



NetAgent Network Interface Card

Rev. 1.0

based on
Firmware version: 2.43.CT504
Hardware Version: HCT504

Default Settings, Useful Parameters, and Operational Notes

4/12/2011

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The NetAgent network interface card is used for remote monitoring and control of a Marathon Power UPS through common communications protocols such as: HTTP (web browser), SNMP (simple network management protocol), Email, SMS (short message service), and Telnet.

This document illustrates the most useful parameters available via the NetAgent network interface card and required by engineers and technicians to perform quick setup and efficient operation of the UPS.



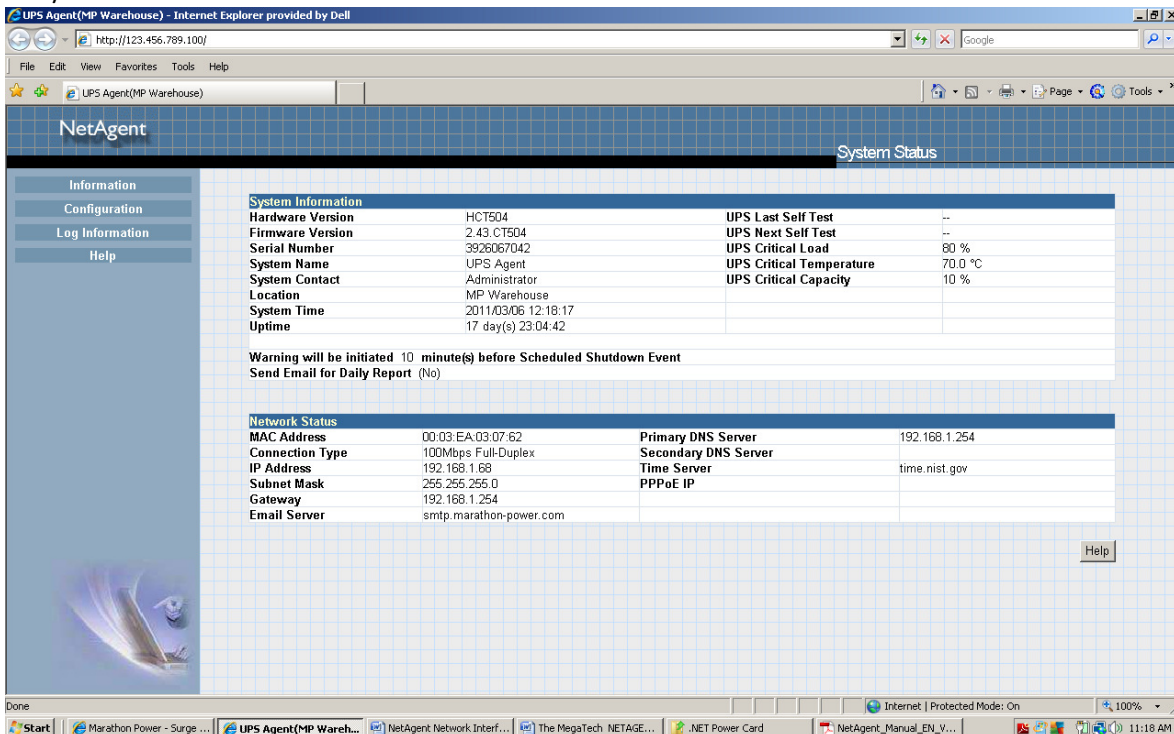
Default IP Address: Factory default IP address for the card is *typically* in the range of 169.254.xxx.xxx (255.255.0.0 mask). See *Appendix-A* to configure IP address for your network.

Default Username and Password: There is NO factory default username or password on the NetAgent interface card. When accessing the card for the first time, leave the username and password fields blank.

The NetAgent web interface:

By default, the NetAgent card has a factory applied IP address configured. Use APPENDIX-A: “TO QUICKLY CONFIGURE MEGATEC NETWORK CARD FOR USE ON LOCAL NETWORK” to configure an IP address on the card and make it accessible via a web browser.

HOME / SYSTEM STATUS PAGE:



The screenshot shows the NetAgent web interface in Internet Explorer. The browser address bar shows the URL http://123.456.789.100/. The page title is "UPS Agent(MP Warehouse) - Internet Explorer provided by Dell". The main content area is titled "System Status" and contains the following information:

System Information			
Hardware Version	HCT504	UPS Last Self Test	--
Firmware Version	2.43.CT504	UPS Next Self Test	--
Serial Number	3926067042	UPS Critical Load	80 %
System Name	UPS Agent	UPS Critical Temperature	70.0 °C
System Contact	Administrator	UPS Critical Capacity	10 %
Location	MP Warehouse		
System Time	2011/03/06 12:18:17		
Uptime	17 day(s) 23:04:42		

Warning will be initiated 10 minute(s) before Scheduled Shutdown Event
Send Email for Daily Report (No)

Network Status			
MAC Address	00:03:EA:03:07:62	Primary DNS Server	192.168.1.254
Connection Type	100Mbps Full-Duplex	Secondary DNS Server	
IP Address	192.168.1.68	Time Server	time.nist.gov
Subnet Mask	255.255.255.0	PPPoE IP	
Gateway	192.168.1.254		
Email Server	smtp.marathon-power.com		

The home page displays the System Status including sections for *System Information* and *Network Status*. In the left-hand column of the screen is the navigation menu with the four major areas of command-and-control and monitoring for the UPS:

- *Information*
- *Configuration*
- *Log Information*
- *Help*

The *System Information* section displays the following information about the UPS for quick reference:

- Hardware Version
- Firmware Version
- Serial Number of UPS
- UPS Critical Load
- UPS Critical Temperature
- UPS Critical Capacity (Battery)

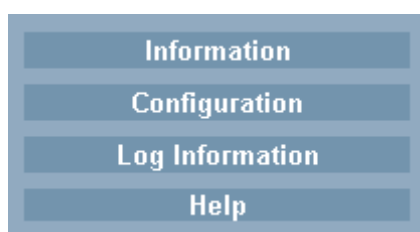
The *Network Status* section displays the following information also for quick reference:

- IP address
- Subnet mask
- Gateway address
- Email server address
- DNS server addresses
- Time server address

NOTE: Most of the web pages available through the web interface have a [[Help](#)] button located in the lower-right part of the screen. Clicking on the [[Help](#)] button will display content-specific help for that particular page. *** The help files are hosted on a Megatec website. Internet access is required in order to view the help information. ***

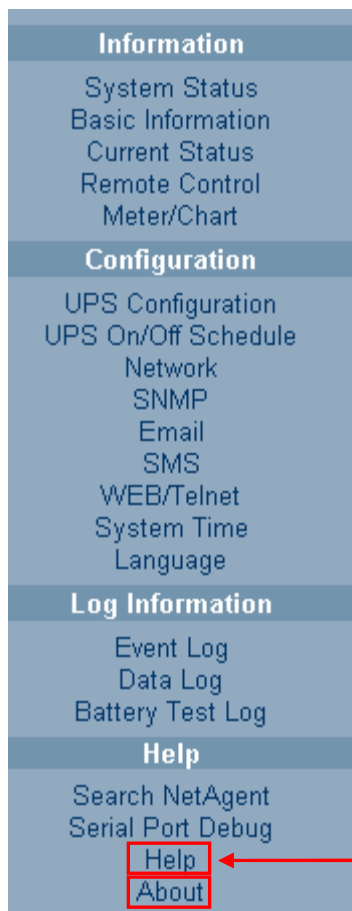
HELP for *each* of the items contained within the screen's navigation menus can be found under the HELP Menu and then clicking on the Help item. For a description of the Help display, see pg. 9

The *navigation menu* located in the upper-left corner of the screen can be expanded to view the other available pages and features. The menu is organized into four major function categories, as shown here:



Clicking on a Navigation Menu button expands that category to show the menu items contained in that category.

Fully expanded navigation menus showing areas of command, control and monitoring:



HELP for *each* of the items contained in this menu can be found under the HELP Menu and then clicking on the Help item. For a description of the Help display, see pg. 9

The About page displays the *Firmware Version*, *Hardware Version*, and *Serial Number* of the NetAgent card. It is also used for several important functions including ability to:

- Save/Restore Configuration Settings
- Reset NetAgent card to factory default
- Update Firmware

For a description of the About page, see pg. 10

The following tables list critical UPS command, control and monitoring functions and their page/location within the web interface:

(The main **System Status** page is described in the previous section.)

In the Information Menu:

To view and/or change these parameters:	Go to this page:
• UPS firmware version	Information Menu / Basic Information
• UPS model number	Information Menu / Basic Information
• Battery Information (values found here are user settings from the Configuration/UPS-Configuration page.)	Information Menu / Basic Information
• UPS Status ⁽¹⁾	Information Menu / Current Status
• Input Status ⁽¹⁾	Information Menu / Current Status
• Output Status ⁽¹⁾	Information Menu / Current Status
• Battery Status ⁽¹⁾	Information Menu / Current Status
• UPS Testing ⁽²⁾	Information Menu / Remote Control
• Turn off UPS when AC power Fails	Information Menu / Remote Control
• Put UPS in Sleep mode	Information Menu / Remote Control
• Wake up UPS	Information Menu / Remote Control
• Reboot UPS	Information Menu / Remote Control
• UPS Buzzer On/Off	Information Menu / Remote Control
• Meter Display ⁽³⁾	Information Menu / Meter-Chart
• Strip Chart Display	Information Menu / Meter-Chart

In the Configuration Menu:

To view and/or change these parameters:	Go to this page:
<ul style="list-style-type: none"> UPS Properties settings ⁽⁴⁾ 	Configuration Menu / UPS Configuration
<ul style="list-style-type: none"> Schedule UPS Test 	Configuration Menu / UPS Configuration
<ul style="list-style-type: none"> Set Warning Threshold Values ⁽⁵⁾ 	Configuration Menu / UPS Configuration
<ul style="list-style-type: none"> On/Off Scheduling 	Configuration Menu / UPS On-Off Schedule
<ul style="list-style-type: none"> Host Wake On LAN configuration; testing (This function is to wake the PC within the network. Make sure the PC has such function supported and configure as "Enabled" under BIOS.) 	Configuration Menu / UPS On-Off Schedule
<ul style="list-style-type: none"> Network configuration ⁽⁶⁾ 	Configuration Menu / Network
<ul style="list-style-type: none"> SNMP configuration ⁽⁷⁾ 	Configuration Menu / SNMP
<ul style="list-style-type: none"> Email configuration and testing 	Configuration Menu / Email
<ul style="list-style-type: none"> SMS configuration and testing 	Configuration Menu / Email
<ul style="list-style-type: none"> Configure access security (user accounts, SSL, RADIUS.) 	Configuration Menu / WEB-Telnet
<ul style="list-style-type: none"> Set system time; auto or manual restart ⁽⁸⁾ 	Configuration Menu / System Time
<ul style="list-style-type: none"> Language preferences 	Configuration Menu / Language (Note: Setting preferences will not work if you have disabled cookies in your browser.)

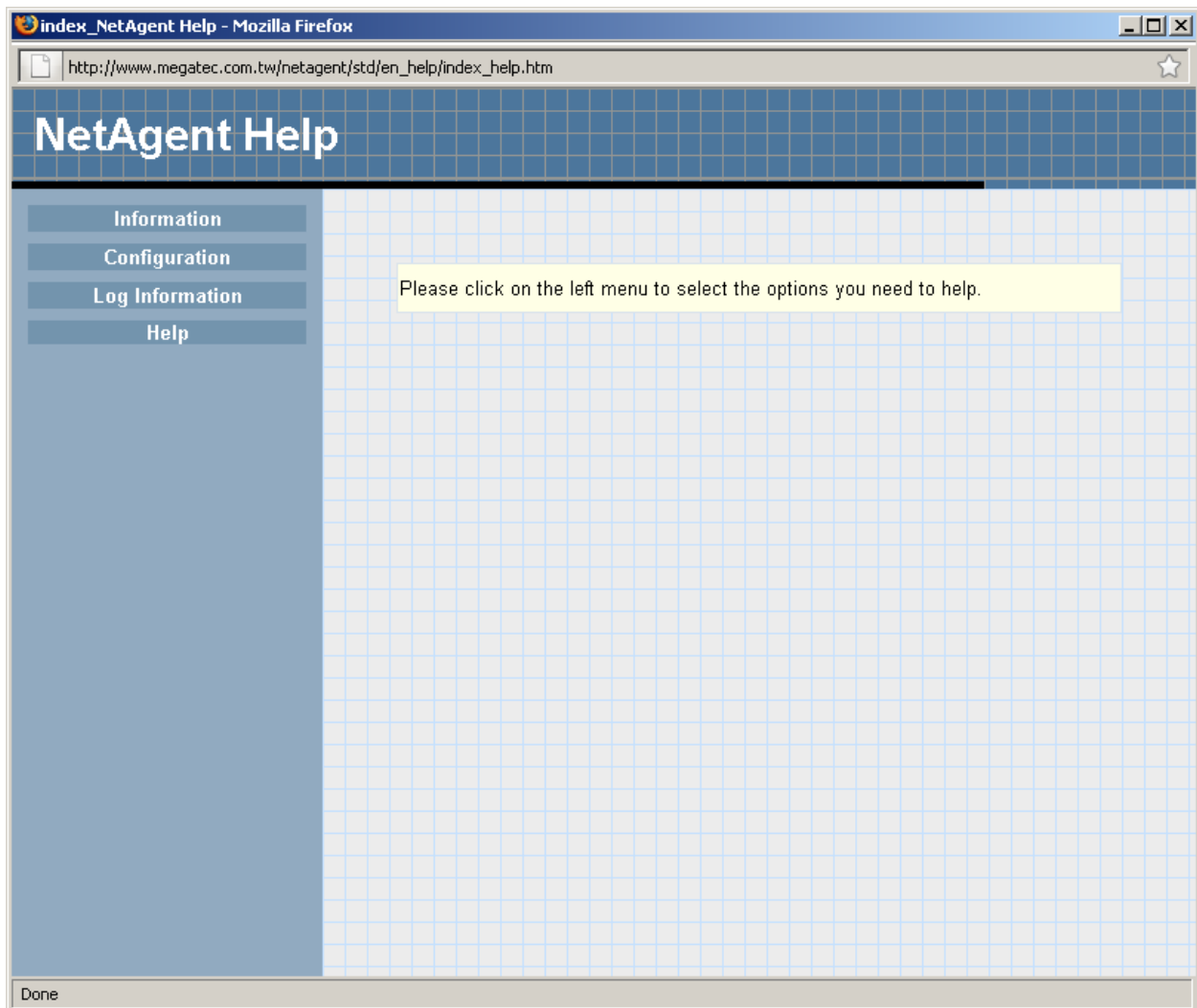
In the Log Information Menu:

To view and/or change these parameters:	Go to this page:
<ul style="list-style-type: none"> • Event Log 	<p>Log Information Menu / Event Log (The Event Log length varies according to the type of NetAgent card being used as follows: Single Port (CP,DP) = 100 logs Single Port (CT,DT) = 1000 logs 3 Ports (BT) = 1000 logs) Event Logs can be saved in CSV format by clicking on "Save".</p>
<ul style="list-style-type: none"> • Data Log 	<p>Log Information Menu / Data Log (Data recorded includes: <ul style="list-style-type: none"> • Date/Time • Input Volt. • Output Volt. • Freq. (Hz) • Load Capacity • Temp.) Data Logs can be saved in CSV format by clicking on "Save Data Log".</p>
<ul style="list-style-type: none"> • Battery Test Log 	<p>Log Information Menu / Battery Test Log</p> <ul style="list-style-type: none"> • This page shows the latest 2 logs of UPS battery test. • Clicking on an event displays a Java graphic of UPS battery capacity, battery current loading and estimation of battery remaining when AC fails.

In the Help Menu:

To view and/or change these parameters:	Go to this page:
<ul style="list-style-type: none"> Discover all NetAgent cards on LAN. 	<p>Help Menu / Search NetAgent</p> <p>Use this page to find all the NetAgents within network. Search results will display the following for each card found:</p> <ul style="list-style-type: none"> Serial Number Mac Address Hardware/Firmware version IP address <p>Double-clicking on the highlighted unit will open the webpage of that device.</p>
<ul style="list-style-type: none"> Serial Port configuration and monitoring. 	<p>Help Menu / Serial Port Debug</p> <p>This page displays communication between NetAgent and UPS via serial port and is used to configure the communication between NetAgent and UPS.</p> <p>Parameters are:</p> <ul style="list-style-type: none"> Debug Mode (select Auto or Manually, default is Auto) Port; Speed (Baud); Data Bits; Parity and Stop Bits. <p>Two encoding formats: <u>ASCII</u> or <u>Hexadecimal</u>.</p> <p>When debug mode is <u>manual</u>, user can enter data in the Send Contents field.</p>
<ul style="list-style-type: none"> HELP 	<p>Help Menu / Help</p> <p>(See description on page 9.)</p>
<ul style="list-style-type: none"> Save/Restore configuration settings 	<p>Help Menu / About</p> <p>(See description on page 10.)</p>
<ul style="list-style-type: none"> Reset to factory default 	<p>Help Menu / About</p> <p>(See description on page 10.)</p>
<ul style="list-style-type: none"> Update Firmware 	<p>Help Menu / About</p> <p>(See description on page 11.)</p>

NETAGENT HELP PAGE:



This page is accessed through the Help/Help menu item.

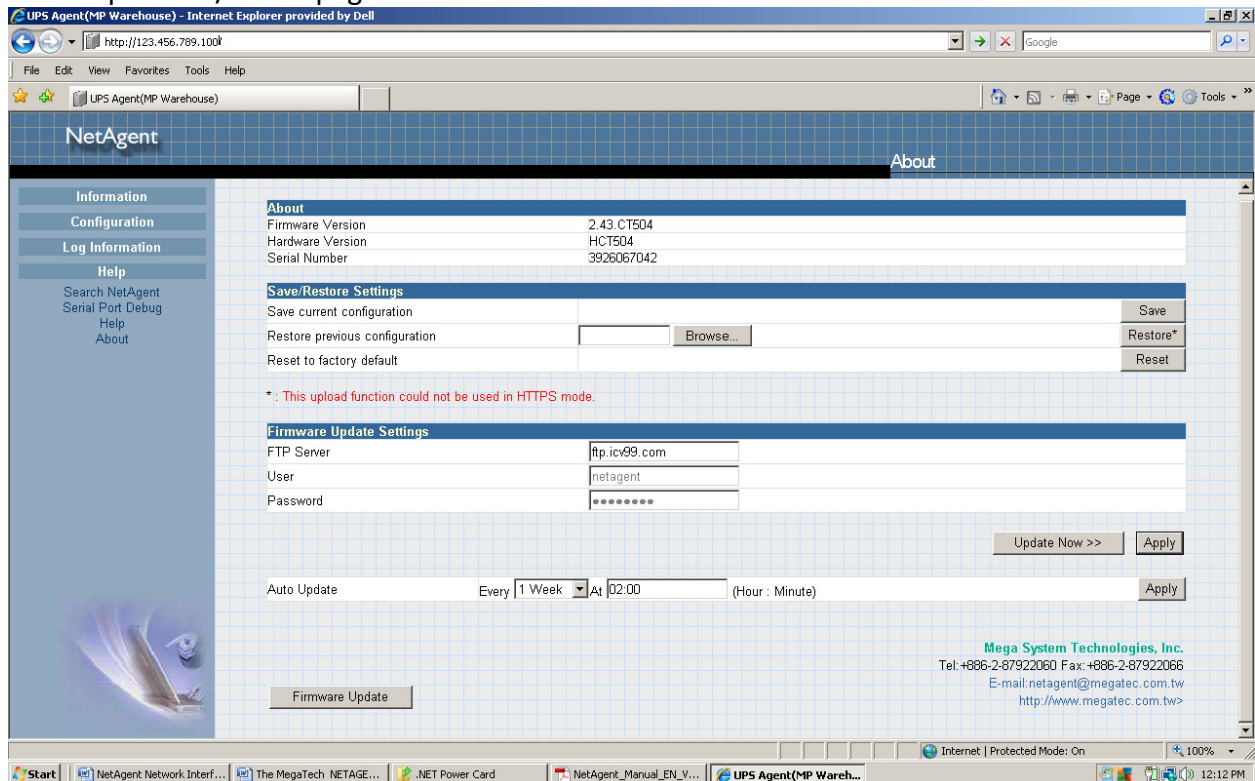
The URL for this help system is from Megatec at:

http://www.megatec.com.tw/netagent/std/en_help/index_help.htm

Content specific help for *most* items contained in the NetAgent navigation menus can be found by expanding the menu/category on this page and then clicking on an item.

NOTE: this help page may or may not correspond to the specific NetAgent model/build you are using.

The Help Menu /About page:



The screenshot shows the NetAgent web interface in Internet Explorer. The browser address bar shows the URL `http://123.456.789.100/`. The page title is "UPS Agent(MP Warehouse) - Internet Explorer provided by Dell". The main content area is titled "About" and contains the following sections:

- Information:**
 - Firmware Version: 2.43 CT504
 - Hardware Version: HC1504
 - Serial Number: 3926067042
- Save/Restore Settings:**
 - Save current configuration:
 - Restore previous configuration:
 - Reset to factory default:
- Firmware Update Settings:**
 - FTP Server:
 - User:
 - Password:
 -
 - Auto Update: Every At (Hour : Minute)
 -

At the bottom right, contact information for Mega System Technologies, Inc. is provided: Tel: +886-2-87922060 Fax: +886-2-87922066 E-mail: netagent@megatec.com.tw http://www.megatec.com.tw>

The About page under the Help menu displays the *Firmware Version*, *Hardware Version*, and *Serial Number* of the NetAgent card. It is also used for several important functions including ability to:

- Save/Restore Configuration Settings
- Reset NetAgent card to factory default
- Update Firmware

To Save/Restore configuration settings:

- Click the **[Save]** button to save the configuration to your PC. The text file will have a default name format of YYYY_MMDD_####.cfg. (Administrator permission required.)
- Click the **[Browse]** and **[Restore*]** buttons to restore a *.cfg configuration file that had been saved earlier.

To Reset to factory default:

- Click the **[Reset]** button to reset all settings to factory default value. (This is the same function found in the Telnet interface menu item (a.) "*Reset Configuration to Default.*" See page 15.)

To Update Firmware:

This function will help you link to Megatec's FTP server, in order to download the latest firmware.

The *Firmware Update Settings* section contains fields for the Megatec FTP server name and login account info. Currently, the FTP server name is: <ftp.icv99.com> The username and password information for the site are coded into the page, and no further entry is needed.

- To update immediately, click on the [[Update Now >>>](#)] button.
- To schedule automatic updates, enter the interval and time in the *Auto Update* section, then click the [[Apply](#)] button in that section.
- To download and update firmware manually:
 1. click the [[Firmware Update](#)] button in the lower-left corner of screen.
 2. Save and uncompress the downloaded file for your specific NetAgent model on to a local computer.
 3. Then, use the Megatec 'Netility' application to update the firmware to the NetAgent card. (Netility and other useful utilities can be found on the CD-ROM that came with your NetAgent card -or- from these websites:
 - <http://www.megatec.com.tw/Download.htm#NetAgent> (in NetAgent Utility CD section)
 - <http://marathon-power.com/EN/DownloadCenter/Software/NetAgent/Netility.exe>)

NOTES:

(1) Details for 'Current Status' page

STATUS TYPE:	STATUS ITEMS DISPLAYED:
UPS Status	<ul style="list-style-type: none"> • UPS Normal / UPS Alarm
Input Status	<ul style="list-style-type: none"> • AC Status • Input Line Voltage • Input Max. Line Voltage • Input Min. Line Voltage • Input Frequency
Output Status	<ul style="list-style-type: none"> • Output Voltage • Output Status • UPS load
Battery Status	<ul style="list-style-type: none"> • Temperature • Battery Status • Battery Capacity • Battery Voltage • Time on Battery • Estimated Battery Remaining Time • UPS Last Self Test • UPS Next Self Test

(2) UPS Testing on the 'Remote Control' page provides these controllable items:

- 10-Second Test
- Deep Battery Test
- Test Until Battery Low
- Cancel Test

(3) To use 'Advanced' mode on meters display, your browser must be able to access to the Internet.

(4) Configurable UPS Properties include:

- UPS Communication Type
- Number of Batteries
- Battery Full Charge Voltage (V)
- Battery Exhausted Charge Voltage (V)
- Date of last battery replacement (yyyy/mm/dd)

(5) Warning Threshold Value settings:

- Time out after loss of connection
- Critical Load (%)
- Critical Temperature (°C)
- Critical Capacity (%)

(6) Configurable Network parameters include:

- IP Address
- DNS Server IP
- Ethernet
- Dynamic DNS
- PPPoE

(7) Configurable SNMP parameters include:

- MIB system name, contact and location
- Access Control
- Trap Notification, including:
 - Destination IP Address
 - Community
 - Trap Type
 - Severity
 - Accept
 - Description
 - Events, as follows:
 - Schedule Shutdown Event
 - UPS Failure
 - UPS entering Test mode
 - UPS entering Sleeping mode
 - UPS entering Boost mode
 - UPS Load Overrun
 - UPS Communication Lost
 - Turn Off UPS
 - AC Power Failed
 - UPS Battery Low
 - UPS Temperature Overrun
 - UPS Capacity Underrun
 - UPS entering Bypass mode
- Device Connected
- SNMP UDP Port

(8) The System Time page is to set NetAgent time clock and to control auto and manual restart of the UPS. You can provide NetAgent with up to 2 time servers or you can set a time zone.

Parameters are as follows:

SETTING FOR:	PARAMETER:
System Time	<ul style="list-style-type: none"> • Time Between Automatic Updates • Time Server • Time Zone • Using Daylight Saving Time • System Time (to set NetAgent system time manually)
Auto Restart	<ul style="list-style-type: none"> • Auto Restart System for Every n Minute(s)/Hour(s) (The default value is set to "0" (disabled))
Manual Restart	Restart System After 30 Seconds

Telnet Interface:

<<<<< UPS SNMP Agent II Setup Program >>>>>

Mega System Technologies Inc.
Copyright(c) 2000. All Rights Reserved.

<<<<<----->>>>>


Press any key to continue

User Name: *(default is blank)*

Password: *(default is blank)*

<<<<< Main Menu >>>>>

<<<<<----->>>>>

1. Set IP Address.
2. Set SNMP MIB System.
3. Set SNMP Access Control.
4. Set SNMP Trap Notification.
5. Set UPS Properties.
6. Set UPS Devices Connected.
7. Set System Time & Time Server.
8. Set Web and Telnet User Account.
9. Set E-mail.
- a. Reset Configuration to Default. 
- c. Save & Reboot.
0. Exit Without Saving.

Select =>

APPENDIX -A

TO QUICKLY CONFIGURE MEGATEC NETWORK CARD FOR USE ON LOCAL NETWORK:

(PRE-REQUISITE IS A DHCP SERVER ON THE LOCAL AREA NETWORK.)

1. INSTALL "NETILITY" APPLICATION FROM CD ON TO A LOCAL PC.
2. INSERT MEGATEC CARD INTO UPS.
3. CONNECT PC TO UPS/NetAgent CARD USING AN ETHERNET 'CROSS-OVER' CABLE.
4. DISABLE DHCP ON THE PC'S NETWORK INTERFACE AND CONFIGURE A MANUAL IP ADDRESS ON THE PC INSTEAD.
5. LAUNCH THE NETILITY APP AND LET IT DISCOVER THE UPS/NetAgent CARD.
6. CLICK THE "NETWORK SETTINGS" BUTTON ON THE NETILITY APPLICATION.
7. ON THE IP ADDRESS TAB, CHOOSE "OBTAIN IP ADDRESS BY DHCP".
8. DISCONNECT UPS FROM PC AND CONNECT UPS TO YOUR LOCAL LAN.

THE UPS SHOULD ACQUIRE NETWORK ADDRESS, GATEWAY AND DNS SETTINGS FROM THE DHCP SERVER ON THE LAN.

(ALTERNATIVELY, NETWORK CARD CAN BE CONFIGURED WITH A STATIC ADDRESS THAT IS NOT RESERVED FOR THE LAN'S DHCP POOL.)

THE UPS SHOULD NOW BE REACHABLE USING A WEB BROWSER AND THE IP ADDRESS OF THE NETWORK CARD. (IF DHCP WAS USED TO PROVIDE AN ADDRESS TO THE CARD, USE A PC WITH THE NETILITY PROGRAM ON THE LAN TO AGAIN DISCOVER THE NetAgent CARD AND IT'S NEW IP ADDRESS.)

NOTE: IN ADDITION TO CONFIGURING NETWORK PARAMETERS, THE NETILITY APPLICATION CAN BE USED TO UPDATE THE NetAgent CARD FIRMWARE. THE NEW FIRMWARE PACKAGE MUST FIRST BE DOWNLOADED AND EXTRACTED TO THE LOCAL COMPUTER FROM THE MEGATEC WEBSITE AT:

<http://www.megatec.com.tw/Download.htm#NetAgent>

ONCE THE CARD IS IN OPERATION USE THE NetAgent Help/About page TO CONFIGURE AUTOMATIC FIRMWARE UPDATES.