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Belkin Automatic Power Management Software profile

Belkin Automatic Power Management Software (Belkin APM Software) is a UPS monitoring software which supports both stand alone computers and network (including LAN / Internet) connected computers. Belkin APM Software monitors the intelligent UPS and safeguards computer systems from unexpected crash when power fails. With Belkin APM Software, users are able to monitor and configure the UPS on any computers in the network. With this software, one UPS can protect computers in network with security simultaneously, including shutting down system in security, saving application data and shutting down the UPS when AC power fails.

Belkin APM Software structure

Belkin APM Software is composed with components: Agent, Monitor and TrayIcon.

Note: The concrete meaning of Agent refer to Appendix A - glossary explanation.

Agent

The core component of Belkin APM Software runs as a system service in the background. Also communicates with the UPS, logs events, notifies users of events and arranges actions according to user's requirement and shutdowns the system when necessary. Agent can be managed by Monitor.

Monitor

The user interface of Belkin APM Software. Relying on Agent, it gathers real-time UPS information, UPS status, server information and allows user to set the UPS parameters. It works on any computer in the LAN.

Tray Icon

The management tool of Belkin APM Software, and works in Windows platform only. It shows on the system tray. TrayIcon has two different icons for displaying current Agent status. Please refer the listed table below for the status illustration:

- ![The Agent is stopped.](image)
- ![The Agent is running.](image)

A short cut menu pops up when right-clicking on the icon on the system tray.
The relationship between Agent and Monitor.

Belkin APM Software Application Range of stand alone computers.

Application in the LAN.
Application on the Internet.

Belkin APM Software functions & advantages

- When the Agent starts, it will run continuously to protect your equipment in every minute. To uninstall is easily and clearly with no trace. This software will not increase spend on system and is a Green software. You can have a full view of all the information, including utility power, UPS, loads and battery and the information will be listed in the same window.
- Auto searching and telemonitoring any UPS in LAN.
- Manual searching and telemonitoring any UPS in Internet.
- Security protection: The system administrator can set the password to prevent damage from others. Only the system administrator has the authority of full access, while other users have the authority of view only.
- Data auto protection: It can close most of the running applications and save the related files.
- Time turning on and off the UPS: It can give maximum protection to your computer system.
- Time self test of the UPS: It provides the maximum protection to your UPS system.
- Network shutdown: It supplies your network system the maximum protection.
- Data logging (including UTILITY POWER, UPS, LOAD and BATTERY) and event logging: The system administrator can carry out the UPS system daily maintenance.
- Flexible means of information transfer allows the user to control the UPS status at anytime and anywhere. Important information will never be missed because of the change of time and place.
  - Broadcasting messages to every user in the network.
  - Sending messages via pager.
  - Sending messages by EMAIL.
  - Sending messages via mobile phone sending SMS.
Chapter 2
Installing, Starting & Uninstalling of Belkin APM Software

System requirements
- 128 MB RAM of memory at least (256MB is recommended)
- 256 colors and 800 * 600 resolution or above display is recommended
- 160 MB of disk space or above
- An available communication port (RS-232 Serial Port or USB port) is needed while connecting to UPS with a special connecting cable.
- For Mac OS X, Linux or Unix operating system, the user must have the access authority as the administrator
- TCP/IP protocol must be installed to support network management and the port 2099 should be opened in the firewall.

Platforms supported by Belkin APM Software
The following operating system (OS) is arranged by the alphabetical order:
- AIX 4.3.3, 5.1, 5.2
- Compaq Tru64 Alpha
- FreeBSD x86
- HP-UX 11.x, 11i.x
- Linux
- Mac PPC OSX
- SCO UnixWare 7.1.1, 7.1.3, SCO Unix 8.0, and SCO OpenServer 5.0.6, 5.0.7
- SGI Irix 6.5.x
- Solaris / Sparc 2.6, 7, 8, 9, and Solaris / Intel 2.6, 7, 8, 9
- Windows XP / 2003 / 2000 / ME / 98 / NT 4.0 (SP6) / Vista.
Installing Belkin APM Software

**Note:** The installation must be started with “root” account in Linux and Unix systems. After installing, you must restart the system before running the Belkin APM Software.

Enter the correct directory of the CD-ROM according your OS and PC type.

**GUI mode environment**

Insert the Belkin APM Software CD; find the OS of your computer under the CD directory.

**Windows platform**

1. Enter the directory: \Windows\Disk1\InstData\VM in the address bar, run setup.exe to start the installation.

   Notice: In Vista, you should run setup.exe as administrator. Right click on the setup icon, then select “Run as administrator”. If a “user account control” dialog pops up, then select “Allow”.

2. Read the introduction, and click **NEXT** to continue.

3. Select a folder directory to install Belkin APM Software.
   (Refer to installing directory in the following)
4. Review the Pre-installation Summary, and click **Install** to start the installation.

5. To stop the installing, click **Cancel** to stop.

6. Click **Done** when the installation is complete.

7. Belkin APM Software application can be found in the Start menu > Programs.

*Mac OS X platform*

1. Enter the directory: `MacOSX\Disk1\InstData` in the address bar, and double click the **setup.app** to start the installation.
2. Enter the Administrator name and password, and click **OK**.

**Other operating systems**

1. Execute `./setup.bin` to carry out the installation. Notice: If you can’t install on CD directly, please try to copy the content of CD to your disk, then install.

**Consoling mode environment**

Enter the directory according the OS and run `setup_console.bin` to start the installation program.

Read the information provided, and then press **ENTER** to continue the installation. Click **Done** when the installation is complete. Reboot the Linux and Unix system after installation.

The installation will set environment variables for Belkin APM Software in `/etc/profile` file (details see “Set environment variable” below). Rebooting the system will apply the settings.

| Note: For UnixWare platform, make sure JRE1.3.1 has been install in your system, and then enter the `/GenericUnix` directory to start the setup. Only in Linux and Unix platform, you can use the consoling mode environment. |

**Start / stop Belkin APM Software**

**Windows Vista**

When the computer boots up, the Belkin APM Software will run automatically. You can see the green icon on the system tool bar when you logon.

To start the Monitor, right click the Belkin APM Software tray icon, and select **Start Monitor**, or double click the icon.

- To stop the Agent, right click the Belkin APM Software tray icon, and select **Stop Agent**.
To start the Agent again, right click the Belkin APM Software tray icon, and select Start Agent.

To exit, right click the Belkin APM Software tray icon, and select Exit. Once you exit it, you should restart the computer to start it automatically. But if you have administrator privilege, you can start it again without restart. There are two steps: the first to start the agent, open the “Services” from the “Start menu” > “Control Panel” > “Administrative tools”, and find the service “BelkinAPMmonitor”, right click on it, select “Start”. The second to start Trayicon, click the Belkin APM Software form Start menu > Program \ Belkin Automatic Power Management Software.

Other Windows

Run the Belkin APM Software form Start menu > Program \ Belkin Automatic Power Management Software to start the Trayicon and Agent.

- The Agent can be start by right clicking on the Belkin APM Software icon on the system tool bar and select Start Agent. For Windows OS, the Agent can be start up automatically when the computer boots up.

- To start the Monitor, right click the Belkin APM Software tray icon, and select Start Monitor.

- To stop the Agent, right click the Belkin APM Software tray icon, and select Stop Agent.
**Mac OS X**

Set Agent to be auto started when the OS boots up:

Open **System Preferences > Accounts > Login items**, and click the + icon to add the **Applications / Belkin Automatic Power Management Software / Agent** as auto login item.

- To start the Agent, double click the executable agent link in **Applications / Belkin Automatic Power Management Software /** directory.
- The Agent can also be started by enter the installing directory and execute the command: `.agent start`.
- To start the Monitor, double click the executable monitor link in **Applications / Belkin Automatic Power Management Software /** directory.
- The Monitor can also be started by enter the installing directory and execute the command: `.monitor`.
- To stop the Agent, enter the installing directory and execute the command: `.agent stop`.

**Linux and UnixWare**

- To start the Agent, enter the `/opt/upspilot` in the address bar and execute the command: `.agent start`.
- To start the Monitor, enter the `/opt/upspilot` in the address bar and execute the command: `.monitor`.
- To stop the Agent, enter the `/opt/upspilot` in the address bar and execute the command: `.agent stop`. 
Uninstall Belkin APM Software

Note: Before uninstall Belkin APM Software, all Belkin APM Software program must be stopped first. Otherwise the uninstalling can not be run completely.

Windows operating system

1. There are two ways of uninstalling Belkin APM Software:
   a. Click directly on the Uninstall Belkin Automatic Power Management Software from the Start menu > Belkin Automatic Power Management Software. Notice: in Vista, make sure you have administrator privilege, right click and select “Run as administrator”.
   b. Use the Add / Remove Program under Control Panel, Select Belkin Automatic Power Management Software, and click the Change / Remove button.

2. The Uninstall Program will pop up a prompt, and click Uninstall to start the uninstalling.
   To exit the uninstall, click Cancel.
3. Click **Done** when the uninstall completes.
Mac OS X system

1. Open the Terminal from Applications > Utilities > Terminal, enter the installation directory (/opt/upspilot by default) and execute the command: `sudo ./Uninstall`.
2. Enter the system account password when it prompts. The installation will be carried out with super user privilege and can completely uninstall all the files.
3. If you just execute the `./Uninstall` command, the installation may not have the permission to uninstall all the files.

Linux and UnixWare system

Open the Terminal, enter the `/opt/upspilot` directory and execute command: `./Uninstall`. 
Belkin APM Software User Interface

Chapter 3

Belkin APM Software manage window

Belkin APM Software Monitor shows "Belkin Automatic Power Management Software Manager" window which lists all Agents within the LAN.

There is a tree menu on the left side of the window that lists all hierarchical items, such as Root, networks, the Agents, the COM port, or USB port and the UPS models. By clicking any of them, the user can expand or collapse the associated list of sub-items.

If you select one of the UPS model from the UPS List, the detailed information will be displayed on the right column. See the following graphic for detailed illustration.

**UPS status bar**

Five elements are in the Ups status figure: AC LINE, BYPASS, UPS, BATTERY, and LOAD. Each part connects with the power cord.
Menu and Dialog

System Menu

Auto Search UPS

To open this option, select **Auto Search UPS** from **System** menu, and Belkin APM Software starts searching for the UPS connection with the computer's serial port.

By clicking the item under the tree menu, the user is able to get the information as below:

1. All computers running Belkin APM Software Agent in the LAN.
2. UPS COM port or USB port.
3. The UPS model and Agent connecting information.
4. The Agent status and user connecting information.

Administrator

To open this option, select **Act as Administrator** from **System** menu. Enter the administrator password in the dialog box and then click **OK**. If the entry is not correct, a prompt pops up to give the warning message. Or users can get the administrator access right and set up the Agent.

*Note: Default password is blank*
**Administrator Password Settings**

To open this option, select Modify Administrator Password from System menu.

Administrator password only can be set or changed by super user on local machine. If you are not a super user, the Administrator prompt pops up and tell to log in as an administrator first.

Users need to enter a new password in the New Password line and re-enter the new password again to confirm the password. If the passwords are not consistent with each other, a prompt pops up to notify the consistency problem and request to enter the new password again. Click OK when the entry is done. Now the new password is applied.

Leaving the password blank enable full administrator privileges to all users. It means that anyone can have full access without logging in as an administrator. So, if you want users to have full administrator privileges only by logging in, set the password non-blank.

**Communication Port Settings**

To open this option, select Communication Port Settings from the System menu.

For Linux and Unix platform, the Belkin APM Software is not able to auto detect the Serial Port Devices. If the system has a Serial Port that not being found in the default setting table, you must add it manually in the "Communication Port Settings" window before using it. To add a new COM port, enter the port in the blank column first and then click Add.

Read the followed table for detailed information on Serial Port Devices setting:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Serial Port Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIX</td>
<td>/dev/tty0 /dev/tty1</td>
</tr>
<tr>
<td>FreeBSD</td>
<td>/dev/ttyd0 /dev/ttyd1</td>
</tr>
<tr>
<td>HP-UX</td>
<td>/dev/tty0p0 /dev/tty1p0 /dev/tty0p1 /dev/tty0p2</td>
</tr>
<tr>
<td>Linux</td>
<td>/dev/ttyS0 /dev/ttyS1.</td>
</tr>
<tr>
<td>Solaris</td>
<td>/dev/ttya /dev/ttyb</td>
</tr>
<tr>
<td>Tru64</td>
<td>/dev/tty00 /dev/tty01</td>
</tr>
<tr>
<td>UnixWare</td>
<td>/dev/tty1A /dev/tty2A</td>
</tr>
</tbody>
</table>

**Note:** If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**Log Menu**

**Event Log Viewer**

Three methods to open the Event Log Viewer:

1. Selects Event Log from Logs menu,
2. Click buttons from the toolbar,
3. Click View log button of Event Log in the Record Setting window.

Then the Event Log Viewer pops up, which shows a list of history events.
Deleting an event:
Check in the DELETE column on the event which you wish to delete, and click Delete at the bottom of the window.

Deleting all events:
Click Purge All at the bottom of the window to delete all events.

Note: If Delete or Purge All is not available, which means your access authority of the current Agent is “Read Only”, and can’t carry out the operation. To log in as an administrator, refer to on page 14 for detailed information.

Data log Viewer
To open this option, selects Data Log Viewer from the Logs menu, or click View log button of Data Log in the Record Setting window, and the Data Log Viewer pops up to show history data. Users can click Next, Prev, Home and End to display the data log.

Deleting a data log:
Check in the DELETE column on the data log which you want to delete, and click Delete at the bottom of the window.

Deleting all events:
Click Purge All at the bottom of the window to delete all events.

Note: If Delete or Purge All is not available, which means your access authority of the current Agent is “Read Only”, and can’t carry out the operation. To log in as an administrator, refer to on page 14 for detailed information.

Record Setting
Event Log and Data Log are contained in this setting.

Event Log
To open this option, selects Record Setting from the Logs menu.
The default value of the maximum file length of Event Log Viewer is 32KB (The maximum value is 1MB)
Click View Log to open Event Log Viewer.
Data Log
To open this option, click **Settings** of Event Log in Record Setting window.
The default **Max File Length** in Data Log is 32KB (the maximum is 1MB).  
The default **Record Interval** in Data Log is 60 second (the maximum is 3600 seconds).  
Click **View Log** to open Data Log dialog.

**Note:** Click **Default** and all parameters in this page will return default value. If the **OK** is not available, which means your access authority of the current Agent is “Read Only”, and the parameters can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**UPS Menu**

**UPS Control Parameters**

To open this option, selects **UPS Control Parameters** from **UPS** menu.

Read the followed table for detailed information on UPS Control Parameters setting.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper limit of input frequency on bypass</td>
<td>Hz</td>
<td>60.0 (for 50Hz system)</td>
<td>51.0 (for 50Hz system)</td>
<td>54.0 (for 50Hz system)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70.0 (for 60Hz system)</td>
<td>61.0 (for 60Hz system)</td>
<td>64.0 (for 60Hz system)</td>
</tr>
<tr>
<td>Lower limit of input frequency on bypass</td>
<td>Hz</td>
<td>49.0 (for 50Hz system)</td>
<td>40.0 (for 50Hz system)</td>
<td>46.0 (for 50Hz system)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>59.0 (for 60Hz system)</td>
<td>50.0 (for 60Hz system)</td>
<td>56.0 (for 60Hz system)</td>
</tr>
<tr>
<td>Upper limit of input voltage on bypass</td>
<td>V</td>
<td>286 (for 1~3K 220V UPS)</td>
<td>221 (for 1~3K 220V UPS)</td>
<td>264 (for 1~3K 220V UPS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>132 (for 1~3K 110V UPS)</td>
<td>110 (for 1~3K 110V UPS)</td>
<td>132 (for 1~3K 110V UPS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>261 (for 6~20K UPS)</td>
<td>231 (for 6~20K UPS)</td>
<td>261 (for 6~20K UPS)</td>
</tr>
<tr>
<td>Lower limit of input voltage on bypass</td>
<td>V</td>
<td>219(for 1~3K 220V UPS)</td>
<td>80(for 1~3K 220V UPS)</td>
<td>80(for 1~3K 220V UPS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>110 (for 1~3K 110V UPS)</td>
<td>40 (for 1~3K 110V UPS)</td>
<td>50 (for 1~3K 110V UPS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>209 (for 6~20K UPS)</td>
<td>140 (for 6~20K UPS)</td>
<td>176 (for 6~20K UPS)</td>
</tr>
<tr>
<td>ON button can control battery mode audible warning</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>OFF button can control bypass mode audible warning</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes (for 1<del>3K UPS) No (for 6</del>20K UPS)</td>
</tr>
<tr>
<td>Do audible warning when on bypass mode</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>Do audible warning when on battery mode</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>Restore line mode when AC restored</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Yes</td>
</tr>
<tr>
<td>Work on bypass when UPS turned off</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>No (for 1<del>3K UPS) Yes (for 6</del>20K UPS)</td>
</tr>
</tbody>
</table>

**Note:** Press **Default**, all parameters in this page will return to default value.
For regular LINE-INT UPS, users can enable / disable the battery mode alarm audible warning in this window.

For special LINE-INT UPS, read the followed table for detailed information.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Mode Audible Warning</td>
<td>Yes – Allows audible warning in battery mode.</td>
</tr>
<tr>
<td></td>
<td>No – Keeps silence in battery mode.</td>
</tr>
<tr>
<td>Power Saving</td>
<td>Yes – If the loading is light, the system will shut down UPS in 5 minutes when AC Fail.</td>
</tr>
<tr>
<td></td>
<td>No – UPS won’t be shut down until battery backup time exhausts.</td>
</tr>
<tr>
<td>Auto Reboot UPS When AC Input Restored</td>
<td>Yes – Enables auto-restart.</td>
</tr>
<tr>
<td></td>
<td>No – Disables auto-restart.</td>
</tr>
<tr>
<td></td>
<td>No – Disables automatic self-test.</td>
</tr>
<tr>
<td>Input Type</td>
<td>Normal – Accepts normal AC line range.</td>
</tr>
<tr>
<td></td>
<td>Wide range – Accepts wide AC line range.</td>
</tr>
<tr>
<td></td>
<td>Generator – Accepts generator’s output.</td>
</tr>
<tr>
<td>Output Voltage Rating</td>
<td>110V, 120V, 127V, 220V, 230V, or 240V.</td>
</tr>
<tr>
<td>External battery module number</td>
<td>Only long time discharged model has this selection, the number is from 00 to 10.</td>
</tr>
</tbody>
</table>

Note: If OK is not available, which means your access authority right of the current Agent is “Read Only”, and you can’t change the settings here. To log in as an administrator, refer to on page 14 for detailed information.

Event Action

To open this option, selects Event Action from the UPS menu or button in the toolbar. In Event Action window, users can select which action to be carried out to when certain event occurs. Users can select
Record, Broadcast, Email, Send SMS or Send Pager as the warning message. Events are divided into three types of icons:

- Severity (red),
- Warning (yellow), and
- Message (blue)

**Note:** To use Email function, you must setup an available SMTP server. For detailed information please refer to “How to realize sending event message by e-mail”.

**Shutdown Settings**

To open this option, select **Shutdown Parameter** from the UPS menu.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Maximum Value</th>
<th>Minimum Value</th>
<th>Default</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery backup time</td>
<td>Minute</td>
<td>4320</td>
<td>1</td>
<td>10</td>
<td>The time that the UPS battery is able to supply power when utility power fails.</td>
</tr>
<tr>
<td>Shutdown immediately while battery low</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>When this check box is selected and battery low event occurs, Agent will shut down the UPS immediately, otherwise the shutting down time will be controlled by battery back up time.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Unit</td>
<td>Maximum Value</td>
<td>Minimum Value</td>
<td>Default</td>
<td>Remark</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Begin shutdown When UPS Battery X full capacity or lower</td>
<td></td>
<td></td>
<td></td>
<td>40</td>
<td>When this check box is selected and battery’s capacity is lower than X%, Agent will shut down the UPS.</td>
</tr>
<tr>
<td>Shutdown System</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>When this option is selected, system will shutdown while the assigned UPS is being turn off.</td>
</tr>
<tr>
<td>Suspend System</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>When this item is selected, system disk will suspend to shutdown sequence. This function only can be carried out on some Windows platforms and hibernate support must be enabled from /Control Panel / Power Options / Hibernate.</td>
</tr>
<tr>
<td>System shutdown need time</td>
<td>Minute</td>
<td>99</td>
<td>1</td>
<td>2</td>
<td>The time needed to shutdown the system, which is from the beginning of shutting down till the end of that.</td>
</tr>
<tr>
<td>Remote Shutdown by Agent</td>
<td></td>
<td></td>
<td></td>
<td>No</td>
<td>If enabled, the system will be able to shutdown by a specified Agent.</td>
</tr>
<tr>
<td>Min shutdown system</td>
<td>Minute</td>
<td>4320</td>
<td>0</td>
<td>0</td>
<td>When receiving the specified agent's shutdown signal, the set minutes will be delayed and then shutdown the system.</td>
</tr>
<tr>
<td>Run Command File before Shutdown</td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>The Agent will run the specified file and then shut the system down. If this parameter is not available, the Agent will not shutdown the system.</td>
</tr>
<tr>
<td>Shutdown File Max Execution Time</td>
<td>Minute</td>
<td>60</td>
<td>1</td>
<td>1</td>
<td>Before the system shuts down, the set time will be needed to execute the specified file.</td>
</tr>
<tr>
<td>Shutdown remote Agents' Conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The condition can be UPS be shutdown or The time on battery exceeds setting time.</td>
</tr>
<tr>
<td>Agents be Shutdown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>When shutdown is complete, the Agent will send shutdown signal to the assigned remote agents.</td>
</tr>
<tr>
<td>Shutdown Alarm Interval</td>
<td>Minute</td>
<td>60</td>
<td>1</td>
<td>1</td>
<td>The interval that Agent pops up an alarm message before shutting down.</td>
</tr>
<tr>
<td>Start Warning before Scheduled Shutdown</td>
<td>Minute</td>
<td>60</td>
<td>1</td>
<td>10</td>
<td>If user has setup schedule shutting down, an audio warning message will be heard.</td>
</tr>
</tbody>
</table>

**Note:** If **OK** is not available, which means your access authority right of the current Agent is “Read Only”, and you can’t change the settings here. To log in as an administrator, refer to on page 14 for detailed information.

For example, the Battery Backup Time is set to 3, System shutdown need time is set to 2, then click the OK. Once AC failed, a warning dialog which noticed shutdown appeared, the value of the time in the warning dialog is 3 minutes initially which equals battery backup time, then count down, 3 minutes later, the time in the warning dialog is 0, and then the software will send an shutdown command to UPS. 2 minutes later, the output of UPS in off. It takes 2+3=5 minutes totally to shutdown the output of UPS.

For “Run command file before shutdown” option, check it and select a bat, script, exe or other file, then before the shutdown, the software will execute or open it for you.
UPS Self-Test

To open this option, select **Battery Self-Test Now** from **UPS** menu. In this window, users can select from three different types of test:

- Self-Test for 10 seconds,
- Self-Test until battery low,
- Self-Test for xx minutes.

The time range for this item is from 1 to 99 (minutes).

UPS Test Manager

To open this option, select **Battery Self-Test Schedule** from **UPS** menu. **UPS Test Manager** can be used to display and setup UPS self-test task. There are two types of the task: **Once** or **Monthly**.

UPS self-test can be set as

- UPS self test for 10 seconds,
- UPS self test to battery low, or
- UPS self test for the appointed time.

The time range for this item is from 1 to 99 (minutes), and the default value is 10 (minutes).
Two parts are in the UPS Test Manager window, Calendar and Task List. All UPS self-test and UPS OnOff tasks are shown in the calendar. The red dot presents the Power Off action, the green dot presents the Power On action and the blue dot presents the UPS test task. Click Add Task to add a new self-test task into the schedule.

If you select any of the UPS self-test tasks from the task list, the selected task can be modified by click Modify at the bottom of the window, and the task can be also removed by clicking Remove.

**Note:** If OK, Add Test, Modify and Remove are not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**UPS OnOff Manager**

To open this option, selects UPS OnOff Schedule from UPS menu. UPS OnOff Manager can be used to display and set UPS OnOff tasks. Two methods to set this manager: Once or Weekly.

The UPS power off time range (from shutdown to turning on next time) can be set from 1 to 9999 (minutes). For example, the longest power off time is 6 days 22 hours and 39 minutes. The input range for the year is 2002-2035. UPS OnOff Manager contains Calendar and Task List. All UPS self-test and UPS OnOff tasks are shown in the calendar. The red dot presents the Power Off action, the green dot presents the Power On action and the blue dot presents the UPS test task. Click Add UPS OnOff to add a new self-test task into the schedule.
Users can add new weekly and special time UPS Power OnOff tasks by clicking Add UPS OnOff at the bottom of the window.

If you select any of the UPS self-test tasks from the task list, the selected task can be modified by clicking Modify at the bottom of the window, and the task can be also removed by clicking Remove.

**Note:**
1. The set UPS self-test task and UPS Power On/Off tasks can’t interfere with each other.
2. If OK, Add Test, Modify and Remove are not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**Schedule Viewer**
To open this option, selects View Schedule from UPS menu.
This function is used to show the set UPS Power OnOff and self-test tasks. The window contains Calendar and Task List. Only the tasks in the current month are displayed in the list. The red dot presents the Power Off action, the green dot presents the Power On action and the blue dot presents the UPS test task.

**Tools Menu**

**Broadcast Message Settings**
To open this option, selects Broadcast Setting from Tools menu, or click Setting of Broadcast item in the window.
All users will be listed under Broadcast To. A specified user must be assigned if the broadcast message needs to be sent. Adds or removes a user by clicking Add or Remove on the right in the window.

**Note:** All Users and Domain User item can’t be deleted. All Users means all computers in the LAN. Domain User means computers in the same domain with local Agent.

**Send Message** list box contains all types of messages. Selects or unselects a message by checking in front of the item.

**Note:**
1. This setting is only available in Windows OS.
2. If OK, Add Test, Modify and Remove are not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

To receive broadcast message, Winpopup in Windows 95 / 98 and Messenger Service in Windows NT / 2000 must be enabled. In Vista, because of the cancel of Messenger Service, the message can not be received.

**Email Settings**

To open this option, selects Email Settings from the Tools menu, or click Setting of Email item in the window.
The SMTP Server Settings of Email Settings are listed below:

**SMTP Server** Enter a mail account server, which is used to send mails. This will be different from the Network provider. E.g.: smtp.belkin.com

**SMTP User** Enter the complete mail address of a user here. E.g.: test@belkin.com

**Password** Enter the password that assign by your Network provider.

**Receiver EMail Address** contains all mail addresses which will receive the email message. To add a new email address, click Add. To delete a mail address, click Remove. To test if a selected mail address will receive the assigned message successfully, click Test.

**Send Message** list box contains all types of messages. Selects or unselects a message by checking in front of the item.

Default setup of all entries will be empty, and it can only be set in the local Agent.

**Note:**
1. If you want to send emails via Internet, you must have a SMTP account number in the Internet.
2. If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**SMS Setting**

To open this option, selects SMS Setting from the Tools menu, or click Setting of Send SMS in the window.
To configure SMS setting, read the contents below:

**Sender**
SMS is sent via GSM modem or mobile phone which connects to your computer. Users need to select the COM port which is being used by GSM Modem or mobile phone. Then set baud Rate of this COM port.

**Receiver:**
The mobile phone numbers which will receive the SMS.
- To add a phone number, enter the number first and then click Add.
- To delete a number, select a number from the phone number list and click Remove.
- To test if the SMS sending will be success or not, select a phone number from the list, and click Test.

**Send message**
Send Message list box contains all types of messages. Selects or unselects a message by checking in front of the item.

**Note:** If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**Pager Setting**
To open this option, selects Pager Setting from the Tools menu, or click Setting of Send Pager item in the window.

**Note:** To configure the pager setting, users must have full access authority.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modem Port</td>
<td>Select the COM port which is connecting to the modem recently.</td>
</tr>
<tr>
<td>Access Number</td>
<td>For some pager service, a delay is needed between dialing access number and</td>
</tr>
<tr>
<td>Pager Number</td>
<td>Pager Number.</td>
</tr>
<tr>
<td>Dialing number to exterior line</td>
<td>For extension line, it is always necessary to dial a specified number and delay a specified time to access Exterior Line.</td>
</tr>
<tr>
<td>Dialing number after message</td>
<td>For some pager service, dialing a specified number to end message code is needed.</td>
</tr>
<tr>
<td>Event Code</td>
<td>The event code is dialed as the message code and will be displayed on pager.</td>
</tr>
</tbody>
</table>

**Note:** If **OK** is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**Monitor Menu**

**Monitor Remote UPS**

To open this option, select **Monitor Remote UPS** from the **Monitor** menu.

Enter the IP address of an Agent to be monitored and click **OK**. If the agent exists, the information will be displayed under the WAN directory in the tree menu in Belkin APM Software Manager.

**Note:**
1. The maximum of remote agent can be monitored is **32**.
2. If Belkin APM Software can't communicate with a remote agent within **6** minutes, this agent will be deleted automatically.

You can manually delete a remote agent by selecting the agent node under "WAN", and then click the
mouse right button to show a delete pop up menu, select **Delete** to remove it.

### Preference Menu

**Bottom image**

To open this option, selects **BottomImage** from the **Preference** Menu.

![Preference Menu](image)

**Temp**

To open this option, selects **Temp** from the **Preference** menu, and selects which type of temperature you want to show on the interface: **C** (Centigrade), or **F** (Fahrenheit).

![Temp](image)

**Date Format**

To open this option, selects **DateFormat** from the **Preference** Menu.
**Advance Settings**

To open this option, select **Advance Settings** from the **Preference** menu.

**The General Tab**

You can set the color of general text, the color of warn text, and the font.

**The BottomImage Tab**

- If you click **None** on the top of this tab, the interface bottom image
- In this tab, users can set the **Color**, **Gradient**, **Text**, and **Grid** color of the Belkin APM Software interface.
- Users can also set a preferred image as the bottom image. Click Picture, and select an image file from the pull-down menu.

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**Note:**

- **Y** represents the year, **M** represents the month, and **D** represents the date.
1. If you click “Default” button, the parameters in this view will be turned into default value.

2. If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.

**Language Menu**

*Language*

Users can change the interface language from the Language menu. English, Chinese(Traditional), Chinese(Simplified), German, French, Italian, Spanish, Turkish or Portuguese is available.
Chapter 4
How to do

Realizing the assigned COM port

When the PC with Belkin APM Software has multiple serial ports, the Belkin APM Software allows the user to change the current used serial ports of the UPS via Auto search UPS under the System menu.

There is a tree menu in the left column to display a hierarchical list of items, such as Root, networks, the Agents, the COM port and the UPS models. By clicking an item, the user can expand or collapse the associated list of submenus.

When selecting a UPS model, the Manager Window shows detailed information about the UPS in the right column.

Note:

1. It will take more time when starting the Agent for the first time, for it communicates with the UPS for the first time. The software will keep records of a certain UPS model. When the Agent runs the second time, the Belkin APM Software will starts according to the previous record, and the boots-up speed will be much faster.

2. To change the UPS COM port, the model, or slave address, selects Auto Search UPS from the System menu.
Realizing the broadcasting message in the LAN

Belkin APM Software has the function of sending the event message to customers in time via Windows Message service. Please refer to Broadcast Message Settings on page 25 for detailed information, or refer to the Appendix B, Belkin APM Software Event table.

There are three group lists for **Broadcast to** column:

- **All Users**: The assigned messages will be sent to all PCs in the same Network with the host PC, whether it’s in the same domain or not. With reference to the range of broadcasting, there are altogether three options: all users, Domain users and special users.
- **Domain User**: The assigned messages will be sent to PCs in the same NT domain with the host PC.
- **Special Users**: The assigned messages will only be sent to certain appointed user(s).

To add or remove a user, please refer to *Broadcast Message* Settings on page 25.

**Note**: For detailed operation of how to broadcast messages, please refers to *Broadcast Message* Settings on page 25.

Realizing the UPS self-test schedule

To open this option, selects **UPS Test Manager** in Battery Self-Test Schedule from the UPS menu.

**Adding new UPS self-test tasks**

To add a new UPS self-test task:
1. Click on the empty **Task List** first and then click **Add Test** at the bottom of the window.
2. Click **OK** when the adding is complete.
Modifying UPS self-test task

To modify a set task:
1. Select one set UPS self-test task from the Task List area, and click Modify at the bottom of the UPS Test Manager window. The UPS Self-Test window pops up.
2. Click OK to save the modification, or Cancel to exit.
3. Click OK in the UPS Test Manager window to complete modifying a set task.

Removing set UPS self-test tasks

To remove a set UPS self-test task:
Select a set task in the Task List area, and then click Remove at the bottom of the window. The selected item will be deleted.

Note: If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.
Realizing the UPS OnOff Manager

To open UPS OnOff Manager, select UPS OnOff Manager from the Control menu.

Note: If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to page 14 for detailed information.

Adding new UPS OnOff tasks

To add a new UPS OnOff task:
1. Click on the empty Task List first and then click Add UPS OnOff at the bottom of the window. The Off UPS window pops up.
2. Select Once or Weekly as the cycle of UPS OnOff from the pull-down menu.
3. Set up the Power Off Once (Weekly) / Power On Once (Weekly) time in the Schedule off UPS area.

Note: Any new UPS OnOFF task can’t conflict with the set UPS self-test and UPS OnOff tasks.
4. To save this new task, click **OK**. Or click **Cancel** to exit this window.

5. Click **OK** in the UPS OnOff Manager window to complete adding a new OnOff task.

---

**Modifying set UPS OnOff tasks**

To modify a set task:

1. Select one set UPS OnOff task from the Task List, and click **Modify** at the bottom of the UPS OnOff Manager window. The **Off UPS** window pops up.

2. After the modification is done, click **OK** to confirm.

3. Click **OK** in the UPS OnOff Manager window to complete modifying a set OnOff task.
Removing the UPS OnOff task

To remove a set UPS OnOff task:
Select a set task in the Task List area, and then click Remove at the bottom of the window. The selected item will be deleted.

Realizing the network shutdown function

To open this option, select Shutdown Parameter from the UPS menu, and the Shutdown Settings window pops up.
**Configuring Shutdown Settings**

*Adding new agent IP address*

To add a new Agent IP:

1. Click **Add** in the **Shutdown Options** section and then enter the IP address in Agent’s IP address prompt.
2. Click **OK** at the bottom of this prompt to save this new Agent IP.

When local agent receives a specified agent shutdown signal, the system will be shut down in a set delay time.

![Agent's IP address](image1)

**Configuring Shutdown Remote Agents**

To add a new shutdown remote agent:

1. Click **Add** in the **Shutdown Remote Agents** section and a Shutdown Remote Agents prompt pops up.
2. Set the conditions options from the pull-down menu, and from which agent to be shut the system down.
3. Click **OK** in this prompt to save the setting.

![Shutdown Remote Agents](image2)
Configuring Shutdown alarm Parameters

**Shutdown options**

**Battery backup time**
The time the UPS battery is able to supply power when utility power fails.

**Begin shutdown When UPS Battery X full capacity or lower**
When this check box is selected and battery’s capacity is lower than X%, Agent will shut down the UPS.

**Shutdown immediately while battery Low**
When this item is enabled and battery low event occurs, Agent will shut down the UPS immediately, otherwise the shutting down time will be controlled by battery back up time.

**Shutdown system**
When this check box is selected, System will be shutdown while the appointed UPS is being turn off.

**Suspend system**
When this item is enabled, the system will be suspended via disk in shutdown sequence. This function is only for certain Windows platforms and hibernate support must be enabled from /Control Panel/Power Options/Hibernate.

**System shutdown need time**
The time needed to shutdown the system, which is from the beginning of shutting down till the end of that.

**Remote shutdown by Agent**
When this item is enabled, the system will be shut down by other Agent.

**XX min shutdown system**
When receiving the specified agent shutdown signal, the set time (minutes) will be delayed to shutdown system.

**Run command file before shutdown**
Before system shutting down, Agent can execute a file, if this parameter is not available; Agent will not begin to shut down the system until the "Execution file before system shutting down" ends.

**Shutdown file Max execution time**
Before system shutting down, the time to be needed to execute the shutdown file.

**Shutdown Remote Agents**

**Shutdown remote Agents Conditions**
The condition can be "UPS be shutdown" or "The time on battery exceeds setting time".

**Agents be shutdown**
When shutdown condition is satisfied, Agent will send shutdown signals to the appointed remote Agent.

**Shutdown Alarm Parameters**

**Shutdown alarm interval**
The interval that Agent pop up an alarm message before shutting down.

**Start warning before scheduled shutdown**
If the user has set a schedule shutting down, AGENT will sound alarm prior to the set time.
Modifying UPS control parameters

**ON-LINE UPS:**

To open this option, select **UPS control parameters** from the **UPS** menu. The **UPS Control Parameters** window pops up.

<table>
<thead>
<tr>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The limit value of the input frequency</td>
<td>When the frequency of the utility power is out of this range, UPS will count it abnormal and switch to battery supply.</td>
</tr>
<tr>
<td>The limit value of the bypass voltage</td>
<td>When UPS supplies in bypass mode, if the utility voltage is out of this range, UPS will cut off bypass output.</td>
</tr>
<tr>
<td>Allow OFF-Key to enable / disable audible warning when UPS works on bypass</td>
<td>When <strong>Yes</strong> is enabled: UPS is supplied by bypass, users can turn off the bypass audible alarm (beep once every 2 minutes) by pressing OFF button on the UPS panel for one time, and pressing one more time to recover it. When <strong>No</strong> is enabled: the “OFF” button on the UPS panel cannot be used to control bypass audible alarm on/off.</td>
</tr>
<tr>
<td>Allow ON-Key to enable / disable audible warning when UPS works on battery mode</td>
<td>When <strong>Yes</strong> is enabled: UPS is supplied by batteries, users can turn off the audible alarm (beep once every 4 seconds) supplied by batteries by pressing “ON” button on the UPS panel for one time, and pressing one more time the audible alarm can be turned on again. When <strong>No</strong> is enabled: the “ON” button on the UPS panel cannot be used to control the audible alarm supplied by batteries on/off.</td>
</tr>
<tr>
<td>Bypass audible warning</td>
<td>When <strong>Yes</strong> is enabled: UPS is supplied by bypass, it is allowed to have bypass audible alarm. When <strong>Silent</strong> is enabled: UPS is supplied by bypass, it is not allowed to have audible alarm, at this time the “OFF” button on the UPS panel cannot turn on the bypass audible alarm.</td>
</tr>
<tr>
<td>Options</td>
<td>Explanation</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Battery mode audible warning        | When **Yes** is enabled: UPS is supplied by batteries, it is allowed to have audible alarm of battery supply.  
When **Silent** is enabled: UPS is supplied by battery, it is not allowed to have audible alarm of battery supply. At this time the “ON” button on the UPS panel cannot turn on the audible alarm of battery supply. |
| Work On Bypass When UPS Turned Off | When **Yes** is enabled: UPS is not turned on, it is in the mode of bypass supply.  
When **No** is enabled: UPS is not turned on, no bypass output is offered.                                                                                                                                                                                                         |
| Auto Reboot UPS When AC Input Restored | When **Yes** is enabled: UPS is shutdown for the backup time is exhausted or the battery is in low capacitance, once the utility power is recovered, UPS can restart automatically to the normal operating mode.  
When **No** is enabled: the utility power is recovered, UPS cannot restart automatically but in the mode of being not turned on.                                                                                                                                   |

- Click **OK** button to save changes.
- Click **Cancel** to exit the prompt.
- Click **Default** to return all settings to default setting.

For ON-LINE UPS, user can enable / disable battery mode alarm audible though this prompt.

- Click **OK** button to save changes.
- Click **Cancel** to exit the prompt.

**Note:** If **OK** is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.
Realizing system administrator and password

Configuring system administrator

To open this option, select Act as Administrator from the System menu. The Administrator prompt pops up.

Enter the system administrator password in the prompt and click OK, and then the user logs in as an administrator. If the password is not correct, an alert prompt will popup.

Modifying the system administrator password

To open this option, select Modify Administrator Password from the System menu. The Administrator Password Settings pops up.

1. Enter the new password in the first empty line, and then enter the password again in the second empty line. Two entries must be exactly the same.
2. Click OK to save the new password.

Note: If OK is not available, which means your access authority of the current Agent is “Read Only” and the settings can’t be changed. To log in as an administrator, refer to on page 14 for detailed information.
Realizing sending event message via email

Configuring Email Settings

SMTP Server Setting

To configure email settings:
Select **EMail Setting** from the **Tools** menu. The EMail Settings prompt pops up.

- **SMTP Server**: The SMTP server address,
- **SMTP User**: The account for logging in the server.
- If SMTP mail server need password authentication, users need to enter a valid password.

Receiver Email Address

Click **Add** in the Receiver Email address section, an **Add Receiver Email Address** prompt pops up.
Enter the receiver’s mail address and click **OK** to save it.

- To Test if the mail address is valid or not, click **Test**.
- To delete a mail address, select a set receiver email address from the list and click **Remove**.
Send Message

1. Select one or more listed event from the send message section.
2. Select a receiver from the Receiver Email Address list.
3. Click OK at the bottom of the window to save the setting.

When the selected events occur, the message will be sent via the assigned mail address.

Realizing sending event message via SMS

Events supported

Only the following five events occur and the assigned messages will be sent:

- UPS Battery Low
- UPS Fail
- UPS Output Overload
- AC Fail
- AC Restore
Configuring Email Settings

To open this option, select **SMS Setting** from the **Tools** menu. The **SMS Setting** prompts pops up.

**Sender**
SMS is sent through GSM modem or mobile phone which connects to your computer. Users should select COM port which is being used by GSM Modem or mobile phone and then set Baud Rate of this COM port.

**Receiver**
The mobile phone number will receive the SMS. It can be one or more.
If the events that selected occur, Belkin APM Software will send the short message to all phone numbers listed in the **Receiver** list.

**Send message**
1. Select one or more listed event from the **Send Message** section.
2. Click **OK** at the bottom of the window to save the setting.

*Another method to select Event Code*

Please refer to

SMS Setting on page 27 for detailed information.
Realizing sending event messages by pager

Events supported

Only the following four events are occurred and the assigned events will be sent:

- UPS AC fails
- UPS low battery
- UPS hardware failure
- UPS output overload

Configuring the Pager Setting

To open this option, select Pager in Pager setting from the Tools menu. The Pager Setting prompt pops up.

Read the followed table for detailed information on pager setting.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modem Port</td>
<td>Selects a COM port which is being used by the modem.</td>
</tr>
<tr>
<td>Access Number</td>
<td>The station number that the pager joined. The waiting time is the time delayed between dialing paging station number and pager number. For some pager service, a delay is needed between dialing access number and message code. The delay time will be different from paging stations.</td>
</tr>
<tr>
<td>Pager Number</td>
<td>The number of the pager that accepts the communication. The waiting time is the time delayed between dialing pager number and message code. For some pager service, a delay is needed between dialing pager number and message code. The delay time will be different from paging stations.</td>
</tr>
<tr>
<td>Dialing number to exterior line</td>
<td>For extension line, it is always necessary to dial a specified number and delay a specified time to access Exterior Line.</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dialing number after message</td>
<td>For some pager service, need to dial a specified number to end message code.</td>
</tr>
<tr>
<td>Event Code</td>
<td>The event code is dialed as the message code and will be displayed on pager.</td>
</tr>
</tbody>
</table>

When all options are set, click OK at the bottom of the window to save the changes.

Another method to select Event Code

Please refer to Pager Setting on page 28 for detailed information.

**Realizing telemonitoring UPS in the LAN (same network)**

**Precondition**

To realize telemonitoring any UPS in the LAN within the same network, the computers require to setup Belkin APM Software, and the TCP/IP protocol in their communication protocol.

**Configuration**

Make sure the network works smoothly. Run the Command Prompt and test with network command PING.

![Command Prompt](image1.png)

**Remote Control Permission Switch**

This is a selectable menu item. To open this option, select *Accept Remote Control* from the *Monitor* menu.

![Remote Control](image2.png)
Monitoring UPS systems

You can select the UPS from the tree menu on the left side of the window.

If the Remote Accept Control Permission Switch is off, you can only monitor but not control. The submenu **Act as Administrator** of the menu **System** is gray and cannot be selected. Unless the user logs in as an administrator, or the operation can’t be carried out.
If the Remote Control Permission Switch is on, you can monitor and control this UPS. The submenu Act as Administrator in the System menu is black and can be selected. Under this circumstance, the user is able to log in as an administrator and carry out all operations.

Realizing UPS remote control in the WAN (different network)

**Precondition**

To remote control UPS in the LAN in different network, the computers require to setup Belkin APM Software, and the TCP/IP protocol in their communication protocol.

**Configuration**
Remote Control Permission Switch
This is a selectable menu item. To open this option, select Accept Remote Control from the Monitor menu. The IP address is 192.168.2.228.

Monitoring UPS systems
To open this option, select Monitor Remote UPS from the Monitor menu.
Enter a name of a computer of an IP address in the Monitor Remote UPS prompt. Click OK to save the setting.

Now the assigned UPS can be found in the WAN.
If the Remote Control Permission switch is off, the user can only monitor but not control. The submenus are in gray and can't be selected.

If the Remote Control Permission Switch is on, the user not only can monitor also can control the UPS settings. The submenus are in black and can be selected.
### Appendix A

**Glossary Explanation**

| **Agent** | Agent is a background application of the Windows/Unix/Linux operating system |
| **Battery Backup Time** | Indicate the time that battery supplies power when utility power fails. After this time is used up, the Agent begins to shutdown the opened application. |
| **Over load** | UPS load is more than 100% ~ 110% rated load. |
| **Remote Shutdown by Agent** | Local Agent will shutdown in shutdown delay time after the specified Agent Shutdown. |
| **UPS battery backup time exhausted** | Indicates when UPS AC fails, battery supply time has exceeded the “battery backup time” which has been set (“Battery backup time” can be set in the “Shutdown parameter” dialog of Belkin APM Software). |
| **UPS battery low** | When Utility Power fails and battery supplies power, if the battery voltage is lower than a certain value (refer to UPS Specification), UPS will send a warning tone at intervals of once 1 second for battery low. |
| **UPS output overload** | UPS load is more than 100% Rated load. |
| **UPS self test** | After UPS’ supply mode is switched from utility power mode to battery mode and work on for a period of time, return to utility power mode again. The purpose of self test: First is to check if it can supply normally in battery mode; second is to make the battery discharge once termly (as every month), which is helpful for the battery maintenance and can prolong the battery’s service life. |
| **Self test failure** | Indicates that it is found out that it is not able to supply power normally in battery mode via self test. |
| **Shutdown alarm interval** | Indicate after the shutdown warning begins (include time shutdown warning and AC fail shutdown warning), interval of each warning. |
| **Shutdown file max execution Time** | The time for closing the running applications before shutdown system. |
| **Start Warning before Scheduled Shutdown** | If user has set time shutdown, Belkin APM Software will begin warning at this time earlier than shutdown. |
| **Supply power in Bypass mode** | For the reason of UPS not on or the hardware fault, the input will not pass the inverter of UPS, but output directly. At this moment, if AC fails, UPS will not startup backup battery to supply, so the output will also out of electricity. |
| **System shutdown need time** | The time for system shutdown, is also the time from system begin shutdown to turn off UPS outlet |
# Appendix B
## Belkin APM Software Event Table

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Event Description</th>
<th>Type of Message</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UPS Battery Low</td>
<td>Serious</td>
<td>Can be set as no shutdown system through “Shutdown parameter”</td>
</tr>
<tr>
<td>2</td>
<td>UPS Battery Time Exhaust</td>
<td>Serious</td>
<td>Can set battery backup time through “Shutdown parameter”</td>
</tr>
<tr>
<td>3</td>
<td>UPS Fail</td>
<td>Serious</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>UPS Output Overload</td>
<td>Serious</td>
<td>Output load is more than 110%</td>
</tr>
<tr>
<td>5</td>
<td>UPS Output Overload</td>
<td>Serious</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Communication Lost</td>
<td>Warning</td>
<td>The connection of communication cable is not good, or communication port fault.</td>
</tr>
<tr>
<td>7</td>
<td>AC Fail</td>
<td>Warning</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>On Bypass</td>
<td>Warning</td>
<td>UPS will be switched to bypass mode for the reason of overload, hardware fault and so on. Online UPS is also in bypass mode when it is off, at this time UPS has no protection function.</td>
</tr>
<tr>
<td>9</td>
<td>Bypass without output</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Self-test Fail</td>
<td>Warning</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Phase sequence input error</td>
<td>Warning</td>
<td>Three-phase UPS support</td>
</tr>
<tr>
<td>12</td>
<td>Battery connection error</td>
<td>Warning</td>
<td>Three-phase UPS support</td>
</tr>
<tr>
<td>13</td>
<td>Load unbalance</td>
<td>Warning</td>
<td>Three-phase UPS support</td>
</tr>
<tr>
<td>14</td>
<td>overload</td>
<td>Warning</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Internal warning</td>
<td>Warning</td>
<td>Three-phase UPS support</td>
</tr>
<tr>
<td>16</td>
<td>Maintain cover is open</td>
<td>Warning</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>AC Restore</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Communication Established</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Agent Start</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Agent Stop</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>System be shutdown</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>System be Shutdown by Other Agent</td>
<td>Information</td>
<td>Set the Agent need to be in response to through “Shutdown parameter”.</td>
</tr>
<tr>
<td>23</td>
<td>Special date Close UPS</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>Serial Number</td>
<td>Event Description</td>
<td>Type of Message</td>
<td>Remarks</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------</td>
<td>-----------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>24</td>
<td>Weekly Close UPS</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Self-test Start</td>
<td>Information</td>
<td>Self-test begins immediately.</td>
</tr>
<tr>
<td>26</td>
<td>Self-test cancel</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Self-test End</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Special date Self-test Start</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Special date Self-test Cancel</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Special date Self-test End</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Monthly Self-test Start</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Monthly Self-test Cancel</td>
<td>Information</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Monthly Self-test End</td>
<td>Information</td>
<td></td>
</tr>
</tbody>
</table>