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THE RIGHT WAY TO KNIT

Getting started

with the

STOLL Pattern Workstation M1

M1

PATTERN WORKSTATION

Ident-No. **229256** **GB**

Date: 24.07.2005
M1 Version: 3.5
H.Stoll GmbH&Co.KG, Reutlingen, Germany

Getting started with STOLL Pattern Workstation M1

1 M1 philosophy

With the M1 pattern workstation you can generate the knitting programs (Sintral) for all the CMS knitting machines of the company Stoll. Starting with a draft, the patterns are entered graphically by inserting modules or by editing pattern elements. For this purpose, different presentations (views) are available in the M1 main program. The changes which are made in one view will be updated immediately in the other one.

Fig. 1-1 Draft as a basis for a knitting program

The M1 main program is enhanced by a series of other programs. Depending on the pattern type, different programs are used, e.g. for module management, shape editing or data exchange. Knitting programs are then generated from the finished patterns. These programs can be processed by the knitting machines.

The following pattern types can be created with the M1 pattern workstation:

- Pattern without shape
- Fully fashion pattern
- Knit and wear (k&w pattern)

The basic steps for creating a new pattern are different, depending on the pattern type:

Pattern without shape	Fully fashion patterns	k&w pattern
Select a new pattern in M1 main program *[see page 12]* and select a machine from the machine database.		
Select basic pattern and start from the module database.		Select k&w basic pattern from the module database.
	Select shape.	
Editing a pattern in fabric view *[see page 13]* and technical view *[see page 18]*: - Insert modules via module bar *[see page 66]* from the module database. - Generate, edit and insert pattern elements. - Insert drawing tools *[see page 57]* and yarn colors *[see page 59]*. - Create and insert jacquards in the jacquard editor *[see page 30]*.		
To expand basic patterns to fully fashion patterns, create a shape in the shape editor *[see page 20]* or open and position a shape.		Open a k&w shape or create one and position it.
	Edit shape in the shape view *[see page 20]*.	Arrange knitting cycles and edit shape in the shape view *[see page 20]*.
	Use shape.	Use shape and select start.
Edit pattern parameters in the pattern parameter tables and enter technical row data.		
Assign yarn carriers in yarn field view *[see page 26]*.		
Perform technical editing in the technical assistant and generate Sintral.		
Check Sintral in Sintral check and calculate, for example, knitting time and yarn consumption.		
Save knitting program in an image file, to the Knit Memory Card (KMC) or to a floppy disk and load data to machine.		

In addition, you can perform the following tasks with the programs of the M1 pattern workstation:

- Manage machine data in the machine explorer and save in the machine database.
- Edit modules in the module explorer, create pattern elements and save in the module database.
- Arrange views in the overview window.
- Generate or edit shapes in the Shape editor:
- Edit DXF shapes in the DXF toolkit and prepare them for import in Shape editor.
- Edit or generate knitting cycles with the knitting cycle editor .
- Create k&w shape with Shape Wizard and determine knitting cycles.
- Create k&w shapes of different sizes with ShapeSizer .
- Import pictures.
- Edit knitting program in Sintral editor.
- Edit order menu in the Order program.
- Edit sequences in the sequence editor and sequence lists in the sequence list editor.
- Split pattern.
- Edit STOLL Knit Memory Cards and generate KMC with the machine operating system.

The chapter structure of the M1 help is oriented based on the basic steps and the structure of the program. In addition to the description of the M1 explorer and the M1 main program, you can find information on the different programs (e.g. shape editor) in the relevant chapters (e.g. Working with shape knitting).

2 Set up M1 pattern workstation

You get the STOLL pattern software M1 on CD or DVD for the installation on a pc with the MS Windows XP operating system.

In order to set up the Stoll pattern software M1 on you computer you have to:

➜ order the licence key at Stoll

➜ install the Stoll pattern software M1

2.1 Change language

You can change the language of the M1 interface without reinstalling the software.
For this purpose select the desired languages when installing the M1 in order that they are installed for a later switch.

Selected components (e.g. languages for interfaces of the M1 program) can be installed at a later time or removed individually.

Change the language:

- The desired languages had been selected when installing the M1.
- All M1 programs are shut down.

1. Call up the "All Programs/Stoll M1/Change Language" function in the Windows Start menu.
   -> The Change M1 Language program starts.
2. Select the desired language an confirm with "Select".
   After switching the language the M1 program starts with the newly set language.

Applies only to the STOLL pattern workstation M1 (Component type 000 to 003) or computer with the multilingual operating system
In order to change the language of windows menus and dialog boxes click on "Start" / "System control" / "Date, Time, Language and Regional Options" / "Regional and Language Options".
The M1 program uses partly these window elements.
Component type 003 of the pattern workstations M1 has an integrated switch of languages.
Refer to the setup manual.

3 Help on Help

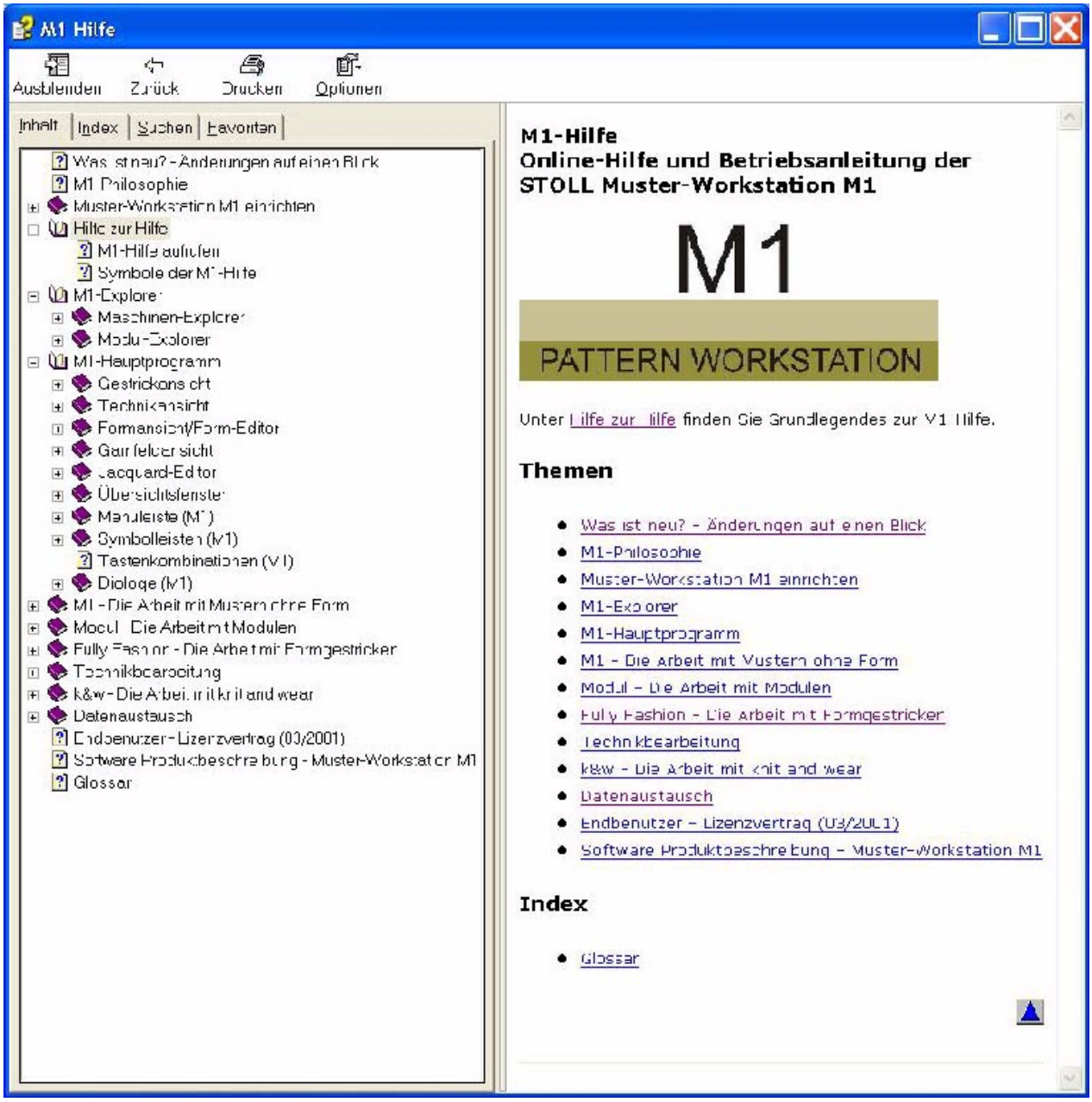


Fig. 3-1 Start page of the M1 help function

The following functions are contained in the symbol bar of the M1:

Function	Target
"Fade out"	Hiding the left navigation bar with the three tabs Contents, Index and Find. Note: Only available with the navigation bar displayed.
"Display"	Showing the left navigation bar with the three tabs Contents, Index and Find. Note: Only available with the navigation bar is hidden.
"Back"	Switching to the last displayed page. Note: Only available when you have already jumped to another page.
"Print"	Printing displayed page.
"Options"	Opening menu with additional options.

The following functions are contained in the "Options" menu:

Function	Target
"Hide tabs"/ "Display tabs"	Hide/show navigation bar with registers.
"Back"	Switching to the last displayed page. Note: Only available when you have already jumped to another page.
"Forward"	Change to the next page.
"Start page"	Change to start page.
"Cancel"	Cancel action.
"Update"	Update screen display of the M1 help function.
"Internet options"	Setting Internet browser.
"Print"	Printing displayed page.
"Deactivate search term highlighting"/ "Activate search term highlighting"	Hide/show highlighting of search terms in the sites found.

The following elements are contained in the navigation bar of the M1 help:

Element	Meaning
"Contents" tab	Display table of contents of M1 help.
"+"	Display subdirectories by clicking on the + symbol.
"-"	Hide subdirectories by clicking on the - symbol.
"Index" tab	Display key word directory.
Input field "Find key word"	Enter a search term in the input field to jump to the corresponding entry in the index.
"Display" button	Displaying the page selected in the key word directory.
"Search" tab	Display search function for the entire document
Input field "Find key word"	Enter a search term in the input field to display pages with the desired key word in the navigation bar.
"List of topics" button	Start search via M1 help.
"Display" button	Display pages selected on the tab.
"Favorites" tab	Display list of favorites.
"Remove" button	Remove favorites from the list.
"Display" button	Display favorite.
Input field "Current topic"	Change name of the current page for the list of favorites.
"Add" button	Copy current page to list of favorites.

3.1 Calling up M1 help

The M1 pattern workstation is provided with an online help feature in which all functions and their use are described.

I. Calling up context-sensitive help:

1. Click on the icon in the "Default" toolbar.
   -> A question mark also appears on the cursor.
2. Click on a position within the M1 for which help is desired.
   - or -
   Position the cursor on a position within the M1 for which help is desired.
3. Press "F1" key of the keyboard.

   Help on the selected function appears.

With the icon additional help topics can be displayed in some cases that are not accessible with the "F1" key.
If you have questions on working withe the Windows operating system, change to the Windows online help.

II. Start online help:

➜ Run the "Help Topics" function in the "?" menu.
The online help is started and displayed in the M1 help window.

Further information
Help Topics

3.2 Symbols of the M1 help

The following symbols are contained in the headers or footnotes of an M1 help page:

	Function	Target
In the header		
	Back	Return to the previous subject. The title of the previous subject appears in the tip text.
	Continue	Continue to the next subject. The title of the next subject appears in the tip text.
	Higher-level topic	Switch to higher-level subject. The title of the higher-level subject appears in the tip text.
	Start page	Change to the start page. In the tip text appears the M1 help.
	Glossary	Switch to glossary. The glossary contains a list of knitting terms and terms typical for the M1. Glossary appears in the tip text.
	Homepage	Call up Stoll coustomer homepage. Here you will find everything worth knowing about the M1 pattern workstation. With your coustomer number and your PIN you will find In the M1 customer-net not only FAQs and Tips and Tricks, but also a large number of download functions. Stoll Customer Support appears in the tip text.
In the foot notes		
	Top of page	Jump to top of page. This icon is located on the right at the end of the page and enables you to return quickly to the top of the page with the navigation bar. No tip text appears.

The following information symbols are contained on a M1 help page:

	Information	Meaning
	Note	Notes to be observed during your procedure are located to the right next to this icon. Note appears in the tip text.
	Requirements	You will find the requirements for executing the following procedural instructions to the right of this symbol. Requirement appears in the tip text.
	Target	The targets which are to be reached with the following procedural instructions are described to the right of this symbol. Target appears in the tip text.
	Result	On the right of this symbol there is the result of an action or a series of actions which has been described previously. Result appears in the tip text.
	Tip	Tips for a simpler or better procedure are located to the right of this icon. Tip appears in the tip text.

Tip texts which explain the symbols are allocated to the symbols on the online pages of the M1 help. To display the tip texts, place the cursor over a symbol while M1 help is active. The explanation on the respective icon appears in a tip text field with a yellow background.

4 M1 main program

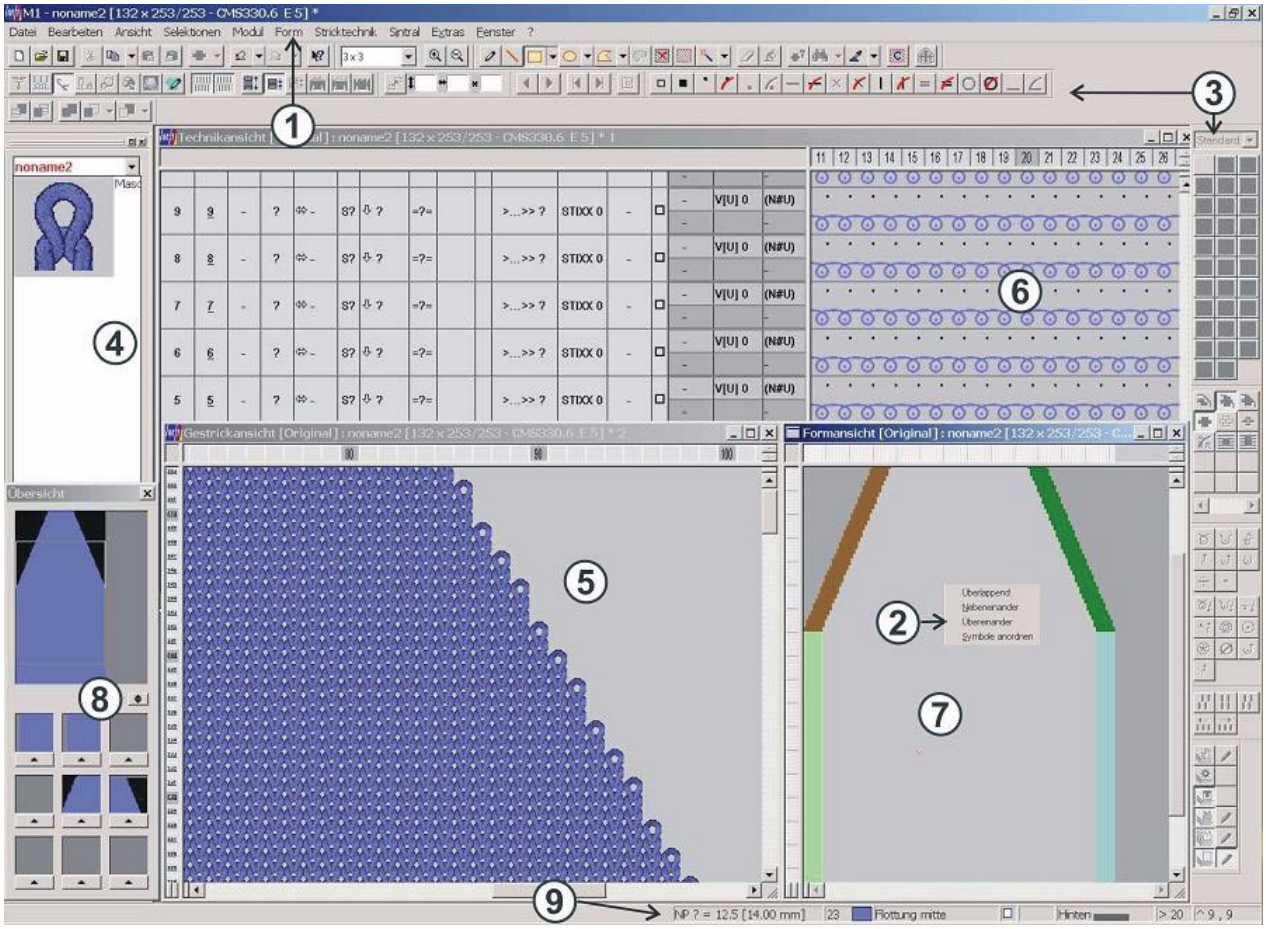


Fig. 4-1 Graphical interface in M1 main program

The individual components of the graphical interface:

No.	Part	Function
1	Menu bar *[see page 34]*	A list of functions ("menu items"), that are displayed at the upper edge of the window.
2	Context menu	The menu shown when you click on an object with the right mouse button.
3	Symbol Toolbar *[see page 53]*	A number of buttons that can be clicked to execute frequently used tasks.
4	Module Bar *[see page 66]*	Module selection option. Various module groups can be selected for display.
5	Fabric view *[see page 13]*	Graphic 3D presentation of the pattern.
6	Technical view *[see page 18]*	Graphic presentation of all needle actions present in the pattern
7	Shape view/Shape editor *[see page 20]*	Graphic display of a shape for editing
8	Overview window *[see page 32]*	Simplified presentation of the entire pattern
9	Status line *[see page 80]*	Display line at the lower edge of the screen with information on a function, an ongoing process or a position
	Jacquard editor *[see page 30]*	Graphic display and editing program for the MC jacquard (*.-jac) and the MC jacquard source file (*.jdv)
	Window heading	Contains the name of the window or the dialog box
	Quickinfo	A brief description of a screen element. The tip text is displayed when you position the mouse pointer over an element.
	Cursor	Also mouse pointer An icon that is displayed on the screen and controlled by moving the mouse (normally an arrow). Use the cursor to work with menus, icons, links and other screen elements.
	Task bar	A tool with which you can open programs and move through elements on the computer. The task bar is normally located at the lower edge of the screen and contains the "Start" button.

If you are very new to working with a Windows PC, please read the corresponding introduction in the manual for the Windows operating system, or display the Windows online help.

4.1 Fabric view

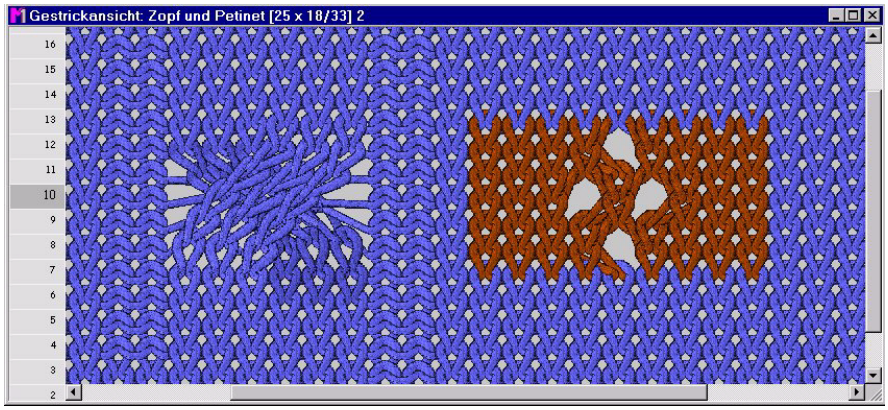


Fig. 4-2 3x3 cable and petinet in the fabric view

The fabric view is a window for the graphic entry and true-to-life presentation of the pattern. The window has control columns *[see page 22]* with the row numbering on the left-hand side.
The Fabric view works interactively with the Technical view- changes are shown immediately in both windows.
This view is particularly well suited for positioning modules and checking the structure and appearance of the pattern.
Whether the fabric view window is automatically displayed for a new or a newly opened pattern can be set in the Program settings dialog box (Load tab).
The following information is contained in the header line:

- Fabric view [status display]
  The following status displays are possible:

Status display in [ ]	Meaning
Original	View before technical editing
Technique	View after technical editing
Technical check run	View after test run of technical editing
Technique 2 pieces	View after the technical editing for two pieces
previous technique	View before the last test run

- Pattern name
- Pattern size in the form pattern width x pattern height (pattern rows/ technical rows)
- Machine and machine gauge
- * is shown when the edited pattern has not yet been saved.
- Numbering of the open window of the fabric and technical views. This numbering matches that in the "Window" menu.

The continuous updating of the fabric view requires processing time. Close the fabric view or switch to the "color presentation" or "symbol presentation" of the fabric view to accelerate updating.

Navigating in the fabric view:

- If the mouse pointer is located within the fabric view, the view is scrolled in the direction of the mouse pointer by pressing the "space bar".
- Pressing the "x" key sets the displayed position of the fabric view in all other views.

Further information
Technical view *[see page 18]*
Technical Editing

4.1.1 Context menu (fabric view)

Some functions can also be called up via a context menu. Click on the fabric view with the right mouse button.

The following functions are contained in the context menu of the fabric view:

Function	Target
Show module in Explorer	Display and select module of pattern in the module explorer.
Edit module	Open the module of pattern in the Module editor.
Display Front Needle Bed	Display or hide front needle bed.
Display Back Needle Bed	Display or hide back needle bed.
Protect Front Needle Bed	Activate or deactivate write protection for the front needle bed.
Protect Back Needle Bed	Activate or deactivate write protection for the back needle bed.
View From Back	Fabric view from back.
Logical Zoom	Show right and left stitches next to each other.
Displaying multi gauge	Highlight multi gauge in fabric.
Display Floats	Display floats over at least one needle pair.
Display Starting Stitch as a Tuck Stitch	Display stitch on empty needle as tuck.
Display k&w double assignment	Display double assignment in the fabric view.
Dissolve Drop Stitches	Show cast-off stitches dissolved.
Display Module Limits	Display module limits as frame.
Show Comments	Display or hide comments on a pattern.
Comment/new/Text	Attach text as comment.
Comment/new/Bitmap	Attach picture file as comment
Comment/new/Pin 1 - Pin 4	Attach one of four colored pins as a comment.
Comment/next	Jump to the next comment.
Comment/previous	Jump to the previous comment.
Comment/first	Jump to the first comment.
Comment/last	Jump to the last comment.
Comment/center current	Center currently selected comment.
Comment/edit	Edit currently selected comment text.
Comment/delete	Delete currently selected comment.
Set Shape Data to the Front	Overlap shape data in the fabric view.

Function	Target
Set Shape Data Aside	Highlighting shape data in the fabric view.
Ruler/Horizontal	Call up functions to display a ruler.
Ruler/Vertical	
Ruler/Go to ruler (H)	
Ruler/Go to ruler (V)	
Stitch Echo	Display pick-up of selection with stitch echo.
Grid	Display or hide grid.
Fabric View	Display 3D stitch depiction in color.
Color Presentation	Display only colors with color steps.
Color Presentation w/o Needle Actions	Display only colors without color steps.
Module Color Presentation	Display separate color per module.
Symbol Presentation	Display symbol display in the color presentation.
Symbol Presentation in Module Color Presentation	Display symbol display in the module color presentation.
Set background color	Set background color of window.
Set stitch density	Specify stitch ratio for the fabric presentation.
Technical Row Display	Show each technical row of a pattern row in its own row.
Pattern Row Presentation	Show all technical rows of a pattern row in one row.
Gore Presentation	Display gore folded up.
Cursor/Default/Advanced	Call up functions to select between different cursor types.
Cursor/Default/Simple	
Cursor/Cross Hairs/Advanced	
Cursor/Cross Hairs/Simple	
Cursor/Coordinate Display/ Advanced	
Cursor/Coordinate Display/ Simple	
Show Cursor Position in All Views/Cursor	
Save Settings	Save window settings.

4.2 Technical view

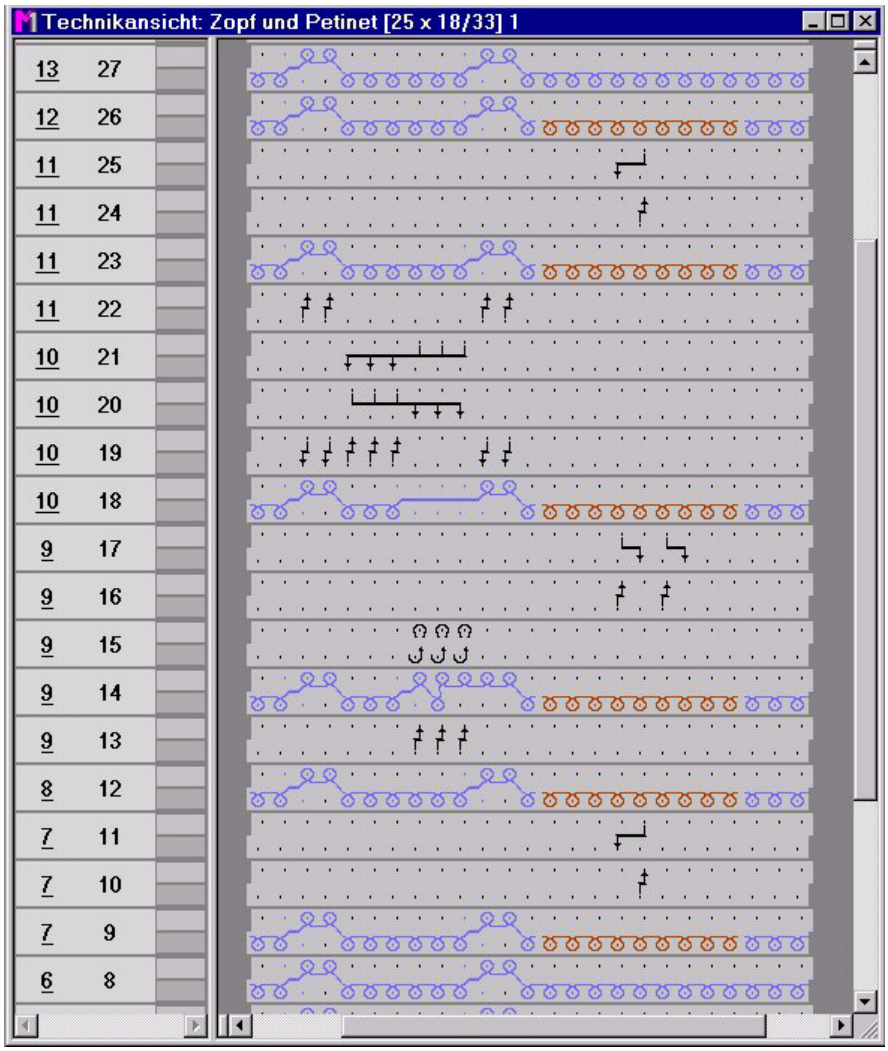


Fig. 4-3 3x3 cable and petinet in the technical view

The Technical view is a window for the graphic entry and presentation of the pattern as a needle action. In this window important pattern data is also displayed which can be activated via the buttons of the "Pattern presentations" toolbar. The window contains control columns with the row numbering and other data to the left and the column numbering in a column bar above.
The technical view works interactively with the fabric view- changes are shown immediately in both windows.
With the technical view you can assign pattern data. The results of technical editing are visible here immediately.
Whether the technical view window is automatically displayed for a new or a newly opened pattern can be set in the Program settings dialog box (Load tab).
The following information is contained in the header line:

- Technical view [status display]
  The following status displays are possible: Original (view before technical editing), Technical (view after technical editing), Technical test run (view after the technical-editing test run), Technical - 2 pieces (view after technical editing for two pieces) and previous technical (view before the last technical editing).
- Pattern name
- Pattern size in the form pattern width x pattern height (pattern rows/ technical rows)
- Machine and machine gauge
- * is shown when the edited pattern has not yet been saved.
- Numbering of the open window of the fabric and technical views. This numbering matches that in the "Window" menu.

When you open a pattern, the technical view is located under the fabric view. By clicking on the header bar of the window with the left mouse button or by selecting it in the "Window" menu, you can bring it into the foreground.

Navigating in the technical view:

- If the mouse pointer is located within the technical view, the view is scrolled in the direction of the mouse pointer by pressing the "space bar".
- Pressing the "x" key sets the displayed position of the technical view in all other views.

Further information
Fabric view *[see page 13]*
Technical Editing
Control column *[see page 22]*
Context menu (technical view)

4.3 Shape view/Shape editor

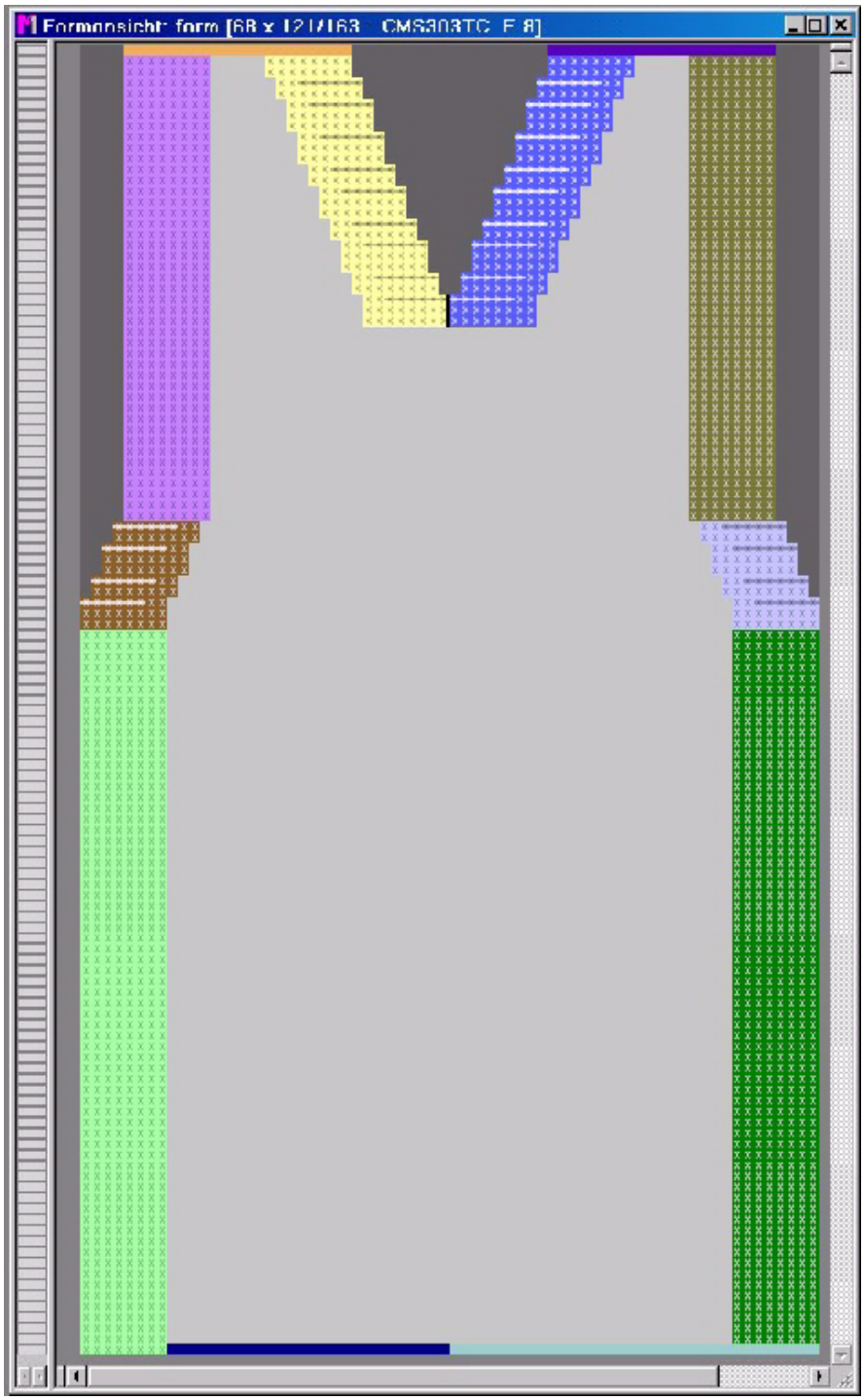


Fig. 4-4 Shape view of the pattern from Stoll shape 2_set-in-front-v-neck-38.shv

The shape view is a window for the graphic entry and display of the shape (elements within shape and outside shape) and its shape attributes for the fully fashion pattern and k&w pattern.

The starting point of the modules inserted as selection in the shape view is displayed with a triangle.

The window has control columns *[see page 22]* with the row numbering on the left-hand side.
The shape view works interactively with the fabric view and technical view, changes are shown immediately in all windows.

The following information is present in the title line:

- Shape View
- Pattern name
- Pattern size with the display of the pattern width x pattern height (pattern rows/technical rows)
- Machine and machine gauge
- * is shown when the edited pattern has not yet been saved.
- Shape name

With k&w patterns in the shape view before cutting out:
An additional symbol appears at the cursor and displays the area in which the cursor is located:
In the sleeve, body or collar; right or left.
You can select a knitting cycle in the module bar with the "F5" key.

A shape can also be saved separately from the pattern as a separate file. The open file is shown in an identical window, but with the name Shape editor.

Navigating in the shape view:
If the mouse pointer is located within the shape view, the view is scrolled in the direction of the mouse pointer by pressing the "space bar". Pressing the "x" key sets the displayed position of the shape view in all other views. The shape edge to which the cursor is pointing is selected in the table with the "F6" key.

Copying in the shape view:
If a selected area in the shape view is copied, the module echo of the selection is displayed and the module symbol appears on the mouse pointer. If the selection is larger than the displayed section on the screen, no module echo is displayed during copying. Only the module symbol appears on the mouse pointer.

4.3.1 Context menu (shape view/shape editor)

Some functions can also be called up via a context menu. Click on the shape view or shape editor with the right mouse button.

All functions in the context menu of the shape view or the shape editor are identical to the functions of the same name in the "View/Options" menu.

Further information
Options

4.4 Control columns

You get quickly and in good overview information on the displayed rows in the control columns of thetechnical view, the Fabric view and the shape view. The data is shown in columns and can be displayed and hidden individually or all together.

In Find and Replace dialog box, you can specify data of the control columns present in the pattern and which are to be replaced by other data.

The dialog box is opened by the Find and Replace function in the Edit menu.

Context menus can be accessed with the right mouse button via some columns, and relevant settings for the rows can be selected here.
The selected settings are assigned to one or more rows with the left mouse button. This cursor function is deactivated again with the "Esc" key or by selecting another cursor function.

In the pattern row presentation are presented not all the control columns.

You can choose between the "technical row presentation" and the "pattern row presentation" via the pattern presentation toolbar. The numbering of the rows is dependent on the type of presentation.

The following control columns are presented:

- Technical row
- Pattern row
- Jacquard
- Stroke
- Knitting layer
- Carriage direction
- System *[see page 24]*
- Fabric take-down, main take-down, auxiliary take-down, fabric sensor, WM%
- Comb, monitoring of fabric collection chamber *[see page 24]*
- Carriage speed, machine slow, machine stop
- STIXX
- Instructions
- Function call
- Areas
- Front hold-down, back hold-down
- Front stitch length, back stitch length
- Racking correction *[see page 25]*
- Cycles
- Yarn carrier *[see page 25]*

- Front racking, Rear racking, Additional bed racking
- Selection *[see page 26]*

Toggle on all control columns:

➜ Click an icon of the control columns with the right mouse button and call up the "Show all columns" function.

Toggle on/off the control columns:

➜ Click an icon of the control columns with the right mouse button and call up the "Select columns" function.
The "Select columns" dialog box appears, in which you show/hide the columns individually in the control column.

Toggle off an individual control columns:

The column is shown individually.

1. Right-click the symbol of the column to be hidden.
2. Call up the "Hide column" function from the context menu.

- or -

➜ Click on any icon of the column with the right mouse button.
Then click the icon of the column which you want to toggle off in the context menu.

With the "*" key of the keypad you enlarge the width of the control column.
With the "/" key of the keypad you reduce the width of the control column.

Some displayable data in the control column is only visible after technical editing.
Exception: The modules for the starts and picking-up after pressing-off that are selected when generating a new pattern.

4.4.1 System

The data of this column has the column header S.

The following functions are contained in the context menu of the column:

Function	Target
"S1" to "Sx"	Assign system to the machine.
"S0"	Assign empty stroke.
"Undetermined"	Determine system automatically with technical editing.

The following entries are displayed in the System column:

Display	Meaning
"S0"	Empty stroke
"S1" to "Sx"	Allocation of the technical rows to a system of the machine

4.4.2 Comb, monitoring of fabric collection chamber

The data of the Comb column has the column header  . The data of the Monitoring of fabric collection chamber column has the column header LK.

The following functions are contained in the context menu of the Comb column:

Function	Target
"Waiting position"	Assign comb position in wait position.
"Top mm:"	Assign top position of the comb in mm.
"Opening the comb hooks"	Assign open comb hooks.
"Comb undefined"	Determine comb position automatically.

The following functions are contained in the context menu of the Monitoring of fabric collection chamber column:

Function	Target
"LK1 monitoring of fabric collection chamber on"	Activate monitoring of fabric collection chamber.
"LK0 monitoring of fabric collection chamber off"	Deactivate monitoring of fabric collection chamber.
"Monitoring of fabric collection chamber undefined"	Determine monitoring of fabric collection chamber automatically.

The following entries are displayed in the Comb column:

Display	Meaning
"=-="	Comb moves into wait position below the needle bed.
"^x"	Comb moves upwards to x mm below its top-most position for yarn insertion.
"|-|"	The comb hooks can be opened before they are automatically opened upon reaching the main take-down.

The following entries are displayed in the Monitoring of fabric collection chamber column:

Display	Meaning
	Monitoring of fabric collection chamber is activated.
	Monitoring of fabric collection chamber is deactivated.

4.4.3 Racking correction

The data of this column has the column header  .

The "Technical Row data" dialog box is opened via the "Racking correction..." function in the context menu of the column.

You can enter the racking corrections in the "Technical row data" dialog box on the Racking tab.

Further information
Racking tab

4.4.4 Yarn carrier

The data of this column has the column header  .

Right-clicking the column header opens the "Technical Row Data" dialog box.

The yarn carriers can be entered in the "Technical row data" dialog box of the Yarn carrier tab.

All data of the row will be displayed at the cursor when you move the cursor over the control columns.

Further information
Yarn carrier tab

4.4.5 Selection

The data of these columns has the column headers  .

The whole rows are selected by selecting the fields in both of the control columns.

With the left control column all needle beds are selected. The front and rear needle beds and the additional beds can be selected separately in the technical view with the right-hand control column.

If you select the rows via the control columns a drawing attribute, e. g. color, is adopted to these rows immediately. If no drawing attribute is selected, the rows are selected only.

4.5 Yarn field view

When the yarn field view is opened, the yarn fields and yarn carrier fields are automatically determined. Each yarn field is shown with its own color. The yarn fields are consecutively numbered from bottom to top and from left to right. If a yarn field is clicked in the Yarn field view, then it is also automatically selected in the Yarn field allocation *[see page 28]* dialog box.
The allocation of the yarn fields to the yarn carrier fields can also be changed in this dialog box if necessary.

Yarn fields are also allocated by the M1 that are not used to determine the use of yarn carriers. These are required for technical editing and have a permanent designation (e.g. negative values).

This yarn carrier field can be opened as follows:

- "Yarn Fields" function in "Knitting Technique" menu
- Symbol of the "Pattern presentations" toolbar
- "Yarn field allocation" button in the "Technical assistant" program

The Yarn field view and the "Yarn field allocation" dialog box are opened together.

When you run over the view with the mouse pointer you are provided with various information on the yarn fields on the status line, e.g. the yarn field number.

Navigating in the Yarn field view:

- You can scroll the display in the direction of the mouse pointer by pressing the "spacer" if the mouse pointer is within the Yarn field view.
- Pressing the "x" key sets the displayed position of the Yarn field view in all other views.

Selecting in the Yarn field view:

- With "Ctrl"+"Shift", all yarn fields of a yarn carrier are selected.
- If the "Ctrl" key is pressed during selection, the selection is added to an existing selection.

4.5.1 Context menu (yarn field view)

Some functions can also be called up via a context menu. Click on the yarn field view with the right mouse button.

The following functions are contained in the context menu of the yarn field view:

Function	Target
Apply yarn carrier	Apply yarn carrier.
Apply yarn field	Apply yarn field.
New yarn carrier	Assign new yarn carrier.
New yarn field	Assign new yarn field.
Cursor/Default/Advanced	Call up functions to select between different cursor types.
Cursor/Default/Simple	
Cursor/Cross Hairs/Advanced	
Cursor/Cross Hairs/Simple	
Cursor/Coordinate Display/ Advanced	
Cursor/Coordinate Display/Simple	
Show Cursor Position in All Views/ Cursor	
Save Settings	Save window settings.

Some functions can also be called up via a context menu of the control column. Click on the control column of the yarn field view with the right mouse button.

The following functions are contained in the context menu of the control column in the yarn field view:

Function	Target
Display/edit knitting sequence	Open the Knitting sequence tab in the "Technical row data" dialog box.
Delete knitting sequence	Delete created knitting sequence in a selected row.

4.5.2 Yarn field allocation

This dialog box is opened with the icon from the "pattern presentations" toolbar or with the "Yarn field allocation" button in the "Technical assistant" program. The Yarn field view window with the presentation of the yarn fields and the "Yarn field allocation" dialog box is opened. When the dialog box is opened, the yarn fields and the yarn carrier fields are automatically determined. You can, for example, change the assignment of the yarn fields to the yarn carrier fields and assign the yarn carrier fields a yarn carrier.

The dialog box can be moved. To do this, position the cursor in the dialog box and hold down the center mouse button. The dialog box is moved with the movement of the mouse.

Following technical editing the yarn carrier allocation can still be changed. On the other hand, color changes following technical editing result in an error message when the yarn field view is opened.

Make the following settings in this dialog box:

Element	Meaning
Display window	Display and select the yarn fields and the jacquards over the entire pattern width.
Knit-out section	Select module for the binding and feeding and specify knitting-out direction.
Buttons for No binding	With a yarn field in which a binding is normally inserted, suppress binding.
Buttons for Binding	With a yarn field, with which no binding is made automatically, force binding.
Buttons for Carriage direction	Specify carriage direction for the first knitting row of the yarn field.
Knit-in section	Selection of a module for the binding and feeding, specification of the knit-in direction.
Change yarn carrier fields section	Switch number of yarn carrier fields per yarn field and yarn carrier fields.
"Multi-system knitting" section	Select arrangement of the rows on machines with several systems: - "optimized" - "even"
Swivel section	Select carriage direction in which an intarsia yarn carrier is swiveled.

Element	Meaning
Type list field	Select yarn carrier type for the selected yarn field.
Section Yarn carrier correction left/ right	Specify yarn carrier correction for the left and right side for each yarn field and for the swiveled and non-swiveled states.
Cut section	Specify SEN edge and time for clamping and cutting of the thread following knit-out.
Section Settings according to sys. process	Select knitting cycle for a jacquard and specify system for the selected yarn field.
Open clamp section	Specify number of rows after which the clamp of the yarn carrier is to be opened.
Yarn carrier allocation section	Assign the yarn carrier fields with the undefined yarn carriers to the yarn carrier rails.

The buttons of the dialog box:

Button	Function
"OK"	Apply changes and close dialog box.
"Cancel"	Close dialog box without applying changes.
" Initialize "	The button is only available before technical editing. The yarn fields are recalculated, and therefore displayed with their original data. In addition, the yarn carrier specifications are accepted from the "Machine attributes" dialog box (Options tab). Note: The yarn fields for an allocated Sintral function are also calculated.

Change the setting in the dialog box and apply:

1. Select yarn field in the display window for which a setting is to be changed and applied.
2. Change setting.
3. Click the "OK" button.

By selecting several yarn fields, the settings for these yarn fields can be changed at the same time. for this purpose, hold down the "Ctrl" or "Shift" key and select the desired yarn field in accordance with the Windows conventions. The active attributes of the selected yarn fields can now be changed simultaneously.

Further information
Yarn field view *[see page 26]*
Pattern Presentation *[see page 54]*

4.6 Jacquard editor

The Jacquard editor is a window for the graphic input and display of the MC jacquard files <name>.jdv and <name>.jac.
The window has a control column on the left side, with the numbering of the picture rows (left) and the jacquard lines (right).

The dialog box can be moved. To do this, position the cursor in the dialog box and hold down the center mouse button. The dialog box is moved with the movement of the mouse.

The jacquard line number is used in the knitting program of the machine (Sintral) to allocate the corresponding jacquard line to the knitting command.

The following information is present in the title line of the window:

- Jacquard editor
- Path and name of open file
- Jacquard size with the width x height
- * is shown when the edited jacquard has not yet been saved.

The jacquard can be edited with all available drawing tools and using the module technique. Selected areas can also be protected in the "Selections" menu.
The jacquard is displayed with its jacquard colors (Color presentation) and additionally displayed jacquard symbols (Symbol presentation).

To generate a new MC jacquard, use the New Jacquard Editor function in the "File" menu, and to open an existing MC jacquard use the Open function in the same menu. Select the corresponding file type in the "Open" dialog box that appears.
The name of the window is Jacquard editor (module) when a module is open.

When you close the Jacquard editor (module), a window appears with a prompt asking if the module is to be saved in the database. If you answer this question with Yes, the module is saved in the module explorer in the "New modules" module group.

The numbering of the jacquard lines can be defined by specifying the values for starting line and step width which can be set. The setting is made in the New jacquard editor dialog box and in the Number rows dialog box.

The jacquard line numbers are displayed at the coordinate indicator at the cursor.

Further information
Extended (coordinate display)
Simple (coordinate display)

4.6.1 Context menu (jacquard editor)

Some functions can also be called up via a context menu. Click on the jacquard editor with the right mouse button.

All functions in the context menu of the jacquard editor are identical to the functions of the same name in the "View/Options" menu.

Further information
Options

4.7 Overview window

The Overview window is used for orientation and fast navigation in the pattern.
It is displayed or hidden with the "Overview" function in the "View" menu.
The entire active pattern is shown in the open window. For this purpose it is reduced in size to a greater or lesser degree depending on the size of the Overview window.
If the pattern in the window of the active view is not shown completely, then the overview window has a movable frame that enables navigation in the pattern. The larger the pattern, the smaller the displayed frame.
The overview window has position memories with which various positions of the frame can be saved.

The display in the overview window matches the "Color Presentation" of the fabric view for a pattern or module. For a shape in the Shape editor the areas within shape and outside shape are shown. Existing selections are shown in the overview window.

Move navigation frame:

1. Click in the frame with the left mouse button.

: Cursor shape within the navigation frame.

2. Drag the frame to the desired position with the left mouse button pressed.
3. Release left mouse button.

   The pattern section for this position is shown in the window of the active view.

With the button an additional window section with the position memories of the overview window is displayed or hidden.

4.7.1 Context menu (overview window)

Some functions can also be called up via a context menu. Click on the position memory of the overview window with the right mouse button.

The following functions are contained in the context menu of the overview window:

Function	Target
Delete All Saved Positions	Delete entire position memory.
Adjust side ratio/Height	Adjust height of overview window.
Adjust side ratio/Width	Adjust width of overview window.
Adjustments	Change number of displayed position memories.
Save Position	Save current frame position.
Restore Position	Set saved position in pattern.
Delete Buffer	Delete position memory.

4.7.2 Position memory

With the position memories up to nine different positions of the navigation frame can be saved. Saved positions enable extremely fast navigation with large patterns.

The position memories are displayed or hidden with the button.

A memory space  consists of a display and a button. An empty memory is shown in gray. The number of memory spaces can be changed with the "Settings" function in the context menu of the overview window.

I. Save a position:

The position memory appears.

1. Move the navigation frame in the overview window to the desired position.
   -> The pattern section for this position is shown in the window of the active view.
2. Click on the button of a memory space with the left mouse button.
   - or -
   Select the "Save position" function in the context menu of the memory space.

   The position of the navigation frame is saved. The pattern section of this position is shown in the display of the memory space.

The saved positions are only available as long as the pattern is open.

II. Set a saved position in the pattern:

- The position memory appears.
- At least one saved position exists.

1. Move the cursor into the memory space display.

   -> The position is marked with a flashing symbol in the overview window.
2. Click on the left mouse button.
   - or -
   Select the "Restore position" function in the context menu of the memory space.

   The navigation frame is moved to the position of the memory space and the pattern section for this position is displayed in the window of the active view.

Double-clicking the position memory with the left mouse button sets the pattern section for this position in all open windows.

4.8 Menu bar (M1)

The menu bar is located at the upper edge of the M1 main window. M1 functions are contained in the fold-out menus of this bar.

Fold out menu:

➜ Click on a name in the menu bar with the left mouse button.
The menu is folded out and the functions are visible for selection.

The function on which the mouse pointer is positioned is given a colored background and a brief description in the "Status line" toolbar. The function is run and the menu is closed again by clicking with the left mouse button.

If you do not want to start a function, then click on the name of the menu again or use the "SC" key on your keyboard to fold up the menu again.

The display in the menu bar is dependent on whether and which other windows are open. A picture icon before the name of the function means that this function is also contained in an Icon bar *[see page 53]*.

The following menus are contained in the M1 main program:

- File *[see page 35]*
- Edit *[see page 36]*
- View *[see page 38]*
- Selections *[see page 40]*
- Module *[see page 41]*
- Shape *[see page 44]*
- k&w Shape
- Knitting Technique *[see page 46]*
- Sintral *[see page 48]*
- Tools *[see page 50]*
- Windows *[see page 52]*
- Question mark (?) *[see page 52]*

4.8.1 File

The following functions are contained in the "File" menu of the M1 main program:

Function	Target
New	Generate new pattern.
New jacquard editor	Generate new MC jacquard.
Open	Open saved pattern.
Close Module Explorer	Close active window in module explorer.
Close	Close active pattern.
Save	Save active pattern.
Save as	Save active pattern under another name.
Intermediate Backup	Carry out manual data backup for the active pattern.
Load Intermediate Backup	Open last manual data backup.
Import	Call up functions to import picture, picture in paste buffer or modules.
Knit Memory Card	Copy knitting program (Sintral) to or from the machine via external data carrier.
Global pattern parameters	Call up global pattern parameters and configurations.
Properties	Display pattern description for the active pattern.
Statistics	Display specific details for the active pattern or selected area.
Last File/<file name>	Open saved pattern via the file name.
End M1	Quit working with M1.

4.8.2 Edit

The following functions are contained in the "Edit" menu of the M1 main program:

Function	Target
Undo	Undo the last action.
Redo	Restore the last undone action.
Cut	Delete selected area in the pattern and simultaneously save it as a pattern element in the paste buffer.
Copy	Save pattern element to paste buffer.
Paste	Insert pattern element into the pattern.
Insert mirrored	Insert pattern element in the pattern again at a mirrored position.
Delete Region *[see page 37]*	Remove selected area or columns or rows from the pattern.
Insert Region *[see page 38]*	Insert selected area or columns or rows into the pattern.
Delete rows	Remove selected rows from the pattern.
Delete columns	Remove selected columns from the pattern.
Insert row	Increase pattern height.
Insert columns	Increase pattern width.
Find & replace *[see page 38]*	Find needle actions and/or colors and replace or exchange them.
Replace starts	Replace modules for start and/or picking-up after pressing-off or short sleeve/short body.
1x1 Technique	Distribute pattern to every 2nd needle.
Resort additional bed transfer	Resort additional bed transfer if a pattern is converted from TC-R to TC4 or TC-T.
Mirror Entire Pattern	Mirror module positions, modules and/or color of an entire pattern.
New line numbers (Jacquard editor)	Determine jacquard line numbering of machine jacquard.
Update line numbers (Jacquard editor)	Update jacquard line numbering of MC jacquard.
Group Selected Block to a Pattern Row	Group selected knitting rows to form a pattern row.
Separate Pattern Rows	Dissolve knitting tows combined to form a pattern row.

Function	Target
Insert Line for Limit Conditions	Insert line for the limit conditions for generating a limit module.
Insert Line for Limit Module	Insert lines for the limit module for generating a module with limit condition(s).
Gore	Call up functions to edit gore.
Jacquards	Edit jacquards present in the pattern.
Define Reference Row	Define reference row for inserting a module in the fabric.

4.8.2.1 Delete Area...

This function is used to delete an area, columns or rows in the pattern.

I. Delete an area:

1. Select an area.
2. Call up the "Delete area" function in the "Edit" menu.
   - or -
   Press "Del" key.

   The dialog box "Delete area" appears, in which you select whether the columns to the left or right of the deleted area are to be moved.

II. Delete columns or rows:

1. Select one or more columns or rows.
2. Call up the "Delete area" function in the "Edit" menu.
   - or -
   Press "Del" key.

   The selected columns or rows are deleted immediately.

4.8.2.2 Insert Area...

This function is used to insert an area, columns or rows into the pattern.

I. Insert an area:

1. Select area.
2. Call up the "Insert Area" function in the "Edit" menu.
   - or -
   Press the "Ins" key.

   The "Insert area" dialog box appears.

II. Insert columns or rows:

1. Select one or more columns or rows.
2. Call up the "Insert Area" function in the "Edit" menu.
   - or -
   Press the "Ins" key.

   The dialog box "Insert columns <pattern name>" or "Insert rows <pattern name>" appears.

Further information
Insert Region 345_Bereich_einfuege:1312
Insert columns <pattern name>
Insert rows <pattern name>

4.8.2.3 Find Replace...

This function is used to search for and replace or exchange needle actions and/or colors in the selected area or in the entire pattern.

Find and replace colors:

➜ Run the "Find & Replace" function in the "Edit" menu.
   - or -
   Click the icon  from the "Drawing tools" toolbar.
   The "Find & replace" dialog box, in which you search for and replace or exchange needle actions and/or colors, appears.

Further information
Find & replace (dialog box)

4.8.3 View

The following functions are contained in the "View" menu of the M1 main program:

Function	Target
Open Fabric View	Open new fabric view.
Open Technical View	Open new technical view.
Fabric View Before Technical Editing (cannot be changed)	Display the pattern original (before the first technical editing) in an unchangeable fabric view.
Technical View Before Technical Editing (cannot be changed)	Display the pattern original (before the first technical editing) in an unchangeable technical view.
Fabric View Before Technical Editing/ Check (cannot be changed)	Display the pattern (before the last technical editing) in an unchangeable fabric view.
Technical View Before Technical Editing/Check (cannot be changed)	Display the pattern (before the last technical editing) in an unchangeable technical view.
Use Fabric View Before k&w Shape (cannot be changed)	Display the pattern with the positioned shape (use before k&w shape) in a non-editable fabric view.
Use Technical View Before k&w Shape (cannot be changed)	Display the pattern with the positioned shape (use before k&w shape) in a non-editable technical view.
New view (jacquard editor)	Open new view of MC jacquard.
Overview	Display or hide overview window.
Screen Magnifier *[see page 39]*	Show screen magnifier.
Machine Explorer	Open machine explorer.
Options	Call up additional functions for pattern, module, shape and machine jacquard.
Toolbars	Call up functions to display toolbars.

4.8.3.1 Screen Magnifier

This function is used to show the "Screen magnifier" dialog box.

Show screen magnifier:

➜ Call up the "Screen magnifier" function in the "View" menu.
The "Screen magnifier" dialog box appears, in which you see the area around the cursor enlarged.

The enlarged area can be changed by changing the size of the "Screen magnifier" dialog box. Clicking the screen magnifier settings in the taskbar opens a dialog box in which you can make other settings. To hide the screen magnifier, close the dialog box.

4.8.4 Selections

The following functions are contained in the "Selections" menu of the M1 main program:

Function	Target
Selection	Call up functions to select with a drawing tool.
Search and Select	Call up functions to search for and select the currently selected cursor functions or shape attributes in the pattern or selected area.
Select All	Select all needle pairs of the pattern.
Cancel Selection	Remove all selections contained in the pattern.
Center Selection	Display selection(s) in the active window.
Select Partially Selected Modules Completely	Completely select modules that are only partially selected.
Deselect Partially Selected Modules	Deselect module that are not completely selected.
Invert Selection *[see page 41]*	Select unselected area.
Protecting selection	Protect data of a needle position.
Cancel Protection from Selection	Cancel protected area in a selection again.
All Areas	Release all protected areas again.
Display protected areas	Display and fade out protected areas.
Fill All	Fill active cursor functions in an existing selection.
Clear Contents	Delete an area in the pattern.
Frame	Generate a colored frame around a selection.
Cancel Cursor Functions	Switch off all cursor functions.
Adopt module/color/pattern parameters / Apply Module and/or Color	Adopt module and/or color or pattern parameters as selection and continue working with it.
Accept Module Data from Selected Technical Rows	Adopt the module data from the selected area to the technical row data.
Identify and Select Module	Identify and select modules in the pattern.
Turn Selections	Rotate selections in the fabric view or in the jacquard editor.
Scale/Mirror Selections	Change the size of or mirror selections in the fabric view or in the jacquard editor.

Function	Target
Turn Colors	Rotate colors in the fabric view or in the jacquard editor.
Scale/Mirror Colors	Scale or mirror colors in the fabric view or in the jacquard editor.
Turn Shape Information	Rotate shape information in the shape view.
Scale Shape Information	Scale shape information in the shape view.
Do Not Turn or Scale Anything	Deactivate functions for rotating/scaling in the fabric view, in the jacquard editor or of the shape information in the shape view.

A selection can be moved either while generating or at a later time.
An existing selection can be increased or decreased in size.

Further information
Move selection
Select area

4.8.4.1 Invert Selection

This function is used to select the unselected area.

Select unselected area:

➜ Call up the "Invert Selections" function in the "Selections" menu.
The unselected area is selected. The original selection is canceled.

4.8.5 Module

The following functions are contained in the "Module" menu of the M1 main program:

Function	Target
Module Explorer	Open module explorer.
New module	Generate new module.
New module (jacquard editor)	Generate a new module in the Jacquard editor (module).
New Jacquard Module	Generate a new jacquard module for generating jacquard areas.
Generate Modules from Selection	Generate new module from selection.
Generate Combination Module	Generate new combination module with adjustable module distances.
Generate Step Module	Generate a new module consisting of up to three individual modules (e.g. for binding-off).
Generate Technical Container Module	Generate a new module consisting of several individual modules which can be selected for technical editing.
Generate Container Module Mirror	Generate a container module mirror with horizontally mirrored modules and modules for the back layer from an individual module for the front layer.
Generating k&w knitting cycle *[see page 43]*	Generate a new k&w knitting cycle module.
Import modules	Import modules from an export file into the module database of the pattern workstation.
Select all modules *[see page 43]*	Select all modules in the current window of the Module explorer.
Switch over to 4 needle beds (TC-T/TC-R/TC4)	Insert additional beds / convert racking depending on the machine.
Switchover to 2 Needle Beds	Remove the additional beds with a module.
Use the Latest Module Versions	Replace older module versions in the pattern with a newer module version from the module database.
k&w pattern design auxiliary functions	Apply pattern design from front to back. Mirror back on vertical center axis.
Set back/front k&w column layer *[see page 43]*	Set back/front column layer.
Remove k&w column layer *[see page 44]*	Remove column layer.

Function	Target
Always Insert Modules Relatively	Insert module with relative (instead of absolute) racking in the pattern.
Insert module: Resolve Racking Conflicts	Call up functions to resolve racking conflicts when inserting modules into the pattern.
Racking Priority in Modules	Call up functions to determine the sequence of transfer rows if modules are inserted into the pattern one next to the other.
Insert Modules without Adjustment	Insert modules without observing the pattern rows.
Insert module without stitch length	Insert module without taking module stitch length into account.
Set connecting points	Specify connection points for a module. The module is joined with the pattern at these connection points.
Localize the Pattern Modules	Display module link of the pattern modules.

4.8.5.1 Generating k&w knitting cycle...

This function is used to generate a k&w knitting cycle.

Generate a knitting cycle in the knitting cycle editor:

1. Call up the "Generate k&w Knitting Cycle..." function in the "Module" menu.
   -> The "Properties of <module name>" dialog box appears.
2. Enter name of knitting cycle module and confirm the settings with the "OK" button.

   The knitting cycle editor is opened.

Further information
Knitting cycle editor
Properties of: <module name/module group>

4.8.5.2 Select all modules

With this function, you select all modules in the current window of the Module explorer.

Select all modules:

➜ Call up the "Select All Modules" function in the "Module" menu.
- or -
Press the key combination "Ctrl" + "A".
All modules in the current window of the Module explorer and the module bar are selected.

Clicking the module bar with the right mouse button opens the context menu. This context menu contains the "Select all modules" function, with which you select all modules in the module bar.

4.8.5.3 Set back/front k&w column layer

This function is used to set the column layer with modules or pattern elements.

Set column layer:

➜ Call up the "Set k&w Front/Back Column Layer" function in the "Module" menu.
The column layer is set.

Further information
Remove k&w column layer *[see page 44]*

4.8.5.4 Remove k&w column layer

This function is used to remove the column layer with modules or pattern elements.

Remove column layer:

➜ Call up the "Remove k&w Column Layer" function in the "Module" menu.
The column layer is removed.

Further information
Set back/front k&w column layer *[see page 43]*

4.8.6 Shape

The following functions are contained in the "Shape" menu of the M1 main program:

Function	Target
New (shr)	Generate new shape.
Open (shr)	Open saved shape.
Close	Close active shape.
Save Shape	Save active shape.
Save shape as	Save shape of pattern under another name.
Move the shape	Offset shape on the pattern in steps.
Generate/edit cutting shapes	Generate/edit a shape with the shape editor.
Shape View	Display or hide the shape view window
Shape attributes	Open "Shape attributes" dialog box.
ShapeSizer *[see page 46]*	Open the ShapeSizer program.
Creating shape	For a pattern without a shape, generate this shape in the shape view.
Open and position shape (shv, shp, shr)	Select cutting shape or shape and position it on the pattern.
Use shape (Cut, Fade out, Narrow)/(reinsert modules)	Join shape with the pattern or insert modified shape attributes.
Cut	Delete the area outside the shape in the pattern.
Fade out	Insert module for fading out from the shape edges in the pattern.
Undo Fade Out	Remove fading out from the pattern again.
Use Narrowing	Insert narrowing from the shape edges in the pattern.
Undo Narrowing	Remove the narrowing inserted from the shape edges from the pattern.
Remove Shape/Cancel Positioning Shape	Remove shape in pattern or cancel "Open and Position Shape (shv, shp, shr)" function.
Add Missing Edges *[see page 45]*	Expand shape edges.
Conversion of shr -> shp *[see page 45]*	Convert open shr shape to shp shape and save.
No shape file/<shape file>	Display any shape file present.

4.8.6.1 Add Missing Edges

With this function you can add missing shape edges.

Add shape edges:

The shape is opend in the shape editor.

➜ Call up the "Add missing edges" function in the "Shape" menu.
Missing shape edges will be added.

Shape Editor *[see page 20]*

4.8.6.2 Conversion of shr -> shp

With this function, you convert the opened shr shape to a shp shape and save it.
If there are still no edge colors in the shr shape, they are automatically added during conversion.
If the shr shape consists of several neighboring shape parts, several individual shapes are generated by the conversion. The shape parts must each be separated by at least one column "outside the shape". The file names of the generated individual shapes are distinguished by consecutive numbering.

Convert shape:

➜ Call up the "Convert shr -> shp" function in the "Shape" menu.
The "Conversion of shr -> shp" dialog box appears, in which you can enter the stitch density and the unit of length for the conversion.
Pressing the "OK" button converts the shape and you can save it with a name of your choice in the "Save as" dialog box.

4.8.6.3 ShapeSizer

Use this function to open the ShapeSizer program.

Open the ShapeSizer:

➜ Call up the "ShapeSizer" function in the "K&w Shape" or "Shape" menu.
The ShapeSizer window is opened.

Further information
ShapeSizer

4.8.7 Knitting Technique

The following functions are contained in the "Knitting technique" menu of the M1 main program:

Function	Target
Configuration	Display configuration in the pattern parameters.
Automatic Technical Editing	Start automatic technical editing for the pattern.
Stepwise Technical Editing	Open the Technical assistant to make settings or to start technical editing for the pattern.
Technical Editing of 2 Parts	Start technical editing of two knitting parts per knitting zone for a pattern with a comb start.
Load Pattern Before Technical Editing	Open pattern original (before first technical editing).
Load technical editing intermediate backup *[see page 47]*	Load pattern as an intermediate backup during technical editing.
Undo Last Technical Editing (Check)	Remove data of last check after several technical edits from the pattern.
Log File Technical Editing	Open the log for technical editing for the pattern.
Change machine/gauge	Select new machine or gauge for the pattern.
Machine attributes	Select machine attributes for the pattern.
Technical row data	Call up functions to change yarn carrier, racking, holding-down jacks, carriage direction/system/stroke, fabric take-down, comb, STIXX, MS/PRINT, areas, knitting sequence or function calls.
Stitch length	Allocate a stitch length to the pattern or module.
Fabric take-down	Allocate a fabric take-down to the pattern or module.
Cycle	Allocate a cycle to the pattern or module.
Carriage speed	Allocate a carriage speed to the pattern or module.
Yarn fields	Display yarn fields of the pattern.
Jacquard System Sequence Editor	Open the "Jacquard System Sequence Editor" dialog box

4.8.7.1 Load technical editing intermediate backup...

Restore the pattern to the state of one of the four intermediate backups during technical editing:

An intermediate backup was carried out for the active pattern during technical editing.

➜ Call up one of the functions "Load Technical Editing Intermediate Backup.../intermediate backup 1" to "intermediate backup 4" in the "Knitting Technique" menu.
The pattern is closed and opened again in the state of one of the intermediate backups.

4.8.7.2 Jacquard System Sequence Editor...

Call up this function to open the "Jacquard System Sequence Editor" dialog box.

Open the "Jacquard System Sequence Editor" dialog box:

➜ Call up the "Jacquard System Sequence Editor..." function in the "Knitting technique" menu.
The "Jacquard System Sequence Editor" dialog box appears where you can create system sequences of your own.

Further information
Jacquard System Sequence Editor (dialog box)

4.8.8 Sintral

The following functions are contained in the "Sintral" menu of the M1 main program:

Function	Target
Sintral functions *[see page 49]*	Allocate Sintral functions to the pattern.
Generate Sintral / Jacquard / Setup	Generate knitting program (JAC/SIN/ SET) from the pattern.
Sintral check	Test knitting program.
Save data in img file	Save knitting program to the hard disk in a Cardimag.img file.
Save data to KMC	Save the knitting program to the external data medium Knit Memory Card.
Save data to floppy disk	Save knitting program to floppy disk.
Load data to machine	Load knitting program to machine.
Import Sintral Check	Import a knitting program of the SIRIX to the M1.
Import SETUP	Import setup files to the M1.
Import SETUP from img file *[see page 49]*	Import setup data from img file to the M1.
Import SETUP from KMC *[see page 49]*	Import setup data from KMC to the M1.
Extract jac/sin/set files	Extract knitting program (JAC/SIN/SET) from the pattern file.
Extract the set file *[see page 50]*	Extract the Setup data (SET) of the knitting program from the pattern file.
Display Sintral	Display Sintral of the knitting program.
Display Jacquard	Display jacquard of the knitting program (packed).
Display Jacquard Unpacked	Display jacquard of the knitting program (unpacked).
Display SETUP	Display setup data of the knitting program.
Generate sequence with *[see page 49]*	Generate sequence for T11 machines.
Sintral editor	Start text editor for the knitting program files.

4.8.8.1 Sintral Functions...

This function is used to assign Sintral functions to the pattern.

Open table of Sintral functions:

➜ Call up "Sintral Functions..." function in the "Sintral" menu.
- or -
Press the key combination "Ctrl" + "Alt" + "F".
The "Sintral functions" dialog box appears.

Further information
Sintral functions

4.8.8.2 Import SETUP from img-file...

This function is used to import data from a setup file saved in an img file.

Import data of the setup file:

➜ Run the "Import SETUP from img file" function in the "Sintral" menu.
The "Import setup from img file" dialog box appears. You can select the img file here.
You confirm the settings with the "Import" button.
You exit the dialog box with the "Cancel" button without applying the settings.

4.8.8.3 Import SETUP from KMC...

This function is used to import data from a setup file saved on a Knit Memory Card.

Import data of the setup file:

➜ Run the "Import SETUP from KMC" function in the "Sintral" menu.
The "Import setup from KMC" dialog box appears. You can select the file from the card index here.
You confirm the settings with the "OK" button.
You exit the dialog box with the "Cancel" button without applying the settings.

4.8.8.4 Generate sequence with...

This function is used to define a sequence for machines ST611, ST711 or ST811.

Define sequence:

➜ Call up the "Generate Sequence With" function in the "Sintral" menu.
The Sequence editor is opened, in which you define a sequence.

Further information
Sequence Editor

4.8.8.5 Extract set file...

This function extracts the setup data (set) from the pattern file and save them as an individual file.

The function is available for a pattern without a knitting program if you have used the "Import SETUP" function in the "Sintral" menu.
During extraction a warning appears when outdated knitting program data is contained in the pattern. This is the case when the pattern has been changed after knitting program generation.
If the file name does not match the file name convention for knitting machines, then it will be automatically adjusted and a corresponding message displayed.

If no setup file is generated during extraction, then the following causes may be responsible:
- In the "Configuration" dialog box, Sintral tab, the Setup always in Sintral checkbox is activated.
- The machine selected for the pattern cannot process a setup file.

Extract the setup data from the active pattern:

The knitting program was generated for the active pattern.

➜ Run the "Extract set files..." function in the "Sintral" menu.
The "Extract set data" program is opened in which you specify the file name and select the directory.

The sin/jac/set files (or just a .set file) can be extracted from a .mdv file directly in Windows Explorer. The context menus "Extract_sin_jac_set" and "Extract_set" are available for this.

Further information
Import SETUP
Sintral tab
Extraction of Jac/Sin/Set data

4.8.9 Tools

The following functions are contained in the "Tools" menu of the M1 main program:

Function	Target
Modify Stitch Presentation	Activate tools for modifying the module stitch display.
Reset Stitches	Undo modified module stitch display.
Raise Stiches	Optically raise module stitch display with color stepping.
Lower Stitches	Optically lower module stitch display with color stepping.
Save Fabric View as Picture	Save active fabric view as picture file.
Save fabric view as picture (section)	Save section of active fabric view as picture file.
Connect Logically Needle Actions on Needle Beds	Automatically interconnect the needle actions when drawing with needle actions in conjunction with the pencil drawing tool.
Save Jacquard as Image *[see page 51]*	Save the contents of the current jacquard view as a picture file.
Sequence Editor	Starts the Sequence editor program to edit a sequence.
Sequence List Editor *[see page 52]*	Starts the sequence list editor program to edit a sequence list.
Order menu	Starts the Order program.
Program Settings	Make general settings for the M1.

4.8.9.1 Save Jacquard as Image

With this function, the Jacquard view of the pattern or module is saved as a picture file in the bitmap or JPEG format so that you may, for example, print it out.

Save active jacquard view as picture:

➜ Call up the "Save Jacquard As Picture" function in the "Tools" menu. The Windows default dialog box "Save file as" appears, in which the name and the directory in which the picture is saved are specified.

The saved picture corresponds to the current jacquard view. The maximum possible picture file size is 8192 x 8192 pixels. For picture files larger than 512 MB, a warning is displayed, as files of this kind cannot be edited with every software.

4.8.9.2 Sequence List Editor...

This function starts an editor independent of the M1 pattern workstation. In this editor you can open and edit sequential list files (SEL).

Start sequential list editor:

➜ Call up the "Sequential List Editor" function in the "Tools" menu. The Sequential list editor is opened.

Further information
Sequence List Editor

4.8.10 Windows

The following functions are contained in the "Window" menu of the M1 main program:

Function	Target
Cascade	Cascade windows.
Tile Horizontally	Arrange windows next to each other.
Tiled Vertically	Arrange windows in a column.
Arrange Symbols	Arrange icons of minimized windows.
List of the open windows	Make window active.

4.8.11 Question mark (?)

The following functions are contained in the "?" menu of the M1 main program:

Function	Target
Help Topics	Start online help.
Sintral pocketcard *[see page 52]*	Open pocketcard with Sintral and direct commands for TC machines as online help.
About STOLL M1	Display version number.

4.8.11.1 Sintral Pocket Card

This function is used to open the pocketcard with Sintral and direct commands for TC machines as online help.

Open Sintral pocketcard:

➜ Call up the "Show Pocketcard" function in the "?" menu.
The Sintral pocketcard is opened as online help.

4.9 Toolbars (M1)

The M1 main program has several toolbars. You can show and hide them in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is displayed.

The following toolbars are contained in the M1 main program:

- Standard *[see page 53]*
- Pattern Presentation *[see page 54]*
- Zoom *[see page 56]*
- Drawing Tools *[see page 57]*
- Yarn Colors *[see page 59]*
- Module Colors *[see page 62]*
- Module Bar *[see page 66]*
- Needle Actions *[see page 68]*
- Layer Manager *[see page 71]*
- Multi-copy *[see page 73]*
- Comment Navigation *[see page 75]*
- Shape Tools *[see page 76]*
- k&w tools
- Cycle line *[see page 79]*
- Status line *[see page 80]*

4.9.1 Standard

The M1 main program has a default toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Default" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-5 Default toolbar in M1 main program

The following symbols are contained in the default toolbar:

	Function	Target
	New	Generate new pattern.
	Open	Open saved pattern.
	Save	Save active pattern.
	Cut	Delete a select area in the pattern and simultaneously save it as a pattern element in the paste buffer.
	Copy	Save a selected area as a pattern element to the paste buffer. Without or with empty rows
	Paste	Insert a pattern element in the pattern.
	Insert mirrored	Insert a pattern element in the pattern at a mirrored position.
	Generate Modules from Selection	Generate a module from the selected area in the pattern. Without or with empty rows
	Undo	Undo the last action carried out.
	Redo	Redo the last undone action.
	Context-sensitive help *[see page 9]*	Display the help on a topic.

4.9.2 Pattern Presentation

The M1 main program has a pattern presentations toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Pattern Presentations" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-6 Pattern presentations toolbar in M1 main program

The following symbols are contained in the "pattern presentations" toolbar:

	Function	Target
	Yarn carrier	Show and hide display bar for presentation of the yarn carrier paths.
	Needle Actions	Display and hide all needle actions.
	Stitch length *[see page 55]*	Show and hide display bar for presentation of the stitch lengths.
	Yarn field	Display yarn fields of the active pattern.
	Shape View	Display the shape for a fully fashioned fabric.
	Technical Row Display	Display pattern with all technical rows.
	Pattern Row Presentation	Display pattern with pattern rows only.
	Gore Presentation	Display pattern with pattern rows only and display available gore areas folded up.
	Insert module without adjustment	Activate/deactivate direct insertion mode.
	k&w presentation with narrowing	k&w preview with narrowing and suspension.
	k&w presentation	k&w preview with suspension. Note: Changes to the grading of the outer edges are only possible in the shape view if this presentation is selected.
	k&w presentation collapsed	k&w preview without suspension.

4.9.2.1 Stitch length

With the icon from the "Pattern presentations" toolbar you can display the display bars for the stitch lengths. The yarn carrier paths are already present for a pattern imported via the Sintral check data.

Displaying the stitch lengths:

The technical view must be active.

➜ Click on the icon in the "Pattern presentations" toolbar.
-> A display bar in which the yarn carrier path is visible is displayed both above and below each technical row.

If you click on the icon in the "Pattern presentations" toolbar, the display bars for the stitch lengths disappear again.

You can change the stitch length via the stitch length table in the context menu of the technical view.

Further information
Technical view *[see page 18]*

4.9.3 Zoom

The M1 main program has a zoom toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Zoom" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-7 Zoom toolbar in M1 main program

The following elements are contained in the Zoom toolbar:

	Function	Target
	Setting the zoom step	Set zoom step.
	Large zoom step	Increase zoom step.
	Smaller zoom step	Reduce step.

The display size of the pattern can be changed with the "Zoom" toolbar. You can select a zoom step directly or zoom the view in or out in steps. Zoom steps in which the fabric is completely visible are shown in red in the fabric view.

I. Set the zoom step directly:

1. Click on the symbol ▾ next to the zoom step display.
   -> The list with zoom steps is opened.
2. Select a zoom step.

   The zoom step is displayed in the list field. The display size of the pattern in the active window has been adjusted in accordance with the selected zoom step.

The aspect ratio can be adjusted in the fabric view. For this reason, two zoom levels are visible in the list field, where the first zoom level is for the needles and the second for the rows.

II. Change the zoom step in steps:

➜ Click on the  or  button to switch to the next higher or next lower zoom step.

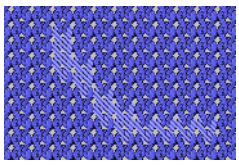
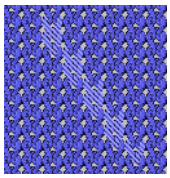
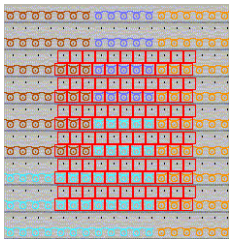
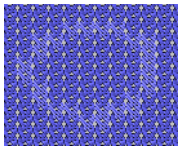
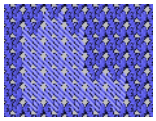
To change the zoom quickly, you can also use the keys "+" and "-" on the number block.

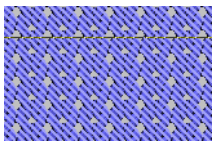
4.9.4 Drawing Tools

The M1 main program has a drawing tools toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Drawing Tools" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-8 Drawing tools toolbar in M1 main program

The following symbols are contained in the drawing tools toolbar:

	Function	Target
	Pencil	Select a freehand line. 
	Line	Select a straight line. 
	Rectangle/Square	With a rectangle or a square, only select the border or the entire area. 
	Ellipse/Circle	With a circle or an ellipse, only select the border or the entire area. 
	Polygon	With a polygon, only select the border or the entire area. 

	Function	Target
	Text as pattern element 330_TextInMusterteil:1330	Type in text and insert it as a pattern element into the pattern.
	Cancel Selection	Remove all selections contained in the pattern.
	Select All	Select all needle pairs of the pattern. 
	Selection with the magic wand	Select adjacent needle pairs with the same properties.
	Delete contents	Delete an area in the pattern.
	Fill up selections	Fill active cursor functions in an existing selection.
	Identify and Select Module	Identify and select modules in the pattern.
	Find and select / In selected area	Find and select the currently selected cursor functions in the selected area.
	Find and select / In entire pattern	Find and select the currently selected cursor functions in the entire pattern.
	Find and select / In entire pattern (additive)	Find and select the currently selected cursor functions in the entire pattern. An existing selection is retained.
	Find & replace *[see page 38]*	Search for needle actions and/or colors in the selected area or in the entire pattern and replace or exchange them.
	Adopt modules/color/ pattern parameters	Adopt module and/or color or pattern parameters as selection and continue working with it.
	Cancel Cursor Functions	Switch off all cursor functions.
	Toggle Move shape	Change to the Open and Position Shape (shv, shp, shr) function in the editing mode. Note: The button has no affect on the functions in the "Move shape" dialog box.

In the context menu of the toolbar the "Drawing with selection" function can be activated and deactivated. If the function is activated, the drawn area is automatically selected. If the function is deactivated, a previously available selection is retained.

The following actions can be carried out with the drawing tools:

- Select in the pattern
- Drawing with cursor functions

Cursor functions are:

- Needle action
- Module
- Color
- Stitch length
- Shape attributes

The cursor functions can also be combined with each other.
Selection is described in the description of the symbols from this toolbar.
Drawing with the cursor functions will be explained in the corresponding chapters on the needle actions, modules, colors and stitch length.

Further information
Move shape (dialog box)
Drawing with modules
Drawing with needle actions and/or color
Drawing with stitch length

4.9.5 Yarn Colors

The M1 main program has a yarn colors toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Yarn Colors" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

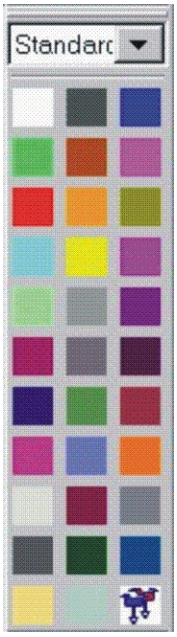


Fig. 4-9 Yarn colors toolbar in M1 main program

Each color in the "Yarn colors" toolbar represents a yarn. With these colors you can draw your new pattern.
When the Jacquard editor or Jacquard editor (module) window is active, the appearance of the toolbar changes. Here various jacquard colors are available for the MC jacquard. Colors with the color number 1 to 40 also contain jacquard symbols. These can be displayed or hidden with the "Symbol presentation" function in the "View/Options" menu or in the context menu of the window.

Note that when saving as an MC jacquard <name>.jac all colors present in the picture with a color number that are greater than 40 are lost. In the text file these colors are saved as ?. When opened again, the color number 1 is shown for them.
Save the picture as an MC jacquard <name>.mdv in the M1 format when you use colors with a color number > 40.

I. Selection of a color:

➜ Click on the desired color with the left mouse button.
The selected color is shown as a pressed symbol.

II. Switch off colors:

Selecting a different color automatically switches off the color selected up to that point.

➜ Click on the symbol of the selected color with the left mouse button. Now no color is selected.

III. Change the colors by, for example, generating a color palette with the colors of the season:

The color to be changed is selected.

1. Click on any color in the "Yarn colors" toolbar with the right mouse button.
   -> The context menu appears.
2. Select the "Change color" function from the context menu with the left mouse button.
   -> The "Colors" dialog box appears in which a new color can be selected or a new color defined.

With the "Get color from paste buffer" function from the context menu, three consecutive number with a maximum of three digits are searched for in the paste buffer. These are interpreted as RGB value sand allocated to the current color.

IV. Get color from the paste buffer:

- A color is selected in the toolbar.
- There are RGB values in the paste buffer.

The RGB values must have been copied to the paste buffer with another program.

1. Click on any color in the "Yarn colors" toolbar with the right mouse button.
   -> The context menu appears.
2. Select the "Get color from paste buffer" function from the context menu with the left mouse button.

   The color selected in the toolbar contains the RGB values from the paste buffer.

Several Color palettes are available to you in the context menu *[see page 62]* of the toolbar. With these you can quickly display the pattern in different colors.
Each Color palette has three color groups. The current color group can be seen in the list field.

If a jacquard area is located within the pattern and you move the mouse pointer over this area, then the colors of the jacquard are also shown in the "yarn colors" toolbar with a J.

Further information
Colors (dialog box)
Color palettes
Color groups

4.9.5.1 Context menu (yarn colors)

Some functions can also be called up via a context menu. Click on the yarn colors toolbar with the right mouse button.

The following functions are contained in the context menu of the yarn colors toolbar:

Function	Target
Create new color palette	Call up the "Create new color palette" dialog box.
Load color palette	Call up the "Load color palette" dialog box.
List of color palettes	Select color palette.

Further information
Create new color palette (dialog box)
Load color palette (dialog box)
Color palettes

4.9.6 Module Colors

The M1 main program has a module color toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Module Colors" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-10 Module color toolbar in M1 main program

The following icons are contained in the module colors symbol bar for inserting the module into the edge area of the selection or for inserting the attributes of the module into the pattern:

	Function	Target
	Border free	An imagined rectangle is laid around the existing selection. Starting from the lower left corner of this rectangle, an invisible grid is laid over the rectangle. The fields of the grid are the size of the selected module. The module is only filled in the fields that are located completely within the selection. The fields that are only located partially within the selection remain blank. Note: Each disconnected selection is considered for you.
	Border covered	An imagined rectangle is laid around the existing selection. Starting from the lower left corner of this rectangle, an invisible grid is laid over the rectangle. The fields of the grid are the size of the selected module. The module is filled in the fields that are located in the selection. In contrast to edge free, the fields that are only partially found in the selection are also filled. Note: Each disconnected selection is considered for you.

	Function	Target
	Edge exact	An imagined rectangle is laid around the existing selection. Starting from the lower left corner of this rectangle, an invisible grid is laid over the rectangle. The fields of the grid are the size of the selected module. The module is filled in the fields that are located completely within the selection. In the fields that are only partially found in the selection, the modules are cut off so that they fit exactly in the selection. Transfer actions with receiving needles outside the selection are not cut off. Cursor functions that have the size of one needle pair are always filled up to the edge. Note: All existing selections are considered as a continuous area.

	Apply colors and needle actions	Insert the color of the module in the fabric together with the needle actions.
	Apply needle actions only	The color within the fabric is retained.
	Apply colors only	Only the color from the module is inserted in the fabric. The needle actions of the fabric are retained.
	Insert Without Stitch Length	The stitch length of the pattern applies to the inserted module, not the preset stitch length of the module itself.
P	Insert a module with plating yarn	A module with plating yarn is selected. You can allocate a different plating yarn to this plating yarn.
	Data transfer in control columns	Data of the actual pattern element are transferred into the control columns. Note: When the symbol is activated, the "Pattern element: Data transfer" dialog box appears. In this dialog box, you can select the data to be copied.

Example: Cable module 2x2< is filled in a polygon (selected area):

Fig. 4-11 Cable module 2x2<

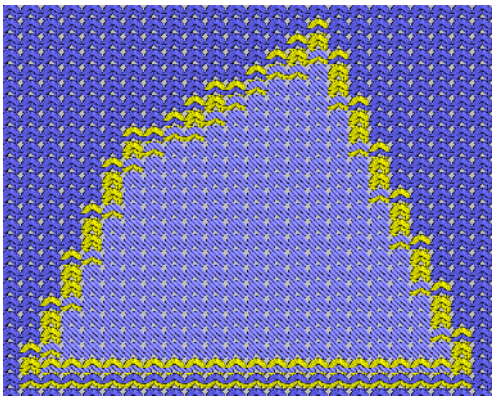


Fig. 4-12 selected area

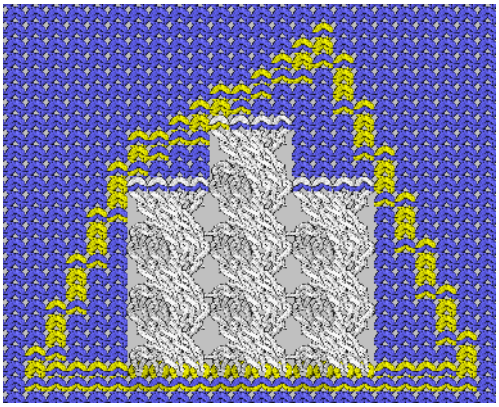


Fig. 4-13 Border free

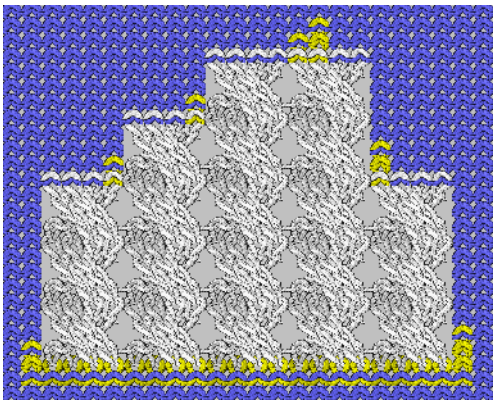


Fig. 4-14 Border covered

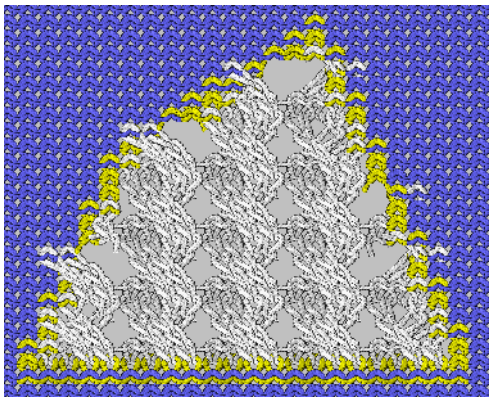


Fig. 4-15 Edge exact

With this toolbar you can specify how the modules are inserted in the edge area of the selection in the pattern, which module attributes are adopted in the pattern and which settings of the modules are applied during insertion under Apply.

If you want to insert a module with a module color other than the existing one into the fabric, then you do not need to change the module color in the module. It is sufficient to select the new color from the "Yarn colors" toolbar. This color is referred to as the editing color. It is framed in the toolbar with the module color.

Module color

Editing color

Select editing color with multicolor modules:

1. Click on the editing color in the "Yarn colors" toolbar.
2. Select module.
3. Click on the module color to be replaced with the editing color in the "Module colors" toolbar.

The editing color is removed again with the "Reset all editing colors" function in the context menu for the "Module colors" toolbar. The context menu appears in which you click on any desired symbol of the toolbar with the right mouse button.
You can copy any desired area from the pattern to the paste buffer as a pattern element. The contents of the paste buffer is visible in the "Pattern elements" module group in the "Module bar". The pattern element is not automatically saved in the module database. During insertion from the Clipboard to the pattern, the contents of the Clipboard is considered a module and you can decide with the "Module colors" toolbar whether you want to insert only the needle action(s), only the color(s) or needle action(s) and color(s) in the pattern.

4.9.7 Module Bar

The M1 main program has a module bar, which you can position on the screen as desired. They can be displayed or hidden with the "Module bar" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

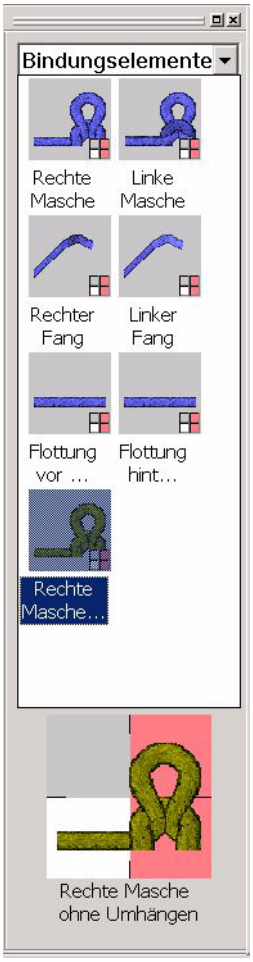


Fig. 4-16 Module bar in the M1 main program

The module groups with the modules of the open pattern can be selected in a list field.
The module links within the selected sub-group appear in the "Module bar".
If a module is selected, then the name of this module and an enlarged view of the module appears at the bottom edge of the toolbar. If you hold the mouse pointer on the picture, the size of the module appears in addition to the module name.

A module is selected by clicking on it with the left mouse button. The selection is deselected again when the module is clicked on again.
A selected module will be highlighted and displayed enlarged at the bottom of the module bar.

Double-clicking it opens a module for editing in the Module editor.

The properties of a module are displayed with "Alt" and a double-click.

You can select and delete several modules in the module bar or module explorer.

- Pull a rectangle with the left mouse button pressed over the modules.
- You can add further modules with the "CTRL" button and click on left mouse button.
- Via the key combination "Ctrl"+"A" (selects all modules of the opened module group).

The following modules are shown in the "Module bar":

Module group	Note
"Pattern elements"	Pattern elements saved in the User/<user name>/ pattern elements module group of the module database are displayed here.
"Favorites (Module Bar)"	All module groups saved as sub groups to the "Favorites (module bar)" module group. These are displayed in the order from the module explorer.
"<Pattern name> Pattern-local module group"	Modules of the active pattern The name of this module group appears in red in order to highlight it. You will find local modules and local pattern elements marked with a L in left upper edge within this group. If there is a number the upper right corner of the picture, this means that a newer version of this module is present in the module database. These can be replaced with the Use Latest Module Versions function in the "Module" menu.

One local group <File name> is located in the module bar for each open Jacquard editor and Jacquard editor (module) window. The module generated from a selection is shown here. The modules are not saved with the jacquard file when the editors are closed.

Further information
Module Explorer
Pattern elements

4.9.8 Needle Actions

The M1 main program has a needle-action toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Needle Actions" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-17 Needle-action toolbar in M1 main program

The following icons are contained in the needle-action toolbar:

	Function	Target
	Loop	Insert needle actions without start conditions.
	Tuck	
	Splitting	
	Transfer	
	Castoff	
	Loop sinking	
	Flottung	
	No needle action	
	Stitch with transfer	Insert needle actions with start conditions.
	Tuck with transfer	
	Float back	
	Float front	
	The needle is occupied	Insert needle allocation for generating limit modules.
	The needle is free	
	Do not check the needle allocation	
	Transparent position in the module	Insert transparent position in the module.
	Cast off without dissolving stitches	Insert casting off without dropping stitches.
	Optional transfer	Insert transfer (optional).
	Collecting optional transfer of k&w layers	Collect layers (optional).

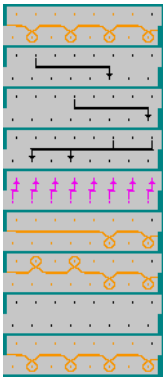
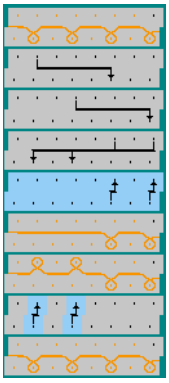
Needle actions can only be drawn in in the pattern in the Technical view. In contrast to the modules, no distinction is made between the front and rear stitch structure. You decide during drawing whether, for example, it becomes a front or back stitch by drawing in the stitch structure on the corresponding needle in the needle layout.

The symbol Casting off without dropping stitches is drawn in in red in the technical view to ensure a distinction is made to the ordinary casting-offs.

With the "Dissolve Drop Stitches" function in the context menu of the Fabric view you can display drop stitches in order to recognize errors in the pattern quickly.
With patterns for a machine with a comb, the entire fabric is cast off at the end of the pattern. If you now run the Dissolve drop stitches function, the entire fabric consists of drop stitches in the fabric view. To avoid this, you must use the Pressing off without dropping stitches needle action with these patterns for casting off the fabric at the end of the pattern.
In addition, this needle action is also used for plush.

When the icon transferring (optional) is used, transferring is only carried out if the needle used for transferring is also to be allocated. This transfer is used with cable modules for k&w, for example. Before the cross-over, the stitches of both layers must hang on one needle bed in this area.
With the Transfer icon all needles yould always be transferred prior to cross-over, regardless of the needle allocation.

Presentation in the technical view when using Transfer (optional):

Presentation	Meaning
	The transfer (optional) is shown in the color pink with the sart condition level switched off.
	With the start condition level activated, the transfer (optional) is shown as Automatic transfer (with a light-blue background). For this purpose, the "Highlight Automatic Transfer" function in the context menu of the technical view must be activated. Note: If you have drawn in a transfer (optional), however do not require this due to the needle allocation, then the light-blue background is shown, but not the transfer icon.

The use of modules is preferable to the needle actions, as these are also provided with logic by limit modules, and therefore simplify knitting.

Further information
Generate limit module
Dissolve Drop Stitches

4.9.9 Layer Manager

The M1 main program has a level manager toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Level Manager" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-18 Level manager toolbar in M1 main program

The following symbols are contained in the level manager toolbar:

	Function	Target
	Modification layer	This level is first available during technical editing. Entries on this level (e.g. changed stitch length) cannot be covered by any other level.
	Technical level	Modules and needle-related pattern parameters (stitch length) required by technical editing are entered here.
	Start condition level	On this level the needle action transfer triggered by a needle action knitting with transferring, a module with this needle action or a module with limit conditions is automatically entered.
	Shape level	If a Fully Fashion pattern is generated from a pattern, then the empty needle areas outside the shape are automatically entered here. Note: This level does not have a pattern without a shape. However, it becomes available and is displayed at a later time with the Generate shape function.
	Shape module level	If a Fully Fashion pattern is generated from a pattern, then the modules required for the shape are automatically entered here. Note: This level does not have a pattern without a shape. However, it becomes available at a later time with the Generate shape function.
	Pattern level	The most important level for pattern generation for the user. The modules for the start, for the basic pattern and for structures are arranged in it.

	Function	Target
	Editing level	The pattern, shape module or modification level is used as an editing level when the symbol is pressed. All subsequent actions are entered on the corresponding level. The symbol is not available when the level is not available or is hidden. A level must always be active as an editing level. In the default configuration the pattern level is activated as the editing level when a pattern is opened.
	Edit within/outside shape	The shape level is used as an editing level when the symbol is pressed. The level is also displayed, if it was hidden, and the shape tools within shape and outside shape become available. The symbol is not available when the level is not available or the Pattern row presentation is not activated. Note: On the shape level you can only use these two shape tools. For the other Shape tools *[see page 76]* you must activate the Shape view.

With the toolbar, the levels of a pattern can be displayed or hidden individually in the fabric view or in the technical view.
The following applies to displayed levels (pressed symbol): Entries in the layer above overwrite those of the respective layer below.
The level used with the corresponding symbol is displayed in the status line for the needle position under the mouse pointer.
The status of the level (displayed or hidden) is saved on the pattern.

The levels have no meaning for row-related pattern parameters (fabric take-down and carriage speed). These parameters are visible and identical on all levels.
Entries on the modification level are not observed by technical editing when this level is hidden. All other hidden levels are observed and also displayed again for this purpose.

An editing action may not be visible when another level above the active editing level covers this action. For this position the cursor shape  is displayed and information is output in the status line. To make the edit action visible, the upper level must be deactivated.

Due to the editing action Delete contents (symbol ), the level below it becomes visible. If you use the Not (symbol ) needle action for deletion, then the level below it is not visible.
During technical editing, the content of the level is transferred to the pattern level. Changes must be made to the pattern following technical editing on the pattern level.

4.9.10 Multi-copy

The M1 main program has a Multi-Copy toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Multi-Copy" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Multi-Copy toolbar in M1 main program

The following icons are contained in the Multi-Copy toolbar:

	Function	Target
	Multi-copy	Show/hide Multi-Copy. Note: The function can be deactivated with the "Esc" key.
	Row spacing	Specify the row distance after which the module is to be repeated.
	Column spacing	Specify the column distance after which the module is to be repeated.
	Repetitions	Enter number of repetitions.

You can enter the distance for multiple drawing in of the modules in the input fields of the toolbar. The distance can also be set via two insertions of the module.

I. Draw module in by specifying the spacing several times in the pattern:

1. Click on the desired module in the "Module bar" or Module explorer.
2. Activate icon from the "Multi-Copy" toolbar.
3. Specify the row distance after which the module is to be repeated in the editing field .

If an entry is present in this field and no entry or 0 is in the editing field , then the module is only repeated vertically.

4. Specify the column distance after which the module is to be repeated in the editing field .

If an entry is present in this field and no entry or 0 is in the editing field , then the module is only repeated horizontally.

5. Enter the number of repetitions in the editing field .

You can specify the number of repetitions with the mouse. Therefore, it is not absolutely necessary to make an entry in this field.

6. Draw with the module in the fabric.
   The module is repeated with the spacing you specify starting from the position you click on in the fabric.

You can allocate the row distance, the column distance and the Direction for the repetition of the module directly to the module in the "Properties of: <Module name>" dialog box in the Cycles tab. In this case these values automatically appear after selecting the module. The values allocated directly to the module cannot be edited in the toolbar.

When a module with these properties is selected, the symbol ↕ next to the editing field for the row distance changes to ↑ and the symbol ↔ next to the editing field for the column distance changes to the symbol → or← in accordance with the specified direction.

II. Draw module into the pattern several times with the mouse:

1. Click on the desired module in the "Module bar" or Module explorer.
2. Activate icon from the "Multi-Copy" toolbar.
3. Place module echo in the desired position in the pattern and click the left mouse button once.
   -> The module is inserted into the pattern.
4. Move module echo relative to the initial position and click the left mouse button again.
   -> The module is inserted again. The spacing is automatically entered in the input fields of the toolbar. The number of repetitions is automatically set to 1.
5. To insert additional copies of the module with the specified spacing, press the left mouse button again.
   - or -
   Move the last inserted copy with the right mouse button to change the spacing relative to the last insertion position.

You can also change the spacing for multiple drawing in of the module via the arrow keys in the keypad of your keyboard.

Further information
Drawing with modules
Properties of: <Module name>.

4.9.11 Comment Navigation

The M1 main program has a default toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Comment Navigation" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-19 Comment navigation toolbar in M1 main program

The following symbols are contained in the comment navigation toolbar:

	Function	Target
	First comments	Go to the first comment.
	Previous comments	Go to the previous comment.
	Next comments	Go to the next comment.
	Last comments	Go to the last comment.
	Center current comments	Center current comments.

Comments can be attached to any point within the pattern using the functions New comment (text), New comment (bitmap) and New comment (pin) in the context menu of the technical view or fabric view.
With the icons of the comment navigation toolbar you can switch between the comments. The current comment is shown with a red border.

The comments are switched between in accordance with the order of entry.

4.9.12 Shape Tools

The M1 main program has two different toolbars, shape tools for fully fashion and for k&w. You can position them on the screen as desired. They can be displayed or hidden with the "Shape Tools" function in the "View/ Toolbars" menu. A check appears in front of the function if the toolbar is activated.

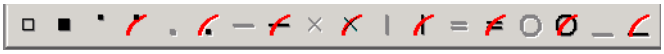


Fig. 4-20 Shape tools toolbar for fully fashion and for k&w after cutting

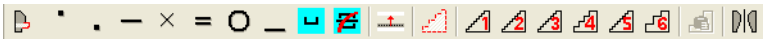


Fig. 4-21 Shape tools toolbar for k&w before cutting

The following icons are contained in the shape tools toolbar for fully fashion and k&w after cutting:

	Function	Target
	Within shape	Enlarge shape.
	Outside shape	Reduce shape.
	Gore	Enlarge gore area.
	Delete gore	Reduce gore area.
	Suspend	Enlarge area for interruption with k&w shapes.
	Delete suspension	Reduce area for interruption with k&w shapes.
	Narrow/Widen	Draw narrowing symbol in the shape edge.
	Delete narrowing/ widening	Delete narrowing symbol in the shape edge.
	Fade out	Draw fade-out symbol in the shape edge.
	Delete fade-out	Delete fade-out symbol in the shape edge.
	Separation	Edit automatically generated separation.
	Delete separation	Delete separation.
	Bind-off	Draw binding-off symbol in the shape edge.
	Delete binding-off	Delete binding-off symbol in the shape edge.
	Stitch length change	Draw stitch length change symbol in the shape edge.
	Delete stitch length change	Delete stitch length change symbol from the shape edge.
	Separation of layers	Draw in a separation between the front and back layer of a k&w shape row at the shape edge.
	Delete separation of layer	Delete separation between the front and back layer of a k&w shape row at the shape edge.

The Narrowing, Hide, Separation, Binding-Off and Stitch length change symbols are only active when a shape edge is selected.
For drawing you can use the tools from the "Drawing tools" toolbar.

When editing the shape, only the symbols that directly border on the shape edge are taken into account when connecting the shape to the pattern.
In the context menu of the shape view you can select a shape edge and/or display and hide individual symbols.

The following icons are contained in the shape tools toolbar for k&w before cutting out:

	Function	Target
	Within shape	Modify form.
	Gore	Change gore area.
	Suspend	Change area for suspension.
	Narrow/Widen	Draw narrowing symbol in the shape edge.
	Fade out	Draw fade-out symbol in the shape edge.
	Bind-off	Draw binding-off symbol in the shape edge.
	Stitch length change	Draw stitch length change symbol in the shape edge.
	Separation of layers	Draw in a separation between the front and back layer of a shape row at the shape edge.
	Multi-step narrowing *[see page 78]*	Draw in icon for multi-step narrowing based on specifications in "Narrowing M" dialog box.
	Delete multi-step narrowing *[see page 78]*	Draw in icon for multi-step narrowing based on specifications in "Delete narrowing M" dialog box.
	Move lines	Move shape row.
	Selection	Select area of shape edge.

	Function	Target
     	Fixed increments 1 to 6	Insert an increment every 1 to 6 columns.
	Automatic step with copied area	Insert copied area with automatic step repeated.
	Use on both sides	Execute additionally selected function to the left and right of the central axis symmetrically.

The icons Selection, Fixed step 2, Fixed step 4, Fixed step 6 and Automatic step with copied area are only active if the  button is selected for the pattern presentations. For Automatic step with copied area, a selected area must have been copied as well.

4.9.12.1 Multi-step narrowing/Delete multi-step narrowing

With the  and  icons you open the "Multi-step narrowing"/"Delete multi-step narrowing" dialog boxes, in which you make the settings for the multi-step narrowing.

Enter multi-step narrowing:

1. Click the  icon of the "Shape Tools" toolbar.
   -> The "Narrowing M" dialog box appears.
2. Select settings in the dialog box.
   -> The presentation of the icon in the toolbar changes according to the settings in the dialog box.
3. Draw in multi-step narrowing in the shape view.

The markings in the shape view can be moved via drag & drop.

Delete multi-step narrowing:

1. Click the icon of the "Shape Tools" toolbar.
   -> The "Delete narrowing M" dialog box appears.
2. Select settings in the dialog box.
   -> The presentation of the icon in the toolbar changes according to the settings in the dialog box.
3. Draw in delete multi-step narrowing in the shape view.

Further information
Narrowing M/Delete Narrowing M (dialog box)

4.9.13 Cycle line

The M1 main program has a cycle line toolbar, which you can position on the screen as desired. They can be displayed or hidden with the "Cycle Line" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

Fig. 4-22 Cycle line toolbar in M1 main program

The following symbols are contained in the cycle line toolbar:

	Function	Target
	new	Define new line type as drawing function.
	User-defined line	After the size of the editing field is specified, the "Edit cycle element" dialog box is opened. Note: The field can be expanded with the left mouse button pressed for specification of the size of the editing field.
	Repetition factor	Repeat factor of the new / user-defined line type

The list of line types can contain a maximum of seven user-defined line types. A selected line type is deleted from the list with the "Del" key.
The line types are not pattern-specific and apply for the M1.

Further information
Edit cycle element

4.9.14 Status line

The M1 main program has a status line at the bottom edge of the program window. They can be displayed or hidden with the "Status Line" function in the "View/Toolbars" menu. A check appears in front of the function if the toolbar is activated.

If the cursor is positioned on a function within the menu bar or on an icon of the toolbars, then a corresponding reference is shown in the status line at the far left.

The contents of the status line depend on the active view:

- Fabric view/Technical view
- Display bars of the technical view
- Yarn field view
- Shape view/Shape editor
- Jacquard editor

With the left mouse button pressed, information on the following functions is displayed:

- Selecting and drawing with modules
- Change yarn carrier path

4.10 Key combinations (M1)

With key combinations, also called key commands, hotkeys or shortcuts, you run frequently used functions in the M1 main program quickly and directly.

The following key combinations can be used in the M1 main program:

Key combination	Function
"F1"	Calling up help.
"F2"	k&w shape / shape view or shape / shape view
"F3"	Module / Module-Explorer
"F4"	Knitting technique / yarn fields
"F5"	Toolbar drawing tools / Pipette / Apply module and color
"F6"	Toolbar drawing tools / Pipette / Apply color or pattern parameter
"F6" (shape view)	Select the shape edge to which the cursor is pointing in the shape attribute table. The cursor is located on a position with a edge color: The edge color is picked-up. The cursor is located on a position without a edge color: Within shape or Outside shape is picked-up.
"F7"	Selections/Cancel selections
"F8"	Edit/Group a selection block to a pattern row
"F9"	Knitting technique/Technical row data
"F10"	Knitting technique/Automatic technical editing
"F11"	Generate Sintral / Sintral / Jacquard / Setup
"F12"	File/Save as
"," (Comma)	View / Options / Cursor / Coordinate display / Advanced
"." (period)	View / Options / Cursor / Show cursor position in all views
"L"	Edit / Gore / Close Gore Element
"X"	Synchronizing views.
"Ctrl"+"F2"	View/Overview
"Ctrl"+"F3"	Edit/Jacquards
"Ctrl"+"F4"	Close the current window.
"Ctrl"+"F5"	View/Options/Technical row presentation

Key combination	Function
"Ctrl"+"F6"	View/Options/Pattern row presentation
"Ctrl"+"F7"	View/Options/Gore presentation
"Ctrl"+"F8"	Edit/Separate pattern rows
"Ctrl"+"F9"	Call up pattern parameter tables.
"Ctrl"+"F10"	Knitting technique/Stepwise technical editing
"Ctrl"+"F11"	Sintral/Sintral check
"Ctrl"+"F12"	File/Close
"Ctrl"+"A"	Selections/Select all
"Ctrl"+"B"	Selections / Center selection
"Ctrl"+"C"	Edit/Copy
"Ctrl"+"F"	Selections/Find and select/In entire pattern
"Ctrl"+"I"	Edit / Paste Mirrored
"Ctrl"+"L"	Knitting technique/Stitch length
"Ctrl"+"M"	Module/New module
"Ctrl"+"N"	File/New
"Ctrl"+"O"	File/Open
"Ctrl"+"R"	Knitting technique/Cycle
"Ctrl"+"S"	File/Save
"Ctrl"+"V"	Edit/Paste
"Ctrl"+"W"	Knitting technique/Fabric take-down
"Ctrl"+"X"	Edit/Cut
"Ctrl"+"Y"	Edit / Redo
"Ctrl"+"Z"	Edit/Undo
"Shift"+"F2"	Toolbar module colors / Apply colors and needle actions
"Shift"+"F3"	Toolbar module colors / Apply needle actions only
"Shift"+"F4"	Toolbar module colors / Apply colors only
"Shift"+"F5"	View/Options/Fabric presentation
"Shift"+"F6"	View/Options/Symbol presentation
"Shift"+"F7"	View/Options/Color presentation
"Shift"+"F8"	View/Options/Module color presentation
"Shift"+"F9"	Knitting technique/Configuration
"Shift"+"F10"	Knitting technique / Load Pattern Before Technical Editing

Key combination	Function
"Shift"+"F11"	k&w shape / Generate/Edit Shape or Shape/Generate/edit shapes
"Shift"+"F12"	View/Options/Display additional beds
"Shift"+"1"	Edit / Define Reference Row
"Alt"+"F2"	Shape / Open and Position Shape
"Alt"+"F3"	File/Import/Modules
"Alt"+"F4"	File / Exit M1
"Alt"+"F5"	Selections/Fill up
"Alt"+"F6"	View / Options / Rear View
"Alt"+"F9"	File/Import/Picture
"Alt"+"F10"	Sintral/Display Sintral
"Alt"+"F11"	Sintral/Import Sintral check
"Alt"+"F12"	Sintral/Import SETUP
"Ctrl"+"Shift"+"F11"	k&w shape / Put Together k&w Shape Shape / Put Together k&w Shape
"Ctrl"+"Shift"+"F"	Selections/Find and select/In entire pattern (additive)
"Ctrl"+"Shift"+"M"	Module/Generate a module from selection
"Ctrl"+"Shift"+"S"	Edit / Gore / Define Gore
"Ctrl"+"Alt"+"A"	Module / Set Connection Points
"Ctrl"+"Alt"+"B"	Display selection in the center of the window. The zoom level will be kept
"Ctrl"+"Alt"+"F"	Sintral/Sintral functions
"Ctrl"+"Alt"+"L"	View / Options / Stitch Lengths as Needle Action Background
"Ctrl"+"Alt"+"M"	View/Options/Display module limits
"Ctrl"+"Alt"+"S"	View/Options/Save settings
"Ctrl"+"Alt"+"V"	Knitting technique/Carriage speed
"Delete"	Edit/Delete rows
"Delete"	Edit/Delete columns
"Insert"	Edit/Insert row

Key combination	Function
"Insert"	Edit/Insert column
"Esc"	Selections/Cancel cursor functions
"+" (number block)	Toolbar zoom / Greater Zoom Step
"-" (number block)	Toolbar zoom / Smaller Zoom Step
"*" (number block)	Increase width of the control columns.
"/" (number block)	Decrease width of the control columns.
"5" (number block) with the "Num" key active	Position shape in the middle.

5 Glossar

Term	Explanation
Application	The knotting of selected areas within a fabric piece results in a fabric within the fabric. Example: Knit-on pocket in a front.
Automatic transfer	An automatic transfer is a transfer that does not need to be drawn by the user, but is instead entered automatically. This transfer takes place on the starting condition level.
Auxiliary take-down	The auxiliary take-down grasps the fabric directly under the needle bed, and therefore supports stitch formation. As a result, all fabric-typical requirements, including those of fully fashion knitting, can easily be carried out.
Base line (Shape editor)	The base line is the horizontal coordinate axis in the Shape editor. In contrast to the vertical coordinate axis (center axis) this is not displayed. In general the start line of the shape lies on the base line.
Basic Modules for new patterns	The pattern referred to as a basic pattern is the pattern generated in the "New pattern" dialog box after start-up. This basic pattern of back stitch forms the basis for the generation of a new pattern.
Border	The stitches on the fabric border.
Cams	Movable cams screwed onto the cam plates form cam trucks that move the needles. They are referred to as a knitting system. Raising and take-down cams are movable. Take-down cams control the stitch tension and are positioned by the knitting program with a step motor. The raising cams control the needles in accordance with the pattern in the different cam trucks for knitting and transfer.
Carriage assembly	The carriage assembly is driven by the drive motor via a toothed belt and runs on a front and back carriage guide rail, which covers the entire length of the machine. The operating path of the carriage assembly is controlled by the knitting program.
Carriage bow	The carriage bows connect the front and back carriage part.
Carriage direction	Direction (left or right) in which the carriage moves.
Carriage part	One front and back carriage part each form a unit together with the carriage bows and the yarn change device. The carriage parts carry the cam plates with the knitting units, consisting of a knitting system, selection system and step motor. Each knitting unit in the front carriage box is allocated an identical knitting unit in the back knitting box.
Carriage stroke	The movement of the carriage assembly in any direction to the left or right.
Center racking	Consecutive transfer rows with different racking are, where possible, grouped to form one stroke.
Checking	Technical editing for a pattern for which technical editing has already been carried out. Here later changes to the pattern are checked for errors and missing data added.

CMS pattern memory	The CMS knitting programs are saved as SINTRAL programs in the pattern memory of the CMS computer. The SINTRAL command PA: establishes as knitting pattern from individual jacquard pictures. Example: PA:20. 5JA1 20. means: 20 needles for basic color - 5 x jacquard motif 1 - 20 needles for basic color.
Color	With the M1 colors are used to represent different yarns and to allocate pattern parameters. With the colors for the yarns a distinction is made between the yarn color, module color and editing color.
Color adjustment	When modules are inserted in the pattern, it is checked whether the color of the stitch row from the module is also present in the pattern row of the pattern. If this is the case, the stitch row from the module is positioned on the stitch row with the same color in the pattern. This procedure is called color adjustment.
Color groups	Within a color scheme there are the three color groups standard, 1:2 multi gauge and technical. The color palette of the color groups standard and 1:2 multi gauge are identical, however these have different yarn numbers for differentiation. The colors from the standard color group are used for drawing color areas within a pattern. The color group 1:2 multi gauge is used to generate multi gauge patterns. Based on the yarn number it is recognized that a multi gauge is concerned and a correct presentation can take place in the fabric view. The colors for the separation rows and the start are contained in the technical color group. A yarn type is also specified for these.
Color jacquard	With color jacquard motifs of colored stitches are knit with the needle selection in the knitting systems and with different colored threads allocated to the individual knitting systems.
Color reduction	When a picture with more than 16 colors is imported, the number of colors is automatically reduced to a maximum of 16 colors, whereby similar colors are combined. The remaining colors can then be further reduced as desired.
Color scheme	Color schemes are present for viewing a fabric in different color compositions. A color scheme is a color palette that you can put together. Each color scheme contains the three color groups standard, 1:2 multi gauge and technical.
Column	The vertical arrangement of the stitches relative to each other is called a column (wales).
Comb take-down	With the comb take-down the fabric pieces are automatically begun on empty needles, cast off after completion and laid in the collecting area of the CMS. For this purpose, a net course whose stitches are grasped by the comb hooks is knitted. The fabric that follows is automatically guided into the fabric take-down.
Combination module	A combination module consists of up to 9 existent modules and can be inserted in the fabric with a variable width and height.
Comments	In the M1 Pattern Workstation comments in the form of text can be defined for an exact position in the fabric and in the technical view of the pattern. In addition, it is possible in the fabric view to attach a pin or a bitmap file to any desired position.
Comments	CMS knitting programs consist of SINTRAL commands and comment lines. The designer or knitter uses comments to explain SINTRAL commands or provide additional information. Example: The yarn carriers used in the fabric and the yarn color required for the design, or the code number of the design. Comment instructions are ignored by the machine during production. Comments are only intended for the operator. Comment lines begin after the line number with a "C".

Connection points	A connection point is defined with one row knitting into and one row knitting out of the module. It therefore designates the points at which the module is connected to the pattern. For the rows lying between those points the yarn carrier moves within the module.
Container files	Container files are files in the STOLL Knit Memory Card Format, however on common data carriers (hard disk, floppy disk, CD or DVD). They have the default file name extension .IMG. In particular, container files are saved on floppy disks for data exchange with the knitting machines and pattern preparation units. These files are created and managed with the program STOLL Knit Memory Card.
Context menu	Functions are available in a context menu that refer especially to a certain area of the graphic interface. Context menus are opened with the right mouse button.
Context-sensitive help	The context-sensitive help enables the M1 Online Help on a specific topic to be opened directly. Descriptions of all commands, symbols and views of the M1 interface can be displayed.
Counter-gore	Completion of a gore in order, for example, to obtain a straight fabric again after a wedge-shaped gore.
Coupling width	Spacing of the carriages in the Tandem mode (e.g. 50, 52, 54 inches). The coupling width is specified by the manner of installation of the coupling rod.
CPU	Central Processing Unit
Cursor functions	The functions needle action, module, color, stitch length and the shape attributes are cursor functions. When they are activated, they "hang" on the cursor and can therefore be used for drawing.
Cycle	A cycle is a repetition of rows or columns.
Cycle switch (RS)	In the SINTRAL program knitting rows can be set up and repeated as a cycle, e.g. as a pattern cycle. A cycle begins with RBEG and ends with REND. 19 cycle switches(RS1 - RS19) can be set to 1 - 9999 cycle repetitions each. This means that the number in the cycle switch determines the number of repetitions.
Database	All modules, the Stoll machines and the customer machines are stored in the database. The database with the modules is called the module database and the database with the machines the machine database.
Desktop software	On the graphically oriented user interface of the CMS touch screen all machine functions are accessed and the CMS operating data are displayed. The user interface shows information on the current operating situation in the process.
Dialog box	A window in which information is entered or selected that is required by the program for carrying out actions.
Direct insertion	With direct insertion, the module is not automatically sorted into the existing knitting rows of the pattern. Row adjustment does not occur. Knitting cycles are inserted independent of pattern rows in the module or pattern.
Direct selection	A knitting specification for needle selection (SINTRAL command), a maximum of 64 needles wide, over the entire fabric piece. D = Direct selection of needles over the entire machine width I = Needle selected (knitting) . = Needle not selected (non-knitting)

Display bar	For the following knitting row data or pattern parameters you can display a display bar in the technical view: Yarn carrier path, holding-down jacks, stitch length, fabric take-down and carriage speed. The display bar is shown below the knitting row for the front needle bed and above the knitting row for the back needle bed. Colors are shown in the display bar that are allocated the individual values.
Domain	A group of interconnected computers share data and resources.
Drag & Drop	Manner of working for copying elements (drag) and inserting them again at the desired location (drop).
Editing color	If you want to insert a module with a color other than the existing one into the fabric, then you do not need to change the module color in the module. It is sufficient to select the new color from the Yarn colors toolbar. This color is referred to as the editing color.
Empty row	A traverse of the carriage assembly during which all knitting systems and yarn carriers are inoperative. This is required in exceptional cases.
Fabric pattern	A small section of the fabric produced for visual, gripping, reference and quality inspections.
Fabric piece	A fabric area that is knit in the desired making-up size, for example a front, back or sleeve.
Fabric take-down	This is located under the needle beds and depending on the CMS type consists of the three units: Main take-down, auxiliary take-down and comb take-down. The main take-down, two rubber-coated rollers, is driven by an electronically controlled motor. The auxiliary take-down grasps the fabric directly under the needle beds. With both the take-down force and the take-down speed are programmable. With the comb take-down fabric pieces are automatically begun, guided into the main take-down and cast off following completion.
Fabric view	Graphic 3D presentation of the pattern.
Fade out	A shape may have the "Hide" icon in one or several shape edges. If the shape is linked to the pattern, then the module allocated to the "Hide" icon for the shape attributes is inserted in the pattern.
Favorites	The modules in the "Favorites" module group are shown in the "Module bar".
Favorites	Linking to preferred files, directories or websites.
FTD (fabric take-down)	The motor-driven fabric take-down holds the fabric at the desired tension. The fabric take-down value can be adjusted with the knitting program.
Fully fashion knitting	Fabric pieces, for example front pieces or even entire sweaters, can be produced as cut goods or as fully fashion fabric. Fully fashion fabrics result by widening or narrowing stitches at the fabric edge. Cutting work is unnecessary with fully fashion knitting, and less yarn is required. A more valued overall appearance of the clothing item is achieved as well. Fully fashion knitting is possible on all CMS machine models.
Fully fashion knitting with casting off (shaping)	Production of a nearly fully fashion knitted piece (shaping, not fully fashion). In place of narrowing (fixed selvedge stitches), stitch areas are cast off (open selvedge stitches) to save time and yarn during the knitting process. However, with fully fashion knitting considerably more yarn is saved.

Function	A command that can be used in the SINTRAL knitting program with which several knitting lines can be grouped to form a unit. The beginning of the function is marked with FBEG and the end of the function with FEND. The function is given a name, e.g. F:2x1 for a 2x1 start. Functions simplify the knitting programs.
Gore	A gore is understood to be the knitting of additional fabric areas (knitting rows, often wedge-shaped). The gore consists of gore segments. These are knitted consecutively.
Gore function	Automatic generation of the knitting zones (gore segments) of a gore. A tool for this purpose is contained in the gore presentation of the technical view.
Gore Presentation	Presentation form in the Fabric and Technical view with which the knitting rows of a gore are pulled together.
Gore preview	Graphic display of the results to be expected within the gore function.
Gore segment	A gore segment is a contiguous knitting zone in which the knitting width changes (becomes larger or smaller) in each knitting row. At least two consecutively knit knitting segments result in a gore.
Gore segment line	Tool in the gore function for defining the gore segments.
Grouping	You can group (combine) several technical rows to form a pattern row. With intarsia and jacquard the grouping is generated automatically. With these Stoll modules it is already specified.
Hardware profile	Describes hardware configuration and properties
Held stitch	This results when a needle holding a stitch does not knit. If several stitch rows of this kind follow consecutively, then this stitch will be stretched increasingly. This technique opens up various pattern design possibilities, such as knop patterns, wave patterns etc.
Holding-down technology	Swiveling holding-down jacks hold down the fabric (holding-down position) on the knock-over edges of the two CMS needle beds when the needles are driven out for stitch formation. The holding-down jacks are open during thread insertion. Control is automatic. The CMS holding-down technology (STOLL patent) enables unusual patterns, multi-dimensional knitting (fabric on fabric) and the production of "technical textiles".
img file	The knitting program (Sintral) and/or machine and order data can be saved to the hard disk, a floppy disk or a Knit Memory Card in a Cardimag.img file. A TC knitting machine that is networked via Ethernet and configured accordingly can, for example, directly access a Cardimag.img file on the hard disk.
Intarsia pattern	Color pattern, whereby the colored pattern threads are not knit through the entire fabric. Usually medallion-like or geometric designs including with a structure.
Intarsia yarn carrier	Swiveling yarn carriers used for the production of intarsia fabrics.
Jacquard	Term for pattern selection named after its inventor Jacquard. Today: Knitting with needles selected in accordance with the pattern. Also a pattern designation, for example 3-color jacquard: Knitting of jacquard motifs (pictures) using knitting yarns in 3 different colors. Or structure jacquard, transfer jacquard etc.

Jacquard color	256 different jacquard colors are available for the MC jacquard in the jacquard editor. The colors with the color numbers 1 to 40 contain additional jacquard symbols required in the text file of the MC jacquard (*.jac) for the machine knitting program.
Jacquard editor	Image editor for the MC jacquard. This can be generated using the module technique and saved for the M1 (*.jdv) or for the machine (*.jac).
Jacquard editor (module)	Image editor for modules that can be used in the MC jacquard.
Jacquard generators	To generate a jacquard from a color area in the pattern, a jacquard generator (or a jacquard module) is allocated to this area using a dialog box. Jacquard generators determine the structure of the reverse side such as float, stripe, twill and net.
Jacquard group	A jacquard group consists of the yarn fields of a jacquard that was generated with a jacquard generator or a jacquard module. The jacquard groups are displayed in the yarn field view. As a result it can quickly be seen where a jacquard is located in the pattern.
JDV module	These are modules for the jacquard editor that only consist of jacquard colors and can only be used in the MC jacquard files.
JSA (Jacquard Structure Automatic)	JSA from STOLL enables knitting pattern and knitting program generation with a high level of automation. The user draws the design to be knit directly on the screen. The STOLL pattern workstation SIRIX then automatically generates the knitting program from it for any electronic Stoll flat knitting machine. With this programming technique the specifications for the control and jacquard section are combined in one jacquard line. JSA is also equipped with functions and modules such as binding-off, knitting cables, knitting aran patterns and inserting trimming and pockets.
k&w Shape	A k&w shape consists of closed lines for the body and sleeve that represent an entire article when interconnected.
knit and wear (k&w)	A k&w machine produces fully fashion complete articles. The fabrics come out of the machine ready to wear with a fixed start, closed body, knitted-on arms and a knitted in neck welt. This eliminates the need for fabrication in the sewing shop.
Knit Memory Card (KMC)	The Knit Memory Card is a powerful storage medium for the exchange of pattern data from the pattern workstation to the machine or from machine to machine. The STOLL Knit Memory Card Adapter is required for reading and writing Knit Memory Cards (KMC).
Knit Memory Card Adapter	The STOLL Knit Memory Card Adapter is required for reading and writing Knit Memory Cards (KMC). This device is connected to a serial port on the computer and addressed via the name of the port.
Knitting program	Instructions with knitting information for controlling (computer) the Stoll flat knitting machines. Knitting information concern, for example, yarn carriers, fabric take-down, stitch tension, machine speed etc. The machine uses the SINTRAL programming language developed by STOLL, which is based on the BASIC programming language.

Knitting row/stitch row	During knitting each knitting system generates a horizontal stitch row during each stroke to the left or right. A yarn carrier running with each knitting system lays the thread in the needles for stitch formation in the process. A machine with 3 knitting systems knits 3 stitch rows per stroke. The number of stitch rows knit in one stroke corresponds to the number of working knitting systems and yarn carriers. With color jacquard, for example for a three-color jacquard pattern, 3 knitting systems product one stitch row per stroke on the pattern side of the fabric, which consists of three knit color stitch rows.
Knitting system	In each carriage assembly 1, 2, 3 or 4 knitting systems each are housed at the front and back. The knitting system, selection system and step motor form a unit. Electronic selection systems with two selection points each select the needles for knitting, tuck, three-way technique, splitting, transfer and receiving. With a step motor the take-down cams control the stitch tension by pulling in more or less knitting yarn during loop sinking with the needle hooks, forming loose or tight stitches in this way.
LAN (local area network)	Local network
Levels of a pattern	A pattern written in the M1 consists of layered levels. The top level overwrites the respective level below it. The layers can be displayed or hidden individually. There are editing levels for the user and special levels for the automatic functions in which these enter their results. Advantages of the level structure: - The automatic functions of the M1 can be switched off by the user during pattern generation and then on again later. - Fully Fashion patterns can be split apart in the basic pattern and the shape - Results of technical editing can be modified by the user.
Limit condition	A limit condition results from a limit module integrated in a simple module. This new module is called a module with limit condition(s).
Limit condition line	Line that must be inserted in the limit module for drawing the needle allocation. This line is shown with a yellow background.
Limit module	A limit module observes the needle allocation of the preceding needles and automatically inserts the necessary transitions from the pattern to the related module. A limit module can only be used in the pattern as part of a module with limit condition(s).
Limit module line	When generating limit modules with limit condition(s), limit module lines are inserted to integrate limit modules. These lines are shown with a red background in the module editor.
Line with knitting instructions	Knitting instructions for the CMS are written in SINTRAL. A CMS knitting program is structured in lines with ascending numbering with SINTRAL information. Each program line begins with a line number, followed by the knitting information contained in the line.
Link	A symbol with which a connection to a file or to a folder is created. When you double-click on a link, the original element is opened.
Local module	A local module is a module present in the pattern, but that has not been saved in the module database.
Logical Zoom	A virtual presentation of the fabric in which the right and left stitches are displayed visible next to each other.
Lost & Found	Lost & Found is a module group in the module explorer. During a database check the links to the lost modules are saved in this module group.

Lost module	The term lost module refers to a module that no longer has a link to the database.
Machine attributes	The machine attributes allow you to make settings to the machine that are taken into account during technical editing.
Machine data	The machine data are machine-specific correction values and settings.
Machine database	The machine database is divided into the Stoll machine database and the customer machine database. All Stoll machines are stored in the Stoll machine database. In the customer machine database you put together your own machine pool. The machine database is accessed via the machine explorer.
Machine Explorer	All Stoll machines are managed in the machine explorer. You can put together your own machine pool from these machines.
Main drive	The carriage assembly is driven via a toothed belt on the back of the CMS machine and via an electronically controlled motor. The carriage assembly is clamped onto the toothed belt and reverses only via the needles selected for knitting or stitch transfer. Here the carriage path is optimized by the RCR system, which results in a considerable production increase.
MC jacquard (*.jac)	The MC jacquard (*.jac) is the jacquard program required by the machine in the text format which contains the jacquard symbols for the knitting program (Sintral). The file can be displayed and edited as text in the program UltraEdit-32 or as a picture in the jacquard editor. The MC jacquard is automatically generated and saved within the pattern for a pattern of the M1. It can be displayed or extracted from within the pattern (Sintral menu).
MC jacquard (*.jdv)	The MC jacquard (*.jdv) is the jacquard program in the M1 format. The file can be displayed and edited as a picture in the jacquard editor.
Module	A module is understood to be frequently used knitting sequences with the related module parameters. Modules are stored in the module database and are managed by the module explorer. You can select the modules from the module bar or from the module explorer and insert them in your pattern.
Module Bar	The modules from the "Favorites (module bar)" module group are available in the module bar.
Module color	The module color is understood to be the yarn color of a module.
Module database	All modules of the pattern workstation are stored in the module database. The module database is accessed via the module explorer and via the module bar.
Module echo	A module echo is a display of the module size of the selected module. In the fabric view the module echo is shown as a picture of the module and in the technical view as a marking.
Module Explorer	All module types are managed in the module explorer. Modules can be selected, displayed, edited, imported, exported, moved and deleted.
Module link	Link of a module from the module database in module explorer and module bar or the connection of the module in the database to the individual uses of the module in various module groups.
Module positioning	If a module is allocated to a color when importing a picture, then the modules can either be filled in a grid so that they are arranged directly above each other, or they can be filled in freely (without a grid). As the module very seldom fits exactly into the color area, insertion is possible with an edge covered by the module or a free edge.

Module tree	Presentation of the module links in the module explorer in a tree-like, hierarchical structure.
Multi gauge	When knitting multi gauge articles, several gauges are realized in one fabric.
My machines	Data of the Stoll knitting machines of the user's own machine pool.
Narrowing	The transferring of selvedge stitches toward the inside to generate the desired shape and size of the sleeve or body element. Following narrowing the stitch-releasing needles are inactive, causing fewer needles to work over the width.
Needle Actions	Needle actions are those characters that can be used to generate the module or pattern in the technical view.
Needle bed	On the CMS flat knitting machine there are two needle beds, a front and a back bed, mounted relative to each other in the shape of a roof. The back needle bed can be offset to the side by up to two inches in both directions with a racking device by means of a step motor. The CMS spring latches are inserted in the grooves of the needle beds, and for needle selection the elements: coupling part, intermediate slider, selector jack with selector spring. The needles of the front needle bed are positioned at a gap opposite the needles in the back needle bed. The CMS 330 TC4 operates with two additional beds. These are mounted horizontally over the needle beds and are equipped with transfer parts. The transfer parts enable fast, lateral transfer of stitches by transferring these from the needles onto the opposite transfer parts and - following racking - back into the needles. Narrowed fully fashion fabric pieces and racking effects are knit extremely economically with this technique.
Needle density	The k&w machines are available for knitting k&w articles in the special gauges 5.2, 6.2 and 7.2. The same gauges are used for knitting multi gauge. The ordinary machine gauge that would match the special gauge is called the needle density.
Needle hook gauge	A needle can have a needle hook that does not match the gauge of the needle.
Needle layout	An empty window in which only the needles are shown as dots. The needle actions can be drawn in here.
Network adapter (network card)	Networking hardware of a computer
NP	The stitch cam position determines the stitch size. The take-down cam is moved into the desired position by the step motor.
Offset	The term "offset" is used when one needle bed is moved to the left or right relative to the other bed. The term "offset stitch" can also be used for the angled position of a knitting machine to the left or right.
Online help	The entire help that you can run within the M1. The content matches that of the user manual.
Order menu	The Order menu is a list of knitting orders that are worked through consecutively by the knitting machine. The making-up size and quantity for each order are specified in the Order menu. The Order menu can be edited in the M1 Pattern Workstation and saved as a text file with the ending *.ord (Order).
Overrun path	The distance from the end point of the yarn carrier path to the yarn carrier stop position. The overrun path is automatically determined by the technical editing function and displayed in the yarn-carrier display bar of the technical view as a dashed line with a triangle as the end point in white. The length of the overrun path can be changed.

Paste buffer	Paste buffer of the M1 pattern workstation with the pattern elements that have been saved with the function "Picture in paste buffer". The contents of the paste buffer are displayed within the module bar in the Pattern elements module group.
Pattern elements	Pattern areas that are temporarily saved in the clipboard (paste buffer) with the functions Copy and Cut, or have been imported to the paste buffer with the Picture function.
Pattern row	A pattern row represents a block of grouped technical rows.
Pattern Row Presentation	Presentation form in the Fabric and Technical view with which only the pattern rows are displayed.
Pattern-global	Specifications and settings that are to apply to the entire pattern are referred to as pattern-global.
Pattern-local module group	Module group within the module bar in which the modules from the pattern are contained.
Picking-up after pressing-off	For machines of the series 4xx and 3xx - without comb take-down - the "Picking-up after pressing-off" function is provided to enable a knitting start with an "empty needle bed". Either of the two knitting modes 1X1 or R-R is available for this purpose.
Picture import	With the Import picture function you can import pictures in the BMP, TIF and PCX formats and generate a pattern, a pattern element or a shape in the size of the pictures.
Quickinfo	Also called Tool Tip or Tip Text. A brief description of a screen element. The Quickinfo is displayed after a short time when the cursor is positioned on an element.
Racking	The movement of the needle bed from left to right - to generate a racking pattern - or to transfer the stitches when producing cable, aran and pointel patterns. Stepless racking of the back needle bed over 1, 2, 3 etc. needles is possible on the CMS machine with a maximum of 4 inches (100 mm), i.e. a maximum of 48 needles for a gauge of 12. The racking position is electronically monitored and adjusted. For certain fabrics the stitches can be stretched with over and reverse racking.
RCR (intelligent carriage reversal point/Rapid Carriage Return)	On the CMS machine models the length of the carriage stroke is automatically controlled by the computer. The knitting machine computer optimizes the production output of the machine by automatically calculating the shortest carriage path for each knitting row (intelligent RCR system from STOLL).
Reference row	The reference row specifies which row from the module is positioned on which row in the pattern.
Relief jacquard	With a relief jacquard the various colors knit in any given area on only one needle bed (jacquard with transfer).
Round needles	Needles with which the outer stitches on the fabric border are knit.
Row adjustment	Sorting in the rows of a module while inserting them in the pattern.
Scaling	Change the size of an area.
Selan	Online communication system between Stoll knitting machines, pattern units and analysis computers.
Select	Selection and marking of certain elements for further editing.

Selected needle area (SEN)	The Sintral command SEN=1-200 says that the knitting zone of needle 1 (left side of needle bed) extends to needle 200 (size of a fabric piece). If the last needle leaves the knitting system, the carriage assembly reverses immediately. The knitting zone may be different for each row. The SEN command is also used for multi-piece work. Example: three fabric pieces next to each other SEN1=1-210; SEN2=310-520; SEN3=620-830.
Selection	A selection is a marking within a pattern, a shape or in a dialog box.
Selection	The selection of an area is called selection. The selected area is a pattern element that can be edited further as a module. The selected area is shown lighter or marked with a frame or running frame.
Selection system	The selection system chooses the needles for the needle action. Each needle can carry out the following needle actions: - Except for the activity (not knitting) - Tuck - Stitch - Transfer - Delivering - Transfer - Accepting - Split-stitch - Receiving - Split-stitch - Receiving
SEN	Selected needle area. The Sintral command SEN=1-200 tells the CMS machine controller that the knitting zone of needle 1 (left side of needle bed) extends to needle 200 (one fabric piece). The SEN command is also used for multi-piece work. Example: Three fabric pieces next to each other in the needle bed: SEN1=1-210, SEN2=310-520, SEN3=620-830. This means that the first fabric piece ranges from needle 1 - 210, the second fabric piece from needle 310 - 520 and the third fabric piece from needle 620 - 830.
Separation	Separation refers to the dividing up of a yarn field.
Sequence	A sequence is understood to be a repetition of knitting programs which are knit consecutively. Here the knitting programs are automatically read into the memory of the knitting machine consecutively. As a result, the knitting machine need not wait after completing a knitting program until the operating personnel has read in a new knitting program.
Shape	A shape is a closed line curve that represents a fabric piece.
Shape attributes	The color of the shape edge and the symbols from the shape tools toolbar are shape attributes.
Shape importation	With shape importation you can import shapes in the DXF format for further use in the M1.
Shape View	The shape view is used to show the shape. These can be edited with the icons from the Shape tools toolbar.
Single needle selection	The needles are instructed with SINTRAL commands in the knitting program to carry out the required activity in accordance with the pattern, e.g. "R" - all needles knit a stitch "F" - all needles knit a tuck "0" - all needles do not knit (0 = zero) etc.
Single-carriage machines	Machines with 1 carriage.
Single-Jersey Jacquard	Single-jersey jacquard is produced using the needles of only one needle bed.

Single-jersey jacquard	Single-jersey jacquard is produced using the needles of only one needle bed. Needles selected according to the pattern knit a jacquard pattern.
SINTRAL	STOLL interpreter computer software for all CMS machines. A programming language developed by STOLL with terms usual in the knit goods industry for the commands.
Sintral functions	Sintral functions (<name>.sin) can be added to the pattern. These are inserted in the knitting program by technical editing (Generate Sintral / Jacquard / Setup). They are not visible in the pattern itself. Examples of this are the transition between the fabric pieces for Fully Fashion or the pattern start with which a corresponding Sintral function is used instead of the module technology. The Sintral functions are managed in the pattern parameters and the technical row data.
Size table	Several program lines within the knitting program to which the same cycle switch or counter is allocated. With the size table different sizes can be knit with only one knitting program.
Spacer	No yarn carriers can be allocated to a module. To nevertheless be able to enter different yarn carrier actions, the placeholder is used.
Split function	During the splitting process the stitch is divided during transfer so that only one of the two stitch legs is transferred to the accepting needle. As the transferring needle in the same knitting system immediately forms a stitch, the openings that otherwise occur during transfer are closed.
Start line (Shape editor)	The start line is the first shape line in the basic shape shape element. It embodies the starting width of the shape. When entered it is automatically allocated the basis function.
Starting conditions	The start condition is part of the needle action with transfer. If one of these needle actions is used in the pattern, then it is checked whether the needle assignment to the preceding row has changed in this column. If the needle allocation has changed, then either "Transfer back" or "Transfer forward" is inserted on the start condition level. This is also referred to as "automatic transfer". If the needle allocation has not changed, then nothing is inserted on the start condition level.
Starting line (gore function)	Tool in the gore function for converting an existing diagonal gore segment into a straight knitting zone.
Stitch Echo	The pulling open of a selection is shown in the fabric view of the fabric presentation with selected stitches.
Stitch row	A technical row consisting of the needle actions stitch and/or tuck and/or float and/or split-stitch.
STIXX	STIXX is a device that measures the thread length used and corrects the stitch length by adjusting the take-down parts if necessary.
Stoll applications®	With this knitting technology developed and patented by Stoll, multi-layer applications such as pockets and collars can be produced on a fabric. This results in major advantages in the areas of make-up, checking and deadline monitoring.
Stoll Explorer	The Module explorer and Machine explorer are explorers developed by Stoll for the pattern workstation and are therefore called Stoll explorers. In the Module explorer the module database and in the Machine explorer the machine database are displayed in a hierarchical structure.

Stoll flexible gauge®	With this knitting technology developed and patented by Stoll, fabrics with an extremely broad range of gauges can be produced with one and the same machine, without needle replacement or gauge conversion. This means maximum flexibility with a further reduction in investment costs to be able to react even more quickly and economically to new fashion trends.
Stoll knit and wear®	This knitting technique, developed and patented by Stoll, enables you to knit complete articles in a fully-fashion shape. For example, pullovers complete with sleeves and a collar can be knitted and then put on directly after being removed from the machine in this way. Additional sewing work is not required.
STOLL Knit Memory Card	The STOLL Knit Memory Card (KMC) is a special program and file system for saving pattern and system files. These pattern and system files can be read in the STOLL knitting machines. KMC file systems can be saved on flash cards (KMCs) or in container files on other data carriers (floppy disks, hard disks). KMC file systems can be managed with the program STOLL Knit Memory Card (Stcard Commander).
Stoll machines	Data of all Stoll knitting machine models in the machine explorer.
Stoll multi-gauges®	This knitting technology developed and patented by Stoll enables knitting of 2 or more gauges combined in one fabric. This eliminates the need for gauge conversion, needle replacement and make-up work. This clearly reduces the through-put times.
Stoll multiflex®	With this take-down system developed and patented by Stoll a reduced fabric distortion is realized with the variable adjustment of the contact pressure of the roller segments. All take-down components (main take-down, upper take-down and comb take-down) are freely programmable. Fault monitoring, e.g. during fabric cast-off, is carried out electronically.
Stoll Pattern Innovations®	Knitting-related work procedures with a high fashion statement exclusively developed by Stoll. These include: Stoll multi-gauges®, Stoll applications®, Stoll racking effects®, Stoll knit and wear®, Stoll flexible gauge®.
Stoll racking effects®	With this knitting technology developed and patented by Stoll, interesting pattern effects can be realized for multi-layer fabrics by knitting with the racked pattern at an angle. This achieves the same effects as those that can otherwise only be produced with machines with auxiliary needle beds. This technology can also be used with 2 or more gauges in one fabric.
Stoll touchcontrol® (TC)	This technology developed and patented by Stoll enables the direct entry of commands by touching symbols on the machine display. The ordinary keyboard has been replace with a touch screen.
Take-down cams	Controlling the needle take-down and specifying the stitch tension with it.
Tandem machines	Machines with two carriages.
Tandem mode	Two carriage assemblies are connected with a coupling rod. In the synchronized movement two fabric pieces with an identical pattern are produced.
TCP/IP (transmission control protocol/Internet protocol)	A series of network protocols that enables communication of different interconnected computers and control systems. The basis for Internet communication.
Technical Assistant	Dialog box for displaying the technical rules and for controlling technical editing.
Technical Editing	Technical editing checks the pattern for errors and adds the remaining information required for knitting. A knitting program (Sintral) can be generated from the result. You can influence technical editing. If technical editing is carried out several times for the pattern, it only represents a test run.

Technical row	Technical rows are the knitting rows and the transfer rows of the pattern. Consecutive technical rows can be combined to form a pattern row. This is referred to as grouping.
Technical row data	The technical row data are pattern data that do not absolutely have to be entered by the user. On the one hand, these data are partially automatically supplemented during technical editing. On the other hand, these data are allocated by the user when he/she notices during knitting on the machine that the pattern cannot be knitted in a certain technical row without these data.
Technical Row Display	Presentation form in the Technical view with which all technical rows are displayed, regardless of whether or not they are grouped. Only stitch rows are visible in the Fabric view.
Technical rules	The individual steps of technical editing.
Technical textiles	In addition to knitwear products, technical fabrics are a major application of the CMS flat knitting machines. Single needle control and holding-down technique enable mixing of knitting modes, materials and structures in one piece, and therefore the production of fully fashion fabrics and multi-dimensional bodies. In the process, the following materials are processed depending on the application and use: elastomeres, thermoplastics, glass and ceramic fibers, carbon fibers, metal wires, natural fibers and all technical yarns.
Technical view	Graphic presentation of all needle actions present in the pattern.
Three-dimensional knitting	Fabrics in the third dimension show a marked appearance in the area of outerwear. Multi-dimensional knitting is also used in the area "Technical knitted goods". For example, concave or convex sections (third dimension) and semicircular sections are achieved by knitting elliptical segments on each other with the gore technique, whereby a considerably larger number of stitches is knit in the center than at the edge of the segments.
Transfer	The transfer of stitches (or tuck loops) is a process in which a stitch is transferred from a front needle to an opposing back needle or vice versa. The transferring needle runs through the stitch-transfer cam truck in the knitting system, and the accepting needle the stitch-acceptance cam truck. Each stitch can be transferred completely or only with one stitch leg (splitting). Stitches are transferred to patterns, for example with transfer patterns or for fully fashion knitting, during narrowing or binding-off.
Transfer rows	A technical row that only consists of the needle actions transfer and/or afterpressing and/or casting off.
Virtual stitch draft	The draft of fabrics with authentic-looking (graphically displayed) knitting stitches on the screen of the pattern workstation (fabric view). This means that fabrics can be simulated and evaluated on the screen.
Wale	The vertical row of stitches in a fabric (along the fabric length)
Widening	If additional needles are brought into operation at the fabric border (widening), then the fabric becomes wider.
WMF Index	Different fabric take-down values that are displayed in the knitting program via an index.
Yarn bridge	A yarn bridge is the connection of an interrupted color surface with a jacquard generator or jacquard module.
Yarn carrier	The task of the yarn carrier is to insert the knitting yarn for the stitch formation in the needles. To do this, it is routed from the yarn-carrier selection unit via the knitting system in the yarn insertion position via the needles.

Yarn carrier field	The yarn fields are grouped to form yarn carrier fields. Each new yarn carrier field results in the use of a new yarn carrier. The allocation can be influenced in the Yarn field allocation dialog box.
Yarn carrier path	The distance to be covered by the yarn carrier. This is automatically determined by the technical editing function from the Insert action. The yarn carrier path is shown in the yarn-carrier display bar of the technical view as a continuous line in the yarn color. The start and end point can be changed.
Yarn carrier position	The position in which the yarn carrier remains after knitting a stitch row.
Yarn carrier rails	Double-profile metal rails mounted over the needle bed. Up to 32 yarn carriers are present on the four double yarn-carrier rails.
Yarn carrier selection	The yarn carriers are selected by the yarn-carrier selection unit. They can be activated and deactivated, for example for applications in any required position along the yarn carrier rails. The information for this purpose is contained in the SINTRAL knitting program. The yarn carriers can, for example, automatically be moved into their home position for the new start of a fabric.
Yarn color	To be able to allocate different yarns in the fabric as simply as possible and to make these areas visible, the yarns are represented with colors.
Yarn field	A yarn field is a knitting area in which the same yarn is used. The yarns can be distinguished from each other with the yarn color and the yarn number. Yarn fields are necessary for determining the yarn carrier fields. Each yarn number is allocated its own yarn field. If the area of a yarn number is interrupted by another yarn, then several yarn fields are determined.
Yarn field allocation	In the "Yarn field allocations" dialog box you influence "technical editing". For example, you group several yarn fields to form one yarn carrier field, or assign a yarn field 2 yarn carrier fields, which causes this area to be worked with two yarn carriers.
Yarn field view	The yarn field view is used to clarify where in the pattern which yarn fields have been determined. With the Yarn field allocation dialog box the yarn carrier fields determined from the yarn fields can be organized differently.
Yarn float	Yarn float refers to the thread length that covers one or several non-knitting needles during knitting. This stretches the non-working stitch of the stitch row formed previously and now resting in the needle. Vertical stitch rows are called wales. In the case of yarn floats to total number of stitches in the wales differs. This principle is also used when knitting a single-jersey color jacquard in which two or more colors are combined to form a color stitch row.
Yarn guide	The yarn guide guides the knitting yarn from the bobbin to the needle.
Yarn number	As the yarn colors can be changed individually, each yarn color has a yarn number to enable a clear differentiation of the yarns.
Yarn type	A "yarn type" is allocated to the colors from the "Technical" color group in the "Yarn colors" toolbar. The yarn carriers with this yarn type are automatically entered in the yarn carrier allocation.
Zoom	Zoom is understood to be the set picture size. This can be increased or decreased.