

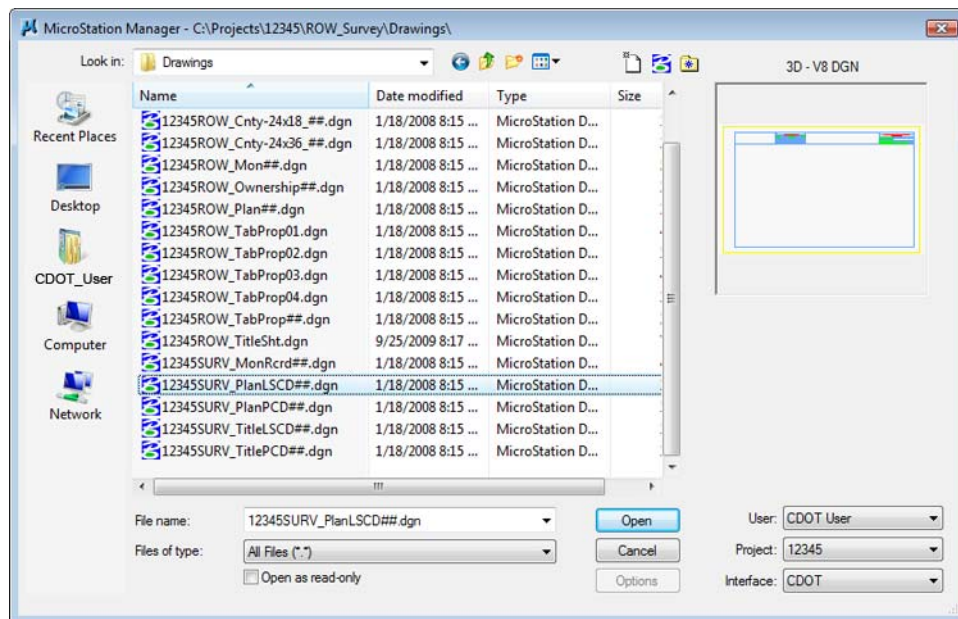
LAB 24 - Land Survey Control Diagram Plan Sheet

Chapter Objectives:

- Import XML data into a MicroStation file

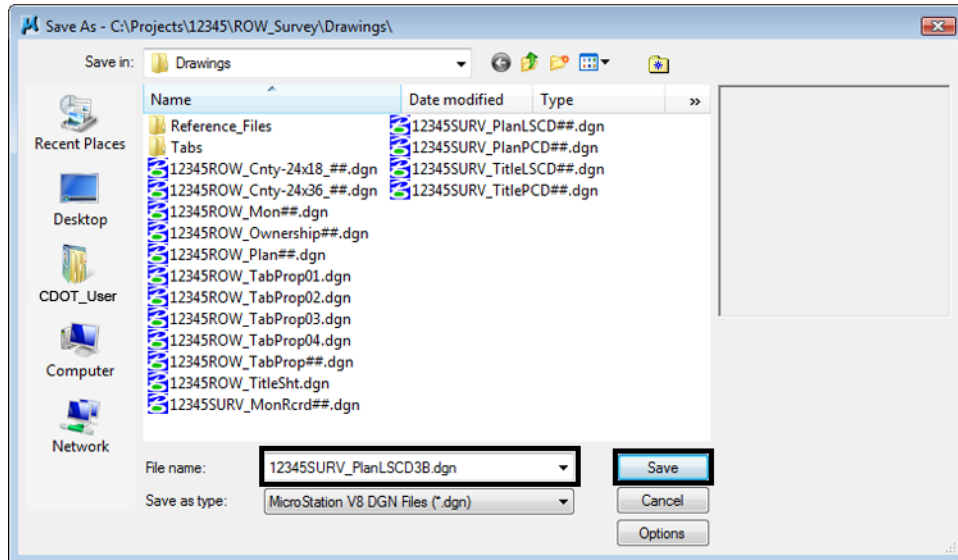
In this sheet, coordinate information will be input in a tabular format.

1. Select **File > Open** (if MicroStation is currently open).



2. <D> the filename *12345SURV_PlanLSCD##.dgn*
3. Select **File > Save As** from the MicroStation Manger dialog.
4. Key-in *12345SURV_PlanLSCD3B.dgn*

5. <D> Save



6. **Zoom/Window** into the upper-right corner of the sheet.

7. **Edit** the text as shown using **Edit Text** command.

Land Survey Control Diagram Plan Sheet			
Project Number: STA 086A-039			
Project Location: SH 86 CORRIDOR PE			
Project Location: COUNTY RD. 25 & 27 & 33			
Project Code:	Last Mod. Date	Subset Sheets	Sheet No.
12345	09-25-09	3 of X.XX	3B

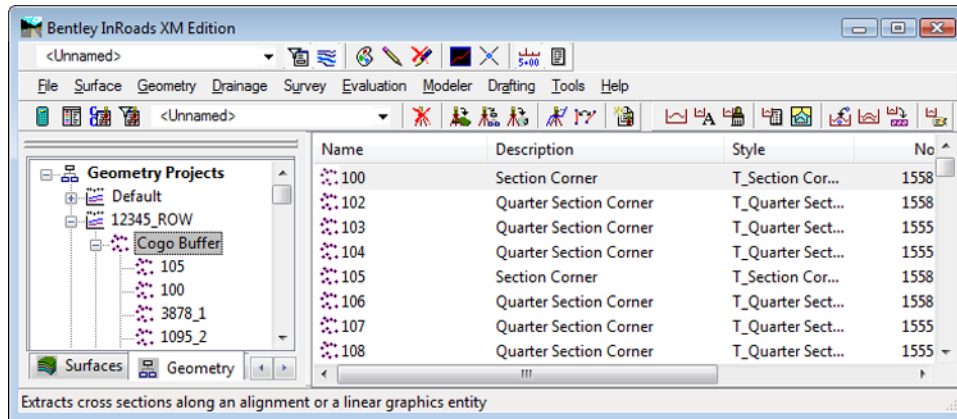
8. Use the MicroStation **Fit** command to view the entire sheet.



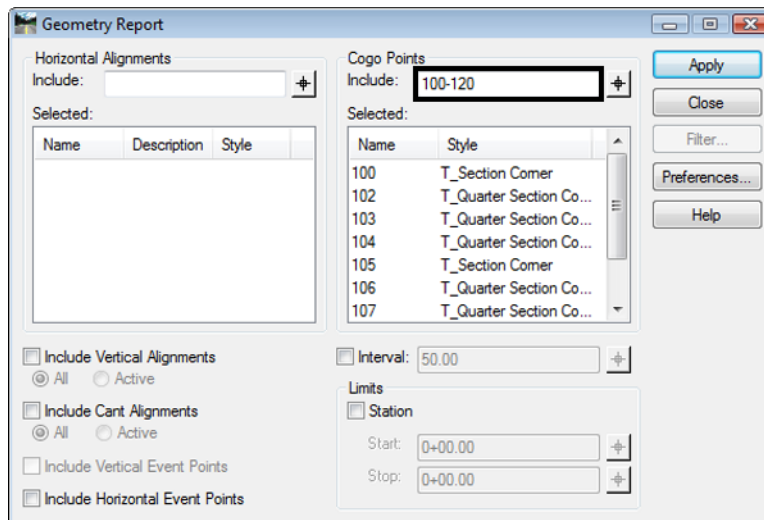
In this sheet, place coordinate information representing a Project Coordinate Summary Table. This coordinate information will be extracted from InRoads using the reporting utility XML.

Using XML to report on Coordinates

Use InRoads and XML reporting to insert a Project Coordinate Summary Table. Report on points 100-120.

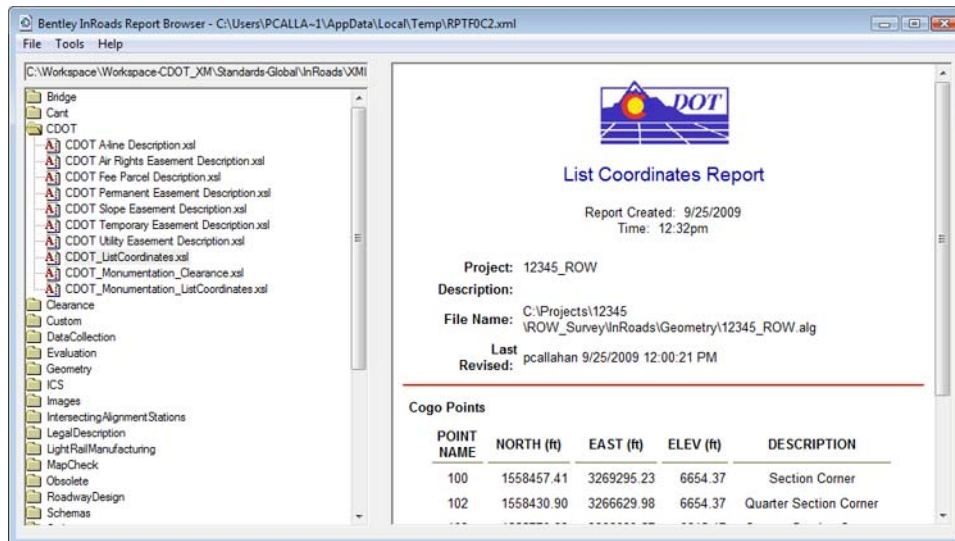


9. If not already running and loaded:
 - **Launch** InRoads & Load the Geometry Project **12345_ROW.alg** from **C:\Projects\12345\ROW_Survey\InRoads\Geometry**
10. Select **Tools > XML Reports > Geometry** from the InRoads interface.
11. In the XML Reports dialog, <D> the Geometry folder and identify Cogo points **100-120**



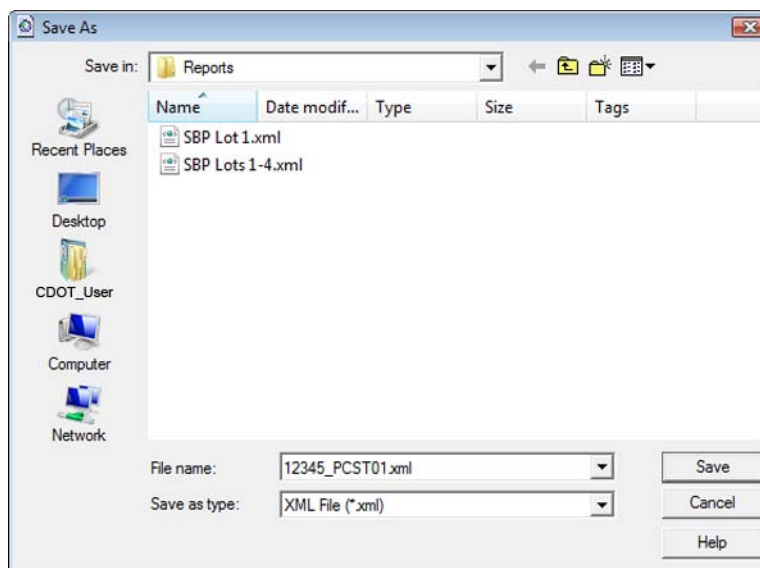
12. <D> **Apply**. The report browser will open to a default report style.
13. <D> the CDOT Folder.

14. <D> the CDOT_ListCoordinates.xml style sheet.



15. Select File > Save As

16. Navigate to the 12345\ROW_Survey\InRoads\Reports folder and input the file name **12345_PCST01.xml**



17. <D> Save to save the file.

Excel in MicroStation

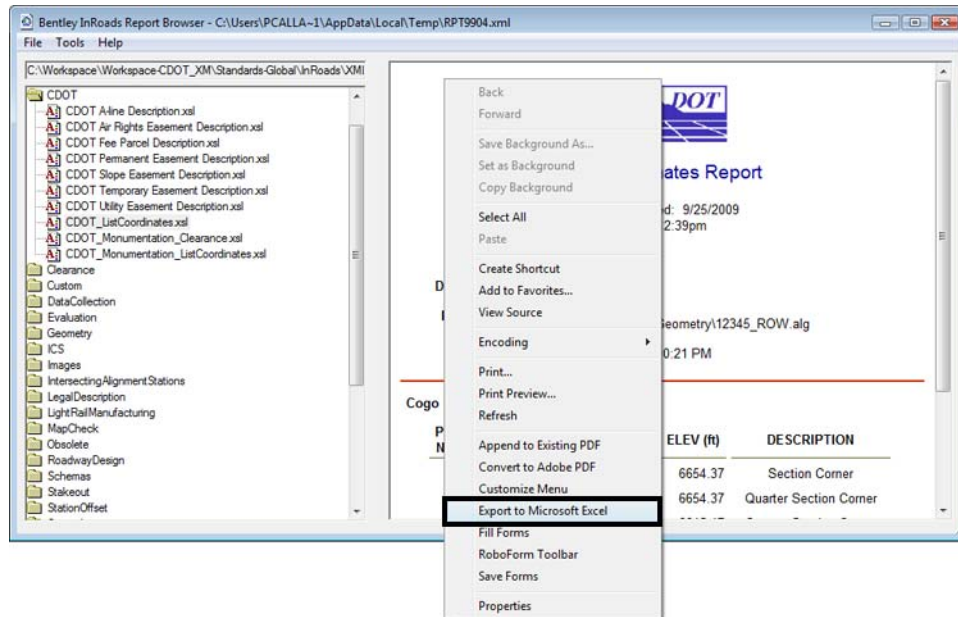
Tables can be created in MicroStation by linking information that is contained in an Excel spreadsheet. There are several advantages to using the linked spreadsheet method. Some of these are:

- ◆ Text formatting in the spreadsheet is retained by MicroStation
- ◆ Graphics (borders, grids, etc) are retained from the Excel file

- ◆ Updates to the Excel file are reflected in the MicroStation file

In the Bentley InRoads Report Browser:

18. <R> on the report in the coordinate list area as shown. A fly out menu will appear.



19. Place the cursor over the coordinates (the bottom half of report) and select **Export to Microsoft Excel** from the fly-out menu.

Excel should automatically launch if it is installed on the PC being used.

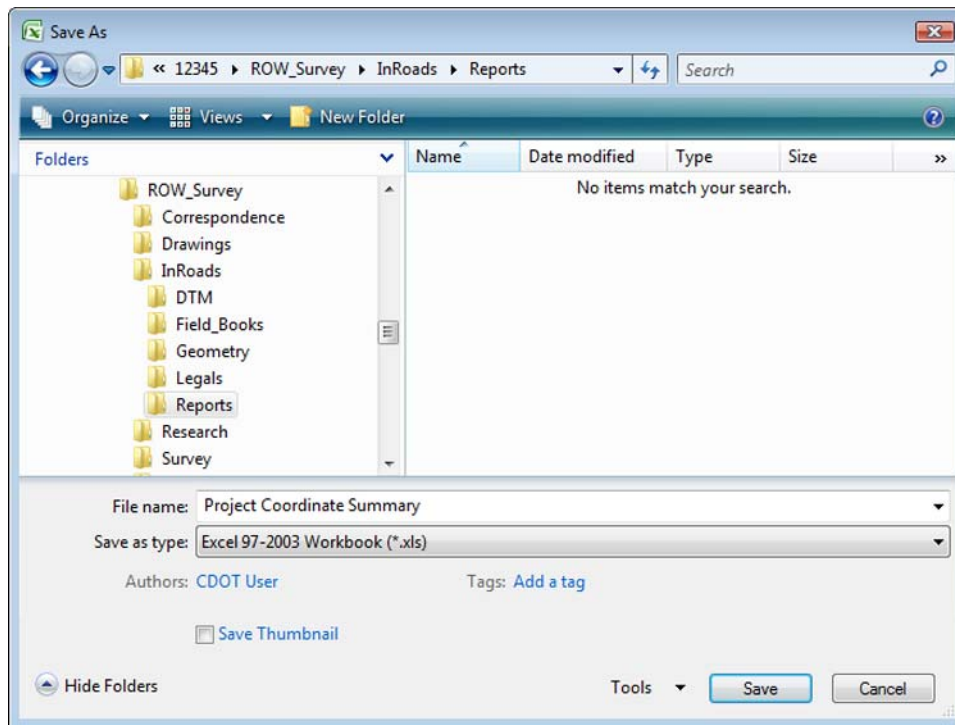
The screenshot shows Microsoft Excel with the following data in the worksheet:

POINT	NORTH (ft)	EAST (ft)	ELEV (ft)	DESCRIPTION
1	100	1558457.41	3269295.23	6654.37 Section Corner
2	102	1558430.9	3266629.98	6654.37 Quarter Section Corner
3	103	1555770.83	3266639.57	6615.17 Quarter Section Corner
4	104	1555781.53	3269304.03	6627.27 Quarter Section Corner
5	105	1558527.87	3279643.18	6585.79 Section Corner
6	106	1558562.81	3282329.69	6505.88 Quarter Section Corner
7	107	1555920.99	3282335.45	6545.91 Quarter Section Corner
8	108	1555884.03	3279671.7	6623.76 Quarter Section Corner

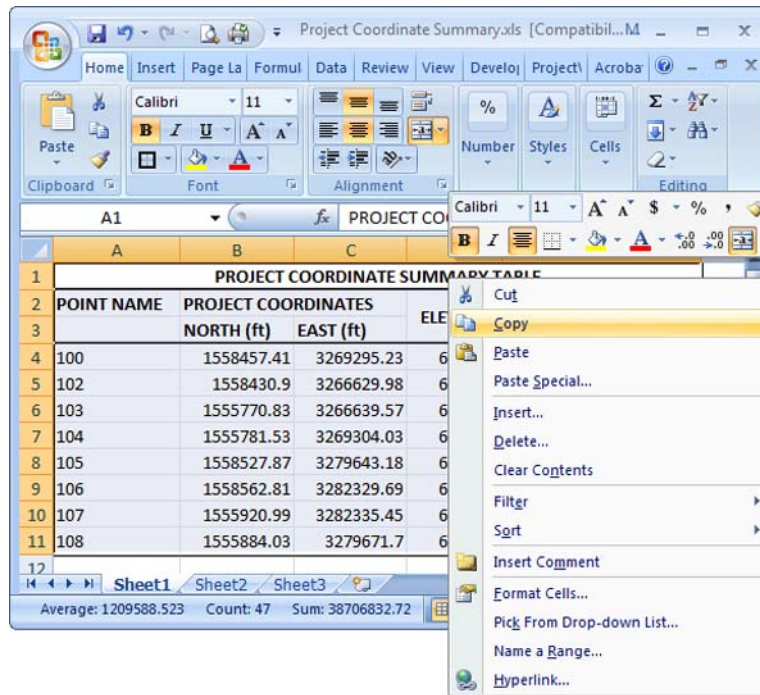
20. Make changes to the data or add formatting.

	A	B	C	D	E
1	PROJECT COORDINATE SUMMARY TABLE				
2	POINT NAME	PROJECT COORDINATES		ELEV (ft)	DESCRIPTION
3		NORTH (ft)	EAST (ft)		
4	100	1558457.41	3269295.23	6654.37	Section Corner
5	102	1558430.9	3266629.98	6654.37	Quarter Section Corner
6	103	1555770.83	3266639.57	6615.17	Quarter Section Corner
7	104	1555781.53	3269304.03	6627.27	Quarter Section Corner
8	105	1558527.87	3279643.18	6585.79	Section Corner
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10	107	1555920.99	3282335.45	6545.91	Quarter Section Corner
11	108	1555884.03	3279671.7	6623.76	Quarter Section Corner
12					

21. and **save** the spreadsheet to the ...*ROW_Survey*\InRoads\Reports\ directory.



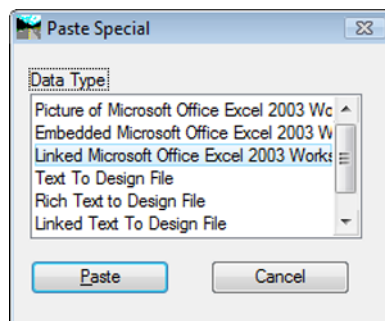
22. Select the range of information to be displayed in the MicroStation file.



23. <R> on the spreadsheet data and select **Copy** from the fly-out menu.

RETURN TO MICROSTATION

24. Select **Edit > Paste Special** from the MicroStation menu bar.

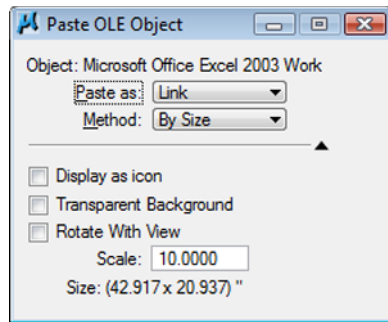


25. <D> the **Linked Microsoft Office Excel 2003 Worksheet** option.

26. <D> **Paste**

Note: By choosing linked, updates made to the Excel file can be passed back to the MicroStation file through updating. Selecting embedded does not provide this dynamic ability.

27. In the Paste OLE dialog box, set Paste as to **Link**, Method to **By Size**, and input a Scale of **10**



Note: At this time, we do not fully understand the correlation between the scale and resulting text size. For this example, 10 seemed to produce reasonable results. Once placed, the text height can be measured and the bounding shape of the linked Excel table can be scaled up or down accordingly to achieve required text size.

POINT	NORTH (ft)	EAST (ft)	ELEV (ft)	DESCRIPTION
102	1,558,430.90	3,266,629.98	6,654.37	Control Monument-Project
103	1,555,770.83	3,266,639.57	6,615.17	Control Monument-Project
104	1,555,781.53	3,269,304.03	6,627.27	Control Monument-Project
105	1,558,527.87	3,279,643.18	6,585.79	Control Monument-Project
106	1,558,562.81	3,282,329.69	6,505.88	Control Monument-Project
107	1,555,920.99	3,282,335.45	6,545.91	Control Monument-Project
108	1,555,884.03	3,279,671.70	6,623.76	Control Monument-Project
113	1,556,247.10	3,279,252.22	6,624.10	Traffic Control Double Yellow
117	1,558,514.31	3,277,056.40	-	N 1/4 Cor Section 14
119	1,555,884.03	3,279,671.70	6,585.79	W 1/4 Cor Sec 13
120	1,553,239.97	3,279,699.86	-	SE Cor Section 14

Note: Hatching on the MicroStation representation of the linked Excel data indicates the spreadsheet is currently open for editing.

28. Close Excel and note the hatching is eliminated from the display.

Activating the Element Selection tool and entering a <D><D> on the border of the linked table in MicroStation will launch the Excel application. If the Excel file is initialized from MicroStation the linked data will automatically update when the Excel file is saved and closed.

29. Use the MicroStation Element Selection Tool and <D><D> on the border of the linked data.



30. Make an edit to the spreadsheet data or formatting.

31. **Save and Close** the Excel file. Note the linked data in the MicroStation file updates.

POINT	NORTH	EAST	ELEV	DESCRIPTION
102	1,558,430.90	3,266,629.98	6,654.37	Control Monument-Project
103	1,555,770.83	3,266,639.57	6,615.17	Control Monument-Project
104	1,555,781.53	3,269,304.03	6,627.27	Control Monument-Project
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108	1,555,884.03	3,279,671.70	6,623.76	Control Monument-Project
113	1,556,247.10	3,279,252.22	6,624.10	Traffic Control Double Yellow
117	1,558,514.31	3,277,056.40	N/A	North 1/4 Cor Section 14

If the linked data is edited by launching the application outside of MicroStation, a manual update command must be executed. Select **Edit > Update Links** from the MicroStation menu bar to refresh the linked MicroStation graphics.

The linked data can be moved, scaled, or otherwise manipulated with MicroStation commands by selecting the border of the linked object.

