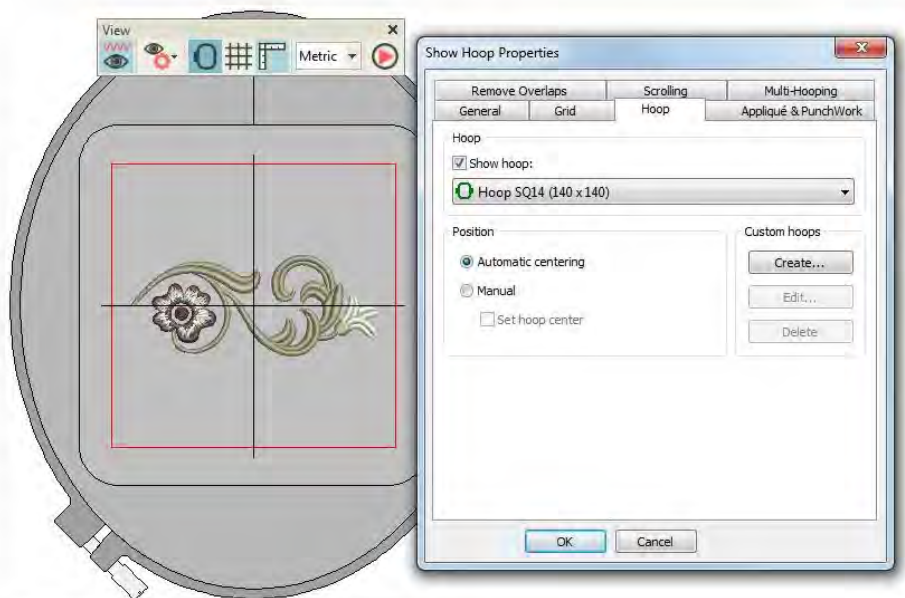


## Hoop design



Click View > Show Hoop to show or hide hoop. Right-click for settings.

Choose a hoop via the View toolbar or Context toolbar. Make sure the design fits within the stitching area. See Hoop Selection.



## CREATE SIMPLE LETTERING

Once you are used to sewing out designs and resizing, changing colors and fabric types, you will certainly want to create your own lettering designs. While it takes practice to obtain a good quality stitchout, it is as simple as typing letters on-screen to create an attractive lettering design.



Designs, fonts and other elements used in this video may not be available in your software, depending upon purchased options.

### Open design

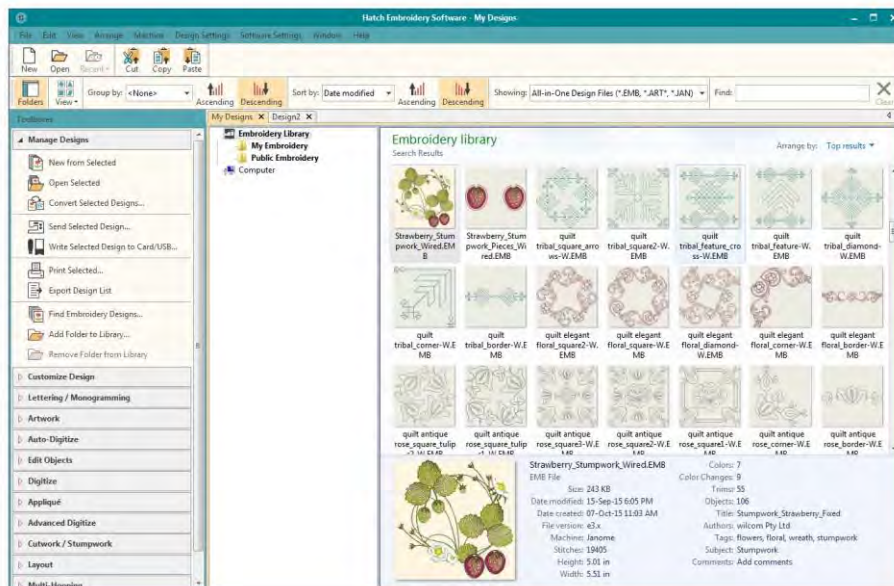


Use Manage Designs > Open Selected to open design(s) selected in the embroidery library.



Use Manage Designs > New From Selected to create new designs based on designs or artwork selected in the embroidery library.

Open a design. Typically you'll want to add lettering to an existing design. Go to the Manage Designs toolbox and choose from one of the many samples. See also Manage Designs.

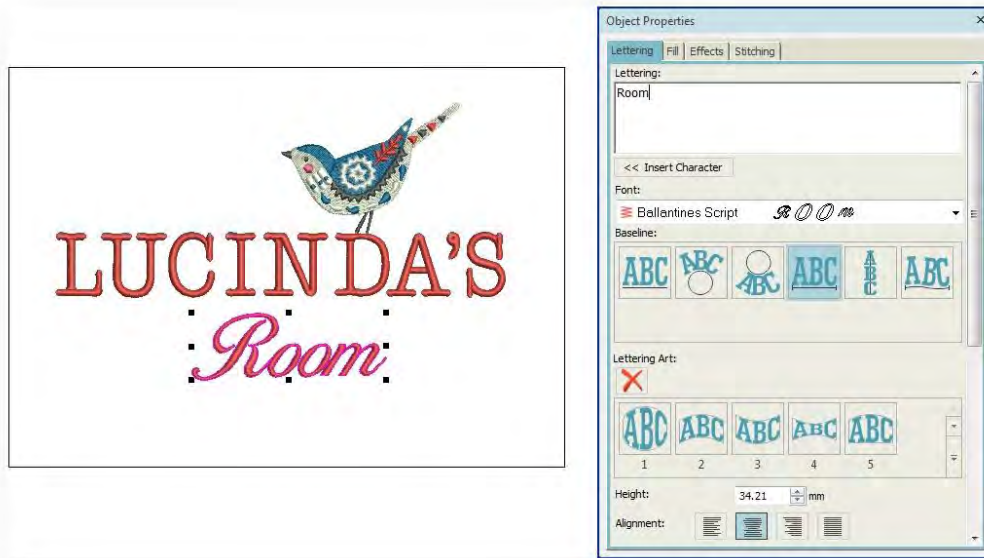




## Add lettering

**A** Use Lettering / Monogramming > Lettering to create embroidery lettering onscreen using native embroidery alphabets or TrueType fonts.

Add embroidery lettering to designs quickly and easily, either on-screen using current settings or via 'object properties'. See Create Lettering.



## Adjust baselines and other settings

It's then a simple matter to adjust baselines, formatting, spacing settings, and colors. See Lettering Layouts.



Try stitching out your lettering design. Study the stitch quality. Be aware that different alphabets sew out better at different sizes.

## ADVANCED LETTERING

Once you have tried your hand at creating lettering designs and sewing them out, you will want to do more adventurous things, such as monograms, fancy lettering, flair scripts, raised lettering with trapunto, as well as special 'elastic lettering' effects. The creative possibilities are endless. Your appetite to try new things will be stimulated as you gain experience and confidence. Part of that involves becoming adept at using your sewing machine as well as sampling and checking design quality.



Remember to study the sample designs included with your embroidery software installation.

### Monogramming



Use Lettering / Monogramming > Monogramming to create personalized monograms using a selection of pre-defined styles, border shapes and ornaments.

The software makes the creation of monogramming designs simple with the Monogramming tool. Optionally include lettering, ornaments, and/or up to four concentric borders in your monograms. See Embroidered Monogram Pillow.

### Flair script



Use Lettering / Monogramming > Lettering to create embroidery lettering onscreen using native embroidery alphabets or TrueType fonts.

Flair script is a special font which allows you to add decorative flairs to the end of text objects, mimicking flamboyant handwriting flourishes. See Special Lettering.



## Lettering stitch effects



Use Object Properties > Effects > Feather Edge to create rough edges and shading effects, or imitate fluffy textures.

By default, lettering objects are filled with satin stitching. You can apply other fill stitch types, such as Step or Fancy, as with any embroidery object. See [Stitch Types](#).



## Lettering art



Use Lettering / Monogramming > Lettering to create embroidery lettering onscreen using native embroidery alphabets or TrueType fonts.

Apply 'lettering art' effects to embroidery lettering to make it bulge or arch, stretch or compress. See [Lettering Layouts](#).





## CUSTOMIZE DESIGNS

Customizing designs is perhaps the most common scenario in embroidery. You will sometimes want to create a new design, usually from artwork, but more often you will want to take an existing design and 're-purpose' it. We've already seen how to make global changes such as sizing, changing colors and fabrics. It won't be long before you want to try more 'invasive' changes such as reshaping, removing, combining, duplicating, resequencing, changing stitch types and effects, etc. Here is a sampling of the things you may want to try.

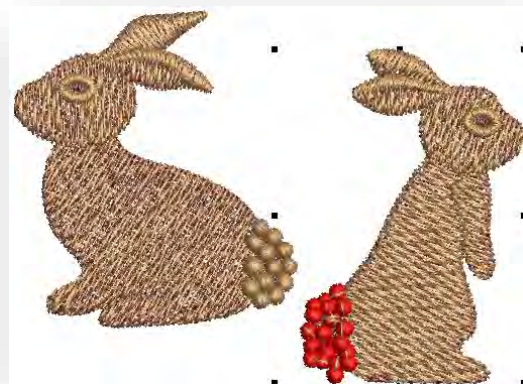
Remember to study the sample designs included with your embroidery software installation.

### Combine designs



Use Customize Design / Standard / Layout > Insert Design to insert another embroidery design into the current design. Design palettes are merged. This tool is also available via File menu.

One technique you will undoubtedly use is combining design elements. This will in turn teach you a lot about other editing operations such as resizing, positioning, rotating, sequencing objects, as well as removing underlying stitching. See Insert Designs.



### Transform designs



Use Layout > Mirror-Copy Horizontal to mirror and copy selected objects horizontally.



Use Layout > Mirror-Copy Vertical to mirror and copy selected objects vertically.

Depending on the type of design work you are doing, you can make use of your software tools for duplicating, rotating, and mirroring designs to create wreaths, kaleidoscopes, and other effects. See Transform Objects.

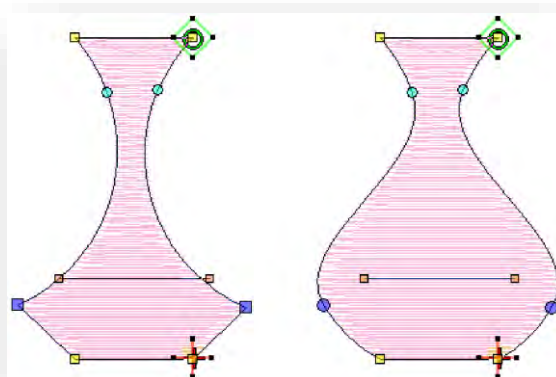


## Reshape designs



Use Edit Objects / Select > Reshape to reshape an object outline, stitch angles or enveloping.

Reshaping operations may be called on for anything from minor modifications to object shapes to reshaping letters for special effects. In most cases, if it is selectable, it can be reshaped. See Reshape Objects.



## Apply artistic stitch effects



Use Object Properties > Fill > Embossed to create decorative patterns of needle penetrations while keeping the appearance of solid stitching. Choose from a pattern library.



Use Object Properties > Fill > Motif to create decorative open fill stitching. Choose from a motif library.

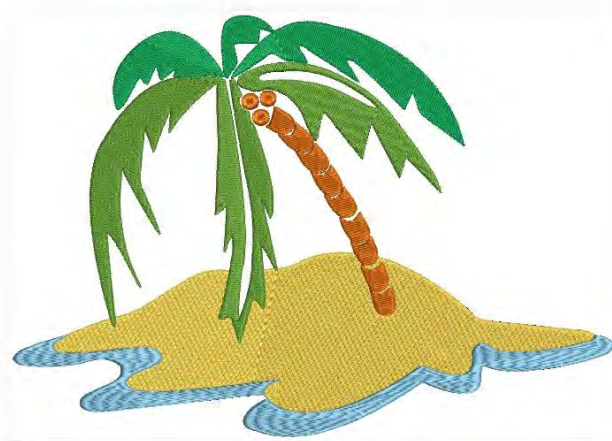
It won't take long before you get bored with simple fills and outlines and want to try out some of the many artistic stitch types and effects your software provides. See Stitch Types.



## AUTO-DIGITIZING

If you have graduated this far in exploring your machine and embroidery software, you are doing well. You can already achieve a great deal without having to actually do your own digitizing. However, if you have got this far, that is probably exactly what you want to do!

One of the quickest ways to get started is to use the automated techniques that the software provides. While there are limitations to what can be done this way, auto-digitizing nevertheless allows you to prototype design ideas relatively simply and may be sufficient for your purposes. At least for now!



### Using artwork

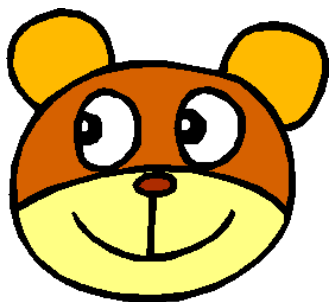


Use Artwork > Prepare Artwork for Embroidery to prepare bitmap images for automatic digitizing by reducing colors, removing image 'noise', and sharpening outlines.

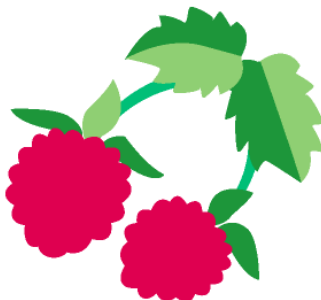
To create good quality embroidery, you need to choose suitable artwork. Possible sources include:

- samples in the Picture folder
- books of embroidery patterns and children's story books
- printed table cloths or tea towels
- business cards, post cards and wrapping paper
- clip art libraries of your word processing or graphics program
- Internet or CD clipart libraries
- original artwork – e.g. children's drawings.

Artwork that is not in digital format needs to be scanned correctly to produce good quality images. For both manual and automatic digitizing purposes, 'clean' artwork with a limited number of solid colors and well-defined outlines works best. The Artwork toolbar contains tools for inserting, scanning, and preparing artwork for automatic digitizing. See Electronic artwork.



Clean picture with well-defined outlines



Clean picture with well-defined color blocks



Complex picture, needs editing to create clean color blocks

Unless you are an experienced digitizer, don't use artwork which is too complicated.

## Bitmap artwork conversion



Use Auto-Digitize > Click-to-Fill to digitize large artwork shapes with weave fill, preserving any holes within.



Use Auto-Digitize > Click-to-Outline to digitize boundaries of shapes with run stitching using current properties.

Bitmap artwork consists of colored dots or pixels. When you zoom in on a small area, outlines become jagged and 'pixelated'. The Click-to-Fill tools in the Auto-Digitize toolbox provide everything necessary to digitize bitmap shapes automatically. See Digitize with Click-to-Stitch.

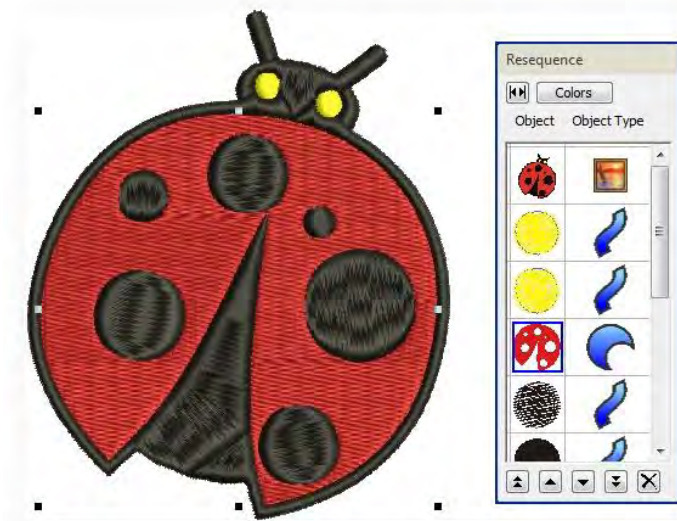


Use Auto-Digitize > Auto-Digitize Instant Embroidery to create embroidery designs directly from imported images using default settings.



Use Auto-Digitize > Auto-Digitize Embroidery to create embroidery designs directly from imported images using conversion settings.

An extension of this technology, Auto-Digitize makes decisions about the most suitable stitch types to use and can digitize whole designs. See Auto-Digitize Embroidery.





## NEXT STEPS

If you have reached this point, you have already mastered 90% of the techniques that most embroiderers need. However, coming to grips with manual digitizing is the next step in becoming an embroidery master. You can start with quite simple projects and work your way up to more complicated designs with more complicated stitch effects. See Digitize Objects.

### Special embroidery features

Once you have mastered manual digitizing, you are in a position to take advantage of the full range of stitch types and effects that the software offers. Many of them you will be familiar with, having already adapted existing designs for different purposes. Some of the many techniques supported by the software include:

- Freehand
- Embossed fills
- Curved fills
- Buttonholes

Refer to the online User Guide or the many online resources.

### Happy embroidery!

Do good work with your machine and software. With this equipment you have everything you need to create top quality, fully professional embroidery.

Remember to make good use of the packaged designs and clipart. When in doubt, go back to first principles. And when you find you want to expand and extend your repertoire, study the sample designs carefully to see how it's done.

All the best. And have fun!

