

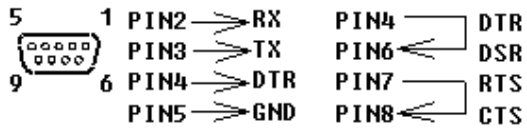
Datalogger and RS232 Interface

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RS232 Wiring Hardware

Computer's Serial Port side of Interface Cable

The RS-232 "DB-9" side of the PC Interface Cable connects to the PC's COM port. Refer to the diagram below for wiring information. Note that a SERIAL to USB Adapter may be used.



RS232 Protocol

1. RS232 Settings :

① Baud rate : 9600bps ② Parity check : None ③ Data bits : 8 ④ Stop bit : 1

2. Recall :

To receive data from the meter, input an (any key) command then it will reply

02H + FFH + FFH + FFH + FFH + 03H to recall.

3. Transfer Format :

Content :

| Byte 1 | Byte 2 | Byte 3 | Byte 4 | Byte 5 | Byte 6 |
|--------|----------------|----------------|----------------|---------------|--------|
| 02H | Function1 Byte | Function2 Byte | Data High Byte | Data Low Byte | 03H |

Function1 :

| Bit7 | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 |
|------|------|------|------|------|--|--|------|
| x | | x | | x | 011→50-110 100→60-120 101→70-130 | 000→20- 80 001→30- 90 010→40-100 | |

Function2 :

| Bit7 | Bit6 | Bit5 | Bit4 | Bit3 | Bit2 | Bit1 | Bit0 |
|-------|------|-------|------|------|------|------------------|------------------|
| Under | Over | A / C | x | x | x | 00→Fast 10→ x | 01→Slow 11→ x |

4. Command : (After Recalled)

“W” + YY + MM + DD→ Set RTC’s YY,MM,DD (Year, Month, Date)

“X” + HH + NN + SS→ Set RTC’s HH,NN,SS (Hour, Minute, Second)

“Z” + x + Second(High Byte) + Second(Low Byte)→ Set Meter’s Recording Interval

“K” + x + x + 01H→ A / C

02H→ Fast / Slow

04H→ Max / Min

09H→ Level up

0AH→ Level down

“R” + x + x + 35H→ 02H + AAH + x + Interval High Byte + Interval Low Byte + 03H

“R” + x + x + 33H→ 02H + AAH + x + 3 Bytes of Last Address + 03H

Data Logger

“U” → 02H

+ 00H + 55H + AAH + 00H
+ Interval High + Interval Low + Function1 + Function2
+ **x** + **x** + 6 Bytes of Time of Start Recording
+ **x** + **x** + 6 Bytes of Time of Stop Recording
+ **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x**
+ **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x**
+ **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x** + **x**
+ SPL High + SPL Low + SPL High + SPL Low +
+ 00H + 55H + AAH + 00H
+
+ 03H

x : don't care

Hardware Requirements and Setup

PC Hardware Requirements :

HDD, CD Rom, 486 PC or above, with available COM port
EGA or higher monitor
4M bytes or more memory size

PC Hardware Setup :

- 1) Switch off all power related to the PC
- 2) Connect the DB9 (female) end of the supplied RS-232 cable to available COM port
- 3) Switch on all related power
- 4) Connect the DB9 (male) end of the supplied RS-232 cable to the meter

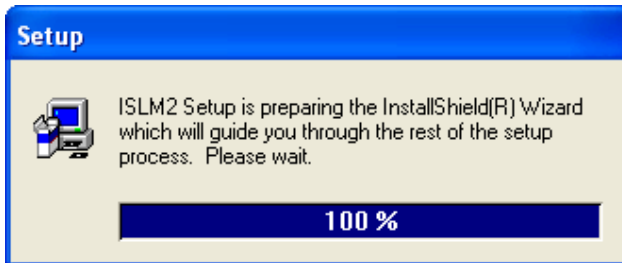
Software Requirements and Setup

- 1) Start up windows 95 / 98 / 2000 / XP operating system
- 2) Close all other applications
- 3) Insert disk in CD drive

Wait for “Autorun” to start and follow on-screen instructions

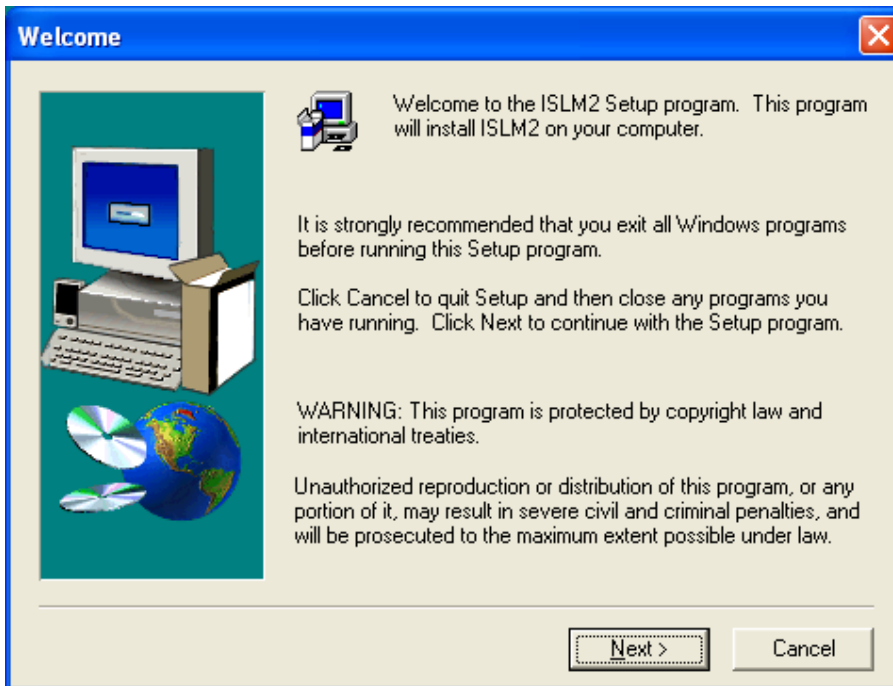
(If “autorun” does not start, click on “Start” then “Run”. Type the drive letter and “:VB\Disk1\Setup.exe” and click “OK” .)

1).



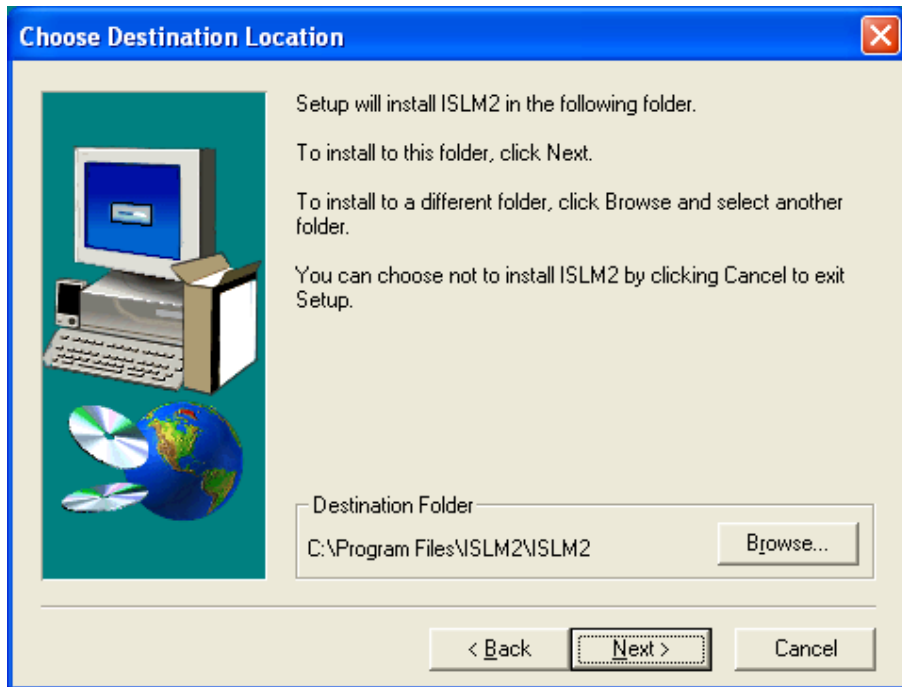
Setup program will run automatically.

2).



Click Next> button

3).

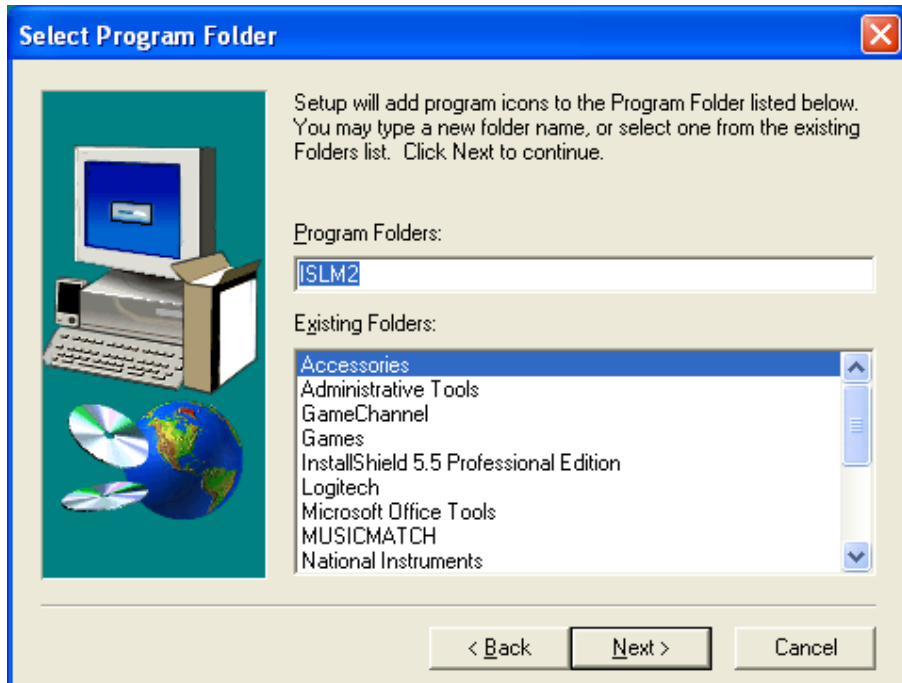


a. Click Next> to use the default folder

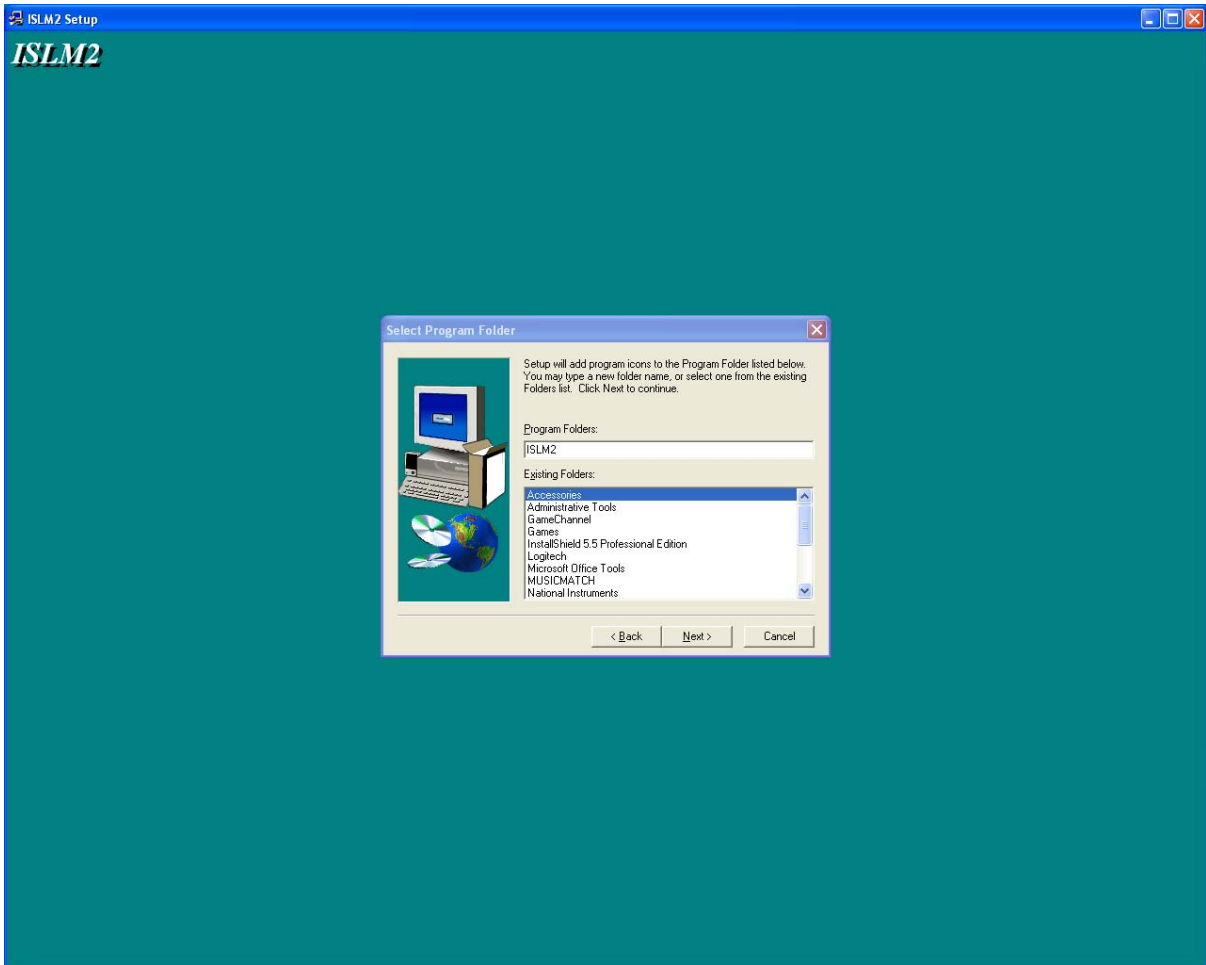
or

b. Click Browse... to select a different folder

4).



Click Next> button

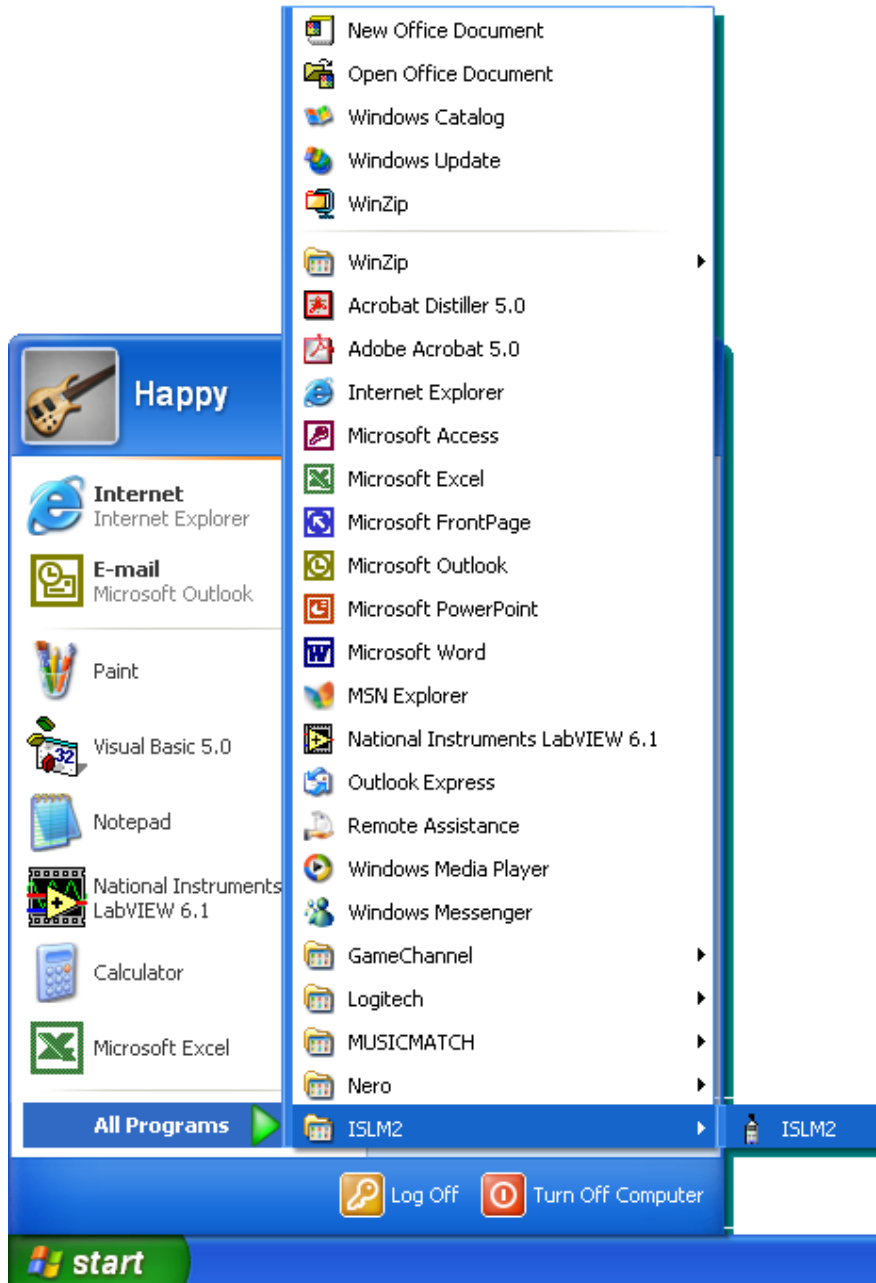


Setup is complete.

Communicating Operation

■ Run the software

1. Click "Start" from Start menu then move to "All Programs" (or "Programs") then "ISLM2" and then click the "ISLM2" icon.

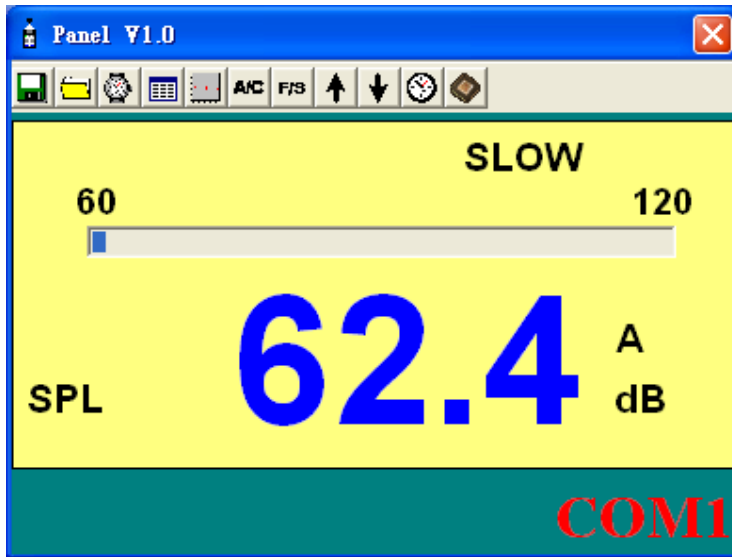


2.

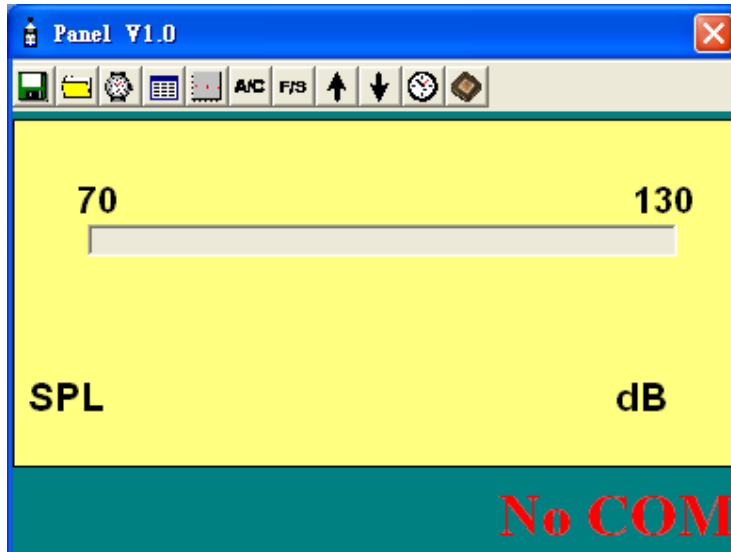
Click an available COM port



3. Main software screen



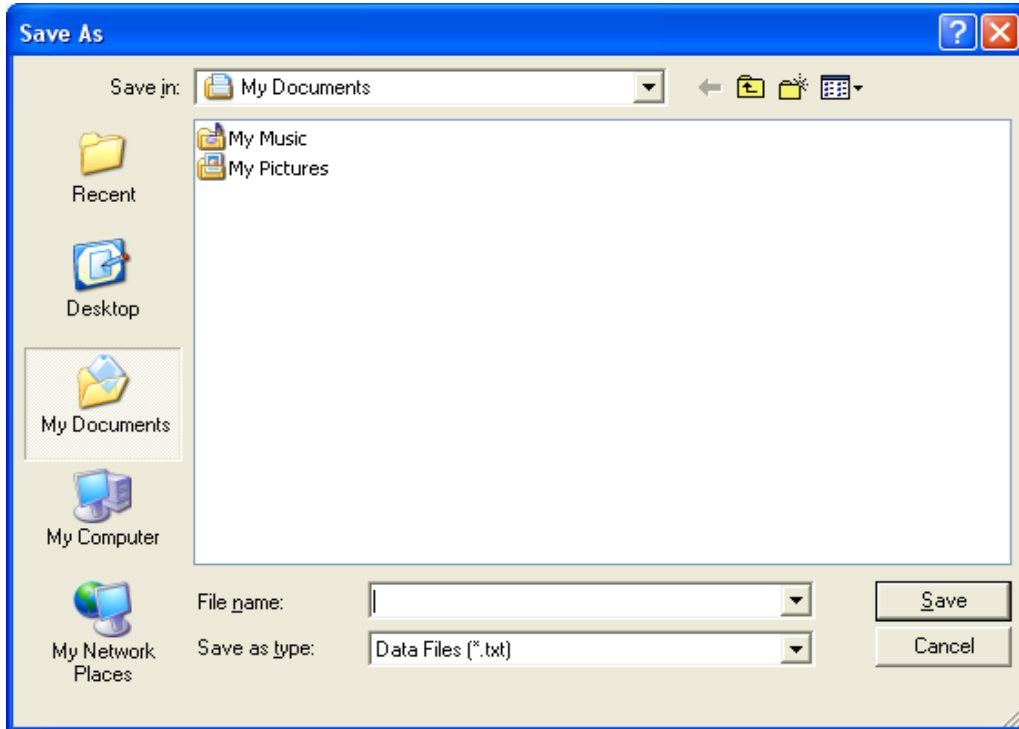
If no connection, shows as below: "No COM"



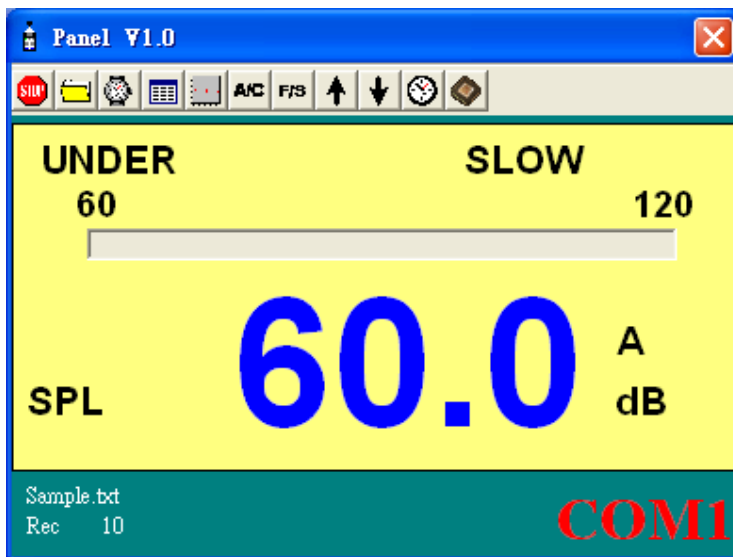
■ Record


Save to Hard Disk (PC)

Click  button. The dialog box shown below will appear.




Input a file name and then click "Save" to begin saving data to the file just named.

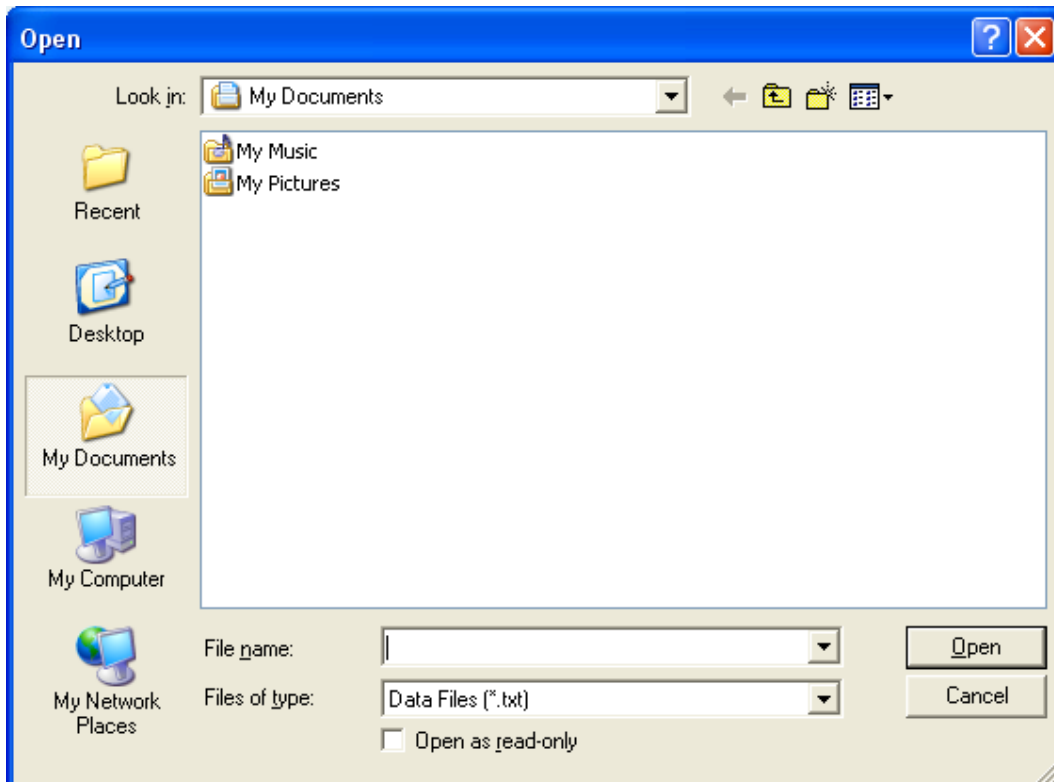


Click  button to stop recording.

Download Data


1. Download Data from Hard Disk

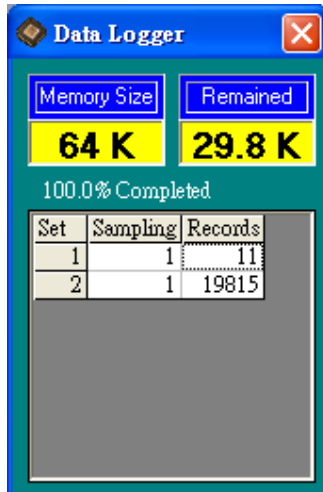
Click  button. The Open window, shown below, appears



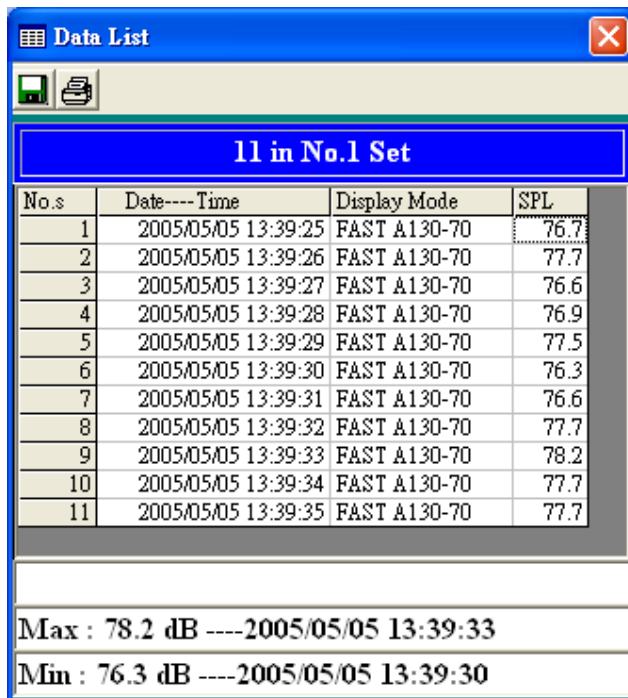
Input the file that was selected earlier and then click the Open button.

2. Download Data from EEPROM

Click  button. The Data Logger window, shown below, will open.



Click on a SET number to view the set's details. For example, in the window above, there are 2 sets from which to choose. The list below is an example of an opened set.



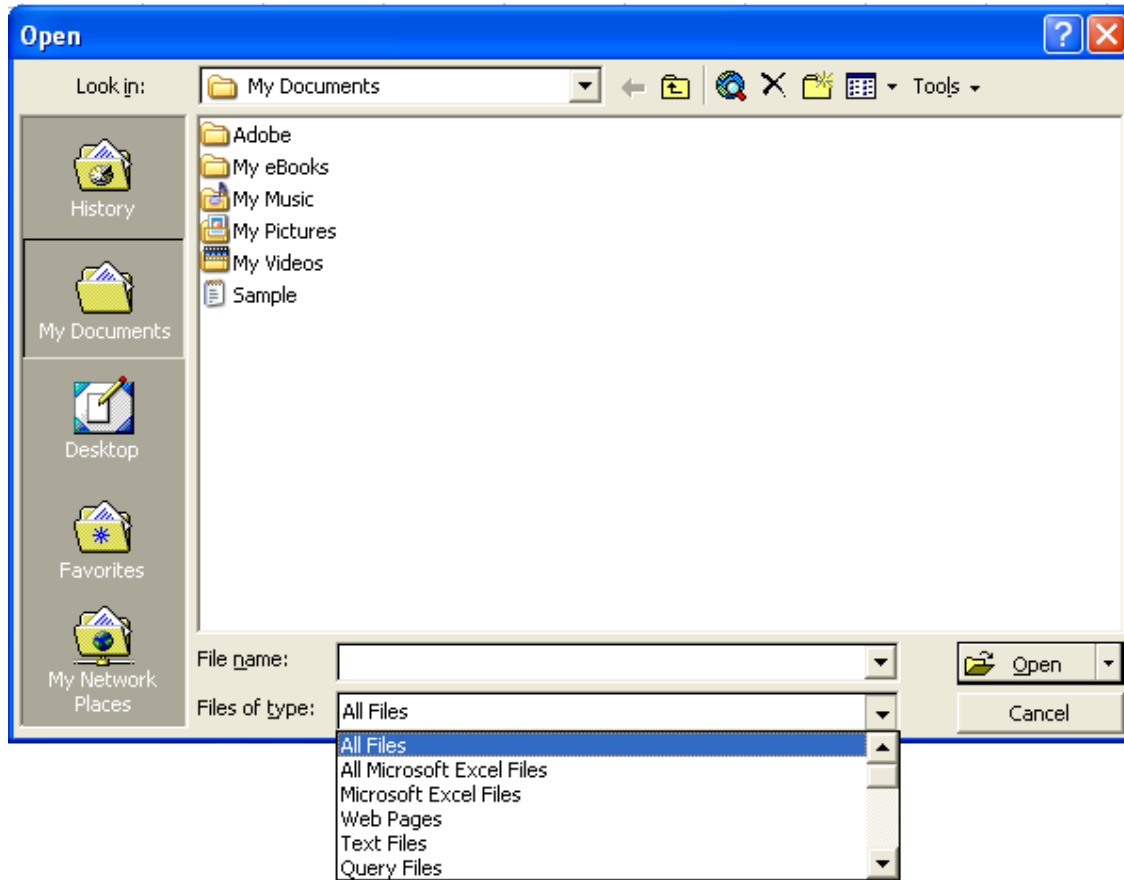
| No.s | Date---Time | Display Mode | SPL |
|------|---------------------|--------------|------|
| 1 | 2005/05/05 13:39:25 | FAST A130-70 | 76.7 |
| 2 | 2005/05/05 13:39:26 | FAST A130-70 | 77.7 |
| 3 | 2005/05/05 13:39:27 | FAST A130-70 | 76.6 |
| 4 | 2005/05/05 13:39:28 | FAST A130-70 | 76.9 |
| 5 | 2005/05/05 13:39:29 | FAST A130-70 | 77.5 |
| 6 | 2005/05/05 13:39:30 | FAST A130-70 | 76.3 |
| 7 | 2005/05/05 13:39:31 | FAST A130-70 | 76.6 |
| 8 | 2005/05/05 13:39:32 | FAST A130-70 | 77.7 |
| 9 | 2005/05/05 13:39:33 | FAST A130-70 | 78.2 |
| 10 | 2005/05/05 13:39:34 | FAST A130-70 | 77.7 |
| 11 | 2005/05/05 13:39:35 | FAST A130-70 | 77.7 |

Max : 78.2 dB ----2005/05/05 13:39:33
Min : 76.3 dB ----2005/05/05 13:39:30

■ Data Convert

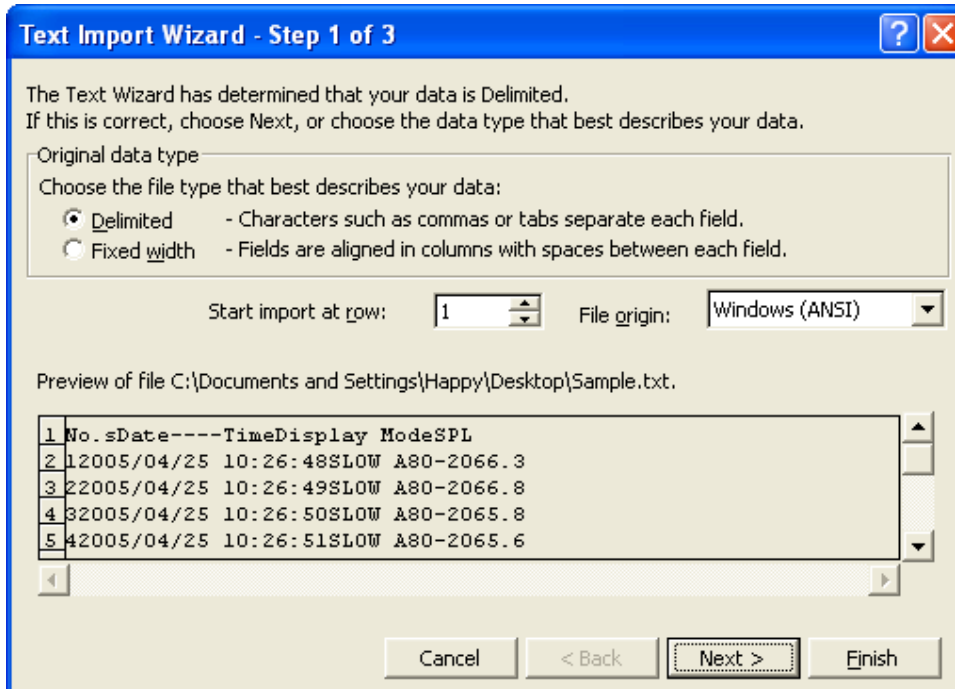
Apply for Excel

Open Microsoft Excel, find the file saved in Excel type, for example, test.xls.

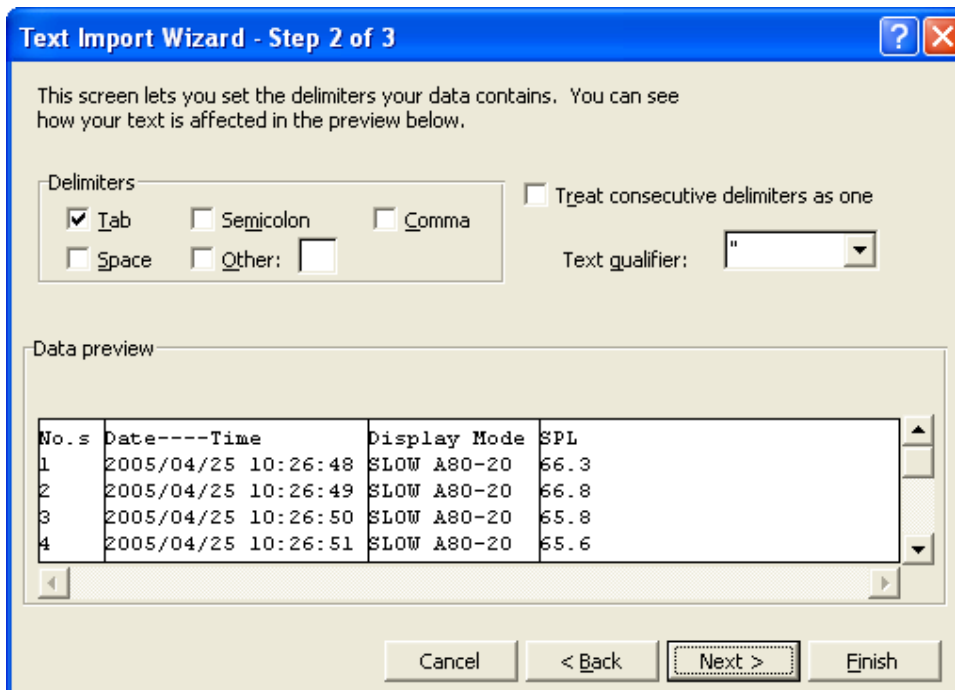


or find any file already saved in HDD, for example, sample.dat.

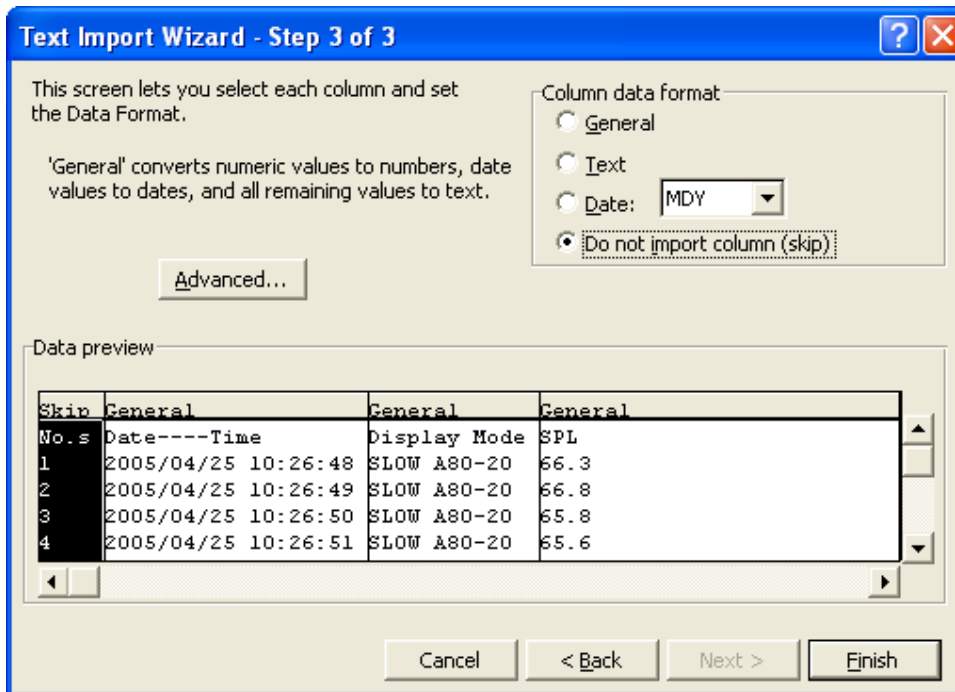
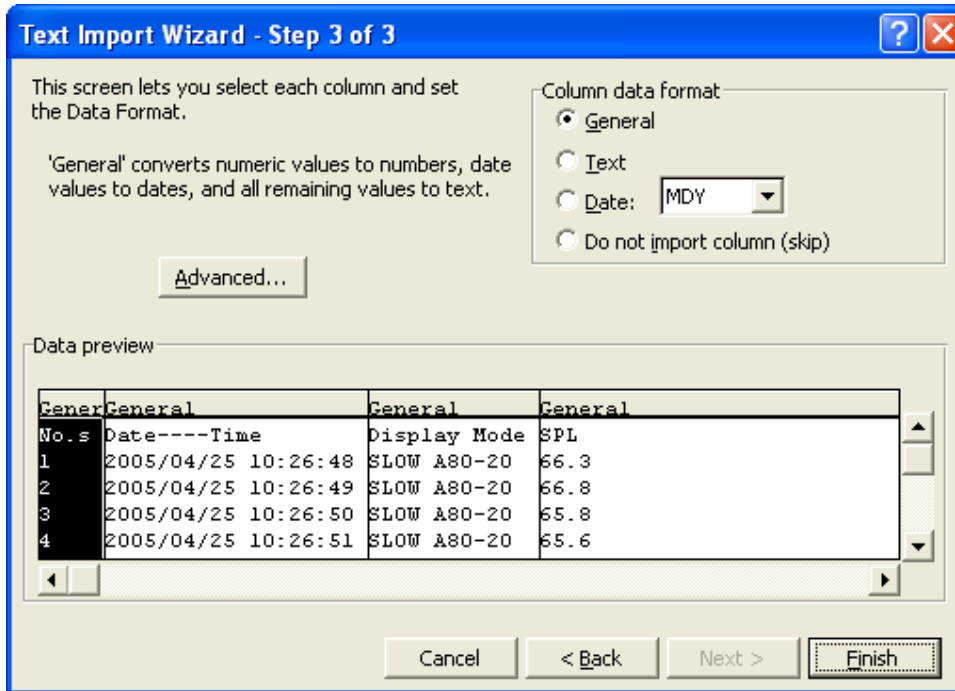
The "Text Import Wizard" then appears. Follow the steps 1 to 3 to complete.

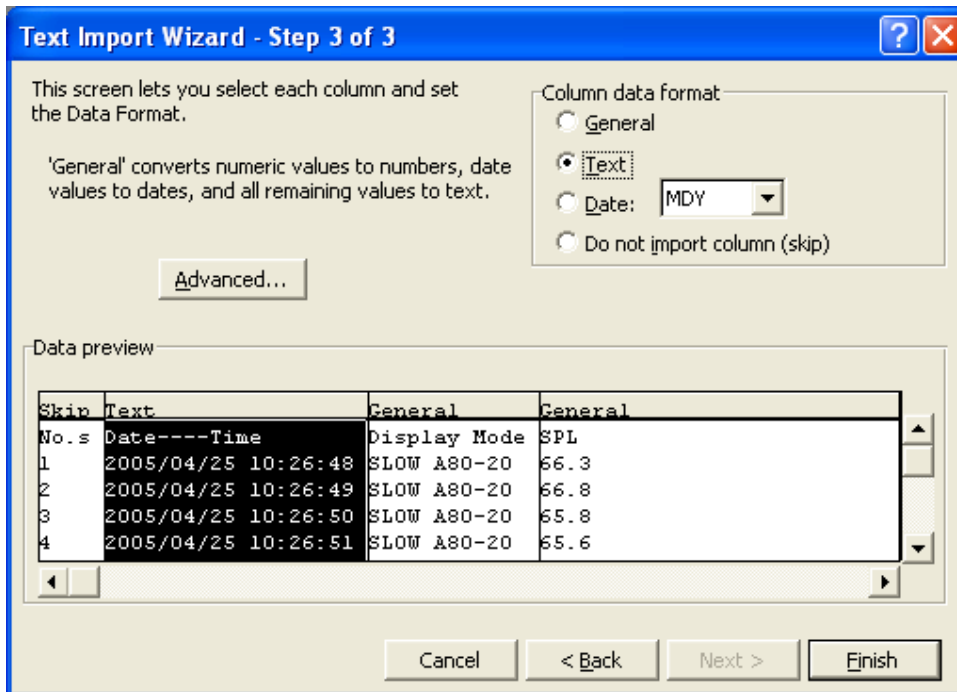
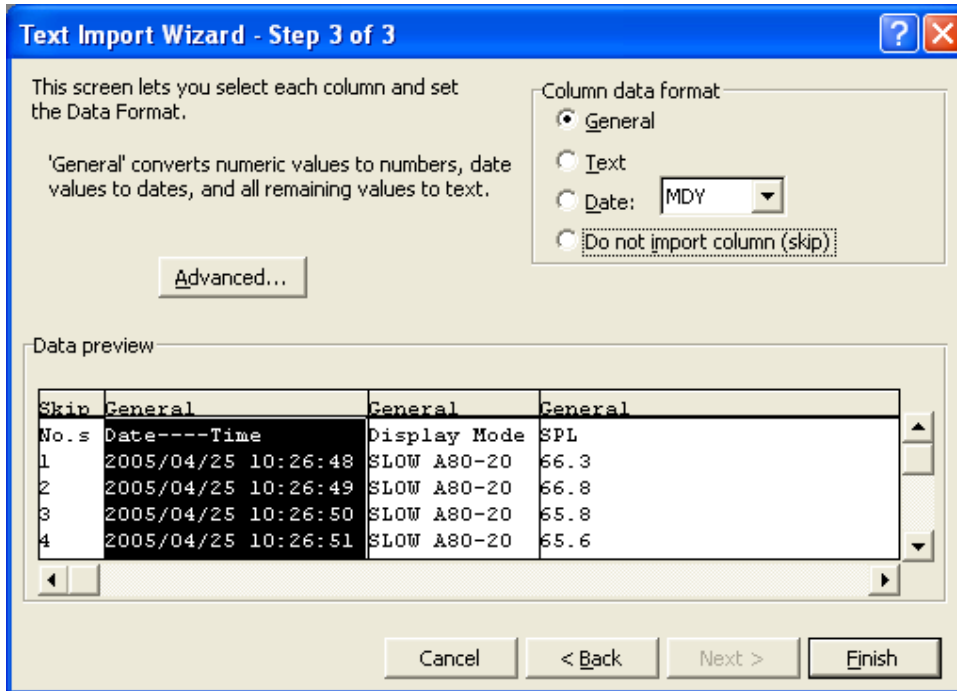


Click Next> button



Click Next> button



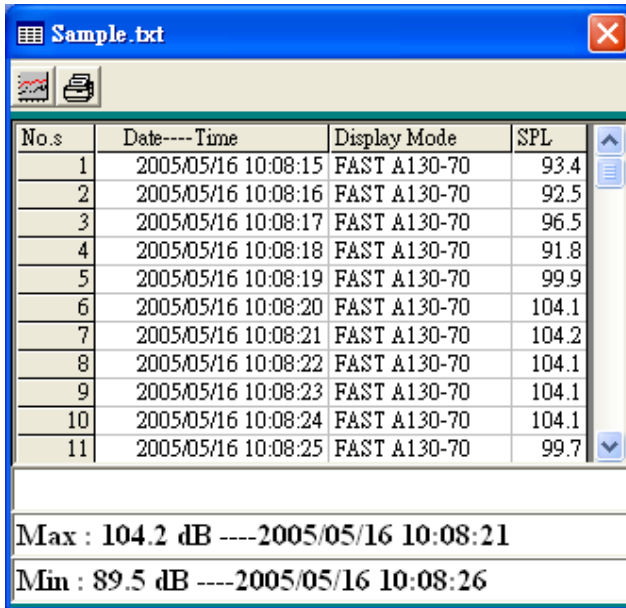


Click **Finish** button

| | A | B | C | D |
|----|--|---------------------|--------------|------|
| 1 | No.s | Date---Time | Display Mode | SPL |
| 2 | 1 | 2005/04/25 10:26:48 | SLOW A80-20 | 66.3 |
| 3 | 2 | 2005/04/25 10:26:49 | SLOW A80-20 | 66.8 |
| 4 | 3 | 2005/04/25 10:26:50 | SLOW A80-20 | 65.8 |
| 5 | 4 | 2005/04/25 10:26:51 | SLOW A80-20 | 65.6 |
| 6 | 5 | 2005/04/25 10:26:52 | SLOW A80-20 | 65.6 |
| 7 | 6 | 2005/04/25 10:26:53 | SLOW A80-20 | 65.6 |
| 8 | 7 | 2005/04/25 10:26:54 | SLOW A80-20 | 65.2 |
| 9 | 8 | 2005/04/25 10:26:55 | SLOW A80-20 | 65.2 |
| 10 | 9 | 2005/04/25 10:26:56 | SLOW A80-20 | 65.1 |
| 11 | 10 | 2005/04/25 10:26:57 | SLOW A80-20 | 65.2 |
| 12 | 11 | 2005/04/25 10:26:58 | SLOW A80-20 | 65.3 |
| 13 | 12 | 2005/04/25 10:26:59 | SLOW A80-20 | 65.1 |
| 14 | 13 | 2005/04/25 10:27:00 | SLOW A80-20 | 65.2 |
| 15 | 14 | 2005/04/25 10:27:01 | SLOW A80-20 | 65.4 |
| 16 | 15 | 2005/04/25 10:27:02 | SLOW A80-20 | 65.3 |
| 17 | 16 | 2005/04/25 10:27:03 | SLOW A80-20 | 65.2 |
| 18 | 17 | 2005/04/25 10:27:04 | SLOW A80-20 | 65.1 |
| 19 | 18 | 2005/04/25 10:27:05 | SLOW A80-20 | 65.2 |
| 20 | * | | | |
| 21 | ***Max : 66.8 dB ----2005/04/25 10:26:49 | | | |
| 22 | ***Min : 65.1 dB ----2005/04/25 10:26:56 | | | |

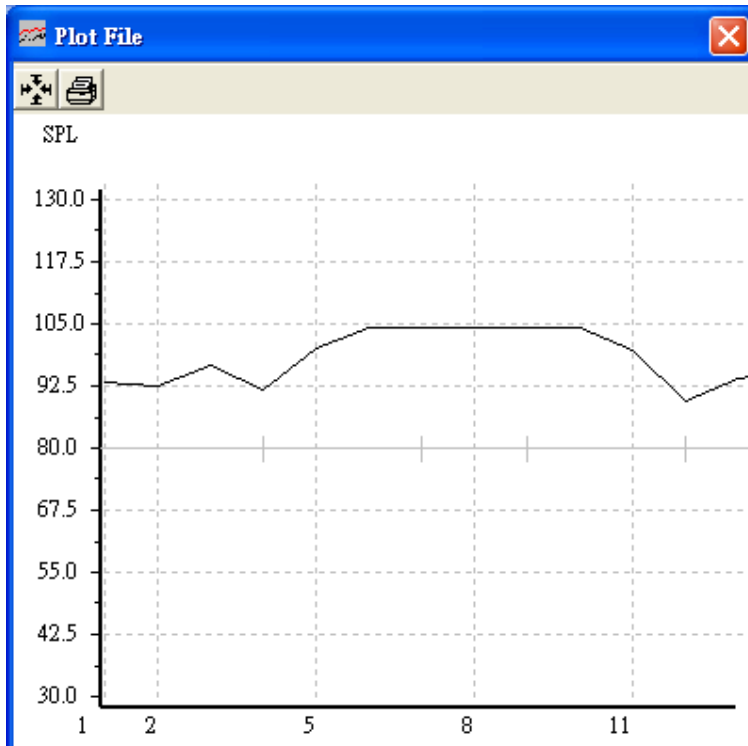
Apply for Graph

Open a saved data file in the software program and then click  .



| No.s | Date---Time | Display Mode | SPL |
|------|---------------------|--------------|-------|
| 1 | 2005/05/16 10:08:15 | FAST A130-70 | 93.4 |
| 2 | 2005/05/16 10:08:16 | FAST A130-70 | 92.5 |
| 3 | 2005/05/16 10:08:17 | FAST A130-70 | 96.5 |
| 4 | 2005/05/16 10:08:18 | FAST A130-70 | 91.8 |
| 5 | 2005/05/16 10:08:19 | FAST A130-70 | 99.9 |
| 6 | 2005/05/16 10:08:20 | FAST A130-70 | 104.1 |
| 7 | 2005/05/16 10:08:21 | FAST A130-70 | 104.2 |
| 8 | 2005/05/16 10:08:22 | FAST A130-70 | 104.1 |
| 9 | 2005/05/16 10:08:23 | FAST A130-70 | 104.1 |
| 10 | 2005/05/16 10:08:24 | FAST A130-70 | 104.1 |
| 11 | 2005/05/16 10:08:25 | FAST A130-70 | 99.7 |


Max : 104.2 dB ----2005/05/16 10:08:21
Min : 89.5 dB ----2005/05/16 10:08:26

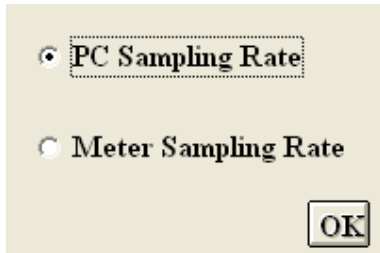


■ Sampling Time

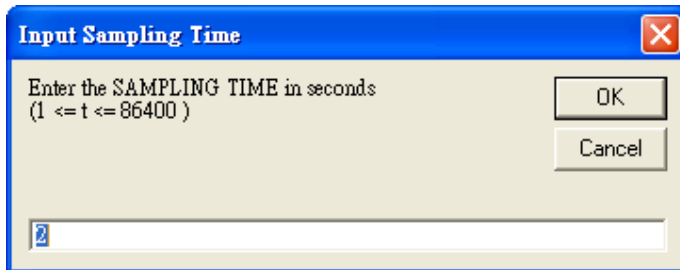
PC Sampling Rate:

(rate at which the PC collects readings while connected to the meter)

Click  on the **Menu Bar**.



Choose "PC Sampling Rate" and then click "OK" button.

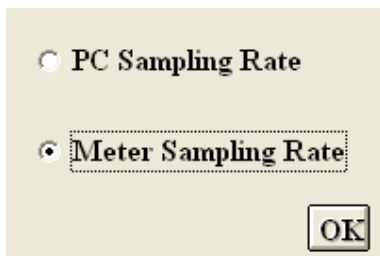


In the **Input Sampling Time** dialog box, input a sampling time and then click "OK" button to confirm.

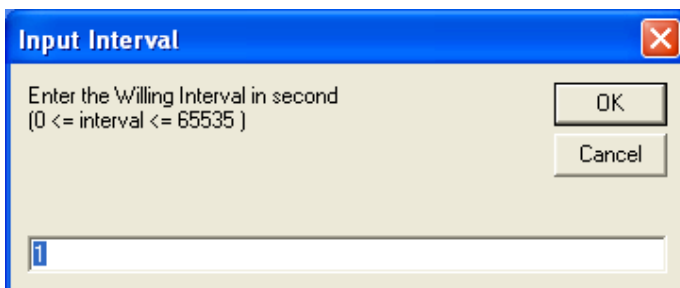
Meter Sampling Rate:

(rate at which meter stores readings)

Click  on the **Menu Bar**.




Choose "PC Sampling Rate" and then click "OK" button.



Input a sampling time and then click "OK" button to confirm.

- **RTC (Real Time Clock)**

Click  on the **Menu Bar** to set the meter time to PC system time.