DIGITISING, PATTERN STYLING AND LAYING BY COMPUTER

WORKSHOP

.

TECHNICAL UNIVERSITY OF LIBEREC

Department of Clothing Technology
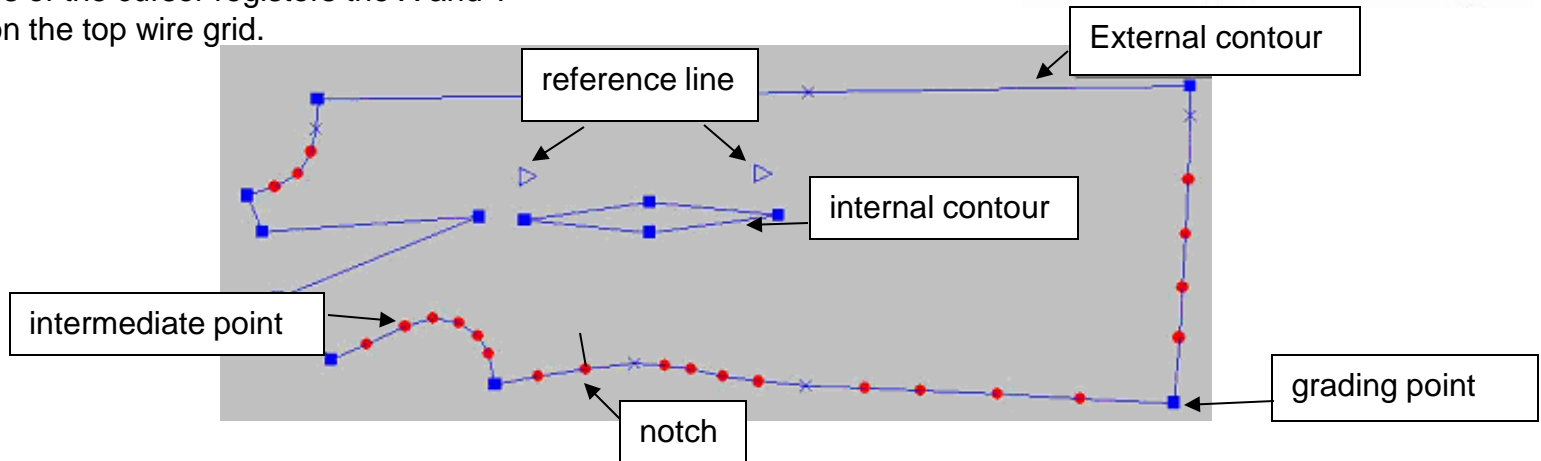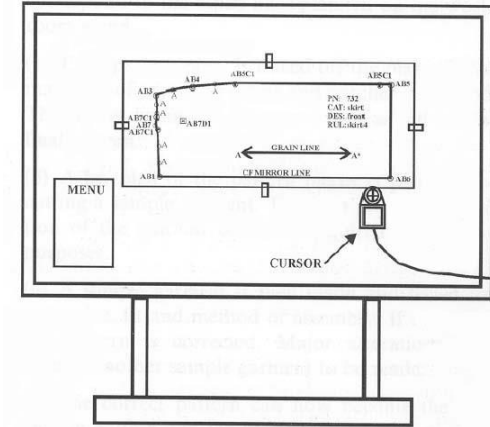
DIGITISER

Table top

Put the piece with the bottom on the left side on the table, fix it well on the table so it will not move during digitising.

Menu

The menu is glued to the table, it is used for digitising the identity of the piece and for indication certain codes to digitise grading rules and marks.

Mouse (Cursor)

Input the information into the system. The position of the cross hairs of the cursor registers the X and Y coordinates on the top wire grid.

External contour

reference line

internal contour

intermediate point

grading point

notch

1. Identity piece

name, set, base size, mirror,*	DRESS.FP	name of the piece
DRESS.FP,DOB,40,,*	DOB	name set (created in GENMA)
DRESS.FP,DOB,40,S,*	40	base size (symbolic size)
	S	if piece needs to be mirrored on the plotter
	*	end of the identity

2. Digitising contour of the piece
Digitising a piece is done with the mouse and the menu on the table.
<u>Special keys of the mouse</u>
PTO. > this key is used to indicate the points of the contour
P.S. > point standard, is used to digitise standard notches (= notch perpendicular on
the contour)
P.V. > point variable, is used to digitise a variable notch (= notch with a certain length and direction)

2.1 Digitising external contour
Start at the left hand corner and working clockwise (grading points, intermediate points, notches)
 Digitising big pieces in parts
When a piece is too big to be digitised it in one part it can be digitised in 2 parts.

2.2 Digitising internal contours
The internal contours of a piece can be digitised after the closed contour but before the end (*) of the contour. (Type B to indicate that an internal contour will be digitised then digitise all the points of the internal contour. If there are several internal contours type B before beginning a new one. If all internal contours are digitised the contour can be ended by typing *.)

*   end of the contour

2.3 Digitising reference line

2.4 Digitising marks

*   saving piece
Piece is ready, is being saved by the program into the database.

Digitising big pieces in parts
When a piece is too big to be digitised it in one part, it can be digitised in 2 parts.

CANCEL

Clicking this icon will allow you to quit the option you are currently using. If you click this icon when you are not using an option, then the system will assume you wish to close the software.
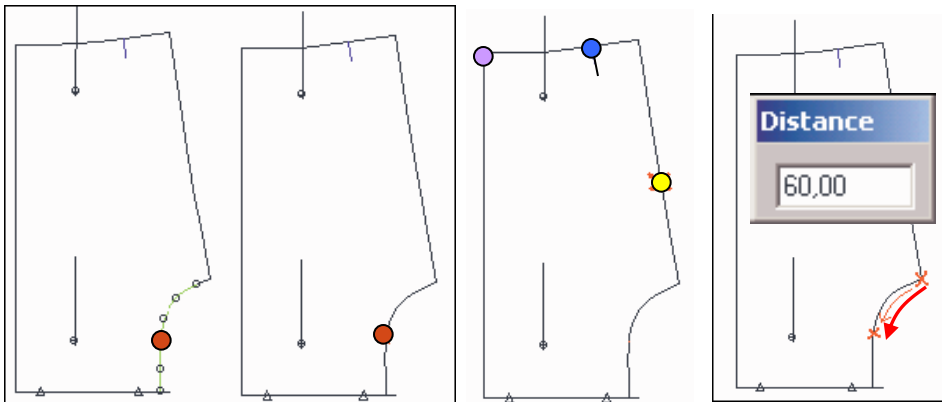
FETCH PIECES

BD- open data from Data Base, write it and click Enter.

CORRECTION POINTS

● Point in Piece: Activates the selection of an intermediate point on a piece. When this button is pressed, by clicking on any zone of a piece, the program will select the point defined on it that is nearest to the place where the click was made.

● Notch: Activates notch selection. When this button is pressed, by clicking on any zone of the editor, the program will select the nearest notch placed where the click was made.

● Extrem of Section (Rule point). Activates the selection of an extreme point. When this button is pressed, by clicking on any zone of the editor, the program will select the nearest extreme point placed where the click was made.

→ Distance Correction: Activates distance correction. If a point on a piece or chain is selected, the cursor will include the point that is at a given distance continuing the chain. If the distance is negative, it goes in opposite direction to the chain. This is the value the active input box requests (in this case there is only a data input field).

Distance

60,00

● Point in Section: Activates the selection of the any point on segment of the piece.
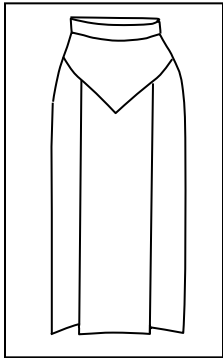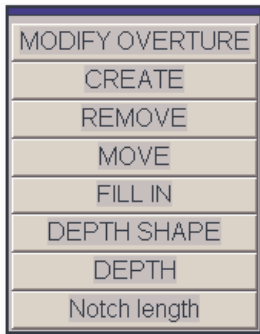
Procedure of front piece

Skirt with Yoke (Saddle) and box pleat

All waist darts can have their positions moved, but the darting must be correctly distributed.

3
2 **1**

Basic front piece

4

⇓

DARTS

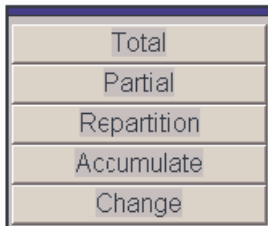This option allows you to create, move and delete darts on a pattern.
Move a dart to a different position.
Fill in the „V" of the dart
Depth Shape - move the vertex of the dart
Depth - modify the depth of the dart

| MODIFY OVERTURE |
| CREATE |
| REMOVE |
| MOVE |
| FILL IN |
| DEPTH SHAPE |
| DEPTH |
| Notch length |

Choose the menu option *'Total'* .
- Click the vertex of the dart to be moved **1**.
- Click the extreme of the dart to be moved **2**.
- Click the extreme where the dart will be closed on **3**.
- Click at the point where you wish the dart to open **4**.
-The new pattern with moved dart is now attached to the mouse cursor. Move this to a clear part of the screen and click to put it down.
A new menu will appear:

Click the option *'Move'* and a menu will appear:

| Total |
| Partial |
| Repartition |
| Accumulate |
| Change |

Total – move the whole dart
Partial – move part of the dart
Repartition – split the dart into multiple small darts
Change – return to previous menu

| Confirm |
| Delete orig |
| Cancel |
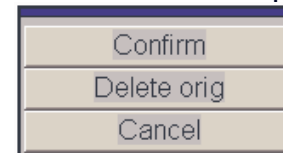
- Choose the menu option *Confirm* – keep both new and original patterns.

- To leave the option darts click the Cancel exit door icon in the ⬛← left corner of the screen.

✏️ DRAW

This option allows you to draw lines on your pattern. Lines can be curved, straight, perpendicular or parallel.

Click on a line of the pattern you wish to draw on, and then at the point at which you want to start drawing from (start point **1**). The following menu will appear:

Curve
Perpendicular
Parallel
Cut
FREE
Length
Start
Delete
Other piece

Curve – draw a curved line by clicking in a dot-to-dot style to create a curve
Perpendicular – this option allowes lines to be draw at 90 degrees to a chosen line of the pattern starting at the „start point"
Free – draw straight lines
Parallel – draw a parallel line on the patttern throught the „start point"
Cut - this option allows you to choose manually the angle of a line draw through the pattern

Choose the menu option *'Free'*
Click at second point to create your line (**2**)
If you wish to restrict the direction of straight line, click on relevent icon from the menu.
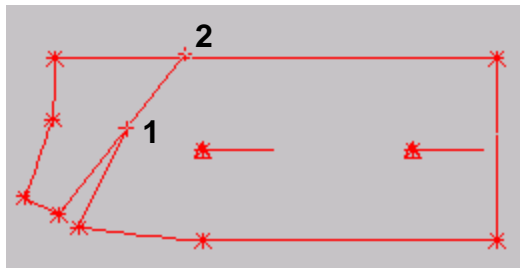
- To leave the option draw click the Cancel exit door icon in the [icon] top-left corner of the screen.

📁 DUPLICATE

This option allows patterns to be replicated in the whole, or, in part from an existing pattern
Choose the menu option *'Profile'*
-click (in a clockwise direction) each line of the piece to be copied. When the entire piece is complete, click the „Confirm" option. Click in the desired place to put the copied piece on screen.
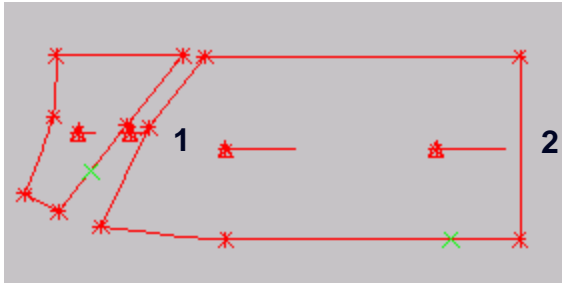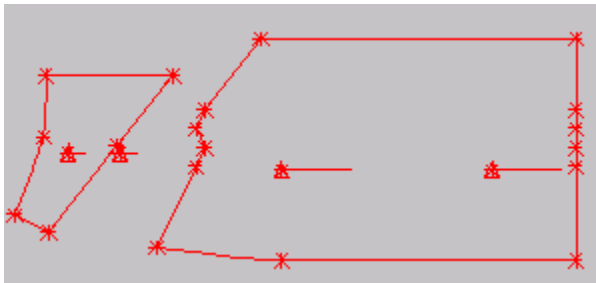- copy yoke and following to copy lower part of piece
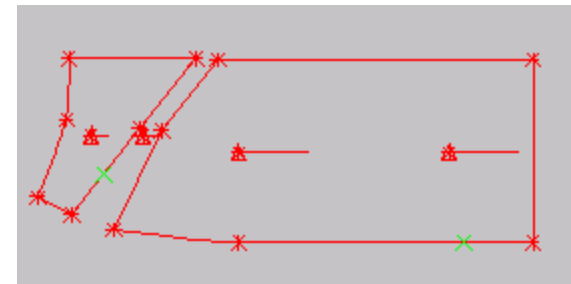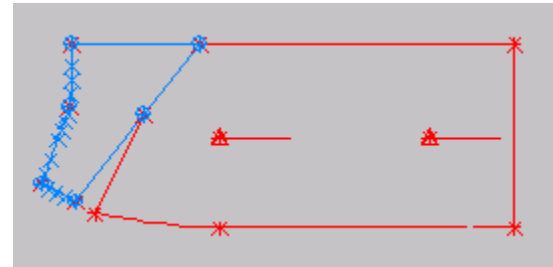
PLEATS (Gather)

This option allows you to create pleats in a pattern. Click on the first point (**1**) of the pattern, when the pleats starts, and then second point (**2**), when pleat finishes.

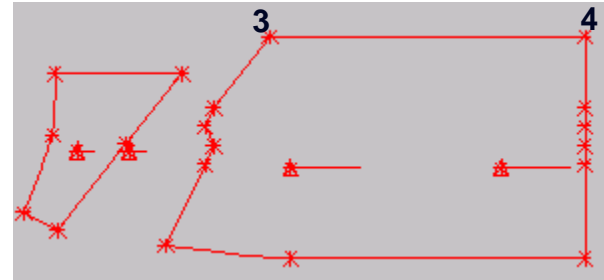

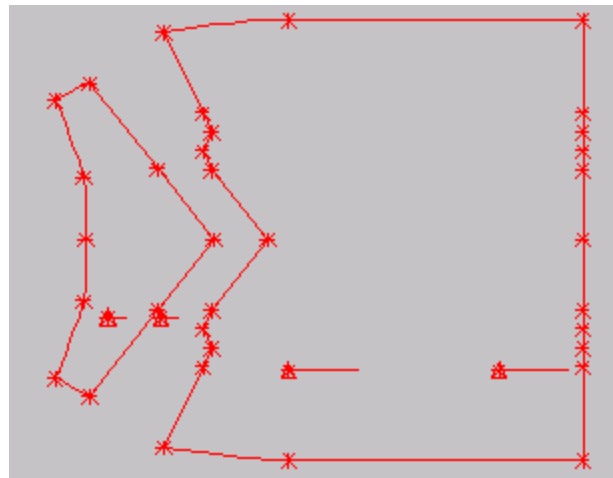The system generates the new pattern including the pleat.

SYMMETRY

This option allows mirror images of pieces to be made any axis, creates facing.
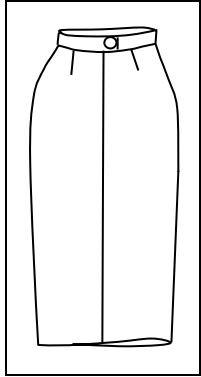Choose the menu option *'Mirror'*
-Select the first (**3**) and last points (**4**) of the line you wish the pattern to mirror on.

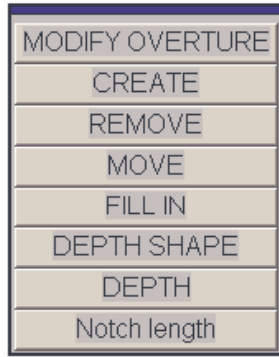The pattern will open automatically as a mirror image.

# Procedure of back piece

Skirt with Yoke (Saddle) and box pleat

DARTS

MODIFY OVERTURE
CREATE
REMOVE
MOVE
FILL IN
DEPTH SHAPE
DEPTH
Notch length

This option allows you to create, move and delete darts on a pattern.

Fill in the „V" of the dart
Click the option *'Fill in'*
Click on the points (**1,2,3**).
The new pattern with the dart filled in is attached to the mouse cursor.

Basic back piece
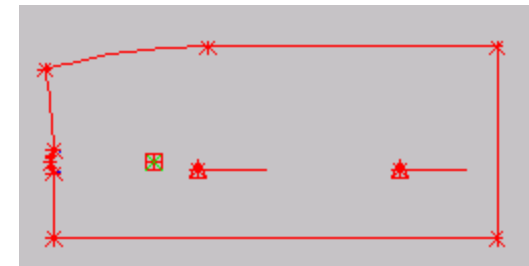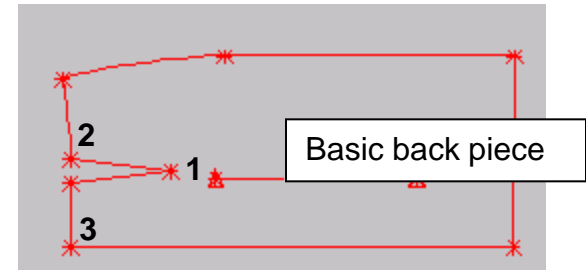
Procedure of Straight Waistband

SHAPE

This option allows the creation of rectangles/squares by either definite measurement, or simply by eye.

- Click the option *Measures*, and write the relevant lengths and width into the X and Y boxes.
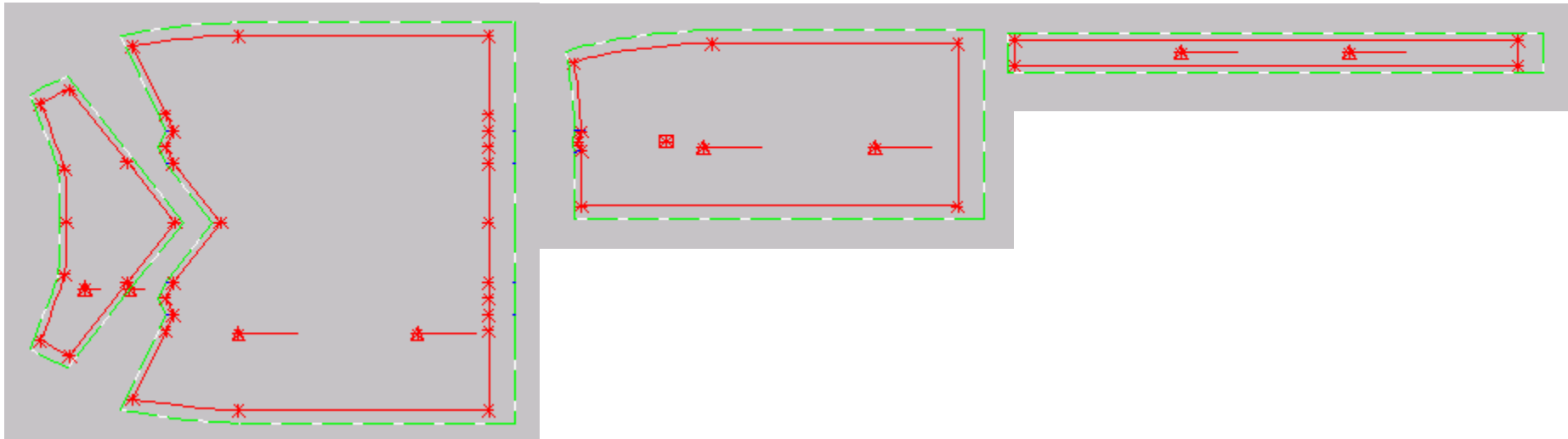
- To create the rectangle on screen

SEAM ALLOWACES   This option is used to add or remove seam allowances to / from patterns.

Click the option *'OFFSET'*. Coose the menu option Value, use this option to place a different seam allowance on each line of the pattern.

Save piece and Create Style
– a menu appears with options to create style
– the pieces that need to be put together in the style can be selected

LAYING BY COMPUTER

MARKER MANAGER

Once the styles for the different type of fabrics are created the marker can also be created. A marker is composed with styles and/or pieces that have to be cut out of the same.

The parameters necessary to create the marker:

Fabric width

The fabric width can be introduced by typing the value or by selecting it from the list created in software.

Safety distance

The safety distance is the distance that will be applied between the pieces in the marker for a better cutting quality. The distance has to be introduced for X and Y. The distance will only be applied between pieces that have the safety distance parameter activated in the style.

Spreading

This icon is used to define the spreading type for the marker. Each spreading defines the way the different layers are placed one on top of the other. The different spreading types are: S = Simple spreading, all layers are placed in the same X and Y direction.

The program **LECTRA Marka -** system manages the markers. The pieces that have to be cut in certain materials are nested in a rectangle that has the width of the fabric. The pieces are placed as efficient as possible. The marker will be cut manually or automatically on several layers of fabric.

- rotates a piece clockwise per degree.
- rotates a piece clockwise per 45°.
- symmetry over the X axis.
- symmetry over the Y axis.