ElitechLog Data Management Software

User Manual

Nov. 2017

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I Introduction

1.1 Overview

ElitechLog Data Management Software is used to analyze and manage the data of Elitech temperature and humidity data loggers.

It integrates the most dependable temperature and humidity sensing measurement technology and the most advanced system kernel to date. Characterized of reliable data, sensitive reaction, strong functions, simple operation, etc., it helps the user track and collect temperature and humidity data of sensitive products timely and accurately in their testing, production, transport and storage, so that the whole cold chain can be monitored and traced with product safety guaranteed.

1.2 Data logger models supported

1. USB data loggers:

   LogEt 6, LogEt 8F/S, MSL-51/51H, RC-18/19, RC-51/51H, RC-55, RC-5+, TemLog20, TemLog20H, TemLogST5.

2. Com data loggers:

   GSP-6, RC-4, RC-4HA/C, RC-5, RC-61.

1.3 Installation environment requirements

MAC OS X10.10 or above

1GB free disk space

Computer administrator account

II Install & Start

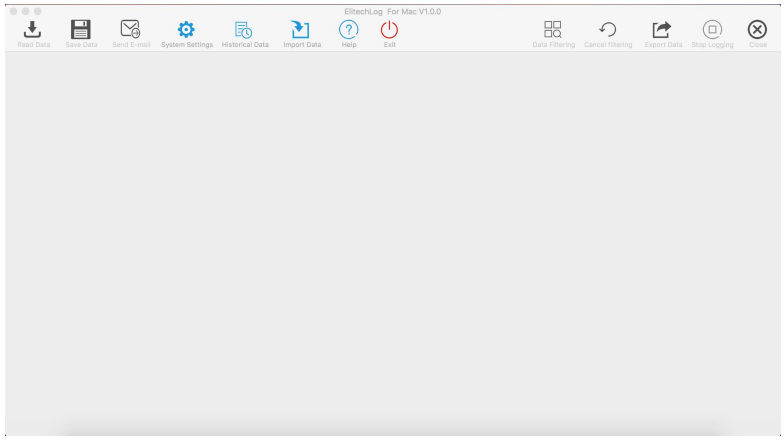
2.1 Install

Double-click the Setup to install the software. USB data loggers can be directly used. COM data loggers can connect to this software after the driver is installed. Please find the COM driver in the download package and install it.

2.2 Start

After the software is successfully installed, the following icon will appear on the computer desktop:

Double-click the icon to open the software and its main interface is as follows:



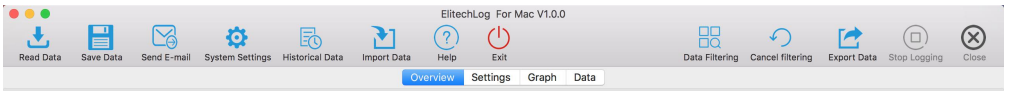
2. 3

Uninstall

Open the Finder in your MAC and access applications. Select ElitechLog and move it to Trash.

III Functions

3.1 Toolbar



[Upload] When the data logger is connected to a computer, the software will automatically read and unload the data in the logger.

[Overview] After successfully uploading the data, the software will show the logger's basic information, statistical results and alarm status.

[Settings] After the data logger is successfully connected to a computer, users can set its parameters, including log interval, start delay, trip code, trip description and alarm settings.

[Graph][Statistics] It contains three parts: graph, table and summary. The data uploaded from the logger will be shown here, so is historical data to be compared. Graph is drawn based on the data. The table will display all the data, including serial number, time, temperature or humidity. Summary presents parameters and data of one or more loggers in column, so data from different loggers can be listed and compared visually here.

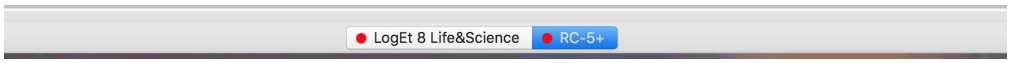
[Database] The data upload from the logger is automatically saved to the database, so users can view the data of the logger anytime. Data can also be filtered and screened as needed. Default display is one month's data recently. Users can also view data of a selected time range, filter alarm data, drag and select multiple lines of data. The data of multiple devices can be viewed and compared at the same time. It supports multi-graph drawing, parameter comparison and other functions.

[Import] Custom format data files can be imported to facilitate multi-user data sharing and viewing.

[E-mail] Data can be sent by email. This function allows the data in the currently displayed graph to be exported automatically to PDF and Excel format files, which can be sent to user specified mailbox.

[System] Users can customize date format. Once the settings saved, the new format will be synchronized and data displayed in the new format. Users can set the parameters of the mailbox, including SMTP server address, sender's mailbox account, and recipients' mailbox.

3.2 Status bar



[Connection status] When the data logger is connected to a computer, its status bar will display the logger model.

IV Upload Data

4.1 Connect data logger

[Operation] Please connect the data logger to a computer before uploading data.

[Function] Multiple data loggers can be connected to the software at a time. It does not suggested doing this.

4.2 Read data in the logger

[Operation] Click the "Upload" button on the toolbar to read and upload the data in the logger.

[Function] If the data logger is connected for the first time, the software will automatically read and upload the data. Later users can also re-read the data.

4.3 Store data

[Operation] Click "Upload".

[Function] After load successfully, the data will be saved to the database automatically. The data can be viewed in "Database" interface.

V Overview

5.1 Device information

[Serial number] The unique code of the logger. It cannot be changed.

[Log interval] The interval time that the logger collects and records a point of data.

[Device status] The current working status of the logger.

[Trip code] User-created code, used to identify each task.

[Trip description] A brief description of the task.

[Start delay] The wait time from the logger started to the first reading saved.

[Start mode] The mode the logger to be started, including manual start, timing start, immediate start.

[Software version number] The logger's internal program version number.

[Repeated start] The logger is started repeatedly, and the previously recorded data is cleared after a new startup.

[Allow pause] During recording, temperature/humidity collection and storage is suspended.

[Temporary report] Whether the PDF report is allowed to be generated after the logger is inserted into the computer during recording.

5.2 Statistical information

[Memory] Maximum amount of data the logger can store.

[Total points] The amount of readings the software reads from the logger.

[Start time] The time when the logger starts running.

[First record] The time when the first point is recorded.

[Last record] The time when the last point is recorded.

[MKT] Average kinetic temperature value.

[Run time] The total time that the logger keeps recording.

[Stop mode (actual)] The logger's actual stop mode, including temporary stop, stop via software, manual stop, etc.

[Stop mode (set)]The set stop mode, including stop via software, manual stop.

[Max] The maximum value among the recorded temperature and humidity readings.

[Min] The minimum value among the recorded temperature and humidity readings.

[Average] The average value of the recorded temperature and humidity readings.

[First alarm] The recorded time when the first out-of-limit alarm is triggered.

5.3 Alarm information

[Alarm value] The alarm setpoint of the logger (temperature / humidity)

[Alarm delay] If the specified time when the measured temperature exceeds the alarm setpoint elapses, the alarm will be triggered.

[Alarm type]The set alarm type of the logger (single / cumulative).

[Overrun time] The cumulative time of out-of-limits readings.

[Overrun times] The number of out-of-limits readings.

[Status] The status of the logger in each alarm zone.

VI Parameter Settings

6.1 Device parameters

[Serial number(No.)] The unique code of the logger. It cannot be changed.

[Log interval] The interval time that the logger collects and records a point of data. It can be configured per day or time.

[Trip code] User-created code, used to identify each task.

[Trip description] A brief description of the task. 100 characters or numbers.

[Start mode] The mode the logger to be started, including manual start, timing start, immediate start. When timing start is set, start time choice box is available.

[Start delay] The wait time from the logger started to the first reading saved. When manual start is selected, start delay choice box is available.

[Timing start] The logger starts running at the specified time. When timing start is selected, timing start selection box is available.

[Stop mode] The way that the logger is stopped: manually, or via software.

[Repeated start] The logger is started repeatedly, and the previously recorded data is cleared after a new startup.

[Allow pause] During recording, the temperature and humidity collection and storage are suspended.

[Temporary report] Whether the PDF report is allowed to be generated after the logger is inserted into the computer during recording.

[Cyclic overwritten] When the data memory is full new data automatically replaces the oldest readings.

[PDF language] The PDF report generated is in English / Chinese.

[Temperature unit] In Celsius or Fahrenheit.

6.2 Alarm parameters

[Alarm mode] No alarm, upper / lower limit alarm, more upper / lower limit alarm zones optional.

[Alarm value] Alarm setpoint; temperature range: -40℃ ~ 90 ℃; humidity range: 0% ~ 100%.

[Alarm type] Single type and cumulative type are optional.

Single type: Temperature/Humidity is above or below the alarm threshold and its duration is not less than the alarm delay, alarm will be triggered.

Cumulative type: Temperature/Humidity is above or below the alarm threshold and its cumulative time is not less than the alarm delay, alarm will be triggered.

[Alarm delay] The time when temperature / humidity value exceeds the alarm setpoint until the alarm event is triggered.

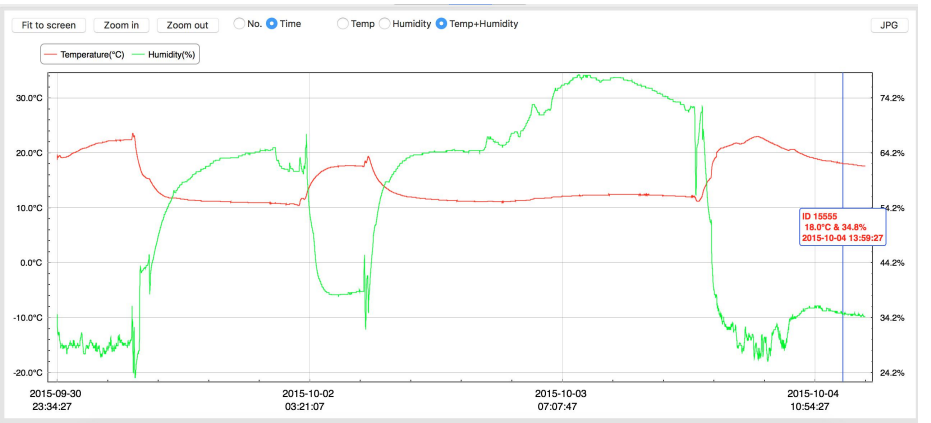
6.3 Parameter template

[Export template] The parameter values in current page are saved as a file.

[Import template] Reads the specified parameter template file and loads the parameter values in the file into the interface.

VII Statistics

7.1 Graph

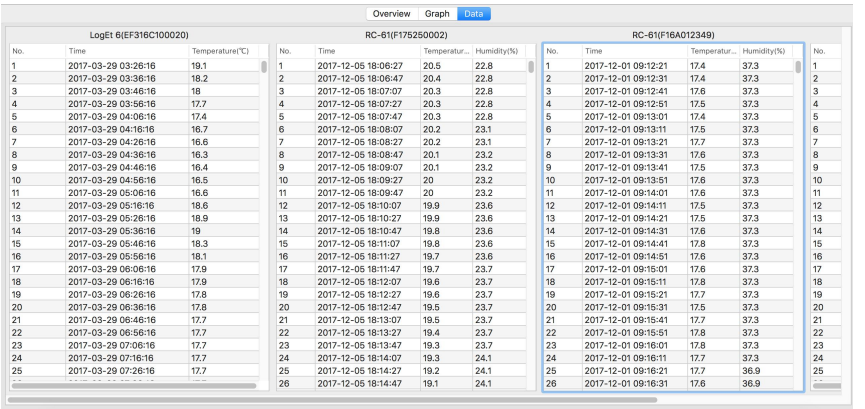


[Operation] Click the "Graph" tab and select No..

[Function] The graph is used to display currently selected data of the logger. It can be the data of a currently connected logger or the historical data stored in the database. 10 data curves can be displayed at the same time for users to compare the temperature and humidity changes. The Y-axis on the left side of the graph shows the temperature scale value and the right Y-axis shows the humidity scale value. The X-axis shows the logger's time or reading’s No.

[Toolbar] The graph supports zoom and drag functions, allowing the user to zoom in, zoom out, and drag the curve by clicking the button in the upper left corner. The curve can be restored to its original state at any time after operation.

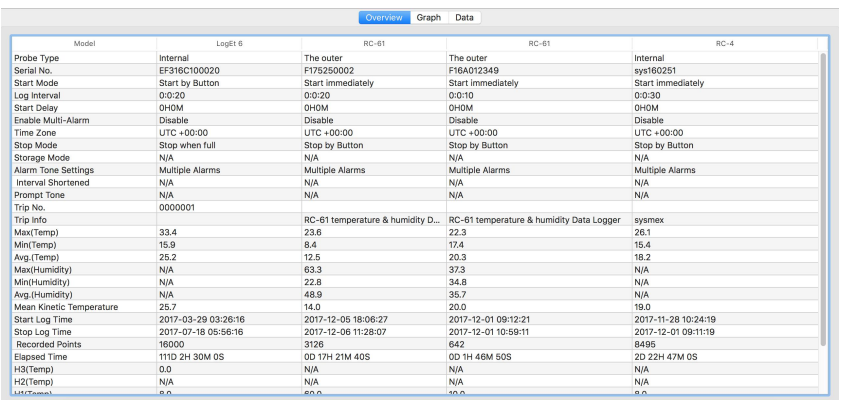
7.2 Table



[Operation] Click the "Table" tab.

[Function] The data table is used to display currently selected data of the logger. It can be the data of a currently connected logger or the historical data stored in the database. Data from multiple devices can be viewed for users to compare the detailed data of more loggers. The title on top of the table is used to display the device model and trip code corresponding to the current data. The data table is divided into three to four columns, including serial number, time, temperature and humidity (optional). Normal temperature and humidity data is marked in black, overrun value in red, and USB value in gray.

7.3 Summary

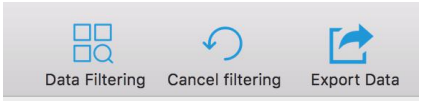


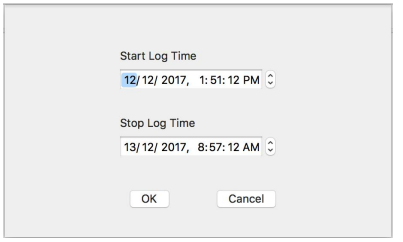
Model	LogEt 6	RC-61	RC-61	RC-4
Probe Type	Internal	The outer	The outer	Internal
Serial No.	EF316C100020	F175250002	F16A012349	sys160251
Start Mode	Start by Button	Start immediately	Start immediately	Start immediately
Log Interval	0:0:20	0:0:20	0:0:10	0:0:30
Start Delay	0H0M	0H0M	0H0M	0H0M
Enable Multi-Alarm	Disable	Disable	Disable	Disable
Time Zone	UTC +00:00	UTC +00:00	UTC +00:00	UTC +00:00
Stop Mode	Stop when full	Stop by Button	Stop by Button	Stop by Button
Storage Mode	N/A	N/A	N/A	N/A
Alarm Tone Settings	Multiple Alarms	Multiple Alarms	Multiple Alarms	Multiple Alarms
Interval Shortened	N/A	N/A	N/A	N/A
Prompt Tone	N/A	N/A	N/A	N/A
Trip No.	0000001			
Trip Info		RC-61 temperature & humidity D...	RC-61 temperature & humidity Data Logger	sysmex
Max(Temp)	33.4	23.6	22.3	26.1
Min(Temp)	15.9	8.4	17.4	15.4
Avg.(Temp)	25.2	12.5	20.3	18.2
Max(Humidity)	N/A	63.3	37.3	N/A
Min(Humidity)	N/A	22.8	34.8	N/A
Avg.(Humidity)	N/A	48.9	35.7	N/A
Mean Kinetic Temperature	25.7	14.0	20.0	19.0
Start Log Time	2017-03-29 03:26:16	2017-12-05 18:06:27	2017-12-01 09:12:21	2017-11-28 10:24:19
Stop Log Time	2017-07-18 05:56:16	2017-12-06 11:28:07	2017-12-01 10:59:11	2017-12-01 09:11:19
Recorded Points	16000	3126	642	8495
Elapsed Time	111D 2H 30M 0S	0D 17H 21M 40S	0D 1H 46M 50S	2D 22H 47M 0S
H3(Temp)	0.0	N/A	N/A	N/A
H2(Temp)	N/A	N/A	N/A	N/A

[Operation] Click the "Summary" tab to enter the statistical information interface

[Function] It shows the parameters of multiple devices, unavailable parameters displayed in gray.

7.4 Data filtering

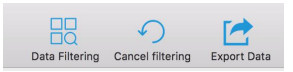


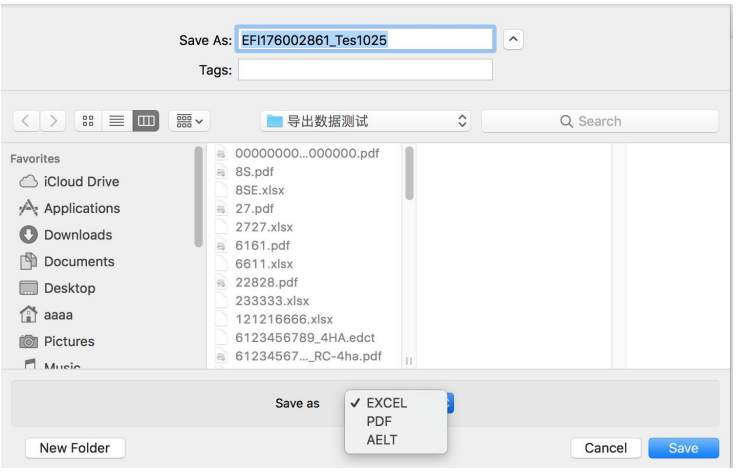


[Operation] Click the "Filter data" button on top right to pop up the filter data dialog box.

[Function] Select "Start time" and "End time", and click "OK", the software will automatically filter the data within specified time period. After data filtered, the software will automatically redraw the graph, table, and statistics.

7.5 Export data



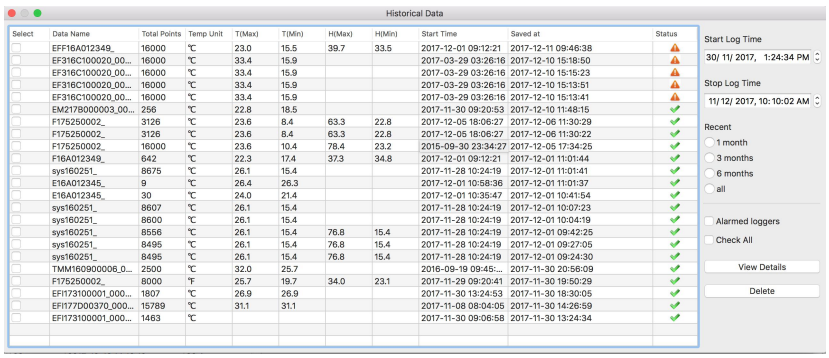


[Operation] Click the "Export Data" button on top right to pop up the data export dialog box.

[Function] It can export PDF, Excel and AELT (custom format) files.

VIII Database

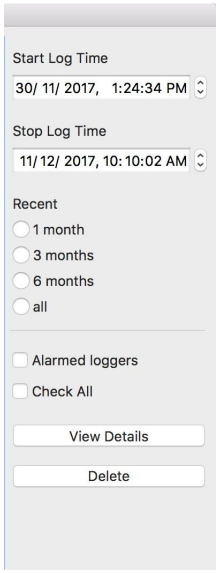
8.1 Historical data table



[Operation] Click the "Database" button on the toolbar to enter the historical data query interface.

[Function] The data read in the logger is automatically saved to the database, so users can view the data in the logger anytime. Data can also be filtered and screened as needed. Default display is one month's data recently. Users can also view data of a selected time range, filter alarm data, drag and select multiple lines of data. The data of multiple devices can be viewed and compared at the same time. It supports multi-graph drawing, parameter comparison and other functions.

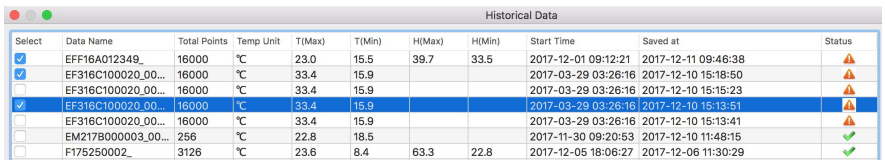
8.2 Screen data



[Operation] Click "Start time" or "End time"

[Function] Default display is the historical data of the past month. Users can also select the data of past three or six months. After the specified time period is selected, the software will automatically filters out the historical data for that time period and displays the data in the table.

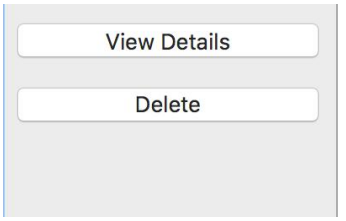
8.3 Select data line



[Operation] Click the first column on the left side of the data table to select the data line, or hold down the mouse to drag multiple lines of data.

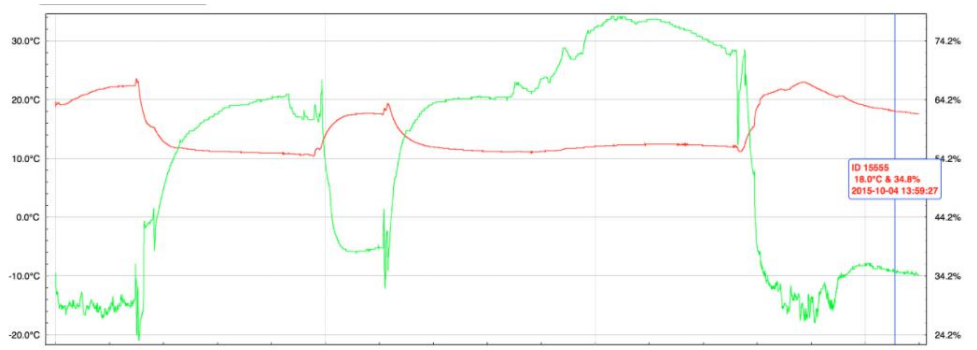
[Function] It is used to view the records of multiple devices, or delete the selected data line. Up to 10 records can be viewed and compared at the same time. There is no limit of the number of lines when deleting records.

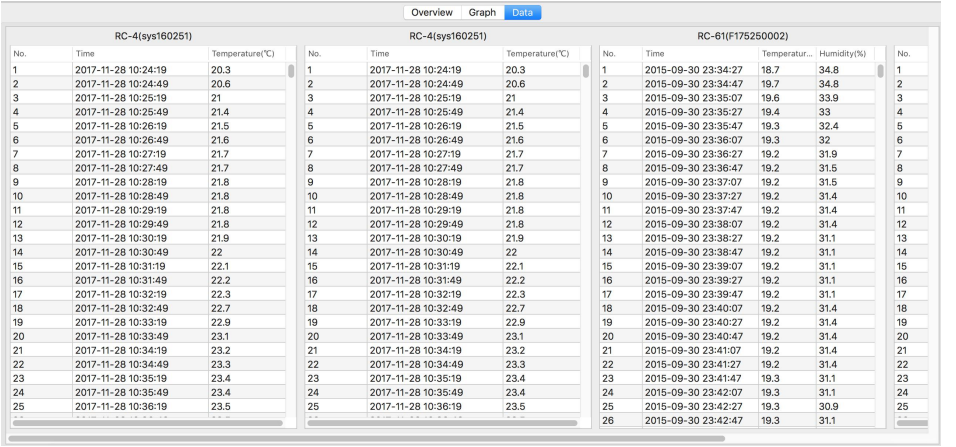
8.4 View details



[Operation] Click the "View details" button in the right sidebar to view the data details of the device.

[Function] It is used to display the detailed information of the selected device including parameter information and data records as follows:

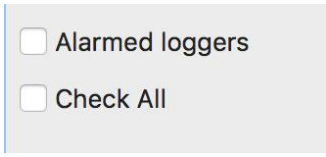




No.	Time	Temperature(℃)
1	2017-11-28 10:24:19	20.3
2	2017-11-28 10:24:49	20.6
3	2017-11-28 10:25:19	21
4	2017-11-28 10:25:49	21.4
5	2017-11-28 10:26:19	21.5
6	2017-11-28 10:26:49	21.6
7	2017-11-28 10:27:19	21.7
8	2017-11-28 10:27:49	21.7
9	2017-11-28 10:28:19	21.8
10	2017-11-28 10:28:49	21.8
11	2017-11-28 10:29:19	21.8
12	2017-11-28 10:29:49	21.8
13	2017-11-28 10:30:19	21.9
14	2017-11-28 10:30:49	22
15	2017-11-28 10:31:19	22.1
16	2017-11-28 10:31:49	22.2
17	2017-11-28 10:32:19	22.3
18	2017-11-28 10:32:49	22.7
19	2017-11-28 10:33:19	22.9
20	2017-11-28 10:33:49	23.1
21	2017-11-28 10:34:19	23.2
22	2017-11-28 10:34:49	23.3
23	2017-11-28 10:35:19	23.4
24	2017-11-28 10:35:49	23.4
25	2017-11-28 10:36:19	23.5

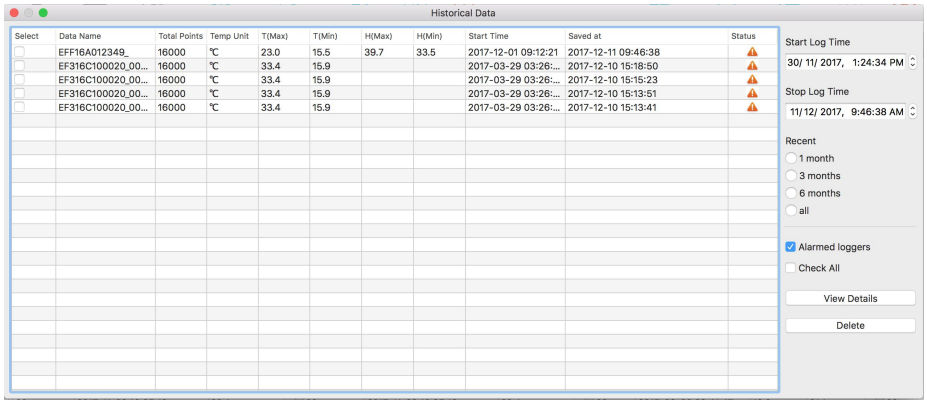
No.	Time	Temperatur...	Humidity(%)
1	2015-09-30 23:34:27	18.7	34.8
2	2015-09-30 23:34:47	19.7	34.8
3	2015-09-30 23:35:07	19.6	33.9
4	2015-09-30 23:35:27	19.4	33
5	2015-09-30 23:35:47	19.3	32.4
6	2015-09-30 23:36:07	19.3	32
7	2015-09-30 23:36:27	19.2	31.9
8	2015-09-30 23:36:47	19.2	31.5
9	2015-09-30 23:37:07	19.2	31.5
10	2015-09-30 23:37:27	19.2	31.4
11	2015-09-30 23:37:47	19.2	31.4
12	2015-09-30 23:38:07	19.2	31.4
13	2015-09-30 23:38:27	19.2	31.1
14	2015-09-30 23:38:47	19.2	31.1
15	2015-09-30 23:39:07	19.2	31.1
16	2015-09-30 23:39:27	19.2	31.1
17	2015-09-30 23:39:47	19.2	31.1
18	2015-09-30 23:40:07	19.2	31.4
19	2015-09-30 23:40:27	19.2	31.4
20	2015-09-30 23:40:47	19.2	31.4
21	2015-09-30 23:41:07	19.2	31.4
22	2015-09-30 23:41:27	19.2	31.4
23	2015-09-30 23:41:47	19.3	31.1
24	2015-09-30 23:42:07	19.3	31.1
25	2015-09-30 23:42:27	19.3	30.9
26	2015-09-30 23:42:47	19.3	31.1

8.5 Display alarm data

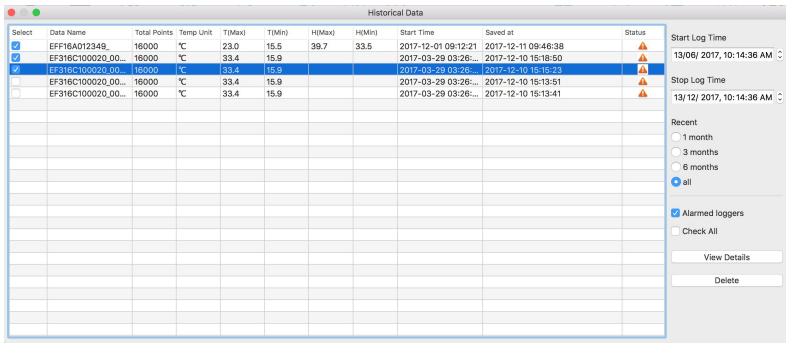


[Operation] Check the "Alarmed device" checkbox in the right sidebar to view only the data of the alarmed device.

[Function] "Alarmed device" is used to quickly view the device that has alarm triggered.



8.6 Delete data

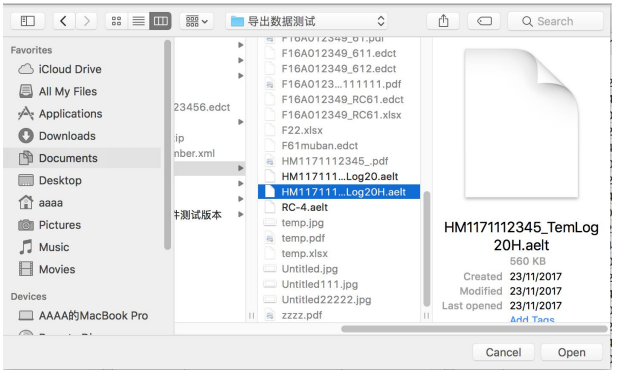


[Operation] Click the "Delete" button in the right sidebar to delete the selected data.

[Function]First click on the blank in the first column on the left side of the data table to select the data to be deleted. Then click the "Delete" button on the right sidebar, the software will prompt the user "whether to delete the data." After confirmed, the data will be deleted and cannot be recovered.

IX Import Data

9.1 Instruction



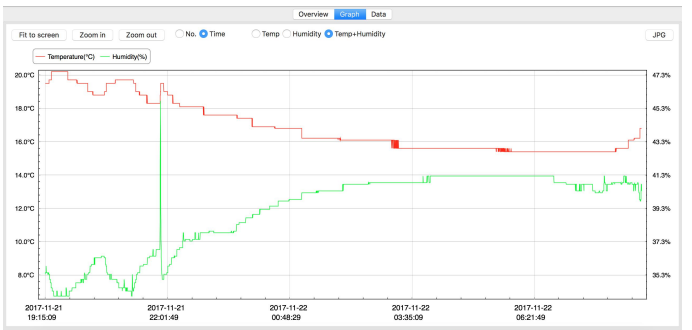
[Operation] Click the "Import" button on the toolbar to pop up the Select File dialog box.

[Function] It is used to share data between multiple computers with "Data Management Software" installed. Users can import the previously exported ELT format data file into the software. The software will automatically analyze the imported data and display it in the "Statistics " interface, drawing graphs, tables and showing summary.

9.2 View imported data

[Operation] After the data imported, it will automatically skip to the "Statistics" interface.

[Function] After analysis, the imported data is shown as below:



X Send E-mail

10.1 Instruction

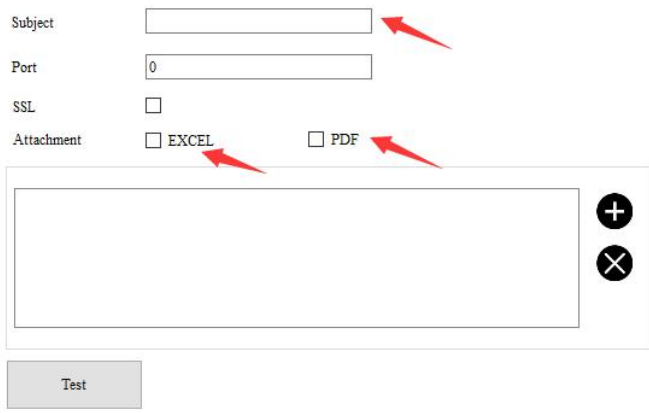
[Operation] Click the "E-mail" button on the toolbar.

[Note] Data can be sent by mail. This function allows the data in the currently displayed graph to be exported automatically to PDF and Excel format files, which can be sent to user specified mailbox.

10.2 Mail information

[Operation] The contents of the mail include subject, PDF, EXCEL, etc.

[Function] The mail can be sent only when mail parameters are set in "System ". If you do not want to send the PDF or EXCEL file, please do not check it.

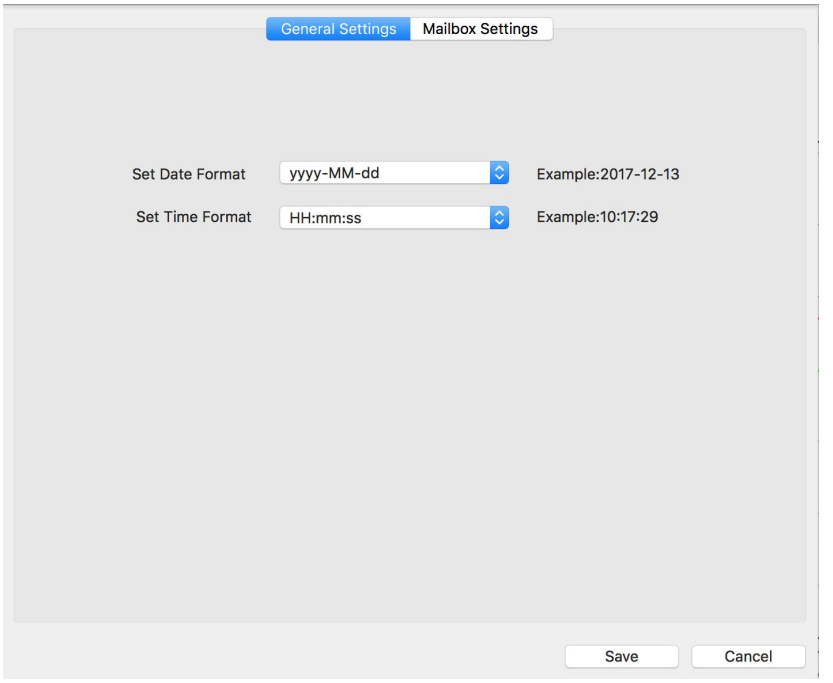


XI System Settings

11.1 Basic settings

[Operation] Click the "System" button on the toolbar.

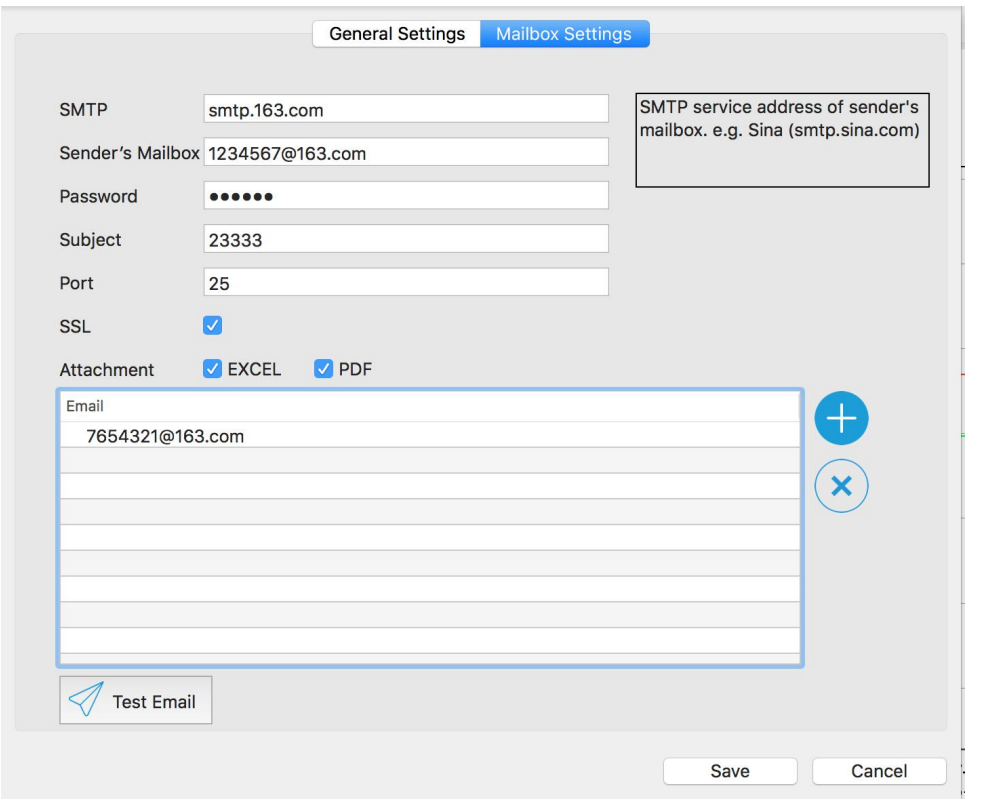
[Note] It includes setting the date and time format of the software. Click the drop-down box of the date or time format and select the desired format. When selected, an example of the corresponding format will show itself. Click "Save", the latest date and time format will be automatically updated for your use next time.



11.2 Set mailbox parameters

[Operation] Click the "Mailbox" tab.

[Function] Before sending mail, users need to configure the mailbox parameters first, including the mailbox SMTP service address and port (default port 25), sender account password, mail subject, recipients' mailbox list and other information. Click "Save" after setting parameters. Then the mail can be sent. Click "Test mail" to check whether the parameters are correct and mail can be sent.



XII Q & A

1. The data logger cannot be connected?

Check if the computer USB port is available. If you are using a USB extension cable to connect the logger, make sure that USB can be read. If the cable is too long, the logger may not be connected successfully.

2. After the logger inserted, the software will pop up a prompt to enter password?

After the logger is connected to the computer, the software will automatically read the data of the logger. If the password is configured before the logger is started, the software will pop up a prompt to enter the password. If the password is forgotten, please check with the administrator who configured the logger.

3. It always prompts error when saving the data?

Check if the computer's disk space where the software is installed runs out.

4. Mail is not sent successfully when mailbox parameters have been set?

a) Please open the "System" interface, double check if the mail parameters are set correctly, including whether the SMTP address and port is consistent with that of the mailbox service provider. Please open your mail to check whether the mailbox service provider opened the SMTP service. If not, please contact your mail service provider to make sure you can use the SMTP service. If the SMTP configuration is incorrect, the mail cannot be sent.

b) Please check whether you entered a correct mail account and password. The mail cannot be sent from a wrong account.

c) If the mail parameters are confirmed correct, click “test mailbox” to make sure the mail can be sent.

5. The data cannot be read after the logger connected?

The logger is connected, but the software cannot read the data. Please check whether the status bar shows the logger model. If not, the logger is connected incorrectly. Please check whether the USB port is available or the cable is available (COM data loggers can connect to this software after the driver is installed. Please find the COM driver in the download package and install it.). If OK, please check if the

logger is damaged.

6. The software cannot be installed normally?
Please check whether the disk space where the software is installed runs out.

7. Errors always occur when the data is being read?
Please check if the USB port is loose and the cable is too long.

Version Log

Version	Date	Description	
V1.0	2017-12-20	The first version	