User's Guide

PowerAlert® Network Management System

Note: *PowerAlert is not required to operate your UPS system.*
For the latest PowerAlert updates, go to www.tripplite.com/software.

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1 Pre-Installation Instructions

Tripp Lite's PowerAlert software family is separated into three distinct editions. This User's Guide applies to *PowerAlert Network Management System* (PANMS). **Do not install more than one edition of PowerAlert on a single computer.**

PowerAlert Network Management System: This edition of PowerAlert should be installed by advanced users only. See Figure 1.1 for a list of major features available in PowerAlert Network Management System. Note that all the functions available through *PowerAlert Local* will be available for the remote devices and also for the host computer, including monitoring and controlling UPS systems connected to the host computer via local USB and/or serial connections. PowerAlert Network Management System requires the free Java Runtime Environment 1.6 or later. **Warning: Only one copy of PowerAlert Network Management System can be used per IP network subnet.** You should obtain the approval of your network administrator before installation.

Feature	Comments
Manage multiple UPS systems on the network	Monitors hundreds* of SNMP-enabled Tripp Lite UPS Systems or PDUs
Mass configuration	Allows mass configuration of PowerAlert Local software or SNMPWEBCARD firmware (versions 12.04.0048 through 12.04.0055).**
Autodiscovery of local devices	Supported
Autodiscovery of SNMP-enabled devices	Discovers devices accessible on the network via WEBCARDLX, SNMPWEBCARD and PowerAlert Local software (version 12.04.0048 and above)
Mass Update	Concurrently updates firmware in multiple cards

*Actual number of supported devices depends upon license, available memory and processor speed.
**WEBCARDLX and newer SNMPWEBCARDs can be mass configured using the standalone mass configuration tool available for download from www.tripplite.com/support.

Figure 1.1: PowerAlert NMS Key Features

2 System Requirements for PANMS

For Windows® (Server 2012, Windows 7, 8 and 10):

- Java Runtime Environment 1.6.0_4 or above (Tripp Lite recommends Java 1.8)
- TCP/IP (IPv4) network connection
- Available USB or serial port (optional)
- Open TCP/UDP ports 3664, 3665, 161 and 162 (any firewall)

IMPORTANT: Ensure your firewall has ports open for TCP and UDP communications. Failure to do so will result in incorrect operation of PANMS.

3 Windows Installation

Step 1 – Java Software Installation

IMPORTANT: Before installing PANMS, you MUST install Java Runtime Environment 6 or above (Tripp Lite recommends Java 1.8). The latest version and installation instructions are available at www.java.com. Installation will fail if Java is not installed.

Step 2 – PANMS Software Installation

After intstalling the Java Runtime Environment, double-click the PowerAlert installer (setup.exe) and follow the on-screen prompts. The PowerAlert installer will attempt to uninstall previous versions of PowerAlert. Tripp Lite recommends uninstalling previous versions manually via the control panel prior to installing a new version.

Windows 8 Users – Please Note: The installer will create a *PowerAlert Network Management System* tile on the Windows 8 start page. To launch the console, click on the tile. To manually pin the console to the Start Page, right-click on the *Start* page background, select *All Apps* and then right-click on the *PowerAlert Console* tile and select *Pin to Start*. Thereafter, click on the *PowerAlert Console* tile on the Start page to launch the console.

4 PowerAlert NMS Operation

4.1 Introduction

PowerAlert Network Management System is for advanced users only. PowerAlert Network Management System can monitor and control up to 250 SNMP-enabled devices, including UPS systems with a WEBCARDLX or SNMPWEBCARD, UPS systems that appear on the network via PowerAlert Local (or previous versions of PowerAlert*), network-enabled PDUs* and network-enabled cooling products. All the functions available through the PowerAlert Local console (for more information, see the PowerAlert Local User's Guide) will be available for the remote devices and also for local devices that are directly connected to the host computer.

Warning: Only one copy of PowerAlert Network Management System can be used per IP network subnet.

**Software or firmware version 12.04.0040 and above.*

4.2 Management Console

PowerAlert Network Management System's primary monitoring and control interface is the management console (Figure 4.2.1), which can be viewed either as a list (Figure 4.2.2), a tree (Figure 4.2.3) or an icon view (Figure 4.2.4). All manageable devices found during the discovery process (up to 250 in the free version of PowerAlert NMS) are listed in the device table **A**. Click any of the column headings to sort the table by the data in that column; click again to reverse the sort.

The "Status" column of the device table displays an icon that represents the device status. (If the device has more than one alarm, the icon for the most serious alarm is shown.) The row's color reflects the device status: Normal=White, Critical=Red, Warning=Yellow, Information=Light Blue, Offline/Unreachable=Light Gray.

Rows that change from normal to an alarm status will move to the top of the table automatically. You can right-click the device row and choose "Acknowledge Alarm" to remove the alarm status from the row and restore the previous sort order. The alarm icon will remain unchanged until the device reports the alarm has cleared. You can see additional alarm detail about the highlighted device, including separate listings of multiple alarms, in the "Alarms" section **B** of the management console.

The "Device Name," "Model Name," and "Location" columns display model information reported by the device. The "IP address" column of the device table displays the IP address assigned to the WEBCARDLX, SNMPWEBCARD, or computer connected to the device.

A WEBCARDLX with one or more ENVIROSENSE2 (E2) modules attached will display as multiple devices with the same IP address. The same follows for an SNMPWEBCARD with an ENVIROSENSE attached or a computer connected to two UPS systems. Any devices connected directly to the PowerAlert Network Management System host computer will display "localhost" in the IP address column. The "Host Type" column displays whether the device appears on the network via WEBCARDLX, SNMPWEBCARD or PowerAlert software (i.e. card or PC). The "Version" column displays the firmware or software version number.

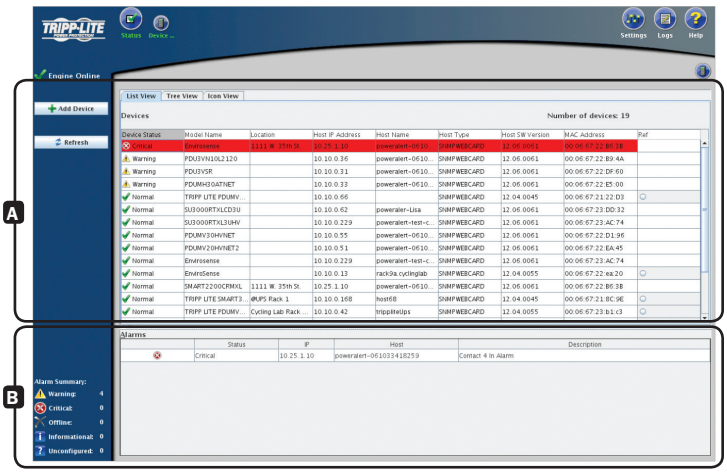

Figure 4.2.1 – Management Console

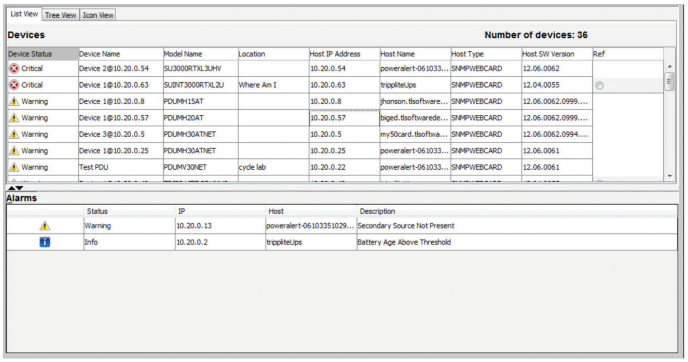

Figure 4.2.2 – List View

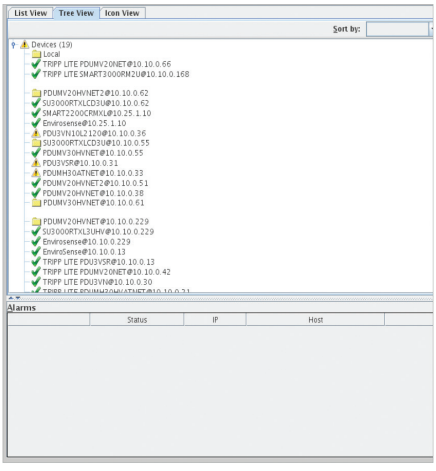

Figure 4.2.3 – Tree View

Right-click any device listed in the device table and select 'View Device' to open a separate PowerAlert console for that device. If the device appears on the network through PowerAlert or a previous version of PowerAlert software, the PowerAlert console for that device will open in a console window (one Java console at a time). If the device is a WEBCARDLX, SNMPWEBCARD or network-enabled PDU, a Web browser will launch and connect to the device's PowerAlert console. You can use each device's separate PowerAlert console to access all the monitoring and control features of the device.

IMPORTANT SECURITY NOTE: If you have disabled launching Java applets in your web browser, ensure you have installed the Java console launcher for your version of the SNMPWEBCARD. For information on how to install the console launcher, refer to the SNMPWEBCARD documentation. Documentation can be accessed online through Tripp Lite's website by clicking on the "Support" tab at www.tripplite.com and typing SNMPWEBCARD in the search field.

4.3 Device Addition and Removal

Delete a device from the device table by right-clicking the device row and selecting "Remove Device" from the pop-up menu as shown in Figure 4.3.1. Add devices by clicking the "Add Device" button located in the upper left section of the management console window. Select whether you want to discover a local device or a remote device in the "Add Device" pop-up window (Figure 4.3.2).

When you choose to discover a remote device, the "Add Network Device" window appears (Figure 4.3.3). Network device discovery can search the entire local subnet* if you enter an asterisk in the last octet of the IP address (192.168.1.*), or it can search specific IP addresses. Click the "Add to list" button after entering each IP address. Next, add the community strings for the WEBCARDLX or SNMPWEBCARD devices that will be searched.

The default community string for WEBCARDLX and SNMPWEBCARD is "tripplite". Click the "Add to list" button after entering each community string. After entering all the required information, initiate the discovery process by clicking the "OK" button. A progress bar and numeric display will indicate the number of nodes discovered, and newly discovered devices will be added to the device table.

If you enter a specific IP address, and the device is not discoverable, you'll see a message stating that a device could not be found. PowerAlert Network Management System searches for devices that appear on the network via WEBCARDLX, SNMPWEBCARD or PowerAlert Local, but it does not search for PowerAlert Network Shutdown Agent. PANMS automatically configures the following agents to send SNMP notifications to PowerAlert Network Management System:

- WEBCARDLX or SNMPWEBCARD Firmware Version 12.04.0048 and above
- PowerAlert Local 12.04.0048 and above

When PowerAlert Network Management System discovers a device that requires manual configuration, it appears in the device table with a "?" status icon, indicating an unconfigured device alarm. See **4.6 Clearing Unconfigured Device Alarms** for manual configuration instructions.

**Discovery searches the local IP subnet only (Class C). If the IP network is not a Class C network (192.0.0.0 through 223.255.255.255) a pop-up window will indicate that the discovery process can only be performed on a class C network.*

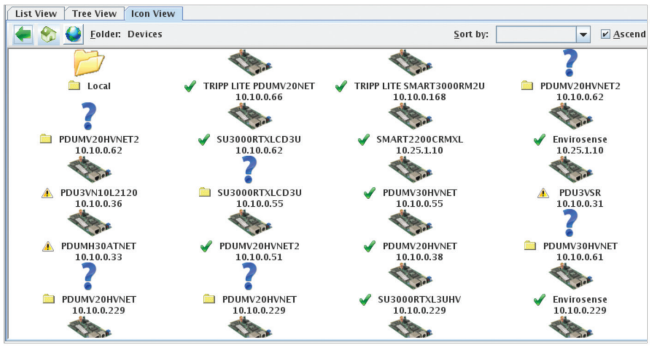

Figure 4.2.4 – Icon View

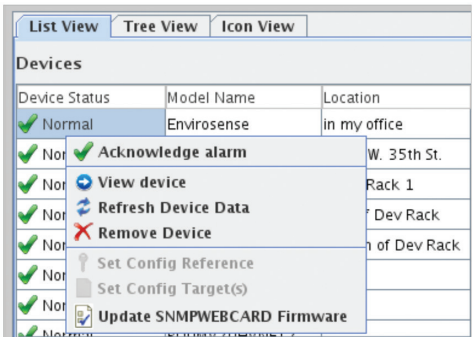

Figure 4.3.1 – Right-click Menu

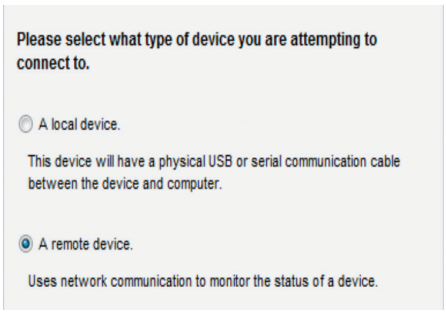

Figure 4.3.2 – Add Device

Figure 4.3.3 – Add Network Device

4.4 WEBCARDLX and SNMPWEBCARD Updates

If the WEBCARDLX/SNMPWEBCARD Mass Update tool is installed on your PANMS workstation, right-click on the WEBCARDLX or SNMPWEBCARD listed on the PANMS Console and select “Update SNMPWEBCARD Firmware” to launch the Update Console. **NOTE:** The Mass Update tool is not available on all operating systems.

NOTE: To update multiple WEBCARDLXs or SNMPWEBCARDs at once, hold down the Control button on the keyboard, then right-click on any of the selected cards.

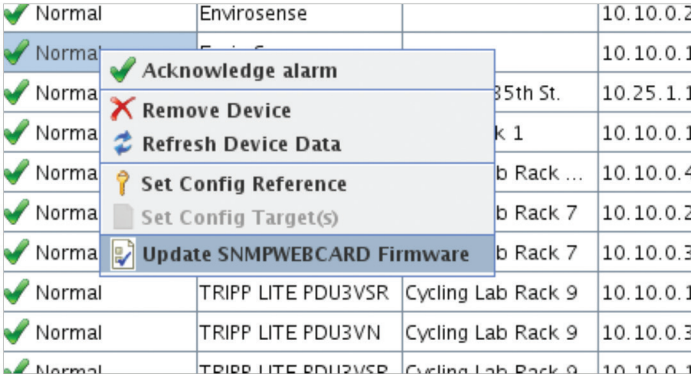

Figure 4.4.1 – Updating a Card

Equipment Menu

This menu displays the list of WEBCARDLXs or SNMPWEBCARDs that have been selected for version update.

In this menu, the user can add, edit, or remove one or more webcards. The “Set Global Password” button on this screen allows the user to set the username and password for all webcards in one step. The username and password must be set for each protocol used.

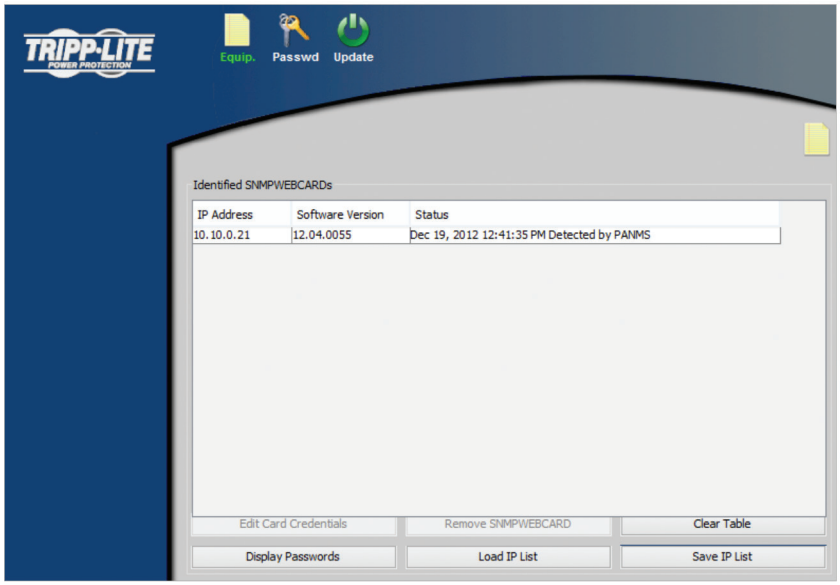

Figure 4.4.2 – Equipment Menu

If each card has a different username and/or password, the user must manually edit each card to add the username and/or password info.

NOTE: The Update tool refers to these username/passwords when performing the version update. Setting the global password in this menu does not change the card login authentication. It is only used during the update process.

Password Menu

This menu is used for updating the administrative username and/or password for the WEBCARDLXs or SNMPWEBCARDs listed on the Equipment Menu. The default username and password must be defined to begin the update process.

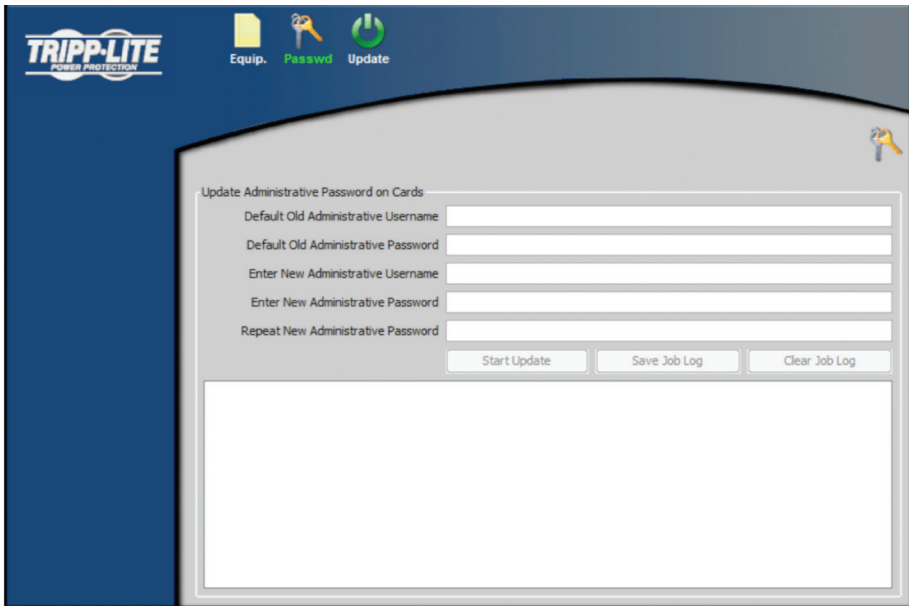

Figure 4.4.3 – Password Menu

NOTE: Only cards of version 12.04.0048 and later support username change. All other SNMPWEBCARDs have the fixed administrative user name "admin" and can only have their password updated. **Set Global Username/Password is incompatible with Version 12.06.0060 or later of the SNMPWEBCARD and is not supported by WEBCARDLX.**

Update Menu

This menu is used for SNMPWEBCARD version updates. Figure 4.4.4 shows the configuration for updating SNMPWEBCARDs to Version 12.06.0060 or later.

When updating to Version 12.04.0055 or earlier, please do not rename the image file and driver file: only the original names are recognized by the application. Also make sure the image version chosen is correct. Choosing the wrong version may cause the card(s) to end in an inoperable state.

IMPORTANT: SNMPWEBCARDs running versions before 12.04.0048 (using original hardware) cannot be upgraded to version 048 or above. Also, SNMPWEBCARDs using version 12.04.0048 or later cannot be downgraded below 12.04.0048.

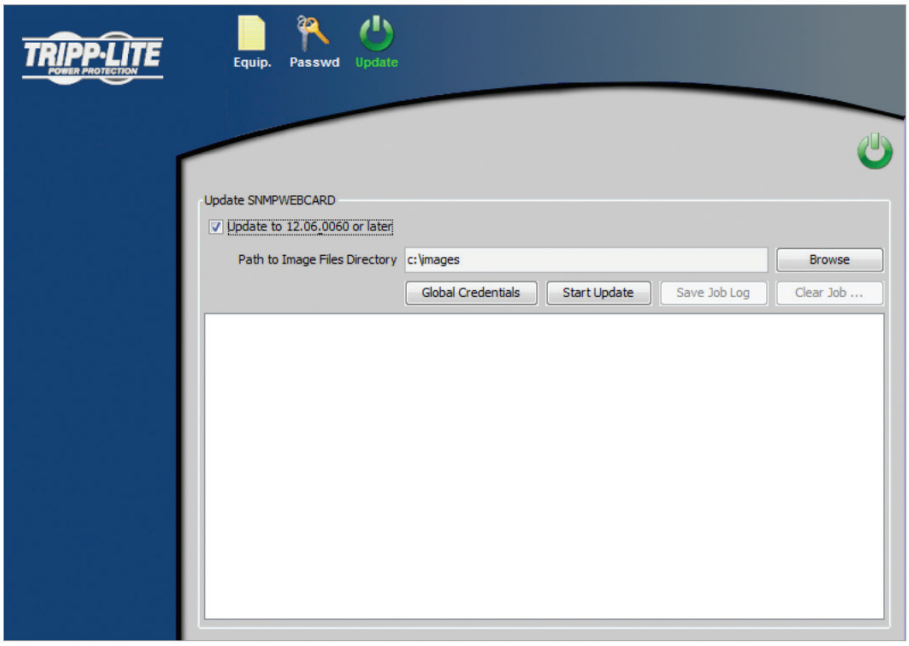

Figure 4.4.4 – Update Menu

If a WEBCARDLX or SNMPWEBCARD does not have the username and password on the Equipment screen, and the username and password are not defined on this menu, manufacturing defaults will be used. If the username and password do not match the actual username and password of a WEBCARDLX or SNMPWEBCARD, the webcard will not be updated.

IMPORTANT: You must enter Administrator and FTP credentials (including port #) for Version Updates to occur. This can be done globally by selecting the "Global Credentials" button or on the Equipment Menu by selecting the "Edit Device Credentials" button. If FTP is turned off on the card, the Mass Updater will automatically enable FTP during the update process and disable it at the completion of the update process.

NOTE: If necessary, the update process will try to query its version from the WEBCARDLX or SNMPWEBCARD. If the query fails and the WEBCARDLX/SNMPWEBCARD version cannot be determined, the webcard will not be updated. After the version update process is complete, the card version on the PANMS Console will update.

4.5 Mass Configuration

Mass configuration allows you to create a global device configuration you can apply to all compatible devices listed in the device table. **IMPORTANT: Devices with software or firmware versions prior to 12.04.0040 and later than 12.04.0055 do not support mass configuration. For SNMPWEBCARDs running 12.04.0060 or later, a standalone version of the Mass Configuration Utility for Windows is available for download from the software download section on Tripp Lite's website. Instructions for the tool are included in the download packages.**

4.6 Clearing Unconfigured Device Alarms

PowerAlert Network Management System automatically attempts to configure discovered Tripp Lite devices. Configuration may not be complete for some WEBCARDLX or SNMPWEBCARD devices, which will display "Unconfigured Device" alarms (identified by a "?" status icon). To clear an alarm, double-click the device's IP address to open its console window, then follow the steps shown below for the appropriate firmware level.

WEBCARDLX and SNMPWEBCARD Firmware 12.04.0048, 12.04.0055 and 12.06.006x

An "Unconfigured Device" alarm on these devices indicates that a read-only SNMP community string was used to discover the device. You can clear the alarm by changing the read-only community string to read/write, or you can enter a new read/write community string, delete the IP address from the device listing and add the device again using the new community string.

4.7 Email/Trap Forwarding

You can set up PowerAlert Network Management System to forward your UPS system's alarm records to an email or SNMP trap. Use the check boxes (Figure 4.7.1) to select which alarm categories will be forwarded.

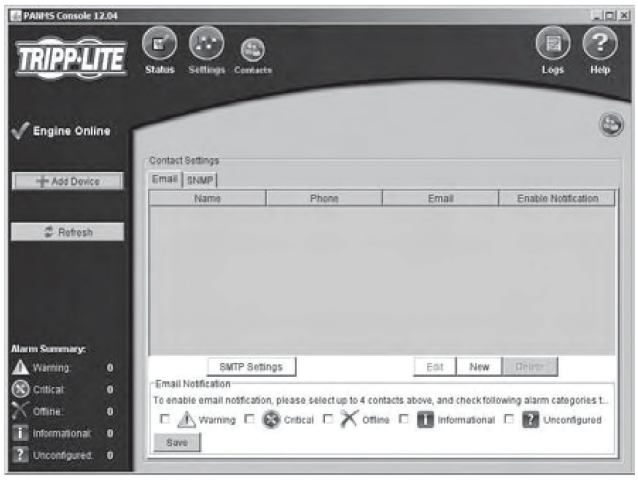

Figure 4.7.1 – Contact Settings

4 PowerAlert NMS Operation

4.8 Logging

Because events are stored internally, you can convert the event log into a text file and automatically email it to pre-selected contacts periodically.

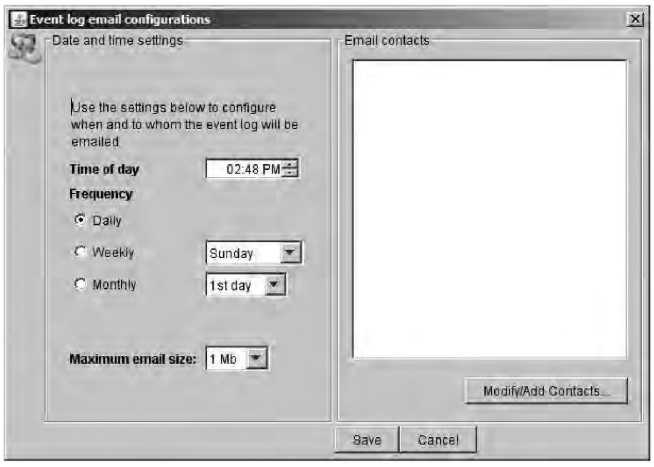

Figure 4.8.1 – Event Log Email Config

4.9 Event Log Sorting

Allows the event log to be displayed based upon user selected sort criteria.

Figure 4.9.1 – Sort Criteria

5 Technical Support

Tripp Lite technical support personnel are available via email and the web at:

Email
techsupport@tripplite.com

Web
The latest PowerAlert software updates are available at **http://www.tripplite.com/software/**

Technical Support Assistance
http://www.tripplite.com/support