

Software tempbase 2  
User Manual

## Table of Contents

I Introduction.....	3
1.1 Overview.....	3
1.3 Installation environment requirements.....	3
II Install & Start.....	4
2.1 Install.....	4
2.2 Start.....	5
2.3 Uninstall.....	5
2.4 Update.....	6
III Functions.....	6
3.1 Toolbar.....	6
IV Download Data.....	7
4.1 Connect data logger.....	7
4.2 Read data.....	7
4.3 Store data.....	7
V Summary.....	8
5.1 Device Information.....	8
5.2 Statistical Information.....	8
5.3 Alarm information.....	9
VI Parameter Settings.....	10
6.1 Device parameters.....	10
6.2 Alarm parameters.....	11
6.3 Parameter template.....	11
VII Graph.....	12
7.1 Graph.....	12
7.2 Table.....	13
7.3 Summary.....	14
7.4 Data filtering.....	14
7.5 Export data.....	15
VIII Database.....	16
8.1 Historical data table.....	16
8.2 Filter data.....	16
8.3 Select data line.....	17
8.4 View details.....	17
8.5 Display alarm data.....	18
8.6 Delete data.....	19
IX Import Data.....	20

9.1 How to import.....	20
9.2 View imported data.....	20
XI System Settings .....	21
11.1 Options .....	21
XII FDA 21 CFR Part 11 Module.....	22
12.1 What is FDA 21 CFR Part 11 compliance.....	22
12.2 Access to the module.....	22
12.2.1 Activate the module.....	23
12.2.2 Initializing Administrator .....	24
12.2.3 User Management .....	25
12.2.4 Permission Management.....	26
12.2.5 Endorsement Management.....	27
12.2.6 Security Policy .....	28
12.2.7 Safety Mailbox.....	29
12.2.8 User Login.....	30
12.2.9 Electronic Signature.....	31
12.2.10 Historical Signature .....	33
12.2.11 Audit Trail.....	34

# I Introduction

## 1.1 Overview

The tempbase-2 data management software is a comprehensive desktop software designed for analyzing and managing the temperature and humidity data recorded by tempmate data loggers. The software integrates the most dependable temperature and humidity sensing technology and the most advanced system kernel to date. It is characterized by reliable data, quick response, simple operation and other strong functions, enabling users to 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.

## 1.3 Installation environment requirements

Pentium 1GHz or above, 2G or more

A hard drive with 1GB available disk space

Windows XP (32 bit), Windows 7 / 8 / 10

Mouse or another pointing device

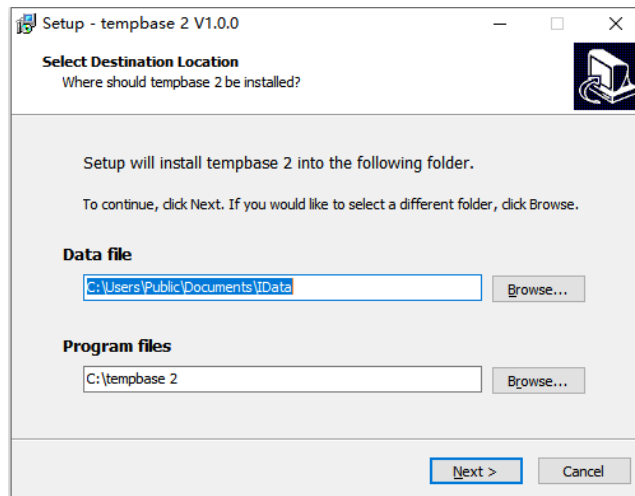
A VGA monitor with display resolution 1366 x 768 pixels or better

Computer administrator account

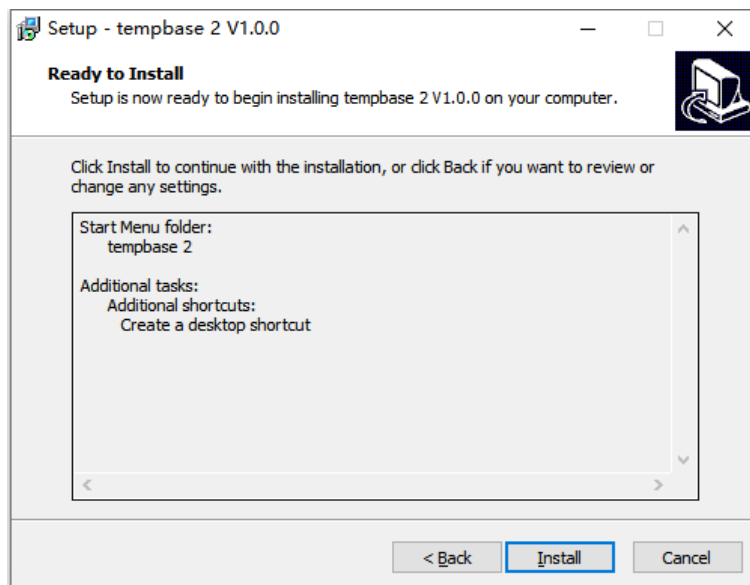
# II Install & Start

## 2.1 Install

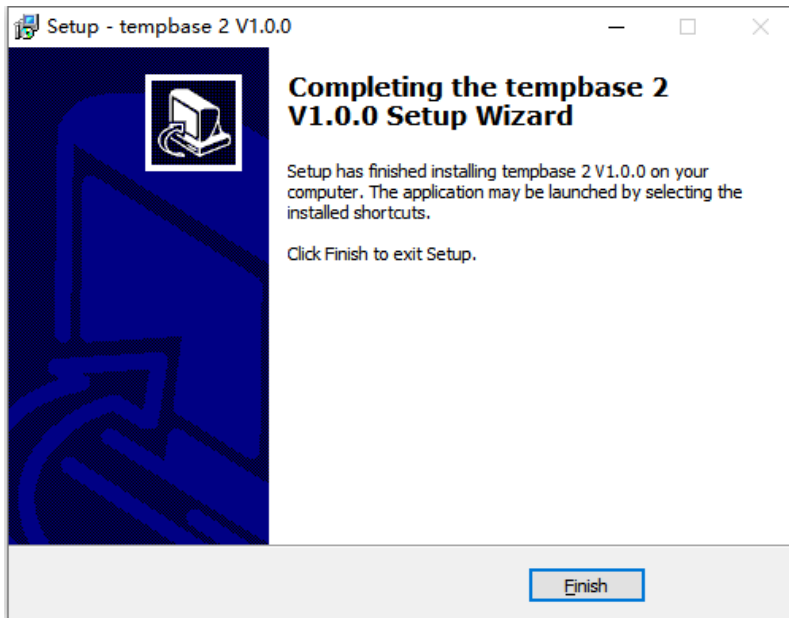
- 1) Double click installer to start installation.
- 2) Select destination location.



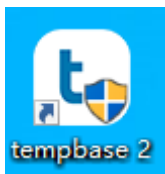
- 3) Click Install.



4) Click Finish to complete the installation.



## 2.2 Start



Double click on your computer desktop to start the software.

## 2.3 Uninstall

- 1) Open Windows start menu, find this software.
- 2) Right click Uninstall to enter Add or Remove Programs.
- 3) click Uninstall.
- 4) Wait until uninstallation completes.

## 2.4 Update

If a new version of the tempbase-2 software is available, the user is notified of this at startup and an option for direct update is offered.

After confirmation, the software is automatically updated and is then immediately available to the user. Previously stored data will not be lost.

# III Functions

## 3.1 Toolbar

**Stop:** Stopping of the logging operation is prevented and the logger can only be stopped by software.

**Full Data:** Even if the data logger is stopped, the logger is still recording until the memory is full, or battery is low ("Shadow Log"). This data can be downloaded here completely.

**Download:** When the data logger is connected to a computer, the software will automatically read and download the data from the logger.

**Database:** The data downloaded from the logger is automatically saved to the database, so users can view the data anytime. Data can also be filtered as needed. Default display is latest one month's data. 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.

**Log:** User's operation of the system

**Export:** Export data in the format of PDF, XLS or IME.

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

**Logger Setup:** Users can set the parameters of a connected data logger, including log interval, start delay, trip code, trip description and alarm settings.

# IV Download Data

## 4.1 Connect data logger

Connect the data logger to a computer to download all data. Only one logger can be connected to the software at a time. It does not support a simultaneous operation of multiple loggers.

## 4.2 Read data

Click Download on the toolbar to read and download the data saved on the logger. If the data logger is connected for the first time, the software will automatically read and download the data.

## 4.3 Store data

After being downloaded, the data will be saved to the database automatically. The data can be viewed in the "Database" interface.



# V Summary

## 5.1 Device Information

**Serial Number:** The unique ID of the data logger. It cannot be changed.

**Logging Interval:** The interval time between two successive points of recording.

**Logging Status:** The current working status of the logger.

**Trip Number:** User-created code, used to identify each task.

**Trip Description:** A brief description of the task.

**Start Delay:** The time from the logger started to the first point saved.

**Start Mode:** The mode the logger can be started, including manual start, timed start, immediate start.

**Repeat Start:** The logger can be started repeatedly, and the previously recorded data is cleared after a new startup.

## 5.2 Statistical Information

**Total Memory:** Maximum amount of data points the logger can save.

**Current Readings:** The number of readings the software downloads from the logger.

**Start Time:** The time when the logger starts running.

**First Reading:** The time when the first data point is recorded.

**Last Reading:** The time when the last point was recorded.

**MKT:** Mean kinetic temperature value.

**Logging Duration:** The total time that the logger kept recording.

**Stop Mode (Actual):** The logger's actual stop mode, including temporary stop, stop via software, manual stop.

**Stop Mode (Set):** The set stop mode, including stop via software, manual stop.

**Temporary PDF:** Whether the PDF report is allowed to be generated temporarily after the logger is plugged-in to the computer during recording.

**Maximum:** The maximum value among the recorded temperature and humidity readings.

**Minimum:** 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 was triggered.

## 5.3 Alarm information

**Alarm Value:** The alarm set-point of the logger (temperature / humidity)

**Alarm Delay:** The time an alarm threshold breach needs to exceed before an alarm is 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:** The unique code of the logger. It cannot be changed.

**Logging Interval:** The interval time between two successive points of data. It can be configured per day or time.

**Trip Number:** User-created code, used to identify each task.

**Trip Description:** A brief description of the task. 100 alphabetic and numeric characters.

**Start Mode:** The mode the logger can be started, including manual start, timed start, immediate start. When timed start is set, the start time choice box becomes available.

**Start Delay:** The wait time from the start of the unit to the first reading saved. When manual start is selected, the start delay choice box becomes available.

**Timing Start Time:** The logger starts running at the specified time. When timed start is selected, the timed start selection box becomes available.

**Stop Mode:** The way that the logger is stopped; manually, or via software.

**Temporary PDF:** Whether the PDF report is allowed to be generated temporarily after the logger is plugged-in to the computer during recording.

**Cyclic Logging:** When the data memory is full, new data automatically replaces the oldest readings.

**PDF Language:** The language of the PDF report generated.

**Temperature Unit:** Celsius / Fahrenheit.

**Set Password:** Optional password, must be 6 digits long.

**Calibration:** If an analog sensor is used (like the tempmate-M1), the user can set an offset to increase the accuracy of recorded temperatures. The use of this function is at the user's own responsibility.

**Multi-Configuration:** if "Configure multiple devices with this setting" is activated, the user can configure more devices with the same settings page consecutively.

## 6.2 Alarm parameters

**Alarm Mode:** No alarm, high / low limit alarm, more high / low limit alarm zones optional.

**Alarm Value:** Alarm set-point; temperature range: -40°C - 90°C; humidity range: 0% - 100%.

**Alarm Type:** Single / cumulative.

**Single Type:** If the temperature/humidity is above or below the alarm threshold and its duration is not less than the alarm delay, an alarm will be triggered.

**Cumulative Type:** If the temperature/humidity is above or below the alarm threshold and its cumulated time is not less than the alarm delay, an alarm will be triggered.

**Alarm Delay:** The time an alarm threshold breach needs to exceed before an alarm is triggered.

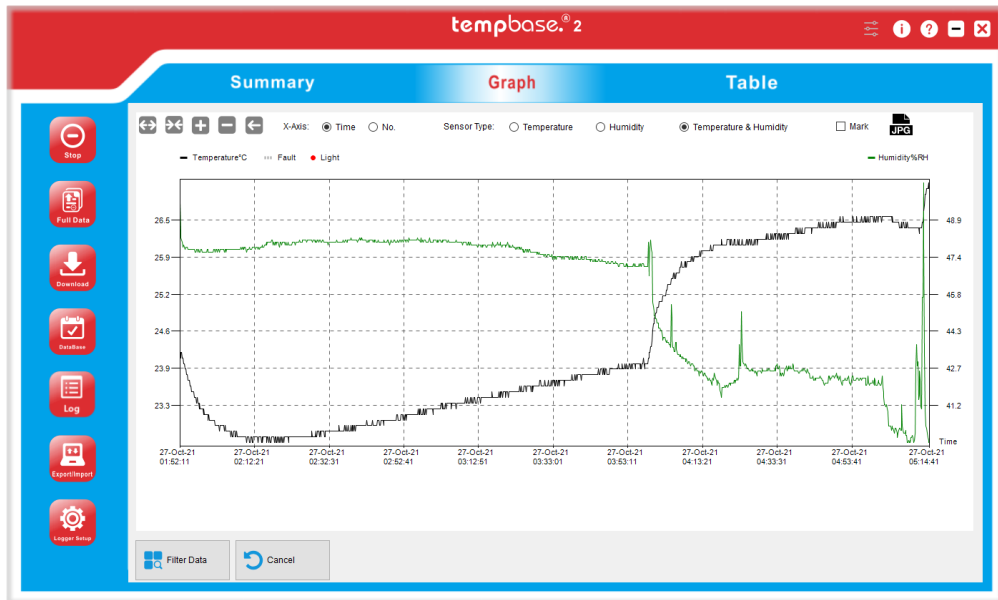
## 6.3 Parameter template

**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 Graph

## 7.1 Graph



Click the "Graph" tab 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 number.



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

The screenshot shows the 'tempbase.2' software interface with the 'Table' tab selected. The interface features a red header bar with the software name and standard window controls. Below the header, there are three tabs: 'Summary', 'Graph', and 'Table'. The 'Table' tab is active, displaying three data tables side-by-side. On the left side of the interface, there is a vertical toolbar with icons for Stop, Full Data, Download, Refresh, Log, Export/Import, and Logger Setup. At the bottom of the table area, there are 'Filter Data' and 'Cancel' buttons.

M2T (M2T211022009)			S2TH (S2H2110231551)				M1 (TMM150400001)			
No.	Time	(°C)	No.	Time	(°C)	(°C)	(Light)	No.	Time	(°C)
1	2021-10-22 05:31:09	22.3	1	2021-10-27 01:52:11	24.1	49.6		1	2021-10-27 15:47:11	28.0
2	2021-10-22 05:31:59	22.6	2	2021-10-27 01:52:21	24.1	48.4		2	2021-10-27 15:47:21	27.9
3	2021-10-22 05:32:49	22.6	3	2021-10-27 01:52:31	24.2	48.2		3	2021-10-27 15:47:31	27.9
4	2021-10-22 05:33:39	22.7	4	2021-10-27 01:52:41	24.2	48.1		4	2021-10-27 15:47:41	27.7
5	2021-10-22 05:34:29	22.6	5	2021-10-27 01:52:51	24.1	48.0		5	2021-10-27 15:47:51	27.7
6	2021-10-22 05:35:19	22.6	6	2021-10-27 01:53:01	24.1	47.8		6	2021-10-27 15:48:01	27.7
7	2021-10-22 05:36:09	22.5	7	2021-10-27 01:53:11	24.0	47.9		7	2021-10-27 15:48:11	27.6
8	2021-10-22 05:36:59	22.4	8	2021-10-27 01:53:21	24.0	47.8		8	2021-10-27 15:48:21	USB
9	2021-10-22 05:37:49	22.4	9	2021-10-27 01:53:31	23.9	47.7		9	2021-10-27 15:48:31	USB
10	2021-10-22 05:38:39	22.5	10	2021-10-27 01:53:41	23.9	47.8		10	2021-10-27 15:48:41	USB
11	2021-10-22 05:39:29	22.5	11	2021-10-27 01:53:51	23.9	47.8		11	2021-10-27 15:48:51	USB
12	2021-10-22 05:40:19	22.5	12	2021-10-27 01:54:01	23.8	47.8		12	2021-10-27 15:49:01	USB
13	2021-10-22 05:41:09	22.5	13	2021-10-27 01:54:11	23.8	47.8		13	2021-10-27 15:49:11	USB
14	2021-10-22 05:41:59	22.5	14	2021-10-27 01:54:21	23.7	47.7		14	2021-10-27 15:49:21	USB
15	2021-10-22 05:42:49	22.5	15	2021-10-27 01:54:31	23.7	47.7		15	2021-10-27 15:49:31	USB
16	2021-10-22 05:43:39	22.5	16	2021-10-27 01:54:41	23.7	47.7		16	2021-10-27 15:49:41	USB
17	2021-10-22 05:44:29	22.5	17	2021-10-27 01:54:51	23.6	47.7		17	2021-10-27 15:49:51	USB
18	2021-10-22 05:45:19	22.4	18	2021-10-27 01:55:01	23.6	47.7		18	2021-10-27 15:50:01	USB
19	2021-10-22 05:46:09	22.4	19	2021-10-27 01:55:11	23.6	47.7		19	2021-10-27 15:50:11	USB
20	2021-10-22 05:46:59	22.3	20	2021-10-27 01:55:21	23.5	47.7		20	2021-10-27 15:50:21	USB
21	2021-10-22 05:47:49	22.3	21	2021-10-27 01:55:31	23.5	47.7		21	2021-10-27 15:50:31	USB
22	2021-10-22 05:48:39	22.2	22	2021-10-27 01:55:41	23.5	47.7		22	2021-10-27 15:50:41	USB
23	2021-10-22 05:49:29	22.2	23	2021-10-27 01:55:51	23.6	47.7		23	2021-10-27 15:50:51	USB

Click the "Table" tab 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 comparison. Normal temperature and humidity data is marked in black, overrun value in red, and USB value in gray.

## 7.3 Summary

Click the Summary tab to see the statistics, unavailable parameters are displayed in gray.

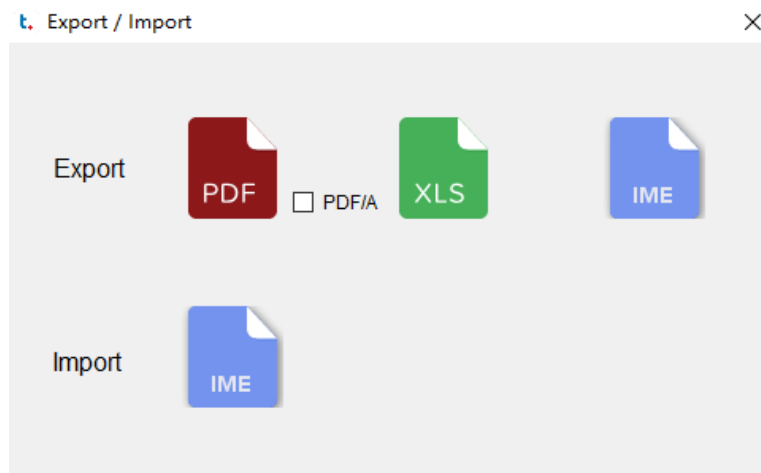
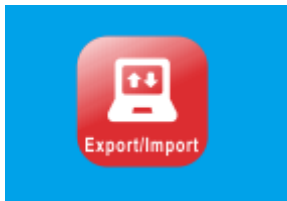
Device Model	M2T	S2TH	M1
Serial Number	M2T211022009	S2H2110231551	TMM150400001
Sensor Type	Internal	Internal	Internal
Start Mode	Press Button	Press Button	Press Button
Logging Interval	0:0:50	0:0:10	0:0:10
Start Delay	04:00	04:00	04:50
Repeat Start	Enable	Disable	Disable
Time Zone	UTC +05:00	UTC +00:00	UTC +08:00
Stop Mode	Press Button - Use Software	Press Button - Use Software	Press Button - Use Software
Storage Mode	N/A	N/A	N/A
Audible Alarm	Disable	Disable	Disable
Logging interval shortened in al.	N/A	N/A	N/A
Notification Tone	N/A	N/A	N/A
Trip Number	0000001	0000001	0000001
Trip Description	Temperature Recording	Temperature Recording	Temperature Recording
Maximum(Temperature)	22.7 °C	27.2 °C	34.0 °C
Minimum(Temperature)	22.1 °C	22.6 °C	25.3 °C
Average(Temperature)	22.3 °C	24.3 °C	29.2 °C
Maximum(Humidity)	N/A	50.5 °C	N/A
Minimum(Humidity)	N/A	39.6 °C	N/A
Average(Humidity)	N/A	45.7 °C	N/A
Mean Kinetic Temperature (MKT)	22.3 °C	24.4 °C	29.6 °C
First Reading	2021-10-22 05:31:09	2021-10-27 01:52:11	2021-10-27 15:47:11
Last Reading	2021-10-22 06:01:59	2021-10-27 05:14:41	2021-10-27 17:10:01

## 7.4 Data filtering

Click the "Filter Data" button at the bottom left. Select "Start time" and "End time", and click "OK", the software will automatically filter the data within the specified time period. After the data is filtered, the software will automatically redraw the graph, table, and summary.

## 7.5 Export data

Click the "Export/Import" button at the bottom left to export report to PDF, XLS and IME (custom format) format.





# VIII Database

## 8.1 Historical data table

Click Database on the toolbar to query historical data. The data downloaded from the logger is automatically saved to the database and can be filtered as needed. Default display is the latest month's data. 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.

[1]	Status	Data ID	Start Time	Current Readings	S1 (Max)	S1 (Min)	S2 (Max)	S2 (Min)
	✗	TMM150400001_20211027171227	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
	✗	TMM150400001_20211027171149	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
	✗	TMM150400001_20211027171125	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
	✗	TMM150400001_20211027171059	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
	✓	SZT2104000302_20211027170453	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027170407	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027170306	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027165540	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027165402	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✗	TMM150400001_20211027162135	2021-10-27 15:47:11	197	28.0 °C	25.3 °C	N/A	N/A
	✗	TMM150400001_20211027162043	2021-10-27 15:47:11	197	28.0 °C	25.3 °C	N/A	N/A
	✗	TMM150400001_20211027162013	2021-10-27 15:47:11	197	28.0 °C	25.3 °C	N/A	N/A
	✓	SZT2104000302_20211027161540	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027160844	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027160630	2021-10-26 07:24:04	3	25.1 °C	23.3 °C	N/A	N/A
	✓	SZT2104000302_20211027160624	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027160558	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✓	SZT2104000302_20211027160428	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	✗	TMM150400001_20211027155634	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
	✗	TMM150400001_20211027155629	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
	✗	TMM150400001_20211027155616	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
	✗	TMM150400001_20211027154835	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
	✗	TMM150400001_20211027154052	2021-10-27 07:00:02	231	27.0 °C	26.9 °C	N/A	N/A
	✗	TMM150400001_20211027153842	2021-10-27 07:00:02	231	27.0 °C	26.9 °C	N/A	N/A
	✓	SZH2110231551_20211027153811	2021-10-27 01:52:11	2067	27.2 °C	22.6 °C	50.5 %	37.5 %
	✗	TMM150400001_20211027153630	2021-10-27 07:00:02	158	27.0 °C	26.9 °C	N/A	N/A

## 8.2 Filter data

Select the time range of certain month(s), the software will automatically filter out the historical data for that time period and display the data in the table.

Time Options:

From  
2021-10-02 00:00:00

To  
2021-11-02 23:59:59

Or

1 month

3 months

6 months

## 8.3 Select data line

	Status	Data ID	Start Time	Current Readings	S1 (Max)	S1 (Min)	S2 (Max)	S2 (Min)
<input type="checkbox"/>	✘	TMM150400001_20211027171227	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
<input type="checkbox"/>	✘	TMM150400001_20211027162013	2021-10-27 15:47:11	197	28.0 °C	25.3 °C	N/A	N/A
<input type="checkbox"/>	✔	S2T2104000302_20211027160630	2021-10-26 07:24:04	3	25.1 °C	23.3 °C	N/A	N/A
<input type="checkbox"/>	✘	TMM150400001_20211027155634	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
<input type="checkbox"/>	✘	TMM150400001_20211027153842	2021-10-27 07:00:02	231	27.0 °C	26.9 °C	N/A	N/A
<input type="checkbox"/>	✔	S2H2110231551_20211027153811	2021-10-27 01:52:11	2067	27.2 °C	22.6 °C	50.5 %	37.5 %
<input type="checkbox"/>	✘	TMM150400001_20211027153630	2021-10-27 07:00:02	158	27.0 °C	26.9 °C	N/A	N/A

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.

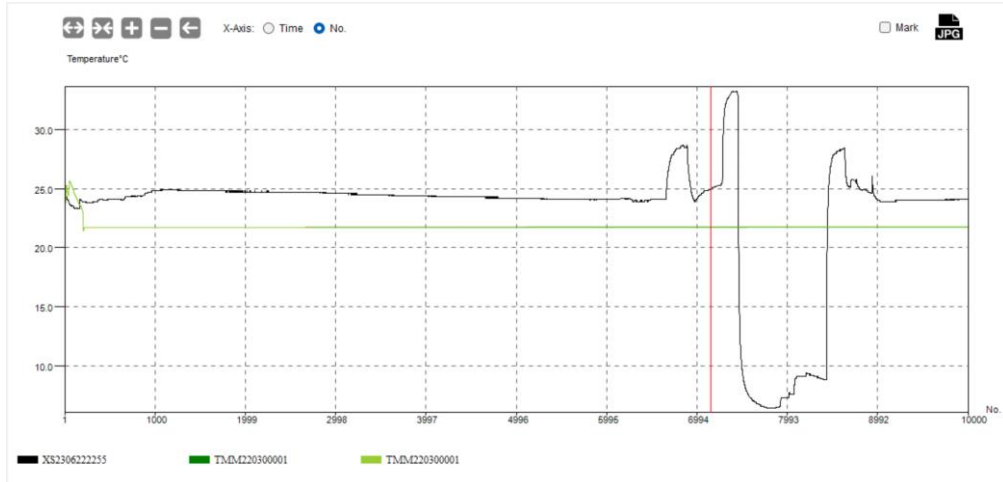
It is used to view the records of multiple devices or delete the selected data line. Up to 10 records can be viewed and compared at the same time. There is no limit of the number of lines when deleting records.

## 8.4 View details

[View Details](#)

[Delete](#)

Click the "View details" button in the right sidebar to view the data details in graph, table or summary.



XS (XS2306222255)			M1 (TMM220300001)			M1 (TMM220300001)		
No.	Time	(°C)	No.	Time	(°C)	No.	Time	(°C)
1	2023-08-10 13:18:20	24.8	1	2023-06-15 14:03:09	28.3	1	2023-06-15 14:03:09	28.3
2	2023-08-10 13:18:30	24.8	2	2023-06-15 14:08:09	25.6	2	2023-06-15 14:08:09	25.6
3	2023-08-10 13:18:40	24.7	3	2023-06-15 14:13:09	24.5	3	2023-06-15 14:13:09	24.5
4	2023-08-10 13:18:50	24.7	4	2023-06-15 14:18:09	24.1	4	2023-06-15 14:18:09	24.1
5	2023-08-10 13:19:00	24.6	5	2023-06-15 14:23:09	24.0	5	2023-06-15 14:23:09	24.0
6	2023-08-10 13:19:10	24.6	6	2023-06-15 14:28:09	23.8	6	2023-06-15 14:28:09	23.8
7	2023-08-10 13:19:20	24.6	7	2023-06-15 14:33:09	23.9	7	2023-06-15 14:33:09	23.9
8	2023-08-10 13:19:30	24.5	8	2023-06-15 14:38:09	24.3	8	2023-06-15 14:38:09	24.3
9	2023-08-10 13:19:40	24.5	9	2023-06-15 14:43:09	24.6	9	2023-06-15 14:43:09	24.6
10	2023-08-10 13:19:50	24.4	10	2023-06-15 14:48:09	24.9	10	2023-06-15 14:48:09	24.9
11	2023-08-10 13:20:00	24.4	11	2023-06-15 14:53:09	25.1	11	2023-06-15 14:53:09	25.1
12	2023-08-10 13:20:10	24.3	12	2023-06-15 14:58:09	25.2	12	2023-06-15 14:58:09	25.2
13	2023-08-10 13:20:20	24.3	13	2023-06-15 15:03:09	25.3	13	2023-06-15 15:03:09	25.3
14	2023-08-10 13:20:30	24.3	14	2023-06-15 15:08:09	25.3	14	2023-06-15 15:08:09	25.3
15	2023-08-10 13:20:40	24.3	15	2023-06-15 15:13:09	25.3	15	2023-06-15 15:13:09	25.3
16	2023-08-10 13:20:50	24.3	16	2023-06-15 15:18:09	25.3	16	2023-06-15 15:18:09	25.3
17	2023-08-10 13:21:00	24.2	17	2023-06-15 15:23:09	25.2	17	2023-06-15 15:23:09	25.2
18	2023-08-10 13:21:10	24.2	18	2023-06-15 15:28:09	25.1	18	2023-06-15 15:28:09	25.1
19	2023-08-10 13:21:20	24.2	19	2023-06-15 15:33:09	25.0	19	2023-06-15 15:33:09	25.0
20	2023-08-10 13:21:30	24.2	20	2023-06-15 15:38:09	24.9	20	2023-06-15 15:38:09	24.9
21	2023-08-10 13:21:40	24.2	21	2023-06-15 15:43:09	24.9	21	2023-06-15 15:43:09	24.9
22	2023-08-10 13:21:50	24.2	22	2023-06-15 15:48:09	24.8	22	2023-06-15 15:48:09	24.8
23	2023-08-10 13:22:00	24.1	23	2023-06-15 15:53:09	24.8	23	2023-06-15 15:53:09	24.8

## 8.5 Display alarm data

Alarm Device

Select All

Check "Alarm Device" in the right sidebar to view only the data of the alarmed device.

Alarm	Record ID	Start Time	Trip Number	Total Points	Read Points	T(Max)	T(Min)	H(Max)	H(Min)
X	EFF16A012348_20180321142832	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321142157	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321132302	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321130926	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113239	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113222	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113107	2018-03-21 09:22:53		384	384	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFH176002905_20180321112755	2018-03-21 12:27:06	SSTAC01	4	4	22.4 °C	22.3 °C	N/A	N/A
X	EFH176002905_20180321121334	2018-03-21 12:20:38	SSTAC01	4	4	21.9 °C	21.8 °C	N/A	N/A
X	EFH176002905_20180321111838	2018-03-09 11:26:33	SSTAC01	8641	8641	78.0 °F	60.9 °F	N/A	N/A
X	EM217A000001_20180321111324	2018-03-20 23:12:44	1234566	4	4	22.8 °C	22.7 °C	N/A	N/A

Data Saved at:

From: 2018-02-26 00:00:00

To: 2018-03-26 23:59:59

Latest:

1 month

3 months

6 months

Alarm

Check All

## 8.6 Delete data

Alarm	Record ID	Start Time	Trip Number	Total Points	Read Points	T(Max)	T(Min)	H(Max)	H(Min)
✓	EF317A000001_20180326135828	2017-10-30 08:47:21		16000	12	31.2 °C	17.9 °C	N/A	N/A
✓	EF317A000001_20180326135250	2017-10-30 08:47:21		16000	2448	31.2 °C	17.9 °C	N/A	N/A
✓	EF317A000001_20180326134940	2017-10-30 08:47:21		16000	12	31.2 °C	17.9 °C	N/A	N/A
✓	EF317A000001_20180326134815	2017-10-30 08:47:21		16000	4878	31.2 °C	17.9 °C	N/A	N/A
✓	EF317A000001_20180326134209	2017-10-30 08:47:21		16000	16000	31.2 °C	17.9 °C	N/A	N/A
✓	EF317A000001_20180325151235	2017-10-30 08:47:21		16000	16000	31.2 °C	17.9 °C	N/A	N/A
X	EFF16A012348_20180321142832	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321142157	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321132302	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321130926	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113239	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113222	2018-03-21 09:22:53		385	385	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFF16A012348_20180321113107	2018-03-21 09:22:53		384	384	31.1 °C	24.2 °C	85.2 %	58.8 %
X	EFH176002905_20180321112755	2018-03-21 12:27:06	SSTAC01	4	4	22.4 °C	22.3 °C	N/A	N/A
✓	EFH176002905_20180321112729	2018-03-21 12:27:06	SSTAC01	1	1	22.4 °C	22.4 °C	N/A	N/A

Data Saved at:

From: 2018-02-26 00:00:00

To: 2018-03-26 23:59:59

Latest:

1 month

3 months

6 months

Alarm

Check All

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 ask the user to confirm this action, and once confirmed, the data will be deleted and cannot be recovered.

# IX Import Data

## 9.1 How to import

Click "Export/Import" on the toolbar to export or import recordings. 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 "Summary" interface, drawing graphs, tables and showing summary.

## 9.2 View imported data

After the import, the software will automatically switch to the "Summary" interface.

The screenshot shows the 'tempbase. 2' software interface. The main content area is titled 'Summary' and is divided into several sections:


- Device Information:** Fields for Device Model (M2TH), Device Time (2021-10-18 09:09:01), Serial Number (M2H211012008), Logging Interval (0:05:10), Trip Number (0000000), Start Mode (Press Button), Start Delay (0H0M), Logging Status (Logging), Temperature Unit (°C), Trip Description (Temperature Recording), Repeat Start (Enable), and Time Zone (UTC+08:00), Light (Disable).
- Statistical Information:** Fields for Total Memory (60000), Current Readings (502), Start Time (2021-10-16 13:58:45), First Reading (2021-10-16 13:58:45), Last Reading (2021-10-18 09:07:15), MKT (65.0), Logging Duration (1D 19H 8M 30S), Stop Mode (Actual) (Temporary), Stop Mode (Set) (Press Button + Use Software), Temporary PDF (Enable), Maximum (Temperature) (68.5 @ 2021-10-16 19:13:55), Minimum (Temperature) (-28.6 @ 2021-10-16 15:42:05), Average (Temperature) (61.2), First Alarm (Temperature) (2021-10-16 14:14:15), Maximum (Humidity) (80.8 @ 2021-10-16 13:58:45), Minimum (Humidity) (5.5 @ 2021-10-17 17:06:15), Average (Humidity) (9.7), and First Alarm (Humidity) (2021-10-16 13:58:45).
- Alarm Information:** A table listing various alarms with their details.

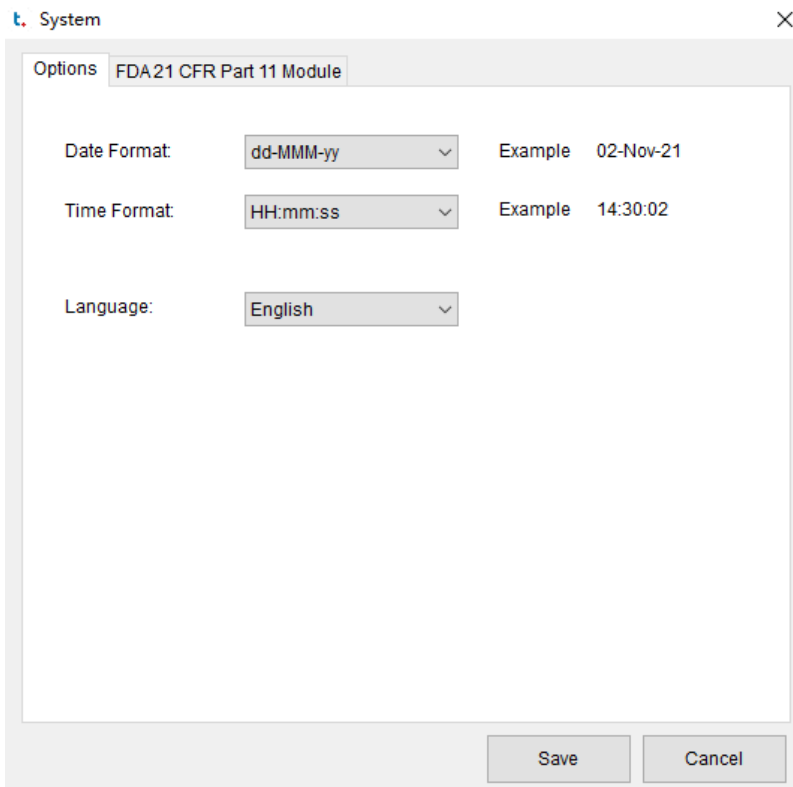
Alarm	Alarm	Alarm Direction	Alarm Delay	Alarm Type	Over-limit Duration	Max Time	Violations	Status
T1	8.0	Low Limit	0D 0H 0M 0S	Cumulative	0D 1H 43M 20S	0D 1H 43M 20S @ 2021-10-16 14:14:15	1	Alarm
T2	2.0	Low Limit	0D 0H 0M 0S	Cumulative	0D 1H 38M 10S	0D 1H 38M 10S @ 2021-10-16 14:19:25	1	Alarm
T3	0.0	Low Limit	0D 0H 0M 0S	Single	0D 1H 33M 0S	0D 1H 33M 0S @ 2021-10-16 14:24:35	1	Alarm
T4	-2.0	Low Limit	0D 0H 0M 0S	Single	0D 1H 33M 0S	0D 1H 33M 0S @ 2021-10-16 14:24:35	1	Alarm
T5	-4.0	Low Limit	0D 0H 0M 0S	Single	0D 1H 22M 40S	0D 1H 22M 40S @ 2021-10-16 14:29:45	1	Alarm
T6	-6.0	Low Limit	0D 0H 0M 0S	Single	0D 1H 22M 40S	0D 1H 22M 40S @ 2021-10-16 14:29:45	1	Alarm
H1	90.0	High Limit	0D 0H 0M 0S	Cumulative	0D 0H 0M 0S	N/A	0	OK
H2	80.0	High Limit	0D 0H 0M 0S	Cumulative	0D 0H 0M 0S	N/A	1	Alarm
H3	70.0	High Limit	0D 0H 0M 0S	Single	0D 0H 0M 0S	N/A	1	Alarm
H4	60.0	High Limit	0D 0H 0M 0S	Single	0D 0H 20M 40S	0D 0H 10M 20S @ 2021-10-16 15:52:25	2	Alarm
H5	50.0	High Limit	0D 0H 0M 0S	Single	0D 0H 25M 50S	0D 0H 15M 30S @ 2021-10-16 15:47:15	2	Alarm
H6	40.0	High Limit	0D 0H 0M 0S	Single	0D 1H 2M 0S	0D 0H 51M 40S @ 2021-10-16 15:16:15	2	Alarm

# XI System Settings

## 11.1 Options



Click  on the toolbar to set the date/time format and language. Then click "Save", the latest date and time format will be automatically updated for your use next time.



# XII FDA 21 CFR Part 11 Module

## 12.1 What is FDA 21 CFR Part 11 compliance

The United States Food and Drug Administration (FDA) issued regulations Title 21 Code of Federal Regulations Part 11 in 1997 and enacted relevant industry guidelines in 2003 to refine the rules. It provides criteria for acceptance of electronic records, signatures, and handwritten signatures executed to electronic records as equivalent to paper records and handwritten signatures executed on paper. Part 11 applies to any record governed by an existing FDA predicate rule that is created, modified, maintained, archived, retrieved, or transmitted using computers and /or saved on durable storage media.

FDA 21 CFR Part 11 is widely accepted and implemented by biomedical companies, hospitals, research institutes and laboratories in the United States. Since issued, it has spread around the world. Although not mandatory, it is generally accepted and used in Europe and Asia. Any pharmaceuticals, biomedical related equipment, or information systems exported to the United States should comply with 21 CFR Part 11 regulations, which if violated, can deprive the exporter by the FDA of its right to sell goods to the United States.

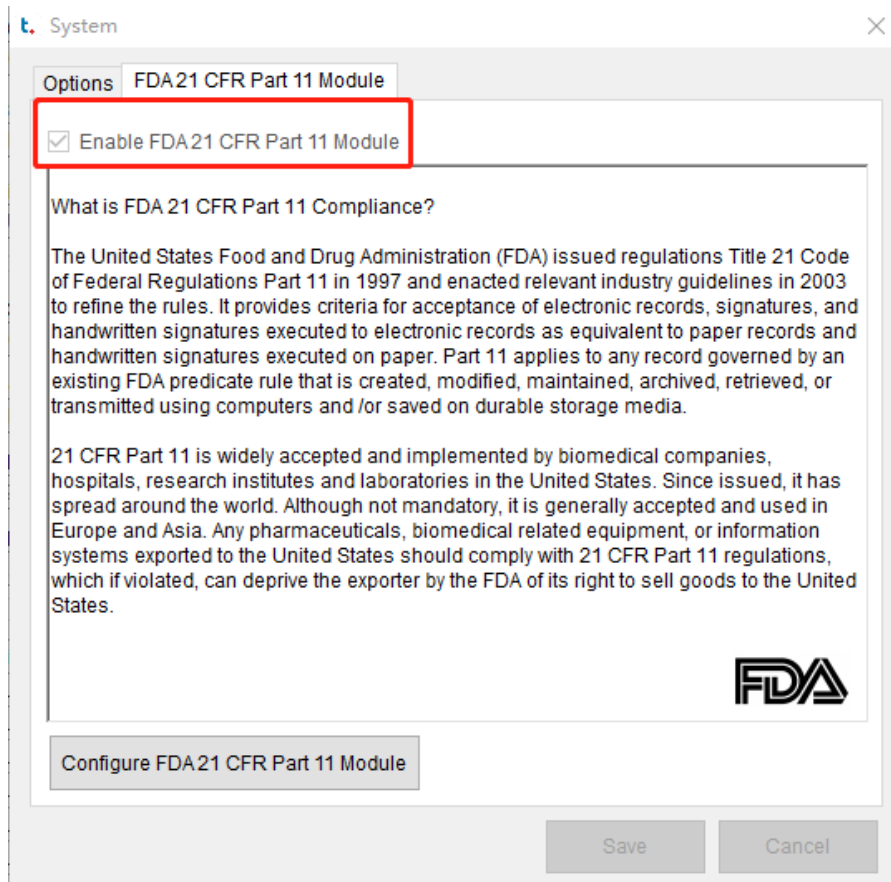
### 12.2 Access to the module

Click "System" on the toolbar and then click the tab FDA 21 CFR Part 11 Module.

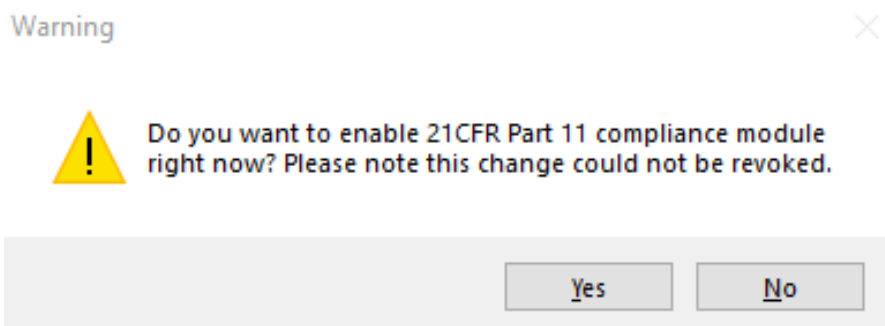
Note: 21 CFR Part 11 module is not a default function ready for use after software installation.

You need to enable this module by going to System > FDA 21 CFR Part 11 Module. The interface gives a brief introduction to the module.

## 12.2.1 Activate the module



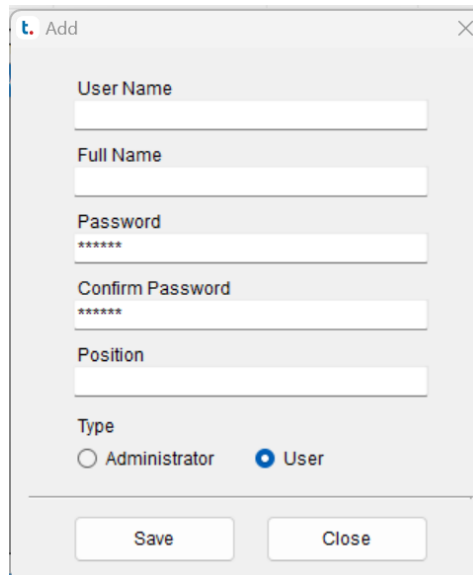
Check "FDA 21 CFR 11 Module" to activate the module. After the FDA 21 CFR 11 module is enabled, the program will restart for the changes to take effect. Click Yes.





## 12.2.2 Initializing Administrator

After the FDA 21 CFR Part 11 module is enabled, the user is required to create an administrator account:

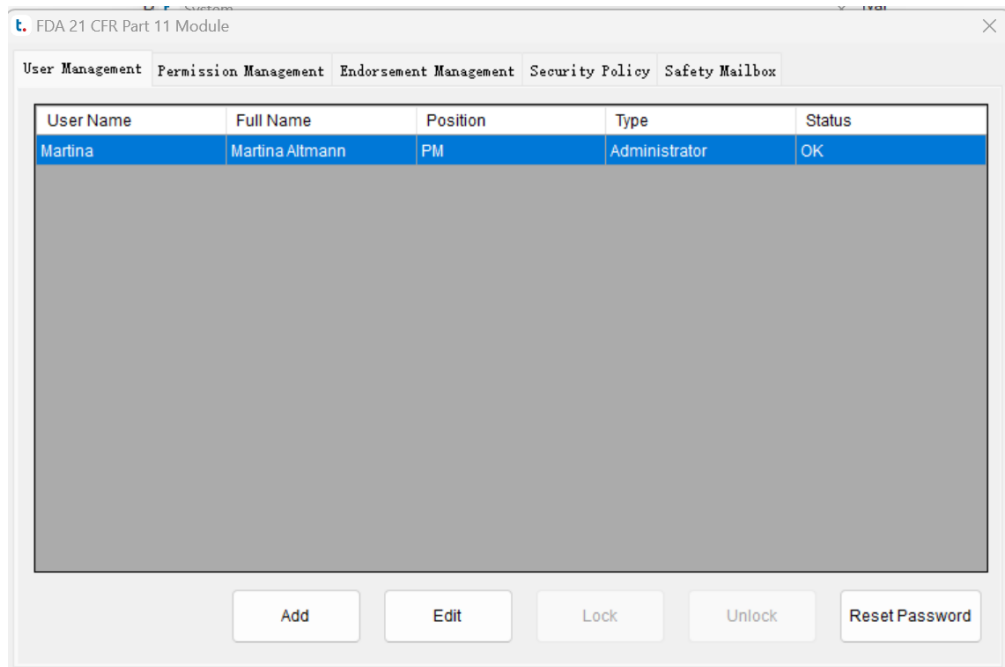


The image shows a dialog box titled "Add" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- User Name**: A text input field.
- Full Name**: A text input field.
- Password**: A text input field with six asterisks (\*\*\*\*\*).
- Confirm Password**: A text input field with six asterisks (\*\*\*\*\*).
- Position**: A text input field.
- Type**: A radio button group with two options:  Administrator and  User.

At the bottom of the dialog, there are two buttons: "Save" and "Close".

## 12.2.3 User Management



An administrator account can be used to create user accounts, change user info, lock/unlock user and reset passwords.

The 'Add' dialog box contains the following fields and options:

- User Name:
- Full Name:
- Password:
- Confirm Password:
- Position:
- Type:  Administrator  User

At the bottom are 'Save' and 'Close' buttons.

## 12.2.4 Permission Management

### System Right

**Administrator** owns all system rights.

**User** right is granted or revoked by administrator.

The screenshot shows a web application window titled "FDA 21 CFR Part 11 Module". The interface has a navigation bar with tabs: "User Management", "Permission Management", "Endorsement Management", "Security Policy", and "Safety Mailbox". The "Permission Management" tab is active. Below the navigation bar is a table with the following data:

User Name	Full Name	Position	Type	Status
Martina	Martina Altmann	PM	Administrator	OK

Below the table is a large greyed-out area. At the bottom of the window, there is a "System Permission" section on the left and an "Obtained Permissions" section on the right. The "System Permission" section is empty. The "Obtained Permissions" section contains a list of permissions: "Configure Device", "Sign Data", "Change Device Parameters", "Delete Data", and "View Audit Trail". Between these two sections are four navigation buttons: ">>", ">", "<", and "<<".

## 12.2.5 Endorsement Management

To sign electronically, user must select an endorsement, which will be linked to the data record.

User Name	Full Name	Position	Type	Status
Martina	Martina Altmann	PM	Administrator	OK

Available Endorsements

Aprobado

Comprobado

No validado

Add Edit Delete

**New Endorsement:** Enter endorsement name, click Save or Enter, it will then be saved to the database.

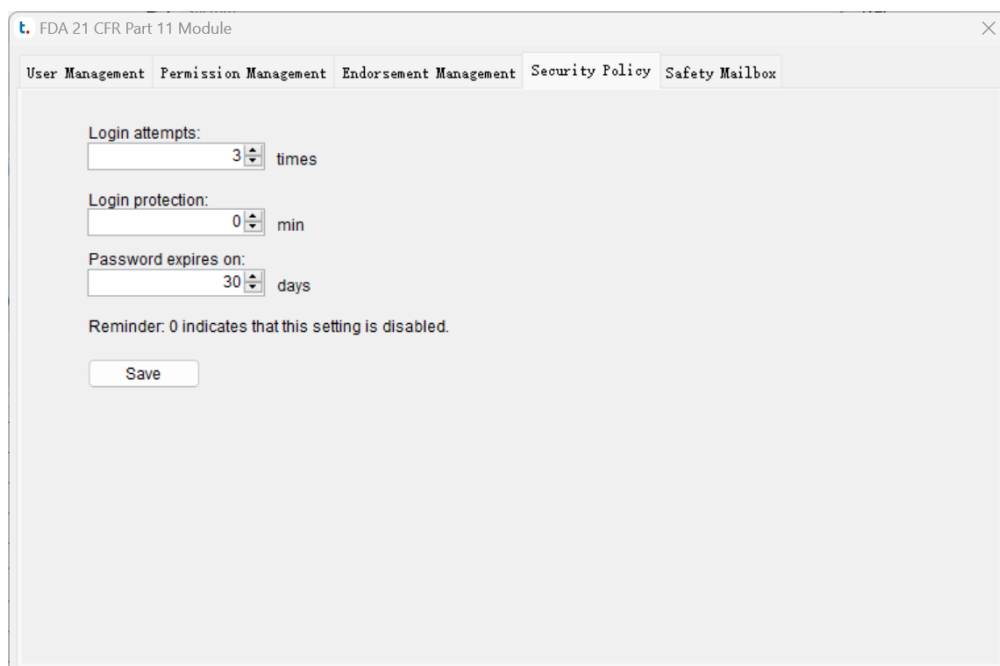
Endorsement Name:

Save Cancel

**Available endorsement:** All endorsements are listed.

**Endorsements:** User endorsements are managed by an administrator.

## 12.2.6 Security Policy



The screenshot shows a web application window titled "FDA 21 CFR Part 11 Module" with a close button in the top right corner. The window contains a navigation menu with five tabs: "User Management", "Permission Management", "Endorsement Management", "Security Policy" (which is selected), and "Safety Mailbox". Below the menu, there are three configuration sections, each with a label and a dropdown menu:

- Login attempts:** A dropdown menu showing the value "3" followed by the text "times".
- Login protection:** A dropdown menu showing the value "0" followed by the text "min".
- Password expires on:** A dropdown menu showing the value "30" followed by the text "days".

Below these sections is a reminder text: "Reminder: 0 indicates that this setting is disabled." At the bottom of the configuration area is a "Save" button.

**Login attempts:** If multiple login attempts exceed the set times, the account will be locked. Only an administrator to unlock the account.

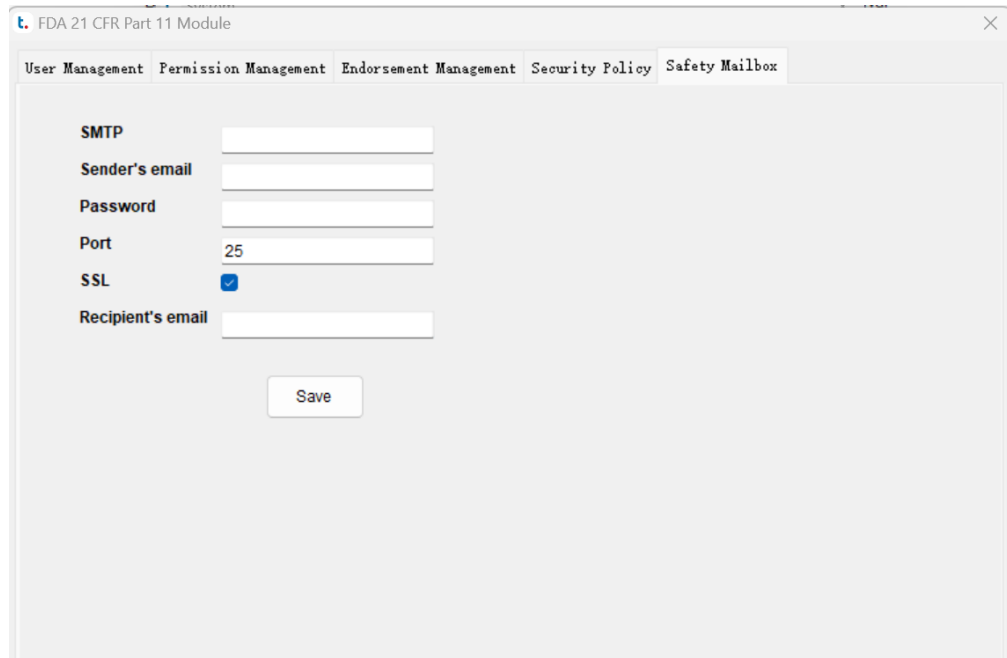
**Login protection:** If the system stays inactive after login for a period that exceeds the set time, it will be locked. User must log in again to operate the system.

**Password expiry date:** This setting indicates the password is valid before a certain period. If the password expires, the system will remind the user to change it 3 days earlier.

**Reminder:** 0 indicates that this setting is disabled.

## 12.2.7 Safety Mailbox

Safety mailbox is used to send invalid login attempts to a user-specified email address.

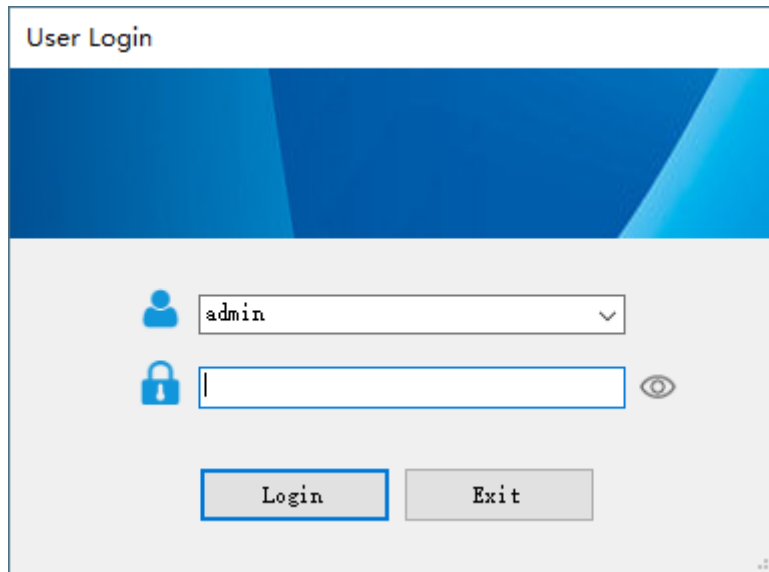


The screenshot shows a web application window titled "FDA 21 CFR Part 11 Module" with a close button (X) in the top right corner. The window contains a navigation menu with the following items: "User Management", "Permission Management", "Endorsement Management", "Security Policy", and "Safety Mailbox". The "Safety Mailbox" tab is selected. The configuration area includes the following fields and controls:

- SMTP**: A text input field.
- Sender's email**: A text input field.
- Password**: A text input field.
- Port**: A text input field containing the value "25".
- SSL**: A checked checkbox.
- Recipient's email**: A text input field.
- Save**: A button located below the input fields.


## 12.2.8 User Login



If the FDA 21 CFR Part 11 module is enabled, a user must log in to enter the system.



The image shows a 'User Login' dialog box with a blue header and a light gray body. It contains a user selection dropdown menu with 'admin' selected, a password input field with a lock icon and a visibility toggle, and two buttons: 'Login' and 'Exit'.

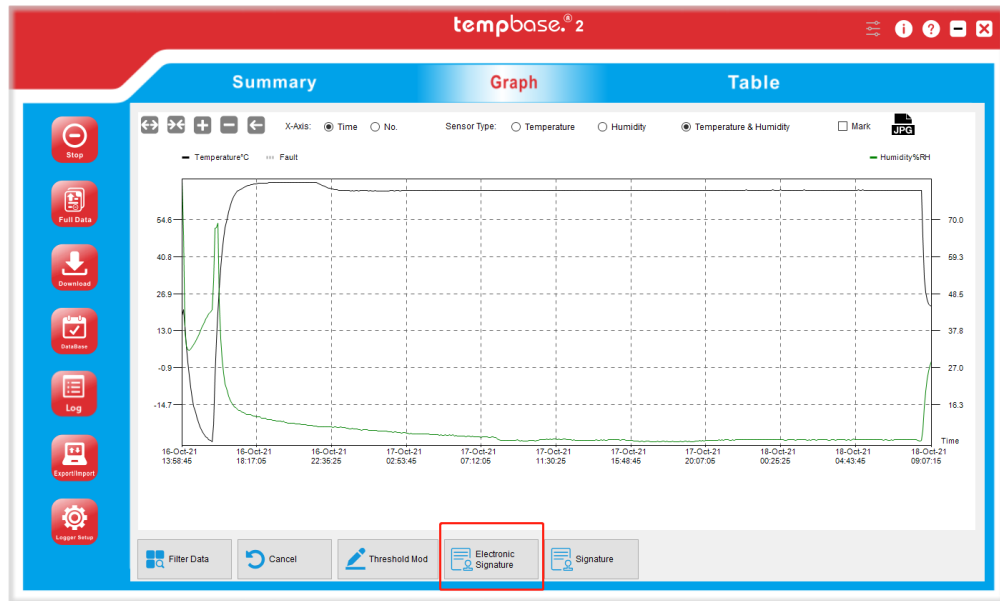
User Login

 admin

Login Exit

## 12.2.9 Electronic Signature



After the data logger is connected to a computer and its data is downloaded to the database successfully, click the "Graph" icon in the toolbar and then "Electronic Signature" to sign. Enter the username and password in the popup interface:

Signature Permission

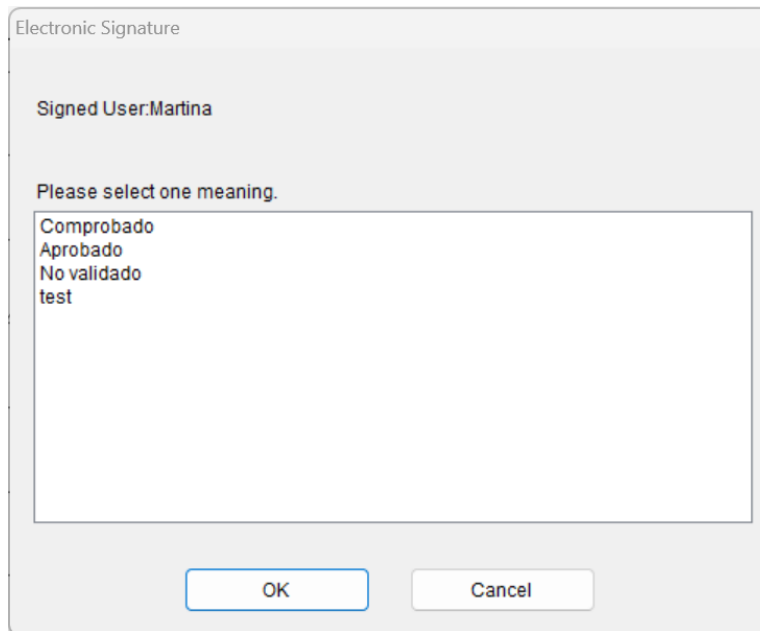
User Name:

Password:

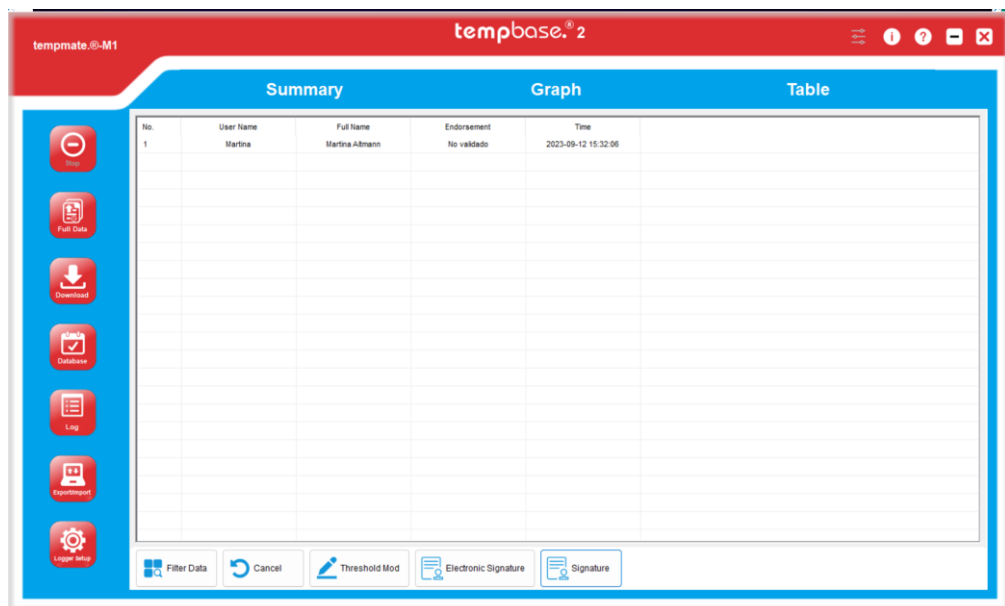
OK Cancel



After signature authorization, select one meaning:



Then click OK. The system will sign and confirm with "Signature success". Then you may click the "Signature" to view signature information.



## 12.2.10 Historical Signature

After being signed, the signature will show up next to the Record ID.

If you want to sign the data again, double click the record and repeat the operation above.

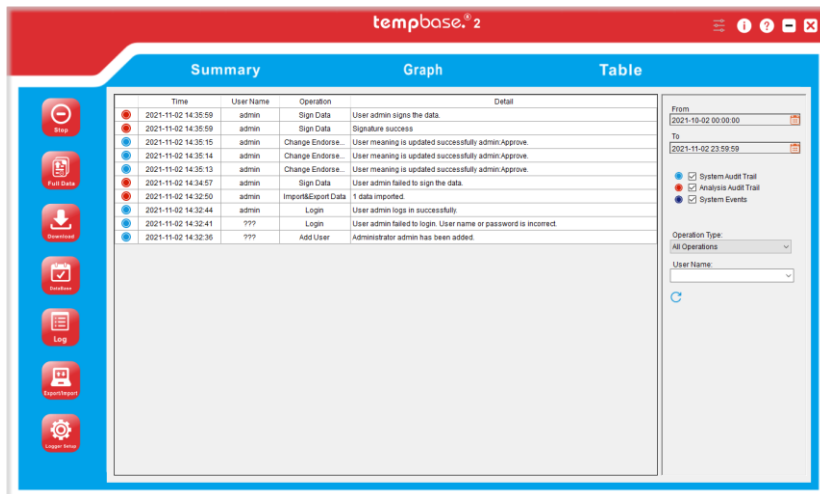
The screenshot displays the 'tempbase 2' software interface. The main window is titled 'Summary Graph Table'. The 'Table' view is active, showing a list of records. Each record has a 'Status' column with a red 'X' or green checkmark, a 'Signature' column with a checkbox, and a 'Data ID' column. The 'Start Time' column shows the date and time of the reading. The 'Current Readings' column shows the current temperature. The 'S1 (Max)', 'S1 (Min)', 'S2 (Max)', and 'S2 (Min)' columns show the maximum and minimum values for the two sensors.

[1]	Status	Signature	Data ID	Start Time	Current Readings	S1 (Max)	S1 (Min)	S2 (Max)	S2 (Min)
	X	<input type="checkbox"/>	TMM150400001_20211027171227	2021-10-27 15:47:11	498	34.0 °C	25.3 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027162013	2021-10-27 15:47:11	197	28.0 °C	25.3 °C	N/A	N/A
	✓	<input checked="" type="checkbox"/>	S2T2104000302_20211027160630	2021-10-26 07:24:04	3	25.1 °C	23.3 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027155634	2021-10-27 15:47:11	7	28.0 °C	27.6 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027153842	2021-10-27 07:00:02	231	27.0 °C	26.9 °C	N/A	N/A
	✓	<input type="checkbox"/>	S2H2110231551_20211027153811	2021-10-27 01:52:11	2067	27.2 °C	22.6 °C	50.5 %	37.5 %
	X	<input type="checkbox"/>	TMM150400001_20211027153630	2021-10-27 07:00:02	158	27.0 °C	26.9 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027150231	2021-10-27 07:00:02	14	27.0 °C	26.9 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027150108	2021-10-27 07:00:02	8	27.0 °C	26.9 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027150108	2021-10-27 07:00:02	6	27.0 °C	26.9 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027150034	2021-10-27 07:00:02	3	27.0 °C	26.9 °C	N/A	N/A
	✓	<input type="checkbox"/>	TMM150400001_20211027145905	2021-10-27 06:57:45	1	25.6 °C	25.6 °C	N/A	N/A
	✓	<input type="checkbox"/>	S2H2110231551_20211027131424	2021-10-27 01:52:11	1207	26.7 °C	22.6 °C	50.5 %	39.6 %
	✓	<input type="checkbox"/>	S2H2110231551_20211027131247	2021-10-27 01:52:11	764	24.3 °C	22.6 °C	49.6 %	46.6 %
	✓	<input type="checkbox"/>	S2H2110231551_20211027131209	2021-10-27 01:52:11	764	24.3 °C	22.6 °C	49.6 %	46.6 %
	✓	<input type="checkbox"/>	S2H2110231551_20211027120036	2021-10-27 01:52:11	764	24.3 °C	22.6 °C	49.6 %	46.6 %
	✓	<input type="checkbox"/>	S2H2110231551_20211027115915	2021-10-27 01:52:11	759	24.2 °C	22.6 °C	49.6 %	47.0 %
	X	<input type="checkbox"/>	TMM150400001_20211027114858	2021-10-26 09:56:38	10	25.6 °C	25.3 °C	N/A	N/A
	✓	<input checked="" type="checkbox"/>	S2T2104000302_20211027101447	2021-10-26 07:24:04	1	25.1 °C	25.1 °C	N/A	N/A
	X	<input type="checkbox"/>	S2H2110231551_20211027095034	2021-10-23 07:29:02	966	29.3 °C	18.1 °C	76.2 %	37.5 %
	X	<input type="checkbox"/>	S2H2110231551_20211027095008	2021-10-23 07:29:02	12	29.3 °C	18.1 °C	76.2 %	37.5 %
	X	<input type="checkbox"/>	S2H2110231551_20211027094925	2021-10-23 07:29:02	12	29.3 °C	18.1 °C	76.2 %	37.5 %
	X	<input type="checkbox"/>	S2H2110231551_20211027094843	2021-10-23 07:29:02	32000	29.3 °C	18.1 °C	76.2 %	37.5 %
	X	<input checked="" type="checkbox"/>	TMM150400001_20211027090039	2021-10-26 09:56:38	10	25.6 °C	25.3 °C	N/A	N/A
	X	<input type="checkbox"/>	TMM150400001_20211027085625	2021-10-26 09:56:38	10	25.6 °C	25.3 °C	N/A	N/A

The right-hand panel shows 'Time Options' with a 'From' field set to '2021-10-02 00:00:00' and a 'To' field set to '2021-11-02 23:59:59'. Below this are radio buttons for '1 month', '3 months', and '6 months'. The 'Device Options' section includes a checkbox for 'Alarmed Device' and a checkbox for 'All Devices'. At the bottom of the panel are buttons for 'View Details', 'Delete', 'Backup Data', and 'Restore Data'.

## 12.2.11 Audit Trail

Audit trail records user's operations of the system, including time, actions, etc., and can be viewed under *Log*, if the FDA 21 CFR part 11 module is activated and configured. The data can be filtered per time, audit type, action type and username.



	Time	User Name	Operation	Detail
🔵	2021-11-02 14:48:12	admin	System Event	M1 disconnected.
🔵	2021-11-02 14:41:06	admin	System Event	M1 connected.
🔴	2021-11-02 14:35:59	admin	Sign Data	User admin signs the data.
🔴	2021-11-02 14:35:59	admin	Sign Data	Signature success
🔵	2021-11-02 14:35:15	admin	Change Endorse...	User meaning is updated successfully admin:Approve.
🔵	2021-11-02 14:35:14	admin	Change Endorse...	User meaning is updated successfully admin:Approve.
🔵	2021-11-02 14:35:13	admin	Change Endorse...	User meaning is updated successfully admin:Approve.
🔴	2021-11-02 14:34:57	admin	Sign Data	User admin failed to sign the data.
🔴	2021-11-02 14:32:50	admin	Import&Export Data	1 data imported.
🔵	2021-11-02 14:32:44	admin	Login	User admin logs in successfully.
🔵	2021-11-02 14:32:41	???	Login	User admin failed to login. User name or password is incorrect.
🔵	2021-11-02 14:32:36	???	Add User	Administrator admin has been added.

# Version Log

Version	Date	Description
V1.0.0	2021-06-10	The first version.
V2.0.0	2021-11-02	<ol style="list-style-type: none"> <li>1. Change the program interface style;</li> <li>2. Added S1 and M1 product support;</li> <li>3. Some new features</li> </ol>
V2.0.1	2022-01-27	<ol style="list-style-type: none"> <li>1. "Full Data" function works with tempmate-S1;</li> </ol>
V2.0.2	2022-02-17	<ol style="list-style-type: none"> <li>1. Optimized the alarm setting function of M2;</li> </ol>
V2.0.3	2022-03-11	Fixed an issue where the alarm threshold in the S2 report showed -400(Firmware version number: V1.4)
V2.0.4	2022-04-18	<ol style="list-style-type: none"> <li>1. Modify some file information</li> <li>2. If M2 firmware version number between v1.6 to v1.9 so need the firmware version upgraded to 1.9 and then do the parameter setting</li> </ol>
V3.0.0	2022-09-03	Added automatic update function
V3.0.1	2022-12-21	Add group configuration function
V3.0.2	2023-01-31	<ol style="list-style-type: none"> <li>1. Add calibration function</li> <li>2. Enhance the security of serial number configuration</li> <li>3. Optimize some functions</li> </ol>
V3.0.3	2023-03-17	<ol style="list-style-type: none"> <li>1. Optimization of product configuration parameters under different power states</li> <li>2. Optimize temperature calibration function</li> <li>3. Synchronization time button optimization</li> </ol>

V3.0.4	2023-09-19	<ol style="list-style-type: none"><li>1. Automatic firmware update for tempmate-S1V2 data loggers (PDF-Symbol Fix).</li><li>2. Added multi-lingual software settings and manuals</li><li>3. Fixed a deviation where PDF-reports of the tempmate-M2 data loggers show a wrong measurement interval</li></ol>
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