Iowa Department of Transportation
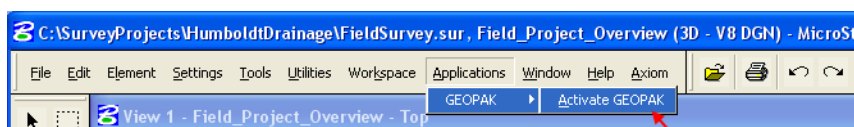**Office of Design**

GEOPAK Sta Off Report

Design Manual
Chapter 40
Survey Information
Originally Issued: 01-12-09

Creating Station Offset Reports with GEOPAK

1) The first step is to activate GEOPAK by selecting *Applications>GEOPAK>Activate GEOPAK* from the main MicroStation toolbar.
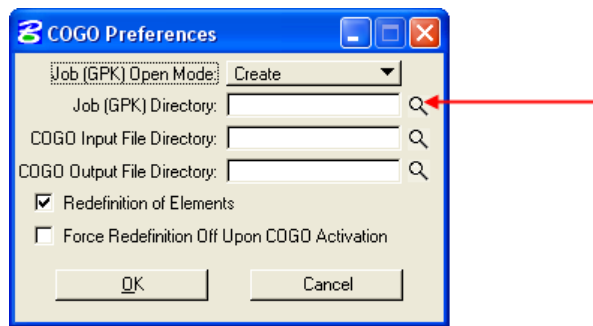

2) You must tell GEOPAK where the ".gpk" file containing the station and offset information is located. This is done by changing the user preferences. Select *Applications>GEOPAK Road>User Preferences*.
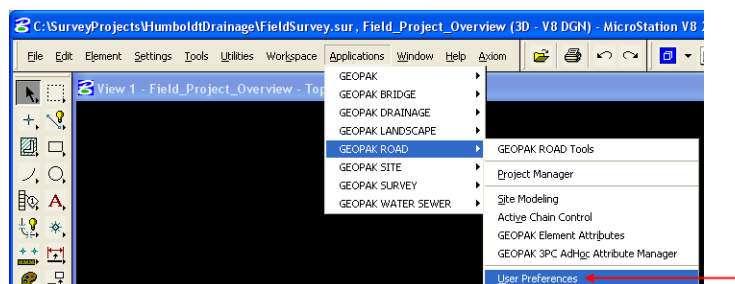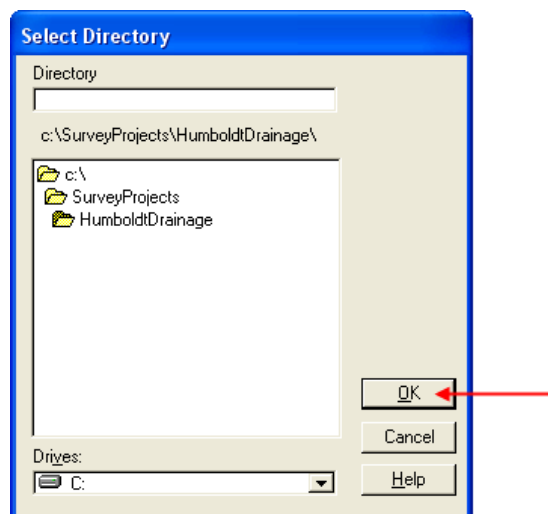

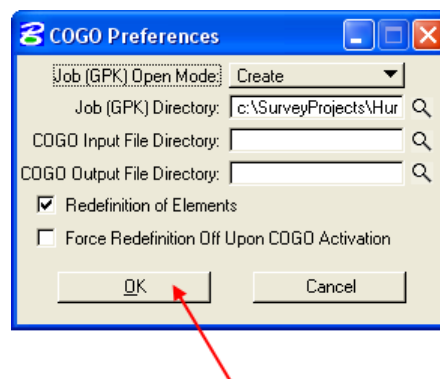3) Select *COGO Preferences* on the User Preferences dialog box.
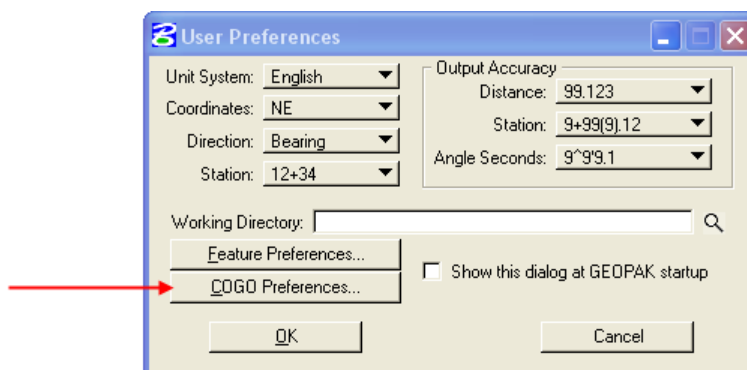
4) Click on the magnifying glass next to *Job (GPK) Directory*.

5) Select the directory where the "gpk" file is located, then press *OK*. If you are using GEOPAK Project Manager this should be set up within your project preferences. If you are not using Project Manager, but your "gpk" file is located in the same directory as the MicroStation file that you have open, you can leave the directory path blank and GEOPAK will list all of the "gpk" files in the open file's directory.
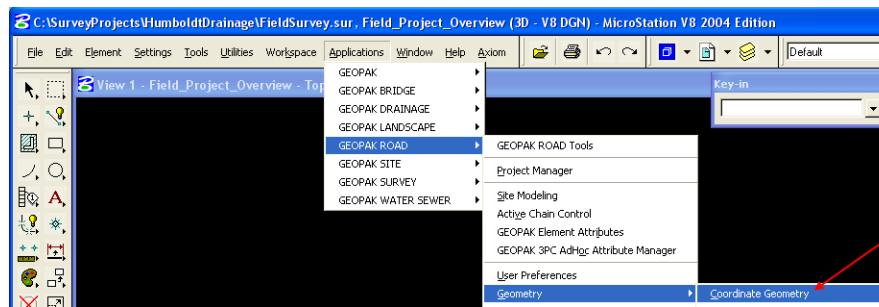

6) Press *OK* on the COGO Preferences dialog box.

7) Press *OK* on the User Preference dialog box.
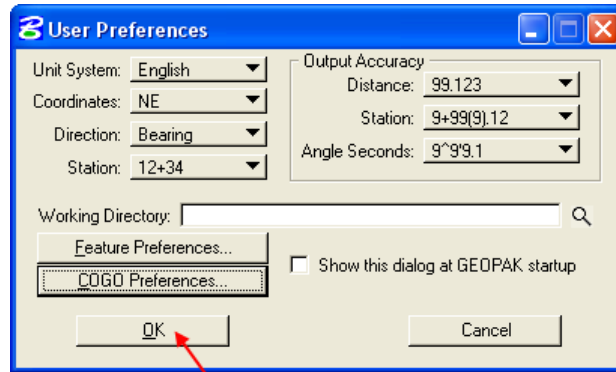
8) After GEOPAK has loaded, select *Applications>GEOPAK Road>Geometry>Coordinate Geometry* from the main Microstation toolbar.
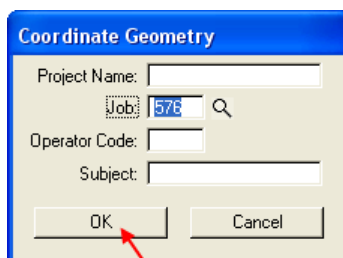

9) The first Coordinate Geometry (COGO) dialog box that appears allows you to select the ".gpk" file that contains all of the survey information for your project. Click on the magnifying glass to see a list of "gpk" files available.
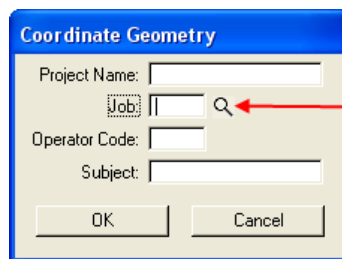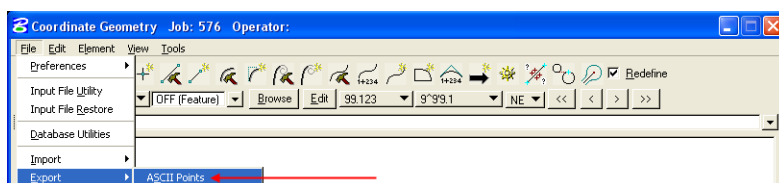

10) Select the "gpk" file and then press the *OK* button.
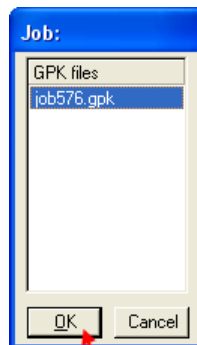
11) Press the *OK* button on the first COGO box.

12) On the second COGO dialog box, choose *File>Export>ASCII Points*.

13) The Export GPK Points to ASCII Coordinate File is where the actual station offset report is created. The first thing is to make sure that the drop down in the upper right hand corner is set to *File Create*. Next, click on the *magnifying glass*.
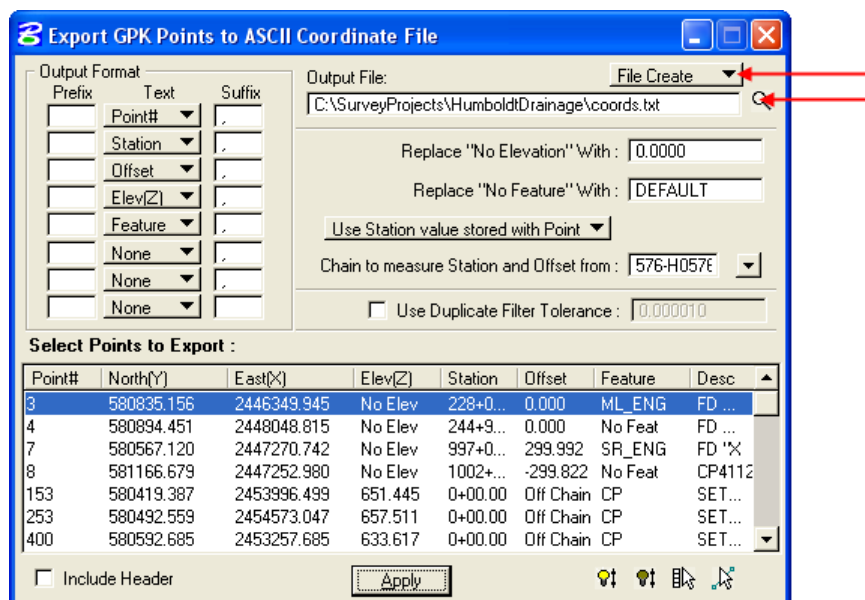
14) Select the directory where you want the file created and type in what you would like to name the file. Press the *OK* button.
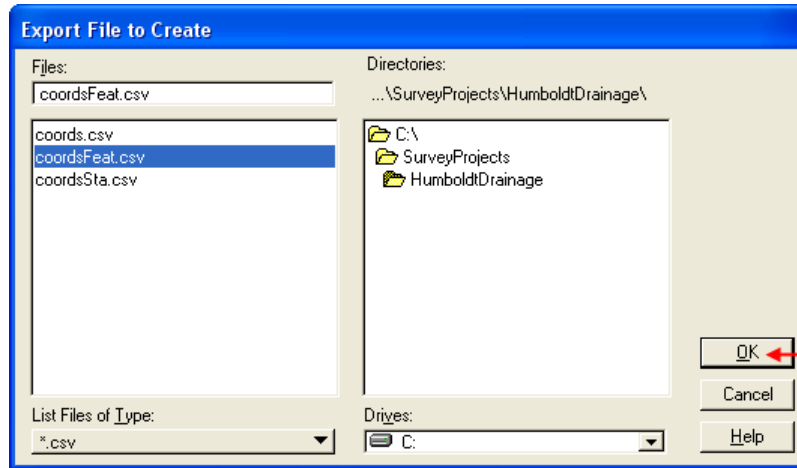
15) Under *Output Format* you can then select what attributes of each point you would like to see and also the order that they appear in. Change the station drop down to Compute Station value from Chain. Select the chain (horizontal alignment) that you would like the stationing and offsets based from.
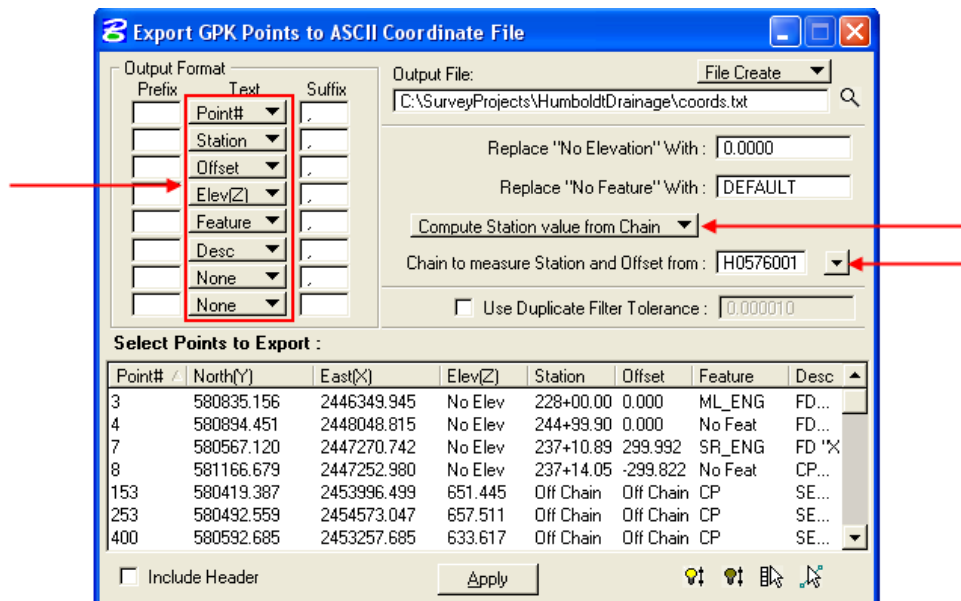
16) You can sort the points and information below by clicking on any of the headings to sort by that type. To sort by the feature code, click on the *Feature* heading. Highlight the features by clicking on one point and then holding down the *Shift* or *Ctrl* keys on your keyboard to select numerous points in a row or separated. Once you have all of the points highlighted that you would like in the station offset report, hit the *Apply* button.

17) You station offset report is now created. Because the extension used in the example above was "txt", the output is in an ASCII text format. You can open these files with Microsoft Word, Notepad, WordPad or PFE32. Because the points box was sorted by the Feature the "txt" file will also be sorted by the Feature.

18) Sorting by the feature is often the best way to select points to highlight for your report. After you get the points highlighted, you can sort by other columns and then create the report with the information sorted by different information than what you used to highlight them. In the example below the same points are highlight by sorting by the Feature. After highlighting click on the *Station* heading and then press the *Apply* button.

19) The points shown in the "txt" file below are the same as above but sorted by Stationing.

20) If you would rather look at the station offset report in Microsoft Excel, you can change the file extension to "*csv*" then press the *Apply* button.
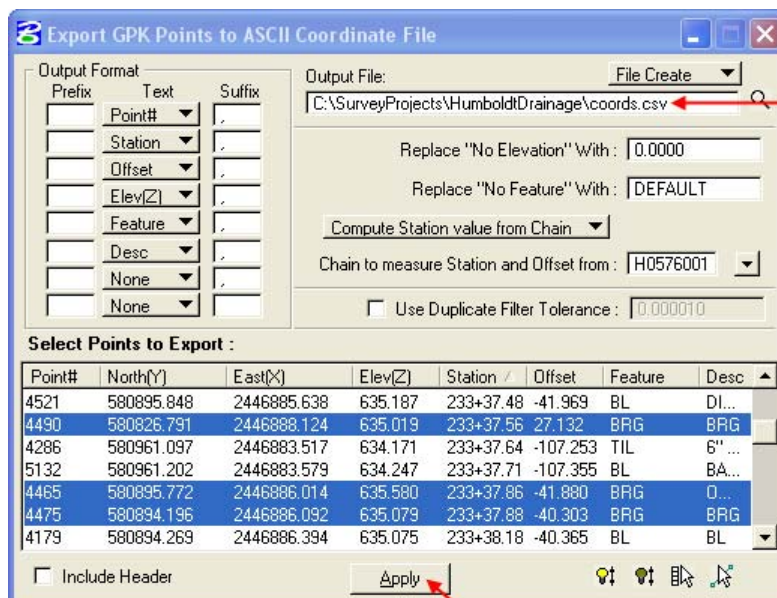
21) This will create a comma delineated file that can be opened easily in Excel. This is the same points sorted by Feature.

22) These are the same points sorted by Station in Excel.

23) To find definitions of the feature codes used by the Preliminary Survey crews, click on the links below:

[Feature Codes and Descriptions Only](#)

[Feature Code Use Categories](#)

[Feature Codes and Full Descriptions](#)