



Embroidery Software Partners

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EPCwin
Software for multi-head
and schiffli embroidery

ZSK **GiS**
Embroidery Software Partners

First steps

Dear customer,

Congratulations on your purchase of one of the best punching systems in the embroidery industry. The EPCwin system draws on the resources of more than 20 years of experience accumulated by two **embroidery software partners, namely ZSK and GiS.**

User-friendliness was among the key factors that drove the development of EPCwin. You will benefit from the best possible guidance and support when drafting, drawing, punching and editing in the embroidery environment.

This manual serves the purpose of describing the system's fundamental operating procedures.

As a matter of principle we assume that you have already received training on the EPCwin system.

EPCwin offers the user context-specific help. Pressing [F1] in any situation takes you to the relevant page of the help manual. In dialogs, clicking *Help* has the same effect. If you click on *Help* in the start dialog of EPCwin, the help start page appears on the screen. From here you can access the full contents of the help manual. Where necessary, cross-references direct you to further information contained elsewhere in the help manual.

The content of the EPCwin help manual refers primarily to working with the program. It does not seek to impart special knowledge of embroidering.

Where necessary, cross-references direct you to further information contained elsewhere in the online help.

Even if you have trained on the system, you may benefit from reinforcing your knowledge by reviewing the functions offered by EPCwin with the online help.

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Terms and background information

Conventions used in the online help and assistant:

- Text enclosed by square brackets:
Key on the keyboard, e.g. [F1] indicates the F1 key.
- Text enclosed by angle brackets:
The mouse button, e.g. <Left> indicates the left mouse button and <Left><Left> indicates a double-click with the left mouse button.

If the control or shift key on the keyboard has to be pressed together with <Left>, the notation is [Ctrl] + <Left> ([Strg] + <Left> on the German keyboard) or [Shift] + <Left>. You can press either the left or the right [Ctrl]/[Shift] key, but it is essential that you hold down the relevant key on the keyboard before pressing the left mouse button.

Instead of the function keys [F1] - [F9], you can also use the number keys on the number keypad. In this case, the number lock must be engaged first (the Num LED must be lit).

You can enter decimal points (e.g. 3.4) with the decimal point key on an English number keypad (decimal comma with the comma key on the German number keypad).

Some dialogs allow actions to be triggered directly by shortcut keys; entering a number executes the function without requiring an on-screen button to be pressed with the input device. The relevant number is indicated before the symbol or button on the screen. The input box for the shortcut is active as soon as the dialog is called. Clicking a different function (symbol, on-screen button etc.) deactivates the shortcut. It is reactivated by clicking the shortcut input box.

First steps

From the working copy to the finished design

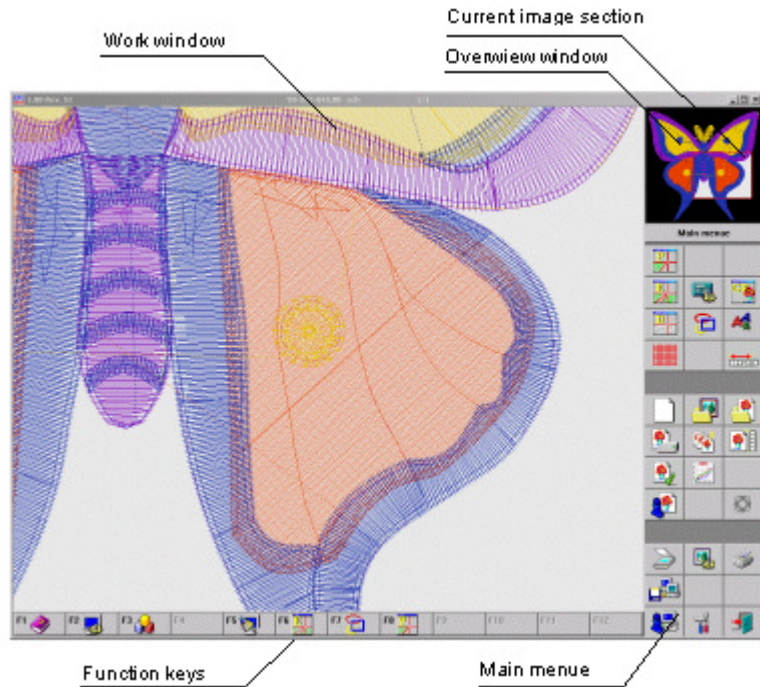
Creating an embroidered design on the basis of an original image involves several fundamental steps:

- Scan image
- Complete design head and save image
- Load design with image
- Enter dimension system
- Retrace outlines
- Create reference data
- Save design
- Output stitch data

These items comprise only a selection of the options provided by the EPCwin software. Only the key work stages are described here.

After installing the software and entering the passwords, EPCwin is ready for operation. The following steps can be performed only if you have not edited the default settings.

Screen structure in menu mode



Scan image



Press button <Left> on the scanner symbol to initiate the scanning operation. A list of image reading devices (scanners, cameras) appears on the screen. Select one of the options (e.g. with *Select*). This dialog and the ensuing scan program do not form part of the EPCwin software. Follow the instructions issued by the scan program. The program will probably contain a button inscribed *Send to application* or similar.

Complete design head and save image



Once the scanned image data have been transferred to EPCwin, the screen issues instructions for entering the design head data. The mask already contains some essential information, including the design number that unmistakably identifies the design. The number is issued automatically and preset. When you subsequently select an image in the general directory, you will see not only the design number, but also the design name, customer and group. These items are not preset in the design head mask. Entering data in the design head boxes achieves a clearer structure for subsequent work. Confirming with *OK* saves the image.

Load design with image



Press <Left> on the symbol to open the general directory. From here you can select the new design containing the scanned image by way of the design number or name, name of the customer, or group (with <Left> in the relevant line); confirm with *OK*. The design with the image appears in the working window. Since no other design data exist at present, the display shows only the image.

Enter dimension system



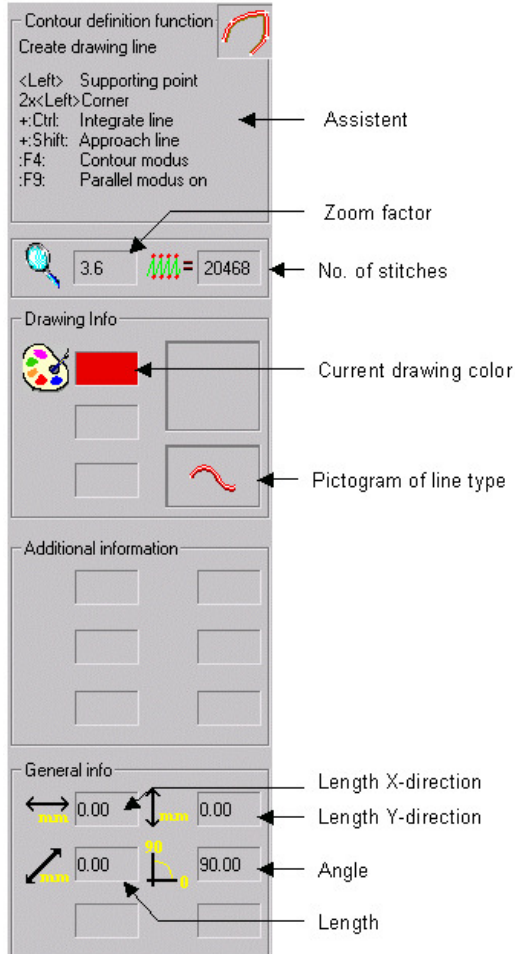
When a design is open, a red drawing cross or reticle appears on the screen as well. The assistant asks you to enter a dimension system. The system is determined by entering two points and a length. Use <Left> twice in succession to specify two prominent points in the image. The dialog that follows asks you to state the desired distance (in the full-scale embroidery) between the two points. Confirm the dimension with *OK*.

Retrace outlines



Press <Left> on this symbol to start the input of the drawing data. You are now in the drawing mode.

Layout of assistant bar in drawing mode



Retrace the outlines of the image; this drawing will form the basis of the outlines in the embroidered design.

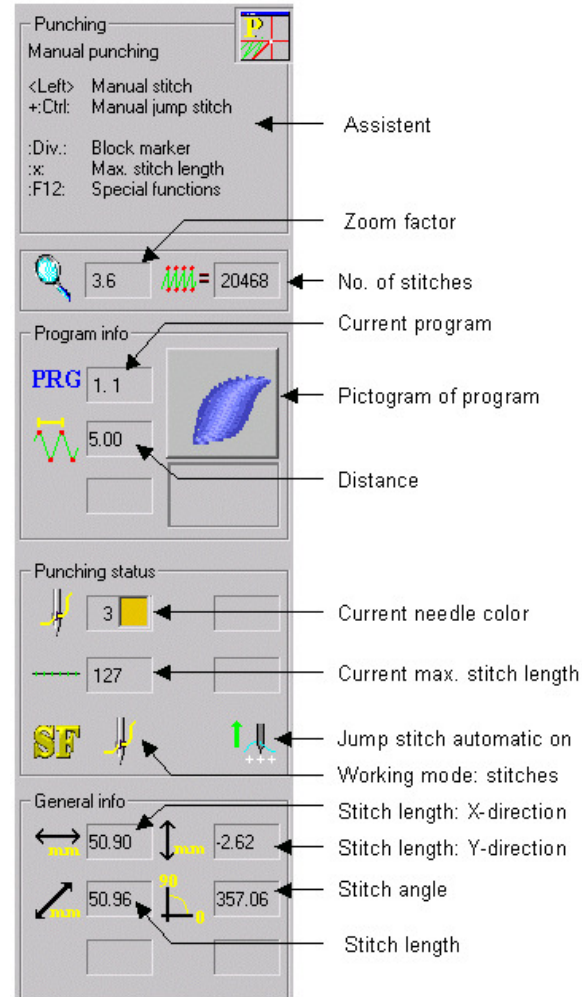
Exit the drawing mode with [Esc]; this takes you back to the main menu.

Create reference data



Press <Left> on this symbol to start the input of the stitches and reference data. You are now in the punching mode. Here you can both: enter stitches manually and create objects containing automatically calculated stitches. Exit this mode with [Esc]; this takes you back to the main menu.

Layout of assistant bar in punch mode



Save design



Pressing <Left> on this symbol starts the save design operation; it takes you back to the design head dialog.

If you do not change the design number, the existing design data are overwritten. If you wish to create a new design, allocate a new design number (with <Left> on *Design number*).

Press *OK* to save the design.

Output stitch data



Press <Left> on this symbol to start the output of the stitch data. Select *Disk* in the mask; another on-screen dialog appears. Select the desired machine type and disk format, e.g. *ZSK TC* and *DOS*. Select *Write* to open the general directory. Select the design whose data you wish to output, and confirm with *OK*. The design is written to disk.

General remarks

Functions of [Esc]

- Aborts current action (e.g. moving a stitch)
- Selects a different mode (e.g. switches from editor back to punch)
- Aborts a dialog (without changing modes)

How do I reach the main menu?

The program opens with the main menu. If you are working elsewhere in the program, press [Esc] repeatedly until the main menu appears on the right. Exception: If you are participating in an on-screen dialog (e.g. deciding whether you wish to save an edited design), pressing [Esc] or *Cancel* does not take you out of the current part of the program.

How do I open a new design?

Precondition: You must be working in the main menu.



Press <Left> on this symbol to create a new design.

How do I open an existing design?

Precondition: You must be working in the main menu.



Press <Left> on this symbol to open an existing design; a general directory containing a list of existing designs appears (in plain text or in the form of pictograms). Select a design with <Left><Left>.

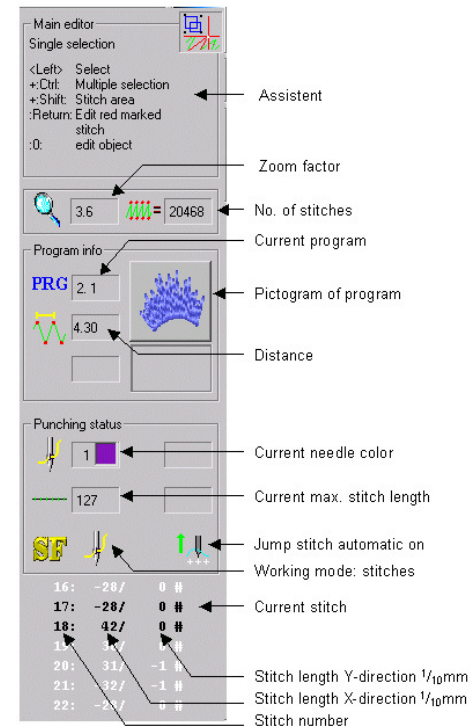
How do I reach the main editor?



Precondition: A design has to be open.

Once a design is open, press [F6] or <Left> on this symbol to reach the main editor.

Layout of assistant bar in edit mode



If you are currently working in a different editor (e.g. the object editor), press [Esc] to return to the main editor.

How do I edit a design?

Precondition: A design has to be open and you must be working in the main editor.

The default setting in the main editor is single selection.

To edit a single element (lines and points of a design, contour, stitches), select it with <Left>. You can then perform single actions with this element.

If you wish to edit several elements, press [F3] to obtain the on-screen dialog *Type of selection*. One of the options available for selection here is *Rectangle*. Creating a rectangle gives you access to the *Edit box*. The edit box is a tool that applies actions to each individual element that it contains (e.g. move).

How do I create an object with an automatic program?

Precondition: You must be working in the punching mode (manual punching).

Pressing [F11] opens the dialog *Program selection*, in which you can select an automatic program. Depending on the program you select, the assistant window contains a series of instructions for creating the elements that make up the desired object.

Example:

You select Satin Stitch No. 1 program. The text displayed by the assistant instructs you to enter the first outline. Once you have made the relevant input, the assistant instructs you to enter the second outline. You are then asked to enter the stitch direction markers. Once you have completed this task, the assistant instructs you to enter an end point. Once the end point is entered, the object is calculated automatically.

Shortcut keys for EPCwin

The keys marked * are on the number keypad of the keyboard. Make sure that **NumLock** is switched on.

The following keys are available at all levels:

[F1]	Context-specific help
[F2]	View
[-]*	Start zoom function
[Bild ↑]	Enlarge zoom by fixed increment
[Bild ↓]	Reduce zoom by fixed increment (set the value under Default Settings)
[Space bar]	Move window
[C]	Zoom design to screen size
[M]	Measuring
[H]	Help tools
[Q]	Abort drawing operation

Main menu

Key assignments when a design is open:

[F3]	Start Editor with block function
[F5]	Redraw
[F6]	Editor
[Cursor keys]	Manual scrolling

Contour definition

<Left>	Enter reference point
[Ctrl] + <Left>	Integrate existing contour
[Ctrl] + [K]	"
[Shift] + <Left>	Approach existing contour or grid
[Ctrl] + [J]	"
[Z] [T] [U]	Automatically create reference points by tracing
[F4]	Change input mode: Point/Corner/Straight Line/Arc
[F9]	Select/deselect Parallel mode

Design

[F3]	Start Editor with block function
[F6]	Call Editor
[F8]	Call punch function
[F11] [+] *	Select program type
[F12] [,] *	Select line color
[Backspace]	Delete previous reference point (operates only if the line has not been concluded with [Return])
[Delete]	Reinsert most recently deleted reference point
[Insert]	
[L]	Load block from Block Manager
[Ctrl] + [S]	Save design
[Ctrl] + [V]	Load block from clipboard

Punching

<Left>	Insert stitches
[Ctrl] + <Left>	Insert jump stitches
[F3]	Start Editor with block function
[F6]	Call Editor
[F7]	Set zero stitches (schiffli)
[F8]	Call drawing function
[F10]	Start an object with the current program type
[0] *	"
[Enter]	"
[F11]	Select program type
[+] *	"
[F12]	Insert special function
[,] *	"
[Div] *	Insert block marker
[*] *	Maximum stitch length
[Backspace]	Delete previous stitch
[Delete]	"
[L]	Load block from Block Manager
[Ctrl] + [S]	Save design
[Ctrl] + [V]	Load block from clipboard

Editor

<Left>	Select
[Ctrl] + <Left>	Multiple selection
[Ctrl] + <Left>	Determine stitch section
[Home]	Jump to start of design
[End]	Jump to end of design
[ALT]	Toggle to and from block list (Film)
[F]	"
[Cursor keys]	Run through design stitch by stitch (see also Default Settings)
[Shift] + [Cursor keys]	Stitch section for block formation
[F3]	Determine type of selection
[F4]	Gray/color toggle
[F5]	Redraw
[F6]	Select/deselect filter
[F7]	Edit filter setting
[F8]	Large/small stitch list
[F9]	Stitch section: run front/back

If a stitch is preselected:

[0] *	Go to object editor with preselected object stitch
[F12] [,] *	Edit special function
[Div] *	Edit block marker
[*] *	Edit maximum stitch length
[Insert]	Select punch insert mode
[Delete]	Delete stitch
[Backspace]	"

Object Editor

[F3]	Convert object, e.g. to manual stitches
[F5]	Redraw
[F6]	[Insert]
[Insert]	"
[Delete]	Delete object
[F7]	Enter stitch distance
[F8]	Edit parameter set

Edit-Box

<Left>	With mouse button pressed: move inside box
<Left>	Click in box: switch box markers
<Left>	Click on box markers => change size / rotate / distort
[F2]	Copy block
[F3]	Save block
[F4]	Call ToolBox
[F5]	Block mode: move ↔ rotate
[F10]	Change selection
[F11]	Numerical input
[F12]	Edit line colors
[Ctrl] + [C]	Copy block to clipboard
[V]	View with Move block

Monogram fonts for program 33

The following fonts are supplied together with EPCwin:

NimbusBold 6mm

NimbusBold 10mm

NimbusBold 22mm

FuturaMedium 6mm

Futura Medium 10mm

Futura Medium 22mm

Nimbus Condens 6mm

Nimbus Condens 10mm

Nimbus Condens 22mm

Euro Heavy 6mm

Euro Heavy 10mm

Euro Heavy 22mm

Walbaum TMed 6mm
Walbaum TMed 10mm
Walbaum TMed 22mm

Fritz Quadrata 6mm
Fritz Quadrata 10mm
Fritz Quadrata 22mm

Engl Schreib 6mm
Engl Schreib 10mm
Engl Schreib 22mm

Monogram special characters

To use a special character in the monogram fonts, press and hold down [Alt] and enter the numeric code contained in the table on the number keypad. This table is valid only for the German keyboard. Some special characters, such as ä and Ä, can be entered directly with the appropriate keys on the keyboard.

ALT+		ALT+	
128	Ç	157	Ø
129	ü	164	ñ
132	ä	165	Ñ
134	å	168	ı
135	ç	173	ı
137	ê	174	«
139	ï	175	»
142	Ä	189	¢
143	Å	208	ð
145	æ	209	Ð
146	Æ	211	Ë
148	ö	216	Ï
153	Ö	225	ß
154	Ü	236	ý
155	ø	237	Ý
156	£	245	§

EPCwin directory structure

System

The EPCwin directory structure looks like this, e.g. under *C:\Program Files\EPCwin*:

Subdirectory	Content
• EpcDocumentation	EPCwin documentation (News, Options, First Steps) in the form of PDF files
• EpcHelp	Online help files
• EpcPrg	EPCwin program files
• EpcSystemDaten	EPCwin system files
• Configuration	EPCwin configuration files
• Error	Error files
• Herstellerfarbtabelle	Yarn color tables
• Maschinendaten	Table containing head spacing and number of heads for ZSK embroidery machines
• ParaBlock	Parameter sets for a block
• ParaMuster	Parameter sets for a design
• ParaSystem	Parameter sets for the system
• Temp	Temporary files
• Undo	Undo files for object editor and block
• Zwischenablage	Clipboard
• EpcTTFontEditor	Program files for TT font editor
• Floppy2k	Driver for disk drive
• GiSFonts300_01	New or modified fonts for Version 3.0
• Zusatzdateien	Additional fonts and drivers required by some installation routines

Backup of system parameters

To make a backup of the settings and system parameters of EPCwin,

go to  *Input / Output*

and use the function  *Backup parameters*.

Data

The EPCwin data structure looks like this, e.g. under *C:\Program Files\EPCwinData*:

Subdirectory	Content
• BlockData	Files for blocks
• BlockDrawings	Drawing lines for blocks
• BlockHeads	Head data for blocks
• BlockIcons	Pictograms for blocks
• BlockPunchData	Punch data for blocks
• DesignData	Files for designs
• DesignHeads	Head data for designs
• Drawings	Drawing lines for designs
• Icons	Pictograms for designs
• Pictures	Images of designs
• PunchData	Punch data for designs
• GiSFonts	Files for TT fonts (program 34)
• MonogramDataPunch	Files for monogram (program 33)
• MonogramDrawings	Drawing data for monograms
• MonogramHeads	Head data for monograms
• MonogramIcons	Pictograms for monograms
• MonogramPunchData	Punch data for monograms

Use a proprietary backup tool to make a backup of your design, block and monogram data. Such tools allow you to save and reload data according to individual criteria. As a general rule they can be configured to execute a backup routine automatically, typically every day.

Saving design data (backup)

The design data are generally stored in the directory named *EPCwinData/DesignData*, but you may have created your own design data directories. To make a backup of the design data, **you must save the entire content of the relevant directory**.

Saving block data (backup)

The block data are generally stored in the directory named *EPCwinData/BlockData*, but you may have created your own block data directories. To make a backup of the block data, **you must save the entire content of the relevant directory**.

Saving monogram data (backup)

The monogram data are generally stored in the directories named *EPCwinData\MonogrammDataPunch* and *EPCwinData\GiSFonts*, but you may have created your own monogram data directories. To make a backup of the monogram data, **you must save the entire content of the relevant directory.**

EPCwin system limits and variables**Data structure**

Maximum size of reference data/stitch data/program parameters	= 600000
Maximum number of programs	= 4000
Maximum number of special functions	= 6000
Maximum number of markers	= 2000
Maximum number of drawing lines	= 80000
Maximum number of drawing points	= 600000
Maximum number of drawing automatic programs	= 20000
Maximum number of designs open at once	= 9
Maximum number of reference points in a contour	= 2000
Maximum number of contours for selection	= 10000
Pictogram size	= 200x200 pixels

Punching

Max. number of program parameter sets per design	= 60
Max. number of program parameter sets in the system	= 20
Max. number of stitch sequences	= 200
Max. number of stencils	= 200
Max. number of points in stitch sequences	= 400
Max. number of head selections	= 200
Max. number of embroidery heads	= 64
Max. number of different needles per design	= 32

Data memory

Maximum number of entries in general directory	= 10000
Maximum number of markings in general directory	= 2000
Maximum number of markings in block directory	= 2000
Maximum number of block directories	= 99
Maximum number of blocks per block directory	= 99
Maximum number of favorites in general directory	= 50

Editor

Maximum number of entries in "SnapList"	= 255
Maximum number of selected sub-blocks	= 1000
Maximum number of selected points	= 1000

Notes