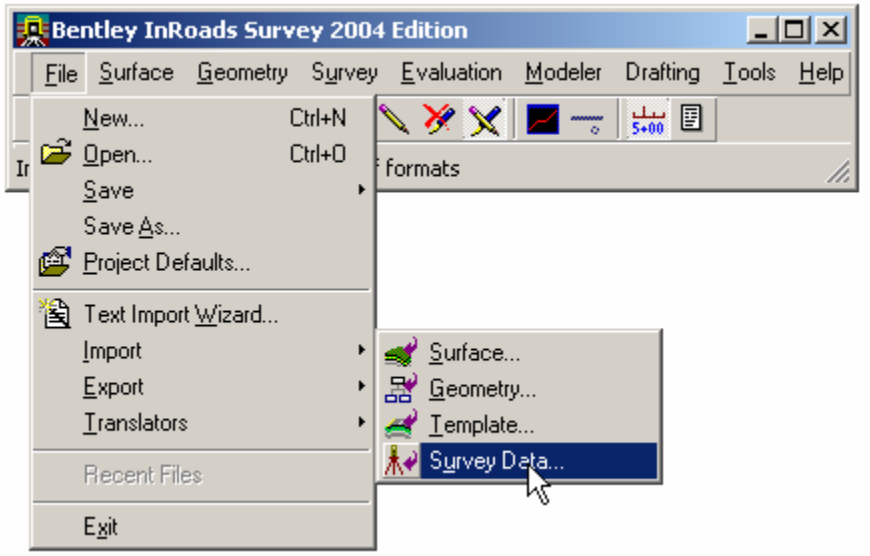
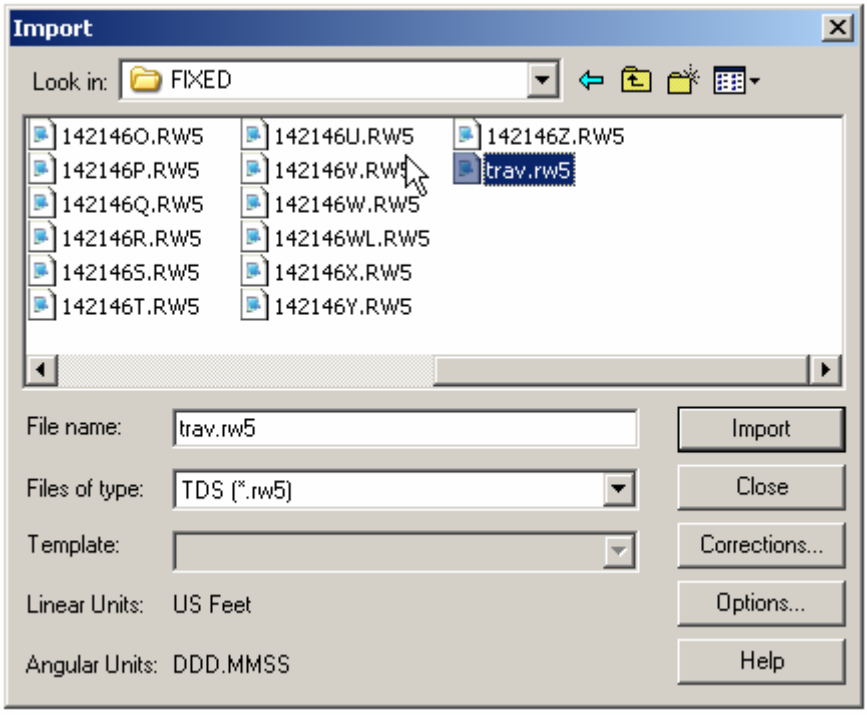
Importing the Traverse



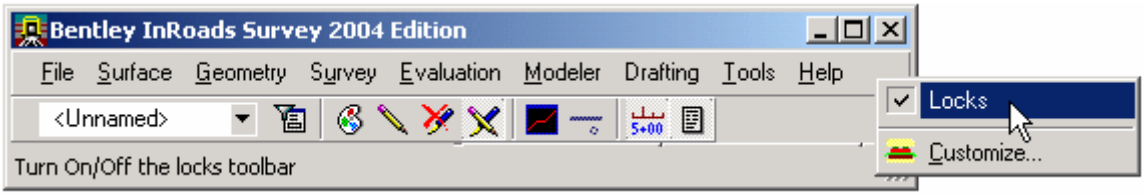
1) Select **File > Import > Survey Data**



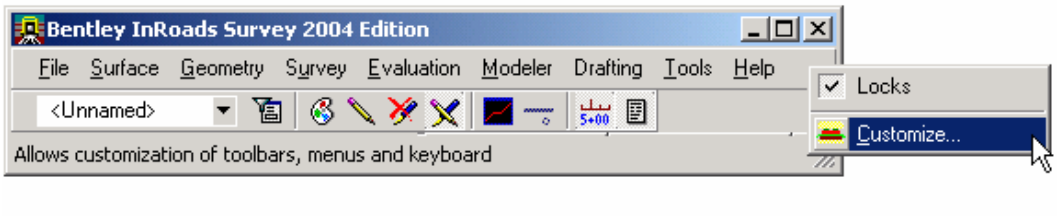
2) Select **Trav.rw5** with a **<DATA>** and then **<DATA>** the 

This will make the screen flash and data has been read.

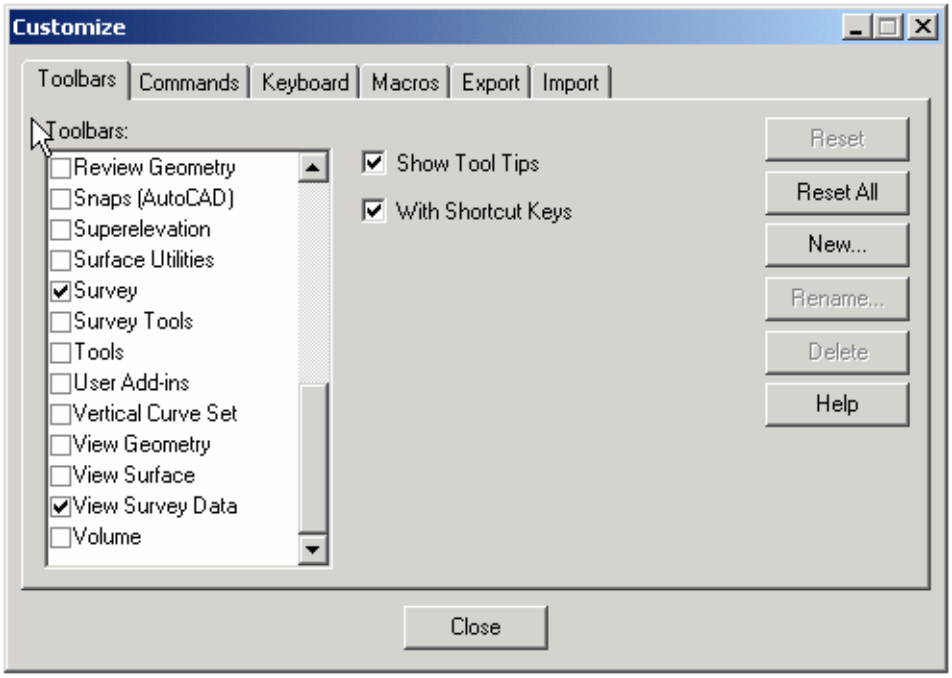
3) After the flash **<DATA>** 



Right Click next to **Help** and select **Locks**



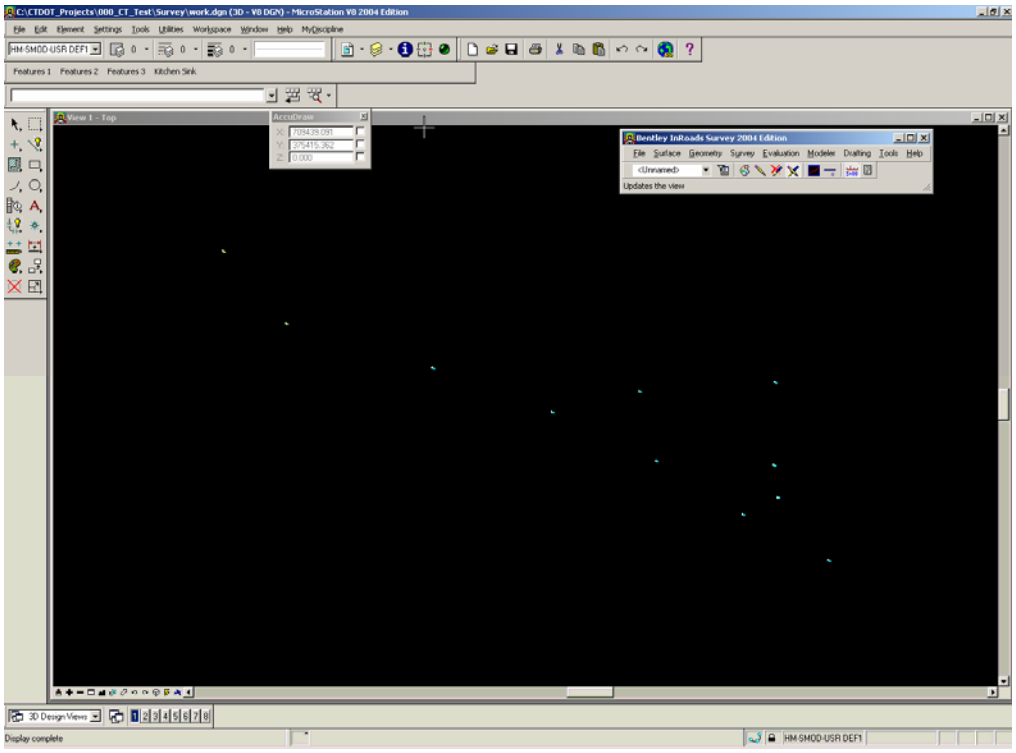
Right Click next to **Help** and select **Customize...**



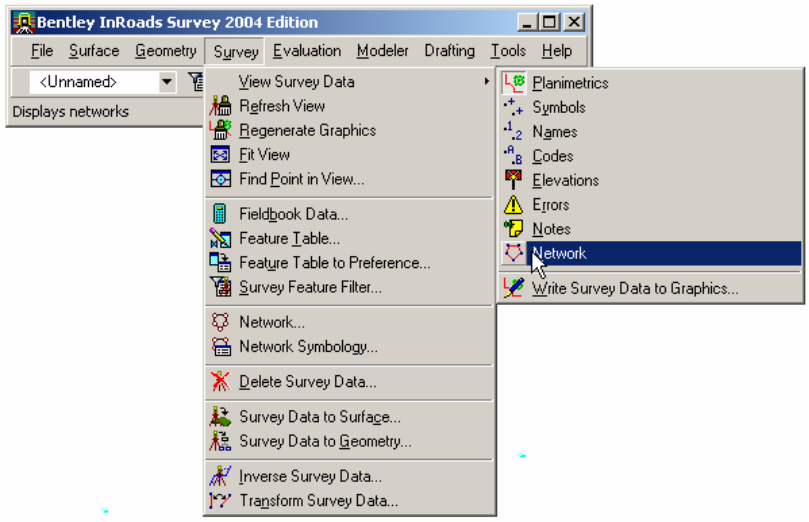
Turn on **Survey** and **View Survey Data** 

These now can be docked on the InRoads Menu

4) The processing will take a few seconds and the view below will appear. Notice the Traverse Points are displayed.

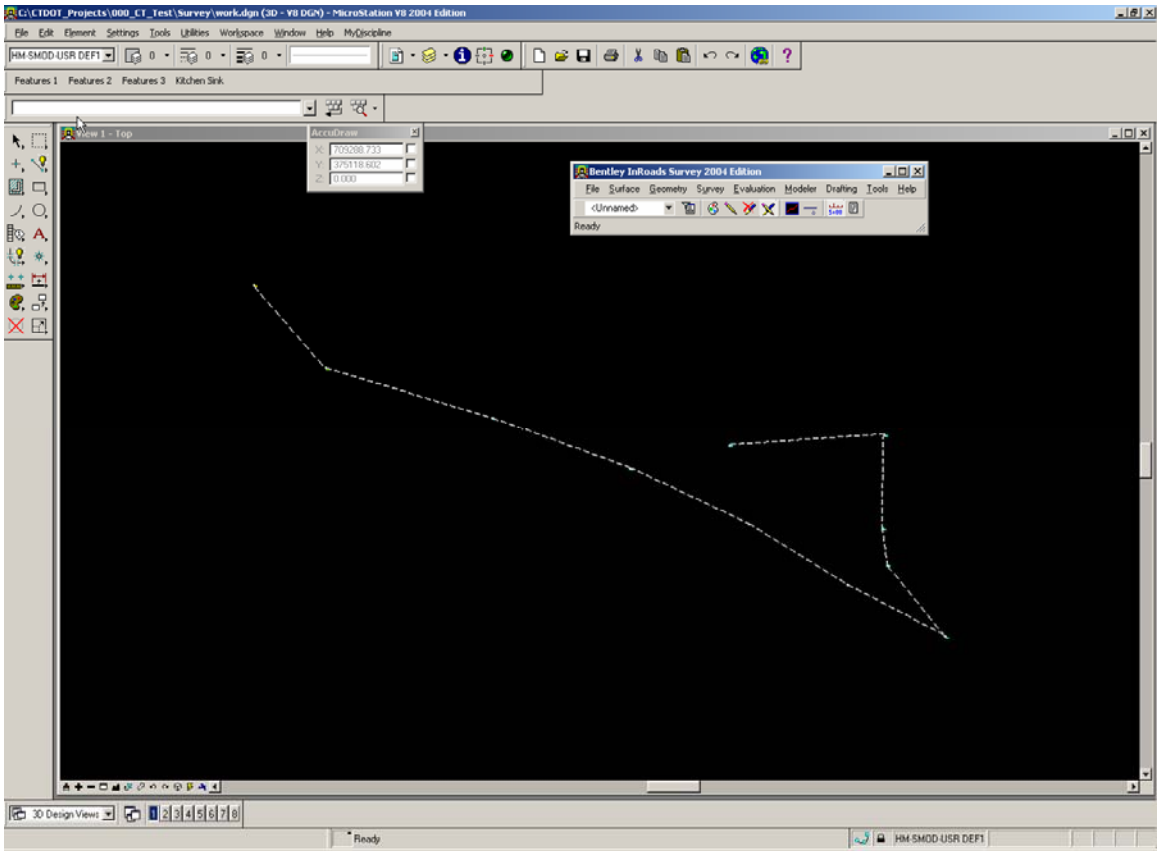


5) Select **Survey > View Survey Data > Network**



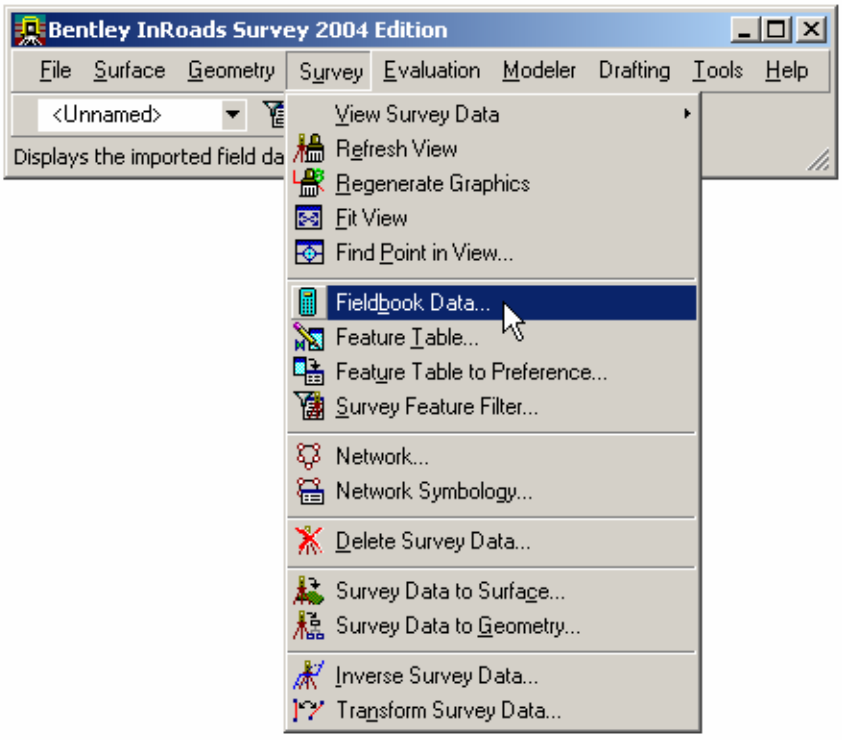
Or

This will display the Traverse lines between the points.

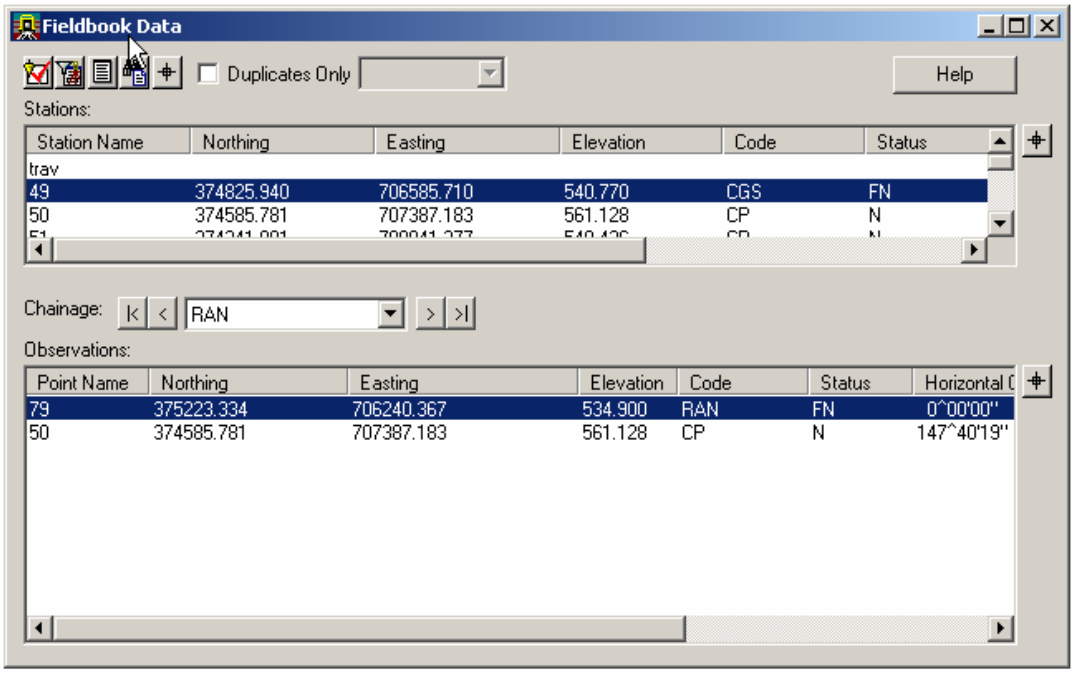


Adjusting the Traverse using Least Squares

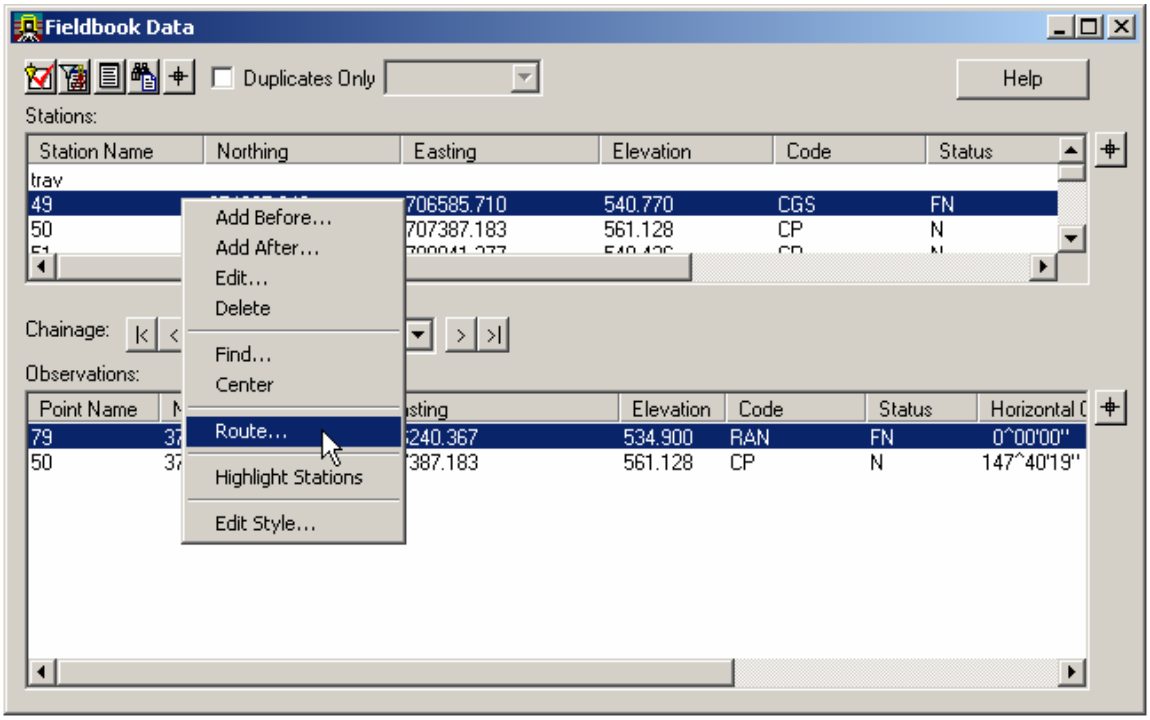
6) Select **Survey>Fieldbook Data**



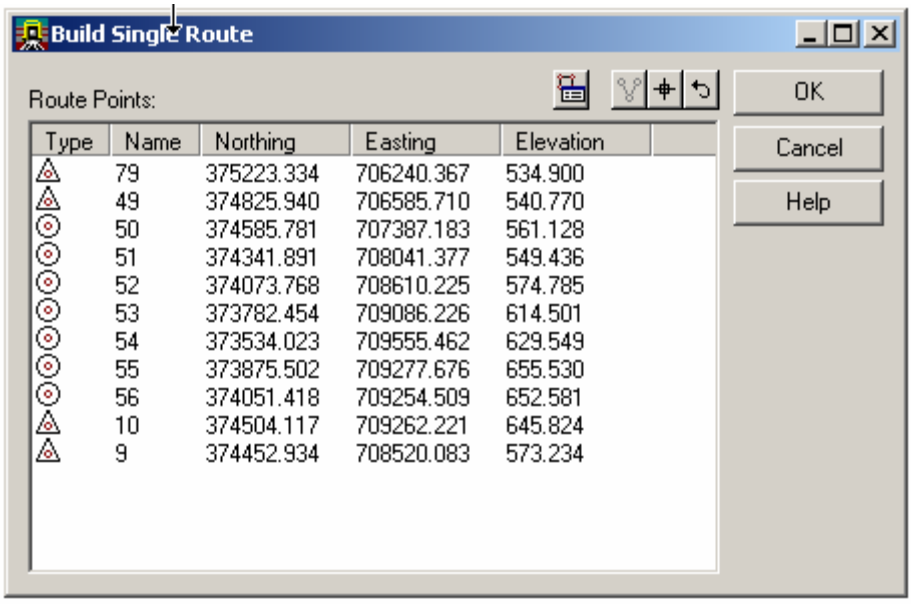
The Fieldbook Data dialog will appear.



7) n the Station portion of the dialog **< RIGHT CLICK>** the first station **49**. A menu will appear and now slide down and select **Route...** with a **<D>**



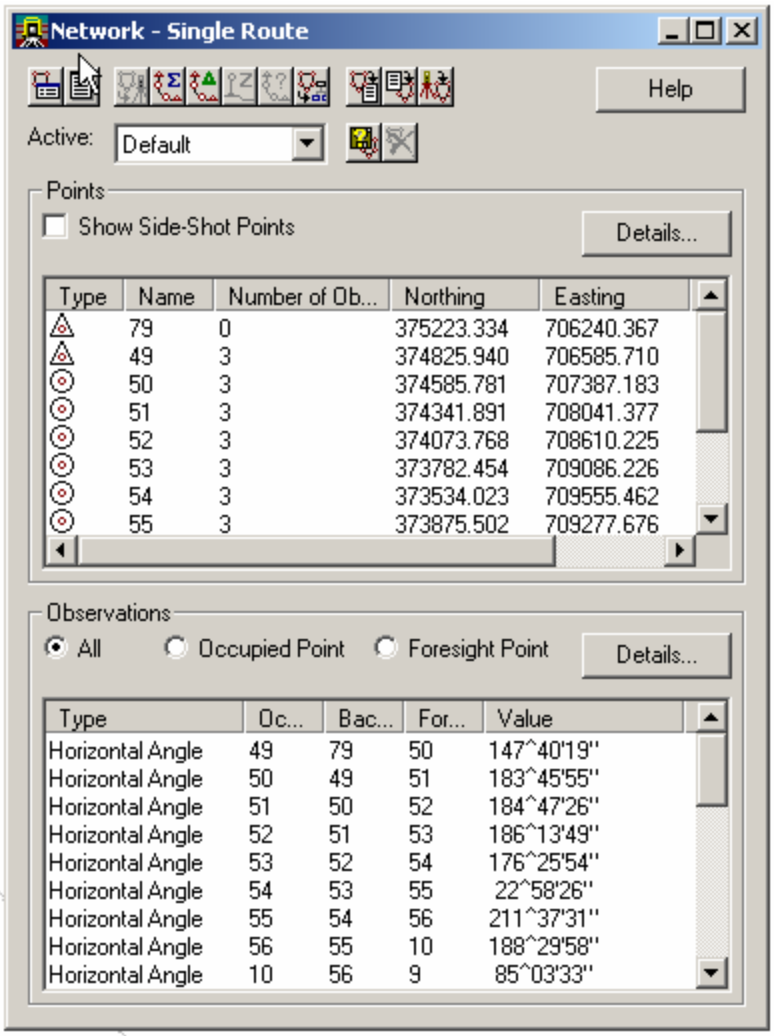
The following dialog will appear and show you the data for the traverse. Notice that the fixed points are symbolized with a triangle and the computed points are circles.



8) **<DATA>** 

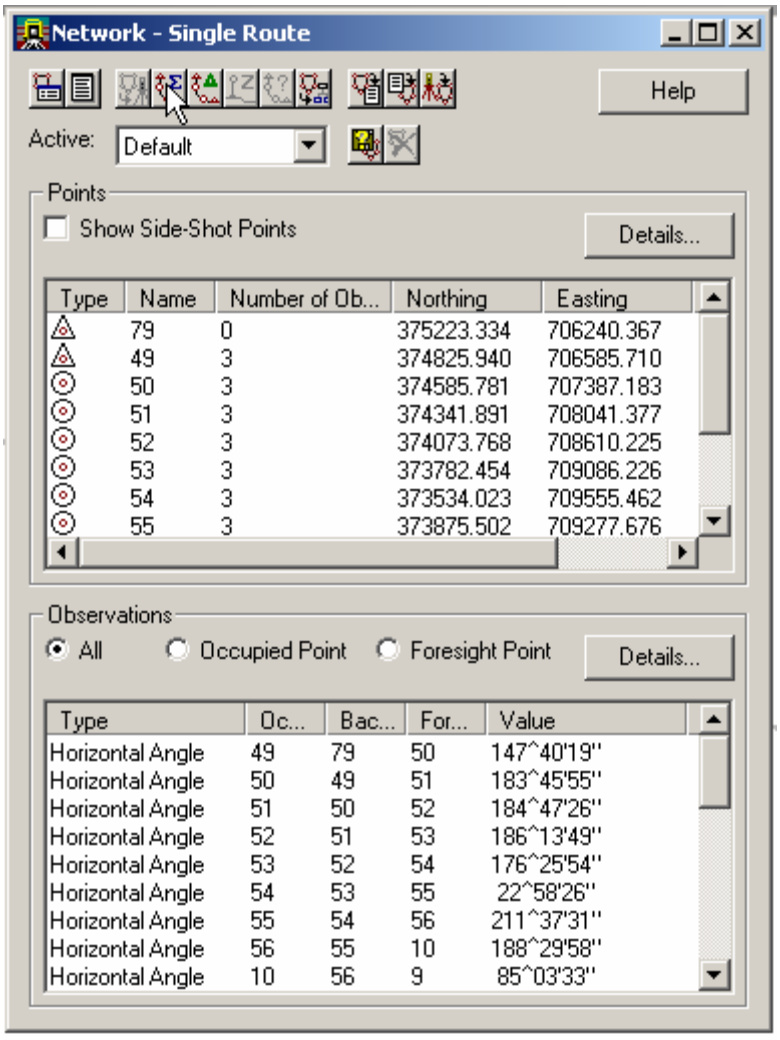
To learn more these Commands **<D>** 

This brings the Network data into the **Network - Single Route** dialog.

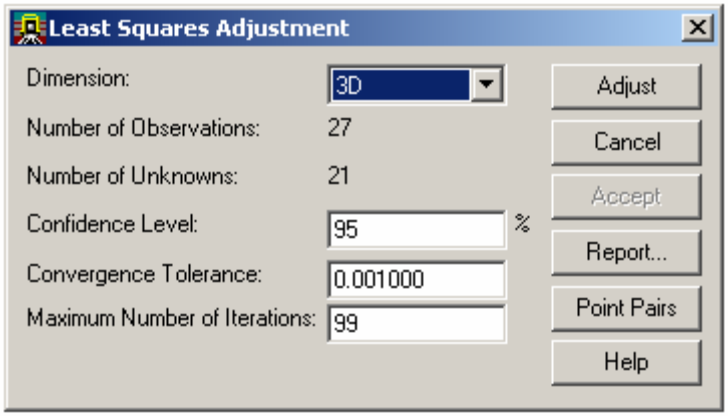


To learn more these Commands **<D>** 

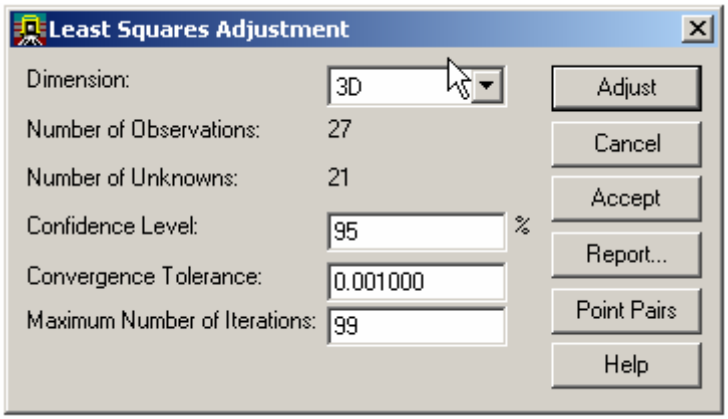
9) **DATA>** the Least Squares button 



10) Match the dialog with the one shown below



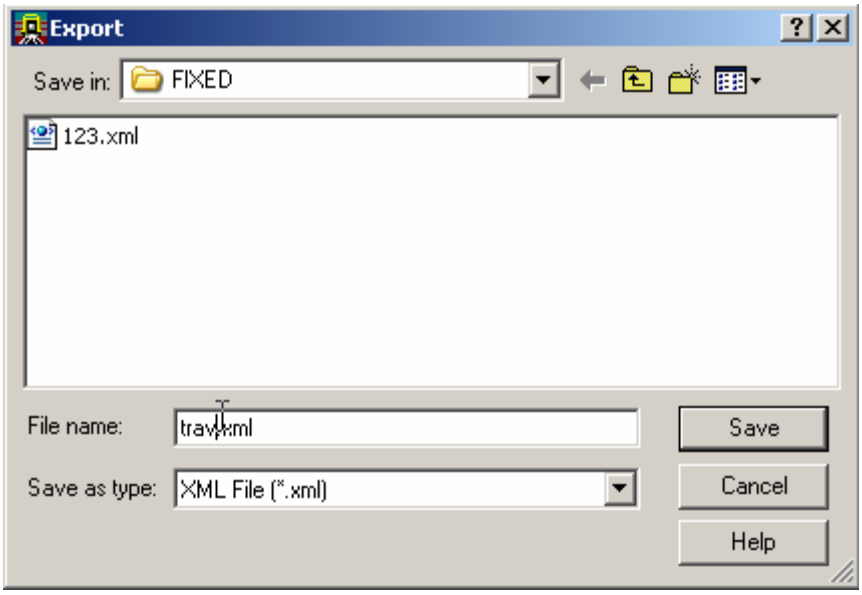
11) **<DATA>** 



12) Before we 

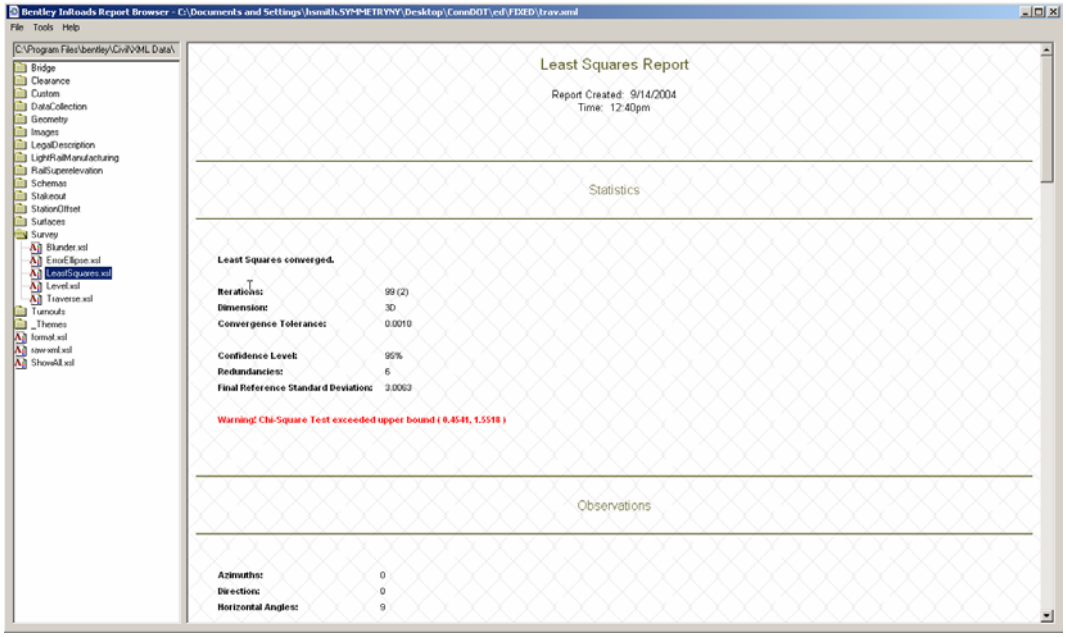
<DATA> 

to review the report .

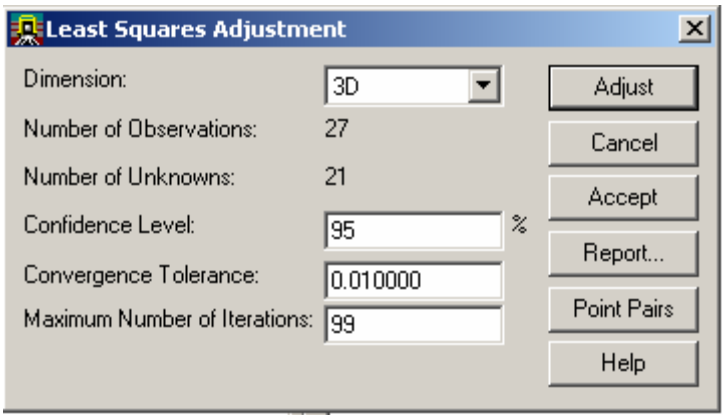


13) **File name: trav.xml** for the file name and **<DATA>** 

The following xml report will be generated. We will check the adjustments and see if everything is the way we.



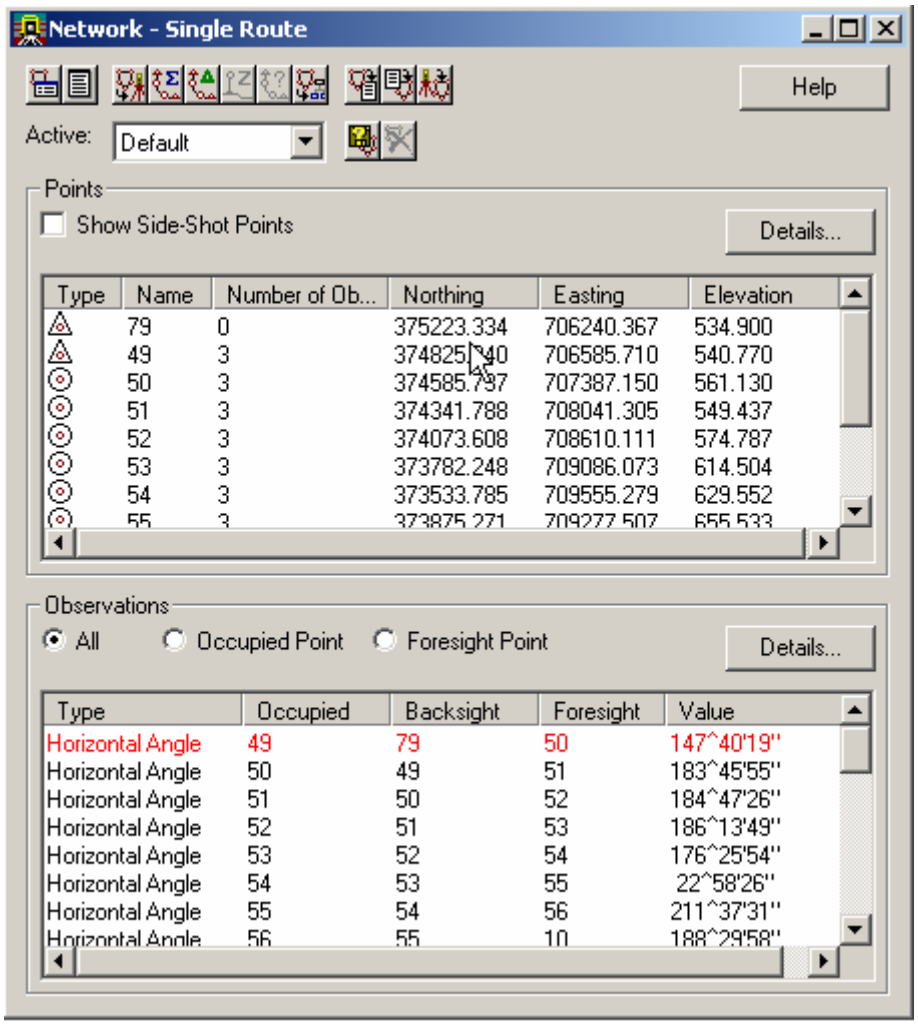
After review close the window and the Least Squares Adjustment Dialog will still be available.



14) **<DATA>** 

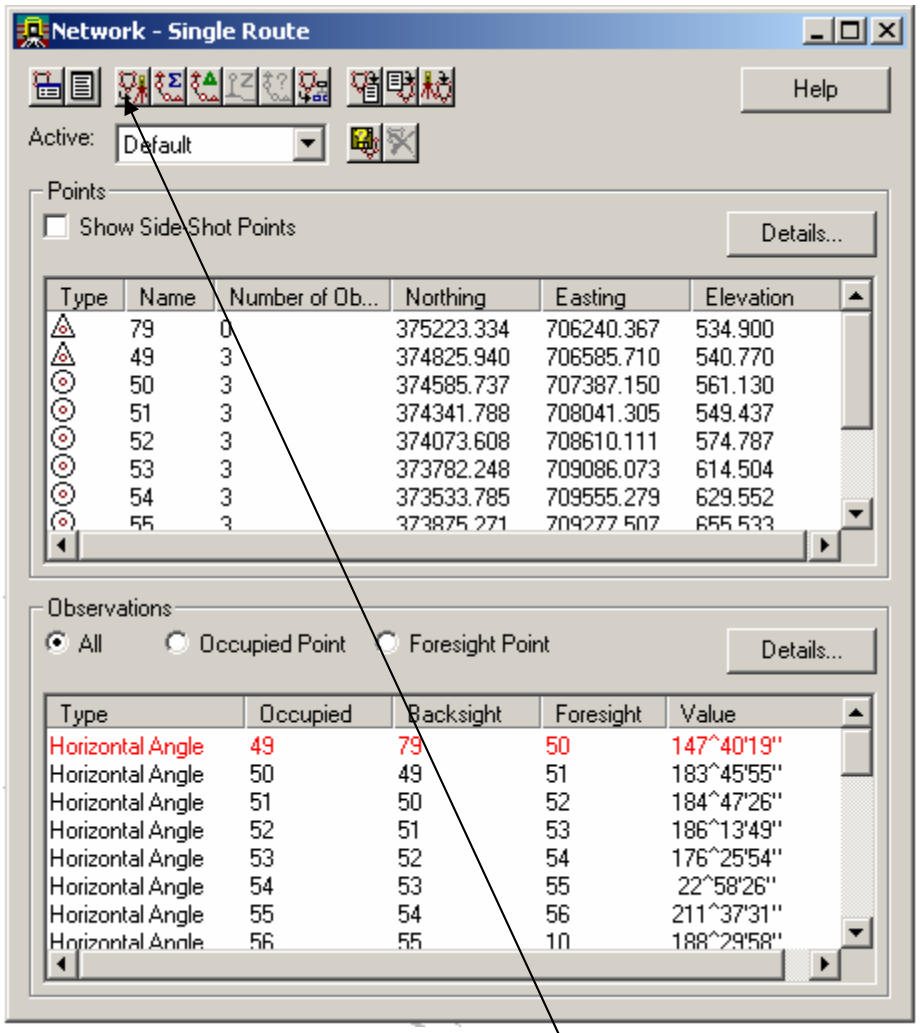
this will bring the adjusted data forward.

Notice the xyz values change based on the adjustment.



Note: Even after we accept the Network we could still return to the adjustment commands and start again. InRoads will retain the original data information so that the Network can be recomputed anytime.

Now we still need to bring the adjusted data forward one more time. Even though we have accepted the data for the adjustment we still need to bring it forward to the fieldbook.



15) **<DATA>** the Network to Fieldbook Icon 

This brings the adjusted data into the fieldbook.

Status

indicates the relevant status code(s) for each station. The status codes are:

N - The point has notes.

E - The point has been edited.

F - The point is a keyed-in (fixed) coordinate.

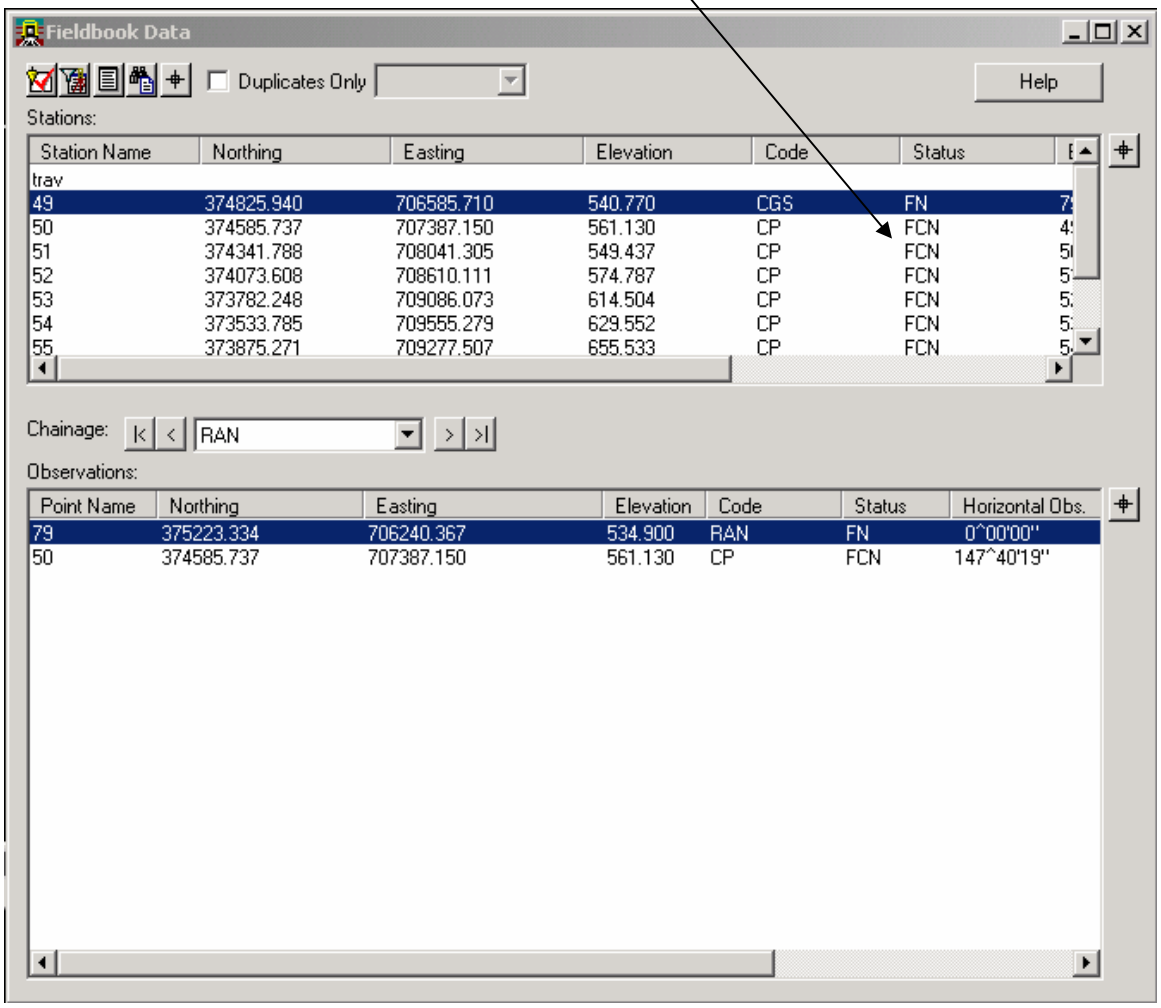
A - The point has attributes.

V - At least one of the attributes has a value.

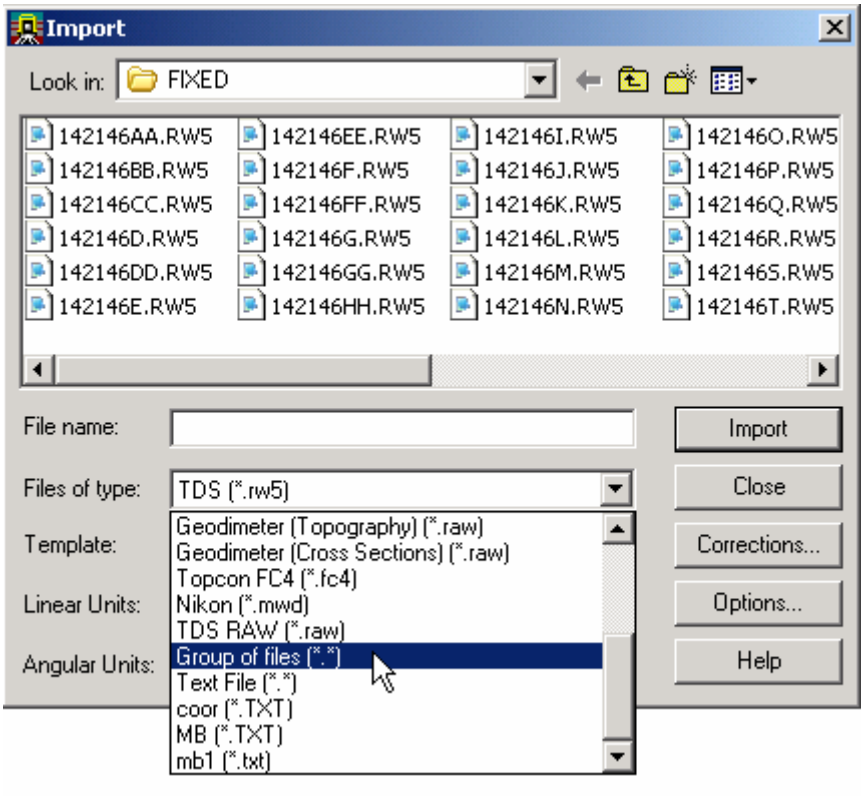
I - An inserted point

C - An adjusted point.

Notice: In this dialog the status of the traverse points are now fixed.



Note: For multiple files you can use the **Group of files** option to import list.

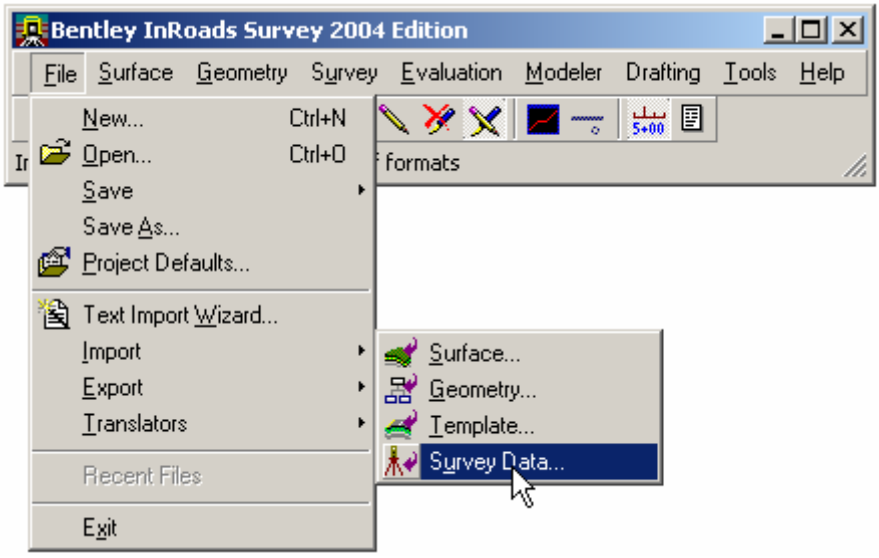


Sample of the format used in the .txt file used for Group of files

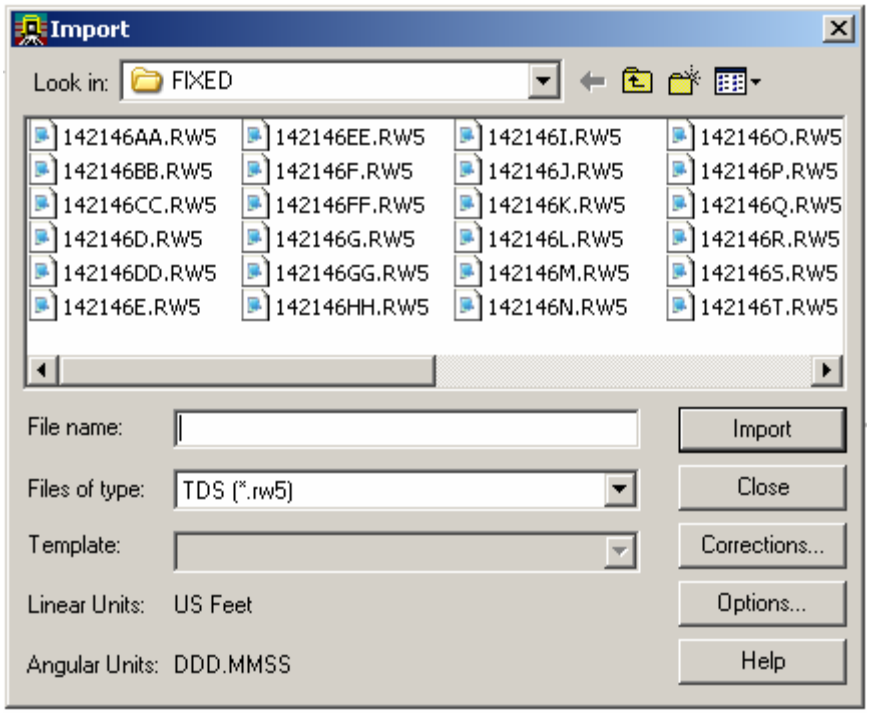
142146AA.RW5 TDS RW5
142146bb.RW5 TDS RW5
142146cc.RW5 TDS RW5
142146d.RW5 TDS RW5
142146dd.RW5 TDS RW5
142146e.RW5 TDS RW5
142146ee.RW5 TDS RW5
142146f.RW5 TDS RW5
142146ff.RW5 TDS RW5
142146g.RW5 TDS RW5
142146gg.RW5 TDS RW5
142146hh.RW5 TDS RW5
142146i.RW5 TDS RW5
142146j.RW5 TDS RW5
142146k.RW5 TDS RW5

Processing the rest of the Survey Data

16) Select the **File > Import > Survey Data**

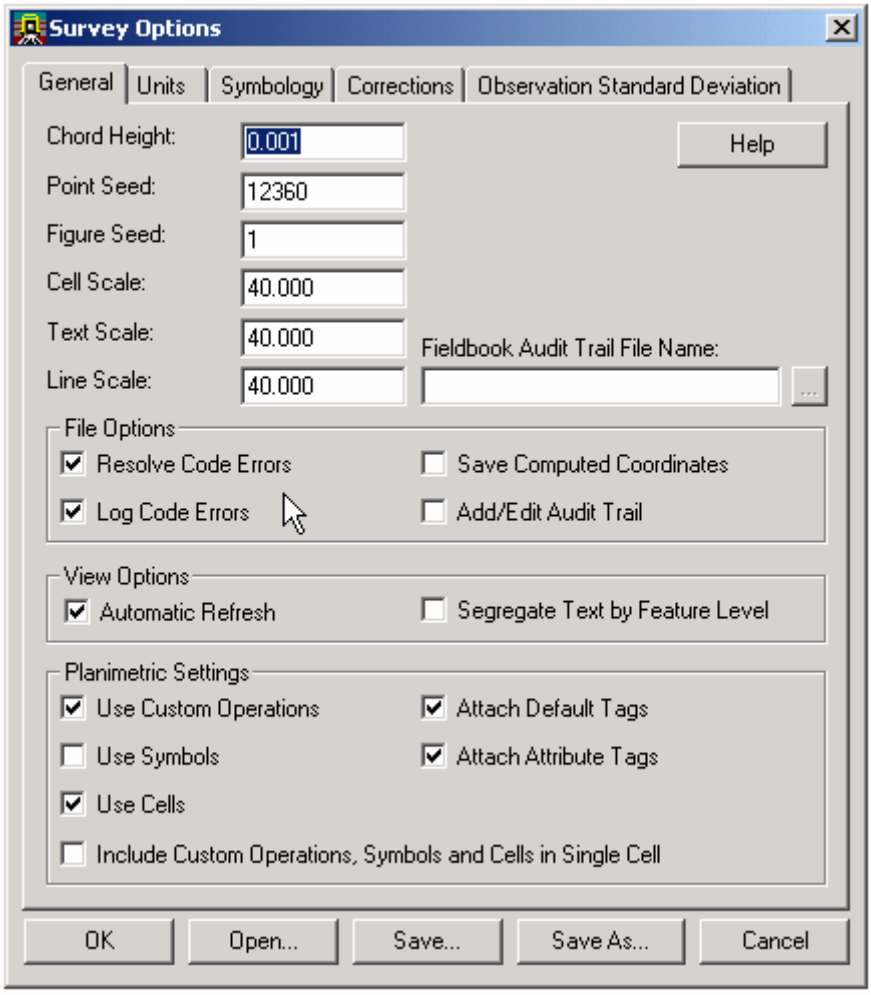


17) Again the import dialog appears. You can double click each file or select each file and **<DATA>** Import



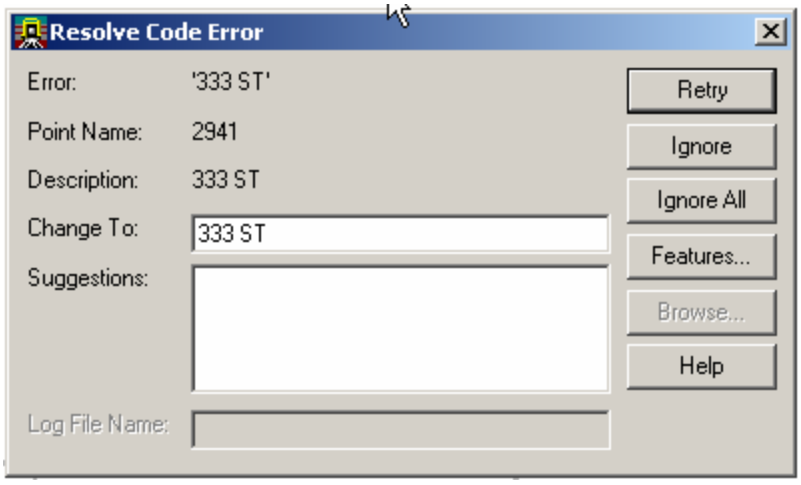
TIP

Select **Tools > Survey Options** and in the File Options portion of this dialog you can turn the option to **Resolve Code Errors** and **Log Code Errors** on or off.



18) After selecting all the files that are to be imported **<DATA>** 

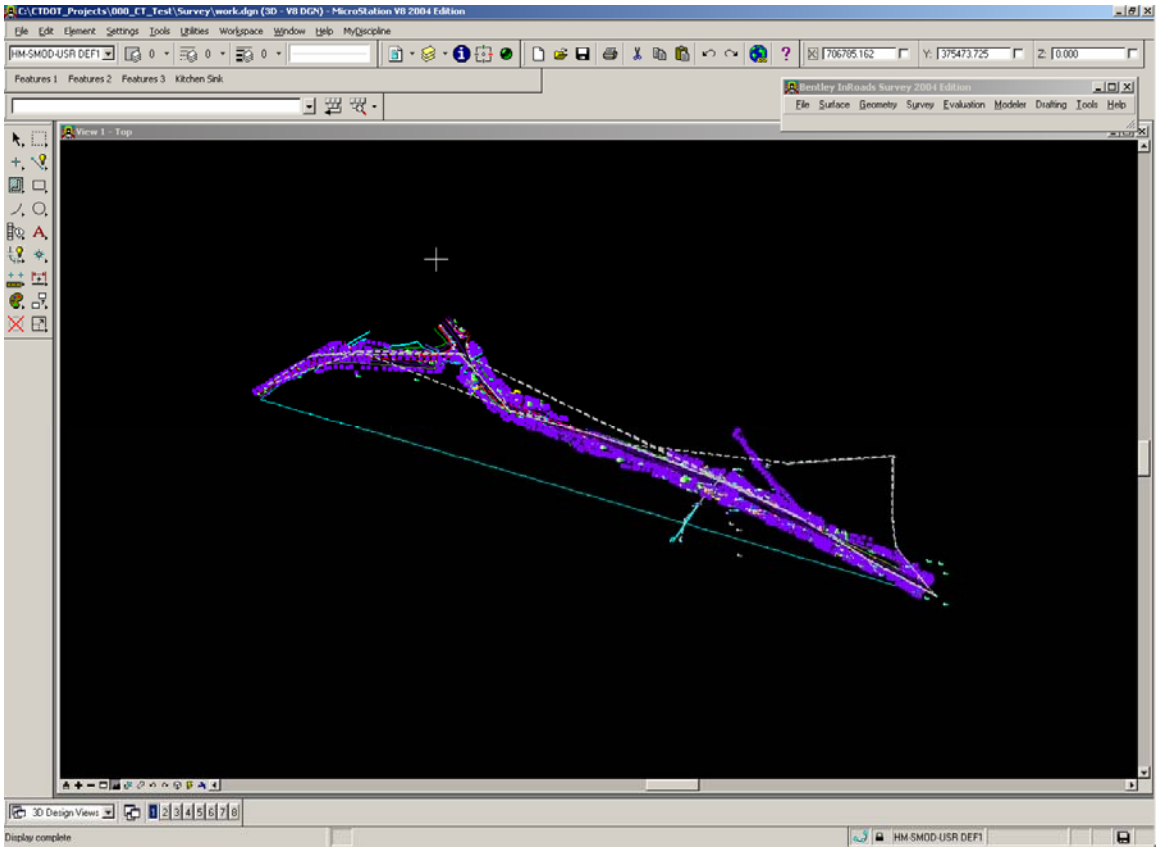
The following dialog will appear because there are Code Errors



19) Select 

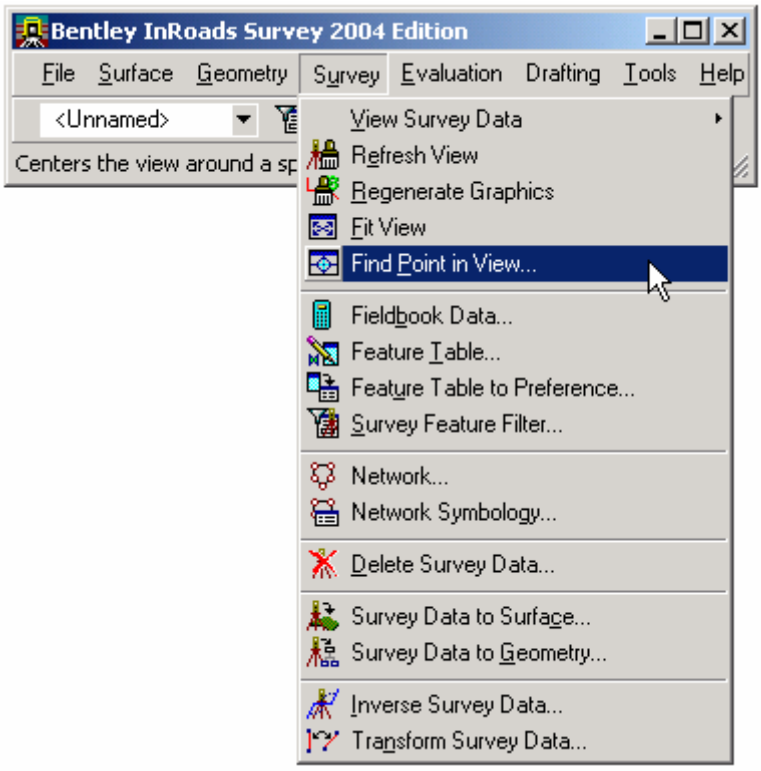
with a **<DATA>** This will process the data and allow the user to fix the code errors later.

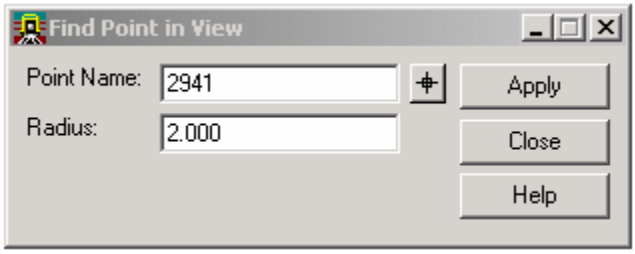
20) After a few seconds the view will appear as shown below.



Fixing Code Errors

21) The first Code error we will fix is the code error that was reported as we processed the data. Select the **Survey > Find point in** view command





22) When the **Find Point in View** dialog appears enter the

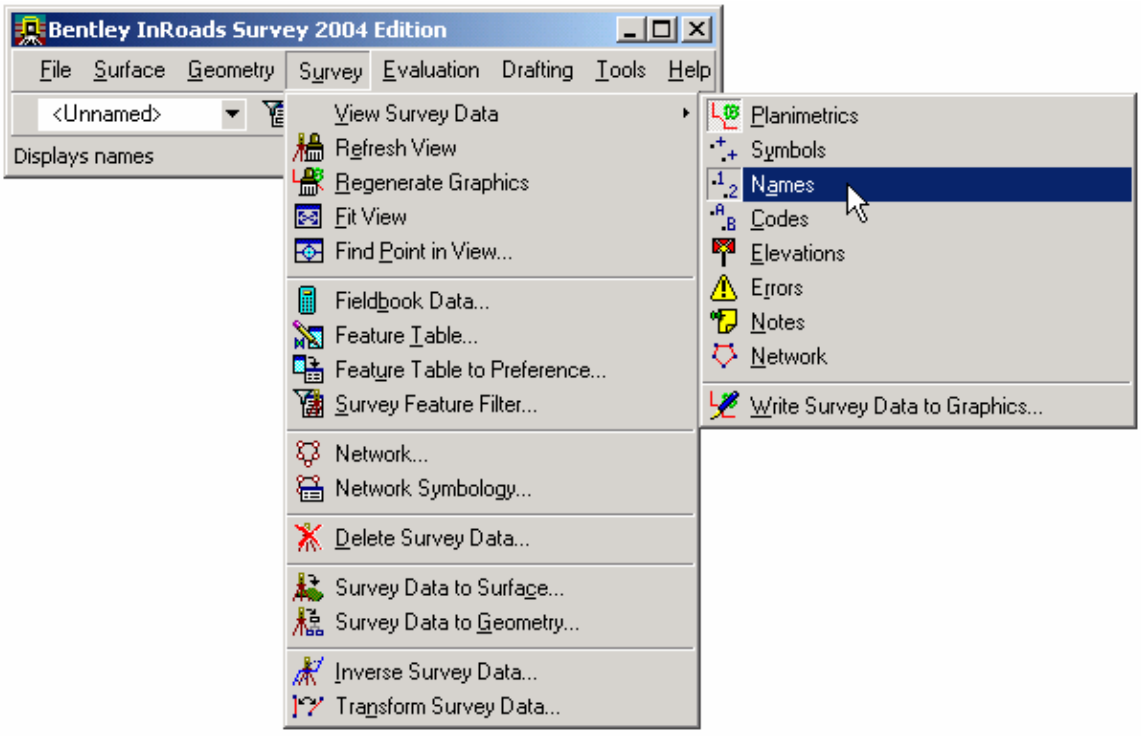
point number: **2941** (Pt # observed when the code errors were reported.)

radius: **2.000** (feet)

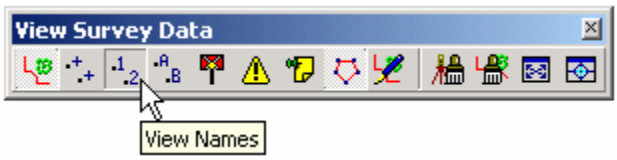
<DATA> 

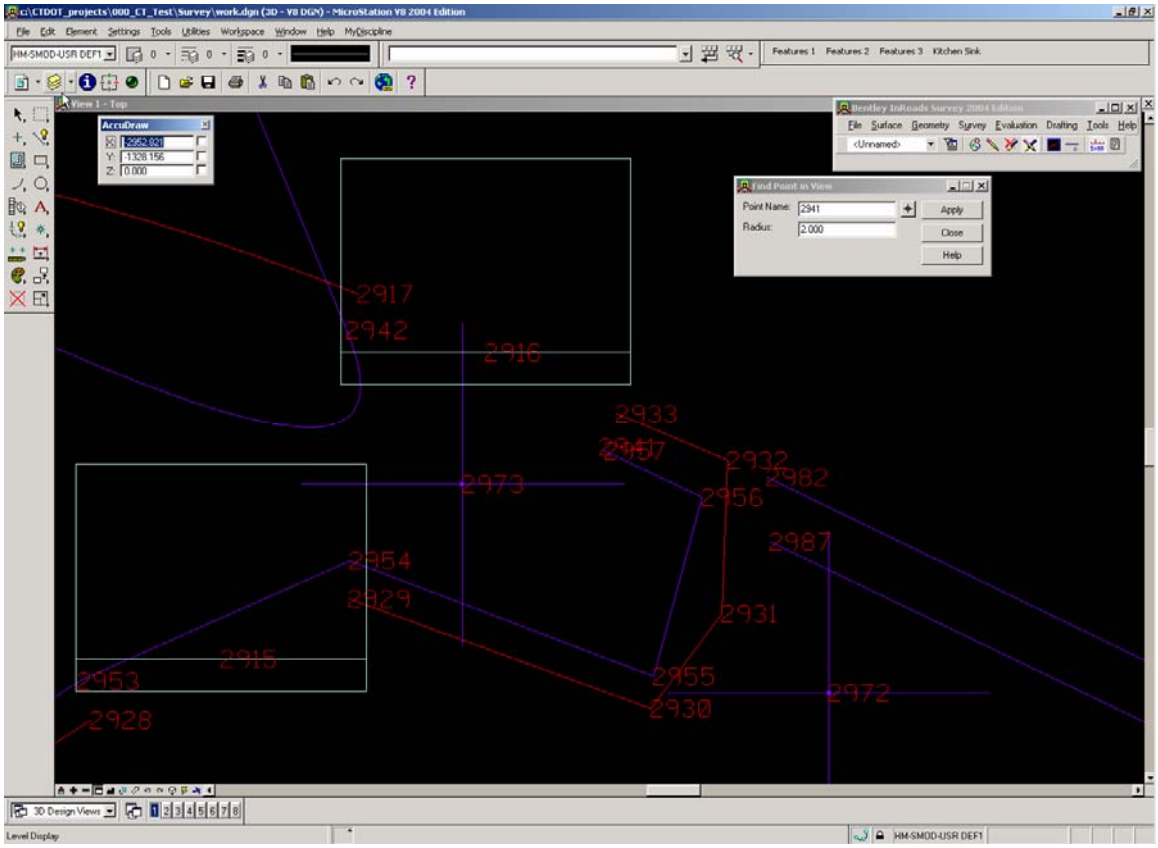
This will center the point to the screen and everything that is within a 2 foot radius.

23) Turn on the point numbers by selecting **Survey > View Survey Data**



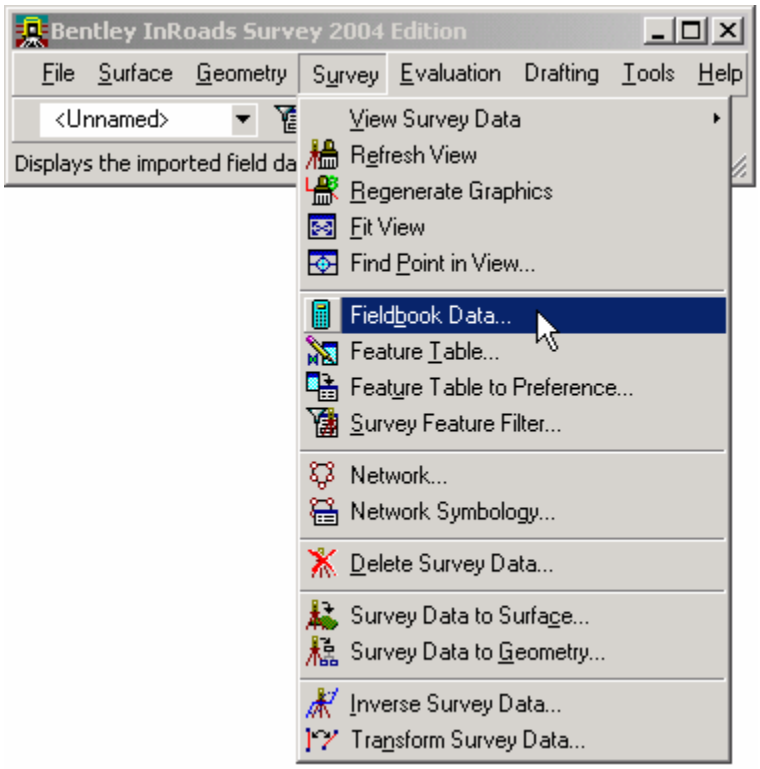
Or



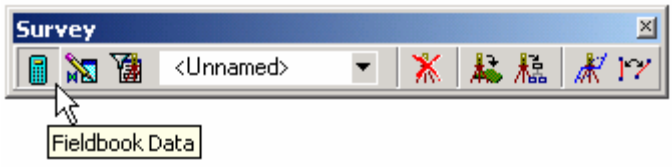


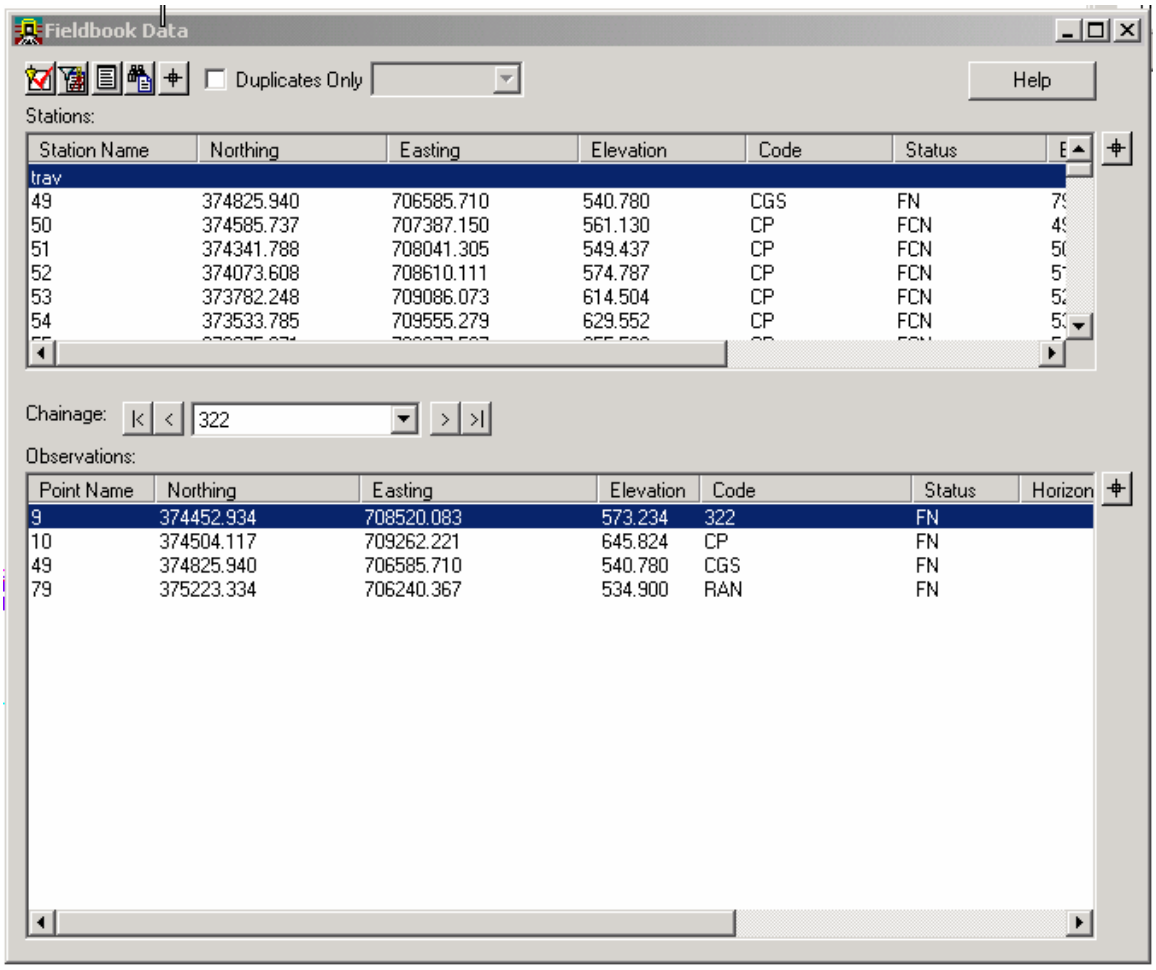
Notice there is no symbology for point 2941 this is because the code was entered incorrectly in the field.

24) **Select** the **Survey > Fieldbook Data** from the Survey Menu



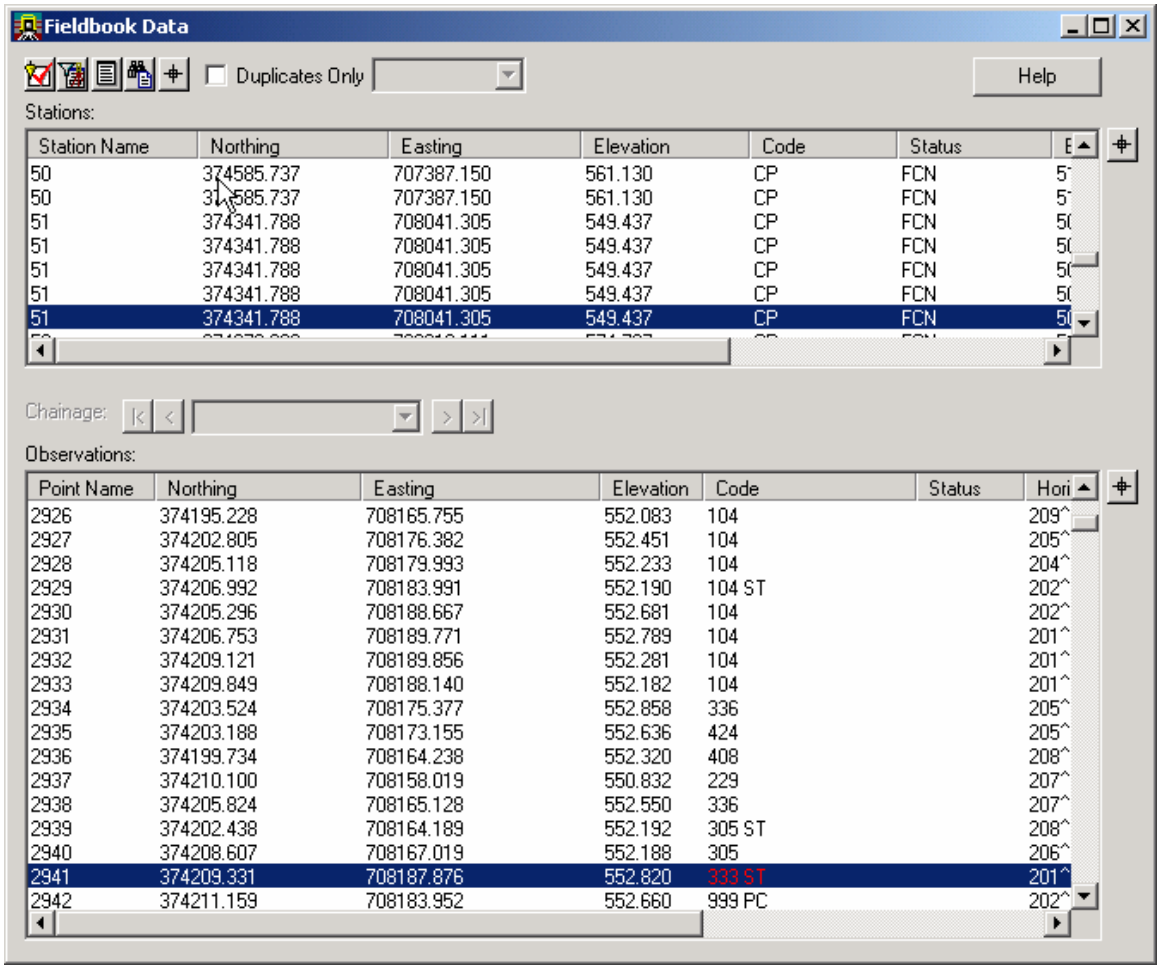
Or



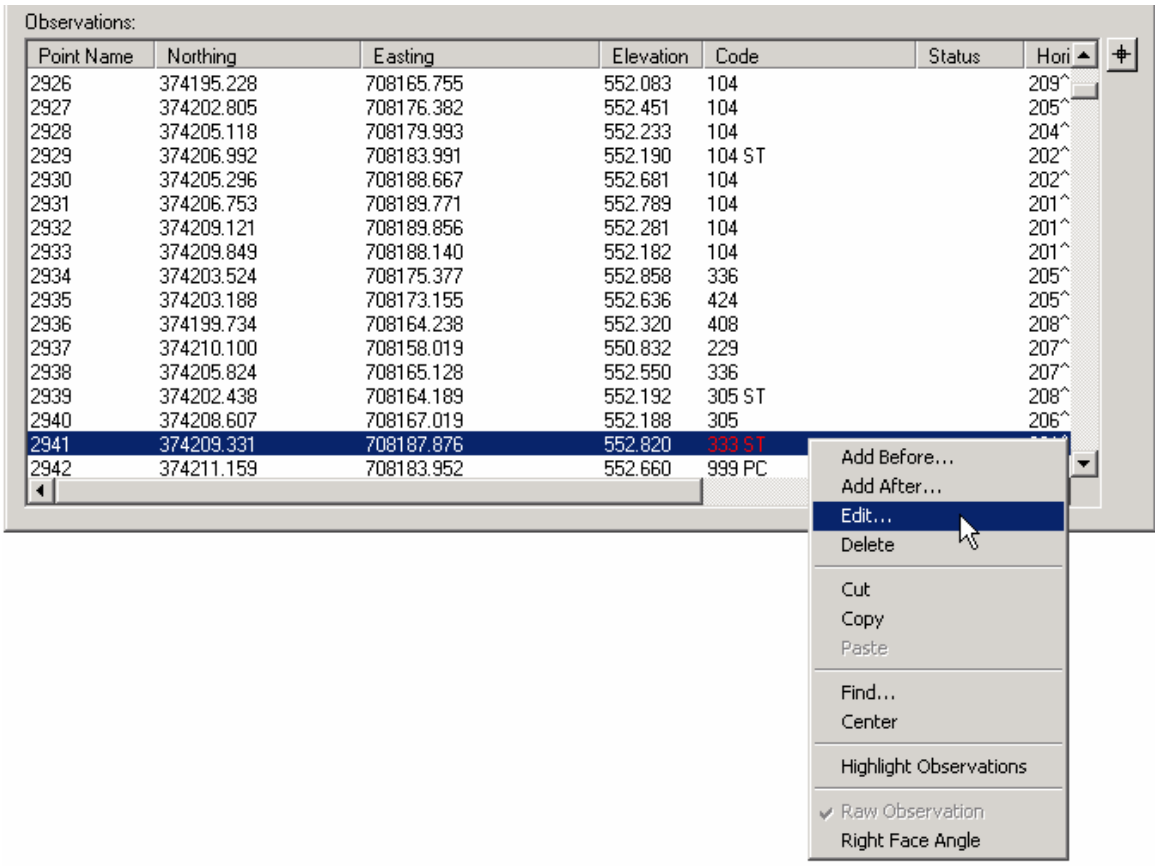


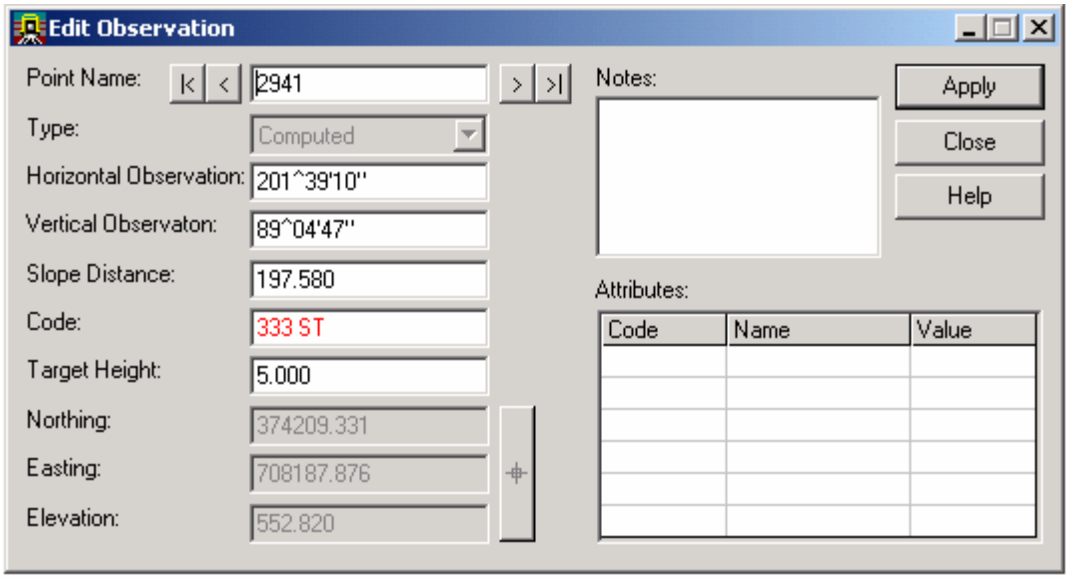
25) After the Fieldbook Data dialog appears select the selector button  from the Observation section with a **<DATA>** this will cause the dialog to minimize and InRoads will prompt you to Identify Point in the lower left hand corner of the screen. The minimized dialog might be covering the prompt just move it out of the way.

26) The Fieldbook Data dialog will display again with the point **2941** selected. Notice that the code is red. This indicates that there is a code error and the system does not recognize the code that was used in the field.



27) On the hilited line **<RIGHT CLICK>** and select **edit** or **<DOUBLE CLICK>**

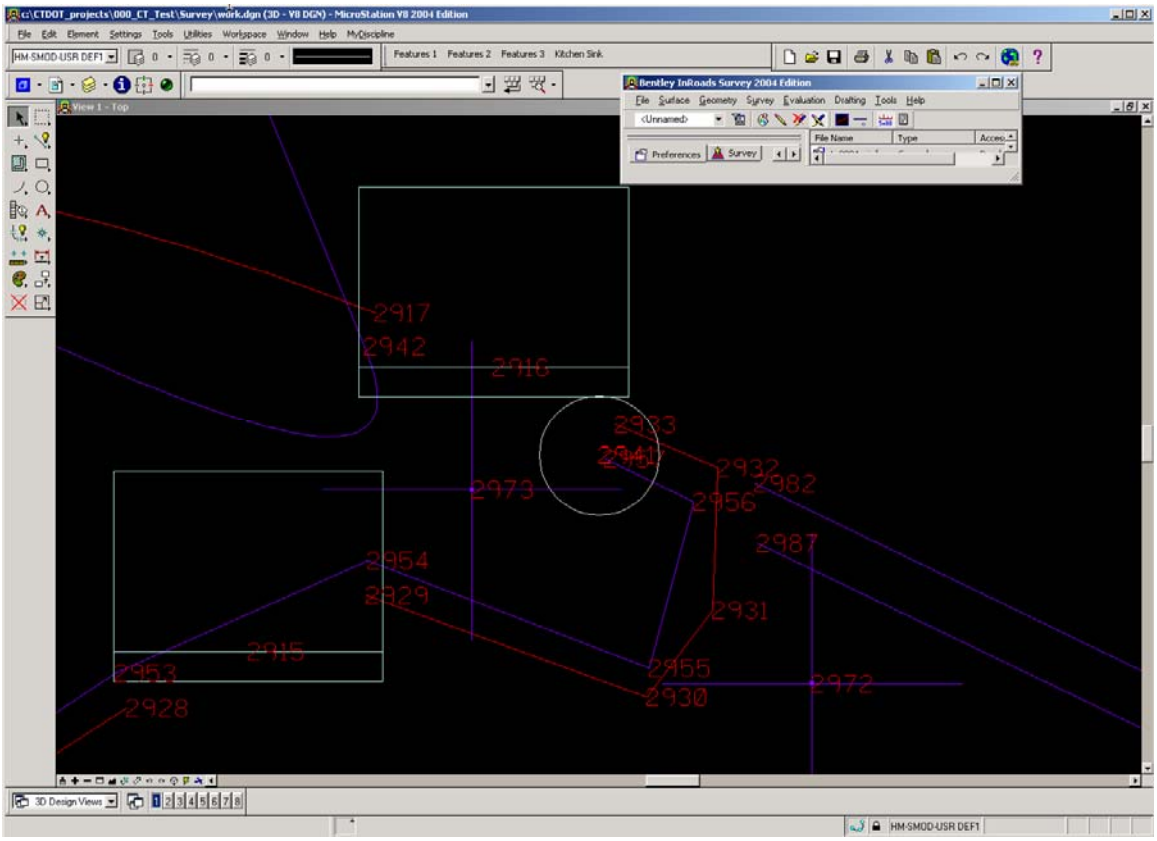




28) Enter **336** as the code and **<DATA>** 

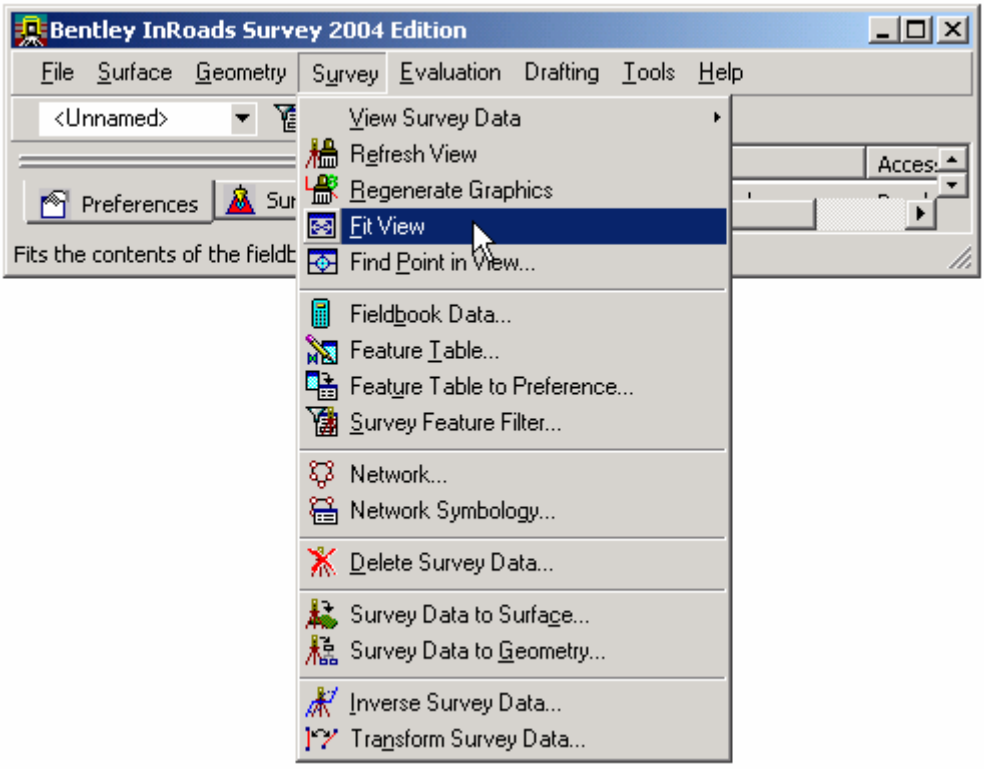
this will execute the command.

Notice the point now has the correct symbol for our point.

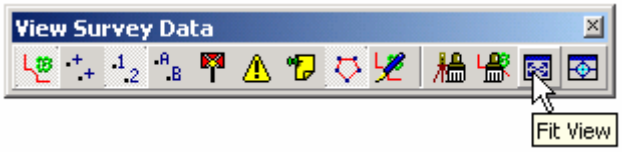


Finding things to fix

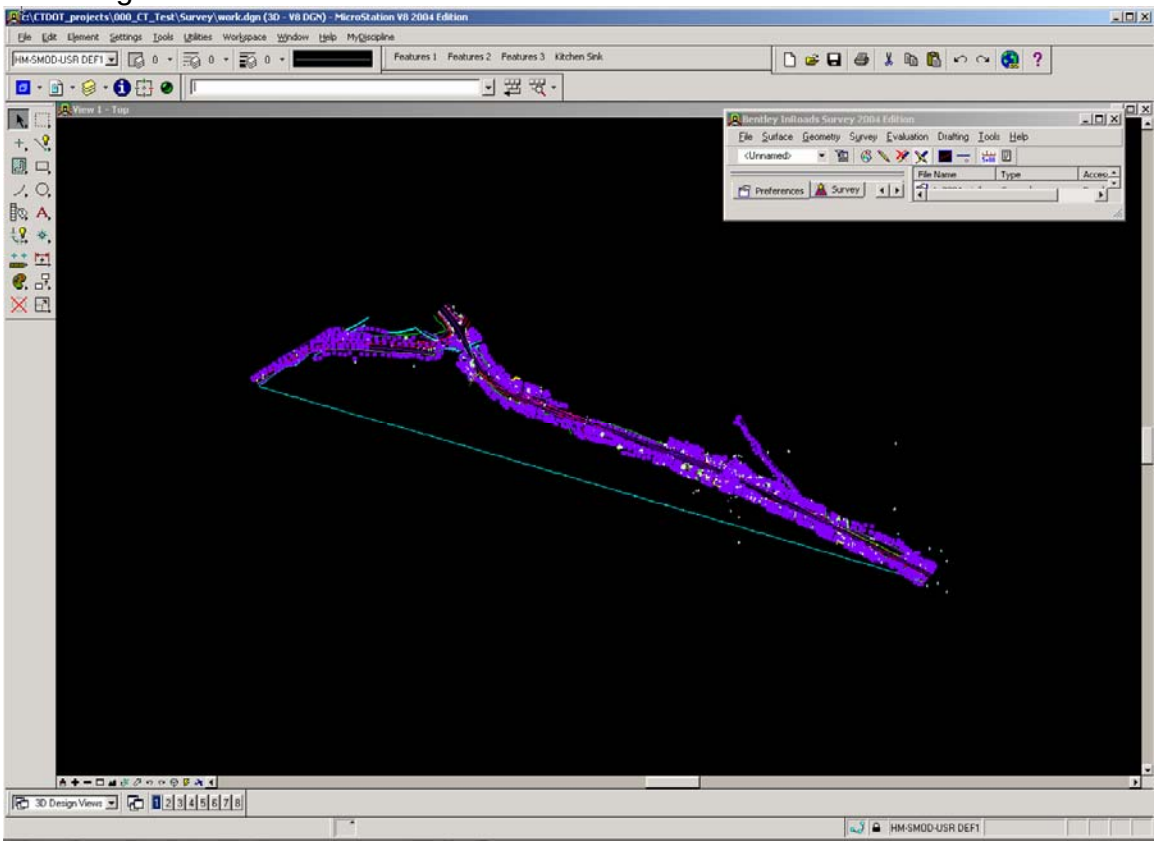
29) Select the **Survey > Fit View** this will fit the dynamic survey data display to your screen.

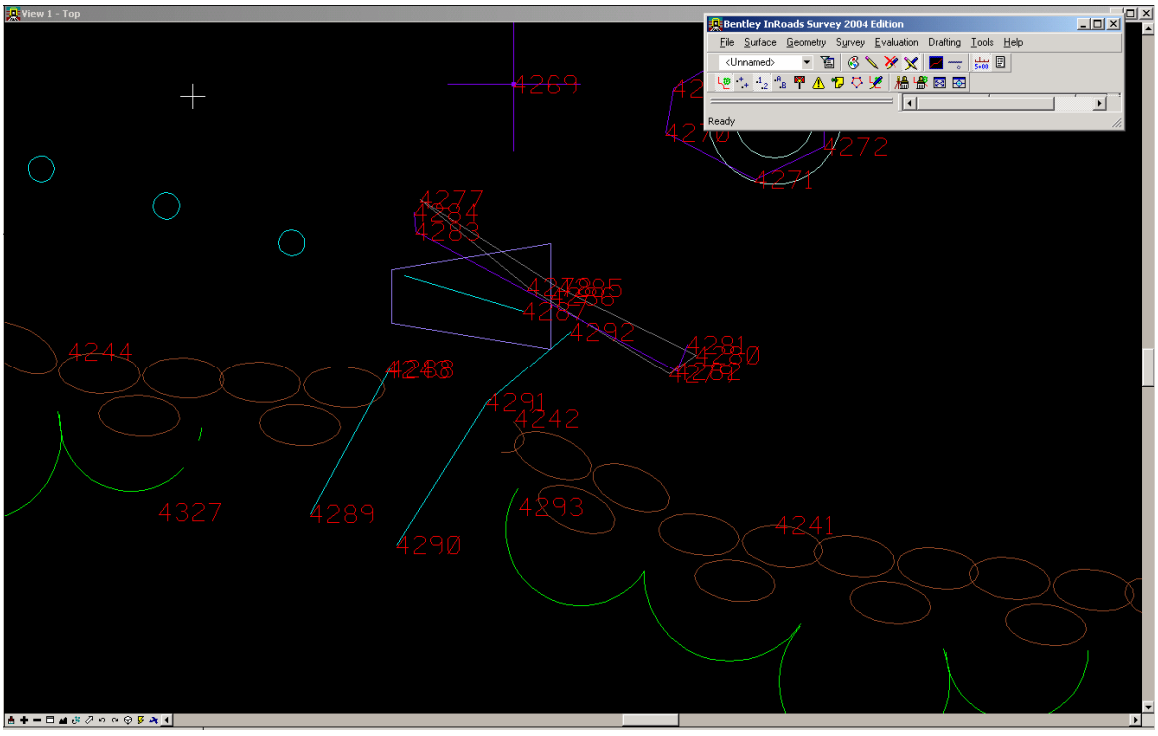


Or

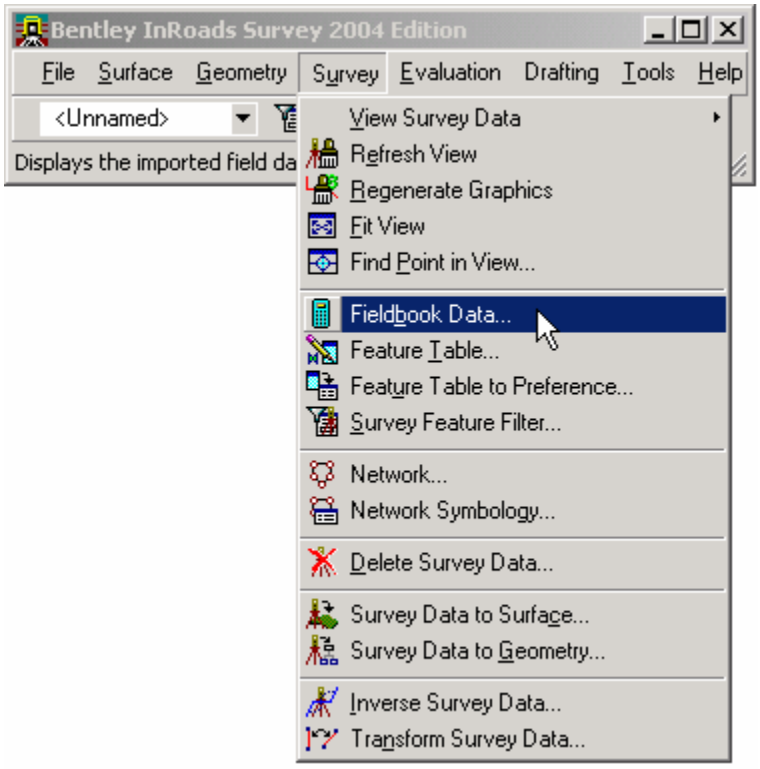


30) The view shows a blue line from one end of the data to the other this is not right. With the MicroStation Window Area in on the lower end of the line

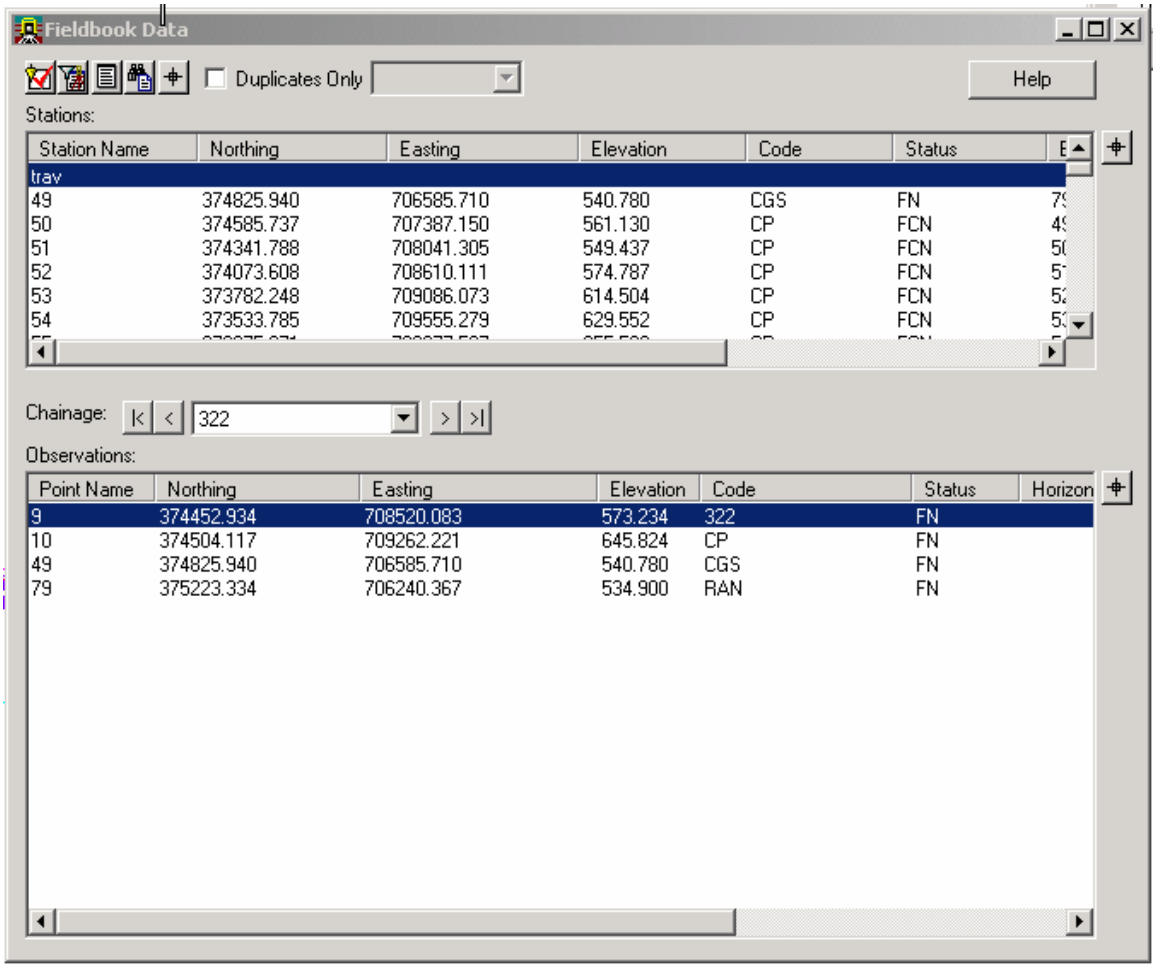




31) Again we will select the **Survey > Fieldbook Data** command from the menu

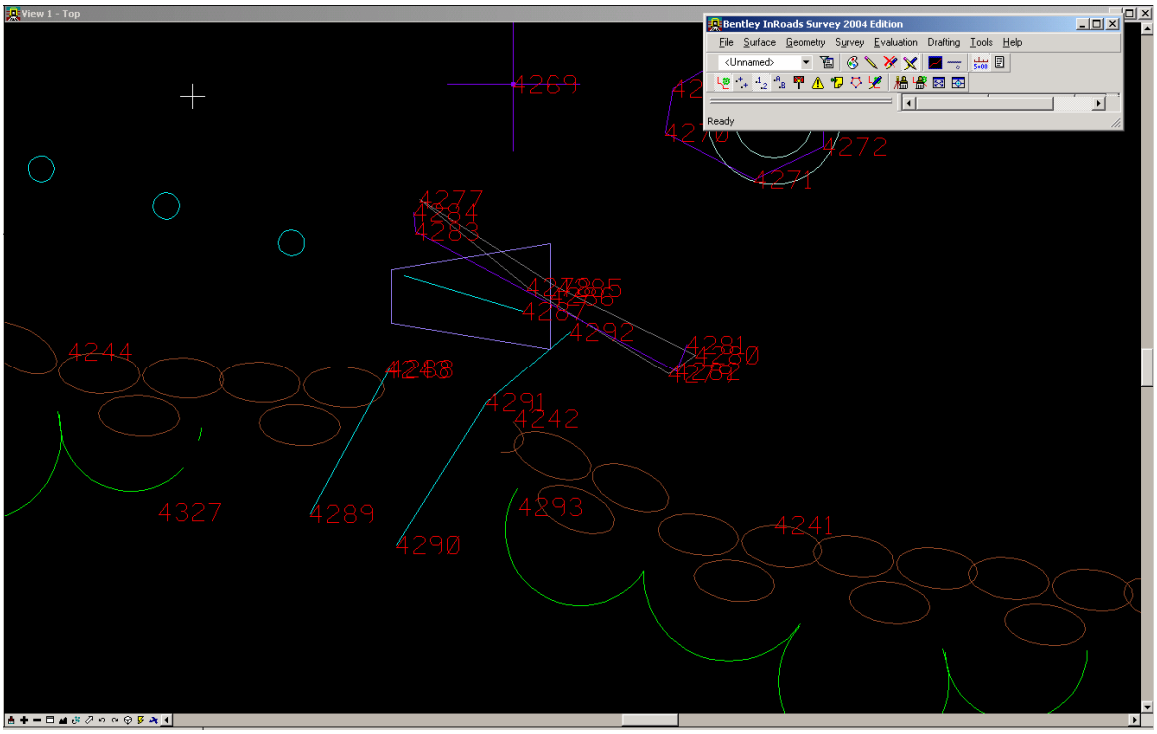


Or

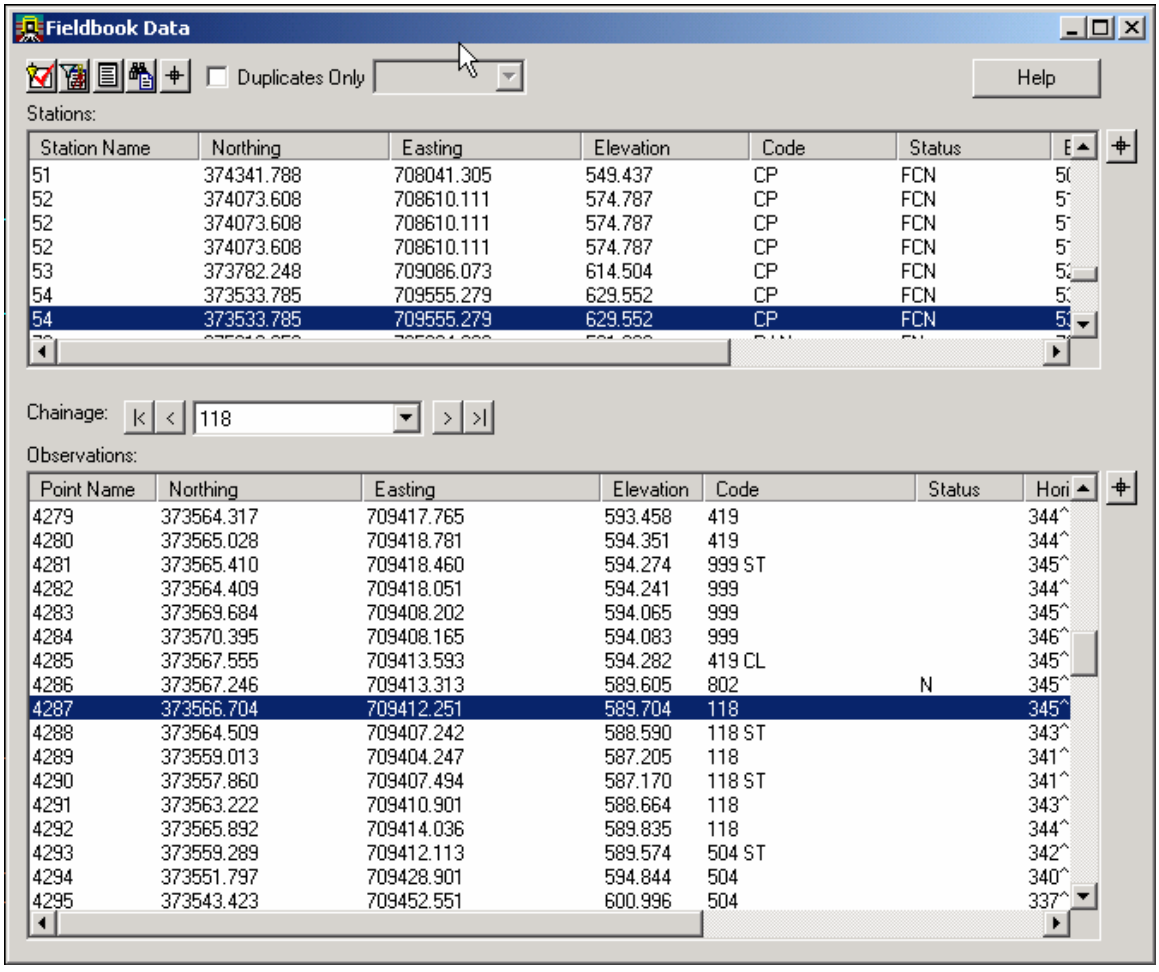


32) After the **Fieldbook Data** dialog appears select the selector button  from the **Observation section** with a **<DATA>** This will cause the dialog to minimize and InRoads will prompt you to Identify Point in the lower left hand corner of the screen.

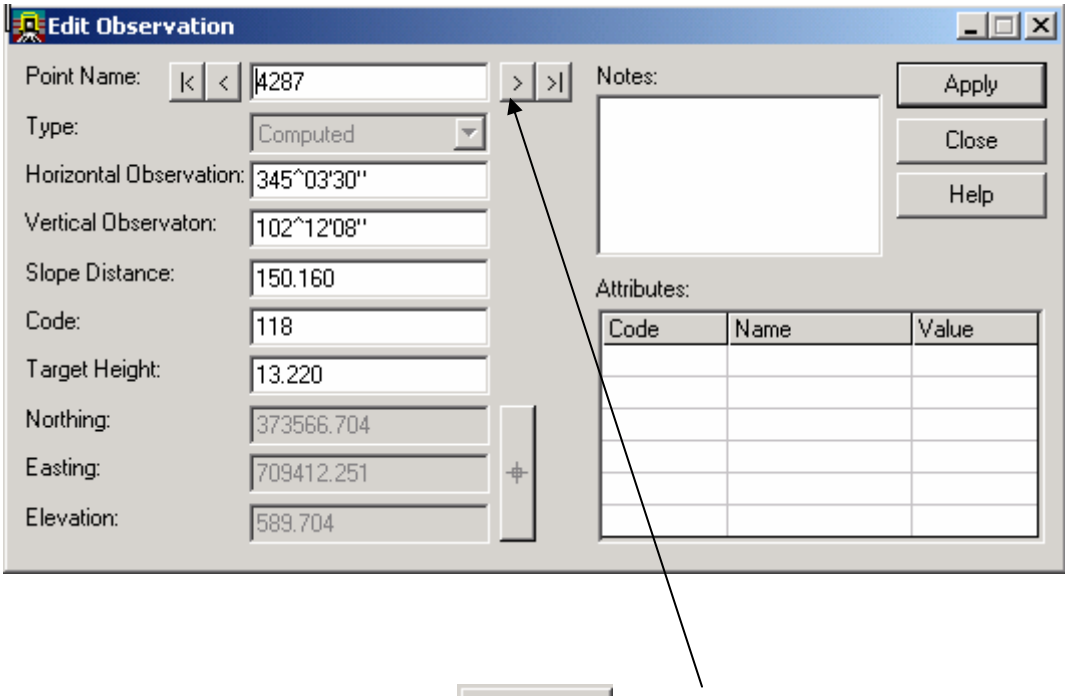
33) With a **<DATA>** select point **4287** in the view



34) The **Fieldbook Data** dialog will display again with the point **4287** selected. Notice that the code is **118** and that the second point of this chain has **ST** after it. After some trial and error we find that the **ST** should have been applied to the first point on this chain.

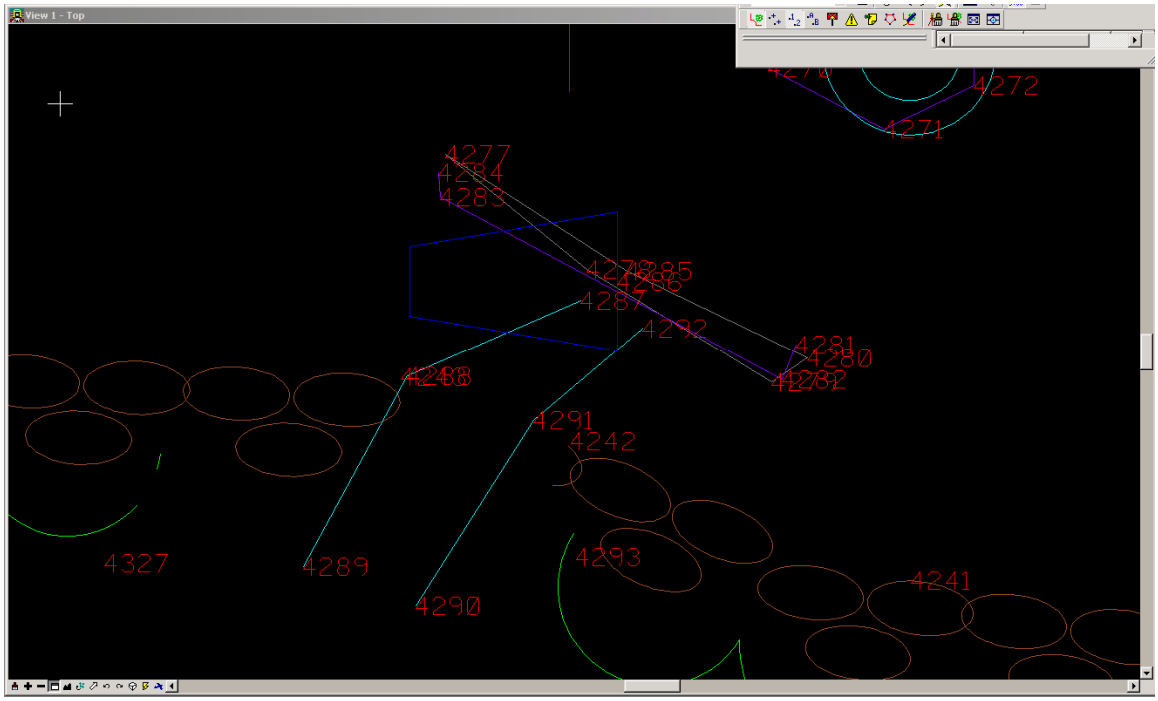


35) **<Right Click>** on the blue bar for point **4287** and select **Edit**



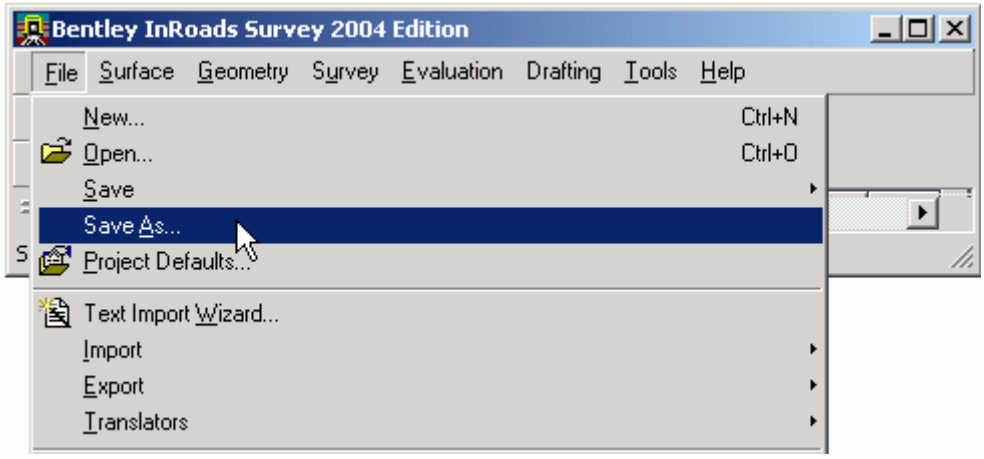
36) Add **ST** to the code line and  then select the next button this will take you to the next point where you will remove the **ST** and 

37) Notice the long line is gone and the channel is now displayed correctly.

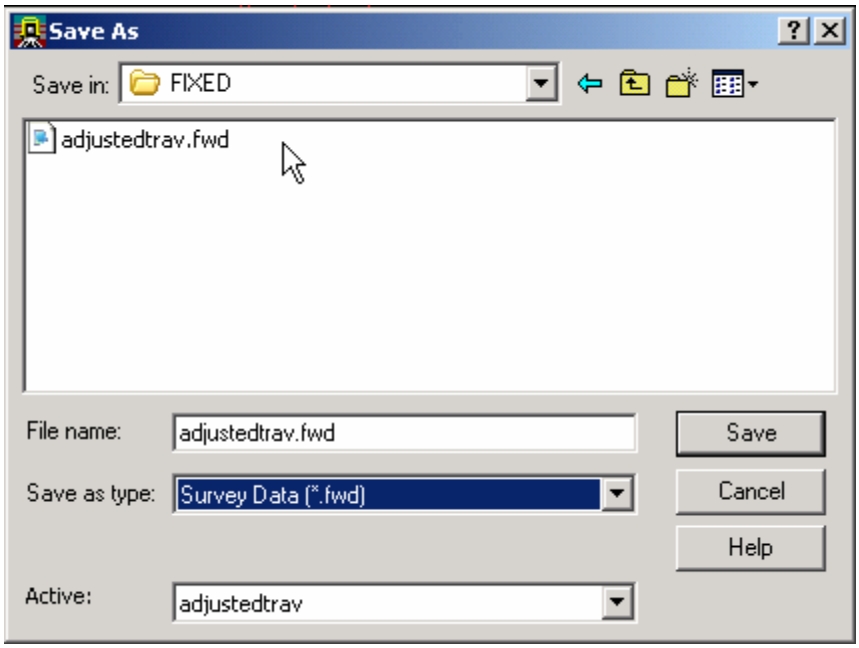


Save .fwd (Survey Data)

38) After all the data has been adjusted or at the end of each day you will want to save the Survey Data. To do this Select the **File > Save As**

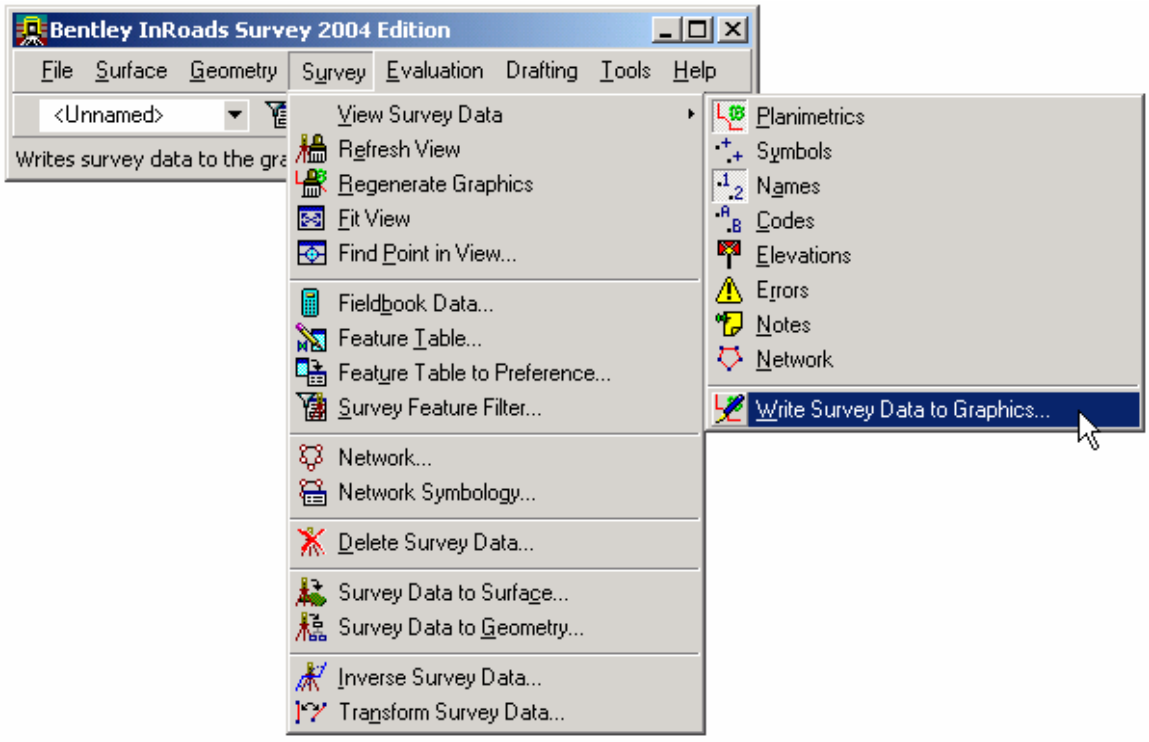


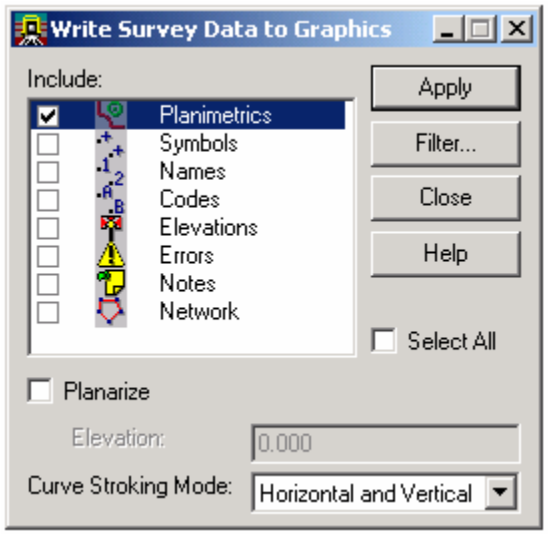
39) The **Save As** dialog appears, select the **Save as type: (*.fwd)** and enter a File name then **<DATA>** Save This saves the data in the he next day you will load the .fwd and either continue with the edit process or import more field data or both. Remember to save the .fwd when ever exiting InRoads Survey.



Write Survey Data to Graphics

40) Now we will want to save the graphics to a design file. Select the **Survey > View Survey Data > Write Survey Data to Graphics**



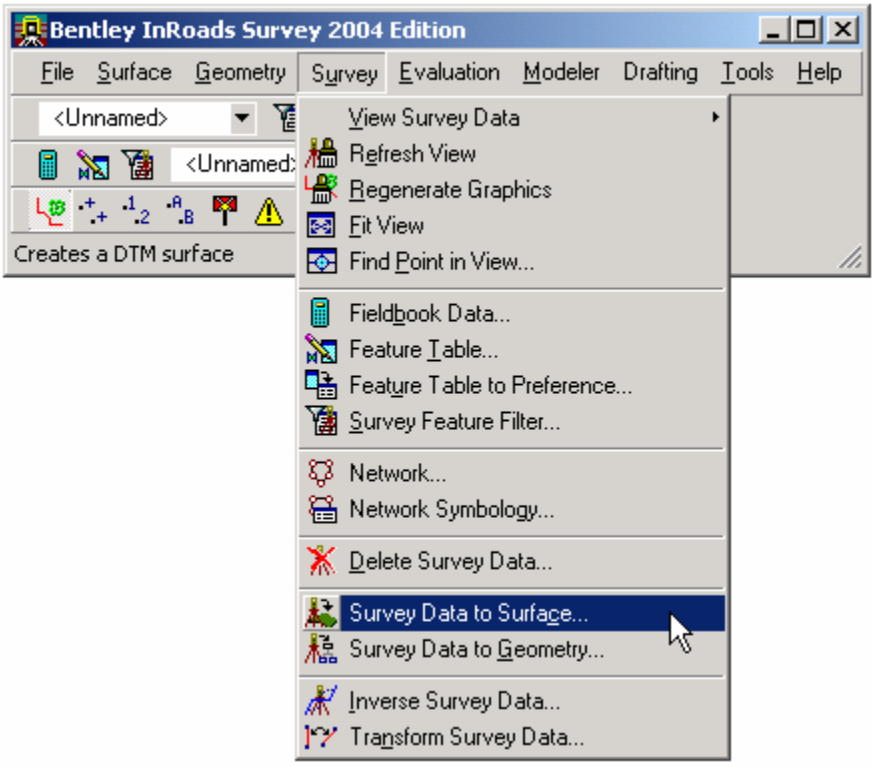


41) **Select** the include field for Planimetrics and 

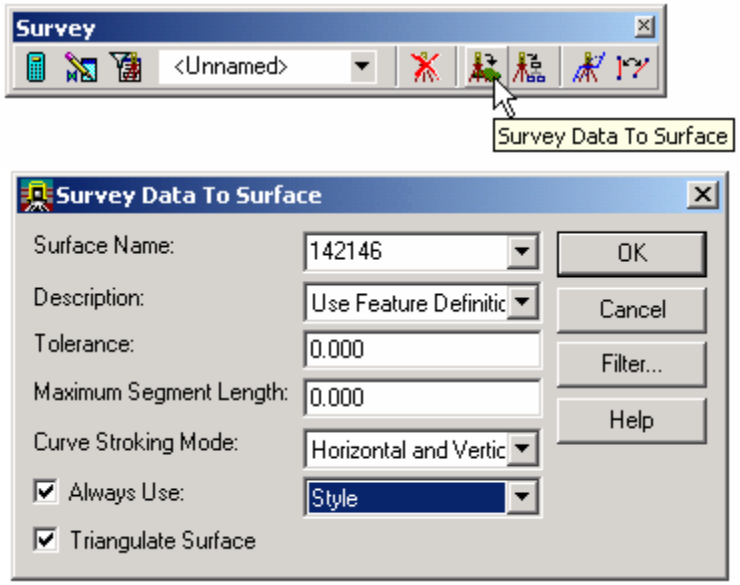
This will write the graphics to the design file.

Survey Data to Surface

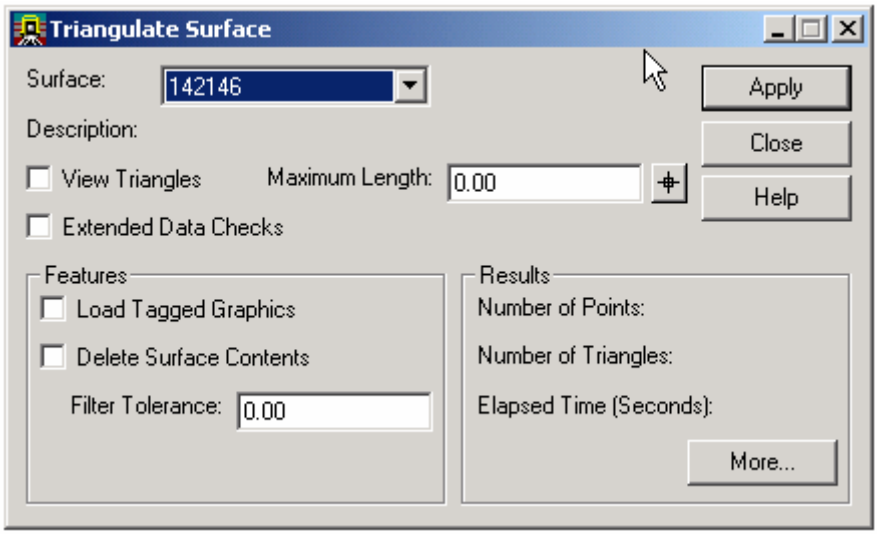
42) Select Survey > Survey Data to Surface



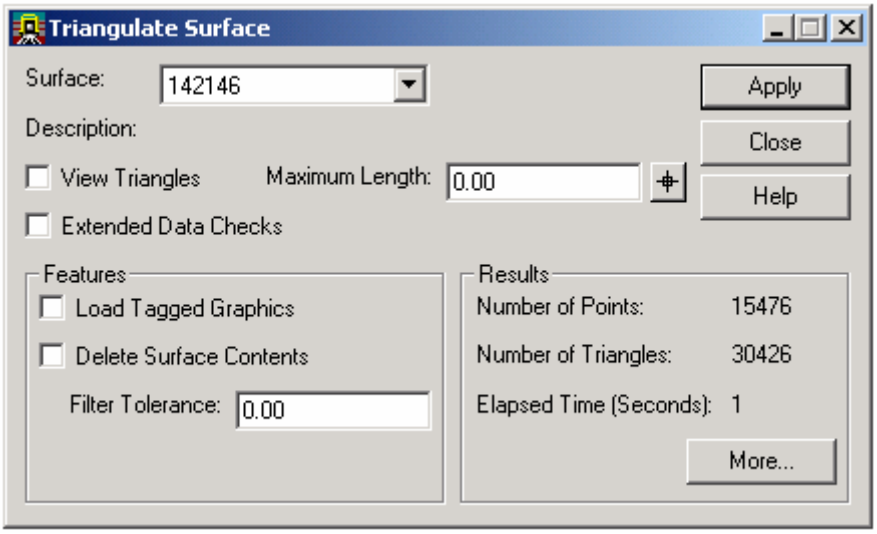
Or



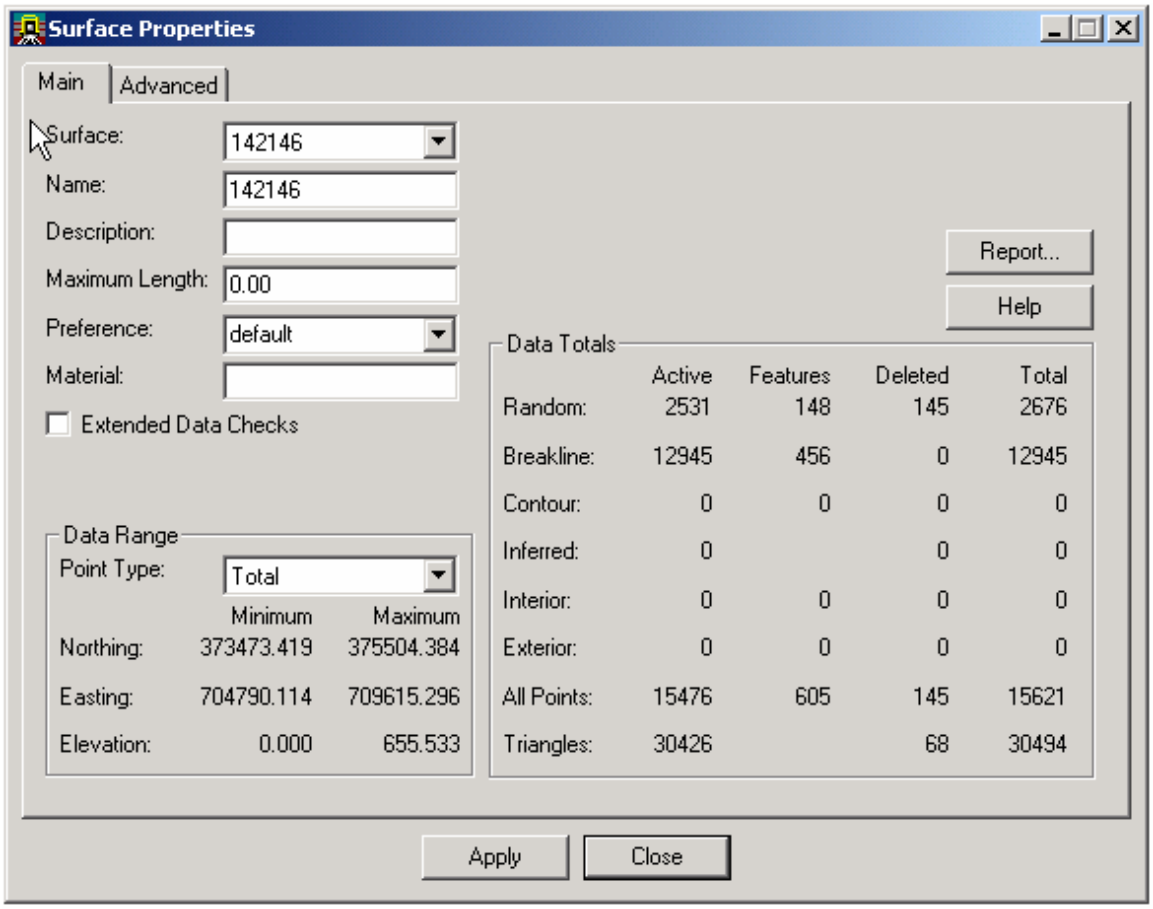
OK


Triangulate Surface
Surface:
142146
Description:
View Triangles
Maximum Length:
0.00
Extended Data Checks
Features
Load Tagged Graphics
Delete Surface Contents
Filter Tolerance:
0.00
Results
Number of Points:
Number of Triangles:
Elapsed Time (Seconds):
More...
Apply
Close
Help

Apply

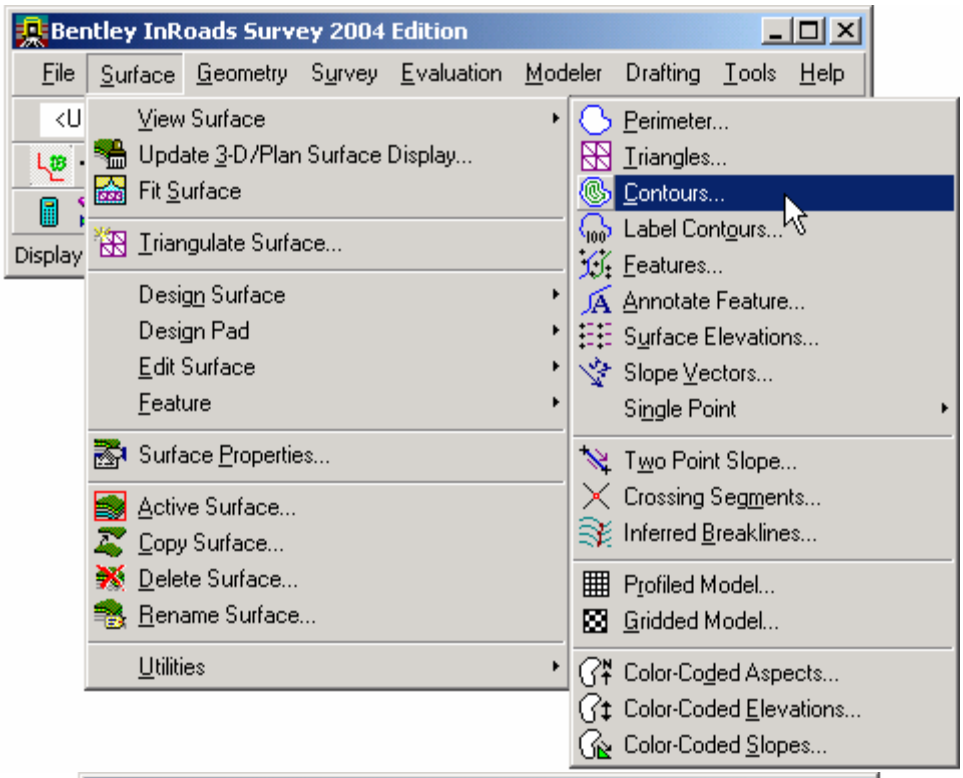

Triangulate Surface
Surface:
142146
Description:
View Triangles
Maximum Length:
0.00
Extended Data Checks
Features
Load Tagged Graphics
Delete Surface Contents
Filter Tolerance:
0.00
Results
Number of Points:
15476
Number of Triangles:
30426
Elapsed Time (Seconds):
1
More...
Apply
Close
Help

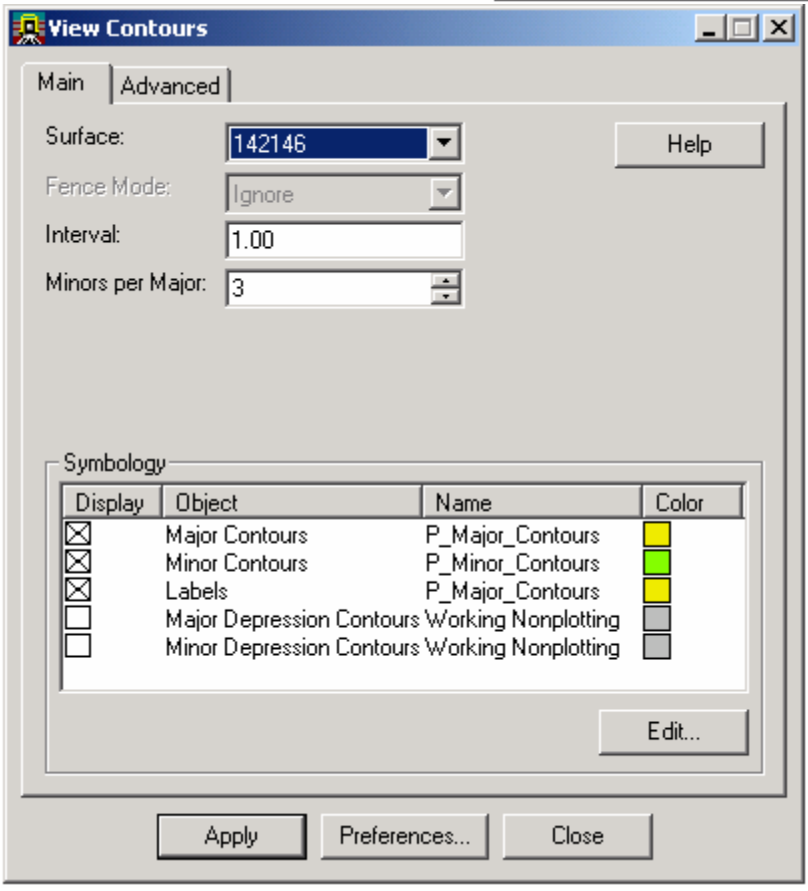
More...



Close

Checking the Contours





Apply