Frigga Data Center

User Manual

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I Introduction

1.1 Overview

Frigga Data Center Software is comprehensive desktop software designed for analyzing and managing the temperature and humidity data recorded by Frigga data loggers.

The software integrates the most dependable temperature and humidity sensing technology and the most advanced system kernel to date. It is characterized of 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.
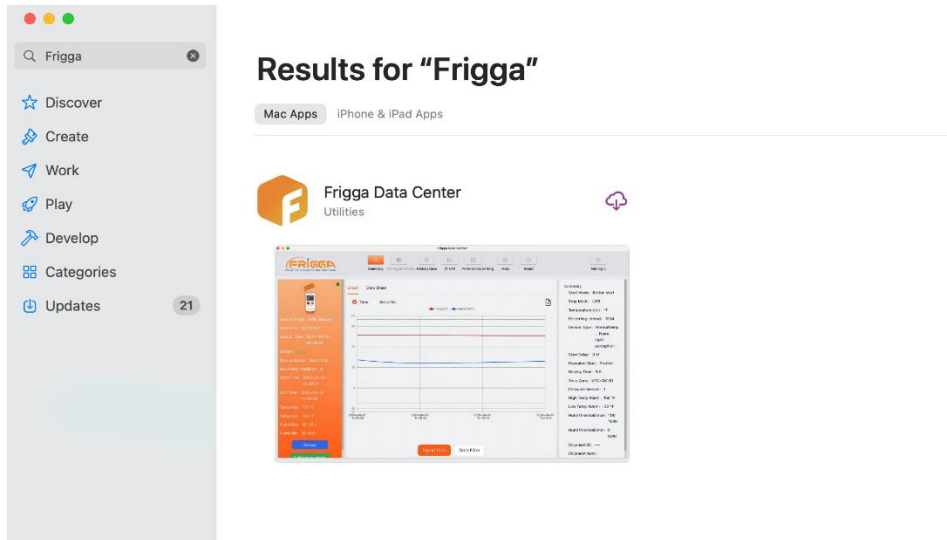
1.2 Installation environment requirement

Mac OS 12.0 or above, supports arm 64 and x86_64 architectures, 2G RAM or above.
A hard drive with 1GB available disk space.
Mouse or other pointing devices.
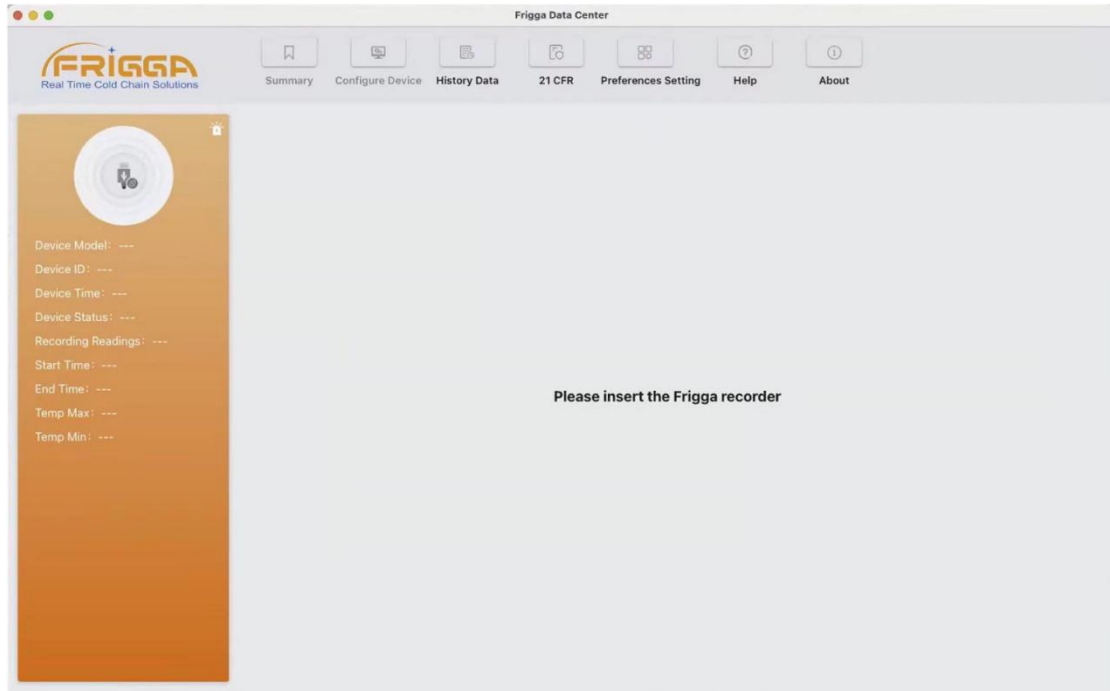A VGA monitor with display resolution 1440 x 900 pixels or better.

II Install & Start

2.1 Install

1) Go to the Appstore, search for Frigga Data Center, and download.
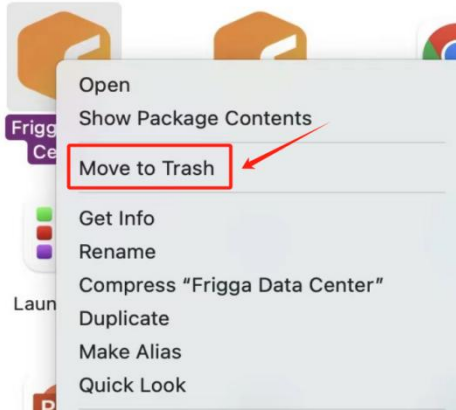
2.2 Start

Double click on your computer desktop to start the software

2.3 Uninstall

Method 1: Go to Application, find "Frigga Data Center", right-click it, and select "Move to trash".
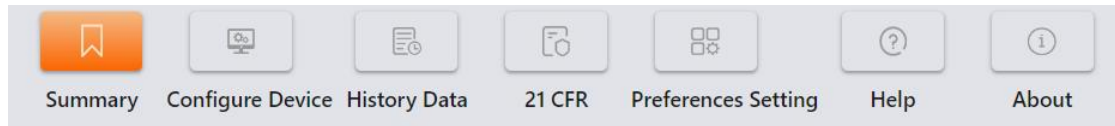

Method 2: Long press "Frigga Data Center", and delete it.

III Functions

3.1 Toolbar

Summary: After successfully downloading the data, the software will show the logger's basic information, statistics.

Configure Devices: Users can set the parameters of a connected data logger, including log interval, start delay, Shipment ID, Shipment Note and alarm settings.

History Data: 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. 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.

21 CFR: FDA 21 CFR Part 11 Module

Preferences Setting: Includes Basic Settings and Cloud Settings. Basic Settings includes four tabs: Option to change date/time format, language and temperature unit. Cloud Settings supports two methods of uploading.

Help: User Manual.

About: About us.

IV Download Data

4.1 Connect data logger

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

4.2 Read data

Click "Reload" on the toolbar to read and download the data in 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 downloaded, the data will be saved to the database automatically. The data can be viewed in "Database" interface.

V Summary

5.1   Device information

Device ID: The unique ID of the data logger. It cannot be changed.

Device Time: the current time of the device.

Battery Level: The current remaining power of the device.

Device Status: The current working status of the logger.

Record Points: The amount of readings the software downloads from the logger.
Start Time: The time when the logger starts running.

End Time: The time when the logger stops running.

Temp Max: The maximum value of the recorded temperature readings.
Temp Min: The minimum value of the recorded temperature readings.
Humi Max: The maximum value of the recorded humidity readings.
Humi Min: The minimum value of the recorded humidity readings.
Reload: Refresh data.
Calibration Report: Click to get the calibration report of the device.

5.2   Statistical information

Start Mode: The mode the logger to be started, including manual start, timing start, immediate start.

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

Record Interval: The interval time between two successive points of data.

Start Delay: The time from the logger started to the first point saved.
Repeated Start: The logger is started repeatedly, and the previously recorded data is cleared after a new startup.

Display Time: The logger's on screen display time.

Firmware Version: The logger's internal program version number.

High Temp Alarm: The maximum of temperature threshold.

Low Temp Alarm: The minimum of temperature threshold.

**Humi Threshold max:** The maximum of humidity threshold.

Humi Threshold min: The minimum of humidity threshold.

Shipment ID: Customized options designed for logistics, cold chain transportation companies.

Shipment note: Customized options designed for logistics, cold chain transportation companies.

Note: The specific configuration items may vary depending on the device model.
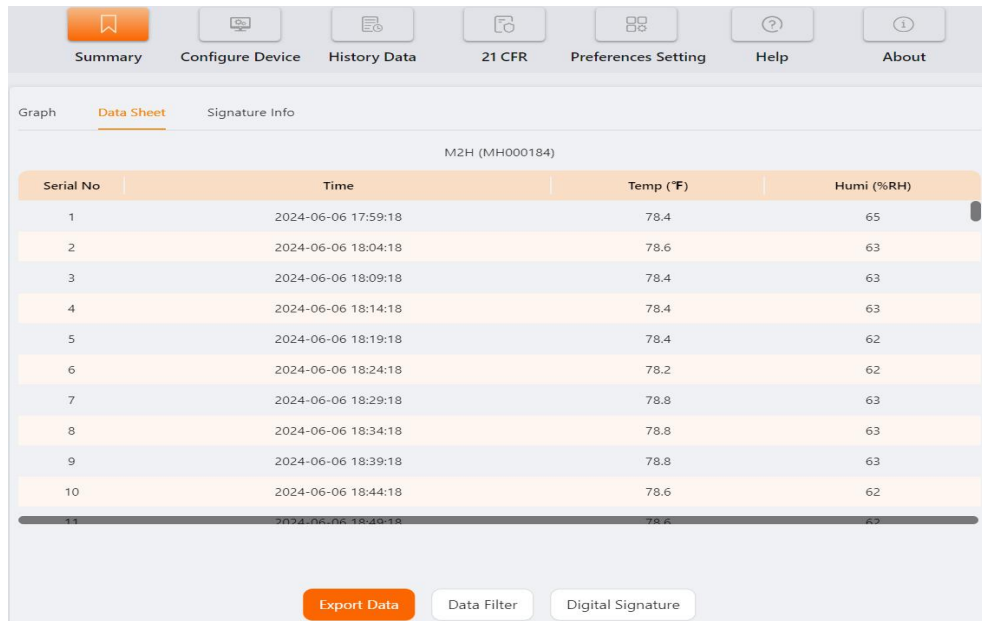
5.3 Summary - Graph
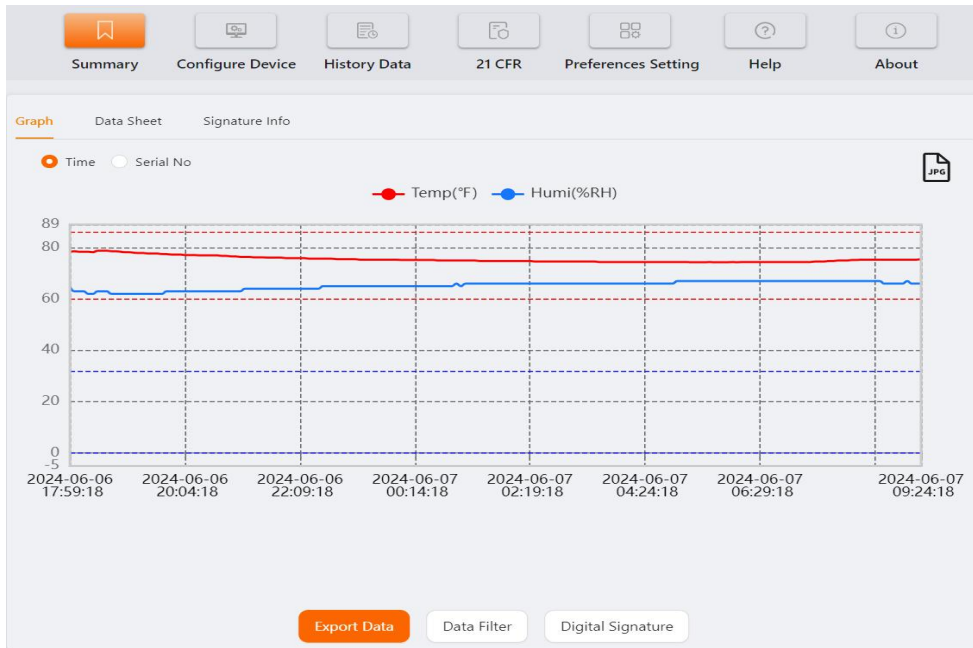
Click the "Graph" tab to display currently selected data of the logger. It can be the data of a currently connected logger or the historical data stored in the database.

The red one of the graph shows the temperature scale value and the blue one shows the humidity scale value.

The graph supports zoom functions, allowing the user to zoom in and zoom out.

5.4 Summary-Data Sheet

Click the "Data sheet" 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.

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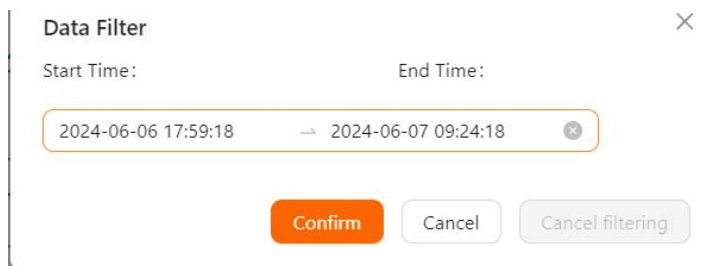
Click the "Data Filter" button at the bottom right. Select "Start time" and "End time", and click "Confirm", the software will automatically filter the data within specified time period. After data filtered, the software will automatically redraw the graph, table, and summary.

5.6 Export Data

Click the "Export Data" button at the bottom left to export report to PDF or Excel format.

VI Configure Devices

6.1 Basic parameters

Recording Interval: The interval time between two successive points of data

Time Zone: Set the required time zone

Start Mode: The mode the logger to be started

Temp threshold min: The minimum of temperature threshold

Temp threshold max: The maximum of temperature threshold

Humi threshold min: The minimum of humidity threshold

Humi threshold max: The maximum of humidity threshold

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

Shipment ID: Customized options designed for logistics, cold chain transportation companies

Shipment Note: Customized options designed for logistics, cold chain transportation companies

6.2 Advanced parameters

Temperature unit: Celsius / Fahrenheit.
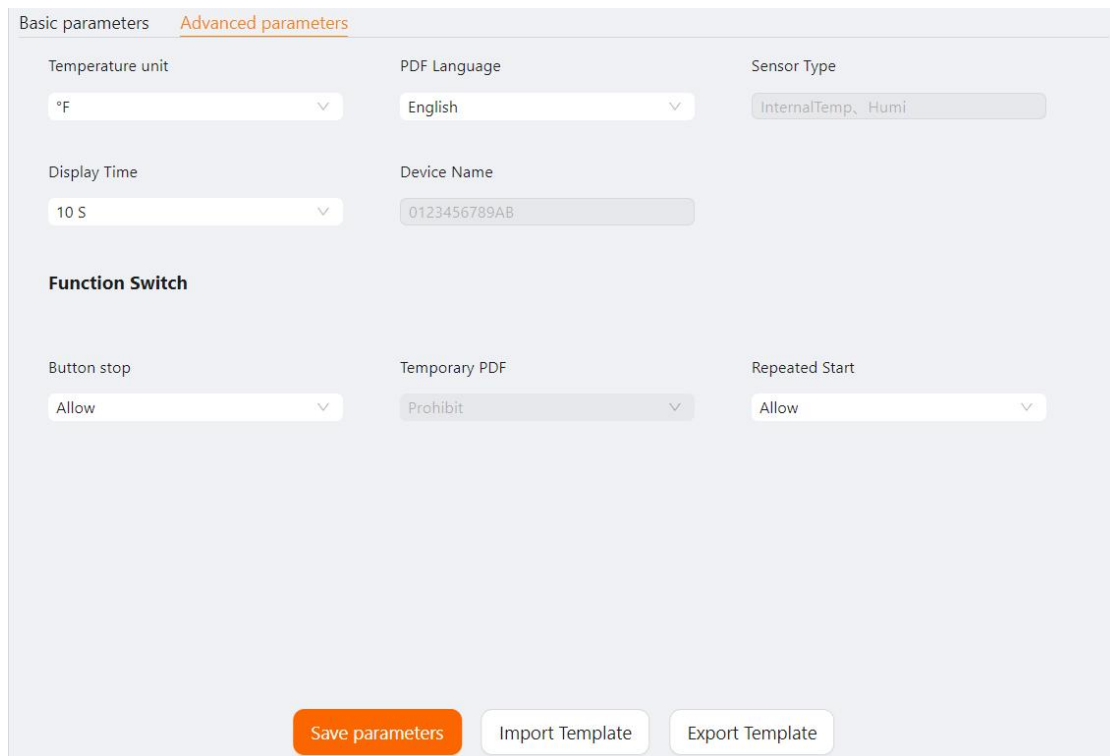
PDF Language: The PDF report generated is in English / Chinese.

Display Time: The logger's on screen display time

Device Name: Device ID

Button Stop: The way that the logger is stopped

Repeated Start: The logger is started repeatedly, and the previously recorded data is cleared after a new startup.

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 Database

7.1 History Data

Click " History Data" 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 all the 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.
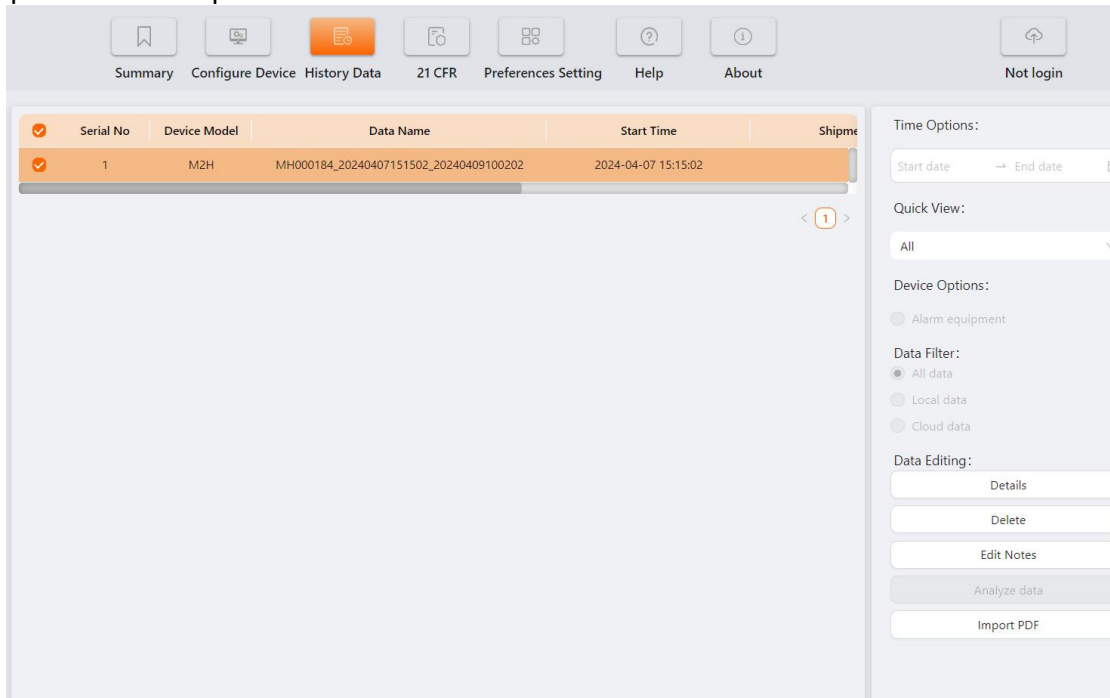
7.2 Filter data

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

7.3 Data Operation

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

	Serial No	Device Model	Data Name	Start Time
☑	1	M2H	MH000184_20240606175918_20240607092418	2024-06-06 17:59:18
☐	2	M2H	MH000184_20240605150450_20240606114450	2024-06-05 15:04:50

Data Editing:
- Details
- Delete
- Edit Notes

Delete the data: Click the "Delete" button in the right sidebar to delete the data.

Edit notes: Click the "Edit" button in the right sidebar to edit the notes.

7.4 Analyze data

Analyze data: Click on the required two or more data, and click "Analyze data" button in the right sidebar, the chart can be generated automatically.

VIII System Settings

8.1 Preferences Setting

Click "Preferences" on the toolbar to set the date/time format and system language. The latest date and time format will be automatically updated for your use next time.

IX 21 CFR

9.1 FDA 21 CFR Part 11 Module

What is FDA 21 CFR Part 11 compliance?

The US Food and Drug Administration (FDA) issued Chapter 21, Part 11 of the Code of Federal Regulations (21CFR Part 11) in 1997 and issued industry guidelines in 2003 to refine the rules. In 21 CFR Pat 11 regulations, electronic records are considered to have the same legal effect as written records and handwritten signatures, and are applicable to any records managed by existing FDA rules, created, modified, maintained, archived, retrieved, transmitted, or stored in persistent storage media using computers.

21 CFR Part 11 is widely accepted and followed by bio-pharmaceutical companies, hospitals, research institutes, and laboratories in the United States. Since its promulgation, it has been promoted globally and although not mandatory, it is widely accepted and used by countries in Europe, Asia, and other regions. Drugs, bio-pharmaceutical related equipment, or information systems exported to the United States should comply with the provisions of 21 CFR Part 11. If violated, the FDA will deprive the right to export to the United States in accordance with regulations.

9.2 Activate the Module

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

9.3 Initializing Administrator

After FDA 21 CFR Part 11 module enabled, you are required to create an administrator account for login.
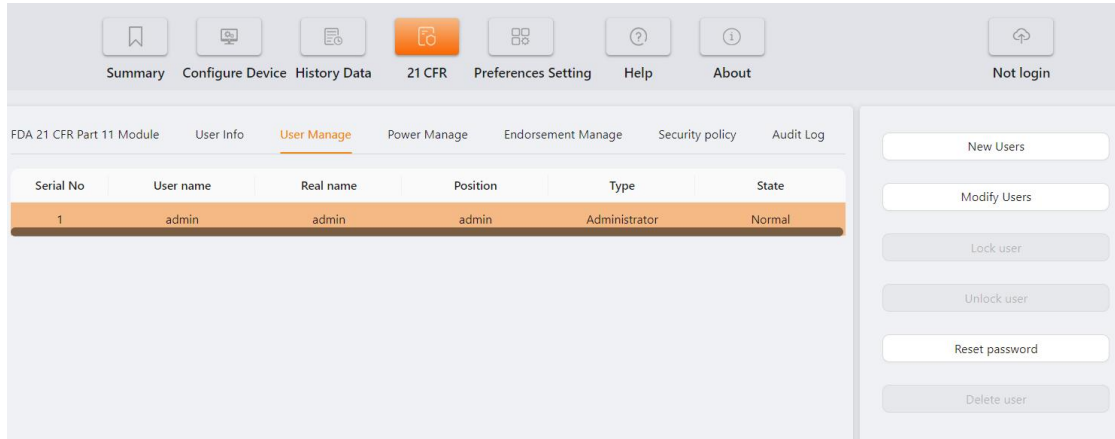
9.4 User Management

Administrator account can be used to create user accounts, change user info, lock/unlock user and reset passwords.
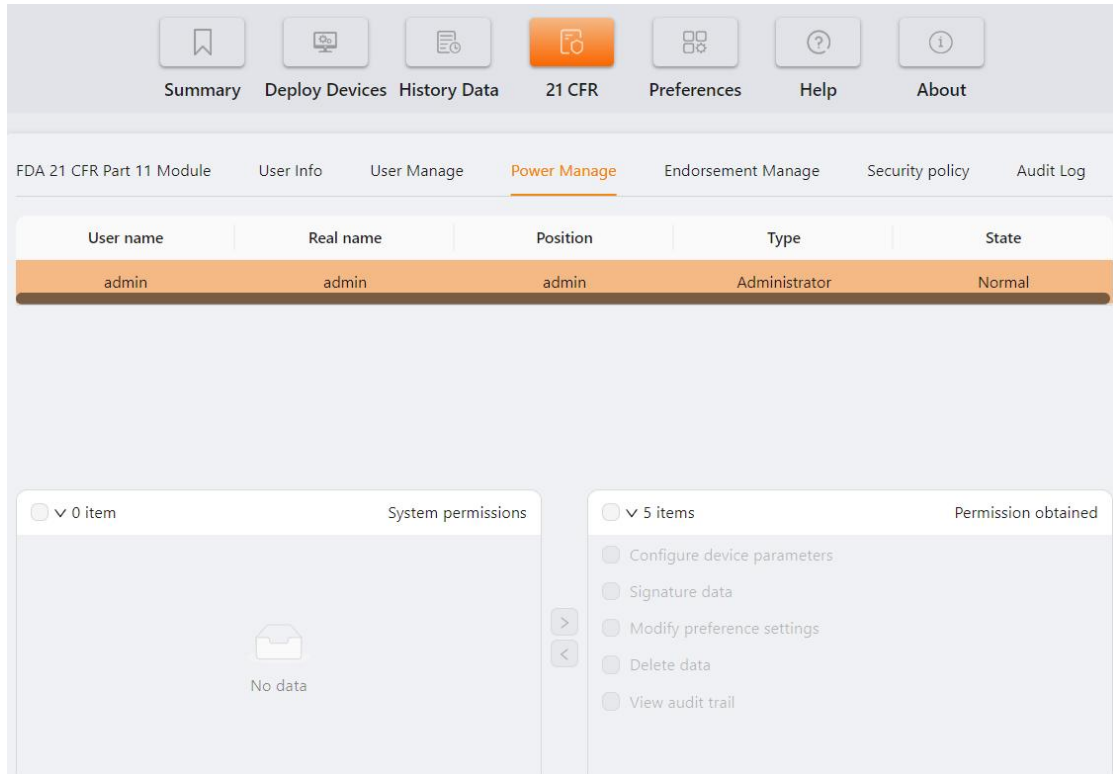
9.5 Power Management

Administrator: All system privilege.

Ordinary users: permissions are granted or withdrawn by the administrator as needed.

9.6 Endorsement Management

Endorsement: When digitally signing, the user must select an endorsement to digitally sign, and that endorsement information is linked to that data record.
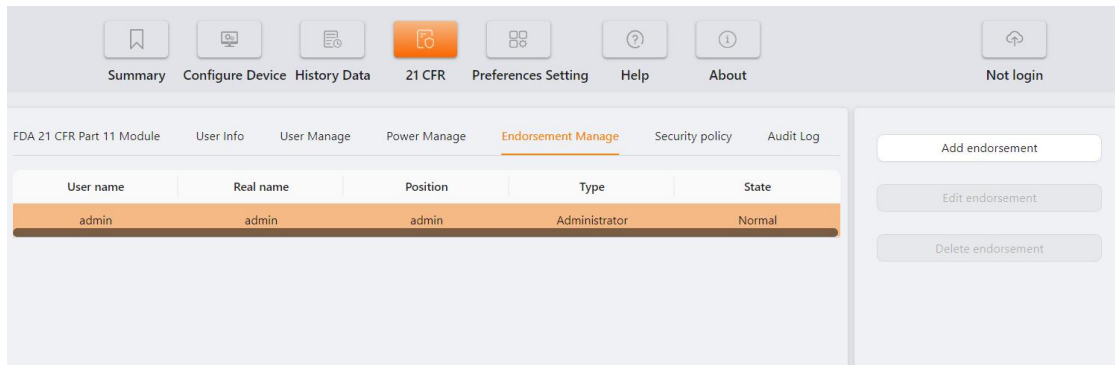
Add endorsement:

Enter endorsement, click "OK" , it will be saved to database.

Available endorsements:

The list of endorsements shows all available endorsements.

User Endorsements:

The available endorsements for users are managed by the administrator.

9.7 Security Policy

Number of attempts to log in:

If login attempts exceeds the set times, the account will be locked. Please contact administrator to unlock the account.
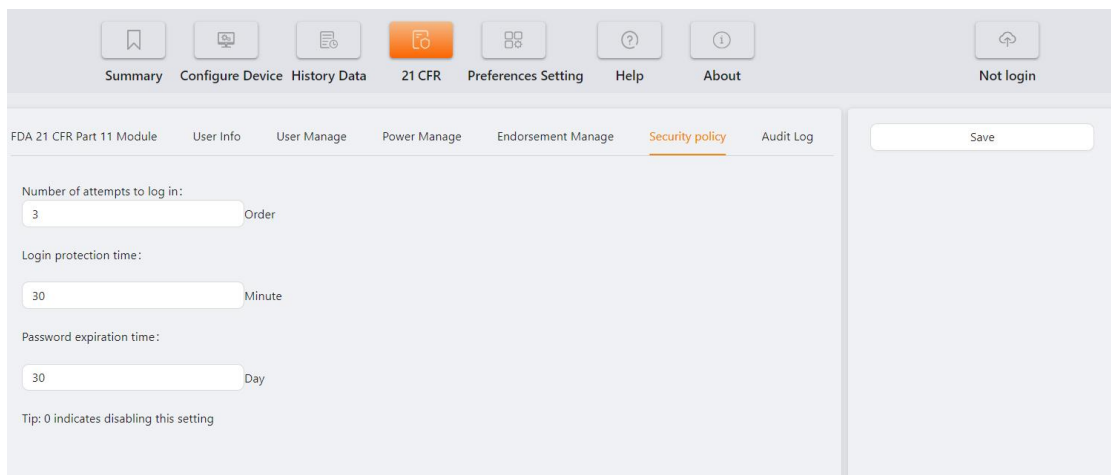
Login protection time:

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 expiration time:

This setting indicates the password is valid before a certain period of time.

If the password expires, the system will remind the user of changing it .
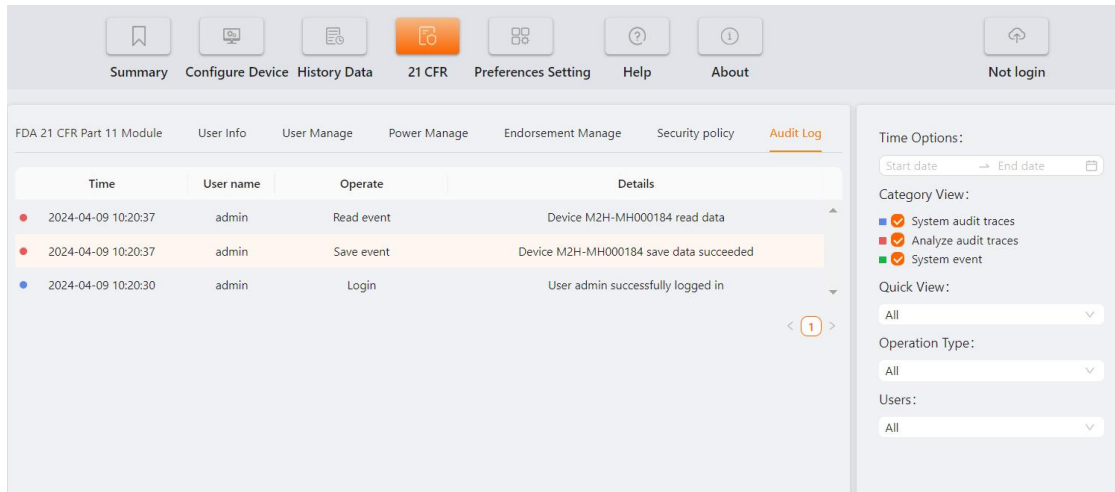
Tip: 0 indicates that this setting is disabled.

9.8 Audit Log

Audit log records the process of the user's operating system, including the log time and operation information, providing a variety of data filtering methods such as: time period query, audit type query, operation type query, user name query and so on.

9.9 Digital Signature

After the data logger is connected to a computer and its data is downloaded to the database successfully, you may click "Graph" icon in the toolbar and then "Digital Signature" to sign.
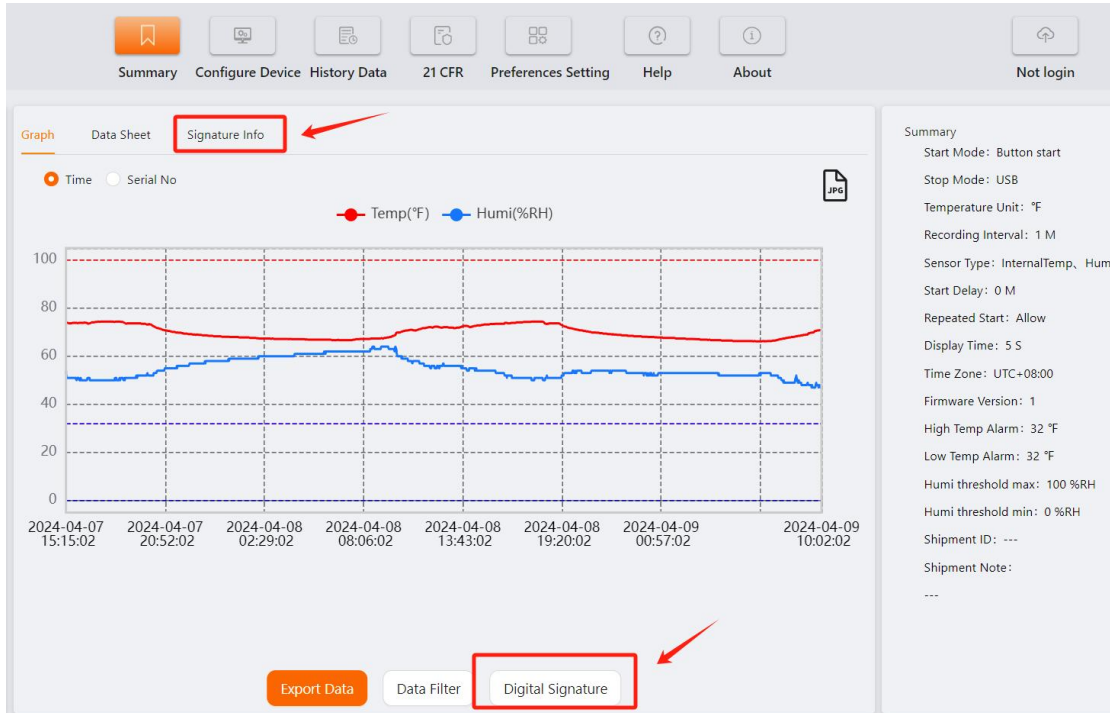
Enter the user name and password in the popup interface as follows:

X Cloud Platform Services

10.1 Cloud Users Registration

Click "Register" at the left bottom of the screen, then go to the Frigga Cloud Platform registration center.
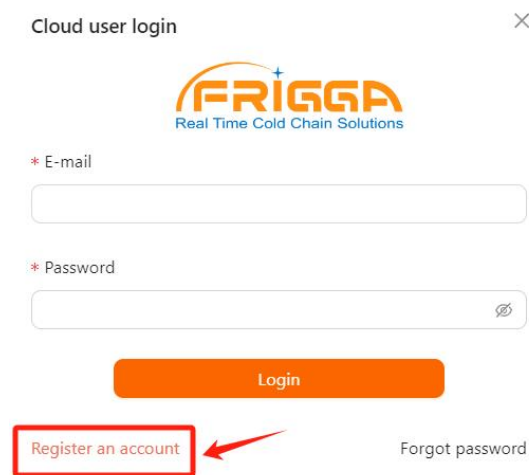
Tips: Please select the corresponding type of device to register (real-time device or non-real-time device).

10.2 Cloud Users Login

Click the "Not login" button in the upper right corner of the toolbar, see below:

Enter your email and password, click "Login" to complete the login.
If you have forgotten your password, please click "Forgot Password" to retrieve your password.
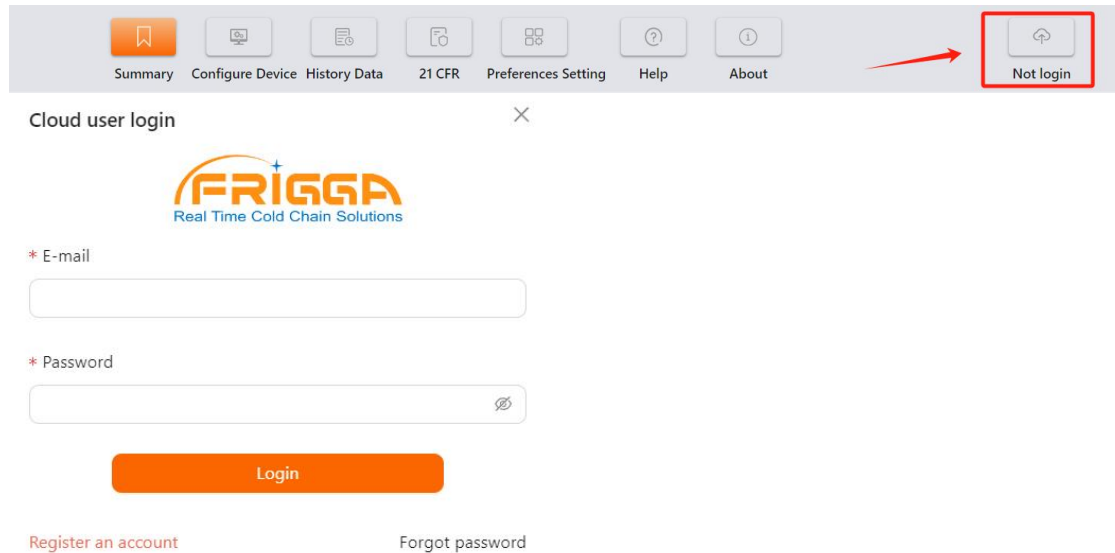
10.3 Login

User Center: Click to go to Platform User Center
Transfer List: Click to open the data upload list
Cloud Data: Click to go to Platform Device Center
Change Password: Click to go to Platform User Center to modify
Logout of cloud login: Log out

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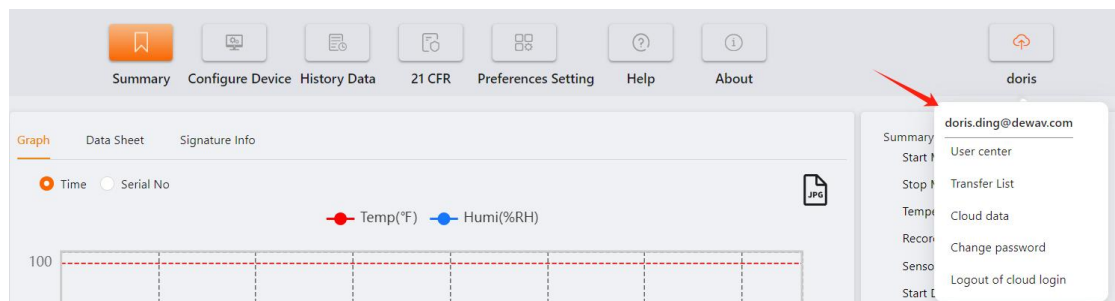
10.4 Data Uploading

Manual Data Uploading

Click the "History Data" button of the toolbar, select the data you want to upload, and then click "Upload local data".
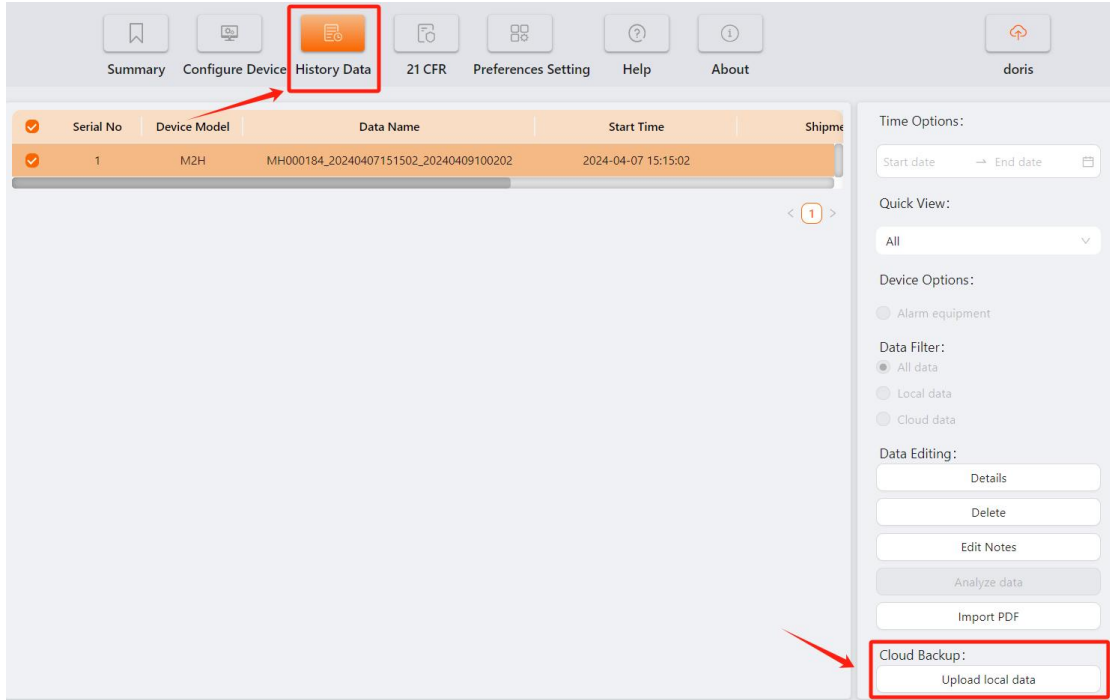
The interface of successful data upload is as follows:

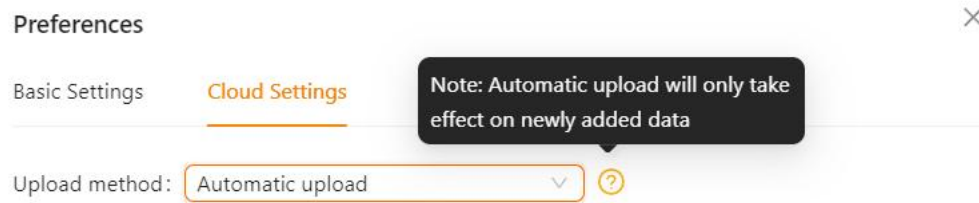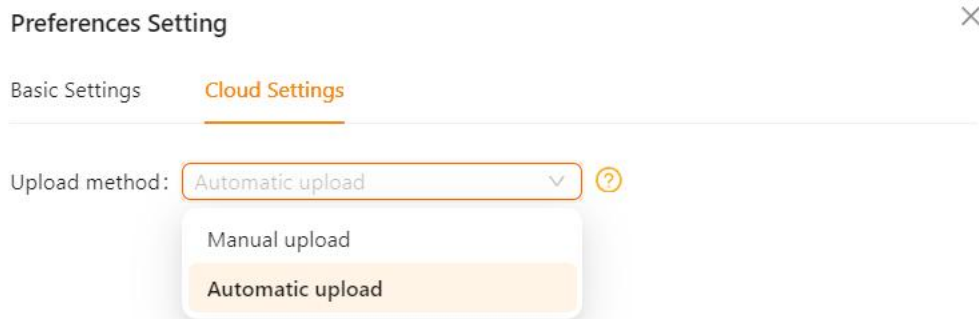## Automatic Data Uploading

Configurable in "Preferences Setting", effective after cloud user login.
Please note: Automatic upload will only take effect on new data.

10.5 Transfer List

To be uploaded: Data that is waiting to be uploaded
Uploading: Data being uploaded
Completed: Data that have been uploaded and can be viewed on the platform
Other: Data that failed to be uploaded and can be retried.

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