WILCOM®

EMBROIDERY STUDIO e4.5

Release Notes

e4.5 - June 2020

What's new in ES e4.5?

The release of EmbroideryStudio e4.5 is minor in terms of version number but major in terms of new features and benefits it provides Wilcom customers. The theme of this release is 'falling in love with embroidery again'. Let your creativity flow with the exciting new stitch types and effects. Sequins too have received a lot of attention in order to exploit the cutting edge sequin placement capabilities of the latest machines and controllers.

Note This update is intended for installation with any released version (already installed) of ES e4. It contains all improvements up to this release plus any previous updates.

Related topics

◀ What's new in ES e4.5.1?
◀ Auto-centering stitch cursor
◀ EmbroideryConnect networking
◀ Stitching improvements & new features

What's new in ES e4.5.1?

The ES e4.5.1 software update includes the following improvements...

General improvements

The ES e4.5.1 software update includes the following general improvements...

Integration of CorelDRAW 2019 & 2020

ES e4.5.1 is able to detect and integrate with CorelDRAW 2019 and CorelDRAW 2020.

Merging of custom assets from e4.0 and earlier to e4.5

Some custom assets and defaults are being lost when installing ES e4.5 over ES e4.0 and earlier versions. Asset classes affected include:

◀ Teamname template designs
◀ Teamname teams
◀ Kiosk designs
◀ Templates
◀ Applique fabrics
◀ Defaults
◀ Toolbar layouts
◀ Styles

This problem has been resolved with the release of ES e4.5.1. See also File Management.

User interface languages

The user interface for EmbroideryStudio and EmbroideryHub is now available in the following languages:

◄ Czech
◄ Dutch
◄ German
◄ Spanish
◄ French
◄ Greek
◄ Italian
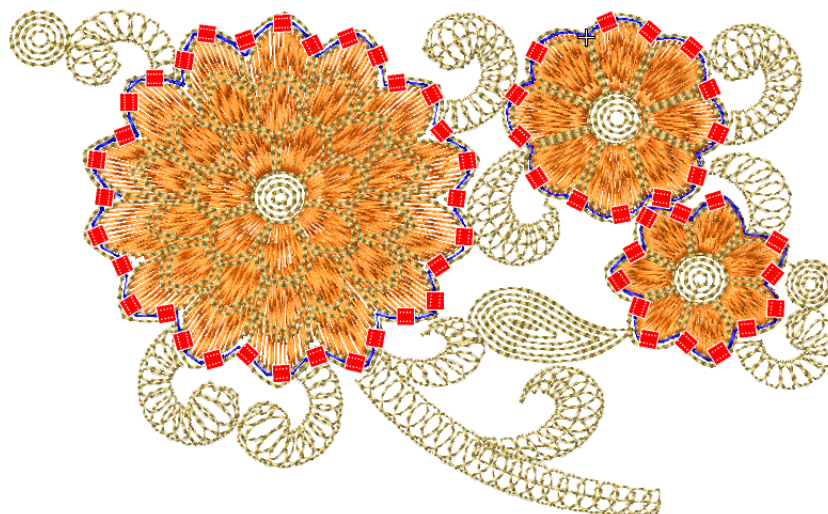◄ Japanese
◄ Korean
◄ Portuguese
◄ Romanian
◄ Russian

Printed user guides

Printed user guides are now available from Amazon print-on-demand in the following languages:

◄ English
◄ Japanese
◄ French
◄ German
◄ Italian
◄ Spanish

New Beading Element

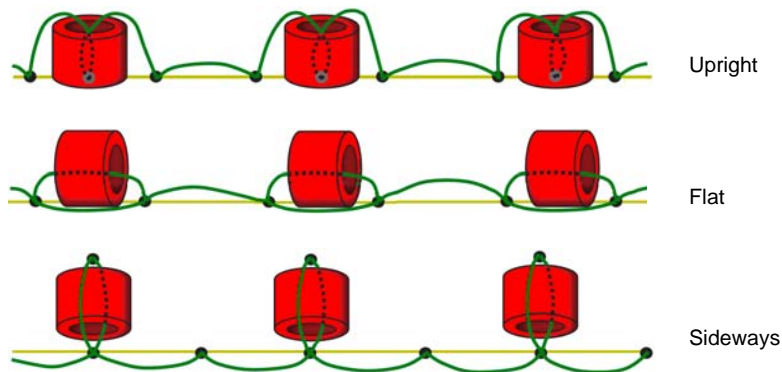| Element			1	2	3	4	5
Beading	Provide support for beading devices. Four fixing methods are available: Upright, Laid, and Above or Below the run line.		○	○	–	–	–
1 ES Designing 2 ES Digitizing 3 ES Decorating 4 ES Editing 5 ES Lettering ● Included as standard ○ Modular 'element'							

With the release of this update, EmbroideryStudio e4.5 includes the new specialty **Beading** Element which provides support for beading devices, single and mulitple. See Bead Embroidery for details.
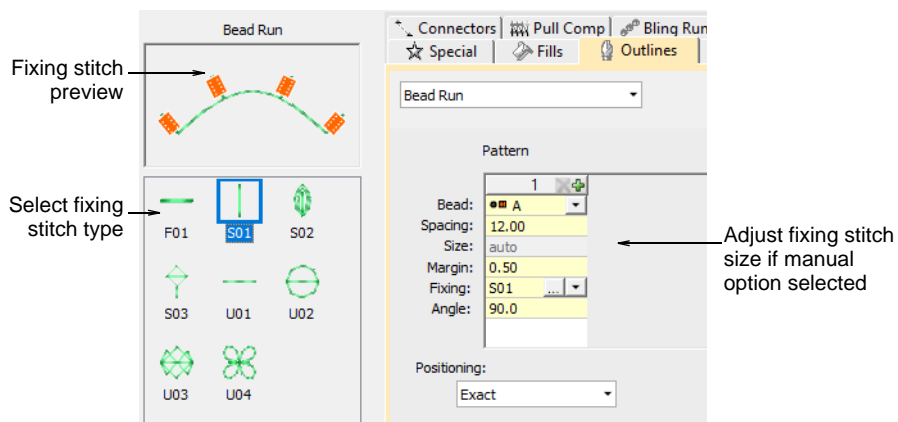
Fixing stitch support

Various layout methods are available on the machine. EmbroideryStudio supports the classic fixing stitch types – 'upright', 'flat', and 'sideways' – and others. See Bead fixings for details.

Upright

Flat

Sideways

In addition to the classic fixing stitch types, the **Beading** feature includes a range of decorative fixing stitches for use in bead runs or individual bead drops. See Apply bead fixings for details.

Fixing stitch preview

Select fixing stitch type

Adjust fixing stitch size if manual option selected

Tip Before using the **Bead** tools, you need to choose a suitable machine format. Only some machine formats support beading – e.g. Tajima TBF, Dahao and SWF Twin Sequin. Refer to your machine manual for information about support for this type of decoration. See also Bead encoding & decoding.

Dahao support

In support of Dahao's multi-sequin capabilities, EmbroideryStudio e4.5 provides the following support…

Quadruple sequins for Dahao machine format

The Dahao embroidery machine control unit is capable of quad sequins on a single needle bar. ES e4.5 now supports 'ABCD' on the first needle, and 'EFGH' on the last.

EmbroideryConnect networking

The ES e4.5.1 software update includes the following EmbroideryConnect improvements…

EmbroideryHub user interface languages

The EmbroideryHub user interface is now available in the same languages as EmbroideryStudio e4.5.

New shortcut keys for EmbroideryConnect icons

> Use Standard > Send to EmbroideryConnect to send the current design to a named EmbroideryConnect device.
>
> Use Standard > Queue Design to send the current design to the EmbroideryConnect design queue where they can be 'pulled' from the machine.

Shortcut keys have been added to support the new EmbroideryConnect icons:

◀ Send to EmbroideryConnect: **Shift+Alt+S**
◀ Queue Design: **Shift+Alt+Q**

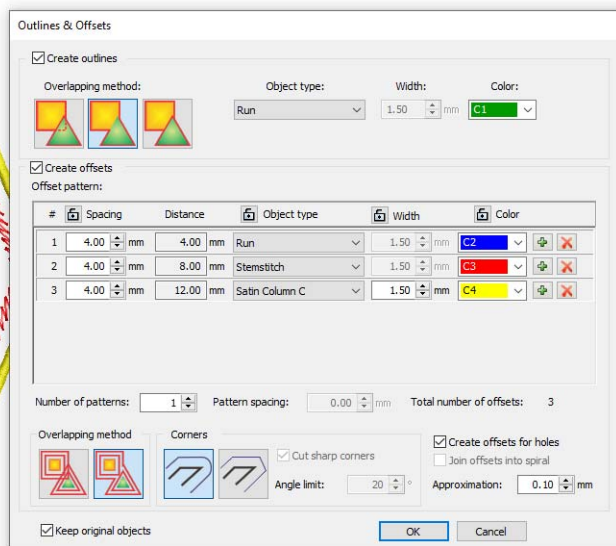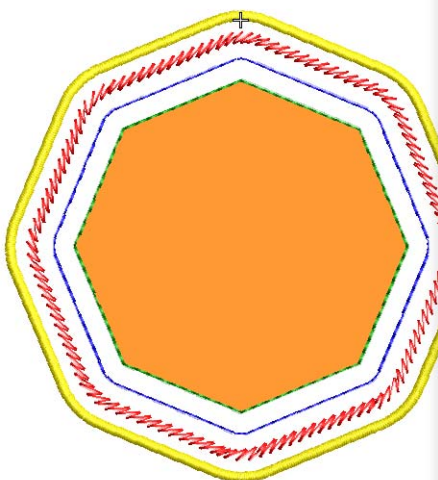### 'Space Available' for EC device sometimes shows 0MB

In some cases, when sending a design to an EC device, EmbroideryStudio e4.5 erroneously reports 0 MB available. This problem has been resolved with the release of ES e4.5.1.

Digitizing improvements

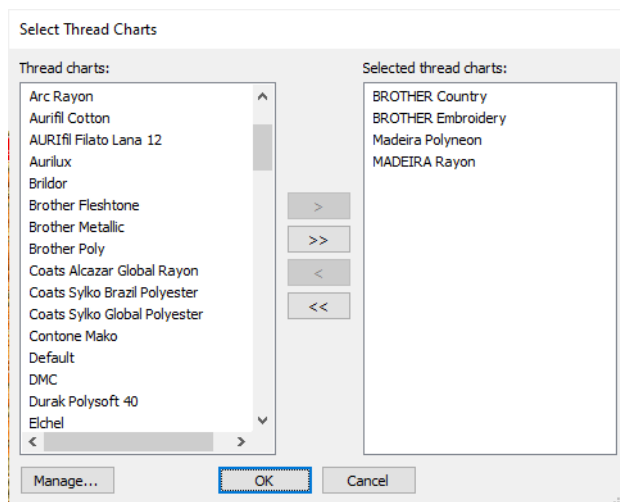The ES e4.5.1 software update includes the following digitizing improvements…

Outlines & offsets with vectors

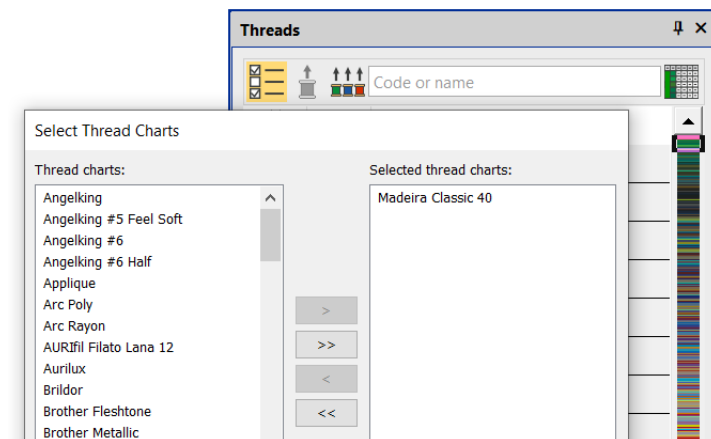The **Outlines & Offsets** feature now works with vector objects.

New thread charts

With the release of ES e4.5.1, four new thread charts are included – Madeira Polyneon, Madeira Rayon, BROTHER Country, and BROTHER Embroidery.

Thread chart colors unexpectedly turning to red and black

Problems have occurred in EmbroideryStudio e4.5 with thread chart colors turning to red and black shades following editing operations. This seems to have affected two Madeira charts in particular. The problem has been resolved with the release of ES e4.5.1.

Auto-digitizing improvements

The ES e4.5.1 software update includes the following auto-digitizing improvements...
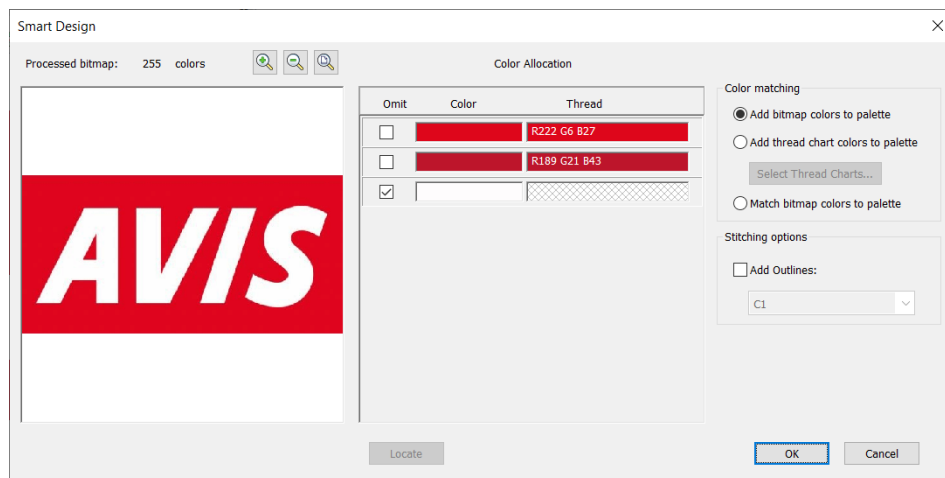
Branching of single objects in Smart Design

When using **Smart Design**, resultant single objects are being auto-branched unexpectedly. This problem has been resolved with the release of ES e4.5.1.
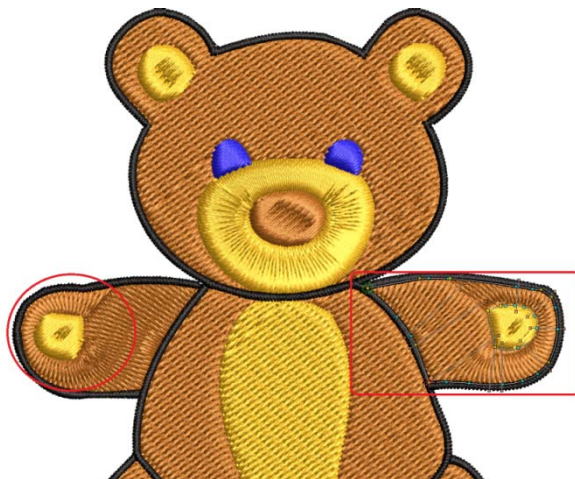

Segmenting of backgrounds in Smart Design

With certain designs, large backgrounds are being segmented unexpectedly, irrespective of values set in the **Smart Design** dialog. This problem has been resolved with the release of ES e4.5.1.

Unwanted stitch angles

Unwanted stitch angles are being added to some auto-digitized designs. This problem has been resolved with the release of ES e4.5.1.

Lettering improvements

The ES e4.5.1 software update includes the following lettering improvements...

Support for complex text layouts

ES e4.5.1 now provides support for 'complex text layout' (right-to-left) and non-European scripts including Arabic, Hebrew, and Thai.

With 'RTL languages' like Arabic and Hebrew, the order of characters is correctly rendered in the generated lettering objects. Complex text rendering is also supported in other languages which include combined characters. See also Selecting embroidery fonts.
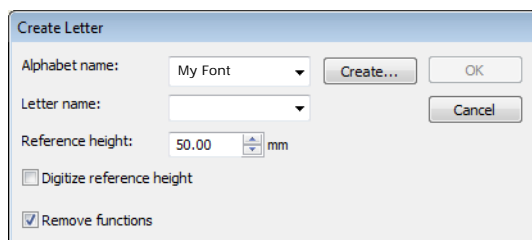
Ten (10) new fonts packaged

Ten (10) new fonts have been packaged with the latest update. These include:

◀ Albert
◀ Bounty
◀ Gypsy
◀ Lila
◀ Pastille
◀ Python Script
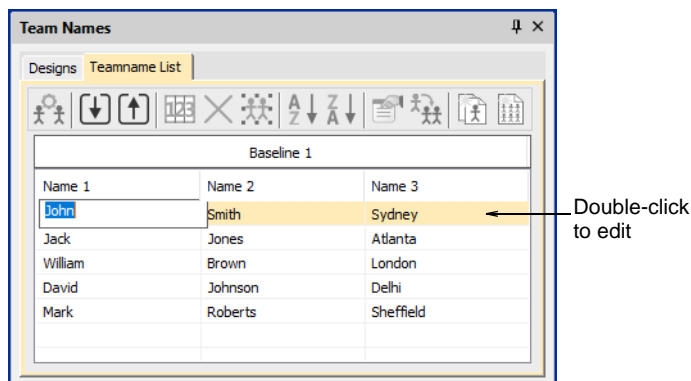◀ Scope
◀ Spatial
◀ Vivid Script
◀ Yama

Last used font name remembered

The **Create Letter** dialog now remembers and displays the last selected font name. This is a useful productivity enhancement when creating multiple sets of new letters. The same details no longer have to be unnecessarily re-entered.
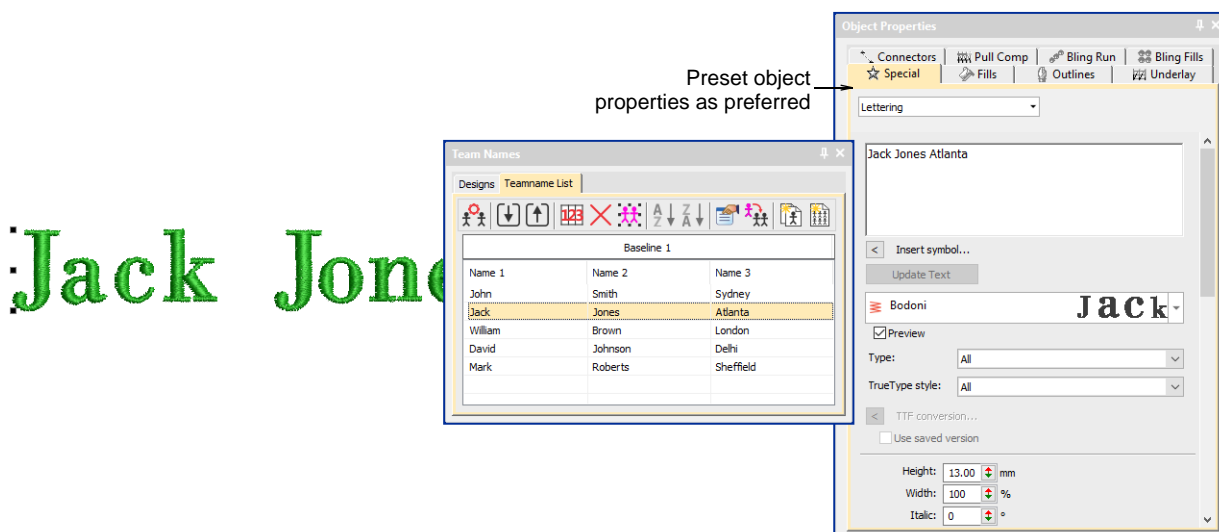
Editing names in Teamname List

Previously, when selecting a name in the **Teamname List**, it became editable. Now it remains highlighted and cannot be edited unless you double-click.

Double-click to edit

Changing stitch properties for lettering

With the latest release, you can preset object properties before adding members to your teamname list. This applies to both **Team Names** and other lettering objects. If you choose a fill that is not applicable to lettering, the system will default to the first applicable fill, usually Satin.
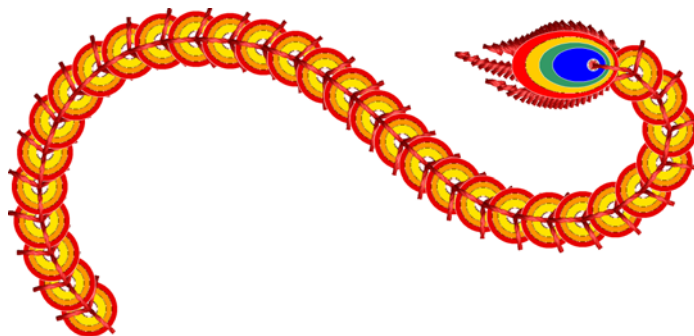

Preset object properties as preferred

Sequin improvements

The ES e4.5.1 software update includes the following sequin improvements...

Multi-sequin export to machine file

Problems have occurred when exporting multi-sequin designs to DST file format for production. Multi-sequin objects are being exported with the one sequin type and same size sequin fixing stitch. This problem has been resolved with the release of ES e4.5.1.

System & file improvements

The ES e4.5.1 software update includes the following improvements...

Unexpected crashes

Unexpected software crashes have occurred in EmbroideryStudio e4.5 when...

◀ Opening some DST, INB, and ESS designs
◀ Resizing certain EMB designs
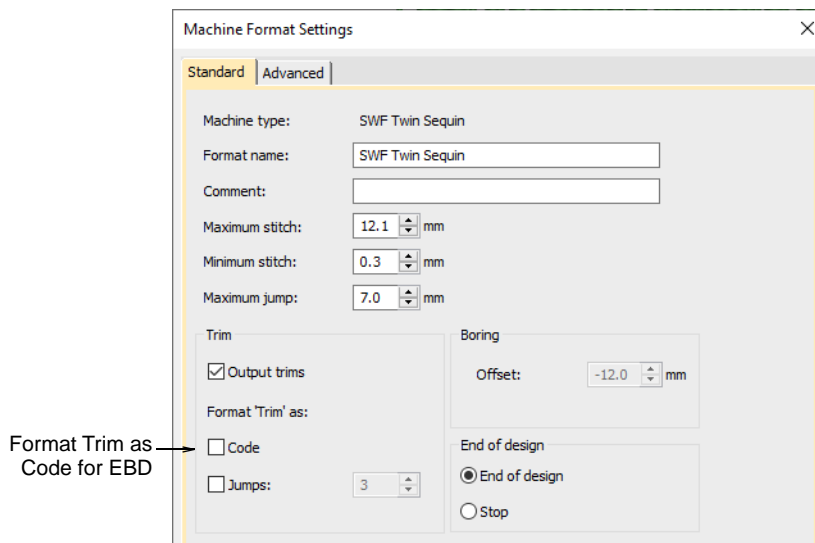◀ Using the **B** key to zoom onto selected areas.

The problem has been resolved with the release of ES e4.5.1.

PES file start and end points

A problem has been reported when outputting PES files from EMB. Auto start and end points are not being properly maintained, causing the design to be off center. This problem has been resolved with the release of ES e4.5.1.
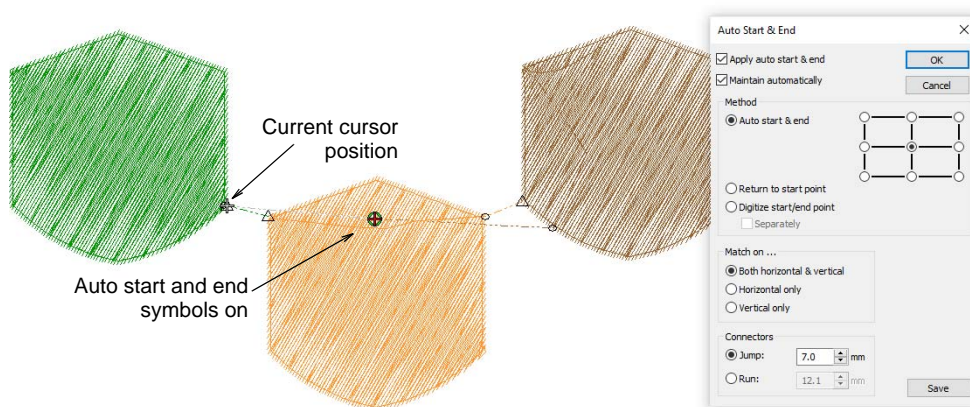
SWF (EBD) file format

The Wilcom SWF file format has been updated to support the latest version of EBD. Accordingly, the SWF Twin Sequin machine format includes a new trim format setting. You can now output 'Trim' as 'Code'.

Format Trim as Code for EBD

Auto-centering stitch cursor

Previously the stitch cursor always defaulted to the end of a design including start end connectors. With this release, the stitch cursor adjusts to the end of the last digitized object, not the auto-end point. If the object has a tie-off, the cursor jumps to the end of the tie-off instead of the beginning. All input methods behave the same way. Auto start and end symbols have been added – a green circle and a red cross. These are activated via **Options > View Design**.

Current cursor position

Auto start and end symbols on

Jump functions in the Stitch List

When digitizing objects with large jumps, the **Stitch List** now correctly shows Jump functions.

#	X	Y	L	Func
515	0.78	1.03	1.29	
516	-0.09	-0.14	0.17	TieOff
517	0.09	0.14	0.17	(used)
518	-0.30	-0.40	0.50	(used)
519	0.30	0.40	0.50	(used)
520	-0.09	-0.14	0.17	(used)
521	0.00	0.00	0.00	Color (15) (empty)
522	6.39	-0.08	6.39	jump
523	6.39	-0.08	6.39	jump
524	6.38	-0.08	6.38	jump
525	6.38	-0.08	6.38	jump
526	6.38	-0.08	6.38	
527	-0.77	0.22	0.79	
528	-0.94	0.34	0.99	
529	0.94	-0.34	0.99	
530	0.77	-0.22	0.79	
531	-0.77	0.22	0.79	
532	-1.57	0.57	1.67	
533	-2.06	-0.06	2.06	

General improvements

The ES e4.5 software update includes the following general improvements...

Processing speed

EmbroideryStudio e4.5 provides significant speed improvements. Processing of large complex designs containing many objects is now up to 100 times faster. This is especially significant when processing large sequin designs.

Installation improvements

EmbroideryStudio e4.5 provides significant improvements when installing updates and upgrades in relation to:

◂ Merging of existing custom assets
◂ Merging of existing settings when choosing to merge earlier installed versions.

User-defined assets such as styles, bling, sequin palette settings, toolbar layouts, and so on, are now correctly carried across from ESe3 and earlier installations.
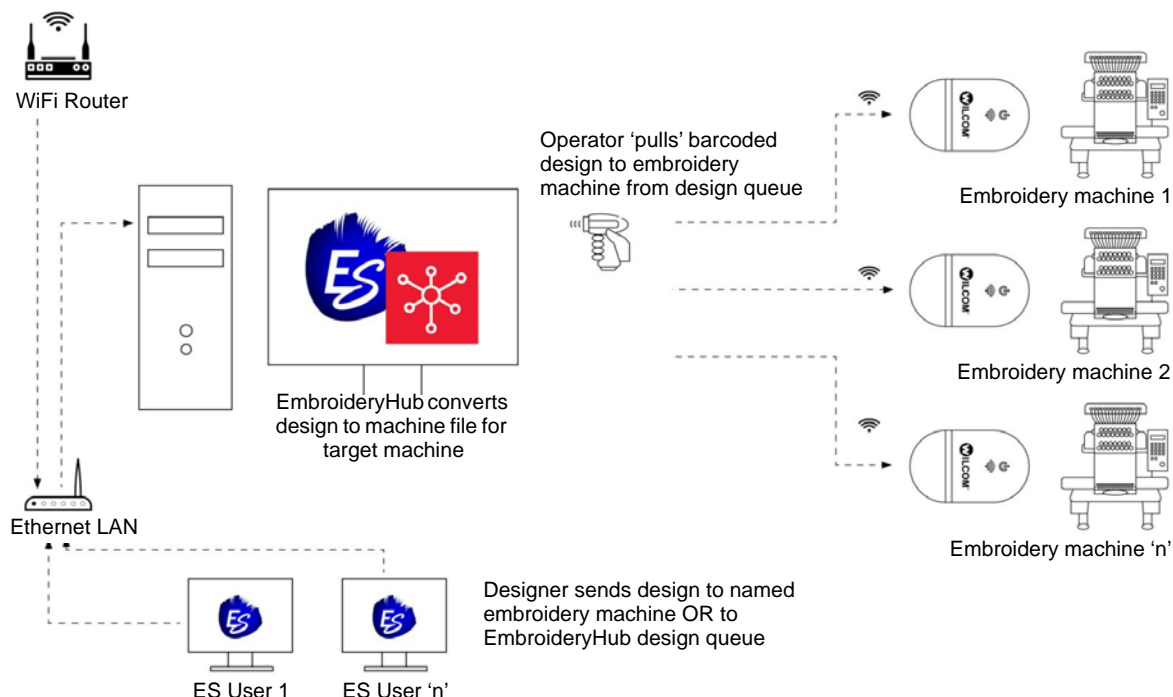
New and improved product elements

EmbroideryStudio offers a number of exciting new 'Elements' for Creativity and Specialty processes.

Element		1	2	3	4	5
Creativity						
Hand Stitch	Create hand-stitch effects which combine randomized spacing and stitch angles for a more organic look. Apply to satin, tatami, run, backstitch, and other stitch types.	●	❍	❍	–	–
Maze Fills	Automatically fill large areas with double-spiral stitching that never crosses itself.	❍	❍	–	–	–
Reef PhotoStitch	Convert photos into embroidered designs in seconds. Automatically fill large areas with open stitching reminiscent of a coral reef.	❍	❍	❍	–	–
Productivity						
EmbroideryConnect	EmbroideryConnect machine networking capability has had a complete overhaul in ES e4. See EmbroideryConnect networking for details.	●	●	●	●	●
Specialty						
Sequins Advanced	Create embroidery files for single and twin-sequin dispensing machines. See Sequin improvements & new features for details.	❍	❍	–	–	–
1 ES Designing 2 ES Digitizing 3 ES Decorating 4 ES Editing 5 ES Lettering ● Included as standard ❍ Modular 'element'						

EmbroideryConnect networking

Wilcom's **EmbroideryConnect** network capability has just taken a giant leap forward with the new **EmbroideryHub** networking software and second generation **EmbroideryConnect** WiFi device. The concept

behind the EmbroideryConnect network is described by the following diagram...

WiFi Router

Operator 'pulls' barcoded design to embroidery machine from design queue

Embroidery machine 1

EmbroideryHub converts design to machine file for target machine

Embroidery machine 2

Ethernet LAN

Embroidery machine 'n'

Designer sends design to named embroidery machine OR to EmbroideryHub design queue

ES User 1   ES User 'n'

EmbroideryHub

Quickly and easily send, scan, and queue your embroidery designs for production. EmbroideryHub software is included with the upgraded **EmbroideryConnect** element. See Machine Networking for details.

EmbroideryConnect

Now you can wirelessly manage and transfer embroidery designs from **EmbroideryHub** to the new second generation **EmbroideryConnect** WiFi device connected directly to your embroidery machines. Features include:

‣ Simple integration with your existing WiFi network.
‣ Color-coded LED light notifications.
‣ Barcode reader for super-fast design loading.

Sending designs to the EmbroideryConnect network

Use Standard > Send to EmbroideryConnect to send the current design to a named EmbroideryConnect device.

Use Standard > Queue Design to send the current design to the EmbroideryConnect design queue where they can be 'pulled' from the machine.

Once you have set up one or more EmbroideryConnect devices on your network, you have the choice of 'pushing' designs or 'pulling' them from the EmbroideryHub. The new **Send to EmbroideryConnect** button allows you to send a design to a named EC device. Alternatively, use the **Queue Design** to 'push' designs to a queue where they can be 'pulled' from the machine itself. See Sending designs to EmbroideryConnect for details.

Stitching improvements & new features

The ES e4.5 software update contains some exciting new stitch effects, with an emphasis on a more naturalistic, organic style of stitching, placing it at the cutting edge of contemporary embroidery digitizing. New features are summarized as follows…

New Hand Stitch

Use Stitch Effects > Hand Stitch to create hand-stitch effects which combine randomized spacing and stitch angles. Can be applied to satin, tatami, run, backstitch, and other stitch types.

Tired of perfect machine stitching every time? Fashion trends sometimes favor a more organic look which is very hard to achieve with current design tools. With the new **Hand Stitch** effect, you can easily and intuitively create hand-stitch effects which combine randomized spacing and stitch angles. This powerful new stitch effect can be applied to a

variety of stitch types, including satin, tatami, run, backstitch, and others. See Hand stitch effect for details.
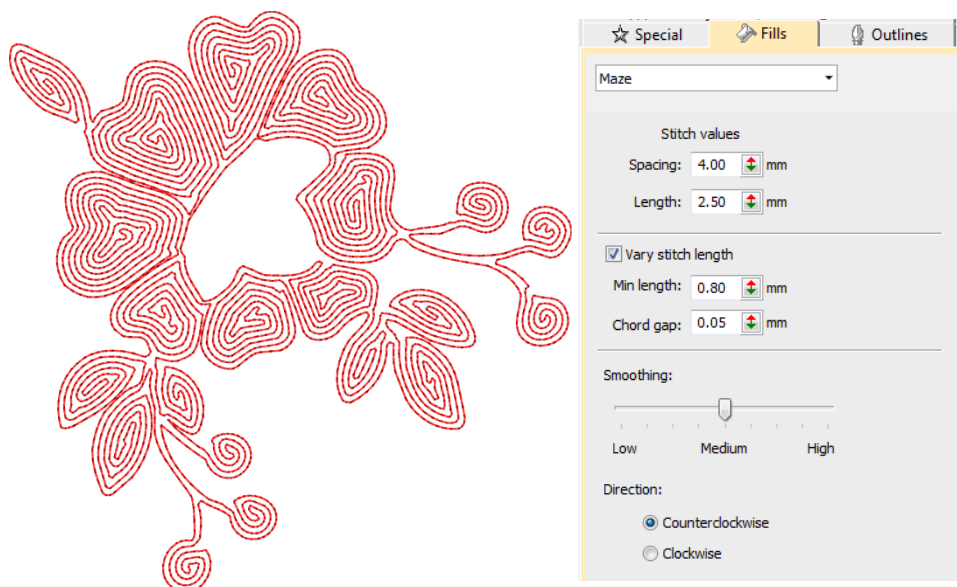

New Maze Fill

> Use Fill Stitch Types > Maze Fill to create maze-like stitching that never intersects. Right-click for settings.

New **Maze Fill** offers a double-spiral stitch that **never** crosses or jumps over itself. Automatically fill large areas with this unique stitch type. See also Maze fills.
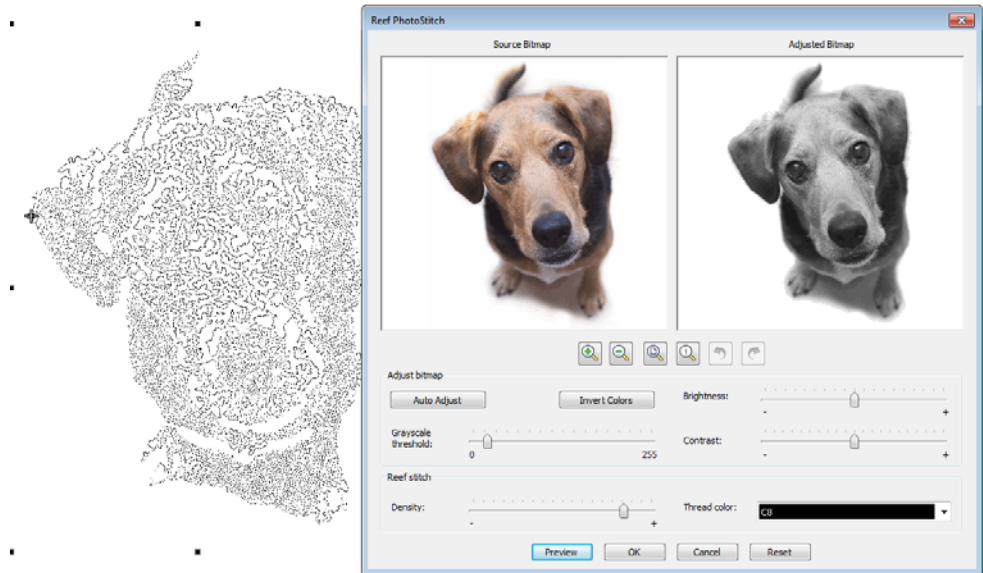

New Reef PhotoStitch

> Use Auto-Digitizing > Photo Flash to create embroidery designs directly from photographs.
>
> Use Auto-Digitizing > Reef PhotoStitch to turn photographs into a single embroidery field resembling a coral reef.

New **Reef PhotoStitch** expands on the **Photo Flash** auto-digitizing method to convert a photos into embroidered designs. Automatically fill large areas with open stitching reminiscent of a coral reef. Like **Maze Fill**,

this stitch never intersects itself. Adjust to the stitch resolution of choice. See also Auto-digitizing with Reef PhotoStitch.

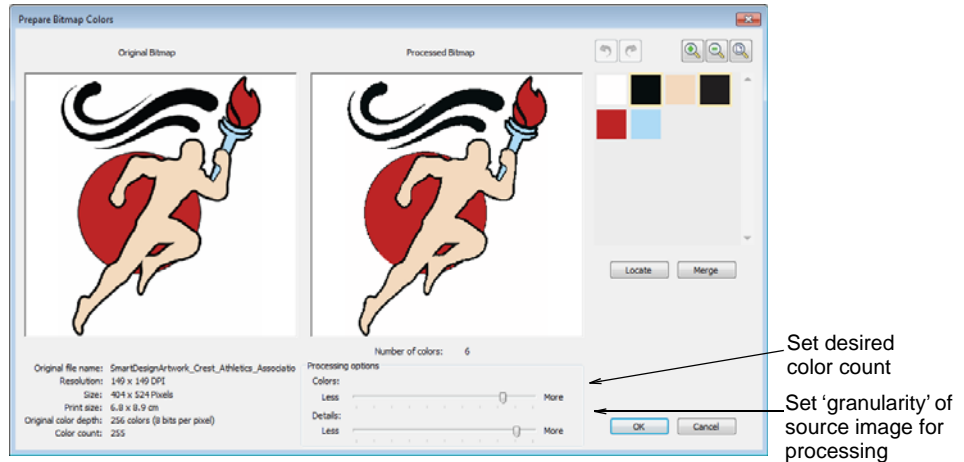

Auto-digitizing improvements

The ES e4.5 software update contains significant improvements in auto-digitizing capabilities.

Bitmap preparation

Bitmap preparation improvements have focused on the creation of logo-style designs for commercial decorators. Improvements include:

◀ Better sequencing
◀ Fewer color changes and trims

◀ Improved color reduction

Set desired color count

Set 'granularity' of source image for processing
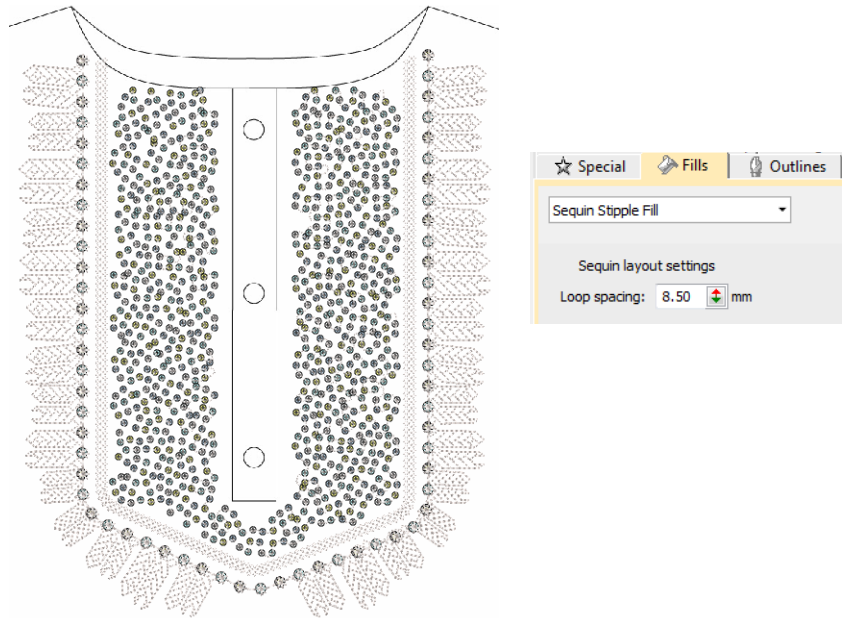
Stitch estimation

Again with and emphasis on the creation of logo-style designs for commercial decorators, ES e4.5 provides improvements in accurate stitch counts for quotes. This is to assist the growing trend (and cost) of outsourcing, as well as difficulties business owners and staff have in providing accurate estimates.

Sequin improvements & new features

The ES e4.5 software update also contains some exciting developments in sequin digitizing to exploit the cutting edge sequin placement capabilities of the latest machines and controllers. New features are summarized as follows…

Sequin stipple fill

Create variegated stipple fills automatically with single or multi-color sequin patterns. These can be reshaped and resized like any embroidery object. See Fancy sequin fills for details.
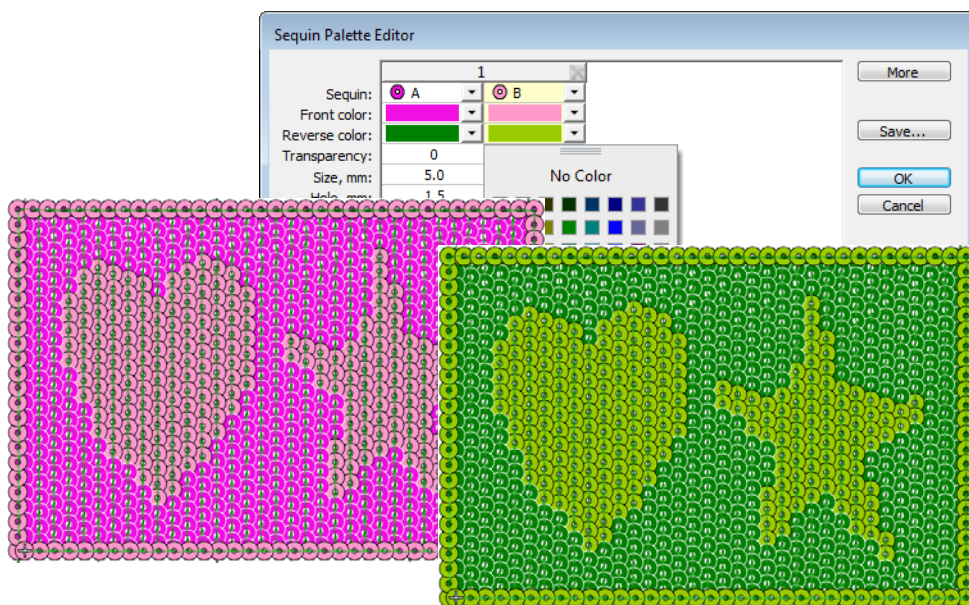

Flip sequins

Use View > Flip Sequins to toggle between front and reverse sides of sequin runs and fills in reversible sequin designs. Define colors in the Sequin Palette Editor.

Flip sequins, also known as reversible sequins, are a color-changing effect which has become very fashionable. Beginning with children's wear, flip sequins have found a wide variety of applications, from reversible sequin shirts, pillow cases, bags, cases, note books, and more. Their use is very simple – swipe up or down to reveal the reverse side, with sometimes surprising effects. A simple pink sequined heart on a

plain T-shirt can suddenly turn purple at the touch. Reverse sequin use has also found its way into high fashion.
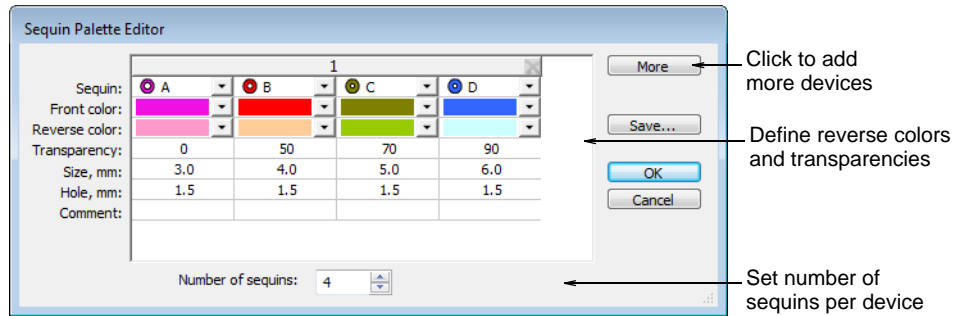

The software now allows you to define as many flip sequins as your machine will support, from as little as a single flip sequin, to 2-sequin, 4-sequin, 6-sequin or even 8-sequin devices. The **Flip Sequin** control allows you to visualize fills created with flip sequins. You can even design your own sequin and offset hole. See Visualizing sequin designs for details.
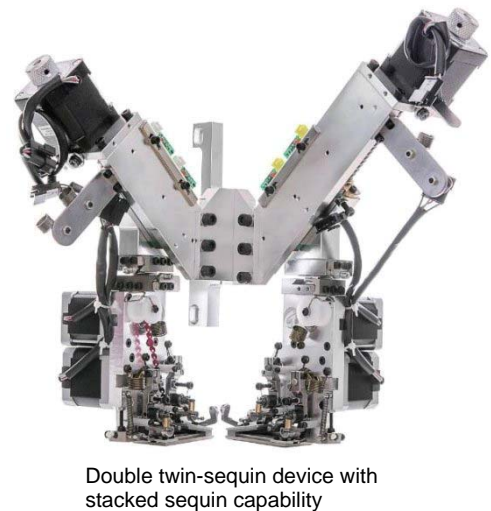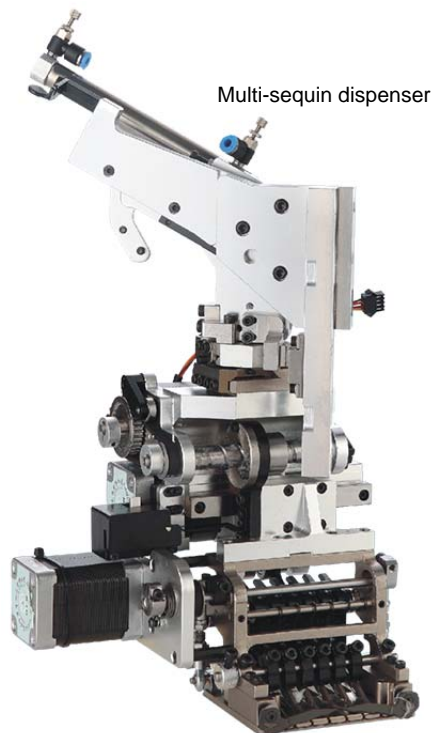

Multi-sequin support

EmbroideryStudio currently provides support for twin-sequin machines. However, Dahao machine controllers now support a much higher number

of attached sequin devices. ES e4.5 provides multi-sequin support for machines with 4-sequin, 6-sequin or even 8-sequin devices. See Setting up sequin palettes for details.

Click to add more devices

Define reverse colors and transparencies

Set number of sequins per device

Machine capabilities

An increasing number of commercial machines can support various devices for additional decorative effects. The multi-sequin support now provided by ES e4.5 is designed to exploit the latest machine capabilities.

Multi-sequin dispenser

Double twin-sequin device with stacked sequin capability

The main sequin device configurations include…

◀ Machines supporting one sequin per device. These feed only one sequin at a time.

- Machines supporting one or two devices per machine head, usually on first or last needles.
- Machines supporting twin-sequin devices with no stack feeding – e.g. Barudan FDR-II Twin Sequin, Tajima TBF, SWF Twin Sequin.
- Machines supporting twin-sequin devices or even double twin-sequin devices with stack feeding – e.g. Dahao.
- Machines supporting multiple sequins per device – four, six, eight, and possibly more sequins – with or without stack feeding.

Note An increasing number of machines support multiple decoration types including sequins in combination with chenille, beading, cording, and others.
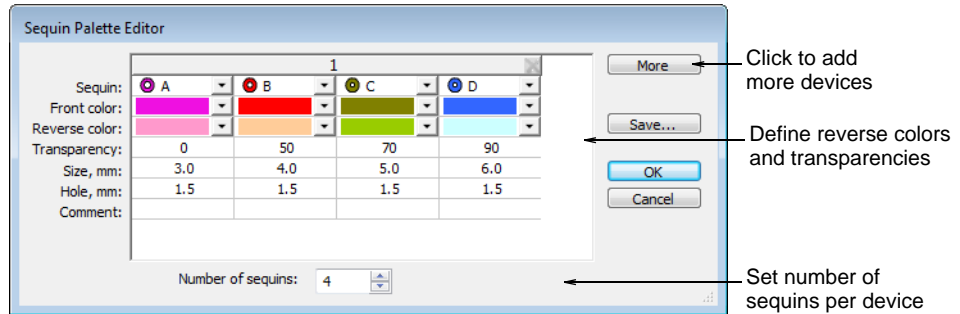
Machine formats

ES e4.5 supports the following sequin-capable machines:

Machine format	Sequin capability	File format
Barudan FDR-3	Twin	U??
Barudan FDR-3 Chenille Combination	Twin	U??
Barudan FDR-II Twin Sequin	Twin	U??
Barudan FDR-II Twin Sequin Chenille Combination	Twin	U??
Dahao	Multiple	DST (Dahao)
Schiffli	Single	ESS
SWF	Single	DST
SWF Twin Sequin	Twin	EBD
Tajima	Single	DST
Tajima TBF	Twin	TBF
ZSK	Single	ZSK

Sequin palette editor

In order to exploit multi-sequin machine capabilities, the **Sequin Palette Editor** has been updated as shown…

Click to add more devices

Define reverse colors and transparencies

Set number of sequins per device

The following changes have been made:

◀ Up to 8 sequins per device can be specified.
◀ Colors can be defined for both front and reverse sides.
◀ A transparency factor from 0 to 90 can be defined for each sequin.

Set number of sequins per device. Sequin devices are normally attached to the first or last needle on the machine head. Sometimes both. (There may be multiple heads on the machine.)
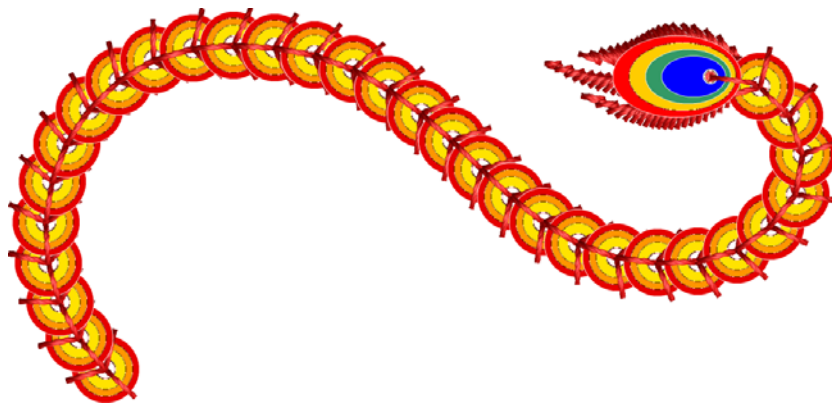
Stacked sequins

Use Sequin > Manual Sequin to digitize individual sequins.

Use Sequin > Sequin Run Auto to create a string of sequins along a digitized line according to current settings.

Use Sequin > Sequin Run Manual to manually digitize sequin-drops along a digitized line.

For those machines that support it, ES e4.5 allows you to define multiple sequin drops on the same needle. Fixing stitches are only applied after all sequins have been dropped. See Stacked sequins for details.

Stacked sequins can be used with **Manual Sequin** and **Sequin Run** digitizing methods. Permutations are automatically defined according to the sequin palette.