

# TECNOWIN

TECNOWIN Help File.  
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# TECNOWIN INFORMATION

**TECNOWIN v.3.10 : The New STANDARD in CAD for WINDOWS.**

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# INTERSECTION



Returns the intersection point respect the objects that are into the cursor-sight.

## **SITUATION:**

Approximation **Menu**.  
**TECNOWIN-I TOOLBOX**.

## **PARAMETERS:**

Pick point with mouse.

## **COMMENT:**

Returns the point intersection to two objects. If the only object is a polyline object the command does not work. Use the ENDPOINT command in this case.

## **SEE ALSO:**

# ENDPOINT



Returns the **ENDPOINT** of a object (line , arc, polyline), which is captured into the cursor-sight.

## **SITUATION:**

Approximation **Menu**.  
**TECNOWIN-I TOOLBOX**.

## **PARAMETERS:**

Pick point with mouse.

## **COMMENT:**

## **SEE ALSO:**

# MIDPOINT



Returns the **MIDDLE POINT** of a object (line, arc) which is captured into the cursor-sight.

## **SITUATION:**

Approximation **Menu**.  
**TECNOWIN-I TOOLBOX**.

## **PARAMETERS:**

Pick point with mouse.

## **SEE ALSO:**



## NEAREST TO



Returns the NEAREST point to a object (line, circle, arc, polyline) which is captured into the cursor-sight.

### SITUATION:

Approximation MENU.  
TECNOWIN-I TOOLBOX.

### PARAMETERS:

Pick point with mouse.

### SEE ALSO:

# POINT



Returns the point of a object which is captured into the cursor-sight.

## **SITUATION:**

Approximation **MENU**.  
**TECNOWIN-I TOOLBOX**.

## **PARAMETERS:**

Pick point with mouse.

## **COMMENT:**

## **SEE ALSO:**

# PERPENDICULAR TO



Returns the PERPENDICULAR POINT to a object which is captured into the cursor-sight.

## SITUATION:

Approximation **Menu**.

TECNOWIN-I **TOOLBOX**.

## PARAMETERS:

Pick point with mouse.

## SEE ALSO:

## CENTER OF



Returns the **CENTER** of a object (circle, arc) which is captured into the cursor-sight.

### **SITUATION:**

Approximation **Menu**.  
**TECNOWIN-I TOOLBOX**.

### **PARAMETERS:**

Pick point with mouse.

### **COMMENT:**

### **SEE ALSO:**

## QUADRANT OF

Returns the point corresponding to the nearest QUADRANT of a circle / arc object which is captured into the cursor-sight.

### SITUATION:

Approximation **Menu**.

### PARAMETERS:

Pick point with mouse.

### COMMENT:

### SEE ALSO:

## Fit Mode

Fits a reference (approx) mode (INTERSECT, ENDPOINT, ...). This reference mode will be applied to any new point.

### **SITUATION:**

Approximation **Menu**.

### **PARAMETERS:**

List with all approx modes for selecting one mode.

### **COMMENT:**

Allows to use the same reference mode in all point entries. For example: if we fit the INTERSECT mode, the cursor-sight asking for an intersection point appears when we enter any point.

It can be useful in some commands which we use a reference mode ever. For example: it can be useful fit the POINT reference mode in the AREA command.

For deactivating the reference mode and return the cursor to its normal mode we must call the CANCEL FIT MODE command.

**SEE ALSO:** Cancel Fit Mode

## Cancel Fit Mode

Cancels the reference mode which it was previously fitted.

### **SITUATION:**

Approximation **MENU**.

### **PARAMETERS:**

None.

### **COMMENT:**

Cancel / deactivate the previously fitted reference mode. If the user has been working with the FIT REFERENCE MODE command must pick after this command to cancel the FIT command.

**SEE ALSO:** [Fit Mode](#)

# Reference Angle



Changes the default working angle for a new specified angle.

## **SITUATION:**

UP TOOLBOX.

## **PARAMETERS:**

**Dialog Frame** to enter the new angle. There is a combined list to select one of its values (0,30,60, etc.). If the angle is anyone of the list you can enter your angle by keyboard (in sexag. degrees).

Other chance: If your angle is the same that the angle of a line object you can pick the button Pick Line and pick with the mouse that reference line.

## **COMMENT:**

Changing the working angle can be useful when we are working in specified directions, different of the default directions (0,90 degrees) in the application.

This command is TRANSPARENT, I mean, it can be picked at the data request of another command. It permits us to change the angle in dynamic mode. This command usually works with the ORTHO command for changing the working edges to a new position specified by the angle.

Other useful working mode, regardless ORTHO command, consists in assigning a specified angle and before / after this command a REFERENCE DISTANCE. Then when we pick a point it will be moved in polar coordinates the specified distance and angle with regard to the previously picked point.

**SEE ALSO:** [Reference Distance](#)  
[Reference Point](#)



# Reference Distance



Changes the default working distance to the new specified value.

## SITUATION:

Approximation **Menu**.  
**UP TOOLBOX**.

## PARAMETERS:

**Dialog Frame** for entering the new distance (in meters).

## COMMENT:

This support command applies for defining the distance between two points before picking a point. In this way, when we pick a point to a **TECNOWIN** request (for example, LINE command), the point will be moved in the direction (angle) defined when picking. The **REFERENCE ANGLE** also will be useful for defining the angle value previously.

**SEE ALSO:** Reference Angle  
Reference Point

# Reference Point



Defines a reference point to be used by other command.

## SITUATION:

Approximation **Menu**.  
**UP TOOLBOX**.

## PARAMETERS:

Pick point. It usually works in conjunction with APPROX commands (INTERSECTION, ENDPOINT ...)

## COMMENT:

This support command usually applies for defining a reference (base) point so that when we introduce new DISTANCE values (REFERENCE DISTANCE command) and ANGLE value (if we must change the default angle with the REFERENCE ANGLE command) a new point situated to a dist / angle of the REFERENCE POINT is defined.

It is very useful for defining start points in some commands like LINE command. For example in this case when the application ask for From point: we can define the start point based in a reference point: firstly we pick the reference point and then we give a distance and angle values (if necessary) by means of REFERENCE DISTANCE / REFERENCE ANGLE commands. The first line point is defined.

**SEE ALSO:** Reference Angle  
Reference Distance

# ORTHO



Activates the Ortho working mode (Working Angles of 0,90,180,270 degrees by default).

## SITUATION:

UP TOOLBOX.

## PARAMETERS:

None. It toggles ON/OFF by picking the button.

## COMMENT:

The Ortho working mode is essential in many cases because it permits to move on the screen with the mouse following two orthogonal directions. It forces the mouse to convert its movements in screen movements following two orthogonal edges / directions.

The angle which defines the ortho direction is one of the edges because the other edge is 90 degrees with regard to the base edge. The default angle is 0 degrees. It can be changed with the ANGLE REFERENCE support command.

The Ortho command is the only one that is not in any **Menu**. It is only in the **UP TOOLBOX**.

The Ortho button toggles ON/OFF Ortho mode. We call this button a state button.

**SEE ALSO:** Snap

Reference Angle

## New



Makes a new (empty) document.

### SITUATION:

Files **Menu**.

**UP TOOLBOX**.

### PARAMETERS:

None.

### COMMENT:

Makes a NEW document (drawing) without objects (empty). It is the base option to generate a drawing.

**SEE ALSO:** Open

Save  
Save As

# Open



**Reads (Opens) an existing document (drawing).**

## **SITUATION:**

Files **Menu**.

**UP TOOLBOX**.

## **PARAMETERS:**

**Dialog Frame** for opening files.

## **COMMENT:**

Opens a document (drawing , file. We can use equally the three words) and show its information in screen. The document can be modified and we can save again it either with the same name (SAVE command) or with another name (SAVE AS command).

**SEE ALSO:** New

Save

Save As

# Save



Writes (saves) a document to the physical support with the same name if it already exists.

## SITUATION:

Files **Menu**.

**UP TOOLBOX**.

## PARAMETERS:

**Dialog Frame** for saving files.

## COMMENT:

Write a document (drawing) to the physical support (hard disk, diskette) with the name that we type in the **Dialog Frame**. If the document is being saved by first time (the user started from the NEW COMMAND) , appears the **Dialog Frame** for SAVING AS Document. But please keep on mind this fact: The SAVE button in **UP TOOLBOX** only will work in case the document already exists in the physical support. That is to say in the case it was already saved to the physical support from the File **Menu** .

**SEE ALSO:** Save As

# Save As

Writes (saves) a document to the physical support.

## **SITUATION:**

File **Menu**.

## **PARAMETERS :**

**Dialog Frame** for saving files.

## **COMMENT:**

Write a document (drawing) to the physical support (hard disk, diskette) with the name that we type in the **Dialog Frame**. The name which appears by default is the document name. If we want save it with other name we must type it.

**SEE ALSO:** Save

# Printing Preview



Permits to do a drawing "preview" on the screen before we print it out.

## **SITUATION:**

File **Menu**.

**UP TOOLBOX**.

## **PARAMETERS:**

- \* Lower left corner of the drawing area which we wish to print.
- \* Upper right corner of the drawing area which we wish to print.
- \* Scale Factor for printing. If the mark in "Fit Scale to Paper Format" is on, then **TECNOWIN** calculates the scale for viewing the drawing making the most of the paper, although we put a Scale factor in the dialog. So if we want to print at Scale we must:
  - a) Type the Scale (If different of 1/100).
  - b) Deactivate the mark in Fit Scale to paper format.

## **COMMENT:**

Does a preview of a piece of drawing. We can see in the screen the drawing in the same mode it was printed by the default printer device..

**SEE ALSO:** [Printing](#)

[Printer Setup](#)



# Printing



Prints the drawing in the printer device.

## SITUATION:

File **Menu**.

**UP TOOLBOX**.

## PARAMETERS:

- \* Lower left corner of the drawing area which we wish to print.
- \* Upper right corner of the drawing area which we wish to print.
- \* **Dialog Frame** to select printer parameters (paper size, resolution). You also can change the default printer device.
- \* Scale Factor for printing. If the mark in "Fit Scale to Paper Format" is on, then **TECNOWIN** calculates the scale for viewing the drawing making the most of the paper, although we put a Scale factor in the dialog. So if we want to print at Scale we must:
  - a) Type the Scale (If different of 1/100).
  - b) Deactivate the mark in Fit Scale to paper format.

## COMMENT:

Prints the area defined by two corners in the printer device (which can be changed in the **Dialog Frame**) with a defined paper size and Scale Factor.

**SEE ALSO:** [Printing Preview](#)  
[Printer Setup](#)

# Printer Setup

Changes the default printer device in WINDOWS.

## **SITUATION:**

File **Menu**.

**UP TOOLBOX**.

## **PARAMETERS:**

**Dialog Frame** to select the default printer device for WINDOWS.

## **COMMENT:**

Changes the default printer device for WINDOWS, so we can print with a printer without needing to get out the environment.

**SEE ALSO:** Printing Preview  
Printing

# DXF Read

Reads an interchange **DXF** file.

## SITUATION:

File **Menu**.

## PARAMETERS:

**Dialog Frame** for opening files.

## COMMENT:

Reads a **DXF** file selected by the user in a Dialog Frame. This command is very useful to interchange data with other CAD programs like AUTOCAD (\*).

The limitations reading **DXF** files are the following items:

- \* It only reads 2D information and 3dfaces information.
- \* You can be in trouble with files that work with Space / Paper Model. For avoiding this problem we recommend make an AUTOCAD drawing with only Space Model information, then write the **DXF** file.
- \* It translates the 1-7 AUTOCAD colors to the equivalent **TECNOWIN** colors.
- \* AUTOCAD Hatches translate to **TECNOWIN** blocks with the \*X prefix (\*X1,\*X2, etc.). Their color can not be the same in **TECNOWIN** . For hatches with the same color in AUTOCAD / **TECNOWIN** you must pick the command CHANGE OBJECT COLOR (= COLOR BY LAYER) after the **DXF** file was read.
- \* AUTOCAD DIMS will be **TECNOWIN** DIMS objects, but the block names that AUTOCAD handle for dims remain like blocks in **TECNOWIN** with the \*D. We recommend purge them after the **DXF** file was read.
- \* Remember that layer 0 is the AUTOCAD default layer and layer TW is **TECNOWIN** default layer. Anyway all the AUTOCAD layer names will have the same names in **TECNOWIN**, including layer 0.

(\*) AUTOCAD is a trademark of AUTODESK, Inc.

**SEE ALSO:** [DXF Write](#)

## DXF Write

Writes an interchange **DXF** file.

### **SITUATION:**

File **Menu**.

**UP TOOLBOX**.

### **PARAMETERS:**

**Dialog Frame** for saving files.

### **COMMENT:**

**DXF** files allows export our drawing information in **DXF** interchange format which can be read for the most important CAD programs including AUTOCAD(\*).

There is not any special thing about this process. There is a full compatibility and the only strange thing that a AUTOCAD user can find is that the layer 0 will not exist if it was not generated in **TECNOWIN**.

(\*) AUTOCAD is a trademark of AUTODESK, Inc.

**SEE ALSO:** [DXF Read](#)

## Line



**Draws a straight line between two points defined by the user.**

### **SITUATION:**

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-I** **TOOLBOX**.

### **PARAMETERS:**

Start point of the line. End point of the line.

### **COMMENT:**

Draws a line object between two points defined by the user. You can enter the points either by mouse or by keyboard. If you are entering the point by mouse you can use the approx commands (intersect, endpoint, midpoint, etc.) . If you are entering by keyboard the first point coordinates must be absolutes. The second point coordinates can be: a) Absolutes b) Relatives, referred to the first point in polar coordinates (cartesian / angle-dist) .

For defining the first point can be useful the REFERENCE POINT support command because we can pick the reference point, then (if necessary) REFERENCE ANGLE and then REFERENCE DISTANCE referred to the reference point.

We also can fit the line length with the REFERENCE DISTANCE support command (and the angle with the REFERENCE ANGLE support command). In this way we pick the first point, then we pick in any point in our line direction. The line will have the length entered in DIST and the angle will be defined by the first-second point picked.

### **SEE ALSO:** Approx Commands

Reference Point

Reference Distance

Reference Angle

# Polyline



Draws a group of lines between points defined by the user.

## SITUATION:

\* **Menu:** Draw **Menu**.

\* **TECNOWIN-I TOOLBOX**.

## PARAMETERS:

Points (one after other) defining the lines.

## COMMENT:

Draws a polyline object (group of successive points) between points defined by the user. The points can be entered either by mouse or by keyboard. If you are entering the point by mouse you can use the approx commands (intersect, endpoint, midpoint, etc.) . If you are entering by keyboard the first point coordinates must be absolutes. The second point (and so on) coordinates can be: a) Absolutes b) Relatives, referred to the first point in polar coordinates (cartesian / angle-dist) .

For defining the first point can be useful the REFERENCE POINT support command because we can pick the reference point, then (if necessary) REFERENCE ANGLE and then REFERENCE DISTANCE referred to the reference point.

We also can fit the line length with the REFERENCE DISTANCE support command (and the angle with the REFERENCE ANGLE support command). In this way we pick the first point, then we pick in any point in our line direction. The line will have the length entered in DIST and the angle will be defined by the first-second point picked.

The polyline object drawn in this way is only a group of lines. However the object can be modified later for adding arcs or lines. You also can edit a line/arc to convert in a polyline. Then you can add any objects (lines, arcs).

## SEE ALSO: Approx Commands

Reference Point

Reference Distance

Reference Angle

Explode

# Point

Draws a Point object.



## SITUATION:

- \* **Menu:** Draw **Menu**.
- \* **TECNOWIN-I TOOLBOX.**

## PARAMETERS:

The point either by keyboard or by mouse.

## COMMENT:

Draws a point object entering either by mouse or by keyboard the appropriate point.

## SEE ALSO:

## Insert



Draws a Block object with its insert point, rotation angle and Scale Factors referred X and Y edges.

### SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II** **TOOLBOX**.

### PARAMETERS:

Insert point (mouse / keyboard).

#### Dialog Frame:

List-Box showing the blocks in drawing. We must select our block..

Controls for rotation angle (with some values) and Factor Scales along X and Y edges.

The Preview can be activated either making double click over the block selected in list-box or changing the default angle in the angle list.

OK Button to insert the block.

Cancel Button will cancel the Insert command.

(The Preview function can be deactivated in the Status **Menu**).

### COMMENT:

Draws a block object in a insert point with the angle and Scale Factors defined by user in the **Dialog Frame**.

**SEE ALSO:** Commands for handling Blocks  
Explode



# Bitmap



Inserts a Bitmap object (.bmp or .dib files), stretching it to the rectangular dimensions defined by the user.

## SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II TOOLBOX.**

## PARAMETERS:

- \* Lower left point of the rectangle including the Bitmap.
- \* **Dialog Frame:**
  - Directory Select (double-click) and File Select.
  - Preview: (double click) on selected file / press Preview button.
  - Rectangle dimensions for the Bitmap (in METERS).

## COMMENT:

Draws a Bitmap object which source is a Bitmap file (.bmp) or Device Independent Format (.dib). The **Dialog Frame** permits a file Preview for .bmp files. If you wish insert .dib files please rename them as .bmp.

If the user deactivates the Display Bitmaps in the Status **Menu**, a schematic drawing containing a rectangle and a text with the file name will represent the Bitmap object. We recommend this representation to speed up displays and edit commands.

The Bitmap objects will be referred to the selected Bitmap file. So this file will can not be ERASED, RENAMED or CHANGED of the directory because there will be an error.

The Bitmap objects only support the following edit commands: Erase, Move, Copy and Stretch (this command permits to change the rectangle dimensions of the Bitmap).

This option can be more affordable for the user than inserting a Bitmap OLE object for simple Bitmaps (256 colors maximum). For more complex Bitmaps or if you want to make your Bitmap in place we recommend insert OLE objects.

**SEE ALSO:** Raster Hatch -Bitmap-  
Display Bitmaps

## Circle -Center+Radius-



Draws a Circle with center in a point and radius.

### SITUATION:

- \* **Menus:** Draw **Menu**. Circle **Submenu**.
- \* **TECNOWIN-I** **TOOLBOX**.

### PARAMETERS:

Center point of the circle. Radius by keyboard or picking another point (referred to center point) to define the radius.

### COMMENT:

Draws a circle object. The center is a point defined by the user either by mouse or by keyboard. After defining the center point a **Dialog Frame** appears for typing the numeric value for the radius or you can pick the "Pick" button to define a second point picking with mouse or by keyboard. Then the radius and the circle are defined.

**SEE ALSO:** Circle -3 Points-

Circle -Tangent+Tangent+Radius -

## Circle -3 Points-

Draws a Circle object defined by three points.

### SITUATION:

\* **Menus:** Draw **Menu.** Circle **Submenu.**

### PARAMETERS:

The three points needed for defining the circle.

### COMMENT:

Draws a circle object defining it by 3 points. The points can be entered either by mouse or by keyboard..

**SEE ALSO:** Circle - Center+Radius -  
Circle -Tangent+Tangent+Radius-

## Circle -Tangent+Tangent+Radius-

Draws a Circle object defined by two tangents (lines) and the circle radius.

### SITUATION:

\* **Menus:** Draw **Menu**.Circle **Submenu**.

### PARAMETERS:

Selection of two lines which represent the tangents. Numeric introduction of radius with a **Dialog Frame**.

### COMMENT:

Draws a circle object. You must select by mouse the tangent lines and you must enter the radius by keyboard in a **Dialog Frame**. Tangent lines can not be parallel lines.

**SEE ALSO:** Circle -Center+Radius-  
Circle -3 Points-

## Arc -3 Points-

Draws an Arc object defined by three points.



### SITUATION:

- \* **Menus:** Drawing Menu. Arc Submenu.
- \* **TECNOWIN-I TOOLBOX.**

### PARAMETERS:

The three points needed for defining the arc.

### COMMENT:

Draws an arc object entering the three points by mouse or by keyboard.

**SEE ALSO:** Arc -Initial Ang.+ End Ang.+Radius-

## Arc -Initial Ang.+End Ang.+Radius-

Draws an Arc object defined with the initial (start) angle, the end angle and the radius.

### SITUATION:

\* **Menus:** Draw **Menu** . Arc **Submenu**.

### PARAMETERS:

The initial angle, the end angle, the Radius.

### COMMENT:

Draws an arc object entering the three needed points by mouse or by keyboard.

**SEE ALSO:** [Arc -3 Points-](#)

## Dim -Linear-



Draws a Dim object between two points according to the current Dim Parameters.

### SITUATION:

\* **Menus:** Draw **Menu**. Dim **Submenu**.

### PARAMETERS:

- \* First point to dim.
- \* Second point to dim.
- \* Dim Text position referred to the line defined by the two lines before (it must not be coincide with the line defined by the two points).

### COMMENT:

**SEE ALSO:** Dim Parameters

Dim -Radial-  
Explode  
Move Dim Texts  
Update Dims

## Dim -Radial-



Draws a Dim object which is referred to a Circle / Arc radius.

### SITUATION:

\* **Menus:** Draw **Menu**. Dim **Submenu**.

### PARAMETERS:

- \* Single selection of circle / arc object to dim.
- \* Reference point to draw the dim text.

### COMMENT:

**SEE ALSO:** [Dim Parameters](#)

[Dim -Linear-](#)  
[Explode](#)  
[Move Dim Texts](#)  
[Update Dims](#)



## Text - Left Aligned -



Draws a Text object aligned to the left with respect to the insert point.

### SITUATION:

- \* **Menus:** Draw **Menu**. Text **Submenu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

Insert Point.

#### Dialog Frame:

The Text (it can be multi-line).

The Text Rotation Angle.

Button to select a font for the text. If you don't press the Font button the text will have the previous font (the font for the last text entered). If there is not a previous font the default font is Courier New.

### COMMENT:

Draws a text object aligned to the left with respect to an insert point and with the font and height selected. The font color does not matter because the text will be drawn with the working color layer.

**SEE ALSO:** Text -Right Aligned-

Text -Centered-  
Change Objects

## Text - Right Aligned -



Draws a Text object aligned to the right with respect to the insert point.

### SITUATION:

\* **Menus:** Draw **Menu**. Text **Submenu**.

\* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

See Text - Left Aligned -

### COMMENT:

Draws a text object aligned to the right with respect a insert point and with the font and height selected. The font color does not matter because the text will be drawn with the working color layer.

**SEE ALSO:** Text - Left Aligned -

Text - Centered -  
Change Objects

## Text - Centered -



Draws a Text object centered with respect to the insert point.

### SITUATION:

- \* **Menus:** Draw **Menu**. Text **Submenu**.
- \* **TECNOWIN-I TOOLBOX.**

### PARAMETERS:

See Text - Aligned -

### COMMENT:

Draws a text object aligned to the right with respect a insert point and with the font and height selected. The font color does not matter because the text will be drawn with the working color layer.

**SEE ALSO:** Text - Left Aligned -  
Text - Right Aligned -  
Change Objects

## Linear Hatch -by Points-

Draws a linear (vectorial) hatch.



### SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

### PARAMETERS:

- \* Group of points (mouse / keyboard).
- \* Selection of internal closed objects (polylines, circles) or blocks that will be not hatched.
- \* Linear Hatch **Dialog Frame**:  
Select your hatch double-picking on it.  
Hatch Parameters: Separation between lines.

### COMMENT:

Draws a linear hatch object marking the boundaries of a polygonal defined by points. The hatch can be selected in a **Dialog Frame** thus like the separation between lines. You also can select internal closed objects (polylines, circles, blocks) that will be not hatched. The hatch will have the \*XT prefix.

**SEE ALSO:** Linear Hatch -Polyline-  
Explode

## Linear Hatch -Polyline-

Draws a linear (vectorial) hatch.



### SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

### PARAMETERS:

- \* SINGLE SELECTION of a external Polyline. This polyline will mark the boundaries of the hatch.
- \* SELECTION of internal closed objects (polylines, circles) or blocks that will be not hatched.
- \* Linear Hatch **Dialog Frame**:  
Select your hatch clicking on it.  
Hatch Parameters : Separations between lines.

### COMMENT:

Draws a linear hatch object delimited by a external polyline. Select your hatch and the lines separation in the **Dialog Frame**. You can choose internal closed objects (polylines, circles, blocks) that will not be hatched. The hatch will have the \*XT prefix.

**SEE ALSO:** Linear Hatch -by Points-  
Explode

## Raster Hatch - Solid Color -

Draws a raster hatch (solid color).



### SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

### PARAMETERS:

- \* Internal point.
- \* **Color Dialog Frame**.

### COMMENT:

Draws a raster hatch of type solid color. The hatch will extend from the internal point picked by the user to all directions filling the area with the color selected by the user searching for the boundaries. The boundaries **MUST BE CLOSED** and they must be right defined for avoiding the escape of the hatch through any holes.

The Scale Factor of the drawing (specially in screen) can affect to the hatch extents, because circles that contain a solid hatch can be reduced to a point. Also parallel lines can be reduced to one line. In this way the hatch appearance can be affected (the hatch can escape in any direction).

So and to speed up drawing display we recommend the option for schematic drawing of hatches (Display Raster Hatch command in the Help **Menu**) when working in large ZOOMS.

**SEE ALSO:** Raster Hatch -Bitmap-  
Display Raster Hatch

## Raster Hatch - Region -

Draws a raster hatch (solid color) in objects type closed POLYLINE or BLOCK (Region Type).

### SITUATION:

\* **Menus:** Draw **Menu**. Hatch **SubMenu**.

### PARAMETERS:

\* Single Selection of the object. This object must be a closed Polyline or a Block Type Region (see comment). If not the command will not have any effect.

\* **Colors Dialog Frame.**

\* After filling a object you can select another. The command finished when you click the right button of the mouse.

### COMMENT:

Draws a hatch raster object (solid color) in objects Region Type. We call Region two types of objects:

a) A closed polyline.

b) A block compounds by closed polylines. You must define the external polyline as the first block object . The other polylines, if exist, must be internal to the external polyline. So that when you apply the command to the block the effect is a solid zone (Region) delimited by the external polyline and with other zones (holes) delimited by internal polylines.

The hatch extends in all directions from the point picked by the user searching the boundaries (polylines). IMPORTANT: The polylines must be closed.

**SEE ALSO:** [Raster Hatch - Solid Color -](#)

# Raster Hatch -Bitmap-

Draws a raster hatch Bitmap based.

## SITUATION:

- \* **Menus:** Draw **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

## PARAMETERS:

- \* Internal point.
- \* **Dialog Frame** for selecting the Bitmap for filling:
  - Directory select (double-click).File select.
  - Directory Preview: Double click on file list to draw hatches or press the More button.
  - The "More" button allows to view all the directory bitmaps that not fit in the first display.
  - You can select your hatch picking on its drawing.

## COMMENT:

Draws a raster hatch object based in a elemental Bitmap.

The hatch will extend from the internal point picked by the user to all directions filling the area with the color selected by the user searching for the boundaries. The boundaries **MUST BE CLOSED** and they must be right defined for avoiding the escape of the hatch through any holes.

The Scale Factor of the drawing (specially in screen) can affect to the hatch extents, because circles that contain a solid hatch can be reduced to a point. Also parallel lines can be reduced to one line. In this way the hatch appearance can be affected (the hatch can escape in any direction).

So and for speeding up drawing display we recommend the option for schematic drawing of hatches (Display Raster Hatch command in the Help **Menu**) when working in large ZOOMS.

**SEE ALSO:** Raster Hatch -Solid Color-  
Display Raster Hatch



# Erase



Erases a group of objects previously selected.

## **SITUATION:**

\* **Menus:** Edit **Menu**.

\* **TECNOWIN-I TOOLBOX.**

## **PARAMETERS:**

\* Selection of objects to be erased.

## **COMMENT:**

Erase a group of objects selected by the SELECTION support command.

**SEE ALSO:** Undo

# Copy

Copies a group of objects previously selected.



## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

## PARAMETERS:

- \* Selection of objects.
- \* Start point of movement (mouse / keyboard).
- \* End point of movement (mouse / keyboard).

## COMMENT:

Copies a group of objects selected by the SELECTION support command from a point (start point of movement) to another point (end point of movement).

The objects are copied referred to that points, I mean , according the vector defined by the start point of movement and the end point of movement.

**SEE ALSO:** Move

# Move



Moves a group of objects previously selected.

## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

## PARAMETERS:

- \* Selection of objects.
- \* Start point of movement (mouse / keyboard).
- \* End point of movement (mouse / keyboard).

## COMMENT:

Moves a group of objects selected by the SELECTION support command from a point (start point of movement) to another point (end point of movement).

The objects are moved referred to that points, I mean , according the vector defined by the start point of movement and the end point of movement.

**SEE ALSO:** Copy

# Stretch



Adapt a group of objects previously selected.

## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

## PARAMETERS:

- \* Selection of objects.
- \* Start point of movement (mouse / keyboard).
- \* End point of movement (mouse / keyboard).

## COMMENT:

Adapt a group of objects selected by the SELECTION support command from a point (start point of movement) to another point (end point of movement).

The objects are adapted referred to that points, I mean , according the vector defined by the start point of movement and the end point of movement.

The objects that can be adapted must be LINES, POLYLINES and DIMS (The dims will adapt their text to the new dimension). The Stretch command works like the MOVE command on the rest of the objects.

We recommend use the Capture Selection mode because the process with the selected objects is the following:

- \* If the objects are fully contained into the selected rectangle the Stretch command will work in the same way that the Move command.

- \* If the objects are partially contained into the selected rectangle (In other words they are intercepted by the selected rectangle), they will be stretched / shorten (in generic mode we say STRECTHed) according to the vector defined by the the start point of movement and the end point of movement.

**SEE ALSO:** [Move](#)

# Extend



Extends a group of objects previously selected to other object that is the boundary object.

## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX.**

## PARAMETERS:

- \* SINGLE SELECTION of the boundary edge.
- \* SELECTION of objects for extending to the boundary edge.

## COMMENT:

Extends a group of objects previously selected to other object that is the boundary object.  
The boundary edge must be line, circle or arc.

**SEE ALSO:** Extend -All-

Fillet -Linear-

## Extend -All-

Extends a group of line-objects previously selected to other object that is the boundary object.

### SITUATION:

\* **Menus:** Edit **Menu**.

### PARAMETERS:

- \* SINGLE SELECTION of the boundary edge.
- \* Pick a start point for defining a line that cut all the lines to extend.
- \* Pick a end point for defining a line that cut all the lines to extend.

### COMMENT:

Works like the EXTEND command but it allows select at the same time a group of lines picking two points that define a line that cut all the lines to extend.

**SEE ALSO:** Extend

Fillet -Linear-

# Cut



Cuts a group of selected objects based in other group of selected objects that work as cutting edges.

## **SITUATION:**

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I** **TOOLBOX**.

## **PARAMETERS:**

- \* SINGLE SELECTION of the boundary edge.
- \* SELECTION of objects for extending to the boundary edge.

## **COMMENT:**

Cuts a group of selected objects by other selected objects called cutting edges. The cutting edges can be lines, circles, arcs. The objects to cut can be also lines, circles, arcs.

To cut a object for another object must be exist a physic cut (in screen) between both of them.

**SEE ALSO:** [Extend](#)

## Offset



Makes a copy operation (make a parallel line to a defined distance) over line objects and a operation to generate concentric objects over circle / arc / polyline objects modifying the radius the defined distance.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I** **TOOLBOX**.

### PARAMETERS:

- \* Selection of objects.
- \* Pick point to indicate the right side / semiplane.

### COMMENT:

This command works over line / circle / arc / polylines objects. It makes a parallel line to a defined distance and side of the selected line when working with lines. It makes concentric objects with relation to the selected objects when working over circles / arcs . The radius will be larger / lesser than the selected object in function the picked point is internal / external to the circle / arc.

**SEE ALSO:** Copy



## Fillet -Linear-



Fillets two lines, extend / short them to the intersect point.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

- \* SINGLE SELECTION of line 1.
- \* SINGLE SELECTION of line 2.

### COMMENT:

Fillets two lines extend / short them according to the position of the intersection point and the position of the line section.

You must use the SINGLE SELECTION mode. You can not use the Window / Capture method for selecting them.

**SEE ALSO:** Fillet -Radius-

## Fillet -Radius-



Fillets two lines generating an arc of a defined radius tangent to both.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

- \* SINGLE SELECTION of line 1.
- \* SINGLE SELECTION of line 2.
- \* Radius (Dialog Frame).

### COMMENT:

Fillets two lines extend / short them according to the position of the intersection point and the position of the line section. It also generate a tangent arc to both with a defined radius.

You must use the SINGLE SELECTION mode. You can not use the Window / Capture method for selecting them.

**SEE ALSO:** Fillet -Radius-

# Unify



Converts two lines (with the same direction) in only one.

## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

## PARAMETERS:

- \* SINGLE SELECTION of line 1.
- \* SINGLE SELECTION of line 2.

## COMMENT:

Unify two lines converting them in only one.  
You must use the SINGLE SELECTION mode. You can not use the Window / Capture method for selecting them.

**SEE ALSO:** Fillet -Linear-

## Rotate -Without Copy-



Rotates a group of selected objects with relation to a point (rotation edge) a selected angle.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX.**

### PARAMETERS:

- \* Selection of objects to rotate.
- \* Point (rotation edge) mouse/keyboard.
- \* **Dialog Frame:** Rotation Angle.

### COMMENT:

Rotates the objects around the defined point (rotation edge) a selected angle (rotation angle).  
The Rotation Angle must be in sexagesimal degrees. Its sign will be positive in CLOCKWISE.

**SEE ALSO:** Rotate -With Copy-

## Rotate -With Copy-



Rotates a group of selected objects with relation to a point (rotation edge) a selected angle but it also make a copy of the selected objects.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

- \* Selection of objects to rotate.
- \* Point (rotation edge) mouse/keyboard.
- \* **Dialog Frame:** Rotation Angle.

### COMMENT:

Please see the Rotate -Without Copy- command.

This command is different of the Rotate -Without Copy- command in one thing: The selected objects will not be altered and the rotation operation will be apply to a copy of them.

**SEE ALSO:** Rotate -Without Copy-  
Copy

## Mirror -Without Copy-



Makes a symmetry operation with relation to a line-edge of symmetry.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

- \* SELECTION of objects to mirror.
- \* SINGLE SELECTION of a line like mirror edge.

### COMMENT:

We call mirror a symmetry operation with relation to a line that we call symmetry edge.  
The texts (for obvious reasons) will not change their rotation angle.  
This operation will not work with Bitmaps objects.

**SEE ALSO:** Mirror -With Copy-

## Mirror -With Copy-



Makes a symmetry operation with relation to a line-edge of symmetry but it also makes a copy of the selected objects.

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-I TOOLBOX**.

### PARAMETERS:

- \* SELECTION of objects to mirror.
- \* SINGLE SELECTION of a line as mirror edge.

### COMMENT:

Please see MIRROR -WITHOUT COPY- Command.  
This command is different of the Mirror -Without Copy- command in one thing: The selected objects will not be altered and the rotation operation will be apply to a copy of them.

**SEE ALSO:** Mirror -WithOut Copy-  
Copy

# Explode



Converts a group of complex selected objects (blocks, polylines, dims) in their basic objects.

## SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

## PARAMETERS:

- \* SELECTION of objects to explode.

## COMMENT:

A complex object is a polyline / block / dim object, I mean, a object that is made of simpler objects.

We understand like explode the process to convert a complex object in their elemental objects (lines, arcs, texts, ... or including other complex objects).

When we explode a object each elemental object will pass to the corresponding layer (the layer which it was created) independently of the layer that the block belongs to. If that layer does not exist in the drawing it will be created. In relation to the color, it also will be the color object. If we want to change any object color to coincide with the layer that the block belongs to (if the layer color is different to the object color) you must pick Change Color (= Layer option) command.

**SEE ALSO:** Commands for handling Blocks  
Insert  
Polyline  
Dim Commands  
Undo



## Directories Preview



Allows, through a Dialog Frame, see all the .tnt drawings of a directory and insert a drawing like block (if we wish).

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

### PARAMETERS:

#### Dialog Frame:

- \* List-box to management of directories and their files.
- \* Making double-click on a directory will see the .tnt files (drawing files) in it in the left list-box (file list-box).
- \* Making double-click on the pre-selected file in the file list-box we can see that file and all the drawing files behind it.
- \* We get the same effect pressing the More button. This button also allows to see more files if all of them do not fit in the dialog.
- \* Making click on a drawing frame the corresponding drawing will be inserted like block.

### COMMENT:

Through a **Dialog Frame** you can see all the drawing files that are in a directory. This fact allows to choose one of them to insert like block in the drawing. It is a good idea storing each drawing library in a different directory. We call drawing library a useful group of drawings that we use to insert like blocks in our drawings. We also could call this command Libraries Preview.

**SEE ALSO:** Preview - Blocks-

## Preview - Files -



Allows, through a Dialog Frame, see each one of the .tnt drawings in a frame window and inserts a drawing like block (if we wish).

### SITUATION:

- \* **Menus:** Edit **Menu**.
- \* **TECNOWIN-II TOOLBOX**.

### PARAMETERS:

#### Dialog Frame:

- \* List-box to management of directories and their files.
- \* Making double-click on a directory will see the .tnt files (drawing files) in it in the left list-box (file list-box).
- \* Making double-click on the pre-selected file in the file list-box we can see that file in a window.
- \* We get the same effect pressing the Preview button.

- \* Pressing the READ button the drawing will be read like block and will be added to the block-list of our drawing but it will not be inserted.
- \* Pressing the Insert button the INSERT BLOCK command will be activated to insert the block into drawing.
- \* If we pick the OK command the drawing will be open like another document.

### DESCRIPTION:

Through a **Dialog Frame** we can see a drawing file for a) Seeing b) Reading like block c) Inserting like block d) Opening it like document.

This command can also be useful to see drawings before open them.

**SEE ALSO:** Preview -Blocks-

## Preview -Blocks-



Allows, through a Dialog Frame, see the blocks in the drawing and insert a block if you wish.

### SITUATION:

Edit **Menu**. Preview **Submenu**  
TECNOWINII **TOOLBOX**.

### PARAMETERS:

#### Dialog Frame:

- \* Listbox for selecting block.
- \* If you make double-click on the pre-selected block you can see it in a window.
- \* You can get the same effect pressing the "Preview" button.
- \* Pressing the "Insert" button the INSERT BLOCK command will be activated and the block can be inserted in the drawing.

### COMMENT:

Through a **Dialog Frame** you can see all drawing blocks. Then you can select one of them for inserting in the drawing.

**SEE ALSO:** Preview -Directories-

Preview -Files-

Commands for handling blocks

## Block - Define -



Makes a block object from a group of selected objects picking an insert point.

### SITUATION:

Edit **Menu**. Preview **Submenu**  
TECNOWINII **TOOLBOX**.

### PARAMETERS:

Selection of objects.

Insertion Point.

#### Dialog Frame :

- \* Block Name.
- \* Possibility for erasing the source objects to define the block (the default value is YES because the mark is ON in the Dialog Frame).

### COMMENT:

Makes a block from a group of selected objects (source objects) and picking an insert point.

The objects can be anyone, including other complex objects like polylines / blocks. The application allows multiple referred blocks, I mean, a block can contain other block and this can contain other one and so on. Anyway, a high indexation factor is not recommendable (it can slow the program running in some operations).

You must keep on mind when you define the block that the working (current) layer will be the block layer. The block layer is important to insert the block in drawings.

The block layer will be the layer for the block when we insert it in a drawing. But if that layer does not exist in the drawing will be made for you. Finally, if you define the block into the default application layer (TW) then the block will be insert in the current layer of the drawing.

In relation to colors, if you insert the block in a layer which color is different to the color of the block objects, then the color for block objects will not change. To change the color of the inserted block you must pick the CHANGE COLOR (= BY LAYER option) command.

You also must keep on mind that when you DEFINE a block in a drawing, it remains in that drawing, but IT WILL NOT BE WRITTEN to disk until you pick the BLOCK -WRITE- command. If you forget this command then you can use the block into the drawing but you will not can use it in other drawings. Please see the BLOCK -WRITE- command.

**SEE ALSO:** Block -Write-

Commands for handling blocks

## Block -Write-

Writes a block previously defined.



### SITUATION:

Edit **Menu**. Preview **Submenu**  
TECNOWINII **TOOLBOX**.

### PARAMETERS:

**Dialog Frame** (LIST-BOX) for selecting the block to write.

**Files Dialog Frame** , for indicating place and name for the file. The file name is the block name by default.

### COMMENT:

Writes a block previously defined in a drawing so that we can call it into another drawing to insert like block.

**SEE ALSO:** Block -Define-

Commands for handling blocks  
Insert

## Block -List-

Lists the existing blocks in a drawing through a Dialog Frame.

### **SITUATION:**

Menus: Edit Menu.

### **PARAMETERS:**

Dialog Frame (List-Box).

### **COMMENT:**

It is an informative command. It is not very useful because we have another command with the same finality but larger power / options : The PREVIEW -BLOCKS- command.

**SEE ALSO:** Blocks -Preview-  
Insert

## Block -Read-

Reads a drawing file like block incorporating it into the blocks-list of the drawing.

### SITUATION:

Menús: Edit **Menu**.

### PARAMETERS:

**Dialog Frame** for opening files.

### COMMENT:

Reads a file like block. This block will can be inserted later in the drawing with the BLOCK - INSERT- command. It is very useful to read (without inserting) dim files (files that contain the dim information for making dims). Then we can preview later and/or select through the DIM PARAMETERS **Dialog Frame**.

**SEE ALSO:** Preview -Files- Insert

# Convert

Converts a **LINE / ARC** object to a **POLYLINE**.

## **SITUATION:**

Edition **Menu**. Edit Polyline **Submenu**.

## **PARAMETERS:**

SINGLE SELECTION of the object to convert.

## **COMMENT:**

Converts a LINE / ARC object in a POLYLINE object. Then that polyline can be handling through other edit process for adding objects (lines / arcs) or for closing it.

**SEE ALSO:** Polyline

Add Objects  
Close Polyline  
Explode



## Add Objects

Allows add objects (lines, arcs) to a POLYLINE objects.

### SITUATION:

Edit **Menu**. Edit Polyline **Submenu**.

### PARAMETERS:

SINGLE SELECTION of the polyline to add objects.

SELECTION of the objects to add.

### COMMENT:

Adds objects (lines, arcs) to a polyline object. In the case you want also add other polyline you must explode it previously.

The objects selection to add must be in the same order than the addition process. I mean, you can not select firstly the last object to add then the first. The objects must be connected, so that they must have a common point with the previous selected object.

**SEE ALSO:** Polyline

Convert  
Close Polyline  
Explode

# Close Polyline

Closes a POLYLINE object, I mean, make the first and last point the same point.

## SITUATION:

Edit **Menu**. Edit Polyline **Submenu**.

## PARAMETERS:

SINGLE SELECTION of the polyline to close.

## COMMENT:

Converts an open polyline (a polyline which start / end points are not the same), in a closed polyline (the start / end points are the same).

The closed polylines can be useful in same cases. For example:

- \* For offsetting a polyline that define a polygon.
- \* For calculating a enclosure area. The enclosure boundary can be defined by a closed polyline.

## SEE ALSO:

Polyline

Polyline -Convert-

Polyline -Add Objects-

Explode

## Change -Layer-



Allows to change the layer for the drawing objects after they were created.

### SITUATION:

Edit **Menu**.Change **Submenu**.  
**TECNOWINI** **TOOLBOX**.

### PARAMETERS:

Objects SELECTION.

### Dialog Frame:

A list (list-box) appears with all the drawing layers to select the new layer for the selected objects.

### COMMENT:

Allows to change the objects layer after they were made. When we make a new object, then it belongs to the current layer. (Please see also BLOCK -DEFINE-, BLOCK -INSERT-, EXPLODE commands for layer discussion in relation to blocks).

The CHANGE -LAYER- command allows to change the object layer after it was created.

IMPORTANT: If you change a object to a OFF layer (Please see LAYERS -ON/OFF- command) the object disappears of screen, but it is not erased: The object belongs to a hide layer. Then we can not see it.

**SEE ALSO:** Layers Command

Change -Color-

## Change -Color-



Allows change the color for the drawing objects after they were created.

### SITUATION:

Edit **Menu**.Change **Submenu**.  
TECNOWINI **TOOLBOX**.

### PARAMETERS:

Objects SELECTION.

**Dialog Frame** with two options (buttons):

\* Objects Color = Color by layer: Make the color for selected objects equal to the color of their layer.

\* Objects Color = Selected Color: Activate the Colors **Dialog Frame** . Then you can select the color you wish.

### COMMENT:

Allows change the color for the drawing objects after they were created.

You can make this change in two ways: a) So that the objects color is the same than their layer color (we call this Color By Layer). b) Give them a color through a dialog frame. This color can be any color. It is not necessary it is the same than the layer color.

**SEE ALSO:** Color -by Default-  
Layers -Color-

# Change Line Type



Allows change the line type for the drawing objects after they were created.

## SITUATION:

Edit **Menu**.Change **Submenu**.  
**TECNOWINI** **TOOLBOX**.

## PARAMETERS:

Objects SELECTION.

**Dialog Frame** with the line type supported. Select your line type.

## COMMENT:

When a new object in the drawing is created it will have the CONTINUOUS Line Type (default value).

The Change -Line Type- command allows change the line type for the drawing objects after they were created. You can select between CONTINUOUS / CENTER / DASHED / DASHDOT line types.

This command only will work with the following objects type: LINES, POLYLINES, CIRCLES and ARCS.

## SEE ALSO:

## Change Text -Height-



Allows change the text height for the text objects after they were created.

### **SITUATION:**

Edit **Menu**.Change **Submenu**.Text **Submenu**.  
**TECNOWINII** **TOOLBOX**.

### **PARAMETERS:**

Objects SELECTION. Only text objects will be considered.

**Dialog Frame** for entering the new text height.

### **COMMENT:**

Changes the texts height for the selected texts. The remainder properties (font, text, point and insert mode) are not changed.

All the selected text will have the same height.

**SEE ALSO:** Commands for Drawing Texts  
Change Texts -Font-  
Change Text

## Change Text -Font-



Allows change the text font for the text objects after they were created.

### SITUATION:

Edit **Menu**.Change **Submenu**.Text **Submenu**.  
**TECNOWINII** **TOOLBOX**.

### PARAMETERS:

Objects SELECTION. Only text objects will be considered.

**Fonts Dialog Frame:** Shows the current drawing font (the last selected when creating text or the default drawing font). Allows select another font for the selected texts. Remember: When we change a font we also change the text height into the Dialog Frame.

### COMMENT:

Changes the drawing font for the selected texts. The color font not matter because the text will have the same color than the layer belongs to. If you want to change the text color then you must pick the CHANGE COLOR command.

As you change the text height when you select a new font in the Dialog Frame, then all the selected texts will have the same FONT and HEIGHT. For selecting different texts height for each object you must pick the CHANGE TEXTS -HEIGHT- command.

**SEE ALSO:** Commands for Drawing Texts  
Change Texts -Height-  
Change Texts -Text-

## Change Texts -Text-



Allows change the text description for the text objects after they were created.

### SITUATION:

Edit **Menu**.Change **Submenu**.Text **Submenu**.  
TECNOWINII **TOOLBOX**.

### PARAMETERS:

SINGLE SELECTION of object. Only text objects will be considered.

**Dialog Frame** for entering the new text.

When you change a text the application asks for a new text for changing. When you wish not change anyone more press ENTER or pick the CANCEL command.

### COMMENT:

Changes the text of the selected text object. The remainder properties (font, text, point and insert mode) are not changed.

**SEE ALSO:** Commands for Drawing Texts  
Change Texts -Font-  
Change Texts -Height-



# Move Dim Texts



Moves the text of the selected dim object.

## SITUATION:

Edit **Menu**.Change **Submenu**.Dim **Submenu**.  
**TECNOWINII** **TOOLBOX**.

## PARAMETERS:

SINGLE SELECTION of objects. Only dim (linear) objects will be considered.

As in MOVE command the application ask for a Start Point for Movement and a End Point for Movement. They are the reference points for moving the object from a point to another point.

When you change a dim object the application ask for a new dim for changing. When you wish not change anyone more press ENTER or pick the CANCEL command.

## COMMENT:

Changes the dim text position. The remainder dim properties (font, text) are not changed.

This command avoids to explode the dim object for moving the dim text after.

The new dim position can be anyone.

**SEE ALSO:** [Dim Commands](#)

[Dim Parameters](#)

[Update Dims](#)

[Explode](#)

# Update Dims



Updates the selected dim texts in relation to their font (including height).

## SITUATION:

Edit **Menu**.Change **Submenu**.Dim **Submenu**.  
**TECNOWINII** **TOOLBOX**.

## PARAMETERS:

SELECTION of objects. Only dim (linear) objects will be considered.

## COMMENT:

Updates the font (including height) of the objects to take the default dim font. This font is the current font in the DIM PARAMETERS command.

**SEE ALSO:** Dim Parameters

Move Dim Texts

Dim Commands

## Purge -Blocks-



Erases one or more block objects of the block-list of the drawing.

### SITUATION:

Edit **Menu**.

**TECNOWINII** **TOOLBOX**.

### PARAMETERS:

**Dialog Frame:** You can select one (or more) blocks for erasing them of the block-list.

### COMMENT:

Erases one or more block objects of the block-list of the drawing through a **Dialog Frame**.

If any selected block is inserted into drawing they will not be erased although no message appears. I mean, you can only purge blocks that not appear in drawing.

The purge process is useful to decrease the drawing size.

**SEE ALSO:** Commands for handling Blocks  
Purge -Layers-

## Purge -Layers-



Erases one or more layers objects of the block-list of the drawing.

### SITUATION:

Edit **Menu**.

**TECNOWINII** **TOOLBOX**.

### PARAMETERS:

**Dialog Frame:** You can select one (or more) layers for erasing them of the block-list.

### COMMENT:

Erases one or more block objects of the block-list of the drawing through a **Dialog Frame**.

If the layers contain objects a message appears announcing that if you purge the layer then their objects will be erased too. If the layer is empty not message appears. If the layer to purge is the current layer then a message disallowing to purge the layer appears.

**SEE ALSO:** Layers Commands

Purge -Blocks-

# WMFCopy

Copies the selected drawing area to the Clipboard in **Windows MetaFile** format for be pasted into another WINDOWS application.

## SITUATION:

Edit **Menu**.Interchange Submenu.

## PARAMETERS:

First point: Lower left corner of the drawing area to export.

Second point: Upper right corner of the drawing area to export.

**Dialog Frame** asking for the paper size (in mm.) with regard to the X,Y edges.

**Dialog Frame** asking for the drawing Scale.

## COMMENT:

Allows export the drawing information in **WINDOWS METAFILE** format to another WINDOWS. The Windows MetaFile format is very practical because it allows enlarge / short the graphic image into another applications like WINWORD.

**SEE ALSO:** WMF Write

# GrabarWMF

Copies the drawing area to a **Windows MetaFile** file with the **.WMF** extension.

## SITUATION:

Edit **Menu**.Interchange Submenu.

## PARAMETERS:

**Dialog Frame** asking for the paper size (in mm.) with regard to the X,Y edges.

**Dialog Frame** asking for the drawing Scale.

**Dialog Frame** to write the file. Give it a name.

## COMMENT:

Allows export the drawing information in screen to a WINDOWS METAFILE file (.WMF extension).

**SEE ALSO:** WMFCopy

Printer Preview  
Printing

# OBJCopy

Copies objects of the current drawing to **Clipboard**.

## SITUATION:

Edit **Menu**.Interchange Submenu.

## PARAMETERS:

Selection of objects.

## COMMENT:

Copies the selected objects to Clipboard so that they can be pasted into another document (drawing) . It is a handy mode of passing information between drawings in **TECNOWIN**.

The insert point for the copied objects will be the (0,0) point.

**SEE ALSO:** [OBJPaste](#)

## OBJPaste

Pastes the objects that are into **Clipboard**, coming from a **OBJCopy** command of another document.

### **SITUATION:**

Edit **Menu**.Interchange Submenu.

### **PARAMETERS:**

None.

### **COMMENT:**

Pastes the objects from Clipboard. There will be objects in Clipboard if another drawing copied them to Clipboard.

**SEE ALSO:** OBJCopy



## Zoom -Window-



Makes a **ZOOM** of the screen rectangle picked by the user.

### **SITUATION:**

Zooms **Menu**.  
**UP TOOLBOX**.

### **PARAMETERS:**

- \* Point to define the first corner (only by mouse).
- \* Point to define the second corner (only by mouse).

### **COMMENT:**

Adapts the display scale to show the zone picked by the user. The corners to define the Zoom can be picked in any order (lower left-upper right , upper left-lower right ...)

This is a TRANSPARENT command, I mean, it can be called even from another command. After the Zoom command execution the other command will show in the lower left panel the pending task For example we can pick a LINE command, and then when the application ask for the first point pick a ZOOM WINDOW for seeing in the best way a screen zone. When the zone is displayed the application ask for pending data again (the first point in this case, then the second point).

**SEE ALSO:** Zoom -Previous-  
Zoom -Scale-  
Zoom -Extents-



**Zoom -Previous-**  
Returns to the previous **ZOOM**.

**SITUATION:**

Zooms **Menu**.  
**UP TOOLBOX**.

**PARAMETERS:**

None.

**COMMENT:**

Makes a previous ZOOM referred to the current one. It can be very useful working together with the ZOOM WINDOW command: You make a ZOOM-WINDOW of a screen zone. Then you can return to the previous zone with the ZOOM-PREVIOUS command.

As all ZOOM commands this is a TRANSPARENT command, I mean, it can be called when we are into another command. When the Zoom command has finished then the other command will show in the lower left panel the pending task.

**SEE ALSO:** Zoom -Window-  
Zoom -Scale-  
Zoom -Extents-

## Zoom -Scale-



Makes a **ZOOM** with regard to the current zoom in screen multiplied by a scale factor.

### SITUATION:

Zooms **Menu**.  
**UP TOOLBOX**.

### PARAMETERS:

**Dialog Frame** for entering by keyboard the Scale factor.

### COMMENT:

Makes a Zoom in relation to the current zoom in screen multiplied by a Scale Factor. The Scale Factor can be larger than one (Zoom for go away) or lesser than one (Zoom to bring near).

This Zoom command is useful for enlarging the working area (with a scale factor larger than one).

As all Zooms commands this is a TRANSPARENT command.

**SEE ALSO:** Zoom -Window-

Zoom -Previous-

Zoom -Extents-

## Zoom -Extents-



Makes a **ZOOM** which extents to the drawing limits (adding the margins if there was),  
( See **MARGINS** command, **Status** Menu).

### SITUATION:

Zooms **Menu**.  
**UP TOOLBOX**.

### PARAMETERS:

None.

### COMMENT:

Makes a Zoom extended to the current drawing limits. It considers the lateral margins if defined previously through a MARGINS command. As all Zooms commands is a TRANSPARENT command.

**SEE ALSO:** Zoom -Window-  
Zoom -Previous-  
Zoom -Scale-

## Limits

Shows in screen the current drawing limits.

### **SITUATION:**

Status **Menu**.

### **PARAMETERS:**

None.

### **COMMENT:**

Shows in screen the current drawing limits (lower left corner, upper right corner) with absolute coordinates in relation to the X, Y edges. You can modify the limits but it not matter because the application will calculate the new limits when you pick the ZOOM -EXTENTS- command.

This is an informative command.

**SEE ALSO:** Zoom -Extents-  
Margins

## Units

Allows change the digit number (linear / angular) that **TECNOWIN** will show in all its information and numeric data in screen.

### **SITUATION:**

Status **Menu**.

### **PARAMETERS:**

**Dialog Frame:** It consists in two combobox for entering the digit number in either linear units and angular units.

### **COMMENT:**

The new values for digit numbers will be written in the document (drawing) so they will return in another working session with that document.

**SEE ALSO:** Snap

# Margins

Allows give a lateral margins to the drawing so the full drawing area can be larger for handling zooms in a better way.

## SITUATION:

Status **Menu**.

## PARAMETERS:

**Dialog Frame** for entering the margins value (in meters) for the X edge and the Y edge.

## COMMENT:

The default values for margins in the document are 0, so that you make a ZOOM -EXTENTS- there are not margins at the screen edges. It does not allow to make some operations (like ZOOM -WINDOW-, PREVIEWS, PRINTING commands) comfortably.

The user can modify these values giving them new values. They will be stored in the document. So you will can use them in another drawing session.

**SEE ALSO:** Limits

Zoom -Extents-

# Snap



Activates the Snap (jump) in the value (in meters) entered by the user.

## SITUATION:

Status **Menu**.  
**UP TOOLBOX**.

## PARAMETERS:

**Dialog Frame** for entering the snap value in meters. If you wish deactivate the snap you must enter 0.

## COMMENT:

The Snap command allows the mouse moving in jumps (snap multiples). It can be useful when the objects to draw are in correspondence with this value (for example, lines which accuracy is 0.05 meters) because picking the points in screen will be easier. However it can be not comfortable in other cases (for example Zooms very close).

The Snap value is stored in the document for later drawing sessions.

**SEE ALSO:** [Ortho](#)



# Dim Parameters

Changes the dim properties to draw.

## SITUATION:

Status **Menu**.

**TECNOWIN-II** **TOOLBOX**.

## PARAMETERS:

### Dialog Frame:

- \* Basic Parameters of dims that can change in length (from 1 to 6)
- \* Button for **Fonts Dialog Frame** for changing the default dim font.
- \* Text Height (*in cm.* ), if we do not change the text font.
- \* Optional button to assign dim blocks to left hand/right hand: A list with the avoiding dim blocks appears. You can make a Preview if a dim block either pressing the Preview button or making double-click in the selected block. For accepting a dim block press OK.

## COMMENT:

The Dim parameters allows the user to customise his own way of dim. On one hand the user can select his own text font / height por dim texts. On the other hand **TECNOWIN** use default DIM BASIC PARAMETERS. These Parameters are in the Dialog Frame. The user choose one of these chances:

- a) Change some / all dim basic parameters (lengths in meters).
- b) Choose another way for dim. Then he must choose a dim block for the point to the left hand of the dim and other for the point to the right hand of the dim.

These dim blocks are created like anyone. But you must keep on mind (IMPORTANT) that the insert point for the block must be the start point of the dim (left) and the end point of the dim (right) . The block name must have the TW\_AC prefix and one to three characters (for example TW\_AC1, TW\_ACFCH, TW\_ACFI are right names) . You can create a little library for dim blocks to the left / right hand. The library can be only two blocks (left and right) if you dim in the same way ever. Remember WRITE your blocks for using in another drawings (like anyone).

We are talking about right / left blocks but if they are SYMMETRIC we can have only one block and select it as Left Block. Then **TECNOWIN** assigns as "Right Block" a symmetric block of the Left Block.

To see the dim blocks in the block-list in the Dialog Frame we must READ the blocks previously from disk (BLOCK -READ- or PREVIEW -BLOCKS- commands). In this way the blocks are built-in to the block-list of the document. **TECNOWIN** will put the blocks with TW\_AC prefix in the **Dialog Frame** of the DIM PARAMETERS command.

**SEE ALSO:** [Dim Commands](#)

Update Dims

## Color -By Default-

Changes the default color to draw the new objects.

### SITUATION:

Status **Menu**.

### PARAMETERS:

**Dialog Frame** with two options (buttons):

- \* Color Button=Color by Layer. In this way the color of new objects it is the same than the color of their layer.
- \* Change Color Button: Activate the **Color Dialog Frame**, for choosing the color.

### COMMENT:

Allows change the working color. If you choose the Change Color Button all the new objects will have this color, independently its layer color. To return to normal mode (Color = Color By Layer) you must pick this button.

**SEE ALSO:** Layer Commands

Change -Layer-  
Change -Color-

## New Layer



Makes a new layer. You can activate it as the current (working) layer.

### SITUATION:

Status **Menu**. Layers **Submenu**.

### PARAMETERS:

#### Dialog Frame:

- \* Layer Name.
- \* Mark (on by default). If activates the new layer. That layer will be from that moment the current working layer, so that all new objects will belong to that layer.
- \* Button to activate the **Color Dialog Frame** to choose the layer color.

### COMMENT:

Makes a new layer with the name typing by the user in the **Dialog Frame** and with the selected color. This layer will be the current working layer if we do not activate the mark in the **Dialog Frame**. The new layer will be ever ON..

The layer name can have lower case / capital letters. A layer with capital letters *will not be the same* that a layer with lower case. Please be careful with that.

**SEE ALSO:** [Layer Commands](#)

# Current Layer



Allows select a layer like the current working layer.

## SITUATION:

Status **Menu**. Layers **Submenu**.  
**UP TOOLBOX**.

## PARAMETERS:

### Dialog Frame:

- \* List to select the current layer.
- \* Button to activate the Color **Dialog Frame**, for choosing the layer color.

## COMMENT:

We call CURRENT LAYER the working layer, I mean, the objects are drawn in this layer. The name of the current layer is in the lower right panel and its color in a button (COLOR LAYERS) in the **UP TOOLBOX**.

If the current layer is OFF a message appears notifying all new objects will not be drawn (although they are really created).

**SEE ALSO:** Layer Commands  
Change -Layer-

# Layers ON-OFF



Activates (ON) or Deactivates (OFF) a layer / group of layers.

## SITUATION:

Status **Menu**. Layers **Submenu**.  
**UP TOOLBOX**.

## PARAMETERS:

### Dialog Frame:

- \* List 1 with the ON Layers.
- \* List 2 with the OFF Layers.

If you want pass layers in ON mode to OFF mode they must be selected in the List 1. Then press the ON->OFF button for passing from List 1(ON) to List 2(OFF).

If you want pass layers in OFF mode to ON mode they must be selected in the List 2. Then press the OFF->ON button for passing from List 2(OFF) to List 1(ON).

## COMMENT:

We call ON Layers the Layers that are visible in screen and OFF Layers the Layers that are hidden in screen so that their objects are not drawn in screen.

Playing with Layers (ON->OFF OFF->ON) is very important for a CAD application because it allows the following things:

1) Handling in screen only the layers that we need because showing all the layers can be awkward in complex drawings. It is more practical to show only the layers we need for working along a time.

2) When printing a drawing we may do different printings showing different layers combinations. For example in Architectural: We would want to show the walls, doors and windows in a draft. We would activate (ON) the WALLS, DOORS and WINDOWS Layers and we would deactivate (OFF) the rest of the layers.

If we want to put OFF the current working layer a message appears notifying all new objects will not be drawn (although they are really created).

**SEE ALSO:** Layers Command  
Change Layer

## Layers -COLOR-

Changes the color for a layer / group of layers.



### SITUATION:

Status **Menu**. Layers **Submenu**.

**UP TOOLBOX**.

### PARAMETERS:

#### Dialog Frame:

- \* List with the layers. Select all the layers that we are going to apply a same color.
- \* Button for activating the Color **Dialog Frame**.

### COMMENT:

Allows change the color for a layer / group of layers at the same time. The color will be specified in the Color **Dialog Frame**.

**SEE ALSO:** Layers Command

Change -Layer-  
Change -Color-

# Preview Directories Format

Allows change the way of showing the drawing files in the Preview -Directories- Dialog Frame.

## SITUATION:

Status **Menu**.

## PARAMETERS:

**Dialog Frame**, with 4 options (formats):

Preview for 11 files maximum (default frame).

Preview for 16 files maximum.

Preview for 20 files maximum.

Preview for 30 files maximum . We also call this frame Extralarge because it needs a minimal resolution of 800 x 600 points.

## COMMENT:

Changes the presentation format of the Preview for a Directory / Library. The default format is 11 files. It can be changed through a **Dialog Frame** to 30 files maximum.

**SEE ALSO:** Preview -Directories-



## Display Help

Toggle (activate / deactivate) the "quicktips" when you put the mouse on a **TOOLBOX** button.

### **SITUATION:**

Status **Menu**.

### **PARAMETERS:**

None. It is a state command. Toggles it ON / OFF.

### **COMMENT:**

The Display Help allows no expert users get quick help. But when they become to experts users this help perhaps will not be interesting.

The default value for this button is OFF (deactivated). You can toggle ON/OFF.

Remember that you ever have got text help in the lower panel. You have got also context help pressing the F1 key when putting on a menu command.

### **SEE ALSO:**

# Display Preview at Insert

Toggles (activates / deactivates) the **Dialog Frame** when inserting blocks with Preview.

## **SITUATION:**

Status **Menu**.

## **PARAMETERS:**

None. It is an state command.

## **COMMENT:**

When you insert a block a **Dialog Frame** appears (by default) with a window for viewing a preview of the selected block before inserting it. This command allows deactivate this option so that the window for preview mode not appears.

**SEE ALSO:** [Insert](#)

# Display Raster Hatch

Toggles (activates / deactivates) the **schematic / full display for Raster hatches.**

## **SITUATION:**

Status **Menu**.

## **PARAMETERS:**

None. It is a state command.

## **COMMENT:**

The full drawing of raster hatches can become an additional time to display in screen. We can make a schematic mode to view them. The default mode is deactivated, I mean, viewing the full hatch. If activated a schematic representation appears: a little circle hatched with the raster hatch.

**SEE ALSO:** Raster Hatch

Display Bitmaps

# Display Bitmaps

Toggles (activates / deactivates) the schematic / full display for Bitmaps.

## **SITUATION:**

Status **Menu**.

## **PARAMETERS:**

None. It is a state command.

## **COMMENT:**

The bitmaps, above all if have got high resolution, can waste much time for displaying. We can make a schematic mode to view them. The default mode is deactivated, I mean, viewing the full Bitmap. If activated a schematic representation appears: a rectangle around the Bitmap boundaries with a text with the Bitmap file name into it.

**SEE ALSO:** Bitmap

Display Raster Hatch

## About



Shows data basic of the application: author, version, date and Copyright.

### **SITUATION:**

Status **Menu**.

### **PARAMETERS:**

Informative drawing.

### **COMMENT:**

### **SEE ALSO:**

# Cancel



Cancels the current command.

## **SITUATION:**

Status **Menu**.

**TECNOWINI** **TOOLBOX**.

## **PARAMETERS:**

None.

## **COMMENT:**

Cancels the current command (if it is not finished). After pick this command you can pick another one.

## **SEE ALSO:**

# Redraw



Redraws all the view / views of the drawing.

## **SITUATION:**

Status **Menu**.

**TECNOWINI TOOLBOX**.

## **PARAMETERS:**

None.

## **COMMENT:**

Redraws all the views of the current document (drawing) erasing marks or help lines.

## **SEE ALSO:**

# Undo



Undo last working step (usually a command).

## **SITUATION:**

Status **Menu**.

**TECNOWINI TOOLBOX**.

## **PARAMETERS:**

None.

## **COMMENT:**

Comes back a step, returning to the state of the drawing previous to the last command. There are a step limit for undo of 35. If you can come forward again pick the UNDO command.

The UNDO command works for all the commands except the commands in the following list:

- \* All ZOOMS.
- \* NEW LAYER, CURRENT LAYER, LAYERS ON/OFF. CAPA NUEVA, LAYERS COLOR.
- \* PURGE LAYER and PURGE BLOCK.
- \* DIM PARAMETERS.
- \* BLOCK -DEFINE-.
- \* BLOCK -WRITE-.

You must add all informative commands (commands in relation with the drawing status), like DISTANCE, ANGLE, LIST, IDENTIFY, AREA, ORTHO, SNAP.

**SEE ALSO:** Redo



# Redo



Redo the effect of the previous undo command.

## **SITUATION:**

Status **Menu**.

**TECNOWINI TOOLBOX**.

## **PARAMETERS:**

None.

## **COMMENT:**

Comes forward a working step returning to the drawing state before applying the last undo command.

There is only ONE step forward. So if you press this command again **TECNOWIN** asserts "Can not redo".

The REDO command works for all the commands except some commands. See the list in the UNDO command.

**SEE ALSO:** [Undo](#)

# List



**Lists the object properties according to the object type.**

## **SITUATION:**

Status **Menu**.

**TECNOWINI TOOLBOX.**

## **PARAMETERS:**

SINGLE SELECTION of a object.

None.

## **COMMENT:**

Shows (Lists) the properties / characteristics of the object like type (line, circle, polyline,..), layer, color, point coordinates.

**SEE ALSO:** Identify

# Identify

Identifies (shows) the coordinates for a point.



## SITUATION:

Status **Menu**.

**TECNOWINI TOOLBOX**.

## PARAMETERS:

Pick point. Informative Window.

## COMMENT:

Identifies the coordinates of a point picking with the mouse. These coordinates are showed in a informative window. You can apply the approx modes to the picked point (INTERSECTION, ENDPOINT, etc.)

**SEE ALSO:** List

# Distance



Shows the distance (in meters) between two points.

## SITUATION:

Status **Menu**.

**TECNOWINII TOOLBOX**.

## PARAMETERS:

First point.

Second point.

## COMMENT:

No confuse with the REFERENCE DISTANCE command (it is different at all).

Shows an informative window with the distance between two points picked by the user. You can apply APPROX commands to the points.

**SEE ALSO:** AREA Commands  
List

## Area -by Points-



Calculates the area of a closed polygon defined by a group of points.

### SITUATION:

Status **Menu**.Area **SubMenu**.  
TECNOWINII **TOOLBOX**.

### PARAMETERS:

Pick all the points to define the polygon. We can use all approx modes (INTERSECTION, ENDPOINT, etc.). Can be useful fit the reference (approx) mode (for example INTERSECTION) . When you finished entering all points press ENTER (right button of the mouse) to finish the command.

**SEE ALSO:** Area -Polyline-

List

## Area -Polyline-

Calculates the polyline area.



### **SITUATION:**

Status **Menu**.Area **SubMenu**.  
TECNOWINII **TOOLBOX**.

### **PARAMETERS:**

SINGLE SELECTION of the polilyne.

### **COMMENT:**

Calculates the area of the selected polyline. The calculation assumes that the polyline is closed although it can be open. This command is EQUAL than pick the LIST (POLYLINE) command because give us the same information.

**SEE ALSO:** Area -by Points-  
List

# Cascade

Shows all opened documents, each one in a window, in cascade mode.

## **SITUATION:**

Windows **Menu**.

## **PARAMETERS:**

None.

## **COMMENT:**

It is the way (by default) that the application has got to show all opened documents. It is a practice method since allows pass to work from a document to another making click on its window header.

**SEE ALSO:** [Tile](#)

# Tile

Shows all opened documents, each one in a window, sharing the screen.

## **SITUATION:**

Windows **Menu**.

## **PARAMETERS:**

None.

## **COMMENT:**

It is a way to show all opened documents that allows to view all at the same time.

**SEE ALSO:** Cascade



# Aerial View

Activates an AERIAL VIEW. This is the view of the full drawing in a window.

## **SITUATION:**

Windows **Menu**.

## **PARAMETERS:**

None.

## **COMMENT:**

The AERIAL VIEW looks like a ZOOM EXTENTS, but it is in a separate window and when you pick two points (corners) as you pick for the ZOOM -WINDOW- command you view the effect of a corresponding ZOOM -WINDOW- in the main window.

If activated there is not effect if you pick the command again.

You can finish with the Aerial View closing its window.

## **SEE ALSO:**

## TECNOWIN-II

Activates the **TECNOWINI TOOLBOX**.

### SITUATION:

Windows **Menu**.

### PARAMETERS:

Submenu showing some chances for the shape of the **TECNOWINI TOOLBOX** (horizontal of 1 row, horizontal of 2 rows, vertical of 1 column, rectangular, etc.)

### COMMENT:

The **TECNOWINI TOOLBOX** has got some buttons. Each button has got a functionality (command). It contains the larger commands that not appear in the **TECNOWINI TOOLBOX**.

There are some possibilities (shapes) for the **TECNOWINI TOOLBOX**. You can choose anyone. But keep on mind that the vertical **TECNOWINI TOOLBOX** needs a minimal resolution of **800 x 600** points for you can view it fully in screen. We also recommend this resolution for the horizontal **TECNOWINI TOOLBOX**.

### SEE ALSO:

# SELECTION

**Allows the selection of a group of objects to make a operation from another command.**

## **SITUATION:**

This command is the only one that is not straight away accessible by user and so not is in anywhere.

## **PARAMETERS:**

Cursor in shape of circular sight to put it on a object to select. Then, the selected object is drawn with the Line Type DASHDOT mode (or with a different color for texts). If you pick again on the same object will be DESELECTED and will be drawn with its normal appearance. This is the default selection method. We call it SINGLE SELECTION. But there are other two selection methods: WINDOW and CAPTURE.

If we put on a point that not belongs to any object, we will see that if we move with the mouse to right / upper a elastic rectangle is open (it looks like the rectangle for a ZOOM -WINDOW-command). If we pick a second point the objects FULLY contained into the rectangle will be SELECTED (DASHDOT mode). This is the WINDOW SELECTION.

If we do the same operation but moving with the cursor LOWER/LEFT and we pick a second point the objects that belongs (fully or partially) to the rectangle will be SELECTED. It is the CAPTURE SELECTION.

In anyway, if we come back to select a object/group of objects previously selected by any method the objects will be DESELECTED.

**SEE ALSO:**[Filters](#)

# Filters

**Restricts the group of previously selected objects to that fulfill some defined conditions.**

## **SITUATION:**

Approx **Menu**.

## **PARAMETERS:**

**Dialog Frame** for choosing the conditions that the objects must have: Layer, Color, Type. If you press the Apply to all objects button the conditions will be applied to all drawing objects independently those we have previously selected.

You may pick this command during the SELECTION process (in any moment), but NEVER BEFORE or AFTER.

The **Filtering Dialog Frame** appears AFTER we finished the SELECTION process.

## **COMMENT:**

Sometimes we want to apply a command only to those objects that fulfill some conditions (for example, belong to a layer). Without the Filters command we could need a long time for selecting objects. But with the Filters command we filter the previously selected objects through a Dialog Frame. We can filter objects by Layer / Color / Type (any combination of them). For example: Block Objects that belong to the KITCHEN layer with blue color.

If we choose only a chance (for example, layer filtering) then will not operate any condition more over the objects.

**SEE ALSO:** [SELECTION](#)

# OLE 2.0

**Activates the OLE 2.0 Menu to insert and handling OLE objects in drawing.**

## **SITUATION:**

Edit **Menu**. Interchange **SubMenu**.

## **PARAMETERS:**

SubMenu containing the classic chances for a OLE 2.0 container.

## **COMMET:**

**TECNOWIN** supports OLE 2.0 as container / server. The OLE 2.0 Submenu in the Interchange Submenu of the Edit Menu activate the **TECNOWIN** features as container:

- a) Inserting OLE compatible objects (Dialog Frame to insert OLE objects).
- b) Erasing the activated OLE objects.
- c) Copying / Pasting OLE objects to / from Clipboard.

The inserted OLE object can be edited activating the server application for that object. You make this double picking on the object. You also can accede to a options menu picking the right button of your mouse.

When you activate the OLE object (picking on it) a new option menu for that object is generated in the Edit Menu.

**SEE ALSO:OLE 2.0 Reference Manual.**

# Exit

Exits application, allowing write those modified documents.

## **SITUATION:**

File **Menu**.

## **PARAMETERS:**

## **COMMENT:**

You also can exit closing the application window. It has the same effect.

**SEE ALSO:** Save  
Save As

## Change -Line Thick-

Allows change the physic thick of the lines with a defined color.

### **SITUATION:**

Edit **Menu**. Change **Submenu**.

### **PARAMETERS:**

Color Dialog Frame to select the color of the lines which thick you want to change. Thick Dialog Frame for choosing the new thick (in physical points).

### **COMMENT:**

The majority of printers / plotters allow assign line thickness TO COLORS. But there are some printers (as laser printers) that have not this chance. This command is interesting in these cases because allows link colors with line thickness.

You must not worry about the lines aspect in screen. The command is focus to printing.

### **SEE ALSO:**

## BMPCopy

Copies the drawing area in **Windows BitMaP** format to Clipboard. It can be pasted later from another **WINDOWS** application.

### SITUATION:

Edit **Menu**. Interchange **Submenu**.

### PARAMETERS:

None.

### COMMENT:

Allows export the drawing information as **WINDOWS BITMAP** to other **WINDOWS** application through Clipboard. For example you can paste the Bitmap image in PaintBrush or WinWord.

### SEE ALSO:



## New Window

Makes a New Window containing other drawing view. The view will be the previous view by default.

### **SITUATION:**

Windows **Menu**.

### **PARAMETERS:**

None.

### **COMMENT:**

**SEE ALSO:** Cascade  
Tile





