## miniCAD5 QuickStart Tutorial

## Stage: 2

## Load Field Survey Data

Aim: Load survey field data into an existing job.

Start miniCAD and open your tutorial1.mcd job file.

- Select Tools>>Utility Software. Note: This closes miniCAD5 and opens the Utility program.
- Select File>>Select Project and select Tutorial1 from the list. Press the OPEN button. Notice that the Project File is now listed in the title bar to indicate that we will be merging field data into an existing job file.

About Project Files – Project files have the following benefits:

- 1. Multiple field data files can be loaded into the one miniCAD job and field point numbering is preserved (usually 1000 is added to each field point number)
- 2. Station points (usually numbered from 1 to 100) in the selected project are matched with the same station points in the field data. The coordinate from the miniCAD project takes precedence over the coordinate in the field data.
- 3. Auto coordination is possible if coding of stations conforms to the miniCAD standards. This means that miniCAD will automatically calculate station coordinates from the field file observations. There is no need to pre-calculate station coordinates.
- 4. If Azimuth swing is set to YES in the Utility parameters, it is possible for a field survey to be performed by setting a zero backsight at every station setup. miniCAD automatically swings the field data onto the correct azimuth. Azimuth swing will also fix problems where an incorrect backsight bearing has been set.

Benefits 3 & 4 are also available when Project Files are not selected. More information on project files, auto coordination and azimuth swing can be found in the help files for the Utility Software.

• Select Parameters from the menu bar. Check your settings match those in the figure below, especially the String Prefix / Suffix and String Length and Azimuth Swing settings.

Utility Parameters		×
String Prefix/Suffix Suf	fix	1
String Length	2	-
Control Delimiter	×	-
Comment Delimiter	7	-
Offset Delimeter	1	-
Observed Number Offset	1000	
Calculated Number Offset	101	
Azimuth Swing	YES	3
Curvature and Refraction	(k) 0.13	
GPS Quality Filter (metres)	1	
Courses Colour		-
Maine Contour		
Miner Contour		
Data Folder	i -	
D:\Data\miniCAD Data\AAR	elease5	-
Data		
AAHeleaseo		
ОК	Cancel	

**Figure 1 - Parameters** 

- Select Data Recorder>>Read>>Leica>>16 character.
- Select the file Tutorial1.gsi and press the OPEN button.
- When the Azimuth Swing at Station 1 dialogue appears press the OK button.
- Press OK at completion.

## About coding and the minicad.cod file:

When miniCAD processes field data it parses each entry against a code file called *minicad.cod*. This file determines the layer codes are stored in, the layer attributes, such as colour and line-type. The Symbol name is the same as the code. More information about these coding files is contained on the Help menu for the Utility Software.

• Select File>>Notepad Editor. Under Files of Type select Field (\*.fld) select the file Tutorial1.fld and press the OPEN button.

You will now see your reduced data. Notice that some lines end with the words 'Coordinate check for Pt'. miniCAD performs data checking for you so you can see how good your dE, dN, dH are for re-observed survey stations.

- Select File>>Exit. (to exit Notepad, It is often handy to print out this file as a record of your survey work.)
- Select File>>Exit. (to exit the Utility Software)

Back in miniCAD you should now notice that you have 2 distinct areas of work in your job – your plan and your field information. In the next tutorial stage we will transform the field data onto the plan data and prepare the job for printing.

Congratulations on reaching the end of this tutorial. Please explore the extensive help files associated with the program and found online. Should you have further queries, don't hesitate to contact us directly.

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