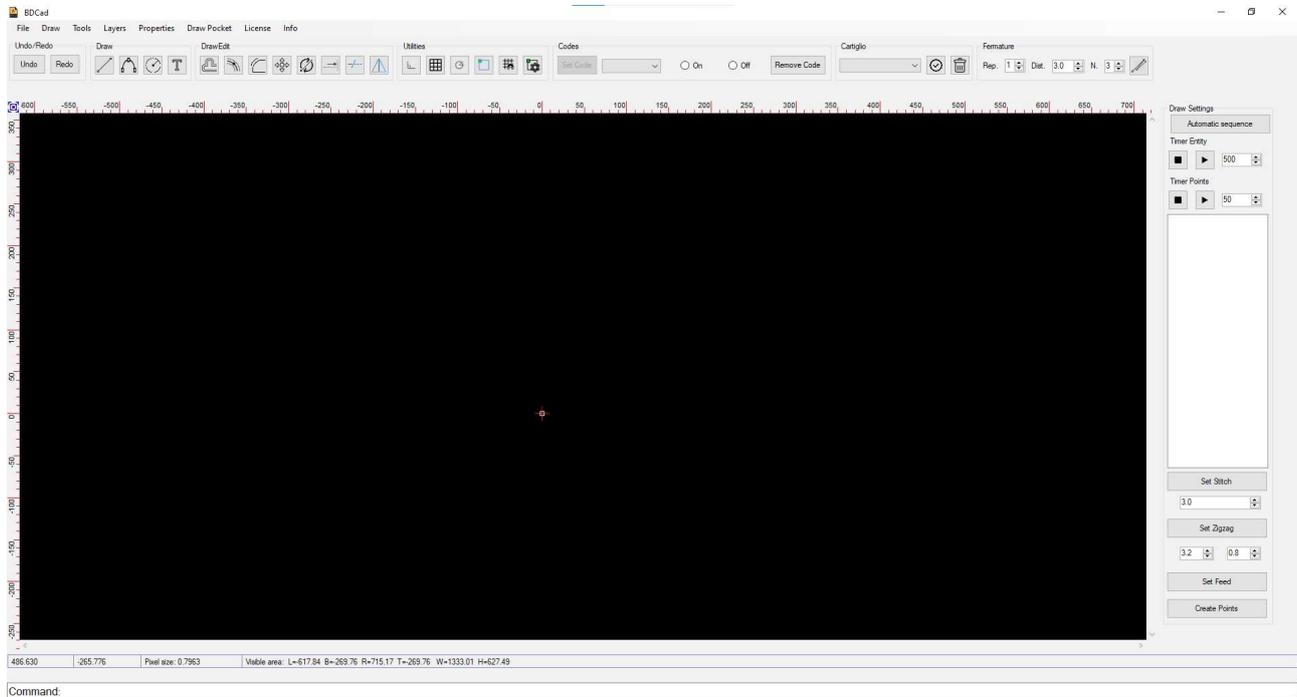


# BDCad

BdCad is a software that allows you to create pockets for various types of machines and in various types of formats.

Main screen:



The main screen consists of a menu at the top that allows you to save and load programs, draw various types of lines, use tools such as the one that calculates the distance between 2 points or even create a complete pocket.

Under the menu there are various buttons that allow you to perform actions on the cad such as drawing, moving, cutting or extending lines. In addition to being able to create and modify lines, you can activate or deactivate cad tools such as the grid, snap etc ...

The various buttons on the right side of the cad allow you to make sewing simulations, reorder the lines, set the type of line etc ...

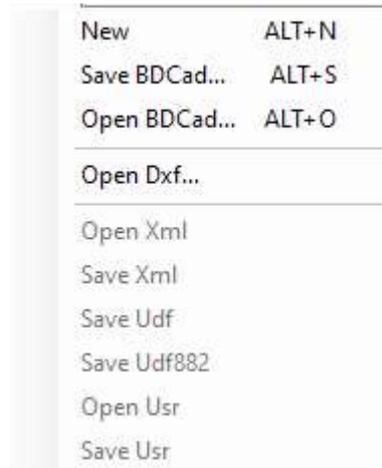
Finally, at the bottom there is a box in which you can write the command by inserting all the values that that command requires

# Menu

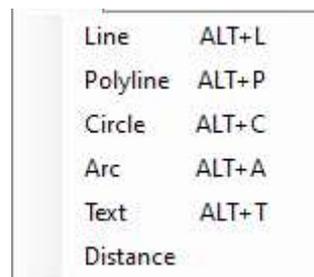
The Menu is made this by the following buttons that have subcategories:



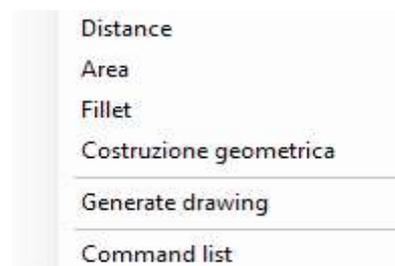
**File:** The button “File” can save the program in some formats like Xml, Usr, Udf based on the machine selected in the cartouche part or open a file previous created for edit it



**Draw:** The button “Draw” have like subcategories all the function for draw lines, arcs, circles or add a text on the draw



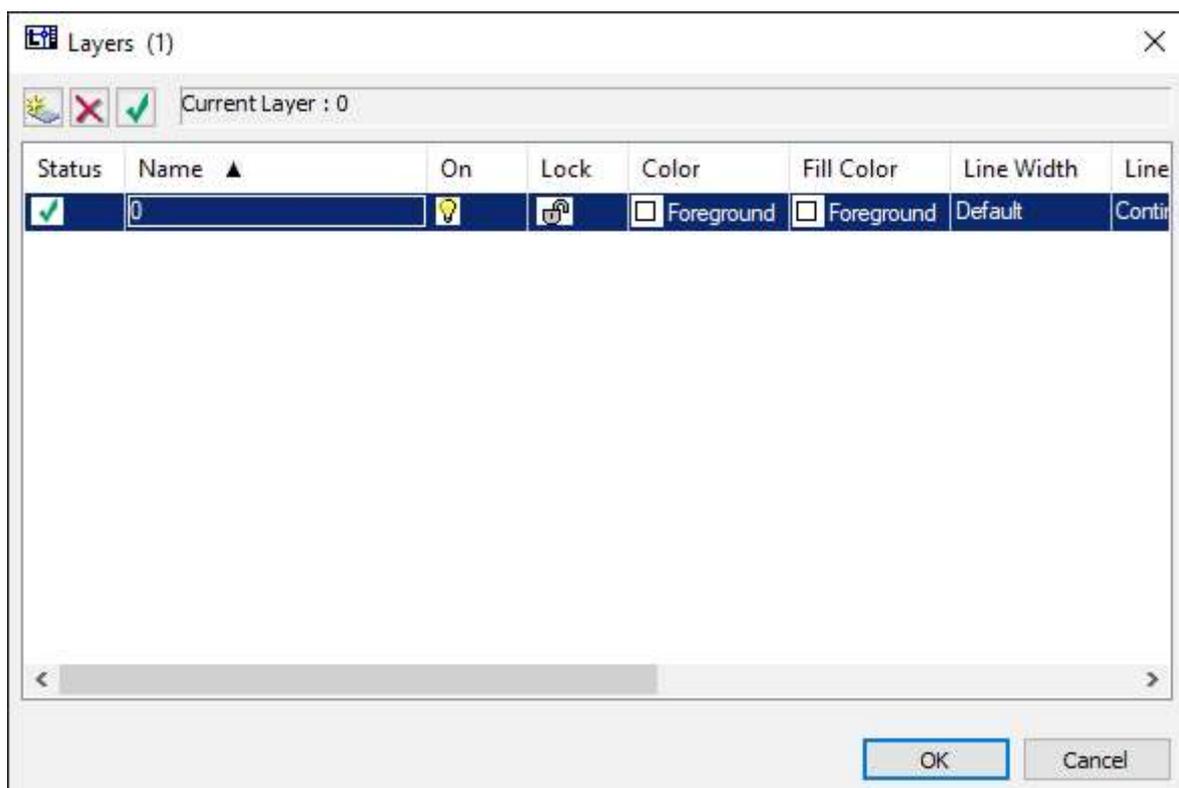
**Tools:** “Tools” contains functions like “Area” that allow to select some points and calculate the area, or distance that allow to measure the distance between 2 points



**Info:** The “Info” button allow to see the version of the software



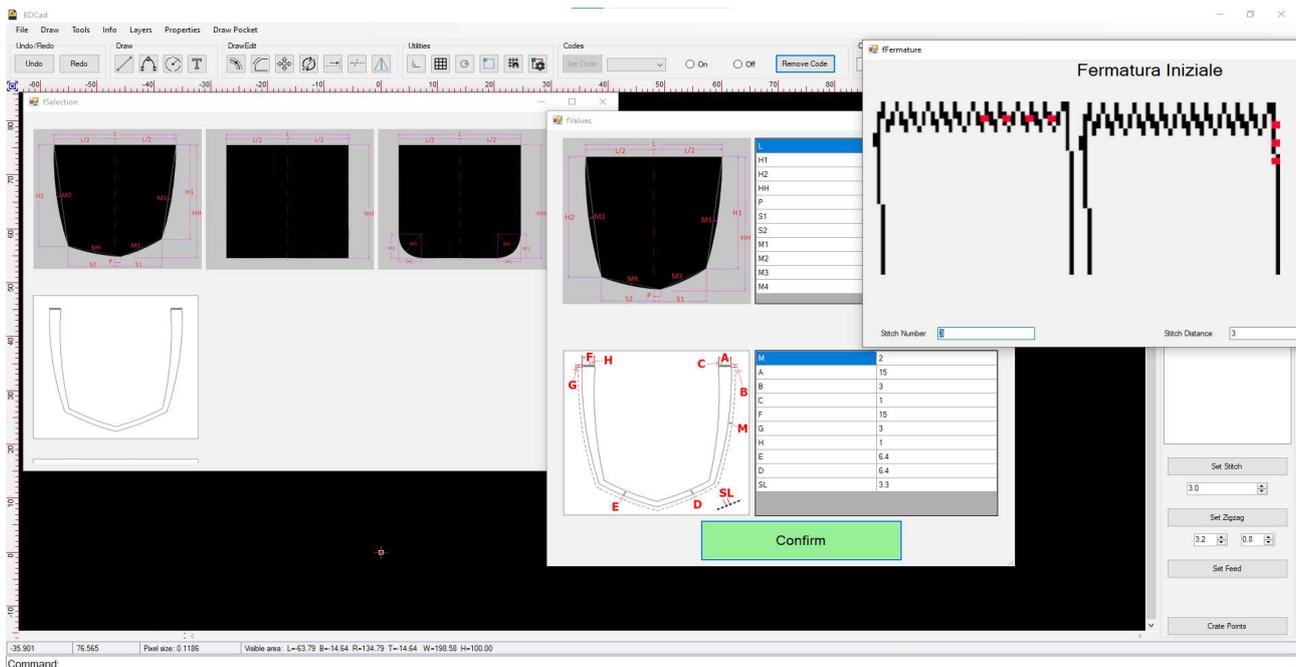
**Layers:** The button “Layers” open a window that contains the list of the layers and allow to edit some characteristic



**Properties:** Allow to open a menu on the left part of the Cad in which their will be displayed all the information about the cad or if you select an entity

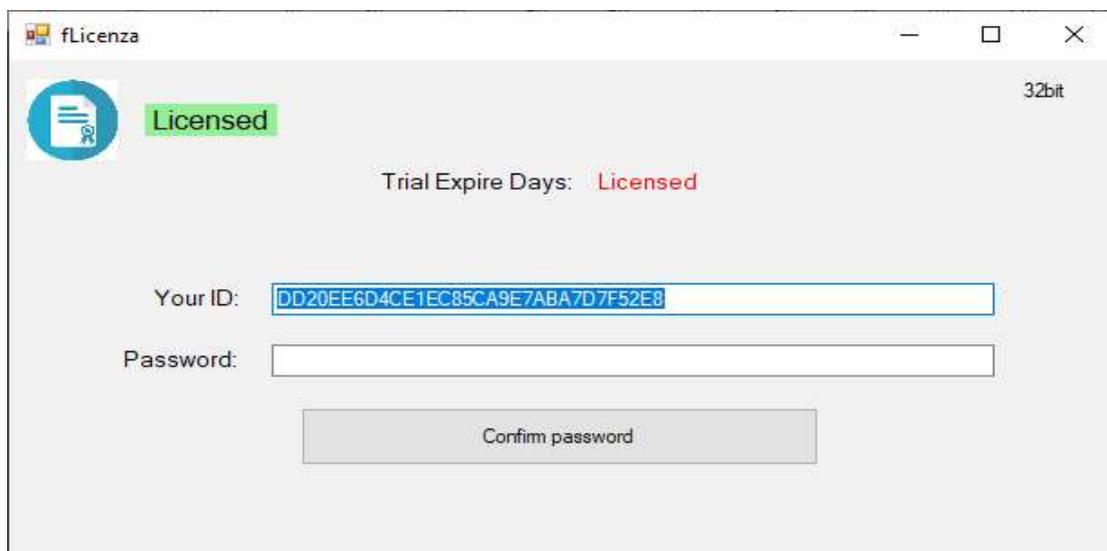
General	
Filename	
Color	<input type="checkbox"/> ByLayer
Filling color	<input type="checkbox"/> ByLayer
Layer	0
Linetype	ByLayer
Linetype scale	1.0
LineWidth	ByLayer (default)
LineWidth mode	Pixel size
LineWidth scale	0.2
LineWidth default valu	0.25
Text style	Standard
Dimension style	Standard
Point style	Standard
Block	
Block Name	Model
Xmin	0.0
Ymin	0.0
Xmax	100.0 (+100.0)
Ymax	100.0 (+100.0)
Basepoint X	0.0
Basepoint Y	0.0
Num of entities	0
View	
Left X	-63.791
Bottom Y	-23.42
Right X	134.785
Top Y	94.136
Center X	35.497
Center Y	35.358
Width	198.577
Height	117.556
Window size (pixels)	1424 x 843
Units per pixel	0.13945
Redraw time, msec.	0
Rulers	Yes

**DraPocket:** Opens a window from which you can create a pocket by following a procedure and setting all the various measures



To create a pocket using the "Draw Pocket" button, it is necessary to select the model of the pocket, enter all the value of the external and internal part of the pocket, select the type of backtacks and set the point of the codes. At the end of the cad procedure, a pocket will be created with all the information set previously. If no Model has been drawn, the pocket will be created based on point 0,0, otherwise the point of the Model indicating the center of the pocket will be taken into consideration.

**License:** Opens a window that allows you to completely unlock the cad, usually 30 days of trial are provided, if within 30 days the code to unlock the program is not entered, the save functions will be blocked so you can only open a file.

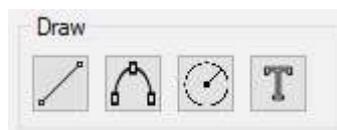


## Undo/Redo



The Undo and Redo buttons allow you to undo an operation performed on the cad or to go back and redo an operation previously undone

## Draw



Draw contains the elements that can be drawn on cad which are: line, arc, circle and text.

## DrawEdit



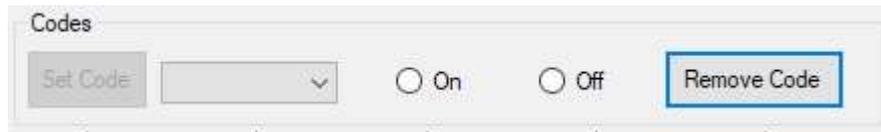
DrawEdit contains all the buttons that are used to make changes to the selected elements such as moving them, reversing the direction, making the fillet etc ...

## Utilities



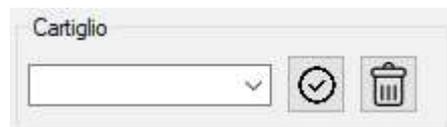
Utilities contains all the various settings concerning the cad such as snap, see or hide the grid, snap to the grid, etc...

## Codes



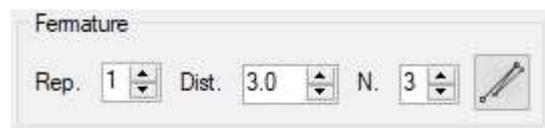
Codes allows you to set a code in a selected point of the pocket. To add a code you need to select a point on the cad, select the type of code to be inserted in that point, select the value and press the "Set Code" button. If in the future you want to remove an added code, just select the point and press the "Remove Code" button

## Model



Model is used to draw the title block of a specific machine. To do this, simply select the type of machine from the menu and press the button to confirm. The delete button will delete any title block drawn

## BackTacks



The backtack function is used to automatically draw backtacks at the beginning or end of a stitch. To do this, simply select the start or end point of the line, choose the number of backtack repetitions, the distance between one stitch and the next and the number of points. Once the information has been entered and the button pressed, the program will create the backtack and move the neighboring lines to make sure that the program is linked.

# DrawSettings

Draw Settings

Automatic sequence

Timer Entity

500

Timer Points

50

Set Stitch

3.0

Set Zigzag

3.2 0.8

Set Feed

Crate Points

**Automatic sequence:** The "Automatic sequence" button allows you to reorder the entities. To do this it will be necessary to select the first entity of the drawing on the cad and press the button and automatically the various elements of the pocket will be reordered and inserted in a list displayed below.

**Timer Entity:** With this button you will run a simulation that will scroll through all the entities, coloring them in red. To run a simulation just press the start button while to stop it you need to press the stop button. On the side you can also set the speed or how often the next element must flow (500 = 500ms)

**Timer Point:** As "Timer Entity" it allows you to perform a simulation but this time instead of scrolling the entities, a simulation of the seam will be performed by scrolling the stitches

**Lista Entità:** The white panel contains all the entities that are drawn in the cad ordered. When you click on "Automatic sequence" all the entities will be inserted in this panel and will be sorted according to the first selected line. Inside you will therefore find all the lines that will have a number as a subcategory that is an identifier of the straight line. If the type or code is assigned to an element in the cad, the information will be displayed in this panel

**SetStitch:** This key is used to set the type of line in "Stitch" to the selected entities. The number under the button represents the step that will be assigned

**SetZigzag:** The "SetZigzag" button sets the line type of the lines selected in "Backtack" by assigning the first value under the button as height, while the pitch will be determined by the second value

**SetFeed:** Like the previous buttons, it is used to set the type of line in "Feed"

**Create Points:** It is used to draw all the points on the cad based on the information previously assigned through the buttons "SetStitch", "SetZigzag", "SetFeed".

# Commands

The white bar at the bottom is used to write the commands to be executed instead of doing them graphically on the cad

Command: \_\_\_\_\_

In this box you can enter the following commands:

**Line:** This command is used to insert a line. After executing the “line” command, you will be asked to enter the coordinates of the first point (x, y) and then the coordinates of the second point (x, y). After confirming the points a line will be drawn on the cad

**Arc3p:** The "arc3p" command is used to draw an arc passing 3 points (starting point, central point and end point)

**Arc:** The "arc" command will draw an arc like the "arc3p" command but this time instead of inserting 3 points you will have to enter the starting point (x, y), the radius of the arc, the starting angle, and the total arc angle

**Point:** “Point” will draw a point on the cad by inserting x and y

**Circle:** The “circle” command allows the user to draw a circle by entering the center of the circle (x, y) and the radius

**Distance:** "Distance" is a command used to draw a measurement on the cad by inserting 2 points

**Fillet:** "Fillet" as the fillet button is used to fillet 2 entities by entering their Ids. The id is visible by activating the "properties" window and selecting the entity

**Move:** The “move” command is used to move one or more entities. To run it, simply select the entities, execute the "move" command and say how far you want to move it (x, y)

**Bcount:** "Bcount" is a command that counts all the entities present in the

cad and displays it in a window by writing the number of total entities, the number of lines entities, the number of arch entities, and the number of points

**Time:** The "time" command allows you to see the date of the last modification and the creation date of the opened file

**Dwgprefix:** "Dwgprefix" writes to the user the path where the opened program is located

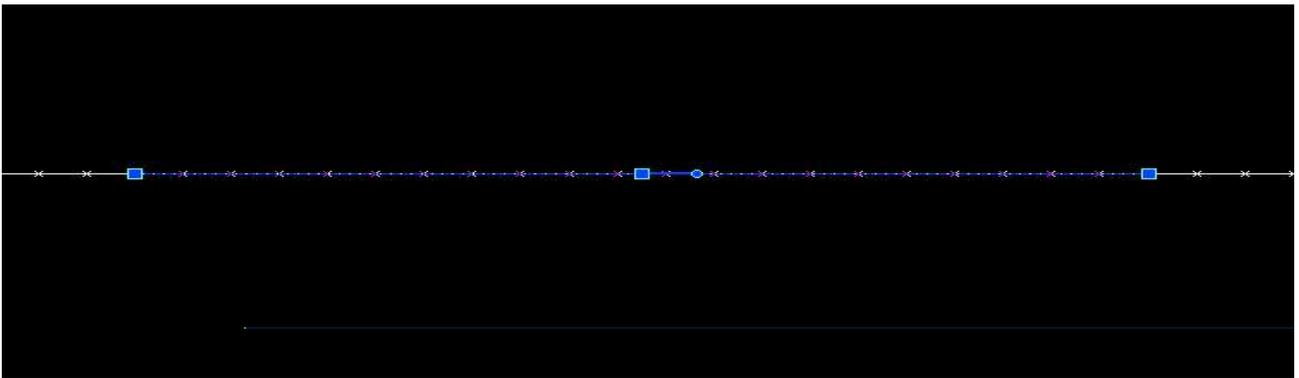
**Costruzione:** Writing "construction" starts a procedure that allows you to draw the skeleton of a pocket by inserting various measures. As a basis you must have 2 perpendicular lines from which all the offset lines that will create the final design will be created

**Mirror:** The "mirror" command like the mirror button allows you to mirror the selected entities by inserting 2 points which will be the 2 points on which the line that will act as mirror will be created

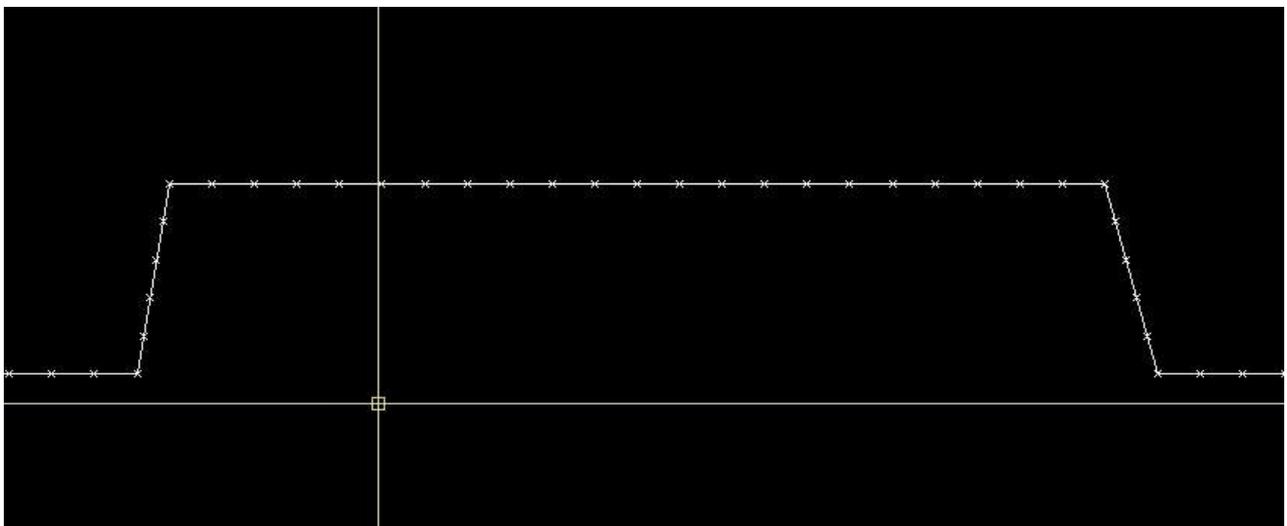
## Move functions

Within the graphic part it is possible to perform procedures to move the points or lines. To do this, however, you must first select the elements to be moved, to do this you can use 2 types of selections, the first is to make a selection that starts on the left and ends on the right. In this case the selection rectangle will be blue and will select only the elements that are entirely inside the selection (recommended for selecting points). If, on the other hand, you select from the opposite direction, so from right to left, the rectangle will be green and will select all the elements present in the selected area, even if only partially present (recommended for selecting lines).

If, for example, you want to move a series of points, just select the points as shown in the figure:

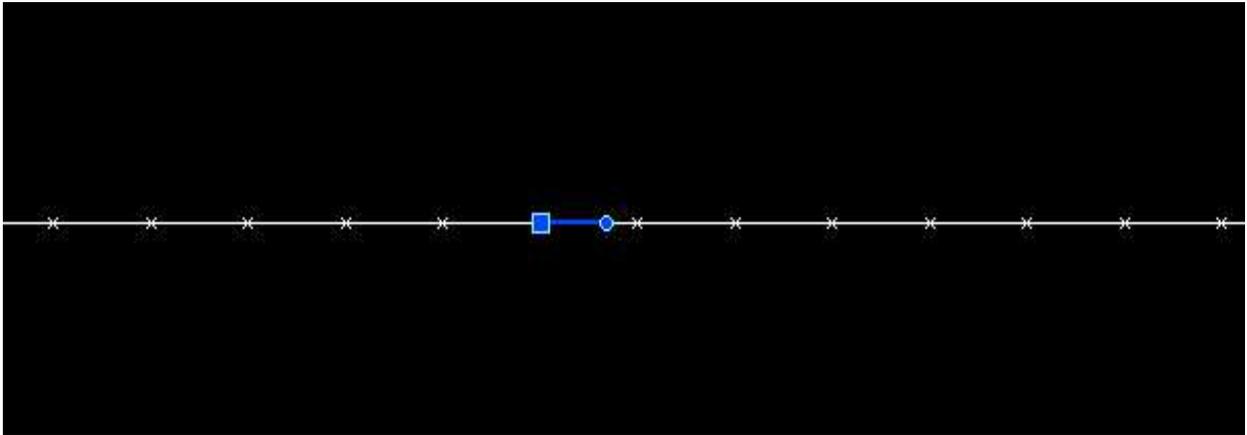


Once the points have been selected, simply move them by holding down the Ctrl key (this indicates that you want to move the points and not the lines).

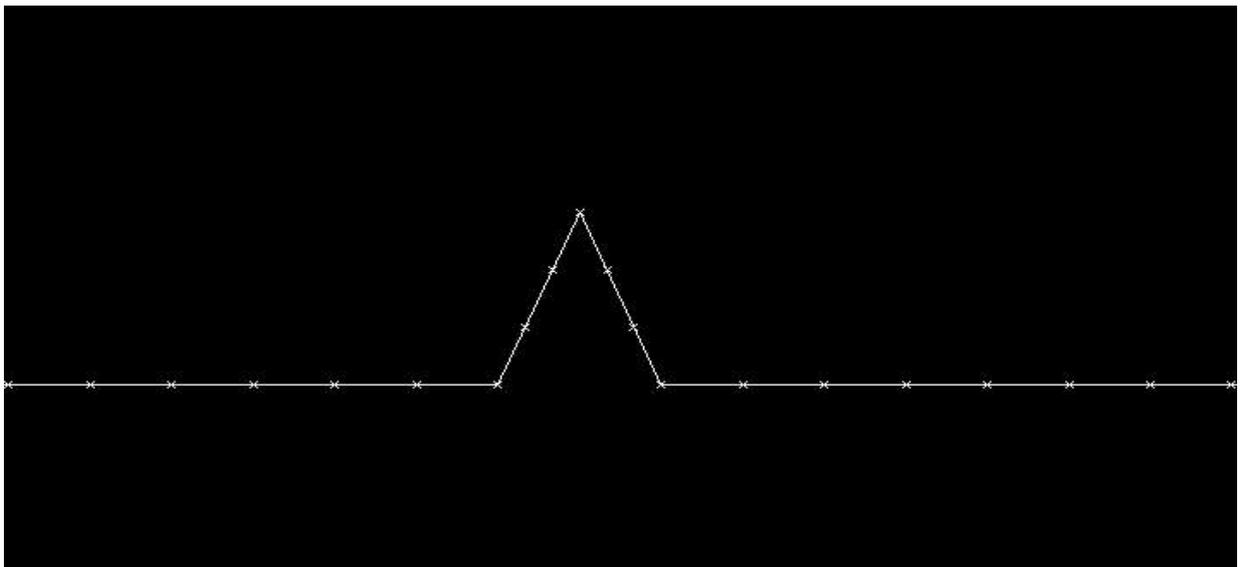


Other examples of displaced points:

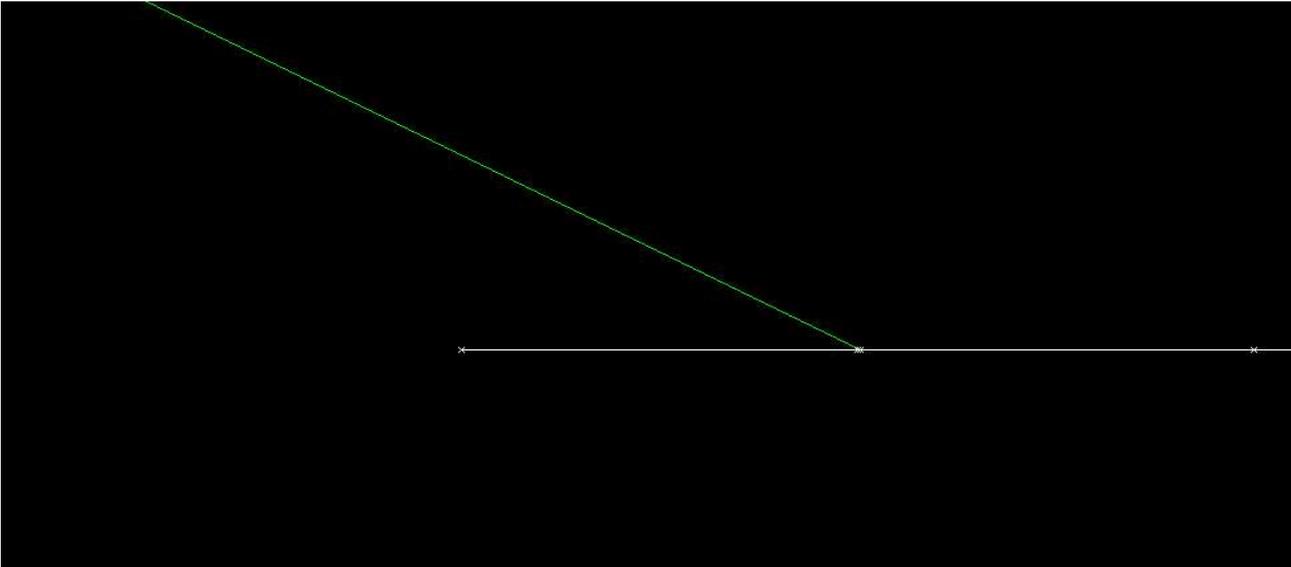
Before:



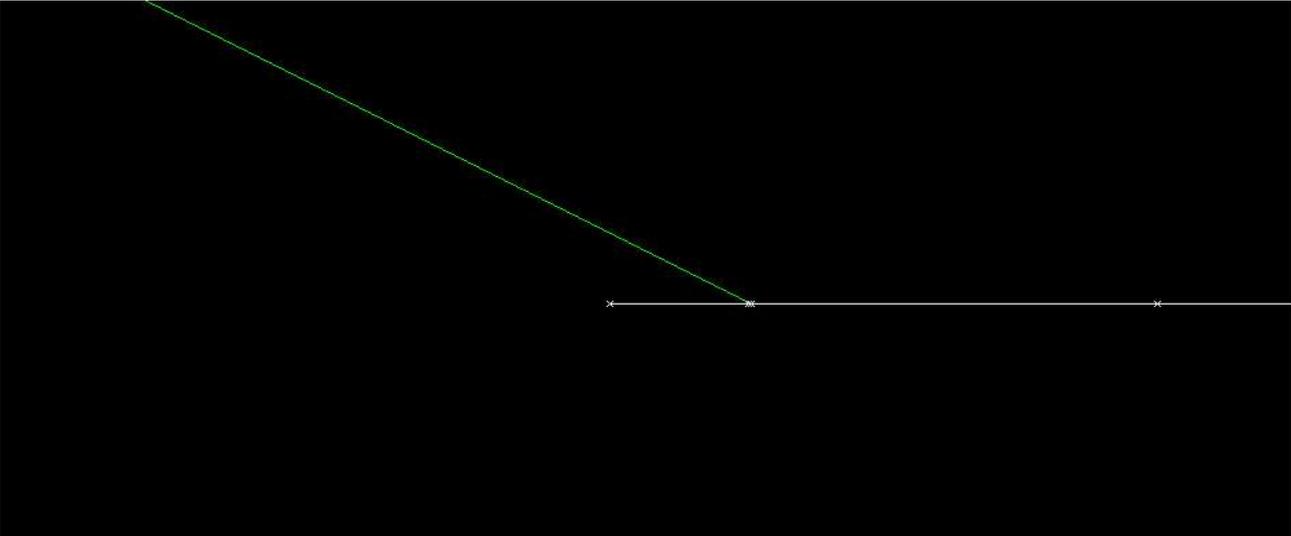
After:



Before:



After:





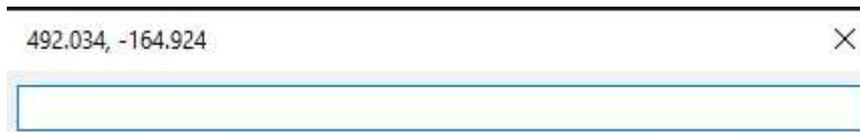
## TAB key

Pressing the TAB key while performing some functions, it is possible to display a window that allows us to write values.

For example, if you want to create a line from point 0,0 to point 100,100 just select the command line, press the TAB key, insert the starting point of the line (0,0) and press enter, at the end of this procedure the first point of the line will be set to coordinates 0,0. Now you can press on the graph to set the second point or press TAB again and write the coordinates of the second point (100,100). This way you get a precise line between 2 coordinates.

The same procedure can be performed for the arcs (the first, second and third points will be entered).

Casella:



The image shows a screenshot of a software interface. At the top, there is a horizontal line. Below it, a text box contains the coordinates "492.034, -164.924" and a close button (an 'X' icon) on the right. Below this text box is a larger, empty rectangular input field with a light blue border.

In addition to being used to draw lines and arcs, the TAB key can also be used in other functions such as the Move function in which you enter the starting point of the movement and the end point or with the Mirror function in which you choose based on which point you want to perform the function etc ...

## Ctrl key

In addition to choose between the two types of displacements (points or lines), the Ctrl key can be used to lengthen a line (the adjacents line will not be moved, they need to be moved). To do this you need to select a line, select the beginning or the end of the line and holding down the Ctrl button you can see the stretched line as in the figure

