Apresys

Digital Datatrack

Contents

Chapter One: Product Introduction

Welcome to the 'Recording Instrument' of our company.!

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Product Function

Recorded date types:	temperature, humidity.
Maximum data store:	100,000
Communication interface type: RS232 serial port	
Data display:	PC display and LCD display.
Battery type:	Unrechargeable Li-Mn battery with 3.6V voltage and 2400MA capacity.

Accessory List :

One Data Logger
One Communication Cable
One Software Disk
One Operation Instruction
One Warranty Card

Chapter Two: Software and Hardware Installation

Software Running Requirements

Hardware Requirements:
Desktop/Lap:

CPU: 586 at least
System Memory (RAM): 64M at least
Hard Disk: 640M free space at least
One free serial port at least

Software Requirements:

Windows 98/2000/XP Operating System Excel is recommended to install (could make complicated report forms and data graphs).

Recording Instrument Software Installation

The recoding instrument software is green without the need to install.

Indirect Installation of the Serial Interface

Connect one end of the communication cable of the accessories with the serial interface of the portable recording instrument, and the other end shall be connected with the RS232 serial interface of the computer.

Run the Software

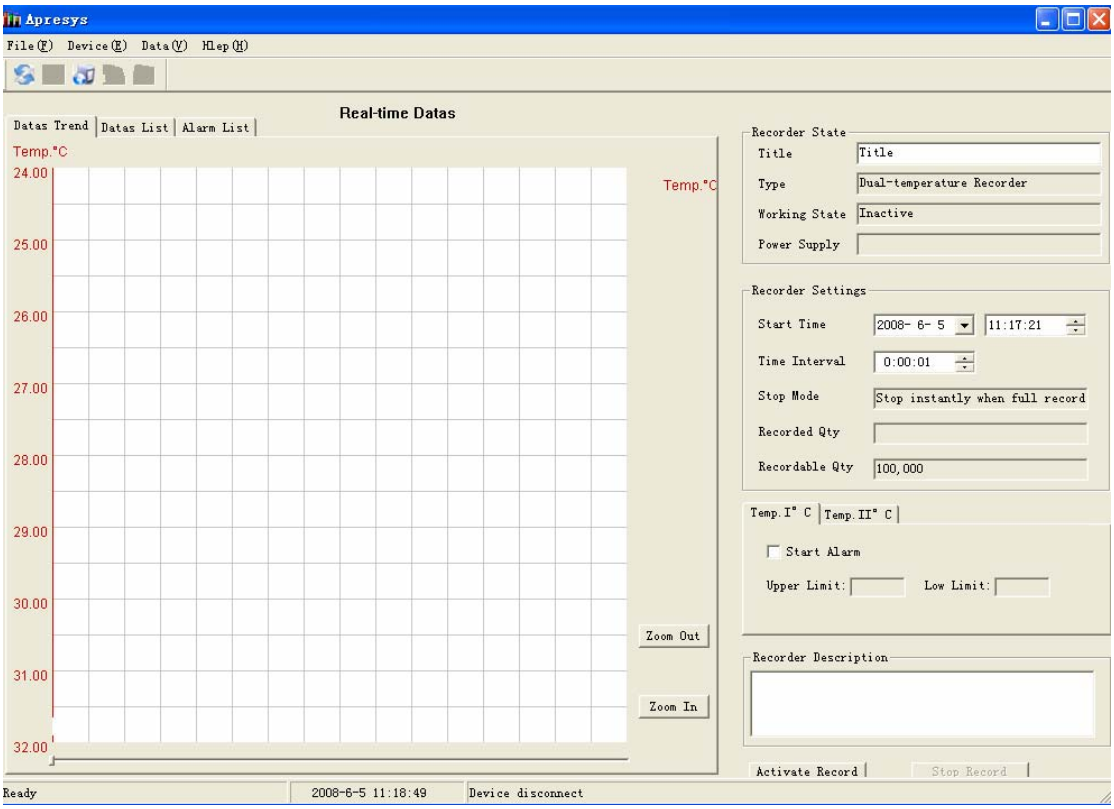
Click: 

You could run it from the CD or run from any path after copying the software.

Chapter Three:

Instructions for the Recording Instrument Software

Software Interface Instruction



Menu Bar

File(F) Device(E) Data(V) Help(H)

File: including 'open', 'save' and 'exit'.

Open: open the saved recording instrument files.

Save; save in APR, TXT or Excel format.

Exit: exit the recording instrument software.

Equipment: including 'connect instrument' and 'disconnect instrument'.

Connect instrument: establish the communication between the PC software and the recording instrument.

Disconnect instrument; disconnect the communication between the PC software and the recording instrument.

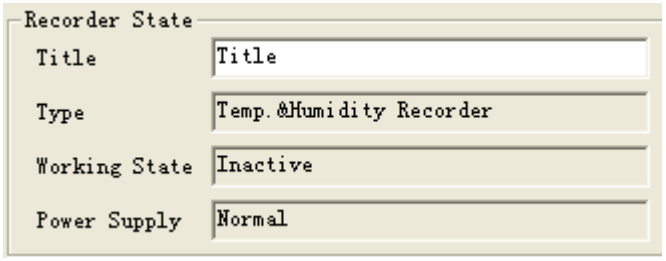
View: including 'toolbar', 'status bar', 'real time interface', historical data interface' and 'read historical data'.

Toolbar: show/hide toolbar.
Status bar: show/hide status bar.
Real time data interface: switch to real time data interface.
Historical data interface: switch to historical data interface.
Read historical data: read the recorded historical data in the instrument.
Help: Apresys Version Copyright (C) 2007.

Toolbar

Open: open recorded recording instrument files.
Save: save in APR, TXT or Excel format.
Connect instrument: connect the instrument to read instrument setting, historical data and boot logging.
Real time data interface: switch to real time data interface.
Historical data interface: switch to historical data interface.

Recording Instrument Status



Title: set/view the title of recorded data.
Instrument name: display instrument type.
Working status: display the recording status of the recording instrument.
Supply voltage: display if the voltage of the instrument battery is normal.

Recording Instrument Setting

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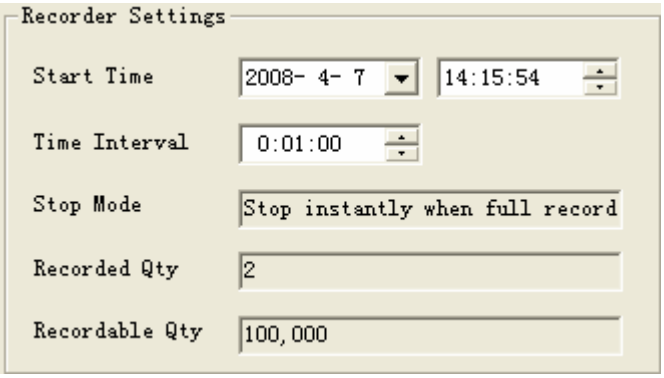
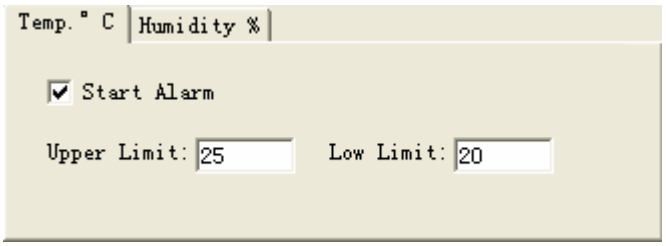


Starting time: display/set starting time.
Time interval: display/set recording time interval.
Stop mode: display the recording mode of automatic stop record.
Data volume used: display the data volume of record.
Available data volume: display the overall data volume that could be used in the further.

Alarm Setting



Temperature: temperature alarm setting
Humidity: humidity alarm setting
Start: select whether start alarm or not
Upper limit: set the upper limit of temperature/humidity
Lower limit: set the lower limit of temperature/humidity

Start/Stop

Start record: set the start record of the instrument
Stop record: set the immediate stop record of the instrument

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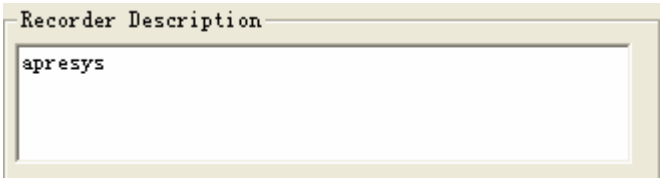
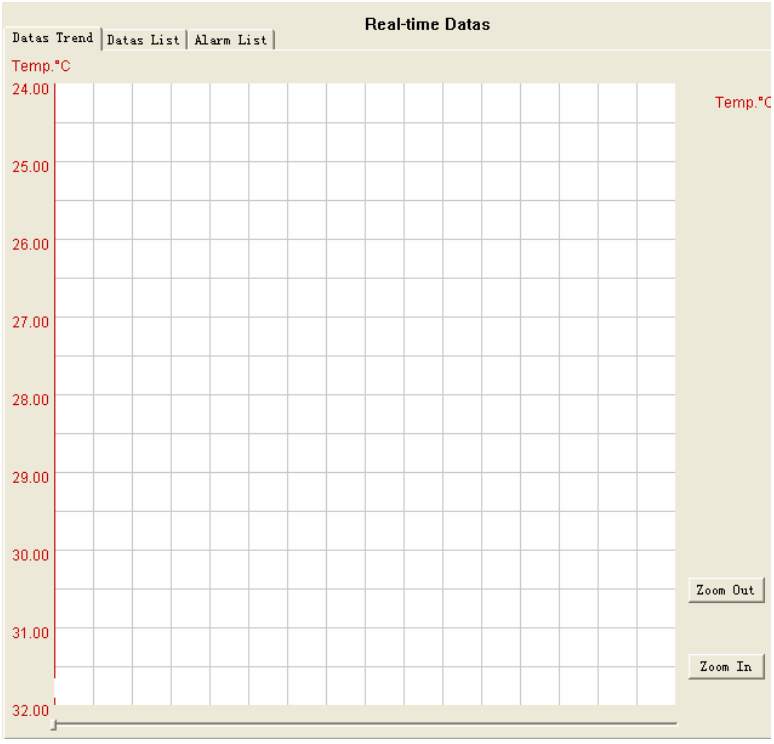
Description of the recording instrument



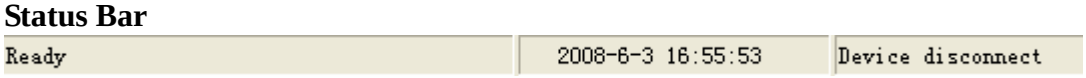
Could describe the function of the instrument

Introduction to Display/set Recorded Data



Data trend: display the graph of data trend
Data list: display the value of temperature/humidity
Alarm list: display if the temperature/humidity value exceeds the range of alarm temperature/humidity
Zoom in: zoom in the data graph
Zoom out: zoom out the data graph

Status Bar



Display software status, instrument status and current time

Operation flows of the recording instrument

Start instrument fast:

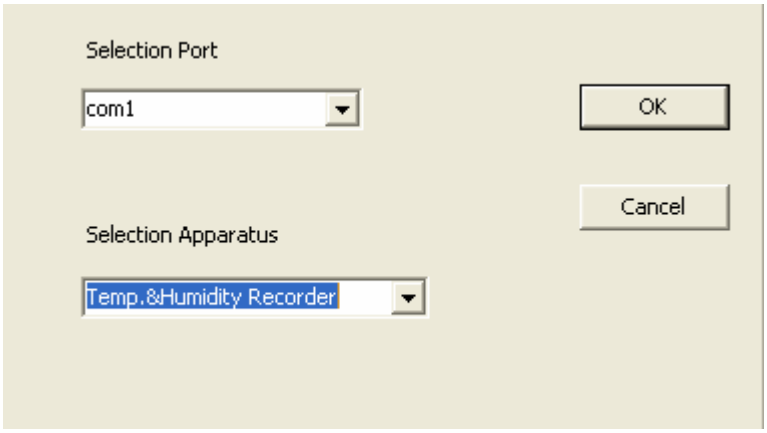
The function is uniquely designed by APRESYS with paten. You could start the instrument and record with the keypad without connecting any software. Press the OK button to open the LCD panel, and press 

the start record button for three seconds, after the 'Di' sound, you could see the figure of time interval blinks, press  the record interval adjustment button to adjust time interval to 1~60 minutes, after this, press  the OK button and the instrument starts recording.

Start Software

Connect Instrument

Connect one end of the communication cable of the accessories with the serial interface of the portable recording instrument, and the other end shall be connected with the RS232 serial interface of the computer. Double click Apresys.exe to run the instrument software. Select 'connect instrument' on the 'equipment' menu or 'connect instrument' on the toolbar. The following dialog box appears:



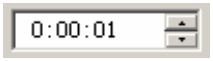
Select the port and instrument type according the serial port that the instrument is connected with and the instrument model, and then press the 'OK' button. After a few seconds, the instrument status progress bar on the status bar reaches 100%. You could check the current working condition of the instrument from the status bar, the instrument parameters set last time from the instrument setting, and the description of the last startup settings from the instrument description.

Set Instrument

The configurable instrument attributes are: Title of recorded data
Starting time
Time interval of recorded data
Alarm setting
Description of recorded data

Title of Recorded Data: write the title of recorded data (18 Chinese characters at most).

Starting time: Time interval of recorded data: press the up-down button to adjust time interval (range 1s-18h), as below:



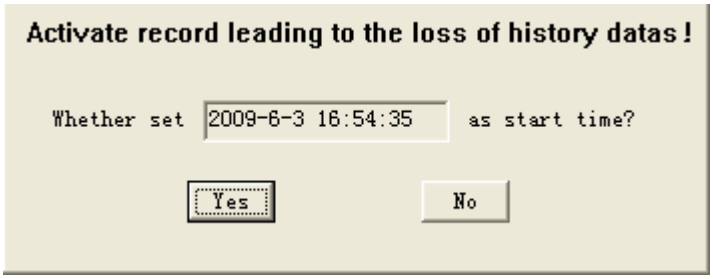
Alarm Setting: click the tab to select temperature or humidity alarm, adjust the upper/lower value of alarm temperature/humidity, tick the check box and select start alarm.

Note: the number range of temperature and humidity alarm is -40℃-100℃ and 1-99, respectively. The upper limit shall not be less than the lower limit.

Description of recorded data: you could write a short paragraph of descriptive words about the recorded data (30 Chinese characters at most).

Start Recoding

After the recoding instrument parameters are set, click the 'start recoding' button and the following dialog box appears:

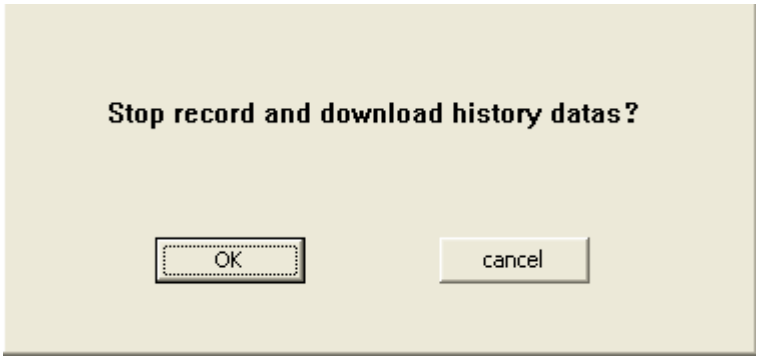


It hints that starting recording will lose history data, and displays starting time. Click the 'OK' button. After a few seconds the instrument status progress bar on the status bar reaches 100%.

Note: If the starting time is current time or past time, it will start recording right after you click the 'OK' button. If the starting time is future time, it will start recording at the set time after you click the 'OK' button.

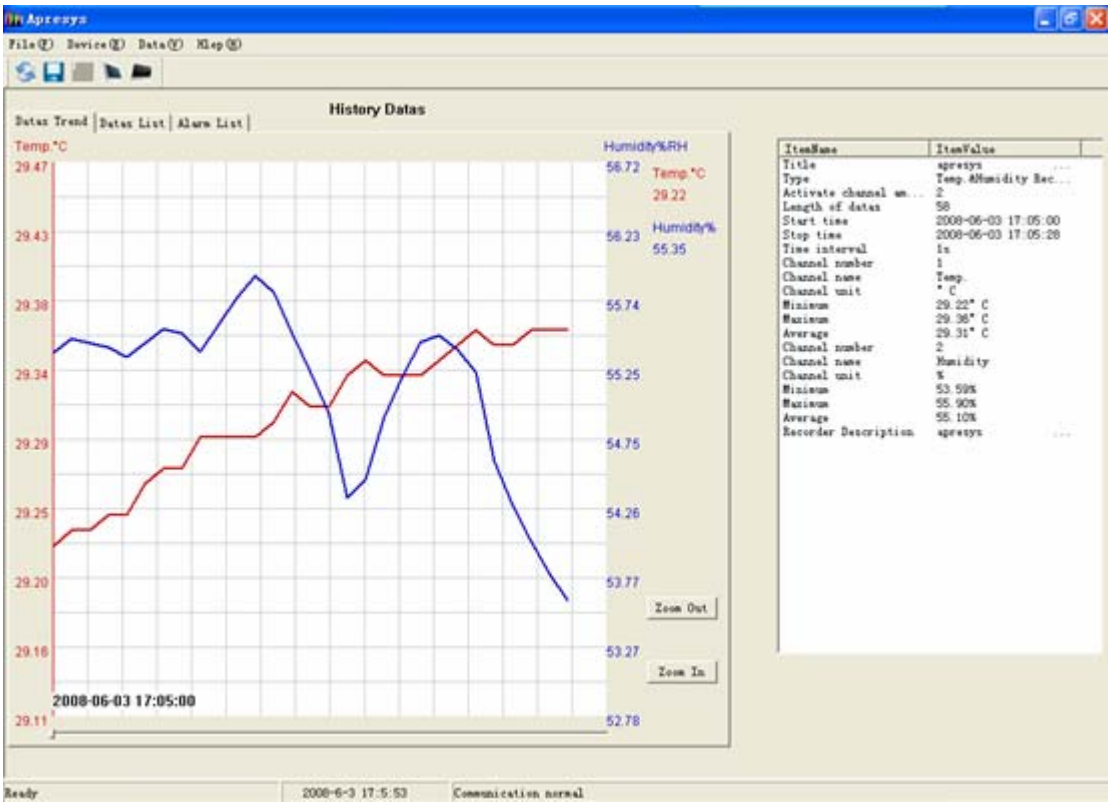
Read History Data

After recoding is completed, click ‘read history data’ and the following interface appears:



Click the ‘OK’ button, a blue tip bar, ‘reading history data’, appears in the lower right corner of the interface, please wait patiently (It takes about 8 minutes to read 100,00 sets of data) . When the recording instrument is recording, if you click the ‘OK’ button to read history data, the recoding instrument will stop recording.

After reading data is completed, it turns to history data interface, as shown below:



The history data interface has two areas: data area and information area.

Data Area

The data area has three tabs: data trend, data list and alarm list.

Data trend includes drawing area, zoom in button, zoom out button, scroll bar and coordinate system.

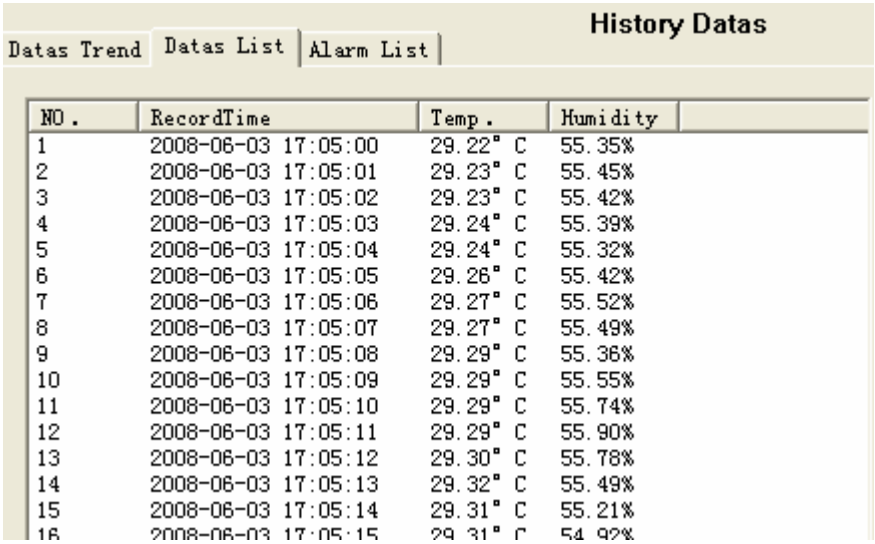
Drawing area: display the time-varying chart of temperature and humidity data, as shown above.

Zoom in button: zoom in the graph horizontally.

Zoom out button: zoom out the graph horizontally.

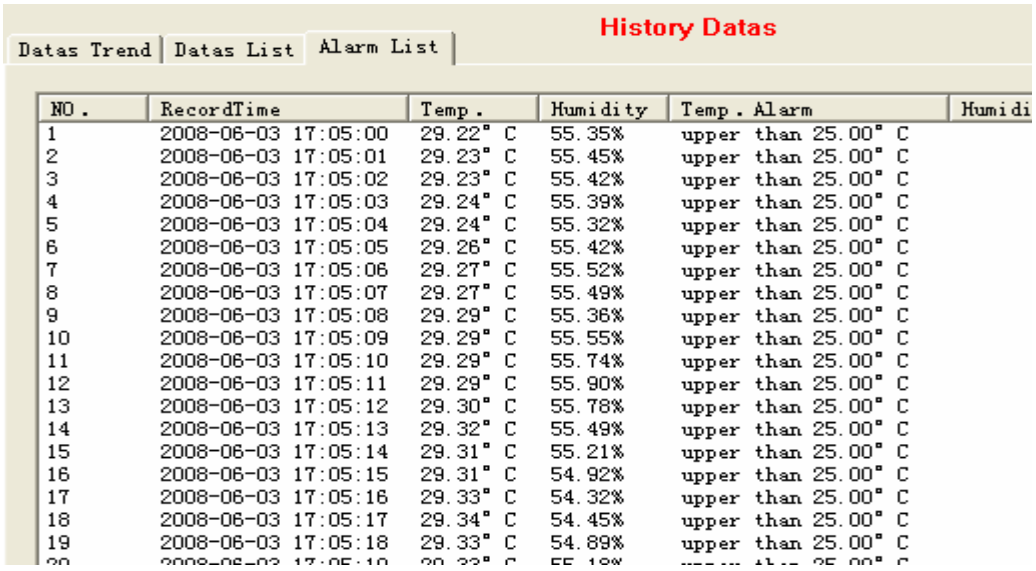
Coordinate system: display the temperature/humidity values along the grid line in the drawing area. The left is temperature values and the right is humidity values.

The data list displays the serial number, time, temperature value, humidity value of the data, as shown below:



NO.	RecordTime	Temp.	Humidity
1	2008-06-03 17:05:00	29.22° C	55.35%
2	2008-06-03 17:05:01	29.23° C	55.45%
3	2008-06-03 17:05:02	29.23° C	55.42%
4	2008-06-03 17:05:03	29.24° C	55.39%
5	2008-06-03 17:05:04	29.24° C	55.32%
6	2008-06-03 17:05:05	29.26° C	55.42%
7	2008-06-03 17:05:06	29.27° C	55.52%
8	2008-06-03 17:05:07	29.27° C	55.49%
9	2008-06-03 17:05:08	29.29° C	55.36%
10	2008-06-03 17:05:09	29.29° C	55.55%
11	2008-06-03 17:05:10	29.29° C	55.74%
12	2008-06-03 17:05:11	29.29° C	55.90%
13	2008-06-03 17:05:12	29.30° C	55.78%
14	2008-06-03 17:05:13	29.32° C	55.49%
15	2008-06-03 17:05:14	29.31° C	55.21%
16	2008-06-03 17:05:15	29.31° C	54.92%

Alarm list: while displaying data list, it could also display if the temperature exceeds the upper or lower limit of alarm temperature/humidity, as shown below:



NO.	RecordTime	Temp.	Humidity	Temp. Alarm	Humidi
1	2008-06-03 17:05:00	29.22° C	55.35%	upper than 25.00° C	
2	2008-06-03 17:05:01	29.23° C	55.45%	upper than 25.00° C	
3	2008-06-03 17:05:02	29.23° C	55.42%	upper than 25.00° C	
4	2008-06-03 17:05:03	29.24° C	55.39%	upper than 25.00° C	
5	2008-06-03 17:05:04	29.24° C	55.32%	upper than 25.00° C	
6	2008-06-03 17:05:05	29.26° C	55.42%	upper than 25.00° C	
7	2008-06-03 17:05:06	29.27° C	55.52%	upper than 25.00° C	
8	2008-06-03 17:05:07	29.27° C	55.49%	upper than 25.00° C	
9	2008-06-03 17:05:08	29.29° C	55.36%	upper than 25.00° C	
10	2008-06-03 17:05:09	29.29° C	55.55%	upper than 25.00° C	
11	2008-06-03 17:05:10	29.29° C	55.74%	upper than 25.00° C	
12	2008-06-03 17:05:11	29.29° C	55.90%	upper than 25.00° C	
13	2008-06-03 17:05:12	29.30° C	55.78%	upper than 25.00° C	
14	2008-06-03 17:05:13	29.32° C	55.49%	upper than 25.00° C	
15	2008-06-03 17:05:14	29.31° C	55.21%	upper than 25.00° C	
16	2008-06-03 17:05:15	29.31° C	54.92%	upper than 25.00° C	
17	2008-06-03 17:05:16	29.33° C	54.32%	upper than 25.00° C	
18	2008-06-03 17:05:17	29.34° C	54.45%	upper than 25.00° C	
19	2008-06-03 17:05:18	29.33° C	54.89%	upper than 25.00° C	

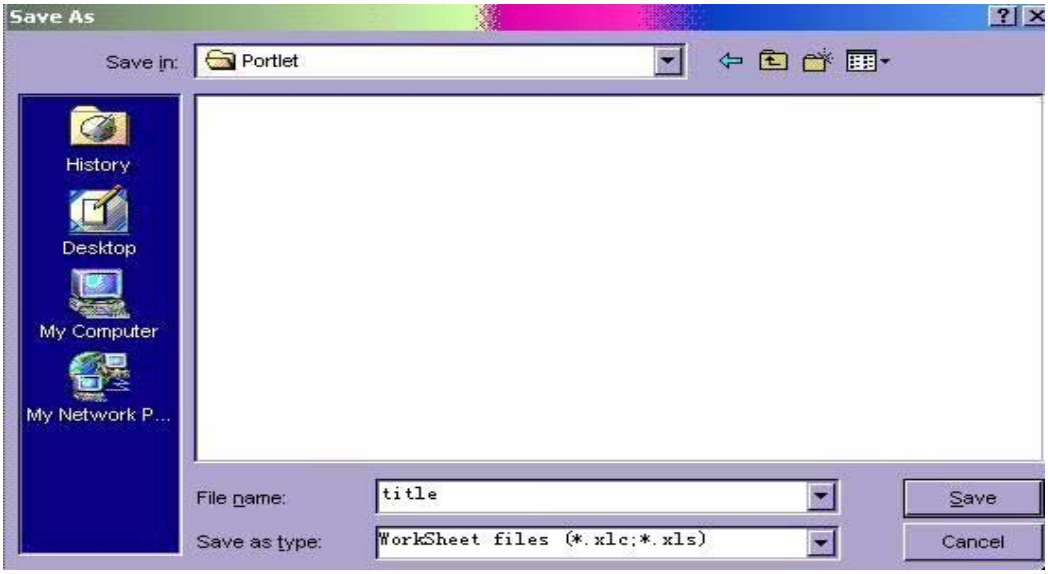
Data Information Area:

Data information area includes the title of the data record of this time, instrument name, number of channels, data length, starting time, stopping time, time interval, information about each channel, etc, as shown below:

ItemName	ItemValue
Title	apresys ...
Type	Temp.&Humidity Rec...
Activate channel am...	2
Length of datas	58
Start time	2008-06-03 17:05:00
Stop time	2008-06-03 17:05:28
Time interval	1s
Channel number	1
Channel name	Temp.
Channel unit	° C
Minimum	29.22° C
Maximum	29.36° C
Average	29.31° C
Channel number	2
Channel name	Humidity
Channel unit	%
Minimum	53.59%
Maximum	55.90%
Average	55.10%
Recorder Description	apresys ...

Save File

The software could only save history data. The data volume of unread data or record is 0 and the ‘save’ button is not available. After data is read, select the ‘save’ button on the ‘file’ menu or click ‘save’ on the tool bar, and the following dialog box appears:



The exported data have three formats: Apr format, txt format, xlc spreadsheet.

Apr format: Apresys.exe software format.

Txt format: text and document format could be open by text editor.

Xlc spreadsheet: this format could be open by Excel.

Chapter Four: Trouble Shooting

FAQ		Solution
1	Hint 'Couldn't find the equipment'	Check if the data-port line is connected tightly or the selection of port is right.
2	Hint 'the instrument is mismatching'	Wrong recording instrument model, please select correct product model.
3	Software setting is completed, but the interface is still in original status.	Disconnect the instrument and reconnect the instrument, namely complete refresh and then it displays the latest status.
4	The instrument beeps constantly	Temperature or humidity exceeds the limit, you could press the OK button on the instrument to temporarily cancel, after 4 minutes, start again and see if it exceeds again.