WILCOM®

EMBROIDERY STUDIO e4.5

Beading Supplement

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Bead Embroidery

Bead embroidery is a type of applied decoration where beads, like sequins, are stitched rather than glued to fabric, suede, or leather. Unlike woven, knitted, and crocheted beading, embroidered beading does not form part of the fabric structure. Traditionally, it has been used on garments and decorative textiles. Accessories such as handbags or belt buckles may also be embellished with bead embroidery. As may household items such as pillowcases or cushions.

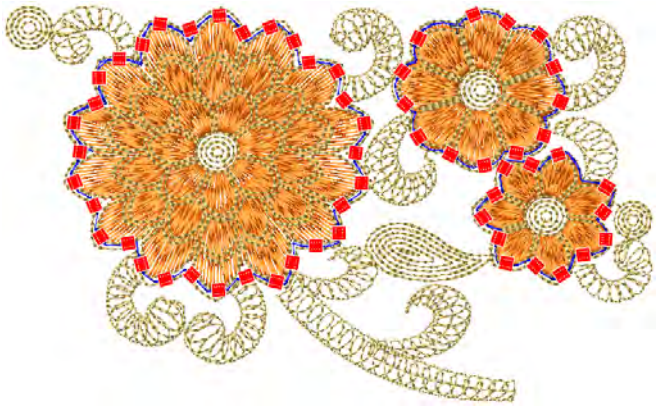
Embroidery machines can be equipped with a device that drops beads onto fabric as it stitches, similar in principle to sequin embroidery. EmbroideryStudio includes a **Beading** capability which supports beading devices. A library of beads of different size, shape and color, is available, together with fixing stitches supporting classic upright, flat and sideways beading.

This section describes how to set up bead palettes and how to visualize bead designs. It explains how to create single-bead as well as multi-bead runs. It also covers bead fixings as well as reshaping and editing. It also deals with individual bead drops.

Beading mode

Before using the **Bead** tools, you must select a machine format that supports bead output. You can then set up a dedicated palette for your

design from a list of shapes. Each can be adjusted in size, height and color.



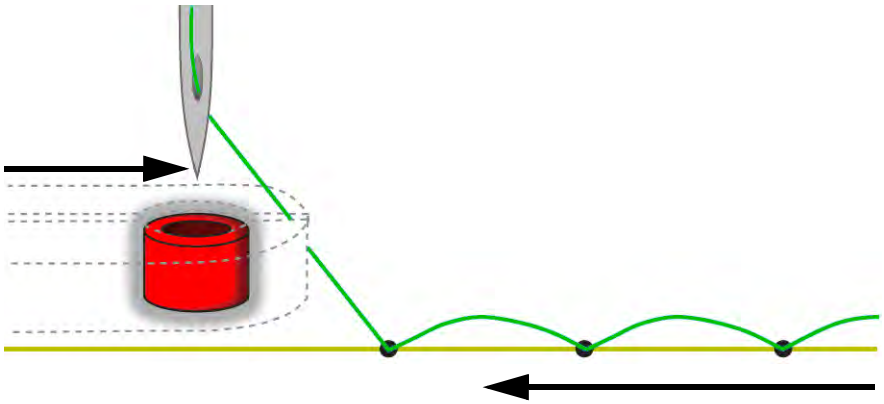
Machine beading

Capabilities vary but bead devices are not as varied as sequin devices. There are two categories: bead tape and loose beads. For both types of setup, twin-bead configurations are currently the most popular.

Twin-bead tape device

Twin-beading loose bead device

Bead tapes, like sequin reels, provide controlled placement of beads on fabric. With loose beads, containers hold them on top of the dispenser. This method is not quite as reliable as beads on tape.



Various layout methods are available on the machine. EmbroideryStudio supports the classic fixing stitch types – ‘upright’, ‘flat’, and ‘sideways’ – as well as decorative variants.

Beading machine formats

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.

Note For machine formats that have no bead capability, the bead palette will display. However, if you attempt to create a bead object, fixing stitches will be digitized without bead drops.

Related topics

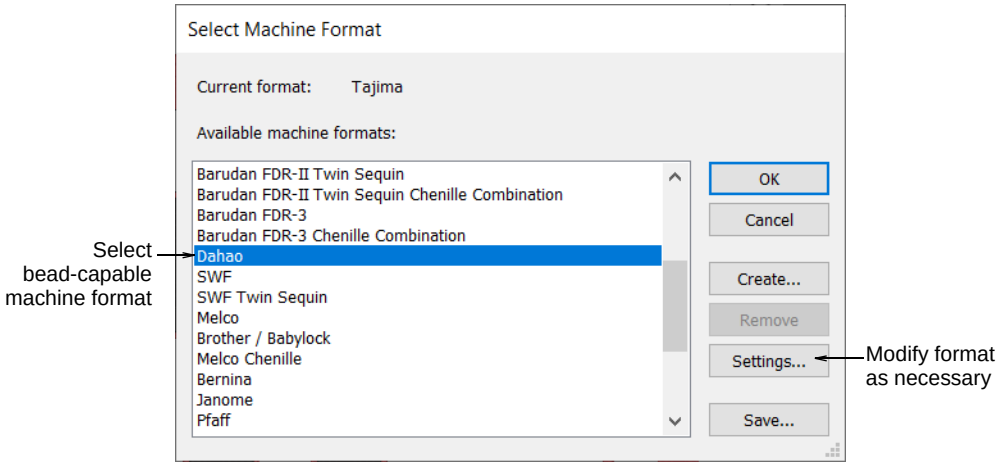
- Embroidery machine formats

Select bead-capable machines

Before you can use the **Bead** tools, you need to choose a suitable machine format.

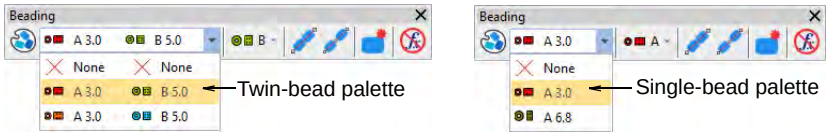
To select a bead-capable machine

1 Select **Design > Select Machine Format**.



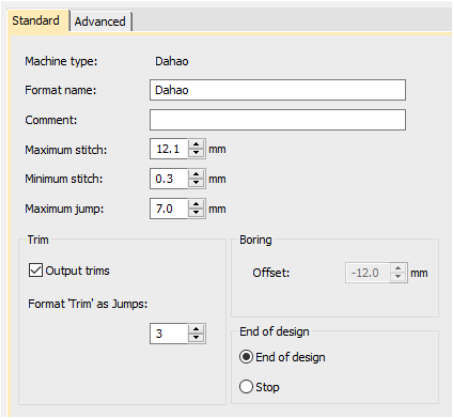
2 From the **Available Machine Formats** list, select a bead-capable machine format – e.g. Tajima TBF, Dahao.

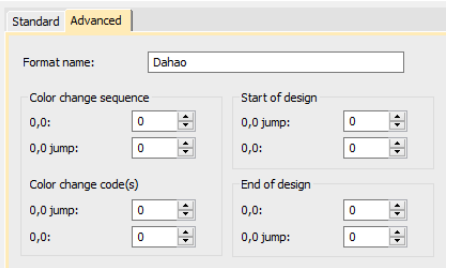
3 Click **OK**. Default bead shapes are now available for selection from the **Bead Palette**. If you have selected a twin-bead-capable machine, bead shapes and sizes are displayed in pairs. Up to eight (8) beads can be supported when the Dahao machine format is selected.



Note Different machines require different presets. Typical modifiable values include stitch and jump length, trim functions and color change

functions. Use the **Machine Format Settings** dialog to customize values if outputting to a specific machine format.





Related topics

- Embroidery machine formats
- Exporting designs for machine

Visualize bead designs

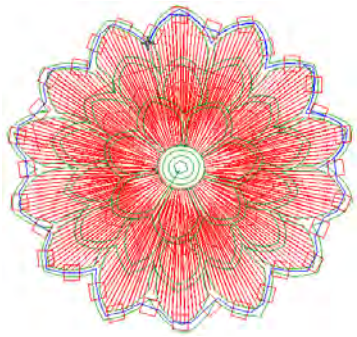
	Click View > TrueView to toggle between stitch view and TrueView™. Right-click for settings.
	Use View > Show Stitches to toggle embroidery stitching display. Right-click for settings.
	Use View > Show Functions to toggle display of machine function symbols. Right-click for settings.

Beading can be viewed in **TrueView** or stitch view while **Show Functions** is toggled on.

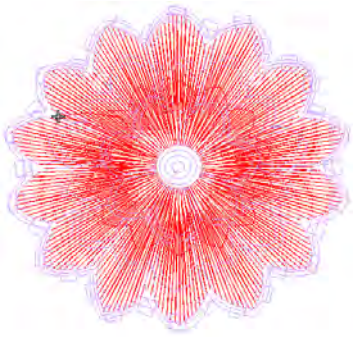
Beading in TrueView

Beading turned off

Both beads and fixing stitches appear in their selected colors and can be turned on or off via **Show Functions** and **Show Stitches** toggles.



Beading in stitch view



'Undropped' beads when traveling

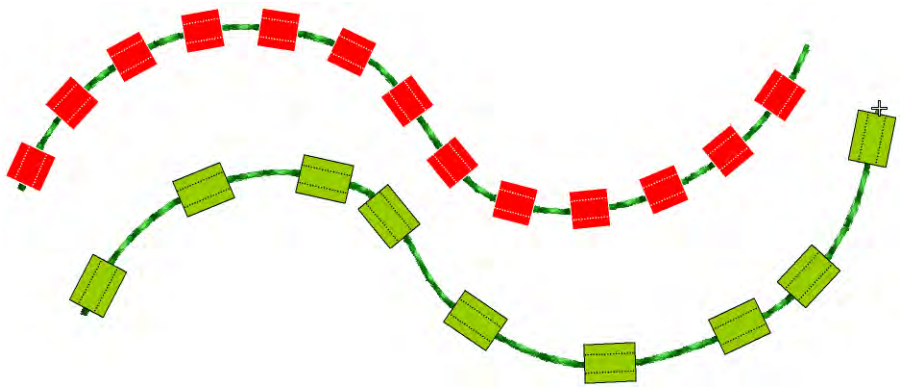
When traveling through a beading design, 'undropped' beads appear in the 'unsewn' color defined in the **Background & Display Colors** dialog.

Related topics

- Travel through designs
- Viewing design repeats
- Change display colors

Creating bead runs

EmbroideryStudio provides tools for creating a string of beads along a digitized line according to preset spacings or as marked by the digitizer.



Digitize bead runs as you would do sequin runs. If you use the manual method, you define spacings between bead-drops with every click you make. If you use the automatic method, bead-drops are calculated according to current **Bead Run** object properties.

Set up bead palette

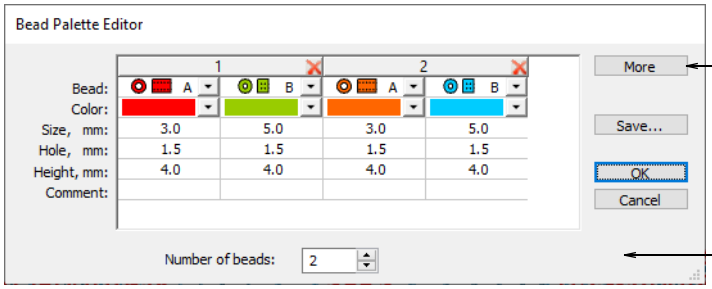
Use Bead > Bead Palette Editor to select shapes from a bead library, and define bead colors and sizes.

Use the **Bead Palette Editor** to prepare a palette of beads for use according to your machine capabilities. Bead devices are normally attached to the first or last needle of the machine head.

To set up a bead palette

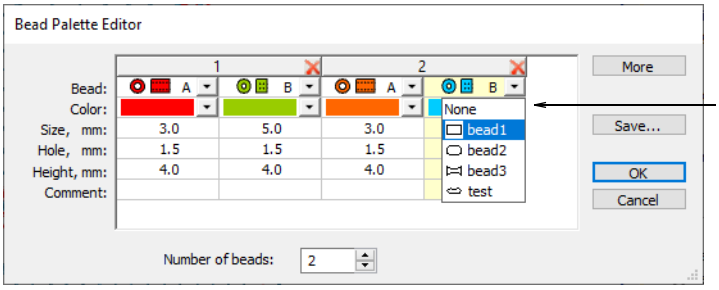
1 Select the machine format that supports the machine you are using.

2 Click the **Bead Palette Editor** icon. Fields for each bead are arranged in tabular form.



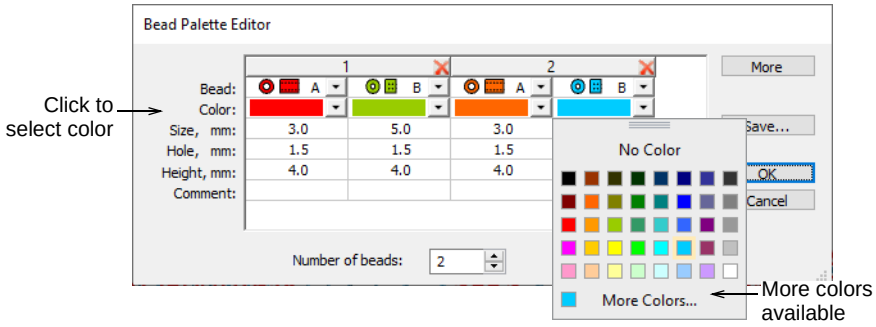
3 Set the number of beads available per device. Depending on machine type, up to eight (8) beads may be supported. If you have chosen a twin-bead machine, this value is limited to 2.

4 Use the **More** button to add devices. Click **X** in the column header to remove.



5 Select a bead from the droplist.

6 Set color, bead and hole size, as well as height.



7 Set up other beads in the same way, and click **OK**. Beads are available for selection.

Related topics

- Select bead-capable machines

Digitize bead runs

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

Use Bead > Bead Run Manual to manually digitize bead-drops along a digitized line.

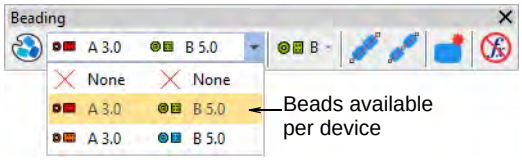
A 3.0 Use Bead > Bead Palette to select from a user-defined palette of bead shapes for the current design.

Normally beads are stitched last, after motifs and other embroidery are complete. With the **Bead Run** tools you have the option of digitizing individual bead drops or letting the system generate them for you. Automatic bead runs can be scaled.

To digitize a bead run

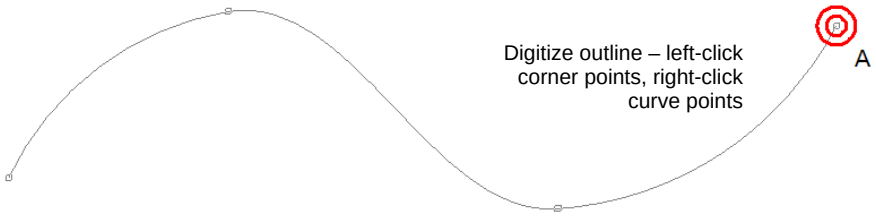
1 Select a bead-capable machine from the **Select Machine Format** dialog.

2 Define your palette and select bead shapes you want to use from the droplist, in this case a twin-bead setup.

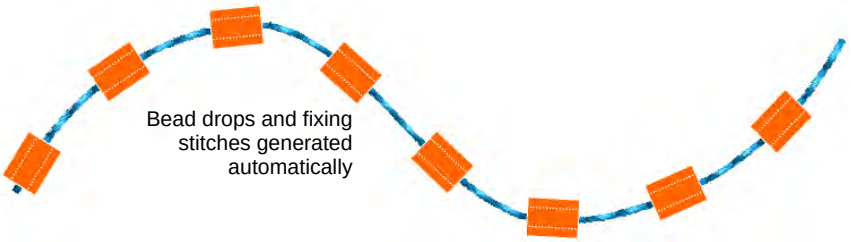


To digitize automatic bead placements

- To digitize a scalable bead run, use the **Bead Run Auto** tool. Enter reference points – left-click for corner points, right-click for curve points.

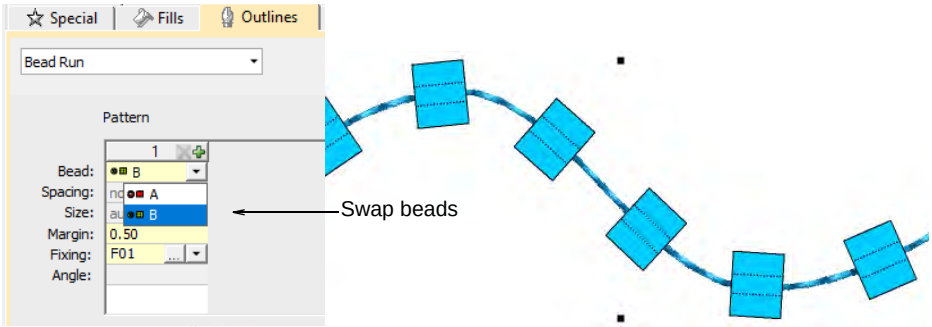


- Press **Enter** to complete. Bead drops are automatically generated along with fixing stitches according to current **Bead Run** object properties.

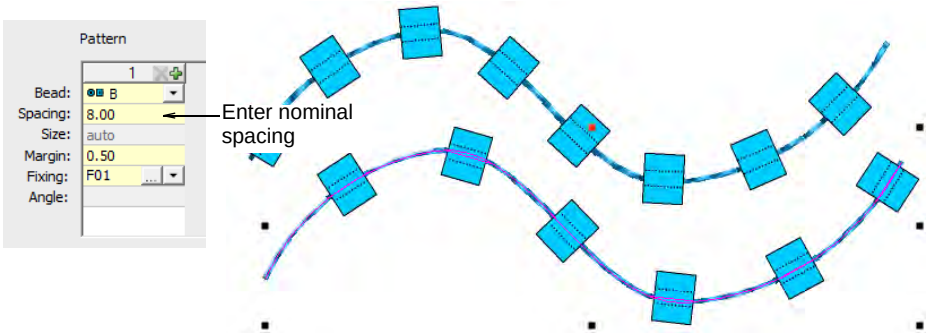


Tip You can convert a normal run to bead run by selecting and clicking the **Bead Run Auto** tool.

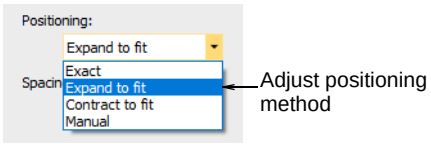
- Double-click the object to access properties and swap beads as preferred.



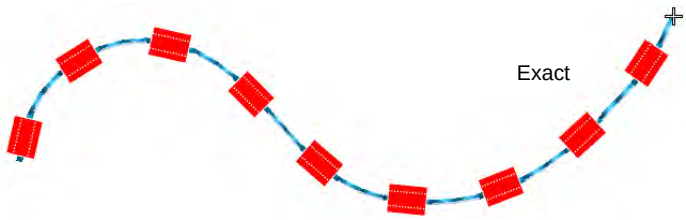
- In the **Spacing** field, enter a nominal spacing. By default, this is measured 'along baseline', from one bead drop to the next. Minimum spacing is automatically calculated.



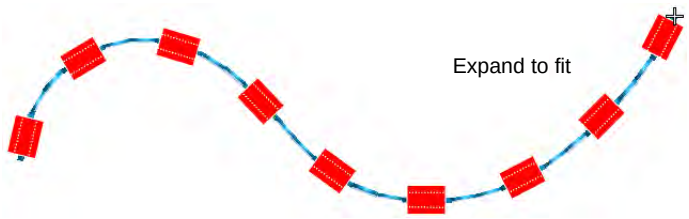
- Adjust **Positioning** method as preferred:



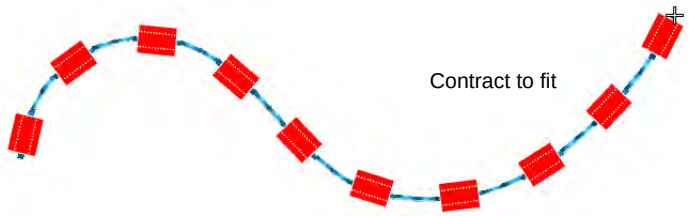
  - **Exact**: Uses nominal spacing. This may result in gap formation at the end of the path.



- **Expand to fit**: Expands spacing to evenly spread bead distribution.

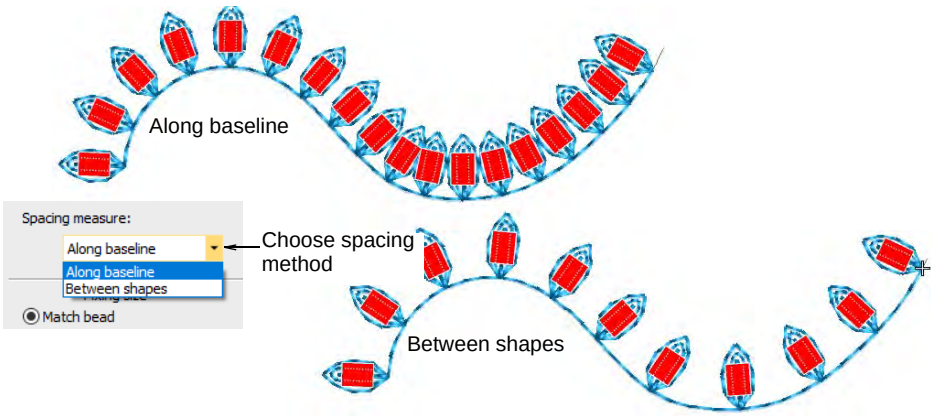


- **Contract to fit**: Contracts spacing to evenly spread bead distribution, sometimes resulting in an extra bead.

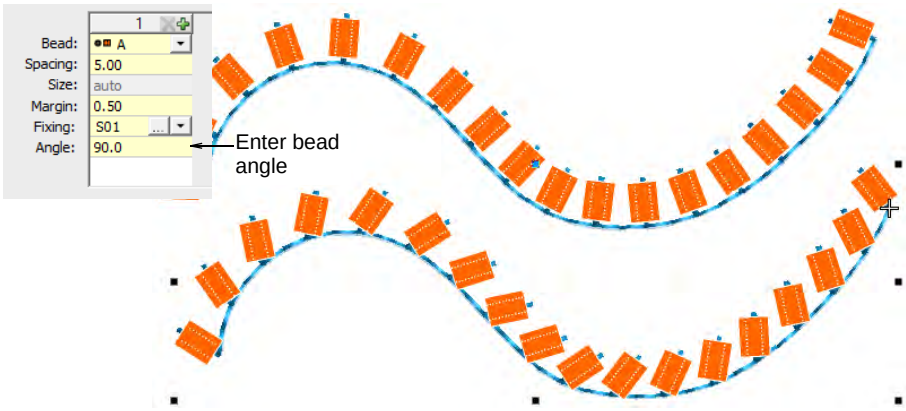


- **Manual**: Turns bead run to 'manual' so that the number of beads won't change when scaling.

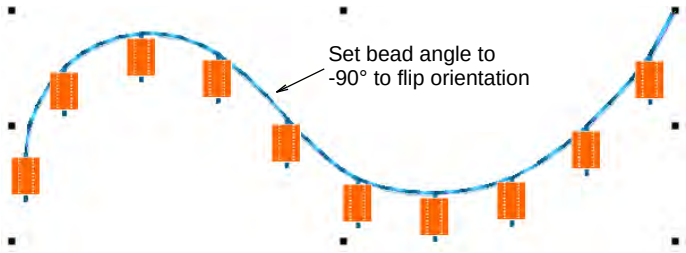
- Change the **Spacing measure** as necessary in order to prevent bead bunching.



- Use **Angle** to orientate beads in relation to the run line. Fixing stitches are adjusted accordingly.



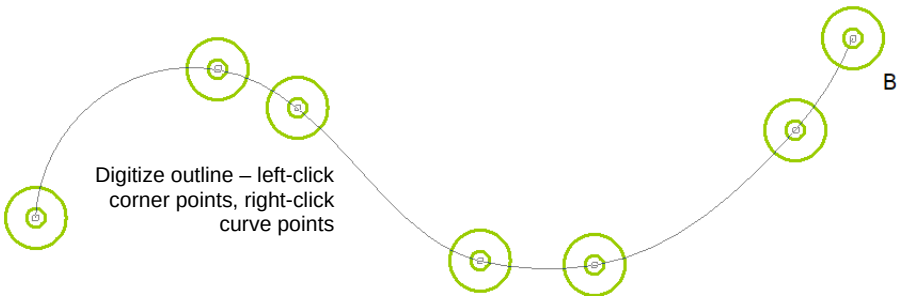
- Set **Angle** to -90° to flip bead orientation.



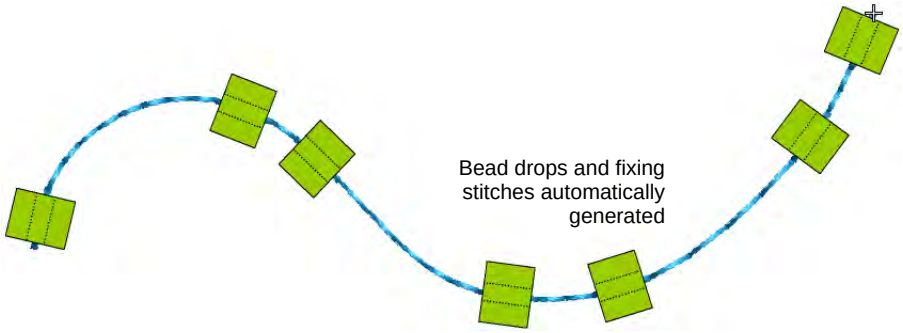
- To change fixing stitches, click the '...' button in the **Fixing** field. The docker expands to display a library of fixing stitch types. See below.

To digitize manual bead placements

- Alternatively, to control the exact placement of your bead drops, use the **Bead Run Manual** tool. Digitize individual bead drops with left and right mouse-clicks.



- Press **Enter** to complete. Bead drops are generated at each reference point. Connecting and fixing stitches are automatically generated.



Note Manual placements can be reset by choosing a different **Positioning** method. If you change to exact spacing, all drops are recalculated and manual placements lost.

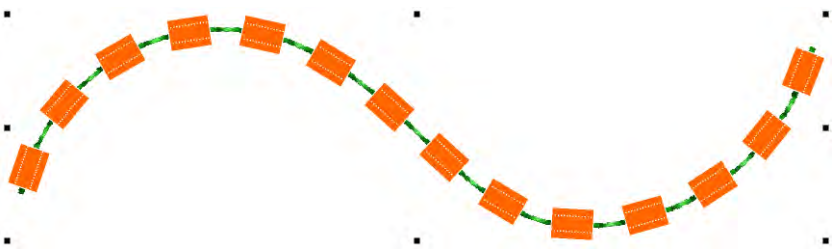
Create patterned bead runs

	Use Bead > Bead Run Auto to create a string of beads along a digitized line according to current settings.
	Use Docker > Object Properties to toggle the docker on/off. Set properties for the current design.

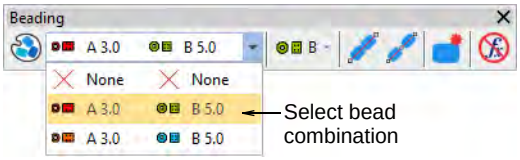
With EmbroideryStudio, you can create bead run patterns for immediate use. Patterns generally involve multi-bead drops.

To create a patterned bead run

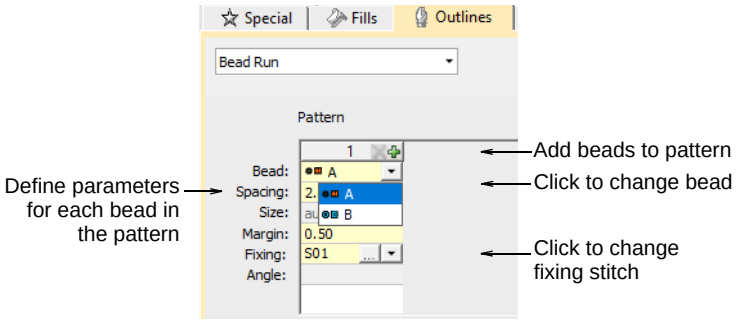
- Create a bead-run object with **Bead Run Auto** or select an existing object. This allows you to preview your pattern as you go.



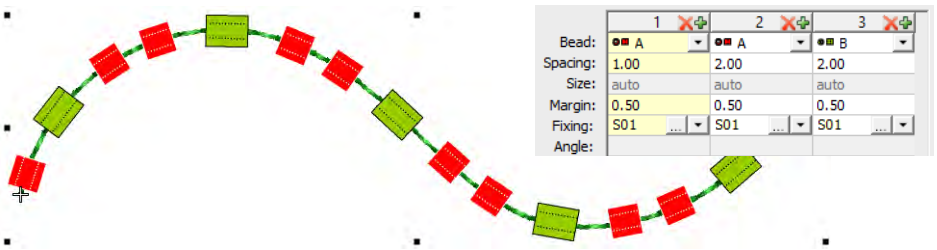
- Select the bead combination you want to use.



- Open **Object Properties**. The **Pattern** table displays beads currently available.



- Add or remove beads via the **+** and **X** buttons in the column header.
- Select a bead from the droplist. The selected sample updates immediately.
- In the **Spacing** field, enter a nominal spacing for each bead. By default, spacing is measured along the digitized line.



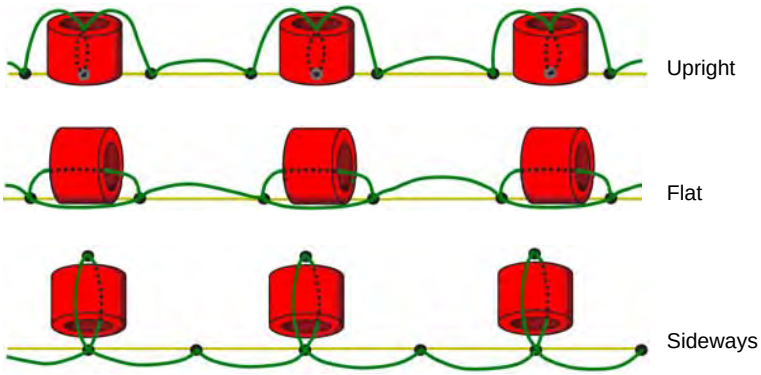
- In the **Fixing** field, select the type of fixing you want. Generally you'll use the same fixing for all beads in the pattern.

Related topics

- Select bead-capable machines
- Digitize bead runs

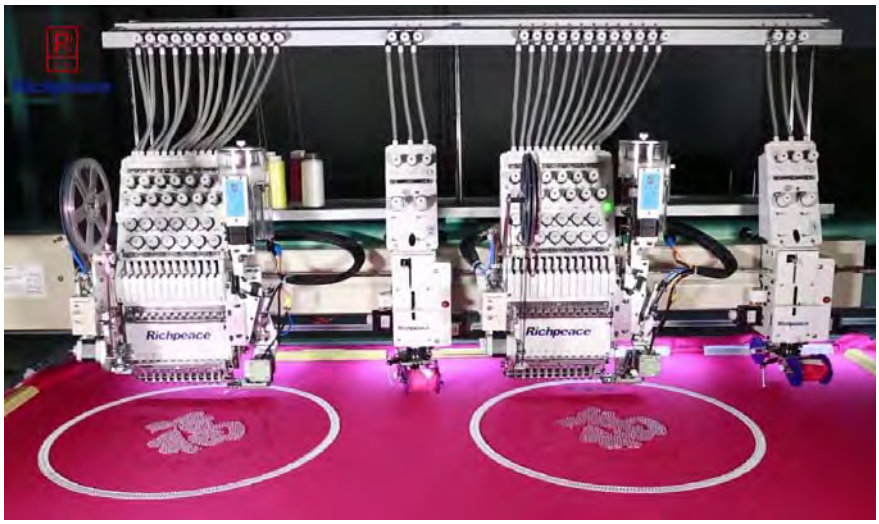
Bead fixings

EmbroideryStudio provides a library of predefined fixing stitches for use with bead runs. Generally digitizers reserve a single thread color for all beads, regardless of bead color. Transparent thread is often used in order to avoid differences between thread color and bead color. Various layout methods are available. EmbroideryStudio supports the classic types – ‘upright’, ‘flat’, and ‘sideways’ – as well as variants. Fixing stitches are generally not part of the decoration.



Bead fixing considerations

Fixing type is independent of device type. The bead is always dropped in the same way. Fixing stitches control bead orientation. However, different machines and dispensers have their own production requirements and idiosyncrasies.



Bead production vs sequin production

Bead production is more exacting than sequin production. While sequin devices used to have similar issues, they have matured to the point where they can manage all kinds of fixing types at high speed. Moreover, sequin materials are more forgiving. Needle penetrations do not generally cause serious problems. The minimum commercial operating speed for bead production is 800 rpm or higher. Typical problems which can occur at high speed:

- Beads are missed
- Beads are smashed
- Needles are broken.

Testing for high speed production

You may need to modify or 'tweak' predefined fixing types provided by the software in order to run reliably at high speed. This will involve testing on the machine. While fixing stitches in EmbroideryStudio automatically adapt to bead size, each bead type will need to be tested separately. Generally speaking, bead production can be stabilized when running machines at low speed, say, 600 rpm. This is suitable for testing. A typical scenario:

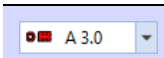
- You develop a bead embroidery design.
- You carry out a sampling test at low speed.
- You test at production speed in order to calculate costs.
- You find bead fixing does not meet high speed requirements – beads are missed or smashed.
- You adjust bead fixings to obtain a suitable result.

Options for editing bead fixings

Options available in EmbroideryStudio for bead designers are:

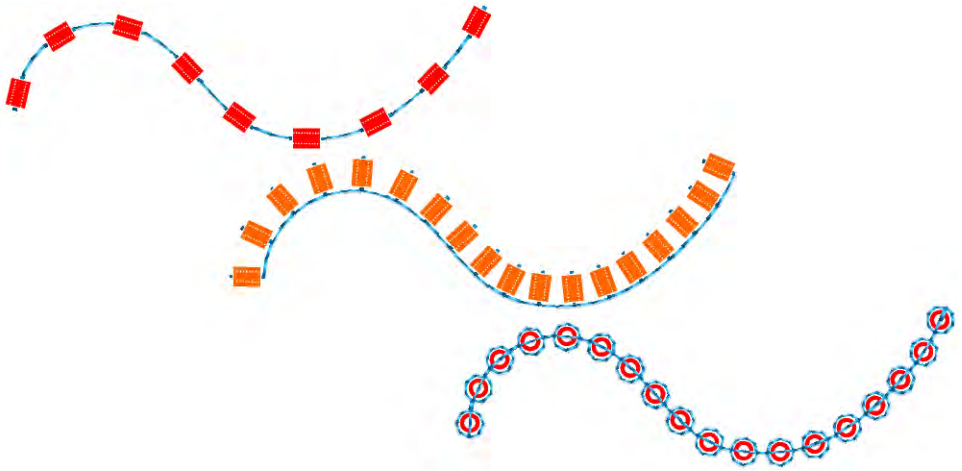
- Modify or 'tweak' fixing stitches by means of object properties. This may involve:
  - Trying out different fixing stitch types
  - Testing automatic as well as fixed spacings
  - Modifying margin settings.
- Manually edit bead fixings with the **Bead Edit** tool.
- Manually digitize bead drops with the **Manual Bead** tool.
- Manually insert bead drops with the **Insert Function** capability.
- Create your own bead fixings and save them as custom motifs.

Apply bead fixings



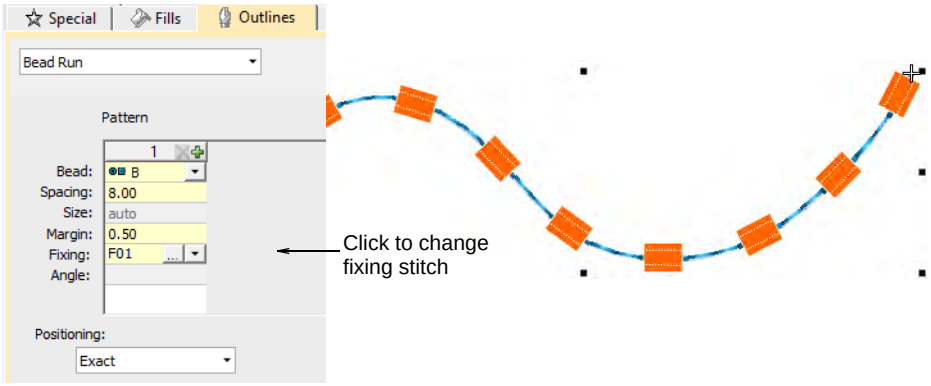
Use Bead > Bead Palette to select from a user-defined palette of bead shapes for the current design.

You can select beads before or after digitizing. Similarly, you can preset fixing stitches or change them at any stage.

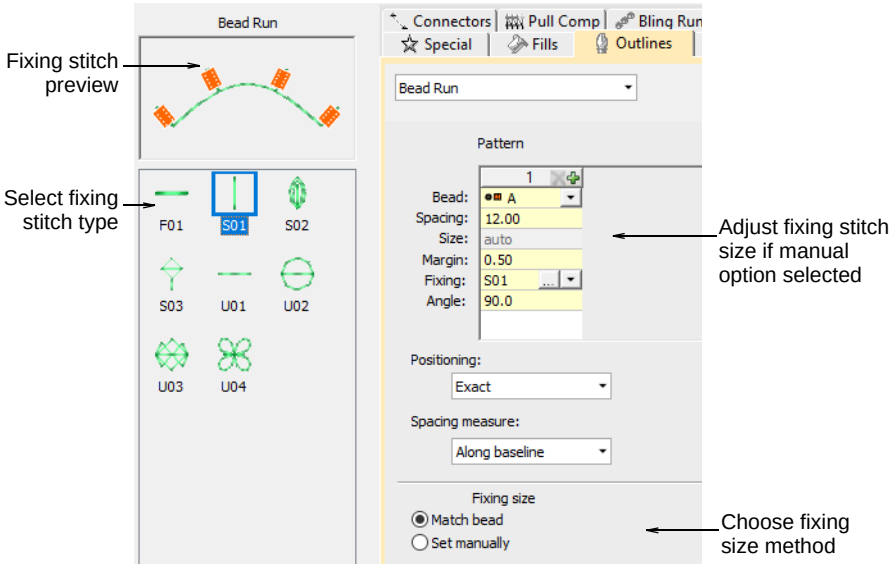


To apply bead fixing stitches

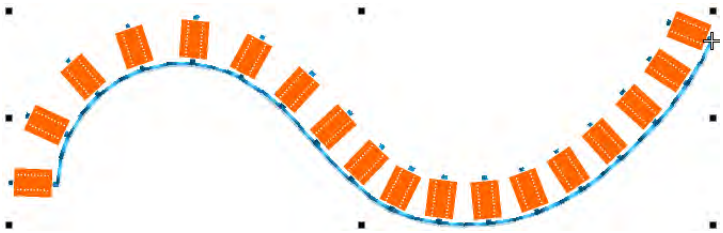
- To change fixing stitches, double-click to access object properties.



- Click the '**...**' button in the **Fixing** field. The docker expands to display a library of fixing stitch types.



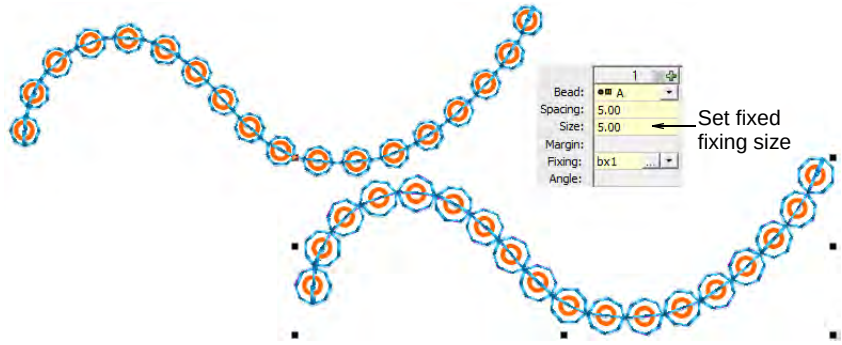
- Select the preferred style – 'upright', 'flat', 'sideways'.



- To adjust fixing stitch size, select a method:

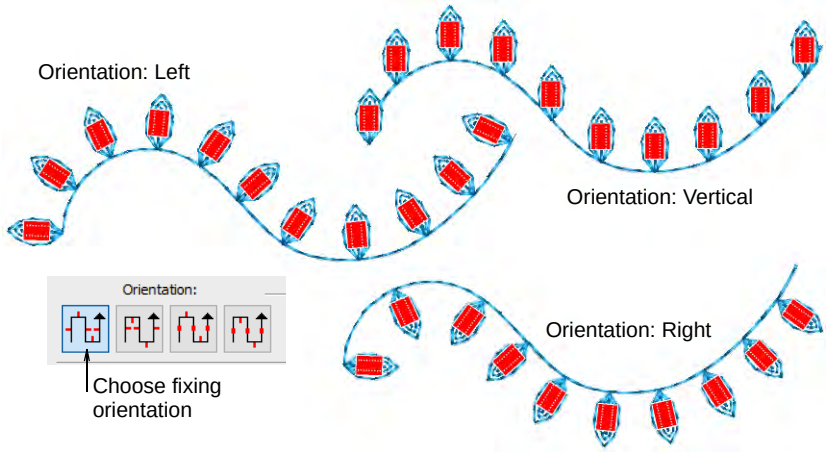
Method	Function
Match bead	Automatically sets a margin around the bead so that fixing stitches don't punch too close.
Set manually	Activates the Size field and lets you set a fixing stitch size independent of bead size.

- If you choose ‘set manually’, specify a value in the **Size** field. Size is measured from the center of the bead. Enter a value from 2.50mm to 30.00mm.



- If you choose automatic matching, specify a margin for the fixing stitch in the **Margin** field. Enter a value from 0.20mm to 2.00mm. This ensures that the fixing stitch does not punch too close to the bead.

- To adjust fixing orientation, choose one of the preset directions – left/right, up/down.

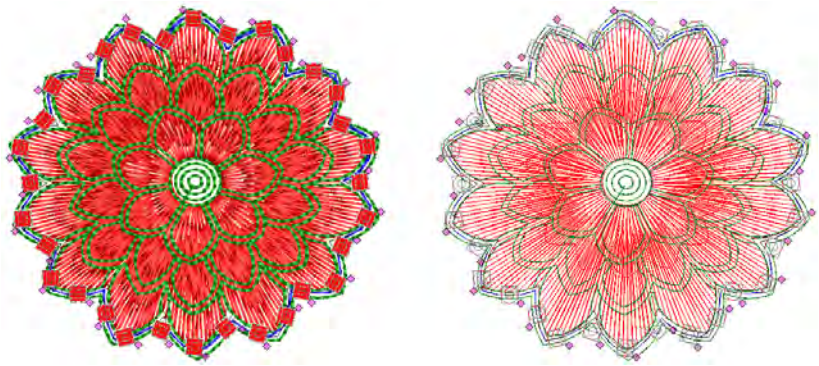


Related topics

- Create sequin fixings

Editing bead runs

Bead-run objects can be edited like any other embroidery object. Parameters can be adjusted via object properties, or bead runs reshaped and edited, right down to individual bead orientations and fixings.



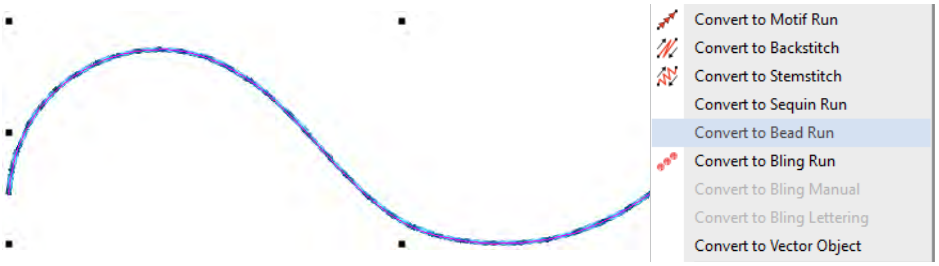
Convert objects to bead runs

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

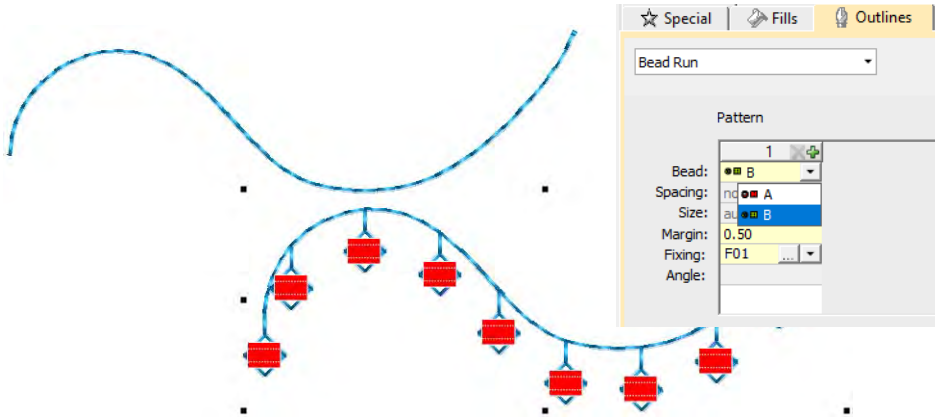
Most objects in EmbroideryStudio are inter-convertible. Bead runs are no exception. Any outline object – Run, Stemstitch, Motif Run, Freehand, Column C, Vector – can be quickly converted to bead run.

To convert an object to a bead run

- Select the object – Run, Stemstitch, Motif Run, Freehand, Column C, or Vector.
- Right-click and select **Convert > Convert to Bead Run**.



- Alternatively, click the **Bead Run Auto** icon.



- Double-click to access object properties.

Edit bead runs

	Use Select > Select Object to resize objects using selection handles.
	Use Reshape > Reshape Object to reshape selected bead-run objects.
	Use Bead > Bead Edit to fine-tune placement of individual beads.

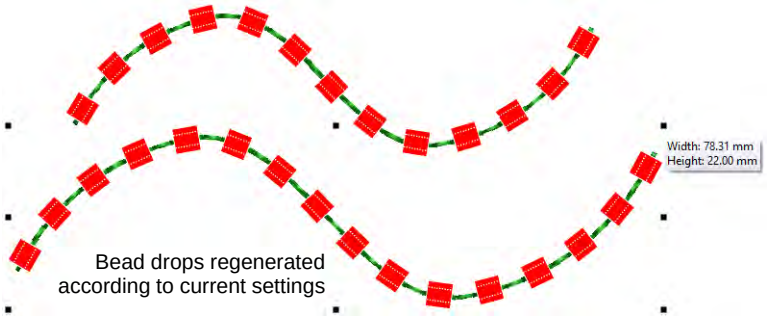
You have complete control over editing bead-run objects, from scaling to adding or removing individual beads. You can also manually fine-tune bead spacing and orienation. You can even edit individual fixing stitches.

Tip Performing manual edits automatically sets bead positioning to **Manual**. If you reset to **Exact**, **Contract to fit**, or **Expand to fit**, all manual edits are lost.

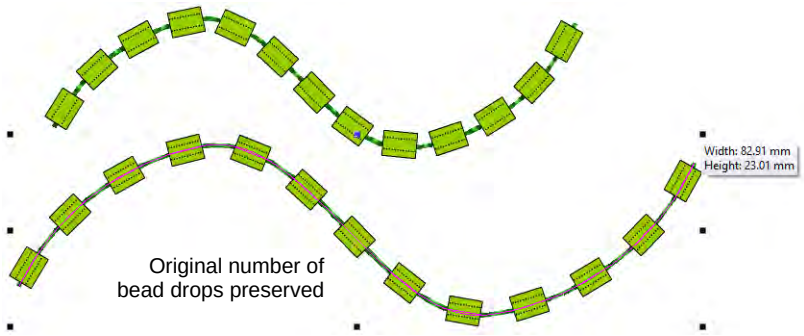
To edit a bead run

- Scale bead-run objects by clicking and dragging selection handles, or by adjusting general properties.

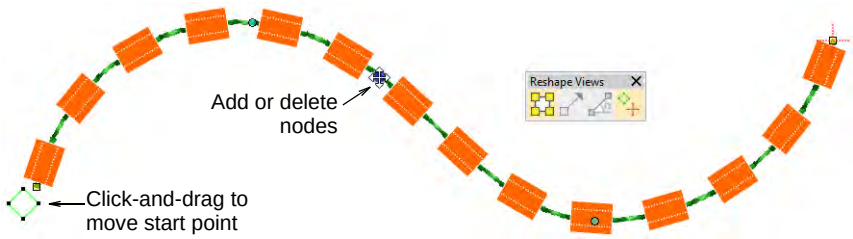
- With **Bead Run Auto** objects, bead drops are automatically recalculated.



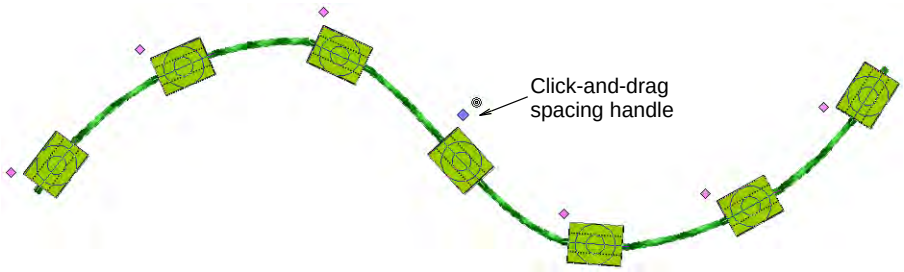
- With **Bead Run Manual** objects, the original number of bead drops is preserved while spacing is increased.



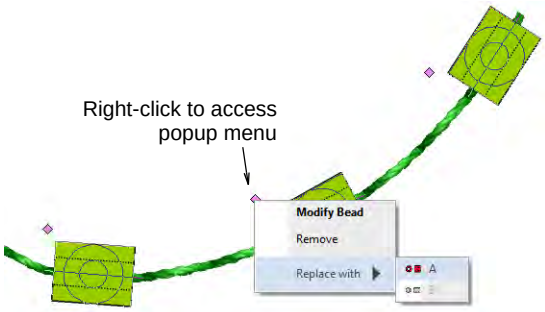
- Edit bead runs with **Reshape**:
  - Add nodes by left- or right-clicking the outline.
  - To remove a node, select and press **Delete**.
  - Click-and-drag to move the start point. To reverse stitch direction, apply **Edit > Reverse > Reverse Curves**.



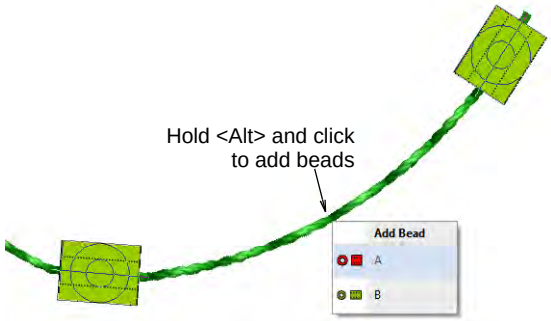
- Fine-tune individual bead spacings with the **Bead Edit** tool. Click-and-drag a diamond control point. Hold down **Shift** or **Ctrl** keys to select a range or multiple control points.



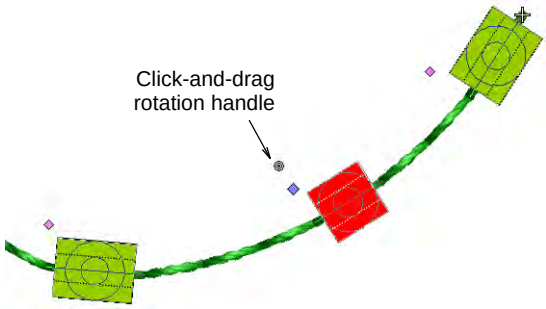
- Remove selected beads by pressing **Delete** or via the popup menu. Use the same menu to replace individual beads from the current palette.



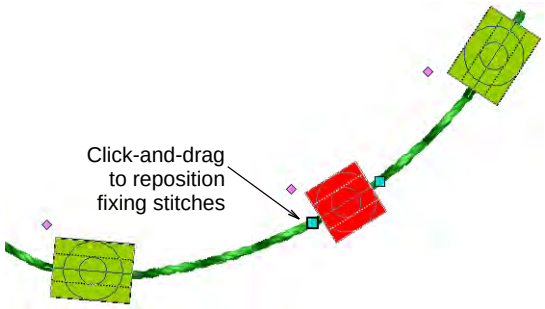
- Add beads from the popup menu by holding down the **Alt** key and clicking the bead run.



- To rotate an individual bead, click the diamond control point. Use the rotation handle to orient the bead as necessary.



- Click the bead to activate fixing stitches. Use the handles to fine-tune as necessary.



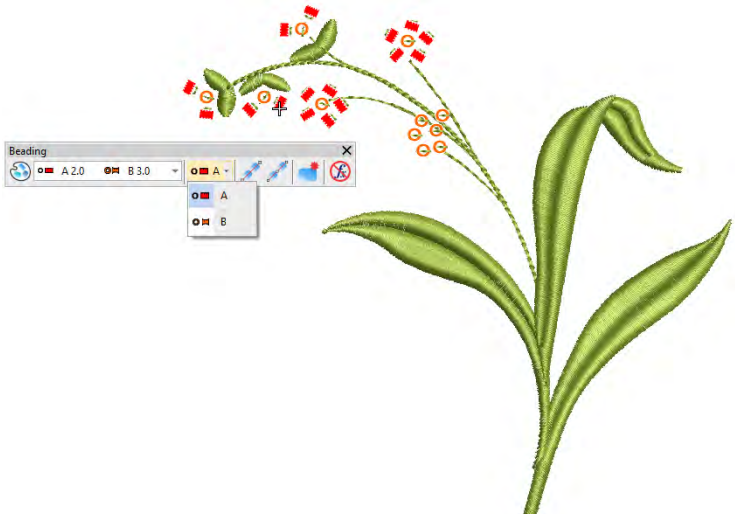
Related topics

- Scaling objects
- Reshaping embroidery objects

Manual bead digitizing

If you require precise control over the positioning and encoding of your bead drops, EmbroideryStudio provides manual techniques for this purpose. Digitize your own bead drops with fixings. Even insert individual

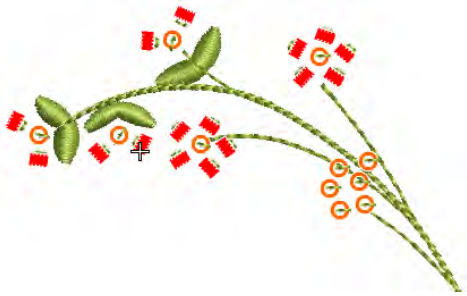
bead-drop functions while traveling through the design. Or create your own bead fixings for use as custom motifs.



Digitize manual bead drops

Use Bead > Manual Bead to digitize individual beads.

The **Manual Bead** input method allows you individual control over bead placement and fixing stitches. Create decorative bead placements or ‘clusters’ using beads from the palette. To add a bead to the stitching sequence, simply drop it onto the design and secure it with manual stitches.



Note Manual bead stitching is a difficult digitizing skill to master and you need to plan the stitching sequence carefully in order to minimize unnecessary stitches. Experiment with your machine and stitch length and spacing settings to achieve the desired result.

To digitize manual bead drops

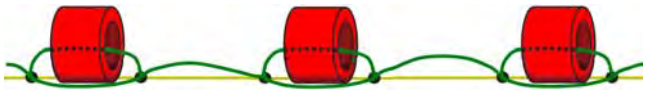
1. Select a machine format that supports bead mode via the **Select Machine Format** dialog. See Select bead-capable machines for details.
2. Set up your palette in the **Bead Palette Editor** according to the machine type – single, twin, multi-bead – that you have selected.

3 Select a color for the fixing stitch from the **Color** toolbar.

4 Click the **Manual Bead** icon. If you have activated twin-bead mode, bead options are displayed in the droplist.

Tip Zoom in for more accurate digitizing. Hold down **Ctrl+Shift** to constrain the cursor to horizontal and vertical directions, or 15° increments.

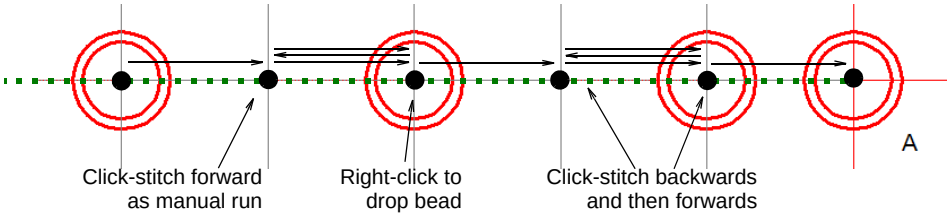
5 Select a bead and left-click to begin your manual bead placement. It must start with at least one stitch. How you proceed depends on the layout style you are aiming for. The most common is 'flat':



Flat

6 The procedure for creating a 'flat' fixing stitch is as follows:

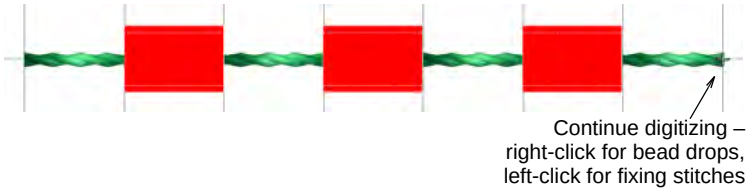
- Click-stitch forward as manual run stitching.
- Move forward one bead length and right-click to drop a bead. An outline appears.
- Click-stitch backwards. This stitch is going through the hole and will pull the bead back and down.
- Click-stitch forward across the bead to the drop point.



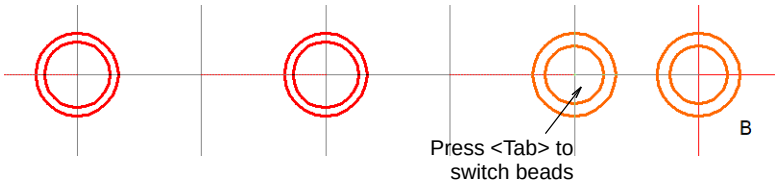
- Click-stitch forward as manual run stitching until you reach the next drop point.

Tip If you make a mistake while digitizing, press **Backspace** to retrace your steps.

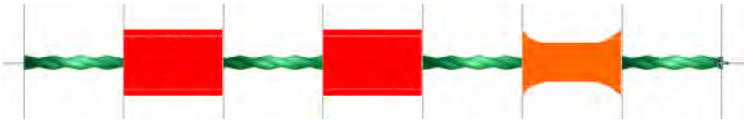
7 Continue digitizing manually in the same way – right-click to drop a bead, left-click to digitize fixing stitches. Press **Enter** to finish.



8 If you have activated multi-bead mode, press the **Tab** key to switch between available bead shapes while digitizing.



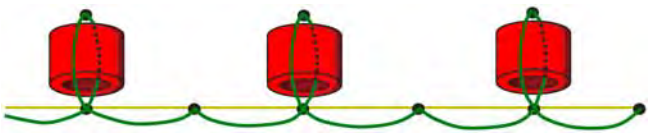
9 Press **Enter** to finish.



Tip Typically, you combine manual bead drops with **Run** stitch. Use **Run** to 'map out' the design and use **Manual Bead** to digitize individual bead drops or 'bead clusters'.

To digitize sideways fixing stitches

The technique for creating a 'sideways' layout is similar in principle to 'flat'.

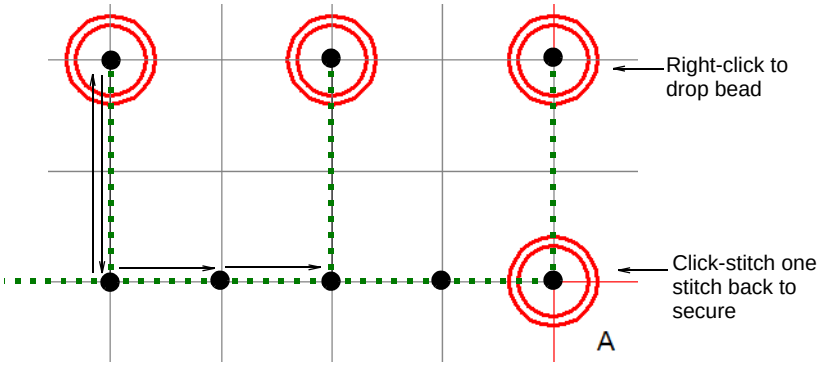


1 Click-stitch forward as manual run stitching.

2 Turn sideways at the point you want to drop the bead.

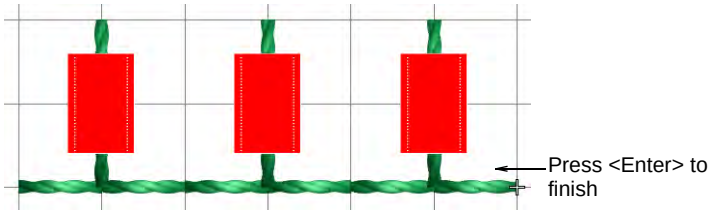
3 Move forward one bead length and right-click to drop the bead. A bead outline appears.

4 Click-stitch backwards. This stitch is going through the hole and will pull the bead back and down.



5 Click-stitch forward as manual run stitching until you reach the point of the next bead drop.

6 Press **Enter** to finish.



To digitize upright fixing stitches

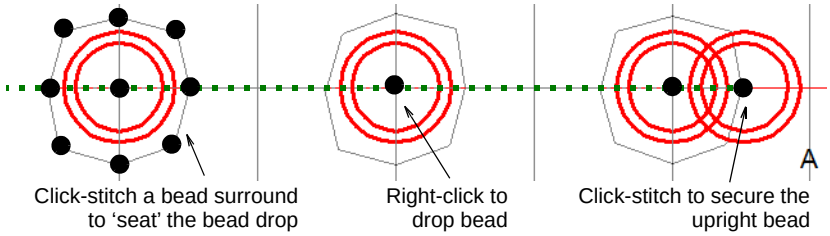
Below is the 'classic' upright layout. In this procedure we add some stitch reinforcement to help position the bead.

1 Click-stitch forward as manual run stitching.

2 Optionally, click-stitch a bead surround in manual run stitching. This will help 'seat' the upright bead.

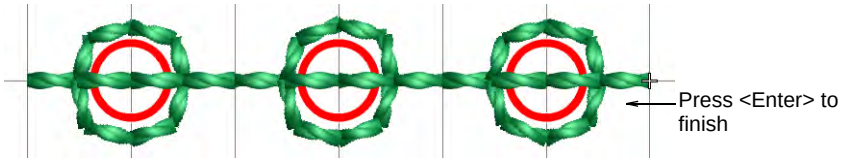
3 Right-click in the center of the surround to drop the bead. A bead outline appears.

4 Click-stitch forwards to the edge of the bead surround. This stitch is going through the hole and will secure the bead in the upright position.



5 Click-stitch forward as manual run stitching until you reach the point of the next bead surround.

6 Press **Enter** to finish.



Related topics

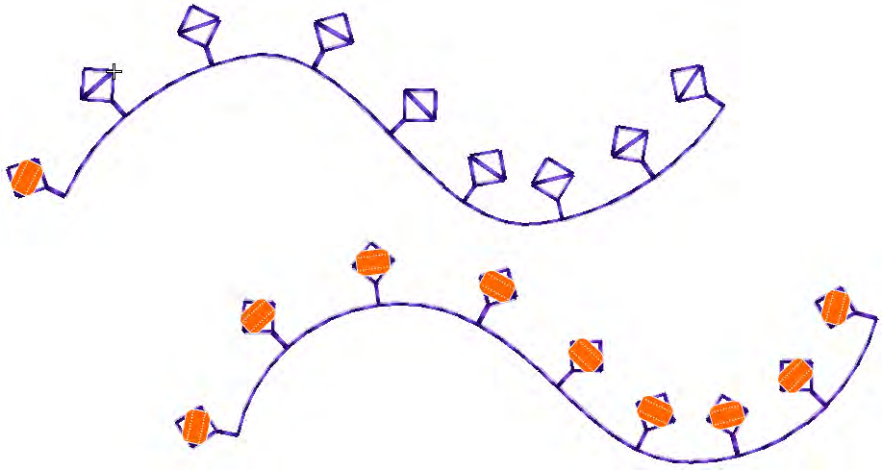
- Select bead-capable machines
- Beading mode

Insert bead drops

	Use Outline > Digitize Run to place a row of single or triple run stitches along a digitized line.
	Use Outline Stitch Types > Motif Run to create a string of motifs along a digitized line.
	Use Docker > Stitch List to toggle Stitch List display on and off. Use it to select individual stitches.
	Use Travel > Travel 1 Stitch to move stitch cursor forwards/backwards 1 stitch at a time. Left/right click.
	Click Function > Insert Function to insert machine function at current stitch cursor position.
	Use Bead > Clear Function to remove any bead functions from the current needle position.

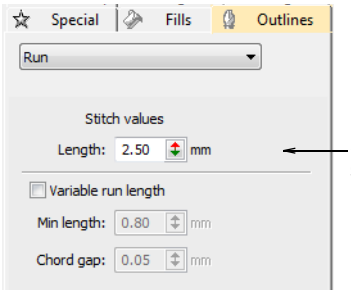
In preference to the **Manual Bead** tool, some digitizers flesh out designs using **Run** or **Motif Run** and then travel through it, dropping beads

manually as and where required. This technique can be used with single or multi-beads.

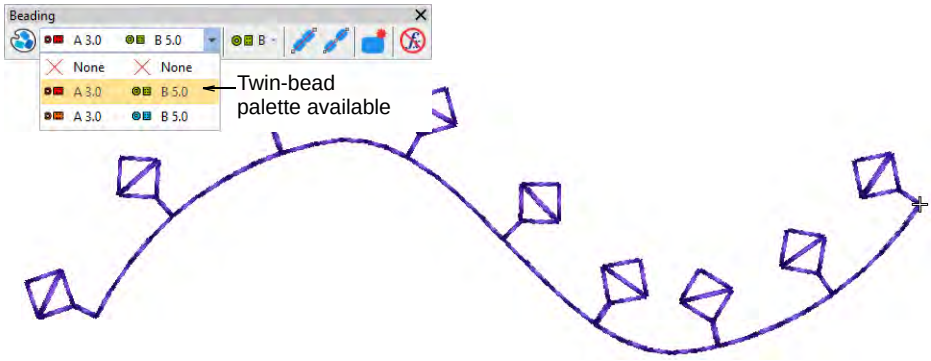


To insert bead drops

1. Select a machine format that supports bead mode via the **Select Machine Format** dialog.
2. Set up your bead palette – single or more – according to machine capabilities.
3. Set a fixed run length to suit the bead type/s you are using.



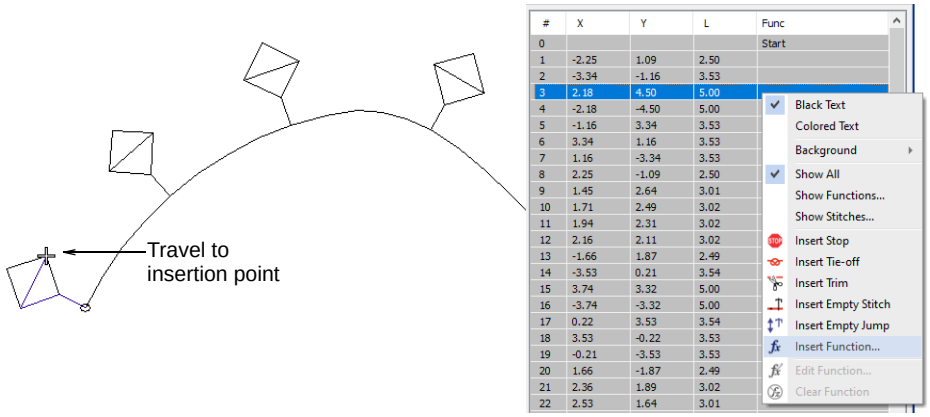
4 Create the design or pattern you want and choose the bead or beads to use.



5 Optionally, open the **Stitch List**.

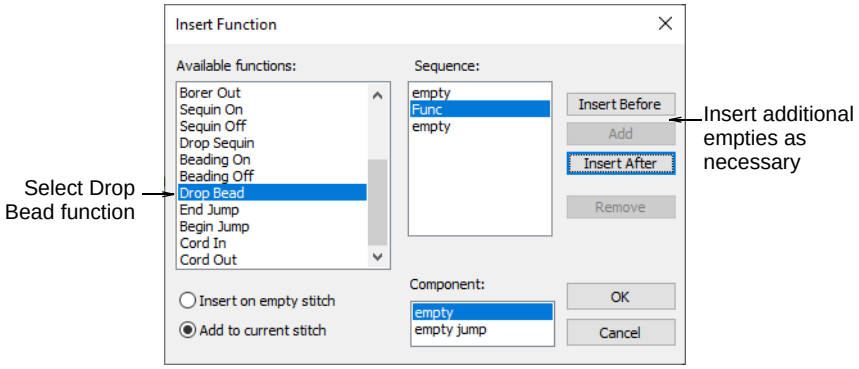
6 Press the **Home** button and travel through the design using arrow keys or **Travel** tools.

7 Travel to the insertion point and select **Insert Function** from the toolbar or **Stitch List** popup menu.

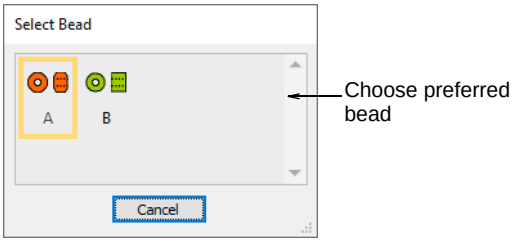


8 From the **Functions** list, select **Drop Bead**. Depending on machine requirements, you will either add the function to the current stitch, or

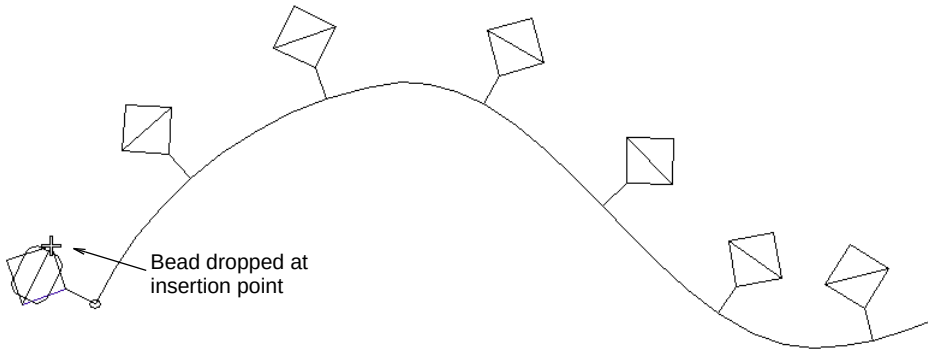
insert it on an empty stitch or empty jump. See your machine manual for details.



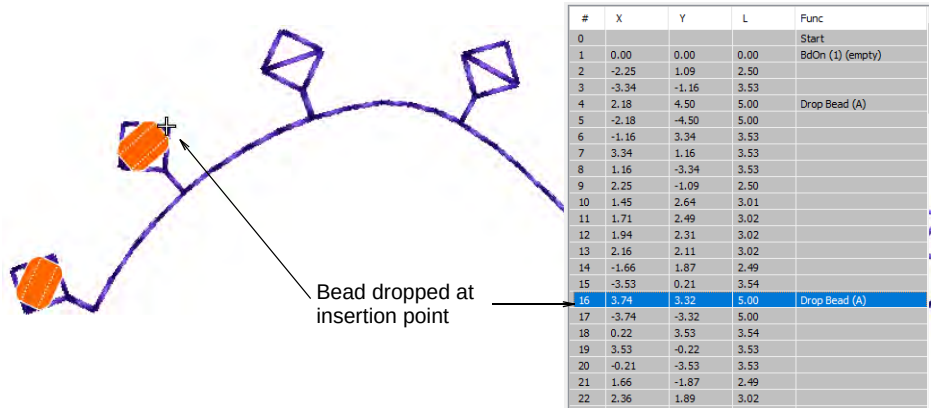
9 When the **Drop Bead** function is correctly defined, click **OK**. The **Select Bead** dialog opens showing available beads.



10 Choose a preferred bead. The **Bead Drop** function, together with any additional empty stitches or jumps, is added at the current needle position.



11 Continue traveling and inserting beads by the same method.



#	X	Y	L	Func
0				Start
1	0.00	0.00	0.00	BdOn (1) (empty)
2	-2.25	1.09	2.50	
3	-3.34	-1.16	3.53	
4	2.18	4.50	5.00	Drop Bead (A)
5	-2.18	-4.50	5.00	
6	-1.16	3.34	3.53	
7	3.34	1.16	3.53	
8	1.16	-3.34	3.53	
9	2.25	-1.09	2.50	
10	1.45	2.64	3.01	
11	1.71	2.49	3.02	
12	1.94	2.31	3.02	
13	2.16	2.11	3.02	
14	-1.66	1.87	2.49	
15	-3.53	0.21	3.54	
16	3.74	3.32	5.00	Drop Bead (A)
17	-3.74	-3.32	5.00	
18	0.22	3.53	3.54	
19	3.53	-0.22	3.53	
20	-0.21	-3.53	3.53	
21	1.66	-1.87	2.49	
22	2.36	1.89	3.02	

12 To delete a bead drop, travel to the location and click the **Clear Bead** icon.

Related topics

- Digitizing outlines & details
- Motif runs
- Select bead-capable machines
- Travel through designs
- Inserting machine functions manually

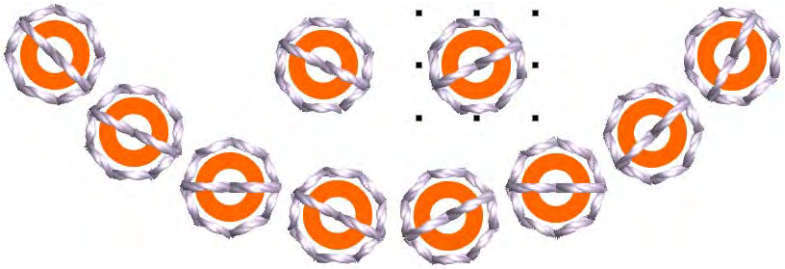
Custom bead motifs

Use Traditional Digitizing > Use Motif to add motifs to design one-by-one. Rotate, scale, or mirror as you add.

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

Another technique for deploying custom bead fixings is to save them as motifs and use them singly or in motif runs. The **Create Motif** function

lets you save your own motifs for future use. Custom motifs are saved in custom ‘motif sets’.



To create and save a motif

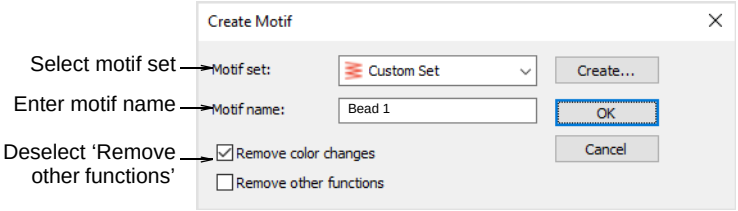
1 Create your custom bead and fixing stitch or edit an existing one.

2 Duplicate and align the motif as you want it to appear in a motif run. Use **Alignment** tools for precise arrangement.

Determine nominal layout

3 Once you have determined the layout, select objects and apply **Closest Join**. Use the middle motif to determine reference points.

4 Select the motif and choose **Object > Create Motif**.

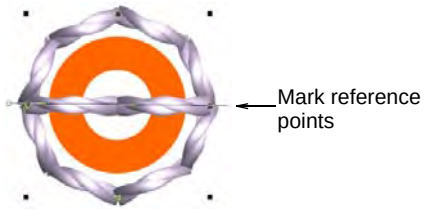


5 Select a custom motif set from the droplist and enter a name in the **Motif Name** field.

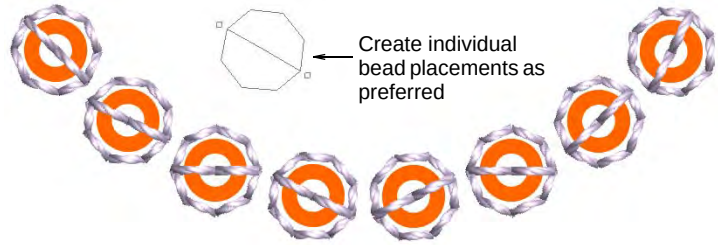
6 Deselect the **Remove other functions** option. This ensures that beads are preserved.

7 Click **OK**.

8 Click two reference points for the bead motif. These should coincide with entry and exit points.



9 Use you custom bead and fixing in bead runs or individual placements.

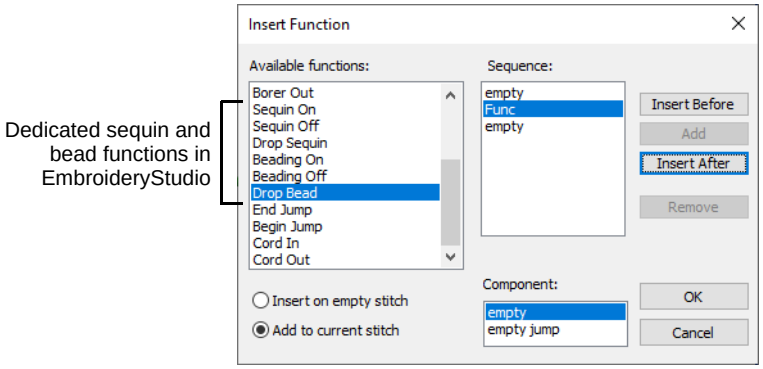


Related topics

- Custom motifs
- Selecting & placing motifs
- Motif runs

Bead encoding & decoding

In EmbroideryStudio, dedicated ‘Bead’ functions are used for bead designs. Analogous functions exist for sequins.



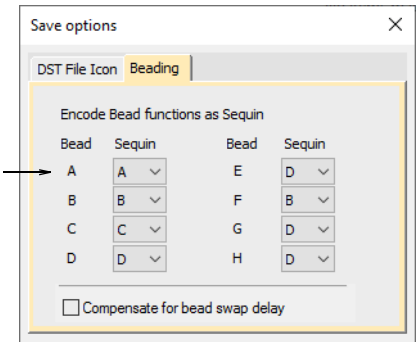
When exporting to Tajima DST file format, both ‘Drop Bead’ and ‘Drop Sequin’ functions are replaced by Jump codes. When exporting to DST format with Dahao as your selected machine format, the machine file

employs a modified protocol for non-standard use of Jump codes. This is a modified Dahao-specific DST format.

Encode beads as sequins

You do not need to be concerned with machine file encoding unless your design contains both sequins and beads. Since both object types are encoded the same way in the machine file, you need to explicitly map beads and sequins to respective 'slots' on the machine. You do this on output via the **Save Options** dialog. Droplists on the **Save Options > Beading** tab are available whenever you export as Tajima DST with Dahao as your current machine format.

Encode beads as sequin functions on the machine



Let's say your design contains two (2) sequins and two (2) beads. And let's say your machine is configured with sequins in Slots A and B, and beads in Slots C and D. On the **Beading** tab, Bead A must map to Sequin C and Bead B to Sequin D. Then the Dahao controller will be able to correctly distinguish sequins from beads on stitchout.

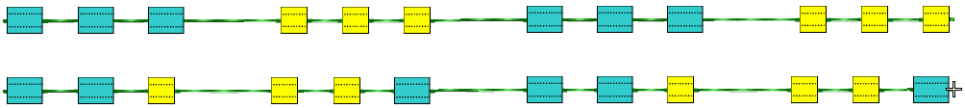
Note that this mapping is not indicated on the production worksheet since it only affects the machine file, not the source design file. This means the designer must communicate the correct mapping to the machine operator (or vice versa) according to how sequins and beads are configured. It is important to make sure that mappings do not intersect. For instance, you do not want both Bead A and Sequin A to be allocated to Slot A.

Note DST files can only encode up to four (4) sequins and/or beads. This means that if you have, say, 3 sequins and 5 beads in the same design, mapping will not work. You will run out of slots.

Compensate for bead-switch delay

Some machine configurations have a specific deficiency when it comes to beading. Namely, they are one step late when switching beads. When controllers encounter a command to drop Bead X, the machine will drop whatever bead is in the picker and only then make the switch.

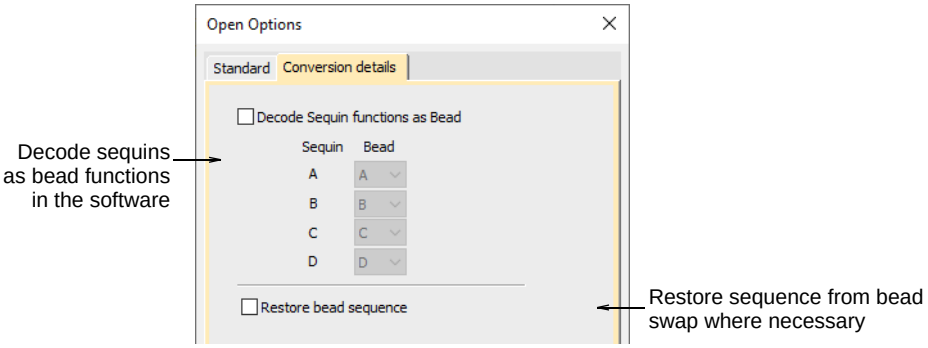
To correct the error, you must compensate by employing a 'preemptive bead swap'. This will shift bead changes by one step. By ticking **Compensate for bead swap delay**, the first line becomes re-encoded as shown...



Note Installation engineers will be able to advise if it is necessary to compensate for 'bead shift'.

Decode sequins as beads

The **Open Options** dialog provides an inverse set of controls to decode machine files which have been encoded by means of the **Save Options > Beading** mechanism. The **Open Options > Conversion Details** tab allows you to decode sequin functions as beading when opening these formats using Dahao target machine.



Note When you open a Tajima DST file, the software only shows the **Standard** tab. When you choose 'Dahao' from the machine type droplist, the **Conversion Details** tab becomes available.

Related topics

- Select bead-capable machines
- Opening machine files
- Exporting designs for machine

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