

## Introduction

The .NETpower Card/Box is primarily used to provide a network management function for the UPS. After plugging it into the UPS, you can manage the UPS remotely via an SNMP NMS (Network Management System) or a web browser. The following sections briefly describe all features of the .NETpower Card/Box. For more detailed information, see the .NETpower Package User's Manual.

## Safety For All Computers On a LAN

Since the UPS can supply power to many computers, it may be necessary to shutdown more than one computer before turning off the UPS. The .NETpower Card/Box will send out a Shutdown signal to any computer on the LAN before shutting down the UPS. Each computer on the LAN that has the OnEvent agent installed will shut down automatically when receiving the Shutdown signal.

## Notifications

When an event such as a power failure or a low battery condition occurs, .NETpower will notify users via the following ways:

- Page the user/s
- Send an e-mail to the user/s
- Send an OnEvent message to the user/s

## Network Management

In general, the network management system consists of two entities:

- The Manager, used to view and control the equipment remotely.
- The Managed equipment, which can be viewed and controlled by the manager system.

Here, .NETpower provides two types of network management: SNMP and Web-Enabled. It allows the user to view UPS status and control the UPS remotely over a LAN or the Internet, regardless of where you are located.

### SNMP

The SNMP (Simple Network Management Protocol) is the most popular way to monitor and manage over a network. Since the .NETpower supports SNMP, any SNMP NMS (Network Management System, i.e., SNMP manger) may be used to retrieve information about the UPS and/or control it.

The following is a list of some popular SNMP NMS's:

- HP OpenView.
- IBM NetView.
- Novell NMS.
- Sun SunNet Manager.

## **Web-Enabled**

Making use of the Internet, .NETpower creates a website for the UPS so that the user can access it via a standard web browser.

## **.NETpower Device Manager**

In addition to SNMP NMS and web browser options, the .NETpower Device Manager for Windows can be used to manage the UPS.

## **Information Management**

.NETpower allows the user to view the information and status of the UPS remotely. It presents the information in graphically in different formats: inside activity, power meters and scope chart.

## **Scheduling**

.NETpower allows the user to set up a schedule for their UPS so that it can shutdown or startup the system or initiate a self-test automatically according to its settings. In addition (on some models), it allows the user to create a setup schedule for each UPS outlet separately.

## **Flexible Event Action**

Actions can be defined for each event. .NETpower will implement a specific action according to user defined settings when an event occurs. The actions include logging, network notification, email, paging, and system shutdown. .NETpower can control the UPS remotely, perform a test, shutdown and restart the system and reset it (cycling the power).

## **Configuring the UPS**

The .NETpower allows you to configure your UPS parameters remotely.

## **Security**

The user can define who has rights to access to the UPS. .NETpower will secure the UPS accordingly.

## **Upgrades**

When a newer version of firmware is available, the existing card can be upgraded.

# Configuration Guide

The .NETpower Card/Box needs to be configured for it to operate properly.

There are two methods of configuring the .NETpower Card/Box: Telnet or terminal.

## Using telnet

1. Make sure the .NETpower Card/Box is plugged into the UPS properly.
2. Connect a network cable to the LAN connector on the .NETpower Card/Box.
3. Telnet to the .NETpower Card/Box as shown below:  
telnet 192.168.1.254
4. Use *dnpower* for the User Name and for the Password.
5. A Configuration Screen is displayed.

Note: The default IP address of the Card is *192.168.1.254*. The default login user name and password are both *dnpower*.

## Using terminal

1. Make sure the .NETpower Card/Box is plugged into the UPS properly.
2. Connect the modem cable to the MODEM connector on the .NETpower Card/Box.
3. Connect a null modem cable to the end of the modem cable.
4. Connect the other end of the null modem cable to a serial port on your computer.

.NETpower <---(MODEM cable)---> <---(null modem cable)---> Computer running a Terminal program

5. Make sure the serial port is not being used by any program on your computer.
6. Run a terminal program, such as HyperTerminal.
7. Configure the serial port for 57600 bps, no parity, 8 data bits, 1 stop bit, and no flow control.
8. Reboot the .NETpower Card/Box.
9. Press ESC key right after reboot. The Card/Box will be detected if the ESC key is pressed for 5 seconds. It will allow the user to log in; otherwise, it will try to initialize the external MODEM for other functions. Press the ESC key as quickly as possible. You can keep holding the ESC without releasing it right after the system is started to make sure it will not be too late.
10. Use *dnpower* for the User Name and Password.
11. A Configuration Screen is displayed.

Note: The default login user name and password are both *dnpower*.

# Configuration Screen

When you enter into the Configuration Screen, the following menu is displayed:

```
.NETpower SNMP agent adapter Configuration

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

1)  SNMP Agent IP Parameter
2)  MIB-II System Group
3)  SNMP read/write Access Control
4)  SNMP Trap Receivers
5)  UPS Properties
6)  System Time & Time Server
7)  User Account
8)  E-mail Setting
9)  Environmental Monitoring Module
w)  Web and Telnet Service Setting
u)  Upgrade firmware
r)  Restore Default Configuration Data
b)  Reboot SNMP agent adapter
s)  Save & Reboot
    Exit Without Saving

Enter Choice >>
```

## SNMP Agent IP Parameter

To configure the SNMP agent IP parameters, enter a 1 at the main menu. The following screen will appear allowing you to configure the IP address, Subnet Mask and Gateway.

```
.NETpower SNMP agent adapter Configuration

          IP Parameter Setup

          My IP Address: 192.168.1.254
          Subnet Mask: 255.255.255.0
Router/Gateway IP Address: 192.168.1.1

1)  Set IP Address
2)  Set Subnet Mask
3)  Set Router/Gateway IP Address
<0> Return to previous menu

Enter Choice >>
```

## MIB-II System Group

Enter a 2 at the main menu and the following screen will be displayed allowing you to configure important MIB-II System Group items, including system name, contact person and system location.

```
.NETpower SNMP agent adapter Configuration
```

```
MIB-II System Group Setup Menu
```

```
Current values for the following MIB-II OID:
```

```
    sysName: NETpower  
    sysContact: admin  
    sysLocation:
```

- 1) Set sysName
- 2) Set sysContact
- 3) Set sysLocation
- <0> Return to previous menu

```
Enter Choice >>
```

## SNMP read/write Access Control

Enter a 3 at the main menu and the following screen will be displayed allowing you to setup SNMP Access Control. Enter the community number (from 1 to 4) to specify a community string, an IP address, and the access privilege.

```
.NETpower SNMP agent adapter Configuration
```

```
SNMP Access Control Setup Menu
```

Community name	IP address	Access
#1		
#2		
#3		
#4		

- 1) Set Access Control #1
- 2) Set Access Control #2
- 3) Set Access Control #3
- 4) Set Access Control #4
- <0> Return to previous menu

```
Enter Choice >>
```

## SNMP Trap Receivers

Enter a 4 at the main menu and the following screen will be displayed allowing you to setup SNMP Trap Receivers. Severity includes "Any", "Server", "Warning" and "Informational". "Any" means any event will be sent to the trap receiver. "Severe" means only severe events will be sent to the trap receiver. "Warning" means only warning events will be sent to the trap receiver. "Informational" means only informational events will be sent to the trap receiver. Generation is used to enable or disable trap generation.

```
.NETpower SNMP agent adapter Configuration
```

```
SNMP Trap Receiver Setup Menu
```

```
IP address      Community      Severity      Generation
#1
#2 192.168.1.2   public        any           disable
#3
#4
```

- 1) Set trap receiver #1
- 2) Set trap receiver #2
- 3) Set trap receiver #3
- 4) Set trap receiver #4
- <0> Return to previous menu

```
Enter Choice >>
```

## UPS Properties

Enter a 5 at the main menu and the following screen will be displayed allowing setup of UPS Properties, including UPS Identification Name, UPS Attached Device and Last Battery Replacement Date.

```
.NETpower SNMP agent adapter Configuration
```

```
UPS Properties Setup
```

```
UPS Identification Name: UPS
UPS Attached Device: NA
Last Battery Replacement Date: 12/31/1969
```

- 1) Set UPS Identification Name
- 2) Set UPS Attached Device
- 3) Set Last Battery Replacement Date
- <0> Return to previous menu

```
Enter Choice >>
```

## System Time & Time Server

Enter a 6 at the main menu and the following screen will be displayed allowing setup of the System Time. In this option, you can set the date and time for the .NETpower Card/Box. The SNTP Server and Time Zone settings are used for time adjustment. Specify the SNTP Server and Time Zone, then choose 4 Adjust System Time to adjust your system time. If the values retrieved from the Internet are not what you want, the date and time can be changed manually .

```
.NETpower SNMP agent adapter Configuration
```

```
System Time & Time Server Setup
```

```
System Time: 01/07/2003 11:08:37  
Time Server IP Address: 200.49.40.1  
Time Zone: +0
```

- 1) Set System Time
  - 2) Set Time Server IP Address
  - 3) Time Zone
  - 4) Adjust System Time
- <0> Return to previous menu

```
Enter Choice >>
```

## User Account

Enter a 7 at the main menu and the following screen will be displayed allowing setup of user accounts determining who can login to the .NETpower Card/Box.

```
.NETpower SNMP agent adapter Configuration
```

```
User Account Setup Menu
```

	User name	Password
#1	dnpower	*****
#2		*****
#3		*****
#4		*****

- 1) Set User Account #1
  - 2) Set User Account #2
  - 3) Set User Account #3
  - 4) Set User Account #4
- <0> Return to previous menu

```
Enter Choice >>
```

## E-mail Setting

Enter an 8 at the main menu and the following screen will be displayed allowing setup of the SMTP server. It requires correct setup so that the .NETpower device can send out e-mail/s when an event occurs.

```
.NETpower SNMP agent adapter Configuration
```

```
Email Parameter Setup
```

```
SMTP Server IP Address:
```

- 1) Set SMTP IP Address
- <0> Return to previous menu

```
Enter Choice >>
```

## Environmental Monitoring Module

Enter a 9 at the main menu to setup the Environmental Monitoring Module. An Environmental Monitoring Module needs to be installed before setup can be implemented.

## Web and Telnet Service Setting

Enter w at the main menu to enable/disable Web/Telnet service. Enable Web Service when you want to monitor the UPS via a web browser. Enable or disable Telnet Service to specify whether it allows users to login via telnet.

```
.NETpower SNMP agent adapter Configuration
```

```
Web and Telnet Service Setup Menu
```

```
Web Service: disable  
Telnet Service: enable
```

- 1) enable Web Service
- 2) disable Telnet Service
- <0> Return to previous menu

```
Enter Choice >>
```

## Upgrade firmware

Enter u at the main menu to upgrade firmware.

```
.NETpower SNMP agent adapter Configuration
```

```
Upgrade firmware
```

```
=====
```

- 1) Upgrade firmware from tftp server
- 2) Upgrade firmware from http server
- <0> Return to previous menu

```
Enter Choice >>
```

When option 1 is selected, the following screen is displayed asking you to input the tftp server and the filename of the latest firmware. For it to function, a tftp server must be installed and the firmware file must be copied to the tftp server.

```
Input the tftp server address >> 192.168.1.1
```

```
Input the file name >> dnpower.bin
```

When option 2 is selected, the following screen is displayed asking you to input the url where the firmware file is located. For it to function, a web server must be installed and the firmware file must be copied to the web server.

```
Input the URL (Example: http://192.168.1.1/dnpower.bin) >>  
http://192.168.1.1/dnpower.bin
```

## Restore Default Configuration Data

To reset the configuration data, enter r at the main menu. When the next menu is displayed, select 1 to reset all values to their factory default settings, or select 0 to return to the previous menu without resetting the data.

```
.NETpower SNMP agent adapter Configuration
```

```
Restore default data  
=====
```

```
1) Yes, Do it  
<0> Return to previous menu
```

```
Enter Choice >>
```

## Reboot SNMP agent adapter

Enter b at the main menu to reboot the .NETpower device. None of the settings will not be saved. When the next menu is displayed, select 1 to reboot the .NETpower device, or select 0 to return to the previous menu.

```
.NETpower SNMP agent adapter Configuration
```

```
Reboot  
=====
```

```
1) Yes, Do it  
<0> Return to previous menu
```

```
Enter Choice >>
```

## Save & Reboot

To save configuration data and reboot, enter s at the main menu. When the next menu is displayed, select 1 to save configuration data and reboot the .NETpower device, or select 0 to return to the previous menu.

```
.NETpower SNMP agent adapter Configuration
```

```
Save & Exit
```

```
=====
```

- 1) Yes, Do it
- <0> Return to previous menu

```
Enter Choice >>
```

## **Exit Without Saving**

Enter x at the main menu to exit the Configuration Screen.

# Hardware Installation

## Installing the .NETpower Card

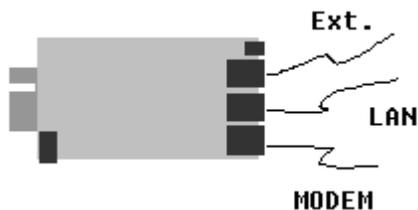
Refer to the UPS User Manual and follow the following steps to install the .NETpower Card:

1. Turn off the equipment connected to the UPS.
2. Disconnect the UPS from its AC power input source.
3. Turn off the UPS.
4. Plug the .NETpower Card into the UPS expansion slot.
5. Connect a network cable to the LAN connector on the .NETpower Card.
6. Connect a MODEM to the MODEM connector on the .NETpower Card, if necessary.
7. Reconnect the UPS to its AC power input source.
8. Turn on the UPS.

After installing the hardware, the .NETpower Card/Box will need to be configured before use.

## Hardware Connections

The following diagram shows hardware connections:



The LAN connector is used to connect to the network.

The MODEM connector has three uses: Console, Paging and PPP server. The console function allows configuration of the Card/Box. The paging function notifies the user of an event via the paging method when an event occurs. The PPP function allows the user to dial in directly from a remote computer. Each time the system is started, it detects if the ESC key has been pressed. If so, it goes to the Console mode; otherwise, it would try to initialize the MODEM by sending out ATZ. Detection takes 5 seconds. Press ESC immediately after the system boots (within 5 seconds) to enter into the CONSOLE mode. Otherwise, it will automatically start all programs and skip the CONSOLE function.

When used in Console mode, the connection method is as shown below:

CARD <---(MODEM cable)---> <---(null modem cable)---> Computer running a Terminal program

When used for paging or PPP server, the connection method is as shown below:

CARD <---(MODEM cable)---> MODEM

The Extension connector is used to connect an external device such as environmental detector.

# Managing the UPS

The .NETpower Card/Box allows remote management of the UPS in the following ways:

- An SNMP NMS (such as HP OpenView)
- A Web Browser
- The .NETpower Device Manager

It allows setting and parameter setup, UPS information views, UPS configuration, UPS schedule setup direct UPS control and analysis of the UPS history and event logs.

## Using an SNMP NMS

Any standard SNMP NMS can be used to access to the .NETpower Card/Box. The following are some major NMS's:

- HP OpenView
- IBM NetView
- Novell NMS
- SUN SunNet Manager

## Adding MIBs

The .NETpower Card/Box supports standard UPS MIB (RFC 1628) and its private UPS extension MIB. These MIB files need to be added to the NMS first. See the NMS user manual for this.

## Accessing the .NETpower Card/Box

Refer to the user manual for detailed information on how to use NMS. The default read/write community name is *public*.

## Using a Web Browser

.NETpower allows users to manage the UPS via a web browser. It provides two options: a graphic interface mode, and a pure HTML mode. The latter supports any standard web browser, but the former supports the following browsers and requires JRE (Java Run Time Environment) 1.3.1 or above:

- Internet Explorer 4.0 or above
- Netscape 6.0 or above
- Mozilla 0.96 or above

## Installing JRE

For Windows and Linux users, a window will popup requesting the download and installation of JRE automatically when web pages are loaded from the .NETpower Card/Box. Follow the on-screen instructions to complete JRE installation. (An internet connection must be available for this).

JRE can also be installed from the CD-ROM that is included with the .NETpower Card/Box, as follows:

1. Insert the .NETpower CD-ROM into the CD-ROM drive.
2. An Install screen will appear. If not, execute autorun.exe from the CD-ROM drive manually.
3. Click on the Installing JRE option.
4. Follow the on-screen instructions.

As an alternative, JRE can be downloaded from SUN Microsystem's web site.

## Loading the Web Pages

Start a web browser and address the .NETpower Card/Box by its IP Address or DNS name (if configured) as shown in the following format examples:

`http://123.123.123.1/`

`http://www.somewhere.com/`

`http://hostname/`

When the following page is displayed, type in the password, then click the Login button to begin management. The default password is *public* but it can be changed at any time.

## Using the .NETpower Device Manager

Windows users can use the .NETpower Device Manager to manage the UPS.

### Installing the .NETpower Device manager

**Note:** A previously installed .NETpower Software Package may contain the .NETpower Device Manager.

Use the following steps to install the .NETpower Device Manager:

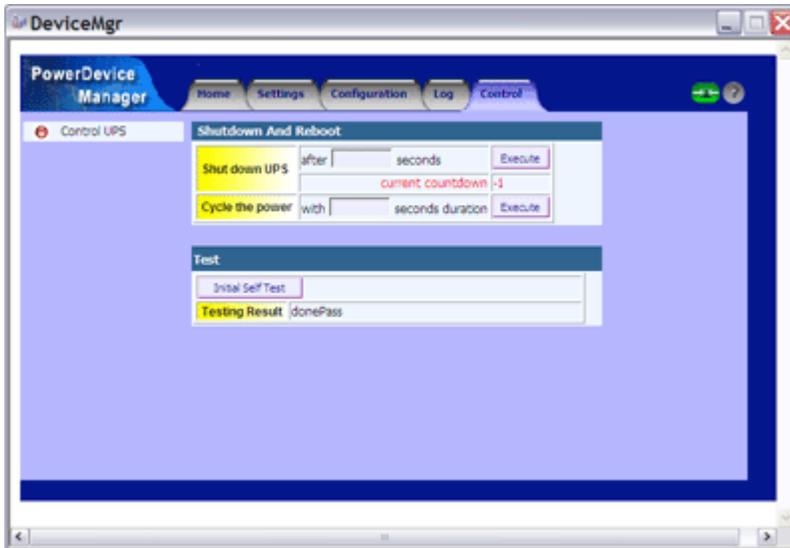
1. Insert the .NETpower CD-ROM into the CD-ROM drive.
2. An Install screen will appear. If not, execute autorun.exe from the CD-ROM drive manually.
3. Click on the Installing .NETpower Device Manager option.
4. Follow the on-screen instructions.

### Starting the .NETpower Device manager

To start it, select the Device Manager option from the .NETpower folder in the Program Files. Enter the

# Controlling The UPS

The .NETpower allows remote control of the UPS. Select the Control option from the management page to implement control options.



## Shutdown And Reboot

Shut down or start up of the UPS may be implemented as follows:

<b>Shut Down UPS</b>	.NETpower will begin the shutdown sequence after the specified number of seconds. Setting it to 0 will cause the shutdown to occur immediately. Setting it to -1 will abort the countdown.
<b>Cycle The Power</b>	.NETpower will begin the shutdown sequence immediately and the UPS will turn back on after the specified number of seconds.

## Testing the UPS

You may activate the Initial Self Test button to test the UPS. The test results will appear in the Testing Result field.

## Installing JRE

For Windows and Linux users, a window will popup requesting the download and installation of JRE automatically when web pages are loaded from the .NETpower Card/Box. Follow the on-screen instructions to complete JRE installation. (An internet connection must be available for this).

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4. Follow the on-screen instructions.

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## Loading the Web Pages

Start a web browser and address the .NETpower Card/Box by its IP Address or DNS name (if configured) as shown in the following format examples:

`http://123.123.123.1/`

`http://www.somewhere.com/`

`http://hostname/`

When the following page is displayed, type in the password, then click the Login button to begin management. The default password is *public* but it can be changed at any time.

## Using the .NETpower Device Manager

Windows users can use the .NETpower Device Manager to manage the UPS.

### Installing the .NETpower Device manager

**Note:** A previously installed .NETpower Software Package may contain the .NETpower Device Manager.

Use the following steps to install the .NETpower Device Manager:

1. Insert the .NETpower CD-ROM into the CD-ROM drive.
2. An Install screen will appear. If not, execute autorun.exe from the CD-ROM drive manually.
3. Click on the Installing .NETpower Device Manager option.
4. Follow the on-screen instructions.

### Starting the .NETpower Device manager

To start it, select the Device Manager option from the .NETpower folder in the Program Files. Enter the hostname and password to begin management. The Host can be an IP address or a hostname that addresses the .NETpower Card/Box. The default password is *public* but it can be changed at any time.

# Scheduling

.NETpower allows the user to setup a schedule for the UPS so that it can perform a self test or turn the system on or off automatically.

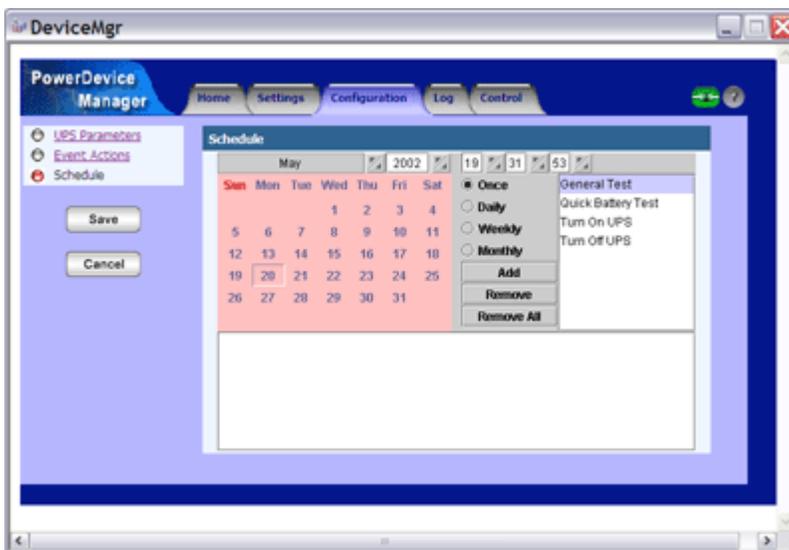
Load the web page or start the Device Manager, choose the Configuration option and then the Schedule option, set up the schedule for the UPS.

To add a schedule item:

- Click on the start date for the schedule.
- Select the occurrence frequency; Once, Daily, Weekly, Monthly.
- Click on an action, such as Turn On UPS or Turn Off UPS.
- Click the 'Add' button.

To remove a schedule item, just select an item from the schedule list and click the 'Remove' button.

Clicking the 'Remove All' button removes all items in the schedule list.



# Notification Feature Setup

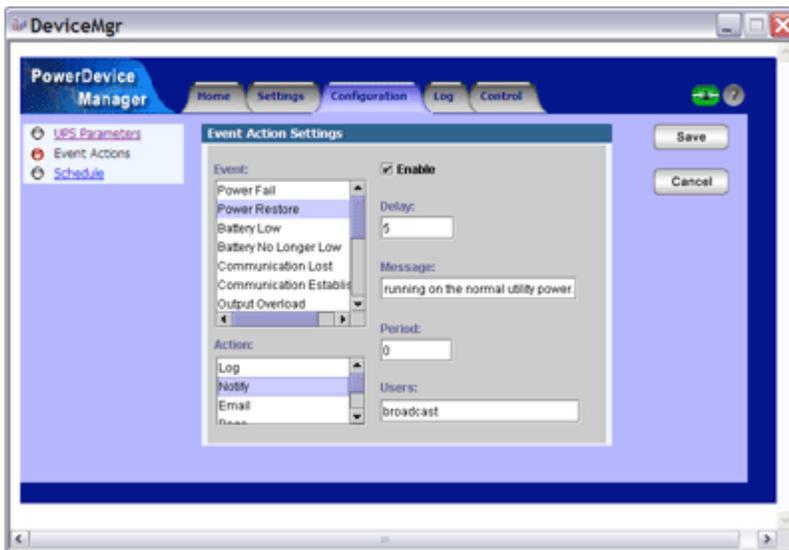
## Notification Methods

When an event such as a power failure or a low battery condition occurs, .NETpower will notify the user/s via the following methods:

- Send network message to user/s
- Page user/s
- Send e-mail to user/s
- Send OnEvent message to user/s

## Configuring Events

After loading the web page or starting the Device Manager, select the Configuration menu, then the Event Actions option, as follows:



First select an Event, then select one of the notification Actions. Check the Enable button and specify the necessary settings depending on notification method.

## Network Message Notification

Perform the following steps to configure Network Message Notification:

1. Click on an event.
2. Click on the Notify action.
3. Check the Enable button and specify the settings accordingly.

Settings include the following:

<b>Enable</b>	This enables or disables Network Message Notification.
<b>Delay</b>	This determines how long the event must last before sending the network message.
<b>Message</b>	<p>This defines the message to be sent as follows:</p> <p>There are two keywords for the event message definition. #HOSTNAME# will be replaced with the actual host computer's name, and #DOWNTIME# will be replaced with the actual countdown timer. For example, if a power failure occurs on a computer whose computer name is "network01", and there is two minutes left until shutdown, the message is shown as: "Power failure, #HOSTNAME# will be down in #DOWNTIME# min!".</p> <p>Since #HOSTNAME# will be replaced with the actual computer name "network01", and the #DOWNTIME# will be replaced with the actual countdown timer, the following will show: "Power failure, NETWORK01 will be down in 2 min!".</p>
<b>Period</b>	This defines how often to send a message during an event. A value of 0 indicates that the message will only be sent once.
<b>Users</b>	<p>This specifies who will receive the message. Setting it to <b>broadcast</b> means all users on the LAN. If the message should be sent to more than one user, add ';' in between each users. Each user can be a host name or an IP address.</p> <p>For example: "personA;123.12.12.3;personX" means that the message will be sent to three computers.</p> <p>This setting is used for OnEvent only. For notification methods other than OnEvent, .NETpower broadcasts to all users on the LAN.</p>

In order to receive a message, the receiver must have at least one of the following software options:

- WinPopup
- OnEvent agent

## Email Notification

Perform the following steps to configure Email Notification:

1. Click on an event.
2. Click on the Email action.
3. Check the Enable button and specify the settings accordingly.

Settings include the following:

<b>Enable</b>	This enables or disables Email Notification.
<b>Delay</b>	This determines how long the event must last before sending the email.
<b>Message</b>	This describes that actual message (the content of the mail) that will be sent. See definition described above.
<b>Users</b>	<p>This specifies who will receive an email message. For more than one user, add ';' between each user. Each user can be a user name, group name, or an email address depending on your e-mail system.</p> <p>For example: "personA;someone@somewhere.com;personX" means that the e-mail will be sent to three users.</p>

## Pager Notification

Perform the following steps to configure Pager Notification:

1. Click on an event.
2. Click on the Page action.
3. Check the Enable button and specify the settings accordingly.

Settings include the following:

<b>Enable</b>	This enables or disables Pager Notification.
<b>Delay</b>	This determines how long the event must last before paging the user/s.
<b>Message</b>	This defines the pager code that will be sent.
<b>Users</b>	<p>This specifies who will receive the page. For more than one user, add ';' in between users. Each user can be a page number.</p> <p>For example: "12345678;23451234;" means page two users.</p>

Note: A standard MODEM must be connected with the MODEM cable that comes with the package.

# Shutdown Feature Setup

## Shutdown Settings

.NETpower will perform a shutdown sequence when the Shutdown button in the Control Menu is clicked or when a particular event occurs and the Event Action setting implements one. The shutdown sequence includes the following steps:

1. Broadcast a shutdown signal over the LAN advising the OnEvent Agent on each computer connected to the LAN to begin a shutdown sequence.
2. Shut down the UPS.

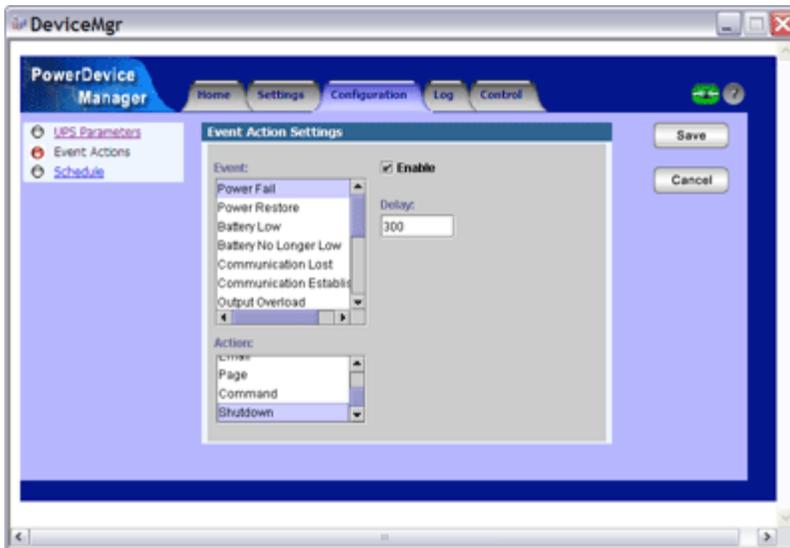
After loading the web page or starting the Device Manager, go to the Settings menu, select Shutdown options, then specify the following settings:

<b>Shut Down UPS Delay</b>	The delay time before shutting down the UPS. Before shutting down the UPS, the .NETpower will send a shutdown signal to all computers running the OnEvent agent over the LAN. This delay time is used for the Dependent Shutdown feature. This delays computers on the LAN to shut down safely.
<b>Shutdown Depend</b>	<p>A list specifying those who should perform a shutdown sequence before the UPS is turned off. .NETpower will send a shutdown signal to each one in the list before shutting down the UPS. Each item can be either a host name or IP address. Each item is delimited by ';'. For example: the following means that host1, 192.168.12.3, and host3 will be shut down dependently.</p> <p style="text-align: center;"><i>host1;192.168.12.3;host3</i></p> <p>See below for more information about Depend Shutdown feature.</p>

## Configuring Events

.NETpower uses an event driven mechanism. The events that will trigger the shutdown procedure can be specified.

After loading the web page or starting the Device Manager, go to the Configuration Menu, select the Event Action option, as follows:



First click on an Event, then click on a shutdown Action. Check the Enable button and specify the Delay time.

For example, to perform a shutdown after 5 minutes in the event of a power failure, do the following:

1. Click on the Power Failure event.
2. Click on the Shutdown action.
3. Check the Enable button and specify the Delay time as 300 seconds.

## Dependent Shutdown

.NETpower has a dependent shutdown feature that can protect every computer on the LAN.

Before shutting down the UPS, .NETpower will broadcast a shutdown signal over the LAN. The OnEvent agent that comes with the software must be installed on those computers requiring a dependent shutdown. When the OnEvent agent receives the shutdown signal sent by .NETpower, it begins an orderly shutdown.

See the top of this page for more information on configuration of this feature.

# OnEvent

## Overview

OnEvent is a new method of message notification. When a power event occurs, a multimedia message box will be displayed on each computer with this module installed. It is also a shutdown agent for the Dependent Shutdown feature; it will shut down the computer system when it receives a shutdown command from the .NETpower Service running on another computer.

## Installing OnEvent

Use the following steps to install .NETpower OnEvent:

1. Insert the .NETpower Management CD-ROM into the CD-ROM drive.
2. If your system supports Auto Run, simply click on the .NETpower OnEvent option on the screen. Otherwise, open the folder related to your operating system under /manager/onevent/ directory, then execute the install.exe or install.bin file. (For example, /manager/onevent/hpux/install.bin is the installation program for HP-UX, and /manager/onevent/ibmos2/install.exe is the installation program for IBM OS/2)
3. Follow the on-screen instructions.

**Note:** For UNIX users, execute the following command to install it in console mode (text mode):

```
sh install.bin -i console
```

After installation, reboot the system to start it (for Windows and OS/2 users). You may need to start it manually or add it to the initial table. See the next section for more detailed information.

## Starting the OnEvent program

The OnEvent program takes two parameters: -s and -d. The -s is used to enable/disable the shutdown feature and the -d specifies the web browser used to display the multimedia messages. For example:

```
onevent -sdisable -dc:\program files\mozilla.org\mozilla\mozilla.exe
```

This disables the shutdown feature (the system will not shut down when it receives a shut down signal and uses mozilla.exe to display multimedia messages.

By default, the shutdown feature is enabled. With regard to the display feature, OnEvent for Windows uses its own display program by default. UNIX, NetWare or OS/2 users have to install a web browser and specify the path using -d option, for this feature.

<b>Windows 95/98</b>	Starts automatically each time system boots. When it starts, an OnEvent icon can be found inside the Windows taskbar. It can be stopped by right clicking on the icon and choosing the Stop the OnEvt Service. It may be started manually by selecting the .NETpower OnEvent from the .NETpower folder in the Program Files.
<b>Windows NT/2000/XP</b>	This is an NT Service program, which starts automatically each time the system boots. When it starts, an OnEvt icon can be found inside the Windows taskbar (except Windows NT 3.51). It can be stopped by stopping the OnEvent from the Services in the Control Panel or right clicking on the icon and choosing the Stop the OnEvt Service. It may be started manually by selecting the .NETpower OnEvent from the Services in the Control Panel.
<b>Linux/UNIX</b>	Does not start automatically each time system boots. To start the service, execute the OnEvent program manually or add it to the initial table. To stop the service, just cancel the process.
<b>Novell NetWare</b>	OnEvent is not available for Novell NetWare servers.
<b>IBM OS/2</b>	Starts automatically each time system boots. To stop the service, click on the OnEvent icon and select the Stop OnEvent Service.

# The UPS History

.NETpower maintains two log files: an event log file and a data log file.

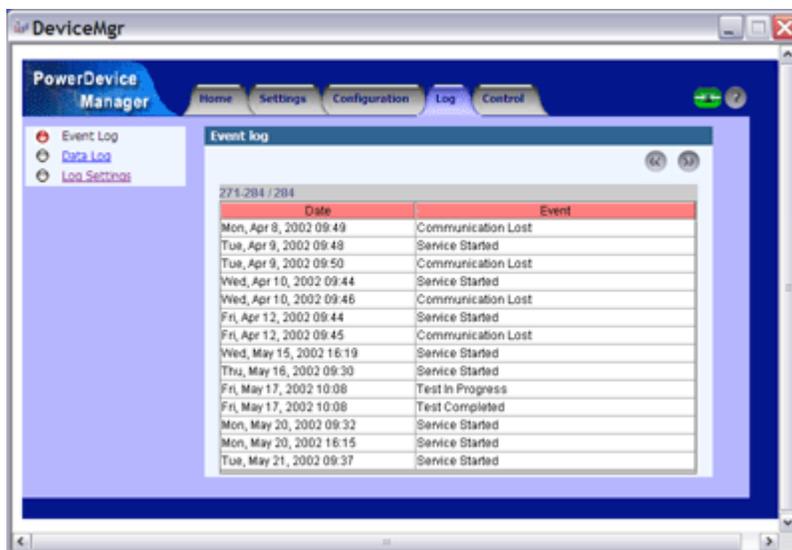
The event log file contains all UPS-related events, including power failures, shut downs, power recoveries, etc. The default filename for the event log file is dnpower.log.

The data log file is a collection of measured UPS parameters and AC power quality, including input and output voltage, battery voltage, temperature, etc. The default filename for the data log file is dnpower.dat.

These two files are ASCII files which can be viewed by any ASCII text editor such as DOS EDIT or Notepad for Windows. Using the management program to view the log files is recommended.

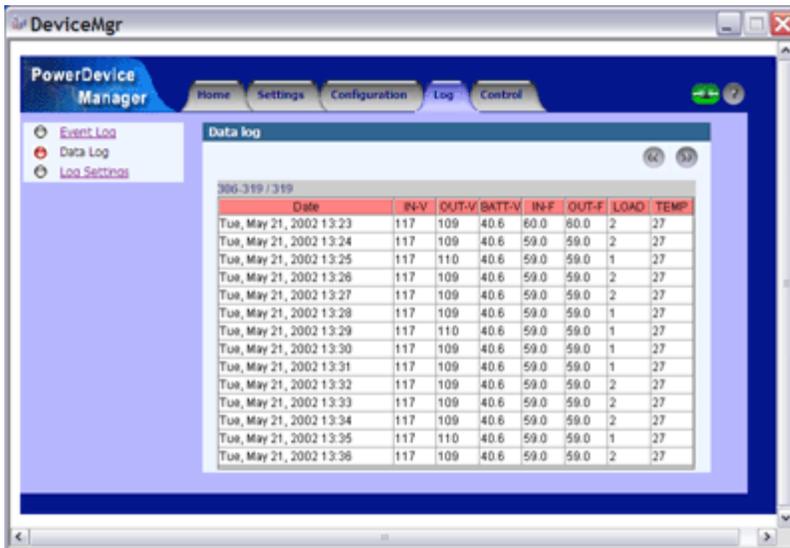
## Viewing the Event Log

Load the web page or start the Device Manager. An event log screen will be displayed when the Event Log option is selected. It contains the date, time, and event description. The top of the list shows the total number of records and the current starting record and ending record contained in the list, in the following format: starting record-ending record/total # of records.



## Viewing the Data Log

Load the web page or start the Device Manager. A data log screen will be displayed when the Data Log option is selected. It contains the date, time, and event description. The top of the list shows the total number of records and the current starting record and ending record contained in the list, in the following format: starting record-ending record/total # of records.



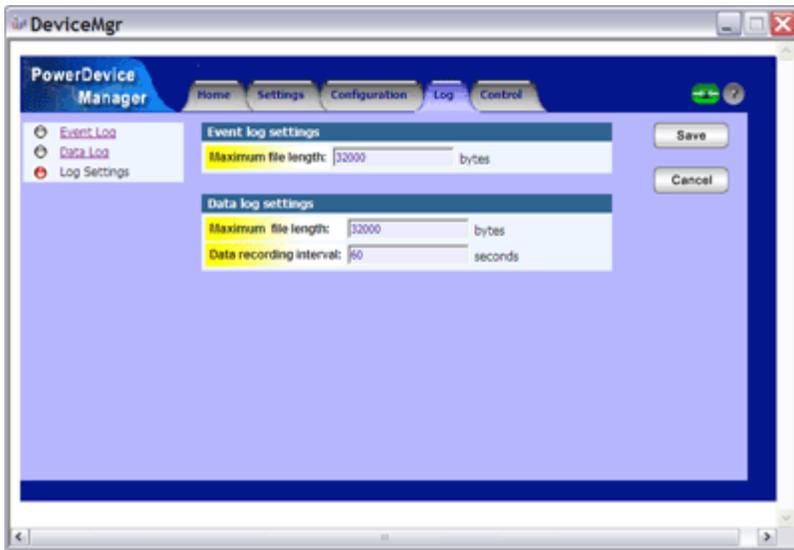
The information displayed includes the following:

<b>Date</b>	The date of the recorded data. The format is month / day / year.
<b>Time</b>	The time of the recorded data in 24 hour format.
<b>In-V</b>	The AC input voltage of the UPS in volts.
<b>Out-V</b>	The AC output voltage of the UPS in volts.
<b>Batt-V</b>	The DC battery voltage of the UPS in volts.
<b>Freq</b>	The output frequency of the UPS in Hz.
<b>Load</b>	The percentage of the UPS's available capacity currently being used.
<b>Temp</b>	The UPS temperature in degrees Celsius.

## Configuring the Logs

After loading the web page or starting the Device Manager, select the Log Settings option to configure the settings. It includes the following items:

<b>Maximum File length</b>	<p>This setting specifies the maximum length (in bytes) of the log file. .NETpower will cut off the first half of the file whenever the file exceeds the maximum length.</p> <p>Range: 1 to 2000 KB</p> <p>Default: 32 K bytes</p>
<b>Data Recording Interval</b>	<p>This setting specifies the number of seconds in between each recording.</p> <p>Range: 0 to 60 minutes (setting it to 0 will disable this function)</p> <p>Default: 60 seconds</p>



# Firmware Upgrade

Take the following steps to upgrade the .NETpower Card/Box firmware:

1. Make sure the hardware is installed and configured properly.
2. Load the upgrade page from the .NETpower Card/Box as shown below:

`http://ip-address/upgrade.htm`

or

`http://host-name/upgrade.htm`

where ip-address or host-name addresses the .NETpower Card/Box.

3. Type in the firmware file name and click the Upgrade button on the page.

After upgrading the firmware, the .NETpower Card/Box will need to be re-configured.