

USER GUIDE



V6

Digitizer Manager

Version 6



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PAD System™ Digitizer Manager 6.0

Digitizer Manager

PAD System™ Digitizer Manager Product allows you to handle digitized files. After digitized pattern files can send to Pattern Design for pattern modification or pattern grading by local network. And Digitizer Manager will temporary save all of digitized files in their own station until these files are taken by Pattern Design users. Digitizer Manager allows user to digitize pieces without interruption. Most importantly, Pattern Design users are able to take files anytime without affecting the operation of Digitizer Manager Application.

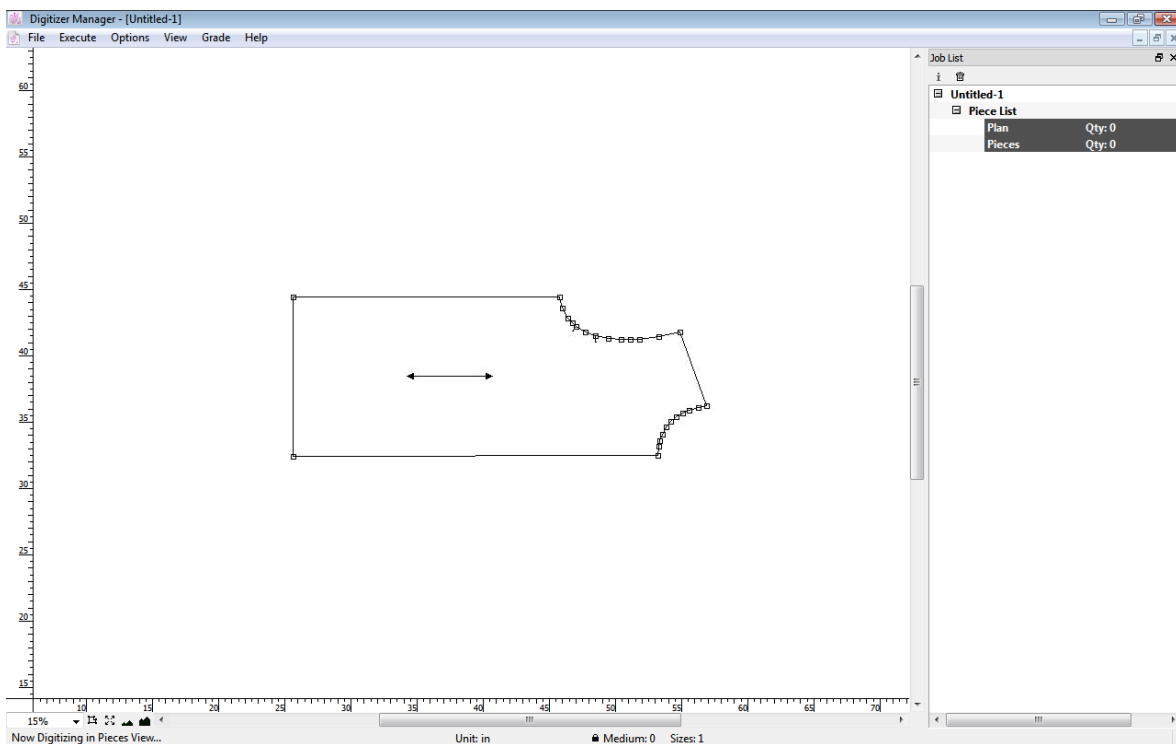


Chapter 1

The Digitizer Manager Basics

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Working Area Interface



The working area shows pieces and floating windows in the Digitizer Manager Program.

The *Job List* window shows on the working area, visible or not. The *Info bar* is located at the bottom of the window.

The Info bar displays:

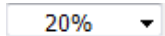
- ◆ Default Unit
- ◆ Given Medium Size
- ◆ Quantity of sizes in grading nest
- ◆ Cursor position on the working area
- ◆ Job Status
- ◆ Number of users connecting



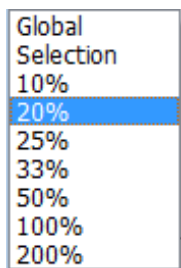
Zoom Menu



In the lower left-hand corner of the main application window, five buttons allow you to use different Zoom views.



The *Zoom* menu button allows you to control the zoom level. You can select a pre-set zoom percentage or enter a specific zoom percentage. By default, the zoom level is set to 15% on every new file opened.



To use this tool, simply click the appropriate pre-set zoom value. You can enlarge size from 0.5% up to 2000%. The *Global View* item displays all the visible pattern pieces in the working area.



The *Zoom on selection* shows selected piece(s) in the center of the window.

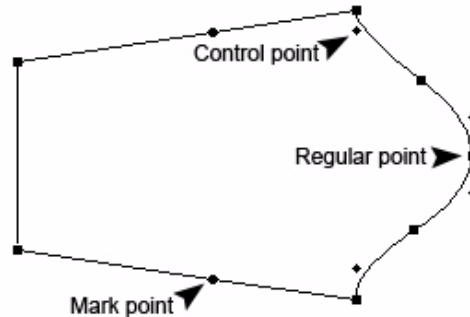


The *Global View* button displays all the visible pattern pieces in the working area.



The *Zoom Out* and *Zoom In* buttons allow you to select preset view levels of 200%, 100%, 50%, 33%, 25%, 20%, 10%, 8%, 6%, 5%, 4% , 3%, 2%, 1% or 0.5%.

Types of Points



Points define both the contour and the inner indications of a pattern. PAD System™ uses three types of points:

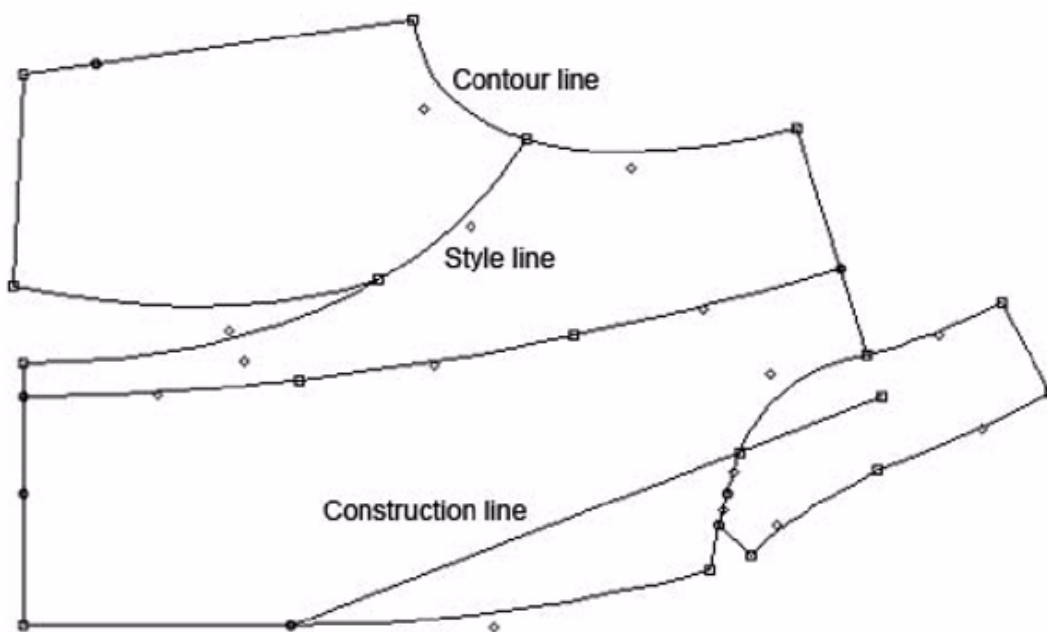
- **Regular point:** This type of point appears at the beginning and at the end of a segment. The system reads a segment from one Regular point to the next Regular point, including all points between the two ends. Regular points are added when working on the pattern piece.
- **Mark point:** Mark points are added to the contour of a pattern piece, by using either the *Add Point to Segment* or *Point* tool.
- ◆ **Control point:** These points pull on the segment to hold your curve. They are based on the Bezier curve principle.

Other point characteristics can identify *Notches*, *Punch Holes*, *User's Notches*, *User's Punch Holes*, *Matching Point*, *Start Point*, *Lift and Plunge*, *Symmetrical Start/End Point*, *Internal Start Point*. You can select these point characteristics using the *Point characteristics* dialog box or the *Points and Notches* option in the Pattern program.

Segments

A segment can be one of three things:

- ◆ A polygon contour
- ◆ A style line, or
- ◆ A construction line between two points inside or outside a shape



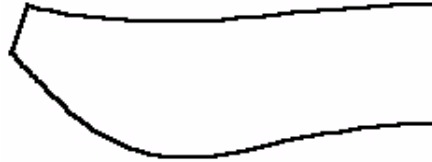
A segment is considered as a construction line if it does not define any element of the pattern but is used as a guide for development.

Many different functions can be applied to a segment. You can access information on Segment Length and Segment Angle using the *Plan View* or *Piece View* Toolbox / Toolbar in the Pattern Program.

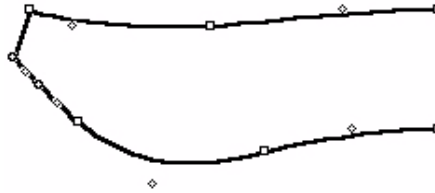
Selection and Activation

To select an entire piece, click it using your mouse and the pointer tool.

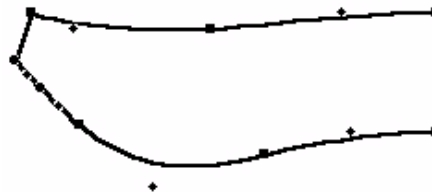
No points are visible:
The piece is not activated.



White points are visible:
The piece is activated under the digitize process.



Black points are visible:
The piece is selected.
Click the mouse on any segment to select the piece.





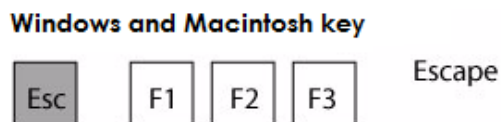
Keyboard Selection

To make a keyboard selection, press the left mouse button (Windows/Linux) / the mouse button (Macintosh) along with one of the following keys:

The **Shift** key (Windows, Macintosh and Linux) to select more than one element



The **Esc** key (Windows, Linux and Macintosh) to activate the *Cancel* button in any dialog box.

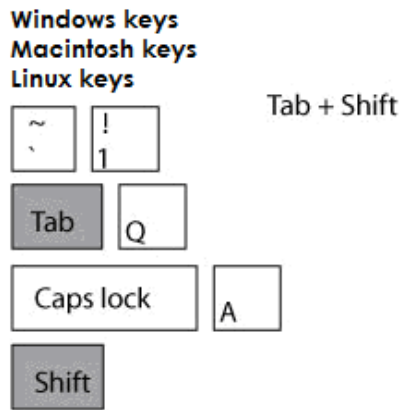


The **Tab** key to go from one field or button to another in a dialog box.





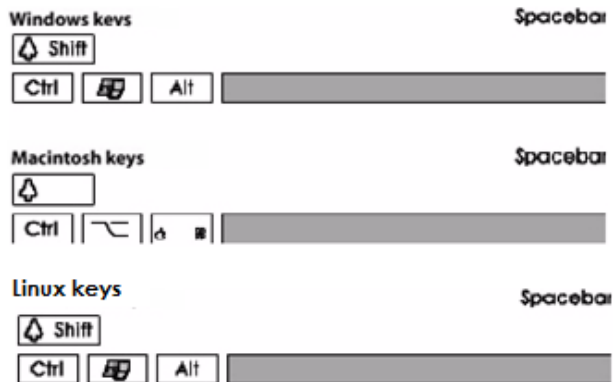
Hold down the **Shift** key and press the **Tab** key to move to the previous box.



Click a text box to activate it. Double-click it to select all the information it contains.

To scroll the view of the working area:

Press and hold the **Space** bar (Windows, Macintosh and Linux).

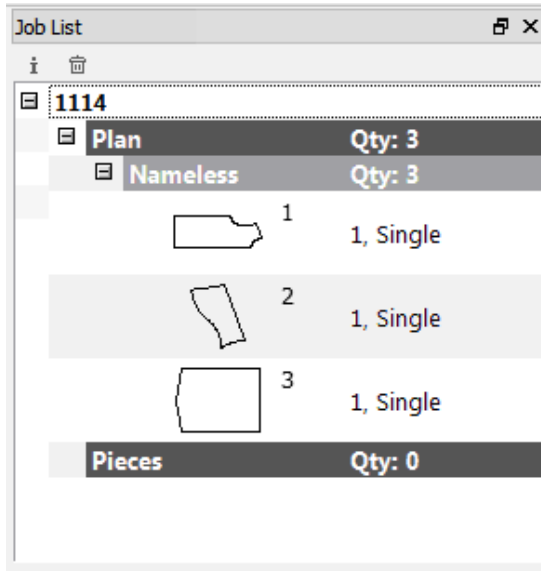


A hand icon appears:



Hold down the left mouse button (Windows) / the mouse button (Macintosh) and move up, down, left, right.

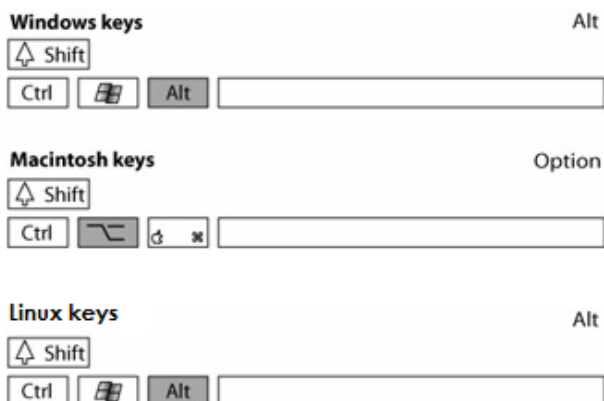
Job List



The *Job List* window shows the pieces on the working area.

The minus sign  and plus sign  allow hiding or displaying the full list.

To open a subjacent menu, click the +/- symbol. Press and hold the **Alt** (Windows) / **Option** (Macintosh) / **Alt +Windows** keys (Linux) and click the + or - sign to open or close the entire section (all the subjacent menus and elements) with a single click.



Use the two task buttons located at the top of *Job List* window to modify piece info in Job List.

Job List Buttons



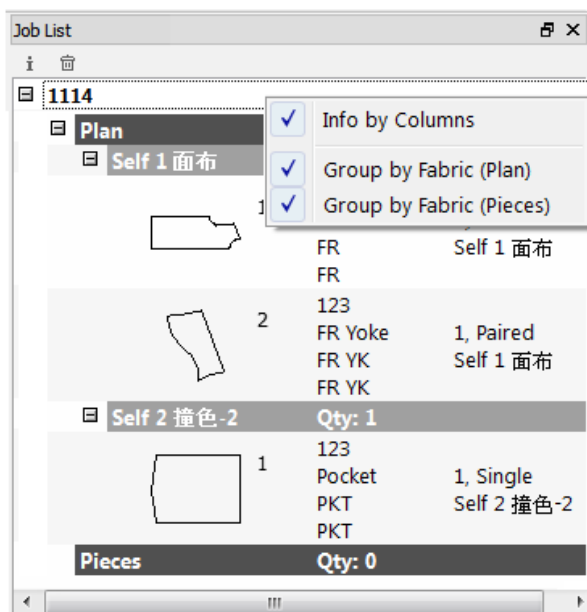
Click this button to display the *Piece Info* dialog box. Alternatively, user can double-click a piece to get the *Piece Info* dialog box.



Choose this button to *Delete* the selected piece(s). A dialog box asks whether you really want to delete your selection. Select *Continue* if yes, otherwise select *Cancel* to stop.

Customizing your Job List with Contextual Menu

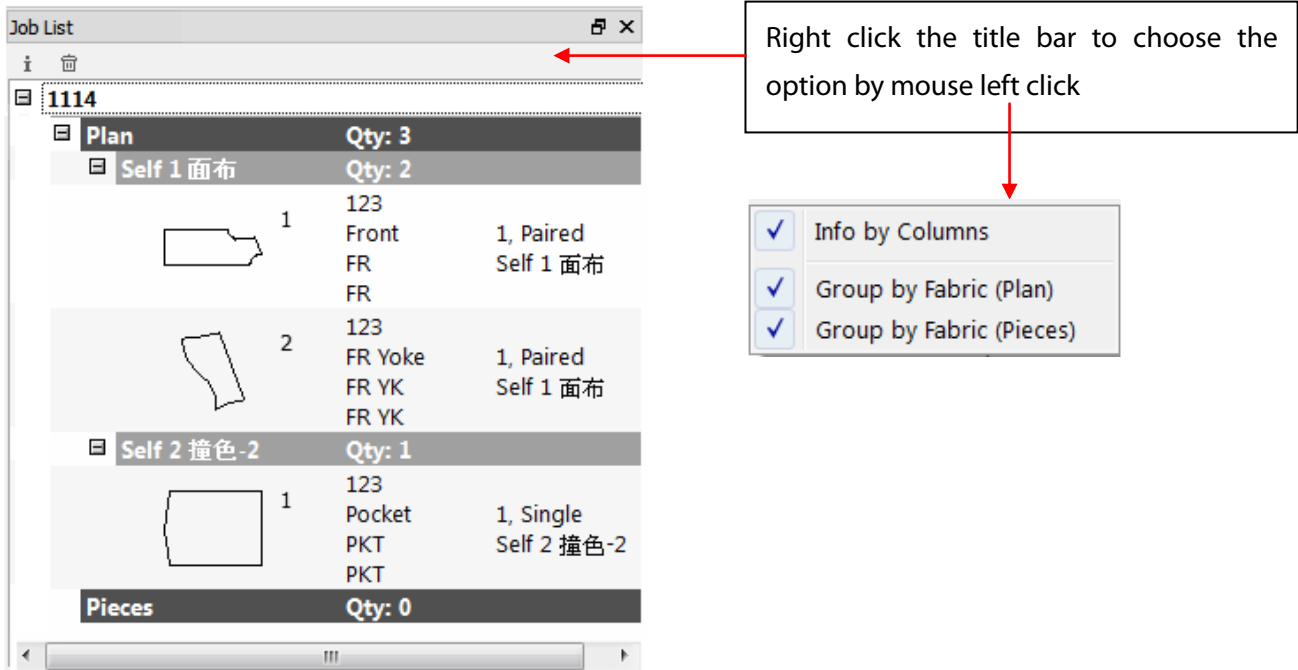
To obtain contextual menu, right click the mouse button on the Job List button bar. This enables you to customize the way you view the piece information.



Check on the item of the contextual menu to sort the pieces or change the way you view the information in the list.

Piece information: By Columns

By checking the *Info by Columns* Option on the title bar, user views piece information arranged in vertical columns.

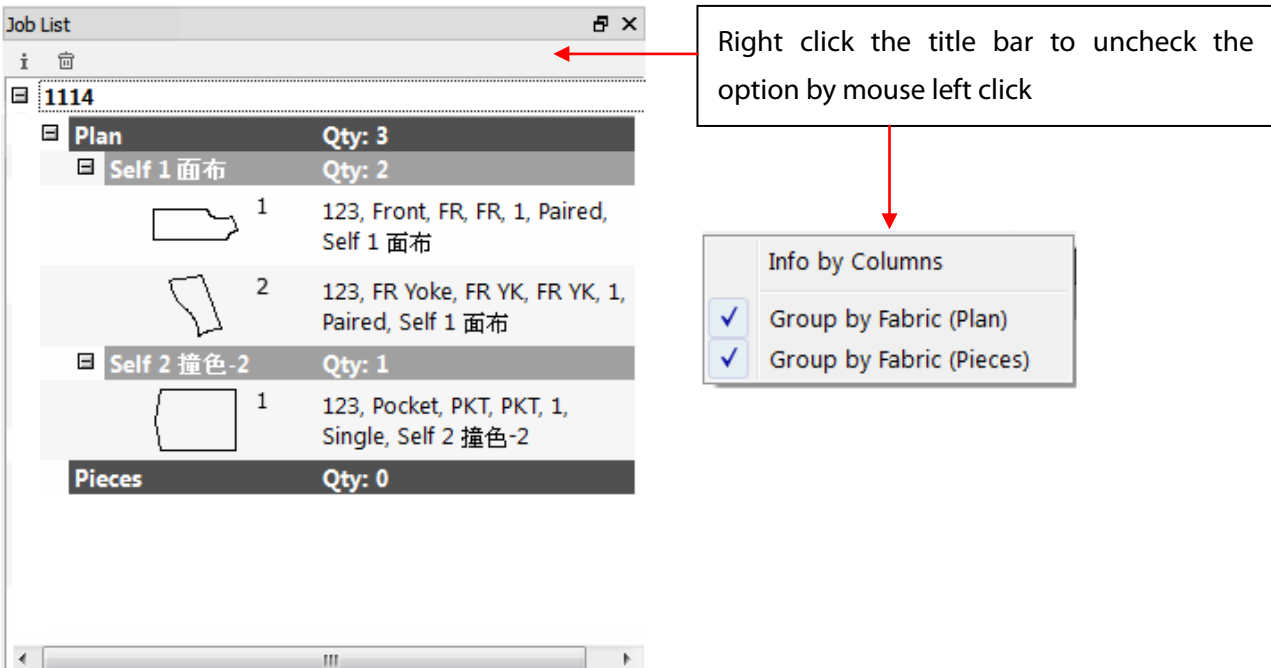


Right click the title bar to choose the option by mouse left click

1114	
Plan	Qty: 3
Self 1 面布	Qty: 2
1	123 Front 1, Paired FR Self 1 面布 FR
2	123 FR Yoke 1, Paired FR YK Self 1 面布 FR YK
Self 2 撞色-2	Qty: 1
1	123 Pocket 1, Single PKT Self 2 撞色-2 PKT
Pieces	Qty: 0

- Info by Columns
- Group by Fabric (Plan)
- Group by Fabric (Pieces)

By un-checking the *Info by Columns*, user can view piece information in comma separated rows.



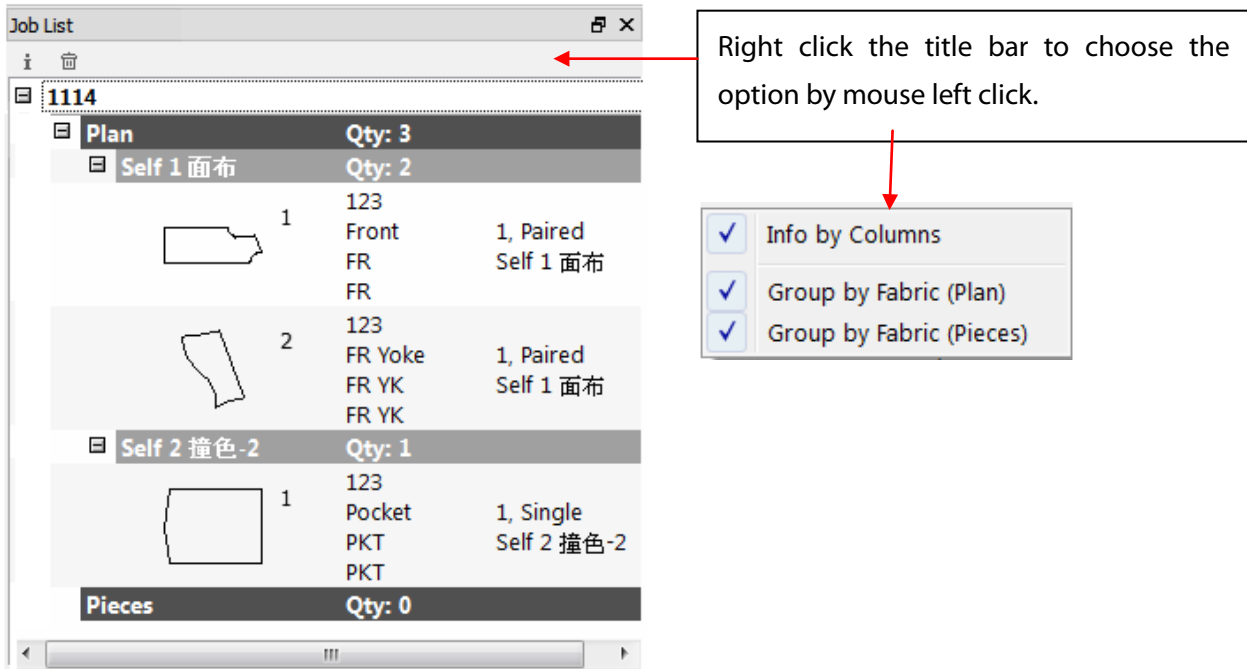
Right click the title bar to uncheck the option by mouse left click

1114	
Plan	Qty: 3
Self 1 面布	Qty: 2
1	123, Front, FR, FR, 1, Paired, Self 1 面布
2	123, FR Yoke, FR YK, FR YK, 1, Paired, Self 1 面布
Self 2 撞色-2	Qty: 1
1	123, Pocket, PKT, PKT, 1, Single, Self 2 撞色-2
Pieces	Qty: 0

- Info by Columns
- Group by Fabric (Plan)
- Group by Fabric (Pieces)

Job List style: Group by Fabric (Plan)

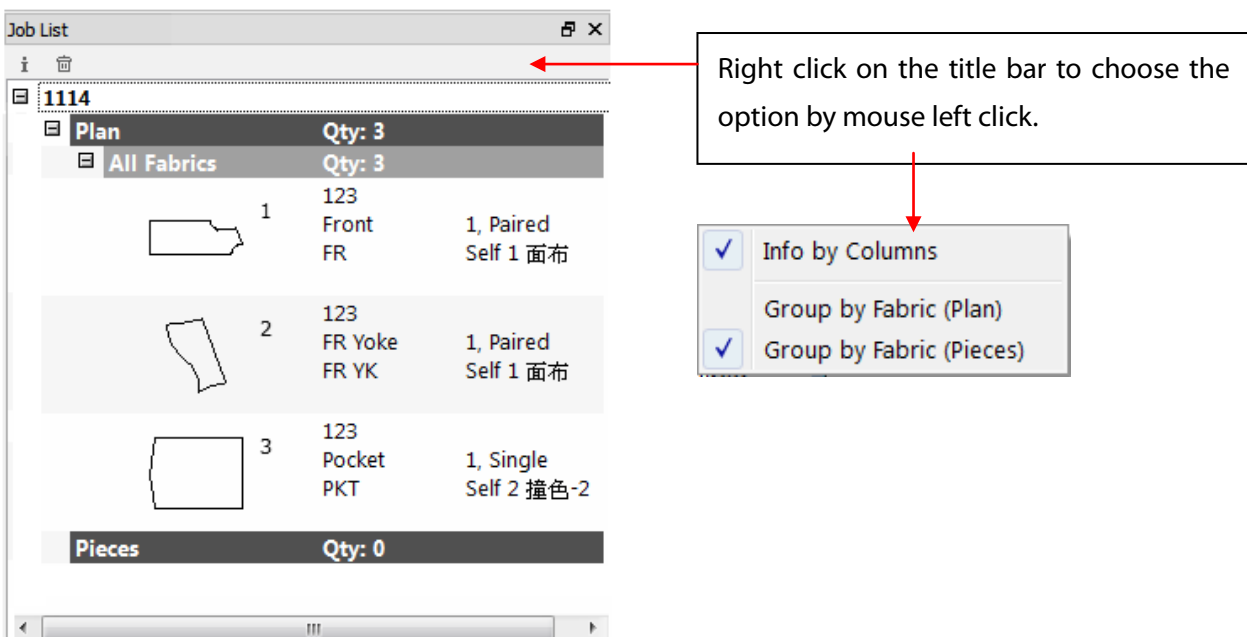
By checking *Group by Fabric (Plan)*, user can view the pieces listed one by one in the *Job List*, instead of grouped according to the fabric type.



Right click the title bar to choose the option by mouse left click.

1114	
Plan	Qty: 3
Self 1 面布	Qty: 2
1	123 Front 1, Paired Self 1 面布
2	123 FR Yoke 1, Paired Self 1 面布
FR	FR
FR YK	FR YK
Self 2 撞色-2	Qty: 1
1	123 Pocket 1, Single Self 2 撞色-2
PKT	PKT
PKT	PKT
Pieces	Qty: 0

By un-checking *Group by Fabric (Plan)*, user can view the pieces listed according to the fabric type.

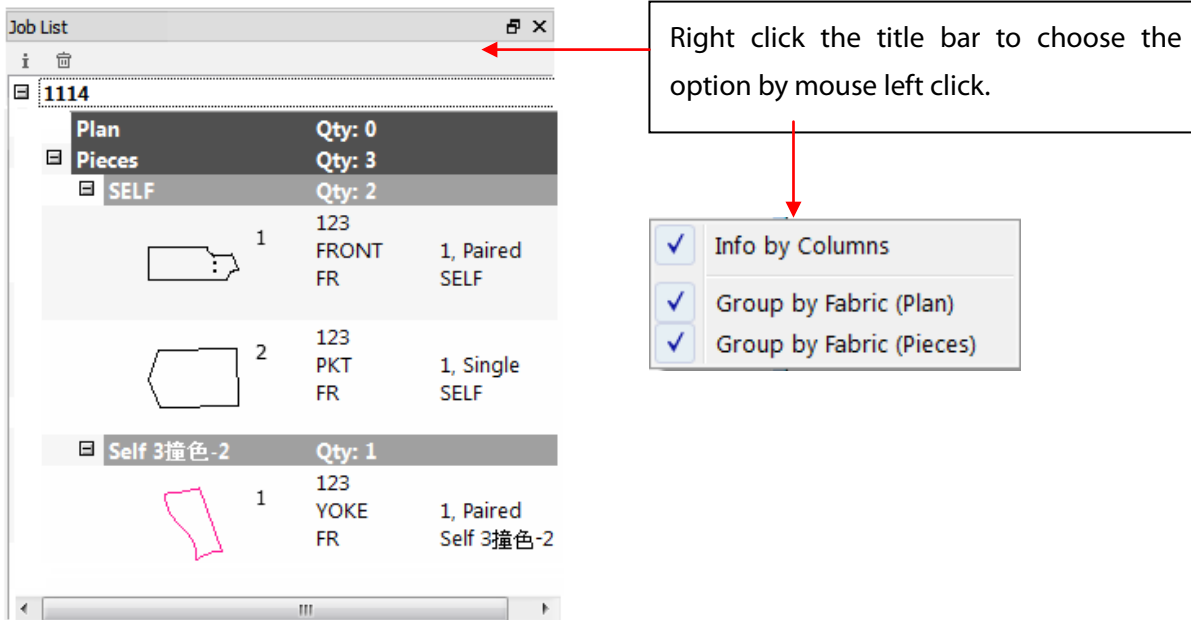


Right click on the title bar to choose the option by mouse left click.

1114	
Plan	Qty: 3
All Fabrics	Qty: 3
1	123 Front 1, Paired Self 1 面布
2	123 FR Yoke 1, Paired Self 1 面布
FR	FR
FR YK	FR YK
3	123 Pocket 1, Single Self 2 撞色-2
PKT	PKT
PKT	PKT
Pieces	Qty: 0

Job List style: Group by Fabric (Pieces)

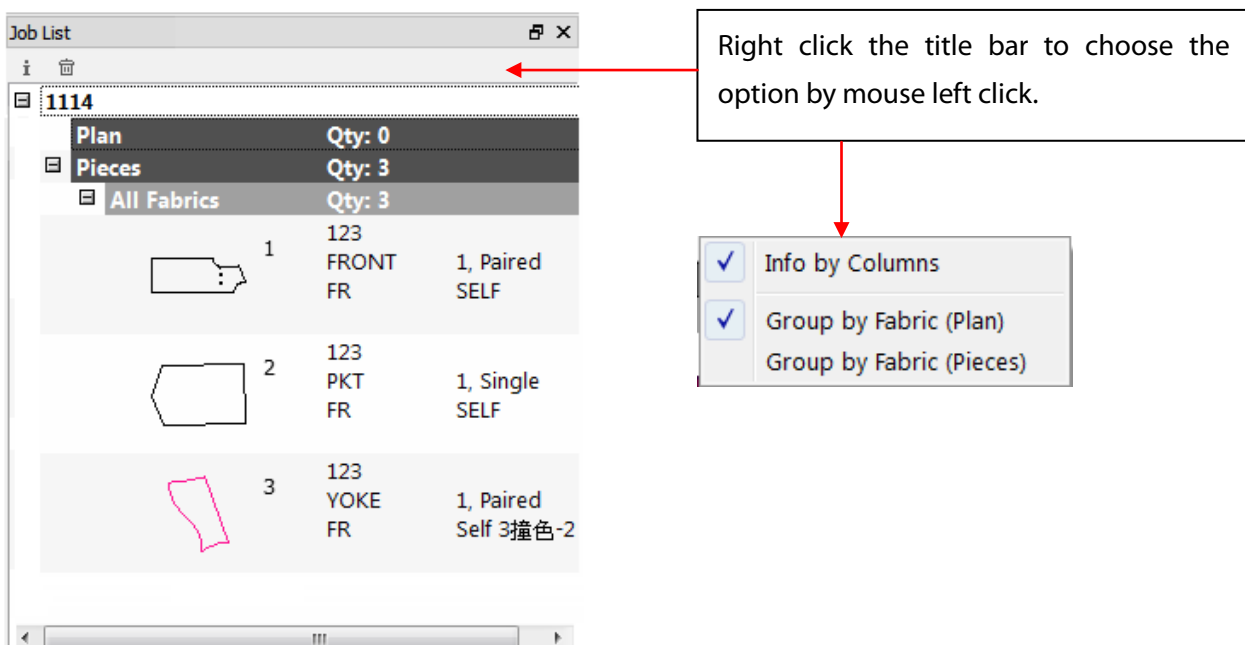
By selecting *Group by Fabric (Pieces)*, you can view the pieces listed one by one in the *Job List*, instead of grouped according to fabric.



Right click the title bar to choose the option by mouse left click.

Plan	Qty: 0
Pieces	Qty: 3
SELF	Qty: 2
1	123 FRONT FR 1, Paired SELF
2	123 PKT FR 1, Single SELF
Self 3撞色-2	Qty: 1
1	123 YOKE FR 1, Paired Self 3撞色-2

By un-checking *Group by Fabric (Pieces)*, you can view the pieces listed according to fabric type.



Right click the title bar to choose the option by mouse left click.

Plan	Qty: 0
Pieces	Qty: 3
All Fabrics	Qty: 3
1	123 FRONT FR 1, Paired SELF
2	123 PKT FR 1, Single SELF
3	123 YOKE FR 1, Paired Self 3撞色-2

You can select both *Group by Fabric (Plan)* and *Group by Fabric (Pieces)*.

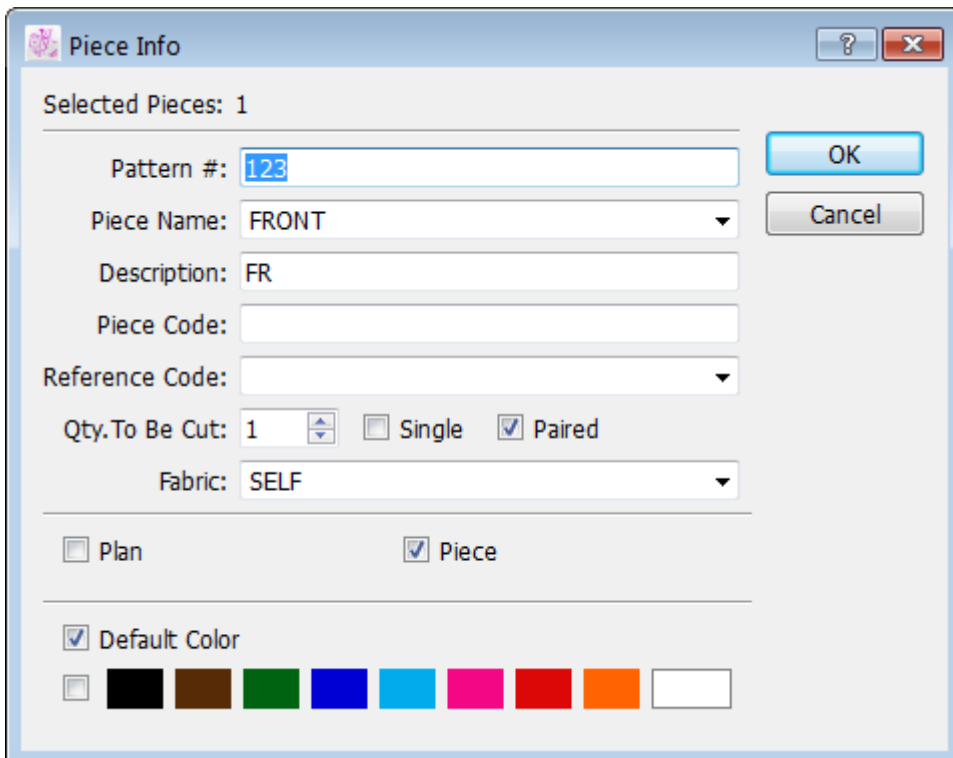
Piece Info

The *Piece Info* allows user to view or edit information on the selected piece(s).

User can access this dialog box via the *Piece Information* function on the *Job List* window by pressing the button or double click the selected piece by mouse.

To get the info of a piece:

1. Activate the piece to get info.
2. Click the *Piece Information* button in the *Job List* window. The Piece Info dialog box appears as below.



The screenshot shows the 'Piece Info' dialog box with the following fields and options:

- Selected Pieces:** 1
- Pattern #:** 123
- Piece Name:** FRONT
- Description:** FR
- Piece Code:** (empty)
- Reference Code:** (empty)
- Qty. To Be Cut:** 1
- Single:**
- Paired:**
- Fabric:** SELF
- Plan:**
- Piece:**
- Default Color:**
- Color Selection:** A row of color swatches: black, brown, green, blue, cyan, magenta, red, orange, and white.

The **first section** in the dialog box indicates the number of selected pieces.

The **second section** is the piece identification. It shows piece information appearing on the piece.

- ◆ **Pattern #:** The style number.
- ◆ **Piece Name:** The piece name, which can be selected from a predefined list in the Piece Name List... dialog box.
- ◆ **Description:** Additional information describing the piece.
- ◆ **Piece Code:** Indicates the need for special piece treatment or any additional information.
- ◆ **Reference Code:** An identification code for the piece or any additional information that can be selected from a predefined list in the *Option* menu -> *Reference Code List...* by clicking the pop-up menu that has the shape of a triangle next to the text field.
- ◆ **Quantity to Be Cut:** The quantity of pieces needed for a complete garment. *Single* means a right-side-up piece and *Paired* means two pieces: a left piece and a right piece.
- ◆ **Fabric:** Identifies a fabric for a given piece or group of pieces, which can be selected from a predefined list in the *Options* menu - *Fabric List* by clicking the pop-up menu that has the shape of a triangle next to the text field. If a color code is given, the piece changes/adds color automatically.

The **third section** allows user to identify or determine whether the piece is in Plan View or Pieces View.

- ◆ **Plan:** Indicates that a pattern piece is in *Plan* View.
- ◆ **Piece:** Indicates that a pattern piece is in *Pieces* View. Pieces in Pieces View appear in PAD System Marker modules.

The **fourth section** allows user to assign a color to the piece, providing better visual identification of the piece on the current working area or when making future modifications. If the color of the fabric has been preset in the *Options* menu > *Fabric List*, the *OK* button will not be available.



Default Hot Keys

Hot Keys enhance the speed and efficiency of your work.

Digitizer Manager offers some preconfigured Hot Key shortcuts that enable user to carry out routine tasks using one, two, or three-key combinations.

The following Hot Key combinations are pre-set in your Digitizer Manager application:

Function	Windows / Linux	Macintosh
File: Quit	Ctrl+Q	Ctrl+Q



Chapter 2

Menu Bar

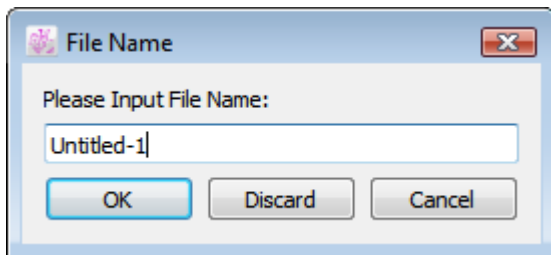
•••••

File Menu

File Menu: Quit

The *Quit* in *File* menu allows user to quit the application.

If there are unsaved modifications done to the file, a dialog box appears:



Input the file name to the text box and press *OK* button to validate.

Discard: Closes the program without saving, regardless of any change made to the file.

Cancel: Returns to the application for edition.



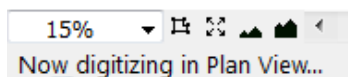
Execute Menu

Execute Menu: Start / Stop

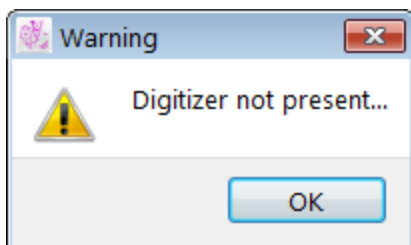
The *Start / Stop* item in the *Execute* menu is used to digitize pattern shapes using a digitizer. For the best possible viewing area, set the digitizing at a zoom level of 15%. User can see the current zoom level in the lower left area of the windows.

To digitize pattern pieces:

1. Select *Start* in the *Execute* menu.
2. Start digitizing when the cursor changes to Plus sign. When the digitizer is online, the info bar displays "Now digitizing in Plan View".



If no digitizer was found, an error message shows up.



Verify your connection and settings in the *Option -> Device Configurations...*

To stop pattern digitizing:

Once you start to digitize pattern pieces. The *Start* item will change to *Stop*. You can press *Stop* item to end the digitizing process. And then you can go to the Job List to change the Piece Information of the pattern pieces.



Selecting a Digitizer: 4- or 16- Button Puck or Digipen

When using a PAD System digitizer, user can connect to the digit table a puck with either four or sixteen buttons, or the Digipen.

The *4-button puck* and the *Digi-Pen* are used to input basic information on the pattern pieces: straight lines, curved lines, internal reference notches, punch holes and grain lines.

The *16-button puck* is used to input basic information on the pattern pieces as well as other necessary information, such as: grain lines, grading evolutions (according to a grading library or a preset grading nest), internal references (punch holes, pocket lines) or a complete construction plan with style lines.

To select the proper setting for the digitizing puck, go to the *Options* menu, select *Device Configurations...*

This opens the *Digitizer* dialog box. You are asked to choose between the *4- or 16-button digitizer* or the *Algotex Digi-Pen 4*. You can select from a list of commercial digitizers compatible with PAD System.

All digitizing methods begin the same way:

1. The digit table must be turned on and connected to working station.
2. Select the digitizer in the *Option > Device Configurations... > Digitizer* dialog box, which can be the 4-button, 4-button with extended capabilities, 16-button or the Algotex Digi-Pen 4, follow the appropriate steps as described in the next sections.
3. To digitize pattern pieces in a new file, select *Start* from the *Execute menu*. A blank page appears and let you to digitize pieces to.



Digitizing with the 4-Button Puck (PAD System 4)

The 4-button puck is used to enter contour points and internal regular points on the pattern piece.

To select 4-button digitization, go to the *Options* menu, select *Device Configurations...*Select *PAD System 4* from the list of digitization options.

The four buttons on the puck allow you to enter different types of contour points and internal punch holes.

4-Button Puck button functions:

Button	Contour
1	Enter a regular contour point.
2	Enter a contour curve point. (Several #2 points can be made on a curve; the system calculates the exact curve.)
4*	Internal reference regular points.
8**	Enter other pattern pieces without returning to the screen.

Note:

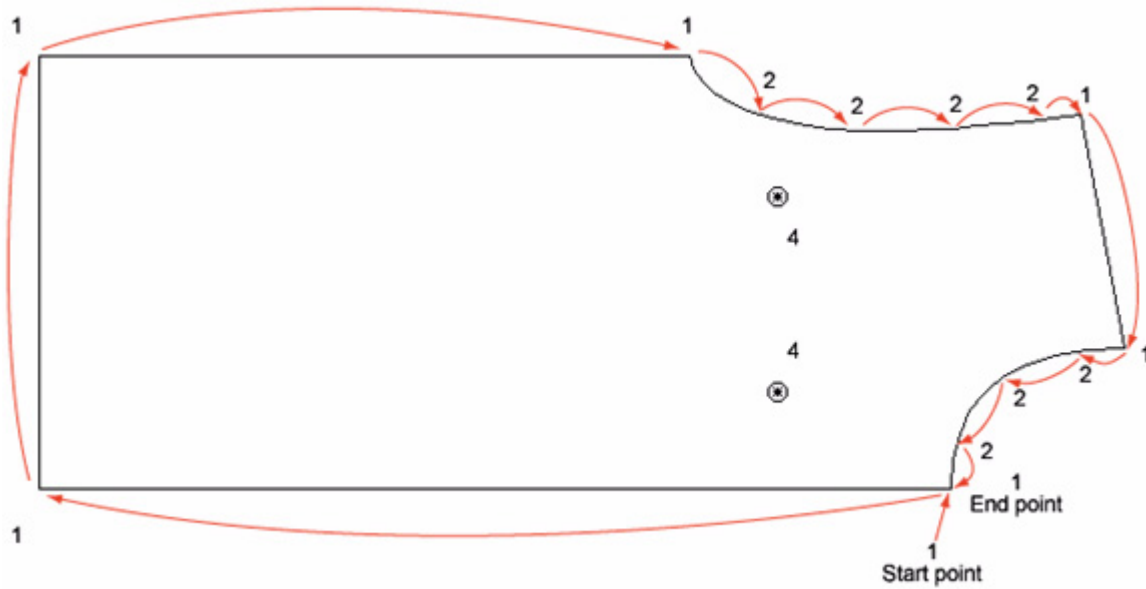
* On some digitizers, Button #4 may appear as Button #3.

** On some digitizers, Button #8 may appear as Button #4.

- On the GTCO Calcomp digitizer, Button #1 is the Yellow button, Button #2 is the White button, Button #3 is the Green button and Button #4 is the Blue button.

The Digitizer closes a polygon (pattern piece) when it reaches the first point digitized.

Digitizing a piece with the 4 Button:



To exit the Digitizer, select *Stop* in the Execute menu which allows user to end the digitizing process. Or click anywhere on the working area.



Digitizing using the 4-Button Puck with Extended Capabilities

To select *4-button digitization with extended capabilities*, go to the *Options* menu, select *Device Configurations....* Select *PAD System 4* from the list of digitization options and check the *Extended Capabilities (4 Buttons)* box.

4-button digitization with extended capabilities allows you to digitize contour points (such as curve points, regular points and default PAD System notches) plus internal references (such as style lines, pocket lines and punch holes).

Using extended capabilities to digitize contour points and external references. The four buttons on the puck allow you to enter different types of contour points and external references (see the next page for a similar chart on digitizing internal references).

4-Button Puck with Extended Capabilities Button Functions for the Perimeter of the Piece:

Button	Perimeter
1	Enter a regular contour point.
2	Enter a contour curve point (several #2 points can be made on a curve; the system calculates the exact curve).
4* + 1	Enter a single notch. Click on 4 * on the perimeter, click on 1 for the length and orientation of the notch.
4* + 2	Enter a double notch. Click on 4 * on the perimeter, click on 2 for the length and orientation of the notch.
4* + 4	Enter a V notch. Click on 4 * on the perimeter, click on on 4* for the length and orientation of the notch.
8*	Finish the contour. You are ready to enter the piece internal references.
8* + 8*	Finish with the piece and enter another pattern piece if you do not need any internal references for this piece.



Using extended capabilities to digitize internal references

The four buttons on the puck with extended capabilities allow you to enter different types of internal references once you have done with the perimeter (for example, punch holes and internal segments).

4-Button Puck with Extended Capabilities Button Functions for Internal References:

Button	Internal References
1	Enter a regular internal point or beginning of a segment regular point.
2	Enter an internal curve point (Several #2 points can be made on a curve; the system calculates the exact curve).
4* + 1	Enter an internal punch hole.
4* + 2	Enter an internal point ending a segment.
4* + 4*	Enter an internal punch hole ending a segment.
8**	To indicate that you are finished entering internal references and are ready to start another piece.

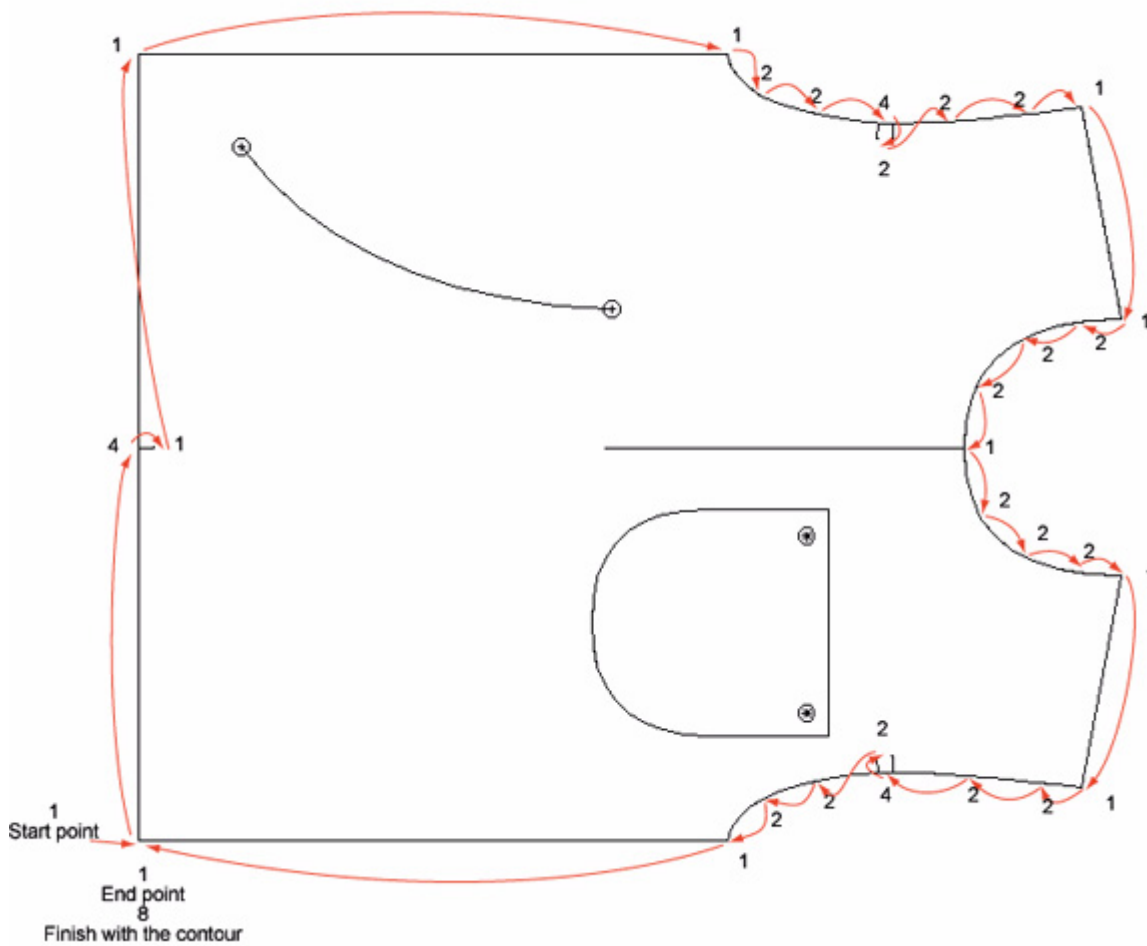
Note:

* On some digitizers, Button #4 may appear as Button #3.

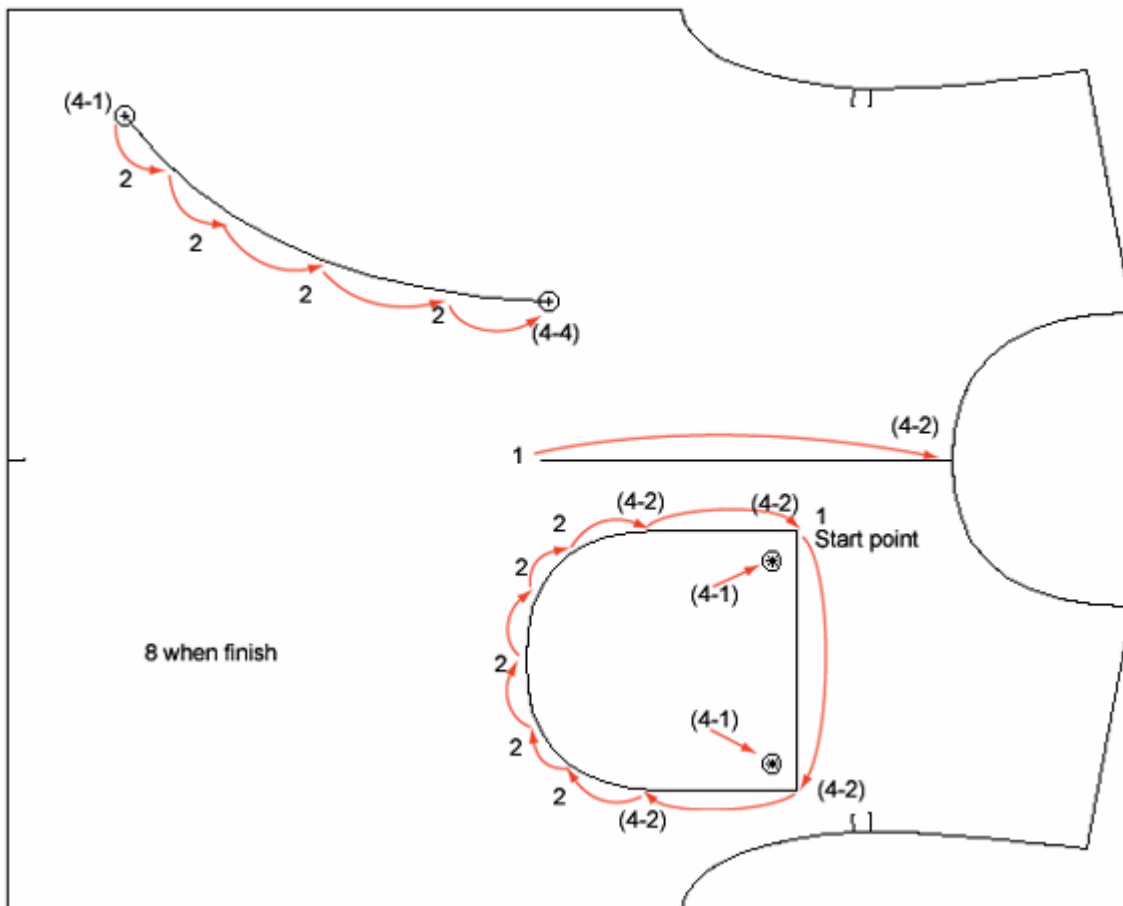
** On some digitizers, Button #8 may appear as Button #4.

- On the GTCO Calcomp digitizer, Button #1 is the Yellow button, Button #2 is the White button, Button #3 is the Green button and Button #4 is the Blue button.

Digitizing the perimeter of a piece with the 4-Button with extended capabilities:



Digitizing internal references of a piece with the 4-Button with extended capabilities:





Digitizing with the 16-Button Puck

Digitizing using the 16-button puck allows you to enter a precise information sequence on each point. By combining the information by letter (A, B, C, D, E and F) and number (0 to 9), you can digitize perimeter and contour attributes as well as internal references and their grading information.

The 16-Button Puck uses three major steps:

1. Grain line: Piece orientation
2. Perimeter points: Straight lines, curves, notches and grading evolution
3. Internal references: Style lines, pocket lines, internal lines (with straight lines, curve lines and punch holes), punch holes and grading evolutions.

Before you start digitizing, you must define your grade nest in the *Working Sizes* dialog box of the *Grade* menu.

Preparation to digitize pattern graded nests:

1. Nest (stack) your pattern pieces with all the sizes.
2. Tape them on the digitizing table so that they do not move.

On the computer:

1. In the *Options* menu, select *Device Configurations...* Select *PAD System 16 button* from the list of digitization options.
2. Select *Start* in the *Execute* menu to get a blank page.
3. Define your nest in *Working Sizes* of the *Grade* menu.
4. Reduce the size of the opened file to a zoom level of 20%.
5. Select the digitizing tool and click the lower left corner of your screen to synchronize the screen to your digit table (in the info bar, you should see "Now Digitizing in Plan View").



The function of each button and button combination for the 16-button puck:

Digitizing the Grain Line

Grain line	Buttons	Complete
Left point on the grain line	A	+ D
Right point on the grain line	A	+ D

Digitizing the Perimeter

Perimeter	Buttons	Combinations	Complete
Regular contour point	A	+ Grading evolution*	+ D
Curve point ***	B	+ Grading evolution*	+ D
V notch	C + 0	+ Grading evolution *	+ D
Single notch	C + 1	+ Grading evolution *	+ D
Double notch	C + 2	+ Grading evolution *	+ D
User's notch	C + 3	+ Notch number + Grading evolution	+ D
Repeat preceding entry	E		+ D
Erase preceding entry	F		
Close the shape perimeter	D		

Digitizing Internal References

Internal reference	Buttons	Combinations	Complete
Regular Internal point	A**	+ Grading evolution*	+ D
Internal Curve point***	B	+ Grading evolution*	+ D
Internal Punch hole	C + 0	+ Grading evolution*	+ D
Internal point ending a segment	C + 1	+ Grading evolution*	+ D
Internal Punch hole ending	C + 2	+ Grading evolution*	+ D
User's Punch hole	C + 3	+ Punch number + Grading evolution*	+ D
Repeat the preceding entry	E		+ D
Erase the preceding entry	F		
End of internal references and to close the shape	D		

Note:

* Grading evolution is optional.

** **A** Can be done on points that already exist.

*** Several **B** points can be made on a curve; the system calculates the exact curve for each size.

**** You must always press **D** to identify that you are done with the current point and ready to pass to the next step.

Digitizing/Grading Evolution

PAD System's 16-button puck allows you to enter a graded nest using the digitizing process. There are four methods that allow you to enter either a regular grading point or an irregular grading point. Select the one that best suits your needs for each point you digitize. All four methods can be applied on a pattern piece according to the grading you want to give to each digitized point.

Digitizing Grading Evolutions

Method	Grading	Button Combinations
00	Regular	<p>0 + 0 + A + A + A + A + D</p> <p>Description:</p> <p>0 + 0 Click Medium to identify the Regular method</p> <p>+ A Click the Biggest of the Large break</p> <p>+ A Click the Biggest of the X-Large break</p> <p>+ A Click the Smallest of the Small break</p> <p>+ A Click the Smallest of the X-Small break</p> <p>+ D When done with the point</p> <p><i>Note: the Break sizes must be entered in the following order: Medium, Biggest of Large break, Biggest of X-Large break, Smallest of Small break and Smallest of X-Small break.</i></p>
01	Irregular	<p>0 + 1 + A + A + A... on all sizes + D</p> <p>Description:</p> <p>0 + 1 Click Medium to identify the Irregular method</p> <p>+ A Click the Bigger size following the Medium</p> <p>+ A Click the next Bigger size. Do the same for all big sizes</p> <p>+ A ... Until you reach the Biggest size</p> <p>+ A Click the Smaller preceding the Medium</p> <p>+ A Click the next Smaller size. Do the same for all small sizes</p> <p>+ A ... Until you reach the Smallest size</p> <p>+ D When done with the point</p> <p><i>Note: the sizes must be entered in the following order: Medium, Larger sizes from Medium to the Largest size, the Smaller sizes from the Medium to the Smallest size.</i></p>



Method	Grading	Button Combinations
02	Progressive (Regular and Irregular)	<p>0 + 2 + D</p> <p>Description: 0 + 2 Click Medium to identify the Progressive method + D When done with the point</p> <p>The grading of this point is progressive (an average of the grading of the two closest graded points that are on each side of it becomes its grading).</p>
nn Grading library number	Using a Grading library (Regular and Irregular)	<p>1 to 999 + D</p> <p>Description: 1 to 999 Click Medium and enter # from Grading library + D When done with the point</p> <p># from Grading Library corresponds to the current opened library</p> <p><i>Note: The Grading Library has to be opened before starting the digit process. The first number cannot be 0.</i></p>

Note: When the point has been entered, you must always press **D** to identify that you are ready to get to the next point.

The 00 Method for Regular Grading

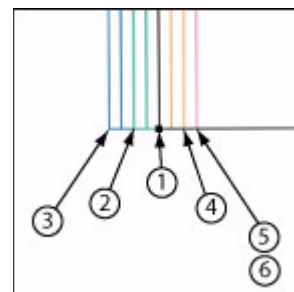
1. First, identify the type of point you want to digitize and enter the corresponding code (refer to the section about the function of each button and button combination for the 16-button puck) and select the appropriate code (i.e. A for a regular perimeter point or B for a curve perimeter point, etc...). Press the button of the Letter corresponding to the type of point.
2. Then 00 on the MEDIUM size to identify the regular grading method used for the point.
3. Then click the A button on each break in the following order:
 - ◆ A on the larger size of the Large group and on the larger size of the Extra-Large group.
 - ◆ A on the smallest size of the Small group and on the smallest size of the Extra- Small group.
4. Complete by clicking the D button to finish digitizing this graded point.

Note: If you intend to add internal information that is attached to the contour to the digitized piece, such as a style line, enter the information on the perimeter where it starts and finishes as you go around the piece.

Digitizing Perimeter Points Using the 00 Regular Method

For a regular point:

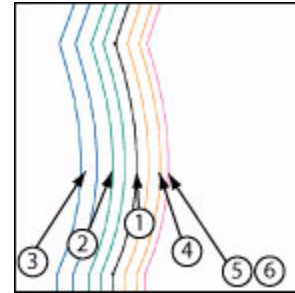
1. A + 00 on the Medium group.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



E + D re-applies the same rule to the next digitized point.

For a curve point:

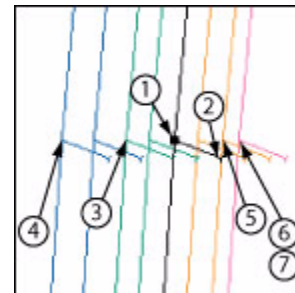
1. B + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



E + D re-applies the same rule to the next digitized point (many curve points may be graded in a row).

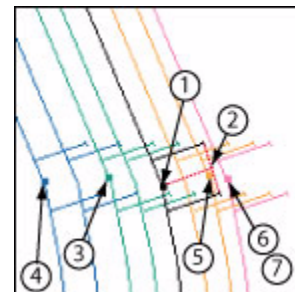
For a single notch:

1. C (on the perimeter) on the Medium
2. 1 (on the tip of the notch) + 00 on the Medium.
3. A on the larger size of the Large group.
4. A on the larger size of the Extra-Large group.
5. A on the smallest size of the Small group.
6. A on the smallest size of the Extra-Small group.
7. D before going to the notch.



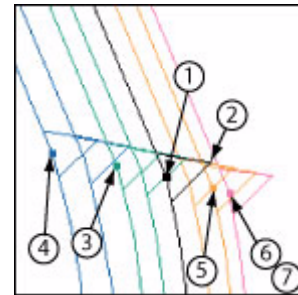
For a double notch:

1. C (on the perimeter) on the Medium.
2. 2 (on the tip of the notch) + 00 on the Medium.
3. A on the larger size of the Large group.
4. A on the larger size of the Extra-Large group.
5. A on the smallest size of the Small group.
6. A on the smallest size of the Extra-Small group.
7. D before going to the next point.



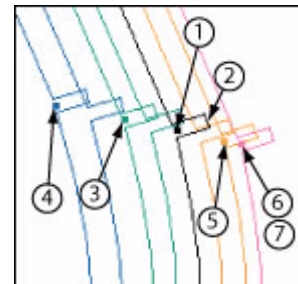
For a V notch:

1. C (on the perimeter)
2. 0 (on the tip of the notch) + 00 on the Medium
3. A on the larger size of the Large group.
4. A on the larger size of the Extra-Large group.
5. A on the smallest size of the Small group.
6. A on the smallest size of the Extra-Small group.
7. D before going to the next point.



For a User notch:

1. C (on the perimeter)
2. 3 (on the tip of the notch) + Number of the User notch (in the notch list) + 00 on the Medium
3. A on the larger size of the Large group.
4. A on the larger size of the Extra-Large group.
5. A on the smallest size of the Small group.
6. A on the smallest size of the Extra-Small group.
7. D before going to the next point.



Do not forget to indicate the direction of the notch when you enter it.

To do so:

1. Press C on the perimeter point.
2. Move inside the shape, on the tip of the notch, press 1, 2 or 0 according to the type of notch desired to identify its length and orientation.
3. Then identify the grading evolution: 00 for regular, 01 for irregular, 02 for progressive or enter the number from the library.

Select **F** to erase the preceding entry.

To close the shape to digitize internal information (style lines, punch holes, etc.):

Press **A + D + D** on the starting point.

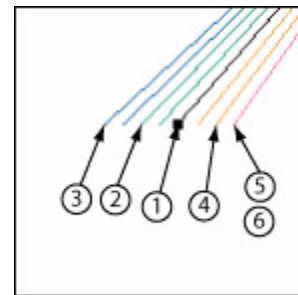
To close the shape and move on to another shape without digitizing internal information:

Press your last digitizing command and press **D** once more.

Digitizing Internal Reference Points Using the 00 Regular Method

For a regular point:

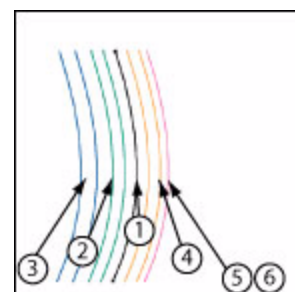
1. A + 00 on the Medium group.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



E + D re-applies the same rule to the next digitized point.

For a curve point:

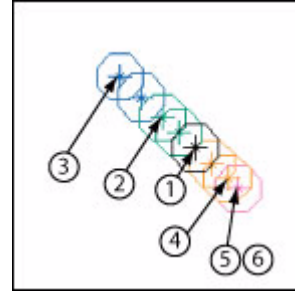
1. B + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



E + D re-applies the same rule to the next digitized point (many curve points may be graded in a row).

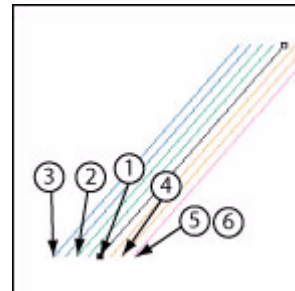
For an internal punch hole:

1. C + 0 + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



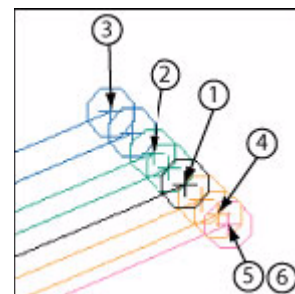
For an internal point ending a segment:

1. C + 1 + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



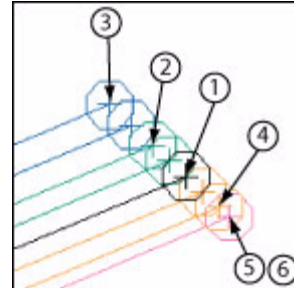
For an internal punch hole ending a segment:

1. C + 2 + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.



For an internal user's punch hole:

1. C + 3 + 00 on the Medium.
2. A on the larger size of the Large group.
3. A on the larger size of the Extra-Large group.
4. A on the smallest size of the Small group.
5. A on the smallest size of the Extra-Small group.
6. D before going to the next point.
Select **F** to erase the preceding entry.



To close the shape and move on to another shape:

Press the last digitizing command and press D once more.



The 01 Method for Irregular Grading

1. First, identify the type of point you want to digitize, enter the corresponding code (refer to the section about the function of each button and button combination for the 16-button puck) and select the appropriate code (i.e. A for a regular perimeter point or B for a curve perimeter point, etc...). Press the button of the Letter corresponding to the type of point.
2. Then 01 on the MEDIUM size to identify the irregular grading method used for the point.
3. Then click A on each break in the following order:
 - ◆ Always from the medium up; on all sizes
 - ◆ Then from the medium down; on all sizes
4. Complete by clicking D to finish digitizing this graded point.

If you intend to add internal information that is attached to the contour to the digitized piece, such as a style line, enter the information on the perimeter where it starts and finishes as you go around the piece.

Digitizing Perimeter Points Using the 01 Irregular Method

For a regular point:

1. A-01 on the medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

For a curve point:

1. B-01 on the medium
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.



For a single notch:

1. C (on the perimeter) on the medium.
2. (on the tip of the notch) - 01 on the medium
3. Then A on each size from the medium to the biggest size.
4. Then A on each size from the medium to the smallest size.
5. D before going to the next point.

For a double notch:

1. C (on the perimeter) on the medium.
2. 2 (on the tip of the notch) -01 on the medium
3. Then A on each size from the medium to the biggest size.
4. Then A on each size from the medium to the smallest size.
5. D before going to the next point.

For a V notch:

1. C (on the perimeter)
2. 0 (on the tip of the notch) + 01 on the Medium
3. Then A on each size from the medium to the biggest size.
4. Then A on each size from the medium to the smallest size.
5. D before going to the next point.

For a User notch:

1. C (on the perimeter)
2. 3 (on the tip of the notch) + Number of the User notch (in the notch list) + 01 on the Medium
3. Then A on each size from the medium to the biggest size.
4. Then A on each size from the medium to the smallest size.
5. D before going to the next point.

Do not forget to indicate the direction of the notch when you enter it.



To do so:

1. Press C on the perimeter point.
2. Move inside the shape, on the tip of the notch, press 1, 2 or 0 according to the type of notch desired to identify its length and orientation.
3. Then identify the grading evolution: 00 for regular, 01 for irregular, 02 for progressive or enter the number from the library.

Select **F** to erase the preceding entry.

To close the shape to digitize internal information (style lines, punch holes, etc.):

Press A + D + D on the starting point.

To close the shape and move on to another shape without digitizing internal information:

Press the last digitizing command and press D once more.

Digitizing Internal Reference Points Using the 01 Irregular Method

For a regular point:

1. A + 01 on the Medium group.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

E + D re-applies the same rule to the next digitized point.

For a curve point:

1. B + 01 on the Medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

E + D re-applies the same rule to the next digitized point.



For an internal punch hole:

1. C + 0 + 01 on the Medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

For an internal point ending a segment:

1. C + 1 + 01 on the Medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

For an internal punch hole ending a segment:

1. C + 2 + 01 on the Medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

For an internal user's punch hole:

1. C + 3 + 01 on the Medium.
2. Then A on each size from the medium to the biggest size.
3. Then A on each size from the medium to the smallest size.
4. D before going to the next point.

Select **F** to erase the preceding entry.

To close the shape and move on to another shape:

Press the last digitizing command and press D once more.



The 02 Method for Progressive Grading

1. First, identify the type of point you want to digitize and enter the corresponding code (refer to the section about the function of each button and button combination for the 16-button puck) and select the appropriate code (i.e. A for a regular perimeter point or B for a curve perimeter point, etc...). Press the button of the Letter corresponding to the type of point.
2. Then 02 on the position of the point (MEDIUM size if digitizing from a nest) to identify the progressive grading method used for the point. The grading applied to this point is proportional to its position and the closest graded points on each side of it no matter what type of grading method was used for them (not graded, regular grading, irregular grading, grading from a library). You have several progressive points digitized in a row.
3. Complete by clicking the D button to finish digitizing this graded point.

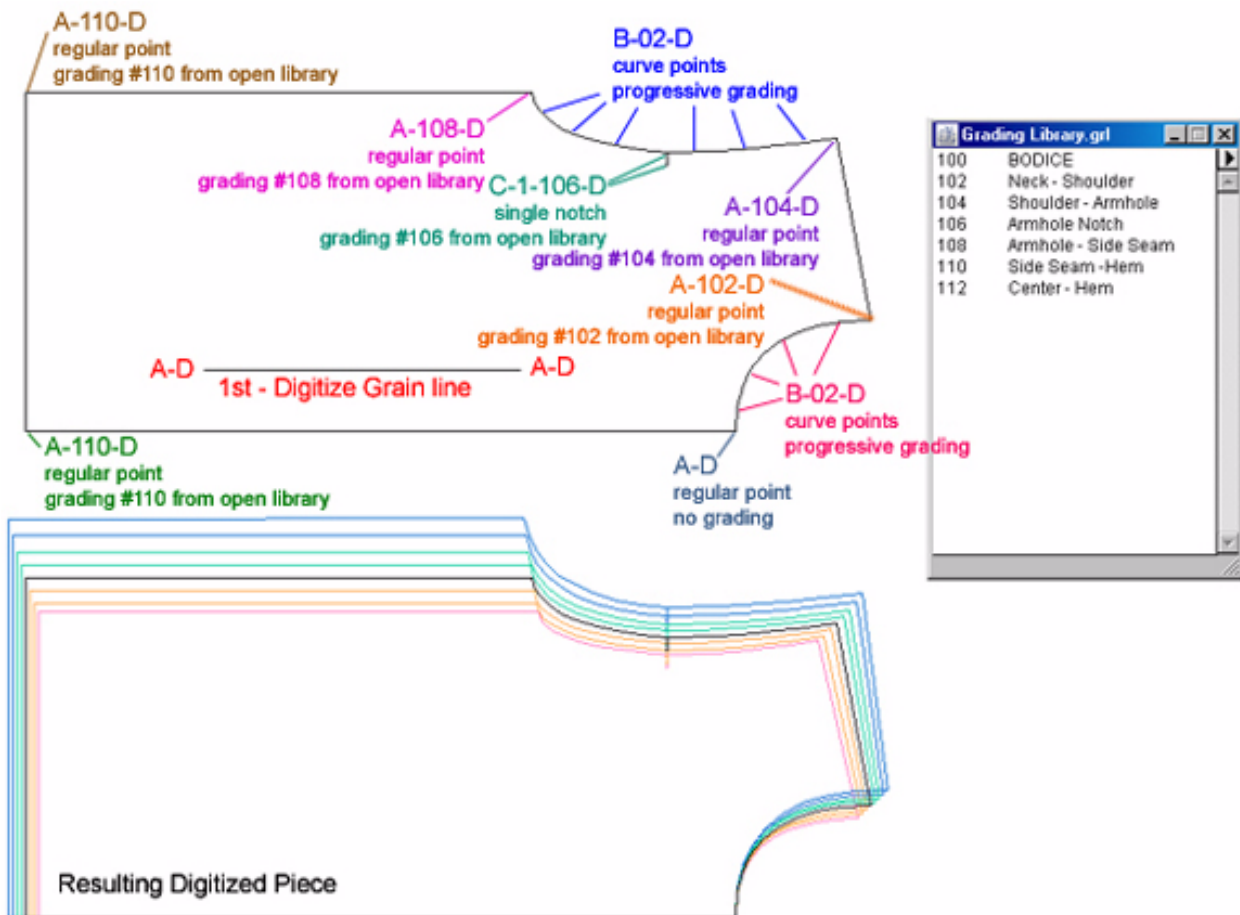
Note: See the nn Method for Progressive Grading for an example of the 02 Method for Progressive Grading.

The nn Method Grading from the Open Grading Library

Note: To use this method, the Grading library has to be opened before starting the digit process.

4. First, identify the type of point you want to digitize and enter the corresponding code (refer to the section about the function of each button and button combination for the 16-button puck) and select the appropriate code (i.e. A for a regular perimeter point or B for a curve perimeter point, etc...). Press the button of the Letter corresponding to the type of point.
5. Then enter the number of the Grading Library reference (from 1 to 999) you want to apply on the position of the point (MEDIUM size if digitizing from a nest). The grading applied to this point is the one corresponding to the number in the open library. The library number cannot start with 0, it has to be from 1 to 999.
6. Complete by clicking D to finish digitizing this graded point.

Example:





Digitizing with the Digi-Pen (Algotex Digi-Pen 4)

The Digi-Pen is used to enter contour points and internal references on the pattern piece.

To use the Digi-Pen digitizer, go to the *Options* menu, select *Device Configurations...* Choose *Algotex Digi-Pen 4* from the list of compatible digitizers.

Before starting the digitizing process, purge the Digi-Pen of any information it may contain. Firstly, select *Digitize* tool in the Pattern application. Secondly, press with the tip of pen, on the **End Process** button in the bottom-right corner of Algotex paper. Finally, put the pen in its holder.

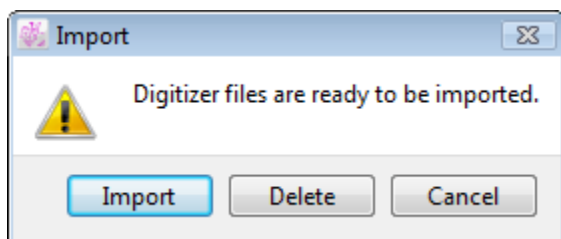
If there is information in the pen, it shows on the screen. Delete it if you do not need it.

To start digitizing, set your working area view to 20% (you can use the bottom-left corner zoom button to do so). Select the digitize tool and click the bottom-left corner of working area. The pattern piece must be placed under the Algotex paper.

The numeric buttons around the Algotex paper allow to enter regular and curve points, contour points and internal regular points. Just click the buttons with the tip of pen to select the code corresponding to the type of point for digitizing. The codes are described in the next page.

The pen stores the selected type of point until another type of point is selected, so you can enter several consecutive points of the same type just by clicking around the pattern shape. Press the **End Process** square-shaped button before putting the pen back to the holder to transfer the information from pen to PAD application.

If the *Digitize* tool had been selected, the pieces appear on the screen. On the other hand, if the *Digitize* tool is not selected and the pen is in its holder, the digitized piece keeps in memory. When choosing the *Digitize* tool next time, the following window shows, allowing to import the digitized piece.



Import: the digitized information shows on screen.

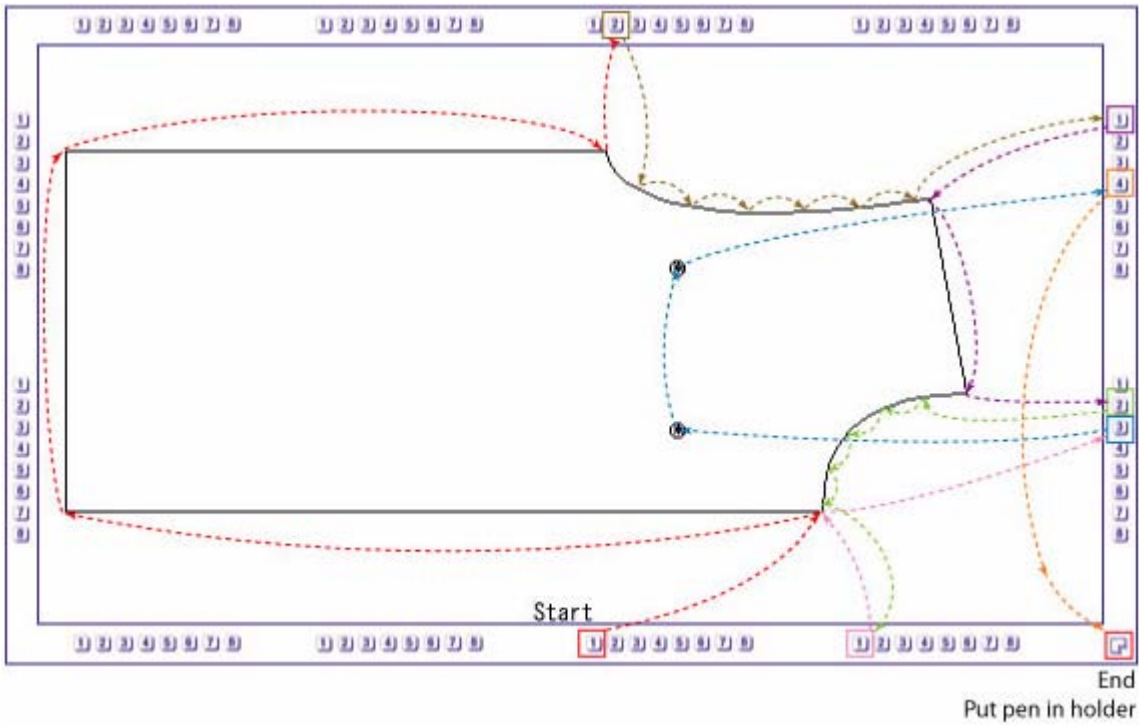
Delete: the digitized information is destroyed.

Cancel: the digitized information keeps in memory for later use but does not appear on screen as though the *Digitize* tool had not been selected.

Digi-Pen button functions:

Button	Contour
1	Enter a regular contour point.
2	Enter a curve contour point. (Several points can be made on a curve; the system calculates the exact curve.)
3	Internal regular point.
4	Finish with the current piece and enter another pattern piece without returning to the screen.

Digitizing a piece with the Digi-Pen:



Digitizing using the Digi-Pen with Extended Capabilities

To select *Digi-Pen with extended capabilities*, go to the *Options* menu, select *Device Configurations....* Select *Algotex Digi-Pen 4* in the list of digitization options and check the *Extended Capabilities(4 Buttons)* box.

Digi-Pen digitization with extended capabilities allows you to digitize contour points (such as curve points, regular points and default PAD System notches) plus internal references (such as style lines, pocket lines and punch holes). The process is the same as for the basic use of Digi-Pen, but refer to the following chart of numerical codes to select the type of points for digitizing.

Digi-Pen with Extended Capabilities Button Functions for the Perimeter of the Piece:

Button	Perimeter
1	Enter a regular contour point.
2	Enter a contour curve point (several #2 points can be made on a curve; the system calculates the exact curve).
3 + 1*	Enter a single notch. Click 3 on the perimeter, click 1 for the length and orientation of the notch.
3 + 2*	Enter a double notch. Click 3 on the perimeter, click 2 for the length and orientation of the notch.
3 + 3*	Enter a V notch. Click 3 on the perimeter, click 3 again for the length and orientation of the notch.
4	Finish the contour. You are ready to enter the piece internal references.
4 + 4	Finish with the piece and enter another pattern piece if you do not need any internal references for it.

Note:

* You can digitize only one notch at a time. After positioning the notch, the Digi-Pen reverts to the last type of point digitized. For instance, if your notch was preceded by a regular curve point, the Digi-Pen returns to the regular curve point mode after having digitized the notch.



Digi-Pen with Extended Capabilities Button Functions for Internal References:

Button	Perimeter
1	Enter a regular internal point or beginning of a segment regular point.
2	Enter an internal curve point. (Several #2 points can be made on a curve; the system calculates the exact curve).
3 + 1	Enter an internal punch hole.
3 + 2	Enter an internal point ending a segment.
3 + 3	Enter an internal punch hole ending a segment.
4	To indicate that you finish entering internal references and are ready to start another piece.
4 + 4	Finish with the piece and enter another pattern piece if you do not need any internal references for it.



Digitizing Information in Pieces View Using the Fictitious Keyboard


Digitizing in *Pieces View* allows you to enter simultaneously a range of piece information using the *fictitious keyboard* with the digitizing table. Below are the two commands that you need to use with the fictitious keyboard, which can vary depending of your digitizing device.

Command	4-button puck and Digipen	4-button puck (1-2-4-8)	GTCO	16-button puck
Enter information	#2	#2	Yellow	#2
End process	#4	#8	Blue	D

To digitize a piece with its Piece information:

1. Make sure that you are digitizing in *Pieces View* (*Option menu- Device Configurations...* check the *Digitize in Pieces View* option).
2. Reduce the zoom level of working area to 20% (in the lower left corner of window).
3. Select the *Digitize* tool and click the lower left corner of the working area.
4. If you are using a 16-button puck, enter the grain line first (A-D left side; A-D right side).
5. Use the Enter Information command (refer to the chart above), click the origin of the fictitious keyboard located in its lower left corner. This activates the Piece information entry.

Pattern #	1	2	3	4	5	6	7	8	9	0	-	+	Qty
Name	Q	W	E	R	T	Y	U	I	O	P			Single
Description	A	S	D	F	G	H	J	K	L				Paired
Piece code	Z	X	C	V	B	N	M	,	.				Fabric
Ref code	SPACE												

 ©PAD System Technologies Inc. Digitizing keyboard for use with 4 or 16 buttons pucks.

Origin Point



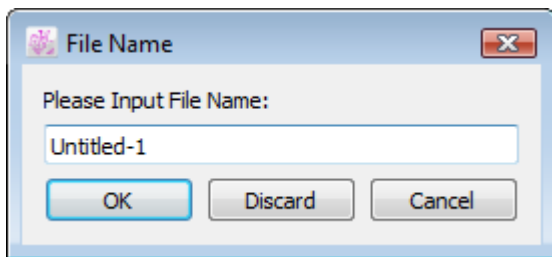
6. Still using the Enter Information command, enter the piece information (i.e.: pattern #, piece name, etc.) by clicking the keyboard simulation of the digit table. When using a puck, press the button for every character. With the Digi-Pen, press the Enter Information command once. You can enter the information by pressing on each key with the tip of the pen.
7. When completed, press anywhere using the End Information command.
8. Proceed in the usual manner to digitize the pattern piece. Repeat the above steps for each piece.

Execute Menu: Finish

The *Finish* item in the Execute menu allows user to end the digitizing process and input the file name.

To end the digitizing process and input the file name:

1. Select *Finish* in the Execute menu. A dialog box appears.



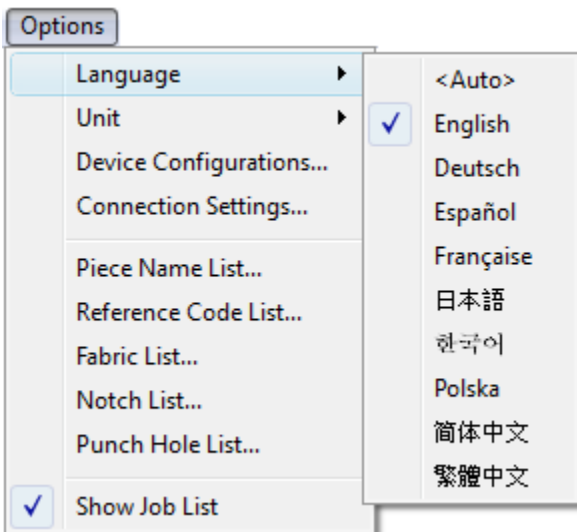
2. Input the file name and click OK button to validate.

Options Menu

Options Menu: Language

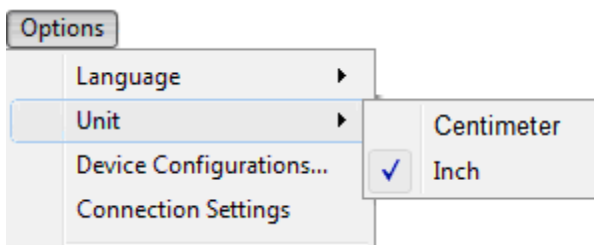
The *Language* in *Options* menu allows to choose language. It will translate the application to the selected language.

Choose *Auto* from the list, the language will be shown according the language of operating system.



Options Menu: Unit

The *Unit* in the *Options* menu allows user to select the desired measurement unit (Centimeter or Inch).



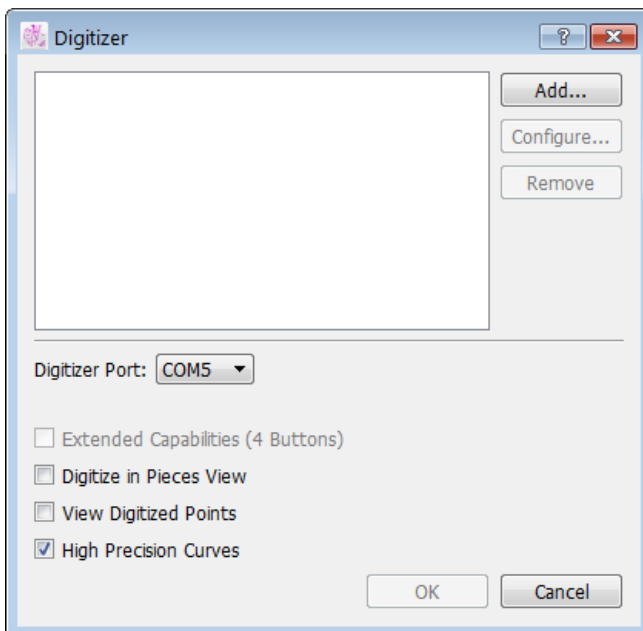
Options Menu: Device Configurations...

The *Device Configurations* item is to obtain the Digitizer dialog box. From the digitizer list, select the desired drivers for your peripherals and the corresponding COM Port (Windows / Linux) / Serial Port (Macintosh) required for the connection.

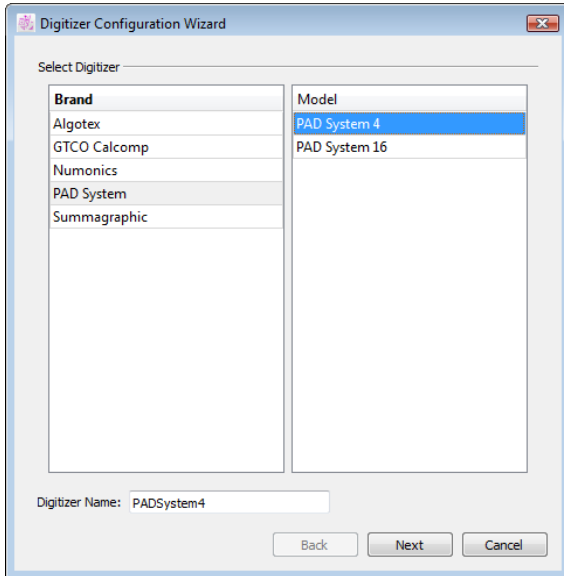
Note: You may require a Keyspan adapter.

To configure digitizer driver:

1. Select *Options, Device Configuration*, a dialog box appears as below:



2. Press *Add...* button to choose the digitizer which is ready to connect to Digitizer Manager.



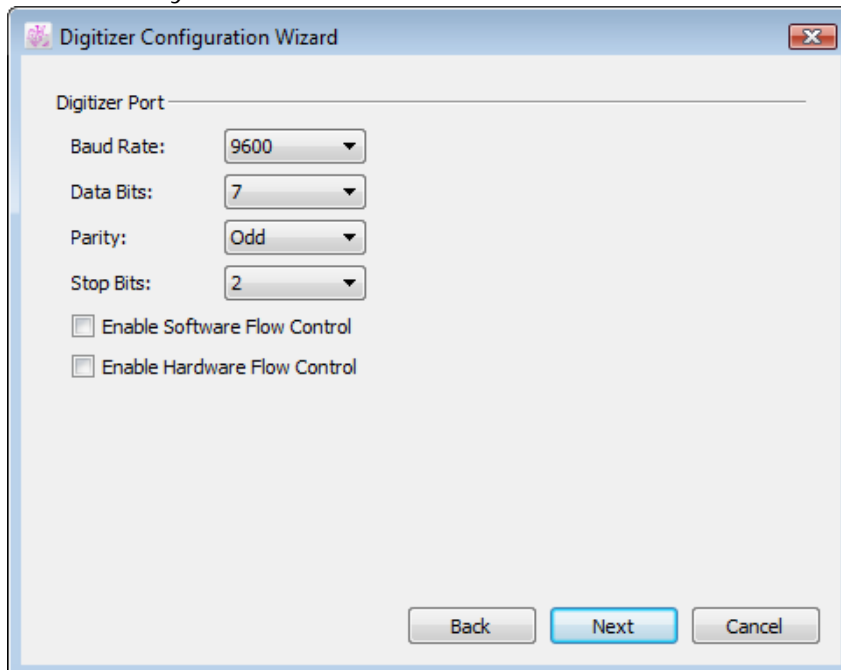
Choose the appropriate driver and press "Next" button to continue.

Support Digitizer Drivers

Brand	Model
Algotex	Digi-Pen 4
GTCO Calcomp	2000 (AM5) 4 2000 (AM5) 16 9500 format 4 DrawingBoard III DrawingBoard III 16 Digi-PAD 5_4 Digi-PAD 5_16 Roll-Up II 4 / Roll-Up III 4 Roll-Up II 16 / Roll-Up III 16 Super L II Plus 4 Super L II Plus 16
Numonics	2200 GGT 2200 GGT 16 2200 GGT 16(1)

	BidMate 4 BidMate 16
PAD System	PAD System 4 PAD System 16
Summagraphic	Summa MicroGrid 4 Summa MicroGrid 16 Summagrid V 16

- Configure the port setting COM Port (Windows / Linux) / Serial Port (Macintosh) if necessary.



Baud Rate: 2400, 4800, 9600, 19200 or 38400 bauds.

Data Bits: 7 or 8 data bits.

Parity: EVEN, ODD or NONE.

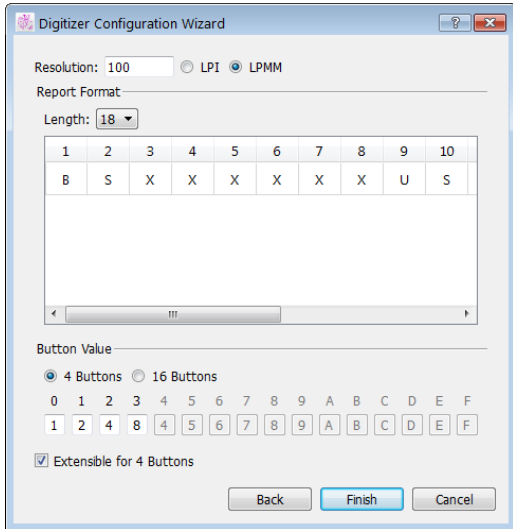
Stop Bits: 1, 1.5 or 2 data bits.

Check / Uncheck the option on **Enable Software Flow Control**.

Check / Uncheck the option on **Enable Hardware Flow Control**.

Then press "Next" button to continue.

Configure the desired digitizer setting if necessary.
Then press "Finish" to execute the function.



Resolution: The units are LPI (Lines per Inch) and LPMM (Lines per Millimeter).

The most common values are:

VALUE	UNIT	VALUE	UNIT
1250	LPI	1000	LPMM
1000	LPI	500	LPMM
500	LPI	100	LPMM
200	LPI	50	LPMM
100	LPI	40	LPMM
		20	LPMM
		10	LPMM
		8	LPMM
		4	LPMM
		1	LPMM



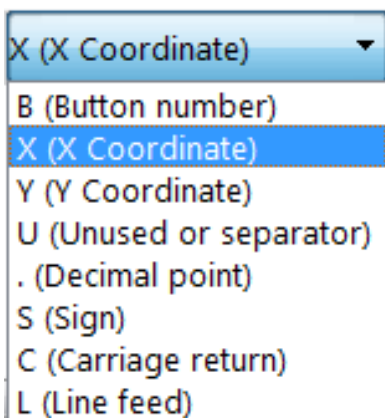
Report Format: The main problem is that the report format is different for each digitizer. To extract information from the report, the driver needs to locate it properly.

Report Length: The minimum report length is 3 characters and the maximum length is 30 characters. It is very important to calculate carefully the report length, i.e. the length of the character string received from the digitizer. If the report length is incorrect, the driver will not work.

Information included in this report:

- ◆ Button ID number or character
- ◆ X coordinate
- ◆ Y coordinate
- ◆ Decimal point
- ◆ Sign
- ◆ Carriage return
- ◆ Line feed
- ◆ Other (Unused information)

Click & select the appropriate value in the pop-up menu to set each character type for the report.



Button values

Two examples for a 4-button cursor:

Button Value _____

4 Buttons 16 Buttons

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1	2	4	8	4	5	6	7	8	9	A	B	C	D	E	F

Extensible for 4 Buttons

Button Value _____

4 Buttons 16 Buttons

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
01	02	03	05	4	5	6	7	8	9	A	B	C	D	E	F

Extensible for 4 Buttons

Two examples for a 16-button cursor:

Button Value _____

4 Buttons 16 Buttons

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F

Extensible for 4 Buttons

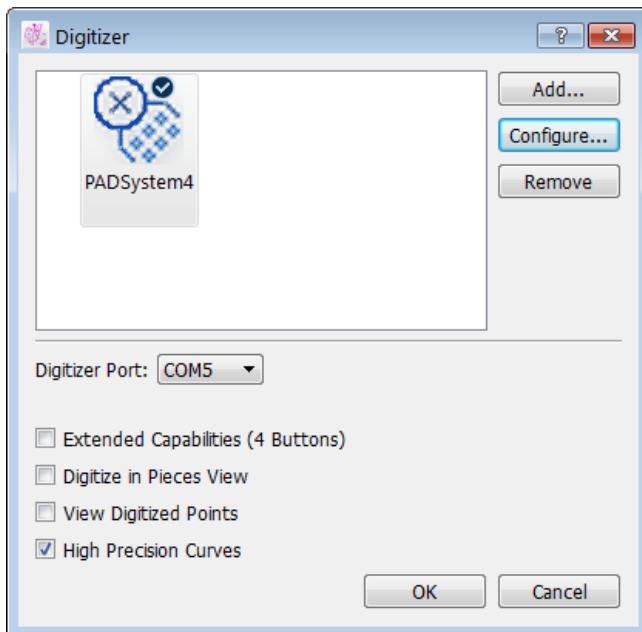
Button Value _____

4 Buttons 16 Buttons

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
S		(@	#	&	/	:	=	E	-	!	%	>	T	H

Extensible for 4 Buttons

The selected driver is displayed to the Digitizer dialog box.



Configure...: To change the setting on the selected driver. Press *Configure* button to change the setting or choose another digitizer driver.

*By double clicking the selected driver, user can get the same windows as the Digitizer Configuration Wizard window.

Remove: To remove the selected driver. Press *Remove* button to remove the selected digitizer driver.

Digitizer Port: To configure the port setting COM Port (Windows / Linux) / Serial Port (Macintosh).

Extended Capabilities (4 Buttons): To extend function for the 4 buttons of the cursor.

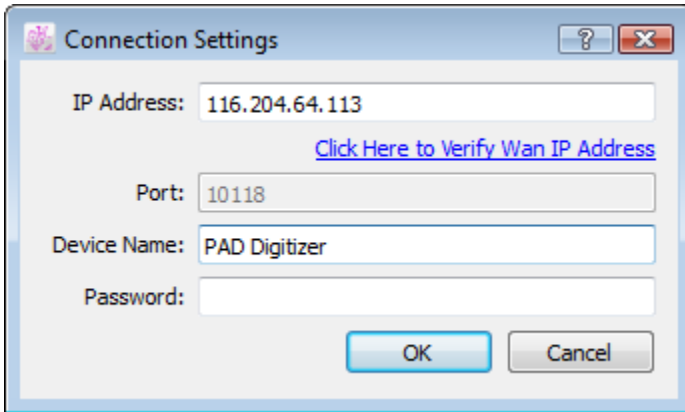
Digitize in Pieces View: By default, the pieces are digitized in *Plan View*. To digitize pieces in *Piece View*, check this box.

View Digitized Points: To view a template point for the points in working area. This helps user to verify the precision of curves.

High Precision Curves: To produce a larger number of curves, resulting in smoother curves.

Options Menu: Connection Settings...

The *Connection Settings* in *Options* menu allows you to connect the digitizer through TCP/ IP (LAN), Wireless.

A screenshot of a Windows-style dialog box titled "Connection Settings". It contains four input fields: "IP Address" with the value "116.204.64.113", "Port" with "10118", "Device Name" with "PAD Digitizer", and an empty "Password" field. A blue hyperlink "Click Here to Verify Wan IP Address" is positioned between the IP and Port fields. At the bottom are "OK" and "Cancel" buttons. The dialog has a question mark icon and a close button in the title bar.

IP Address: The current Wan IP Address connects to public Internet.

Port: Take the TCP/IP Port number automatically.

Device Name: User name of the digitizer

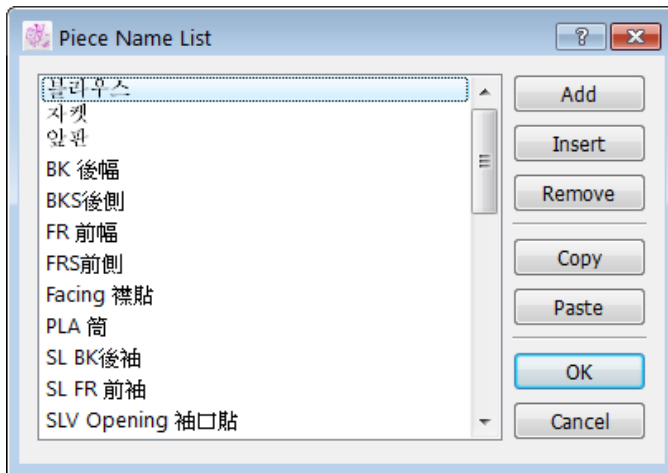
Password: Set a password for security, you may give it to the person allowed to open the digitized files.

Click *OK* to execute.

Options Menu: Piece Name List...

To speed up the process of identifying pattern pieces, user can keep a list of the most commonly used pieces. Establish this list by selecting the *Piece Name List...* in the *Options menu*. This list is available in the Piece Info dialog boxes, thus making it easy to build and access a list of the most frequently used piece names.

The Piece Name List dialog box shows:



Add: Adds a new blank piece name to the end of the list. The piece name must be entered to the new blank in the list.

Insert: Inserts a new blank piece name before the selected piece name. The piece name must be entered in the text field at the bottom of dialog box.

Remove: Removes the selected piece name(s) from the *Piece Name List*.

Copy: Copies data from the *Piece Name List* to the clipboard. You can copy the content of the clipboard to a local or an external destination (a database or word processing application).

Paste: Pastes data from the clipboard to the list. The content of the clipboard can be from a local or an external destination (a database or word processing application).

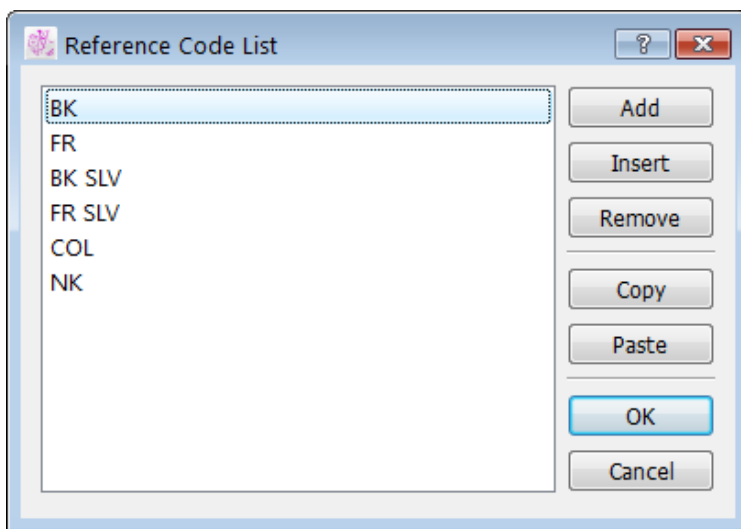
To enter or replace a piece name: Select the corresponding entry in the list and Type the name in. The name of pieces that already existed can be replaced by a new data group if they are selected before executing the paste command.

Options Menu: Reference Code List...

Reference Code List... allows user to create or modify a reference code list. This list is available in the *Piece Info* dialog boxes, thus making it easy to build and access a list of the most frequently used reference codes.

Select the *Reference Code List...* function under the *Options* menu.

A dialog box shows:



Add: Adds a new reference code entry at the end of the list. The reference code must be entered to the new blank in the list.

Insert: Includes a reference code entry above the selected reference code. The reference code must be entered in the text field at the bottom of the dialog box.

Remove: Removes the selected reference code(s) from the Reference Code List.

Copy: Copies data from the Reference Code List to the clipboard. You can copy the content of the clipboard to a local or an external destination (a database or word processing application).

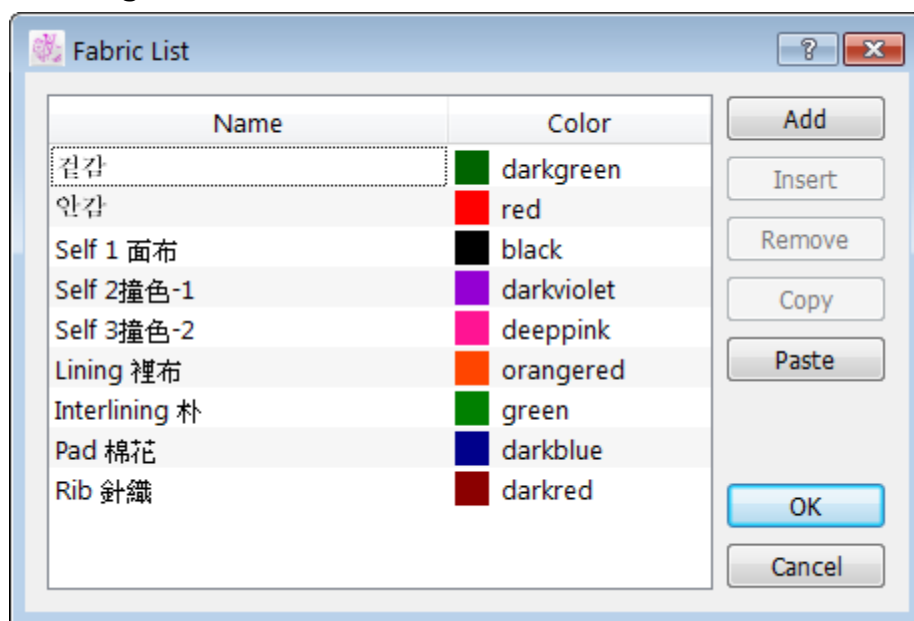
Paste: Pastes data from the clipboard to the list. The content of the clipboard can be from a local or an external destination (a database or word processing application).

Options Menu: Fabric List...

Fabric List... allows to create or modify a new Fabric List. This list is available in the *Piece Info* dialog boxes, thus making it easy to build and access a list of the most frequently used fabrics.

Select the *Fabric List* function under the *Options* menu.

A dialog box shows:



Add: Adds a new fabric entry to the end of the list. The fabric name must be entered to the new blank in the list.

Insert: Inserts a fabric entry above the selected fabric name. The fabric name must be entered in the text field at the bottom of the dialog box.

Remove: Removes the selected fabric(s) from the fabric list.

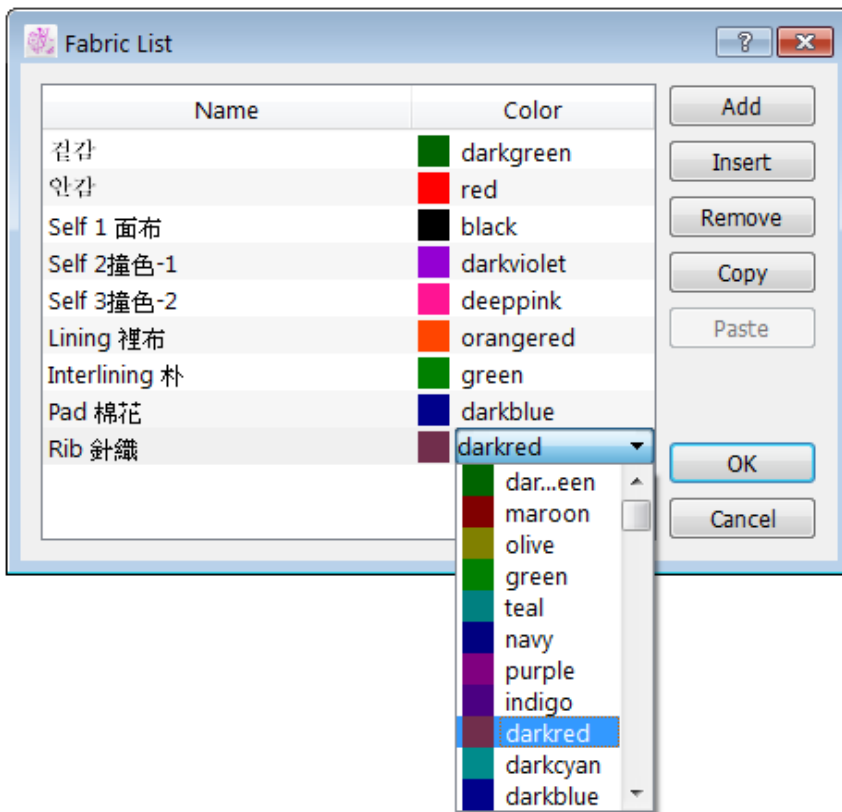
Copy: Copies data from the *Fabric List* to the clipboard. You can copy the content of the clipboard to a local or an external destination (a database or word processing application).

Paste: Pastes data from the clipboard to the list. The content of the clipboard can be from a local or an external destination (a database or word processing application).

User can easily replace fabric names that already exist with a new data group, provided to select the fabric names to be replaced before executing the paste command.

User can replace a fabric name at any time by selecting and changing it via the text box.

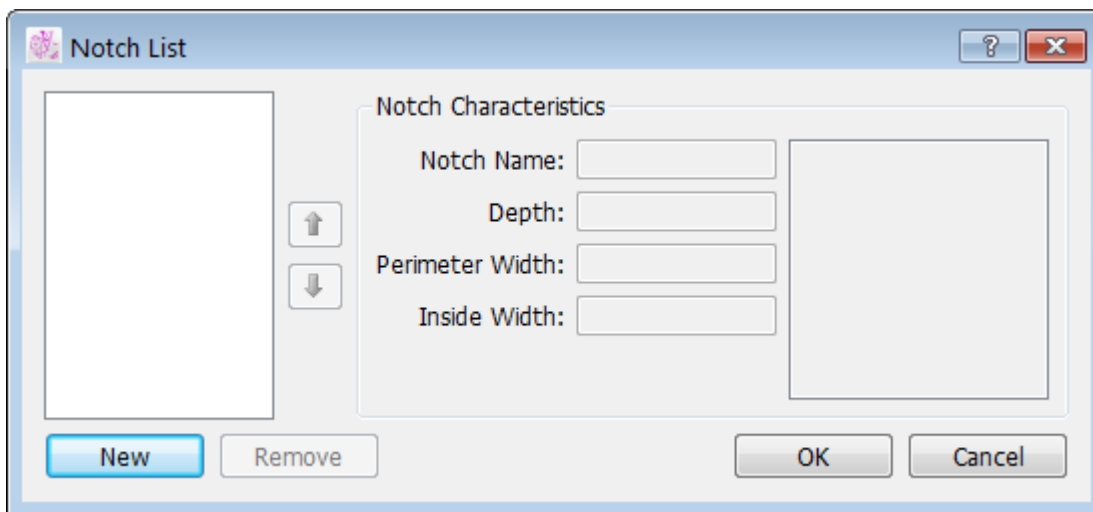
User can easily change the fabric color by selecting the name of the color. A color chart appears and allows choosing another color from the chart.



Options Menu: Notch List...

Digitizer Manager offers three types of system Notches: the Simple Notch, the Double Notch and the V Notch.

Select the *Notch List...* function in the *Options menu* to create new notch types. A dialog box appears:



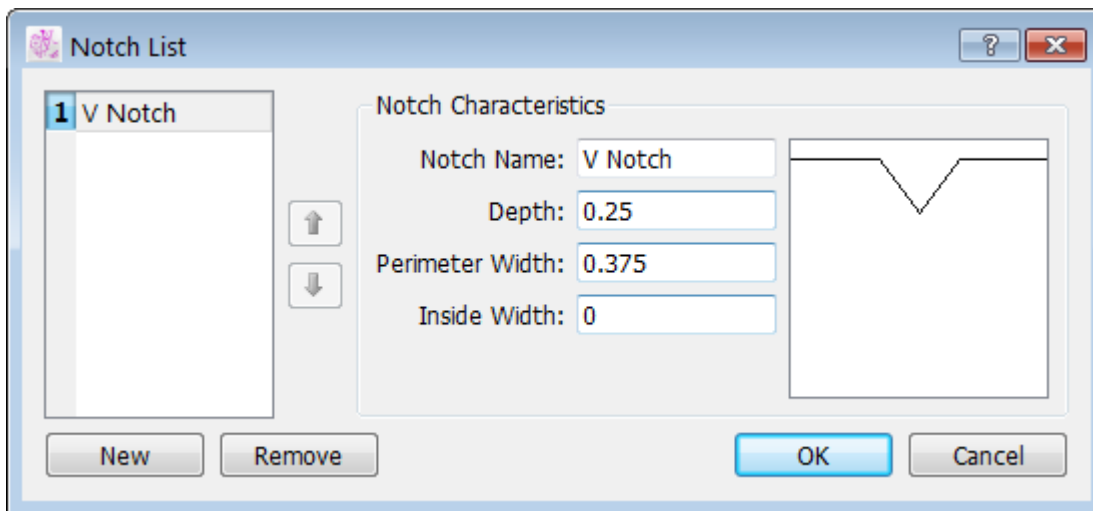
New: Creates a new Notch.

Remove: Removes a Notch from the list.

You can easily modify the characteristics of the selected notch. Type in the new data to the page of Notch Characteristics and press OK button to validate the function.

Creating a Notch

Click the *New* button in the *Notch List*. The *Notch List* dialog box opens. The *Notch List* dialog box offers the following options:



Notch Number: Automatic creates a number for the new notch. It identifies the notch during the 16-button digitization process. Change the notch rank from the list. Select the notch and press the Up or Down Arrow.

Notch Name: Identifies each notch with a particular name.

You can use three measurements to define a Notch:

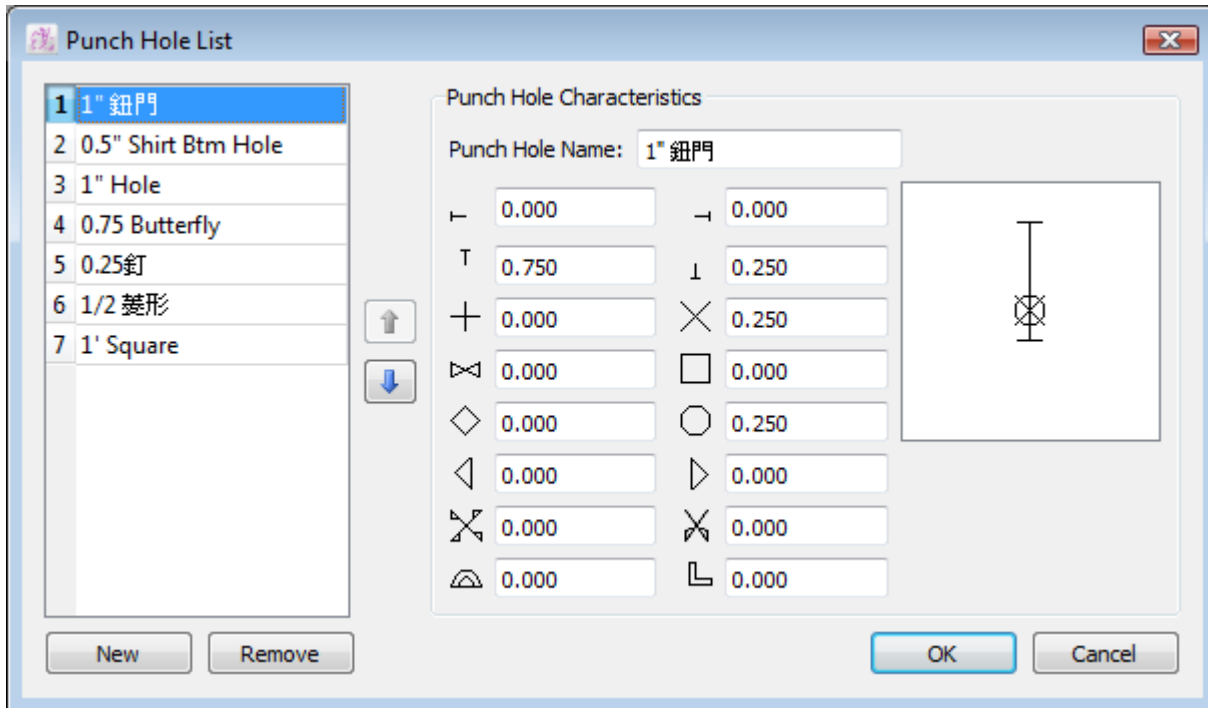
- ◆ Depth: Identifies the length of the interior (positive value) or exterior (negative value) of the shape.
- ◆ Width Perimeter: Identifies the width of notch on the perimeter of the shape.
- ◆ Inside Width: Identifies the width of notch at its internal end.

The full scale notch is shown to the right according to the values entered in the text fields. The maximum value accepted for the measurement of a notch is 1 inch (2.54 cm).

Options Menu: Punch Hole List...

Digitizer Manager offers punch hole characteristic and allows to create new types of punch holes. Select *Punch Holes List...* in the *Options menu*.

The *Punch Hole List* dialog box appears:



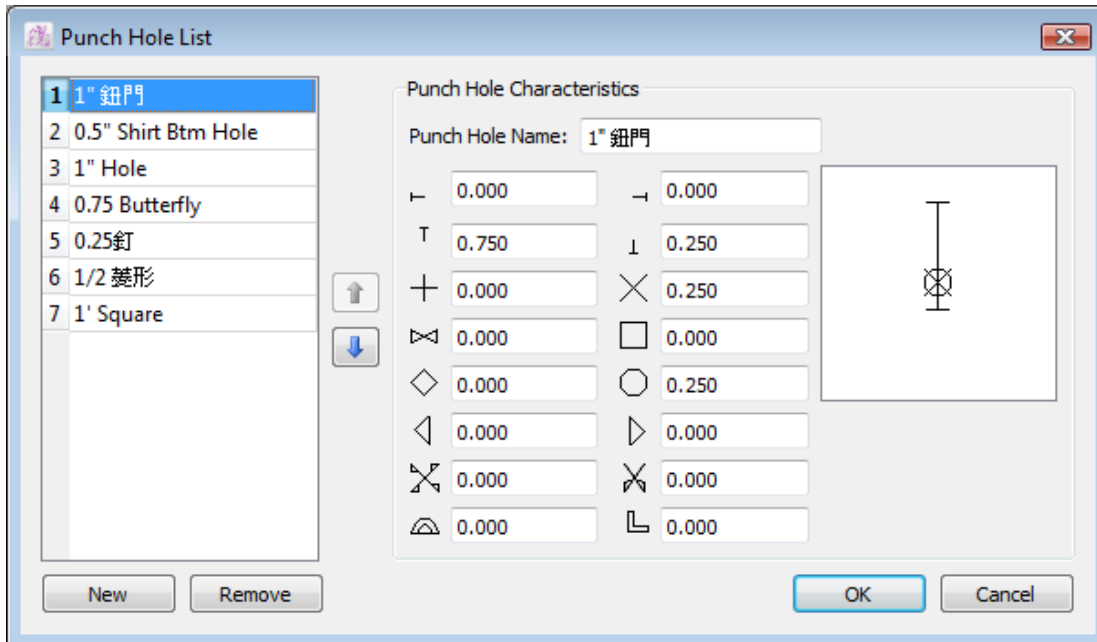
New: Creates a new punch hole.

Remove: Clears a punch hole from the list.

You can easily modify the characteristics of the selected punch hole. Type in the new data to the page of Punch Hole Characteristics and press *OK* button to validate the function.

Creating a Punch Hole

Click the *New* button. The *Punch Hole Characteristics* dialog box appears:



Punch Hole Number: Automatic creates a number for the new punch hole. It identifies the punch hole during the 16-button digitization process. This number determines the position of the punch hole in the Punch Hole sub-menu of the Treatment menu. Change the punch hole rank from the list. Select the punch hole and press the Up or Down Arrow.

Punch Hole Name: Identifies each punch hole with a unique name.

To create personalized punch holes, use the ten forms in combination with various measurements.

The full scale punch hole appears in the bottom-right corner according to the values entered in the text fields. Changes are made when you exit the dialog box by clicking the OK button.

The maximum value accepted for the measurement of a Punch Hole is 1 inch (2.54 cm).

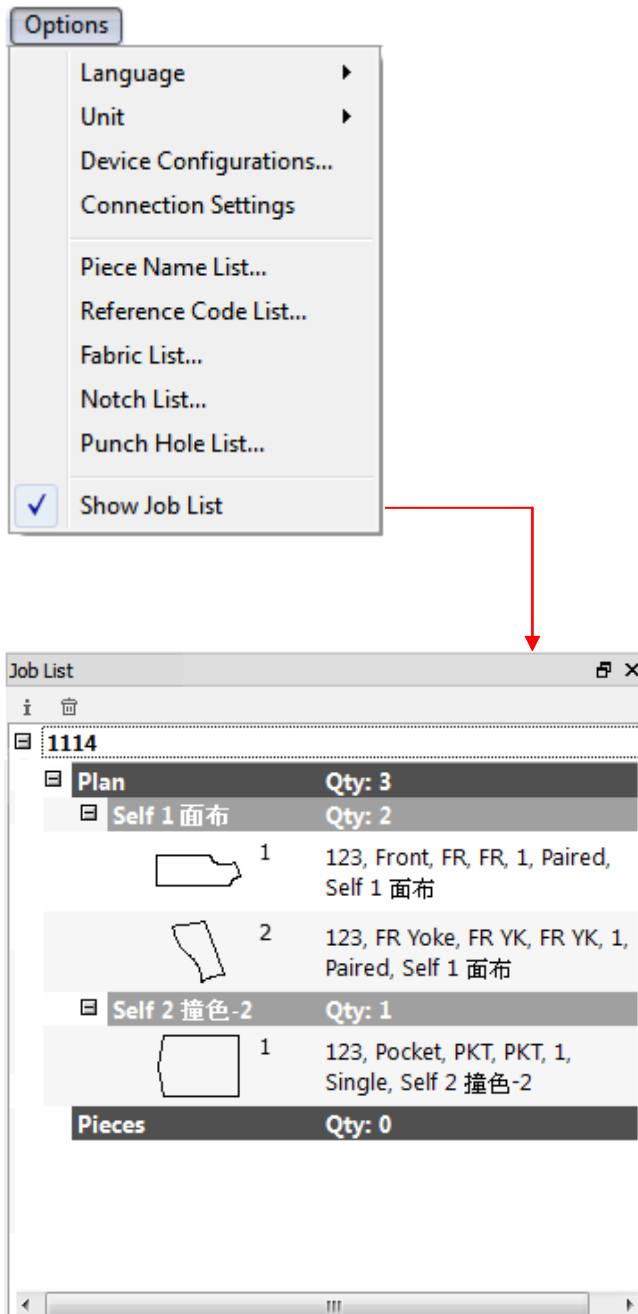
Click the OK button to confirm the punch hole.

Options Menu: Show Job List

The *Show Job List* in the *Options* menu allows user to show or hide the job list.

Select *Show Job List*, the check mark (✓) is displayed next to the item.

See the *Digitizer Manager Basics* chapter for more information about the Job List.





View Menu

View Menu: Zoom

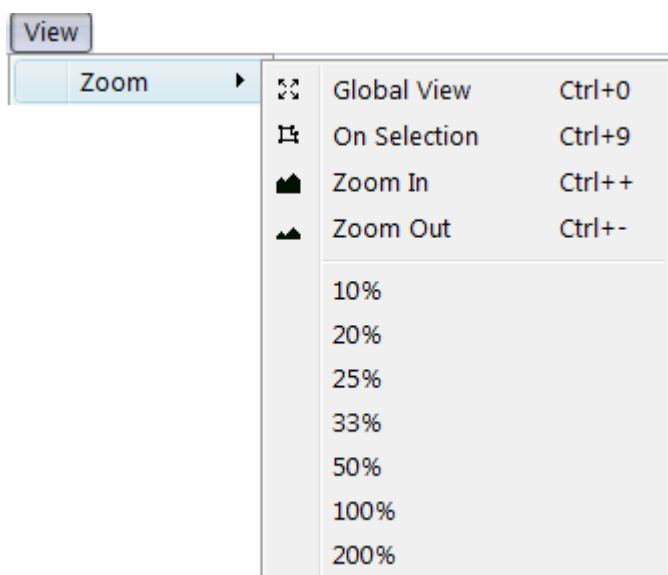
The *Zoom* in the *View* menu allows user to select from the menu a preset visualization of the working area or a customized zoom level. The zoom level can be set at any value between 0.5% and 2000%.

Global View: Displays all the pattern pieces on screen, regardless of their position on the working area.

On Selection: Zooms on the selection and displays it in the center of screen. It is available if one or more pieces are selected.

Click the **Zoom Out/Zoom In** icons to obtain preset zoom views based on the screen resolution.

These options are available in the *Zoom Menu* as well, which is located at the bottom left side of the Digitizer Manager. For further details, refer to the Basics chapter of this user manual.

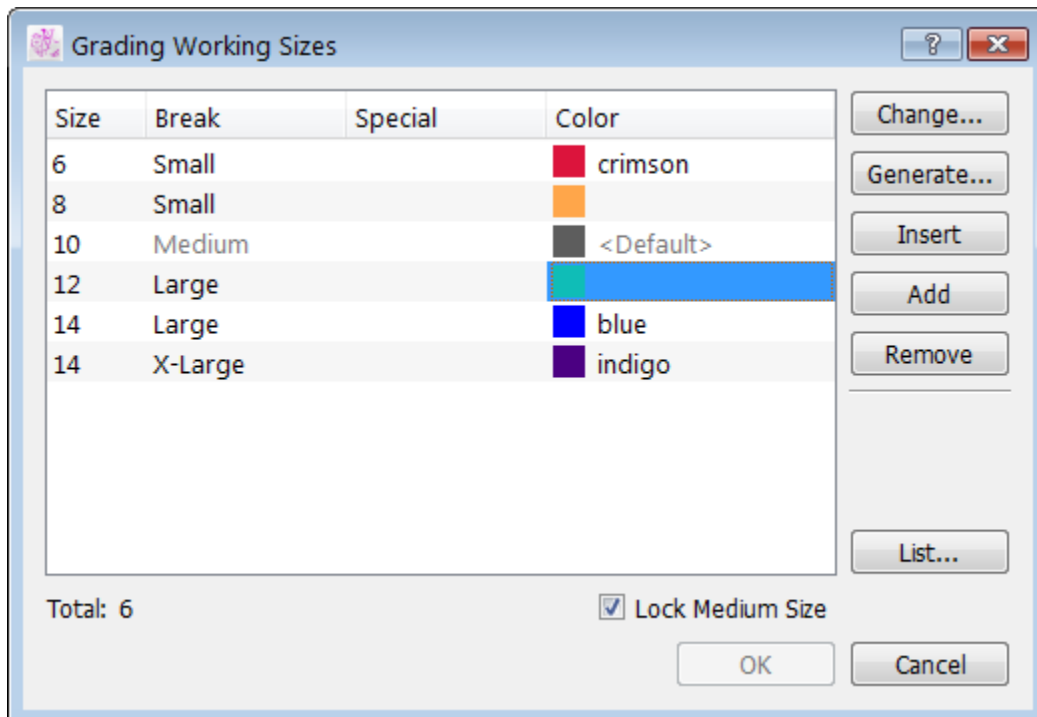


Grade Menu

Grade Menu: Working Sizes...

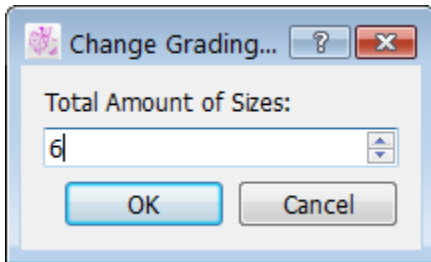
At first, the Grading working size is always set at one size by default, which is the base size. There are two ways to create a grade nest with multiple sizes: you can either use the *Change...* button or the *Generate...* button in the *Grading Working Sizes* dialog box. To open the *Grading Working Sizes* dialog box, open the *Grade* menu and select *Working Sizes...*

The *Grading Working Sizes* dialog box opens:



To create a new Grading nest using the *Change...* button:

1. Press *Change...* button to open the *Change Grading Nest information* dialog box.
2. In the text box, enter the number of sizes needed for a particular style, including the medium size (base). Or press the arrow next to the text box to scroll up or down.



3. Press the *OK* button to validate the information.

Establishing Different Grading Evolutions and Sizes

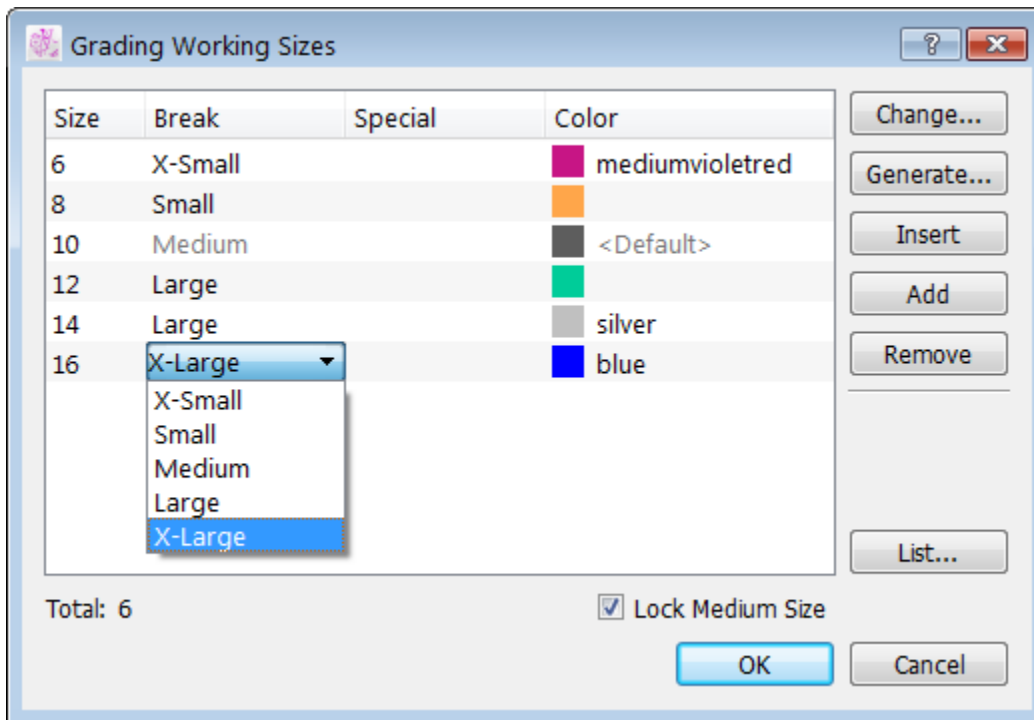
Five regular breaks are available for grading. The default names are X-Small, Small, Medium (being the base size), Large and X-Large.

Establishing Size List

In the *Grading Working Sizes* dialog box, select (highlight) the first item in the list and change the number in the *Size* text box to the smallest desired size. In the same manner, repeat the procedure for all the other items in the list until the last one, which would be the biggest size. If user does not work with numerical sizes, use special names (alphanumerical sizes) in the *Special* text box to identify the label of each size.

Setting the Size Break

In the size list, identify the size corresponding to the base pattern. The base size must be set at break medium.



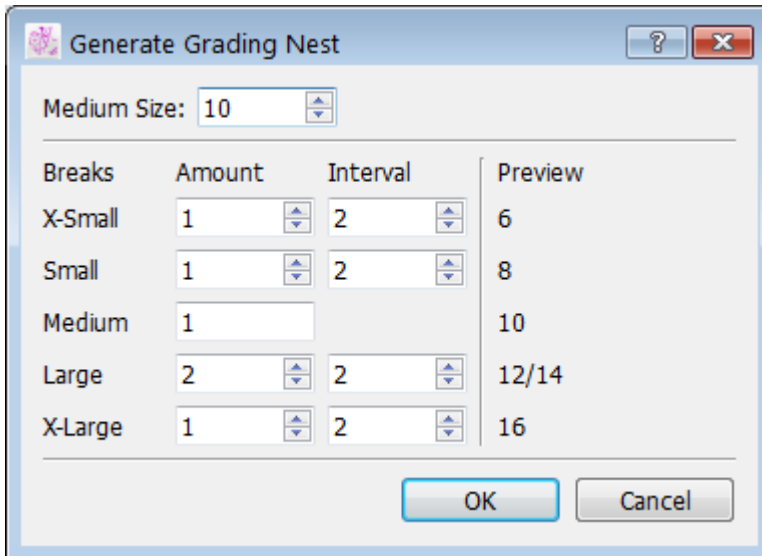
Modify the other size breaks according to the grading group.

Locking the Medium size

To lock the medium size to forbid future modifications, check the Lock medium size box. The grading of medium size will be removed. Uncheck the Lock medium size box to unlock. If user locks the medium size, a warning message shows up that all the changes made to the medium size will be lost and asks whether to continue.

To create a new Grading Nest using the Generate... button

1. Click *Generate...* button in the *Grading Working Sizes* dialog box.
2. The *Generate Grading Nest* dialog box opens.



Breaks	Amount	Interval	Preview
X-Small	1	2	6
Small	1	2	8
Medium	1		10
Large	2	2	12/14
X-Large	1	2	16

3. Set the Medium Size by entering the size that represents the medium break (the base size) into the *Medium Size* text box.
4. Input the number of sizes for each break size (*Amount*), and enter the size interval between each size (*Interval*). User can see a preview of the resulting size to the right of the window.
5. Click *OK* button to save the new grading nest.
6. Special names can be added afterwards; refer to *Establishing Size List* in the previous section.



Insert button

The *Insert* button enables user to insert a new size, anywhere within the grading nest.

To Insert a new size in the Grading nest:

1. In the size window in *Grading Working Sizes* dialog box, highlight the place in the grading list above which would like to add a new size.
2. Click the *Insert* button.
3. A new size appears above the size that you highlighted.
4. Click *OK* button to save changes.

Add button

The *Add* button adds a new size at the end of the grading nest.

To add a new size at the end of the Grading nest:

1. Click *Add* button in the *Grading Working Sizes* dialog box.
2. A new size appears at the end of the grading nest list.
3. Click *OK* button to save changes.

Remove button

The *Remove* button deletes a selected size from the grading nest.

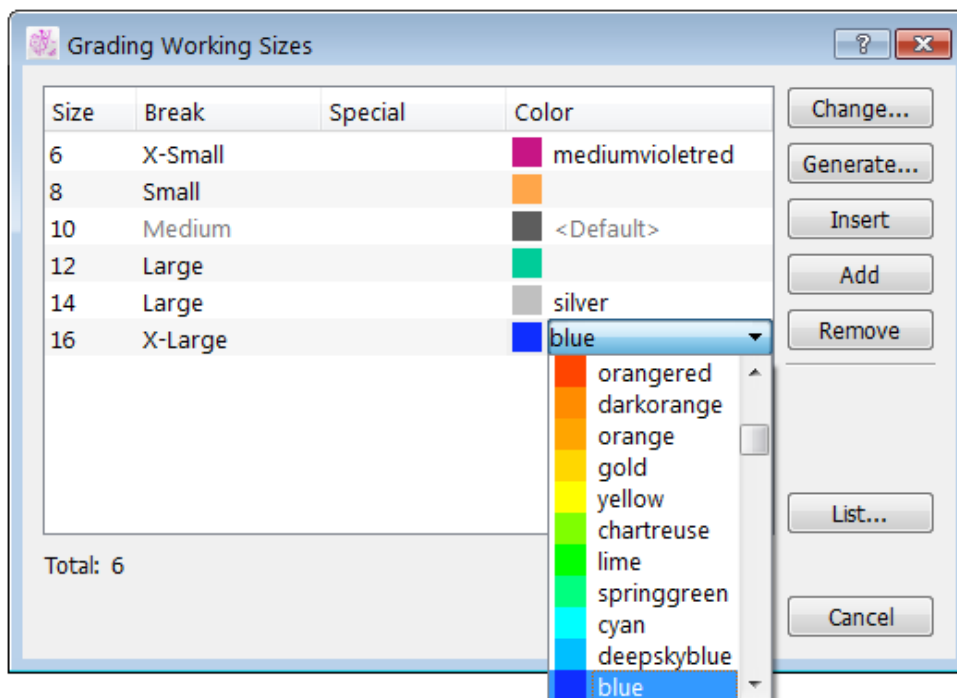
To remove a size from the grading nest:

1. In the size window in *Grading Working Sizes* dialog box, highlight the size to remove.
2. Click the *Remove* button.
3. The selected size is deleted from the grading nest list.
4. Click *OK* button to save changes.

Color

When creating multiple sizes for the same break (for example, several size breaks "small"), user can use the *Color* feature in the *Grading Working Sizes* dialog box to assign a unique color to each size. In the grading nest, each size within the same break group can appear as a different color.

1. Click the color box next to the size.

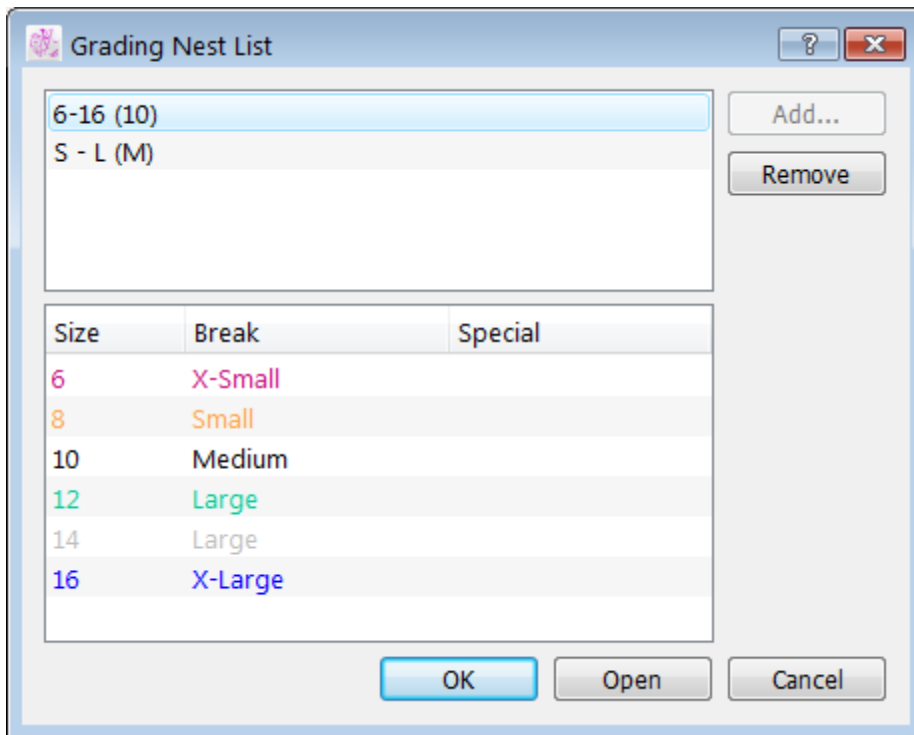


2. Select the color you wish to use from Operating System's color picker.
3. Repeat these steps to add unique colors to the other sizes user wish to customize. The grading nest shows all sizes in the selected colors.

Grading Nest List

Instead of going through the same process again, user can save the *Grading Working Sizes* information and reuse it for another pattern file if the same nest is required.

Press the *List* button in the *Grading Working Sizes* dialog box. A second dialog box opens where the previously saved grading nest information is listed (if any):



To register the current grading working sizes to the Grading Nest List:

1. Press *Add* button.
2. Enter the name of the current grading nest.
3. Click *OK* button.

This grading nest appears in the *Grading Nest List* dialog box.

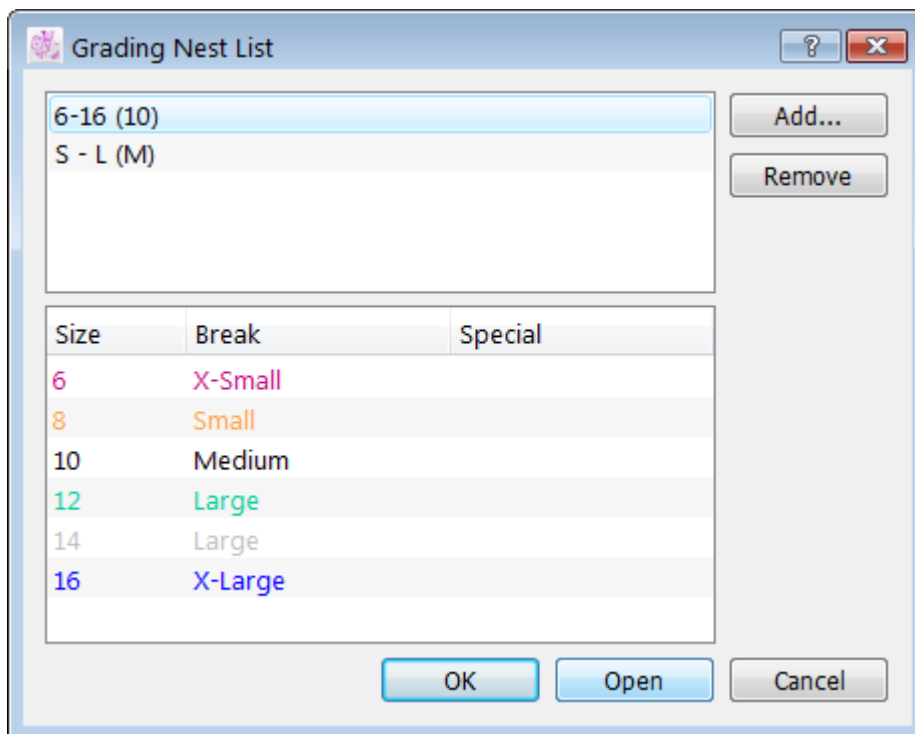
Buttons in the *Grading Nest List* dialog box offer the following options.

Open: To apply the selected grading nest to the current grading work sizes.

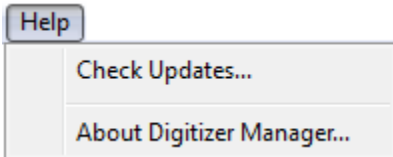
Remove: To delete the selected grading nest from the list.

To select a grading working nest in the *Grading Nest List*

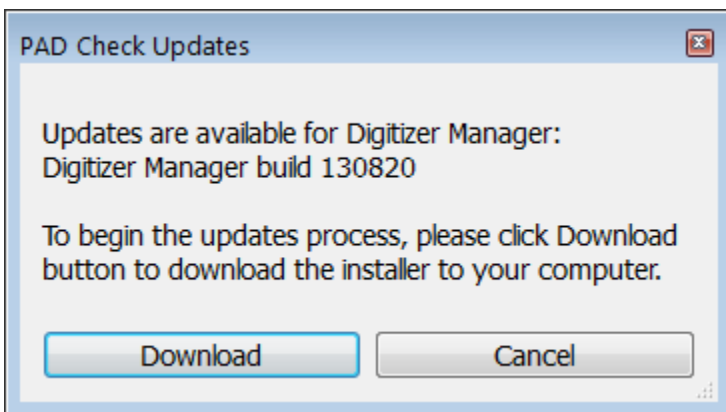
1. Press *List* button in the *Grading Working Sizes* dialog box.
2. The *Grading Nest List selection* window appears. Highlight the desired grading working nest from the list.
3. Click *Open* button.
4. Then it will apply the desired grading nest list to the main window of *Grading Working Sizes*.



Help Menu: About Digitizer Manager...



Check Updates... item, a dialog box appears to remind you the updates is available to download.



By clicking the *About Plot Manager...* item from the *Help* menu, you can view:

- The name and version of the application installed.





Chapter 3

.....

Digitizer Driver Preference

Digitizer driver allows users to work with any kind of digitizer that sends ASCII reports. Most digitizers can send ASCII reports, but a few can only send binary reports.

Parameter Extraction

Extracting the digitizer parameters:

The digitizer must be set up in point mode, i.e. it must send the report only but not a continuous stream of reports when a button is released on the digitizer cursor.

The user must use a telecommunication program, such as HyperTerminal (Windows) / MacTerminal (Macintosh). These programs allow you to see the report format sent by the digitizer to the computer.

In the telecommunication program, set up the communication parameters, i.e. baud rate, data bit, stop bit, parity and communication port (Modem or Printer for Mac/Com1, Com2, Com3 or Com4 for PC).

The values for these communication parameters must be the same for the digitizer and the telecommunication program. Often, it is necessary to try many values to discover the correct parameter values for the digitizer.

- ◆ The most frequent values used for the baud rate are 9600, 2400 and 1200.
- ◆ The most frequent values used for the stop bits are 1 and 2.

Press any button on the digitizer cursor to test the communication parameters. For example, the digitizer Summagrid has sent these 16 valid reports by using a 16-button cursor.



Cursor button pressed	Report sent by the digitizer to the terminal
1	+1179.550,+0489.475,01,0
2	+1179.575,+0489.475,02,0
3	+1179.550,+0489.475,03,0
4	+1179.550,+0489.475,04,0
5	+1179.550,+0489.475,05,0
6	+1179.550,+0489.475,06,0
7	+1179.575,+0489.475,07,0
8	+1179.550,+0489.475,08,0
9	+1179.575,+0489.475,09,0
0	+1179.250,+0489.475,16,0
A	+1179.275,+0489.475,10,0
B	+1179.250,+0489.475,11,0
C	+1179.250,+0489.475,12,0
D	+1179.250,+0489.475,13,0
E	+1179.250,+0489.475,14,0
F	+1179.225,+0489.475,15,0



Problem: The terminal is receiving continuous information from the digitizer.

Solution: This means that the digitizer is not set up to point mode. Switch the digitizer to point mode.

Problem: Information received from the digitizer is not readable.

Solution: The digitizer is set up in binary mode, i.e. not in ASCII mode. Switch the digitizer to ASCII mode.

Problem: The communication parameters of the telecommunication software are not properly set up for your digitizer.

Solution: Check the settings of the telecommunication software. If you do not receive any information from the digitizer, then the communication parameters of the telecommunication software are not properly set up for your digitizer. Check the settings of the telecommunication software, i.e. baud rate, data bit, stop bit, parity.

Problem: Using the wrong serial port.

Solution: Use the serial port the digitizer is connected to.

Problem: There is another application using the same serial port.

Solution: Close this application.

Problem: The digitizer is not sending any information.

Solution: The digitizer needs to be repaired.

Problem: Using the wrong cable.

Solution: Contact the service department to obtain a proper cable.



Identifying a similar driver

Once the terminal receives a correct report from the digitizer, look in the list of PAD System digitizer drivers to find a driver that uses similar parameters.

If you find a perfect match, select the driver from the PAD System digitizer drivers' list in the *Device Configurations* dialog box in the Option menu.

If there is no perfect match, set and use the generic digitizer driver for 4 or 16 buttons.

Setting up the generic digitizer driver:

Communication Parameters

Set the communication parameters, i.e. the baud rate, the data bits, the parity and the stop bits. The values must be the same as the values used in the terminal.

Resolution

Set the resolution, i.e. the resolution value and the resolution unit. The resolution is often very difficult to calculate precisely. You will need to set up the driver, digitize a perfect square and verify if the size of the square is good.

If the square is too big, increase the resolution value or change the resolution unit. If the square is too small, decrease the resolution value or change the resolution unit.

Report

Set the report values, i.e. the report length and the report format. Be careful when calculating the report length, because you may have to count one or two invisible characters at the end of the report, i.e. the carriage return and the line feed. You must set a valid report format.



BUTTON NUMBER:

- ◆ Minimum 1 character
- ◆ Maximum 3 characters
- ◆ Consecutive characters only

X AND Y COORDINATES:

- ◆ Minimum 1 character
- ◆ The same number of characters is required
- ◆ Consecutive characters or separated by one decimal point
- ◆ If sign, then only before the coordinate
- ◆ If decimal point, then NOT before the coordinate

SIGN AND DECIMAL POINT:

- ◆ Minimum 0 character
- ◆ Maximum 2 characters

CARRIAGE RETURN AND LINE FEED

- ◆ Minimum 0 character
- ◆ Maximum 1 character

DO NOT FORGET TO COUNT THE CARRIAGE RETURN AND THE LINE FEED CHARACTERS WHEN CALCULATE THE REPORT LENGTH.

THE PRESENCE OF THESE TWO CHARACTERS CAN BE IDENTIFIED BY THE WAY THE REPORT (STRING) WILL APPEAR ON SCREEN.

Carriage return + Line feed	Carriage return ONLY
AAAAA	CCCC
BBBBB	
CCCCC	The previous string is overwritten by the current string.



Line feed ONLY	Carriage return ONLY
AAAAA	CCCCC
BBBBB	
CCCCC	The previous string is overwritten by the current string.

Button Values

Each button value must be unique. The number of characters used for each button value must be the same as the number of characters used in the report format of the generic digitizer driver for button values.



Appendix A

PAD System Software License Agreement

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PAD System International Limited
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PAD SYSTEM INTERNATIONAL LIMITED



Appendix B

About PAD System International Limited

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PAD System was founded in 1988, in Montreal Canada by creative people from the apparel industry.

A leader in CAD/CAM integrated solutions and dedicated to the apparel, textile and leather industry, PAD System is present on all five continents through its international distribution network.

Today PAD System is active in more than 50 countries and available in 8 languages.

From virtual design to integrated production, PAD System and its partners provide service, support and training to thousands of satisfied customers worldwide—from freelancers to large scale producers.

With a complete design suite—pattern, placement, production—the software offered by PAD System represents a set of cutting-edge modules that are complete, coherent, and compatible with the competition. PAD System software may also be used with the majority of standard peripherals on the market, such as digitizing tables, plotters, automated knives and even scanners.

PAD System's mission is to produce complete, high-tech CAD/CAM solutions that are simple, efficient and flexible for companies and individuals working in the clothing, textile, and leather industries, as well as the 3D graphic design industry.



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