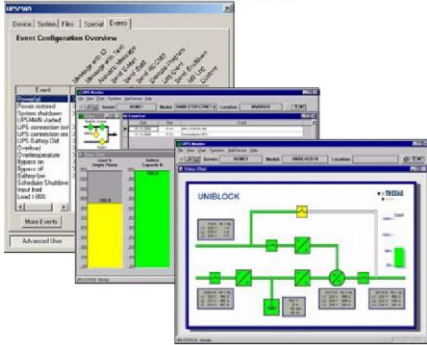


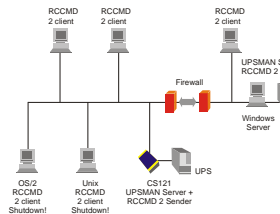
**UPSMAN/UPSMON/UPSVIEW, RCCMD and UNMS II
Comprehensive UPS Administration and Alerting**

**UPSMAN
UPSMON/UPSVIEW
UPSMON CUSTOM**



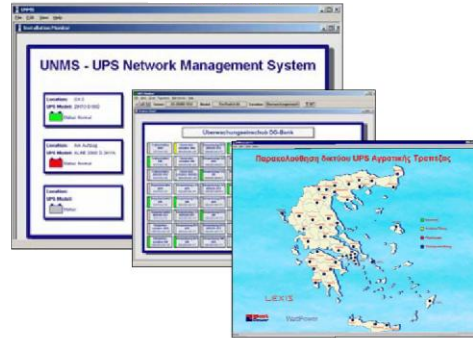
- Event and scheduling configuration module and grafical monitoring interfaces

RCCMD



- Network shutdown messaging and command client module for heterogeneous networks

UNMS II

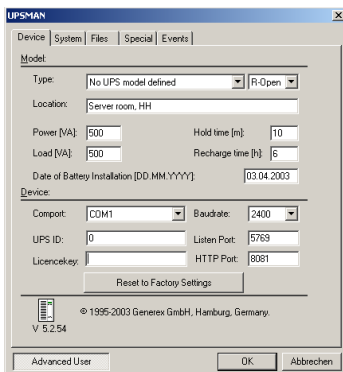


- Central Management of UPS, BACS, Environmental sensors & alarm contacts
- Communication via LAN/VPN, GSM, Modem, Email
- Customizable, user configurable graphical interface

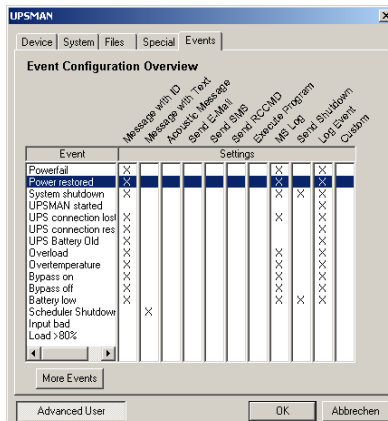
Description UPS Management Software

The **UPS-Management Software** is a collection of client/server modules for networks and local workstations for monitoring the status of system resources and managing operations in response to changing conditions. While just one single component module, **UPSMAN**, would suffice for managing a simple UPS system at the most basic level, the collection of different modules can be scaled and combined to form very elaborate and sophisticated intelligent facility management systems. These systems can range from one server serially connected to single UPS in one building to a wide area network consisting of thousands of clients of various operating systems secured by diesel aggregates, battery conglomerates and other alternative UPS systems spread out over international borders.

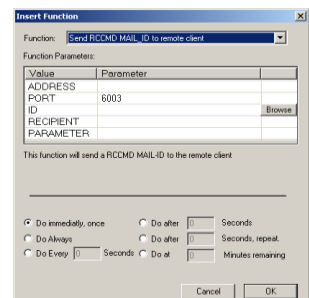
The server module of the UPS-Management Software is **UPSMAN**, which communicates via RS-232, USB or SNMP with the UPS or the UPS SNMP adapter. When **UPSMAN** begins, it collects the messages sent from the UPS and analyses received messages to notify the administrator/operator. Grafically all the **UPSMAN** actions can be monitored using the client modules Windows UPSMON, UNMS, UPSVIEW or any web-browser. The **UPSMAN** is able to manage UPS systems with potential-free contacts or serial interfaces (RS-232) from more than 100 UPS manufacturers. 80% of the UPS products in the world are supported through **UPSMAN** or the CS121 today.



UPSMAN Configuration - Main Page



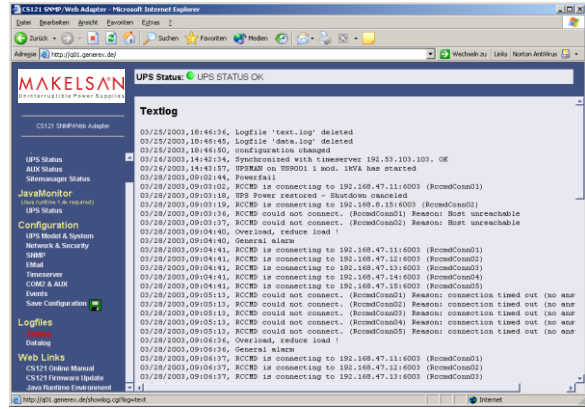
UPSMAN Event Configuration - Comfortable Overview of all Events and their Corresponding Actions.



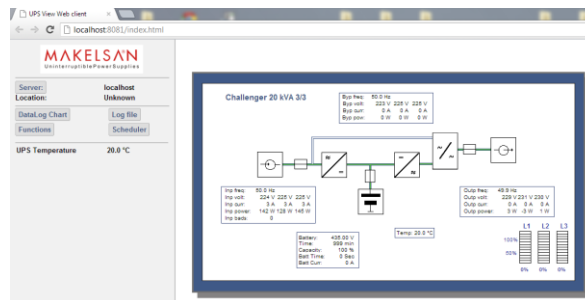
UPSMAN insert Event Function – every Event can be individually programmed with Responses, such as Text Log Entry, Email/SMS Notification etc.

Description UPSMAN

If **UPSMAN** detects voltage variations, power loss or any other UPS condition, it can respond with a wide variety of **ACTIONS** to each different **EVENT**, which for example may shutdown the server or send warnings and emails to connected users. The user can alter the configuration in respects to network messaging, sending of email or SMS, **RCCMD** (Remote Console Command) shutdown, etc. More than 12 languages are supported. **UPSMAN** for Windows XP/VISTA Business/2000//2003 Server/2008 Server/Windows 7, Novell NetWare and UNIX have an SNMP proxy agent, which translates all UPS data into SNMP format. This allows for NMS software like HP Openview, IBM Netview and others to utilise its own processing tools. Every **UPSMAN** comes with its own web-server, that allows the monitoring or configuration from remote using any standard web-browser. **UPSMAN** runs also on less widely spread platforms like DEC VMS/Compaq and APPLE MAC X – and of course, inside the CS121 Web Adapter.



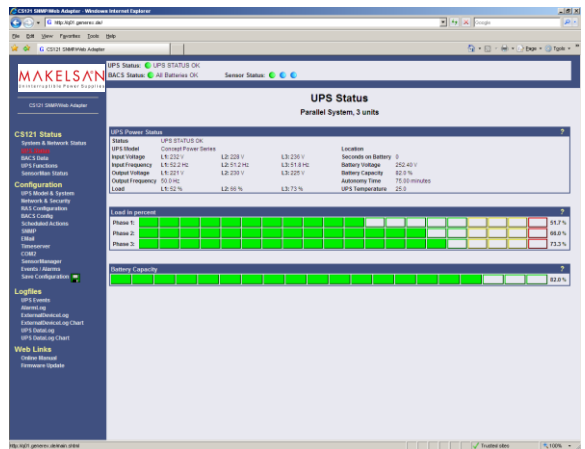
CS122 UPS Status Text Log File viewed via Web-Browser



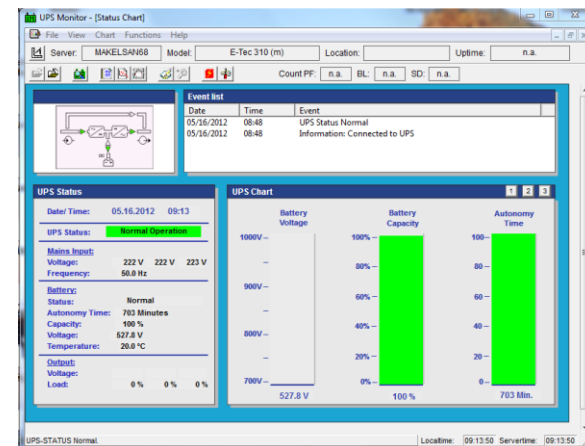
UPSMON/UPSVIEW monitoring the UPS via Web-Browser remotely

Description UPSMON/UPSVIEW

UPSVIEW is a graphical Windows client for operating and monitoring the active **UPSMAN** software connected to an UPS. UPS-Routine schedules can be programmed (e. g. define dates for automatic UPS-tests, shutdown the system at defined dates, etc.) to check the status of the UPS, and execute different programs or create power quality statistics. With **UPSVIEW** you can evaluate the event protocol (log file) that is permanently updated by **UPSMAN**. The data communication to the **UPSVIEW** is achieved via TCP/IP, IPX, NetBEUI or SNMP. The integrated Java tool **JAVAMON** for **UPSMON/UPSVIEW** and **web server/HTML** for the CS121 series are alternative graphical administration interfaces that can be conveniently accessed via the network/internet.



UPSMAN on CS121 – Web-Browser Configuration/Monitoring

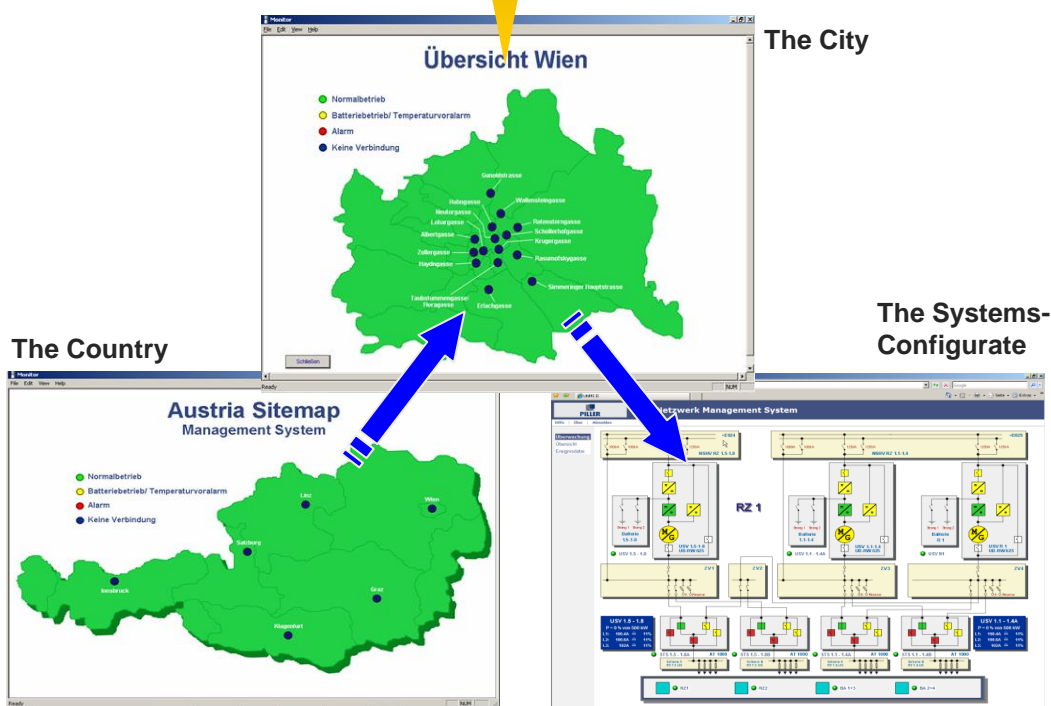
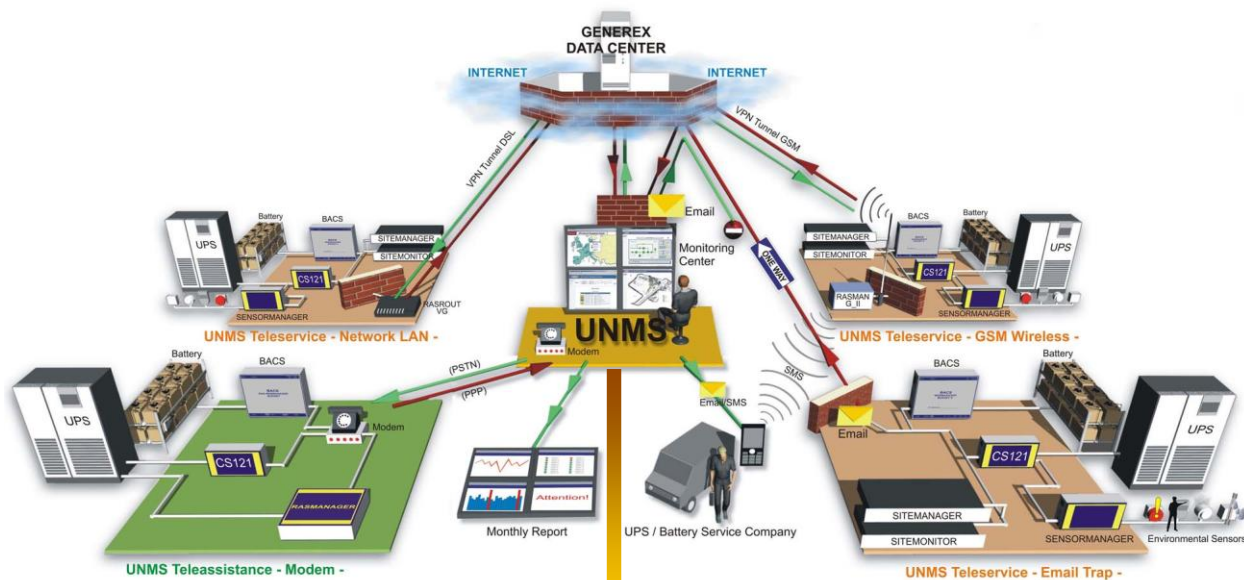


Windows UPSMON/UPSVIEW Monitoring a simple Network UPS

Description UNMS II

- The UNMS is a customizable network management software for the centralized or remote monitoring of UPS, Inverters, Rectifiers, Battery management system BACS and other power management devices. Additionally the system monitors Environmental sensors and alarm contacts like smoke sensors, door contacts, or any other MAKELSAN sensor
- The UNMS is fully web-based and may be managed from any computer with a web browser in the network.
- A very special feature is the customizable interface of the UNMS. This allows the user to adjust the graphical look & feel of the software to his installations and makes the use of the product much easier than standardized software interfaces without customizable screens. Separate users setups allow access to the different management levels only for authorized users.

- The connection between the monitored devices is established through 4 ways (see picture below):
 - „UNMS Teleservice - Network LAN - ” this is a connection via TCP/IP through a LAN and/or VPN-Tunnel, a secured internet connection.
 - „UNMS Teleservice – GSM Wireless-„ this is a wireless GSM/EDGE Network connection through a VPN Tunnel of the MAKELSAN DATASERVER portal.
 - „UNMS Teleservice – Email Trap – „ this is a Push Email connection called „EmailTrap“, transmitting all data through the SMTP Protocol.
 - „UNMS Teleservice – Modem – This Modem Peer-to-Peer solution is not longer supported after 2012, replaced by the solutions A - C.
 All 3 modes can work simultaneously so that all devices can be managed by a single UNMS, its a combination of local and remote monitoring system.

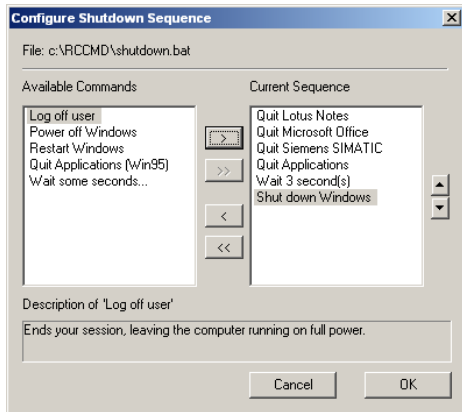


Description RCCMD

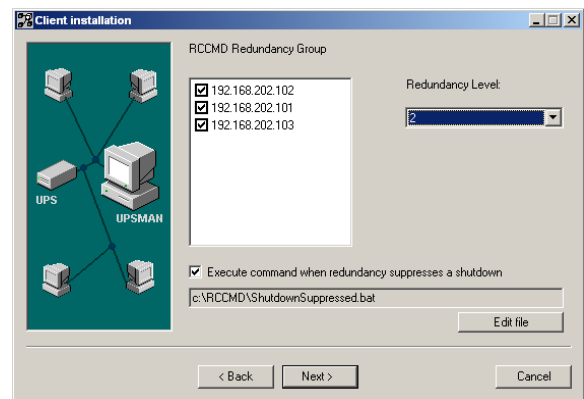
Every UPSMAN includes an **RCCMD Server** ("Remote Console Command"). The counterpart is an additional client module, which executes a command on a remote system, similar to the Remote Shell-Program (RSH) known in the UNIX world. RCCMD is used to provide a simultaneous and secure shutdown of several servers and/or workstations on almost any platform.

RCCMD is also capable of relaying messages and commands to remote LAN/WAN RCCMD clients. Using the specially developed RCCMD network protocol, RCCMD is the most successful UPS shutdown solution for networks and available for more than **35 operating systems**. With its latest extension RCCMD is now more flexible and offers more functions, such as:

- Message transfer via TCP/IP between different operating systems: An alarm message from a Windows network maybe also distributed in UNIX and Mac X network. This is particular applicable when using SNMP adapters, which normally only respond by sending SNMP traps to an operator. Via RCCMD 2 a CS121 can now react via Windows network message and UNIX X-message and notify users.
- Automated remote maintenance from network computers without user account or login: RCCMD 2 can execute any program on a remote computer – No login required.
- Grafical configuration interface for all functions, also for UNIX and Mac OS X (from 10.x)
- Alive-Check – RCCMD clients may periodically check if the UPSMAN sender is available.
- RCCMD group from up to 4 UPS as a parallel redundant system.

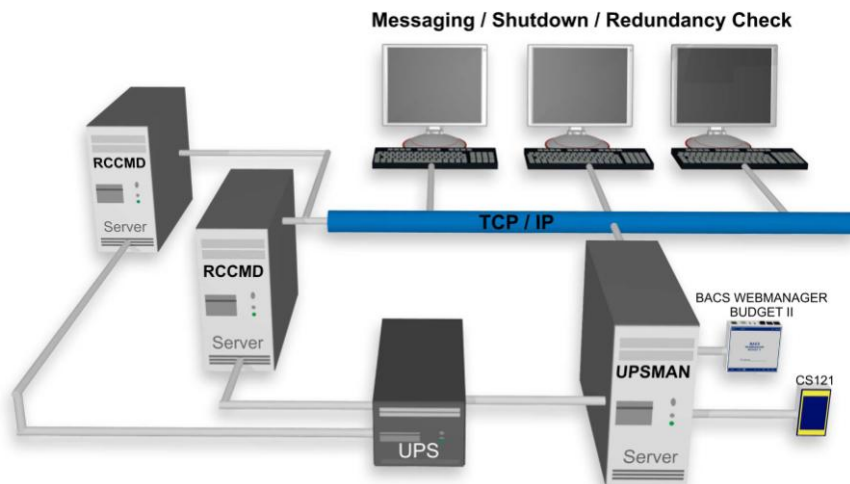


RCCMD Client Redundancy Configuration Page



Comfortable RCCMD Shutdown Configurator

Diagram RCCMD Modul



Features

- Available for Windows 9x, NT (INTEL, ALPHA, MIPS), 2K, XP, 2003/2008 Server, Netware, Mac OS 9.x and 10.x, 15 UNIX versions and Open VMS and IBM OS/2.

- Monitoring of UPS systems with potential-free contacts or serial interface.

- Automatic shutdown, Multiserver Shutdown: Unlimited shutdown manager for RCCMD clients – for more than 40 different operating systems. This makes it possible for an UPSMAN Server to notify and shutdown any type of computer in a given network, which can then be used to centralize the administration of large networks while greatly reducing both the amount of organisational work and the amount of consumed network time for communications. Different methods are available for conducting shutdowns and system start ups:

1. Cold-boot (computers are directly cut-off from or connected to the power supply. This option may require a SiteSwitch.)

2. Warm-boot (using RCCMD operating systems are prompted to shutdown or restart.)

3. Wake on LAN (using data packages other computers in a local network are prompted to start-up.)

- Program execution, messaging, logging etc. of local and remote computers into the network. (Master/Slave via RCCMD module).

- Grafic display of input voltage and frequency with min., -max. and average values.

- Display of the autonomy time and user notification of warnings for low battery, battery error, over temperature, and hardware errors. Log files have a date/time stamp and the UPSMON/UPSVIEW tool bar has a counter for power failures, battery low, system shutdowns and test failures.

- SMTP compatible system with transmission of information via email, email to SMS or other external services.

- Integrated SNMP-Agent (RFC 1628 or private MIB) for NetWare, Windows NT/2000, Linux and SUN.

- Event dependent sending of network messages, logging, email, program execution, etc.

- Logging of all UPS information and measurement values in CSV, comma separated values, format for MS-Excel, Lotus, GChart

- Scheduler for time controlled execution of functions, such as battery test, reboot, shutdown etc.

- Password protection of all UPS remote functions

- Multiple-start possible to control several UPS from one computer

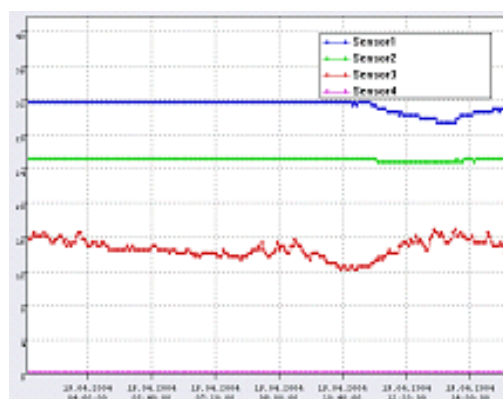
- Scheduling of up to four electrical sockets (special UPS types or optional hardware type SS4 required)

- Configuration and “look & feel” is identical on all platforms (UNIX, Windows, NetWare, VMS, MAC OS)

- User messages in 12 languages

- UPSMAN can work with extension modules such as the SensorManager (temperature/humidity and other sensors), RASManager (modem solution), SiteSwitch (power distribution and switching unit), UPS SNMP Watch (software for parallel redundant UPS), HP Openview snap-in, etc.

- Supports nearly all UPS devices of all-important UPS manufacturers using RS-232 protocol and contact closure interfaces.



UPS-Management software - CS121 Web

	UPS-Management software for Windows NT/2000/2003/XP/VISTA	CS121 SNMP WEBMANAGER	UPS-Management software for Unix/Mac OS systems
Network Protocol	TCP/IP, NetBEUI, SNMP	TCP/IP, FTP, TELNET, PPP, SNMP, ARP and others	TCP/IP, FTP, TELNET, PPP, SNMP, ARP and others
Remote UPS monitoring	X	X	X
RCCMD - Shutdown support	X	X	X
RCCMD 2 - Extended remote shutdown function	X	X	X
RCCMD 3 - group/redundancy for up to 4 UPS	X	X	X
HP Openview	X	X	X
LAN support	X	X	X
Network Messaging	X	X	X
UNMS - Multi-system remote control	X	X	X
Modbus Facility Management capability	-	X	-
Web browser management	X	X	X
Scheduler shutdown	X	X	X
History / Event log file	X	X	X
Multi-language text log files and network messages	X	X	X
Unattended installation available (for automatic script based installations)	X	-	X
Password protected remote functions e.g. Emergency off, reboot, tests, etc.	X	X	X

UPSMAN/UPSMON/UPSVIEW – CS121 Web/Adapter

UPS - functions

	UPS-Management software for Windows NT/2000/2003/XP/VISTA	CS121 SNMP WEBMANAGER	UPS-Management software for Unix/Mac OS systems
UPS-Standard functions/warning: e.g. Battery low power failure overload UPS connection restored System shutdown	X	X	X
UPS-Standard functions/warning: e.g. Inverter overload Fuse blown Rectifier mains fault Inverter feeding Battery switch open	X	X	X
UPS - send UPS shutdown signal	X	X	X
UPS - SNMP redundancy capability (USW software)	X	X	X
Graphic display UPSMON / HTML / JAVA	X	X	X
Environmental monitoring - Facilitymanagement e.g. GENEREX SITEMANAGER, SITEMONITOR, SENSOR- MANAGER, SITESWITCH	X	X	X
Qualified hotline Korean and Japanese language	X	X	X