

ENGLISH

**MONITORING SOFTWARE FOR UPS
UPS WITH LAN INTERFACE
USER MANUAL**

NOTE:

**THIS MANUAL & SOFTWARE IS VALID ONLY FOR UPS MONITORED BY
LAN CARD (SNMP).
NOT VALID FOR UPS COMMUNICATED BY USB or RS232 PORTS SINCE
THE SOFTWARE TO BE USED IS DIFFERENT.**

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1. OVERVIEW.

MONITORING SOFTWARE:

Viewpower-PRO is an advanced UPS management software which is perfect for professional UPS monitoring. It can monitor and manage one to multiple UPSs in a networked environment including LAN, INTERNET and RS485 based networks. Monitoring can be performed by multiple PCs from the network. Each UPS must have its own SNMP LAN card connected to the network. Viewpower PRO software must be installed in every PC used for monitoring and control purposes.

Main software features:

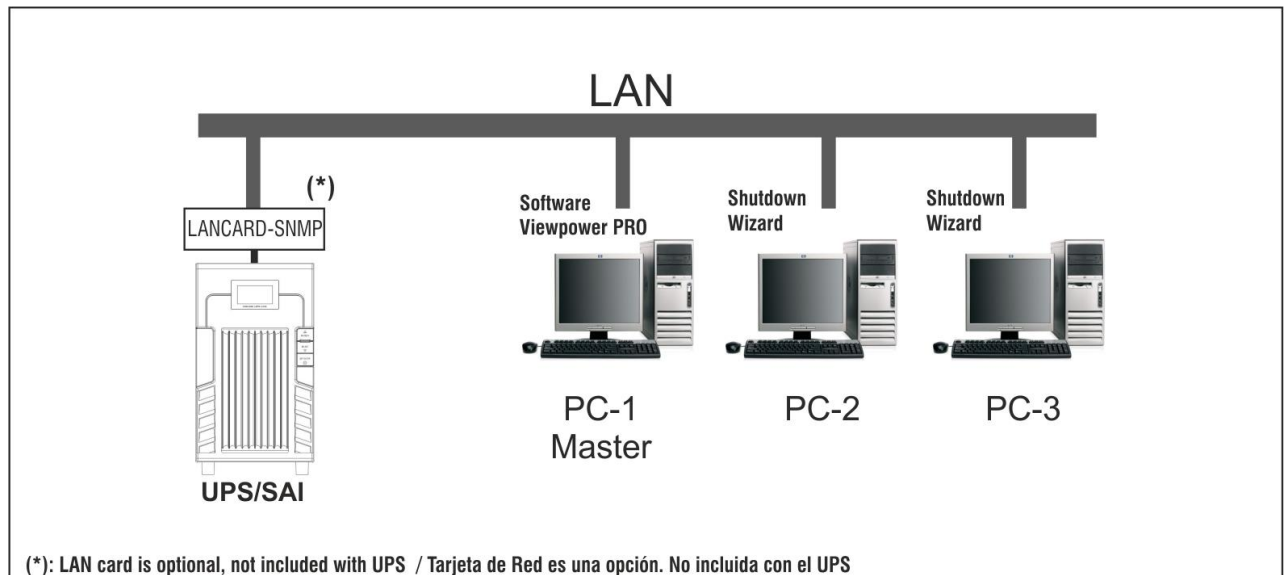
- Control and monitor up to 1000 UPS on the network
- Log events and data
- Broadcasting of alarms and messages as SMS or emails
- Scheduled actions as power-off/power-on, battery tests, wake-on LAN
- Automatic shutdown/sleep for PC on the network

SHUTDOWN SOFTWARE:

Shutdown Wizard is a separated software module that must be installed in each PC required to receive remote shutdown commands generated by UPS events. In those PC required to ONLY be shutdown remotely there is no need to install Viewpower PRO. Only Shutdown Wizard is required. Shutdown Wizard will receive remote shutdown command from other PC (named Master) with Viewpower PRO configured for sending remote commands to specific IP addresses.

NOTE:

For additional information about remote PC shutdown and UPS shutdown, we suggest to revise carefully ANNEX-1 and section LOAD CONFIGURATION and EVENT ACTION of this manual.



2. VIEWPOWER PRO INSTALL AND UNINSTALL.

2.1. SYSTEM REQUIREMENT.

- 1 GB RAM memory at least (2 GB is recommended).
- 2 GB hard disk space at least.
- Administrator authority is required.
- More than 16bit 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 at the moment this manual was printed:
 - Windows 2000
 - Windows XP/2003/Vista/2008 (32bit & x64bit)
 - Windows 7 (32bit & x64bit)
 - Windows SBS 2011
 - Linux RedHat 8, 9
 - Linux RedHat Enterprise AS3, AS5, AS6 (32bit)
 - Linux RedHat Enterprise AS6 (64bit)
 - Linux RedHat Enterprise 5.2 (32bit & 64bit)
 - Linux SUSE 10 (32bit & 64bit)
 - Linux Cent OS 5.4 (32bit)
 - Linux Ubuntu 8.X, 9.X, 10.X (32bit)
 - Linux Ubuntu 10.X (64bit)
 - Linux Ubuntu 12.04 (32bit & 64bit)
 - Linux Fedora 5
 - Linux Open SUSE 11.2 (32bit & 64bit)
 - Linux Debian 5.x, 6.x (32bit)
 - Linux Debian 6.x (64bit)
 - Mac OS 10.6 (x64bit)
 - Mac OS 10.7 (x64bit)
 - Solaris 10 for x86 (32bit)

XMART keeps working to assure compatibility of all of our software with new OS released in the market. In case of doubts, please check with your XMART distributor to know the updated compatibility list.

2.2. SOFTWARE INSTALLATION

NOTE:

Before installing Viewpower-PRO in the PC, we strongly recommend to uninstall all other UPS monitoring software. Some other UPS software can affect normal operation of the Viewpower-PRO because they could be using same communication ports (for example 161 and 162). In case of ports conflict, we suggest to revise ANNEX-3 of this manual.

VIEWPOWER PRO

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.

It will show the Installation menu offering installation options for 2 software modules:

- **Viewpower PRO: (required for monitoring and control UPS from each PC)**
- **Shutdown Wizard (required to shutdown PC)**
- **Exit**

After clicking install, it will display the installation in process. Follow instructions during installation.

SHUTDOWN WIZARD

From CD, search for Shutdown Wizard directory for your Operating System. Find executable file and double click.

**You can also download more updated software from our web: www.xmart-ups.com.
Software files are in compress format (ZIP).**

2.3. SOFTWARE UNINSTALL

VIEWPOWER PRO

Please choose Start> All Programs> ViewPower-Pro> Uninstall. Then follow the onscreen 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.

SHUTDOWN WIZARD

Find directory where Shutdown Wizard was installed and run uninstall file. By default, this software is installed in **C:\Shutdown Wizard**

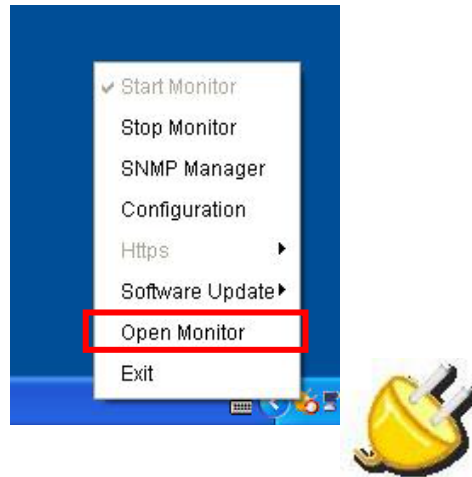
To be uninstall Shutdown service must be stopped. From windows service can be stopped from task manager (WinShutdownService) or from system prompt **cmd.exe** (as administrator) by command:

```
C:\WINDOWS\system32>sc stop winshutdownservice
```

3. SERVICE TRAY APPLICATION.

After installation of the Viewpower PRO, 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 Graphic User Interface (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. This command ONLY can be done if software is running as administrator in your operating system. If software is running without administrator authorization, this command will not work.

If you need to stop monitor service you can go to task manager to find the service named “upsProMonitor” to stop it.

3.3. OPEN MONITOR

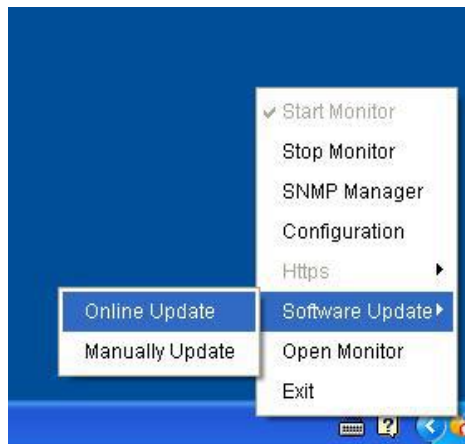
Monitor service runs in background. To open the graphic interface user must click “Open Monitor” to open monitoring GUI.

3.4. SNMP MANAGER

SNMP Manager is a plugging utility for ViewPower Pro to search and operate all SNMP devices in the LAN. This is a tool for service personnel or trained personnel. It is used for detecting UPS LAN card when Viewpower PRO cannot detect it. SNMP manager is also used for changing type of IP assigned to LAN card, for example from static to dynamic or from dynamic to static. To get more detailed information about SNMP Manager revise Annex 1 of this manual.

3.5. SOFTWARE UPDATE

Software update includes Online Update and Manually Update.



However, we strongly suggest to do all updates by checking if there is a new version in our web: www.xmart-ups.com. In that case, uninstall old version from your PC, download new version and install it.

3.6. EXIT

Click “Exit” to exit service application. Monitor service will continue working in background so any UPS event will be registered and attended according to configuration.

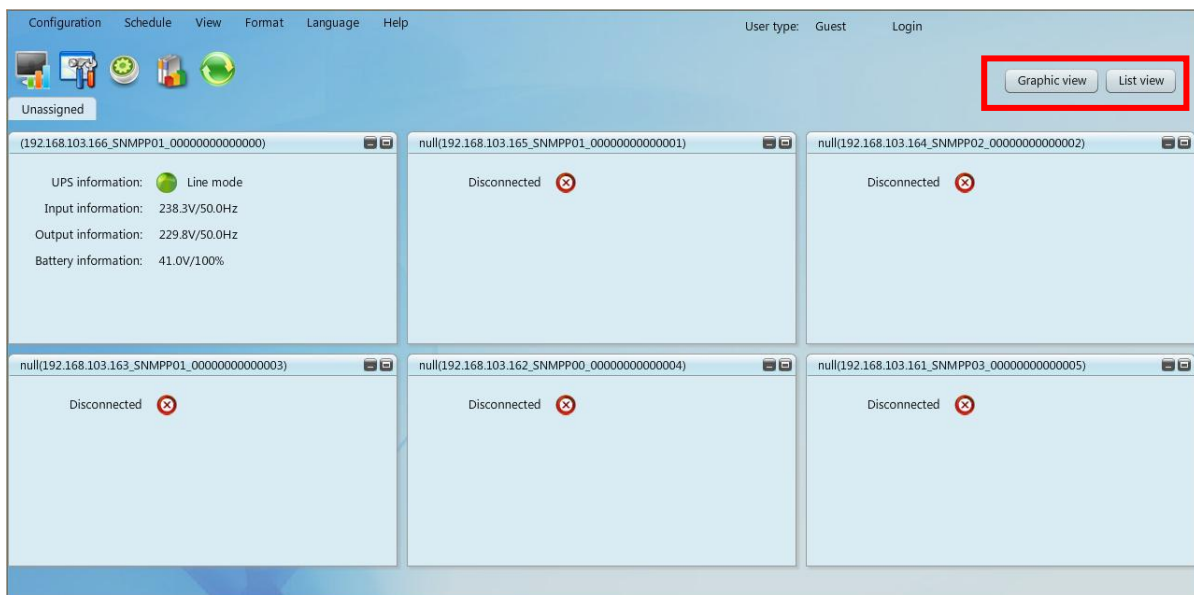
4. VIEWPOWER-PRO: GRAPHIC USER INTERFACE (GUI)

Viewpower Pro GUI allows user to monitor and control all UPS connected in the network.

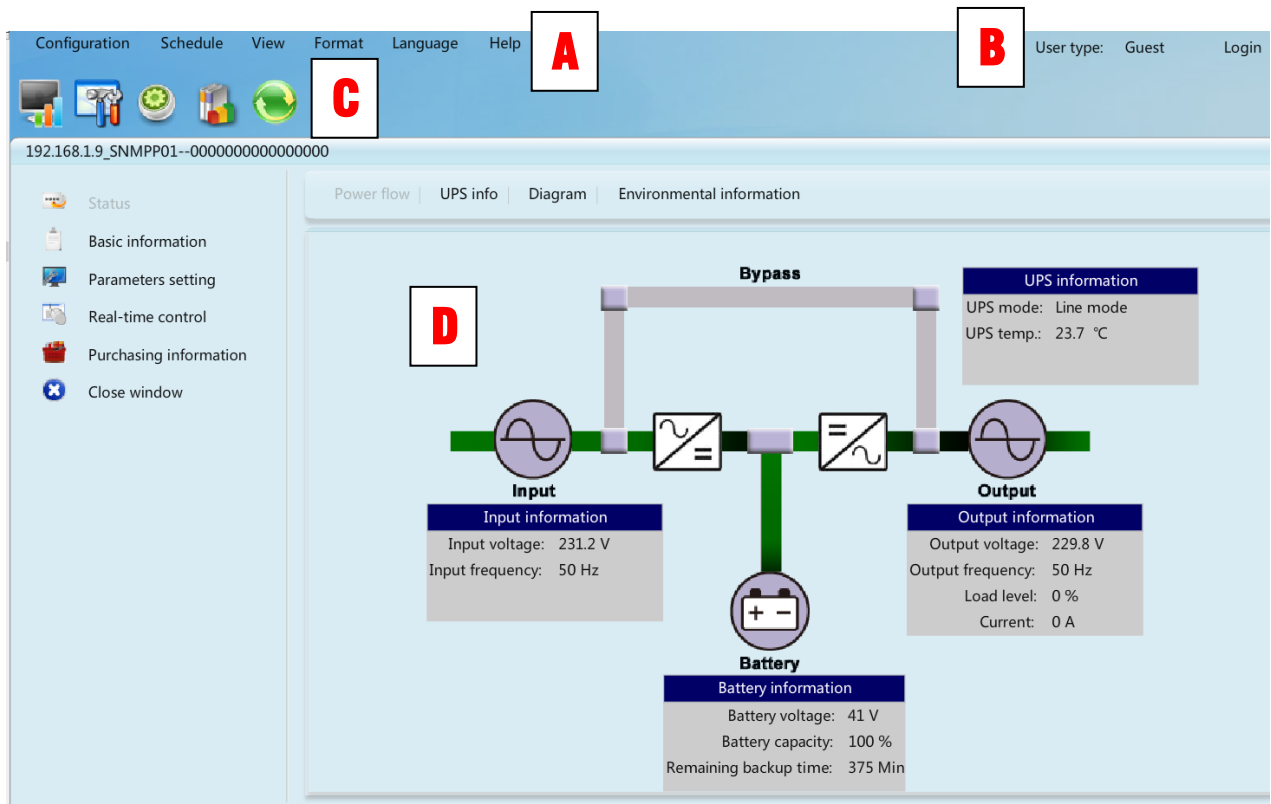
GUI also allows to configure actions to be taken on required PCs connected to UPS for each kind of UPS event. For example, user can configure shutdown commands to be sent to PC based on an event detected by UPS like an AC FAILURE state.

When OPEN MONITOR command is executed by right clicking on Task-bar icon, GUI opens in the default navigator. GUI shows in panel form all current and past UPS monitored in this network. Available UPS marked with green circle and not available UPS with red "X".

GUI also can present all UPS in list format by clicking LIST VIEW key on right-upper of the screen

[illegible]

For selecting one of the available UPS, user just need to double click on green circle. At that moment, GUI will open a monitoring screen based on power path format:



- A. **Function Menu:** It offers complete toolset for navigation and setting the GUI.
- B. **Login section:** It shows user type for current login user. Administrator or Guest.
To login as administrator, press login key to introduce password: "**administrator**"

C. **Shortcut buttons:**



Monitoring.



Configuration



Scheduled start/stop UPS functions, Scheduled Battery tests and Wake on LAN schedule.



Event and data logs.



Refresh screen

- D. **Main Screen:** It displays information according to selected function.

4.1 STATUS

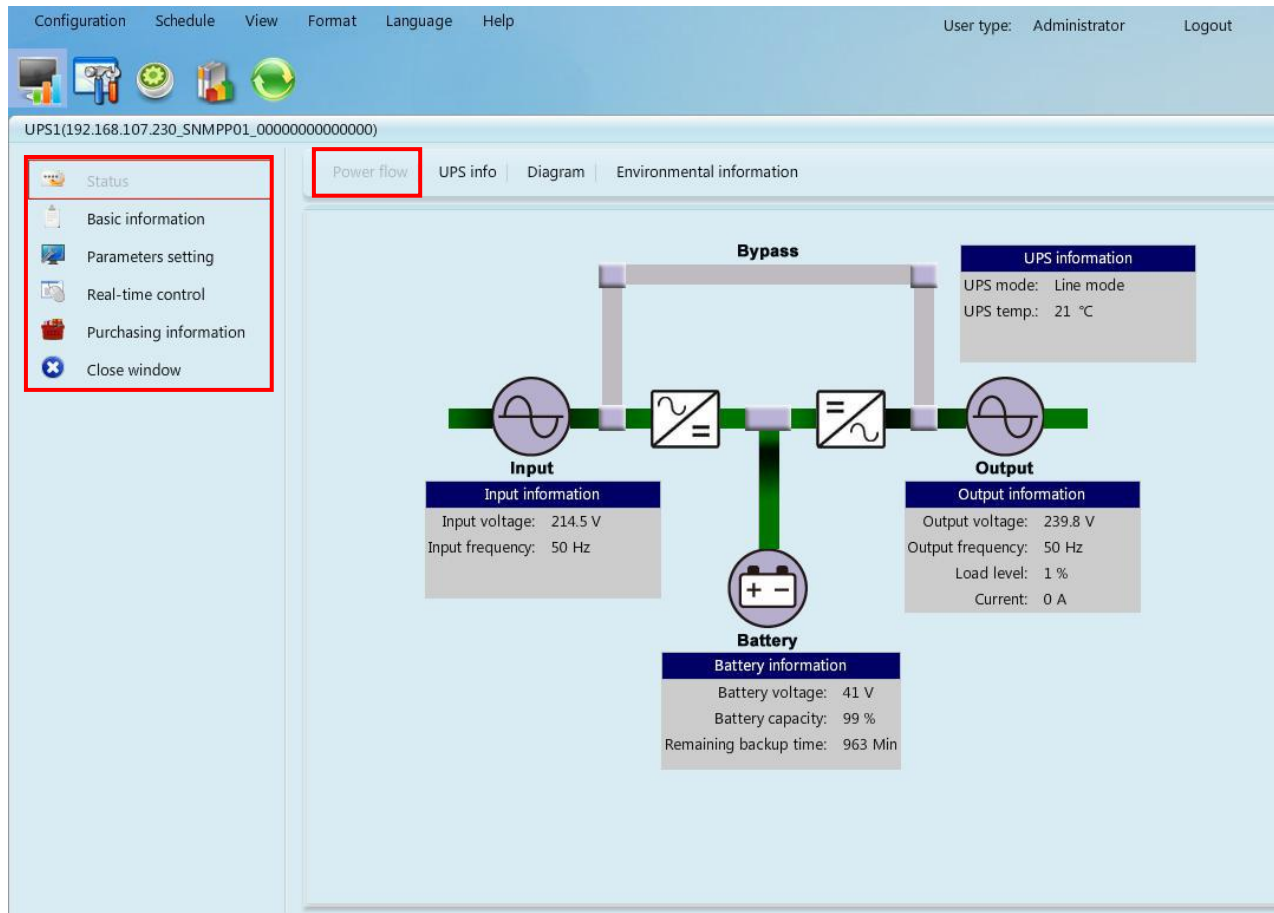
This screen allows full UPS monitoring: Input / Output and battery information.

This section can be accessed by click on the icon:



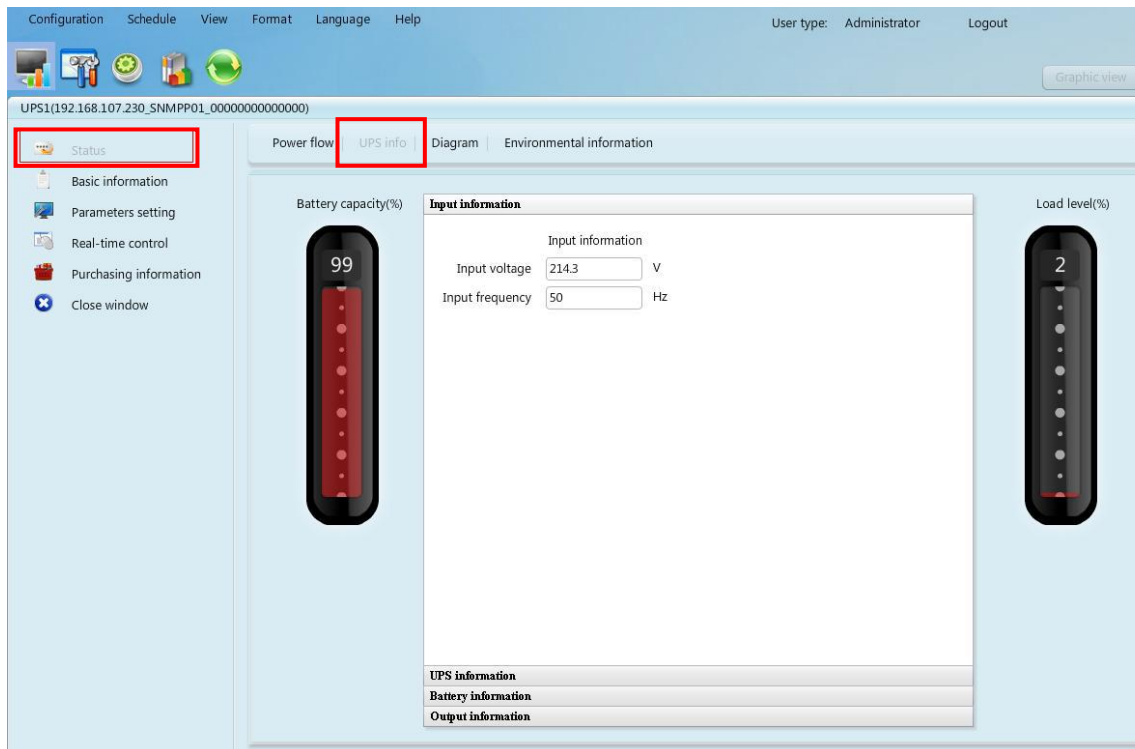
This information can be presented in different formats. Formats can be selected by clicking on vertical left menu.

STATUS – POWER FLOW CHART:

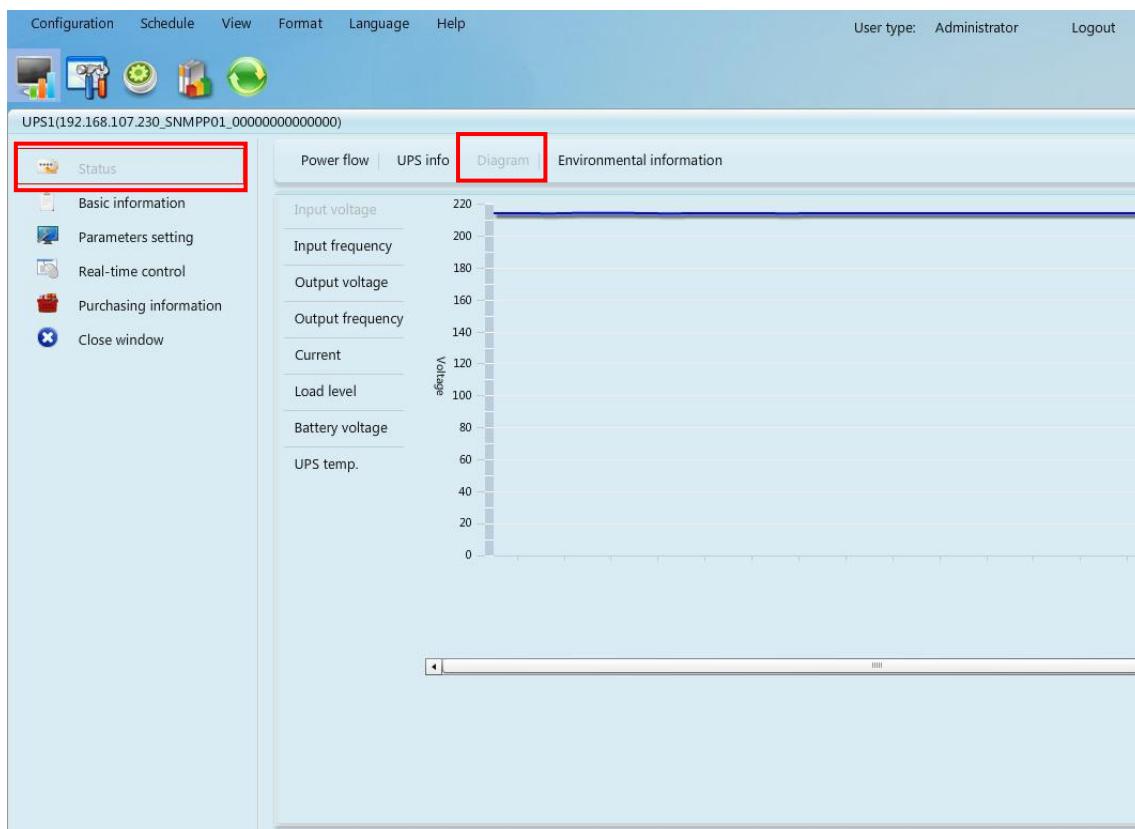


- Green flow indicates energy paths used under current mode.
- Grey bar means energy paths not used in current state.
- Input information includes input voltage and input frequency.
- Output information includes output voltage, output frequency, load level, and output current.
- UPS information includes UPS operation mode and UPS temperature.
- Battery information includes battery voltage, battery capacity and remaining backup time.

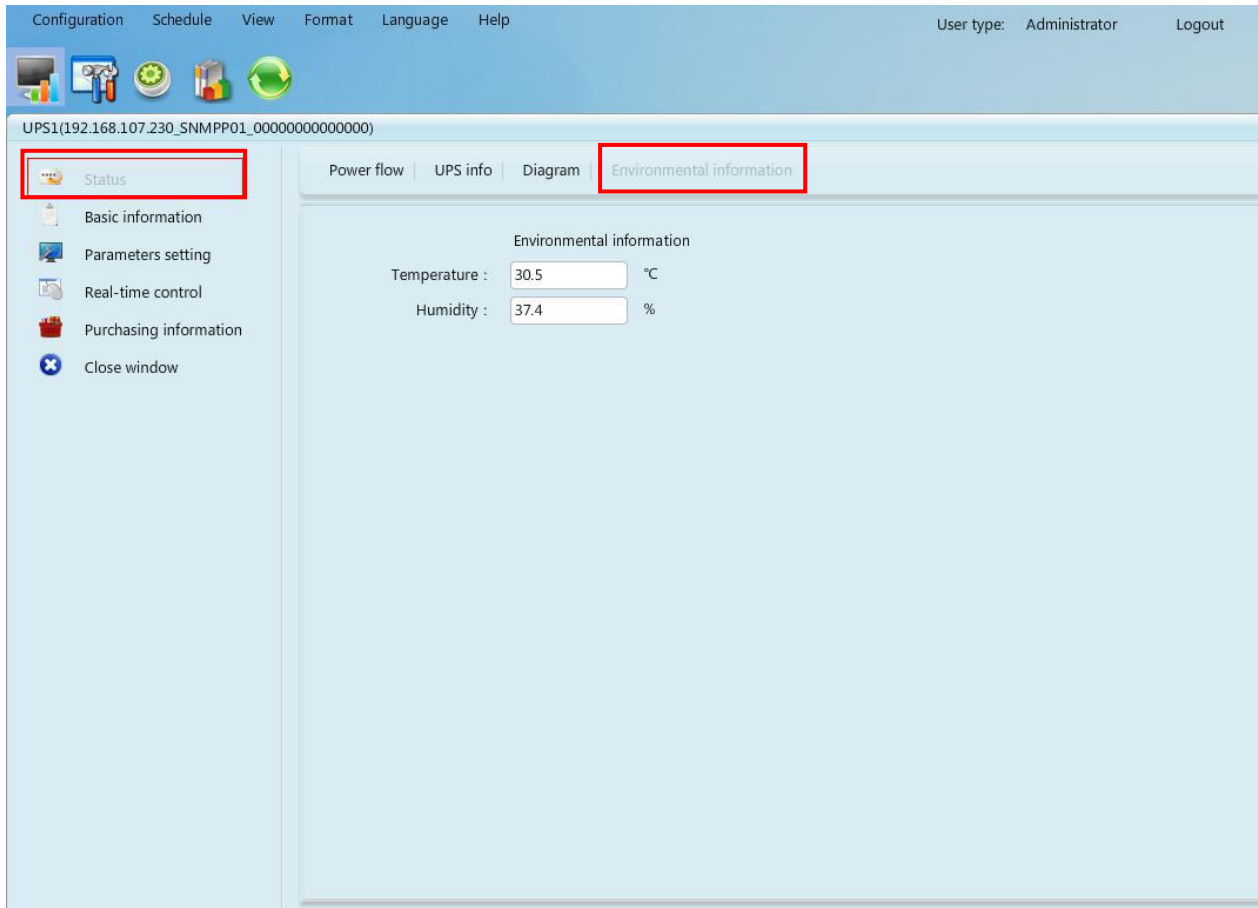
STATUS <UPS INFO>: it shows UPS information in text format.



STATUS <DIAGRAM>: It shows UPS in 2 axis chart format.



STATUS <ENVIROMENTAL INFORMATION>: If external temperature / humidity sensor is connected to SNMP LAN card, this section will show information related to the sensor. Sensor TH is an optional device not included with the UPS. It must be purchased separately. In case no sensor is connected, fields of this section will show in blank.



BASIC INFORMATION:

This section shows basic information about the UPS like UPS type and model, quantity of internal batteries and main model specifications.

The screenshot shows the 'Basic information' page for UPS1 (192.168.107.230_SNMP01_00000000000000). The left sidebar has a red box around the 'Basic information' icon. The main content area is divided into four sections: Basic information, Battery information, Purchasing information, and UPS rated information.

Basic information		Battery information	
UPS type :	on-line	Battery group numbers :	2
Input phase/Output phase :	1/1		
Input voltage/Output voltage :	240/240 V		
Serial number :	00000000000000		
FW version :	00057.05		

Purchasing information		UPS rated information	
UPS purchasing date :	2012-09-11	Rated VA :	1000 VA
Battery purchasing date :	2012-09-11	Rated output voltage :	240 V
UPS Warranty :	0 Year(s)	Rated output frequency :	50 Hz
Batteries Warranty :	0 Year(s)	Rated output current :	4 A
Battery lifecycle :	0 Month(s)	Rated battery voltage :	36 V
Reminder: Replace batteries :	Enable		
UPS P/N :			

PARAMETERS SETTING:

In this section, user can modify main UPS parameters. In this section we describe all possible UPS parameters even your system will only show available parameters for the UPS you are monitoring. Not all UPS have same parameters. For example, online UPS usually have more parameters to configure than interactive UPS.

The screenshot shows the 'Parameters setting' page for UPS2 (192.168.107.114_SNMP01_00000000000000). The left sidebar has a red box around the 'Parameters setting' icon. The main content area is divided into several sections: UPS alarm, Advanced ECO mode, Green power function, Cold start, Bypass not allowed, Battery deep-discharge protection, Site fault detection, P1 programmable outlet control(battery mode), Outlet setting, Battery numbers setting, Voltage and frequency range for bypass mode, and Voltage range for ECO mode.

UPS alarm		Advanced ECO mode	
UPS alarm	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>	Advanced ECO mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>
Alarm at bypass mode	<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>	Green power function	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>
Alarm at battery mode	<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>	Cold start	<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>
Auto reboot	<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>	Bypass not allowed	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>
Bypass when UPS is off	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>	Battery deep-discharge protection	<input checked="" type="radio"/> Enable <input type="radio"/> Disable <input type="button" value="Apply"/>
Converter mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>	Site fault detection	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>
ECO mode	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>	P1 programmable outlet control(battery mode)	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="button" value="Apply"/>

Outlet setting		Battery numbers setting	
Backup time for P1(battery mode)	999 <input type="button" value="Min"/> <input type="button" value="Apply"/>	Numbers in parallel	1 <input type="button" value="Apply"/>

Voltage and frequency range for bypass mode		Voltage range for ECO mode	
Maximum voltage	264 <input type="button" value="V"/> <input type="button" value="Apply"/>	Maximum voltage	242 <input type="button" value="V"/> <input type="button" value="Apply"/>
Minimum voltage	170 <input type="button" value="V"/> <input type="button" value="Apply"/>	Minimum voltage	218 <input type="button" value="V"/> <input type="button" value="Apply"/>
Maximum frequency	53 <input type="button" value="Hz"/> <input type="button" value="Apply"/>		
Minimum frequency	47 <input type="button" value="Hz"/> <input type="button" value="Apply"/>		

PARAMETERS SETTING:

UPS ALARM: Enable/Disable audible alarm (beep)

ALARM AT BYPASS: Enable/Disable audible alarm (beep) for bypass mode

ALARM AT BATTERY Enable/Disable audible alarm (beep) for battery mode

AUTO REBOOT: Enable/Disable auto-reboot function when AC main service comes back from long blackout.

BYPASS WHEN UPS OFF: Enable/Disable bypass mode when UPS is OFF but connected to main AC service

CONVERTER MODE: Enable/Disable frequency converter function.

ECO MODE: Enable/Disable ECO mode.

GREEN POWER: Enable/Disable green-power function that allows UPS automatic shutdown when in battery mode no load is connected to UPS outlets.

COLD-START: Enable/Disable cold-start function to allow UPS to start-up in battery mode.

BYPASS NOT ALLOWED: Enable/Disable BYPASS function. If activated (NOT ALLOWED), UPS never will switch to bypass mode. If inactive (ALLOWED) UPS will go to bypass mode depending of internal configuration.

BATTERY DEEP-DISCHARGE PROTECTION: If activated, UPS will shutdown when Deep protection Battery level is reached. This level is usually configurable and higher than standard low battery level.

SITE FAULT DETECTION: If activated, UPS will generate beep alarm if site wiring problem is detected. Usually Line and neutral swapped.

P1 PROGRAMMABLE OUTLET: If activated, UPS will turn-off programable outlets according to internal configuration. See backup for P1 parameter.

BACKUP FOR P1: Backup for programable outlets can be configured in minutes.

BATTERY NUMBER IN PARALLEL: Allows user to fix de quantity of Battery packs are connected in parallel (internal + external batteries).

VOLTAGE & FREQUENCY RANGE FOR BYPASS

MAX - MIN VOLTAGE: Configures voltage range for bypass mode. When UPS is in bypass mode and input is out of this range, UPS switch to battery mode.

MAX -MIN FREQUENCY: Configures frequency range for bypass mode. When UPS is in bypass mode and input is out of this range, UPS switch to battery mode.

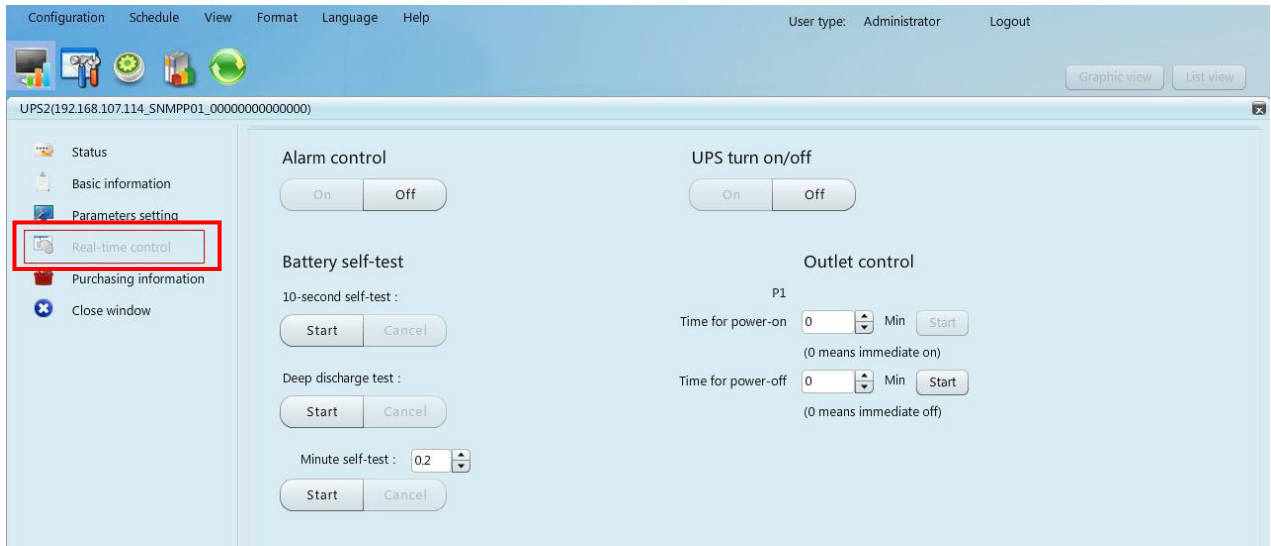
VOLTAGE RANGE ECO

MAX - MIN VOLTAGE: : Configures voltage range for ECO mode. When UPS is in ECO mode and input is out of this range, UPS switch to online mode.

IMPORTANT: For deeper information we suggest to revise user manual of your UPS.

REAL TIME CONTROL:

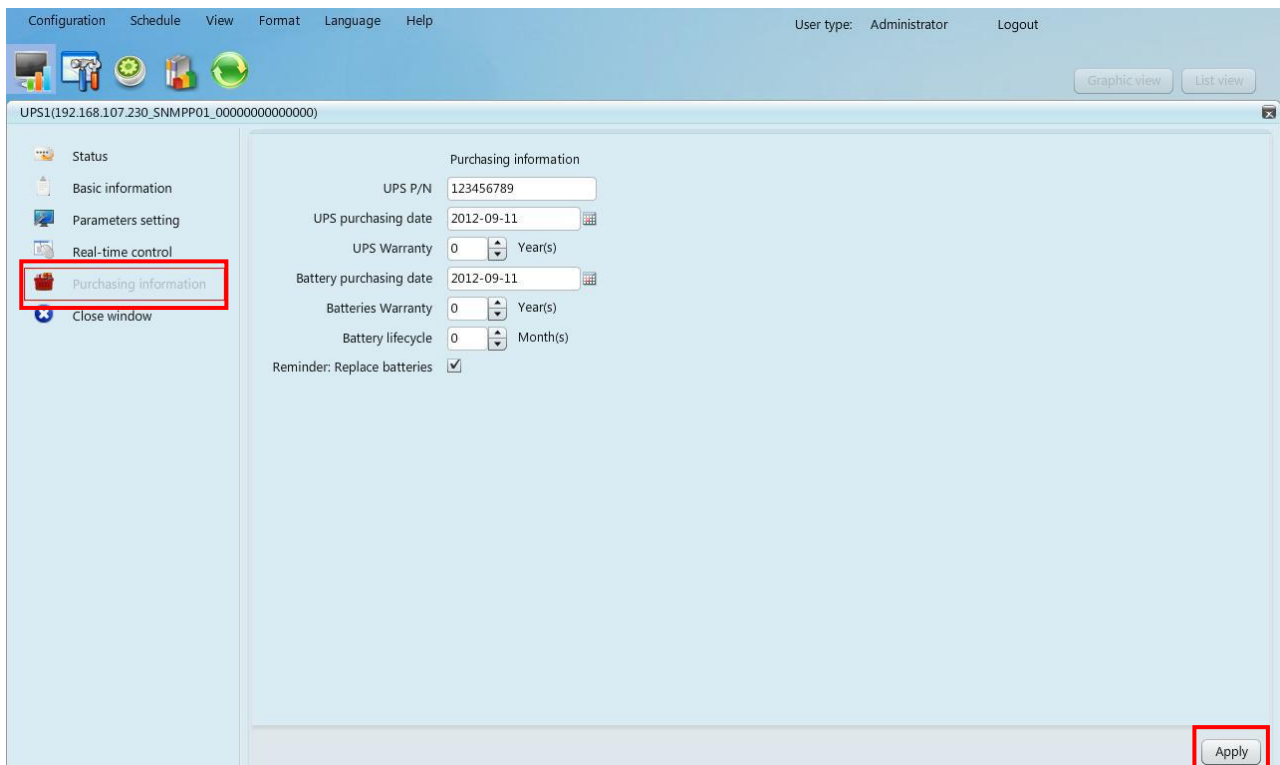
This section allows to the user to perform control commands in real time. For example: shutdown, start-up, battery tests, etc.



PURCHASING INFORMATION:

User can introduce purchasing information in this section. Software can generate alarm messages based on this information according to EVENT section configuration.

IMPORTANT: Press <APPLY> for saving changes.



4.2. MAIN FUNCTIONS CONFIGURATION.

In this section user can configure all parameters related to UPS and the response of the software for each possible event generated by UPS or electrical service.

User can access this section by clicking on CONFIGURATION link on upper horizontal menu or by clicking on the icon:



Each specific configuration area can be accessed by each individual tab:



PASSWORD:

Allows to modify administrators password

GROUP AREA:

Allows to create groups for available UPS in the network

UPS SETTING:

Allows to group name and group UPS of the network

SMS:

Allows to configure SMS sending messages. (External GSM device is required)

EMAIL:

Allows emails sending configuration

LOAD CONFIGURATION:

Allows to configure shutdown and sleep commands to other PC son the network

EVENT ACTION:

Allows to configure how software will response to each posible event of the UPS and from AC main service.

LOG SETTING:

Allows to configure event and data logging activity

EMD MANAGER:

Allows to configure parameters related to temperature and humidity sensor.

MODBUS COMM SETTING:

Allows to configure parameters for MODBUS communication network

SNMP MANAGER:

Allows to add IP address ranges for scanning additional networks

PASSWORD / AJUSTE DE LA CONTRASEÑA.

Software comes with default password “**administrator**”.

Before configuring any parameter you must login as administrator. Guest users only will be able to monitor UPS but not changing any parameters.

The screenshot shows the 'Password' tab selected in the software interface. The user is logged in as 'Administrator'. The page contains three input fields for 'Old password *', 'New password *', and 'Confirm password *', each followed by a red asterisk. Below these fields are 'Apply' and 'Reset' buttons. The top navigation bar includes 'Configuration', 'Schedule', 'View', 'Format', 'Language', and 'Help'. The right side shows 'User type: Administrator' and a 'Logout' button. A 'Graphic view' button is also present.

GROUP AREA

User can create UPS groups for an easy monitoring and management. By default, software comes with one group names “unassigned”. If user do not crate and assign UPS to new groups, all available UPS will be automatically assigned to “unassigned” group.

The screenshot shows the 'Group area' tab selected. On the left, there is a table with three columns: 'Group Name', 'Background image', and 'Note'. The table contains three rows: 'AREA-02' with 'OFFICES', 'AREA-03' with 'HOME', and 'UNASSIGNED' with 'FACTORY'. The 'UNASSIGNED' row is highlighted. On the right, there is a form for editing a group. It has fields for 'Group Name' (set to 'UNASSIGNED'), 'Background image' (with a 'Select' button), and 'Note' (set to 'FACTORY'). Below these are 'Clear', 'Add', 'Modify', and 'Delete' buttons. At the bottom, there is a 'Maximum numbers for a device group' field set to '15' with an 'Apply' button. The top navigation bar and user information are the same as in the previous screenshot.

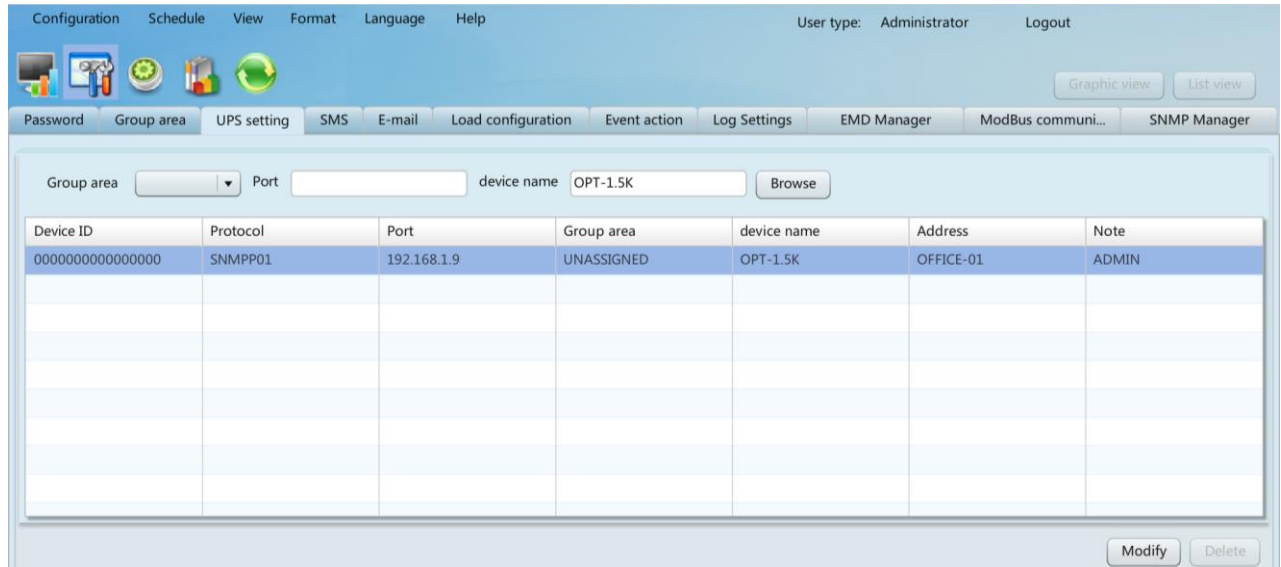
Group Name	Background image	Note
AREA-02		OFFICES
AREA-03		HOME
UNASSIGNED		FACTORY

To create a new group write group name and select ADD button. You can also add descriptive information in the NOTE field. If ADD button is disable, you can press CLEAR button to enable ADD function.

Note 1: Default group is “UNASSIGNED”. This group can be modified but not deleted.

UPS SETTING

In this section user can assign UPS to available groups. If no assignation is made, new UPS will be automatically assigned to “unassigned” group.

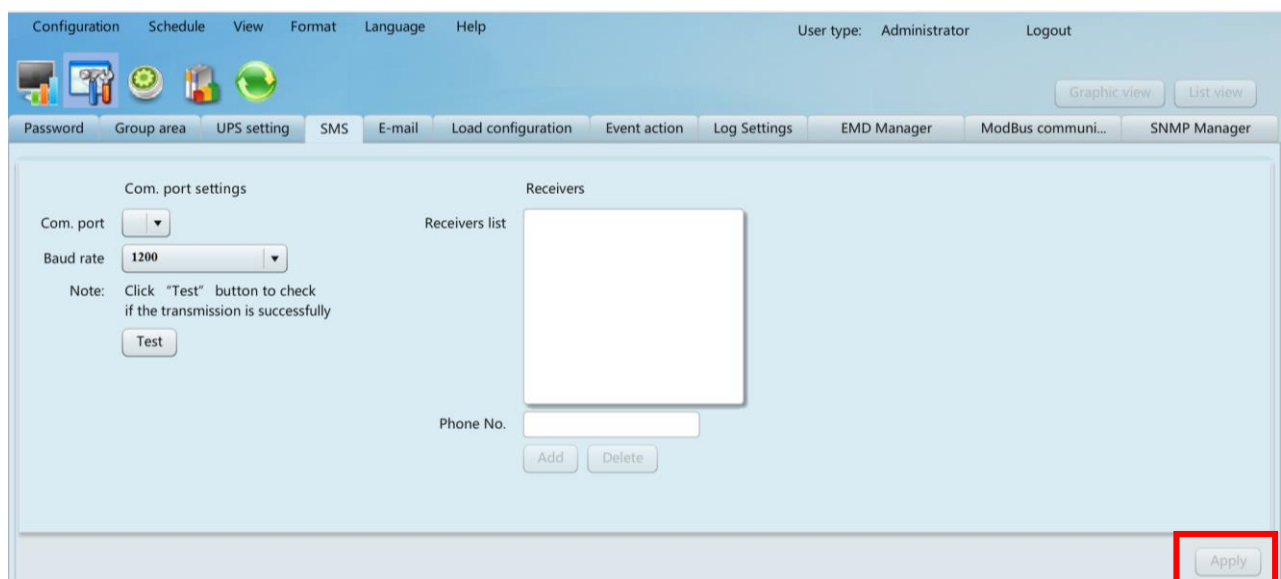


Device ID	Protocol	Port	Group area	device name	Address	Note
0000000000000000	SNMPP01	192.168.1.9	UNASSIGNED	OPT-1.5K	OFFICE-01	ADMIN

SMS

NOTE: For having capability to send SMS messages an external GSM device must be connected to the RS232 of the PC where Viewpower PRO is installed. This GSM device is not included neither with the UPS nor the software.

In this section user can configure list of SMS receivers Software will send SMS messages according to EVENT ACTION configuration. Each event must be configured to generate a SMS text message if required according to EVENT ACTION configuration section.



Com. port settings

Com. port
 Baud rate 1200
 Note: Click "Test" button to check if the transmission is successfully
 Test

Receivers

Receivers list

Phone No.

Add Delete

Apply

CHANGES MUST BE ALWAYS CONFIRMED BY PRESSING "APPLY" KEY.

EMAIL

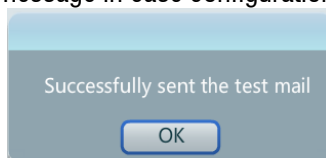
NOTE: For sending emails it is required the PC where software is installed has access to internet.
In this section user can configure information about the email outgoing server and email account to be used to send emails. Emails will be sent to list of receivers configured in this section.

NOTE: Email is sent when an event is detected by UPS if that event has been configured to send an email.
Event response must be configured in section **EVENT ACTION**.

The screenshot shows the 'E-mail' configuration window. On the left, under 'SMTP server settings', there are fields for 'SMTP server' (mail.xmart-ups.com), 'Port' (25), and radio buttons for 'None', 'SSL', and 'TLS'. There is also a checkbox for 'Exchange server' and an 'Apply' button. Below these are fields for 'Send from' (test@xmart-ups.com), 'User name' (test@xmart-ups.com), and 'Password' (masked with asterisks). A note says 'Click "Test" button to check if the transmission is successfully'. The 'Test' button is highlighted with a red box. On the right, under 'Receivers list', there is a list of email addresses: test@xmart-ups.com and marketing@xmart-ups.com. Below this is an 'E-mail' field and 'Add' and 'Delete' buttons. At the bottom right of the window, the 'Apply' button is highlighted with a red box.

CHANGES MUST BE ALWAYS CONFIRMED BY PRESSING "APPLY" KEY.

We recommend to do a TEST after configuring email section to confirm emails can be sent successfully. System will generate a successfully sent message in case configuration is OK. If any problems is detected



SMTP SERVER:

It must indicate the server to be used to send emails
Examples: [smtp.live.com](#) for Hotmail / [smtp.gmail.com](#) for Gmail

PORT:

Port number depends of kind of server to be used: **NONE: 25** / **SSL: 465** / **TLS: 587**

NONE:

Used by non-secure server like webdomain email servers

SSL:

It is used by email servers with SSL security like gmail

TLS:

Used by emails servers with TLS security like hotmail.

EXCHANGE SERVER:

For Exchange email servers

SEND FROM:

This field must indicates the name of the email account to be used for sending emails

USER NAME:

User name of the email account. Usually same than email account

SMTP AUTHENTICAT.:

It depends of the email account to be used

PASSWORD:

Password of the email account to be used

NOTE: In case of doubts check with your internet provider or responsible of this area in your company.

Load configuration can send remote shutdown commands to other computers via intranet or internet. PC are identified by its IP address. In case of doubts about IP address of your PC, please revise ANNEX-1 of this manual. Shutdown or sleep commands are generated by some events that can be configured in EVENT ACTION section. The purpose of a remote shutdown/sleep command is to allow PC to save files and close operating system when required, for example when a long blackout is detected. EVENT ACTION generates shutdown command according to the configured event. Then software sends shutdown command to remote PC configured in LOAD CONFIGURATION section.

[illegible]

NOTE: ALL remote PC required to receive remote shutdown commands MUST have installed SHUTDOWN WIZARD software.

Each shutdown command line must be created by selecting ADD key. For modifying existing lines press MODIFY key in bottom right corner of the screen. These 2 commands will open an information window like described below. For saving changes press APPLY.

The screenshot shows a configuration window for the Xmart Control Software. The window has a light blue background and a white border. It contains several sections for configuring shutdown settings:

- IP address of load:** A text box with the value "0 . 0 . 0 . 0".
- Enabled SSH shutdown:** A checkbox that is currently unchecked.
- User name:** A text box.
- Password:** A text box.
- MAC address:** A text box with an "Auto match" button next to it.
- Accepts wake on LAN when events occur:** A checkbox that is currently unchecked.
- Power-off option:** Two radio buttons: "Shutdown" (unchecked) and "Sleep mode" (checked).
- File to execute when shutting down:** A text box.
- Waiting time for load shutdown:** A spinner box set to "1" with "Min" next to it.
- Accepts scheduled device shutdown:** A checkbox that is currently unchecked.
- Execute file:** A text box.
- Selected devices:** A table with a header "UPS" and a single row containing a checkbox and the text "(192.168.1.9_P01_0000000000000000)".
- Note:** A large text area.
- Buttons:** "Apply" and "Cancel" buttons at the bottom.

EVENT ACTION

In this section user can configure response of the software for all possible events related to each UPS of the network. In this section is where user configures is software must send messages or shutdown commands when a specific event is detected. Events can be internal or external. Internal events are those related to the UPS like UPS alarms or abnormal states. External events are related to AC main source like AC failure. For configuring response to events, user must select EVENT ACTION tab, chose protocol P01 and select required UPS. Then relevant events must be selected and configured.

In the image of this section there is an example of configuration for AC FAILURE state.

<WRITE TO EVENT LOG>: In case event required to be registered in the event log.

<LOAD SHUTDOWN>: Shutdown is required for PC related to this UPS (according to LOAD CONFIGURATION).

<UPS SHUTDOWN>: To mark if UPS must be shut down when this event is detected.

<WAITING TIME FOR LOAD SHUTDOWN>: Indicates waiting time until shutdown command is generated. In below image waiting time is 2 min.

<LOAD SHUTDOWN REMINDER>: To activate periodic reminders during shutdown process.

<POP-UP DIALOG BEFORE SHUTDOWN>: To configure time when shutdown message will be displayed.

<WARNING DIALOG INTERVAL>: To configure time between messages.

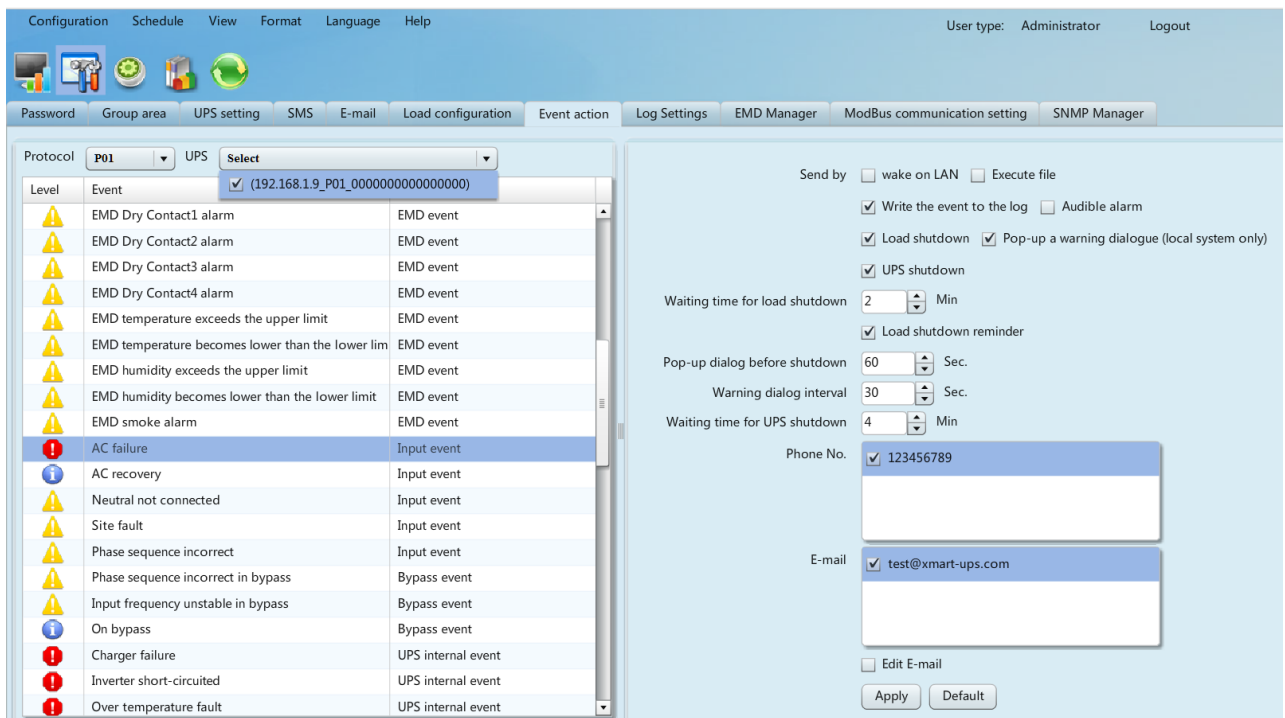
<WAITING TIME FOR UPS SHUTDOWN>: To configure waiting time to shutdown UPS since the momento event was detected. In below image is 4 min.

<PHONE NUMBER>: Allows to select phone numbers to send SMS when this event is detected.

<EMAIL>: Allows to select emails accounts to send messages when this event is detected.

<EDIT EMAIL>: Opens 2 additional fields to add extra information in emails to be sent.

If neither phone numbers nor email accounts are listed is because they have not been configured previously in SMS and E-mail sections.



Configuration Schedule View Format Language Help

User type: Administrator Logout

Configuration Schedule View Format Language Help

Protocol: P01 UPS: Select

Level	Event	Event Type
⚠	EMD Dry Contact1 alarm	EMD event
⚠	EMD Dry Contact2 alarm	EMD event
⚠	EMD Dry Contact3 alarm	EMD event
⚠	EMD Dry Contact4 alarm	EMD event
⚠	EMD temperature exceeds the upper limit	EMD event
⚠	EMD temperature becomes lower than the lower limit	EMD event
⚠	EMD humidity exceeds the upper limit	EMD event
⚠	EMD humidity becomes lower than the lower limit	EMD event
⚠	EMD smoke alarm	EMD event
❗	AC failure	Input event
ℹ	AC recovery	Input event
⚠	Neutral not connected	Input event
⚠	Site fault	Input event
⚠	Phase sequence incorrect	Input event
⚠	Phase sequence incorrect in bypass	Bypass event
⚠	Input frequency unstable in bypass	Bypass event
ℹ	On bypass	Bypass event
❗	Charger failure	UPS internal event
❗	Inverter short-circuited	UPS internal event
❗	Over temperature fault	UPS internal event

Send by: ☐ wake on LAN ☐ Execute file

☒ Write the event to the log ☐ Audible alarm

☒ Load shutdown ☒ Pop-up a warning dialogue (local system only)

☒ UPS shutdown

Waiting time for load shutdown: 2 Min

☒ Load shutdown reminder

Pop-up dialog before shutdown: 60 Sec.

Warning dialog interval: 30 Sec.

Waiting time for UPS shutdown: 4 Min

Phone No.: ☒ 123456789

E-mail: ☒ test@xmart-ups.com

☐ Edit E-mail

Apply Default

LOG SETTING

In section user can configure some parameters related to logging function, as refresh frequency in seconds, record interval, etc.

The screenshot shows the 'Log Settings' tab in the software interface. The top navigation bar includes 'Configuration', 'Schedule', 'View', 'Format', 'Language', and 'Help'. The user is logged in as 'Administrator'. The main configuration area contains the following fields:

- Refresh frequency:** A numeric input set to '2' with a unit of 'Sec'.
- Record interval:** A numeric input set to '60' with a unit of 'Sec'.
- The max. number of logs for historical data:** A numeric input set to '100000000' with a note '(0: unlimited)'.
- Backup path:** A text input field. Below it, a default path is shown: '(Default backup path: \$SOFTWARE_INSTALL_DIR\$\MySQL\data\backup)'.
- Format example:** 'c:\backup\'.

At the bottom right of the configuration area are 'Apply' and 'Default' buttons. The Windows taskbar at the bottom shows the time as 11:22 on 21/02/2017.

EMD MANAGER

In case an XSMART EMD sensor is connected to the SNMP card of the UPS, parameters of temperature and humidity can be configured in this section.

Some sensor models also includes dry contact inputs for detecting opening of door and windows of the room where UPS is installed.

Revise DRY CONTACT EVENT & CONFIGURATION tab.

The screenshot shows the 'EMD Manager' tab in the software interface. The top navigation bar is the same as the previous window. The user is logged in as 'Administrator'. The main configuration area is divided into two sections:

- EMD alarming temperature range:** Includes 'Upper limit' (set to 1) and 'Lower limit' (set to 0), each with an 'Apply' button.
- EMD alarming humidity range:** Includes 'Upper limit' (set to 1) and 'Lower limit' (set to 0), each with an 'Apply' button.

Below these sections are tabs for 'Dry contact event', 'Dry contact configuration', and 'Alarm Settings'. The Windows taskbar at the bottom shows the time as 11:28 on 21/02/2017.

MODBUS COMMUNICATION

Even most common networks are LAN Ethernet types, it is also possible to communicate UPS in a MODBUS network. In this section related parameters can be configured.

The screenshot shows the 'Modbus Setting' configuration page. The top navigation bar includes 'Configuration', 'Schedule', 'View', 'Format', 'Language', and 'Help'. The user is logged in as 'Administrator'. The main menu tabs are 'Password', 'Group area', 'UPS setting', 'SMS', 'E-mail', 'Load configuration', 'Event action', 'Log Settings', 'EMD Manager', 'ModBus communi...', and 'SNMP Manager'. The 'Modbus Setting' section contains the following fields: 'Port' (dropdown), 'Device ID' (dropdown with 'Select' option), 'Baud rate' (dropdown with '4800' selected), 'Data Bit' (dropdown with '8' selected), 'Stop Bit' (dropdown with '1' selected), and 'Parity' (dropdown with 'NONE' selected). There is a 'Refresh' button next to the 'Port' dropdown and an 'Apply' button at the bottom.

SNMP MANAGER

This section allows to add IP ranges to be monitored from SNMP MANAGER tool. See annex 1 of this manual for additional information.

The screenshot shows the 'SNMP Manager' configuration page. The top navigation bar and user information are the same as in the previous screenshot. The main menu tabs are the same, with 'SNMP Manager' being the active tab. The 'SNMP Manager' section contains an 'IP address list' field with the value '192.168.1'. Below this is an 'IP address' input field. At the bottom, there are 'Add' and 'Delete' buttons.

4.3 SCHEDULE

This section can be selected from horizontal menú (SCHEDULE) or by selecting quick access key:



Software can be configured to run scheduled activities based on dates and times. These actions can be daily, weekly or only one time. Types of actions to be scheduled are listed below:

- SCHEDULED ON-OFF
- SCHEDULED BATTERY SELF-TEST
- WAKE ON LAN SCHEDULE

Every scheduled action must have its own programming line. Select ADD key to include each scheduled action.

Actions are applied over IP configured by its IP address. Write also date and time for each action. In below example, image shows scheduled OFF and ON actions to be executed only once on UPS 192.168.1.3.

Below configuration also enables LOAD SHUTDOWN action. It will be applied ONLY if LOAD CONFIGURATION section allows Scheduled Actions from this UPS.

[illegible]

4.4 HISTORY / REGISTRO HISTORICO

User can select this section by horizontal menú (VIEW/HISTORY) or by clicking on shortcut key:



This section shows all registered data and events in a determined data range.
Type of information listed is described below:

EVENT LOG:

List of events marked to be included in the event log.

ID	Device ID	device name	Level	Date	Event	Type
1	192.168.1.9		i	2017-02-21 11:50:31	Battery self-test passed	Battery event
2	192.168.1.9		i	2017-02-21 11:50:28	Line mode	UPS internal event
3	192.168.1.9		i	2017-02-21 11:50:20	P1 outlet power on	UPS internal event
4	192.168.1.9		i	2017-02-21 11:50:19	Battery test mode	UPS internal event
5	192.168.1.9		i	2017-02-21 11:47:16	P1 outlet power off	UPS internal event
6	192.168.1.9		i	2017-02-21 11:47:12	Standby mode	UPS internal event
7	192.168.1.9		i	2017-02-21 11:46:58	UPS will power off immediately	UPS external event
8	192.168.1.9		i	2017-02-21 05:16:22	Communication established	UPS external event
9	192.168.1.9		i	2017-02-21 05:16:22	Line mode	UPS internal event
10	192.168.1.9	OPT-1.5K	i	2017-02-20 17:09:40	Line mode	UPS internal event
11	192.168.1.9	OPT-1.5K	i	2017-02-20 17:09:38	AC recovery	Input event

EVENT STATISTICS:

Shows events grouped by quantity of appearances.

DATA LOG:

List of data and values marked to be included in the data log.

DIAGRAM:

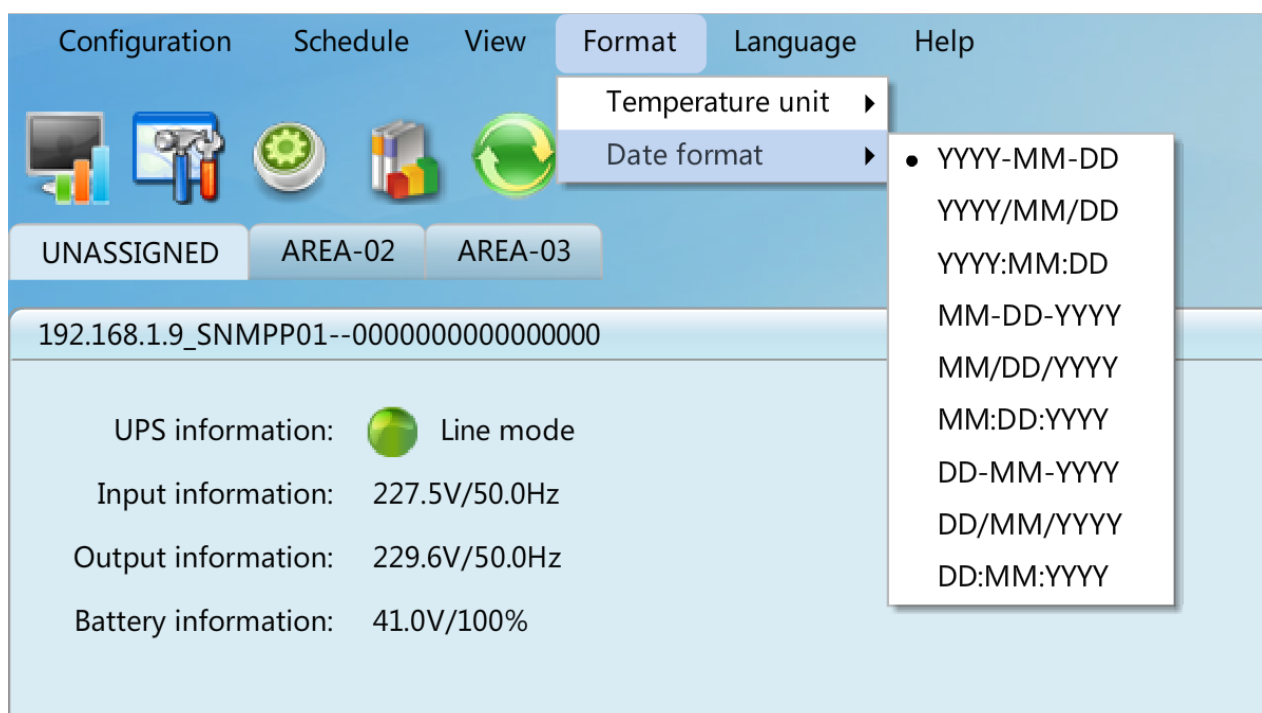
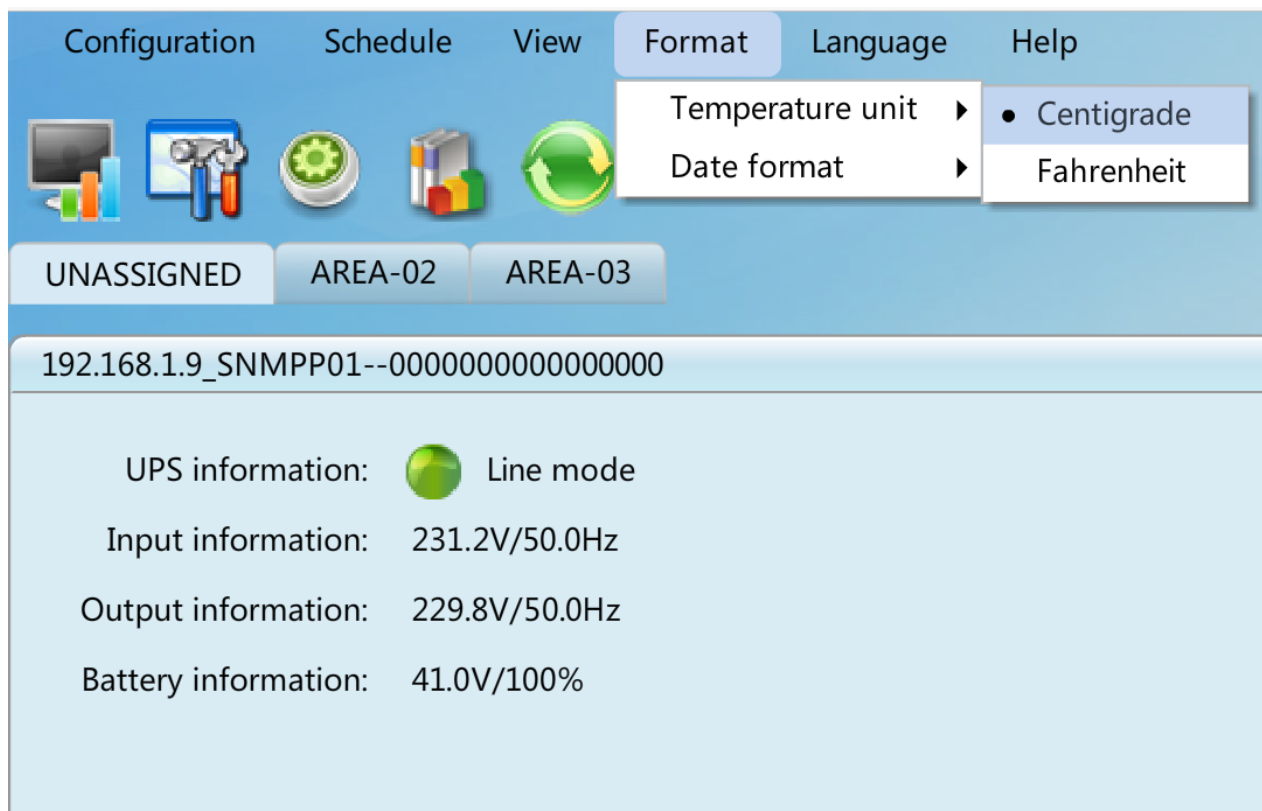
Shows data and values in graphic mode.

EMD LOGS:

List of temperature and humidity data (ONLY if EMD sensor is connected to SNMP card).

4.5 FORMAT

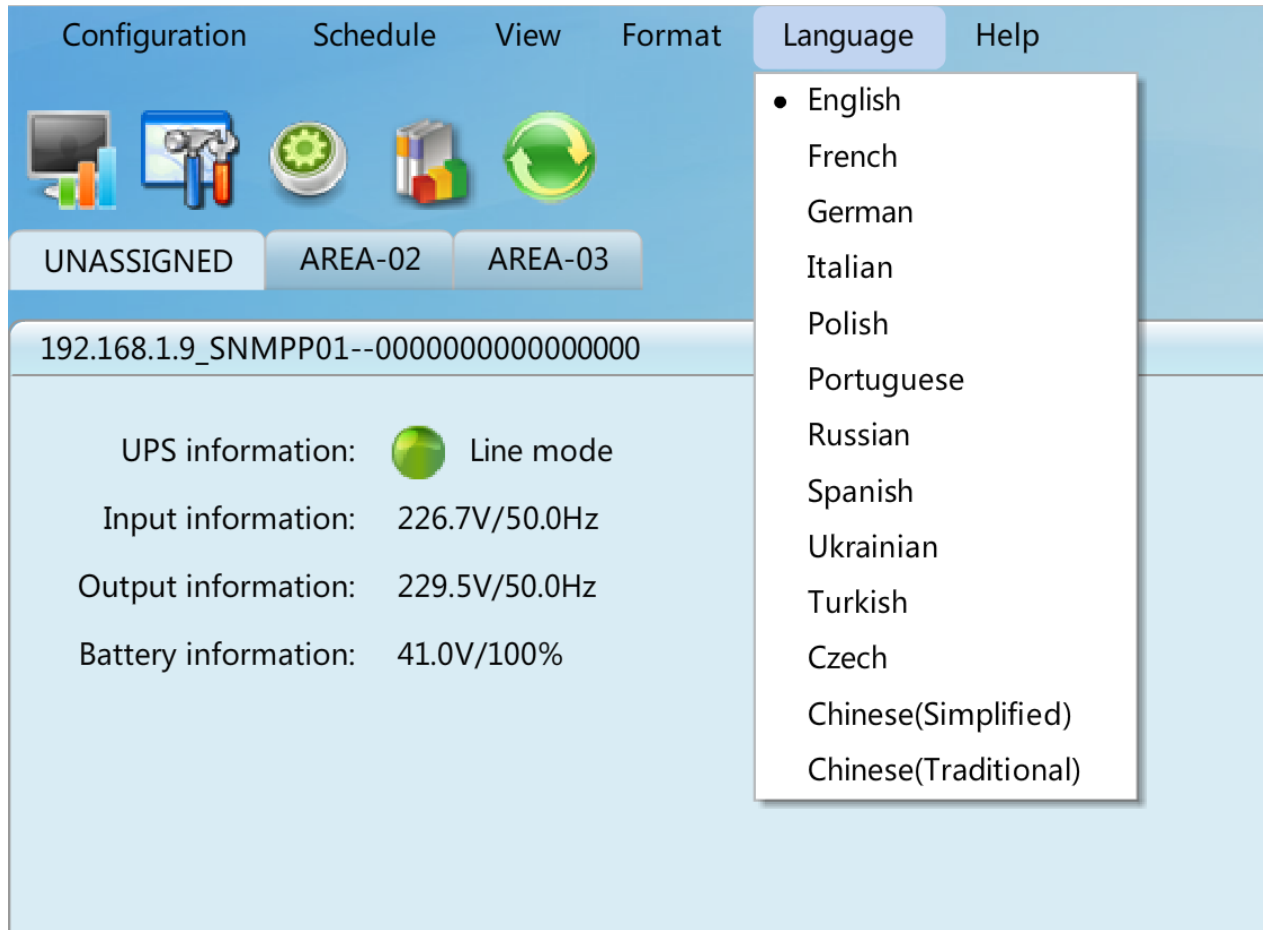
User can select this section by FORMAT option in horizontal menu.
Temperature and data can be format in this section.



4.6 LANGUAGE

Select LANGUAGE option in horizontal menu.

In this section, user can select language for menus and information.



ANNEX -1

PC & UPS SHUTDOWN CONFIGURATION

PC SHUTDOWN IN NETWORK:

Software can shutdown multiple PC on network by sending remote commands from Viewpower Pro. Viewpower Pro must be installed at least in one PC of the network. This PC can be named as Master.

PCs required to shutdown can be named as slaves. These PCs must have installed Shutdown Wizard software. They do not require Viewpower PRO software,

If Master PC also requires to be shutdown, it must also have Shutdown Wizard software installed in addition to Viewpower PRO software.

If a shutdown command is sent to remote PC that does not has Shutdown Wizard installed, this PC will simply not shutdown.

As mentioned, at least 1 PC in network must have Viewpower PRO installed. This software must be configured to send remote commands to the network making reference to all IP addresses of PCs to be shutdown.

Shutdown commands are sent as a consequence of an event detected by Viewpower PRO. Once event is detected, it sends commands according to parameters configuration in EVENT ACTION and LOAD CONFIGURATION sections in the Master PC:

LOAD CONFIGURATION: In this section, user can configure IP address of those PC to be shutdown. Revise section **4.2 CONFIGURACION >> LOAD CONFIGURATION**, on this manual.

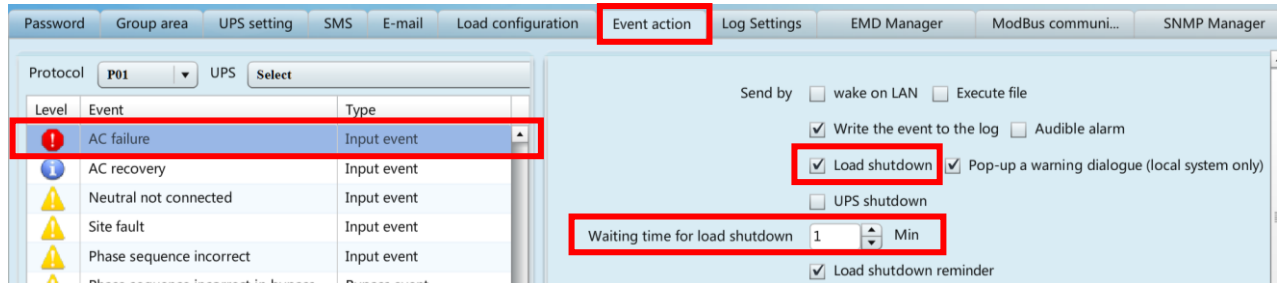
NOTE: To know the IP address of any PC, please revise information at ending of this section.

IP	Enabled SSH	wake on LAN	Power-off option	File to execute when shutting down	Waiting time for load shutdown	When a scheduled	Execute file	Selected devices
192.168.1.3	No	No	Sleep mode		1	Yes		(192.168.1.9_P01_

EVENT ACTION: In this section, user can select the event that will generate shutdown command and its related parameters. For deeper information, check section **4.2 CONFIGURACION >> EVENT ACTION**, on this manual.

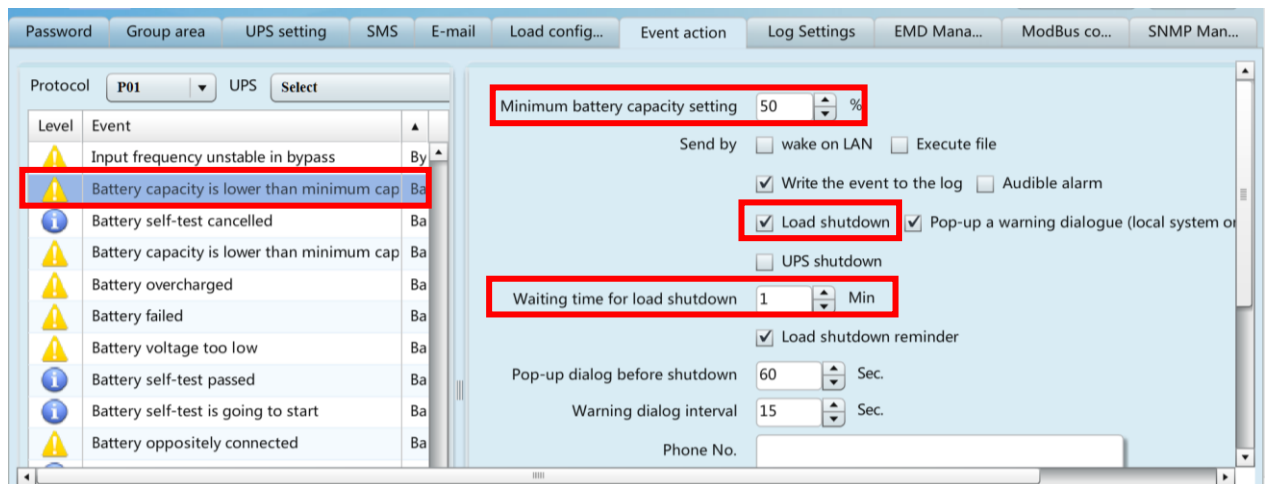
SHUTDOWN BY TIME:

Shutdown command can be sent after reaching an elapsed limit after event is detected. For example 1 minute after an AC FAILURE condition is detected:



SHUTDOWN BY BATTERY LEVEL:

Software can also send shutdown command when defined battery level is reached. For example when batteries level goes down to 50% of total maximum capacity. User just needs to select event named: "BATTERY CAPACITY IS LOWER THAN MINIMUM" and define battery level in % that will trigger shutdown command. In below image software has been configured to send command when 50% is reached. When this level is reached, software will send command to PC in case LOAD SHUTDOWN has been marked.



NOTE:
HOW TO KNOW IP OF MY PC:

In windows IP address can be consulted by Control Panel. Select Network section and double click on the network adapter in use. Press DETAILS option to list IP address related to IPv4.

IP can also be read by cmd.exe command line of the system.

Run “**cmd.exe**” and then execute command “**ipconfig**”.

This command will list information for all network adapters available. Please take note of IPv4.

```
C:\Users\JP12>ipconfig

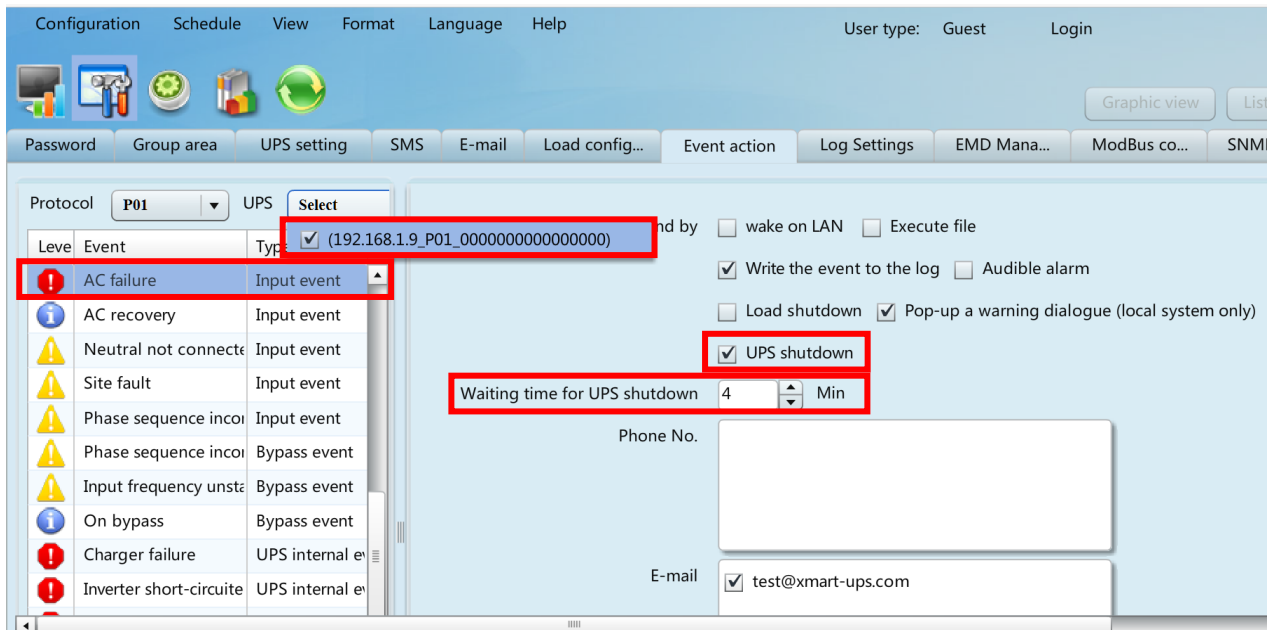
Adaptador de Ethernet Conexión de área local:

    Sufijo DNS específico para la conexión. . . :
    Vínculo: dirección IPv6 local. . . : fe80::8c05:ded7:d334:e351%22
    Dirección IPv4. . . . . : 192.168.1.3
    Máscara de subred . . . . . : 255.255.255.0
    Puerta de enlace predeterminada . . . . . : 192.168.1.1
```

UPS SHUTDOWN:

UPS also can receive shutdown command from software based on waiting time.

User must select event that will generate this command and then mark all UPS available. UPS shutdown option must be also marked. Then a waiting time must be configured as described in below image (5 minutes).



Shutdown command for any UPS can be related to Battery event, for example: BATTERY CAPACITY IS LOWER THAN MINIMUM, as explained in previous section of this manual. User only needs to select this kind of event and configure it accordingly.

For deeper information we suggest to revise section 4.2 of this manual.

IMPORTANT:

If selected event disappears with enough time before shutdown command has been sent, shutdown process will be cancelled. For example, if software has been configured to shutdown UPS 5 minutes after detecting AC FAILURE event but AC main service comes back 2 minutes before sending shutdown command, software will reset event to inform UPS to eliminate shutdown action. If AC service is reestablished just few seconds before shutdown is completed, probably software will not have enough time to detect new event and inform UPS to stop shutdown process.

On the other hand, if selected event was configured to shutdown PC where software is installed and event is reestablished after PC has been shut down, there will be no way to warn UPS to stop shutdown process since PC is already powered off.

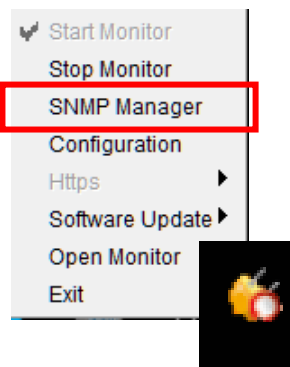
ANNEX – 2

SNMP MANAGER

SNMP MANAGER is an auxiliary software that allows performing some service activities like:

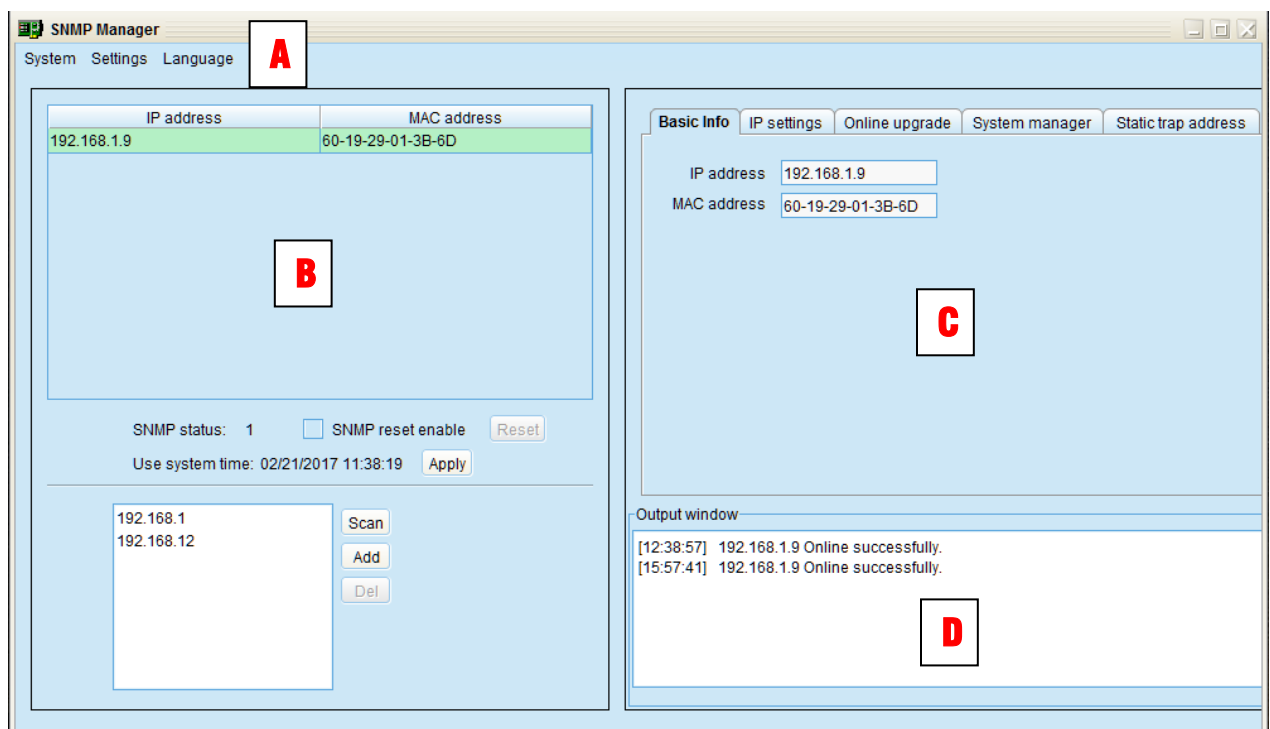
- Searching of SNMP card in the network based on its IP
- Configuring IP address and IP type for SNMP cards (DHCP or Static)
- Upgrade SNMP card firmware
- Password modification for SNMP cards
- Configuring TRAP IP and communication port

You can run SNMP Manager if you have downloaded it from XMART service center or you can simply right click on orange power plug:



SNMP MANAGER has 4 main areas:

- A. Functions Menu:** Navigation menu.
- B. SNMP Devices:** List all XMART SNMP cards in network.
- C. Configuration:** Configuration functions for SNMP cards.
- D. Results:** Shows results and options for each function.



SNMP DEVICE LIST

As soon as SNMP manager opens, it does an automatic scan to find all available SNMP cards in the network.

Scan.

You may also do a manual search of specific IP address by entering the IP range 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.

Delete.

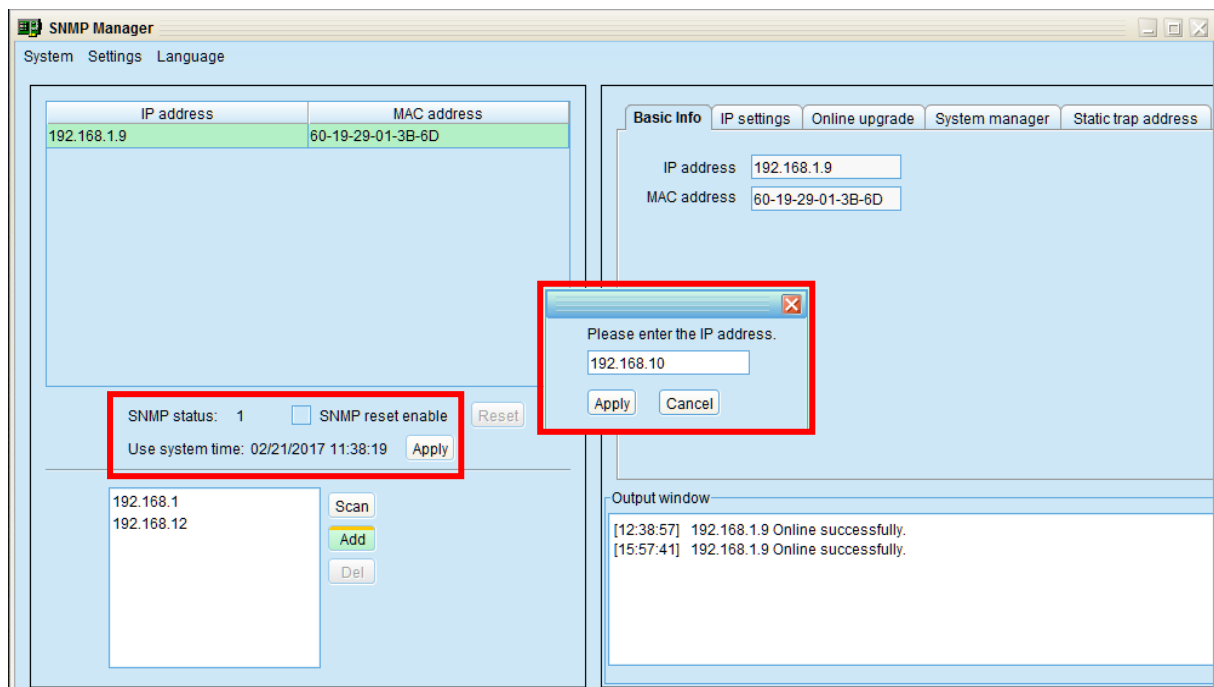
You may select IP address from the list and remove it by clicking “Del” button.

SNMP Status.

It will display SNMP 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.

Use system time.

If “Use system time” is selected, the SNMP card will apply PC system time.



SNMP MANAGER.

FUNCTIONS.

SYSTEM

Login.

It's necessary to verify ID to remote access SNMP devices. The default password is:

12345678

Step 1: Select System >> Login

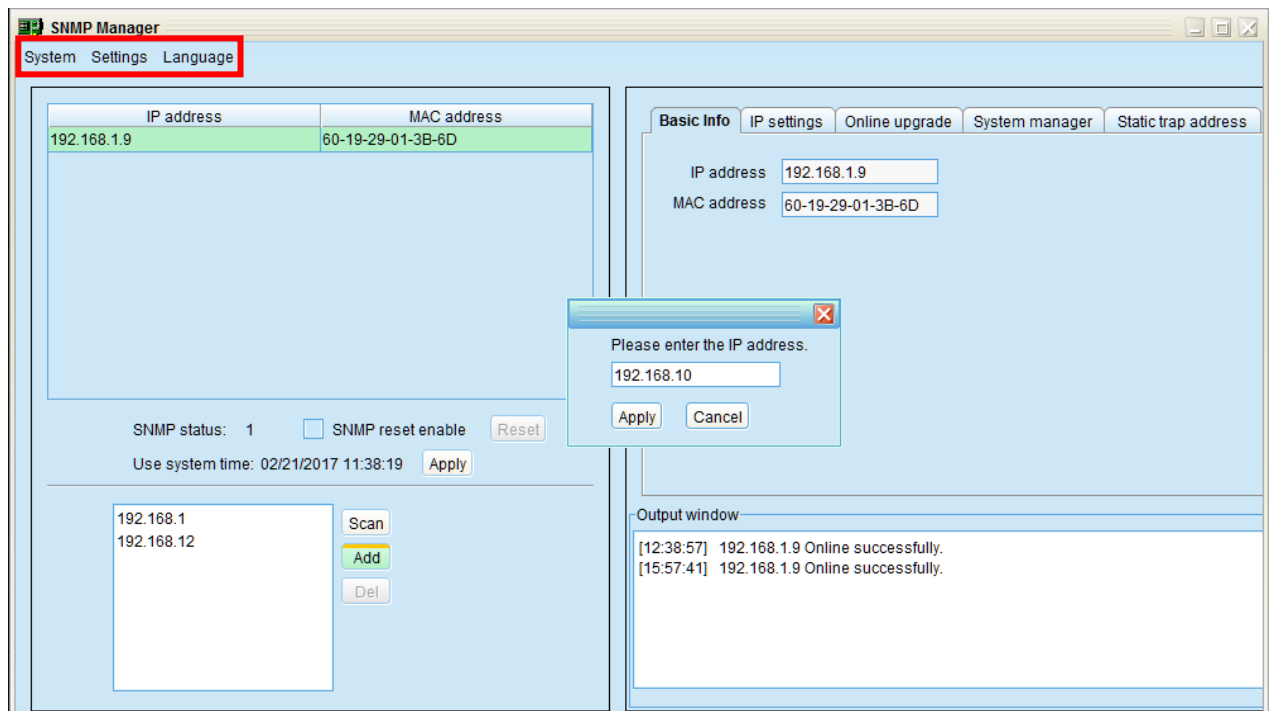
Step 2: Enter default password and then click "Login" button. Or click "Cancel" to cancel login.

Logout.

Clear all currently saved passwords.

Quit.

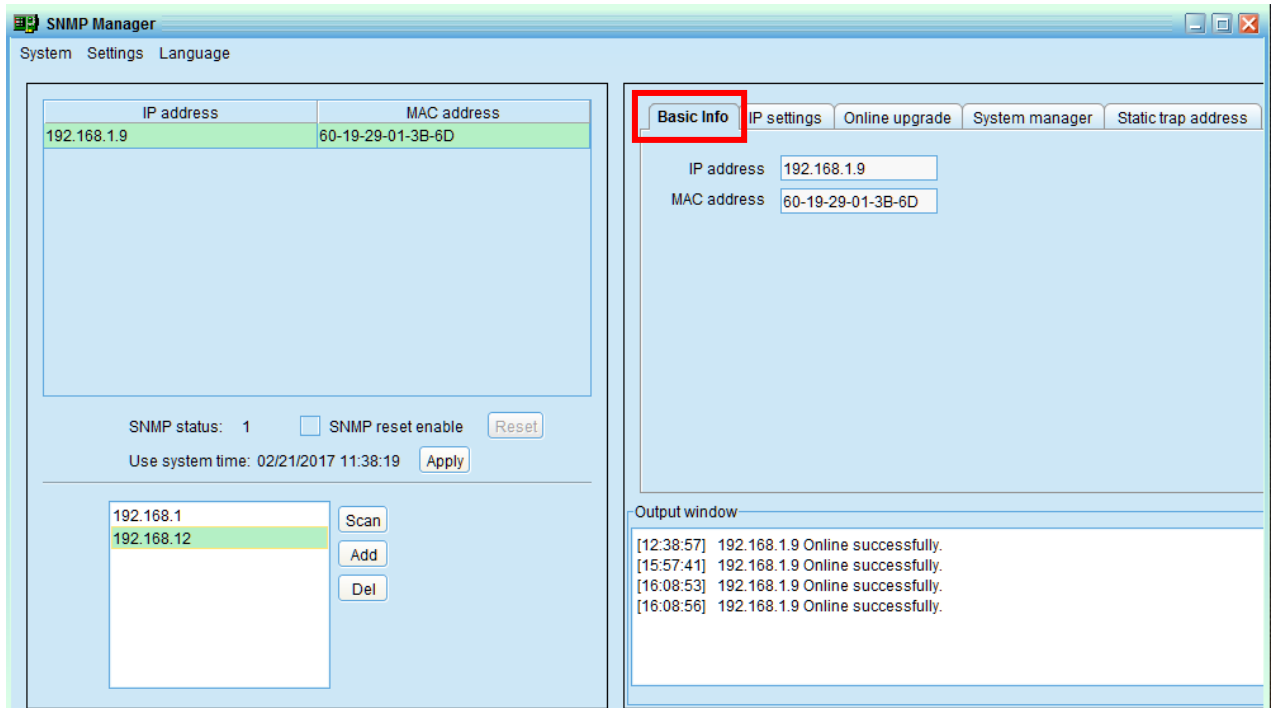
Select "Quit" to exit SNMP Manager.



SETTINGS.

BASIC INFO.

User can manually enter basic information of SNMP cards such as UPS name, Address, and Note for verification.



The screenshot shows the 'Basic Info' tab of the SNMP Manager interface. The left pane contains a table with IP and MAC addresses, and a list of IP addresses with 'Scan', 'Add', and 'Del' buttons. The right pane shows the 'Basic Info' tab selected, with fields for IP address (192.168.1.9) and MAC address (60-19-29-01-3B-6D). Below these fields is an 'Output window' showing four successful online status messages for 192.168.1.9.

IP address	MAC address
192.168.1.9	60-19-29-01-3B-6D

SNMP status: 1 ☐ SNMP reset enable

Use system time: 02/21/2017 11:38:19

192.168.1
192.168.12

Basic Info IP settings Online upgrade System manager Static trap address

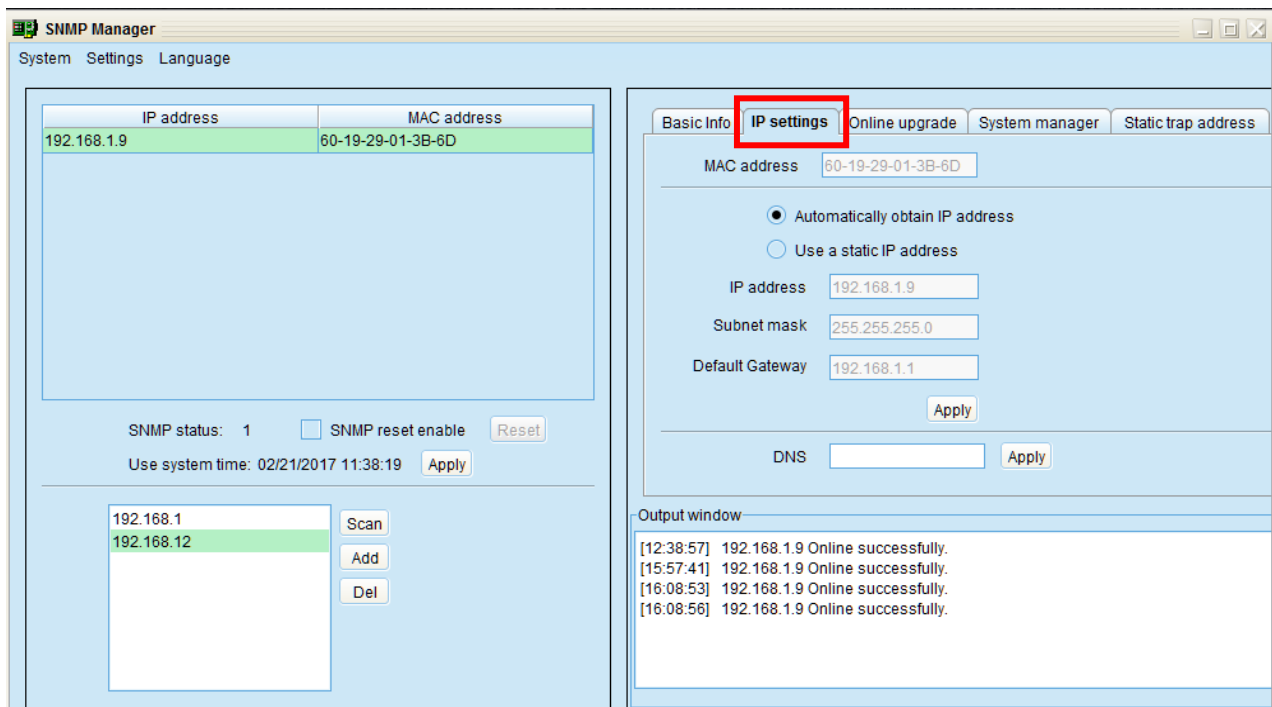
IP address: 192.168.1.9
MAC address: 60-19-29-01-3B-6D

Output window

[12:38:57] 192.168.1.9 Online successfully.
[15:57:41] 192.168.1.9 Online successfully.
[16:08:53] 192.168.1.9 Online successfully.
[16:08:56] 192.168.1.9 Online successfully.

IP SETTINGS.

It allows IP configuration for the SNMP card. IP can be configured as DHCP (automatically obtain IP) or Static.



The screenshot shows the 'IP settings' tab of the SNMP Manager interface. The left pane is identical to the previous one. The right pane shows the 'IP settings' tab selected, with fields for MAC address (60-19-29-01-3B-6D), IP address (192.168.1.9), Subnet mask (255.255.255.0), and Default Gateway (192.168.1.1). The 'Automatically obtain IP address' radio button is selected. Below these fields is an 'Output window' showing four successful online status messages for 192.168.1.9.

IP address	MAC address
192.168.1.9	60-19-29-01-3B-6D

SNMP status: 1 ☐ SNMP reset enable

Use system time: 02/21/2017 11:38:19

192.168.1
192.168.12

Basic Info **IP settings** Online upgrade System manager Static trap address

MAC address: 60-19-29-01-3B-6D

☒ Automatically obtain IP address
☐ Use a static IP address

IP address: 192.168.1.9
Subnet mask: 255.255.255.0
Default Gateway: 192.168.1.1

DNS:

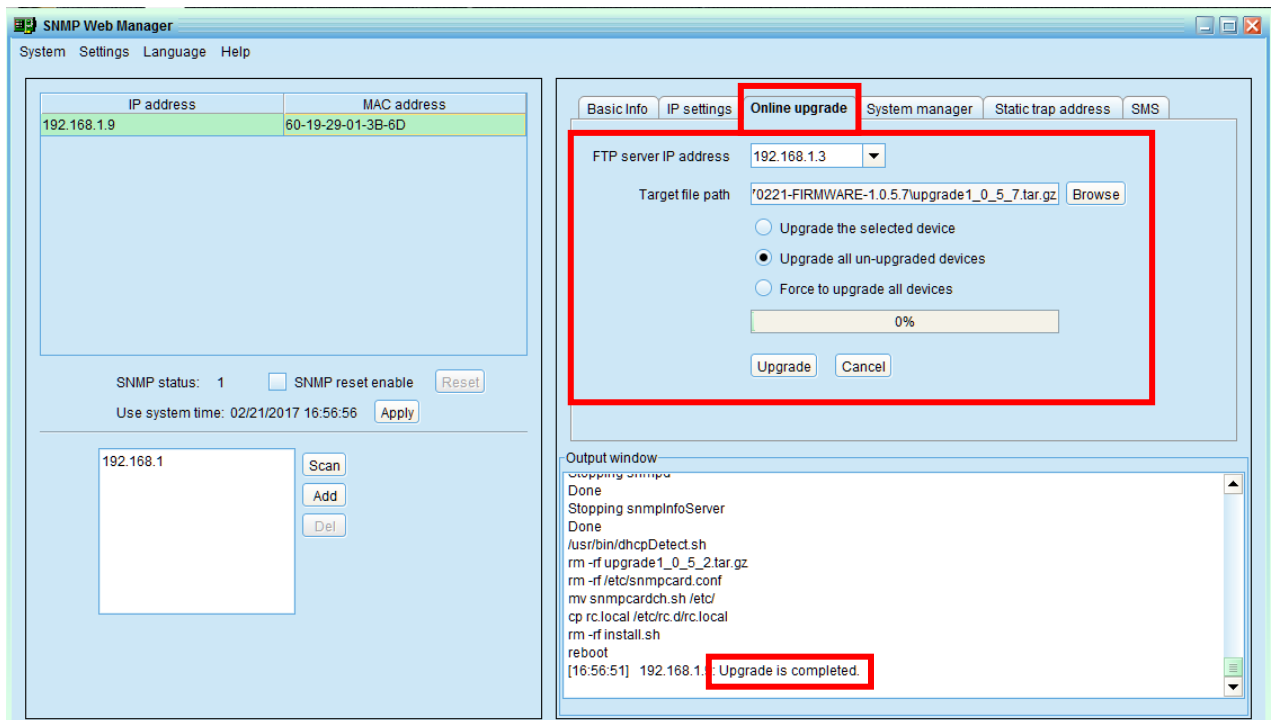
Output window

[12:38:57] 192.168.1.9 Online successfully.
[15:57:41] 192.168.1.9 Online successfully.
[16:08:53] 192.168.1.9 Online successfully.
[16:08:56] 192.168.1.9 Online successfully.

FIRMWARE UPGRADE.**IMPORTANTE:**

This process must be performed by service personnel only.

Before starting upgrading process is mandatory to disable all firewalls in the PC from download will be done. If firewalls are not disabled, downloading process could be interrupted. Sometimes this kind of interruptions can cause a permanent damage in the card.

**PROCEDURE:**

Make sure all firewalls are disable.

Select ONLINE UPGRADE tab.

Write IP of the PC where download will be done from

Search firmware file by BROWSE key

Select type of upgrade:

- Only in selected card:
- All cards not upgraded in the network
- All cards in the network (already upgraded or not)

Press UPGRADE key

If you have not logged in as administrator previously, you will be asked for the password. Introduce: 12345678

Confirm again.

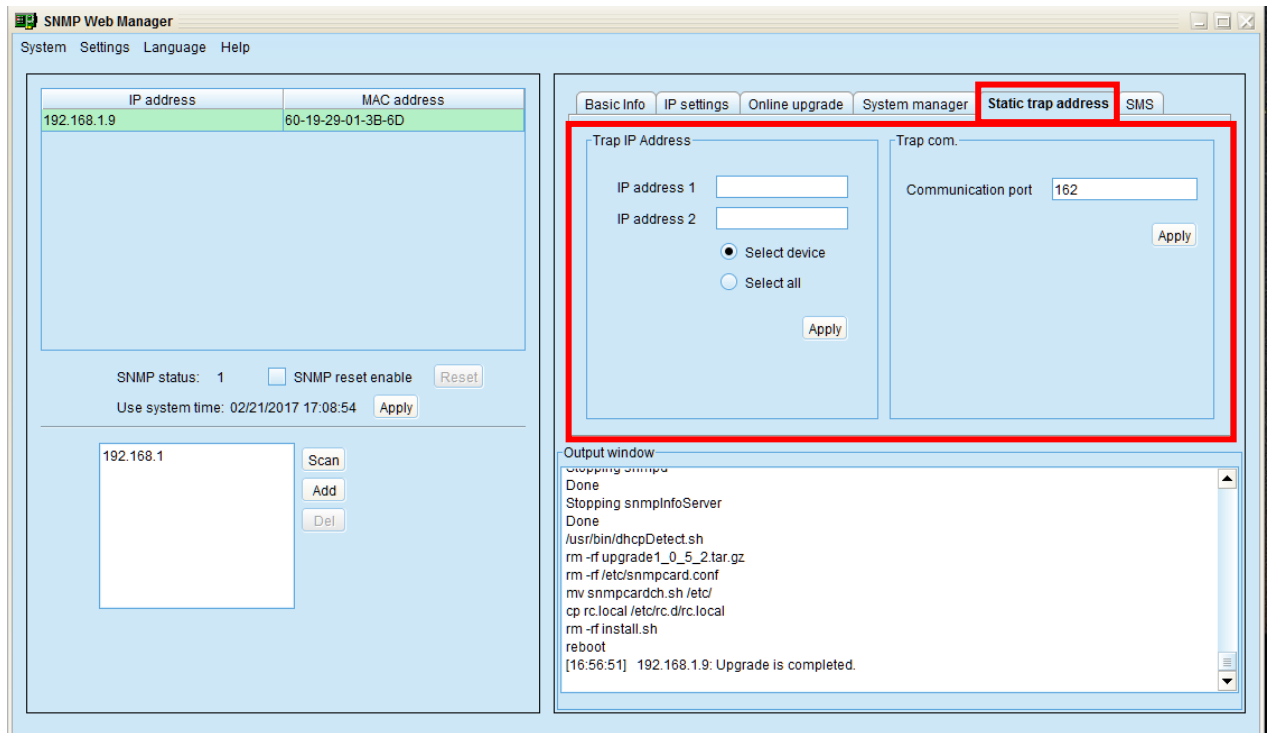
When process ends, results window must show a message like this:

“UPGRADE IS COMPLETE”

If download cannot be done, results window will show up to 5 attempts for upgrading and a final message indicating upgrade failure. Check if all firewalls are disable. Check if network is working OK.

STATIC TRAP ADDRESS.**ONLY for service personnel.**

You may configure two static trap addresses and change trap port in SNMP Manager. The default trap port is 162.



NOTE: This software allows SNMP device to send trap messages to 2 static trap addresses and 8 dynamic trap addresses. It will default define host computer with software installed as a dynamic trap address. If communication failure occurs between SNMP card and host computer for over 10 minutes, it will stop sending trap message.

ANEXO -3

COMMUNICATION PORT 162

This software uses port 162 as default to communicate with SNMP card of the UPS. Sometimes firewalls could be blocking this port. Other times, other software could be using same port 162. In any of these 2 situations, Viewpower Pro will have problems to communicate with UPS card.

To know if port 162 is being used by another software, user could revise it from the system command line of the Operating System.

Before doing this procedure make sure Viewpower PRO is stop. If not, results will not determine if port 162 is being used by other software or by Viewpower Pro.

Viewpower PRO can be stop by command **"sc stop upspromonitor"** from command line.

Run cmd.exe as administrator by right clicking: run as administrator:
Then execute command:

```
C:\WINDOWS\system32>sc stop upspromonitor
```

```
SERVICE_NAME      : upspromonitor
        TYPE        : 110   WIN32_OWN_PROCESS   (interactive)
        STATUS       : 3     STOP_PENDING
                        (NOT_STOPPABLE, NOT_PAUSABLE,
```

Then you should confirm if software is stopped or not. Line command must reply with message **STOPPED**

```
C:\WINDOWS\system32>sc query upspromonitor
```

```
SERVICE_NAME      : upspromonitor
        TYPE        : 110   WIN32_OWN_PROCESS   (interactive)
        STATUS       : 1     STOPPED
```

Now you can proceed to check if port 162 is being used with command netstat as follow. If port is not usedm system prompt will reply with blank line:

```
C:\WINDOWS\system32>netstat -an | find "162"
C:\WINDOWS\system32>
```

If port is in use, prompt will reply with message like this:

```
C:\WINDOWS\system32>netstat -an | find "162"
    UDP    0.0.0.0:162          *:*
    UDP    [::]:162             *:*
```

In case other software is using same port 162, find it and stop it. If it cannot be stopped, you could change port number for SNMP card by using SNMP MANAGER as explained in previous ANNEX-2 of this manual.