

Downloading data from the Microtops II Sunphotometer: Guide to RealTerm serial communications program

Doc. No. 200-018

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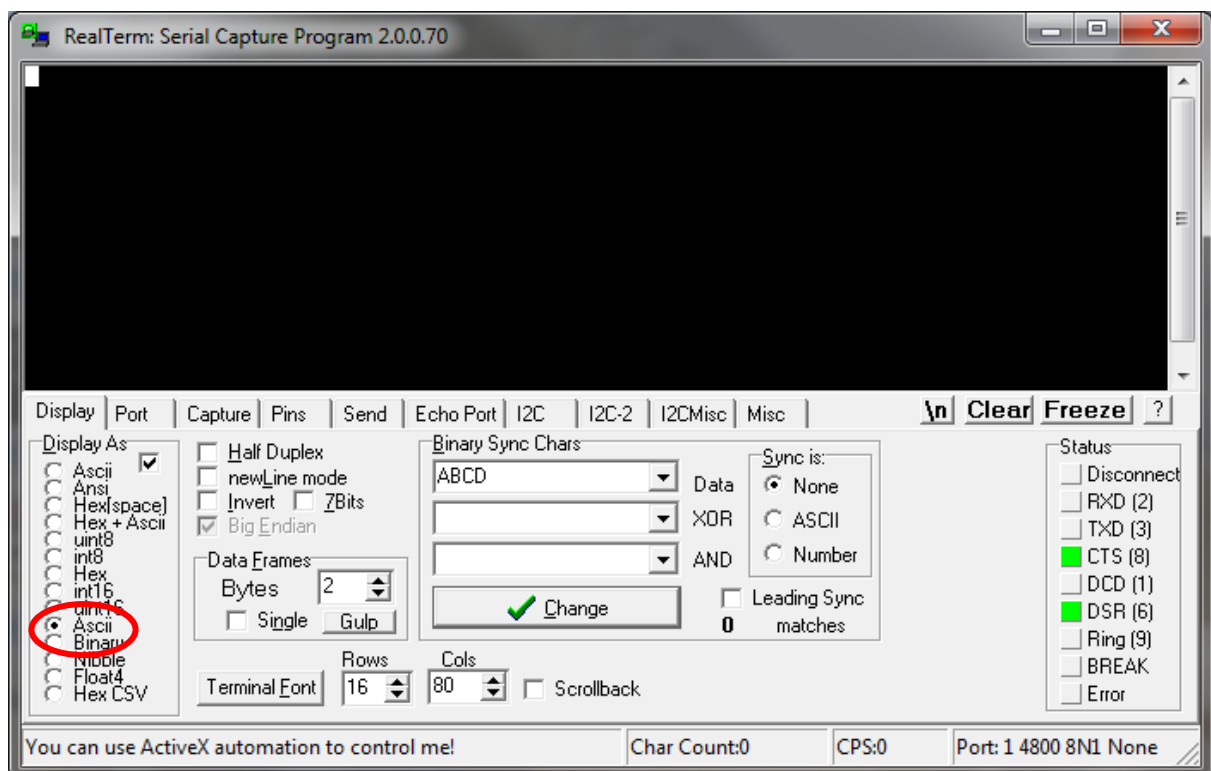
The following guide provides information on how to create a connection to the Microtops II sun photometer using RealTerm, and also how to retrieve collected data.

RealTerm is serial communications software available at:

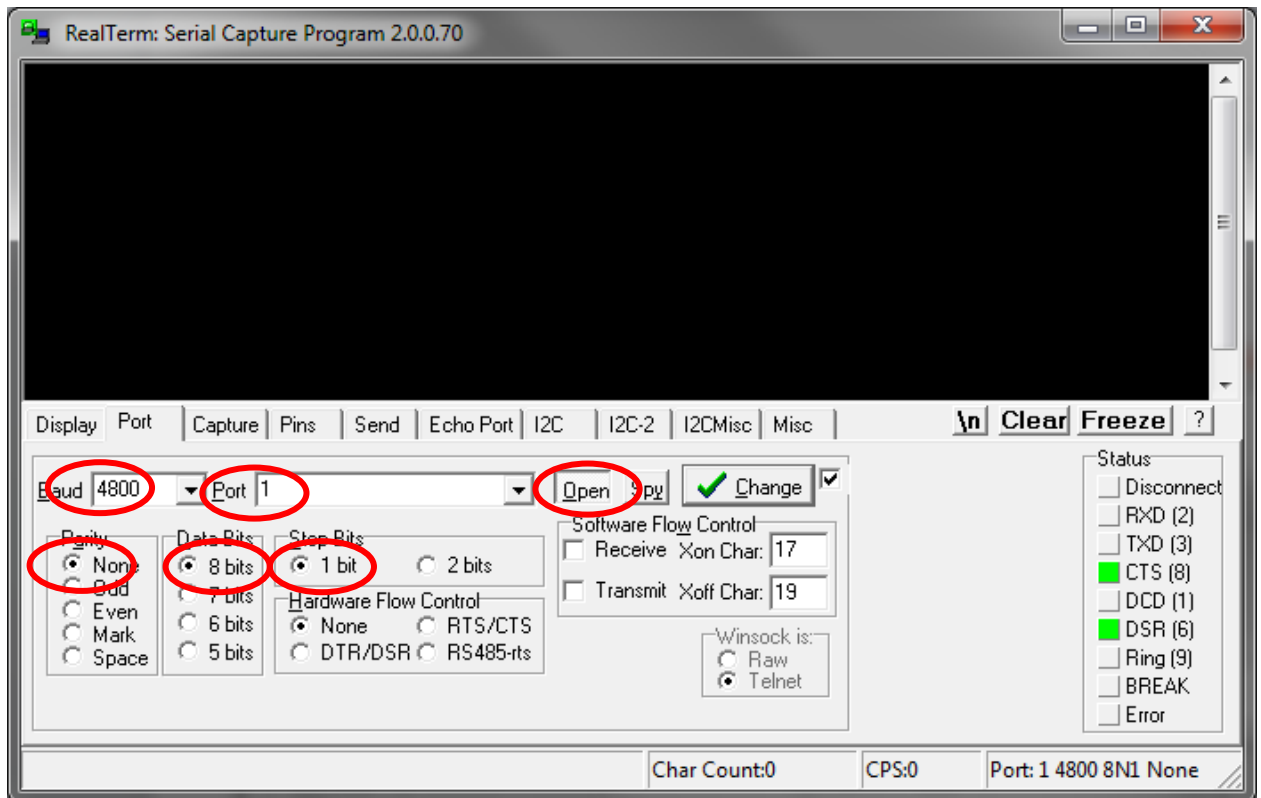
<http://realterm.sourceforge.net>

- Connect serial cable to COM port of PC
- Switch on sun photometer
- Run RealTerm

Display Tab:

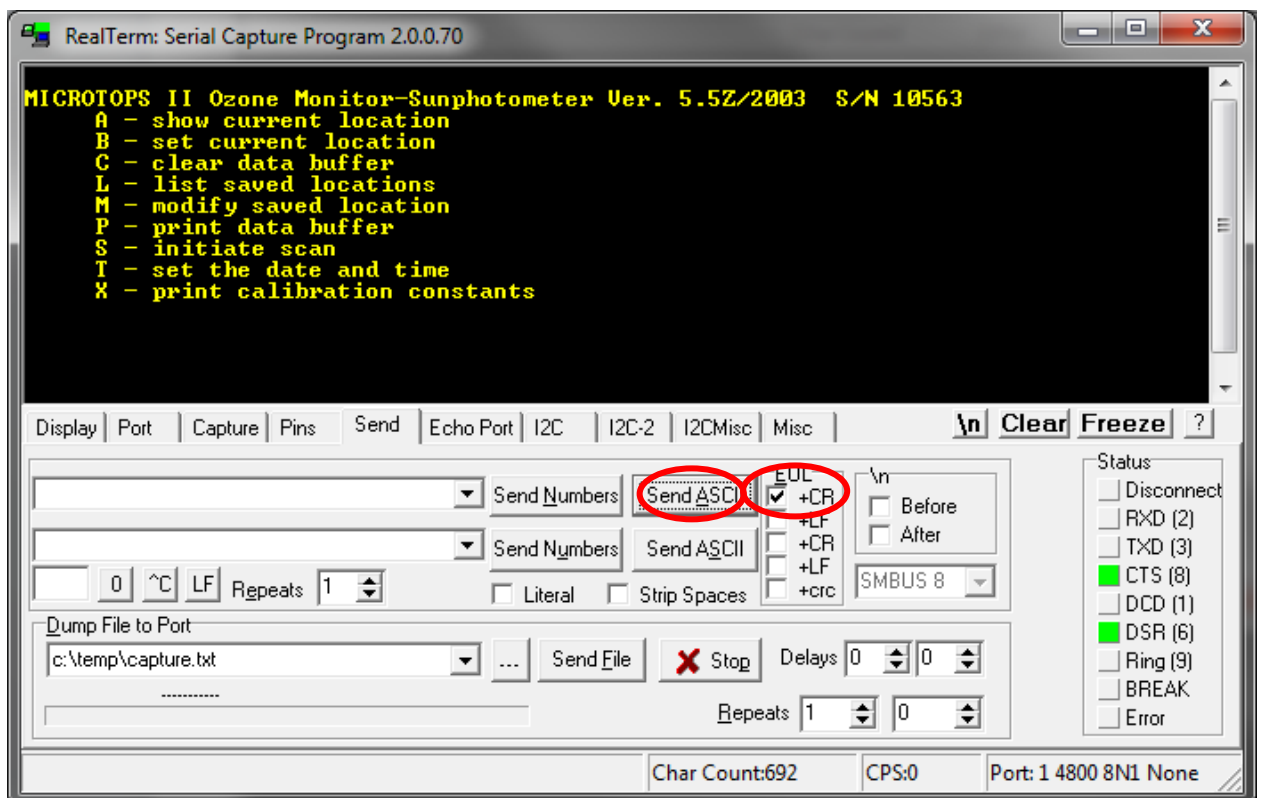


Port Tab:

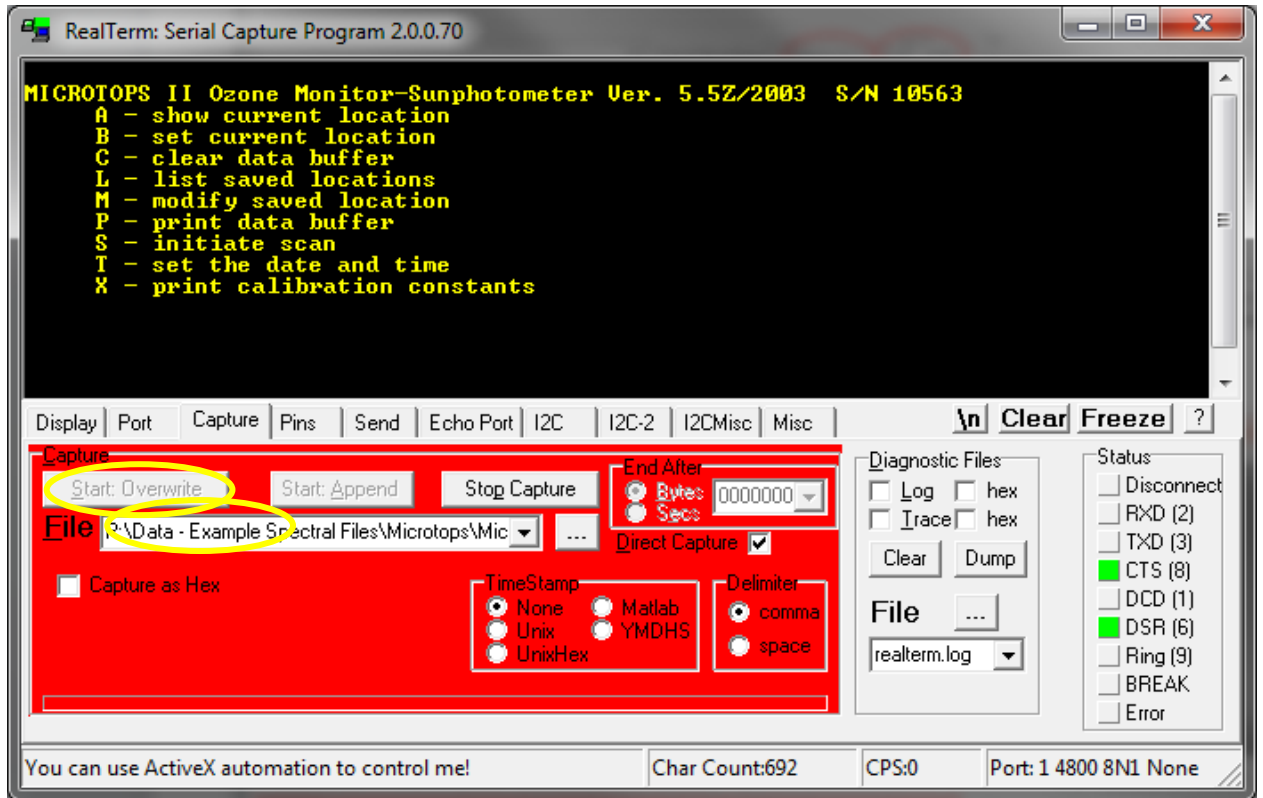


Send Tab (Initialise)

- Blank command with <CR> at EOL

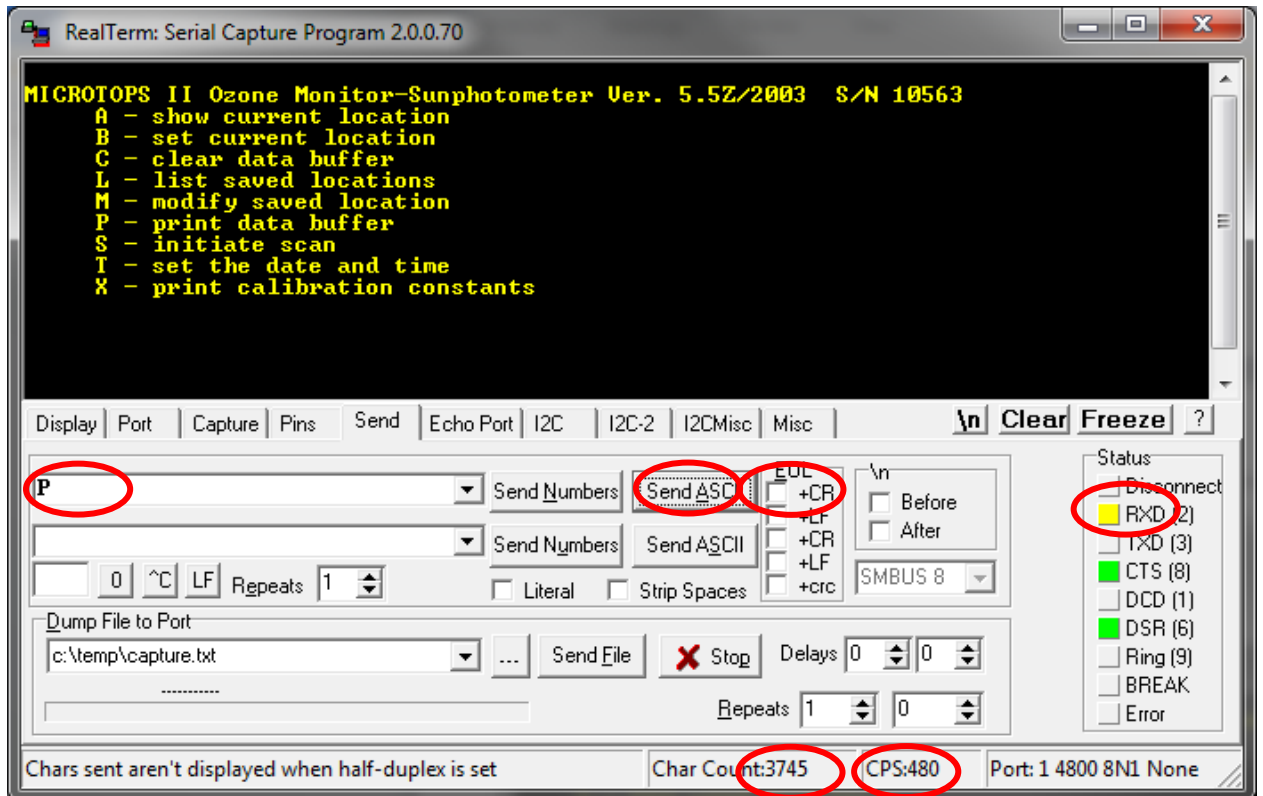


Capture Tab:

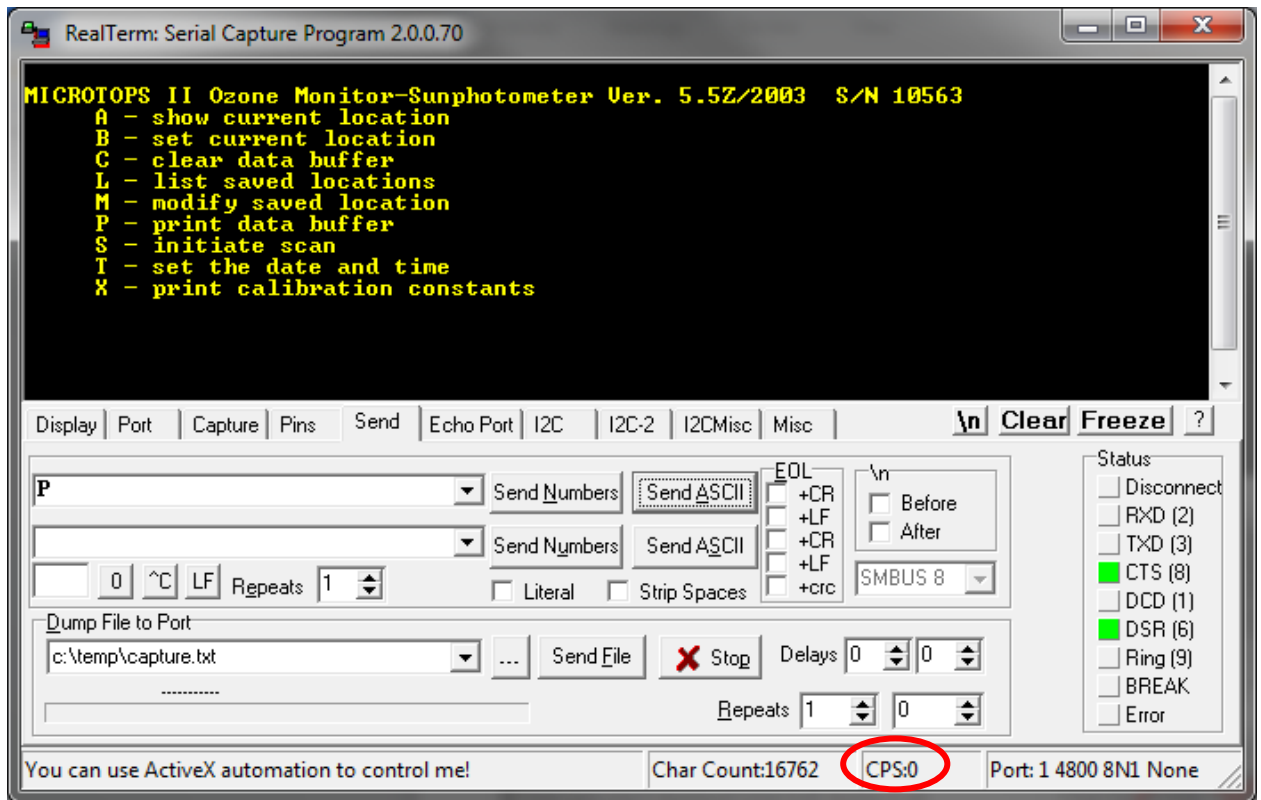


Send Tab:(Record serial number, calibration factors, download data from memory)

- Note in Capture Mode the display does not update.
- Send "blank" command with <CR>, followed by X and P **without** <CR>
-



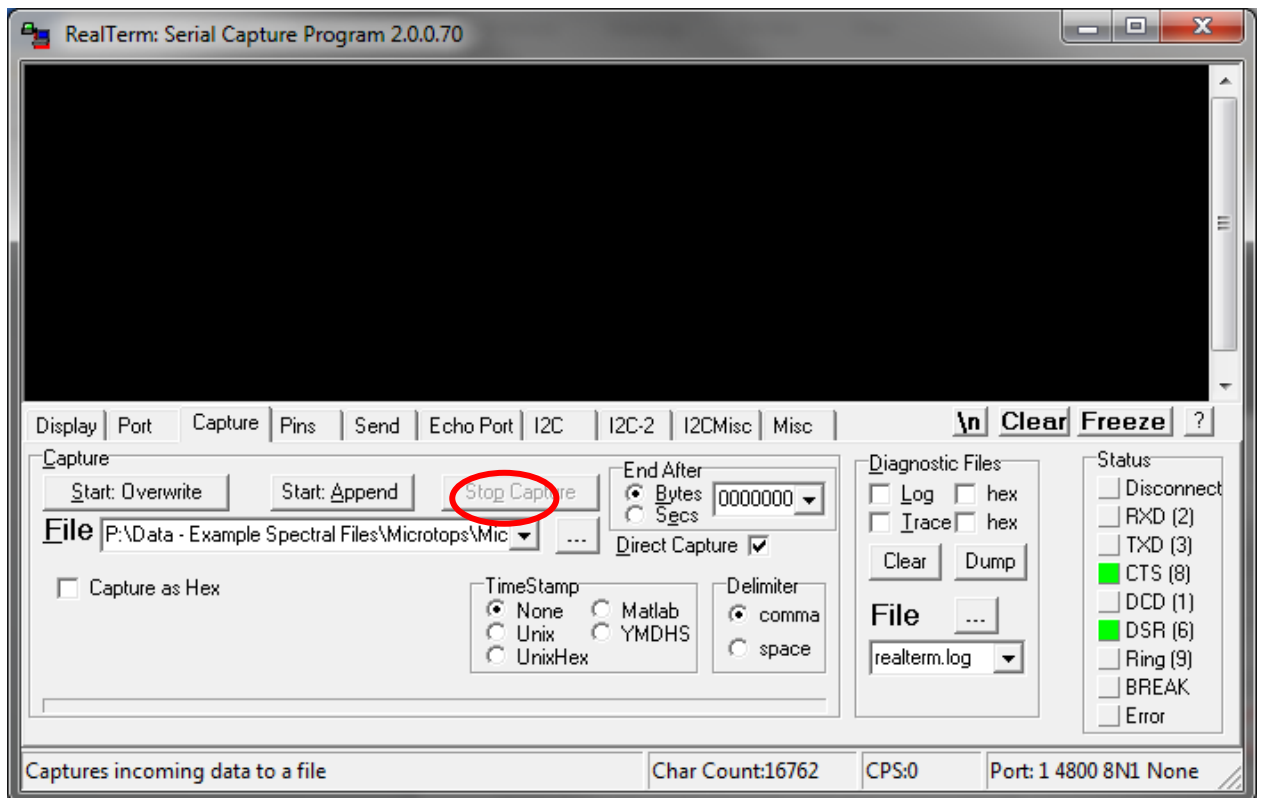
Note Char Count increments as data is transferred to the PC.



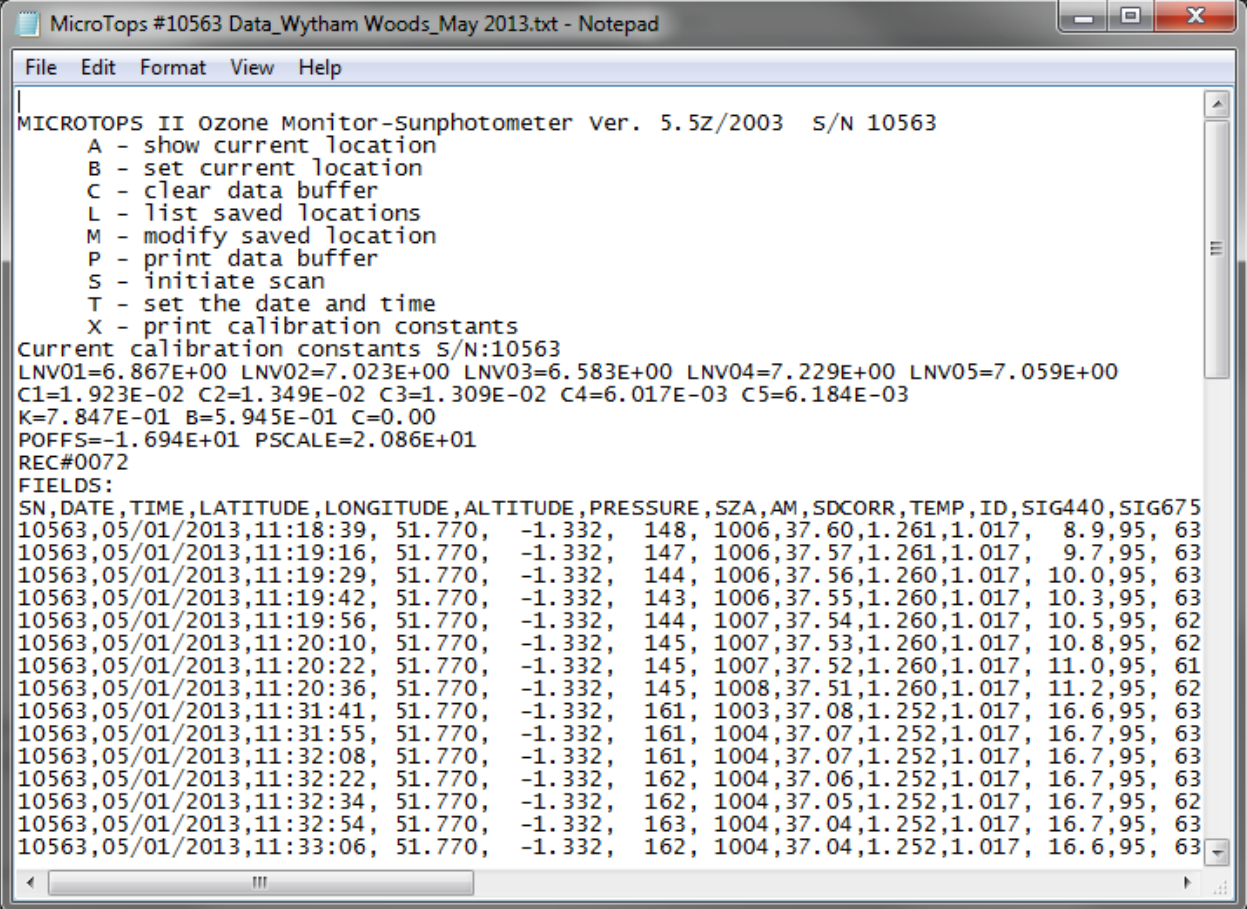
Note CPS returns to zero at end of data transfer.

Capture Tab

Stop capture



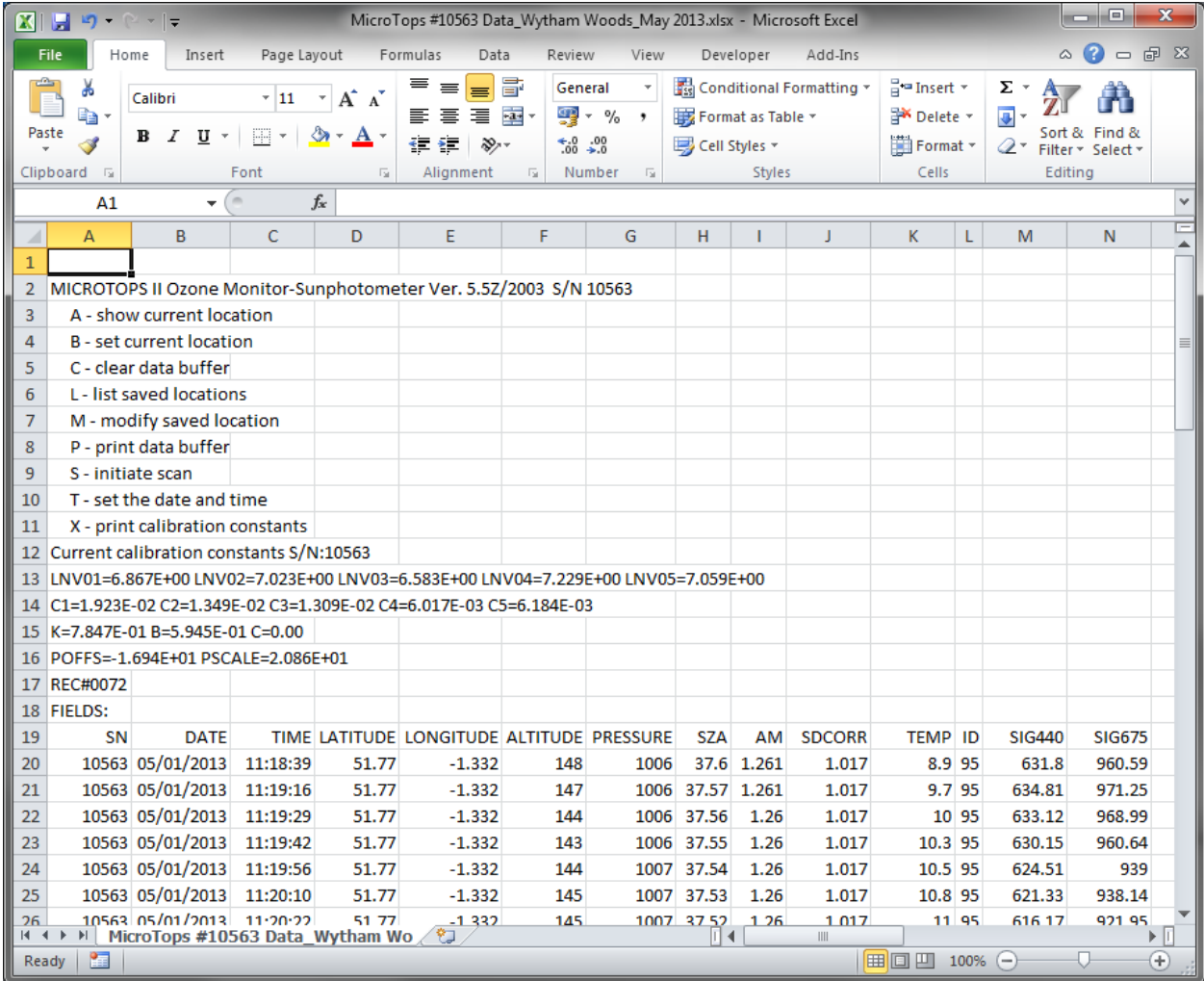
TXT File



```
MicroTops #10563 Data_Wytham Woods_May 2013.txt - Notepad
File Edit Format View Help
MICROTOPS II Ozone Monitor-Sunphotometer Ver. 5.5Z/2003 S/N 10563
  A - show current location
  B - set current location
  C - clear data buffer
  L - list saved locations
  M - modify saved location
  P - print data buffer
  S - initiate scan
  T - set the date and time
  X - print calibration constants
Current calibration constants S/N:10563
LNV01=6.867E+00 LNV02=7.023E+00 LNV03=6.583E+00 LNV04=7.229E+00 LNV05=7.059E+00
C1=1.923E-02 C2=1.349E-02 C3=1.309E-02 C4=6.017E-03 C5=6.184E-03
K=7.847E-01 B=5.945E-01 C=0.00
POFFS=-1.694E+01 PSCALE=2.086E+01
REC#0072
FIELDS:
SN,DATE,TIME,LATITUDE,LONGITUDE,ALTITUDE,PRESSURE,SZA,AM,SDCORR,TEMP,ID,SIG440,SIG675
10563,05/01/2013,11:18:39, 51.770, -1.332, 148, 1006,37.60,1.261,1.017, 8.9,95, 63
10563,05/01/2013,11:19:16, 51.770, -1.332, 147, 1006,37.57,1.261,1.017, 9.7,95, 63
10563,05/01/2013,11:19:29, 51.770, -1.332, 144, 1006,37.56,1.260,1.017, 10.0,95, 63
10563,05/01/2013,11:19:42, 51.770, -1.332, 143, 1006,37.55,1.260,1.017, 10.3,95, 63
10563,05/01/2013,11:19:56, 51.770, -1.332, 144, 1007,37.54,1.260,1.017, 10.5,95, 62
10563,05/01/2013,11:20:10, 51.770, -1.332, 145, 1007,37.53,1.260,1.017, 10.8,95, 62
10563,05/01/2013,11:20:22, 51.770, -1.332, 145, 1007,37.52,1.260,1.017, 11.0,95, 61
10563,05/01/2013,11:20:36, 51.770, -1.332, 145, 1008,37.51,1.260,1.017, 11.2,95, 62
10563,05/01/2013,11:31:41, 51.770, -1.332, 161, 1003,37.08,1.252,1.017, 16.6,95, 63
10563,05/01/2013,11:31:55, 51.770, -1.332, 161, 1004,37.07,1.252,1.017, 16.7,95, 63
10563,05/01/2013,11:32:08, 51.770, -1.332, 161, 1004,37.07,1.252,1.017, 16.7,95, 63
10563,05/01/2013,11:32:22, 51.770, -1.332, 162, 1004,37.06,1.252,1.017, 16.7,95, 63
10563,05/01/2013,11:32:34, 51.770, -1.332, 162, 1004,37.05,1.252,1.017, 16.7,95, 62
10563,05/01/2013,11:32:54, 51.770, -1.332, 163, 1004,37.04,1.252,1.017, 16.7,95, 63
10563,05/01/2013,11:33:06, 51.770, -1.332, 162, 1004,37.04,1.252,1.017, 16.6,95, 63
```

Excel Spreadsheet

Import TXT file with comma delimited settings



The screenshot shows a Microsoft Excel spreadsheet titled "MicroTops #10563 Data_Wytham Woods_May 2013.xlsx". The spreadsheet contains the following data:

| SN | DATE | TIME | LATITUDE | LONGITUDE | ALTITUDE | PRESSURE | SZA | AM | SDCORR | TEMP | ID | SIG440 | SIG675 |
|-------|------------|----------|----------|-----------|----------|----------|-------|-------|--------|------|----|--------|--------|
| 10563 | 05/01/2013 | 11:18:39 | 51.77 | -1.332 | 148 | 1006 | 37.6 | 1.261 | 1.017 | 8.9 | 95 | 631.8 | 960.59 |
| 10563 | 05/01/2013 | 11:19:16 | 51.77 | -1.332 | 147 | 1006 | 37.57 | 1.261 | 1.017 | 9.7 | 95 | 634.81 | 971.25 |
| 10563 | 05/01/2013 | 11:19:29 | 51.77 | -1.332 | 144 | 1006 | 37.56 | 1.26 | 1.017 | 10 | 95 | 633.12 | 968.99 |
| 10563 | 05/01/2013 | 11:19:42 | 51.77 | -1.332 | 143 | 1006 | 37.55 | 1.26 | 1.017 | 10.3 | 95 | 630.15 | 960.64 |
| 10563 | 05/01/2013 | 11:19:56 | 51.77 | -1.332 | 144 | 1007 | 37.54 | 1.26 | 1.017 | 10.5 | 95 | 624.51 | 939 |
| 10563 | 05/01/2013 | 11:20:10 | 51.77 | -1.332 | 145 | 1007 | 37.53 | 1.26 | 1.017 | 10.8 | 95 | 621.33 | 938.14 |
| 10563 | 05/01/2013 | 11:20:22 | 51.77 | -1.332 | 145 | 1007 | 37.52 | 1.26 | 1.017 | 11 | 95 | 616.17 | 921.95 |