

ViewPower Pro

User's Manual

Management Software for Uninterruptible Power Supply Systems

Version: 2.0

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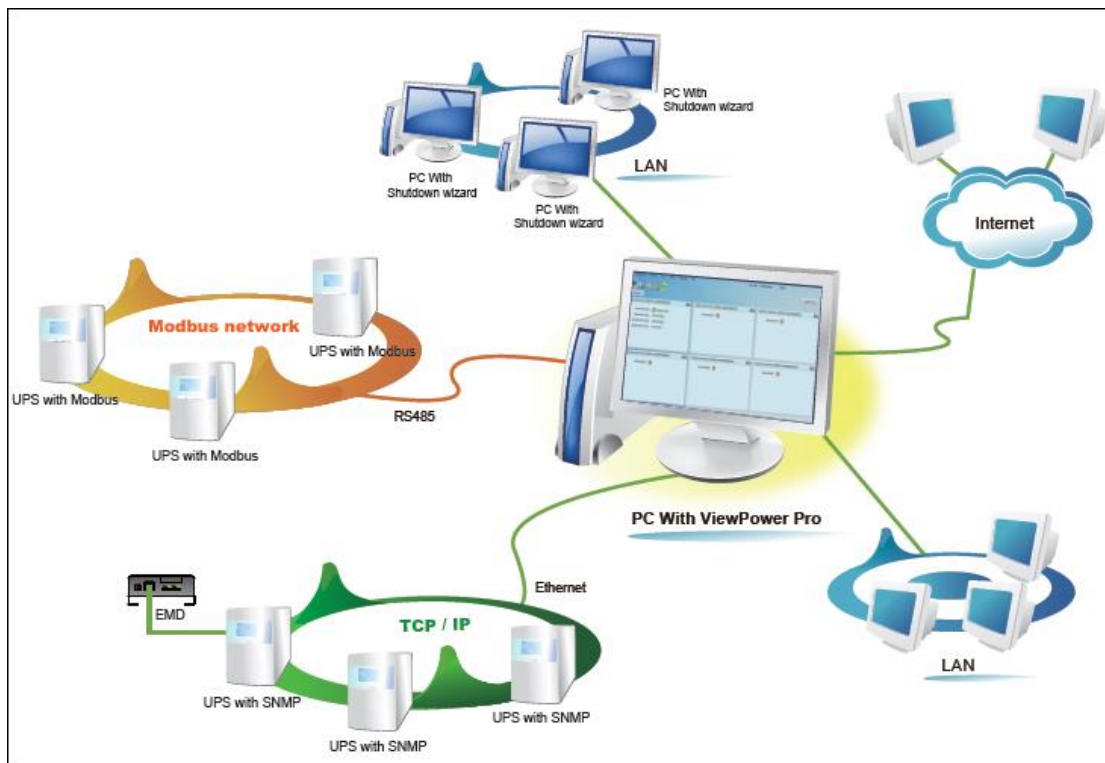
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1. ViewPower Pro Overview

1.1.Introduction

ViewPower Pro is an advanced UPS management software which is perfect for home users and enterprises. It can monitor and manage from one to multiple UPSs in a networked environment including LAN, INTERNET and RS485-based networks. Integrated with Shutdown Wizard, it can not only prevent data loss from power outage and safely shutdown systems, but also store programming data and scheduled shut down UPSs. All UPS working data and event records can be kept in local database system.



1.2.Structure

ViewPower Pro includes monitor service, WEB service and tray service.

- Monitor service: It is the core of ViewPower Pro software. Monitor service automatically find UPSs in the networks, store UPS working data and event information. It will communicate with UPS, record events, notify users with events, and execute command according to the users' request.

- WEB service: It offers Http or Https service for local or remote users. Users can manage and monitor UPSs for real-time status, information and modify UPS setting parameters via browser such as IE and Firefox.
- Tray service: It is management tool for ViewPower Pro software. It includes start monitor, stop monitor, SNMP manager and so on.

1.3.Features

- Centralized control and monitor up to 1000 UPSs via SNMP or Modbus networks.
- Offers WEB service to allow remote monitoring service via Intranet or Internet.
- Offers quick overview for UPS monitoring in Text and Graphic view.
- Offers user-customized background picture for graphic view with simple drag and drop.
- Scheduled UPS on/off, battery test, and scheduled wake on LAN programs.

2. ViewPower Pro Install and Uninstall

2.1. System requirement

- 1 GB physical memory at least (2 GB is recommended)
- 2 GB hard disk space at least
- Administrator authority is required
- More than 16-bit colors and 800 x 600 or above resolution display is recommended
- TCP/IP protocol must be installed for network management
- Platforms supported by software are listed below:
 - Windows XP/ Vista/ 7/ 8/ 10
 - Windows server 2003/ 2008/ 2008R2/ 2012/ 2012R2/ 2016/ 2019
 - Windows SBS 2011
 - Linux RedHat 8, 9

- Linux RedHat Enterprise AS3, AS5, AS6 (32-bit)
- Linux RedHat Enterprise AS6 (64-bit)
- Linux RedHat Enterprise 5.2 (32-bit & 64-bit)
- Linux SUSE 10 /11.X(32-bit & 64-bit)
- Linux Cent OS 5.4 /6.X(32-bit &64bit)
- Linux Cent OS 7.X(64bit)
- Linux Ubuntu 8.X, 9.X, 10.X (32-bit)
- Linux Ubuntu 10.X (64-bit)
- Linux Ubuntu 12.04 /14.X/16.X/18.X/19.x(32-bit & 64-bit)
- Linux Fedora 5
- Linux OpenSUSE 11.2 (32-bit & 64-bit)
- Linux Debian 5.x, 6.x (32-bit)
- Linux Debian 6.x/8.x (64-bit)
- MacOS x64-bit 10.6 /10.7 /10.8 / 10.9 /10.10 /10.11 /10.12 /10.13 /10.14/10.15
- ESXI 5.X/6.X

2.2.Software Install

Step 1 Insert the software CD into CD ROM. Installation menu will be automatically displayed, or you can run autorun.exe to start the installation in CD directory. Refer to the diagram 2-1.



Diagram 2-1

Step 2 It will show the following screen as Diagram 2-2. Then click "ViewPower Pro" button to start the installation.



Diagram 2-2

Step 3 After clicking install, it will display the installation in process. Refer to the diagram 2-3.

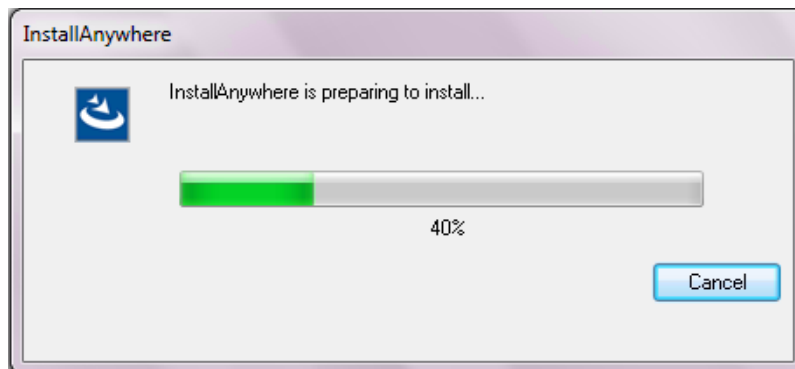


Diagram 2-3

Step 4 Click "Next" to proceed to the next screen as Diagram 2-4.

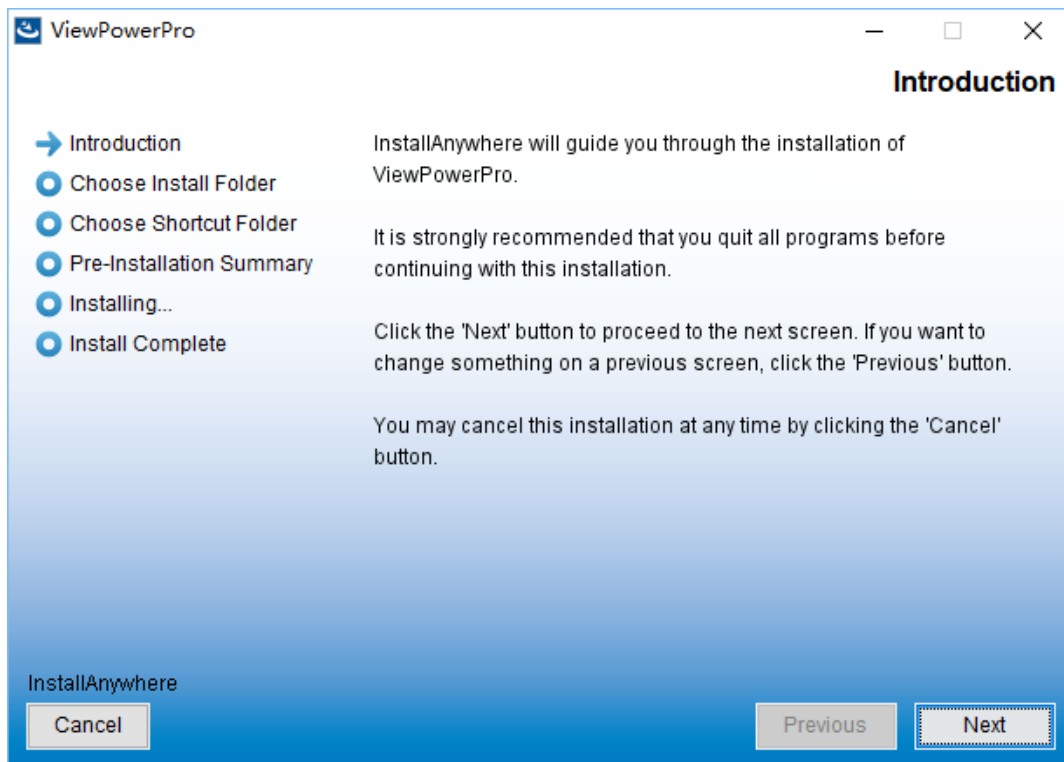


Diagram 2-4

Step 5 Click "Choose" button to change the default folder. After choosing the installed folder, click "Next" button. Refer to the following diagram 2-5

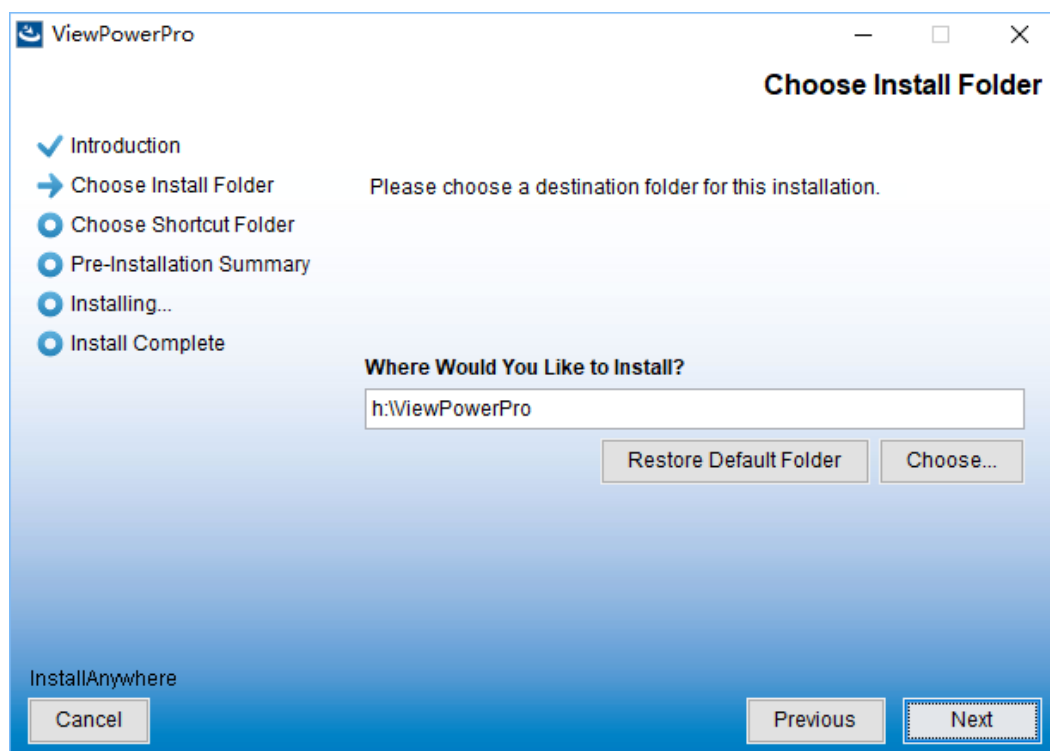


Diagram 2-5

Step 6 Choose the shortcut folder and click “Next” button. Refer to the following diagram 2-6.

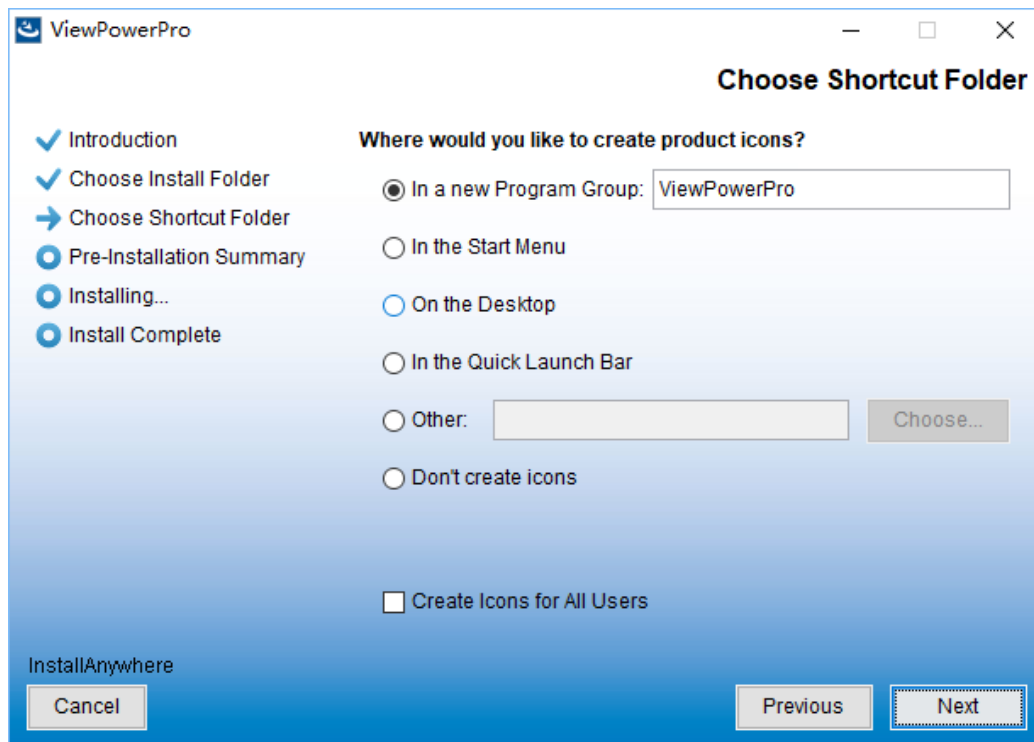


Diagram 2-6

Step 7 It will display the software summary before installation. Click “Install” button to start the installation and refer to Diagram 2-7.

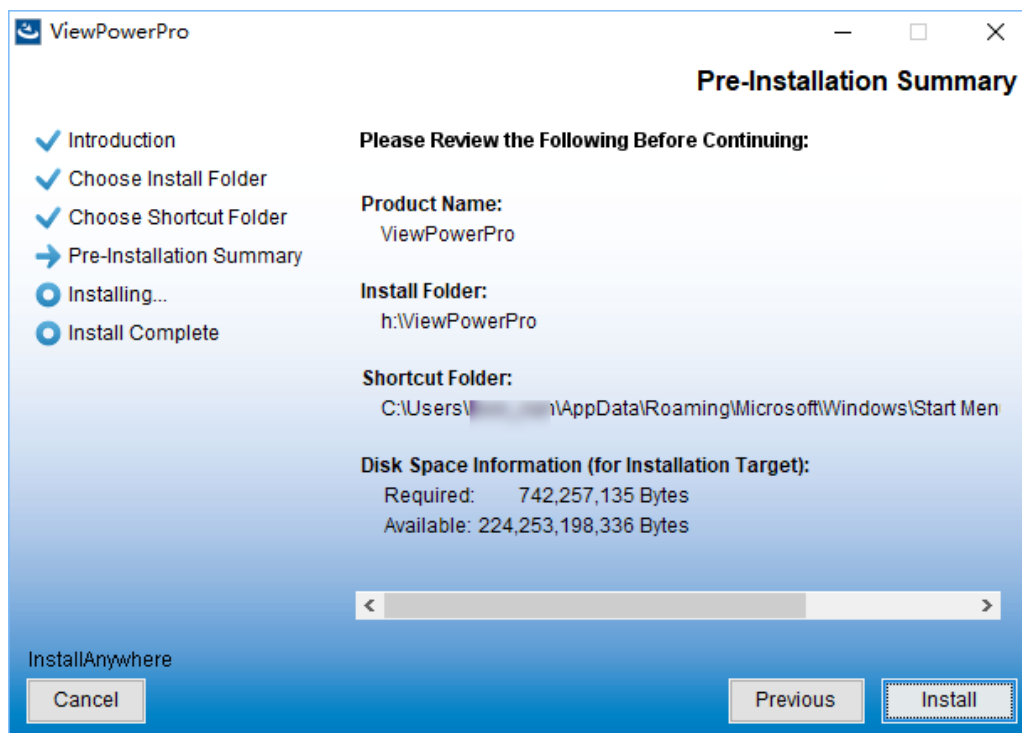


Diagram 2-7

Step 8 Click "Done" button to confirm the installation completely. Refer to Diagram 2-8.

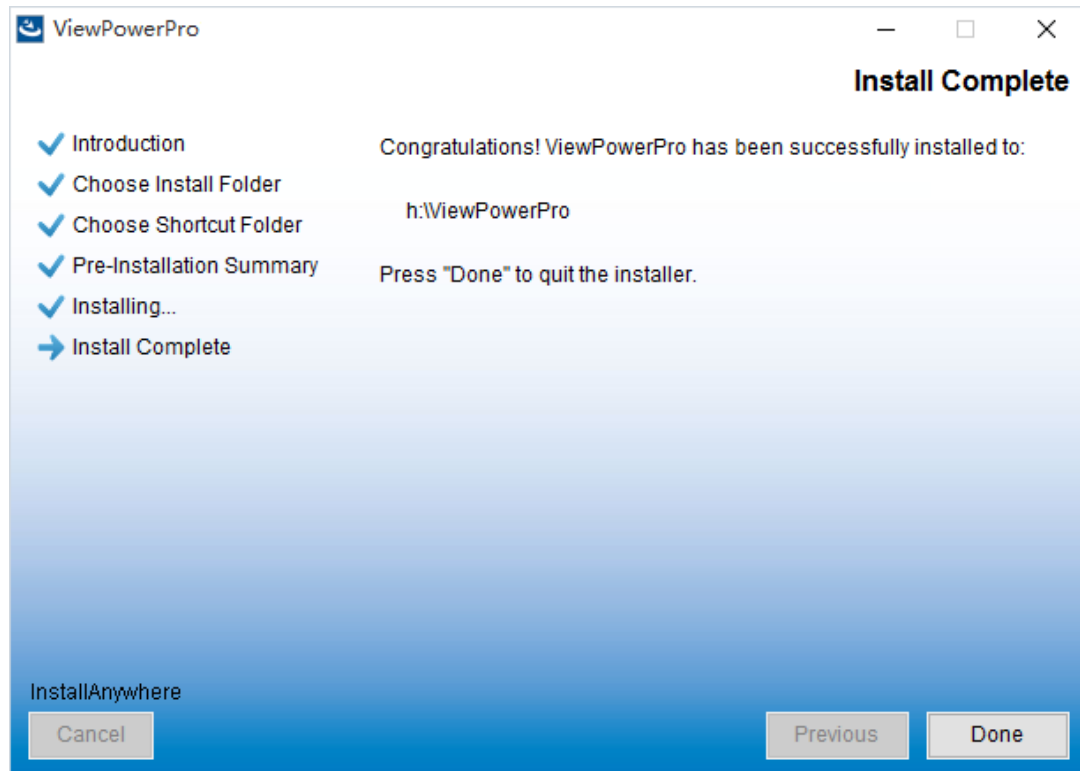


Diagram 2-8

Step 9 If using Linux OS and logging in as a none-root user, it is necessary to execute the script file in the terminal after installation. Then, please enter the User Password as shown in Diagram 2-9. (NOTE: The entered password will be hidden.).

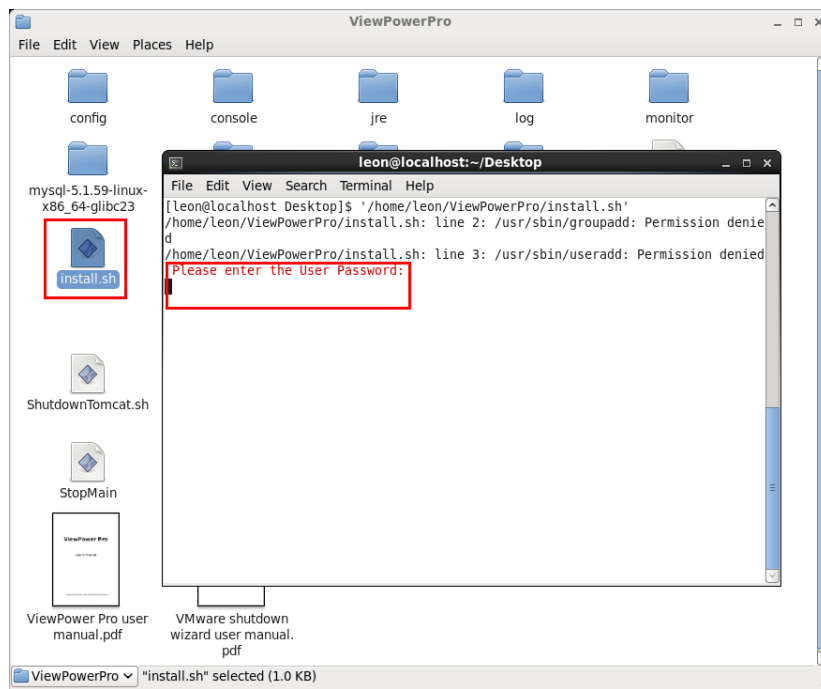


Diagram 2-9

As for MACOS system, the script file will be executed automatically before the installation be finished. Please refer to Diagram 2-10 for entering the User Password. (NOTE: The entered password will be hidden.).

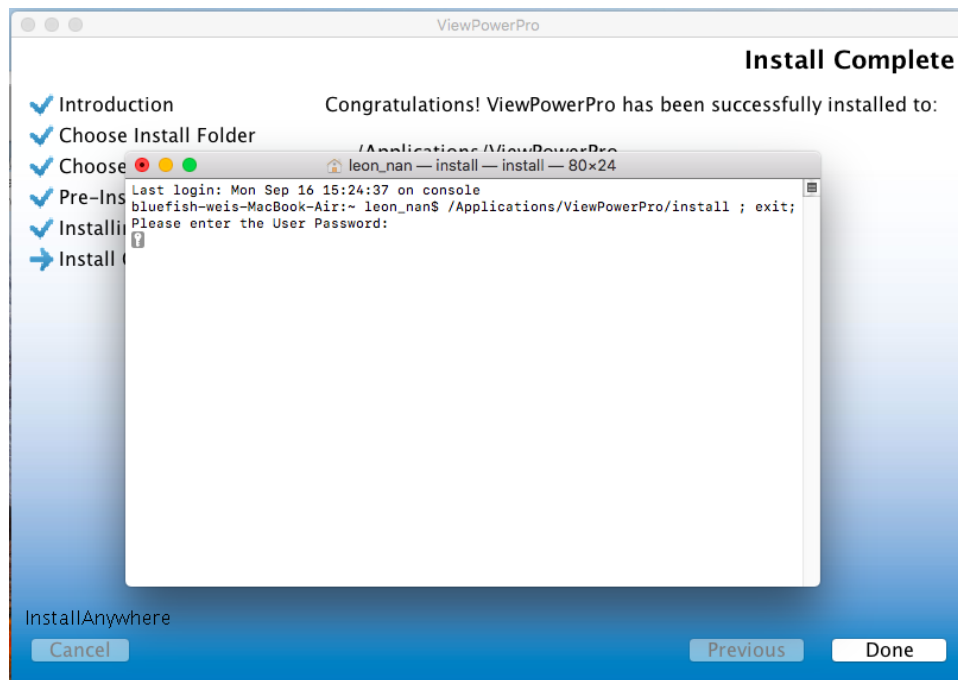


Diagram 2-10

Note: Please uninstall the previous version before install the new version software.

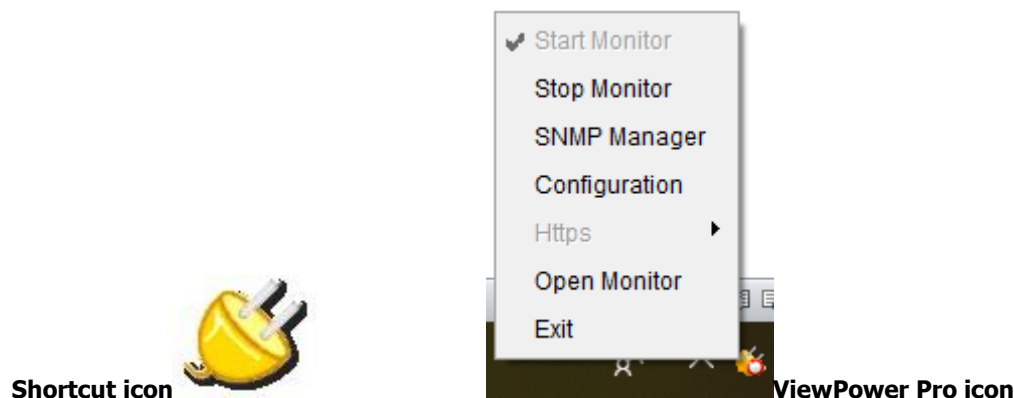
2.3. Software Uninstall

Please choose Start>>All Programs>>ViewPower Pro>>Uninstall. Then follow the on-screen instruction to uninstall the software. Before uninstall software, you must stop all software programs first and then log in as "Administrator"! Otherwise, it can't be uninstalled completely.

3. Service Tray Application

The Installer will leave a shortcut icon on your desktop. Simply click the shortcut. Then it will start the software and display an orange plug icon located in taskbar. To launch the GUI, double click the plug icon or choose "Open Monitor" by clicking right button of the mouse. Refer to below diagram.

Or, use the Start Menu method; Start>>All Programs >> ViewPower Pro >> ViewPower Pro.



3.1. Start Monitor

This software will be automatically activated when installing it as service application. At this time, users can remote monitor UPSs through web browser even though users do not login in operation system.

If service application cannot be registered successfully, when starting up tray service, it will automatically activate monitoring application. If it's failed or stopped manually, simply click "Start Monitor" to activate it.

"Start Monitor" will check if monitoring application is registered as service application. If it's successfully, this software will be activated from service

mode. If not, this software will be activated as monitoring mode. Users can identify the application mode from tray icon as below:

- Monitoring application is not activated successfully: 🚫
- Monitoring application is activated as service mode: 🔄
- Monitoring application is activated as monitoring mode: 📊

3.2. Stop Monitor

Click “Stop Monitor” to stop monitoring application.

3.3. SNMP Manager

SNMP Manager is a plug-in utility for ViewPower Pro to search and operate all SNMP devices in the LAN (It’s necessary to verify ID to remote access SNMP devices. The default password is “Q1f@18*_~zYLyaM”.).

Click the “SNMP Manager” to access SNMP management tool.

It has four sections as marked in the illustration below:

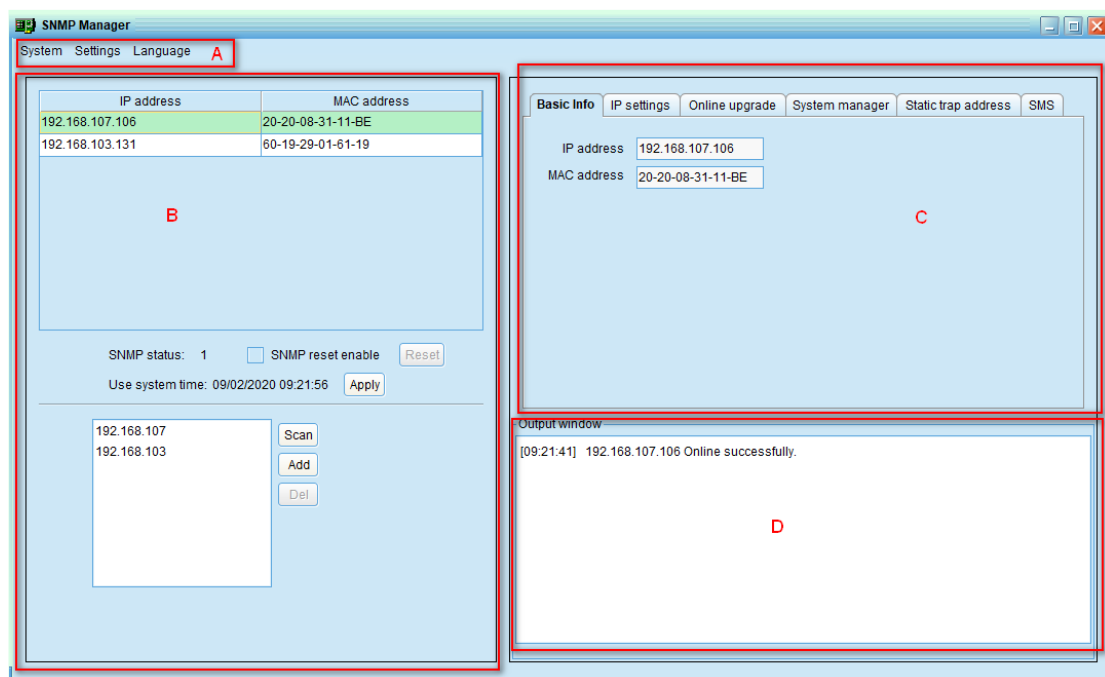


Diagram 3-1

A. Function menu offers tool-set for setting SNMP devices.

B. SNMP device list can list down all SNMP devices with IP address.

C. Configuration area includes IP settings, online upgrade, password management, and static trap address.

D. Output window displays all messages for operations

3.3.1. SNMP Device List

The default value in window list would be current PC IP address. For example, if IP address of current PC is "192.168.102.10", it will display "192.168.102" in list when first enabling SNMP Manager.

Scan

You may enter specific IP address and then click "Scan" button to search.

Add

Click "Add" button and it will pop up a window to ask for entering specific IP address. Then, click "Apply" button to add IP address (Subnet). Refer to Diagram 3-2.

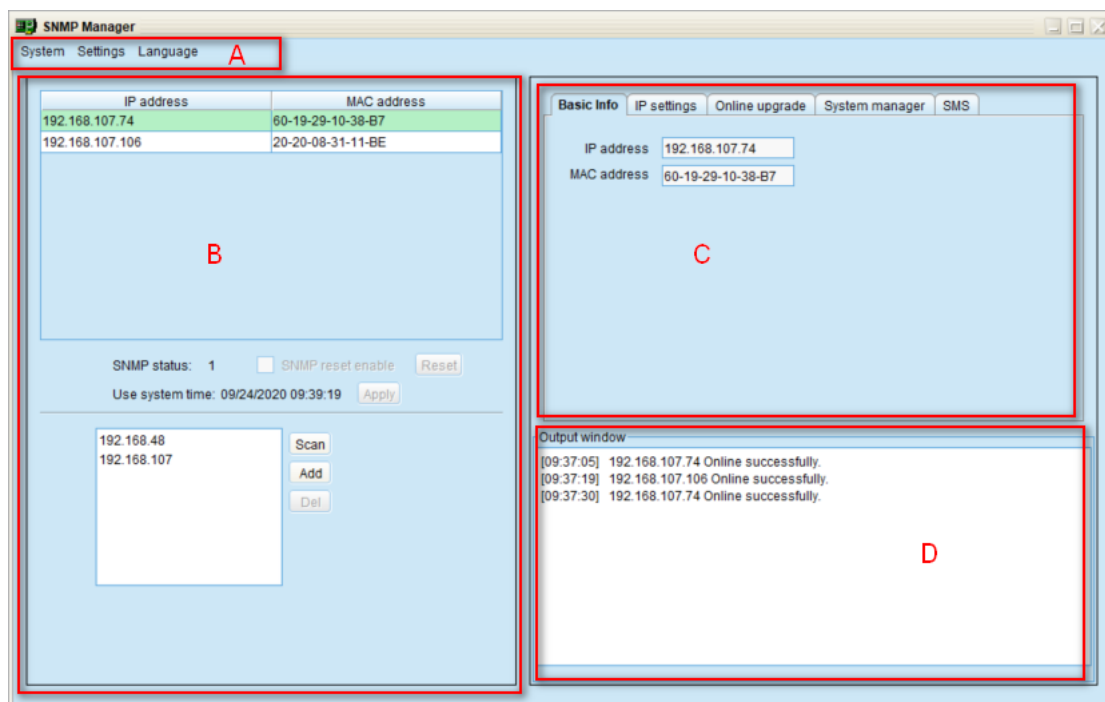


Diagram 3-2

Delete

You may select IP address from the list and remove it by clicking "Del" button.

SNMP Status

It will display SNNP status, 0 or 1, after selecting IP from the IP list. If there is

program inside of selected SNMP card, the status becomes 1. If not, it will display 0. If no IP address is selected, it will display "---"as default. Refer to Diagram 3-3.

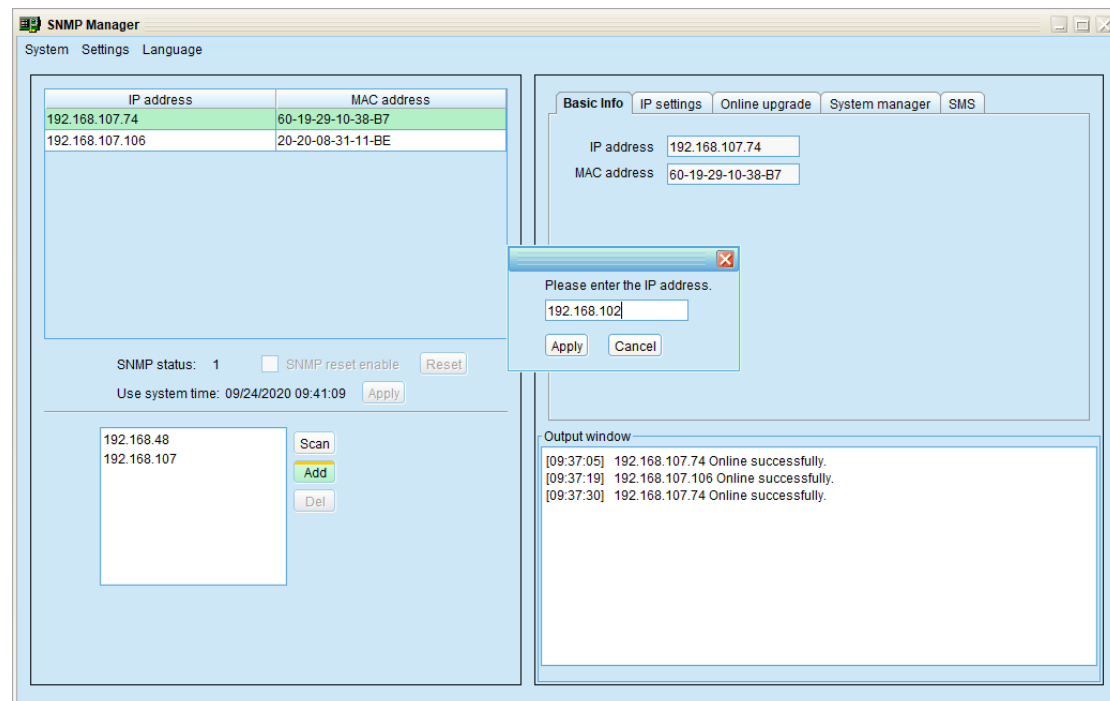


Diagram 3-3

Reset

If it is required to restart the IP addresses of devices, please select the checkbox of "SNMP reset enable" and click "Reset" button. Then, if login is confirmed, you can restart the device. Steps are as follows:

Step1: Select IP address needed to restart IP from the list. Then, "SNMP reset enable" will become available to select. Refer to Diagram 3-4.

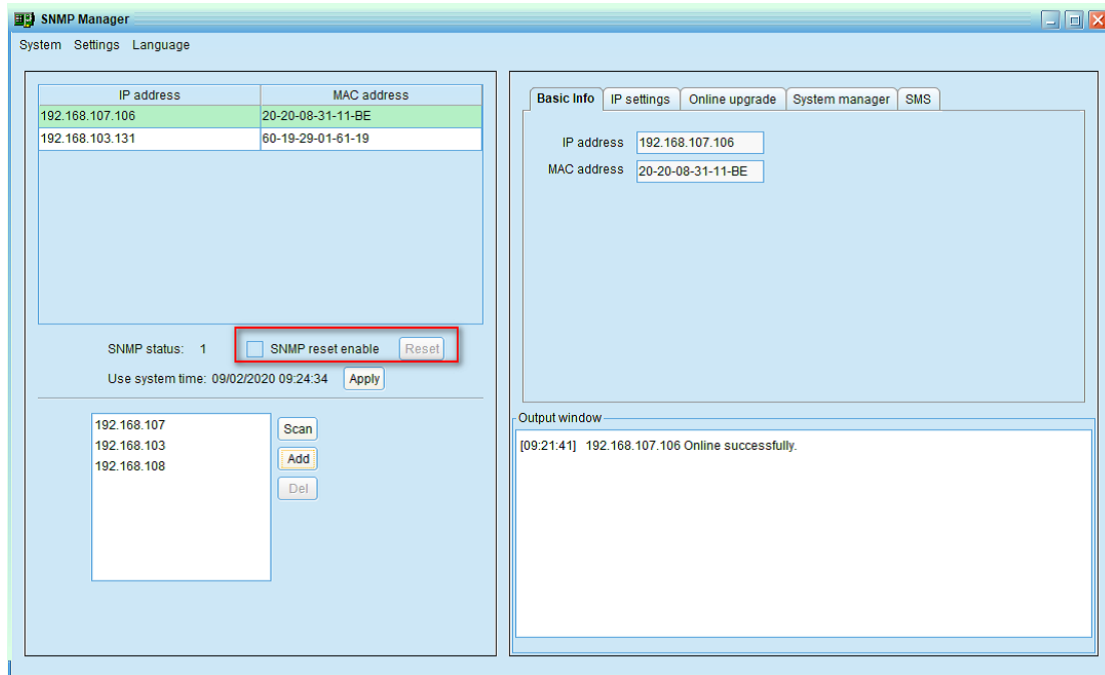


Diagram 3-4

Step2: Click checkbox of "SNMP reset enable". Then, "Reset" button will become available to click. Refer to Diagram 3-5.

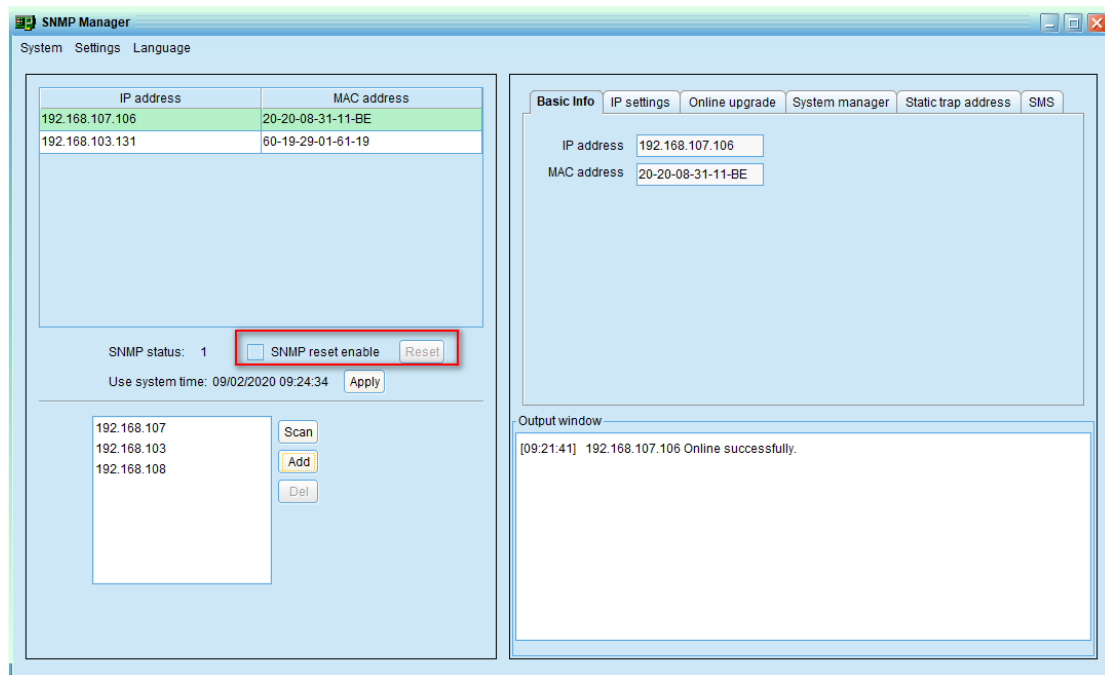


Diagram 3-5

Step3: Click "Reset" button and it will pop up a message to confirm this operation. Refer to Diagram 3-6.

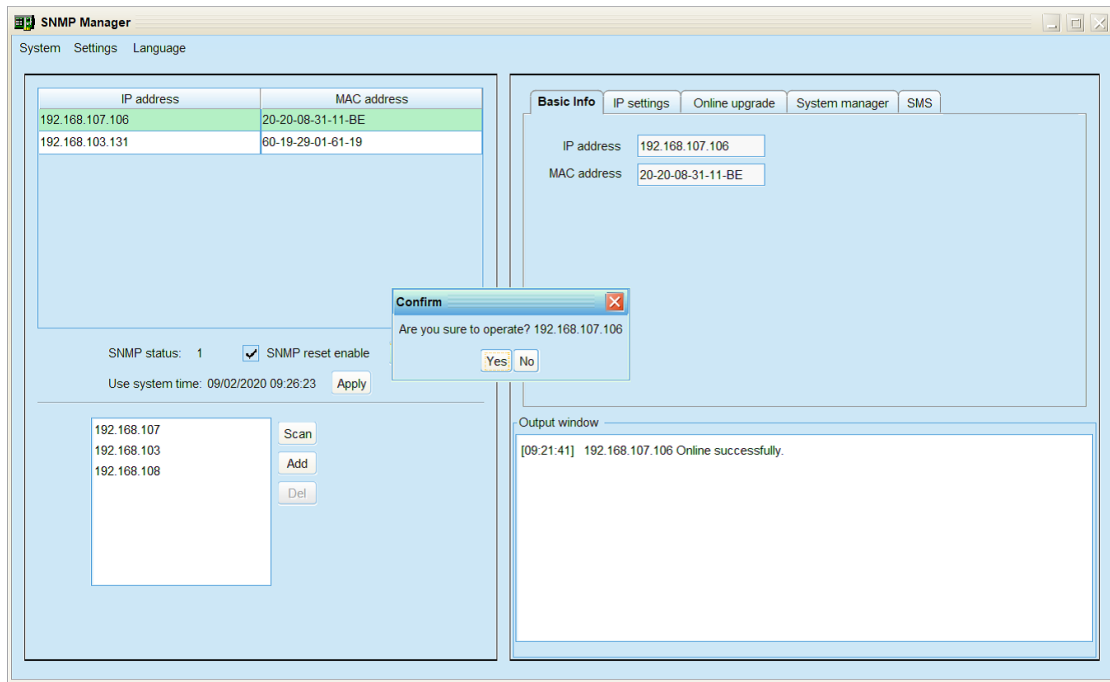


Diagram 3-6

Step4: If "Yes" is selected, it's requested to log in first. If "No" is selected, it will stop this operation. Refer to Diagram 3-7.

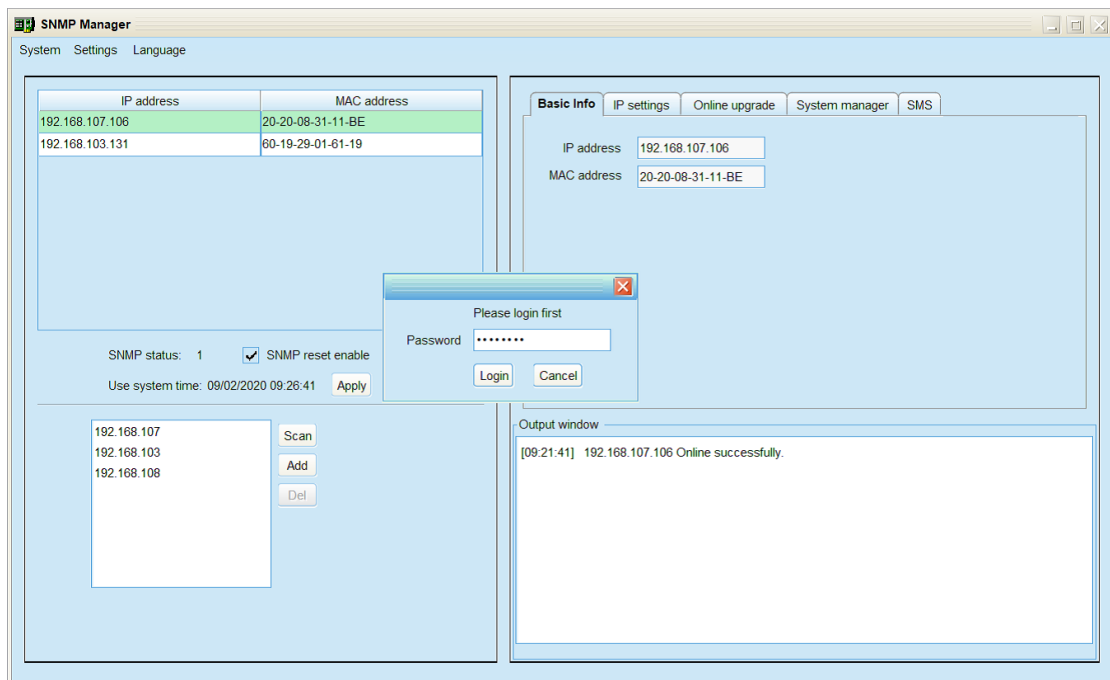


Diagram 3-7

Step5: Enter the correct password and click "Login" button. The target device will be restarted.

NOTE: If changing the MAC address of current device before reboot and the

current device is applying DHCP (Automatically obtain IP address) method, you need to manually click "Scan" button to scan.

Use system time

If "Use system time" is selected, the SNMP card will apply PC system time. Refer to Diagram 3-8.

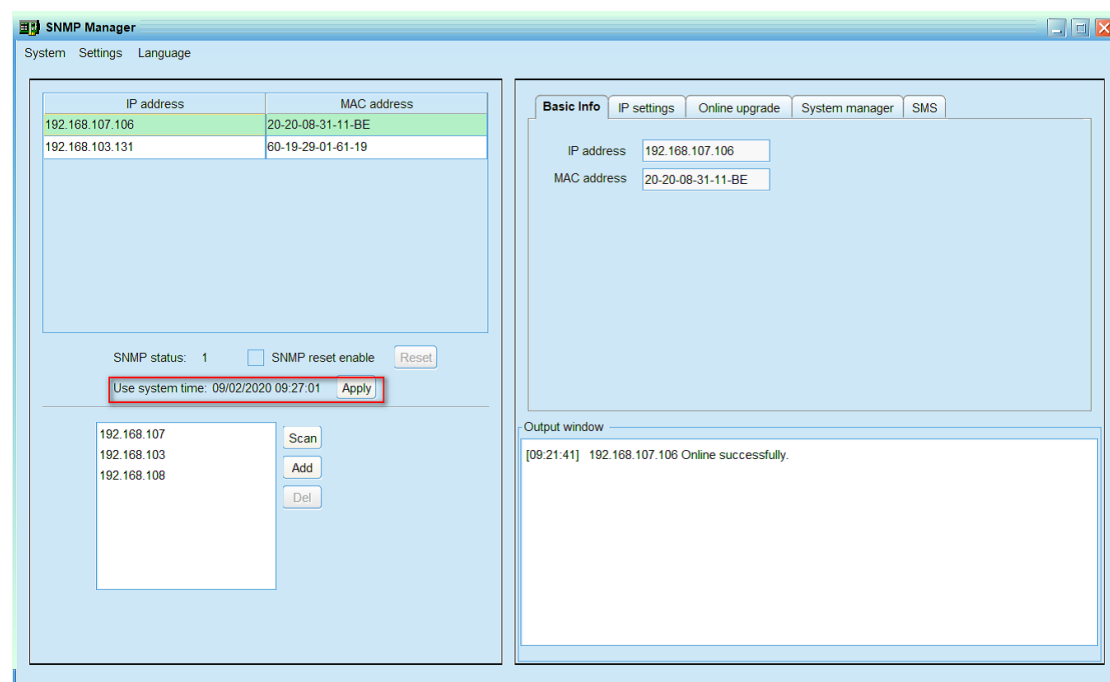


Diagram 3-8

3.3.2. Function Menu

3.3.2.1. System

Quit

Select "Quit" to exit SNMP Manager. Refer to Diagram 3-9

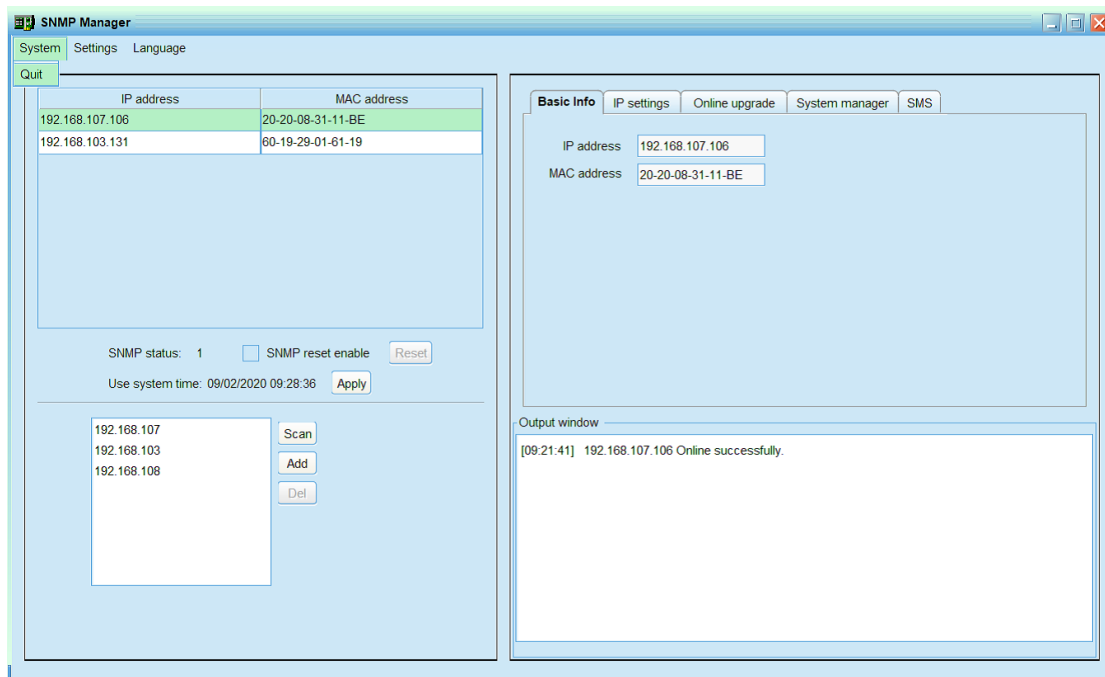


Diagram 3-9

3.3.2.2 Settings

Basic Info

User can manually enter basic information of SNMP cards such as UPS name, Address, and Note for verification. Refer to Diagram 3-10.

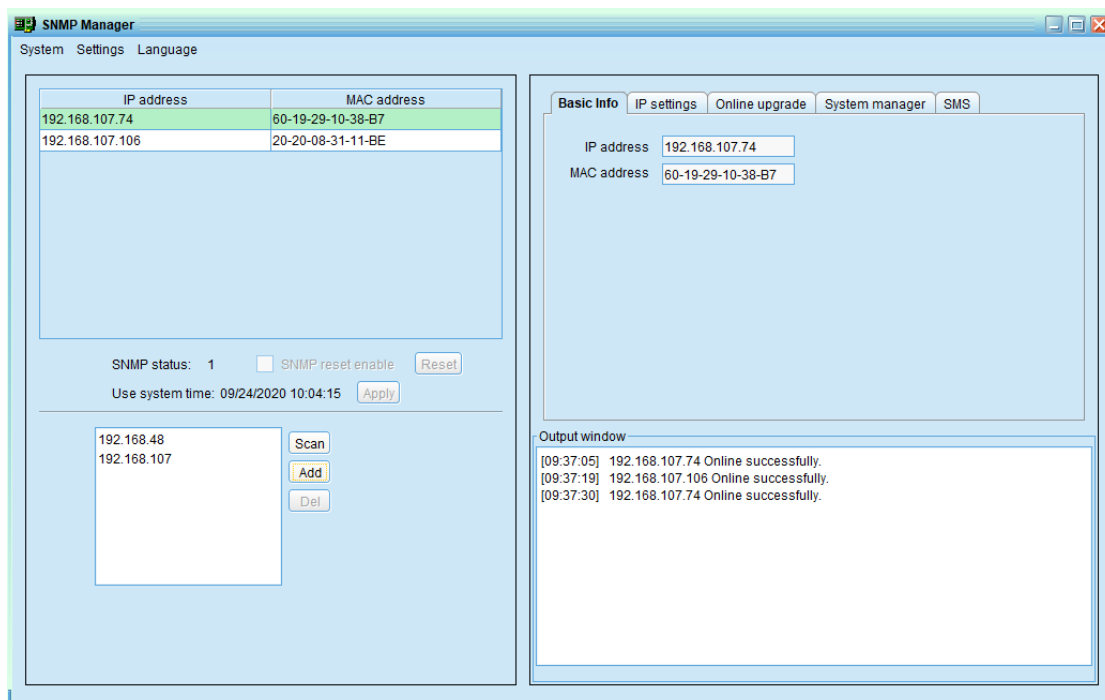


Diagram 3-10

IP Setting

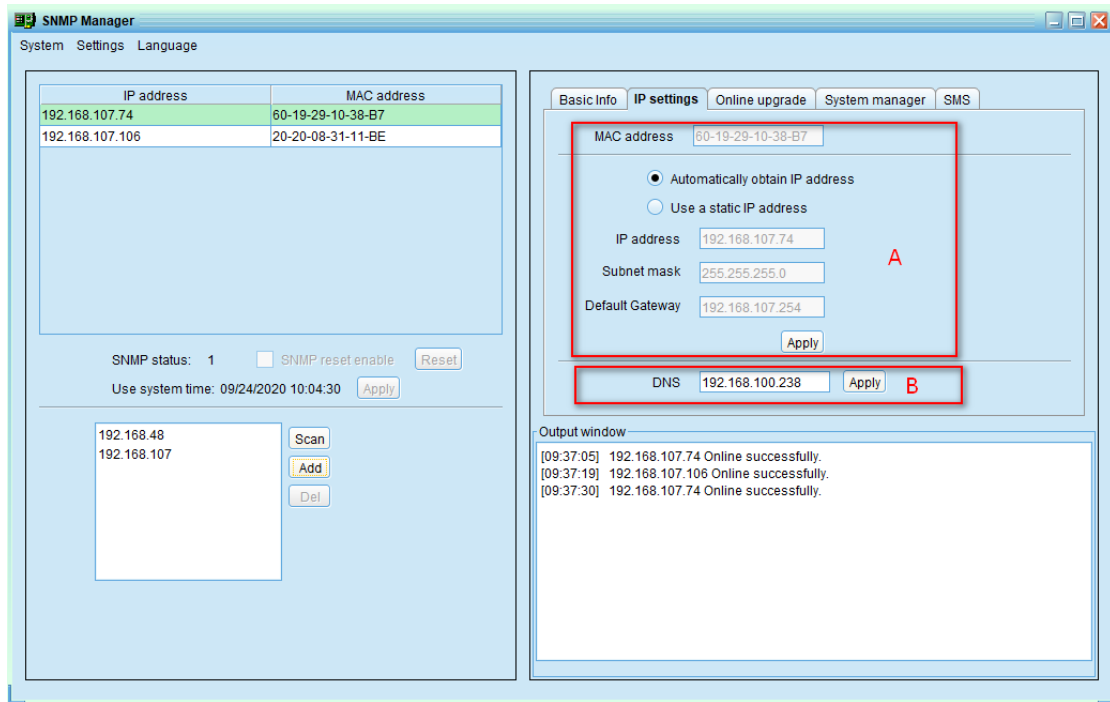


Diagram 3-11

Part A: There are two methods to obtain IP address. Refer to section A in Diagram 3-11.

- Automatically obtain IP address (DHCP)

It will allow system to automatically obtain IP addresses. If there is no this kind of service provided in LAN, the default IP will display as "192.168.102.230", Subnet mask as "255.255.255.0" and default gateway as "0.0.0.0". Simply click "Apply" button to apply this change.

- Use a static IP address

It will allow users to enter static IP address for SNMP devices. When entering IP address, Subnet mask, and gateway address, simply click "Apply" button to apply this change.

Part B: Enter the DNS and click "Apply" button. Refer to section B in Diagram 3-11.

Online upgrade

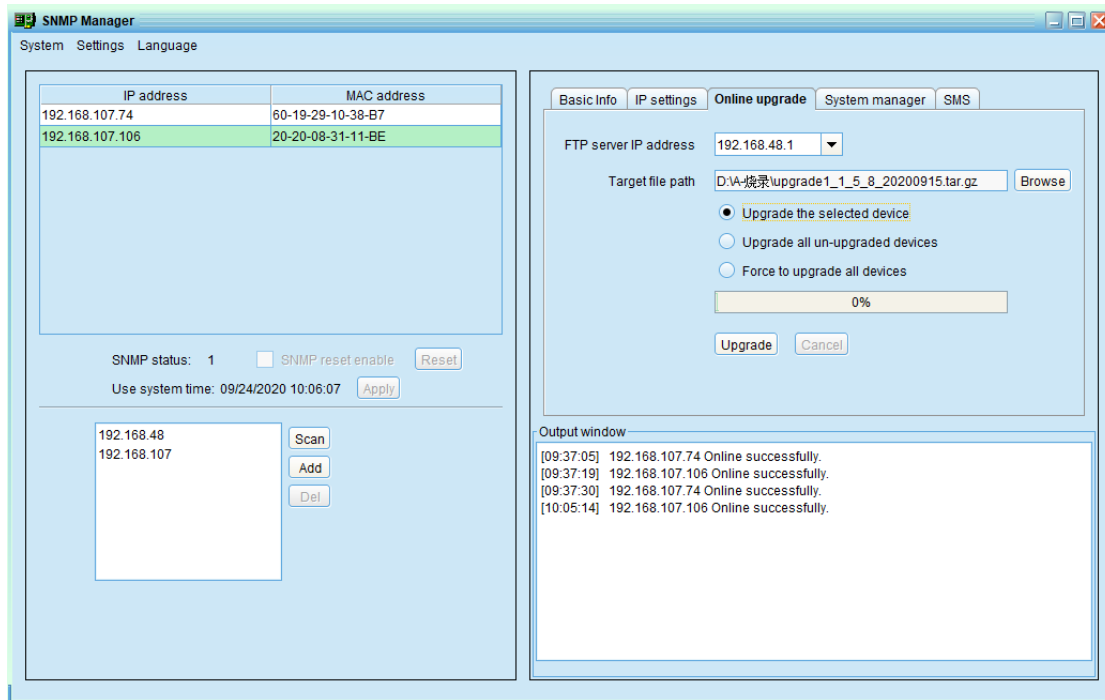


Diagram 3-12

There are three methods for online upgrade:

- Upgrade the selected devices: It will upgrade all SNMP devices listed in the IP list.
- Upgrade all un-upgraded devices: It will only upgrade SNMP devices which are not using the latest version.
- Force to upgrade all devices: No matter what kinds of version are used for SNMP devices listed in the IP list, it will upgrade to the latest version for all SNMP devices. Refer to Diagram 3-12.

Step 1: select the FTP server IP address. Refer to Diagram 3-12.

NOTE: If applying upgrade for SNMP Web Server in LAN, FTP server IP address will be IP address of current PC in LAN. If applying upgrade for SNMP Web Server in specific networking, FTP server IP address will be IP address of current PC in Internet.

Step 2: Click "Browse" button to choose program file. Refer to Diagram 3-13.

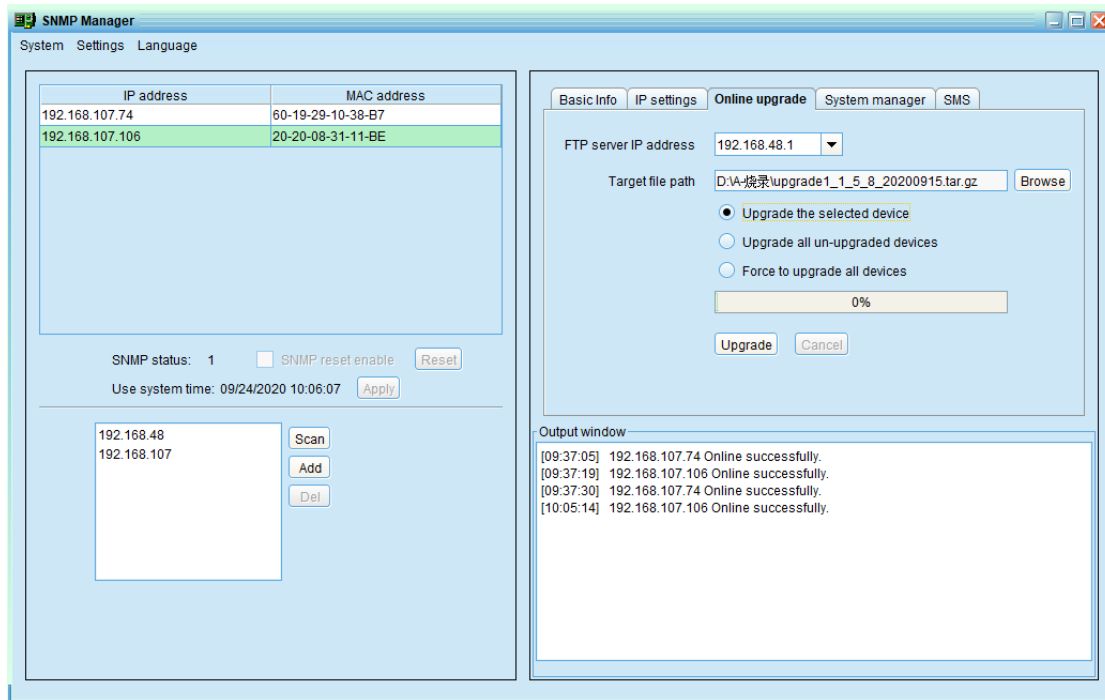


Diagram 3-13

Step3: Click "Upgrade" button to execute upgrade action. Refer to Diagram 3-14.

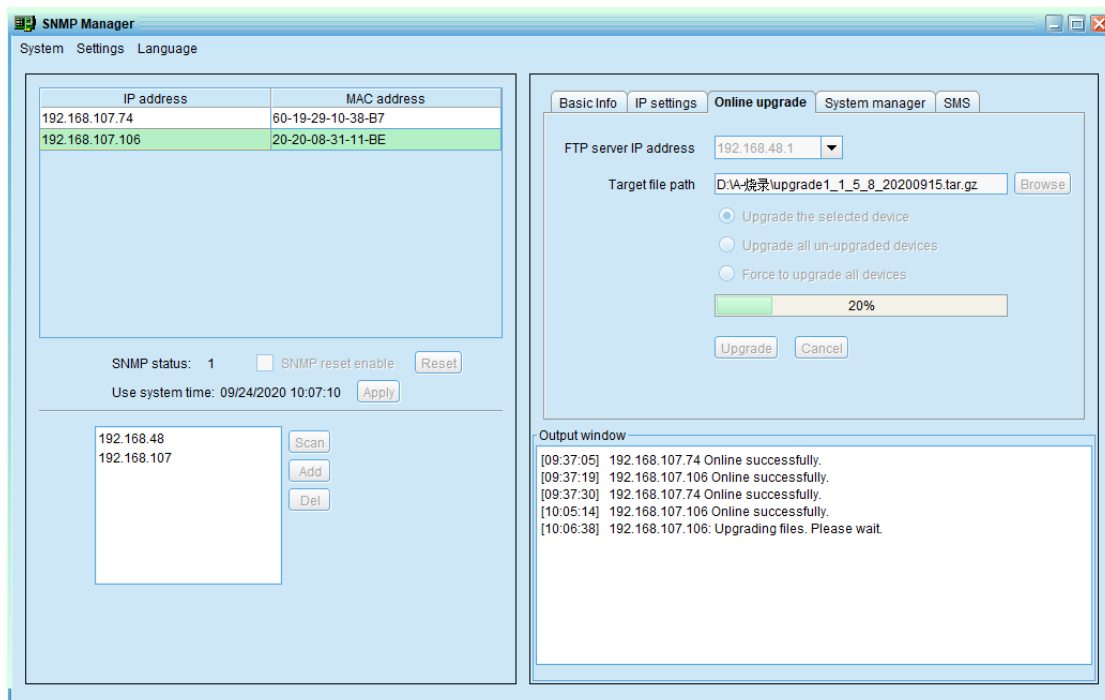


Diagram 3-14

Step4: When upgrade is complete, you may check the message in output window. Refer to Diagram 3-15.

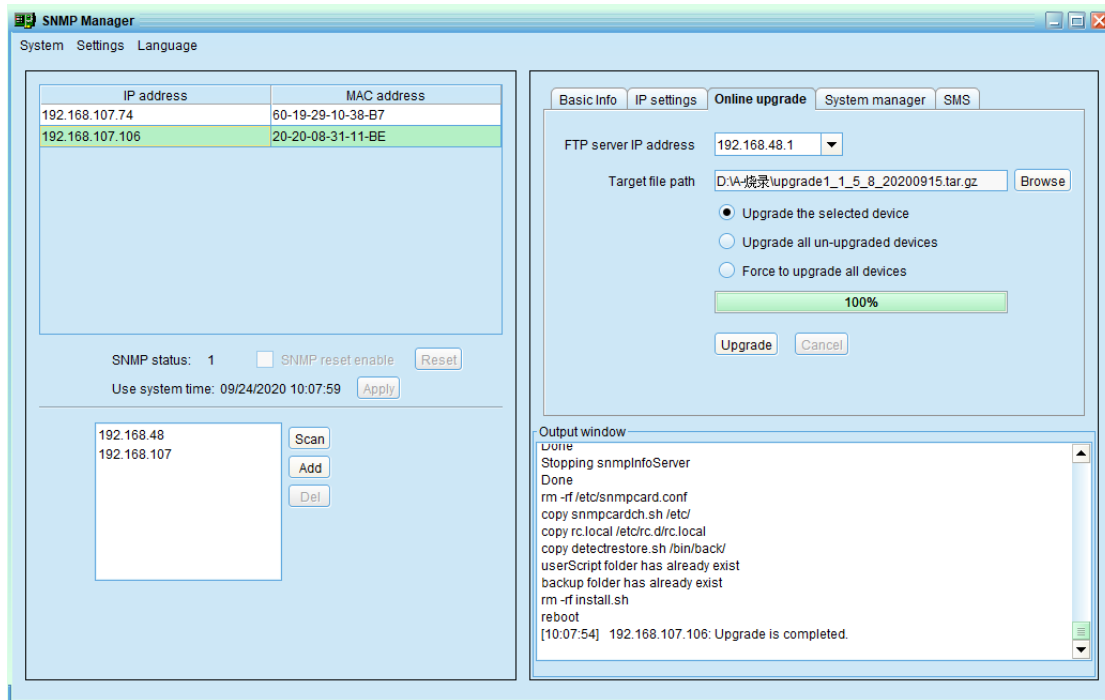


Diagram 3-15

NOTE: If abnormal situation occurs during upgrade process, the system will automatically re-start the upgrade operation. If this interruption occurs five times, then, system will automatically stop this operation. At this time, please check if LAN is working well.

System management

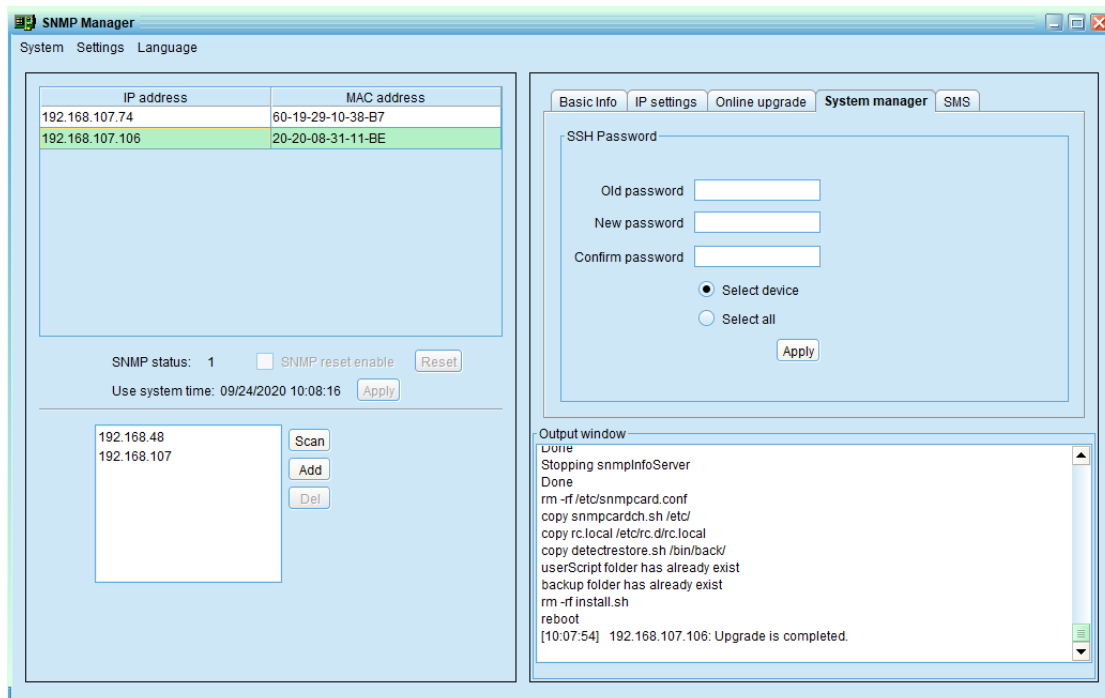


Diagram 3-16

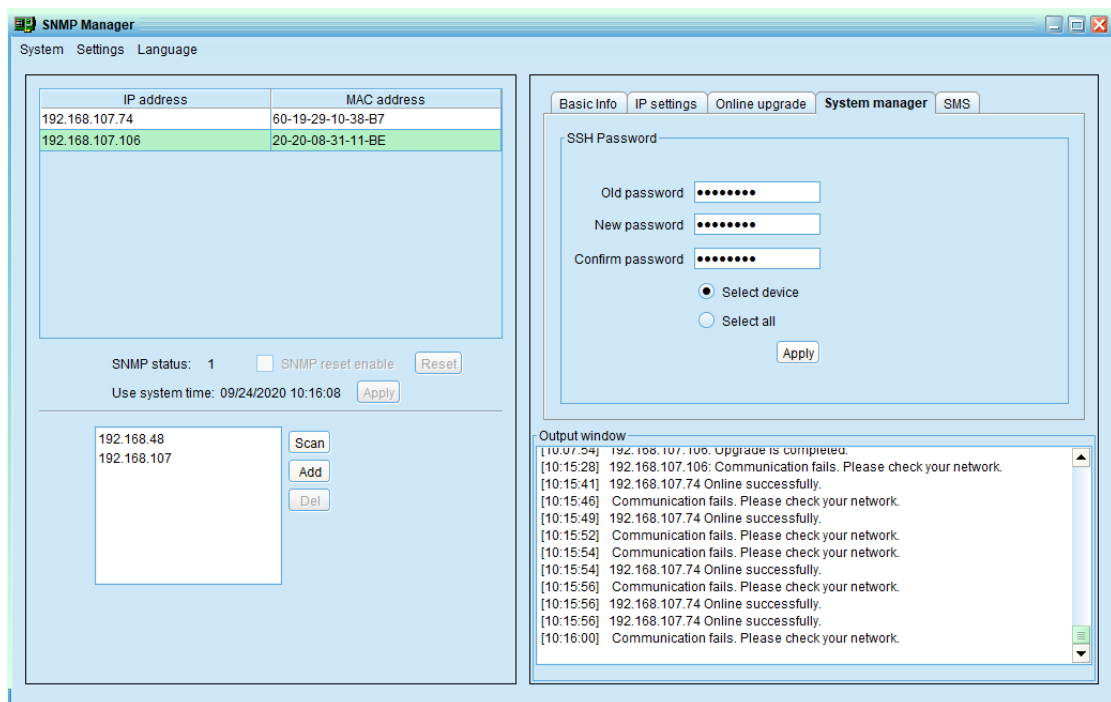


Diagram 3-16

You may modify single password for one SNMP device or all passwords for all SNMP devices. Please enter original password, new password and re-enter new password. Select devices to apply this setting.

- Select device: Choose to change password for selected SNMP device from device list.
- Select all: Choose to change passwords for all SNMP devices on the window list

Then, click "Apply" button to change password.

NOTE: The length of password is 8~15 digits. If this change is applied for all SNMP devices, the password will be consistent for all SNMP devices.

SMS

It's for entering SMS recipient list. In the event of an alarm condition occurring, a message about UPS status will be sent to the specified users via mobile phone.

Step 1 Select SMS. Refer to Diagram 3-18.

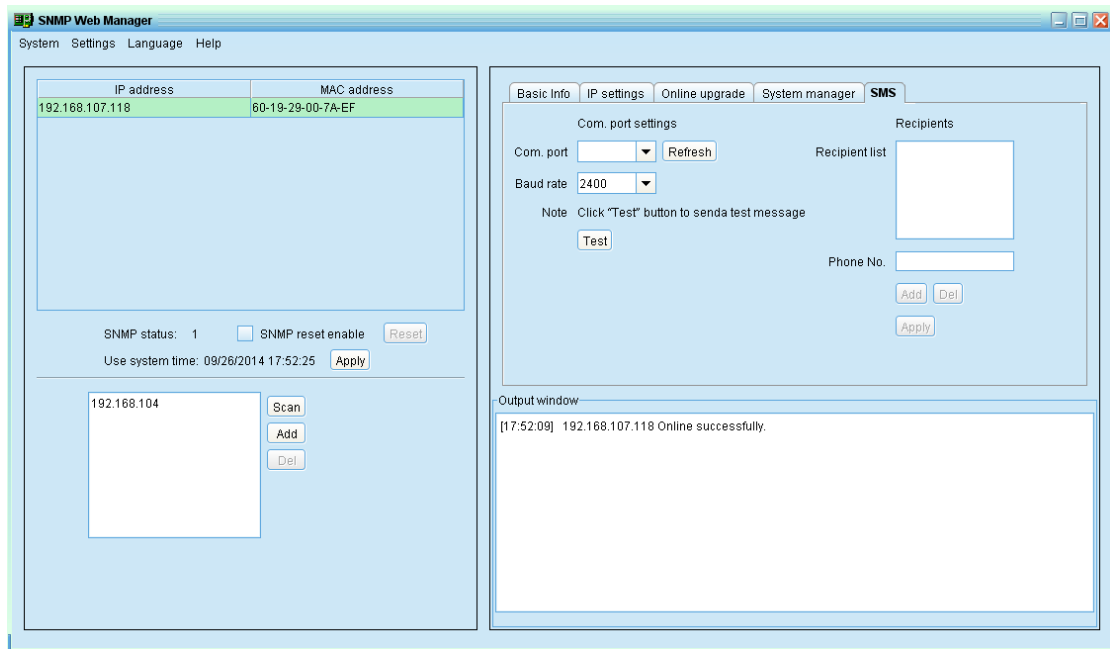


Diagram 3-18

Step 2 Select communication port and baud rate.

Step 3 Enter mobile phone numbers in "Phone no." column and click "Add" button to add phone no. in Recipients. To delete numbers, simply select phone no. from "Recipients" and click "Del" button.

Step 4 Click "Apply" button to save all changes. The "Test" button can be used to send a test SMS to confirm the correct setting in GSM modem. If all parameters are set up correctly, system will send a test message to all receivers and pop up a successful message. (Refer to Diagram 3-19) Otherwise, it will pop up a failure dialog to indicate there is an error for parameter setting. (Refer to Diagram 3-20)

NOTE: This SMS setting is for testing only. Be sure to enter all settings in SMS page of SNMP Web Pro or ViewPower Pro software. For the detailed settings, please check section 3.4.3 in SNMP web pro manual or 5.8.4 in ViewPower Pro software manual.

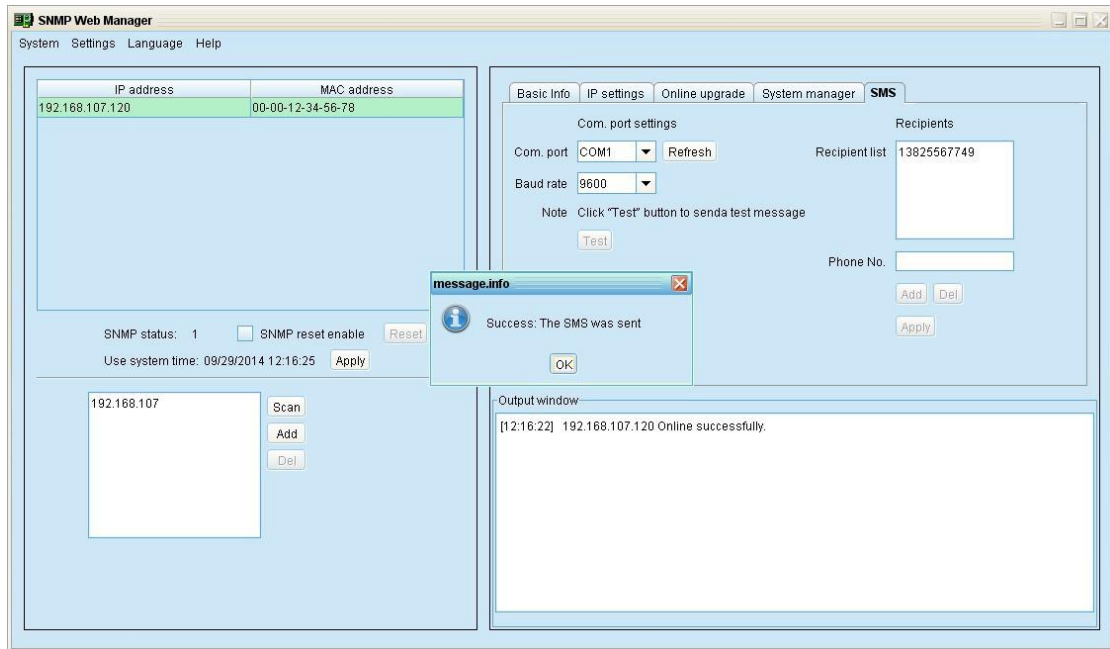


Diagram 3-19

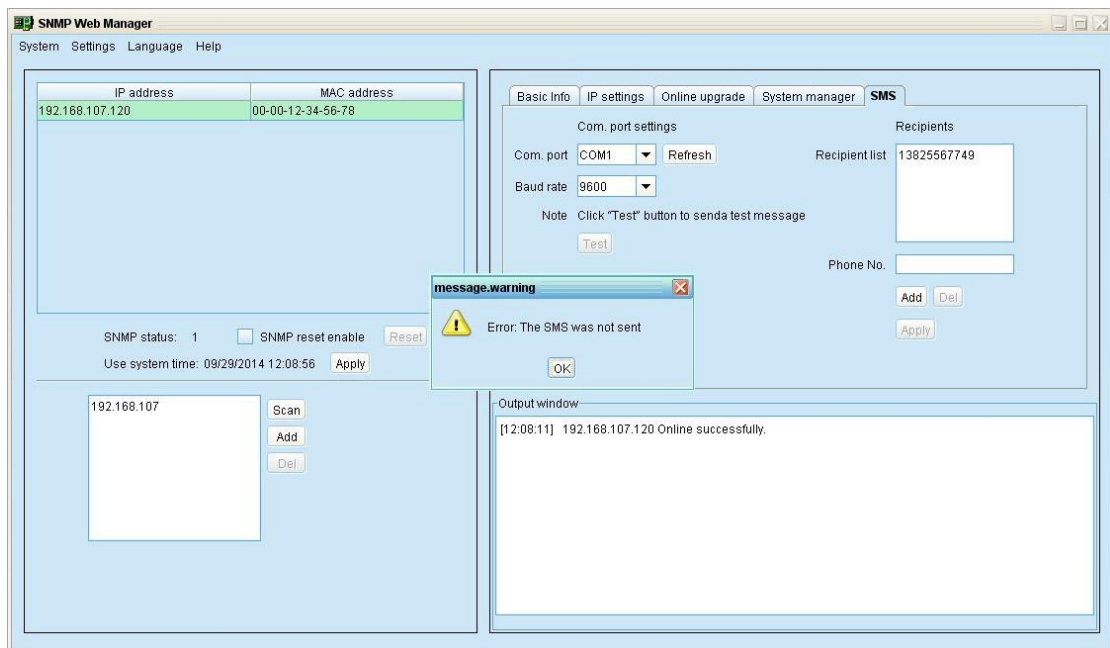


Diagram 3-20

After setting in SNMP web manager, it's necessary to configure SMS setting in SNMP Web Pro (section 3.4.3) or ViewPower Pro (section 5.8.4) to complete this function.

Step 5 Please open SNMP Web Pro and select "Event action". Click checkbox of "Send SMS while any UPS's event occurs". Please refer to Diagram 3-21.

SNMP Web Pro 1.1

Event action Logout Administrator

Information

Status

Basic information

UPS setting

Parameters setting

Control

Real-time control

System configuration

Web

E-mail

SMS

Upload

Wake on LAN

Shutdown

Event action

Scheduled

System time

SNMP configuration

Log

Event log

Data log

Help

Serial Port Debug

Firmware Upgrade

☐ Shutdown the PC while battery mode.

Shutdown PC: ☒ after 1800 Sec ☐ battery capacity is less than 20 %

Time needed for shutting down the PC 120 Sec.

The PC should: ☐ Shutdown ☒ Go to sleep

☐ Also power off the UPS after shutting down the PC.

Apply

☒ Shutdown the PC while low battery. Apply

☐ Wake on LAN while AC recovery. Apply

☒ Send E-mail while any UPS's event occurs. Apply

☒ Send SMS while any UPS's event occurs. Apply

☐ Shutdown the PC while temperature upper limit. 55 °C Apply

EMD alarming temperature upper limit 99.9 °C Apply

EMD alarming humidity upper limit 100.0 % Apply

Data record interval 60 Sec. Apply

Diagram 3-21

Step 6 Then, select "SMS" and configure the setting as the following. Refer to Diagram 3-22.

A) Enter IP address of the server with SNMP Web Manager installed.

B) Set up SMS receiver port from SNMP Web Manager: 41222.

C) Set up user name of SNMP card as root.

D) Set up password to access SNMP card. It's the same password setting in

SNMP Web Pro.

E) Enter the mobile phone number to receive SMS.

After all steps are complete, click "Apply" button to confirm the modifications. You may click "Test" button to do test. At this time, if any event occurs on the UPS, SNMP card will send short message through the COM port setting in SNMP Web Manager to all receivers listed in Area E in Diagram 3-22.

SNMP Web Pro 1.1

SMS Logout Administrator

Information

Status

Basic information

UPS setting

Parameters setting

Control

Real-time control

System configuration

Web

E-mail

SMS

Upload

Wake on LAN

Shutdown

Event action

Scheduled

System time

SNMP configuration

Log

Event log

Data log

Help

Serial Port Debug

Firmware Upgrade

Send SMS By: ☒ Server ☐ Serial Port

SMS maximum length: 100

SMS server: 192.168.107.160 A

Port: 41222 B

Account name: root C

Password: D

Note1: After apply, you can click "Test" button to send a test message.

Note2: If send SMS by serial port, EMD function will be disabled.

Apply Test

Receive 1:	13924607394	Apply	Delete
Receive 2:		Apply	Delete
Receive 3:		Apply	Delete
Receive 4:		Apply	Delete

E

Diagram 3-22

NOTE: It's required to plug-in GSM Modem if sending SMS to mobile phone.

3.3.2.3 Language

SNMP Manager offers 12 languages:

- ✓ Chinese(Simplified)
- ✓ Chinese(Traditional)
- ✓ English
- ✓ German
- ✓ Italian
- ✓ Polish
- ✓ Portuguese
- ✓ Russian
- ✓ Spanish
- ✓ Turkish
- ✓ Ukrainian
- ✓ French

The default language setting is "English".

3.4. Configuration

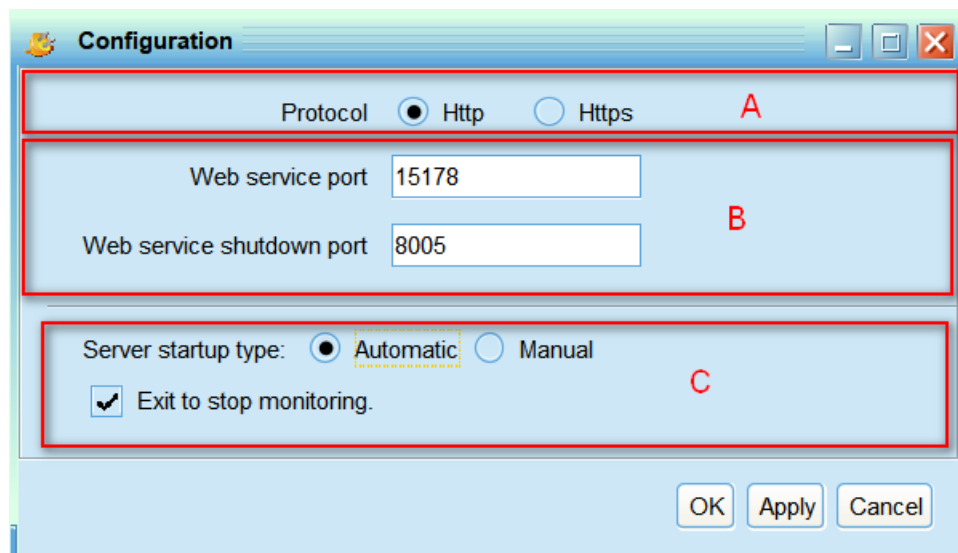


Diagram 3-23

3.4.1. Https/Http

Communication protocol: If choosing Https, "Https" selection will be

accessible from tray menu. If communication port of Https is fixed in "18443", it's not allowed to use "port modification". At the same time, the URL of monitoring screen will become:

<https://xxx.xxx.xxx.xxx:18443/ViewPower Pro>

If choosing Http, "Https" selection will not be accessible and "port modification" function will become active status. (Refer to section A in Diagram 3-23):

3.4.2. Port Modification

If port conflict occurs, you may modify value of port. The default setting for port is listed as below (Refer to section B in Diagram 3-23):

- Web Service port: 15178
- Web service shutdown port: 8005

You may modify the value of port to any number between 0 and 65536. If value is applied already, the system will remind users to enter another number again.

NOTE1: Please do not modify port value unless port conflict occurs. This modification will affect remote monitoring website. For example, if changing web service port to 15177, then the remote monitoring website will change to: <http://xxx.xxx.xxx.xxx:15177/ViewPower Pro>

NOTE2: To avoid possible conflicts, please be sure to enter value at least 4 digits.

3.4.3. ViewPower Pro Start and Exit Setting

Refer to section C in Diagram 3-23 for the detailed configuration of ViewPower Pro start and exit setting:

- Server startup type: If "Auto" is selected, the software will automatically start up when PC is turned on. If "Manually" is selected, users have to manually start the ViewPower Pro software.
- Exit to stop monitoring: If selected, it will completely exit software without monitoring service. If unselected, it will continue monitoring

service in the back end even though exit from software.

3.4.4. Configuration Saved

Click "Apply" button to save all changes in Configuration page. Click "Cancel" to stop the change.

3.5. Https

Https section includes "Certificate Generation" and "Import Certificate".

- Certificate Generation: it will automatically generate a numeral certificate according to the information users enter. Refer to Diagram 3-24:



Diagram 3-24

Note 1: Please enter internet domain name and IP address in "First and last name" column.

Note 2: Password should be at least 6 characters in length.

- Import Certificate: It will import a https certificate from a third party. It supports JKS and PKCS12 types of certificate. Refer to Diagram 3-25.

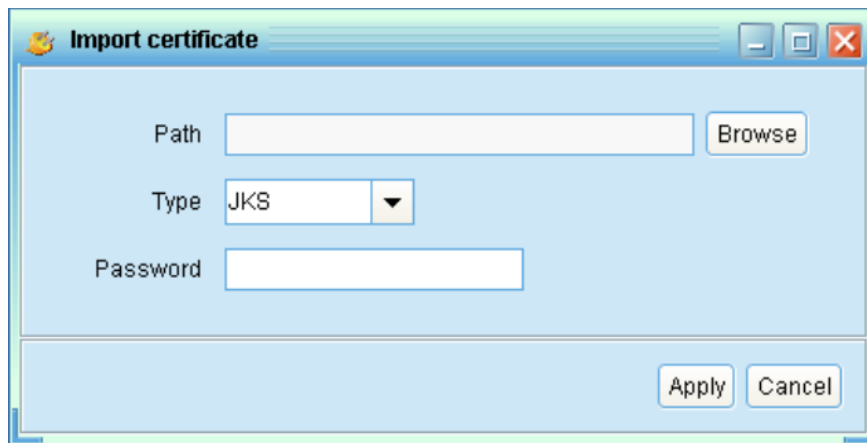


Diagram 3-25

3.6. Open Monitor

Click "Open Monitor" to open monitoring webpage.

3.7. Exit

Click "Exit" to exit service application.

4. ViewPower Pro GUI

ViewPower Pro GUI includes function menu, shortcut button, login section and main screen. Refer to diagram 4-1:

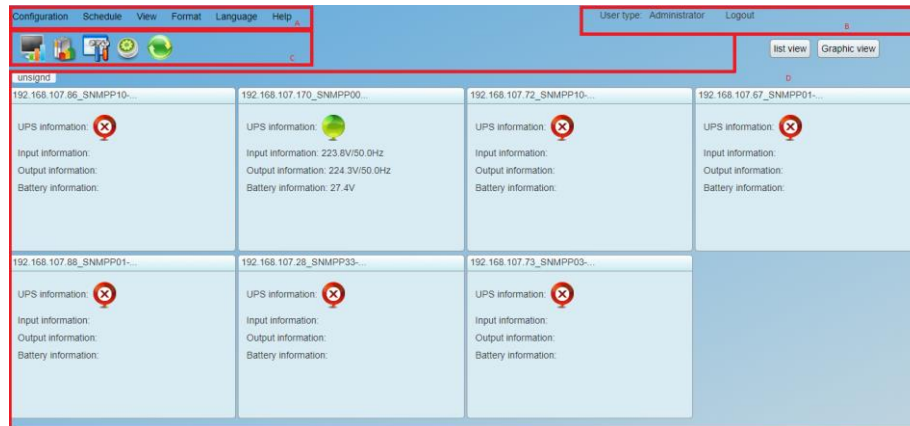


Diagram 4-1






A .Function Menu

It offers complete tool-set for navigation and setting the GUI.

B .Login section

It shows user type for current login user.

C .Shortcut button

-  Centralized monitoring.
-  Password, group area, UPS setting, SMS, E-mail, load configuration, event action, log setting, EMD manager, modbus communication setting.
-  Scheduled on/off, scheduled battery self-test, and scheduled wake-on-LAN setting.
-  Event log, event statistics, data, diagram, and EMD log.
-  Refresh.

D. Main Screen

It will display information and/or control alternatives according to function menu or shortcut menu selected.

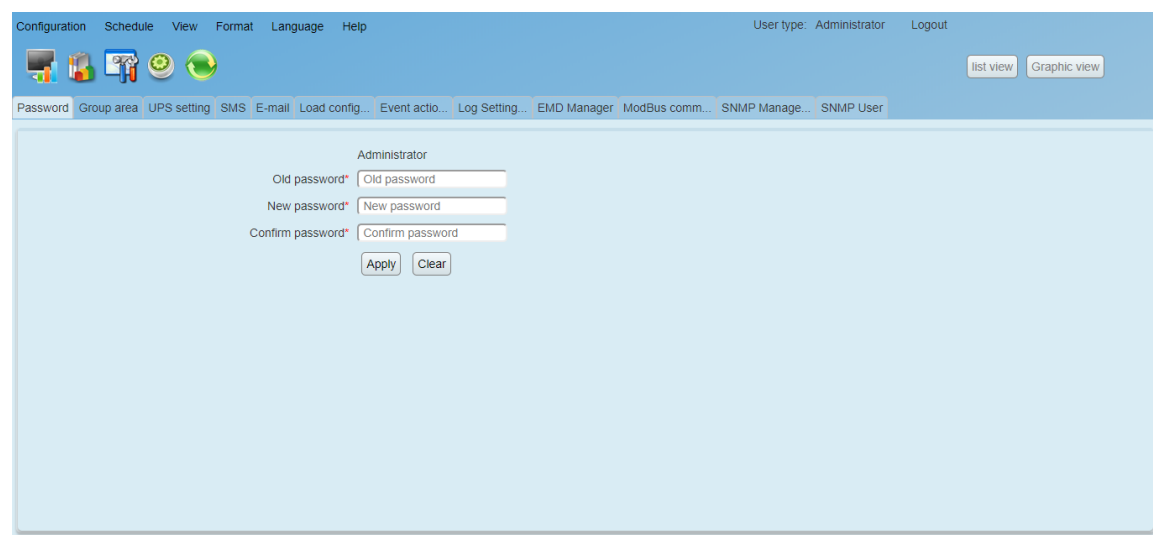
5. ViewPower Pro Menu

5.1. Configuration

5.1.1. Password Setting

It's password configuration for administrator only. The default user name and password is "**administrator**". Before operating and configuring the software, please login and modify the default password first for security concern. Users can only browse UPS status and information as Guest status without login as an Administrator. Guest can NOT control or execute any setting.

Step 1 Select Configuration>>Password. Refer to Diagram 5-1.



The screenshot shows the 'Password' configuration page in the ViewPower Pro software. The top navigation bar includes 'Configuration', 'Schedule', 'View', 'Format', 'Language', and 'Help'. The user is logged in as 'Administrator'. The main menu on the left includes 'Password', 'Group area', 'UPS setting', 'SMS', 'E-mail', 'Load config...', 'Event actio...', 'Log Setting...', 'EMD Manager', 'ModBus comm...', 'SNMP Manage...', and 'SNMP User'. The 'Password' page contains a form for the 'Administrator' user with three input fields: 'Old password*', 'New password*', and 'Confirm password*'. Below these fields are 'Apply' and 'Clear' buttons.

Diagram 5-1

Step 2 Enter old password and type twice new password to modify password for administrator. (The password should be at least 6 digits) Then click "Apply" button to successfully modify password for administrator.

NOTE1: Simply click "Login" button on the top right corner to log in the software.

NOTE2: If password is forgotten, it's necessary to re-install the software.

5.1.2. Group area

Select Configuration>>group area, user can assign monitored UPSs into different groups for best management. ViewPower Pro has a default group called "Unassigned". When a UPS is detected, it will automatically put in the "Unassigned" group. Users are able to not only create and customize groups here, but also assign groups in "UPS setting". Refer to diagram 5-2.

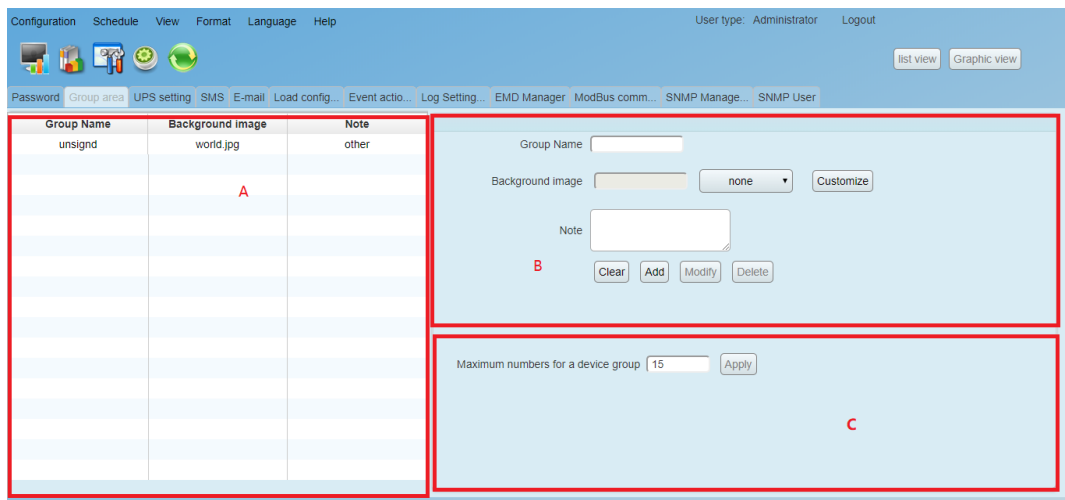


Diagram 5-2

Section A Group list: Shows group information;

Section B Group editor: add/delete, set up and modify group;

- Background image: Click "Customize" button to import preferred image into software as background for graphic view. Or users can simply select preferred photos from default image database by clicking "Select" button.
- Add group: Add group into group list in section B. Then click "Add" button to add.
- Modify group: Select a group from the list in section A to modify the current setting and it will show the current setting in section B directly. After entering new data, simply click "Modify" button to update setting.
- Delete group: Select the group which needs to delete from the list on section A. Then click "delete" button to delete.

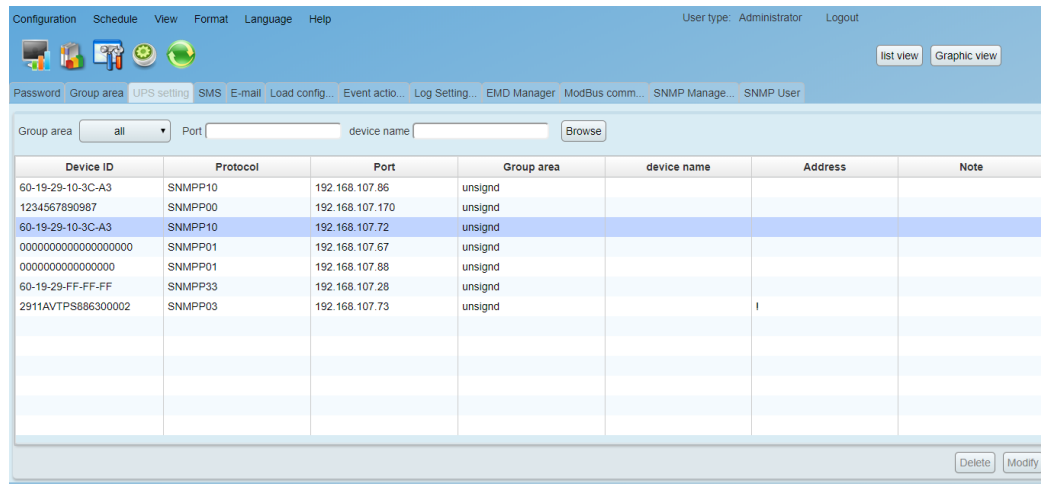
Note1: Default group can only be modified, NOT allow deleting.

Note2: When "Add" button is disabled, first execute "Clear" operation.

Section C Maximum numbers for a device group: It means maximum numbers will be shown in each group.

5.1.3. UPS setting

Select Configuration >> UPS setting. It helps users to assign or re-assign groups for monitored UPSs. When a new UPS is detected, it will automatically put in default group - "Unassigned". Refer to diagram 5-3:



The screenshot shows a web interface for configuring UPS settings. At the top, there is a navigation bar with tabs: Configuration, Schedule, View, Format, Language, and Help. Below this is a sub-navigation bar with tabs: Password, Group area, UPS setting (selected), SMS, E-mail, Load config..., Event actio..., Log Setting..., EMD Manager, ModBus comm..., SNMP Manage..., and SNMP User. The main content area displays a table of monitored UPS devices. The table has columns: Device ID, Protocol, Port, Group area, device name, Address, and Note. The table contains several rows of data, including entries for SNMPP10, SNMPP00, and SNMPP01. A 'Group area' dropdown menu is set to 'all', and a 'Port' input field is visible. A 'Browse' button is next to the 'device name' input field. At the bottom right, there are 'Delete' and 'Modify' buttons.

Device ID	Protocol	Port	Group area	device name	Address	Note
60-19-29-10-3C-A3	SNMPP10	192.168.107.86	unsignd			
1234567890987	SNMPP00	192.168.107.170	unsignd			
60-19-29-10-3C-A3	SNMPP10	192.168.107.72	unsignd			
00000000000000000000	SNMPP01	192.168.107.67	unsignd			
00000000000000000000	SNMPP01	192.168.107.88	unsignd			
60-19-29-FF-FF-FF	SNMPP33	192.168.107.28	unsignd			
2911AVTPS886300002	SNMPP03	192.168.107.73	unsignd			

Diagram 5-3

➤ Query

User can query information according to the Group area, Port, UPS name by clicking each column tab.

➤ Modify

Select UPS that need to modify from the list and click "Modify" button for modification. It will pop up information board of each monitored UPS and users can assign or re-assign UPSs to group area. It also can enter the UPS location and name here for internal reference. Click "Apply" button to save all changes. Refer to diagram 5-4:

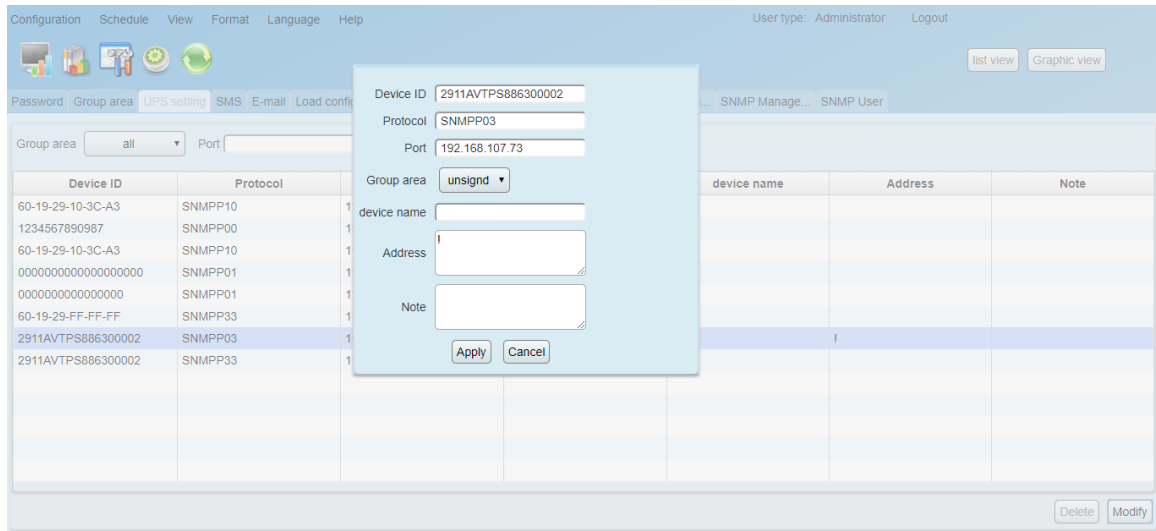


Diagram 5-4

➤ Delete

Select UPS and click "Delete" button to remove it from the list.

5.1.4. SMS

It's for entering SMS receiver list. In the event of an alarm condition occurring, a message about UPS status will be sent to the specified users via mobile phone. For the event receiving list, please configure in "Event Action" page (refer to section 5-8-7).

1. Choose Configuration >> SMS. Refer to Diagram 5-5:

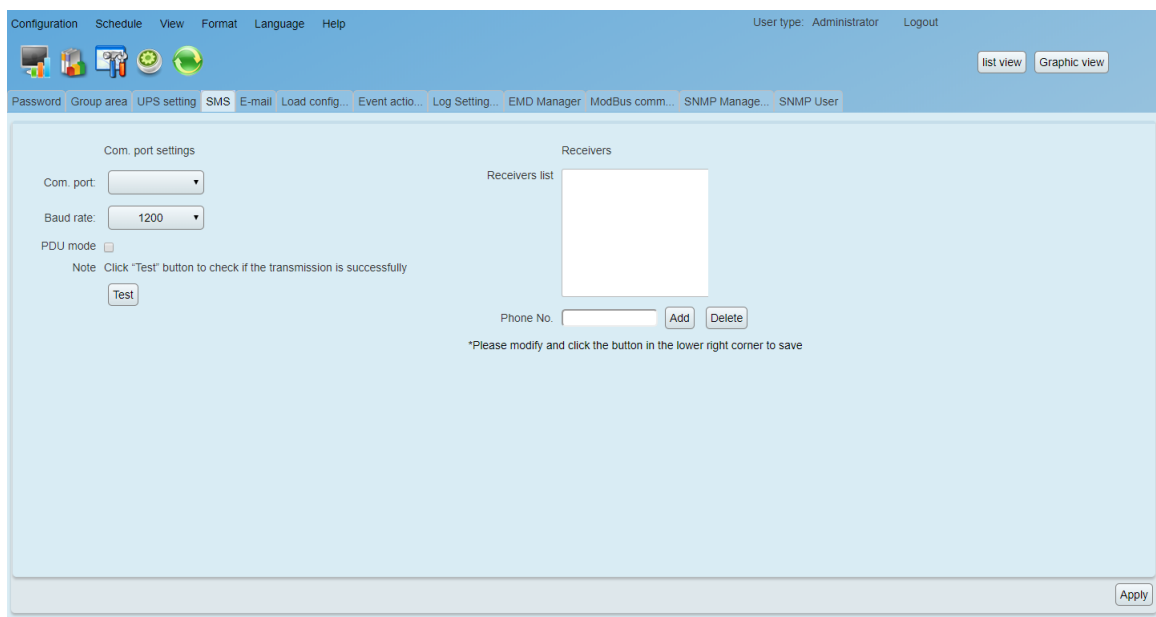


Diagram 5-5

2. Select communication port and baud rate.

3. Enter mobile phone numbers in "Phone no." column and click "Add" button to add phone no. in Receivers List. To delete numbers, simply select phone no. from "Receivers list" and click "Delete".
4. Click "Apply" button to save all changes. The "Test" button can be used to send tests SMS to confirm the correct operation. If all parameters are set up correctly, system will send a test message to all receivers and pop up a successful message. Otherwise, it will pop up a failure dialog to indicate there is an error for parameter setting.

NOTE: It's required to plug-in GSM Modem if sending SMS to mobile phones.

5.1.5. E-mail

This feature enables the configuration to send alarm mail by SMTP server. For the event receiving list, please configure in "Event Action" page. Refer to 5-8-7. To use this function, the e-mail service must be correctly configured in the computer. All values in this function page are default empty. This action can't be executed without the SMTP information, e-mail account and password. Besides, the sender account should be allowed for SMTP/POP3 forwarding.

Select Configuration >> E-mail. Refer to Diagram 5-6

Diagram 5-6

1. Enter SMTP server, SMTP port, Send from E-mail address, User name and password. Click checkbox of password authentication needed for password verify. If using Exchange Server for mailbox system, it's required to configure Exchange server domain name in SMTP sever and select "Exchange server". Then, click "Apply" button.
2. Enter correct e-mail accounts in E-mail column. Then click "Add" to add into receivers list. To delete e-mail account, simply select accounts from Receivers list and click "Delete" button.
3. Click "Apply" to save all changes. The "Test" button can be used to send a test e-mail to all receivers to confirm correct operation. When the test e-mails are successfully sent to specific recipients, it will pop up a successful message on operated PC. Otherwise, it will pop up a failure dialog to indicate there is an error for parameter setting.

5.1.6. Load configuration

Load configuration can remotely manage other computers via intranet or internet. It can set up remote computers in power-off options, MAC address, execute file action, whether accept scheduled UPS shutdown or not, waiting time for load shutdown and so on. In addition, it also allows one computer to communicate with multiple UPSs. When any event occurs on UPS, the software can configure reactions of the monitored UPS via communicated computer.

1. Select Configuration>>load configuration, refer to diagram 5-7:

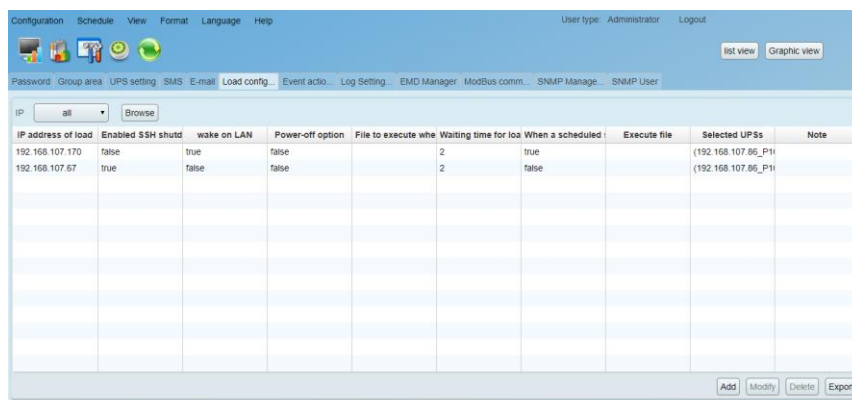


Diagram 5-7

2. Add: Add load information (one computer) by clicking "Add" button.

Refer to diagram 5-8:

The screenshot shows the 'Add' dialog box for adding a new load. The dialog box is titled 'Add' and contains the following fields and options:

- IP address of load: 0.0.0.0
- Enabled SSH shutdown: ☐
- User name: pc's username
- Password: pc's password
- MAC address: 00-00-00-00-00-00 (with an 'Auto match' button)
- Accepts wake on LAN when events occur: ☐
- Power-off option: ☐ Shutdown ☒ Sleep mode
- File to execute when shutting down: (empty field)
- Waiting time for load shutdown: 2 Min
- Accepts scheduled device shutdown: ☐
- Execute file: (empty field)
- Selected UPSs: (list box containing several UPS identifiers)
- Note: (text area)

The background shows the main configuration interface with a table of existing loads and various configuration tabs.

Diagram 5-8

- Enter the IP address of this computer. (If SSH shutdown is selected, it is necessary to add user name and password.). Then, enter MAC address of this computer. Users also can get MAC address by clicking "Auto match" button when the connection is well.
- **Power-off option:** Selecting power-off method for above shutdown system.
 - ✧ Shutdown: When clicking the checkbox, the selected system will shut down. The default setting is clicked.
 - ✧ Sleep mode: When clicking the checkbox, selected system will suspend the system instead of a normal shutdown. But this function is only supported by Windows 2000 or higher on supported hardware.
- **On shutdown execute file:** Enter the path of execute file.
- **Waiting time for load shutdown:** If selecting "Accepts scheduled UPS shutdown", enter to waiting time for load shutdown before shutting down UPS.

- **Selected UPS:** Select UPSs to execute shutdown action when entered PC is shut down.

Click "Apply" button to save all changes.

3. **Modify:** Select one from list to modify configuration by clicking "Modify" button. User can also click "Delete" button to delete this information.
4. **Export:** Users can export load setting table in PDF format by clicking "Export" button.

Note 1: User need to install the "Shutdown Wizard", then load can be shutdown.

5.1.7. Event action

It is to set up reactions after events occur. Select Configuration>>Event action, refer to diagram 5-9:

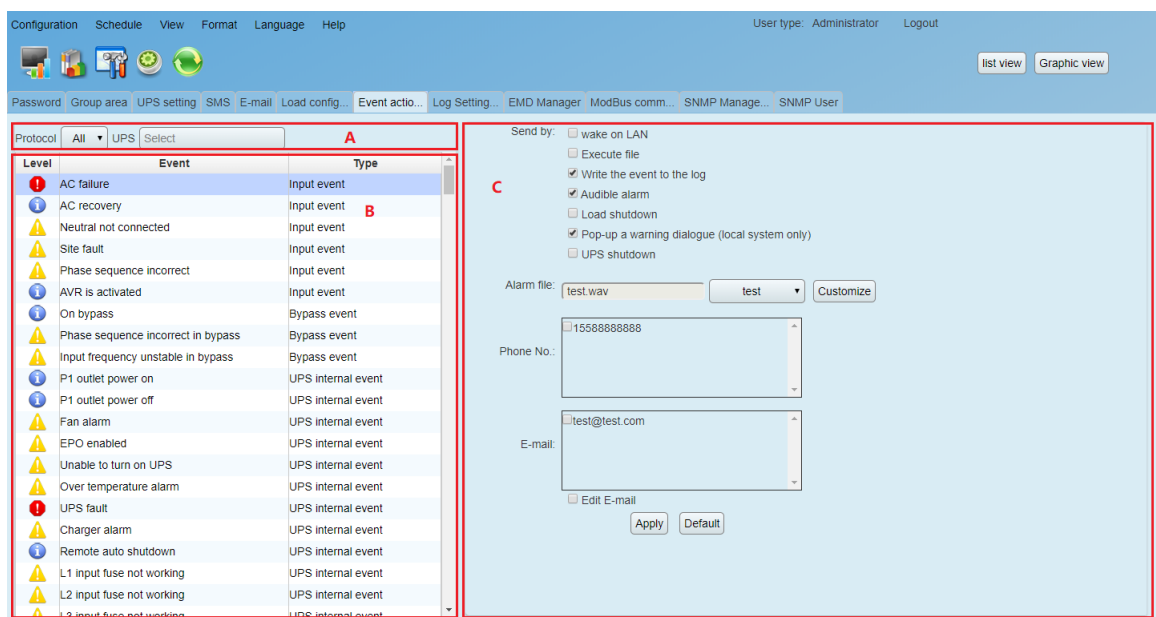


Diagram 5-9

Section A: List all detected UPSs. The system default is all UPSs.

Section B: UPS event list.

Section C: Event action editor

Select UPS from section A and then select event from section B. When selecting event, it's necessary to set up at least one reaction from section C. Click "Apply" button to save setting.

This software provides seven reactions for UPS events.

- Wake on LAN: It is a technology to remotely wake up one computer by a network message. It is also required to have ATX power and hardware support for remote PCs to implement this function. When event occurs, this software will wake up PC by clicking this checkbox.
- Execute file: When event occurs, it will request connected computer to execute file.
- Event record: When event occurs, it will save the event records to the database.
- Audible alarm: When event occurs, it will play selected media file. If user wants to use customized sound, it's necessary to import media file into software by clicking "Customize" button. And then, select this imported media file by clicking "Select" button.
- Load shutdown: When event occurs, it will notify Shutdown wizard on remote PCs to shut down computer.
- Warning dialog (local): When event occurs, it will pop up message box to notify users.
- SMS: When event occurs, it will send event message to receivers via mobile phone.
- E-mail: When event occurs, it will send mail to receivers via email. And you can edit E-mail.
- UPS shutdown: When event occurs, it will shut down the UPS.

Note 1: When editing receiver list in SMS or e-mail columns, it's necessary to refresh the event action page to update receiver list.

Note 2: Event list will be different according to different types of UPS.

5.1.8. Log setting

Select configuration>>Log setting. Refer to Diagram 5-10:

Diagram 5-10

- Refresh frequency: The setting range for “Refresh frequency” is 2~600 seconds. It will affect the displayed data refreshed in software screen.
- Record interval: Users can set up “Record Interval”, “The max. Numbers of logs for historical data” and “The max. Numbers of logs for historical events” according to real situation.
- SNMP scan interval time: This allows ViewPower Pro to search for if there is any newly-connected SNMP card regularly in certain time frame. The recommended interval time is 60s.
- Poll interval time of UPS: This allows ViewPower Pro to check how often the device data is connected with SNMP. The recommended interval time is 30s.
- Number of UPS in each thread: This is to set how many UPS can be checked in each thread.

The below chart is the recommendation setting for numbers of SNMP card and devices as well as related parameters.

Setting Item	SNMP scan interval time (s)	Poll interval time of UPS (s)	Number of UPS in each thread
SNMP No. of Device			

0-3	30	10	2
4-10	60	30	2
11-50	120	60	2
51-100	180	90	4
101-200	180	90	8
201-400	240	120	8
401-800	300	240	15
800-1600	360	300	25
1600-2400	360	360	35
2400-3000	720	480	40

5.1.9. EMD Manager

EMD Manager is used to manage Environmental Monitoring Devices. Users can define events and set message texts for each event. It also can set up warning points for temperature, humidity and smoke of devices.

- Dry contact event: Users can define events and set event level. After event is successfully added, users can configure and set alarm. Refer to Diagram 5-11.

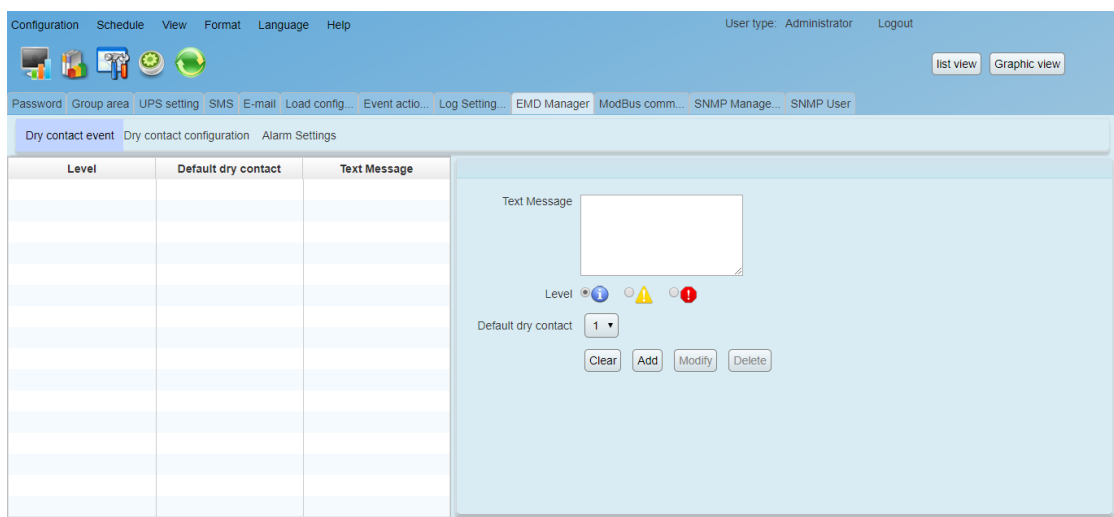


Diagram 5-11

- Text Message: The description of the dry contact event.

- Default dry Contact: Define dry contact no. to send event message. There are five selections: none, 1, 2, 3 and 4. If selecting any value from 1 to 4, any environmental monitoring device (EMD) which is detected defined event will send event message. If selecting none, it means this event is defined as special event. Then, users can assign specific environmental monitoring device (EMD) to receive this event message. Please refer this special event setting in “Dry contact configuration” section.
- Dry contact configuration: Users can define special events with assigned dry contact no. for specific environmental monitoring device (EMD). If any defined event is detected by assigned device via assigned dry contact no., it will send alarm message via software. Refer to Diagram 5-12.

Device	Dry Contact	Text Message

Device: Please select

Dry Contact: 1 none

Text Message:

Diagram 5-12

- Alarm Settings: Set up alarm range for temperature and humidity. If detected figures are out of setting range, it will send alarm message. Refer to Diagram 5-13.

Diagram 5-13

5.1.10. Modbus communication setting

It will display all connected PCs through ModBus.

Step 1 Select configuration>> ModBus Communication Setting. Refer to Diagram 5-14.

Diagram 5-14

Step 2 Com. port setting:

- The default ID for nominated com. port is 0;
- Selectable baud rates are 1200, 2400, 4800, 9600, and 19200.
The default setting is 19200;
- Selectable data bit is 7 and 8. The default setting is 8;

- Selectable stop bit is 1 and 2. The default setting is 1;
- Supported parity is ODD parity, event parity and NONE. The default setting is NONE.

NOTE: This function is only available for the UPS with ModBus communication port.

5.1.11. SNMP Manager

5.1.11.1. SNMP Manager

The software will automatically search for SNMP within the range after the IP of certain subnet or SNMP card is added or deleted.

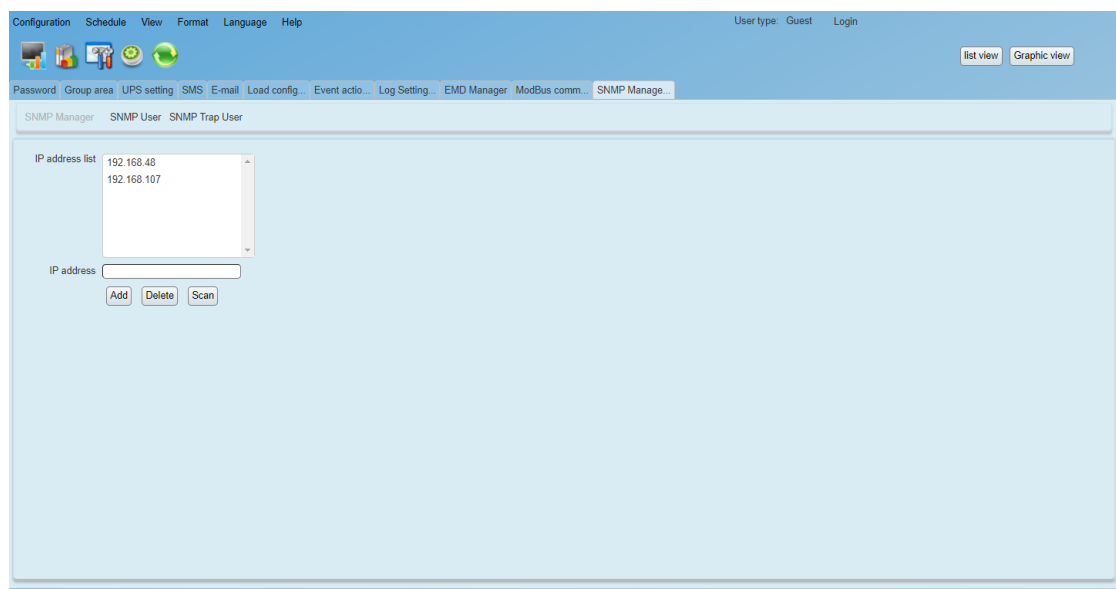


Diagram 5-15

Add: Add the subnet segment to the list

Delete: Delete the subnet segment from the list

Scan: Search for the SNMP card of the LAN or Internet if you have added the subnet segment or IP of the SNMP card to the list

5.1.11.2. SNMP User

This page is to add SNMP IP applied for SNMP V3 version. There are safety requirement in SNMP V3 version. It's required to add SNMP users in SNMP Web Pro and ViewPower Pro interface. Only registered users are able to get SNMP information. There are two sections in SNMP user:

- Note:** It's totally independent between SNMP V3 and SNMP V3 Trap.
Setting method for these two sections is listed below:

- [illegible]

2. You may add, modify, delete users and export data.

- Configuration Schedule View Format Language Help

User type: Administrator Logout

list view Graphic view

Password Group area UPS setting SMS E-mail Load config... Event actio... Log Setting...

SNMP Manager SNMP User SNMP Trap User

SNMP IP	SNMP Version	Authenticate	Privacy	Privacy Protocol	Security Name

SNMP IP:

SNMP Version: ☒ V1/V2 ☐ V3

Authenticate: ☐

Authentication Protocol: ☐ MD5 ☒ SHA

Authentication Password:

Privacy: ☐

Privacy Protocol: ☐ AES ☒ DES

Privacy Password:

Security Name:

Community string:

Apply Cancel

Add Modify Delete Export

Diagram 5-17

- SNMP IP: Enter IP address of SNMP card.
- SNMP Version: Select SNMP card version.
- Authenticate: Select if it's required for network authentication.
- Authenticate Protocol: Select authenticate protocol.
- Authenticate Password: Enter password.
- Privacy: Select encrypt or not.
- Privacy Protocol: Select privacy protocol.
- Privacy Password: Enter password.
- Security Name: Enter user name.
- Community string: It is like the user ID or password, the user can access the V2 version of the SNMP card through it.

Modify: Select SNMP user and click "Modify" button to modify data.

Delete: Select SNMP user to delete from the list.

Export: Export SNMP user data as excel format.

Note: If selecting SNMP V3 or SNMP V3 trap function, it is required to set up SNMP Server configuration and SNMP trap configuration through SNMP Web Pro. Please refer to Appendix B for the details.

5.1.11.3. SNMP Trap User

Please refer to the previous section (5.1.11.2).

5.2. Schedule

5.2.1. Scheduled on/off

Scheduled UPS on/off can be executed once, daily, weekly. Users can select UPS and time parameters. It is recommended to set only one action in the same time. If multiple actions have been applied at the same time, some of these actions may be ignored. Any action will be ignored when the action is not supported by the UPS.

Step 1 Select "Schedule" >> Scheduled on/off. Refer to Diagram 5-20.

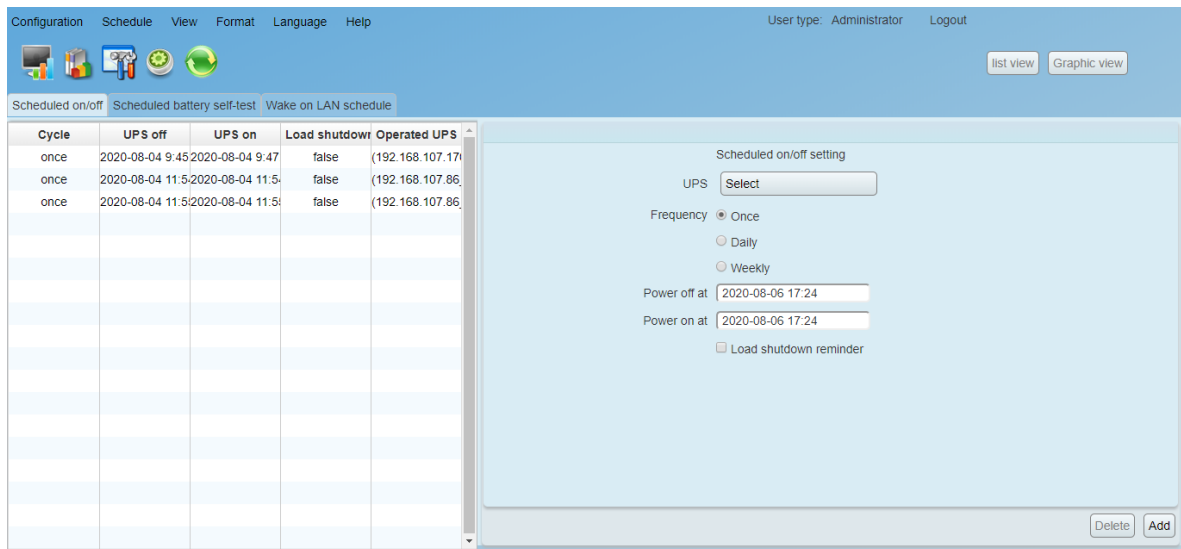


Diagram 5-20

Step 2 Set frequency and setting time on the right column.

NOTE: Please be aware following rules while setting time.

Once – Power-off time should be earlier than power-on time.

Daily schedule – Power-off time should be earlier than power-on time.

Power-on time and power-off time should be set on same day.

Weekly schedule –Power-off time should be earlier than power-on time. Power-on time and power-off time should be within the same week.

Step 3 Click "Add" to add task. If task is successfully set, it will display on the task table on the left-hand side. Select specific task and click "Delete" button to delete the task.

Note 1: If there are same plan in the same time, it will execute only one of them.

Note 2: If the UPS which accepts scheduled on/off setting is connecting with loads, it can also allow to set load shutdown reminder.

5.2.2. Scheduled battery self-test

Scheduled battery self-test can be executed once, daily, weekly, or monthly. Users can select UPS and time parameters. It is recommended to set only one action in the same time. If multiple actions have been applied at the

same time, some of these actions may be ignored. Any action will be ignored when the action is not supported by the UPS.

Select Control >> Battery Self-Test. Refer to Diagram 5-21.

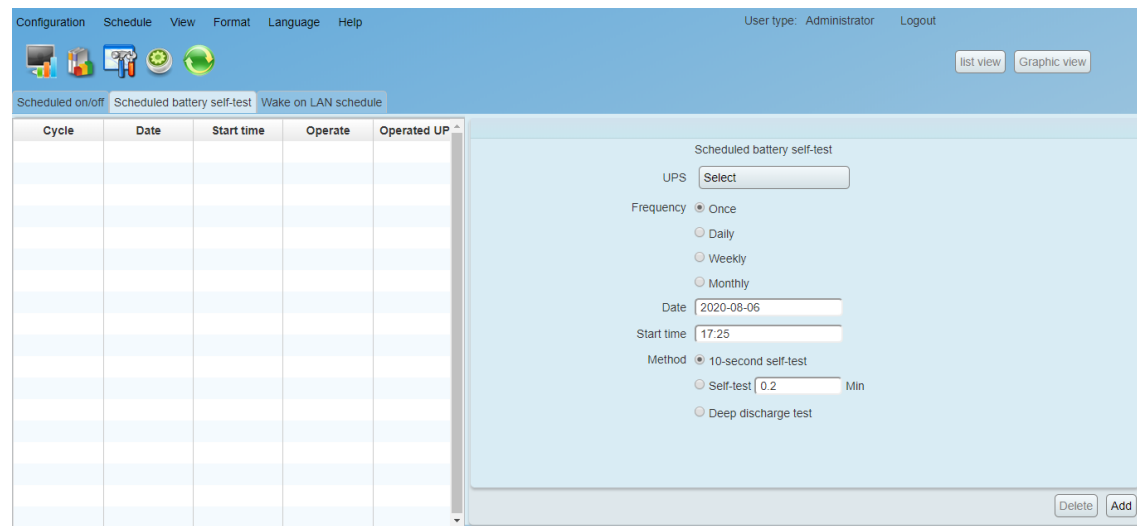


Diagram 5-21

1. Select method and time parameters. There are three self-test methods:
 - 10-second self-test: Battery will discharge for 10 seconds.
 - Self-test: Users can set battery discharge time for self-test.
 - Deep test: This test will allow battery to discharge until low battery level.
2. Click "Add" to add task. If task is successfully added, it will display on the task table on the left-hand side. Select task from table list and click "Delete" button to delete the task.

5.2.3. Wake on LAN schedule

It supports wake-on-LAN schedule for one or multiple computers at once, daily, and weekly frequency.

1. Select Schedule >> Wake on LAN schedule, refer to diagram 5-22:

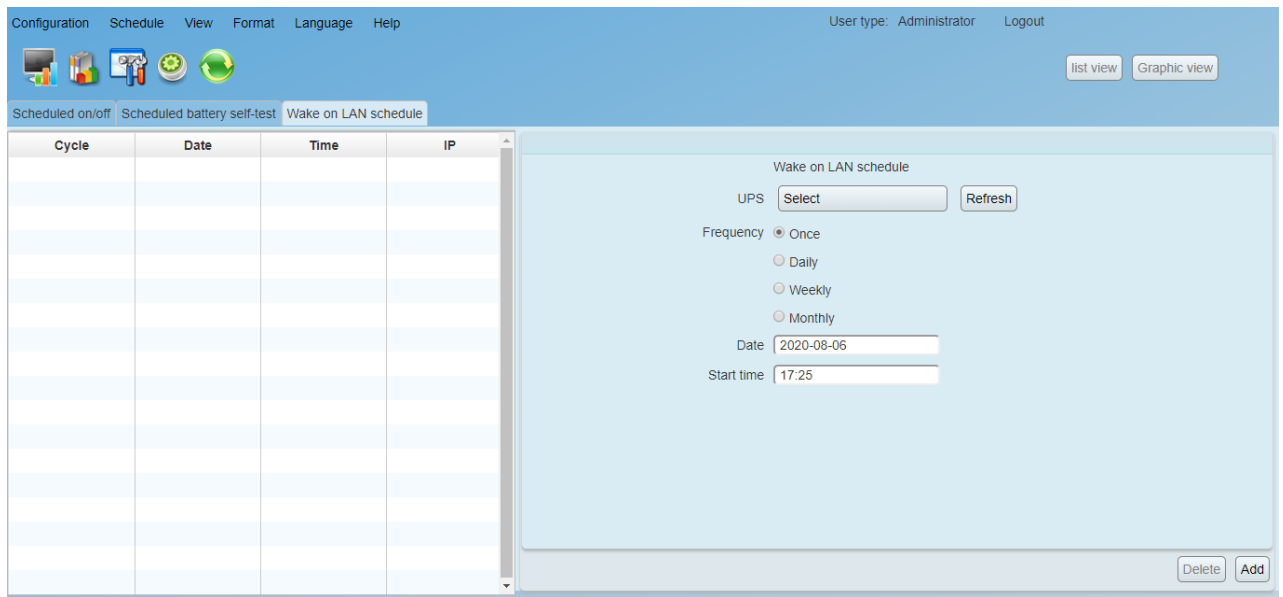


Diagram 5-22

2. Select IP, Cycle, Date and Time, and then click "Add" button to add plan.
3. Select one plan from schedule list, and then click "Delete" to delete plan.

5.3. View

5.3.1. Centralized monitoring

It includes Text view and Graphic view. Users can exchange view mode by clicking "Text view" button and "Graphic view" button.

- ✧ Text view: Each UPS is displayed in the panel form and it shows UPS working status and data. Multiple UPSs will be displayed with multiple UPS panels. Refer to diagram 5-23:

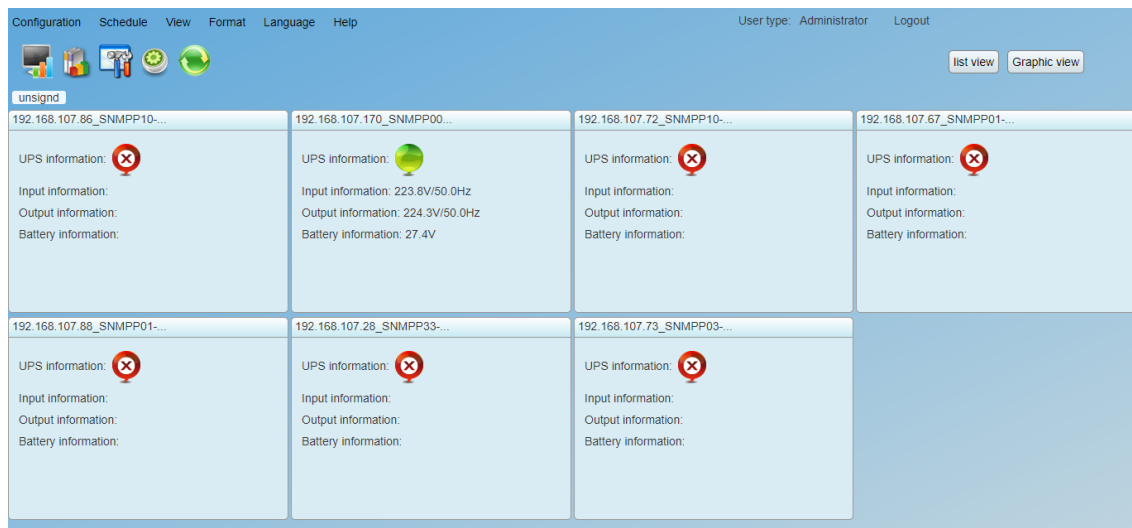


Diagram 5-23

- ✧ List view: It will show UPS working data and status in a table. Refer to 5-24.

[illegible]

Diagram 5-24

✧ Graphic view: Each UPS is displayed as a simple icon. It shows its status icon with background picture. To avoid any mistakes, it also supports security function. Only when user type is administrator, it's allowed to "unlock" these icons. Then, administrator can drag and drop the icon anywhere freely. The default setting is in "lock" status. Refer to diagram 5-25-a and diagram 5-25-b.

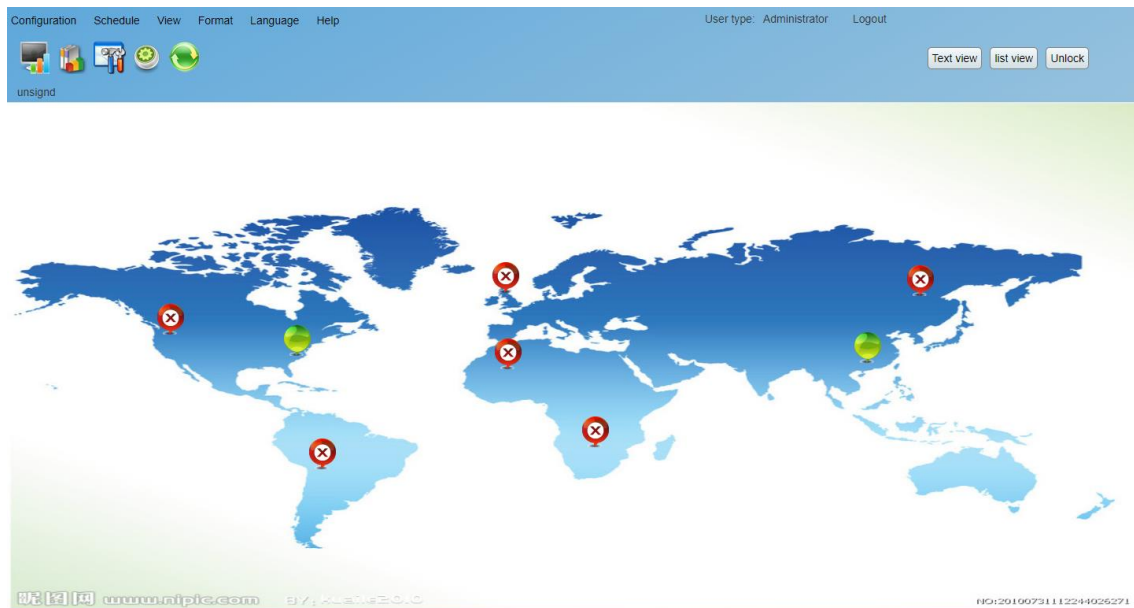


Diagram 5-25-a

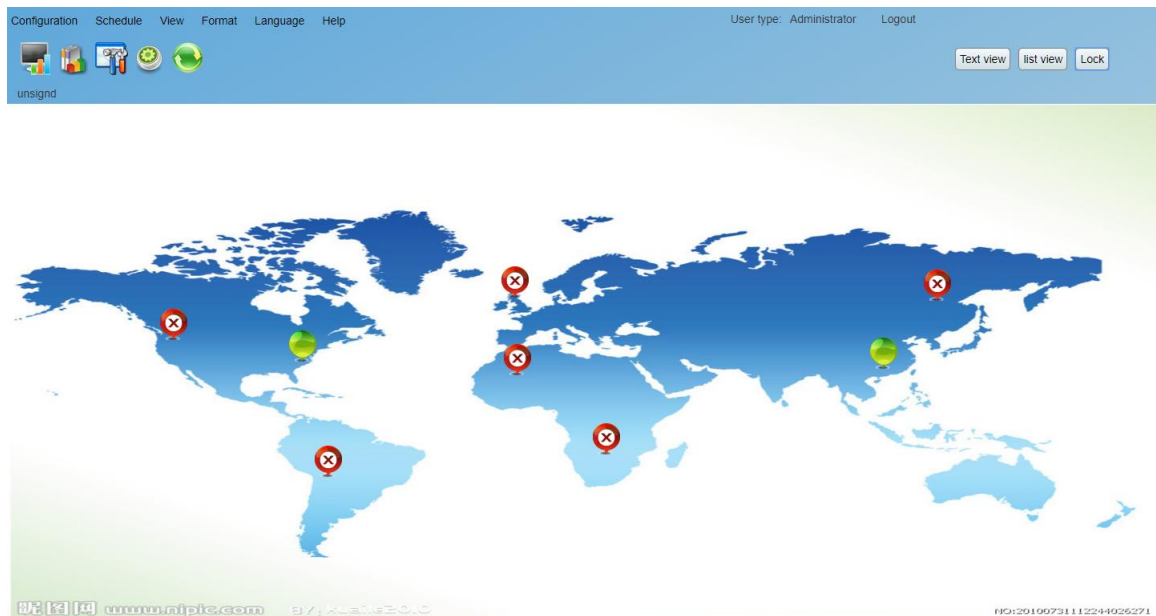


Diagram 5-25-b

➤ UPS detail information: On the Text view mode, users can enter individual UPS monitoring interface by double clicking each UPS panel. On the Graphic view mode, users can enter individual UPS monitoring interface by double clicking each UPS icon. Refer to diagram 5-26:

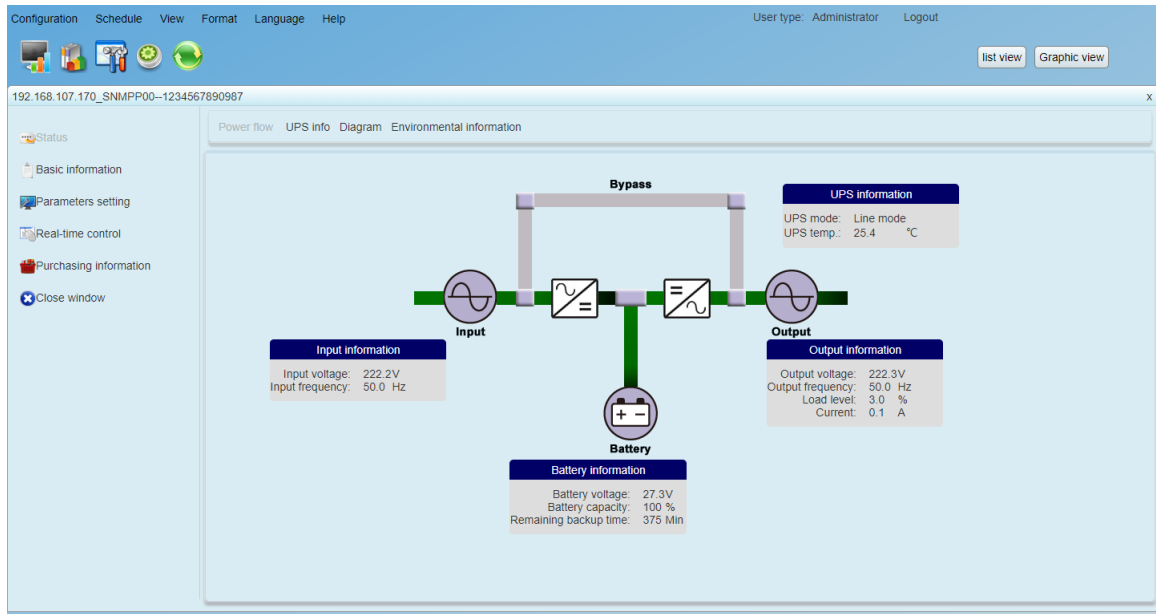


Diagram 5-26

5.3.1.1. Status

5.3.1.1.1. Power Flow

Select Status >> Power Flow. Refer to diagram 5-27. In the Power Flow window, it's shown the internal dynamic working flow of the UPS.

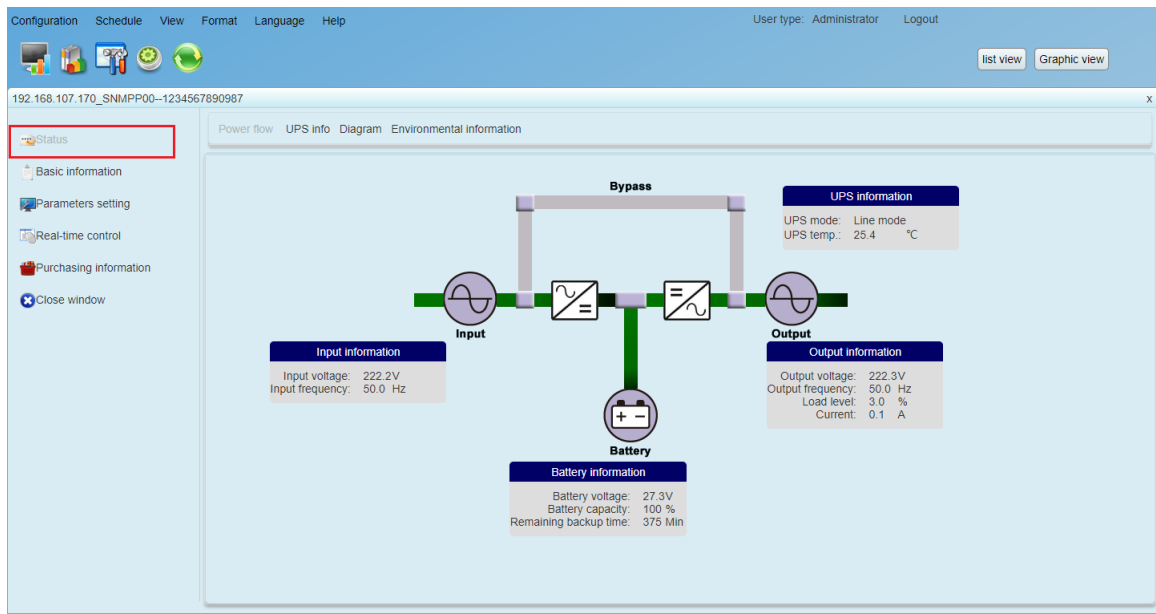


Diagram 5-27

Green/black flow means working well. Grey bar means that the object is present but not in use at the moment. There are four information blocks to display details about input, output, UPS and battery information.

- Input information includes input voltage and input frequency.

- Output information includes output voltage, output frequency, load level, and output current.
- UPS information includes UPS operation mode and UPS temperature.
- Battery information includes battery voltage, battery capacity and remaining backup time.

5.3.1.1.2. UPS Info

Select Status >> UPS Info. Refer to Diagram 5-28.

In the “UPS Info” window, it’s shown real-time monitored UPS data including input, output, UPS, and battery information in text and bar.

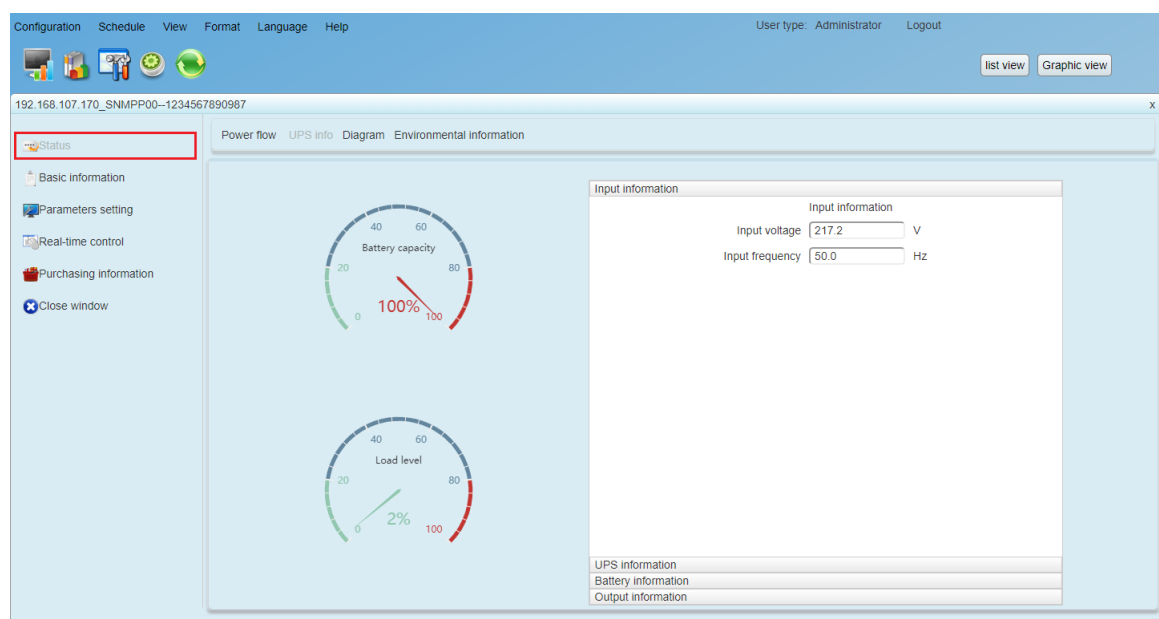


Diagram 5-28

5.3.1.1.3. Diagram

Select View >> Status >> Diagram. Refer to Diagram 5-29.

In the Diagram window, it’s shown real-time monitored UPS data including voltage, frequency, load, battery, temperature information in diagram.

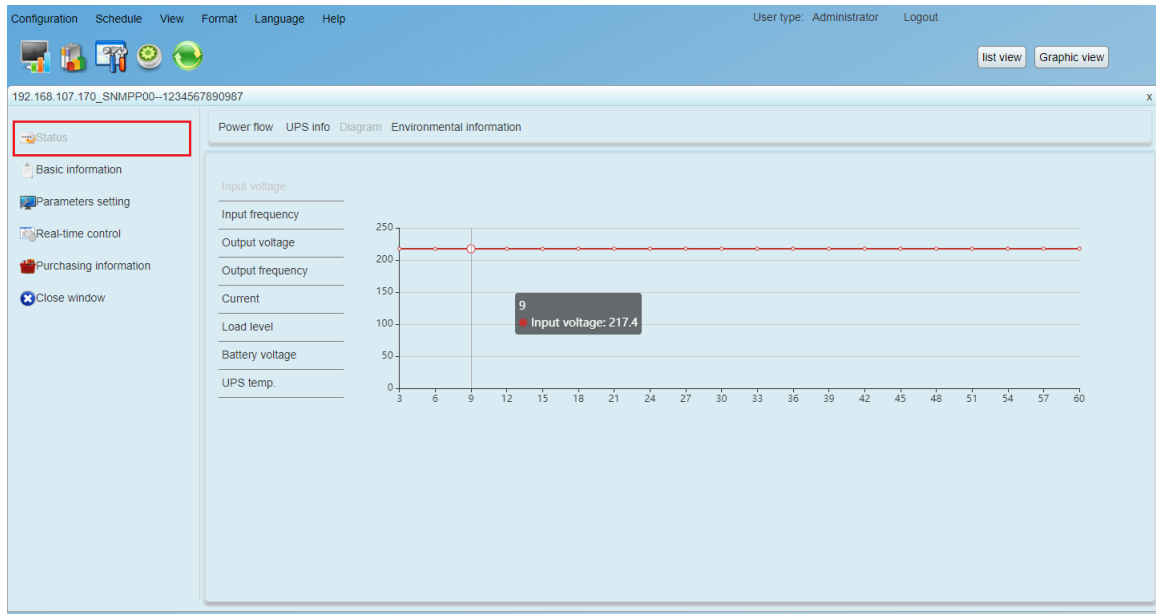


Diagram 5-29

5.3.1.1.4. Environmental information

In the Environmental information window, it shows the current temperature and humidity.

Select Status >> Environmental information. Refer to Diagram 5-30

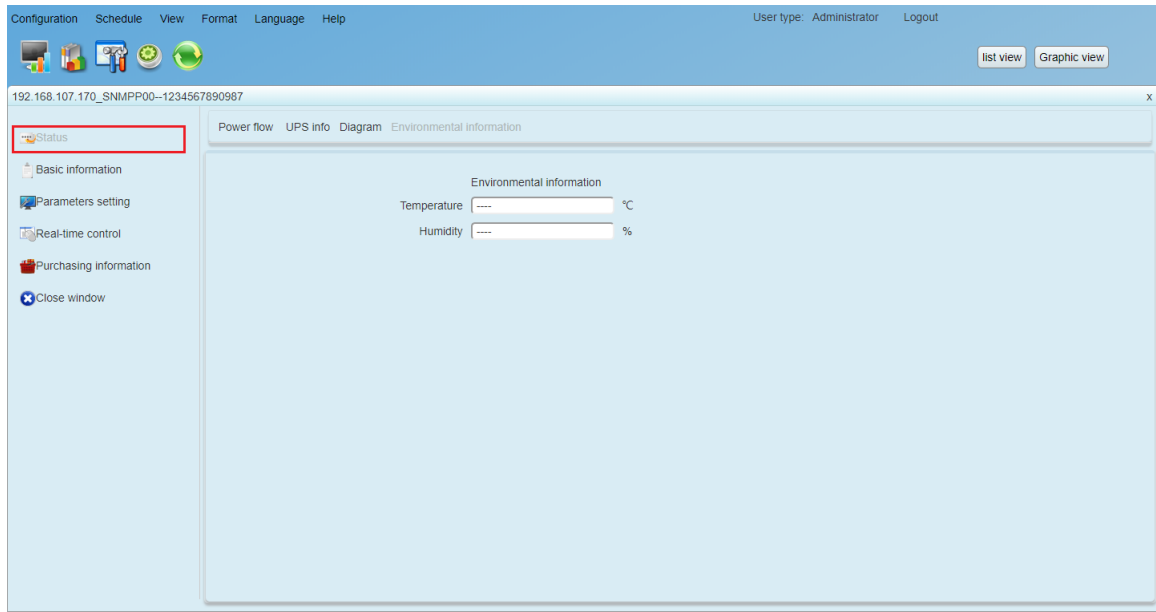


Diagram 5-30

Note: This information is only available when SNMP card is connected with Environmental monitoring device (EMD).

5.3.1.2. Basic information

It includes UPS basic information, battery information, UPS purchasing

information, and UPS rated information. Refer to diagram 5-31.

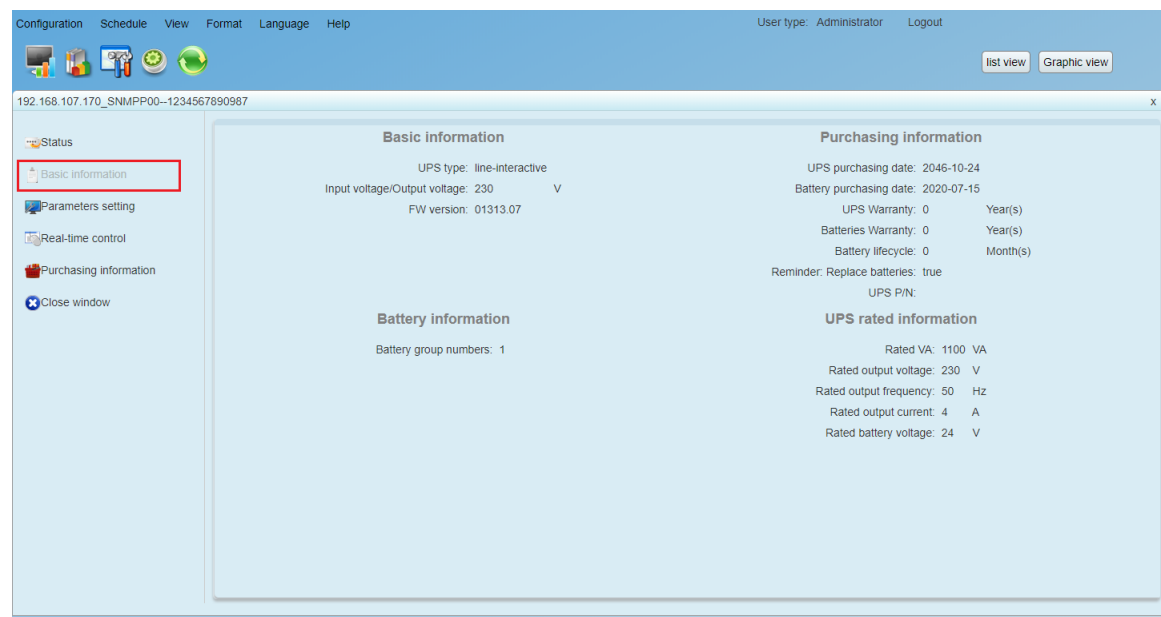


Diagram 5-31

5.3.1.3. Parameters setting

Some UPS functions can be set and changed via software. Parameter setting includes backup time setting for programmable outlet (P1), battery number setting, voltage and frequency range setting for bypass mode, and voltage range setting for ECO mode.

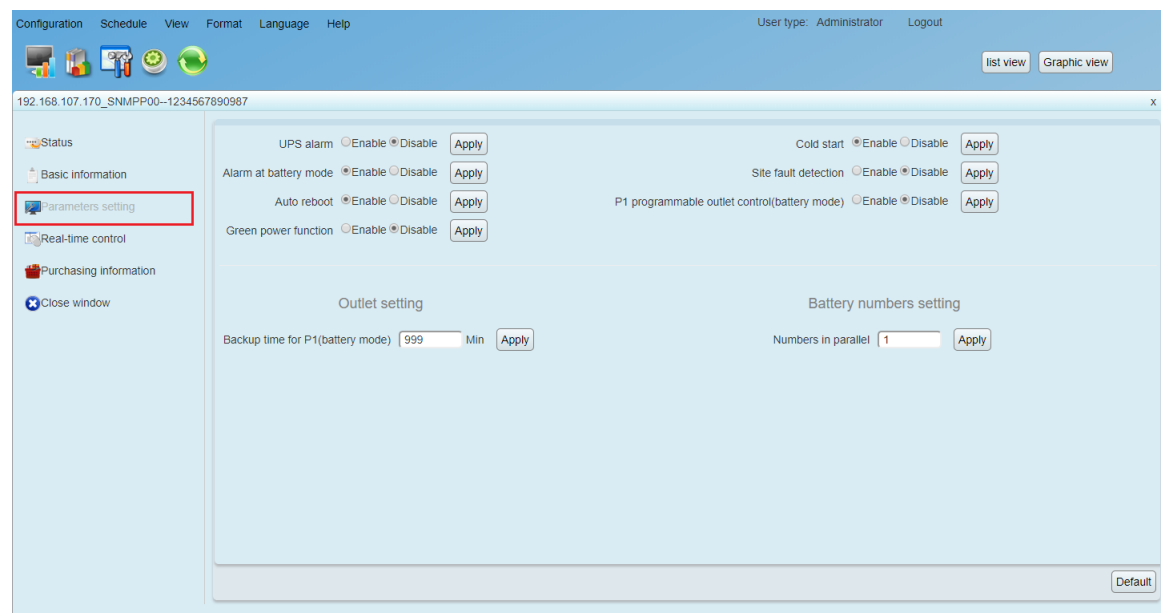


Diagram 5-32

Note: Different UPSs may access different parameter setting.

1. Select the functions by clicking "Enable" or "Disable" button. Change the

numbers by clicking up-down arrows or modify the numbers directly in the number column.

2. Click "Apply" button to save the settings. Each function setting is saved by clicking "Apply" button in each section.
3. Click "Default" button to recover the default setting.

Note: Any functions which are not supported by UPS will not be able to access.

- UPS alarm: If enabled, UPS alarm will be activated.
- Alarm at bypass mode: If enabled, UPS alarms when it's working at bypass mode.
- Alarm at battery mode: If disabled, UPS will not alarm when it's working at battery mode.
- Auto reboot: If enabled, UPS will auto recover when AC is recovering.
- Bypass when UPS is off: If enabled, AC will directly provide power to connected devices when UPS is off.
- Converter mode: If enabled, the UPS will operate in converter mode.
- ECO mode: If enabled, the UPS will operate in ECO mode when input voltage is within acceptable range.
- Battery open status check: If enabled, the monitored UPS will check if the battery connection ok or not when UPS is turned on.
- Cold start: If disabled, the UPS can be turned on only when AC is normally connected to UPS.
- Bypass not allowed: If enabled, the UPS will not transfer to bypass mode under any conditions. If disabled, the UPS will be allowed to transfer to bypass mode according to UPS internal setting.
- Battery deep-discharge protection: If enabled, the monitored UPS shutdown in accordance with the condition of battery and load on battery mode to protect battery.
- Site fault detection: If enabled, the monitored UPS will beep when the input neutral and hot wires are reversed.

- P1 Programmable outlet control (battery mode): If enabled, when UPS is running at battery mode, it will cut off P1 outlets after backup setting time arrive. If disabled, UPS will provide continuous power to P1 outlets until the battery is running out.
- Outlet setting: Users can set limited backup time for P1 outlets when UPS is on battery mode.
- Battery numbers setting:
 - ✧ Numbers in parallel: set battery numbers in parallel
- Voltage and frequency range for bypass mode: Set acceptable voltage and frequency range in bypass mode
 - ✧ Maximum and minimum voltage: When UPS is on bypass mode and input voltage is out of setting range, UPS will enter battery mode.
 - ✧ Maximum and minimum frequency: When UPS is on bypass mode and input frequency is out of setting range, UPS will enter battery mode.
- Voltage range for ECO mode: Set acceptable voltage range for ECO mode.

5.3.1.4. Real-time control

Refer to diagram 5-33:

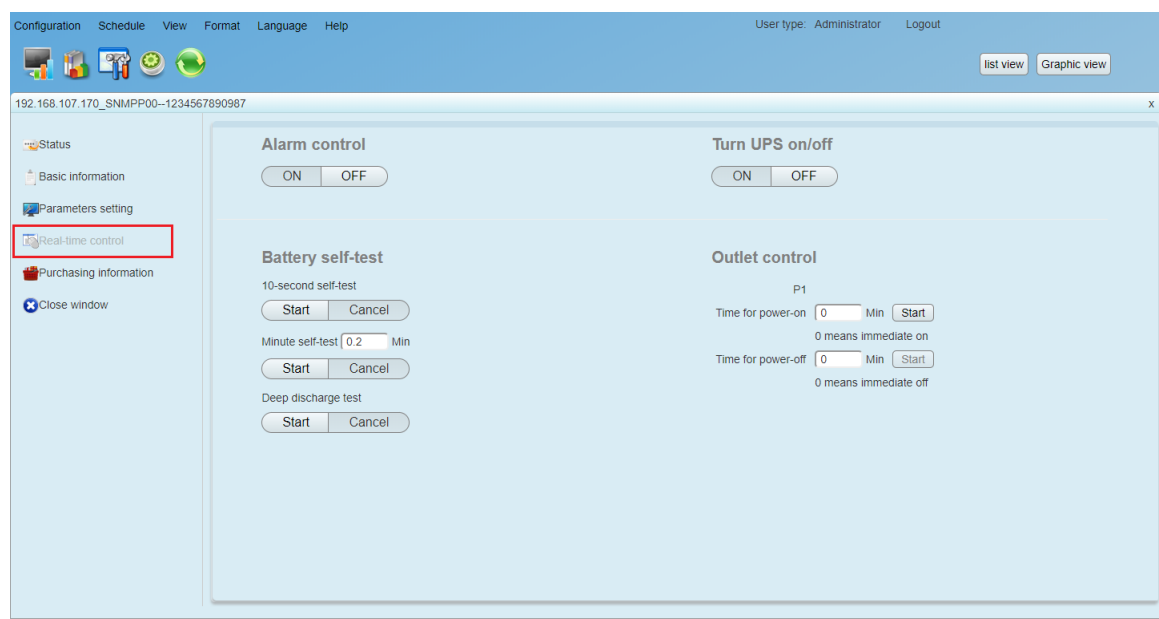


Diagram 5-33

1. Choose real-time control function by clicking "Start" button on each function section. You can real-time control the UPS by executing following operation:

- Alarm control: Click "On" to turn on the UPS alarm and "Off" to turn off the UPS alarm immediately.
- UPS turn On/Off: Click "On" to turn on the UPS and "Off" to turn off the UPS immediately.
- Battery Self-Test: Software offers three types of battery self-test: 10-second self-test, deep discharge test, and self-defined self-test. Simply clicking "Start" button from each type. It will execute the self-test immediately.
- Outlet Control: It will cut off programmable outlets (P1) when setting time arrives. When entering 0 in timer column and click "Start" button, it will cut off outlets immediately when UPS works in battery mode.

Note: Different UPSs may access different parameter setting.

5.3.1.5. Purchasing information

Users can enter UPS purchasing date, battery purchasing date, UPS warranty time, battery warranty time, battery lifecycle, and battery replacement reminder for future reference.

The screenshot displays the 'Purchasing Information' window within a software application. The window has a title bar with the address '192.168.107.170_SNMP00-1234567890987' and a close button. The left sidebar contains a menu with 'Status', 'Basic information', 'Parameters setting', 'Real-time control', and 'Purchasing Information' (which is highlighted with a red box). Below the menu is a 'Close window' button. The main area of the window contains the following fields:

- UPS P/N: [text input field]
- UPS purchasing date: 2046-10-24
- UPS Warranty: 0 Year(s)
- Battery purchasing date: 2020-07-15
- Batteries Warranty: 0 Year(s)
- Battery lifecycle: 0 Month(s)
- Reminder: Replace batteries ☒

An 'Apply' button is located at the bottom right of the window.

Diagram 5-34

1. Please fill out purchasing information.
2. Click "Apply" button to save all data.

5.3.2. History


5.3.2.1. Event Log

In the Event Log window, it's shown all history events. Users can analyze the history data and improve the current electricity environment according to history data.

1. Select View >> History >> Event Log. Refer to Diagram 5-35

Configuration Schedule View Format Language Help



User type: Administrator Logout



[list view](#) [Graphic view](#)

Event log Event statistics Data Diagram EMD logs Purchasing information

(192.168.107.170_P00_1234567890987) Time period 2020-08-06 -- 2020-08-06 [Browse](#)

ID	Device ID	device name	Level	Date	Event	Type
1	192.168.107.170_123			2020-08-06 14:20:56	Line mode	UPS internal event
2	192.168.107.170_123			2020-08-06 14:20:26	Communication established	UPS external event

[Print](#) [Export](#) [Delete](#) [Delete all](#)

Diagram 5-35

2. Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.
3. Select time period by clicking calendar icon. Then click "Browse" button to get list of all history events during selected period time.
4. Print/Delete/Export function keys
 - **"Print"**: Click "Print" button to print the current event log.
 - **"Delete/Delete all"**: To delete specific event, simply select that event and then click "Delete" button. Or click "Delete all" button to delete all history events on the listed table.

- **"Export":** Click "Export" button to save listed table to local PC in .CSV file.

5.3.2.2. Event Statistics

It will list down and provide all event statistics for UPSs with software installed based on time period A and time period B, and the change percentage $[= 100 \times (B/A - 1)\%]$.

NOTE: Event types include UPS internal event, bypass event, battery event, software event, load event, input event, parallel system event and communication event.

Step 1 Select History >> Event Statistics. Or click shortcut icon . Refer to Diagram 5-36.

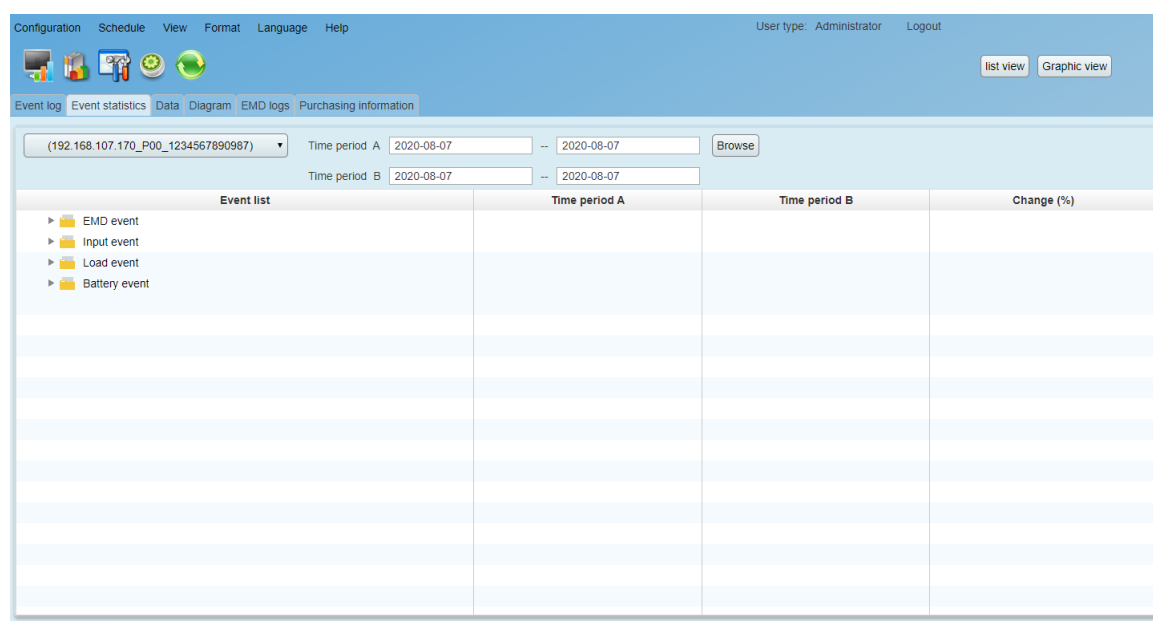


Diagram 5-36

Step 2 Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.

Step 3 Select two periods from clicking "calendar" icon. Then click "Browse" button. The statistics result will be listed in below table according to event types. Refer to Diagram 5-37.

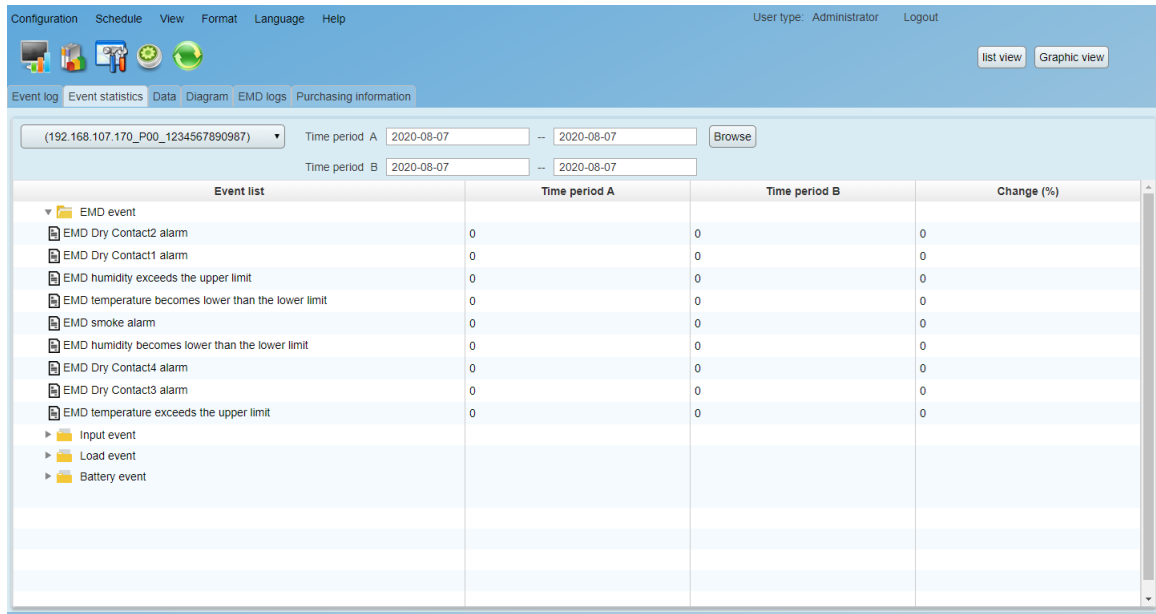


Diagram 5-37

5.3.2.3. Data

In the window of Data, it shows UPS power data in figures during selected period time. Software also offers print, save as, and delete functions. User can customize record interval and default data is recorded in 60 seconds interval.

Step 1 Select View >> History >> Data. Refer to Diagram 5-38.

Device ID	device name	Time	Input voltage	Input frequency	Output voltage	Output frequency	Current	Load level	Battery voltage	UPS temp.
192.168.107.170_1		2020-08-07 14:10:5	221.2	50.0	221.3	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:09:5	219.7	50.0	219.9	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 14:08:5	220.4	50.0	220.7	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:07:5	220.2	50.0	220.2	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:06:5	220.0	50.0	219.3	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:05:5	220.0	50.0	220.0	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:05:0	219.5	49.9	219.5	50.0	0.0	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:04:0	217.9	50.0	217.8	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 14:03:0	217.8	50.0	217.9	50.0	0.0	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:02:0	217.6	50.0	217.6	50.0	0.2	3.0	27.3	24.6
192.168.107.170_1		2020-08-07 14:01:0	220.3	50.0	220.3	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:00:0	218.6	50.0	218.8	50.0	0.2	3.0	27.3	24.6
192.168.107.170_1		2020-08-07 13:59:0	220.4	50.0	220.6	50.0	0.1	2.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:58:0	221.2	50.0	221.3	50.0	0.1	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:57:0	220.8	50.0	221.1	50.0	0.1	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:56:0	220.9	50.0	220.1	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:55:0	220.4	50.0	220.4	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:54:1	219.7	50.0	219.6	50.0	0.1	2.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:53:1	219.9	50.0	219.8	50.0	0.1	2.0	27.3	24.3

Diagram 5-38

NOTE: This screen may be different for different types of UPSs.

Step 2 Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.

Step 3 Select the starting time and ending time by clicking calendar icon. Then click "Browse" button to get the data table.

- **"Print"**: Print the listed data table.
- **"Delete"**: Select specific data and click "Delete" button to delete the record.
- **"Delete all"**: Click "Delete all" button to delete all records on the listed table.
- **"Export"**: Click "Export" button to save listed table to local PC in .CSV file.

5.3.2.4. Diagram

In the Diagram window, it shows UPS power data in diagram during selected period time. UPS power data includes input voltage, output voltage, input frequency, output frequency, load level, battery capacity, and UPS temperature.

1. Select View >> History >> Diagram. Refer to Diagram 5-39.

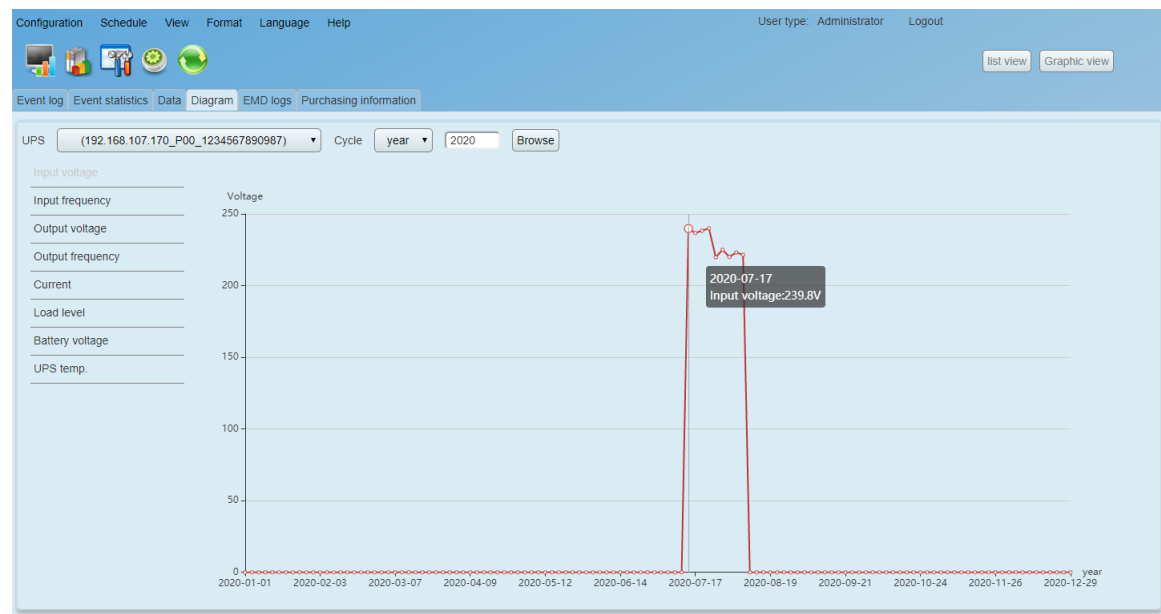


Diagram 5-39

NOTE: This screen may be different for different types of UPSs.

2. Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.
3. Select cycle and period time. Then click "Browse" button to get the diagram.
4. Select monitoring parameters on left-hand tab to switch diagram.

5.3.2.5. EMD Logs

In the EMD logs window, it shows the environment data in figures detected by environmental monitoring device (EMD) during selected period time.

Step 1 Select View >> History >> EMD logs. Refer to Diagram 5-40.

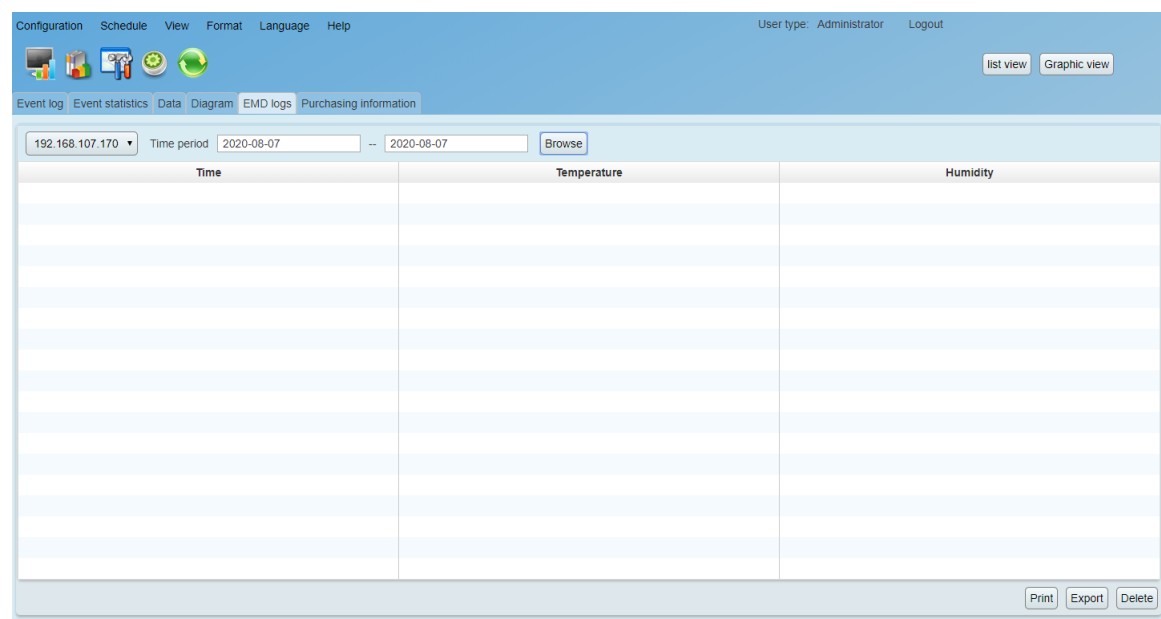


Diagram 5-40

Step 2 Select UPS and select the starting time and ending time by clicking calendar icon. Then click "Browse" button to get the data table.

Delete

- **"Print":** Print the listed data table.
- **"Export":** Click "Export" button to save listed table to local PC

There are two temperature units for selecting: Centigrade and Fahrenheit.

Default setting is centigrade.

5.4.2. Date Format

There are nine formats for date display:

- YYYY-MM-DD
- YYYY/MM/DD
- YYYY:MM:DD
- MM-DD-YYYY
- MM/DD/YYYY
- MM:DD:YYYY
- DD-MM-YYYY
- DD/MM/YYYY
- DD:MM:YYYY

Default setting is YYYY-MM-DD.

5.5. Language

ViewPower Pro offers thirteen languages for selection:

- English
- French
- German
- Italian
- Polish
- Portuguese
- Russian
- Spanish
- Ukrainian
- Turkish
- Czech
- Chinese(Simplified)
- Chinese(Traditional)

5.6. Help

5.6.1. About

Click "Help" menu and select "About". It represents the information about software.

5.6.2. Online help

Click "Help" menu and select "Online help" item. It will open user manual.

Before operating software, please read manual carefully.

Appendix A: How to shut down the ESXI OS

- 1) Please check Troubleshooting Options (Troubleshooting Options → Enable SSH) and be sure that SSH function is ON in ESXI system.

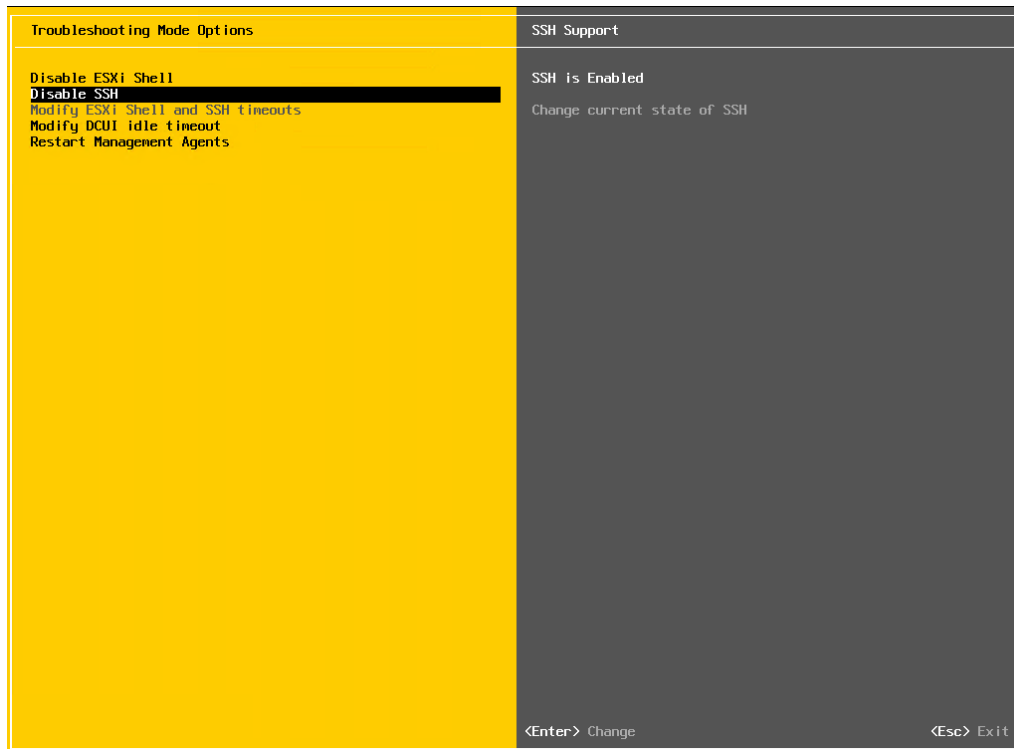


Diagram A-1

- 2) Please make sure that SSH Password Authentication has been activated in ESXI system. The actual command is `cat /etc/ssh/sshd_config`. If the setting marked in Diagram A-1 shows "no", please change it to be "yes".

```
192.168.107.85 - PuTTY
login as: root
Using keyboard-interactive authentication.
Password:
The time and date of this login have been sent to the system logs.

VMware offers supported, powerful system administration tools. Please
see www.vmware.com/go/sysadmintools for details.

The ESXi Shell can be disabled by an administrative user. See the
vSphere Security documentation for more information.
[root@users-fb0bec28a:~] vi /etc/ssh/sshd_config
# running from inetd
# Port 2200
Protocol 2
HostKey /etc/ssh/ssh_host_rsa_key
HostKey /etc/ssh/ssh_host_dsa_key

UsePrivilegeSeparation no

SyslogFacility auth
LogLevel info

PermitRootLogin yes

PrintMotd yes
PrintLastLog no

TCPKeepAlive yes

X11Forwarding no

Ciphers aes128-ctr,aes192-ctr,aes256-ctr,3des-cbc

MACs hmac-sha2-256,hmac-sha2-512,hmac-sha1

UsePAM yes
# only use PAM challenge-response (keyboard-interactive)
PasswordAuthentication no
Banner /etc/issue

Subsystem sftp /usr/lib/vmware/openssh/bin/sftp-server -f LOCAL5 -l INFO

AuthorizedKeysFile /etc/ssh/keys-%u/authorized_keys

# Timeout value of 10 mins. The default value of ClientAliveCountMax is 3.
# Hence, we get a 3 * 200 = 600 seconds timeout if the client has been
# unresponsive.
ClientAliveInterval 200
# sshd(8) will refuse connection attempts with a probability of "rate/100"
- /etc/ssh/sshd_config 1/43 2%
```

Diagram A-2

- 3) After the above settings, ViewPower Pro can be used to shut down ESXI system through SSH.

Appendix B: Configuration about SNMP V3 in SNMP card

SNMP V3 server configuration

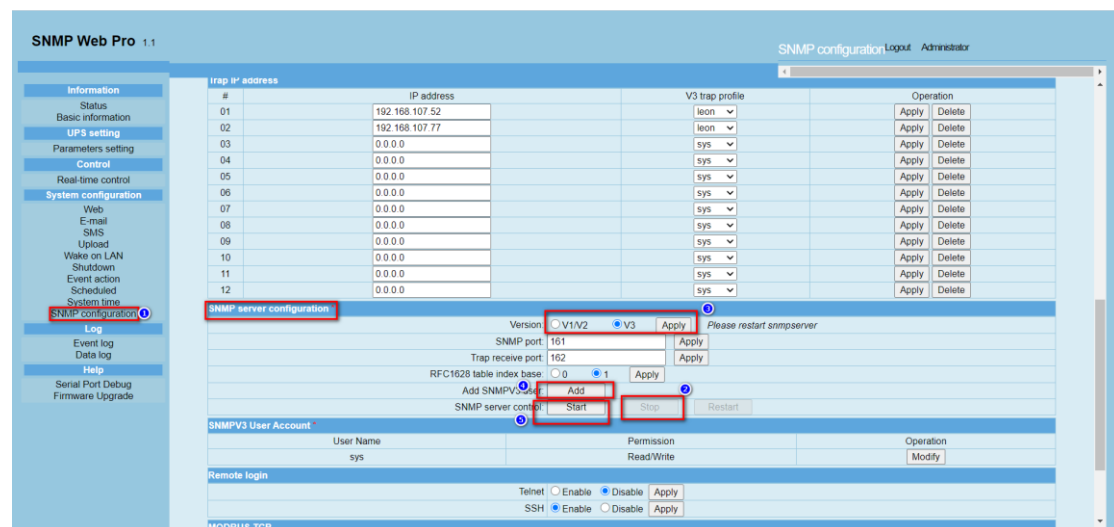


Diagram B-1

- 1) Open SNMP Web Pro interface and click SNMP Server configuration (Refer to 1 in Diagram B-1)
- 2) Click "Stop" button to stop SNMP Server.
- 3) Select V3 in Version column and click "Apply" button to save changes.
- 4) Click "Add" button to add SNMP V3 Server.
- 5) Click "Start" button to re-activate SNMP Server.

SNMP Trap V3 Configuration

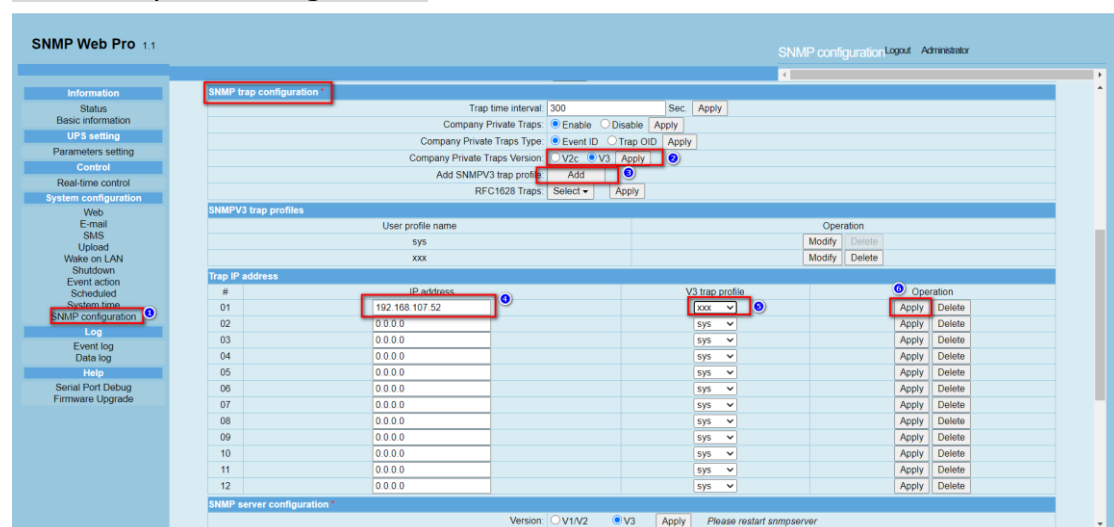


Diagram B-2

- 1) Open SNMP Web Pro interface and click SNMP trap configuration (Refer to 1 in Diagram B-2)
- 2) Select V3 in Company Private Traps Version and click "Apply" button.
- 3) Click "Add" button to add SNMP V3 trap profile.

- 4) Enter IP address of PC to receive SNMP V3 trap. Refer 4 in Diagram B-2.
- 5) Select profile to send trap. Refer 5 in Diagram B-2.
- 6) Click "Apply" button to save changes.

Appendix C: Port Check when the software can't run

The following ports (41009 and 43306 and 15178 or other web server port) are necessary for this software to run. If these ports cannot be opened, it will affect the normal operation and use of the software; when the ports cannot be opened, please set them in the system firewall and other security policy tools.