

AUTODESK® CIVIL 3D

# Dynamic 3D Computer-aided Design with Autodesk Civil 3D

Training Course for:  
Autodesk® Civil 3D™ 2007



## Lecture 6 – Supplementary Notes Setting Section and Volume by Drawing

August 2006

Autodesk®

## Objective

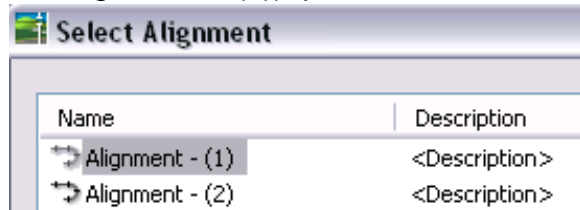
This document describes the steps to create Section and Volume report in Civil 3D.



## Exercise

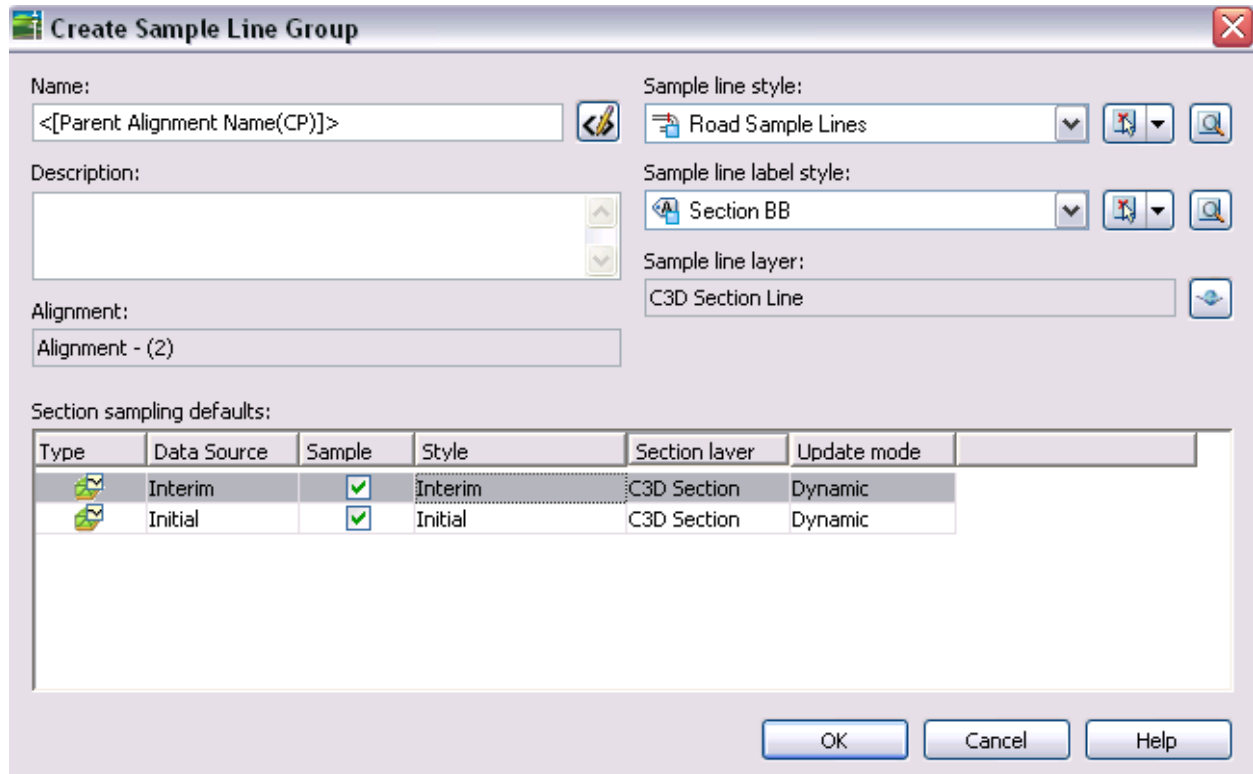
1. Open the 「Lecture6a1.dwg」 drawing
2. In the menu Toolbar, select 「Section」 → 「Create Sample Line」



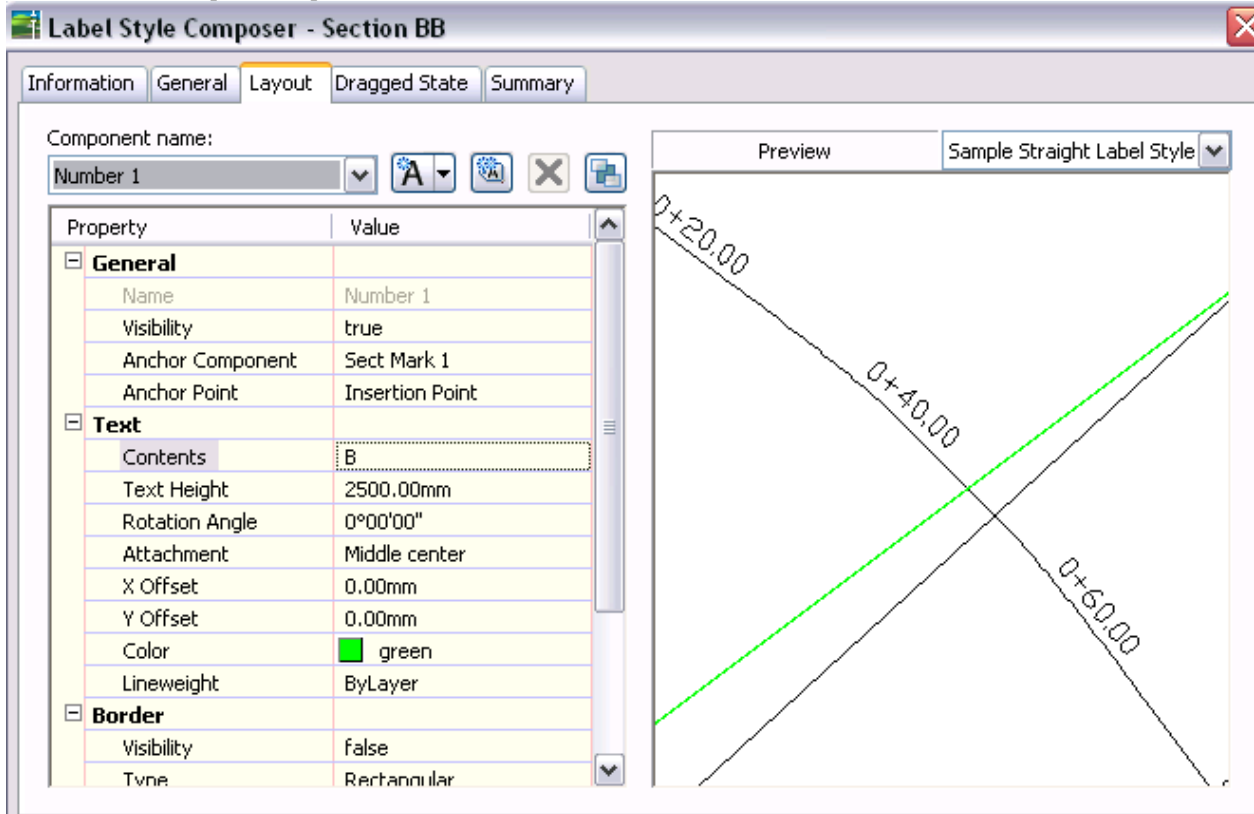
3. Select in the drawing alignment or press 「Enter」 the select alignment(e.g. select Alignment – (2)), press 「ok」




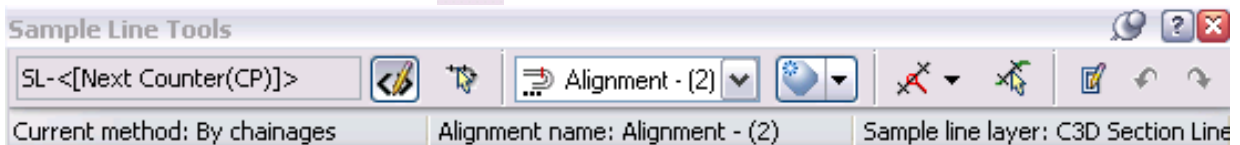
4. In the Create Sample Line dialog box :
  - In the Name type click  icon, insert the alignment name
  - Set the Sample line style [Road Sample Lines]
  - Set the Sample line label style [Section BB]
  - In the label style, click  icon [Edit current selection]



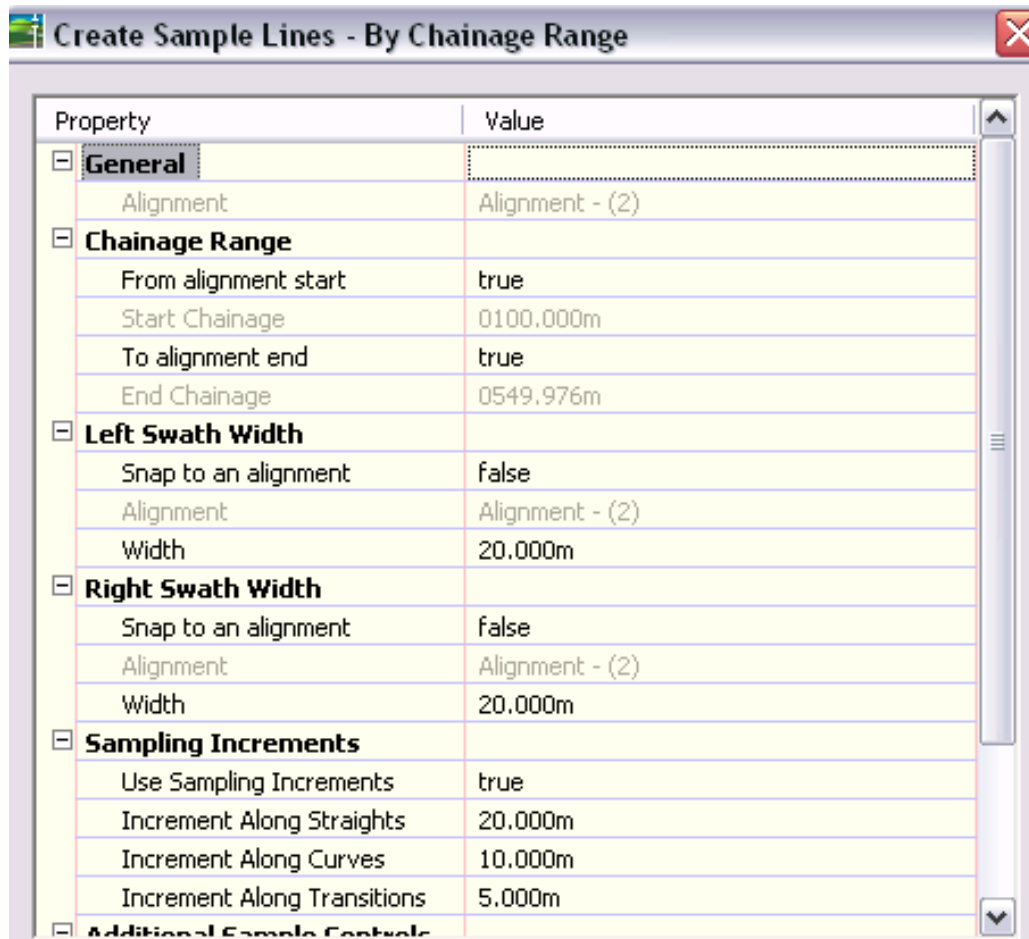
5. In the dialog box :
  - Select layout type
  - You can set the label build up name, text style, layer, color ;
  - And can set the line build up text style, layer, color
  - Press [cancel]



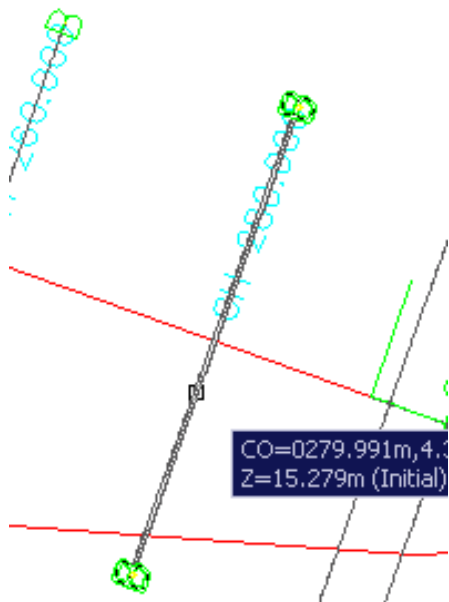
6. In the Create Sample Line dialog box, press [ok]
7. In Sample line toolbar, click  con, select 「By chainage range」



8. In dialog box :
  - Set the left & right swath width 20m
  - Set the straights 20m
  - Set the curves 10m
  - Set the transitions 5m
  - Press [OK]



9. In the toolbar, click  icon, select the section line



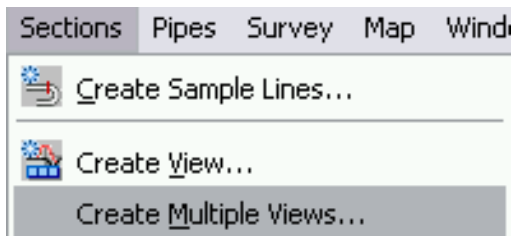
10. In dialog box :

- you can change the section line left or right vertex point, length and chainage
- Close the box

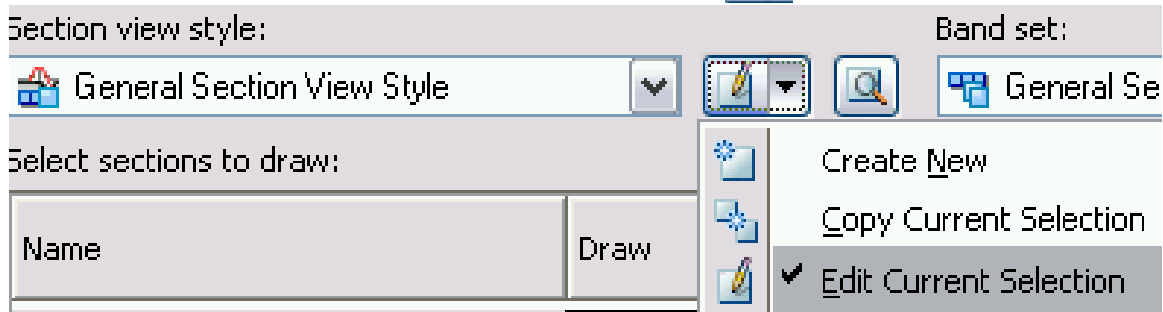
Parameter	Value
<b>Information</b>	
Name	SL-62
<b>General</b>	
Sample Line Vertex Name	Left 1
Sample Line Vertex Northing	832244.488m
Sample Line Vertex Easting	843367.883m
Distance from Start Vertex	20.000m
Offset From Start Vertex	20.000m
Sample Line Segment Length	20.000m
<b>Chainage</b>	
Sample Line Chainage Value	0260.000

11. Close the toolbar

12. In the menu Toolbar, select 「Section」 → 「Create Views」



13. In dialog box, select the 「Section Views style」 icon, [Edit current selection]



14. In the Graph box, can set the title content, graph view size; click off the Clip grid

Information Graph **Horizontal Axes** Vertical Axes Display Summary

**Graph view title**

Text style: Standard Text height: 500.00mm

Title content: <[Section View Chainage(Um|FS|P3|RN|Sn|OF|AP|E

**Title position:**

Location: Top Justification: Center

X offset: 0.00mm Y offset: 200.00mm

Border around the title Gap: 200.00mm

Vertical exaggeration: 1.000

**Grid options**

Clip vertical grid  
 Clip horizontal grid

**Adjust graph view extents:**

Above maximum level: 2  
 Below datum: 2  
 To left: 2  
 To right: 2

15. In the Horizontal Axes box, can set the horizontal title text, Minor & Major size; Vertical Axes can set the vertical, press [cancel]

Information Graph **Horizontal Axes** Vertical Axes Display Summary

**Axis title text**

Select axis: Bottom

Title text: Offset

Location: Center

Text style: Standard

Text height: 500.00mm Rotation: 0°00'00"

X offset: 0.00mm Y offset: -200.00mm

**Major tick details**


Interval: 50.00m Tick size: 200.00mm Text style: Standard Text height: 500.00mm

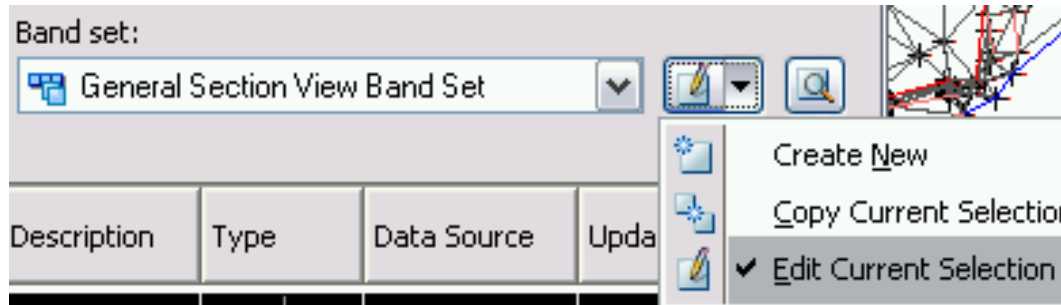
Tick label text: <[Section View Point Of Rotation: 0°00'00" X offset: 0.00mm Y offset: 0.00mm

**Minor tick details**

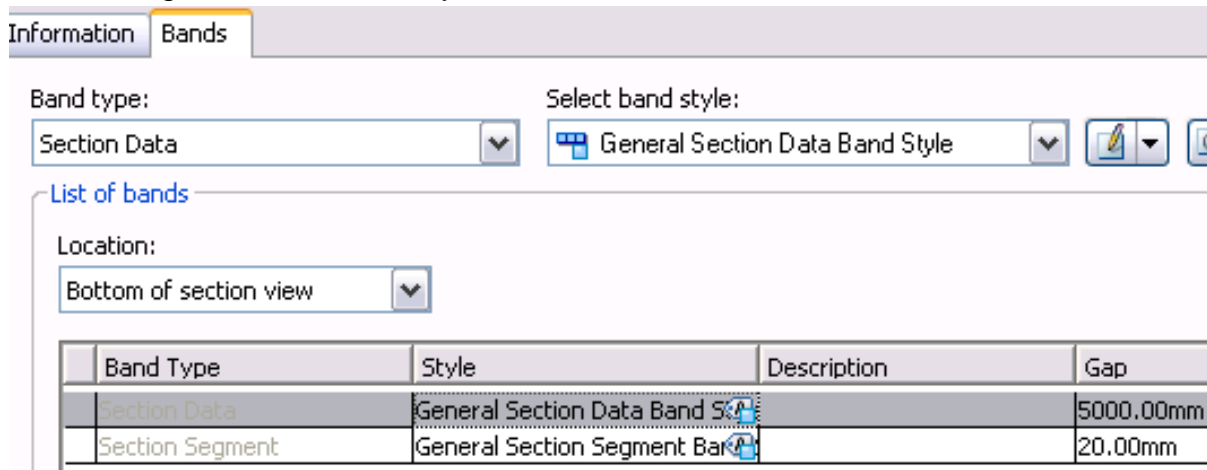
Interval: 10.00m Tick size: 150.00mm Text style: Standard Text height: 300.00mm

Tick label text: Rotation: 0°00'00" X offset: 0.00mm Y offset: 0.00mm

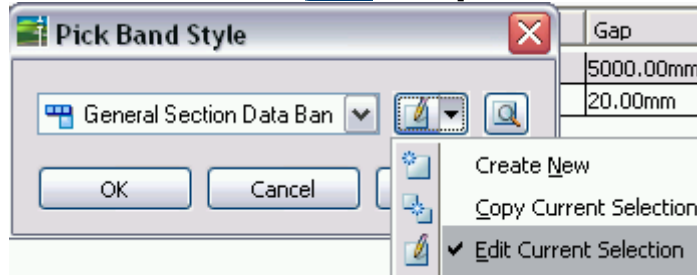
16. In dialog box, select the 「Band set」  icon, [Edit current selection]



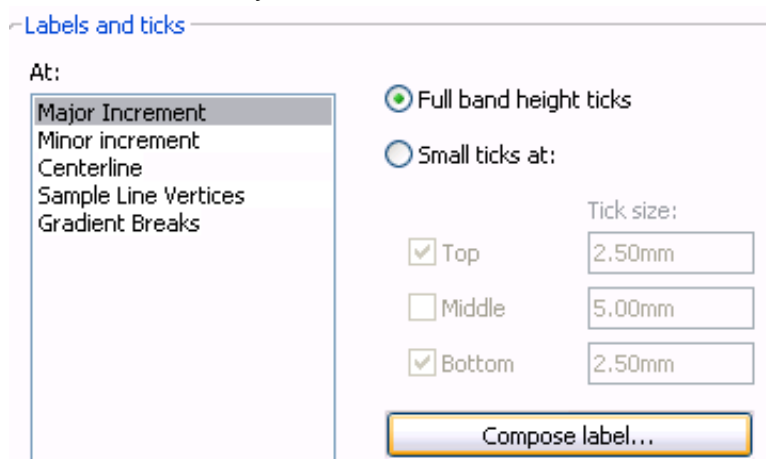
17. In dialog box, Click the 「Style」  icon



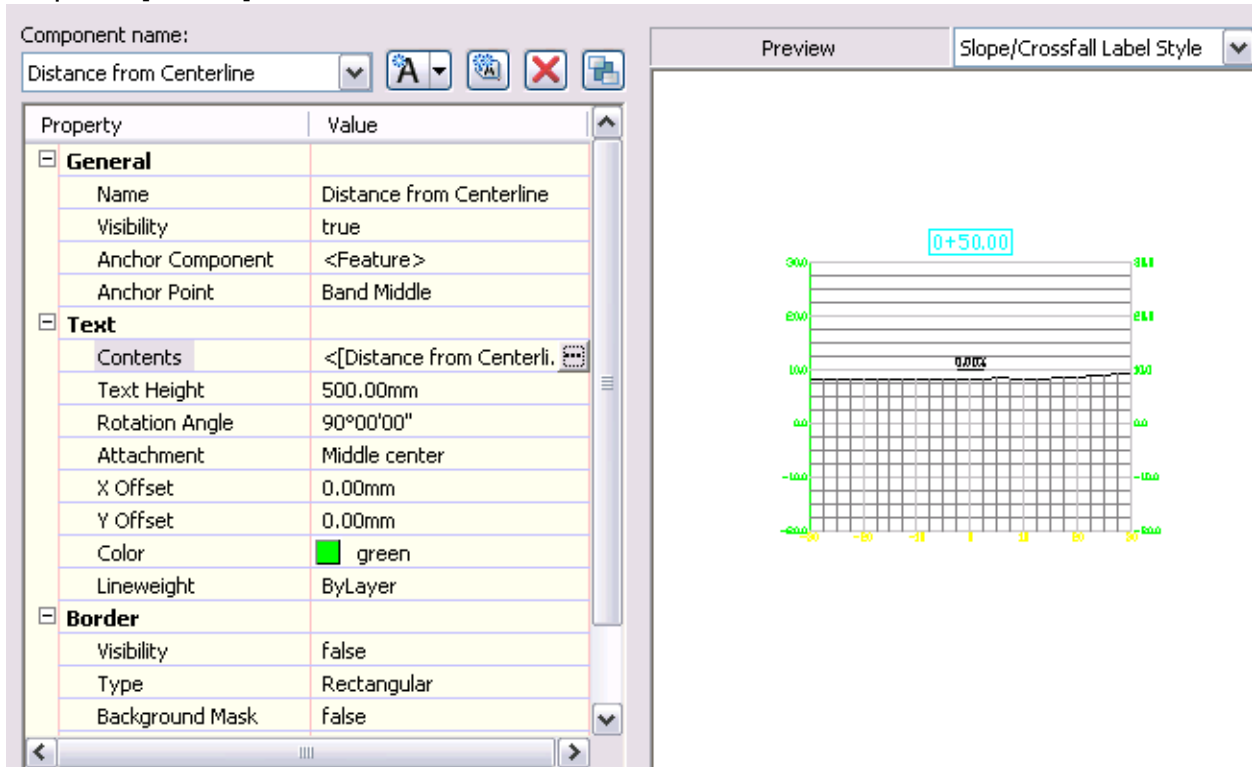
18. In the box, select  icon, [Edit current selection]



19. In the Band style box, select the labels and click 「Compose label」

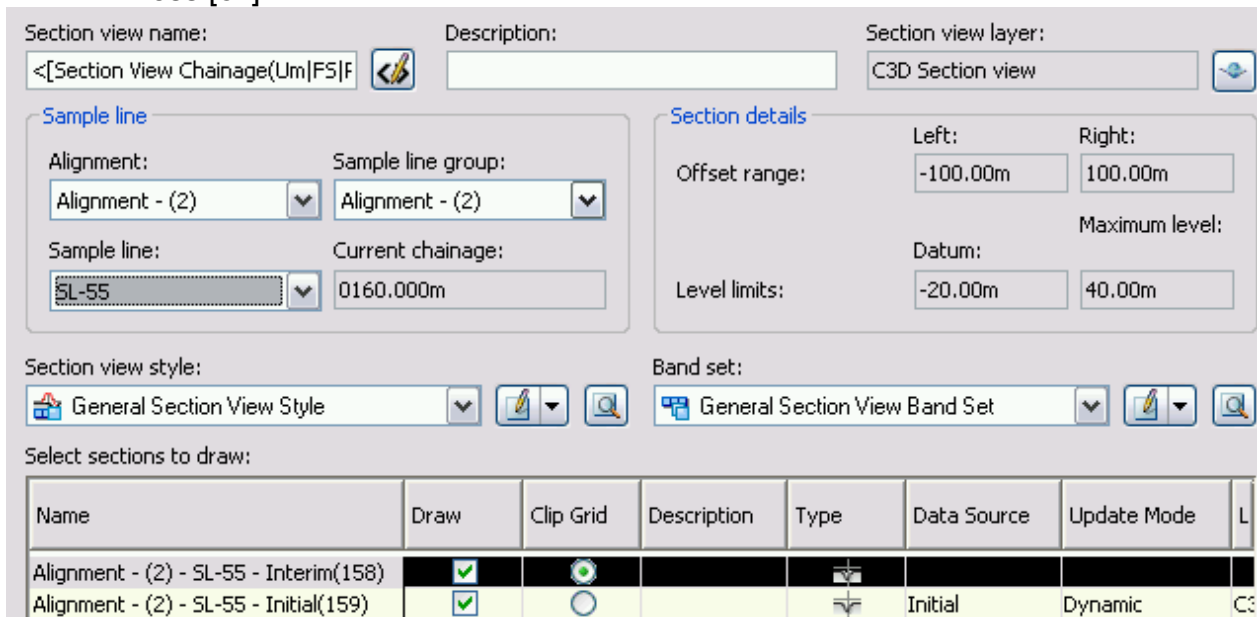


20. In the box, you can build up the view to show(e.g. section level ,section minus etc.), press [cancel]



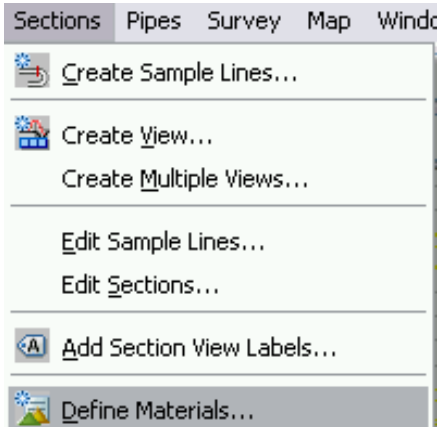
21. In the section view dialog box :

- Select sample line [SL-55]
- Press [ok]

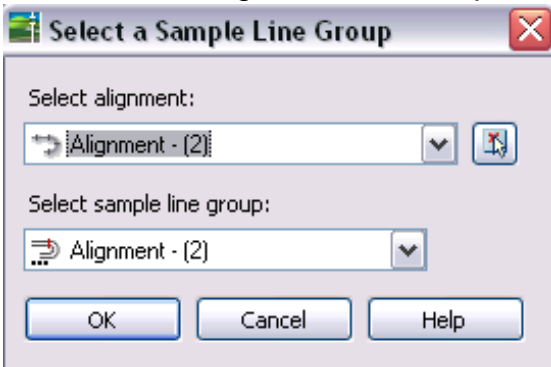


22. Select the drawing space

23. In the menu Toolbar, select 「Section」 → 「Define Materials」

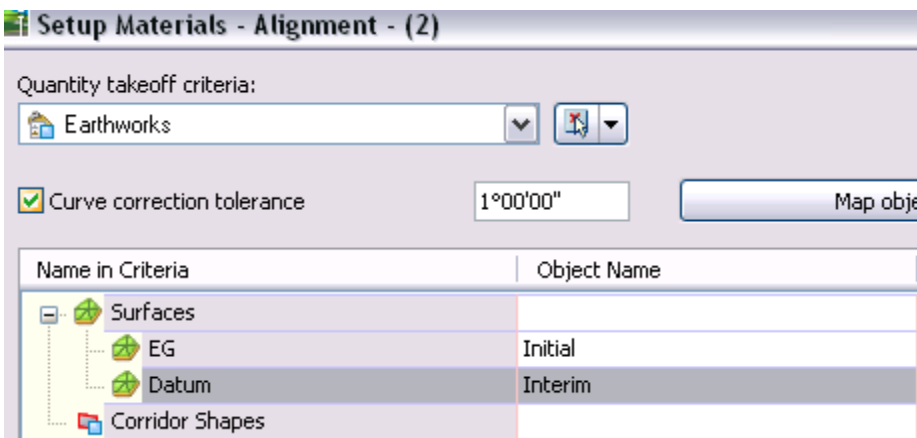


24. Select the alignment and sample line(e.g. Alignment – (2)), press [ok]

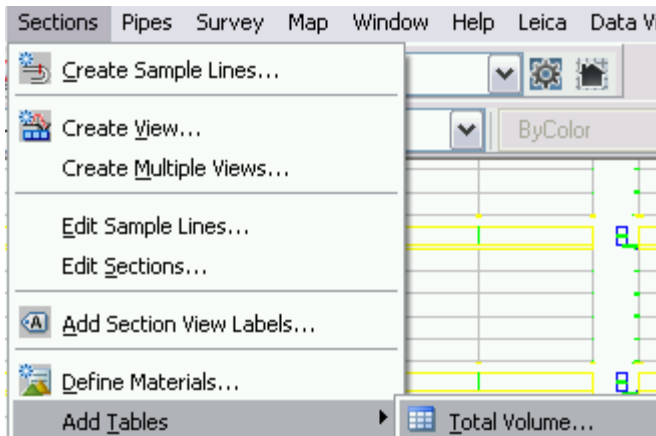


25. In dialog box :

- Select the Quantity takeoff [Earthwork]
- Set the Surface EG [Initial]
- Set the Surface Datum [Interim]
- Press [ok]



26. In the menu Toolbar, select 「Section」 → 「Add Table」 → 「Total Volume」

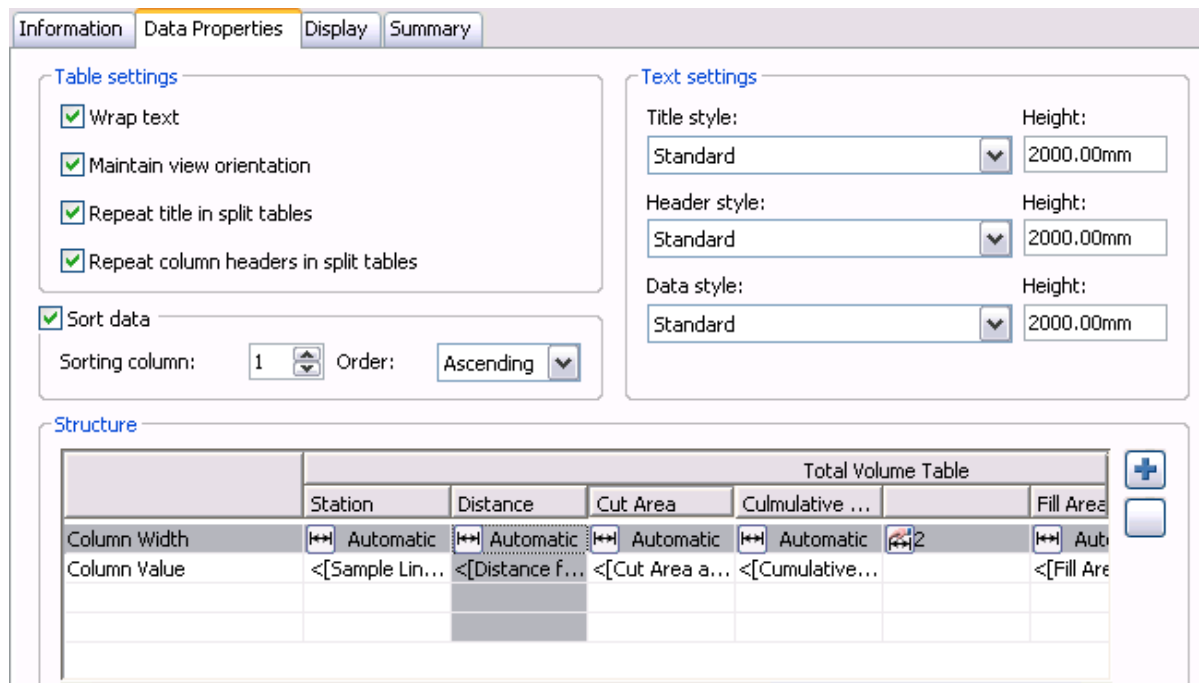


27. Select the table style  icon, [Edit current selection]



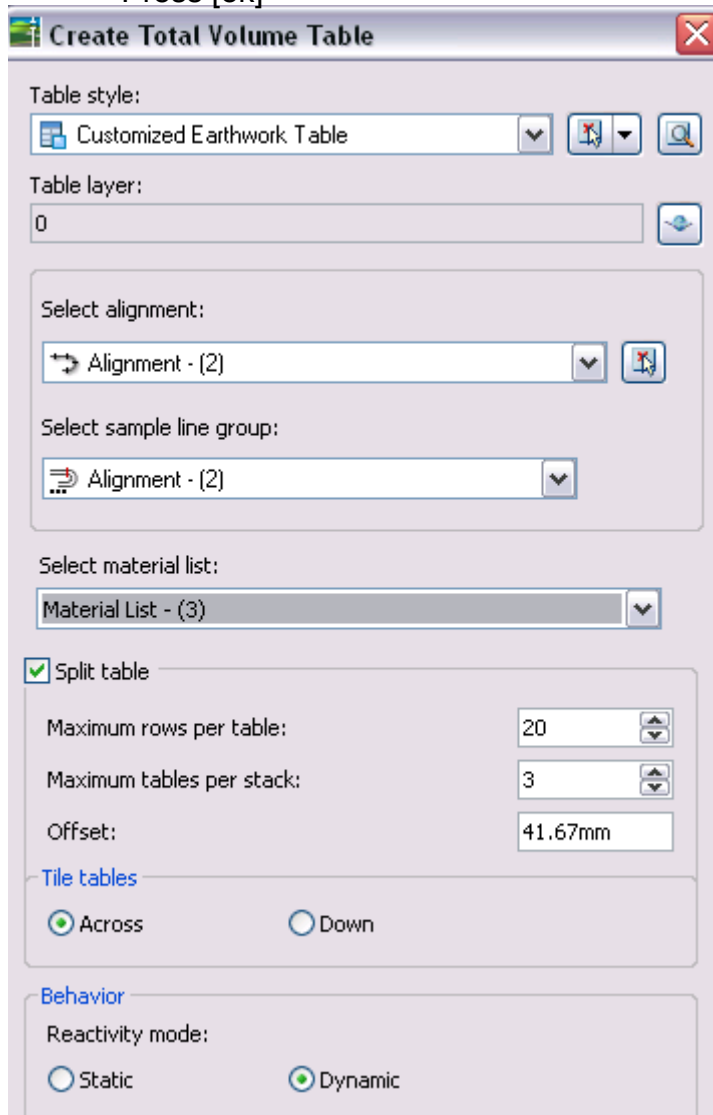
28. In dialog box :

- Can set the text size and table size,
- Can set the cut and fill volume
- Press [cancel]



29. In dialog box :

- Select table style (e.g. Customized Earthwork Table)
- Select alignment (e.g. Alignment – (2))
- Press [ok]



30. Select the drawing space

31. Close the drawing file. Do not save the change