User Manual

WatchPower

Management Software for Inverter

Table of Contents

1. WatchPower Overview

1.1. Introduction

WatchPower is an inverter monitoring software which can monitor multiple devices via serial port at the same time. The major functions of WatchPower monitoring software include data log for devices, alarm messages, fault messages, and parameter setting for devices.

1.2. Features

- Automatic and real-time data acquisition of devices and secured data log saving
- Graphic display of device data for quick and easy reading
- Warning notifications or fault alarms via mobile messenger, tray message and e-mail
- Easy diagnosis from event statistics
- Supports online upgrade and manually upgrade

2. WatchPower Install and Uninstall

2.1. System Requirement

- 512 MB physical memory at least (1 GB is recommended)
- 2GB hard disk space at least
- Administrator authority is required
- More than 32-bit colors and 1280 x 800 or above resolution display is recommended
- An available communication port is needed
- Platforms supported by software are listed below:
  - ➢ Windows XP/2000/2003/Vista/2008 (32-bit & 64-bit)
  - ➢ Windows 7/8 /8.1/10(32-bit & 64-bit)
  - ➢ Windows SBS 2011
  - ➢ Linux RedHat 8, 9
  - ➢ Linux RedHat Enterprise AS3, AS5, AS6 (32-bit)
  - ➢ Linux RedHat Enterprise AS6 (64-bit)
  - ➢ Linux RedHat Enterprise 5.2 (32-bit & 64-bit)
  - ➢ Linux SUSE 10 (32-bit & 64-bit)
  - ➢ Linux Cent OS 5.x ,6.x(32-bit & 64-bit)
  - ➢ Linux Ubuntu 8.X, 9.X, 10.X (32-bit)
  - ➢ Linux Ubuntu 10.X (64-bit)
  - ➢ Linux Ubuntu 12.04 (32-bit & 64-bit)
  - ➢ Linux Fedora 5
  - ➢ Linux OpenSUSE 11.2 (32-bit & 64-bit)
  - ➢ Linux Debian 5.x, 6.x (32-bit)
  - ➢ Linux Debian 6.x (64-bit)
  - ➢ Mac OS 10.x (64-bit)

2.2. Software Install

WatchPower is a portable application. It's no need to install this software. You may simply double click "WatchPower.exe" to automatically run this software after extracting files.
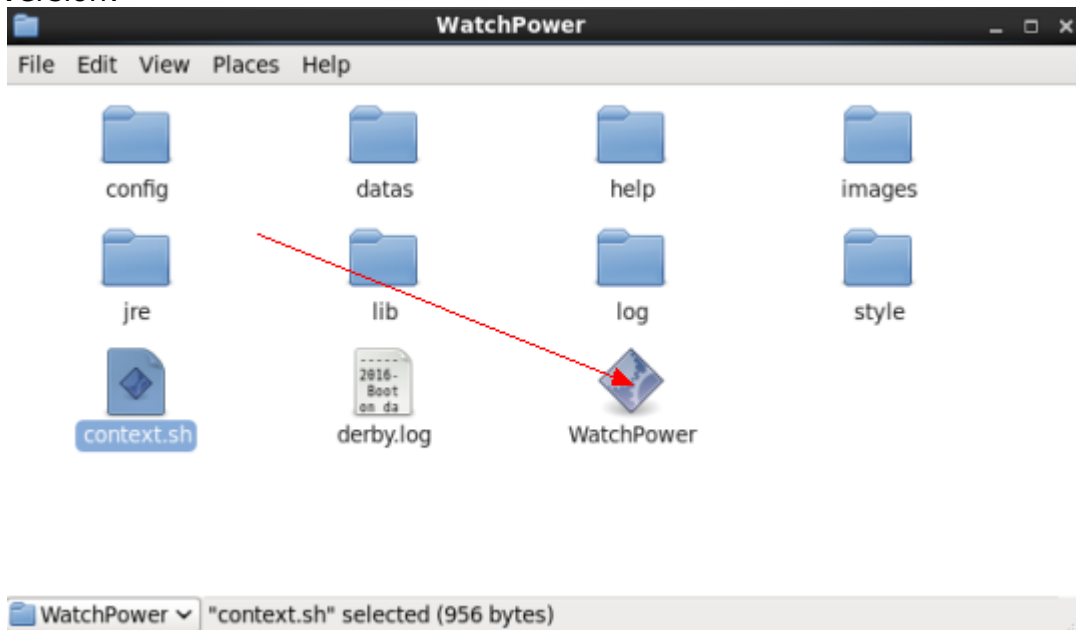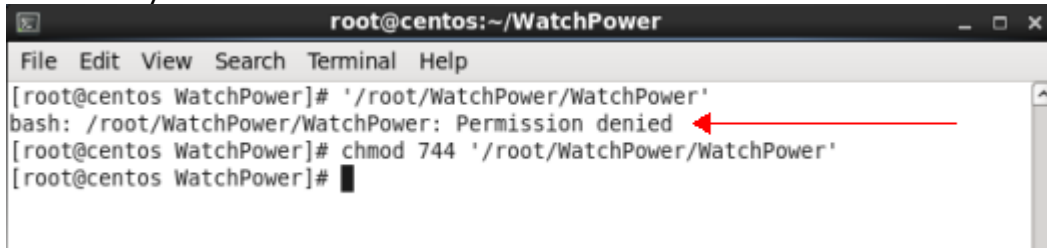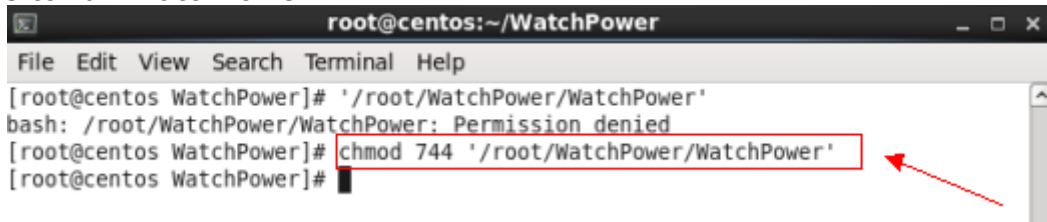
Windows Version:

Macosx Version:

Linux Version:

NOTE: If it's not running after double clicking WatchPower in Linux OS, please check if there is authority to run WatchPower with terminal.

If it shows "Permission denied" in dialog, please send command for elevation of privilege to run WatchPower.

2.3. Software Uninstall

This software becomes portable software. It's easy to delete all files for software uninstallation.

3. Tray Application

3.1. Startup

The Installer will leave a shortcut icon called "WatchPower" on your desktop. Refer to Diagram 3-1. Simply double click the shortcut icon. Then, it will start the software and display a service icon located in tray. It will pop up function menu by clicking right button of the mouse. Refer to below diagram 3-2.
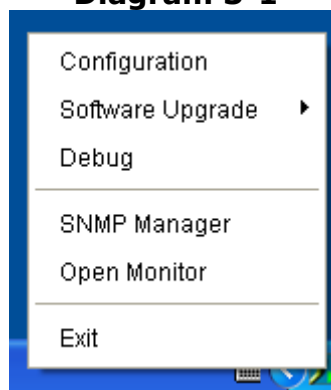

Diagram 3-1

Diagram 3-2

3.2. Configuration

3.2.1. Software Upgrades

Refer to Diagram 3-3 for the detailed configuration for online upgrade:

- Specify the URL for update files: This is the directory to online update software. Please do not change it unless it's instructed by software manufacturer.
- Save files to: The directory to save files in your hard drive.
- Online auto-update: If selected, it will automatically check if there is any new version launched online every 1 hour.
- If applying online upgrade, please follow below for configuration:
  1. Select "Apply the proxy configuration".
  2. Enter IP address and port of server.
  3. If ID identification is requested, select "Enable authentication" and enter User Name and Password.
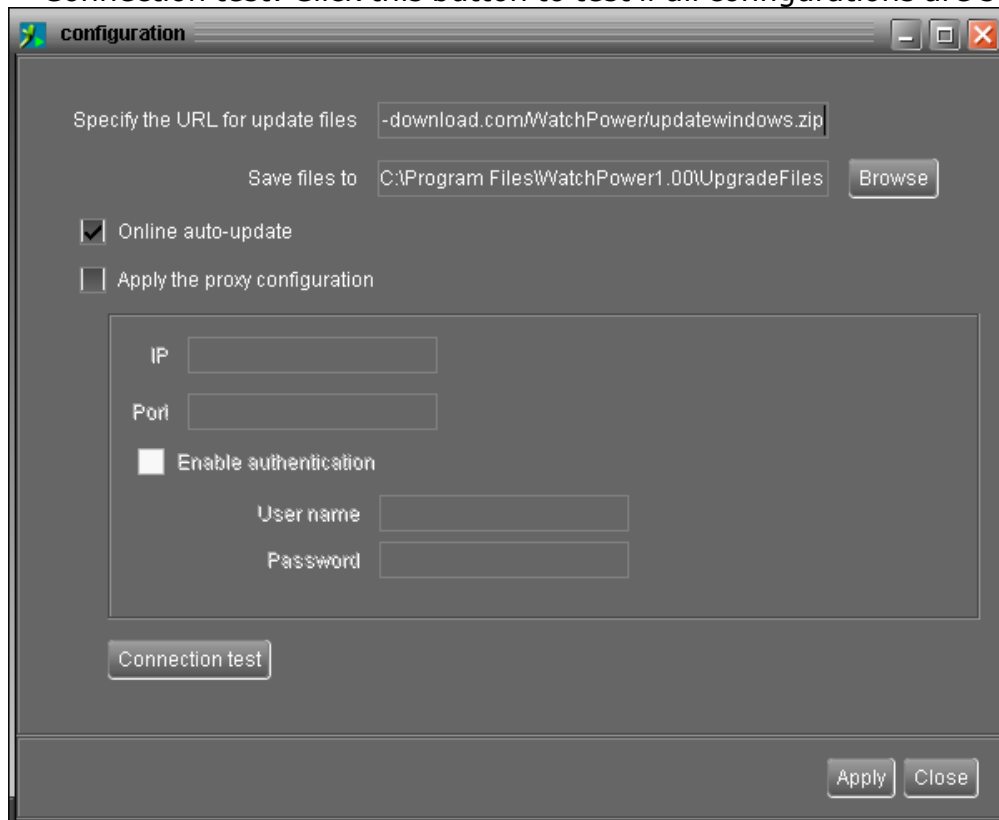- Connection test: Click this button to test if all configurations are set up well.

Diagram 3-3

3.2.2. Configuration Saved

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

3.3. Software Upgrade

Software upgrades includes online upgrade and manually upgrade.

- Online Upgrade:
  Click "Online Upgrade" to search the latest software version. If there is new

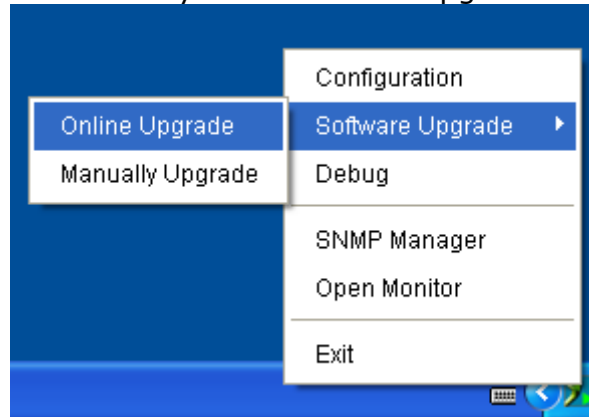version, it will automatically download and upgrade. Refer to Diagram 3-4.

Diagram 3-4

● Manually Upgrade:
  Users can manually upgrade the software. Follow below steps:
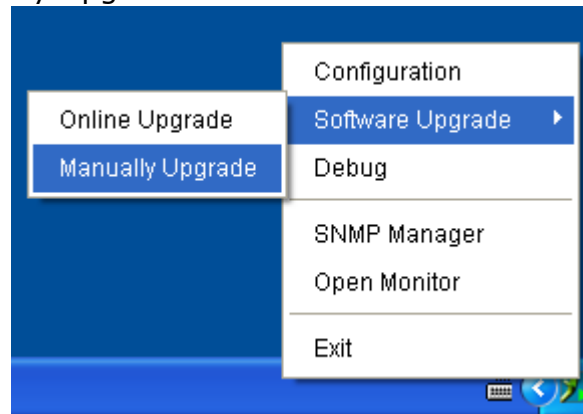 1. Click "Manually Upgrade" from function menu. Refer to Diagram 3-5.

Diagram 3-5

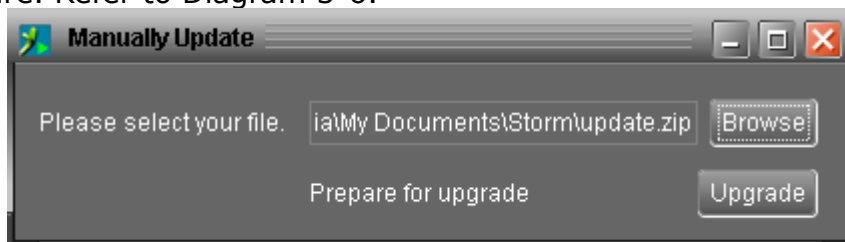 2. Click "Browse" to choose file directory. Then, click "Upgrade" to upgrade software. Refer to Diagram 3-6.

Diagram 3-6

3.4. SNMP Manager

SNMP Manager is a plugin utility for WatchPower software. Users can search and operate all SNMP devices in the LAN via this interface. Then, WatchPower will automatically search and monitor these SNMP devices. Please open "SNMP Manager" by clicking right button of the mouse on service icon. It has four sections as marked in the illustration below:
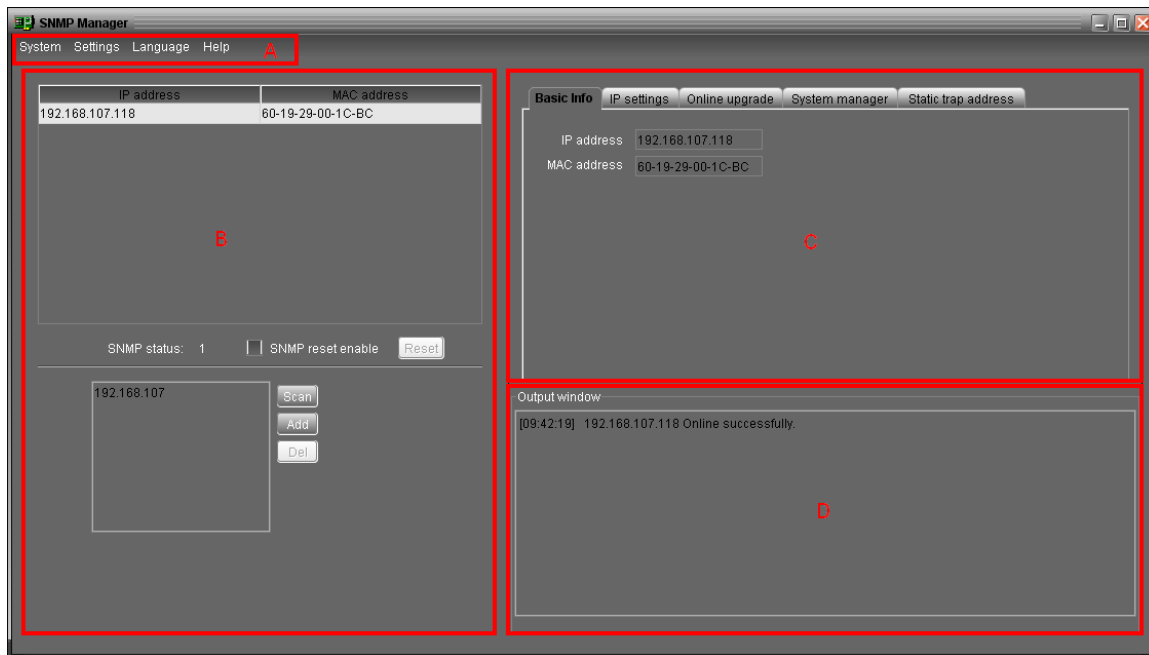
A. Function menu offers complete tool-set for navigating and setting the GUI.

B. SNMP device list can list down all SNMP devices located in current IP address.

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

D. Output window displays all messages for operations

3.4.1. SNMP Device List

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

● **Scan**

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

● **Add**

Click "Add" button and it will pop up a window to ask for entering specific IP address. Then, click "Apply" button to add IP address (Subnet). Refer to Diagram 3-7.
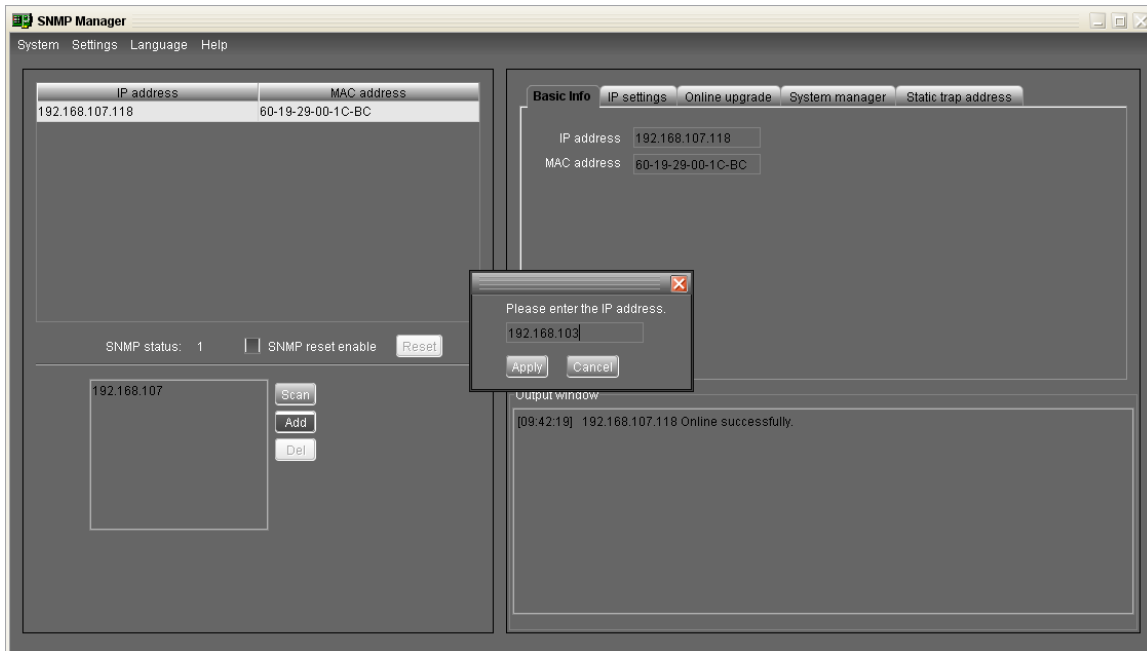
Diagram 3-7

- **Delete**

Select unnecessary IP address from list and click "Del" button to delete from list.

- **SNMP Status**

After one IP address is selected from the IP list, SNMP status will display 0 or 1. If there is program inside SNMP card, SNMP status would show 1. If there is no program inside, SNMP status would display 0. If there is no IP selected, SNMP status will be the default "---". Refer to Diagram 3-8.
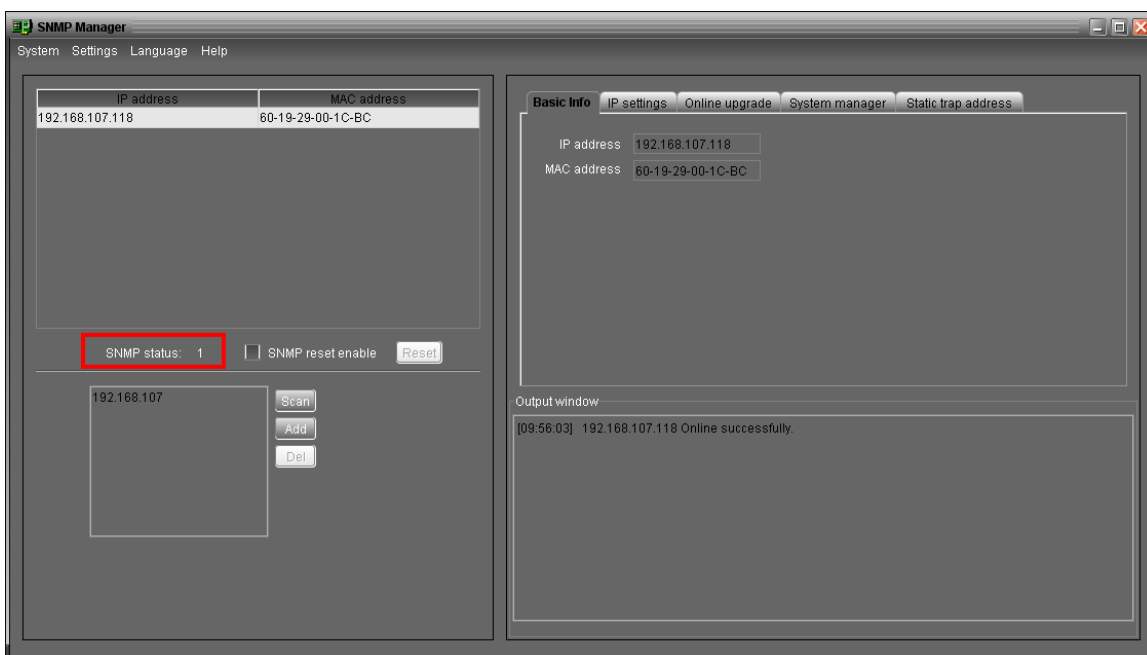

Diagram 3-8

- **Reset**

If it's necessary to restart the device IP addresses, please select the "SNMP reset enable" and click on the "Reset" button. Then, after entering password to confirm the login, you can restart the device. Please follow below steps to execute this action:

Step 1: Select from the IP list of equipment needed to restart IP. Refer to Diagram 3-9.
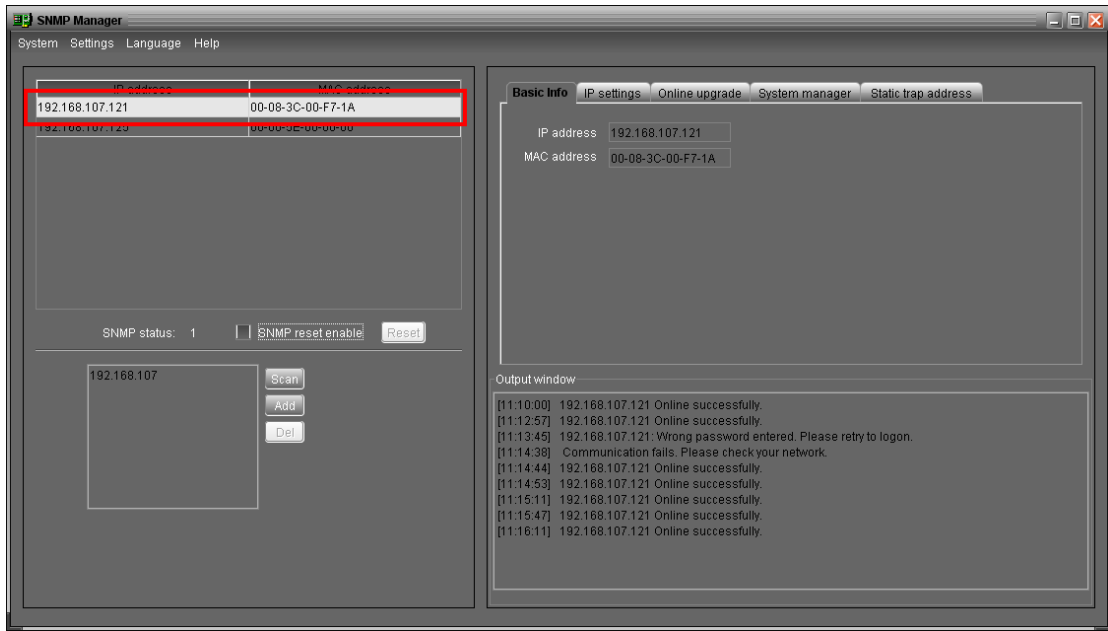

Diagram 3-9

Step 2: After IP is selected, please click the checkbox of "SNMP reset enable". Then, "Reset" button will become valid. Refer to Diagram 3-10.
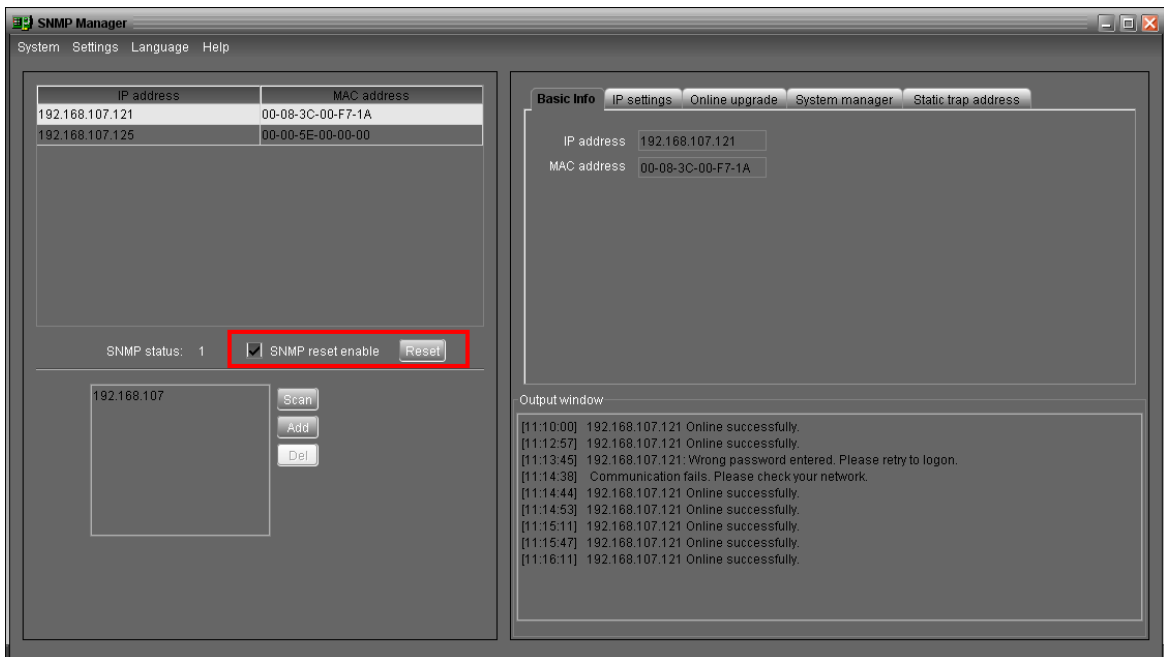

Diagram 3-10

Step 3: Click the "Reset" button. It will prompt the dialog to confirm the operation. If "Yes" is selected, it will prompt the dialog to confirm login. If "No" is selected, it will stop this operation. Refer to Diagram 3-11.
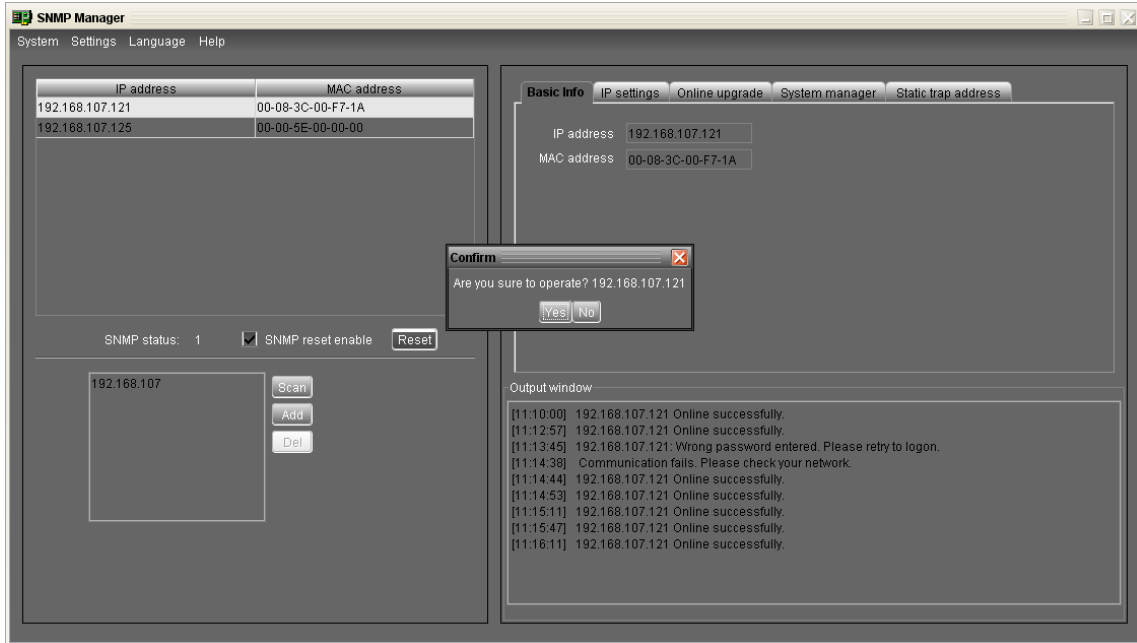

Diagram 3-11

Step 4: After entering password and select "Login", you will be prompted to log in. Then, selected device will be restarted. If "Cancel" is selected, it will stop this operation.
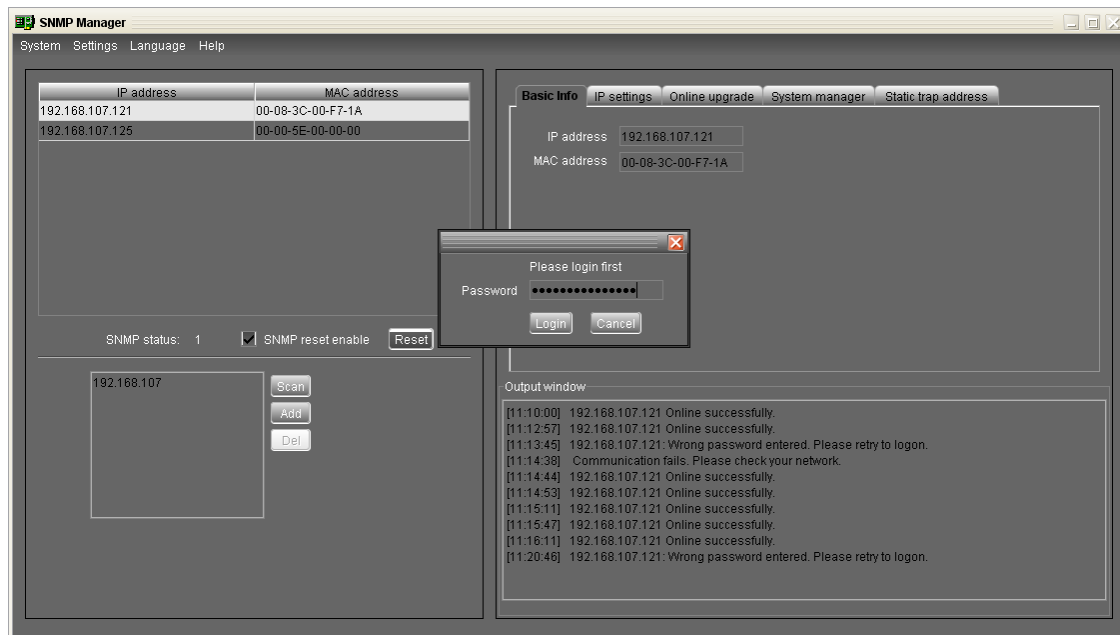

Diagram 3-12

NOTE: If changing MAC address of current device before reboot and current device is obtained by DHCP (Automatically obtain IP address), you need to manually click

"Scan" button to get IP address after reboot.

3.4.2. SNMP Manager Function Menu

3.4.2.1. System

● **Login**

When remote login to access SNMP devices, it's necessary to verify ID. The default password is "12345678".

Step1: Select System >> Login

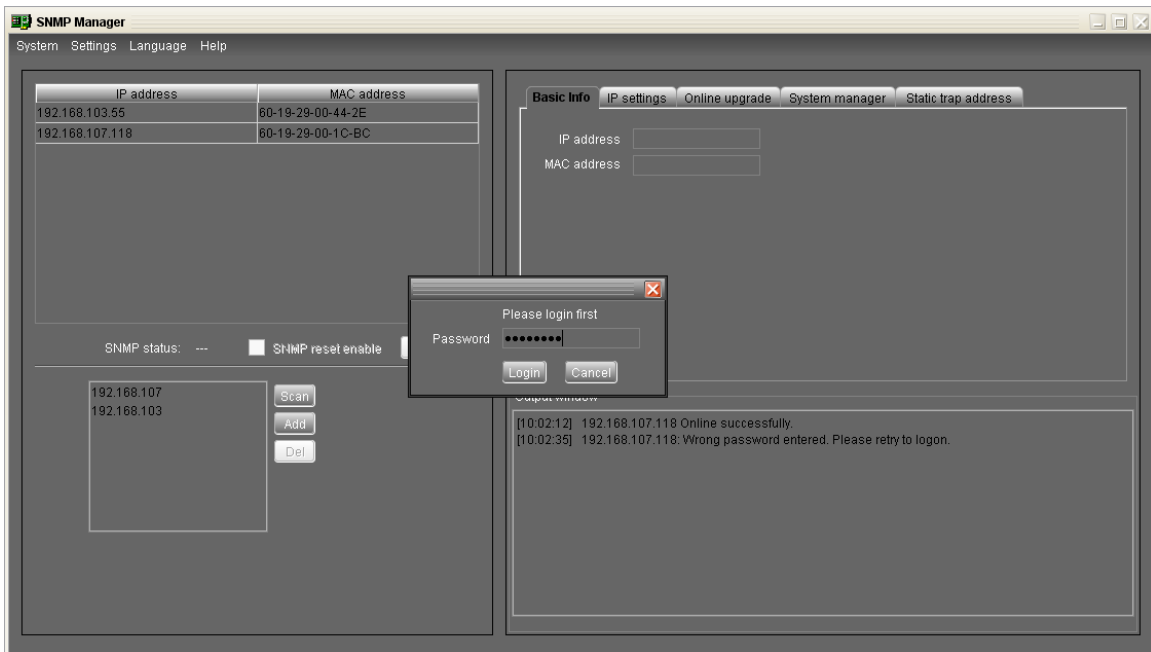**Step2:** Enter default password and then click "Login" button. Or click "Cancel" to cancel login. Refer to Diagram 3-13.

Diagram 3-13

● **Logout**

Log out system when access is no longer needed.

● **Quit**

Select "Quit" to exit SNMP Manager.

3.4.2.2. Settings

● **Basic Info**

Basic information display IP address and Mac address. Refer to Diagram 3-14.
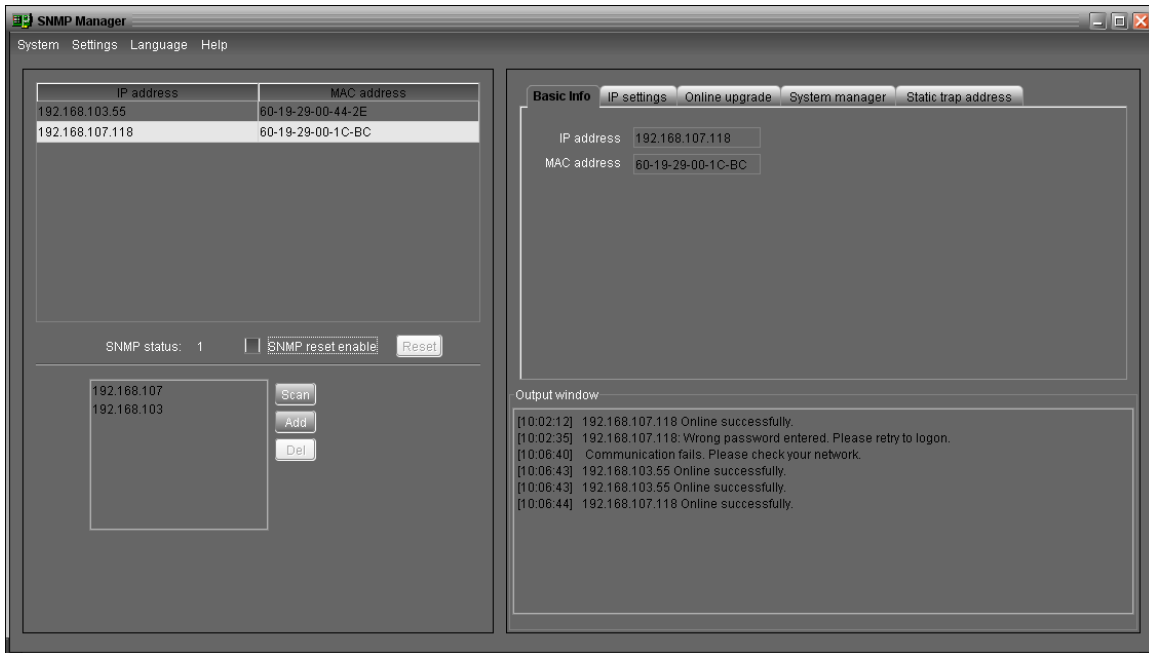
Diagram 3-14

- **IP Setting**

Part 1: Change MAC address

    Step 1: Select IP address from IP list. It will display MAC address of device in the output window. If it's necessary to modify the MAC address of the device, click checkbox of "Change". Refer to Diagram 3-15.
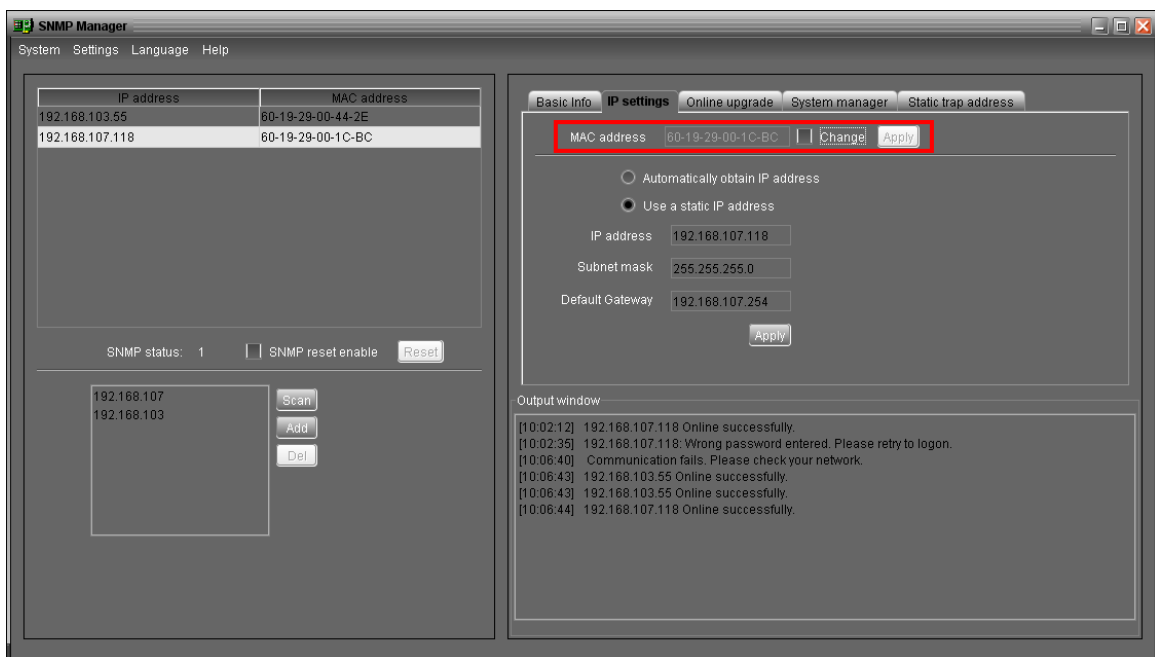

Diagram 3-15

    Step 2: After checkbox of "Change" is selected, enter new MAC address into column.

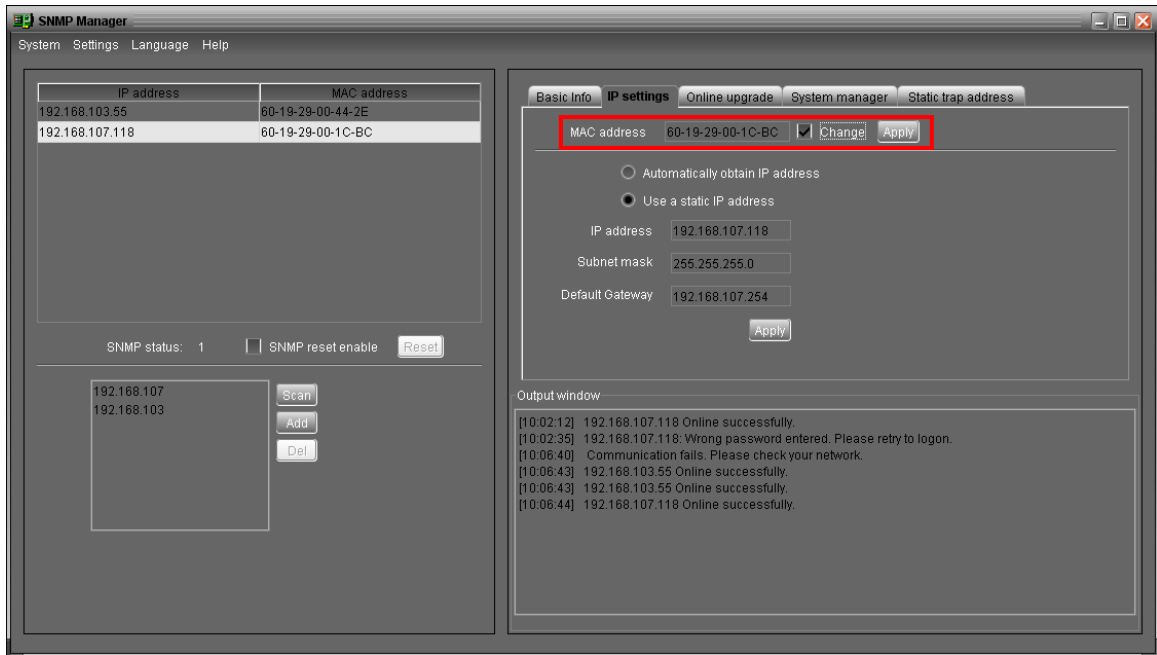"Apply" button will become valid to click. Refer to Diagram 3-16.

Diagram 3-16

Step 3: After modifying MAC address, click "Apply" button. Then it will prompt a dialog to confirm the operation. Refer to Diagram 3-17.
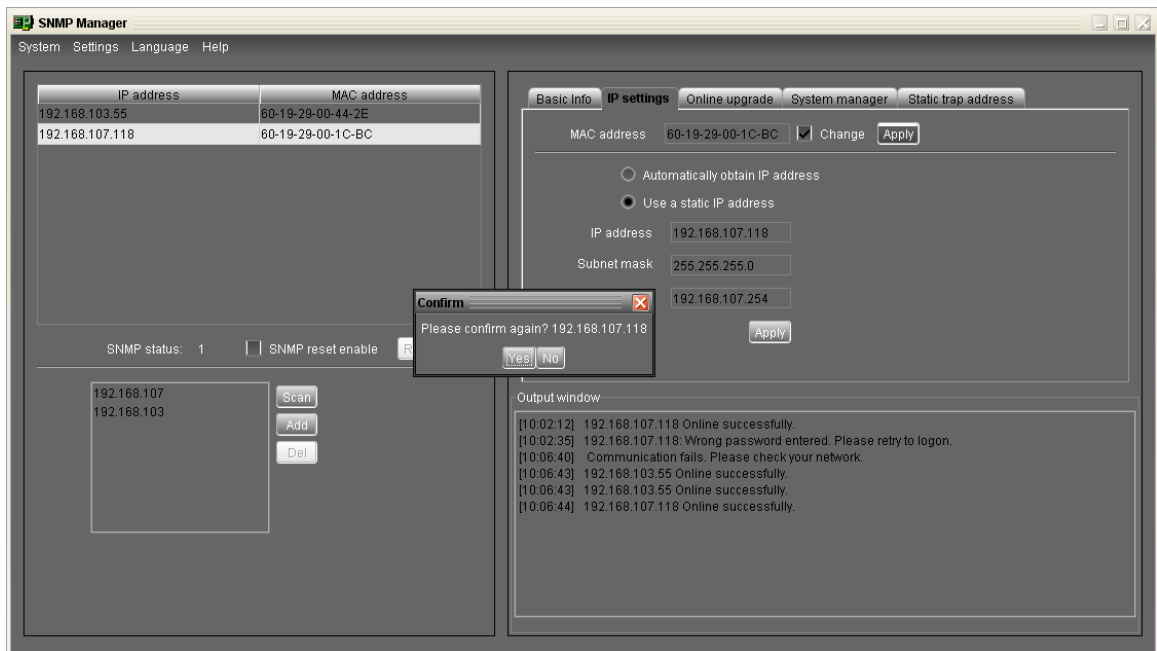

Diagram 3-17

Step 4: If "Yes" is selected, it will prompt "Operation success" in output window. Refer to Diagram 3-18.

Diagram 3-18

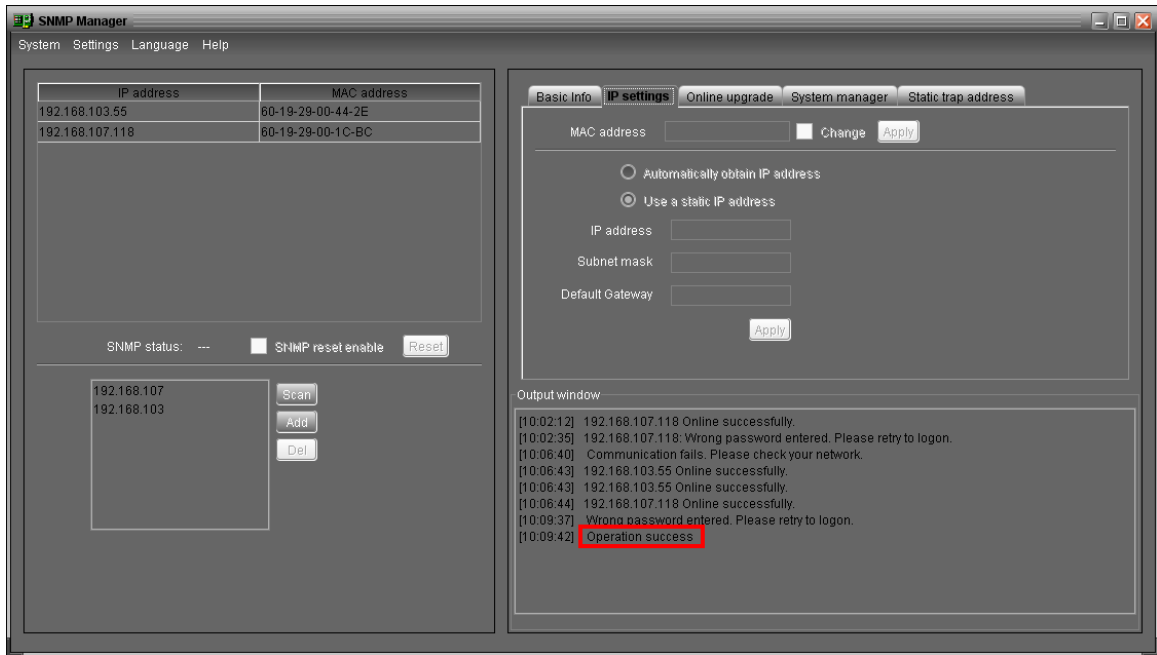**Part 2:** There are two methods to obtain IP address:

● Automatically obtain IP address (DHCP)

● 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". Refer to Diagram 3-19.
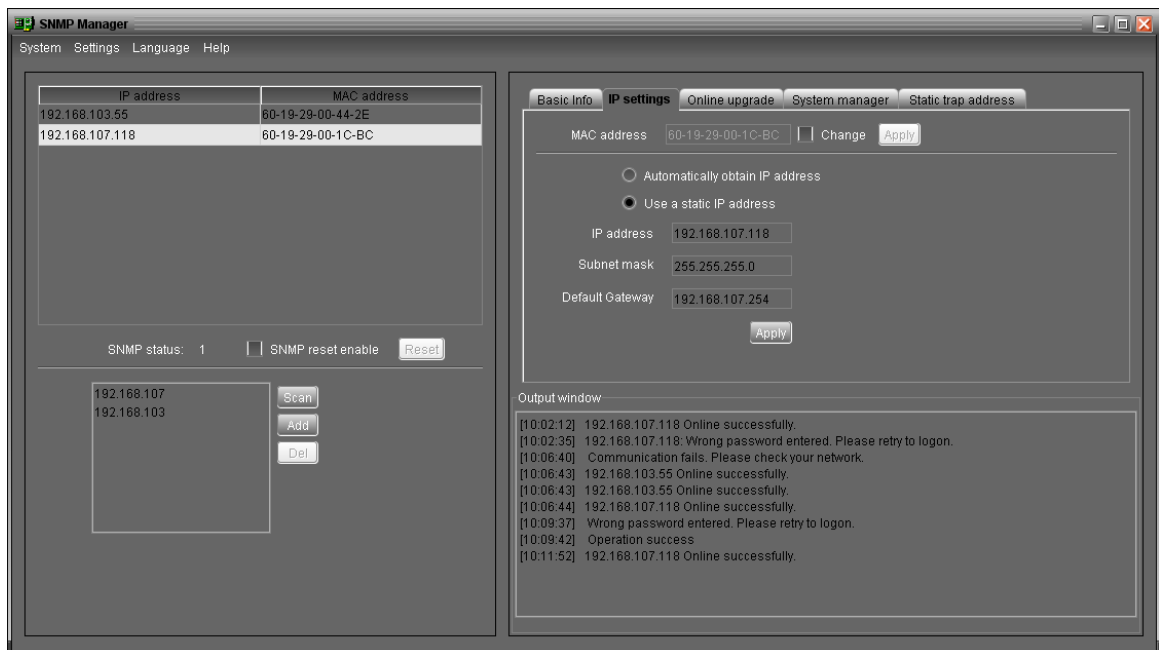

Diagram 3-19

Online upgrade

There are three methods for online upgrade:

● Upgrade the selected devices: It will upgrade all SNMP devices listed on the window.

● Upgrade all un-upgraded devices: It will only upgrade SNMP devices which are not using the same version as current SNMP device is.

● Force to upgrade all devices: No matter what kinds of version are used for SNMP devices listed in the window list, it will upgrade to the version used for current SNMP device. Refer to Diagram 3-20.
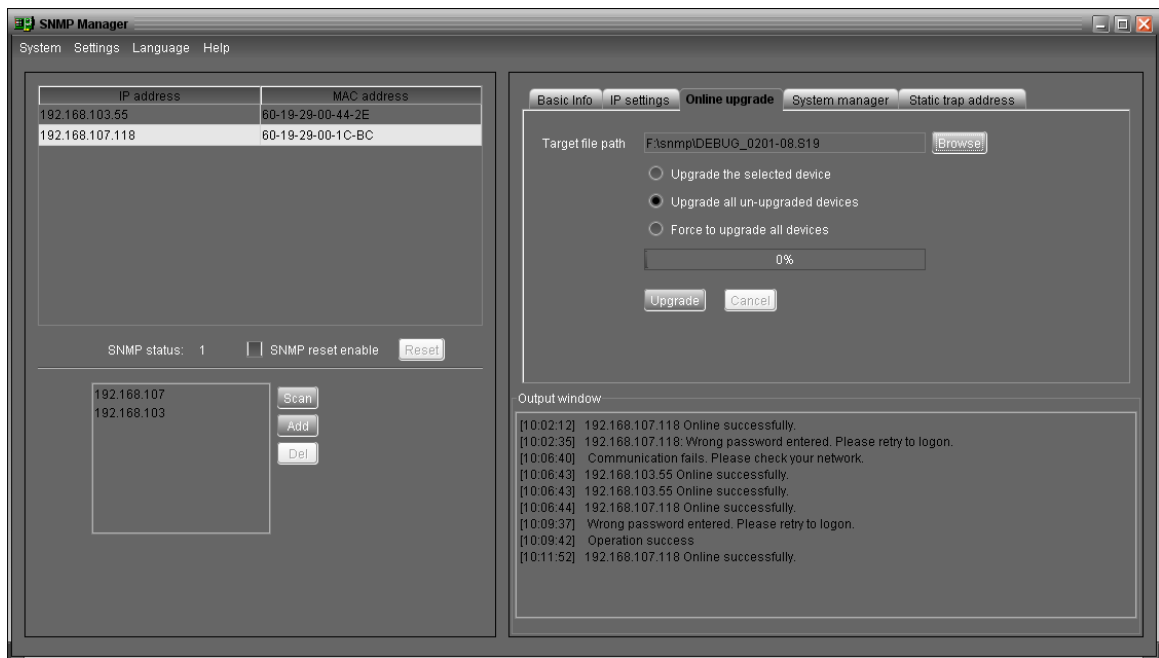

Diagram 3-20

Step 1: Click "Browse" button to choose program file. Refer to Diagram 3-21.
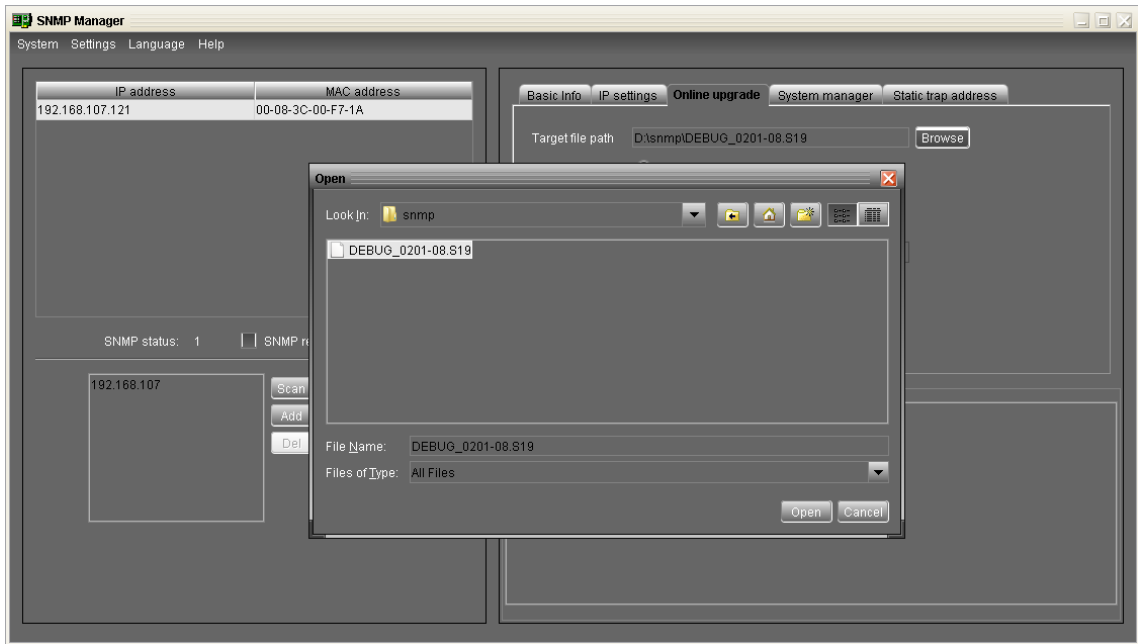
Diagram 3-21

Step 2: Click "Upgrade" button to execute upgrade action. Refer to Diagram 3-22.
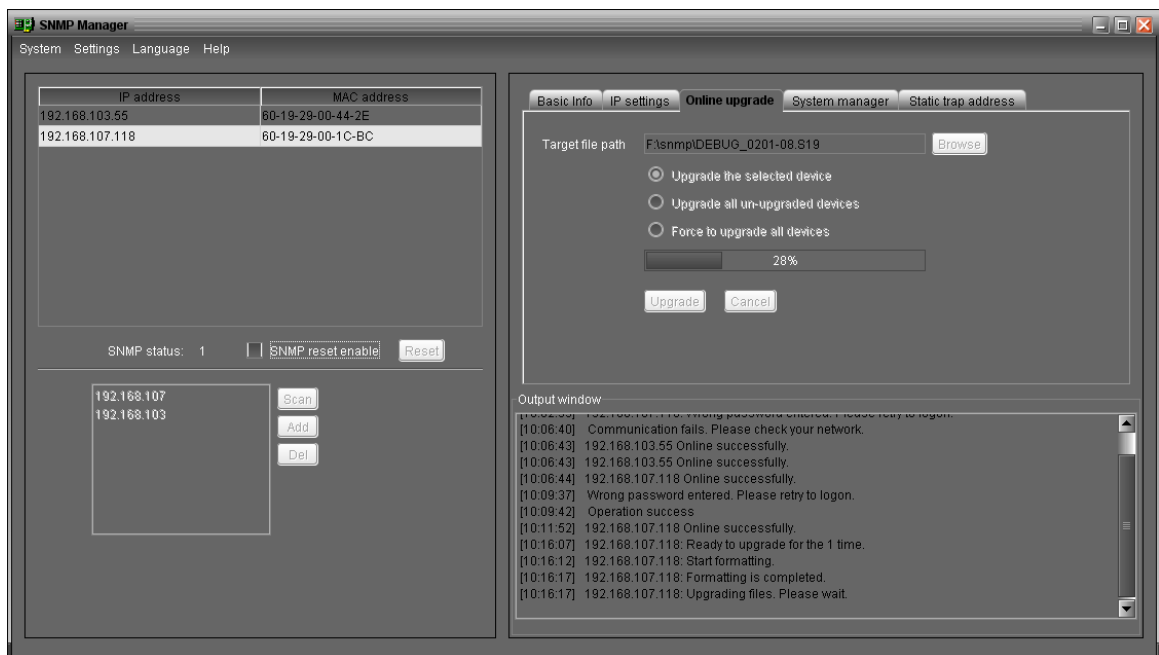
Diagram 3-22

Step 3: When upgrade is complete, you may check the message in output window. Refer to

Diagram 3-23.
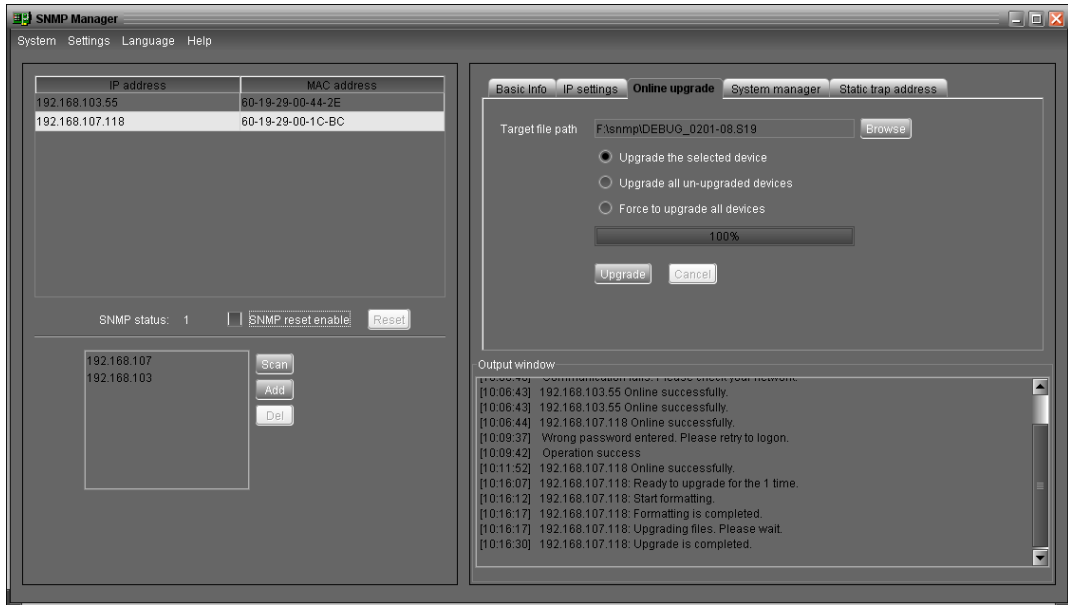
Diagram 3-23

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

System manager

You may modify single password for one SNMP device or all passwords for all SNMP devices.
Refer to Diagram 3-24

Diagram 3-24

● Select device: Choose to change password for selected SNMP device on the window

16

list.

- Select all: Choose to change passwords for all SNMP devices on the window list

Enter original password, new password and re-enter new password to confirm. Then, click "Apply" button to apply password change.

NOTE: The length of password is 8~15 digits. If this password change is applied for all SNMP devices, all SNMP devices passwords must be consistent.
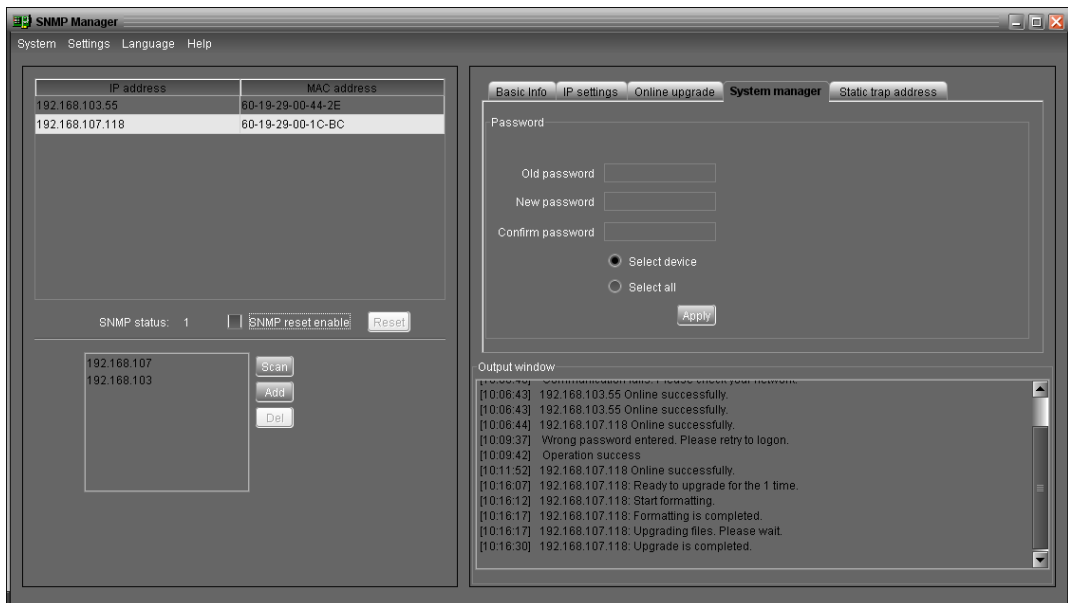
Static trap address

You may configure two static trap addresses and change trap port in SNMP Manager. The default trap port is 162. Refer to Diagram 3-25.
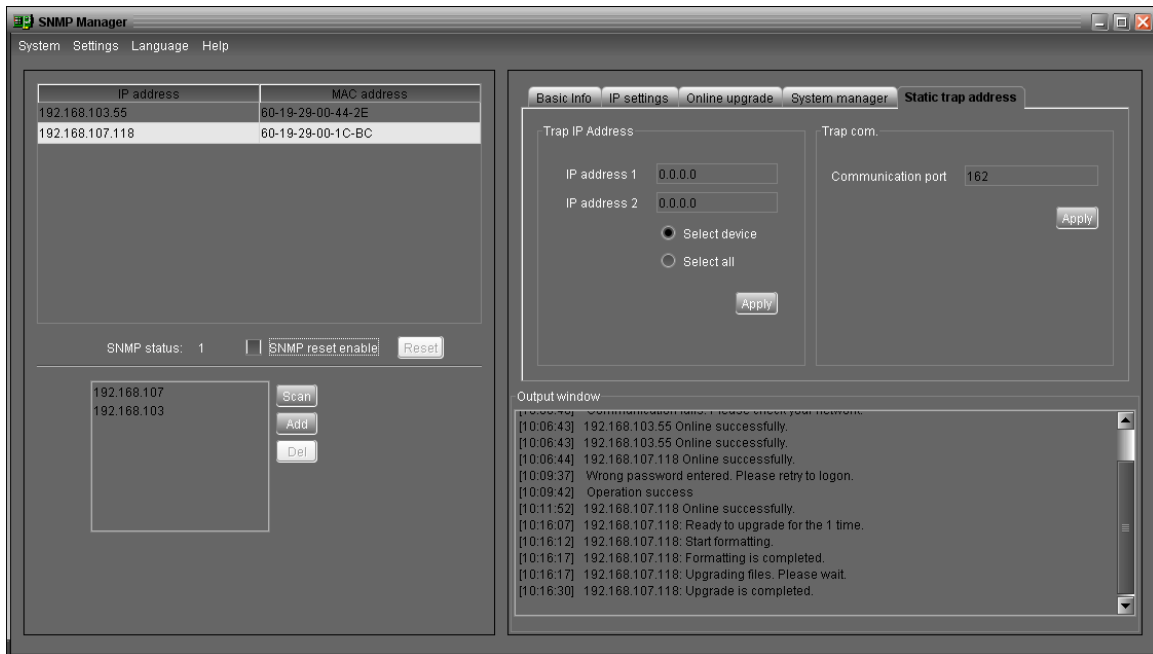
Diagram 3-25

NOTE: The SNMP device could provide 2 static trap addresses and 8 dynamic trap addresses. The SNMP device will automatically obtain IP address of host machine which installed monitoring software as dynamic trap address. If one of dynamic trap address is inactive for over 10 minutes, SNMP device will automatically release it and obtain a new dynamic trap address.

3.4.2.3. Language

SNMP Manager offers 12 languages:

√ Chinese(Simplified)

√ Chinese(Traditional)

√ English

√ German

√ Italian

√ Polish

√ Portuguese

√ Russian

√ Spanish

√ Turkish

√ Ukrainian

√ French

The default language setting would be English.

3.4.2.4. Help

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

3.5. Open Monitor

Click "Open Monitor" to open the monitoring webpage of WatchPower.

3.6. Icon and Software Status

- Connecting devices: and will rotate as an animation
- When receiving event message with devices connected: will flash for reminder
- When receiving event message without devices connected: will flash for reminder

3.7. Message Board

Users can check message board for event list. Refer to Diagram 3-26：

Diagram 3-26

3.8. Exit

Click "Exit" to exist monitor application.

4. GUI Interface

There are five sections in GUI interface as marked in the illustration below:
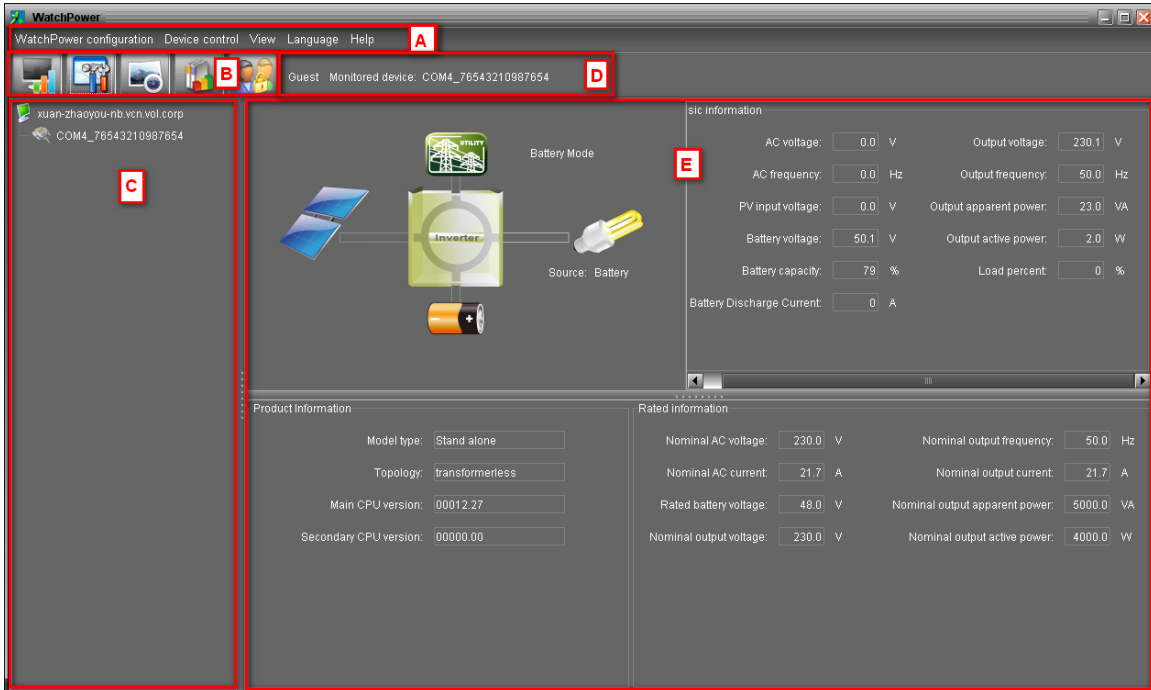
Diagram 4-1

A. **Function Menu** offers complete tool-set for navigating and setting the GUI.

B. **Shortcut Menu** provides short cuts to more commonly used functions.

C. **Inverter Navigation** indicates all devices.

D. **Current Monitoring Information** displays User ID, monitored inverter ID.

E. **Main Window** displays power flow, operation information, device information and rated information of current monitored inverter. Refer to Diagram 4-2.
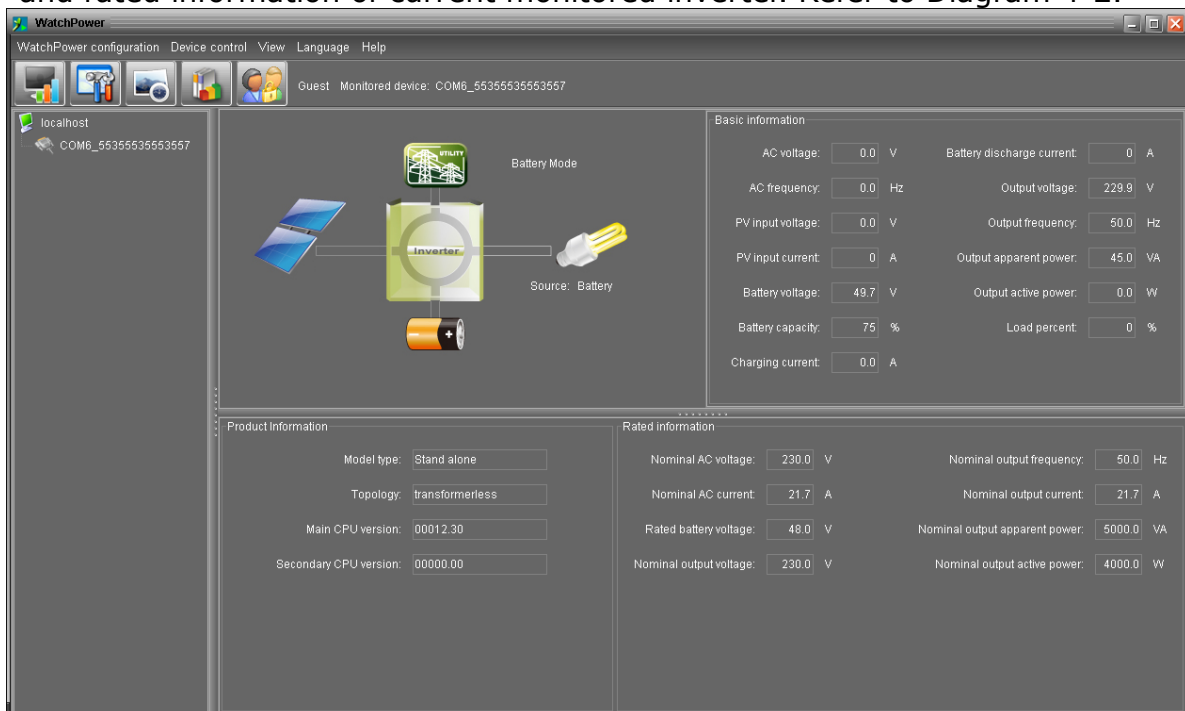
Diagram 4-2

1. Power flow:

There are five device icons: solar panel, battery, inverter, load and the utility. It displays dynamic power flow with these five device icons.

➢ Power on and Standby mode: Inverter won't power the load until "ON" switch is pressed. Qualified utility or PV source can charge battery in standby mode.
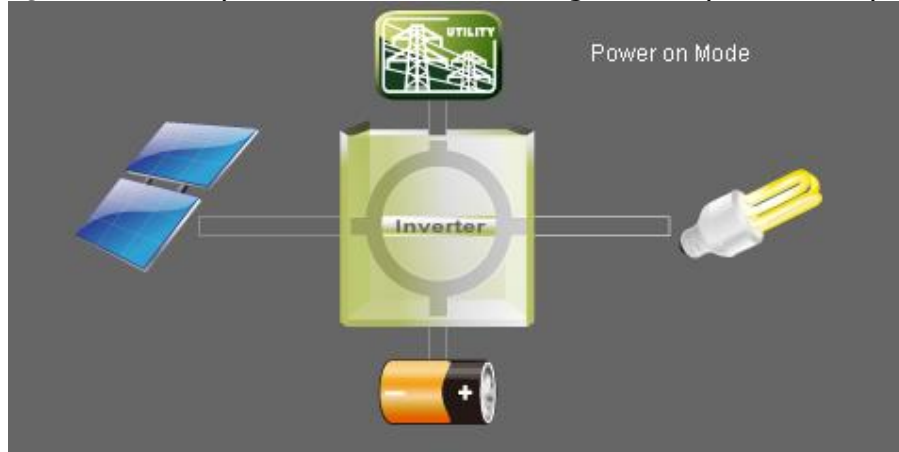
Power on Mode
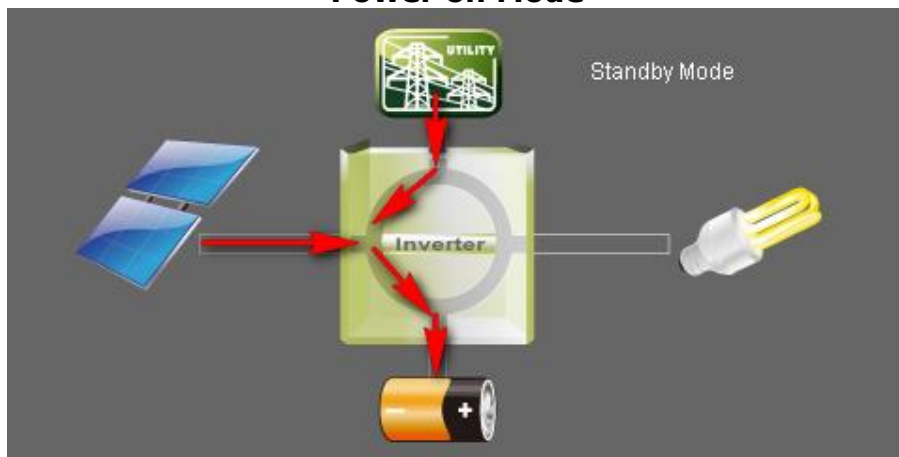
Standby Mode

➢ Line mode: Inverter will power the load from utility. Qualified utility or PV source can charge battery.
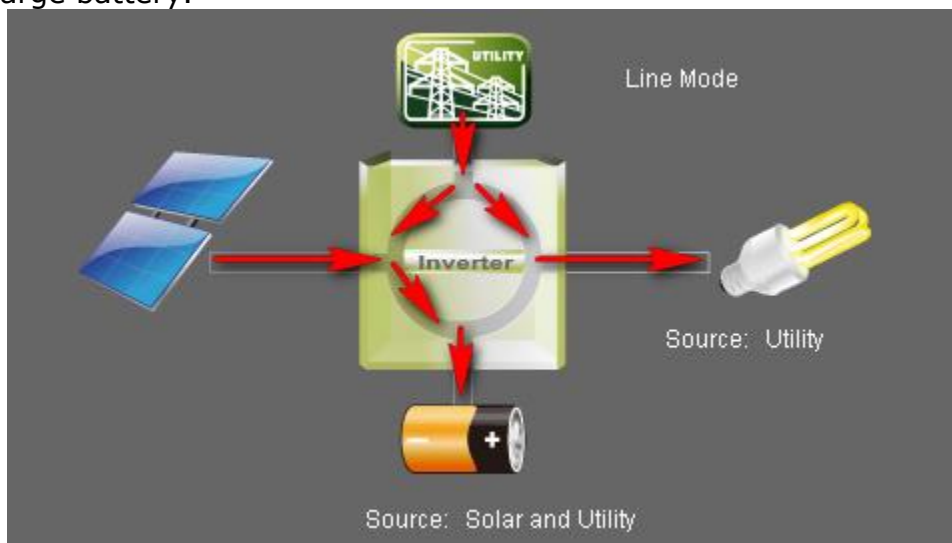
Line Mode

➤ Battery mode: Inverter will power the load from battery or PV panel. Only PV source can charge battery.
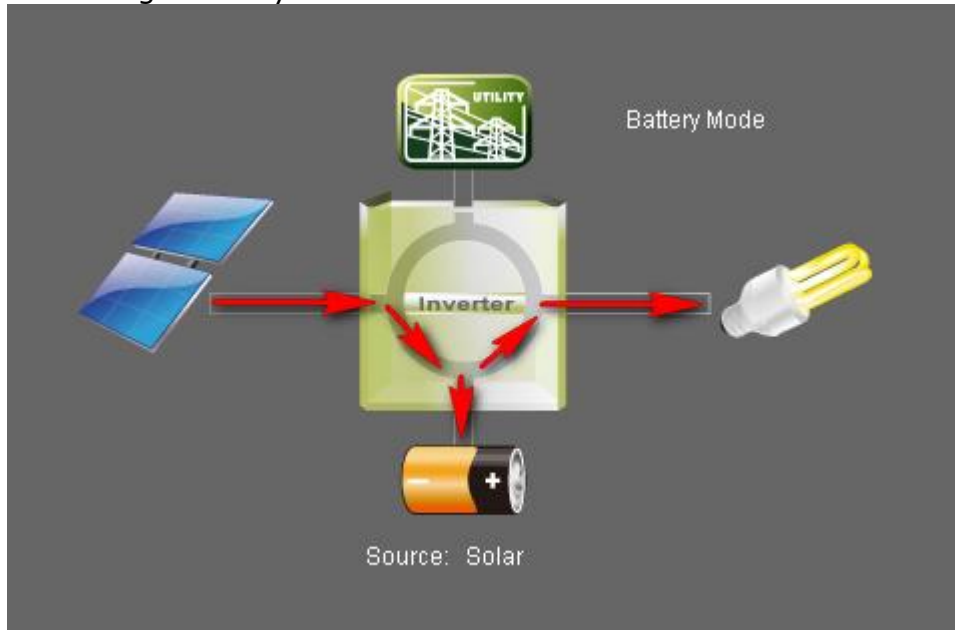
Battery Mode

➤ Fault mode: Some faults occurred in inverter and no power output is generated from inverter. Qualified utility or PV source still can charge battery.
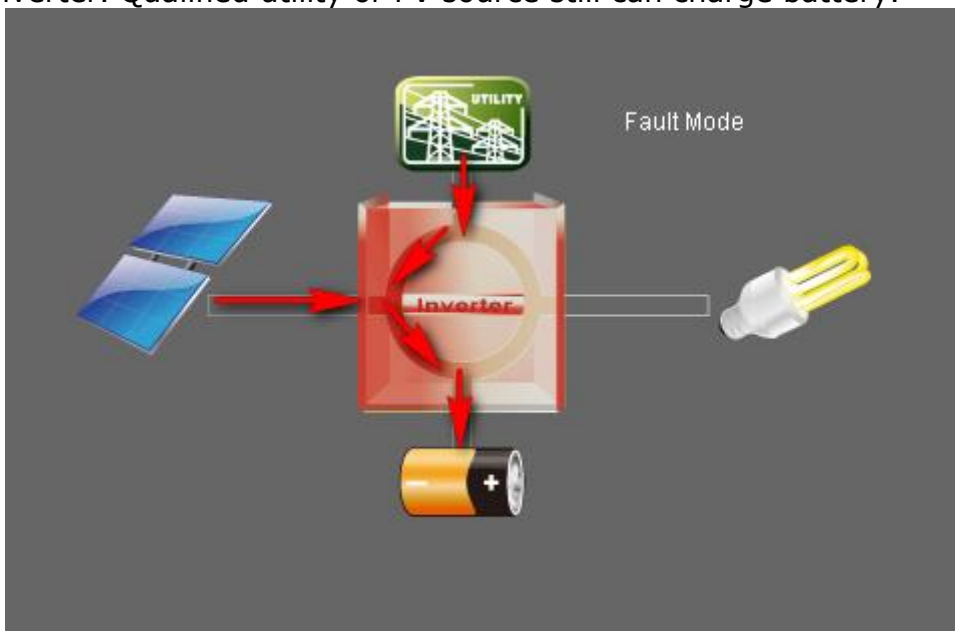
Fault Mode

2. Basic Information:

It displays information of AC voltage, AC frequency, PV input voltage, Battery voltage, Battery capacity, Charging current, Output voltage, Output frequency, Output apparent power, Output active power and Load percent.

3. Product information:

Product information displays Mode type, Topology, Main CPU version and Secondary CPU version.

4. Rated information:

Rated information displays information of Nominal AC voltage, Nominal AC current,

Rated battery voltage, Nominal output voltage, Nominal output frequency, Nominal output current, Nominal output apparent power and Nominal output active power.

4.1. WatchPower Configuration

4.1.1. Basic

It is to set up parameters for display. Select WatchPower Configuration>>Basic. Refer to Diagram 4-3.
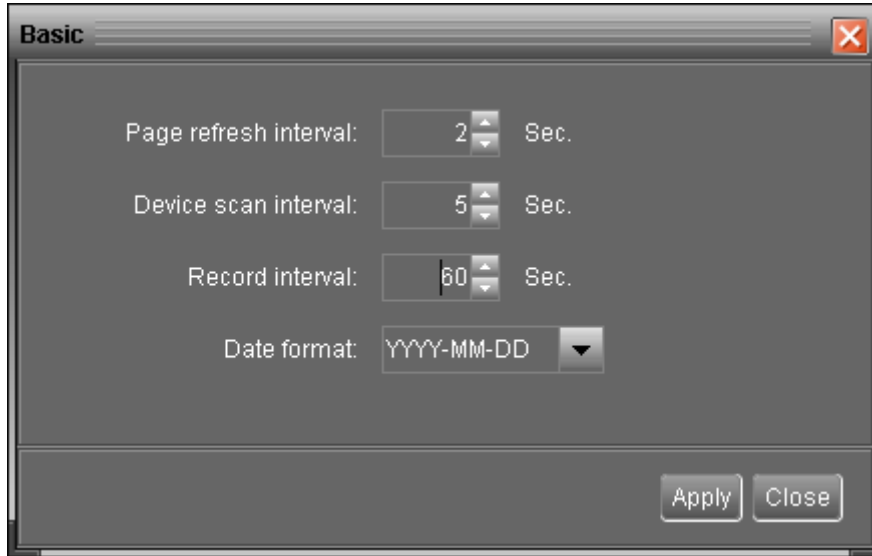
Diagram 4-3

1. Page refresh interval: This interval time will determine how long the web page is refreshed. Setting range is from 5 to 600 seconds. The default setting is 5 seconds.
2. Devices scan interval: This interval time will determine how long to scan connected devices. The setting range is from 5 to 600 seconds. The default setting is 5 seconds.
3. Record interval: This interval time will determine how long to record monitoring data of inverters into database.   The setting range is from 30 to 600 seconds. The difference between each option is 30 seconds. The default setting is 60 seconds.
4. Date format: This system supports 4 different formats, "YYYY-MM-DD", "YYYY/MM/DD", "MM-DD-YYYY" and "MM/DD/YYYY". The default setting is "YYYY-MM-DD".

If any change is made, simply click "Apply" button. Then, the setting will be saved.

4.1.2. Password

It's password configuration for administrator only. Before operating and configuring the software, please login first and modify the password. The default password is "**administrator**" at first log in. Users can only browse inverter status and information as Guest without login as an Administrator. A guest can not control or execute any setting.

Step 1 Select WatchPower Configuration>>Password. Refer to Diagram 4-4.

Diagram 4-4

Step 2 Enter old password, new password and re-type new password to confirm new password. The new password should be at least 6 digits. Then, click "Apply" button to successfully modify password for administrator.

NOTE1: Simply click "Login" button on the top right corner to log in the software.
NOTE2: If password is forgotten, it's necessary to re-install the software.

4.1.3. SMS Setting

It's to enter SMS receiver list. In the event of an alarm occurring, a message about inverter status will be sent to the specified users via mobile phone. For the event receiving list, please configure in "Event Action" page (refer to section 4.1.5).

Step 1 Choose WatchPower Configuration >> SMS Setting. Refer to Diagram 4-5.
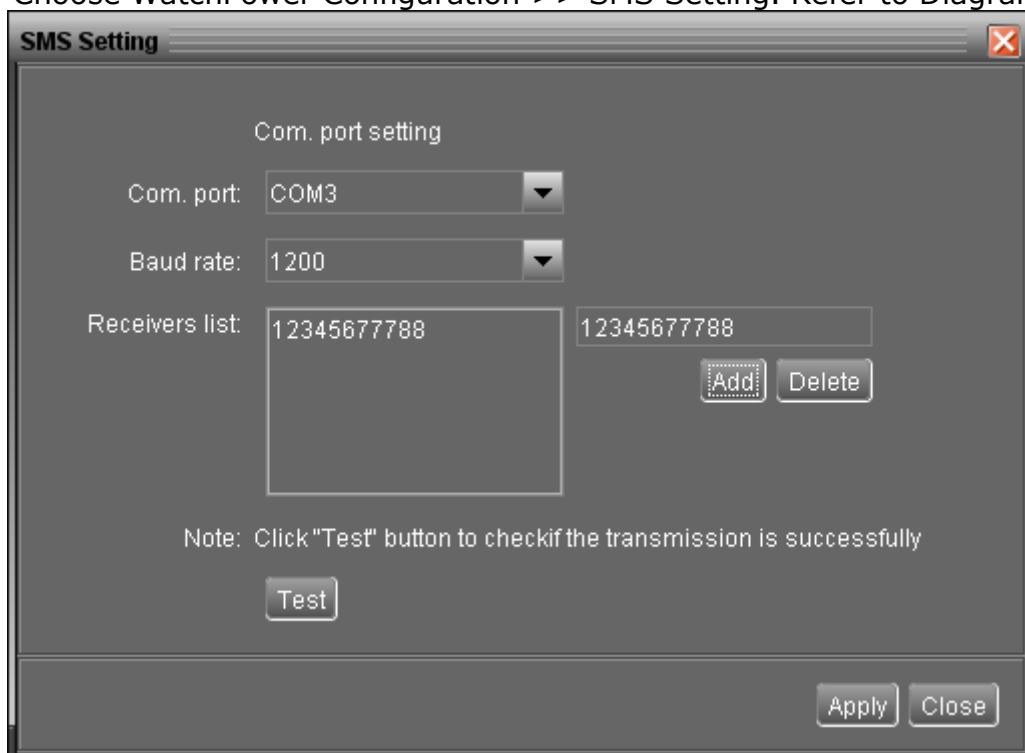
Diagram 4-5

Step 2 Select communication port and baud rate.

Step 3 Enter mobile phone numbers in "Phone no." column and click "Add" button to

add phone no. in Receivers List. To delete numbers, simply select phone no. from "Receivers list" and click "Delete".

Step 4 Click "Apply" button to save all changes. The "Test" button can be used to send a test SMS to make sure all setting is correct. If all parameters are set up correctly, system will send a test message to all receivers and pop up a successful message. (Refer to Diagram 4-6) Otherwise, it will pop up a failure dialog to indicate there is an error for parameter setting. (Refer to Diagram 4-7)
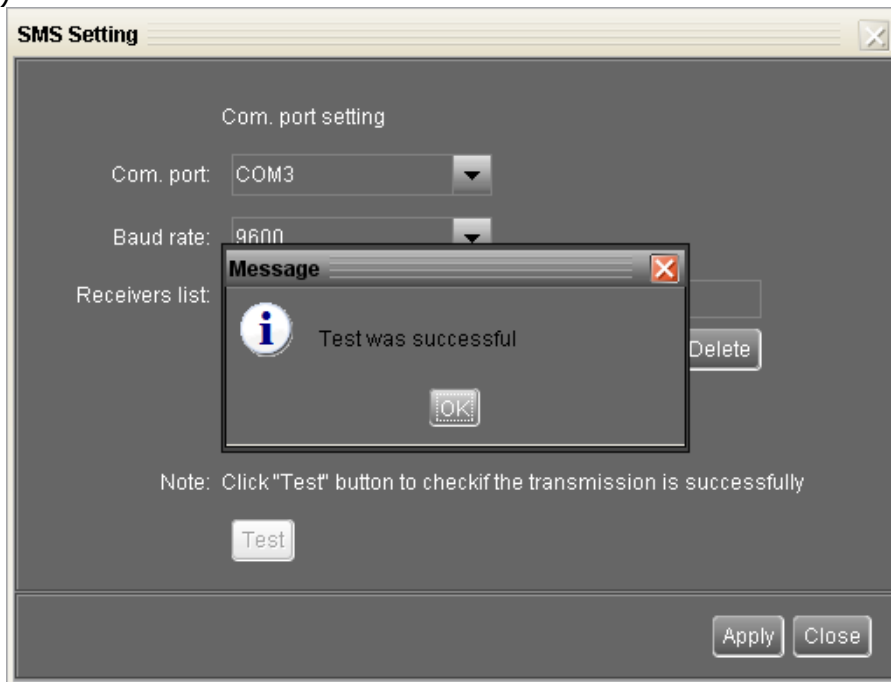
Diagram 4-6
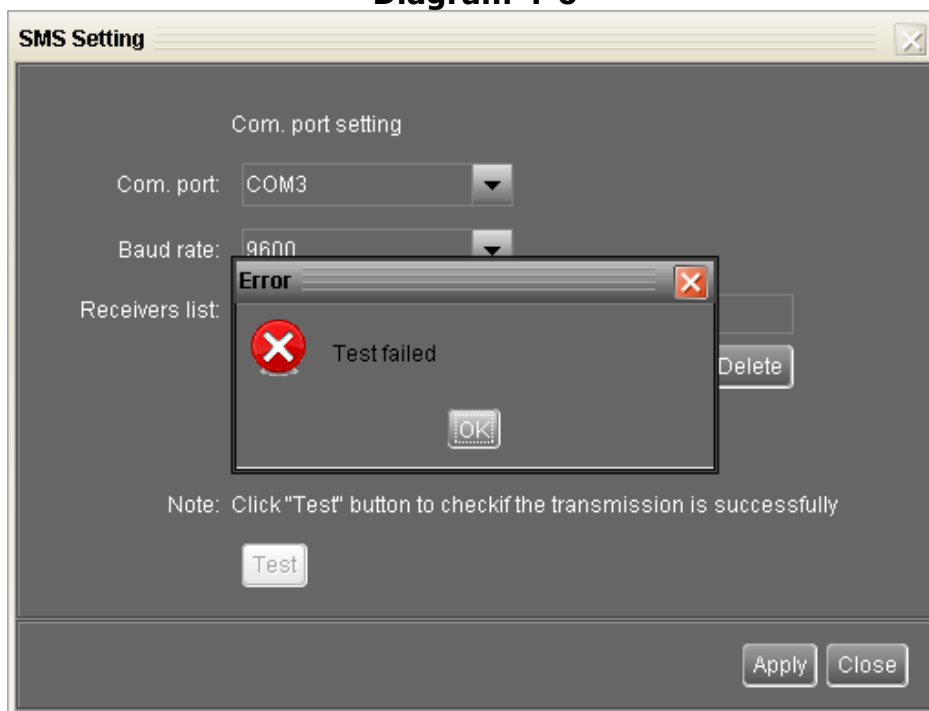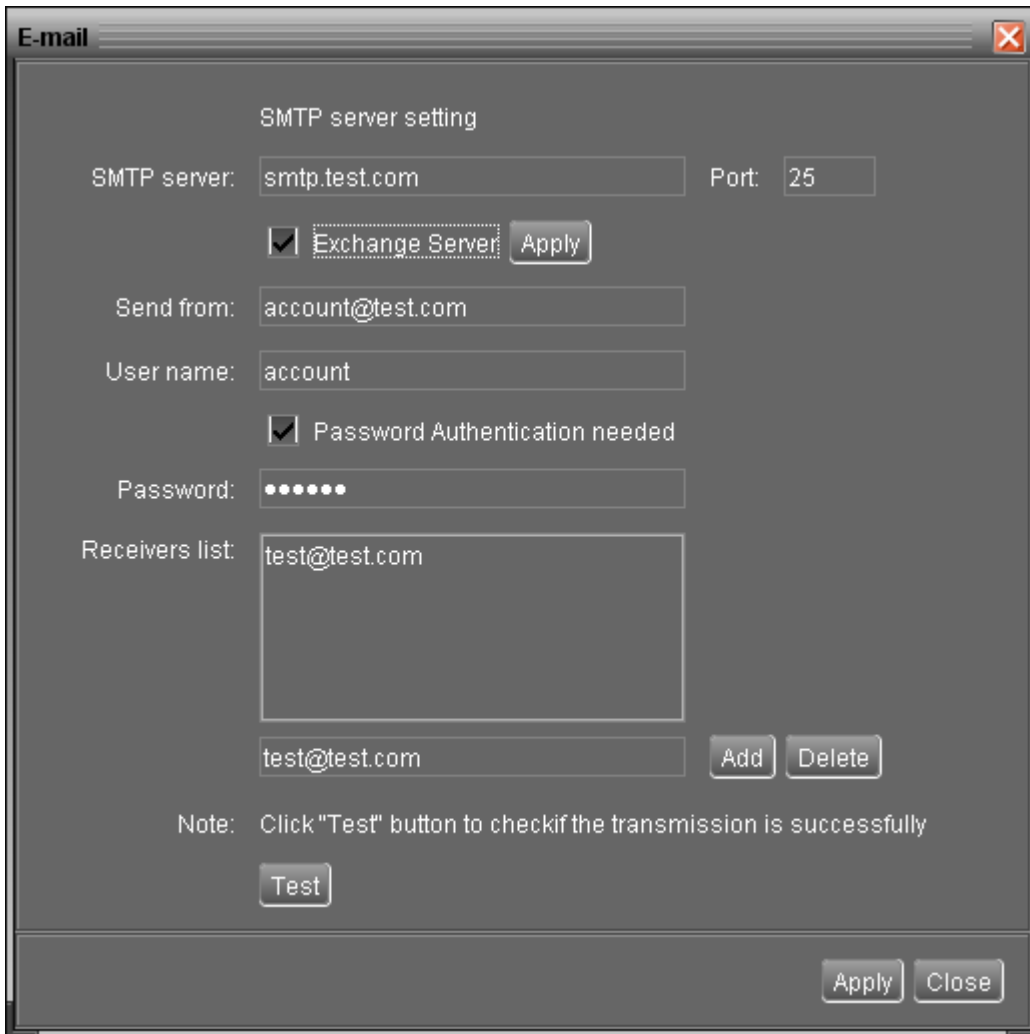
Diagram 4-7

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

4.1.4. E-mail

This configuration is allowed to send an alarm mail from SMTP server. For the event receiving list, please configure in "Event Action" page (refer to section 4.1.5).
To use this function, the e-mail service must be correctly configured in the computer. All columns 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.

Step 1 Select WatchPower Configuration >> E-mail. Refer to Diagram 4-8.

Diagram 4-8

Step 2 Enter SMTP server, Port, Send from E-mail address, User name and password. Click checkbox if password authentication is needed to verify password.

NOTE: If using Exchange Server for mailbox system, it's required to configure Exchange server domain name in SMTP server. Beside, please click checkbox of "Exchange server" and click "Apply" button.

Step 3 Enter receivers' e-mail accounts in E-mail column. Then, click "Add" to add into Receivers list. To delete e-mail account, simply select accounts from Receivers list and click "Delete" button.

Step 4 Click "Apply" to save all changes. The "Test" button can be used to send a test e-mail to all receivers to confirm correct operation. When the test e-mails are successfully sent to specific recipients, it will pop up a successful message on operated personal computer. Otherwise, it will pop up a failure dialog to indicate there is an error for parameter setting.

4.1.5. Event action

It's to configure response actions for events. It provides four response actions after events occur.

1. Event record: It will record event to data log in software after events occur. This function is default selected.

2. Warning message(s): It will send event message to tray.

3. SMS: It will send event message to specific mobile phone numbers after events occur.

4. E-mail: It will send event e-mail to assigned e-mail accounts after events occur.

Step 1 Select WatchPower Configuration >> Event actions. Refer to Diagram 4-9.

Step 2 Select action methods by clicking checkbox.

Step 3 Click "Apply" button to save all configurations.

ID	Level	Event
1001	Fault	Fan locked fault
1002	Fault	Battery voltage high fault
1003	Fault	Over load fault
2001	Fault	Bus Over
2002	Fault	Bus Under
2003	Fault	Bus Soft Fail
2004	Warning	LINE_FAIL
2005	Warning	OPVShort
2006	Fault	Inverter voltage too low
2007	Fault	Inverter voltage too high
2008	Fault	Over temperature
2009	Warning	Fan locked alarm
2010	Warning	Battery voltage high alarm
2011	Warning	Battery low alarm
2013	Warning	Battery under shutdown
2014	Warning	Battery de-rating
2015	Warning	Over load alarm
2016	Warning	Eeprom fault
3001	Message	Communication restore

Send by: ☑ Event record
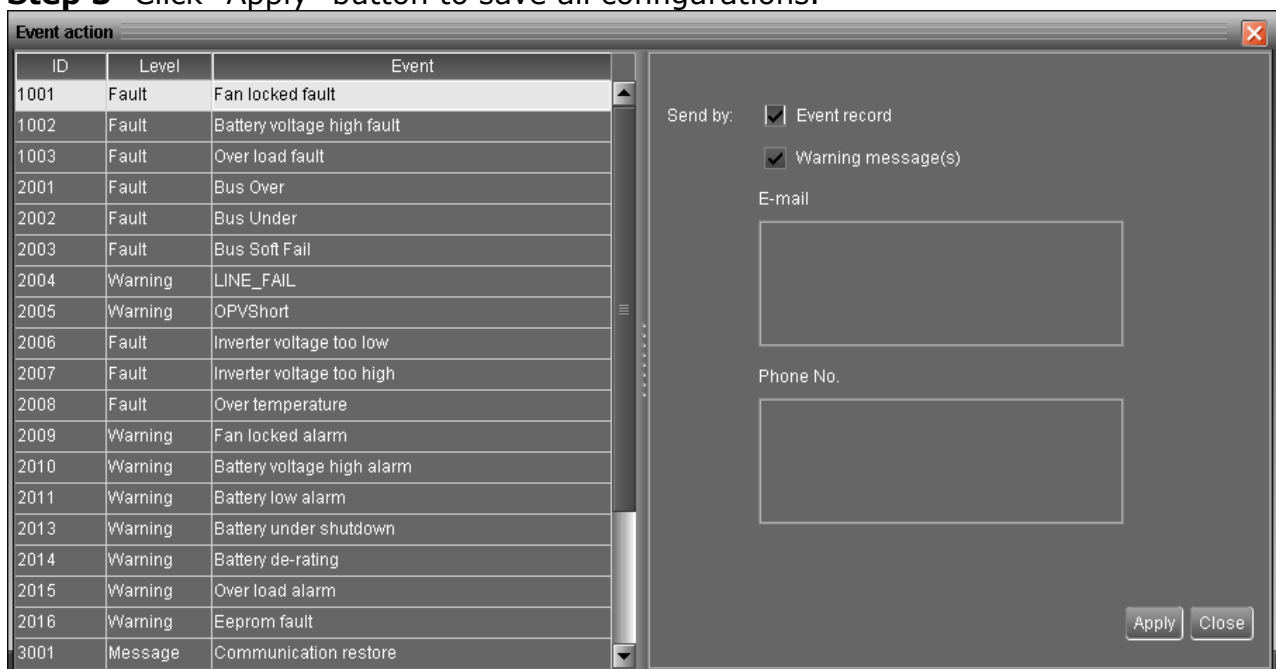☑ Warning message(s)
E-mail
Phone No.
Apply Close

Diagram 4-9

NOTE1: When modifying receiver list in SMS or e-mail pages, it's necessary to refresh event action page to reload the updated receiver list.

4.1.6. Com. port Plug And Play Setting

To real-time monitor inverter device, it will scan each com. port anytime. In this way, it will occupy communication ports. This function will release some communication ports which are not connected with devices. To avoid any improper operation, in-used communication ports will be displayed in disabled grey icons. Users can select "Allow scanned" to re-scan or "No scanning" to release communication ports based on requirements.

Step 1: Select WatchPower configuration>> Com. port plug and play setting. Refer to Diagram 4-10.

Diagram 4-10

Step 2: Click "Refresh" to reload the status of com. ports.

Step 3: Click "No scanning" to stop scanning on this com. port. Click "Allow scanned" to start scanning on this com. port.

4.1.7. Modbus Serial Setting

This function is to set Modbus communication port with PCs that connected to Modbus card via RS232/RS485 converter. The settings include Modbus port, Baud rate, data bit, stop bit, parity and each Device ID in Modbus network.

Step 1   Select WatchPower configuration>> Modbus serial setting. Refer to Diagram 4-11.

Step 2   Select Modbus port to connect PC.

Step 3   Select "Device ID" of connected inverter in Modbus network.

Step 4   Select "Baud rate" of com. port. The default setting is 19200.

Step 5   Modify "Data bit" of com. port. The default setting is 8.

Step 6   Modify "Stop bit" of com. port. The default setting is 1.

Step 7   Modify "Parity". The default setting is NONE.
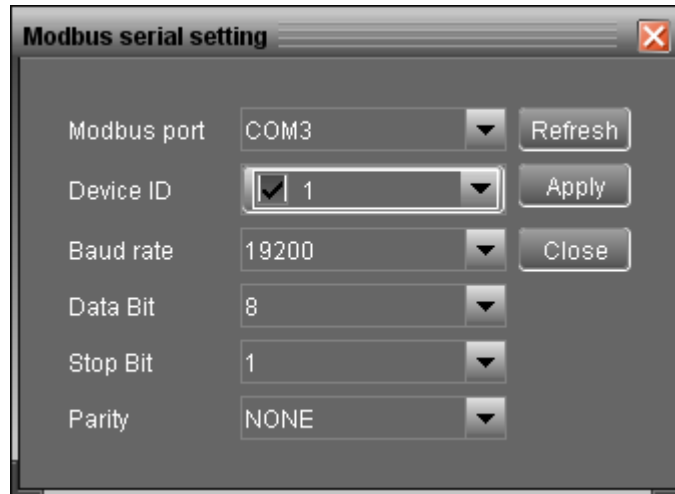
Step 8   Click "Apply" button to save all changes.

Diagram 4-11

NOTE1: Click "Refresh" button to refresh the port list.

NOTE2: WatchPower supports multiple com. ports in multiple Modbus networks.

NOTE3: All configurations will be changed based on different port selection in Step 2.

NOTE4: The default device ID of inverter is 1.

NOTE5: If none of device ID is selected, it will be identified as not connecting with any Modbus network.

NOTE6: If monitoring multiple Modbus networks, please repeat from step 2 to step 7 to set all ports.

4.2.   Device control

4.2.1. Parameter Setting

This page is to activate some features and set up parameters for inverters.

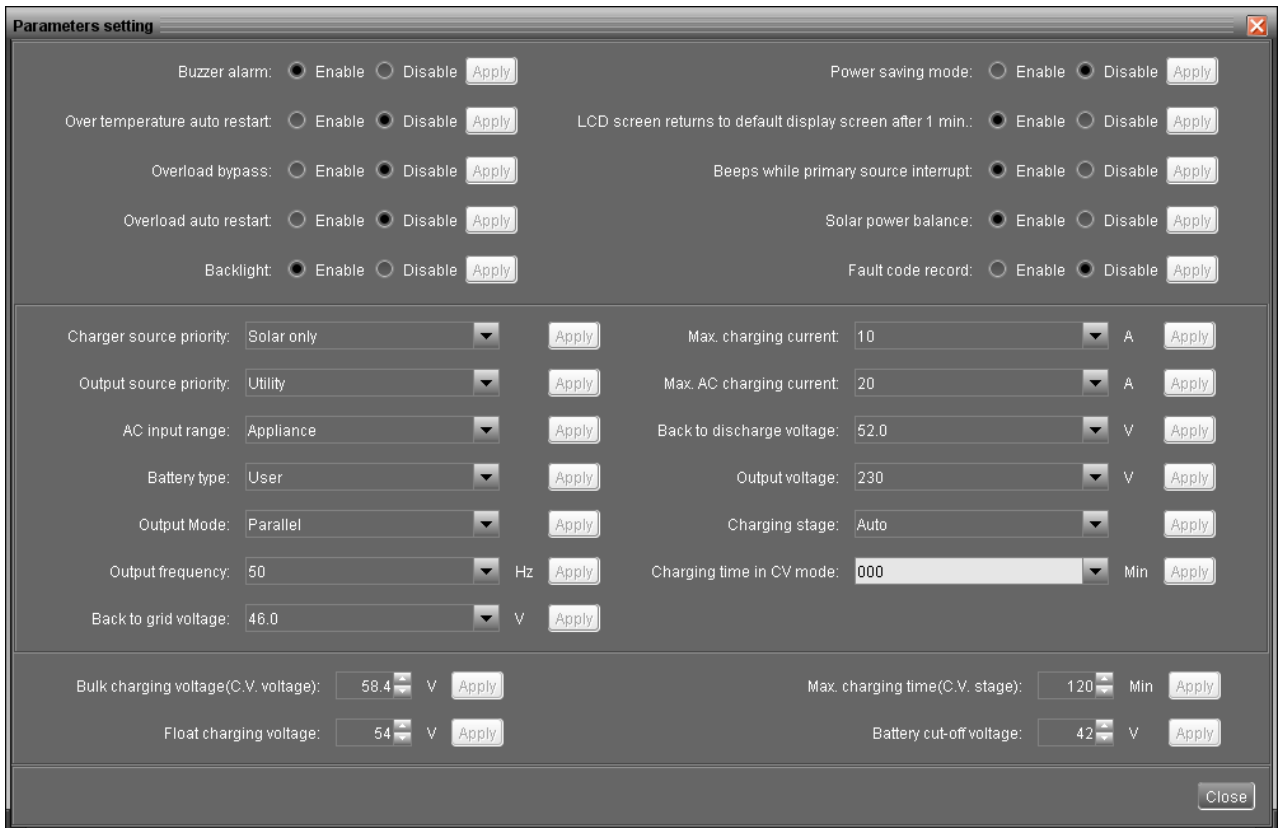Select Device Control >> Parameter Setting or select shortcut icon. Refer to Diagram 4-12.

Diagram 4-12

NOTE: This screen may be different for different model of inverter.

Step 1 Activate/Shut down functions by clicking "Enable" or "Disable" button. Some parameters are allowed to change the numbers by clicking up-down arrows or modify the numbers directly in the number column.

Step 2 Click "Apply" button to save the settings. Each function setting is saved by clicking each "Apply" button.

● Buzzer alarm: If disabled, buzzer won't be on when alarm/fault occurred. Vice versa.

● Power saving mode: If disabled, output will be on continuously when device is operated in battery mode. If enabled, inverter output will be on or off depending on connected loads detected or not. If the load is not detected, the output of inverter will be off until load reaches a certain level. Check product manual for more details.

● Backlight: If disabled, LCD backlight will be off when panel button is not operated for 1 minute. Vice versa.

● Overload auto restart: If disabled, the unit won't be restarted after overload occurs. Vice versa.

● Over temperature auto restart: If disabled, the unit won't be restarted after over-temperature fault is solved. Vice versa.

● Beeps while primary source interrupt: If enabled, buzzer will alarm when primary

source is abnormal. Vice versa.

- Overload bypass: If enabled, unit will transfer to line mode when overload happened in battery mode. Vice versa.

- LCD screen returns to default display screen after 1 min.: If enable, LCD screen will return to default display screen after no button is pressed in one minute. Vice versa.

- Solar power balance: This function is only available for 4KVA/5KVA models. When enabled, solar input power will be automatically adjusted according to connected load power. If disabled, solar input power will be the same to max. battery charging power no matter how much loads are connected.

- Fault code record: If enabled, fault code will be recorded in the inverter when any fault happens.

- Charger source priority: Click up-down arrows to set up charger source priority. There are 4 options: utility first, solar first, solar and utility and Solar only. See product manual for the details of these options. Refer to Diagram 4-13.
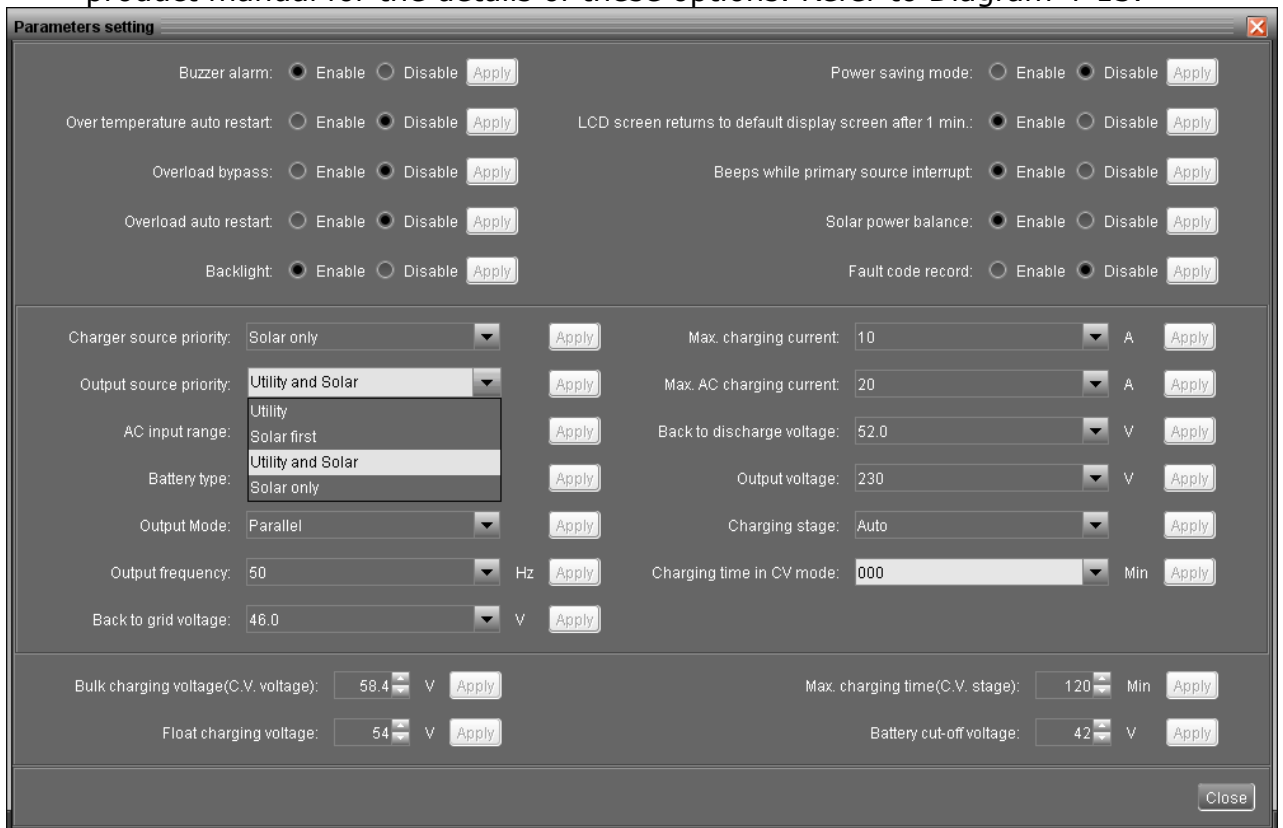

Diagram 4-13

- Output source priority: Click up-down arrows to set up output source priority. There are 3 options: utility first, solar first and SBU. See product manual for the details of these options. Refer to Diagram 4-14.
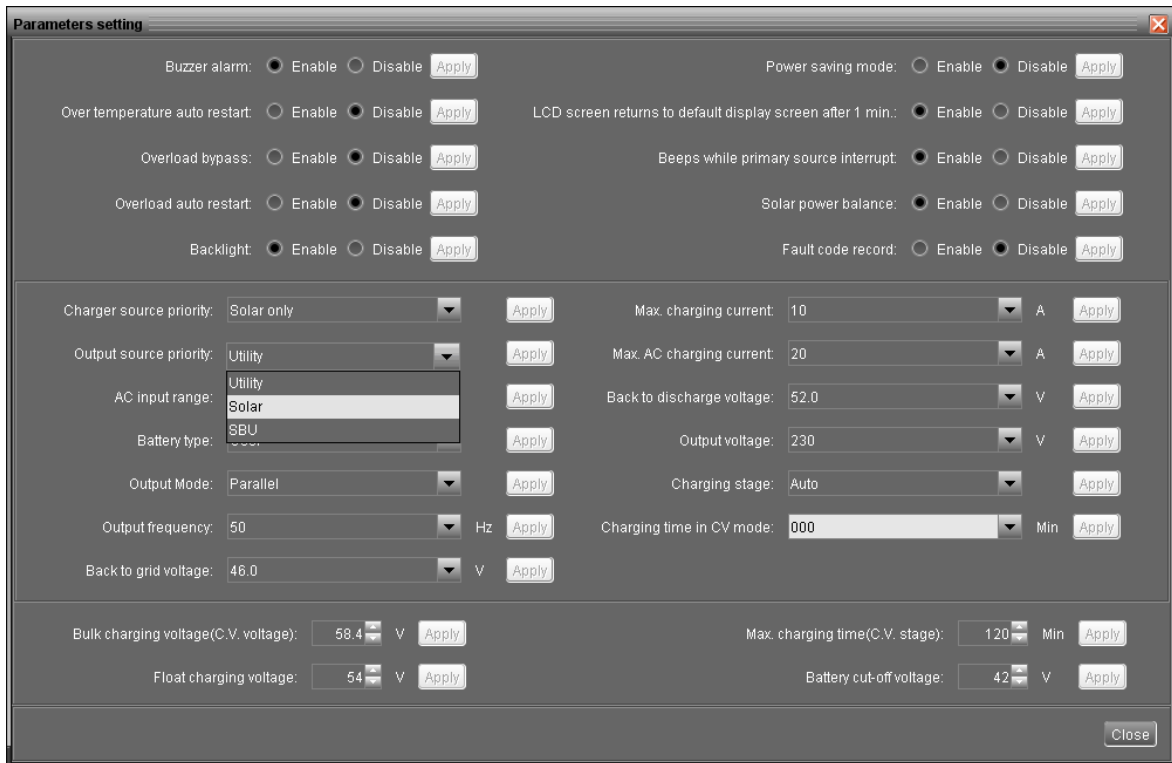
Diagram 4-14

- AC input range: Click up-down arrows to set up suitable input range for connected devices. When selecting "Appliance", it's allowed to connect home appliances. When selecting "UPS", it's allowed to connect personal computer. For the detailed input range for connected devices, please check product manual. Refer to Diagram 4-15.
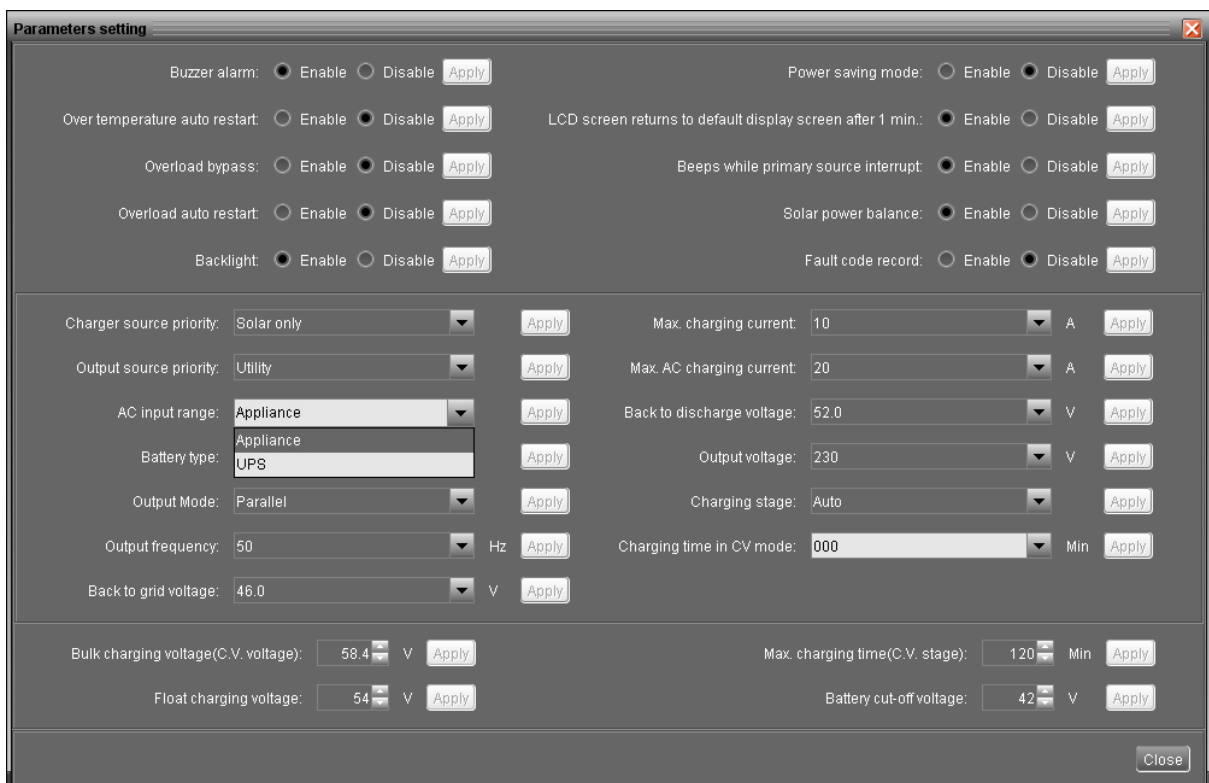

Diagram 4-15

- Battery type: Select connected battery type. There are three options: AGM, Flooded and User. Please refer to product manual for charging parameter for these three battery types.

- Output mode: In this setting, the options will be different based on different inverter models. Refer to Diagram 4-16.
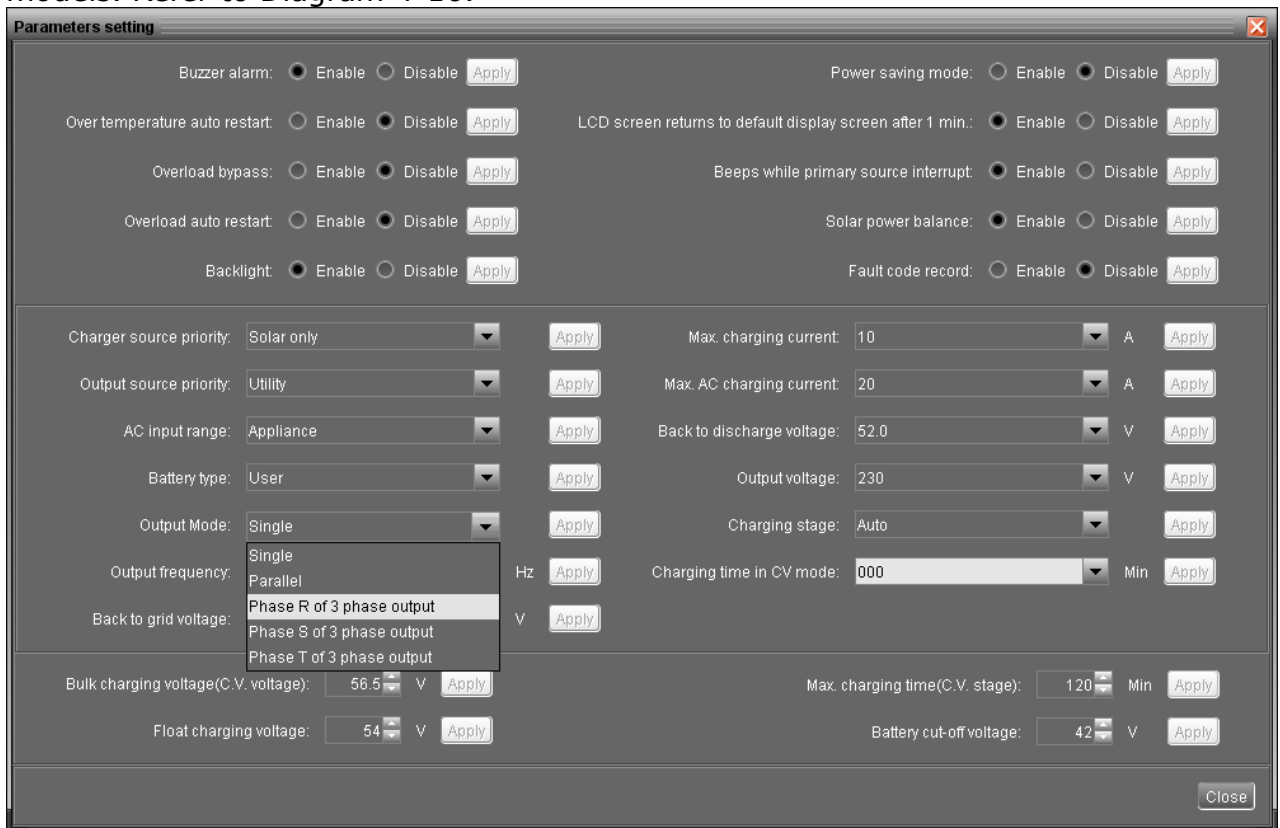

Diagram 4-16

- Single: This inverter is set for singe operation.

- Parallel: This inverter is set for parallel operation.

- Phase R of 3 phase output: This inverter is set to support connected loads in phase R of 3 phase output.

- Phase S of 3 phase output: This inverter is set to support connected loads in phase S of 3 phase output.

- Phase T of 3 phase output: This inverter is set to support connected loads in phase T of 3 phase output.

- Output frequency: Nominal output frequency, 50Hz and 60Hz selectable.

- Back to grid voltage: Click arrow to set up low battery voltage point. If "SBU" is selected in output source priority, the inverter will transfer output source to grid when battery voltage drop to low battery voltage point.

- Max. charging current: Click arrow to set up maximum charging current. Maximum charging current in different inverter model may be different. Please refer to

product manual for the details.

● Max. AC charging current: Click arrow to set up AC charging current. For the detailed setting, please check inverter manual.

● Back to discharge voltage: When battery voltage is higher than this setting voltage, battery will be allowed to discharge.

● Output voltage: Click arrow button to select output voltage in battery mode.
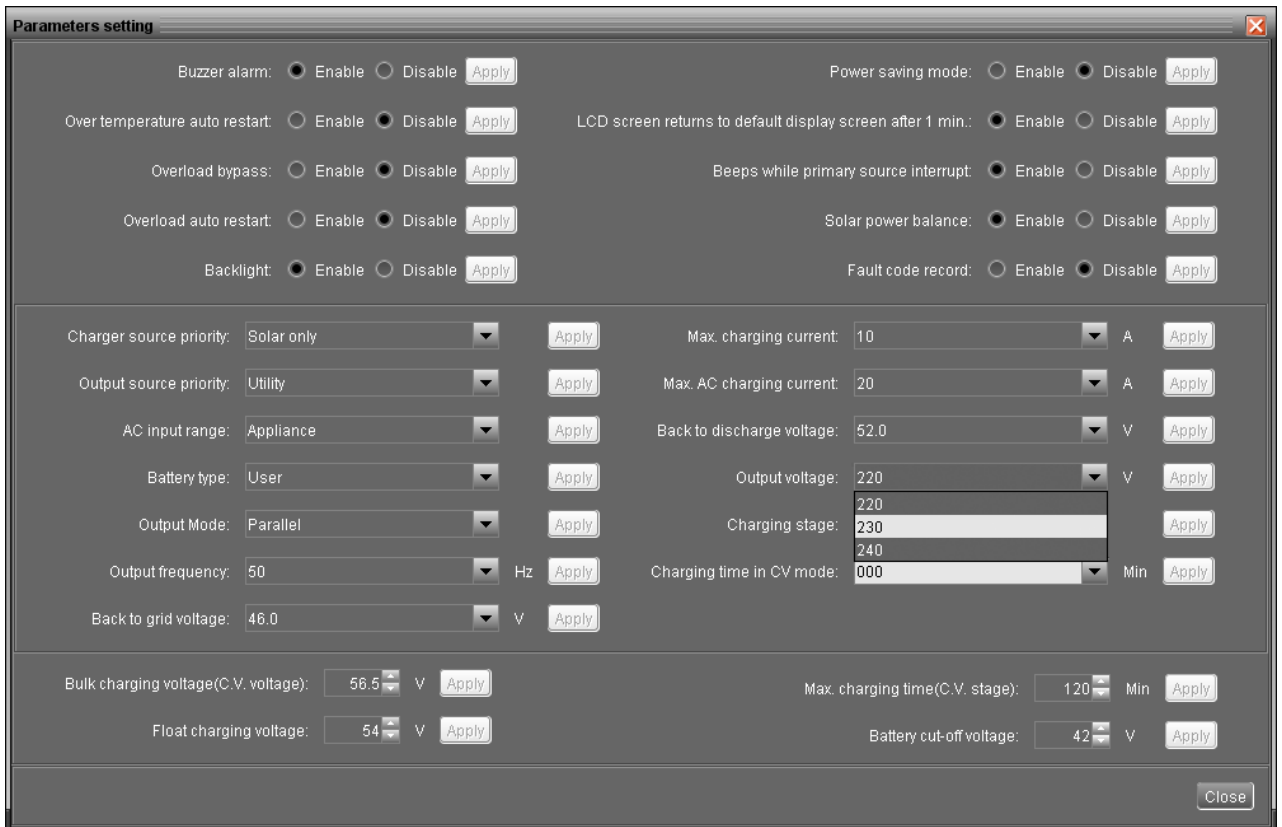

Diagram 4-17

● Charging stage: Click arrow to select charging stage. Please set up based on the battery type, specification and capacity.

 ■ Auto: It's determined by inverter itself according to battery capacity.

 ■ 2-stage: constant current mode → floating mode

 ■ 3-stage: constant current mode → constant voltage mode → floating mode
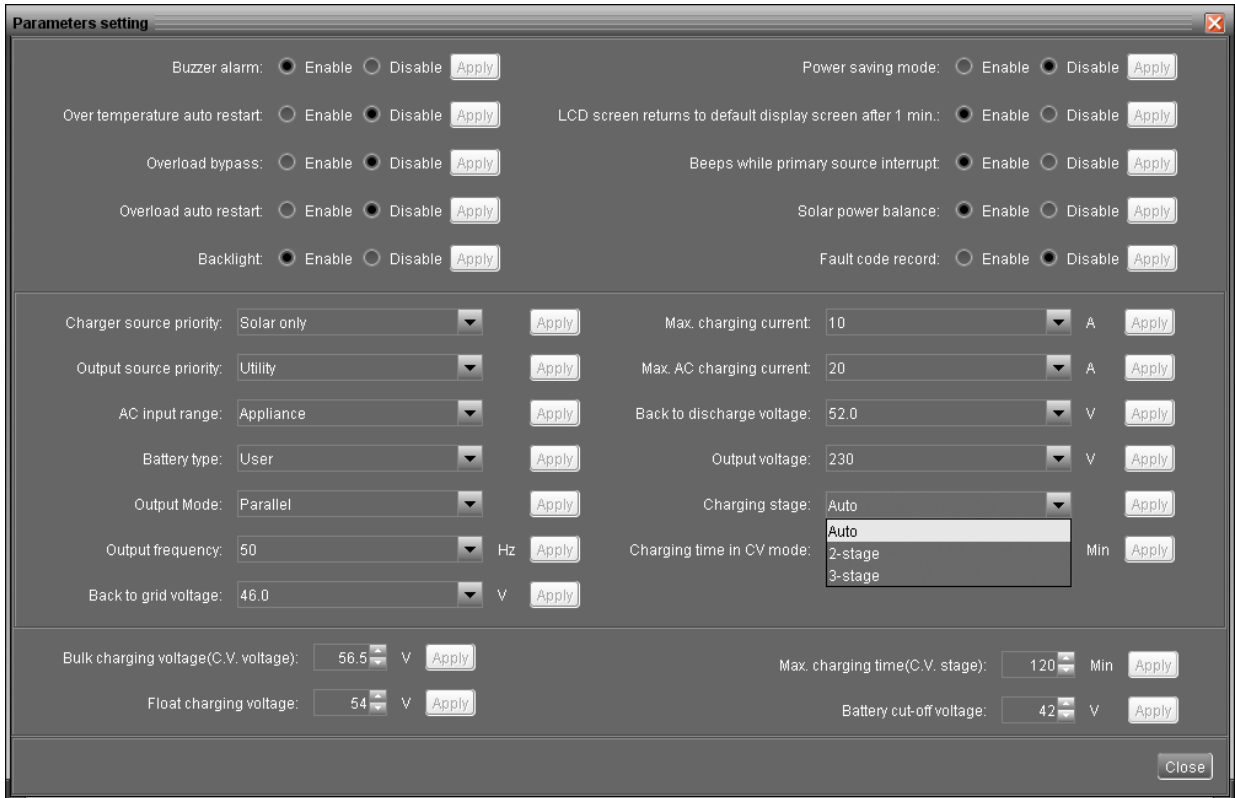
Diagram 4-18

● Charging time in CV mode: Click arrow to setup charging duration in constant voltage mode. Please set up based on the battery type, specification and capacity.

■ Auto: It's determined by inverter itself according to battery capacity.
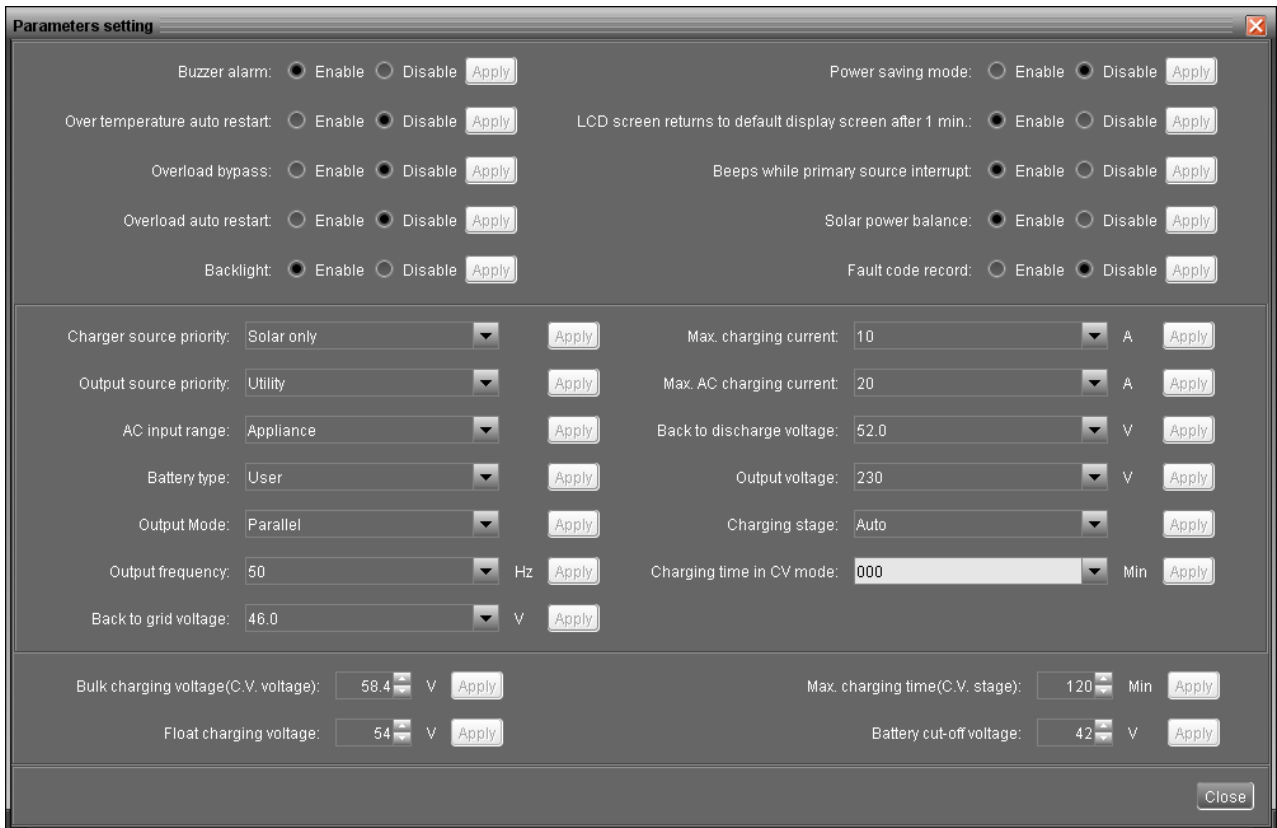

Diagram 4-19

35
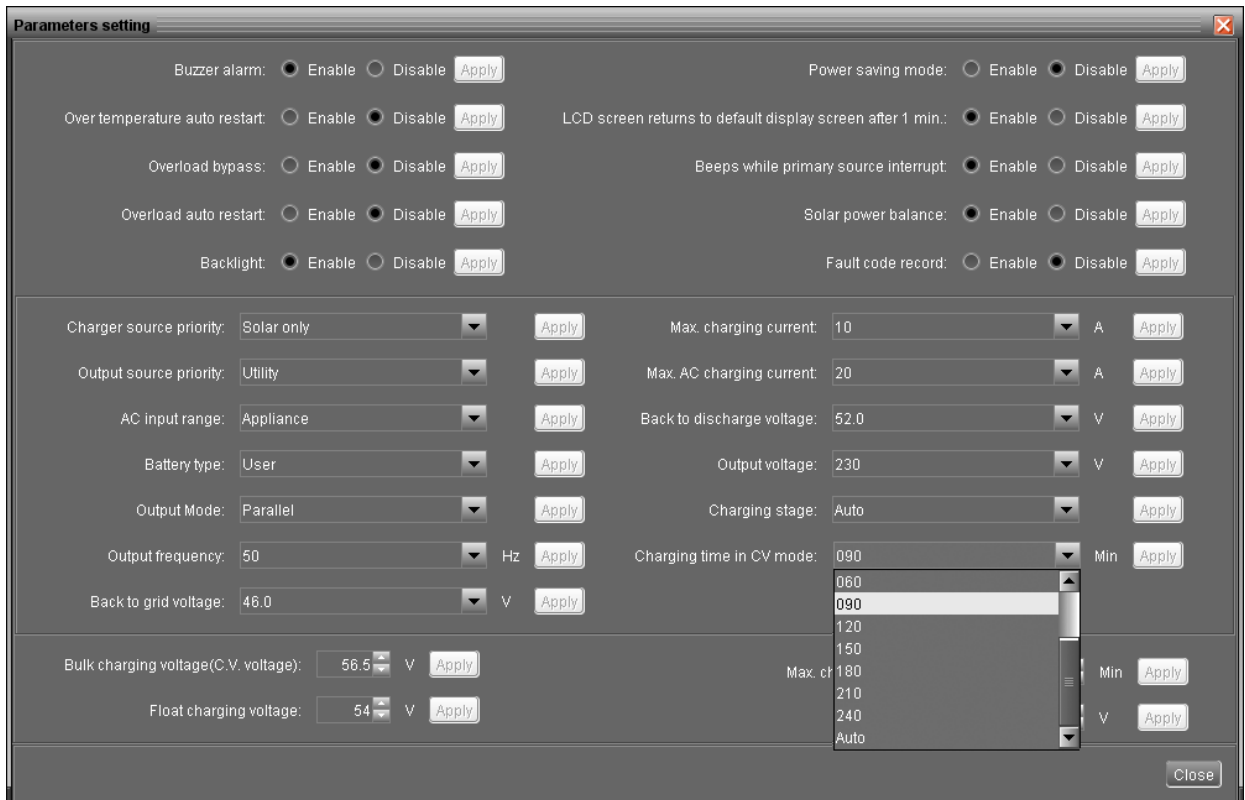
Diagram 4-20

- Bulk charging voltage (C.V. voltage): Click arrow to set up bulk charging voltage. Please refer to product manual for the recommended bulk charging voltage based on connected battery type.

- Float charging voltage: Click arrow to set up float charging voltage. Please refer to product manual for the recommended float charging voltage based on connected battery type.

- Max. charging time (C.V. stage): Click arrow to set up maximum charging time for C.V. stage. The setting range is from 000 to 900. 000. If 000 is selected, the charging time will depend on the device itself.

- Battery cut-off voltage: In battery mode, when battery voltage is lower than cut-off voltage point, inverter will shut down battery and transfer to fault mode.

Battery equalization setting: This section is only active for some inverters with battery equalization function.
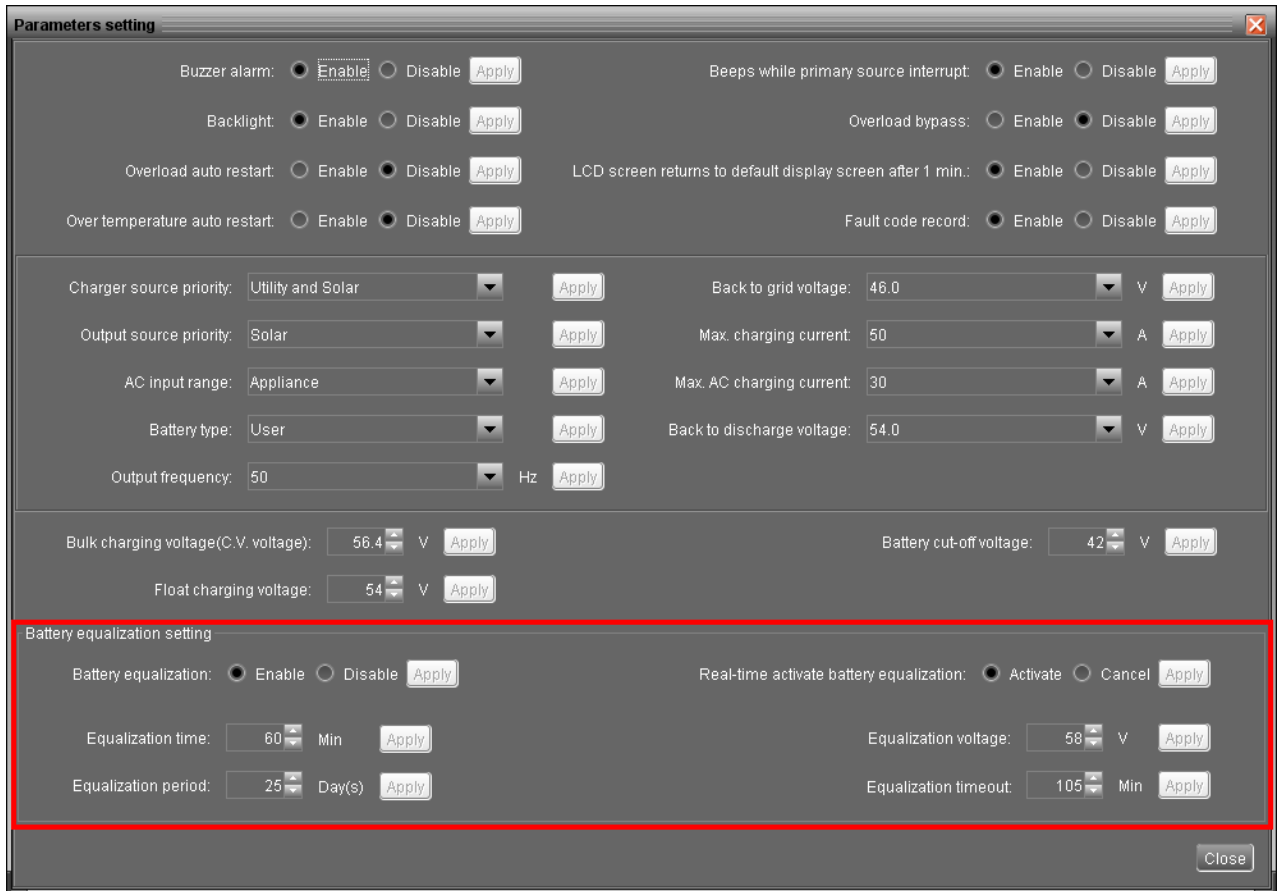

Diagram 4-21

- Battery equalization: Enable or disable battery equalization function. It's necessary to enable this function in software before executing this function in device.

- Equalized time: Click up-down arrow to set up duration time for battery equalization. The setting range is 5~900 minutes.

- Equalized timeout: Click up-down arrow to set up the extended time to continue battery equalization. The setting range is 5~900 minutes.

- Equalization period: Click up-down arrow to set up the frequency for battery equalization. The setting range is 0~90 days. When 0 is selected, it means this function is activated every 24 hours.

- Real-time activate battery equalization: It's real-time action to activate battery equalization by selecting "Activate". Select "Cancel" to stop equalization immediately.

- Equalization voltage: Click up-down arrow to set up the battery equalization voltage. The setting range is 48.0V ~ 61.0V for 5KVA device and 25.0V ~ 31.5V for 3KVA device.

4.2.2. Restore to the defaults

This function is allowed to restore all settings back to default values.

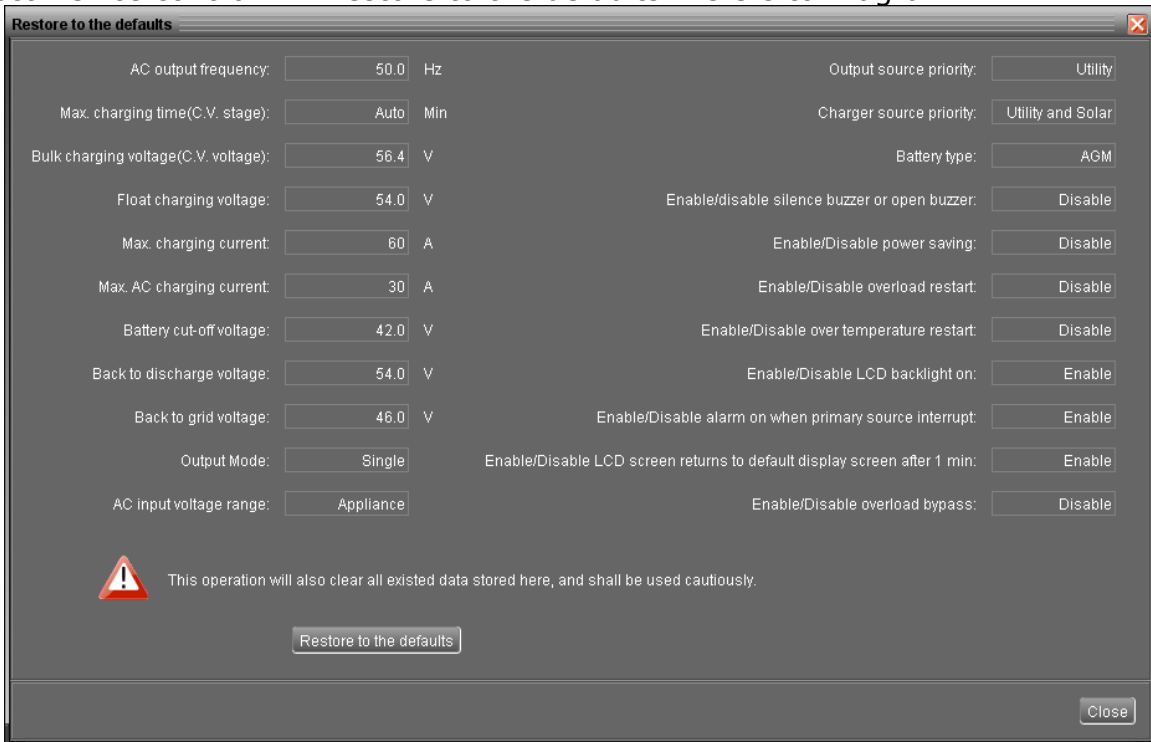Select Device control >> Restore to the defaults. Refers to Diagram 4-22.

Diagram 4-22

NOTE: This screen may be different for different model of inverter.

4.3. View

4.3.1. Data

This function is to browse the working data of inverter saved in table or chart format.
● Datasheets

Select View >>Data>>Datasheets or click shortcut icon [image]. Refer to Diagram 4-23.
Select browsed device and period to display in the screen. Click "Browse" to get result.
➢ **"Print":** Print the listed data table.
➢ **"Delete":** Select specific data and click "Delete" button to delete the record.
➢ **"Delete all":** Click "Delete All" button to delete all records in the listed table.
➢ **"Export":** Click "Export" button to save listed table to local PC in .PDF file.
➢ **"Export Excel":** When selected and click "Export", it will save listed table to local PC in .xls file.

Diagram 4-23

- **Charts**

Select View >>Data>>Charts. Refer to Diagram 4-24.

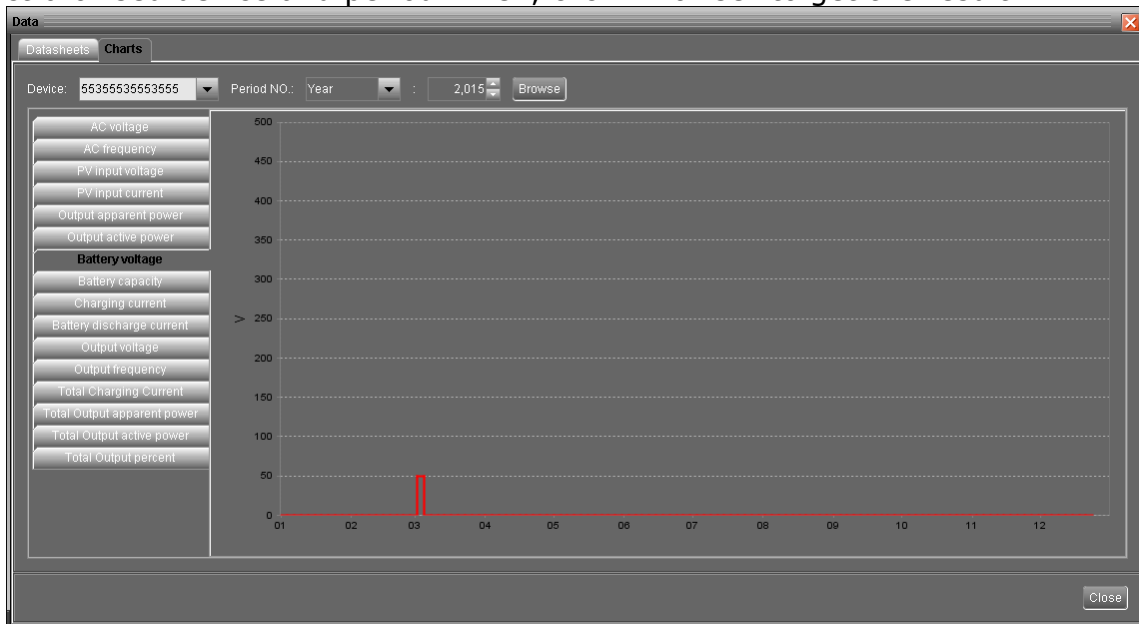Select browsed device and period. Then, click "Browse" to get the result.

Diagram 4-24

4.3.2. Event log

Select View >>Event log or click shortcut icon ![icon] to enter event log.

It's to browse history events according to time duration selected. It lists all detailed information and statistics for history events.   Refer to Diagram 4-25.

 ➢ **"Delete":** Select specific data and click "Delete" button to delete the record.
 ➢ **"Delete all":** Click "Delete All" button to delete all records in the listed table.
 ➢ **"Export":** Click "Export" button to save listed table to local PC in .PDF file.

 ➢ **"Export Excel":** When selected and click "Export", it will save listed table to local PC in .xls file.
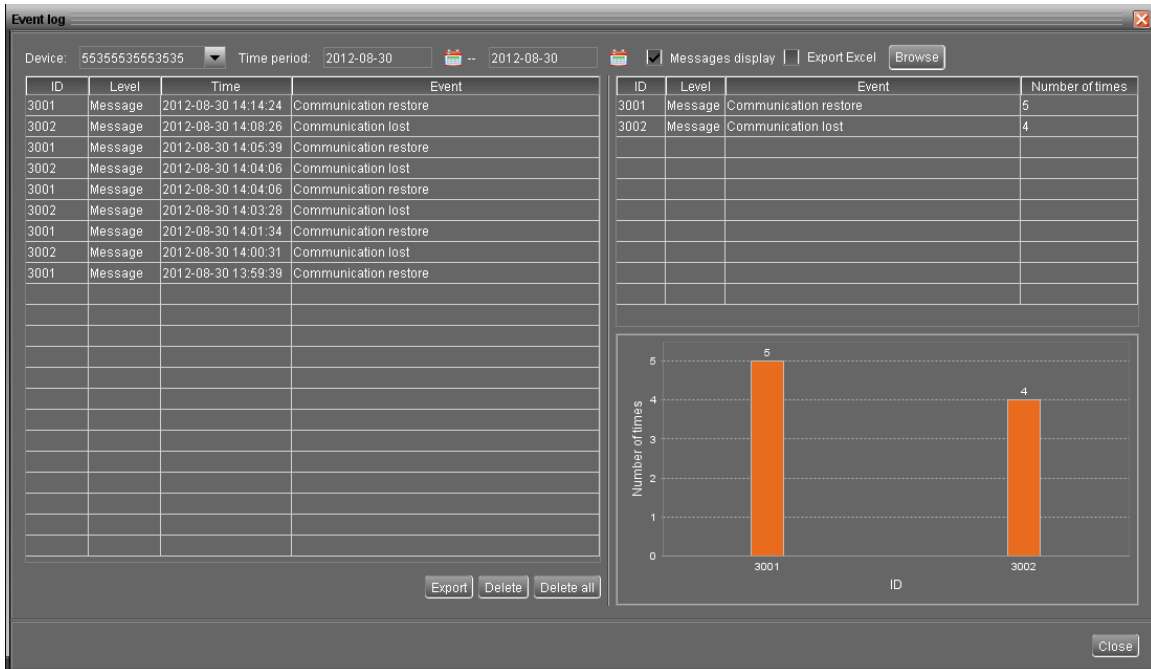

Diagram 4-25

4.3.3. Fault data log

Select View >>Fault data log .Refer to Diagram 4-26.

It's to record the latest fault event occurring on the inverter.

 ➢ **"Delete":** Select specific data and click "Delete" button to delete the record.

 ➢ **"Delete all":** Click "Delete All" button to delete all records on the listed table.

 ➢ **"Export":** Click "Export" button to save listed table to local PC in .PDF file.

 ➢ **"Export Excel":** When selected and click "Export", it will save listed table to local PC in .xls file.
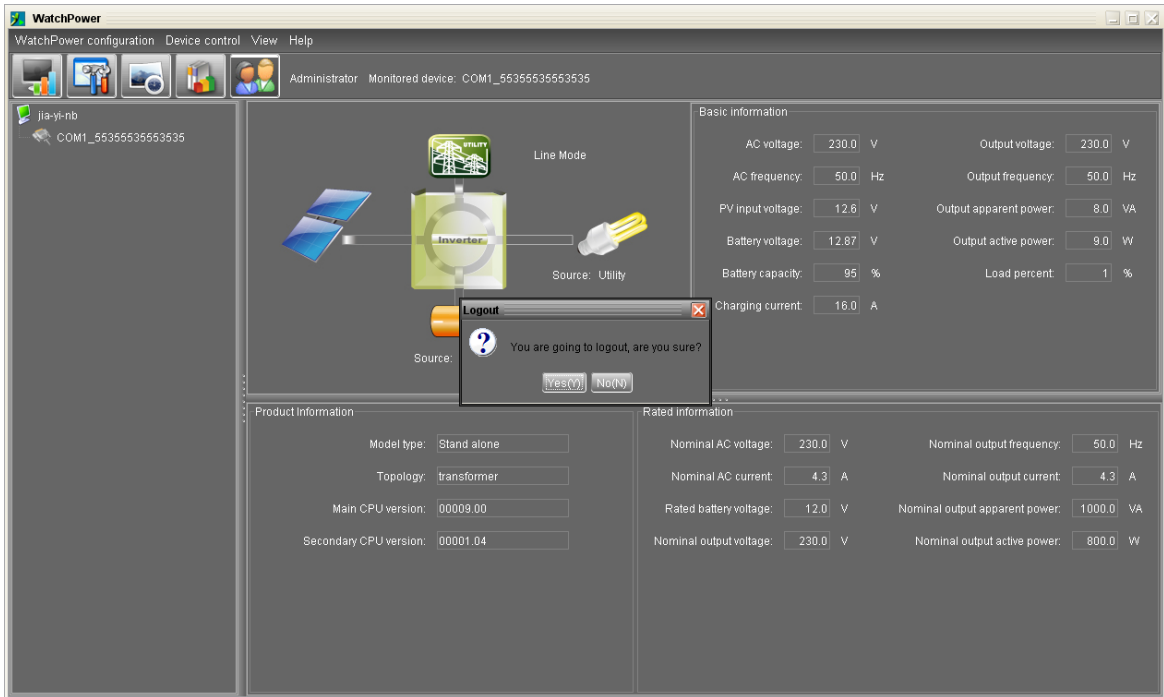
Diagram 4-26

4.4. Log in and Log out

This short cut icon is to display the login status. When icon is displayed, it means user status is guest. When icon is displayed, it means user logins as administrator.

Click icon and enter password to login the software. The default password is "administrator". Refer to Diagram 4-28.

Diagram 4-27

Click icon to log out. Then, the status will become to "guest". Refer to Diagram 4-27.

Diagram 4-28

4.5. Rename

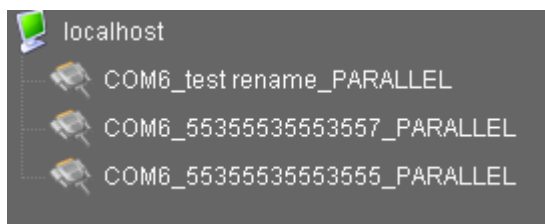It's to rename devices from inverter navigation list. Serial number of devices will not be changed.

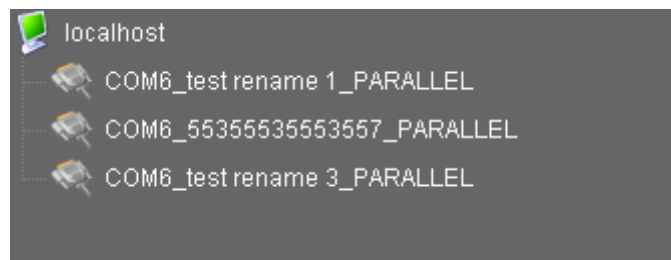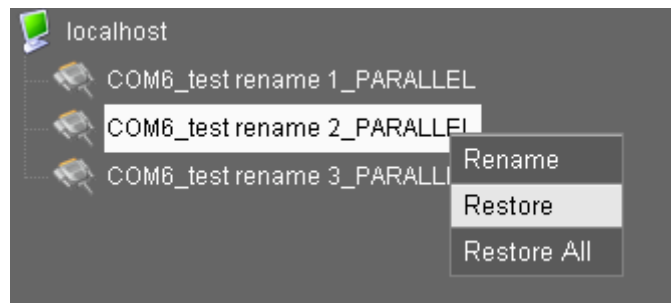➢ **"Rename":** Double click the device. Then right click the mouse and choose "Rename".
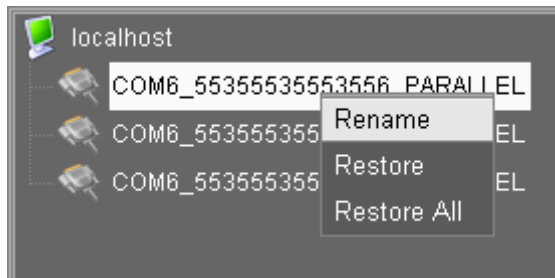
At this time, you may modify the device name.
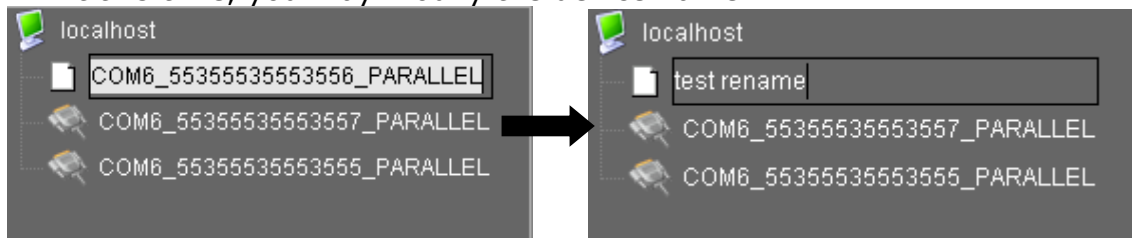
After entering new name, be sure to press "Enter" keyboard to activate the new name.

➢ **"Restore":** Select one device and right click the mouse. Select "Restore". Then, the selected device name will be restored to default name.
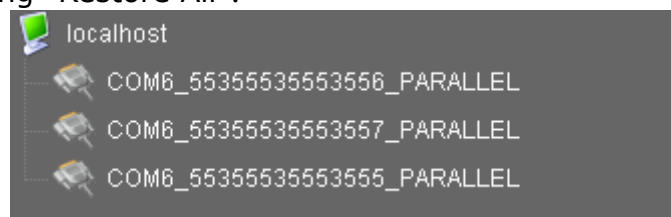

➢ **"Restore All":** Select one device and right click the mouse. Select "Restore All". Then, all devices' name will be restored to default names.
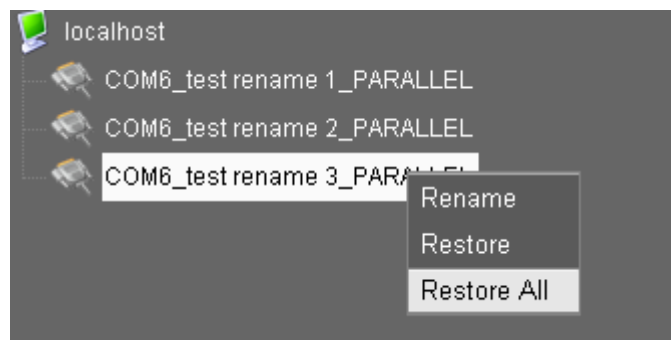
Before selecting "Restore All":
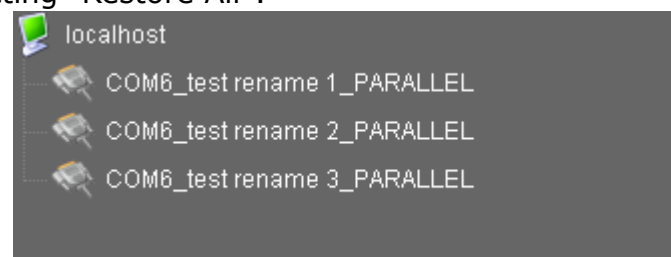
After selecting "Restore All":

4.6. Language

Currently, software offers some languages for selection:

√ English

√ French

√ German

√ Polish

√ Spanish

√ Chinese(Simplified)

√ Chinese(Traditional)

When first using the software, it will search proper language to display according to OS language.

4.7. Help

- **About**: Click "Help" menu and select "About" item. It represents the copyright information about software
- **Help**: Click "Help" menu and select "Online help" item. It will open the help manual. Before operating software, please read manual carefully.