Ferrovia
by CGS Labs

Calculate Thickness

Tutorial

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Calculate Thickness

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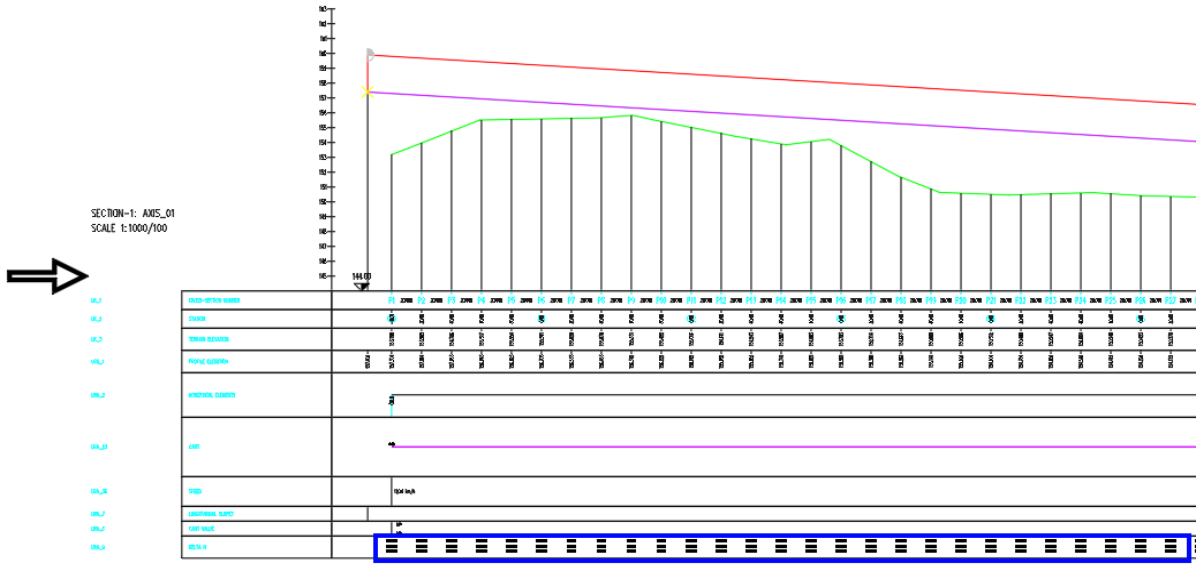
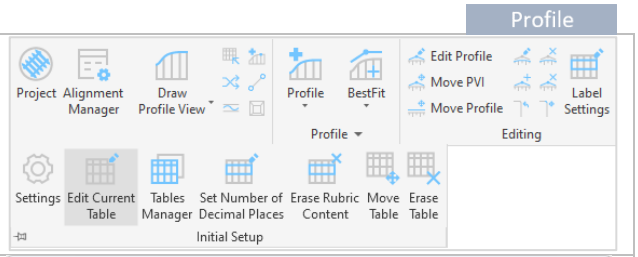
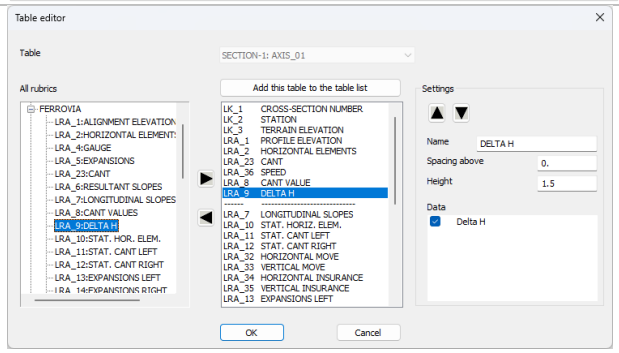
Introduction

The "Calculate Thickness" command is designed to calculate the elevation differences between the terrain and the railway centerline, as well as between the terrain and the left and right rail. The program gets terrain data from the current drawing file (.dwg) or from a CRO file. The data used for the thickness calculation is extracted from the longitudinal section design, which includes parameters such as profile, cant, and gauge.

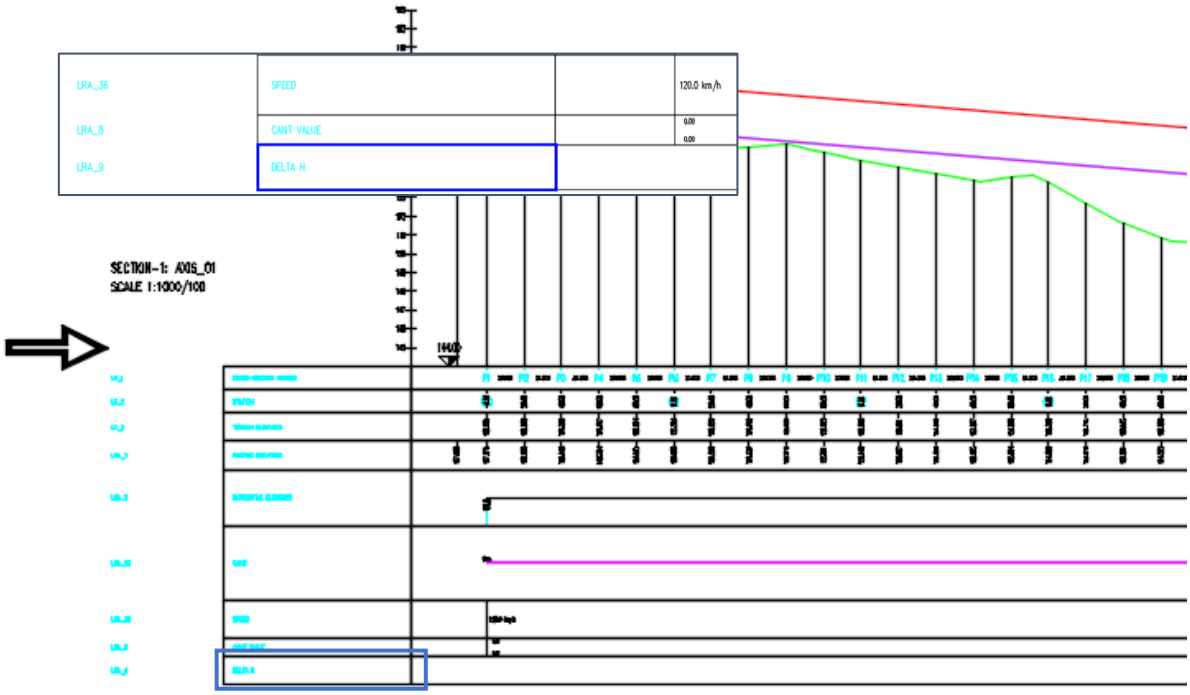


Insert 'Delta H' Rubric in Profile View Table

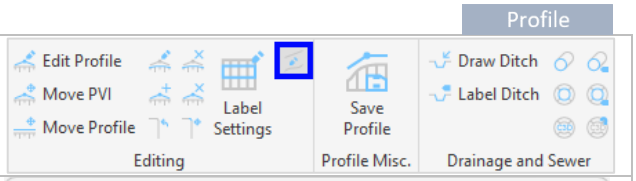
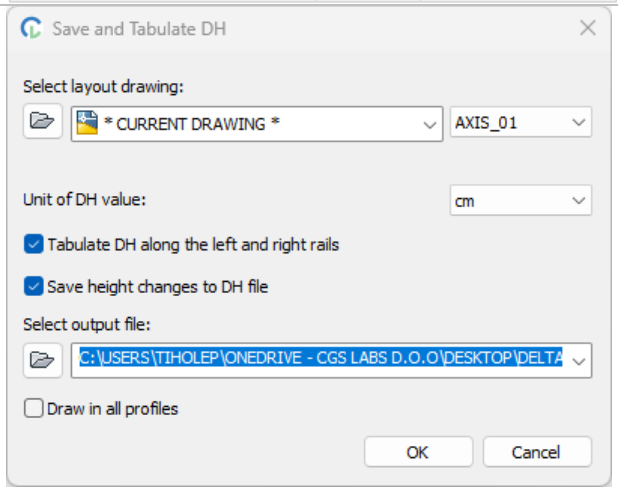
If your current table does not have a rubric (row) for the Delta H value, you need to add it first.

1. Run the "Edit Current Table (32C3)" command.	
2. On the left side, open the Ferrovia tab and find the 'Delta H' row. Click on this row, then click the arrow pointing to the right to insert the row into the current table. Afterward, use the up/down arrows to move the row to the desired position in the table. 3. Confirm parameters by clicking the OK button.	

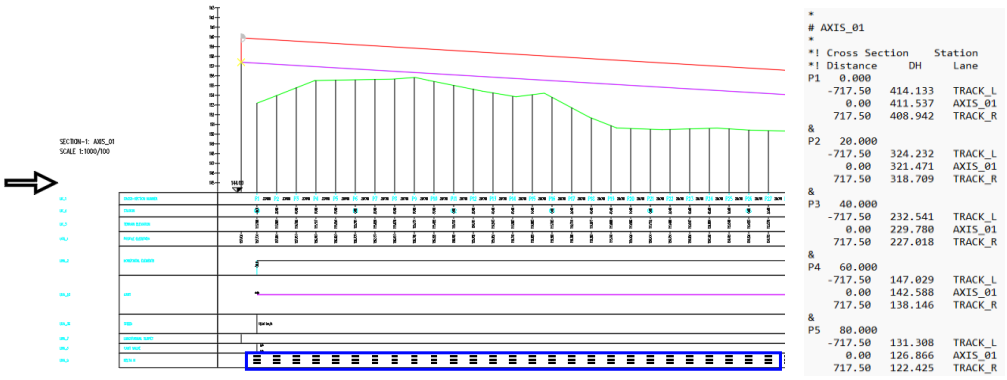
The new row has been inserted into the longitudinal profile table:



Calculate Thickness

1. Run the "Calculate Thickness (32GA)" command.	
2. At the top of the dialogue box, you have the option to select the drawing containing the layout. - Then select the unit from the drop-down menu. This is the unit in which the DH value will be tabulated in the longitudinal profile field and in the 'HD' output file. - Check the option “Tabulate DH along the left and right rails” if you want to enable the calculation and tabulation of the elevation difference between the terrain and the left and right rails. Without this option, only the elevation difference between the centerline and the terrain line is tabulated. - Check the box for “Save height changes to DH file” if you want to enable the recording of calculated elevation differences in the DH file. In this case, you must also select the output file. 3. After you define all parameters click OK.	

Values are automatically created and inserted into the profile view. If you have also specified an output file, it will be saved to the location you specified, and you can open it with Notepad.



```
*
# AXIS_01
*
*! Cross Section     Station
*! Distance      DH      Lane
P1    0.000
    -717.50   414.133   TRACK_L
       0.00   411.537   AXIS_01
     717.50   408.942   TRACK_R
&
P2   20.000
    -717.50   324.232   TRACK_L
       0.00   321.471   AXIS_01
     717.50   318.709   TRACK_R
&
P3   40.000
    -717.50   232.541   TRACK_L
       0.00   229.780   AXIS_01
     717.50   227.018   TRACK_R
&
P4   60.000
    -717.50   147.029   TRACK_L
       0.00   142.588   AXIS_01
     717.50   138.146   TRACK_R
&
P5   80.000
    -717.50   131.308   TRACK_L
       0.00   126.866   AXIS_01
     717.50   122.425   TRACK_R
```