

# PICADOR<sup>©</sup>

Logiciel CFAO pour l'emballage créatif  
par treeDIM - 2019



**2D**

---

# USER GUIDE

---

// PICADOR

---



# Table of contents

<b>TABLE OF CONTENTS</b>	<b>II</b>
<b>WARNING</b>	<b>1</b>
Read before using.	1
<b>WELCOME</b>	<b>2</b>
Foreword	2
<b>PICADOR® documentation</b>	<b>2</b>
PICADOR® Windows	3
<b>TECHNICAL SUPPORT</b>	<b>4</b>
Getting ready for technical support	4
What you might know before starting the installation.	5
Prerequisites	5
<b>Install Picador®</b>	<b>6</b>
<b>Uninstall</b>	<b>7</b>
<b>PRESENTATION</b>	<b>8</b>
<b>&amp; CONVENTIONS</b>	<b>8</b>
Description	8
Mouse conventions	9
Shapes of the mouse pointer	10
<b>Main Shortcuts</b>	<b>11</b>
What we see on Picador® screen	12
<b>About...</b>	<b>13</b>
<b>DRAWINGS, FILES AND PRINT</b>	<b>14</b>
File menu	14
Drawings and files	15
New	15

---



Open	15
Save	15
Save as...	15
Properties	15
Open the file again	16
Import	16
Export	17
Send...	17
<b>Output to plotter</b>	<b>17</b>
Direct send to plotter	17
Direct plotter output	17
HPGL Import Configuration	17
Plotter configuration	18
<b>Draw and print</b>	<b>19</b>
Print	19
Page set up	19
Print preview	20
<b>ARCHIVING FUNCTIONS</b>	<b>21</b>
Goals	21
Technical description	21
Archiving and file names	21
<b>List the studies</b>	<b>22</b>
The box « study » is checked	22
The box « Study » is not checked	22
<b>OPTIONS :</b>	<b>24</b>
Options	24
Display options	24
Main options	24
Catalogues options	25
Technical data sheet options	25
File options	26
Import / Export options	26
<b>VIEW CONTROL</b>	<b>27</b>
Zooms	27
<b>Re-draw and re-frame</b>	<b>27</b>
Rectangle dimension	27
Origin Position	27
Grid	27
Zoom In	27
Zoom Out	27
Panoramic Zoom	28
Previous Zoom	28
Zoom Origin	28
Recycle bin	28
Informations	28
Pen configuration	28
Filters	29
Deleting filters	30
Deleting all filters	30

---



Formulas	30
Show the number of entities	31
Displaying toolbars and status bar	32
<b>TOOLBARS</b>	<b>33</b>
Display toolbars and the status bar	33
<b>PICK A POINT</b>	<b>34</b>
Entering a point	34
Extremity [ + ]	34
Center / Middle [ - ]	34
Intersection [   ] or [ * ]	34
The assistant wizard	35
Details manual [ X ] or [ Y ]	36
On grid	36
Toolbar	37
Near pointer (mouse)	37
Example of how it works:	38
By window	38
By exclusive inner box	39
Empty the selection	39
Above an horizontal	39
Below an horizontal	40
To the left of a vertical	41
To the right of a vertical	42
Act on the selection	43
<b>Take a copy of the selection</b>	<b>43</b>
Rotate the selection.	43
Select current mode	44
Clear the selection	44
Select all	44
Delete selected entities.	44
Delete an entity	44
Attribute definitions	45
Line type of the entity.	45
Group entity	45
Entity level.	45
Change attributes	46
Change the attributes window	46
Cotation attributes	46
Text attributes	47
Change text Attributes	47
Attributes hatch	48
Change attributes hatch	48
Lock entities	49
Changing	49
Behavior of this function by type of entity:	49
Properties of an entity	52
Main	52
Segment tab	53
Lock feature	53
Associations	54
Specialty tabs	54

---



<b>GEOMETRIC ENTITIES</b>	<b>58</b>
Geometric entities toolbar	58
Point	58
The segment by 2 points	58
The broken line	59
The rectangle	59
Parallelogram	59
Circle	59
The arc by 2 points and a center	60
The arc through 3 points	60
Ellipse	60
Ellipse with vertical or horizontal	61
Slot / handle	62
Chamfer	62
Fillet (rounded)	63
Recovery of deleted entities or all	64
Calculation of center of gravity	64
Refresh	65
<b>DIMENSIONS</b>	<b>66</b>
Toolbar	66
Dimension between 2 parallel lines	66
Horizontal dimension	66
Vertical dimension	66
Chains of dimensions	66
Dimension between 2 points	67
Interior radius	67
Exterior radius	67
Inside diameter	67
Outside diameter	67
Angle	68
Chamfer	68
Arrow	68
Dimension control	68
Erase dimension	69
Automatic dimensions	69
Short dimensions	69
<b>TEXT &amp; QUESTIONS</b>	<b>70</b>
Entering question	70
Entering questions	70
Advance text	71
Spotted text	71
Repeated text	71
Text incremented	71
Text Express	72
Enter text express	72
Underline	72
Italic	72
Bold	72
Enlarge	72
Reduce	72
Direction of the text	73
Set font	73
Configuration Textes	73
Replacing text	73

---



Align text	74
<b>TECHNICAL DATA-SHEET</b>	<b>75</b>
The technical data-sheet	75
Insert a technical data-sheet	75
Questionnaire	76
Order questionnaire	76
Useful area	77
Crop data sheet	77
<b>CARTON SIZE / WOOD SIZE</b>	<b>78</b>
Carton format	78
Editing, design	78
Wood format	79
Editing, design	79
<b>CONSTRUCTION</b>	<b>80</b>
Toolbar	80
Clear construction	80
Points	81
Split segment	81
Straight point(s)	81
Horizontal line.	81
Vertical line.	81
Straight by 2 points.	81
Straight time.	81
Straight parallel point.	82
Right perpendicular point.	82
Straight line by line(s)	83
Right distance.	83
Straight oblique.	83
Median line	83
Straight bisector.	83
Straight N – line sector.	83
The line, circle(s), straight(s) and point(s)	84
Straight tangent to the circle by 1 point.	84
Straight tangents to a circle and parallel to a straight.	84
Straight tangents to 2 circles.	84
Circle by point(s) and straight(s)	84
Circle by 1 point and radius, centre straight.	84
Circle by 2 points and center on the straight.	85
Circle by 2 points and radius.	85
Circle by 3 points.	85
Straight tangent to a circle and center.	85
Circle tangent to a straight point and a radius.	85
Circle tangent to 2 straight and radius.	86
Circle tangent to 2 lines and 1 point.	86
Circle tangent to 2 lines and 1 point.	86
Circle tangent to 3 lines	86
Circle by points and straights Circle tangent to a circle and center.	87
Circle tangent to a circle and 2 points.	87
Circle tangent to a circle, a point and radius.	87
Circle tangent to 2 circles and radius.	87
Circle tangent to 2 circles and a point.	88
Circle tangent to 3 circles.	88

---



Circle tangent to a straight and a circle radius.	88
Circle tangent to a straight, a circle and a point.	88
Circle tangent to a right, a circle center on the straight.	89
Circle tangent to 2 lines and a circle.	89
Circle tangent to 2 circles and a straight.	89
<b>TRANSFORMATIONS</b>	<b>90</b>
Symmetries	90
Homothety	91
Transformation 2 points	91
Distorsion	92
Translating / Distort	92
Rotation	93
Rotation angle	93
Add a face	93
Repetition according to 2 directions	94
Circular repetition	94
Delete Duplicate entities	94
Change attributes	94
Cut/split	95
Move/copy	95
<b>Add model</b>	<b>96</b>
<b>Disperse</b>	<b>96</b>
<b>PROFILES</b>	<b>97</b>
Creating and deleting a profile.	97
Profil manual	97
Profil interactive manual	97
Contour shifted	98
Select a profile	98
Profile window	98
Remove profile	99
Area profile	100
<b>THE HATCH</b>	<b>101</b>
Creating and deleting hatches.	101
Crosshatch profile	101
Remove hatching	101
Control of hatching	101
<b>LAYOUT</b>	<b>102</b>
<b>Grouping entities</b>	<b>102</b>
<b>DYNAMIC PARTS</b>	<b>103</b>
Layout in XY	103
Rotation	107
<b>Move model</b>	<b>108</b>
<b>Explode poses</b>	<b>108</b>
Informations	109
Data base	110

---



<b>INSERTING FILES</b>	<b>111</b>
The drawing	112
The technical data sheet	112
The catalogues	113
Images Bitmaps	115
<b>THE PARAMETRIC</b>	<b>117</b>
Introduction	117
Utilisation	120
Rating parametric horizontal	120
Rating parametric vertical	120
Rating parametric parallel	120
Rating parametric radius	121
Formulas	121
The arithmetic and trigonometric functions	122
Pythagore:	122
Create a condition:	122
The parameter definition table:	123
Execute Parametric	123
Clean	123
Generate a parametric component	124
Add a parametric model in PLM PackLiB	125

---



# WARNING

---

## Read before using.

- 1- The information contained in this document can be subject of modifications without any previous advice.
- 2- This document is given to the user with only aim to make easier the knowledge of the **Picador<sup>®</sup>** system, of which he acquired the rights of use.
- 3- **TreeDIM<sup>®</sup>** - **Picador<sup>®</sup>** declines any responsibility for any damage which can result from the information contained in this document.
- 4- The attention of the user is drawn to the fact that it is prohibited to him to reveal, or to facilitate the disclosure of this document, to copy or reproduce all or parts of the document, by any means or under any forms, to translate it in any other language, without express agreement of **TreeDIM<sup>®</sup>**, owner of **Picador<sup>®</sup>** software.

# Welcome

---

## Foreword

Welcome in **Picador<sup>®</sup>** under **Microsoft Windows** environment, CAD solution that brings you all the power and ergonomics of its graphic interface. Available on all Microsoft Windows platforms, **32 bits & 64bits (XP, Vista, 7, 8, 10...)**

---

## PICADOR<sup>®</sup> documentation

This guide was written for the sake of simplicity and accuracy in the information presented. For each function, you will find a description and the operation step by step implementation. When that required it, we took care of examples to illustrate the details of the features of **Picador<sup>®</sup>**.

---

## PICADOR® Windows



**Picador®** or **Picador 2d®** is a complete suite of CAD software for cardboard packaging design and POS. They can handle a multitude of applications, from initial box design to final packaging, including:

- Structural and parametric design
- 3D folding
- Assembly product/packaging
- 3D animation
- Technical manual
- Managing cutting tables for prototype and production
- Standard libraries (ECMA, FEFCO, PLV)
- ERP-CAM Integration (ActiveX, .net, XML)
- Optimization of palletization

**Picador®** is a native Windows product, designed entirely in object oriented technology (C ++, C #) and uses the Microsoft Class Library (MFC).

**Picador®** is a Microsoft solution partner; its software integrates with all Microsoft solutions (Excel, Word, Access ...) thanks to its technology **XDK® (ActiveX Development Kit)**

The objective is to expand the information system using as database files **Picador®**. The sales department will use the fast visualization module in a conversation with a client, the connection to databases, the standard setting (fast obtaining a quote).

Today, **Picador®** allows you to take advantage of this technology for your Office applications.

# Technical support

---

## Getting ready for technical support



If you need assistance, contact **Technical Support PICADOR**. Before calling, stay in front of your computer with your drawing to the screen and the user guide of PICADOR at hand. Be ready to provide the following information:

1. The exact information detailed in the message that appeared on your screen when the problem occurred.
2. A description of what happened and what you did at that time.
3. What was attempted to resolve the problem.

### How to obtain technical support?

You can contact us by various means:

**Phone:** (+33) 01 41 42 19 36

**Mail:** [support@picador.fr](mailto:support@picador.fr)

**Website:** [www.treedim.com](http://www.treedim.com)

# Installation

---

## What you might know before starting the installation.

The installation will create a new Windows **Picador**<sup>®</sup> specific directory: **C: \ picador**.

The executables are located in: **C: \ picador\bin10\_2d**

This directory will contain all the modules of the **Picador**<sup>®</sup> Windows version.

To run correctly **Picador**<sup>®</sup> needs a initialization file: **picgeom.ini**

This file is stored in the **C: \picador\bin10-2d**.

This is an **ASCII** file, therefore editable, it contains various parameters

The working directory should be: **C: \ Picador**

---

## Prerequisites

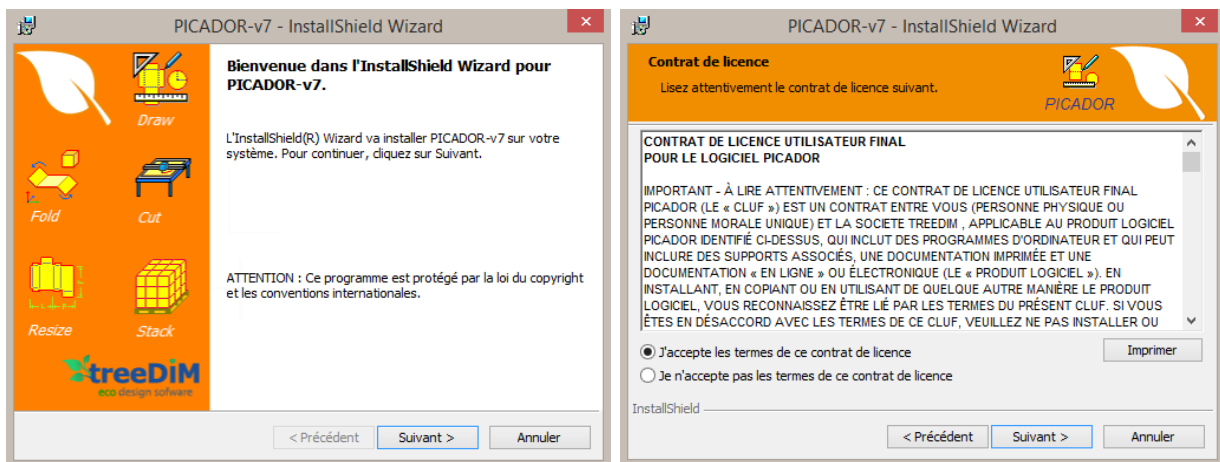
Microsoft-Windows XP, Vista, 7, 8, 10

Microsoft Framework .NET 4.5

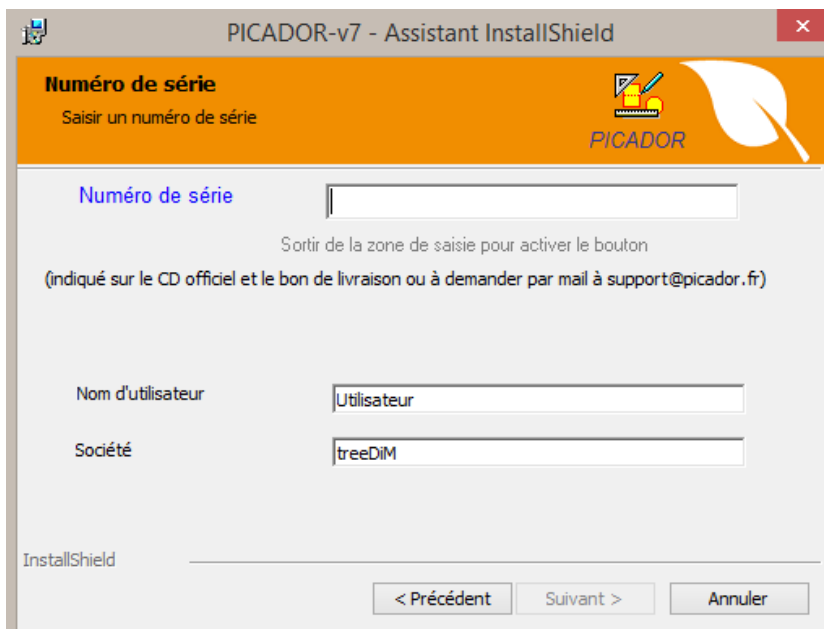
CPU 2,5Ghz, RAM 2 go

## Install Picador®

- Insert the cd-rom of Picador®.
- The installation program should start automatically
- Then you only need to follow the different steps of the installation script.



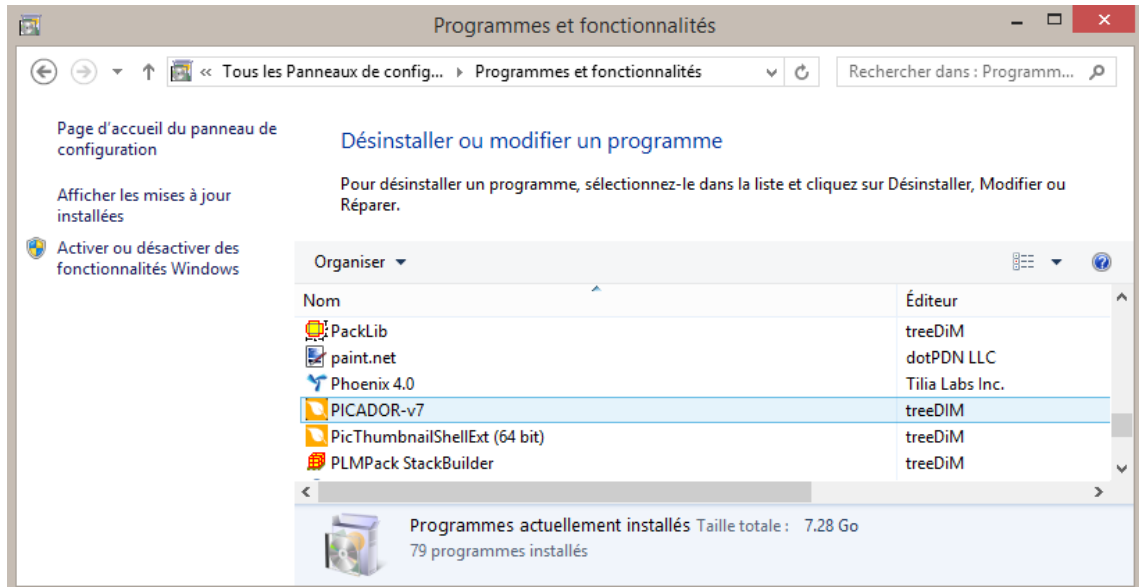
You will find the serial number in your delivery order or in your CD case.



Finish the installation of Picador®.

## Uninstall

To uninstall Picador®, you must use the uninstall Picador entry in the "Program and features" panel.



# Presentation & conventions

---

## Description

**Picador<sup>®</sup>** is the main module for 2D design in **Picador<sup>®</sup>** CAM/CAD suite. It enables the design of 2D geometric shapes using a variety of functions for creation, modification and processing of simple features (segments, arcs, ellipses.) or complex (profiles, parametric, associated drawings, catalogs, nesting, multi parts ...).

This module also allows the covering technical documents: quotation, cross hatching, text, data sheets ...

He also enjoys all the features of the technology © **XDK** for setting and imports and exports.

With the others modules of **Picador<sup>®</sup>**, it is a complete system for design and manufacturing. The modular aspect of **Picador<sup>®</sup>** allows installing only the modules needed on different workstations.



---













## Mouse conventions

The following table explains the basic terms associated with using the mouse.







To...	...Do this
Point or Aim	Move the mouse cursor on a face or an object
Click	Click the mouse left button and release it
Double-click	Quickly press twice the left mouse button and release it
Move	Press the left mouse button and keep it pressed while moving the mouse cursor. Then release it.
Right click	Click the right mouse button and release it.

## Shapes of the mouse pointer

The cursor changes shape according to the task you are performing.

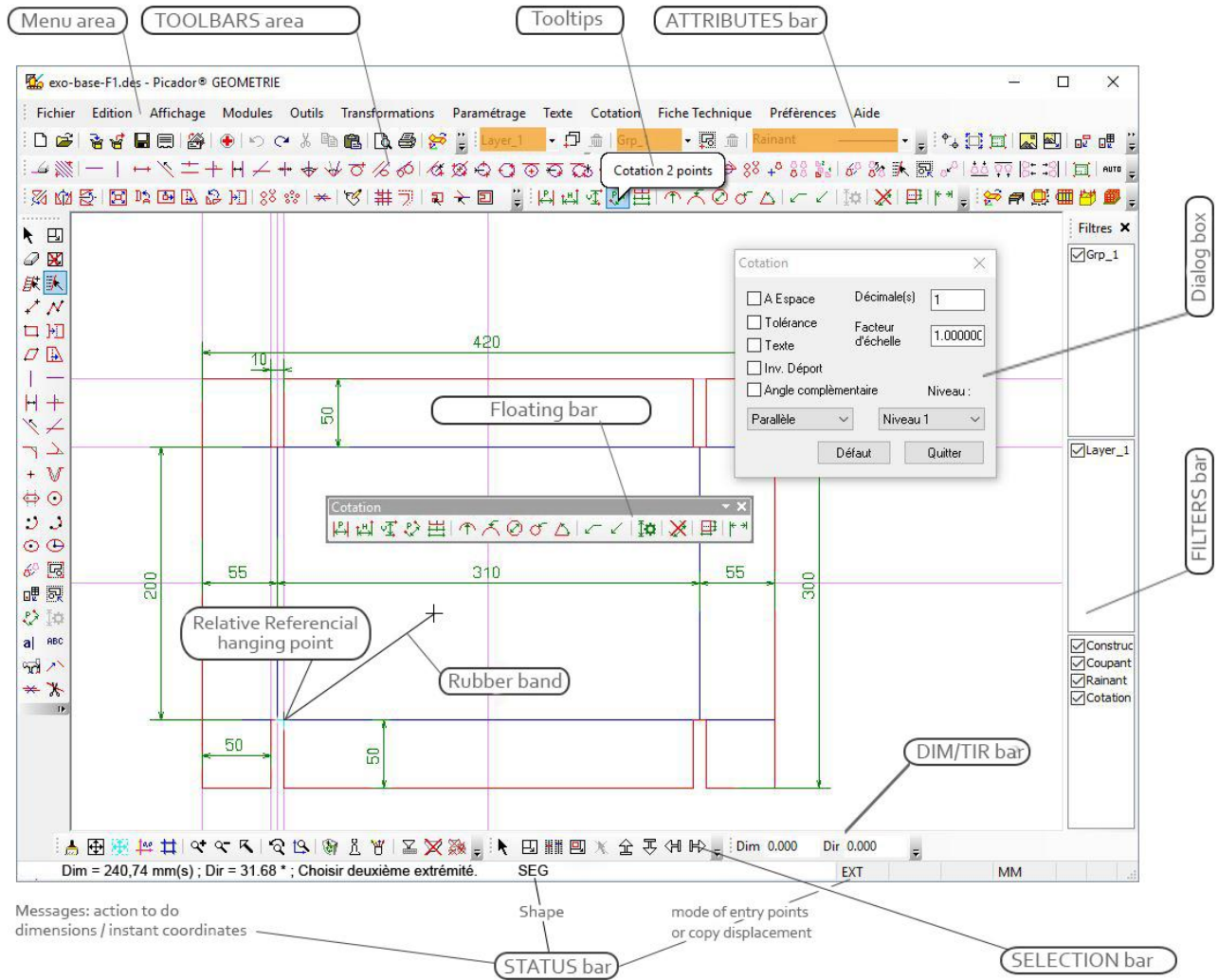
Pointer	Site	Action
	Menus, commands, toolbars	To choose commands, to click on an icon or a button.
	In the drawing zone.	To define a window (selection or zoom) by clicking 2 angles opposed.
	On the sides at the top and bottom and corners of the window.	Rollover to resize the window.
	In the drawing zone.	To produce a back zoom centered on the position of the cursor.
		
	In the drawing zone.	Click on an item to select it.
	In the drawing zone.	Click in the window drawing to select all the elements being under the line of the cursor.
	In the drawing zone.	Click in the window drawing to select all the elements being with the top of the line of the cursor.
	In the drawing zone.	Click in the window drawing to select all the elements being on the left of the line of the cursor.
	In the drawing zone.	Click in the window drawing to select all the elements being on the right of the line of the cursor.
	In the drawing zone.	Define a window by clicking 2 angles opposed to select all the elements included in the window.
	In the drawing zone.	Click on the screen at the place where you want to position your text.

## Main Shortcuts

Keyboard key	Action	
[ R ]	 Refresh : This function allows you to redraw	
[ Z ]	 Fit View: This function allows you to fit all the drawing within the limits of the display window.	
[ V ]	 Enlarges the area to be viewed. Select the 2 opposite angles of the area to be zoomed in. You can use the mousse scroll to zoom in and out as well	
[ F10 ]	This function allows showing or hiding the number of each entity.	
[ F9 ]	This function key display the end of all the segments and arcs	
[ + ]	End of a segment or arc.	
[ - ]	Middle of a segment, center of an arc.	
[ i ]	Intersection between 2 lines, 2 arcs or a line and an arc. Two possibilities : 1) Press [ i ], then click close to the point of an intersection. 2) Press [ i ], then click the first line (or arc) and click the second line (or arc).	
[ X ] or [ Y ]	Entering the coordinates ( X, Y ) of a point in Absolute or Relative (R)	
[ Del ]	 To delete an entity.	
[ Ctrl ] + [ Ins ]	 Unselect all selected entities.	
[ Ctrl ] [ Ctrl ]	Switches « COPY / DEPLA » . DEPLA The selected entities are moved COPY The selected entities are moved and copied	
[ Ctrl ] + [ A ]	Select all entities or Unselect the active selection	
[ C ]	Changes the attribute of the element to Cutting.	
[ F ]	Changes the attribute of the element to Creasing.	

## What we see on Picador® screen

When you run PicGEOM®, the screen below appears.  
Identify each part of the display screen PICADOR® Geometry. :



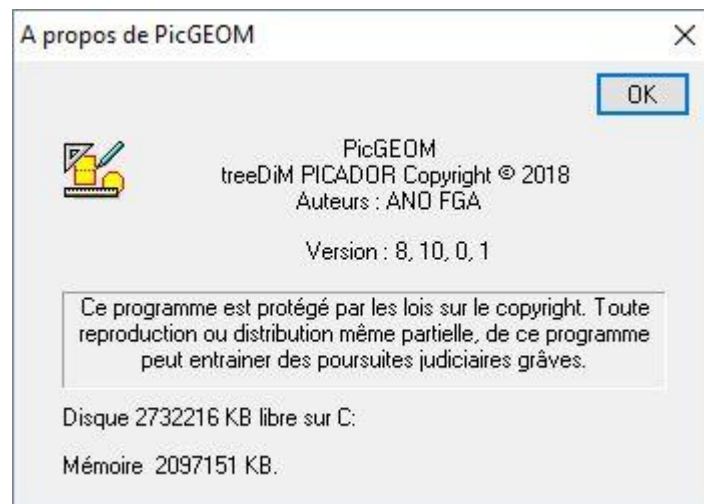
*Nota Bene:*

\* *Toolbar stowed:* the toolbar can be moved to the graphics area (floating toolbar) or be secured to the edges of the window.

\* *Each icon is associated with a tooltip.*

## About...










This command displays a dialog box containing program information: module name, version, free space on disc, the memory size and the copyright.



# Drawings, files and print

## File menu

The management of the drawings documents is done from the file FILE menu. From this menu, you can:

File			
	New	Ctrl+N	<b>Ctrl+N</b> create a new drawing,
	Open...	Ctrl+O	<b>Ctrl+O</b> open an existing file,
	Save	Ctrl+S	<b>Ctrl+S</b> save the drawing,
	Save as...		Save as an existing file,
	Save in a Catalogue		Save the drawing in a catalog,
	List studies		List of previous studies ( option PICSIG),
	Archive		Archiving the drawing,
	Properties...		Access to the drawing properties,
	Open the file again		Open the file again,
	Open last backup		Open the last backup,
	Import...		Import a drawing from a different format file,
	Export...		Export the drawing in a different format file,
	Direct Send to plotter		Direct send to plotter,
	Define Send to plotter...		Plotter output with frame control,
	HPGL Import Configuration		HPGL import configuration (Hewlett-Packard Graphic Language),
	Plotter configuration		Plotter configuration,
	Print...	Ctrl+P	Importation configuration,
	Page set up		
	Print preview		<b>Ctrl+P</b> print a drawing,
	Send...		Adjust parameters of the layout and printer,
	Remote-Assistance ...	F12	Have a preview of the printer output,
	1		Send a file through the mail,
	2		
	3		<b>F12</b> Remote assistance via GoToAssist
	4		
	5		1
	6		2
	7		3
	1		4
	2		5
			.....,
	Quit		Quit the application.

## Drawings and files

### New



**Ctrl+N**

This command save the drawing displayed (if it was modified) then initializes the screen to a new document.

### Open



**Ctrl+O**

This command open the dialog box **OPEN** to browse and select a drawing file (\*. des) from the disks. The chosen design is then displayed on the screen.

### Save



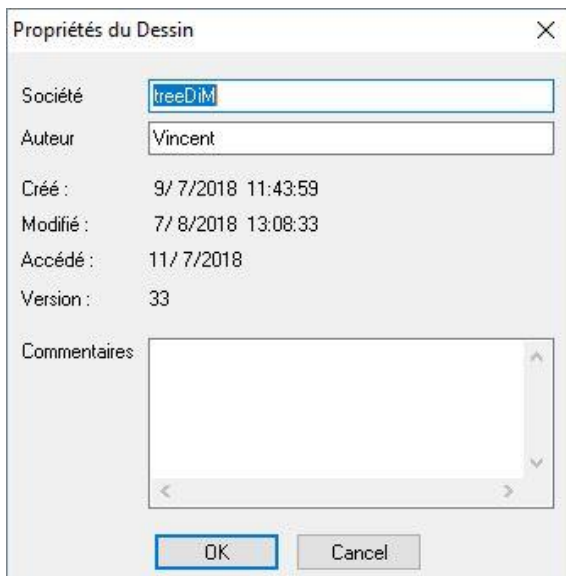
**Ctrl+S**

This command save the drawing in the file associated to this document. If the file does not exist, the dialog box **SAVE** is open to browse and define a new file.

### Save as...

This command open the dialog box **SAVE AS...** to save the drawing in a file giving it a name.

## Properties



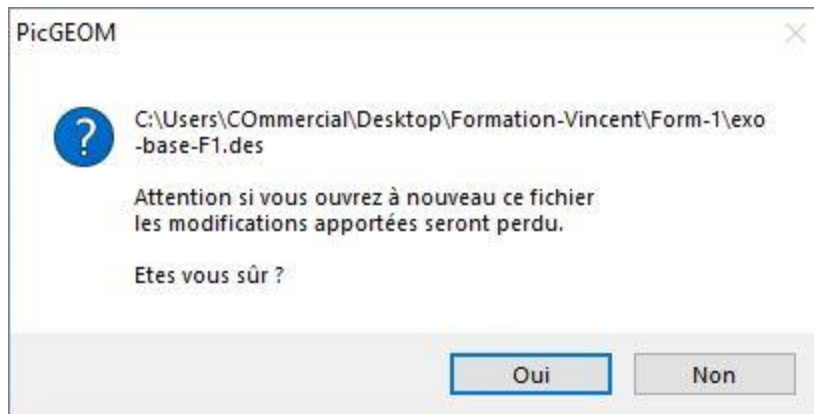
Société	treeDIM
Auteur	Vincent
Créé :	9/ 7/2018 11:43:59
Modifié :	7/ 8/2018 13:08:33
Accédé :	11/ 7/2018
Version :	33
Commentaires	

The new format allows you to save the file information such as:

the name of the company,  
the author of the design,  
creation date,  
modified,  
the last time it was opened,  
the version number format,  
comment lines or descriptions.

For sub-drawings associated with the document, its properties are accessible using the function **double clicks on the sub-design**.

## Open the file again

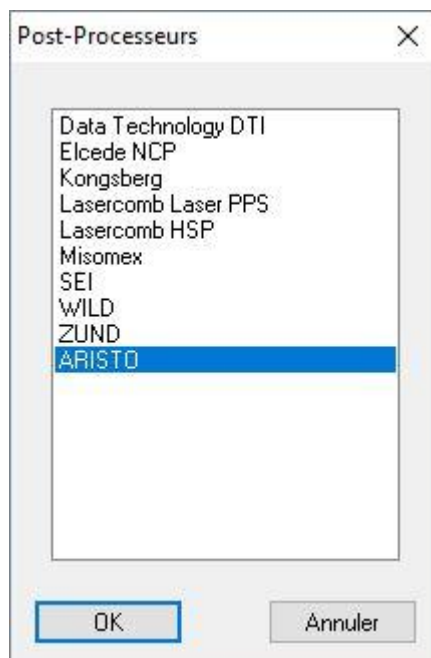


This new feature allows you to resume work by abandoning all changes made since opening the file. This function is enabled after answering **yes** to the next

## Import



This command displays the **IMPORT** dialog box that allows you to select an external drawing file from several types of formats (**PDF, EPS, AI, CFF2, DDES, DXF (AutoCAD), HPGL, IGES, N (Diacad).**





## Export



This command displays a dialog box that allows you to EXPORT the drawing in a file to a different type of format (PDF, EPS (Postscript), AI (Adobe Illustrator), CFF2, DDES, DXF (AutoCAD), HPGL, IGES, N (Diecad), WMF (Windows Metafile)).

## Send...

This command automatically converts the drawing in the desired format and transfer the file in the mail box.

## Output to plotter

### Direct send to plotter

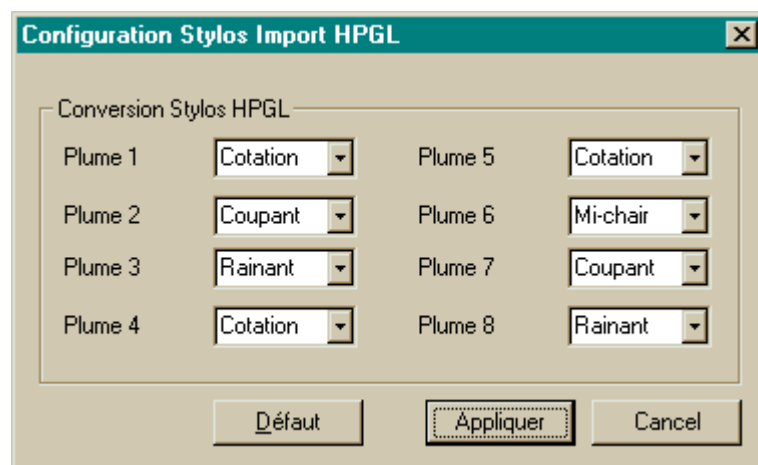
Performs an output to an HPGL or HPGL/2 compatible plotter. A rectangle representing the configuration of the plotter can set the output area.

### Direct plotter output

Performs an output to a compatible plotter HPGL or HPGL/2. The drawing fit in the sheet format automatically.

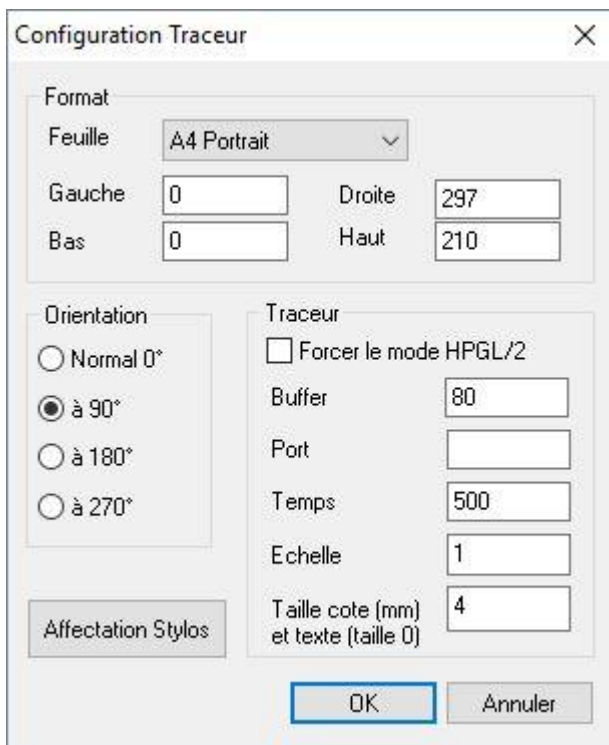
## HPGL Import Configuration

Allows you to establish correspondence between the HPGL pens and the Picador line types.



## Plotter configuration

To configure some parameters of the plotter.



**Configuration Traceur**

**Format**

Feuille:

Gauche:  Droite:

Bas:  Haut:

**Orientation**

Normal 0°  
 à 90°  
 à 180°  
 à 270°

**Affectation Stylos**

**Traceur**

Forcer le mode HPGL/2

Buffer:

Port:

Temps:

Echelle:

Taille cote (mm) et texte (taille 0):

OK Annuler

- **Format**

Define the format limits and the position of the origin of the plotter. For example, for an A4 and an origin in the lower left, the values are :

$G = 0 \quad B = 0$

$D = 271.75 \quad H = 190.00$

For a centered origin :

$G = -135.875 \quad B = -95$

$D = 135.875 \quad H = 95$

- **Buffer and time**

On some old plotter with no major internal buffer, it is necessary to « chop » the output block size ( buffer in bytes ) and an interval (time in milliseconds). For plotters that do not require this procedure just put time of 0 milliseconds. The buffer should never be zero.

- **Port**

Sets the port (comX:, lptN:) which is connected to the plotter. For ports comX: their configuration is done by the Control Panel of Windows. If no plotter is present, does not put anything in the Port box.

- **Force HPGL/2 mode**

Some printers (HP Laser Jet III) accept the language HPGL / 2, but it should be prepared to work in this mode. This check box allows for this preparation.

- **Scale**

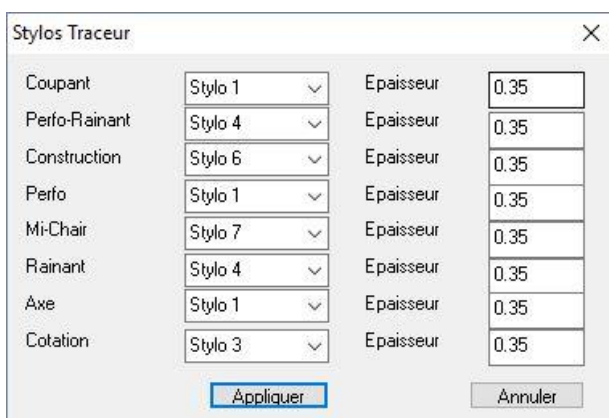
Change the output scale.

- **Measurement size**

PICADOR doesn't match with those of HPGL language, we can choose the size of the rates and the texts on size « 0 ».

- **Pen allocation**

Changes the allocation of Picador types lines to HPGL pens.



**Stylos Traceur**

Coupant	<input type="text" value="Stylo 1"/>	Epaisseur	<input type="text" value="0.35"/>
Perfo-Rainant	<input type="text" value="Stylo 4"/>	Epaisseur	<input type="text" value="0.35"/>
Construction	<input type="text" value="Stylo 6"/>	Epaisseur	<input type="text" value="0.35"/>
Perfo	<input type="text" value="Stylo 1"/>	Epaisseur	<input type="text" value="0.35"/>
Mi-Chair	<input type="text" value="Stylo 7"/>	Epaisseur	<input type="text" value="0.35"/>
Rainant	<input type="text" value="Stylo 4"/>	Epaisseur	<input type="text" value="0.35"/>
Axe	<input type="text" value="Stylo 1"/>	Epaisseur	<input type="text" value="0.35"/>
Cotation	<input type="text" value="Stylo 3"/>	Epaisseur	<input type="text" value="0.35"/>

Appliquer Annuler

## Draw and print

### Print

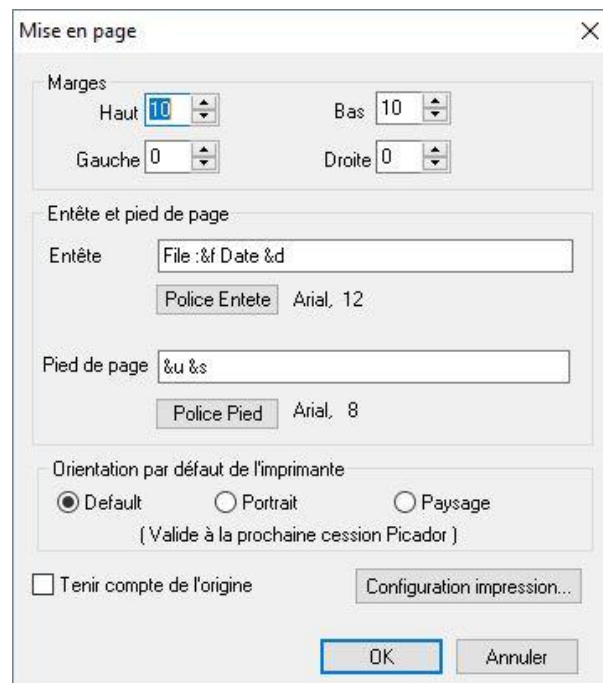


This command will print the image shown on a printer configured in the system.

**Ctrl+P**

### Page set up

This command lets you change the layout of the document and change the header and footer. It should be noted that the font used for the footer is also used for displaying the numbers of entities.



In the header and footer (and in all texts), we can use the system variables:

**&d**: current date,

**&h**: current time,

**&u**: user name,

**&s**: name of the company,

**&a**: application name and version,

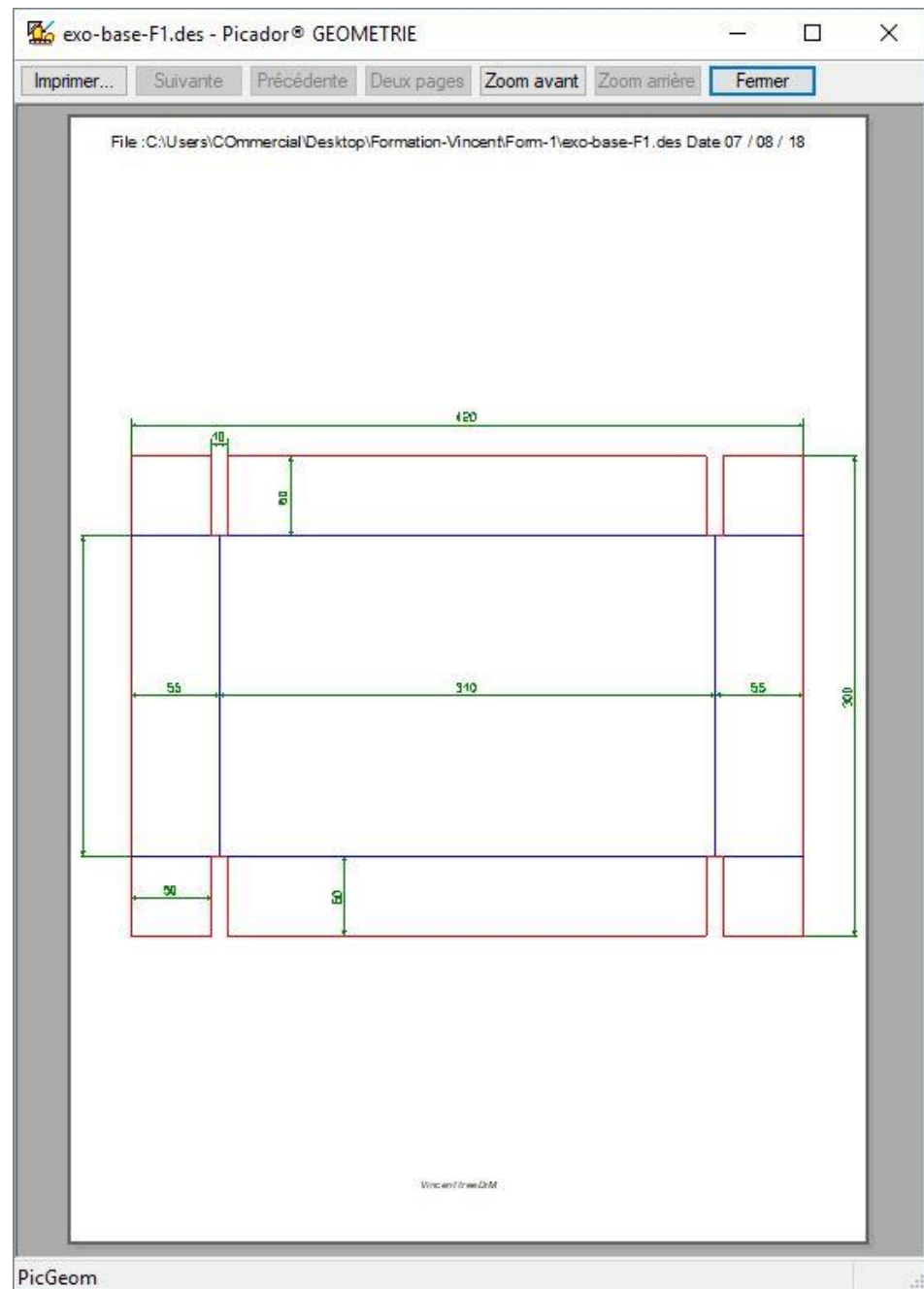
**&e**: relative scale of the drawing area and the resolution of the printer (this is not exactly the scale of the drawing)

**&f**: full file name pattern.

## Print preview



This command allows the screen to view the layout of the paper document and print it.



# Archiving functions

## Goals

The research produced a large amount of studies, those are distributed among the different designers. To list all these studies, often using a simple directory.

Although this method is a very simple implementation, it has huge drawbacks: risk of forgetting, painstaking research, manual system, non-binding.

To overcome these drawbacks, we specified a software module integrated in the range of PICADOR products for building precisely the names of files, archive on the desktop and keep the history of BE studies. This module works through the network and is intended to be used by a workgroup.

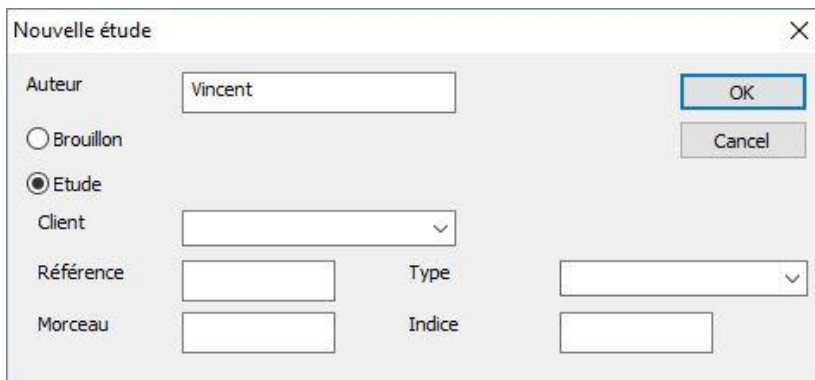
## Technical description

This module is part of a set of other tools to integrate into a generalized information system (GIS). It dynamically component (DLL) named **PicSIG.DLL** that can be customized for each company, user group within the same company. The database of archived documents is stored in the file **PicSIG.DAT** the default directory **C:\Picador**. This file is of csv type and can be included in an Excel spreadsheet.

If this DLL is present in the system, the software takes into account PICADOR rout and the archiving procedure in the profile described in the **GIS**.

## Archiving and file names

When you click on "archive", we have the following dialogue box:



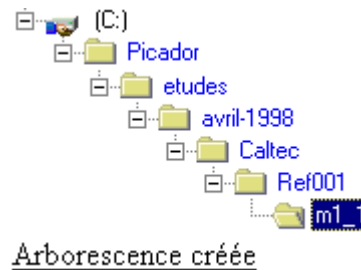
In this case the user must fill in the fields:

- Customer
- Reference
- Piece
- Type
- Clue

## List the studies

### The box « study » is checked

1- In the study directory the system creates -if it does not exist- the following tree:



The system builds the file name: **ET1.des** or **ET** is the prefix for studies and or the following number is automatically assigned by incrementing a current issue.

2- storage history occurs in the **PicSIG.DAT** file by adding a line describing this operation. This file is editable directly from PicGEOM thanks to the activation of the Edit menu studies of the File option when **PicSIG.DLL** is present in the system.

### The box « Study » is not checked

1- In the study directory (specified in **PicGEOM.INI**) the system creates if it does not exist the following tree:



The system builds the file name: **BR2.des** or **BR** is the prefix for the draft and the following or the number is automatically assigned by incrementing a current issue.

2- storage history occurs in the **PicSIG.DAT** file by adding a line describing this operation. This file is editable directly from **PicGEOM** thanks to the activation of the Edit menu studies of the File option when **PicSIG.DLL** is present in the system. In this case the customer fields, Ref, Piece and index are ignored.

We obtain the following window :

Rapport d'études créés... ✕

Machine: --    Auteur: --    Client: --    Type: --    Ouvrir  
Annuler

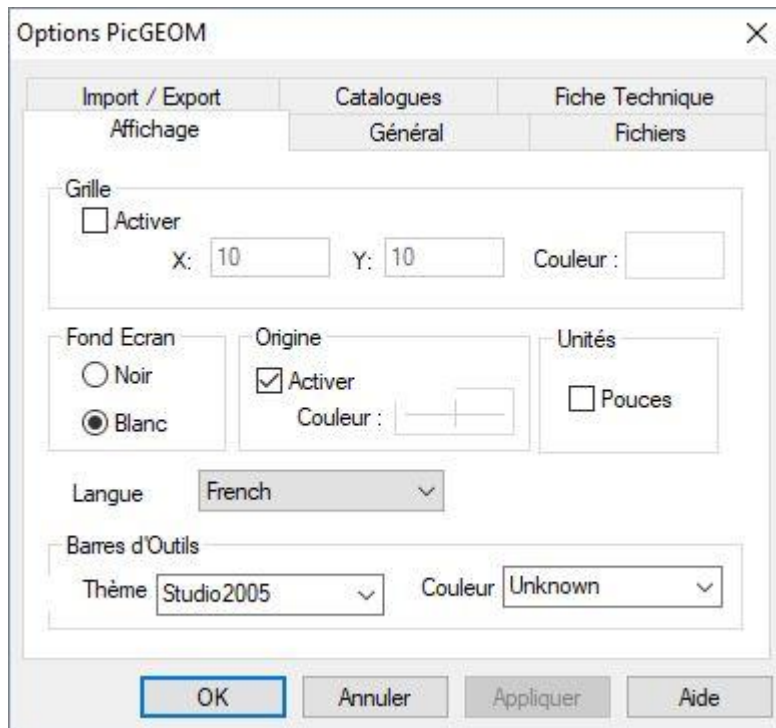
Ordinateur	Auteur	Chemin	Date	Client	Type	Reference	Morceau	Index
TREEDIM-...	treeDIM s...	c:\picador\	2015-01-...	TREEDIM	PLV	12345		
TREEDIM-...	Vincent	C:\picador\	2018-08-...	TREEDIM	CAISSE201	dfg	gh	hgh
TREEDIM-...	ANO	c:\picador\	2015-01-...	TREEDIM	CAISSE201	1235		
TREEDIM-...	treeDIM s...	c:\picador\	2015-01-...	TREEDIM	PLV			
TREEDIM-...		C:\picador\	2015-03-...	TREEDIM	CAISSE201	1234567		

In this case, the fields Customer, Ref, Piece and Clue are ignored.

# Options :

## Options

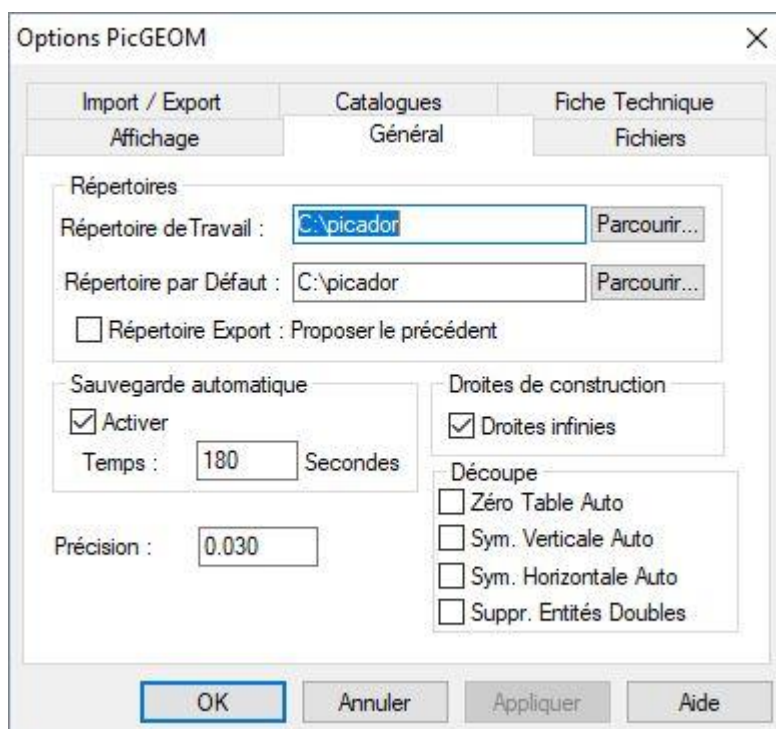
The Options tab is use to configure the general environment of Picador.



## Display options

The **Display** tab allows you to:

- activate the grid, not in X and Y and the color of the plot (right mouse button).
- the background color of the screen.
- Activate the origin and the color of the axis (right mouse button).
- Change unit of measurement: Inches (inchs) replace the mm.
- Change the software language
- Change the graphic theme toolbars.

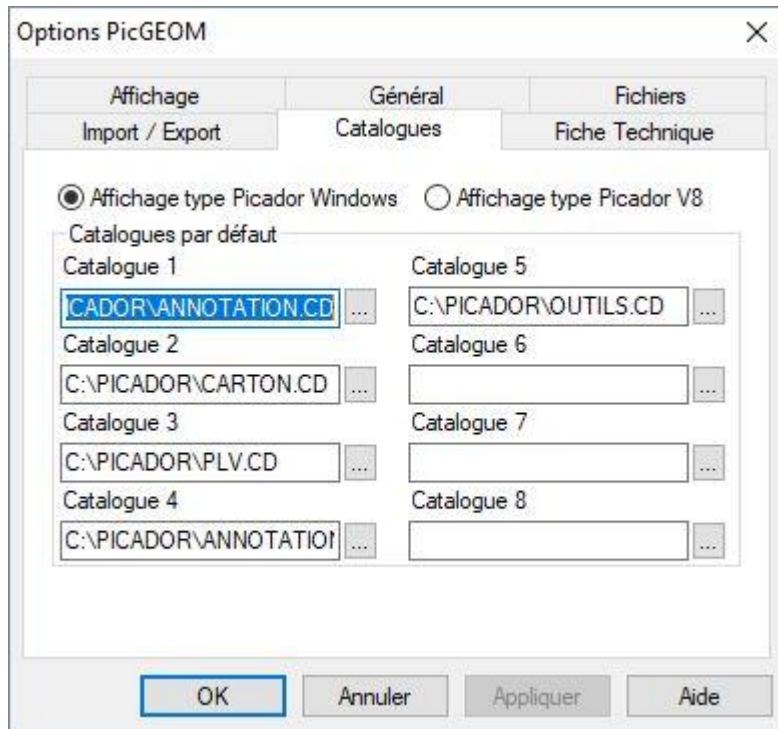


## Main options

The **General** tab lets you define:

- The working directory,
- The default directory,
- Automatic backup.
- The layout of infinite construction lines or "finished"
- A precision pointing value

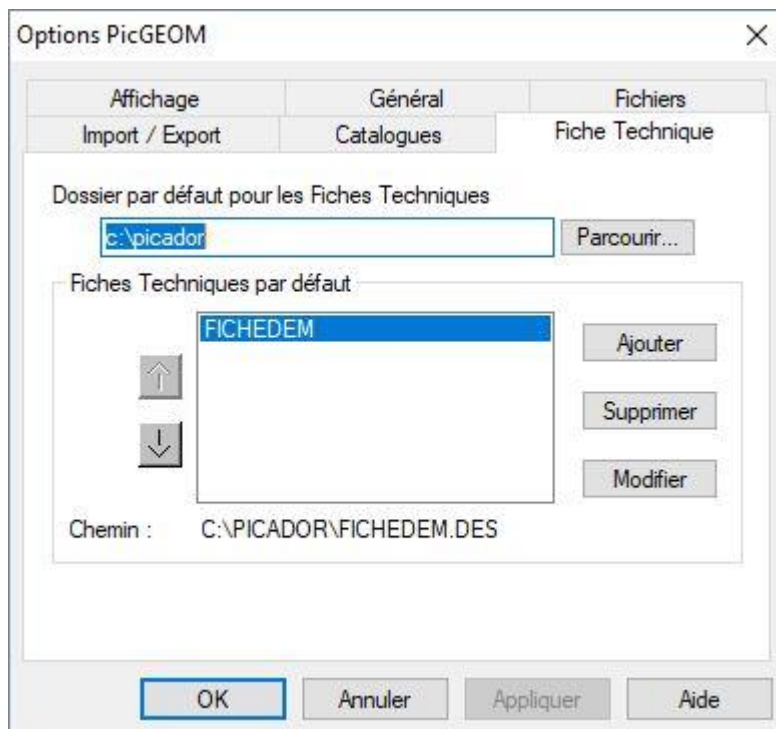




## Catalogues options

Ability to configure the display of the grid parts catalogs.  
(see [catalogs](#) or [Win V8 format](#))

Ability to define the list of default catalogs.

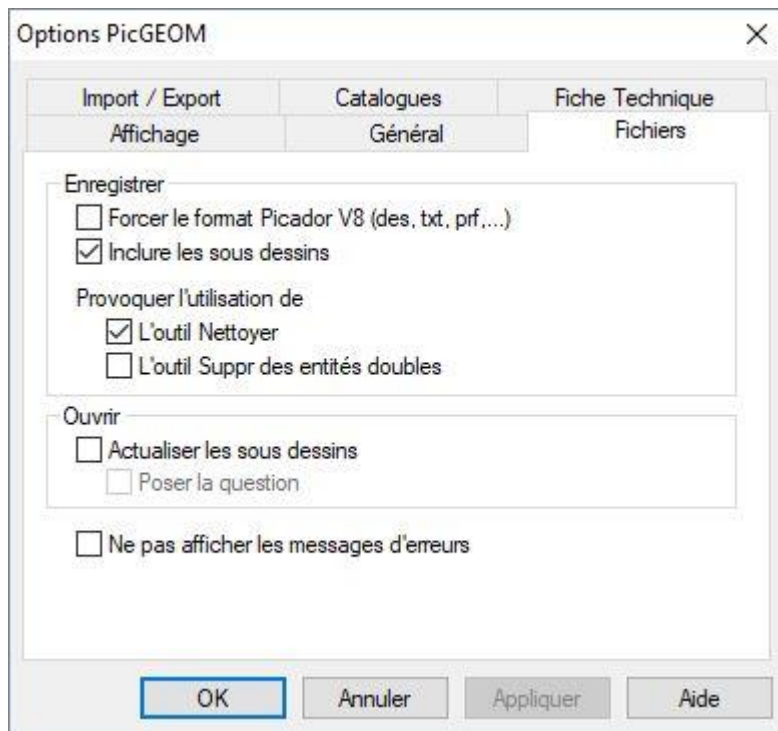


## Technical data sheet options

Default path to the configuration data sheets.

List the data sheets used by default.

See [Inserting data sheet](#)



## File options

### A recording of a file:

- Force V8 formats:

can continue to automatically record in V8 format.

- **Include Sub-Drawings:**

saves the file all the sub-drawings, parts catalogs and data sheets used in the drawing.

- **Clean:**

will launch the function systematically cleaned before each recording.

- **Delete Entities Doubles:**

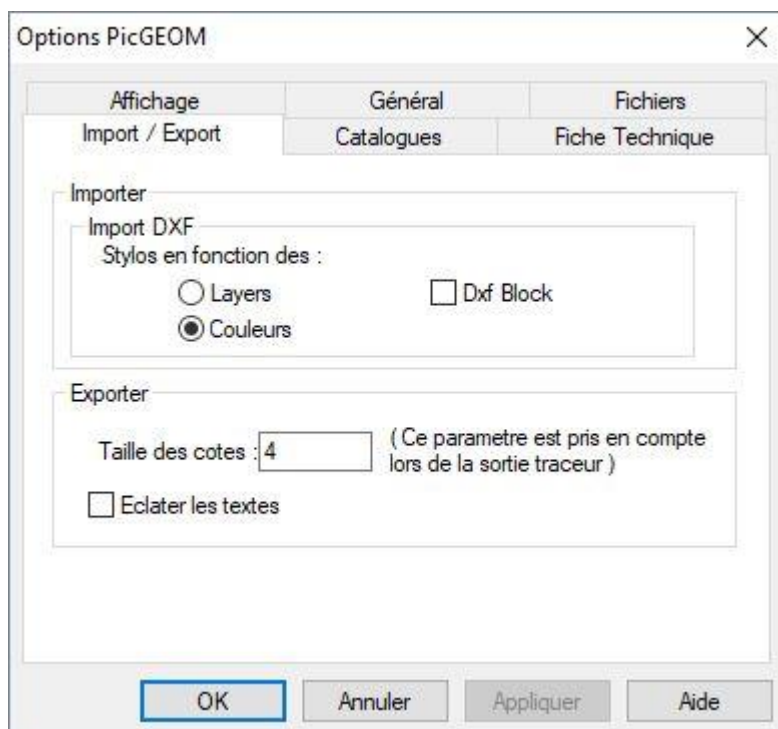
will launch the Delete Entities Double systematically before each recording function.

When opening a file:

- **Refresh under-drawings:** Automatically update the sub-drawings, parts catalogs and technical data sheets.

- **Ask the Question:** The program asks discount for each sub-met drawing.

Error messages: When references files are not found, Show or not the error messages with the full path of the non-reference found.



## Import / Export options

Establish a connection type:

DXF Layers --> Pens Picador

Colors DXF --> Pens Picador

Explode texts (Picador police) when exporting.

# View control



## Zooms

### Re-draw and re-frame



R

This function allows re-draw the entire design on the screen.



Z

This function can crop the whole design within the viewing window.

### Rectangle dimension



This function calculates the overall dimensions of the drawing. This calculation is performed only on the geometric entities (point, segment, arc, ellipse pose in drawing) to the inverse of the crop which it applies on the displayed entities. In the status bar displays the dimensions of the overall size in the next form:

**Rect ExInscrit (X x Y) 272.000 x 299.00**

### Origin Position



Allows the user to move the origin position to another place

### Grid



Make appears the grid behind the drawing.

### Zoom In



v

Zoom: enlargement of the area to view. Enter the peaks of two opposite corners of the window to enlarge. The mouse wheel also allows the Zooms.

### Zoom Out



alt+v







Zoom Out enlargement of the area to be displayed. Enter the center of the new window. The mouse wheel also allows the Zooms.

## Panoramic Zoom



alt+P

Panoramic Zoom: moving the area to view it. Enter two points defining the displacement vector of the viewing window.

The keyboard arrows , , , , ,  also used to move in user space.

## Previous Zoom



Reframe the drawing on the previous zoom.

## Zoom Origin



Reframe the drawing on the original zoom of the drawing.

## Recycle bin



Directly displays the contents of the recycle bin on the screen. Delete an element in the bin to make reappear in the drawing.

## Informations



Alt+i

Affiche la boîte de dialogue contenant le métrage, le format carton, le nombre de poses par modèles, etc...

## Pen configuration



Alt+S

This function allows you to configure the color and thickness of the pens used in the display and the printer, and the odds character height.

**Screen:** used to size the height dimensions and texts on the screen.

**Print:** used to size the height dimensions and texts on the printer.

**Ratio:** refines line thickness depending on printers (only visible on the printer and print preview).

**Apply:** apply the parameters defined in the dialog box for the current.

**Confirm :** confirm the parameters defined in the dialog box for all the next sessions

**Cancel:** close the dialog box without keeping any modifications.

**Configuration des stylos** ✕

<p><b>Ecran</b></p> <p>Coupant: Défait</p> <p>Perfo Rainant: Défait</p> <p>Construction: Défait</p> <p>Perfo: Simple</p> <p>Mi-Chair: Défait</p> <p>Rainant: Défait</p> <p>Axe: Défait</p> <p>Cotation: Défait</p> <p>Rainant-Inversé: Défait</p> <p>Anti-Coupe: Défait</p> <p>Arrachage: Défait</p> <p>Texte: Défait</p> <p>Zone: Défait</p>	<p><b>Imprimante</b></p> <p>Coupant: Double</p> <p>Perfo Rainant: Défait</p> <p>Construction: Défait</p> <p>Perfo: Défait</p> <p>Mi-Chair: Défait</p> <p>Rainant: Simple</p> <p>Axe: Défait</p> <p>Cotation: Défait</p> <p>Rainant-Inversé: Défait</p> <p>Anti-Coupe: Défait</p> <p>Arrachage: Double</p> <p>Texte: Défait</p> <p>Zone: Défait</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Divers**

Cote Ecran:     Cote Impr:     Ratio:

## Filters



Displays the **Filter** dialog box entities this function to filter the display of entities in screen according to several criteria:

**Filtres** ✕

<p><b>Niveaux</b></p> <p><input type="checkbox"/> Inverser</p> <p><input type="checkbox"/> Layer_1</p>	<p><b>Groupes</b></p> <p><input type="checkbox"/> Inverser</p> <p><input type="checkbox"/> Grp_1</p>	<p><b>Général</b></p> <p><input type="button" value="Cotation"/> <input type="button" value="Poubelle"/> <input type="button" value="Sélection"/> <input type="button" value="Textes"/></p> <p><b>Stylos</b></p> <p><input type="checkbox"/> Inverser</p> <p><input type="button" value="Coupant"/> <input type="button" value="Perforainant"/> <input type="button" value="Construct"/> <input type="button" value="Perfo"/></p> <p><input type="button" value="Mi-Chair"/> <input type="button" value="Rainant"/> <input type="button" value="Axe"/> <input type="button" value="Cotation"/></p> <p><input type="button" value="Rainant Inv."/> <input type="button" value="Anti-coupe"/> <input type="button" value="Arrachage"/> <input type="button" value="Texte"/></p> <p><input type="button" value="Zone"/></p>
--------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Entités**

Inverser

- Layers:** Show (hide) all entities of the selected level.  
**Groups:** Show (hide) all entities of the selected group.  
**Main:** Show (hide) these particular entities.  
**Pens:** Show (hide) all entities using the selected pen.  
**Entities:** Show (hide) the selected entities.

*For each square, it is possible to reverse the chosen selection.  
 For example, to see only level 2, select level 2 and check the reverse button.*

## Deleting filters



Removes all the filters (except those of the sub-drawings and catalogues pieces) and show all the

## Deleting all filters



Removes all installed filters (including those sub-drawings and parts catalog) and displays the entire drawing

## Formulas

This function allows you to show or hide the formulas contained in the texts or in the listing. The built-in variables are:

- **&FmtX** = Cardboard format X
- **&FmtY** = Cardboard format Y
- **&nMod** = number of models
- **&nPos** = total number of poses
- **&Xmin** = x minimum geometry
- **&Ymin** = y minimum geometry
- **&Xmax** = x maximum geometry
- **&Ymax** = y maximum geometry
- **&HtX** = x overall geometry
- **&HtY** = y overall geometry
- **&LgFi** = total rules length
- **&LgCo** = cut rules length
- **&LgRa** = crease rule length
- **&LgPe** = perfo rules length
- **&LgPr** = perfo-crease rules length
- **&LgMc** = half-cut rules length
- **&LgPt(i)** = rules length per dots

- **%param%** = value of parameter cotation
- **&f** = file
- **&d** = date
- **&h** = time
- **&e** = scale
- **&u** = user
- **&s** = company
- **&a** = application

---

## Show the number of entities

### Alt+L

This function allows you to show or hide the numbering entities. The font used for the display is the one used for the footer (see [page setup](#) **Erreur ! Signet non défini.**)

## Displaying toolbars and status bar

### View Menu Options

#### Files bar

Displays the files toolbar.

#### Common attributes bar

Displays the common attributes toolbar.

#### Tray bar

Displays the status bar when the user messages are displayed.

### Toolbars

#### View control

Displays the Control toolbar for quick access through the icons to display different functions:

- redesign,
- crop,
- exinscrit rectangle,
- origin,
- zoom in,
- zoom out,
- pan and zoom,
- information,
- Filters dialog box entities,
- Properties dialog box of pens,
- dialog control 3D.

### Selection

Displays the toolbar selection allows quick access through the icons to the various functions of the selection:

- Near the mouse pointer,
- In the box,
- over a horizontal,
- below a horizontal,
- to the left of a vertical,
- the right of a vertical,
- properties of the selection.

### Main

Displays the Main toolbar provides quick access to main functions.

### Geometry

Displays the Geometry toolbar.

### Alt +G

### Construction

Displays the structure toolbar that allows quick access to functions of the buildings.

### Alt+C

### Transformations

### Text

### Ratings

Display the toolbar that allows quick access to the listing.

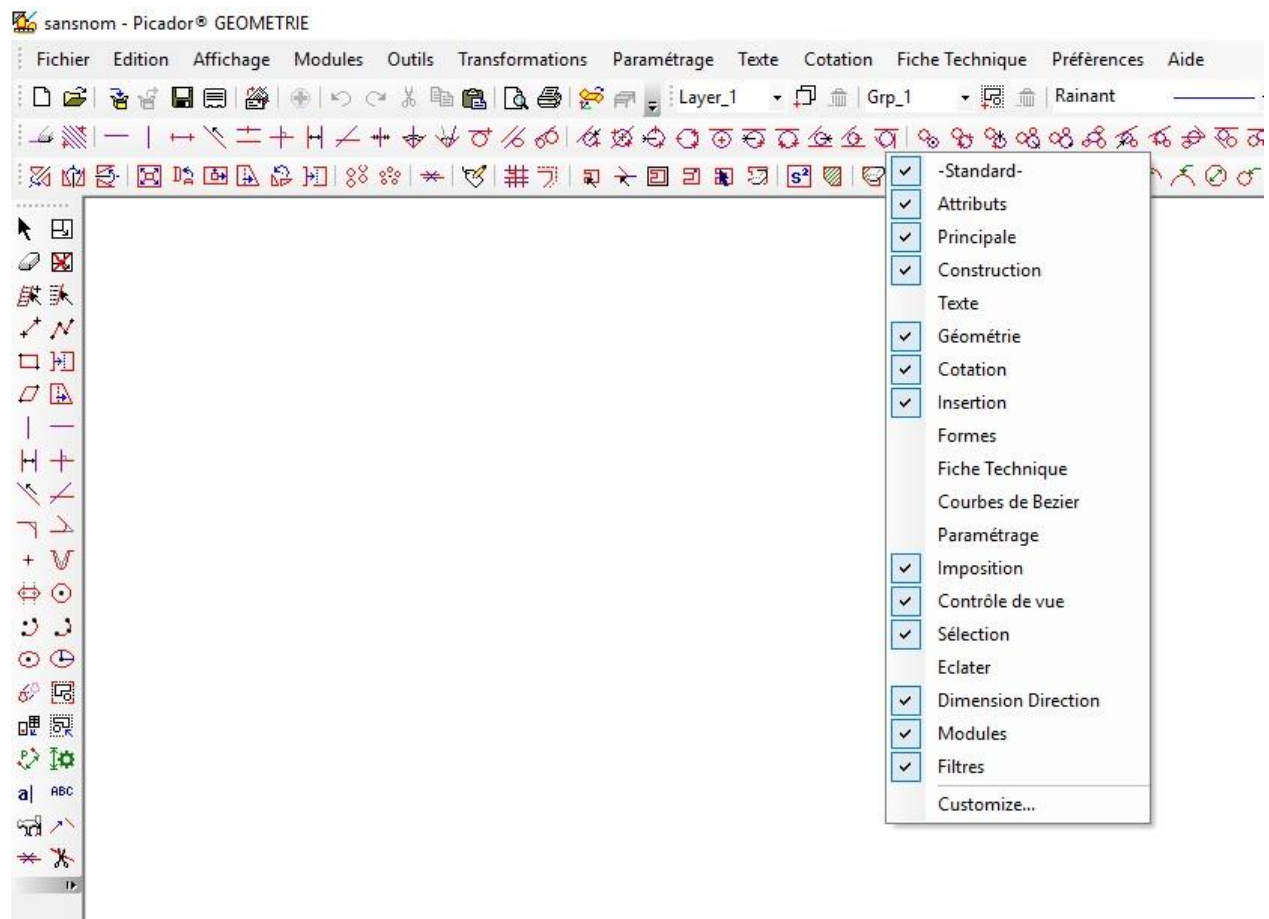
### Alt+U



# Toolbars

## Display toolbars and the status bar

A Right-click in the toolbar area to show or hide the toolbars available



# Pick a point

## Entering a point

There are several types of seizure of a point (x, y) in the mode near pointer:

- the fly,
- in the end,
- in the middle,
- at the intersection,
- manual operation for X & Y,
- X manual or Y manual,
- on grid
- with the assistant wizard.

The seizure is made on the fly by clicking a point in the drawing area. Other types of seizures are accessible by right mouse button. The initial input type is assigned to the right input at the end. The type of seizure is shown in the status bar).

## Extremity [ + ]

To enter a point at the end of an entity, that entity target and press the **[+]**. The system then determines the end of the entity closest to the cursor. This input method is then assigned to the mouse **Right button**, and the status bar indicates EXT. Then just target an entity with the right button to get a point at the end.

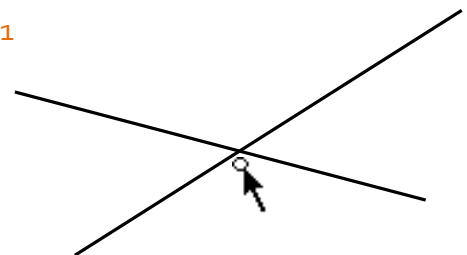
## Center / Middle [ - ]

To enter a dot in the center of an entity, that entity target and press the key **[-]**. The system then determines the middle point (segment) or center (arc, circle ..) of the entity. This input method is then assigned to the **Right mouse button** and the status bar indicates MIL. Then just enter an entity with the right button to get a middle point or center.

## Intersection [ I ] or [ \* ]

To enter a point at an intersection entities, press **[I]** or **[\*]** and enter a point near the desired intersection (Fig. 1). The system then determines the intersection of the entities closest to the target point.

Fig. 1



If the two entities are not intersecting the screen, press [ \* ] and have the two entities successively (Fig. 2).

The input method is then assigned to the **Right mouse button**. Then just click the right button of the mouse to aim an intersection of intersecting entities or select one to one intersecting two entities. The status bar indicates « **INT** ».

## The assistant wizard

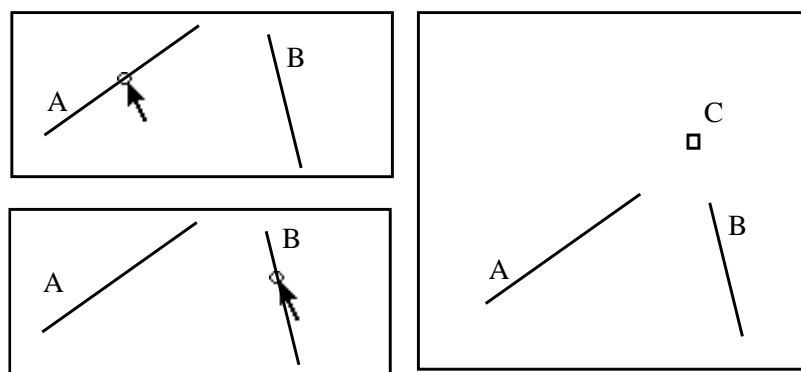
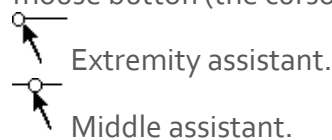
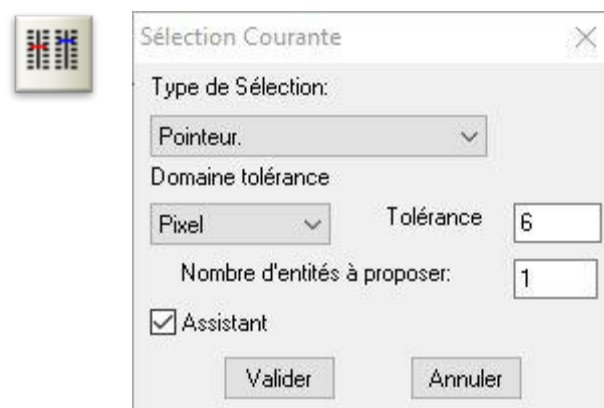


Fig. 2

When typing, a wizard allows you to directly enter one end or the middle of an entity. The cursor changes its appearance depending on the choice possible. To complete the entry with the assistant, just use the right mouse button (the cursor must be that of the wizard).



The wizard configuration is done from the selection dialog.



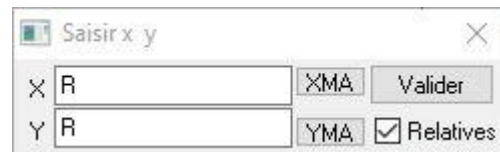
This dialog box allows you to change:

- the selection mode,
- the tolerance field and its value,
- the maximum number of proposal
- Manual or automatic validation.
- Lock / un-locking the selection wizard

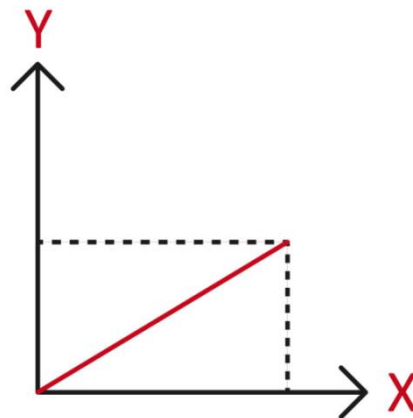
The selection is characterized according to the mode, tolerance, the number of entities and manual or automatic validation.

## Details manual [ X ] or [ Y ]

To enter coordinates of a point manually, simply press [Y] or [X]. The following dialog box appears. If your keyboard is equipped with a numeric keypad, it's possible to open the X&Y dialog box using the keys: 0,1,2,3,4,5,6,7,8,9.



Tap successively the values in X and Y coordinates of the point to enter and press the OK button (or hit **Enter**). The input values correspond to the point of placement along the axes X and Y.



To enter relative coordinates, simply type the letter **r** or **R** before the coordinate value.

## On grid

When the grid is displayed, the entry point will be that of the nearest mesh grille. Change the configuration of the grid in the **Preferences menu** → **Options** → **Display**

# Selection

## Toolbar

The selection can select one or more entities, including those of a complete drawing in order to modify, obtain information, gather, etc.. .

The selection acts on the entity as a toggle: selected / not selected. The selected entities of the design are displayed in white screen. (Or in black if the background is white).

The final selection mode enabled may be reactivated by pressing the **[Insert]** on your keyboard.

The toolbar offers the following different modes of selection:



## Near pointer (mouse)



Selecting entities seizes one after the other.

This mode selects one or more entities close to the mouse pointer.

This mode is characterized by:

- Tolerance selection is expressed:

- Unit is in screen (pixel),
- In units of the drawing scale (real).

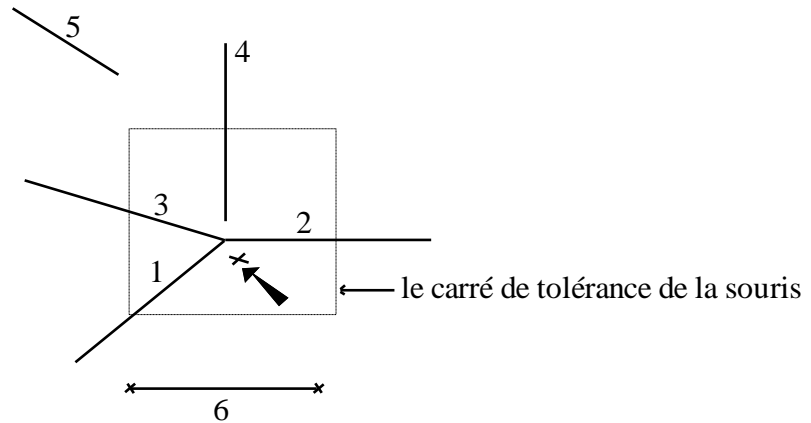
- The type of validation can be:

- Manual,
- Automatic (key **[T]**).

- The number of entities to propose (and type of manual validation)

## Example of how it works:

Suppose we want to select an entity near the mouse pointer:



By type of manual validation with a number of three proposals, the program offers us three options of selection (the entity closest to farthest). Once a selection is validated, the program does more than care proposal and selected as one entity that has been validated.

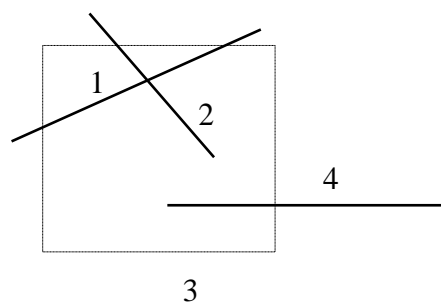
In this mode, the entities selected are: 1, 2 and 3.

## By window



Selection of all entities included in the window.

This method selects all entities that are contained in a rectangle, or cut it:



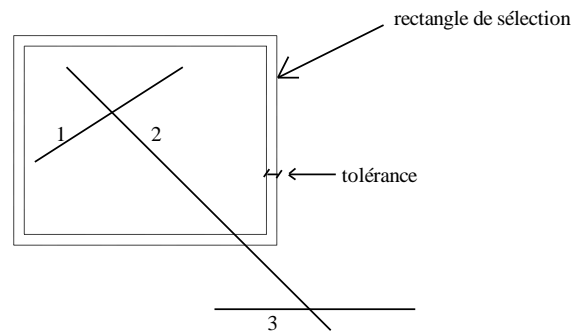
In this mode, the entities selected are: 1, 2 and 4.

*Note: type of validation and the number of proposals have no effect.*

## By exclusive inner box



Selection of all entities entirely included in the window.



In this mode, the selected entity is: 1

## Empty the selection



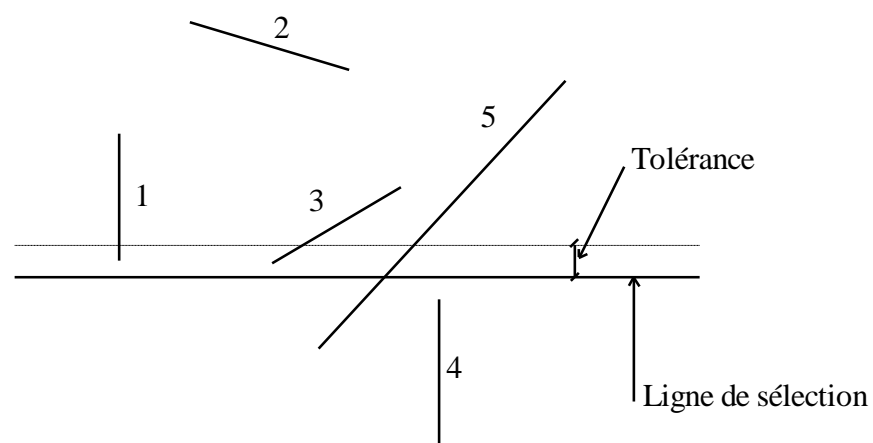
Unselect all the entities currently selected

## Above an horizontal



Selection of all entities at the top compared to the mouse position.

This mode selects all entities located above a horizontal line:



In this mode, the entities selected are: 1, 2 and 3.

*Note: if the tolerance is zero, the entities combined with the selection rectangle are taken into account.*

- a) *the type of validation and the number of proposals have no effect.*
- b) *are taken into account only complete elements (exclusively).*



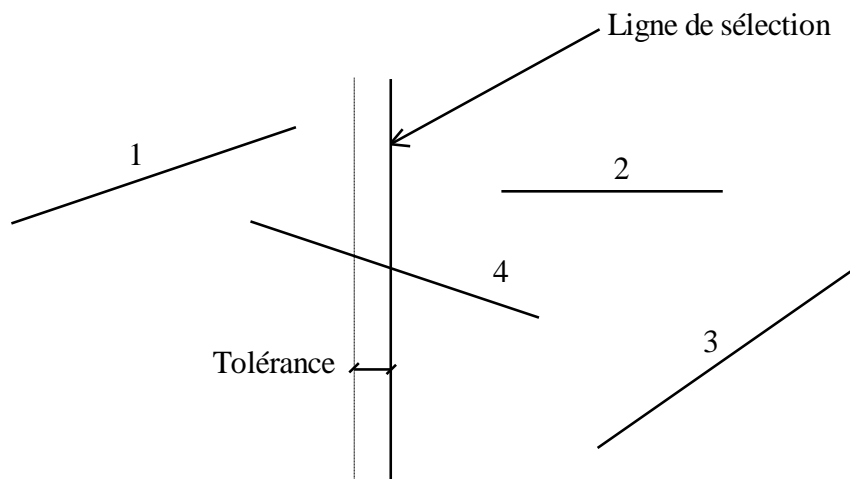


## To the left of a vertical



Selection of all entities to the left compared to the position of the mouse.

This mode selects all entities located to the left of a vertical line:



In this mode, a single entity is selected: 1

*Note:*

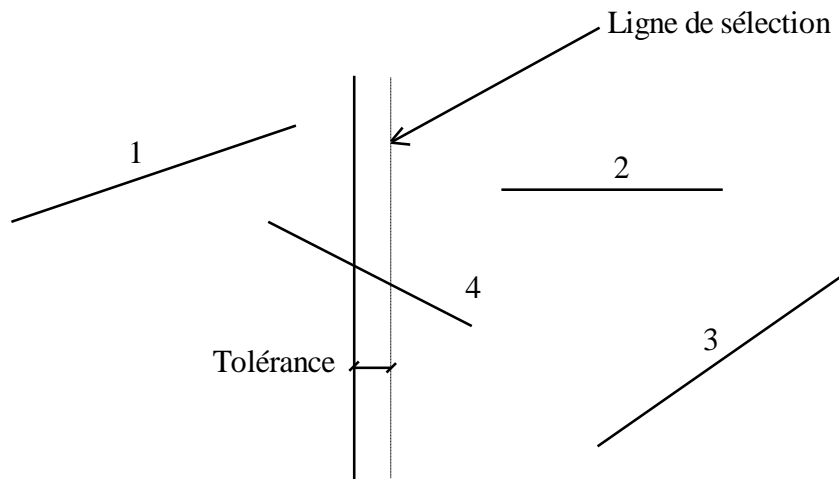
- a) *if the tolerance is zero, the entities combined with the selection rectangle are taken into account*
- b) *the type of validation and the number of proposals have no effect*
- c) *are taken into account only complete elements (exclusively)*

## To the right of a vertical



Selection of all entities located right in relation to the position of the mouse.

This mode selects all entities located to the left of a vertical line:



In this mode, two entities are selected: 2 and 3

*Note:*

- a) *if the tolerance is zero, the entities combined with the selection rectangle are taken into account*
- b) *the type of validation and the number of proposals have no effect*
- c) *are taken into account only complete elements (exclusively)*

## Act on the selection

### Take a copy of the selection

To copy the selected entities when traveling, simply press **[Ctrl]**, it appears in the status bar (see [Screen PicGEOM](#)) indicator **COPY** instead of **SHIFT**. The **[Ctrl]** key to toggle the type of press **SHIFT**, single movement without duplication of the entity.

The selection of entities is maintained until the end of the function Move / Copy (**[Esc]**). The selected entities can be repeated quickly and produce several copies.

### Rotate the selection.

To rotate the selected entities during a trip, just press one of the following key:

Last page	[↑↑]	Rotate+ 5°
Next page	[↓↓]	Rotate - 5°
Arrow up	[↑]	Rotate + 1°
Arrow down	[↓]	Rotate - 1°
Debut	[Δ]	Rotate + 90°
End	[∇]	Rotate- 90°

---

## Select current mode

**INS**

Select an entity or group of entities.

---

## Clear the selection

**Ctrl + Inser****Ctrl + A**

Unselect all entities.

---

## Select all

**Alt + Inser****Ctrl + A**

Select all entities displayed.

---

## Delete selected entities.

**Ctrl + Del**

Removes all entities of the selected database.  
If some of these entities are related to profiles, this function automatically clears the link associated with the profiles

---

## Delete an entity

**Del**

Removes the entity pointed to by the mouse. If the entity is linked to profiles, this function automatically deletes the link with the profiles associated.

*Note: all entities are erased in the trash and can be recovered by removing the trash (See page **Erreur ! Signet non défini.**).*

# Attributes



The attributes are non-geometric parameters that define the function of an entity

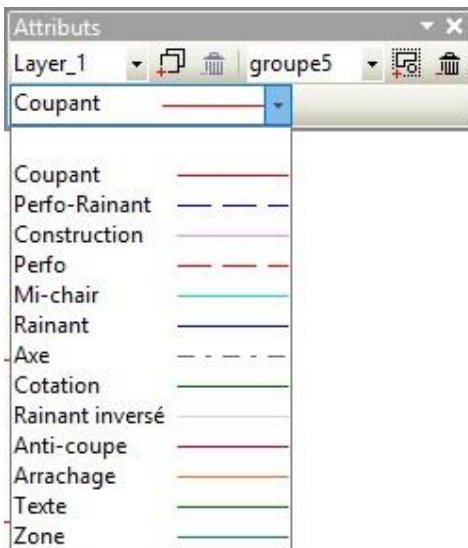
or a set of entities.

Each entity set inherits attributes or values of **currents attributes** of the entity from which it came.

The group and the non-visible working player in the attribute bar.

---

## Attribute definitions



### Line type of the entity.

The line type is the name of the function of the entity.

It can be either:

- Cutting
- Perfo-Rain
- Construction
- Perfo
- Half-Cut
- Slotting
- Axis
- Register Mark, etc.

Each type of feature can be a different color. (See page 37). The function of each type of stroke is defined by its name:

**Cutting** to the entities using the cutting tool, **Construction** for the construction entities, Etc.

---

## Group entity

The **group** is an attribute assembly that defines the geometric content (model) of an entity **position**.

It is then possible to compose taxation or amalgams with these poses.

It is possible to then compose charges or amalgams with these different positions.

The Group command allows entities to make this assembly.

---

## Entity level.

The **level** is an attribute grouping of entities. The entities of the same level can be filtered to display. We can create "layers" of viewing and processing by activating the command **filter**. Each level is associated with a number of points for the nets.

## Change attributes



This command changes the attributes of entities. To do this, simply **check** the attributes to change and set the desired value. After pressing the **OK** button, each selected entity will take the values of attributes checked..



## Change the attributes window

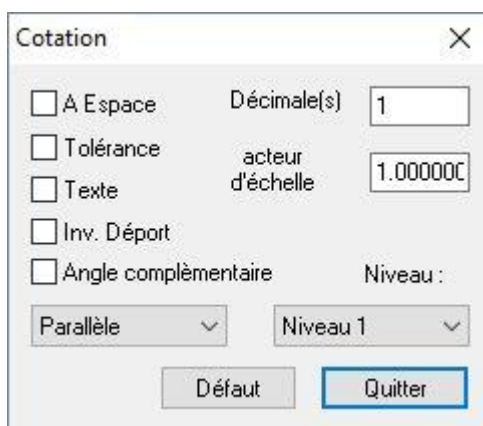
This command changes the attributes of entities that we will select from a window. To do this, simply **check** the attributes to change, defining the desired value, and press the **OK** button. Then after setting the selection window, each entity included in this window will take the values of attributes ticked..

## Cotation attributes



Defining display settings and measurement of an entity rating.

This command displays the following dialog box:



**A Area** : View document without indicating the value of the rating.

**Tolerance**: Seizing the gap above and below indicate the value of the symbol.

**Text**: Enter text that precede or replace the value of the symbol.

**Reverse Offset**: Reverse the side overhang of the document when it cannot be entered between two lines recall odds.

**Complementary angle**: Choosing the complementary angle to measure a rating corner

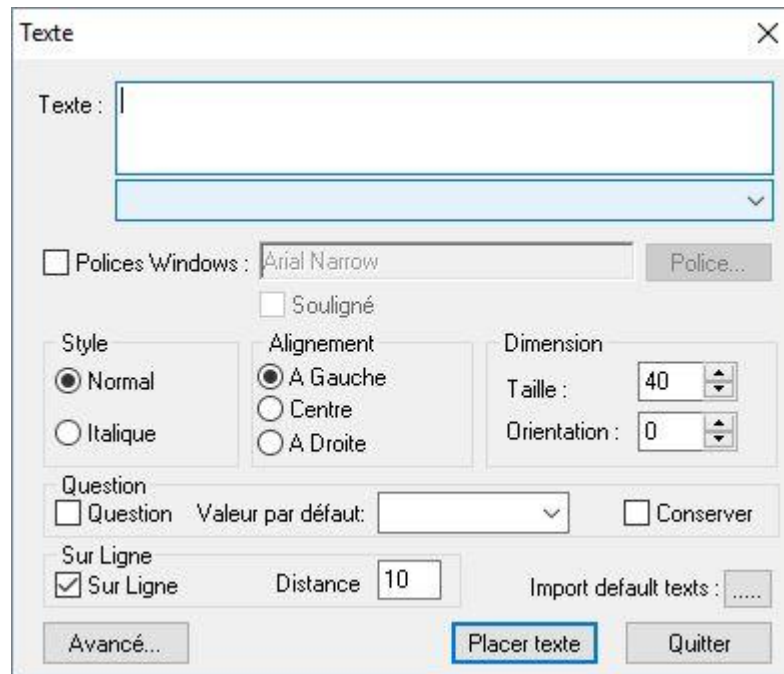
**Decimal**: Set the number of decimals to display rating.

**Scale Factor**: Set the multiplier of the value of the symbol to display.

**Parallel, Vertical, Horizontal**: Projection distance between two points to be rated.

**Level**: Attribute-level listing.

## Text attributes



**Font** : Choice of the font (Windows or Picador)

**Question**: Sets the text as a question (checked) or a text.

**Style**: **Normal** mode affects or **Italic** in the text.

**Alignment**: Sets the alignment of text relative to the point seized (In **A Left Center Right** ).

**Dimension** : Set the size (height) of characters and **Orientation** (direction of writing) the text to write.

## Change text Attributes

To change the attributes of the text, simply perform a double click on the text, the dialog text attributes are displayed, it can change the text and its attributes.

## Attributes hatch



This dialog box lets you define the current parameters for the creation of hatching.



**Type** : select the type of hatch you created and registered before.

**Materials** : define the type of hatching (double line, single line, continuous line, dotted line, etc.).

**Step**: define hatching step (distance between two hatches).

**Angle**: define the angle of inclination of hatching.

**Pen** : Choice of the type of line/cut/fold.

## Change attributes hatch

In this version, to change the attributes of hatching, use the database.



## Lock entities

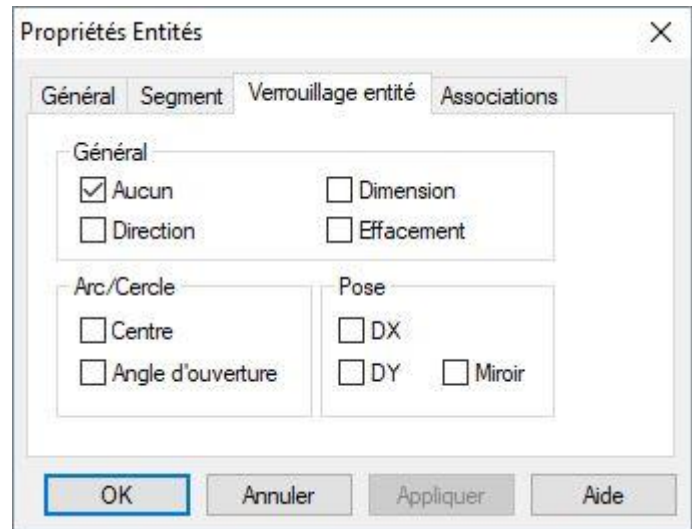
We offer the ability to lock (by amendment to prohibit) certain characteristic attributes for the entities. The attributes that can be locked depending on the type of entity are:

**Segment:** the direction, size, erasing.

**Arc / Circle:** the center, the opening angle, radius, direction.

**Installation:** moving in X and Y, the mirror.

Locking the entities combined with functions such as moving or modification gives additional power to control the entity. For example, when one wants to stretch a segment while maintaining its direction, just select it, open the dialog box that locks is then available, check the direction of validating and then using the change function Feature.

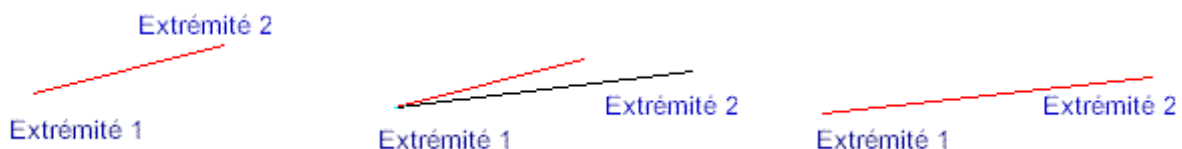


## Changing

This new feature allows you to dynamically change the type entities **Segment**, **Arc** or **Circle**. You can access this function via the menu "**Transformations** → **Edit Entity**" or using the icon in the main toolbar.

## Behavior of this function by type of entity:

Segment: Modify, using the mouse, the end of the segment that was selected, the other end remains fixed.



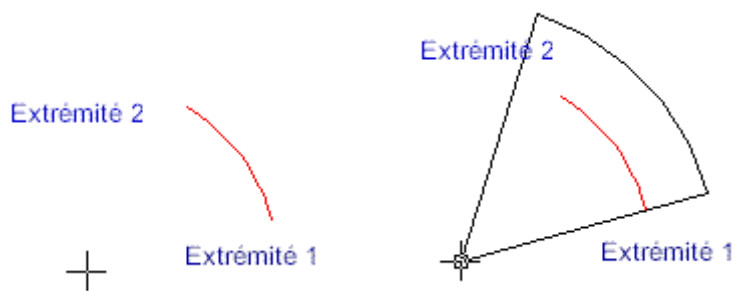
Dim :	50	Dir :	45
-------	----	-------	----

If Dim or Dir are nonzero before the selection:

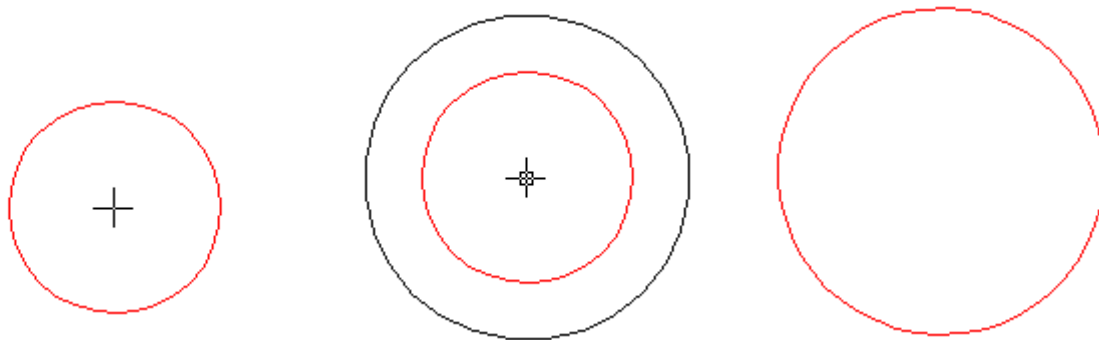


To change back to using the mouse, you must provide Dim and Dir 0.

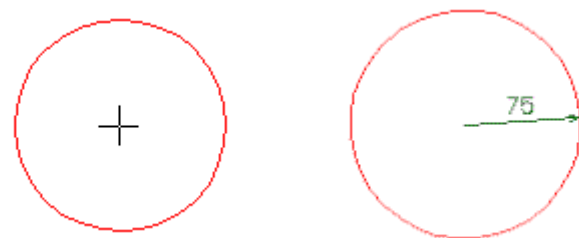
**Arc** : we modify, using the mouse, the end of the arc that has been selected, the other end remains fixed;



**Circle** : we modify, using the mouse, the radius of the circle that has been selected.



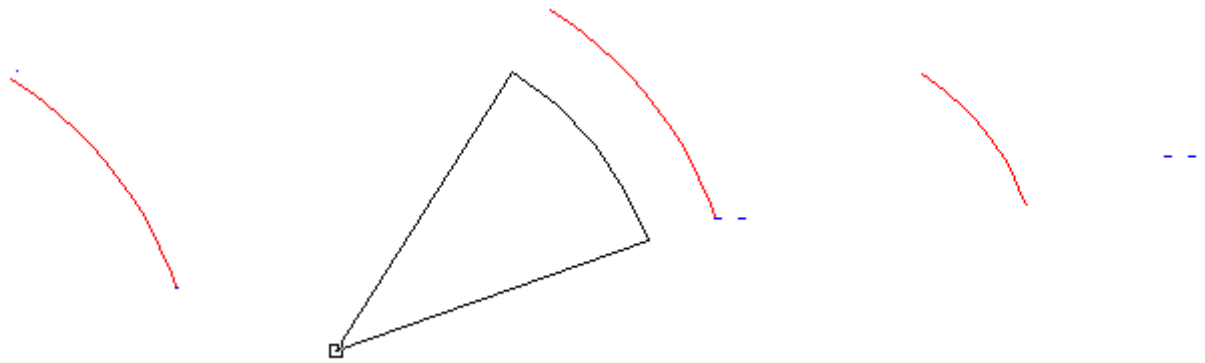
Dim :	75	Dir :	0.000
-------	----	-------	-------



If Dim is not zero before the selection:

To change back to using the mouse, you must return Dim to 0.

You can combine this feature with the lock, so decrease the number of possible changes for a given entity, and to change the radius of an arc without changing the opening angle, this angle must be locked prior to.



## Properties of an entity

To edit the properties of an entity, it suffices to perform a double click on the entity (segment, point, arc, ellipse). For each entity type there are three tabs in common:

**General** (can edit / change: the pen, level, groups ...)

**Lock Feature** (allows placing the flags of locks locks for entity FC)

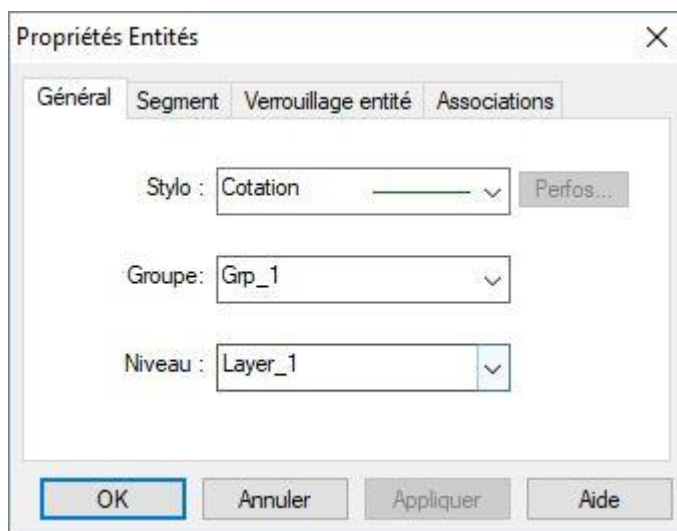
**Associations** (allows you to view the form of a tree all the properties and the list of associations of the entity).

For entities segments and arcs, there are special tabs.

For the texts of the dialog box to change text remains valid.

This new feature will replace the dialog control the database and can modify the attributes of each entity.

## Main



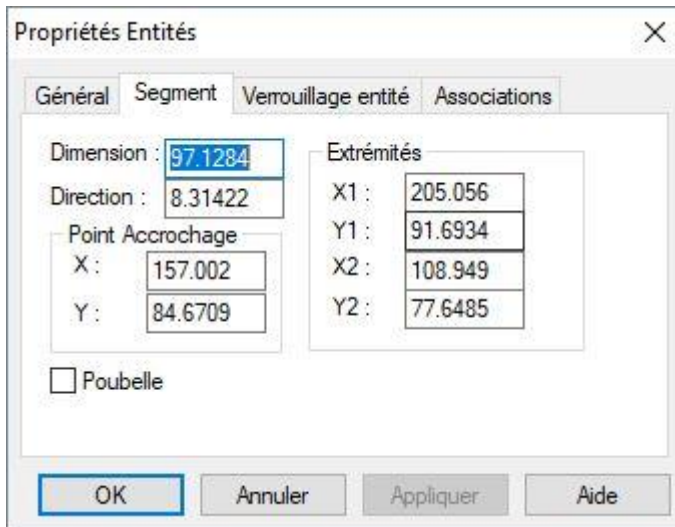
The choice can be made with the three boxes, each containing a list box that can quickly make changes. When a change is made, simply press the **Apply** button to validate.

## Segment tab

In this tab, you can edit the parameters of the segment of two ways:

- given by the size, direction, x, y and by the end E1 (x1, y1) and E2 (x2, y2).
- Changing the parameters takes into account the possible locks on attributes Segment (Direction, size and delete).

The box sends **Trash** or retrieves the entity in the trash.



Propriétés Entités

Général Segment Verrouillage entité Associations

Dimension : 97.1284

Direction : 8.31422

Point Accrochage

X : 157.002

Y : 84.6709

Extrémités

X1 : 205.056

Y1 : 91.6934

X2 : 108.949

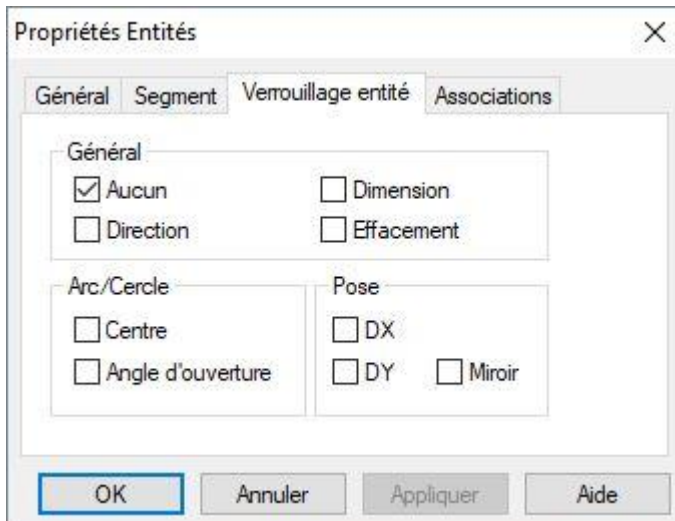
Y2 : 77.6485

Poubelle

OK Annuler Appliquer Aide

## Lock feature

This tab allows you to make / edit the attributes of the lock body. For a detailed description of this tab, see page .



Propriétés Entités

Général Segment Verrouillage entité Associations

Général

Aucun  Dimension

Direction  Effacement

Arc/Cercle

Centre

Angle d'ouverture

Pose

DX  Miroir

DY

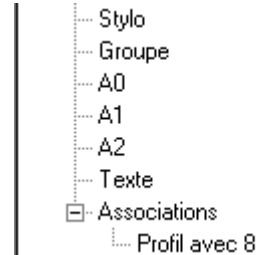
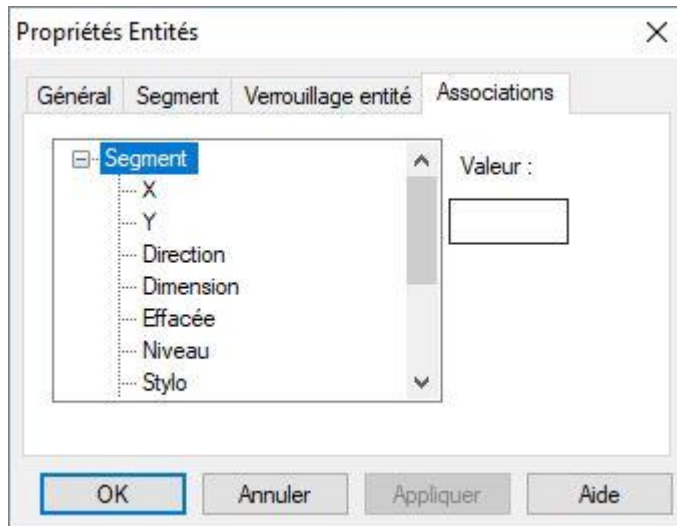
OK Annuler Appliquer Aide

## Associations

This tab provides an overview of the properties of the entity with the exception of locks.

The Value edit box displays the value of the property selected in the tree.

If the entity contains a list of associations not empty, we can edit and then obtained a tree identical to:



## Specialty tabs

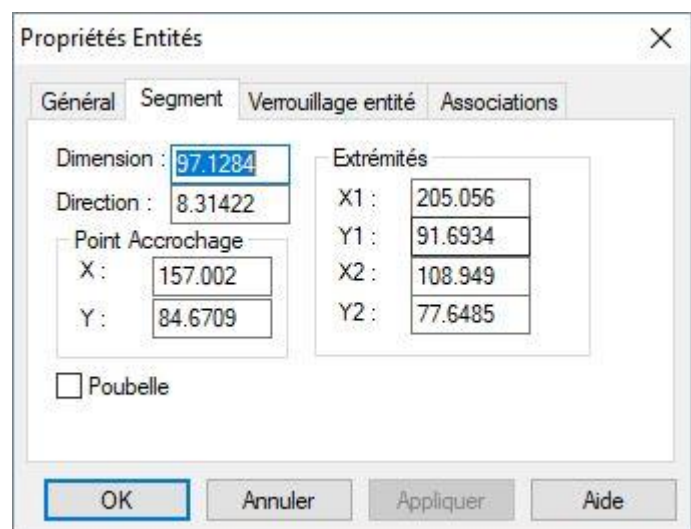
For entities like segment or arc there is a special tab.

### Segment tab

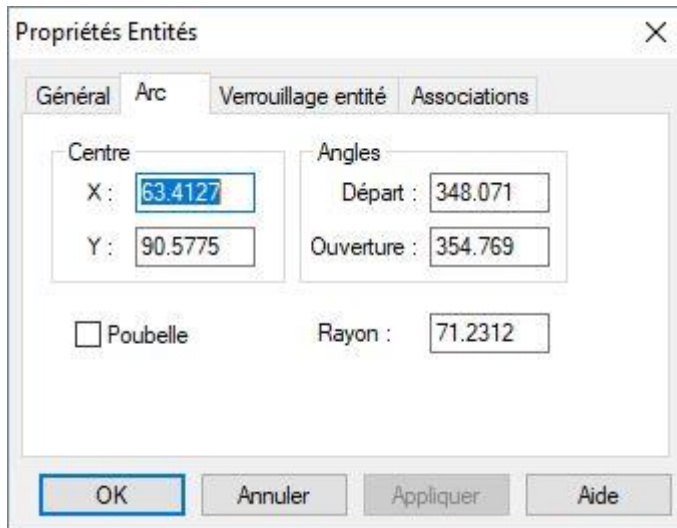
In this tab, you can edit the parameters of the segment of two ways:

- given by the size, direction, x, y and by the end E1 (x1, y1) and E2 (x2, y2).
- Changing the parameters takes into account the possible locks on attributes Segment (Direction, size and delete).

The box sends Trash or retrieves the entity in the trash.

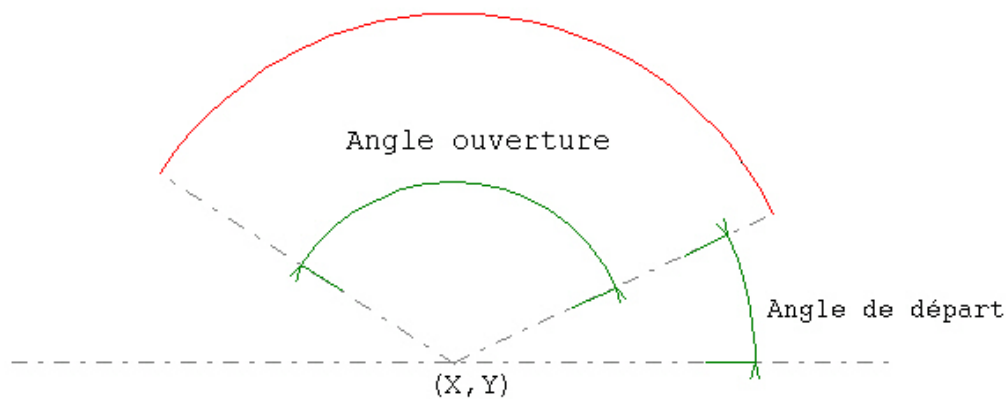


## Arc tab



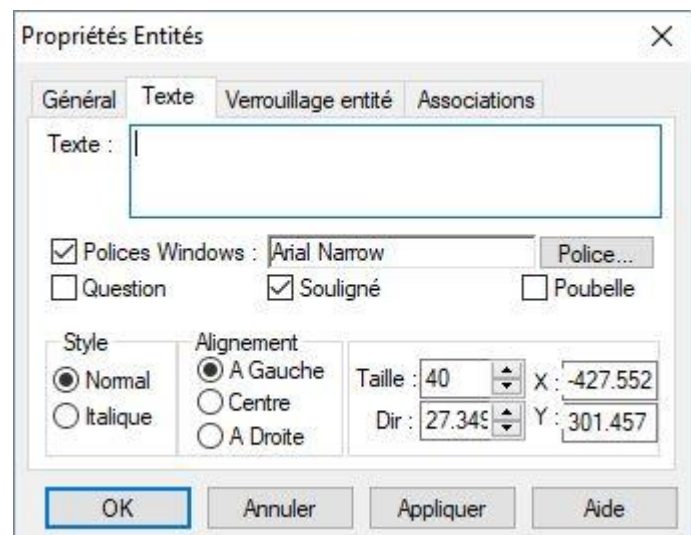
Changing the settings takes into account the possible locks on the arc attributes (direction, dimension, center angle and delete).

The box sends Trash or retrieves the entity in the trash.



## Text tab

From this tab, all attributes of the text and the text itself, can be modified.



## Catalog tab

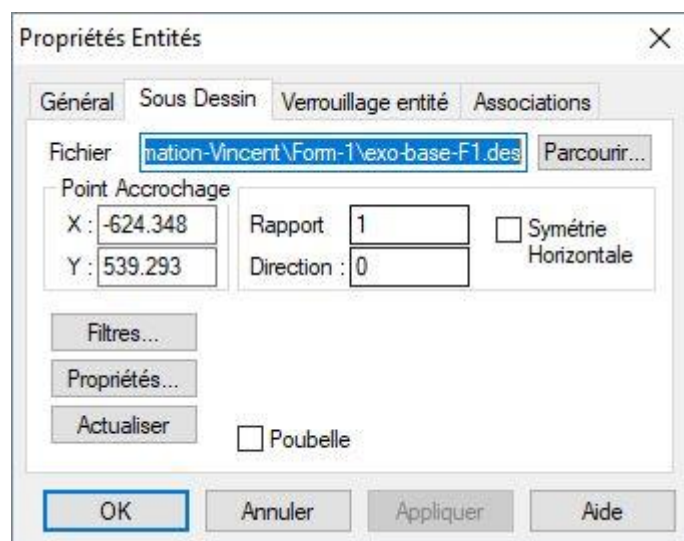


The catalog can be used to modify (use another catalog).

Information processing and editing of the piece catalog in the drawing. Possible to change the filter entities part catalog view.

Ability to change room catalog.

## SUB-design tab



The under-drawing can be modified (to use another sub-drawing).

Information processing and modification of sub-drawing in the drawing. Possible to change the filter entities under-drawing to be displayed (not to display the listing).

Information on the sub-design (see [file properties](#))

Update sub-design.



## Remove double entities



This feature allows you to delete all double entities (segments or arcs) included in a drawing Picador.

### Operating mode:

If the current selection has more than one entity, the algorithm applies only to the current selection. If the poses are included among these entities selected, they will be ignored. Otherwise, we treat all entities. If the design includes poses, they will all be broken prior.

### Principle of the algorithm:

If an entity is included in another then this entity is obliterated.

If two entities overlap, you scrap one of the two entities so as to eliminate duplication.

This feature is available in the menu "**Tools** → **Deletions Double Features**" or in the toolbar "**Geometry**".

## Creating a point

You can now change the size and angle of a point at its inception in specifying Dim and Dir.



# Geometric entities

## Geometric entities toolbar

For all seizures of points, refer to the chapter on the **seizure**.  
 For all selections of entities, see the chapter on the **selection**.

## Point



Create with the common attributes a **point** feature.

Use:

- Enter a point.

## The segment by 2 points



Create with the common attributes entity segment.

If the value Dim is null:

- Enter the 1<sup>st</sup> point,
- Enter the 2<sup>nd</sup> point.

If the value Dim is not null:

- Enter a point,

A Dim segment length and direction Dir is created and displayed from the point defined.

## The broken line



Create a common attributes with the continuum of entities segments.

- Enter the 1<sup>st</sup> point,
- Enter the 2<sup>nd</sup> point,  
The first segment is created between the first 2 points.
- Enter the following points. At each point before a segment is created.

## The rectangle



Create with the common attributes 4 entities « segments » creating a rectangle.

- Enter the 1<sup>st</sup> point. This is one of the top corner of the rectangle.
- Enter the 2<sup>nd</sup> point. This is then the opposite corner of the previous peak.

Four segments are then created and displayed on the screen.

## Parallelogram



Create with the common attributes 4 entities segments forming a parallelogram.

- Enter the 1<sup>st</sup> point. This is the apex of one corner of parallelogram.
- Enter the 2<sup>nd</sup> point. This is then the opposite corner of the previous peak.
- Enter the 3<sup>rd</sup> point. This is a 3rd Summit of the parallelogram.

Four segments are then created and displayed on the screen.

## Circle



Create with the common attributes forming a circle.

- Enter the 1<sup>st</sup> point. This is the center of the circle.

If the value Dim is null:

- Enter the 2<sup>nd</sup> point on the circumference of the circle to build.

A circle is created . 2<sup>nd</sup> through this point.

If the value Dim is not null:

A circle is then created with a **radius** equal to the value of **Dim**.

## The arc by 2 points and a center



Create with the common attributes entity arc.

- Enter a 1st point. This is the center of the arc circle.

If the value **Dim** is null :

- Enter a 2nd point on the circumference of the arc to build. This is the departure end of the arc.
- Enter a 3rd point on the circumference of the arc to build. This is the other end of the arc.

An arc is created with the end of the last 2 points.

If the value **Dim** is not null:

The arc of circle radius will build the value of **Dim** and starting angle value of **Dir**.

- Enter a 2nd point on the circumference of the arc to build. This is the other end of the arc.

## The arc through 3 points



Create with the common attributes entity arc.

- Enter the 1st point. This is the end of the arc.
- Enter the 2nd point on the circumference of the arc to build. This is a crossing point of the arc.
- Enter the 3rd point. This is the other end of the arc.

An arc through the three points is then created.

## Ellipse



Create attributes with current entity ellipse.

- Enter the opening angle of the ellipse.
- Enter the 1st point. This is the center of the ellipse.

If the value **Dim** is null :

- Enter the 2nd point on the circumference of the ellipse. This sets the angle and half length of major axis of the ellipse.

- Enter the 3rd point. This defines the length of the short half axis of the ellipse.

An arc of an ellipse is created.

If the value **Dim** is not null :

The ellipse will build half length of major **axis** value of **Dim** and starting angle value of **Dir**.

- Enter the 2nd point . This defines the length of the short half axis of the ellipse.

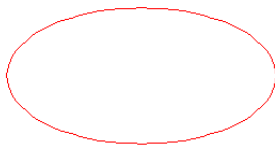
An arc of an ellipse is created.

---

## Ellipse with vertical or horizontal



Create an entity **ellipse** vertical or horizontal.



- Enter the 1st point. This is the center of the ellipse.
- Enter the values of X and Y axes The dimensions X and Y define the orientation of the ellipse relative to its long axis

Result: an ellipse with a horizontal axis

## Slot / handle



Create with the common attributes of an oblong hole formed two entities segments and arcs of two entities.

If the value **Dim** is null :

- Enter the length of the slot.

If the value **Dim** is not null :

The slot will pitch the value of **Dim**



In some cases the slot will be towards the value **Dir**

- Enter the height of the oblong hole
- Enter the point of attachment of the slot

An oblong consists of two segments and two arcs are created.  
Press **[Esc]** key to exit the function.

## Chamfer



Create a **segment** with inherited attributes of two sides and truncate these two sides

- Select a first right. The first right is the right reference.
- Select a 2nd straight

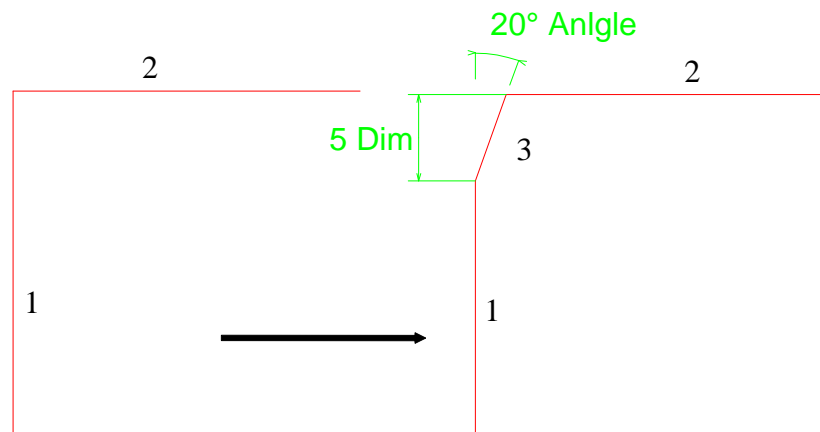
If the value **Dim** is null :

- Enter the length Chamfering

If the value **Dir** is null:

- Enter the chamfer angle relative to the reference line  
The chamfer is created with a new segment and the two other sides truncated.

If both entities have a starting or associations in common, the new entity (3) making up the groove, inherited or associations (association with a profile).



## Fillet (rounded)



Create an arc with the inherited attributes of two entities and truncate them.

Select a point near the intersection so as to define the area where the flare must be created.

You can also do this in two steps :

- Select a first entity (or right circle)
- Select a 2nd body (right or circle)

If the value **Dim** is null :

- Enter the radius of the rounded

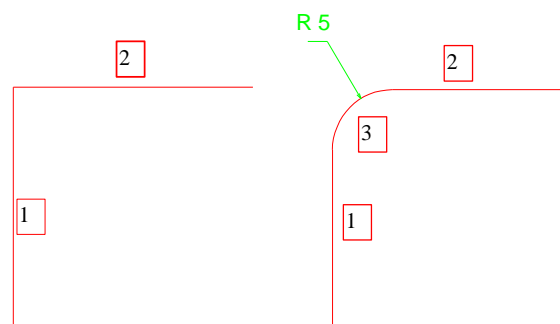
If the value **Dim** is not null :

- The radius of rounding is equal to **Dim**.

The curve is then created with a new bow and two others are truncated..



If both entities have a starting or associations in common, the new entity (3), which consists of rounded, inherited or associations (fox example association with a profile).



## Recovery of deleted entities or all



**Picador** offers the possibility to recover the last deleted entities in various operations (delete, burst, translatable deformed, etc ....)

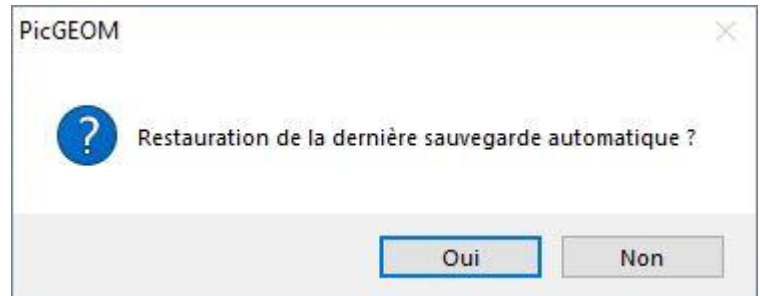
**Ctrl+Z**



Total restoration of drawing from the last backup automatically or manually. If the user has performed a manual backup (**key S**) and if there is an automatic backup of the design choices of food is offered to the user:

**Alt+R**

Otherwise the system does catering as there is no backup (the icon is grayed out) or he uses the last valid.

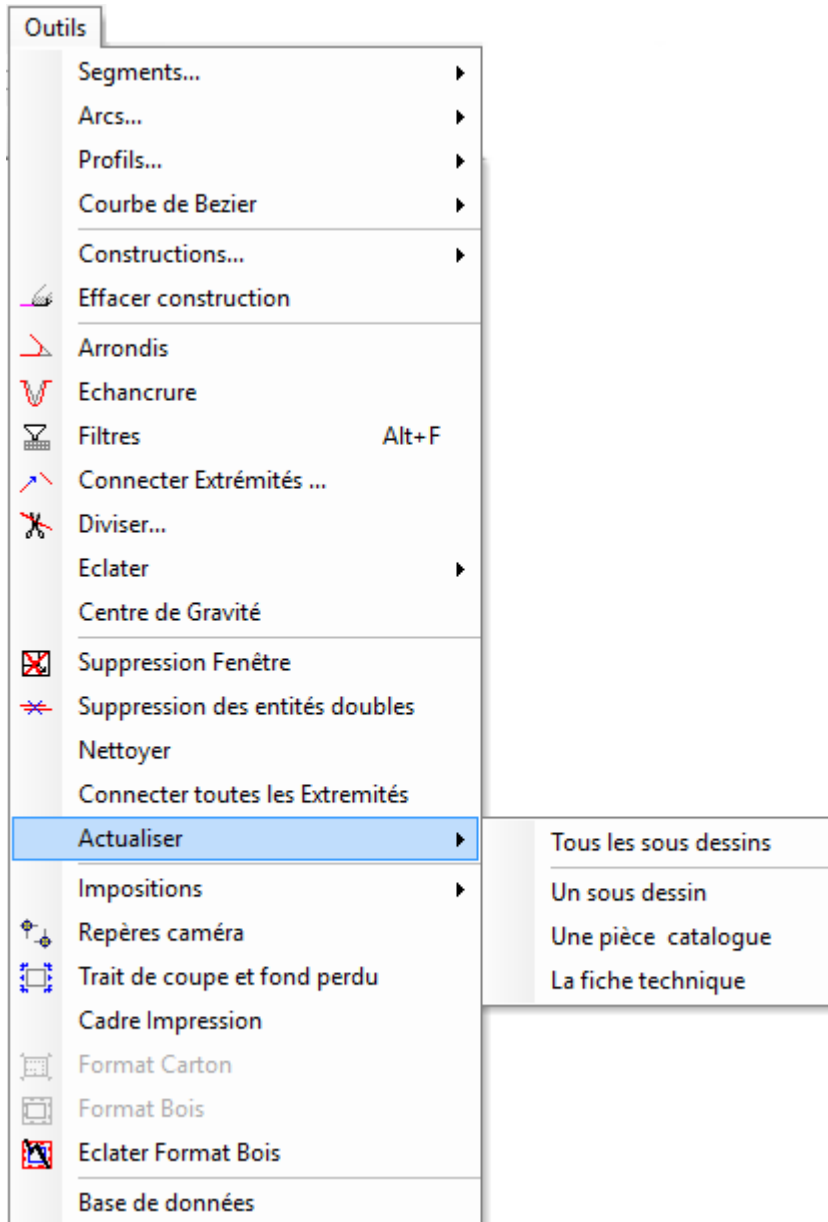


## Calculation of center of gravity

In the **Tools** menu option **center of gravity** creates a dot in the center of gravity of a selection of entities provided that it **forms a convex set if this point has no meaning.**



## Refresh



This feature allows you to update a file reference inserted in the drawing run (under-drawing, catalog, data sheet).

This option can be automated with the menu [Preferences -> Options -> Files](#) .

# Dimensions

## Toolbar

The menu listing can be enabled by the command:  
*View -> Toolbars -> Trading*



Or the keyboard shortcut (**Ctrl+U**)

## Dimension between 2 parallel lines



Create an entity rated distance with common attributes

- Select a 1st line,
- Select 2nd line,
- Enter the point for place the document.

## Horizontal dimension



Create an entity rated distance between two points horizontally

- Select a 1st point,
- Select 2nd point,
- Drop the cotation line created.

## Vertical dimension



Create an entity rated distance between two points vertically

- Select a 1st point,
- Select 2nd point,
- Drop the cotation line created.

## Chains of dimensions



Create a serie of cotations continuously in the way choosed by the user

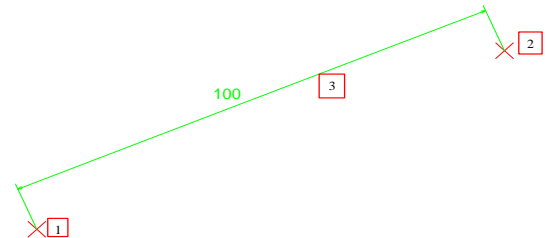
- Select a 1st segment,
- Select a 2nd one, then continue to select all the segments creating the chain of dimensions.
- Click ESC when finish the chain.

## Dimension between 2 points



Create an entity rated distance with common attributes

- Enter the 1st point,
- Enter the 2nd point,
- Enter the 3rd point for place the document.



*(See Listing attributes on page 109 for the different projections and displays the value rating.)*

## Interior radius



Create an entity **inside radius** with common attributes.

- Select a circle or an arc,
- Enter a point to guide the rating.

## Exterior radius



Create an entity **outside radius** with common attributes

- Select a circle or an arc.
- Enter a point to guide the rating.

## Inside diameter



Create an entity with the **inner diameter** common attributes

- Select a circle or an arc.
- Enter a point to guide the rating

## Outside diameter



Create an entity outside diameter with common attributes

- Select a circle or an arc.
- Enter a point to guide the rating.

## Angle



Create an entity rating corner with common attributes

- Select a first segment.
- Select a 2nd segment.
- Enter a point to position the document.

## Chamfer



Create an entity rating for chamfer dimensions

- Select the chamfer.
- Position your arrow.

## Arrow



Create a straight arrow

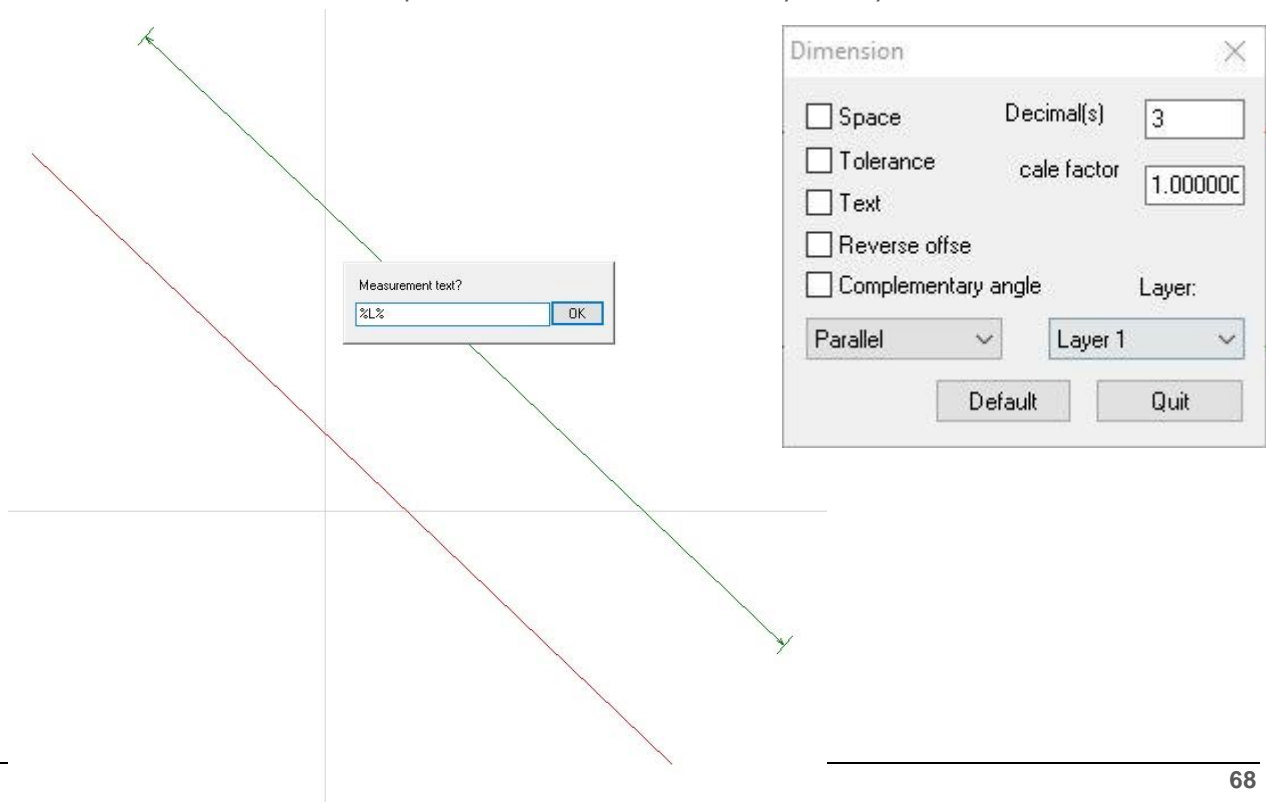
- Select a point to place the arrow.
- Position your arrow.

## Dimension control



Open the control window for dimension options.

We must create a document using the parameters A Space and **Text box configuration** of the quotation, the name of the parameter must be framed by two symbols %.



Dimension ✕

Space      Decimal(s)

Tolerance      scale factor

Text

Reverse offset

Complementary angle      Layer:

Measurement text?

## Erase dimension



Erase all dimensions entities on the current drawing

## Automatic dimensions



Create a full serie of dimensions entities on the current drawing except angles

## Short dimensions



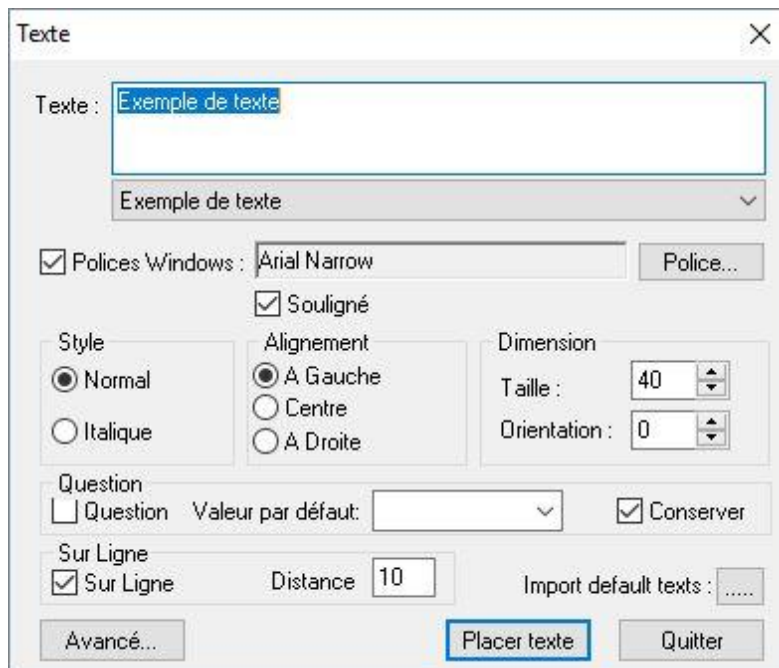
For the comfort of the user, you can choose to show dimensions with short lines, giving a better view in some complicated drawings.

# Text & Questions

## Entering question



Create a text entity with common attributes and attributes of text



Enter the text to write in the dialog box

Select the font you want (Windows or Picador)

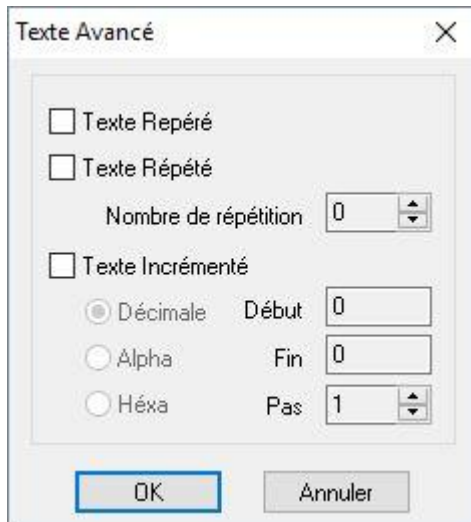
Select the desired attributes (**style, alignment**)

Select the **size** and **orientation** of the text

**On Line:** This option allows you to position and orient a text to an existing line. If this box is checked, the system will be asked to select a straight forward position and orient the text to the desired distance.

## Entering questions

- **Question:** If the box is checked, the text will be created from a field survey. The current document is a data sheet. (See Technical Questionnaire)
- **Default value:** Sets the default value to assign to the matter at the creation of the sheet. This value can always be kept where only used when creating. The default may be a field or a user setting.
- **Save:** Allows you to keep the default and assess each display.



## Advance text

Three functions have been added for seizure repetitive texts.

These functions are combined and used to quickly create automatic numbering, the numbered markers, repetitive texts.

You access to this window by opening the window **Text**→**Advanced**→**Advance text**.

## Spotted text

This feature allows you to associate a line and a text to make a mark.

Simply enter the item and then locate the point of reference text.

The function can be combined with Text and Text Repeated Incremented to make a mark with a series of incrementing numeric or alphabetic.

## Repeated text

The parameter associated with the number of repetition can repeat the Place Text.

Partner with Text Incremented, this function allows automatic numbering.

The **ESC** key will interrupt a series of rehearsal before the set number.

## Text incremented

This feature allows you to automatically number a decimal number (Decimal or hex) or alphabetical.

Simply define the boundaries and now the sequence can be repeated.

Place Text by incrementing the text undefined.

---

## Text Express

### Enter text express



This new function in the toolbar allows you to type directly to the screen a text choosing the position and the size.

The display is done dynamically at the moment of the keystroke.

This function is controlled by the command **Setup text** or by the parameters of the dialog box texts.

---

## Underline



Allows you to underline part of a text.

---

## Italic



Turn text into italic

---

## Bold



Turn text into bold

---

## Enlarge



Enlarge size of text

---

## Reduce



reduce size of text



## Direction of the text



Give a direction to the text, horizontal, vertical, following a determined angle, etc .

## Set font

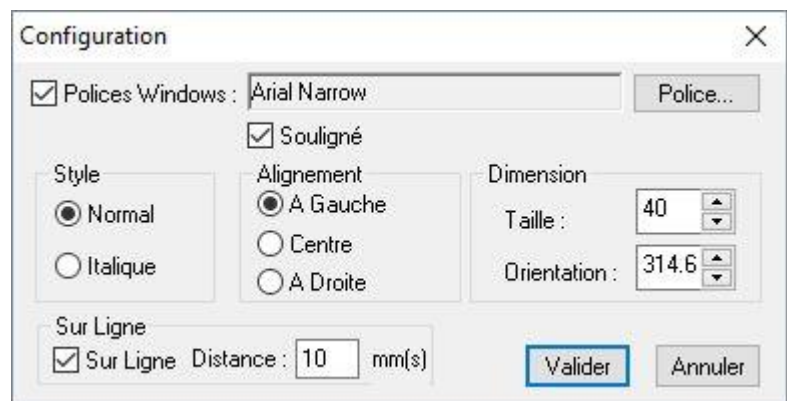


Define the type of font chosen by the user

## Configuration Textes

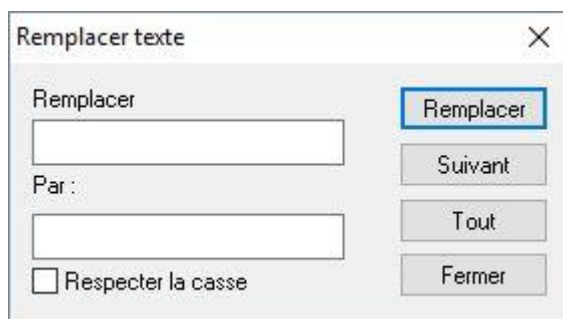


This box lets you define default settings for text input.



## Replacing text

The next dialog box allows you to replace a text by another case-sensitive (upper / lower) if you want.



---

## Align text

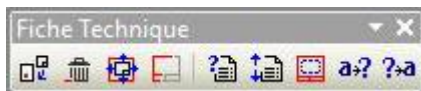


These functions allow you to align your text in three different ways, left, center or right.

# Technical data-sheet

## The technical data-sheet

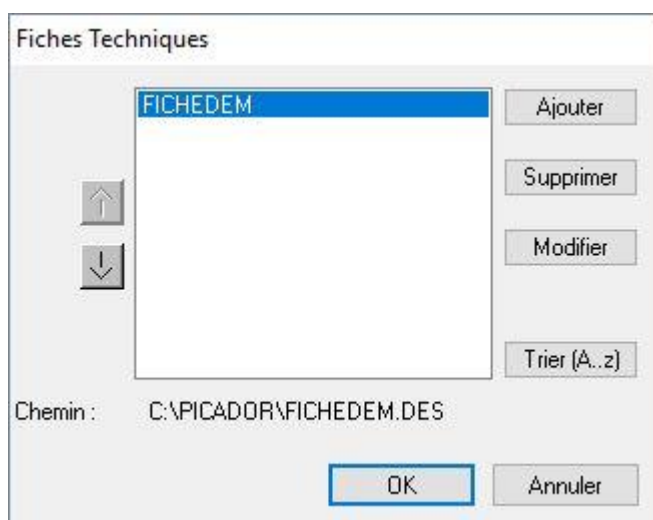
The term sheet covers the technical concept Picador cartridge and Fond Plan.  
A sheet is a design standard that includes Picador an additional questionnaire and a useful area.



In the toolbar and menu are grouped all functions related to the use of the data sheet and questionnaire:

- Insert a Sheet. (See [Insert a sheet](#)).
- Delete Sheet.
- Crop a Technical.
- Filter a Data Sheet. (Technical Shown / Hidden)
- Call the Questionnaire.
- Reorder the Questionnaire. (See [Questionnaire Order](#))
- Create a Useful Area.

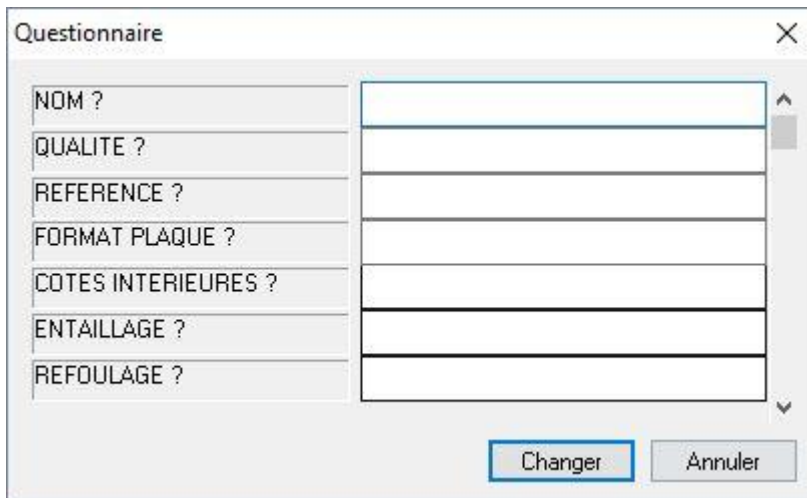
## Insert a technical data-sheet



The Specifications are those contained in proposed in the list.  
This list may be supplemented or amended according to the [Preferences -> Options -> Specs](#)

This feature allows you to automatically insert the sheet in the current document. (Cropping automatic sheet around the design) and complete the questionnaire (carton)..

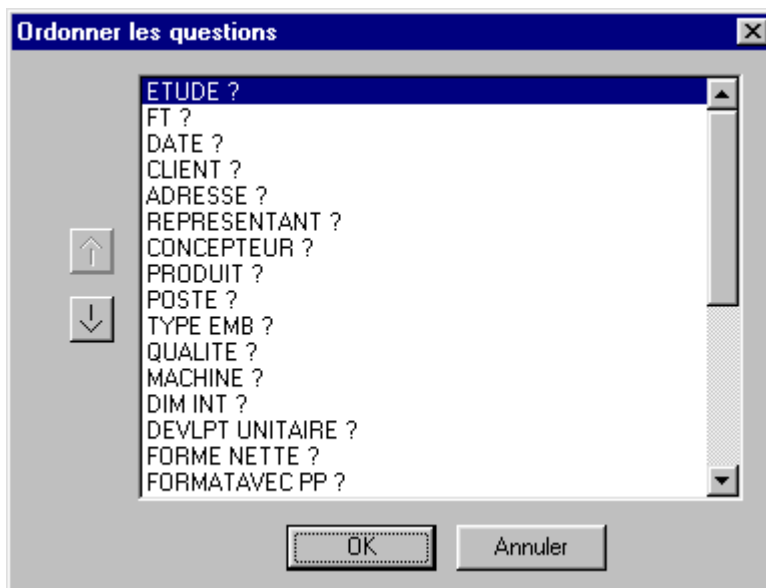
## Questionnaire



NOM ?	
QUALITE ?	
REFERENCE ?	
FORMAT PLAQUE ?	
COTES INTERIEURES ?	
ENTAILLAGE ?	
REFOULAGE ?	

Buttons:

Each sheet is associated with a questionnaire (cartridge). The questionnaire function allows any time to enter and edit the fields in the questionnaires. To create a questionnaire in a sheet, simply create texts by notching the option question. (See text function)



Buttons:

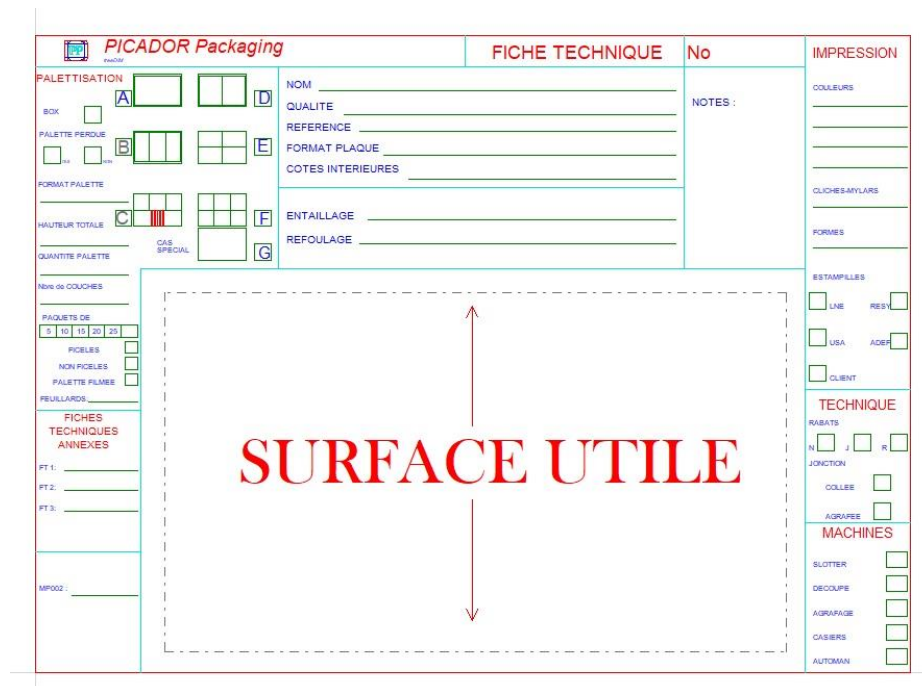
## Order questionnaire

This feature allows you to direct questions at the call of the questionnaire. By default, questions are displayed in order of creation.

## Useful area



To facilitate use of fact sheets, there is an entity Useful Area to include only one model of technical and determines the area to contain the design data sheet:



The screenshot shows the 'PICADOR Packaging' software interface. The main window is titled 'FICHE TECHNIQUE' and contains several sections:

- PALETTISATION:** Includes options for 'BOX', 'PALETTE PERDUE', 'FORMAT PALETTE', 'HAUTEUR TOTALE', and 'QUANTITE PALETTE' with corresponding grid icons labeled A through G.
- TECHNICAL DATA:** Fields for 'NOM', 'QUALITE', 'REFERENCE', 'FORMAT PLAQUE', 'COTES INTERIEURES', 'ENTAILLAGE', and 'REFOULAGE'.
- NOTES:** A section for additional information.
- ESTAMPILLES:** Checkboxes for 'LINE', 'RESV', 'USA', 'ADDF', and 'CLIENT'.
- TECHNIQUE:** Checkboxes for 'RABATS', 'JUNCTION', 'COLLES', and 'AGRAPHES'.
- MACHINES:** Checkboxes for 'SLOTTER', 'DECOUPE', 'AGRAPHAGE', 'CASIERS', and 'AUTOMAN'.
- Left Panel:** Includes 'Nbre de COUCHES', 'PAQUETS DE' (with a dropdown menu), 'FICHELES', 'NON FICHELES', 'PALETTE FILMEE', 'FEUILLARDS', 'FICHES TECHNIQUES ANNEXES', and 'MFOOZ'.

*Figure 1 : Surface useful in a model of technical.*

When drawing from a model of inserting a sheet with a floor space, the model sheet is automatically sizes so that the area of floor space to contain the entire design which he remains on the scale 1.

## Crop data sheet

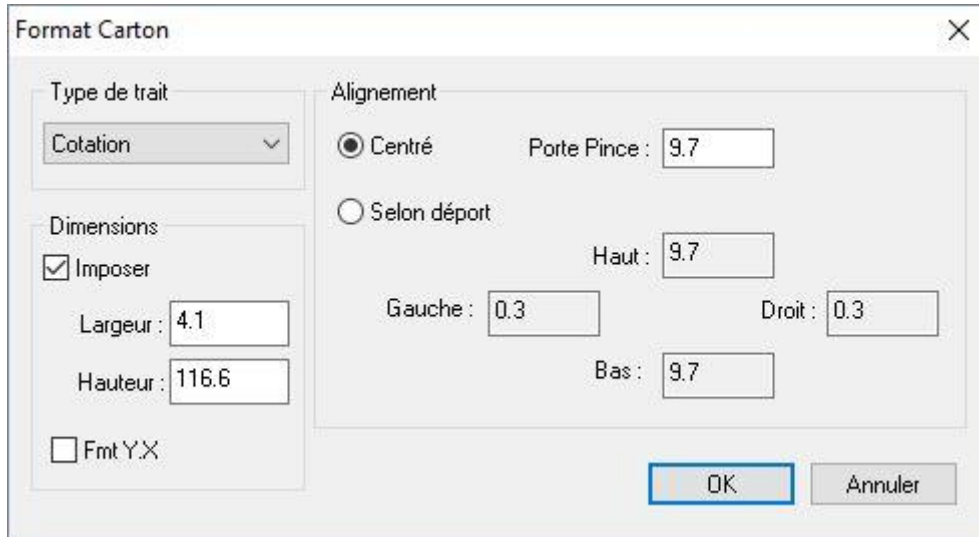


This function is used to crop a crop at any time and automatically Sheet.

Indeed, after the insert sheet if you changed your picture, and that it no longer holds in the context of technical or too small, this function automatically reframes the data sheet

# Carton size / wood size

## Carton format



## Editing, design

The dialog box above, can create or edit a display format.

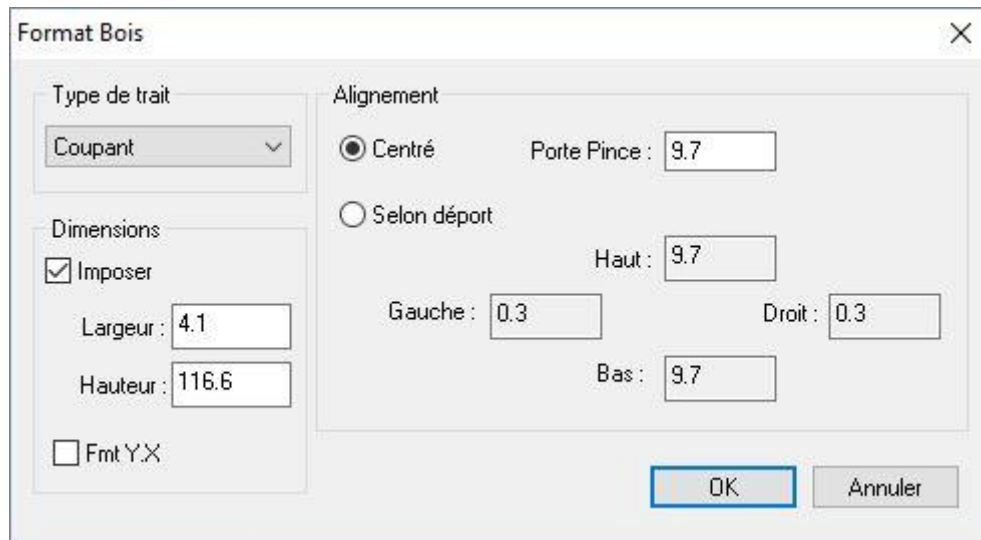
It is available in the **Tools menu** → **Format Card**.

In the case of a new display format, size height and width are initialized to the size of the rectangle increased by 5%.

Several cases are possible:

- It must impose the dimension of the carton height (Y) and width (X). We can then have a center alignment or else make an alignment offset by a left and bottom. The offset is the offset added to clamp down.
- Do not impose size cardboard height (Y) and width (X). We can then have a center alignment or else make an alignment by an offset left, right, bottom and top. The offset is the offset added to clamp down.
- The box is checked Impose, height and width respectively contain the X and Y dimension of the box.
- The alignment is of type In the inset, bottom left offsets include the offsets calculated according to the positioning of display format, its size and dimensions of the rectangle ex inscrit. The value of the door clip if it exists is accumulated in the gap down.

## Wood format



## Editing, design



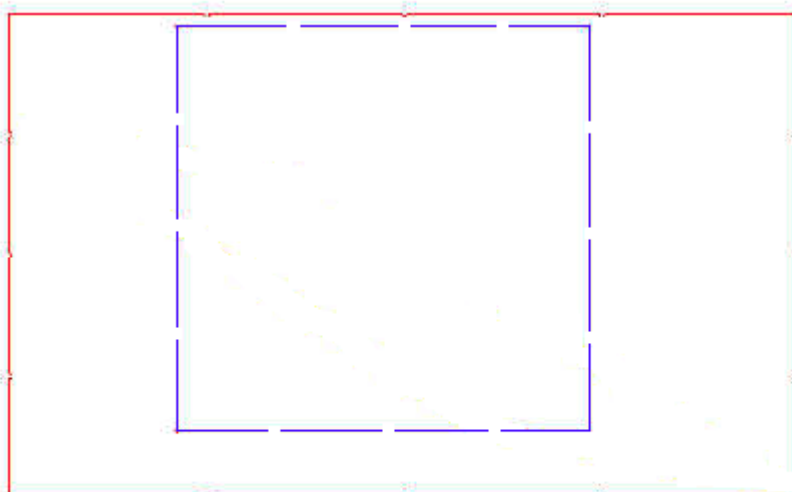
The dialog box above, can create or edit an existing timber format. It is available in the Tools menu / Format Woods.

The behavior of the timber format is identical to that of display format.

### Compatibility

PicGeom is compatible with Picador V8, meaning it can read any drawing containing a format timber from Picador Packaging, the converse is false.

The format timber is represented on the screen as follows:



# Construction

This module allows PICADOR® produce all types of construction from straight lines, circles, dots and geometric constraints (parallel, tangent, perpendicular).

These buildings are made using the attribute Pen: Construction. These entities are circles or straight lines on which we can support the drawing entities to achieve.

These constructs can be either filtered display, or be removed by the Delete function construction (See Clear construction).

---

## Toolbar

To display the toolbar construction,



click *View -> Toolbars -> Construction*

---

## Clear construction



Deletes all entities of the construction drawing.

This command removes all the drawing entities with attribute pen is built. The entities can be retrieved by the function Bin Order Filter (See **Filter**).



## Points

### Split segment



Divide the distance between two points by perpendicular lines.

Menu: **Tools** -> Construction -> Straight Points -> Division

Enter first point

Enter 2nd point

Indicate the number of divisions required.

### Straight point(s)

#### Horizontal line.



Construction of a horizontal line through a point.

Menu: **Tools** -> Construction -> Right Points -> Right Horizontal

Enter a point.

#### Vertical line.



Construction of a vertical line passing through a point.

Menu: **Tools** -> Construction -> Right Points -> Right Vertical

Enter point.

#### Straight by 2 points.



Construct a line through two points.

Menu: **Tools** -> Construction -> Straight points -> 2 points

Enter the first point.

Enter 2nd point.

#### Straight time.



Creating the right support construction of a segment.

Menu: **Tools** -> Construction -> Straight Points -> Extension

Select the segment to extend

## Straight parallel point.



Construct a line parallel to another line and passing through a point.

Menu: **Tools** -> Construction -> Straight Straight -> Parallel by 1 point

Select a straight

Enter a point.

## Right perpendicular point.



Construct a line perpendicular to another line and passing through a point.

Menu: **Tools** -> Construction -> Straight Straight -> Orthogonal

Select a straight

Enter point.

## Straight line by line(s)

### Right distance.



Build one (or two) straight (s) parallel (s) another straight and a given distance.

Menu: **Tools** -> Construction -> Straight Straight -> Orthogonal  
 Select a Straight  
 Enter the value of distance in the dialog box,  
 Choose the right (or 2 lines).

### Straight oblique.



Build one (or two) straight (s) oblique (s) to another right a given angle and passing through a point.

Menu: **Tools** -> Construction -> Straight Straight -> Oblique  
 Select a straight  
 Enter a point.  
 Enter the value of the angle in the dialog box (Trig or inverse trig sense).  
 Choose the right (or 2 lines)

### Median line



Building the straight median of a segment.

Menu: **Tools** -> Construction -> Straight Straight -> Mediatrix  
 Select a line.

### Straight bisector.



Build one (or two) right (s) bisector (s) of 2 intersecting lines.

Menu: **Tools** -> Construction -> Straight Straight -> Bisector  
 Select the first straight  
 Select a 2nd straight  
 Choose the right (or 2 lines).

### Straight N – line sector.



Build straight N-line sectors defining intersecting lines.

Menu: **Tools** -> Construction -> Straight Straight -> N-Sectrices  
 Select the first right  
 Select a 2nd straight

Enter the number of divisions in the dialog box.  
 Select (the) right (s) among the solutions proposed.

## The line, circle(s), straight(s) and point(s)

### Straight tangent to the circle by 1 point.



Build one (or two) right (s) tangent (s) to a circle and passing through a given point.

Menu: **Tools** -> Construction -> Straight Tangent Circle -> For a point and a circle

Select a circle,

Enter a point

Select (the) right (s) among the solutions proposed.

### Straight tangents to a circle and parallel to a straight.



Build one (or two) right (s) tangent (s) to a circle and parallel to a given direction.

Menu: **Tools** -> Construction -> Straight Tangent Circle -> Management and circle

Select a circle,

Enter a straight

Select (the) right (s) among the solutions proposed.

### Straight tangents to 2 circles.



Build one (or several) right (s) tangent (s) with 2 circles.

Menu: **Tools** -> Construction -> Straight Tangent Circle -> 2 Circles

Select the first circle, Select a 2nd circle

Select (the) rstraight (s) among the solutions proposed.

## Circle by point(s) and straight(s)

### Circle by 1 point and radius, centre straight.



Build one (or more) circle (s) through a point, of radius whose center is on a given line.

Menu: **Tools** ->Construction ->Circle Points ->Point Radius, Centre on right

Enter a point

Select a line (the center of the circle will be on the right)  
 Select (the) circles (s) among the solutions proposed.

## Circle by 2 points and center on the straight.



Build one (or more) circle (s) passing through two points and whose center is on a given line.

Menu: **Tools**->Construction->Circle Points->2 points and center on straight  
 Enter the 1st point  
 Enter a second point,  
 Select a line (the center of the circle will be on the right)  
 Select (the) circles (s) among the solutions proposed.

## Circle by 2 points and radius.



Build one (or more) circle (s) passing through two points and radius.

Menu: **Tools** -> Construction -> Circle Points -> 2 Points and Radius  
 Enter the 1st point  
 Enter the 2nd item,  
 Enter the value of the radius in the dialog box,  
 Select (the) circles (s) among the solutions proposed.

## Circle by 3 points.



Construct the circle through 3 points.

Menu: **Tools** -> Construction -> Circle Points -> 3 points  
 Enter the 1st point  
 Enter the 2nd item,  
 Enter the 3rd item.

## Straight tangent to a circle and center.



Construct the tangent to the circle and the giving center

Construct the circle tangent to a given right and center.  
 Menu: **Tools** -> Construction -> Right Circle Tangent. You must select a line,  
 Enter a point.

## Circle tangent to a straight point and a radius.



Build one (or more) circle (s) tangent (s) to a line through a point and radius.

Menu: **Tools** -> Construction -> Right Circle Tangent -> 1 point and radius

Select a right  
 Enter a point  
 Enter the value of the radius in the dialog box,

## Circle tangent to 2 straight and radius.



Build one (or more) circle (s) tangent (s) with 2 lines and radius.

Menu: **Tools** ->Construction ->Circle Tangent Right -> radius and 2 straight  
 Select the first right  
 Select a 2nd straight  
 Enter the value of the radius in the dialog box, then select (the) circles (s)  
 among the solutions proposed.

## Circle tangent to 2 lines and 1 point.



Build one (or more) circle (s) tangent (s) with 2 straight through a point.

Menu: **Tools** -> Construction -> Circle Tangent Right -> 1 point and 2 straight  
 Select the first right  
 Select a 2nd straight  
 Enter a 1 point then select the circle(s) among the solutions proposed

## Circle tangent to 2 lines and 1 point.



Build one (or more) circle (s) tangent (s) with 2 straight through a point.

Menu: **Tools** -> Construction -> Circle Tangent Right -> 1 point and 2 right  
 Select the first right  
 Select a 2nd straight  
 Enter a 1 point  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to 3 lines



Build one (or more) circle (s) tangent (s) to 3 lines.

Menu: **Tools** -> Construction -> Right Circle Tangent -> 3 lines  
 Select the first right  
 Select a 2nd straight  
 Select a 3rd straight, then select (the) circles (s) among the solutions  
 proposed.

## Circle by points and straights

### Circle tangent to a circle and center.



Build one (or more) circle (s) tangent (s) in a circle and given center.

Menu: **Tools** -> Construction -> Circle Tangent Circle -> center  
 Select a circle,  
 Enter a 1 point (center of circle)  
 Select (the) circles (s) among the solutions proposed.

### Circle tangent to a circle and 2 points.



Construct (or more) circle (s) tangent (s) 1 circle and passing through 2 points.

Menu: **Tools** -> Construction -> Circle Tangent Circle -> 2 points  
 Select a circle,  
 Enter the 1st point  
 Enter the 2nd item,  
 Select (the) circles (s) among the solutions proposed.

### Circle tangent to a circle, a point and radius.



Build one (or more) circle (s) tangent (s) to a circle through a point and radius.

Menu: **Tools** -> Construction -> Circle Tangent Circle -> 1 point and radius  
 Select a circle,  
 Enter a point  
 Enter the value of the radius in the dialog box,  
 Select (the) circles (s) among the solutions proposed.

### Circle tangent to 2 circles and radius.



Build with (a) the circle (s) tangent (s) 2 circles and radius.

Menu: **Tools** -> Construction -> Circle Tangent Circle -> 2 circles and 1 point  
 Select the first circle,  
 Select a 2nd circle  
 Enter a 1 point (center of circle)  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to 2 circles and a point.



Build with (a) the circle (s) tangent (s) 2 circles and radius

Menu: **Tools** -> Construction -> Circle Tangent Circle -> 2 circles and 1 point  
 Select the first circle,  
 Select a 2nd circle  
 Enter a 1 point (center of circle)  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to 3 circles.



Build one (or more) circle (s) tangent (s) to 3 circles

Menu: **Tools** -> Construction -> Circle Tangent Circle -> 3 circles  
 Select the first circle,  
 Select a 2nd circle  
 Select a 3rd circle  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to a straight and a circle radius.



Build one (or more) circle(s) tangent to a right

Menu: **Tools** -> Construction -> Straight and Circle Tangent to Circle -> radius  
 Select a straight  
 Select a circle,  
 Enter the value of the radius in the dialog box,  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to a straight, a circle and a point.



Build one (or more) circle (s) tangent (s) to a straight in a circle and passing through a point

Menu: **Tools** -> Construction -> Stight and Circle Tangent to Circle -> 1 point  
 Select a stright  
 Select a circle,  
 Enter a point  
 Select (the) circles (s) among the solutions proposed.



## Circle tangent to a right, a circle center on the straight.



Build one (or more) circle (s) tangent (s) to a stright to a circle whose center is on a given line.

Menu: **Tools** -> Construction -> Circle Tangent to Circle and Stight -> Center on right  
 Select a line (tangent)  
 Select a circle,  
 Select a line (right center),  
 Select (the) circles (s) among the solutions proposed.

## Circle tangent to 2 lines and a circle.



Build one (or more) circle (s) tangent (s) with 2 lines and a circle.

Menu: **Tools** -> Construction -> Straight and Circle Tangent to Circle -> 2 lines  
 Select the first straight  
 Select a 2nd straight  
 Select a circle,  
 Select (the) circles (s) among the solutions proposed..

## Circle tangent to 2 circles and a straight.



Construct (or more) circle (s) tangent (s) to a straight and two circles.

Select a straight  
 Select the first circle,  
 Select a 2nd circle  
 Select (the) circles (s) among the solutions proposed..

# Transformations

The module allows PICADOR® perform any type of 2D transformation on the selected entities. (Delete, move, deform, zoom, rotate)



## Symmetries



The command performs a symmetry with respect to any axis of the selected entities.



This command performs a symmetry with respect to a vertical axis of selected entities.



This command performs a symmetry with respect to a horizontal axis of the selected entities.

Select entities.

(See Chapter **Selection** page 48)

Confirm Order **Symmetry**.

Select a straight line. (Any axis of symmetry).

A dialog box asks if you want to apply a striking symmetry with the original (mirror) :

If **No**: The selected entities will be kept in the drawing. The entities are symmetrical added.

If **Yes**: The selected entities will be processed..

Entities are symmetrical determined by selection. (See Chapter **Selection** page 48 )

## Homothety



This command performs a dilation (enlargement or reduction) and a displacement of selected entities.

Confirm the command **Homothety**.

When the cursor selection window is active, click two opposite corners of the window transform. (See Chapter **Selection** page 48)

Confirm the window for dilation.



If Yes: The selected entities will be kept in the drawing. Transformed entities are added.

If No: The selected entities will be transformed

Enter the value of the ratio of homothety,

Enter a point. Central homothety,

Enter a displacement vector. (Enter a starting point and ending point).

Homothetic entities are determined by the parameters of selection. (See Chapter **Selection** page 48)

## Transformation 2 points



This command allows you to move selected entities by clicking 2 points to repositioning them, by copying, or by deleting the original entities.

Confirm the command **Transformation 2 points**.

Select with the pointer « window » the entity or the entities to transform.

Confirm the window for the transformation.



If Yes: The selected entities will be kept in the drawing. Transformed entities are added.

If No: The selected entities will be transformed

Select 2 points on the entity,

Point on the map 2 points to implant the transformed entity.

You can repeat the procedure several times.

## Distorsion



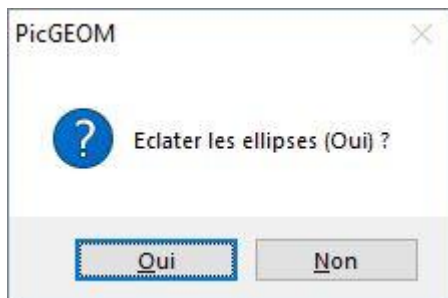
This command performs an anamorphic (distorted differently in two orthogonal directions) of the selected entities.

Confirm the order **Distorsion**.

When the selection cursor is active per window, enter two opposite corners of the window transform. (See Chapter **Selection** page 48)

Enter the value of the ratio of distorsion **X** (1.0 = no strain).

Enter the value of the ratio of distorsion **Y**.



If Yes: The selected arcs and ellipses will be split into segments.

If No: The selected arcs are transformed into ellipses.

The center of distorsion is the point 0.0 of the design.

## Translating / Distort



This command performs a translation and / or deformation of selected entities.

Confirm the order Translating / Distort.

When the cursor selection window is active, enter two opposite corners of the window transform. (See Chapter **Selection** page 48)

Confirm the window for translation.

Enter a displacement vector.

(Enter a starting point and ending point). The entities that intersect the selection window will be distorted (only the tip included in the window comes to the translation).

## Rotation



This command will rotate through three points: the center point of departure and arrival point.

Select entities

Confirm the command **Rotation 3 points**

Select a center of rotation O.

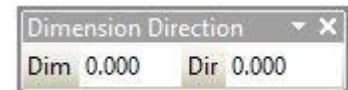
Select a point of departure of the rotation P<sub>1</sub>.

Select a point of departure of the rotation P<sub>2</sub>.

The rotation of center O with an angle OP<sub>1</sub>,OP<sub>2</sub>.

## Rotation angle

In the function "Rotation 3 Points", to activate this option, you only need to indicate the angle value that the rotation must carry out in the zone of entry **Dir** :



## Add a face



This command will create a new face from a previous drawing, respecting the height or the width.

- Select entities
- Drop the face and click on X or Y key to determinate the distance.
- Validate



## Repetition according to 2 directions



This command lets you copy selected entity by repetition in two directions.

- Select entities. (See Chapter **Selection**)
- Confirm the order by **Repetition 2 directions**
- Enter the number of repetitions in the 1st direction.  
(2 points defining a vector)
- Enter the number of repetition in the 2nd direction.  
(If you want a repetition in one direction, enter 0)
- Enter the n° of repetitions in the 2nd direction.  
(If the repeat count is greater than 0)

## Circular repetition



This command lets you copy selected entity by repetition around a point.

- Select entities. (See Chapter **Selection**)
- Confirm Order **repeat circular**
- Enter the point center of rotation
- Enter the rotation angle of each step of repeating

## Delete Duplicate entities



This command allows you to delete some entities with identical positions or coordinates, avoiding some mistakes in the drawing or the 3d view

- Select the duplicate entities.
- Validate

## Change attributes



This command changes the attributes of entities.

- To do this, simply **check** the attributes to change and set the desired value.
- After pressing the **OK** button, each selected entity will take the values of attributes



## Cut/split



This command performs a break entities (segment, arc) selected on the point of intersection.

Two methods are possible:

Select the entities and validate the command

Confirm your order and then select the intersection of two entities

**Method 1:** Select entities. (See Chapter **Selection** page 48)

Validate the command **Cut / Split**

*The selected entities will be divided at the point of intersection with another entity selection.*

**Method 2:** Validate the command **Cut / Split**. The selection is empty.

Enter a point of intersection between two entities.

The two entities will be divided at the intersection.

*N.B: Whatever the method, if an entity belongs to a profile (or more), the link with one or more profiles is automatically broken. For cons, the new entity resulting from the break inherit or links to the profiles or entity cut. The coupe body is available in the trash. Links to this entity are lost.*

## Move/copy



This command allows you to move or copy and move one or several entities.

Two methods are possible:

Select the entities and Confirm Order

Confirm your order and then select an entity

**Method 1:** Select entities. (See Chapter **Selection** page 48)

Confirm the order **Move / Copy**

Enter the point of attachment of entities to move.

Enter the ending point of the displacement vector.

*The selected entities will be moved from the point of attachment to the point of arrival.*

**Method 2:** Confirm the order **Move / Copy**. The selection is empty.

Select an entity.

The attachment point of the entity will be the point of selection. (See Chapter **Selection** page 48)

Enter the ending point of the displacement vector.

*If the parameter is enabled COPY (key keyboard [Ctrl]), a copy of each entity selected will be moved and added to the drawing.*

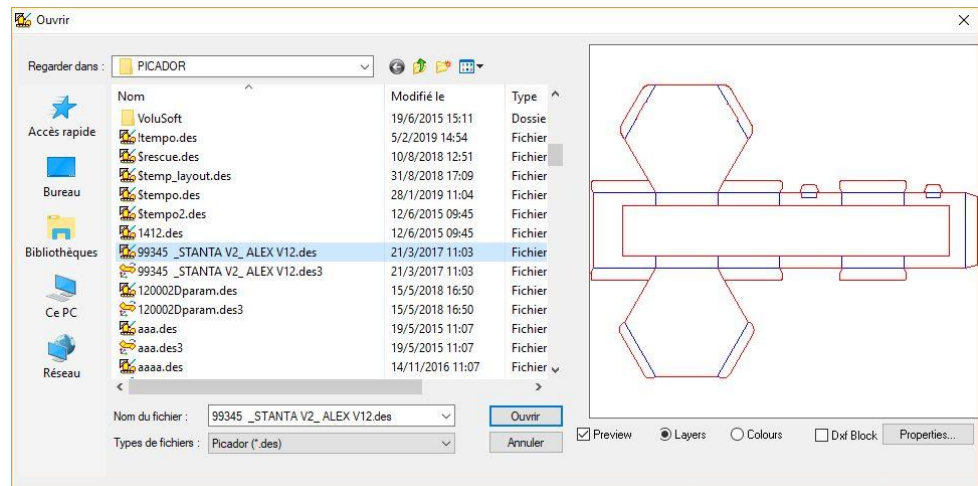
*If the SHIFT parameter is enabled (key keyboard [Ctrl]) selected entities will be displaced. To rotate the entities during travel, use the key rotation. (See Chapter Selection page48)*

## Add model

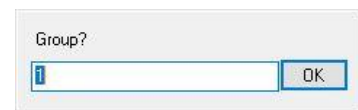


This command allows you to add a model from another Picador file (or another format) to create an imposition with different drawings.

- Select Add model.
- Find the file you want to add



- Choose the group where you want to put your drawing :



## Disperse



This toolbar (Alt + B) can explode:

- circles.
- ellipses.
- poses.
- sub drawings.
- catalogs.

To explode an entity simply choose the appropriate tool icon and then point the entities desired.

For arcs and ellipses, the program itself calculates the number of segments to be created to meet the best form of the entity.

For other entities (sub-design, catalog, postures), all the component entities are copied into the current drawing and the reference to the drawing, catalog or model fitting is removed.



# Profiles

## Creating and deleting a profile.

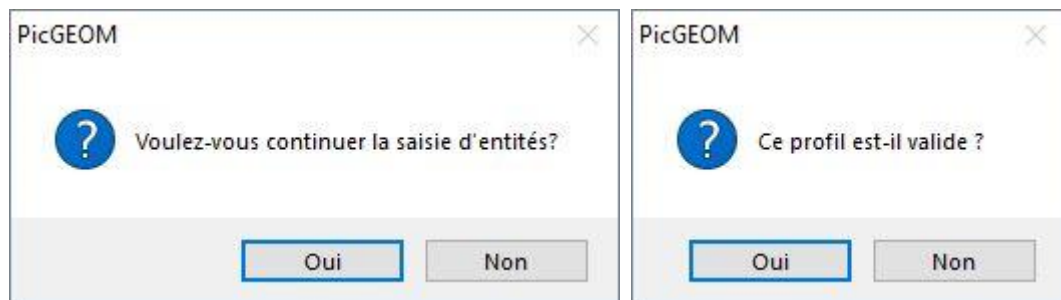
A profile is a set of combined entity to determine a contour or a continuous route. This feature is particularly useful in calculating surfaces, to be hatched areas, to define a contour or offset to optimize a tool path.



### Profil manual

Allows you to select one by one the entities that make up a profile. The entities are not changed.

To make the selection and create a profile, simply click in an area where there is no entity.



The program then validates Profile.

### Profil interactive manual



Permit reliance on a construction or on existing entities. To use this function you must:

1. define a starting point of the profile (eg intersection.),
2. select the entity on which the profile begins,
3. select an entity that determines the course of the profile,
4. repeat step 3 until the end of the course profile.
5. Enter a blank area to stop the creation of entity.

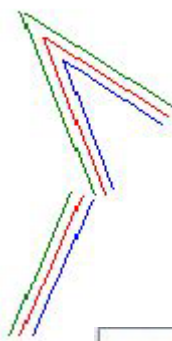
This function is not used to directly create the entity profile, but to create finite entities (segments, arcs) that are based on a geometrical construction (lines, circles).



## Contour shifted

This feature allows you to create a contour shifted from a profile.

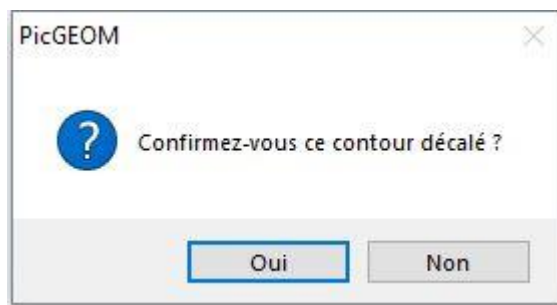
- The profile may be non-continuous,
- The profile can be open,
- The profile may be undirected (for use in profile window).



In the drawing above, we have the example of two contours shifted to 5 (green) and -5 (blue) following a profile (red) are not continuously open and unoriented.

1. Select profile
2. Enter the offset value
3. Validate desired contour (interior and/or outside)

Valeur du décalage :

## Select a profile

This feature allows you to directly select all the elements of a profile. The Move function moves the entire profile (including hatching if they are associated) and the Copy function ([Ctrl]) allows to obtain a copy of the profile entities.



## Profile window

Lets you enter through a window selection all entities which make up a profile.



## Remove profile

Allows you to delete a profile by selecting an entity that composes it.

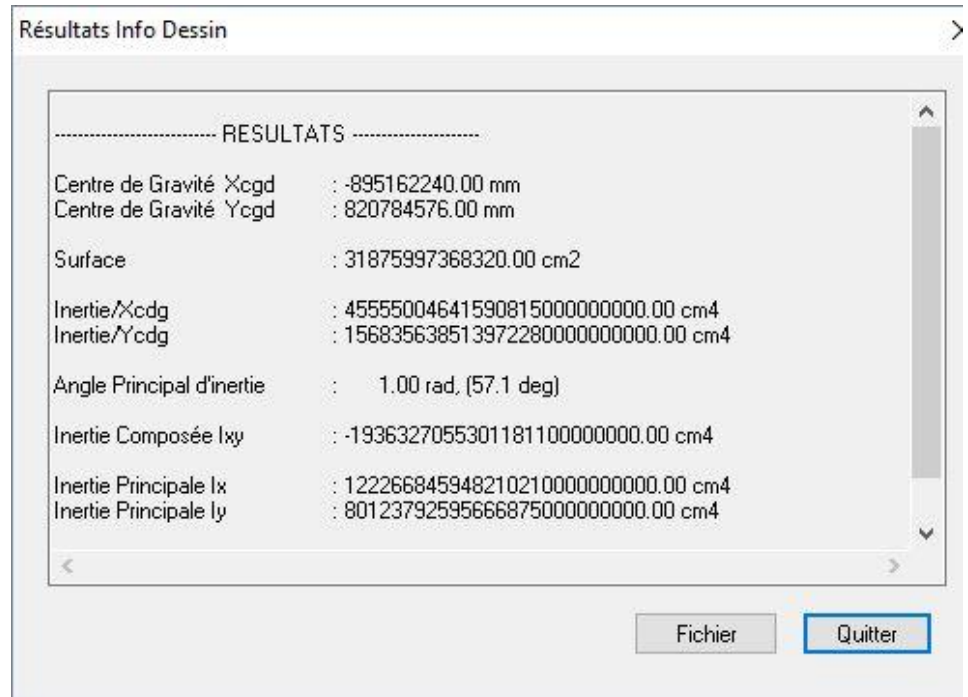
*Nota bene: If hatching is linked to the profile, this function automatically erases and it shows in the status bar the number of hatching erased*



## Area profile

Calculates the area defined by the profile.

Note the calculated area is the area of the shaded area that would function by Crosshatch Profile.



Results of calculation: In addition to the surface and center of gravity, the program also calculates the inertia and the main compound and the volume of revolution generated by rotating the surface around the axis Ox.

# The Hatch

## Creating and deleting hatches.



### Crosshatch profile

Used to hatch a profile by selecting an entity that composes this profile.



### Remove hatching

Deletes hatching associated with a profile by selecting an entity that composes this profile.



### Control of hatching

To display the dialog box that controls the hatching



# Layout

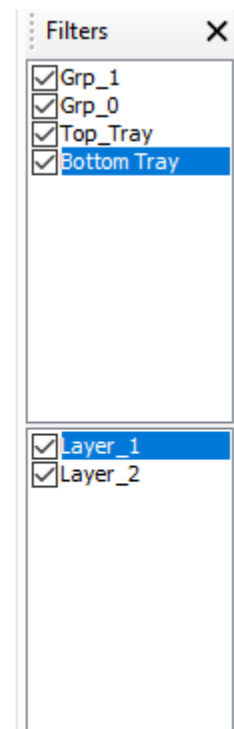
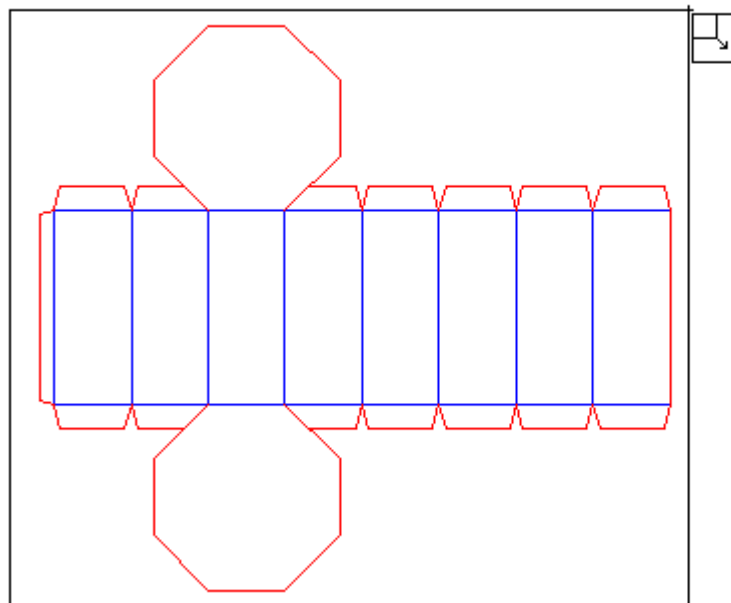
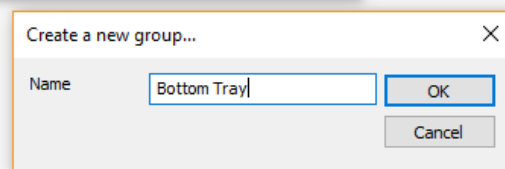
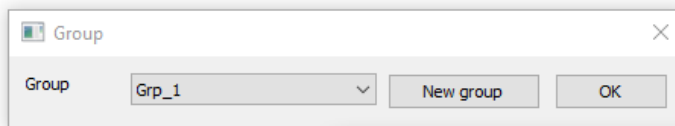
## Grouping entities



This command allows you to group entities to create a model for impositions shapes.

Select entities.  
 Confirm the **Group** command  
 Enter the group number (model)

All selected entities belong to the group so defined. This group design may be supplemented or amended. All the poses associated be complemented or amended.



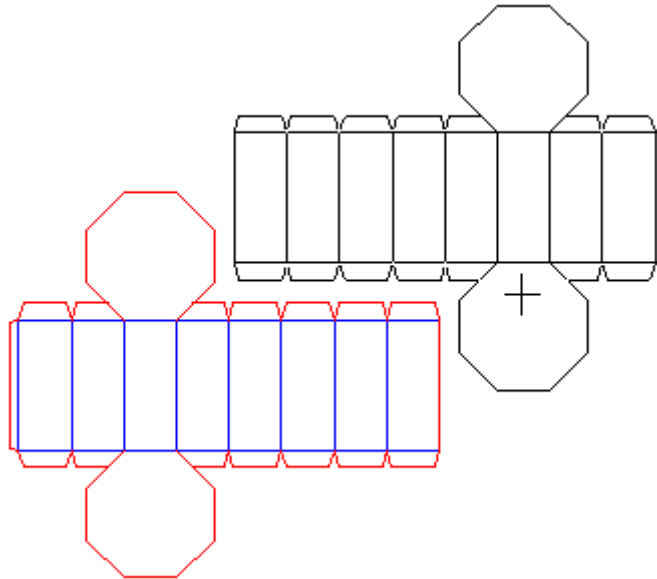
## Dynamic parts



This command lets you create dynamic poses.

Select a model)

Move the insertion until the desired position.  
(To rotate the installation, use the rotation).




---

### Layout in XY



This command allows you to make charges or nesting of poses by rehearsing or optimization in a given format.

**Repetition**
✕

Group: 1 ▾

Type

Repeat      Repetition in X: 3

                                         Repetition in Y: 2

Layout

Nesting

Main

Rotation

                                         Space in X: 5

                                         Space in Y: 5

Run
Cancel

The following dialog box lets you define the type of task to achieve.

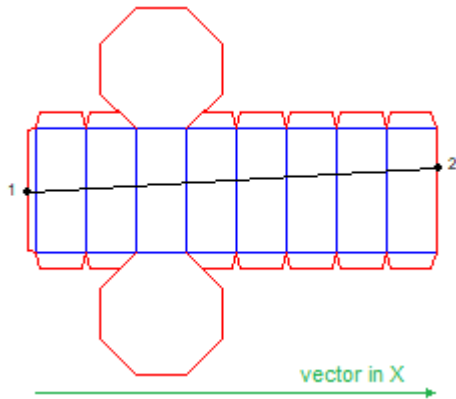
## Repeat

Enter the group (model) to repeat.

Enter the number of repetitions in X (1st direction)

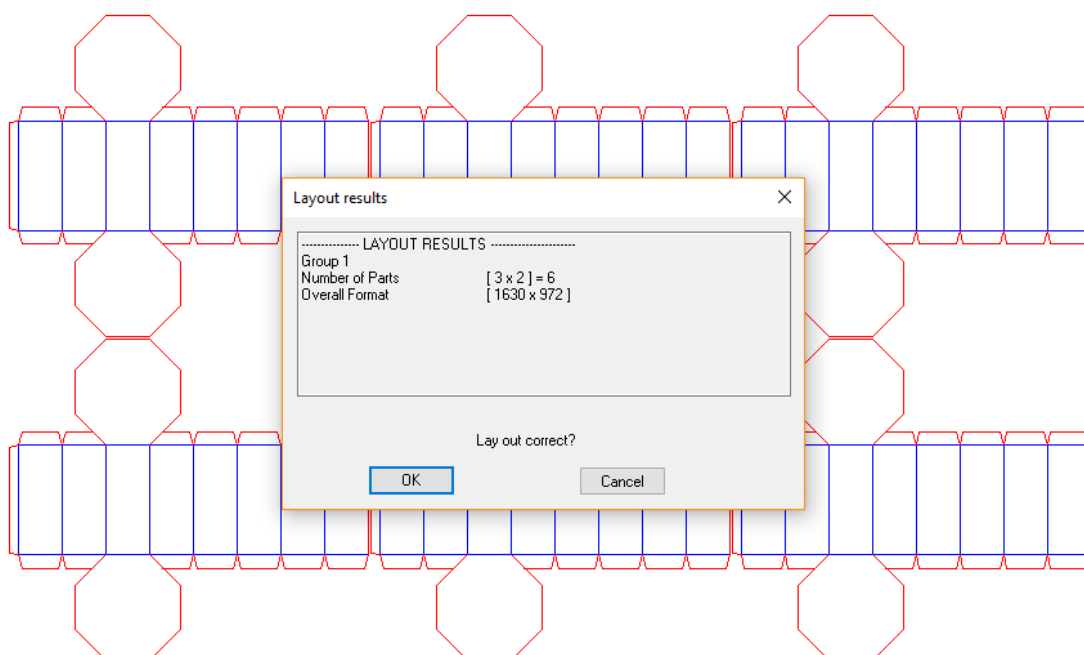
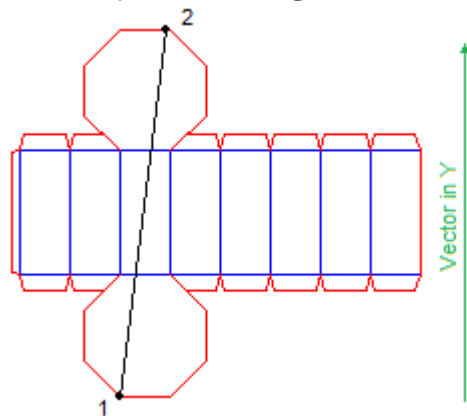
Enter the number of repetitions in Y (2nd direction)

Enter the vector (projection X) in the 1st direction. (*2 points define a vector*)



Enter the vector (projection Y) in the 1st direction. (*2 points define a vector*)

(If the repeat count is greater than 0)





## Layout

Enter the group (model) to repeat.  
 Enter the format in X  
 Enter the format in Y

×

**Repetition**

Group: 1

**Type**

Repeat

Format in X: 1800

Layout

Format in Y: 1500

Nesting

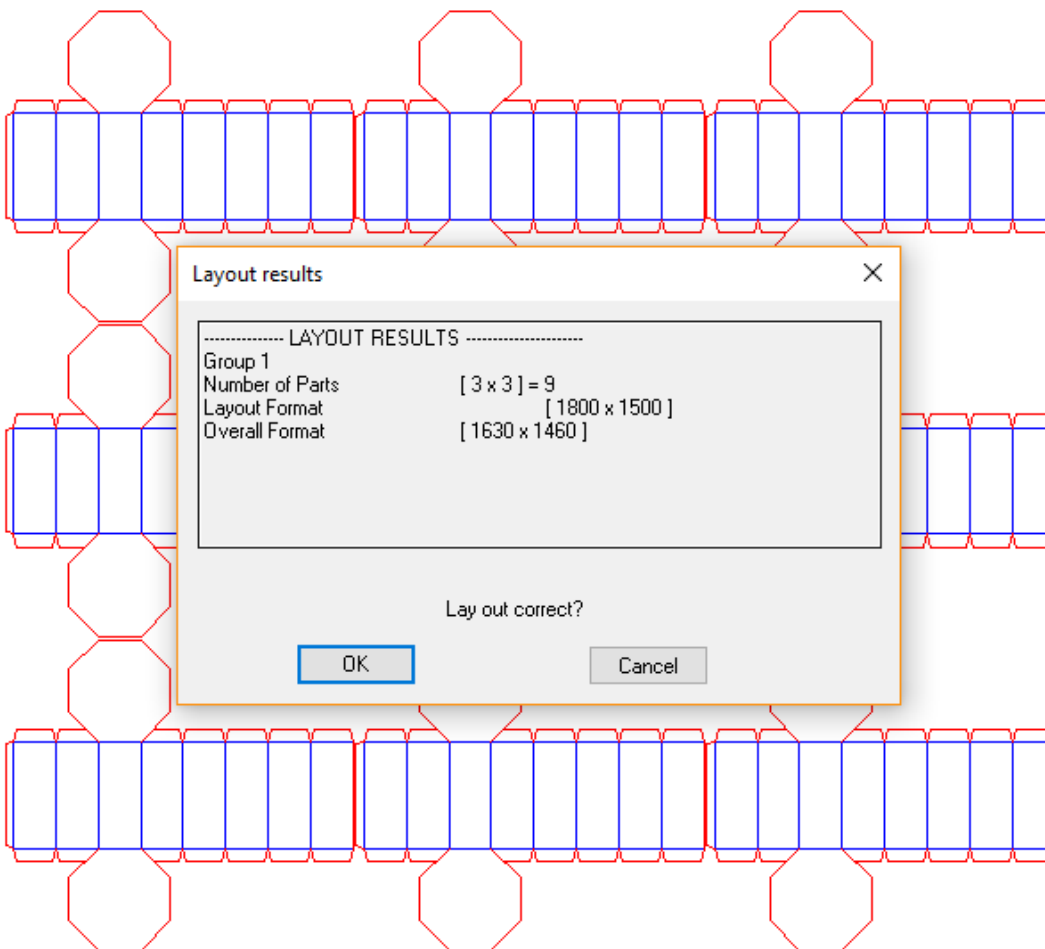
**Main**

Rotation

Space in X: 5

Space in Y: 5

Run
Cancel



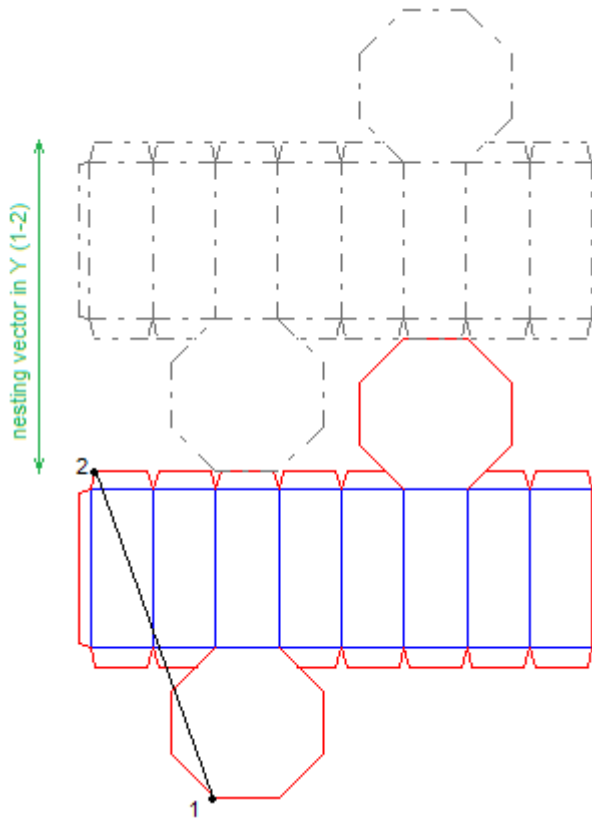
## Nesting

Enter the group (model) to repeat.

Enter the format in X

Enter the format in Y

Enter the no overlap in Y only. *(2 points define a vector)*



✕

**Repetition**

Group: 1

Type
 

- Repeat
- Layout
- Nesting

Format in X: 1800

Format in Y: 1200

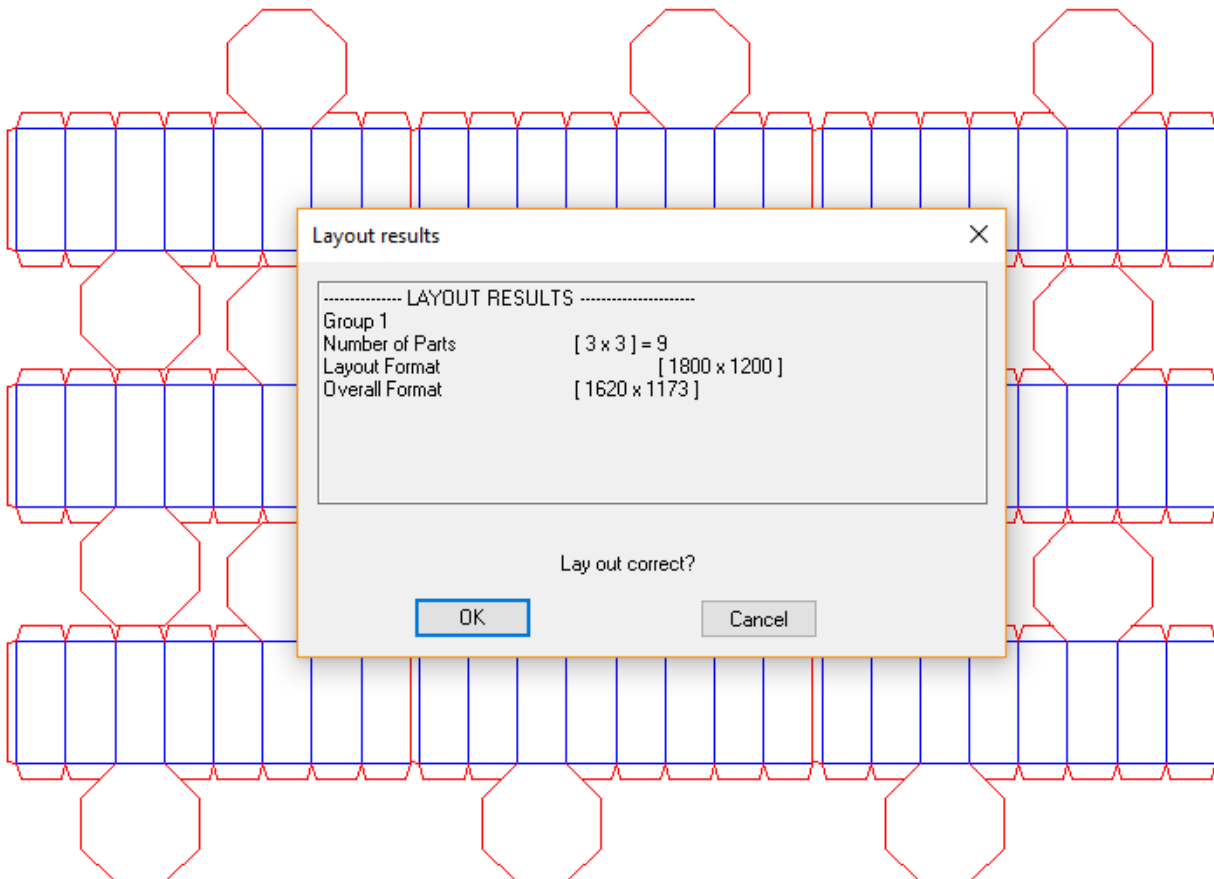
Main
 

- Rotation

Space in X: 0

Space in Y: 0

Run
Cancel



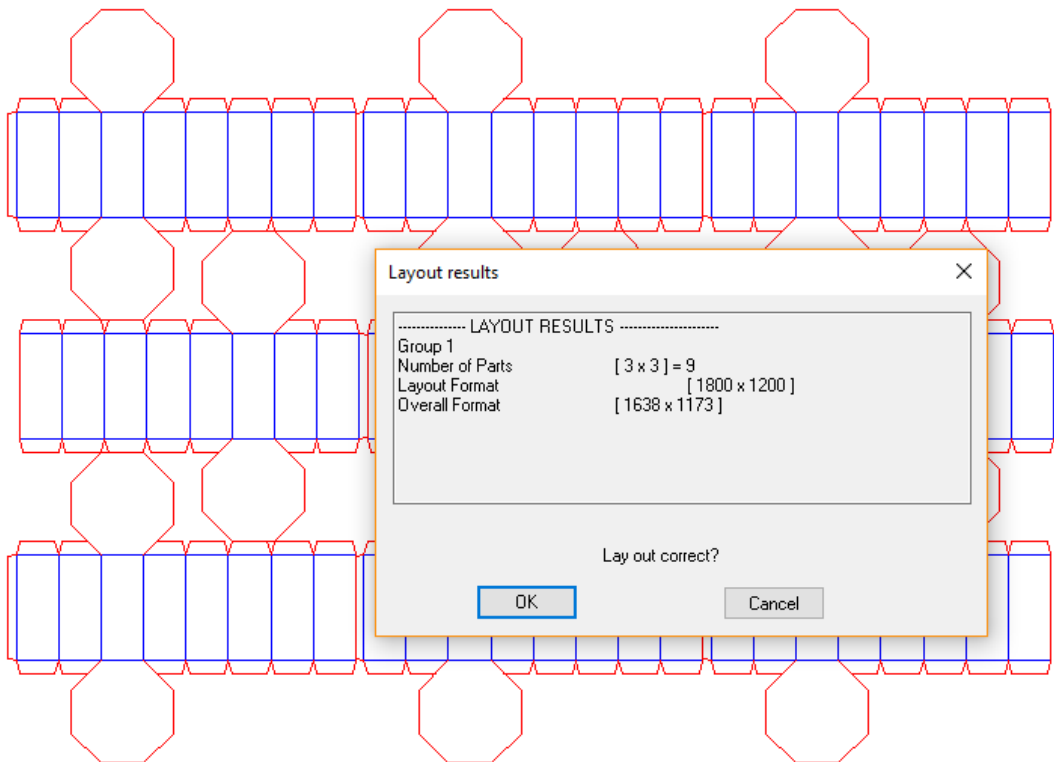
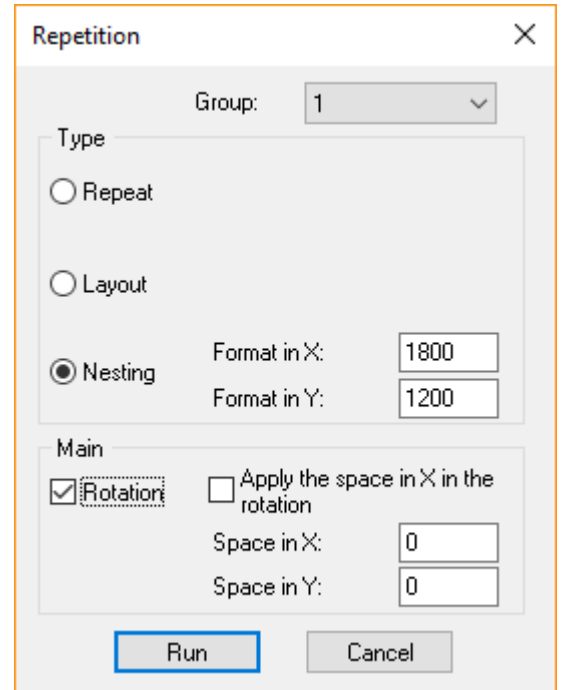
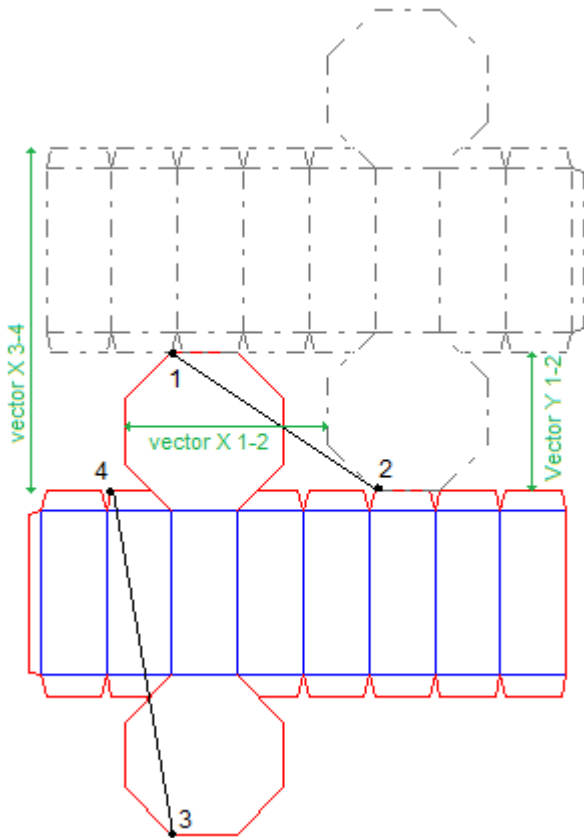
## Rotation

If the Rotation box is checked:

Enter the no reversal in Y only.

(2 points defining a vector: point to move, point to reach)

A final table will show the result of the imposition.



---

## Move model

This menu processing, allows to move a model used in a taxation without moving poses.

In effect arises is an image of the model which we applied a moving and / or rotation. To maintain the geometric position poses during a trip model, we must recalculate the displacement and rotation equivalent to a pose that is what this function for you.

---

## Explode poses

The **Explode poses** is an option. the **Tools** menu allows burst a pose in as many entities that comprise it. There are two ways to break one or more poses:

**Explode poses** that are selected. To do this, select all the poses you want to explode and then choose the option poses Explode the **tools** menu.

**Explode poses** on the fly. To do this, choose Explode poses the **Tools** menu, then with the mouse select the poses you want to explode.

*Nota Bene :*

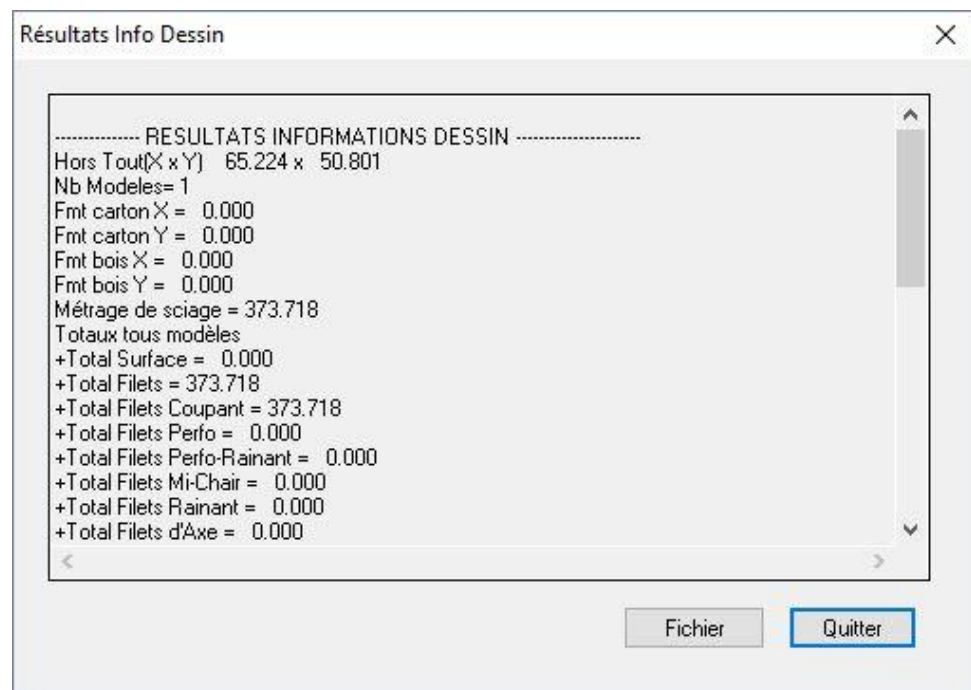
*When breaks between sets, entities are created in the group of model fitting, and consequently there are other exposures on the same group model these new entities appear in the poses. We must change the group attribute of the new entities to avoid having this behavior.*

## Informations



This function displays information about the film, models (number of hauls, number of bends, overall size, ..).

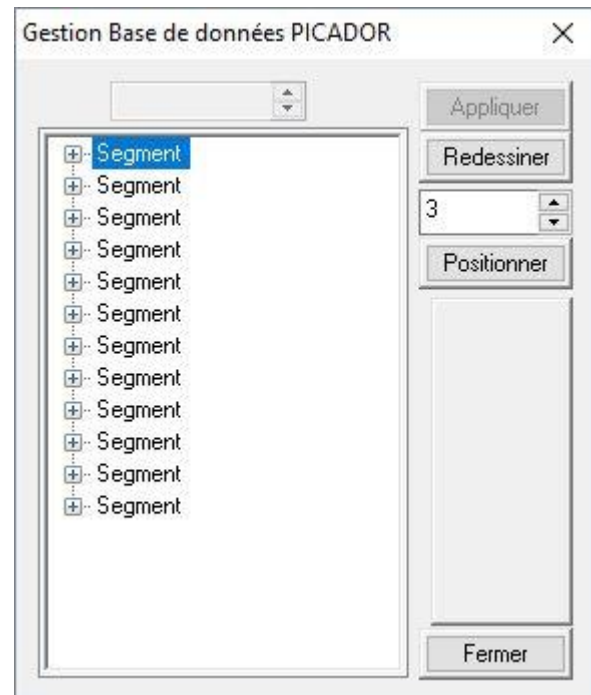
The File button allows you to create a text file containing all the information for later use. It is also possible to select all the text in the dialog box and copy to clipboard from MS-Windows.



## Data base

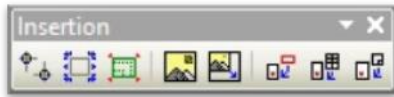
Tools→Database

This dialog box provides access to properties of entities in the database. To change a property of an entity, we may move in the tree database (the entities are detected simultaneously in the drawing area) is giving its number in the text field (above the button **position** ) and press Set. When the entity is chosen, simply **position** the tree to access its properties. The Field property adapts its title based on the ownership of the entity.

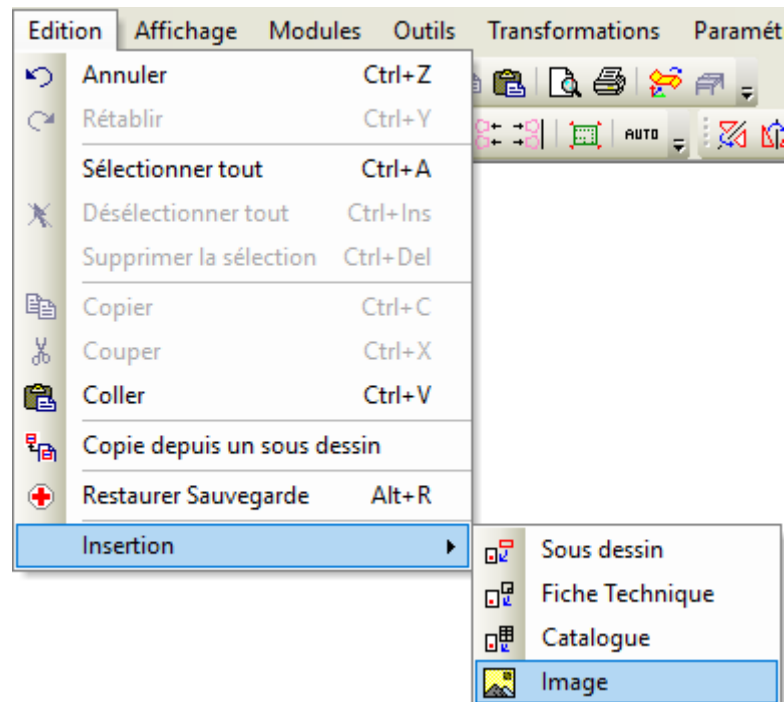


Modify the property and confirm the change with the **Apply** button. The associations of entities are not editable by the database. They are only available.

# Inserting files



It is possible to insert drawings as a base map and catalogs from the Edit menu option **Insert**.



## The drawing



You can put any design in the format PICADOR<sup>®</sup>. The inserted file is then linked to the active drawing. It cannot be changed. If you wish to delete the link below and copy the design must use the **Tools**→**Menu**→**Explode under drawing**

After choosing the design to add in, it must give the similarity coefficient that determines the scale of the sub drawing. If scores are present in the drawings in the value of the rating invariant. For example, if a by drawing contains a distance value 100.00 rating, placing it in a drawing at a scale of 0.5 does not change the display of the value of the score that show always 100.00.

We can then move on drawing with the mouse and use buttons for rotations (see chapter **selection**).

## The technical data sheet



On peut insérer n'importe quel sous dessin au format PICADOR<sup>®</sup>. Le fichier inséré est alors lié au dessin actif. Il ne peut pas être modifié. Si l'on désire supprimer le lien et copier le sous dessin il faut utiliser la fonction du Menu:

**Outils**→**Eclater**→**Eclater Sous dessin**

Après avoir choisi le sous dessin à insérer, il faut donner le coefficient d'homothétie qui détermine l'échelle du sous dessin. Si des cotes sont présentes dans le sous dessin la valeur de la cote est invariante.

Par exemple, si un sous dessin contient une cote distance de valeur 100.00, son insertion dans un dessin à une échelle de 0.5 ne modifie pas l'affichage de la valeur de la cote qui indiquera toujours 100.00.

On peut alors déplacer le sous dessin avec la souris et utiliser les touches pour les rotations (voir le chapitre **Erreur ! Source du renvoi introuvable.**).

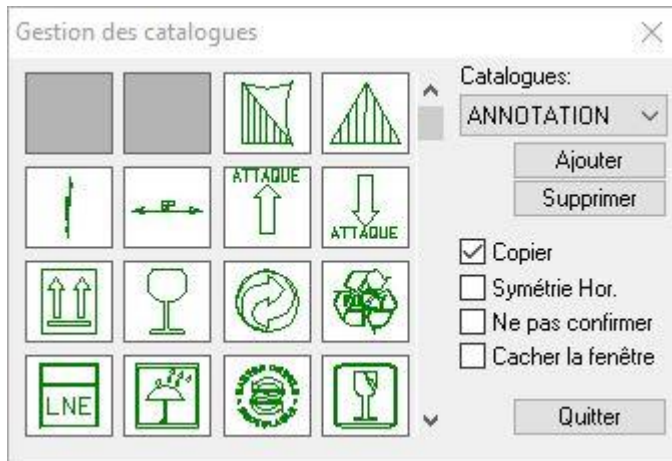


## The catalogues



We can insert coins or a multiple catalogs by the menu Insert Catalogs.  
 Edition → Insertion → Catalogues

It is imperative that the current file exists on disk to use this feature. The catalog files are special files with the extension PICADOR® CD. The dialog box for inserting catalogs can view all parts of a catalog from a choice of several catalogs (maximum 12).




The list box displays the names of catalogs including at least one part are referenced in the file or else it is marked **free**.

You can add a catalog using the **Add** button, but to be validating a catalog must be referenced by at least one of its parts. You can delete a catalog and all exhibits referenced by it with the **Remove** button.

**Copy:** A document catalog may be linked to the file through the catalog, or copied from the catalog. In the latter case, the reference to the catalog is no longer necessary because all the entities that make up part of the design are.

### Flip horizontal:

Check the box if you want to get the symmetrical horizontal part catalog selected.

To obtain symmetrical about the vertical symmetry, check the box. And use the button  (home) to rotate 180°.

### Do not confirm:

When the piece catalog is selected (double click) and if the *Do not confirm* is checked, part catalog will insert to the size of that recorded in the Catalogue.

If unchecked, the following dialog box allows to design the piece catalog.



**Hide window :**

This option will hide the window when the catalogs were selected element. To have the window appear again just press the button

**Esc**

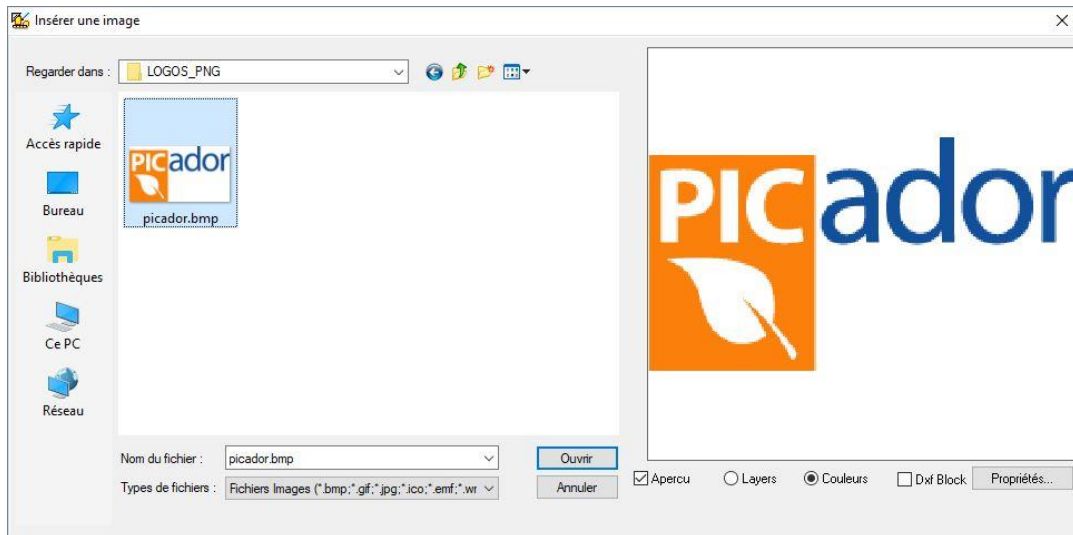
For the nomenclature of a piece catalog, simply click the right mouse button to display the following window:



## Images Bitmaps



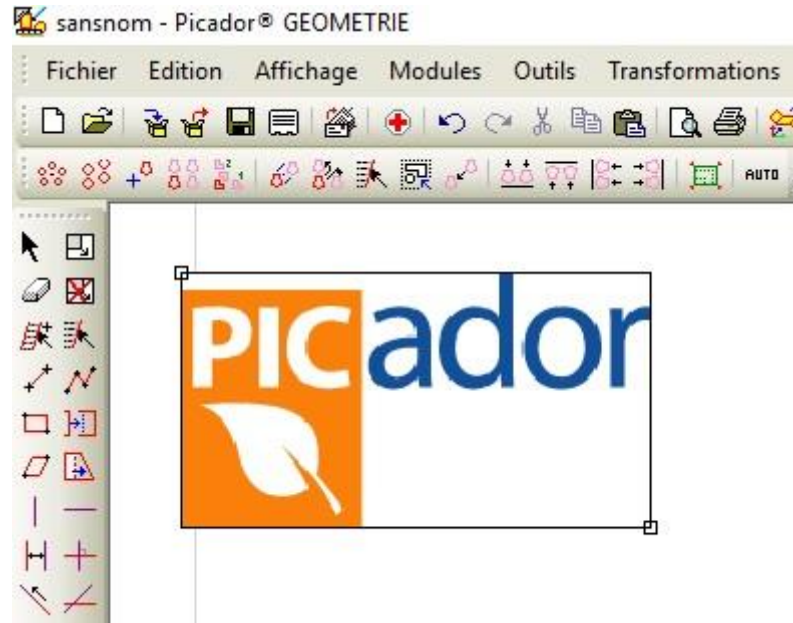
You can insert a bitmap into a drawing Picador.  
To do this, simply use the **Edition** → **Insertion** → **Image**.



When you insert the image, the program asks if you want to keep the original size. If you answer YES, the image retains its original size and position on the user's drawing. If the answer is NO the user defines the framework within which the image must fit.

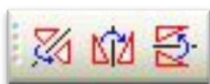
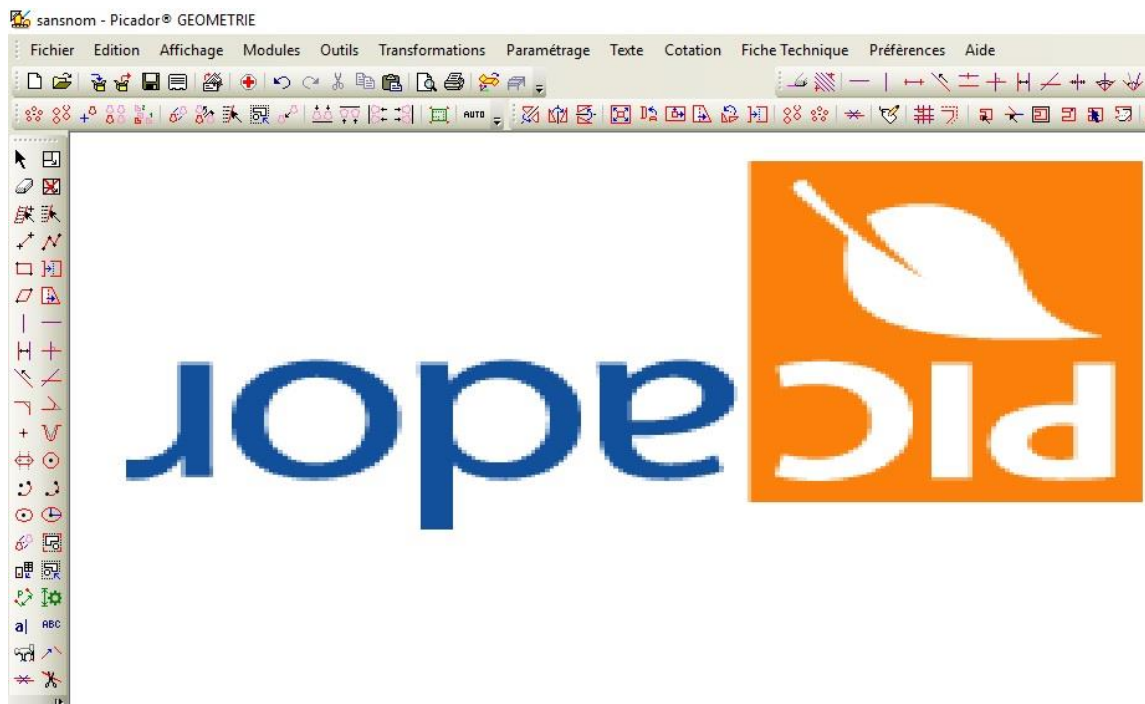


It is therefore a link to the bitmap file. By cons we can define a zone where we display the bitmap and it provides another tool to manipulate and resize.



Changing the size of the bitmap:

Use the function : [Transformations](#)→[Resize an image](#)



It is possible to apply a symmetry transformation of the image (vertical, horizontal and any axis).

# The parametric

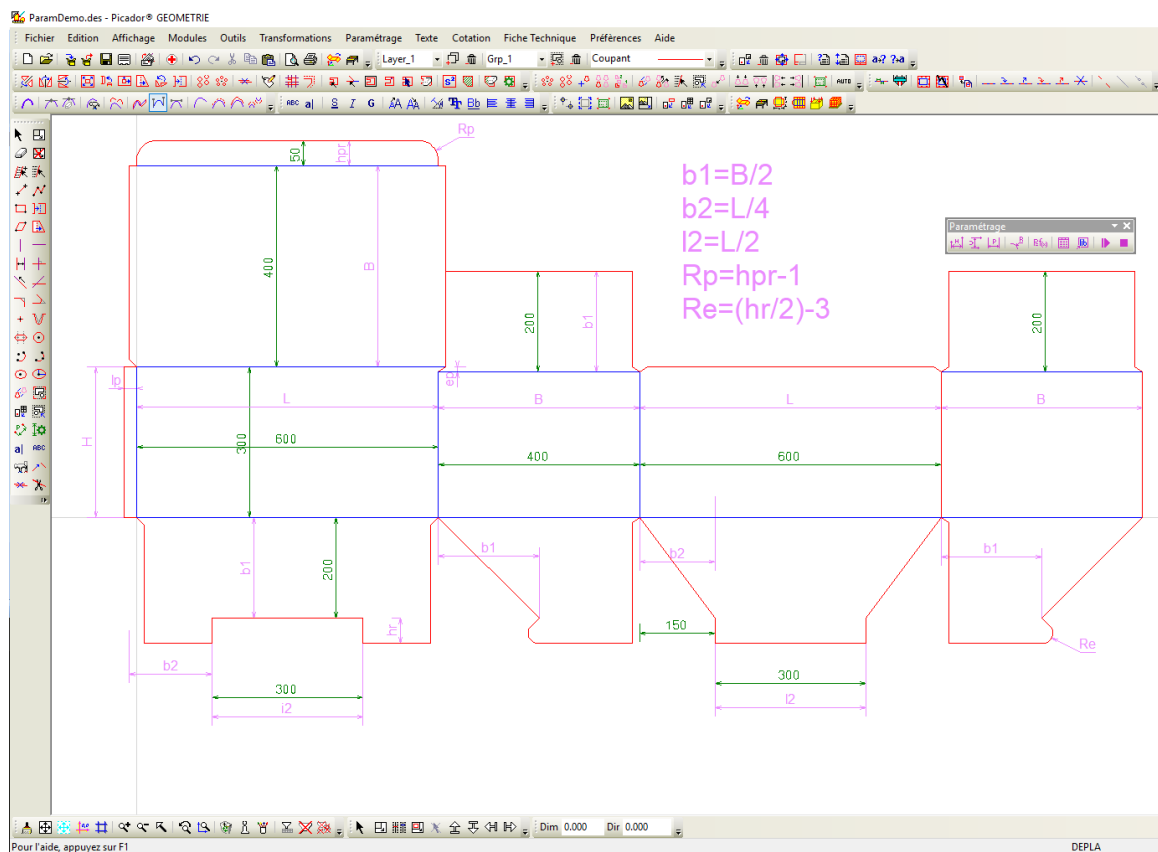
## Introduction

This new module integrates **directly** into the engine parametric PicGEOM.  
 He uses only listing functions and text (formulas) from a new drawing, a drawing or an **existing imported drawing** quickly and easily perform a **parametric model**.



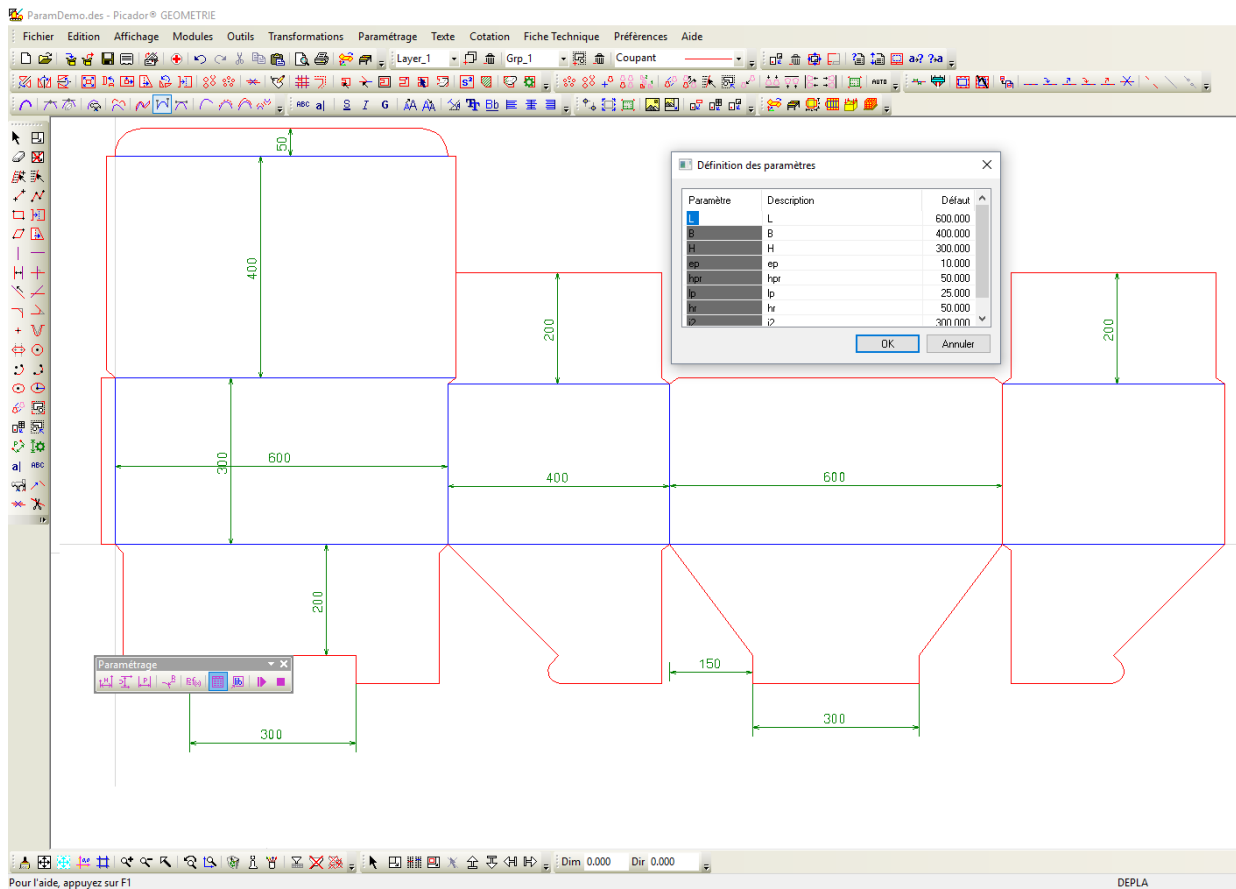
To make a parametric, you need:

1. To draw, use an existing drawing or importing a drawing,
2. To classify the film with **ratings parameters**, choosing the free parameter name.
3. To define whether the relationship between the parameters (**formulas**).
4. Test it and save as a normal drawing




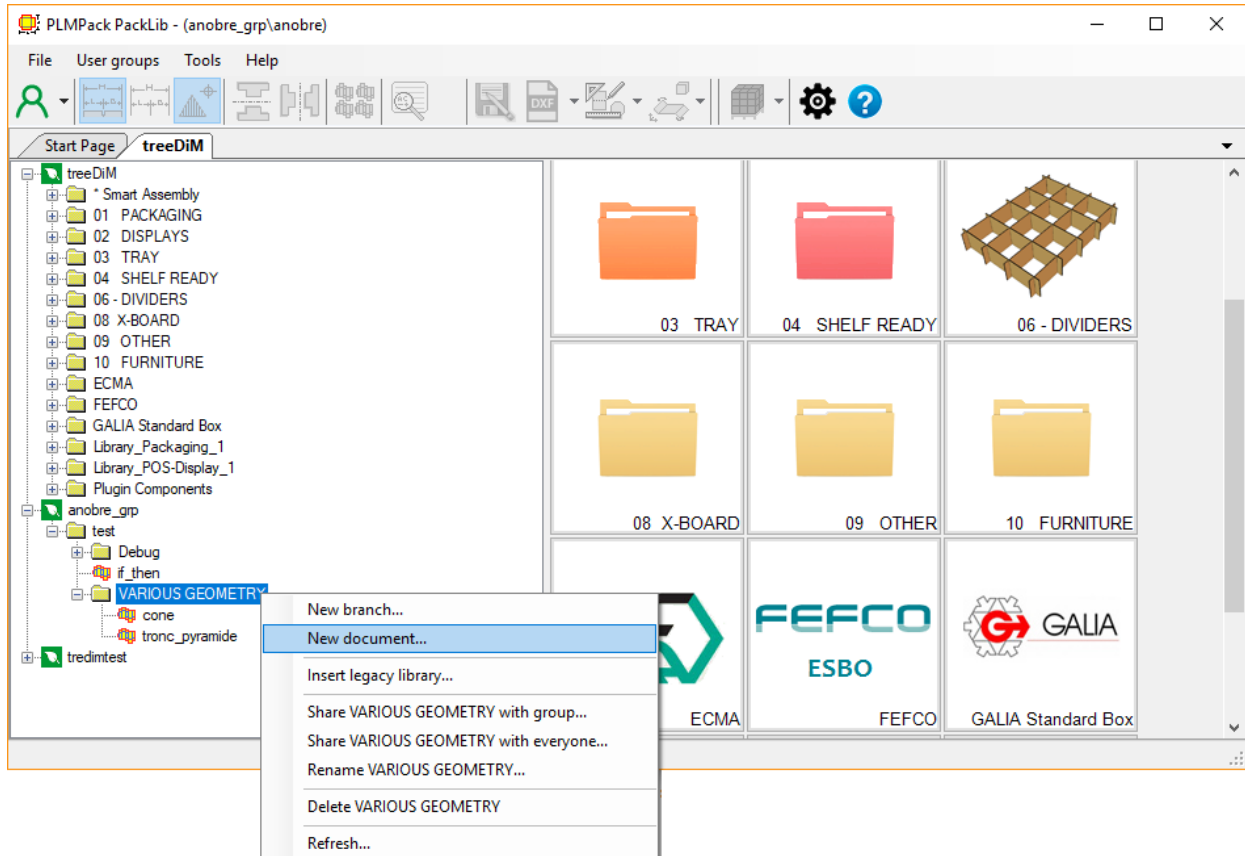
The parametric model thus obtained can then be reused directly and immediately from PicGEOM.

1. Open the parametric drawing.
2. Start executing parametric and enter the parameter (the system takes charge of analyzing the forms and dimensions parameters to require only the parameters to define)
3. The parametric transformation is immediately obtained.
4. You can then confirm your new drawing, or raise the performance to change desired parametric.



It can also be added to the standard template library:

1. Generate parametric component(.dll) 
2. Add the document in the library (right clic on the location of your choice).



## Utilisation

### Rating parametric horizontal



Create an entity rating parameter with the expression of the parametric constraint.

- Enter a 1st point,
- Enter a 2nd point,
- Enter a point to position the document.
- Enter a parameter (eg. L) or an expression ( Ex.  $B/2+maj05$ )

Texte de la cote ?



*The rating will be shown the horizontal projection of two points*

### Rating parametric vertical



Create an entity rating parameter with the expression of the parametric constraint.

- Enter a 1st point,
- Enter a 2nd point,
- Enter a point to position the document.
- Enter a parameter (eg. L) or an expression ( Ex.  $B/2+maj05$ )

Texte de la cote ?



*The rating will be shown the vertical projection of two points*

### Rating parametric parallel



Create an entity **rating parameter** with the expression of the parametric constraint.

- Select a horizontal or 1st vertical segment
- Select a segment parallel 2nd
- Enter a point to position the document.
- Enter a parameter (eg. L) or an expression ( Ex.  $B/2+maj05$ )

Texte de la cote ?

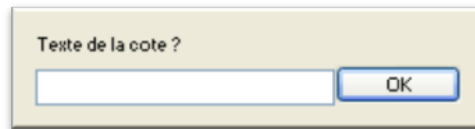


## Rating parametric radius



Create an entity **rating parameter** with the expression of the parametric constraint.

- Select an arc
- Enter a point to position the document.
- Add a parameter (eg. R) or expression ( Ex.  $D/2+maj05$ )



*The rating shown is the radius of the arc.*

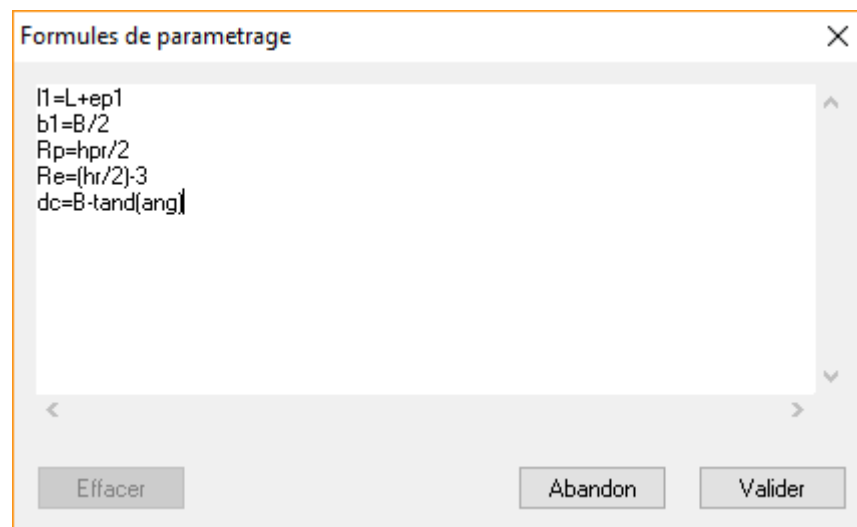
*It is unnecessary to quote the arcs of the same radius.*

## Formulas



This feature allows you to define the parameters and relations between the parameters.

- Enter arithmetic expressions (variable = expr)
- Enter [Enter] to change expression
- Click [OK]
- Click an anchor point on the design formulas.



Operators are available:

**+(plus)**

**-(minus)**

**\*(multiply)**

**/(divide)**

The assignment operator is: **=(equals)**

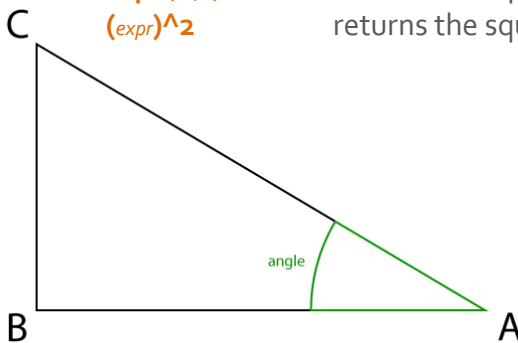
The variables and parameters must begin with a letter. Uppercase and lowercase are interpreted differently.

**B** is different as **b**

**Ep** is different as **ep**

## The arithmetic and trigonometric functions

<b>Abs</b> ( <i>expr</i> )	returns the absolute value of the expression <i>expr</i>
<b>acosd</b> ( <i>expr</i> )	returns the angle whose cosine is the expression <i>expr</i>
<b>asind</b> ( <i>expr</i> )	returns the value whose sine is the expression <i>expr</i>
<b>atand</b> ( <i>expr</i> )	returns the value of the angle whose tangent is the expression <i>expr</i>
<b>cosd</b> ( <i>expr</i> )	returns the cosine of the angle <i>expr</i> (degrees)
<b>sind</b> ( <i>expr</i> )	returns the sine of the angle <i>expr</i> (degrees)
<b>tand</b> ( <i>expr</i> )	returns the value of the tangent of the angle <i>expr</i> (degrees)
<b>Sqrt</b> ( <i>expr</i> )	returns the square root of expression <i>expr</i>
<b>(<i>expr</i>)^2</b>	returns the square of the expression <i>expr</i>



$$\text{tand}(\text{angle}) = \text{BC}/\text{AB} \quad \text{-----} \rightarrow \text{BC} = \text{tand}(\text{angle}) * \text{AB}$$

$$\text{cosd}(\text{angle}) = \text{AB}/\text{AC} \quad \text{-----} \rightarrow \text{AB} = \text{cosd}(\text{angle}) * \text{AC}$$

$$\text{sind}(\text{angle}) = \text{BC}/\text{AC} \quad \text{-----} \rightarrow \text{BC} = \text{sind}(\text{angle}) * \text{AC}$$

## Pythagore:

$$(\text{BC} * \text{BC} + \text{AB} * \text{AB}) = \text{AC} * \text{AC} \quad \text{-----} \rightarrow \text{AC} = \text{Sqrt}(\text{BC} * \text{BC} + \text{AB} * \text{AB})$$

## Create a condition:

(for example, A,B,C are parameters)

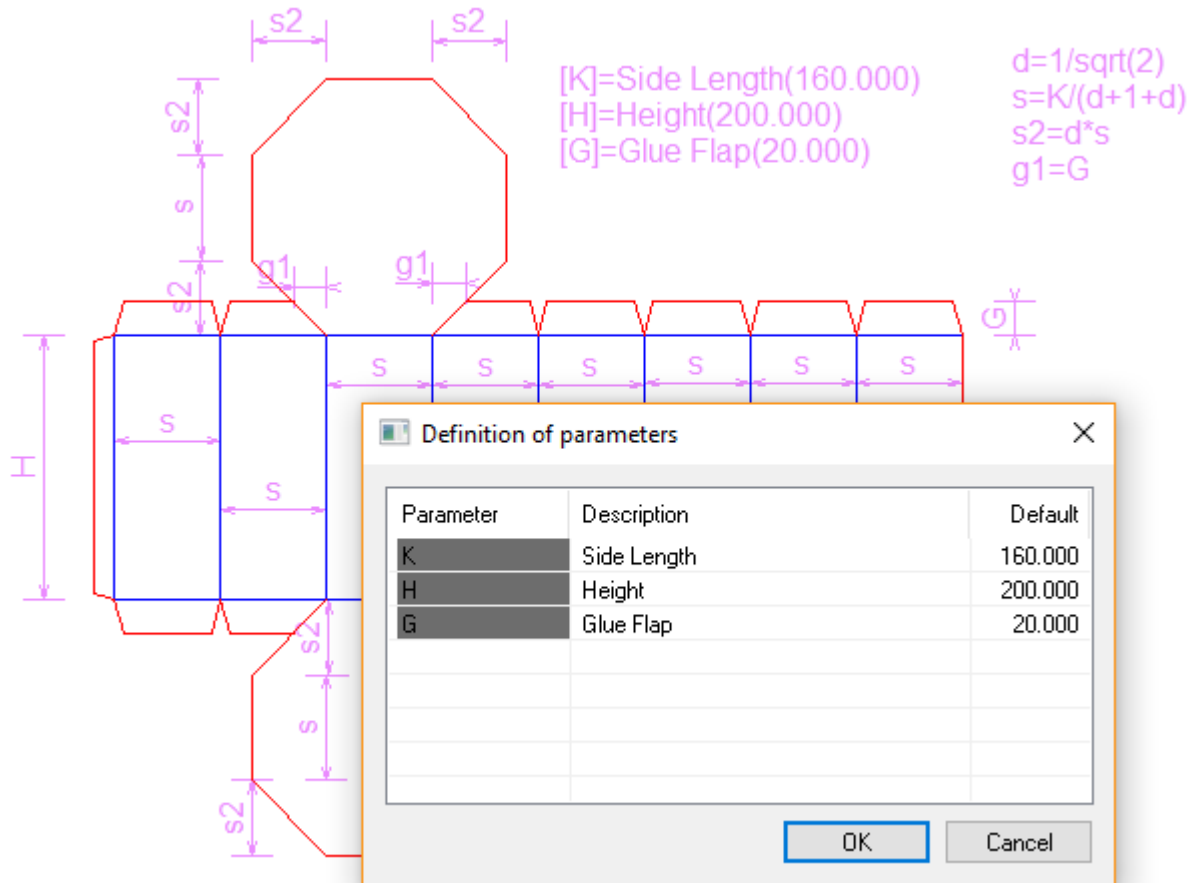
if (A>B) A=B

if (A+B>C) A=10

## The parameter definition table:



The table is used to declare the creation of parameters, their description information (length, width, height ...) and assign a default.



$[K]=\text{Side Length}(160.000)$   
 $[H]=\text{Height}(200.000)$   
 $[G]=\text{Glue Flap}(20.000)$

$d=1/\sqrt{2}$   
 $s=K/(d+1+d)$   
 $s2=d*s$   
 $g1=G$

Parameter	Description	Default
K	Side Length	160.000
H	Height	200.000
G	Glue Flap	20.000

OK Cancel

## Execute Parametric



This function allows you to enter the settings and to run the setup with the defined constraints. The system automatically analyzes the data and prompts for undefined parameters.

## Clean



This function deletes all parameter data (dimensions, formulas) to validate the new drawing obtained.

## Generate a parametric component



This function deletes all parameter data (dimensions, formulas) to validate the new drawing obtained. The created file is saved by default in the archive **C:/Picador/plugins** with an extension **.dll** (component .NET). This component can be then inserted in the library **PackLib**.

FormMain

Name:

Description:

Thumbnail  Company/Author:

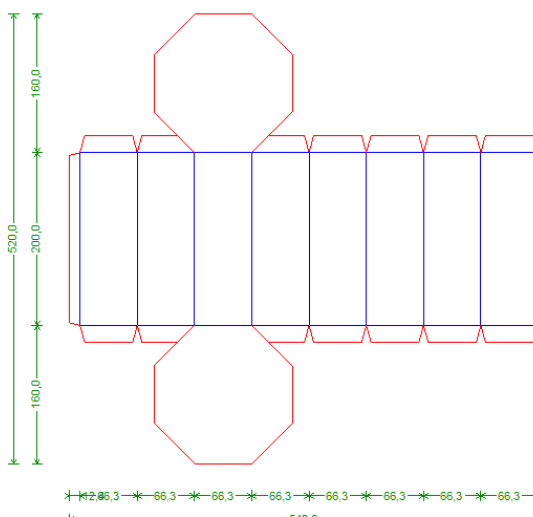
Guid:

```

1 public ParameterStack BuildParameterStack(ParameterStack stackIn)
2 {
3     ParameterStackUpdater paramUpdater = new ParameterStackUpdater(stackIn)
4     paramUpdater.CreateDoubleParameter("K", "Side Length", 160, 0);
5     paramUpdater.CreateDoubleParameter("H", "Height", 200, 0);
6     paramUpdater.CreateDoubleParameter("G", "Glue Flap", 20, 0);
7     return paramUpdater.UpdatedStack;
8 }
9 public void CreateFactoryEntities(PicFactory factory, ParameterStack stack,
10 {
11     PicFactory fTemp = new PicFactory();
12     const PicGraphics.LT ltCut = PicGraphics.LT.LT_CUT;
13     const PicGraphics.LT ltFold = PicGraphics.LT.LT_CREASING;
14     const PicGraphics.LT ltCotation = PicGraphics.LT.LT_COTATION;
15     const PicGraphics.LT ltPerfoFold = PicGraphics.LT.LT_PERFOCREASING;
16     const PicGraphics.LT ltPerfo = PicGraphics.LT.LT_PERFO;
17     const PicGraphics.LT ltHalfCut = PicGraphics.LT.LT_HALFCUT;
            
```

Error Line

Validate generated component...



Epaisseur:

Side Length (K):

Height (H):


Glue Flap (G):

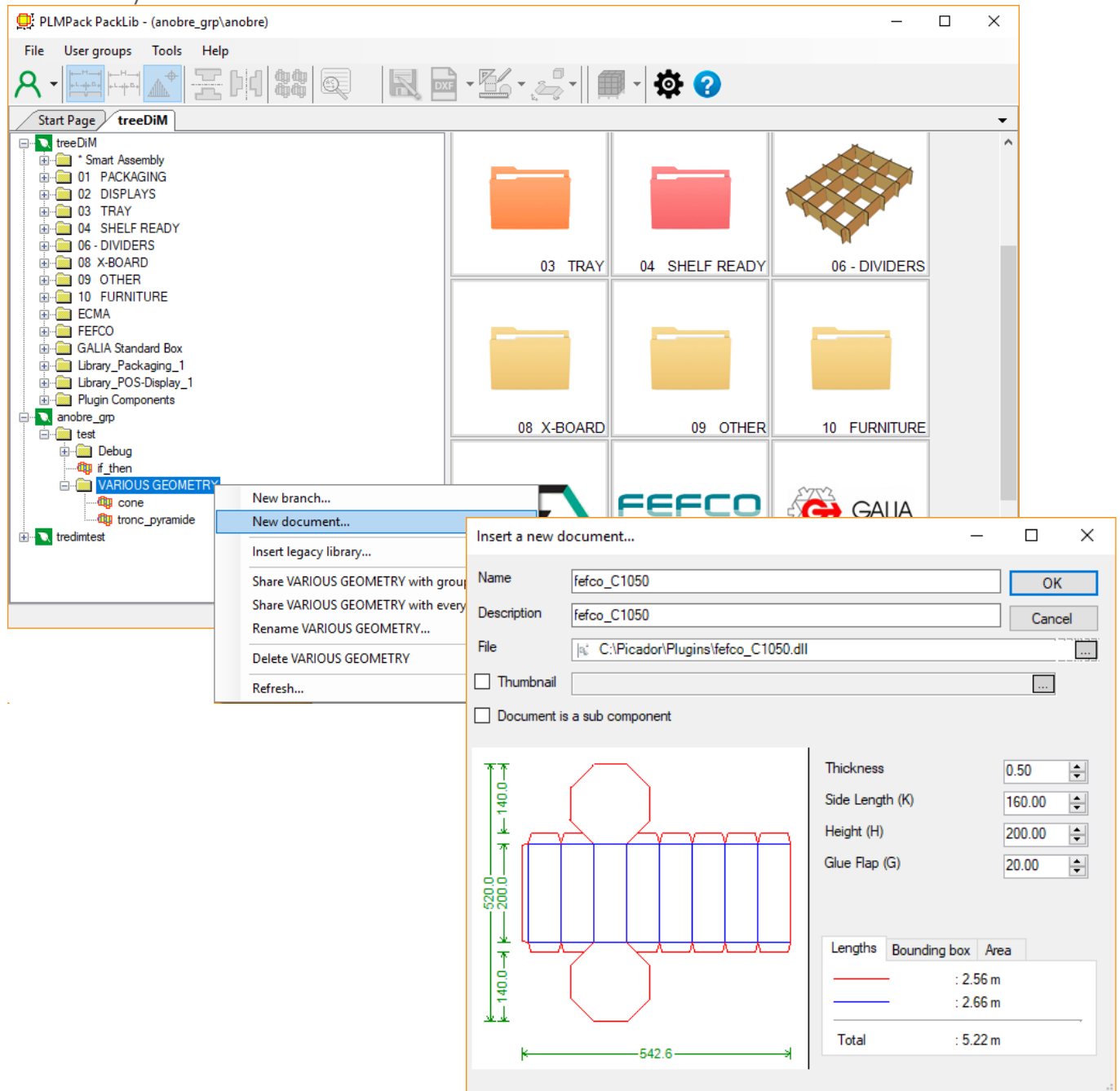
When [Validate], the .net component is created in the **C:\Picador\Plugins** directory.

Then you can insert it in your PackLIB branch.

## Add a parametric model in PLM PackLiB

In the treeview of PackLiB :



- Click with Right Button of the mouse on the branch where you want to insert the new document.
- Then use the Browse button  to select the File component in the **C:\Picador\Plugins** directory.



The screenshot shows the PLMPack PackLib interface. The tree view on the left shows a hierarchy of components, with 'VARIOUS GEOMETRY' selected under 'anobre\_grp'. A context menu is open over 'VARIOUS GEOMETRY', and the 'New document...' option is selected. The 'Insert a new document...' dialog box is open, showing the following details:

- Name:** fefco\_C1050
- Description:** fefco\_C1050
- File:** C:\Picador\Plugins\fefco\_C1050.dll
- Thumbnail
- Document is a sub component

The dialog also displays a net diagram for the FEFCO C1050 box with dimensions and a table of lengths and areas.

Lengths	Bounding box	Area
	: 2.56 m	
	: 2.66 m	
<b>Total</b>	<b>: 5.22 m</b>	

Thanks for your attention

We wish you the best with Picador 2d

# PICADOR®

