SNMP-NV6 Manager

UPS Central Management System
(for Windows)

User's Manual

PN: 340000429 R1

Table of Contents

Chapter 1: Introduction

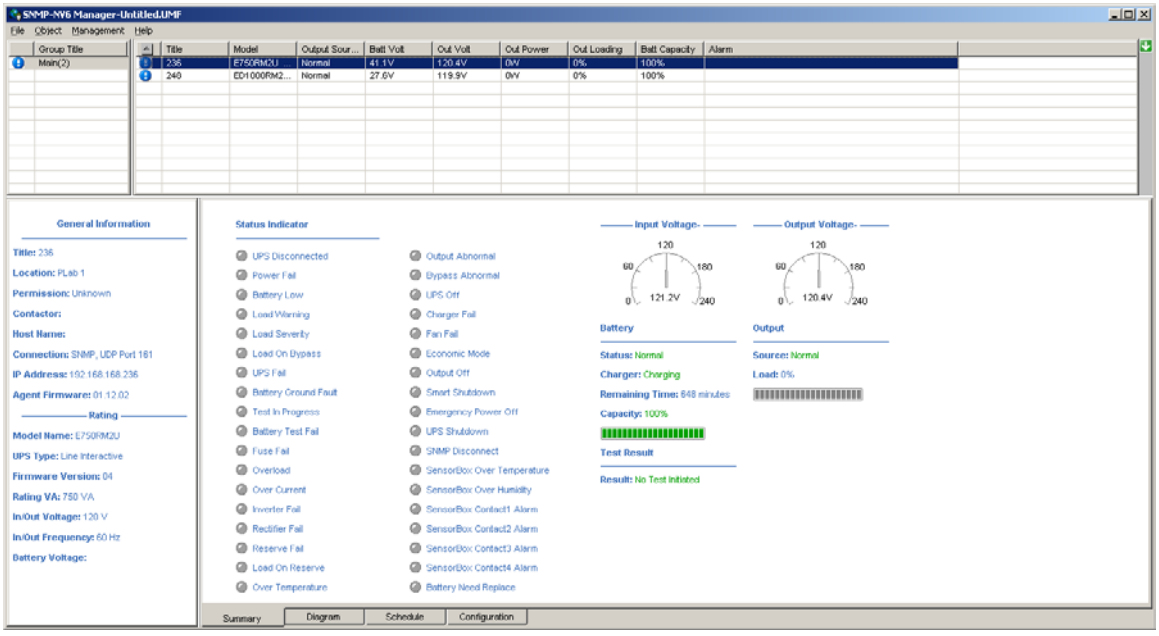
The SNMP-NV6 Manager provides useful information about the power status of the UPS. It is an easy-to-use program that provides you with a complete set of utilities to configure and monitor system performance to obtain maximum results. Its ability to remote monitor and control lots of UPSs is only one of the superb features.

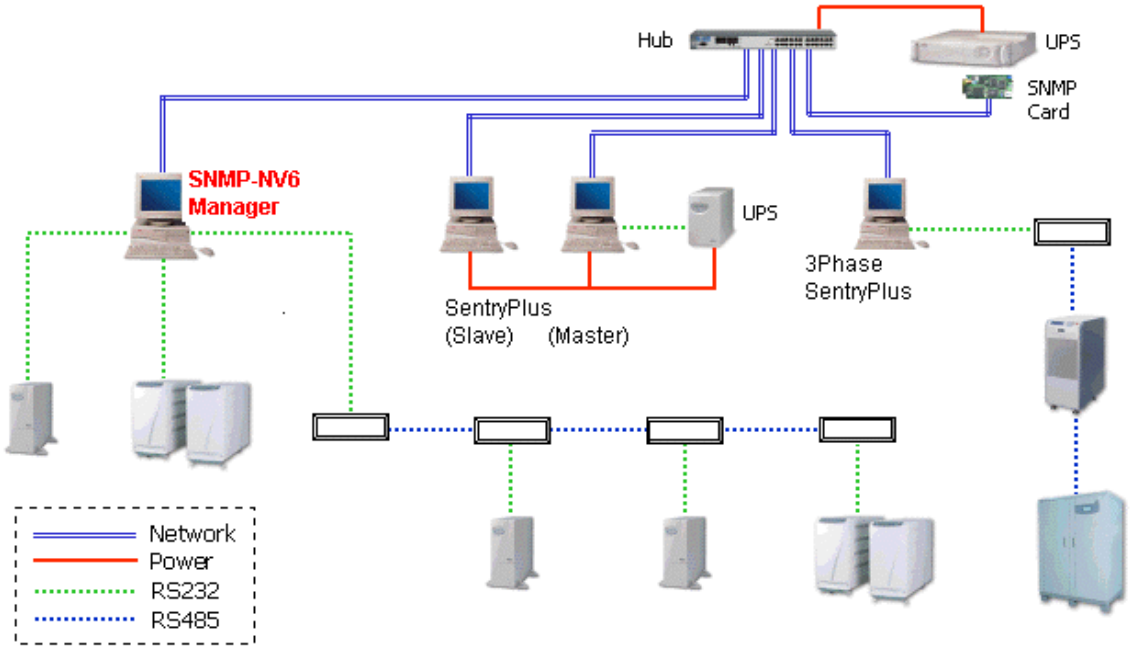
SNMP-NV6 Manager Features:

- Remote monitoring and control of UPSs through TCP/IP network
- Monitoring and control of UPSs through serial communication port
- Collects information from all of the UPSs into one central location
- Provides hierarchical architecture to manage all of your UPSs
- Provides audible alarm, broadcasting, paging, email and SMS notifications
- Monitors and displays Voltage, Frequency, Current, Loading, Battery Status, etc.

Chapter 2: Overview

The SNMP-NV6 Manager is an omnibus UPS management system. It can manage your UPSs through network and also has the ability to manage your UPSs through the serial port. It provides a standard graphic interface so that users can easily manage the UPSs and share a common alarm system.





Networking:
There are several ways to manage UPSs through the network by SNMP-NV6 Manager:

- SentryPlus Software
- 3Phase SentryPlus Software
- SNMP-NV6 SNMP card

Serial Port:
Use an RS232-to-RS485 adapter to cascade UPSs in one serial port or insert a multi-port card in the PC to connect UPSs to the serial ports.

Chapter 3: Creating UPS Maps

The following example uses SNMP-NV6 Manager to create a simple UPS map. The map file containing the submaps is SouthUPS.UMF. SouthUPS consists of a home map, three regional submaps, and three local submaps for each regional submap.

Table of SouthUPS Submaps

Home Submap	Regional Submaps	Local Submaps	Devices
World			
	Europe	London	Lab #11,12
		Berlin	Sales #4
		Vienna	Sales #8
	Japan	Osaka	Sales #25,27
		Tokyo	Sales #28,29,30
	USA	New York	Marketing #51,52
		Houston	Lab #101,102
		Los Angeles	Sales #83

To create a map file, follow these steps:

1. Choose New from the File menu to create a new map. SNMP-NV6 Manager will display an empty map with a name: Main.
2. Choose Rename As from the File menu to name the map file Practice.

Adding a Background

It is not required to use a background for a submap. They are independent of your UPS map data and can be added at any time. However, if you have access to suitable Bit Map images, they will make it easier to position icons.

1. Choose Background from the Object menu.
2. Press Browse button, choose World.bmp then press OK.

Adding Group Symbols

To add group symbols to your map, follow these steps:

1. Choose Add Group from the Object menu to display the Property dialog box.
2. Name the group title.
3. Click OK.

Adding SNMP Object Symbols

To add SNMP Object symbols to your map, follow these steps:

1. Choose Add SNMP Object from the Object menu to display the Property dialog box.
2. Name the UPS title; fill in the IP address and port number.
3. Click on OK and Connect.

Chapter 4: File Menu

This section discusses how to handle SNMP-NV6 Manager file and how to load a file at startup.

Connect to Service:

The SNMP-NV6 Manager-Monitor searches all of the SNMP-NV6 Manager-Service programs in the LAN then list them in the Service IP List, if you would like to connect to a remote Service that is not in your domain then assign the IP address in the IP Address box.

You can also setup the SNMP-NV6 Manage-Monitor to connect to a specific SNMP-NV6 Manager-Service automatically, please select the Enable option in the Auto-Connect and input the specific IP address.

New:

Create a new file. If the previous file has been changed it will pop up a dialog box to ask you to save the previous file.

Open:

Open a previous saved file.

Auto-Load:

This dialog box is used to setup the Service program to load an assigned UMF file at startup. The next time you restart your system the Service program will load the UMF file automatically.

Save:

Save current layout and settings.

Rename As:

The Rename As menu allows you to save current map file to the other file name. If you do not enable the database option to save records in a database then the event log and UPS historical parameters in your hard drive will be moved to the new directory automatically.

Generate Report:

Used for generating the routine reports. You can assign a period of time for SNMP-NV6 Manager to do the statistics of UPS historical parameters and analyze the UPS event log. The report files will be placed in the \Report subdirectory of the SNMP-NV6 Manager directory.

Database:

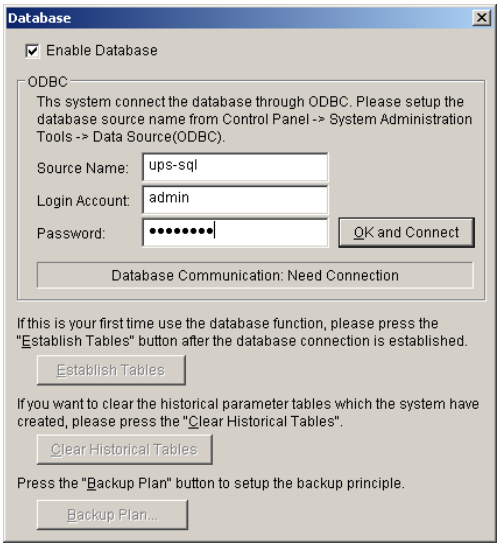
SNMP-NV6 Manager has the ability to connect to a database through ODBC to save UPS event log, user operation log and UPS historical values in the database. If this function is not being activated, all of the data will be saved in the installed directory of SNMP-NV6 Manager-Service.

Database Configuration:
Add a new database named ups in SQL 2005 and assign an account to manage it (admin1). SNMP-NV6 Manager will login to the database by using this account.

ODBC connection:
1. Create a new account from your Windows operating system with administrative privilege (odbc1).
2. Login to Windows by this account (odbc1).
3. Open the System Administrative Tools from the Control Panel, open the Data Source (ODBC) and create a new data source, input the related information and press Next Step.
4. Input the account and password that you have assigned (admin1) then press Next Step.
5. Set the ups to be the default database then press Next Step and complete the configuration.

SNMP-NV6 Manager Installation:
1. Now please proceed to install the SNMP-NV6 Manager.
2. Open the Service from System Administrative Tools in the Control Panel. Open the Property of SNMP-NV6 Manager and switch to the Login page, select Login by this account and input the account (odbc1) and password.

SNMP-NV6 Manager Database Configuration:
Select database from the File menu. The Source Name must be the same as it is in the ODBC. The Login Account and Password must be the database administrative account (admin1).



Restart System:
1. Please restart your operating system, SNMP-NV6 Manager-Service should start up and connect to the database automatically.
2. To make sure the SNMP-NV6 Manager-Service connects to the database at startup, open the SNMP-NV6 Manager-Monitor program and select Database from File menu. Users can observe the database connection status here.

Initial Database:

1. After it connects to the database successfully, press the Establish Tables button to build all of the necessary tables in the database.
2. The next step is to login SNMP-NV6 Manager as an administrator to add the other users account. Select Login from the File menu to open the login dialog box, the default administrator's account is **admin** and the password is **password**. There are 3 privileges level of users:
    1. System Administrator: Only responsible for user account management, this level of user is not allowed to manage UPS objects.
    2. UPS Device Manager: Has the ability to manage UPS objects.
    3. Read-Only User: Only has the read only privilege.

Database Backup Plan:

There are 3 kinds of records that can be stored in the database: the UPS event log, the operation event log and the historical values log. Most of the device managers would like to remove old data from the database and keep the old data in another drive or burn it to a CD periodically. To meet this requirement, SNMP-NV6 Manager provides an interface to configure its backup plan.

Press the Backup Plan button in the Database dialog box to open the dialog box. You can assign the backup directory for each record table and determine how many months data can be kept in the database then decide to remove the old records from the database or not.

Remote Monitor ODBC Configuration:

Install the remote SNMP-NV6 Manager-Monitor program to connect to the same Service program for maintenance or monitoring purposes. If the historical values are stored in the database then the remote computers needs to configure the ODBC connection as the same way as it is in the Service computer.

Note: The Data Source (ODBC) name must be the same.

Logout:

Logout of the program.

Change Password:

Change the password of the current logged in user.

Access Management:

This function will be enabled if you login as an administrator. Here you can manage the user accounts of the SNMP-NV6 Manager system.

Exit:

Stop the program.

Chapter 5: Object Menu

Add Group:

Add a Group object in the current level. As you select this option SNMP-NV6 Manager will pop up a Property dialog box to let you name the Group title.

Add SNMP Object:

Add a SNMP object in the current layer. As you select this menu SNMP-NV6 Manager will pop up a Property dialog box to let you name the SNMP title, assign the UPS IP address and community string. The SNMP-NV6 Manager supports only the UPS SNMP. You can use this function to monitor and control the UPS SNMP devices.

Note: The default community string is public. It only has Read-Only permission to UPS. If you want to send control commands like schedule shutdown or battery test then you have to input the community string with Read/Write permission to the SNMP card. Login to the SNMP card via the web browser, open the SNMP Access Control web page and input the IP address of the workstation, which runs the SNMP-NV6 Manager. The next step is to decide the community string of the SNMP object. The community string of the SNMP-NV6 Manager SNMP object and the SNMP card must be the same so that the SNMP packet can pass the verification of the SNMP card, which is sent from SNMP-NV6 Manager. Finally, select Read/Write option of the Access Level field in SNMP Access Control page to give this object Read/Write permission.

Property:

Displays the selected SNMP Object's properties and allows you to modify the values.

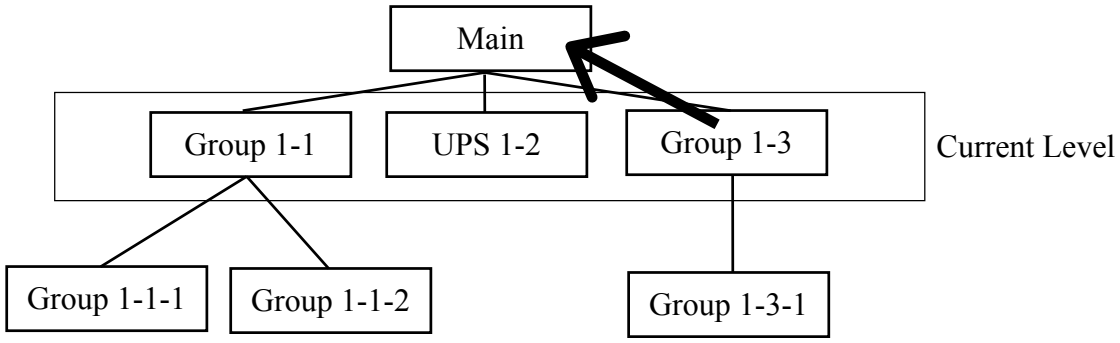
Background:

This option allows you to configure the background bitmap. The SNMP-NV6 Manager only supports bitmap file format.

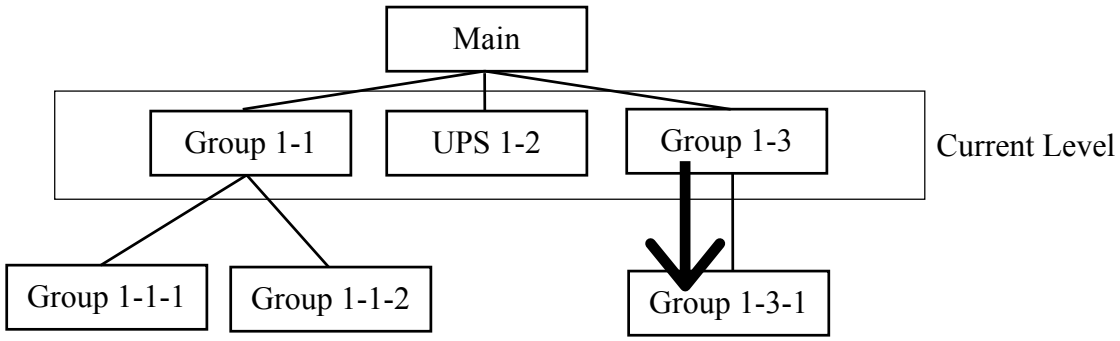
Move:

To move between objects or move into the selected group or move back to the upper level.

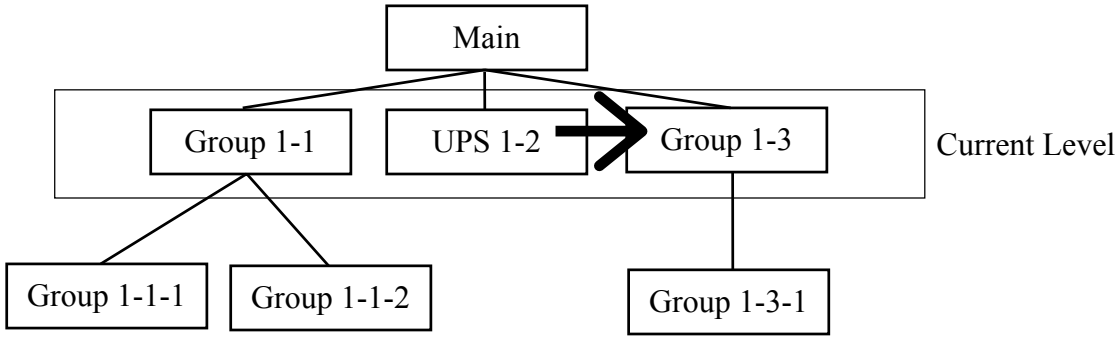
Move Up: Press Up Arrow or Page Up on the keyboard.



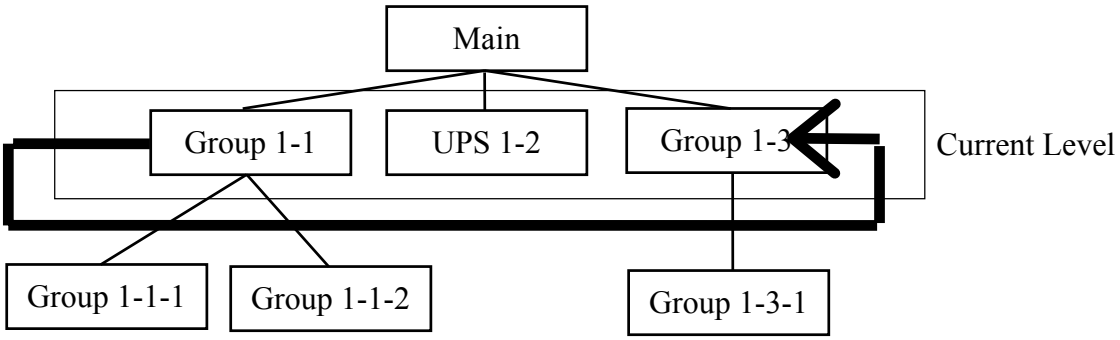
Move Into: Press the Down Arrow, or Page Down on the keyboard or double-click the left-button on you mouse.



Move Next: Press the Right Arrow on the keyboard.



Move Previous: Press the Left Arrow on the keyboard.



Lock Object:

Enable this item to prevent from dragging, deleting or cutting any object.

Move:

Puts the map window back on the top layer. Takes approximately 1-minute.

Cut:

Cut the selected object to the clipboard. You can paste it to a different layer.

Paste:

Paste the object, which was previously cut. The Cut and Paste commands allow you to move the objects.

Delete:

Delete the selected object.

Delete All:

Delete all of the objects.

Chapter 6: Management Menu

Connection:

The Time Period to Establish Connection: The SNMP-NV6 Manager tries to establish connection to those disconnect networking UPSs in a period of time.

SNMP Polling Interval: Adjusting this value will reduce the SNMP packages in the network.

List/Tab Selection:

This allows you to change the display columns of the list view and tab number.

Alarm Management:

This allows you to manage all of the alarm levels and the reactions. There are 3 alarm levels: Serious, warning and information. Each level is associated to a group of reactions, such as playing audio files, sending e-mail.

Historical Data Management:

This function is used to manage the event log and historical parameters. To manage database, select File->Database->.Backup Plan.

Pause Reaction:

Selecting this option will pause all of the alarm actions until a new alarm occurs.

Alarm Management provides an interface to configure all of the alarm level and reactions. If your UPSs are spread across a large area and have different device managers responding to different groups of UPSs. Then you may need to notify different contactors by different UPS objects or groups. Using the SNMP-NV6 Manager can easily configure the contactors and assign the object and/or group to different contactors. Furthermore, to reduce the notification loading in the Service program, the Monitor program can also send notification from the remote side.

Contactors:

Allows you to add, delete or modify the contactor's information and saves it in the Service program.

Send Notification From Service:

Select a group or object from the Rest Object list then press the Add button to add it to the Selected Object list. Select a group or object from the Selected Object list then press the Remove button to remove from the Selected Object list. Press the Save button to save the notification table in the Service program. This table is used for SNMP-NV6 Manager-Service to send notifications to the specified contactors.

Send Notification From Monitor:

Select a group or object from the Rest Object list then press the Add button to add it to the Selected Object list. Select a group or object from the Selected Object list then press the Remove button to remove from the Selected Object list. Press the Save button to save the notification table in the Monitor program. This table is used for SNMP-NV6 Manager-Monitor to send notifications to the specified contactors.

All Event Log:

This allows you to view the past events of all the objects. To print the event log, click on the Print command button. Pressing the Clear All button will clear all of the alarms.

Maximum alarm entries: It allows you to store up to a maximum of 1,000 entries (1-1,000) by keying in the number of entries you wish to store.

Selected Event Log:

This allows you to observe the event logs of the selected UPS. If the database is enabled then you can also query the user operation log, too. Click on the Export button to save the query data in Excel format.

Historical Parameters:

This allows you to observe the historical parameters of the selected UPS. Click on the Export button to save the query data in Excel format.

Download UPS Event Log:

This allows you to download the UPS event logs.

Control:

In this dialog box, you can send control commands to the selected UPS or the UPSs in the current group or all of the UPSs. If you are controlling the SNMP object then the object should have a permission of Read/Write.

Login to the SNMP card via web browser, open the SNMP Access Control web page and enter the IP address of the workstation, which runs the SNMP-NV6 Manager. The next step is to decide the community string of the SNMP object. The community string of the SNMP-NV6 Manager SNMP object and the SNMP card must be the same so that the SNMP packet can pass the verification of the SNMP card, which is sent from SNMP-NV6 Manager. Finally, select the Read/Write option of the Access Level field in SNMP Access Control page to give this object Read/Write permission.

SNMP Batch Configuration:

This function is used to configure all of your SNMP cards quickly and efficiently. Before proceeding to perform the batch configuration, verify the firmware version of the SNMP card is v1.14 or later.

Select an SNMP object from the Source SNMP Device List and press the Download System Configuration File button and Download SNMP Configuration File button to get the description files. Please read the comments in the description files carefully. If it is not necessary to update the item or you don't understand what it means, then delete the item from the list. After completing the modification, select the target SNMP device from the SNMP Device List, clicking on the Upload System Configuration File button to update the system configuration or press the Upload SNMP Configuration File button to update the SNMP configuration to the target SNMP card.

Control Password Setup:

This function is used to verify the privileges of users to open the Control dialog box. It is only available when SNMP-NV6 Manager is not connected to the database.