Datalogger and RS232 Interface

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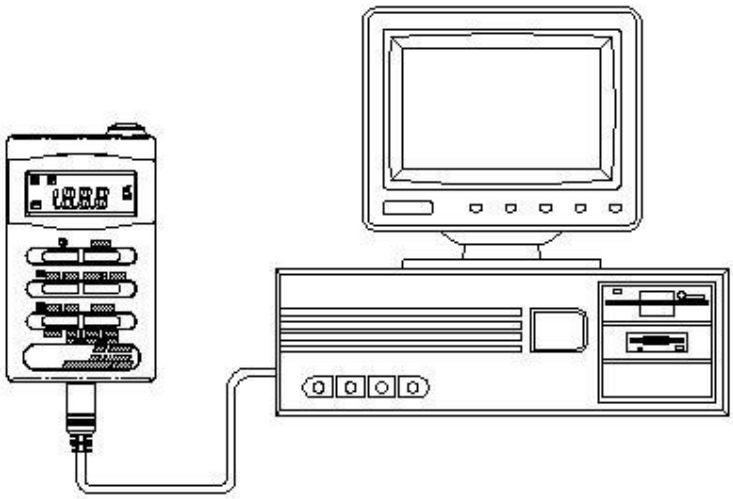
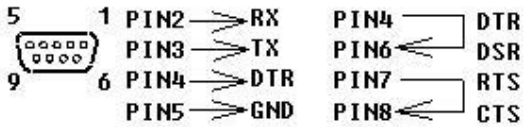
RS232 Wiring Hardware



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 Settings

9600, N, 8, 1

RS232 Protocol

1. RS232 Settings：

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

2. Real Time Code：

To request data from **EMF Tester**, send a character to the meter through RS232 port. As having received a **space** character from **PC,** the meter will send out 5 bytes data to the PC.

Byte1	Byte2	Bye3	Byte4	Byte5
02	Status	Digits1	Digits2	03

Byte1: Starting Byte (02)

Byte2: Status Byte

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
mG	uT	Hold	Peak	Range			Record

Byte3,4: LCD Digits (1C00：OL)

Byte5: Ending Byte (03)

Command	Action (Content)
“ R ” 52H	Range
“ r ” 72H	Record
“ m ” 6DH	Gauss
“ u ” 75H	Tesla
“ H ” 48H	Hold
“ EEE ” 45H	Erase data logger (EEPROM)
“ P ” 50H	peak
“ K ” 4BH + 1 byte	Output Format the n set data： No.s of Rec. + Recorded Time + Sampling + Status + Digits

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 plug end of the RS232 cable to the meter

Software Requirements and Setup

1. Start up windows 7 / 8 / 10 operating system
2. Close all other applications
3. Insert the disk in CD drive

   (If autorun does not start, open the CD drive then execute “setup.exe”)

Follow the on-screen instructions.

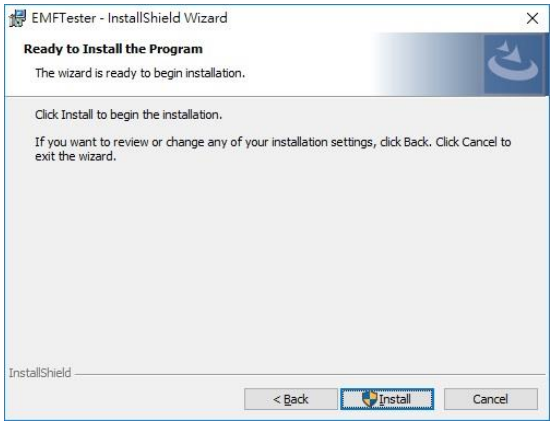
1).

Setup will run automatically.

2).

Click **Next**> button

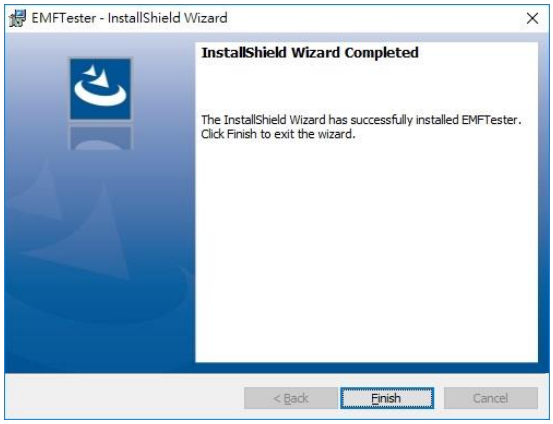
3).



Click **Install**> button

If there shows a “User Account Control” window that asks “Do you want to allow the following program from an unknown publisher to make changes to this computer?”
Click **Yes** button

4).



Click **Finish** button to complete.

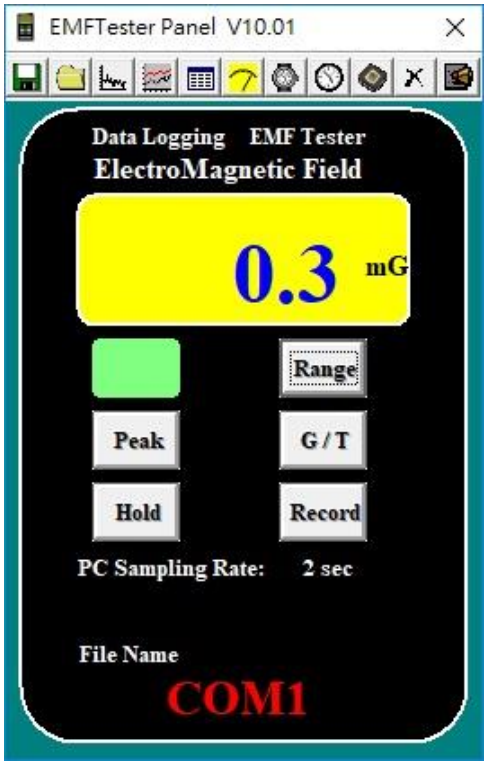
On-Line Operation

Run the software

1. Click

icon.
2. Click an available COM port

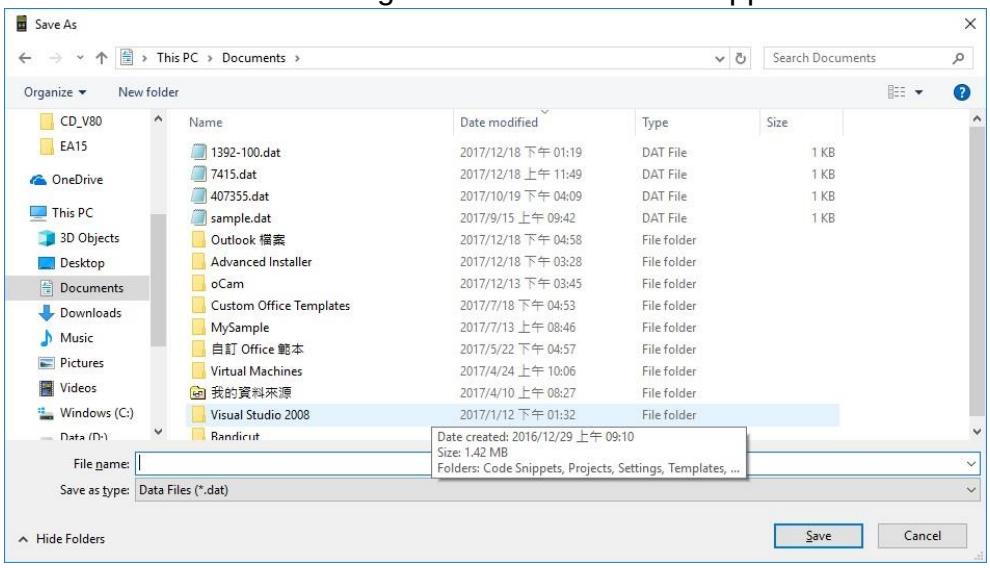
3. Main software screen



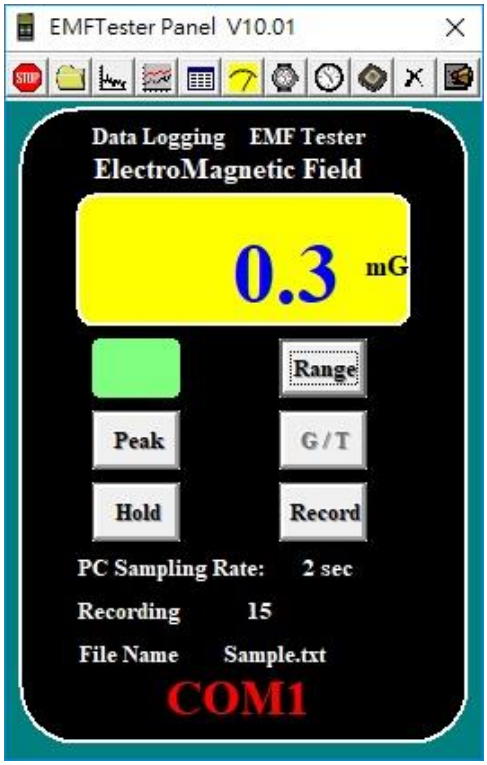
Record

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.

Save to EEPROM (EMF Tester)

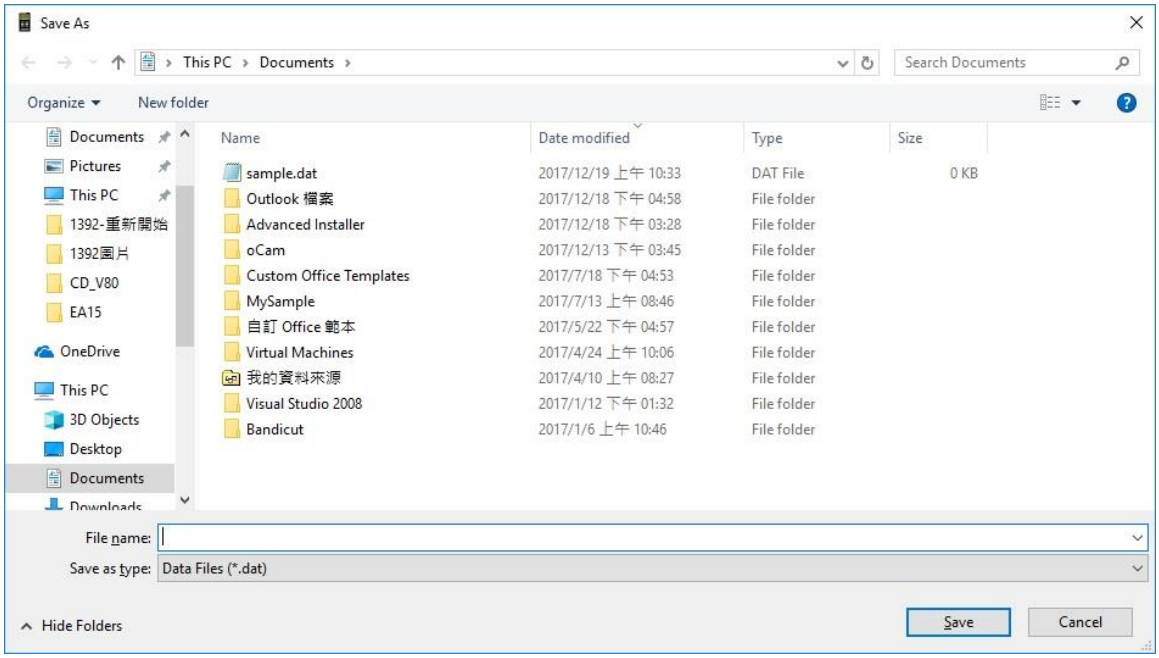
Automatically Record

Press

button then mG or uT symbol starts flashing on the LCD. Press that button again (momentarily) to stop recording.

Opening a Saved Data File

Click button. The Open window, shown below, appears

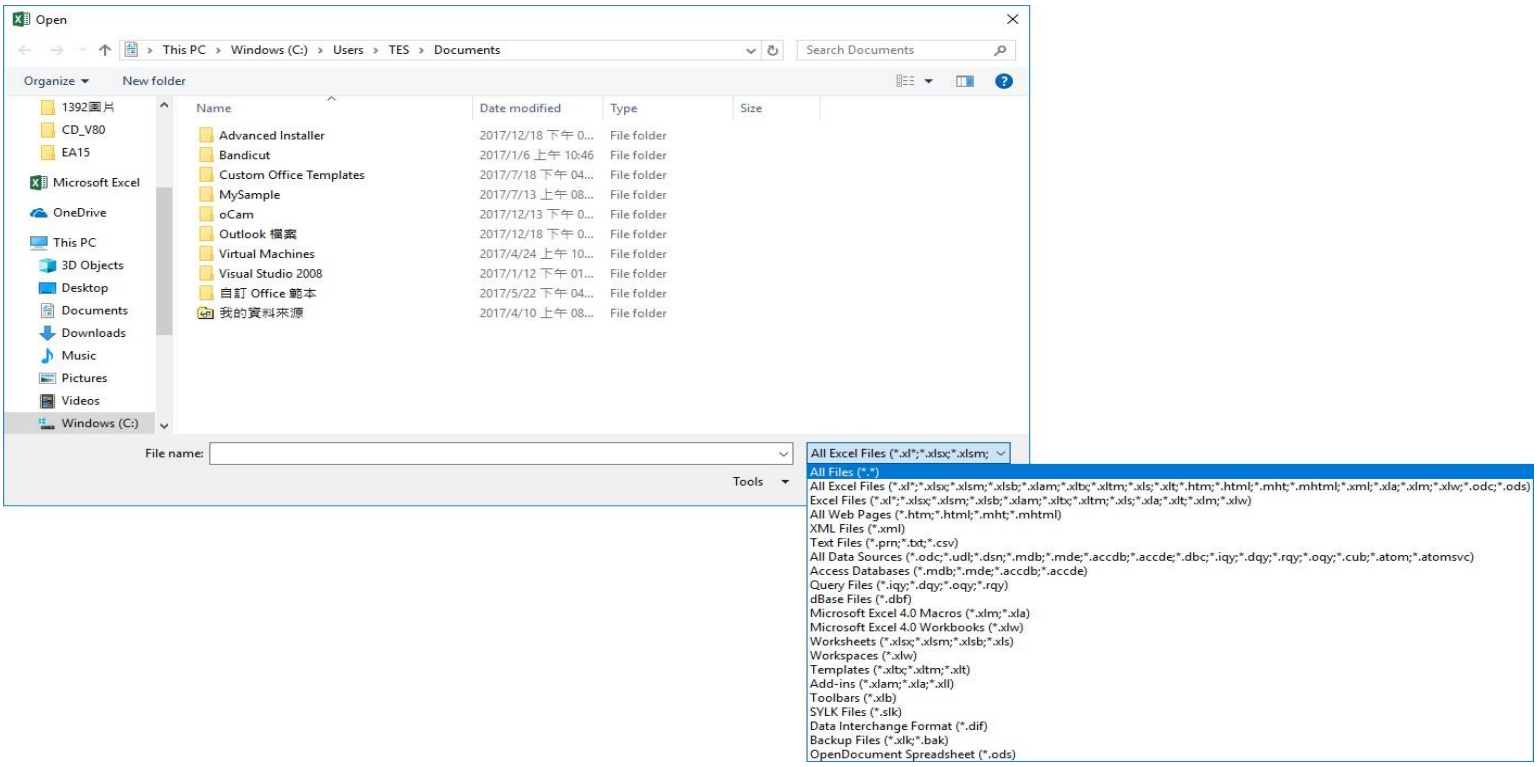


Input the file that was selected earlier and then click the Open button.

Data Convert

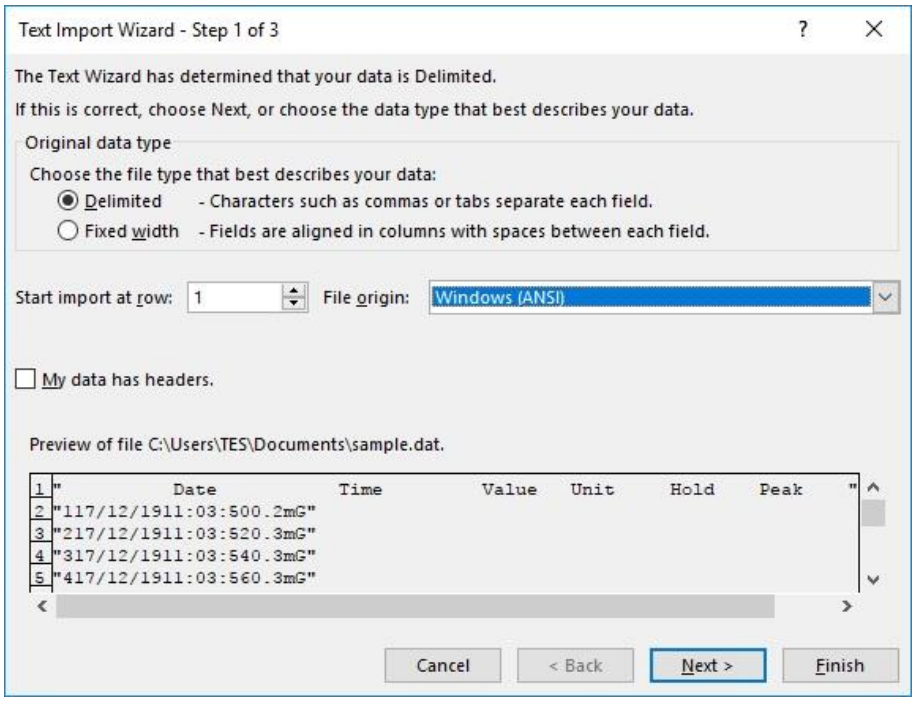
Apply for Excel

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

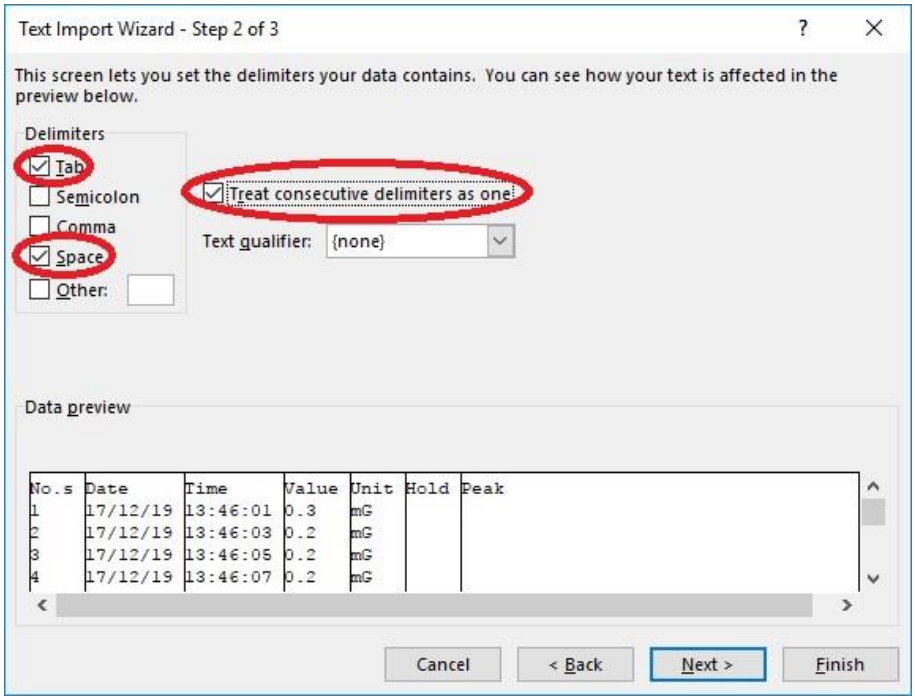


or find any file already saved in HDD, for example, sample.dat.

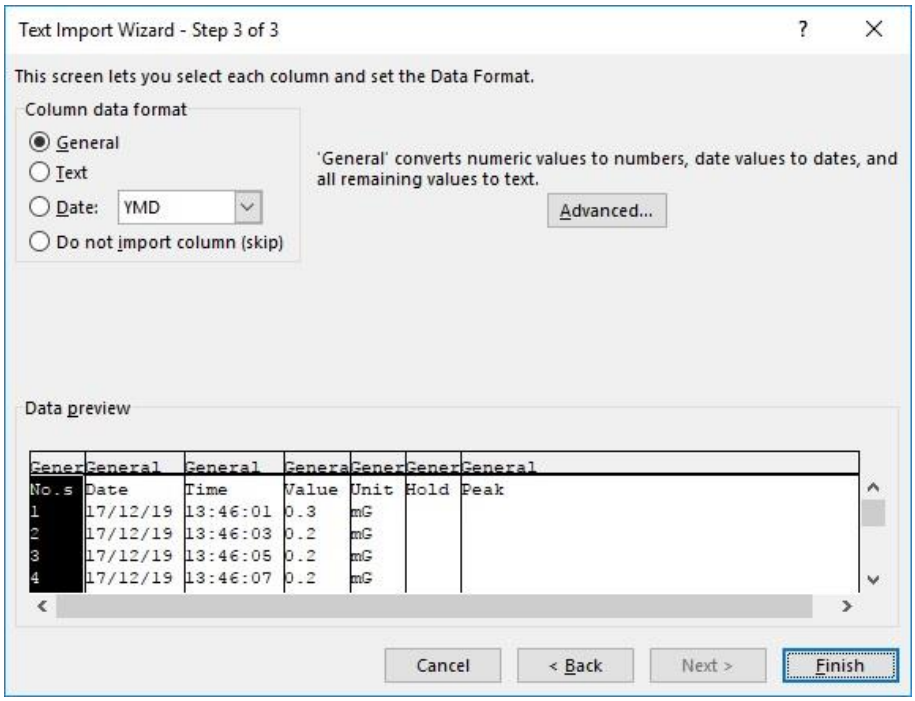
The "Text Import Wizard" then appears. Follow the steps 1 to 3 to complete.



Click **Next** > button



Click Red Checked **Next** > button

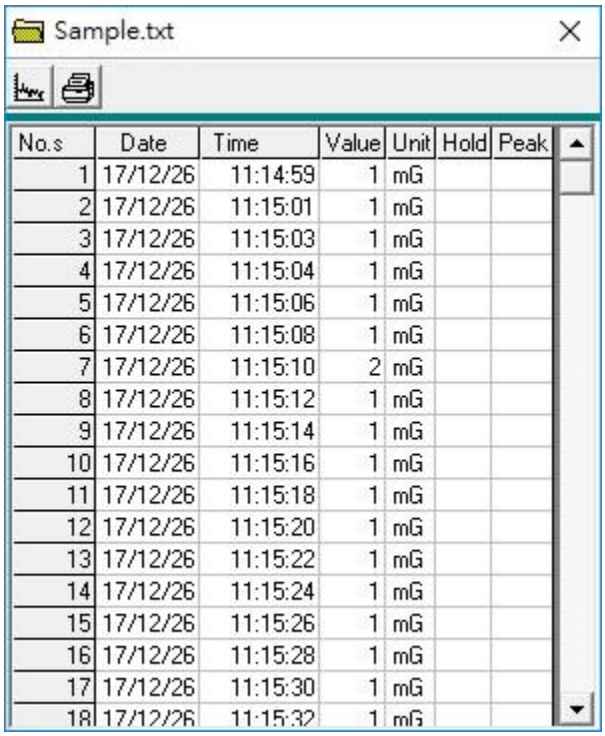


Click **Finish** button

No.s	Date	Time	Value	Unit	Hold	Peak
1	2017/12/19	13:46:01	0.3	mG		
2	2017/12/19	13:46:03	0.2	mG		
3	2017/12/19	13:46:05	0.2	mG		
4	2017/12/19	13:46:07	0.2	mG		
5	2017/12/19	13:46:09	0.2	mG		
6	2017/12/19	13:46:11	0.2	mG		
7	2017/12/19	13:46:13	0.2	mG		
8	2017/12/19	13:46:15	0.3	mG		
9	2017/12/19	13:46:17	0.2	mG		
10	2017/12/19	13:46:19	0.2	mG		

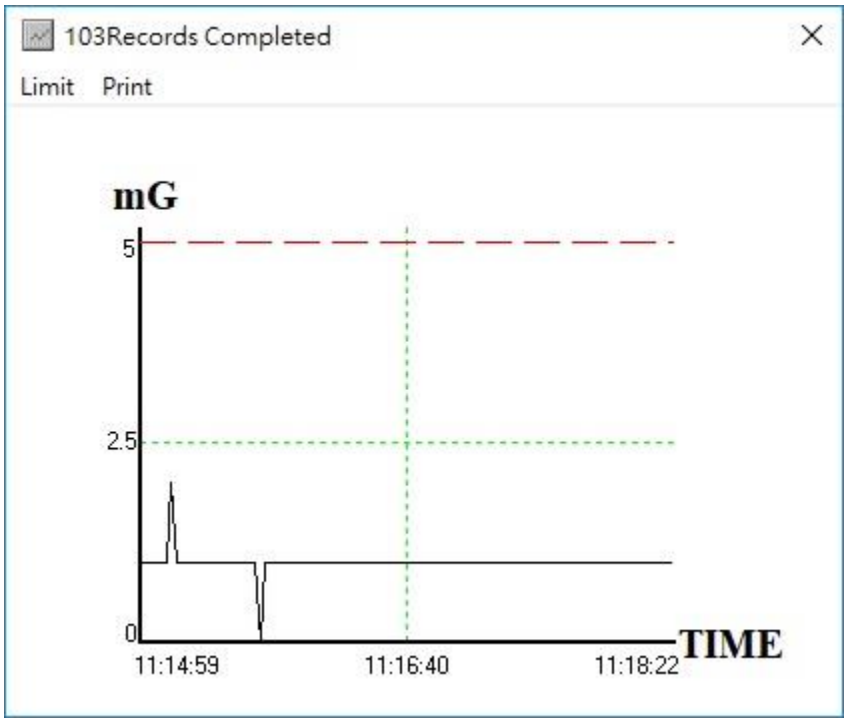
Apply for Graph

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



Sample.txt

No.s	Date	Time	Value	Unit	Hold	Peak
1	17/12/26	11:14:59	1	mG		
2	17/12/26	11:15:01	1	mG		
3	17/12/26	11:15:03	1	mG		
4	17/12/26	11:15:04	1	mG		
5	17/12/26	11:15:06	1	mG		
6	17/12/26	11:15:08	1	mG		
7	17/12/26	11:15:10	2	mG		
8	17/12/26	11:15:12	1	mG		
9	17/12/26	11:15:14	1	mG		
10	17/12/26	11:15:16	1	mG		
11	17/12/26	11:15:18	1	mG		
12	17/12/26	11:15:20	1	mG		
13	17/12/26	11:15:22	1	mG		
14	17/12/26	11:15:24	1	mG		
15	17/12/26	11:15:26	1	mG		
16	17/12/26	11:15:28	1	mG		
17	17/12/26	11:15:30	1	mG		
18	17/12/26	11:15:32	1	mG		

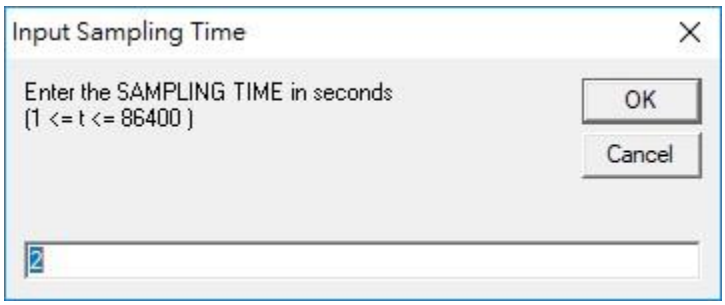


Sampling Time

PC Sampling Rate：

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

Click on the **Menu Bar.**

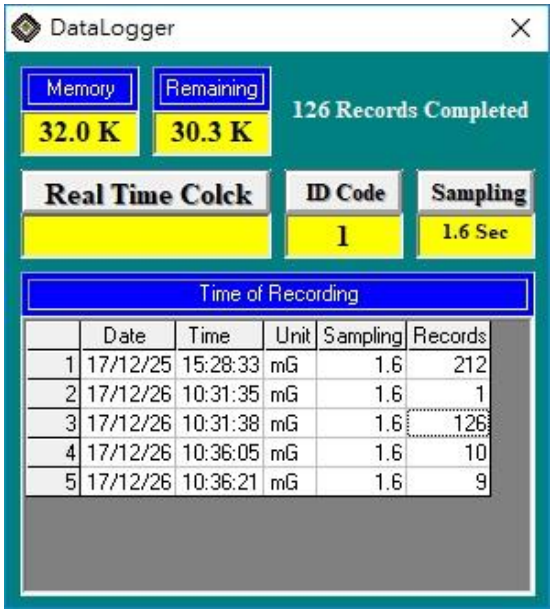


In the **Input Sampling Time** dialog box, input a sampling time and then click "**OK**" button to confirm.

Data Logger

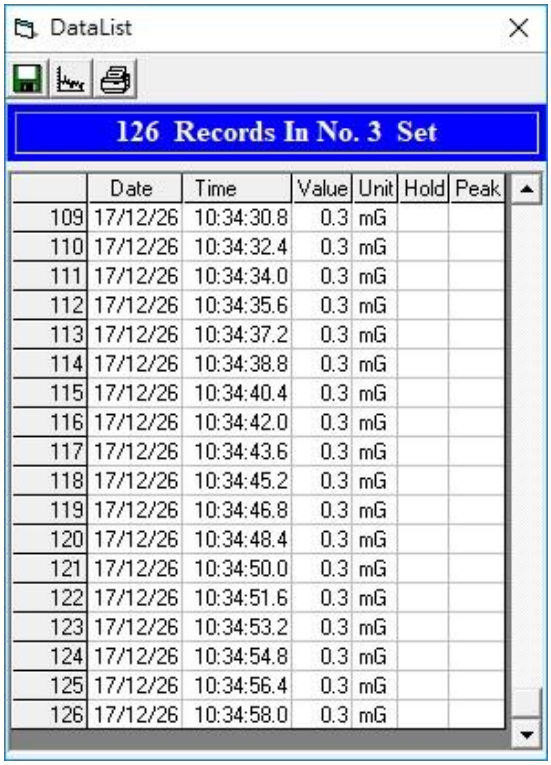
Download Data from EEPROM

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



	Date	Time	Unit	Sampling	Records
1	17/12/25	15:28:33	mG	1.6	212
2	17/12/26	10:31:35	mG	1.6	1
3	17/12/26	10:31:38	mG	1.6	126
4	17/12/26	10:36:05	mG	1.6	10
5	17/12/26	10:36:21	mG	1.6	9

Click on a SET number to view the set's details. For example, in the window above, there are 9 sets from which to choose. The list below is an example of an opened set.



	Date	Time	Value	Unit	Hold	Peak
109	17/12/26	10:34:30.8	0.3	mG		
110	17/12/26	10:34:32.4	0.3	mG		
111	17/12/26	10:34:34.0	0.3	mG		
112	17/12/26	10:34:35.6	0.3	mG		
113	17/12/26	10:34:37.2	0.3	mG		
114	17/12/26	10:34:38.8	0.3	mG		
115	17/12/26	10:34:40.4	0.3	mG		
116	17/12/26	10:34:42.0	0.3	mG		
117	17/12/26	10:34:43.6	0.3	mG		
118	17/12/26	10:34:45.2	0.3	mG		
119	17/12/26	10:34:46.8	0.3	mG		
120	17/12/26	10:34:48.4	0.3	mG		
121	17/12/26	10:34:50.0	0.3	mG		
122	17/12/26	10:34:51.6	0.3	mG		
123	17/12/26	10:34:53.2	0.3	mG		
124	17/12/26	10:34:54.8	0.3	mG		
125	17/12/26	10:34:56.4	0.3	mG		
126	17/12/26	10:34:58.0	0.3	mG		

ID Code (Optional tracking number)

Click on the **Menu Bar** to launch the Data Logger window

Move mouse to highlight ID Code value

.

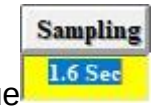
Input an ID code and then click

button to confirm.

Meter Sampling Rate：

(rate at which meter stores readings)

Click on the **Menu Bar** to launch the Data Logger window

Move mouse to highlight Sampling value 

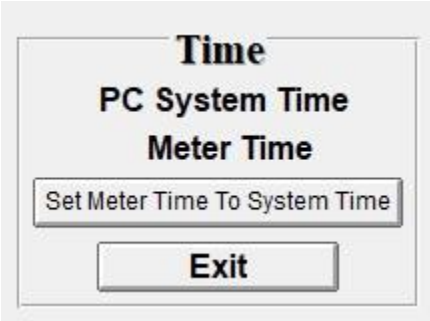
.

Input a sampling time and then click

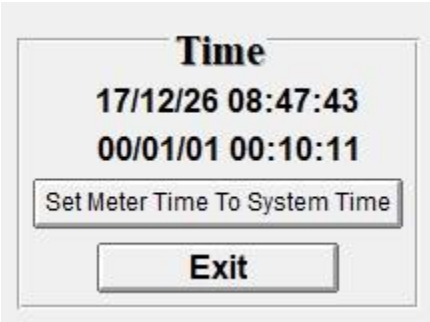
button to confirm.

RTC (Real Time Clock)

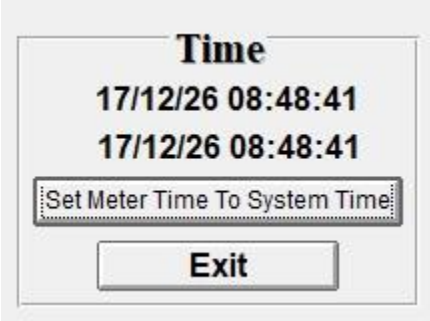
Click on the **Menu Bar** to set the meter time to PC system time.



Click **PC System Time** to show PC System Time or **Meter Time** to show Meter Time.

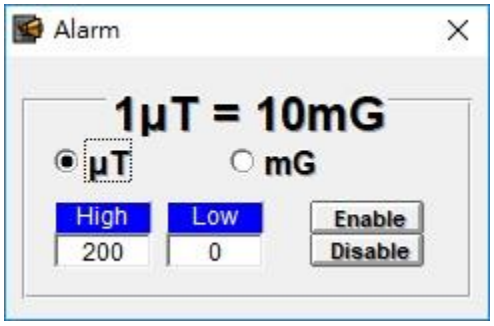


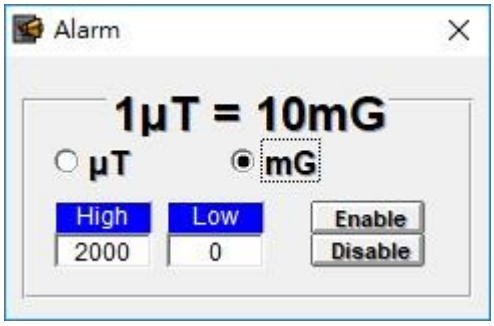
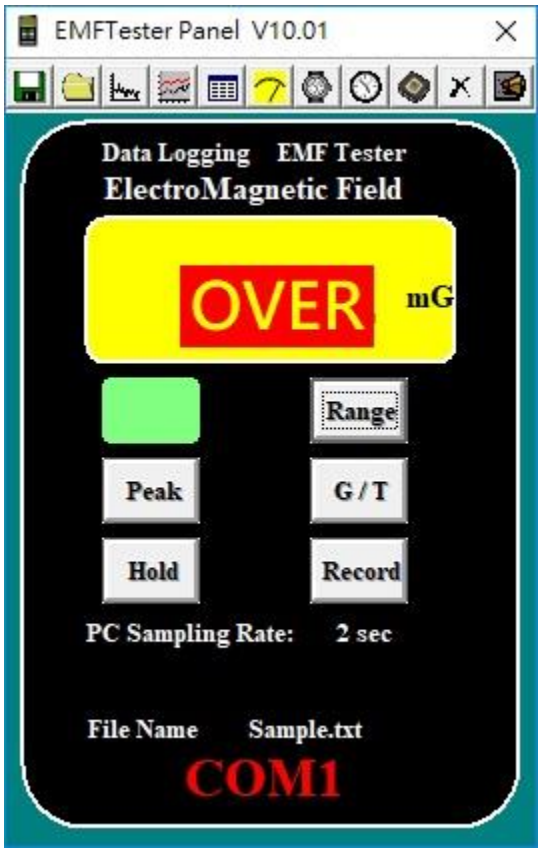
Click Set Meter Time To System Time to set the meter time to PC system time.



Alarm Function (software version V10.01 or later)

Click on the **Menu Bar.**





As above, check the desired alarm function and set values then click "**Enable**" button.