

# PROFILE TABLE

## CADD NOTE 11

The purpose of this CADD Note is to provide instructions for generating a table of stations and elevations for a profile. The profile can be either a 2D polyline or a 3D polyline. The assumptions made for each of these polylines is described later. The table can be inserted into the drawing, printed, or saved to a file.

### USING THE PROFILE TABLE COMMAND

Before using this command, the current settings for color and text style should be set as desired. The table will be created using these current settings. To use the profile table command in AutoCAD, use one of the following methods:

MENU: **NRCS\_MO, Tables, Profile Table...**

COMMAND: **proftable**



Follow the steps below:

1. Select the desired polyline.  
For a 2D polyline, the program assumes the x-coordinate represents the station and the y-coordinate represents the elevation times a scale factor (i.e., horizontal scale / vertical scale).  
For a 3D polyline, the program uses the distance along the line as stationing and the z-coordinate as the elevation.
2. The dialog box shown below will appear.

Sta	Elev
1+00	100.0
2+00	98.0
3+00	96.5
4+00	95.5
5+00	92.0
6+00	95.8
7+00	97.2
8+00	98.5
9+00	99.3
10+00	101.2

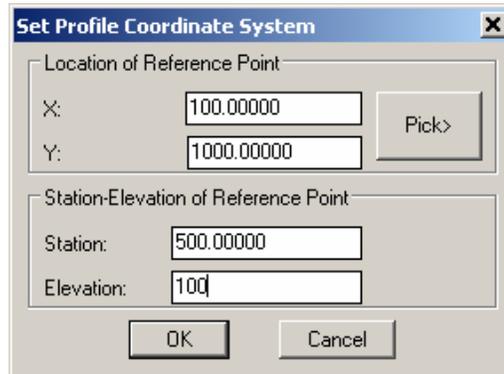
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3. The right side of the dialog box displays the station and elevations of the line selected. If the list is long, you can use the scroll bar to view more of the list.
4. Enter the precision (number of decimals places) for stations and elevations.
5. Enter the horizontal and vertical scales for 2D polylines. Horizontal scale divided by vertical scale is used as the scale (i.e., stretch) factor in computing the correct elevations of the line. Example: If the y-coordinate of an endpoint is 1000 and the scales are set to 100 and 10, the elevation listed would be 100 ( $1000 * [100/10]$ ). The scale values are not used for a 3D polyline.
6. Enter the text sizes for the header (first) row and for the remaining rows. If you need help in determining the correct text size to enter, click on the [ Text size help ] button. This will run the SETTEXT command.
7. Select the desired justification.
8. [ *Coordinate System* ] : Use this button to change the coordinate system for 2D lines. For more details, see the “Coordinate System” section below.
9. *BOP Station*: Enter a value for the beginning station if it is different than that listed. This value only pertains to 3D polylines.
10. Check the box or boxes of the output options desired.  
*Drawing* - Inserts the table into your drawing as a block.  
*File* - Writes the table out to the filename specified at the bottom of the dialog box.  
*Print* - Outputs the table to the port specified in the popup list.
11. If *File* output was chosen, enter a filename or use the *Filename...* button to select an existing file.
12. Check if you want lines (borders) drawn with the table (This only affects the table in the drawing).
13. Select *Apply* .  
If *Drawing* was selected, you will need to place the table by selecting an insertion point. The table will be a block that can be selected as one entity. The insertion point of the table will be the upper left corner of the table and on layer *1.Prof.Tabl* in model space or *2.Prof.Tabl* in paper space.  
If *File* was selected, the table will be written to the entered filename.  
If *Print* was selected, the table will be sent to the printer.

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## COORDINATE SYSTEM

For 2D polylines, this program uses the x coordinate in the current coordinate system as the station value and the y coordinate is used in computing the elevation. If the current coordinate system does not result in the station and elevation values desired, you can use this option to set your own coordinate system. After clicking the [ Coordinate System ] button, the dialog box shown below appears.



The dialog box titled "Set Profile Coordinate System" contains two sections. The first section, "Location of Reference Point", has input fields for X (100.00000) and Y (1000.00000), and a "Pick>" button. The second section, "Station-Elevation of Reference Point", has input fields for Station (500.00000) and Elevation (100). At the bottom are "OK" and "Cancel" buttons.

You can either enter the x and y values for a reference point or select "Pick>" and select a point from the drawing. Once you have set a reference point, you then enter the corresponding station and elevation of that reference point. Click OK to return to the List Profile window.

## SAMPLE TABLE

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Shown below is a sample table that would be generated in the drawing from the settings in the dialog box shown above.

STA	ELEV
1+00	100.0
2+00	98.0
3+00	96.5
4+00	95.5
5+00	92.0
6+00	95.8
7+00	97.2
8+00	98.5
9+00	99.3
10+00	101.2

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## TECHNICAL INFORMATION

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### HEADER FILE

For a table inserted into the drawing, the file PROFTBL.HDR can be used to include extra lines at the top of the table, to specify different column headings, or to adjust the width and justification of each column.

The format of the file should be a line for each row and comma separated values for each column. To include a comma as text, use double quotes (") to surround the desired text including the comma (e.g., "Smith, John"). The number of columns should be 2 to match what the program expects (i.e., Station, Elevation). If a row has anything different than 2 columns, you will get an error message.

Lines beginning with a semicolon are considered comments.

To specify different alignments for each column, enter the line

JUSTIFY=L,C

at the beginning of the file (where L=left, C=center, R=right ). This will override anything entered in the dialog box. Justification for individual cells can also be specified. Do this by entering [L], [C], or [R] as the first part of the text (e.g., [C]Apples,red,[R]juicy).

To specify different column widths, enter the line

WIDTH=0,10

at the beginning of the file. The values denote number of characters. 0 indicates that width should be computed.

The top gridline for a cell can be omitted by entering [-] as the first part of the text (e.g., [-]No top line). To combine justification with this option, specify the letter first (e.g., [C-] ).