

This tutorial will cover processing Carlson RW5 raw files containing Total Station measurement data in our Carlson Survey office software.

**#1)** Open your DWG drawing and set your CRD coordinate file for the project you want to work with using Points / Set Coordinate File and click the “Existing” tab

- If you used a Carlson SurvCE data collector you can select the CRD coordinate file you copied over from the Data Collector

- If you don't have a DWG and CRD started yet you can create a New drawing and use Points / Set Coordinate File to start a New empty CRD coordinate file

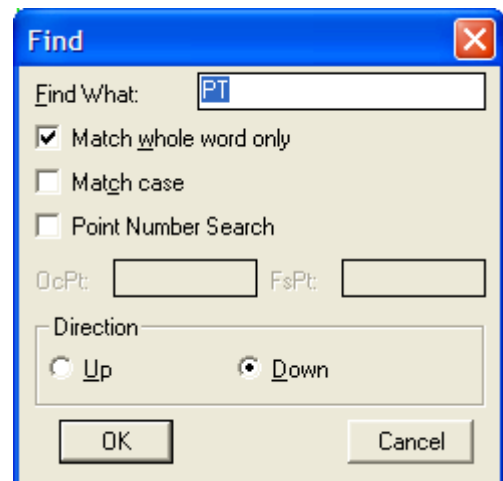
**#2)** After opening your DWG drawing and setting a CRD coordinate file click the Survey pulldown then click “Edit-Process Raw File”. After the Raw File editor window opens click the “File” pulldown in the upper left then click “Open Raw File” and browse to the RW5 Raw File you copied from your data collector such as Job22.rw5. Click OPEN to open up your Raw file

**#3)** Before making any changes click File then click "Save Raw As" and type in a new name such as "Job22\_O" to save this Raw file to a new unique name and indicate this is the office copy. This allows you to keep your original RW5 raw file on your computer with no changes as a backup copy of the Raw Measure data.

**#4)** Next we need to find all the “PT” coordinate records in the Raw File

- Click Edit in the upper left then click Find
- In the “Find What:” box type in "PT" without the quotes as shown in the screenshot
- CHECK the box next to "Match whole word only"
- Click OK
- The Cursor should highlight the first PT record in your Raw File normally in the first 10 to 20 lines
- Hit the "F3" function key on your keyboard located in the upper left corner by the “ESC” key. This searches for the next “PT” record in your raw file

If you see “PT” records below your first instrument setup its usually due to editing a Point in the data collector to change the Coordinates or Description.



Make note of any extra “PT” records below your first Backsight record change each one to a “DS” record by clicking on the little down arrow to the left of **PT** then scroll down and left-click **DS**

- When there is no more “PT” records in the rest of the Raw file a popup box will say “String not found” and you can click OK to close this window

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- 4) If you don't have your control points as PT records in the top of the RW5 in the first section add them in
    - click on the line 8 or 10 down before the first setup records
    - click Add / Points / From CRD file / type the Range JUST Control / click OK
    - ! This is critical especially if you Backsight an Azimuth
  
  - 5) Click "Process (Compute\_Pts)" / click Process Settings = check the box for "Hold Store Points"
  
  - 6) Click "Process (Compute\_Pts) then click "Process No Adjust" and click OK with defaults to view any warnings
  
  - 7) If its a Traverse between known points you can run Process\_No\_adjust
    - check the box and type in the Closing Pt #
    - If there is issues with the number of Traverse legs in the report you can click "Prompt" when you fill out the Traverse Points to see which points the software is using in your Traverse
  
  - 8) Run Survnet's Blunder Detection routine
    - add in substitution codes
      - a. Exit the Raw Editor then click Survey / Survnet
      - b. File / Open Project and browse to "Survnet\_Template.prj" and click Open
      - c. click Settings / Project Settings / Input Files tab in upper left
      - d. Remove any files already in the "Raw Data File" box from previous projects
      - e. Click Add / Browse to your current RW5 raw file / click Open / click OK in bottom right
      - f. click Process / click Blunder Detection / click Apply to "Preprocess the Raw Data" / Click Exit
      - g. You can scroll through the Error report to view the results
      - h. To Print the results click File / click Print / check the box for "Print Error Report" / Click OK
      - i. Click the Red X to exit the Survnet window and click "No" when it prompts you to save the results

**Misc options:**

- Tools / "Find Bad Angle"
- Tools / "Direct/Reverse Report" check Mean results +
- Use "Data On/Off" or add in "Loop Name" to separate your data