EmStudio V7.0

Bore cutting

Laesser bore cutting is now supported from punch to SHC and LGF.
Bore cutting can now be punched in EmStudio, stupfel bore is used for this.

Punch

Bore cutting is punched as stupfel bore, cut lines can be punched with stepp lines. The following function sequences are supported:

[59] Embroidery	[53] Stupfelbore	[56] Embroidery		
[59] Embroidery	[53] Stupfelbore	[50] StupfelOff	[49] StupfelOn	[56] Embroidery
[59] Embroidery	[55] Bore	[49] StupfelOn	[50] StupfelOff	[56] Embroidery

iSed

iSed shows STU-stitches (bore cutting) in different color from BOR-stitches.
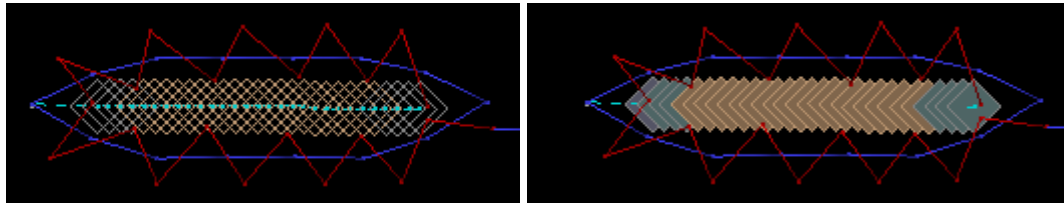
Bore lines can be changed to bore cut lines with defined step length:
Transform/Stitch Density
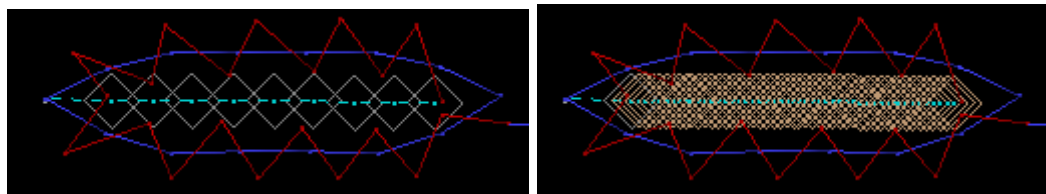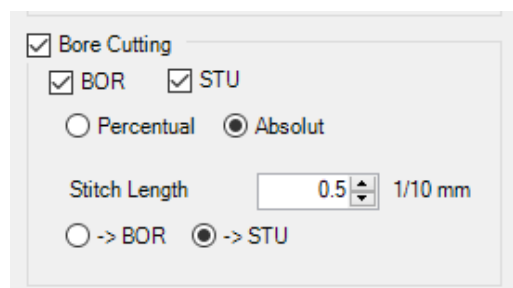
Warning and Error

In Warning and Errors new rule BoreCutting Stich is to long, limite definable in Tools/Preferences/Sonstiges/ BoreStuLenMax.

Design Processor Bore
Design Processor Bore checks BoreCutting stitches (STU) and sets to long bore cut stitches back to bore (BOR)

LEdit

	Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
	17	26	-15	STEP	X		1	1					
	18	-29	1	BORE		24	1	1					
	19	-5	0	BOCU		24	1	1					
	20	-5	0	BOCU		24	1	1					
	21	-5	0	BOCU		24	1	1					

Sequins

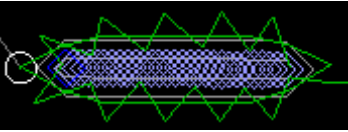Laesser double sequin head is now supported from punch to SHC and LGF. Double sequins are only supported by LGF machines, on Saurer machines the sequin diameter is assigned to the NP, so the punched diameter is ignored.

Punch

Special function 54 SequinOn has been extended by diameter dD with
    d diameter of front sequin
    D diameter of back sequin

In 3D – view the decoration colors for sequin typ 1 and 2 are used.
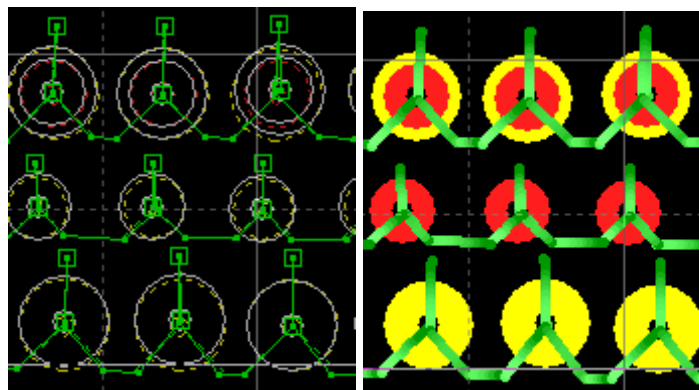
Samples:

[42] 54		sequin type 1 on (as before)
[42] 54.1	4	for 4mm sequin (back)
[42] 54.1	30	for 3mm sequin (front)

[42] 54.1   34   for double sequin

[42] 55   sequin (type 1) off (as before)

Tip:

Program menu sequences to keys

iSed

PRGM 54 SequinOn has been extended by diameter dD with
>   d diameter of front sequin
>   D diameter of back sequin

	PRGM	54	34
237	QSTI	20	21
	PRGM	55	0
238	QSTI	0	28
239	QSTI	0	-29
240	QSTI	19	-19

For filled view the decoration colors 1 and 2 are used.
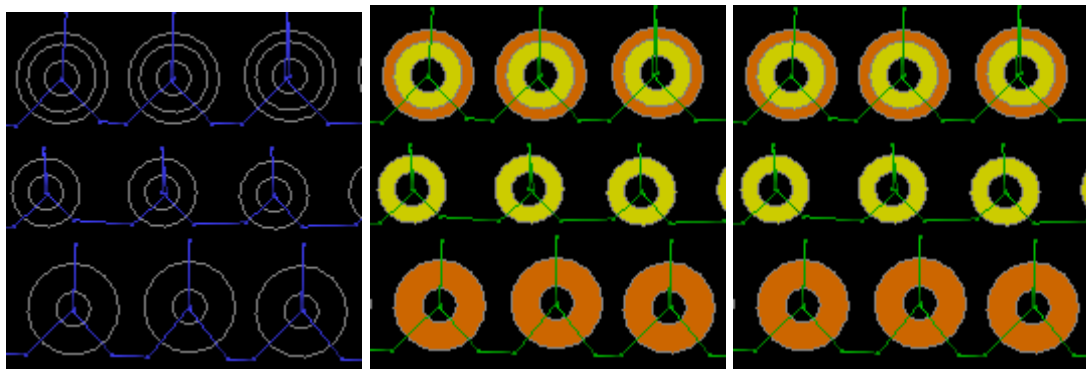
Samples:
>   PRGM 54   sequin type 1 on (as before)
>   PRGM 54   4   for 4mm sequin (back)
>   PRGM 54 30   for 3mm sequin (front)
>   PRGM 54 34   for double sequin
>   PRGM 55   sequin off (as before)

Rules for Sequin added to warning and errors:
- Minimal angle to horizontal from below für stitch into sequin
  - Tools/Preferences/Sonstiges/ SequinStitchAngleMin
- Minimal distance from sequin for stitch into sequin in mm
  - Tools/Preferences/Sonstiges/ SequinStitchDistanceMin

A distance circle of 1 mm is drawn around the sequin in dotted lines in view by stitch type.

LEdit

Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
271	-13	0	SEPR	X		1	1					
272	-21	-21	SEFI	X		1	1		34			
273	1	-29	SEFO	X		1	1					
274	-1	29	STEP	X		1	1					
275	-17	21	STEP	X		1	1					
276	16	0	SEPR	X		1	1					

User defined stitch type (manual stitch type)

User defined stitch type (manual stich type) are supported from punch to SHC and LGF. User defined stitch types are only supported on LGF-machines.
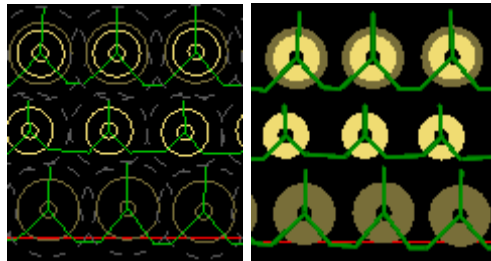
Punch

User defined stitch types are punched with special function 120 type * 100 + nr.

    type = 0:   off
    type = 1:   USER
    type = 2:   BUBBLE
    type = 3:   HOLEFLAT

Samples:

 [42] 120.1 101   for USER 1

 [42] 120.1 203   for BUBBLE 3

 [42] 120   for user defined stitch type off

Tip:

 Program menu sequences to keys

iSed

User defined stitch types are marked with PRGM 120 type * 100 + nr.

In view by stitch type this stitches are displayed in color «PARAM» (9: grey). This color can be changed in Tools/Preferences/Colors Stitch Type.

	PRGM	120	101
315	STI	0	0
338	QSTI	-17	1
	PRGM	120	0

Samples:

PRGM 120 101   for USER 1
PRGM 120 203   for BUBBLE 3
PRGM 120   for user defined stitch type off

User defined stitch type can be set for a selection in stitch list by menu «Tools/Change ManualStitchType/Manual StitchType On»

LEdit

Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
334	-1	20	STEP	X		1	1					
335	0	0	USR1	X		1	1					
336	4	5	USR1	X		1	1					

357	41	-3	USR1	X		1	1					
358	17	-1	USR1	X		1	1					
359	0	0	STEP	X		1	1					

Automatic retensioning

Automatic retensioning is supported from punch to SHC and LGF. Because Saurer aFT uses force and Laesser FTC distance for retensioning this two functions are separated.

Punch

Automatic retensioning is punched with special function 111 (Saurer aFT) resp. 121 (Laesser FTC).

Samples:

[42] 111.1 300   Retensioning Saurer aFT with 300N/m

[42] 121.1 5   Retensioning Laesser FTC for 0.5mm

*Tip:*

Program menu sequences to keys

iSed

Automatic retensioning is set with PRGM 111 (Saurer aFT) resp. 121 (Laesser FTC).

230	QSTI	-22	-25
	PRGM	121	5
231	QSTI	-7	-2

Samples:

PRGM 111 300	Retensioning Saurer aFT with 300N/m
PRGM 121 5	Retensioning Laesser FTC for 0.5mm

Insert retension functions automatically in selection für Saurer aFT or Laesser FTC by «Optimize/Design Processor Tension» with full UnDo/ReDo functionality.
In FTC negative tension distance reduces the fabric tension.
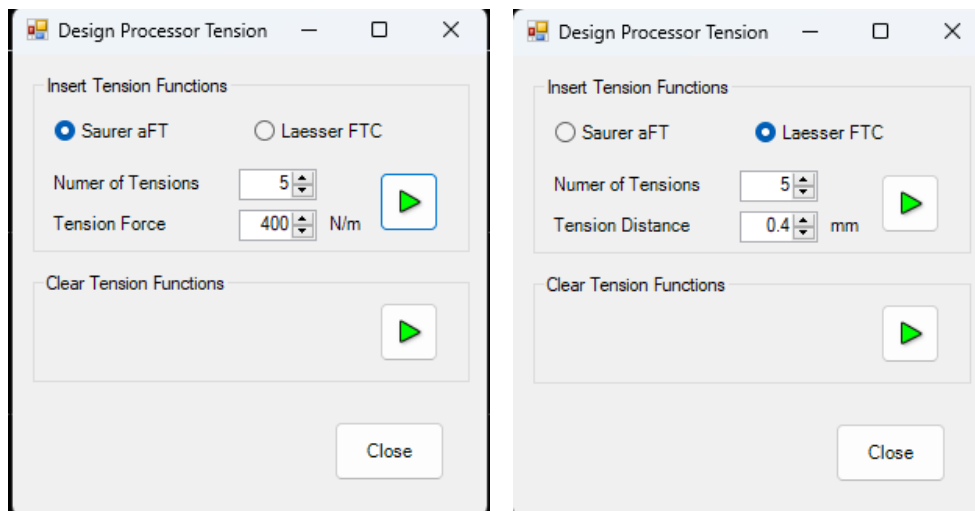
LEdit

Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
230	22	25	STEP	X		1	1					
231	7	2	STEP	X		1	1	5				
232	11	3	STEP	X		1	1					

Automatic Winding up

Automatic winding up is supported from punch to SHC and LGF. Saurer aRO and Laesser AWS are compatible.

Punch

Automatic winding up is punched with special function 110 d.

    d: Distance in 1/10mm

Samples:

    # [42] 110.1 1000   Winding up for 100mm

    # [42] 110   Winding up

Tip:

    Program menu sequences to keys

iSed

Automatic winding up is set with PRGM 110 d

    d: Distance in 1/10mm

394	MOV	7	1
	PRGM	110	100
395	MOV	9	0

Samples:

    PRGM 110 1000   Winding up for 100mm
    PRGM 110   Winding up

LEdit

Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
390	-30	16	STEP	X		1	1					
391	0	20	PRCU	X		1	1					
392	-39	8	PRCU	X		1	1					
393	-25	-13	PRCU	X		1	1					
394	WINDUP	100										
395	STOP											

Design Sections

Sections are supported from punch to SHC and LGF. On LGF-machines recipes are assigned to sections. In conversion SHC -> LGF every needle pattern is assigned a section number. Now additional sections can be defined in punch and iSed.

Punch

Section numbers can be punched with special function 122 nr.

Sample:

 [42] 122.1 3   design section 3

iSed

Graphic view by section

Menu View/View by Sections
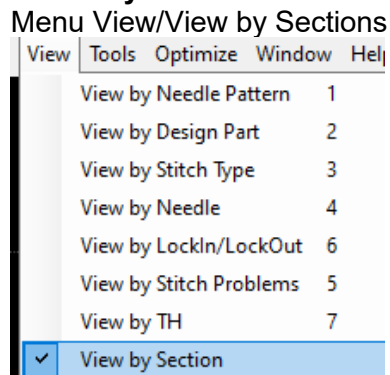
Or toolbar View Mode
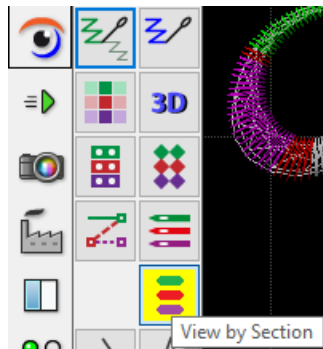
Seting Sections

Section numbers can be set with PRGM 122 nr.

Sample:
            PRGM 122 3   design section 3

In stitch list a selection of stitches can be set directly to an section number with «Tools/Change section», the stitches following the selection keeps unchanged on the previous section number.

LEdit

In LEdit the section number is displayed in column Abschnitt

Cord angle

Cord whell angles are required in the design for LGF machines; these have to be calculated in LEdit before the pattern is loaded onto the machine.
Calculated cord wheel angles are now retained in the pattern when converting LGF <-> SHC. These are mapped to PRGM 150 (cord angle) or 151 (ribbon angle).

iSed

In iSed, the cord wheel angle can be displayed in the graphic in view by stitch type.
This display can be activated or deactivated via Tools/Options/View/ShowCordWheelAngle. Reverse turns are specially highlighted.

2446	STI	17	-18
CrdAng	PRGM	150	141
2447	STI	20	-16
CrdAng	PRGM	150	-39
2448	STI	22	-13
CrdAng	PRGM	150	158
2449	STI	23	-9
CrdAng	PRGM	150	-22
2450	STI	25	-3
CrdAng	PRGM	150	-1357
2451	STI	25	1
CrdAng	PRGM	150	-161
2452	STI	24	8
CrdAng	PRGM	150	-341
2453	STI	21	14
CrdAng	PRGM	150	-130
2454	STI	16	19
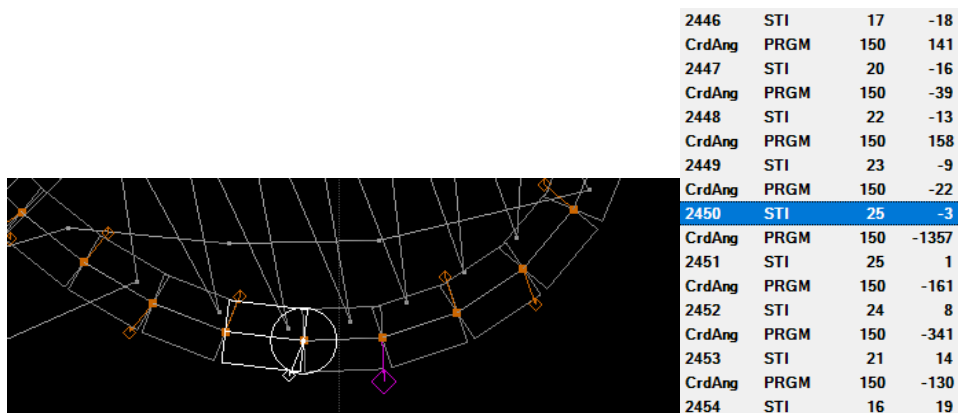
A cord processor is prepared for the calculation of the cord angle in iSed

LEdit

Display of the cord wheel angle in LEdit stitch list and graphic

Satznummer	Seite	Höhe	Stichtyp	Nadel / LTC	Bohrer / LASER	Abschnitt	ATC	Stoffspannung	Paillette	Kristall	Schnur	Band
2446	-20	16	CORD	X		1	2				141	
2447	-22	13	CORD	X		1	2				-39	
2448	-23	9	CORD	X		1	2				158	
2449	-25	3	CORD	X		1	2				-22	
2450	-25	-1	CORD	X		1	2				-357	
2451	-24	-8	CORD	X		1	2				-161	
2452	-21	-14	CORD	X		1	2				-341	
2453	-16	-19	CORD	X		1	2				-130	

Conversion SHC <–> LGF

The above mentioned functions are fully supported in the conversion between SHC and LGF.
This conversion is availeble as in EmStudio V6.0:
- in Import / Export in EmStudio Explorer
- in Save As / Open in iSed
- in Import / Export in iSed
- in iSedDesignConverter

iSed: Change stitch density

Changing the stitch density in iSed for stepp and blattstitch sequences has been extended for bore cutting and can now be used more selectively.

Select stitches and

Transform	▶		Stretch
Macro	▶		Distort
Focus Selected		⇌	Invert Direction
Unfocus All			Overstitching
			Stitch Density

Stitch Density ☑ Blattstitch 　☑ BSTI　☑ STI　☐ SSTI 　◉ Percentual　○ Absolute 　Stitch Density　[75▲▼] % 　◉ -> BSTI　○ -> STI　○ -> SSTI ☑ Stepp 　☑ QSTI 　◉ Percentual　○ Absolute 　Stitch Density　[120▲▼] % ☑ Bore Cutting 　☑ BOR　☑ STU 　○ Percentual　◉ Absolut 　Stitch Length　[3.0▲▼] 1/10 mm 　○ -> BOR　◉ -> STU 　　　　　[Preview] 　[OK]　[Cancel]	**Activate for blattstitch sequences in selection** 　Filter for stitch type: BSTI und STI 　relativ in % or absolute 　change density to 75% 　created stitches: BSTI **Activate for stepp sequences in selection** 　Filter for stitch type: QSTI 　relativ in % or absolute 　change density to 120% **Activate for bore sequences in selection** 　Filter for stitch type: BOR, STU 　relativ in % or absolute 　absolute stitch length 0.3mm 　created stitches: STU Show Preview Execute / Cancel

Tip:
*　Undo is supported*

iSed: Extended graphic view

View by Sections

In the new view by section the stitches are colored by section number.

Extended View by Stitch Type

In view by stitch type functions are displayed in graphic with color PARAM 9.
In view by stitch type also cord angle and distance circle around sequin are displayed.
Stitches in user defined stitch type are displayed in color PARAM (9).
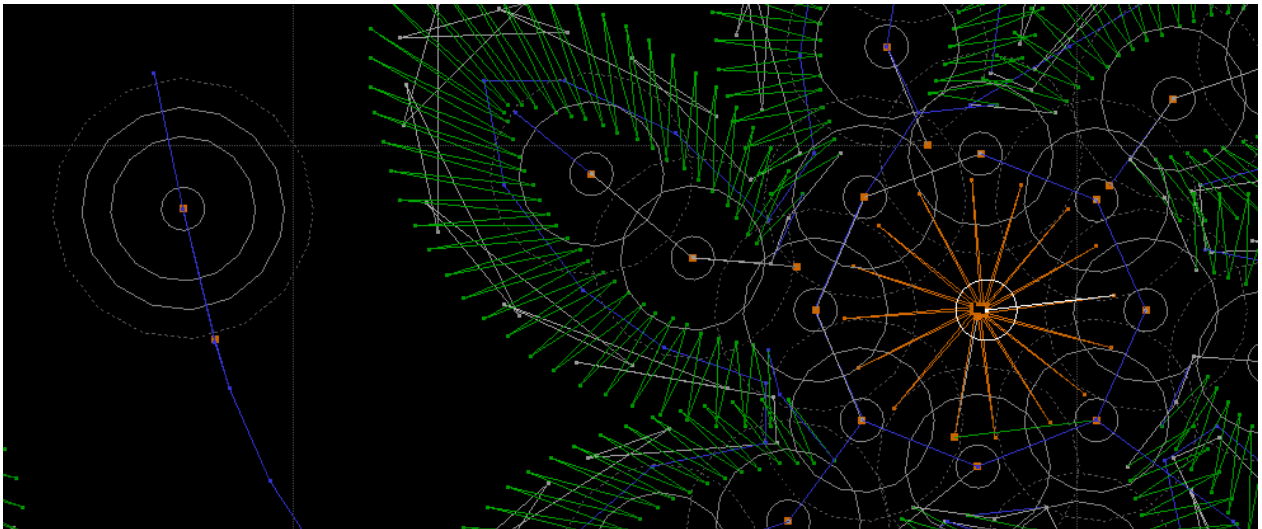
The size of the symbols can be set in View/Settings, "Very big" is now available for large symbols.
Symbols are displayed from approx. scale 2:1 in the view by stitch type, from approx. 3:1 in the other views.

Improved navigation panel

Improved navigation panel now also shows decorations as sequin and soutache.

iSed: Extended stitch list

Stitch list switchable between classic SHC as before and new LGF with display of stitch types and symbols as on LPilot, also Section and and NP number are displayed.

Nbr	Code	X	Y	S	NP
	DES	1			
	NP	4	1		
1	MOVC	8	-479	0	4
2	STION	0	0	0	4
3	STEP	0	0	0	4
4	STEP	-6	-5	0	4
5	STEP	5	10	0	4
6	STEP	8	-10	0	4

Switching takes place in Tools Preferences Sonstiges/ListModelType as SHC or LGF.

iSed: Extended selection

previous / next function

Search and select next or previous function in stitch list can now be done directly from selection panel.
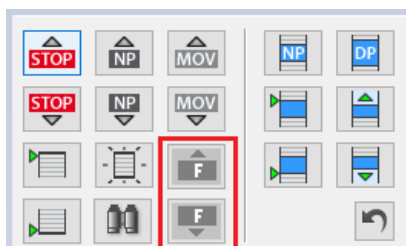
iSed: Improved special function handling

View in stitch list

In the stitch list, the meaning of the special function is now displayed directly:
Example rollover and sequins.

PRGM: Automatic RollOver aRO 500 1/10mm				
Nbr	Code	X	Y	
56	STI	-15	-1	
aRO	PRGM	110	500	
57	STI	-16	-1	
58	STI	-32	-3	
SeqOn	PRGM	54	35	
59	STI	0	0	
SeqOff	PRGM	55	0	
60	QSTI	40	0	

Insert special functions

Simplified insertion of special functions in stitch list with selection by categories, only special functions of the active categories in the filter are displayed in the selection.
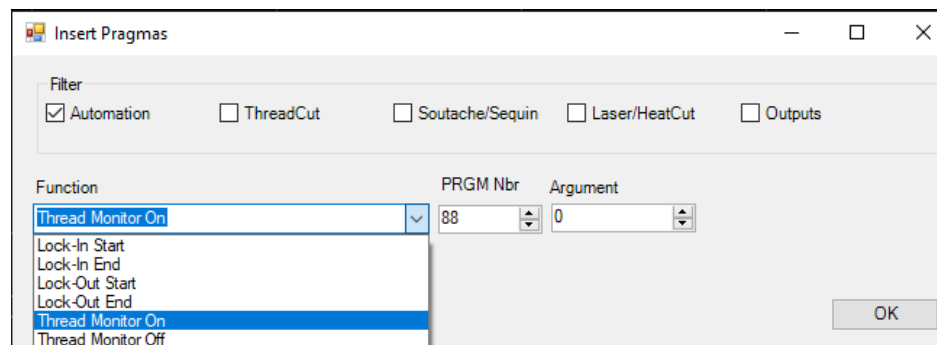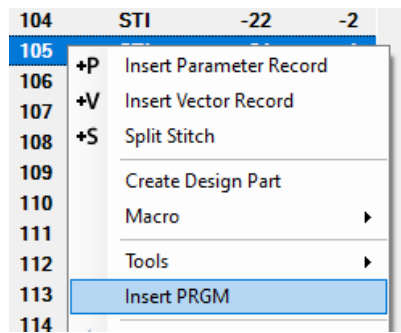
Search special functions

Improved serach for special funktions.

Search PRGM function: click on [PRGM ▼] and [PRGM] to display a selection of special functions and select a special function for the search
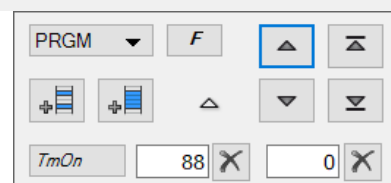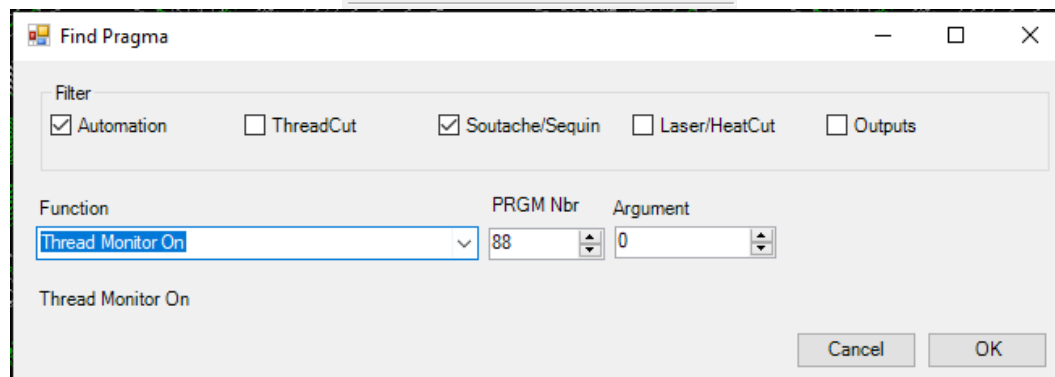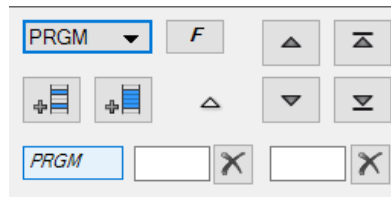
Search special functions, take from list

If a selected PRGM function is taken in the search with [F], its arguments are also taken for the search. However, these arguments can be reset individually for the search
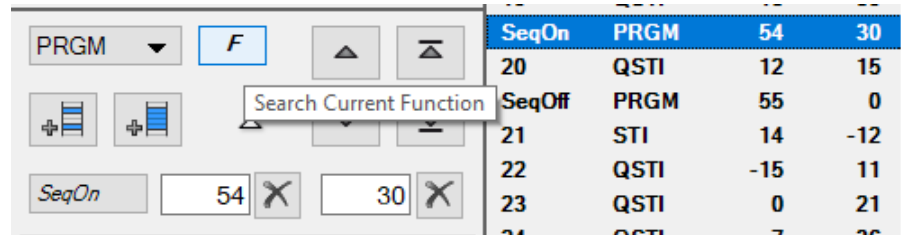
iSed: Split stitches

An entire selection of stitches can now be split together in stitch list or graphic. The splitted stitches remain selected for the next action.
If a single stitch is split, the next stitch is selected as before. This makes it easy to split stitches of stiel or blatt stich in blocks or individually.
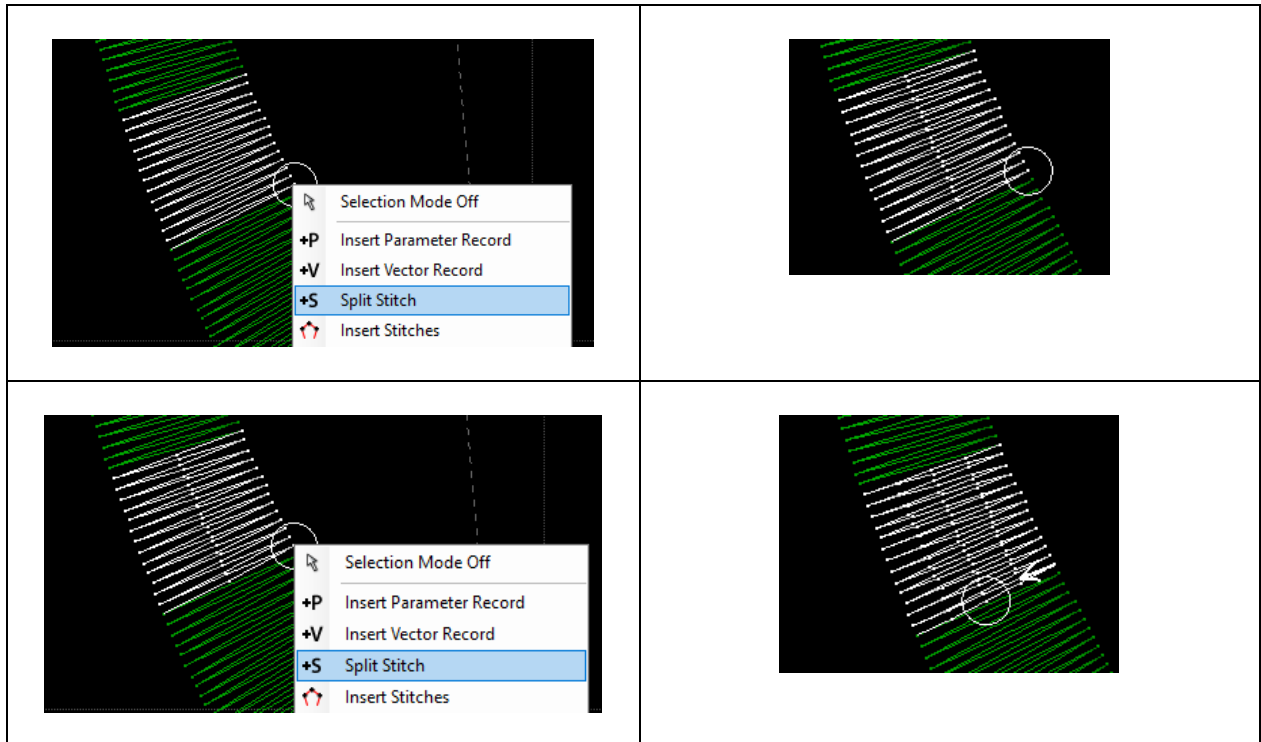
iSed: PasteAbsolut: reorder stitch block in stitch sequenz

Using Copy/Cut - PasteAbsolute, a stitch block can be reordered in the embroidery sequence, but it remains at the same absolute position in the design.

- Select stitch block
- Cut
  - o Cut stitch block
- Select new position
- PasteAbsolut
  - o Insert stitch block before selected stitch

![LÄSSER — Swiss Embroidery Machines]
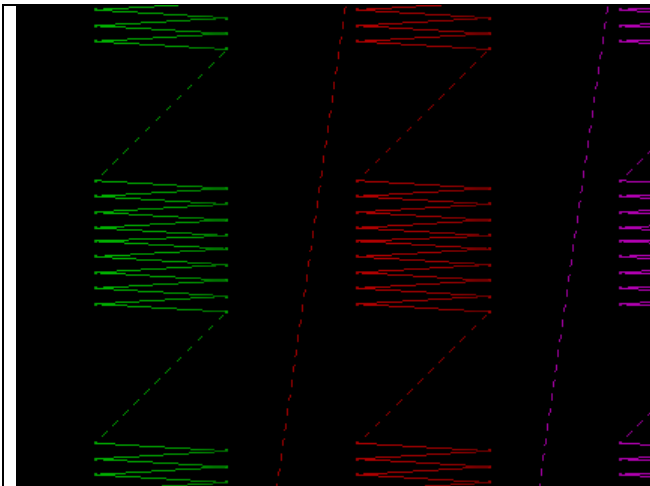
	Original stitch sequence
	Select block Cut block
	Select insert position Paste Absolut
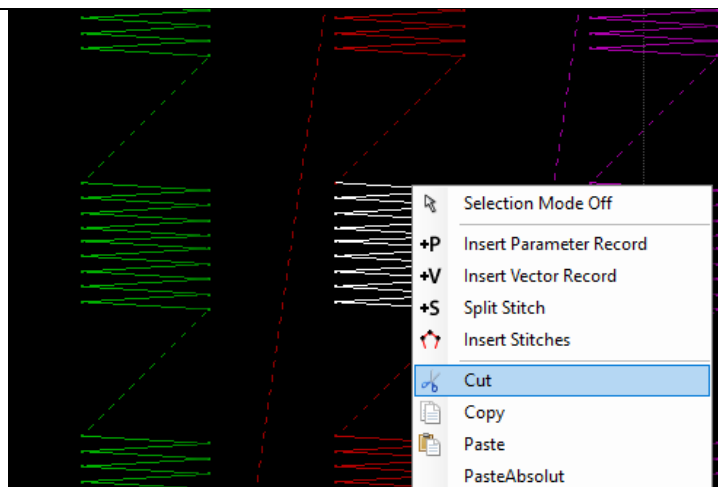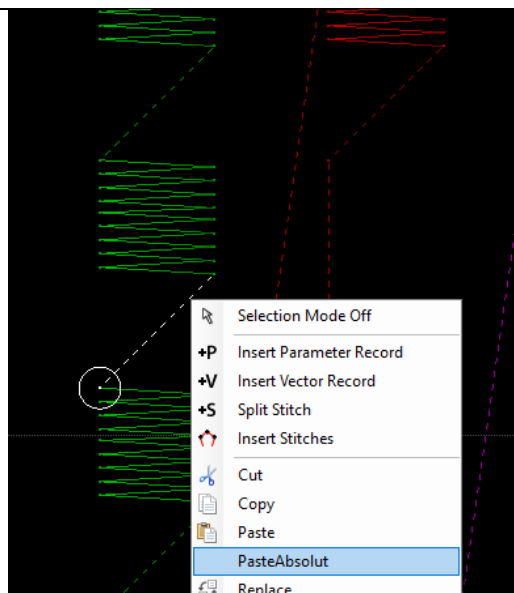
	New stitch sequence
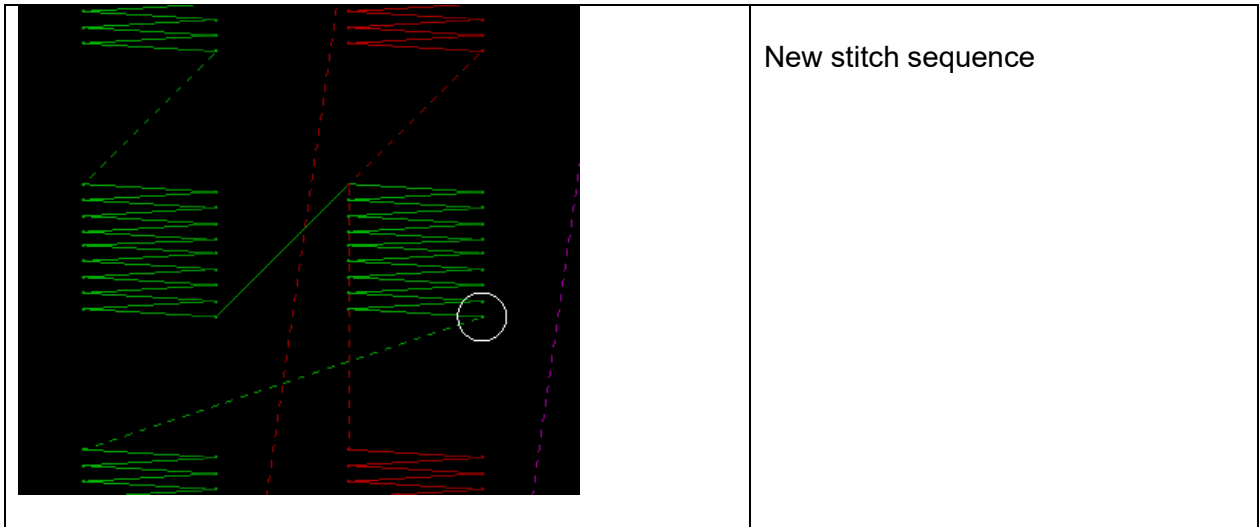
iSed: Expand Repeat: Copy stitch sequence in repeat

Expand stitches in repeat, that means copy stiches in repeat.
If f.e. stitches are punched for 4/4, but shoud be done in 16/4, so this can be done very easy.

View by NP:

NP	Rep	Type	Src	Yarn	1	2	3	4	5	6	7	8
1	4/4		✗		●	●	●	●	●	●	●	●
2	16/4		✗		●	○	○	○	●	○	○	○
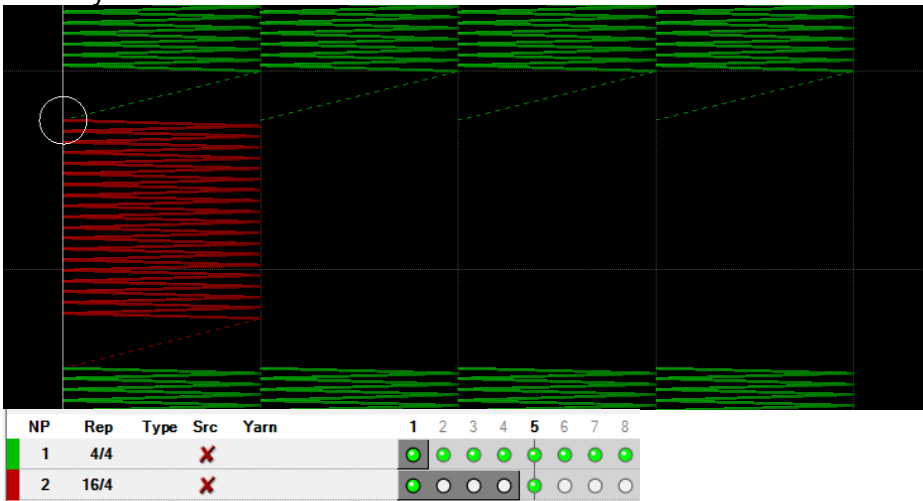
Optimize/Edit Selection
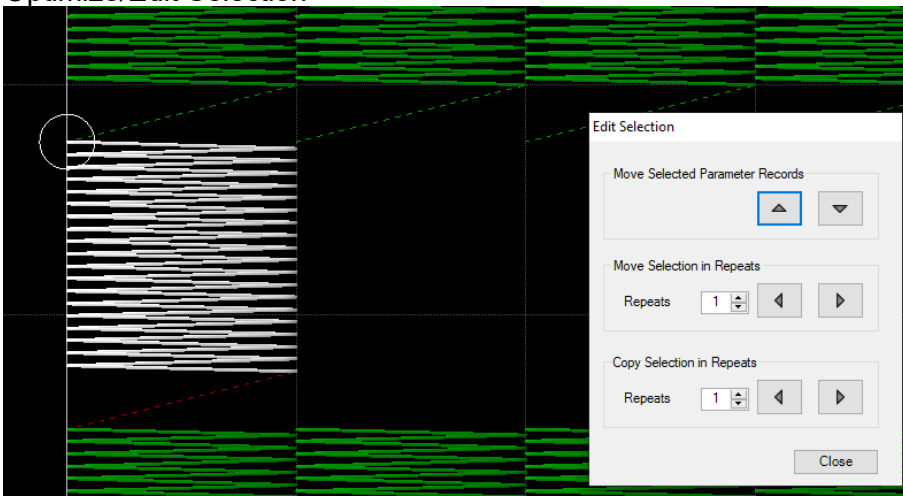
Copy Selection in Repeats
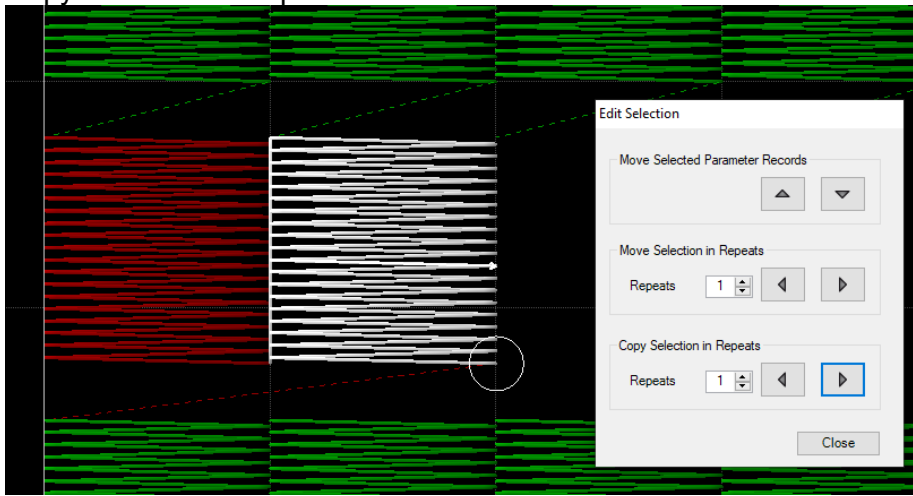
Two further copies
in Progress View
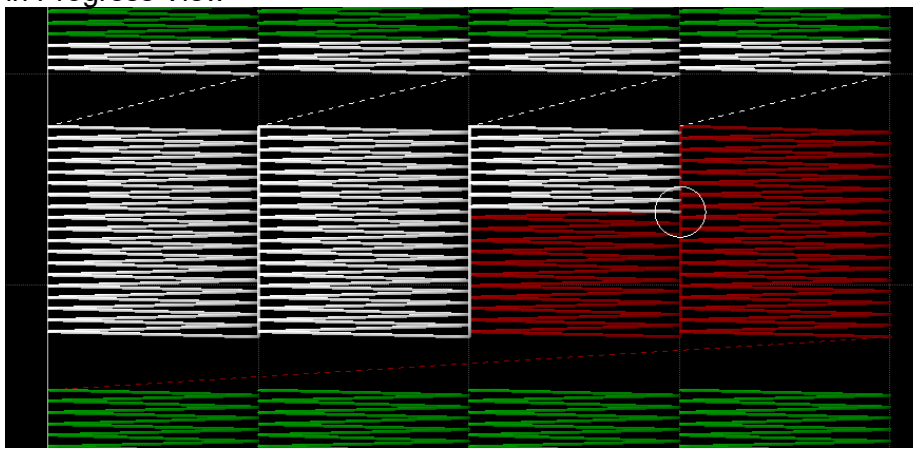
View by Needle:
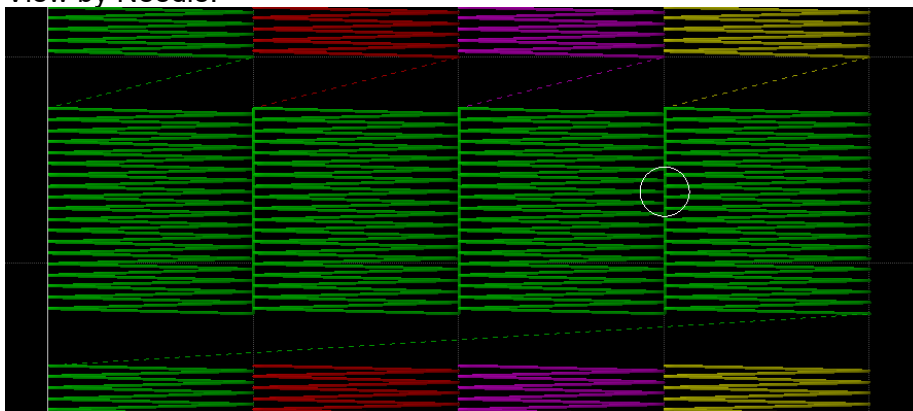
iSed: Stitchcounter

Number and value for automatic tensioning (aFT / FTC) and automatic winding up (aRO) included in stitch counter.

Tension -- Release	20/8.0mm --- 2/-0.8mm
Rewind	4/874.4mm

Lässer FTC:
Tension is displayed with number of tension functions and positive total distance, releasing with number and negative total distance.

Saurer aFT:
only number of tension functions is displayed.

aRO:
Winding up is displayed with numer winding up functions and total distance.

Auto – Update

iSed and EmStudio Explorer regularly test for available updates, these can then be installed directly via the LS_Installer. Prerequisite for this is internet access and LS_Installer, this can be downloaded in Laesser.

Test for update can also be called by menu «Help/Check for Update» in EmStudio Explorer and iSed.

Path for LS_Installer and frequency of update tests can be customized in settings. With input of 0 days the automatic update test is disabled.

EmStudio Explorer
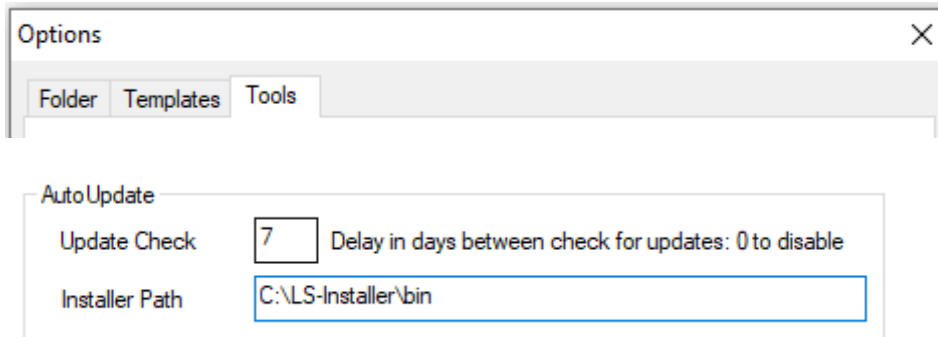
iSed
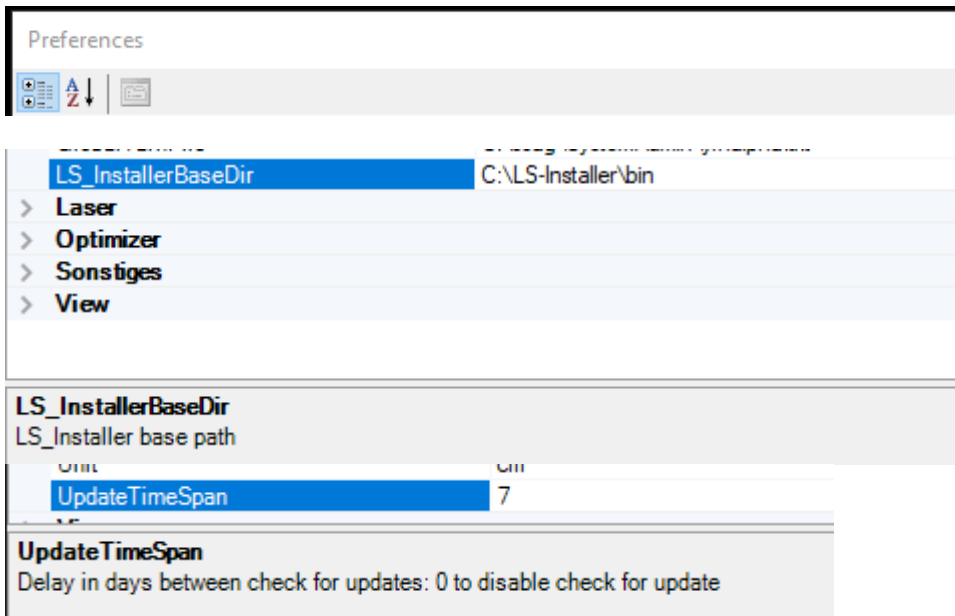
EmStudio V6.0

Session Handling

At start of EmStudio the design books and partner books are opend in the same position and size in main windows and in same mode as at closing EmStudio last time.

This behavior can be enabled or disabled by Extras/Options/Tools

Laesser LGF Format

Laesser LGF – Format can be imported and exported in EmStudio. Designs with thread cut, bor, color change, needle pattern, sequins, soutache and laser are supported.

iSed can also directly open Laesser LGF designs or save designs as Laesser LGF.

Import of LGF Designs

The imported design can then be edited and optimized in iSed, and yarn settings can be assigned.

Import LGF-Design in EmStudio Explorer.
The design is converted to SHC and saved as SHC in the current design book.
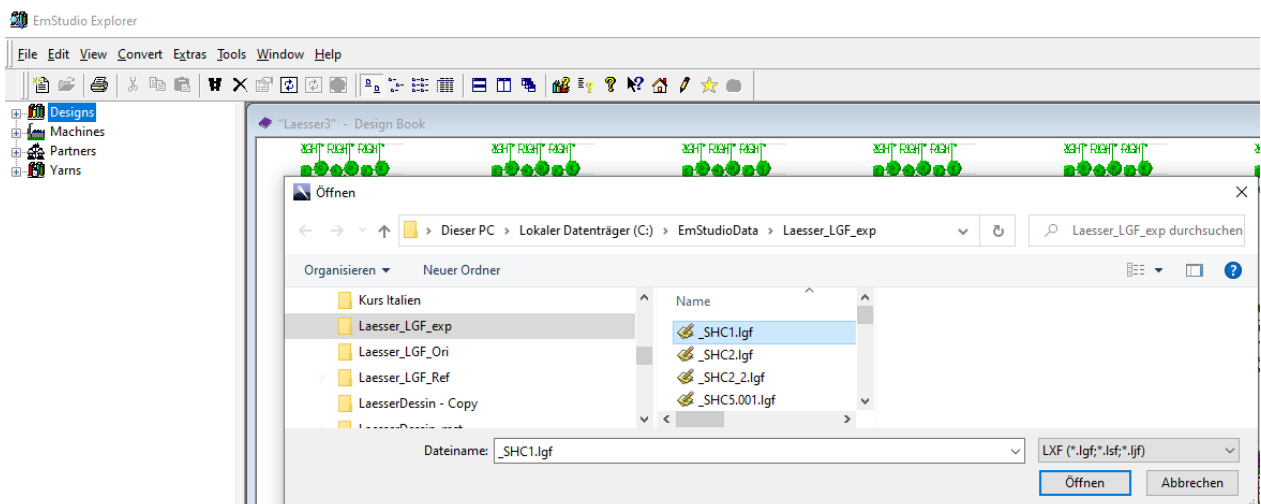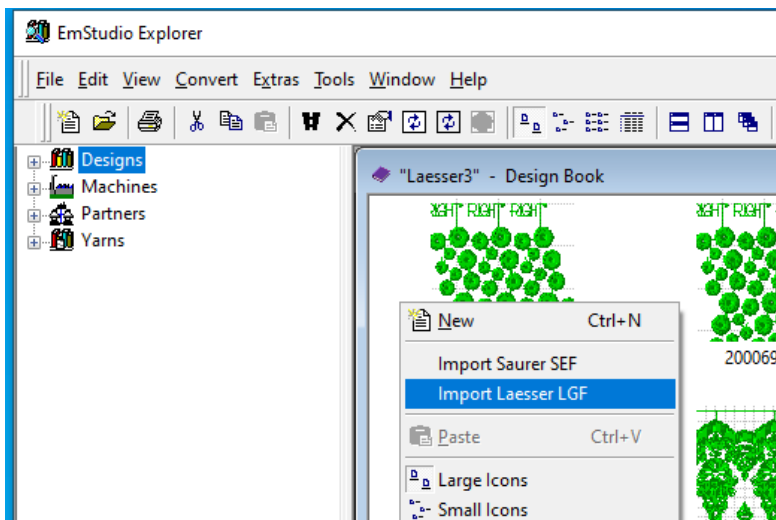
Import LGF-Design in iSed.
LGF designs can also be imported into iSed. The design is converted to SHC and directly opened in iSed. At save it is saved as SHC.
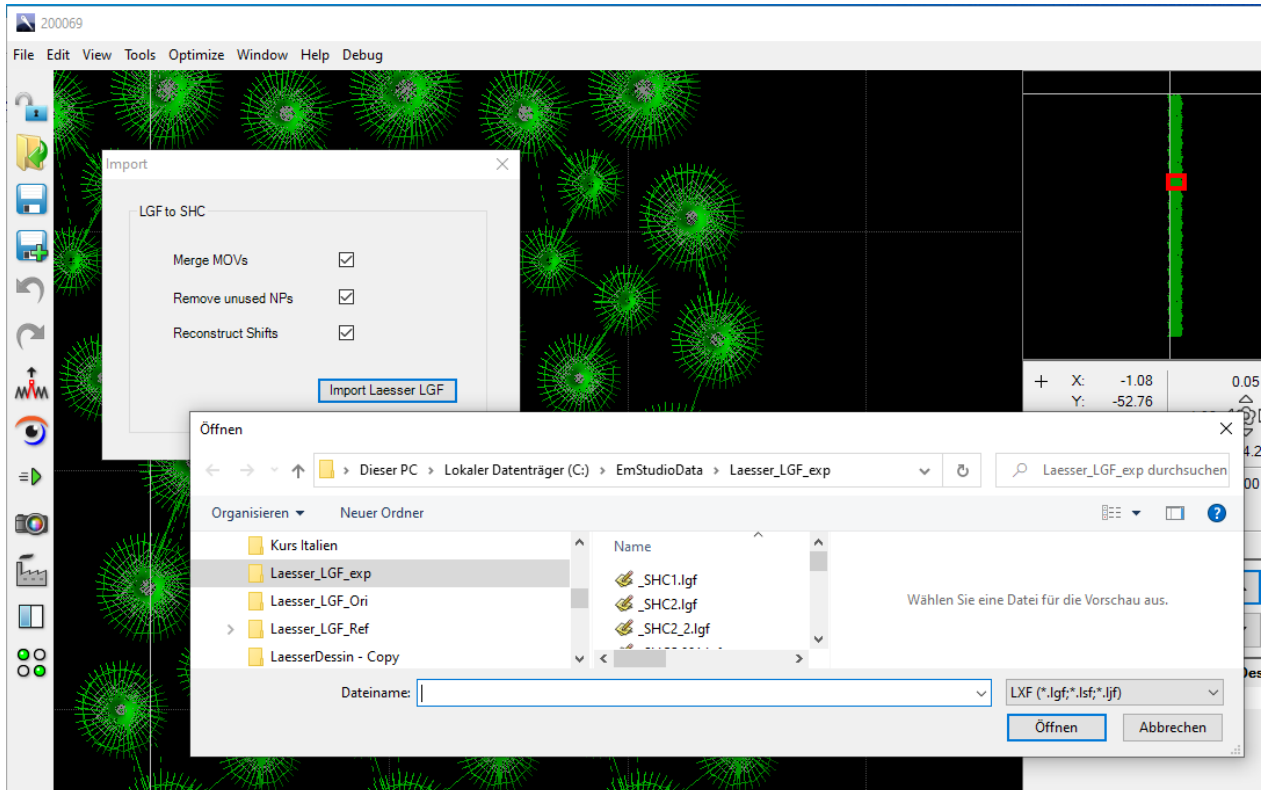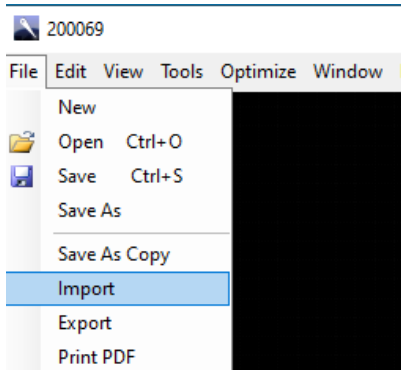
Export of LGF Designs

The exported LGF-design can then be edtited in LEdit if necessary. There it can also be converted to .mst for Laesser machines of older generation.

Export LGF-Design from EmStudio Explorer

From EmStudio Explorer a selected SHC design can be exported directly as LGF design.
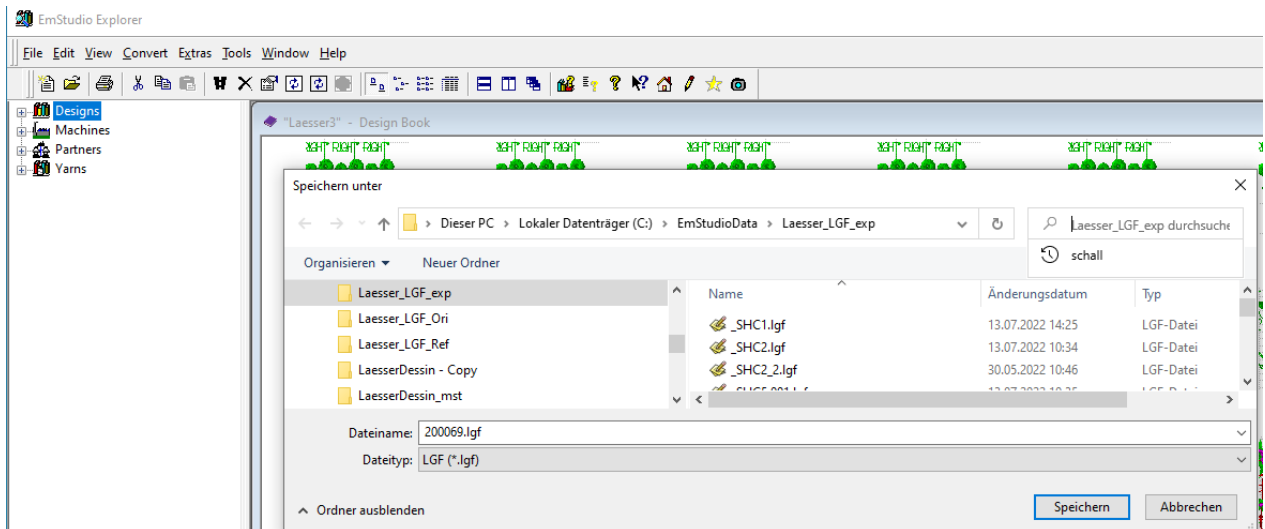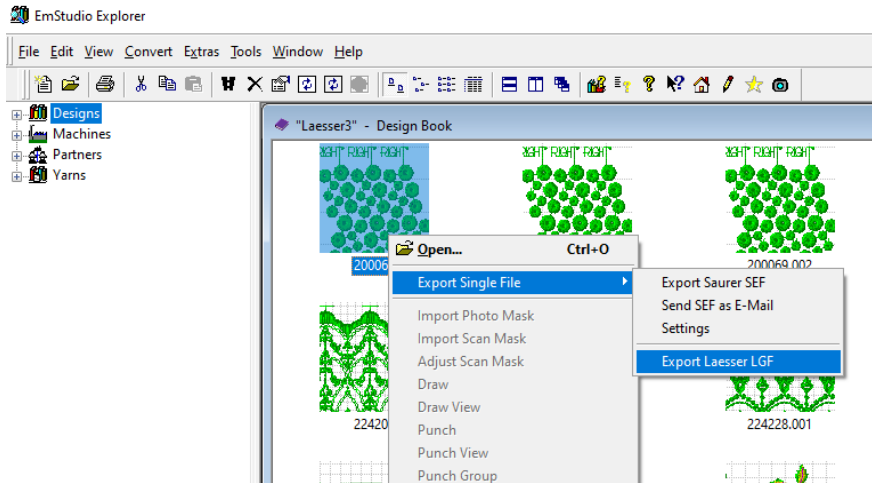
Export LGF-Design from iSed

From iSed the currently open SHC design can also be exported as LGF design with Export.
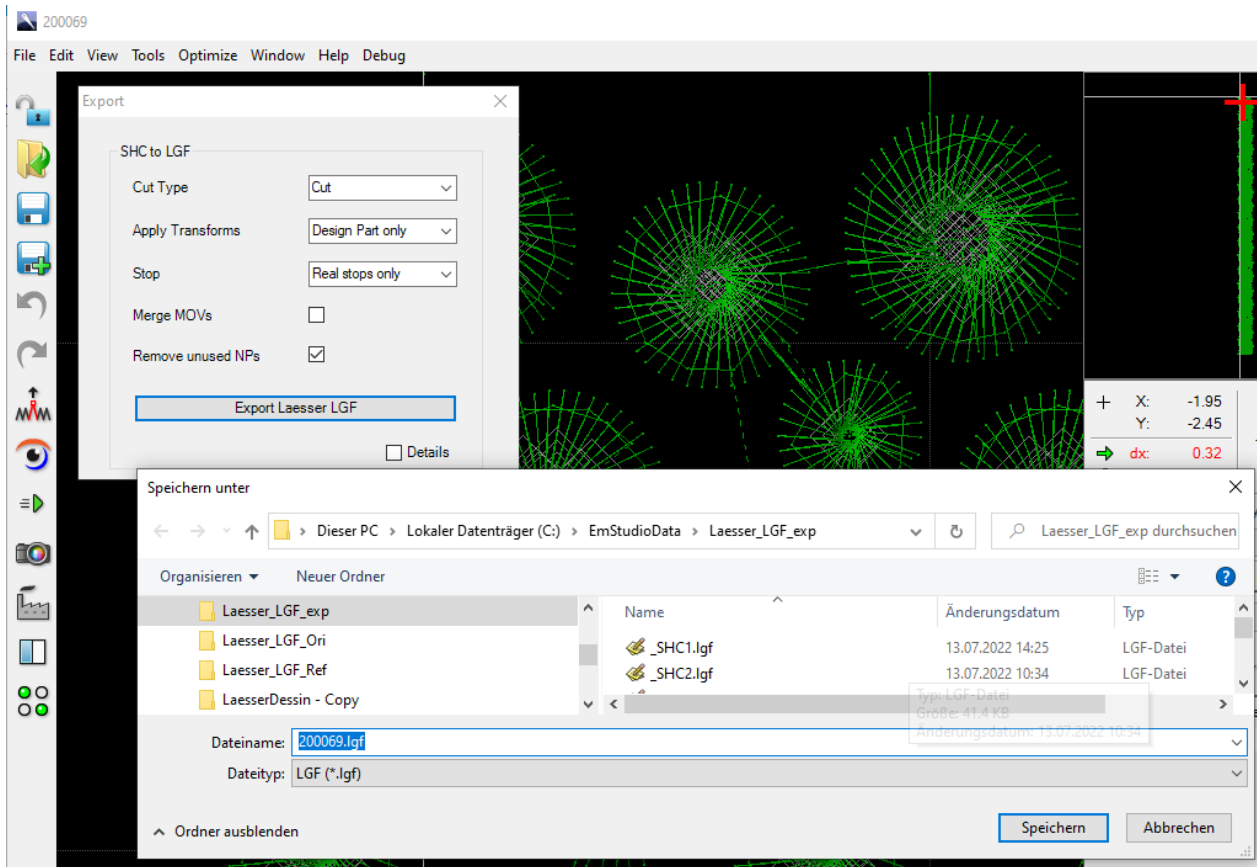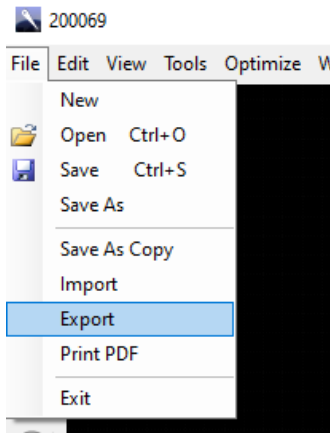
Open and Save LGF-Design in iSed

A Laesser LGF-design can be opened directly in iSed, in the same way as SHC Object, SEF or SHC Flat Designs. If opened in this way, it can be edited as SHC, but with save it is saved in the same format it was opened before.

Open LGF design

With "Save as" the format can be set.
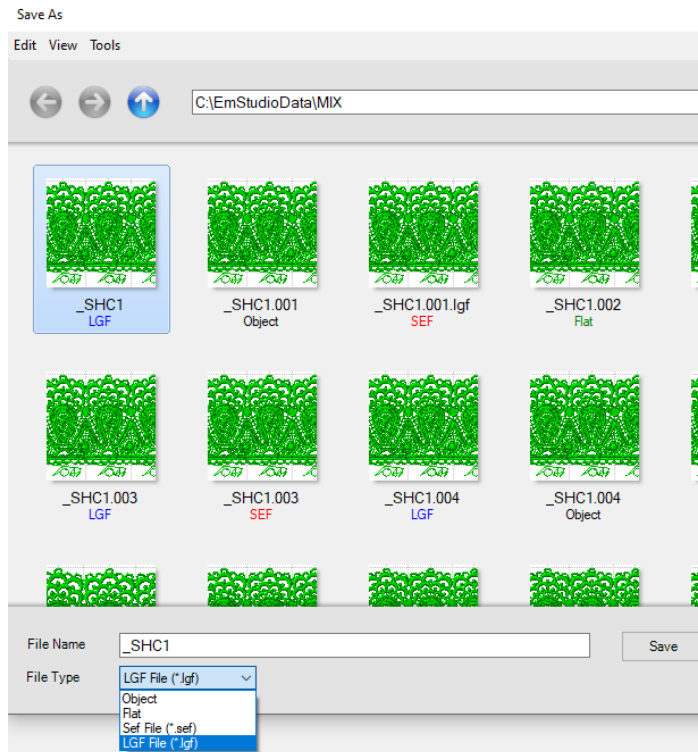
In "Open" LGF the Import settings are used, in "Save as" LGF the Export settings are used.
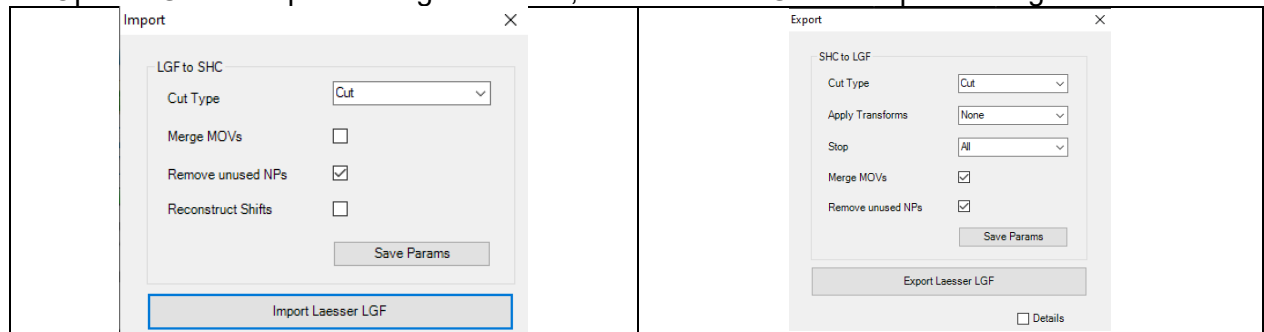
EmStudio V5.0

EmStudio Saurer Single File Format (*.sef)

The new Saurer Single File Format .sef contains all necessary information of a design in one file. It simplifies sending designs, now a .sef design can be sent by email directly from EmStudio.

Import Single File

To import designs in the new .sef-format into EmStudio, right click in an empty space on the design book. Then select **Import Single File** and a file dialog will appear where you can choose one or more .sef-files to import.
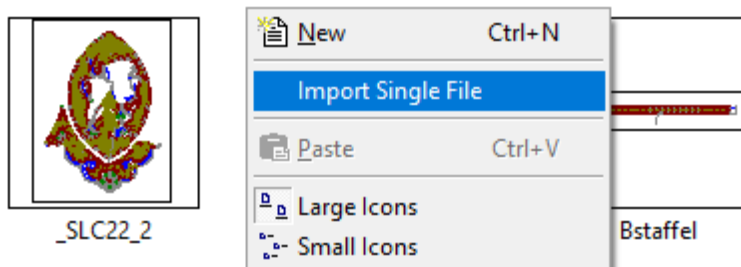
Export Single File

To export designs from EmStudio as .sef-format, right click on a design or select multiple designs and then do a right click and select **Export Single File**.
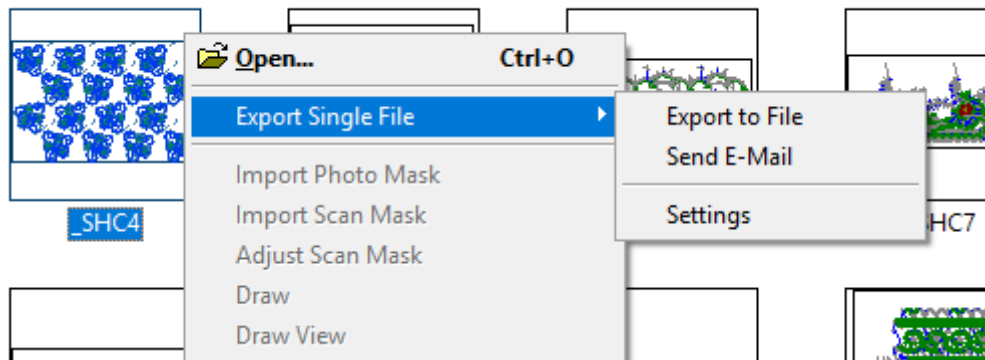
Use **Export to File** to export each selected design to a .sef-file. The «Export Format» dialog will open. Press the button with the desired export format. If a format is not available in the design, the button is disabled. A file dialog will open to set the name and the location of the .sef-file.

SHC	Only SHC related files will be exported to the .sef-file
SLC Saurer	Only SLC Saurer related files will be exported to the .sef-file
SLC Plauen	Only SLC Plauen related files will be exported to the .sef-file
Punch	Only Punch related files will be exported to the .sef-file
All	All file members will be exported to the .sef-file
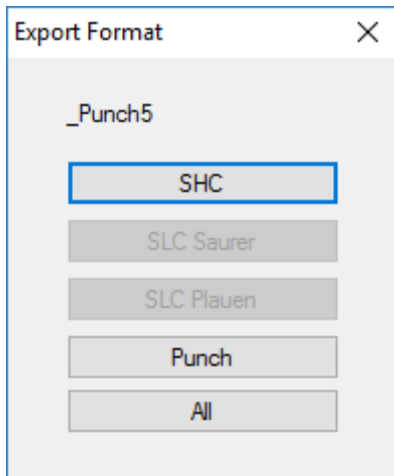
Use **Send E-Mail** to attach the exported .sef-files directly to an e-mail and choose the export format as described above.

Settings

Export files: Under the «Export Settings» dialog box, you can select the different files to be exported per format. The button «Reset List» will set the current list to the default setting.

Show Buttons: Here you can choose which buttons will be visible in the «Export Format» dialog box.

Batch Export: If «Batch Export» is selected, the «Export Format» dialog box will appear only once when exporting multiple designs. If «Batch Export» is not selected, the «Export Format» dialog box will appear for each design when exporting multiple designs.

Email Options: If you are using Outlook as e-mail client, choose «Outlook». If you are using Windows Life Mail or Thunderbird, choose «.eml File».

Language: Sets the language of the Import/Export dialogs.
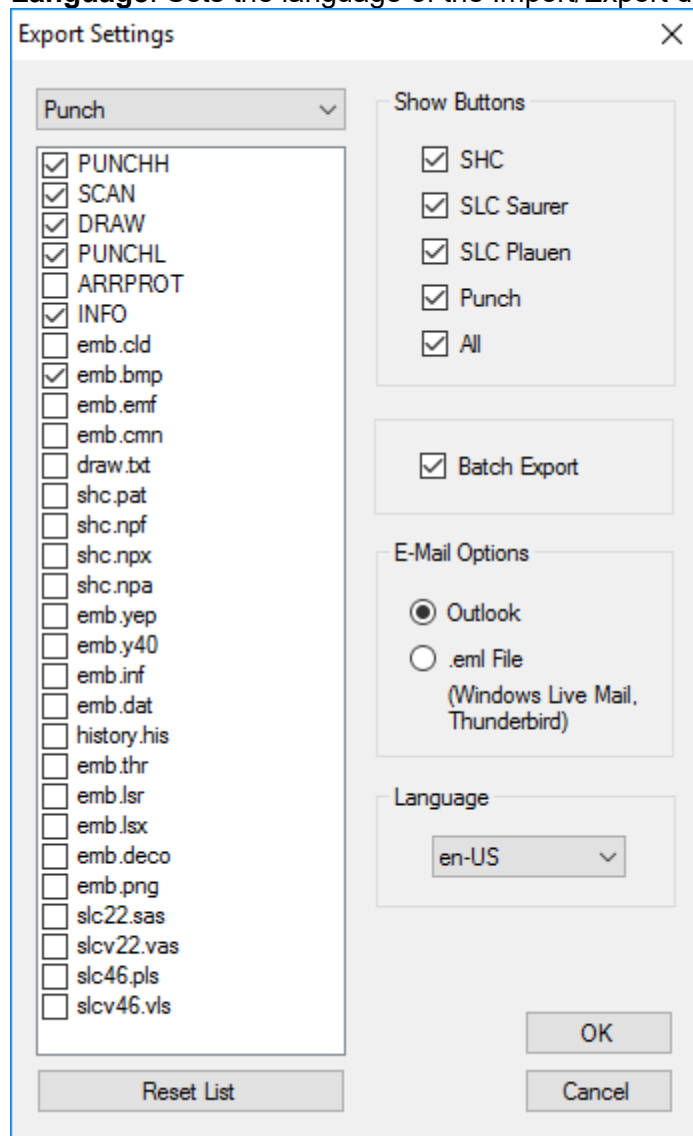
EmStudio V4.40

UnDo Redo in Draw / Punch

UnDo/Redo in Draw and Punch implemented

[19] UnDo: Undo last done action

[20] ReDo: Redo last undone action

[28] Reload Design: reload design from file

UnDo/ReDo is available with EmStudio license option PunchEx only.
The new menus can be assigned to tool bars or keys as usual.

Production time calculation in iSed

The production time, frame extension, start position and yarn usage of a design can be calculated based on real machine settings.

Production Info

Design: C:\EmStudioData\Jobs\Saurer Samples\prospekt e6

Machine Type: Epoca7 Pro, Cut, 15Y, TM082004   Config

Frame Extent (cm)

```
                0.00
-3.87    ◁▢▷   26.63
              -131.79
```

| | dx: | 0.00 | (0.00) |
| ⬇ | dy: | -131.76 | (0.00) |

Frame Start Position: 11.4 cm right

```
45        50        55
```

Yarn Consumption per Needle (m)

1	29.6
2	437.9
3	29.6
4	56.3
5	29.6

Total Thread Delivered: 523.9

Yarn Calculator

Production Time (HH:mm:ss)

| Total: | 4:35:46 |
| Remaining: | 4:35:46 |

Rpm (1/min)

| Min / Max: | 452 / 550 |
| Avg: | 269 |

Counter

| Total Rounds: | 72'185 | Total Stitches: | 70'753 |

| ? | Cut On | | Close |
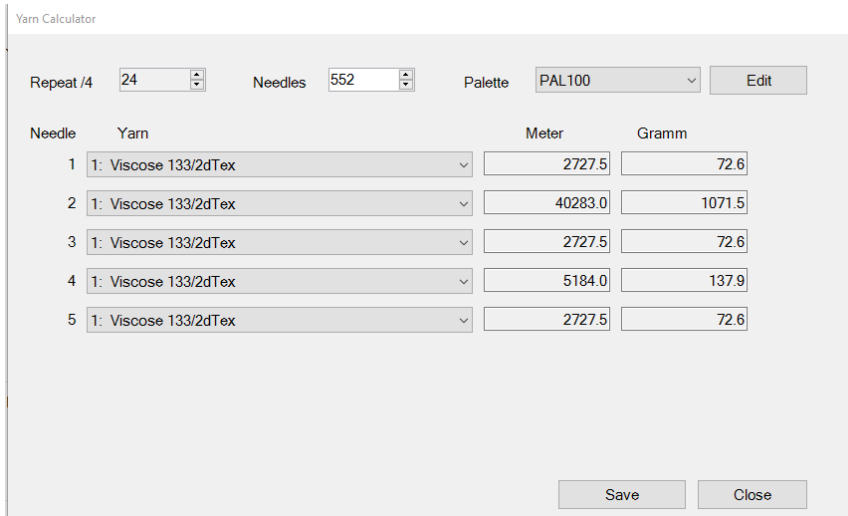
EmStudio V4.00

This document shows the most important new features of EmStudio.
The release notes contain a detailed list of all changes.

New option iSed

The new SHC-Editor iSed is available as option to EmStudio V4.0. For seamless transition the current or new editor can be used. This can be set in the options.

iSed – *Top 5 Features*

1. All you need in sight:
   - from graphic, stitch list
   - to graphic / stitch list / arrangement / NP
   - pentamat needle pattern and yarn settings
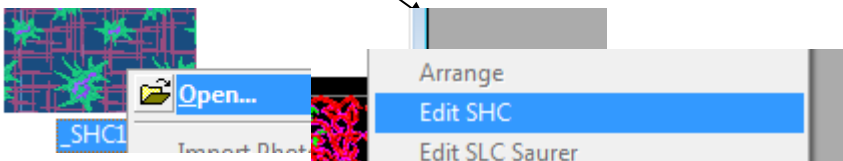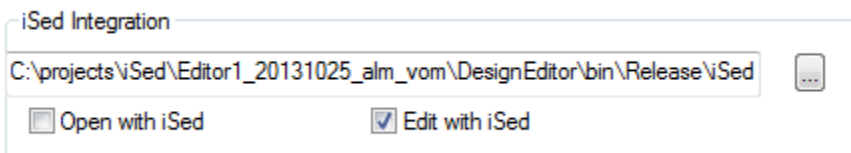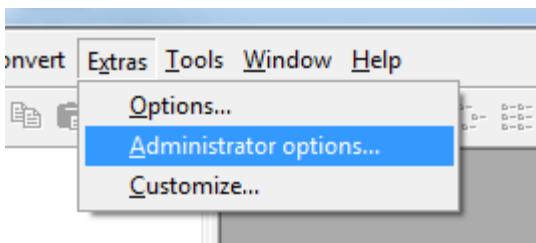   - embroidery simulation
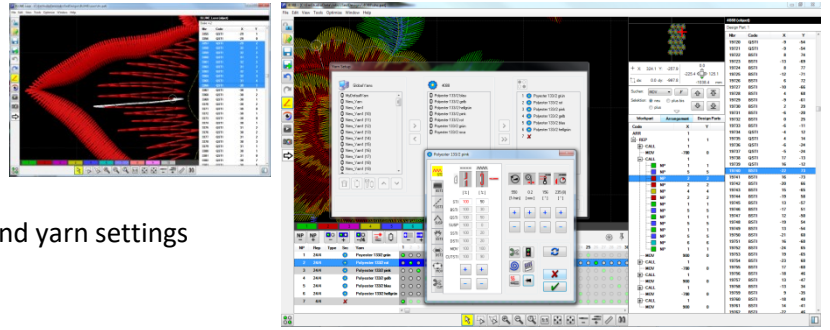
2. Edit stitch groups
   - scale, rotate, mirror, stretch
   - reverse stitch direction
   - change stitch density, stitch length
   - move stitch lines parallel
   - overstitch fillings
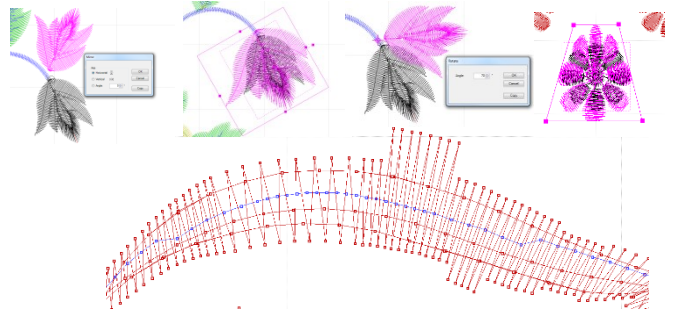
3. Macros
   - save stitch group as macro
   - insert macro
   - replace stitch group by macro
   - visual macro administration
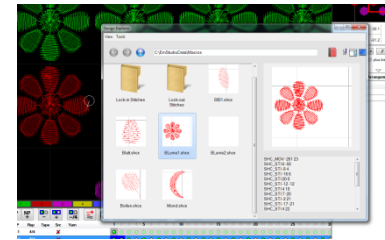
4. Technologies
   - optimal integration to Epoca family
   - heat cut and laser integration
   - soutache and sequin integration

5. built in know-how
   - proven design optimizer
   - visualization of stitch problems
   - new design processors
   - verify design for embroidery rules
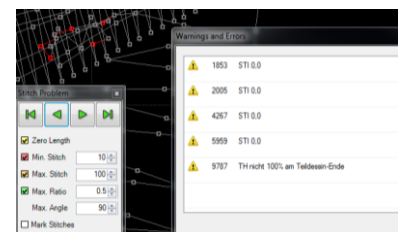
EmStudio V3.60

Windows 8 compatible.

EmStudio V3.50

Extended support for Soutache.
Support for SuperBor

EmStudio V3.41

Epoca 6 and HeatCut fully supported.

EmStudio V3.30

Sequin Type 1 and 2 as well as 1+2 (Double-Sequin) fully supported.
Essentially improved bore stitch optimizer
Windows 7 compatible.

EmStudio V3.20

Windows Vista – Compatibility: EmStudio runs under active UAC and standard user and supports windows themes as „Windows Classic" or „Windows XP"

EmStudio V3.10

This document shows the most important new features of EmStudio V3.10.
The release notes contain a detailed list of all changes.

Laser enhancements

Extended laser format

EmStudio V3.10 realizes the knowledge which is extracted from the productive use of the laser and provides a unique combination of comfort and flexibility to create **all sort of laser designs**:

- From simple repeated laser designs to allover designs
- Large repeats with several alternating stitch and laser sequences

With the new laser format V1.71, all Saurer Laser GT and Saurer Laser GTR can be controlled optimally by the Saurer machine software V7.
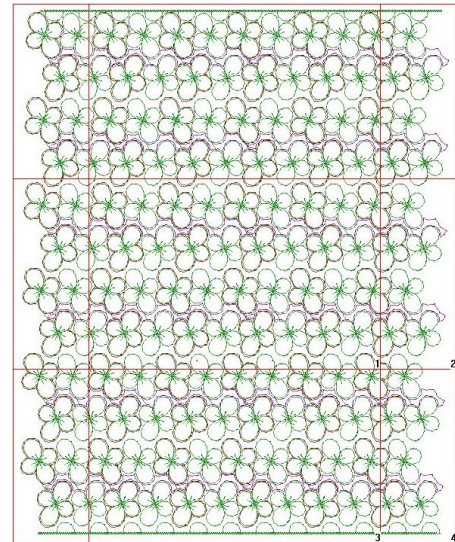
Laser repeat and laser sequence

- For laser, smaller design repeats can be summed up to bigger laser repeats. So the existing laser workspace is utilized optimally.
- For ordinary designs, all laser boxes are used for every laser sequence by default.
- For comfortable creation of allover designs with several alternating stitch and laser sequences, specific laser boxes can be optimally assigned to every laser sequence.
  Call from the arrangement graphic via menu "Arrange ⇨ Laser Repeat"
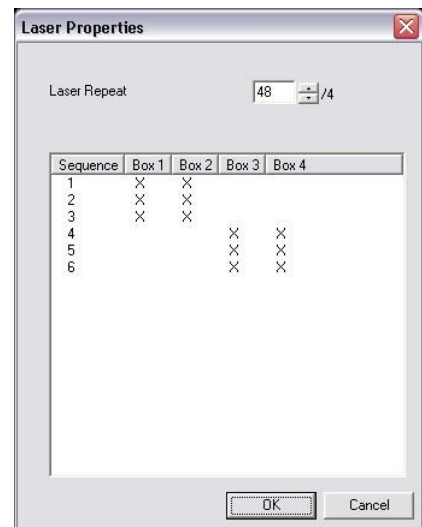
Laser workspace and laser boxes

- The laser workspace can be defined according to the size of the laser device.
- Laser boxes can be placed automatically or manually in the desired size. Due to these intervention possibilities, the embroidery height can be utilized optimally, especially with large laser workspaces.
- The automatic placing of laser boxes can be influenced by border and overlapping parameters.
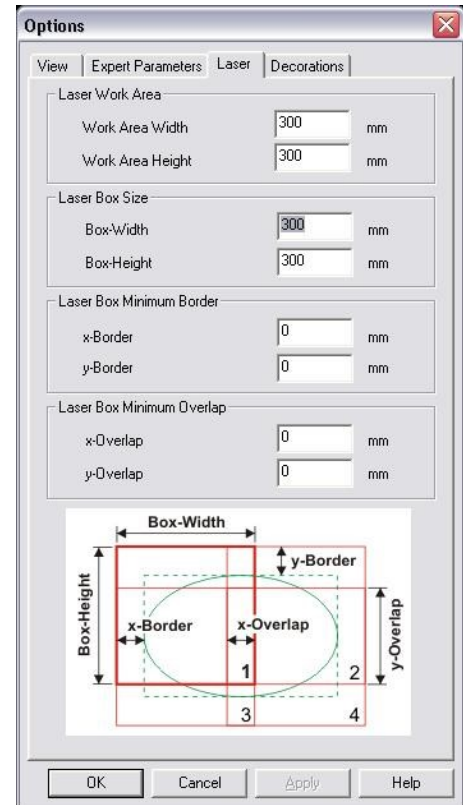
Laser parameter

All new laser parameters are supported:

- Laser power in %
- Cutting speed in cm/sec
- How many times the lines are cut
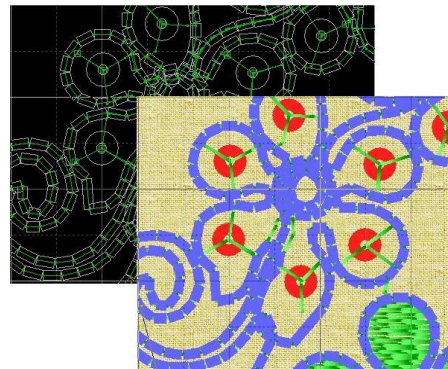- Delay between repetitions
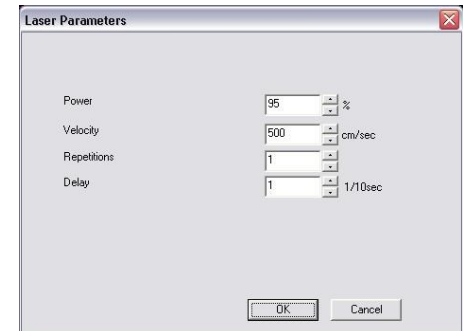
Extended visualization of Sequins & Soutache

New Saurer Sequins & Soutache

EmStudio V3.10 supports the Saurer Sequins & Soutache device with the machine software V7 as well as the Micro Sequins & Soutache device on SHC machines.
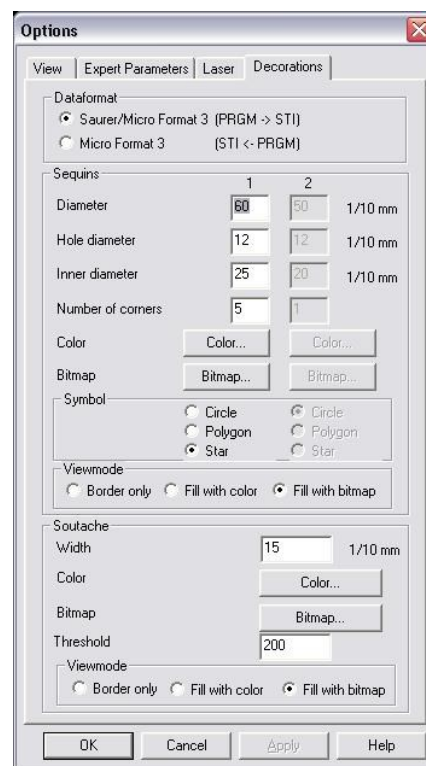
In punching

- Full 2D and 3D visualizing of sequins and soutache


In SHC-Editor

The **new data format Micro format 3** is supported (PRGM after stitch into sequin instead of before stitch into sequin)

- Two sequin types are supported
  Sequins 1:   PRGM 54 / 55
  Sequins 2:   PRGM 56 / 57
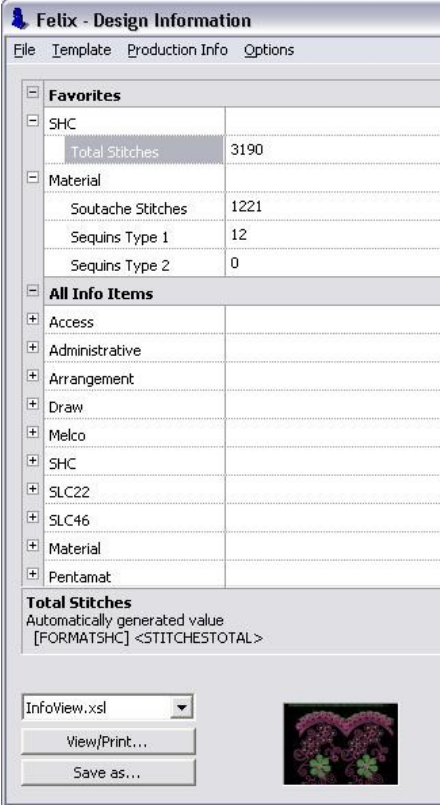- The appearance (shape, color, bitmap) can be defined for each sequin type.

The **stitch counter** shows also the number of sequins and the number of Soutache stitches

- For the whole design/design part (if nothing is selected) or for the selected stitches
- At Micro format 3: per sequins type
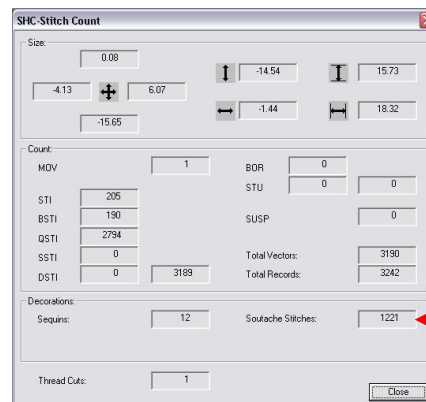
- The Sequins & Soutache stitch counter data are included in the design info and can be used for calculation.

Improved user interface

- Improvements and adjustments for various resolution settings (90dpi/120dpi) and font settings of Windows

New features of drawing/punching

Stiel

- Stiel can be selected and optimized by **Stiel type**
  This affords an efficient and selective modification of stiel properties of all stiel from a particular type.
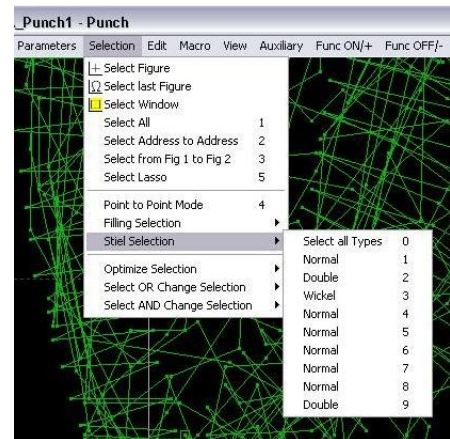
Chain stich

- The chain stitch can be selected and optimized by **Chain stitch type**.
  This affords an efficient and selective modification of chain stitch properties of all chain stitches from a particular type.
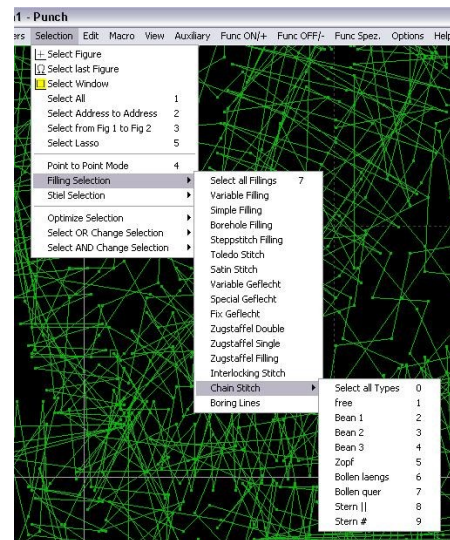
Special function

Together with the function number, the special function [42] can contain also an argument.

Input as [42] n.a
e.g. Laser pragma 102, laser sequence 2:   [42] 102.002

New hardware

Support of monitors with high resolution up to 2560x1600 pixel

New features of SHC-Editor

Measuring

Comfortable free measuring in the graphic with zooming and automatic scrolling for high precision.

- Zooming with + / -
- Scroll by overstepping the window
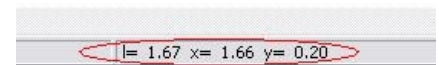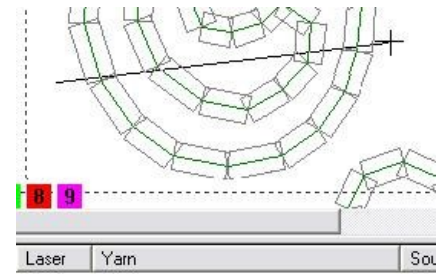- The measuring is terminated with <Enter>, <ESC> or double click.

Arranging Needle Pattern

Large and special repeats can be created from regular repeats fast and easily:

- A needle pattern (NP range) can be copied or moved.
- Easy repetition of designs over the whole machine width with spaces between the designs.
- Call from the NP window via menu:
  "Needle Pattern ⇨ Arrange Needle Pattern"
    - The range is defined by "Needle from … to …".
    - The destination is defined by the "Target Needle".
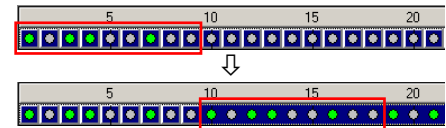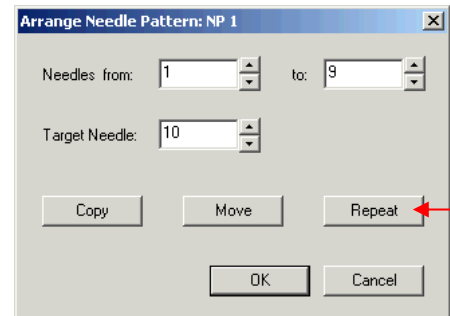
Further new features

Pragma / Special function [42]

- The Pragma (PRGM n a) with function number n and argument a is fully supported in all conversions as well as in punching and SHC.

Example:

PRGM   102   1

1 = Laser sequence number

Conversion SHC – SLC

- When converting from SHC to SLC: automatic thread lock (BSTI), thread guide (STG) and roller switching (TB) are created automatically for blatt stitch sequences according to the SLC conversion parameters.
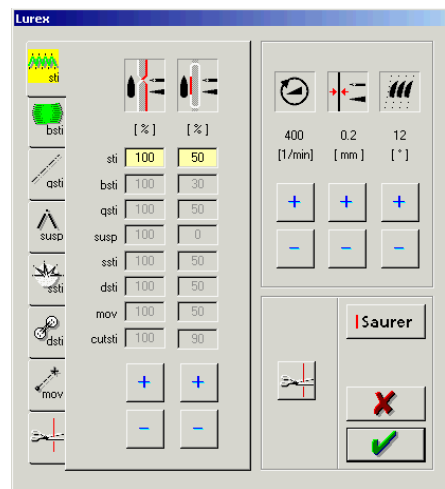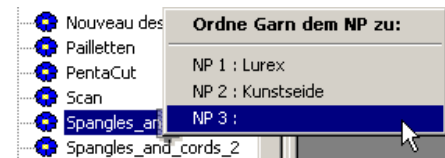
EmStudio V2.20

This document shows the most important new features of EmStudio V2.20.
The release notes contain a detailed list of all changes.

Improved yarn support

In Explorer

- **Yarn assignment** in explorer by drag-and-drop
- Improved performance of yarn administration
- **Yarn names** may include „/" (slash)

- New **yarn dialog** with improved operation

In SHC-Editor

- **New yarns** may be loaded directly within the SHC-Editor and are available immediately.
- Yarns may be copied between **the global yarn list** and the **design.**
- Easily delete and edit yarn specifications in both sectors (design and global).
- Editing the yarn parameters the same as in the Explorer.

- **Yarn origin** (design and global) is represented as symbol.
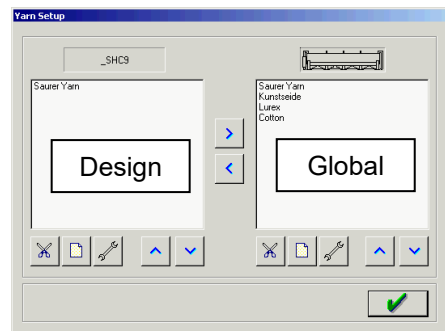
Visualization of sequins & soutache (spangle & cording)

Full support for the Saurer Sequins & Soutache device:

Sequins:
- Sequins are displayed between pragmas 54 and 55.
- **Shape and size** of the sequins can be defined in a sequins generator.
- A sequin can alternatively be filled with a color or a bitmap (only in SHC-Editor).

Cording:
- Cords are displayed between pragmas 50 and 51.
- The **cord width** can be set.
- A cord can alternatively be filled with a color or a bitmap (only in SHC-Editor).

New features of drawing/punching
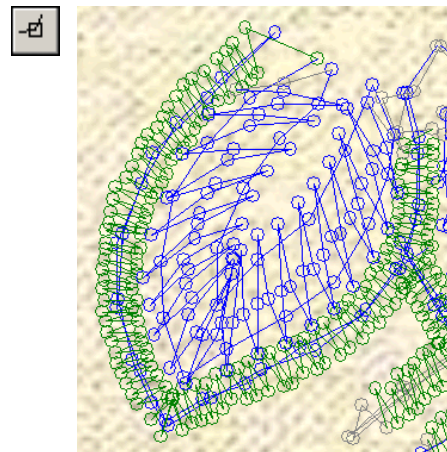
Photo mask
- True-to-original reproducing of scans, with **crystal clear** background
- **Rotatable** and **scalable**
- Alternatively or combinable with scan mask.
- Without file and size limits.

New features of SHC-Editor

View of stitch symbols

- The stitch symbols can be shown and hidden in **all representations** (except in 3D view), suitable also for Pentamat representation.
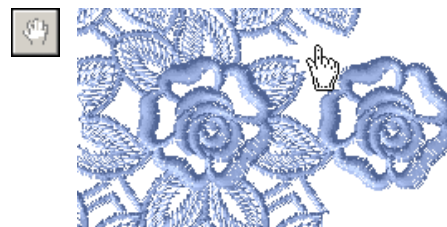

- Stitches can be illustrated as circles, crosses, rectangles or plus (+) symbols.
- Selection of symbol size from a list or by **real needle diameters** (needle color/needle number).
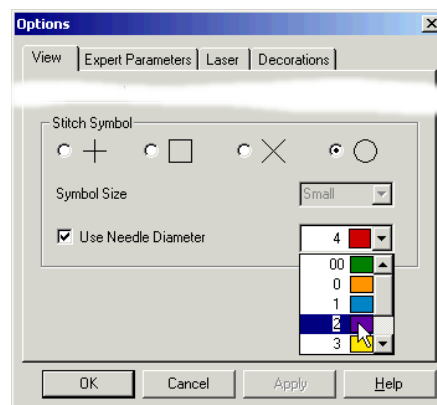
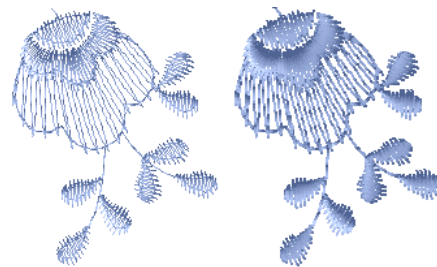## Improved view

- Simply move graphics by center mouse button or in the new **hand mode**.
- Accelerated graphic view; modifications of repetition count are updated immediately.

- Yarn thickness for the 3D view can be set.

- Displayed repeats can be incremented or decremented by clicking a button.

Design image

- New design image format: **EMF**
- Adjustable quality of JPEG images

Laser support

Full support for Saurer laser:

- An NP can be marked to be a **laser contour** inside the NP list (laser NP). The corresponding **laser parameters** can be adjusted in a new dialog window.
- Optimizers for lock-in and lock-out stitches are suppressed inside Laser NP's.

- **Laser boxes** can be positioned in editor; side lengths are adjustable.
- The **laser repeat** can be set. Laser boxes are displayed repeated, accordingly to settings.
- Laser parameter, laser repeat, position of laser boxes and laser needle patterns are saved together with the design.
- **Display of laser contours:** In NP view, only the laser contours can be displayed in color.
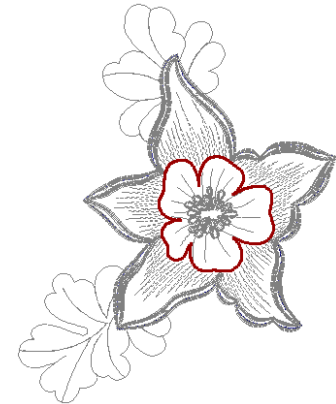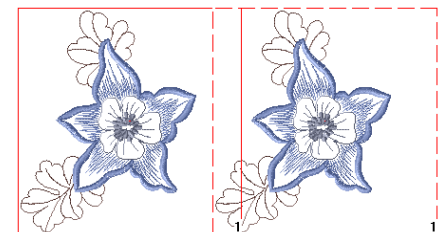
Further new features

- Personal shortcuts can be defined.

- Improved search dialog: Search can new be done by SHC line number.
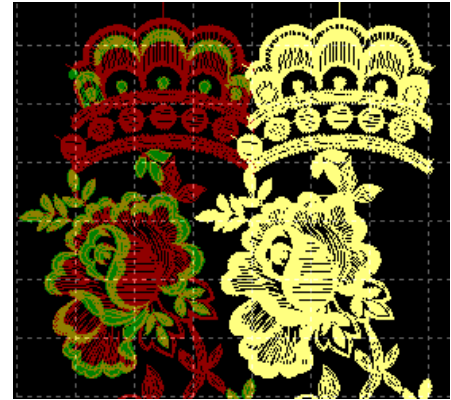
New features of SLC-Editor

Mask left / right

- **Continued repeat** (mask) left and right can be displayed.
- A repeat can be defined.
- The mask is displayed in the design colors or in a user-defined color.

Further new features

Arranging extended

- Convenient **arranging** available for **SLC22** and **SLC46**.

EmStudio V2.10

This document shows the most important new features of EmStudio V2.10.
The release notes contain a detailed list of all changes.

New features of drawing/punching

New Representations

- 3D view of the designs with **true yarn colors** from **yarn color charts** (compatible to Melco yarn color charts) with **fabric background**.
- Fabric backgrounds can be loaded from templates with formats .JPG, .BMP, .EMF, .WMF, .PNG.
- New **view in plotter colors** from the plotter color palette
- **Deactivating of single colors** in design representation
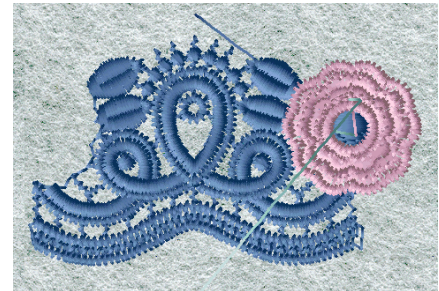
Scan mask

- Modifying the scan mask: Simple changing or deleting of **scan colors**
- Showing the scan mask: Showing or hiding of **colors separately** or changing their **brightness.**

Simplified handling

- Punching: Simplified handling of bore automatic by an **animated bore parameter dialog**
- Position and alignment of the **menu fields** remain saved

- **Live macro:** Animated execution of macro, copy, stretch, rotate, mirror.
- Simplified creating of **parallel lines** with a single point
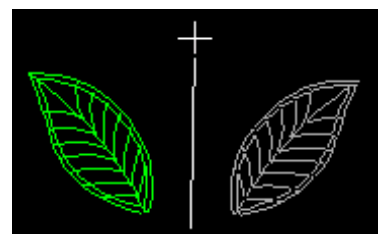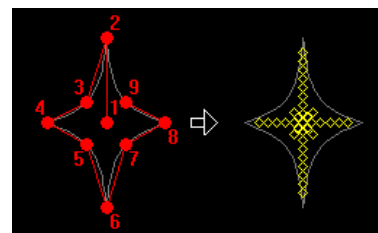
New effects

- New **variant 5 in Fix geflecht** with zigzag filling and warranted min and max stitch
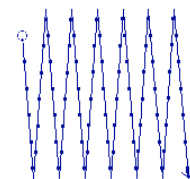
Further improvements

- Design image (.emf) is being saved with **size information**
- Performance improved in joystick mode
- Data area increased (double direction lines count)

New features of SHC-Editor

Better visualization

- 3D view of the designs with **true yarn colors** from **yarn color charts** (compatible to Melco yarn color charts) with **fabric background**.
- Fabric backgrounds can be loaded from templates with formats .JPG, .BMP, .EMF, .WMF, .PNG.
- **Printing of the design image** in real size including background
- **Design image** (.jpg) saved with correctly scaled background inclusive size information
- Representation of multi color and alternating colored designs thanks to **threading repeat**
- **Full screen mode** for graphic
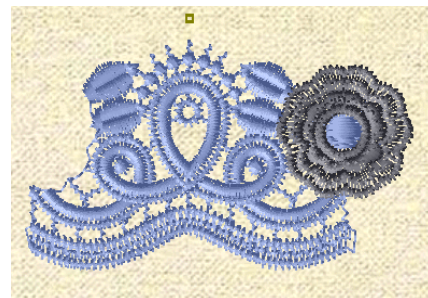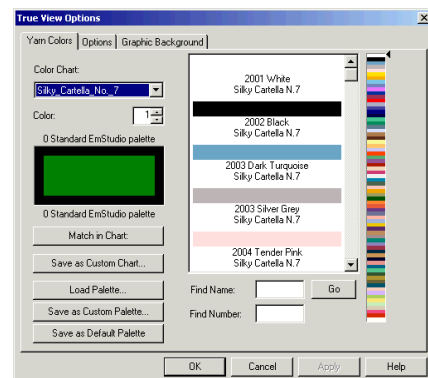
More powerful handling

- **Full editing** in SHC arrangement with repetitions and in Pentamat view
- Selection with **Lasso**
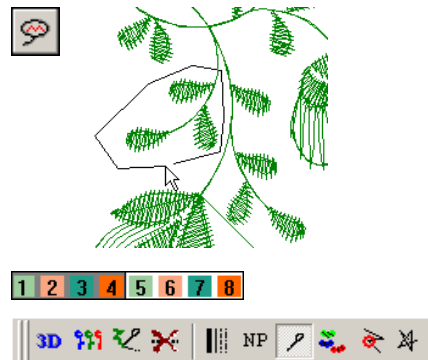
- Interactive **needle legend** with real colors, needle repeat representation included
- New toolbar for **view modes**
- Large buttons available
- Automatic integrating of default user tools
- Grid keeps setting

Pentamat/PentaCut

Simplified creation of **Lässer** standard groups

Better performance

- Accelerated graphic drawing (large designs, small detail, Pentamat view)
- Graphic drawing is interruptible by mouse click
- Performance improved at select, edit, delete and insert
- Fast needle switching

Further new features

Production time calculation

New program to calculate the production time of a design in consideration of machine specific attributes.

Yarn consumption calculation

Now with simplified parameterizing and evaluation per needle.

Design information - info sheet

- The design image can now be viewed and printed in an **automatic scale** or with **fixed scale**.
- Improved quality of design image, customizable for black and white printer.

Arrangement

- **Simplified SHC arrangement** or expanding of an existing SHC arrangement

Yarn parameters

- **List view** of the yarn parameters
- **FastCut** is supported in yarn parameters.

EmStudio V2.00

This document shows the most important new features of EmStudio V2.00.
The release notes contain a detailed list of all changes.

## New features of drawing/punching

Preparing scan patterns

With the **new graphic filters** optimized scan patterns are
generated from different images (pixel reduction, reduce to
outlines,…).
Beside bitmaps now also other **common image formats**
can be read (JPG, TIF, GIF, EMF,…).
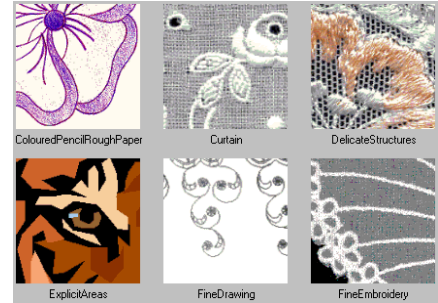
Interlocking stitch

New automatic for interlocking blattstitches and
geflechts ("needle painting").
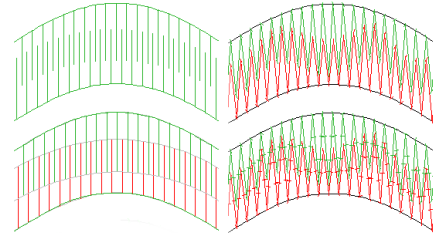
Simple reuse of existing effects

The complex creating of fillings and geflechts is now
history. The own punch- and embroidery know-how can be
reused:

- With **Transfer Parameters** an effect in the
  design can be adopted by mouse click.
- Proven fillings and embroidery effects can be
  saved in **templates for fillings and effects** and
  can be used in other designs.
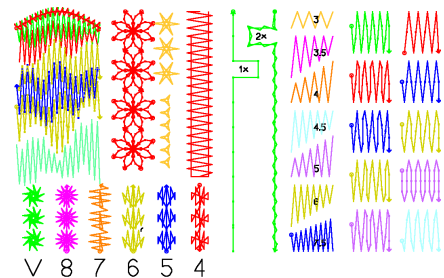
Further improvements

- With integrated **macro preview and selecting**, the
  use of macros is much more comfortable.
- Simplified **stepp stitch** (similar to stiel).
- Simplified **macro call** (with one point).
- Simplified **copying of lines**.
- Not only the keyboard but also **own menu fields** can
 be programmed (menu macros).

SAURER.

New features of SHC-Editor

Optimizers

With the optimizers, designs can be optimized for optimal productivity and embroidery quality.

New thread cutting optimizer
- Fully automated lock in and lock out.
- The default lock in and lock out stitches can be changed and own lock stitches can be added.
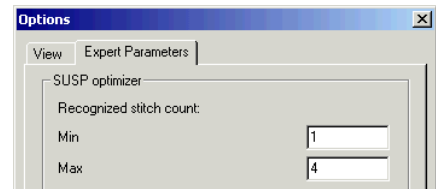- A stitch sequence from a design can also be used as lock in or lock out stitches.
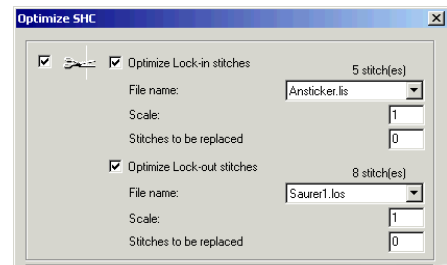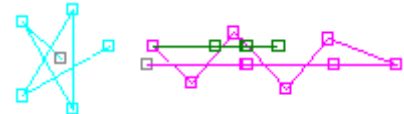
New THOptimizer (thread quantity)
- The THOptimizer sets the defined thread tension and speed previous to each thread cutting. So each thread cutting is performed optimally.
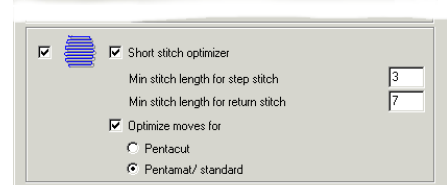
Optimizer for suspenders
- Sporadic stitches between two MOV's are converted to suspenders (SUSP) .

Optimizer for geflechts
- Too small stitches and too small backstitches ("cut off shuttle thread") can be eliminated.

New MOV optimizer
- Optimizes moves (removes unnecessary frame movements).
- Converts conventional color designs to thread cutting designs (eliminate suspenders,…).

New views

- The **view by stitch progress** shows how much of the design to the selected stitch is already embroidered.

- The **Pentacut view** shows the lock in and lock out points in the design.
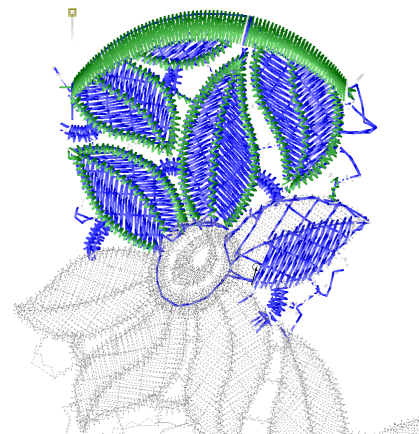
Further new features

Design icons in the design book

The design icons in the design book can be created automatically.

_Punch20   _Punch20

Converter (e-convert)

The new **ComerioF1 converter** is added to the existing converters (Lässer, Hiraoka, Melco).

EmStudio V1.60

This document shows the most important features of EmStudio V1.60. How to use these new features is explained in the EmStudio Help. The release notes contain a detailed list of all changes.

New features of drawing/punching

New Draw- and Punch Features

- User definable **texts** in drawing and punching.
- Plotter setup and **plot preview** direct in plot dialog.
- In straight line now curve points can be given with double points.
- New **view by stitch problems** in punch.
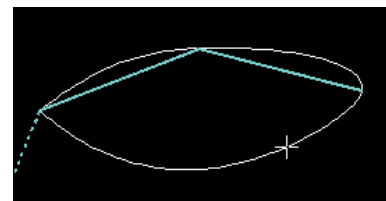- Automatically **optimizing** of recognized stitch problems.
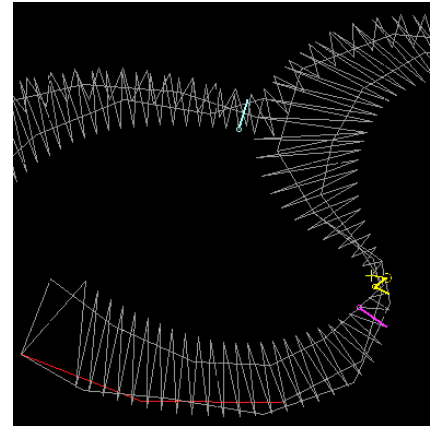

New Draw- and Punch Automatics

- New variants 12-14 of special geflecht with short stitch on side 1, side 2 or on both sides.
- New variants of **special geflecht frayed out** on side 1, side 2 or on both sides.
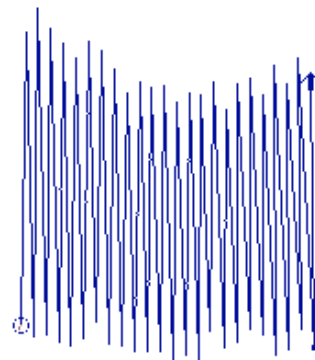
- **Live spline** makes curves visible directly while giving the points.

- **Wheel automatic** reduces filling wheel automatically based on the length of the direction lines; can be used for new fillings or also as optimizer for existing designs.
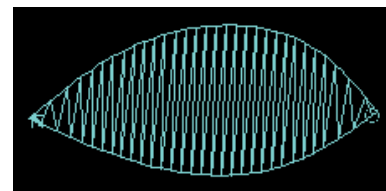
New features of SHC-Editor

- Quick creation of **standard needle patterns** for simple repeats or CRC.

- Arranging copies the group of the first design.

Further new features

Improved Administration

- A design now can contain any stitch formats. This **design object structure** is well known from EmNet Plus. In the detail view the design components are showed.

- **Search:** Designs can be searched by different criteria.
- **Easier export** of designs to partner flat as floppy or EmLink through choose of design format.
- Design info sheet can be saved as HTML.

Tools

Yarn calculation well known from EmNet Plus is installable as Tool:
    C:\Program Files\ssag\EmStudio\Tools\ThreadC.exe "$S\PUNCHL"

Field proved **TH-Optimizer** is installable as Tool:
    C:\Program Files\ssag\EmStudio\Tools\TH_Optimizer.exe "$S"