

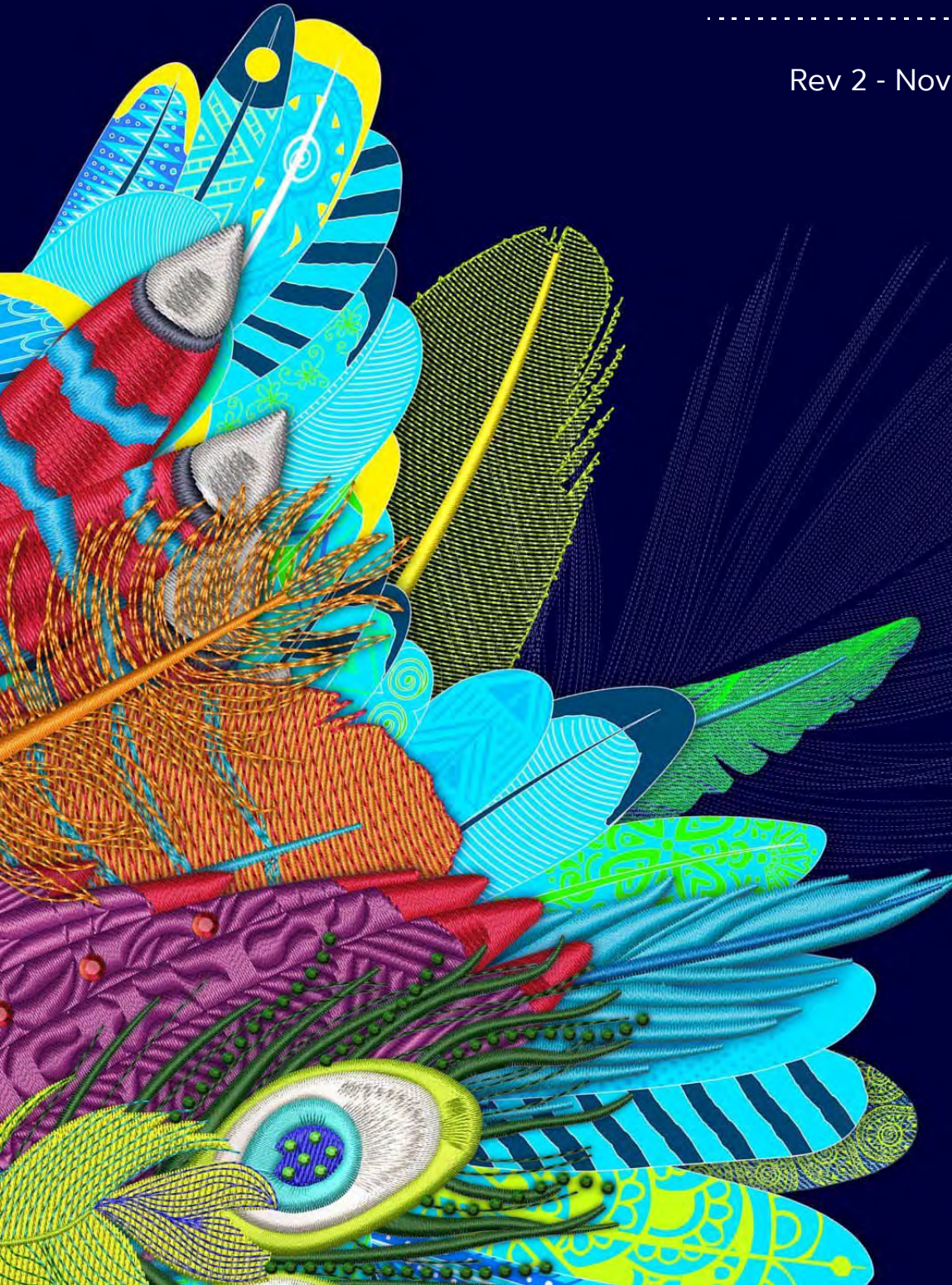
EMBROIDERY STUDIO

Creative by nature. Efficient by design.



Release Notes

Rev 2 - November 2017



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EmbroideryStudio e4.1 Release Notes

These release notes provide an overview of new and improved features in the EmbroideryStudio e4.1 product range. In the first instance, the notes outline features and improvements which are new to ES e4.1 specifically. Secondly, they also cover improvements provided by the ES e4.0 Update 1. And for new users, or users updating from ES e3, they also cover the major features and improvements introduced by ES e4.0.

Wilcom EmbroideryStudio e4 is a major new version of Wilcom's professional embroidery and multi-decoration software, replacing the e3 version of software. The two primary embroidery and multi-decoration product models are:

- ◀ **ES Designing** – top-of-the-line professional digitizing with CorelDRAW®
- ◀ **ES Decorating** – small-shop commercial digitizing with CorelDRAW® replaces Wilcom DecoStudio with much greater capabilities.

ES Lettering and **ES Editing** products are fully featured professional embroidery software for staff who do not need digitizing capabilities.

ES Digitizing is a top-of-the-line professional digitizing system without CorelDRAW® for production digitizing companies not requiring graphic design software. ES e4.1 also introduces the new **ES Ordering** product.

Direct links are provided from the release notes to the **EmbroideryStudio** User Manual which contains detailed instructions on all product features. Every effort has been made to ensure the accuracy of these notes but screen illustrations may vary from screen layouts generated by the software. Some features are standard across the product range, some are cost options, others are only available in certain product levels.



Tip When viewing these release notes on screen, click cross-references to link directly to the manual. Click the **Go to Previous View** button in Acrobat Reader to return to these release notes.

Product models & elements

EmbroideryStudio consists of five standard product models with over 20 optional 'elements'. Standard products are powerful, well featured, professional embroidery applications. Additional elements are available at extra-cost. Some elements are provided as standard in higher product models.



Wilcom EmbroideryStudio product models

The EmbroideryStudio e4.1 product suite consists of a revised set of product models:

Model	Capabilities	Applications
ES Designing	[^] Professional digitizing and graphic design, lettering, and editing. Includes some e3 Elements as standard. Supports full range of optional ES Elements.	Professional digitizers, custom embroidery shops, industry trainers and educators, and apparel decorators serious about commercial embroidery.
ES Digitizing	* Professional embroidery digitizing.	Logo, fashion, textile production digitizing not requiring graphic design.
ES Decorating	[^] Professional lettering, customization and editing. Auto-digitizing and simple manual digitizing. Includes some ES Elements.	New custom embroidery shops and apparel decorators expanding into embroidery.
ES Editing	Full lettering, customization, editing, with machine connections.	Custom embroidery shops production and customer service.
ES Lettering	Full lettering, customization, with machine connections.	Custom embroidery shops production and customer service.
ES Ordering	Search on customer designs and order status, add notes for production or tracking purposes, minor color editing.	Customer service and sales




[^] Includes CorelDRAW® Graphics Suite as standard. * Only available in certain countries.






















Note Wilcom DecoStudio has been discontinued, now replaced by the much more powerful ES Decorating. TrueSizer e4.1 and TrueSizer Pro e4.1 products will be updated to e4 version in an update to e4.0 after first release. Wilcom TrueSizer Web also continues to be available as a free online web service.

Optional cost elements

Add-on 'elements' are revised in EmbroideryStudio e4.1. Some e3 elements are discontinued and their functionality now bundled as standard. Some new elements have been added. The **ES Ordering** product model does not support optional elements.

Element		DES	DIG	DEC	EDI	LET
Creativity						
 Shading & Open Fills	Add depth and dimension to your embroidery with powerful shadows, shades and open fills.	○	○	–	–	–
 Curved Fills	* Create unique, flowing stitch patterns that add motion and dimension to any closed object.	○	○	–	–	–
 Motifs	Create motif runs and both single and double motif fills. Apply 3D Warp distortion. Create and reuse motif patterns.	○	○	–	–	–
DES = ES Designing DIG = ES Digitizing DEC = ES Decorating EDI = ES Editing LET = ES Lettering ● Included as standard ○ Modular 'element' [^] New Element in ES e4 * Improved Element in ES e4						

Element			DES	DIG	DEC	EDI	LET	
	Motif Runs Advanced	^	Create advanced motif runs with variable or gradient motif size and spacing effects. Motifs can also conform to varying size column shapes.	○	○	–	–	–
	String Stitch	^	Create outline or filled shapes with overlapping ‘string art’ stitching to hold mirror pieces or for decorative effects. Known as ‘Paghadi’ in India.	○	○	–	–	–
	Freehand	*	Create embroidery the most natural way – as if you were drawing with pen and paper.	●	○	–	–	–
	Spiral Fills	^	Create open stitching that follows the contours of a shape for some interesting visual effects.	○	○	–	–	–
	Custom Splits		Add carving, embossing and other dimensional effects to your embroidery.	○	○	–	–	–
	Photo Flash	*	Convert black and white, grayscale and color images into embroidery.	○	○	○	–	–
Productivity								
	Team Names Advanced	*	Save lettering layouts for reuse. With different logos and lettering, reuse makes teamname design simpler and faster.	○	○	○	○	○
	Offsets Advanced		Embolden logos, badges and other designs with distinctive, colorful borders.	○	○	○	–	–
	Auto Shaping		Use auto-shaping tools to weld, flatten, intersect, and other shaping operations to give you accuracy and speed.	●	○	–	–	–
	Auto Arrangements	*	Automatically create reflecting borders, and wrap reflections around a center point to create wreath or kaleidoscope effects.	○	○	–	–	–
	Kiosk Mode	^	Use at retail outlets where fast and simple personalization of standard design layouts is required in consultation with customers.	●	●	●	○	○
Specialty								
	Embroidery Connect	^	Configure a wireless WiFi USB Stick network. Send designs wirelessly to multiple brands of USB capable embroidery machines.	○	○	○	○	○
	Chenille		Add chenille embroidery capabilities to a lockstitch embroidery digitizing system.	○	○	–	–	–
	Schiffli		Create and prepare lacework and emblems precisely and efficiently.	○	○	–	–	–
	Font Creator		Match logo type exactly or create unique ones all your own.	○	○	–	–	–
DES = ES Designing DIG = ES Digitizing DEC = ES Decorating EDI = ES Editing LET = ES Lettering ● Included as standard ○ Modular ‘element’ ^ New Element in ES e4 * Improved Element in ES e4								

Element			DES	DIG	DEC	EDI	LET	
	Single Sequin	^	Create artistic sequin designs with sequin runs and sequin fills for single sequin machines using automated predefined fixing stitches.	○	○	○	–	–
	Sequins Advanced	*	Create embroidery files for single and twin-sequin dispensing machines.	○	○	–	–	–
	Bling		Use any combination of stones, sizes and colors to light up your design. Includes bling lettering.	●	○	●	–	–
	Virtual Decoration		Bring the look of embroidery to your printed designs. Includes high resolution TrueView images. Print in CorelDRAW Graphics.	●	○	●	–	–
DES = ES Designing DIG = ES Digitizing DEC = ES Decorating EDI = ES Editing LET = ES Lettering ● Included as standard ○ Modular 'element' ^ New Element in ES e4 * Improved Element in ES e4								

Standard elements

e3 Elements which are now bundled as standard include:

Element	DES	DIG	DEC	EDI	LET
Offsets Standard	●	●	●	–	–
Team Names Standard	●	●	●	●	●
Vector Drawing	●	●	●	–	–
Auto-Digitize Bitmaps	●	●	●	–	–

CorelDRAW Graphics Suite

The CorelDRAW Graphics Suite of applications is included as standard with ES Designing and ES Decorating. EmbroideryStudio e4.1 links to both CorelDRAW® Graphics Suite X8 as well as the latest CorelDRAW® Graphics Suite 2017. Customers must register with Corel to enable the product. See also [CorelDRAW® X8 features & benefits](#).





Note With the ES e4.1 release, CorelDRAW® Graphics Suite 2017 is packaged as standard with ES Designing and ES Decorating. Customers updating from ES e4.0 to ES e4.1 who already have CorelDRAW® Graphics Suite X8, can purchase an update to CorelDRAW® Graphics Suite 2017 from Wilcom for a small fee. Contact your local reseller for more information.

Logistics for e4.1 software

The release of EmbroideryStudio e4.1 brings with it a few changes in software logistics, including distribution, software security, and end-user registration.

Simplified software distribution

EmbroideryStudio e4.1 products are now supplied on USB memory stick. Documentation is provided in electronic format as part of the installation. Help is hosted online for easy update. For higher level products which support CorelDRAW, two separate installation/setup programs are provided on the same USB memory stick – one for Wilcom ES Software and one for CorelDRAW software.

New hardware dongle

Both new and update users will be provided with a new dongle if updating from a previous version or buying a brand new system. A dongle 'transplant' is required for update/upgrade customers (from e3). When updating from e4, use your current dongle. No codes are necessary unless you are including extra-cost elements.



End-user registration

EmbroideryStudio e4.1 prompts the customer to register the software for support and warranty.

New e4.1 version EMB design format

EmbroideryStudio e4.1 provides the latest version of the EMB all-in-one design format that supports the new features and objects that can be created with ES e4.1 software, including the latest CDR file format embedded in EMB. The new format also includes new job order information for each design you process. ES e4.1 can also save to ES e4.0 format for backwards compatibility with the initial ES e4.0 release.

What's New in ES e4.1?

The release of EmbroideryStudio e4.1 contains enhancements and improvements to many aspects of the software since the first release of ES e4:

- ◀ [New product models](#)
- ◀ [New product elements](#)
- ◀ [WiFi USB machine networking](#)
- ◀ [Design Library refinements](#)
- ◀ [Drag-and-drop EMB designs from the new clipart docker](#)
- ◀ [Order Job Feature improvements](#)
- ◀ [Digitizing tools](#)
- ◀ [New & improved stitch types & effects](#)
- ◀ [Improved contour fills](#)
- ◀ [Improved motif runs & fills](#)
- ◀ [Improved sequin fills](#)
- ◀ [Auto-digitizing quality improvements](#)
- ◀ [Design output improvements](#)



Tip For a summary of new and improved features, see the [Product differentiation table](#) at the end of these release notes. For a complete feature listing, see the product differentiation table in the user manual.

New product models

With the ES e4.1 release, a new product model has been introduced:

New ES Ordering

New **ES Ordering** is a low-cost product which allows all relevant people in a company to access the Order Job Feature and Design Library. It comes with a range of features to help improve your customer service and sales processes. It allows customer service personnel to quickly find customer designs by order status, and add notes for production or tracking purposes, all without the need for a database. In addition, minor changes to colors can be made on-the-fly. Essentially it gives you all the capabilities of **TrueSizer Pro e4.1** together with the full **Design Library** and **Order Job Feature**.

Design Library

- ◀ Search designs in seconds by customer, order, date or any text field.
- ◀ Designs are automatically indexed for fast search. No manual categorization required.
- ◀ Browse designs from all folders in one screen, or folder-by-folder.
- ◀ Group and sort designs by customer, order, date, folder, design status, stitches and more.
- ◀ Quickly see recent designs by date, no matter what folder they are in.

Order Job Feature

- ◀ Save customer, order & job details in the EMB design file. A separate database is not required.

- Identifies the garment, quantities, sizes, colors and approval status.
- Display job details with high resolution product mock-ups in PDF for customer approval.
- Create digitizing requests as EMB designs and manage status in the Design Library.

Other features



- Open designs in Wilcom EMB format.
- View designs in TrueView™ and normal stitch view.
- Email EMB files directly from the application.
- Save designs in Wilcom EMB format.
- Open multiple designs.
- Change and re-color EMB, ART, JAN designs.
- Create and save multiple colorways in EMB designs.
- Re-color EMB designs based on colorways.
- Match threads to current colorway.
- Match threads to all color slots in the current colorway.
- Create customer approval sheets showing design and location on garments.
- View designs on garments.
- Create new designs.
- Open and save new designs based on selected artwork.




Software security

ES Ordering does not require a hardware dongle like other ES e4 products. It uses a convenient 'software dongle' for software protection similar to **TrueSizer Pro**. You obtain a 'Product Key' when you purchase **ES Ordering** and activate the software on your PC via an Internet connection. Once activated, you do not require an Internet connection to run the software. This makes it very convenient especially for laptop computer users.

New product elements

With the ES e4.1 release, the following new product elements have been introduced:

Element		DES	DIG	DEC	EDI	LET	
Creativity							
	Motif Runs Advanced	Create advanced motif runs with variable or gradient motif size and spacing effects. Motifs can also conform to varying size column shapes. See Improved motif runs & fills for details.	○	○	—	—	—
	String Stitch	Create outline or filled shapes with overlapping 'string art' stitching to hold mirror pieces or for decorative effects. Known as 'Paghadi' in India. See New String stitch for details.	○	○	—	—	—
Specialty							
DES = ES Designing DIG = ES Digitizing DEC = ES Decorating EDI = ES Editing LET = ES Lettering							
○ Modular 'element' ^ Replaces previous 'Sequins' element							

Element			DES	DIG	DEC	EDI	LET
	Embroidery Connect	Configure a wireless WiFi USB Stick network. Send designs wirelessly to multiple brands of USB capable embroidery machines. See below.	○	○	○	○	○
	Single Sequin	Create artistic sequin designs with sequin runs and sequin fills for single sequin machines using automated predefined fixing stitches.	○	○	○	–	–
	Sequins Advanced	^ Create embroidery files for single and twin-sequin dispensing machines.	○	○	–	–	–
DES = ES Designing DIG = ES Digitizing DEC = ES Decorating EDI = ES Editing LET = ES Lettering ○ Modular 'element' ^ Replaces previous 'Sequins' element							

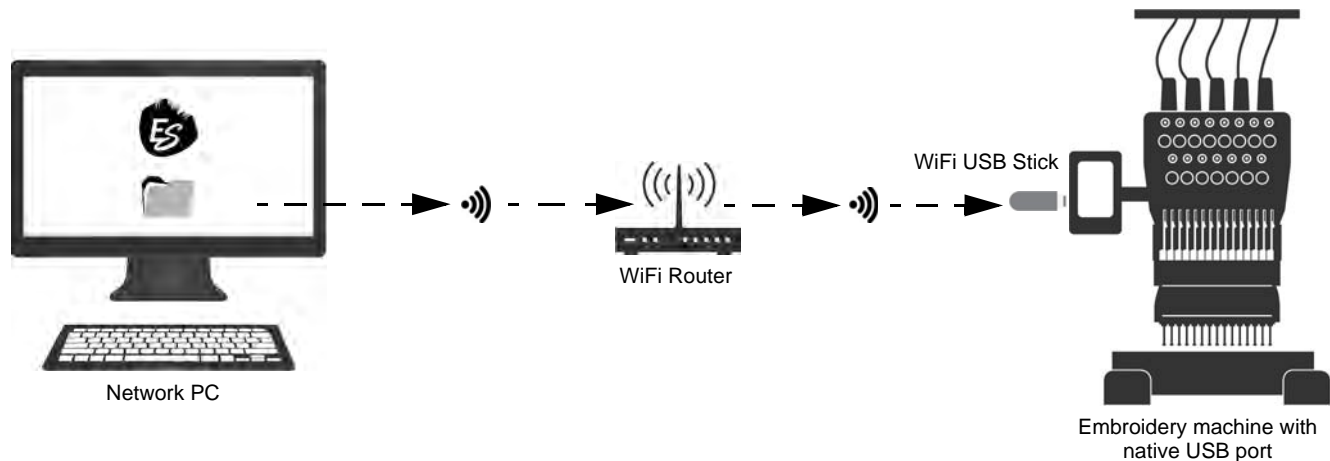
WiFi USB machine networking

A new **EmbroideryConnect** element is available for customers to send machine files to any embroidery machine with a 'native' USB port (not USB converter). When activated in the software, you can send machine files wirelessly via a standard WiFi network to a compatible WiFi USB Stick plugged into the machine. Tajima, Barudan, and most modern commercial embroidery machines can read files from a standard USB memory stick. There is no need for serial ports, different interface methods, or wiring for different machines.



Machine configurations

The simplest type of configuration is shown below.



You are not limited to a single relationship between PC and embroidery machine. You can send designs to many machines from the one PC. Or you can send designs from many PCs to the same machine via its shared folder.

What you will need

To set up an **EmbroideryConnect** network, you need to have:

- ◀ A standard WiFi network with a wireless access point commonly referred to as WiFi Router, and shared folders that can be accessed by network users.
- ◀ A compatible EmbroideryStudio e4.1 software product – e.g. ES Designing, ES Digitizing, ES Decorating, etc – with its own hardware dongle. Not available in ES Ordering or TrueSizer products.
- ◀ The **EmbroideryConnect** element must be enabled in the ES e4 dongle.
- ◀ An embroidery machine with native USB port built into the control panel – no converters.
- ◀ A Wilcom-supplied WiFi USB Stick – one per embroidery machine requiring connection. Each stick can hold up to 16MB of stitch data. It is only intended for production, not general storage.
- ◀ Administrator privileges. Access must be configured by a user who has full administrator privileges and is part of a Windows 'Workgroup' or 'Domain'. You will also need the workgroup name if different to the default 'WORKGROUP'.

WiFi Router requirements

Note the following WiFi Router requirements:

- ◀ The router must use one of the standard security protocols: WEP, WPA/WPA2 Personal, or WPA-Enterprise. It is not compatible with an unsecured WiFi without password – security type of 'None' is not supported.
- ◀ The router needs to be WLAN Protocol is 802.11 G compatible, 2.4 Ghz band. The WiFi USB Stick will not connect to WiFi networks using a 5 Ghz band. If unsure, consult the documentation provided with your router.
- ◀ Make sure WiFi coverage is sufficient to serve the entire production area.
- ◀ You must know the SSID (network name) and password (key) of the router. We recommend using a SSID (network name) that contains only alphanumeric characters – letters and numbers.

How does it work?

The WiFi USB Stick allows USB-enabled machines to access a shared network folder via a WiFi connection. The system is configured like this:

- ◀ Set up shared folders on your Windows computer network.
- ◀ Configure each WiFi USB Stick first by plugging it into your PC and running the EmbroideryStudio **Connection Manager**.
- ◀ Each WiFi USB Stick can hold up to 16MB of stitch data. However, some machines with USB ports have limited capacity to work with large capacity USB sticks. **EmbroideryConnect** allows you to configure the stick to a size that is right for your machine.
- ◀ Plug the WiFi USB Stick into the USB port of the embroidery machine.
- ◀ Use **Connection Manager** to send a design to the desired machine. The file is copied into the shared folder.
- ◀ The WiFi USB Stick reads the contents of the folder over the WiFi network and mirrors them on the stick.
- ◀ New designs appear on the machine when the operator interrogates the WiFi USB Stick. The embroidery machine reads it like any other USB memory stick.
- ◀ Each WiFi USB Stick can hold up to 16MB of stitch data. To remove a design from the stick, delete it from the shared folder using Design Library or Windows Explorer.

Setup overview

Here are the main things you need to do to configure your **EmbroideryConnect** WiFi machine network:

- ◀ Part 1 - Set up your Windows shared network folders
 - ◀ On the PC that will act as file server, you need to prepare the machine folder or folders you will be using. Each WiFi USB Stick will need its own unique shared folder. Access must be configured by a user who has full administrator privileges and is part of a Windows workgroup.
- ◀ Part 2 - Configure each WiFi USB Stick the first time
 - ◀ Using the **Connection Manager** setup
 - ◀ And the WiFi USB Sticks
- ◀ Part 3 - Configure **Connection Manager** settings in other EmbroideryStudio systems
 - ◀ If you have more than one ES system
 - ◀ This does not require the actual WiFi USB Sticks.

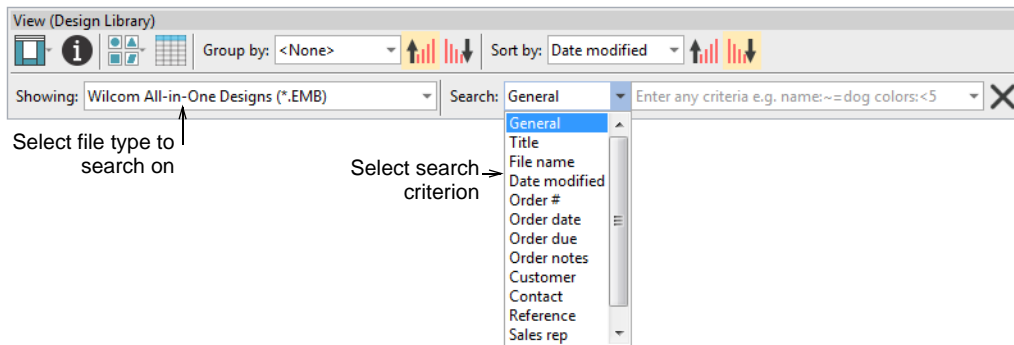
See [EmbroideryConnect Machine Networking](#) in the User Manual for details.

Design Library refinements

In response to customer feedback, there are a number of important improvements to existing **Design Library** functionality.

Faster and more precise design searches

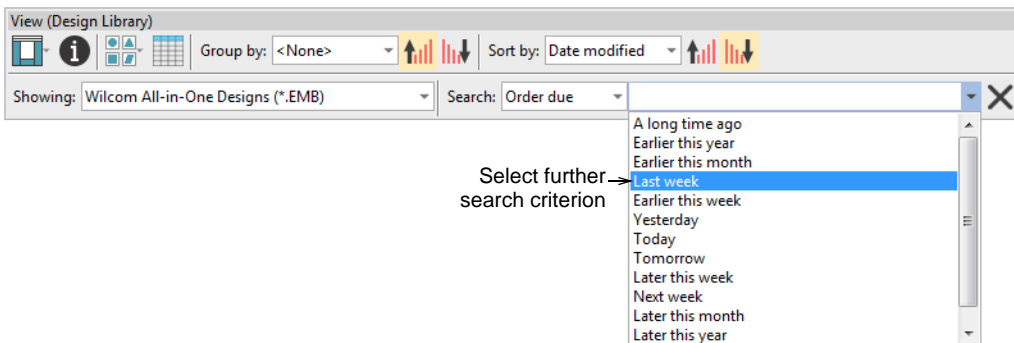
Design Library allows for even faster searching of designs. Use the **View** toolbar to quickly search or sort designs by name, create date, and other criteria. The improved **Search** field is very powerful. To begin with, select a file type to search on, and select criteria from the improved droplists.



Searchable fields include common commercial categories:

- ◀ Name
- ◀ Title
- ◀ Date modified
- ◀ Order #
- ◀ Order date
- ◀ Order due date
- ◀ Order notes
- ◀ Customer
- ◀ Contact
- ◀ Reference
- ◀ Sales rep
- ◀ Design status

Once you have selected a search criteria – e.g. 'Order due' – select further criteria from the second droplist. See also [Locating designs in the library](#) in the User Manual.



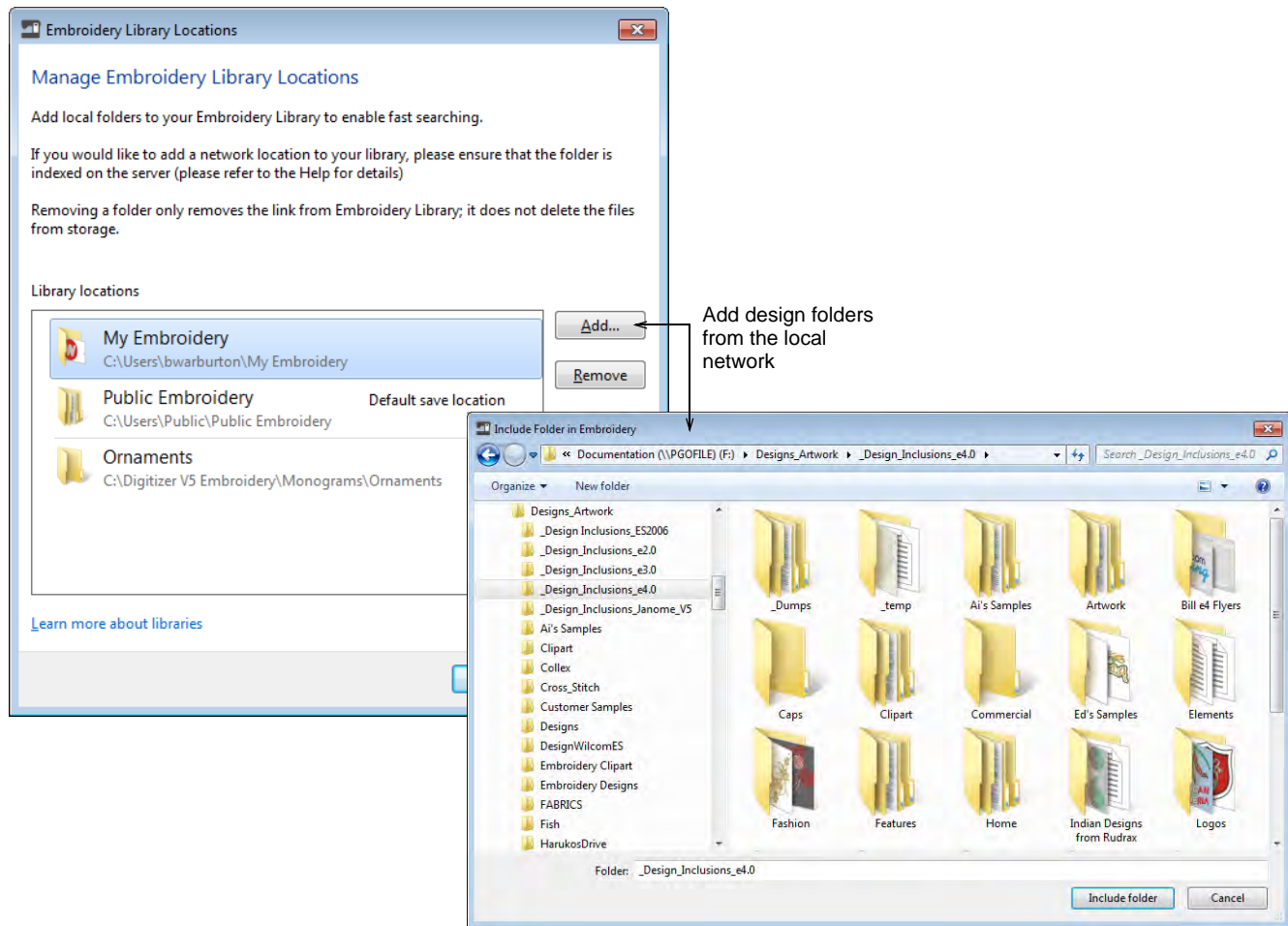
Manage folders in the library from a single control



Use Manage Designs > Manage Embroidery Library Locations to add or remove existing folders from the Embroidery Library, enabling fast searching and filtering.

The mechanism for adding and removing folders from the **Design Library** has been improved with the addition of the **Manage Embroidery Library Locations** function. This replaces the obsolete

Add Folder to Library and Remove Folder from Library functions. See [Locating designs in the library](#) in the User Manual for details.



Note For businesses with multiple computers reading and writing EMB or machine format designs, there is usually a need to store designs in shared network folders. You may want to set up a company server as a central repository for all design files. Connect any folders on the server to each client PC via **Design Library**. **Design Library** relies on Windows indexing to ensure fast searching. See also [Fast searching on shared network drives](#) in the User Manual.

Extended support for CorelDRAW CDR graphics files

Design Library now provides extended support for CDR files. Existing support for CDR and other graphics files within Design Library includes:

- ✦ Display Windows thumbnails for CDR files.
- ✦ Right-click to access Windows operations – **Open**, **Open With** – directly into CorelDRAW Graphics.
- ✦ Drag-and-drop from Windows Explorer into CorelDRAW Graphics.
- ✦ Drag-and-drop into standalone CorelDRAW®.

Extended CDR capability includes:

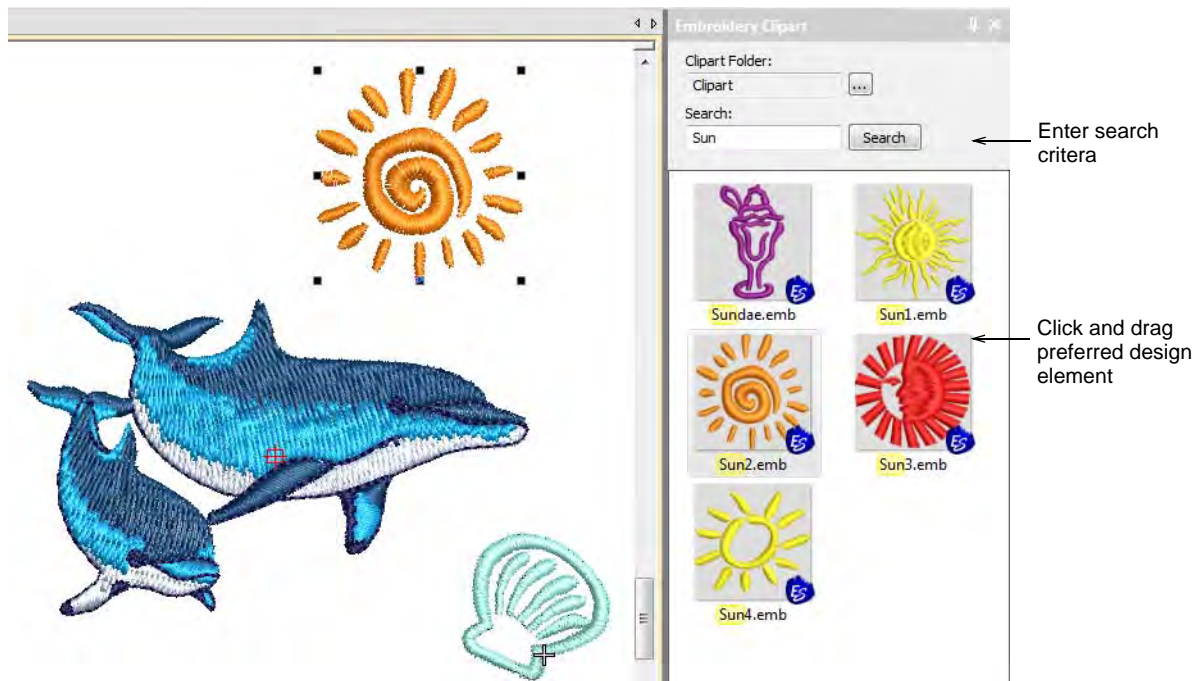
- ✦ Drag-and-drop from Windows Explorer into Wilcom Decoration.
- ✦ Open CDR files with **New from Selected**. A new file is opened in EmbroideryStudio before switching to CorelDRAW Graphics. The CDR file is inserted.
- ✦ Alternatively, double-click to open a selected CDR file using the default template.

Drag-and-drop EMB designs from the new clipart docker



Use Docker > Embroidery Clipart to toggle the docker display. Use it to record and recover re-usable embroidery elements.

With the ES e4.1 release, the **Embroidery Clipart** feature has been reinstated, albeit in a modified form. **Embroidery Clipart** is a powerful productivity tool which allows you to recycle commonly used elements. When you install EmbroideryStudio, the **Embroidery Clipart** feature is installed with the **Design Library** together with a sample clipart library. The feature uses standard EMB designs in folders, not EMC designs from a database as used in ES e3. It is available with ES Designing and ES Digitizing only.



Use **Design Library** to manage design elements in your clipart folders. Use **Design Properties** to assign names and keywords to each design element you save. Keywords play an important part in organizing a growing clipart library. Finding a suitable element can take time but keywords narrow the selection. Any number of keywords can be assigned to the same clipart element. See also [Viewing & managing design information](#) in the User Manual.



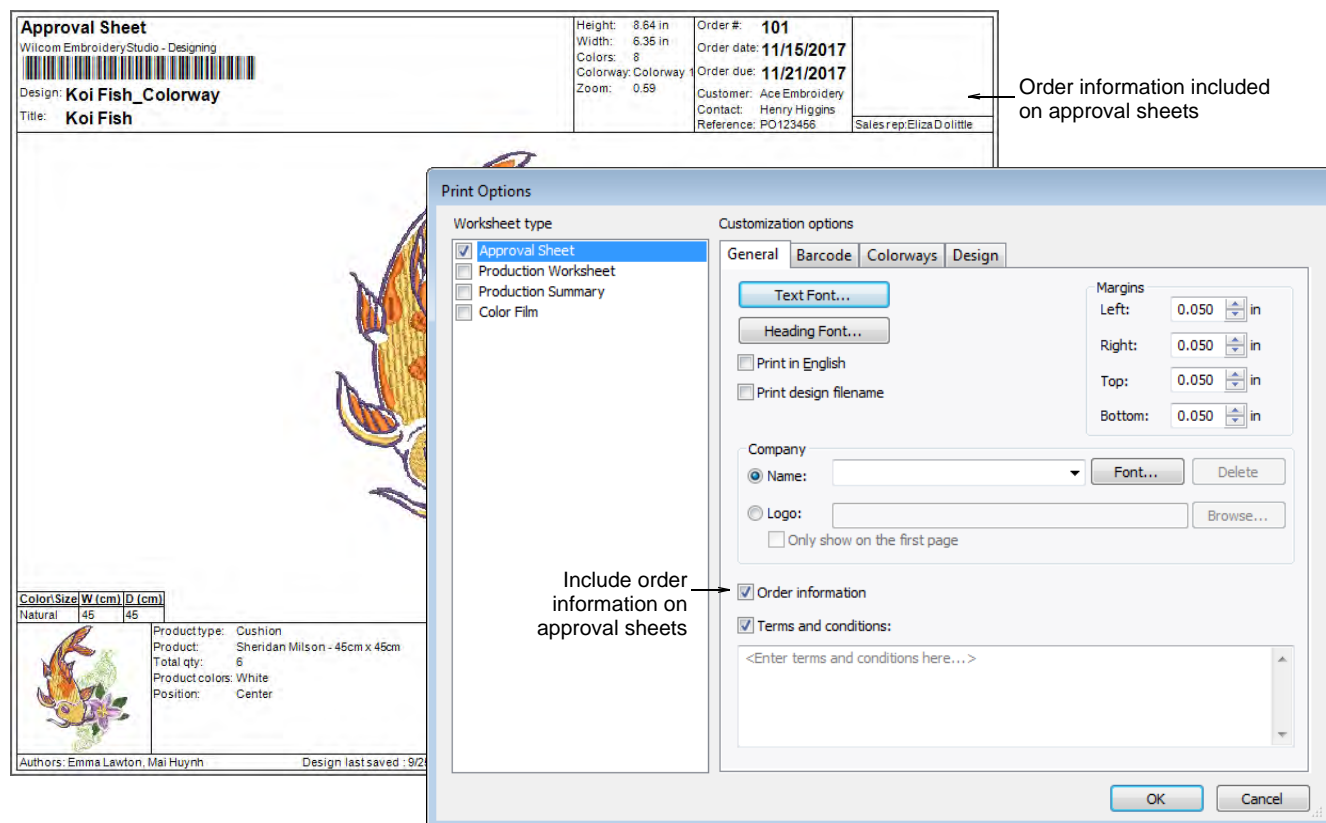
Note The current **Embroidery Clipart** implementation allows you to access your old clipart designs. Simply browse to the 'C:\WilcomClipArt\Designs' folder. You can even add this folder to **Design Library**. Note, however, that keywords entered into the old database are not included in the clipart files and are not searchable in the new docker.

Order Job Feature improvements

The ES e4.1 release includes a number of improvements to the Order Job Feature.

Customize order information on approval sheets

With the ES e4.1 release, you can better customize the approval sheet options. Customer information is now included with order information. Terms and conditions can be excluded, as preferred. See also [Customizing design reports](#) in the User Manual.



New Order tab Color/Size/Quantity table

The **Order** tab in the **Design Properties** docker includes a number of improvements. Order information is saved directly with the design file. This allows embroidery orders to be managed via

the designs they use without the need for a commercial database. The information is included on approval sheets. See also [Managing quotes & orders](#) in the User Manual.

Design Properties

Summary | Design | **Order** | Thread Colors | Stitching | Run Time

Filename: Koi Fish_Colorway.EMB
 Title: Koi Fish
 Design status: 9-Job Done
 Print Approval Sheet...

Order #: 101
 Order date: Wednesday, November 15, 2017
 Order due date: Tuesday, November 21, 2017

Customer: Ace Embroidery
 Contact: Henry Higgins
 Reference: PO123456
 Sales rep: Eliza Dolittle

Product type: Cushion
 Position: Center
 Quantity: 440
 Product: Sheridan Milson - 45cm x 45cm
 Product colors: Natural, Moss, Violet, Ochre
 Color/Size/Qty:

Color\Size	XL	L	M	S	XS
Natural	15	25	40	20	10
Moss	15	25	40	20	10
Violet	15	25	40	20	10
Ochre	15	25	40	20	10

Order notes: Make it snappy!

Note the following:

- ◀ All fields in the **Design Properties** docker can now be read and written in **Design Library**.
- ◀ The **Color/Size/Qty** table is included in the approval and production worksheets. Click buttons to add rows and columns. Double-click to edit labels.
- ◀ Numeric displays use Windows locale settings.
- ◀ Order date fields use the 'Long Date' format as set in the Windows 'Region' settings. These can be changed via the Windows **Control Panel > Region** settings.
- ◀ Date fields use locale settings.

Improved product visualization

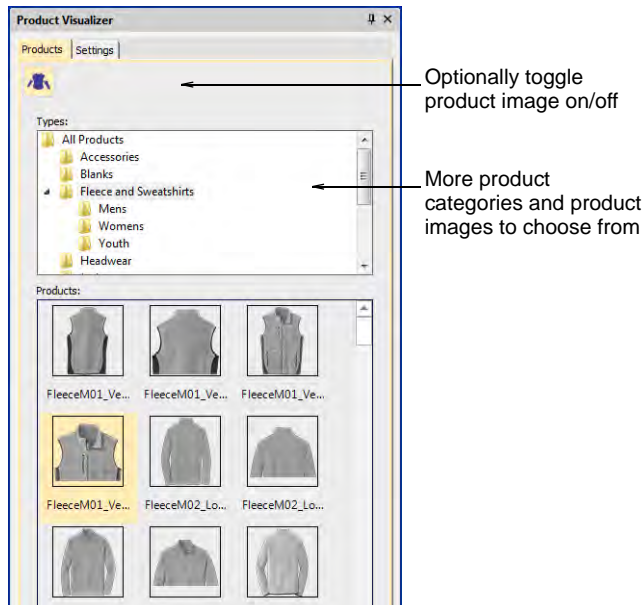


Use Color > Product Visualizer to choose a garment or product backdrop on which to position your decoration.



Click View > Show Product to toggle current product display. Right-click for Product Visualizer settings.

The **Product Visualizer** tool now includes more product categories and product images to choose from. The **Show Product** toggle is also included in the docker for ease of use.

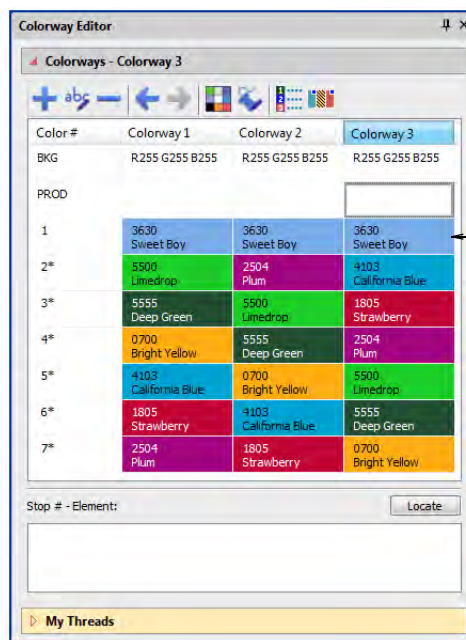


Create new colorways with the color wheel



Use Color > Cycle Used Colors to cycle through combinations of used colors. Right- or left-click.

ES e4.1 allows you to create new colorways using the **Cycle Used Colors** method. Simply create a new colorway in the **Colorway Editor** and cycle through existing colors to find a color scheme you like. See also [Creating colorways](#) in the User Manual.



Create new colorways using Cycle Used Colors

Digitizing tools

ES e4.1 includes significant improvements in digitizing tools:

Create offsets with open objects

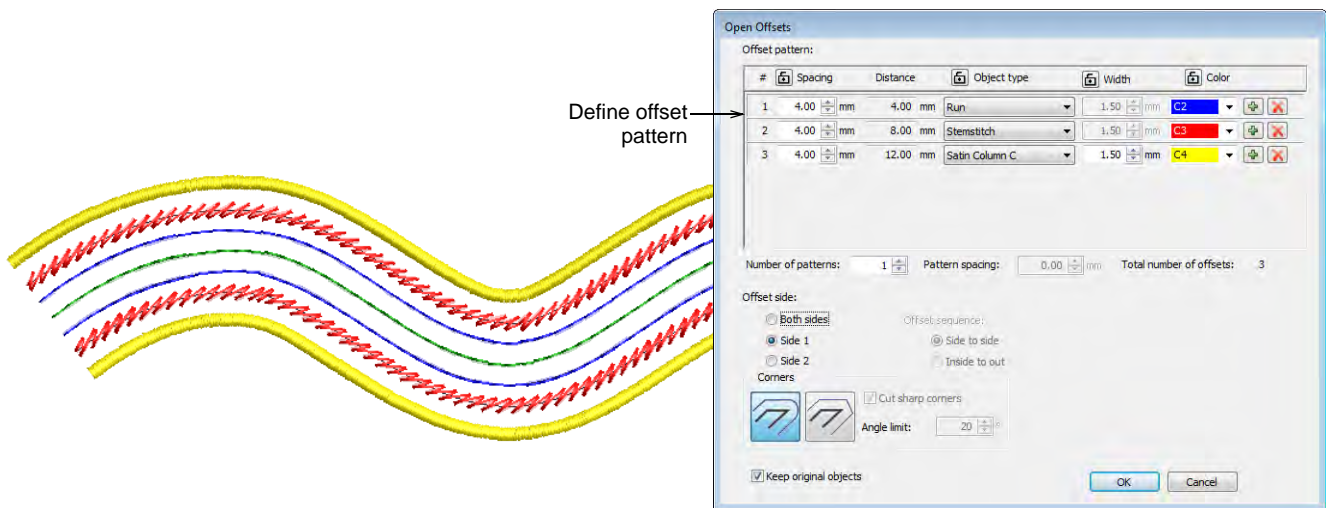


Use Toolbox > Open Offsets to create accurate offsets for any open embroidery or vector object.

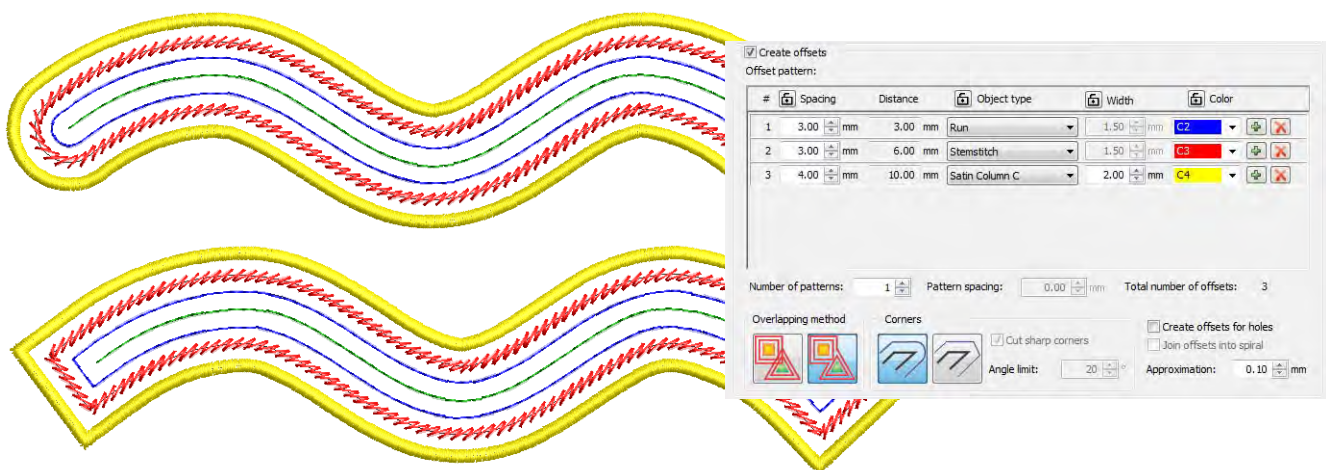


Use Toolbox > Outlines & Offsets to create closed offsets for open embroidery or vector objects.

The **Open Offsets** tool allows you to generate parallel offsets from any open shape. Offset lines are calculated at a specified distance for a specified number, one side or other side, or both sides.



You can now use the **Outlines & Offsets** tool with open objects to create closed offsets as shown. Select rounded or squared corners as preferred. The squared option allows you to adjust the angle limit – first select **Cut Sharp Corners** and set required angle value. See also [Generating outlines & offsets](#) in the User Manual.

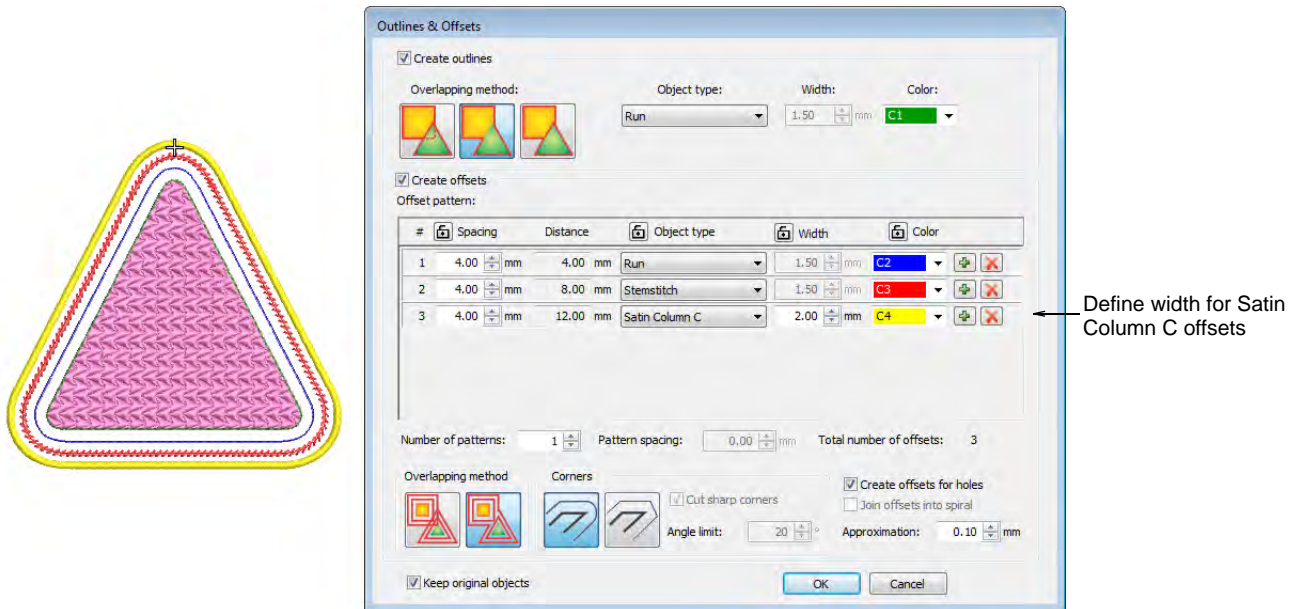


Define Column C width in offset objects



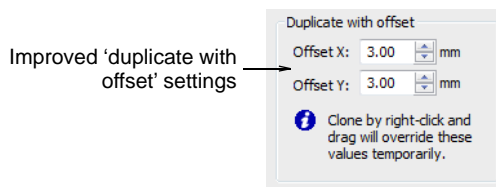
Use Toolbox > Outlines & Offsets to create outlines and offsets of any type for any filled embroidery or closed vector object.

The Outlines & Offsets tool now includes a **Width** setting to define Column C width when creating Satin Column C offsets. See also [Creating outlines & offsets](#) in the User Manual.



Improved options for 'duplicate with offset'

The **Options > Edit** tab includes improved 'duplicate with offset' options, more consistent with how the feature works. Duplicate position settings are 'nominal' in that they apply to normal **Ctrl+Shift+D** operations. However, clone by right-click and drag operations will override these settings temporarily. See also [Setting paste & duplicate options](#) in the User Manual.

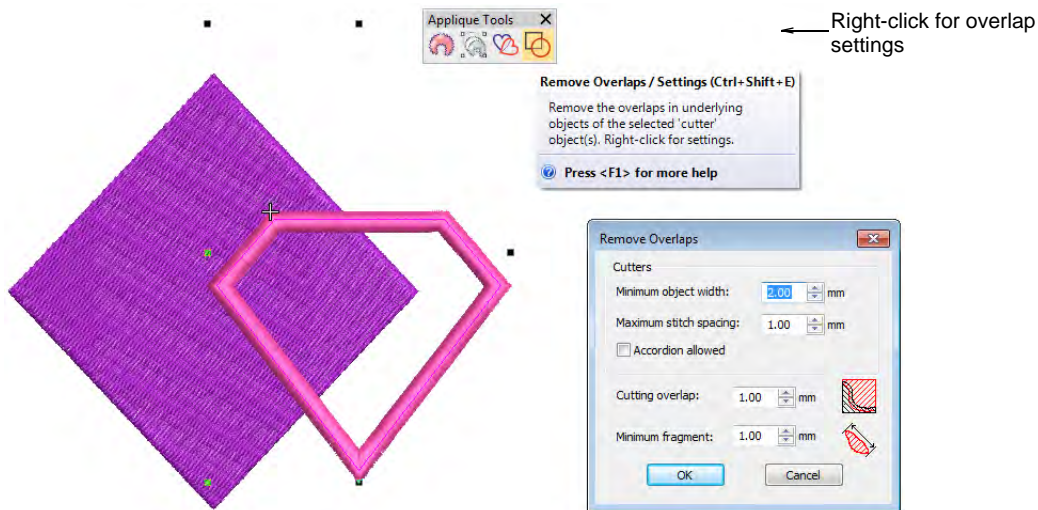


Easy access to Remove Overlaps settings



Use Appliqué > Remove Overlaps to remove underlying layer of stitching in overlapping objects using the selected object as a 'cutter'. Right-click for settings.

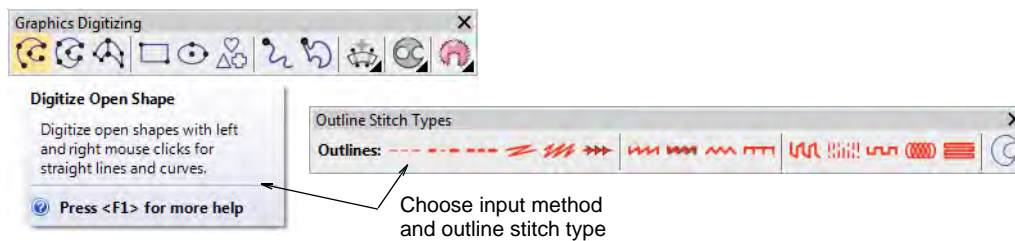
Right-click of the **Remove Overlaps** tool will display the overlap settings dialog. A shortcut key, **Ctrl+Shift+E**, has been added for quick overlaps removal. See also [Removing underlying stitching](#) in the User Manual.



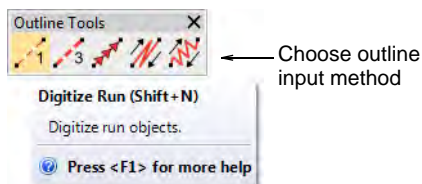
Reinstated outline tools

The traditional outline input methods have been reinstated in the software. You now have a choice of graphical or traditional input methods for outline stitching. See also [Digitizing outlines & details](#) in the User Manual.

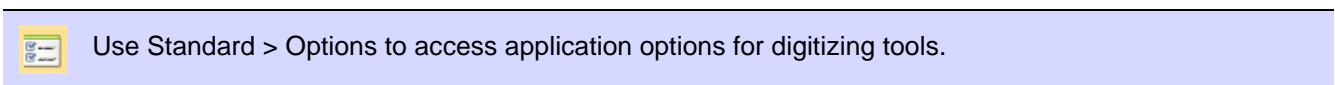
- ◀ Select a suitable input tool together with an outline stitch type.



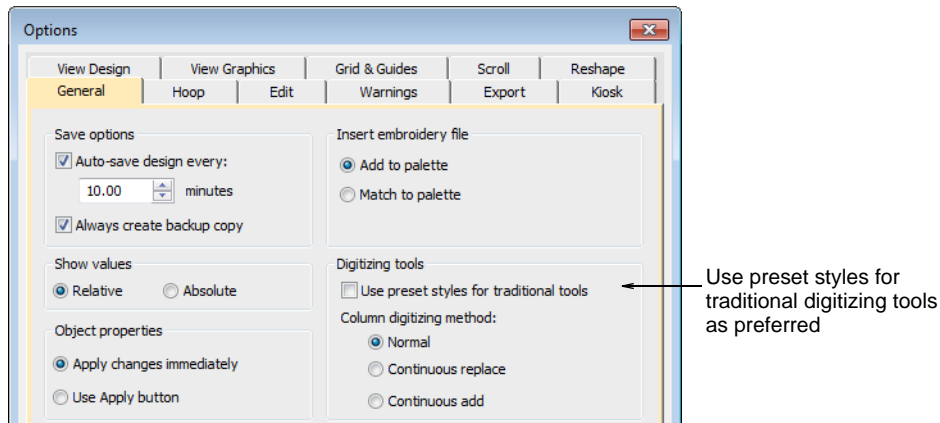
- ◀ Alternatively, choose a traditional outline input method from the **Outline Tools**.



Preset styles for traditional tools



Use preset styles for traditional digitizing tools as preferred by selecting the option in the **Options > General** tab. See also [Digitizing tools](#) in the User Manual.



Select the preset styles option to have the traditional digitizing tools behave the same as they did in e3 (default). Preset styles use a set of predefined stitch types and underlay parameters for each of the traditional digitizing tools. These styles can be changed and saved to the normal template as preferred.

New & improved stitch types & effects

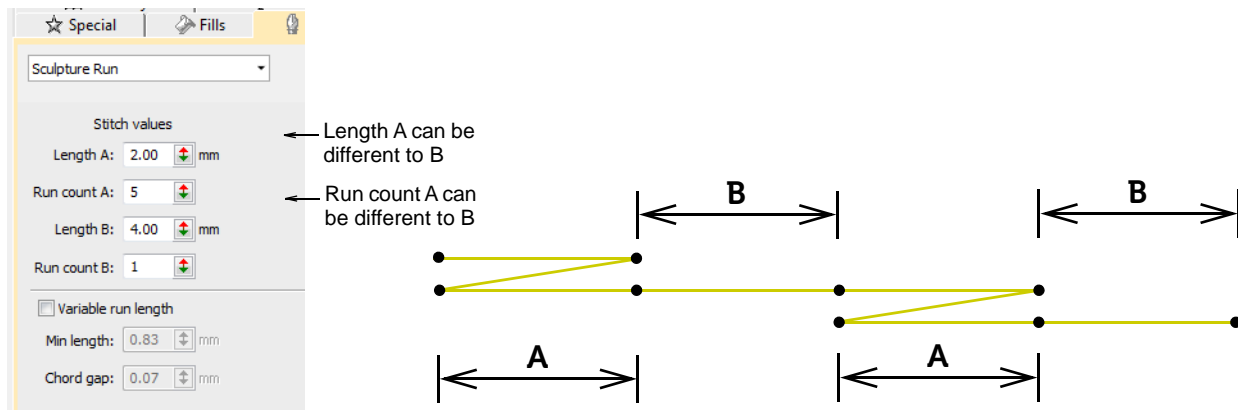
The ES e4.1 release contains many improvements in stitch types and effects:

Extended Sculpture Run



Use Outline Stitch Types > Sculpture Run to create a thick-thin outline alternating single and triple stitches for a hand-stitched look.

Sculpture Run now provides independent stitch length parameters for alternating stitches. This is handy for creating a hand-stitched look. Apply to open or closed shapes. Default alternating values are equal but can be independently set – e.g. A=2.5 mm and B=1.5 mm. Also, the number of A/B repeats can be independently set. The default setting is #A=3, #B=1. See also [Simple outline stitching](#) in the User Manual.



New String stitch

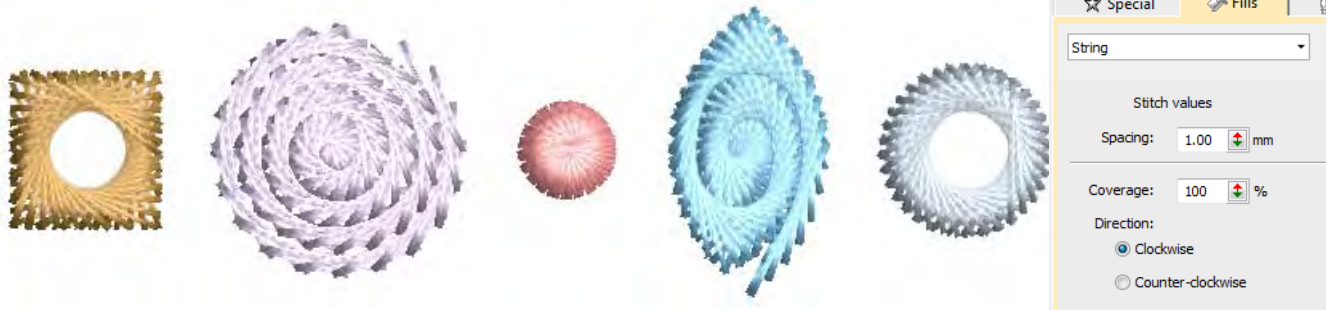


Use Fill Stitch Types > String to create string craftstitch fills. Apply to closed shapes.



Use Fill Stitch Types > String to create string craftstitch outlines for delicate borders. Apply to open or closed shapes.

New **String** stitch type is ideally suited to creating craftstitch fills as well as delicate borders. It can, for instance, be used as a border for fixing ornamental mirrors and sequins. Apply to open or closed shapes. See also [Creating string stitching](#) in the User Manual.



Note **String** stitch is included as a separate Element within ES Designing and ES Digitizing products.

Cording



Use Traditional Digitizing > Digitize Run to create row of single stitches along a digitized line.



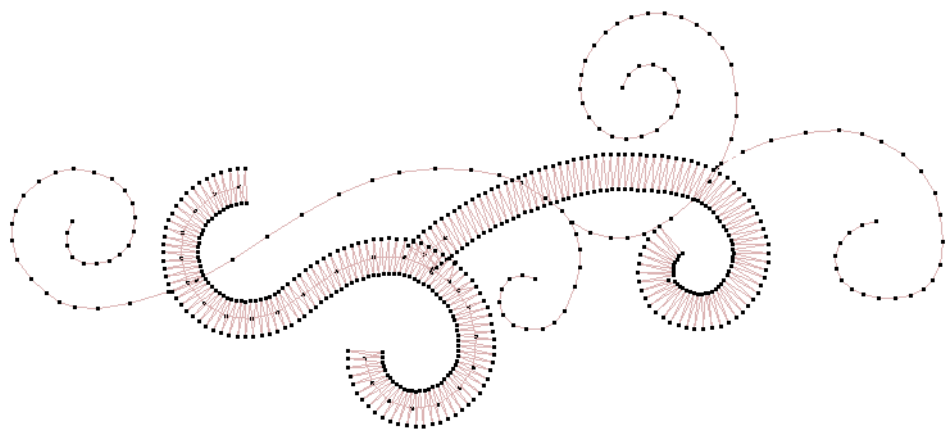
Use Effects > Cording to add cord to objects with run, tatami, contour, spiral, or stipple stitching.



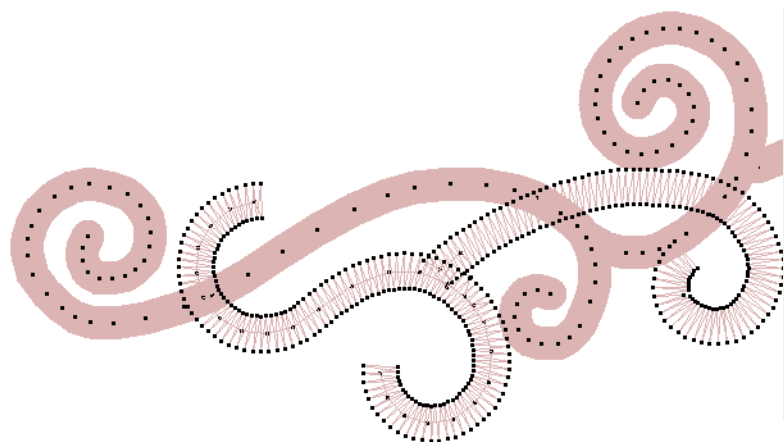
Click View > Show Needle Points to show or hide the needle points in embroidery stitching.

Cording refers to the technique of fixing a thick cord or yarn onto a fabric, usually for decorative purposes. Digitizers frequently want to see the cord line so that while they digitize, they don't

overstitch on sharp turns. The new **Cording** function allows you to designate the outline stitching which is to form the cording.



The **Cording** effect can be applied to **Run** stitch objects. The cord is displayed as a graphic line. It takes the color of the outline stitching. This allows designers to check technical correctness and better visualize a corded design look.




#	X	Y	L	Func
0				Start, Cord In
1	0.00	0.00	0.00	Color (#4) (Needle #C04) (empty)
2	1.58	0.96	1.84	
3	1.64	0.68	1.78	
4	2.02	0.43	2.07	
5	1.98	0.13	1.98	
6	1.39	-0.20	1.40	
7	1.17	-0.43	1.24	
8	1.29	-0.81	1.52	
9	1.04	-0.99	1.43	
10	0.82	-1.29	1.53	
11	0.38	-1.26	1.31	
12	0.11	-1.62	1.62	
13	-0.16	-1.34	1.34	
14	-0.41	-0.92	1.01	
15	-0.59	-0.59	0.83	
16	-0.73	-0.33	0.80	

When **Cording** is applied, a Cord In/Out function is inserted into the stitch sequence. Some machines have a specific cording function which is output when saving to machine file – e.g. Barudan FDR-3 file format or Schiffli machines that support cording. See also [Adding cording](#) in the User Manual.


Improved contour fills

EmbroideryStudio provides significant improvements in spiral and contour fills:

New even density contour fill



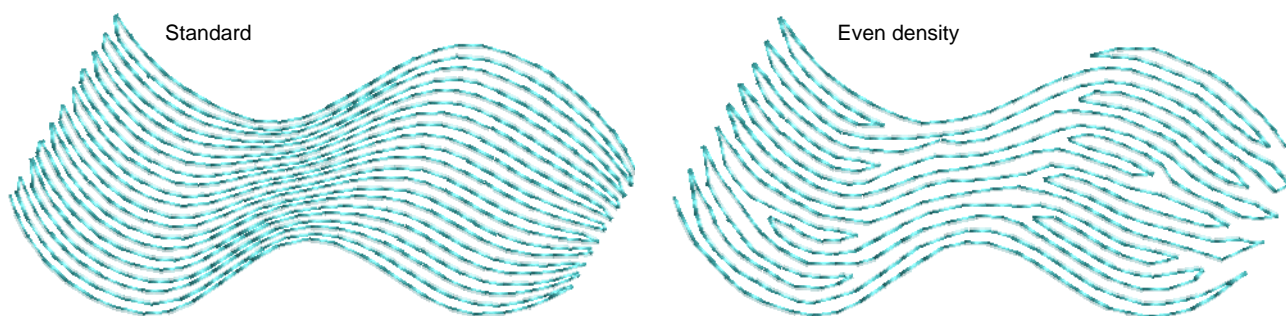
Use Outline Stitch Types > Contour to create outlines which follow object contours, creating a curved, light-and-shade effect. Right-click for settings.



Use Fill Stitch Types > Contour to create fills which follow object contours, creating a curved, light-and-shade effect. Right-click for settings.

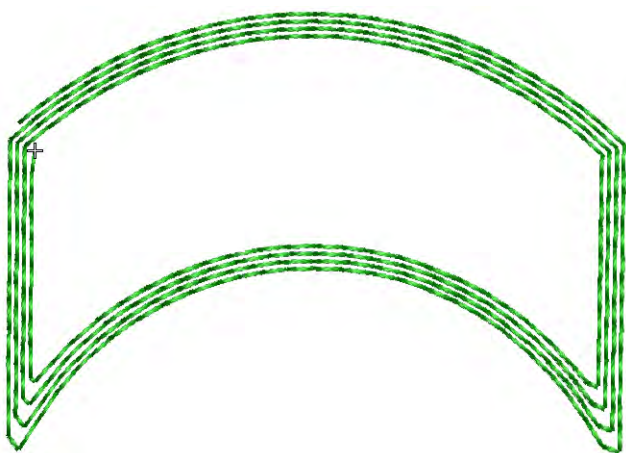
Contour is a curved fill stitch type which can be applied to Column A/B or Circle/Ring objects. It can also be used for outline stitching. Stitches follow the contours of a shape, creating a contoured, light

and shade effect. **Contour** now includes an **Even Density Contour** fill method which maintains even density across shapes which vary in width. Contour stitching follows the shape with uniform stitch density. See also [Creating contoured fills](#) in the User Manual.



Improved simple contour stitch corners

Contour stitch has been improved for more reliable alignment at sharp corners. Simple **Contour** stitch allows you to set/edit start and end points.



Offset fill



Use Fills Stitch Types > Offset Fill to create offset fill stitching in any closed shape.

New **Offset Fill** is similar to **Contour** in producing a curved fill stitch type which follows the contours of the shape. However, it can be applied to complex fill objects as well as turning stitch objects.

Stitch angles, however, have no effect on the fill pattern. Like **Contour**, it is best used for open fills with low stitch counts. See also [Creating offset fills](#) in the User Manual.



Improved motif runs & fills

The ES e4.1 release contains significant improvements to motif runs and fills. These form part of the new **Advanced Motifs** Element.

Graded motif size & spacing in motif runs

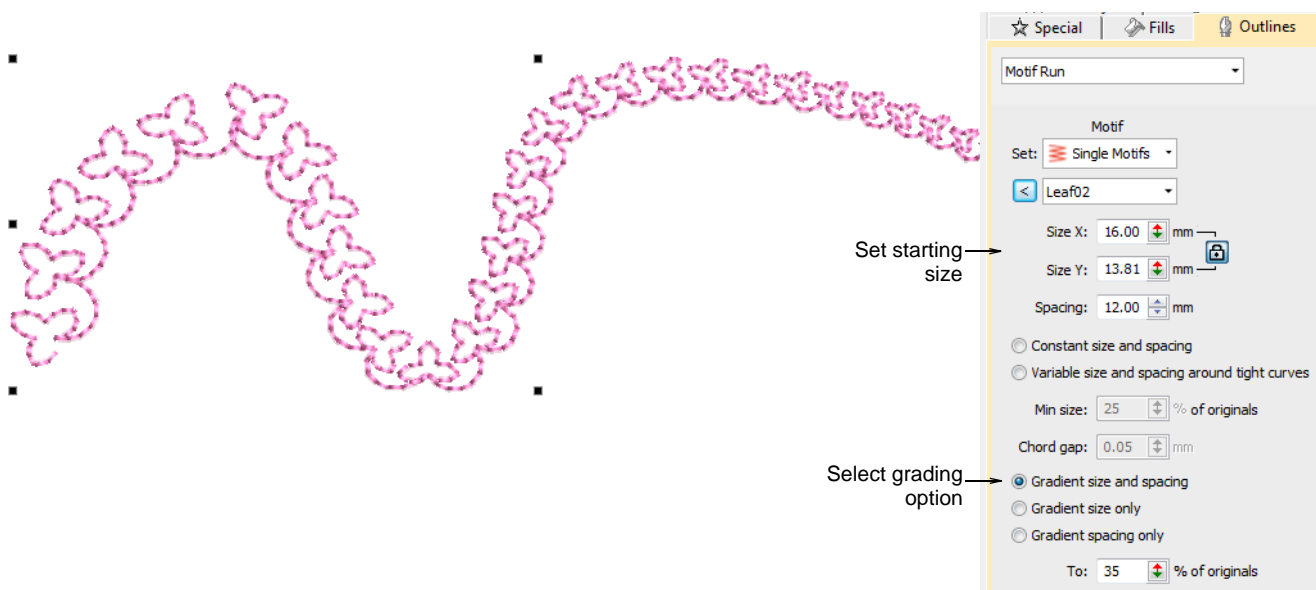


Use Outline Stitch Types > Motif Run to create a string of motifs along a digitized line.



Use Outline Tools > Motif Run to place a row of motifs along a digitized line.

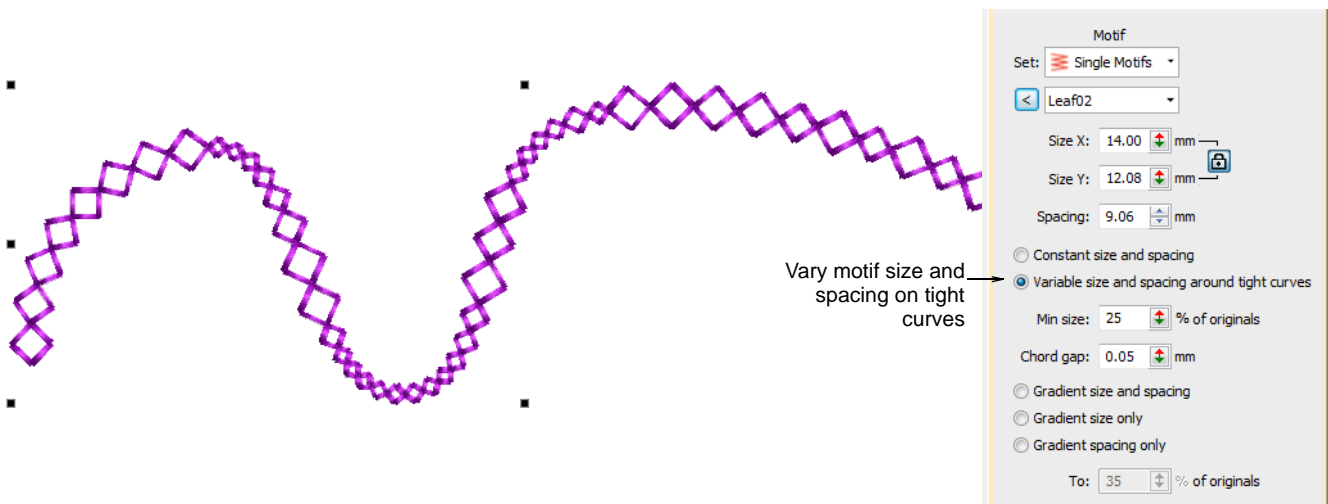
Part of the new **Advanced Motifs** Element, size and spacing settings allow you to automatically grade motif size and spacing in motif runs from a specified starting size to finishing size. See also [Creating motif runs](#) in the User Manual.



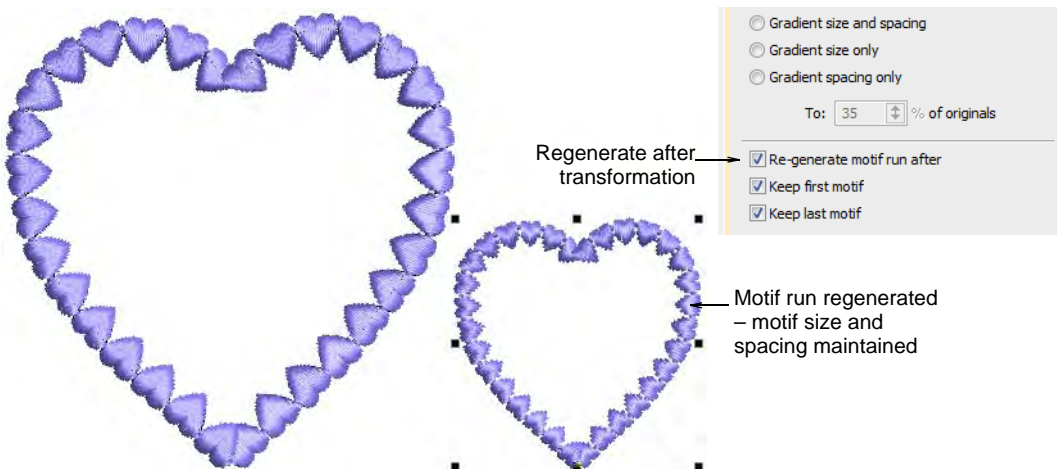
Options include:

- ◀ Grade motif size proportionally or maintain constant size.
- ◀ Grade motif spacing proportionally or maintain constant spacing.

- ◀ Vary motif size and spacing on tight curves. This option automatically reduces motif size and spacing in proportion to the sharpness of the curve, similar to variable run stitch length. Also similar, the 'chord length' setting controls how closely motifs follow the curve.



A new checkbox, 'Re-generate motif run after transformation', forces the system to re-generate motif runs based on current settings whenever an object is scaled or skewed. When left unchecked, the system will not re-generate and the number of motifs will remain unchanged after the transformation. See also [Reshaping motif runs](#) in the User Manual.



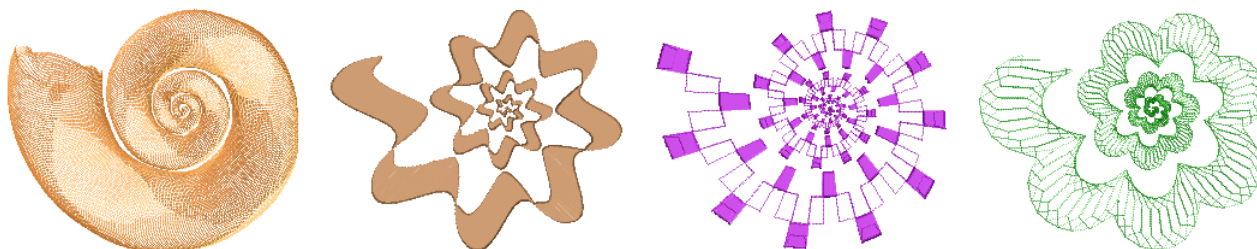
New motif column



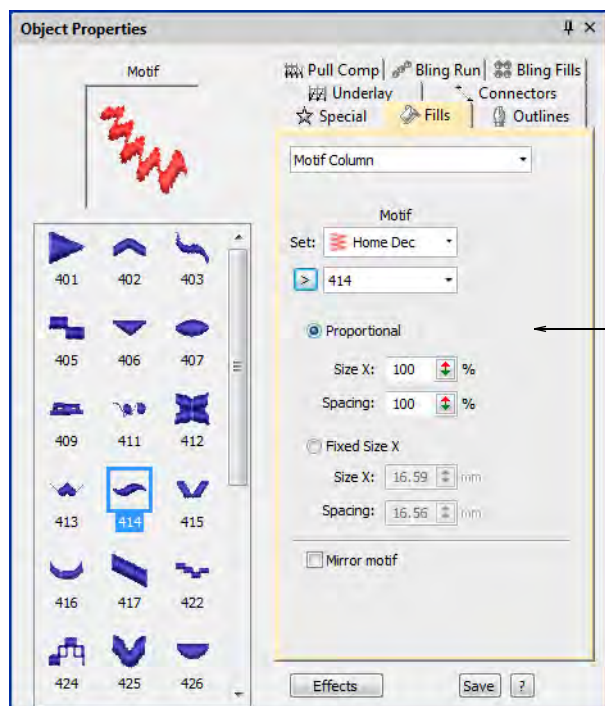
Use Fill Stitch Types > Motif Column to place motifs along the center line of a column shape and resize to fit the shape. Right-clicking for settings.

The **Motif Column** feature is part of the new **Advanced Motifs** Element. Motifs dynamically resize to fit varying widths. Similar in concept to flexi-split with turning satin, you digitize a tapering shape

using, for example, **Column A**. Apply **Motif Column** and select a motif. Motifs are automatically 'enveloped' to fit to the shape.



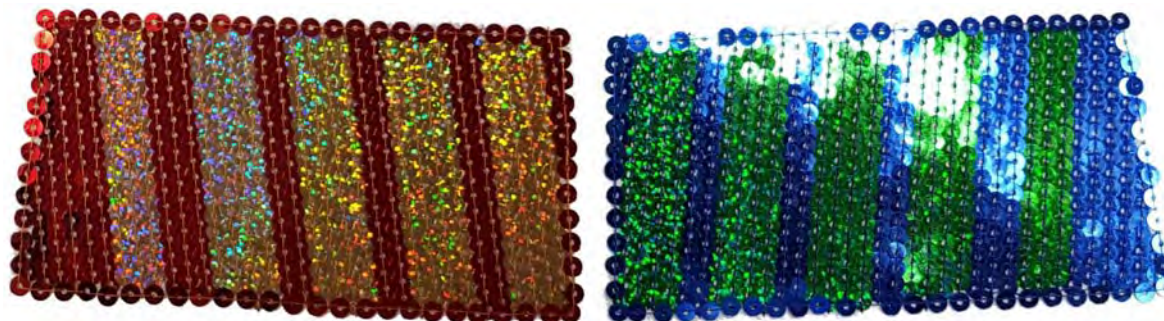
Right-clicking the **Motif Column** tool opens the **Object Properties** docker with its dedicated **Motif Column** fill stitch settings. See also [Creating graded motif columns](#) in the User Manual.



Motif Column settings for proportional or fixed spacings

Improved sequin fills

EmbroideryStudio provides significant improvements in sequin fills and runs.



Pattern stamp re-coloring of twin-sequin fills

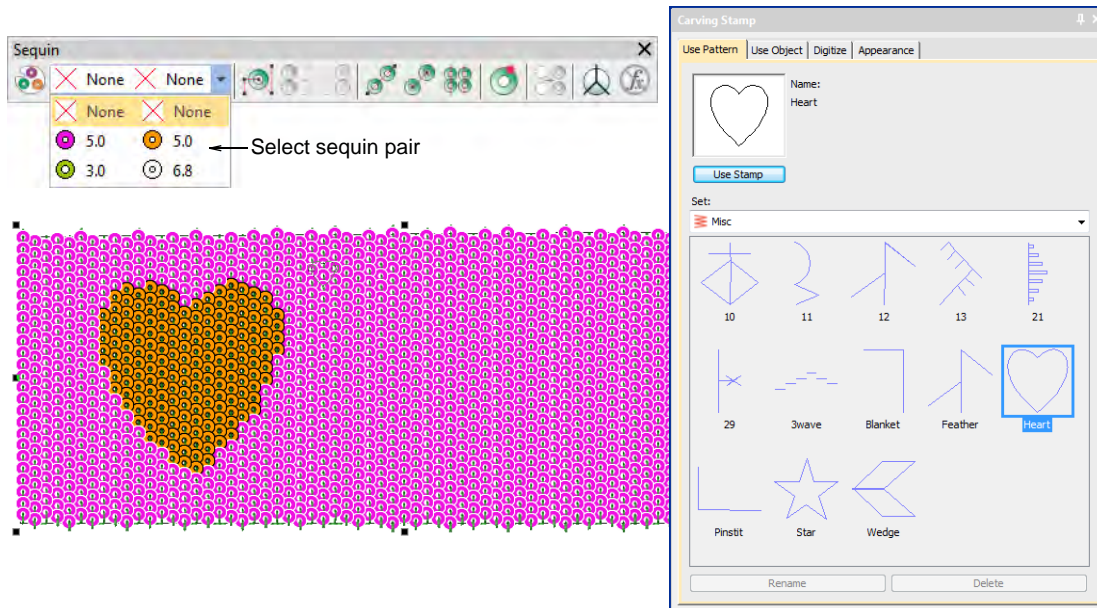


Use Sequin > Sequin Fill to digitize and fill large, irregular shapes with sequins.



Use Docker > Carving Stamp to define a pattern of needle penetrations using a 'carving stamp' as a template.

Sequin Fill can now be used in combination with **Carving Stamp** to digitize sequin fills with predefined twin sequin assignments. The stamp pattern takes the color of the other sequin in the currently selected pair. See also [Creating twin-sequin designs](#) in the User Manual.



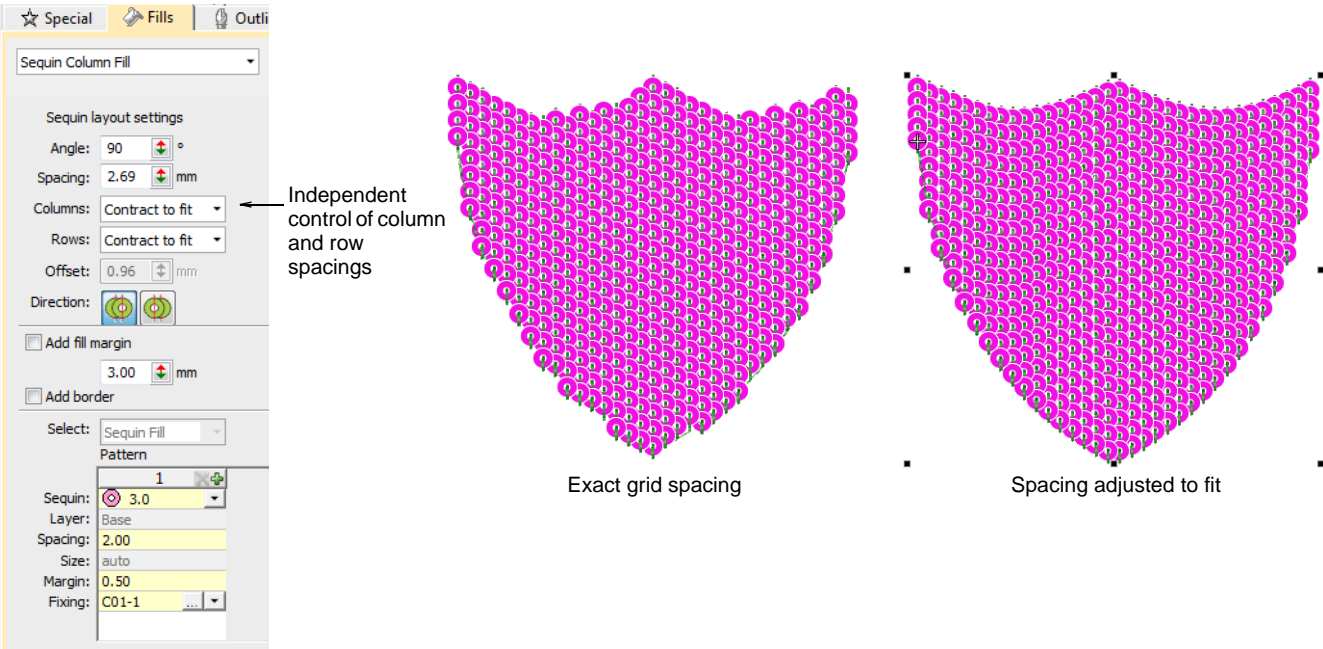
Smooth edges in sequin fills



Use Sequin > Sequin Fill to digitize and fill large, irregular shapes with sequins.

Sequin Fill now provides independent control of column and row spacings. Set the nominal spacing in the **Spacing** field. Choose whether you want the fill to fit the grid exactly or to be adjusted line-by-line to fit the shape. You have the option of expanding or contracting spacings in either or both rows and columns. Each line is adjusted separately. The aim is to make sequins follow to the

edge of the shape for all lines in the fill. This is less important if you add a border to the fill. See also [Creating sequin fills](#) in the User Manual.



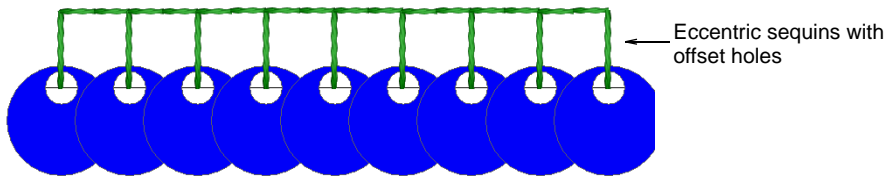
Better default values for sequin fills

Sequin fill parameters have been modified as follows:

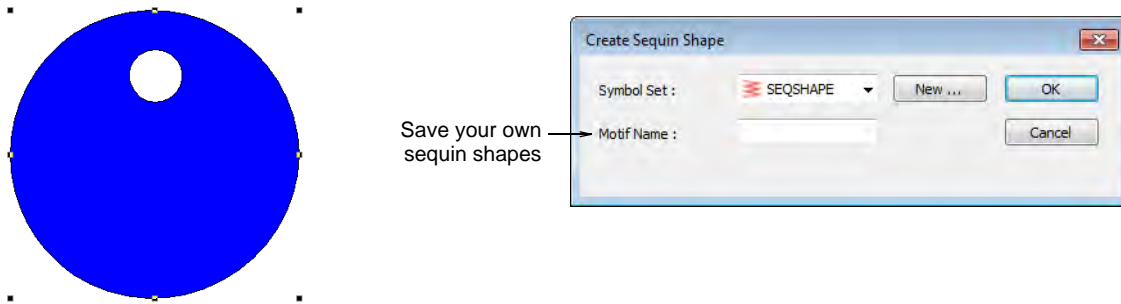
Parameter	Default
Direction	270°
Stitch spacing	2.75 mm (to allow small overlap for 3.0 mm sequins)
Offset	2.75
Layout	Progress to the right
Add border	B01-3 (better default fixing method)

Custom sequin shapes & hole positions

ES e4.1 now supports sequin shapes with offset holes. Such sequin shapes can be utilized for flipping sequins on the fabric to form two different sequin fill patterns. See also [Creating custom sequins](#) in the User Manual.

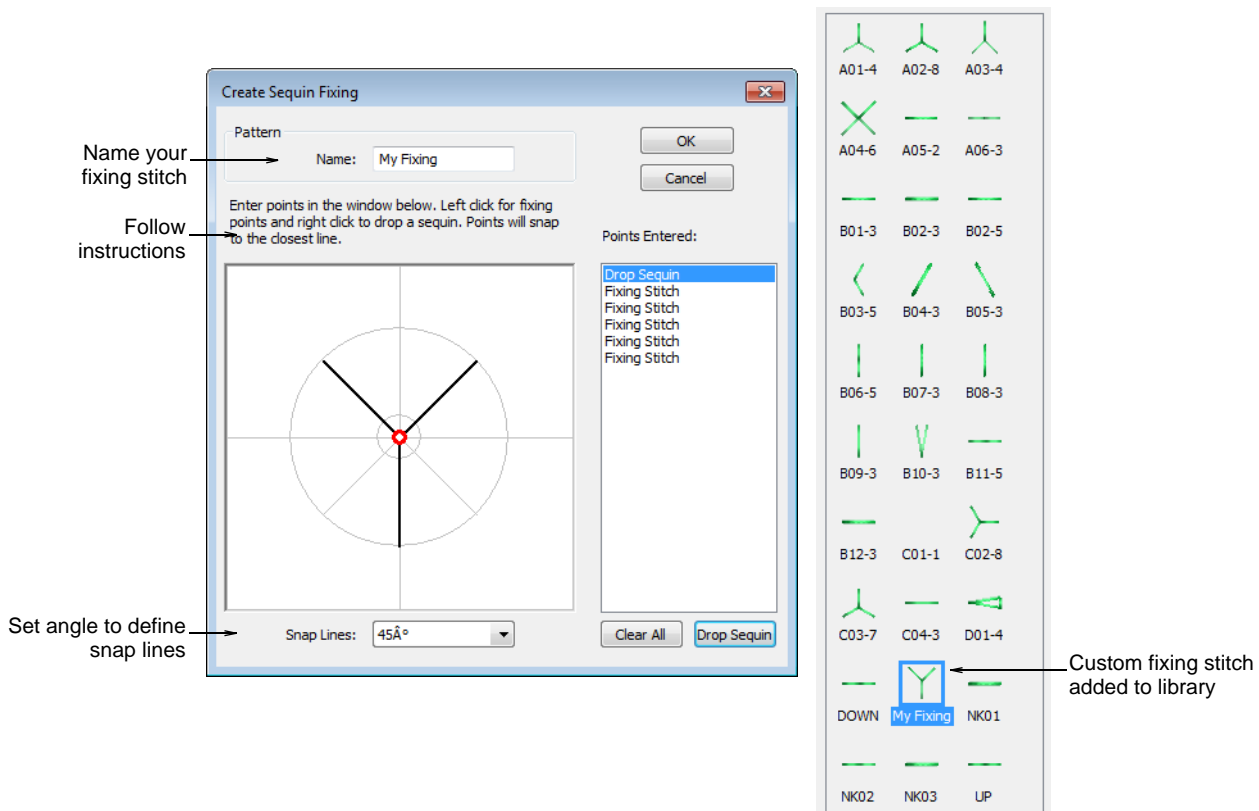


The software allows you to define your own shapes with their own hole position and size. Overlap allowance is automatically adjusted to accommodate different hole positions.



Custom sequin fixings

There is now a capability to define custom fixing stitches to support multi-head sequin devices. Some limitations might exist for older more complicated sequin devices. Access the dialog via the **Object** menu. See also [Creating custom sequins](#) in the User Manual.

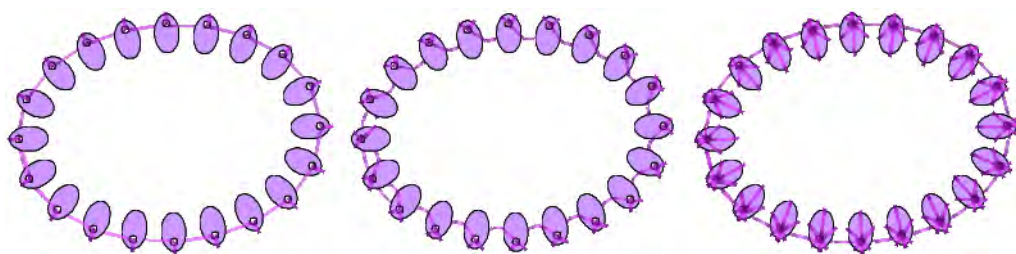


Benefits of user-defined sequin fixings include:

- ✦ Create multiple layers of stitching for decorative effects, sometimes in different thread colors (Barudan).
- ✦ Reduce stitch counts in large sequin designs.
- ✦ Accommodate specific fixing requirements.
- ✦ Accommodate new capabilities – e.g. offset holes.



Tip If you have chosen an eccentric sequin type such as 'ellipse', fixing stitches automatically adapt to fit.

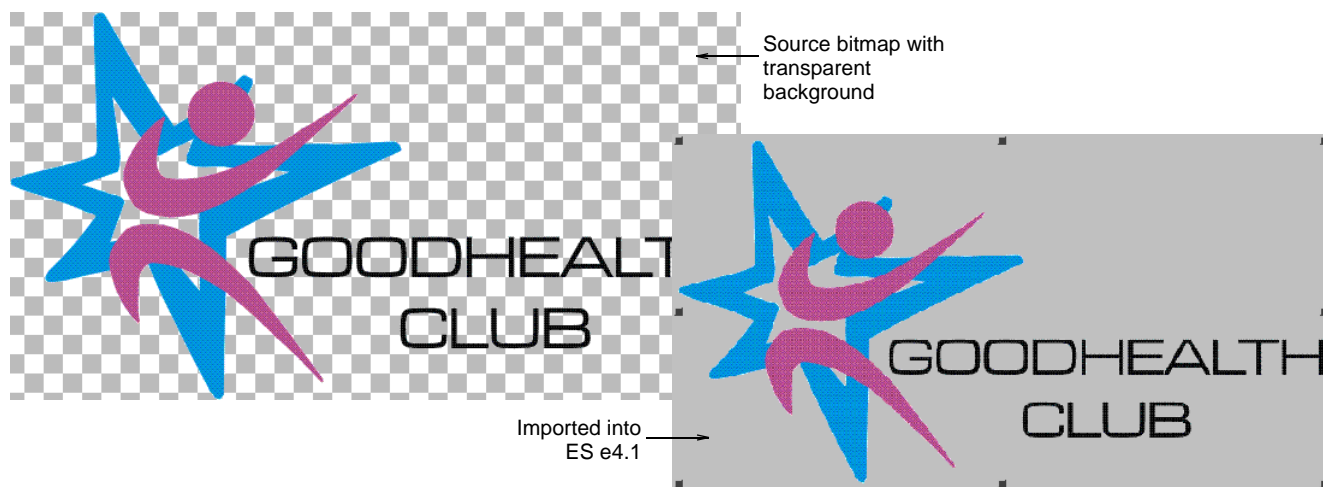


Auto-digitizing quality improvements

With the ES e4.1 release, auto-digitizing quality has been improved so that results look good in TrueView™ with corresponding improvements in production quality.

Support for image transparencies

Support is now provided for transparent backgrounds in 24 bit and 32 bit images. See also [Preparing artwork for digitizing](#) in the User Manual.



If an image contains a transparent background:

- ◀ The background is automatically excluded from auto-digitizing.
- ◀ The image is automatically cropped to its visible extents.

These improvements apply to both **Smart Design** and **Color PhotoStitch**.



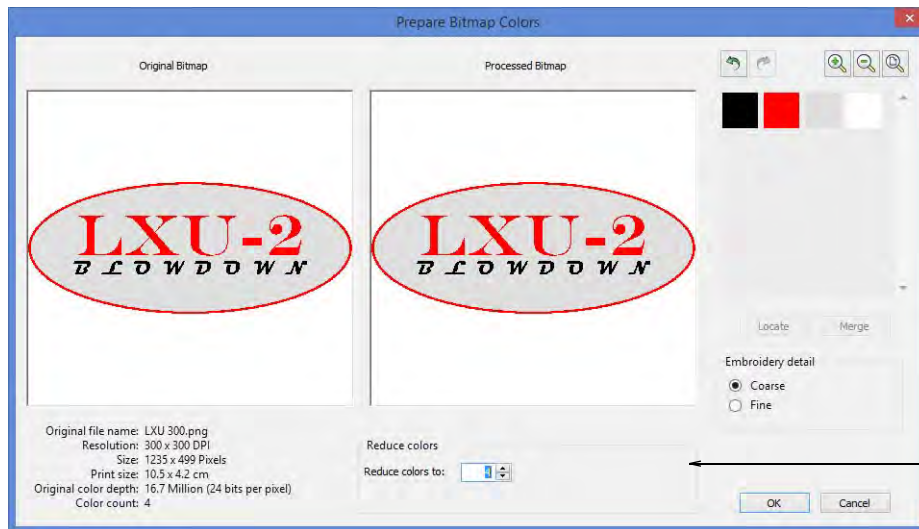
Caution Avoid using images that contain semi-transparent or transparent pixels **within** image color areas as these cause poor results when reducing the color count. The resulting pixels may end up as holes inside the image or significantly reduce color areas to the point where they are unnecessarily removed from the embroidery results.

Improved color reduction for logo type artwork



Use Auto-Digitizing Tools > Prepare Bitmap Colors to reduce the number of colors and remove image 'noise' in non-outlined images.

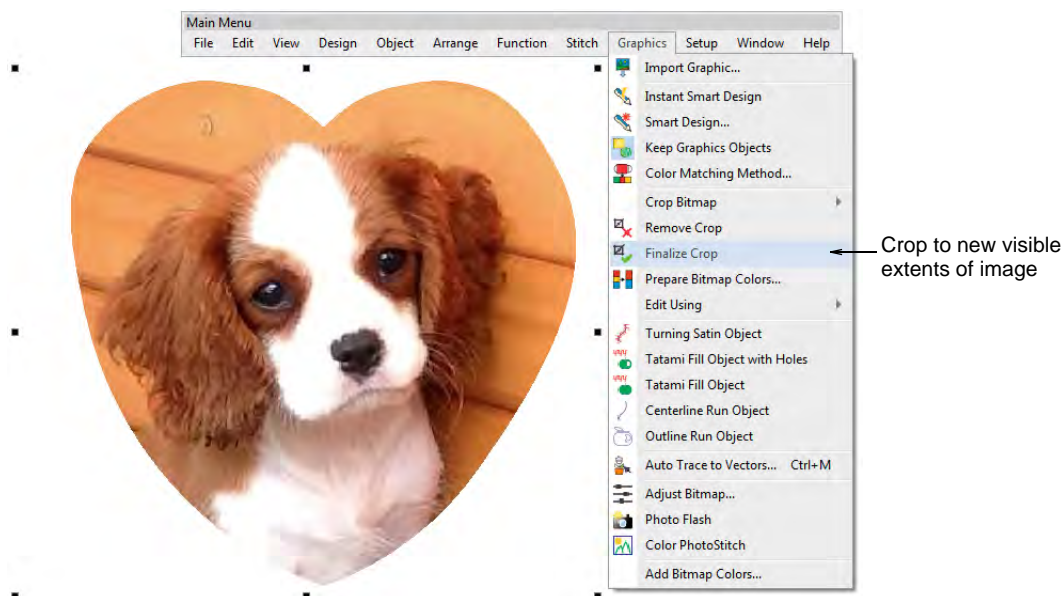
Color reduction has been improved for auto-digitizing logo type artwork with the aim of providing more accurate shapes for stitching. A new color-reduction method for logo style designs produces more reliable and predictable color reduction in 'solid color' designs. Unwanted edge artifacts are avoided with more complete removal of anti-aliasing effects. There have also been improvements in the treatment of gradient colors, including an option to remove/replace all gradients with solid colors. See also [Preparing artwork for auto-digitizing](#) in the User Manual.



Set the exact color count

Finalize crop command

When you create a cropped area, it is considered 'temporary' and can be reshaped at will. The new **Finalize Crop** command turns a 'virtual crop' into a 'hard crop' by reducing an image to its new visible extents. The only way to go back is via the **Undo** command or by reinserting the original bitmap. See also [Cropping bitmap images](#) in the User Manual.



Design output improvements

The ES e4.1 release includes a number of improvements in design output.

Easy access to machine file export

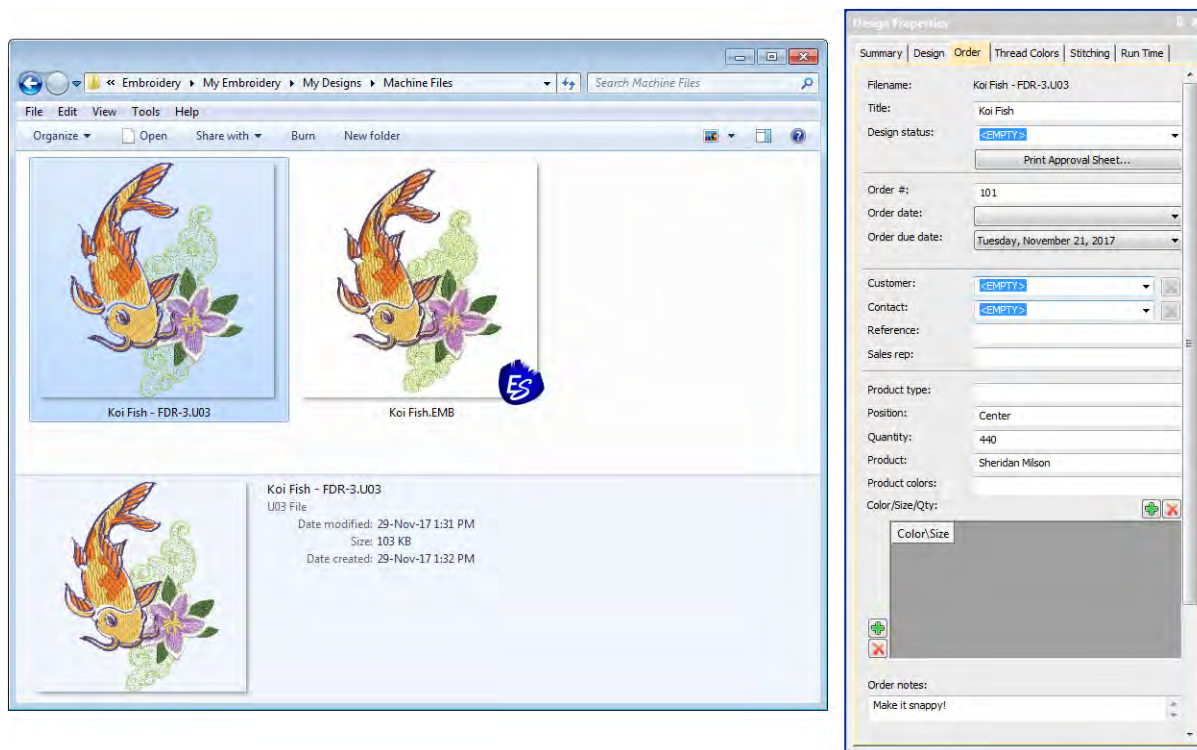


Use **Standard > Export Machine File** to export the current design to a machine file for stitching.

An **Export Machine File** button has been added to the **Standard** toolbar for easy export of the current design to machine file for stitching. A **Shift+E** shortcut has been included for the same purpose. See also [Exporting designs for machine](#) in the User Manual.

Support for Barudan FDR-3 design format

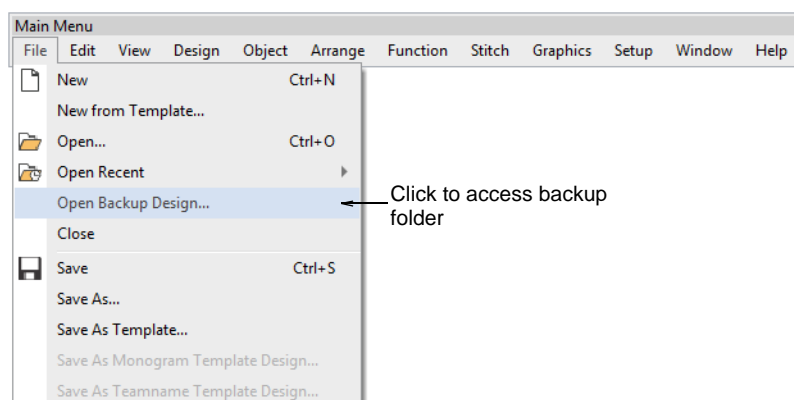
ES e4.1 can now write Barudan FDR-3 format machine files. FDR-3 file thumbnails display in the correct thread colors in **Design Library** and **Design Explorer**, as well as on the machine. Summary production details are also included with the file, reducing the possibility of production errors.



Improved error handling of EMB files

Error handling and backup of EMB files has been improved with the latest ES e4.1 release. During the writing of EMB files, the software will now preserve the original file until it has successfully written the new file. If an error occurs while writing the new design file, the original file is restored.

A new **File > Open Backup Design** command allows you to find your backup folder. See also [Setting automatic save & backup options](#) in the User Manual.



What's New in ES e4.0 Update 1?

The release of ES e4 Update 1 contains enhancements and improvements to many aspects of the software since the first release of ES e4:

- ◀ [Design Library improvements](#)
- ◀ [Team Name improvements](#)
- ◀ [Lettering improvements](#)
- ◀ [Digitizing improvements](#)
- ◀ [Visualization improvements](#)
- ◀ [Usability improvements](#)
- ◀ [Output improvements](#)
- ◀ [Graphics handling improvements](#)
- ◀ [LOTE improvements](#)
- ◀ [System improvements](#)



Tip For a summary of new and improved features, see the [Product differentiation table](#) at the end of these release notes. For a complete feature listing, see the product differentiation table in the user manual.

Design Library improvements

The ES e4 Update 1 enhances **Design Library** functionality and corrects a number of problems.

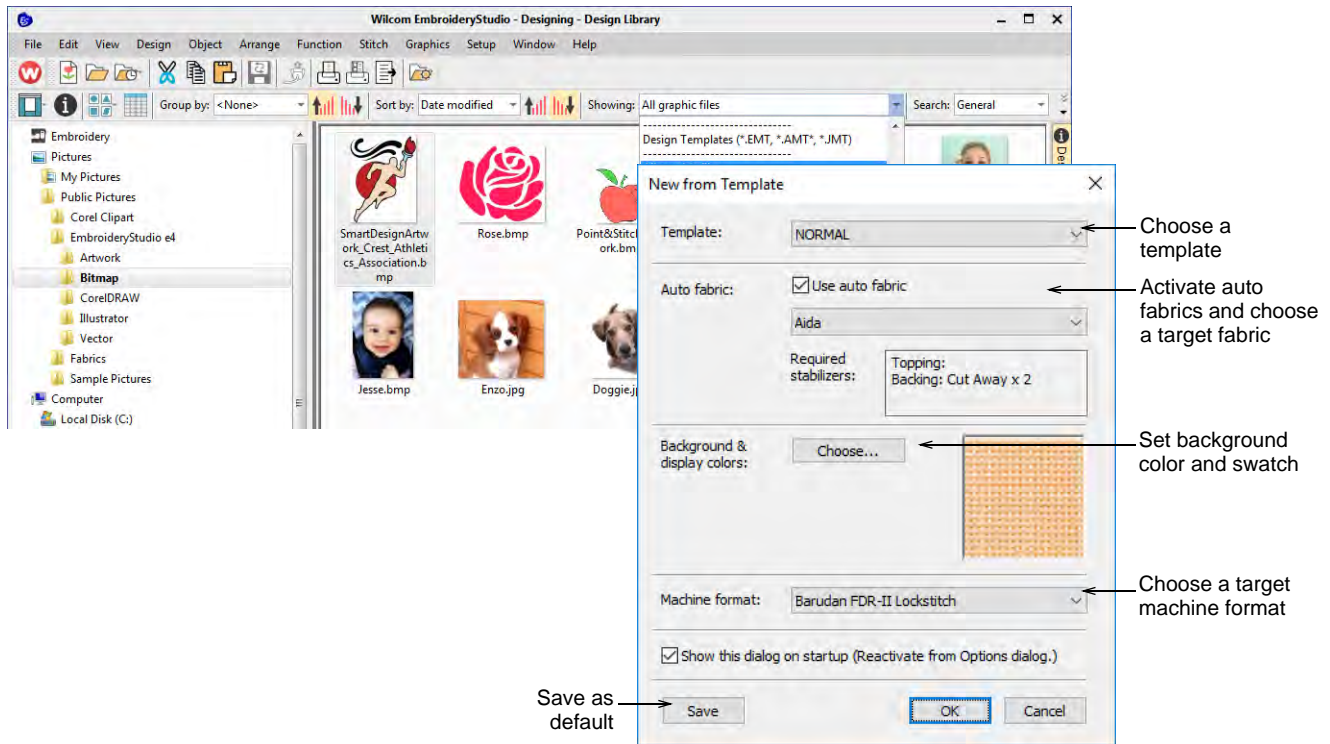
New from selected template in Design Library



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

You can now specify which EMB template to use in **Design Library**. Select a graphic file and right-click the **New from Selected** button. This allows you to choose which EMB template to use for the new design you will create from the selected graphic. This template selection is remembered

during the current session and used the next time the command is invoked. Left-clicking uses the default selection. See also [Opening designs from Design Library](#) in the User Manual.

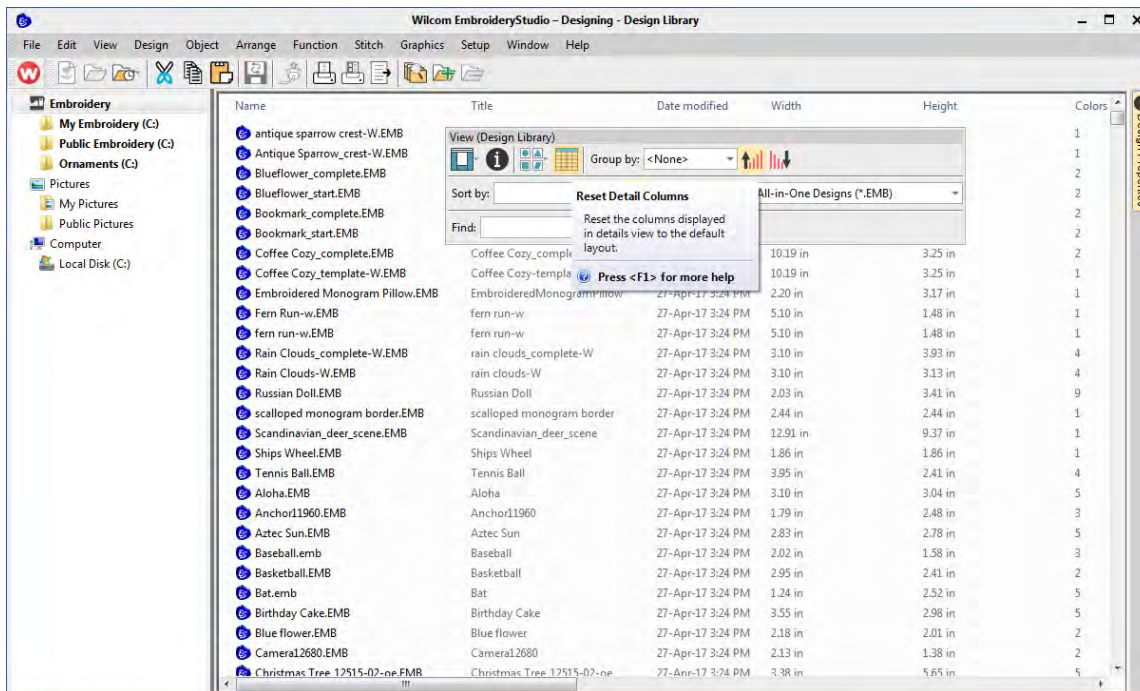


New Reset Detail Columns button



Use View > Reset Detail Columns to reset the columns displayed in details view to the default layout.

Design Library provides a new **Reset Detail Columns** button on the **View** toolbar:



When viewing design lists in **Details** view, columns can be customized in any order and with a variety of criteria. To return to the default layout, simply click the new **Reset Detail Columns** button. See also [Viewing design details](#) in the User Manual.

Note that default fields vary by file type and are controlled by Windows. **Design Library** columns for embroidery files are controlled by ES e4. These are primarily intended for EMB format but can be useful for other embroidery formats as well. They include such details as design status, customer, order date, etc.

Name	Title	Date modified	Width	Height	Colors	Stitches	Design status	Customer	Quote/Order #	Order date	Order due date	Product type	Total qty
e4-1011	Ben's Boy Scouts Crest Ch...	13/04/2017 1:27 PM	74.9 mm	74.9 mm	3	10999	7-Approved	Ben's Boy Scouts	1011	Monday, 27 Febua...	Friday, 24 Febua...	Club scout uniform	20
e4-1012	Department Of Army Crest	13/04/2017 1:27 PM	91.8 mm	91.8 mm	3	21050	6-Sent to Cust...	Costume house co.	1012	Monday, 20 Febua...	Monday, 13 Marc...	Army jacket	10
e4-1013	Eastside Eagles Crest	13/04/2017 1:27 PM	81.2 mm	85.7 mm	4	15760	8-In Production	Eddy's Eagles	1013	Monday, 13 Febua...	Monday, 20 Marc...	T shirt	40
e4-1014	Fire And Rescue Crest	13/04/2017 1:27 PM	87.2 mm	87.2 mm	6	19462	8-In Production	Costume house co.				Fire fighter jacket	20
e4-1015	Goodwin Golf Club Crest	13/04/2017 1:27 PM	86.6 mm	23.2 mm	2	3199	7-Approved	Goodwin Golf Club	1015	Wednesday, 18 Jan...	Thursday, 23 Feb...	Polo shirt	30
e4-1016	Kennedy Grammar Schoo...	13/04/2017 1:27 PM	107.5 mm	89.1 mm	3	20703	8-In Production	Kennedy Grammar Sc...	1016			Polo shirt	50
e4-1017	Kieng Chess Club Crest	13/04/2017 1:27 PM	27.3 mm	97.2 mm	1	3437	7-Approved	Kieng Chess Club	1017	Wednesday, 22 Feb...	Saturday, 18 Marc...	T shirt	20
e4-1018	Lawton Coast Guard Crest	13/04/2017 1:27 PM	83.9 mm	64.1 mm	7	14140	7-Approved	Lawton Coast Guard	1018	Monday, 20 Febua...	Tuesday, 21 Marc...	Polo shirt	30
e4-1019	Slaters Sports Club Crest	13/04/2017 1:27 PM	55.3 mm	72.2 mm	4	12619	7-Approved	Slaters soccer store	1019	Thursday, 9 Febua...	Thursday, 28 Febua...	Polo shirt	20
e4-1020	Tourism Industry Council ...	13/04/2017 1:27 PM	97.0 mm	28.6 mm	5	4823	6-Sent to Cust...	Tourism Industry Cou...	1020	Wednesday, 1 Febr...	Friday, 10 March 2...	Drawing bag/backpack	50
e4-1021	UEQ Crest	13/04/2017 1:27 PM	62.8 mm	89.3 mm	2	8912	8-In Production	UEQ soccer team	1021	Wednesday, 1 Febr...	Wednesday, 15 Mar...	Soccer jersey	30
e4-1022	Warthogs crest	13/04/2017 1:27 PM	103.9 mm	103.2 mm	12	21805	7-Approved	Warthogs grammar s...	1022	Thursday, 2 March ...	Friday, 7 April 2017	Polo shirt	20
e4-1023	Wilson Motorcycle Club...	13/04/2017 1:27 PM	70.3 mm	46.4 mm	6	11668	7-Approved	Wilson Motorcycle CL...	1-23	Wednesday, 1 Febr...	Wednesday, 1 Mar...	T shirt	20
e4-1025	The Cloaks Crest	13/04/2017 1:27 PM	105.9 mm	87.9 mm	1	5930	7-Approved	The Cloaks Baseball C...	1025	Thursday, 9 Febua...	Thursday, 23 Marc...	Baseball jersey	30
e4-1026	Athletics Association Crest	13/04/2017 1:27 PM	66.2 mm	74.0 mm	3	9243	8-In Production	Athletics Association	1026	Thursday, 9 Febua...	Thursday, 2 Marc...	Polo shirt	30
e4-1027	Brynseels Swim Team Crest	13/04/2017 1:27 PM	110.4 mm	58.0 mm	7	11421	8-In Production	Brynseels Swim Team	1027	Wednesday, 1 Febr...	Tuesday, 28 Febua...	Sport towel	50
e4-1028	T Basketball Crest	13/04/2017 1:27 PM	86.8 mm	71.1 mm	2	10573	7-Approved	Toyota Basketball Club	1028	Wednesday, 11 Jan...	Friday, 24 Febua...	T shirt	40
e4-1029	Tennis Club Crest	13/04/2017 1:27 PM	83.8 mm	83.1 mm	5	15430	7-Approved	Tennis Club	1029	Thursday, 9 March ...	Friday, 14 April 2017	Tennis polo shirt	30
e4-1030	Wolves Crest	13/04/2017 1:27 PM	87.5 mm	76.3 mm	7	21529	8-In Production	Wolves Baseball Team	1030	Wednesday, 1 Febr...	Friday, 3 March 20...	Piece jacket	30
e4-1031	Baranov FC Crest	13/04/2017 1:27 PM	81.6 mm	36.9 mm	5	10973	6-Sent to Cust...	Baranov FC	1031	Wednesday, 1 Febr...	Monday, 6 March ...	Soccer jersey	40

Sometimes Windows resets detail columns to Windows defaults, even for EMB files:

Name	Date modified	Type	Size	Folder
ChangeColor.EMX	13/04/2017 1:27 PM	EMX File	2 KB	Cross Stitch (C:\U...
Cross Stitch Sample.EMX	13/04/2017 1:27 PM	EMX File	9 KB	Cross Stitch (C:\U...
Decoration - Xmas Candle.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Decoration - Xmas Dove.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Decoration - Xmas Ivy.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Decoration - Xmas Pear.EMX	13/04/2017 1:27 PM	EMX File	2 KB	Cross Stitch (C:\U...
Decoration - Xmas Star.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Decoration - Xmas Stocking.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Decoration - Xmas Tree.EMX	13/04/2017 1:27 PM	EMX File	2 KB	Cross Stitch (C:\U...
Fill Stitch Types.EMX	13/04/2017 1:27 PM	EMX File	7 KB	Cross Stitch (C:\U...
FillStitchTypes.EMX	13/04/2017 1:27 PM	EMX File	7 KB	Cross Stitch (C:\U...
Flower.EMX	13/04/2017 1:27 PM	EMX File	2 KB	Cross Stitch (C:\U...
Flowers.EMX	13/04/2017 1:27 PM	EMX File	3 KB	Cross Stitch (C:\U...
Insert.EMX	13/04/2017 1:27 PM	EMX File	2 KB	Cross Stitch (C:\U...
Leaves.EMX	13/04/2017 1:27 PM	EMX File	10 KB	Cross Stitch (C:\U...

If this happens, use the **Reset Detail Columns** button to reset detail columns to ES e4 defaults. Do this for other embroidery formats as necessary.

Design Library refresh

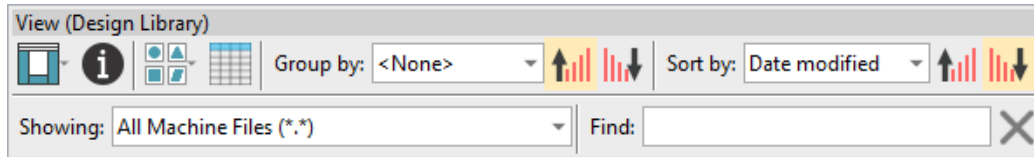
Like **Windows Explorer**, the **Design Library** display can be refreshed with a simple **F5** keypress.

Pressing backspace in search

Previously, holding the **Backspace** key to clear a search would jump to the cursor to the beginning of the field without deleting the text. This problem has been rectified.

Searching for non-native files

Searching for machine files did not always yield correct results. Problems were also reported when searching for ART and T0? files. A related issue has been the mismatching status of the **Showing** field. These problems have been rectified.



Order information

A problem occurred with missing order information in the **Details** pane. This has been rectified.



Browsing the network for large files

Problems were reported with abnormal loading when browsing through network folders containing large files. This has been rectified.

Design Library reliability

Occasional **Design Library** crashes were reported while carrying out some operations such as:

- ✦ Editing properties in the **Design Properties** docker. For instance, updating design status in the **Details** pane and/or **Design Properties** pane and then saving.
- ✦ The **Preview** pane can cause the software to crash when selecting a design file while thumbnails are being generated.
- ✦ Also reported – application crashes when moving images from one folder to another.

All these problems have been rectified.

Team Name improvements

The ES e4 Update 1 enhances **Team Names** functionality and corrects a number of problems.

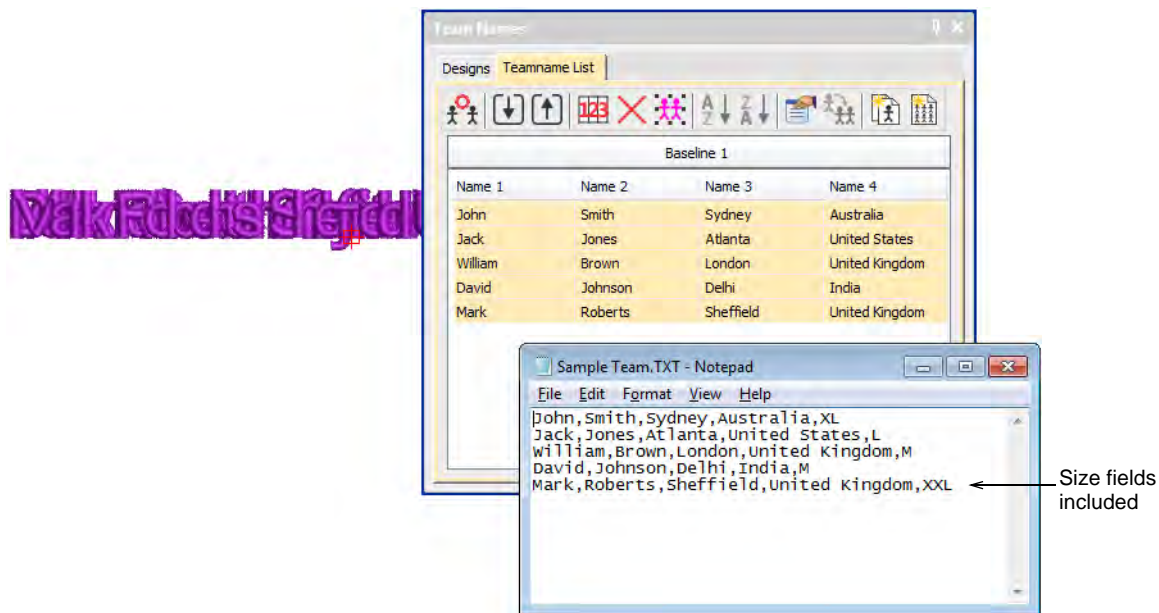
Importing teamname lists with additional fields



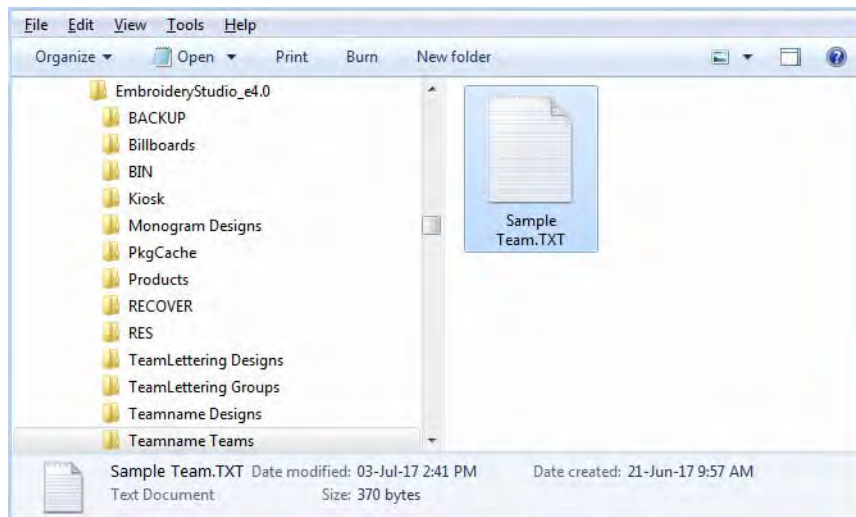
Use Toolbox or Docker > Team Names to associate multiple names with a design.

A 'size' field is often added to teamname lists even though it does not form part of the design. Previously, additional fields were stripped on import. They are now included. While the size field

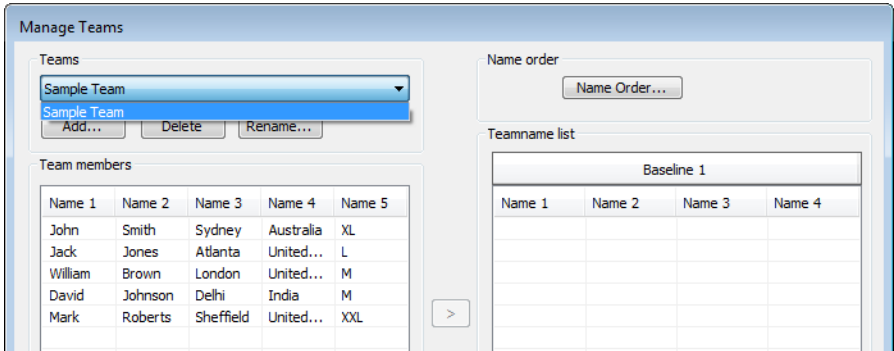
doesn't appear in the design, it is added to each design name when generated. This allows machinists to ensure they are using the right size garment for the specified name. See also [Creating simple teamname designs](#) in the User Manual.



To view size fields in the **Manage Teams** dialog, first save the teamname file in CSV or TXT format to the **Teamname Teams** system folder as shown. Don't use sub-folders.

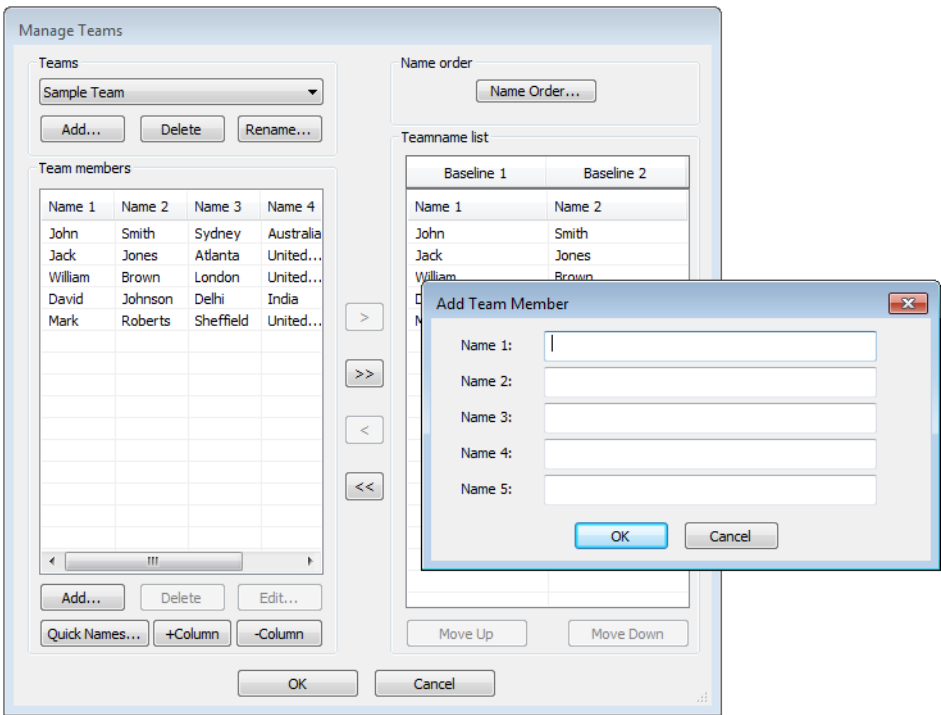


Open the **Manage Teams** dialog and select the file name from the **Teams** droplist. All fields will be imported...



Adding columns to the members list

There used to be a 10 column limit on the number of team members you could add. You can now add a virtually unlimited number of columns. Note, however, that only the first 100 will be saved.



Manage Teams button

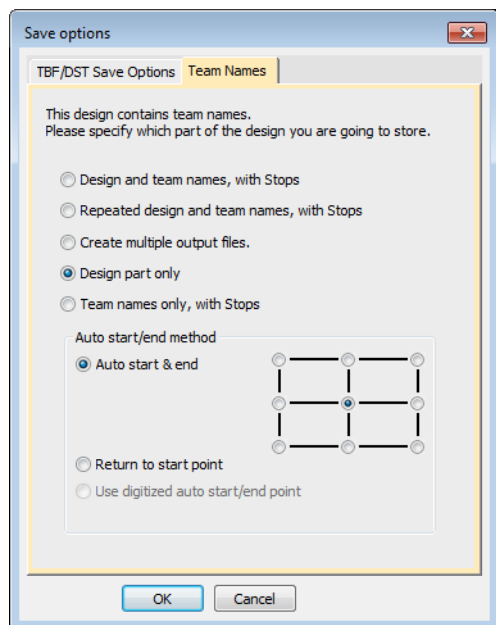


Use Team Names > Manage Teams to manage teams and team members for future use.

The **Manage Teams** button should not be selected by default immediately after the **Team Names** docker is opened. This problem has been rectified. See also [Managing teams](#) in the User Manual.

File export for team names

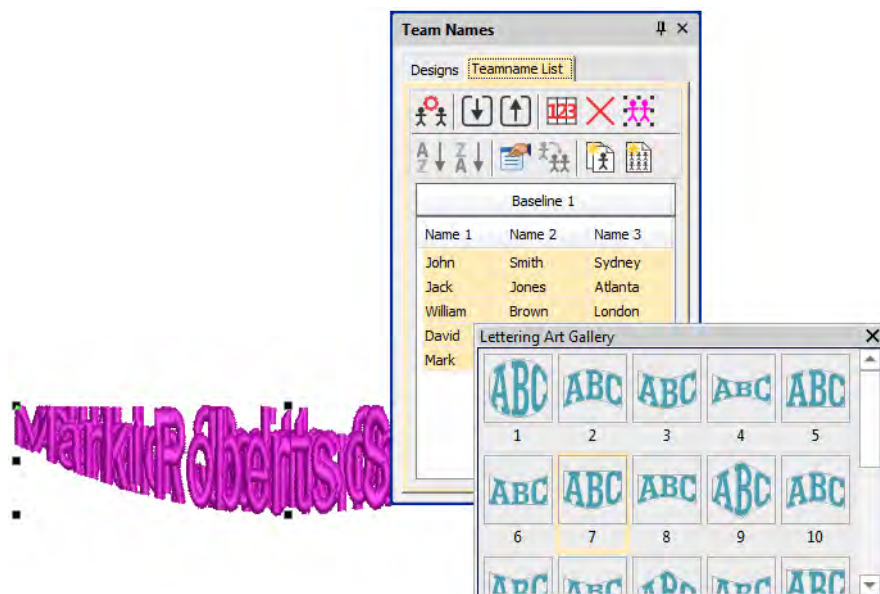
The file export dialog for team names now displays correctly.



When saving a teamname design with 'Repeated design and team names with Stops' selected, the design gets shifted in the output files. This problem has been rectified.

Adding lettering art to team names

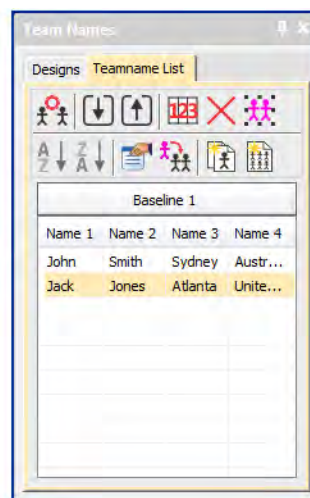
You can add lettering art to teamname objects from lettering properties accessed via the **Team Names** docker. Circumstances have been reported where lettering art is applied but then lost. This problem has been rectified when switching between two team names. There may be other circumstances, however, that have not been identified or addressed.



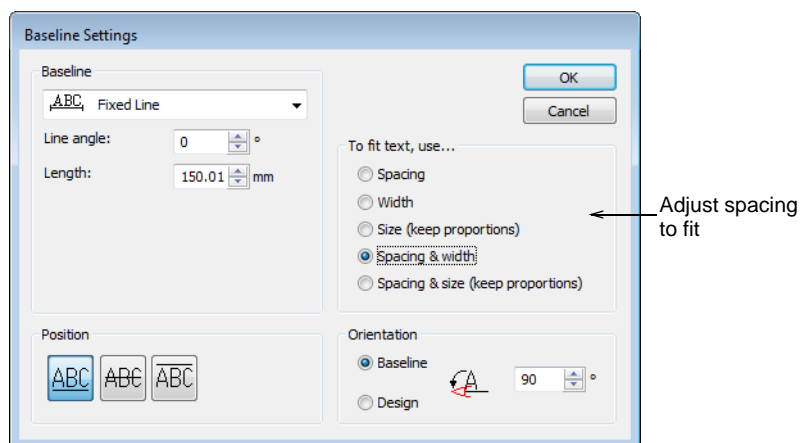
Teamname letter spacing

Teamname letter spacing issues were reported in cases where a design contains very long names or different numbers of names.

Jack Jones Atlanta United States

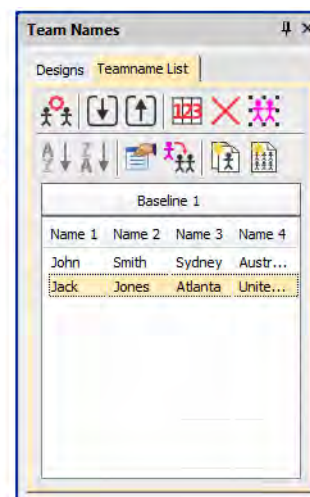


The solution is to edit the baseline to make more space available, or change the method of size reduction in lettering properties:



Adjust baseline settings for 'fit text' either using 'Spacing and Width' or 'Spacing and Size':

Jack Jones Atlanta United States



Lettering improvements

The ES e4 Update 1 enhances **Lettering** functionality and corrects a number of problems.

Zigzag with lettering

Previously, users were unable to apply zigzag stitching to selected lettering via the **Stitches** toolbar. Zigzag was disabled and could not be selected. This problem has been rectified. See also [Applying stitch types & effects to lettering](#) in the User Manual.



Embroidery fonts

The 3D Futuro embroidery font has been improved and repackaged.

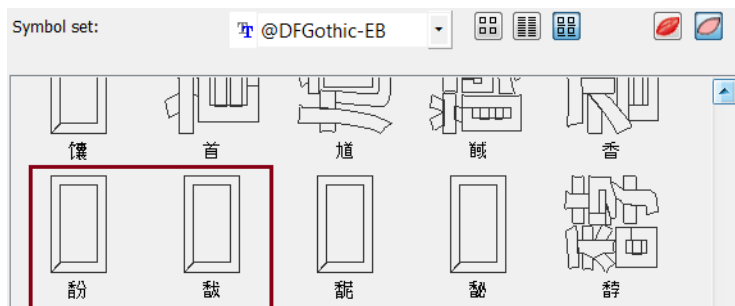


Recommended letter heights for 3D and some other fonts have been reviewed and the user manual updated accordingly. See [Embroidery Fonts](#) in the User Manual for details.

Character display

Characters were replaced by a ~ character in the **Lettering** field when not appearing in the font. Selecting another font caused the lettering object to be completely removed. This problem has been rectified.

In the **Insert Symbol** dialog, non-existent characters are now displayed as squares and used when inserted into a design. A 'fallback character' is displayed below the blank placeholder character.



Tip If you want to check whether a character exists in a font, copy the fallback character and paste it into an MS Word document. Then try changing fonts until you find one that includes the character.

Lettering Kiosk

Some related issues were causing problems when the **Kiosk** lock setting is activated in the **Options** dialog:

- ◀ Toolbars are unavailable via the **Window > Toolbars** menu.
- ◀ Opening designs from **Design Library** invokes the **Kiosk** instead of the **Wilcom Decoration** screen.
- ◀ Some **Kiosk** controls appear in the **Wilcom Decoration** window immediately after exiting the **Kiosk** mode.

All these problems have been rectified.

Digitizing improvements

The ES e4 Update 1 enhances and corrects a number of digitizing problems.

Flexi-split with complex fill objects



Use **Stitch Effects > Flexi Split** to create decorative split patterns following stitch angles and scaled according to object width. Right-click for settings.

Currently flexi-split effect is used mainly with satin stitch. It could always be applied to tatami Input A objects. It can now be applied to tatami complex fill objects. See also [Creating flexi-splits](#) in the User Manual.



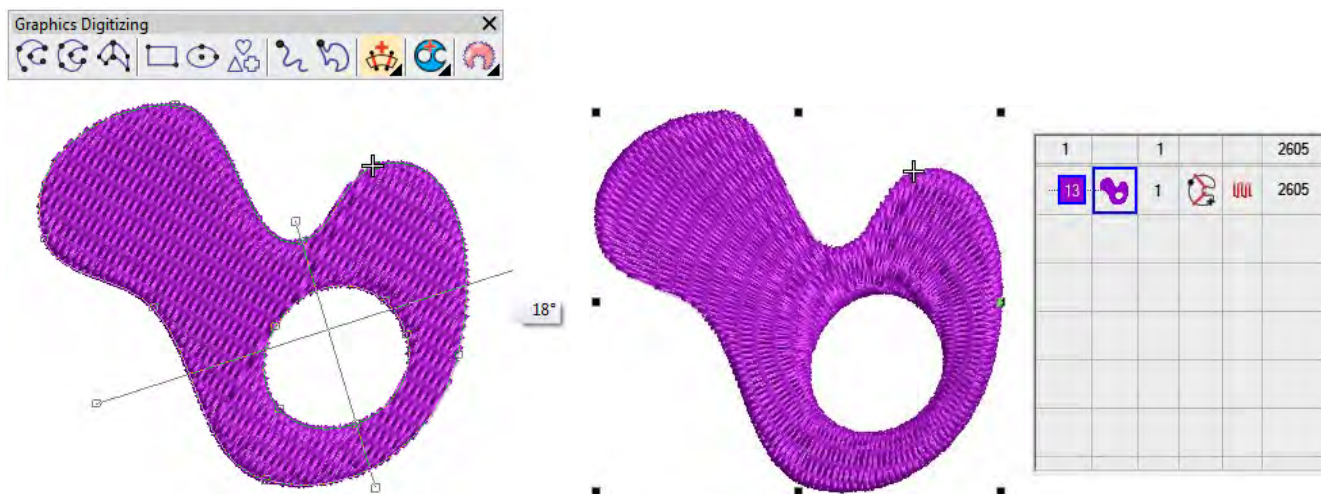
Note Flexi-split is applied to each 'segment' of a complex fill as shown above.

Stitch angles



Use **Graphics Digitizing > Stitch Angles** to add stitch angles to selected objects.

When creating or selecting complex fill objects with holes, the **Stitch Angles** tool is now enabled in ES Decorating. Also, the addition of stitch angles to closed shapes now results in complex turning objects (rather than A/B). See also [Adjusting stitch angles](#) in the User Manual.



Visualization improvements

The ES e4 Update 1 enhances and corrects a number of visualization functions.

Stitch Player works with ZSK



Use View > Stitch Player to simulate embroidery design stitchout on screen.

Stitch Player has been enhanced to work with ZSK files. It now provides the option of stopping at color changes in the same way as ZSK (formerly ZANGS) embroidery machines would act. See also [Simulate design stitchouts](#) in the User Manual.

Viewing bling



Use View > Show Bling to toggle bling display on/off.

The **Show Bling** command was missing from the ES Digitizing product level. It has now been included. See also [Bling Digitizing](#) in the User Manual.



Reshaping objects on a 4K screen at 200% scaling

A number of issues have been reported when reshaping objects on a 4K screen at 200% scaling:

- Unable to reshape a manual or manual triple run object. Node points are not shown.

- ◀ Unable to reshape an individual motif dropped with **Use Motif**.
- ◀ Unable to reshape a manual sequin object.

These problems have been rectified.

Usability improvements

The ES e4 Update 1 enhances and corrects a number of usability functions.

Color palette scrolling

In instances where the color palette is full, you need to click the spin box to scroll through the available colors. Previously, the palette reverted to first position when you start digitizing. It now remains at the current color slot. This allows you to easily select nearby colors.



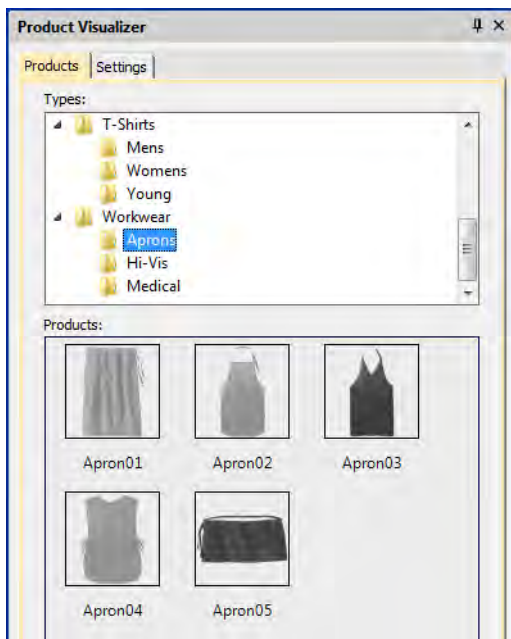
Tip You can always float the color palette to display the full range of colors (max 128). This is more practical when using a high resolution (4K) monitor or second monitor.

Product registration

There have been requests to include a **Product Registration** option in the **Help** menu. This has now been added to allow users to both register their product and/or check its current status. If already registered, it will display your current serial number and dongle tag number. If not registered, it will walk you through the process.

Scrolling through items in Product Visualizer

The mouse scroll-wheel now works correctly and faster when scrolling through the product listing.

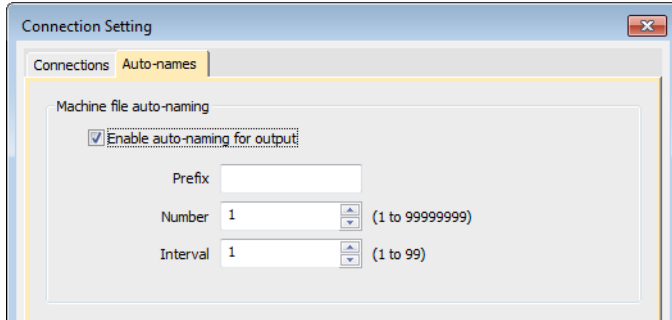


Output improvements

The ES e4 Update 1 enhances and corrects a number of issues to do with outputting designs.

Automatic machine file naming

Connection Manager now provides an option for automatic machine file naming. When enabled, the specified filename format is used for all machine connections established in **Connection Manager**. See also [Setting up machines for Connection Manager](#) in the User Manual.



Where...

Setting	Details
Filename format	Filenames take the format <prefix><number>.<extension>
Prefix	ASCII only, no unicode characters. No Windows reserved characters. Length limit 8 characters.
Number	Numeric only. Range 1 – 99,999,999.
Interval	Interval is numeric only and is the amount the number is incremented each time a file is generated. Range is 1 – 99.



Note When enabled, Kiosk also uses this auto-name specification for all machine files. If not enabled, it uses the kiosk machine file definition.

PDF printing

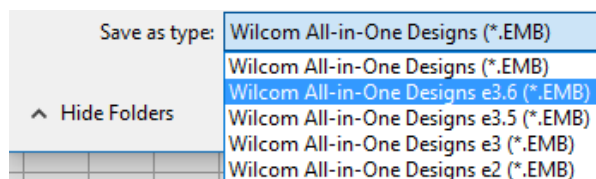
A number of problems were reported in relation to PDF printing from the **Print Preview** window.

- ◀ The **Print Preview > Print to PDF** command ignores the **Portrait / Landscape** setting. It always creates a portrait display.
- ◀ The software reports an error attempting to read the license for the NovaPDF software after a Windows 10 update.
- ◀ Similarly, a NovaPDF license error is sometimes reported after starting up the software.

All these problems have been rectified.

Hatch e3.6 file format

The latest release allows ES e4 to read and write Hatch EMB e3.6 file format. The standard list of supported formats now includes:



Graphics handling improvements

The ES e4 Update 1 enhances and corrects a number of graphics handling issues.

CoreIDRAW X8 64-bit installation in Graphics mode

When switching to **CoreIDRAW Graphics** mode, the software previously warned (erroneously) that CoreIDRAW X8 was not installed. This problem has been rectified.

Undoing bitmap modifications

Problems were reported when attempting to undo repositioning or transformation of large bitmaps inserted into the software via **CoreIDRAW Graphics** mode. This has been rectified.

Undo actions between Wilcom Decoration and CoreIDRAW Graphics

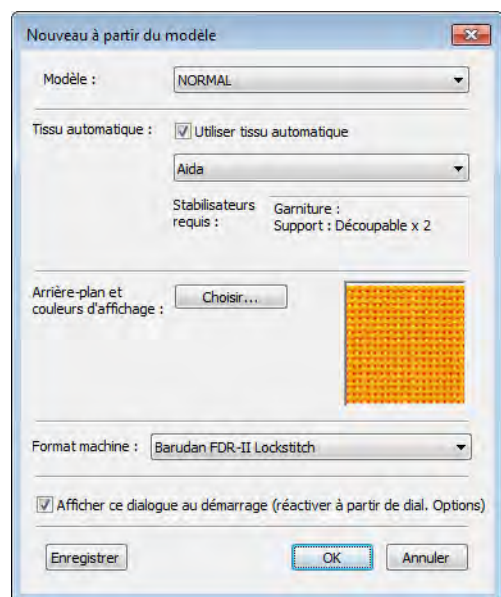
Problems were reported when undoing actions after switching between **Wilcom Decoration** and **CoreIDRAW Graphics**. These have been rectified.

LOTE improvements

The ES e4 Update 1 enhances and corrects a number of LOTE issues.

Truncation problems

Truncation problems in some dialogs have been reported in languages other than English. These have been rectified.



Pique polo in Spanish interface

In Spanish language, the fabric type 'pique' was missing from the auto-fabric settings. It now appears translated as 'lucio'.

Application crashes when saving user-refined letters

There have been reports of application crashes when saving a user-refined letter in German or French interfaces. This issue has been rectified.

System improvements

The ES e4 Update 1 provides a number of general system improvements.

Icons in the Object Properties docker

Incorrect icons have appeared in the **Object Properties** docker when not all options are enabled. This problem has been rectified.

Color changes with Colorway Editor docker

Problems have occurred when clicking a color in the Colorways list of the **Colorway Editor** docker. Any selected object's color incorrectly changes. This problem has been rectified.

Generic Write Error

'Generic Write Errors' have been reported when saving designs incorporating images imported via **CorelDRAW Graphics**. This problem has been rectified.

CorelDRAW in ES dockers

Problems have been reported with CorelDRAW 'artefacts' persisting in **Wilcom Decoration** dockers. These have been rectified.

Using high-end Wacom tablets

With the initial release of ES e4, the user had to do an extra swipe to obtain a right-click action on high-end Wacom tablets. For example, when creating curve points with a digitizing tool. This problem has been rectified. Input behavior is as it was in ES e3.

Application crashes with packaged teamname sample designs

When **Team Names Advanced** is unavailable, there have been reports of application crashes when opening packaged teamname samples. This problem has been rectified.



Failure to create empty document

When a complex fill object is created and the design saved – EMB or machine file format – a 'Failed to create empty document' is displayed when attempting to create a new design. Also most of the UI is grayed out and the software unusable until restarted. This has been rectified.

Communications with the Happy Voyager machine

Problems have been reported when downloading design files to the Happy Voyager machine via Machine Manager. A serial error is shown on the machine panel. This problem has been rectified.

Internal Envelope Error

An Internal Envelope Error has been reported in relation to system security. This problem has been rectified.

What's New in ES e4.0?

The first release of EmbroideryStudio contains many new product features and enhancements to many aspects of the software since the release of ES e3:

- ◀ [Improved ES design workspace](#)
- ◀ [New Design Library](#)
- ◀ [New EMB Job Order Details](#)
- ◀ [Improved Product Visualizer](#)
- ◀ [New & improved lettering](#)
- ◀ [New & improved digitizing](#)
- ◀ [New & improved automatic digitizing](#)
- ◀ [Other improvements](#)

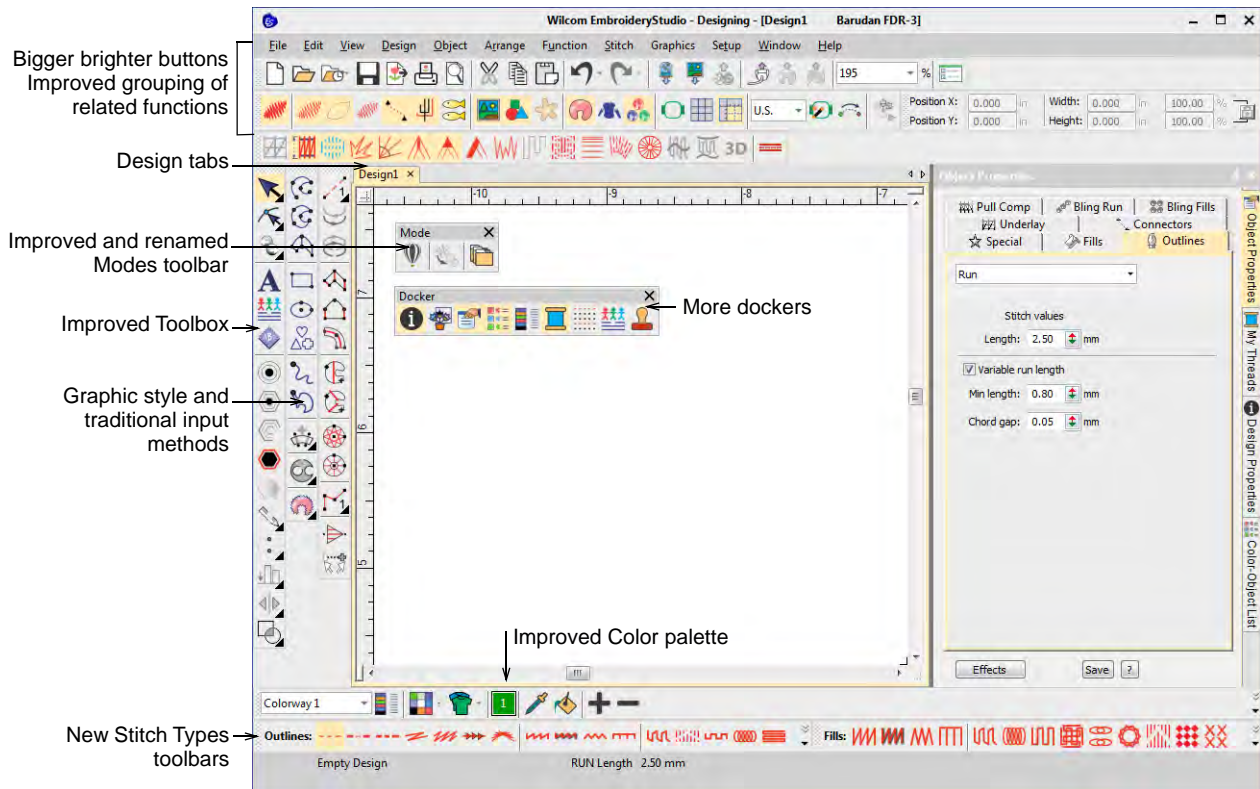


Tip For a summary of new and improved features, see the [Product differentiation table](#) at the end of these release notes. For a complete feature listing, see the product differentiation table in the user manual.

Improved ES design workspace

The EmbroideryStudio e4.1 user interface uses the same basic style and layout as e3 with some improvements. Not a big learning curve for existing customers to upgrade. EmbroideryStudio e4.1 introduces a new easier 'graphics style' of embroidery digitizing while also improving on the

professional 'traditional' digitizing style. Graphics style is standard in **ES Decorating** while both graphics and traditional digitizing are standard in **ES Designing** and **ES Digitizing**.



The user interface now includes:

- ✦ New color scheme
- ✦ Selectable icon size with or without icon labels
- ✦ 4K high resolution monitor support
- ✦ an improved **General** toolbar at the left
- ✦ a new **Graphics Digitizing** toolbar
- ✦ an improved **Traditional Digitizing** toolbar
- ✦ a new **Outline Stitch Types** toolbar
- ✦ an improved **Fill Stitch Types** toolbar
- ✦ an improved **Stitch Effects** toolbar
- ✦ a new **My Threads** docker
- ✦ an improved **Color** toolbar

Improved toolbox organization

The main vertical toolbox at the left side of the screen is re-organized for more efficient and obvious use:

- ◄ A simplified main toolbox has the commonly used tools for all product models.
- ◄ A new vertical **Graphics Digitizing Tools** toolbar holds graphics style shape tools.
- ◄ A new vertical **Traditional Digitizing Tools** toolbar holds improved traditional digitizing tools.

All frequently used tools are available in a single click – not hidden in flyout toolbars.



Note Some optional features are shown. Not all tools are in all product models.

Improved flyout toolbars

Infrequently used tools are combined into flyout toolbars to save screen space and visual distractions. All flyouts can still be detached and left open if desired. Flyout toolbars are also quicker to respond and hence easier to use.

Improved default layout of tools and toolbars

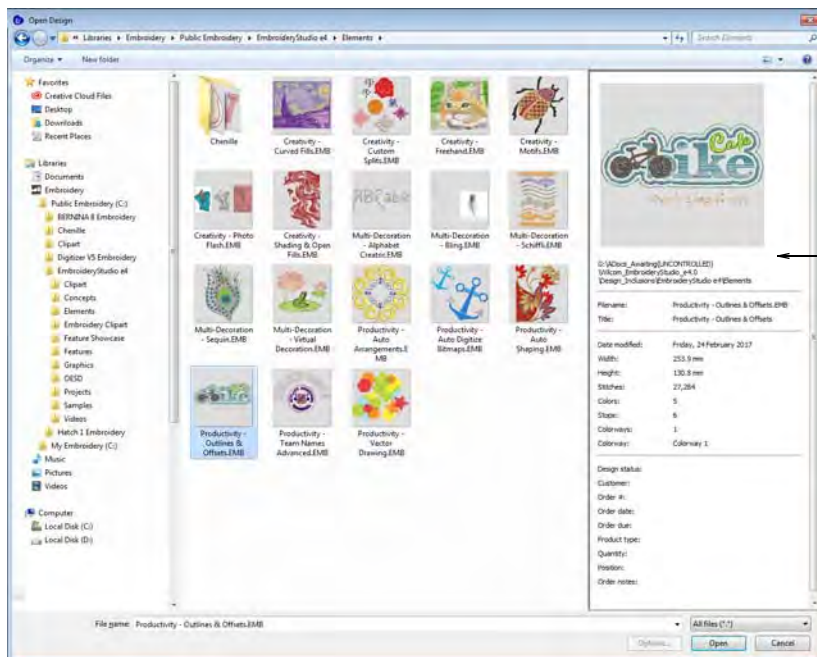
Default layout of tools and toolbars in EmbroideryStudio e4.1 has been updated as follows:

- ◄ Only commonly used toolbars visible by default – specialty toolbars deactivated.
- ◄ Improved grouping of toolbars based on common usage.
- ◄ Vertical toolbox flyouts replaced with expanded toolbars for easier access.



Large Open and Save dialogs

EmbroideryStudio implements improved **Open Design** and **Save Design** dialogs.



Re-sizable Open Design dialog with full folder browsing

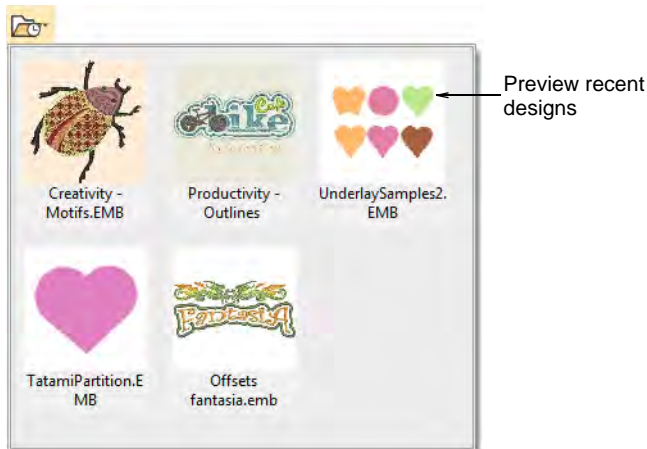
Key features:

- ◄ Large, re-sizable **Open Design** dialog with full folder browsing.
- ◄ Windows Explorer search capability within the dialog.

- ◀ More extensive design preview info panel like Windows Explorer.
- ◀ Design thumbnails and preview ranging from small to extra large.

Open recent files by thumbnails

You can now preview recent designs before opening.



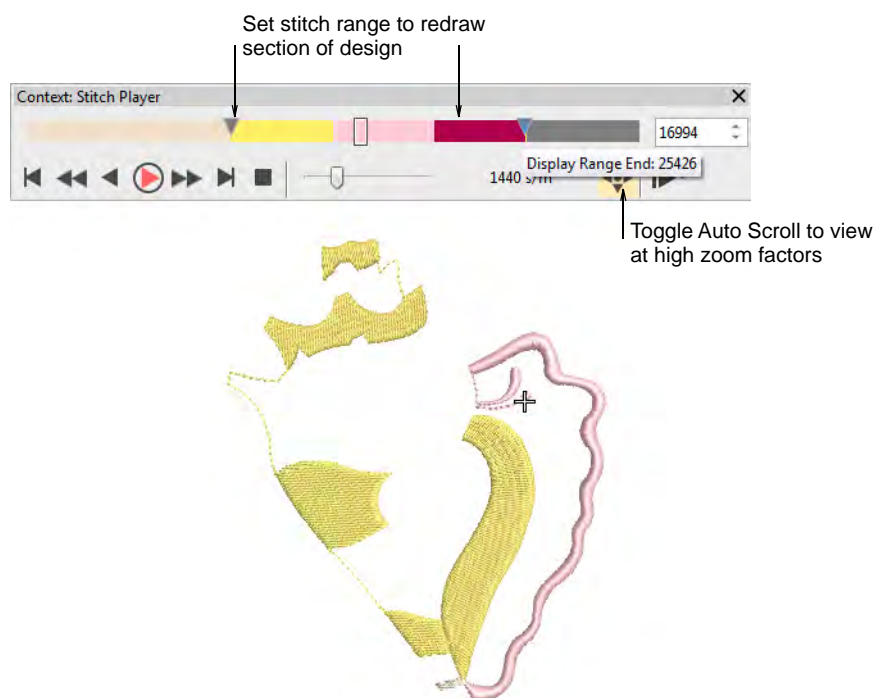
Display multiple open designs in separate design tabs

EmbroideryStudio makes it easy to see and switch between open designs with new design tabs. This also makes it easy to copy/paste between designs, including drag and drop operations. Optionally, you can tile multiple design tabs. See also [Set up multiple views](#) in the User Manual.



New Stitch Player replaces Slow Redraw

EmbroideryStudio provides an improved **Stitch Player** tool for handling stitchout simulations. See also [Simulate design stitchouts](#) in the User Manual.



Key features:

- ◀ Typical 'media player' buttons for play, pause, rewind operations
- ◀ Progress bar showing thread colors in proportion to number of stitches
- ◀ Progress bar marker which can be dragged forward or backward
- ◀ Auto scrolling at high zoom
- ◀ No change to current needle position in the design.

Improved color palette

The **Color Palette** has been improved and extended with new features. It now defaults to 15 colors representing 15 needles on a machine. Use the new **My Threads** docker to change the RGB values or assign real thread colors. See also [Choosing thread colors](#) in the User Manual.



There are new tools to manage colors in the design palette more easily:

Tool	Details
My Threads	Invokes the new My Threads docker.
Hide Unused Colors	Displays only colors used by the design.
Remove Unused Colors	Replaces Compact Palette to remove all colors not used in the design. It then rennumbers used colors.
Split Palette	The existing command remains.
^ ES Designing and ES Digitizing only	

Tool	Details
Current Color	Highlight which palette color is current.
Pick Color	Eye dropper to select a new color from the design and make current.
Apply Current Color	Re-color objects in the design with the current color.
Cycle Colors	^ Automatically re-color objects by swapping colors used in the design.
Color Wheel	^ Create new color combinations based on rotating existing colors through the color space.
^ ES Designing and ES Digitizing only	

Other features:

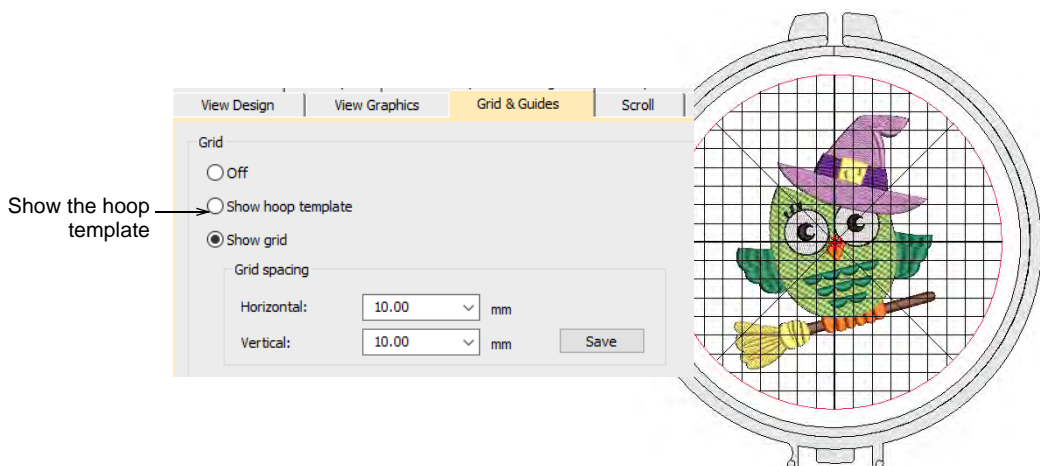
- ◀ Color palette positions are numbered for easier reference
- ◀ Used colors are tagged with a blue marker.

New hoop template



Click View > Show Grid to show or hide the grid. Right-click for settings.

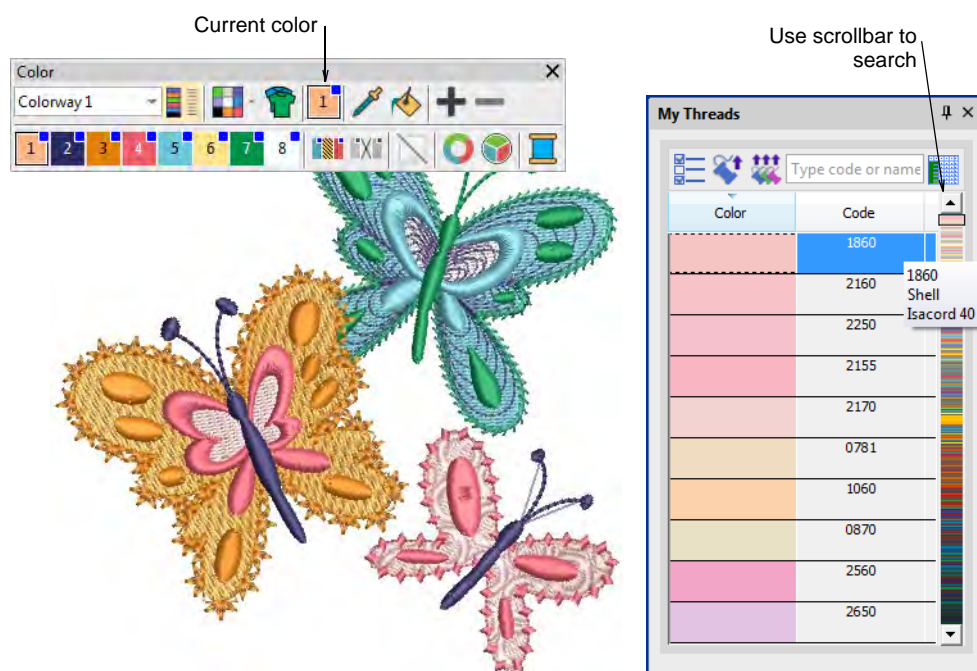
Now you can optionally turn on the **Hoop Template** display via the **Options** dialog or **View** menu. The template may be used to help position your design within the hoop.



Tip You can include the hoop template in the production worksheet, together with alignment and registration guide markings. This allows you to cut out the printed design and align it within the hoop. Use the template markings to align it to physical hoop template.

New 'My Threads' docker

A new 'My Threads' docker makes it easy to select and assign thread colors. See also [Assigning thread colors](#) in the User Manual.



Key features:

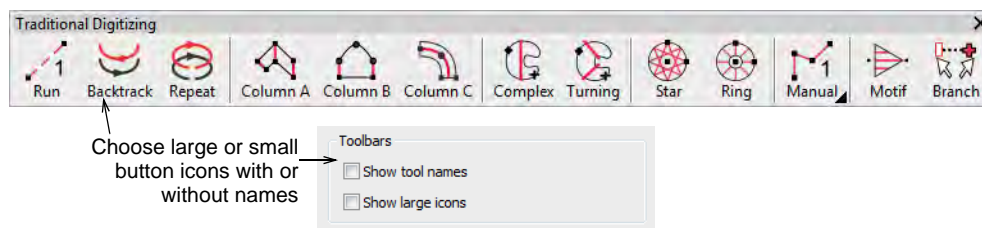
- ◀ Easily choose which thread charts to display.
- ◀ Dynamically sort thread colors in docker by numerical code or color shade.
- ◀ Locate desired colors using a color scroll.
- ◀ Enter color code to locate a specific color.
- ◀ Double-click to assign thread color to current palette slot.

Configurable toolbar display



Use Standard > Options to access application options for design view, grid & guides, and other settings.

EmbroideryStudio allows you the choice of large or small button icons with or without short names. See [Setting toolbar display options](#) in the User Manual for details.



Object selection

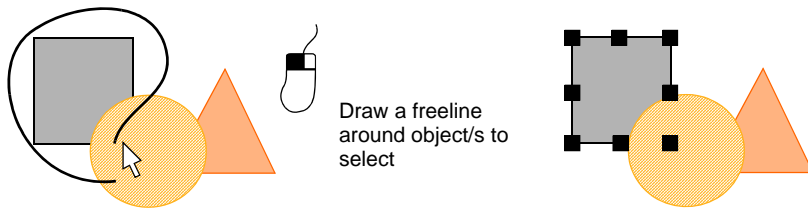


Use Toolbox > Select Tools > Select Object to select individual objects as well as groups or ranges of objects.



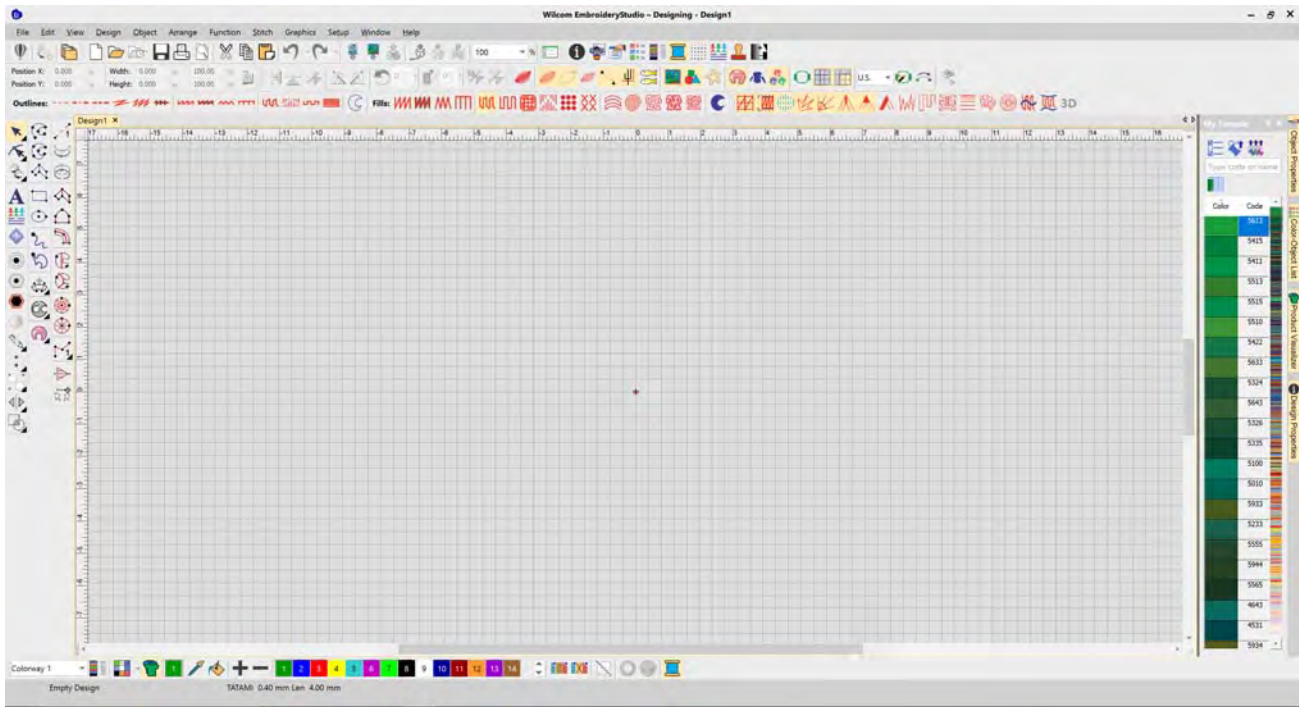
Use Toolbox > Select Tools > Freehand Select to select object at current by drawing a freehand line.

In addition to existing **Select** tools, the new **Freehand Select** tool allows you to draw a freeline around the object/s you want to select.



Support for 4K high-res monitors

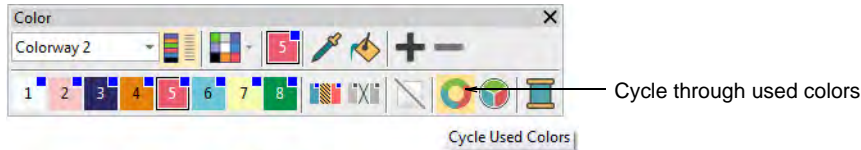
EmbroideryStudio e4.1 now provides support for 4K high resolution monitors. Buttons are large enough to be seen effectively providing effective use of the large graphic area.



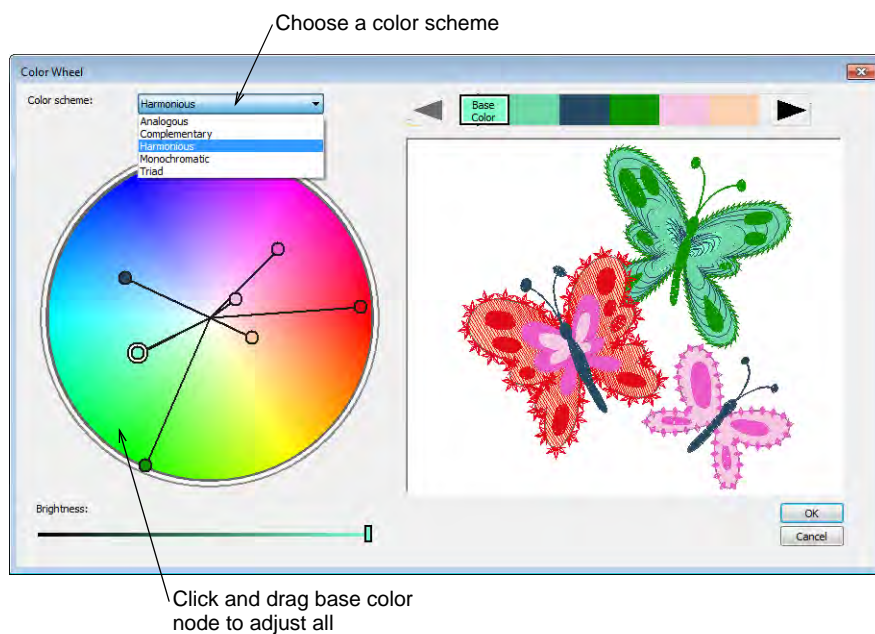
Quick recoloring

New tools allow you to quickly re-color entire designs. See also [Adding colorways](#) in the User Manual.

- ◀ The **Cycle Colors** tool lets you automatically re-color objects by swapping colors used in the design.



- ◀ Use the **Color Wheel** to cycle through different color combinations using preset color schemes – **Analogous**, **Complementary**, **Harmonious**, etc.



New Design Library

A powerful new **Design Library** is integrated into the main ES application, replacing the separate **Design Explorer** application used in earlier versions. **Design Library** is a major new capability included as standard in all EmbroideryStudio product models.

- ◀ Very quick to start up and browse designs, open, view, edit designs
- ◀ Much greater functionality for finding and managing your designs
- ◀ An integral part the new job Order management in ES e4.1

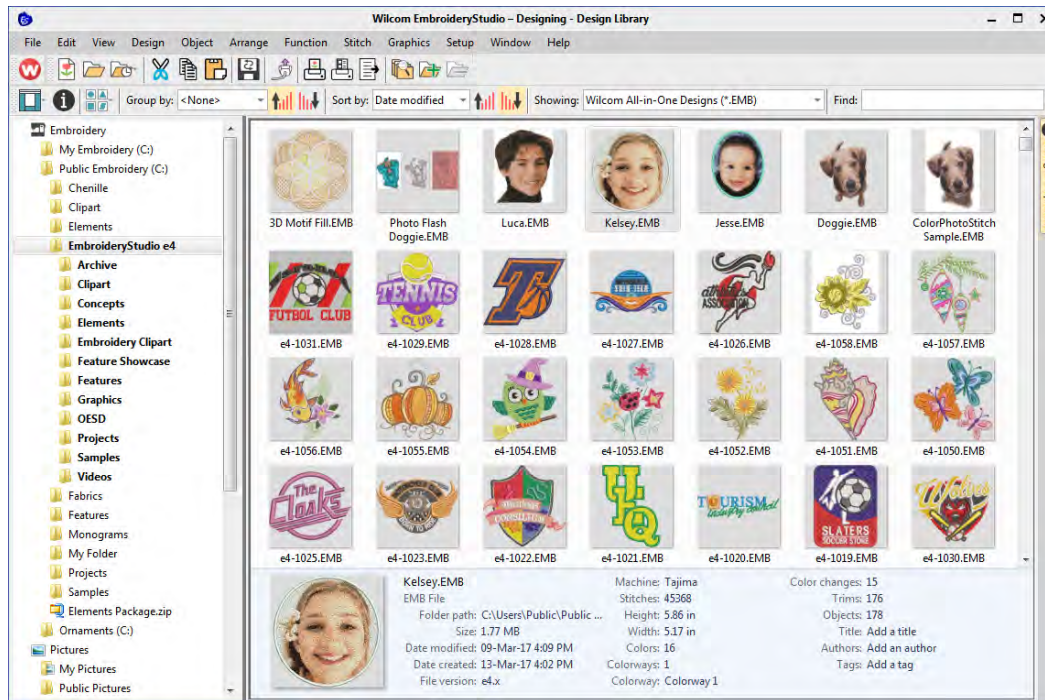
Design Library extends the Windows library feature far beyond what Windows Explorer does.

- ◄ Automatically finds and show only those folders with embroidery designs in them
- ◄ Choose to see all your designs in one window, regardless of what folder they are in,
- ◄ Group and sort your designs by customer, by order, by date, by folder...

With its fast and powerful search capabilities you'll never misplace another design:

- ◄ Fast search for designs by customer, name, description, date, order, any text...
- ◄ On my computer, on company network of computers, on machines
- ◄ Relating designs to customers and orders.

Design Library operates within the main ES window

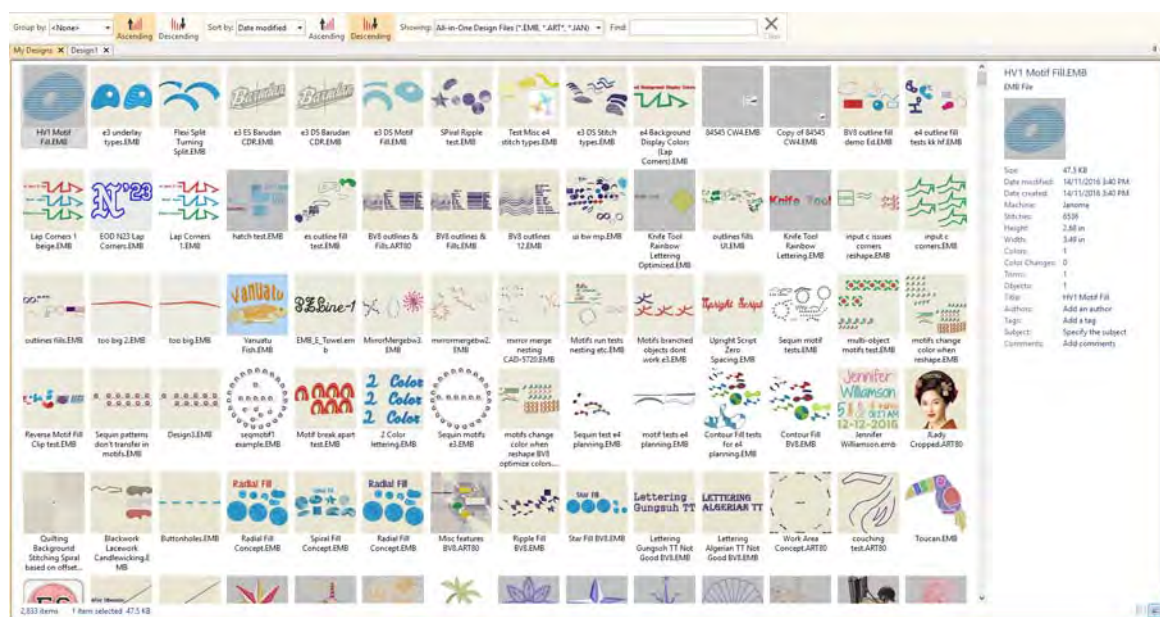


- ◄ Easily switch between open design window and the **Design Library**
- ◄ Library commands are in a toolbar at the top of screen
- ◄ Double-click to open a design for editing.

Design Library can show all designs in all folders

- ◄ Browse embroidery designs from all folders and sub-folders at the same time. Windows Explorer can only show designs in one folder at a time.
- ◄ Sort designs by date to see your most recent designs at the top, even if you can't remember what folder you put it in.

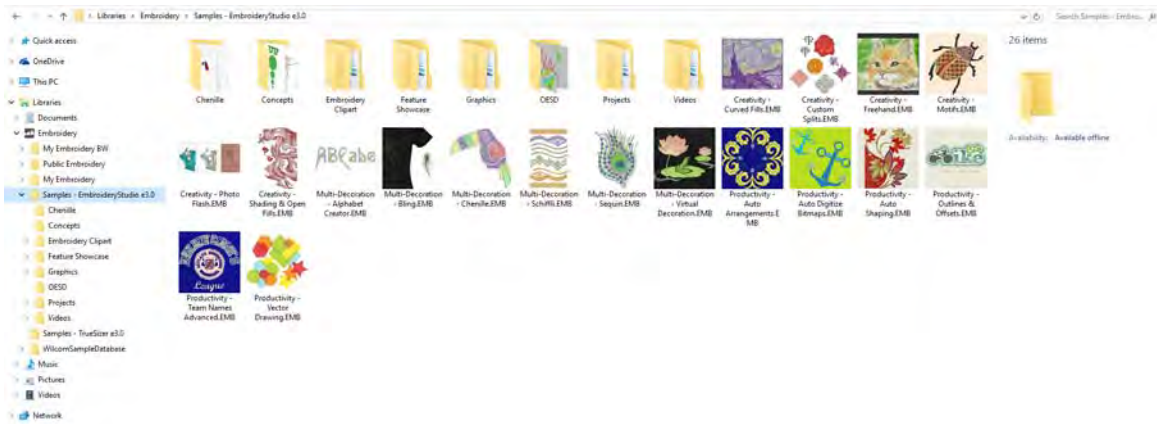
For your entire embroidery library... e.g. sorted by date descending



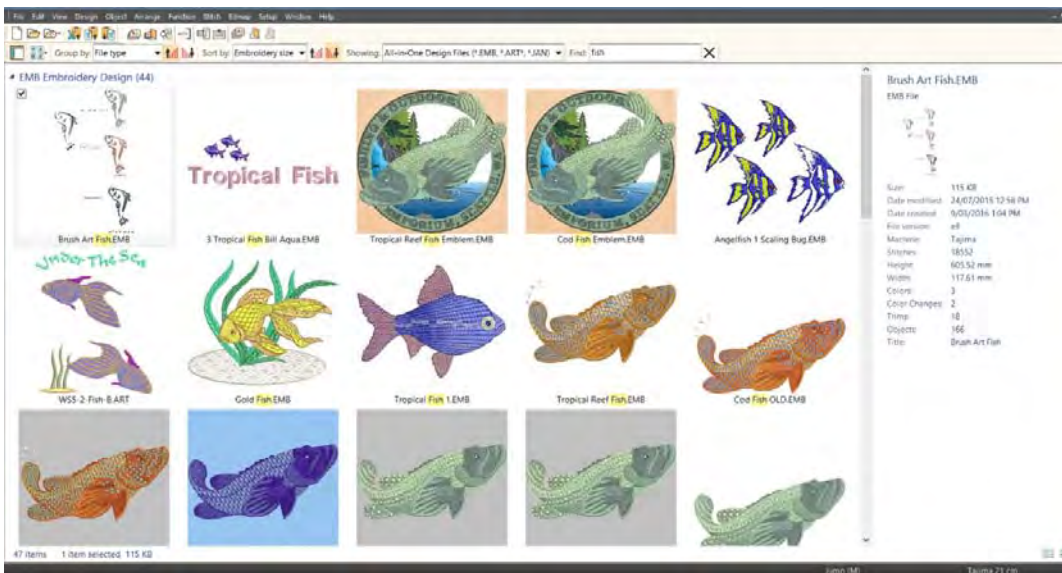
... or a Selected Portion of your Library... e.g. sorted by filename ascending



Windows Explorer shows only one folder at a time



Fast search for designs via any text in filename, folder, or design file properties



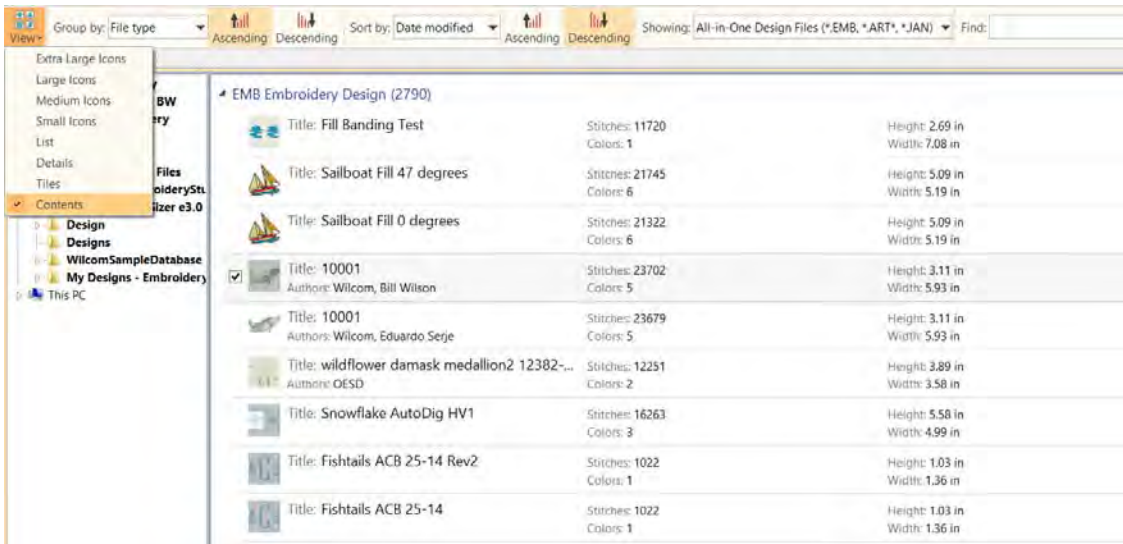
Powerful new search capabilities to find designs by text terms for all designs in the Library

- ✦ **Design Library** automatically indexes your design files for fast, free format searching
- ✦ Find designs with any text string in filename, folder name, or Design Properties
- ✦ group by various parameters – e.g. File Type in this example
- ✦ sort by various parameters – e.g. Embroidery Size in this case

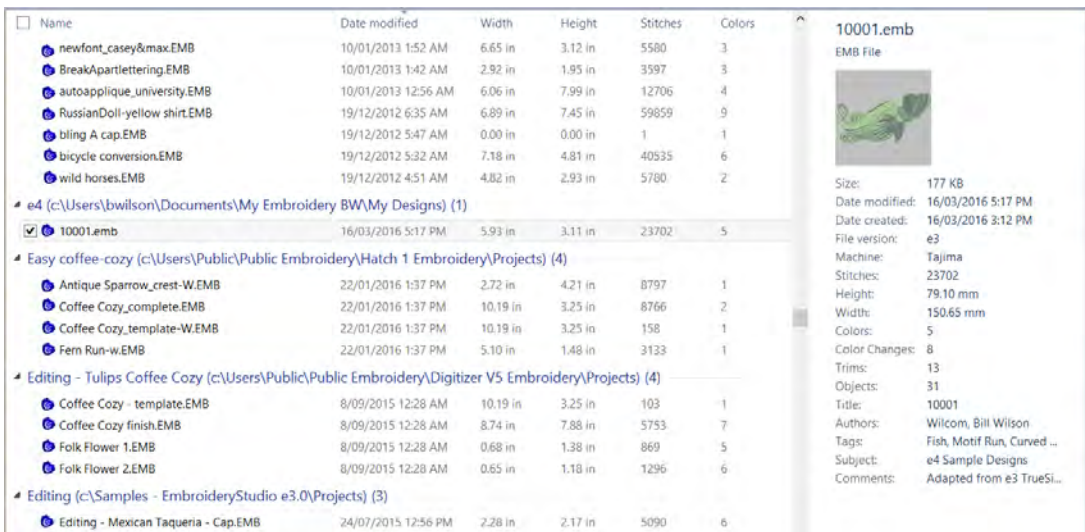
Display lists of designs in several different layouts

- ✦ Extra large Thumbnails, Large Thumbnails, Medium Thumbnails, Small Icons
- ✦ List, Details, Tiles, Contents,
- ✦ Customer, Order, Details

List designs with thumbnail and contents details



List designs in a table with user selected details visible



An integral part of the ES Order Job Feature

ES e4.1 extensions to the EMB file format include Quote/Order information. This makes the **Design Library** an integral part of the EmbroideryStudio Order Job Feature.

New EMB Job Order Details

EmbroideryStudio e4.1 software now stores basic embroidery job order information and design status right in the EMB design file. Together with the new **Design Library** system, this provides a practical and simple method of recording and managing custom embroidery jobs without the complications of a full order database system.

It is a simple approach oriented mainly for 'Custom Logo' type of commercial embroidery, where a custom design is required to be stitched on a specified garment in a defined location for a customer order.

A Production Job is one design on one garment

A 'production job' in the ES Job Order system is defined as:

- ◀ a specific embroidery design
- ◀ to be stitched on a specified Product, in a defined Position
- ◀ for a specified Order Quantity, broken down by Color / Size / Quantity
- ◀ for an order # for a specific customer on a specific order date.

A customer order might sometimes need multiple 'production jobs'. If so, you use a separate EMB design file for each 'job' in the order. To see all jobs for a specific order, you can list designs by order # or customer, etc.

Create and Manage Design Requests, Estimates, Approvals, Design Status

You can choose to enter values for the job Order fields, and then use **Design Library** to organize workflow for design requests, estimating, quoting, approval, scheduling, design status.

- ◀ Basic Design Requests with Artwork and Requested Details
- ◀ Advanced Design Requests with Garments and Logo Placement
- ◀ Improved Product Visualizer to visualize a design on a garment for an order
- ◀ Improved Design Approval Form
- ◀ Estimate Design Run Time and Job Time
- ◀ Use Design Status for Internal Workflow for Design Digitizing and Approvals

The EMB Order Job Feature is not a commercial order entry or production management database system. It uses the ES 'design management system' to view production job and order information saved with the EMB design. This allows custom embroidery jobs to be managed indirectly via the designs they use, without the complications or cost of a commercial database system.

Use the EMB Job Order Details to Prepare and Track Jobs

Embroidery sales and customer service staff can prepare and manage quotations and orders:

- ◀ create new design requests and enter job Order details in new or existing designs
- ◀ determine stitch estimates to help determine pricing for quotations
- ◀ display the artwork or digitized design on the product to be embroidered
- ◀ email Approval Sheets for design and quotation for an order/job to customers for approval
- ◀ track the status of designs and customer approvals
- ◀ release approved jobs for digitizing and/or production

Digitizing managers and staff can plan and manage digitizing designs:

- ◀ know what new designs to create or existing designs to modify by customer, order, date
- ◀ track and manage the internal checking status of newly digitized or modified designs
- ◀ track and manage previous and new designs by customer, order, date and other job details

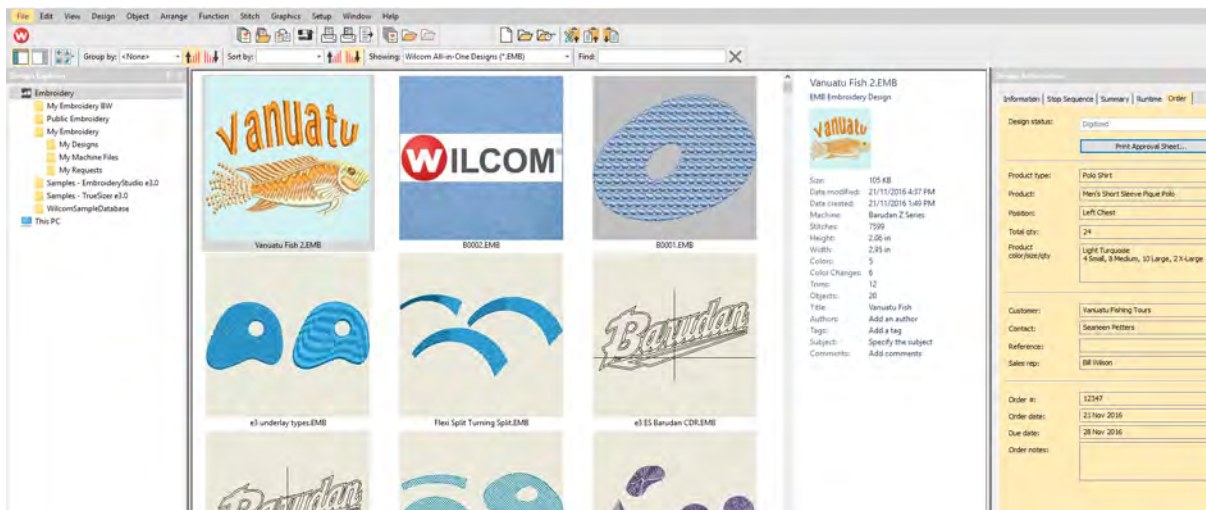
Production managers and staff can plan and manage production jobs:

- ◀ know when a new design / order is approved for production
- ◀ know what design to use for what order, and how many pieces to embroider on what products in what position, with color/size/ quantity details
- ◀ help plan production schedules from the order due date, design statistics, and job quantities

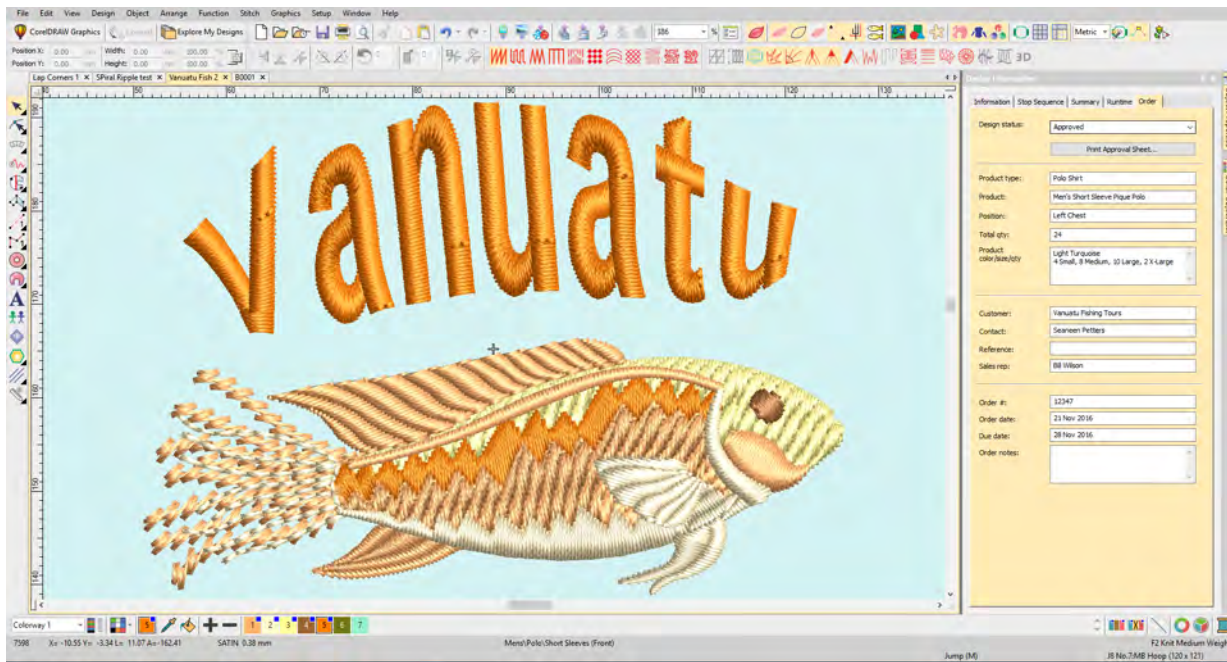
Manage Job Order details by EMB Design

- Staff enter basic job Order details and status into **EmbroideryStudio** and save it in an EMB design file
 - either a new EMB file which serves as a design request to be digitized
 - or an already digitized EMB design which is to be used for a new order
- Design Library** automatically indexes the designs with order and design details
- Staff use **Design Library** to view and manage designs and the orders/jobs they define
 - browse, list, or search for designs by various criteria
 - for customer, order, date, size, design name or description, etc
- Order / Job details are printed on Design Approval Sheets for customer approval
 - With easy emailing to customers for approval
- Order / Job Details are printed on Production Worksheets for production staff
 - With print to PDF to use for design work orders
- Staff use the design status to track and manage the workflow of a design or production job
 - eg List designs to be digitized
 - eg List designs waiting for customer approval
 - eg list designs ready for production, etc

See Job Order Details in Design Library



See and Edit Order Details Before or After Design is Digitized



List Designs with Order Details

Name	Title	Date	Design Status	Customer	Order #	Order Date	Order Due	Quantity	Product Type	Position
B0002.EMB	Wilcom Logo for Polos	21/11/2016 11:51 AM	Requested	Wilcom Int	12346	21 Nov 2016	28 Nov 2016	24	Polo	Left Chest
B0001.EMB	HV1 Motif Fill Title	14/11/2016 3:40 PM	Requested	Wilcom Int	12345	10/11/2016	28/11/2016	12	Polo Shirt	Left Chest

Use **Design Library** to Group/Sort designs by Order number to see them together.

Basic Job Order Details Stored in EMB File Properties

The order / Job details can be entered via the **Design Library** or the **Design Properties** dialog inside **EmbroideryStudio**. Basic order details are stored as EMB file properties. Any alphanumeric information can be entered. Fields include:

Field	Details
Filename	File name of the selected design. This will often be a number or alphanumeric format for easy cataloging.
Title	Defaults to filename. Add a more descriptive name for easy searching. This name appears on the approval sheet or worksheet.
Design status	Use 'design status' for digitizing and approvals. Most companies will want to define their own status types – e.g. 'Logged', 'Verified', 'In Progress', 'For Review', 'Approved'.
Print approval sheet	Takes you to Approval Sheet print preview directly. You have the option of sending to a printer, printing a PDF, or sending by email.
Design details	
Quote / Order #	Embroidery company's order number
Order date	Date the order was placed
Order due date	Date the completed order is due
Order notes	Notes about the order

Field	Details
Customer details	
Customer	Customer name and/or ID
Contact	Customer contact person
Reference	Customer reference / PO order or similar
Sales rep	Name of salesman dealing with the customer
Product details	
Product type	Garment or article type – e.g. Polo Shirt
Position	Position of design on the product
Quantity	Total number of pieces to be stitched with design
Product	Brand, style code, product name
Product colors	May include product color code or name.
Color / Size / Qty	Matrix of product color, size, quantity for the product

Job Order Detail is standard in all ES Product Models

All products in the EmbroideryStudio family of products (ES) include the **Design Library** and job order details as standard. Small shops would typically use **ES Decorating** for most staff. Digitizing staff would use either **ES Decorating** or **ES Designing** depending on the amount of digitizing they do. Customer service staff could use lower cost **ES Lettering**. Production Staff are better suited to **ES Editing**.

New Improved Design Approval Process

EmbroideryStudio introduces a much improved design and order approval sheet and process:

- ◀ Improved Approval print form displays main Order and Job details
 - ◀ Uses Improved Product Visualizer images
 - ◀ Includes Customer, Order, and other job details
 - ◀ Excludes stitch count for commercial confidentiality
 - ◀ Various improvements to the Print Options dialog
- ◀ Email PDF print file to customer for quote / approval
 - ◀ with automatic PDF filename
 - ◀ Print to PDF file on local network for easy staff reference
- ◀ Track approval status via 'Design Status' field in EMB file / **Design Library**

Improved Approval Print Forms with Job Order Details

Relevant order / job details previously saved in the EMB file are displayed on the design Approval Sheet.

◀ Design close up / actual size on page 1

Approval Sheet Wilcom EmbroideryStudio – Designing  Design: e4-0012 Title: Kennedy_Grammar_School_Logo		Height: 89.1 mm Width: 107.5 mm Colors: 4 Colorway: Colorway 1 Zoom: 1:1	Quote/Order #: 12345 Date: 03/02/2017 Kennedy Grammar School John Reevesby, Principal PO 5432	My Embroidery Company Sales rep: George Brown
				
	Product type: MensIPolo Product: Mens Polo Style1_Short Sleeves Total qty: 48 Product colors: Purple Position: Left Chest Color/Size/Qty: 12 Small, 24 Medium, 12 Large	Terms and Conditions: All designs created by Company Name are sole property of ... etc	Approved By: _____ Date: _____	
Authors: Bill Wilson		Design last saved : 17/02/2017 10:31:00 AM		Date printed: 20/02/2017 11:13:21 AM Page 1 of 2

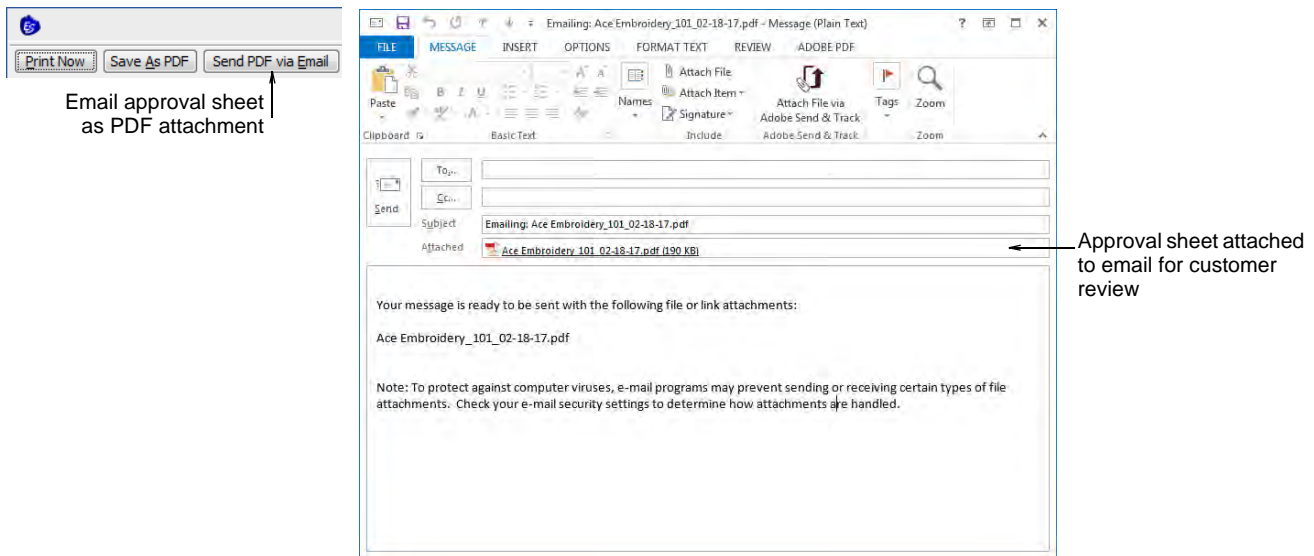
◀ Design on selected Product Image visualized on page 2

Approval Sheet Wilcom EmbroideryStudio – Designing  Design: e4-0012 Title: Kennedy_Grammar_School_Logo		Height: 89.1 mm Width: 107.5 mm Colors: 4 Colorway: Colorway 1 Zoom: 0.30	Quote/Order #: 12345 Date: 03/02/2017 Kennedy Grammar School John Reevesby, Principal PO 5432	My Embroidery Company Sales rep: George Brown
				
	Product type: MensIPolo Product: Mens Polo Style1_Short Sleeves Total qty: 48 Product colors: Purple Position: Left Chest Color/Size/Qty: 12 Small, 24 Medium, 12 Large	Terms and Conditions: All designs created by Company Name are sole property of ... etc	Approved By: _____ Date: _____	
Authors: Bill Wilson		Design last saved : 17/02/2017 10:31:00 AM		Date printed: 20/02/2017 11:13:22 AM Page 2 of 2

The changed information added to the Approval form in **EmbroideryStudio** includes:

- ❖ Customer, Customer Contact, Customer Reference
- ❖ Order Date, Sales Rep
- ❖ Product Type, Product Name, Product Color(s), Embroidery Position
- ❖ Total Quantity, Quantity by Color and Size
- ❖ Terms and Conditions text
- ❖ Signature Block for name and date approved
- ❖ Stitch count removed

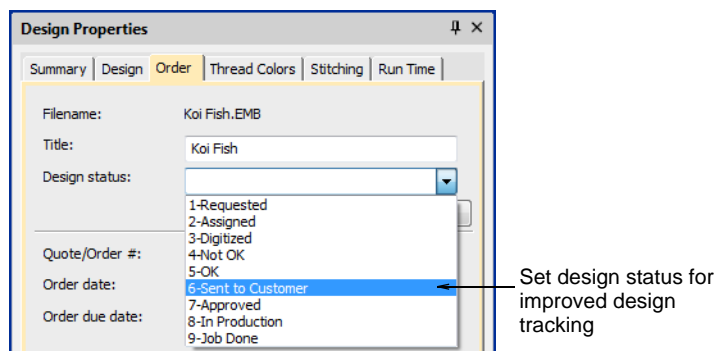
Email PDF of Approval Sheet to customer for approval



- ❖ Send approval forms via PDF to customer for approval.
- ❖ Add pricing and delivery details in covering email – not saved in EMB file
- ❖ Optionally Save PDF prints to local disk or network drive for staff access
- ❖ Optionally email and save PDF of Production Worksheet prints for production use

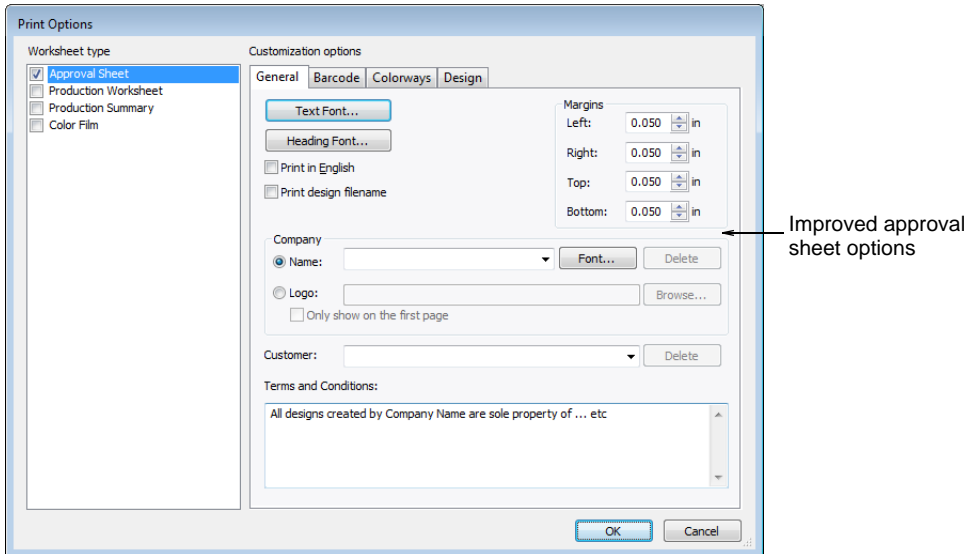
Track Status of Design Approval via Status field in EMB File

If desired, you can set/update the design status field in the **Design Information** docker. Then other staff can see and monitor the design approval status via **Design Library**.



Improved Print Options Dialog

Various improvements are made to the **Print Options** dialog to support improved **Approval Sheet**.



Improved Product Visualizer

A major improvement is made in EmbroideryStudio to the **Product Visualizer** – means to display a design on a garment or other product being embroidered. The key points are:

- ✦ New high resolution predefined product articles supplied in ES e4.1
- ✦ Defaults to 'Blank' 100 x 100mm embroidery area displayed in white. Resize and/or re-color if desired.
- ✦ Easier to select and use product images
- ✦ Locate product images anywhere in the design window
- ✦ Resize product images graphically or numerically
- ✦ Re-color product images
- ✦ Save product images in the EMB design file for viewing on any Wilcom system.

New High Resolution Re-colorable predefined product images



A new set of high resolution product images of common embroidered items is included with **Product Visualizer**. These include:

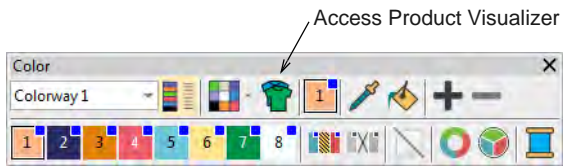
- ◀ Products with multiple views – front, back, and sides.
- ◀ Cropped versions of large items for easier presentation

Add your own pre-coloured or re-colourable product images



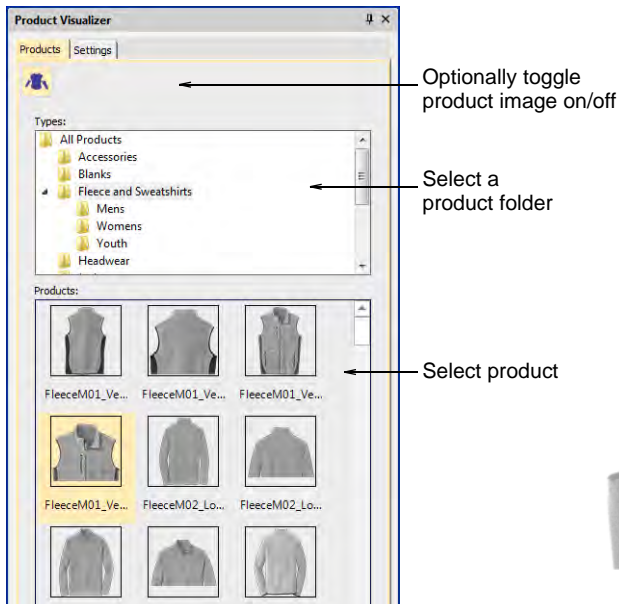
Easier to select and use Product images

Access Product Visualizer From Color Toolbar



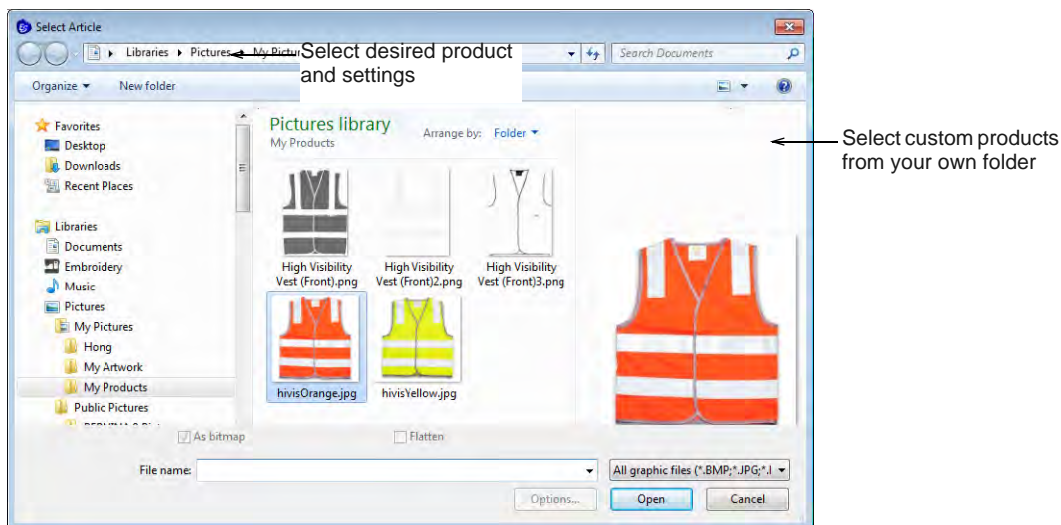
- ◀ Access the improved **Product Visualizer** via a button on the **Color** toolbar. See [Visualizing products](#) in the User Manual for details.

Select Desired Product and Setting from new Docker

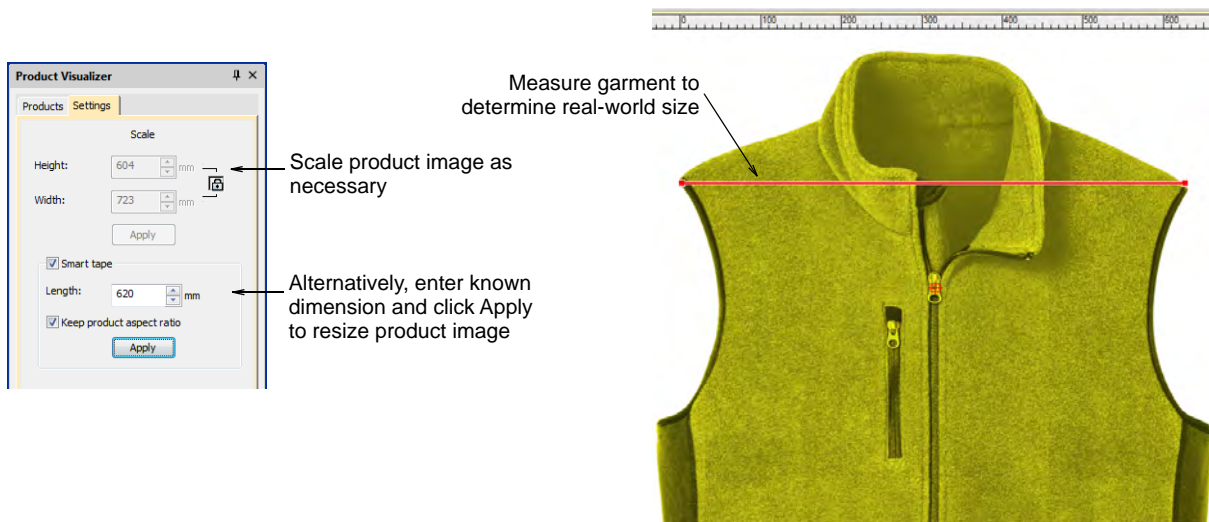


- ◀ Standard generic products are organized in folders by product type

Select custom products from your folder of product images



Re-color and Re-size Product Articles in the Settings tab



- ◀ Re-size a product graphically or use Smart Tape to use a specific a measurement
- ◀ Re-size a product by specifying the size in mm (rather than %)
- ◀ Re-size a product using Smart Tape to use a specific a measurement.

See [Visualizing products](#) in the User Manual for details.

Product Images are copied and saved in the actual design EMB file

- ◀ The product image goes with the design to anyone you send the EMB file to
- ◀ Unlike e3 EMB which only kept a reference to the product image filename.

New & improved lettering

In EmbroideryStudio e4.1, embroidery 'alphabets' are now referred to as 'fonts'. Native fonts are digitized for use with embroidery. Graphic TrueType fonts from Windows and other sources are converted to stitching upon use.

Additional lettering fonts of various styles

EmbroideryStudio e4.1 includes 32 new professionally digitized fonts, including:

- ◀ Mixture of normal embroidery fonts
- ◀ 3D foam fonts
- ◀ More and better running stitch fonts
- ◀ Outline fonts for sports lettering
- ◀ Two-color outline fonts
- ◀ Commercial logo fonts

- ◀ Double-color bordered fonts used for sports apparel and by hobbyists

ABCDEF abcdef
123456789

ABCDEF abcdef
0123456789

ABCDEF abcdef
123456789

ABCDEF abcdef
0123456789

See also [Embroidery Fonts](#) in the User Manual.

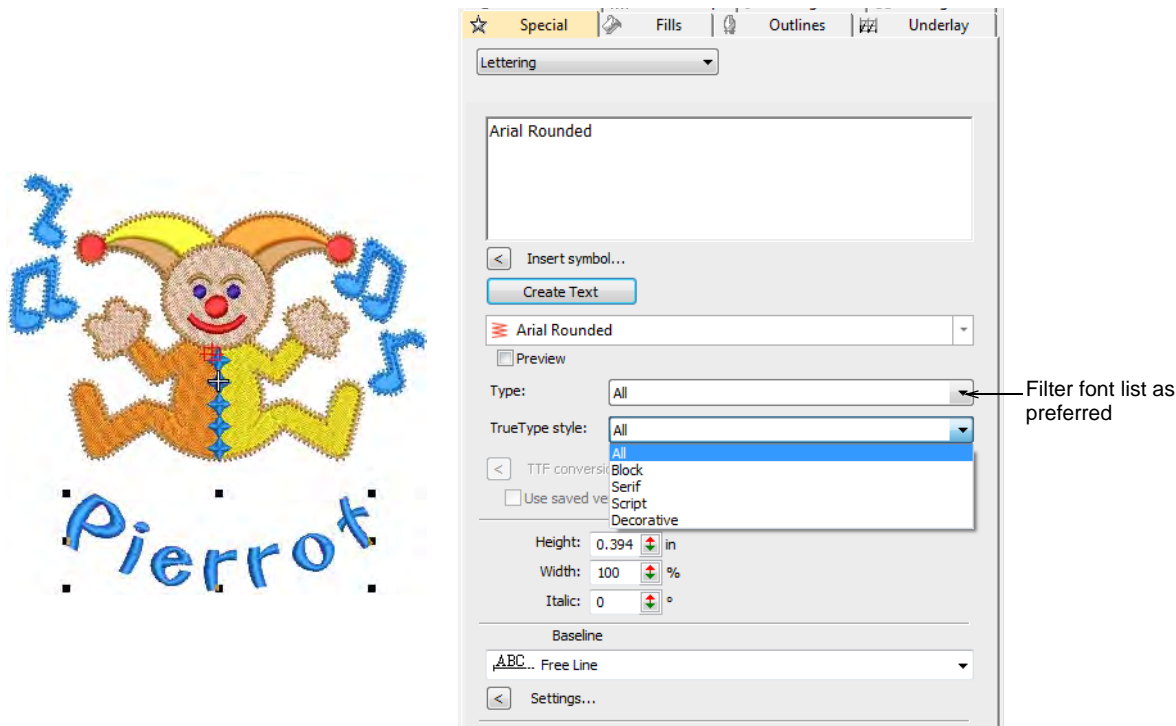
Improved font selection user interface



Use Toolbox > Lettering to create embroidery lettering directly on-screen. Right-click to access settings.

EmbroideryStudio e4.1 includes improvements in font selection. Fonts are listed in category groups for easier identification. This makes it easier to find a suitable font for a particular purpose in mind.


Also you can type the font name to select it from the list. The first few letters of the name will locate it in the list. See also [Creating embroidery lettering](#) in the User Manual.



Fonts are grouped as follows:

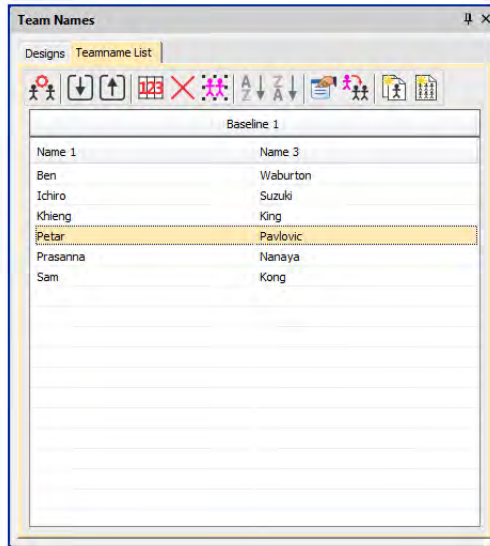
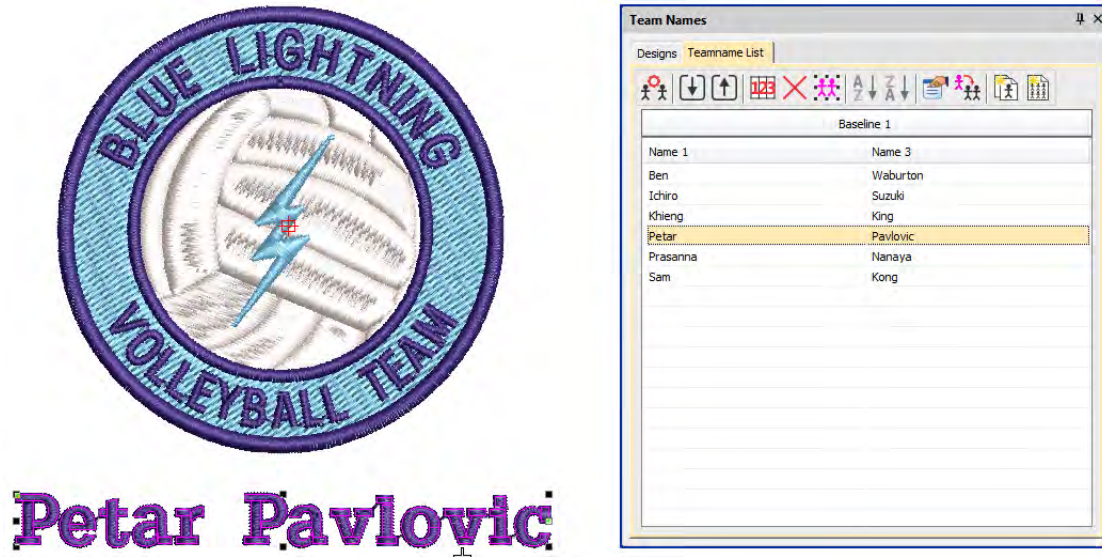
Category	Details
Type	Embroidery font, TrueType font (TT), OpenType font (OT)
Style	Block, serif, script, decorative, etc
Technique	Normal, Run stitch, 3D Foam, Chenille, Border, Monogram, appliqué, etc
User-defined	Custom font vs system font.

Improved Team Names feature

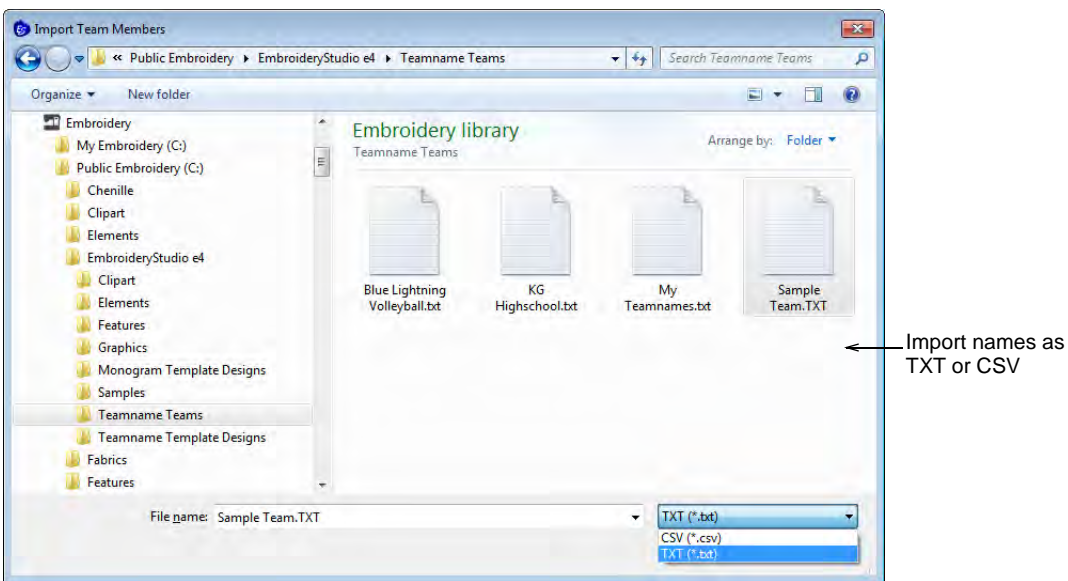
 Use Toolbox > Team Names to associate multiple names with a design.

Various aspects of the **Team Names** feature have been improved:

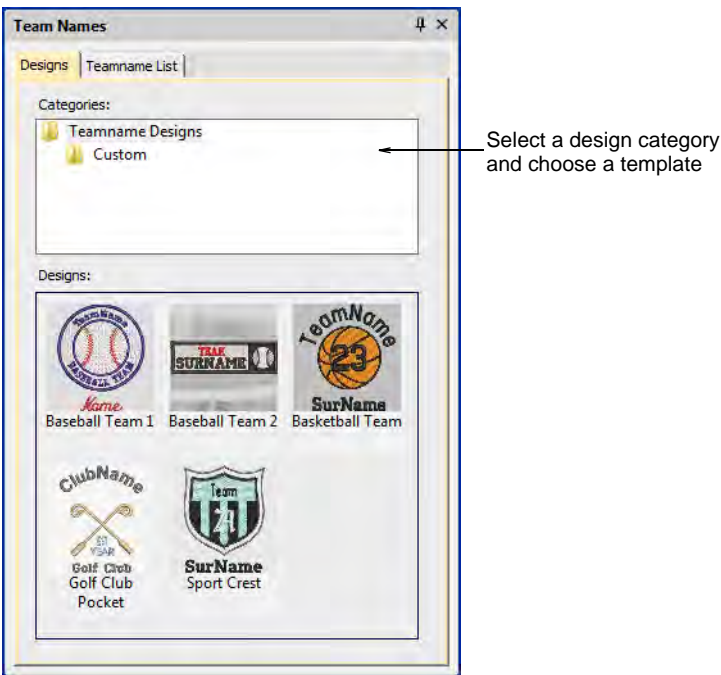
- Simple teamname lettering can be managed from a single docker. See also [Creating simple teamname designs](#) in the User Manual.



- Import and export lists of names from TXT or CSV file. See also [Managing teams](#) in the User Manual.



- For **Advanced Team Names** users, the mechanism for creating and employing single- or multi-baseline layouts, is now much easier via the dedicated **Team Names > Designs** tab. See also [Teamname templates](#) in the User Manual.



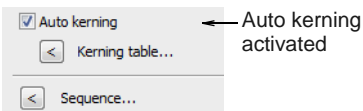
Note By default, the **Designs** tab includes a 'Custom' folder which is the default for all user-defined teamname templates. If you merge settings from an older version of the software, other folders may appear.

- Re-purpose designs for use as custom layouts via the **File > Save as Teamname Template** command.

Kerning tables for more fonts

Spacing kerning tables are now included for all fonts. Kerning is also the default spacing method. Kerning automatically adjusts spacing between pairs or triplets of letters. This can improve readability and appearance. Unlike character spacing, kerning is defined in the actual font. See also [Setting automatic letter kerning](#) in the User Manual.

HAVE A GOOD DAY
HAVE A GOOD DAY



Improved auto-digitizing of TrueType fonts

EmbroideryStudio e4.1 provides improved auto-digitizing of TrueType fonts. In particular, serif fonts and fonts with wide stroke letters.

New & improved monogramming

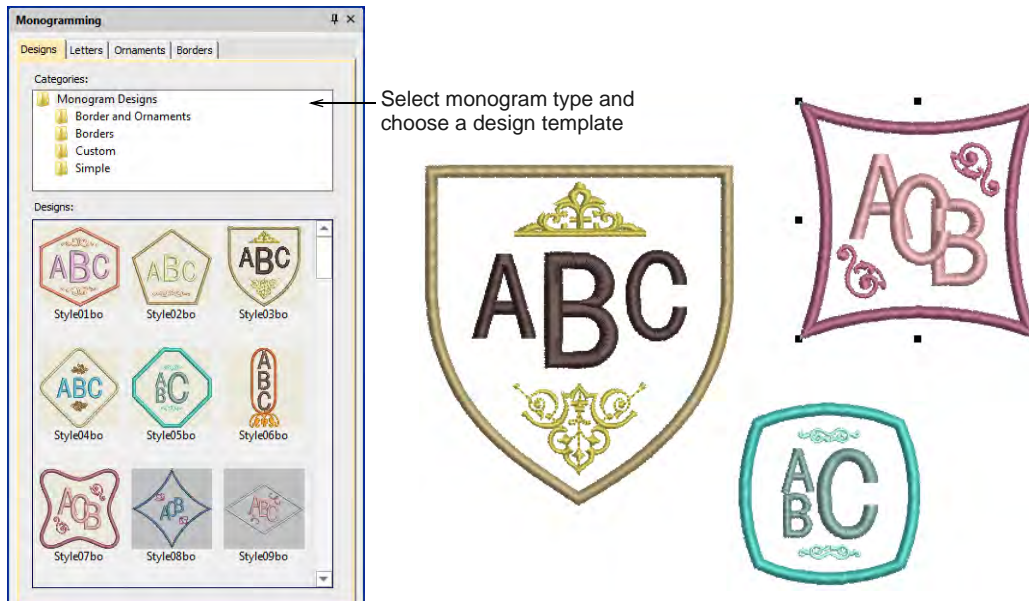


Use **Toolbox > Monogramming** to create personalized monograms using a selection of predefined monogramming styles, border shapes and ornaments.

You build monograms using the **Monogramming** docker. The simplest way to get started is with the new **Designs** tab. This gives you a selection of design templates ranging from lettering only, with borders, or with ornaments. The updated **Monogramming** docker also includes:

- ◀ 38 border shapes with many different stitch types
- ◀ More predefined styles including enveloped styles
- ◀ Increase to 8 border shapes and also with many different stitch types.

See also [Monogramming](#) in the User Manual.



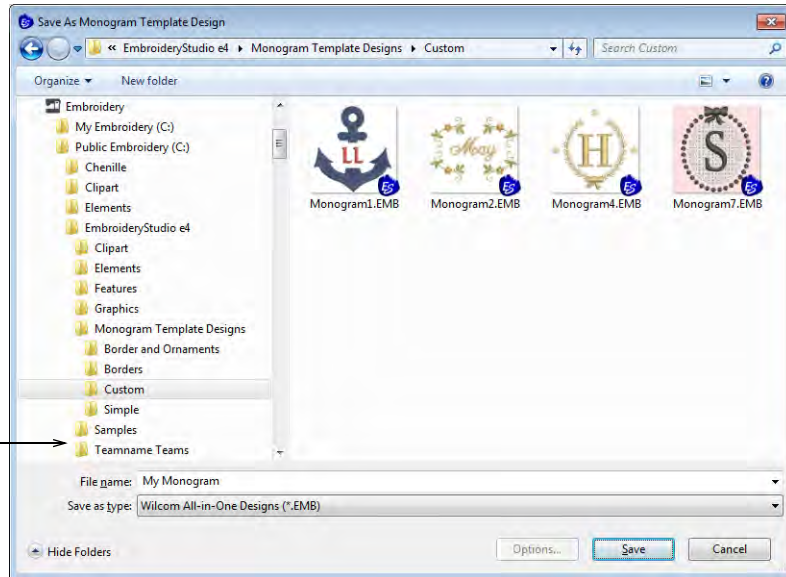
Monogram templates

EmbroideryStudio e4.1 also includes predefined monogram templates typical for commercial use. These contain layouts commonly used for typical items such as shirt pockets, cuffs, towels, and other popular items. If you want to save a design as a template for future use, use the new **File > Save**

as **Monogram Template** command. The design will appear in the **Designs** tab under the **Custom** folder.

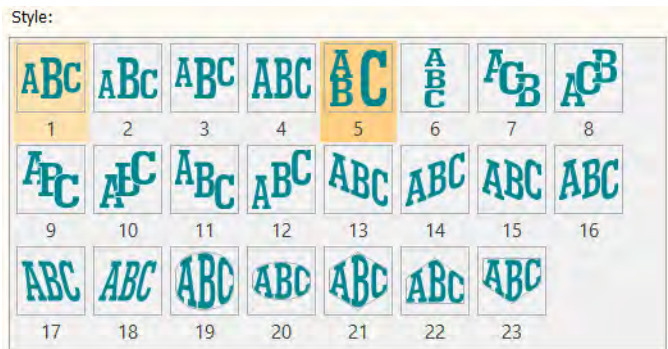


Enter a name for your
custom template



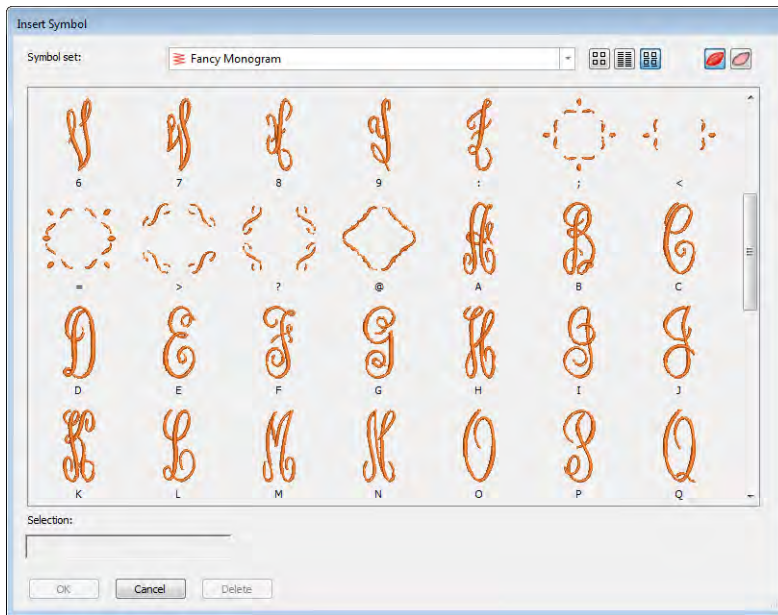
More styles

The **Monogramming** docker also includes more predefined styles including enveloped styles.



Easier use of borders and flourishes in monogram fonts

You can now select monogram ornaments from alphabet fonts. The size of ornament is set independently of the letters.



Greater control

You now have greater control of more advanced settings in monogramming styles. For example:

- ✦ Control of the size ratio of letters in styles. This replaces separate letter height parameters.
- ✦ Control of letter spacing for all styles.
- ✦ Option to remove underlying stitching where letters overlap.

New & improved digitizing

EmbroideryStudio e4.1 brings a huge increase in digitizing capabilities to all digitizing product models, especially for **ES Decorating** compared to **DecoStudio e3**.

- ✦ New graphics style plus traditional style digitizing
- ✦ New graphics style digitizing
- ✦ Improved traditional digitizing
- ✦ New **Basic Shapes** tool
- ✦ New standard stitch types
- ✦ New & improved technical stitching
- ✦ New & improved creative stitching
- ✦ Improved **Auto Appliqué**
- ✦ Improved **Add Border**

Everyone will appreciate:

- ✦ how much easier and obvious it is to digitize designs
- ✦ the many new combinations of any shape with any stitch type
- ✦ the ability to convert virtually any fill to any outline and vice versa with a single click.

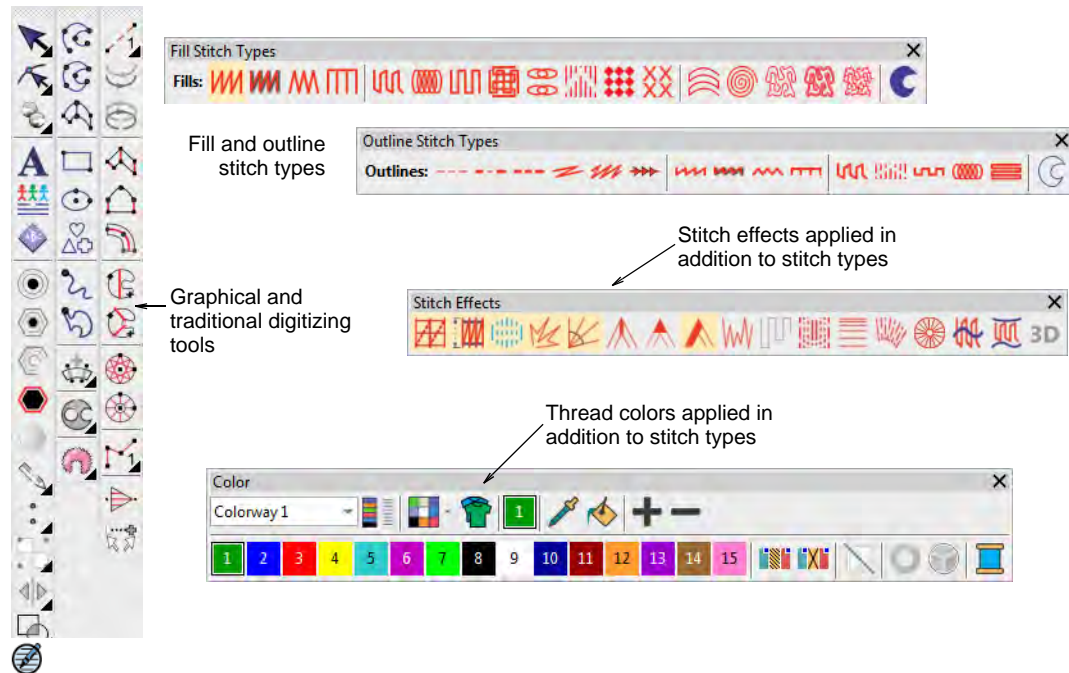
Production digitizers will appreciate:

- ✦ additional capabilities and control with traditional digitizing
- ✦ higher digitizing productivity

- ◀ flexibility that both approaches provide.

New graphics style plus traditional digitizing

EmbroideryStudio e4.1 has a new outline/fill digitizing paradigm similar to graphics applications. This should make digitizing easier and more obvious for beginners, and much easier to convert between outlines and fills generally. But don't worry, the new paradigm does not compromise the ability of professional digitizers to do the same 'power digitizing' they do now. If anything, digitizing should become that much easier. See also [Digitizing Shapes](#) in the User Manual.



Note Some optional features are shown. Not all tools are in all product models.

New digitizing user interface

The user interface now includes:

- ◀ an improved General Toolbox vertical toolbar at the left
- ◀ a new Graphics Digitizing Tools vertical toolbar
- ◀ an improved Traditional Digitizing Tools vertical toolbar
- ◀ a new combined outlines and fills Stitch Types toolbar
- ◀ an improved Stitch Effects horizontal toolbar

Everyone appreciates:

- ◀ how much easier and obvious it is to digitize designs
- ◀ the many new combinations of any shape with any stitch type
- ◀ ability to convert virtually any fill to any outline and vice versa with a single click.

Production digitizers appreciate:

- ◀ additional capabilities and control with traditional digitizing,
- ◀ higher digitizing productivity,
- ◀ flexibility that both approaches provide

New graphics digitizing style

The graphics approach to digitizing operates similar to graphics design programs. It provides one set of tools to create shapes to be stitched:

- ◀ on the shape as outlines, or
- ◀ inside the shape as fills, or
- ◀ both

Assign an outline or a fill to a shape by clicking on the desired stitch type in the new **Stitch Types** toolbar.

To create both an outline and a fill, create the fill first, then select and duplicate the object and convert the duplicate to an outline, which is stitched after the fill.

Standard in **ES Designing**, **ES Digitizing**, and **ES Decorating** products.

New graphics digitizing tools for both outlines and fills

The new **Graphics Digitizing Tools** toolbar provides one easy set of tools for digitizing shapes for either fills or outlines.

Standard graphics digitizing tools in **ES Decorating** include:

- ◀ Digitize Open Shape, Digitize Closed Shape, Digitize Columns (Column A),
- ◀ Rectangle (Square), Ellipse (Circle), Single Line

Additional graphics tools in **ES Designing** and **ES Digitizing** include:

- ◀ New **Basic Shapes** tool
- ◀ Freehand Open Shape, and Freehand Closed shape with the Freehand optional element.

Assign an outline stitch type to open or closed shapes created from any shape tools by clicking on the desired outline type in the new **Stitch Types** toolbar. Assign a fill stitch type to closed shapes in the same way.



New Stitch Types toolbar

Assign an outline stitch type to open or closed shapes created from any shape tools by clicking on the desired outline type in the new **Outline Stitch Types** toolbar.



ES Decorating includes 6 standard outline stitch types:

- ◀ Run stitch, Triple run, Satin stitch, Zigzag stitch, E Stitch, Vector Outline

ES Designing and **ES Digitizing** include 12 standard outline stitch types:

- ◀ The 6 outline stitches in **ES Decorating**, plus 6 more
- ◀ Backstitch, Stemstitch, Tatami outlines
- ◀ New **Sculpture** stitch, new **Satin Raised** stitch, and new **Square** stitch.

Satin, Zigzag, and E Stitch outlines automatically create a thick outline along the shape using the Column C object type. Use the rectangle and circle tools for outlines as well as for fills.

Assign a fill stitch type to a closed shape created from any shape tools by clicking on the desired fill type in the new **Fill Stitch Types** toolbar.



ES Decorating includes 6 standard fill types: Satin stitch, Zigzag stitch, E Stitch, Tatami, Motif Fill, Vector Fill.

Standard motif fill is a simplified motif fill for predefined motifs only, as in **DecoStudio e3**. Fully featured motif fill capabilities are provided as an add-on element for ES Designing and ES Digitizing only.

ES Designing and **ES Digitizing** include 10 standard fill types:

- ◀ The 6 fill stitches in **ES Decorating**, plus 4 more:
- ◀ New **Satin Raised**, new **Square** stitch, new **Double Square**, **Program Splits**

ES Designing and **ES Digitizing** offer a further 7 optional fill stitch types via various optional elements:

- ◀ New Satin Flexi Split, Cross Stitch, Contour, new Spiral
- ◀ Stipple run, Stipple Backstitch, Stipple Stemstitch.

No prompts for additional input with graphics style tools

Graphics digitizing tools do not prompt for additional input such as multiple boundaries (holes) or stitch angles. These are automatically set to sensible default values. If you want to change them, use the new hole tools, stitch angle tools, and reshape tool to adjust. This approach has the advantages of:

- ◀ Immediate stitching result after creating the shape
- ◀ Easier and more obvious especially for newcomers
- ◀ More capabilities with fewer tools.

New add or remove stitch angles and holes to fills

Filled objects default to straight parallel stitching (complex fill) at your preferred default stitch angle value.

- ◀ Change a parallel fill to turning fill with the Add Stitch Angle tool.
- ◀ Change a turning fill to a parallel fill with the Remove Stitch Angles tool.
- ◀ Use Reshape to adjust existing stitch angles in an object.

Filled objects default to a single boundary, no holes.

- ◀ Add holes to a filled object using Add Hole tool
- ◀ Remove all holes from a filled object with Remove Holes, or
- ◀ Fill all holes in a filled object with Fill Holes.

See also [Adding & filling holes](#) in the User Manual.



New vector drawing standard with graphic digitizing tools

Use the same graphic digitizing tools to create shapes for vector objects (no stitching).

- ◀ Select Vector Outline from the Outline Types toolbar, or
- ◀ Select Vector Fill from the Fill Types toolbar
- ◀ Use Object Properties to set both Outline and Fill properties for the same object.

Vector drawing is standard in e4 **ES Decorating**, **ES Designing** and **ES Digitizing**, not optional as in e3. See also [Creating vector shapes in EmbroideryStudio](#) in the User Manual.

Improved traditional digitizing

Traditional style digitizing is standard in **ES Designing**, and **ES Digitizing** products. It is not available in **ES Decorating**. Graphics style digitizing is also provided, so you can use both as desired.

What do we mean by traditional style of digitizing?

The traditional style of digitizing is different from typical graphics design programs:

- ◀ Separate sets of input tools for outlines, for fills
- ◀ Explicit selection of which object / calculation method is used
- ◀ Emphasis on digitizing shapes with corner and curve points – limited standard shapes
- ◀ Prompts for additional input for each object.

The traditional style of digitizing has evolved to follow historical embroidery digitizing practices:

- ◀ Experienced digitizers can digitize faster and with greater control
- ◀ Newcomers can master it also but require more time to learn.

Prompt for additional input for each object

Traditional digitizing tools prompt for additional input for multiple boundaries (holes), stitch angles, and start and end points for each object. Pressing **Enter** will bypass an input and take the default value if desired. This approach has the advantages of:

- ◀ More control for the professional who wants to decide the best for each object
- ◀ Much quicker to specify when digitizing the shape than coming back to edit it with other tools.

Simplified set of traditional digitizing tools

EmbroideryStudio e4.1 has a simplified and rationalized set of traditional digitizing tools, re-named more consistently.

- ◄ 1 dedicated Run Tool for digitizing running stitches - whether decorative or travel runs
 - ◄ With Backtrack and Repeat tools beside for quick access
- ◄ 3 traditional 'Column Fill' digitizing tools:
 - ◄ Column A (previously Input A)
 - ◄ Column B (previously Input B)
 - ◄ Column C (previously Input C - centerline)
- ◄ 2 traditional 'Area Fill' digitizing tools:
 - ◄ Complex Fill - for parallel fill of simple or complex areas
 - ◄ Complex Turning Fill - for turning stitching of simple or complex areas (previously Fusion Fill)
- ◄ 4 specialty fill tools:
 - ◄ Star stitching of circle/oval
 - ◄ Ring stitching of circle/ovals
 - ◄ Manual Stitch and Triple Manual



Independent stitch types for traditional digitizing tools

Column Fill tools default to Satin stitch and will automatically remember this or any other fill stitch you choose for them, independently of Area Fill tools.

Area Fill tools default to Tatami stitch and will automatically remember this or any other fill stitch you choose for them, independently of Column Fill tools.

The Run Tool is always set to Run Stitch type. It does not change to the other outline stitch types. So you can swap between the Graphics digitizing tools (e.g. Digitize Open Shape) for all outline stitch types, and quickly return to Run tool for travel runs without changing stitch type.

Best of both worlds in ES Designing and ES Digitizing

EmbroideryStudio e4.1 maintains and improves on the advantages of the traditional approach to digitizing while also offering the increased flexibility and ease of use of the graphics approach to digitizing. Mix and match to suit each case. Use traditional style digitizing tools:

- ◄ for the dedicated run stitch tool, especially for travel runs between objects
- ◄ for digitizing column fills in any of 3 methods - A, B, or C
- ◄ for digitizing complex fills parallel or complex turning fills
- ◄ for specialty stitch techniques such as manual stitch, star and ring, backtrack & repeat.

Use graphics style digitizing tools:

- ◄ for digitizing open or closed shape outlines with the wide variety of outline stitch types
- ◄ for creating generic shapes such as rectangle, circle, standard shapes – for outline or fill
- ◄ for converting between outlines and fills
- ◄ for creating vector objects.

New standard stitch types

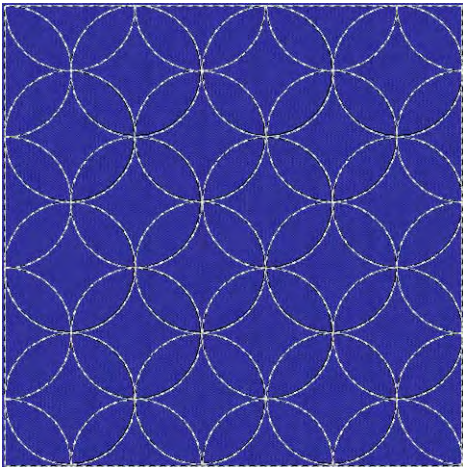
EmbroideryStudio e4.1 provides four new standard stitch types in ES Designing and ES Digitizing.

New Sculpture Outline stitch



Use Outline Stitch Types > Sculpture Outline to create a thick-thin outline alternating single and triple stitches for a hand-stitched look.

For a more hand-stitched appearance, use the new **Sculpture Outline**. This variant stitch type alternates single and triple stitching for a thick-thin outline. Alternating single and triple straight running stitches, gives a hand stitched look. See also [Simple outline stitching](#) in the User Manual.

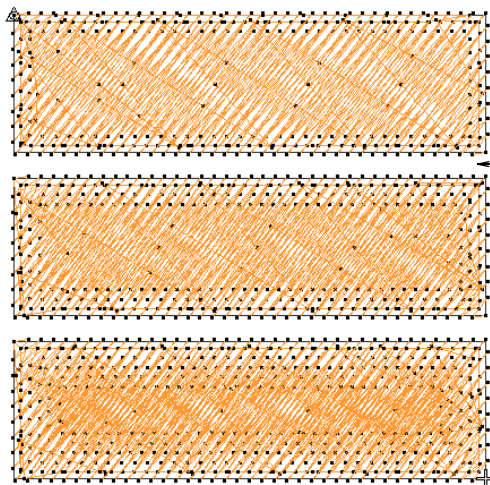


New Satin Raised stitch



Use Fill Stitch Types > Satin Raised to create raised surfaces – can be applied to lettering or used with trapunto for quilting effects. Right-click for settings.

- ◀ Automatic multiple layers of overlapping satin stitching for a 3D look
- ◀ For both fills and outlines (Column C)



Set raised satin
count for more or
fewer layers

See also [Satin stitching](#) in the User Manual.

New Square stitch



Use Outline Stitch Types > Square to create open borders or columns of even width for an open ‘toothed’ effect. Right-click for settings.



Use Fill Stitch Types > Square to create open straight parallel fills. Right-click for settings.

- ◀ Square end open run style fill
- ◀ For both fills and outlines

- ◀ Useful for digitizing underlays as an object on their own for special cases.



See also [Chenille-type patterns](#) in the User Manual.

New Double Square stitch



Use Fill Stitch Types > Double Square to create grid fills. Apply closed shapes.

- ◀ Two layers of square end open run style fill
- ◀ At a selected angle to each other - default 90 degrees
- ◀ Useful for digitizing underlays as an object on their own for special cases.

Basic Motif fill Standard



Use Fill Stitch Types > Motif Fill to create decorative fills using embroidery motifs to form repeating patterns. Right-click for settings.

- ◀ In ES Decorating/Designing/Digitizing
- ◀ Additional predefined motifs included

Standard motif fill is a simplified motif fill for predefined motifs only, as in **DecoStudio e3**. Fully featured motif fill capabilities are provided as an add-on element for ES Designing and ES Digitizing only. See also [Motif fills & borders](#) in the User Manual.

New & improved technical stitching

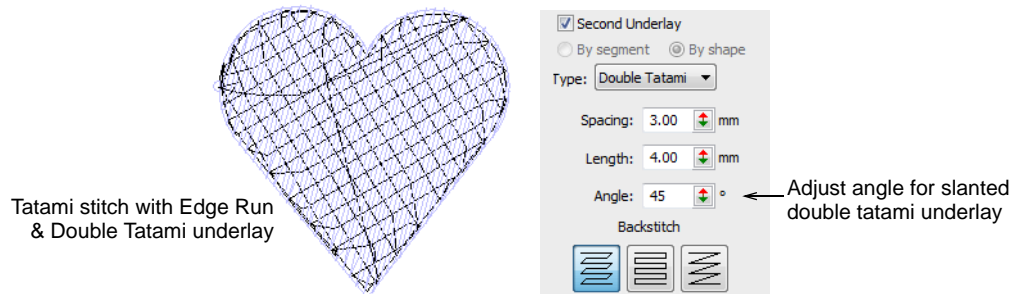
EmbroideryStudio e4.1 brings the following improvements in technical stitching for ES Designing and ES Digitizing.

New & improved automatic underlay

EmbroideryStudio e4.1 brings important improvements in automatic underlay.

- ◀ Default tatami underlay stitch angles: 90° to top stitch when single layer tatami. 45° when using a double layer tatami (net fill).
- ◀ For extra support with very soft or elastic fabrics, try using **Double Tatami** in combination with **Edge Run**. Adjust stitch angle so that **Double Tatami** provides symmetrical slanting in forward

and backward directions. This should result in a 'cross-hatch' effect. In addition, it can give a raised surface similar to 'puff embroidery'.



- When **Auto Fabric** is turned on, a default underlay is applied, based on fabric settings. When **Auto Fabric** is turned off, an underlay is still applied but it is based on the digitizing method. Previously, with **Auto Fabric** turned off, underlay was not applied to newly digitized objects. See [Stabilizing with automatic underlay](#) in the User Manual for details.

Improved quality of Lap corners



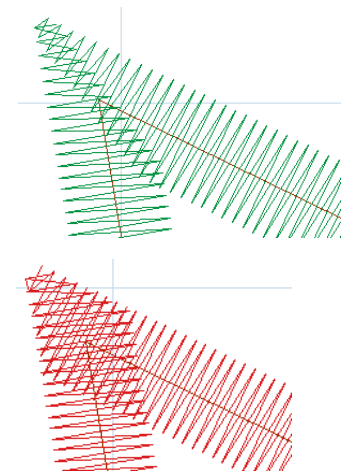
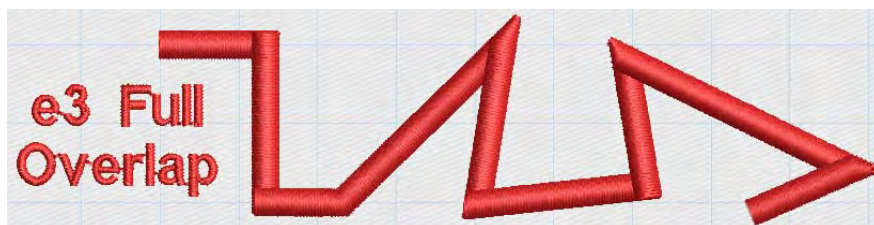
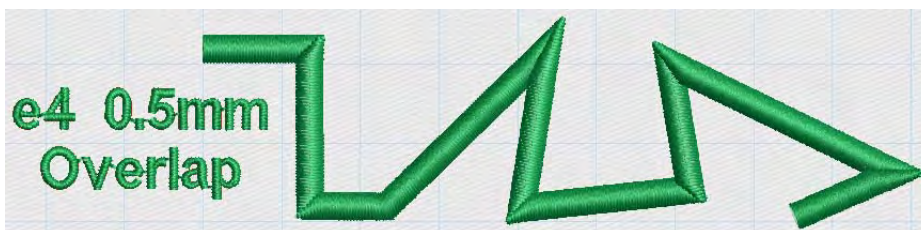
Use Stitch Effects > Lap Corners for 'Tidori' style stitching. Right-click to adjust settings.

Lap overlaps for satin stitching have been reduced for a better appearance and less chance of poking out. This saves time on manual editing or re-digitizing. The **Lap Corners** feature has been significantly extended and improved in ES e4.1. It provides better technical stitching as well as new creative stitching effects. Together these make the feature more usable in more cases, helping reduce manual digitizing times. The main changes are:

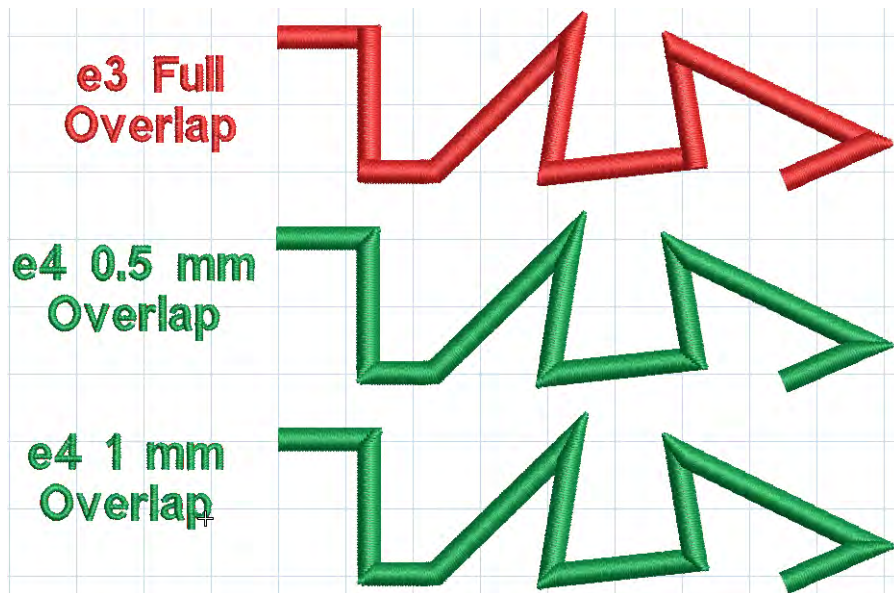
- Choice of full overlap or split overlap methods, object-by-object.
- Improved 'Full Overlap' method – flat curve intersections
- New 'Split Overlap' method with:
 - Variable amount of overlap at the corner
 - Sharper corner geometry for curved shapes.

Lap Corner Split Overlaps

The new 'Split Overlap' method provides a selectable amount of overlap between the two parts of a lapped corner. This is similar to a mitre corner, but with different stitching. See [Controlling corner stitching](#) in the User Manual for details.

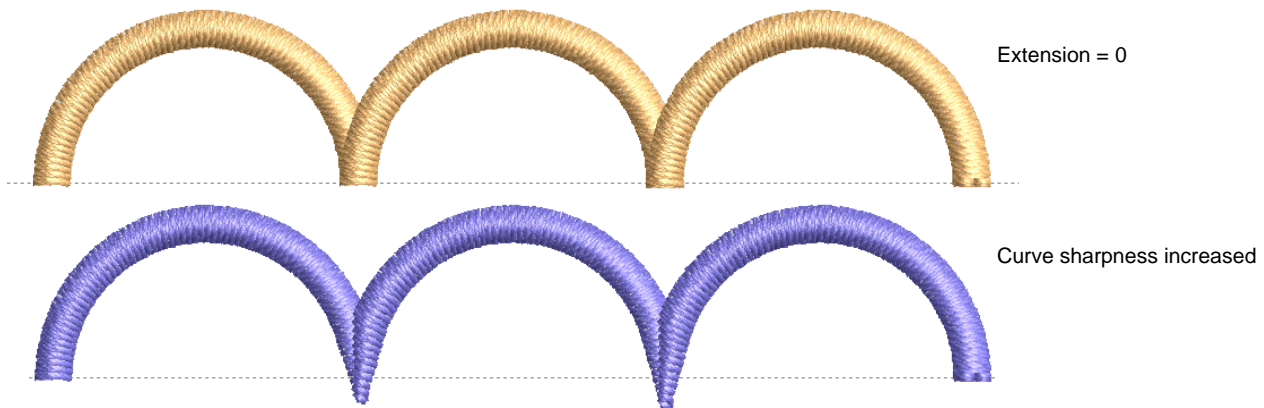


Variable amount of overlap in lapped corners is possible.



Improved Lap Corner Curve Extensions

The existing e3 **Lap Corners** method continues to provide a 'full overlap' of segments at a corner. A new 'flat corner' effect for digitizing curved scallop shapes is now possible. Curve shapes can have flat full or selectable pointed split overlaps. See [Controlling corner stitching](#) in the User Manual for details.



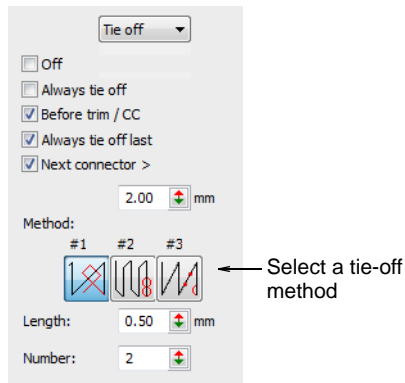
Improved tie-off stitching

Tie-offs with satin stitching can cause problems in some cases such as:

- ◀ Becoming visible in the stitchout
- ◀ Coming undone
- ◀ Sticking out beyond the shape.

The software includes a new tie-off method. Existing methods remain in place as well. The new #3 method splits the second-last stitching line into three equal stitches. It also adds a specified number

of small stitches between the last two stitching lines. It is generally used with dense fills. See [Adjusting automatic tie-off settings](#) in the User Manual for details.

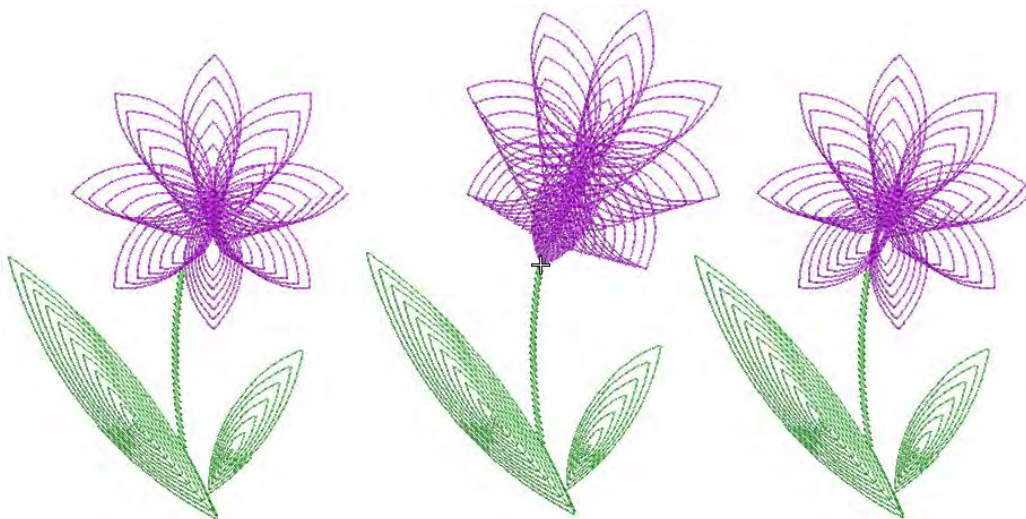


New & improved creative stitching

EmbroideryStudio e4.1 brings the following improvements in creative stitching for ES Designing and ES Digitizing.

Spiral fill

Spiral Fill is a new add-on Element available in ES Designing and ES Digitizing only. It works best with simple shapes that can be stitched in a single segment without holes or islands. Use it with either fixed or variable length run stitching. With longer shapes, it may generate stitches that go outside the perimeter of the object, but this can provide for some interesting visual effects.



Different stitch types can be used – sculpture, backstitch, stemstitch, or run stitch. Similarly, basic spiral fills can be converted to outlines such as motif run, satin outline, sequin run, and bling run. See also [Creating spiral fills](#) in the User Manual.

Radial fill



Use Stitch Effects > Radial Fill to create radial turning stitching with available stitch types.



Click Reshape > Reshape Object to view the reshape nodes of a selected object.

New **Radial Fill** creates radial turning stitching in either **Satin** or **Tatami** objects. Stitches are generated from the outside edge to the geometric center. The center can be shifted. The effect may be on or off while digitizing. Shaping operations such as **Mirror Merge** or **Remove Overlaps** preserve the effect. See also [Creating radial fills](#) in the User Manual.

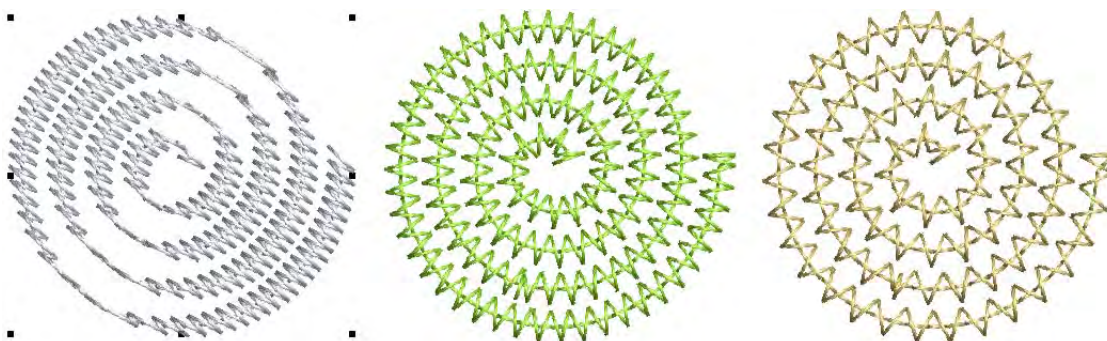


Zigzag outlines



Use Outline Stitch Types > Zigzag run for narrow, open borders with a 'zigzag' effect.

New zigzag outline stitch creates V-shape stitching whereas satin outline creates N-shape stitches. See also [Open fills & borders](#) in the User Manual.



Features:

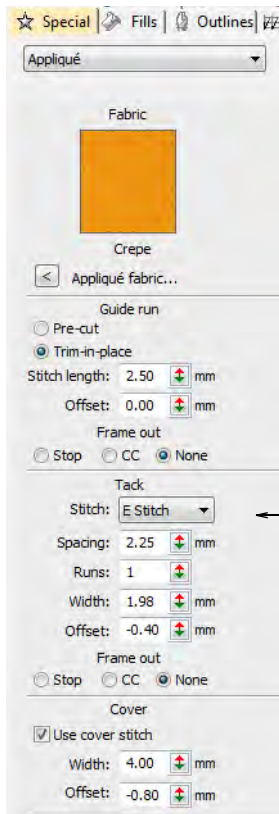
- ◀ Zigzag stitch spacing and width independent of satin parameters
- ◀ Works with automatic corner processing.

Improved Auto Appliqué

EmbroideryStudio e4.1 includes the following improvements to auto appliqué:

- ◀ Full choice of cover stitches, including no cover stitch.

- ◀ Full choice of tackdown stitch types with parameters.



← Full choice of tackdown stitch types



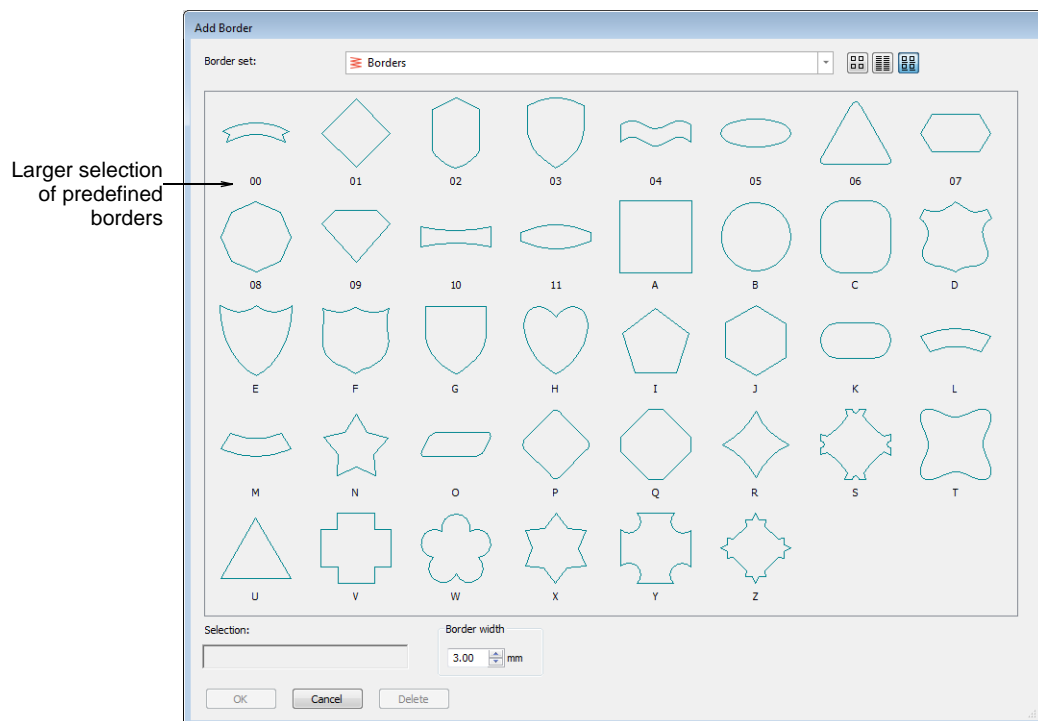
Note Cover stitch is generally a satin border around the appliqué shape. For more or less dense cover stitching, you can now change stitch types via the **Object Properties > Fill** tab. See [Creating appliqué embroidery](#) in the User Manual for details.

Improved Add Border



Use **Toolbox > Add Borders** to add borders to designs (or selected objects) with or without lettering.

The **Add Borders** tool provides a greater selection of predefined border shapes. These are also available via the **Graphics Digitizing** toolbar as a **Basic Shapes** gallery. See [Adding design borders](#) in the User Manual for details.



Dim graphics



Use **View > Show Graphics as Dimmed** to dim graphic backdrops to show stitches more clearly for digitizing.

Click the new **Show Graphics as Dimmed** button to dim the onscreen image to view stitches more clearly when digitizing. The command applies both to bitmap and vector graphics.



Vector graphic together with bitmap image



New & improved automatic digitizing

EmbroideryStudio e4.1 offers major improvements in automatic digitizing. In particular, note the improvements in the practicability and quality of auto-digitized artwork for commercial use:

- ◀ Auto-digitize in EmbroideryStudio from bitmap or vector formats without relying on CorelDRAW Graphics.
- ◀ Enjoy better control of embroidery effects used in different objects.

EmbroideryStudio also includes the new **Color PhotoStitch**, provided as as part of **Photo Flash** add-on Element for specialty and custom photographic work.

Improved vector & bitmap auto-digitizing

EmbroideryStudio e4.1 offers improved auto-digitizing both from CorelDRAW Graphics and from Wilcom Decoration. Wilcom bitmap auto-digitizing uses the same techniques as the API, with more user control over parameters.

Better image processing

- ◀ New **Instant Smart Design** provides one-step bitmap auto-digitizing
- ◀ Auto-determination of turning stitches for general shapes as well as fonts
- ◀ Improved auto-determination of appropriate stitch types and fill methods for generated objects
- ◀ Better quality results and fewer complex fill segments
- ◀ Default fill angle changed to 45°.

Improved vector auto-digitizing

EmbroideryStudio e4.1 now provides direct conversion of vector graphics from within Wilcom Decoration. Key features:

- ◀ Ability to select vector objects in Wilcom Decoration and choose to auto-digitize them directly
- ◀ Same vector shape conversion and mapping as now from CorelDRAW Graphics
- ◀ Mapping of vector object properties to embroidery object properties
- ◀ Mapping of gradient colors to solid colors
- ◀ Optionally designate objects for different types of digitizing – e.g. turning fills vs complex fills, etc

Automated stitch estimates

EmbroideryStudio e4.1 provides automated stitch estimates by auto-digitizing artwork. This is easy for customer service staff to do. The result is designated as 'Preliminary' stitching.

Improved image preparation



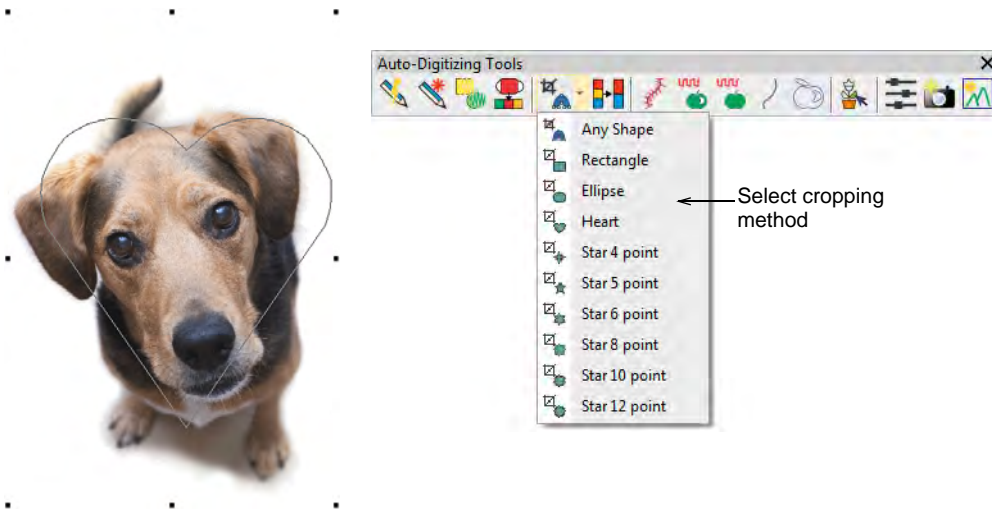
Use Auto-Digitize > Crop Bitmap to crop bitmap artwork for use with auto-digitizing.



Use Auto-Digitizing > Adjust Bitmap to adjust image lightness and contrast.

EmbroideryStudio provides ready access to cropping and touch up functions. The functions are still available from the **Graphics** menu but can now be readily accessed from the **Auto-Digitize** toolbox.

The **Crop Background** tool opens a new **Crop** toolbar which in turn provides ready access to all cropping functions. See also [Preparing artwork for digitizing](#) in the User Manual.



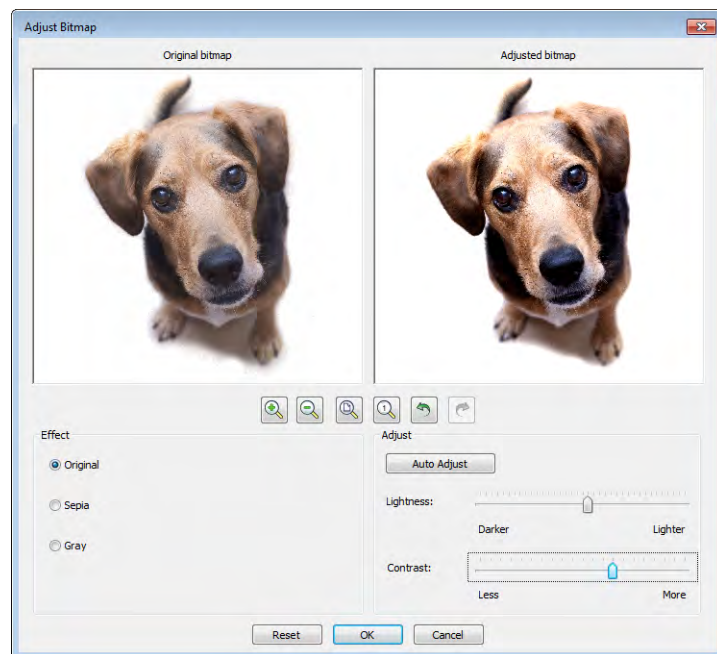
The new **Adjust Bitmap** function allows you to adjust image lightness and contrast, primarily for use with the new **Color PhotoStitch** tool. See below.

New Color PhotoStitch



Use Auto-Digitizing > Color PhotoStitch to automatically turn photographs and other bitmap artwork into multi-colored embroidery.

Amongst new and improved auto-digitizing features, EmbroideryStudio provides a powerful new **Color PhotoStitch** tool. See also [Auto-digitizing with Color PhotoStitch](#) in the User Manual.



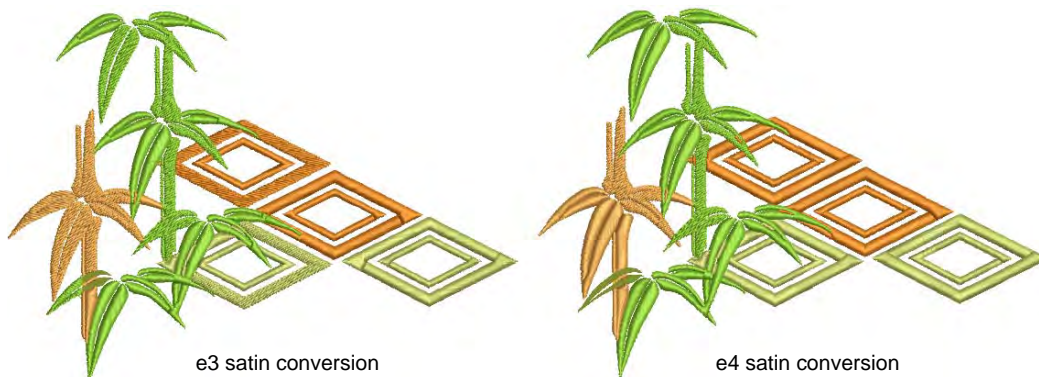
Process...

- ◀ Import a photo/picture.
- ◀ Optionally, crop the image.

- ◀ Optionally cut out/mask background from the foreground with the cropping functions. You can do additional passes of the same photo with different cropped areas.
- ◀ Optionally adjust lightness and contrast in the image.
- ◀ Set the number of thread colors to use.
- ◀ Map image colors to a selected thread chart.
- ◀ Optionally, adjust stitching resolution to high, medium, or low. High resolution allows greater detail but with a higher stitch count.
- ◀ Automatically convert to stitching using multiple thread colors.
- ◀ Optionally, edit the resulting embroidery objects. Stitching created by **Color PhotoStitch** is editable as individual **Manual Stitch** objects. Select and delete as preferred and/or digitize other objects over the top.

Better quality satin stitch conversion

EmbroideryStudio converts to satin more consistently and with better stitch angles.

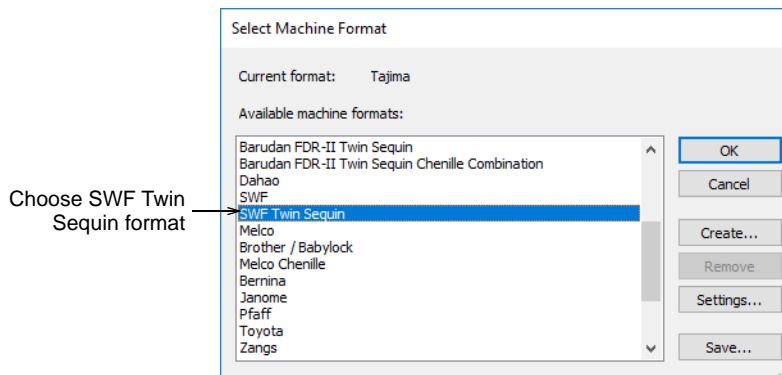


Other improvements

EmbroideryStudio e4.1 provides the following additional improvements.

Machine formats

EmbroideryStudio now provides support for SWF Twin Sequin machine format.



Improved speed of very large designs

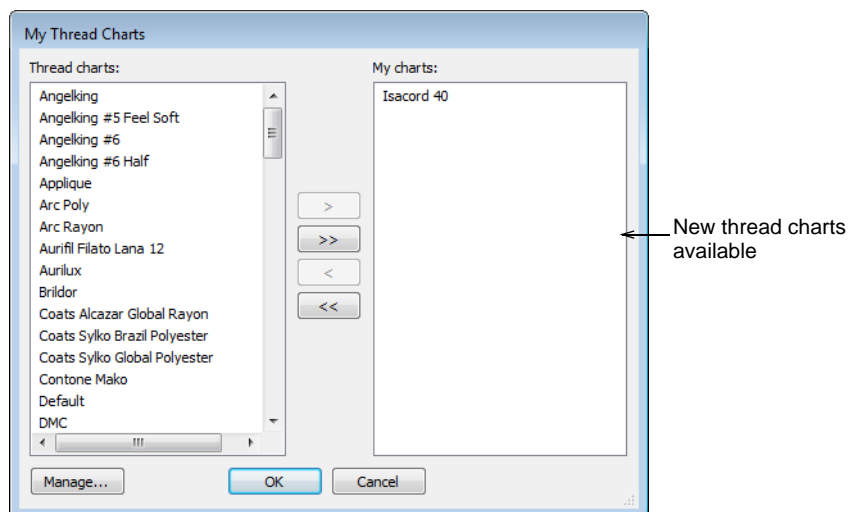
Especially sequin designs

Wider range of embroidery machine hoops

Updated threads charts

The following thread charts have been added to EmbroideryStudio:

- ◀ Iris UltraBrite Polyester
- ◀ Iris Smooth 'N Silky Rayon
- ◀ Madeira Frosted Matt 40
- ◀ Timeless



Improved file support

EmbroideryStudio e4.1 reads and writes a new EMB4 file format. Features include:

- ◀ Reads all previous versions of EMB file, including EMB 3.5 from Janome 5, Hatch 1.
- ◀ Writes the four most recent versions of EMB file e4, e3.5, e3, e2.
- ◀ Legacy EMB Element available for designing and digitizing houses to also write back to e1.8, e1.5, e1, ES2006 versions of EMB.
- ◀ Reads all versions of ART file, including new ART8, but does not write ART format.
- ◀ Reads all versions of JAN and writes to JANV4.

Printing directly to PDF

You can now print directly to PDF without need for third-party software. This allows you to save Design Approval sheets, Production Worksheets, and Virtual Decoration PDFs to predefined filenames and locations.

Appendices

Additional notes concerning the release of EmbroideryStudio e4.1 are covered here:

System requirements

Before you install, or if you experience operating problems, make sure that your computer meets the system requirements.

PC specifications

Check CPU/RAM as well as hard disk space. The table below provides minimum system requirements.

Component	Minimum	Recommended
CPU	Intel® Core i3/5/7 or AMD Athlon™ 64	Latest Intel Core i7 processor
Operating system	‡ Microsoft Windows 10, Windows 8.1 or Windows 7, in 32-bit or 64-bit, all with latest Updates and Service Pack	Microsoft Windows 10 (64-bit Edition) all with latest Updates and Service Pack
Browser	IE 11.0 or later	Microsoft Edge or later
Memory	4 GB	8 GB or more
Hard disk size	80 GB	256 GB or more (Solid State Drive)
Free disk space	† 40 GB	60 GB or more
Graphics card	Support for Highest Color (32bit) and resolution (1600 x 900)	Support for Highest Color (32bit) and resolution (1920 x 1080 or higher)
Monitor	¥ 1600 x 900 screen resolution	Dual monitors capable of displaying 1920 x 1080 screen resolution
Mouse	USB mouse	USB mouse
USB port	Required for software installation and security device.	
Sound card	Required for online video help.	
Internet connection	Required for product activation and registration. Internet connection may also be required during installation in order to download Windows features such as .Net Framework 4.6.	

Supported operating systems ‡

Although Windows® 7 (32-bit or 64-bit edition) is supported, we recommend updating to Windows® 10 (64-bit edition) or Windows® 8.1 (64-bit edition) with latest service packs installed. You will, however, need to uninstall any earlier versions of CorelDRAW®. For latest operating system information, visit the Wilcom Support Center at www.wilcom.com.au/support.

Free hard disk space †

EmbroideryStudio occupies up to 5GB of hard disk space, depending on options installed. CorelDRAW® Graphics Suite 2017 also takes up an additional 3GB. However, you need additional free space for your applications to run smoothly.

Screen resolution ¥

Some controls may be hidden on the user interface if you run your monitor at low resolutions. The physical size of your monitor will have a bearing on the optimum screen resolution. Larger fonts will exacerbate the problem. If you experience visibility issues, try adjusting both screen resolution and font size. For example, a resolution of 1600 x 900 with a font size of 100% or 125% should be acceptable.

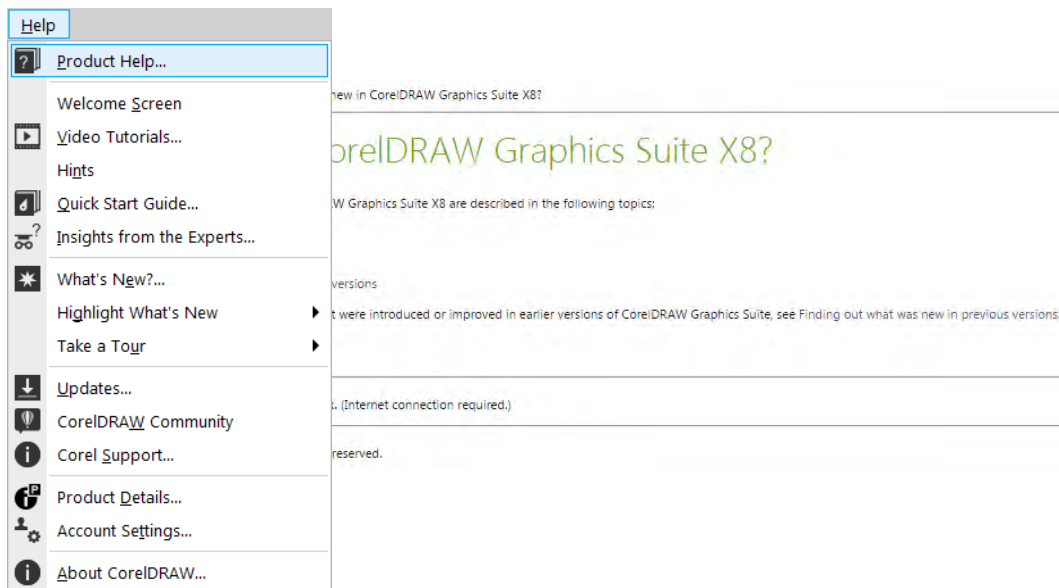
CorelDRAW® X8 features & benefits

The CorelDRAW Graphics Suite of applications is included as standard with ES Designing and ES Decorating. Customers must register with Corel to enable permanently. Benefits include:

- ◀ Multi-page designs, layers and page layouts
- ◀ New content – heaps of clipart, photos and fonts
- ◀ Advanced OpenType support
- ◀ Enhanced compatibility with complex fonts (Asian, Arabic)
- ◀ Custom-built color harmonies
- ◀ Multiple trays in Corel CONNECT
- ◀ Creative vector shaping tools
- ◀ Document, objects and color styles
- ◀ Website design software



Note For more detail, please refer to the onscreen help available from the CorelDRAW® **Help** menu.



Top reasons why CorelDRAW® X8 is much better than X6 for embroiderers

New & enhanced Knife tool

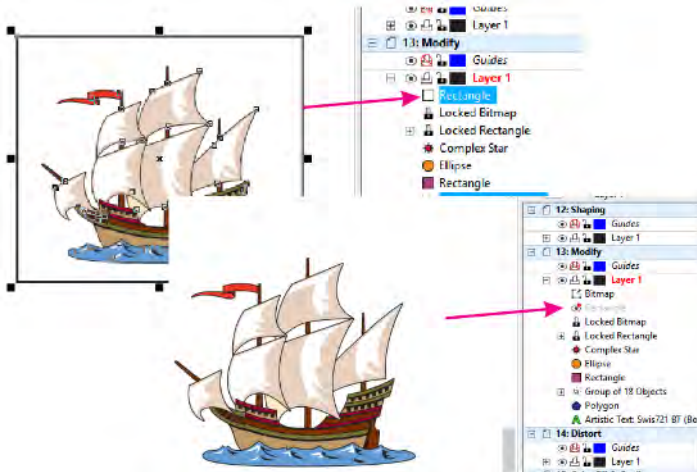
With the enhanced **Knife** tool, you can split vector objects, text and bitmaps along straight, freehand or Bézier lines. You can create a gap between the split objects or have them overlap. You can also choose whether to convert outlines into curve objects that can be manipulated or keep them as

outlines. And if you're unsure, CorelDRAW can eliminate any guesswork by automatically choosing the option that best preserves outline appearance.



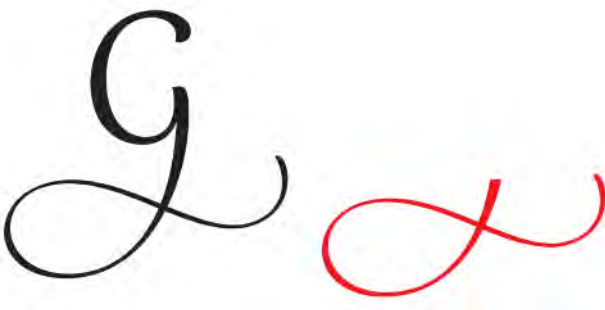
Hide & display objects

CorelDRAW X8 lets you hide objects and groups of objects so that only the sections you want or need to see in a project are displayed. When working with complex designs, the ability to hide a particular element in your drawing can be a great time-saver. It ensures that you don't inadvertently select and edit an object that you hadn't intended to work on, and it lets you experiment with your designs more easily.



Copy curve segments

CorelDRAW lets you copy and cut curve segments, and then paste them as objects, making it easy to extract sub-paths or create adjacent shapes with similar contours.



Smoothing vector objects

Remove jagged edges and reduce nodes in curve objects with the **Smooth** tool.

Smart Fill tools

Create a fill shape from any enclosed area quickly.



Special characters & glyphs

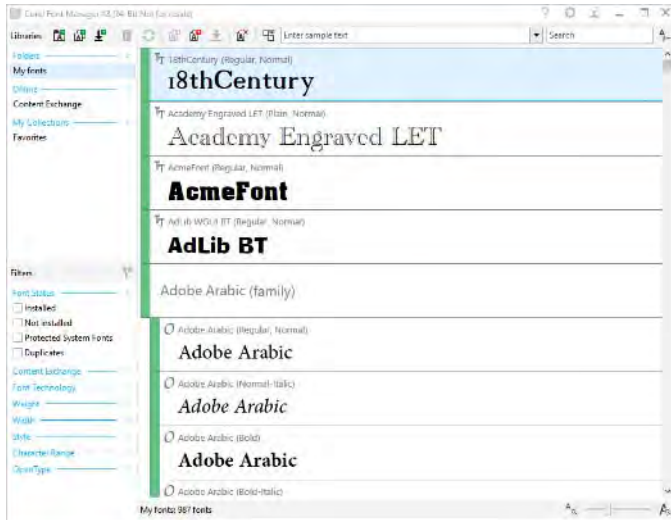
The **Insert Character** docker presents all characters and glyphs associated with a selected font, making it easy to find these items and then insert them in your documents. The docker includes a filtering option that lets you display only the character subsets that you want. For example, you can choose to display only the Cyrillic characters for a selected font.



Corel Font Manager

Corel **Font Manager** is the answer when the number of fonts on your system become less of a benefit and more of a hassle. It lets you easily handle, organize, and explore your typeface and font collections by giving you the tools to control every aspect of your typography workflow. Whether you want to find fonts for your projects, organize fonts for easy access, or manage unneeded fonts. It lets you access online fonts from the **Content Exchange**, which you can install or download to use

later. You can browse and search online and local fonts, preview font glyph sets, add custom font collections, and more.



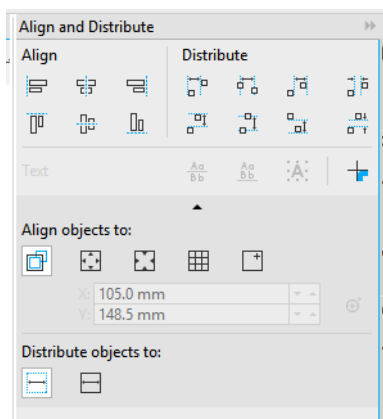
Font Playground

The **Font Playground** docker offers an easy way to browse, experiment with, and choose the perfect font. You can easily add sample text to view its appearance in different fonts, and a handy zoom slider lets you quickly adjust the size of sample text. With a single click, you can also choose whether the sample text appears as a single line, multiple lines, or a cascading series of increased sizes.



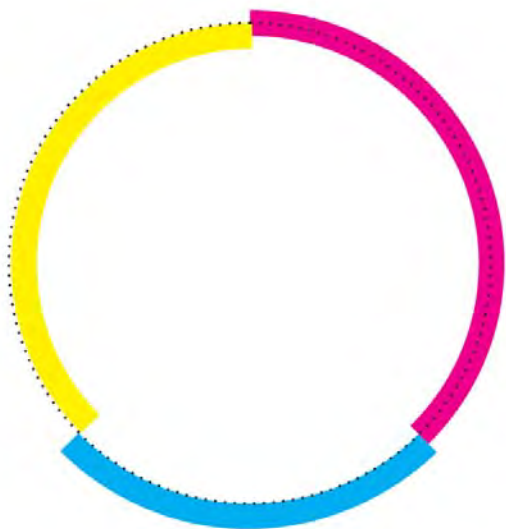
Align and Distribute docker

The **Align and Distribute** docker provides quick and easy access to all available alignment options so that you can position objects with precision.



Outline Position

The **Outline Position** options help you create objects with more precise sizes. You can specify whether an outline is positioned inside the object, outside the object, or an equal combination of both. By positioning an outline inside an object, you can more easily create layouts with specific sizes because the outline will be rendered within the object's original dimensions.



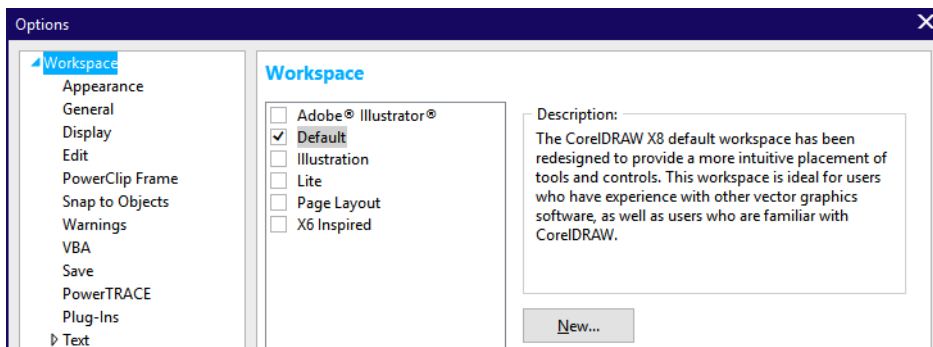
Support for Real-Time Stylus (RTS)

You can now take full advantage of the pressure and tilt of your RTS-compatible pen, tablet or device to control your brushstrokes in CorelDRAW and Corel PHOTO-PAINT.



Workspace selection

The **Welcome Screen** includes a **Workspace** tab, which lets you choose from a variety of workspaces that were designed for different proficiency levels and specific tasks. For example, there are **Page Layout** and **Illustration** workspaces, a classic option for long-time users (default X6 inspired workspaces), as well as a Lite option for new users.



New ES Decorating replaces DecoStudio

ES Decorating is a new product model positioned between ES Editing and ES Digitizing. It provides more embroidery capabilities than the now discontinued Wilcom DecoStudio. It uses the same user interface as its companion digitizing products.

ES Decorating has far more functionality than DecoStudio

- ◀ Full professional lettering and editing – all the functionality of ES Editing
- ◀ Digitizing with many more capabilities than Wilcom DecoStudio
- ◀ Auto digitizing from within EmbroideryStudio or from within CorelDRAW Graphics
- ◀ 6 optional e3 Elements now included as standard

And includes many new e4 Features

- ◀ Many new standard e4 features included in ES Decorating
- ◀ 3 advanced e4 Elements now available in ES Decorating

Elements now standard in e4 ES Decorating

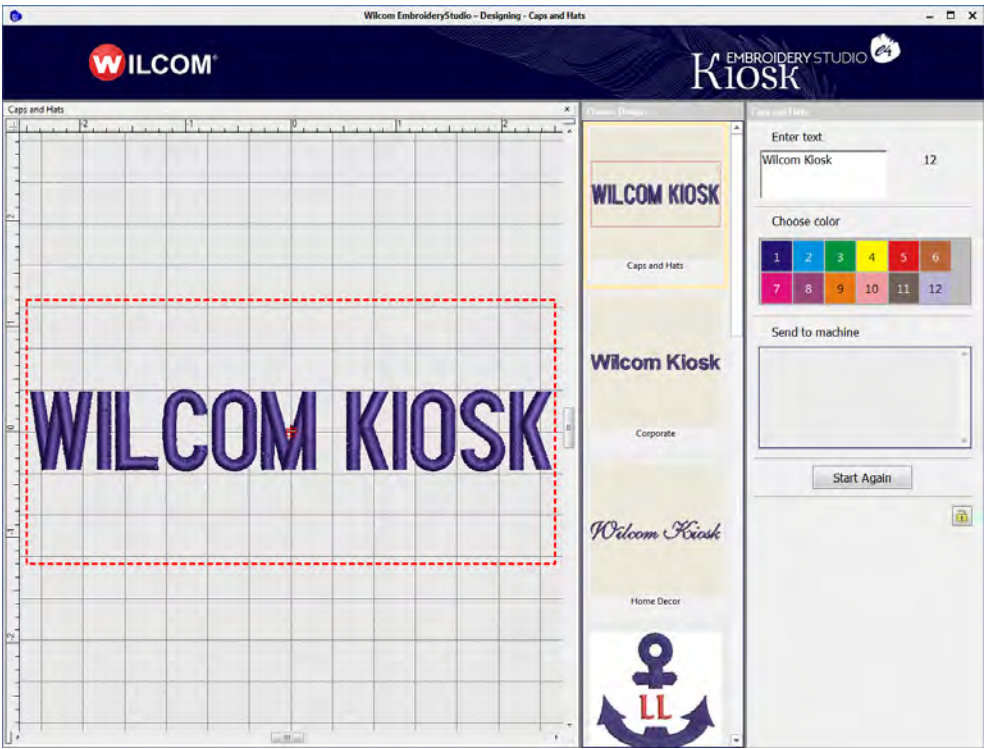
- ◀ Virtual Decoration
- ◀ Kiosk Mode Lettering
- ◀ Team Names Standard
- ◀ Offsets Standard
- ◀ Bling
- ◀ Auto-digitize Bitmaps

Virtual Decoration included

High Resolution TrueView Images...



Kiosk Mode Lettering included



Team Names Standard included



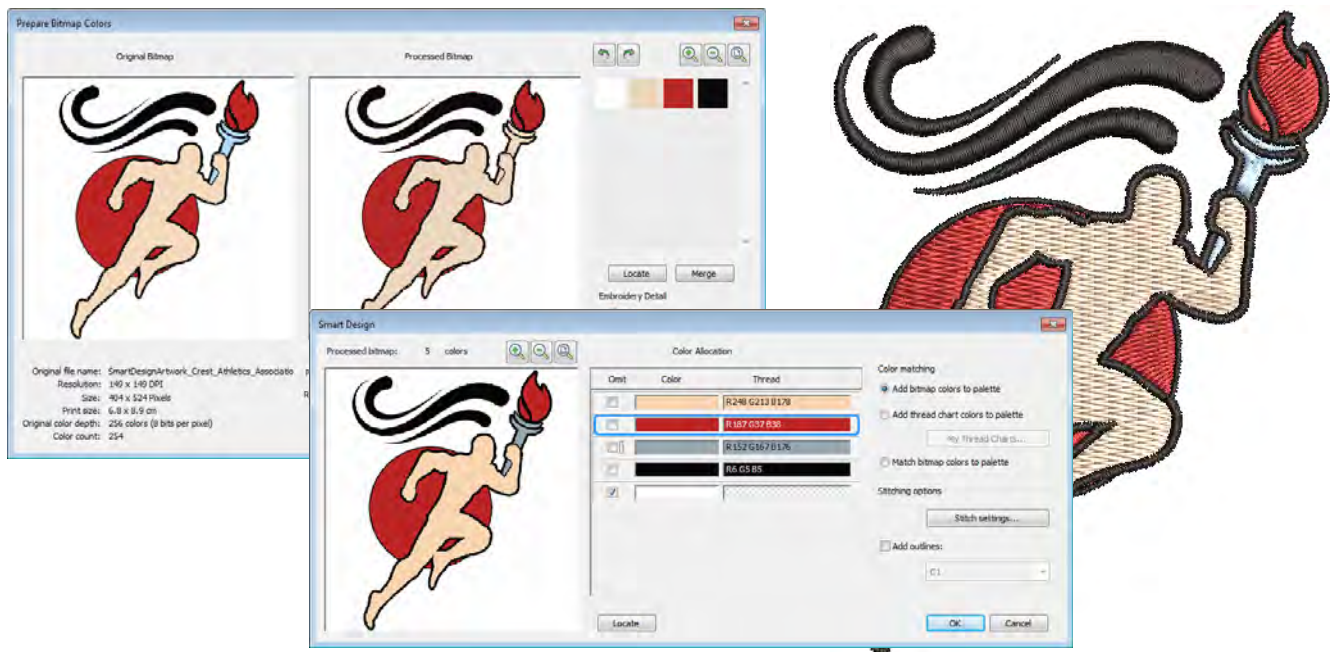
Offsets Standard included



Bling included



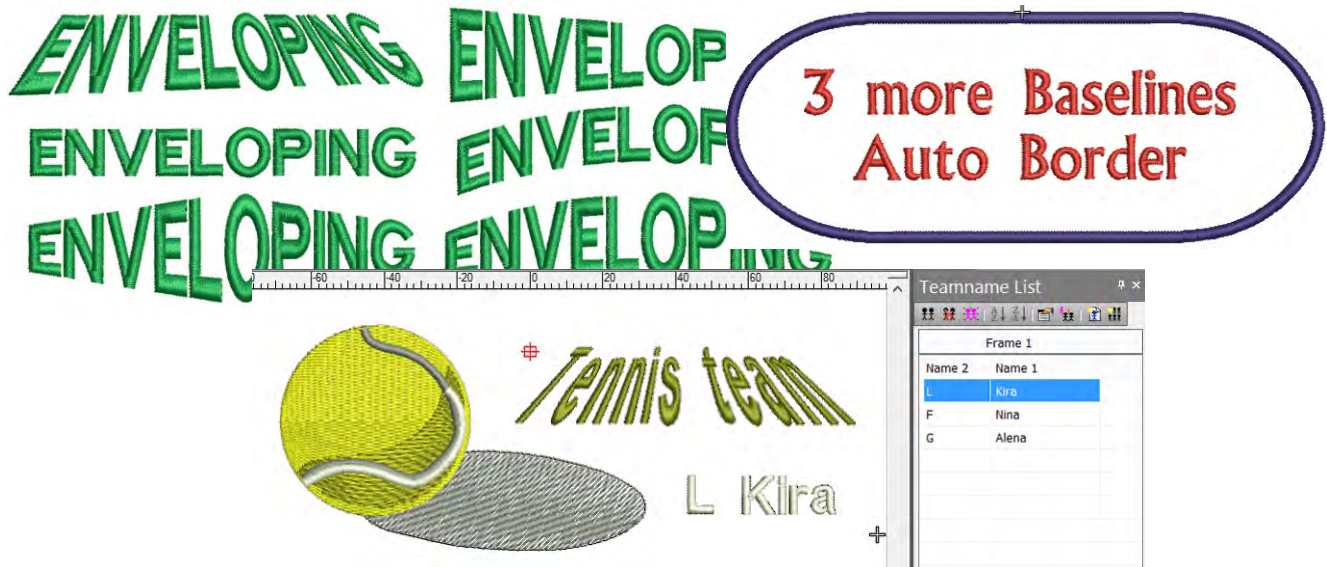
Auto-digitize Bitmaps included



ES Decorating over DecoStudio

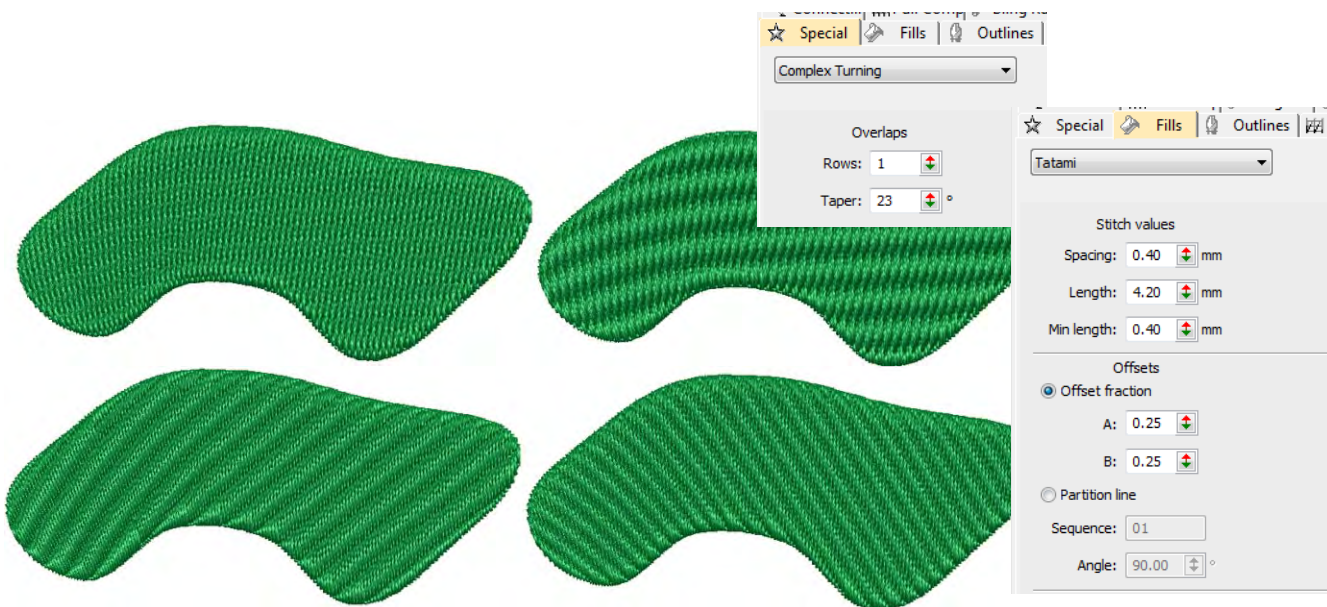
- ◀ More capable professional commercial embroidery software
- ◀ More Lettering functionality with full control of parameters
- ◀ More Editing functionality with full control of parameters
- ◀ More Digitizing Functionality with full control of parameters
- ◀ Same User Interface as other ES product models
- ◀ Plus additional new e4 functionality

More Lettering



More Digitizing

- ◀ Setup and digitize using own custom templates (from ES Editing)
- ◀ Professional tatami fill patterns with full control of parameters (from ES Editing)
- ◀ Professional underlay types with full control of parameters (from ES Editing)
- ◀ settings for Complex Turning



Advantages of ES Decorating vs DecoStudio

Category	Features	Benefits
More Lettering	<ul style="list-style-type: none"> • Enveloped Lettering • 9 vs 6 baselines • Automatic Kerning • More Spacing & Sequencing Controls • Team Name Standard Included • Auto Design Border • TrueType Font Conversion & Settings 	<ul style="list-style-type: none"> • More artistic effects • Better quality stitching • Faster operations
More Control	<ul style="list-style-type: none"> • Manage Auto Fabric Settings • Create and Use Templates • Full Underlay controls • Full Stitch Type controls esp Tatami • Full Auto Start / End control • Full connector property control • Full machine function controls 	<ul style="list-style-type: none"> • More artistic stitch results • More consistent quality control • Better quality for more circumstances
More UI	<ul style="list-style-type: none"> • Overview Window • Stitch List Docker • Kiosk Mode 	<ul style="list-style-type: none"> • Ease of use • Detail control of stitch data • Faster operation simple jobs
More Auto-digitizing	Integrated Wilcom auto-digitizing as well as Corel based Auto-digitizing	Easier, quicker - no swapping to / from CorelDRAW® window
More Editing	<ul style="list-style-type: none"> • Full Object Properties • Process - Change densities by % • More Stitch Editing controls 	More control for optimizing quality and production issues
More Digitizing	<ul style="list-style-type: none"> • Full tatami stitch type parameters • Full Underlay stitch type parameters • Auto corner controls • Variable run stitch control 	<ul style="list-style-type: none"> • More artistic stitch fills • Full control for different circumstances
More Standard Features	<ul style="list-style-type: none"> • Team Names Standard • Offsets Standard • Virtual Decoration • Kiosk • Bling 	<ul style="list-style-type: none"> • Automating team name jobs • High res TrueView images • Lettering productivity • Bling Design
Optional Elements	<ul style="list-style-type: none"> • Team Names Advanced • Offsets Advanced • Color Photo Flash 	

New e4 Features in ES Decorating

- ◀ CorelDRAW® version X8
- ◀ New **Design Library**
- ◀ New order job feature
- ◀ New **Product Visualizer**
- ◀ New & Improved Lettering
- ◀ New Graphics Digitizing
- ◀ Other New & Improved Features

E4 Elements available in ES Decorating

- ◀ Team Names Advanced

- ◀ Offsets Advanced
- ◀ Photo Flash – including new Color Photo Flash

Known limitations

Notice is provided of the following known limitations in the EmbroideryStudio e4.1 software.

Even density contour



Use Outline Stitch Types > Contour to create outlines which follow object contours, creating a curved, light-and-shade effect. Right-click for settings.



Use Fill Stitch Types > Contour to create fills which follow object contours, creating a curved, light-and-shade effect. Right-click for settings.

Even Density contour stitching is suited to complex shapes as well as simple ones. Contour stitching follows the shape with uniform stitch density. EmbroideryStudio may not generate even-density contour stitching in certain shapes. Stitching will revert to standard contour stitching.

Branching limitations



Use Fill Stitch Types > Motif Column to place motifs along the center line of a column shape and resize to fit the shape. Right-clicking for settings.



Use Fills Stitch Types > Offset Fill to create offset fill stitching in any closed shape.



Use Fill Stitch Types > String to create string craftstitch fills. Apply to closed shapes.



Click Arrange > Branching to automatically sequence and group like embroidery objects.

There are limitations when it comes to branching the new **Motif Column**, **Offset Fill**, and **String** stitch types. Stitches may be ungenerated when branching two or more objects together using these stitch types.

Product differentiation table

Capability	Feature		Products						Reference
			1	2	3	4	5	6	
Basics			Basic Procedures						
Switch design modes	CorelDRAW Graphics	*	●		●				Operating modes
Access Design Library	Design Library	^	●	●	●	●	●	●	Design library
View object properties	Object Properties		●	●	●	●	L	L	Access object properties
Select machine format		*	●	●	●	●	●	●	Machine formats
Open embroidery design file		*	●	●	●	●	●	●	Open designs
Create design based on template	New from Template		●	●	●	●	●	●	Create designs from templates
Save embroidery design file	Save Design	*	●	●	●	●	●	●	Save designs
Send design as email attachment			●	●	●	●	●	●	Send designs as email attachments
Select design objects		*	●	●	●	●	L	L	Selecting objects
Display grids, rulers and guides	Show Rulers & Guides	*	●	●	●	●	●	●	Display grids, rulers & guides
Set measurement units			●	●	●	●	●	●	Set measurement units
Measure distances on screen			●	●	●	●	●	●	Measuring distances on screen
View designs			Viewing Designs						
View embroidery components			●	●	●	●	●	●	View embroidery components
View graphical components		*	●	●	●	●	●	●	View graphical components
Zoom and pan across designs	Zoom	*	●	●	●	●	●	●	Zoom & pan designs
View multiple designs		*	●	●	●	●	●	●	Set up multiple views
Show design in Overview window	Overview Window		●	●	●	●	●		Work with the Overview Window
Simulate design stitchouts	Stitch Player	*	●	●	●	●	●	●	Simulate design stitchouts
Travel through designs	Travel Tools		●	●	●	●	●	●	Travel through designs
Show multiple colorways	Current Colorway		●	●	●	●	●	●	Switch colorways
Change backgrounds and display colors	Background & Display Colors	*	●	●	●	●	●	●	Change backgrounds
View color blocks and design objects	Color-Object List		●	●	●	●			Viewing color blocks
View design repeats	Show Repeats		●	●	●	●	●	●	Viewing design repeats
View design details	Design Properties	*	●	●	●	●	●	●	Viewing design details
View design report	Print Preview	*	●	●	●	●	●	●	Preview design reports
Manage threads			Threads & Charts						
Select thread colors	Color palette	*	●	●	●	●	●	●	Selecting thread colors
1 ES Designing 2 ES Digitizing 3 ES Decorating 4 ES Editing 5 ES Lettering 6 ES Ordering									
● Included as standard ○ Modular 'element' L Limited functionality ^ New to ES e4 * Improved in ES e4									

Capability	Feature	Products						Reference
		1	2	3	4	5	6	
Assign thread colors		*	●	●	●	●	●	Assigning thread colors
Edit thread colors			●	●	●	●	●	Editing thread colors
Create & modify thread charts			●	●	●	●	●	Managing thread charts
Design management								Managing Designs
View designs in network folders		^	●	●	●	●	●	Viewing designs in network folders
Open designs from Design Library	Design Library	^	●	●	●	●	●	Opening designs from Design Library
Insert designs with Embroidery Clipart	Embroidery Clipart	^	●	●				Inserting designs with Embroidery Clipart
Search for designs		^	●	●	●	●	●	Searching the library
Manage folders		^	●	●	●	●	●	Adding folders to the library
Manage design information		^	●	●	●	●	●	Viewing & managing design information
Manage job orders		^	●	●	●	●	●	Managing quotes & orders
Convert designs		^	●	●	●	●	●	Converting designs
Output selected designs		^	●	●	●	●	●	Outputting selected designs
System settings								System Settings
Set view options			●	●	●	●	●	Setting view options
Set grid options			●	●	●	●	●	Setting grid display options
Mouse scroll/zoom control			●	●	●	●	●	Setting scroll options
Set reshape options			●	●	●	●	●	Setting reshape options
Set automatic save and backup options			●	●	●	●	●	Setting automatic save & backup options
Set pointer position display			●	●	●	●	●	Setting pointer position display
Set inserted embroidery file options			●	●	●	●	●	Setting color handling for inserted files
Set paste & duplicate options		*	●	●	●	●	●	Setting paste & duplicate options
Set digitizing tool options		*	●	●	●	●	●	Digitizing tools
Set toolbar display options		^	●	●	●	●	●	Setting toolbar display options
Set Object Property 'apply' options			●	●	●	●	●	Setting Object Property apply options
Set other general options			●	●	●	●	●	Setting other general options
Set warning options			●	●	●	●	●	Setting warning options
Hardware								Hardware Settings
Connect to machine via Connection Manager	Connection Manager		●	●	●	●	●	Setting up machines for Connection Manager
Connect to machine via Stitch Manager	Stitch Manager		●	●	●	●	●	Setting up machines for Stitch Manager
WiFi USB machine networking	WiFi USB Stick	^	○	○	○	○	○	EmbroideryConnect Machine Networking
Perform runtime estimates	Runtime Analyst		●	●	●	●	●	Doing runtime estimates
1 ES Designing 2 ES Digitizing 3 ES Decorating 4 ES Editing 5 ES Lettering 6 ES Ordering								
● Included as standard ○ Modular 'element' L Limited functionality ^ New to ES e4 * Improved in ES e4								

Capability	Feature		Products					Reference
			1	2	3	4	5	6
Connect to scanner			●	●	●			Setting up scanners
Connect to digitizing tablet			●	●				Connecting digitizing tablets
Machine formats								Machine Formats
Modify standard machine formats			●	●	●	●	●	Standard machine formats
Adjust advanced machine format settings (color change sequence, start/end design, speed)			●	●	●	●	●	Advanced machine formats
Create custom machine formats			●	●	●	●	●	Custom machine formats
Stitch types								Stitch Types
Create simple outline stitching	Run, etc	*	●	●	●	●	L	Simple outline stitching
Create 'sculpture' runs (bead stitching)	Sculpture Run	*	●	●				Sculpture run settings
Create decorative outlines	Backstitch, Stemstitch	*	●	●				Decorative outlines
Create satin borders and fills	Satin, Raised Satin	*	●	●	L	L	L	Satin stitching
Create tatami borders and fills	Tatami	*	●	●	●	L	L	Tatami stitching
Create zigzag and E-stitch borders and fills	Zigzag, E Stitch	*	●	●	●			Open fills & borders
Digitize shapes								Digitizing Shapes
Digitize with graphical tools	Graphics Digitizing	*	●	●	●			Digitizing with graphical tools
Digitize outlines and details	Digitize Run, etc	*	●	●	●	●	●	Digitizing outlines & details
Digitize regular columns	Column C	*	●	●				Digitizing regular columns
Digitize irregular columns	Column A/B	*	●	●				Digitizing irregular columns
Create free-form shapes	Complex Turning / Complex Fill	*	●	●				Creating free-form shapes
Object properties								Object Properties
Modify current property settings			●	●	●	●	●	Changing current settings
Change object properties			●	●	●	●	●	Changing object properties
Make selected object properties current	Make Properties Current		●	●	●			Copying properties
Change & manage fabrics	Auto Fabric		●	●	●	●	●	Working with fabrics
Define & apply styles	Styles		●	●				Working with styles
Create design templates	Save as Template	*	●	●	●	●	●	Creating design templates
Colorways								Colorways
Add colorways	Colorway Editor	*	●	●	●	●	●	Adding colorways
1 ES Designing 2 ES Digitizing 3 ES Decorating 4 ES Editing 5 ES Lettering 6 ES Ordering								
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Capability	Feature		Products						Reference
			1	2	3	4	5	6	
Change color schemes	Color Wheel	^	●	●					Changing color schemes
Name design elements			●	●	●	●	●		Naming design elements
Split color blocks	Split Palette Color		●	●	●	●	●		Splitting color blocks
Set backgrounds	Background & Display Colors	*	●	●	●	●	●	●	Setting fabric backgrounds
Visualize products	Product Visualizer	*	●	●	●	●	●	●	Visualizing products
Underlays & pull compensation									Underlay & Pull Compensation
Apply automatic underlay	Auto Underlay	*	●	●	●	●	●		Stabilizing with automatic underlay
Apply underlay by shape	Auto Underlay		●	●	●	●	●		Underlay by segment or by shape
Create slanted zigzag & double zigzag underlay			●	●	●	●	●		Zigzag underlay settings
Apply pull compensation	Pull Compensation		●	●	●	●	●		Compensating for fabric stretch
Stitch quality									Optimizing Stitch Quality
Reverse stitch direction	Reverse Curves		●	●					Reversing stitch direction
Reinforce outlines	Backtrack / Repeat	*	●	●					Reinforcing outlines
Adjust stitch angles	Stitch Angles	*	●	●	●				Adjusting stitch angles
Adjust stitch density	Process Stitches		●	●					Adjusting stitch densities
Remove small stitches automatically	Small Stitches		●	●	●	●	●		Eliminating small stitches
Control corner stitching	Smart Corners	*	●	●	L	L	L		Controlling corner stitching
Reduce stitch bunching	Shortening		●	●	●	●	●		Reducing stitch bunching
Split long stitches	Auto Split		●	●	●	●	●		Splitting satin stitches
Preserve long stitches	Auto Jump		●	●	●	●	●		Preserving long stitches
Embroidery connectors									Embroidery Connectors
Apply automatic connectors	Connectors		●	●	●	●	●		Using automatic connectors
Add tie-offs & trims manually	Tie Off	*	●	●	●	●	●		Adding connectors manually
Keep/omit last stitches	Keep/Omit Last Stitch		●	●					Keeping or omitting last stitches
Adjust entry/exit points	Show Entry/Exit		●	●	●	●	L		Adjusting entry/exit points
Apply closest join	Closest Join		●	●	●	●	L		Applying closest join
Automatic object sequencing	Branching		●	●					Minimizing connectors with automatic branching
Productivity tools									Productivity Tools
Add decorative borders to designs	Add Borders	*	●	●	●	●	●		Adding design borders
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			1	2	3	4	5	6	
Create embroidered stars & rings	Star/Ring		●	●					Digitizing stars & rings
Digitize basic shapes	Basic Shapes	^	●	●					Digitizing basic shapes
Remove underlying stitching	Remove Overlaps	*	●	●	●				Removing underlying stitching
Add or remove holes in objects	Add Holes	^	●	●	●				Adding & removing holes
Fill holes in objects	Fill Holes		●	●	●				
Filling holes									
Create simple offsets	Simple Offsets		●	●	●				Simple offsets
Create multiple offset outlines & offsets	Outlines & Offsets	*	○	○	○				Creating outlines & offsets
Create offsets with open objects	Open Offsets	^	○	○					Creating offsets with open objects
Create automatic wreaths	Mirror-Merge	*	○	○					Mirroring & reflecting selections
Create design arrays	Mirror-Merge Array	*	○	○					Creating design arrays
Combine & sequence objects									Combining & Sequencing Objects
Combine objects and designs – copy, paste, clone, etc		*	●	●	●	●	●		Combining objects & designs
Group & lock objects	Group/Lock		●	●	●	●			Grouping & locking objects
Select objects by color or stitch type		*	●	●	●	●			Selecting objects by color or stitch type
Resequence embroidery objects			●	●	●	●			Sequencing embroidery objects
Auto-sequence entire design	Optimize Color Changes	^	●	●	●	●			Auto-sequencing entire designs
Object editing									Modifying Objects
Position, align & distribute objects			●	●	●	●	●		Arranging objects
Scale objects			●	●	●	●	●		Scaling objects
Rotate objects	Rotate		●	●	●	●	●		Rotating objects
Skew objects	Skew		●	●	●	●	●		Skewing objects
Mirror objects	Mirror		●	●	●	●	●		Mirroring objects
Reshaping operations									Reshaping Objects
Reshape embroidery objects	Reshape Object		●	●	●	●	L		Reshaping embroidery objects
Reshape star & ring objects	Reshape Object		●	●	●	●			Reshaping stars & rings
Apply envelopes to embroidery objects	Envelopes	*	●	●	●	●	●		Applying envelopes
Break apart branched objects	Break Apart		●	●	●	●			Breaking apart composite objects
Cut shapes manually	Knife		●	●	●				Cutting shapes manually
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Cut shapes automatically	Automatic Knife	●	●	●				Cutting shapes automatically
Shape vector / embroidery objects – merging, splitting, trimming, etc	Shaping Tools	○	○					Shaping objects
Stitches & machine functions								Stitches & Machine Functions
Insert, move or delete individual stitches	Stitch Edit	●	●	●	●	●		Selecting & editing stitches
Split embroidery objects	Split Object	●	●	●	●			Splitting objects
Insert/edit/clear machine functions	Insert Function	●	●	●	●	●		Editing machine functions
Edit stitches and functions with Stitch List	Stitch List	●	●	●	●			Editing machine functions manually
Digitize individual stitches	Manual	●	●					Digitizing individual stitches
Digitize boring holes	Manual	●	●					Digitizing boring holes
Convert selected stitches to objects	Process Stitches	●	●					Converting stitches to objects
Decorative fills								Specialty Stitching
Create freehand embroidery	Freehand Embroidery *	●	○					Creating freehand embroidery
Create jagged edges	Jagged Edge	●	●					Creating furry or fluffy edges
Create textures with stippling	Stipple	○	○					Creating stippling effects
Create open stitching with trapunto	Trapunto	●	●	●				Creating open stitching with trapunto
Create accordion spacing effects	Accordion Spacing	○	○					Creating accordion spacing effects
Create color blending effects	Color Blending	○	○					Creating color blends
Create string stitching	String	○	○					Creating string stitching
Create chenille-type patterns	Square, Coil *	●	●					Creating chenille-type patterns
Create cross stitch fills	Cross Stitch	○	○					Creating cross stitch fills
Patterned fills								Patterned Fills
Create textures with Tatami offsets	Tatami Offset	●	●	●	●	L		Creating textures with tatami offsets
Create textures with program splits	Program Split	●	●					Creating textures with program splits
Create custom splits	User-Defined Split	○	○					Creating user-defined splits
Create custom stitch patterns	Carving Stamp	○	○					Creating patterns with carving stamps
Curved fills								Curved Fills
Create contoured stitching	Contour *	○	○					Creating contoured fills
Create offset fills	Offset Fill	○	○					Creating offset fills
Create spiral fills	Spiral Fill	○	○					Creating spiral fills
Create radial fills	Radial Fill	●	●					Creating radial fills
Create textures with flexi-splits	Flexi Split	○	○					Creating flexi-splits
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		1	2	3	4	5	6	
Create curved fills	Florentine Effect / Liquid Effect	○	○					Creating curved fills
Motif runs & fills								Motif Runs & Fills
Place single motifs	Use Motif	○	○					Selecting & placing motifs
Create motif runs	Motif Run	○	○					Creating motif runs
Create graded motif runs	Motif Run	^	○	○				Creating graded motif runs
Create motif fills	Motif Fill	L	L	L				Creating motif fills
Create 3D effects with motif fills	3D Warp	○	○					Creating enveloped motif fills
Create graded motif columns	Motif Column	^	○	○				Creating graded motif columns
Create motifs & motif sets		○	○					Managing motifs
Embroidery lettering								Embroidery Lettering
Create lettering in CorelDRAW Graphics	CorelDRAW Graphics	●		●				Creating lettering with CorelDRAW Graphics
Create lettering in Wilcom Decoration	Lettering	*	●	●	●	●		Creating embroidery lettering
Format lettering – italic, bold, justified, etc			●	●	●	●	●	Adjusting lettering properties
Add baselines – horizontal, vertical, arc, circle, custom			●	●	●	●	●	Working with baselines
Edit lettering text	Lettering		●	●	●	●	●	Editing text
Scale and transform lettering objects			●	●	●	●	●	Modifying lettering
Adjust individual letters – reposition, transform, reshape, recolor			●	●	●	●	●	Adjusting individual letters
Adjust and reshape baselines			●	●	●	●	●	Adjusting baselines
Break apart lettering	Break Apart		●	●	●	●		Breaking apart lettering
Add special characters	Insert Symbol		●	●	●	●	●	Adding special characters
Set lettering stitch types – Satin, Tatami, etc	Stitch Types		●	●	●	●	●	Applying stitch types & effects to lettering
Create special effects with lettering art	Lettering Art	^	●	●	●	●	●	Creating special effects with lettering art
Adjust lettering stitching sequence	Letter Sequence		●	●	●	●	●	Adjusting letter sequencing
Change lettering join method	Letter Sequence		●	●	●	●	●	Changing lettering join method
Automatic letter kerning	Auto Kerning		●	●	●	●	●	Setting automatic letter kerning
Apply automatic letter spacing	Auto Letter Spacing		●	●	●	●	●	Setting automatic letter spacing
Apply lettering underlay	Auto Underlay		●	●	●	●	●	Setting lettering underlay
Team names & monograms								Team Names & Monogramming
Add multiple names to designs	Team Names	*	●	●	●	●	●	Creating simple teamname designs
Create teamname templates	Team Names	*	○	○	○			Teamname templates
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Capability	Feature		Products						Reference
			1	2	3	4	5	6	
Output team-name designs	Team Names		●	●	●	●	●		Outputting teamname designs
Create monogram designs	Monogramming	*	●	●	●	●	●		Monogramming
Custom fonts									Custom Fonts
Convert TrueType fonts to embroidery fonts	Convert TTF	*	○	○					Converting TrueType fonts to embroidery
User-refined letters			●	●	●	●	●		User-refined letters
Create custom fonts			○	○					Creating custom fonts
Merge fonts			●	●	●	●	●		Merging fonts
Lettering kiosk									Lettering Kiosk
Configuration options for supervisors			●	●	●	○	○		Configuration options for supervisors
Create custom design layouts			●	●	●	○	○		Creating custom design layouts
Digitize with bitmaps									Digitizing with Bitmaps
Insert / paste bitmap images	Import Graphic		●	●	●	●	●	●	Importing graphics
Crop bitmap images	Crop Bitmap	*	●	●	●			L	Cropping bitmap images
Edit bitmap images in third-party applications			●	●	●				Touching up bitmaps
Smooth bitmap images			●	●	●	●	●	●	Smoothing bitmap images
Save artwork	CoreIDRAW Graphics		●		●				Saving artwork
Prepare artwork for auto-digitizing	Prepare Bitmap Colors	*	●	●	●				Preparing artwork for auto-digitizing
Add and match image colors	Add Bitmap Colors		●	●	●	●	●		Adding & matching image colors
Digitize with vectors									Digitizing with Vectors
Create vector outlines and fills	Drawing Tools	*	●	●	●				Creating vector shapes in EmbroideryStudio
Color vector objects			●	●	●				Coloring vectors
Insert / paste vector graphics	Import Graphic		●	●	●	L	L	L	Importing vector artwork
Convert artwork to vector graphic	Auto Trace to Vectors		●	●	●				Auto-tracing bitmap artwork
Smooth curves	Smooth Curves		●	●					Smoothing curves
Show/hide vector graphics			●	●	●	●	●	●	Visualizing vector graphics
Automatic digitizing									Automatic Digitizing
Inter-convert graphics and embroidery objects	CoreIDRAW Graphics		●		●				Converting objects with CoreIDRAW Graphics
Convert between embroidery objects – Run, Convert Column C, etc.			●	●	●				Converting objects
Digitize shapes with Auto-Digitizing	Auto-Digitizing		●	●	●				Auto-digitizing image shapes
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Match palette colors to an image	Color Matching Method	*	●	●	●				Auto-digitizing image shapes
Convert bitmaps with Smart Design	Smart Design	*	●	●	●				Auto-digitizing entire images
Create embroidery from photos	Photo Flash		○	○	○				Auto-digitizing with Photo Flash
Create embroidery from color photos	Color PhotoStitch	^	○	○	○				Auto-digitizing with Color PhotoStitch
Appliqué									Appliqué Digitizing
Convert vector graphics to appliqué	Convert Graphics to Embroidery		●		●				Converting vector graphics to appliqué
Create appliqué designs	Auto Appliqué	*	●	●	●				Creating appliqué embroidery
Add fabric swatches to appliqué objects	Auto Appliqué		●	●	●				Adding fabric swatches to appliqué
Create partial appliqué shapes	Partial Appliqué		●	●	●				Creating partial cover appliqué
Recombine and resequences multiple appliqué for efficient stitchout	Combine Appliqué Components		●	●	●				Combining appliqué
Print / cut appliqué patterns			●	●	●				Outputting appliqué
Create cording designs	Cording	^	●	●					Adding cording
Sequins									Sequin Digitizing
Set up custom sequin palette			○	○					Setting up sequin mode
Create sequin runs	Sequin Run		○	○					Digitizing sequin runs
Convert sequin artwork to Sequin Run			○	○					Converting sequin artwork
Create sequin fills	Sequin Fill	*	○	○					Creating sequin fills
Digitize twin-sequin designs			○	○					Creating twin-sequin designs
Pattern stamp re-coloring of twin-sequin fills		^	○	○					Pattern stamp re-coloring of twin-sequin fills
Scale & reshape sequin runs			○	○					Reshaping & editing sequin runs
Create custom sequins		^	○	○					Creating custom sequins
Digitize individual sequins	Sequin Manual		○	○					Digitizing individual sequin drops
Bling									Bling Digitizing
Set up bling palettes	Bling		●	○	●				Setting up bling palettes
Create bling runs and fills	Bling		●	○	●				Creating bling runs & fills
Add bling borders	Bling		●	○	●				Adding bling borders
Place rhinestones manually	Bling		●	○	●				Placing rhinestones manually
Modify bling objects	Bling		●	○	●				Modifying bling objects
Create bling lettering	Bling		●	○	●				Creating bling lettering
Output bling templates	Bling		●	○	●				Outputting bling templates
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Capability	Feature	Products						Reference
		1	2	3	4	5	6	
Send bling to CAMS machine	Bling	●	○	●				Sending bling to CAMS machine
Print designs								Printing Designs
Print/plot design reports		*	●	●	●	●	●	Printing design reports
Save or send design as PDF		^	●	●	●	●	●	Printing design reports
Customize report information		*	●	●	●	●	●	Customizing design reports
Print multiple colorways			●	●	●	●	●	Colorway options
Print color blocks			●	●	●	●	●	Stop sequence options
Print designs in CorelDRAW Graphics				●				Printing designs in CorelDRAW Graphics
Save designs as bitmap images			●	●	●	●		Outputting designs as graphics
Save designs as 'virtual decoration'			●	○	●			Virtual decoration
Output designs								Outputting Designs for Production
Send designs to Connection Manager	Connection Manager		●	●	●	●		Sending designs to Connection Manager
Send designs to Stitch Manager	Stitch Manager		●	●	●	●		Sending designs to Stitch Manager
Export designs for machine		*	●	●	●	●		Exporting designs for machine
Read/write embroidery disk			●	●	●	●		Using embroidery disks
Export multi-decoration files	CorelDRAW Graphics		●					Exporting multiple decoration files
Send designs to Machine Manager			●	●	●	●		Machine Manager Supplement
Read designs								Working with Machine Files
Convert machine files to EMB format			●	●	●	●		Opening machine files in EmbroideryStudio
Open/save designs in Melco CND format			●	●	●	●		Reading Melco CND design files
Color merge Melco CND files			●	●	●	●		Creating a color-merge TXT file
Reassign colors to stitch / CND files			●	●	●	●		Reassigning colors to machine files
Design hooping								Hooping Designs
Set up custom hoop lists			●	●	●	●	●	Setting up hoop lists
Set auto start & end			●	●	●	●	●	Setting auto start & end
Select hoops automatically	Auto Hoop		●	●	●	●	●	Selecting hoops automatically
Select hoops manually	Show Hoop	*	●	●	●	●	●	Selecting hoops manually
Create custom hoops			●	●	●	●	●	Creating custom hoops
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