

# **UPSentry Smart 2000**

## **Shutdown Management Software for UNIX**

### **User Manual**

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## Introduction

Congratulations on your purchase of UPSentry Smart 2000 Shutdown Management Software to manage your Uninterruptible Power Supply (UPS). The goal of UPSentry Smart 2000 is to monitor your UPS and take care of all your power management needs. UPSentry has the ability to properly shutdown your computer when an extended power outage occurs.

UPSentry provides the most useful information about the UPS and all of your power management inquiries. We added the most popular network management protocol(SNMP) into UPSentry, UPSentry will translate UPS information into SNMP MIB to the appropriate Network Management Station(NMS) such as HP OpenView. To make use of resources on the Internet, UPSentry also supports HTTP protocol. That means you can monitor your UPS anywhere, anytime just using the Internet browser. UPSentry runs in the background as a daemon process on UNIX systems, and communicates to the UPS to keep your computer and equipment protected from any power problems. Furthermore, it gives you the most useful information about your UPS and computer.

### ***UPSentry Smart 2000 features:***

1. Graceful operating system shutdown
2. Schedule test, shutdown/restart UPS, turn on/off receptacles
3. Flexible events
4. Notification: Pager, e-mail and audible alarm, network broadcasting and SNMP
5. real-time values of voltage, current, frequency and loading...
6. History data & graph
7. Network monitor
8. Multi-computer shutdown/restart
9. Support Simple Network Management Protocol (SNMP)
10. Support HTTP, remote monitor and control using Internet browser

## UPSentry Smart 2000 Installation

### **System Requirements:**

1. To use UPSentry Smart, your system must be running one of the following operating systems:
  - Hewlett Packard HP-UX 10.0 (UPSentry Service Only)
  - IBM AIX 4.3
  - SCO OpenServer 5.0
  - SunSoft Solaris 2.5.1 for SPARC processors
  - RedHat Linux 5.2, Turbo Linux 4.0, Suse Linux 6.1, Open Linux 2.3
  - FreeBSD 2.2.8
2. UPSentry Monitor can run on X11R6 or above with 256 or more colors.

### **UPSentry Smart 2000 Setup:**

1. To setup UPSentry Smart 2000, please login to your system as supervisor (root).
2. Place the UPSentry Smart 2000 CD in your CD-ROM drive and mount it.
3. Change the working directory to `/CD-Rom/Unix/YourUnix`, where `/CD-Rom` is the mount point of your CD-ROM drive, and `YourUnix` is the name of your Unix System. For example, `/cdrom/Unix/Linux` or `/cdrom/Unix/Sun`.
4. Copy the only one file, `YourUnix.tar`, in your working directory to directory `/tmp`.
5. Change your working directory to `/tmp`.
6. Tar the file with the command: `tar xvf YourUnix.tar`. Note that some OS may require “-“ before arguments.
7. Run `./install`.
8. Follow the instructions from the install program.
9. After installation, UPSentry Smart 2000 program files will be located in the directory `/usr/local/smart`.

Notice: Some OS may not activate COM port as default. Thus, make sure the COM port connects to UPS has been activated before running UPSentry Smart 2000.

The UPSentry Smart 2000 software is comprised of two modules:

- A UPS Monitoring Module (UPSentry Service, file name: `upsd`), that runs in the background as a daemon process on your system and communicates to the UPS.
- A User Interface Module (UPSentry Monitor, file name: `monitor`), that enables you to control and configure UPSentry through the drop down menus and dialog boxes. It also allows you to monitor the UPS through the Main Screen.

## UPSentry Service

UPSentry Service, which runs in the background, is a daemon process when the system starts up. You can also run UPSentry Service manually by typing the command `/usr/local/smart/upsd`. To stop UPSentry Service, type the command `/usr/local/smart/upsd stop`.

# UPSentry Monitor

UPSentry Monitor enables you to control and configure UPSentry through the drop down menu and dialog boxes. It also allows you to monitor the UPS through the Main Screen. UPSentry Monitor does not need to reside in the memory, the execution depends on the user's requirement. This can save precious system resources for you.

After finishing the UPSentry Smart 2000 installation, UPSentry Service automatic loads into memory and runs once the operating system starts up.

To run the UPSentry Monitor, change your working directory to `/usr/local/smart` and type the command `/usr/local/smart/monitor`.

## UPSentry Monitor Main Screen:

The screenshot displays the UPSentry Smart 2000 Monitor interface. At the top, the window title is "UPSentry Smart 2000". Below the title bar is a menu bar with "System", "Control", "View", and "Help". A toolbar contains icons for "Configure", "Meters", "EventLog", and "History". A "Host Selection" dropdown menu is set to "Host=redhat 172.16.176.149 Model=GES-401S1 OS=Linux 2.0.36".

The main display area is divided into several sections:

- UPS Health:** On-Line (indicated by a green dot).
- UPS Type:** On-Line
- UPS Model:** GES-401S1
- Firmware Version:** 1.31
- Host Name:** redhat
- Rating VA:** 400VA
- Rating Input Volt:** 120V
- Rating Current:**
- Rating Battery Volt:** 12V
- Rating Input Freq:** 60Hz
- Test Result:** No Test Performed
- AC Source:** Normal
- Battery Status:** Normal
- Battery Level:** 100.0% (represented by a full green bar)
- Loading Level:** 0.0% (represented by an empty grey bar)
- Input Voltage1:** A gauge showing a reading of approximately 120.0V, with a scale from 0 to 180.
- Battery Voltage:** A gauge showing a reading of approximately 12.0V, with a scale from 0 to 18.

A status bar at the bottom of the main display shows "02/25/2000 17:07:21 <Net: 1 172.16.176.145 Connection Established.>".

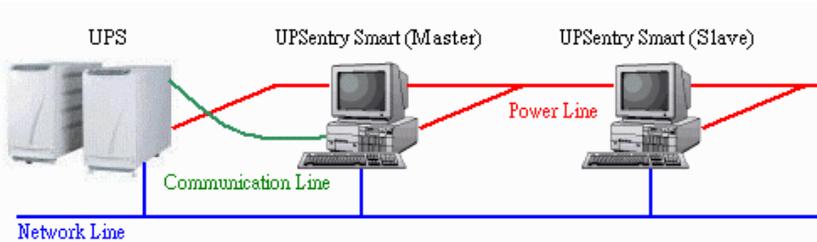
At the very bottom, there is a toolbar with icons for "Main", "Time", "Status", "Diagram", "Scroll", "Network", and "Receptacle".

## Networking

UPSentry Smart 2000 software is comprised of two modules: UPSentry Service and UPSentry Monitor. You may run both the programs to monitor your localized UPS or run the programs on two different computers.

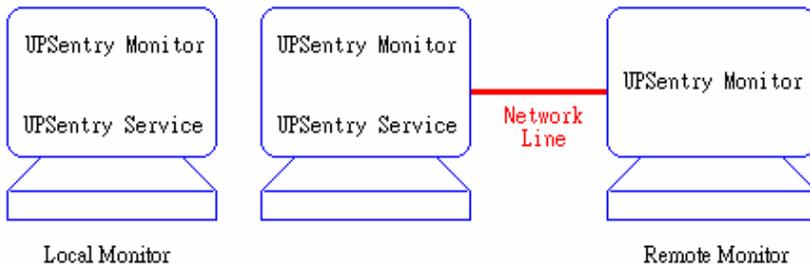
### 1. Multi-Computer Shutdown.

UPSentry Service with 2 modes: Master and Slave.



If there is a communication cable between the computer and a UPS, this computer called Master. The Master can monitor and control the connected UPS directly, as it also transmits the UPS information to the Slave(s).

If a computer does not connect to the UPS directly but is powered by the same UPS, this computer called the Slave. Master communicates to Slave via a TCP/IP network.

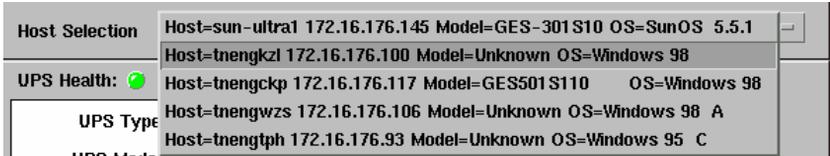


When a power event occurs, Master (UPSentry Service) gets the information and then transmits it to the Slave(s) (UPSentry Service). Each UPSentry Service executes different "Actions" (FlexEvent) such that the system manager can configure a different strategy to a different computer. For example: When power fails, file server and mail server won't shutdown until the UPS battery is low but some unimportant workstations execute shutdown OS after 5 minutes and the other workstations shutdown after 10 minutes. Shutdown workstations preserve more battery power for network servers.

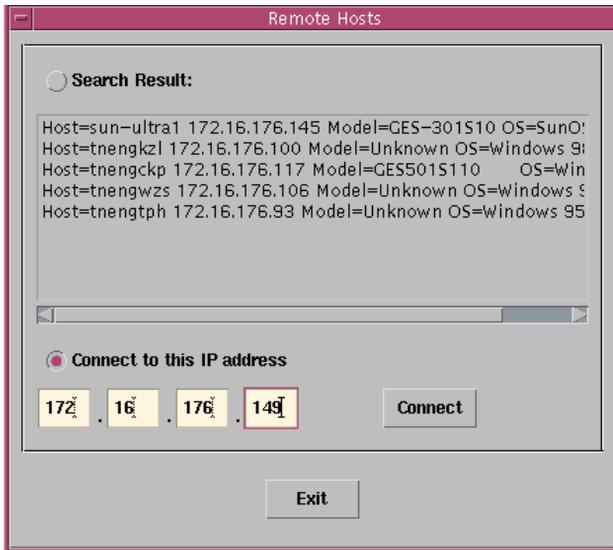
# Remote Monitor And Control

## 2. Remote Monitor and Control: UPSentry Monitor.

UPSentry Monitor has the ability to monitor Local host and Remote host.



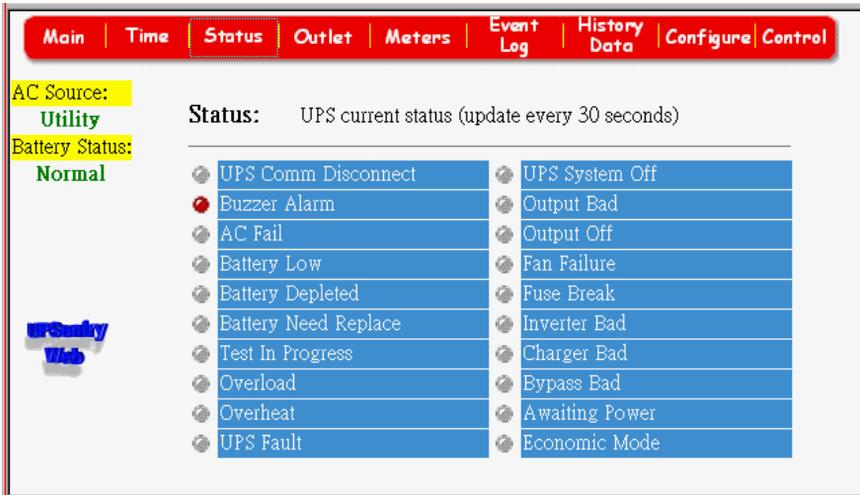
You can run UPSentry Monitor without running UPSentry Service, UPSentry Monitor will search hosts in the LAN (Local Area Network) that runs UPSentry Service in the combo box. Click on the Host Selection combo box and it will provide a list of the searched hosts in the LAN. Select one, then UPSentry Monitor will connect to the selected host. The host is located on the internet, so you can also input the remote host IP address from the View – Remote Hosts menu to establish the connection.



## Remote Monitor And Control (cont.)

### 3. Remote Monitor and Control: Internet Browser.

Another way to remote monitor UPSentry Service is by using the Internet Browser. Launch the Microsoft Internet Explorer or Netscape Communicator, type the IP address in the URL and press enter you will get the UPS information. You can change the network port number to prevent conflict with other WEB server programs. If the port number is not 80 you have to type URL like this: `http://172.16.176.141:2000` where 2000 is the port number you assigned.

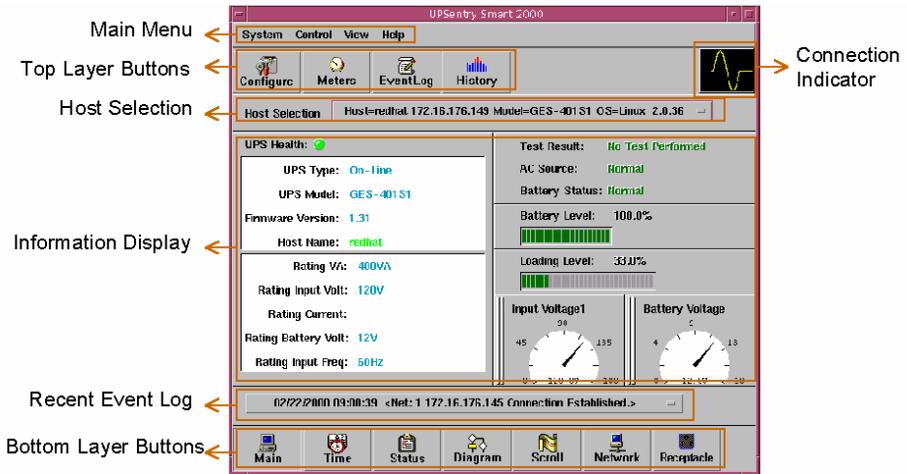


The screenshot displays the UPSentry Web interface. At the top is a red navigation bar with buttons for Main, Time, Status, Outlet, Meters, Event Log, History Data, Configure, and Control. The Status page is active, showing 'UPS current status (update every 30 seconds)'. On the left, 'AC Source: Utility' and 'Battery Status: Normal' are displayed. A 'UPSentry Web' logo is also visible. The main area contains a table of alerts, each with a radio button and a description.

Status: UPS current status (update every 30 seconds)	
<input type="radio"/> UPS Comm Disconnect	<input type="radio"/> UPS System Off
<input checked="" type="radio"/> Buzzer Alarm	<input type="radio"/> Output Bad
<input type="radio"/> AC Fail	<input type="radio"/> Output Off
<input type="radio"/> Battery Low	<input type="radio"/> Fan Failure
<input type="radio"/> Battery Depleted	<input type="radio"/> Fuse Break
<input type="radio"/> Battery Need Replace	<input type="radio"/> Inverter Bad
<input type="radio"/> Test In Progress	<input type="radio"/> Charger Bad
<input type="radio"/> Overload	<input type="radio"/> Bypass Bad
<input type="radio"/> Overheat	<input type="radio"/> Awaiting Power
<input type="radio"/> UPS Fault	<input type="radio"/> Economic Mode

# UPSentry Monitor Operation

The Main Screen has 7 areas that present information on the operating status of your UPS. These areas are discussed in the following sections.



**Host Selection:** Press the combo box to select hosts that runs UPSentry Service in the LAN. Users can monitor or control (need password) remote UPS.

**Connection Indication:** The sine wave will appear while the communication between UPSentry Monitor and UPSentry Service is established.

**Information Display:** Press Bottom Layer Buttons to change the information that is displayed in this area.

**Recent Event Log:** Shows the last 10 event logs in the combo box, click on the combo box to pull down and see the logs.

## Top Layer Buttons

### *Top Layer Buttons*

These buttons used to speed up your operation.



Refer to the dialog boxes in the menu.

**Configuration:** Same as the System-> Configuration in the menu.

**Meters:** Same as the View-> Meters in the menu.

**Event Log:** Same as the View-> Event Log in the menu.

**History Graph:** Same as the View-> History Graph in the menu.

### *UPSENTRY Monitor Main Menu*

The Main Screen has a menu bar at the top with 4 main options:



**System:** This menu allows you to set the UPSentry and computer parameters.

**Control:** This menu allows you to set UPS buzzer, outlet, and test ...

**View:** The View menu allows you to see the real-time values and history event or history data.

**Help:** The Help menu allows you to access the online help system.

## System Menu

The system menu allows you to configure the UPS and monitor screen parameters. When you select the System menu from Main Menu bar, a drop down menu appears offering you the following menu options:



**Login:** Used for Remote Monitor. User must pass the password verification before he/she can control or configure the UPS.

**Configuration:** The Configuration menu allows you to tailor various UPSentry parameters.

**Monitor Screen:** Allows you to change display items in the Scroll screen of Information Display Area

**Window:** This menu allows you to change the display items in the Information Display Area. The items in the menu refer to each button in the Bottom Layer Buttons.

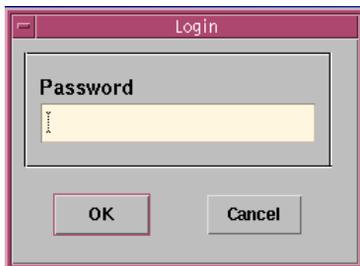
**Close Monitor:** Stop UPSentry Monitor.

## Login

When UPSentry Monitor becomes a Remote Monitor (connect to different host) you have to pass the password verification if you want to do configuration or control the UPS, otherwise, you can only view the UPS information.

If the user runs UPSentry Service and UPSentry Monitor in the same computer, you can do your configuration or control the UPS without a password.

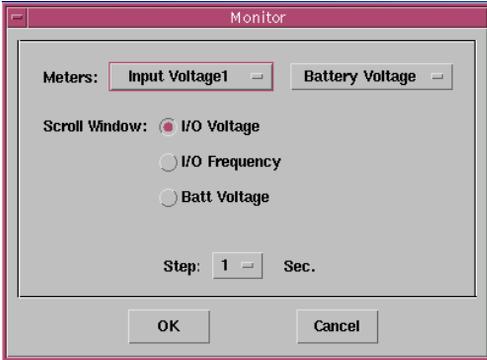
To change your password, please choose the Set Password from the Configure - Network menu



## System Menu (cont.)

### Monitor Screen

This dialog box allows you to change display item in the Scroll screen of Information Display Area



**a. Meters:** Press the Main button in the Bottom Layer Buttons, there are two meters in the information area. You can change the display items of the two meters.

**b. Scroll Window:** Press the Scroll button in the Bottom Layer Buttons, the scroll window display in the information area. This item allows you to change the display step and items.

### Window

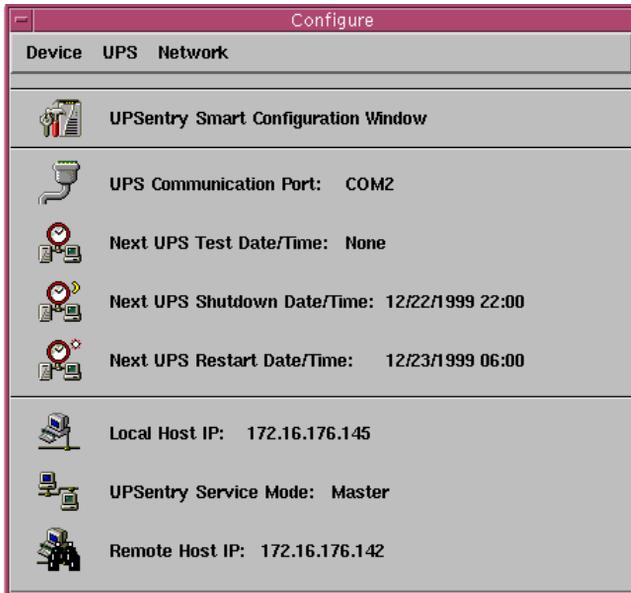
This menu allows you to change the display items in the Information Display Area. The items in the menu refer to each button in the Bottom Layer Buttons.



### Close Monitor

Close UPSentry Monitor and leave UPSentry Service running.

## Configuration Window



The Configuration Screen has a menu bar at the top with three main options:

**Devices:** This menu allows you to configure modem, pager and e-mail.

**UPS:** The UPS menu allows you to plan the UPS schedule or do the Action...

**Network:** This menu allows you to choose Master/Slave or configure SNMP, HTTP functions.

### **Configuration Window**

**UPS Communication Port:** COM1, ... COM4. Port names are different from systems.

**Next UPS Test Date/Time:** The date of the next user-initiated UPS self test. Setting from System->Configuration->UPS->Schedule.

**Next UPS Shutdown Date/Time:** This field display the date of the next shutdown the computer and UPS. Setting from System->Configuration->UPS->Schedule.

**Next UPS Restart Date/Time:** The date of the next restart UPS. Setting from System->Configuration->UPS->Schedule.

**Local Host IP:** IP address of a computer, that runs UPSentry Monitor.

**UPSentry Service Mode:** UPSentry Service acts as a Master or Slave.

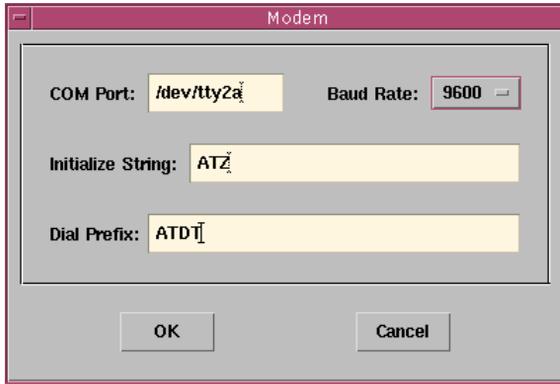
**Remote Host IP:** The host, that runs UPSentry Service. If UPSentry Monitor and UPSentry Service run on the same computer this field will be empty.

## Devices Menu

### Devices



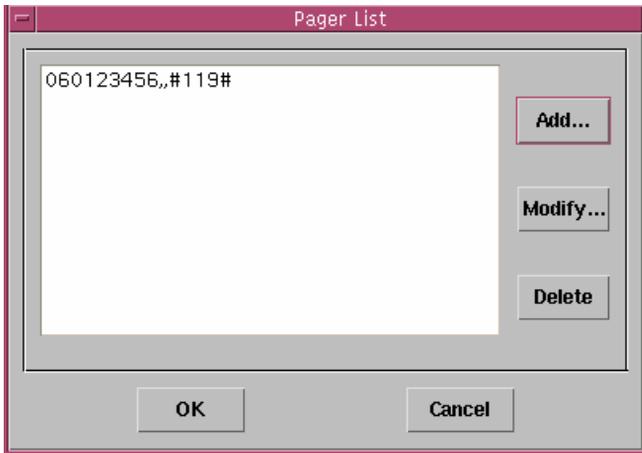
**Modem:** To let UPSentry notify you via pager, you must setup the modem device. UPSentry will control the modem device using AT Command as default.



- a. COM Port:** The communication port COM1, ...COM4.
- b. Baud Rate:** Define the data transmitting speed.
- c. Initialize String:** The string, that is sent to the modem before paging is attempted.
- d. Dial Prefix:** The string, that added to the beginning of each of the Pager Number before they are sent to the modem.

## Notification Users: Pager List

**Notification Users -- Pager List:** The program will dial the modem to notify all of the pager number that are listed on the pager list. You can input your pager number by yourself. For example if, 060123456 is your pager number, each ',' tells modem to delay 2 seconds, the delay time is for waiting the response signal from switching then transmit the display number 119. 119 will appear on your pager LCD. To trigger the pager notification you must enable the Pager Action in the Action dialog box.

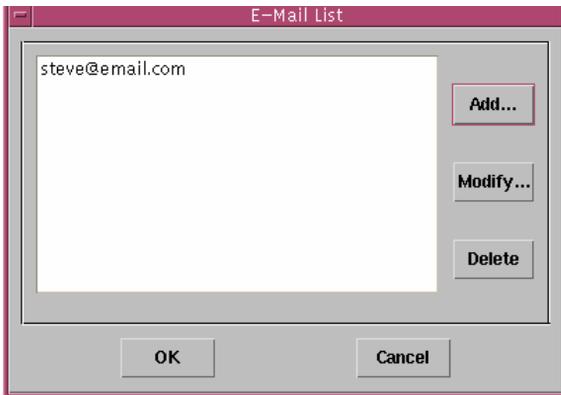


- a. **Add:** Add a new pager number.
- b. **Modify:** Modify the selected pager number.
- c. **Delete:** Delete the selected pager number.

## Notification Users: E-Mail

**Notification Users -- E-Mail:** You can also e-mail information to users when power event occurs. The program calls the sendmail command to transmit information to the assigned e-mail users.

To trigger the e-mail notification you must enable the e-mail Action in the Action dialog box.



**a. Add:** Add a new user.

**b. Modify:** Modify the selected user name.

**c. Delete:** Delete the selected user.

## Notification Users: Network Broadcast

**Notification Users -- Network Broadcast:** You can also broadcasting information to users when power event occurs. To trigger the broadcasting notification you must enable the Broadcast Action in the Action dialog box.

**a. Domain:** Enable this item to broadcast all the users in the domain, otherwise



UPSentry will send messages to the hosts that user assigned.

**b. Add:** Add a new machine name.

**c. Modify:** Modify the selected machine name.

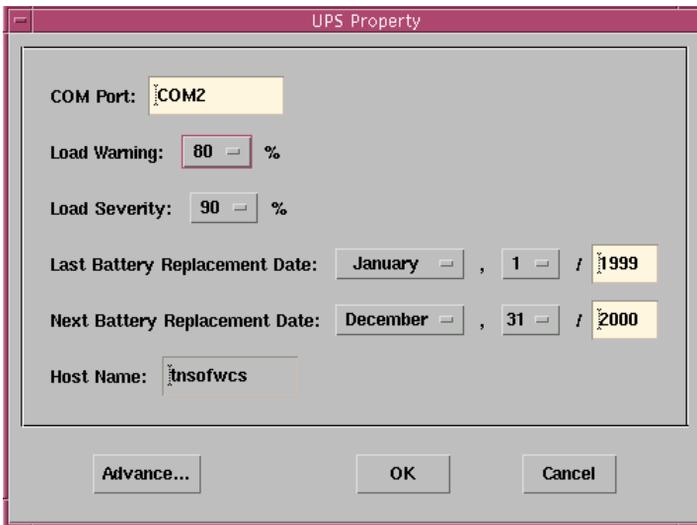
**d. Delete:** Delete the selected name.

**Close:** Close the Configuration window.

## UPS Menu



**UPS Property:** This dialog box allows you to configure the UPS COM port, battery replacement date,... etc. Load Warning and Load Severity are used to prevent UPS overload (see the UPS hardware user's manual). Load Warning will notify the user to reduce the load of the UPS. Load Severity will shutdown the computer to prevent overload.



- a. COM Port:** COM1, ...COM4.
- b. Load Warning:** Load warning.
- c. Load Severity:** User must reduce UPS loading.
- d. Last Battery Replacement Date:** Record last battery replacement date.
- e. Next Battery Replacement Date:** The date of next battery replacement, UPSentry will

notify user to replace the battery.

**f. Host Name:** Local host name.

## UPS Menu (cont.)

**Attached Devices:** Assign the attached device name. When you are controlling the

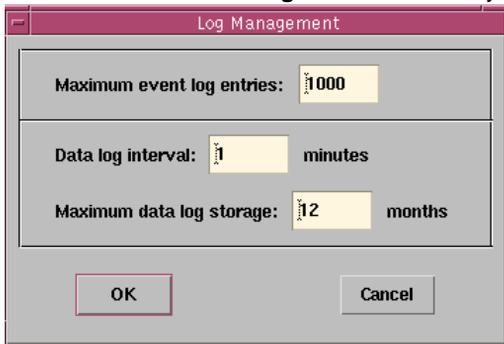


outlet, UPSentry will let you know which devices you are controlling.

- a. **Select an Outlet Group:** Assign an outlet group. Please see the back panel carefully, for some outlets may share one control relay, these outlets are called the outlet group. If you turn off outlet group1 (for example: outlet1 and outlet2) then the UPS will stop power output to outlet1 and outlet2.
- b. **Device Name:** Assign the attached device names, for example: Outlet Group1 is for printer, Outlet Group2 is for computer. These records can improve the efficiency of your management. Don't forget to press the Update button.
- c. **Update:** Update your change.

**Log Management:** (Please consider about the free space in your hard disk)

- a. **Maximum Event Log Entries:** UPSentry saves less than the assigned entries of the event log.



- b. **Data Log Interval:** Time to save a record of UPS data.

- c. **Maximum Data Log Storage:** It allows you to save how many months of UPS data files.

## Schedule

**Schedule:** This function allows you to shutdown, restart, test and turn on/off outlet. You can schedule up to 6 events. Setting is based on day, week or month and up to a period of 2 years.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Select Year: 1999  
Select Month: December  
Exit

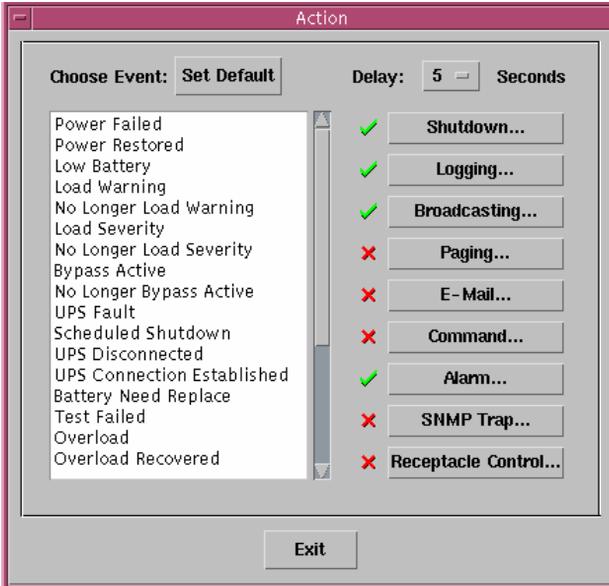
Shutdown UPS	23	55	Apply Setting to: One Time Daily Weekly Monthly
Turn Off Relay 1	23	05	
Turn Off Relay 2	23	40	
None	00	00	
None	00	00	
None	00	00	

Choose the applicable schedule to set whether it be for:

- One Time:** This set schedule is applicable for a single day.
- Daily:** This set schedule is applicable for every day
- Weekly:** This set schedule is applicable for once a week period.
- Monthly:** This set schedule is applicable for once a month period.

## Action

**Action:** The action menu provides you with a list of events to choose from. The event and/or any combination of these actions can be selected from the Choose Event list box. Actions that are already enabled will show a check mark. To delay the actions, set the desired time for delay in the Delay combo box.



- a. **Choose Event:** When you select one item in the list the action buttons will display current setting. Press button to do further configuration.
- b. **Set Default:** Set all the actions to default values.
- c. **Delay:** The power event must stay the delay time to trigger actions.

All the actions will be described here.

**Stop All Action:** Clicking on this terminates all the actions immediately.

## Action: Shutdown

The Shutdown dialog box has a title bar with a minus sign. It contains the following elements:

- Enable Shutdown** (highlighted with a red box)
- Radio buttons for "Shutdown OS After:", "Suspend OS After:", and "Hibernate OS After:". "Shutdown OS After:" is selected.
- A spin box set to "3.0" followed by "Minute(s)".
- Shutdown UPS Delay**
- A spin box set to "120" followed by "Second(s)".
- Buttons for "OK" and "Cancel".

### Action - Shutdown:

Shutdown/Hibernate/Suspend the operating system or shutdown UPS. Both Hibernate/Suspend are available only on MS Windows. If you select shutdown item, UPSentry will execute or ignore the Auto-Save function depending on your selection (in the Action dialog box). But if you select the suspend or hibernate item, the program will ignore the Auto-Save function. The functions of shutdown, hibernate or suspend are the same as if you select the Shutdown... from Windows Start menu.

The Logging dialog box has a title bar with a minus sign. It contains the following elements:

- Enable Logging** (highlighted with a red box)
- A text field labeled "Log Message:" containing "Power failed! The UPS is operating in battery po".
- Buttons for "OK" and "Cancel".

**Action - Logging:** Permits you to log event as well as modify default logging message. You can see this message in the Event Log dialog box.

The Broadcast dialog box has a title bar with a minus sign. It contains the following elements:

- Enable Broadcast** (highlighted with a red box)
- A "Period:" spin box set to "1.0" followed by "Minute(s)" and an "Edit List" button.
- A text field labeled "Broadcast Message:" containing "Power failed! The UPS is operating in battery po".
- Buttons for "OK" and "Cancel".

**Action - Broadcasting:** Permits you to broadcast an event based on a set period of time. If you want to be notified once, set the time period to "0". However, if you want to be notified more than once, set the time period to a bigger number. Each number corresponds to the times of notification.

## Action: Paging

The 'Paging' dialog box has a title bar with the text 'Paging'. Inside, there is a checkbox labeled 'Enable Paging' which is checked. Below it, the 'Period' is set to '0.0' with a 'Minute(s)' label and an 'Edit List' button. A text area labeled 'Pager List' contains the text '060123456, #119#'. At the bottom, there are 'OK' and 'Cancel' buttons.

**Action - Paging:** Permits you to set the time period of paging intervals. If you want to be notified once, set the time period to "0". However, if you want to be notified more than once, set the time period to a bigger number. Each number corresponds to the times of notification.

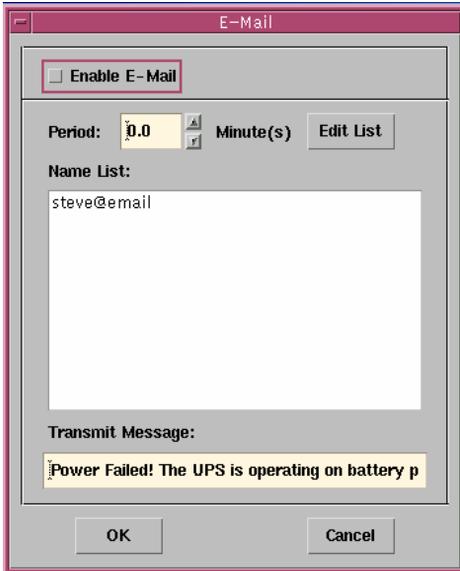
The 'Command' dialog box has a title bar with the text 'Command'. Inside, there is a checkbox labeled 'Enable Command' which is checked. Below it, the 'Delay' is set to '0' with a 'Second(s)' label and a 'Test' button. A text field labeled 'Execute File Name' is empty. At the bottom, there are 'OK' and 'Cancel' buttons.

**Action- Command:** Permits you to execute command files and set a period of time to delay its activation. To enable or disable this action, mark the Enable Command check box.

The 'Alarm' dialog box has a title bar with the text 'Alarm'. Inside, there is a checkbox labeled 'Enable Alarm' which is checked. Below it, the 'Period' is set to '1.0' with a 'Minute(s)' label. At the bottom, there are 'OK' and 'Cancel' buttons.

**Action - Alarm:** Permits you to send out audible alarm instead of a broadcast message. There is only buzzer alarm for UPSentry Smart on UNIX. If you want to be notified once, set the time period to "0". However, if you want to be notified more than once, set the time period to a bigger number. Each number corresponds to the times of notification.

## Action: E-Mail



The screenshot shows a dialog box titled "E-Mail". At the top, there is a checkbox labeled "Enable E-Mail" which is currently unchecked. Below this, there is a "Period:" field with a numeric input set to "0.0", a "Minute(s)" label, and an "Edit List" button. Underneath is a "Name List:" section with a text area containing the email address "steve@email". At the bottom, there is a "Transmit Message:" section with a text area containing the message "Power Failed! The UPS is operating on battery p". The dialog box has "OK" and "Cancel" buttons at the bottom.

**Action - e-mail:** Permits you to send mail. If you want to be notified once, set the time period to "0". However if you want to be notified more than once, set the time period to a bigger number. Each number corresponds to the times of notification. You can edit the user list by clicking the Edit list button, and add, modify or delete any user name in the list. To enable or disable this action, mark the Enable e-mail check box.



The screenshot shows a dialog box titled "SNMP". It features a checkbox labeled "Enable SNMP Trap" which is currently unchecked. Below the checkbox are "OK" and "Cancel" buttons.

**Action - SNMP Trap:** Lets you send a SNMP trap when the relative power event occurs. To enable or disable this action, mark the Enable SNMP Trap check box. You also need to specify the SNMP Trap target hosts and community string, please see the SNMP dialog box in the Network menu.

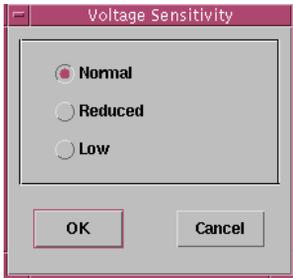
## Action: Receptacle Control

The screenshot shows a window titled "Receptacle Control" with a red title bar. At the top, there is a checkbox labeled "Enable Receptacle Control" which is currently unchecked. Below this, a text area contains the following text: "Receptacle Control 1 (LasterJet) No Action", "Receptacle Control 2 (Scanner) Turn Off Delay 15.0 Mins", and "Receptacle Control 3 (iMac) No Action". At the bottom of the window, there are three radio button options: "Turn On Delay" (unselected), "Turn Off Delay" (unselected), and "No Action" (selected). The "Turn On Delay" and "Turn Off Delay" options each have a numeric input field set to "0.0" and a "Minute(s)" label. At the very bottom, there are two buttons: "Update" and "Exit".

**Action - Receptacle Control:** Permits you to control Receptacle Relay on or off. Each Receptacle Relay may control not only one outlet, please see the rear panel of your UPS or the UPS hardware user's manual.

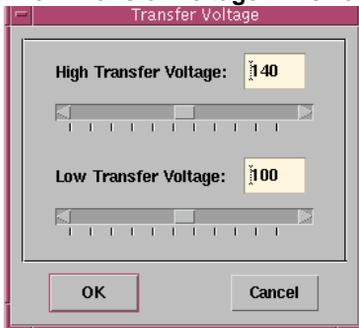
## Voltage Sensitivity

**Voltage Sensitivity:** Adjust the UPS voltage sensitivity.



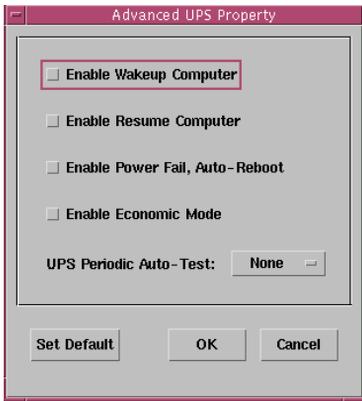
**Transfer Voltage:** Change the low transfer voltage and high transfer voltage. This function lets your UPS suit the local power environment.

**a. Low Transfer Voltage:** When utility power voltage is lower than the assigned value, the UPS will switch to backup. The output power is supplied from battery.



**b. High Transfer Voltage:** When utility power voltage is higher than the assigned value, the UPS will switch to backup. The output power is supplied from battery.

## Advanced UPS Property

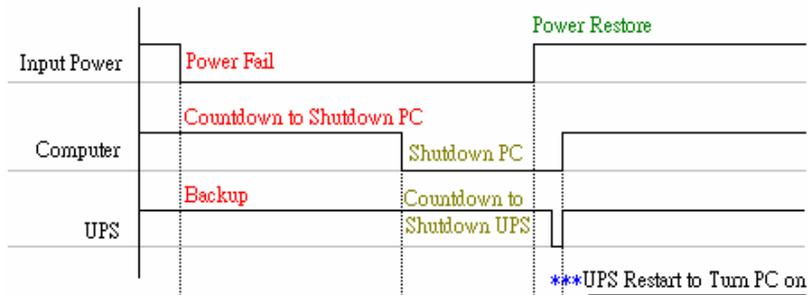


If your UPS doesn't support this function, the item will display a grayed area and the user cannot select this item.

**Enable Wakeup Computer:** If your computer's architecture is compatible to ATX and the BIOS supports RS-232 (RI) Wakeup function. You should enable this item to make the Schedule work correctly.

**Enable Resume Computer:** Be sure the BIOS supports RS-232 (RI) Wakeup function. When UPSentry suspends the computer and the UPS detects the change of power status, UPS will resume the computer and let UPSentry notify the users.

**Enable Power Fail, Auto-Reboot:** The time-line



describes below,

If you enable this function, the UPS will reboot to restart the computer. Otherwise, it will return back to normal state.

**Enable Economic Mode:** Switch to UPS economic mode.

**UPS Periodic Auto-Test:** Daily, weekly, biweekly and monthly. UPS starts the test procedure automatically when it reaches the test time.

## Network Menu

### Network :



### Set Password:

Set the UPSentry Service password.



### Choose Master/Slave:

Set UPSentry Service mode. If the computer is connected to the UPS directly (with RS-232 cable or USB cable) then the UPSentry Service acts as a Master, otherwise it is a Slave. When UPSentry Service is a Slave you must assign the Master IP address such that the Slave can connect to the Master host and get the UPS information.

- a. **Master:** Configure the UPSentry Service to be a Master. The Master will forward the UPS information to a connected Slave(s).
- b. **Slave:** Configure the UPSentry Service be a Slave.
- c. **Master IP Address:** When UPSentry Service becomes a Slave you must assign the Master IP address such that the Slave can connect to the Master host and get the UPS information. If you leave the item empty or type a wrong address, UPSentry will show a disconnect message.

## Remote Wakeup

### **Remote Wakeup:**

To wake up the remote host, UPSentry sends a Magic Packet through the network. You must give the IP address and the network hardware address (MAC address) of the remote host. In Windows98, you can execute the "ipconfig /All" command under MS-DOS prompt to get the network card physical address of the local host. Or, input the "arp -a" command to see the remote host's physical address. Your network card must support the remote wakeup feature and this function should be enabled.

Wake On Lan Editor

Host IP Address:

172 . 16 . 176 . 142

Network Card Hardware Address(In Hex):

a8 - e4 - 19 - 4f - b5 - 02

Wake me up when

UPSentry Resume the Computer from Suspend Mode

Each Time UPSentry Startup

OK Cancel

#### **a. UPSentry Resume The Computer From Suspend Mode:**

UPSentry may force the computer into suspend mode (input power failed or other power events), program will wake up the remote hosts that enable this item when the local host is woken.

#### **b. Each Time UPSentry Startup:**

Program will wake up the remote hosts that enable this item when UPSentry starts up and connects to the UPS.

## SNMP

SNMP

Port Number: 161

System Contact: abc

System Name: UPSSCO

Accept SNMP packet from any hosts

Accept SNMP packet from the following hosts

172.16.176.145 public  
172.16.176.142 public

Add...  
Modify...  
Delete

Trap Target:

172.16.176.142 public  
172.16.176.143 public2

Add...  
Modify...  
Delete

OK  
Cancel

Select the Accept SNMP packet from any hosts, UPSentry will accept all the request commands and set commands. When you select the Accept SNMP packet from the following hosts, UPSentry receives only the hosts that you assigned. Once the power event occurs and the user enables the SNMP Trap in the Action dialog box, UPSentry will send the SNMP trap to the hosts that are listed in the Trap Target list box. To add, modify or delete the host, click on its respective command button.

**If the UPSentry Service you are connecting is running on UNIX series, and Windows 95/98 operating system, you can**

**configure the SNMP parameters directly from the UPSentry Smart 2000:**

Select the Accept SNMP packet from any hosts, UPSentry Smart 2000 will accept all the request commands and set commands. When you select the Accept SNMP packet from the following hosts, UPSentry Smart 2000 receives only the hosts that you assigned. Once the power event occurred and user enables the SNMP Trap in the Action dialog box, UPSentry Smart 2000 will send the SNMP trap to the hosts that listed in the Trap Target list box. To add, modify or delete the host, click on its respective command button

**If the UPSentry Service you are connecting is running on Windows NT or Windows 2000 operating system, you must install the SNMP Service and configure the SNMP parameters from your operating system:**

UPSentry Smart 2000 will ignore the values that were set in the SNMP dialog box. To change the parameters of SNMP function, you should install the SNMP Service in the Network option. Select the SNMP Service from the Network option in the Control Panel and click the Property button to do your changes.

## SNMP (cont.)

If the UPSentry Service you are connecting is running on Novell NetWare operating system, all setting in this SNMP configuring dialog will not take any effect. Please edit the file SYS:\etc\Traptarg.cfg directly.

### SNMP Trap Number:

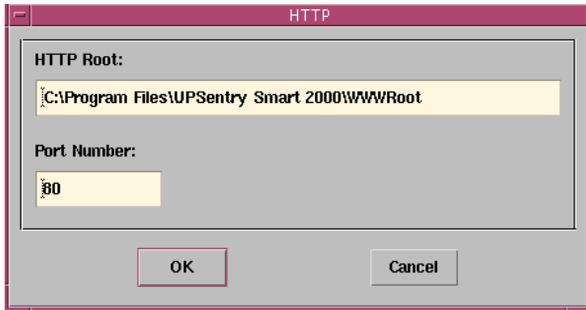
Variable	Trap No.	Description
dupsCommunicationLost	1	SEVER: Communication with the UPS failed
dupsCommunicationEstablished	2	INFORMATION: Communication with the UPS reestablished
dupsPowerFail	3	WARNING: Power failed! The UPS is operating on battery power
dupsPowerRestored	4	INFORMATION: Power restored! The utility power restored
dupsLowBattery	5	SEVER: The UPS batteries are low and will soon be exhausted
dupsReturnFromLowBattery	6	INFORMATION: The UPS has returned from a low battery condition
dupsLoadWarning	7	INFORMATION: Loading percent of the UPS over the Load Warning value
dupsNoLongerLoadWarning	8	INFORMATION: Returned from Load Warning condition
dupsLoadSeverity	9	Warning: Loading percent of the UPS over the Load Severity value
dupsNoLongerLoadSeverity	10	INFORMATION: Returned from Load Severity condition
dupsLoadOnBypass	11	WARNING: The UPS loads on bypass
dupsNoLongerLoadOnBypass	12	INFORMATION: The UPS is not on bypass mod
dupsUPSFault	13	SEVER: A general fault caused in the UPS
dupsBatteryGroundFault	14	SEVER: The UPS battery ground fault
dupsNoLongerBatteryFault	15	INFORMATION: The UPS recovered from battery ground fault
dupsTestInProgress	16	INFORMATION: The UPS test in progress
dupsBatteryTestFail	17	SEVER: The UPS test in progress
dupsFuseFailure	18	SEVER: The UPS fuse failed
dupsFuseRecovered	19	INFORMATION: The UPS fuse recovered
dupsOutputOverload	20	SEVER: The UPS overload
dupsNoLongerOverload	21	INFORMATION: Recovered from UPS overload
dupsOutputOverCurrent	22	SEVER: The UPS output over current
dupsNoLongerOutputOverCurrent	23	INFORMATION: Recovered from UPS over current

## SNMP (cont.)

Variable	Trap No.	Description
dupsInverterAbnormal	24	SEVER: The UPS inverter abnormal
dupsInverterRecovered	25	SEVER: Recovered from UPS inverter abnormal
dupsRectifierAbnormal	26	SEVER: The UPS rectifier abnormal
dupsRectifierRecovered	27	INFORMATION: The UPS recovered from rectifier abnormal
dupsReserveAbnormal	28	SEVER: The UPS rectifier abnormal
dupsReserveRecovered	29	INFORMATION: The UPS rectifier abnormal
dupsLoadOnReserve	30	INFORMATION: The UPS load on reserve
dupsNoLongerLoadOnReserve	31	INFORMATION: The UPS no longer load on reserve
dupsEnvOverTemperature	32	WARNING: The environment over temperature
DupsNoLongerEnvOverTemperature	33	INFORMATION: The environment recovered from over temperatur
DupsEnvOverHumidity	34	WARNING: The environment over humidit
DupsNoLongerEnvOverHumidity	35	INFORMATION: The environment recovered from over humidity

## HTTP

UPSentry supports WEB Server for remote manager to get UPS information. User can use IE or the Communicator to connect to UPSentry Service. Even if your computer doesn't install UPSentry, you can monitor and control your UPS via the network.



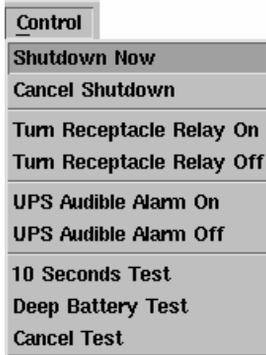
**a. HTTP Root:** The HTTP root path.

All the html and gif files will be located here.

**b. Port Number:** Default port number is 80 but if there is already one WEB server running you can change UPSentry Service HTTP port number to a different number. At the Internet Browser you can input `http://172.16.176.141:2000` in the URL where 2000 is the assigned port number.

## Control Menu

### Control



**Shutdown Now:** This command will execute the shutdown procedure at once.

**a. Restart:** This function lets you restart the OS and UPS automatically after being shutdown. To start the OS and UPS for the next schedule, mark the Restart check box.



**b. Shutdown OS and UPS:** Use this function to shutdown both OS and UPS.

**c. SHUTDOWN OS Only:** Use this function to shutdown OS only.

**d. SUSPEND OS Only:** Use this function to suspend your operating system.

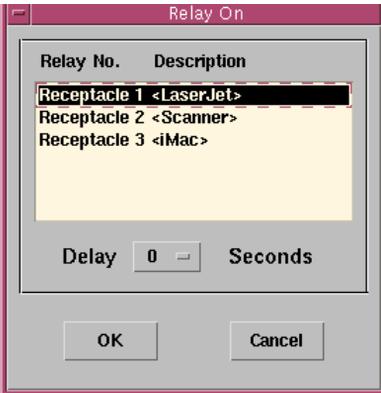
**e. HIBERNATE OS Only:** Use this function to hibernate your operating system.

**Cancel Shutdown:** This menu enables you to terminate the current shutdown procedure.

## Control (cont.)

**Turn Receptacle Relay On:** Turn the selected receptacle relay on.

Each Receptacle Relay may not control only one outlet, please see the rear panel of your UPS or the UPS hardware user's manual.



**a. Select a Receptacle Relay:** Select a receptacle relay.

**b. Delay:** Set the delay time to turn on the receptacle relay.

**c. Turn On:** Execute the turn on command.



**Turn Receptacle Relay Off:** Turn the receptacle relay off. Each Receptacle Relay may control not only one outlet, please see the rear panel of your UPS or the UPS hardware user's manual.

**a. Select a Receptacle Relay:** Select a receptacle relay.

**b. Delay:** Set the delay time to turn off the outlet group.

**c. Turn Off:** Execute the turn off command.

**UPS Audible Alarm On:** Enable the UPS buzzer from the Bottom Layer Buttons. Press the Status button to get the UPS buzzer status.

**UPS Audible Alarm Off:** Mute UPS buzzer alarm.

**10 Seconds Test:** UPS switches to backup mode and output power is supplied by battery in 10 seconds.

**Deep Battery Test:** UPS switches to backup mode and output power is supplied by battery until battery low.

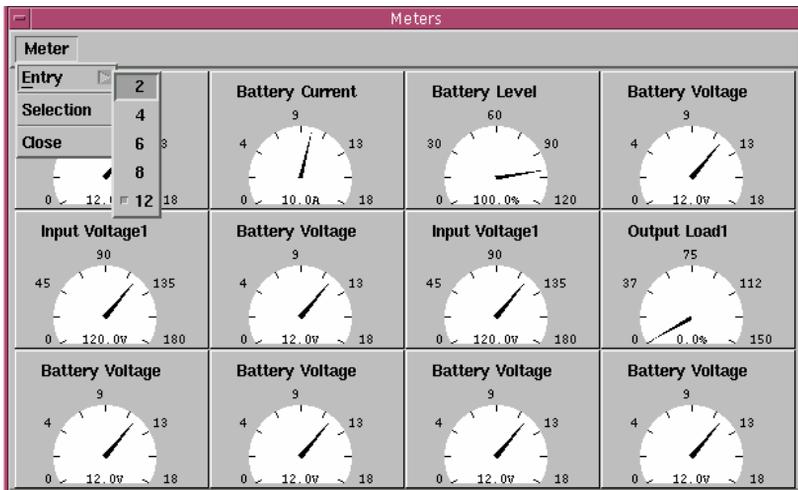
**Cancel Test:** This menu allows you to stop testing the UPS immediately.

## View Menu



**Meters:** The UPSentry supports up to 12 meters to be display in real-time values. Each meter has the ability to display all of the UPS values. Selecting different items from the Selection dialog box will display the selected item value.

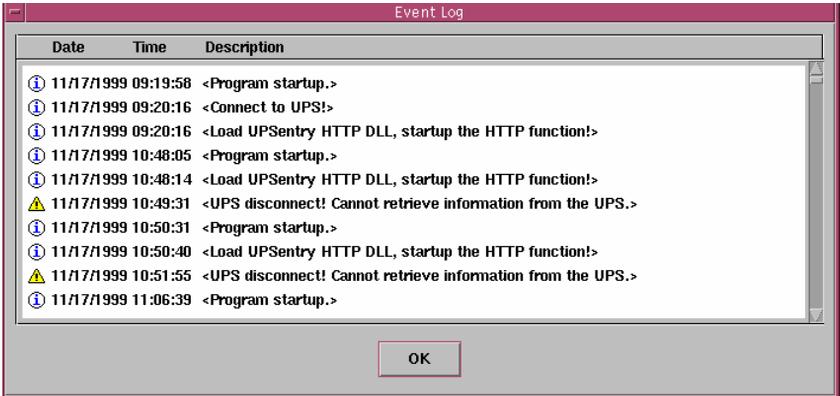
- a. **2,4,6,8,12:** Displayed meter number.
- b. **Selection:** Assign each meter to different UPS item value.
- c. **Close:** Close the meter window.



## Event Log

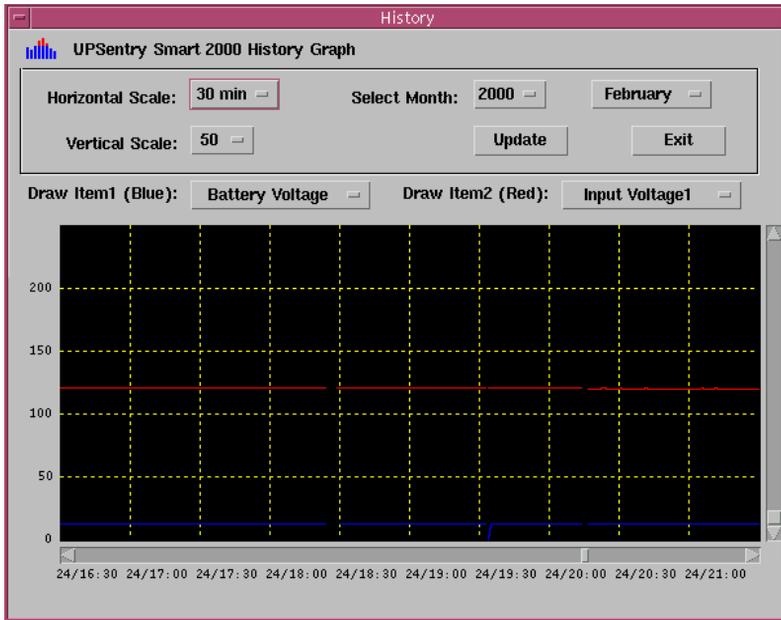
**Event Log:** This menu offers you the possibility of viewing past events.

**a. Exit:** Close event log dialog box.



## History Graph

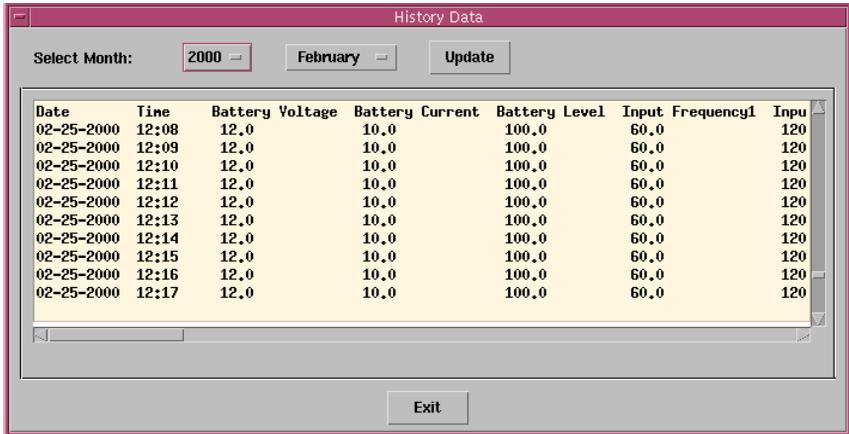
**History Graph:** Clicking on the History Graph opens a dialog box that contains information about UPS data in graph form. This information is available only if there is an accumulation of data. You can select the month and year you want to view.



- a. **Horizontal Scale:** Select the time scale.
- b. **Vertical Scale:** Select the value scale.
- c. **Select Month:** The UPS data in the month you want to see.
- d. **Draw Item1(Blue):** Draw the UPS item value by blue line.
- e. **Draw Item2(Red):** Draw the UPS item value by red line.
- f. **Update:** Update the graph.
- g. **Exit:** Close the history graph dialog box.

## History Data

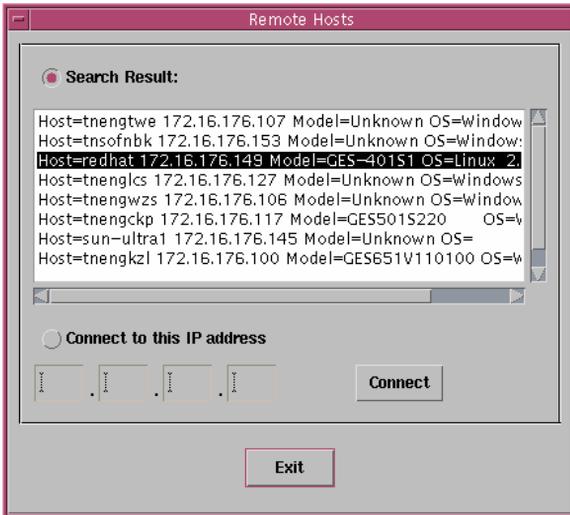
**History Data:** Clicking on the History Data opens a dialog box that contains information about UPS data in list form. This information is available only if there is an accumulation of data. You can select the month and year you want to view.



- a. **Select Month:** The UPS data in the month, that you want to see.
- b. **Update:** Update the list.
- c. **Exit:** Close the history data dialog box.

## Remote Hosts

**Remote Hosts:** Detect the hosts which running the UPSentry Service in the LAN. You can also type in the IP address and connect to the WAN.



- a. **Search Result:** The hosts will be listed in the Search Result list box. Select the host you want to connect and press the Connect button to establish the connection.
- b. **Connect to this IP address:** UPSentry will connect to the IP address, that you type in.
- c. **Connect:** Establish the network connection.

**Content:** This online help.

**About:** UPSentry version and copyright.

## Bottom Layer Buttons

### Bottom Layer Buttons



Each button shows the respective information in the Information Area.

**Main:** General Information about the UPS.

**Tree:** There are 2 subtrees in the UPSentry tree: System and UPS. System tree for host information and the status of Master/Slave connection, the UPS tree for all of the UPS information.

**Time:** Display the time of the schedule, battery replacement date and countdown time.

**Status:** UPS status.

**Diagram:** Indicate the UPS current flow.

**Scroll:** UPS data graph.

**Outlet:** Display outlet status. (If your UPS cannot control outlet then this button disappears)

**Network:** Indicate the connection of Master/Slave, UPSentry Monitor and UPSentry Service.

### Main

**UPS Health:** 3 levels: Green, yellow and red.

**UPS Type:** On line, off line, line interactive or 3 phase on line.

**UPS Model:** The UPS model, which is being monitored by UPSentry.

**Firmware Version:** Indicating the version status of the UPS internal code.

**Host Name:** The host, which runs UPSentry.

**Rating VA:** The UPS rating VA.

**Rating Input Voltage:** The UPS rating input voltage.

**Rating Current:** The UPS rating current.

**Rating Battery Voltage:** The UPS rating battery voltage.

**Rating Input Frequency:** The UPS rating input frequency.

**Test Result:** Results of the last self-test.

**AC Source:** Normal, battery or bypass.

**Battery Status:** The status of battery.

**Battery Level:** Percentage of battery level.

**Loading:** Output loading percentage.

UPSentry with the ability to change the display item of the meters, the referred menu item: System-> Main Screen.

## ***Time***

**Last Battery Replacement Date:** To change the date of last battery replacement in the System-> Configuration UPS->UPS Property.

**Next Battery Replacement Date:** To change the date of next battery replacement in the System-> Configuration UPS->UPS Property.

**Next 10 seconds Test Time:** System-> Configuration UPS-> Schedule.

**Next Deep Test Time:** System-> Configuration UPS-> Schedule.

**Next Shutdown UPS Time:** system->Configuration UPS-> Schedule.

**Next Restart UPS Time:** System-> Configuration UPS-> Schedule.

## ***Status***

Show all of the UPS status, red light indicates this event happened.

## ***Diagram***

Input and output power flow of UPS.

## ***Scroll***

Record the recent UPS data information. you can change the display item from System->Main Screen.

## ***Network***

Display all the UPSentry Service searched in the LAN.

## ***Outlet***

Display the UPS outlet status (If your UPS cannot control outlet this button disappeared).

Status: Identify the current outlet status: Normal or shut.

**Next Turn Off Time:** System->Configuration->UPS->Schedule

**Next Turn On Time:** System->Configuration->UPS->Schedule