



Creating Profiles from Survey Shots

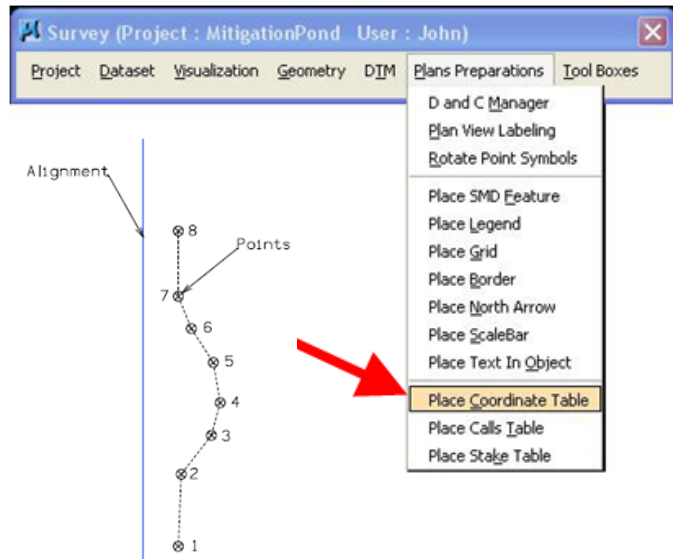
These instructions will walk you through the process of creating GEOPAK profiles that have the same stationing as a GEOPAK horizontal alignment of the designer's choice.

- 1.) The first step is to create a station offset report of the GEOPAK points that are to be used to create the profile.

NOTE: The points used to create a profile must have elevations associated with them.

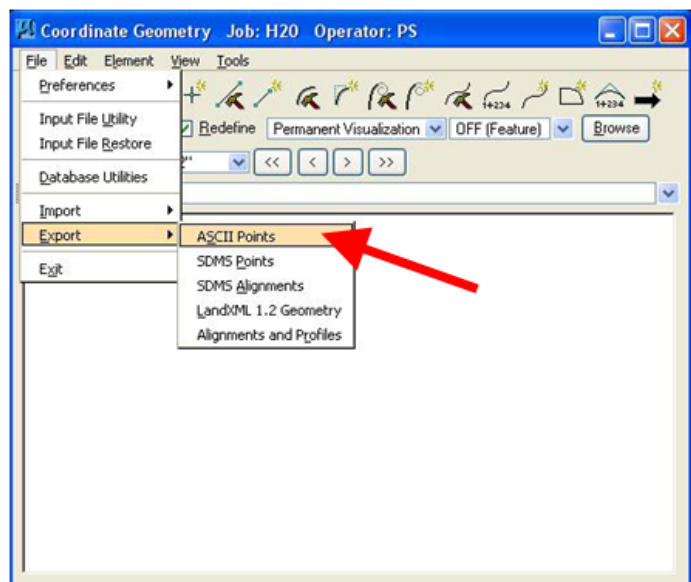
- 2.) Use the GEOPAK **Survey** tool found as shown at the right and also as listed below.

*Survey (tool bar) >
Plans Preparations >
Place Coordinate Table*




- 3.) You can also use the tool in GEOPAK **COGO**, found as follows:

File > Export > ASCII Points



4.) The picture below shows the **Place Coordinate Table** dialog. The **Export GPK Points to ASCII Coordinate File** dialog that is opened from GEOPAK COGO is very similar, so the same instructions will work for either dialog.

- a. **a** The option in the upper-right corner should be set to **Create File**.
- b. **b** The **Write to Output File** check-box should be checked ()
- c. **c** Click the magnifying glass “browse” icon () to locate the folder where the new file is to be stored. The name of the new file must be in a specific format.
 - i. The name of the file can be no longer than eight (8) characters (ex. **NWLFOX**).
 - ii. This must be followed by the three-digit “.gpk” file name (e.g., **999**) that is to be used for the import.
 - iii. The file extension should start with the letter “i”, (lower case “i”).
 - iv. This should be followed by your operator code (e.g., **PS**). If you do not use an Operator Code, the file extension will be only the “i”.
 - v. **c.v.** In this example, the file name would be **NWLFOX999.iPS**.

d. **d** The table format should be as shown. When entering the **Prefix (VPI, S, and E)**, make sure that there is a **space** after the last letter. You should also place a space in the first two **Suffix** data input fields.

e. **e** In the center data entry field, use the *drop-down* arrow to select the **Compute Station value from Ref Chain** option.

f. **f** In the “**Chain to measure Station and Offset from**” field, select the chain that is to be associated with the profile(s), and to have the same stationing.

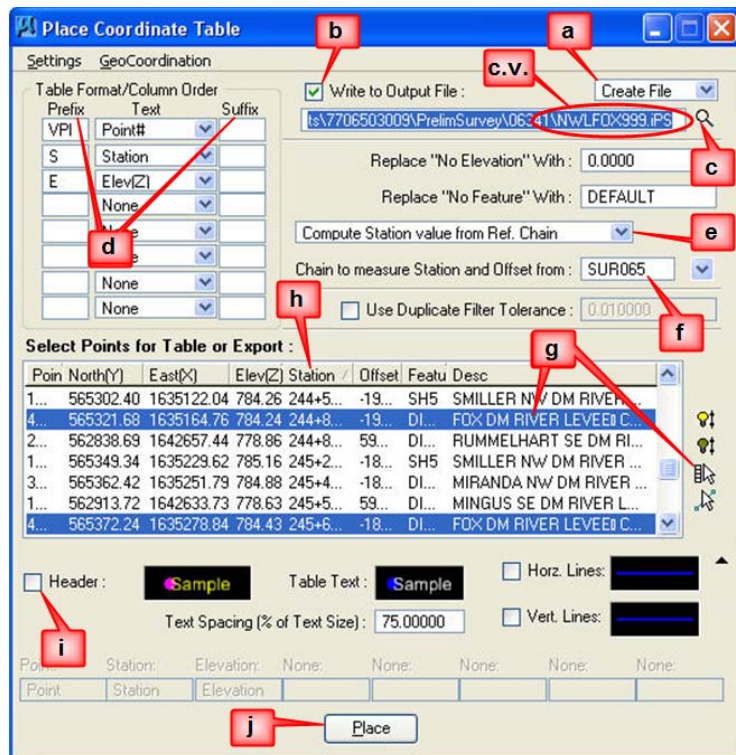
g. **g** Highlight all the points that are to be included in the profile. There are several ways to select the points. You can sort the points in the list by *clicking* on the header item to sort by that column. You can also select the points in MicroStation or the COGO Navigator and then *highlight* the points from these selections by *clicking* on the white arrow icons to the right.

h. **h** After all the points are highlighted, you **must** click on the **Station** heading to sort the points by station, from **smallest to largest**.

i. **i** The **Header** check-box must be unchecked ()

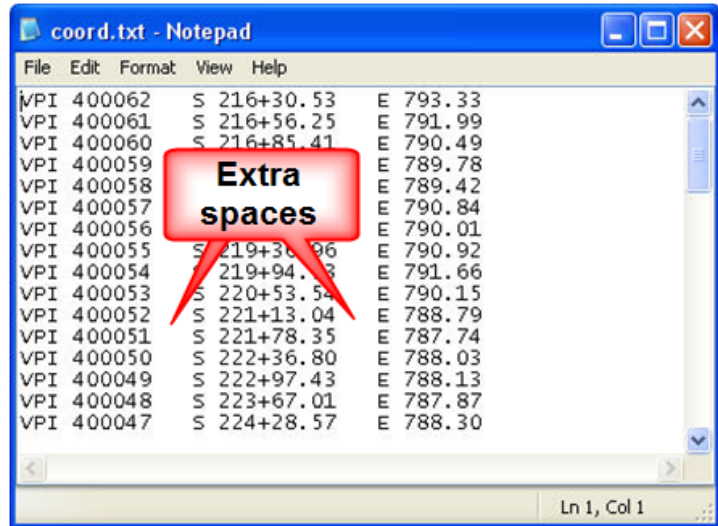
j. **j** Click the **Place** button to create the file, and the STA/OFF file will be created.

k. If using the **Place Coordinate Table** tool, the contents of the **Station/Offset** report will be attached to the MicroStation cursor, “waiting” to be placed into the file. If you do not want to place this information in the file at this time, (which is most of the time), simply *right-click* (reset) on the MicroStation screen and the text will go away.



- 5.) Use Notepad, PFE, or any other text editor program to open the file that was just created.

You will notice that there may be additional spaces in the rows, causing an appearance of multiple spaces between column data, as shown at the right. One way to correct this is to use the **Edit > Replace** tool.

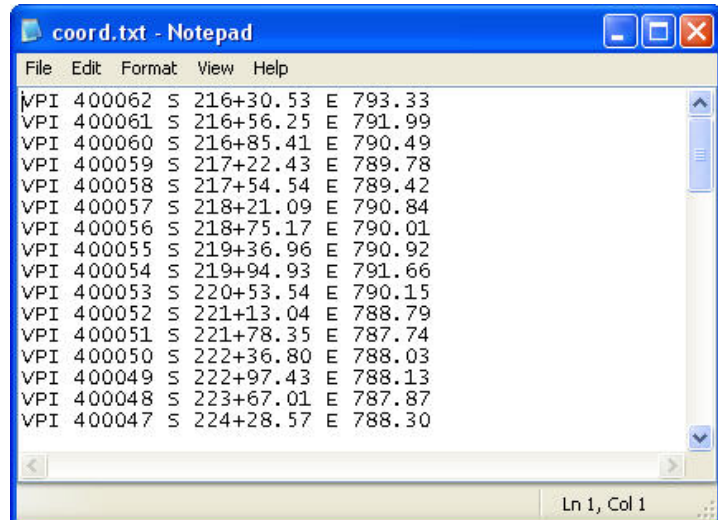


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coord.txt - Notepad
File Edit Format View Help
VPI 400062 S 216+30.53 E 793.33
VPI 400061 S 216+56.25 E 791.99
VPI 400060 S 216+85.41 E 790.49
VPI 400059 S 217+22.43 E 789.78
VPI 400058 S 217+54.54 E 789.42
VPI 400057 S 218+21.09 E 790.84
VPI 400056 S 218+75.17 E 790.01
VPI 400055 S 219+36.96 E 790.92
VPI 400054 S 219+94.93 E 791.66
VPI 400053 S 220+53.54 E 790.15
VPI 400052 S 221+13.04 E 788.79
VPI 400051 S 221+78.35 E 787.74
VPI 400050 S 222+36.80 E 788.03
VPI 400049 S 222+97.43 E 788.13
VPI 400048 S 223+67.01 E 787.87
VPI 400047 S 224+28.57 E 788.30
Ln 1, Col 1

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- 6.) When the extra spaces have been removed, the file should appear similar to that shown at the right.

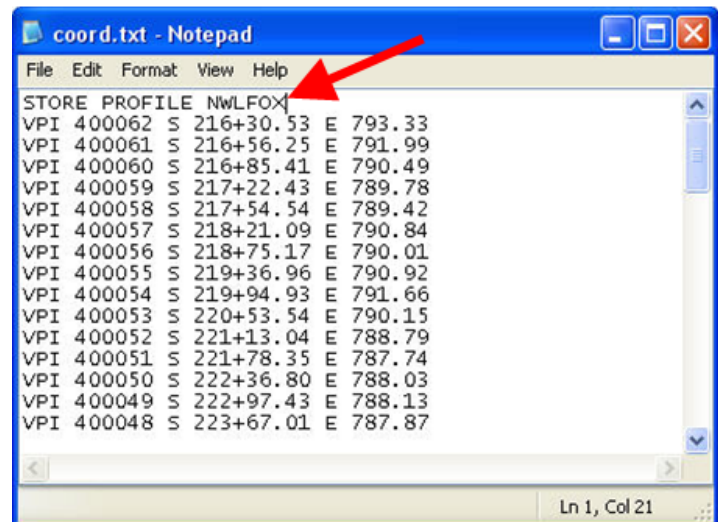


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coord.txt - Notepad
File Edit Format View Help
VPI 400062 S 216+30.53 E 793.33
VPI 400061 S 216+56.25 E 791.99
VPI 400060 S 216+85.41 E 790.49
VPI 400059 S 217+22.43 E 789.78
VPI 400058 S 217+54.54 E 789.42
VPI 400057 S 218+21.09 E 790.84
VPI 400056 S 218+75.17 E 790.01
VPI 400055 S 219+36.96 E 790.92
VPI 400054 S 219+94.93 E 791.66
VPI 400053 S 220+53.54 E 790.15
VPI 400052 S 221+13.04 E 788.79
VPI 400051 S 221+78.35 E 787.74
VPI 400050 S 222+36.80 E 788.03
VPI 400049 S 222+97.43 E 788.13
VPI 400048 S 223+67.01 E 787.87
VPI 400047 S 224+28.57 E 788.30
Ln 1, Col 1

```

- 7.) You will need to add a new first line into the file, as shown by the arrow at the right. Place the cursor to the left of the first **VPI** and press the **ENTER** key to add a blank line above that location. In the new empty line, type "**STORE PROFILE filename**". The *filename* in this example is **NWLFOX**. The *filename* size can be a maximum of **8** characters.

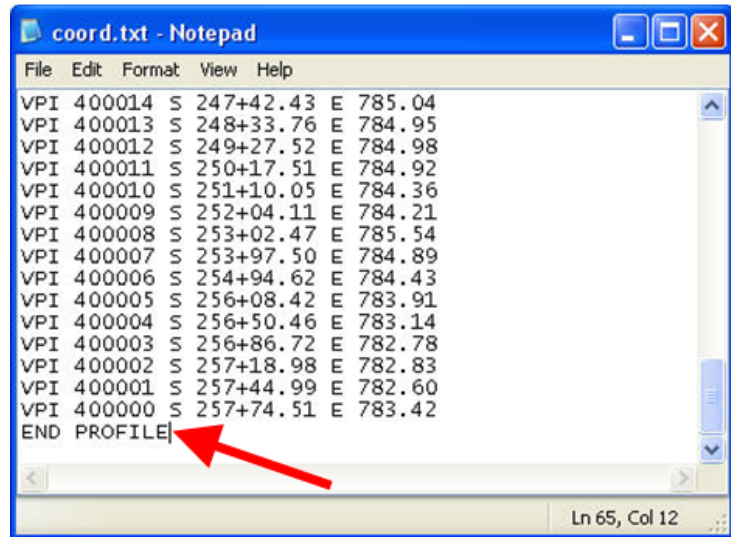


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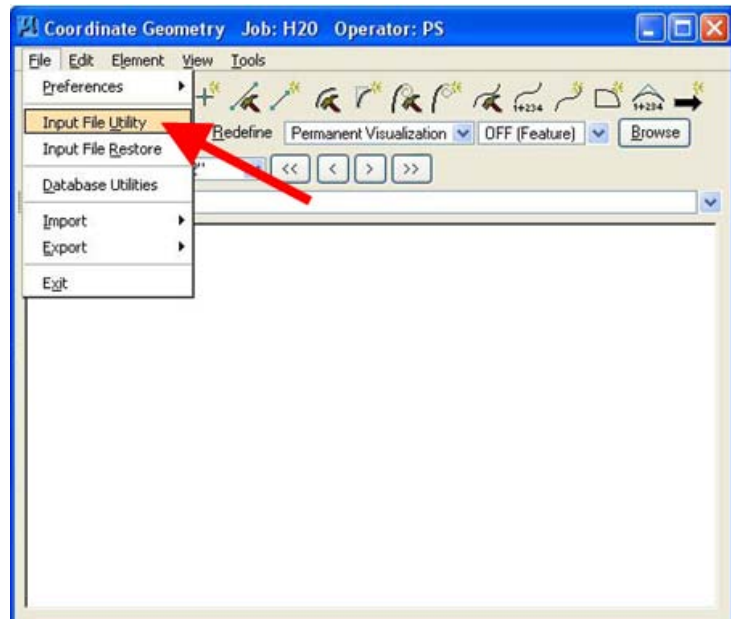
coord.txt - Notepad
File Edit Format View Help
STORE PROFILE NWLFOX
VPI 400062 S 216+30.53 E 793.33
VPI 400061 S 216+56.25 E 791.99
VPI 400060 S 216+85.41 E 790.49
VPI 400059 S 217+22.43 E 789.78
VPI 400058 S 217+54.54 E 789.42
VPI 400057 S 218+21.09 E 790.84
VPI 400056 S 218+75.17 E 790.01
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VPI 400051 S 221+78.35 E 787.74
VPI 400050 S 222+36.80 E 788.03
VPI 400049 S 222+97.43 E 788.13
VPI 400048 S 223+67.01 E 787.87
Ln 1, Col 21

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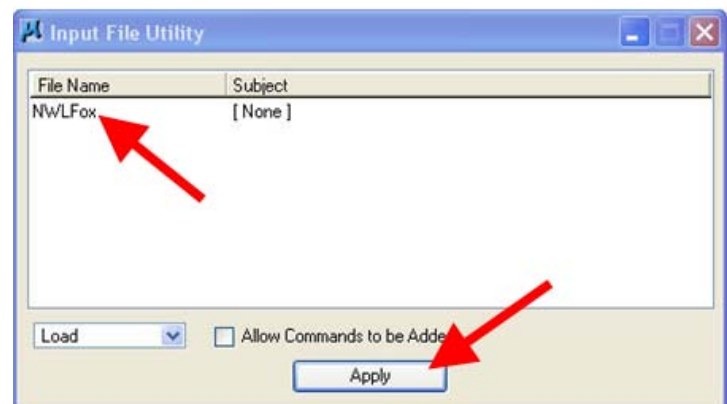
- 8.) The “**END PROFILE**” line must be added at the end of the file, as shown by the arrow at the right. This should be the last line in the file. Press the keyboard “**down arrow**” key to confirm this. Delete all blank lines by using the **Backspace** key or by any other method of choice.



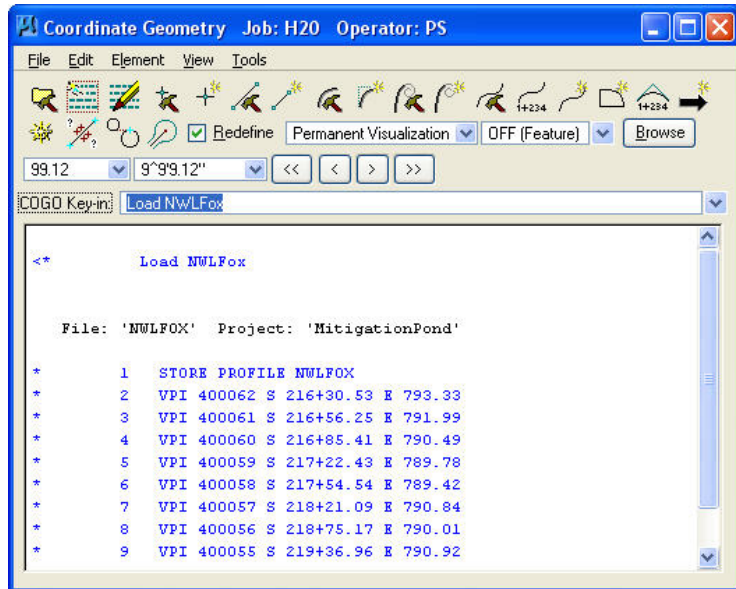
- 9.) The profile can now be imported into GEOPAK. From the tool-bar in the **Coordinate Geometry** dialog, select the drop-down command *File > Input File Utility* as shown at the right.



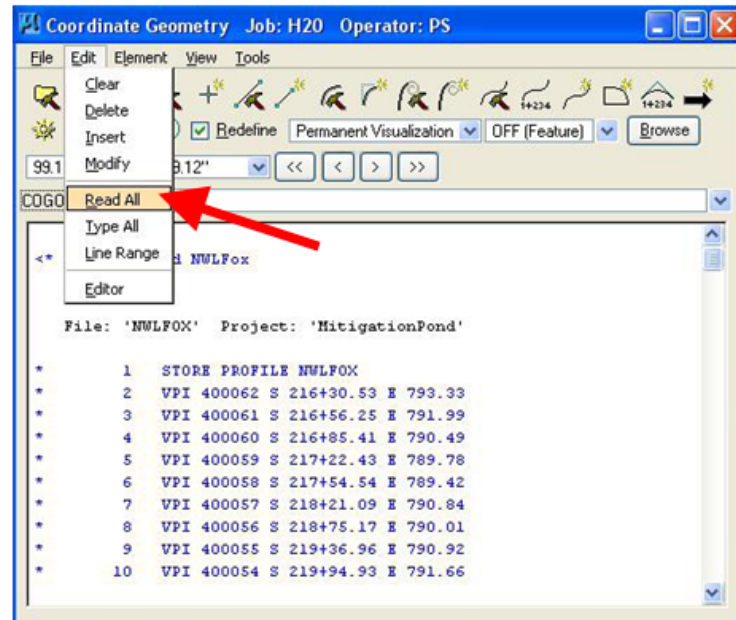
- 10.) The new file name should display in the **Input File Utility** dialog, as shown at the right. *Select* (Highlight) the file name and *click* the **Apply** button.



- 11.) The previous step has loaded the input file into COGO, but it has not yet been stored.

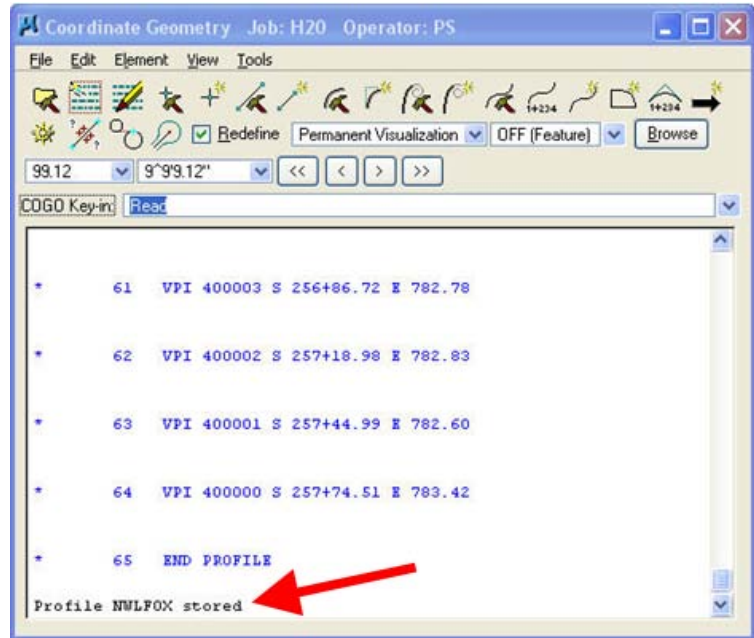


- 12.) From the tool-bar, select *Edit > Read All* to store the profile into the “gpk” file.



- 13.) Scroll down to the bottom of the COGO window. Confirm that there is not any **RED** text, as red text means there was an error.

The last line should read **"Profile filename stored"**, as shown at the right. The profile is now ready to be used by GEOPAK.



NOTE: See Design Manual section [21A-202](#) for Drawing COGO Profile Alignments

Chronology of Changes to Design Manual Section:

021B-159 Creating Profiles from Survey Shots

9/30/2011

NEW

Updated and expanded Chad's original document