CHICAGO DIGITAL POWER

SNMP Web Pro

User manual

Uninterruptible power supply management software

SNMP WEB PRO

MANUAL

Management software for uninterruptible power systems

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1. General

1.1 Introduction

This software can provide a web server to monitor and manage multiple UPS's in a network environment, including LAN and Internet. It can detect temperature and humidity in the environment by connecting via EMD (Environmental Monitoring Device). The same port is also applicable for data transmission. Simply connect to an SMS modem for sending messages with RJ11 to DB9 cable.

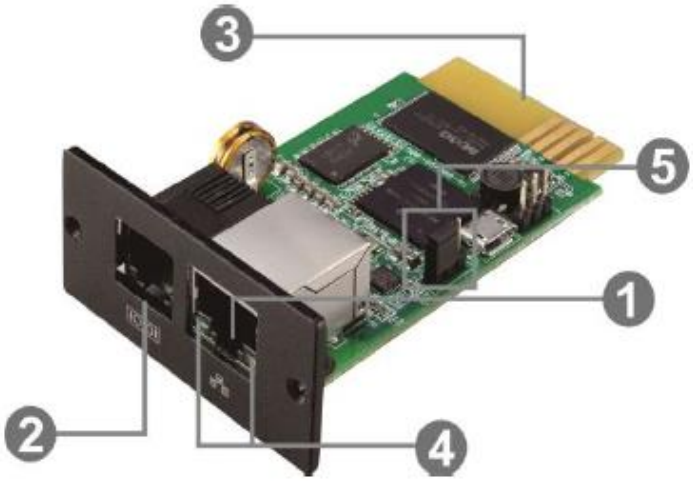
Integrated with shutdown assistant, it not only prevents data loss due to power outages and automatic shutdown of equipment, but also stores programming data and scheduled shutdown of the UPS. All UPS alerts and warnings are maintained in SNMP Web Pro.

Integrated with SNMP Web Pro software, all SNMP enabled devices can be monitored and accessed remotely on LAN and Internet. For more details, please refer to the Viewpower Pro manual.

1.2 Features

- Open monitoring via WEB
- Provides SNMP MIB for UPS monitoring
- Automatically detects and switches 10M/100M Ethernet
- Supports Wake on LAN function
- Supports TCP/IP, UDP, SNMP, SMTP, SNTP, HTTP, HTTPS, SSL, SSH, IPV4/IPV6, DHCP protocol
- Integrated with Shutdown Assistant, it can prevent data loss due to power outage and safely shut down the equipment
- Capable of recording events, more than 200,000 threats, including UPS warnings, faults and EMD warnings, operation logs of web users or Viewpower Pro users. It will be safely saved without loss even if there is a power failure.
- Supports daily reports by event and data
- UPS on/off scheduling and battery testing
- Supports EMD monitoring and SMS sending
- Equipped with real-time clock for recording date and time for 7 days without power connected

1.3 Review



1 Ethernet port.

2 Sensor port/data transmission.

3 Gold terminal: connect to UPS.

4 Network status LEDs.

5 Jumper to restore factory settings.

Network status LEDs:

100M LED (green) ON=The port is working at 100Mbit/s
OFF=The port is working at 10Mbit/s

Connection LED (yellow) FLASHING=Connection activated
OFF=The card is not connected to the network

Jumper assignment:		
# PIN	**STATUS**	**DESCRIPTION**
PIN 1 and 2	Closed	Normal operation
PIN 2 and 3	Closed	After connecting the power, the SNMP IP address and password will be will be reset to factory settings. Static IP: (192.168.102.230) Password: 12345678

NOTE: After the settings are reset, be sure to change the jumper to PIN 1 and 2 for normal operation.

1.4 Installation and Connection

Facility

If SNMP card is used, please follow the steps below for installation: Step 1: Remove the slot cover on the back of the UPS and save the screws Step 2: Insert the SNMP card and secure with the screws from step 1 (picture 1-1)



Image 1-1

Refer to picture 1-2 for SNMP connection Step 3: Insert Ethernet cable to the port (RJ-45) and into the SNMP

Step 4: Use one more Ethernet cable. Connect it to the sensor port on the SNMP card and to the optional environmental monitoring equipment.

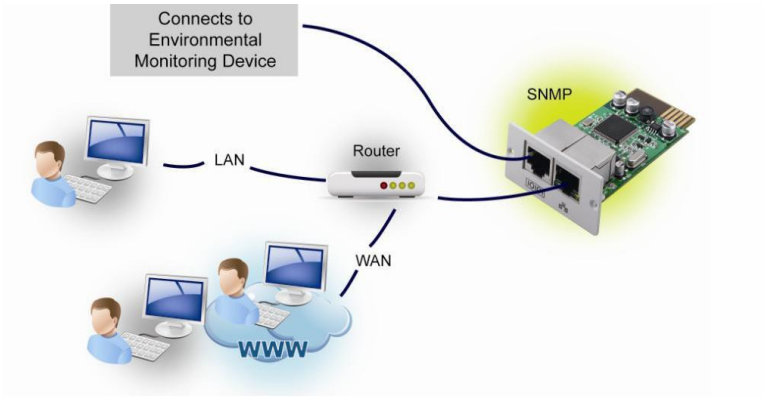


IMAGE 1-2

1.5 Configuration

1.5.1 Please install SNMP software on PC. After installation, the installer will leave a shortcut icon on your desktop.

Image 1-3

1.5.2 Enter the specific IP address to search all SNMP equipment in LAN. The SNMP manager will apply the default IP 192.168.102.230, subnet 255.255.255.0, and the default IP address 192.168.102.230. Gateway 192.168.102.1. Users can modify the IP or apply DHCP mode via SNMP web, SSH client or web manager

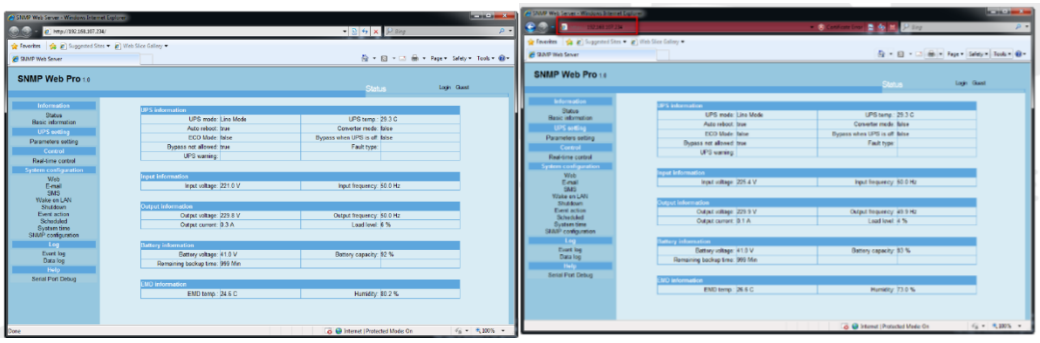
IMAGE 1-4

1.5.3 User can modify IP setting, online upgrade, password management and SNMP address. Password input is required for any modification. 12345678 Please check the user manual for detailed configuration.

1.6 Monitoring

There are 2 ways to monitor:

1. Double click the selected device in the device list (refer to Picture 1-5) to open the webpage as Picture 1-6a or just enter the address https:192.168.107.234 to enter the server directly. Refer to Picture 1-6b



2. Install Viewpower pro software to monitor SNMP. Refer to picture 1-7

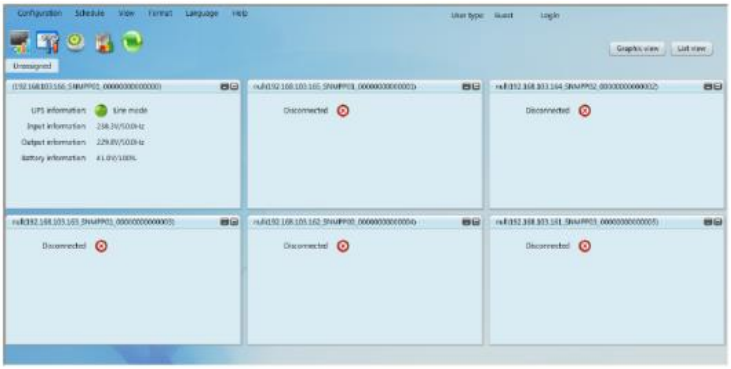


Image 1-7

2. SNMP web pro GUI

It includes function menu, input section and main screen.
Refer to Figure 2-1

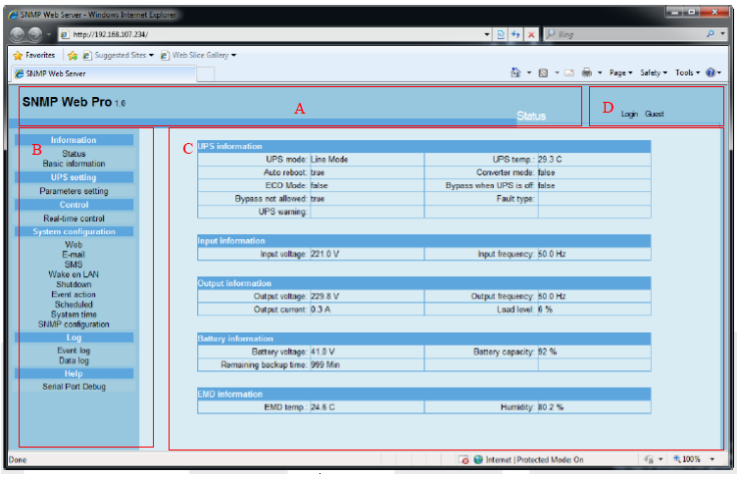


Image 2-1

1. Viewpower pro GUI version
2. Function Menu: Provides complete solution for GUI navigation and configuration
3. Main screen: It will display information and/or control alternatives according to the selected functions.
4. Login Section: Displays the user type. The administrator password is: 12345678

3. Menu

3.1 Information

3.1.1. Status

Information Selection >>> Status. Refer to Figure 3-1. Displays real-time UPS information including input, output, UPS, battery information and environmental information.

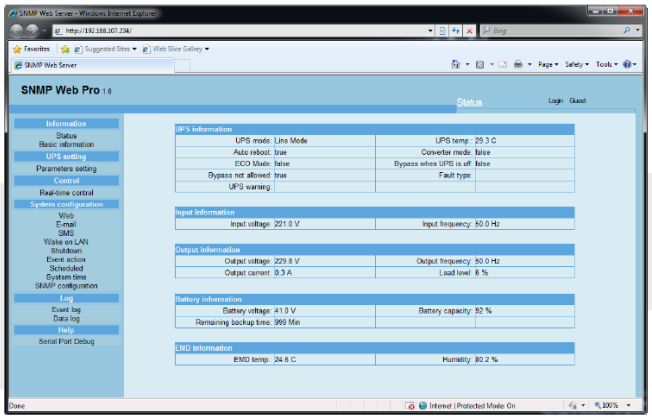


Image 3-1

3.1.2. Basic Information

Information Selection >>> Basic Information. It includes UPS basic information, battery basic information and UPS rating information. Refer to Figure 3-2

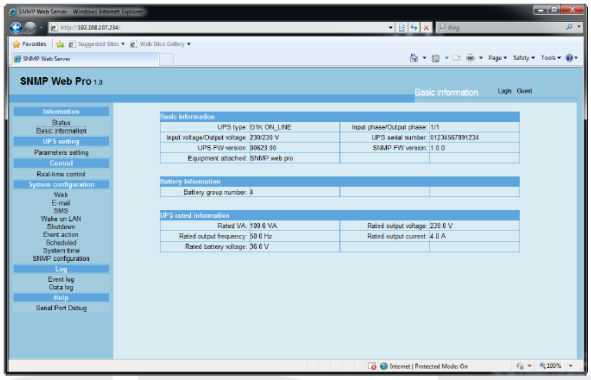


Image 3-2

3.2 UPS Configuration

3.2.1. Parameter Configuration

Some UPS functions can be adjusted and modified via software. Parameter settings include programmable contact for backup time (P1), battery number setting, voltage and frequency range for bypass mode, and voltage range setting for ECO mode.

UPS Configuration Selection >>> Parameter Setting. Refer to Picture 3-4

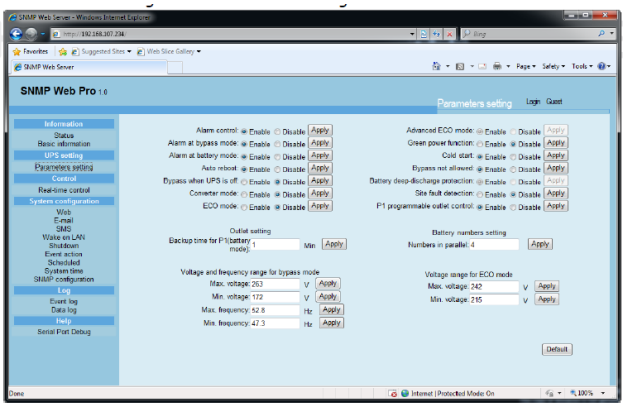


Image 3-4

NOTE: Different UPSs may access different configuration parameters

1. Select the functions by clicking “Enable” “Disable”. Change the numbers by pressing the up and down arrows or by changing the numbers directly.

2. Press Apply to save the changes. Each setting is saved by pressing “Apply” in each section
3. Press “Default” to restore factory settings

   Note: Any function that is not supported by the UPS will not be accessible.

   - Alarm Control: If enabled, the alarm will be activated and vice versa.
   - Bypass alarm: If enabled, the alarm will be activated when the UPS works in bypass mode and vice versa.
   - Battery Alarm: If disabled, the UPS will not alarm when working in battery mode and vice versa.
   - Auto Reset: If enabled, the UPS will auto recover when AC is detected and vice versa.
   - Bypass when UPS is off: If enabled, AC will directly feed the connected equipment even when the UPS is off and vice versa.
   - Converter Mode: If enabled, the UPS will work in converter mode and vice versa.

- ECO Mode: If enabled, the UPS will operate in ECO mode when the input voltage is within the acceptable range and vice versa.
- Open Battery Check: If enabled, the UPS will check whether the battery connection is correct or not when the UPS is turned on.
- Cold Start: If disabled, the UPS can only be turned on when AC is normally connected to the UPS and vice versa.
- Bypass not allowed: If enabled, the UPS will not transfer to bypass under any circumstances. If disabled, the UPS will transfer to bypass according to the UPS configuration.
- UPS Discharge Protection: If enabled, the UPS will shut down according to the battery condition and charge in battery mode and vice versa.
- Fault Detection: If enabled, the UPS will sound when the input neutral and input lines are reversed and vice versa.
- P1 Programmable: If enabled, the UPS in battery mode will cut off the P1 contact after the programmed backup time. If disabled, the UPS will continue to provide power to P1 until the battery is depleted.
- Contact Setting: User can program backup time for P1 contacts when UPS is in battery mode.
- Battery number setting: Set number of batteries in parallel Voltage and
- frequency range in bypass mode: Set voltage and frequency range in bypass mode.
    - either Maximum and minimum voltage: When the UPS is in bypass and the input voltage is out of range, the UPS will enter battery mode. Maximum and
    - either minimum frequency: When the UPS is in bypass and the frequency is out of range, the UPS will enter battery mode.
- Voltage Range for ECO Mode: Voltage range setting for ECO mode.

3.3 Control

3.3.1. Real-time control

Control Selection >>> Real-time control. Refer to Figure 3-5

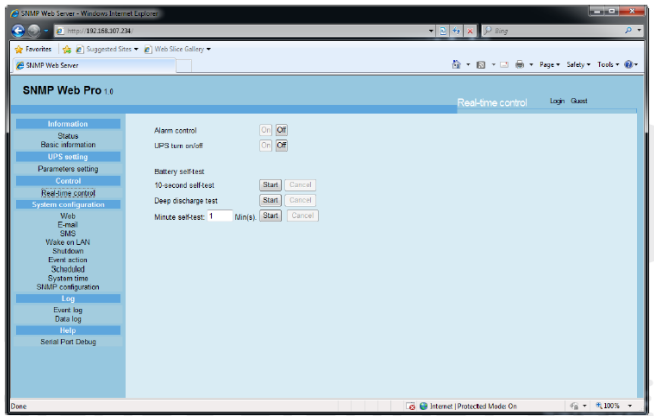


Image 3-5

You can monitor the UPS in real time by performing the following operation:

- UPS On/Off: Press “On” to turn on the UPS and “Off” to turn off the UPS immediately.
- Battery Self Test: Provides three types of tests: 10 seconds self test, discharge test, definition self test. Just press “Start” for each type. It will run the self test immediately.

3.4 System Configuration

3.4.1 Web User

Set the authorization to access SNMP. Please enter the login ID and password in each column. There is no limit for access control in the factory setting. It is also allowed to modify http and https. The factory setting is 80 for http and 443 for https. If any modification, such as adding web users, deleting web users or reconfiguring port, it is necessary to press the “Restart web server” button and activate the modifications. Refer to Figure 3-6

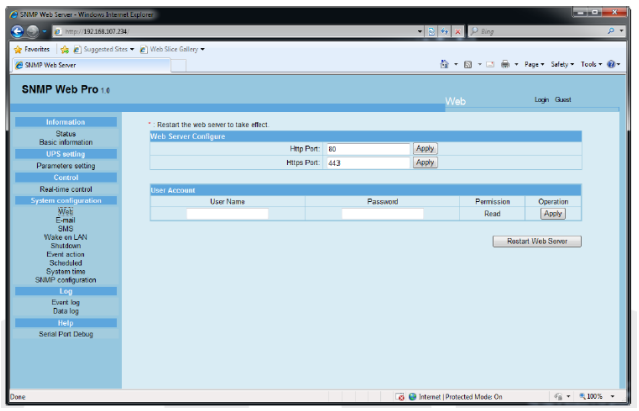


Image 3-6

3.4.2. E-MAIL

Allows sending alarm email via SMTP server. To use this function, the email service must be properly configured. All values on this function page are empty by default. This action cannot be executed without the SMTP information, email account and password. In addition, the outgoing account must be allowed for SMTP/POP3.

Select system setting>>> E-mail. Refer to picture 3-7

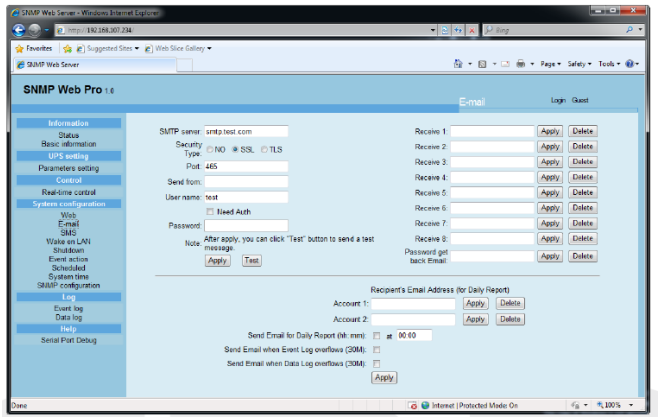


Image 3-7

1. Enter SMTP server, security type (SMTP encryption supported), SMTP port, sender address, username and password. Click “Auto Require” for password validation.

2. Enter email accounts in the Inbox list. Then press “Apply” to add to the list. Click “Delete” to delete account.

3. Click “Apply” to save changes. The “Test” button can be used to send a test email to all recipients to confirm the operation. When received successfully, a successful delivery pop-up will be highlighted, otherwise the message will be an error.

4. You can decide who will receive a daily report during a specific period. Please enter the email and time in columns. Then press “Apply” to set this action. You can also set who will receive the alarms when the log exceeds 100 or the logs exceed 50.

3.4.3. SMS

- Sending SMS by server
  Available service software, such as Viewpower Pro, is required. In the event of an alarm, a UPS status message will be sent to the specified telephone users. Refer to Figure 3-8b
- Sending SMS via serial port
  EMD port is used for data transmission to send SMS without any software service. Please set the GSM modem to 9600 and then connect the SNMP data transmission port to the modem with RJ-11 to DB9. Refer to Picture 3-8a.

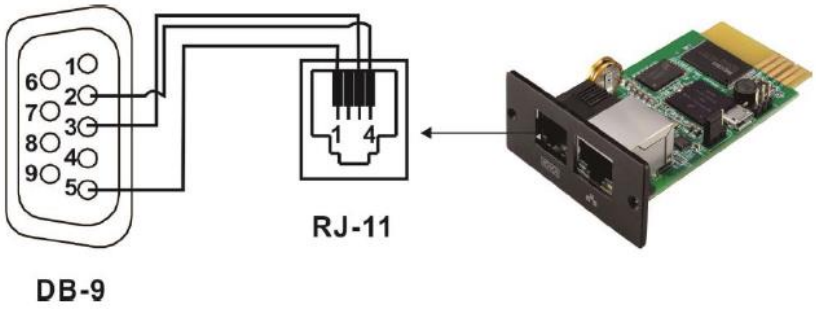


Image 3-8a

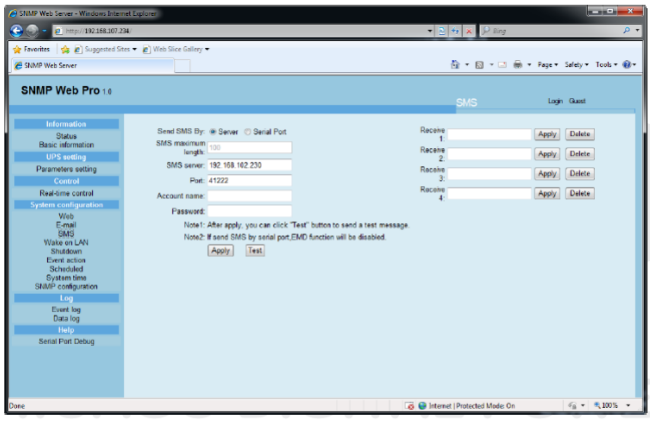


Image 3-8b

3.4.4. Booting on LAN

It is to remotely turn on specific PCs on LAN when the PCs have “Wake-On-Lan” support.

Select System Configuration >>> Boot on LAN. Refer to Figure 3-9

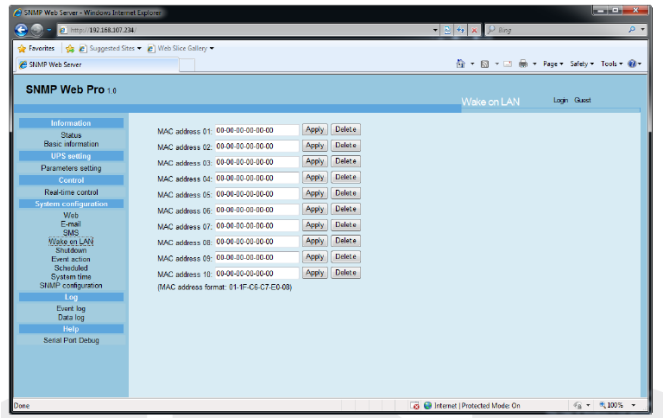


Image 3-9

After the MAC address is entered into the PCs, remote access will be allowed to control them. However, hardware is also required to implement this feature on the PCs.

3.4.5. Shutdown

It is the remote shutdown of PCs with Shutdown Wizard software. This function is only available with the software. Please read the user manual for more details.

Select System Settings >>> Power Off. refer to picture 3-10

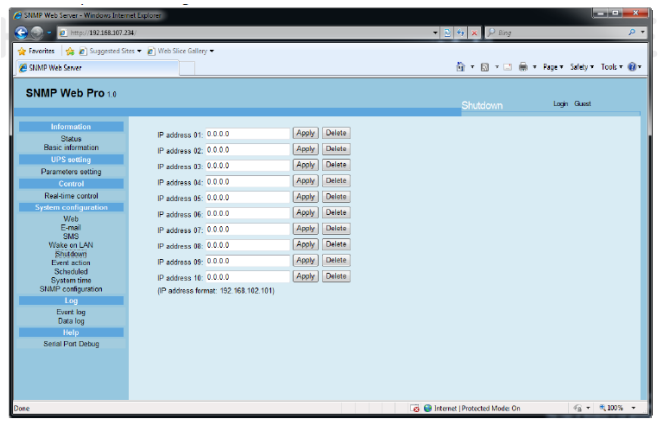


Image 3-10

3.4.6. Event Action

This feature is only available with Shutdown Wizard software. Please read the user manual for more details.

Select System Configuration >>> Event Action. Refer to Figure 3-11

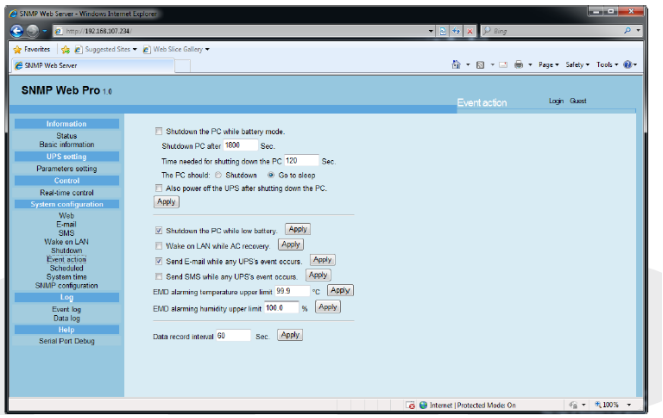


Image 3-11

- PC Shutdown in Battery Mode: When selected, integrated with Shutdown Wizard, the local PC will be shut down while the UPS is in battery mode.
- Time required for PC shutdown: Enter the delay time for system shutdown

- The PC must:
  - either Shutdown: When this option is selected, the selected system will be shut down. The system will select the default option.
  - either Sleep Mode: The system will be suspended instead of normal shutdown. But this function is supported by Windows 2000 or above.
- Also turn off UPS when PC shuts down: The UPS will be monitored after the system shuts down. The UPS shutdown time will be longer until the PC shuts down. User can choose to shut down the system without turning off the UPS.
- Output contacts shutdown after xx seconds: It will cut off the UPS output power after the UPS works in battery mode for xx seconds.
- PC Shutdown on Low Battery: The local PC will shut down when the monitored UPS reaches low battery.
- Boot to LAN when AC is restored: Local PC will power on when AC is restored

- Send email with any event on the UPS: An email will be sent with the alarm with any event that occurred on the UPS.

- Sending SMS with any UPS event: On any event occurring, a message about the UPS status will be sent to the specified user via cell phone
- EMD Temperature Alarm: Set alarm for high temperature. If temperature higher than limit is detected, alarm message will be sent
- Interval xx seconds per data record: Data record every xx seconds

3.4.7. Programming

Select System Settings >>> Programming. Refer to Image 3-12

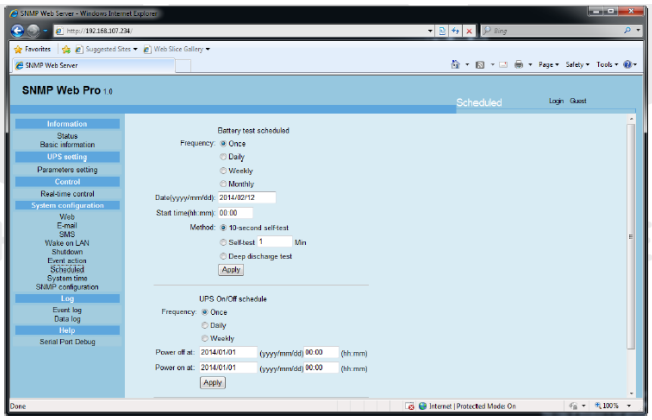


Image 3-12

- Battery Test Scheduling: It can be run once, daily, weekly or monthly. User can select UPS and its parameters. It is recommended to
  set only one parameter at a time. If multiple actions are applied at the same time, some actions may be ignored. Any actions will be ignored when the actions are not supported by the UPS.
- UPS On/Off Scheduling: It can be executed once, daily, weekly or monthly. User can select UPS and time parameters. It is recommended to set only one parameter at a time. If multiple actions are applied at the same time, some actions may be ignored. Any action will be ignored when the actions are not supported by the UPS.

3.4.8. System Time

Select System Settings >>> System Time. Refer to picture 3-13

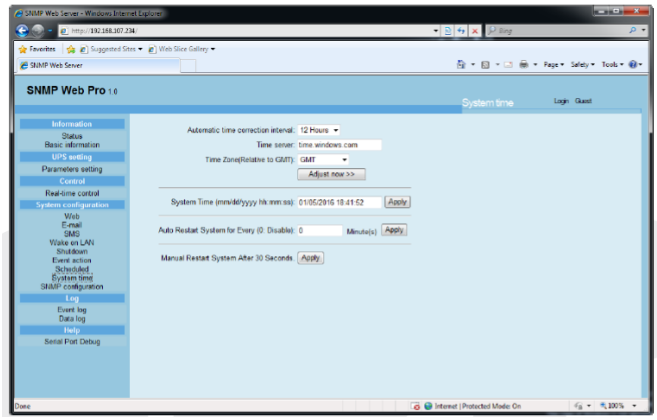


Image 3-13

- Automatic time interval correction
- Server Time: The IP address of the SNTP server or domain name Time
- Zone (Relative to GMT): The measurement is made relative to GMT
- System Time (mm/dd/yy, hh:mm:ss): It is to set the local time on the SNMP server

- System reboot every: xx minute(s) (0: disabled)
- Manual system reboot after 30 seconds: When “Apply” is selected, SNMP will reboot after 30 seconds

3.4.9 SNMP Configuration

Basic configuration of SNMP web pro, such as IP address, password, SNMP UDP port, add/delete SNMPv3 user account and restore factory settings

NOTE: Some modifications require a restart of the SNMP server to take effect.

Select System Configuration >>> SNMP Configuration. Refer to Figure 3-14 a and 3-14 b

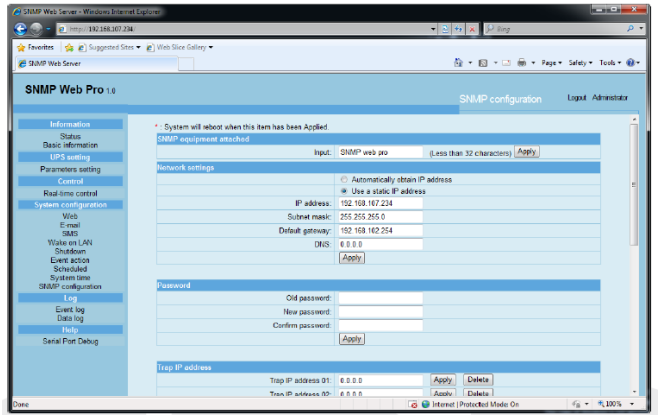


Image 3-14a

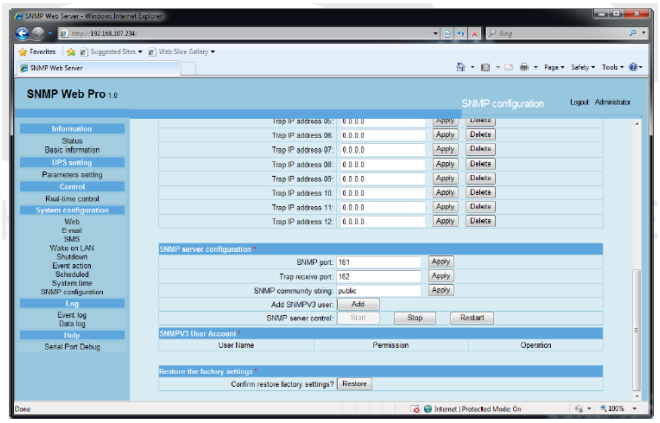


Image 3-14b

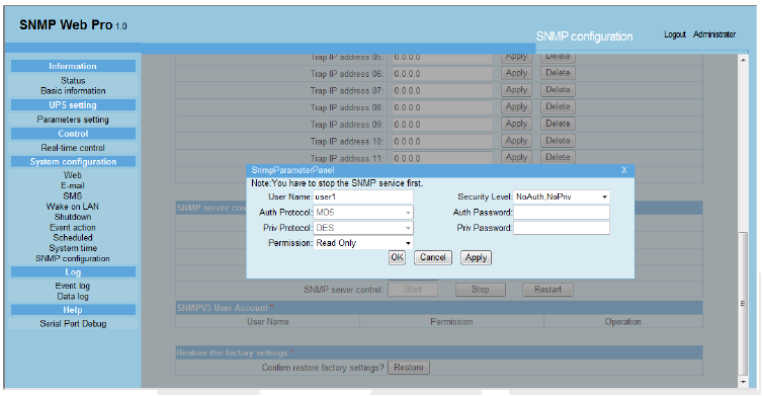
-IP Address: There are 2 methods to obtain the IP address either

Obtain IP address automatically (default DHCP)

either Manual IP address configuration

The system will automatically obtain the IP address. If this service does not exist in the LAN, the default IP address will be “192.168.102.230”, the subnet mask “255.255.255.0” and the Gateway “0.0.0.0”

- Password: Change password. Maximum 8-15 digits. Trap IP Address: SNMP can
- provide up to 12 trap addresses. SNMP Server Configuration: You can change the
- SNMP port or trap port. You can add SNMPv3 user by clicking “Add”. A pop-up menu will appear for security settings and permission levels. Refer to image:



- Reset to factory settings:
  Note: The factory setting will automatically obtain the IP address and password is: 12345678

3.5 Registration

3.5.1 Event Log

In the event log page, the event history is listed and can be saved as .csv. The log includes warnings, fault information, EMD warnings, UPS operation from web users or Viewpower pro users. All the logs are saved in a flash memory per month. It can save without loss even in power failure. It can save up to 200,000 threats. Refer to Picture 3-15

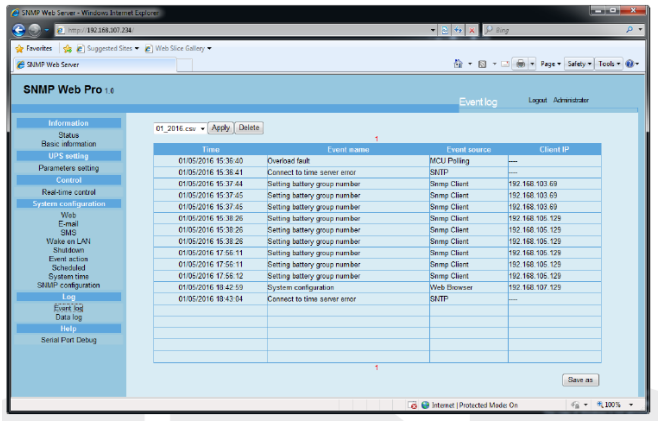


Image 3-15

3.5.2 Data logging

On the data log page, the historical logs will be listed and can be saved as . csv. All logs are saved in a flash drive per day. You can save up to
200,000 threats.

Select Record >>> Data Record. Refer to Image 3-16

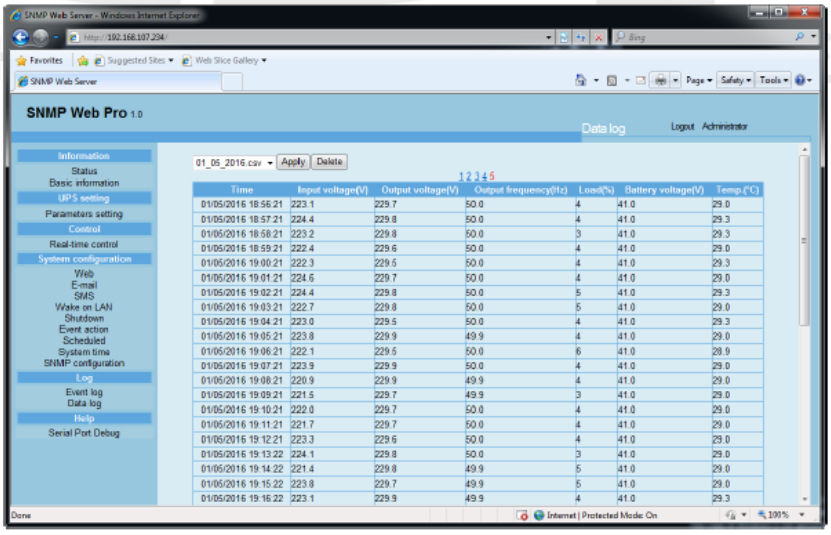


Image 3-16

3.6 Help

3.6.1 Serial Port Debugging

It is for communication test between SNMP and the equipment. Select Log >>> Event Log. Refer to image 3-17

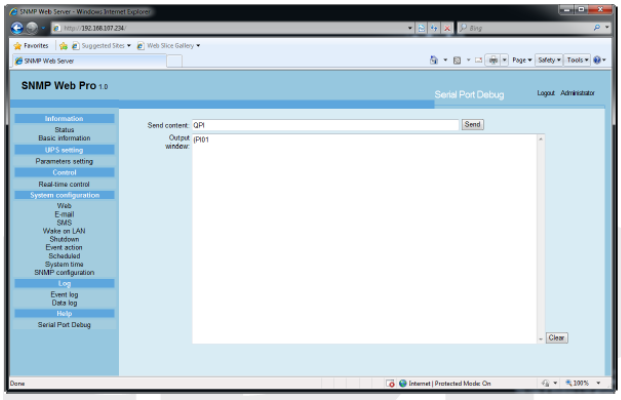


Image 3-17