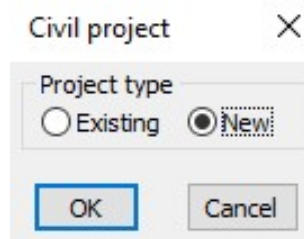


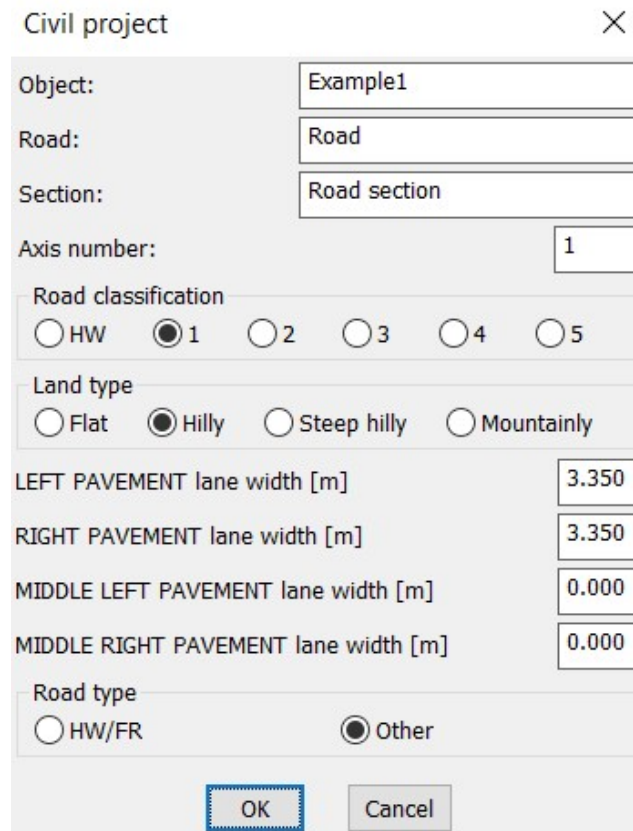
Module CIVIL

1. Loading module – define civil project

creating file **Example1.prc**



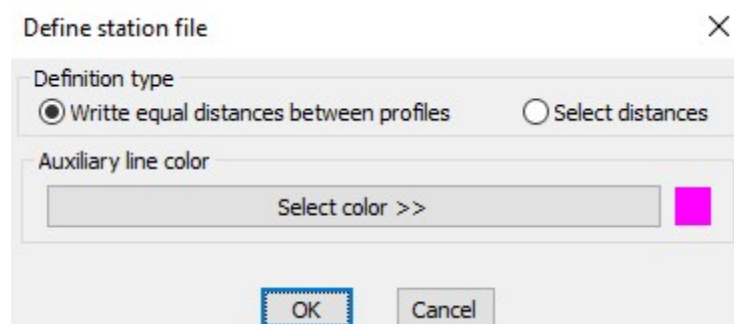
In new project we must first define input dates.



2. Define station file

creating file **Example1.raz**

Defining stations - distances, for cross axis and deck construction cross sections drawing.

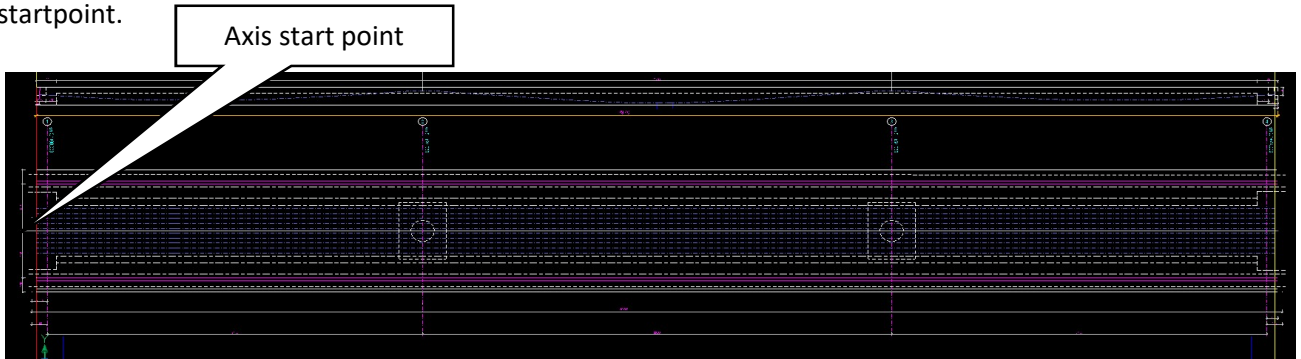


For drawing of 3d model, where in the equal profile (cross axis) appears two different sections, we must define equal stations!

CROSS AXIS

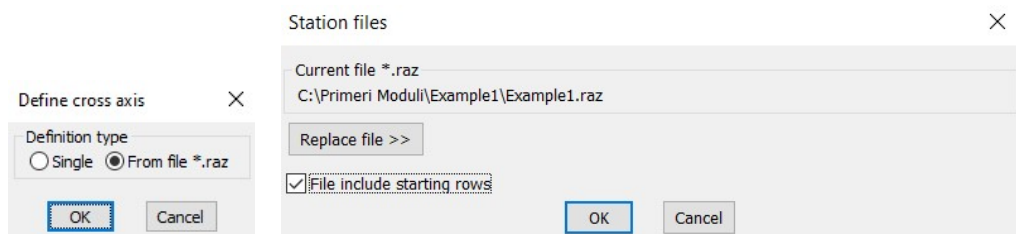
3. Checking axis start point.

We usually extend polyline - axis for 1m in opposite station direction. **Polyline must be drawn in station direction!** For polyline start point check use command in module BASICS -> Ratio -> Pedit -> Select polyline startpoint.



4. Define cross axis file

creating file **Example1.pro**

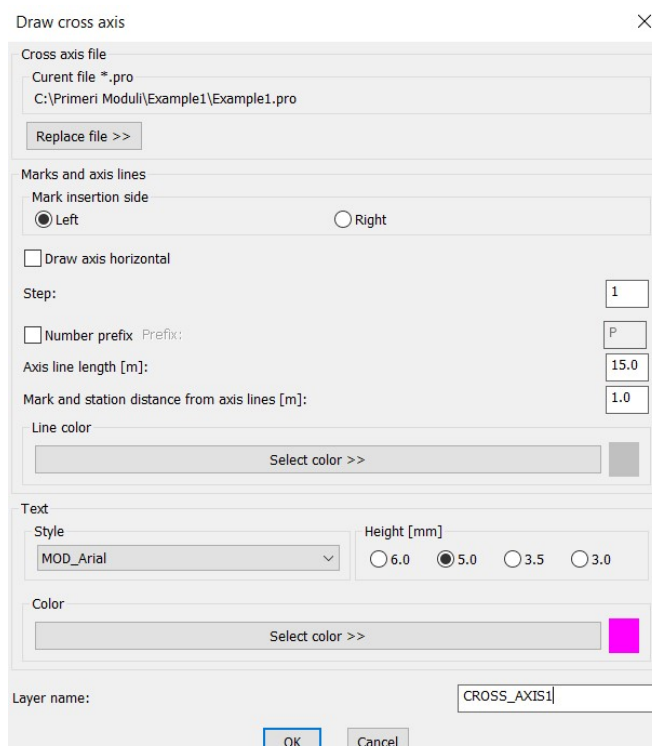


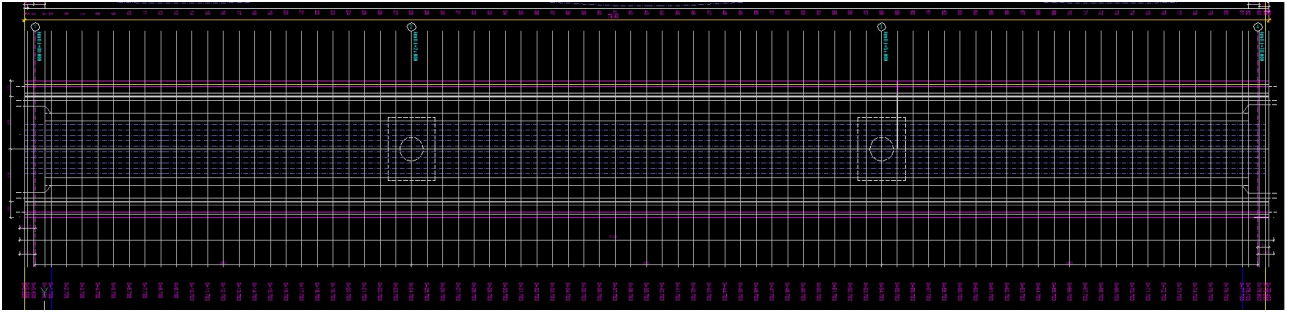
```
Selected station file: C:\Primeri Moduli\Example1\Example1.raz
Select starting side of site plan AXIS on 2D or 3D polyline:
Axis length = 80.400 m.
Station on start of EXTENDED AXIS in m < 0.000 >: -1

Minimum distance to 1. axis must be > 0.10!
Distance to 1. cross axis <1.000>:
1.axis number < 1 >:

Data processing ... finished.
Define NEW file for CROSS SECTION AXIS.
Writing dates to file << C:\Primeri Moduli\Example1\Example1.pro >>. finished
```

5. Draw cross axis

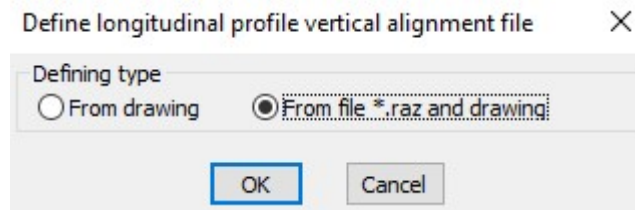




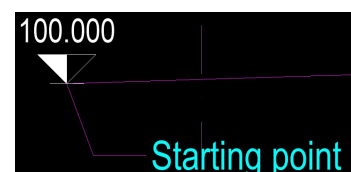
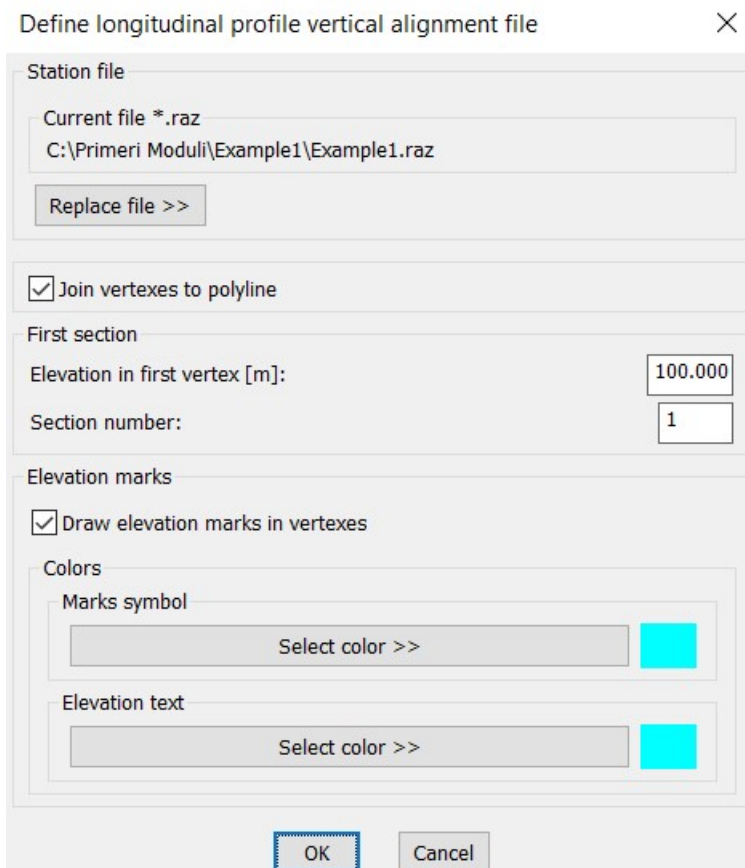
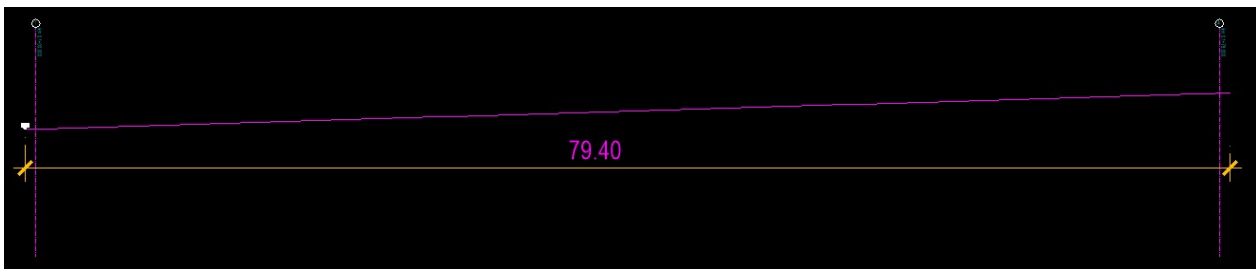
LONGITUDINAL PROFILE

6. Define longitudinal profile vertical alignment file

creating file **Example1.nvp**



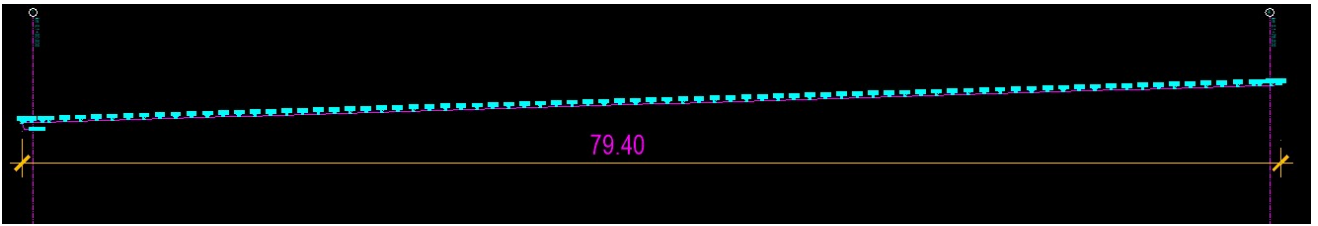
Select polyline – vertical alignment, laying in station area and defined in file Example1.raz. Starting points of all selected polylines in longitudinal profile, must proceed from left to right! Polylines must be without arcs. First replace arcs in polylines in module BASICS with command Ratio -> Change arc/circle to polyline.



```

Selected station file: C:\Primeri Moduli\Example1\Example1.raz
Select 2D or 3D longitudinal profile polyline:
Processing ...
Elevation symbol direction Up/Down <U>:
finished.
Define NEW longitudinal profile vertical alignment file.
Selected longitudinal profile vertical alignment file:C:\Primeri Moduli\Example1\Example1.nvp
Writing dates to file << C:\Primeri Moduli\Example1\Example1.nvp >> ... finished.

```



7. Define screwing file

creating file **Example1.vij**

Define screwing file - first section ✕

Axis number:

Stations

Station on section start [m]

Station on section end [m]

Slopes

On section start

Slope - left roadway side [%]

Slope - right roadway side [%]

On section end

Slope - left roadway side [%]

Slope - right roadway side [%]

Define screwing file on sections ✕

Station on section end [m]

Slopes on section end

Slope - left roadway side [%]

Slope - right roadway side [%]

CROSS SECTIONS -> ROADWAY

8. Define roadway slope file in cross sections

creating file **Example1.psk**

Define roadway slope file ✕

Cross axis file

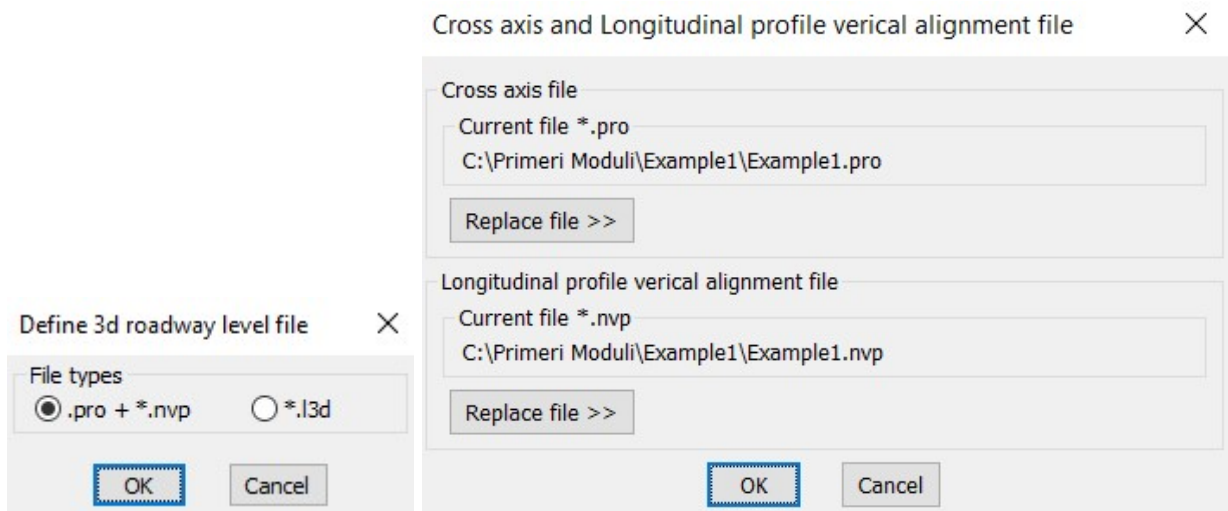
Current file *.pro
C:\Primeri Moduli\Example1\Example1.pro

Cross sections screwing file

Current file *.vij
C:\Primeri Moduli\Example1\Example1.vij

9. Define 3d roadway level file

creating file **Example1.o3d**



```
Selected cross axis file: C:\Primeri Moduli\Example1\Example1.pro
Selected longitudinal profile vertical alignment file:C:\Primeri Moduli\Example1\Example1.nvp
Define NEW 3d roadway level file.
3d roadway level file: C:\Primeri Moduli\Example1\Example1.o3d
Writing dates to file << C:\Primeri Moduli\Example1\Example1.o3d >> ... finished.
```

10. Define roadway and widening file in cross sections

creating file **Example1.voz**

Because the roadway has widening, select in column Widening Variable and after them we select in situation or sketch left and right roadway border.

