NetAgent

UPS SNMP agent

User's manual

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Chapter 1. Introduction

Section 1. Features

NetAgent 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 II –3Ports also could provide other functions, ex. connect to modem could make the monitoring possible when there is no permanent connection to internet. The NetAgent II – 3Ports 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 of 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
- 2 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.
- **6** Sending both of SNMP trap and e-mail for events notification.
- Auto email daily UPS history report
- Matches with shutdown software to protect computer's file saving and shut down safely
- NetAgent II 3Ports : environment measurement (optional kits), external modem dial in/out via PPP protocol.

Section2. Applications

2.1 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 which connects to the UPS. When there is a power abnormal condition happeneds, the NetAgent could also send the trap information to the system manager to take proper action.

2.2 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.

2.3 NetAgent II 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 informations 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.

2.4 When we need the NetAgent?

- 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.
- 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 II-3Ports version and NetFeeler Lite. The system manager could always know these surrounding conditions by using a web browser.

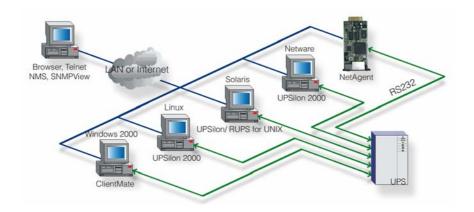


Fig.1 NetAgent connection software

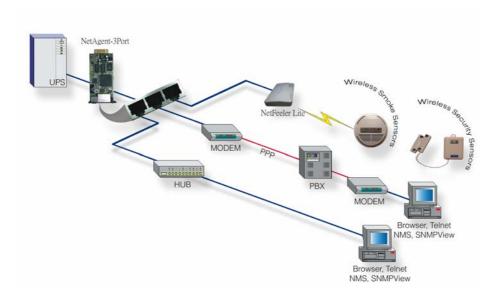


Fig.2 3 Port NetAgent II diagram

Section3. NetAgent models

3.1 NetAgent models

	NetAgent II model			
P/N	Package contents Internal/external		1/3 Port	1/3 phase
504	1. 1Port internal 2. NetAgent utility CD	Internal	1 Port	1 phase
505	4. M2502 cable(or M2505 cable) 5. M2506 cable 6. 9V DC adapter		3 Port	3 phase
506	 3 Port internal NetAgent utility CD M2506 cable 	Internal		
513	1. 3 Port external agent 2. NetAgent utility CD 3. M2501 cable 4. M2502 cable(or M2505 cable) External		3 Port	1 phase
514	 3 Port internal NetAgent utility CD M2506 cable 	Internal		

	NetAgent mini model			
P/N	Package contents	Internal/externa I	1/3 Port	1/3 phase
DK530	1.Enternal NetAgent Mini with LCD display 2. NetAgent utiliyt CD 3. 6V DC adapter	External		
DK521	Enternal NetAgent Mini NetAgent utility CD GV DC adapter	gent Mini 1 Port 3 pha		3 phase
DK520	Internal NetAgent Mini NetAgent utility CD	Internal		

Fig.3 NetAgent models

3.2 Pictures of NetAgent

	NetAgent II (BN,BK,CK series)		
BN506 BN514 BK514			
CK504			
BN505 BN513 BK513			

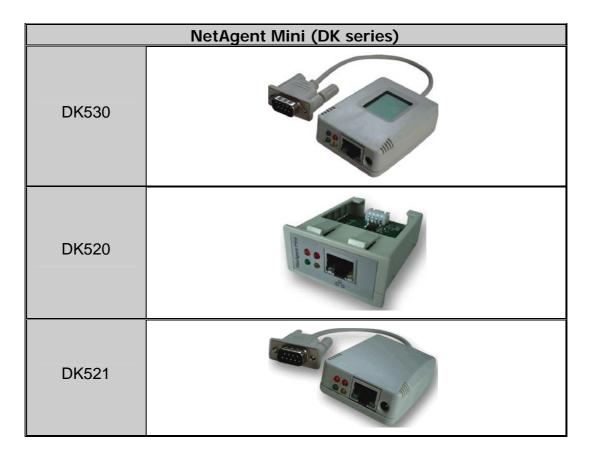


Fig.4 Pictures of NetAgent

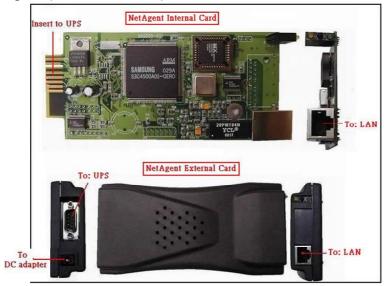
3.3 NetAgent package contents

Netagent has three models: "Internal/External"; "1 phase/3 phase"; and "1 Port/3 Port". The different modelhas different equipment items.

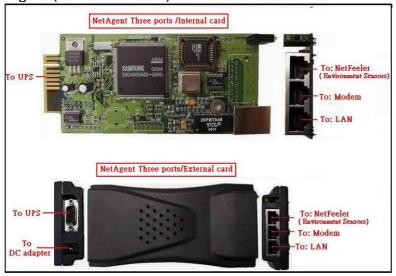
- NetAgent utility CD, including:
 - ♦ Netility: configure NetAgent UPS IP address, update firmware
 - ◆ ClientMate: Windows shutdown utility.
 - ◆ SNMPView:Windows platform multiple NetAgent UPS management software.
 - ◆ UPS MIB:MIB file for the network management system
 - ◆ Time server:time adjustment utility
 - And NetAgent installation/users manual
- M2501 cable: for external NetAgent II connection to contact closure UPS
- M2502 (or M2505) cable: for external NetAgent II connection to RS-232 UPS.
- M2506 cable: for connection 3Port NetAgent and the "NetFeeler Lite".
- 9 9V DC adapter: for external NetAgent II
- 6 6V or 5.3V DC adapter: for enternal NetAgent Mini

3.4 NetAgent II outlooking

◆ 1 Port NetAgent (internal/external):



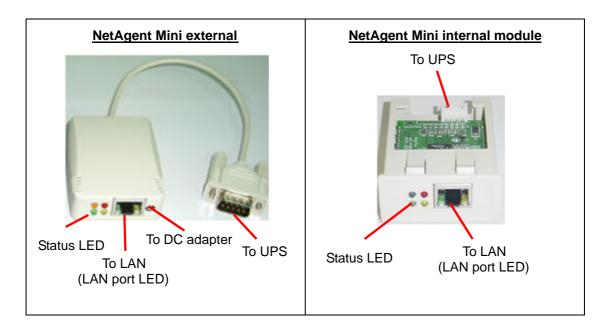
◆ 3 Port NetAgent (internal/external):



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			
Green light : Power state Red light : Connection state with UPS			

Fig.5 NetAgent II outlooking

3.5 NetAgent Mini outlooking



Light signal application of NetAgent Mini - status LED			
Light color	Signal definition	Condition description	
Green	Power state	On: normal power	
Red	Connection state with UPS Flash: no connection with UPS		
Orange	Correspondence state	Light flashes when NetAgent transmits command to UPS	

Light signal application of NetAgent Mini - LAN port LED		
Light color Condition description		
Green	On: internet correspond speed is 100M	
Green	Flash: data transmmiting	
Velley	On: internet correspond speed is 10M	
Yellow	Flash: data transmmiting	

Fig.6 NetAgent Mini outlooking

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.

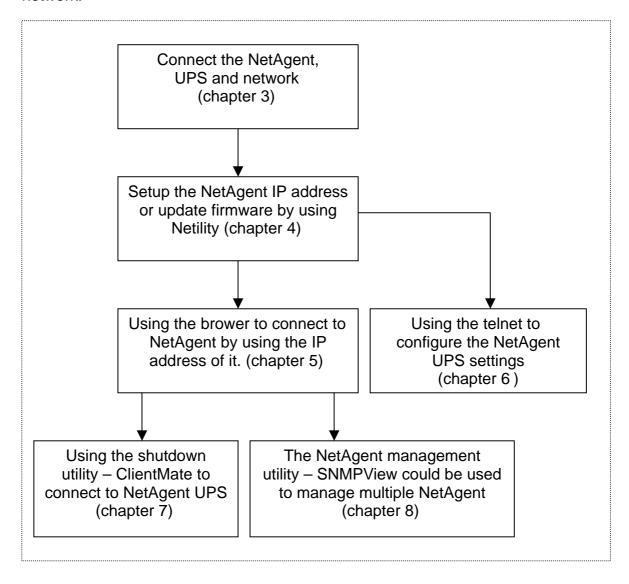


Fig.7 NetAgent UPS installation flowchart

Chapter 3. NetAgent, UPS and network connection

NetAgent II and NetAgent Mini provides external and internal model for different UPS interface requirement. Please reference the following description for detailed information of UPS and network connection.

Section1. Install the NetAgent II with UPS and network

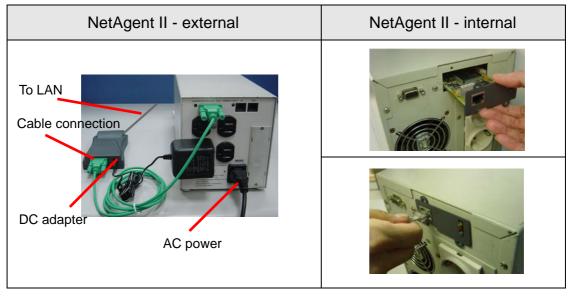


Fig.8 NetAgent II installation

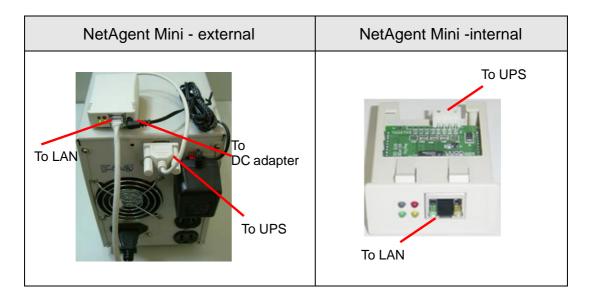
1.1 For external NetAgent II

- Connect the NetAgent II adapter to LAN, using the appropriate UTP port.
- Connect the specified serial cable (M2501/M2502/M2505) from NetAgent II adapter to the serial port of UPS.
- Plug supplied AC adapter to the wall socket, the other side connection with NetAgent adapter.

1.2 For internal NetAgent II

- Insert the NetAgent card into the slot of UPS.
- **2** Connect the NetAgent card to LAN, using the appropriate UTP port.

Section2. Install the NetAgent Mini with UPS and network



2.1 For external NetAgent mini

- Connect the NetAgent Mini to LAN, using the UTP port.
- 2 Connect the cable from NetAgent mini to the serial port of UPS.
- Plug the DC adapter to UPS outlet, the DC plug connected with NetAgent mini.

2.2 For internal NetAgent Mini

- Please make sure the connector direction of the cable is correct before connecting to the NetAgent.
- **2** Connect the NetAgent module to LAN, using the UTP port.

Warning: please make sure the input voltage and frequency of the DC power adapter (NetAgent II – DC 9V/NetAgent Mini – DC 6V or 5.3V) is correct before plug the power into!

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'
 → 'Program Group'.



Fig.9 Netility group

SClick "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.

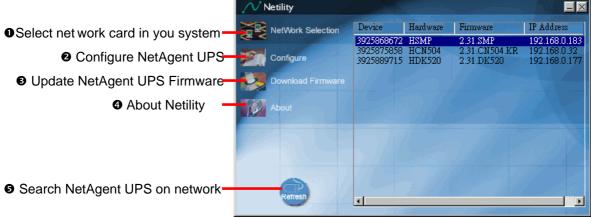


Fig.10 Netility main window

NetWork selection

After execute Netility, Netility would search computer's internet card automatically, or, click on network selection from the main page. The screen would show the internet card that has been searched. Now, click on the internet card that connects with internet, then return to the main page. Automatically, Netility would shows the NetAgent UPS LAN that was been seeked.

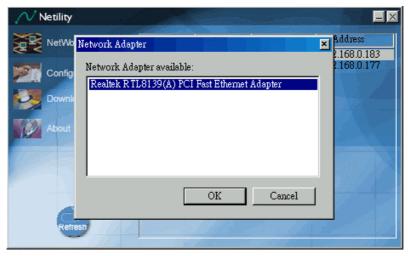


Fig.11 Netility: network selection

2 Configure

Choose the NetAgent UPS from the right of the screen, then click "Configure", would shows the following setting page.

IP Address:set IP address for NetAgent UPS

When use at the first time, please set IP Address; Subnet Mask; and Gateway. After setting, enter IP Address from telnet or browser to connect to NetAgent's website.

When using DHCP or BOOTTP to set up IP Address, IP Address, Subnet Mask and Gateway would receive directly by the system.



Fig.12 Netility: set IP address for NetAgent UPS

Advanced: Advanced NetAgent UPS Setting

In order to ensure the secure management of UPS, Netility provides two protecting functions:

Netility Password

After password setting here, there is no way to give any command to NetAgent by Netility software without user's password. (NB. if lose this password, NetAgent UPS will never be able to complete any upgrade process.)

Management Protocol

Netagent UPS provides HTTP(w eb) and telnet to reference any related parameter setting for the manager. Concerning with security, the manager could build use openly or any advance port setting upon the above two methods. Followings are the description:

- 1. At advanced setting, two functions were set as activated by using port number 80 and 23.
- 2. Untick means not using the function.
- 3. When set to the other port value, full IP address must be entered in order to login to the website or telnet.

For example,

- Set 81 as HTTP port number, then http://192.168.0.177:81 must be typed at the web address to proceed to NetAgent UPS's website.
- Set 24 as telnet port number, then "192.168.0.177 24" must be typed at Telnet to proceed to the telnet screen of NetAgent UPS.



Fig.13 Netility: advanced setting of NetAgent UPS

Opening the property of the

NetAgent offer convenient firmware upgrade function. When you are going to upgrade firmware, click <u>Download Firmware</u> 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, NetAgent will auto reboot. (please connect to the http://www.megatec.com.tw/CustomerService/Download/CSDownload.htm)

for the latest firmware)

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

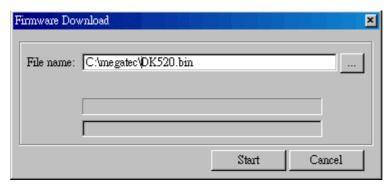


Fig.14 Netility: update NetAgent UPS firmware

4 About - Netility version examined



Fig.15 Netility version examined

• Search NetAgent - search lan's NetAgent UPS manually

Netility would search NetAgent UPS from LAN automatically or the user could search manually by click on "Search NetAgent".



Fig.16 Netility: NetAgent UPS search manually

Chapter 5. UPS web management by NetAgent

Section 1. 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 explorer)
- **②** Enter the NetAgent IP address (which is setting on Netility, e.g. 211.21.67.51).



Fig.17 Input NetAgent UPS IP address

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



Fig.18 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:

- 2.1 Information
- 2.2 Configuration
- 2.3 Log information
- 2.4 Help

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.

2.1 Information

Sub-menu:

- 2.1.1 System Status
- 2.1.2 Basic Information
- 2.1.3 Current Status
- 2.1.4 Remote Control
- 2.1.5 Meter/Chart
- 2.1.6 Environment sensors-NetFeeler Lite

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.)

2.1.1 System Status

This page is to show NetAgent system information and network settings. values shown here are either provided by NetAgent itself or they are user settings from the configuration pages.

System Information

This section is to show NetAgent system information. Values in Hardware Version/Fireware Version/Serial Number/System Time, are provided by NetAgent itself. Other values are user settings from the configuration pages.

Network Status

This section is to show NetAgent network settings. The MAC address is provided by NetAgent. All other values in this section are user settings from the configuration pages.



Fig.19 System status

2.1.2 Basic Information

This page is to show UPS basic information. Values here are either provided by the UPS or they are user settings from the configuration pages.

UPS Information

Information about UPS Manufacturer/UPS Firemware Version/UPS Model are provided by the UPS.

Battery Information

Values here are user settings from the configuration pages.

Rating Information

Values here are user settings from the configuration pages.

UPS Information	
UPS Manufacturer	ON-LINE
UPS Firmware Version	H05E9A5
UPS Model	500VA
Battery Information	
Last Battery Replaced Date	2003/01/01
Number of Battery	2
Battery Charge Voltage	2.267V
Rating Information	
Voltage Rating	120.0V
Frequency Rating	50.0Hz
Battery Voltage Rating	24.0V

Fig.20 Basic information

2.1.3 Current Status

This page is to show the UPS current status. Users can choose an interval from the drop-down box to refresh the status readings.

UPS Status

This section is to show the UPS power status. The abnormal status will be displayed in red when there is a power event.

Input Status

This section is to show the UPS input status, including AC Status/Input Voltage/Input Frequency. Values here will be shown in red when an abnormal status condition occurs.

Output Status

This section is to show the UPS output status, including Output Voltage/Output Status/UPS Loading. Values here will be shown in red when an abnormal status condition occurs.

Battery Status

This section is to show the UPS battery stat us, including Temperature/Battery Status/Battery Capacity/Battery Voltage/Time on Battery. Values here will be shown in red when an abnormal status condition occurs.

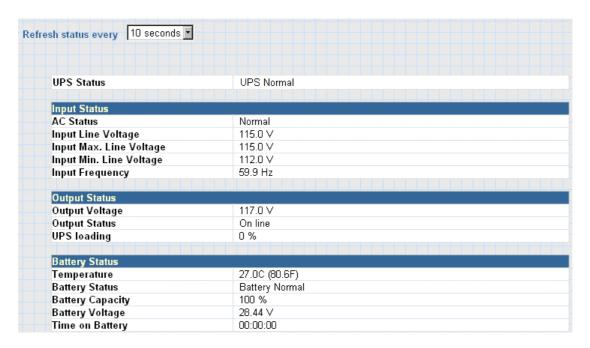


Fig.21 Current status

2.1.4 Remote Control

This page is to provide remote UPS test functions. Choose the test item, then click on 'Apply' to execute it. (please refer to the UPS manual for individual UPS test functions.)

If you are using a contact closure UPS, you will only be able to use the function 'Turn off UPS when AC failed'.

Cancel Test

This function is to abort a test when it is executing.

Turn off UPS when AC failed/Reboot UPS

Selecting 'Turn off UPS when AC failed' will turn off the UPS. You can reboot the UPS by selecting 'Reboot UPS'.

Put UPS in Sleep mode for __ minutes/Wake up UPS

When the UPS is put into sleep mode, it will not provide power. The UPS will provide power again after sleep mode time is complete.

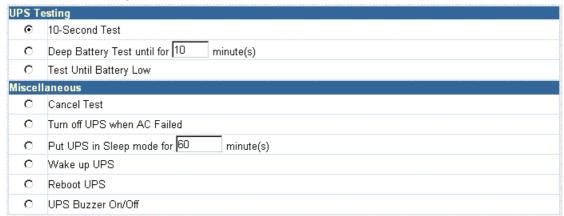


Fig.22 Remote control

2.1.5 Meter/Chart

This page displays Temperature, Capacity, Load, Voltage..etc of the UPS by appearing with metres diagrams.

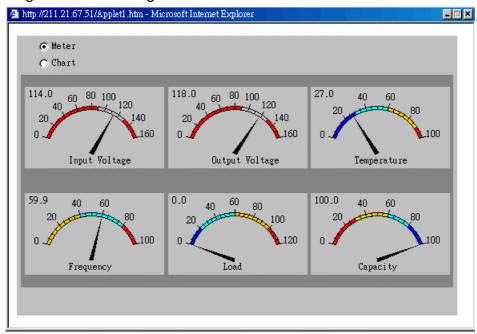


Fig.23 Meter/Chart

2.1.6 Environment sensors-NetFeeler Lite

A NetAgent with three ports can be connected to a NetFeeler Lite to detect the environment status. NetFeeler Lite can detect temperature, humidity and water. It can receive signals from wireless smoke sensors, gas sensors and security sensors to detect further environmental conditions.

This page is to show details of the environment detected by NetFeeler Lite. Users can choose an interval from the drop-down box to refresh the status. All settings can be set in the configu ration/NetFeeler Lite page. The status will be displayed in red when NetFeeler Lite detects an abnormal status condition. In addition, NetFeeler Lite will also set off an alarm for notification.

Environmental Temperature

This section is to show current temperature which is detected by NetFeeler Lite.

Environment Humidity

This section is to show current humidity which is detected by NetFeeler Lite.(shown as%)

Water Status

This section is to show water presence (ie. flood)which is detected by NetFeeler Lite.

Smoke Status

This section is to show smoke presence (ie. fire) which is detected by smoke sensors.

Security Status

This section is to show open/close status for doors and windows. NetFeeler Lite can monitor up to 7 security sensors.

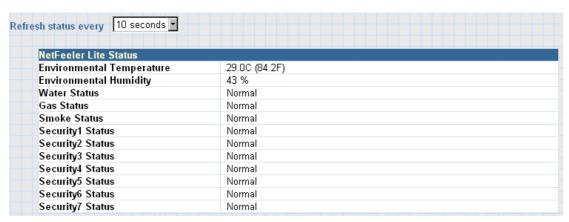


Fig.24 Environment sensors - NetFeeler Lite

2.2 Configuration

Sub-menu:

- 2.2.1 UPS Configuration
- 2.2.2 UPS on/off Schedule
- 2.2.3 Network
- 2.2.4 SNMP
- 2.2.5 **Email**
- 2.2.6 Web/Telnet
- 2.2.7 System Time
- 2.2.8 NetFeeler Lite
- 2.2.9 Language

Please set each parameter correctly, so that NetAgent would operates properly.

Note: this page's selection would differ according to the differnent interface of the UPS.

2.2.1 UPS Configuration

This page is to set the UPS configuration. Any wrong settings will cause incorrect display values or disconnection between the UPS and NetAgent.

UPS Properties

UPS Communication Type

This section is to set up the communication interface of the UPS. (eg. Contact Closure/RS232/3 phase etc.) Please refer to the UPS manual to set the correct communication type. Any wrong settings will cause disconnection between the UPS and NetAgent.

UPS Rating Voltage(V)

This section is to set the UPS rating voltage. (unit: Volt) Please refer to the UPS manual.

Number of Battery

This is to set the UPS battery unit number. Please refer to the UPS manual.

Battery Charge Voltage

This section is to set the UPS battery charge voltage. (unit: Volt) Please refer to the UPS manual.

Last Battery Replaced Date (mm/dd/yyyy)

This section is to record the date when the UPS battery was last replaced.

UPS Recorded

UPS Data Log

This section is to set how often the UPS data should be logged.

Test UPS

Test UPS for every

This section is to schedule the UPS to test once a week or once every two weeks.

Test UPS on Weekday

This section is to set the UPS to test on a particular day of a week.

Time of UPS Testing (hh:mm)

This section is to set the UPS to test at a certain time on the test day.

Warning Threshold Value

Time Out of Connection Lost

This is to set a certain period of time. When NetAgent loses contact with the UPS it will send a disconnection warning message after this certain period of time

This section is to set a period of time after which NetAgent will send a disconnection warning message. This warning message will be sent after NetAgent has lost contact with the UPS for the time specified.

Critical Loading (%)

This section is to set the UPS critical loading. (shown as %) NetAgent will send a warning message when the UPS is overloaded.

Critical Temperature ("C)

This section is to set the UPS critical internal temperature. NetAgent will send warning messages when the UPS overheats.

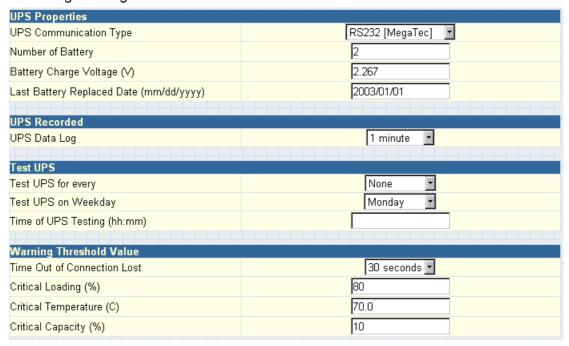


Fig.25 UPS configuration

2.2.2 UPS On/Off Schedule

This page is to schedule on/off time for the UPS.

Weekly Schedule

This section is to set the time to turn on/off the UPS each day in the week.

Date Schedule

This section is to set the time to turn on/off the UPS on particular days. (e.g., holidays.) The settings here override the settings in weekly schedule.

Warning will be initiated - before Schedule Shutdown Event

NetAgent will send a warning message before a scheduled shutdown. This section sets the delay time period after the message is sent and before the scheduled shutdown is started.

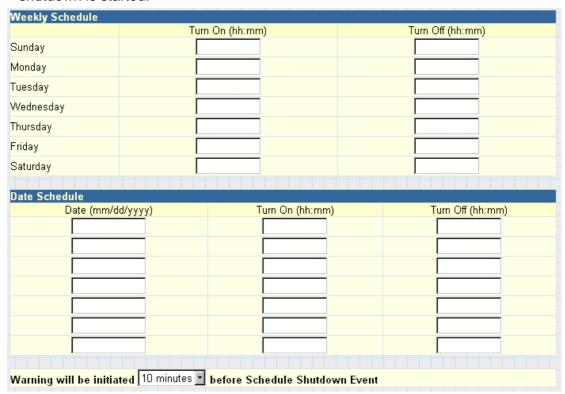


Fig.26 UPS on/off schedule

2.2.3 Network

This page is to set NetAgent network settings.

IP Address

This section is to set NetAgent IP Address.

Subnet Mask

This section is to set NetAgent Subnet Mask.

Gateway

This section is to set NetAgent Gateway.

Obtain an IP Address

This section is to choose to set NetAgent IP address manually or via DHCP.

The above 4 sections can be set in Netility as well. NetAgent will reboot after any of the above are changed.

DNS Server IP

Primary DNS Server IP

This section is to set NetAgent Primary DNS Server IP Address.

Secondary DNS Server IP

This section is to set NetAgent Secondary DNS Server IP Address. NetAgent will use the secondary DNS server IP address when the primary DNS server IP address is not working.

Ethernet

Connection Type

This section is to set communication speed between NetAgent and network.

NetAgent will reboot after connection type is changed.

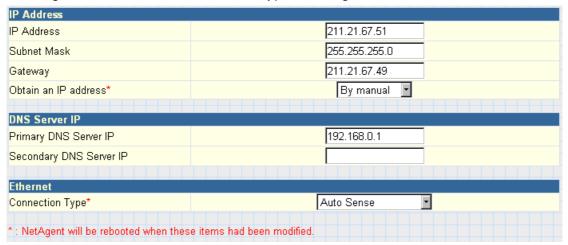


Fig.27 Network

2.2.4 SNMP

This page is to set NetAgent SNMP settings so it can be used by a NMS (network management system). (e.g.: SNMPView) SNMPView can be found on the NetAgent utility CD.

MIB System

System Name

This section is to give a name to a NetAgent.

System Contact

This section is to give a name to the administrator.

System Location

This section is to set NetAgent location.

Access Control

Manager IP Address

This section is to set the IP address that the administrator can manage NetAgent from. It is valid for up to 8 IP addresses. To manage NetAgent from any IP address, enter *.*.* into manager IP address.

Community

This section is to set a community name for NMS. The community name has to be as the same as the setting in NMS.

Permission

This section is to set authorities of administrators. Options are Read, Read/Write, and No Access.

Description

This section is for an administrator to make notes.

Trap Notification

Receiver IP Address

This section is to set receivers IP address for receiving traps sent by NetAgent. It is valid for up to 8 IP addresses.

Community

This section is to set a community name for NMS. The community name has to be as the same as the setting in NMS.

Severity

This section is to set trap receiver levels. There are three levels of trap receiver:

- Information: to receive all traps.
- Warning: to receive only "Warning" and "Severe" traps.
- Severe: to receive only "Severe" traps.
 (Please refer to NMS manual for trap levels.)

Accept

This section is to set to receive a trop or not.

Description

This section is for an administrator to make notes.

Event

This section is to select events for NetAgent to send traps. Clicking on select will open a select events list. Event traps may be selected from this list.

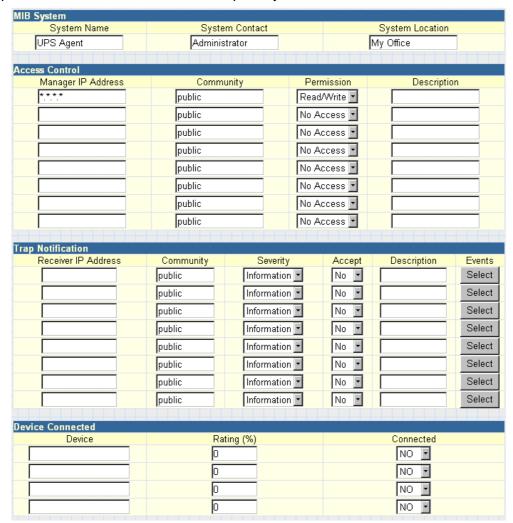


Fig.28 SNMP

2.2.5 Email

This page is to set email details for use by NetAgent.

Email Server

This section is to set NetAgent email server.

Sender's Email Address

This section is to set NetAgent's email address.

Email Server Requires Authentication

This section is to set whether the email server requires authentication.

Account Name

This section is to set an email account name when the email server requires authentication.

Password

This section is to set a password when the email server requires authentication.

Send EmailWwhen Event Occurs

This section is to set NetAgent to send warning email when an event occurs.

Recipient's Email Address (for Event Log)

This section is to set email addresses to receive warning email sent by NetAgent when an event occurs. It is valid for up to 8 email addresses.

Event

This section is to select events for NetAgent to send warning email. Clicking on select will open a select events list. Event email may be selected from this list.

Recipient's Email Address (for Daily Report)

This section is to set email addresses to receive daily report email sent by NetAgent when an event occurs. It is valid for up to 4 email addresses.

Send Email for Daily Report (hh.mm.ss)

This section is to set a particular time for NetAgent to send daily report every day.

Email Setting			
Email Server			
Sender's Email Address			
Email Server Requires Authen	tication	NO 🔽	
Account Name			
Password			
Send Email When Event Occu	ırs	NO 🔽	
Recipient's Email Address (for Event Log)		Events
Account1			Select
Account2			Select
Account3			Select
Account4			Select
Account5			Select
Account6			Select
Account7			Select
Account8			Select
Recipient's Email Address (for Daily Report)		
Account1			
Account2			
Account3			
Account4			
Send Email for Daily Report (h	nh:mm:ss)	NO 🔽 at	

Fig.29 Email

2.2.6 Web/Telnet

This page is to set up the user account in NetAgent.

User Name

This section is to set a user name for NetAgent web pages. It is valid for up to 8 users. Users have to input the user name to get access to NetAgent web pages from a web browser.

Password

This section is to set a password for NetAgent web pages. Users have to input the password to get access to NetAgent web pages from a browser.

Permission

This section is to set user's authorizations of Read, or Read/Write.

IP Filter

This section is to set a particular IP address. Users can only gain access to NetAgent web pages if they come from this IP address. If you want to manage NetAgent from any IP address, you can set it as *.*.*

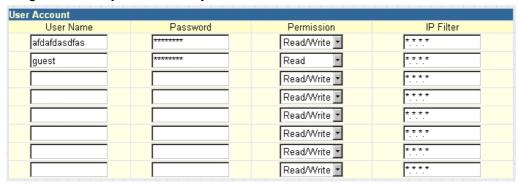


Fig.30 Web/Telnbet

2.2.7 System Time

This page is to set NetAgent system time. You can provide NetAgent with up to 2 time servers or you can set a time zone.

Time Between Automatic Updates

This section is to set an interval for time synchronization.

Primary Time Server/Secondary Time Server

This section is to set a primary time server and a secondary time server for NetAgent.

Time Zone (Relative to GMT)

This section is to set a different time zone for different countries.

System Time (mm/dd/yyyy hh:mm:ss)

This section is to set NetAgent system time manually.

Set this in the format: mm/dd/yyyy hh:mm:ss

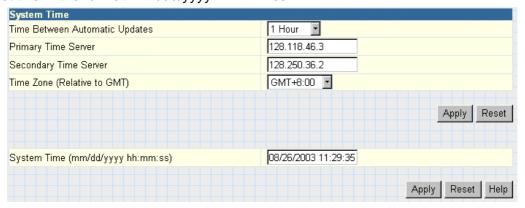


Fig.31 System time

2.2.8 NetFeeler Lite

This page is to set environment sensors-NetFeeler Lite configurations.

Critical UnderRun

This section is to set the lowest critical values for temperature and humidity. NetFeeler Lite will send a warning message when it detects temperature or humidity values below these settings.

Critical OverRun

This section is to set the highest critical values for temperature and humidity. NetFeeler Lite will send a warning message when it detects temperature or humidity values above these settings.

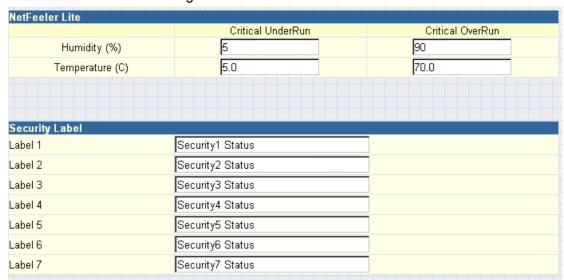


Fig.32 NetFeeler Lite

2.2.9 Language

This page is to set the language for NetAgent.

Interface Language

This section is to set the language for NetAgent web pages. When users start NetAgent in a browser, NetAgent will auto detect the language in the computer system and show the same language on its web pages. Users can also choose the languages they prefer from the "Interface Language" list.

Note: users will have to enable cookies before they use this function.

Email Preferences

This section is to set the language for email sent by NetAgent.



Fig.33 Language

2.3 Log information

Sub-menu:

- 2.3.1 Event Log
- 2.3.2 Data Log
- 2.3.3 Save Data Log

Note: this page's selection would differ according to the differnent interface of the UPS.

2.3.1 Event Log

This page is a UPS event log. It shows a record of all events, giving the Date/Time of the Event and a detailed description of each. It can log up to 99 events. When this limit is reached NetAgent will delete the earliest event record and continue logging new events.

Date/Time

This is a record of the date (mm/dd/yyyy) and time (hh :mm:ss) that the event occurred.

Description

This is a detailed description of the event.

Date/Time	Event
08/25/2003 20:37:01	Utility power has been restored.
08/25/2003 20:36:47	UPS has switch to battery backup power.
08/25/2003 20:36:44	Utility power has been restored.
08/25/2003 20:36:27	UPS has switch to battery backup power.

Fig.34 Event log

2.3.2 Data Log

This page is a UPS data log. It records UPS Input Voltage/Output Voltage/Frequency/Loading/Capacity/Temperature. It can log up to 500 events. When this limit is reached NetAgent will delete the earliest event record and continue logging new events. Logs can be saved in CSV format by clicking on "Save Data Log".

Date/Time

This is a record of the date (mm/dd/yyyy) and t ime (hh:mm:ss) that the data was recorded. The interval between every log can be set in/configuration/UPS configuration/UPS data log.

Input Volt.

This section shows records of the UPS input voltage readings. (unit: Volt.)

Output Volt.

This section shows records of the UPS output voltage readings. (unit: Volt.)

Loading

This section shows records of the UPS output loading. (shown as %)

Capacity

This section shows records of the UPS battery capacity. (shown as %)

Frequency

This section shows records of the UPS input frequency. (unit: Hertz)

Temp.

This section shows records of the UPS internal temperature. (unit: Degrees Centigrade)

1 2 3 4 5 6 Next						
Date/Time	Input Volt.	Output Volt.	Freq. (Hz)	Loading	Capacity	Temp.
08/25/2003 20:32:49	115.0	117.0	60.0	0	100	26.0C 78.8F
08/25/2003 20:31:49	114.0	117.0	59.9	0	100	26.0C 78.8F
08/25/2003 20:30:47	114.0	117.0	60.0	0	100	26.0C 78.8F
08/25/2003 20:29:45	114.0	117.0	59.9	0	100	26.0C 78.8F
08/25/2003 20:28:43	114.0	118.0	60.0	0	100	26.0C 78.8F

Fig.35 Date log

2.3.3 Save Data Log

This function is to record RS232 UPS's Voltage, Frequency, Load, Capacity, Temperature..etc to save as another ile for the other purpose to the manager.



Fig.36 Save data log

2.4 Help

Sub-menu:

2.4.1 Help

2.4.2 About

Note: user may check NetAgent's instruction, version of software/hardware,manufacture..etc from here

Chapter 6. Telnet (remote monitoring)

Section 1. 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

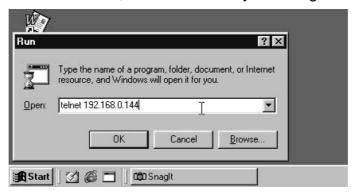


Fig.37 Telnet startup

2 Successful link-up display:

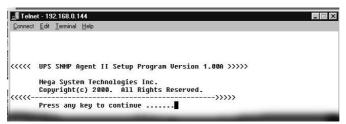


Fig.38 Telnet connection

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.39 Telnet: input user name/password

Main screen is as follows:



Fig.40 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 Notification.

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

Note: the configuration of 'Set SNMP Trap Receiver' is only used for SNMP network manager.

Set UPS Properties.

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 NetAgent.

• 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.

Section 1. 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.41 ClientMate group

❸ 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.

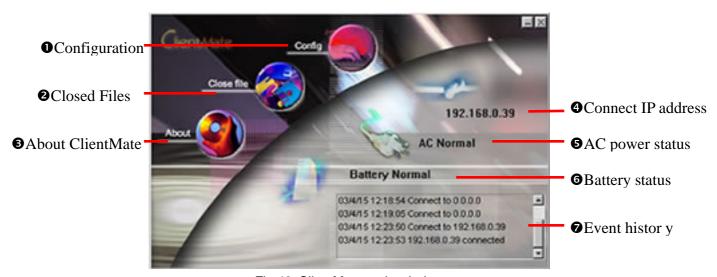


Fig.42 ClientMate main window

2.1 Configuration

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.

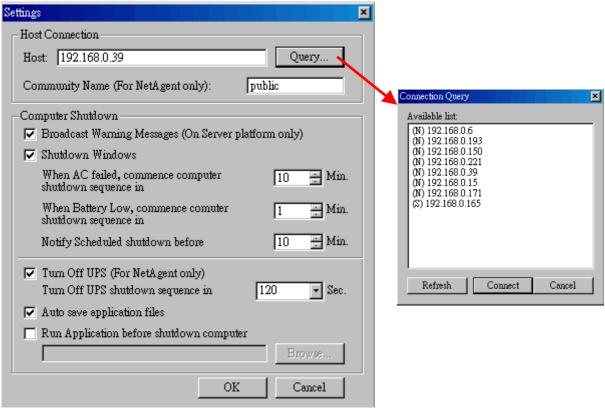


Fig.43 ClientMate: configuration

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 plat form 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.

2.2 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.44 ClientMate: Closed Files

2.3 About

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



Fig.45 ClientMate: About

2.4 IP Address of Connection

Status icon Description



Already connect to NetAgent UPS at IP 211.21.67.51



Does not connect to any NetAgent.

2.5 AC Power Status

Status icon Description



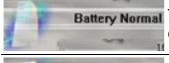
The connected NetAgent UPS AC power is normal.



The connected NetAgent UPS AC power is failed.

2.6 Battery Status

Status icon Description



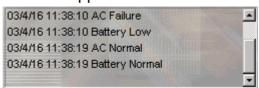
Battery Normal The connected NetAgent UPS battery is in normal condition.



The connected NetAgent UPS is in battery low condition.

2.7 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

Section 1. Introduction

SNMPView is a software to remotely monitor and control multiple UPS connected to a network. When an event occurs, SNMPView can be programmed to send an email or a pager to inform the designated network manager. It can also inform the user of the UPS current condition or configuration, perform self-test, send a history file, turn the UPS on/off and more.

SNMPView features:

- A windows interface that is simple and user friendly.
- Automatic detection and identification of any UPS with NetAgent II or NetAgent Mini connected to a network.
- ❸ Capable of simultaneously monitoring up to 1,000 UPS
- Remotely control, monitor, and manage the networked UPS (turn on/off, self-test, etc...)
- Able to simultaneously support both RS-232 interface (1 or 3 phase) and Contact Closure interface UPS.
- **6** UPS condition displayed in either a graphic or analog bar chart.
- Supports MegaTec's SNMP agent and SNMP internal c ard.

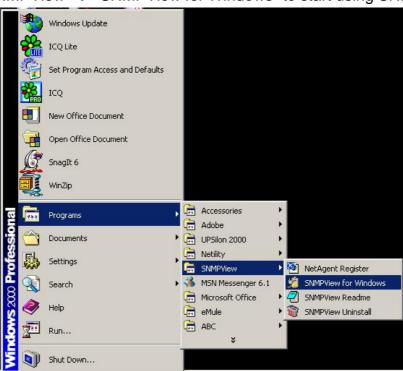
Section2. System requirements

- LAN/WAN network system with TCP/IP
- RS-232 interface or Contact Closure interface UPS
- 3 External SNMP agent or SNMP internal c ard
- **4** Microsoft Windows 95, 98, NT, 2000, XP, Me, 2003

Section3. Install SNMPView

3.1 Install SNMPView

- Put the NetAgent utility CD into the CD driver. And execute the SNMPView program.
- After installation, there will be a SNMPView group in the Windows start group.
- Click "SNMPView" → "SNMPView for Windows" to start using SNMPView.



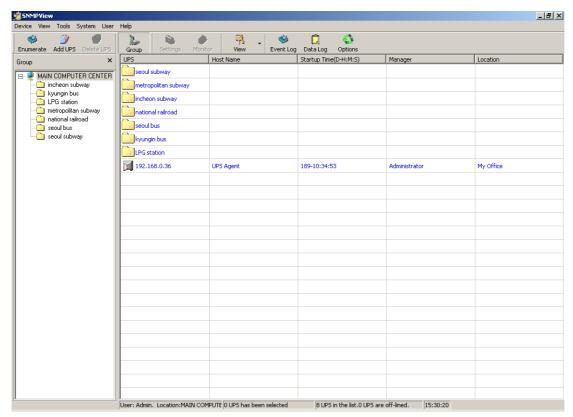
3.2 Using SNMPView

When use SNMP view at the first time, the system will ask for input the user's name and password. Please enter the default value as follows to start the SNMPView.

User Name: admin

Password: <blank> (just press <Enter>)

After the SNMPView program start up the main windows will be displayed. The left panel will list the available stations by area and the right panel will list the UPS, Host Name, Startup Time, Manager and Location of UPS found in each station.





Shows that the device is a UPS



Shows that the UPS is battery low



Shows that the UPS is disconnect/off-line

3.3 SNMPView buttons



Enumerate : Search all SNMP hosts that supports public group and

display them on the screen

Add UPS : Manually add a host into the window

Delete UPS : Manually delete a host into the window

Group : Shows the main group windows

Settings : If the host is a UPS, just click on it to view and modify the

UPS's general information

Monitor : If the host is a UPS, just click on it to start monitoring UPS

View : Display in either, large icons, small icons or details

Event Log : Records the UPS, date, time and description of an event.

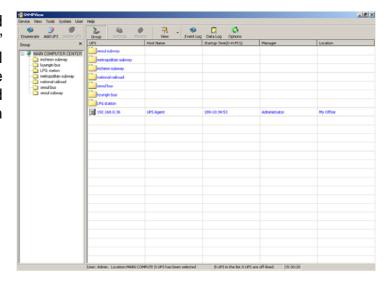
Data Log: : Records data of all UPS listed.

Options : Sets the SNMP parameter for community, trap port and

UPS SNMP port

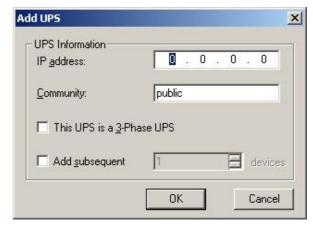
3.3.1 Enumerate

Start SNMPView and press the "Enumerate" button, SNMPView will start a search for all the NetAgent on network and list them in the main window.



3.3.2 Add UPS

Click "Add UPS" to enter the IP address of the UPS manually. Once entered, the UPS will be shown on the main list.



3.3.3 Delete UPS

Click and highlight the UPS to be deleted from the list. Press "Delete UPS" button to remove the selected UPS from the SNMP list.

Press and hold the "Shift" key to select multiple UPS.

3.3.4 Group

This is to show the main group window.

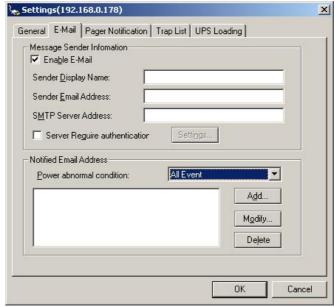
3.3.5 Settings

The "General" tab allows you to set standard information about the UPS as well as the general settings.



"Email" tab

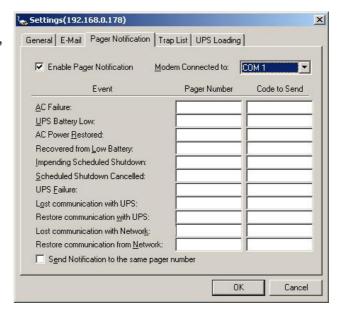
Click the "E-mail" tab from the settings windows to configure the SNMPView e-mail warning configuration, diagram shown below:



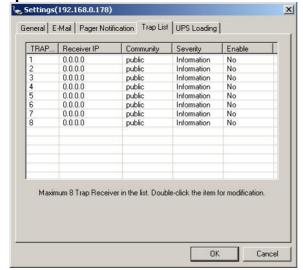
- ◆ Sender Display Name: fill out this field with the name of the sender. This will be displayed in the "From:" within the email.
- Sender Email Address: enter the email address
- ◆ Mail Server: f ill out this field with the appropriate SMTP server. Use either IP address or the domain name.
- Server Requires Authentication: enter the username and password.
- ◆ Notified Email Address: for "Power Abnormal Conditon". Click to set trap c onditions. Click "Add" to enter an e-mail address.

"Pager Notification" tab

Click the "Pager Notification" tab to edit the pager settings.



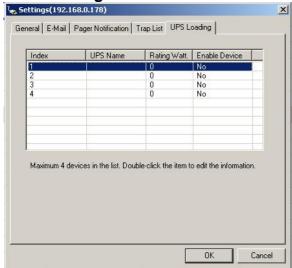
Trap List





This sets the trap notification. Double click to edit the trap settings.

UPS Loading





This determines the UPS loading. Double to edit the device information.

3.3.6 Monitor

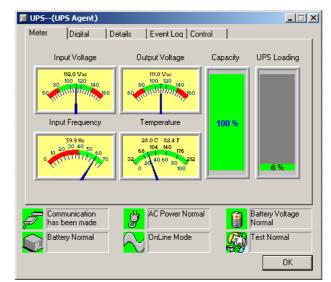
Highlight the desired UPS and click on "Monitor" to check and view information about the UPS. SNMPView detects whether the host is a UPS and then displays the result in the bottom part of the window.

Double click the desired UPS will also bring up the "Monitor" window.

"Meter" tab

The "Meter" tab displays the following information;

- ◆ Input Voltage: show the voltage input from AC power.
- ◆ Output Voltage: show the voltage output from UPS.
- Capacity: shows the UPS charge.
- UPS Loading: show the loading of UPS. Display on meter.
- Input Frequency: frequency of AC power.
- ◆ Temperature: c urrent temperature of the UPS, in Celsius and Fahrenheit





Shows connection with the UPS



Shows that the AC power is normal/abnormal



Shows the battery voltage status



Shows the battery condition (normal/abnormal)



Shows if the UPS is online or offline

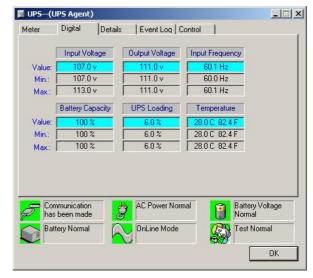


Test results (normal/abnormal)

Select a UPS from the main screen list. Click "Monitor" or double click on the UPS. This will enable the user to monitor the current condition of the UPS.

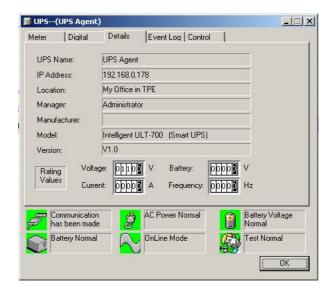
"Digital" tab

Display (highlighted in blue) the current input and output voltage, input frequency, battery capacity, UPS loading and temperature. It also logs the maximum and minimum encountered values of each item since start-up.



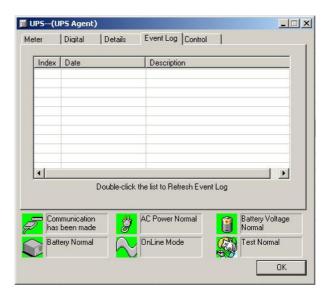
"Details" tab

Displays general information about the UPS, it's IP address, location, manufacturer, model and version, etc.



"Event Log" tab

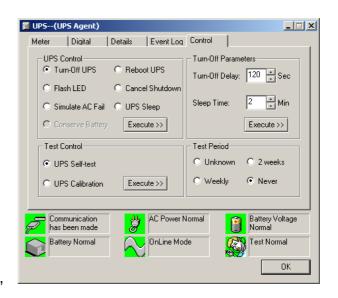
This section logs any changes in the system.



"Control" tab

UPS Control

- Turn-Off UPS: immediately turn off the UPS
- Reboot UPS: reboot the UPS after 12 seconds and restart the UPS after another 1 minute.
- Flash LED: flash the UPS' s LED display. (optional function of the UPS)
- Cancel Shutdown: the UPS will cancel the "Turn-Off UPS" action (optional function of the UPS)
- Simulate AC Fail: s imulate system power failure
- UPS Sleep: put UPS to sleep mode
- Conserve Battery: close UPS loading, conserver the current battery capacity.



Select the appropriate UPS control, and click on the "Execute >>" button to start the process.

Attention:

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

Test Control

- UPS Self-test: s et UPS to conduct self-test.
- UPS Calibration: v iew testing order results

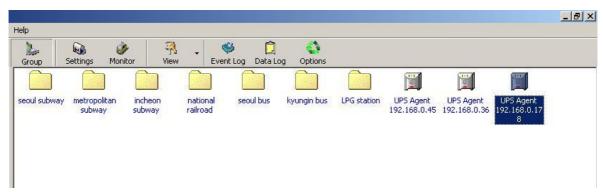
Turn-Off Parameters

- Turn-Off Delay: specify delay in seconds, up to a max of 600 seconds.
- Sleep Time: specify the sleep time in minutes; up to a max of 9999 minutes.

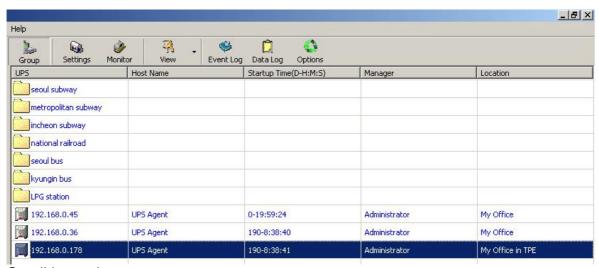
Test Period

- Unknown: the test period is defined by UPS and not able to be c ontrolled by manual.
- 2 weeks: conduct a test every two weeks.
- Weekly: conduct a test every week.
- Never: never conduct a test

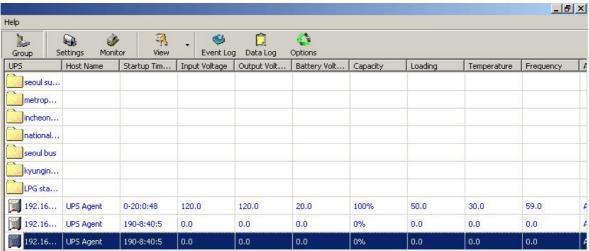
3.3.7 View



Large icon view



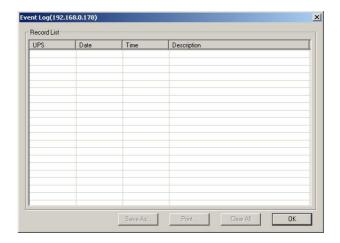
Small icon view



Detail view

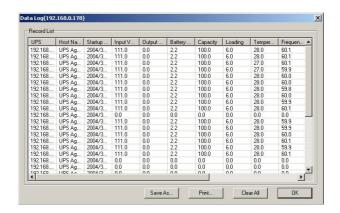
3.3.8 Event Log

 This button records and lists events for a particular UPS.



3.3.9 Data Log

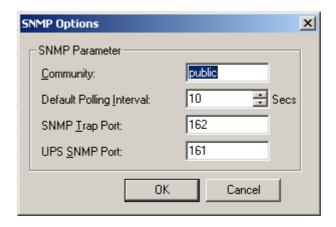
Records data of all UPS listed.



3.3.10 Option

Sets the SNMP parameter for:

- Community: give it a name.
- Polling Interval: sets the interval at with the SNMP refreshes itself.
- SNMP Trap Port: set the trap port
- UPS SNMP port: set the UPS SNMP port.



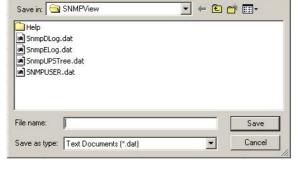
Menu

Device

Add Group
 Add a new group folder into the main list

User to enter group name

Export Configuration
 Save the configuration in .dat configuration



X

? X

Cancel

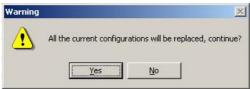
Add UPS Group

UPS Group-

Group name:

Save As

 Import Configuration Note: all existing configurations will be replaced.



User

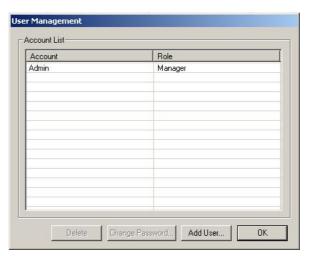
Change Password



User Management
 The administrator can manage the user accounts and their password here.
 Click on:

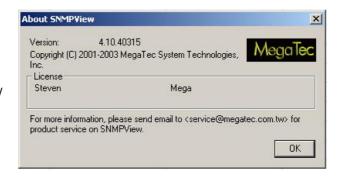
"Add User..." to add a new user

"Delete" to remove a user "Change Password" to change password.



Help

- Contents: this help menu
- About Gives the current SNMP version, license and contact / info mail.



Appendix - Update the firmware of NetAgent UPS

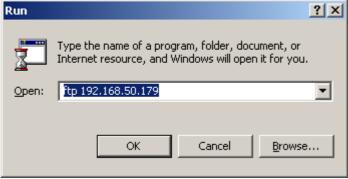
NetAgent provides the following convenient methods for user to update the latest firmware of the NetAgent

- 1. Use "Download Firmware" function under netility to update it (suitable for all NetAgent version, please refer to chapter 4)
- 2. Enter the web page of the NetAgent UPS, then click "Update Software" under the about of NetAgent. Once clicked, it will links to Megatec's website directly to update. (suitable for BK,CK,DK version)
- 3. Use FTP to update (suitable for BK,CK,DK using firmware version 2.35 and later)

The FTP is a easy and common way to upload the latest firmware into the NetAgent. Please follow the instruction below to update the firmware. If there is other FTP client application on your computer, that will also be fine to use it for updating the firmware.

For example: if wish to update the latest firmware of the NetAgent UPS which IP address is 192.168.50.179, then please operate with the steps below:

(1) Enter Windows, then type ftp 192.168.50.179 under "Run" of the "Start Menu"



- (2) After executed, the systems will requests for the user name and password. Please enter "admin" under the user name and enter the password that was been set at netility under password. If did not set before, then please enter the default value as user name: "admin" and nothing under password. (press "Enter").
 - Once the account and password been checked, the server will response with 230 OK to indicate login succeeded.
 - If entered wrong account and password, the server will response with 530 not logged in to indicate login failed.
- (3) Operation commands as followings:
 - -1s: this command is to request server to list up all the file and sub file under current menu. User may finds out the firmware version of the NetAgent UPS of its IP.
 - -put<client's file route>: this command is to a sk the client to copy its specific file route to the server point. User may use this me thod to upload the latest firmware to the remote NetAgent
 - -quit: this command is to allow the user to logout with the current username account as well as close the connection of FTP.

For example: the picture below is to upl oad the latest NetAgent firmware file (c:\ work\netagent\prjs\nag\2.32.DK520.bin) which is in this computer to the NetAgent UPS with IP address of 192.168.50.179

```
C:\WINDOWS\System32\ftp.exe
                                                                        _ 🗆 ×
Connected to 192.168.50.179.
220 Service ready for new user
User (192.168.50.179:(none)): admin
331 need password
Password:
230 ОК
ftp> ls
200 Port command successful.
150 Opening ASCII mode data connection for file list.
2.32.DK520.bin
226 Transfer complete.
ftp: 16 bytes received in 0.00Seconds 16900.90Kbytes/sec.
ftp> put c:\work\netagent\prjs\nag\2.32.DK520.bin
200 Port command successful.
150 Opening data connection for 2.32.DK520.bin
226 file received ok.
 tp: 1040384 bytes sent in 3.28Seconds 317.00Kbytes/sec.
 ftp> quit
 ame version new type OK
```

4. Use IE browser to update (suitable for BK,CK,DK version)

This method is to enter the account, password and IP address of the NetAgent UPS which the user wish to update under the website column. Once entered, user may see the current firmware version, and then please copy the latest firmware to here to complete the updating process.

Two method of entering:

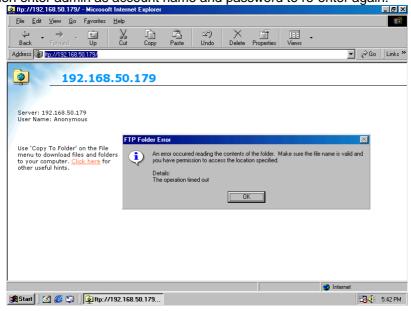
(1) ftp://admin:password@192.168.50.179

Again, the password here is the one been set at netility, if did not set anything before, then enter NetAgent's default value as:

Account: admin

Neglect password (ftp://admin:@192.168.50.179)

(2) **ftp://192.168.50.179/**, when using this method to enter, the follow error message will be show. At this moment, select "**Enter Identity**" at the top left corner of file menu. Then enter admin as account name and password to re-enter again.



Once the connection been established, the following window will be display. Then the user may transfer the latest firmware to here for the replacement in order to complete the updating steps.

