

NetAgent II

UPS SNMP AGENT

User's Manual

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Chapter1. Introduction

Section1. Features

NetAgent II is a new generation SNMP (Simple Network Management Protocol) monitoring product. Not only could remote control the UPS and get the current status of it, the NetAgent also could provide other functions, ex. connect to Modem could make the monitoring possible when there is no permanent connection to Internet. The NetAgent could also been used to connect to 'NetFeeler Lite', to get the temperature, humidity and water conditions. To get the condition of Smoke detector, Gas detector, door and window detector will also be possible.

This product is for "Contact Closure" and "RS232" interface UPS. The communication protocol includes the MegaTec · PPC · SEC 2400 / 9600. And user could also provide their own protocol to build in. NetAgent provides a simple and easy installation procedure. User only needs to install the software in the NetAgent CD on a Windows environment to configure the IP address. All the other configurations could be accomplished in a Web browser.

NetAgent also provides shutdown utility for different operating systems. It could send out the shutdown command in different conditions. These conditions include the AC power failure, Battery Low, Over Loading, Over Temperature and scheduled shutdown. User could configure these conditions to initiate a system shutdown event, and to avoid the abnormal power disconnection of the system.

Features :

☒ Provide SNMP MIB to monitor & control UPS

- Auto-sense 10M/100M Fast Ethernet

☒ Manage and configure via Telnet, Web Browser or NMS

- Support TCP/IP, UDP, SNMP, Telnet, SNTP, PPP, HTTP, SMTP Protocol
- Providing easy setup and upgrade tools via MS-Windows, just a few seconds to finish IP setting, about 1.5 minutes to upgrade firmware.
- ' Sending both of SNMP TRAP and E-mail for events notification.
- ' Auto email daily UPS history report
- " Environment Measurement (Optional Kits)
- " External modem dial in/out via PPP protocol (513/514/505/506)

Section2. Applications

NetAgent makes your UPS on the Internet

When the UPS install the NetAgent, the system manager could check each and every UPS condition by a computer with Browser installed. The manager could monitor and control the UPS by simply input the IP address of the NetAgent connect to the UPS. When there is a power abnormal condition happened, the NetAgent could also send the trap information to the system manager to take proper action.

NetAgent Provides Shutdown Utilities

When a computer on the network with the NetAgent utility installed, it could locate all the NetAgent on the network. When the UPS of this NetAgent is in AC failure condition or Battery Low condition, the operating system could close all the files on the system, and perform a gracefully shutdown. This could avoid system corrupt when a power disconnection happened.

NetAgent for Surrounding Monitoring

3Port NetAgent II could be used to connect the surrounding monitoring utility, NetFeeler Lite, to get the temperature/humidity/smoke/fire signals. These information could also be revealed on the NetAgent Web page. When there is an abnormal condition happened, it could also be sent as a trap to the system manager.

When we need the NetAgent ?

- (1) When we need to remote monitoring and controls the UPS conditions. For example, the system manager could use the Internet to control all the UPS conditions all over the country. When the shutdown utility is installed, the shutdown utility could close all the files and shutdown the system when a power abnormal condition happened.
- (2) When we need to monitor surrounding conditions of the machine room, warehouse, office, ...etc. For example, the system manager could know the temperature, humidity, smoke and water condition by using the NetAgent and NetFeeler Lite. The system manager could always know these surrounding conditions by using a Web browser.

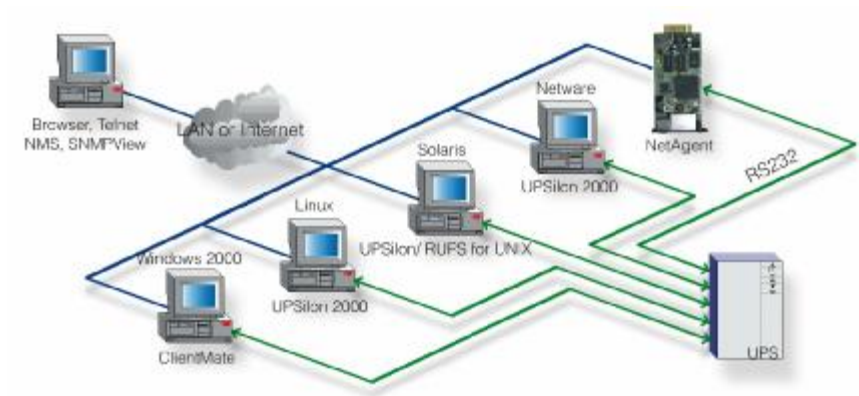


Fig.1. NetAgent II connection Software

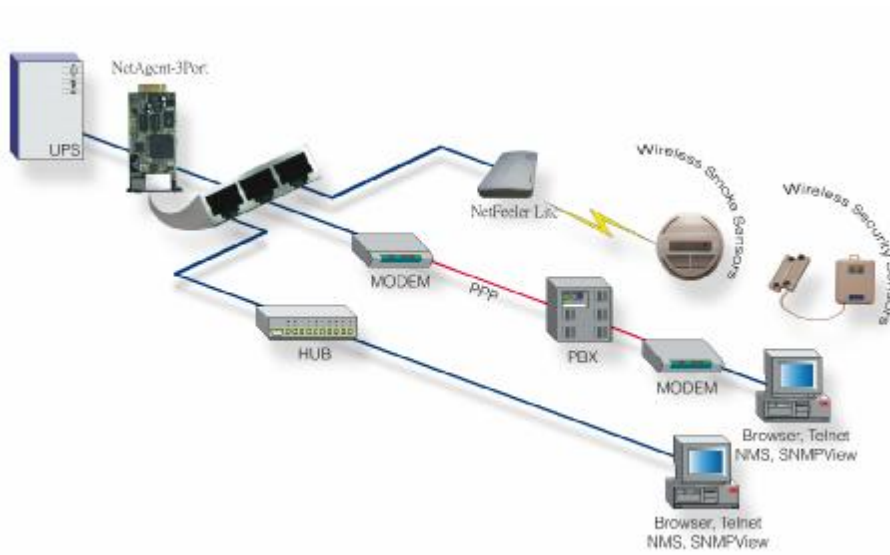


Fig.2. 3 Port NetAgent II Diagram

Section3. NetAgent Models

NetAgent Models

NetAgent II Model				
P/N	Package Contents	Internal/External	1/3 Port	1/3 phase
503	1.1 Port External Agent 2.NetAgent Utility CD 3.M2501 Cable 4.M2502 Cable (or M2505 Cable) 5.DC adapter	External	1 Port	1 phase
504	1.1 Port Internal 2.NetAgent Utility CD	Internal		
505	1.3 Port External Agent 2.NetAgent Utility CD 3.M2501 Cable 4.M2502 Cable(or M2505 Cable) 5.M2506 Cable 6. DC adapter	External	3 Port	3 phase
506	1.3 Port Internal 2.NetAgent Utility CD 3.M2506 Cable	Internal		

Fig.3. NetAgent Models

NetAgent Package Contents

NetAgent has “Internal/External”, “1 phase/3 phase”, “1 port/3 port” different models. The different model has different equipment items.

1.NetAgent Utility CD, including :

- ◆ Netility : Configure NetAgent UPS IP address, update firmware
- ◆ ClientMate : Windows shutdown utility.
- ◆ SNMPView : Windows platform multiple NetAgent UPS management software.
- ◆ UPS MIB : MIB file for the Network Management System
- ◆ Time Server : Time adjustment utility
- ◆ And NetAgent installation/users manual

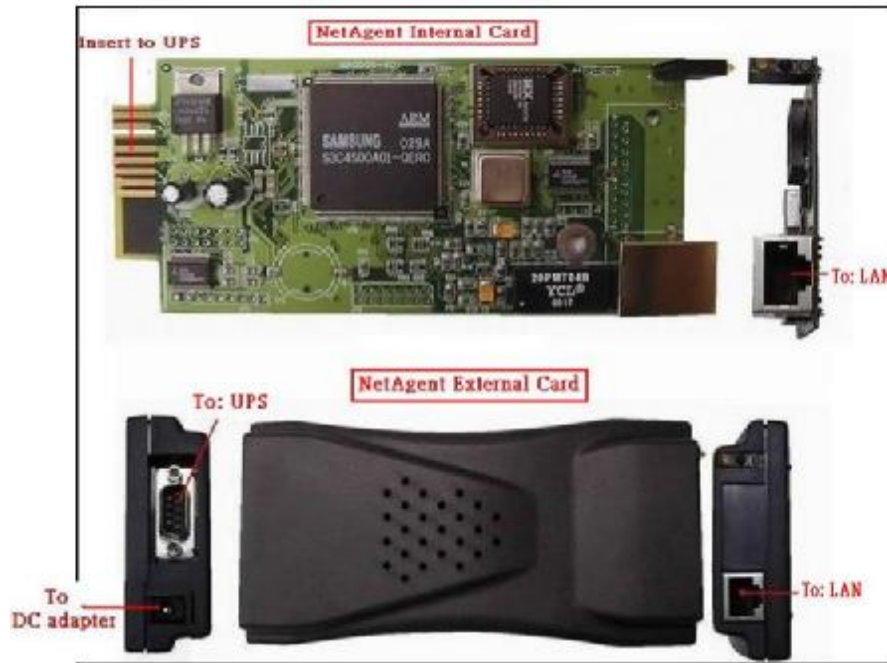
2.M2501 Cable : For external NetAgent connection to contact closure UPS

3.M2502 (or M2505) Cable : For external NetAgent connection to RS-232 UPS.

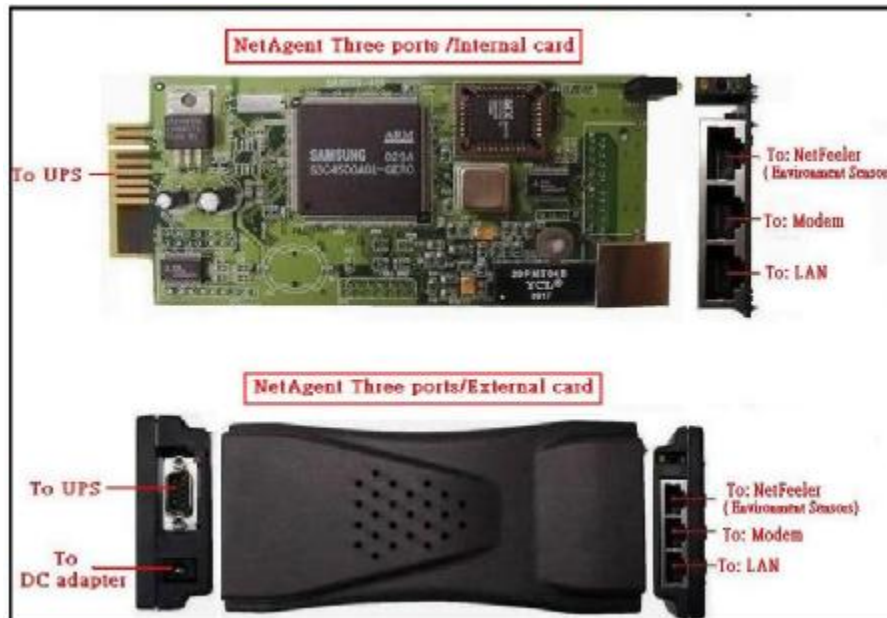
4.M2506 Cable : For connection 3Port NetAgent and the “NetFeeler Lite”.

NetAgent Out looking

◆ 1 Port NetAgent (Internal / External) :



◆ 3 Port NetAgent (Internal / External) :



LED Table			
Yellow	Red	Green	Status
Solid Off	Solid Off	Solid ON	Power ON
Flashing	Solid ON	Solid ON	System initial
Solid ON	Solid Off	Solid ON	Normal operation
Solid ON	Flashing	Solid ON	No connection to UPS
Flashing	Flashing	Solid ON	Writing data to flash memory

Chapter 2. NetAgent UPS Installation

Before using the NetAgent, the proper hardware and software configuration is necessary. Hardware installation is to connect the NetAgent and UPS and network. Software configuration includes the IP address · Firmware upgrade. Or using the Browser or Telnet for configuration.

You could also install the shutdown utility – ClientMate to protect your Windows operating system. And also could use the UPS management software – SNMPView, to control and management multiple UPS on the network.

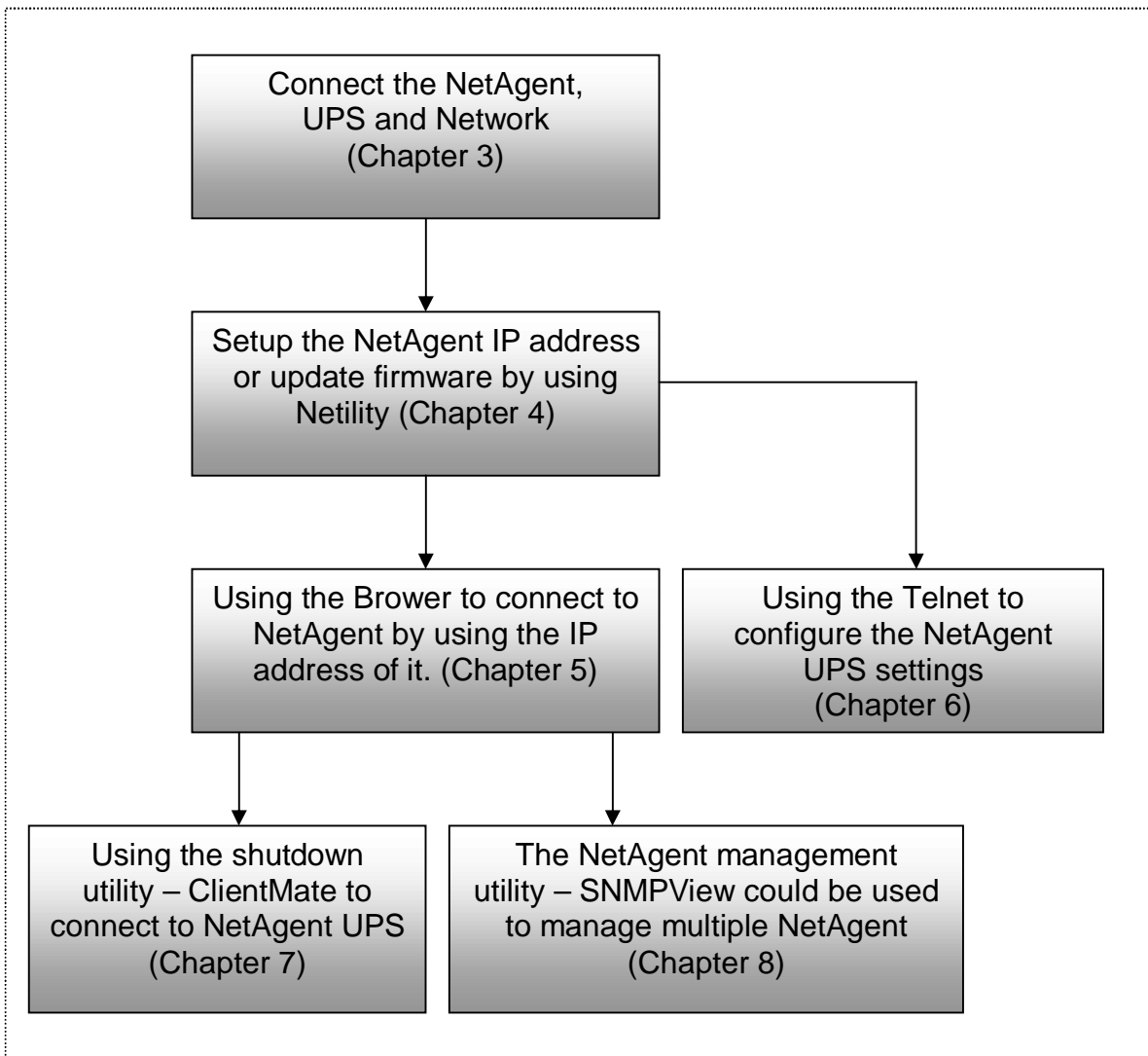


Fig.4. NetAgent UPS installation flowchart

Chapter 3. NetAgent, UPS and Network Connection

NetAgent provide External and Internal model for different UPS interface requirement. Please reference the following description for detailed information of UPS and network connection.

To install the External Adapter

☒ Connect the NetAgent Adapter to LAN, using the appropriate UTP port.

- Connect the specified serial cable (M2501/M2502/M2505) from NetAgent Adapter to the serial port of UPS.

☒ Plug supplied AC adapter to the wall socket, the other side connection with NetAgent Adapter.

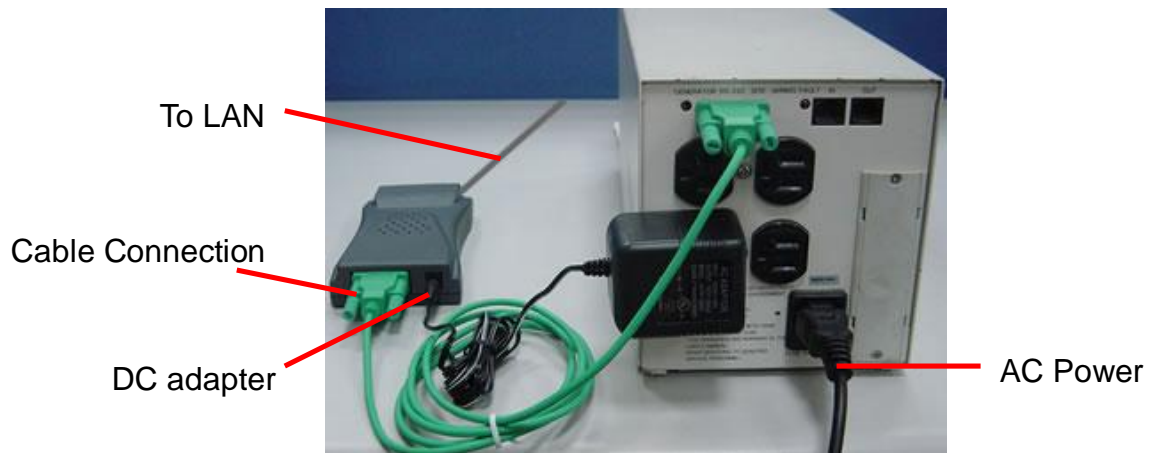


Fig.5. External NetAgent Installation

To install the Internal Card

☒ Insert the Net Agent Card into the slot of UPS.

- Connect the Net Agent Card to LAN, using the appropriate UTP port.



Fig.6. Internal NetAgent Installation

Chapter 4. Using Netility Setup IP 、 Update Firmware

Section1. Install Netility

- ☒ Insert NetAgent Utility CD to the CD-ROM driver and execute Netility.exe.
- After complete installation, there will be a 'Netility' group in Windows 'Start' à 'Program Group'.



Fig.7. Netility Group

☒ Click "Netility" could initiate the Netility and enter the main window for configuration.

Section2. Using Netility

The main window of Netility is here below , left table is to show you all of NetAgent be searched in LAN; right side is function selection menu.

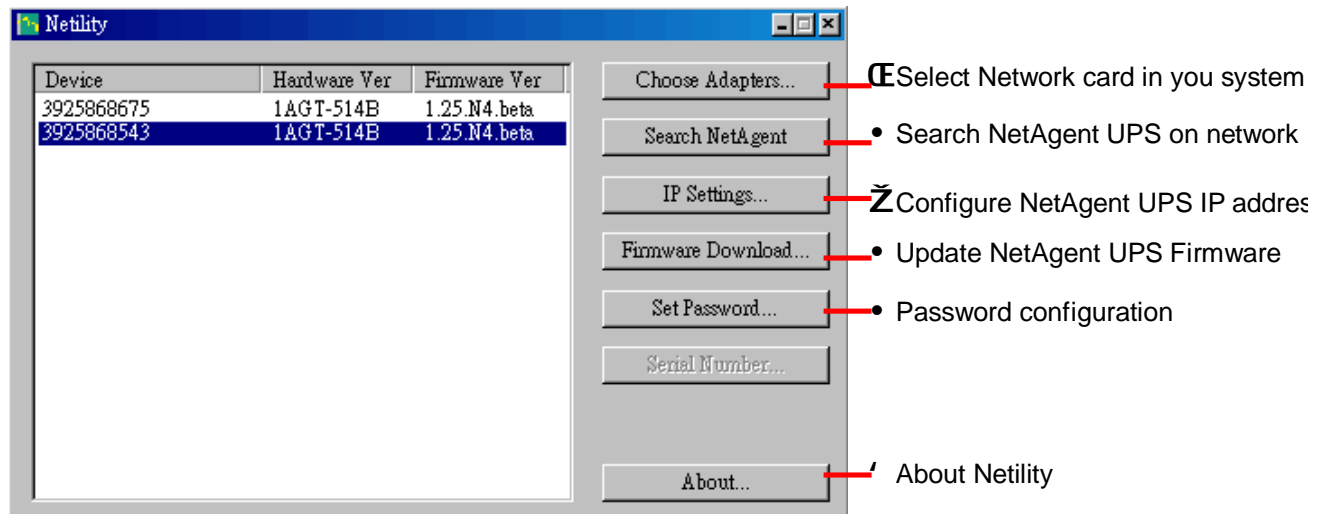


Fig.8. Netility Main Window

Choose Adapters

After execute Netility , Netility will search all the possible network card in the system. Or this could be entered by select the "Choose Adapters..." in the main window. Please select the network card connected with NetAgent.

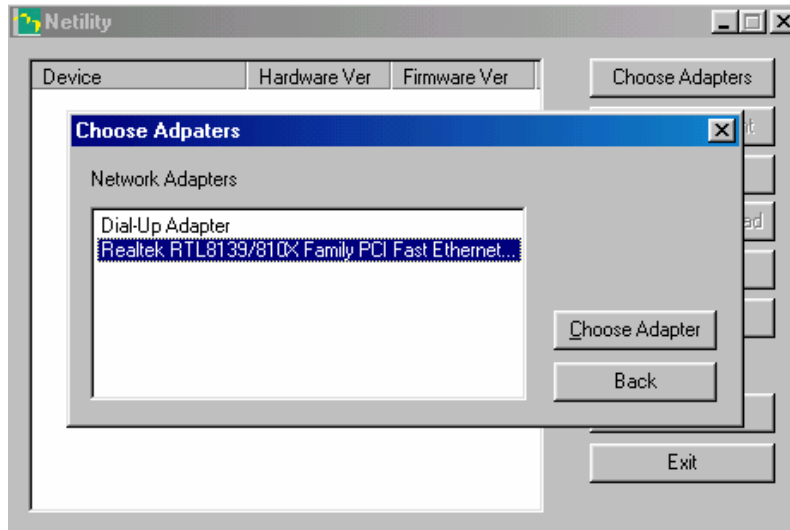


Fig.9. Netility: Select Network card

• Search NetAgent

After finished network card setup, click "Search NetAgent". All of Net Agents with serial number in LAN will be show up at left column for user's selection.

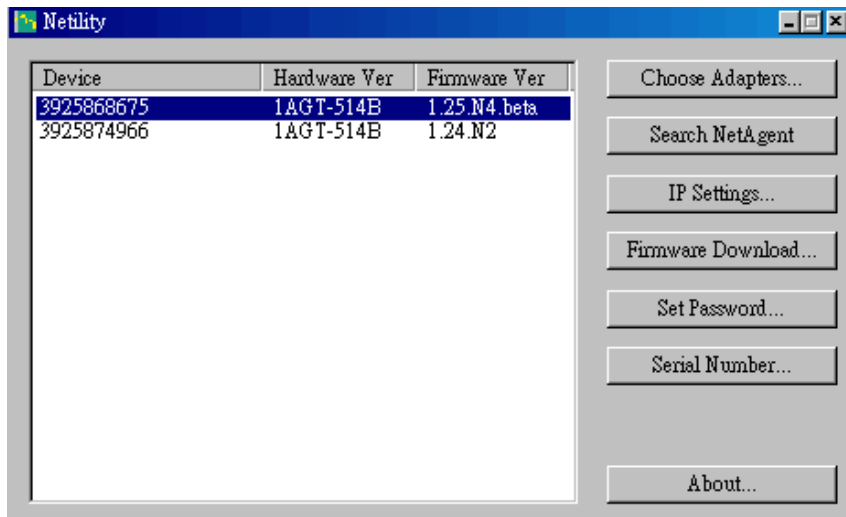


Fig.10. Netility: Search NetAgent UPS

ŽIP Settings

Selected the NetAgent serial number which go to use, following are various configuration setup. When first time to use, IP address is blank. You have to complete IP Address, SubMask and Gateway setup enable the display over Telnet or Browser

If the IP address is assigned by DHCP , please check the "Obtain an IP address via DHCP".

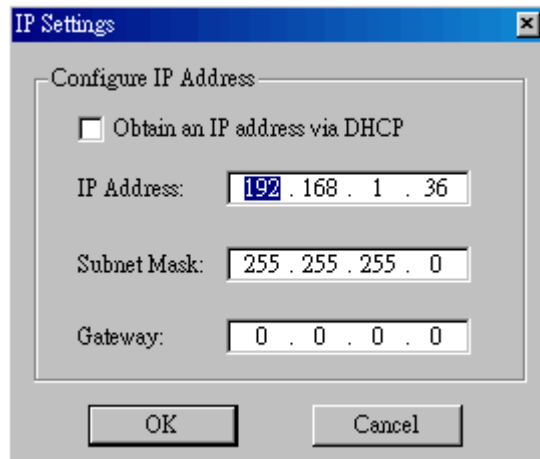


Fig.11. Netility: Set NetAgent UPS IP address

• Firmware Download

NetAgent offer convenient firmware upgrade function. When you are going to upgrade firmware, click **Firmware Upload** from NetAgent Setup menu, click "Browser" select new firmware file (*.bin) and press "Start". Thus, Net Agent's Red LED and Yellow LED flashing alternative means the firmware is upgrading. After upgrade completed, Net Agent will auto reboot. (Please connect to the www.megatec.com.tw for the latest firmware)

Note:Net Agent provided well-considerable protection function. If uploading was interrupted and raised data in incomplete, Net Agent will keep its default to avoid of complete data loss. In the case, just repeat "firmware upload" as well.

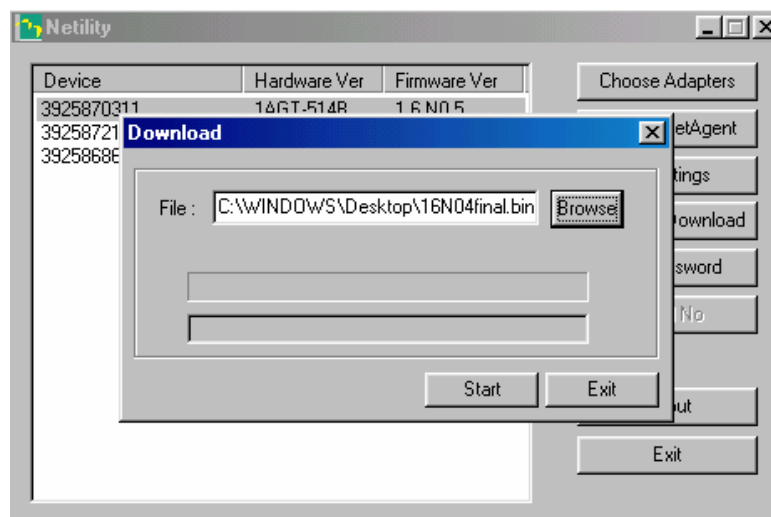


Fig.12. Netility – Update NetAgent UPS firmware

- **Set Password**

The new password setting is applied when NetAgent renew setup default. After set this password, user must input password before any setting or upgrade process to write to the NetAgent. (Ex. IP configuration, firmware update) Left blank to disable the password verification function.

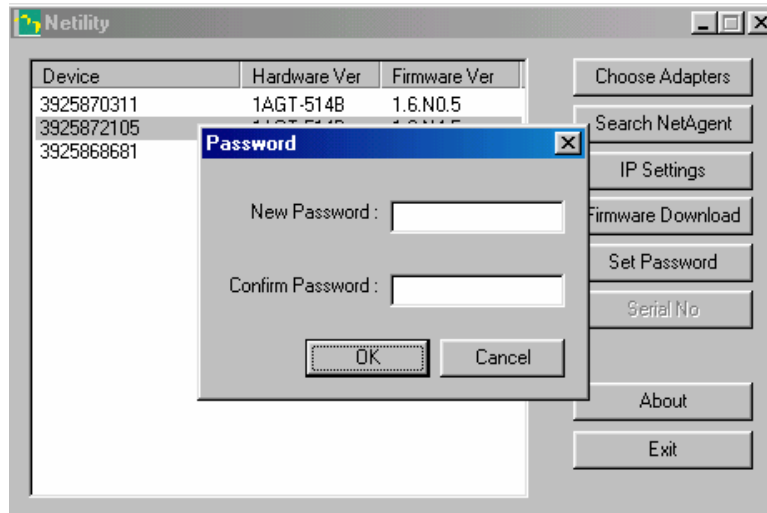


Fig.13. Netility: Password Configuration

Chapter 5. UPS Web management by NetAgent

Section1. Introduction

After finishing NetAgent installation, including hardware installation and IP setting, you are now able to go to NetAgent web site to monitor and control UPS by inputting NetAgent IP address in Browser.

☞ Starting the Web Brower (Netscape or Internet Explore

- Enter the NetAgent IP Address (Which is setting on Netility, e.g. 211.21.67.51).



Fig.14. Input NetAgent UPS IP address

☞ On the first screen, enter the current password. If no password has been set, just press [ENTER].

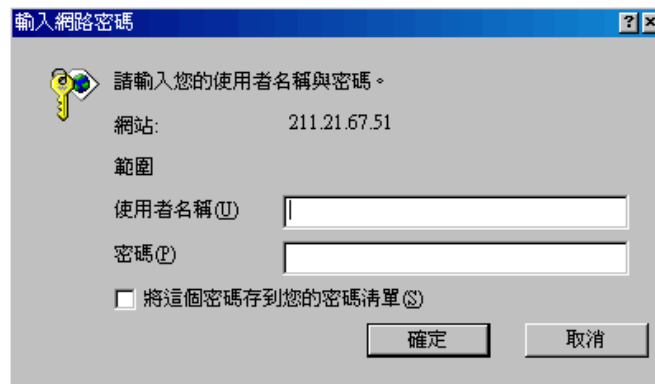


Fig.15. NetAgent UPS Login dialog

Section2. NetAgent UPS Web Interface

Enter NetAgent UPS Web page , there are 4 main function items in the first Web page:

☞ View

- Remote Control

☞ Config

- Log

Enter the main function item, the sub-menu items will be shown on the left side of the page. When using this NetAgent for the first time, please enter the [Config] menu item to set all the configuration items. Then the UPS status could be correctly revealed by other pages.

CE View

Sub-Menu - UPS Information, Current Status, Meter/Chart, About

Note: The options available on this menu depend on the UPS mode. (e.g. For the Basic UPS, the “Current Status” & “Meter” will not available.)

UPS Information

The UPS basic information are shown in this page. All data included in these columns were from **[Config]** setting and UPS response from query.

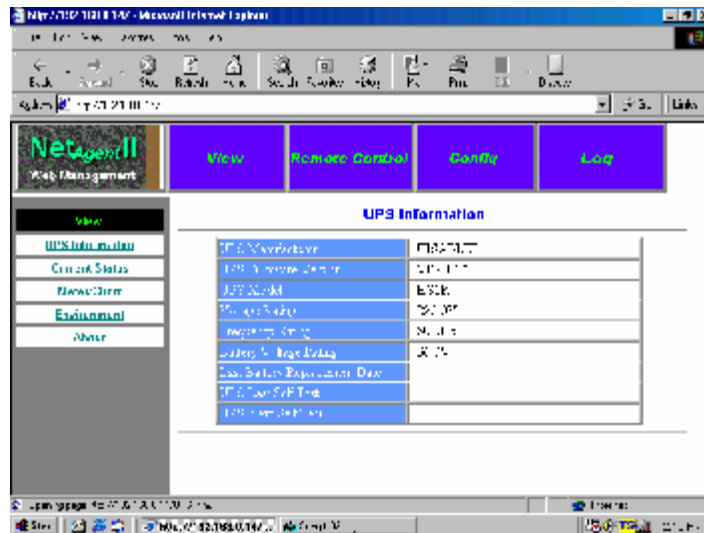


Fig.16. Page:UPS Information

Current Status

UPS current status regarding temperature, battery capacity, UPS loading and voltage etc are real-time display in digital on screen. Data polling interval timing is flexible setting by users.

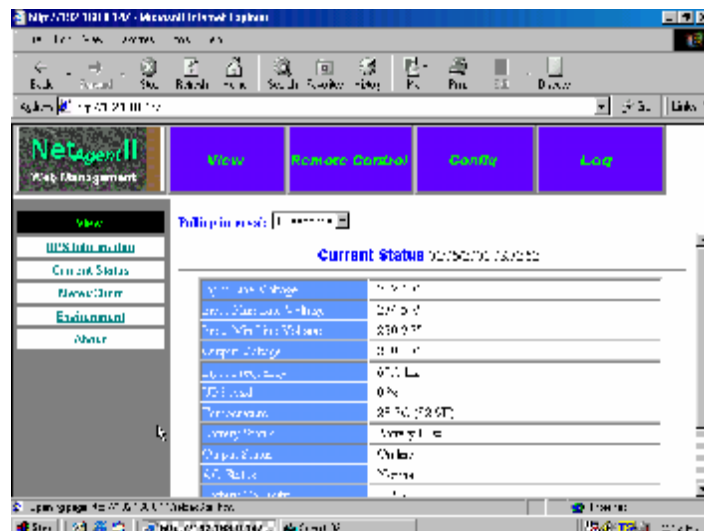


Fig.17. Page:Current Status

- **Remote Control**

The feature is able to remote control UPS testing parameters. Select items which going to test and presses [Submit] to access.

For Basic UPS models, the only action available is to shutdown the UPS. Shutdown is only possible if AC power has been lost, and the UPS is running in battery mode.

Note: The options available on this menu depend on the UPS mode.

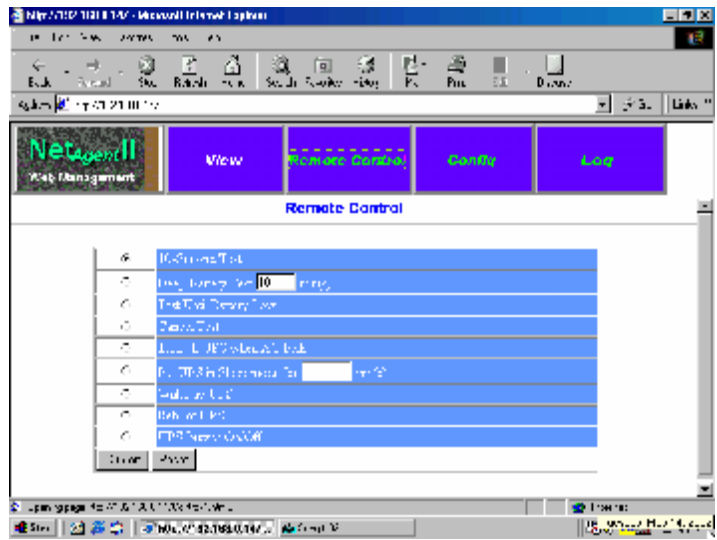


Fig.20. Page:Remote Control

子 Config

子功能-IP Address, MIB System, Access Control, Trap Notify, Email Setting, UPS Property, Devices Connected, Time Server, User Account, Self Test, Record UPS Data, Weekly Schedule, Date Schedule, PPP Dial-in, Environment Inspect. All of parameters have to be setup correctly enable NetAgent II working normally.

Note: The options available on this menu depend on the UPS mode.

IP Address

IP Address		
IP Address	Subnet Mask	Gateway
<input type="text" value="211.21.67.51"/>	<input type="text" value="255.255.255.248"/>	<input type="text" value="211.21.67.49"/>
Obtain an IP address automatically		<input type="text" value="manually"/>

IP Address	The NetAgent’s IP Address. If this is changed, any current LAN connections will be lost, and must be re-established using the new address.
Subnet Mask	Enter the network mask for the segment to which the UPS Net Agent is attached. If you don’t have a router, leave this at 255.255.255.0
Gateway	If a router is installed on the network segment, enter its address here. Otherwise, leave this at 0.0.0.0.
Obtain an IP address automatically	Obtain the IP address by manual or by DHCP

MIB System

MIB System		
System Name	System Contact	System Location
<input type="text" value="UPS Agent"/>	<input type="text" value="Administrator"/>	<input type="text" value="My Office"/>

System Name	The UPS Net Agent's physical location.
System Contact	The name of the UPS Net Agent.
System Location	The person or persons responsible for the UPS Net Agent.

Access Control

Access Control		
Manager IP Address	Community	Permission
<input type="text" value="***.*"/>	<input type="text" value="public"/>	<input type="text" value="READ/WRITE"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="NO ACCESS"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="NO ACCESS"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="NO ACCESS"/>

Manager IP Address	IP Addresses for the Net Agent management stations (PCs). Only these workstations can access the Net Agent. Note: An IP address of *.*.*.* gives everyone access permission.
Community	A community string entry is mandatory. Enter "private" or "public".
Permission	Available options are: NOT ACCESS / READ / READ/WRITE

Trap Notify

Trap Notification			
Receiver IP Address	Community	Severity	Accept
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="INFORMATION"/>	<input type="text" value="NO"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="INFORMATION"/>	<input type="text" value="NO"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="INFORMATION"/>	<input type="text" value="NO"/>
<input type="text"/>	<input type="text" value="public"/>	<input type="text" value="INFORMATION"/>	<input type="text" value="NO"/>

Receiver IP Address	The IP Address of the management station to receive the Trap.
Community	The management station's community string.
Severity	Trap level. The management station will be sent traps at or above the specified trap level.
Accept	Select YES or NO to determine whether or not the trap is currently activated.

Email Setting

Email Settings	
Email Server IP Address	<input type="text"/>
Sender's Email Address	<input type="text"/>
Email Server Requires Authentication	NO <input type="button" value="v"/>
Account Name	<input type="text"/>
Password	<input type="text"/>
Recipient's Email Address	<input type="text"/>
Send Email When Trap Occurs	NO <input type="button" value="v"/>
Send Email for Daily Report (hh:mm:ss)	NO <input type="button" value="v"/> at <input type="text"/>
Recipient's Email Address (for daily report)	<input type="text"/>

Email Server IP Address	IP address.(e.g.210.71.130.1)
Sender's Email Address	Mail originator's email address.
Email Server Requires Authentication	Whether the Email server need an authentication when sending the mail.
Account Name	Account name of the mail originator. This is only necessary when the mail authentication is set as 'YES'
Password	The password of the authentication when the mail authentication is set as 'YES'.
Send Email When Trap Occur	Set indicated email address to receive Trap when power event.
Send Email for Daily Report	Set Daily Report sends out timing.
Recipient's Email Address (for daily report)	Set Daily Report receiver's email address.

UPS Property

UPS Properties	
UPS Communication Type	RS232 [MegaTec] <input type="button" value="v"/>
Last Battery Replacement Date (mm/dd/yyyy)	<input type="text"/>

UPS Communication Type	Select your UPS interface or communication protocol from the list as below. This setting determined parameters configuration display in diameters.
Last Battery Replaced Date	Enter the battery last replaced date.

Devices Connected

Devices Connected		
System Name	Rating(%)	Connected
	0	NO
	0	NO
	0	NO
	0	NO

System Name	Enter a descriptive name for the device.
Rating	Enter the VA rating for this device.
Connected	Select YES or NO to indicate whether or not the device is currently connected.

Time Server

User is able to set primary and secondary time servers for synchronize timer. NetAgent provided time servers are flexible to set time zone and interval timing for accurate synchronize

Time Server	
Automatically Update System Time	NO
Time Between Automatic Updates	1 Hour
Primary Time Server IP Address	128.118.46.3
Secondary Time Server IP Address	128.250.36.2
Set Time Zone (Relative to GMT)	0

User Account

User Account			
User Name	Password	Access Rights	IP Address
		Read/Write	***
		Read/Write	***
		Read/Write	***
		Read/Write	***

User Name	User's account name.
Password	The password is aim to protect configuration be modified by not permitted entry. Once set, the password is required to gain access to the device.
Access Right	Available options are: Read Read/Write
IP Address	User's IP Address.

Self Test

This function is to schedule UPS self-test in optional Never/Weekly/Biweekly. The value will display at 'UPS Last Self Test Time' and 'UPS Next Self Test Time' at **Information** of **View** .

Self Test	
Automatic Self-Test Schedule	Never

Record UPS Data

This function is to set the record time interval about the UPS data, such as the input and output voltage, line frequency, load, battery capacity and temperature.

Record UPS Data	
Polling interval	30 seconds

Weekly Schedule

Set the Turn On/Turn Off schedule for the UPS. Time is entered using 24 Hr clock format (hh:mm:ss), and these entries set events for the same day each week.

Note: Note: The options is not available for Basic UPS.

Date Schedule

Set the special events scheduled for the UPS. Time is entered using 24 Hr clock format (hh:mm:ss). The UPS will be scheduled to shutdown on a specific day and time, and restart later in the same day.

Note: The options is not available for Basic UPS.

PPP Dial-in

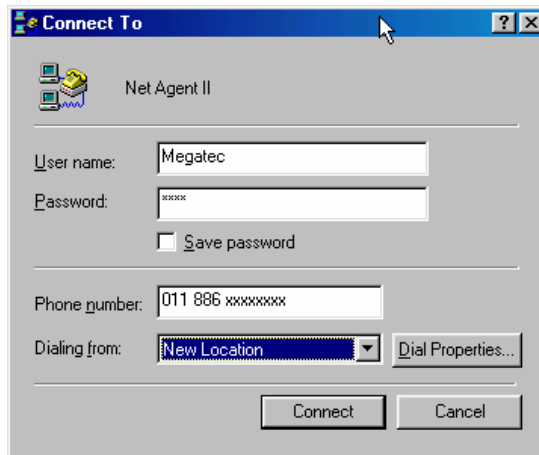
PPP is the Internet Standard for transmission of IP packets over serial lines. You can connect the external modem via PPP protocol to access Internet. (ME-PK-513, 514, 505, 506). Setting the modem between Net Agent II and PBX. (Private Branch eXchange) to go Internet, sending SMG to cellur phone, or direct dial up to monitor the UPS or Environment status.

PPP Dial-in	
Login Name	Megtec
Login Password	****
PPP Server IP	10.0.0.1
Login IP	10.0.0.2
Modem Script	\N AT&KOM1S0=1 OK \N

Login Name	User's account name.
Login Password	User's password.

PPP Server IP	NetAgent IP address (for modem)
Login IP	Input IP of the computer that you use to manage Netagent. (not necessary)
Modem Script	Modem type(not necessary)

In “Connect To” dialog box, set “Phone_number” same as the number that you connect with Net Agent II modem’s phone number.



Environment Inspect

Three ports NetAgent (513, 514, 505, 506) is able to get access to our environment detection device – NetFeeler. NetFeeler can detect environment status, such as temperature, humidity and water. NetFeeler can work with wireless smoke sensors, gas sensors and security sensors as well. When NetFeeler detects any events, NetFeeler will set out alarm and send warning message to NetAgent to broadcast to Net work managers.

Environment Inspect		
Environment	Warning Below	Warning Over
Humidity	5	90
Temperature	5.0	70.0

Warning Below	To set the range for NetFeeler Lite to send warning message. When NetFeeler detects that the temperature or humidity readings are lower than this setting, NetFeeler will set out alarm and will send warning message to Network manager via NetAgent.
Warning Over	

- **Log**

Sub-menu - Event Log, Data Log, Download

Event Log

This table lists date, time, and description of events.

Event Log

Date & Time	Event
01/05/2001 03:19:58	Battery Low

Fig.21. Page:Event Log

Data Log

The UPS data will be recorded in this table.

Data Log

Date&Time	Input Volt.	Output Volt.	Freq. (Hz)	Loading	Capacity	Temp. (C)
01/05/2001 02:42:25	232.0	223.1	50.0	0	1C	20.3C 02.9F
01/05/2001 02:42:05	232.1	223.1	50.0	0	1C	27.9C 02.9F
01/05/2001 02:41:25	232.0	223.1	50.0	0	1C	20.3C 02.9F
01/05/2001 02:41:05	232.0	223.1	50.0	0	1C	20.3C 02.9F
01/05/2001 02:40:25	234.0	223.1	50.0	0	1C	20.3C 02.9F

Fig.22. Page:Data Log

Download

Save the log information in the 'Data Log' into a target file.

Chapter 6. Telnet (Remote Monitoring)

Section1. Introduction

NetAgent supports multiple Network Management systems and LAN protocols. After finishing hardware installation, you are now able to choose any utilities that provided by NetAgent to monitor and control UPS.

Here are introduction for using Telnet.

Section2. Telnet Configuration

☒ Select “Start” from Windows, click “Run” to key-in NetAgent IP Address

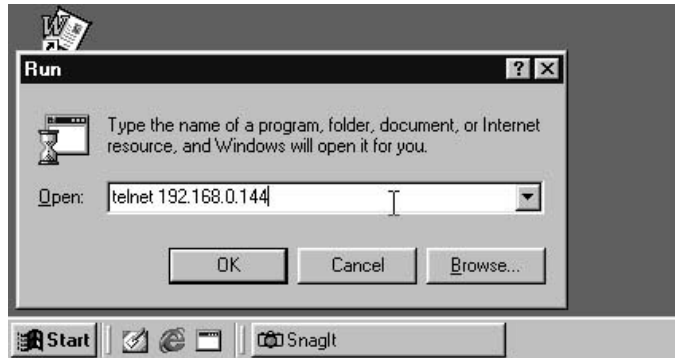


Fig.23. Telnet startup

- Successful link-up display:

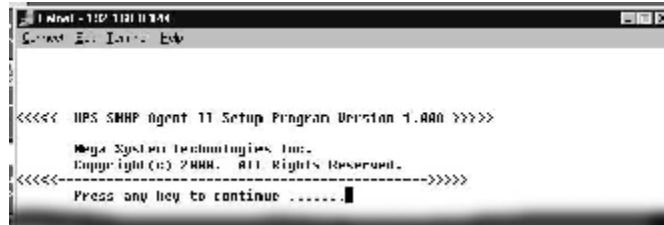


Fig.24. Telnet Connection

Ž Initial to setup, please press “Enter” to enter telnet main screen. If the User Name and Password had been set before, please enter actual value to access.



Fig.25. Telnet: Input User Name / Password

- Main screen is as follows:



Fig.26. NetAgent Telnet window

- ◆ **Set IP Address.**

This function allows you to setup IP Address, Gateway Address, Subnet Mask parameters.

- ◆ **Set SNMP MIB System.**

This function allows you to set the MIB system group parameters.

- ◆ **Set SNMP Access Control.**

This function allows you to set the Manager IP, Community, Access Permission.

Note: The configuration of 'Set SNMP Access Control' is only used for SNMP Network Manager.

- ◆ **Set SNMP Trap Notify.**

If you want to use a PC and perform the 'Trap' function of SNMP manager to manage UPS through Net Agent, the IP address of the PC must be added in this list of Net Agent.

Note: The configuration of 'Set SNMP Trap Receiver' is only used for SNMP Network Manager.

- ◆ **Set UPS Property.**

This allows you to setup the Communication Type of UPS, UPS Device Name and Battery Replacement Date.

- ◆ **Set UPS Devices Connected.**

This allows you to setup the System Name, Rating which connected., Connected.

- ◆ **Set System Time & Time Server.**

This allows you to setup the System date, time and two time servers.

- ◆ **Set Web and Telnet User Account.**

This is allows to set users account's authority.

- ◆ **Set E-mail.**

This is allows to set e-mail accounts to receive power event notification for emergency management.

- ◆ **Reset Configuration to Default.**

Set all values to their default settings.

- ◆ **Save & Reboot.**

Save the current configuration data, including any changes you have made, and reboot the Net Agent.

- ◆ **Exit Without Saving.**

Exit, all configuration changes will be lost.

Chapter 7. ClientMate - Windows Shutdown Utility

ClientMate is a utility for connecting to the RUPS 2000, UPSilon 2000 and NetAgent. This utility is for the Windows platform. When the ClientMate get the power failure signal from the RUPS2000, UPSilon 2000, or NetAgent. The ClientMate will save the files and shutdown the system gracefully. When the hardware installation of the NetAgent has been completed, you could install the ClientMate on any of the Windows system on the network. When the ClientMate detects the AC Fail, Battery Low, Schedule Shutdown signals from the NetAgent, it will save the file and shutdown the system. Please check the operation description here below.

Section1. Install ClientMate

Put the NetAgent Utility CD into the CD driver. And execute the "ClientMate" program.

- After complete installation, there will be a 'ClientMate' group in the Windows Start group.



Fig.27. ClientMate Group

Click "ClientMate" to initiate the ClientMate and start using the ClientMate.

Section2. Using ClientMate

Please find the ClientMate main window here below : press the left icon to enter the configuration dialog. On the right of the window is the current status of the UPS.

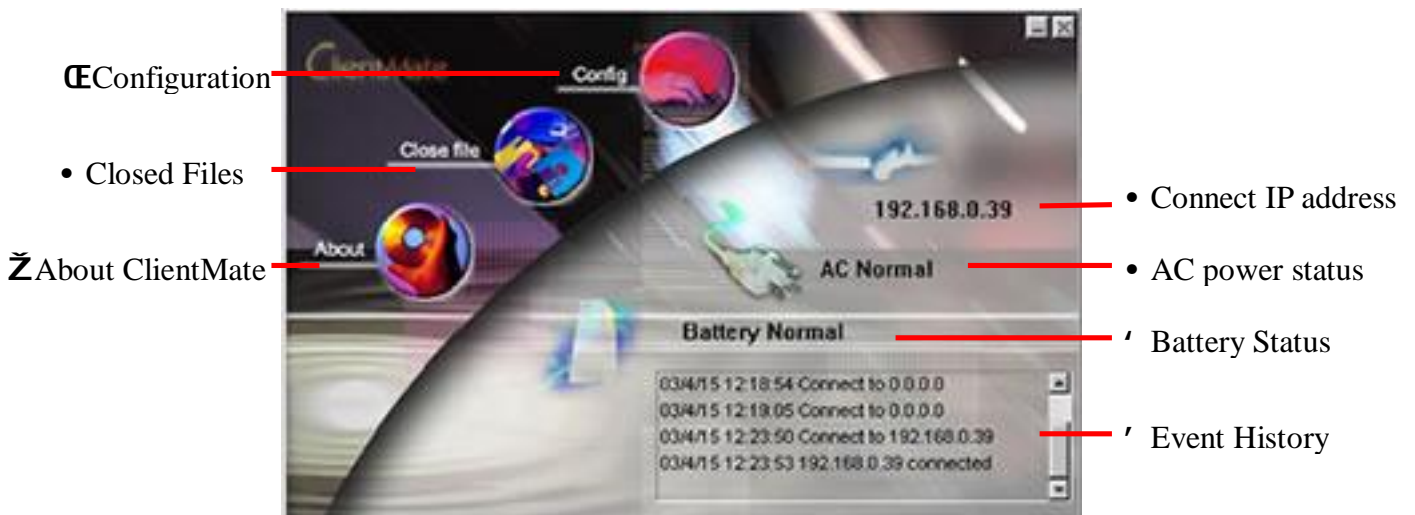


Fig.28. ClientMate main window

CEConfiguration

When the ClientMate gets the signal from the NetAgent about the AC power failure or battery low signals, the ClientMate will based on the configuration below to initiate the shutdown process. The details of the configuration are here below.

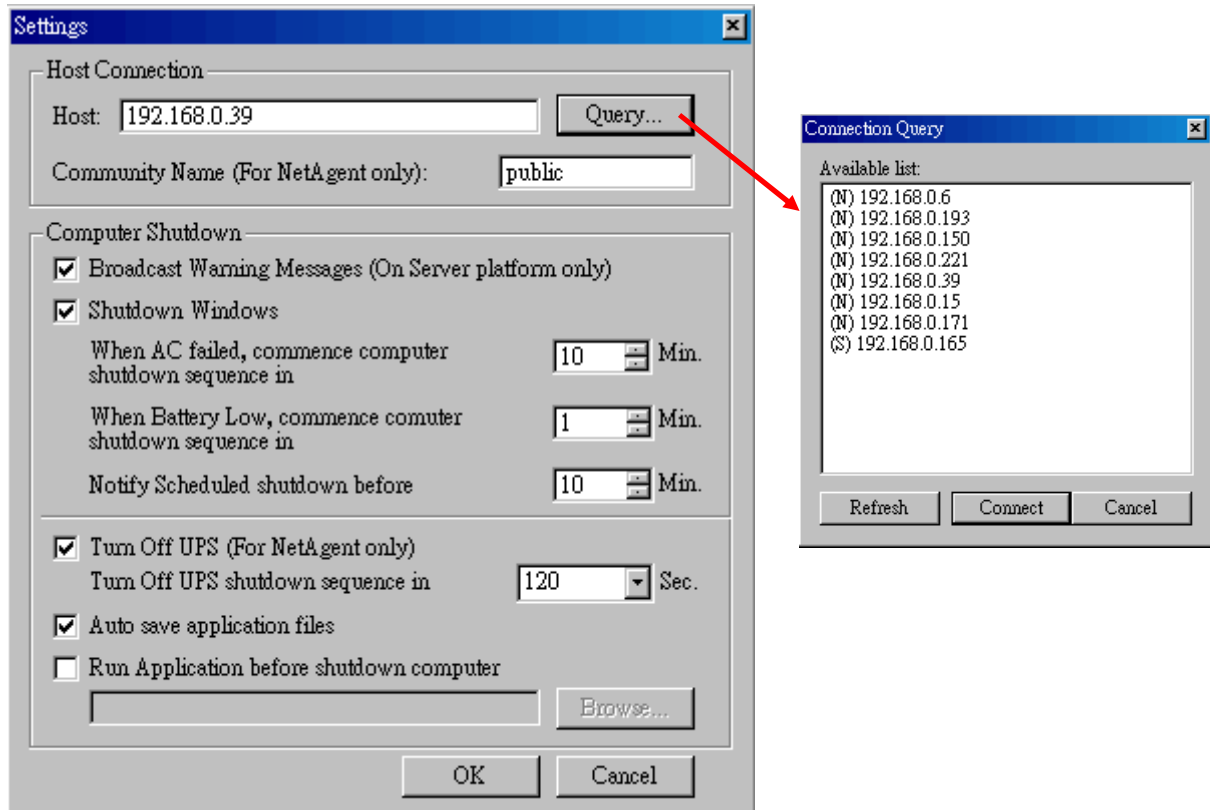


Fig.29. ClientMate: Configuration

- ◆ **Host Connection**

Configure the Host connection IP address.

- ◆ **Host**

Press the "Query" to search the host on the network automatically. If a host located on different network segment. Please input the IP in the HOST edit box.

The IP searched on the Connect Query:

(N): The NetAgent Host

(S): The UPSilon2000 or RUPS2000 Host

- ◆ **Community Name (For NetAgent only)**

The community name of the NetAgent, thus the ClientMate could be able to make connection to NetAgent.

- ◆ **Computer Shutdown**

Setting the shutdown configurations.

- ◆ **Broadcast Warning Messages (On Server platform only)**

To configure if sending the warning messages when power failed (only for WinNT, Win2000 and XP server operating system)

- ◆ **Shutdown Windows**

To configure if shutdown the Windows system when power failure.

- ◆ **When AC failed, commence computer shutdown sequence in xx Min.**

To configure the time delay between the AC failure and the system shutdown.

- ◆ **When Battery Low, commence computer shutdown sequence in xx Min.**

To configure the time delay between the Battery Low and system shutdown.

- ◆ **Notify Scheduled shutdown before xx Min.**

Time before the 'Schedule Shutdown' to make notification.

- ◆ **Turn Off UPS (For NetAgent Only)**

Setting if to turn-off NetAgent UPS AC power after system shutdown.

- ◆ **Turn Off UPS shutdown sequence in xx Sec.**

Time delay of turn-off the UPS power.

- ◆ **Auto save application files**

Check if to save the application files before system shutdown.

- ◆ **Run Application before shutdown computer**

Execute the application before system shutdown.

- **Closed Files**

User could review all the files closed during previous shutdown process. If the "Auto save application files" function has been turn-on in the "Setting" dialog, the details of the closed application and files could be reviewed here.

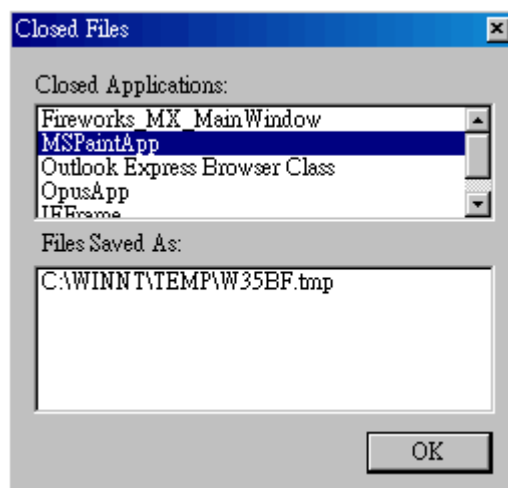


Fig.30. ClientMate: Closed Files

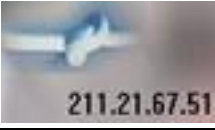

Ž About

Press this button could review the version information of the ClientMate, as here bellowed.





Fig.31. ClientMate:About

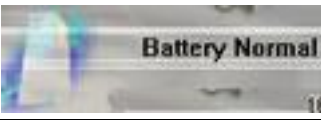

• **IP address of connection**

Status ICON	Description
	Already connect to NetAgent UPS at IP 211.21.67.51
	Does not connect to any NetAgent.

• **AC power status**

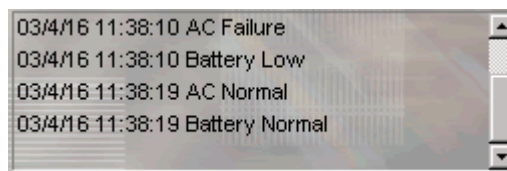
Status ICON	Description
	The connected NetAgent UPS AC power is normal.
	The connected NetAgent UPS AC power is failed.

• **Battery Status**

Status ICON	Description
	The connected NetAgent UPS battery is in normal condition.
	The connected NetAgent UPS is in battery low condition.

• **Status History**

In the right-lower corner of ClientMate, the 'Status History' showing all the network status and UPS status happened.



Chapter 8. SNMPView – Windows Based UPS Management System

Section1. Introduction

SNMPView Software provides web-based monitoring and controlling of any UPS that is connected to the network. With the use of this software, the network managers can monitor and control UPS remotely on your own site. Besides, it is also available to send email and pager to inform user the current UPS condition, including the UPS configuration, UPS self-test, History File, Turn On/Off UPS...and other features.

☒ Windows interface that is simple and easy to generate

- Automatic detection and identification of network UPS

☒ Simultaneous monitoring of many UPS

- Remotely monitor, control, manage UPS like Turn Off/On, Self-test... etc.
- Can be used on both RS-232 Interface and Contact Closure Interface UPS simultaneously
- Graphical and Analog display of UPS Condition
- Supports MegaTec's SNMP Agent and SNMP Internal Card

Section2. SYSTEM REQUIREMENTS

☒ LAN/WAN network system with TCP/IP

- RS-232 Interface or Contact Closure Interface UPS

☒ External SNMP Agent or SNMP Internal Card

- Microsoft Windows 95, 98, NT, 2000, XP, Me

Section3. Install SNMPView

☒ Put the NetAgent Utility CD into the CD driver. And execute the SNMPView program.

- After complete installation, there will be a 'SNMPView' group in the Windows Start group.

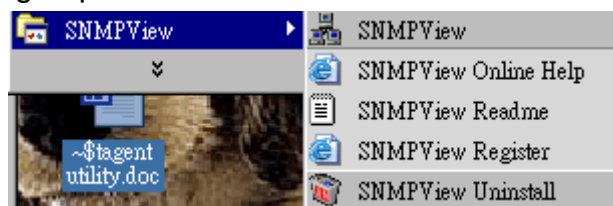


Fig.32. SNMPView program group

☒ Click "SNMPView" to initiate the SNMPView and start using the SNMPView.

Section4. Using SNMPView

Please find the main windows of the SNMPView below. The main window in the SNMPView showing all the UPS find on the network. And the buttons below are for individual functions.

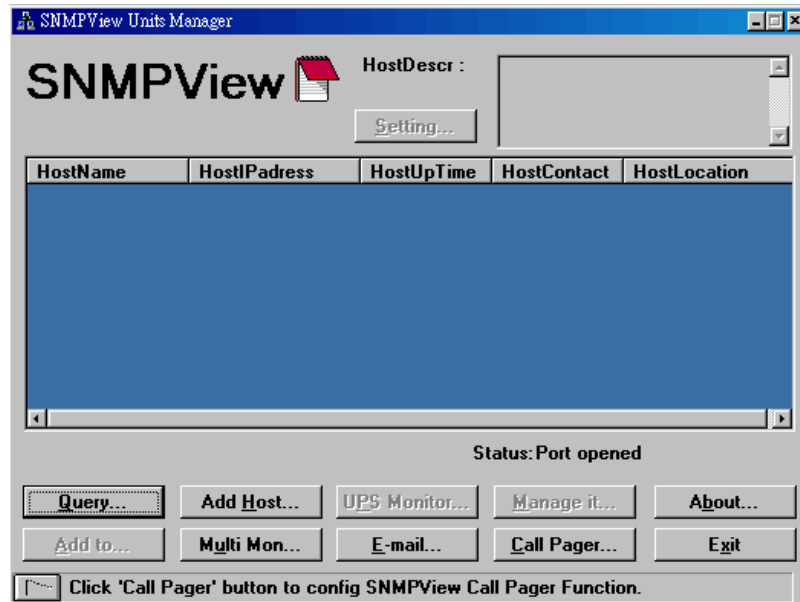


Fig.33. SNMPView main window

SNMPView buttons

- ◆ Query : Search all SNMP hosts that supports Public group and display them on the screen.
- ◆ Add Host(/Del Host) : Manually add or delete a host into the window
- ◆ UPS Monitor : If the host is a UPS, just click on it to start monitoring UPS.
- ◆ Setting : If the host is a UPS, just click on it to view and modify the UPS's basic information.
- ◆ Manage it : If the host is a UPS, just click on it to start monitoring UPS.
- ◆ Add to : Attach the selected UPS into the simultaneous UPS monitoring.
- ◆ Multi Mon : Simultaneous monitoring of many UPS.
- ◆ E-mail : Configure sending email function.
- ◆ Call Pager : Configure sending call pager function.
- ◆ RED Notebook : View SNMPView History Records
- ◆ About : View About SNMPView product.
- ◆ Exit : Exit SNMPView.

Query

Enter SNMPView and press the "Query" , SNMPView will start to search all the NetAgent on network and listed in the main window.

- Add Host (/Del Host)

Add Host

- ◆ Automatic Addition: Click “ID Request”, then SNMPView will automatically search SNMP Hosts on the network. (Diagram below)

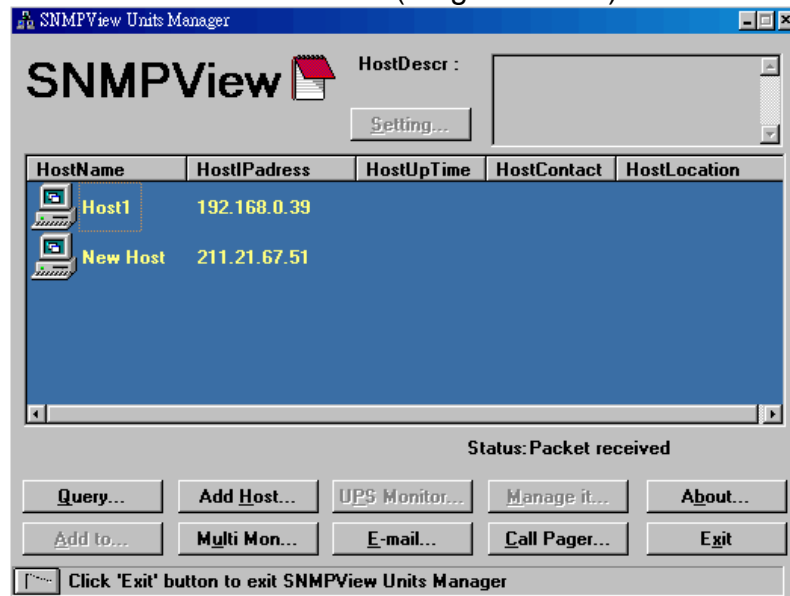


Fig.34. SNMPView: Query

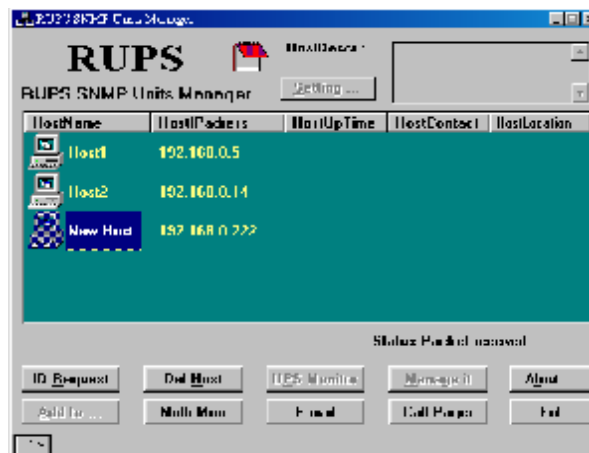
- ◆ Manually Add: Click “Add Host” and enter the IP address of the host to be included (as shown below).



ATTENTION: Utilized the Request ID, the old Host Lists on the window will be deleted. (Using Add Host will not delete the previous lists)

Del Host

Click and choose the host to be got rid of, the “Add Host” button will become “Del Host”. Press “Del Host”, this will enable you to remove the selected Host.

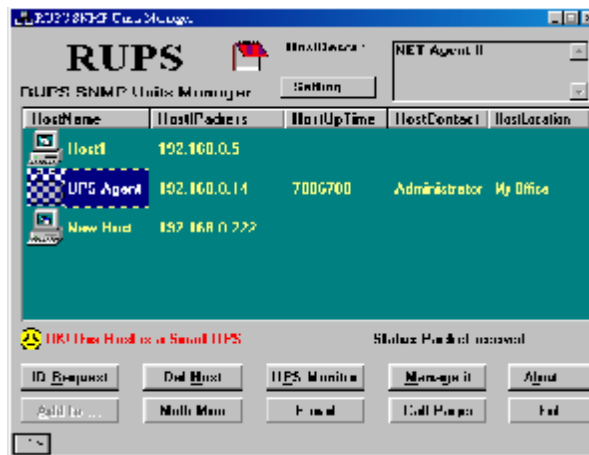


ATTENTION: The Host Range does not support multiple selection.

Start managing and monitoring selected UPS

After Adding Host or requesting ID, Host will be named “Host+Index” or “New Host”. Click on the new Host to check and view information about this host. SNMPView detects whether the Host is a UPS and then displays the result in the bottom part of the Window.

To start managing and monitoring the UPS, use the Feature Icons below the main screen window.



UPS Monitor

Select a UPS Host on the lists of main screen. Click “UPS Monitor” or double click on the Host. This will enable user to monitor the current condition of the UPS.

SNMPView also supports RS-232 communication interface and dry contact interface UPS. The icons below indicates the different types of UPS:



Dry Contact Interface UPS



RS-232 Interface UPS

UPS condition display of dry contact interface UPS

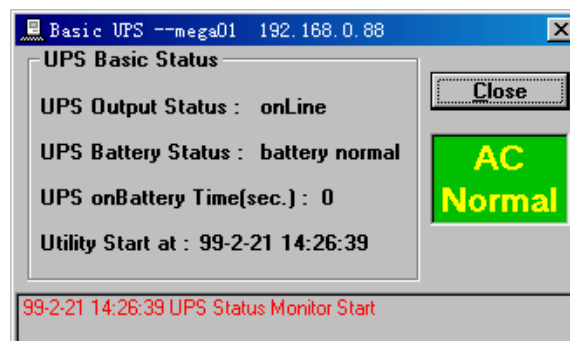


Fig.35. SNMPView: Contact Closure UPS status

- ◆ UPS Output Status : UPS output status
- ◆ UPS Battery Status : UPS battery status
- ◆ UPS onBattery Time(sec.) : UPS on battery time

UPS condition display of RS-232 interface UPS

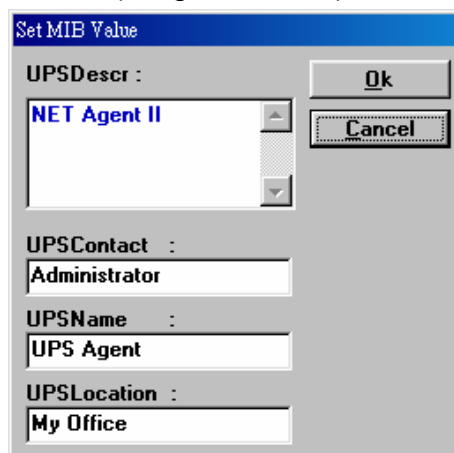


Fig.36. SNMPView: RS232 UPS status

- ◆ Input: Show the voltage input from AC power.
- ◆ Output: Show the voltage output from UPS.
- ◆ Load: Show the loading of UPS. Display on meter.
- ◆ Freq.: Frequency of AC power.
- ◆ Temp.: Temperature in UPS.
- ◆ AC Normal: Current AC status.
- ◆ OnLine: Current UPS's Output status.
- ◆ battery normal: Current UPS battery status.
- ◆ Close: Close and exit monitoring window
- ◆ Gray area on bottom: List all event logs since the monitoring starts.
- ◆

• UPS Basic Message Settings

Select a UPS host on the Host list. Select “Setting...” to adjust the basic message settings window. (Diagram below)

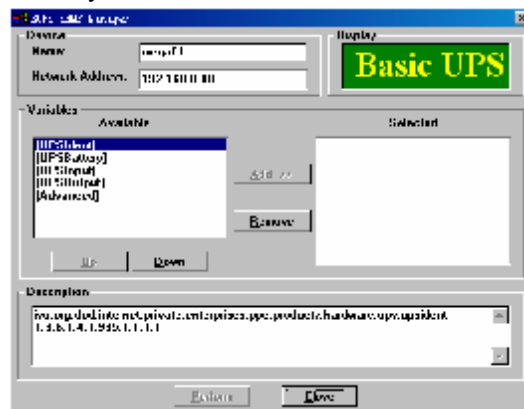


- ◆ UPSDescr: Description of this UPS
- ◆ UPSContact : Contact Person of this UPS
- ◆ UPSName : Name of this UPS
- ◆ UPSLocation : Location of the UPS
- ◆ Ok : Save UPS information and exit the settings window
- ◆ Cancel : Do not save UPS information and exit the settings window

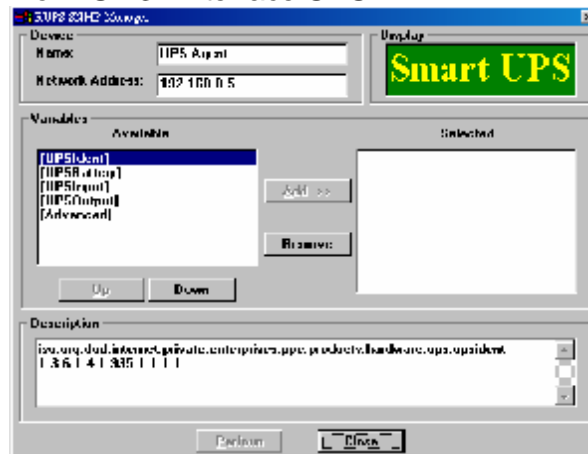
• **Manage it**

After selecting the UPS host, select “Manage it”.

- ◆ Managing Window of dry contact interface UPS:



- ◆ Managing Window of RS-232 interface UPS:



The function of each items are here below :

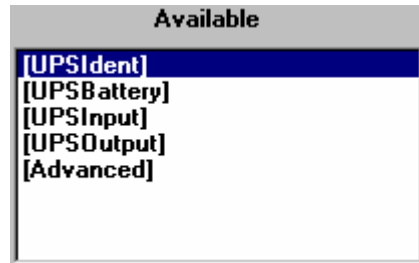
- Ÿ Device Area: Displays name and location IP Address of the current managed UPS
- Ÿ Display Area: Displays the UPS interface type of the managed UPS
 - Basic UPS : Dry contact interface UPS
 - Smart UPS : RS232 interface UPS
- Ÿ Variables Area:
 - Down : Leads you to the next item
 - Up : Leads you back to the previous item
 - Add >> : Inserts the items in the “Available” list to the “Selected” list
 - Remove : Remove “Selected” items

• Description Area:

- Perform : Execute the managing items in “Selected” list
- Close : Exits the Managing Window

Detailed Management Contents

There are 5 items in the upper level of “Available”:



Features:

• [UPSIdent] : UPS identity group

• [UPSBattery] : UPS battery message group

• [UPSInput] : UPS input message group

• [UPSOutput] : UPS output message group

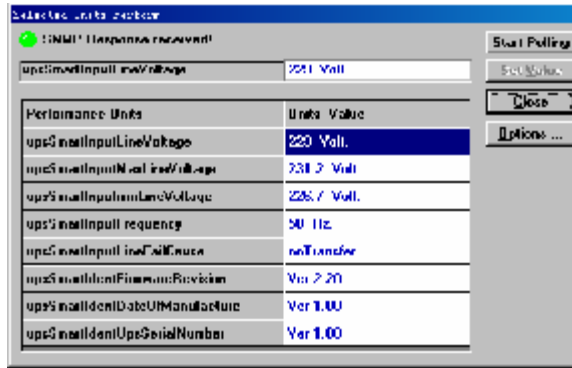
• [Advanced] : Advanced management group

If the “Down” icon is enabled in selecting an item in the “Available” list, there will be lower levels to be opened, and the “Add” icon will be disabled. Vice versa, the “Down” icon is disabled and the “Add” icon is enabled, meaning that it is the last level that can be opened. This will enable you to include all the managing items in the “Available” list into the “Selected” list. Diagram below:



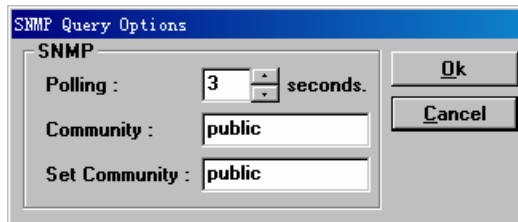
When there is no any items in the “Selected” list, the “Perform” Button will be disabled and unfunctioned. After selecting the managing items, the “Perform” icon will then be enabled and functioned.

All the managed items selected will be displayed above. Choose the items you want to view and it will display the appropriate data. (Diagram above)



Item name and properties will be displayed on the top part of the window. If the field is write-possible, then the “Set value” will be enabled. To edit the properties, click “Set Value”.

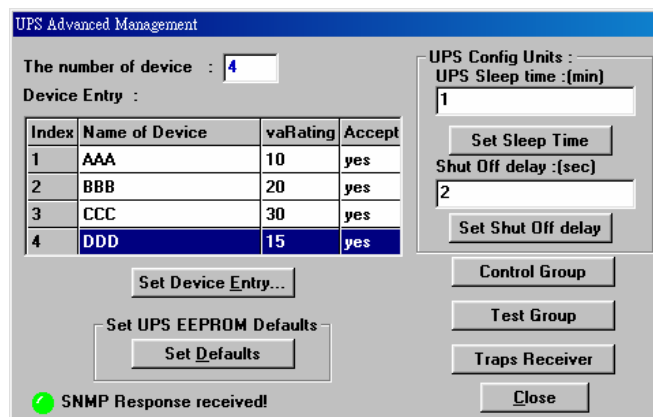
After clicking “Options ...”, it will enter into the Polling setting window. In “Polling:” input the polling value and then press “Ok”. Confirm and go back to “Selected Units Perform” Management window. (Diagram below)



On “Selected Units Perform” Management Window, click on “Start Polling”, this will start polling for the data that were previously configured. During polling period, the “Start Polling” will become “Stop Polling”. To stop polling, click on “Stop Polling”.

If user wants to exit “Selected Units Perform” management window, just click “Close” or press “Esc”.

[Advanced] Management Window diagram



- ◆ The number of device : Description and number of devices on UPS.
- ◆ Device Entry : Device powered by the UPS; power usage in percent and usage status.
- ◆ Set Device Entry ... : Enter and configure “Device Entry :”

- ◆ UPS Config Units :
 - ÿa. UPS Sleep Time : Sleep time of UPS when UPS is in sleep mode. Unit=min.
 - ÿb. Shut off Delay : Delay for UPS shutdown time. Unit=sec.
 - ÿSet Config Units : Configure and confirm the values on the fields. (Basic UPS don't have this value)
- ◆ Set UPS EEPROM Defaults : Configure the values to Default value. (Basic UPS don't have this value)
- ◆ Control Group : Enter the Management Window of this UPS. (Basic UPS don't have this value)
- ◆ Test Group : Enter the Testing Management Window of this UPS. (Basic UPS don't have this value)
- ◆ Traps Receiver : Enter the Traps Receiver Management Window of this UPS.
- ◆ Close : Close the Advanced-Management Window.

Advanced Level of Management

- ◆ “ Device Entry ” Configuration Window

The screenshot shows a dialog box titled "Device Entry". It has four main input areas:

- "Index Of Device" with a text box containing the number "1" and an "Ok" button to its right.
- "Name Of Device" with a text box containing "AAA" and a "Cancel" button to its right.
- "vaRating Of Device" with a text box containing "10".
- "Device Accept" with a dropdown menu showing "yes".

To edit, select “Set Device Entry ...” or “Device Entry ...”. After editing, select “Ok” and exit. To cancel editing, select “Cancel”.

- ◆ UPS Controlling Management Window (for Smart UPS)

The screenshot shows a window titled "UPS Control Group" with a grid of control buttons:

- Control UPSOff: Turn UPS Off
- Control UPSReboot: Reboot UPS
- Control UPSSleep: Put UPS to Sleep
- Control SimulatePowerFail: Simulate Power Fail
- Control FlashAndBeep: Flash And Beep
- Control ConserveBattery: Turn Off UPS to Conserve Battery
- Control TurnOnUPSLoad: Turn On UPS Load

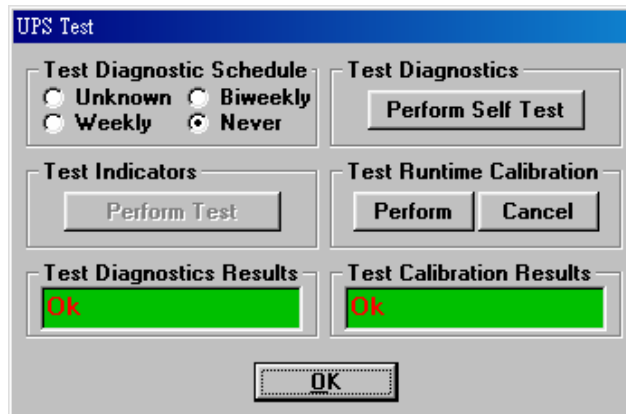
 An "OK" button is located at the bottom right of the window.

- ÿControl UPSOff: Immediately turn off UPS
- ÿControl UPSSleep: Put UPS to sleep mode
- ÿControl FlashAndBeep: Turn On/Off UPS beep

- ÿControl TurnOnUPSLoad: Turn on UPS's Output
- ÿControl UPSReboot: Immediately reboot UPS.
- ÿControl SimulatePowerFail: Simulate system power failure
- ÿControl ConserveBattery: Close UPS loading, conserve the current battery capacity.
- ÿClose: Close the Controlling Window

ATTENTION: The above features are only available for UPS that provides these functions.

UPS Testing Management Window(For Smart UPS)



- ÿest Diagnostic Schedule: Configure the Weekly auto-testing schedule of UPS
- ÿTest Diagnostics: Begin UPS testing
- ÿTest Indicators: Indicate Test function on UPS. This area will be disable if UPS did not support Test function.
- ÿTest Runtime Calibration: Testing until battery low.
- ÿTest Diagnostics Results: View testing results
- ÿTest Calibration Results: View testing order results
- ÿOK: Close Testing Window

UPS Trap Receiving/Sending Management Window

- ◆ mconfigTrapsReceiversNumber : Number of Host that can receive trap messages.
- ◆ MconfigTrapsReceiversEntry: Displays the Host, IP address, group, trap type and trap message authority.
- ◆ Setting ...: Configuration of Host, IP address, group, trap type and trap message authority. (Diagram below)
- ◆ Close: Close UPS Trap Sending/Receiving Window.



The image shows a dialog box titled "Set Receiver's Information". It contains several fields and controls:

- trapsIndex :** A text box containing the number "1".
- trapsReceiverAddress :** A text box containing the IP address "192.168.0.10".
- receiverCommunityString :** A text box containing the string "public".
- Severity Level :** A dropdown menu with "informational" selected.
- Receiver Accept :** A dropdown menu with "yes" selected.
- Buttons for "Ok" and "Cancel" are located on the right side.

' Multi Mon

Click on "Multi Mon" on the main screen to start multi-UPS monitoring, diagram below:

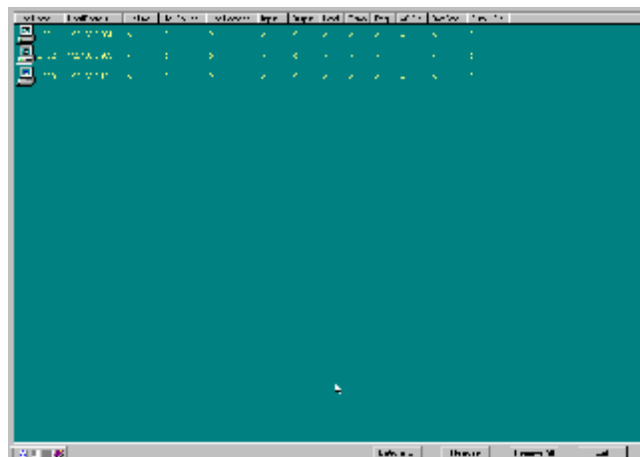


Fig.37. SNMPView:Multi Mon interface

"Add to ..." icon will then be enabled, this will enable you to select a UPS from the list of UPS to be included into the multi-monitoring window. The UPS monitoring data will be displayed. Diagram below:

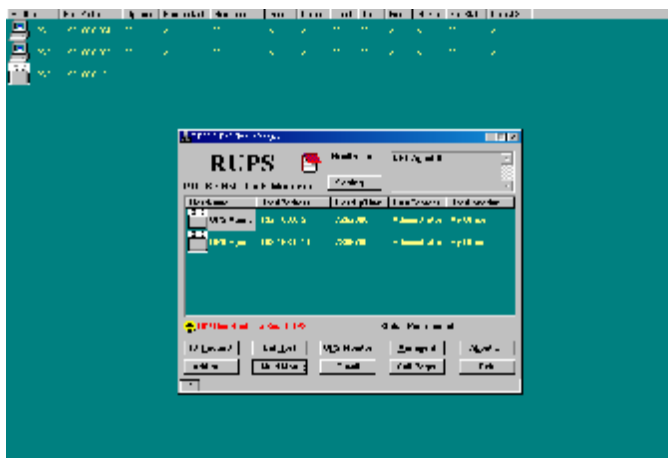


Fig.38. SNMPView: Add to interface

UPS Condition Area

This area shows the list of UPS current status, the items are:

- ◆ HostName: UPS Name
- ◆ HostIPAddress: UPS IP location
- ◆ UpTime: UPS start up time
- ◆ HostContact: UPS contact person
- ◆ HostLocation: UPS location
- ◆ Input: Input power voltage value. Unit = <Volt> (no value in Basic UPS)
- ◆ Output: Output power voltage value. Unit = <Volt> (no value in Basic UPS)
- ◆ Load: UPS loading. Unit = <%> (no value in Basic UPS)
- ◆ Temp: UPS internal temperature. Unit = <°C> (no value in Basic UPS)
- ◆ Freq.: Power Frequency. Unit = <Hz.> (no value in Basic UPS)
- ◆ AC Stat: AC Power status
- ◆ Output Stat: UPS Output status

Buttons Row Command Features

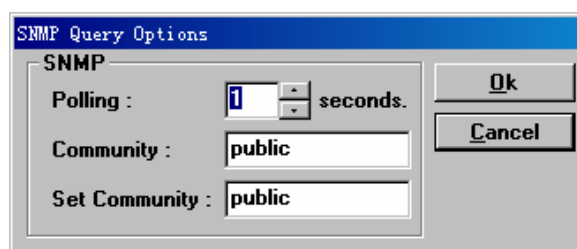


Fig.39. SNMPView:SNMP Query Options

- ◆ Options ... : Enter Polling Window; configure Multi-Monitoring Polling. Diagram below:
- ◆ On "Polling:" area, input the polling value and select "OK" to modify the polling settings.
- ◆ Remove: Remove the UPS on the UPS status list.
- ◆ Remove All: Remove all the UPS on the UPS status list.
- ◆ Exit: Exit UPS multiple monitoring window.

' E-mail

Click "Email" from the main screen to configure the SNMPView E-mail Warning configuration, diagram shown below:

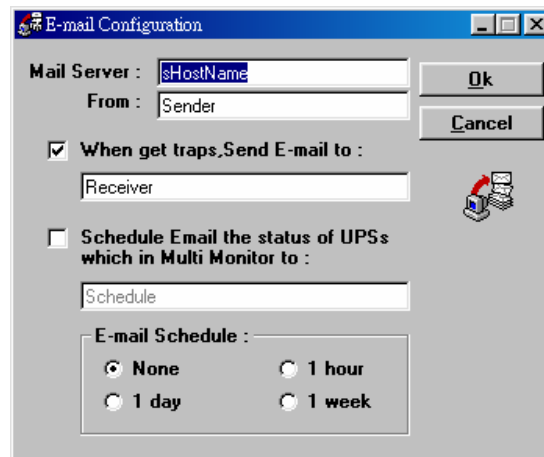
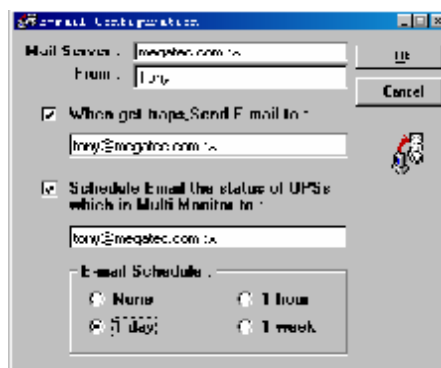


Fig.40. SNMPView:Email Configuration

- ◆ Mail Server: Fill out this field with the appropriate SMTP Server. Use either IP address or the domain name.
- ◆ From: Fill out this field with the name of the sender. This will display in the "From:" within the email.
- ◆ When get traps, Send E-mail to: "When get traps, Send E-mail to" is marked, the other items will be available and ready for sending Email. Diagram shown below:
When SNMPView receives trap messages, the "Trap E-mail message" will be sent to the configured e-mail receiver.
- ◆ S Schedule E-mail the status of UPSs which in Multi Monitor to: Mark on this selection will enable this function.
- ◆ Enter the e-mail address of the receiver on "Schedule" and select the E-mail schedule to None, 1-hour, 1-day or 1-week
- ◆ ATTENTION: After starting up this function, the multiple monitoring window will also be started. Every time the SNMPView starts, the multiple monitoring window will also be started, if this function is disabled, the multiple monitoring window will also be disabled.
- ◆ Items 3 & 4 can be set at the same time, see diagram below.



“ Call Pager

On the main screen, select the “Call Pager” icon to configure the “Call Pager” function of SNMPView. Diagram shown below:

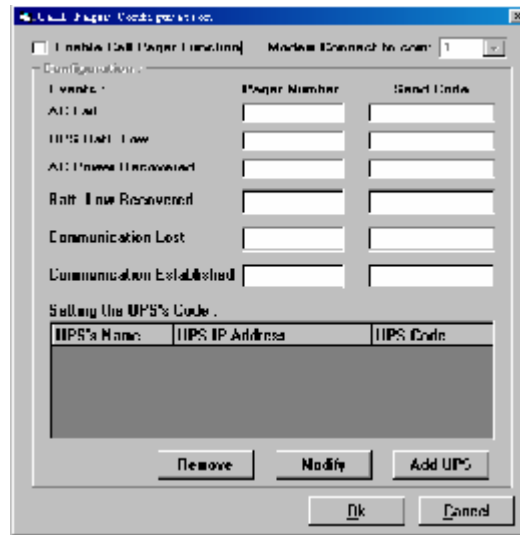


Fig.41. SNMPView: Call Pager Configuration

- ◆ Enable Call Pager Function: This will enable the “Call Pager” function to start up. Unmark this item, the “Call Pager” function will be closed and turn disabled and unusable.
- ◆ Modem Connect to com: Select the com port connected Modem.
- ◆ Configuration:
 - Ÿ Events : Events be sent to the pager
 - Ÿ Pager Number: The pager number to be dialed to send warning messages to.
 - Ÿ Send Code: Codes indicated the event and to be sent to the Pager.
 - Ÿ Setting the UPS's Code: The Configuration of the UPS Code when paging.
 - UPS's Name: Name of the UPS
 - UPS IP Address: IP address of the UPS
 - UPS Code: The UPS code sent to the pager
 - Add UPS: To add a UPS to the list
 - Modify: Modify a UPS information, diagram shown below:

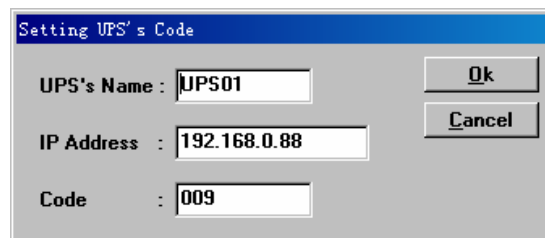


Fig.42. SNMPView: Setting UPS'S Code

- Remove : Remove a UPS from the list.
- Ok: After the complete configuration of the fields, click on this icon to save and exit the “Call Pager” function, diagram shown above.

- Cancel: Do not save the configurations and exit the “Call Pager” window.

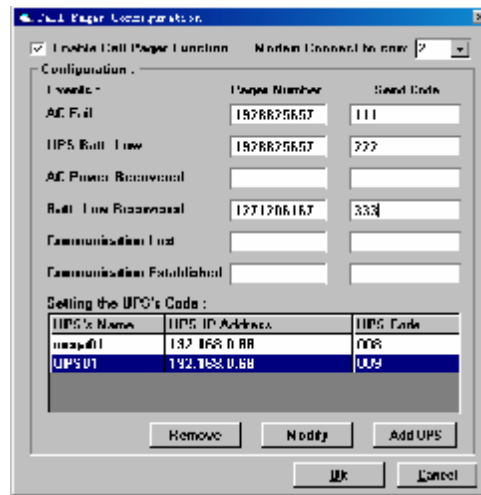


Fig.43. SNMPView: Call Pager

” SNMPView Traps Warning Message

When there is a Trap on the UPS SNMP Agent (or the SNMP Internal Card), the SNMP Agent (Internal Card) will automatically send Trap messages to the configured Hosts. When SNMPView receives the trap messages, it will immediately display it on the screen, as below:

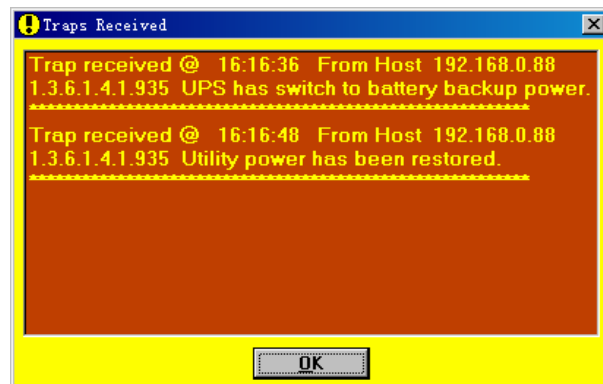


Fig.44. SNMPView: Traps Received