

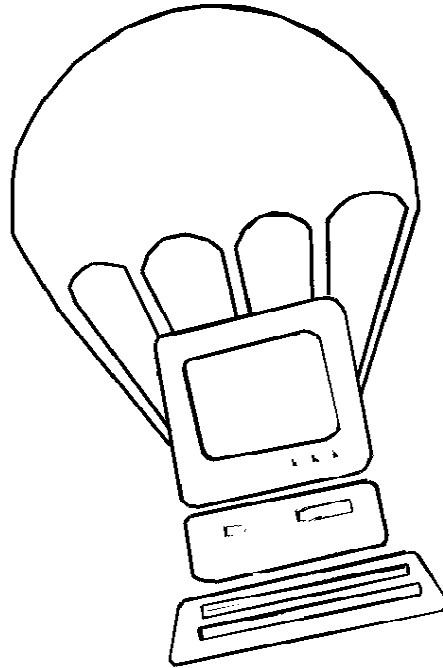
POWERCHUTE[®] *plus*

With
FlexEvents™

UPS Power Management And Diagnostic Software

Be **SURE** you're protected

PowerChute and PowerChute *plus* utilize the power of APC UPSs to enhance the reliability and manageability of networks



Shut down system safely

PowerChute *plus* software used with an APC UPS warns users of power problems and then automatically shuts down your system in a graceful manner with all vital data intact, whether you're there or not.

UPS testing/status

PowerChute *plus* software can schedule your UPS to perform periodic self-tests to monitor the health of the UPS. This ensures that problems such as weakened batteries are detected before they impact uptime.

Remote UPS management

Few companies can afford to employ on-site administrators at branch sites or fly trained personnel to remote sites to configure UPS parameters, reboot servers or diagnose power problems. APC software provides remote control of UPSs/servers, saving plane tickets and on-site support costs.

Environmental/power monitoring

Power problems are a major source of network downtime. PowerChute *plus* tracks and logs power disturbances so you can quickly diagnose power problems and thus decrease network downtime without the expense of an electrician or power line monitor.

Be **SURE** you're protected

Since many LANs and systems are attended by untrained personnel or administrators with limited time, American Power Conversion provides cable/board interface kits and UPS power management software so you can be **SURE** you're protected:

▶ **Cable/Board Interface Kits**

For operating systems with basic Shutdown capabilities, cable or monitoring board kits are available for use with all APC UPS product lines (Back-UPS®, Smart-UPS®, Matrix-UPS®).

▶ **PowerChute Software**

Provides unattended system Shutdown and UPS turn off for operating systems without built-in shutdown capabilities. All PowerChute features are supported across all APC UPSs.

▶ **PowerChute *plus* Software**

Provides extensive unattended system Shutdown capabilities when used in conjunction with a Back-UPS. When used with Smart-UPS or Matrix-UPS, PowerChute *plus* delivers unsurpassed UPS power management and diagnostic features. In addition to extensive unattended system Shutdown, PowerChute *plus* offers **UPS testing/status**, **Remote UPS management** and **Environmental/power monitoring** so you can be **SURE** you're protected.

APC[®]
AMERICAN POWER CONVERSION

SURE Protection

Shut down system safely

During an extended power outage, the UPS system battery can be drained before an operator can shut down the computer system gracefully. In this case the system will crash as if no UPS were present. PowerChute *plus* software ensures that the system is safely downed and that your data is safely stored before the battery is drained, even if the system is unattended. Consequently, administrators no longer have to race around shutting off systems before batteries run out.

Automatic shutdown

Safe, automatic shutdown of network servers or stand-alone systems in a graceful manner with all data stored safely on the hard disk drive whether the operator is present or not.

Lotus Notes Server Shutdown: A special commands file for Lotus Notes Server shutdown is included with PowerChute *plus* for each platform Lotus Notes supports.

Automatic Reboot

No local operator is needed to reboot your system after power returns.



Administrator/user notification of power event/loss

You have the ability to choose who receives notification upon selected power events. Administrators can be warned independently of users allowing them to react before users know there was a problem. Power event messages can also be customized to warn users in their native language. Users can then save their work before shutdown occurs.

Run customizable command files

The ability to run any executable file in response to a power event helps ensure that applications such as databases can be shut down in the proper state to be ready for immediate use when power returns.

UPS battery conservation mode

If a UPS shuts down the server but is unable to turn off its own electrical outlets, the server will continue to drain the UPS batteries until they are discharged. If power comes back and then flicks off again, the depleted UPS will be unable to power the load. APC software turns off the UPS's power outlets, conserving the battery for subsequent power outages.

Multi-server shutdown

Provides safe, unattended multiple server shutdown for users desiring to connect more than one server to the same UPS (NetWare only). Additionally, APC's share-UPS™ provides operating system independent shutdown for up to eight servers (see back page).

"If it is not certified, then it will not get any support from Novell."

Novell Labs quote in pcan magazine, 6/93

Certification by operating system vendors

Safe system shutdown software means "certified software." This is why PowerChute *plus* software is tested and certified by the operating system vendors that offer software certification. Since APC UPS software is certified for operating systems such as NetWare, IBM OS/2 and LAN Server, Solaris, Microsoft Windows and Windows NT, you are ensured of operating system vendor support as well as compatible operation when using APC software.



UPS testing/status

In the complex world of network management, UPS preventative maintenance is often the last thing on the "to-do" list. Administrators do not have time to walk from one UPS to another to initiate weekly UPS self-tests. They need software-scheduled UPS testing. Scheduled testing increases network reliability by automatically informing administrators whenever a battery needs replacement or a UPS requires service.

Scheduled UPS self-tests

With software-scheduled UPS testing, you get automatic notification whenever a battery needs replacing or a UPS requires service. No more walking from one UPS to another to initiate the UPS self-test.

Battery replacement warning

Automatically alerts you to potential problems so weak batteries can be replaced before they wear out.

Real-time graphical display of UPS status

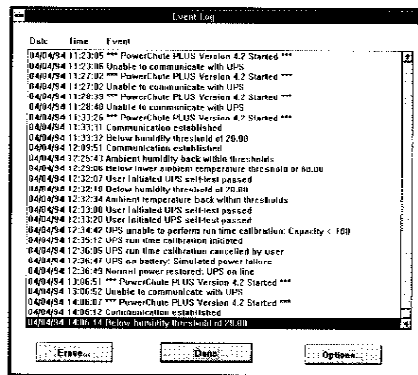
Check important operating data such as UPS status, battery runtime, load capacity and voltage to determine the health of the UPS at a glance. If necessary, preventative maintenance can then be performed.

Battery runtime

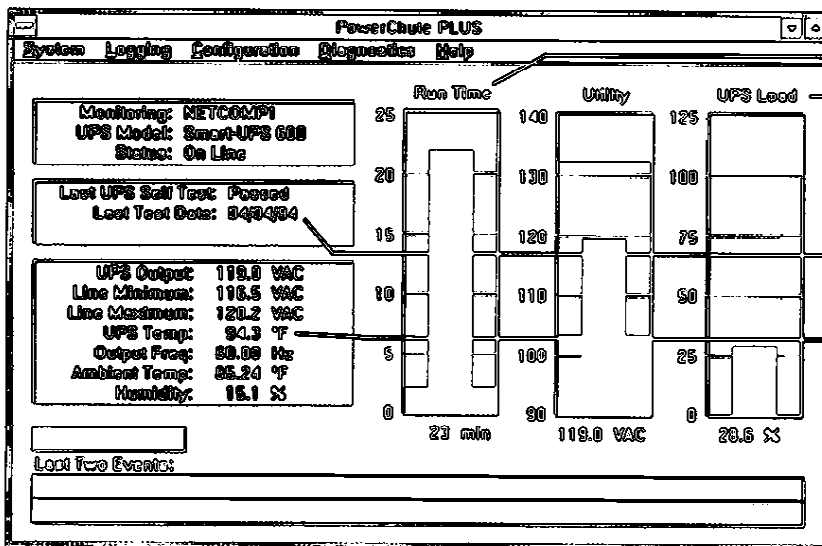
Permits the user to quickly check the available runtime (in minutes or % of battery capacity) providing a gauge for determining when shutdown will occur.

UPS power event logging

UPS status changes, power disturbances and environmental problems can be time-stamped and documented in both the standard server error log and the UPS power events log. Use the server log or UPS events log to diagnose UPS/power problems and perform corrective action before uptime is affected.



UPS power events log records selected power events with a description and time/date stamp.



Battery runtime - minutes of battery time remaining for system use while on battery

% UPS load - load capacity display ensures correct UPS sizing

UPS self test - unattended scheduled self tests warn of faulty UPS or weak battery

UPS temperature monitoring for proper UPS temperature to extend battery life

Real-time graphical display of UPS status
Look across the LAN at any UPS from your keyboard and check important operating data.

"...the best UPS software we have seen, PowerChute plus."

SURE Protection

Remote UPS management

The key to successful LAN administration is the ability to manage remote LANs and solve power problems without users ever knowing there was a problem. For example, a UPS on a far-off server has switched to battery. Before your users are notified of the potential problem, you diagnose it and determine that a remote UPS voltage window adjustment will prevent a shutdown. With PowerChute *plus* software, you can receive notification of power problems, diagnose and respond to the situation without your users ever knowing.

For remote SNMP management of your UPS and power environment, APC offers a full range of solutions with our PowerNet™ family of products (see back page for more information).

Paging/E-Mail for UPS/power problems

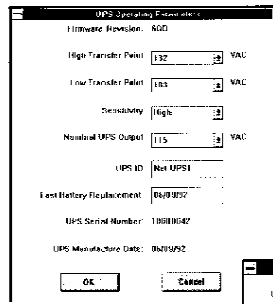
Provides real-time notification of local or remote problems even when you are away from the office. Eliminates the unpleasant surprise of returning to your office only to discover computer jobs that were never completed because of power disruptions.

Remote management via a workstation

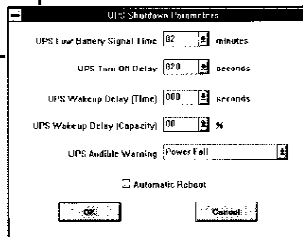
Look across the LAN to program internal UPS parameters or obtain the status of any UPS from your local system. PowerChute *plus* has its own security password so authorized users can monitor and manage UPSs and electrical power without having a superuser or supervisor account.

Software-configurable UPS parameters

Users can customize UPS operation by programming internal UPS parameter settings remotely via PowerChute *plus*. No local operator is required to physically change UPS dip switch settings..

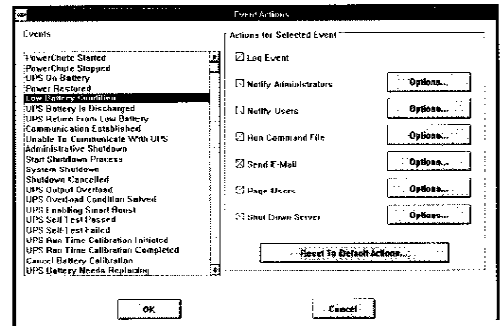


Software-configurable UPS parameters: high/low transfer voltage, transfer sensitivity, output voltage, low battery warning time, minimum battery capacity before reboot, UPS shutdown delay, wake up delay, UPS audible alarm and UPS ID.



FlexEvents

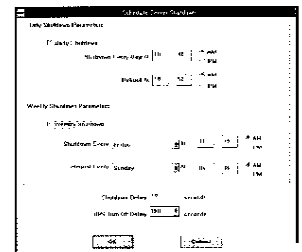
For each possible power event the user has the option of choosing one or more items from a list of possible UPS actions. Actions include: Log Event, Notify Administrator, Notify Users, Shut Down Server, Run Command File, Page, Send E-Mail. Customizing UPS actions to power events allows administrators to plan for and control crisis situations before they impact uptime or threaten data.



FlexEvents configuration menu: The left side of the screen lists all the possible UPS events. The right side of the screen has the seven configurable actions. In the example screen above, the **Low Battery Condition** event is being configured. All seven actions for this event have been enabled.

Scheduled system shutdown/reboot

PowerChute *plus* gives you the ability to automatically power down a system safely when it is not in use (at night or on weekends) and then reboot the system before the work day begins. This functionality provides added system security and an electrical energy cost savings of up to 76% based on a typical 40-hour work week.



Scheduled Shutdown Menu

New Control-UPS/400™

Now UPS monitoring and management is available for your AS/400 system. The Control-UPS/400 UPS management system allows for power management and UPS monitoring and shutdown via your Smart-UPS or Matrix-UPS. Contact APC for more information.

"I can monitor the LAN without employing an on-site technician. It saves an additional salary..."

Tom Mac, General Electric Corp., quoted in PCWeek

Environmental monitoring

Have you ever had computer problems that just did not make sense? Despite your best efforts to check system configuration and memory conflicts, the software glitches or "mystery crashes" persisted. Maybe you suspected the problems were power-related, but hiring an electrician or purchasing a power line monitor to isolate the problem was an expensive proposition. Now you no longer have to wonder if a problem is power related. PowerChute *plus* software does the work of an electrician or an expensive power monitor right on your system.

Real-time graphical display of power

Provides a quick, visual status check of the power line and environmental conditions (when used with a Measure-UPS[™] environmental monitoring accessory) for fast problem detection and diagnosis.

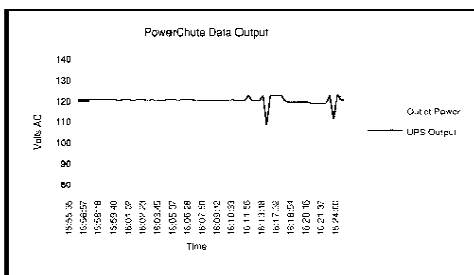
Power quality data log

Records periodic measurements (in spreadsheet importable format) of power line voltage, line frequency, battery voltage, load capacity, UPS temperature and ambient temperature/humidity (with a Measure-UPS) for easy identification of any problem trends requiring corrective action. The power quality log allows you to pinpoint your power problems to copiers, laser printers or other electrical equipment causing localized power brown outs or surges.

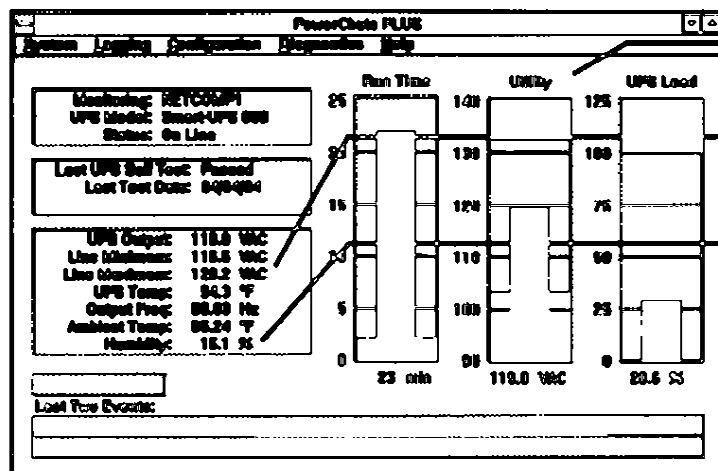
Measure-UPS[™] environmental monitoring

Monitors ambient temperature and humidity conditions as well as four user definable external inputs. These inputs can be used to detect alarm conditions such as fire, water, smoke and unauthorized entry. PowerChute *plus* software recognizes alarm conditions as events, and actions can be assigned to respond to these events before data or hardware damage occurs.

Power quality data log - Tracks power data such as min/max line voltage, battery voltage, line frequency, load capacity, and ambient temperature/humidity (with a Measure-UPS) for power problem diagnosis.



Power quality data log exported to spreadsheet - Allows you to pinpoint power problems to copiers, air conditioners, or the elevator on the other side of the wall.



Line Voltage - real-time power quality display for fast problem diagnosis

Min./Max. Power Line Voltage - to determine power quality

Ambient Temp./Humidity monitoring for data/equipment protection (Measure-UPS required)

Real-time graphical display of power status provides a quick, visual status check of the power line and environmental conditions.



"Top-notch software... goes beyond the basics to offer strong power management and monitoring functions" LAN Technology, 4/92

Features

Use this chart to determine the UPS series and the software, monitoring board or cable kit that give you the features you require when used with your operating system.

	Novell NetWare			UNIX		OS/2, WINDOWS 95/ WINDOWS WINDOWS NT		VMS/VAX		OS/400		Other OS's	
	PowerChute plus		Mon. Bdr Cable*	PowerChute plus		PowerChute plus		PowerChute		Control-UPS 90D		Basic Sig. Cable	
	Back-UPS or Back-UPS Pro	Smart-UPS or Matrix UPS	All APC UPSs	Back-UPS or Back-UPS Pro	Smart-UPS or Matrix UPS	Back-UPS or Back-UPS Pro	Smart-UPS or Matrix UPS	Back-UPS or Back-UPS Pro	Smart-UPS or Matrix UPS	Smart-UPS or Matrix UPS	All APC UPSs		
Shut down system safely													
Automatic shutdown													
Admin user/ user not feature of power events													
Power events logged in server log													
Customizable commands file													
UPS battery conservation mode													
Automatic reboot													
Multiple server shutdown													
UPS testing/status													
Scheduled UPS self tests													
Battery replacement warning													
Real-time graphical look at UPS status													
Battery runtime													
UPS status events log													
Remote UPS management													
Paging for UPS power problems													
E-mail for UPS power problems													
Remote management: e.g. workstations													
Software-configurable UPS parameters													
Scheduled system shutdown/reboot													
File events													
Environmental monitoring													
Real-time graphical display of power													
Power quality data log													
Measure UPS support													
Part number	AP9003		AP9500/Cable	AP9004/AP9003/AP9008		AP9002/AP9007/AP9009		AP9006/AP9001		AP9012		Banyan Vines AP940/004 AS/400 AP940-0006 Windows NT/ Lanmatic/LAN Server AP940-0020 SCO UNIX AP9401	
System Requirements	NetWare 3.1 and above NetWare 4.0 and above (excluding SFTIII); NetWare SMP 4.1			AP9004:IBM AIX, SCO, ICR, Solaris (SPARC & Intel) Sun OS, Unixys-SINIX (RM & Int), DEC OS/1, UnixWare-Olivetti, Unix, AP9005: HP-UX AP9008:SGIX		AP9002: OS/2 v.2.x, Warp, Warp Connect, Warp Server IBM LAN Server v.2.0 and above; AP9007: Windows 3.1 and above, Windows 95 AP9009: Windows NT 3.5.1 and above		AP9006/VMS v5.1 and above; Open VMS 6.0 and above VAX and Alpha		AP9012: V2R3 thru V3R5		available UPS part	
All kits come complete with all the cables, boards or software required for the supported features.	KS232 serial port			KS232 serial port		KS232 serial port		KS232 serial port		KS232 serial port		KS232 serial port	

*Novell NetWare

PowerChute plus for NetWare is an NLM that provides complete power protection and UPS management for servers in a NetWare LAN environment.

Novell NetWare provides a basic UPS monitoring service. American Power Conversion offers two cable kits, (940-0020) and the PS/2 cable interface (940-0012) to make use of this basic signaling service.

One limitation of Novell's monitoring is that the server requires a manual reboot after certain types of power failure situations. Moreover, a different interface kit is needed for different server hardware configurations, and installation requires creating and editing configuration files, a frequent source of difficulties.

"If it is not certified, then it will not get any support from Novell..."

The position which Novell holds is that users are gambling if they take something which has not been thoroughly tested by a reliable third party organization such as Novell Labs" — **Novell Labs quote in PCLAN magazine, 6/93**

PowerChute plus for NetWare is certified on Novell Netware 3.x and 4.x

**Cables: (940-0020) or for Novell basic signaling service (940-0012) for PS/2 systems only.

Note: NetWare Lite does not currently support UPS monitoring.

APC was awarded the prestigious "Professional Developer Status" from Novell. Our close relationship ensures that you'll never be left with equipment that's incompatible with the latest NetWare products.



Lotus Notes

PowerChute plus provides graceful, unattended shutdown of Lotus Notes Servers. A special commands file is included with PowerChute plus for each platform Lotus Notes supports.

UNIX

In the advent of an extended power failure, the UNIX operating system requires that a 'sync' command be executed to safely store data to disk and prevent file system corruption. A safe shutdown with all data permanently stored on disk eliminates the need for executing 'fsck' to repair the file system when power returns. Depending on the extent of the damage and the size of the file system, 'fsck' can take considerable time to repair any damaged files.

A quote from a UNIX vendor's "System Administrator's Guide" illustrates the importance of UPS management software to ensure a safe UNIX operating system shutdown:

"When your system goes down as the result of a power failure, the shutdown is considered 'abnormal.' When the system is shut down normally, the shutdown program stops all daemons, kills the active processes, unmounts any mounted filesystems, ...and runs the 'sync' command.

Because UNIX System V writes to disk every 60 seconds, the amount of data lost to system shutdown without the 'sync' command should be minimal. However, because the filesystems were not unmounted properly before the system shut down, **filesystem corruption may be extensive.** If the root filesystem is corrupted, the system does not function properly." A UNIX vendor's System Administrator's Guide



OS/2, Windows 95, Windows NT & Windows

"You should always shut down your system before turning off your computer; otherwise, you might lose information."

OS/2 Operating System Guide

"Caution: Never use the computer's power switch to quit Windows NT, or you may lose data. Always use shutdown to quit, so Windows NT can save changes in all working files and properly close applications and services." Microsoft Windows NT System Guide

"Caution: Check that the SMARTDrive has completed all write caching before you turn off your computer...After all disk activity has stopped, you can safely turn off your computer." Microsoft Windows User's Guide



PowerNet™ SNMP Products

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OS/2 Operating System Guide

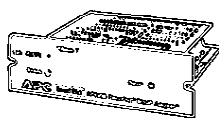
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"Caution: Check that the SMARTDrive has completed all write caching before you turn off your computer...After all disk activity has stopped, you can safely turn off your computer."



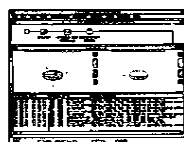
Enterprise UPS power management

PowerNet SNMP products permit you to monitor and control the APC UPSs along the entire network data path. These products provide the three critical components required for worldwide power management of both servers and internet equipment from a single network management console. (See literature #996-0325)



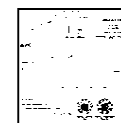
PowerNet SNMP Adapter

Makes your UPS "SNMP Ready" on the network, providing power monitoring and control for internetworking equipment and servers. PowerNet SNMP Adapter is compatible with Novell NMS, SunNet Manager, HP OpenView, IBM NetView/6000, DEC PolyCenter, Cabletron Spectrum, UB NetDirector, and others.



PowerNet SNMP Agent for Netware

Adds SNMP management of UPSs protecting NetWare servers to all the other capabilities of PowerChute *plus*. PowerNet Agent can furnish real-time UPS status and power quality information about all the NetWare servers in your worldwide enterprise network.



PowerNet SNMP Manager

A windowed, snap-in application for managing the power of the entire network from your NMS station. PowerNet Manager collects UPS/power status information from UPSs with PowerNet SNMP Agents or PowerNet SNMP Adapters and graphically displays that information in a window on your NMS station for fast problem diagnosis.

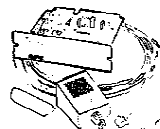
PowerNet Manager for UNIX pictured.

UPS Accessories



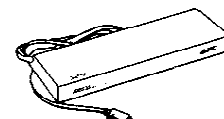
Call-UPS II

Works with an external modem to provide "out-of-band" UPS management for Smart-UPS or Matrix-UPS. Critical LAN devices often require this second management path to maximize network uptime.



Measure-UPS II™

Measure-UPS II monitors the environment by providing internal sensors for ambient temperature and humidity, and four contact closure inputs for external alerts such as smoke, fire, water, and security.



Share-UPS™

When used with APC software or cable kits, Share-UPS provides safe, automatic shutdown of up to eight servers connected to the same Smart-UPS or Matrix-UPS — even in mixed operating system environments. Share-UPS also supports remote UPS management via modem.

For more information call
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(401)789-5735 - Worldwide
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Internet: apctech@apcc.com

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