

# How to Use the Survey Information

Design Manual  
Chapter 40  
Design Survey  
Specifications

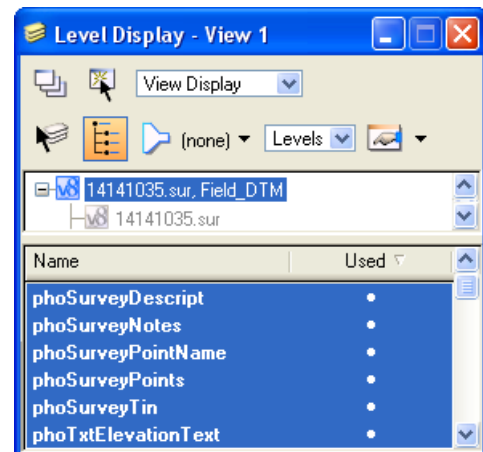
Originally Issued: 09-30-11

The current topographic survey processes utilized in the Preliminary Survey Section allows the customers of these surveys to have all field information available to them within MicroStation and GEOPAK files.

(NOTE: All survey instructions and any other survey information not included in this document can be found in Chapter 40 of the Design Manual).

There are three different methods for using this information, depending on the need. Each of the methods builds on the previous one.

The first and easiest method for using the survey data is to view the information that is displayed on the used levels, as shown at the right.

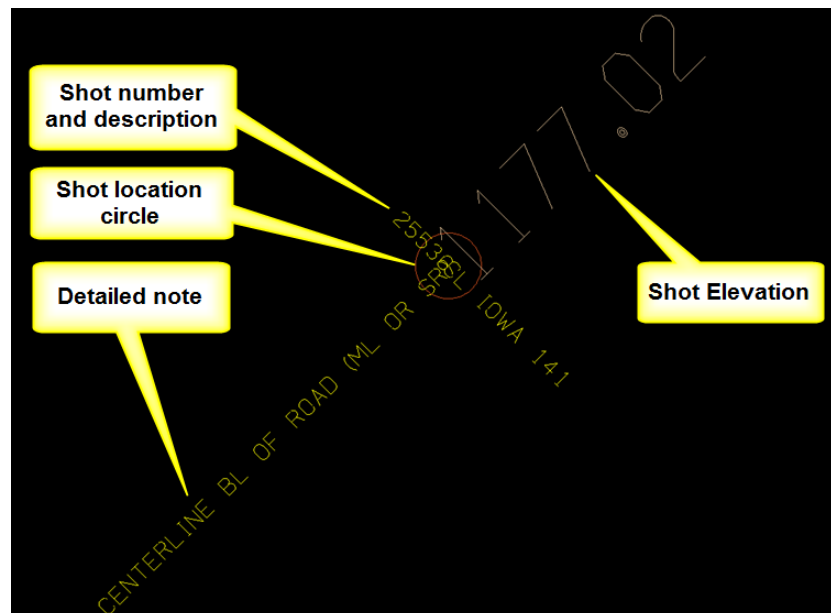


As displayed at the right, these levels show:

- the circle representing the shot location,
- the description of the type of shot collected,
- the shot number, and
- a detailed note.

An elevation is also displayed if the shot was collected for the purpose of ground elevation.

The above listed information is the only information available in the MicroStation file without using the GEOPAK software.



The second way to use and evaluate the survey information is to use GEOPAK COGO. The **Prelim Survey “.gpk”** file must be copied to the design directory that contains the other “.gpk” files.

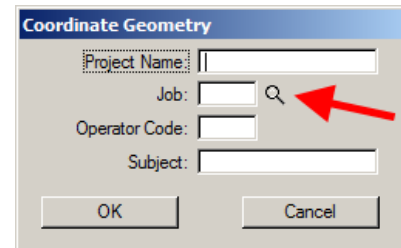
The Geopak program is initiated from the MicroStation tool bar menu as follows:

**Applications > GEOPAK > Activate GEOPAK** from the MicroStation tool bar.

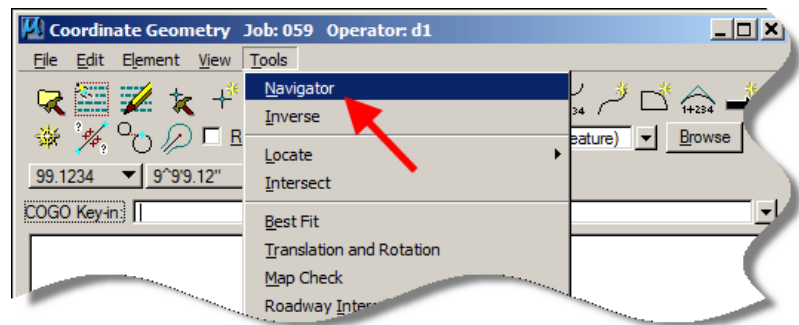
After Geopak is activated, the COGO program is started, as follows:

**Applications > GEOPAK > ROAD > Geometry > Coordinate Geometry**

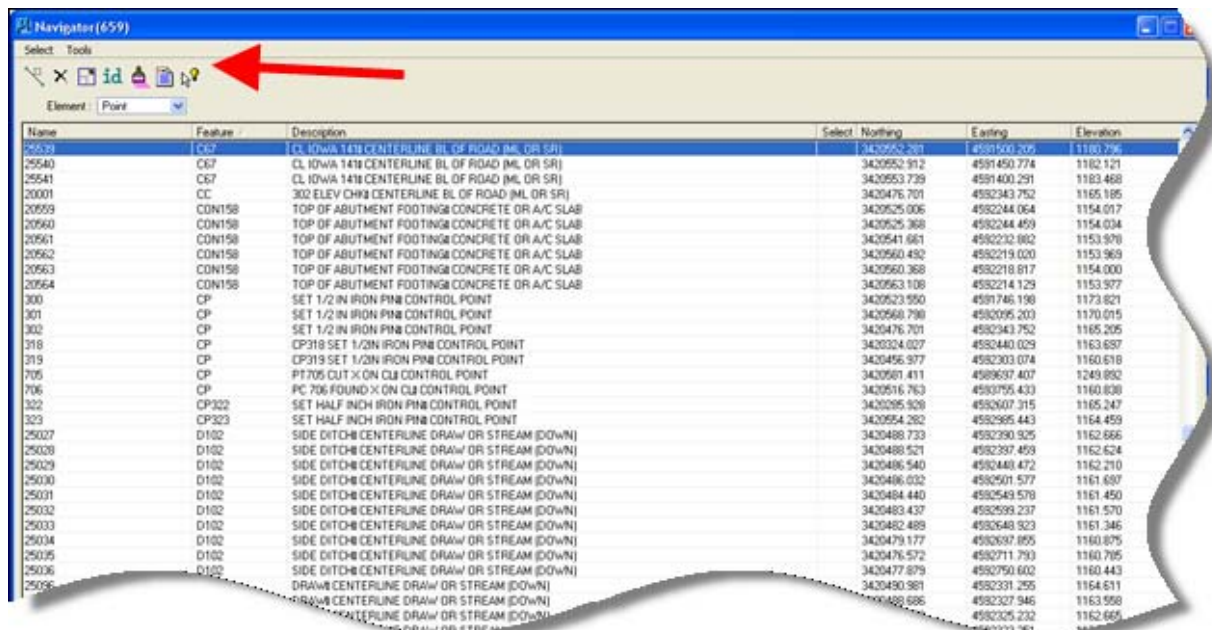
This will display the **Coordinate Geometry** dialog, as shown at the right. Click the “Browse” magnifying glass icon (🔍) to select the appropriate Prelim survey “.gpk” file, (**Job**). Complete the other data entry fields, as necessary, and click the **OK** button.



This will display the **Coordinate Geometry** dialog. The **COGO Navigator** dialog can be accessed as shown by the arrow at the right.



The **Navigator** dialog should display a listing of points similar to that shown below. To display information about a point, *select* the point in the **Navigator** list and then *select* any of the data information tools, located by the red arrow below. This should display point information in the **Coordinate Geometry** list box, above.

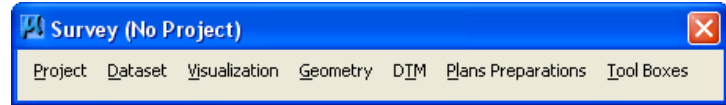


The third way to use and evaluate the survey information is to utilize the **GEOPAK Survey Project** tool. By simply “hovering” the cursor over any **Survey Point**, this tool will provide the most comprehensive amount of information about that point as simple *pop-up* information attached to the cursor.

To start GEOPAK Survey, (with GEOPAK already started), select:

**Applications > GEOPAK > SURVEY > Survey**

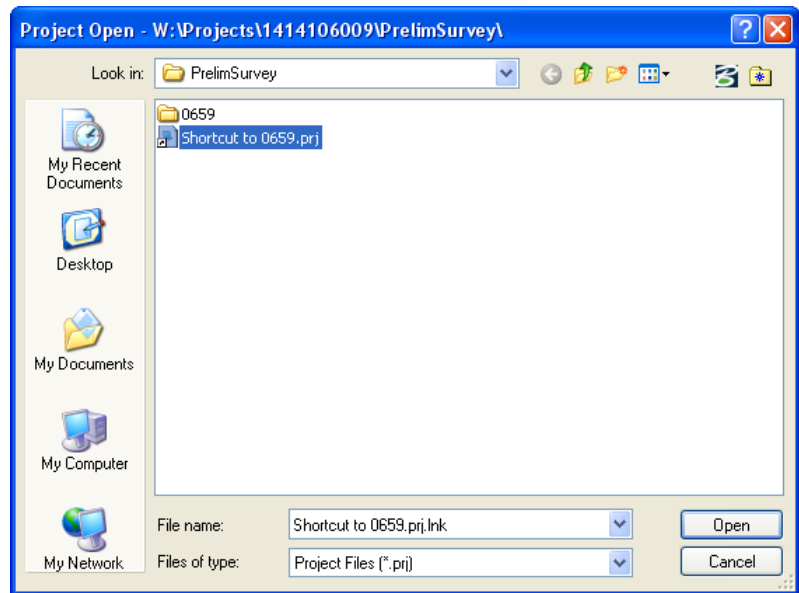
This will open the GEOPAK **Survey** tool bar, as shown above.



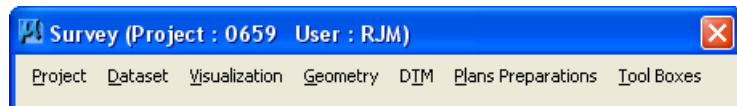
To open a GEOPAK Survey project, choose **Project > Open** from the **Survey** dialog toolbar, shown above. This will display the **Project Open** dialog, as shown at the right.

Browse to the appropriate **PrelimSurvey** folder and *select* the “shortcut...” for the “.prj” file, as shown at the right.

Accept any messages warning that the project is read only.



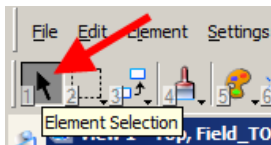
The **Survey** dialog should now show the Survey and Photogrammetry (SAP) number on the title bar, as shown at the right.



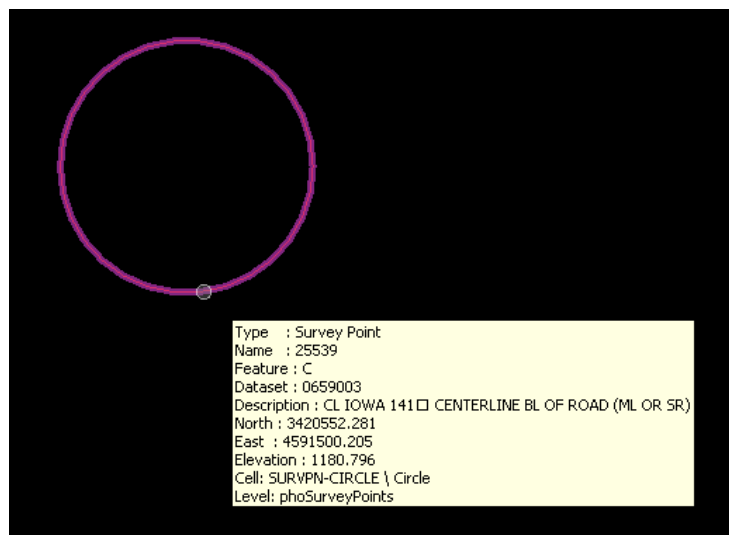
To eliminate clutter, the display of all “**phoSurvey...**” levels can now be turned off, except for the two levels listed below:

phoSurveyPoints  
phoSurveyPointsNonDTM

Select the MicroStation **Element Selection** tool, as shown below.



By moving the MicroStation cursor over any of the survey shots, a complete list of information about that shot will be displayed, as shown at the right.



# Chronology of Changes to Design Manual Section:

## 040D-017 How to Use the Survey Information

9/30/2011 NEW  
New