

Modify entity

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27.1 Introduction

Hereafter will be illustrated all commands available from the *Modify entity* pull-down menu shown in Fig.20 -1.

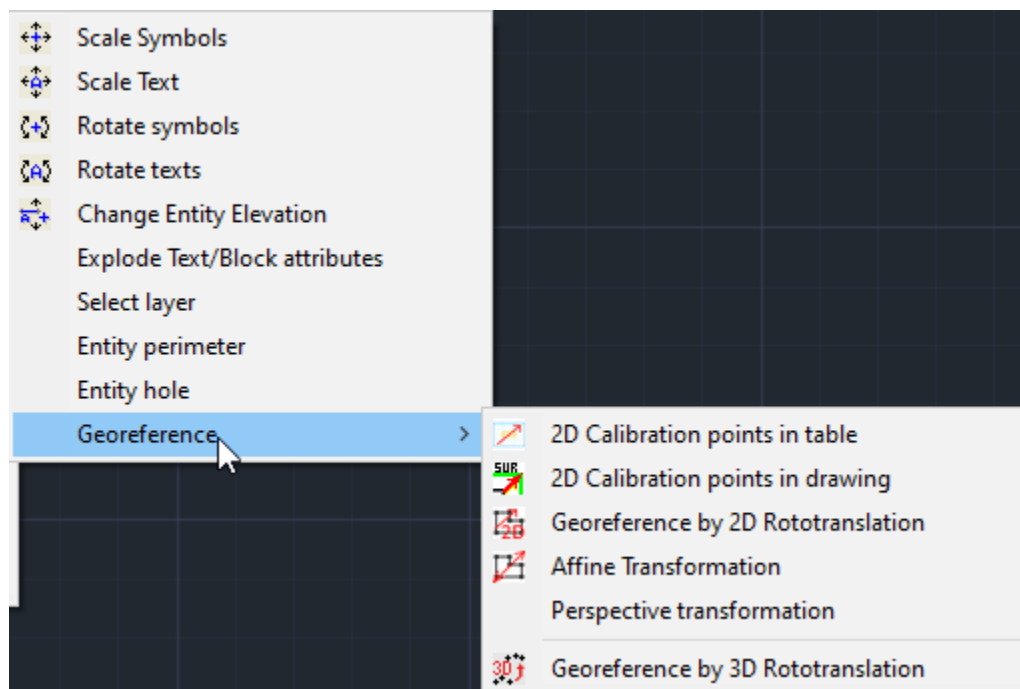


Figure 20-1 Modify entity menu

27.2 Scale symbols command (*Scalasim*)

This command enables to modify the size of symbols (like the topographic points) selected by the user.

Format: *Scalasim*
 Select the symbols to modify:
 Size/<Scale factor>:

This command is useful when the user intends to make prints in a scale that is different from the one used when inserting the points. During the insertion on a topographic Plan (with any of the available commands) the scale of the points is in fact determined by the CDCARHTES variable, indicating the text size in plotted millimetres, and by the default value of the plotting scale memorized in the Plan frame; by modifying one of such two variables, the size of the point symbols does not change; that only occurs when using the *Scalasim* command.



All symbols will be scaled one by one with respect to the insertion point (which is not moved).

27.3 Scale text command (*Scalatesti*)

The command enables to modify the size of a text selected by the user.

Format: *Scalatesti*

Select text to be modified:
 Height/<Scale factor>:
 Found(s) n. text(s) to be modified

27.4 Rotate symbols command (*Ruotasim*)

The command enables to rotate symbols (topographic points) selected by the user.

Format: *Ruotasim*
 Select the point symbols:
 New rotation angle:
 Number of modified elements:

The input rotation, with respect to the current reference system, will be applied to all selected blocks.

27.5 Rotate texts command (*Ruotatesti*)

The command enables to rotate a text selected by the user.

Format: *Ruotatesti*
 Select the text(s):
 New rotation angle:
 Number of modified elements:

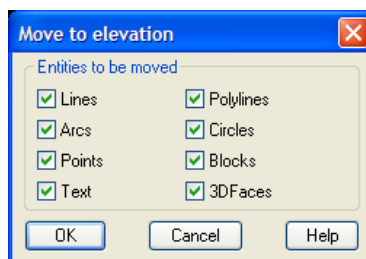
The input rotation, with respect to the current reference system, will be applied to all selected blocks.

27.6 Change Entity Elevation command (*Aquota*)

The command enables to move a selected entity to a new elevation defined by the user.

The command is useful to set entities to elevation '0' (but not only '0'). The desired items can be selected from the **Move to elevation** dialog box.

Format: *Aquota*
 Select the entities to be moved:
 Select objects:



After the entities have been selected, the program will ask to set the new elevation to which such entities have to be moved (by default, '0'):

Elevation <0.0>:



3D polylines are automatically turned into 2D polylines, with all vertices at the same elevation. These entities can thus be handled with commands like Offset, which are not working with 3D polylines.

27.7 Explode Text/Block attributes (*cdtxtexp*)

The command needs the selection of blocks or texts and draws texts or attributes by 2D polylines.

Format: *cdtxtexp*
Select blocks or texts...

The procedure starts a sequence of Autodesk commands that transform texts into the WMF format and try to create a representation as polyline of the text itself. It is recommended to use the command on a single object, executing a near zoom, to obtain a precise result.

The command is essential during the phase of creation the road signals in BIM style when the signal texts must be transformed in 3D objects. The command is also useful to create a mesh starting from a generic text.

27.8 Select layer (*cdslay*)

The command allows to select one or more layers by selecting a unique object contained by the same layer (layers).

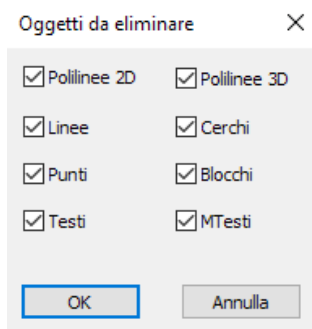
Format: *cdslay*
Select an element of the wished layer (ENTER to exit) ...

27.9 Perimeter entity (*periment*)

The command allows to delete all the objects of a type external to a closed polyline.

Format: *periment*
Select a closed 2D polyline...

After the polyline selection you can see the following dialog:



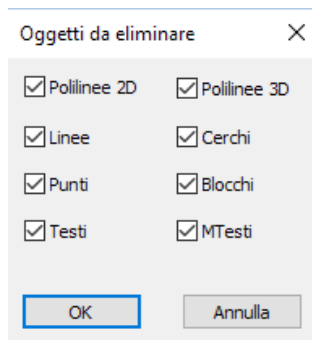
Select the object types to delete and click on OK: the command will request the selection of the objects to delete extern to the polyline. Every object will be deleted only if its baricenter is extern to the polyline.

27.10 Hole entity (*foroent*)

The command allows to delete all the objects of a certain type with position inside to a closed polyline.

Formato: *periment*
Select a closed 2d polyline ...

After the polyline selection you can see the following dialog:



Select the object types to delete and click on OK: the command will request the selection of the objects to delete inside the polyline. Every object will be deleted only if its baricenter is inside the polyline.

27.11 Georeference menu

In this submenu we find the same commands seen in the Handel Raster Menu (chapter 7): see those description. But in this menu you can find another command:

- Georeference with 3D rotation + translation.

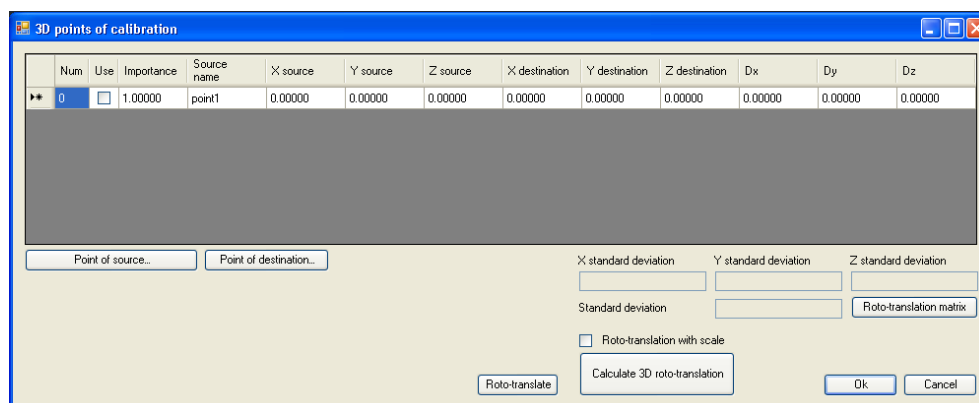
This command differs from the others because the rototranslation matrix can be applied to every entity, not only to the images.

27.11.1 Georeference with 3D rototranslation command

The command allows calculation of the optimal rototranslation matrix, with rigid movement, using calibration 3D points and its application to a CAD entity

Format: Pcalib3d
 Select objects

If calibration 3D points already exist, clicking on Enter you can see the following dialog:



With the buttons "Point of source..." and "Point of destination..." you can select from drawing the 3D points, respectively, for source and for destination; after every selection you should check the control Use and so select the next point.

After the point selection you can choose which you want to use with control Use and its weight (importance) in the calculation of the rototranslation matrix.

Now you can calculate the matrix by clicking on the button "Calculate 3D roto-translation" and you will see the standard deviations. Changing the point selection you can find the matrix with the least standard deviation. Moreover you can see the roto-translation matrix clicking on the button Roto-translate.

