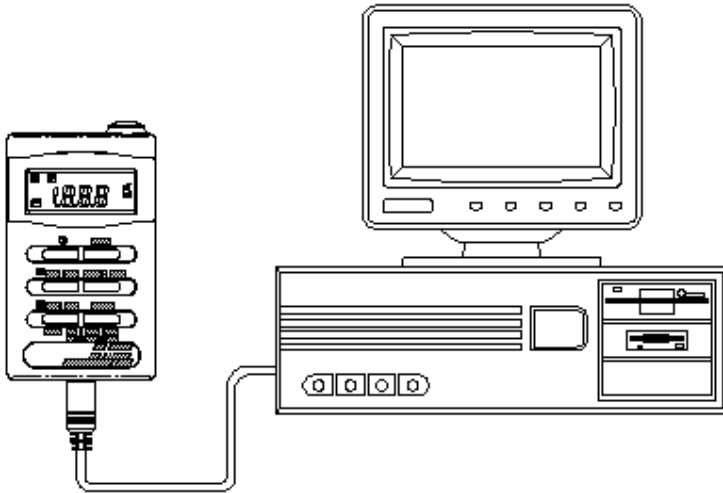


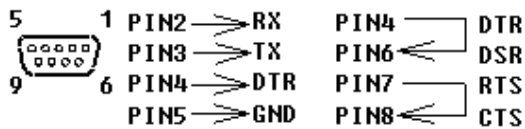
Datalogger and RS232 Interface

RS232 Wiring Hardware	2
RS232 Code	3
Hardware Requirements and Setup	4
Software Requirements and Setup	5
On-Line Operation	7
Run the Software	7
Record.....	8
Download.....	10
Data Convert.....	12
Apply for Excel	12
Apply for Graph.....	15
Sampling Time.....	16
ID Code.....	17
RTC.....	18
Alarm	19

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 :

① Baud rate : 9600bps ② Parity check : None ③ Data bits : 8 ④ 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	Byte3	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 :

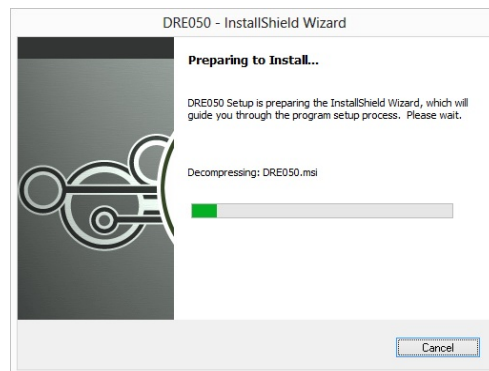
- 1) Switch off all power related to the PC
- 2) Connect the DB9 (female) end of the supplied RS-232 cable to available COM port
- 3) Switch on all related power
- 4) Connect the plug end of the RS232 cable to the meter

Software Requirements and Setup

- 1 Start up windows XP / 7 / 8 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")

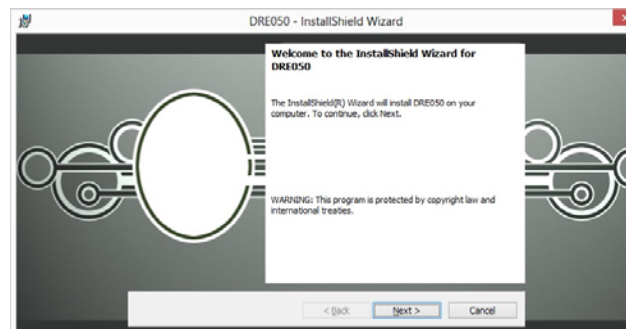
Follow the on-screen instructions.

1).



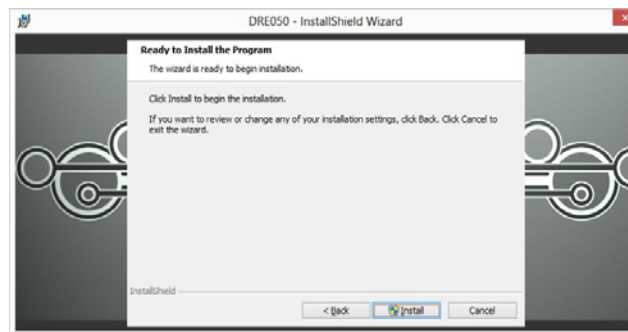
Setup will run automatically.

2).



Click Next> button

3).



a. 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

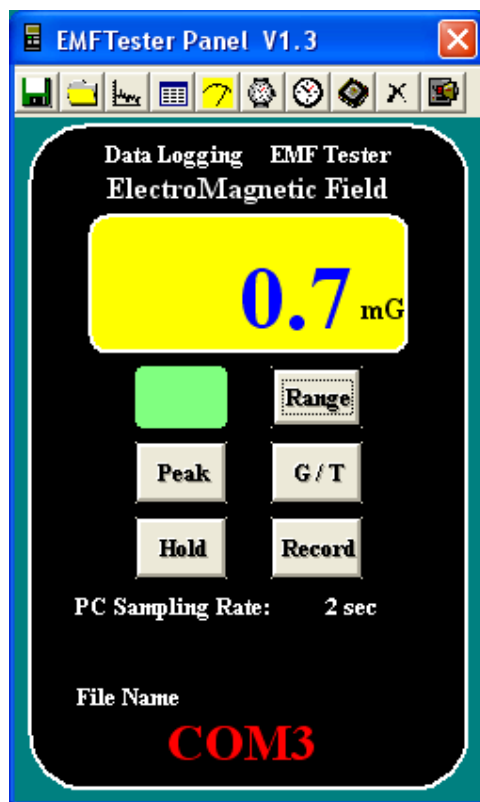
■ Run the software



1. Click Run DRE050 icon.
2. Click an available COM port




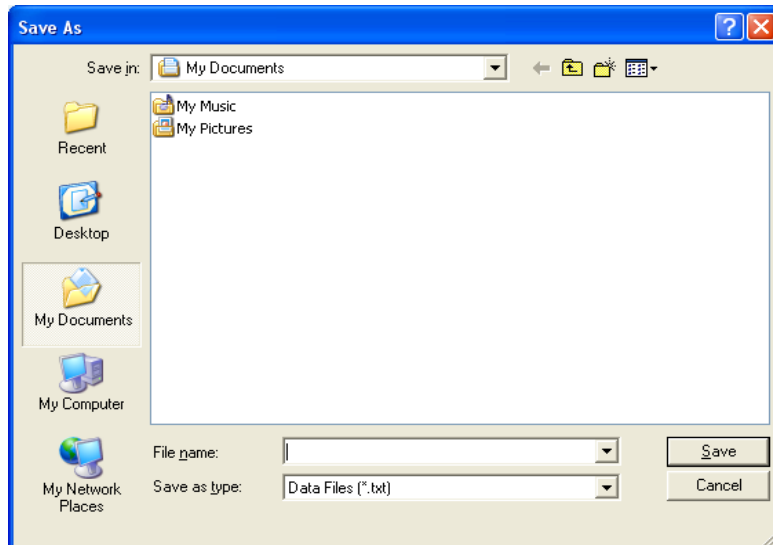
3. Main software screen



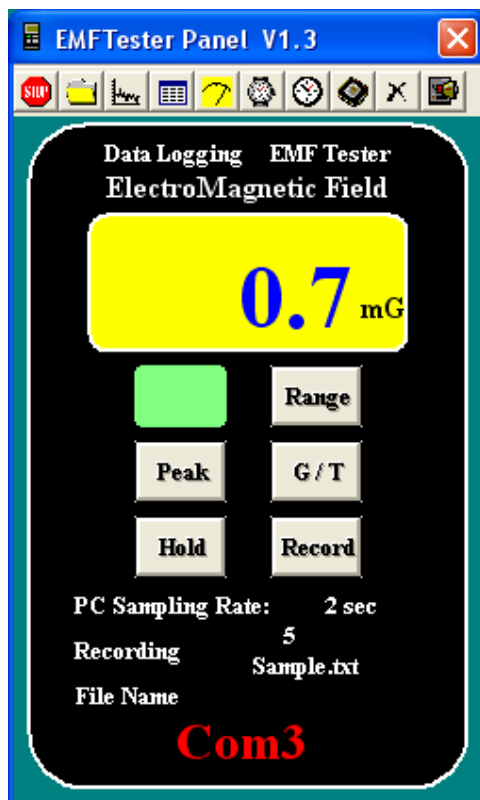
■ Record


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 EEP Rom (EMF Tester)

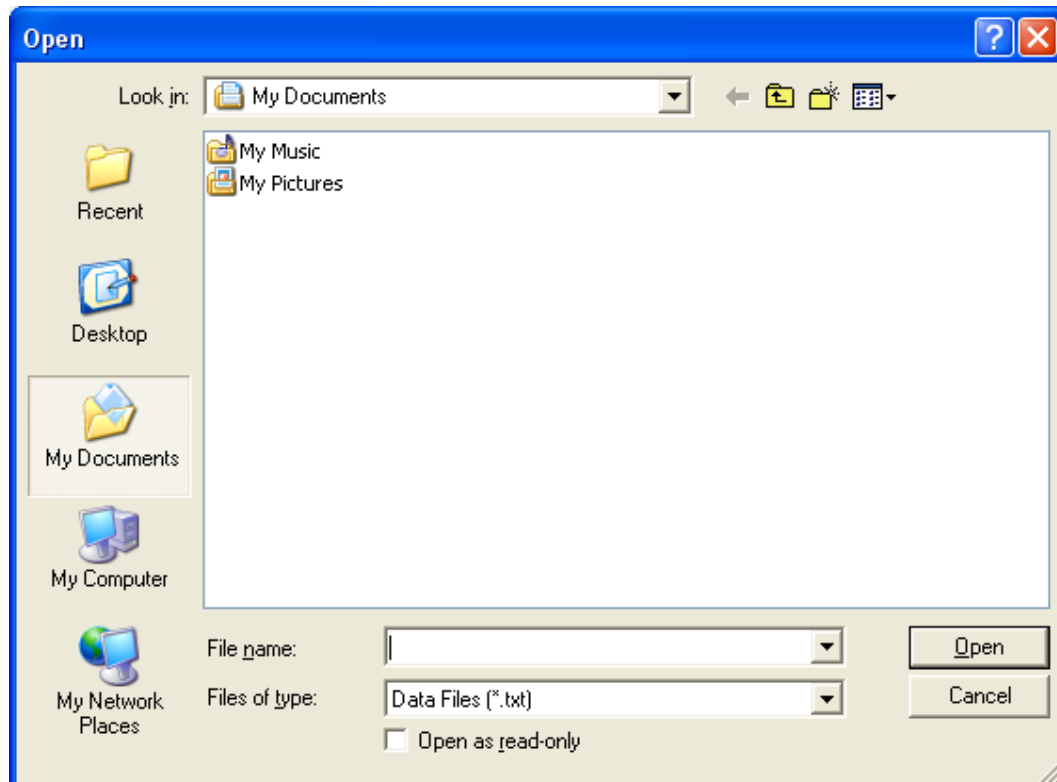
Automatically Record

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

Download Data


1. Download Data from Hard Disk

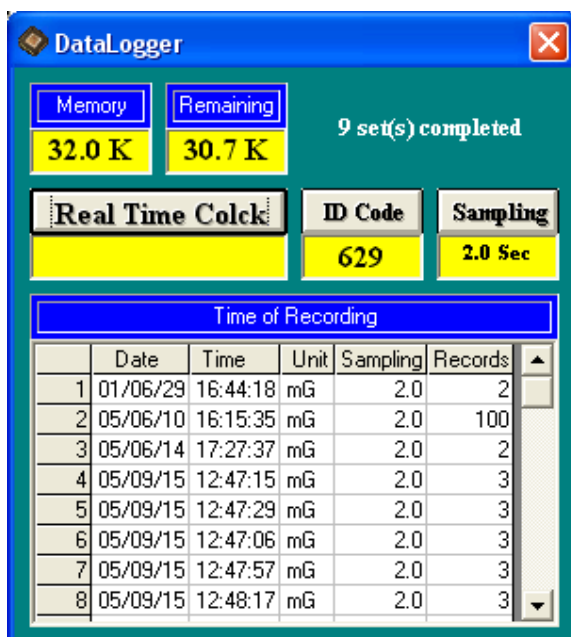
Click  button. The Open window, shown below, appears



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

2. Download Data from EEP ROM

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



The DataLogger window displays memory status, completion status, and a table of recording sets.

Memory: 32.0 K
Remaining: 30.7 K

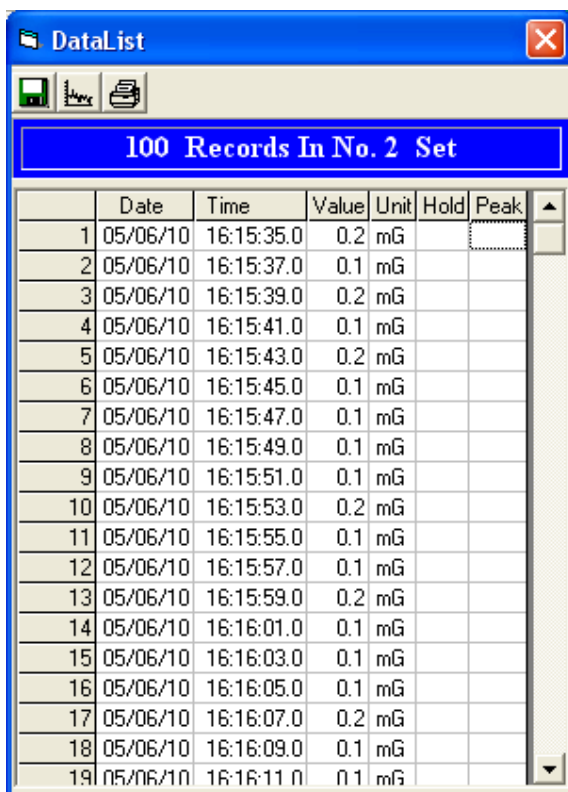
9 set(s) completed

Real Time Clock: [Empty]
ID Code: 629
Sampling: 2.0 Sec

Time of Recording

	Date	Time	Unit	Sampling	Records
1	01/06/29	16:44:18	mG	2.0	2
2	05/06/10	16:15:35	mG	2.0	100
3	05/06/14	17:27:37	mG	2.0	2
4	05/09/15	12:47:15	mG	2.0	3
5	05/09/15	12:47:29	mG	2.0	3
6	05/09/15	12:47:06	mG	2.0	3
7	05/09/15	12:47:57	mG	2.0	3
8	05/09/15	12:48:17	mG	2.0	3

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.



The DataList window displays 100 records for Set No. 2.

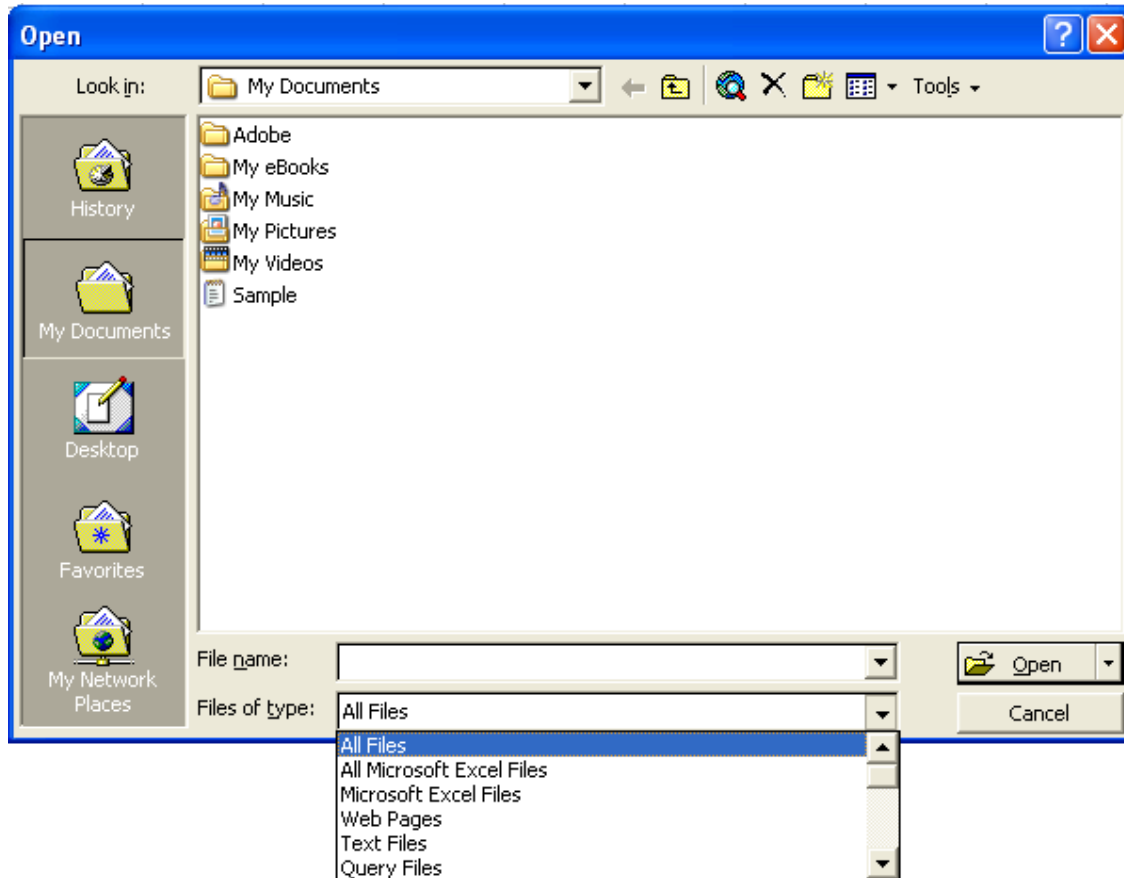
100 Records In No. 2 Set

	Date	Time	Value	Unit	Hold	Peak
1	05/06/10	16:15:35.0	0.2	mG		
2	05/06/10	16:15:37.0	0.1	mG		
3	05/06/10	16:15:39.0	0.2	mG		
4	05/06/10	16:15:41.0	0.1	mG		
5	05/06/10	16:15:43.0	0.2	mG		
6	05/06/10	16:15:45.0	0.1	mG		
7	05/06/10	16:15:47.0	0.1	mG		
8	05/06/10	16:15:49.0	0.1	mG		
9	05/06/10	16:15:51.0	0.1	mG		
10	05/06/10	16:15:53.0	0.2	mG		
11	05/06/10	16:15:55.0	0.1	mG		
12	05/06/10	16:15:57.0	0.1	mG		
13	05/06/10	16:15:59.0	0.2	mG		
14	05/06/10	16:16:01.0	0.1	mG		
15	05/06/10	16:16:03.0	0.1	mG		
16	05/06/10	16:16:05.0	0.1	mG		
17	05/06/10	16:16:07.0	0.2	mG		
18	05/06/10	16:16:09.0	0.1	mG		
19	05/06/10	16:16:11.0	0.1	mG		

Data Convert

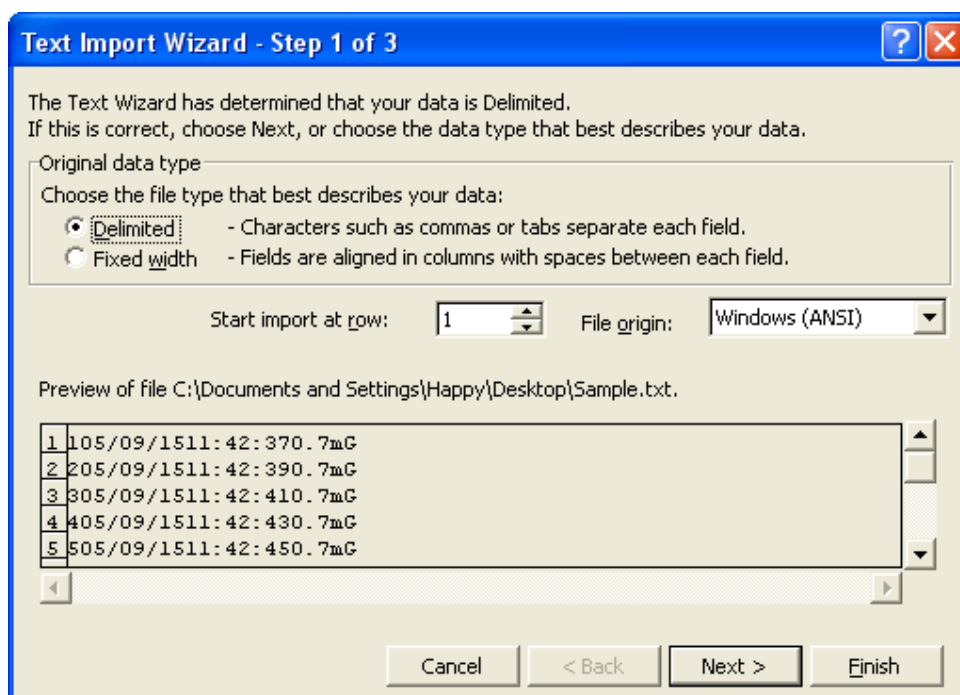
Apply for Excel

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.



Text Import Wizard - Step 1 of 3

The Text Wizard has determined that your data is Delimited.
If this is correct, choose Next, or choose the data type that best describes your data.

Original data type
Choose the file type that best describes your data:

☒ Delimited - Characters such as commas or tabs separate each field.
☐ Fixed width - Fields are aligned in columns with spaces between each field.

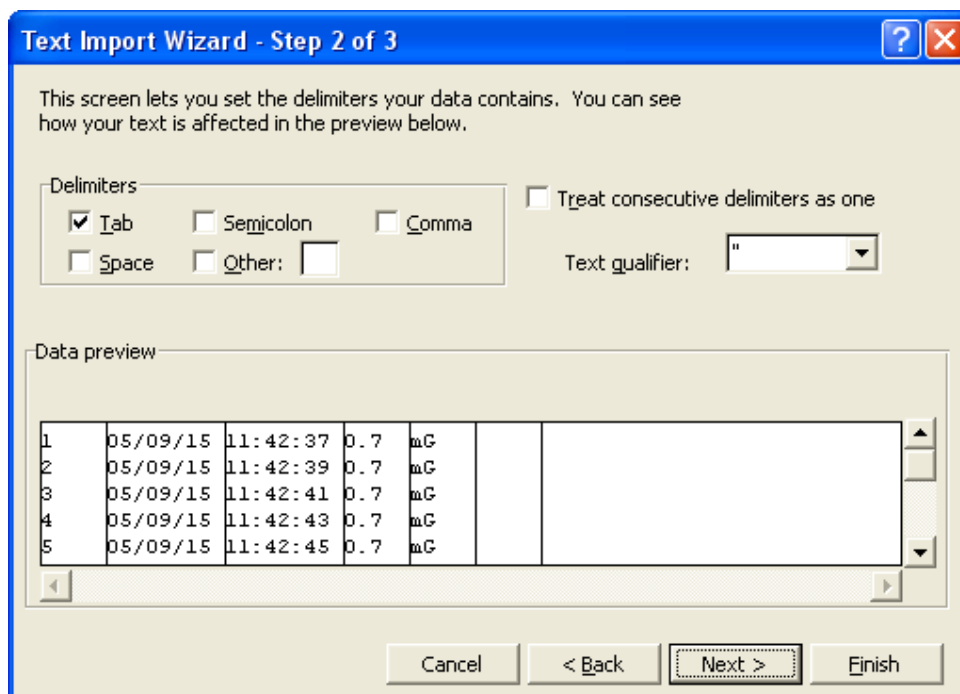
Start import at row: File origin:

Preview of file C:\Documents and Settings\Happy\Desktop\Sample.txt.

1	105/09/1511:42:370.7mG
2	205/09/1511:42:390.7mG
3	305/09/1511:42:410.7mG
4	405/09/1511:42:430.7mG
5	505/09/1511:42:450.7mG

Buttons: Cancel, < Back, Next >, Finish

Click Next> button



Text Import Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

☒ Tab ☐ Semicolon ☐ Comma
☐ Space ☐ Other:

☐ Treat consecutive delimiters as one

Text qualifier:

Data preview

1	05/09/15	11:42:37	0.7	mG		
2	05/09/15	11:42:39	0.7	mG		
3	05/09/15	11:42:41	0.7	mG		
4	05/09/15	11:42:43	0.7	mG		
5	05/09/15	11:42:45	0.7	mG		

Buttons: Cancel, < Back, Next >, Finish

Click Next> button

Text Import Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

[Advanced...](#)

Column data format:

- ☒ General
- ☐ Text
- ☐ Date: MDY
- ☐ Do not import column (skip)

Data preview

	General	General	General	General	General	General
1	05/09/15	11:42:37	0.7	mG		
2	05/09/15	11:42:39	0.7	mG		
3	05/09/15	11:42:41	0.7	mG		
4	05/09/15	11:42:43	0.7	mG		
5	05/09/15	11:42:45	0.7	mG		

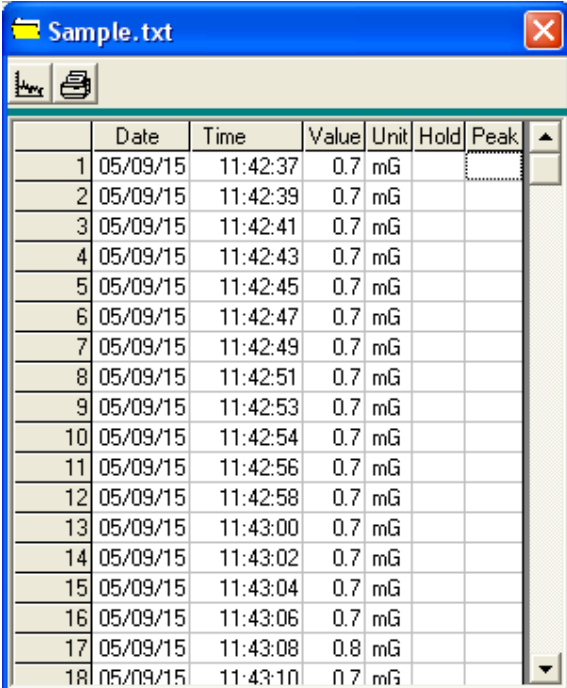
[Cancel](#)
[< Back](#)
[Next >](#)
[Finish](#)

Click **Finish** button

	A	B	C	D	E
1	1	5/9/2015	11:42:37	0.7	mG
2	2	5/9/2015	11:42:39	0.7	mG
3	3	5/9/2015	11:42:41	0.7	mG
4	4	5/9/2015	11:42:43	0.7	mG
5	5	5/9/2015	11:42:45	0.7	mG
6	6	5/9/2015	11:42:47	0.7	mG
7	7	5/9/2015	11:42:49	0.7	mG
8	8	5/9/2015	11:42:51	0.7	mG
9	9	5/9/2015	11:42:53	0.7	mG
10	10	5/9/2015	11:42:54	0.7	mG
11	11	5/9/2015	11:42:56	0.7	mG
12	12	5/9/2015	11:42:58	0.7	mG

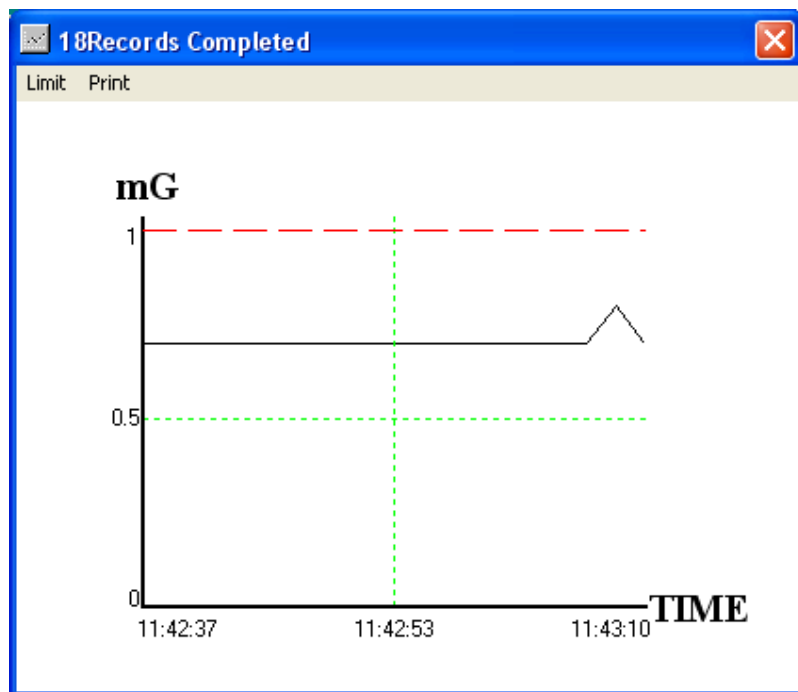
Apply for Graph

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



A screenshot of a software window titled "Sample.txt". It contains a table with 18 rows of data. The columns are labeled: Date, Time, Value, Unit, Hold, and Peak. The data shows a series of measurements over time, with values mostly at 0.7 mG, except for one at 0.8 mG at 11:43:08.


	Date	Time	Value	Unit	Hold	Peak
1	05/09/15	11:42:37	0.7	mG		
2	05/09/15	11:42:39	0.7	mG		
3	05/09/15	11:42:41	0.7	mG		
4	05/09/15	11:42:43	0.7	mG		
5	05/09/15	11:42:45	0.7	mG		
6	05/09/15	11:42:47	0.7	mG		
7	05/09/15	11:42:49	0.7	mG		
8	05/09/15	11:42:51	0.7	mG		
9	05/09/15	11:42:53	0.7	mG		
10	05/09/15	11:42:54	0.7	mG		
11	05/09/15	11:42:56	0.7	mG		
12	05/09/15	11:42:58	0.7	mG		
13	05/09/15	11:43:00	0.7	mG		
14	05/09/15	11:43:02	0.7	mG		
15	05/09/15	11:43:04	0.7	mG		
16	05/09/15	11:43:06	0.7	mG		
17	05/09/15	11:43:08	0.8	mG		
18	05/09/15	11:43:10	0.7	mG		

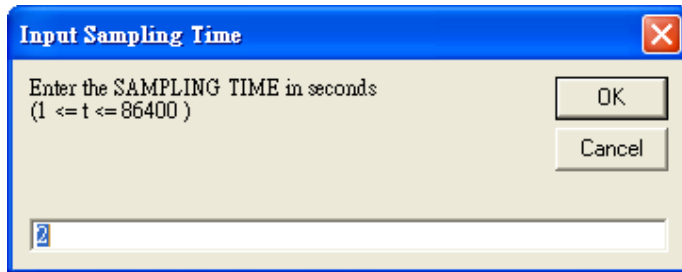


■ Sampling Time

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.


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.

■ ID Code (Optional tracking number)


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




Move mouse to highlight ID Code value.

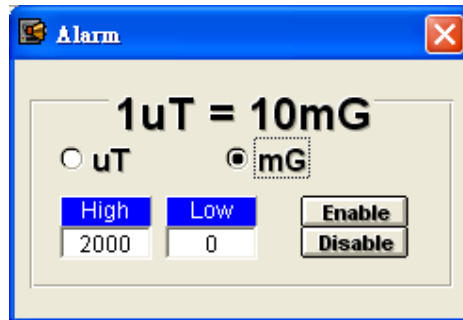
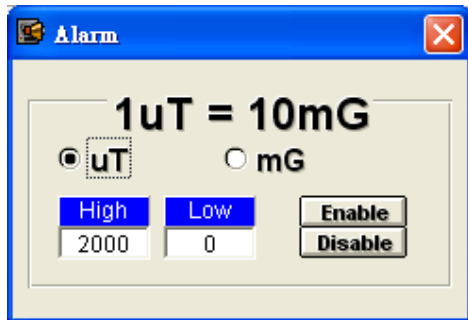
Input an ID code and then click  button to confirm.

■ RTC (Real Time Clock)

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

■ Alarm Function (software version V1.3 or later)

Click  on the **Menu Bar**.



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

