Establishing connection between SiWare and the transmitter
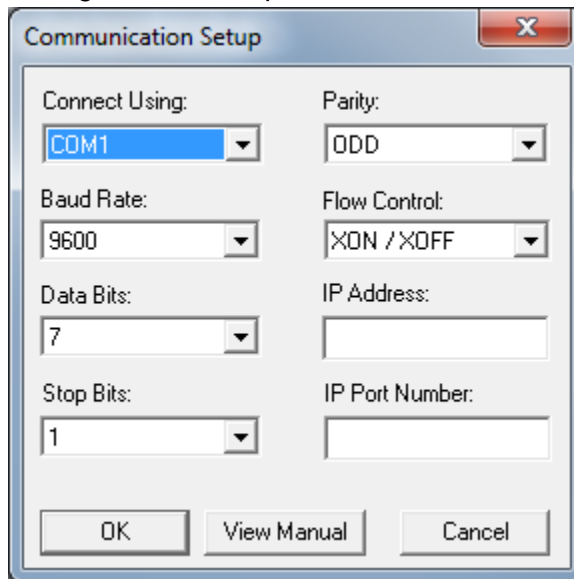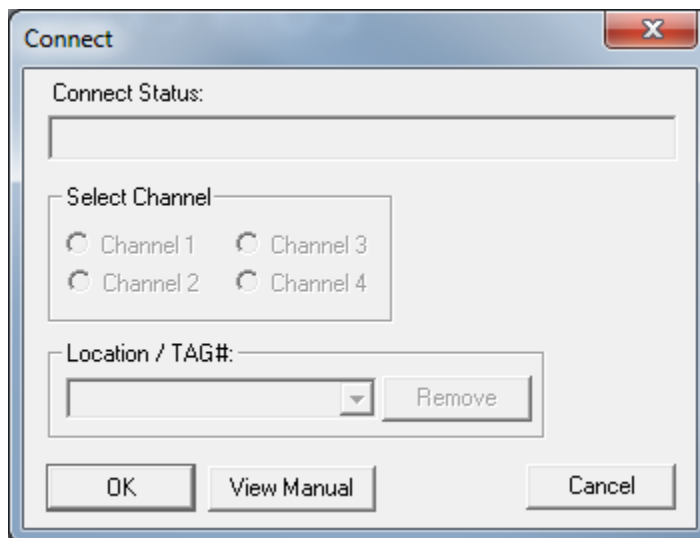
1. Ensure that the settings in SiWare (in "Setup -> Communications") correspond to the settings in the Clamp-On transmitter.

2. Go to menu: "Connection -> Connect".

3. Press OK.
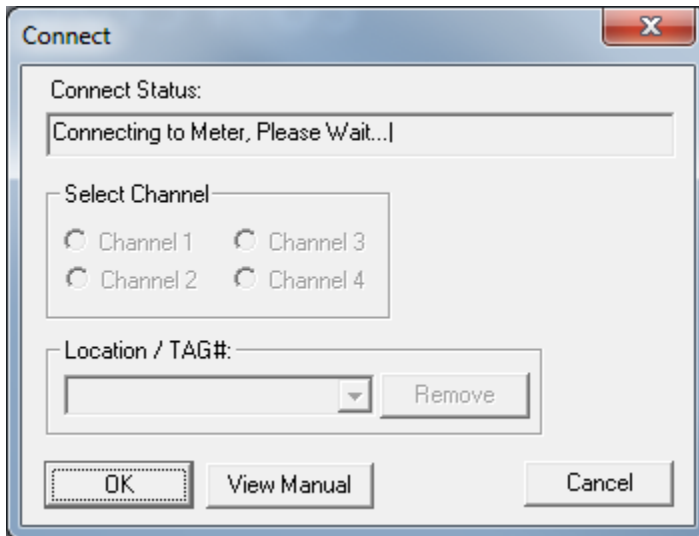
SiWare will now establish connection to the transmitter (takes 30 seconds or more).

4. Enter a TAG.
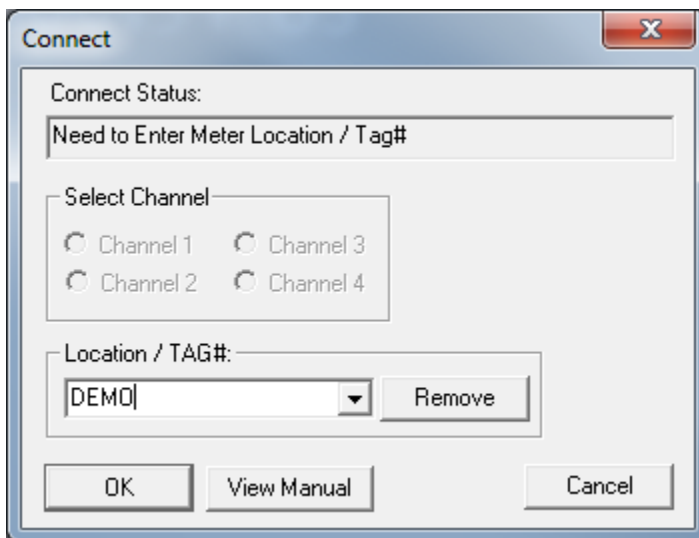
5. Press OK. Connection is now properly established.

Viewing the ultrasonic waveform and diagnostic data

The ultrasonic waveform can be viewed in "Graphs -> Signal Graph".

It can either be printed (click "Print") or stored electronically as a screen shot (press <Alt> and <Print Screen> in Windows).
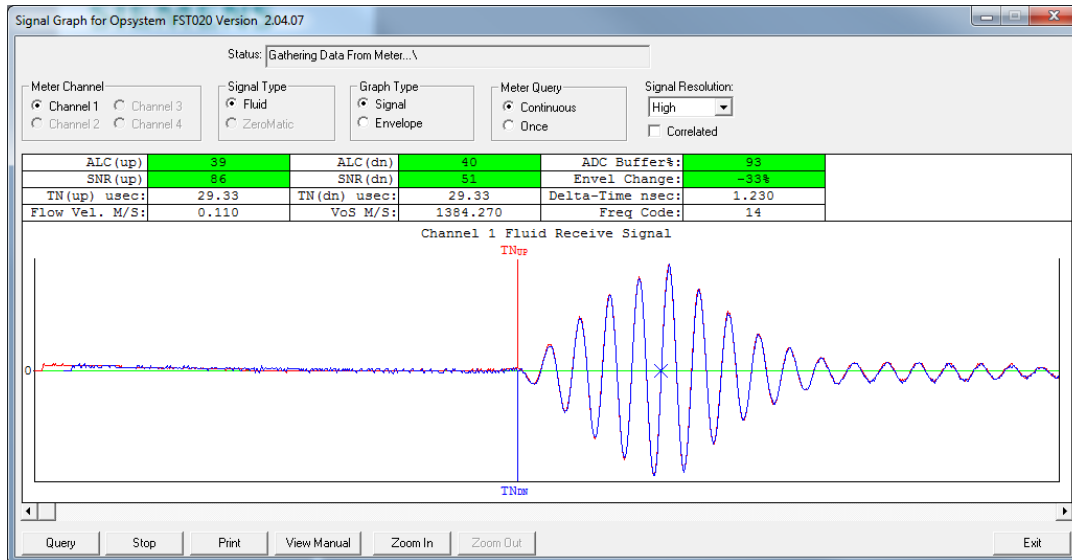
The diagnostic data can be viewed in "Diagnostic -> Meter Diagnostic".
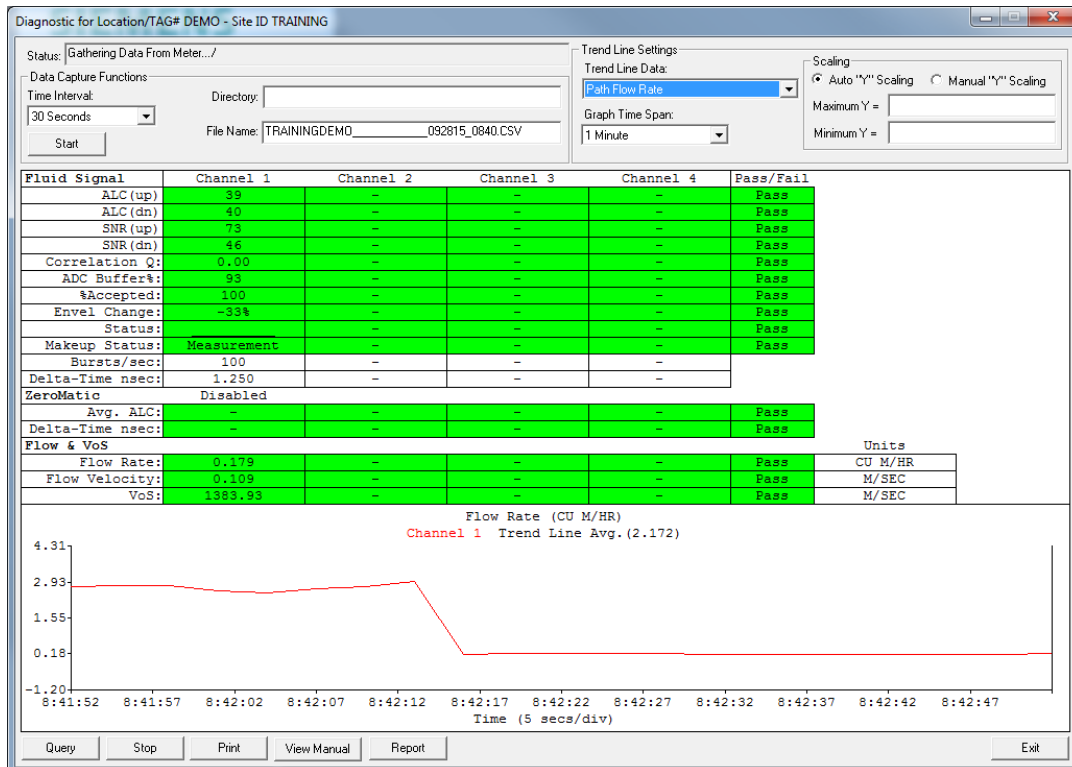
Extracting datalogger data

1. Go to "Utilities -> Terminal".

2. Specify a file name for the logged data.

3. Press START.

4. Write "LOGGER" in the command field and press <Enter>.

```
Terminal                                                                    [x]
 ┌Capture Text──────────────────────────────────────────────────────────────
   Directory: C:\DATA\
   File Name: LogData.csv          [Browse]   [Start]   [Stop]

 ? for Help
 LOGGER








 [Command] [Menu] [Menu/Display] [View Manual]                      [Exit]
```

Data will now flow through the Terminal window.

```
Terminal                                                                    [x]
 ┌Capture Text──────────────────────────────────────────────────────────────
   Directory: C:\DATA\
   File Name: LogData.csv          [Browse]   [Start]   [Stop]

09.28.2015,02.38.40,  0.1614, CU M/HR, 1383.95,VS(M/S),  40,S,   5,A,--------, 0.00109,dt(uS)

09.28.2015,02.38.45,  0.1539, CU M/HR, 1383.84,VS(M/S),  40,S,   6,A,--------, 0.00102,dt(uS)

09.28.2015,02.38.50,  0.1623, CU M/HR, 1383.82,VS(M/S),  40,S,   4,A,--------, 0.00118,dt(uS)

09.28.2015,02.38.55,  0.1717, CU M/HR, 1383.81,VS(M/S),  40,S,   7,A,--------, 0.00139,dt(uS)

09.28.2015,02.39.00,  0.1457, CU M/HR, 1383.86,VS(M/S),  40,S,   4,A,--------, 0.00091,dt(uS)

09.28.2015,02.39.05,  0.1253, CU M/HR, 1383.79,VS(M/S),  40,S,   6,A,--------, 0.00092,dt(uS)
09.28.2015,02.39.10,  0.1464, CU M/HR, 1383.93,VS(M/S),  40,S,   8,A,--------, 0.00101,dt(uS)
09.28.2015,02.39.15,  0.1467, CU M/HR, 1383.85,VS(M/S),  40,S,   9,A,--------, 0.00104,dt(uS)
09.28.2015,02.39.20,  0.1458, CU M/HR, 1383.77,VS(M/S),  40,S,   8,A,--------, 0.00106,dt(uS)
09.28.2015,02.39.25,  0.1731, CU M/HR, 1383.76,VS(M/S),  39,S,   8,A,--------, 0.00119,dt(uS)
09.28.2015,02.39.30,  0.1714, CU M/HR, 1383.75,VS(M/S),  40,S,   7,A,--------, 0.00115,dt(uS)
09.28.2015,02.39.35,  0.1598, CU M/HR, 1383.74,VS(M/S),  40,S,   9,A,--------, 0.00105,dt(uS)
09.28.2015,02.39.40,  0.1680, CU M/HR, 1383.72,VS(M/S),  40,S,  11,A,--------, 0.00108,dt(uS)
09.28.2015,02.39.45,  0.1620, CU M/HR, 1383.71,VS(M/S),  40,S,   9,A,--------, 0.00113,dt(uS)
09.28.2015,02.39.50,  0.1563, CU M/HR, 1383.71,VS(M/S),  40,S,  11,A,--------, 0.00127,dt(uS)
09.28.2015,02.39.55,  0.1518, CU M/HR, 1383.79,VS(M/S),  40,S,   7,A,--------, 0.00097,dt(uS)
09.28.2015,02.40.00,  0.1366, CU M/HR, 1383.70,VS(M/S),  40,S,  10,A,--------, 0.00091,dt(uS)
09.28.2015,02.40.05,  0.1404, CU M/HR, 1383.67,VS(M/S),  40,S,  13,A,--------, 0.00109,dt(uS)
09.28.2015,02.40.10,  0.1493, CU M/HR, 1383.73,VS(M/S),  40,S,   7,A,--------, 0.00105,dt(uS)
09.28.2015,02.40.15,  0.1577, CU M/HR, 1383.71,VS(M/S),  40,S,   8,A,--------, 0.00115,dt(uS)
09.28.2015,02.40.20,  0.1554, CU M/HR, 1383.66,VS(M/S),  40,S,   8,A,--------, 0.00107,dt(uS)
09.28.2015,02.40.25,  0

 [Command] [Menu] [Menu/Display] [View Manual]                      [Exit]
```
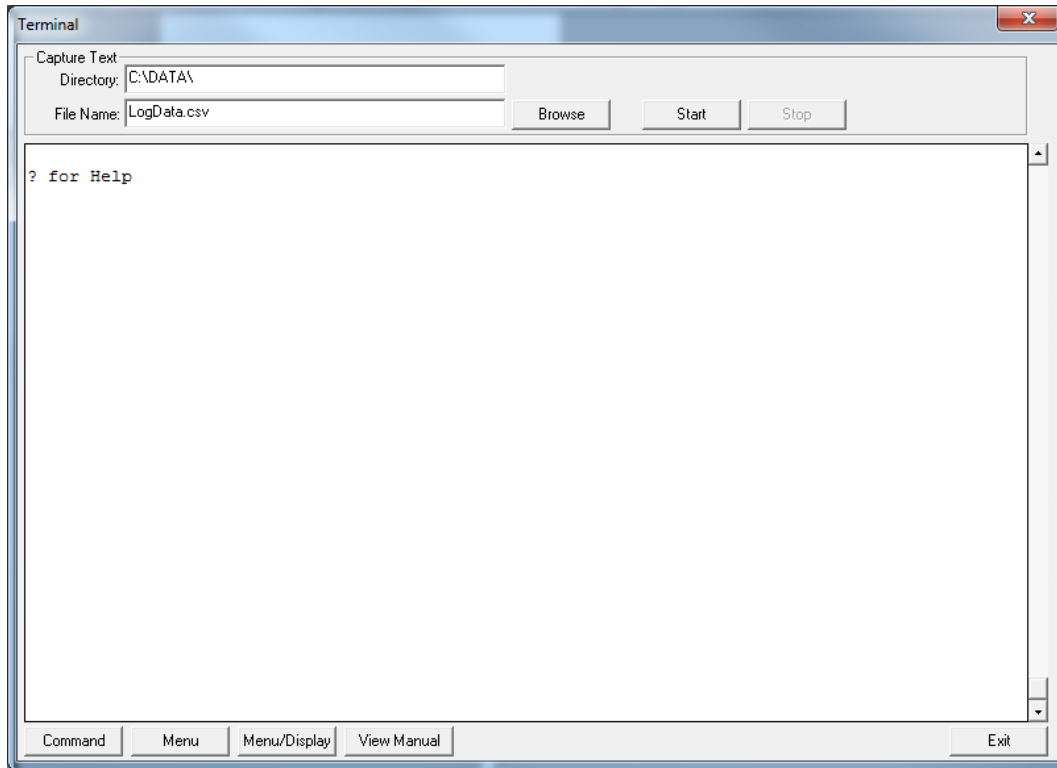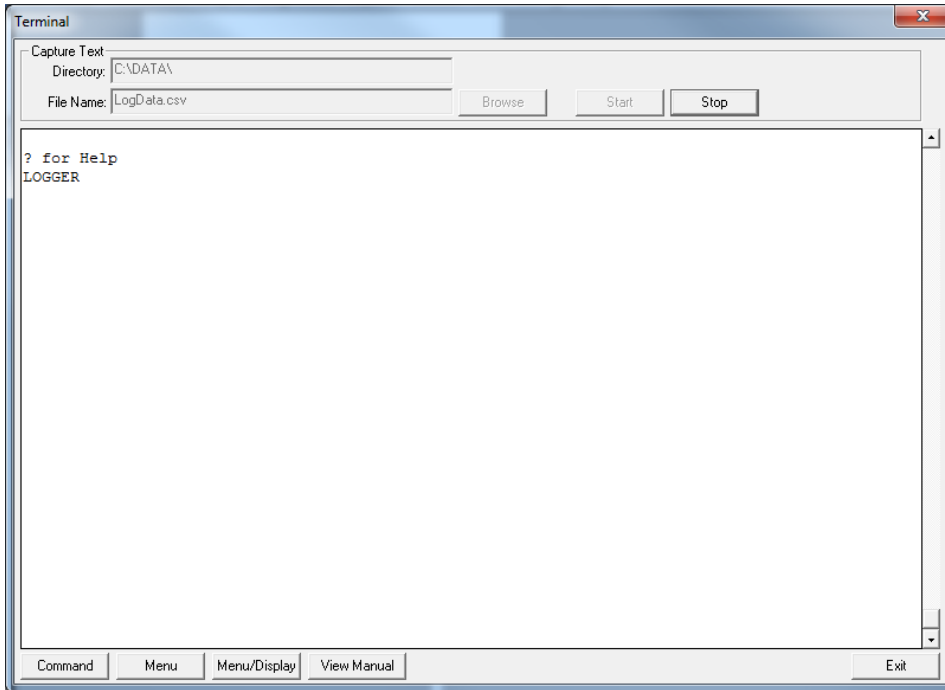
5. Wait for EOT and press "Stop" to close the file.

6. Open/import the file with Excel.

	A	B	C	D
1	LOGGHER◻ ◻◻ ◻◻ ◻ER			
2	09.28.2015,02.38, 0.1616, CU M/HR, 1418.52,VS(M/S), 40,S, 9,A,---------, 0.00123,dt(uS)			
3	09.28.2015,02.38.10, 0.1597, CU M/HR, 1383.96,VS(M/S), 40,S, 10,A,---------, 0.00128,dt(uS)			
4	09.28.2015,02.38.15, 0.1746, CU M/HR, 1384.02,VS(M/S), 40,S, 9,A,---------, 0.00116,dt(uS)			
5	09.28.2015,02.38.20, 0.1718, CU M/HR, 1384.01,VS(M/S), 40,S, 8,A,---------, 0.00119,dt(uS)			
6	09.28.2015,02.38.25, 0.1674, CU M/HR, 1383.95,VS(M/S), 40,S, 7,A,---------, 0.00112,dt(uS)			
7	09.28.2015,02.38.30, 0.1536, CU M/HR, 1383.86,VS(M/S), 40,S, 6,A,---------, 0.00109,dt(uS)			
8	09.28.2015,02.38.35, 0.1698, CU M/HR, 1383.92,VS(M/S), 40,S, 5,A,---------, 0.00118,dt(uS)			
9	09.28.2015,02.38.40, 0.1614, CU M/HR, 1383.95,VS(M/S), 40,S, 5,A,---------, 0.00109,dt(uS)			
10	09.28.2015,02.38.45, 0.1539, CU M/HR, 1383.84,VS(M/S), 40,S, 6,A,---------, 0.00102,dt(uS)			
11	09.28.2015,02.38.50, 0.1623, CU M/HR, 1383.82,VS(M/S), 40,S, 4,A,---------, 0.00118,dt(uS)			
12	09.28.2015,02.38.55, 0.1717, CU M/HR, 1383.81,VS(M/S), 40,S, 7,A,---------, 0.00139,dt(uS)			
13	09.28.2015,02.39.00, 0.1457, CU M/HR, 1383.86,VS(M/S), 40,S, 4,A,---------, 0.00091,dt(uS)			
14	09.28.2015,02.39.05, 0.1253, CU M/HR, 1383.79,VS(M/S), 40,S, 6,A,---------, 0.00092,dt(uS)			
15	09.28.2015,02.39.10, 0.1464, CU M/HR, 1383.93,VS(M/S), 40,S, 8,A,---------, 0.00101,dt(uS)			
16	09.28.2015,02.39.15, 0.1467, CU M/HR, 1383.85,VS(M/S), 40,S, 9,A,---------, 0.00104,dt(uS)			
17	09.28.2015,02.39.20, 0.1458, CU M/HR, 1383.77,VS(M/S), 40,S, 8,A,---------, 0.00106,dt(uS)			
18	09.28.2015,02.39.25, 0.1731, CU M/HR, 1383.76,VS(M/S), 39,S, 8,A,---------, 0.00119,dt(uS)			
19	09.28.2015,02.39.30, 0.1714, CU M/HR, 1383.75,VS(M/S), 40,S, 7,A,---------, 0.00115,dt(uS)			
20	09.28.2015,02.39.35, 0.1598, CU M/HR, 1383.74,VS(M/S), 40,S, 9,A,---------, 0.00105,dt(uS)			
21	09.28.2015,02.39.40, 0.1680, CU M/HR, 1383.72,VS(M/S), 40,S, 11,A,---------, 0.00108,dt(uS)			
22	09.28.2015,02.39.45, 0.1620, CU M/HR, 1383.71,VS(M/S), 40,S, 9,A,---------, 0.00113,dt(uS)			
23	09.28.2015,02.39.50, 0.1563, CU M/HR, 1383.71,VS(M/S), 40,S, 11,A,---------, 0.00127,dt(uS)			
24	09.28.2015,02.39.55, 0.1518, CU M/HR, 1383.79,VS(M/S), 40,S, 7,A,---------, 0.00097,dt(uS)			
25	09.28.2015,02.40.00, 0.1366, CU M/HR, 1383.70,VS(M/S), 40,S, 10,A,---------, 0.00091,dt(uS)			
26	09.28.2015,02.40.05, 0.1404, CU M/HR, 1383.67,VS(M/S), 40,S, 13,A,---------, 0.00109,dt(uS)			
27	09.28.2015,02.40.10, 0.1493, CU M/HR, 1383.73,VS(M/S), 40,S, 7,A,---------, 0.00105,dt(uS)			
28	09.28.2015,02.40.15, 0.1577, CU M/HR, 1383.71,VS(M/S), 40,S, 8,A,---------, 0.00115,dt(uS)			
29	09.28.2015,02.40.20, 0.1554, CU M/HR, 1383.66,VS(M/S), 40,S, 8,A,---------, 0.00107,dt(uS)			
30	09.28.2015,02.40.25, 0.1550, CU M/HR, 1383.65,VS(M/S), 40,S, 6,A,---------, 0.00099,dt(uS)			
31	09.28.2015,02.40.30, 0.1439, CU M/HR, 1383.64,VS(M/S), 40,S, 7,A,---------, 0.00104,dt(uS)			
32	09.28.2015,02.40.35, 0.1412, CU M/HR, 1383.63,VS(M/S), 40,S, 11,A,---------, 0.00108,dt(uS)			
33	09.28.2015,02.40.40, 0.1696, CU M/HR, 1383.62,VS(M/S), 40,S, 8,A,---------, 0.00118,dt(uS)			
34	<EOT>			

LogData.csv - Microsoft Excel

C26

LogData

Ready   100%

Extracting transmitter settings

1. Specify a new file name for the transmitter setting data.

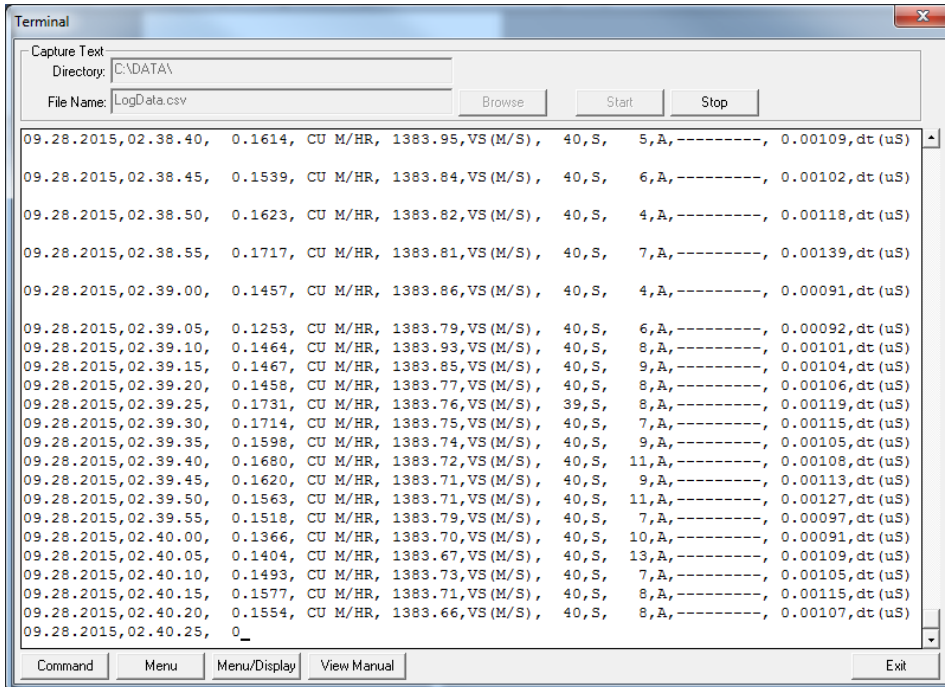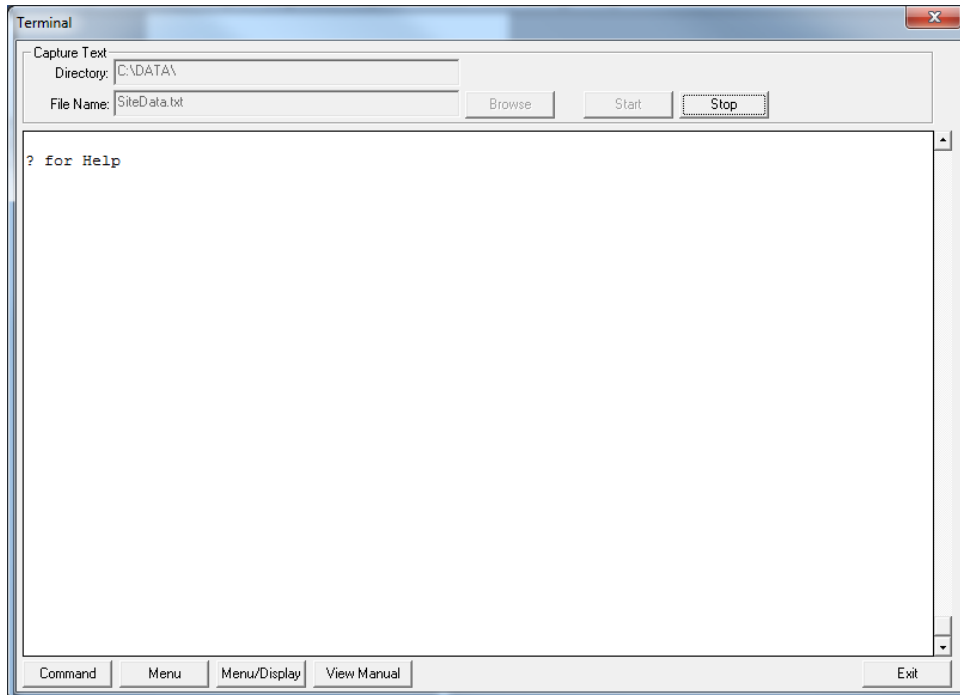2. Press START.

3. Write "SITE" in the command field and press <Enter>.
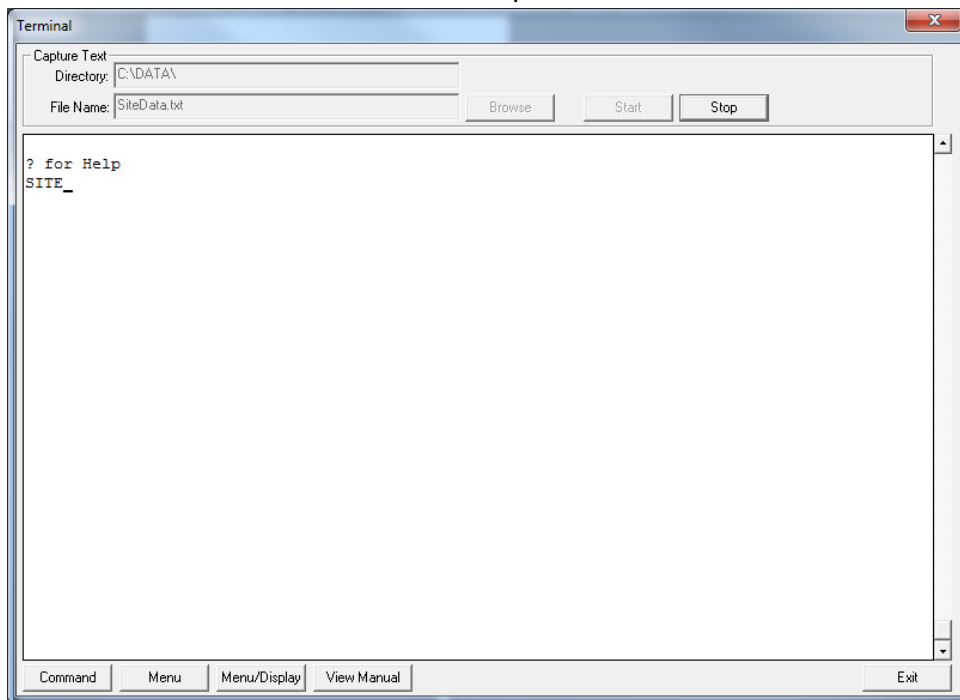
Data (settings) will now flow through the Terminal window

```
Terminal                                                                    [x]
┌─Capture Text─────────────────────────────────────────────────────────────
│   Directory: C:\DATA\
│   File Name: SiteData.txt                    [ Browse ]  [ Start ]  [ Stop ]
├──────────────────────────────────────────────────────────────────────────
                        Delete Site        TRAINING
                        Save/Rename Site    TRAINING
  Pipe Data             Pick Pipe Class     Manual Entry
                        Select Pipe Size    N/A
                        Pipe OD(mm)          29.200
                        Pipe Material       Steel
                        Wall Thickness       2.540
                        Liner Material      None
                        Liner Thickness      0.000
  Application Data      Liquid Class        Select Liquid     Water 20C/68F
                                            Estimated Vs M/S   1482
                                            Viscosity (cS)     1.00
                                            Density S.G.       1.000
                        Pipe Config         Fully Developed
                        Anomaly Diams        10
  Install Sensor        Sensor Model        1011 Universal
                        Sensor Size         B3
                        Senser Mount Mode   Direct
                        Spacing Offset      Minimum
                        Number Index        4
                        Spacing Method      Track 1012TN
                        Ltn Value (mm)      -0.851
                        Install Complete    Yes
                        Empty Pipe Set      MTYmatic
                        Zero Flow Adjust    Actual Zero
  Operation Adjust      Damping Control     Time Average       10.0
            _
├──────────────────────────────────────────────────────────────────────────
[ Command ] [ Menu ] [ Menu/Display ] [ View Manual ]              [ Exit ]
```

```
Terminal                                                                    [x]
┌─Capture Text─────────────────────────────────────────────────────────────
│   Directory: C:\DATA\
│   File Name: SiteData.txt                    [ Browse ]  [ Start ]  [ Stop ]
├──────────────────────────────────────────────────────────────────────────
         3077,        0.8965,        0.8965
         3477,        0.9026,        0.9026
         4006,        0.9087,        0.9087
         4651,        0.9148,        0.9148
         5678,        0.9209,        0.9209
         7582,        0.9270,        0.9270
        13326,        0.9331,        0.9331
        33832,        0.9375,        0.9375
        97443,        0.9420,        0.9420
       278428,        0.9464,        0.9464
       779166,        0.9508,        0.9508
      2184262,        0.9553,        0.9553
      6058052,        0.9597,        0.9597
    111456000,        0.9704,        0.9704
  Multi Point Calibration Table, Not Enabled
        0.000,        1.0000
        2.005,        1.0000
        4.011,        1.0000
        6.016,        1.0000
        8.022,        1.0000
       10.027,        1.0000
       12.033,        1.0000
       14.038,        1.0000
       16.044,        1.0000
       18.049,        1.0000
  <EOT>
├──────────────────────────────────────────────────────────────────────────
[ Command ] [ Menu ] [ Menu/Display ] [ View Manual ]              [ Exit ]
```

4. Wait for EOT and press "Stop" to close the file.

5. Open/import the file with WordPad.

```
SITE
Channel Setup        Recall Site         TRAINING
                     Channel Enable      Yes
                     Create/Name Site    TRAINING
                     Site Security       Off
                     Delete Site         TRAINING
                     Save/Rename Site    TRAINING
Pipe Data            Pick Pipe Class     Manual Entry
                     Select Pipe Size    N/A
                     Pipe OD(mm)           29.200
                     Pipe Material       Steel
                     Wall Thickness        2.540
                     Liner Material      None
                     Liner Thickness       0.000
Application Data     Liquid Class        Select Liquid        Water 20C/68F
                                         Estimated Vs M/S       1482
                                         Viscosity (cS)         1.00
                                         Density S.G.           1.000
                     Pipe Config         Fully Developed
                     Anomaly Diams         10
Install Sensor       Sensor Model        1011 Universal
                     Sensor Size         B3
                     Senser Mount Mode   Direct
                     Spacing Offset      Minimum
                     Number Index        4
                     Spacing Method      Track 1012TN
                     Ltn Value (mm)      -0.851
                     Install Complete    Yes
                     Empty Pipe Set      MTYmatic
                     Zero Flow Adjust    Actual Zero
```