# Temp (RH) Management Software

——User manual

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# **Overview**

Temp (RH) Data Management Software is used for the analyzing and managing of the temperature and humidity data recorded by our company data logger.

Integrates the most reliable temperature and humidity sensor measurement technology and the most advanced system kernel at present. It has the characteristics of reliable data, sensitive response, powerful functions, and easy operation. Temperature and humidity data during production, transportation, and storage, to achieve the programmable monitoring and traceability of the entire cold chain process, to ensure product safety.

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# I. Software requirements

# 1. Installation Environment requirements

#### Software requirement:

(If you do not have the following prerequisite software, please click here to view and download and install it.)

Operating system: Windows 10 or newer.

Microsoft .NET Framework 4.0 or higher.

Computer administrator account.

#### Hardware requirement:

1) CUP: 1GHz or more.

2) Memory: 2GB or higher.

3) Hard Disk: 1GB or higher.

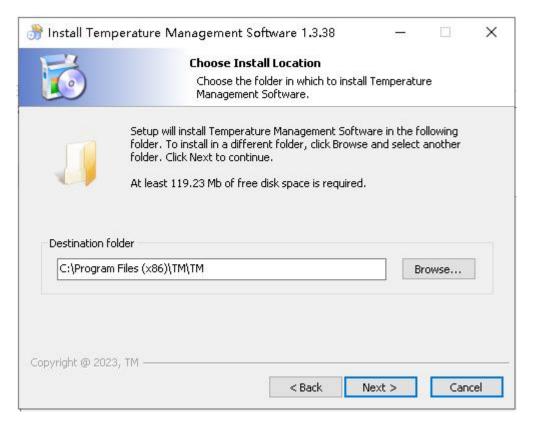
4) Monitor: Display resolution is 1366 x 768 pixels or higher.

5) USB: 2.0 or higher.

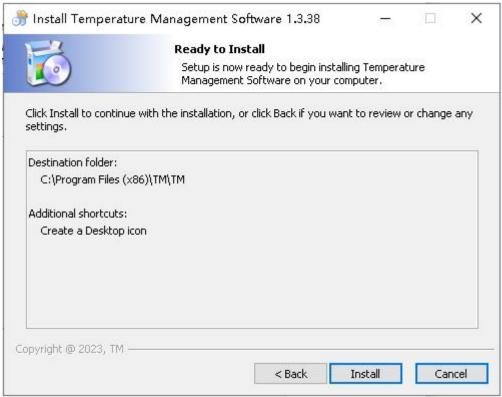
## II. Install & Start

Double click installer to start installation. The installation steps are as follows:

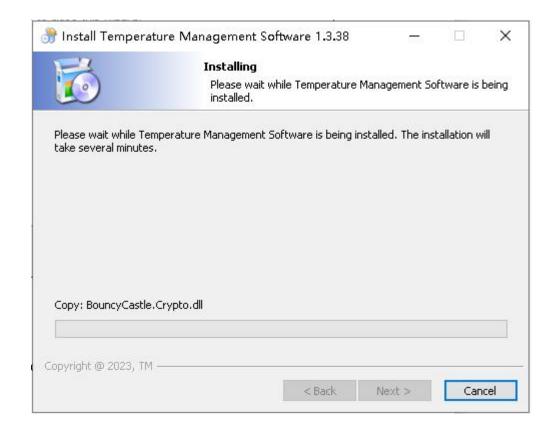
1) Choice Install Location.



2) Click the "Install" button, the installation program will install the "temperature and humidity management software" to your computer.



3) Click Finish and installation completes.

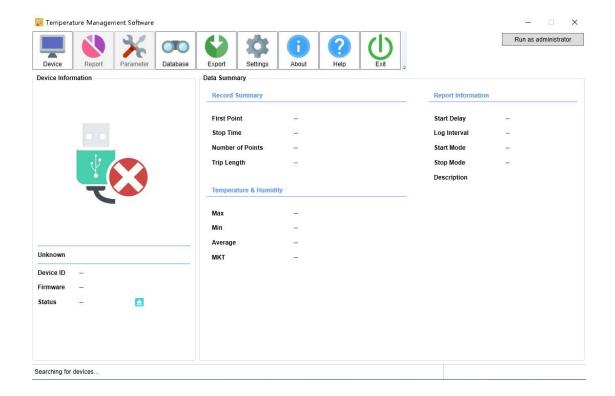


## 1. Start

After successful installation, you can find the software icon on the desktop of the computer as shown below.



After double-clicking the icon to open the software, the main interface of the software is as follows:



#### 2. Uninstall

Open Windows Control Panel, Programs and Features and find the "Temp (RH) Management Software" uninstaller.

### III. Functions

#### 1. Toolbar



#### 1) Device

After the user connects the data logger to the computer, the software will automatically read the data in the logger. After successfully reading the data of the logger, the software will display the device information of the logger in the summary information interface. At the same time, calculate and summarize the read data and display statistical results.

#### 2) Report

The data chart includes graph and data table, and the data will be displayed here

after reading the data by connecting the logger. Or draw the data from the historical data for comparison and display. The graph is plotted according to the data. The data table will show all the data including serial number time and temperature or humidity.

#### 3) Parameter

After the user successfully connects the logger to the computer, you can set the parameters of the logger here. Including: Recording interval, Startup delay, time trip description and alarm settings etc.

#### 4) Database

Read the logger data will be automatically saved to the database, the user can view the data in the logger at any time. Data can also be filtered as needed. You can select the time range to view the data, support filtering alarm data, The data can be viewed and compared at the same time, Supporting multiple graph drawing, parameter comparison and other function.

#### 5) Export

The imported data supports the processing of custom format data files, which is convenient for multi-user data share, view and print. It also supports send the data in the recorder by mail. This function will automatically export the data in the currently displayed data chart. It supports exporting to PDF, CSV and other format files and sending it to the mailbox specified by the user.

#### 6) Settings

The user can set a custom date format. After the setting is saved, the format display will be updated after the data is retrieved. You can set the mailbox parameters. Including the SMTP server address and the sender's email account; Support LOGO modification in PDF reports.

#### 7) About

Display the software information and version.

#### 8) Help

Open the help document.

#### 9) Exit

Exit the software.

#### 10) Run as administrator

If the USB data cannot be read or an exception is reported, please use the administrator to run.

## 2. Status Bar

Shows the status of the current recorder connection, progress of reading data etc.

#### IV. Read Data

## 1. Connect data logger

Before reading the data, please connect the logger to your computer.

Note: Only one logger can be connected to the software at a time. It does not support simultaneous operation of multiple loggers.

# 2. Read data form the logger

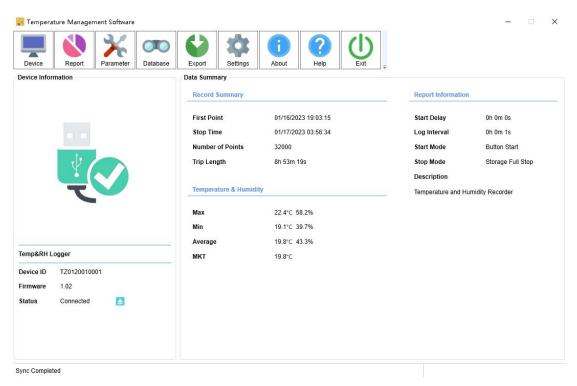
Insert the logger into computer and the software will automatically read the data from the logger.

# 3. History Data

【Operation path】"Database".

【Function Description】 After the data is successfully read, it will be automatically saved in the database. You can view the previously read data in the "Database" interface.

## **V. Summary**



【Device ID 】 The unique ID of data logger, it can't be changed.

【Firmware】 The logger's internal program version number.

【Status 】 The current working status of logger.

【First Point】 The time when the first point is recorded.

【Stop Time】 The time when the last point is recorded.

[ Number of Points ] The amount of data the software reads from the logger.

【Trip Length】 The total time that the logger keeps recording.

【Start Delay】 The time from the logger started to the first point saved.

【Log Interval】 The interval time between two successive points of data.

【Start Mode 】 The mode the logger to be started, including button start, timing start.

【Stop Mode 】 The logger's actual stop mode, manual stop, USB stop and storage full stop.

【Description】 A brief description of the task.

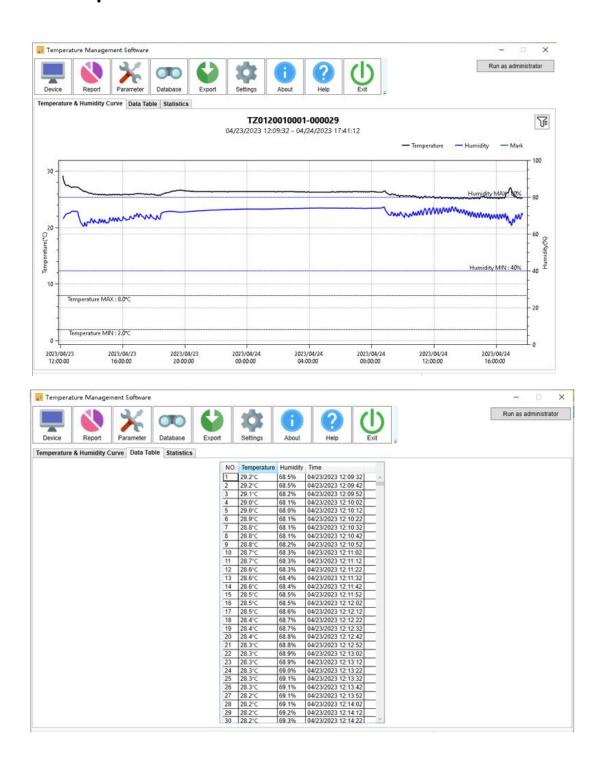
[ Max ] The maximum value among the recorded temperature and humidity readings.

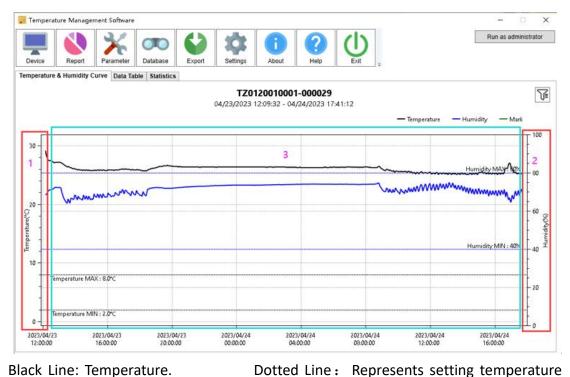
[ Min ] The minimum value among the recorded temperature and humidity readings.

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

[MKT] Average kinetic temperature value.

# VI. Report





Black Line: Temperature.

alarm reference line.

Blue Line: Humidity. Dotted Line: Represents setting humidity alarm

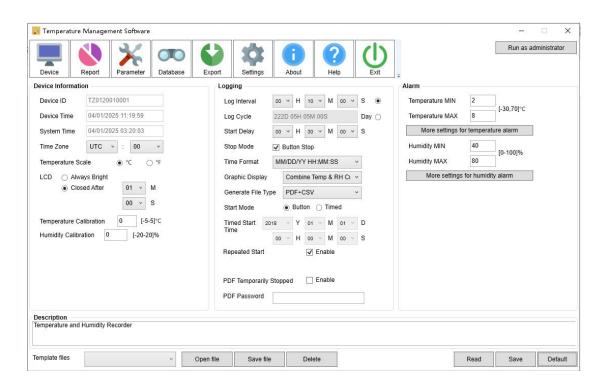
reference line.

Green Line: Mark.

#### Chart operation, as shown above:

- 1. move the mouse to the temperature axis, hold on the right button and drag the mouse to adjust the temperature range.
- 2. move the mouse to the humidity axis, hold on the right button and drag the mouse to adjust the humidity range.
- 3. move the mouse to the time axis, hold on the right button and drag the mouse to adjust the time range.
- 4. move the mouse to different axises, scroll the mouse wheel to adjust the scale.
- 5. click the left button of mouse to get the detailed time, temperature and humidity information.

## VII. Config



【Device ID】 The unique ID of data logger, it can't be changed.

【 Device Time 】 Data logger time.

【System Time 】 Computer current time.

【Time Zone 】 Data logger time zone.

【Time Scale 】 Celsius / Fahrenheit.

[LCD] Always bright or closed after some time.

【Temperature Calibration 】 Set the logger to collect temperature data and replace them.

【 Humidity Calibration 】 Set the logger to collect humidity data and replace them. (Only Temp&RH is supported)

【Log Interval 】 The interval time between two successive points of data.

【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.)

【 Stop Mode 】 The logger's actual stop mode, including temporary stop, stop via software.

【Time Format】 Time display format in recorder PDF and CSV reports.

【Graphic Display】 Separate or combine display temperature and humidity curve in graphic. (Only Temp&RH is supported)

【 Generate File Type 】 The file report type generated by the logger can be set to PDF+CSV/PDF/CSV.

【Start Mode】 The mode the logger to be started, including button start, timing start. When timing start is selected, timing start selection box is available.

【Timed Start Time】 The logger starts running at the specified time. When timing start is selected, timing start selection box is available.

【Repeated Start】 The logger can be set to be repeatable or non-repeatable when the recorder stops recording.

【PDF Temporarily 】 The logger can be set to stop immediately or continue recording after the recorder is inserted into the computer.

【PDF Password】 The logger can be configured with a 6-digit PDF file password.

【Alarm 】 Alarm set-point.

【Alarm Delay】 The time when temperature / humidity value exceeds the alarm set-point until the alarm event is triggered.

Description A brief description of the task, 27 alphabetic and numeric characters.

【 Save File 】 After clicking, the software will generate a .congfig file for the configuration parameters of the interface. You can name it yourself and save it in the "Config" directory by default.

【 Open File 】 Select the configuration file. After clicking, the software will read the configuration parameters of this configuration file and display it on the configuration interface.

【 Delete 】 Select a profile and click "Delete". This profile will be deleted.

【Read】Read logger configuration parameters.

【Save 】Save logger configuration parameters.

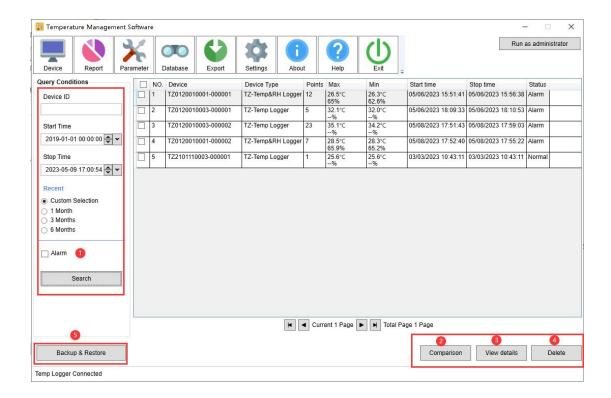
【 Default 】 The configuration interface displays the factory configuration parameters of the recorder. You must click "Save" to modify the logger to factory settings.

#### Note:

1. The above is only one of the devices with more parameter settings, not all devices.

2. If parameter settings are made and click Save, the data stored in the recorder will be cleared.

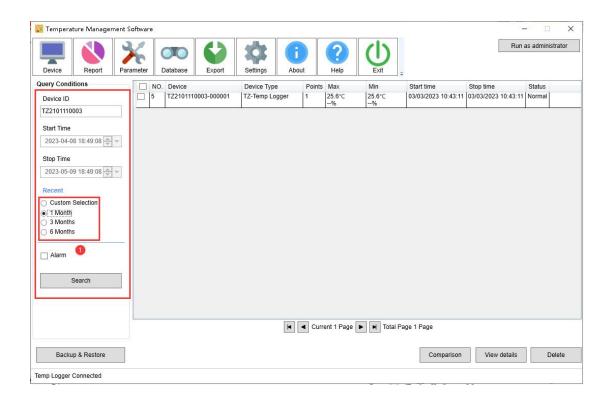
#### VIII. Database



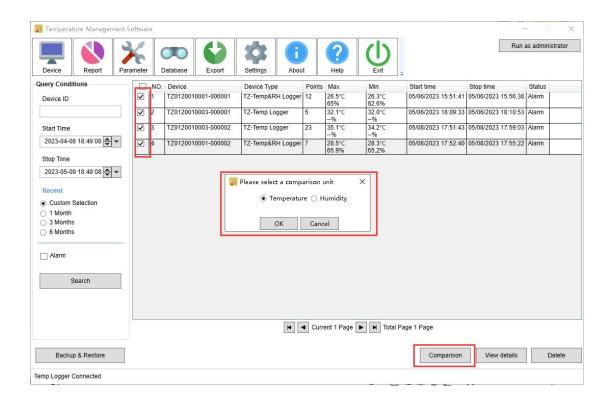
## 1. Filter data

Historical data displays all data by default, and users also can filter data in four ways:

- (1) Fill in the specified equipment number, and only display all the data encoded by this equipment;
- (2) Custom selection, you can set the start time and end time, the software will automatically filter out the historical data in this time period;
- (3) The data of the last month, three months and six months can be selected;
- (4) Check "Alarm" to display only alarm data;

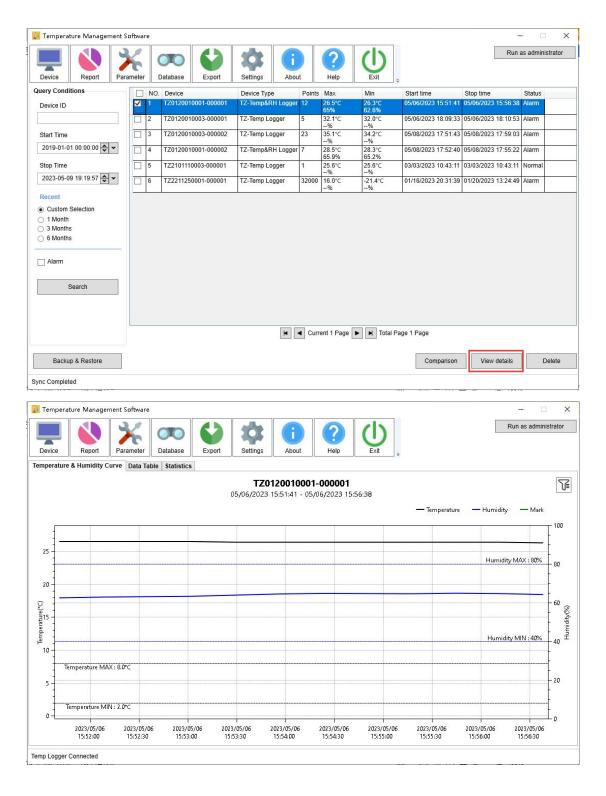


# 2. Comparison



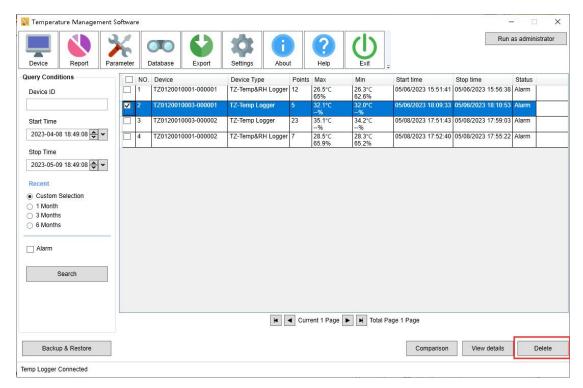
The user first clicks the data table to select multiple items of data to be viewed, and then clicks "multi-select comparison" to select temperature or humidity for comparison. A maximum of five items can be selected for comparison at a time.

## 3. View Detail



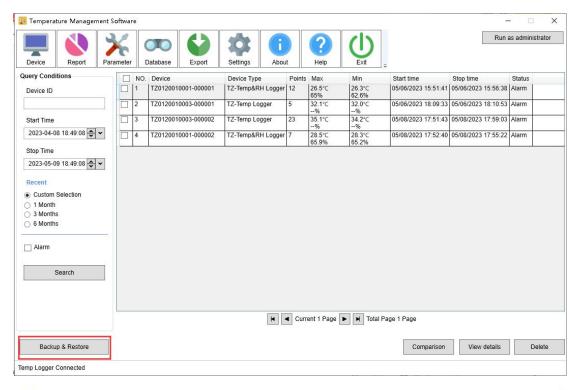
The user first clicks the data table to select one item of data to be viewed, and then clicks "View detail".

## 4. Delete Data



The user first clicks the data table to select a piece of data to delete, and then clicks the "Delete" button. The software will prompt the user "Delete data?" After the user confirms, the data will be deleted and cannot be restored.

# 5. Backup & Restore





#### 1.Backup

Backup all data. Help you protect your data from accidental loss. You can use "Backup" to create a copy of the data on your hard drive, and then store the data on another device for use.

#### 2.Restore

Used to restore backup data.

Note: The restore will overwrite the existing data of the software.

## IX. Export

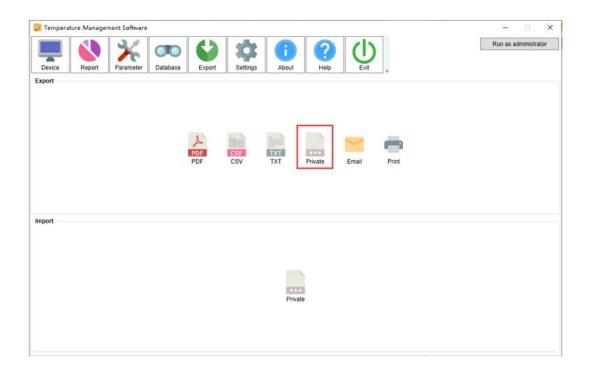
# 1. Export PDF, CSV, TXT data



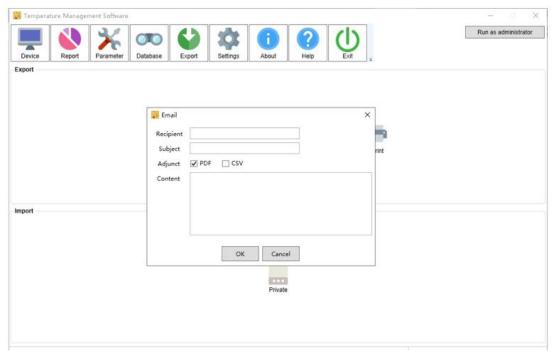
Click the file format and the software will generate a report file in the corresponding format. Saved in the soft root directory by default.

# 2. Export Private file

Used to share data among multiple computers with "Temperature Management Software". Click on the private format and the software will generate a ".dat" file. Saved in the soft root directory by default.



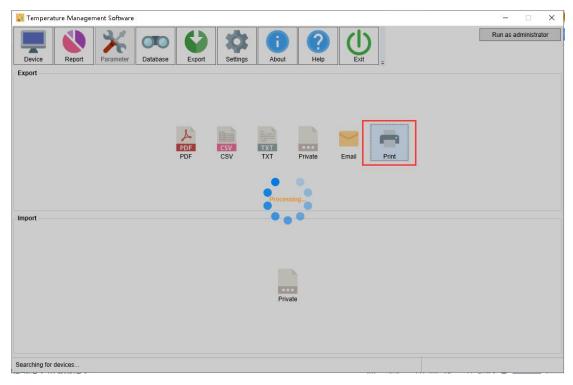
## 3. Send E-Mail



The content of the email includes the email header, PDF, CSV, etc. If you do not want to send PDF or CSV, you can leave this unselected.

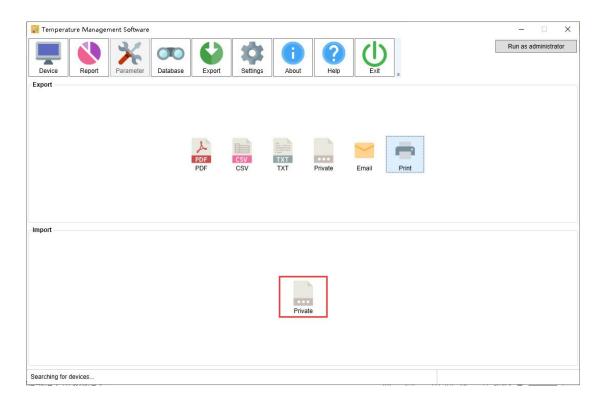
Note: Before sending the email, you need to configure the email information in the Software Settings.

# 4. Print



Note: You need to configure the printer on your computer before printing.

# 5. Import Data



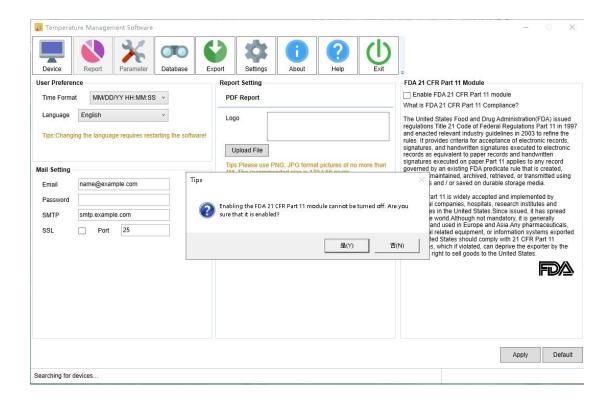
In the import function box, click the "Private" ticket to pop up the select file dialog box.

Import data: Used to share data between multiple computers with "Temperature Management Software" installed. Users can import previously exported data files in ".dat" format into the software, and the software will automatically analyze the imported data.

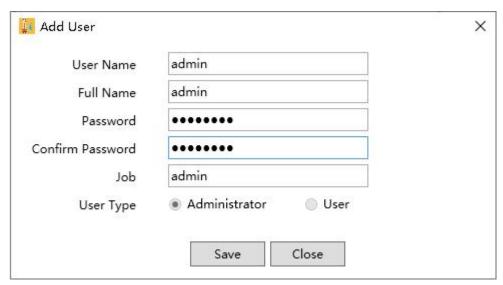
#### X. FDA 21 CFR Part 11 Module

#### 1. Enable FDA 21 CFR Part 11 Module

Enter the "Settings" to enable the FDA 21 CFR Part 11 module, after the enable is not allowed to close

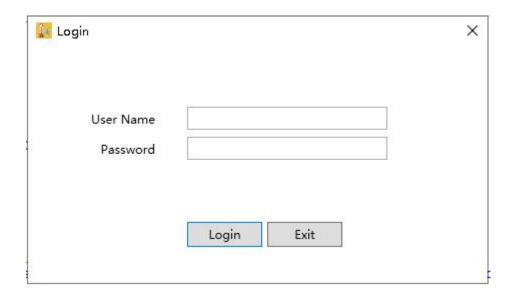


#### 2. Create an initial administrator account



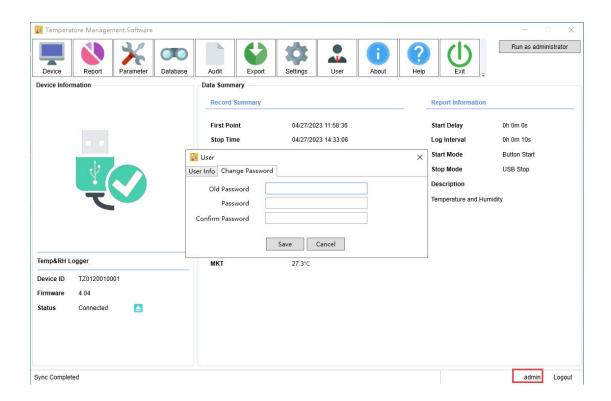
Note: The initial administrator account and password must be kept in mind, once forgotten, it cannot be recovered

# 3. Login



# 4. Logout

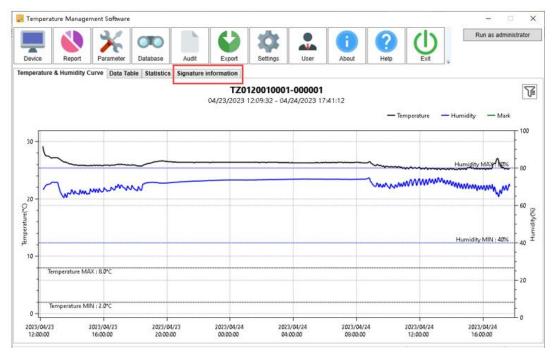
Note: log out of the current account



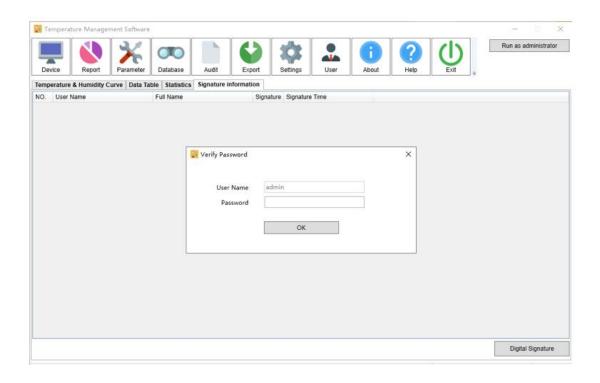
# 5. Change password

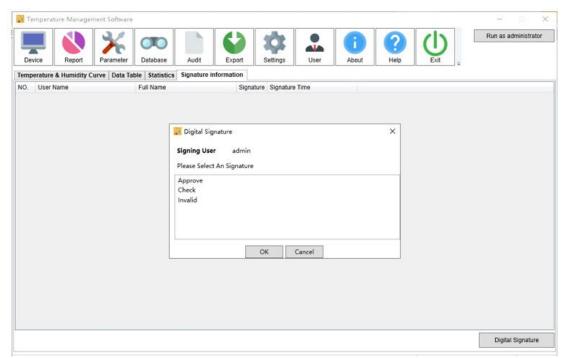
# 6. Report digital signature

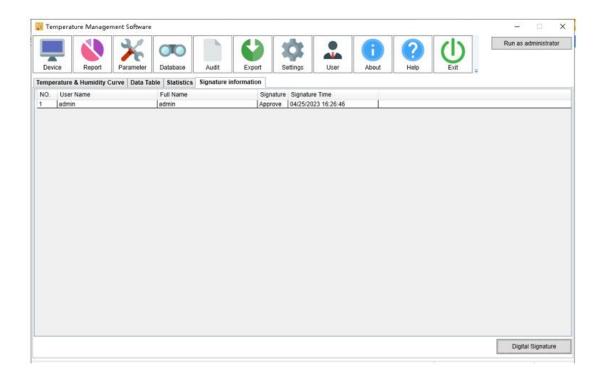
Digitally sign the current report



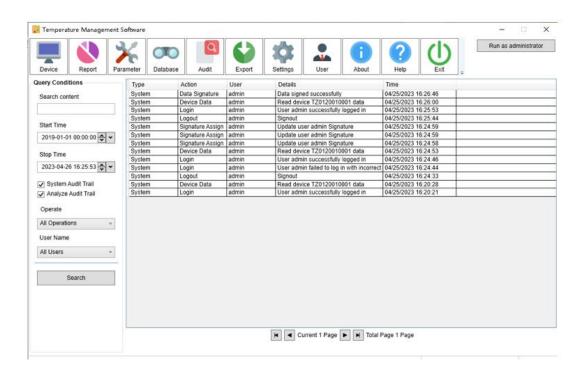
## Password must be verified before signing







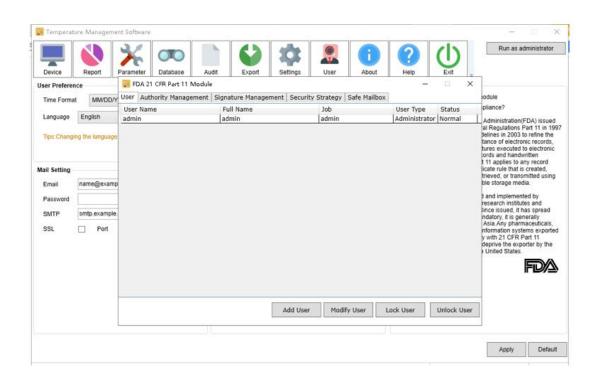
## 7. Audit

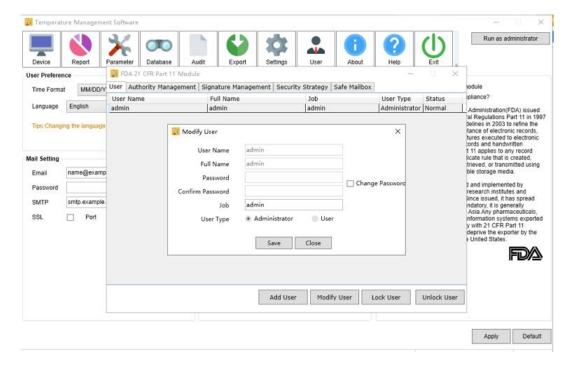


## 8. User

User management function requires administrator role

#### 8.1 User





【Add User】 Add User

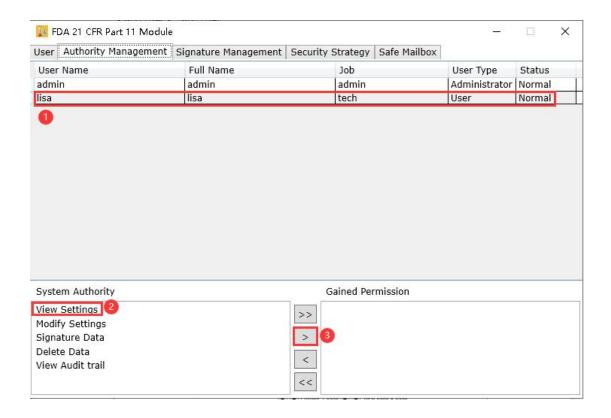
[ Modify User ] Modify selected user information

【Lock User】 Lock the selected user, the user is not allowed to log in after locking

【Unlock User】 Unlock selected users

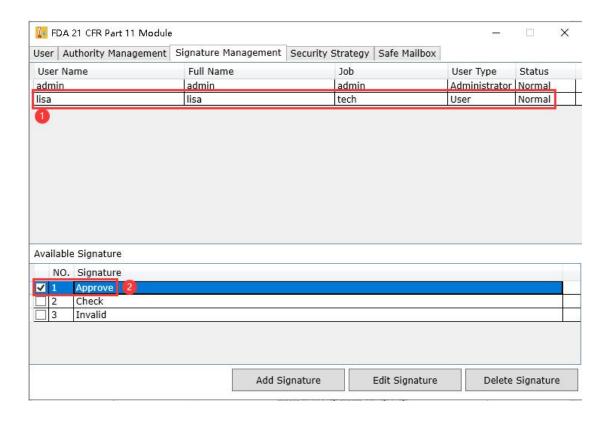
# 8.2 Authority Management

Set User lisa to modify setting permission, as shown in the following steps

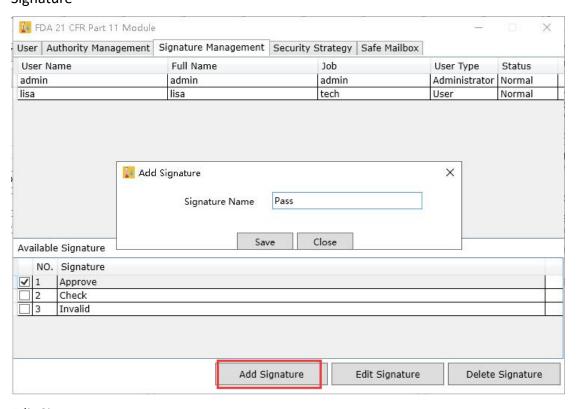


# 8.3 Signature Management

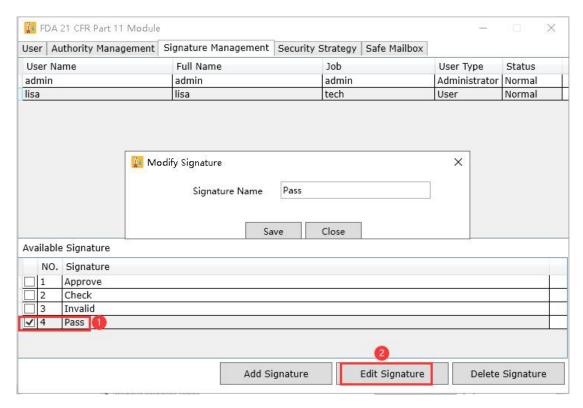
Set user lisa to use "Approve" endorsement, as shown in the following steps



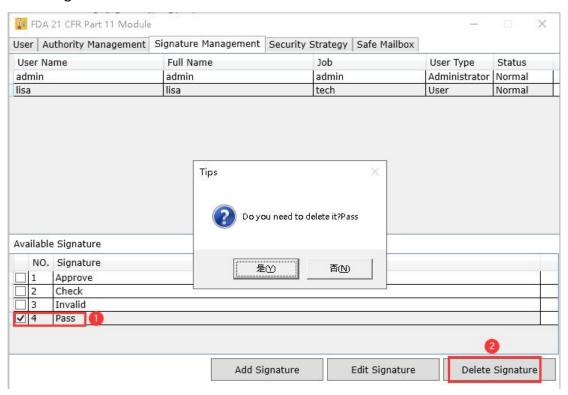
## Add Signature



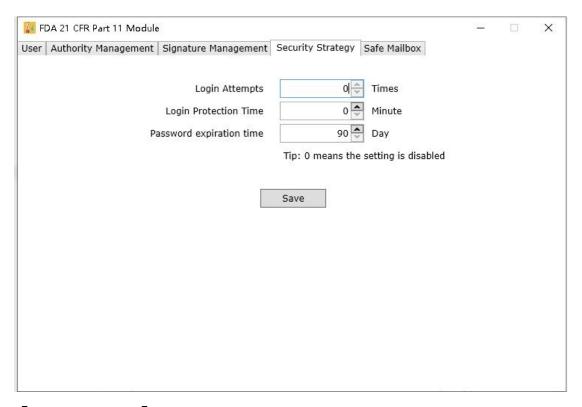
**Edit Signature** 



#### **Delete Signature**



## 8.4 Security Strategy



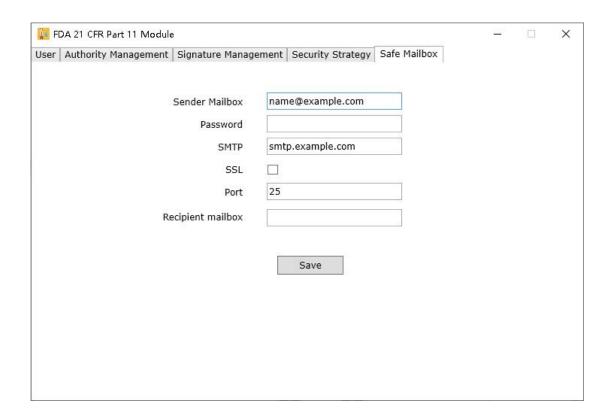
【 Login Attempts 】 Set user connection to lock account after entering wrong password

【 Login Protection Time 】 At the set time, when the user does not operate the computer, log out.

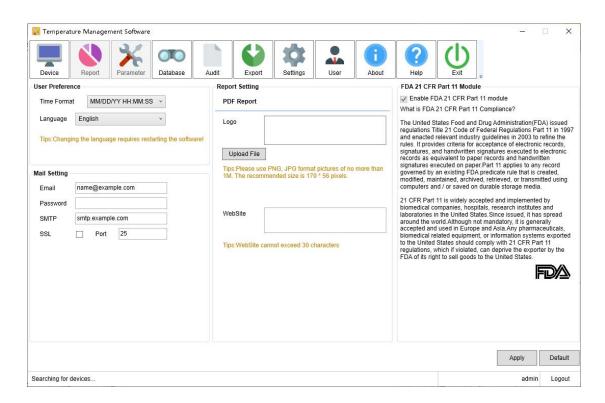
【 Password Expiration Time 】 Set the user has not changed the password for a long time, prompt the user to change the password.

## 8.5 Saft Mailbox

After the user enters the wrong password, the account is locked, and an email notification is sent to the specified mailbox.



# XI. Settings



## 1. User Preference

Support time format and software language.

Note: Changing the language requires restarting the software.

# 2. Mail Setting

Before using the send mail function, you need to configure the parameters of the mailbox, including the SMTP service address and port of the mailbox (default port 25), sender account, and password.

# 3. Report Setting

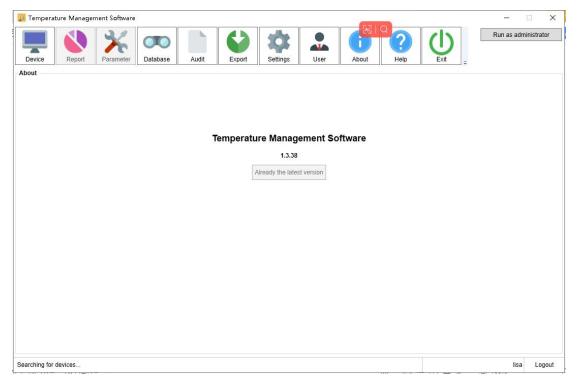
Support modification the LOGO and website in PDF report.

Note: Please use PNG, JPG Format Pictures or no more than 1M, The Recommended size is 170\*56 pixels.

## 4. FDA 21 CFR Part 11 Module

Enable FDA 21 CFR Part 11module and it is not allowed closed.

## **XII.** About the updated of the software



Display software information and version.

Software update: The current new version. Opening the software will prompt you to update.

## XIII. Questions

#### The data logger cannot be connected?

- 1. Check if the computer USB port is available.
- 2. Check if the computer USB port is loose.
- 3. 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.
- 4. Reading data prompts an error. Check if the computer's disk space where the software is installed runs out.
- 5. Unplug the USB device, the software does not detect the disconnection. First click on the software "Force Disconnect" to see if it can be restored; if not, restart the software and check if it can be restored.