



# **PARTICLE COUNTER SOFTWARE**

**For Part11**

## **Operation Manual**

Please keep this operation manual handy for future reference.

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<b>17.01</b>
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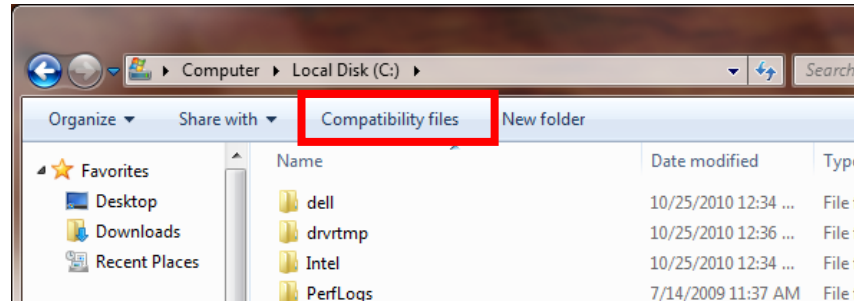
- \* The operation manual is stored in Adobe PDF format, which can be read by Adobe Acrobat 4.x or higher.
- \* Windows 9x/NT/2000/XP/Vista/7 is a registered trademark of Microsoft Corporation.
- \* The unauthorized use or duplication, either whole or in part, of this Software or its Operation Manual is strictly forbidden.
- \* The contents of this Operation Manual are subject to change for quality improvement without notice.

## Precautions When Using Kanomax Software Products on Windows 7

Stored data may not appear in Windows Explorer if you had saved data in the C:/ folder or the folders under the Program Files (Program Files(x86) for 64 bit).

Click “Compatibility files” in Windows Explorer to display the data.

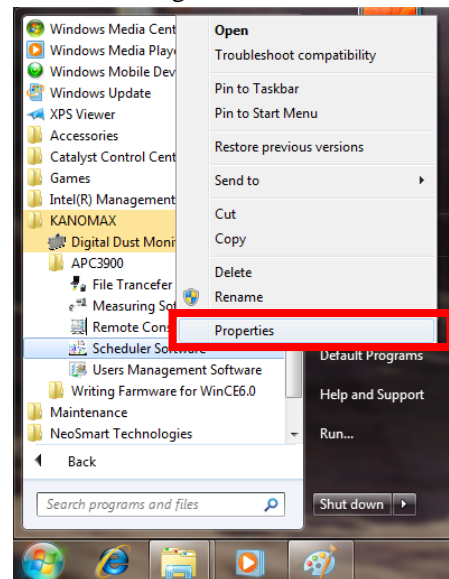
If you can not perform this operation, or “Compatibility files” does not appear, you need to save data in the folder such as “My Document” which users can read or write.



When using the Airborne Particle Counter Software, you need to configure the settings for Scheduler Software. Otherwise, schedule data will not appear and can not be transferred when using the File Transfer Software to transfer schedule.

Click [Start] -> [(All) Programs] -> [KANOMAX].

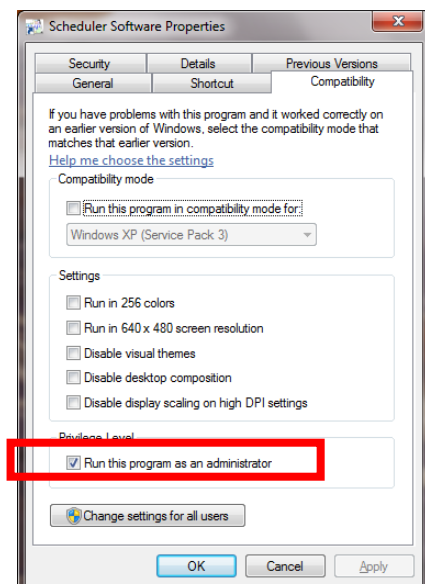
Right-click [Scheduler Software] and click [Properties].



Click the “Compatibility” tab in the “Scheduler Software Properties” window.

Check “Run this program as an administrator” in Privilege Level.

Click [OK] to close the window.



## Table of Contents

---

<b>1. Overview.....</b>	<b>5</b>
1.1. Packing List.....	5
1.2. System Overview .....	5
<b>2. Installation .....</b>	<b>6</b>
2.1. Installation.....	6
2.2. Starting and Closing a Program.....	6
2.3. Uninstalling .....	7
<b>3. Remote Console Software.....</b>	<b>8</b>
3.1. Main Screen.....	8
3.2. Menu List .....	9
3.3. Destination Settings and Command Buttons.....	9
3.4. How to Operate the Remote Console Software .....	10
3.5. Search Function.....	11
<b>4. Scheduler Software.....</b>	<b>12</b>
4.1. Main Screen.....	12
4.2. Menu List .....	12
4.3. Command Buttons.....	13
4.4. Schedule File Creation .....	14
4.4.1. Creating a new file .....	14
4.4.2. Editing an existing file .....	15
<b>5. File Transfer Software .....</b>	<b>16</b>
5.1. Main Screen.....	16
5.2. Menu List .....	16
5.3. Destination Settings and Command Button .....	17
5.4. Downloading Measurement Data.....	19
5.5. Uploading a Schedule File .....	20
5.6. Search Function.....	21
<b>6. Measuring Software .....</b>	<b>22</b>
6.1. Operation Overview .....	22
6.2. Screen Structure .....	23
6.3. Data File .....	24
6.3.1. File Menu .....	24
6.3.2. Data File List.....	24
6.4. Settings.....	25
6.4.1. LAN Settings.....	25
6.4.2. Measurement Parameter Settings .....	25
6.5. Remote Measurement.....	26
6.5.1. Start/End Measurement .....	26
6.5.2. Measurement .....	27
6.5.3. Measurement Data Storage.....	27
6.6. Remote Measurement Data Display.....	28
6.6.1. Data Display Format .....	28

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6.6.2.	Particle Graph.....	28
6.6.3.	Temperature, Humidity, Air Velocity and Differential Pressure Graph.....	30
6.6.4.	Data Table.....	31
6.7.	Other Functions .....	32
6.7.1.	Switching Languages .....	32
6.7.2.	Windows Arrange.....	32
6.7.3.	Software Version .....	32
6.7.4.	Printing Function.....	33
<b>7.</b>	<b>User Management Software .....</b>	<b>34</b>
7.1.	When You First Start Software.....	34
7.1.1.	Start Screen.....	34
7.1.2.	Specifying Data Storage Folder and SD(MMC) Card Drive Name .....	34
7.1.3.	Registering a New Local User.....	35
7.2.	Starting Software After Registering Local Users .....	36
7.2.1.	Starting Software.....	36
7.2.2.	Download Button .....	38
7.2.3.	Decrypt Button .....	40
7.2.4.	Approval1/Approval2 Button.....	41
7.2.5.	User Management [3910 Online] .....	41
7.2.6.	User Management [3910 SD Card] .....	47
7.2.7.	User Management [Local].....	48
<b>8.</b>	<b>Miscellaneous Notes .....</b>	<b>51</b>

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# 1. Overview

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## 1.1. Packing List

The following item is included in this package:

	QTY
1. AIRBORNE PARTICLE COUNTER SOFTWARE CD-ROM	1

If the CD-ROM is missing or damaged, please contact your local distributor immediately.

## 1.2. System Overview

This software package includes four programs as follows;

- Remote Console Software
- Scheduler Software
- File Transfer Software
- Measuring Software
- User Management Software

Use the **Remote Console Software** to operate the Airborne Particle Counter remotely via computer.

Use the **Scheduler Software** to create a schedule file for use when performing a measurement.

Use the **File Transfer Software** to download stored measurement data from or upload a schedule file to the Airborne Particle Counter.

Use the **Measuring Software** to collect particle, air velocity, humidity and differential pressure data from the Airborne Particle Counter.

Use the **User Management Software** to manage users, measurement data, and log data in the instrument.

### Applicable Computer Requirements:

Model:	IBM PC compatible
Ethernet Connector:	1 available Ethernet port
OS	English or Japanese Windows XP SP2 or higher, Windows Vista SP1 or higher, Windows 7, .NET Framework 3.5 or higher

### Network Requirements:

Your Firewall and/or Network Router settings may limit your Network connectivity while using this software. If you experience connectivity issues, please configure the following settings:

- When using the Remote Console Software or the Measuring Software, open TCP ports “12344” and “12346”.
- When using the Search Software, open UDP port “12345”, and ensure broadcasting is available on the network.
- When using the File Transfer Software, open FTP port “21”.

Please refer to your Firewall or Router operation manual.

If you have any questions regarding the settings or network, please contact your network administrator.

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## 2. Installation

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### 2.1. Installation

When installing the software, be sure to log in with a user that has administrative rights and follow the procedure below.

Insert the product CD-ROM into the CD-ROM drive.

This operation can be started from the Windows Explore menu.

- (1) Using Windows Explorer, find and double-click the setup.exe file located in the “English” folder on the product CD-ROM.
- (2) Follow the instructions displayed on the screen.
- (3) When the installation is completed successfully, a “KANOMAX” folder will be added to the “(All) Programs” list in the “Start” menu.

### 2.2. Starting and Closing a Program

#### **To Start the PARTICLE COUNTER Remote Console Software:**

From the start menu, click: [(All) Programs] -> [KANOMAX] -> [LPC3910]-> [Remote Console Software].

The main window of the software will be displayed.

#### **To Start the PARTICLE COUNTER Scheduler Software:**

From the start menu, click: [(All) Programs] -> [KANOMAX] -> [LPC3910]-> [Scheduler Software].

The main window of the software will be displayed.

#### **To Start the PARTICLE COUNTER File Transfer Software:**

From the start menu, click: [(All) Programs] -> [KANOMAX] -> [LPC3910]-> [File Transfer software].

The main window of the software will be displayed.

#### **To Start the PARTICLE COUNTER Measuring Software:**

From the start menu, click: [(All) Programs] -> [KANOMAX] -> [LPC3910]-> [Measuring Software].

The main window of the software will be displayed.

#### **To Start the PARTICLE COUNTER User Management Software:**

From the start menu, click: [(All) Programs] -> [KANOMAX] -> [LPC3910]-> [User Management Software].

The main window of the software will be displayed

#### **To close the software:**

- From the [File] menu, select [Exit], or
- Click the [x] button located at the right end of the title bar of the main window.

### 2.3. Uninstalling

- (1) Open [My Computer] -> [Control Panel] -> [Add or Remove Programs].
- (2) Select [PARTICLE COUNTER Software] from the list, and click [Remove].





## 3.2. Menu List

### File Menu

[Exit] Closes the software.

### Help Menu

[About] Views the software version information.

## 3.3. Destination Settings and Command Buttons

(Refer to [3.1. Main Screen](#).)

### Host Name

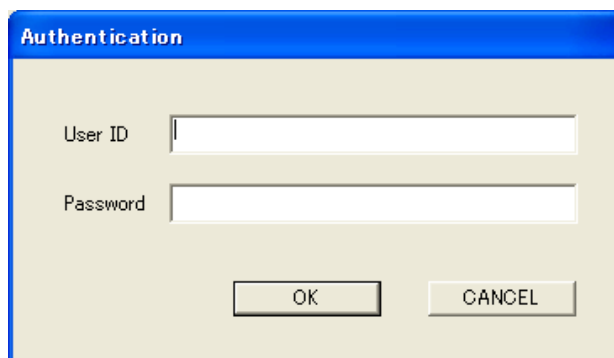
Enter the Host Name for the instrument you wish to connect with. The instrument's Host Name is configured in the instrument's COMMUNICATION SETTING.

You can also choose a Host Name by using [Search] which will display all the instruments currently connected to the LAN (Refer to [3.5. Search Function](#)).

### Connect

Click [Connect] to connect to the instrument configured in Host Name.

The "Authentication" window will be displayed, prompting you to enter your User ID and Password.



Enter your User ID and Password that that you use to log into the instrument and click [OK]. If the authentication succeeds, the connection will be established.

NOTE: In order to access the instrument remotely the user must have [Administrator] or [Remote Control] rights. Also, the instrument cannot be accessed remotely via PC if it is remote mode.

If the connection fails, a message will be displayed saying "The connection was ended because of a network error."

To reconnect to the instrument, click [Connect].

If the connection succeeds, the instrument screen will be displayed, and the [Connect] button will be replaced by the [Disconnect] button.

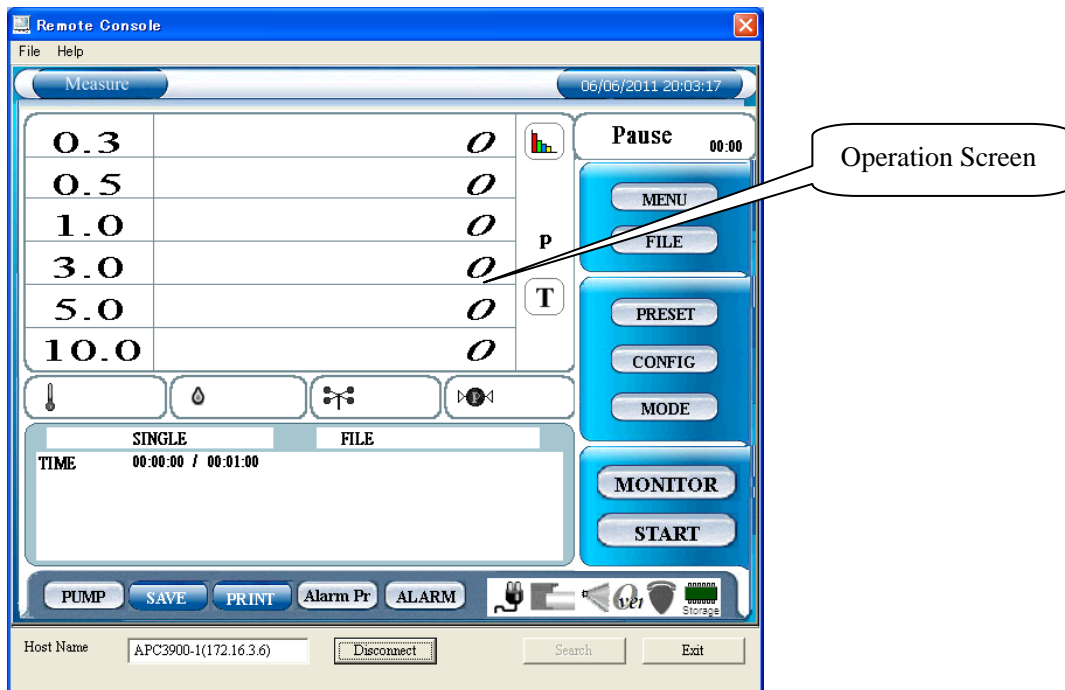
### Search

Starts a search for connected instruments ([Refer to 3.5 Search Function](#)).

### EXIT

Closes the software.

### 3.4. How to Operate the Remote Console Software



After the computer is successfully connected to the instrument, the instrument screen will be displayed on the computer.

Click the buttons on the display to operate the instrument as described in the instrument's instruction manual.

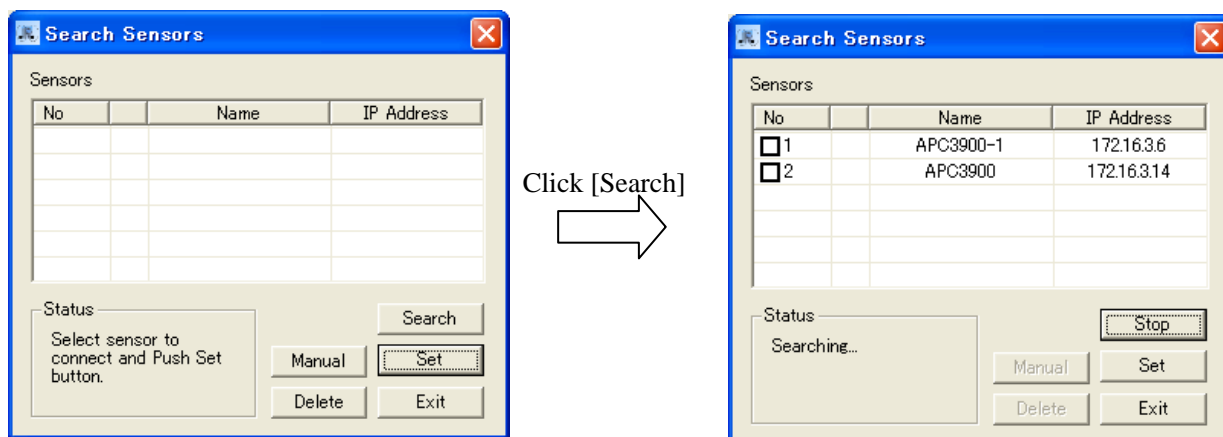
**Due to LAN communication lag, there may be a slight delay before the instrument reacts to your commands.**

**If the computer becomes unresponsive for a minute or longer, it may be disconnected or a problem may have occurred with the LAN communications. If that is the case, close the software by clicking [Exit]. Check the LAN communications and restart the software.**

**NOTE: If the instrument is put in remote mode while you are using the "Remote Console Software", communications between the instrument and PC will be terminated. The instrument should only be placed in remote mode when using the "Measuring Software" program.**

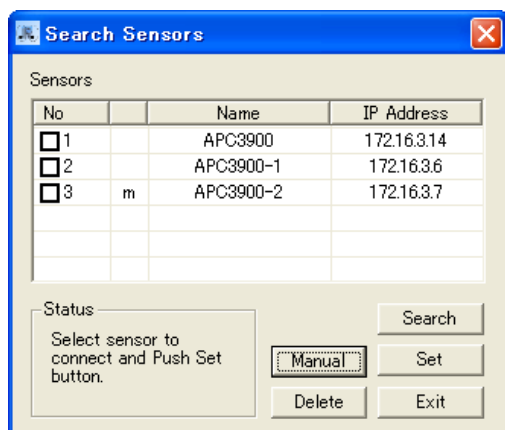
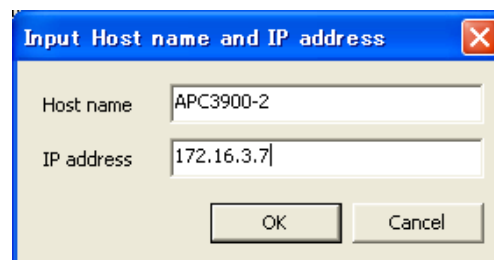
### 3.5. Search Function

Click [Search] to find instruments connected to the LAN.



If a connected instrument is found, it will be listed in the “Search Sensors” window shown above. Select the instrument that you want to connect with and click [Set]. The name of the instrument selected will be displayed on the Remote Console Software, File Transfer Software or User Management Software.

If you know the Host Name and the IP address of an instrument, click [Manual] to open the dialog box shown on the right. Enter the Host Name and IP address of the instrument, and click [OK]. The instrument will be added to the “Search Sensors” window and an “m” will appear to the left of the Host Name, as shown below.



To delete Host Name and IP Address which were manually input, select the instrument that you want to delete and click [Delete].

[Manual] and [Delete] are disabled while searching. To enable [Manual] and [Delete], click [Stop] to finish searching.

Click [Exit] to close the search function and return to the previous screen.

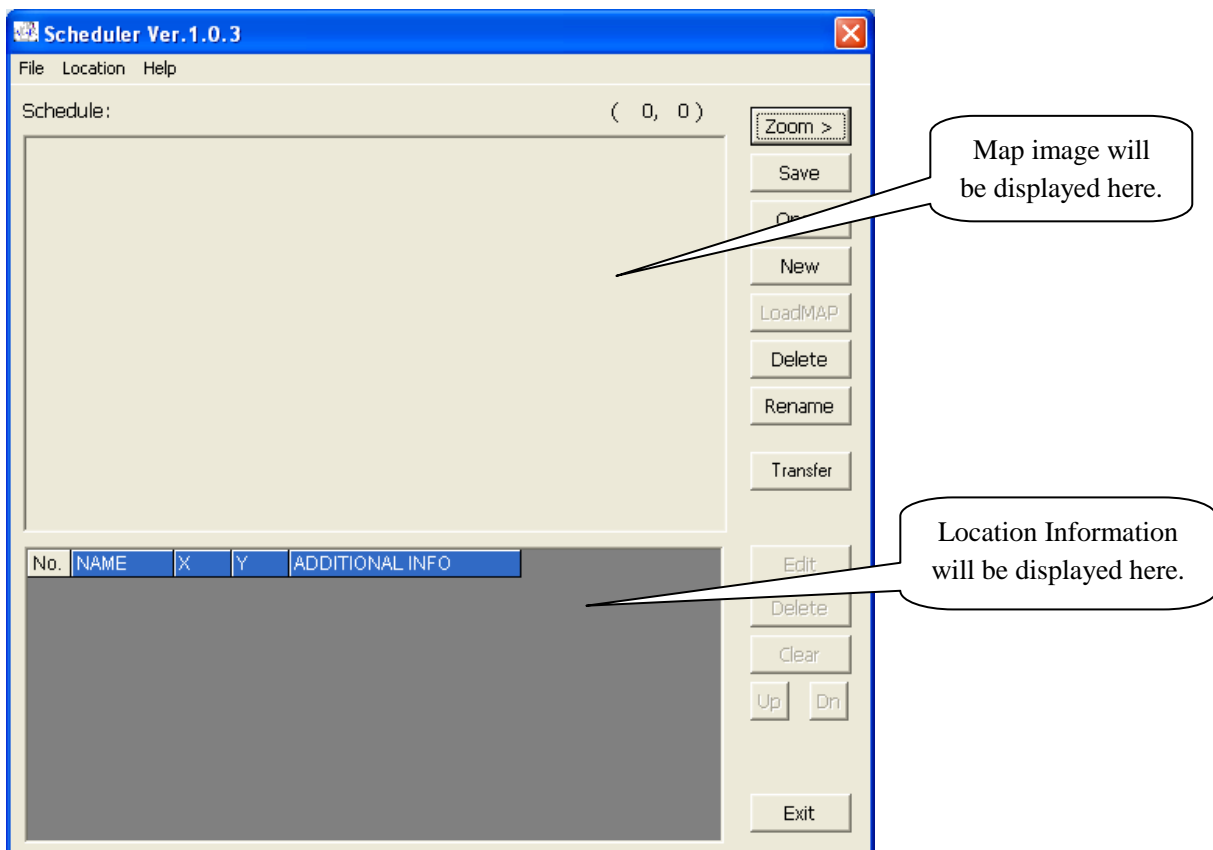
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## 4. Scheduler Software

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Use the **Scheduler Software** to create a schedule file for use when performing a measurement.

### 4.1. Main Screen



### 4.2. Menu List

#### File Menu

For file related operations.

[New]	Creates a new SCHEDULE file.
[Open]	Loads a saved SCHEDULE file.
[Save]	Saves a created SCHEDULE file.
[Load Map]	Loads a MAP image file.
[Delete]	Deletes a created SCHEDULE file.
[Rename]	Renames a created SCHEDULE file.
[Exit]	Closes the software.

**Location Menu**

- [Edit Location] Edits the selected Location.
- [Delete Location] Deletes the selected Location.
- [Clear List] Deletes all Locations.
- [Up] Shifts the selected Location up one spot in the list.
- [Down] Shifts the selected Location down one spot in the list.

**Help Menu**

- [About] Shows the software version information.

**4.3. Command Buttons****Zoom**

Magnifies the displayed MAP.

**Save**

Saves the SCHEDULE that you are editing.  
It is possible to save the SCHEDULE to USB Memory.

**Open**

Opens the saved SCHEDULE file.

**New**

Creates a new SCHEDULE file.

**LoadMAP**

Loads a MAP file.  
The map file should be created using an image editing application beforehand.  
The image must be in bitmap (.bmp) format.

**Delete**

Deletes a saved SCHEDULE file.  
You cannot delete a file while you are editing it.

**Rename**

Changes the name of a saved SCHEDULE file.  
You cannot change the name of a file while you are editing it.

**Transfer**

Transfers the saved SCHEDULE file to the instrument. When [File Transfer Software] starts, follow procedures described in **5.File Transfer Software** to upload the file.

**Edit**

Edits the selected Location.

**Delete**

Deletes the selected Location.

**Clear**

Deletes all the Locations.

**Up**

Shifts the selected Location up one spot in the list.

**Dn**

Shifts the selected Location down one spot in the list.

**Exit**

Closes the software.

## 4.4. Schedule File Creation

### 4.4.1. Creating a new file

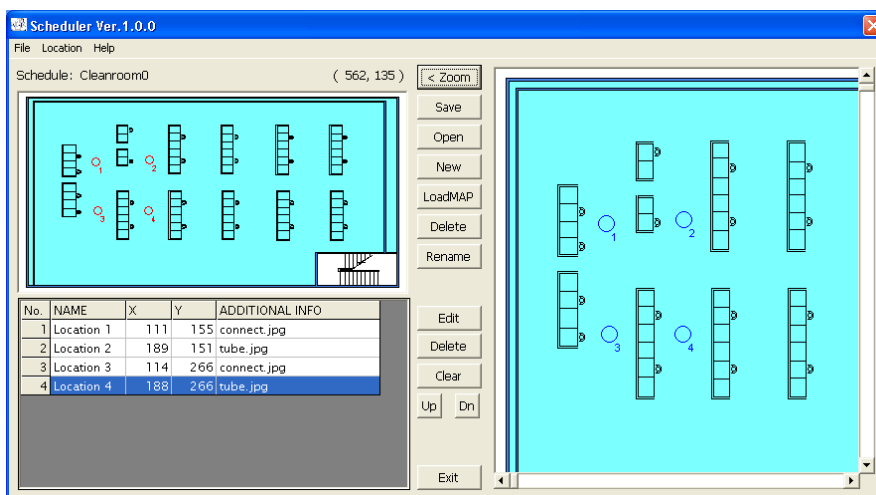
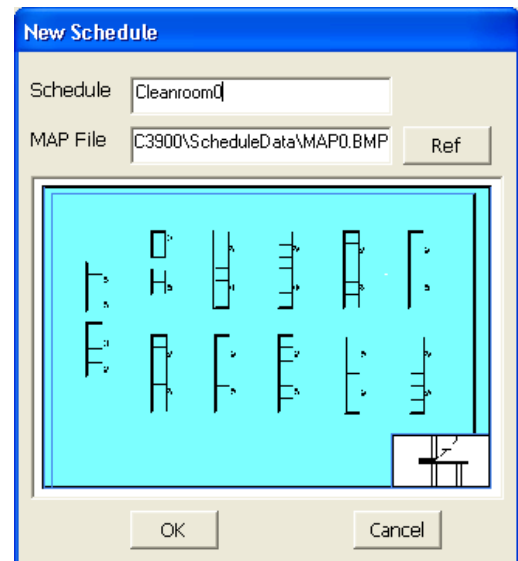
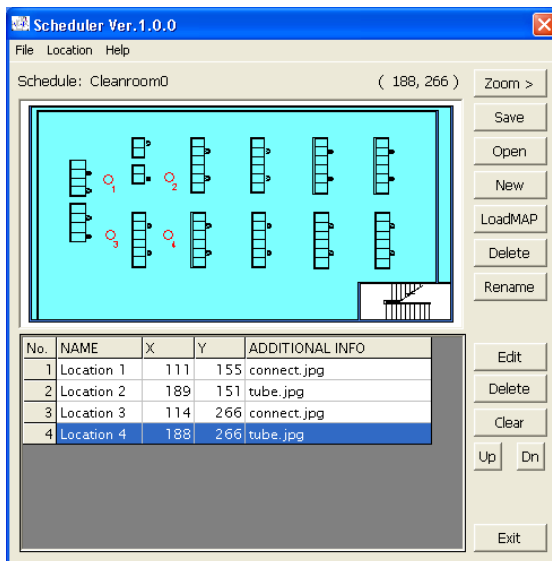
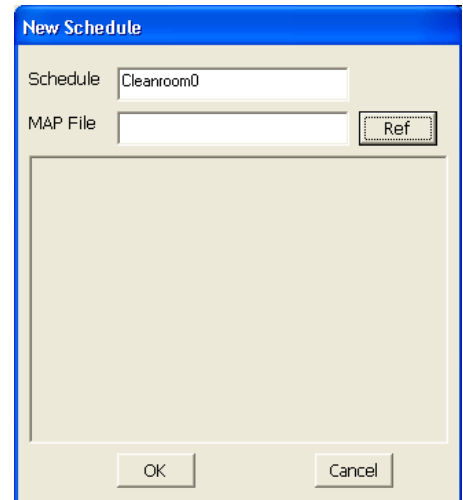
- (1) Click [File] -> [New], or  
Click [New].

- (2) The “New Schedule” window will be displayed.

Enter a Schedule name and specify a MAP File to load. To select a MAP File click [Ref] to display the “Select MAP File” window and click the file that you wish to use. Without a MAP file, you cannot create a Schedule with this application.

\* **Creating a MAP File:** You may use any standard paint program (such as MS Paint) to create a visual representation of the measurement area(s) where you will be using the instrument. The Scheduler Software can use any standard bitmap (.bmp) file up to a maximum size of 1600 × 1200 pixels.

Click [OK] to return to the main screen and input the test locations. Click [Cancel] to return to the main screen.



- (3) To create a new measurement point click the place on the MAP where you wish to add a location. Then the “Edit Location” window will open.

**NAME:**

Enter a Location Name.

**Position:**

The coordinates that you clicked are displayed. You can edit these.

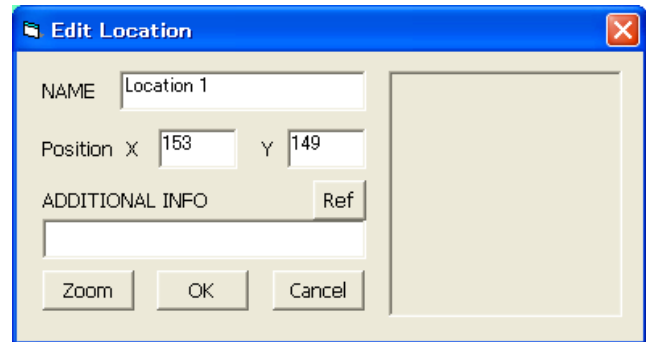
**ADDITIONAL INFO:**

Click on [Ref] to select an image file for ADDITIONAL INFORMATION.

The image format should be \*.jpg or \*.bmp.

**[Zoom] button:**

Magnifies the image that was loaded in ADDITIONAL INFO.



After you complete editing, click on [OK] or [Cancel].

Click [OK] to save the edited settings.

Click [Cancel] to discard the edited settings.

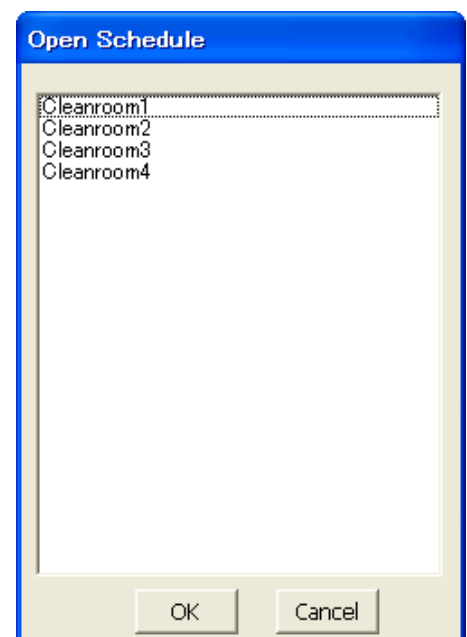
Repeat this procedure to add a Location.

You can set up to 100 Locations.

- (4) To edit an existing Location, select the Location that you want to edit from the Location Information list, and click [Edit]. The “Edit Location” window will be displayed and you can edit the Location settings.
- (5) To delete an existing Location, select the Location that you want to delete from the Location Information list, and click [Delete].
- (6) To delete all Locations, click [Clear].
- (7) When you finish editing the Schedule, click [Save].

#### 4.4.2. Editing an existing file

- (1) Click [File] -> [Open], or click [Open].
- (2) The “Open Schedule” window will open. Select the Schedule file that you want to edit and click [OK].
- (3) Refer to steps (3) - (7) in **4.4.1 Creating a new file** for more information on editing a file.





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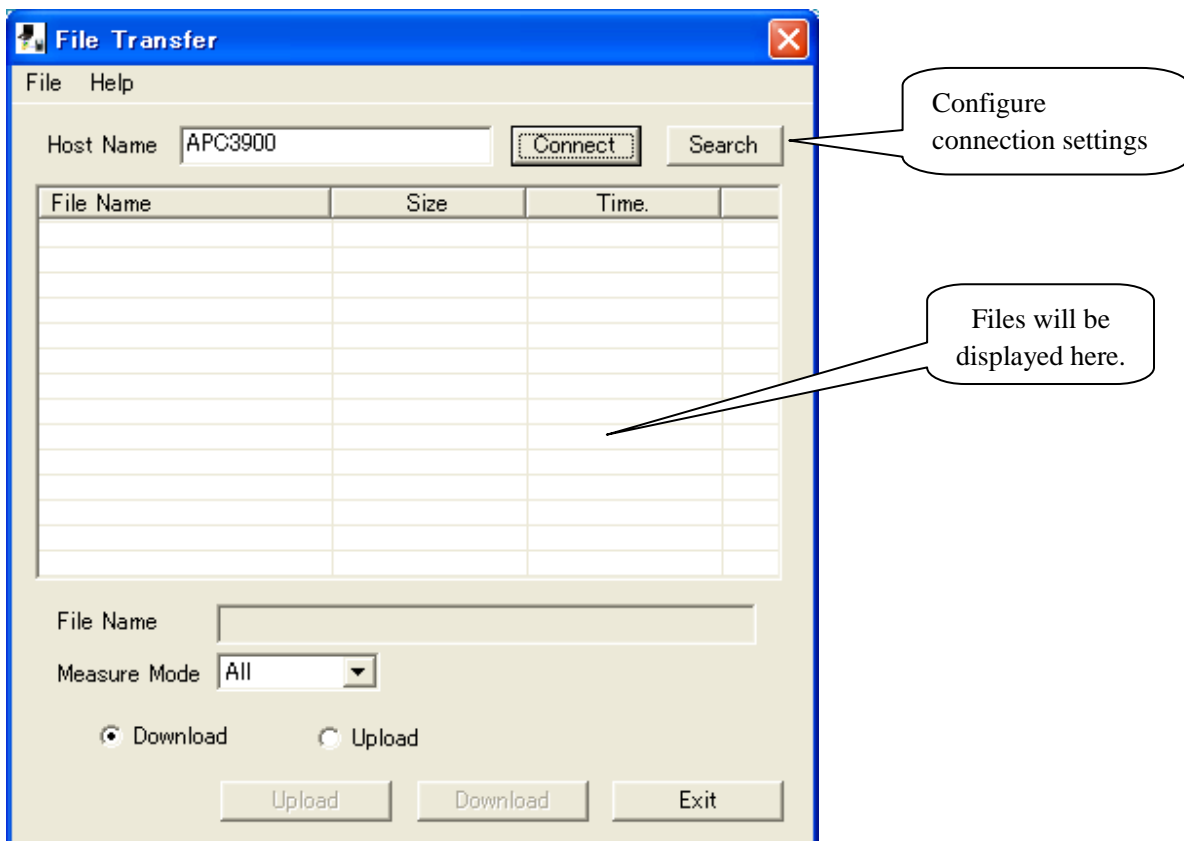
## 5. File Transfer Software

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Use the **File Transfer Software** to download stored measurement data from or upload a schedule file to the Airborne Particle Counter.

### 5.1. Main Screen

**Both the PC running the software and the Airborne Particle Counter must be connected to the LAN and properly configured in order to access the Airborne Particle Counter remotely via PC.**



### 5.2. Menu List

#### File Menu

[Exit] Closes the software.

#### Help Menu

[About] Shows the software version information.

### 5.3. Destination Settings and Command Button

#### Host Name

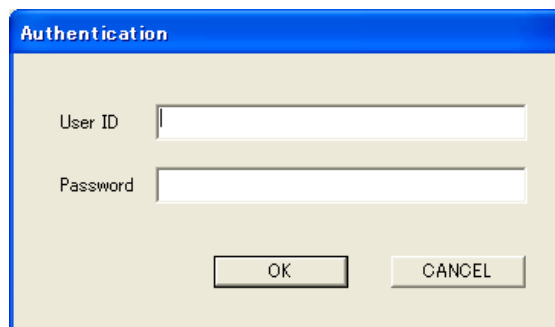
Enter the Host Name of the instrument you wish to connect with. The instrument's Host Name is configured in the instrument's COMMUNICATION SETTING.

You can also choose a Host Name by using [Search] which will display all the instruments currently connected to the LAN (Refer to [3.5 Search Function](#)).

#### Connect

Click [Connect] to connect to the instrument configured in Host Name.

The "Authentication" window will be displayed, prompting you to enter your User ID and Password.



Enter your User ID and Password that you use to log into the instrument and click [OK]. If the authentication succeeds, the connection will be established.

NOTE: In order to access the instrument remotely the user must have [Administrator] or [Remote Control] rights. Also, the instrument cannot be accessed remotely via PC if it is remote mode.

If the connection fails, a message will be displayed saying "The connection was ended because of a network error."

To reconnect to the instrument, click [Connect].

If the connection succeeds, the instrument screen will be displayed, and the [Connect] button will be replaced by the [Disconnect] button.

#### Search

Starts a search for connected instruments (Refer to [3.5 Search Function](#)).

#### Measure Mode

Filters the file type that is displayed for downloading.

The files that you can select are;

Single:	Single Measurement Data
Continue:	Continuous Measurement Data
Inter:	Interval Measurement Data
Statistic:	Stats Measurement Data
ISO:	ISO Mode Measurement Data
FS 209E:	FS 209E Mode Measurement Data
BS 5295:	BS 5295 Mode Measurement Data
EU GMP:	EU GMP Mode Measurement Data
GB/T:	GB/T Mode Measurement Data
ALL:	All Measurement Data

**Download/Upload (Radio Button)**

Toggles Upload or Download mode.

**Download**

Downloads the selected data file.

**Upload**

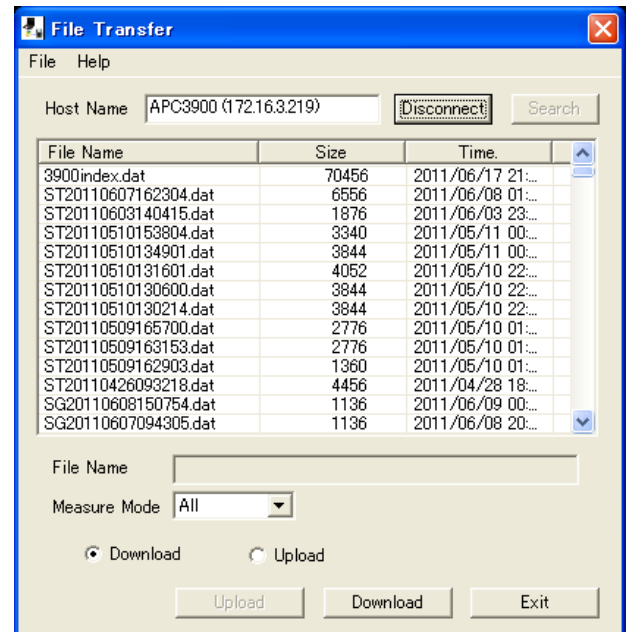
Uploads the selected Schedule file to the instrument.

**EXIT**

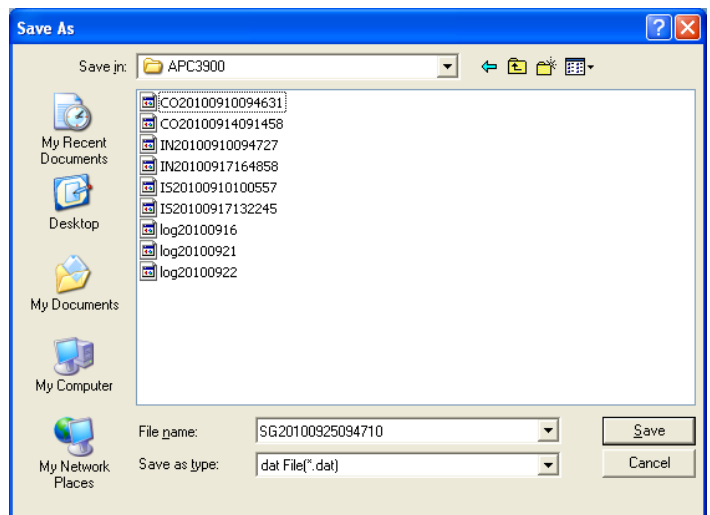
Closes the software.

## 5.4. Downloading Measurement Data

- (1) Enter “Host Name” and click [Connect] to connect the computer with the instrument (Refer to [5.3 Destination Settings and Command Button](#)).
- (2) Select the [Download] radio button.
- (3) Select the file that you want to download. The selected file name will be displayed under “File Name”.
- (4) Click [Download].

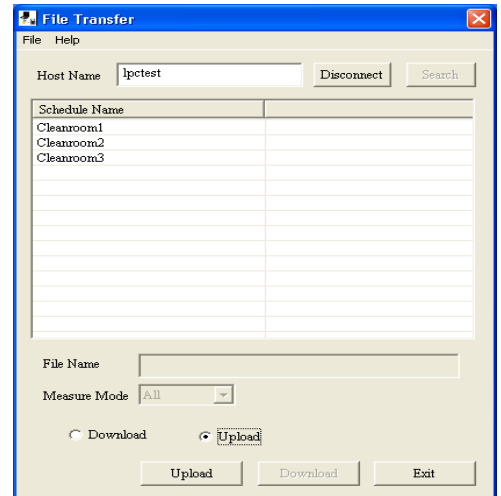


- (5) The “Save As” dialogue box will be displayed. Enter a file name and click [Save]. The file is then downloaded from the instrument and saved to your PC.

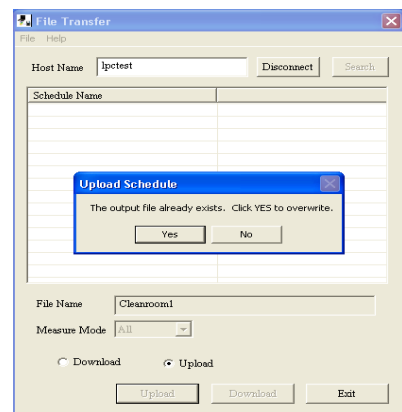


## 5.5. Uploading a Schedule File

- (1) Enter “Host Name” and click [Connect] to connect the computer with the instrument (Refer to [5.3 Destination Settings and Command Button](#)).
- (2) Select the [Upload] radio button.
- (3) Select the Schedule file that you want to upload. The selected file name will be displayed under “File Name”.
- (4) Click [Upload]. The schedule file is then uploaded to the instrument and the main screen will be displayed.



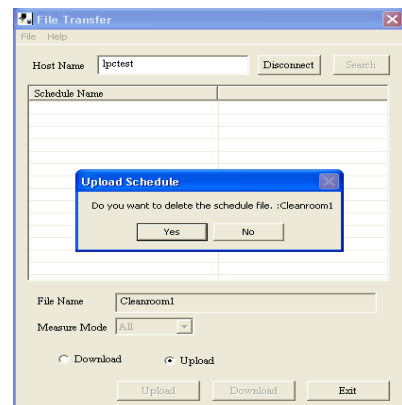
If the schedule name already exists in the instrument, a message window will be displayed asking if you want to overwrite the file or not. Click [Yes] to overwrite the file stored on the instrument with the file from the PC.



If you click [No], a message window will be displayed asking you if you want to delete the schedule file from the instrument.

Click [Yes] to delete the Schedule file saved on the instrument.

Click [No] to go back to the main screen.



## 5.6 Search Function


Refer to [3.5 Search Function](#).

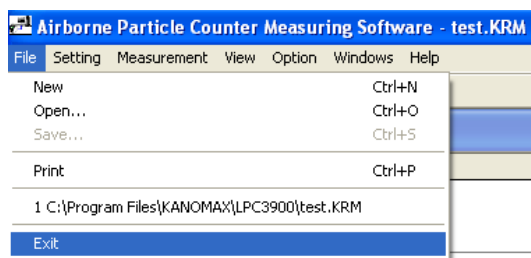
## 6. Measuring Software

Use the **Measuring Software** to collect particle, air velocity, temperature, humidity and differential pressure data from the Airborne Particle Counter.

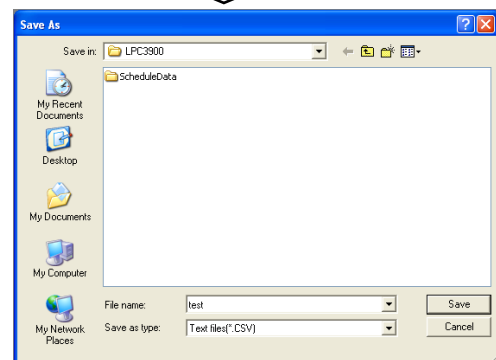
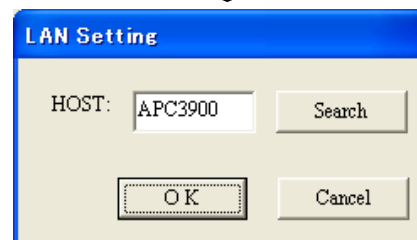
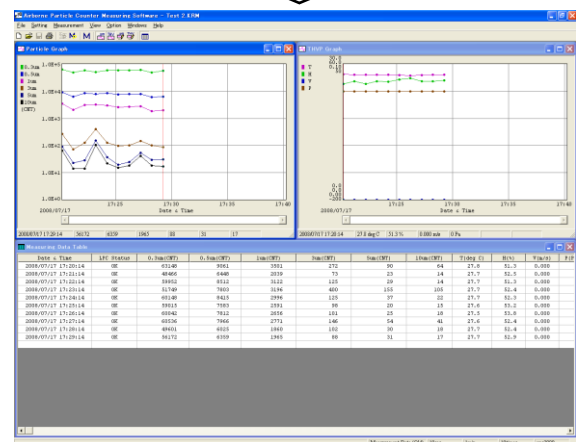
### 6.1. Operation Overview

**\* NOTE: The instrument must be placed in “REMOTE MODE” when running this program (Please refer to the instrument manual for further directions).**

- (1) From the start menu, click :[(All) Programs] -> [KANOMAX] -> [Measuring Software].
- (2) The Initial Screen appears displaying the last file that was displayed when the program was last used.
- (3) To configure LAN Settings, go to: [Setting] -> [R LAN Setting...] and configure the Host Name. (Refer to [6.4.1.LAN Settings.](#))
- (4) To start measuring, click [Measurement] from the menu bar or click 
- (5) As shown on the right, go to [File] -> [Save] to save the data from the current measurement.
- (6) To end the program, go to [File] -> [Exit].

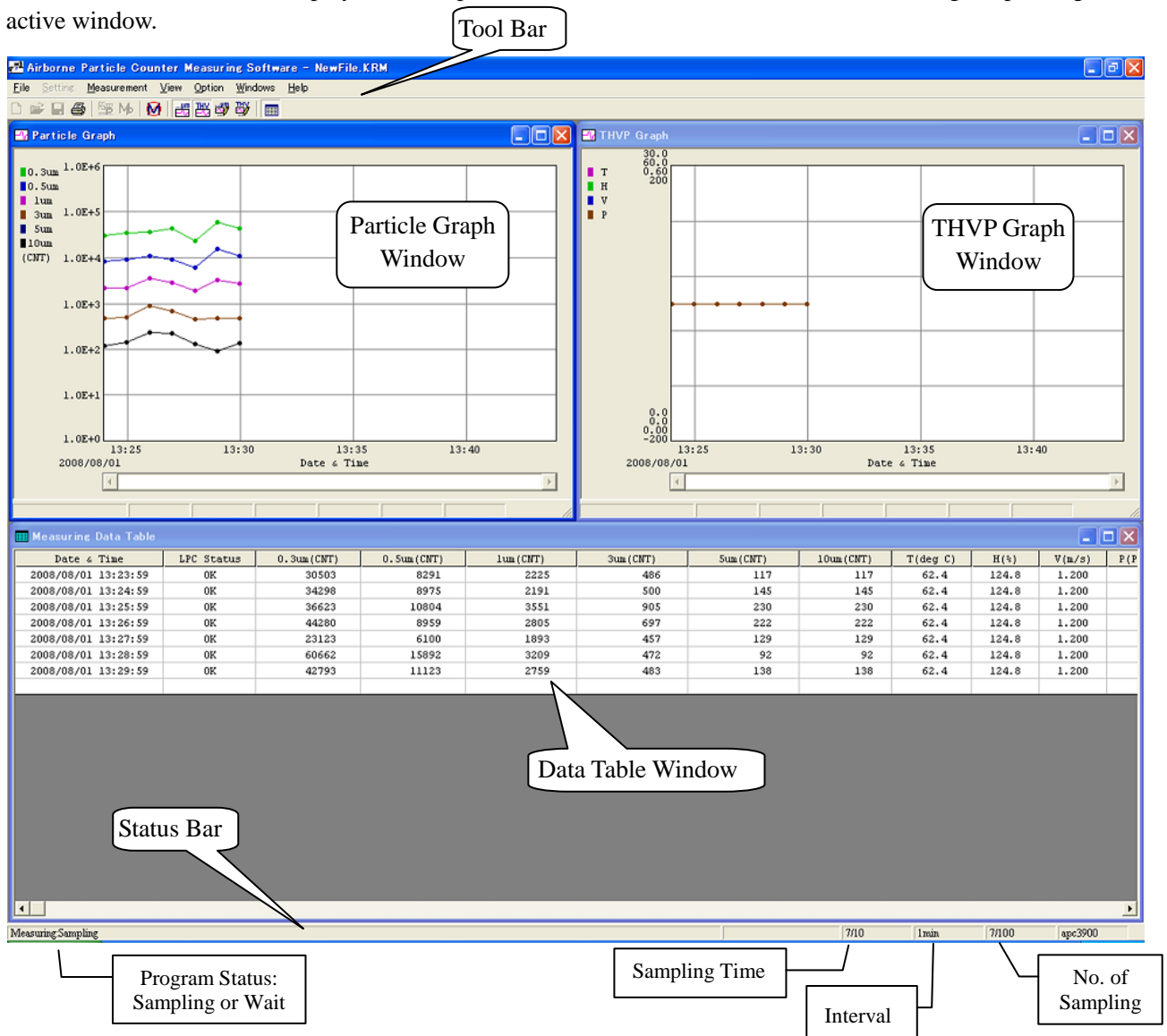


### Start-up Operation



## 6.2. Screen Structure

Menu bar and tool bar are displayed on the parent window. The menu bar and tool bar change depending on the active window.



### 1) Toolbar

The menu items most commonly used are shown as icons on the toolbar. Click on the corresponding button to execute the item easily.

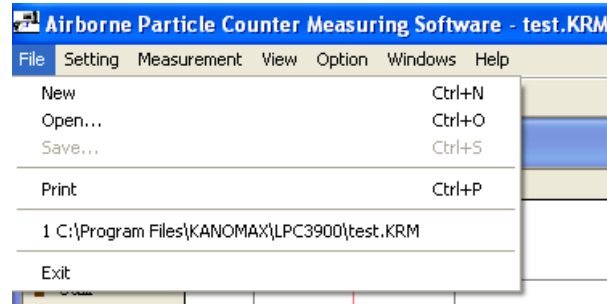
### 2) Status Bar

The program status, as well as measurement status and parameters are displayed on the status bar.



## 6.3. Data File

### 6.3.1. File Menu



#### New

Start a new file using the current configured parameters (The default file name is “NEWFILE.KRM”). (If there is unsaved data, a dialog box appears asking if you want to save the data.)

#### Open...

Loads an existing file (If there is unsaved data, a dialog box appears asking if you want to save the data).

#### Save

Saves the current data under a file name you specify.

#### Print

Prints the graph or data in the active window.

#### Recently used documents list

Opens a recently used file.

#### Exit

Closes the program (If there is unsaved data, a dialog box appears asking if you want to save the data).

### 6.3.2. Data File List

The following table shows the file formats that the Measuring Software can save data as:

Measurement Data File	<ul style="list-style-type: none"> <li>• File Name : ###.KRM</li> <li>• Format : Binary</li> <li>• Contents : File information, measurement parameter, remote measurement data</li> </ul>
Data File Excel Compatible, CSV format or text format	<ul style="list-style-type: none"> <li>• File Name : ###.CSV or ###.TXT</li> <li>• Format : Microsoft Excel compatible comma-delimited file</li> <li>• Contents : measurement parameter, measurement data</li> </ul>

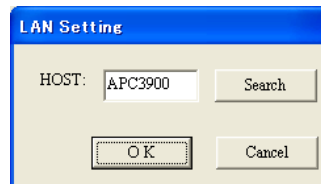
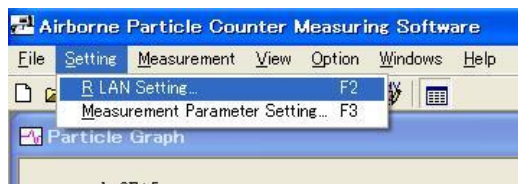
## 6.4. Settings

### 6.4.1. LAN Settings

Click [Setting] -> [R LAN Setting...] to display the “LAN Setting” dialog box.

Enter the Host Name of the instrument you wish to connect with and click [OK].

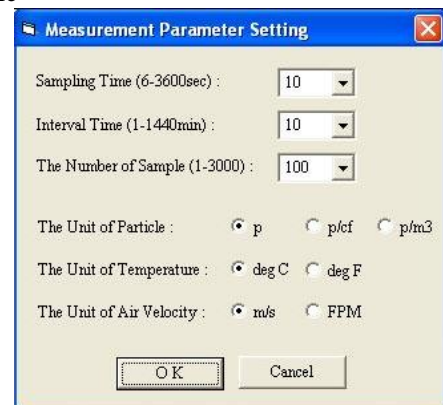
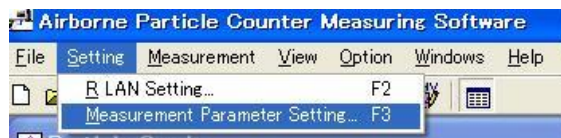
You can also set the Host Name using [Search] (Refer to [3.5 Search Function](#)).



### 6.4.2. Measurement Parameter Settings

Click [Setting] -> [Measurement Parameter Setting...] to display “Measurement Parameter Setting” dialog box.

Configure the remote measurement parameter settings in the “Measurement Parameter Setting” dialog box shown on the right. Refer to the settings table below.

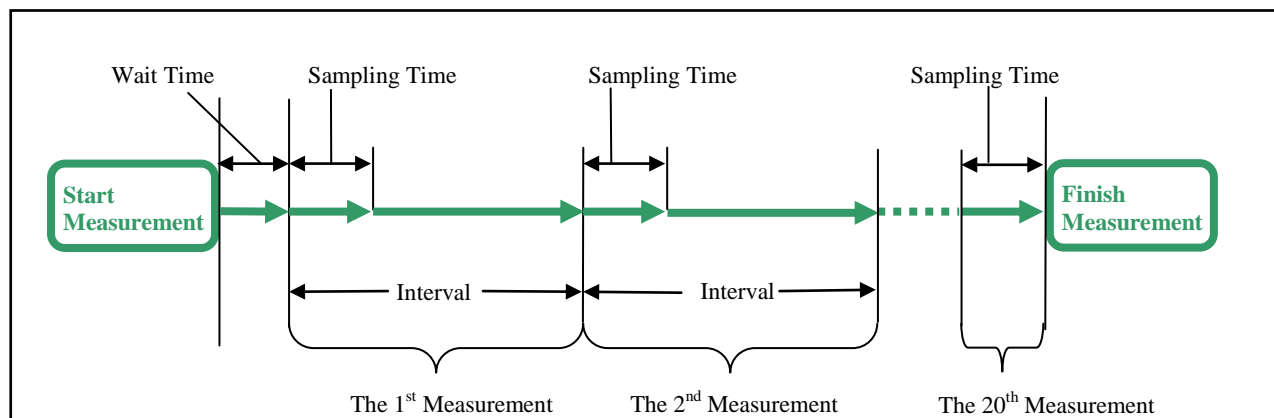


Setting Item	Setting Contents
Sampling Time	Set sampling time in seconds. Key input: Integer 6~3600 Select: 6, 8, 10, 30, 60, 300, 600, 1200
Interval Time	Set interval time in minutes. Key input: Integer 1~1440 Select: 1, 5, 10, 20, 30, 60, 120, 180
The Number of Samples	Key input: Integer 1~30000 Select: 1, 10, 60, 120, 300, 600, 1200, 3000
The Unit of Particle	Set the unit of particle to be used; p, p/cf or m <sup>3</sup>
The Unit of Temperature	Set the unit of temperature to be used; deg C or deg F
The Unit of Velocity	Set the unit of air velocity to be used; m/s or FPM

<Measurement Parameter Setting>

(Please refer to your instrument manual for further information on measurement settings.)

### <Measurement Parameter Explanatory Drawing>




## 6.5. Remote Measurement

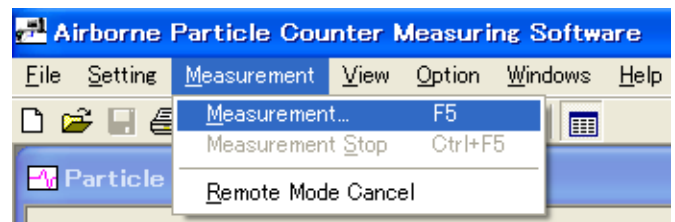
NOTE: The instrument must be placed in “REMOTE MODE” when running this program. (Please refer to the instrument manual for further directions.)

**Both the PC running the software and the Airborne Particle Counter must be connected to the LAN and properly configured in order to access the Airborne Particle Counter remotely via PC.**

### 6.5.1. Start/End Measurement

- 1) To Start a Measurement

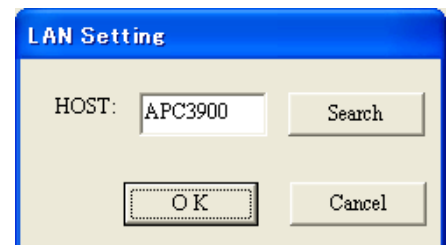
Click [Measurement] -> [Measurement] or the  icon to start a measurement.




If the LAN is not connected properly or the HOST cannot be found after one minute, the error message shown on the right will be displayed.

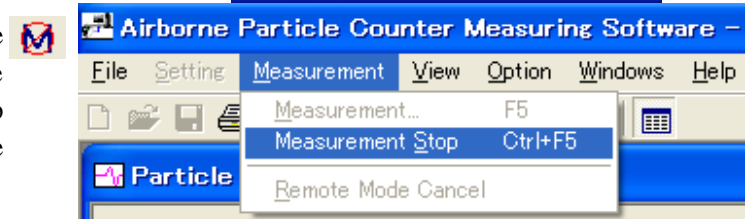


If a LAN connection error occurs, confirm the settings on the Airborne Particle Counter and the software settings (Refer to [6.4.1. LAN settings](#)).



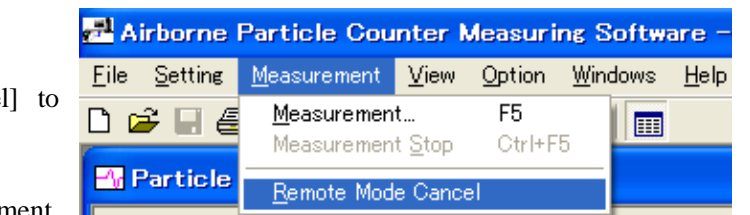
- 2) To End a Measurement

Click [Measurement] -> [Measurement Stop] or the  icon. A dialog box appears asking “Are you sure you want to stop measurement?” Click [Yes] to stop measurement. Data collected up to the point the measurement was stopped will be stored.



- 3) To Cancel Remote Mode

Click [Measurement] -> [Remote Mode Cancel] to cancel the remote mode on the instrument.



NOTE: If you cancel the remote mode on the instrument, you will need to place the instrument back in remote mode before you can begin another measurement (Please refer to the instrument manual for further directions).

### 6.5.2. Measurement

#### Measurement Control:

During a measurement, the program performs measurement timing control, turns the Airborne Particle Counter pump on and off, and downloads data.

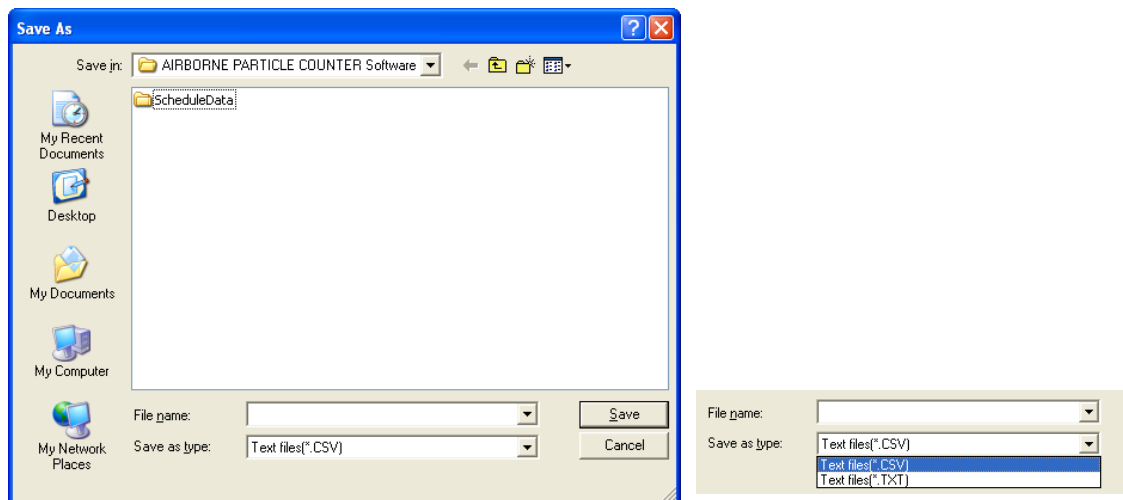
#### Data Display:

During a measurement, you can display the time series graph and data table in real time.

(Refer to **6.6 Remote Measurement Data Display**.)

### 6.5.3. Measurement Data Storage

Specify the destination to save data manually after measuring.



After completing a measurement, you can specify a file name and destination for the saved data. Data can be saved as “.CSV (Microsoft Excel comma-delimited character file)” or “.TXT”.

For example, if you enter “Test” as a data file name and choose to save it as “.CSV”, the data is saved as “Test.KRM” and “Test.CSV”. Also, if you choose to save it as “.TXT”, the data is saved as “Test.KRM” and “Test.TXT”.

#### <If an in-progress measurement is interrupted>

If the PC is shut down unintentionally or the power goes out, data can be recovered.

Data for incomplete measurements is saved as a “temp.KRM” file in the folder where the software is stored (Default location is: “C:\Program Files\KANOMAX\APC3900”).

You can open this file with “Measuring Software” and save it under a different name.

## 6.6. Remote Measurement Data Display

### 6.6.1. Data Display Format

The following table shows the display formats used by the Particle & THVP Graphs:

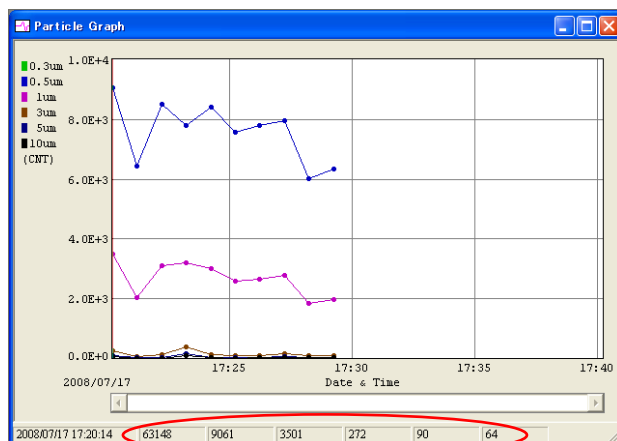
	Unit	Display Format	Example
Particle	p, p/cf, p/m <sup>3</sup>	<10000 : XXXX	2568
		≥ 10000 : X. XXXE + X	1.256E + 5
Temperature	deg C, deg F	XXX. X	26.5
Humidity	%	XXX. X	75.3
Air Velocity	m/s, FPM	X. XXX	0.652

### 6.6.2. Particle Graph

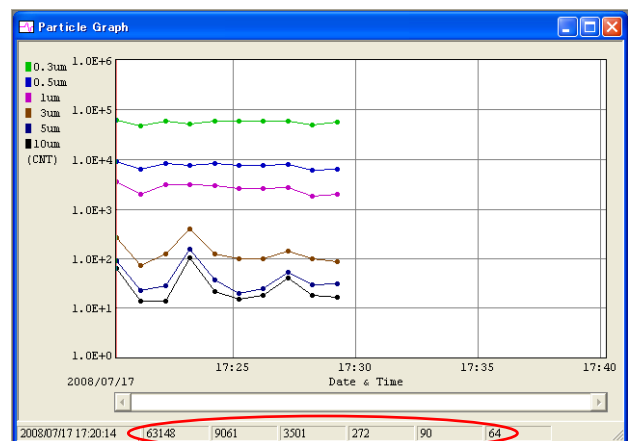
To display the particle graph, go to [View] -> [Time Series Graph] -> [Particle] or click  on the tool bar.

#### 1) Particle Graph Window

Graphs are available with two types of vertical axis; linear and logarithm.



**Particle Graph (Linear)**




**Particle Graph (Logarithm)**

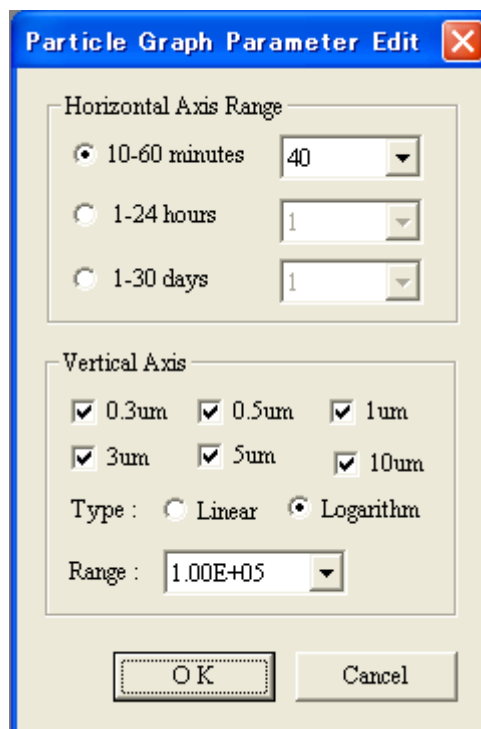
Data for each particle size will be displayed in the order of 0.3µm, 0.5µm, 1µm, 3µm, 5µm and 10µm

In the above windows, you can scroll the graph using the scroll bars. If you move the cursor over the graph it will change to a red bar. As you position the bar over a particular time (shown on the X axis), the particle count shown at the bottom of the graph will update to reflect the measurement data under the bar's current location

While a measurement is in progress, the graph cursor functionality and the scroll bars are disabled.

## 2) Particle Graph Parameter Settings

To edit the Particle Graph Parameter Settings, click [View] -> [Graph Parameter Edit] -> [Particle], or click  on the tool bar to display the “Particle Graph Parameter Edit” dialog box shown on the right. Then configure the Particle Graph Parameter Settings.



The following table lists the settings you may choose for the Particle Graph Parameters:

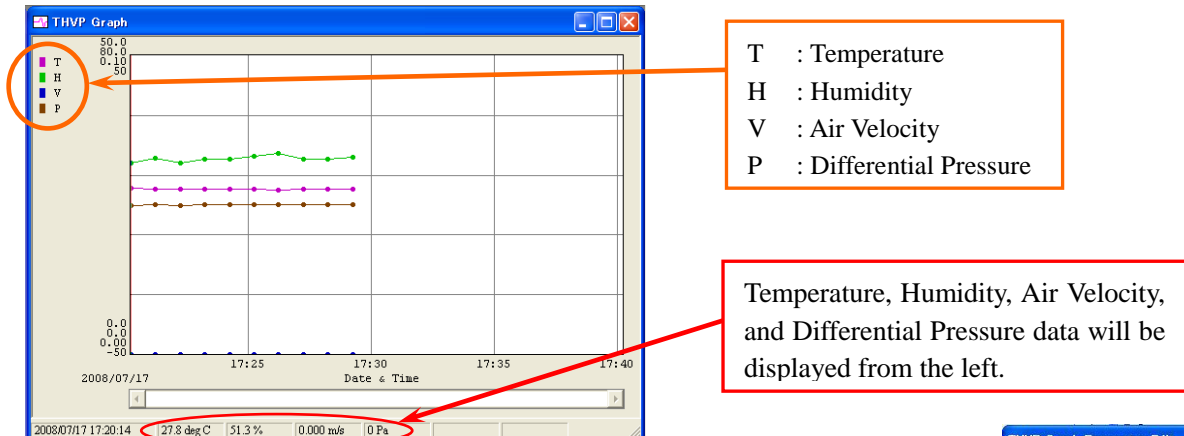
Setting Item	Settings
Horizontal axis (time axis) range setting	Select a range from below: 10min, 20min, 30min, 40min, 50min, 60min 1~24 hours – on an hourly basis 1~30 days – on daily basis
Displayed items on Vertical axis	Up to 6 different particle size (0.3, 0.5, 1, 3, 5, 10 $\mu\text{m}$ ) can be displayed on the same graph.
Types of vertical axis	Select Linear or Logarithm
Vertical axis display range	Select a range from below; Linear: 10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 1.00E+04, 1.00E+05, 1.00E+06, 1.00E+07, 1.00E+08, 1.00E+09 Logarithm: 10, 100, 1000, 1.00E+04, 1.00E+05, 1.00E+06, 1.00E+07, 1.00E+08, 1.00E+09

### 6.6.3. Temperature, Humidity, Air Velocity and Differential Pressure Graph

To display the TVHP graph, go to [View] -> [Time Series Graph] -> [Particle] or click  on the tool bar.


#### 1) THVP Graph Window

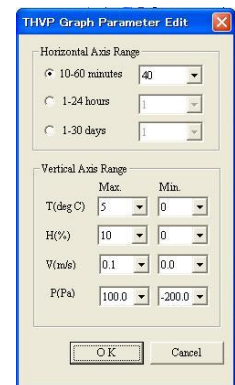
Only a linear type is available for the vertical axis for a THVP graph.



In the above window, you can scroll the graph using the scroll bars. If you move the cursor over the graph it will change to a red bar. As you position the bar over a particular time (shown on the X axis), the THVP count shown at the bottom of the graph will update to reflect the measurement data under the bar's current location.

#### 2) THVP Graph Parameter Setting

To edit the THVP graph parameter settings, click [View] -> [Graph Parameter Edit] -> [THVP...] to display the right dialog box, or click  on the tool bar.



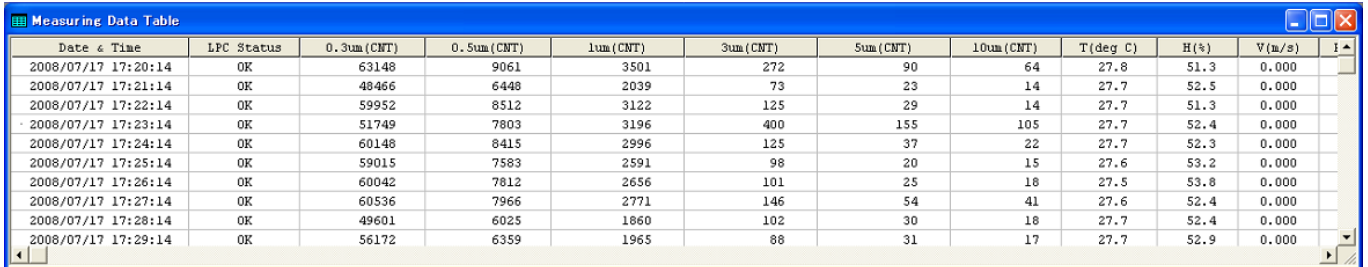
The following table shows the settings you may choose for the TVHP Graph Parameters:

Setting Item			Settings
Horizontal axis (time axis) range setting			Select a range from below: 10min, 20min, 30min, 40min, 50min, 60min 1~24 hours – on an hourly basis 1~30 days – on daily basis
Vertical axis display range	Temperature (deg C)	Max	Select: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
		Min	Select: 0, 5, 10, 15, 20, 25, 30, 35, 40, 45
	Temperature (deg F)	Max	Select: 40, 50, 60, 70, 80, 90, 100, 110, 120, 130
		Min	Select: 30, 40, 50, 60, 70, 80, 90, 100, 110, 120
	Humidity (%)	Max	Select: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100
		Min	Select: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90
	Air Velocity (m/s)	Max	Select: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0
		Min	Select: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9
	Air Velocity (FPM)	Max	Select: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0
		Min	Select: 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9
	Differential Pressure (Pa)	Max	Select: 200, 150, 100, 50, 0, -50, -100, -150, -200
		Min	Select: 200, 150, 100, 50, 0, -50, -100, -150, -200


\*Refer to **6.4.2 Measurement Parameter Settings** if you want to change the unit of temperature or air velocity used for measuring.

### 6.6.4.Data Table

Data values are listed in chronological order in the data table window. The window is resizable.



Date & Time	LPC Status	0.3um (CNT)	0.5um (CNT)	1um (CNT)	3um (CNT)	5um (CNT)	10um (CNT)	T(deg C)	H(%)	V(m/s)	i
2008/07/17 17:20:14	OK	63148	9061	3501	272	90	64	27.8	51.3	0.000	
2008/07/17 17:21:14	OK	48466	6448	2039	73	23	14	27.7	52.5	0.000	
2008/07/17 17:22:14	OK	59952	8512	3122	125	29	14	27.7	51.3	0.000	
2008/07/17 17:23:14	OK	51749	7803	3196	400	155	105	27.7	52.4	0.000	
2008/07/17 17:24:14	OK	60148	8415	2996	125	37	22	27.7	52.3	0.000	
2008/07/17 17:25:14	OK	59015	7583	2591	98	20	15	27.6	53.2	0.000	
2008/07/17 17:26:14	OK	60042	7812	2656	101	25	18	27.5	53.8	0.000	
2008/07/17 17:27:14	OK	60536	7966	2771	146	54	41	27.6	52.4	0.000	
2008/07/17 17:28:14	OK	49601	6025	1860	102	30	18	27.7	52.4	0.000	
2008/07/17 17:29:14	OK	56172	6359	1965	88	31	17	27.7	52.9	0.000	

To display the measuring data table, go to [View] -> [Data Table Display] or click  on the tool bar.



## 6.7. Other Functions

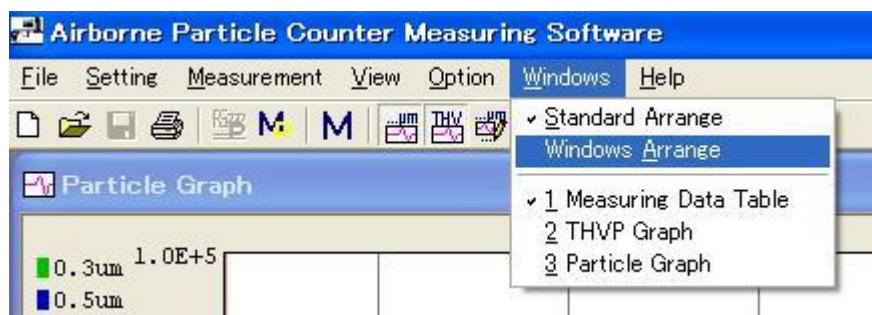
### 6.7.1. Switching Languages

You can switch the language between English and Japanese by clicking [Option] on the menu bar.



### 6.7.2. Windows Arrange

Click [Windows] -> [Windows Arrange] to display the graph windows and data table window.



If [Standard Arrange] is checked, the graph and data table window will automatically resize when you change the main window size.

If [Window Arrange] is checked the graph and data table windows will not automatically resize if the main window size is changed.


You may check or uncheck [Measuring Data Table], [THVP Graph] and [Particle Graph] to show or hide the respective windows.

### 6.7.3. Software Version

Click [Help] -> [About] to check the software version information as shown below.



#### 6.7.4. Printing Function

To print the current active graph or data list, click [File] -> [Print], or click  on the tool bar.

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## 7. User Management Software

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Use the User Management Software to manage users, measurement data, and log data on the instrument.

### 7.1. When You First Start Software

**Both the PC running the software and the Airborne Particle Counter must be connected to the LAN and properly configured in order to access the Airborne Particle Counter remotely via PC.**

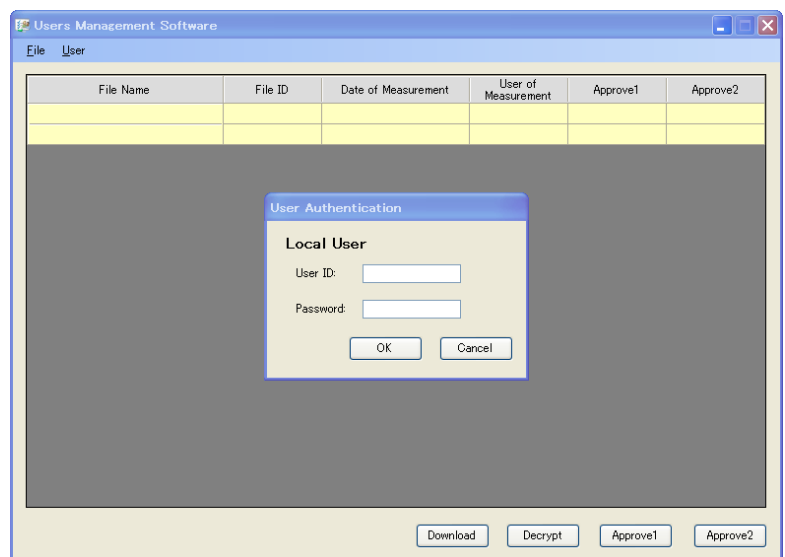
#### 7.1.1. Start Screen

When the software starts, the “User Authentication” window will be displayed.

If you are starting the software for the first time, no user is registered.

Enter [administrator] for User ID, and [1234] for Password.

(This user ID and password will be disabled automatically after registering a new user.)



#### 7.1.2. Specifying Data Storage Folder and USB Memory Drive Name

Select [File]->[Setting] to specify the Data storage folder, and the card drive name.

[Data storage folder]

Enter the path for the location data files will be saved to (Example: C:\Program Files\KANOMAX\3900 Data Storage), or click [...] to select a folder.

[Drive Name of USB Memory]

Select a USB Memory drive name from the list of drives recognized by the computer.

### 7.1.3. Registering a New Local User

**When starting the software for the first time, be sure to register one or more local users with [Manage Users] right.**

To register a new local user, click [User] ->[Local], then click [Register].

In the “Information” tab, enter the following:  
 User Name (1 to 52 alphanumeric characters),  
 User ID (4 to 16 alphanumeric characters),  
 Password (4 to 16 alphanumeric characters),  
 Confirm Password,  
 Company/Division (up to 100 characters),  
 and Memo (up to 100 characters).

Passwords expire every 180 days.  
 If a password expires, the User ID will become invalid until a new password is set.

In the “Qualification” tab, you may specify the following user rights:

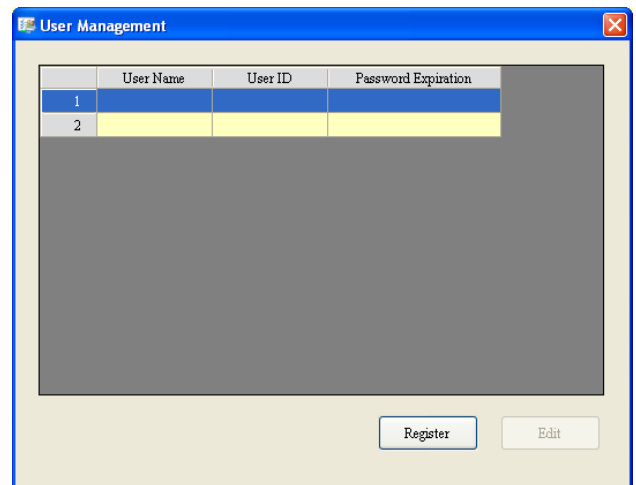
Manage Users: allows a user to register a new user, and edit or delete registered users.  
 Without this right, a user can only edit their own password.

Decrypt: allows a user to decrypt stored data.

Approval1: allows a user to give their approval as “Approval1” to a stored data file.

Approval2: allows a user to give their approval as “Approval2” to a stored data file.

(NOTE: If an item is checked, the user will be granted that right.)



User No.

User Name

Information | Qualification

User ID:

Password:

Confirm Password:

Company/Division:

Memo:

Buttons: Delete, OK, Cancel

User No.

User Name

Information | Qualification

Manage Users

Decrypt

Approval1

Approval2

Buttons: Delete, OK, Cancel

After all user information and qualifications have been entered, click [OK] to register a new user or click [Cancel] to discard the current user data. The “User Management” window then appears, displaying a list of all currently registered users.

If you wish to register another new user, click [Register].

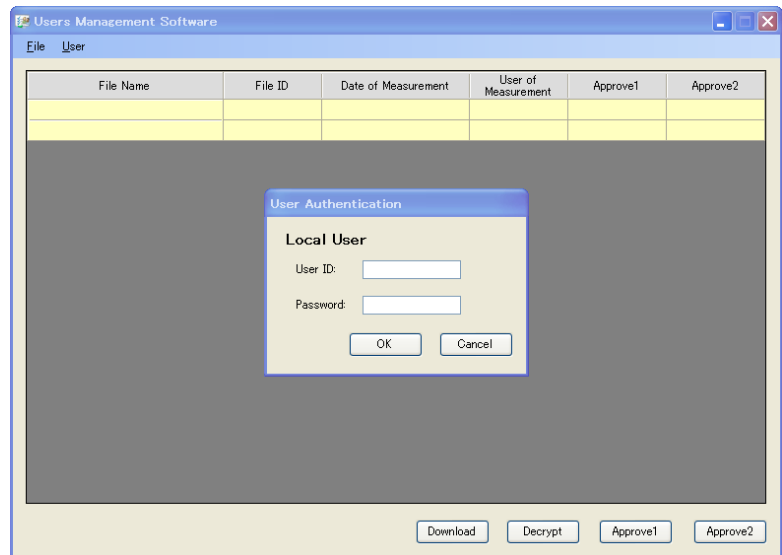
You do not need to register all the users the first time you use the software. A user with [Manage Users] rights can register a new user at any time.

## 7.2. Starting Software After Registering Local Users

### 7.2.1. Starting Software

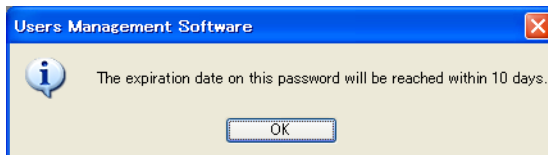
When the software starts, the “User Authentication” window will be displayed.

Enter the User ID and Password of a registered local user to start the software.

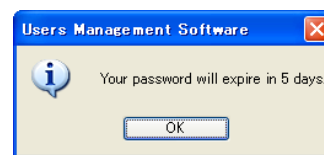


When an expiration date on a password draws near, the following messages will be displayed. It is recommended that you change an expiring password as soon as possible.

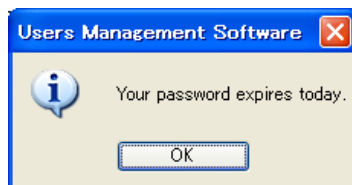
When the password will expire in 6 to 10 days



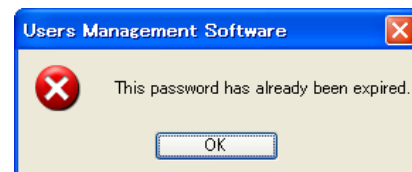
When the password will expire in 5 days



When the password will expire in a day



When the password has already expired



Click [OK]. If the password has not expired, the main screen will be displayed.

If the password has expired, the “Set Password” window will be displayed.  
Enter the current password in the “Old password” box, and a new password in the “New password” and the “Confirm new password” boxes.

Click [OK] to check the old password and save a new password. Then, the main screen will be displayed.

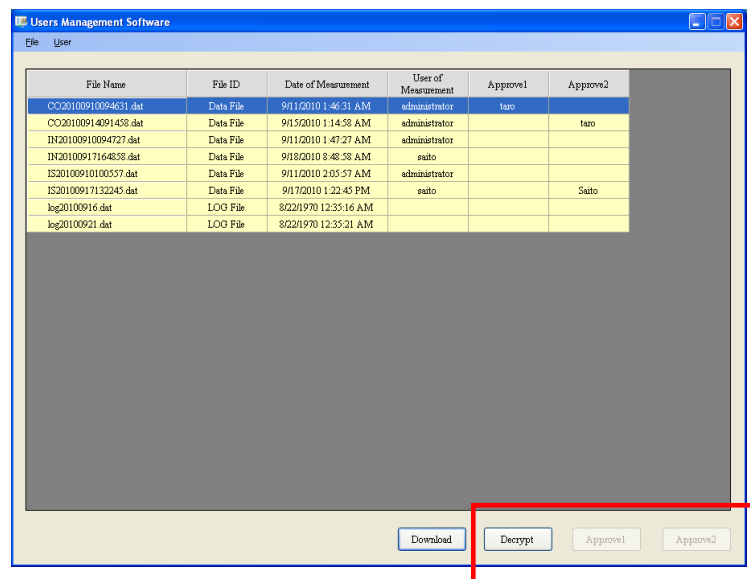
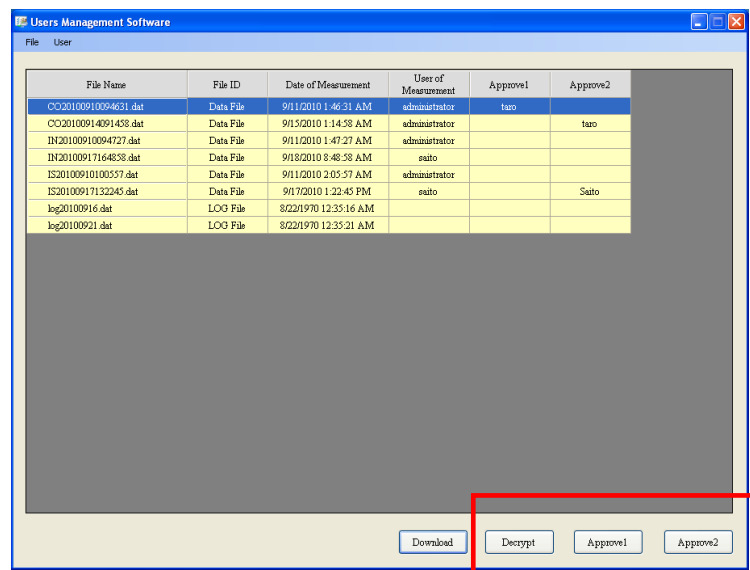
Click [Cancel] to discard changes and return to the “User Authentication” window.



The "Set Password" dialog box contains three input fields: "Old password:", "New password:", and "Confirm new password:". Below the fields are two buttons: "OK" and "Close".

When a registered user starts the software, the files in the [Data storage folder] are displayed as shown on the right.

The [Decrypt], [Approval1], and [Approval2] buttons are automatically enabled or disabled, depending on the user's rights.



### 7.2.2. Download Button

The [Download] button transfers measurement data or log files from the instrument to the computer.

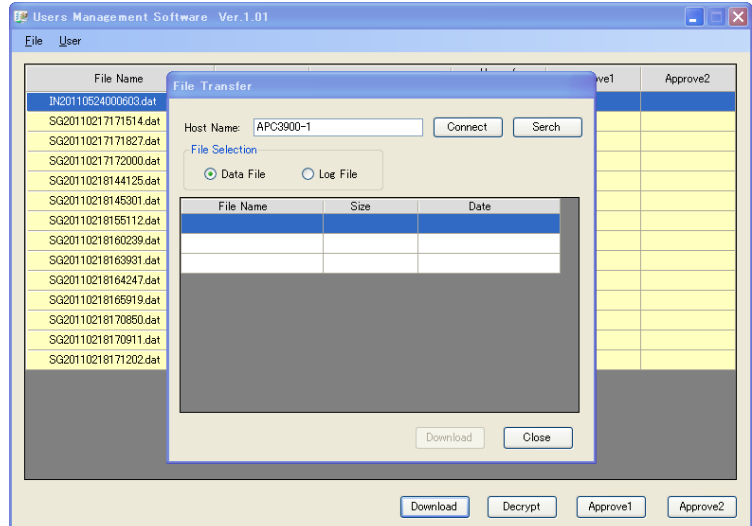
The transferred data will be saved in the folder specified in [Data storage folder] (Refer to [7.1.2 Specifying Data Storage Folder and USB Memory Drive Name](#)).

Click [Download] to display the “File Transfer” window.

Enter the Host Name of the instrument you wish to connect to, and click the [Connect].

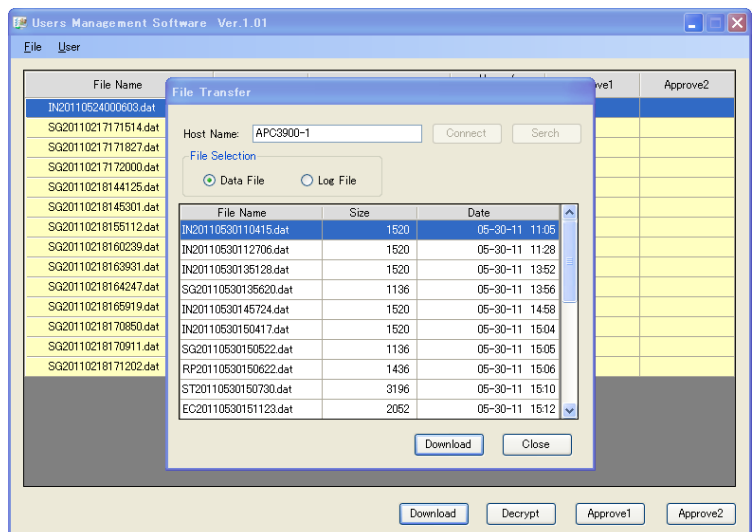
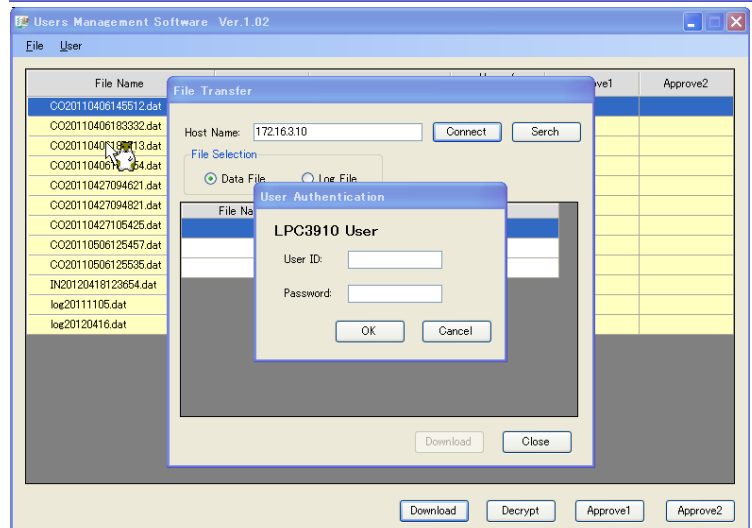
If you can not connect to the instrument by entering the Host Name, click [Search] to check if the instrument is connected to the LAN.

(Refer to [3.5 Search Function](#).)

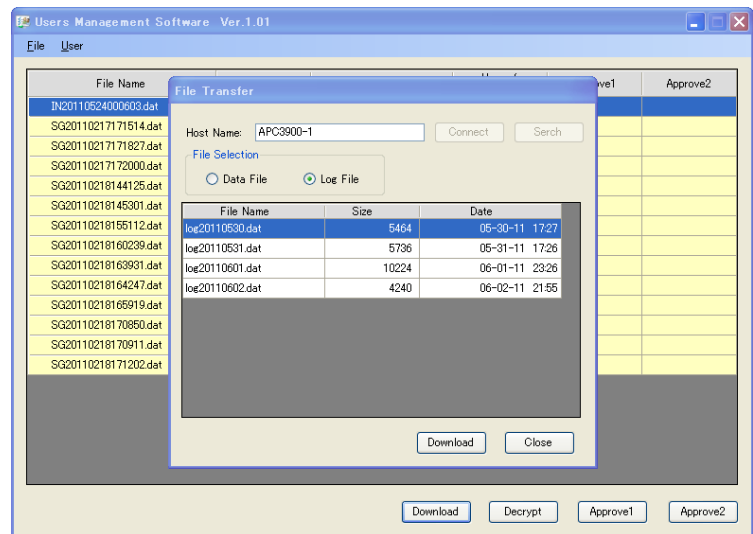


Enter the User ID and Password as registered in the instrument. The User ID must have administrative rights or [Copy Files] rights in the instrument.

Click [OK] to authenticate the user. When the connection is completed, the data list in the instrument will be displayed.



Under the “File Selection”, you can switch between [Data File] and [Log File].

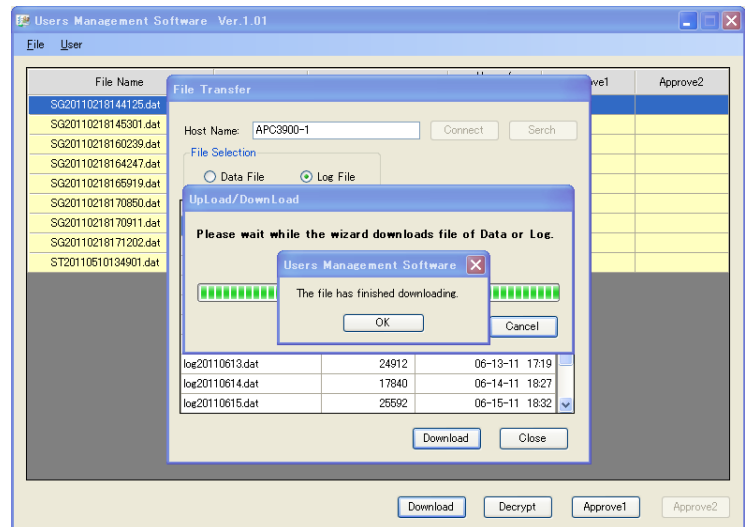


Select a file to transfer, and click [Download].

When the download is finished, the message “The file has finished downloading” will be displayed. Click [OK].

To transfer another file, repeat the above procedure.

When finished, click [Close] to exit the “File Transfer” window. A list of transferred files will be displayed.





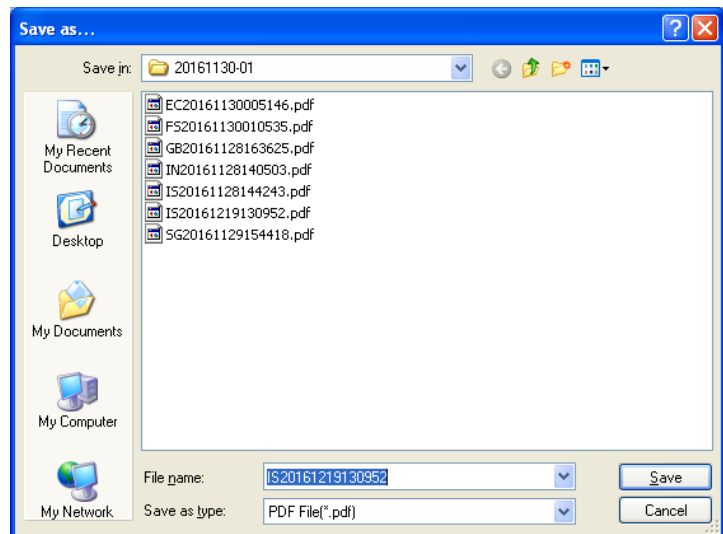
### 7.2.3. Decrypt Button

A user with [Decrypt] rights can decrypt measurement data.  
Select a file to decrypt, and click [Decrypt].

First, the "Save as" dialog box to save files in PDF format appears.  
Enter the file name and click [Save].

The data will be saved in PDF format.

To exit without saving in PDF format, click [Cancel].

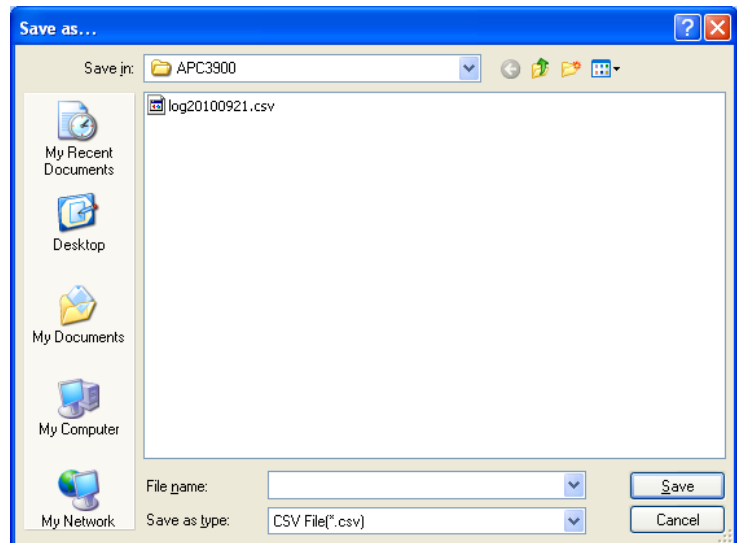


When the saving is completed, a dialog box asking if you want to save the file in CSV format will appear.

Click [Yes] to display the "Save as" dialog box to save files in CSV format. .

Enter the file name and click [Save].  
The data will be saved in CSV format.

To exit without saving in CSV format, click [Cancel].

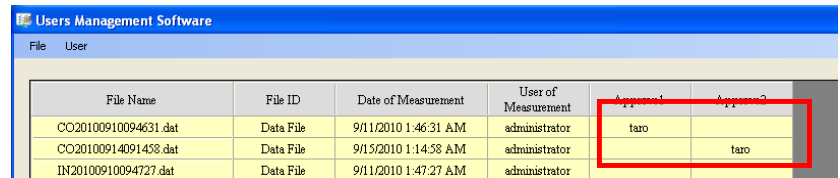


### 7.2.4. Approval1/Approval2 Button

A user with [Approval1] or [Approval2] rights can approve measurement data.  
Select a file to approve, and click [Approval1] or [Approval2].

A dialog box appears asking if you approve.  
Click [OK] or [Cancel].

If you click [OK],  
your approval will be registered to the file.  
If you click [Cancel],  
the main screen will be displayed.



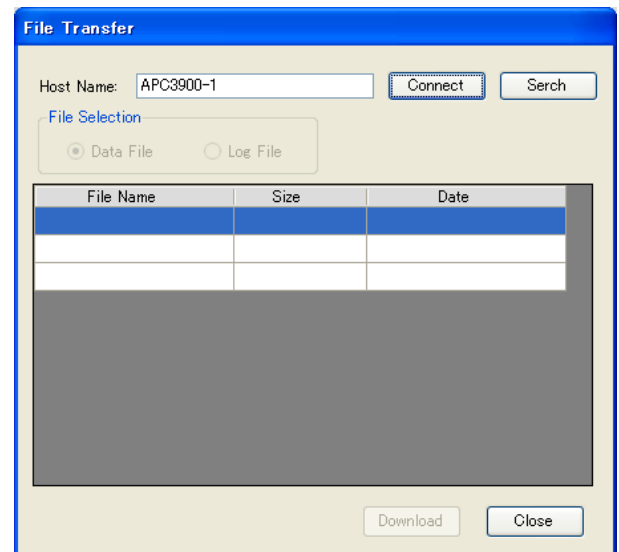
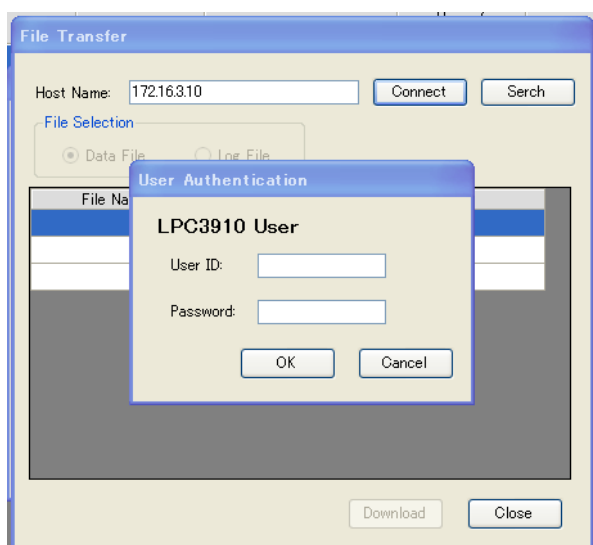
File Name	File ID	Date of Measurement	User of Measurement	Approval1	Approval2
CO20100910094631.dat	Data File	9/11/2010 1:46:31 AM	administrator	taro	
CO20100914091438.dat	Data File	9/15/2010 1:14:58 AM	administrator		taro
IN20100910094727.dat	Data File	9/11/2010 1:47:27 AM	administrator		

### 7.2.5. User Management [3910 Online]

If the software is started by a user with [Manage Users] rights,  
you can register, edit, and delete users registered in the instrument.  
Download the user file from the instrument to register, edit, or delete users.  
After registering, editing, or deleting users, upload the user file to the instrument.

Click [User]->[3910 Online]  
to open the “File Transfer” window.  
Enter the Host Name of the instrument you wish to connect with, and click [Connect].

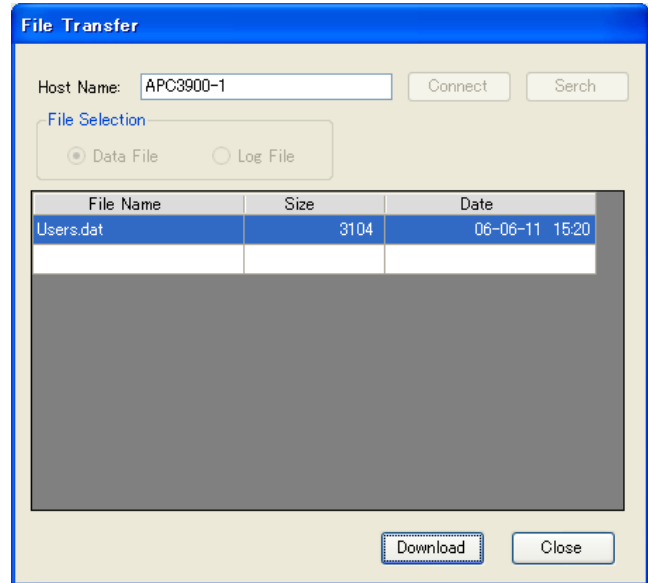
If you can not connect to the instrument by entering the Host Name, click [Search] to check if the instrument is connected to the LAN.  
(Refer to [3.5 Search Function](#).)



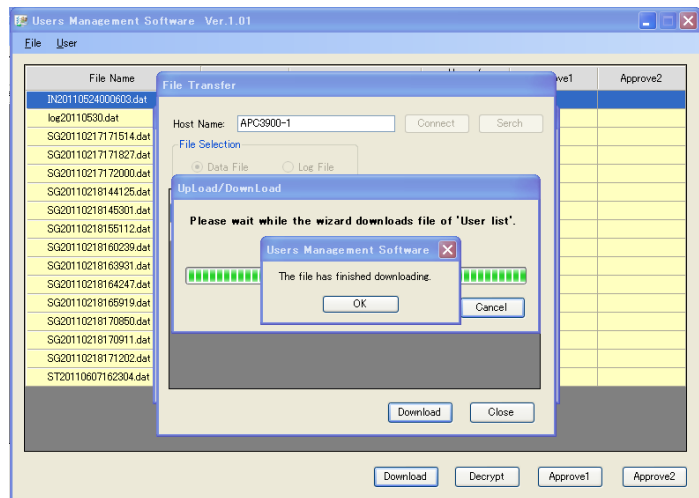
The “User Authentication” window will be displayed. Enter a User ID and Password for the administrator registered in the instrument.  
Click [OK] to authenticate the user.  
When the connection is completed, the user list from the instrument will be displayed.

### •Download

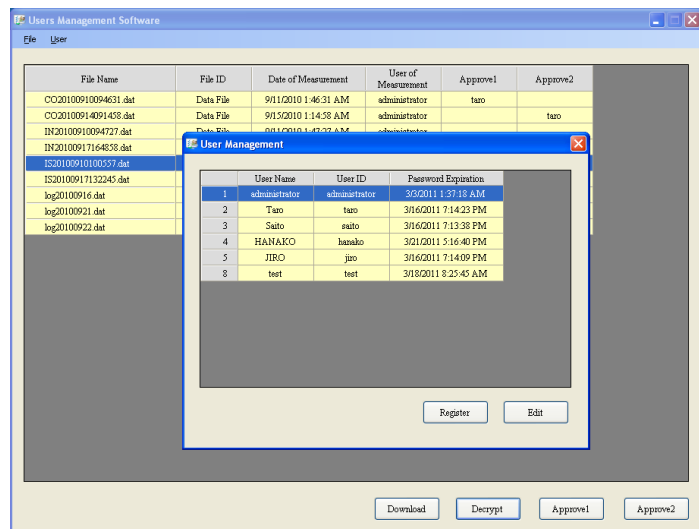
Select a file, and click [Download] to start downloading.



When the download is finished, the message “The file has finished downloading.” will be displayed. Click [OK].



The user list is displayed and you can register a new user or edit existing users.



### •Registering a new user

Click [Register] to register a new user.

You can specify user information and authorization settings.

In the “Information” tab, enter:

User Name (1 to 52 alphanumeric characters),  
 User ID (4 to 16 alphanumeric characters),  
 Password (4 to 16 alphanumeric characters),  
 Confirm Password,  
 Company/Division (up to 100 characters),  
 Memo (up to 100 characters)

(Reminder: Passwords expire every 180 days.)

The screenshot shows the 'User Information' dialog box with the 'Information' tab selected. The 'Authorization' tab is visible but disabled (grayed out). The fields are: User No. (9), User Name (empty), User ID (empty), Password (empty), Confirm Password (empty), Company/Division (empty), and Memo (empty). Buttons for 'Delete', 'OK', and 'Cancel' are at the bottom.

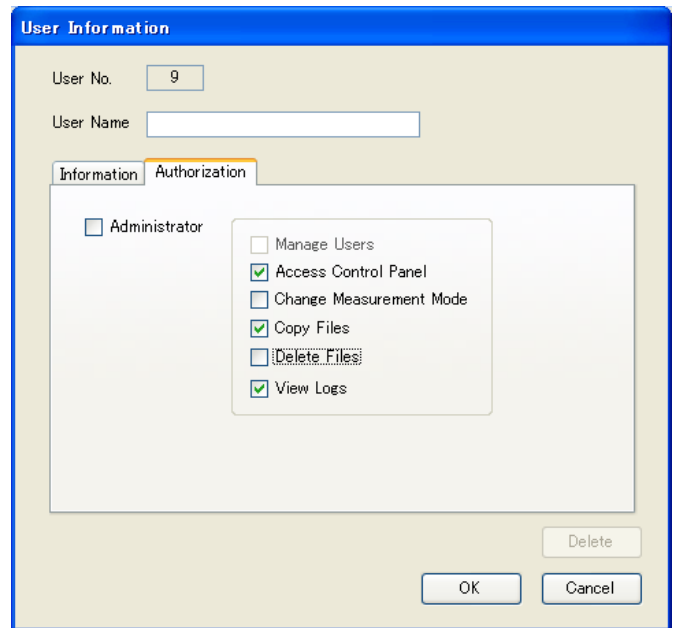
If [Administrator] is checked, the user will be granted administrative rights. In this case, all the Authorization settings are checked and displayed in gray as shown below.

The screenshot shows the 'User Information' dialog box with the 'Authorization' tab selected. The 'Administrator' checkbox is unchecked. The authorization settings are: Manage Users (unchecked), Access Control Panel (unchecked), Change Measurement Mode (unchecked), Copy Files (unchecked), Delete Files (unchecked), and View Logs (unchecked). Buttons for 'Delete', 'OK', and 'Cancel' are at the bottom.

The screenshot shows the 'User Information' dialog box with the 'Authorization' tab selected. The 'Administrator' checkbox is checked. The authorization settings are: Manage Users (checked), Access Control Panel (checked), Change Measurement Mode (checked), Copy Files (checked), Delete Files (checked), and View Logs (checked). Buttons for 'Delete', 'OK', and 'Cancel' are at the bottom.

If [Administrator] is unchecked, you may specify

the user rights individually by checking off each box for the right(s) you wish to assign as shown to the right.



[Description of rights in the instrument]

Access Control Panel: The user is authorized to change settings in the control panel

Change Measurement Mode: The user is authorized to switch measurement modes

Copy Files: The user is authorized to copy measurement files and log files

Delete Files: The user is authorized to delete measurement files and log files

View logs: The user is authorized to view log files

When finished assigning rights, click [OK] to save the settings or [Cancel] to discard the changes.

**•Edit**

To edit an existing user, select the user name and click [Edit].

The user information will be displayed.

Edit the items as necessary, and click [OK] to save the changes or [Cancel] to discard the changes.

The image shows two screenshots of the 'User Information' dialog box. The left screenshot displays the 'Information' tab with the following fields: User No. (5), User Name (JIRO), User ID (jiro), Password (masked), Confirm Password (masked), Company/Division (123), and Memo (abcdefg). The right screenshot displays the 'Authorization' tab with a list of permissions: Administrator (unchecked), Manage Users (unchecked), Access Control Panel (unchecked), Change Measurement Mode (unchecked), Copy Files (unchecked), Delete Files (unchecked), and View Logs (checked). Both screenshots include 'Delete', 'OK', and 'Cancel' buttons at the bottom.

**•Delete**

To delete an existing user, select the user name and click [Edit].

The user information will be displayed.

Click [Delete] and a dialog box appears asking if you want to delete the user.

Click [OK] to delete the user or [Cancel] to leave the user as is.

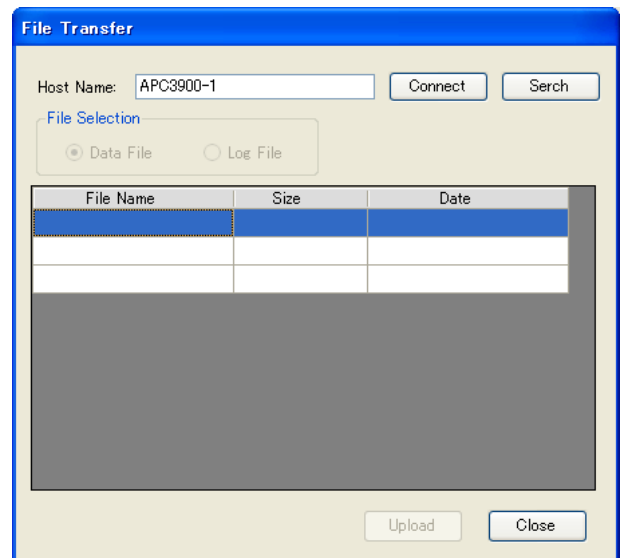
The image shows a screenshot of the 'User Information' dialog box with the 'Information' tab selected. The fields are: User No. (5), User Name (JIRO), User ID (jiro), Password (masked), Confirm Password (masked), Company/Division (123), and Memo (abcdefg). The 'Delete' button at the bottom right is highlighted with a red rectangle. 'OK' and 'Cancel' buttons are also visible.

### •Upload

To upload user data from a PC to an instrument click the [X] button on the user list window, to display the “File Transfer” window. (NOTE: The file transfer screen will only appear if you have registered a new user or edited an existing user. Otherwise you will be returned to the main screen when you close the user list window.)

Enter the Host Name of the instrument you wish to connect with, and click [Connect].

If you can not connect to the instrument by entering the Host Name, click [Search] to check if the instrument is connected to the LAN. (Refer to [3.5 Search Function.](#))



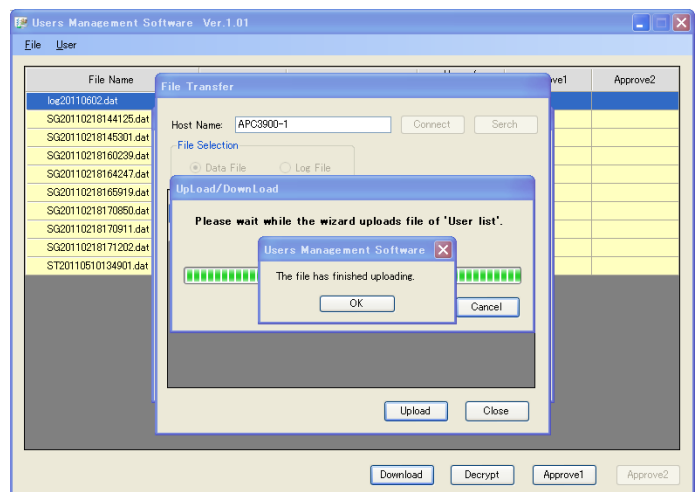
The “User Authentication” window will be displayed.

Enter a User ID and Password with administrative rights or [Copy Files] rights as registered in the instrument.

Click [OK] to authenticate the user. When the connection is completed, the user data list in the PC will be displayed.

Select a file, and click [Upload] to start uploading.

When the upload is finished, the message “The file has finished uploading” will be displayed. Click [OK].



### 7.2.6. User Management [3910 USB Memory]

If the software is started by a user with [Manage Users] rights, you can register, edit, and delete user information stored on a USB Memory.

Click [User]->[3910 SD Card], a dialog box appears displaying drives specified in [Drive Name of USB Memory ].

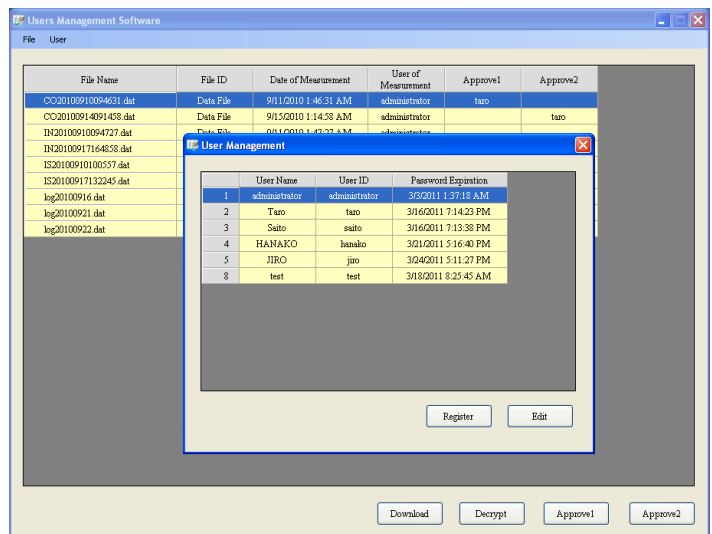
(Refer to [7.1.2 Specifying Data Storage Folder and USB Memory Drive Name.](#))

Select a user list file, and click [Open]. (By default this file is Users.dat located in the PARAM folder.)

When the file is open, the user list will be displayed.

You can register and edit users here just as you would in [User]->[3910 Online].

(Refer to [7.2.5. User Management \[3910 Online\]](#) for instructions on registering, editing and deleting users.)





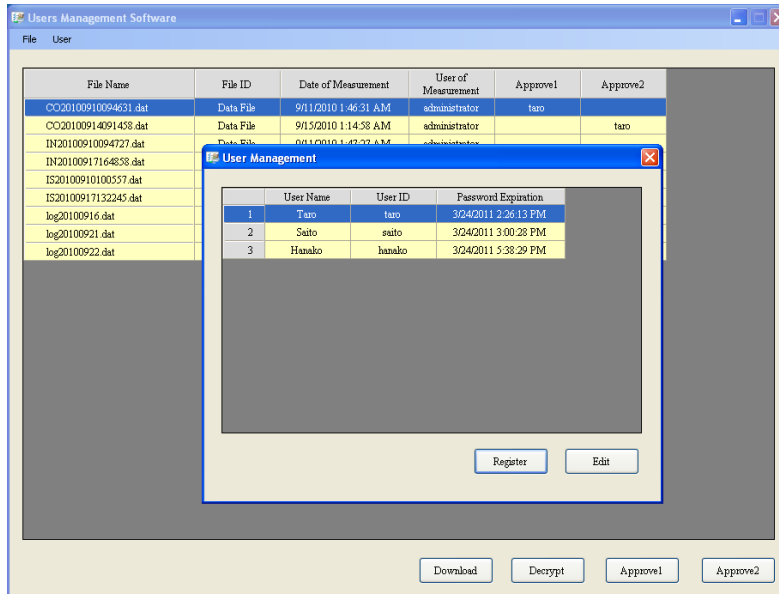
### 7.2.7. User Management [Local]

If the software is started by the user with [Manage Users] right, you can register, edit, and delete users registered in the PC.

The user without [Manage Users] right can only change the password for logged-in users.

#### [When the user with [Manage Users] right logs in]

If you click [User]->[Local], the list of registered users will be displayed.



#### • Registering a new user

Please refer to [7.1.3 Registering a New Local User](#).

The 'User Information' dialog box shows the following fields:

- User No.: 4
- User Name: [Text Field]
- Information tab:
  - User ID: [Text Field]
  - Password: [Text Field]
  - Confirm Password: [Text Field]
  - Company/Division: [Text Field]
  - Memo: [Text Area]
- Buttons: Delete, OK, Cancel

The 'User Information' dialog box shows the following fields:

- User No.: 4
- User Name: [Text Field]
- Qualification tab:
  - Manage Users
  - Decrypt
  - Approval1
  - Approval2
- Buttons: Delete, OK, Cancel

**•Edit**

To edit an existing user, select the user name and click [Edit].

The user information will be displayed.

Edit the items as necessary, and click [OK] to save the changes or [Cancel] to discard the changes.

The image shows two screenshots of the 'User Information' dialog box. The left screenshot displays the 'Information' tab with the following fields: User No. (3), User Name (Hanako), User ID (hanako), Password (masked), Confirm Password (masked), Company/Division (123456), and Memo (ABCD). The right screenshot displays the 'Qualification' tab with the following options: Manage Users (unchecked), Decrypt (checked), Approval1 (checked), and Approval2 (unchecked). Both screenshots have 'Delete', 'OK', and 'Cancel' buttons at the bottom.

**•Delete**

To delete an existing user, select the user name and click [Edit].

The user information will be displayed.

Click [Delete] and a dialog box appear asking if you want to delete the user.

Click [OK] to delete the user or [Cancel] to leave the user as is.

The image shows a screenshot of the 'User Information' dialog box with the 'Information' tab selected. The fields are: User No. (3), User Name (Hanako), User ID (hanako), Password (masked), Confirm Password (masked), Company/Division (123456), and Memo (ABCD). The 'Delete' button is highlighted in a red box.

**•Exit**

Click the [X] button to close the user list window, and the main screen will be displayed.

**[When the user without [Manage Users] right logs in]**

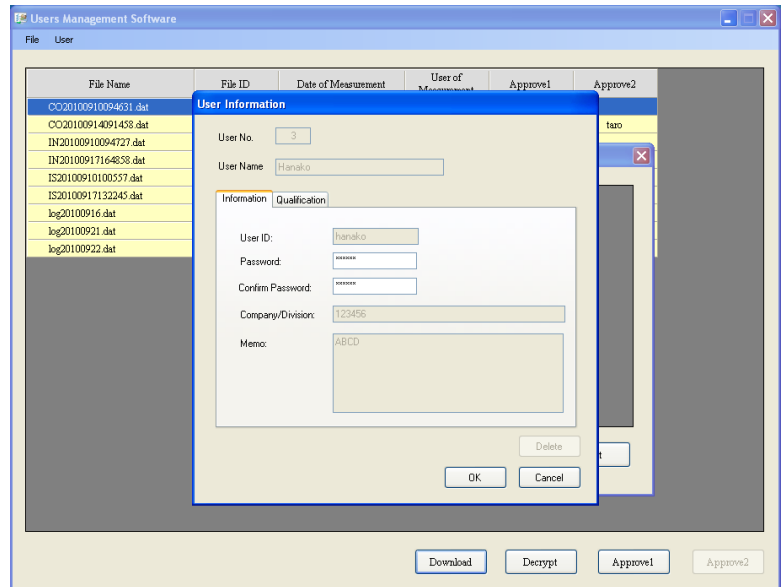
If you click [User]->[Local], the edit window of logged-in users will be displayed.

**•Edit**

You can only change passwords.

Change a password when the password will expire soon.

Click [OK] to save the changes or [Cancel] to discard the changes.

**•Exit**

Click [OK] or [Cancel], and the main screen will be displayed.

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## **8. Miscellaneous Notes**

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If you forgot the password(s) for all local users with [Manage Users] rights, please contact us for assistance.



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