



**User's Manual**for the:Microsoft WindowsMicrosoft Windows for  
WorkgroupsMicrosoft Windows 95Microsoft Windows NTIBM  
OS/2**Operating Systems**



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**Conventions Used In This Guide** This guide uses these type style conventions: *Italic print*, as shown in this example, indicates chapter or section names in this guide, window or dialog box names, or is used for emphasis.

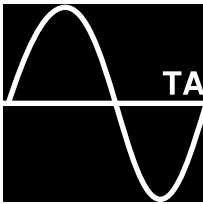
**Bold italic print**, as shown in this example, indicates field names or menu items in the software, or is used for emphasis. Words separated by a | vertical bar indicate a series of menu items that must be selected. For example: ***File|Exit***

**Bold print**, as shown in this example, indicates filenames, directories, or items to be typed exactly as they appear.

*Italic print* words or letters in braces { } indicate values that must be supplied by the user. For example: {drive}:\install

*Italic print* words or letters in brackets < > indicate keys to press. If two keys are separated by a + plus symbol, then the first key should be pressed and held down while pressing the second key. For example: <alt+enter>

**NOTE:** Notes contain important information set off from the text. **Warning:** Warning messages alert you to a specific procedure or practice which, if not followed correctly, could cause serious damage to your equipment or loss of data.



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# 1 INTRODUCTION

Sentry is a UPS power monitoring application for the Windows, Windows 95, Windows NT, and OS/2 operating systems. Sentry monitors the UPS through a cable attached to a serial port on the computer, and the communication interface on the UPS. This cable enables Sentry to check the status of the UPS and to perform a graceful operating system shutdown if required.

Through Sentry's pull-down menus and dialog boxes, you can configure the user interface and shutdown timers, view and print event logs, view and print power history graphs and data logs, and get help on-line.

You can configure Sentry to perform appropriate actions when an event is detected. The user configurable actions include: logging, broadcasting, paging, e-mail (Windows 95 only), command file execution, and operating system shutdown. You can set the delays and intervals of these actions. For example, if utility power fails, you may wish to log the event, broadcast a warning message, page the system administrator, and shutdown the system after a delay.

The monitoring screen displays readings and meters for the UPS. You can configure what values are displayed, and color coded ranges for the values.

You can select UPS readings to log for later viewing. The frequency of data logging is user defined. The event log tracks the history of power and UPS related events. The data log can be viewed, graphed, or printed. The event log can be viewed or printed.

You can schedule actions, such as system shutdown, restart, and self-tests. You can schedule actions recurring one-time, daily, weekly, bi-weekly, or monthly. Some actions may not be available because they are not supported by your UPS model.





**REMEMBER** Don't forget to mail your Sentry registration card, it is your proof-of-purchase.

### **NOTE**

If you have any questions about Sentry or other products from Minuteman, please contact us at:

Para Systems, Inc.  
1455 LeMay Dr.

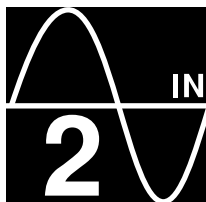
Carrollton, TX 75007  
Phone: (972) 446-7363

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QuickFax Info System: 1-800-263-3933

Internet: [www.minuteman-ups.com](http://www.minuteman-ups.com)

For Technical Support, see the section titled,  
***Placing a Technical Support Call.***



## **INSTALLATION & CONFIGURATION**



## System Requirements

1. To use Sentry, your system must be running one of the following operating systems:
  - Microsoft Windows 3.1+
  - Microsoft Windows for Workgroups 3.1+
  - Microsoft Windows 95
  - Microsoft Windows NT (Intel) v3.51+
  - Microsoft Windows NT (Alpha) v3.51+
  - IBM OS/2 v3.0
2. Sentry requires one dedicated RS-232 serial port on your computer, for communications with a UPS.

## Installing the UPS Interface Cable

Before you attach the cable to the UPS or computer, please perform the following steps:

1. Shutdown and turn off your computer.
2. Locate the UPS interface cable that was provided in the Sentry kit, or with your UPS.

Install the UPS interface cable by performing the following steps:

1. Identify the computer end of the cable. The computer end of the cable will have a part # label attached.
2. Plug the connector at the computer end of the cable into any dedicated serial communications port on your computer. If this end of the cable does not match your serial port connector, use an RS-232 adapter.
3. Plug the connector at the other end of the cable into the interface port on the UPS. (Refer to your UPS user's manual for help in locating the interface port.)
4. Restart your UPS and computer.



**NOTE: If you press Cancel during Sentry installation, you stop the installation program.**

**WINDOWS & WINDOWS FOR WORKGROUPS** Run **install.exe** from the diskette. Select the install destination drive and directory. During the installation process, an icon is placed in the **Sentry** group folder. **WINDOWS 95**

You can install the program by using one of the following methods:

- Run **setup.exe** from the diskette.
- Run the *Add/Remove Programs* application from the *Control Panel* folder.

The *Setup Wizard* will guide you through the installation. Select the install destination drive and directory and type of install. There are three types of installations:

**Typical** - Install all files from the diskette.

**Compact** - Install only the files required for operation.

**Custom** - You choose what files are installed.

During the installation process, an icon is placed in the **Programs** folder on the **Start** menu.

## **WINDOWS NT**

The Windows NT version of Sentry allows monitoring of local and remote servers and workstations in a workgroup or domain. For this reason, the user can install the UPS monitoring service and viewer locally or just the viewing client.

In a workgroup setting, each machine that is to be monitored must have an identical user account and password.

Run **install.exe** from the diskette. Select the Client and Server option to install both the UPS monitoring service and the viewing client on the local machine. Select the Client Software option to just install the viewing client. Select the install destination drive and directory. During the installation process, an icon is placed in the **Sentry** group folder.

## OS/2

Run **install.exe** from the diskette. Select the install destination drive and directory. During the installation process, an icon is placed in the **Sentry** group folder.

When installation is complete, remove your Sentry diskette and store it in a safe place.

**Starting the Sentry Client** To start the Windows NT Sentry Client, double-click the *Sentry* icon in the *Program Manager*. Double-click on a server name in the **Select Server** window.

The next time the Sentry Client is started, it will automatically try to connect to the last server that was being monitored. If that server is no longer available, the **Select Server** dialog will be displayed.

**Configuring the Software** To start Sentry, click on the Sentry icon. The *UPS Configuration* window is displayed. Use this window to setup the software for UPS monitoring.

The screenshot shows the 'UPS Configuration' dialog box. It is organized into three main sections. The first section, 'UPS', contains two dropdown menus: 'Manufacturer' set to 'Minuteman XRT Series' and 'Model' set to 'XRT600'. The second section, 'Communications Options', contains 'COM Port' set to 'COM2' and 'Baud Rate' set to '2400'. The third section, 'Software Options', contains a 'Language' dropdown set to 'English' and two radio buttons for 'Date Format': 'mm/dd/yyyy' (which is selected) and 'dd-mm-yyyy'. At the bottom of the dialog are three buttons: 'Additional...', 'Save', and 'Cancel'.

Select **Minuteman** from the **Manufacturers** drop-down list box or the manufacturer that matches your UPS. Next, select your UPS model from the **Model** drop-down list box. Next, choose the **COM Port** to which the UPS interface cable is attached. If your UPS supports more than one baud rate setting, select one from the **Baud Rate** drop-down list box, and



set the baud rate on the UPS. See your UPS user's manual for details concerning baud rate configuration.

Select the Language that will be used to display menu items, field names, and UPS variables. Also, select the format that will be used to display dates.

Some UPS models may require you to configure **Additional...** items. If the **Additional...** command button is available, press it to open a configuration window.

When you finish configuring UPS communications, language, and date display, press **Save** to record the values and begin monitoring. If you would like to abandon all of the changes you made, and exit Sentry press **Cancel**.

**Automatic Protection**To ensure data and file protection from the moment you power up your system, start Sentry automatically.

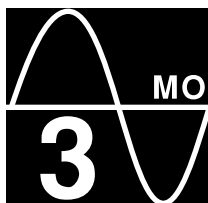
#### **WINDOWS & WINDOWS FOR WORKGROUPS**

Drag a copy of the *Sentry* icon to the *Startup* group folder.

**WINDOWS 95**Sentry will automatically start.

**WINDOWS NT**Sentry will automatically start. See the section titled *The Sentry NT Service* for **Startup...** options.

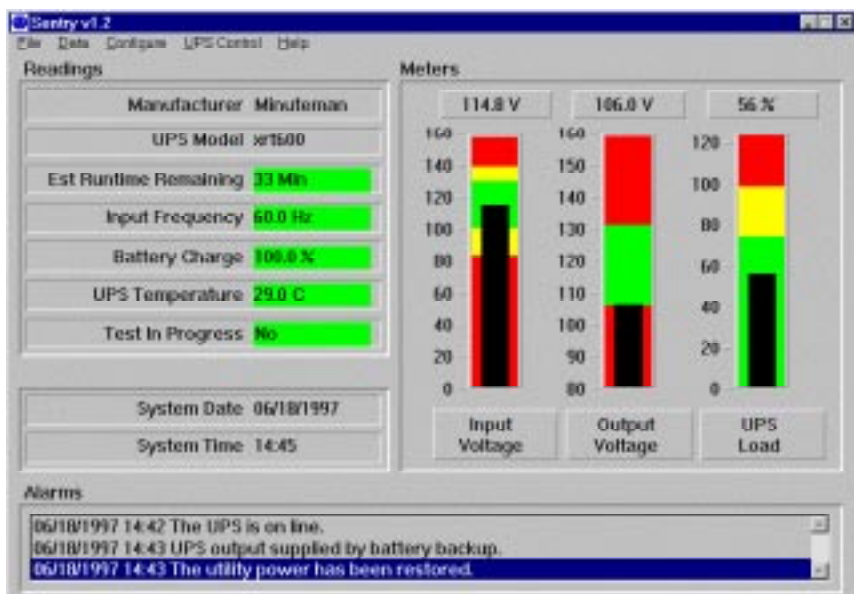
**OS/2**Sentry will automatically start. A shadow of the *Sentry* icon is added to the *Startup* folder.



## MONITORING CENTER CONFIGURATION

The monitoring center window provides you with a view of current UPS values. The monitoring center window displays each time Sentry is started. The reading values and meter graphs are fully configurable and can display any values provided by the UPS.

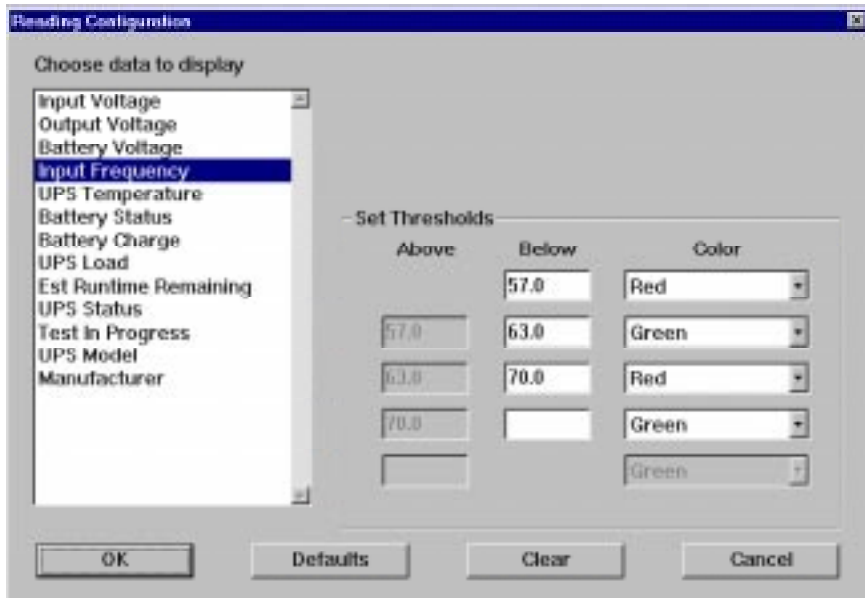
If you would like to see other values in the window, changing them is easy. Configuration is as easy as point and click. You can use color codes to warn when values are out of an acceptable range. Configuration is explained in the following sections.



The **Alarm** box notifies you of software and UPS events.

## Readings

The **Readings** group allows you to display seven values from the complete list of UPS values. If you would like to change a reading or the properties of a reading, just point to the reading and click. The *Reading Configuration* window displays.



Pick a value from the **Choose Data to Display** list box. The values available will vary depending on the model of UPS. Set the thresholds and assign colors to the ranges. When the value is displayed in the **Readings** box, the background color will reflect the color of the range. If you also display the value as a meter, the same thresholds are used.

When you finish configuring the reading, press **OK**. If you wish to clear the thresholds, press **Clear**. If you would like to reset the thresholds to their default values, press **Defaults**. If you would like to abandon all of the changes you made, and close the *Reading Configuration* window, press **Cancel**.

## Meters



The **Meters** group allows you to graph three values from a list of UPS values. If you would like to change a meter or the properties of a meter, just point to the meter and click. The *Meter Configuration* window displays.

Choose data to display		Set Scale		Set Thresholds		
Input Voltage		Min	Max	Above	Below	Color
Output Voltage		0	160		84.0	Red
Battery Voltage				84.0	102.0	Yellow
Input Frequency				102.0	132.0	Green
UPS Temperature				132.0	142.0	Yellow
Battery Charge				142.0		Red
UPS Load						
Est Runtime Remaining						

OK Defaults Clear Cancel

Pick a value from the **Choose Data to Display** list box. The values available will vary depending on the model of UPS. This list may be different from the readings list, since some values cannot be displayed in a meter format.

Set the maximum and minimum values for the scale of the graph. Set the thresholds and assign colors to the ranges. When the graph is displayed, the background colors will reflect the thresholds. If you also display the value as a reading, the same thresholds are used.

When you finish configuring the meter, press **O**. If you wish to clear the thresholds, press **Clear**. If you would like to reset the thresholds to their suggested values, press **Defaults**. If you would like to abandon all changes and close the Meter Configuration window, press **Cancel**.

## Changing Servers





To monitor the UPS attached to another Windows NT server or workstation, choose **Remote/Select Server** from the menu bar. The *Select Server* window will display.

Double-click on the server name. To rescan the list of Windows NT servers and workstations running Sentry, press **Refresh**.

**Exiting Sentry** If you choose **File / Exit**, the monitoring center will close. If your system is running Windows NT or OS/2, UPS monitoring continues. If you are using Windows, Windows for Workgroups, or Windows 95, UPS monitoring is terminated.

To terminate UPS monitoring for Windows NT or OS/2, you must stop the service. See *The Sentry NT Service* for more information on using the service. For OS/2, close the Sentry Service application.

# 4 EVENT CONFIGURATION

Sentry offers you complete control over UPS system events. The number of events available varies for different UPSs. The actions include: operating system and UPS **Shutdowns**, event **Logging**, message **Broadcasting**, administrator **Paging**, sending **Email** messages, and executing **Commands**. To begin event action configuration, select **Configure/Action....**

The *Event Action* window provides you with a list of events. Select an event from the **Choose Event** list box. You can choose any combination of actions for the event by pressing the action command buttons. Actions already enabled have a check mark below the name of the action on the command button. You can also check **Popup Main Screen** to display the monitoring center window when an event occurs.

**Event Action Configuration**

**Choose Event**

- Low Battery
- UPS Batteries No Longer Low
- UPS On Battery
- Utility Power Restored
- UPS General Fault
- UPS General Fault Cleared
- Output Overload

**Description**

The UPS batteries are low.

**Configure**

Shutdowns ✓	Logging ✓	Broadcasting ✓
Paging ✗	Email ✗	Commands ✗

☒ Popup Main Screen    User Events...    Exit



In addition to the pre-defined events, you can create your own events. Press the **User Events...** command button to display the *Configure User-Defined Events* window.

## User-Defined Event Configuration

User-defined events are based on UPS values. You can configure a value or range of values to define an event, then use the event to trigger actions.

Select a UPS value on which your event will be based. Next, select the criteria that defines when the event occurs. You can use the and or the or check box to combine comparisons of different UPS values to define an event. You can also use the and check box to define a finite range of values for the event.

Give the event a descriptive name and provide an explanation for the event in the description field. The **Event Type** is used to group events in the event log viewer. After you assign an **Event Type**, click the **Add** command button to add the event to the list of **Currently Defined Events**.

If you wish to delete an event, click on the event in the **Currently Defined Events** list box and press **Delete**.



When you are finished adding and deleting events, press the **Exit** command button to close the *Configure User-Defined Events* window.

## Event Action Configuration

Select an event from the **Choose Event** list box. The actions include: operating system and UPS **Shutdowns**, event **Logging**, message **Broadcasting**, administrator **Paging**, sending **Email** messages, and executing **Commands**.

**SHUTDOWNS** If you haven't already selected **Configure|Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Shutdowns** command button to display the *Shutdown Configuration* window. If you select one of the shutdown enabled check boxes, then a check mark will appear on the **Shutdowns** command button.

**Shutdown Configuration**

Event: UPS on battery

☒ OS Shutdown Enabled  
Delay 300 seconds

☒ UPS Shutdown Enabled  
Delay 360 seconds

☐ UPS Autorestart Enabled

OK Defaults Cancel

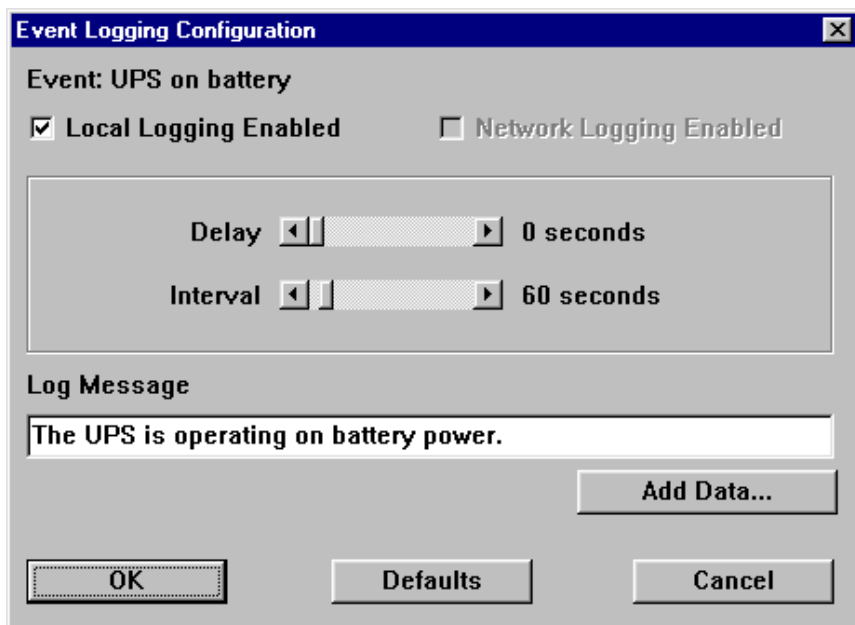
If the event warrants shutting down the system, then select **OS Shutdown Enabled**, and configure a **Delay**. The delay starts when the event is detected. Next, you may wish to turn UPS output power off. If so, select **UPS Shutdown Enabled** and configure a **Delay**. The delay starts when the event is detected.

**WARNING: Shutting down the UPS without first shutting down the operating system could result in loss of data. Always add enough time for the operating system to shut down before shutting down the UPS output.**

If you would like to automatically restart the UPS after it shuts down due to a utility power failure, select **UPS Autorestart Enabled**. Support for UPS shutdown and autorestart varies by model.

When you are finished configuring **Shutdowns**, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

**LOGGING** If you haven't already selected **Configure|Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Logging** command button to display the *Event Logging Configuration* window. If you select the **Local Logging Enabled** or **Network Logging Enabled** check box, then a check mark will appear on the **Logging** command button.



The image shows a Windows-style dialog box titled "Event Logging Configuration". It has a blue title bar with a close button (X) in the top right corner. The main content area is light gray. At the top, it says "Event: UPS on battery". Below this are two checkboxes: "Local Logging Enabled" (which is checked) and "Network Logging Enabled" (which is unchecked). In the center, there are two horizontal sliders. The first is labeled "Delay" and is set to "0 seconds". The second is labeled "Interval" and is set to "60 seconds". Below the sliders is a section titled "Log Message" with a text box containing the message "The UPS is operating on battery power." To the right of the text box is a button labeled "Add Data...". At the bottom of the dialog are three buttons: "OK", "Defaults", and "Cancel".

The local event log records events associated with this system. The Network Alert log records events for all systems in the local domain or workgroup. The Network Alert log is configured by selecting **Configure|Logging**.

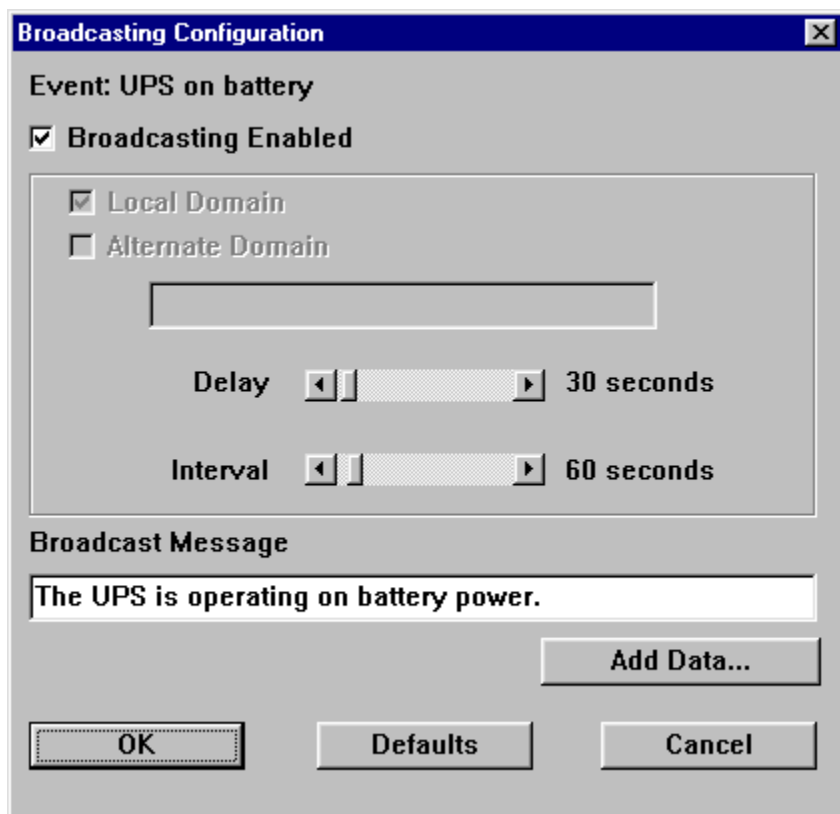


If you want to avoid logging messages for events that last a short duration, set a **Delay**. If you want the event log to show one message per event occurrence, then set the logging **Interval** to **0**. If you want to repeat logging for events that last longer, then set the logging **Interval** to the desired time.

Enter the text of the **Log Message**. In some cases, you may wish to add a current data value to the message text. Press the **Add Data...** command button to display a list of UPS values from which to choose. For example, if the UPS is on battery power, you may want to log the current input voltage value. The available UPS values depend on the UPS model.

When you are finished configuring **Logging**, press the OK command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

**BROADCASTING** If you haven't already selected **Configure/Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Broadcasting** command button to display the *Broadcasting Configuration* window. If you select the **Broadcasting Enabled** check box, then a check mark will appear on the **Broadcasting** command button.



The image shows a 'Broadcasting Configuration' dialog box. At the top, it says 'Event: UPS on battery'. Below this is a checked checkbox for 'Broadcasting Enabled'. Underneath is a group box containing two checkboxes: 'Local Domain' (checked) and 'Alternate Domain' (unchecked). Below these is an empty text input field. Further down are two sliders: 'Delay' set to '30 seconds' and 'Interval' set to '60 seconds'. At the bottom is a text field containing 'The UPS is operating on battery power.' To the right of this field is an 'Add Data...' button. At the very bottom are three buttons: 'OK', 'Defaults', and 'Cancel'.

For Windows NT or OS/2, you can notify users on the **Local Domain**, and/or notify users on an **Alternate Domain** (not available for Windows or Windows 95). All broadcast messages also appear in the alarm box at the bottom of the main window. If you want to avoid broadcasting messages for events that last a short duration, set a **Delay**. If you want to notify users one time, set the broadcast **Interval** to **0**. If you want the users to be notified at regular intervals, then set the broadcast **Interval** to the desired time.

Enter the text of the **Broadcast Message**. In some cases, you may wish to add a data value to the message text. Press the **Add Data...**



command button to display a list of UPS values to choose from. The available UPS values depend on the UPS model.

When you are finished configuring **Broadcasting**, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

**PAGING**If you haven't already selected **Configure|Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Paging** command button to display the *Paging Configuration* window. If you select the **Paging Enabled** check box, then a check mark will appear on the **Paging** command button.

**Paging Configuration**

Event: UPS On Battery

☐ Paging Enabled

Delay 60 seconds

Interval 60 seconds

Configure Modem...

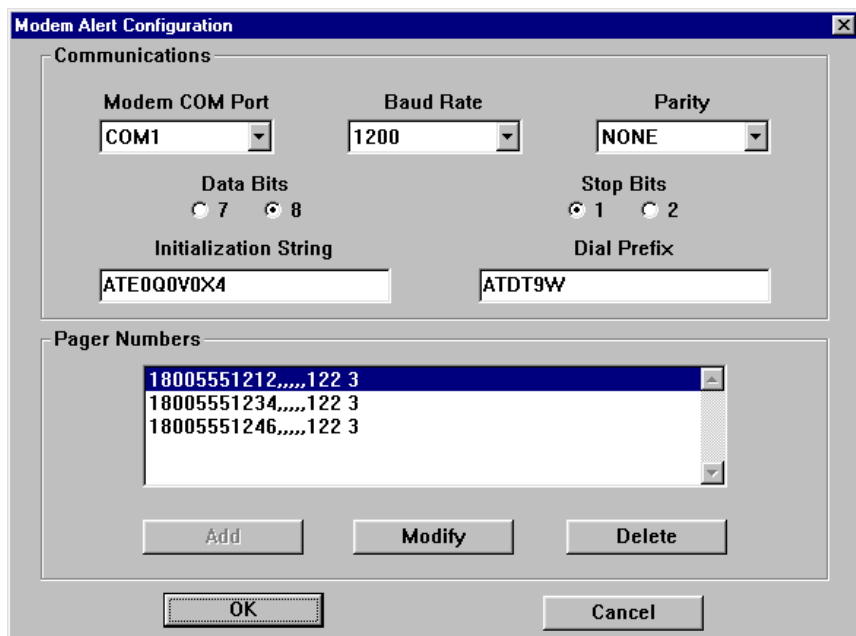
OK Defaults Cancel

If you want to avoid paging the administrator for events that last a short duration, set a **Delay**. If you want to page one time per event occurrence, then set the paging **Interval** to **0**. If you want to repeat paging for events that last longer, then set the paging **Interval** to the desired time

Press **Configure Modem...** to display the *Modem Alert Configuration* window. The modem configuration can also be displayed by choosing the **Configure|Modem...** menu option.



To configure the modem, select the **Modem COM port**, **Baud Rate**, **Parity**, **Data Bits**, and **Stop Bits**. The **Initialization String** is sent to the modem before paging is attempted. The **Dial Prefix** is added to the beginning of each of the **Pager Numbers** before they are sent to the modem.



The image shows a 'Modem Alert Configuration' dialog box with a blue title bar and a close button. It is divided into two main sections: 'Communications' and 'Pager Numbers'.

**Communications Section:**

- Modem COM Port:** A dropdown menu showing 'COM1'.
- Baud Rate:** A dropdown menu showing '1200'.
- Parity:** A dropdown menu showing 'NONE'.
- Data Bits:** Radio buttons for '7' and '8', with '8' selected.
- Stop Bits:** Radio buttons for '1' and '2', with '1' selected.
- Initialization String:** A text field containing 'ATE0Q0V0X4'.
- Dial Prefix:** A text field containing 'ATDT9W'.

**Pager Numbers Section:**

- A list box containing three entries: '18005551212,,,,,122 3', '18005551234,,,,,122 3', and '18005551246,,,,,122 3'. The first entry is highlighted in blue.
- Below the list box are three buttons: 'Add', 'Modify', and 'Delete'.

At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

The **Initialization String** allows you to configure the modem to return result codes. The result codes allow Sentry to determine the status of the page. The default string is ATE0Q0V0X4. The meanings of the codes follow:

**AT** Attention code

**E0** Turns echo off so commands are not echoed back to the computer    **Q0** Enables result code return to the computer    **V0**

Enables numeric result codes which allows Sentry to determine the page status    **X4** Enables all of the numeric result codes which allows Sentry to

determine dial tone, busy signal, and answer status. See your modem user's manual for more information on modem commands. The

**Dial Prefix** should begin with **AT**, and include any Hayes commands required to acquire a line and begin dialing the telephone number of the paging service. The default prefix is ATDT.

The **Pager Numbers** should include the telephone number for the paging service, and any required pauses and commands to complete the page. Up to three **Pager Numbers** may be configured for all events.

To configure a pager number, press the **Add** command button. To modify an existing pager number, click on the number and press **Modify**. To delete a pager number from the list, click on the number and press **Delete**.

When you are finished with *Modem Alert Configuration*, press the **OK** command button. If you want to abandon changes, then press **Cancel**.

### COMMON MODEM COMMANDS

Command	Description
<b>DT</b>	Dial the following number using Tone dialing.
<b>DP</b>	Dial the following number using Pulse dialing.
<b>W</b>	Wait for Dial tone. It is most often used to wait for the dial tone of an outside telephone line before processing the rest of the dial string. The amount of time to wait is set in the S-Registers of the modem. (S7)
<b>,</b>	A comma, placed anywhere in the dial string, tells the modem to pause before processing the rest of the string. The amount of time to pause is set in the S-Registers of the modem. (S8)
<b>\$</b>	Wait for Bong. It is most often used for calling card calls, but may be used by a paging service.

See your modem user's manual for a complete list of dial modifiers. **Paging Example:** XYZ company has 20 systems running Sentry in one building. You are configuring Sentry for the third of five systems located in room 122 of the building. To acquire an outside telephone line from your phone system, you must dial 9 and wait for the dial tone. The telephone number for the paging service is **1 800 555 1212**.

The **Dial Prefix** would be: **ATDT 9 W**

If it took the paging service approximately ten seconds to answer and get ready to accept the paging information, then the paging number would be: **18005551212,,,,,122 3**

When you put the **Dial Prefix** and the **Paging Numbers** together, you create a complete dial string:

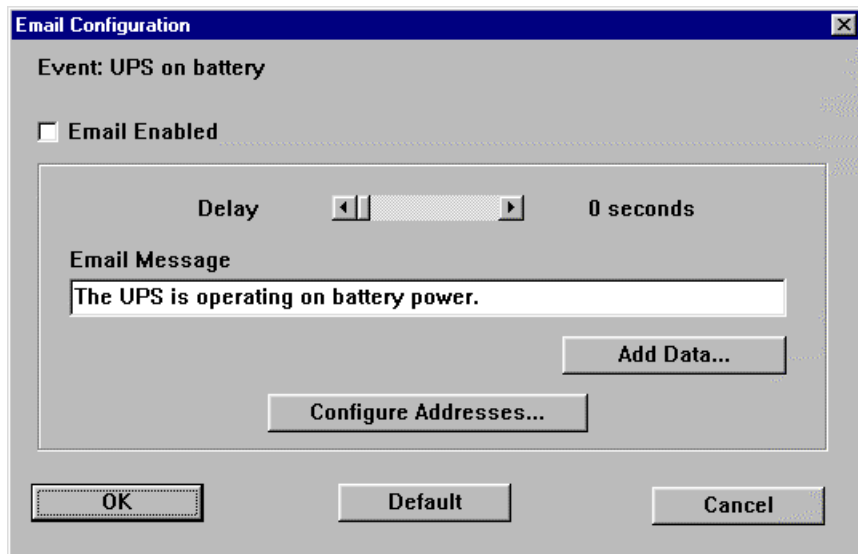
**ATDT 9 W 18005551212,,,,,122 3**

ATDT 9 W causes the modem to dial 9 and wait for the dial tone of an outside line. 18005551212 is the phone number of the pager. “,,,,,” causes the modem to wait for approx. 10 seconds. 1223 (122-room, 3-computer) is dialed next, and will be displayed on the pager to identify the computer system that is currently reporting the event.

Dial your pager service to determine what you need to do to configure paging. Your paging service may vary from the example.

When you are finished configuring **Paging**, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

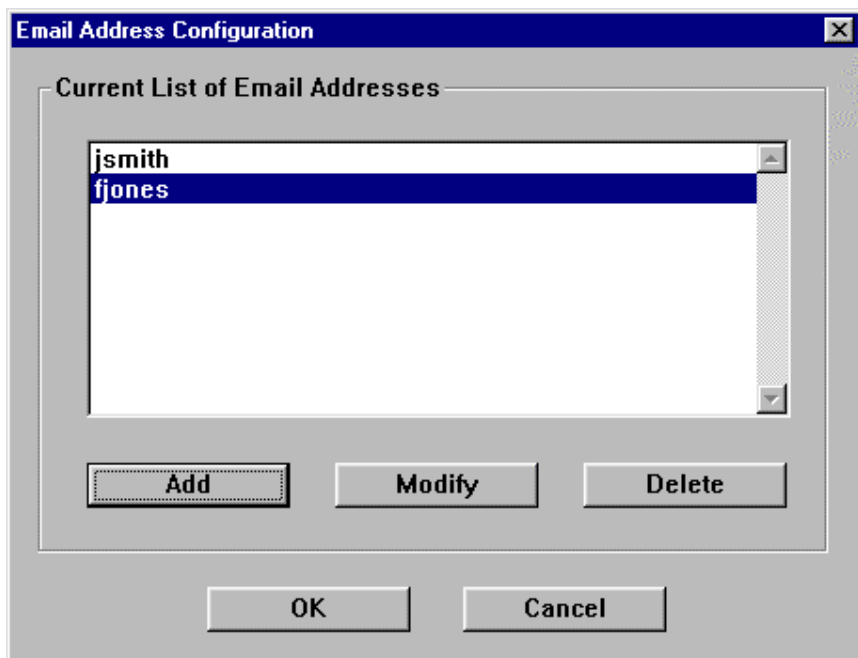
**EMAIL** Email is only available for Windows 95 using Microsoft Exchange. If you haven't already selected **Configure|Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Email** command button to display the *Email Configuration* window. If you select the **Email Enabled** check box, then a check mark will appear on the **Email** command button.



The image shows a Windows-style dialog box titled "Email Configuration". At the top, it says "Event: UPS on battery". Below this is a checkbox labeled "Email Enabled" which is currently unchecked. Underneath the checkbox is a section containing a "Delay" slider set to "0 seconds", a text field for "Email Message" containing the text "The UPS is operating on battery power.", and two buttons: "Add Data..." and "Configure Addresses...". At the bottom of the dialog are three buttons: "OK", "Default", and "Cancel".

If you want to avoid sending Email for events that last a short duration, set a **Delay**. Enter the text of the **Email Message**. In some cases, you may wish to add a data value to the message text. Press the **Add Data...** command button to display a list of UPS values to choose from. The available UPS values depend on the UPS model.

Press **Configure Addresses...** to display the *Email Address Configuration* window. The Email configuration can also be displayed by choosing the **Configure|Email...** menu option.



To configure Email addresses, press the **Add** command button. To modify an existing Email address, click on the address and press **Modify**. To delete an address from the **Current List of Email Addresses**, click on the address and press **Delete**. Up to five addresses may be configured for all events.

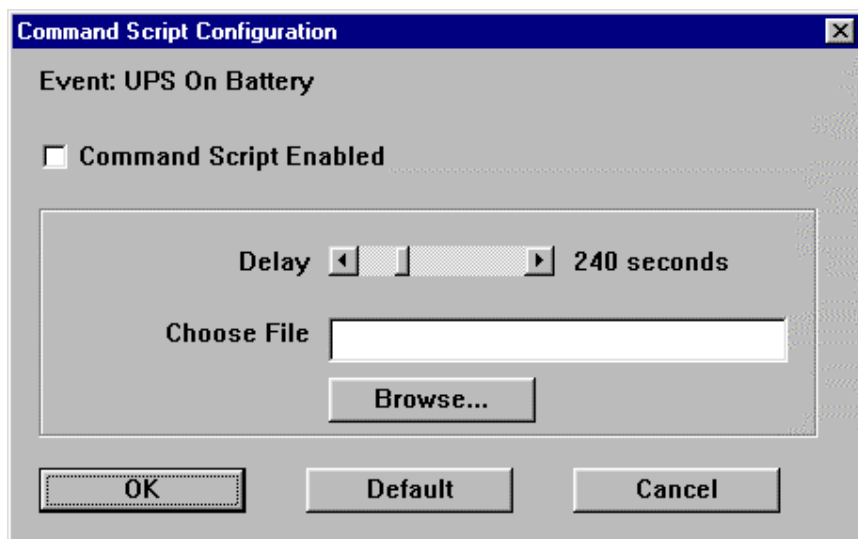
When you are finished with configuring the Email addresses, press the **OK** command button. If you want to abandon changes, then press **Cancel**.

When you are finished configuring **Email**, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

Be sure to configure a default Microsoft Exchange profile before using Sentry. Make sure that your profile contains all mail systems (Microsoft Mail, Internet Mail, ...) that you will be addressing Email to.

## COMMANDS

If you haven't already selected **Configure|Action...** from the main menu bar, please select it now. In the *Event Action Configuration* window, press the **Commands** command button to display the *Command Script Configuration* window. If you select the **Command Script Enabled** check box, then a check mark will appear on the **Commands** command button.



The image shows a Windows-style dialog box titled "Command Script Configuration". At the top, it says "Event: UPS On Battery". Below this is a checkbox labeled "Command Script Enabled" which is currently unchecked. In the center, there is a "Delay" section with a slider control set to "240 seconds". Below the slider is a "Choose File" label followed by a text input box. Underneath the text box is a "Browse..." button. At the bottom of the dialog are three buttons: "OK", "Default", and "Cancel".

If you want to avoid command execution for events that last a short duration, set a **Delay**. Enter a command file name in the **Choose File** box. You can use the **Browse...** command button to search for the file and place the name in the **Choose File** box. Choose programs or batch files to perform actions when the event occurs.

When you are finished configuring **Commands**, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

# DATA & EVENT LOGGING

## 5

Data and Event logs are available for you to track power events and trends. You can view data in text and graphical form. You can view events in text form. You can print both data and event files.

**Logging Configuration** Before Sentry begins data logging, you must configure what data is logged. For convenience, you can also configure the event log from the same window. To display the *Logging Configuration* window, select the **Configure|Logging...** menu option.

**Logging Configuration**

**Data Logging**

☒ Data Logging Enabled Select Data...

Logging Interval 2 minutes

Maximum Records 1000 records

**Event Logging**

Maximum Records 500 records

Network Alert Server

OK Defaults Cancel

To enable data logging, select the **Data Logging Enabled** check box. Press the **Select Data...** command button to choose a list of UPS values to log. Set the data **Logging Interval** and the **Maximum Records** for the log file. When the data log fills, the current data log, **data.dat**, is moved to **dataold.dat**. The **data.dat** file is reset, and logging continues. Set the **Maximum Records** for the local event log. When the event log fills, the current event log, **event.log**, is moved to **eventold.log**. The **event.log** file is reset, and logging continues.

The **Network Alert Server** records events for systems across the network. If you plan to log events to a central network alert server, enter the system name of the **Network Alert Server**. The Network Alert log is named **netevent.log**.

When you are finished with *Logging Configuration*, press the **OK** command button. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel**.

**NETWORK ALERT SERVER CONFIGURATION**In order to log events in a network alert log, you must share the network alert server directory that contains the network alert log.

**Windows**Network Alert Server event logging is not available for Microsoft Windows.

**Windows for Workgroups**Choose or create a directory to store the network alert log. Using the *File Manager*, highlight the directory and choose **Disk|Share As....** The **Share Name** must be **Sentry** Check the **Re-share at Startup** box, and set the **Access Type** to **Full**. Do **NOT** set a **Full Access Password**. All Windows for Workgroups, Windows 95, and Windows NT systems can use this directory for the Network Alert Log.

**Windows 95**Choose or create a directory to store the network alert log. Using *Windows Explorer* or *My Computer*, highlight the directory and choose **File|Sharing** (or **File|Properties** and select the **Sharing** tab). The **Share Name** must be **Sentry**. Check the **Re-share at Startup** box, and set the **Access Type** to **Full**. Do **NOT** set a **Full Access Password**. All Windows for Workgroups, Windows 95, and Windows NT systems can use this directory for the Network Alert Log.

**Windows NT**Chose or create a directory to store the network alert log. Using the *File Manager*, highlight the directory and choose **Disk|Share As....** The **Share Name** must be **SENTRY**. Set the **User Limit** to **Maximum Allowed**. Press the **Permissions...** button to grant access to the shared directory. Set the Name of the access group, which is defaulted to **Everyone**. Set the **Type of Access** to **Full Control**. If the shared directory is on an TNTFS permissions set on the directory itself. To set NTFS permissions, choose **Security|Permissions...** from the File Manager menu bar. All Windows for Workgroups, Windows 95, and Windows NT systems can use this directory for the network alert log, provided that access has been granted to the user account.

For each NT system that will access this directory, you must configure the Sentry service to run under a user account. If Sentry is running in a



workgroup setting, setup a user account for Sentry on the Network Alert Server. If Sentry is running in a domain setting, setup a domain user account. Use the same domain account for all systems accessing the Network Alert Server. See the chapter titled *The Sentry NT Service for **Startup...*** configuration instructions. Enter the user account information in the **Log On As** group.

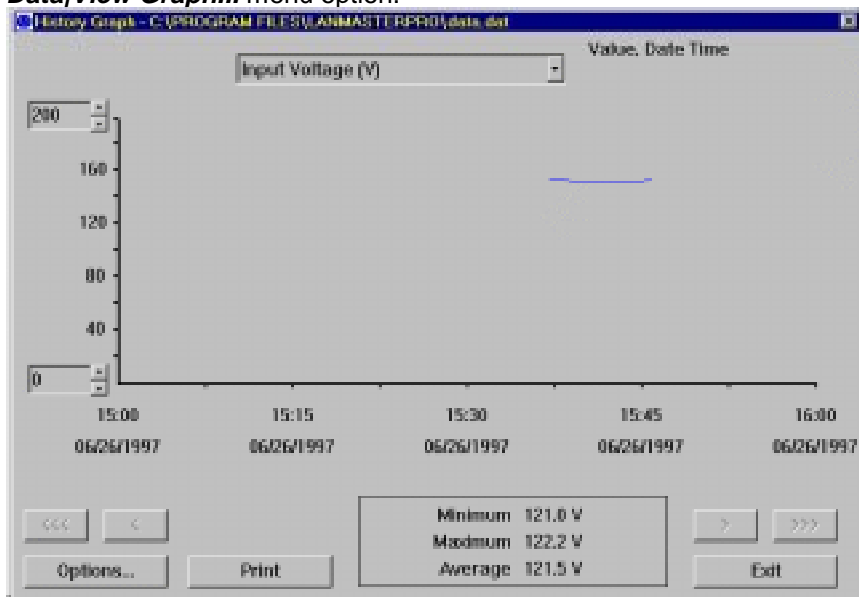
### **OS/2**

Choose or create a directory to store the network alert log. From a command prompt, type:

**net share SENTRY={drive}:\{directory} <enter>**

The share name must be **SENTRY**. In a peer environment, systems can use this directory for the network alert log provided that network access has been granted to the user account. In a domain environment, all systems must use the same domain account to access the network alert log.

**Data History Graph** After some data accumulates, you can view a history graph of one of the data types. To display the graph, select the **Data/View Graph...** menu option.

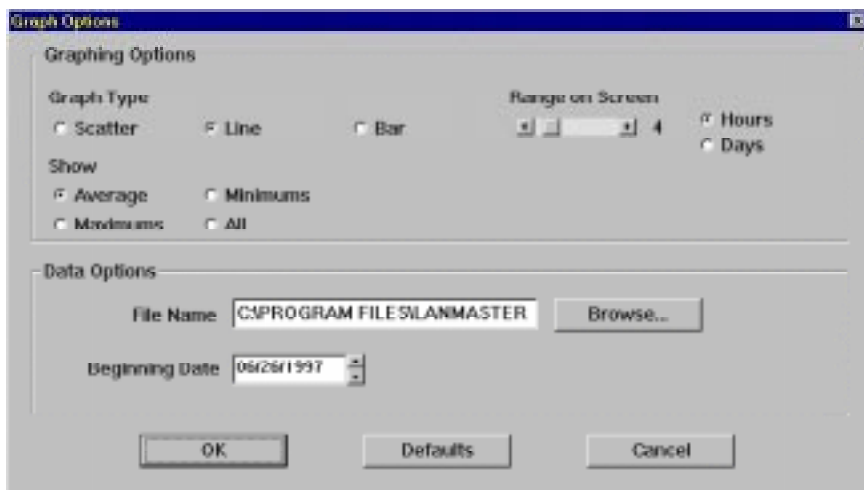


Select the data values from the drop-down list box at the top of the window. The data associated with the UPS value is graphed. The minimum, maximum, and average values are displayed at the bottom of the window.

Press the <<< or >>> command buttons to move to the beginning or end of the data log. Press the < or > command buttons to move back or forward one full window of data.

Press the **Print** command button to print a copy of the graph.

You can change the graph's Y-axis range by using the spin buttons located on the Y-axis. The X-axis and other properties of the graph can be changed by pressing the **Options...** command button. If you press the **Options...** command button, the *Graph Options* window displays.



Select **Scatter**, **Line**, or **Bar** for the **Graph Type**. Select the **Range on Screen** and **Hours** or **Days** to define the X-axis range and units. Depending on **Graph Type**, choose to display the **Average**, **Minimums**, **Maximums**, or all three. **Average** values are graphed in blue. **Minimums** are graphed in green. **Maximums** are graphed in red.

If you would like to view data from an archived data log, enter the **File Name** or press **Browse...** to search for the file.

Set the **Beginning Date** for viewing the graph. The **Beginning Date** is the starting point used to determine the maximum, minimum, and average values. The end point is always the end of the data log.

When you are finished with **Graph Options**, press the **OK** command button to close the window. If you want to revert to the suggested values, then press **Defaults**. If you want to abandon changes, then press **Cancel** to close the window.

When you are finished viewing graphs, press **Exit** to close the **History Graph** window.



**Data Log Viewer** After some data accumulates, you can view the data log. To display the log, select the **Data/View Data Log...** menu option.

Data Log Viewer - C:\PROGRAM FILES\LANMASTERPRO\data.dat

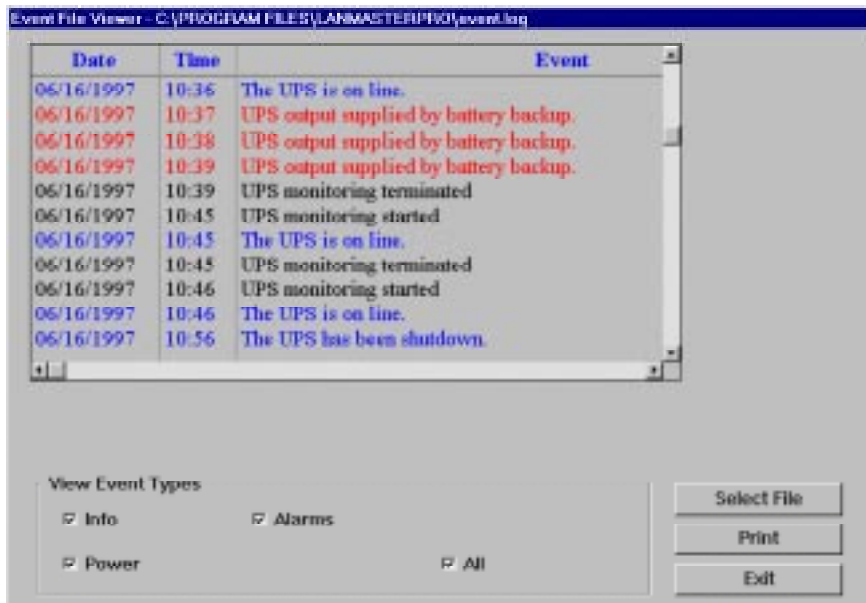
Date	Time	Input Voltage	Output Voltage	Bat <sup>2</sup>
06/26/1997	15:38	122.0	117.2	55.2
06/26/1997	15:39	122.2	117.2	55.1
06/26/1997	15:40	121.4	116.4	55.2
06/26/1997	15:43	121.2	116.2	55.2
06/26/1997	15:44	121.2	116.4	55.2
06/26/1997	15:45	121.4	116.4	55.2
06/26/1997	15:46	121.4	116.4	55.2
06/26/1997	15:47	121.8	116.6	55.2
06/26/1997	15:48	121.0	116.2	55.1
06/26/1997	15:49	121.8	116.8	55.2
06/26/1997	15:50	121.0	115.8	55.1

Select File  
Print  
Exit

Use the vertical and horizontal scroll bars to view all of the rows and columns in the table. If you want to view an archived file, press the **Select File** command button and choose a file. To print a copy of the log file, press **Print**. When you are finished viewing the log file, press **Exit** to close the window.



**Event Log Viewer** After some events accumulate, you can view the local event log or network event log. To display either log, select the **Data/View Event Log...** menu option, and then select either **Local Event Log** or **Network Alert Log**.



The local event log displays events that occur on the current system. The Network Alert log displays events that occur on all systems in the local domain or workgroup. An additional column identifies the system that reported the event. To log an event to the Network Alert log, you must enable logging for the event, and configure a **Network Alert Server**.

Use the vertical and horizontal scroll bars to view all of the rows and columns in the table. To limit the types of events displayed in the table, select one or more of the check boxes in the **View Event Types** group box. The event type category names and the number of categories vary by UPS model. If you want to view an archived file, press the **Select File** command button. To print a copy of the log file, press **Print**. When you are finished viewing the log file, press **Exit** to close the window.



**Event Calendar** After some events accumulate, you can view the event calendar. To display the calendar, select the **Data/View Event Calendar** menu option.



To view a detailed description of the events for any day of the month, click on the day. The events appear in the list box at the bottom of the window. Informational events are not displayed on the calendar. To view other months, press either of the command buttons below the calendar. The command buttons will state the previous and next months. When you are finished viewing the calendar, press **Exit** to close the window.

# SCHEDULING

## 6

Sentry allows you to schedule operating system and UPS shutdown and restart, and UPS self tests. To schedule actions, select **UPS Control/Scheduled...** from the menu bar. The Calendar Overview window provides you with monthly calendar of scheduled actions. A color coded key to the action types is displayed below the calendar. Actions include: operating system and/or operating system and UPS **Shutdown**, UPS **Restart**, and UPS **Self Test**. Availability of operating system and UPS **Shutdown**, UPS **Restart**, and UPS **Self-Test** depends on UPS model.



To view a detailed description of the actions scheduled for any day of the month, click on the day. The scheduled actions appear in the list box at the bottom of the window. To view other months, press either of the command buttons below the calendar. The command buttons will state the previous and next months.

To add an action to the schedule, press the **Add** command button. The *Scheduling Configuration* window displays.



**Scheduling Configuration**

Tuesday, September 3, 1996

Action	Recurring
<input checked="" type="radio"/> Shutdown <input checked="" type="checkbox"/> Operating System <input checked="" type="checkbox"/> UPS <input type="radio"/> Restart <input type="radio"/> Self-Test	<input checked="" type="radio"/> One-Time <input type="radio"/> Daily <input type="radio"/> Weekly <input type="radio"/> Bi-Weekly <input type="radio"/> Monthly

Time 12:00

Grace Period 
+
+
 60 seconds

OK

Cancel

Select an action from the **Action** group box. Select the **Time** and the frequency of the action. The available actions depend on the UPS model.

The **Grace Period** is the time interval between when the operating system shutdown is started, and when the UPS output power is shut off. Make sure the **Grace Period** you select allows your system to shut down properly. **Grace Period** will only be displayed when **Shutdown**, **Operating System**, and **UPS** are selected in the **Action** group.

When you are finished with *Scheduling Configuration*, press the **OK** command button to close the window. If you want to abandon changes, then press **Cancel** to close the window. You will return to the *Calendar Overview* window.



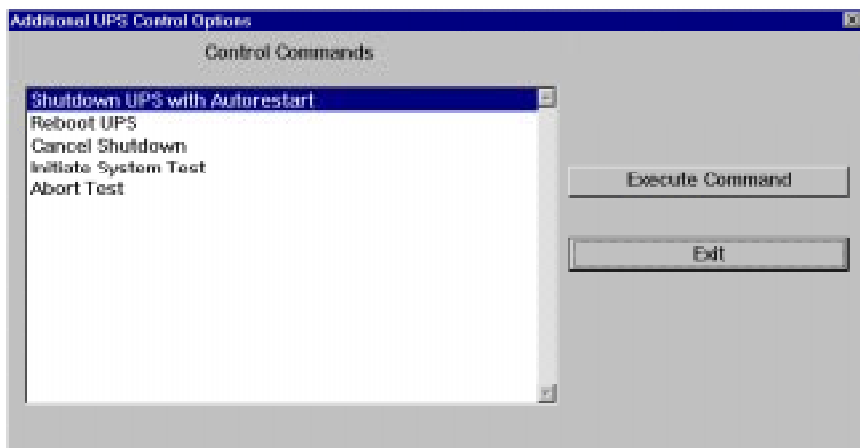


After you have added events, you will be able to modify or delete events using the **Modify** and **Delete** command buttons. Choose an event from the list box, and press the appropriate command button. If you choose to **Modify** an event, then the *Scheduling Configuration* window displays.



## **UPS CONTROL OPTIONS**

When you are finished with the *Calendar Overview* window, press the **OK** command button to close the window. If you want to abandon changes, then press **Cancel** to close the window.



UPS control options are special commands sent to the UPS. These commands are dependent on the model of UPS. To display the *Additional UPS Control Options* window, select the **UPS Control|Control Options...** menu option.

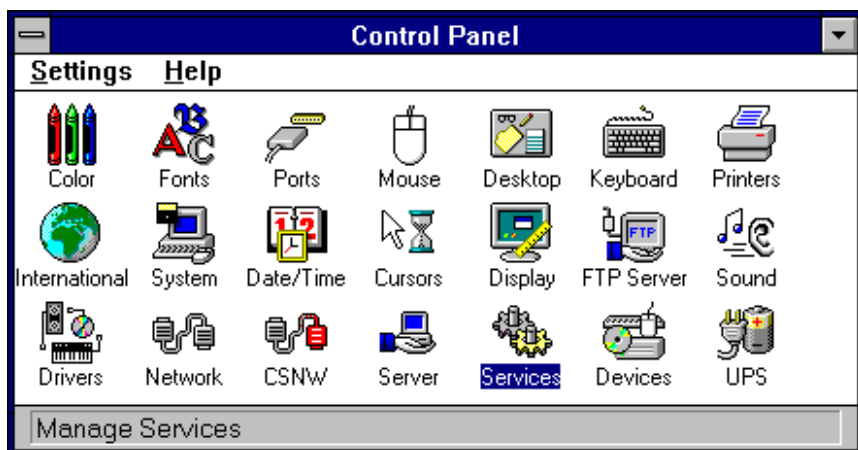
To send a command to the UPS, click on a command in **the Control Commands** list box, and select **Execute Command**. If the control command requires data to be sent with the command, a data entry window will appear. **Control Commands** vary for different UPS models.

When you are finished sending commands to the UPS, press the **Exit** command button to close the window.

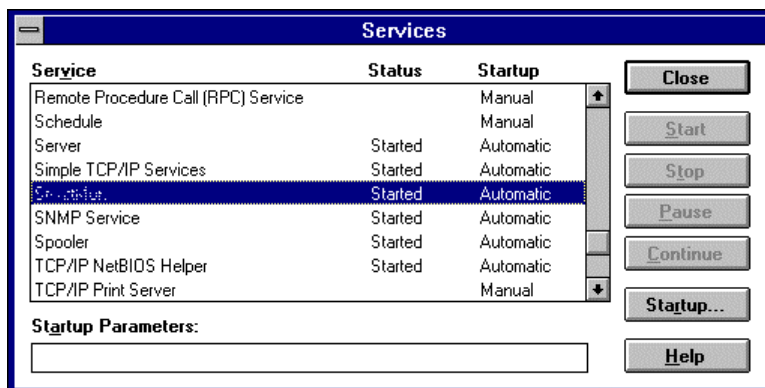
# THE SENTRY NT SERVICE

## 8

To start and stop the Sentry service, go to the *Control Panel* and click on the **Services** icon. The *Services* window opens displaying all of the installed services with their current status.



Select **Sentry**. Notice in the following example the Status column reports that the Sentry service is already **Started**.



To stop the Sentry service, click Stop; to start the service, click **Start**.



**Add The NT Service** If the Sentry service does not appear in the Services window, you must add the service in order for the Sentry application to protect your system. You can run **addserv.bat** in the Sentry directory. The program informs you, “service installed...update existing source information.”

The batch file adds the Sentry service to the NT Registry and configures the service to startup automatically.

**Remove The NT Service** If you want to remove the Sentry service from the NT Registry, run **delserv.bat** in the Sentry directory. The program informs you, “stopping service...service removed.” The batch file stops and removes the service from the NT Registry.

# 9 TROUBLESHOOTING

We have made every effort to ensure an easy and straight forward Sentry installation. If you should experience problems or unexpected results during the installation or execution, please verify your system setup and configuration using the following checklist:

- Positively identify the serial port to which the UPS interface cable is connected. (Consult computer and/or operating system documentation if necessary.)
- Verify that no other hardware or software is using/accessing this serial port, including your mouse. Sentry requires a serial port dedicated to monitoring the UPS.
- Verify that you are using the UPS interface cable supplied with the Sentry software or UPS and that it is securely connected to the serial port.
- Verify that the other end of the supplied cable is securely attached to the UPS interface port. This end should not require any adapters.

**Windows NT Event Viewer** You may find additional help in solving your problems with the *Event Viewer*. The *Event Viewer* is in the *Administrative Tools* folder.

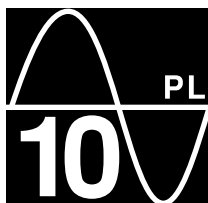


The *Event Viewer* lists each occurring event. To display a list of event log messages, select **Applications** under the **Log** menu. To view more details for the event, double-click on the event. The *Event Detail* dialog box displays the **Date** and **Time of the Event**, and a brief description of the event under **Source**.



## Common Problems and Solutions

Problems	Solutions
(Windows NT) Can't start service! Start Service error: 1056	The Sentry service is already running. Verify the service is running. See <i>The Sentry NT Service</i> for more information.
(Windows NT) Can't start service! Start Service error: 1060	The Sentry service is not an installed service. To install the service run <b>addserv.bat</b> . See <i>The Sentry NT Service</i> for more information.
(Windows NT) Can't start service! Start Service error: 1072	The Sentry service is marked for deletion. Remove the service by running <b>delserv.bat</b> . Install the service by running <b>addserv.bat</b> . See <i>The Sentry NT Service</i> for more information.
(Windows NT) Can't start service! Start Service error: 1073	The Sentry service already exists as an installed service. If you are reinstalling or upgrading Sentry, remove the currently installed service and remove the files from the Sentry directory. See <i>The Sentry NT Service</i> for more information.
When you start Sentry, communications cannot be established.	<p>Make sure the Sentry service (Windows NT and OS/2) is started.</p> <p>Make sure the cable is plugged into the UPS and the Computer.</p> <p>Make sure you have correctly identified the serial ports. You may have connected the cable to the wrong port. Ports may be mislabeled.</p> <p>Make sure the serial port is enabled.</p> <p>Make sure the port is operational. Perform another test on it, such as attaching a modem and attempting to dial out.</p> <p>A conflict may occur with hardware devices or other software.</p>



## PLACING A TECH SUPPORT CALL

In order to diagnose the problem you are having, our technicians need the following information from you:

**Installation Site:** \_\_\_\_\_ **Company Name:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ **Address:** \_\_\_\_\_  
\_\_\_\_\_ **City:** \_\_\_\_\_  
\_\_\_\_\_ **State:** \_\_\_\_\_  
\_\_\_\_\_ **ZIP code:** \_\_\_\_\_

### Installation Site Contact:

**Full Name:** \_\_\_\_\_  
**Phone Number:** \_\_\_\_\_  
**Fax Number:** \_\_\_\_\_

#### **If you are a consultant,**

**Consultant Name:** \_\_\_\_\_  
**Phone Number:** \_\_\_\_\_  
**Fax Number:** \_\_\_\_\_

### Computer System:

**Operating System Version:** \_\_\_\_\_  
**System Manufacturer:** \_\_\_\_\_  
**System Model Number:** \_\_\_\_\_  
**Type of Serial Port Connector**  
**(How many pins, male or female, etc.):** \_\_\_\_\_  
\_\_\_\_\_  
**Address of the Port:** \_\_\_\_\_



**UPS:** \_\_\_\_\_ **Model Number:**  
\_ Type of Port Connector (How many pins, male or female, etc.):  
\_\_\_\_\_

**Sentry Configuration:** Cable's Part Number (From tag on end of cable):

Are any adapters connected to the cable? \_\_\_\_\_  
If yes, what type? \_\_\_\_\_

**What are the symptoms?**

**Technical Support** Have the information listed above ready. You  
can reach us by calling: Para Systems, Inc. 1455 LeMay Dr.

Carrollton, TX 75007

Phone: (972) 446-7363

Fax: (972) 446-9011

E-Mail: Techsupport@minuteman-ups.com

QuickFax Info System: 1-800-263-3933

Internet: www.minuteman-ups.com