upsSmartView User Manual

Uninterruptible power system intelligent monitoring software

一、Introduction

upsSmartView is a set of single-machine and multi-machine monitoring software for intelligent UPS applicable to RS-232, RS-485, SNMP and USB interfaces. It can realize real-time monitoring of single-phase, three-phase UPS and specific modbus protocol. It can run on both windows and linux systems at the same time.When the mains power is normal, upsSmartView can clearly display the real-time status of the UPS output and input voltage, frequency, load, temperature and battery capacity with data and graphs, as well as real-time data curves, helping users monitor the quality of power supply;When the utility power is interrupted or the UPS battery is low, upsSmartView can give full play to its unmanned monitoring function. In addition to the functions of automatic safety archiving and system safety shutdown, it also increases multi-directional automatic Alarm transmission function, including e-mail transmission alarm, SMS prompt alarm (need to have SMS alarm module) and so on. Users not only do not have to worry about the loss of any system or files caused by the sudden interruption of the mains, but also can carry out necessary emergency treatment in the first time.

Function introduction

(1) Real-time data monitoring of single-phase UPS and three-phase and specific modbus UPS.

(2) Chinese and English language switching.

(3) Automatically send alarm information by e-mail.

(4) Automatically send SMS alarm information (requires SMS module support).

(5) Automatically detect mains interruption and UPS battery low potential.

(6) Flexible setting of automatic switch time.

(7) Support weekly or longer timed scheduling or special scheduling settings (Note: Scheduling means that the UPS can be flexibly set the time to switch on and off).

(8) Instant graphical display of UPS status such as temperature, voltage, load, frequency, etc.

(9) Can set shutdown to run custom programs and delay shutdown time.

(10) Configurable UPS diagnostic self-test time.

(11) Automatically close and save applications before shutting down the system.

(12) Record and analyze power status.

(13) Support RS232 to USB interface or network cable interface communication.

(14) Support SNMP agent function.

(15) Real-time data monitoring of multiple UPSs at the same time.

(16) When there are many UPSs to be monitored, the UPSs can be divided into different areas to monitor the current communication UPS more intuitively.

二、System Support

1. Hardware requirements

(1) Computer: Support RS232 communication or USB interface communication.

(2) Connecting cable: 9PIN serial cable or USB cable for UPS dedicated RS232. For customers who use RS-232 serial communication, connect one end of the female head to the RS-232 communication port of the UPS system, and connect the male head to the serial port of the computer (if The USB-to-serial cable can be directly connected to the USB port of the computer); If the system only has a 25PIN communication port, it can be connected with a 9PIN to 25PIN adapter; for customers who use USB communication, just use a dedicated USB data communication cable to connect the computer to the UPS. The three connection lines are shown in the figure.

Serial to USB cable

Serial cable

USB cable

(3) UPS：Support most of the company's single-phase UPS and three-phase UPS and some Modbus protocol UPS.

2. Applicable operating system

(1) Microsoft Windows 7（32/64）

(2) Microsoft Windows 10（32/64）

(3) Microsoft Windows 11

(4) Linux operating system :Ubuntu20 (64)

Note: The software supports but is not limited to the above systems.

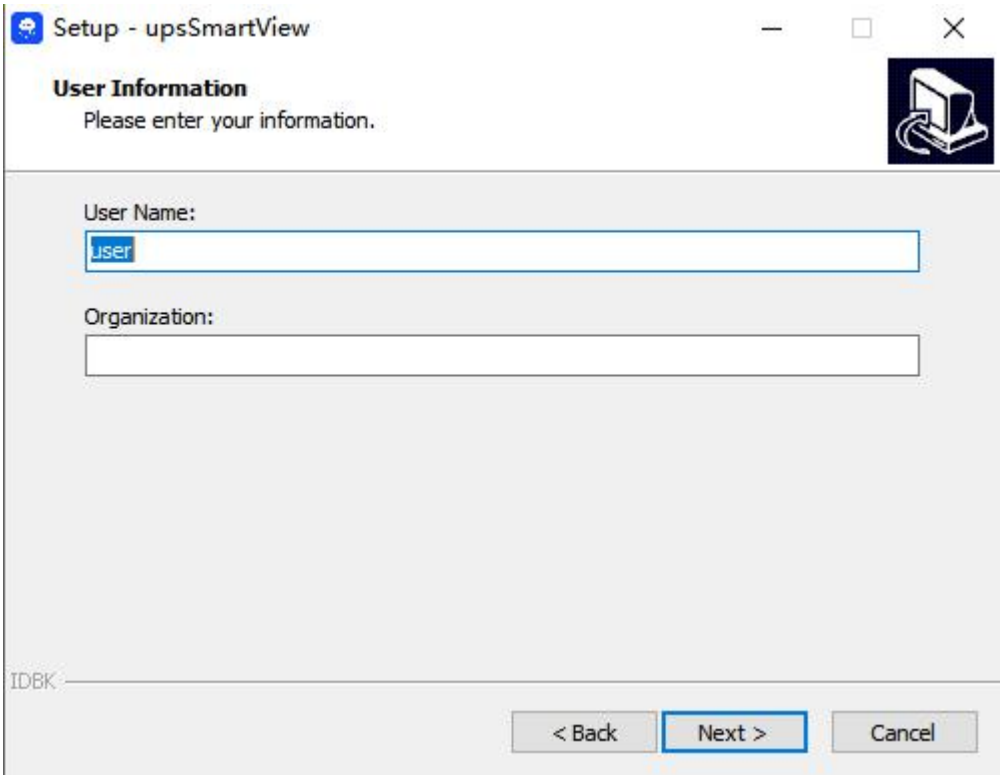
三、Install and Uninstall

1. Install upsSmartView

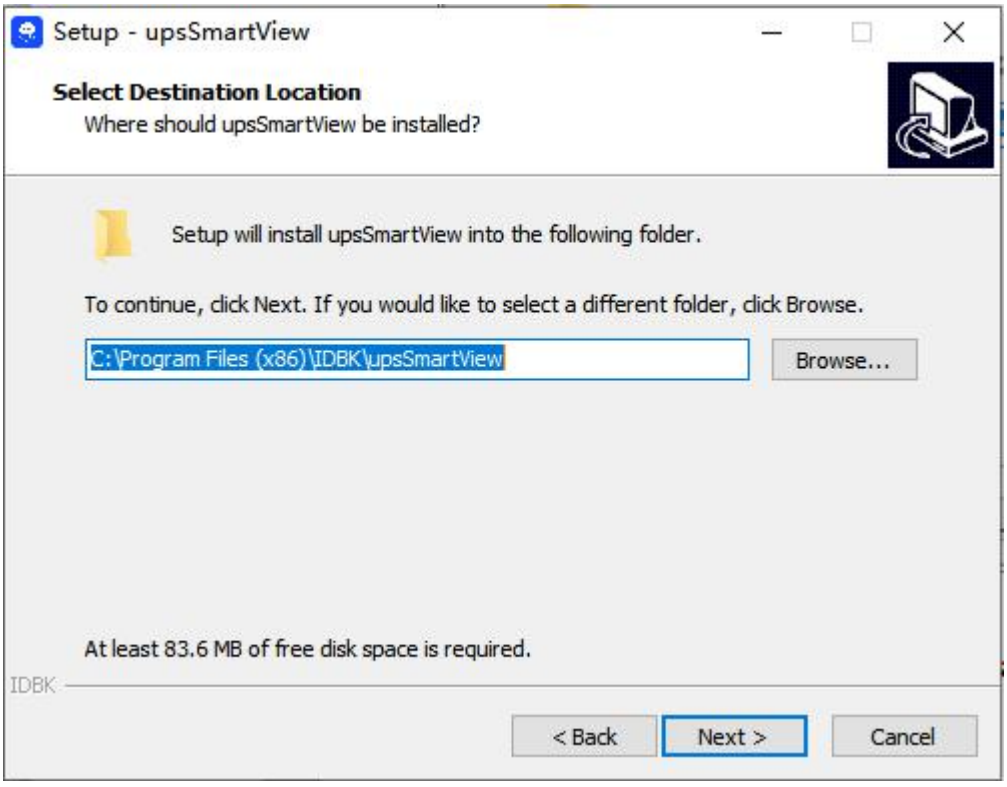
Click to install the program upsSmartView_setup.exe,Select the installation path to complete the installation. The installation process is as follows:

(1) Click the installation program, the installation wizard will pop up.

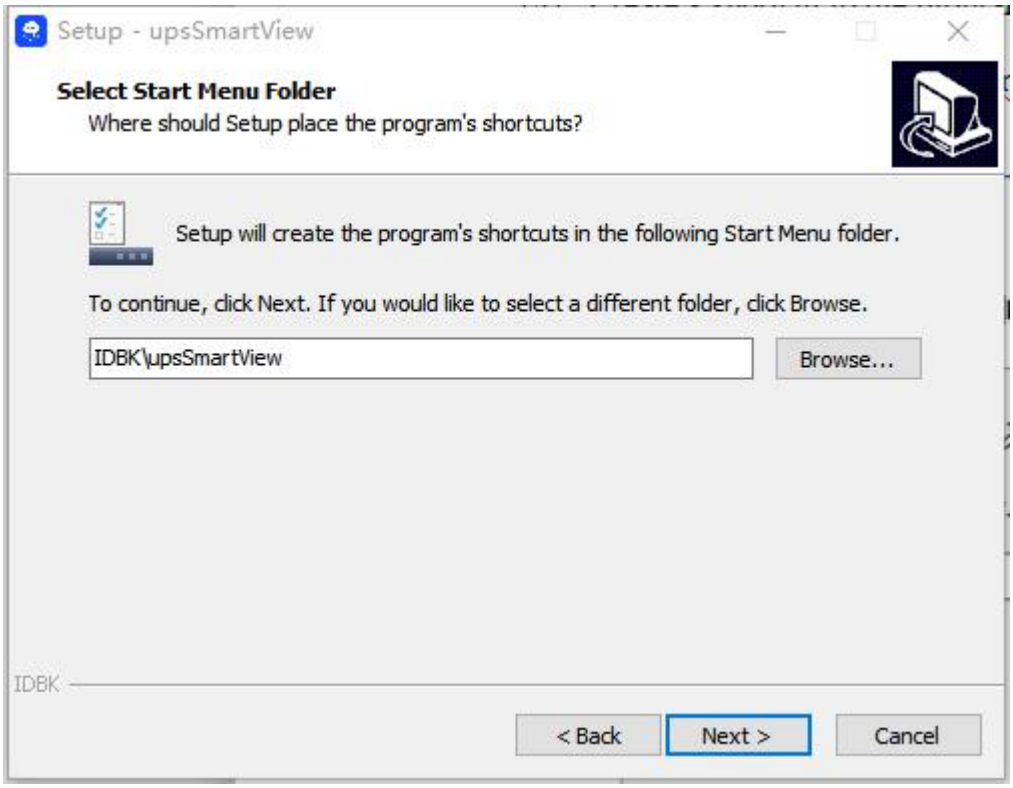
(2) Click Next by default.



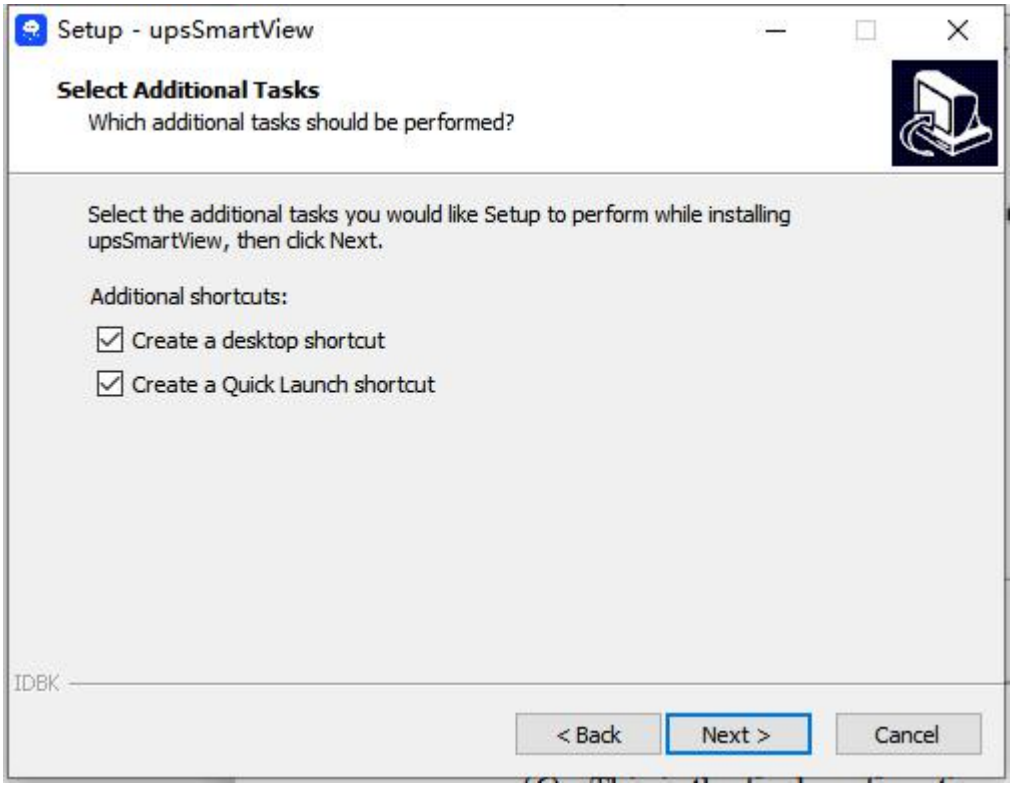
(3) Follow the installation wizard and click Next to set the installation path:By default it is installed in C:\Program Files（x86）\IDBK\upsSmartView.



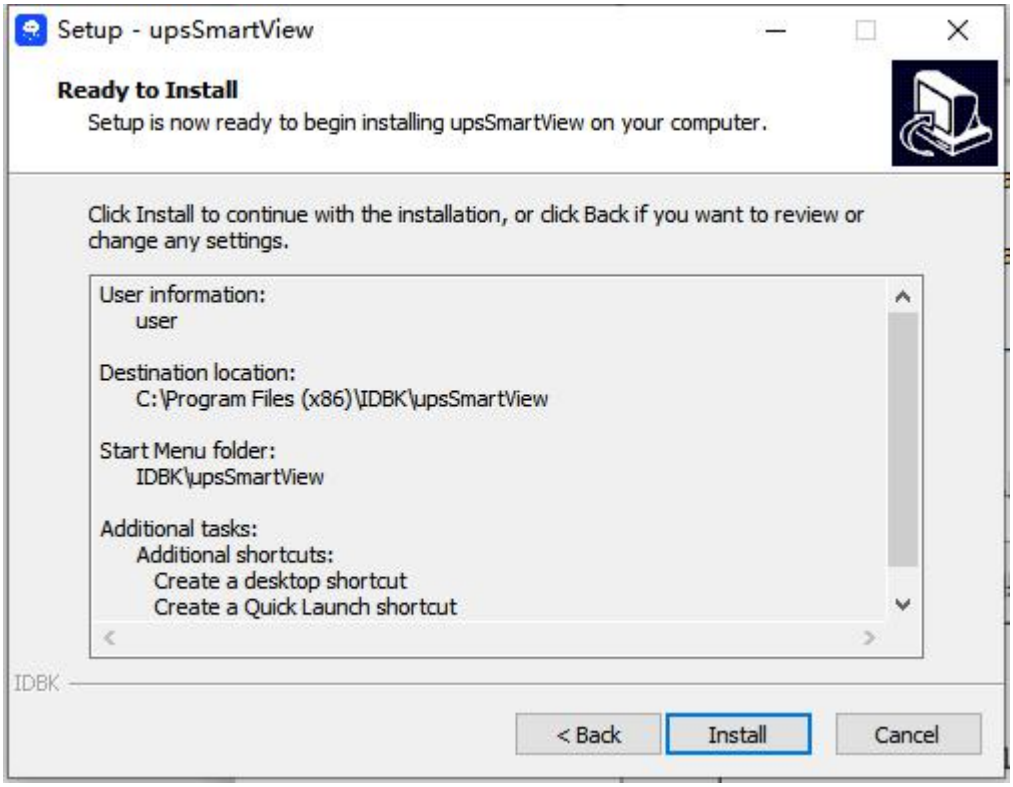
(4) Create a shortcut to the program under the Start menu folder during installation,By default, it is placed in the IDBK\upsSmartView folder.



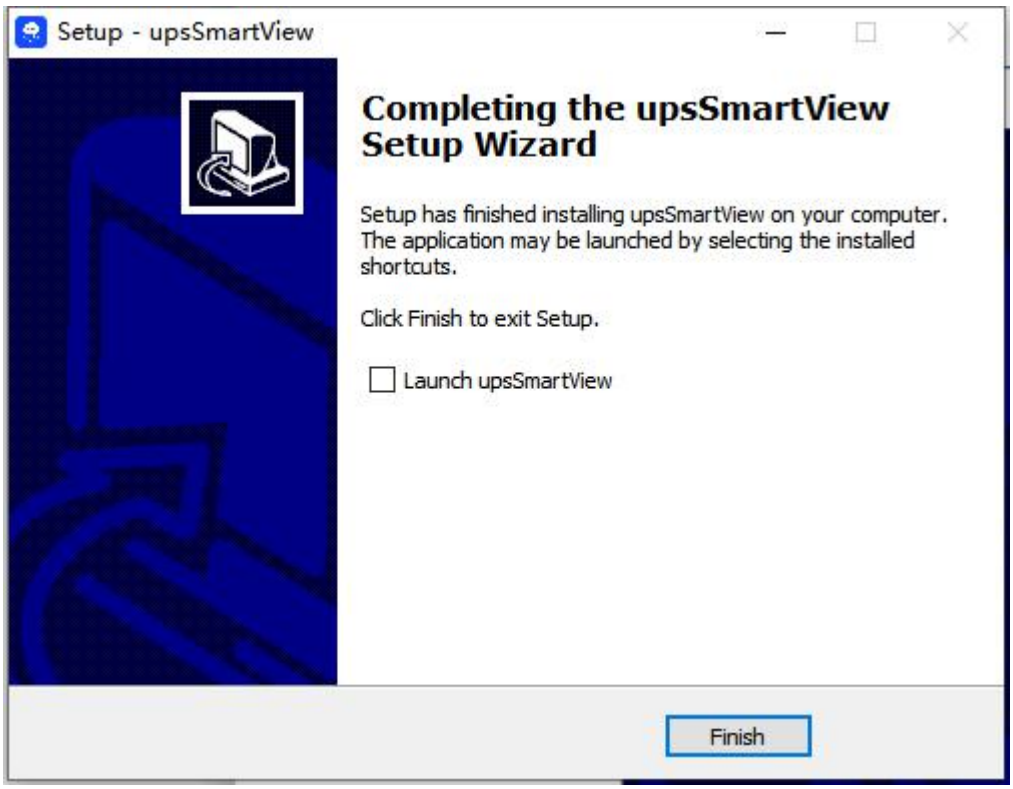
(5) During the installation process, you can choose to create desktop icons and quick start, which are selected by default. (It is recommended not to modify the default so that the running icon can be quickly found on the desktop).



(6) This is the final confirmation after the setting is completed. After confirmation, click to start the installation until the installation is complete.

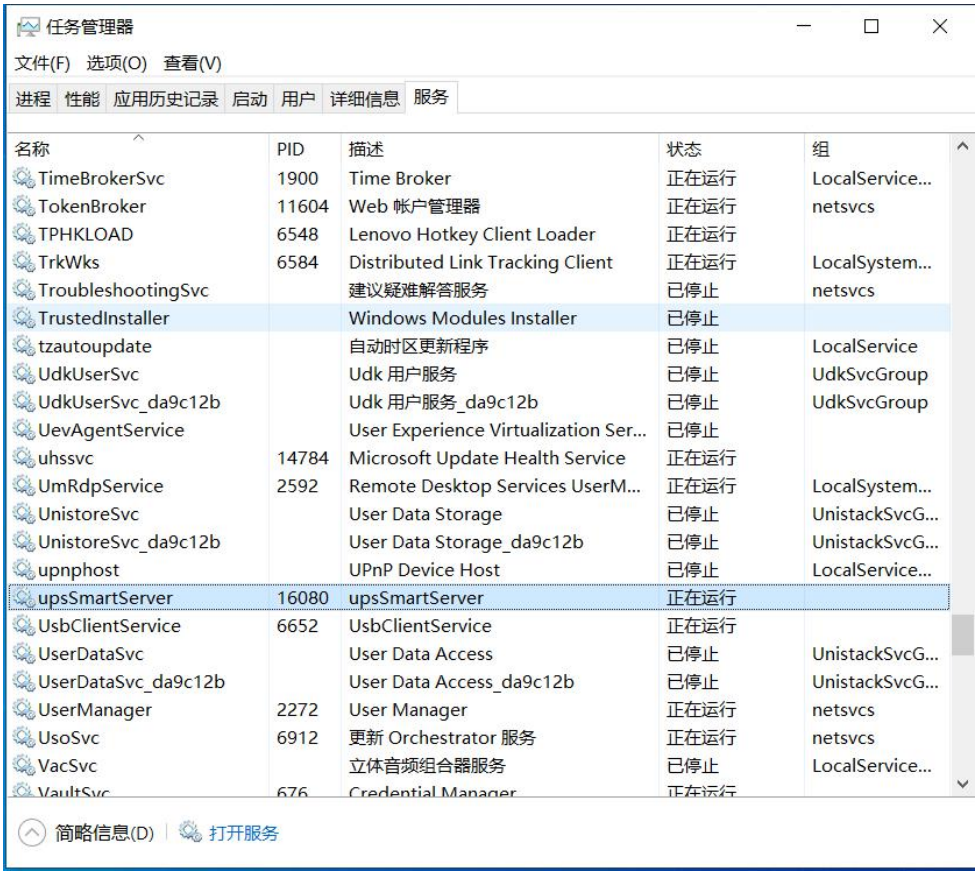


(7) After the installation is complete, click the Finish button below to run the software.

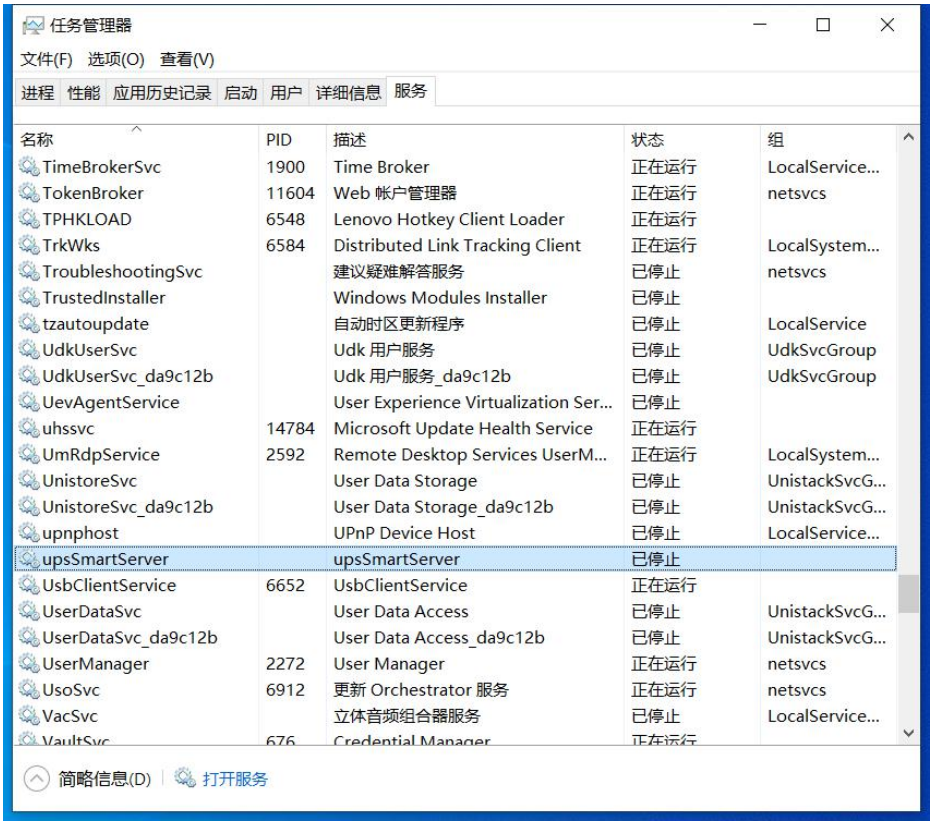


2. Uninstall upsSmartView

To uninstall upsSmartView， First of all, make sure that the upsSmartServer service is stopped, otherwise the uninstallation is incomplete. As shown in the figure, you can check whether the upsSmartServer is stopped from the service in the task manager.



If not, stop the service manually.



There are two uninstallation methods:

The first type:

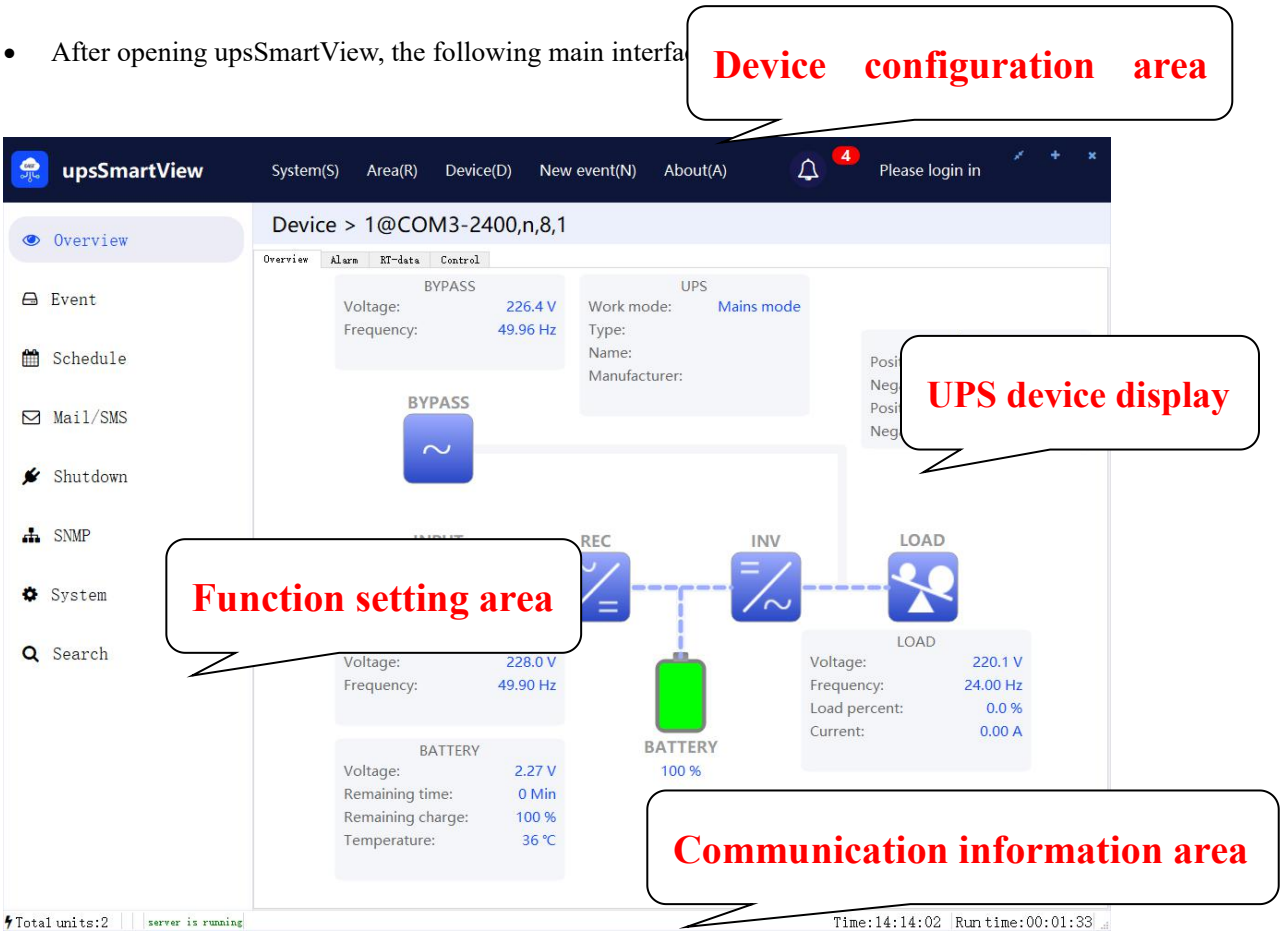
After the upsSmartServer is stopped, locate the IDBK program group on the Start menu and right-click upsSmartView to uninstall it.

The second type:

To uninstall the software, locate unins000.exe in the software installation path and double-click the change program.

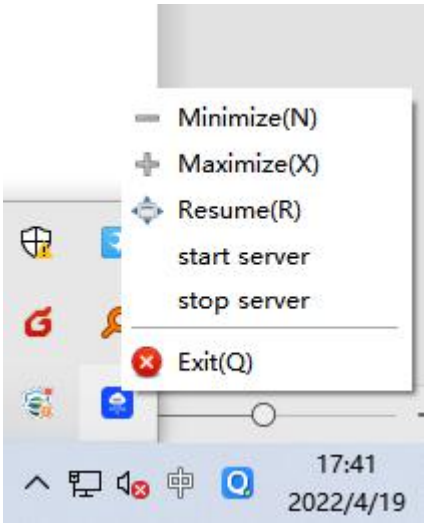
四、Main interface description

- After opening upsSmartView, the following main interfa



1. Communication information area

Pay attention to whether it is "Service running" displayed in green or "Service stopped" in red. Real-time monitoring of USB can only be performed when "Service is running". If "Service is stopped", you can start the service in the tray icon, such as picture:

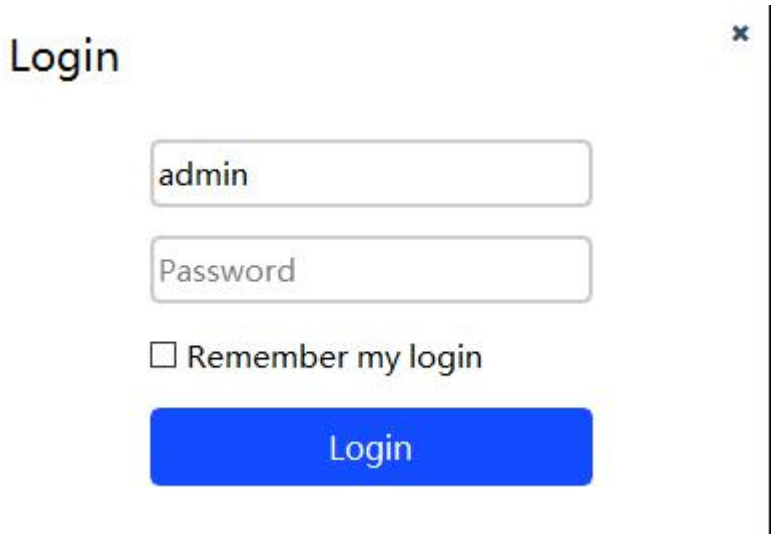


2. UPS device configuration area

(1) Adding or configuring a new UPS is performed here. You can only operate after logging in. You need to click "Not logged in" to log in. The default account passwords are:

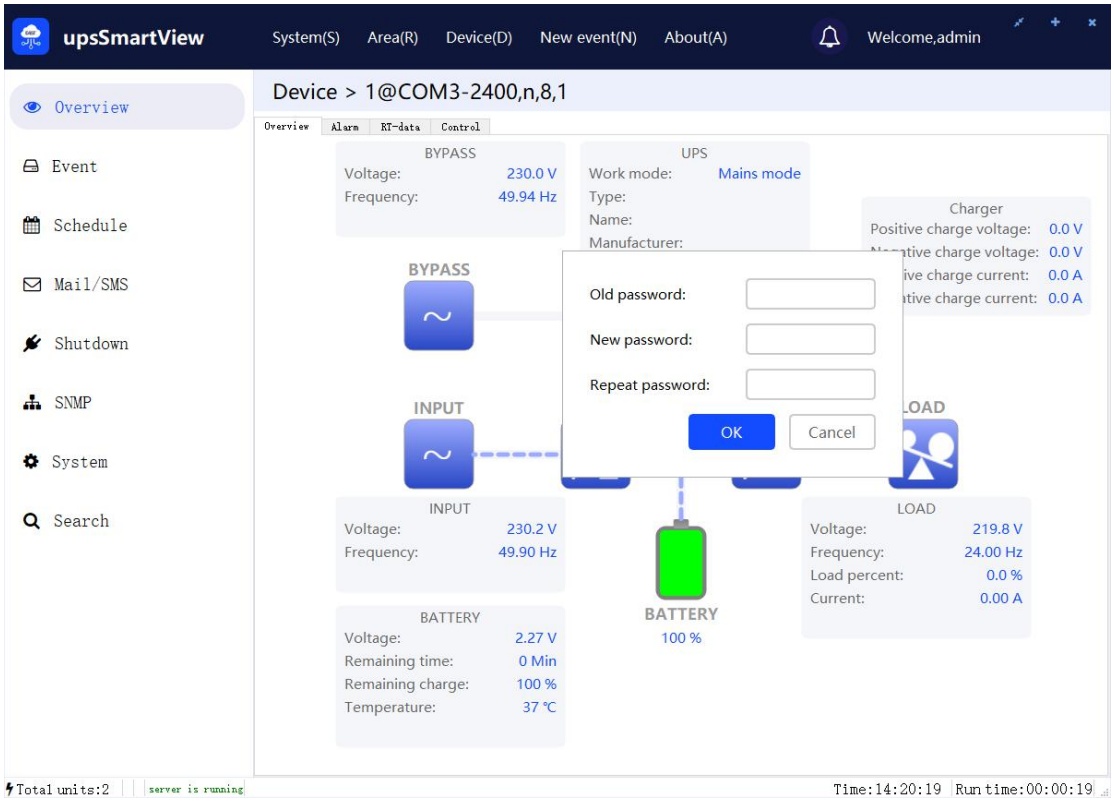
username：admin password：123456

as the picture shows：

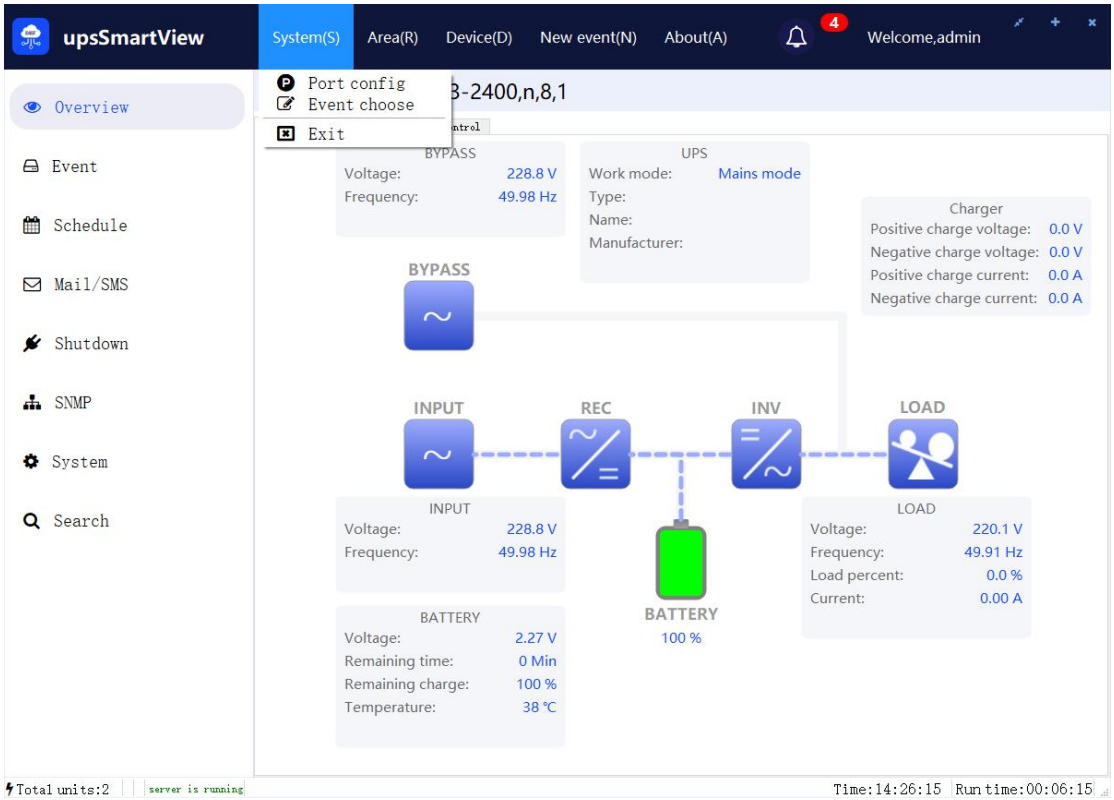


If "Automatic login next time" is checked, click here to log in next time without a password.

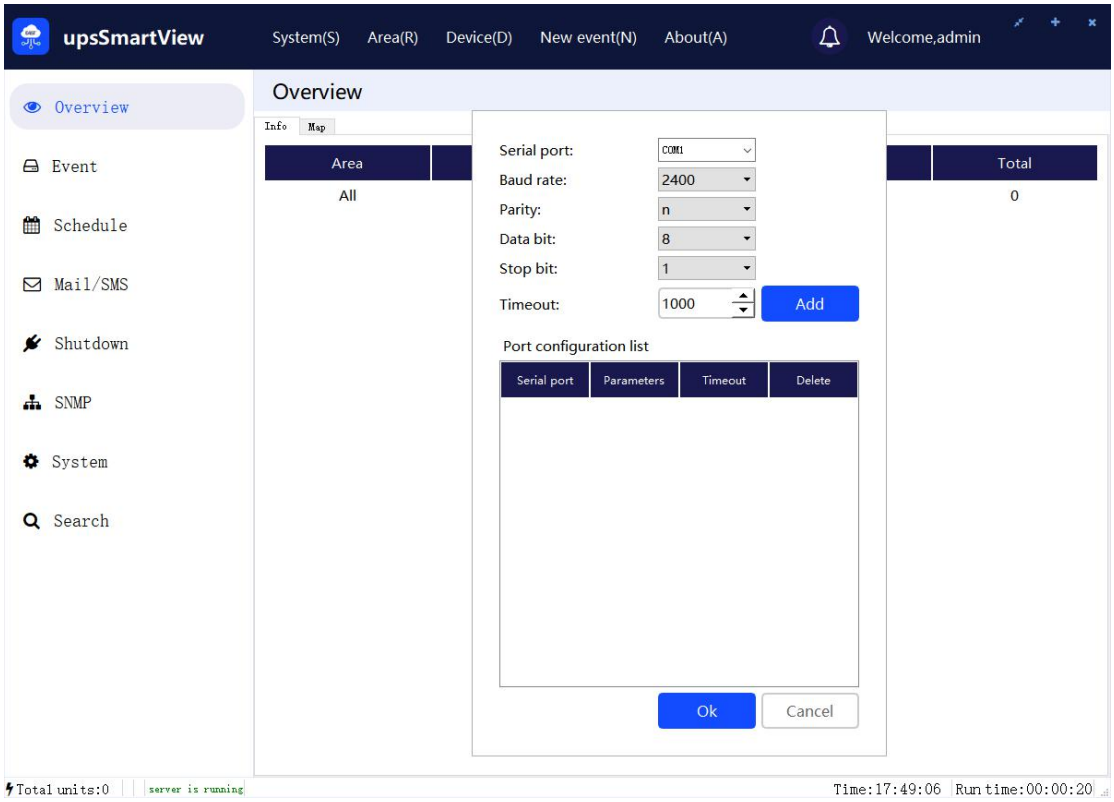
To change the password, click the same place and select Change Password, as shown in the figure:



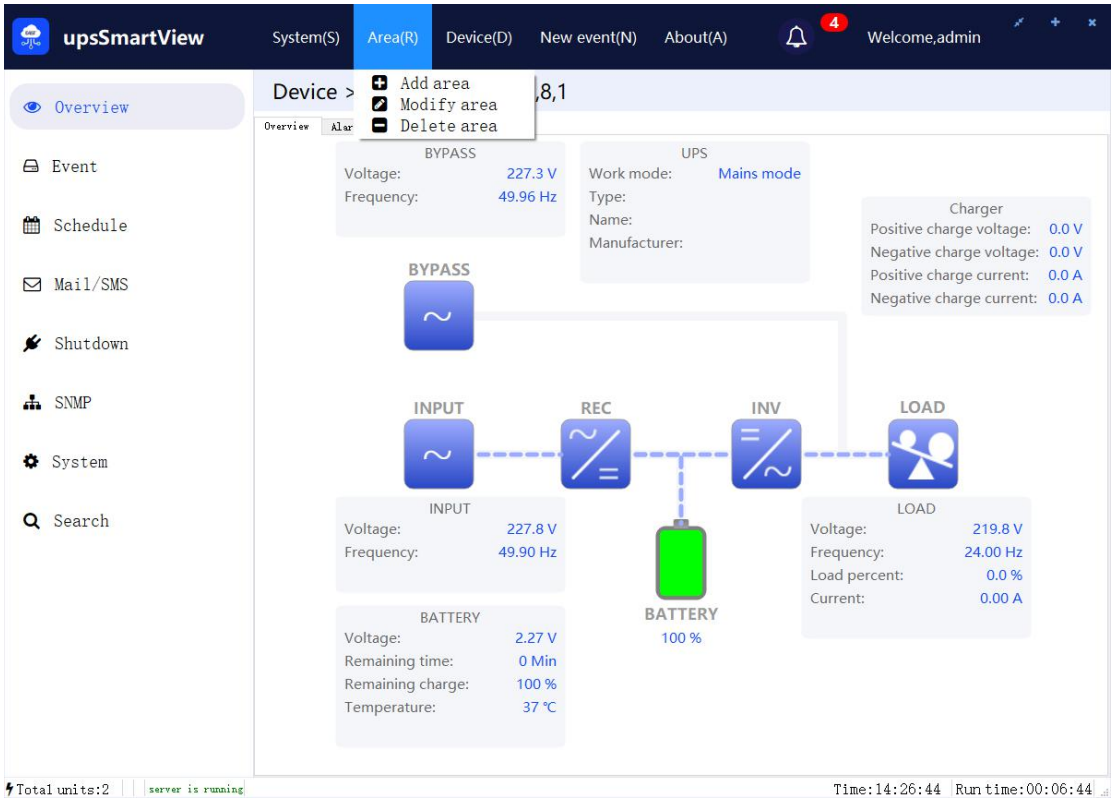
(2) "System(S)" can configure UPS port and event selection, as shown in the figure

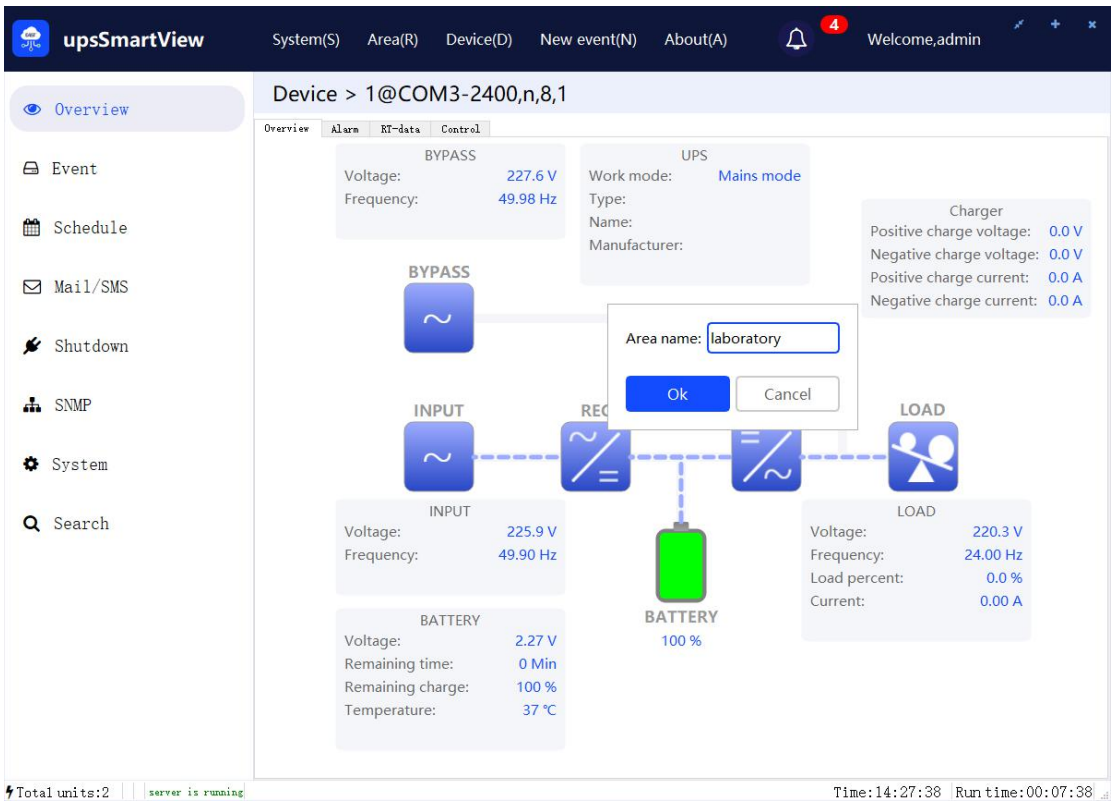


Click to open "Port Configuration", as shown in the figure below, add configuration for the corresponding port, when the corresponding port is selected later, it will communicate according to the current configuration.



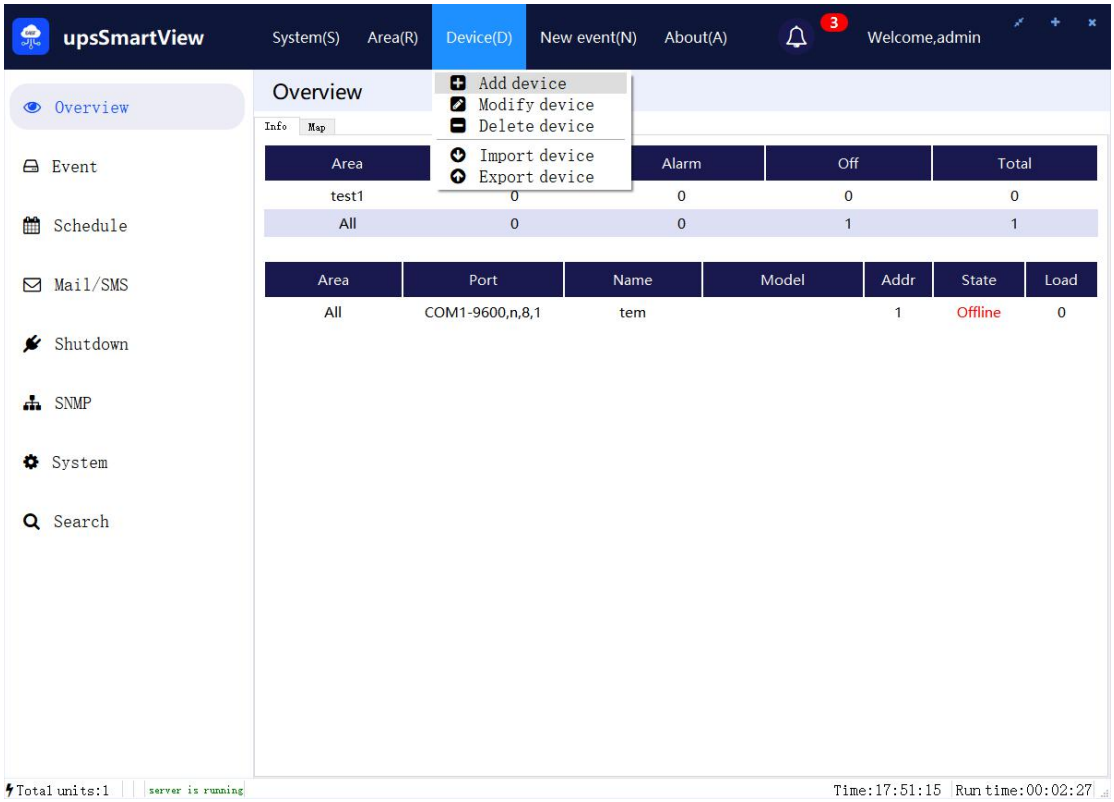
(3) "Area (R)" can establish different areas, and the area can be understood as its own grouping of UPS, such as establishing two areas of "computer room" and "laboratory", and then multiple UPS can be classified into this area, which is convenient for concentration Manage and view.



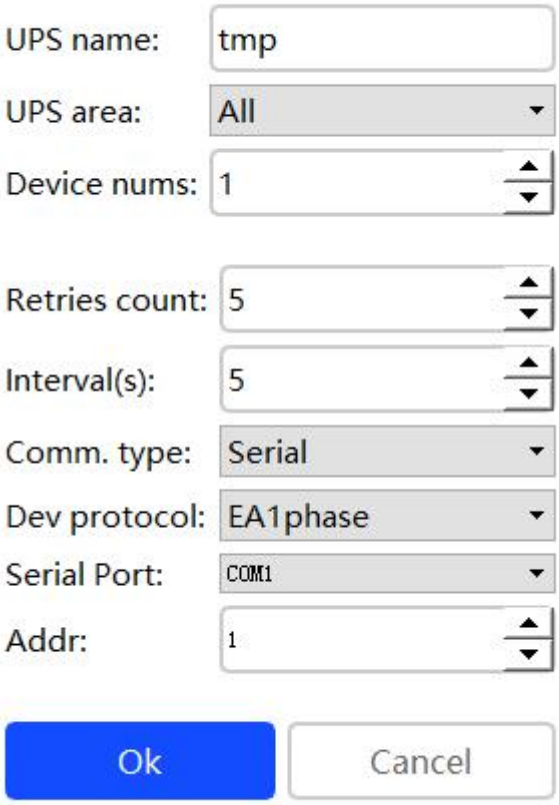


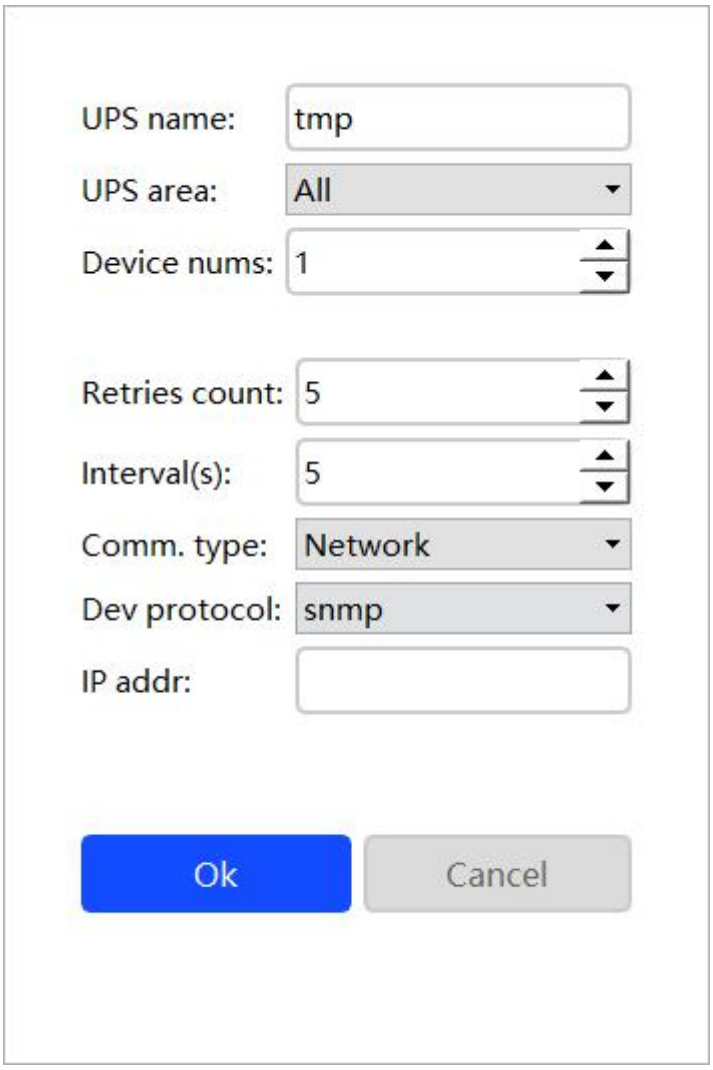
(4) Device (D)" can add and delete devices, "Import Device" can import other upsSmartView device configuration files, and "Export Device" can export the current device configuration

file, as shown in the figure:



When adding a device, the "device name" can be customized; the area can be selected in the newly created area; in the protocol type, select the protocol we correspond to the UPS, such as EA single-phase device, here select EA1phase; communication methods include network port and There are two options for serial port. If you choose serial port, "Serial port" selects the serial port number of UPS communication. If you choose network port, "IP address" enters the ip of the UPS. As shown in the figure, the serial port connection and the snmp card connection are respectively：


UPS name:
tmp
UPS area:
All
Device nums:
1
Retries count:
5
Interval(s):
5
Comm. type:
Serial
Dev protocol:
EA1phase
Serial Port:
COM1
Addr:
1
Ok
Cancel



(5) When there is a new event, the number on the bell will increase, and you can click on the bell to jump to the latest event interface.

3. UPS device display area

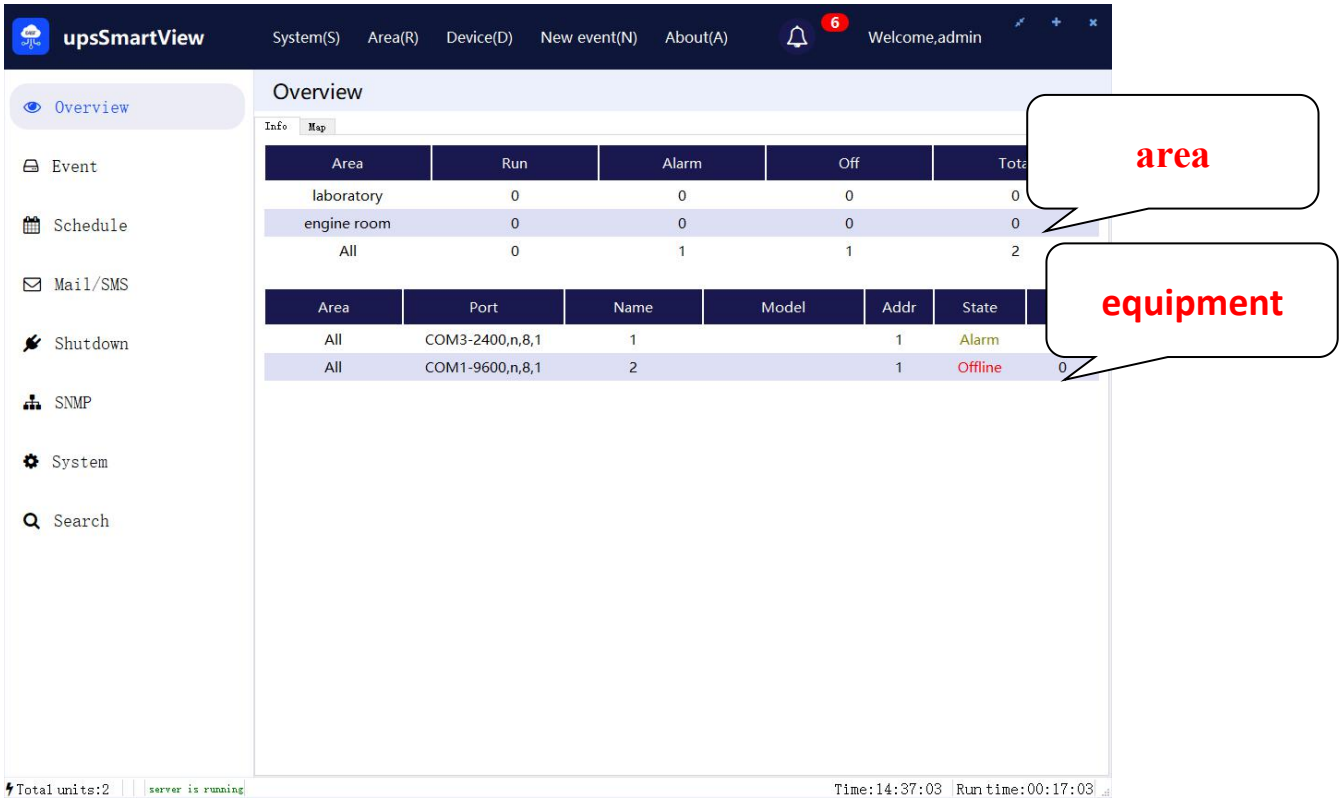
After a device is added, you can view all devices, their areas, communication ports, and communication status on the overview page.

Double-click the corresponding line in the upper area to display only the devices in the corresponding area.

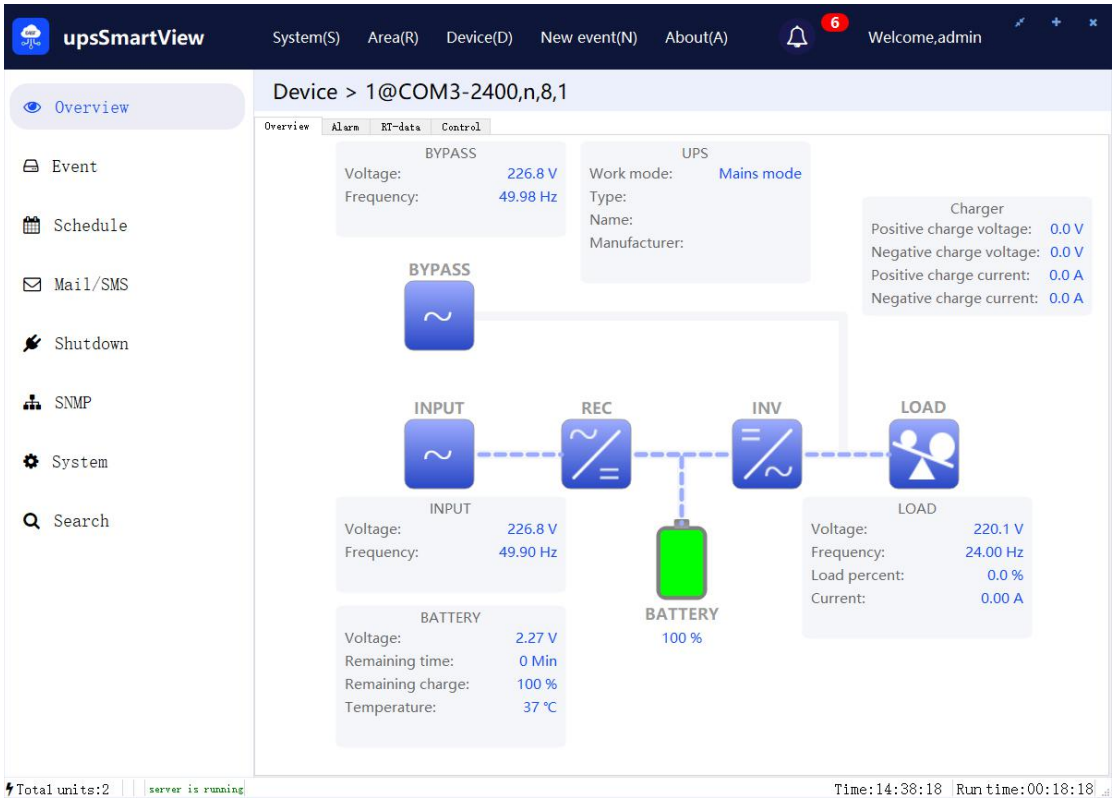
Right-click the corresponding line to modify the region.

Double-click the corresponding device in the lower part of the device to display its single machine monitoring interface area. You can also right-click the device to modify it.

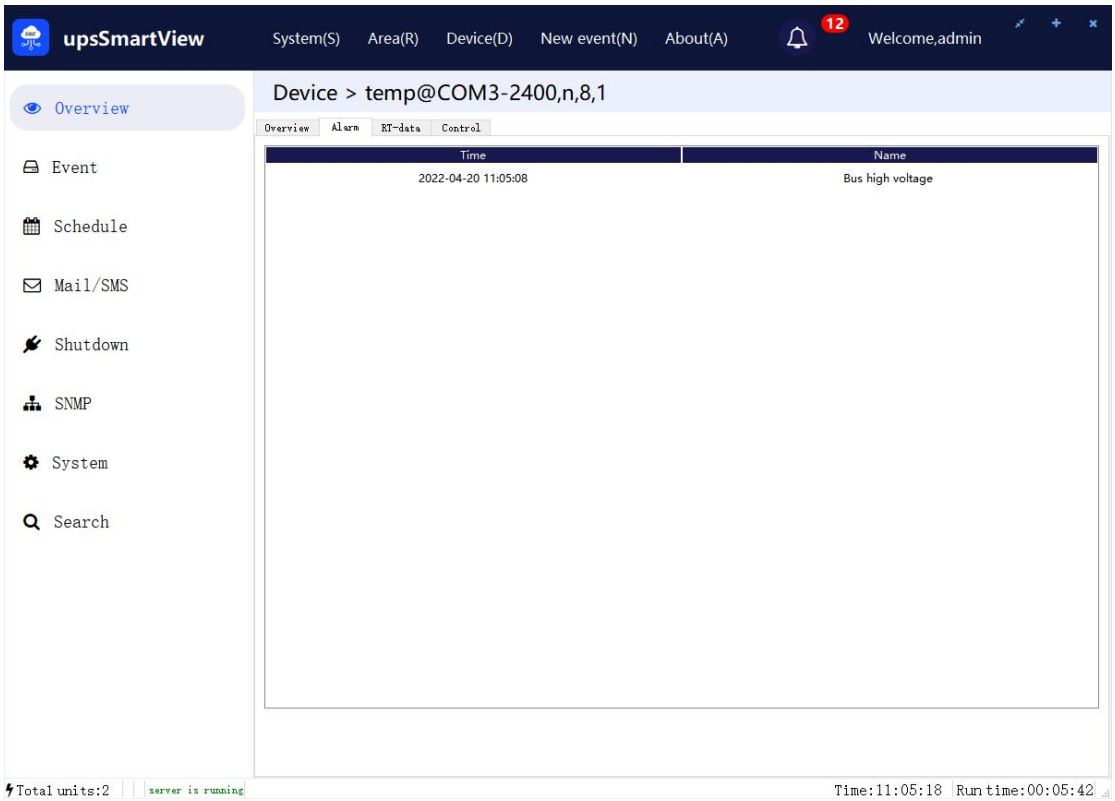
The single machine monitoring interface will be displayed in the form of energy flow diagram, data view and other ways, the display content includes input voltage, output voltage, frequency, load, temperature, battery and other related information, please see the real-time data interface for details, but also real-time monitoring whether the alarm and related control command delivery. The following figure is displayed:



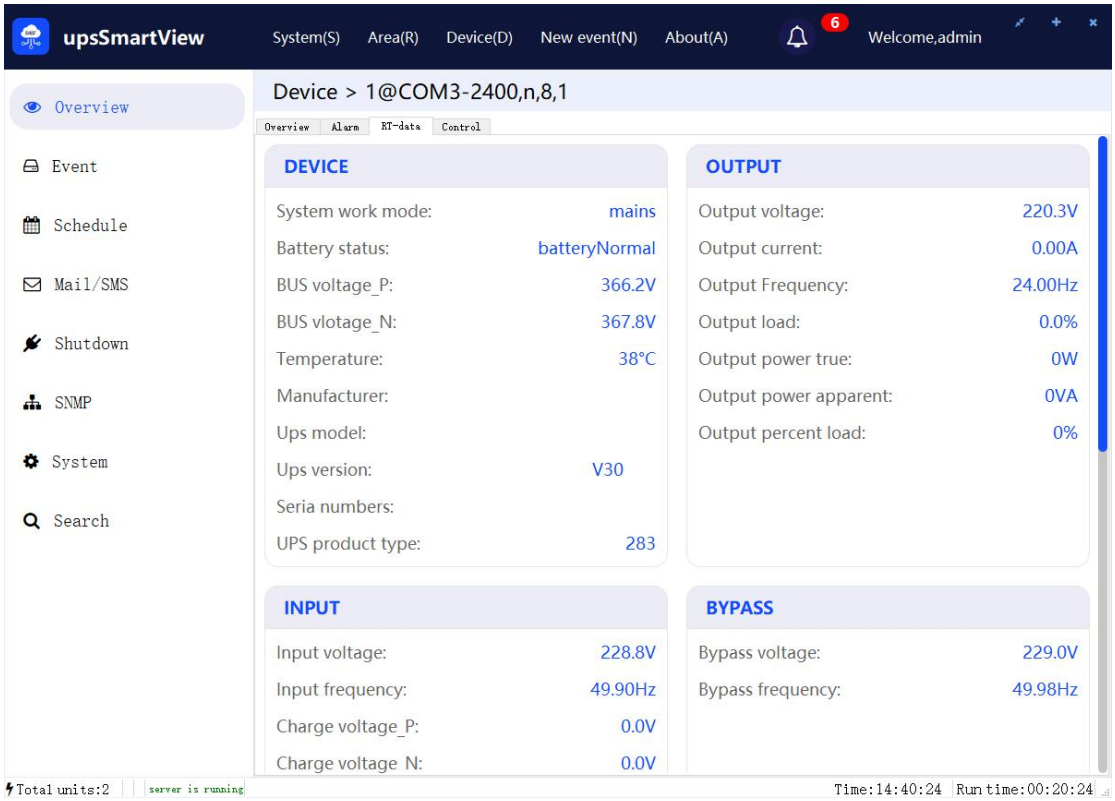
Select the UPS corresponding to monitoring from the probability column, which is the power flow diagram of the corresponding UPS. You can see the current UPS status changes more intuitively. Click each box and battery in the overview power flow diagram interface to display/hide the corresponding UPS. Information display box. As shown below:

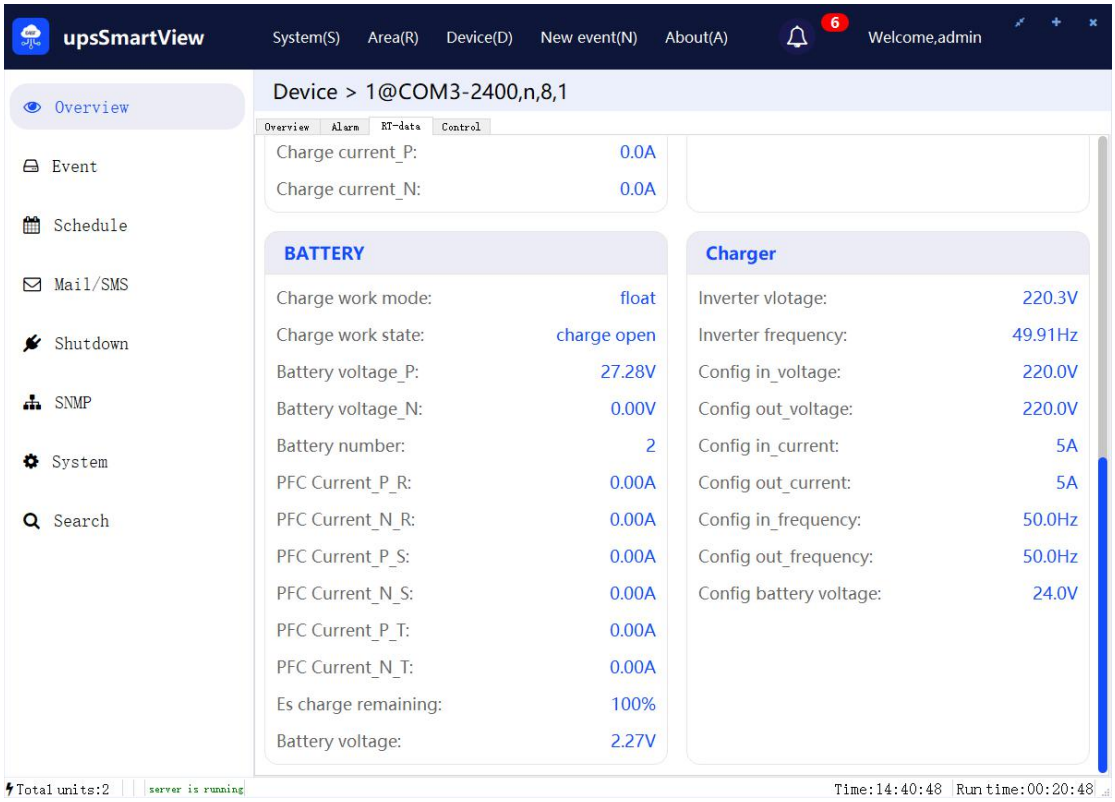


The alarm interface records the part of the current real-time alarm, which appears at the same time as the latest event in the "Event" column.



The real-time data interface records all the information of the current status of the UPS, and separates several lists such as equipment list, output, input, bypass, battery and rectifier inverter to distinguish the information, so that users can find what they want faster and more conveniently. information, as shown in the figure below:





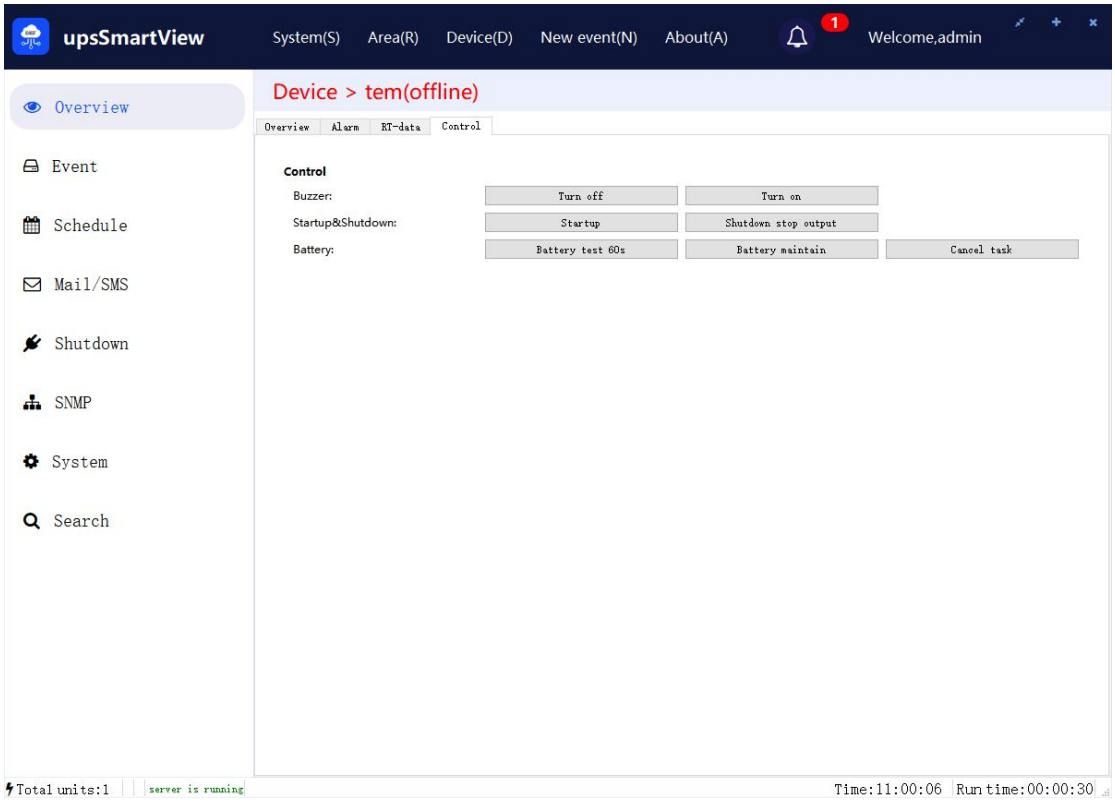
There are several common control commands on the control interface:

Buzzer: Controls the buzzer sound when the UPS alarms.

Startup&Shutdown: In the mains state, if you click Power Off, the UPS switches from mains mode to bypass mode. In the bypass mode, click Power On to switch from bypass mode to mains mode.

Battery: "Battery test 60s" controls the UPS for battery discharge test 60s. The Battery Maintenance control UPS will discharge until the battery voltage is low.

Note: The UPS must have this function in order to issue related control commands. If the battery test of some UPS is only 10s, when the command "Battery test 60s" is issued, the UPS will only test the battery for 10s.



4. Function setting area

- Overview : enter the UPS device display area and see all monitored UPS devices.
- Event : view related records of communication status, records of UPS monitoring data, and related records of SMS sending.
- Schedule: set the timed power on/off of the UPS. You can set the automatic power on/off of the UPS on a daily, weekly and monthly basis, and you can also perform battery tests, etc.
- Mail/SMS :set email alarm and SMS alarm, etc.
- Shutdown : set the parameters when the UPS shuts down.
- SNMP: connect with SNMP card and set parameters such as community.
- System: set public parameters, switch languages, input and output configuration files, etc.
- Searvh: Search for the SNMP card ip address and add SNMP monitoring devices with one click.

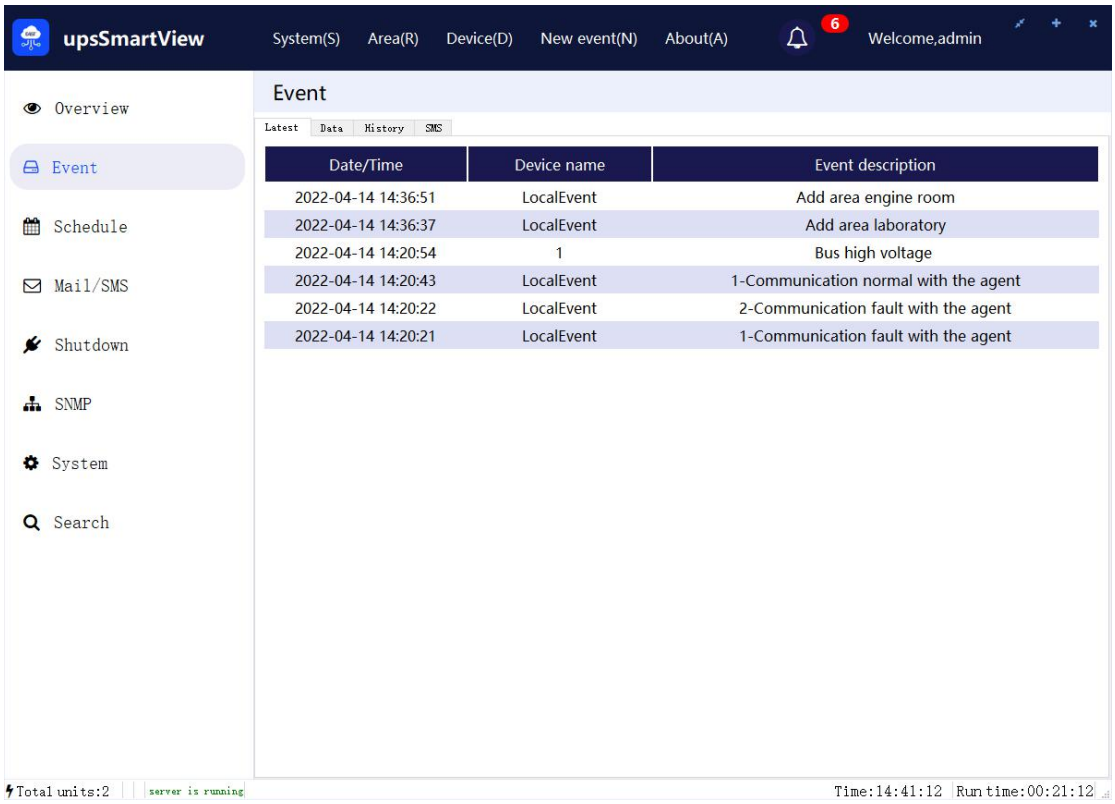
The detailed settings of each parameter are introduced in the subsequent chapters.

五、Instructions

1. "Event" column

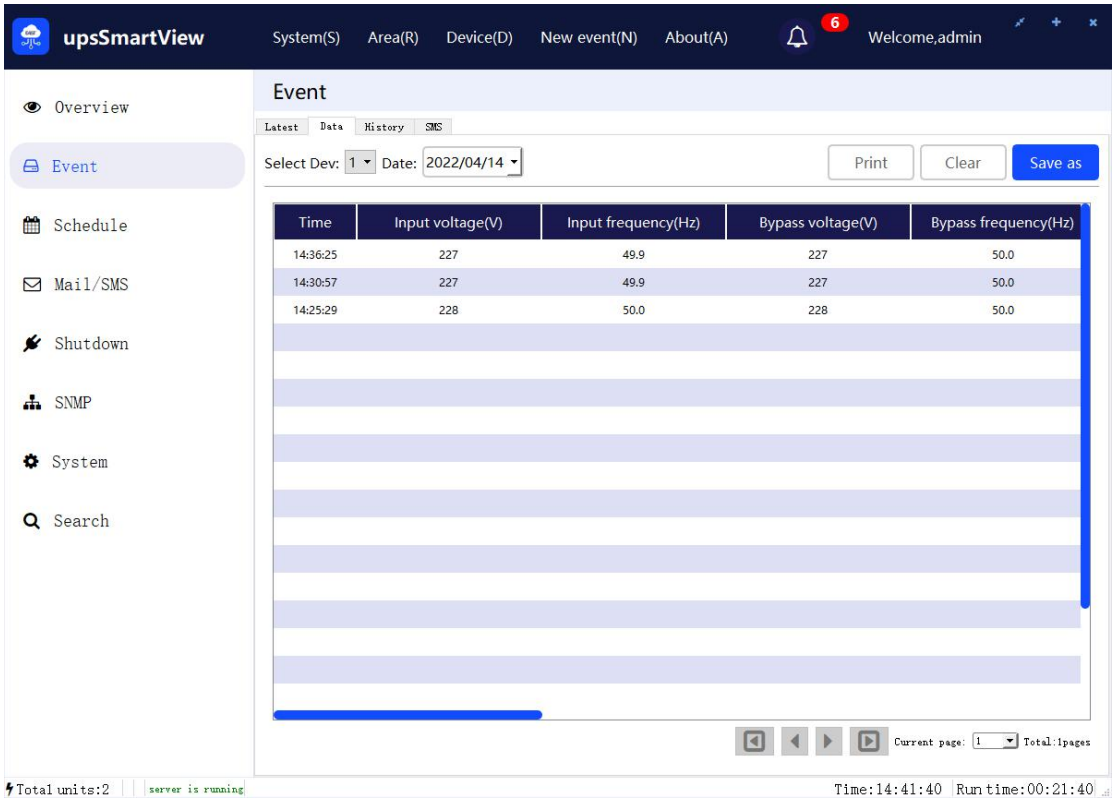
1）Latest

The latest events are recorded here, you can click "Confirm Event" in "New Event (N)" to clear this interface, and the latest events to be cleared can be found in the event record.



2）Data

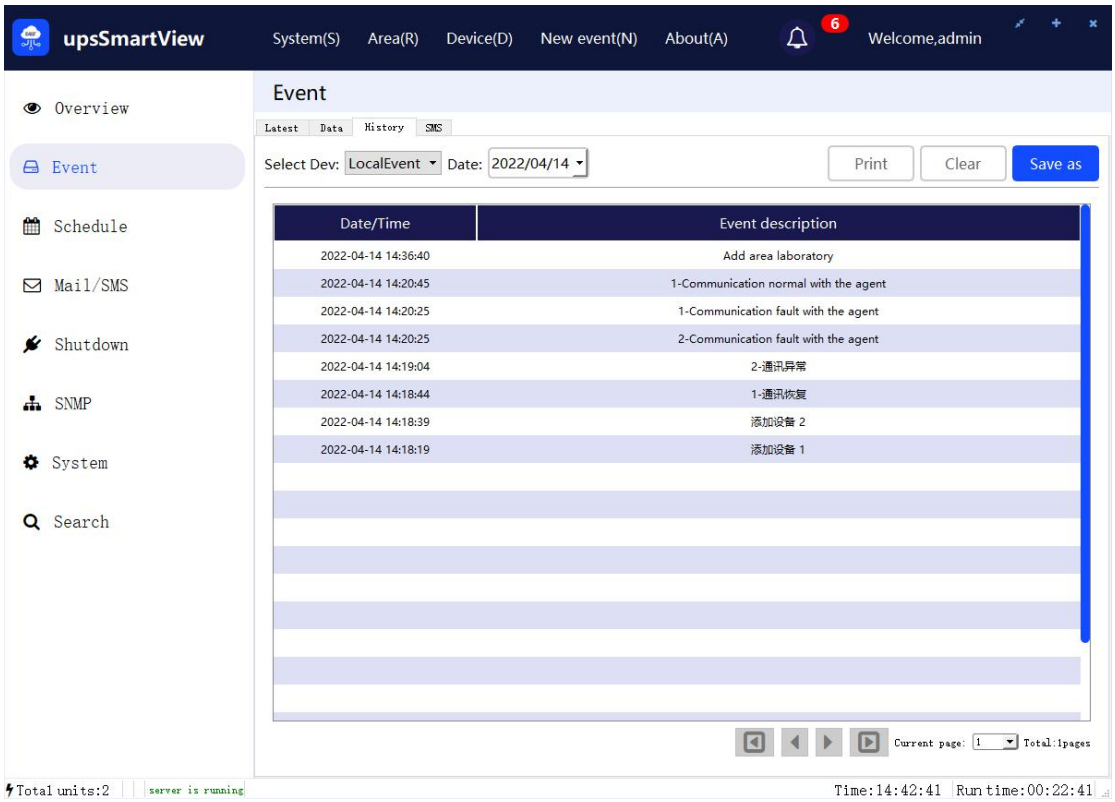
Find current data precisely by device and date. The data currently saved by EA single-phase are: input voltage, input frequency, bypass voltage, bypass frequency, output voltage, output current, output power, output frequency, remaining battery capacity, battery voltage, temperature.



3）History

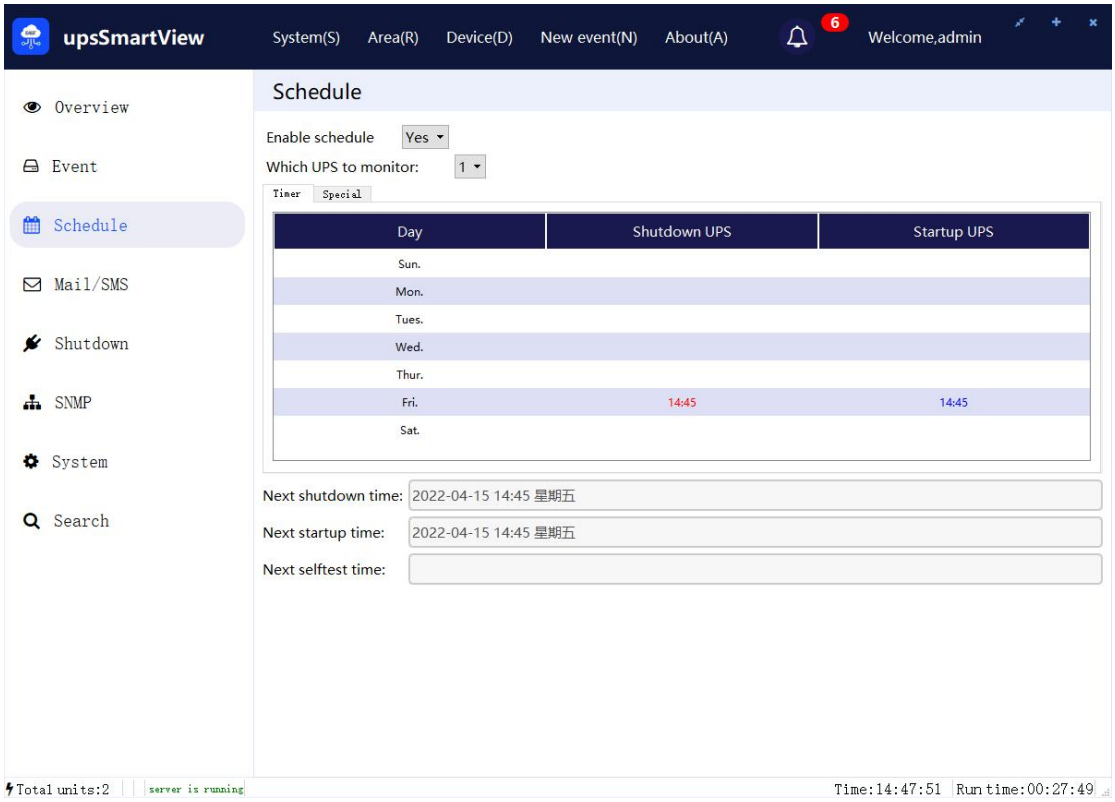
Save all events that happened and search by device and date. Local events are mainly records of software operations and device status changes. The content of specific equipment mainly includes the appearance and disappearance of alarms, and the issuance of control commands to the

equipment.



2. Schedule column

The UPS timing switch is mainly set here. There is no need to manually perform the UPS shutdown settings. The software can set the UPS to automatically switch on and off the UPS without being guarded. Here, the enable scheduling must be turned on first before scheduling tasks can be performed.



(1) Scheduled Tasks

The UPS can be set to be switched on and off at any time within a week, and the most recent on-off time from the current time will be displayed in the columns of "Next time to turn off the UPS" and "Next time to start the UPS".

(2) Special Task

If there is no scheduled power on/off task, you can set the power on/off time in the special task. The interface is as shown below. You can set the power on/off time by adding tasks. The setting interface is shown in the figure below. The frequency can be once, daily, weekly, monthly, and the task can be selected by yourself.

Note: After selecting the timed power on/off, you must select the option "Shut down UPS output" in the "Shutdown" tab of the "Settings" toolbar. If you want to shut down the system, you must also select "Shut down the system", so as to ensure the setting function. normal work.

If you need to schedule special tasks for the UPS, the following controls can be performed on the UPS according to the options:

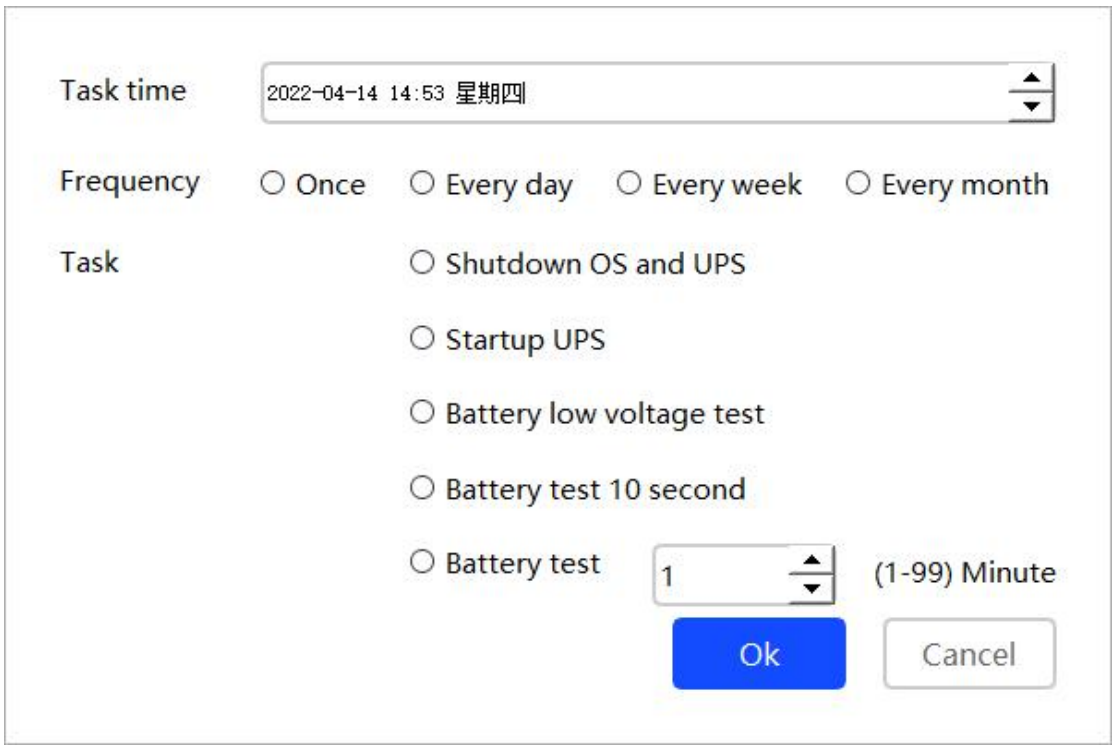
(1) Shutdown OS and UPS

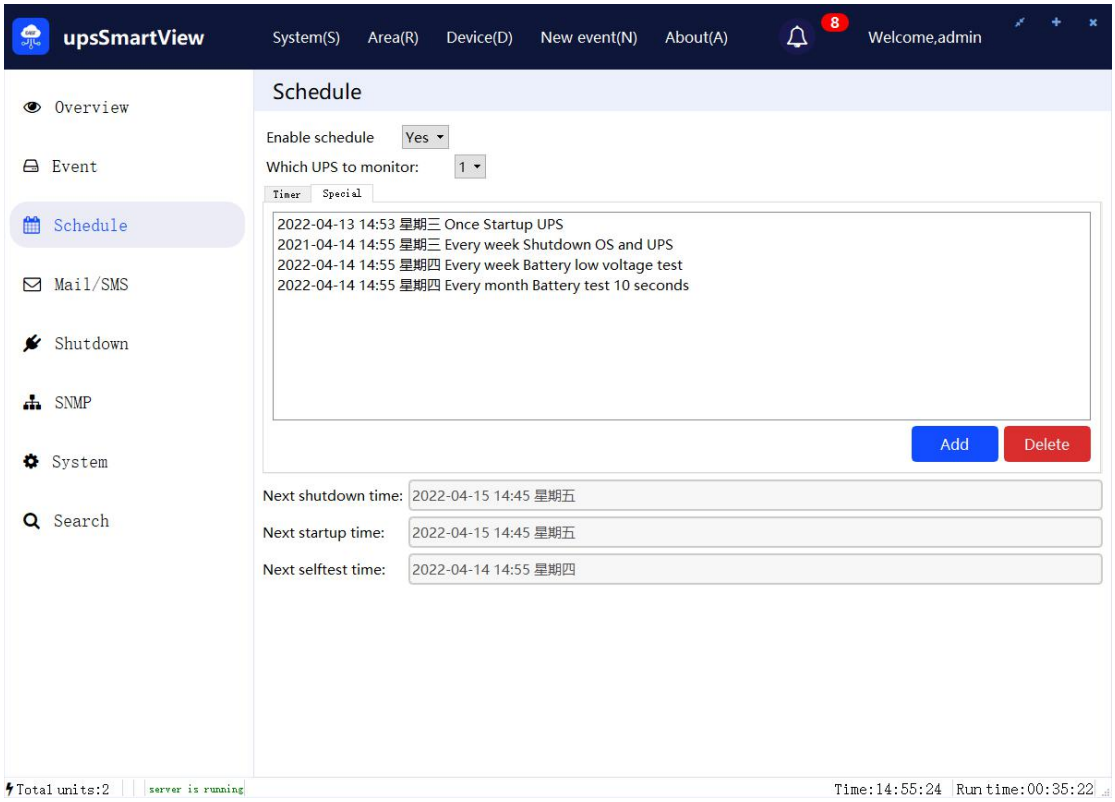
(2) Startup UPS

(3) Battery low voltage test

(4) Battery test 10 second

(5) Battery test N minutes





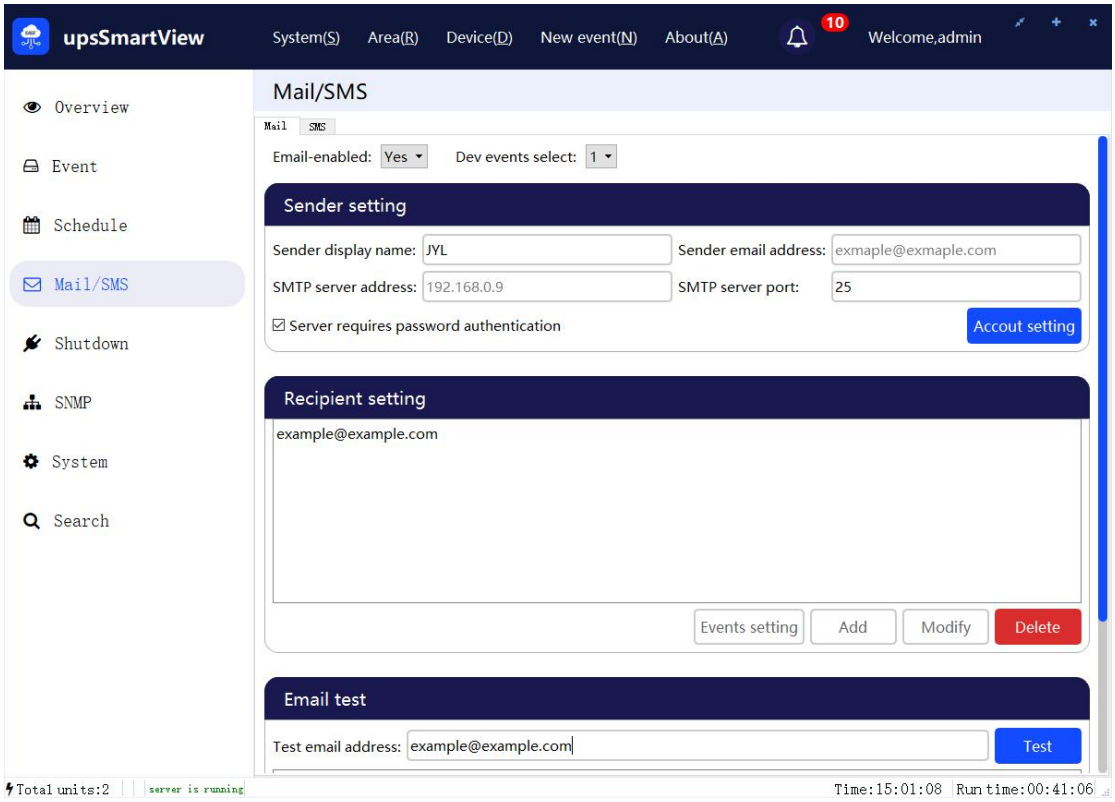
Note 1: Whether the control command can be executed is related to whether the UPS responds to the command.

Note 2: Whether to shut down the operating system is related to whether the shutdown system of the setting option is checked.

3. "Email/SMS" column

Email alert interface

This option in this column is mainly to set the email alarm function. The setting area is divided into the sender setting area and the recipient setting area. After selecting the Enable Email Alert function, the sender and recipient should be set accordingly.



(1) Sender Setting

First make sure that the mail function is enabled, otherwise this function cannot be used.

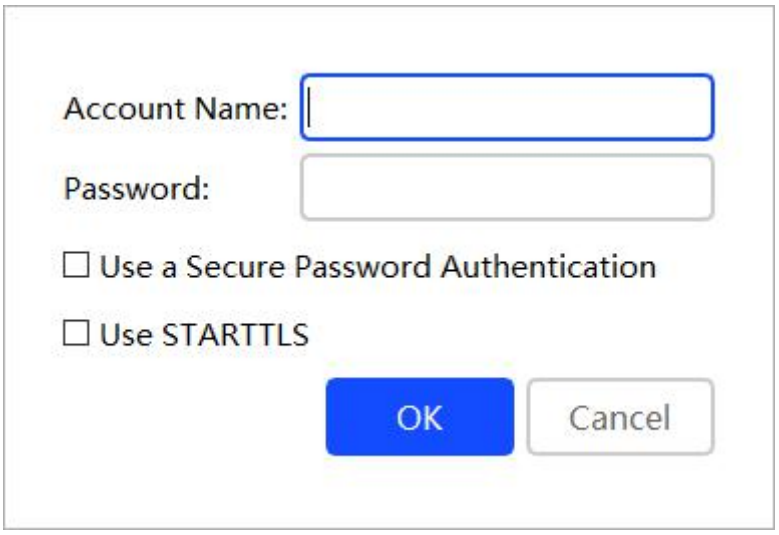
Sender name customization;

Sender's email address: Fill in the email account;

SMTP server address and port number: Specifies the SMTP server address and port number of the mailbox. You can search for the SMTP server address and port number on the Internet (common port number: 25 or 465).

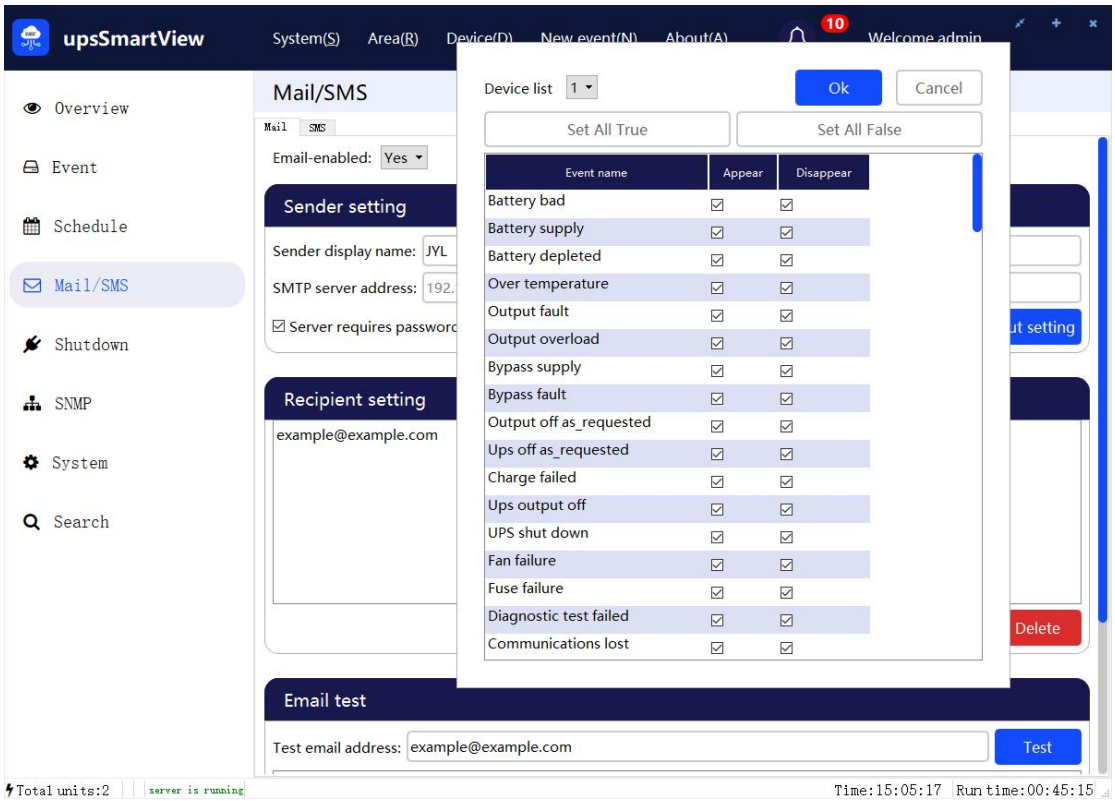
The server requires password authentication:

The account name is the same as the email address. The password refers to the authorization code or email account password generated by the corresponding email address. For details, see the yahoo Email Authorization Process for logging in to third-party applications.



(2) Recipient setting

You can add multiple recipients, click the Add button to add the recipient's email address, and you can add, delete, or modify the recipient's email address. In this area, you can also set the alarm events to be sent as shown in the figure below. By default, the emails send UPS monitoring data reports. You need to add corresponding events for the corresponding devices.

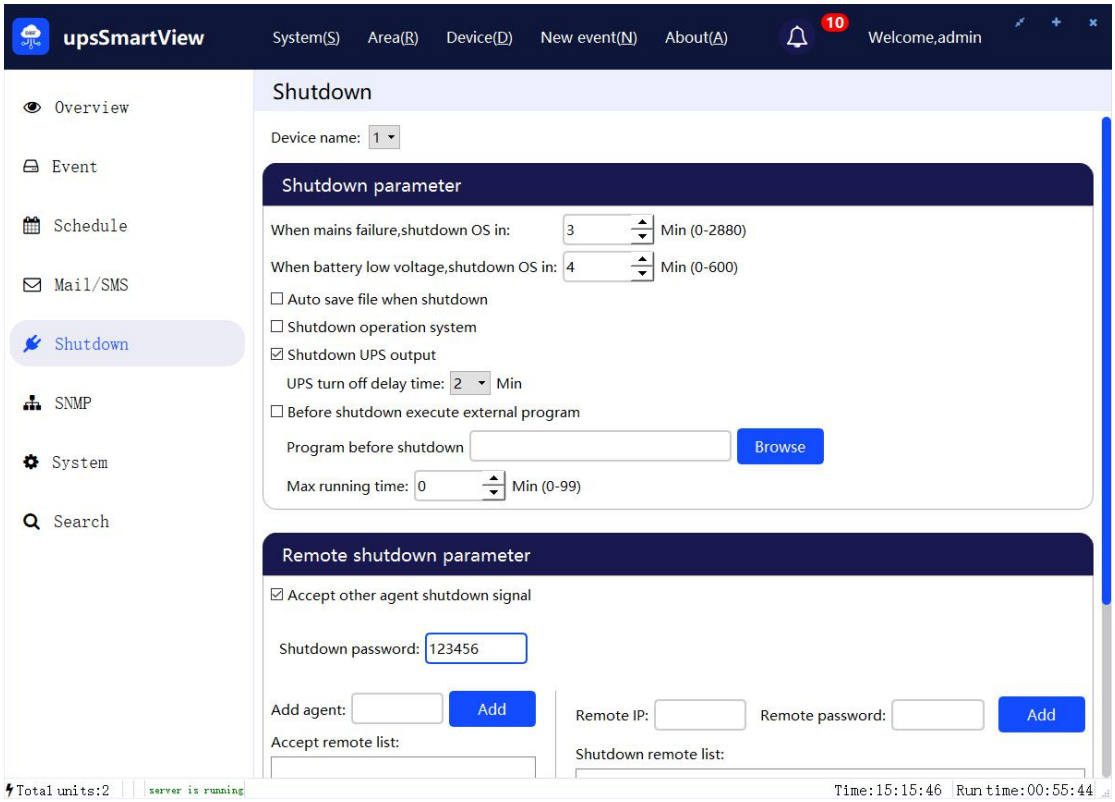


(3) Email test

After the Sender Settings and Recipient Settings are set, you can select Email Test to check whether the configured email information is correct.

4. "Shutdown" column

The shutdown tab column mainly includes: shutdown operating system and shutdown UPS settings, as well as remote shutdown settings. As shown below:



（1） Close parameters

When mains fails, shutdown OS in: When the mains fails, the UPS switches to battery power and shuts down the computer system after the specified time (check "Shut down System" below).

When battery low, shutdown OS in: When the battery voltage alarm is generated, shut down the computer system after the set time (you need to check "shut down System" below)

Shutdown UPS output: When a mains failure or battery low voltage alarm occurs, the software sends the UPS shutdown command to ensure the safe shutdown of the computer operating system when the time for shutting down the computer operating system is set, and then delays shutting down the UPS for XX minutes. (Note: The delayed shutdown time of UPS

depends on the UPS model. Some UPS models do not have the delayed shutdown function and will shut down the UPS immediately after shutting down the computer operating system.)

Before shutdown execute external program: This function allows external programs to be called before shutting down the computer's operating system when the mains fails or the battery is low.

Max running time: indicates the maximum running time of the invoked external program. The maximum running time must be less than the operating system shutdown time set above..

（2）Remote shutdown parameters

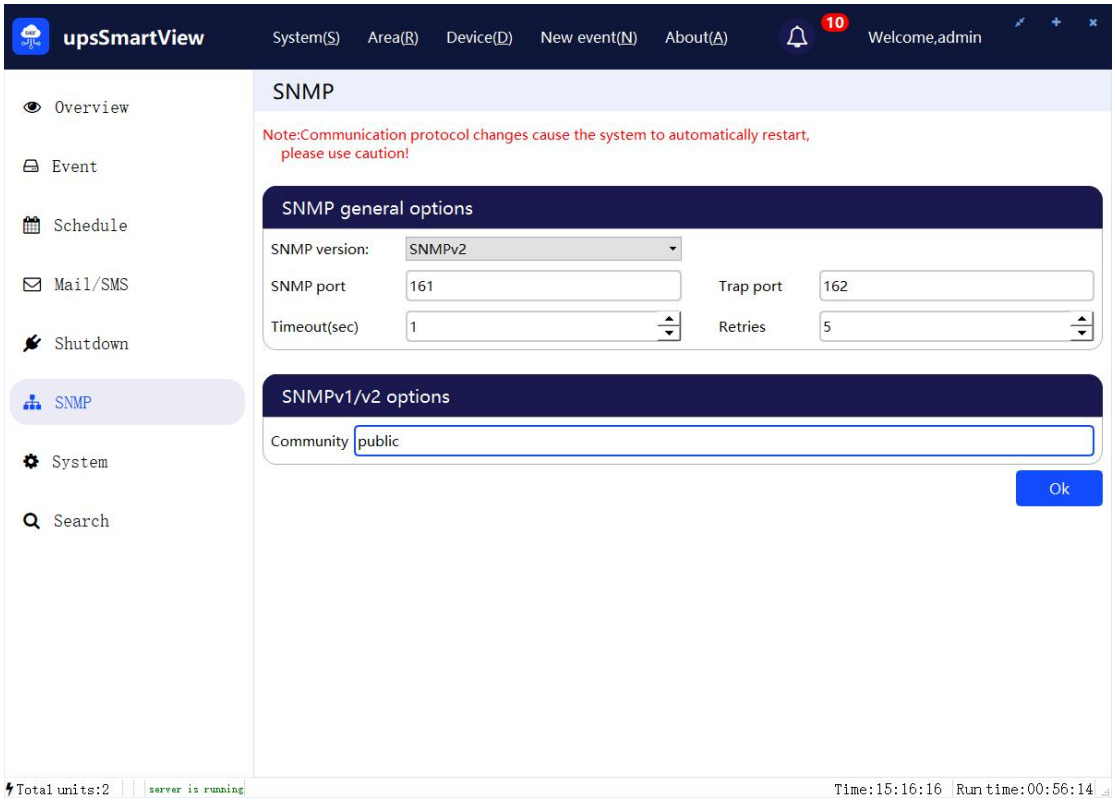
Controlled terminal: You need to check "Accept remote shutdown signal" first, the shutdown password can be customized, and then add the ip address of the controlled terminal.

Control terminal: Enter the IP of the controlled terminal in "Remote IP", and enter its shutdown password in "Remote Password", and then add.

At this point, you also need to make sure that "shut down the system" is checked on both sides, otherwise it cannot be shut down. After both sides are set, when the control terminal shuts down the operating system due to low battery voltage or mains failure, the controlled terminal will also shut down the operating system.

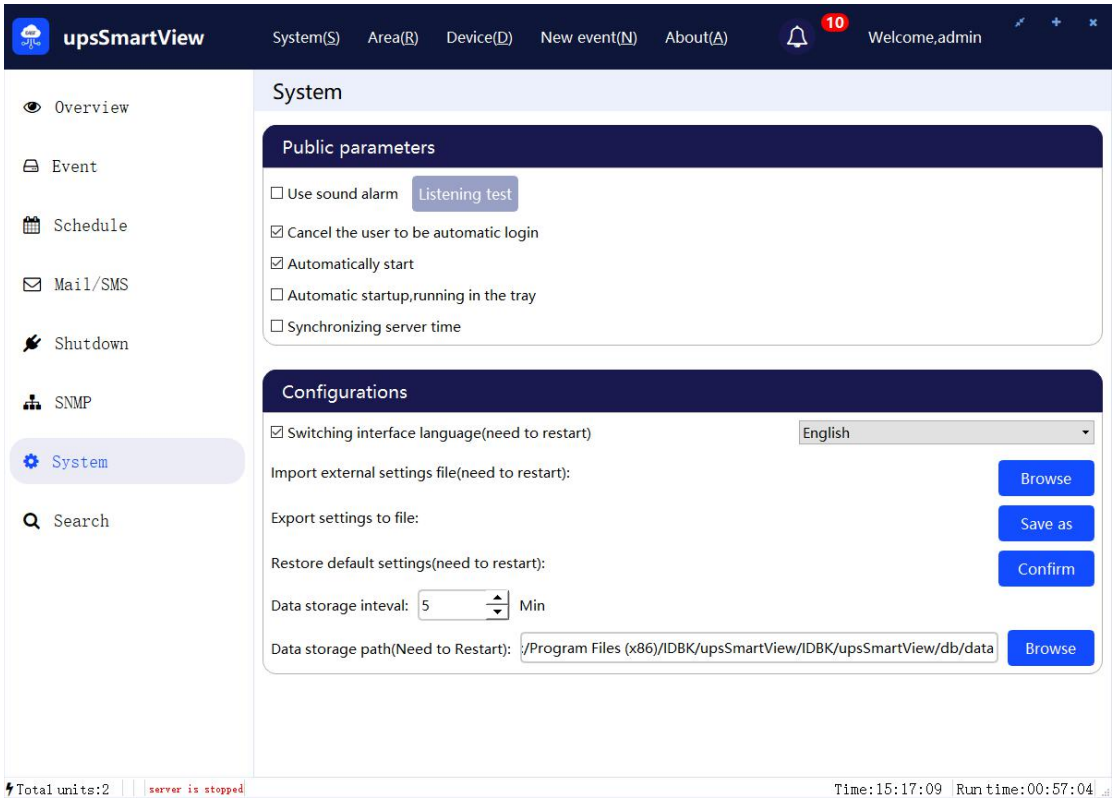
5. "SNMP" column

The interface of the SNMP card is as follows. First, select the corresponding SNMP version according to the SNMP card. Generally, the SNMP port and Trap port are both 161 and 162. When the selected SNMP version is SNMPv2, the parameter community must be the same as that of the SNMP card, otherwise the connection will fail. If unsuccessful, then add the snmp device according to the previous method. As shown in the figure:



6. "Settings" column

The setting interface is as shown in the figure:



（1） Public parameters

In the previous login interface, we can see that if you want to cancel the automatic login after checking "Automatic login next time", you can check "Cancel user automatic login" to cancel.

If "Enable Autorun" is checked, the service will start automatically when it is turned on.

If the time is wrong, you can check "Sync server time" to synchronize.

（2） Parameter handling

After selecting the interface language switch, you can select the corresponding language in the drop-down box on the right. The software only supports two language modes: English and Simplified Chinese.

Input configuration file, if the user has previously configured the software in detail and saved and output the configuration file, the last configured file can be directly imported in the next configuration, and there is no need to manually configure each option one by one.

Output configuration file, if all configurations have been set, you can save this configuration file to facilitate the direct import of the configuration file in the next configuration.

After clicking restore default settings, the software will return to the initial configuration state.

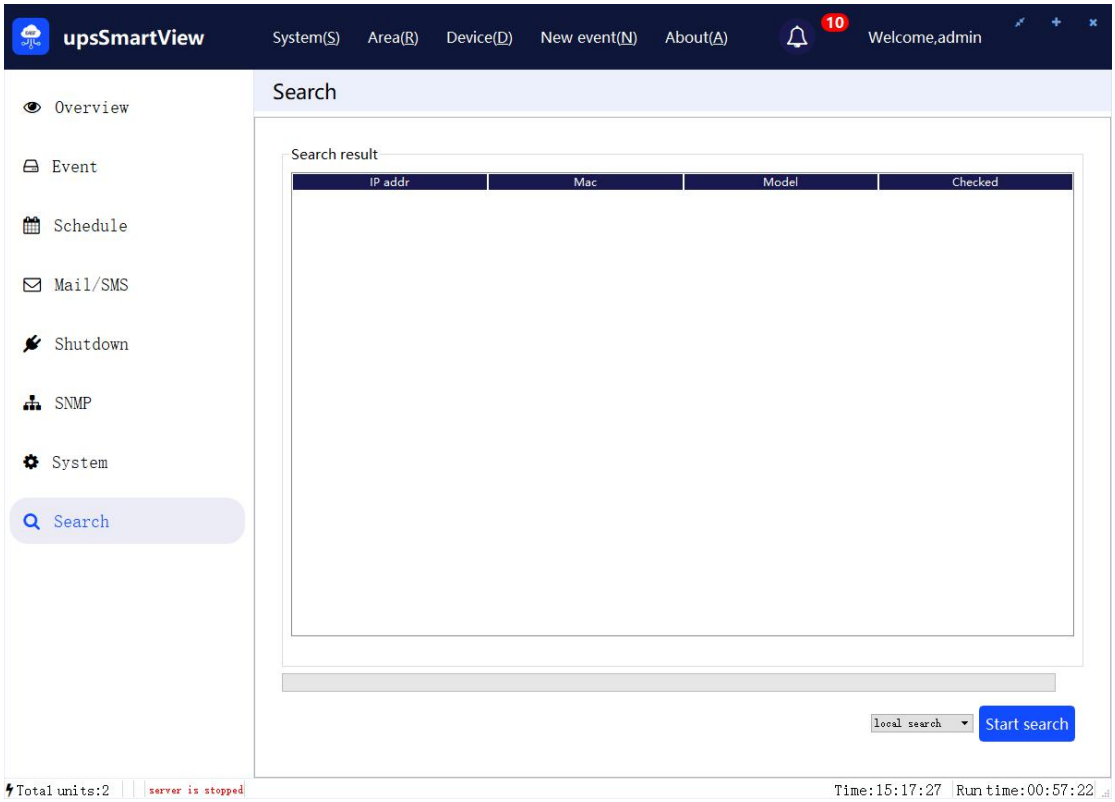
The data storage interval is the time to set the data collection interval, the default is 5 minutes.

The data storage directory is placed under C:/Program Files (x86)/IDBK/upsSmartView/IDBK/upsSmartView/db/data by default. If necessary, please modify it yourself.

Note: Most parameter processing needs to restart the service to take effect.

7. "Search" column

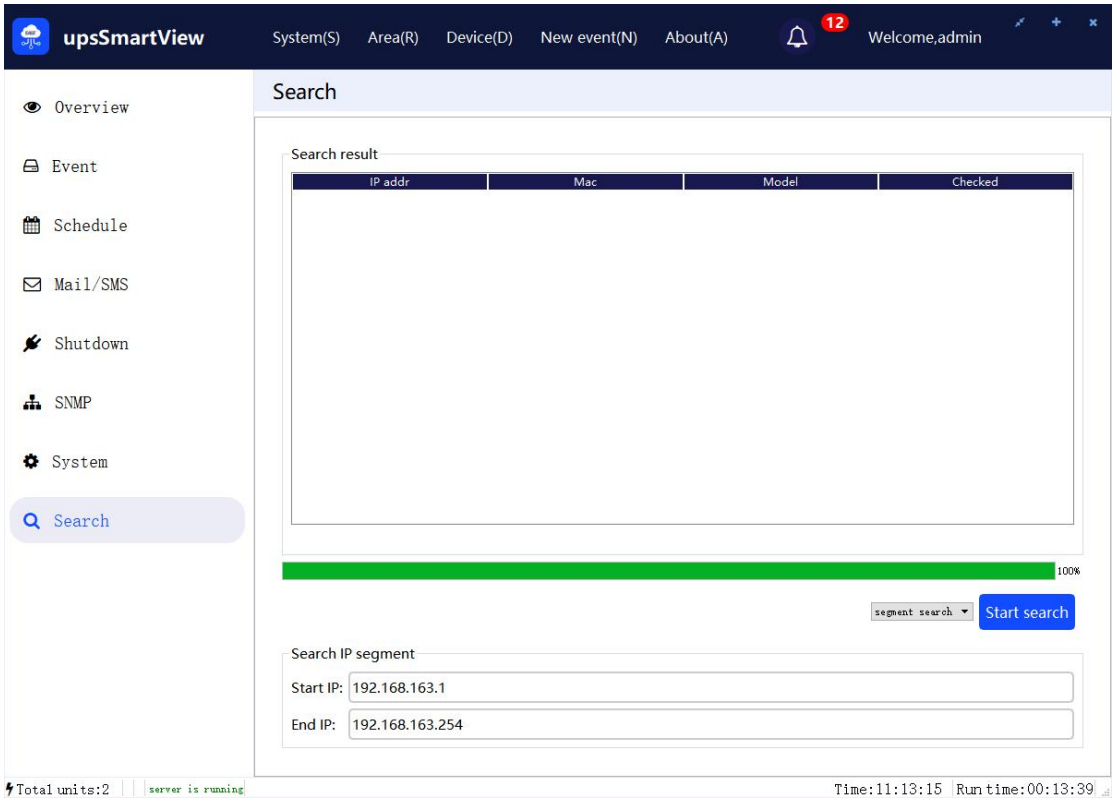
The search bar interface is shown in the figure:



There are two ways to search, one is segment search and the other is local search.

Local search is to search for the ip of the device directly connected to upsSmartView; segment search is to search for the ip of the range of attachments, the default range is 192.168.163.1-192.168.163.254.

The ip address searched when selecting segment search is shown in the figure:



The searched IP addresses will be displayed in the search results. Only the recognized machines with models such as iStar or G4 can be checked and added.

If you want to customize the addition, check the corresponding UPS in the search results, and then click Add the selected UPS; if you add all, all the UPS that can be added will be added.

After the addition is complete, you can see the added UPS in the overview, which can be customized and modified.