SNMP Web Pro

User’s Manual

Management Software for Uninterruptible Power Supply Systems

Table of Contents

1. Overview

1.1 Introduction

This SNMP web pro can provide web server to monitor and manage multiple UPSs in a networked environment including LAN and INTERNET. It can detect temperature and humidity for the environment via connecting to EMD (Environmental Monitoring Device). The same port is also applied for data transmission. Simply connect to SMS modem for SMS sending with a RJ11 to DB9 cable.

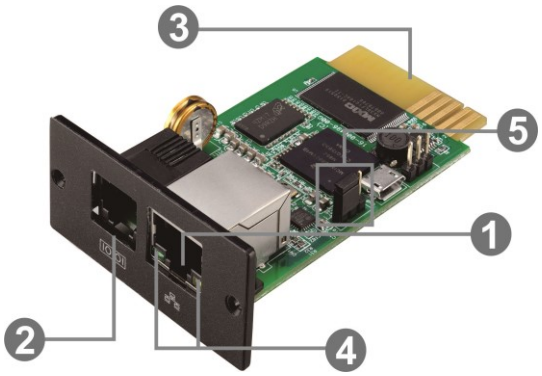
Integrated with Shutdown Wizard, it can not only prevent data loss from power outage and safely shutdown systems, but also store programming data and scheduled shut down the UPS. All UPS warning and fault event records can be kept in SNMP web pro.

Integrated with ViewPower Pro software, it can monitor and remote access all distributed devices with SNMP web pro card in a LAN or INTERNET. For the detailed operations, please check user manual of ViewPower Pro.

1.2 Features

- Open monitor via Web Browser.
- Offer SNMP MIB to monitor UPS status.
- Automatically detect and exchange 10M/100M Fast Ethernet.
- Support wake-on-LAN function.
- Supported protocol such as TCP/IP, UDP, SNMP, SMTP, SNTP, HTTP, HTTPS, SSL, SSH, IPV4/IPV6, DHCP and so on.
- Integrated with Shutdown Wizard, it can prevent data loss from power outage and safely shut down systems.
- Able to store event log more than 200,000 threads, including UPS warnings, faults and EMD warnings, operation data logs from web users or ViewPower pro users. It will be stored safely without loss even when power failure occurs.
- Support daily reports for event log and data log.
- Scheduled UPS on/off and battery test.
- Support EMD monitoring and SMS sending.
- Equipped with real-time clock to record log with date and keep running up to 7 days without power connected.

1.3 Overlook



❶Ethernet port (10/100Base-T)
❷Sensor port/data transmission port
❸Golden finger: connects to UPS slot
❹Ethernet port status LEDs
Jumper setting to restore default setting

Ethernet port status LEDs:

100M LED (Green)	On	Port is operating at 100Mbit/s
	Off	Current web bandwidth is 10Mbit/s
Link status LED (Yellow)	Flash	Link Active
	Off	Card is not connected to the network

Pin assignment for Jumper:

Pin #	Status	Description
Pin 1 & Pin 2	Closed	Normal operation
Pin 2 & Pin 3	Closed	After re-connecting utility, the IP address of SNMP web card and password will restore to default setting. Default static IP address: (192.168.102.230) Default password: 12345678

NOTICE: After setting is restored to default, be sure to change the jumper setting to connect Pin 1 and Pin 2 for normal operation.

1.4 Installation and Connection

Installation

If using SNMP web card, please follow below steps to install card first:

Step 1: Remove the cover of intelligent slot on the back panel of UPS and retain the screws

Step 2: Slide the card into the open slot and secure with the screws from step 1. (see chart 1-1)

Chart 1-1

Refer to chart 1-2 for connecting the SNMP web pro.

Step 3: Plug Ethernet cable to the Ethernet port (RJ-45) on the SNMP web manager.

Step 4: Use one more Ethernet cable. Connect one end to the sensor port on the SNMP web manager and the other end to the optional environmental monitoring device.

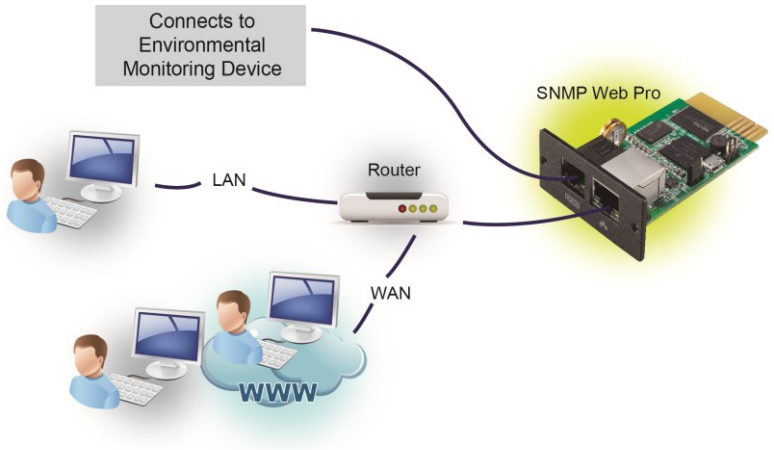


Chart 1-2

1.5 Configuration

a) Please install SNMP web manager wizard in your PC. After software is installed successfully, the Installer will leave a shortcut icon on your desktop.

Chart 1-4

b) Enter specific IP address to search all SNMP devices in LAN. The SNMP web manager is default applied static IP address as 192.168.102.230, default subnet mask as 255.255.255.0, and default gateway as 192.168.102.254. Users can modify IP address or apply DHCP mode through web server of SNMP web pro card, SSH Client or SNMP Web Manager.

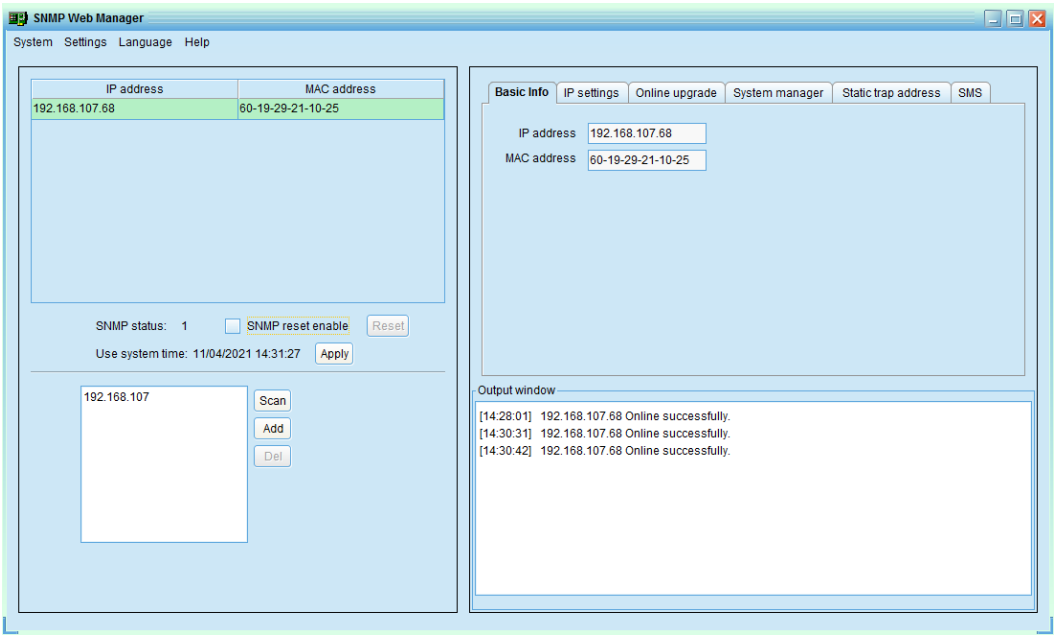


Chart 1-5

c) User can modify IP setting, online upgrade, password management, and static trap address setting in SNMP Web Manager screen. It is necessary to enter password for any medications. The default password is 12345678.

Please check SNMP Web Manager User Manual for detailed configuration.

1.6 Monitoring

There are two ways to monitor:

a) Double click the selected device from the device list (refer to Chart 1-5) to open web page as Chart 1-6 a. Or simply enter https address (http://192.168.107.68) in web browser to access web server directly. Refer to Chart 1-6 b.

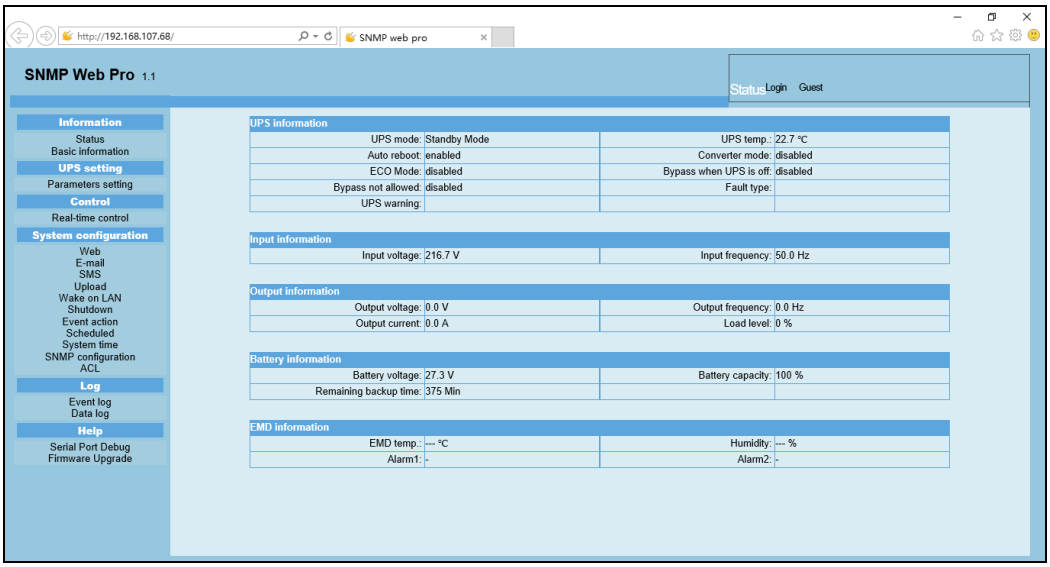


Chart 1-6 a

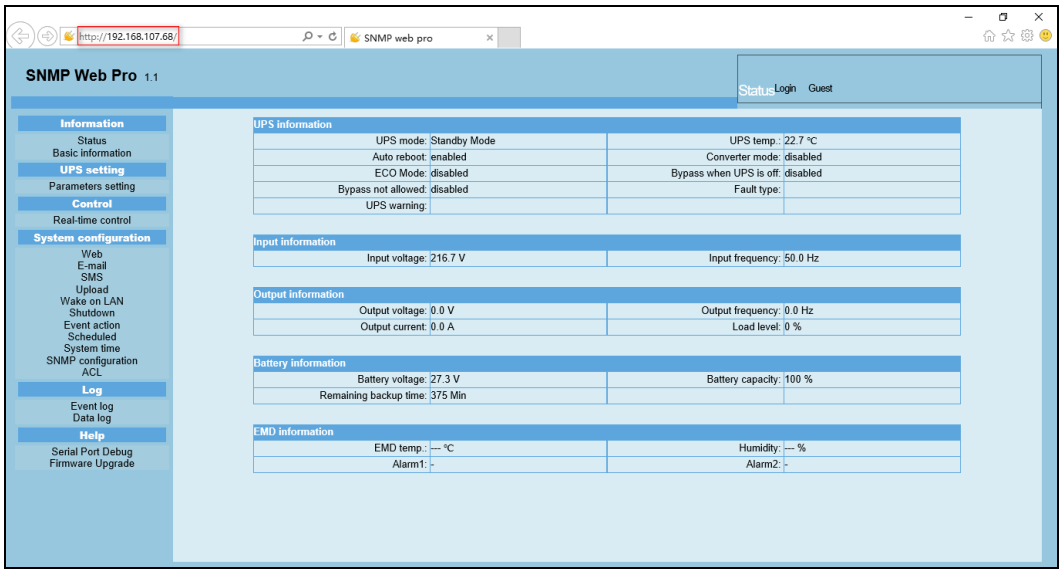


Chart 1-6 b

b) Installed ViewPower Pro software to monitor SNMP web pro. Refer to Chart 1-7.

Please check ViewPower Pro User Manual for detailed monitoring.

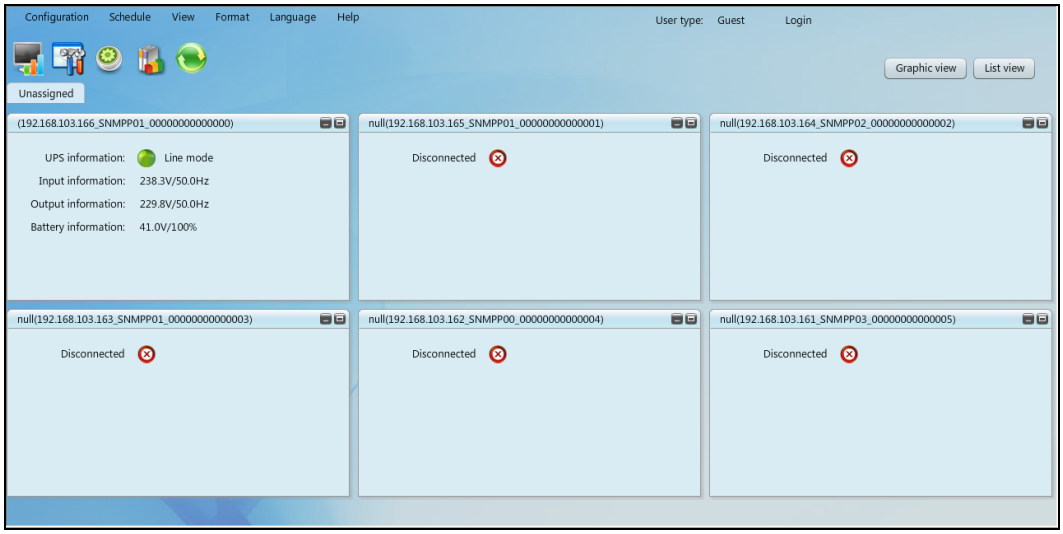


Chart 1-7

2. SNMP web pro GUI

SNMP web pro GUI includes function menu, login section and main screen. Refer to Chart 2-1:

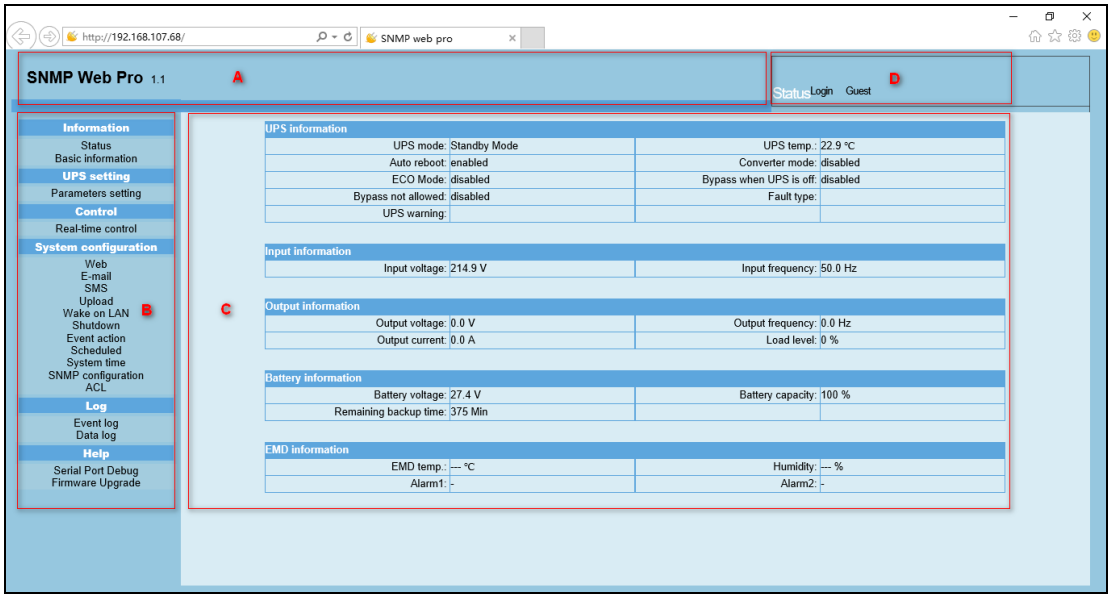


Chart 2-1

A .SNMP web pro GUI version

B .Function Menu

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

C .Main Screen

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

D. Login section

It shows user type for current login user. The default password for administrator is “12345678”.

3. Function Menu

3.1 Information

3.1.1. Status

Select Information >> Status. Refer to Chart 3-1. It's shown real-time monitored UPS data including input, output, UPS, battery information and environmental information in table format.

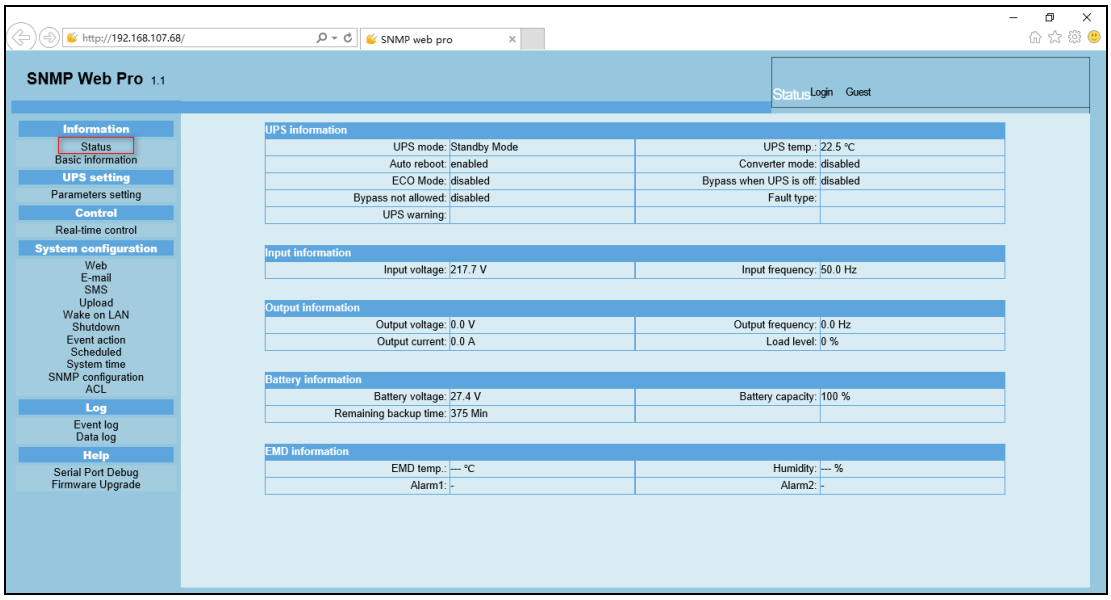


Chart 3-1

3.1.2. Basic information

Select Information>>Basic information. It includes UPS basic information, battery information and UPS rated information. Refer to Chart 3-2.

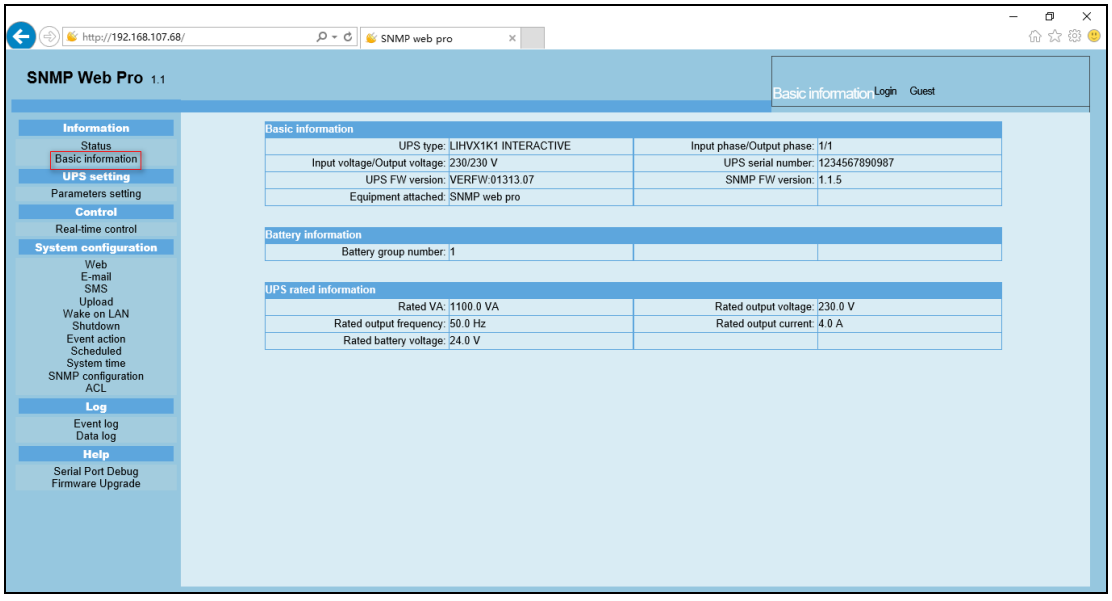


Chart 3-2

3.2 UPS setting

3.2.1 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.

Select UPS setting >> Parameters setting. Refer to Chart 3-4.

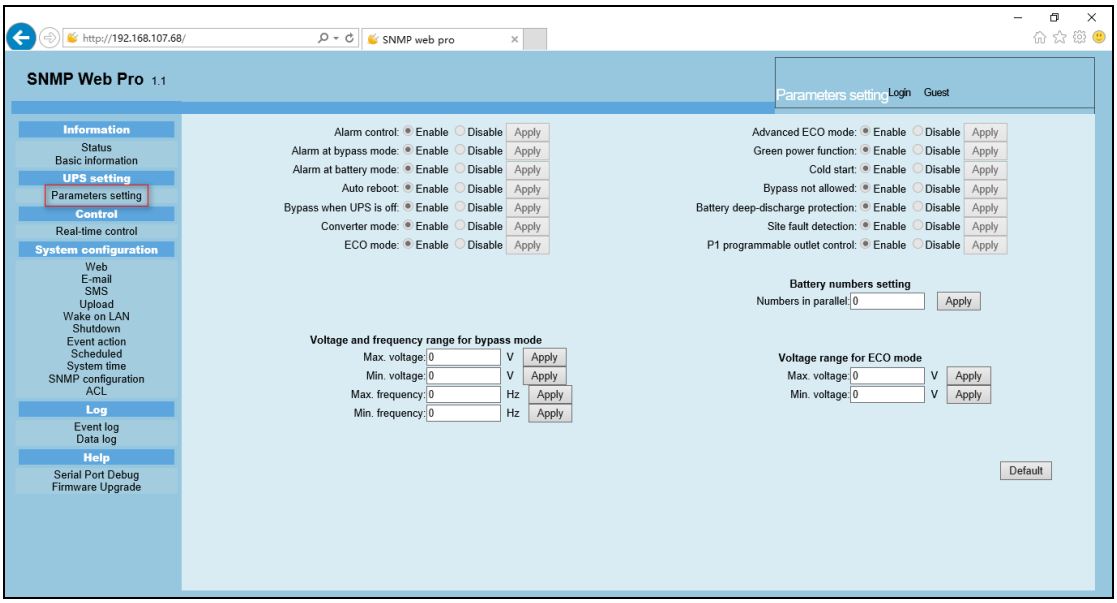


Chart 3-4

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.

- Alarm Control: If enabled, UPS alarm will be activated. Vice versa.
- Alarm at bypass mode: If enabled, UPS alarms when it's working at bypass mode. Vice versa.
- Alarm at battery mode: If disabled, UPS will not alarm when it's working at battery mode. Vice versa.
- Auto reboot: If enabled, UPS will auto recover when AC is recovering. Vice versa.
- Bypass when UPS is off: If enabled, AC will directly provide power to connected devices when UPS is off. Vice versa.
- Converter mode: If enabled, the UPS will operate in converter mode. Vice versa.

- ECO mode: If enabled, the UPS will operate in ECO mode when input voltage is within acceptable range. Vice versa.
- Battery open status check: If enabled, the monitored UPS will check if the battery connection is 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. Vice versa.
- 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 shuts down in accordance with the condition of battery and load on battery mode to protect battery. Vice versa.
- Site fault detection: If enabled, the monitored UPS will beep when the input neutral and hot wires are reversed. Vice versa.
- 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 arrives. 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: 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.

3.3 Control

3.3.1. Real-time control

Select Control >> Real-time control. Refer to Chart 3-5.

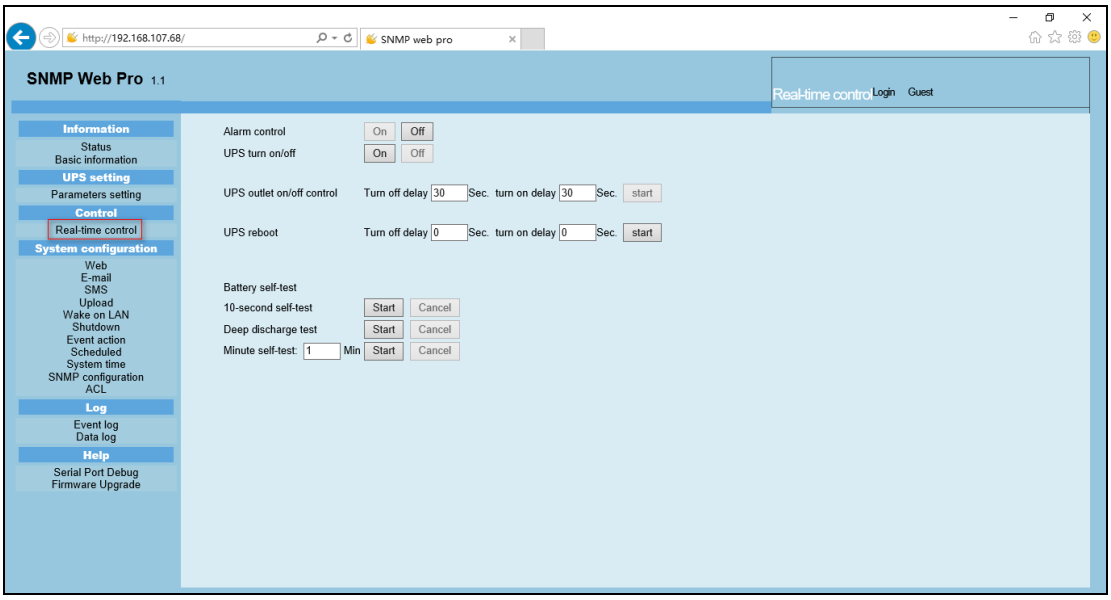


Chart 3-5

You can real-time control the UPS by executing following operation:

- UPS turn On/Off: Click "On" to turn on the UPS and "Off" to turn off the UPS immediately.
- Battery Self-Test: It 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.

3.4. System configuration

3.4.1. Web

It configures the authority to access SNMP web pro. Please enter access ID and password in each column. There is no limitation to access control in default setting. It is also allowed for http and https modification. The default setting is 80 for http and 443 for https. If any modification to add web users, delete web users or port re-configuration, it's necessary to click "Restart Web Server" button to restart web server to activate all modifications.

Upload HTTPS CA Certificate

Click "Select" button to select HTTPS CA certificate file under designated directory. Refer to Chart 3-6.

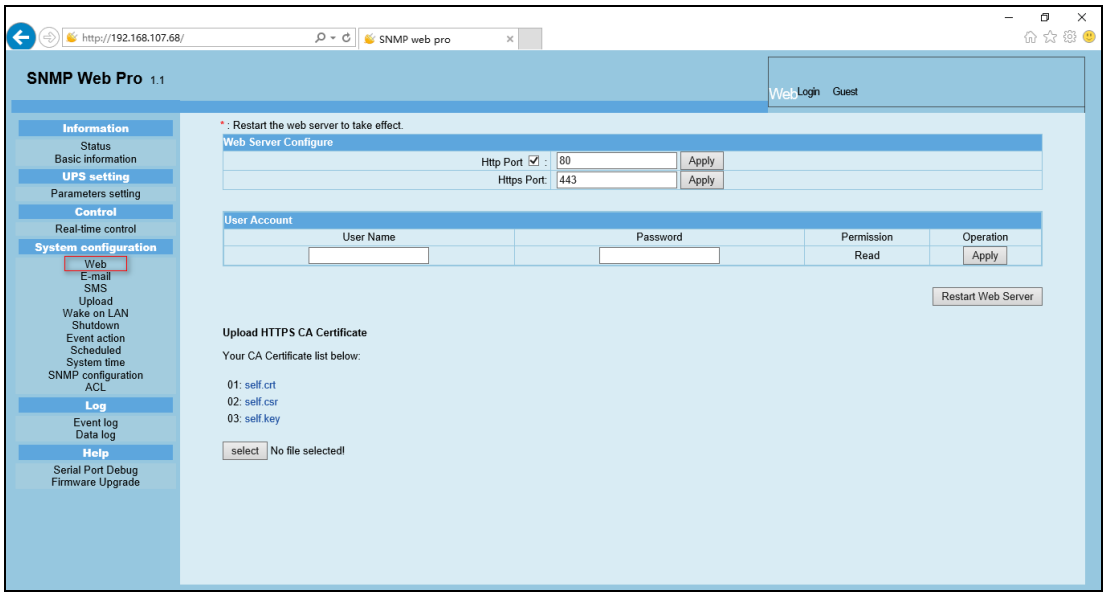


Chart 3-6

3.4.2. E-mail

It's allowed to send alarm mail by SMTP server. To use this function, the e-mail service must be correctly configured. 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 System Configuration >> E-mail. Refer to Chart 3-7

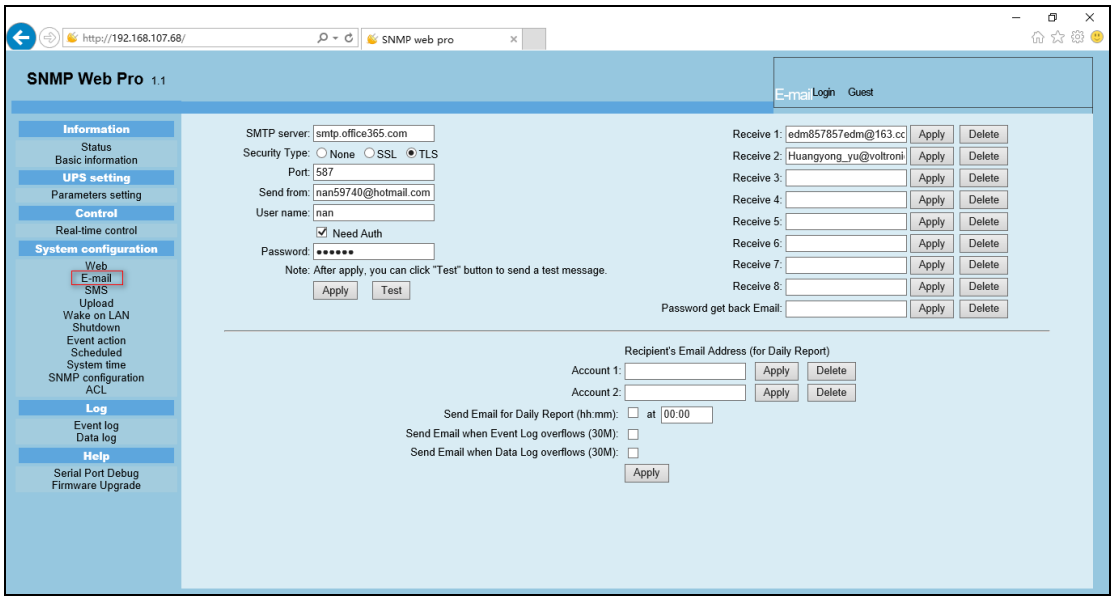


Chart 3-7

1. Enter SMTP server, security type (supported encryption from SMTP server), SMTP port, sender's E-mail address, user name and password. Click checkbox of "Need Auth" for password verify.
2. Enter correct e-mail accounts in Receive list. Then, click "Apply" to add into receivers list. Click "Delete" button to delete e-mail account.

3. Click “Apply” to save the 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.
4. You may decide who will receive daily report e-mail at specific duration. Please enter recipient's Email Address and timer into columns. Then, click “Apply” button to set up this action. You also can configure who will receive alarm e-mail when event log exceeds 100 or data log exceeds 50 records. Please click checkbox of selections.

3.4.3. SMS

- Sending SMS By Server
  It is required to have service software available such as ViewPower Pro. In the event of an alarm condition occurring, a message about UPS status will be sent to the specified users via mobile phone. Please refer to Chart 3-8 b.
- Sending SMS By Serial Port
  It is used EMD port as data transmission to send SMS without any service software. Please configure Baud rate of GSM Modem as 9600 and then connect data transmission port (□) of SNMP web port card to GSM Modem with a RJ11 to DB9 cable. Please refer to Chart 3-8 a for detailed wiring.

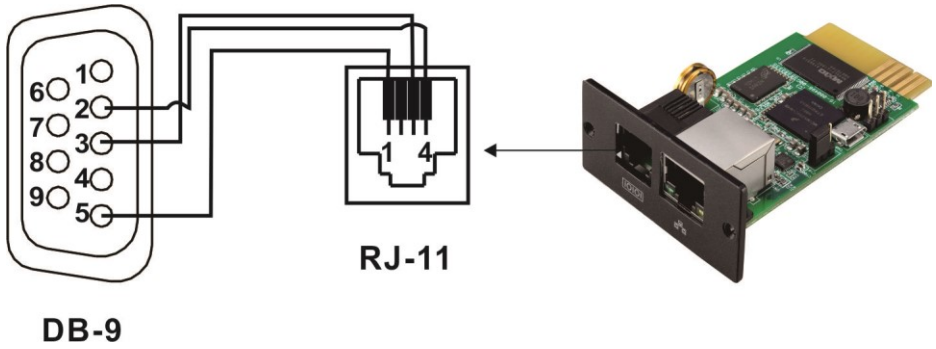


Chart 3-8 a

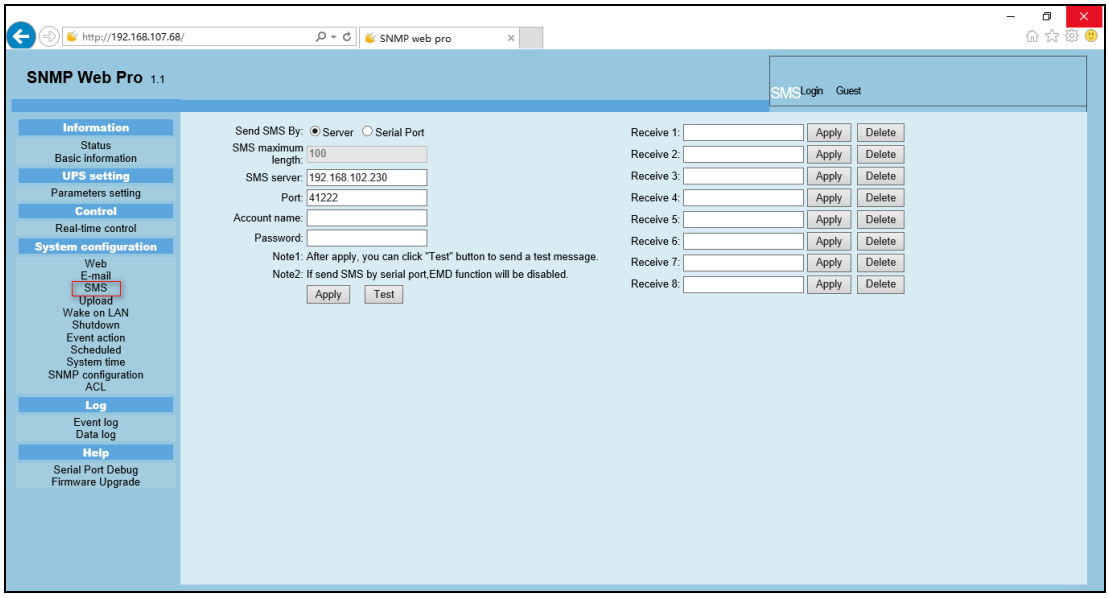


Chart 3-8 b

3.4.4. Wake on LAN

It's to remotely wake on specific PCs in LAN when these PCs are supported to Wake-on-LAN (WOL) via a magic packet.

Select System Configuration >> Wake on LAN. Refer to Chart 3-9 a and Chart 3-9 b.

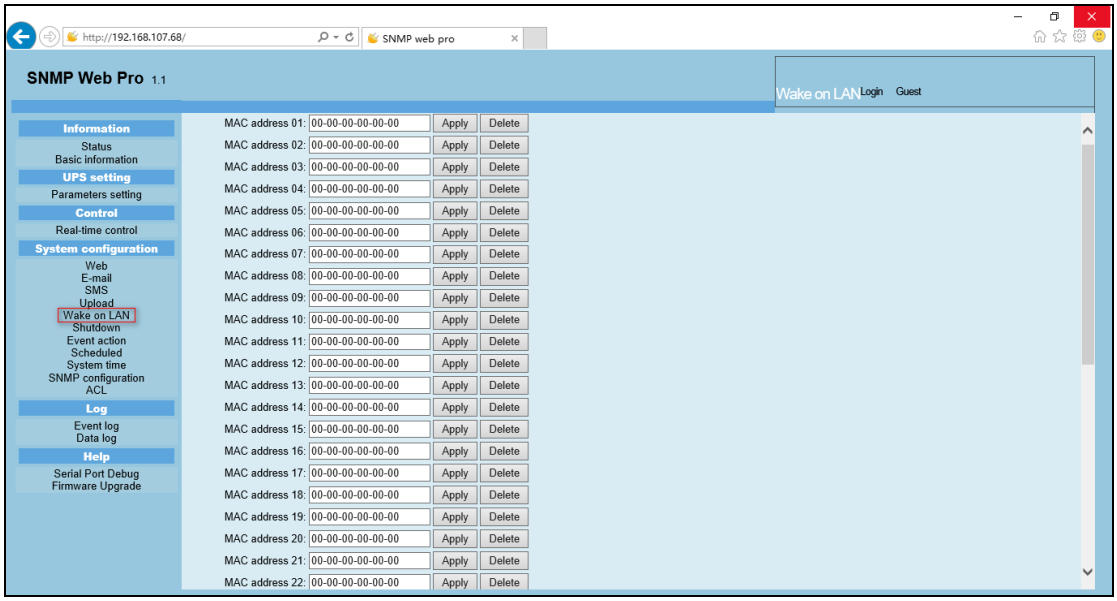


Chart 3-9 a

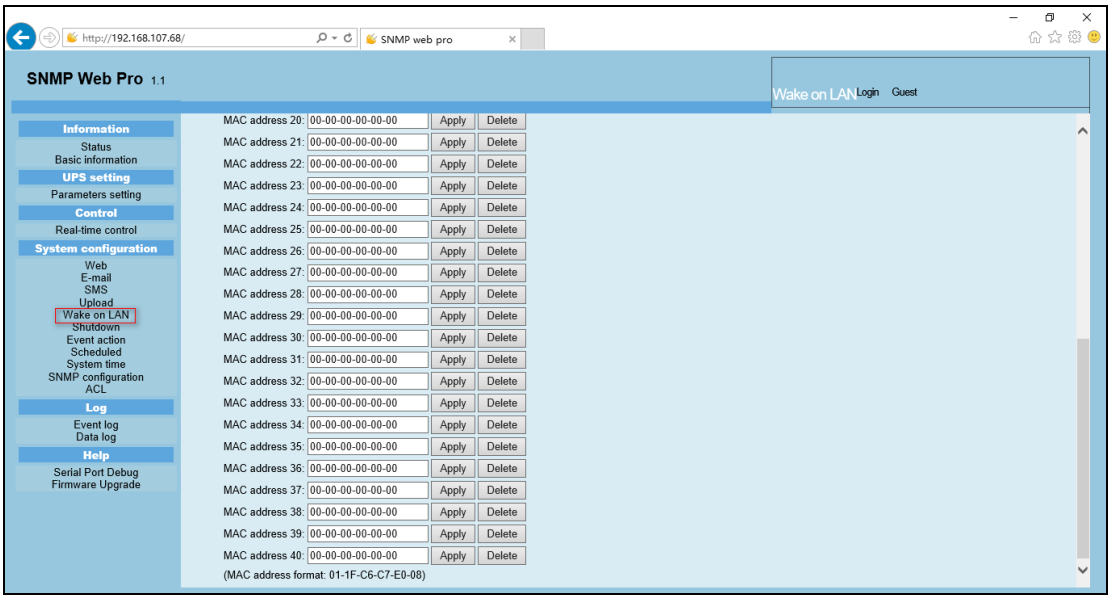


Chart 3-9 b

After MAC addresses of remote PCs are entered into address column, it will allow to remote control the PCs. However, it's also required to have hardware support for remote PCs to implement this function.

3.4.5. Shutdown

It is to remotely shut down specific PCs with Shutdown Wizard. This function is only available to integrate with Shutdown Wizard. Please also check user manual of Shutdown Wizard for the details.

Select System Configuration >> Shutdown. Refer to Chart 3-10.

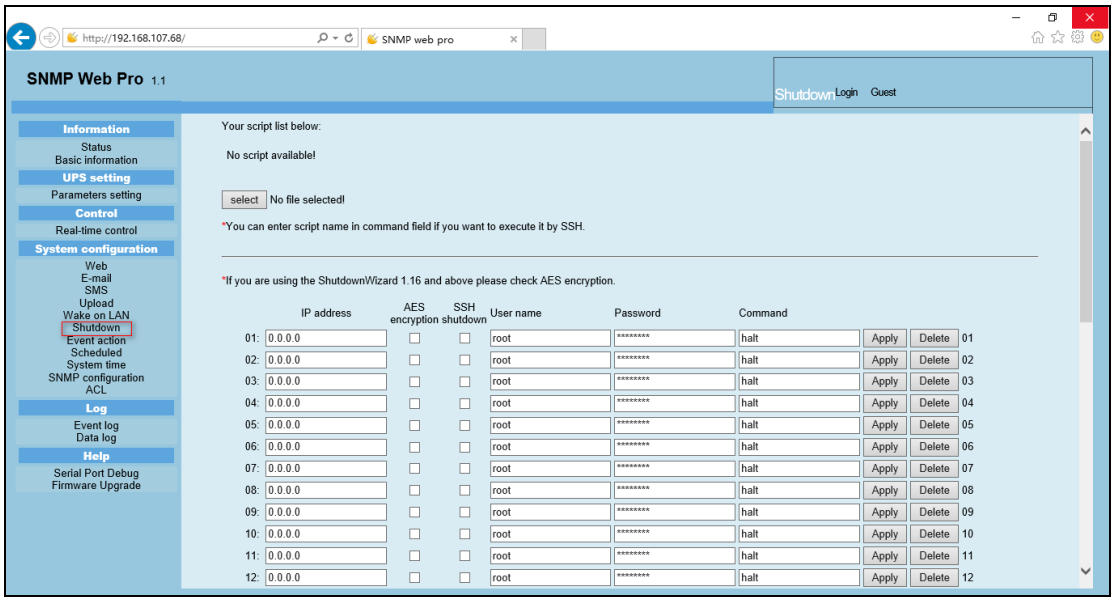


Chart 3-10

3.4.6. Event action

This function is only available to integrate with Shutdown Wizard. Please

also check user manual of Shutdown Wizard for the details.

Select System Configuration >> Event action. Refer to Chart 3-11.

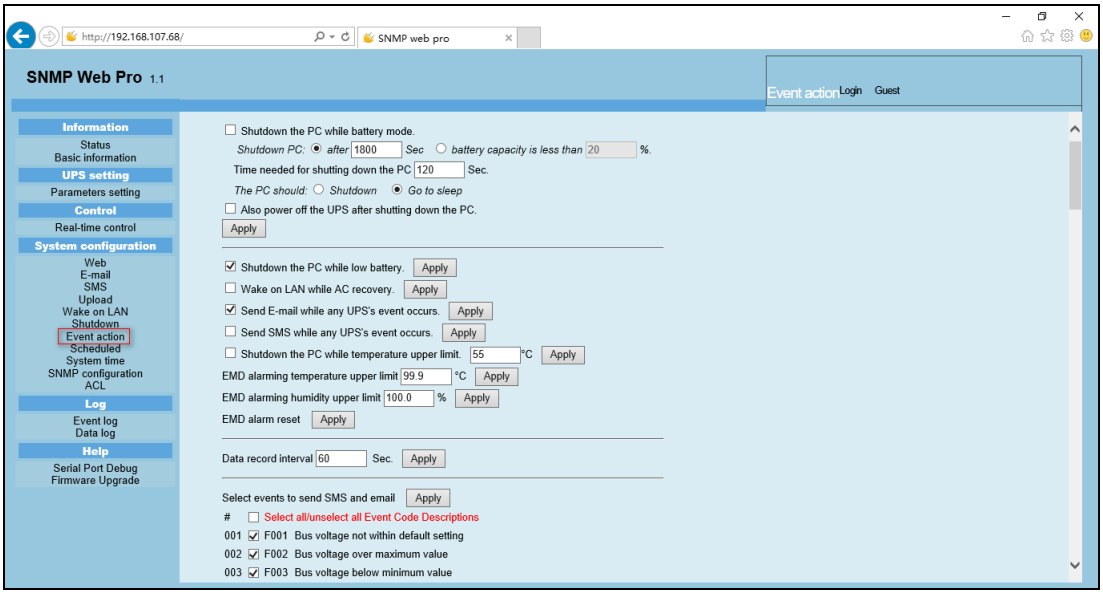


Chart 3-11

- Shutdown the PC while battery mode: When selected, integrated with Shutdown Wizard, local PC will shut down while UPS works on battery mode.
- Time needed for shutting down the PC: Enter the delay time to shut down the operating system.
- The PC should:
  1. Shutdown: When clicking the checkbox, the selected system will shut down. The default setting is clicked.
  2. 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.
- Also power off the UPS after shutting down the PC: When click the checkbox, monitored UPS will turn off after local system shuts down. The UPS shutdown time will be later than system complete shutdown time. Users can choose to shut down the system without shutting down the UPS.
- Shutdown UPS output after xx sec: It will cut off UPS output after monitored UPS works on battery mode for xx sec.
- Shutdown the PC while low battery: When clicking this checkbox, local PC will shut down when monitored UPS battery is running low.
- Wake on LAN while AC recovery: When clicking this checkbox, the local PC will be wake on LAN while AC recovery.
- Send E-mail while any UPS event occurs: When clicking this checkbox, it will send alarm E-mail when any event occurs on the local UPS.

- Send SMS while any UPS event occurs: When clicking this checkbox, in the event of an alarm condition occurring, a message about UPS status will be sent to the specified users via mobile phone.
- EMD alarming temperature upper limit: Set up alarm for high temperature point. If detected temperature is beyond setting value, it will send alarm message.
- EMD alarming humidity upper limit: Set up alarm for high humidity point. If detected humidity is beyond setting value, it will send alarm message.
- EMD alarm reset : Clear all EMD alarms.
- Data record interval xx sec: Data log record the data per xx sec.
- Select events to send SMS and email: Select events to notify users via SMS and Email.
- Select all/unselect all Event Code Descriptions: When selected, all Event Code Descriptions will be selected. When it changes from selected to unselected, the selected state of all Event Code Descriptions is cleared.

3.4.7. Scheduled

Select System Configuration >> Scheduled. Refer to Chart 3-12.

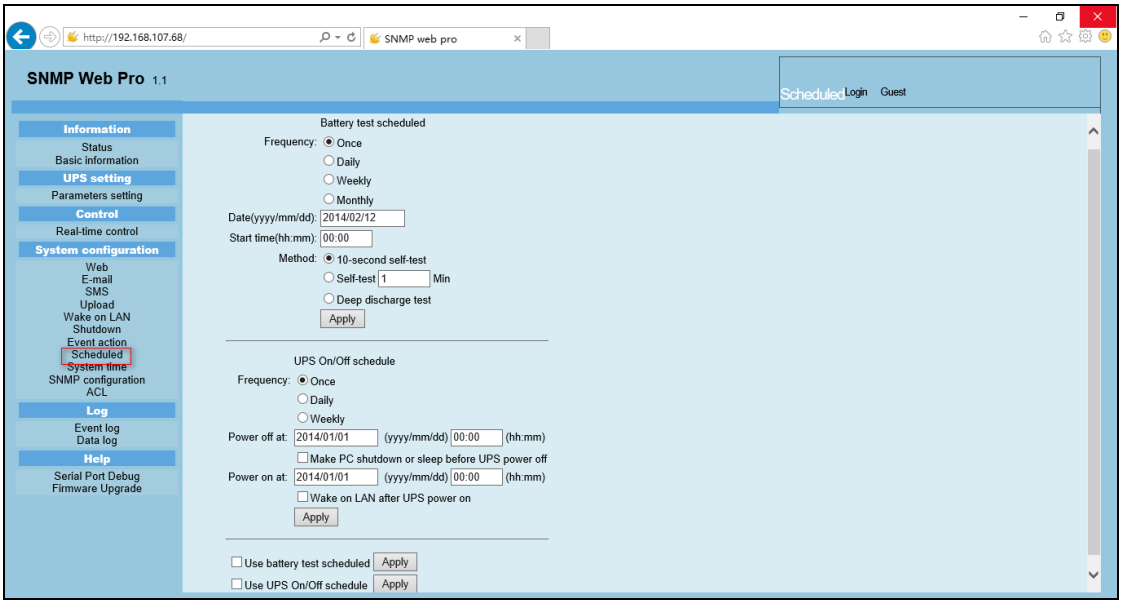


Chart 3-12

- 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.
- Scheduled UPS 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.

- Use battery test scheduled: When selected, enabled battery test scheduled function.
- Use UPS On/Off schedule: When selected, enabled UPS On/Off schedule function.

3.4.8. System time

Select System Configuration >> System time. Refer to Chart 3-13.

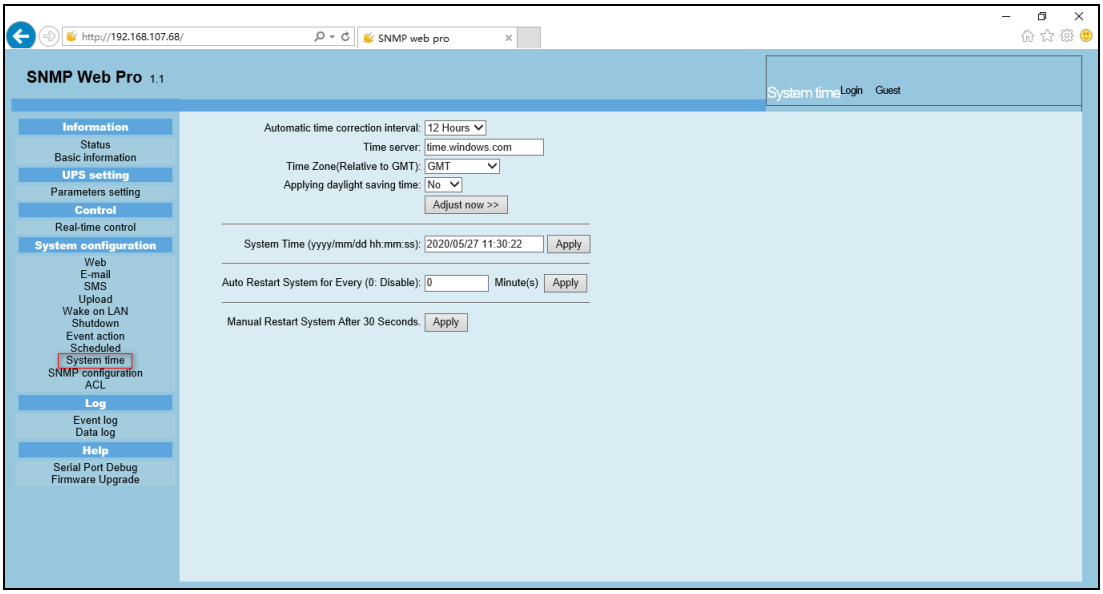


Chart 3-13

- Automatic time correction interval
- Time server: The SNTP server IP address or domain name.
- Time Zone (Relative to GMT): It's measured to relative to GMT.
- System Time (mm/dd/yyyy hh:mm:ss): It is to set up SNMP web local host time
- Auto Restart System for Every (0: Disable): XX Minute(s)
- Manual Restart system after 30 Seconds: When click "Apply" button, SNMP will restart after 30 seconds.

3.4.9. SNMP configuration

Setting SNMP web pro basic information such as IP address, password, trap IP address, SNMP UDP port, add/delete snmpv3 user account and restore the factory settings.

Note: Some modifications are required to restart snmp server to become effective.

Select System Configuration >> SNMP configuration. Refer to Chart 3-14 a , 3-14 b and 3-14 c.

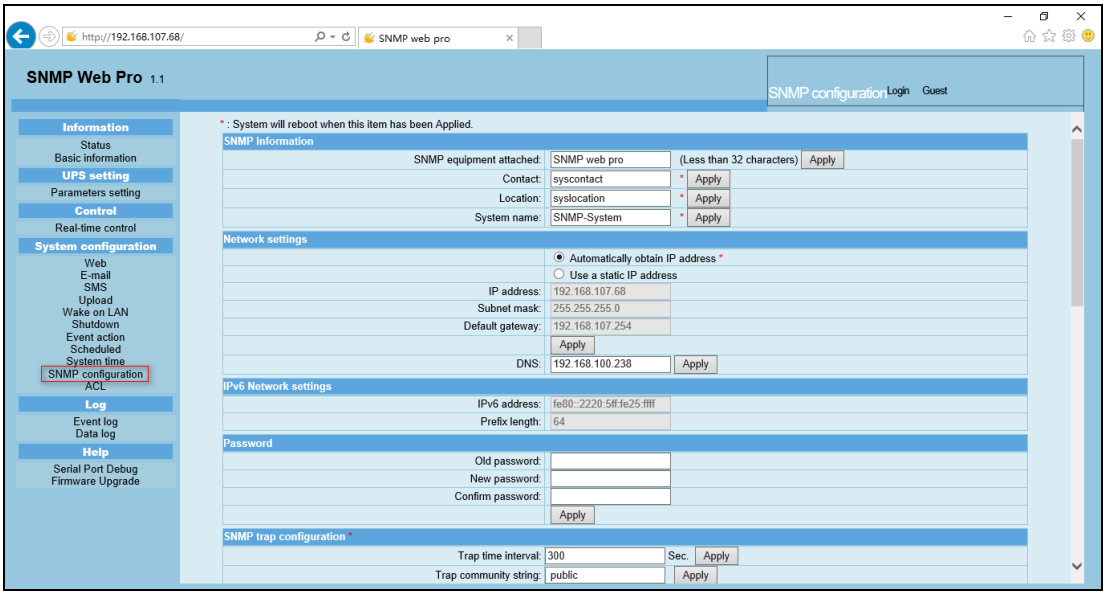


Chart 3-14 a

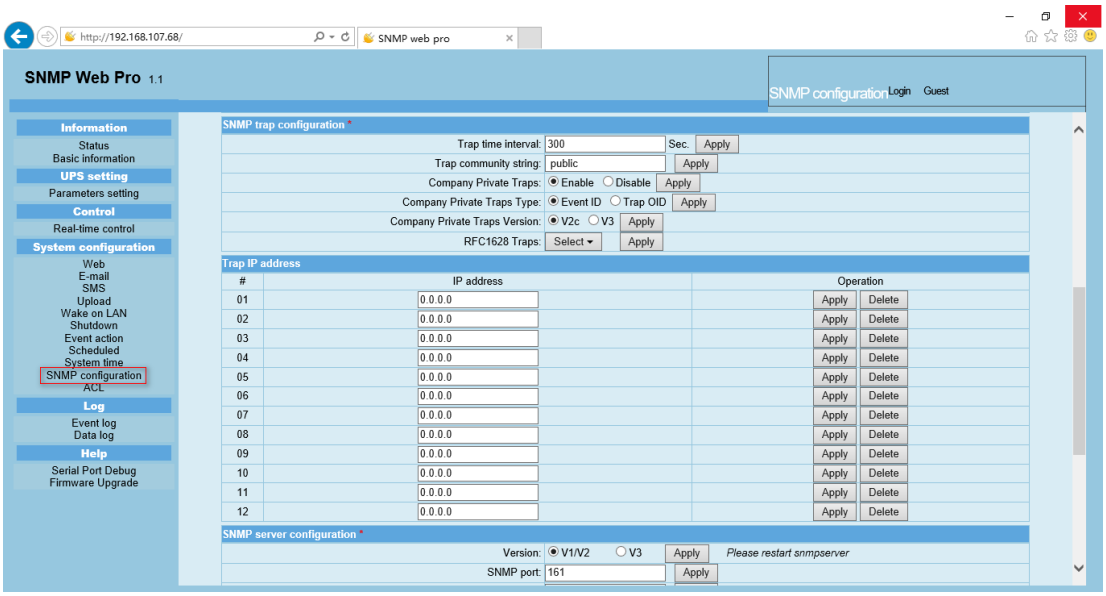


Chart 3-14 b

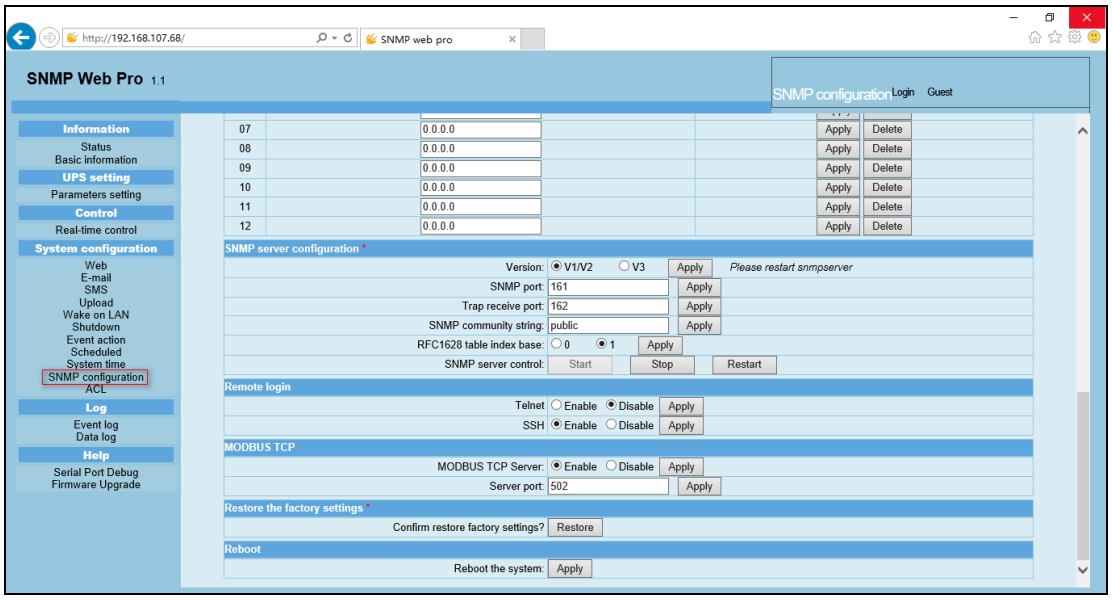
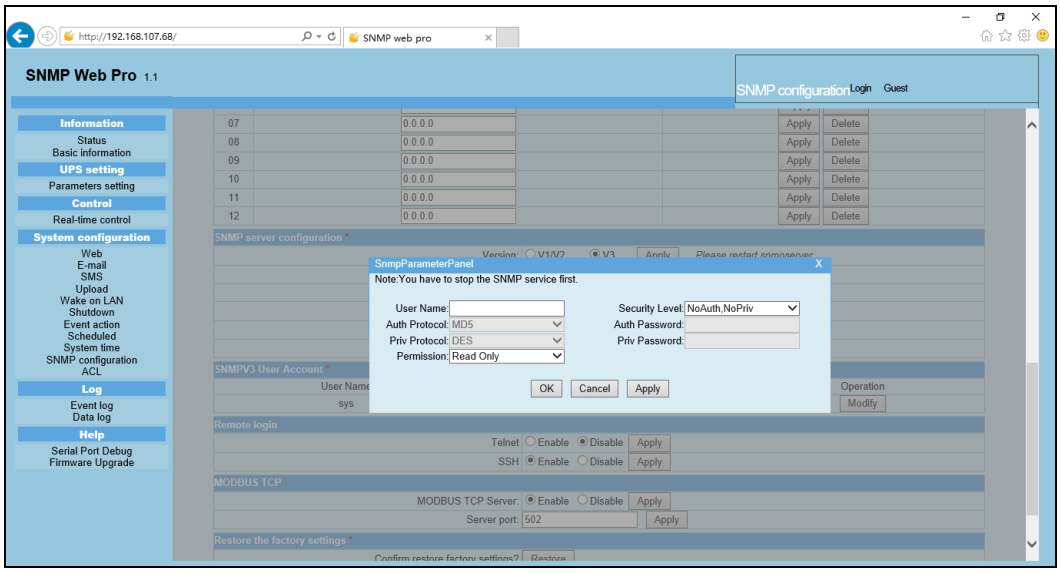


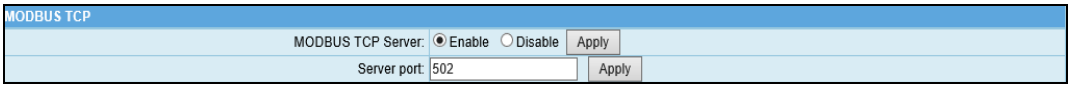
Chart 3-14 c

- IP address: There are two methods to obtain IP address
  1. Automatically obtain IP address (DHCP, default)
  2. Manually configure IP address

  The system will default 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", Net mask as "255.255.255.0" and default gateway as "0.0.0.0".
- Password: Modify the password. The length of password is 8~15 digits.
- Trap IP address: The SNMP device could provide 12 static trap addresses.
- SNMP server configuration: You may change SNMP port and trap port. You also can add SNMPV3 users by clicking "Add" button. It will pop up a screen to set up user setting such as security level and permission level. Refer to below chart.



- Remote login: Enable /Disable remote access to Telnet and SSH services.
- Modbus TCP: Before using this function, you need to enable Modbus TCP Services and set the Modbus TCP port. The default setting is 502. If you disable it, the service will be not available and the data packets of Modbus TCP will not be obtained.



Once you've configured it, you can test it using Modbus Poll or ModScan software. The data acquisition for machine parameters is required to refer to modbus register address mapping protocol. Different machine models need to refer to the corresponding protocol.

- Restore the factory settings

  Note: The system will default automatically obtain IP addresses and default Password is 12345678.
- Reboot: When clicked, SNMP Web Pro will reboot.

3.4.10. ACL

ACL is abbreviation of Access Control Lists. It's to protect internet security by identifying designated IP address to effectively control the user access for SNMP Web Pro.

Users can decide to choose which services to apply for ACL service by clicking boxes. Before clicking "Apply" button, it's necessary to enter IP address and select service type in "IP address allowed to access" column. Otherwise, any computer whose IP address is not entered and service not selected here will be blocked from firewall and not allowed to access SNMP Web Pro. Refer to Chart 3-15.

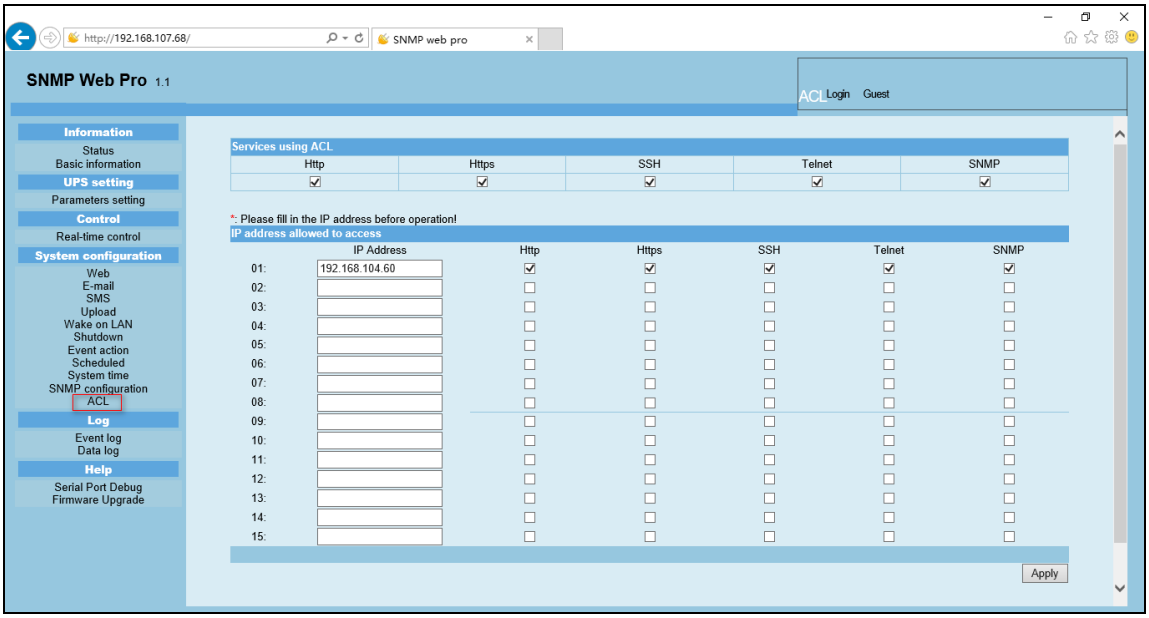


Chart 3-14

3.5. Log

3.5.1. Event log

In the Event Log page, it lists all history events and can be saved as .csv file. The event log includes UPS warnings, fault info, EMD warnings, UPS operation logs from web users or ViewPower pro users. All logs are recorded in flash memory of web card by month. It's safely recorded without loss even after power failure occurs. It can save up to over 200,000 threads. Refer to Chart 3-15.

Select Log >> Event log.

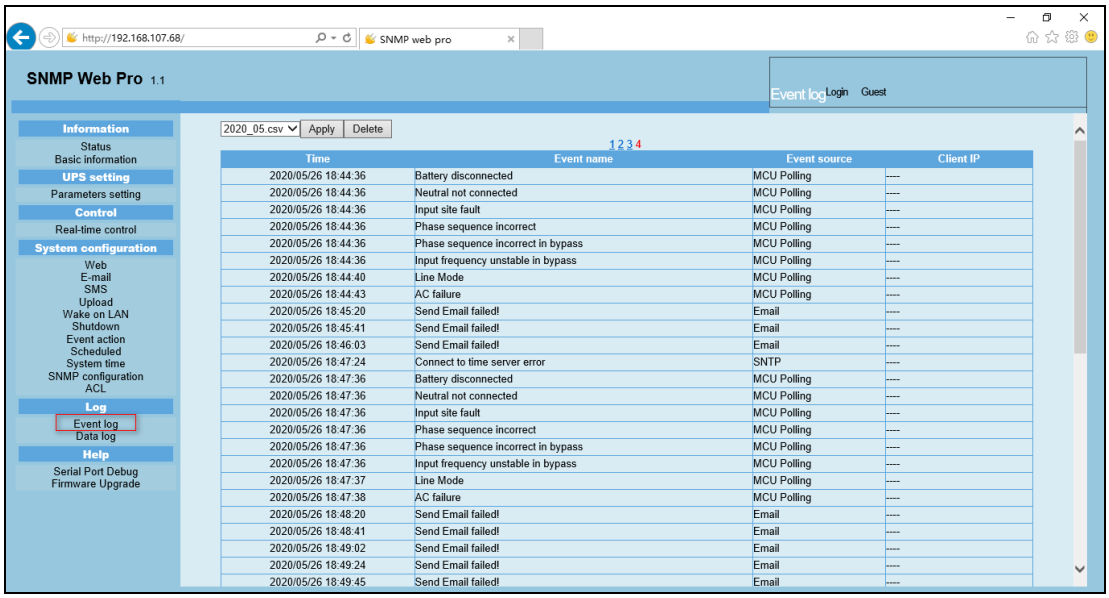


Chart 3-15

3.5.2. Data Log

In the Data Log page, it will list all history logs and can be save as .csv file. All logs are recorded in flash memory of web card by day. It's safely recorded without loss even after power failure occurs. It can save up to over 200,000 threads. Refer to Chart 3-16.

Select Log >> Data log.

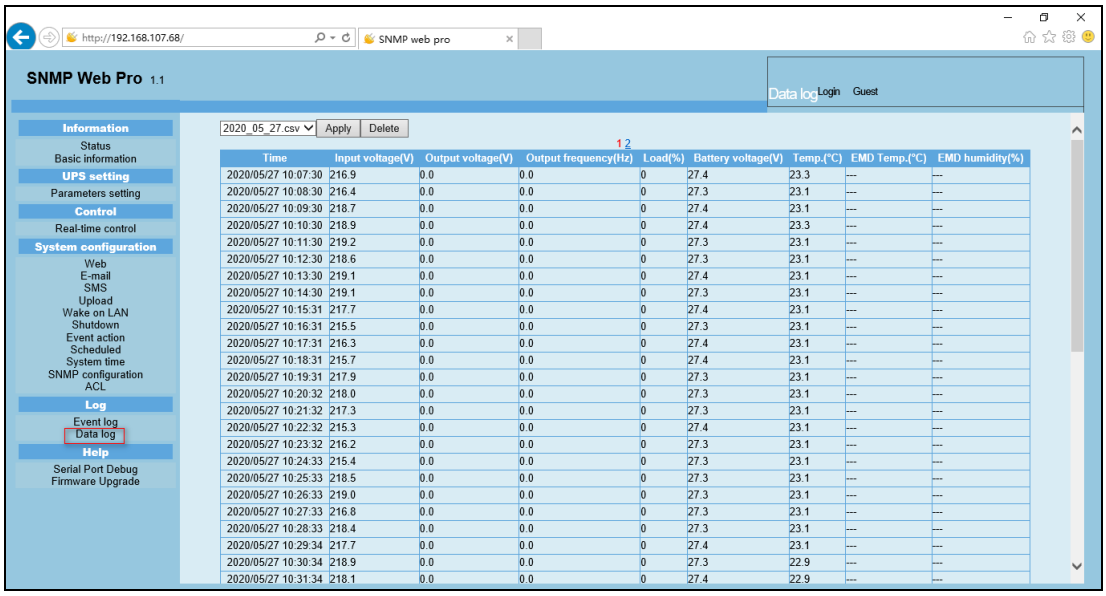


Chart 3-16

3.6. Help

3.6.1. Serial Port Debug

It's to test communication condition between SNMP card and device.

Select Help >> Serial Port Debug. Refer to Chart 3-17.

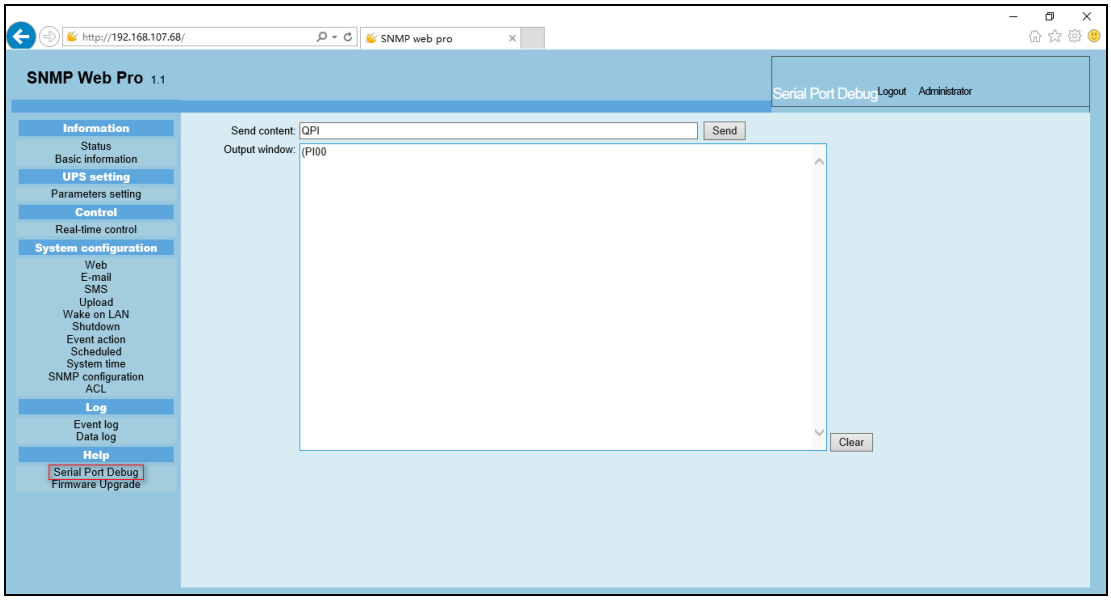


Chart 3-17

3.6.2. Firmware Upgrade

It is used to update firmware.

Select Help >> Firmware Upgrade. Refer to Chart 3-18.

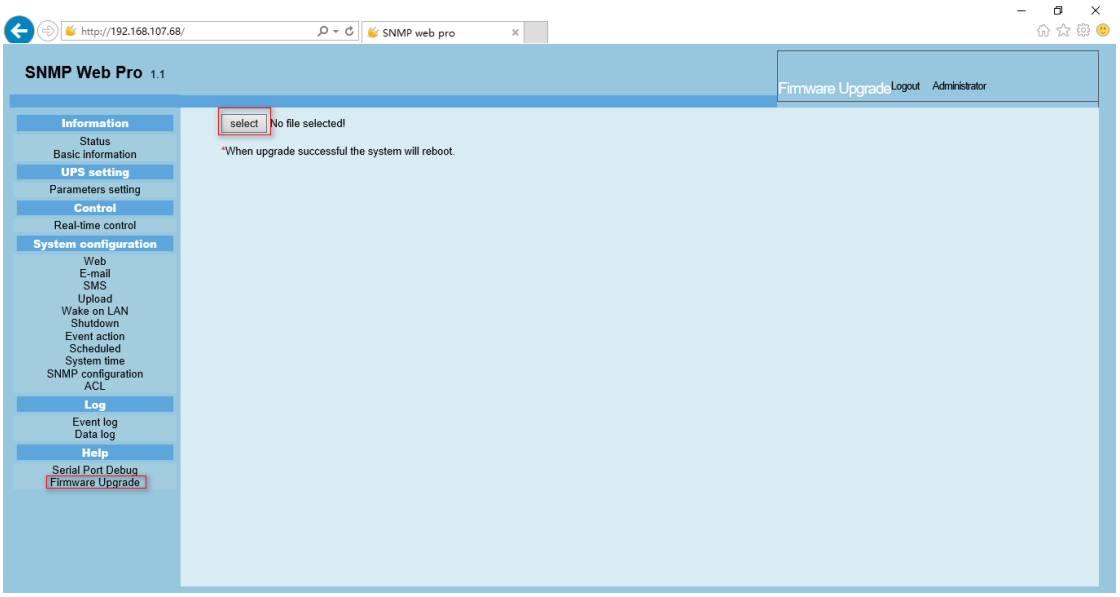

http://192.168.107.68/
SNMP web pro
SNMP Web Pro 1.1
Firmware Upgrade
Logout
Administrator
Information
Status
Basic information
UPS setting
Parameters setting
Control
Real-time control
System configuration
Web
E-mail
SMS
Upload
Wake on LAN
Shutdown
Event action
Scheduled
System time
SNMP configuration
ACL
Log
Event log
Data log
Help
Serial Port Debug
Firmware Upgrade
select
No file selected!
*When upgrade successful the system will reboot.

Chart 3-18