

AUTODESK® CIVIL 3D

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

Training Course for:
Autodesk® Civil 3D™ 2007



Lecture 6 – Supplementary Notes Create Section and Volume report by Drawing

August 2006

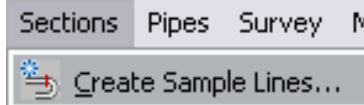
Autodesk®

Objective

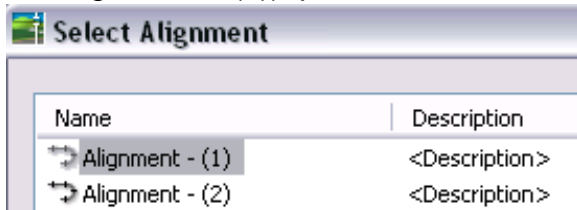
This document describes the steps to create Section and Volume report in Civil 3D.


Exercise

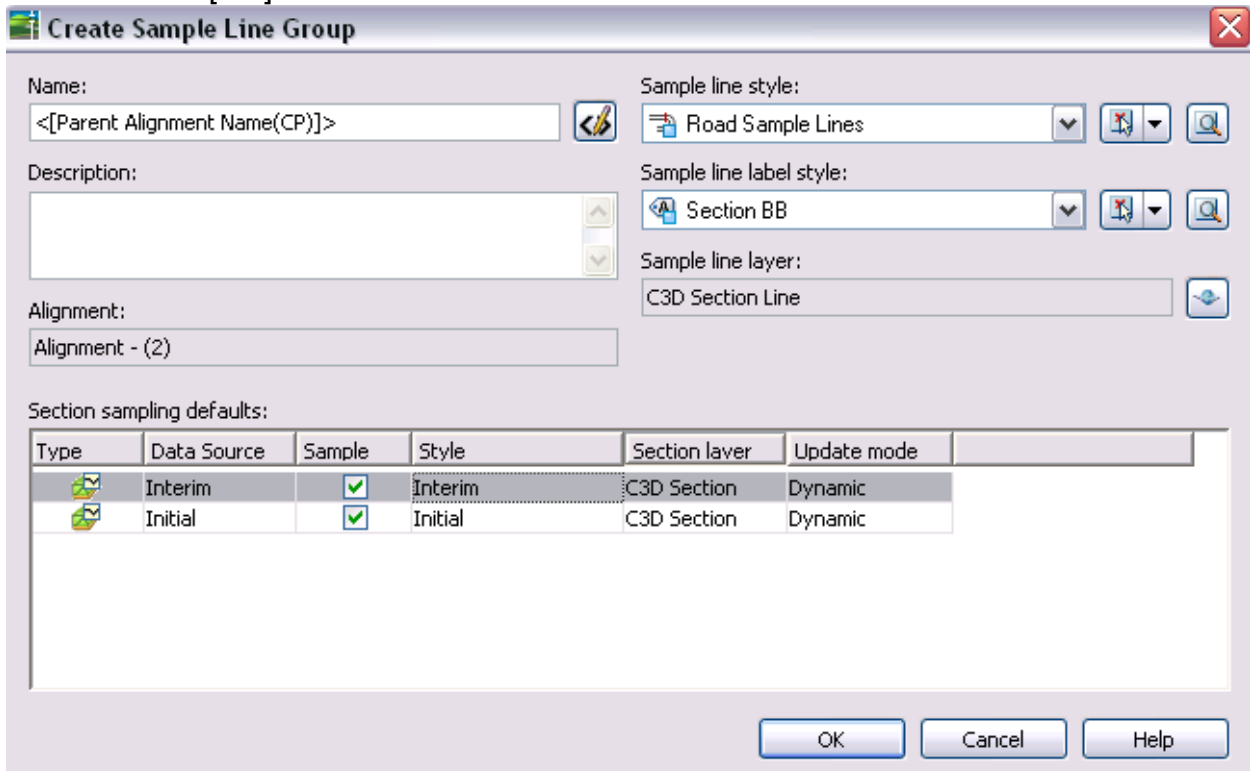
1. Open the 「Lecture6a1.dwg」 drawing
2. In the menu Toolbar, select 「Section」 → 「Create Sample Line」



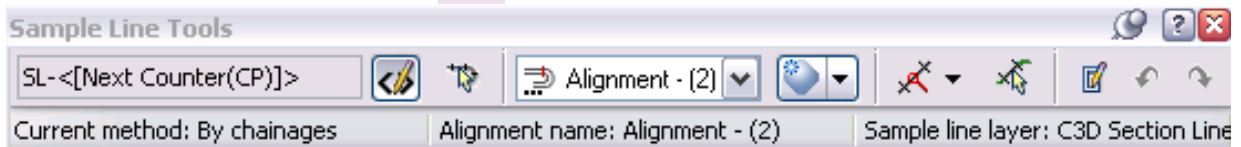
3. Select in the drawing alignment or press 「Enter」 the select alignment(e.g. select Alignment – (2)), press 「ok」



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 Section sampling defaults, set Interim style [Interim]
 - Set Initial style [Initial]
 - Press [OK]

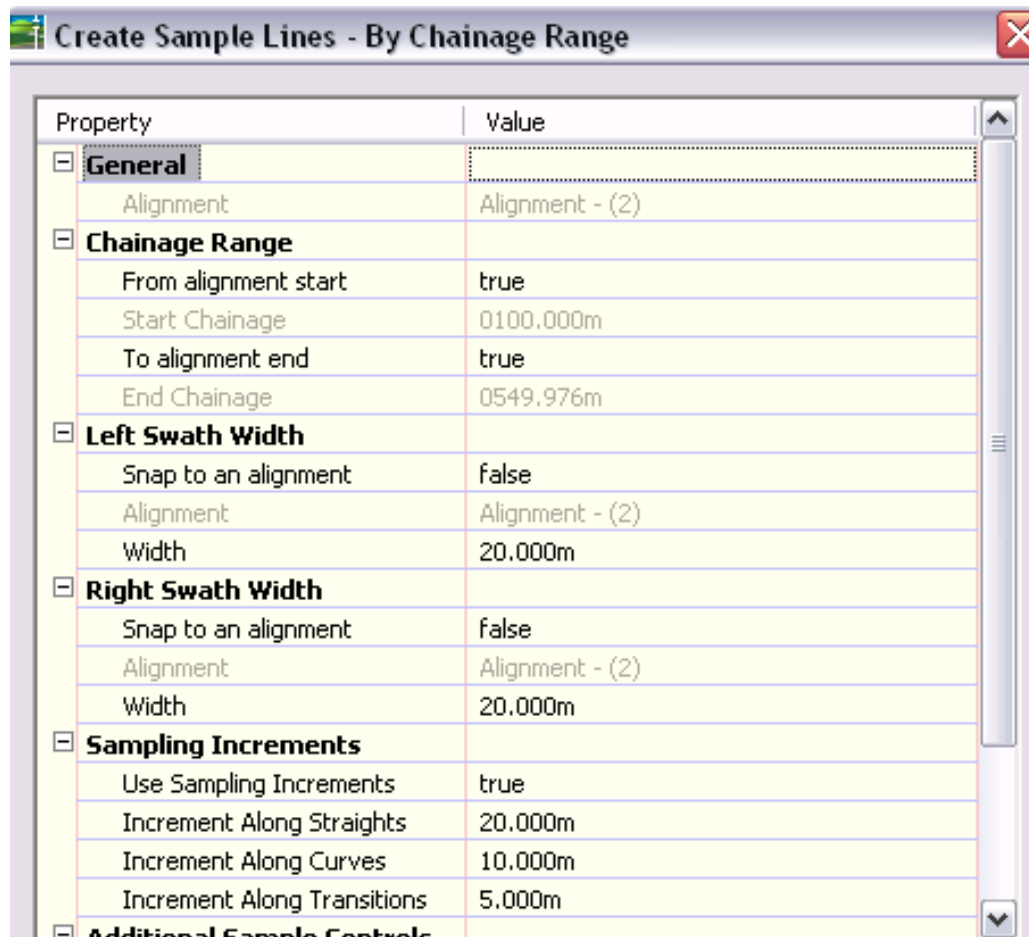


5. In Sample line toolbar, click  con, select 「By chainage range」



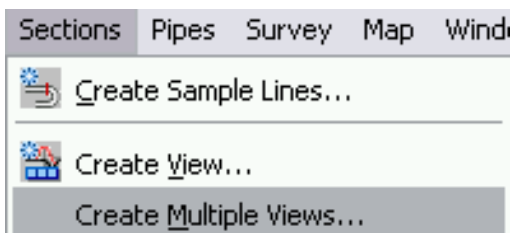
6. In dialog box :

- Set the left & right swath width 20m
- Set the straights 20m
- Set the curves 10m
- Set the transitions 5m
- Press [OK]




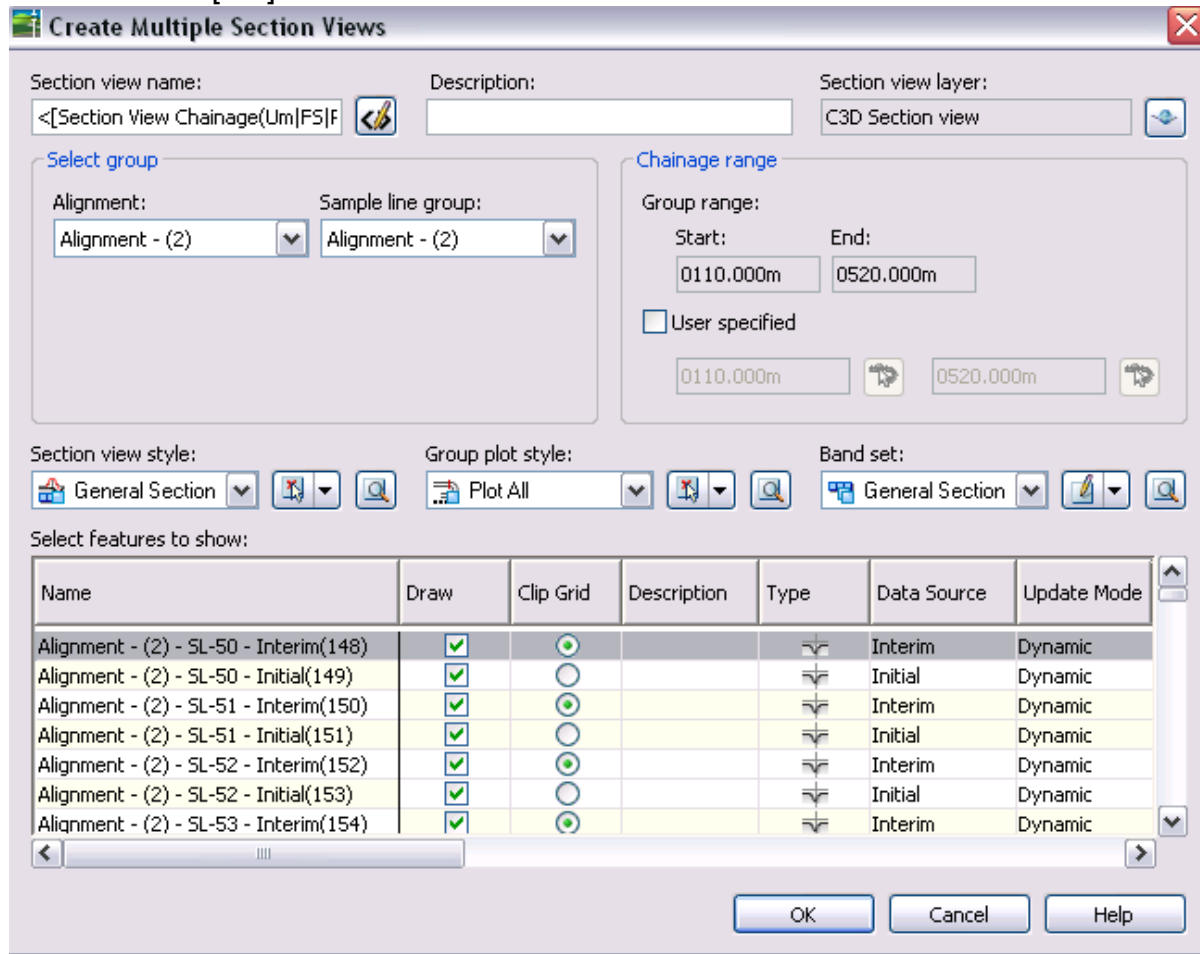
7. Close the toolbar

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



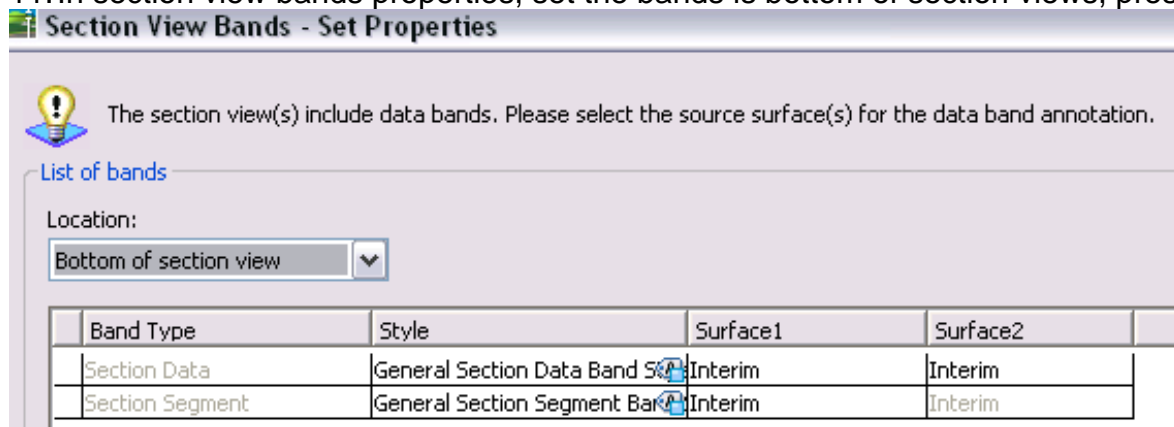
9. In dialog box :

- In the Name type click  icon, insert the Section Views Chainage
- Press [OK]



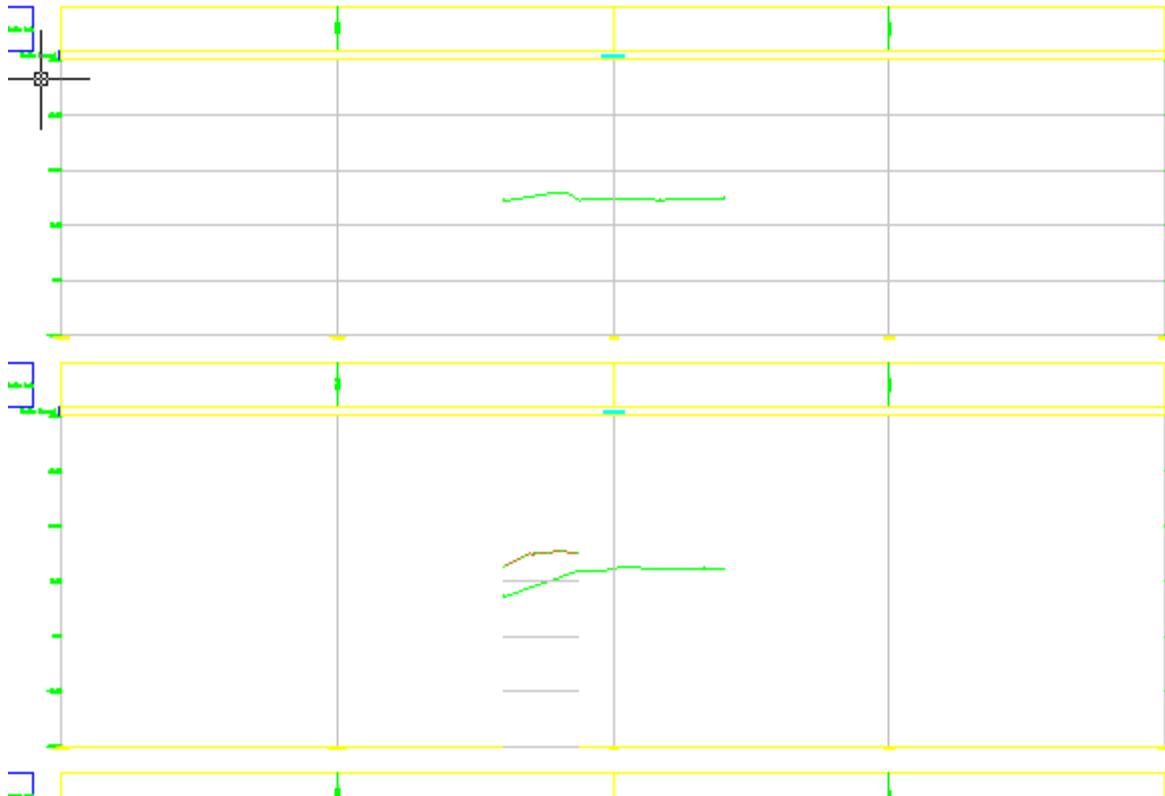
10. Select the drawing space

11. In section view bands properties, set the bands is bottom of section views, press [ok]

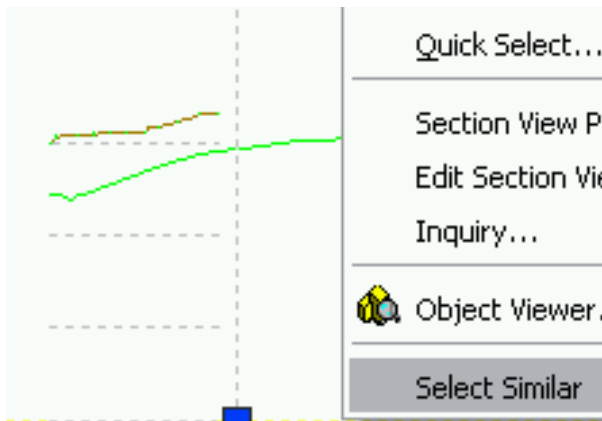


12. Select the drawing space

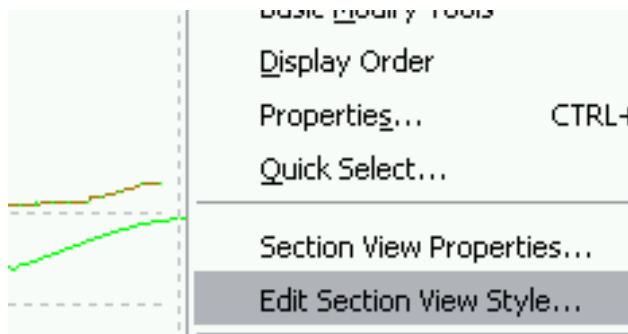
13. In the section views, some views is not full grid line



14. Select the non full grid line view, right click 「 Select Similar 」

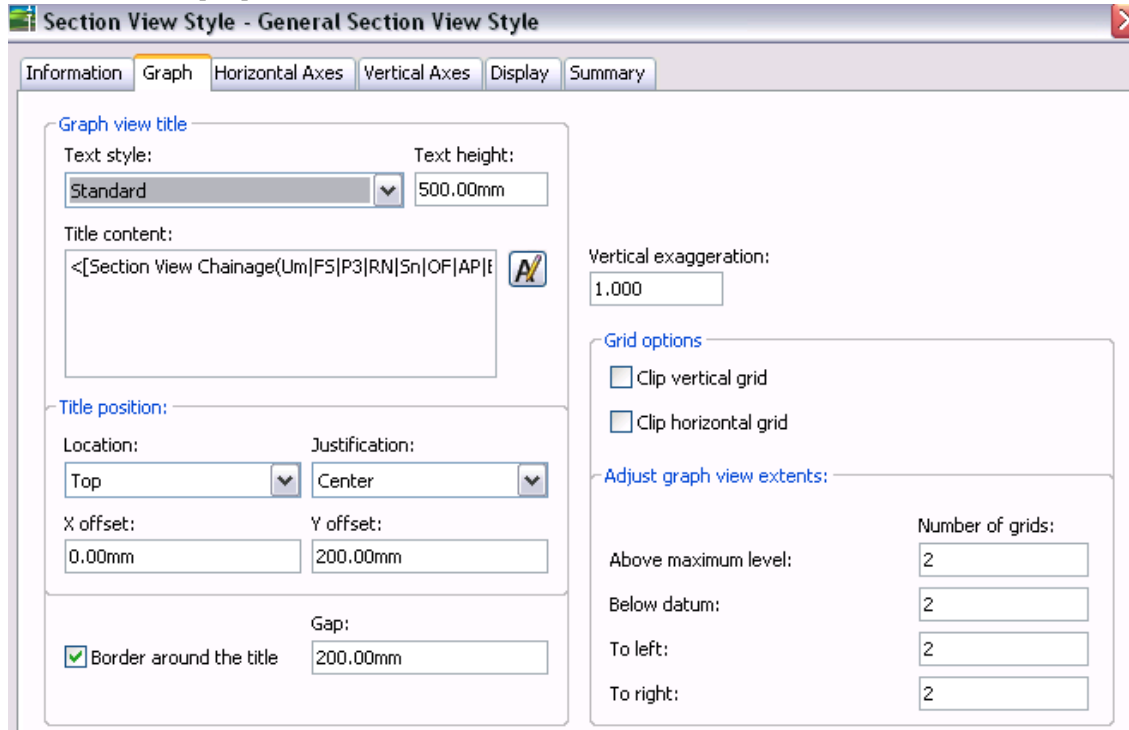


15. Right click 「 Edit Section View Style 」

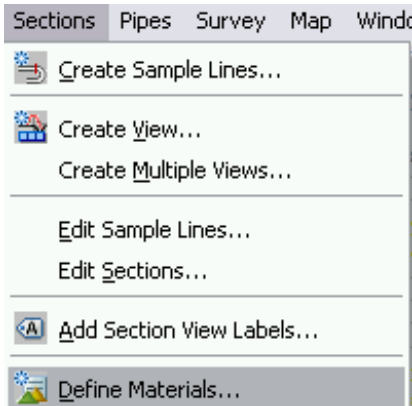


16. In dialog box :

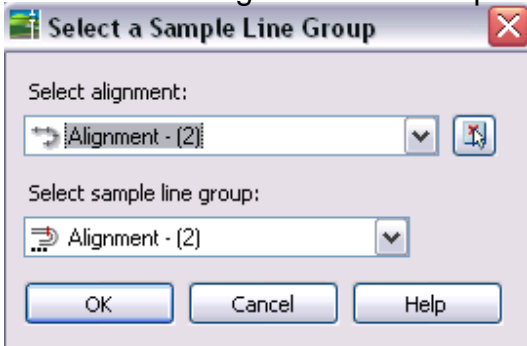
- Select type 「 Graph 」
- Click off the Clip vertical and horizontal grid
- Press[ok]



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

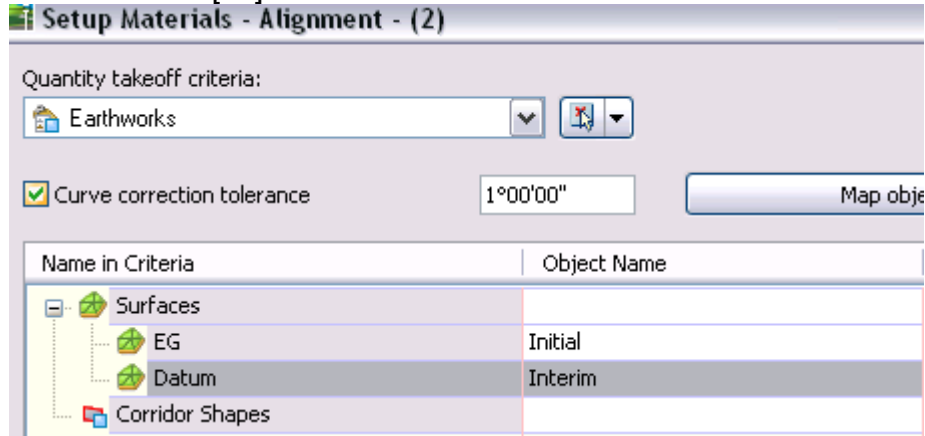


18. Select the alignment and sample line(e.g. Alignment – (2)), press [ok]

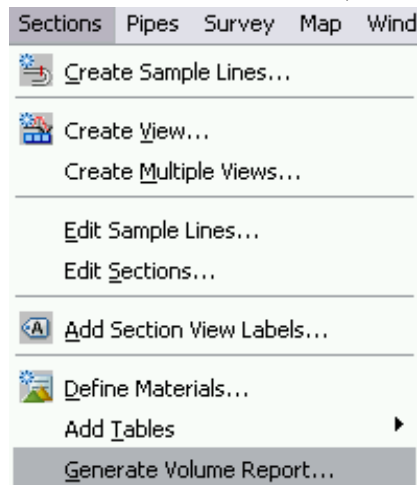


19. In dialog box :

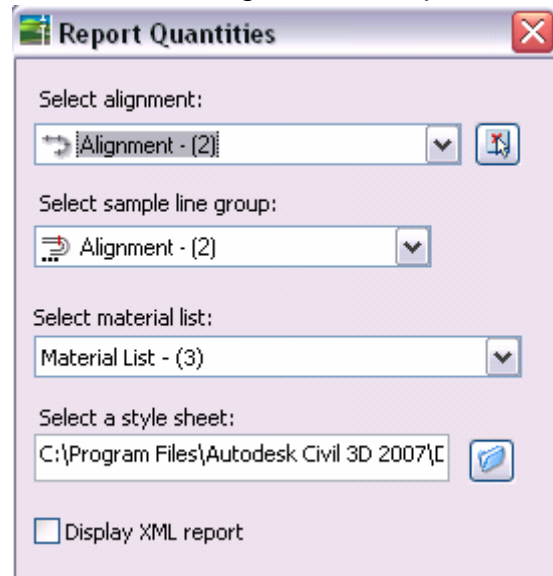
- Select the Quantity takeoff [Earthwork]
- Set the Surface EG [Initial]
- Set the Surface Datum [Interim]
- Press [ok]



20. In the menu Toolbar, select 「Section」 → 「Generate Volume Report」



21. Select the alignment, sample line, click  icon select the 「earthwork.xml」, press [ok]



22. Now is create the volume report

Volume Report

Project: C:\DOCUME~1\tcheung\LOCALS~1\Temp\Lecture6a1_1_1_3771.sv\$

Alignment: Alignment - (2)
 Sample Line Group: Alignment - (2)
 Start Sta: 1+10.000
 End Sta: 5+20.000

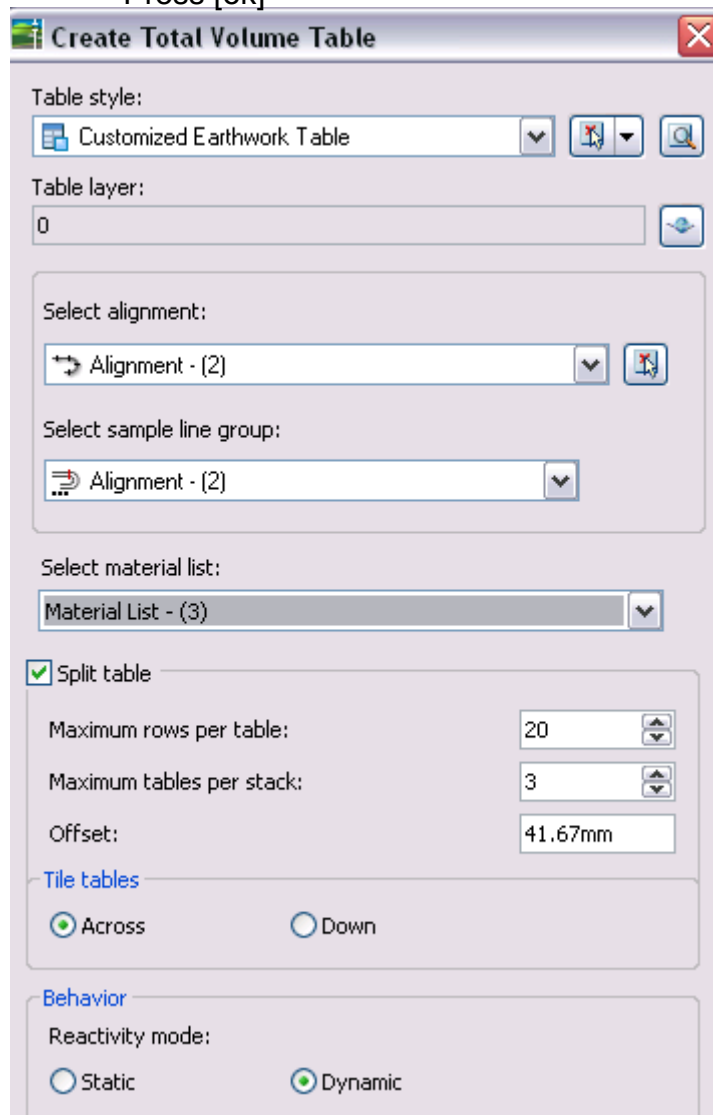
| Station | Cut Area (Sq.m.) | Cut Volume (Cu.m.) | Reusable Volume (Cu.m.) | Fill Area (Sq.m.) | Fill Volume (Cu.m.) | Cum. Cut Vol. (Cu.m.) | Cum. Reusable Vol. (Cu.m.) | Cum. Fill Vol. (Cu.m.) | Cum. Net Vol. (Cu.m.) |
|----------|------------------|--------------------|-------------------------|-------------------|---------------------|-----------------------|----------------------------|------------------------|-----------------------|
| 1+10.000 | 0.00 | 0.00 | 0.00 | 91.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1+20.000 | 0.00 | 0.00 | 0.00 | 108.99 | 1041.66 | 0.00 | 0.00 | 1041.66 | 1041.66 |
| 1+30.000 | 0.00 | 0.00 | 0.00 | 104.49 | 1110.50 | 0.00 | 0.00 | 2152.15 | 2152.15 |
| 1+40.000 | 0.00 | 0.00 | 0.00 | 106.05 | 1093.67 | 0.00 | 0.00 | 3245.82 | 3245.82 |
| 1+50.000 | 0.00 | 0.00 | 0.00 | 96.73 | 1053.49 | 0.00 | 0.00 | 4299.31 | 4299.31 |
| 1+60.000 | 0.00 | 0.00 | 0.00 | 97.60 | 1010.23 | 0.00 | 0.00 | 5309.55 | 5309.55 |

23. Close the report

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

25. In dialog box :

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



26. Select the drawing space

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