UPSmon

UPS Monitor and Control System

User's Manual

MilPower Source Edition

User Manual for UPSmon

Version 1.01

Contents

Chapter 1. Introduction

General
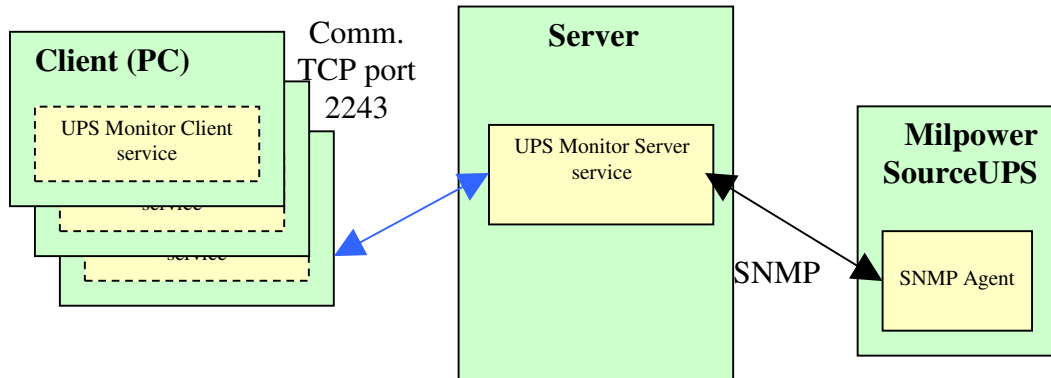
The UPS Monitor is a client/server application:

Figure 1

The Server service constantly polls several MIB variables from the UPS agent. The Server also listens to Client requests and for each request it delivers the full set of parameter values to the Client.

The Client constantly polls the parameters from the Server and displays them in its GUI Upon discovery of UPS discharge (explained later) it will start a delay counter and then shutdown the PCs (Client PCs) using the psshutdown utility.

The Server and Client have an identical GUI with only slight differences.

Features List

The UPSmon main highlights –

- Constant monitoring of the UPS

- Different client delay settings

- Configurable UPS remote shutdown

- Forced shutdown of remote workstations

A typical installation follows in the illustration below. The EmbedUPS adapter (installed inside the UPS) communicates with the UPS, informing it on various power conditions.
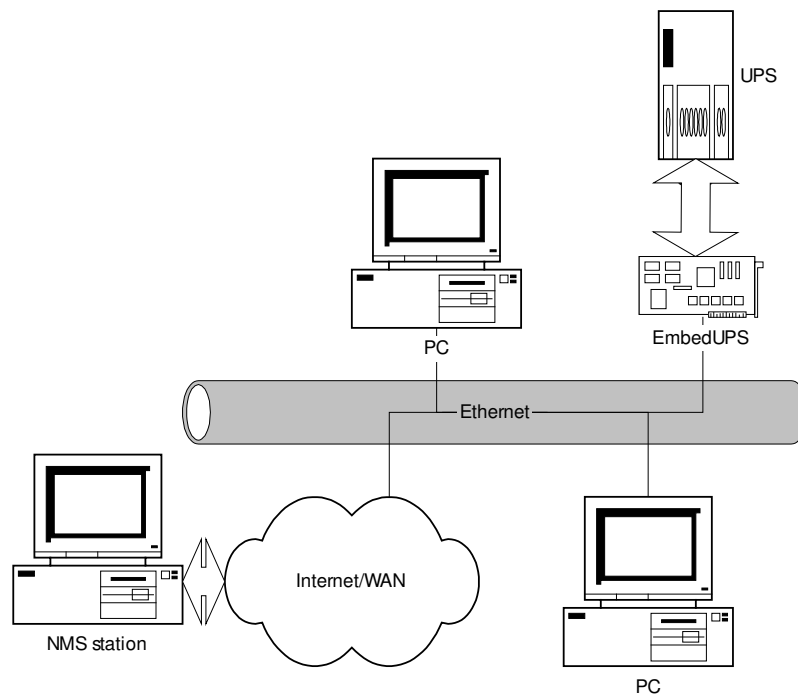

Figure 2

Minimum system requirements

- Processor : Pentium III/ 700 MHz

- Memory: 256MByte

- Screen; SVGA 1024*768, 32bit

- Available disk space: 100Mbyte

- Operating system: Windows XP, NT, 2K

Chapter 2. Server Installation

The server install application (MPS_UPS_SERVER_windows_1_01_00.exe) in the attached disk operates as a graphic wizard which enables easy installation without the need for extensive definitions.

During the first stage the install application will be loaded to the workstation's memory and the following screen will be displayed for several minutes(depending on the workstation's speed)
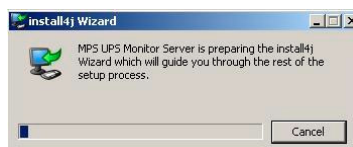

Figure 3

After the completion of the install download process a Welcome screen will be displayed in which the user is prompted to continue with the setup or abort it.

Figure 4

Pressing the "Next" button will prompt the user to select the folder where the application will be installed. The default location is "c:\Program Files\MPS_UPS_SERVER". The User may select another path by typing it in.
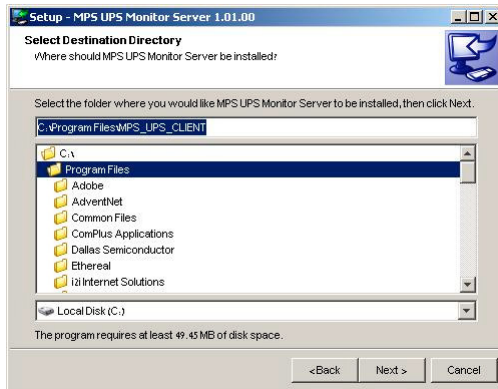

Figure 5

The user can select the start menu folder where the program's shortcut will be placed.
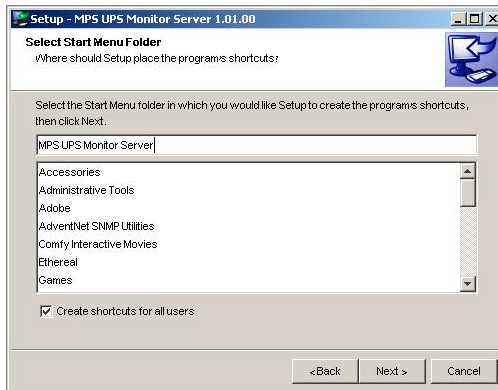

Figure - 6

The server program is installed as an operating system service. The user may choose to automatically launch it upon boot up, if not the user must activate this service manually.
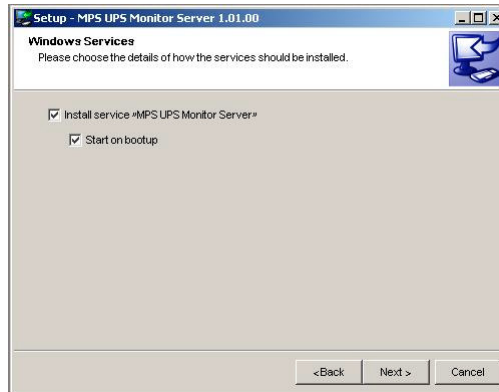

Figure 7

At the final phase the program will self extract the compressed file and complete the installation process – this phase may take several minutes (depending on the workstation's speed).
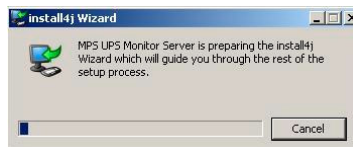

Figure 8

Figure 9

After the install process has finished the program's icon will appear in the system tray –

Figure 10

The user may click on the icon and select from the following options –

- Show – Maximize the MPS service view

- Exit – Terminate the MPS service

To complete the installation process the user is prompted to restart the workstation in order for the new service to be in effect.
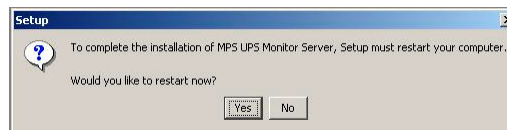

Figure 11

Chapter 3. Client Installation

The client install application (MPS_UPS_CLIENT_windows_1_01_00.exe) in the attached disk operates as a graphic wizard which enables easy installation without the need for extensive definitions.

During the first stage the install application will be loaded to the workstation's memory and the following screen will be displayed for several minutes(depending on the workstation's speed)
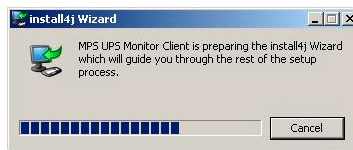

Figure 12

After the completion of the install download process a Welcome screen will be displayed in which the user is prompted to continue with the setup or abort it.

Figure 13

Pressing the "Next" button will prompt the user to select the folder where the application will be installed. The default location is "c:\Program Files\MPS_UPS_CLIENT". The User may select another path by typing it in.
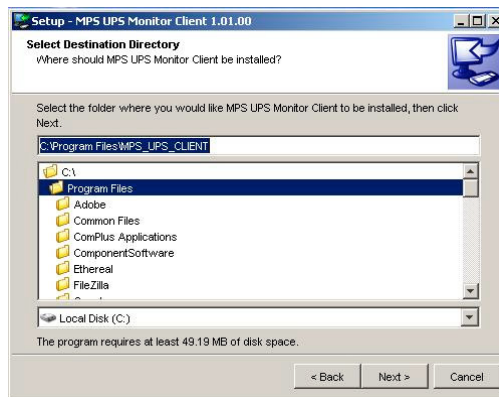

Figure 14

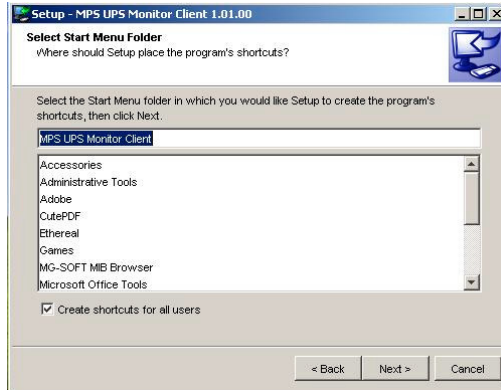The user can select the start menu folder where the program's shortcut will be placed.

Figure 15

The client program is installed as an operating system service. The user may choose to automatically launch it upon boot up, if not the user must activate this service manually.
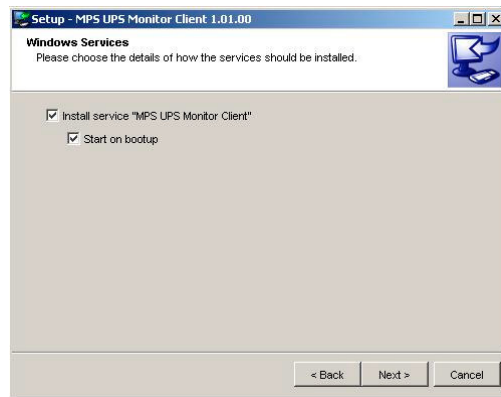

Figure 16

At the final phase the program will self extract the compressed file and complete the installation process – this phase may take several minutes (depending on the workstation's speed).
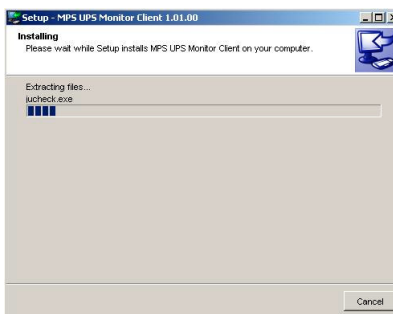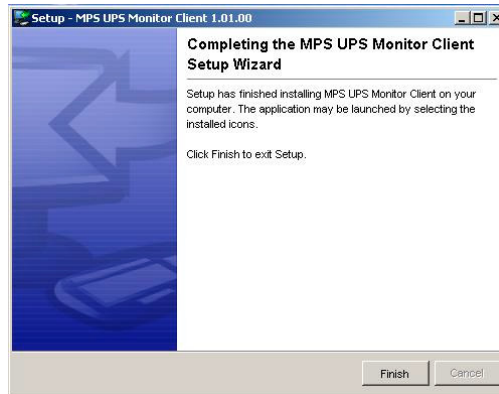

Figure 17

Figure 18

After the install process has finished the program's icon will appear in the system tray –

Figure 19

The user may click on the icon and select from the following options –

- Show – Maximize the MPS service view

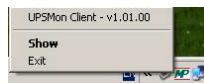- Exit – Terminate the MPS service

Figure 20

Chapter 4. Client service operation

General View
The client service displays the following UPS data –

- Input Status – Normal/Mains failure

- Output Status – Normal/On Battery/Failure

- Charge Level – Estimated charge level of the UPS

- Load level – Estimated load level on the UPS

- UPS Temperature – UPS's temperature (center grade)

- Battery Status – Normal/Low/Depleted

The following warnings are supported –

- Battery failure

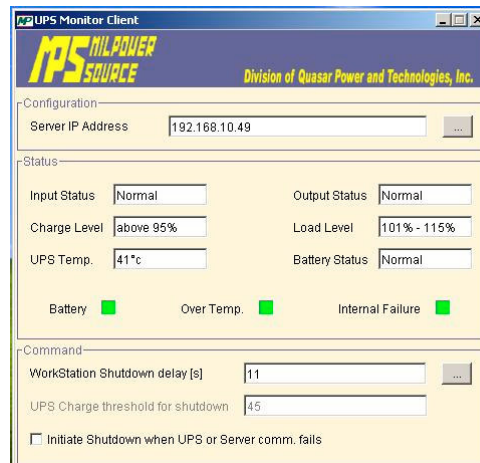- Over temperature

- Internal failure

Figure 21

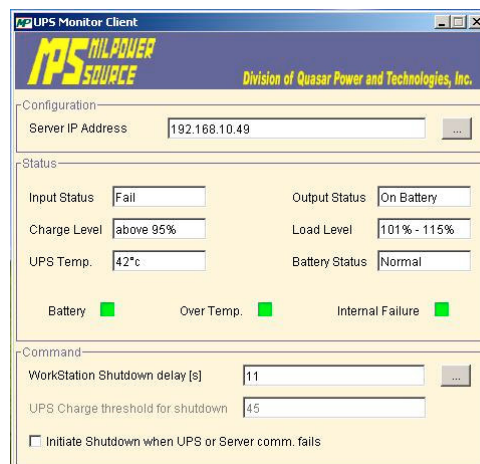For example – turning the mains off will update the data in the client service in the following manner.

Shutdown server selection

Hitting the "Server IP address" command button will prompt the user to enter the IP address of the shutdown server (the workstation where the UPSmon server service has been launched).
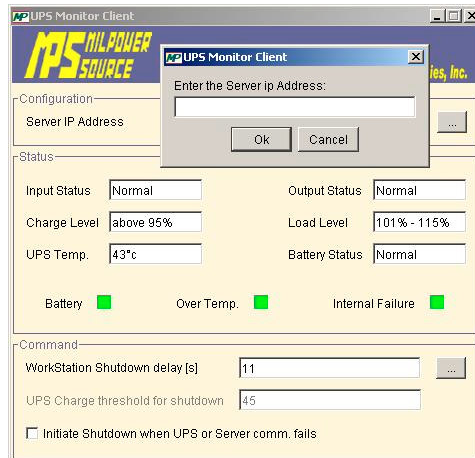

Figure 23

Client Shutdown delay

Hitting the "Workstation Shutdown delay" command button will prompt the user to enter the delay after which the workstation will shutdown. The UPSmon program allowes different client services to hold different delay values.
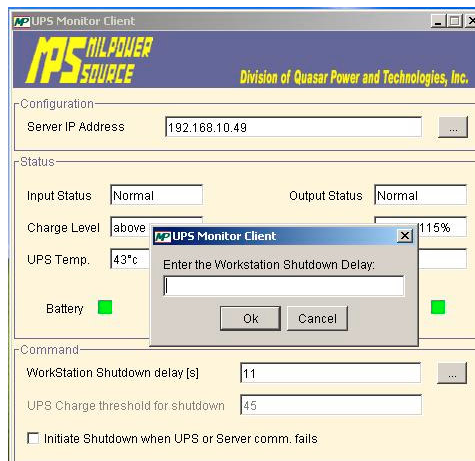
The delay is entered in Seconds.

Figure 24

Chapter 5. Server service operation

General View

The server service displays the following UPS data –

- Input Status – Normal/Mains failure
- Output Status – Normal/On Battery/Failure
- Charge Level – Estimated charge level of the UPS
- Load level – Estimated load level on the UPS
- UPS Temperature – UPS's temperature (center grade)
- Battery Status – Normal/Low/Depleted

The following warnings are supported –

- Battery failure
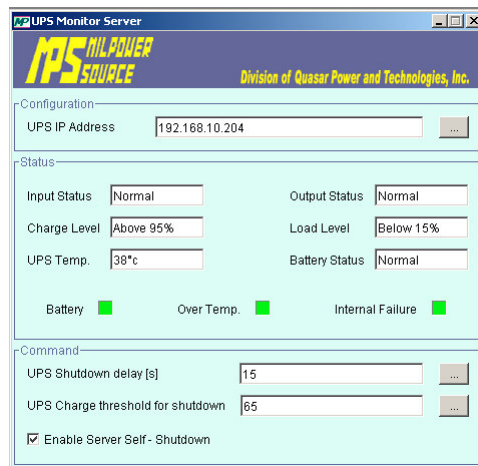- Over temperature
- Internal failure

Figure 25

UPS selection

Hitting the "UPS IP address" command button will prompt the user to enter the UPS IP address (which is the UPS SNMP Agent IP address) -
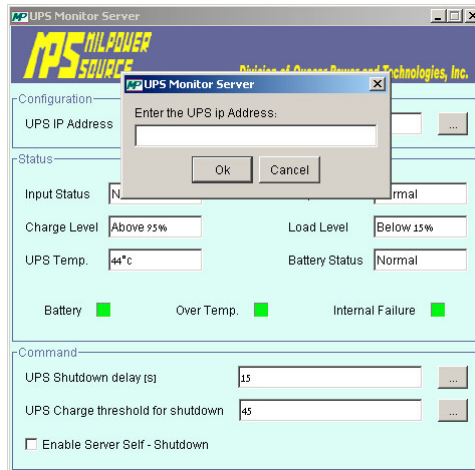
Figure 26

UPS Shutdown delay

Hitting the "UPS Shutdown delay" command button will prompt the user to enter the delay after which the UPS will shutdown (the delay will start after the last client has been turned off).
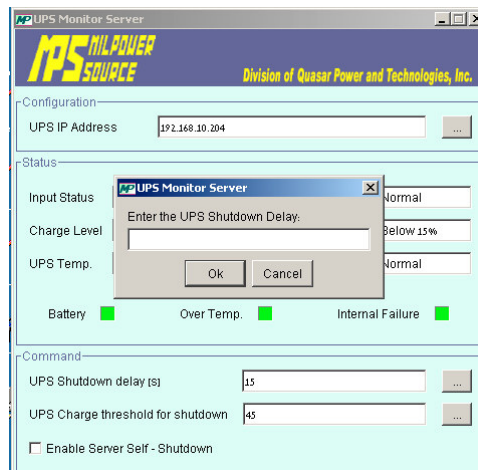
The delay is entered in Seconds.

Figure 27

UPS Charge Threshold

Hitting the "UPS Charge Threshold" command button will prompt the user to enter the threshold below it the UPS will launch the shutdown procedure.

The entered value will be rounded to the nearest charge indication possible by the UPS.
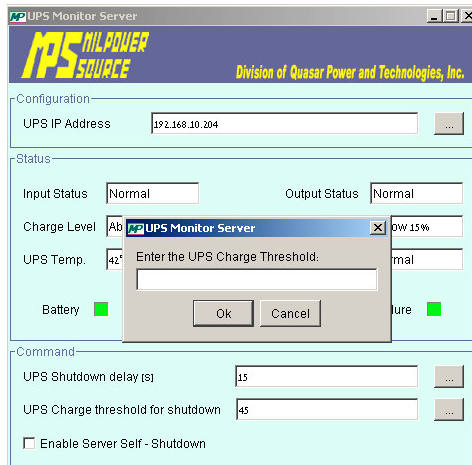
The threshold is entered in percentage (0-100%).

Figure 28

Server Self-shutdown

Checking the "Enable Server Self-Shutdown" box will cause the server to shutdown
after all clients have completed their shutdown delay.

* Note – This feature is important in cases where the server in not backed up by the UPS
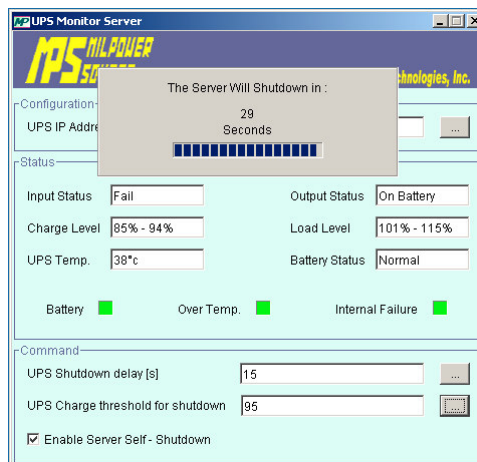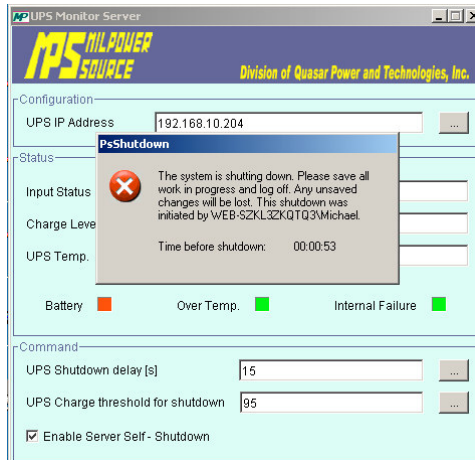it is monitoring.

Figure 29

Figure 30

If the Enable Server Self-shutdown check box is checked the server will shutdown after all clients have completed their shutdown delay.