Chapter 20 "Various special functions"

_____

Content

_____

This chapter of the GRAFIS Textbook deals with functions which could not be fitted into the themes of other chapters.

Topic of the first section is the *markingline* menu for generation of templates. The export functions in GRAFIS are the content of the second section. In the third section you will learn about designing your own call list.

_____
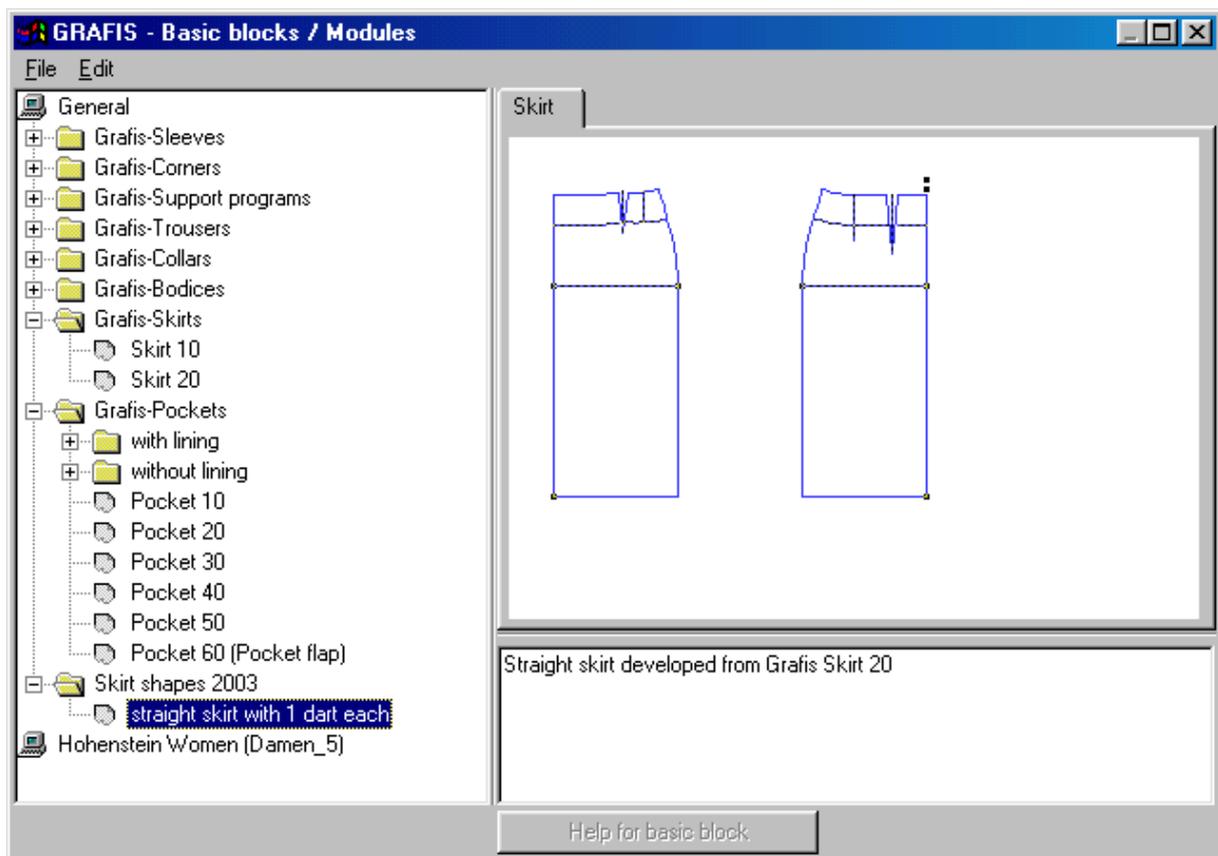
20.1 Use of the *markingline* function for generating templates

Generating templates for stitching, positioning of other pattern pieces or embroidery is also part of production preparation. These templates have to be generated for all produced sizes. With the *markingline* function templates can be constructed.

The *markingline* menu

The *markingline* function opens after having clicked *markingline* in the basic menu. The following four parameters are to be set for the marking line

markingline
ln= 100.
bw=   3.
cw=   5.
no=   5.
reset
measure

- *ln* medium length of the gap from bridge to bridge
- *bw* half bridge width
- *cw* cutting width (width of the gap)
- *no* notch height and width (tag)

Clicking a line transforms it into a marking line with the set parameters. The side of the notches is determined by clicking. *reset* reverses the last transformation.

Step-by-step guide

⇒ Construct an auxiliary line along which the gaps are to be generated.
⇒ *Basic menu-->markingline* and set the parameters ln, bw, cw and no
⇒ Click the auxiliary line: the auxiliary line is to be clicked on the side on which the notches are to be generated
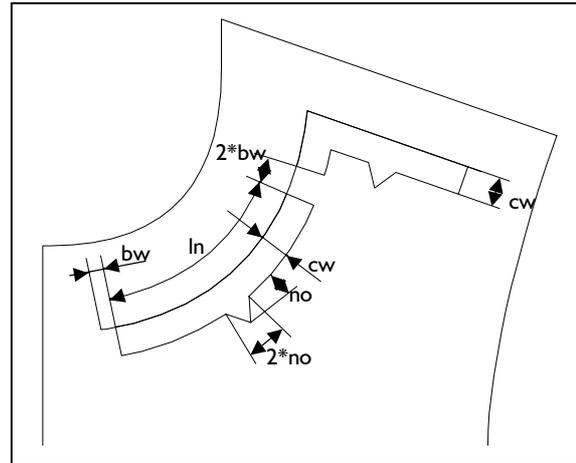⇒ Complete the template, possibly as a new part

Significance of the parameters

The auxiliary lines to the neck and shoulder (Picture 20-1 left) were transformed into marking lines (Picture 20-1 right).

Clicked, here.
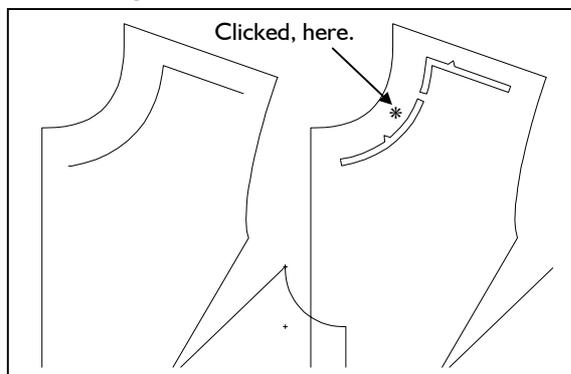
Picture 20-1

The significance of the parameters ln, bw, cw and no is illustrated in Picture 20-2.

Picture 20-2

Exercise

Construct a template for a shaped waistband for „Grafis Skirt 20". Into the new part „template" insert the waistlines of the front skirt and the side seam one after another. Close the darts, create a parallel of 60mm to the linked waistline and mirror the part at the centre front.
Create the following x values:
x1   seam allowance
     _xxxxx_x = 10.000
 x2   marking line length
     _xxxxx_x = 15.000
 x3   marking line bridge width
     _xxxxx_x =   2.500
 x4   marking line cutting width
     _xxxxx_x =   2.000
Construct a seam allowance all around with distance x1. As the marking line is to be centred on the seam line, create a z value z1=x4/2 for half of the marking line cutting width. Construct a parallel all around the seam line to the outside. This new parallel is now positioned between the seam and the seam allowance. Open the *markingline* menu and assign the values as follows:
     ln= x2, bw= x3, cw= x4, no= 0
Now click the parallel constructed last on the inside. The result is shown in Picture 20-3.
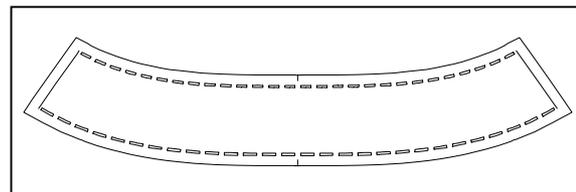
Picture 20-3

Construct a template for the skirt back waistband in the same way.

_____

20.2 Export of pattern pieces

Export formats

GRAFIS pattern data can be exported in the following data formats at present:

- GRAFIS data transfer format
- Gerber Extended PN
- AAMA/DXF data format.

Data transfer ensues via interface files which are to be read by the other CAD system. The interpretation of the different GRAFIS symbols during output to an interface file is determined in the INTERFAC.SYS file (for GerberEPN) or AAMA.SYS file (for AAMA), see GRAFIS Help.

If only one data format is to be used permanently, it can be pre-set in the [LW:]\GRAFIS\GRAFIS.INI file with the DATAINTERFACE parameter. With DATAINTERFACE=0 all data formats are available for selection.

Detailed information on configuration of data formats can also be found in the Grafis Help <F1>.

Variations of data export

Data export can ensue in the variations

- automatic or
- manually.

For **automatic export** the pieces to be exported must be declared as production pieces in the part parameter dialogue, in the part organisation menu. The export dialogue opens via *File | Export pattern pieces*. In this dialogue, the required data type is selected, if necessary, the tick for „Collating AAMA files" can be set and the settings for the interface are checked. Having selected one or more pieces and clicked on „Output Selection" or having clicked on „Output All" the interface file is created

Manual export is started from the *File | Manual export...* pull-down menu. All steps for data export are processed and the interface file is output immediately. Use this option if the pattern piece could not be exported with *Export pattern pieces* or was exported incomplete.

Step-by-step automatic export

⇒ *partorganis*: the production piece part parameter must be set for all parts to be exported.
⇒ *File | Export pattern pieces*
⇒ select file type
⇒ for AAMA:, activate „Collate AAMA files" if required
⇒ check interface settings
⇒ possibly: select one or more pieces
⇒ „Output Selection" or „Output All"

Step-by-step *Manual export*

⇒ *File | Manual export*
⇒ Determine *grain line*
⇒ Determine *outline* of the pattern piece
⇒ Select internal lines or all lines for output
⇒ Select point symbols for output
⇒ Check interface file name (GRAFIS screen upper left) and edit if necessary with *file name*
⇒ Start *output* to interface file

Functions of the export menu (for *Manual export* only)

The individual functions and options have the following significance:

grain line
First, the grain line of the pattern piece is to be determined. Click the grain line outside, following the right principle. With this function the grain line can be corrected, also.

text line
This function is active for data export in AAMA format, only. With *text line* the annotation line can be determined. When clicking the right principle is to be considered.

outline
Most CAD systems, especially lay-planning systems, have a clear distinction between outlines and internal lines. Internal lines and symbols must not lie outside the perimeter. In this case the outline <u>must</u> be determined. Clicking on *outline* opens the respective sub-menu with activated *determine* function. Now, the perimeter of the piece is to be clicked outside the piece; it is indicated by red lines. The *mirror at* function is active for data export in the GerberEPN format, only. With *mirror at* a fold can be determined along which the piece can be unfolded in the layplan.

lines
In the next step the internal lines to be output are to be determined. Activating
   single   enables output of individual lines to be clicked,
   all   outputs all internal lines of the piece.
The +/-*cutting* switch is significant for GerberEPN and AAMA interface formats, only.

export
grain line
text line
perimeter
lines:
single
all
-cutting
symbols
single
all
stack point
reset
last
all
file name
output
gr+per+sym
part:
previous
next
test run
grading
stack

---

symbols

Selection of symbols such as arrows, drillholes, re-peat symbols or buttonholes ensues by activating

single	for output of individual symbols to be clicked, separately and
all	selects all symbols of the size.

Notches are output together with the line to which they are attached.

stack point

determines the stack point of the graded nest. The stack point is marked as a round point. The function is active for export with protocol, only. In the other case *stack* is to be used.

reset

last or *all* resets the last selection or all output selection.

file name

GRAFIS automatically offers a file name for the ex-port file. In a dialogue window the data format and the file name are indicated, constantly. The file name is pre-set with [style name].[part no.], e.g. INES_001.005 for the export file of the fifth part from style INES_001.

The set directory is always [GRAFIS drive:] \GRAFIS \[construction system]\ INTERFAC\ [collection]\, e.g. C:\GRAFIS\DAMEN_5\ INTERFAC\ANGEBOT\ for a style created in the „Ladies construction sys-tem after Hohenstein" in the ANGEBOT collection (see section 1.5).

If a file with the same name exists already the new data is added (for GRAFIS data format, only) or overwritten.

A different file name or path can be given with the *file name* function.

output

Clicking **output** starts export of the export protocol (for the protocolled export function) or output of the file (for the export function without protocol).

part:

In the lower part of the function strip frequently used functions can be found:

previous	activate previous part
next	activate next part
test run	
grading	
stack	

20.3 Designing the call list

Step-by-step guide

⇒ *call*; the Grafis basic blocks / modules dialogue opens.

⇒ activate *Edit | Edit mode*

⇒ open folders / sub-folders

⇒ enter constructions as programming language programs, styles, grade rule patterns or a combi-nation of programming language program and style

⇒ design the file card images and the text for the construction; the edit functions are opened via the context menu.

Create new folder / sub-folder

Right click on „General" and select „Create new folder" and enter „Skirt shapes 2003".

ATTENTION! Do not create a new folder called „Grafis-..." or any sub-folder or entries in these folders. Otherwise, your data may be overwritten during future updates.

File types in the call list

The following can be entered in the call list:

• style (.MDL) = Grafis style with all parts

• program (.CPR) = Grafis programming lan-guage program of the new programming lan-guage

• program (.PRG) = Grafis programming lan-guage program of the old programming lan-guage

• grade rule pattern (.SWS) = Grafis grade rule pattern, stored as a template

• module combination (.CPR+.MDL) = combi-nation with a number of parts

Create entry from basic block and shape

Save a shape „straight skirt with 1 dart each" for „Grafis Skirt 20", in which the side seam reduction has been reset and the 2nd darts in front and back skirt have been closed. This skirt shape is now to be saved in „Skirt shapes 2003": Select „Skirt shapes 2003" and select „Create new entry" in the context menu. The „Insert modules" dialogue opens (Picture 20-4).

A new or edited graphic appears only after having selected the list entry again.

_____
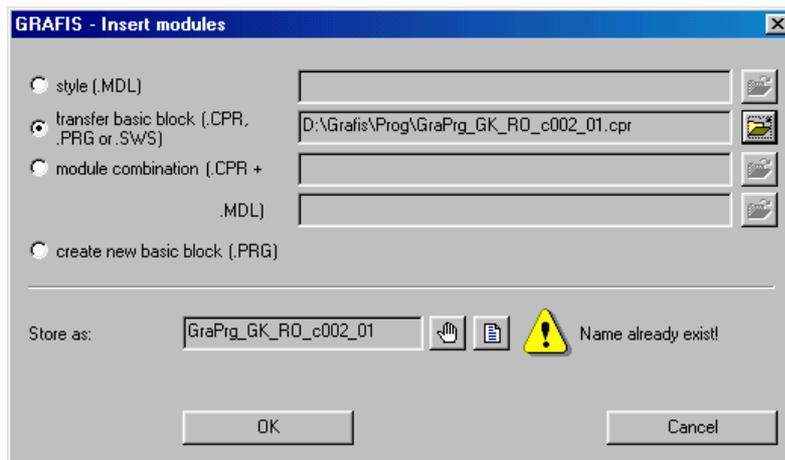
Picture 20-4

Select „Transfer basic block" and select the CPR file of the basic block. The names of other already linked programs can be found via the context menu with „Open link file" having clicked on the respective entry with the right mouse button

Enter a personal name for your copy of the program using the „Generate program file name" dialogue, see Picture 18-4 in Chapter 18. After <OK> the entry is created. The entry can be suitably named via the context menu, e.g. „Straight skirt with 1 dart each". Finally, assign a shape by selecting „Set shape" from the context menu. The shapes are saved centrally under \Grafis\Forms\[name of basic block]. Now enter a suitable image and a short text with description.

Create entry as style

Entering a style into the call list makes sense for basic shapes which are used often as a basis for style development. Grafis transfers all parts when calling the style and inserts them into the already edited style.
Create a Grafis style with a number of parts and enter it into the call list.
The process is the same as for ‚Create entry from basic block and shape'. In the „Insert modules" dialogue (Picture 20-4) select „Style".
Entry of grade rule patterns into the call list works the same way.

Create entry as combination of programming language program and style

The Grafis pockets, e.g. with lining, patched are combinations of a programming language program

and a style file. Great care has to be taken when creating such combinations. Creation of a combination for a pocket module ensues in the following way:

Step-by-step guide

⇒ Create new style.
⇒ Construct one or two suitable click points with *digi* in part 001.
⇒ Call one of the pocket programs „Pocket 10" to „Pocket 60" into part 002, attaching the pocket construction to the points in part 001.
⇒ Develop the required manufacturing option for the pocket with heredity from part 003 onwards. Part 002 is not developed further. For possible subsequent developments of the pocket program, the program can be swapped through simple reset or new call.
⇒ Complete all pieces for the pocket manufacture.
⇒ Test run all parts.
⇒ Reset the record of part 001 to 000.
⇒ Remove part 001.
⇒ Save the style under a new name.
⇒ Open the call list.
⇒ Activate ‚Edit mode'.
⇒ Create new entry.
⇒ Select module combination, select the file used as basis for the style development as CPR file and the just saved style file as MDL file..
⇒ Design the file card images for the construction and the text. The edit functions are opened via the context menu.

Through resetting and removing part 001, the click routine of the pocket program requests a new point when calling the pocket, as the original reference point no longer exists. Thus, the pocket module can be called in the most different of styles.

Graphic and text for the list entry

In active edit mode you can open the graphic or text for editing via the context menu for the graphic or the text. The graphic must be saved as a bitmap. We recommend a size of 750x500 pixel.
A quick preview can be obtained with a screenshot: Press the <Print Screen> button with slightly zoomed out pattern. Then, insert the screenshot into Paint and invert the colours.