PowerShield SNMP MultiView

User's Manual

Management Software for Uninterruptible Power Supply Systems Version: 2.0

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4. 5.	PowerShield SNMP MultiView GUI. PowerShield SNMP MultiView Menu 5.1. Configuration 5.1.1. Password Setting. 5.1.2. Group area 5.1.3. UPS setting 5.1.4. SMS 5.1.5. E-mail 5.1.6. Load configuration 5.1.7. Event action 5.1.8. Log setting. 5.1.9. EMD Manager 5.1.10. Modbus communication setting 5.1.11. SNMP Manager 5.2. Schedule 5.2.1. Scheduled on/off 5.2.2. Schedule battery self-test 5.2.3. Wake on LAN schedule 5.3.1. Centralized monitoring.	28 29 29 30 31 32 33 34 36 37 39 41 45 45 45 45 45 45 45 48

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1. PowerShield SNMP MultiView Overview

1.1.Introduction

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



1.2.Structure

PowerShield SNMP MultiView includes monitor service, WEB service and tray service.

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

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

1.3.Features

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

2. PowerShield SNMP MultiView Install and Uninstall

2.1. System requirement

- 1 GB physical memory at least (2 GB is recommended)
- 2 GB hard disk space at least
- Administrator authority is required
- More than 16-bit colors and 800 x 600 or above resolution display is recommended
- TCP/IP protocol must be installed for network management
- Platforms supported by software are listed below:

- Windows 7/ 8/ 10(32-bit & x64-bit)
- > Windows server 2012/ 2012R2/ 2016/ 2019
- ➢ Windows SBS 2011
- Linux RedHat 8, 9
- Linux RedHat Enterprise AS3, AS5, AS6 (32-bit)
- Linux RedHat Enterprise AS6 (64-bit)
- Linux RedHat Enterprise 5.2 (32-bit & 64-bit)
- Linux SUSE 10 /11.X(32-bit & 64-bit)
- Linux Cent OS 5.4 /6.X(32-bit &64bit)
- Linux Cent OS 7.X(64bit)
- Linux Ubuntu 8.X, 9.X, 10.X (32-bit)
- Linux Ubuntu 10.X (64-bit)
- Linux Ubuntu 12.04 /14.X/16.X/18.X/19.x(32-bit & 64-bit)
- Linux Fedora 5
- Linux OpenSUSE 11.2 (32-bit & 64-bit)
- Linux Debian 5.x, 6.x (32-bit)
- Linux Debian 6.x/8.x (64-bit)
- MacOS x64-bit 10.6 /10.7 /10.8 / 10.9 /10.10 /10.11 /10.12 /10.13 /10.14/10.15
- ➢ ESXI 5.X/6.X

2.2.Software Install

Step 1 Please download PowerShield SNMP MultiView from the following web page,

https://powershield.com.au/support-menu/download-area/pssnmpv4software-downloads/

Step 2 Start the "PowerShield SNMP MultiView" the installation

Step 3 After clicking install, it will display the installation in process. Refer to the diagram 2-1.



Diagram 2-1

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



Diagram 2-2

Step 5 Click "Choose" button to change the default folder. After choosing the installed folder, click "Next" button. Refer to the following diagram 2-3

PowerShieldSNMPMultiView			_		×
		С	hoose In	stall F	older
 Introduction Choose Install Folder Choose Shortcut Folder 	Please choose a destination fold	er for this installa	ation.		
Pre-Installation Summary					
Installing					
Install Complete	Where Would You Like to Insta	all?			
	h:\PowerShieldSNMPMultiView				
		Restore Defa	ult Folder	Choos	e
InstallAnywhere					
Cancel			Previous	Ne	ext

Diagram 2-3

Step 6 Choose the shortcut folder and click "Next" button. Refer to the following diagram 2-4.

PowerShieldSNMPMultiView			_		×		
		Cho	ose Shor	tcut F	older		
Introduction	Where would you like to crea	te product icons	;?				
 Choose Install Folder Choose Shortcut Folder 	In a new Program Group:	PowerShieldSNM	IPMultiView				
 Pre-Installation Summary Installing Install Complete 	On the Desktop						
	O In the Quick Launch Bar			Choos	se		
	◯ Don't create icons						
	Create Icons for All Users						
InstallAnywhere Cancel			Previous	N	ext		

Diagram 2-4

Step 7 It will display the software summary before installation. Click "Install" button to start the installation and refer to Diagram 2-5.



Diagram 2-5

Step 8 Click "Done" button to confirm the installation completely. Refer to Diagram 2-6.



Diagram 2-6

Step 9 If using Linux OS and logging in as a none-root user, it is necessary to execute the script file in the terminal after installation. Then, please enter the User Password as shown in Diagram 2-7. (NOTE: The entered password will be hidden.).



Diagram 2-7

As for MACOS system, the script file will be executed automatically before the installation be finished. Please refer to Diagram 2-8 for entering the User Password. (NOTE: The entered password will be hidden.).



Diagram 2-8

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

2.3.Software Uninstall

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

Uninstaller	\times	Uninstaller X
Do you want to uninstall this software ?		Uninstall complete!
Yes No		ОК

Diagram 2-9

Diagram2-10

3. Service Tray Application

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

Or, use the Start Menu method; Start>>All Programs >> PowerShield SNMP MultiView >> PowerShield SNMP MultiView.



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: ${}^{\bigstar}$
- Monitoring application is activated as monitoring mode:

3.2. Stop Monitor

Click "Stop Monitor" to stop monitoring application.

3.3. SNMP Manager

SNMP Manager is a plug-in utility for PowerShield SNMP MultiView to search and operate all SNMP devices in the LAN (It's necessary to verify ID to remote access SNMP devices. The default password is "12345678".). Click the "SNMP Manager" to access SNMP management tool.

It has four sections as marked in the illustration below:

🖳 SNMP Manager		
System Settings Language 🗛		
IP address 192.168.107.106 192.168.103.131 B	MAC address 20-20-08-31-11-BE 60-19-29-01-61-19	Basic Info IP settings Online upgrade System manager Static trap address SMS IP address 192.168.107.106 MAC address 20-20-08-31-11-BE
SNMP status: 1 Use system time: 09/02/2	SNMP reset enable Reset	
192.168.107 192.168.103	Scan Add Del	Output window [09:21:41] 192.168.107.106 Online successfully.
		D

Diagram 3-1

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

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

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

D. Output window displays all messages for operations

3.3.1. SNMP Device List

The default value in window list would be current PC IP address. For example,

if IP address of current PC is "192.168.102.10", it will display "192.168.102"

in list when first enabling SNMP Manager.

Scan

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

Add

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



Diagram 3-2

Delete

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

SNMP Status

It will display SNNP status, 0 or 1, after selecting IP from the IP list. If there is program inside of selected SNMP card, the status becomes 1. If not, it will display 0. If no IP address is selected, it will display "---"as default. Refer to Diagram 3-3.



Diagram 3-3

Reset

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

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

۳;	SNMP Manager											. 🗆 🔀
S	stem Settings Language											
Г												
	IP address	MAC address			Basic Info	IP setting	as	Online upgrade	System manager	SMS		
	192.168.107.106	20-20-08-31-11-BE		ſ	J		<i>y-</i>			1	I	
	192.168.103.131	60-19-29-01-61-19			IP addre	ess 192	2.168	3.107.106				
					MAC addre	188 20-0	20-0	9-31-11-BE				
					mino adare	20-2	20-0	0-31-11-DE				
	SNMP status: 1	SNMP reset enable Reset										
	Lise system time: 09/02/20	120.09-24-34 Apply										
	192 168 107	Com		<mark>0</mark>	utput window-							
	192.168.103	scan		ſ	09:21:41] 192	.168.107.	106	Online successfu	ully.			
	192.168.108	Add							-			
		Del										
			_	_								

Diagram 3-4

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

🔋 SNMP Manager		
System Settings Language		
IP address	MAC address	Basic Info IP settings Online upgrade System manager Static trap address SMS
192.168.107.106	20-20-08-31-11-BE	
192.168.103.131	60-19-29-01-61-19	IP address 192.168.107.106
		MAC address 20-20-08-31-11-BE
SNMP status: 1	SNMP reset enable Reset	
Use system time: 09/02/20)20 09:24:34 Apply	
		- Output window
192.168.107	Scan	
192.168.103	Add	[09:21:41] 192.168.107.106 Online successfully.
192.106.106		

Diagram 3-5

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

IP address	MAC addres		Basic Info	IP settings	Online upgrad	e System manager SMS
92 168.107.106 92 168.103.131	20-20-08-31-11-BE 60-19-29-01-61-19		IP addres	is 192.16	8.107.106 08-31-11-BE	
SNMP status: 1 Use system time: 09/	SNMP reset enable	ou sure to opera Yes	tte? 192.168.107.10	1 06		
192.168.103 192.168.103	Add Del		[09:21:41] 192.1	68.107.106	Online successfu	ılıy.

Diagram 3-6

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

	Manager							
System	Settings Language							
	IP address	MAC addr	ess	Bacia Info	ID acttions	Online unerede	Curtan manage	CHC
192.16	88 107 106	20-20-08-31-11-BE		Basic into	IP settings	Online upgrade	System manager	5105
192.16	8 103 131	60-19-29-01-61-19		ID addr	402.40	0 407 408		
					192.10	5.107.106		
				MAC addre	20-20-0	08-31-11-BE		
				1				
			Diago	le gin first				
			Fiedst	e login nirst				
	SNMP status: 1	SNMP reset enable	Password	•••				
			Login	Cancel				
	Use system time: 09/02/20	20 09:26:41 Apply						
				- Output window				
	192.168.107	Scan			400 407 400	o.r. (
	192.168.103	Add		[09:21:41] 192	168.107.106	Unline successfull	у.	
	192.100.100	Del						
		Der						

Diagram 3-7

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

NOTE: If changing the MAC address of current device before reboot and the current device is applying DHCP (Automatically obtain IP address) method, you need to manually click "Scan" button to scan.

Use system time

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

1 2001033	MAC address	Basic Info IP settings Online upgrade System manager SMS
92.168.107.106 92.168.103.131	20-20-08-31-11-BE 60-19-29-01-61-19	IP address 192.168.107.106 MAC address 20-20-08-31-11-BE
SNMP status: 1 Use system time: 0	SNMP reset enable Reset	
192.168.103 192.168.108	Add Del	[09:21:41] 192.168.107.106 Online successfully.

Diagram 3-8

3.3.2. Function Menu

3.3.2.1. System

Quit

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

	SNMP Manager							l l	_ 🗆 🔀
S	/stem Settings Language								
Q	uit		ı r						
	IP address	MAC address		Basic Info	IP settings	Online upgrade	e System manager	SMS	
	192.168.107.106	20-20-08-31-11-BE		ľ '		1			
	192.168.103.131	60-19-29-01-61-19		IP addre	ss 192.16	8.107.106			
				MAC addre	ess 20-20-0)8-31-11-BE			
					20201				
	SNMP status: 1	SNMP reset enable Reset							
	Use system time: 09/02/2020 09:28:36 Apply								
				Output window					
	192.168.107	Scan		Output window					
	192.168.103	Add		[09:21:41] 192.	168.107.106	Online successfu	lly.		
	192.168.108	Dal							
		Der							

Diagram 3-9

3.3.2.2 Settings

Basic Info

User can manually enter basic information of SNMP cards such as UPS name,

Address, and Note for verification. Refer to Diac	agram 3-10.
---	-------------

B) SNMP Manager	
System Settings Language	
IP address MAC address 192.168.107.74 60-19-29-10-38-87 192.168.107.106 20-20-08-31-11-BE SNMP status: 1 SNMP status: 1 SNMP status: 1 SNMP status: 1 SNMP status: 1	Basic Info IP settings Online upgrade System manager SMS IP address 192.168.107.74 MAC address 60-19-29-10-38-B7
192.168.48 192.168.107 Add Del	- output window [09:37:05] 192.168 107.74 Online successfully. [09:37:19] 192.168.107.106 Online successfully. [09:37:30] 192.168.107.74 Online successfully.

Diagram 3-10



SNMP Manager								
System Settings Language								
IP address	MAC address	Ba	sic Info IP setti	nas	Online upgrade	System mana	ager SN	IS
192.168.107.74	60-19-29-10-38-B7				ennite apgrade	oyotonnana	iger on	
192.168.107.106	20-20-08-31-11-BE		MAC address	60-	19-29-10-38-B7			
			-					
			• A	lutomat	tically obtain IP ac	dress		
			Ο ι	Jse a s	tatic IP address			
			IP address	10	2 168 107 74	1		
			ii address		2.100.107.14	A		
			Subnet mask	k 25	5.255.255.0			
			Default Gateway	v 19	2 168 107 254	1		
				, 10	2.100.101.204			
					Apply			
SNMP status: 1	SNMP reset enable Reset		DNG	2 40	0 400 400 000	Analy	_	
Use system time: 09/24/20	20 10:04:30 Apply		DNa	19	2.108.100.238	Apply	в	
	7							
192.168.48	Scan	Outpu	twindow					
192.168.107	Add	[09:37	7:05] 192.168.10	7.74 Or	nline successfully	- W		
		[09:37	7:30] 192.168.10	7.74 Or	nline successfully			
	Der		-					

Diagram 3-11

Part A: There are two methods to obtain IP address. Refer to section A in

Diagram 3-11.

• Automatically obtain IP address (DHCP)

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

• Use a static IP address

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

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

Online upgrade



Diagram 3-12

There are three methods for online upgrade:

- Upgrade the selected devices: It will upgrade all SNMP devices listed in the IP list.
- Upgrade all un-upgraded devices: It will only upgrade SNMP devices

which are not using the latest version.

• Force to upgrade all devices: No matter what kinds of version are used for SNMP devices listed in the IP list, it will upgrade to the latest version for all SNMP devices. Refer to Diagram 3-12.

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

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

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

SNMP Manager						
System Settings Language						
IP address	MAC address	Basic Info	IP settings	Online upgrade	System manager SMS	
192.168.107.74	60-19-29-10-38-B7					
192.168.107.106	20-20-08-31-11-BE	FTP server I	IP address	192,168,48,1	•	
		Targ	get file path	D:\A-烧录\upgrad	e1_1_5_8_20200915.tar.gz	Browse
				Upgrade the	selected device	
				O Upgrade all	un-upgraded devices	
				Force to upg	rade all devices	
					0%	
				(Usereda)		
SNMP status: 1	SNMP reset enable Reset			Opgrade		
Use system time: 09/24/20	20 10:06:07 Apply					
192.168.48	Scan	Output window-				
192.168.107		[09:37:05] 192.	168.107.74 0	Online successfully	Ι.	
	Add	[09:37:19] 192.	168.107.106	Online successful	ly.	
	Del	[10:05:14] 192.	168 107 106	Online successful	r. Iv	
					-y.	

Diagram 3-13

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



Diagram 3-14

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

SNMP Manager						
System Settings Language						
		¬				
IP address	MAC address	Basic Info	IP settings	Online upgrade	System manager SMS	
192.168.107.74 6	i0-19-29-10-38-B7			1		
192.168.107.106 2	0-20-08-31-11-BE	FTP serve	er IP address	192.168.48.1	•	
		Т	irget file path	D:\A-烧录\upgrad	le1 1 5 8 20200915.tar.gz	Browse
				 Upgrade the 	selected device	
				 Upgrade all 	un-upgraded devices	
				Force to upg	rade all devices	
					100%	
SNMP status: 1	SNMP reset enable Reset			Upgrade C		
Use system time: 09/24/202	0 10:07:59 Apply					
192.168.48	Con	Cutput window	v			
192.168.107	Scall	Done				
	Add	Done	ipinioServer			
	Del	rm -rf /etc/snr	npcard.conf			
		copy snmpca	rdch.sh /etc/			
		copy rc.local /	etc/rc.d/rc.local	1-1		
		copy detectre	store.sn /bin/ba	ICK/ / evist		
		backup folder	has already ex	ist		
		rm -rf install.s	h			
		reboot	0 400 407 400			
		[10.07.54] 1	2.100.107.100	. opgrade is comp	neteu.	-

Diagram 3-15

NOTE: If abnormal situation occurs during upgrade process, the system will automatically re-start the upgrade operation. If this interruption occurs five times, then, system will automatically stop this operation. At this time,

please check if LAN is working well.

System management

SNMP Manager		
System Settings Language		
[
IP address	MAC address	Desis lafe UD settings Oplics upgrade System manager CHO
192.168.107.74	60-19-29-10-38-B7	Basic into ir settings Online upgrade System manager SMS
192.168.107.106	20-20-08-31-11-BE	SSH Password
		New password
		Confirm password
		Commin password
		 Select device
		Select all
SNMP status: 1	SNMP reset enable Reset	Apply
Lise system time: 09/24/20	120 10:09:16 Apply	
102 169 49		Qutput window
192 168 107	Scan	Done
	Add	Stopping snmpInfoServer
	Del	rm -rf /etc/snmpcard.conf
		copy snmpcardch.sh /etc/
		copy rc.local /etc/rc.d/rc.local
		userScript folder has already exist
		backup folder has already exist
		rm -rf install.sh
		[10:07:54] 192 168 107 106: Lingrade is completed

Diagram 3-16

IF address	MAC address	Basic Info IP settings Online upgrade System manager SMS
192.168.107.74	60-19-29-10-38-B7	
192.168.107.106	_20-20-08-31-11-BE	Old password Old password New password Confirm password Select device Select all
Use system time: 0	9/24/2020 10:16:08 Apply	Contact and the second
192.168.107	Add	[10.07.54] 192.108.107.106. Opgrade is completed. [10.15:28] 192.168.107.106: Communication fails. Please check your network. [10.15:41] 192.168.107.74 Online successfully. [10.15:46] Communication fails. Please check your network.

Diagram 3-16

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

new password. Select devices to apply this setting.

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

Then, click "Apply" button to change password.

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

SMS

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

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

📳 SNMP Web Manager		
System Settings Language Help		
IP address	MAC address	Basic Info IP settings Online upgrade System manager SMS
192.168.107.118	60-19-29-00-7A-EF	Com port settings Recipients
		Com. port Retresn Recipient list
		Baud rate 2400 💌
		Note Click "Test" button to senda test message
		Test
		Phone No.
		Add Del
SNMP status: 1	SNMP reset enable Reset	Apply
Lise system time: 09/26/20	14 17:52:25 Annly	
		-
192.168.104	Scan	Output window
	Add	[17:52:09] 192.168.107.118 Online successfully.
L		

Diagram 3-18

- **Step 2** Select communication port and baud rate.
- Step 3 Enter mobile phone numbers in "Phone no." column and click "Add" button to add phone no. in Recipients. To delete numbers, simply select phone no. from "Recipients" and click "Del" button.

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

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



Diagram 3-19

SNMP Web Manager			
System Settings Language Help			
	1		
IP address	MAC address	Basic Info IP settings Online upgrade System manager SMS	
192.168.107.120	00-00-12-34-56-78	Com. port settings Recipients	
		Com. port COM1 Refresh Recipient list 13825567749	
		Baud rate 9600 -	
		Note Click "Test" button to senda test message	
		Add Del	
		Error: The SMS was not sent	
SNMP status: 1	SNMP reset enable Reset		
Use system time: 09/29/2	2014 12:08:56 Apply	OK	
102169107		Output window	
192.100.107	Scan	112/09/111 102 100 107 120 Online currencefully	
	Add	[12.06.11] 192.106.107.120 Online successionly.	
	Del		

Diagram 3-20

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

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

SNMP Web Pro 1.1	Event actionLogout Administrator
Information Status Basic information UPS setting Parameters setting Control Real-time control System configuration Wab E-mail SMS Upload Wake on LAN Shutdown Event action Scheduted System time SNMP configuration Log Event log Data log Help Serial Port Debug Firmware Upgrade	Shutdown the PC while battery mode. Shutdown PC: ● after [1600] Sec battery capacity is less than 20 %. Time needed for shutting down the PC [20] Sec. The PC should: ○ for oleep Also power off the UPS after shutting down the PC. Apply ♡ Shutdown the PC while low battery. Apply ♡ Shutdown the PC while temperature upper limit. 55 °C Shutdown the PC while temperature upper limit. 55 °C EMD alarming temperature upper limit. 55 °C Data record interval 60 Sec.

Diagram 3-21

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

- A) Enter IP address of the server with SNMP Web Manager installed.
- B) Set up SMS receiver port from SNMP Web Manager: 41222.
- C) Set up user name of SNMP card as root.
- D) Set up password to access SNMP card. It's the same password setting in
 - SNMP Web Pro.
- E) Enter the mobile phone number to receive SMS.

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

SNMP Web Pro 1.1		SMS Logoxt Administrator
Information Status Basic information UPS setting Parameters setting Centrel Real-time control System configuration Wake on LAN Wake on LAN Wake on LAN Shutdown Event action Scheduled System time SNMP configuration Log Event log Data log Help Serial Port Debug Firmware Upgrade	Send SMS By: • Server Serial Port SMS maximum 10 length: SMS server: 192.168.107.160 A Port 41222 B Account name: root C Password Password Note1: After apply. you can click "Test" button to send a test m Note2: If send SMS by serial port,EMD function will be disabled Apply Test	Receive 1: 13924607394 Apply Delete E Receive 2: Apply Delete E Receive 3: Apply Delete E Receive 4: Apply Delete E

Diagram 3-22

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

3.3.2.3 Language

SNMP Manager offers 12 languages:

- ✓ Chinese(Simplified)
- ✓ Chinese(Traditional)
- ✓ English
- ✓ German
- ✓ Italian
- ✓ Polish
- ✓ Portuguese
- ✓ Russian

- ✓ Spanish
- ✓ Turkish
- ✓ Ukrainian
- ✓ French

The default language setting is "English".

3.4. Configuration

<u>\$</u>	Configuration				X		
	Protocol	 Http 	◯ Https	А			
Γ	Web service port	15178					
	Web service shutdown port	8005		В			
	Server startup type: Automatic Manual Exit to stop monitoring.						
				OK Apply Can	cel		

Diagram 3-23

3.4.1. Https/Http

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

https://xxx.xxx.xxx.18443/PowerShieldSNMPMultiView

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

3.4.2. Port Modification

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

• Web Service port: 15180

• Web service shutdown port: 8005

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

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

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

3.4.3. PowerShield SNMP MultiView Start and Exit Setting Refer to section C in Diagram 3-23 for the detailed configuration of PowerShield SNMP MultiView start and exit setting:

- Server startup type: If "Auto" is selected, the software will automatically start up when PC is turned on. If "Manually" is selected, users have to manually start the PowerShield SNMP MultiView software.
- Exit to stop monitoring: If selected, it will completely exit software without monitoring service. If unselected, it will continue monitoring service in the back end even though exit from software.

3.4.4. Configuration Saved

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

3.5. Https

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

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

26

🏂 Generate certificate	🛛
First and last name	
Organizational unit	
Organization	
City or Locality	
State or Province	
Two-letter country code for this unit	
Password	
	Apply Cancel

Diagram 3-24

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

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

• Import Certificate: It will import a https certificate from a third party.

It supports JKS and PCKS12 types of certificate. Refer to Diagram

3	-	2	5	

🍯 Import certific	ate 📃 🗆 🔀
Path	Browse
Туре	JKS -
Password	
	Apply Cancel

Diagram 3-25

3.6. Open Monitor

Click "Open Monitor" to open monitoring webpage.

3.7. Exit

Click "Exit" to exit service application.

4. PowerShield SNMP MultiView GUI

PowerShield SNMP MultiView GUI includes function menu, shortcut button,

login section and main screen. Refer to diagram 4-1:

Configuration Schedule View Format Lan	guage Help A	User type: Administra	ator Logout B
📲 🏭 🏹 🥺 📎	c		list view Graphic view
unsignd			
192.168.107.86_SNMPP10	192.168.107.170_SNMPP00	192.168.107.72_SNMPP10	192.168.107.67_SNMPP01
UPS information: Input information: Output information: Battery information:	UPS Information: Input Information: 223 6V/50.0Hz Output Information: 224 3V/50.0Hz Battery Information: 27.4V	UPS information: Input Information: Output Information: Battery information:	UPS Information: Input Information: Output Information: Battery Information:
192.168.107.88_SNMPP01	192.168.107.28_SNMPP33	192.168.107.73_SNMPP03	
UPS information: 😵 Input information: Output information: Battery information:	UPS information: 20 Input information: Output information: Battery information:	UPS Information: 😥 Input Information: Output Information: Battery Information:	

Diagram 4-1

- A .Function Menu
- It offers complete tool-set for navigation and setting the GUI.
- B .Login section
- It shows user type for current login user.
- C .Shortcut button
 - Centralized monitoring.
 - Password, group area, UPS setting, SMS, E-mail, load configuration, event action, log setting, EMD manager, modbus communication setting.
 - Scheduled on/off, scheduled battery self-test, and scheduled wake-on-LAN setting.
 - Event log, event statistics, data, diagram, and EMD log.
 - 💌 Refresh.
- D. Main Screen

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

5. PowerShield SNMP MultiView Menu

5.1. Configuration

5.1.1. Password Setting

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

Step 1 Sele	ect Configuration	>>Password.	Refer to	Diagram 5	-1.
-------------	-------------------	-------------	----------	-----------	-----

Configuration Schedule View Format Language Help	User type: Administrator	Logout
		list view Graphic view
Password Group area UPS setting SMS E-mail Load config Event actio Log Setting EMD Manager ModBus comm	SNMP Manage SNMP User	
Administrator Old password Old password New password New password Confirm password Confirm password Apply Clear		

Diagram 5-1

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

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

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

5.1.2. Group area

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

Configuration Schedule	View Format Languag	e Help	User type: Administrator Logout
Group Name	Background image	Note	og Seiung EMD Manager Moudous comm Sivine Manage Sivine Oser
unsignd	world.jpg	other	Group Name
	A		Background image Customize
			Note B Clear Add Modify Delete
			Maximum numbers for a device group 15 Apply

Diagram 5-2

Section A Group list: Shows group information;

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

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

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

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

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

5.1.3. UPS setting

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

Configuration Schedule V	View Format Language	Help	ing EMD Manager ModBus	User type: Ac	Iministrator Logout	view Graphic view
Group area all	Port	device name	Browse)		
Device ID	Protocol	Port	Group area	device name	Address	Note
60-19-29-10-3C-A3	SNMPP10	192.168.107.86	unsignd			
1234567890987	SNMPP00	192.168.107.170	unsignd			
60-19-29-10-3C-A3	SNMPP10	192.168.107.72	unsignd			
000000000000000000000000000000000000000	SNMPP01	192.168.107.67	unsignd			
000000000000000000000000000000000000000	SNMPP01	192.168.107.88	unsignd			
60-19-29-FF-FF-FF	SNMPP33	192.168.107.28	unsignd			
2911AVTPS886300002	SNMPP03	192.168.107.73	unsignd		1	
						Delete Modify

Diagram 5-3

> Query

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

> Modify

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

Configuration Schedule	View Format Language	Help nfiç Device ID Protocol	2911AVTPS886300002 [SNMPP03	User type: A	dministrator Logout jis SNMP User	t view) Graphic view)
Group area all	Port	Port	192.168.107.73			
Device ID	Protocol	Group area	unsignd •	device name	Address	Note
60-19-29-10-3C-A3	SNMPP10	1 device name				
1234567890987	SNMPP00	1				
60-19-29-10-3C-A3	SNMPP10	1 Address				
000000000000000000000000000000000000000	SNMPP01	1				
000000000000000000000000000000000000000	SNMPP01	1				
60-19-29-FF-FF-FF	SNMPP33	1 Note				
2911AVTPS886300002	SNMPP03	1			1	
2911AVTPS886300002	SNMPP33	1	Appiy			
						Delete Modify

Diagram 5-4

> Delete

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

5.1.4. SMS

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

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

🖷 👪 📪 🛛 👄	list view Graphic view
Password Group area UPS setting SMS E-mail Load config Event actio Log Setting EMD Man	ger ModBus comm SNMP Manage SNMP User
com. port settings com. port settings Com. port • Baud rate: 1200 • PDU mode • Note Click "Test" button to check if the transmission is successfully Test Phone No. *Please modify an	Receivers Add Delete I click the button in the lower right corner to save
	Арруу

Diagram 5-5

2. Select communication port and baud rate.

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

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

5.1.5. E-mail

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

Configuration Sch	edule View Format Language Help	User type: Administrator Logout	
📲 🔒 🖣	i 🔍 电		list view Graphic view
Password Group ar	ea UPS setting SMS E-mail Load config Event actio Log Setting EMD Manager ModBus comm SNMP Mar	nage SNMP User	
SMTP server: Port: Send from: User name:	SMTP server settings Receivers list smtp.test.com 25 None O SSL O TLS Exchange server account scount SMTP authentication required "Please modify and click the button in the lower right corner in	e to save	
Password: Note	Click "Test" button to check if the transmission is successfully		
	Test		
			Apply

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

Diagram 5-6

1. Enter SMTP server, SMTP port, Send from E-mail address, User name and password. Click checkbox of password authentication needed for password verify. If using Exchange Server for mailbox system, it's required to configure Exchange server domain name in SMTP sever and select "Exchange server". Then, click "Apply" button.

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

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

5.1.6. Load configuration

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

- 1 🎜	19 🕤							list view Grap	hic view
ssword Group are	a UPS setting SMS	E-mail Load conf	lg Event actio Lo	g Setting EMD Mar	hager ModBus comm	. SNMP Manage	SNMP User		
all	• Browse								
address of load	Enabled SSH shutd	wake on LAN	Power-off option	File to execute whe	Waiting time for loa	When a scheduled t	Execute file	Selected UPSs	Note
2.168.107.170	false	true	false		2	true		(192.168.107.86_P1	
2.168.107.67	true	false	false		2	false		(192.168.107.86_P1	

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

Diagram 5-7

Add: Add load information (one computer) by clicking "Add" button.
 Refer to diagram 5-8:

Configuration Schedule View Format Language Help			User type:	Administrator Lo		
🖷 🏨 🖙 😂 🚗					list view G	raphic view
	IP address of load:	0.0.0.0				
Password Group area UPS setting SMS E-mail Load config	Enabled SSH shutdown:			P User		
	User name:	pc's username				
IF all DIOWSE	Password:	pc's password				
IP address of load Enabled SSH shutdo wake on LAN				s Execute file	Selected UPSs	Note
192.168.107.170 false true	MAC address:	00-00-00-00-00	Auto match		(192.168.107.86_P10	
192.168.107.67 true faise	Accepts wake on LAN when events occur				(192.168.107.86_P10	
	Dowor off option:					
	Power-on option.	Sleep mode				
	File to execute when shutting down:					
	Waiting time for load shutdown:	2 Min				
	Accepts scheduled device shutdown:					
	Execute file:					
	Selected LIPSs:					
		(192.168.107.86_P10_60-1	19-29-1			
		(192.168.107.170_P00_12	345678			
		(192.168.107.72_P10_60-1	19-29-1			
		(192.168.107.67_P01_000	00000			
		(192.168.107.88 P01_000	00000(-			
	Note:					
	Apply	Cancel				
					Add Modify	Delete

Diagram 5-8

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

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

Click "Apply" button to save all changes.

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

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

5.1.7. Event action

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

Configura	ation Schedule View Format Lange	Jage Help		User type: Administrator	Logout
7	🚯 🛐 🥹 🕤				list view Graphic view
Passwor	d Group area UPS setting SMS E-mail	Load config Event actio Log	Setting EMD Man	ager ModBus comm SNMP Manage SNMP User	
Protocol	All VPS Select	Α	Send by:	wake on LAN	
Level	Event	Туре	il	Execute file	
0	AC failure	Input event		Write the event to the log	
0	AC recovery	Input event		Audible alarm	
A	Neutral not connected	Input event		Load shutdown Pop up a warping dialogue (local system only)	
A	Site fault	Input event		UPS shutdown	
A	Phase sequence incorrect	Input event			
0	AVR is activated	Input event	Alarm file:	test.wav test • Customize	
0	On bypass	Bypass event			
A	Phase sequence incorrect in bypass	Bypass event		15588888888	
A	Input frequency unstable in bypass	Bypass event	Phone No.:		
0	P1 outlet power on	UPS internal event			
0	P1 outlet power off	UPS internal event		· · · · · · · · · · · · · · · · · · ·	
	Fan alarm	UPS internal event		test@test.com	
A	EPO enabled	UPS internal event	E-mail:		
A	Unable to turn on UPS	UPS internal event			
	Over temperature alarm	UPS internal event			
0	UPS fault	UPS internal event		Edit E-mail	
A	Charger alarm	UPS internal event		Apply Default	
0	Remote auto shutdown	UPS internal event			
A	L1 input fuse not working	UPS internal event			
A	L2 input fuse not working	UPS internal event			
	1.2 input fuse not working	LIDE internal event			

Diagram 5-9

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

Section B: UPS event list.

Section C: Event action editor

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

This software provides seven reactions for UPS events.

- Wake on LAN: It is a technology to remotely wake up one computer by a network message. It is also required to have ATX power and hardware support for remote PCs to implement this function. When event occurs, this software will wake up PC by clicking this checkbox.
- Execute file: When event occurs, it will request connected computer to execute file.
- Event record: When event occurs, it will save the event records to the database.
- Audible alarm: When event occurs, it will play selected media file. If user wants to use customized sound, it's necessary to import media file into software by clicking "Customize" button. And then, select this imported media file by clicking "Select" button.
- Load shutdown: When event occurs, it will notify Shutdown wizard on remote PCs to shut down computer.
- Warning dialog (local): When event occurs, it will pop up message box to notify users.
- SMS: When event occurs, it will send event message to receivers via mobile phone.
- E-mail: When event occurs, it will send mail to receivers via email. And you can edit E-mail.
- UPS shutdown: When event occurs, it will shut down the UPS.
 Note 1: When editing receiver list in SMS or e-mail columns, it's necessary to refresh the event action page to update receiver list.
 Note 2: Event list will be different according to different types of UPS.
- 5.1.8. Log setting

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

37

Configuration Schedule View Format L	anguage Help		U	ser type: Administrator	Logout		
🖷 👔 🖙 🥯 🕤						list view	Graphic view
Password Group area UPS setting SMS E-m	ail Load config Event act	o Log Setting EMD Manager	ModBus comm SNMP Manage.	SNMP User			
Refresh frequency Record interval SNMP scan interval time (Poli interval time of UPS (Number of UPS in each thread	2 Sec. 60 Sec. 5 Sec. 30 Sec. 2						
The max. number of logs for historical data	0	0: unlimited)					
Backup pain ((Default backup path: SOFTA	oma example : c.backupi ARE_INSTALL_DIRWySQLidata/b pht corner to save	ackup)				
							Apply Default

Diagram 5-10

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

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

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

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

5.1.9. EMD Manager

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

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

Configuration Schedule	View Format Languag	e Help Id config Event actio Lo	User type: Administrator Logout list view Graphic view g Setting EMD Manager ModBus comm SNIMP Manage SNIMP User
Dry contact event Dry c	ontact configuration Alarm S	ettings	
			Text Message Level © () () () Default dry contact 1 • Clear Add Modify Delete

Diagram 5-11

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

> Default dry Contact: Define dry contact no. to send event message. There are five selections: none, 1, 2, 3 and 4. If selecting any value from 1 to 4, any environmental monitoring device (EMD) which is detected defined event will send event message. If selecting none, it means this event is defined as special event. Then, users can assign specific environmental monitoring device (EMD) to receive this event message. Please refer this special event setting in "Dry contact configuration" section.

 Dry contact configuration: Users can define special events with assigned dry contact no. for specific environmental monitoring device (EMD). If any defined event is detected by assigned device via assigned dry contact no., it will send alarm message via software. Refer to Diagram 5-12.

Configuration Schedule	View Format Language	e Help	User type: Administrator Logout
📲 🐒 🖓 🧐	2 🕙		list view Graphic view
Password Group area UF	S setting SMS E-mail Load	d config Event actio Lo	g Setting EMD Manager ModBus comm SNMP Manage SNMP User
Dry contact event Dry co	ontact configuration Alarm Se	ettings	
Device	Dry Contact	Text Message	
			Device Please select • Dry Contact 1 • none • Text Message Clear Add Modify Delete

Diagram 5-12

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

Configuration Schedule View Format Language Help	User type: Administrator Logout
🖷 👪 🖙 🥹 🕤	list view Graphic view
Password Group area UPS setting SMS E-mail Load config	Event actio Log Setting EMD Manager ModBus comm SNMP Manage SNMP User
Dry contact event Dry contact configuration Alarm Settings	
EMD alarming temperature range	EMD alarming humidity range
Upper limit 0 Apply	Lower limit 0 Apply
Upper limit 0 Apply	Lower limit 0 Apply

Diagram 5-13

5.1.10. Modbus communication setting

It will display all connected PCs through ModBus.

Step 1 Select configuration>> ModBus Communication Setting. Refer to

Diagram 5-14.

Configuration Schedule View Format Language Help	User type: Administrator	Logout
🖷 🔒 🖙 오 👄		list view Graphic view
Password Group area UPS setting SMS E-mail Load config Event actio Log Setting.	EMD Manager ModBus comm SNMP Manage SNMP User	
Modbus Setting		
Com. port		
Device ID Select		
Baud rate 19200 •		
Data Bit 8		
Stop Bit 1		
Parity NONE •		
*Please modify and click the button in the lower right corner to save		
		Apply

Diagram 5-14

Step 2 Com. port setting:

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

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

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

5.1.11. SNMP Manager

5.1.11.1. SNMP Manager

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

Configuration Schedule View Format Language Help	User type: Guest Login
🖷 🖞 📪 오 👁	list view Graphic view
Password Group area UPS setting SMS E-mail Load config Event actio Log Setting EMD Manager ModBus comm SNMP Manage	
SNMP Manager SNMP User SNMP Trap User	
IP address list 192 168.48 192 168.107	
Add Delete Scan	

Diagram 5-15

Add: Add the subnet segment to the list

Delete: Delete the subnet segment from the list

Scan: Search for the SNMP card of the LAN or Internet if you have added

the subnet segment or IP of the SNMP card to the list

5.1.11.2. SNMP User

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

- a) SNMP User: It's to send or retrieve data through SNMP card.
- b) SNMP Trap User: It's to receive information through SNMP V3 trap.

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

1. Open Configuration>> SNMP User. Refer to Diagram 5-16.

Configuration Schedule View	Format Language Help			User type: Gu	est Login	
🖷 🔒 🕎 🥹 🔇	•					list view Graphic view
Password Group area UPS settin	ng SMS E-mail Load config Ev	ent actio Log Setting EMD Mar	nager ModBus comm SNMP Mana	ige		
SNMP Manager SNMP User	SNMP Trap User					
SNMP IP	SNMP Version	Authenticate	Authentication Protocol	Privacy	Privacy Protocol	Security Name
						Add Modify Delete Export
						The mounty Delete Coport

Diagram 5-16

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

Add: Click "Add" button to add SNMP IP data. Refer to Diagram 5-17.

Configuration Schedule View	Format Language Help				User type: Admi	nistrator Logout	
📰 🔃 🌇 O 🌘							list view Graphic view
			SNMP IP:	0.0.0.0			
Password Group area UPS settin	ig SMS E-mail Load config Ev	ent actio Log Setting	SNMP Version:	● V1/V2 ○ V3			
SNMP Manager SNMP User	SNMP Trap User		Authenticate:	0			
SNMP IP	SNMP Version	Authenticate	Authentication Protocol: Authentication Password:	O MD5 ⊚ SHA	Privacy	Privacy Protocol	Security Name
			Privacy:				
			Privacy Protocol:	○ AES DES			
			Privacy Password:				
			Security Name: Community string:				
			Apply	Cancel			
					_		
							Add Modify Delete Export

Diagram 5-17

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

Modify: Select SNMP user and click "Modify" button to modify data. **Delete:** Select SNMP user to delete from the list.

Export: Export SNMP user data as excel format.

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

5.1.11.3. SNMP Trap User

Please refer to the previous section (5.1.11.2).

Configuration Schedule View F	Format Language Help				User type: Adm	inistrator Logout	
🛒 🕵 🛐 🔍 🕥							list view Graphic view
Password Group area UPS setting	SMS E-mail Load config E	event actio Log Set	SNMP IP:	0.0.0.0			
SNMP Manager SNMP User SN			Authenticate:	© V1/V2 O V3			
SNMP IP	SNMP Version	Authentica	Authentication Protocol:	○ MD5 ● SHA	Privacy	Privacy Protocol	Security Name
			Authentication Password:				
			Privacy:				
			Privacy Protocol: Privacy Password:	AES DES			
			Security Name:				
			*After adding, modifying or	deleting any TRAP user, pleas	36		
			Apply	Cancel			
					_		
							Add Modify Delete Export

Diagram 5-17b

5.2. Schedule

5.2.1. Scheduled on/off

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

Step 1	Select "S	Schedule"	>> Scheduled on/off. Refer to Diag	gram 5-20.
Configuration Sch	edule View Format	Language Help	User type: Administrator	Logout
and the second s				

Configuration	Schedule Vie	ew Format L	anguage Help			User type: Administrator	Logout
- 1	7 7 0	۲					list view Graphic view
Scheduled on/or	ff Scheduled ba	attery self-test Wa	ike on LAN sche	dule			
Cycle	UPS off	UPS on	Load shutdown	Operated UPS			
once	2020-08-04 9:4	5 2020-08-04 9:47	false	(192.168.107.17)		Scheduled on/off setting	
once	2020-08-04 11:	5-2020-08-04 11:5-	false	(192.168.107.86	UPS	Select	
once	2020-08-04 11:5	5:2020-08-04 11:5:	false	(192.168.107.86	Frequency	Once	
					r requeries	Onice	
					Power off at	2020-08-06 17:24	
					Power on at	2020-08-06 17:24	
						Load shutdown reminder	
							Delete Add

Diagram 5-20

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

NOTE: Please be aware following rules while setting time.

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

Daily schedule – Power-off time should be earlier than power-on time. Power-on time and power-off time should be set on same day.

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

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

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

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

5.2.2. Scheduled battery self-test

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

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

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Configuration	Schedule View	/ Format La	nguage Help			User type: Adminis	strator Logout	t
- 1	n 0 (•						list view Graphic view
Scheduled on/off	Scheduled batt	ery self-test Wak	e on LAN sched	ule				
Cycle	Date	Start time	Operate	Operated UP ^				
						Scheduled battery self-test		
					UPS	Select)	
					Frequency	Once		
						O Daily		
						O Weekly		
						 Monthly 		
					Date	2020-08-06		
					Start time	17:25		
					Method	I0-second self-test		
						O Self-test 0.2	Min	
						Deep discharge test		
				•				Delete

Diagram 5-21

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

5.2.3. Wake on LAN schedule

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

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

Configuration Sch	edule View Form	nat Language H	elp	User type: Administrator Logout
📲 🚳 🖣	i 🕘 💿			list view Graphic view
Scheduled on/off Sc	cheduled battery self-te	est Wake on LAN sc	hedule	
Cycle	Date	Time	IP ^	
				Wake on LAN schedule
			_	UPS Select Refresh
			_	Frequency Once
			_	O Daily
				O Weekly
				O Monthly
			_	Date 2020-08-06
			_	Start time 17:25
			_	
			_	
			-	Delete

Diagram 5-22

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

5.3. View

5.3.1. Centralized monitoring

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

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

Configuration Schedule View Format Language Help User type: Administrator Logout						
🖷 📽 🖙 오 🕤		list view Graphic view				
Unsigno	192 168 107 170 SNMPP00	192 168 107 72 SNMPD10	192 168 107 67 SNMPD01-			
UPS information: Output information: Output information: Battery information:	UPS information: UPS information: Input information: 223.8V/50.0Hz Output information: 224.3V/50.0Hz Battery information: 27.4V	UPS information: Output information: Output information: Battery information:	UPS information: Output information: Output information: Battery information:			
192.168.107.88_SNMPP01	192.168.107.28_SNMPP33	192.168.107.73_SNMPP03				
UPS information: Input information: Output information: Battery information:	UPS information: Input information: Output information: Battery information:	UPS information: Input information: Output information: Battery information:				

Diagram 5-23

♦ List view: It will show UPS working data and status in a table. Refer to

5-24.

Configuration Schedule View Format Language Help Usertype: Administrator Logout							
unsignd	•				Те	d view Graphic view	
UPS	Connection status	UPS information	Input information	Output information	Bypass information	Battery information	
192.168.107.86_SNMPP1060-1	Disconnected						
192.168.107.170_SNMPP0012	Connected	Line mode	223.5V/50.0Hz	223.5V/50.0Hz		27.3V	
192.168.107.72_SNMPP1060-1	Disconnected						
192.168.107.67_SNMPP01000	Disconnected						
192.168.107.88_SNMPP01000	Disconnected						
192.168.107.28_SNMPP3360-1	Disconnected						
192.168.107.73_SNMPP03291	Disconnected						
192.168.107.41_SNMPP33291	Connected		0V/Hz	0V/Hz		V	

Diagram 5-24

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



Diagram 5-25-a



Diagram 5-25-b

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



Diagram 5-26

5.3.1.1. Status

5.3.1.1.1. Power Flow

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



Diagram 5-27

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

- > Input information includes input voltage and input frequency.
- Output information includes output voltage, output frequency, load level, and output current.

- > UPS information includes UPS operation mode and UPS temperature.
- Battery information includes battery voltage, battery capacity and remaining backup time.

5.3.1.1.2. UPS Info

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

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

Configuration Schedule View I	Format Language Help	User type: Administrator	Logout	
🖷 🐒 🖙 오 👁			list view Gr	aphic view
192.168.103.131_SNMPP028392190	3100107			x
Status	Power flow UPS info Diagram Environmental information			
Basic information		Innut Information		
Parameters setting		Input information	n	
Real-time control	40 60	input voltage 227.5	□ v	
	Battery capacity	Input frequency 49.9	Hz	
Close window	0 100% 100			
	40 60			
	Load level 80			
6	0 0% 100			
Power		Battery information		
Contractor		Output information		

Diagram 5-28

5.3.1.1.3. Diagram

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

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

Configuration Schedule View	Format Language Help User type: Administrator Logout
🖷 🖺 🛐 🔍 😒	list view Graphic view
192.168.103.131_SNMPP02839219	x3100107 x
Status Basic information Parameters setting Real-line control Purchasing information Close window	Power flow UPS info Diagram Environmental Information Input requency
Power	

Diagram 5-29

5.3.1.1.4. Environmental information

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

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

Configuration Schedule View	Format Language Help	User type: Administrator	Logout			
📲 🕻 🕎 🔍 🔍	•			list view	Graphic view	
192.168.103.131_SNMPP02839219	03100107					х
Basic Information Basic Information Real-Ime control Purchasing Information Close window	Power flow UPS info Diagram Environmental information Environmental information Temperature [27.5] Humidity [49.0]					
Power						

Diagram 5-30

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

5.3.1.2. Basic information

It includes UPS basic information, battery information, UPS purchasing information, and UPS rated information. Refer to diagram 5-31.

Configuration Schedule View Form	nat Language Help	User type: Administrator Logout
🖷 🔹 🖙 🙁 😒		Ist view Graphic view
192.168.103.131_SNMPP028392190310	0107	x
Status	Basic information	Purchasing information
a Basic information	UPS type: on-line	UPS purchasing date: 2020-10-19
Parameters setting	Input voltage/Output voltage: 230V/230V	Battery purchasing date: 2020-10-19
	Serial number: 83921903100107	UPS Warranty: 0 Year(s)
Real-time control	FW version: 00215.01	Batteries Warranty: 0 Year(s)
Purchasing information		Battery lifecycle: 0 Month(s)
		Reminder: Replace batteries: true
Close window		UPS P/N:
	Battery information	UPS rated information
	Battery group numbers: 1	Rated VA: 10000 VA
		Rated output voltage: 230 V
		Rated output frequency: 50 Hz
		Rated output current: 43 A
		Rated battery voltage: 240 V
Power		

Diagram 5-31

5.3.1.3. Parameters setting

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

Configuration Schedule View F	Format Language	Help		User type: Administrator L	Logout	
📲 🕻 🛱 9 👁					list view	Graphic view
192.168.103.131_SNMPP028392190	3100107					x
Status		UPS alarm Enable Obisable	Apply	Advanced ECO mode	Enable Disable Apply	
Basic information		Alarm at bypass mode Enable Obisable	Apply	Battery open status check	Enable ODisable Apply	
Parameters setting		Alarm at battery mode <pre> Enable Obisable </pre>	Apply	Green power function	Enable Disable Apply	
Real-time control		Auto reboot Enable Obisable	Apply	Cold start	Enable Disable Apply	
Purchasing information		Bypass when UPS is off Enable Obisable	Apply	Bypass allowed	OEnable Disable Apply	
Close window		Converter mode CEnable Disable	Apply	Battery deep-discharge protection	Enable Obisable Apply	
		ECO mode CEnable Disable	Apply	Site fault detection	Enable Disable Apply	
				P1 programmable outlet control(battery mode)	Enable Disable Apply	
		Outlet setting		Battery nu	umbers setting	
6	В	ackup time for P1(battery mode) 9999999 N	Apply	Numbers in parallel	Apply	
Power						Default -

Diagram 5-32

Note: Different UPSs may access different parameter setting.

- Select the functions by clicking "Enable" or "Disable" button. Change the numbers by clicking up-down arrows or modify the numbers directly in the number column.
- Click "Apply" button to save the settings. Each function setting is saved by clicking "Apply" button in each section.
- 3. Click "Default" button to recover the default setting.

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

- > UPS alarm: If enabled, UPS alarm will be activated.
- Alarm at bypass mode: If enabled, UPS alarms when it's working at bypass mode.
- Alarm at battery mode: If disabled, UPS will not alarm when it's working at battery mode.
- > Auto reboot: If enabled, UPS will auto recover when AC is recovering.

- Bypass when UPS is off: If enabled, AC will directly provide power to connected devices when UPS is off.
- > Converter mode: If enabled, the UPS will operate in converter mode.
- ECO mode: If enabled, the UPS will operate in ECO mode when input voltage is within acceptable range.
- Battery open status check: If enabled, the monitored UPS will check if the battery connection ok or not when UPS is turned on.
- Cold start: If disabled, the UPS can be turned on only when AC is normally connected to UPS.
- Bypass not allowed: If enabled, the UPS will not transfer to bypass mode under any conditions. If disabled, the UPS will be allowed to transfer to bypass mode according to UPS internal setting.
- Battery deep-discharge protection: If enabled, the monitored UPS shutdown in accordance with the condition of battery and load on battery mode to protect battery.
- Site fault detection: If enabled, the monitored UPS will beep when the input neutral and hot wires are reversed.
- P1 Programmable outlet control (battery mode): If enabled, when UPS is running at battery mode, it will cut off P1 outlets after backup setting time arrive. If disabled, UPS will provide continuous power to P1 outlets until the battery is running out.
- Outlet setting: Users can set limited backup time for P1 outlets when UPS is on battery mode.
- Battery numbers setting:
 - ♦ Numbers in parallel: set battery numbers in parallel
- Voltage and frequency range for bypass mode: Set acceptable voltage and frequency range in bypass mode
 - Maximum and minimum voltage: When UPS is on bypass mode and input voltage is out of setting range, UPS will enter battery mode.
 - ♦ Maximum and minimum frequency: When UPS is on bypass mode

and input frequency is out of setting range, UPS will enter battery mode.

 Voltage range for ECO mode: Set acceptable voltage range for ECO mode.

5.3.1.4. Real-time control

Refer to diagram 5-33:

Configuration Schedule View I	Format Language Help	User type: Administrator Logout
📲 🐒 🖙 🙁 🕤		list view Graphic view
192.168.103.131_SNMPP028392190	33100107	x
Status Basic information	Alarm control	Turn UPS on/off
Close window	Battery self-test 10-second self-test Start Cancel Minute self-test 0.2 Min Start Cancel Deep discharge test Start Cancel	P1 Time for power-on O Min Start 0 means immediate on Time for power-off O Min Start 0 means immediate off
Power		

Diagram 5-33

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

battery mode.

Note: Different UPSs may access different parameter setting.

5.3.1.5. Purchasing information

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

Configuration Schedule View I	Format Language Help	User type: Administrator	Logout		
📲 🐒 🕎 🙁 😒				list view	Graphic view
192.168.103.131_SNMPP028392190	3100107				x
Status Basic information Parameters setting Real-time control Purchasing information Close window	Battery purchasing date 2020-10-19 Battery lifecycle 0 Month(s) Reminder: Replace batteries ☑ Product Warranty Registration Register Now! → : http://www.powershield.com.au/product-registration.php				
Power					Apply

Diagram 5-34

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

5.3.2. History

5.3.2.1. Event Log

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

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

Configuration	on Schedule View	Format Languag	ge Help					User type: Administrator	Logout		
-	🖥 🏹 🥹 🔇	•								list view	Graphic view
Event log	Event statistics Data	Diagram EMD logs	Purchasing	information							
(192	168.107.170_P00_1234	4567890987) •	Time period	2020-08-06	2020-08-	06	Browse				
ID	Device ID	device name	Level	Date			E	vent		Ту	pe
1	192.168.107.170_123		 Image: A set of the set of the	2020-08-06 14:20:56		Line mode			UPS in	ternal event	
2	192.168.107.170_123			2020-08-06 14:20:26		Communication est	tablished		UPS ex	kternal event	
_											
_											
									P	Print Export	Delete Delete all



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

5.3.2.2. Event Statistics

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

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



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

Configuration Schedule View Format Language Help		User type: Administrator Logo	put
🖷 🖺 📪 🥯 🛞			list view Graphic view
Event log Event statistics Data Diagram EMD logs Purchasing information			
(192.168.107.170_P00_1234567890987) Time period A 2020-08-07	2020-08-07	Browse	
Time period B 2020-08-07	2020-08-07		
Event list	Time period A	Time period B	Change (%)
EMD event			
Input event			
Load event			
Battery event			

Diagram 5-36

- **Step 2** Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.
- **Step 3** Select two periods from clicking "calendar" icon. Then click "Browse" button. The statistics result will be listed in below table according to event types. Refer to Diagram 5-37.

Configuration Schedule View Format Language Help		User type: Administrator L	ogout
🖷 🖺 🖙 😕 👄			list view Graphic view
Event log Event statistics Data Diagram EMD logs Purchasing information			
(192.168.107.170_P00_1234567890987) Time period A 2020-08-07	- 2020-08-07	Browse	
Time period B 2020-08-07	2020-08-07		
Event list	Time period A	Time period B	Change (%)
V EMD event			
EMD Dry Contact2 alarm	0	0	0
EMD Dry Contact1 alarm	0	0	0
EMD humidity exceeds the upper limit	0	0	0
EMD temperature becomes lower than the lower limit	0	0	0
EMD smoke alarm	0	0	0
EMD humidity becomes lower than the lower limit	0	0	0
EMD Dry Contact4 alarm	0	0	0
EMD Dry Contact3 alarm	0	0	0
EMD temperature exceeds the upper limit	0	0	0
Input event			
Load event			
Battery event			

Diagram 5-37

5.3.2.3. Data

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

Configuration Scher	tule View Fo	rmat Language	Help				User type: Adn	ninistrator Logou	t	
configuration cened		innat Language	Theip							
- 🛒 🚺 🕾	0 🕒								list view	Graphic view
Event log Event statis	tics Data Diagra	am EMD logs Purc	hasing information							
							۰. ۲			
(192.168.107.17	'0_P00_12345678	90987) • Time	period 2020-08-0	7	2020-08-07	Browse]			
Device ID	device name	Time	Input voltage	Input frequency	Output voltage	Output frequency	Current	Load level	Battery voltage	UPS temp.
192.168.107.170_1		2020-08-07 14:10:5	221.2	50.0	221.3	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:09:5	219.7	50.0	219.9	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 14:08:5	220.4	50.0	220.7	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:07:5	220.2	50.0	220.2	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:06:5	220.0	50.0	219.3	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:05:5	220.0	50.0	220.0	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:05:0	219.5	49.9	219.5	50.0	0.0	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:04:0	217.9	50.0	217.8	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 14:03:0	217.8	50.0	217.9	50.0	0.0	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:02:0	217.6	50.0	217.6	50.0	0.2	3.0	27.3	24.6
192.168.107.170_1		2020-08-07 14:01:0	220.3	50.0	220.3	50.0	0.2	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 14:00:0	218.6	50.0	218.8	50.0	0.2	3.0	27.3	24.6
192.168.107.170_1		2020-08-07 13:59:0	220.4	50.0	220.6	50.0	0.1	2.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:58:0	221.2	50.0	221.3	50.0	0.1	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:57:0	220.8	50.0	221.1	50.0	0.1	2.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:56:0	220.9	50.0	220.1	50.0	0.1	3.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:55:0	220.4	50.0	220.4	50.0	0.2	3.0	27.3	24.3
192.168.107.170_1		2020-08-07 13:54:1	219.7	50.0	219.6	50.0	0.1	2.0	27.4	24.3
192.168.107.170_1		2020-08-07 13:53:1	219.9	50.0	219.8	50.0	0.1	2.0	27.3	24.3 🗸
									Print Export	Delete Delete all

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

Diagram 5-38

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

- Step 2 Select UPS from com. port list. Users still can retrieve old data saved in the software even though the UPS is no longer connected to local system.
- Step 3 Select the starting time and ending time by clicking calendar icon.Then click "Browse" button to get the data table.
 - > "**Print**": Print the listed data table.
 - "Delete": Select specific data and click "Delete" button to delete the record.
 - "Delete all": Click "Delete all" button to delete all records on the listed table.

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

5.3.2.4. Diagram

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

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

Configuration Schedule View	Format Language Help	User type: Administrator Logout
🖷 🔒 🕎 🥹 🤇	•	list view Graphic view
Event log Event statistics Data	Diagram EMD logs Purchasing information	
UPS (192.168.107.170_P0	0_1234567890987) • Cycle year • 2020 Browse	
Input voltage		
Input frequency	Voltage 250 -	
Output voltage		qual
Output frequency		1 Mary
Current	200 -	2020-07-17 Input voltage:239.8V
Load level		
Battery voltage	150	
UPS temp.		
	100	
	50 -	
	0 2020-01-01 2020-02-03 2020-03-07 2020-04-09 2020-05-12 2020-06-1	14 2020-07-17 2020-08-19 2020-99-21 2020-10-24 2020-11-26 2020-12-29
	50 0 2020-01-01 2020-02-03 2020-03-07 2020-04-09 2020-05-12 2020-06-1	yaar 14 2020-07-17 2020-08-19 2020-09-21 2020-10-24 2020-11-26 2020-12-29

Diagram 5-39

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

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

5.3.2.5. EMD Logs

In the EMD logs window, it shows the environment data in figures detected

by environmental monitoring device (EMD) during selected period time.

Ste	5 1	. Select	View	>>	History	/ >	>	EMD	loas.	Refer	to	Diagram	5-40.
Sic		. Sciece	VICVV		1113001 y	-	-		1095.	I CICI	ιu	Diagram	5 10.

Configuration Schedule View Format Language Help	Use	r type: Administrator Logout
🖷 😫 🕎 🥯 🝽		list view Graphic view
Event log Event statistics Data Diagram EMD logs Purchasing informa	tion	
192.168.107.170 • Time period 2020-08-07 - 2	020-08-07 Browse	
Time	Temperature	Humidity
		Print Export Delete

Diagram 5-40

- Step 2 Select UPS and select the starting time and ending time by clicking calendar icon. Then click "Browse" button to get the data table. Delete
 - > "**Print**": Print the listed data table.
 - "Export": Click "Export" button to save listed table to local PC in .CSV file.
 - "Delete": Select specific data and click "Delete" button to delete the record.

5.3.2.6. Purchasing information

The purchasing information page displays UPS purchasing information

Step 1 Select View >> History >> Purchasing information. Refer to Diagram 5-41.

Configuration Schedule	View Format Languag	e Help			User type: Administrat	tor Logout	
📲 🔒 🕎 🤮) 😔					list v	Graphic view
Event log Event statistics	Data Diagram EMD logs I	Purchasing information					
Time period 2020-08-07	2020-08	-07 Brows	se				
Device ID	UPS P/N	UPS purchasing date	UPS Warranty	Battery purchasing date	Batteries Warranty	Battery lifecycle	Reminder: Replace batter
							Print Export



- Step 2 Select UPS and select the starting time and ending time by clicking calendar icon. Then click "Browse" button to get the data table. Delete/Delete all
 - > "**Print**": Print the listed data table.
 - "Export": Click "Export" button to save listed table to local PC in .CSV file.

5.4. Format

5.4.1. Temperature Unit

There are two temperature units for selecting: Centigrade and Fahrenheit. Default setting is centigrade.

5.4.2. Date Format

There are nine formats for date display:

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

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

Default setting is YYYY-MM-DD.

5.5. Language

PowerShield SNMP MultiView offers thirteen languages for selection:

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

5.6. Help

5.6.1. About

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

5.6.2. Online help

Click "Help" menu and select "Online help" item. It will open user manual. Before operating software, please read manual carefully.

Appendix A: How to shut down the ESXI OS

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



Diagram A-1

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

```
Putty 192.168.107.85 - Putty
                                                                       \sim
login as: root
Using keyboard-interactive authentication.
Password:
The time and date of this login have been sent to the system logs.
VMware offers supported, powerful system administration tools. Please
see www.vmware.com/go/sysadmintools for details.
The ESXi Shell can be disabled by an administrative user. See the
vSphere Security documentation for more information.
[root@users-fb0bec28a:~] vi /etc/ssh/sshd_config
# running from inetd
 Port 2200
Protocol 2
HostKey /etc/ssh/ssh_host_rsa_key
HostKey /etc/ssh/ssh_host_dsa_key
UsePrivilegeSeparation no
SyslogFacility auth
LogLevel info
PermitRootLogin yes
PrintMotd yes
PrintLastLog no
TCPKeepAlive yes
X11Forwarding no
Ciphers aes128-ctr,aes192-ctr,aes256-ctr,3des-cbc
MACs hmac-sha2-256,hmac-sha2-512,hmac-sha1
UsePAM yes
# only use PAM challenge-response (keyboard-interactive)
FasswordAuthentication no
                               please use the word 'yes' instead of 'no' to
                                      e the
                                                           Inent
Banner /etc/issue
Subsystem sftp /usr/lib/vmware/openssh/bin/sftp-server -f LOCAL5 -1 INFO
AuthorizedKeysFile /etc/ssh/keys-%u/authorized_keys
  Timeout value of 10 mins. The default value of ClientAliveCountMax is 3.
 Hence, we get a 3 * 200 = 600 seconds timeout if the client has been
 unresponsive.
ClientAliveInterval 200
 sshd(8) will refuse connection attempts with a probability of "rate/100"
  /etc/ssh/sshd_config 1/43 2%
```

Diagram A-2

3) After the above settings, PowerShield SNMP MultiView can be used to shut down ESXI system through SSH.

Appendix B: Configuration about SNMP V3 in SNMP card

SNMP V3 server configuration



Diagram B-1

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

SNMP Trap V3 Configuration

NMP Web Pro 1.1						onfiguration ^{Logout}	Administrator
					1		
Information	SNMP trap configurat	ion *					
Status		Trap time inte	val: 300	Sec. Apply			
Dasic Information		Company Private Tr	sps: • Enable • D	isable Apply			
Paramotors softing		Company Private Traps T	rpe: 💿 Event ID 📀	Trap OID Apply			
Parameters setting		Company Private Traps Vers	ion: OV2c OV3	Apply 2			
Post-time control		Add SNMPV3 trap pro	ifile: Add	3			
System configuration		RFC1628 Tr	aps: Select -	Apply			
Web	SNMPV3 trap profiles						
E-mail		User profile name				Operation	
SMS		sys			Mod	fify Delete	
Wake on LAN		XXX			Mod	fify Delete	
Shutdown	Trap IP address						
Scheduled	#	IP address		V3 trap p	rofile	🔘 Op	peration
System time	01	192.168.107.52		XXX	✓ 3	Apply	Delete
SNMP configuration	02	0.0.0.0		sys	×	Apply	Delete
Log	03	0.0.0.0		sys	×	Apply	Delete
Event log Data log	04	0.0.0.0		sys	~	Apply	Delete
Help	05	0.0.0.0		575	~	Apply	Delete
Serial Port Debug	06	0.0.0.0		Sys	~	Apply	Delete
Firmware Upgrade	07	0.0.0.0		SyS	~	Apply	Delete
	08	0.0.0.0		SYS	~	Apply	Delete
	09	0.0.0.0		SVS	~	Apply	Delete
	10	0.0.0.0		SVS	~	Apply	Delete
	11	0.0.0.0		SVS	~	Apply	Delete
	12	0.0.0		SVS	~	Apply	Delete
	SNMP server configur	ration *		0)0			
	Sitim Server configu	auton					

Diagram B-2

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

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

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

The following ports (41009 and 43306 and 15180 or other web server port) are necessary for this software to run. If these ports cannot be opened, it will affect the normal operation and use of the software; when the ports cannot be opened, please set them in the system firewall and other security policy tools.