M0010495B

SANUPS

UPS Control System

SANUPS SOFTWARE

Install Guide

SANYO DENKI

E

ENGLISH

※ **Windows** are registered trademark or trademark of **U.S. Microsoft Corporation** in the United States and other countries.

※ **Solaris** is registered trademarks of **Oracle Corporation** and subsidiaries of **Oracle Corporation** in the USA and other countries.

※ **HP-UX** is the name of an operating system of **U.S. Hewlett-Packard Company.**

※ **AIX** is a registered trademark of **U.S. International Business Machines Corp.**

※ **Linux** is a trademark or registered trademark of **Linus Torvalds** in U.S.A. and other countries.

※ **Java**, and all trademarks and logos related to **Java**, are registered trademarks of **Oracle Corporation** and subsidiaries of **Oracle Corporation** in the USA and other countries.

※ **VMware and ESX Server** are a trademark or registered trademark of **VMware, Inc.** in U.S.A. and other areas.

※ Other product names and company names are trademarks or registered trademarks of each company.

※ **Microsoft** product screen shot(s) reprinted with permission from **Microsoft Corporation**.

Notice

(1) It is strictly prohibited to copy or reproduce a part or the entire of this software and booklet without permission.

(2) The content of this product has carefully been inspected. However, if there is anything that you have noticed, please contact the User Subsection at the company address indicated below.

(3) The content of this product may change without any notice.

(4) Please read this instruction manual thoroughly and make yourself understood of the function in using this product. The warrantor shall not be liable for incidental or consequential damages resulting form the use of this product.

Contact information for inquiries

Please contact the nearby distributor for any inquiries about the product.

Table of Contents

1. Introduction 1

1.1 Operating Environments 1

1.1.1 Windows 1

1.1.2 Solaris 2

1.1.3 HP-UX 4

1.1.4 AIX 4

1.1.5 Linux 5

2. Before Installing SANUPS SOFTWARE 7

2.1 Checking the Operating Mode of the UPS 7

2.2 Checking the Communication with the UPS 7

2.3 Checking the Connection Method of a Computer 8

3. Installing SANUPS SOFTWARE 10

3.1 Windows 10

3.1.1 Starting the Install Program 10

3.1.2 Checking the license agreement 11

3.1.3 Entering user information 12

3.1.4 Checking the install folder 12

3.1.5 Selecting a program folder 13

3.1.6 Confirming the start of file copying 13

3.1.7 Copying files (executing installation) 14

3.1.8 Completing installation 14

3.2 Solaris 15

3.2.1 Starting the install program 15

3.2.2 Installing SANUPS SOFTWARE 16

3.2.3 Restarting the computer 18

3.3 HP-UX 19

3.3.1 Starting the install program 19

3.3.2 Installing SANUPS SOFTWARE 20

3.3.3 Restarting the computer 21

3.4 AIX 22

3.4.1 Starting the install program 22

3.4.2 Installing SANUPS SOFTWARE 22

3.4.3 Restarting the computer 23

3.5 Linux 24
3.5.1 Starting the install program 24
3.5.2 Installing SANUPS SOFTWARE 26
3.5.3 Restarting the computer 27
4. Setting Up SANUPS SOFTWARE 28
4.1 Using the Setup Wizard (GUI Configuration Tool) 28
4.1.1 If the computer is a server connected to the UPS 29
4.1.2 If the UPS is connected to a client 40
4.1.3 If the UPS is connected to a network 49
4.2 Using the SETUP Wizard (CUI Setup Tool) 59
4.2.1 About the registration (configuration) of the UPS 59
5. About the SANUPS SOFTWARE Operation 73
6. Uninstalling SANUPS SOFTWARE 73
6.1 Windows 73
6.2 Solaris 75
6.3 HP-UX 76
6.4 AIX 77
6.5 Linux 78
Appendix A Precautions for using Windows 79
Appendix B Precautions for using Linux 86
Appendix C Precautions for using UNIX 89

1. Introduction

SANUPS SOFTWARE is a software application that is used together with a UPS. It safely performs automatic shutdown of a computer when a power trouble such as power failure occurs. It can also monitors the state of the UPS and allows you to check the state history of the UPS.

This manual describes how to install and set up **SANUPS SOFTWARE.**

1.1 Operating Environments

SANUPS SOFTWARE supports a number of operating systems. As the operating environment for each operating system differs, see the appropriate section in this manual to set up **SANUPS SOFTWARE** for the operating system in use.

1.1.1 Windows

(1) Hardware

CPU : **x86/x64: Intel Pentium-compatible processor**
(**PentiumIII**or higher recommended)
Itanium: Itanium2 or higher processor

Memory : 128 Mbytes or more (256 Mbytes or more recommended)

Disk capacity : 120M bytes or more free space available

Display : Resolution 800×600, 256 colors or more

(2) Software

OS : **Windows 2000**
Professional / Server / Advanced Server
Windows XP
Professional / Home Edition
Professional x64 Edition
Windows Server 2003
Standard Edition / Enterprise Edition
Standard x64 Edition / Enterprise x64 Edition
Enterprise Edition for Itanium-based systems
Windows Server 2003 R2
Standard Edition / Enterprise Edition
Standard x64 Edition / Enterprise x64 Edition
Windows Vista
Business Edition / Ultimate Edition / Enterprise Edition
Business 64-bit Edition / Ultimate 64-bit Edition
Enterprise 64-bit Edition
Windows Server 2008 (*1)
Standard Edition / Enterprise Edition
Windows Web Server 2008 (*1)
Windows Server 2008 for Itanium-based Systems (*2)

Windows 7 (*3)
Professional / Ultimate / Enterprise
Windows Server 2008 R2 (*4)
Standard / Enterprise
Windows Web Server 2008 R2 (*4)
Windows 8 (*3)
Windows 8 / Windows 8 Pro / Windows 8 Enterprise
Windows Server 2012 (*4) (*5)
Essentials / Standard / Datacenter

(*1) Available for x86 and x64 Edition, also Server Core.
(*2) Available only for Full installation.
(*3) Available for x86 and x64 Edition.
(*4) Also Server Core.
(*5) In the case to use by connecting to LAN Interface card, please refer to [Notice: To use Windows OS by ECN is in "enable"] of [4.1.3 If the UPS is connected to a network] in advance.

1.1.2 Solaris

For SPARC

(1) Hardware

Computer : **Oracle (Sun Microsystems)** workstation
CPU : **ULTRA SPARC**
Memory : 128 Mbytes or more (256 Mbytes or more recommended)
Disk capacity : 120 Mbytes or more free space available
Display : Resolution 800×600, 256 colors or more
(when Java tools are used)

(2) Software

OS : **Solaris 8** (*1) (*2), **9** (*2), **10** (*2), **11** (*2)

(*1) **Solaris 8** (10/00) or later version recommended
(*2) Additional package installation to SolarisOS is needed on which depends the usage environment. Confirm "Appendix C Precautions for using UNIX" and start operation after installing required package.

For x86

(1) Hardware

CPU : **x86/x64: Intel Pentium-compatible processor**
(**PentiumIII** or higher recommended)

Memory : 256 Mbytes or more (512 Mbytes or more recommended)

Disk capacity : 120 Mbytes or more free space available

Display : Resolution 800×600, 256 colors or more
(when Java tools are used)

(2) Software

OS : **Solaris 10** (*3) (*4) , **11** (*4)

(*3) **Solaris 10** (1/06) or later version recommended
(*4) Additional package installation to SolarisOS is needed on which depends the usage environment. Confirm “Appendix C Precautions for using UNIX” and start operation after installing required package.

1.1.3 HP-UX

(1) Hardware

Computer : **Hewlett-Packard** workstation

CPU : **PA-RISC 1.1** or higher processor

Itanium: Itanium2 or higher processor

Memory : 128 Mbytes or more (256 Mbytes or more recommended)

Disk capacity : 150 Mbytes or more free space available

Display : Resolution 800×600, 256 colors or more

(when Java tools are used)

(2) Software

OS : **HP-UX 11i v1**(*1)

HP-UX 11i v2 for Itanium

HP-UX 11i v3 for Itanium

(Installation of the latest Support Plus patch is recommended.)

(*1) Linker (ld) patch must be applied.
The patch ID is indicated as follows:
・HP-UX 11i v1 PHSS_26263 or later

1.1.4 AIX

(1) Hardware

Computer : **IBM** workstation

CPU : **PowerPC** (**604e** or higher)

Memory : 128 Mbytes or more (256 Mbytes or more recommended)

Disk capacity : 110 Mbytes or more free space available

Display : Resolution 800×600, 256 colors or more

(when Java tools are used)

(2) Software

OS : **AIX 5.1**, **5.2**, **5.3**, **6.1**, **7.1**

(Installation of the latest Update CD is recommended.)

1.1.5 Linux

(1) Hardware

CPU : **x86/x64**: **Intel Pentium-compatible processor**
(**PentiumIII** or higher recommended)
Itanium: Itanium2 or higher processor

Memory : 128 Mbytes or more (256 Mbytes or more recommended)

Disk capacity : 130 Mbytes or more free space available

Display : Resolution 800×600, 256 colors or more
(when Java tools are used)

(2) Software

OS : **Red Hat Enterprise Linux v.3, v.4, v.5, v.6**
(x86, AMD64, EM64T, Itanium)
Turbolinux 10 Server
(x86)
Turbolinux 10 Server x64 Edition
(AMD64, EM64T)
SUSE Linux Enterprise Server 9, 10, 11
(x86, AMD64, EM64T)
MIRACLE LINUX V4.0
（x86、AMD64、EM64T）
MIRACLE LINUX Asianux Server 3
（x86、AMD64、EM64T）

<VMware ESX Server> (*1) (*2)
VMware ESX Server 3.0
VMware ESX Server 3.5
VMware ESX Server 4.0
VMware ESX Server 4.1

(*1) Install **SANUPS SOFTWARE for Linux** on the **VMware ESX Server Host.**

(*2) Connection method of **VMware ESX Server Host** and UPS via serial cable cannot be used. Please refer to the following “Attention: Installing to **VMware ESX server Host**”.

<Attention: Installing to VMware ESX server Host >

If the connection method is UPS and **VMware ESX Server Host(**host OS) via serial cable, serial connection for host OS side sometimes cannot be operated normally. So please do not be used the connection method of host OS and UPS via serial cable. Please use either method of “Client Version” or using LAN interface card which are in “2.3 Checking the Connection Method of a Computer”.

<About shutdown of VMware ESX Server>

Install **SANUPS SOFTWARE for Linux** on the **VMware ESX Server Host.** (When a power failure occurs, host will be shut down automatically.)

The guest OS can be shut down by either of the following method.

(1) When the **VMware ESX Server Host** is shut down, the guest OS is shut down simultaneously by Linked shutdown function of VMware ESX Server.

(2) Install **SANUPS SOFTWARE** on the guest OS. Configure **SANUPS SOFTWARE** so that the **VMware ESX Server Host** starts shutdown after the guest OS shutting down. (Shutdown start delay time can be specified by setting the waiting time of shutdown.)

<Starting OS automatically>

To start a computer automatically when power is supplied from the UPS, the following conditions are required.

For Windows XP:
ServicePack 2 or later must be installed.

For Windows Server 2003:
ServicePack 1 or later must be installed.

For Windows 8:
Windows 8 Pro or Windows 8 Enterprise must be installed.

For OS other than above:
The hardware setup (BIOS) must be changed to enable the computer to start up when power is supplied. (For details, consult the maker of the computer purchased.)

2. Before Installing SANUPS SOFTWARE

Before installing **SANUPS SOFTWARE**, check the connection of the computer with the UPS.

2.1 Checking the Operating Mode of the UPS

Check the operating mode of the UPS. If the UPS has a [W/S (workstation) mode], set it to this mode. (If optional cards such as LAN interface card and serial interface card are already installed in the UPS, this means the UPS is already set to the [W/S mode].

※ For information on how to set the UPS to the [W/S mode], refer to the Instruction Manual that comes with the UPS.

※ If [External Transfer Signal] (contact signal) of the UPS main unit is used, there is no need to set the UPS to the [W/S mode]. However, when "External Transfer Signal" is used, some restrictions apply. This includes: the UPS cannot be stopped, and the state of the UPS cannot be displayed.

2.2 Checking the Communication with the UPS

If communication of a computer with the UPS is via direct serial cable connection, use the serial cable that comes with **SANUPS SOFTWARE** or the UPS.

※ If a cable other than those designated by Sanyo Denki is used, the operation is not guaranteed.

If a LAN interface card (option) is used, specify an IP address for the interface card.

※ Before setting an IP address to the LAN interface card, refer to the User Guide of the LAN interface card, and then perform the operation.

※ No LAN cable comes with **SANUPS SOFTWARE**, LAN interface card, or the UPS. Therefore, you need to prepare a LAN cable with the desired length as needed.

2.3 Checking the Connection Method of a Computer

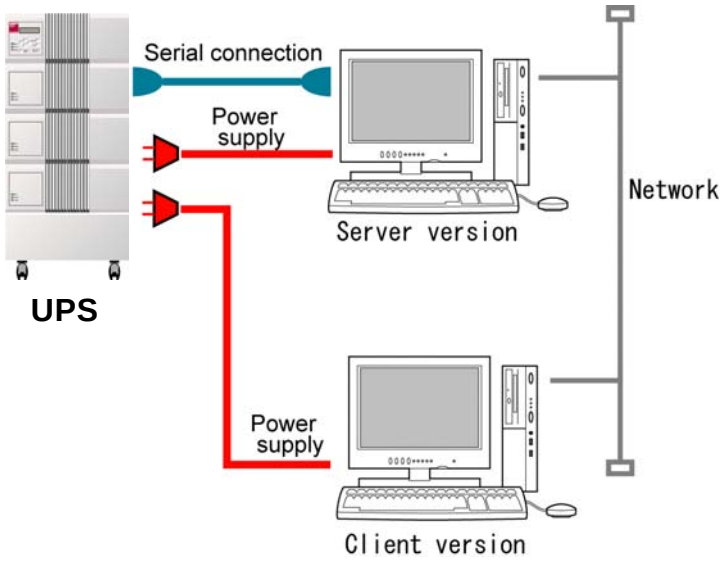
The method used to connect a computer to the UPS (direct serial connection with UPS or via LAN interface card) is specified during the setup operation after **SANUPS SOFTWARE** is installed. For this reason, it is necessary to decide, in advance, how the UPS is to be connected to a computer where **SANUPS SOFTWARE** is installed.

There are two methods to connect a computer to the UPS.

- Using a serial cable (including contact connection)
- Using a LAN interface card

The following sections describe each of the connection methods, using a system configuration example.

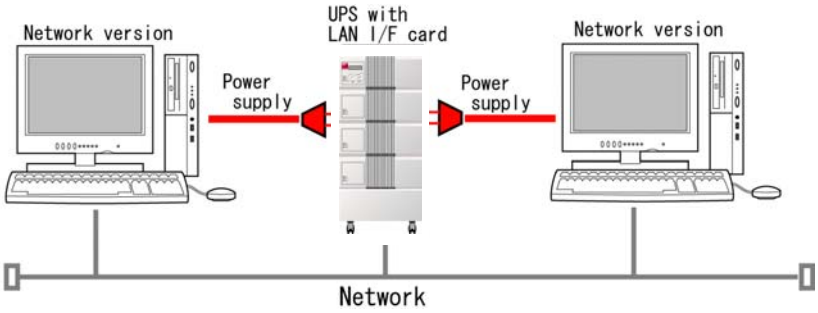
Using a serial cable to connect



In this case, the computer connected to the UPS using a serial connection (including contact connection) is referred to as a **server version**, and all other computers are referred to as **client versions**. (Server and client or client and client must be connected via a network.)

To connect only one computer to the UPS, a network is not required.

Using a LAN interface card to connect



If the UPS has a LAN interface card and is connected to a network, all computers on the network are referred to as **network versions**. (There is no distinction between server and clients.)

3. Installing SANUPS SOFTWARE

SANUPS SOFTWARE supports a number of operating systems. The installation method differs depending on the operating system in use. Therefore, refer to the appropriate section for the operating system in use.

The following operation can only be performed by users with administrative rights（Administrators, root）.

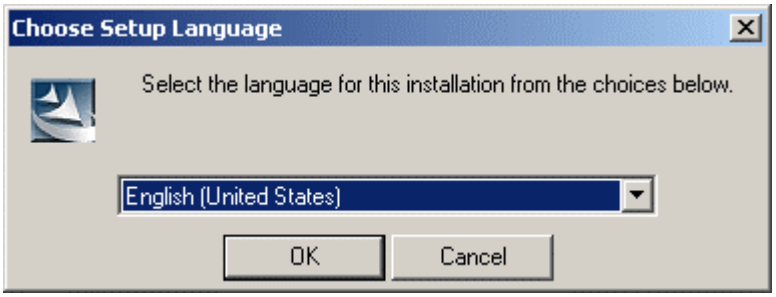
If an older version of Sanyo UPS Control Software is already installed, be sure to uninstall it and then install SANUPS SOFTWARE.

3.1 Windows

3.1.1 Starting the Install Program

(1) Insert the **SANUPS SOFTWARE for Windows** CD-ROM in the CD-ROM drive of the computer.

(2) The install program starts automatically and the following screen appears.
Here, the "Japanese language" version is used for the explanation of the installation.



Once a language is selected here, it cannot be changed later.

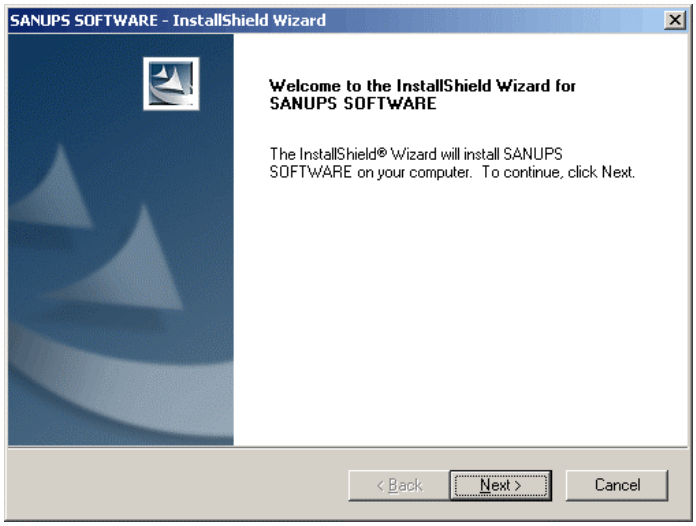
<If the install program does not start automatically>
Start the Explorer. Locate the **Setup.exe** file on the CD-ROM.
Double-click this file to start the install program.
When using **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**, execute "**Setup.exe**" on the CD-ROM using commamd line.

(3) After selecting a language, click (select) the **"OK"** button.

<Starting install program by Windows 8 / Windows Server 2012>

- In the Modern UI Style, set install CD, select the display of "Tap to choose what happens with this disc.", "Install or run program from your media" screen will be shown and choose "Run setup.exe" then install program will be started.
- In the Desktop Style, start File Explorer and double click (select) **Setup.exe** from CD-ROM drive then install program will be started.

(4) After the installation preparation screen appears, the following screen comes up.

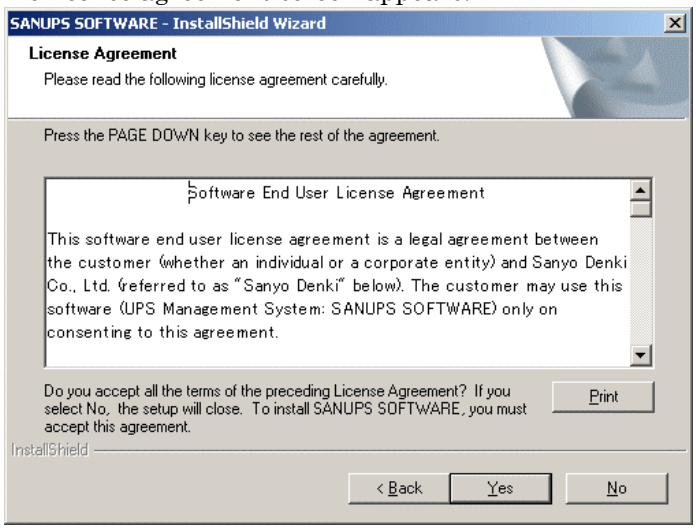


(5) Click (select) the **"Next"** button.

From this screen onward, to cancel the installation, you can click the "Cancel" button on the install screen.

3.1.2 Checking the license agreement

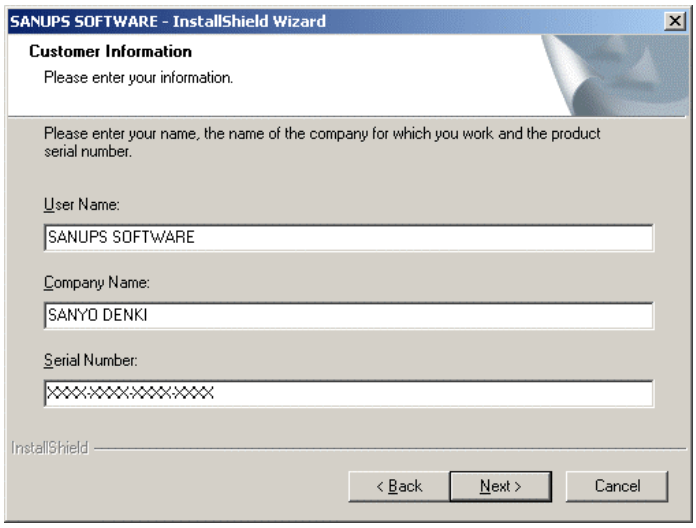
(1) The license agreement screen appears.



(2) If you agree with the license and want to continue the installation, click (select) the **"Yes"** button.

3.1.3 Entering user information

(1) The user information input screen appears.



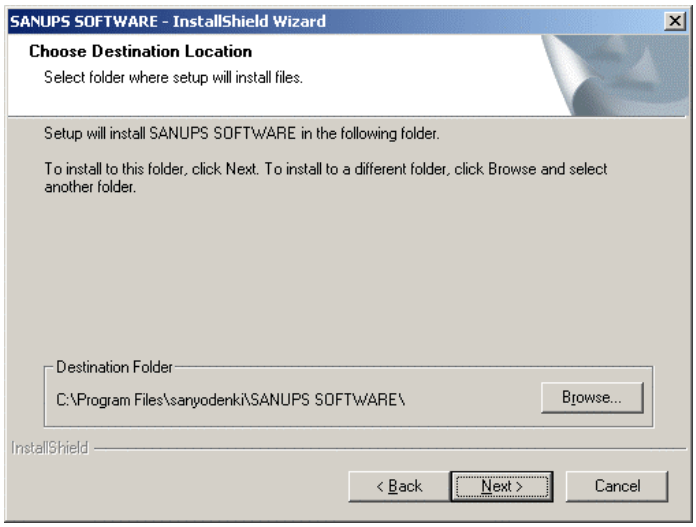
(2) Enter a user name, company name, and serial number in the **[User Name]**, **[Company Name]**, and **[Serial Number]** text boxes respectively.

The serial number is recorded on the **SANUPS SOFTWARE** CD-ROM case.

(3) Click (select) the **"Next"** button.

3.1.4 Checking the install folder

(1) The install destination selection screen appears.

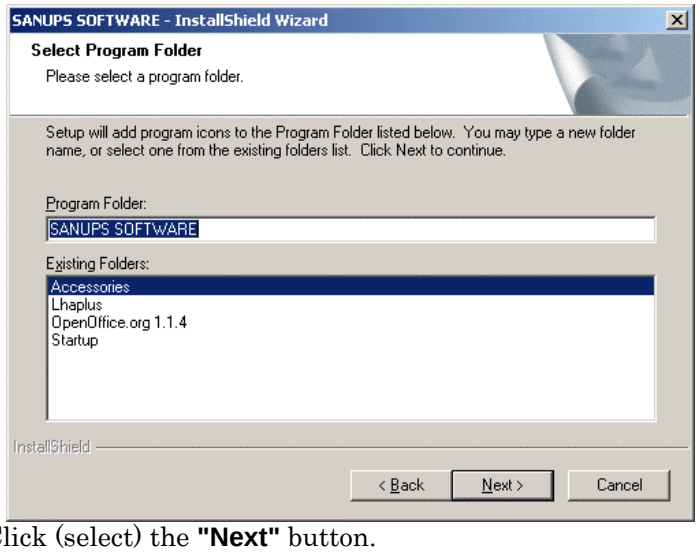


You can change the destination to use to install **SANUPS SOFTWARE**.

(2) After specifying an install destination, click (select) the **"Next"** button.

3.1.5 Selecting a program folder

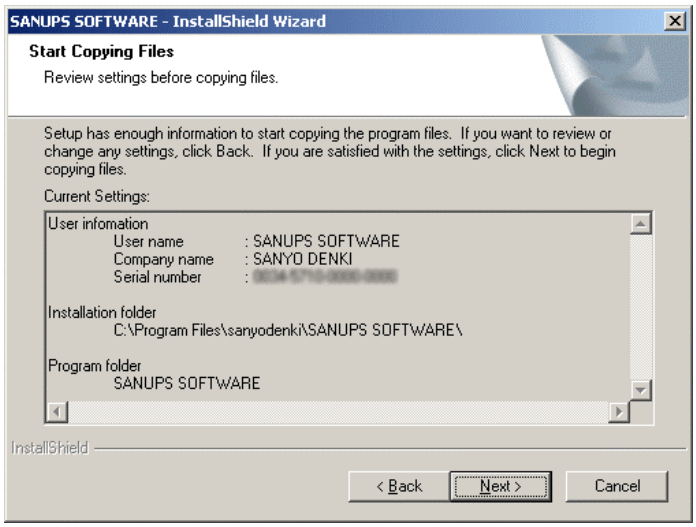
(1) The program folder selection screen appears.



(2) Click (select) the **"Next"** button.

3.1.6 Confirming the start of file copying

(1) The file copy start confirmation screen appears.



(2) Check the contents, and then click (select) the **"Next"** button.

3.1.7 Copying files (executing installation)

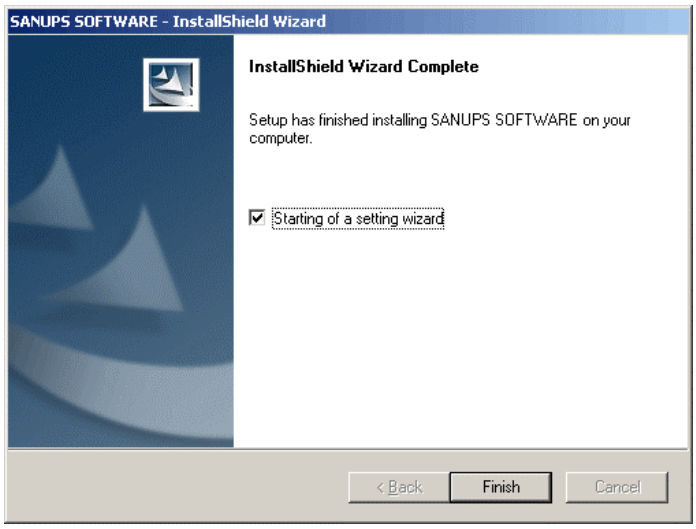
(1) **SANUPS SOFTWARE** files are copied to the hard disk.

This operation takes a few minutes to complete, so wait until it is finished.

If there is not enough free space on the hard disk, the installation may fail. Therefore, make sure the hard disk has ample free space enough for the installation.

3.1.8 Completing installation

(1) The setup completion screen appears.



(2) Click (select) the "Finish" button to finish the install program.

If the **[Starting of a setting wizard]** check box is selected and then you click the **"Finish"** button, the setup wizard starts. For information on how to use the setup wizard, see Section 4.1 , "Using the Setup Wizard (GUI Configuration Tool)".

※ After the installation, when a computer is registered on the UPS, the computer can automatically be shut down when there is a power failure, etc.

<Starting GUI tool screen after installing by Windows 8 / Windows Server 2012>

Tile of "**SANUPS SOFTWARE**"will be created to"Start" and "App" screen after installing **SANUPS SOFTWARE** on **Windows 8** or **Windows Server 2012**.

If click this tile, GUI tool screen of **SANUPS SOFTWARE** will be started.

3.2 Solaris

3.2.1 Starting the install program

(1) Insert the **SANUPS SOFTWARE for UNIX** CD-ROM in the CD-ROM drive of the computer.

(2) Check the directory where the CD-ROM is mounted.
If the CD-ROM is not mounted automatically, use the **mount** command to mount the CD-ROM device to the appropriate directory.
(For details on the **mount** command, refer to the appropriate manual.)

(3) Move to the directory where the CD-ROM is mounted.
Move to the directory for the OS version in use.
(In the following example, the CD-ROM is mounted in /cdrom.)

For SPARC
 # cd /cdrom/sanupssoftware_u/solaris/sparc <Return>

For x86
 # cd /cdrom/sanupssoftware_u/solaris/x86 <Return>

(4) Use the **pkgadd** command to install **SANUPS SOFTWARE**.
The directory that you moved to in step (3) contains the following two directories(※1) .

SANYupsd (UPS control system package)
snmp (SNMP agent package) (※1)

Use the **pkgadd** command to install **SANYupsd.**
(For details on the **pkgadd** command, refer to the appropriate manual.)
The following Section 3.2.2 , "Installing SANUPS SOFTWARE" shows an example on how to use the **pkgadd** command to install **SANUPS SOFTWARE**.

(※1) "SNMP agent package" is not included in "For x86".

3.2.2 Installing SANUPS SOFTWARE

The following example shows how to use the pkgadd command to install **SANUPS SOFTWARE**. During installation, the location where input is required is indicated as **Input value**.

The following descriptions refer to "For SPARC version 2.0.0".

 # pkgadd -d . <Return>

The following packages are available:

1 SANYupsd SANUPS SOFTWARE
(sparc) 2.0.0

Package contains the following contents.
SANYupsd : UPS control system

Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]: **1**

To install the **SANUPS SOFTWARE** main package, select "1".
To quit, select "q".

Processing package instance </cdrom/sanupssoftware_u/solaris>

SANUPS SOFTWARE
(sparc) 2.0.0
SANYO DENKI Co.,Ltd.
Enter serial number: **XXXX-XXXX-XXXX-XXXX**

Enter the serial number indicated on the CD-ROM.

/usr/sg4
If you want to install this directory, press RETURN key.
Otherwise, please type in the directory you want to install.
/usr/local/ups

> In this example, the software is installed in the **/usr/local/ups** directory.
> You can also enter a directory to install the software. If you press the RETURN key without specifying a directory for the installation, **/usr/sg4** will be used for the installation.
> To use GUI tools, the directory for the installation must have 120 Mbytes or more of free space available.

jp or us ? **us**

> To install the English version, enter "us".
> To install the Japanese version, enter "jp".

Should /etc/system be modified to execute UPS service [y/n] **y**

> To use this software, make sure the following kernel parameters are set up as indicated.
> **shmsys:shminfo_shmmax is set to 4169764 or more**
> **msgsys:msginfo_msgmax is set to 4096 or more**
> **msgsys:msginfo_msgmni is set to 128 or more**
> **msgsys:msginfo_msgtql is set to 200 or more**
> If you enter "y" to this question and then press the RETURN key, the installer automatically modifies /etc/system, the configuration file of the kernel parameters.
> If the kernel parameters are already set to the appropriate values, or if you want to modify them yourself, enter "n" and then press the RETURN key. In this case, the kernel parameters are not modified.
> After modifying the kernel parameters, you need to restart the OS.

Should guitool included in this package be installed [y/n] **y**

> If you want to install the GUI tools, enter "y".

Should initscript included in this package be installed [y/n] **y**

> Enter "y".

The selected base directory </usr/local/ups> must exist before installation is attempted.

Do you want this directory created now [y,n,?,q] **y**

Enter "y".

Using </usr/local/ups> as the package base directory.
Processing package information.
Processing system information.
6 package pathnames are already properly installed.
Verifying disk space requirements.
Checking for conflicts with packages already installed.
Checking for setuid/setgid programs.

This package contains scripts which will be executed with super-user
permission during the process of installing this package.

Do you want to continue with the installation of <SANYupsd> [y,n,?] **y**

Enter "y".

Installing SANUPS SOFTWARE as <SANYupsd>

1/1 part is being installed.
Installing part 1 of 1.
/usr/sg4/bin/account.dat
/usr/sg4/bin/libSGSvcIf.so
:
＜Other necessary files will be copied onwards.＞

3.2.3 Restarting the computer

After **SANUPS SOFTWARE** is installed on the computer, you need to restart the computer so that the software can run normally.

After restarting the computer, see Section 0, "
Setting Up SANUPS SOFTWARE" and then register the UPS.

3.3 HP-UX

3.3.1 Starting the install program

(1) Set the CD-ROM of **SANUPS SOFTWARE for UNIX** on CD-ROM drive.

(2) If you need a mount point, I want to create a directory.

```
# mkdir –m 777 /SD_CDROM ＜Return＞
```

（Please refer to the manual for more information about the "**mkdir**"command.）

(3) Search the device file for the CD-ROM drive.

```
# ioscan –fnu –C disk ＜Return＞
```

（Please refer to the manual for more information about the " **ioscan** "command.）

(4) Mount the CD-ROM.（Example：CD-ROM mountpoint is /SD_CDROM.CD-ROM device name is /dev/dsk/c0t0d0.）

```
# mount /dev/dsk/c0t0d0 /SD_CDROM ＜Return＞
```

（Please refer to the manual for more information about the " **mount** "command.）

(5) Move to the mountpoint of the CD-ROM.

```
# cd /SD_CDROM/hp ＜Return＞
```

(6) Start the install program.
The directory that you moved to in step (5) contains the following two packages.

SANYupsd (UPS control system package)
SANYsnmp (SNMP agent package)

Start the install program and then install SANYupsd.
If necessary, use the **swinstall** command to install SANYsnmp.
(For details on the **swinstall** command, refer to the appropriate manual.)
The following Section 3.2.2 , "Installing SANUPS SOFTWARE" shows how to install SANYupsd.

3.3.2 Installing SANUPS SOFTWARE

Start the install program and then install SANYupsd.

During installation, the location where input is required is indicated as **Input value**.

 # ./install <Return>

Enter a serial number : **XXXX-XXXX-XXXX-XXXX**

Enter the serial number indicated on the CD-ROM.

/usr
If you want to install this directory, press RETURN key.
Otherwise, please type in the directory you want to install.
/usr/local

If you press the RETURN key without specifying a directory for the installation, a directory is created under the **/usr** directory with the name **sg4** and the software is installed in this directory. If you want to install the software in another directory, enter the name of the directory. In this example, if **/usr/local** is specified as directory for the installation, the software is installed in **/usr/local/sg4.** To use GUI tools, the directory for the installation must have 150 Mbytes or more of free space available.

jp or us ? **us**

To install the English version, enter "us". To install the Japanese version, enter "jp".

Should /stand/system be create to execute UPS service [y/n] (y) : **y**

To use this software, make sure the following kernel parameters are set up as indicated. **msgmni is set to 128 or more** **msgtql is set to 200 or more** **max_thread_proc is set to 128** If you enter "y" to this question and then press the RETURN key, the installer automatically modifies /stand/system, the configuration file of the kernel parameters. If the kernel parameters are already set to the appropriate values, or if you want to modify them yourself, enter "n" and then press the RETURN key. In this case, the kernel parameters are not modified. After modifying the kernel parameters, you need to restart the OS.

Should guitool included in this package be installed [y/n] (y) : **y**

If you want to install the GUI tools, enter "y".

Should initscript included in this package be installed [y/n] (y) : **y**

Enter "y".

＜Message of the swinstall command will be indicated onwards.＞

:

Installation has been completed.

If the system files have been rewritten so that service can be started, the following message appears. modified /stand/system. original file is saved to /stand/system.X. reboot operating system.

3.3.3 Restarting the computer

After **SANUPS SOFTWARE** is installed on the computer, you need to restart the computer so that the software can run normally.

After restarting the computer, see Section 0, "

Setting Up SANUPS SOFTWARE" and then register the UPS.

3.4 AIX

3.4.1 Starting the install program

(1) Insert the **SANUPS SOFTWARE for UNIX** CD-ROM in the CD-ROM drive of the computer.

(2) Mount the CD-ROM. (In the following example, the CD-ROM is mounted in /mnt.)

 # mount -v cdrfs -r /dev/cd0 /mnt <Return>

(For details on the mount command, refer to the appropriate manual.)

(3) Move to the directory where the CD-ROM is mounted.

 # cd /mnt/aix <Return>

(4) Start the install program.

The directory that you moved to in step (3) contains the following package.

SANYupsd (UPS control system package)

Start the install program and then install SANYupsd.
The following Section 3.4.2 , "Installing SANUPS SOFTWARE" shows how to install SANYupsd.

3.4.2 Installing SANUPS SOFTWARE

Start the install program and then install SANYupsd.
During installation, the location where input is required is indicated as **Input value**.

 # ./install <Return>

Enter serial number : **XXXX-XXXX-XXXX-XXXX**

Enter the serial number indicated on the CD-ROM.

jp or us ? **us**

> To install the English version, enter "us".
> To install the Japanese version, enter "jp".

/usr
If you want to install this directory, press RETURN key.
Otherwise, please type in the directory you want to install.
/usr/local

> If you press the RETURN key without specifying a directory for the installation, a directory is created under the **/usr** directory with the name **sg4** and the software is installed in this directory. If you want to install the software in another directory, enter the name of the directory.
> In this example, if **/usr/local** is specified as directory for the installation, the software is installed in **/usr/local/sg4.**
> To use GUI tools, the directory for the installation must have 80 Mbytes or more of free space available.

Should guitool included in this package be installed [y/n] (y) : **y**

> If you want to install the GUI tools, enter "y".

Should initscript included in this package be installed [y/n] (y) : **y**

> Enter "y".

＜Message of the tar command will be indicated onwards.＞

:

Install Completed.

3.4.3 Restarting the computer

After **SANUPS SOFTWARE** is installed on the computer, you need to restart the computer so that the software can run normally.
After restarting the computer, see Section 0, "
Setting Up SANUPS SOFTWARE" and then register the UPS.

3.5 Linux

3.5.1 Starting the install program

(1) Insert the **SANUPS SOFTWARE for Linux** CD-ROM in the CD-ROM drive of the computer.

(2) Mount the CD-ROM.
If the CD-ROM is not mounted automatically, use the **mount** command to mount the CD-ROM device to the appropriate directory.

Example) **mount -r /dev/cdrom /mnt/cdrom**

(For details on the **mount** command, refer to the appropriate manual.)

(3) Move to the directory where the CD-ROM is mounted.
(In the following example, the CD-ROM is mounted in /mnt/cdrom.)

・32 bit OS or **VMware ESX Server 3.0 , 3.5 Host**

 # cd /mnt/cdrom/linux_32 <Return>

・64 bit OS(x64) or **VMware ESX Server 4.0 , 4.1 Host**

 # cd /mnt/cdrom/linux_x64 <Return>

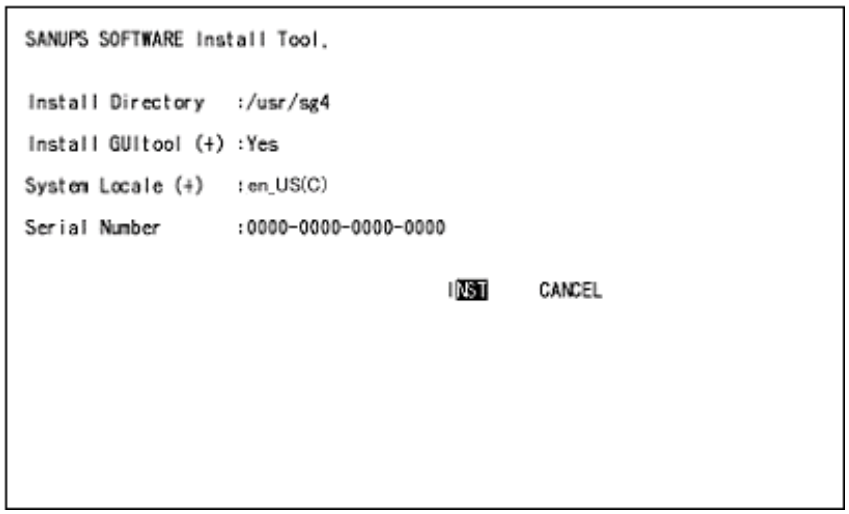
・64 bit OS(Itanium)

 # cd /mnt/cdrom/linux_ia64 <Return>

(4) Start the install program.

 # ./install <Return>

The following screen appears.



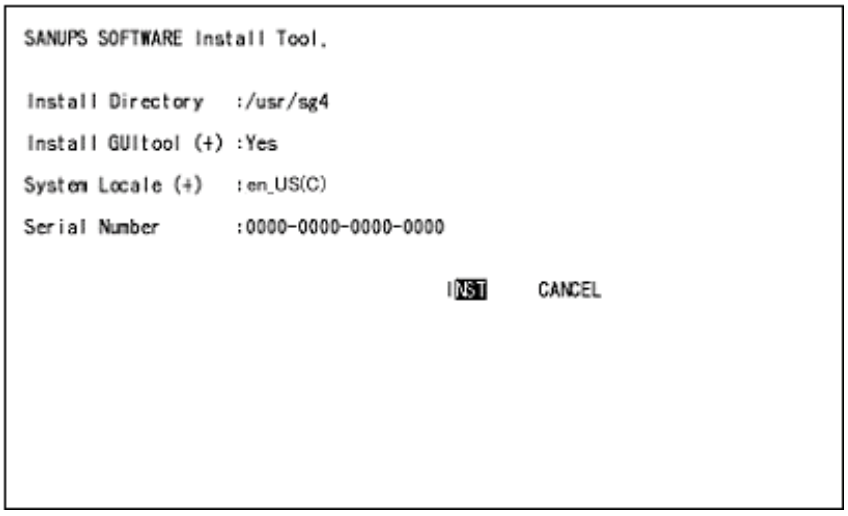
(Note) If **SANUPS SOFTWARE** is already installed and running, the install program does not function. If you want to reinstall **SANUPS SOFTWARE**, uninstall it first, and then reinstall.

3.5.2 Installing SANUPS SOFTWARE

Set up the following parameters, and then install **SANUPS SOFTWARE**.

- Install Directory (to specify where to install the software)
- Install GUItool (to specify whether to install GUI tools)
- System Locale (to specify the language environment)
- Serial Number

> Japanese message cannot be displayed on VMware ESX Server console. Therefore select [en_US(C)] for the language environment (System Locale) when installing.
> We recommend that you install English version.



(1) Specify an install directory. (Default directory: **/usr/sg4**)
Specify a directory to install **SANUPS SOFTWARE**.
If the specified directory does not exist, create it as a new one.
(We recommend that you install **SANUPS SOFTWARE** in a directory dedicated for this software.)

(2) Select whether to install the GUI tools. (Default: **Yes**)
Specify whether to install Java tools.
If you do not want to run Java tools where X-Window does not run, select [No]. (Use the space bar to toggle between Yes and No.

(3) Select a language environment. (Default: **en-US**)

Select a locale suitable for the system environment.

You can use the **locale** command to check the system locale.

If [LC_CTYPE=ja_JP.eucJP] appears, select **[EUC-JP]**.

If [LC_CTYPE=ja_JP.UTF8] appears, select **[UTF-8]**.

If [LC_CTYPE=en_US(C)] appears, select **[en-US]**.

(Pressing the space bar toggles locale.)

English version is installed when 'en_ US (C)' is chosen. Japanese version is installed when "ja_JP.eucJP" or "ja_JP.UTF8" is chosen.

(4) Enter the serial number.

Enter the serial number indicated on the CD-ROM case.

(5) Start the installation.

After the three parameters described above are set, use the arrow key to move to **[INST].**

When you are ready to start the installation, press the Space bar.

Wait while files are copied to the disk.

(6) The installation is finished.

When **[Install Completed.]** appears, the installation is finished.

3.5.3 Restarting the computer

After **SANUPS SOFTWARE** is installed on the computer, you need to restart the computer so that the software can run normally.

After restarting the computer, see Section 0, "

Setting Up SANUPS SOFTWARE" and then register the UPS.

4. Setting Up SANUPS SOFTWARE

After **SANUPS SOFTWARE** installed, use the wizard described in Section 4.1 , "Using the Setup Wizard (GUI Configuration Tool) " to register the UPS. (If you want to use the software in a window-less environment, or when using **VMware ESX Server Host**, see Section 4.2 , "Using the SETUP Wizard (CUI Setup Tool)" and register the UPS. When the registration is finished, **SANUPS SOFTWARE** can start normally.

4.1 Using the Setup Wizard (GUI Configuration Tool)

On the computer where **SANUPS SOFTWARE** is installed, if you start **SANUPS SOFTWARE** while the connected UPS is not registered (immediately after the installation or when the connected device is deleted), the setup wizard starts automatically. When this happens, register the connected UPS.
Content of the registration created using the connection wizard can be changed even after the registration operation.

The UPS can be registered on the computer using one of the following three connections.

Connection Type	See Section	Comment
UPS to server	**4.1.1**	**※1**
UPS to client	**4.1.2**	**※2**
UPS to network	**4.1.3**	**※3**

※1 When the computer is in direct serial connection or contact connection with the UPS

※2 When the computer is connected to the computer described in (※1) via a network

※3 When the computer is connected with the UPS (with LAN interface installed) via a network

Check the connection type and then proceed to the appropriate section, and then perform the setup.

The screenshots used here are taken from the Windows version.
Except for the difference in display due to the font used, the message content and operation are all the same.

Caution to use GUI tool by Solaris11

To use GUI tool by Solaris11, disable "Num Lock" key.
If "Num Lock" key is able, "Tab" key or "Back space" key might be

4.1.1 If the computer is a server connected to the UPS

If the computer where **SANUPS SOFTWARE** is installed is connected to the UPS using a serial cable, use the following procedure to set up **SANUPS SOFTWARE**.

Note: Before using the wizard to set up **SANUPS SOFTWARE**, make sure the computer and the UPS are connected using a serial cable.

(A) Start **SANUPS SOFTWARE** (connection wizard).

・If the OS is **Windows**

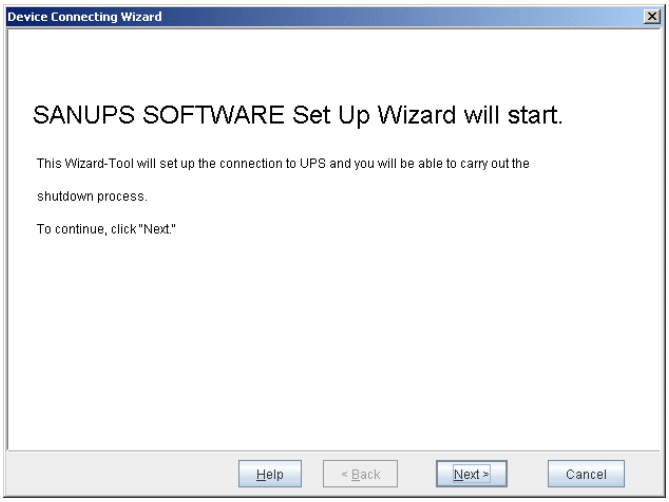
From the [Start] button on task bar, select [All Programs] – [UPS control system] – [SANUPS SOFTWARE].
(For **Windows2000**, from the [Start] button, select [Programs] – [UPS control system] – [SANUPS SOFTWARE].)

> **< Information >**
> For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "sg4 0" using command line.

From the [Start] menu, point to [Programs] and select [UPS control system]. Click [SANUPS SOFTWARE].

・If the OS is not **Windows**

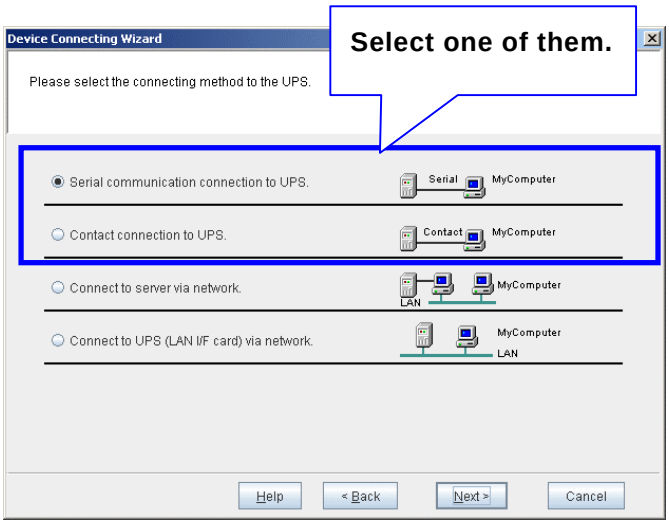
Move to the directory where **SANUPS SOFTWARE** is installed, and then execute **"./sg4 0".**



After **SANUPS SOFTWARE** starts, the screen shown on the left appears.

Click the **"Next"** button to move to the next screen (for selecting a UPS connection method).

(B) Select a UPS connection method.

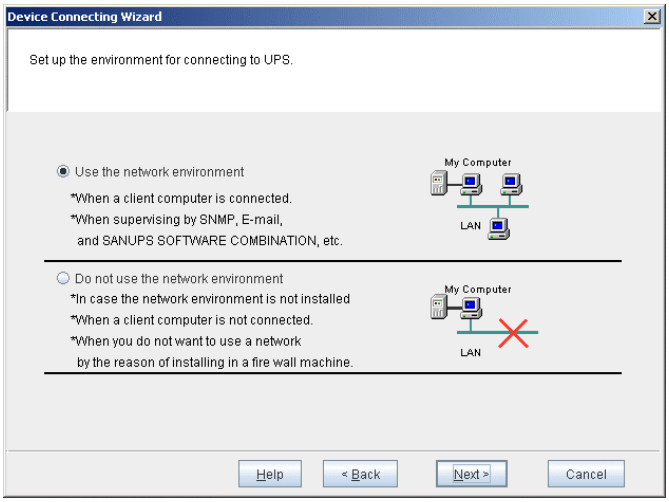


Select a connection method to connect the UPS. If the UPS is connected to a server, select serial communication or contact connection.

Click the **"Next"** button to move to the next screen (for selecting a UPS environment).

Connection Method	Description
Connect using serial communication	Use this method for UPS with serial interface or if a serial interface card is installed in the UPS.
Use contact connection	Use this method if the "External Transfer Signal" connector (for the contact connection) on the UPS main unit is used to connect to the computer.

(C) Select a UPS environment to use.



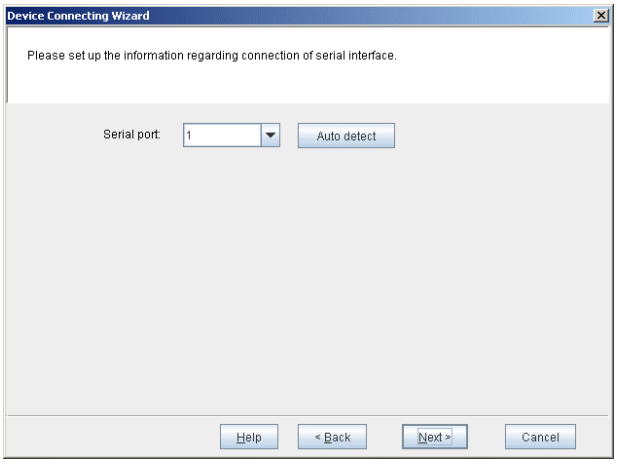
Select the environment that is used by the computer.
(See the following table for the selection.)

Click the **"Next"** button to move to the next screen (for setting up the serial cable connection).

SANUPS SOFTWARE Usage Environment	Computer Environment
Use network environment	・if a client computer is used in the connection ・if SNMP, E-mail, **SANUPS SOFTWARE COMBINATION**, etc. are used for monitoring
Do not use network environment	・if no network environment is installed ・if no client computer is connected ・if you do not want to use the network because, for example, you want to install on the firewall machine

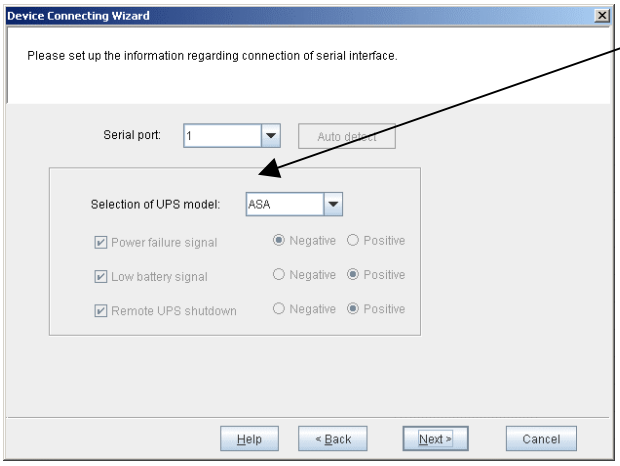
(D) Set up serial cable connection.

(a) If serial connection is used



Select the serial port number of the computer. You can use the **"Auto detect"** button to detect the serial port number of the port connected serially to the UPS.
Click the **"Next"** button to move to the next screen (for entering UPS account information).

(b) if contact connection is used



From the **[Selection of UPS model]** drop-down list, select the type of UPS to connect. (A signal setting appropriate for the selected UPS is specified automatically.).
Click the **"Next"** button to move to the next screen (for entering UPS account information).

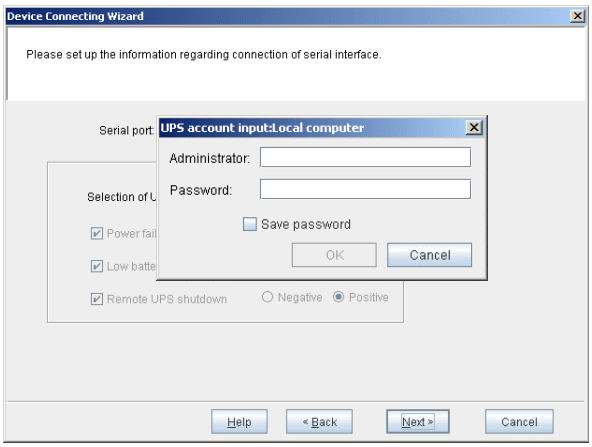
※To use a UPS that is not available on the [Selection of UPS model] drop-down list, select [Others] from the list, and then set up the polarity information of the external transfer signal of the UPS.

※If contact connection is used, a dedicated connection cable is required.

< About selecting a COM port >

If the computer has serial ports labeled A, B, etc, read A as 1, B as 2 when selecting a serial port to connect.

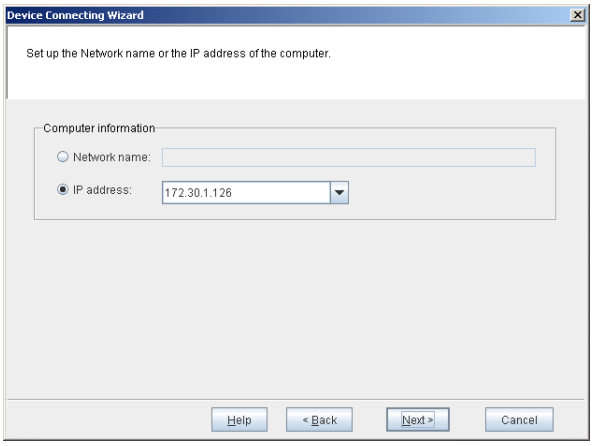
(E) Enter the UPS account information.



Enter account information of the UPS administrator.
Use the following default values for the input.
Administrator**: upsadmin**
Password:**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

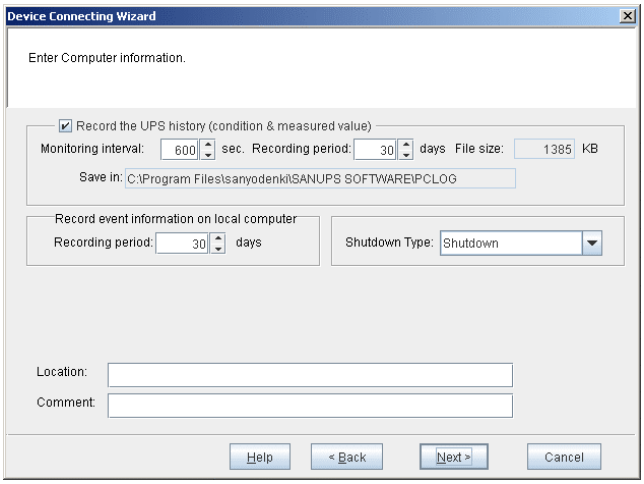
(F) Enter information about the computer (1)



From the "Set up environment for connecting to UPS" screen described in section (C), if you have selected the **"Use the network environment"** option, this screen appears.
For the computer information, enter a network name or select an IP address.

Click the **"Next"** button to move to the next screen (for entering information about the computer (2)).

(G) Enter information about the computer (2)



On this screen, specify how to record the UPS history and event information on the computer. You can move to the next screen with no problem while leaving the **"Location"** and **"Comment"** text boxes blank.
Click the "Next" button to move to the next screen.

< Information >

If you connect multiple computers to the UPS and then manage them, the management will become easier if you enter the "Location" and "Comment" text boxes. After complete set up, settings information can be changed from settings screen. Please refer to “6. Explanation of Functions” of users guides to change settings.

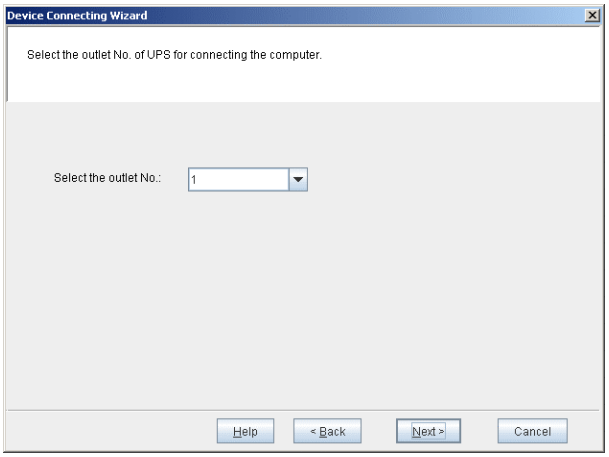
※ Types of shutdown and how to use them

Shutdown Type	Description
Shutdown	Shut down the computer.
Shutdown and turn off power	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for **Windows** that supports APCI [Advanced Power Configuration Interface].)
Suspend	Suspend the computer. (This shutdown type can be used only if the suspend function on **Windows** is enabled.) Do not use this shutdown type when you perform scheduled operation. If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored.

If use **Windows** and start automatically after power recover, please refer to “About constraint of automatic starting function of a computer” of “Appendix A Precautions for using **Windows**”.

(H) Specify the UPS output outlet connection

This screen appears if the UPS has multiple system outputs and the serial cable connection setting is **[Serial communication connection to UPS]**.
If the UPS does not have multiple system outputs or the serial cable connection setting is **[Contact connection to UPS]**, this screen does not appear. In this case, the outlet becomes fixed at [1] automatically.

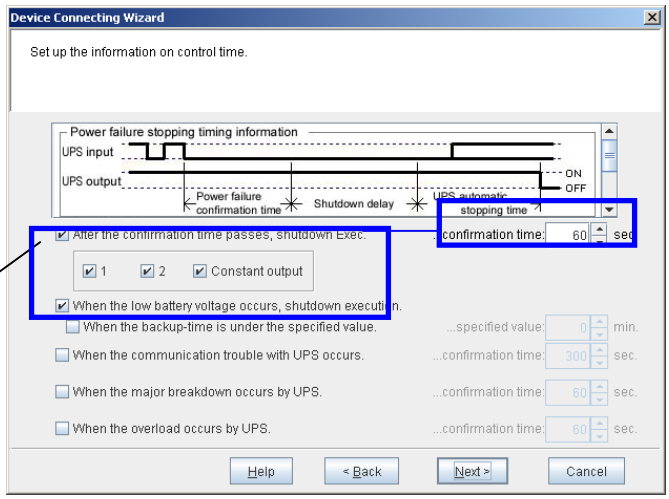


Select an output outlet number for the UPS connected to the computer.

Click the **"Next"** button to move to the next screen.

While "Constant output" allows connection of peripheral devices that do not require shutdown, do not connect to the computer using "Constant output".

(I) Set up the information on UPS control time (1)



Use this screen to specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for setting up the information on UPS control time (2)).

Specify whether to perform the shutdown sequence for the computer registered on the outlet of "1", "2", or "Constant output" (outlet "0") if the power failure state continues during the "confirmation time" period.
(For UPS that does not have the multiple system output function, only outlet "1" can be set.)

- **If the check box of a output number is selected**

The shutdown sequence for the computer connected/registered on the outlet of the selected number is performed when there is a power failure.

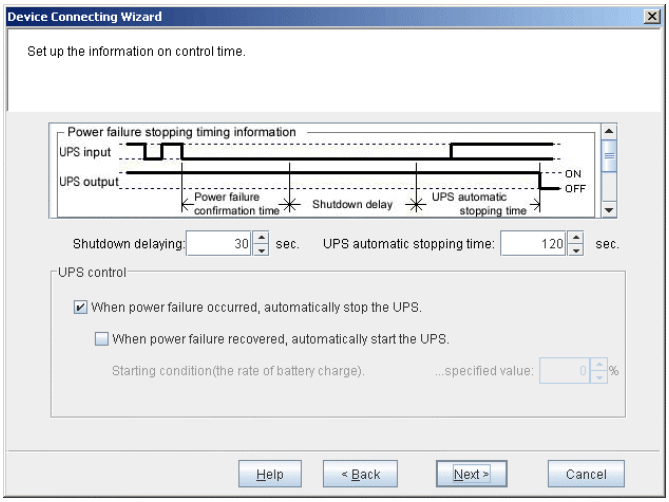
- **If the check box of a output number is cleared**

The shutdown sequence for the computer connected/registered on the outlet of the selected number is not performed when there is a power failure. (Shutdown is performed when the battery voltage is low.)

Also, if exclude the check of “After the comfirmation time passes, shutdown Exec.”, All computers will not be performed shutdown sequences until low battery voltage is occurred during power failure.
Otherwise, if exclude the check of “When the low battery voltage occurs, shutdown execution.”, shutdown will not be performed after low battery voltage is occurred.

Attention:
If exclude the both checks of “After the comfirmation time passes, shutdown Exec.” and “When the low battery voltage occurs, shutdown execution.”, computer will not be shutdown.
Under long time power failure, UPS stop may occurred by battery discharge cut-off instead of automatically shutdown.
Please understand those operation, if exclude those two setting items.

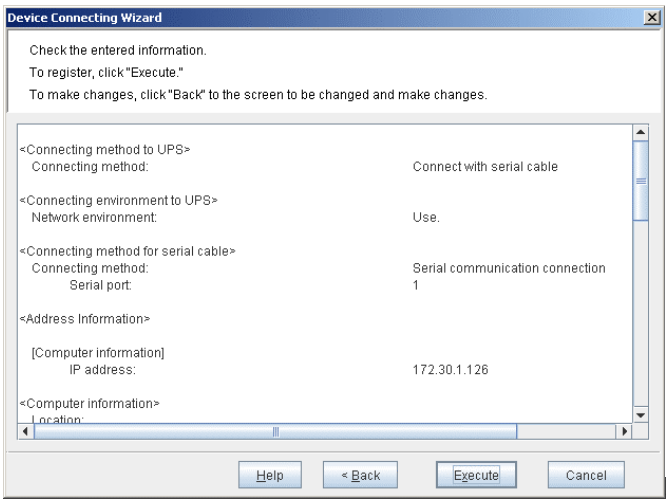
(J) Set up the information on UPS control time (2)



Use this screen to continue the operation on the previous screen and specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for checking the entered information).

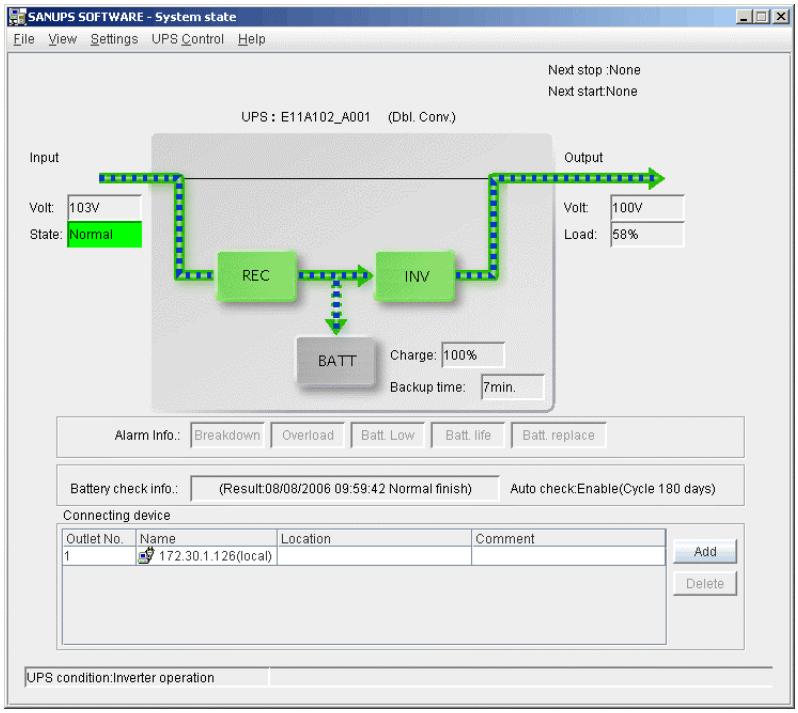
(K) Check the entered information



Use this screen to check the information entered during the wizard operation. If there is no problem in the entered information, click the "Execute" button.

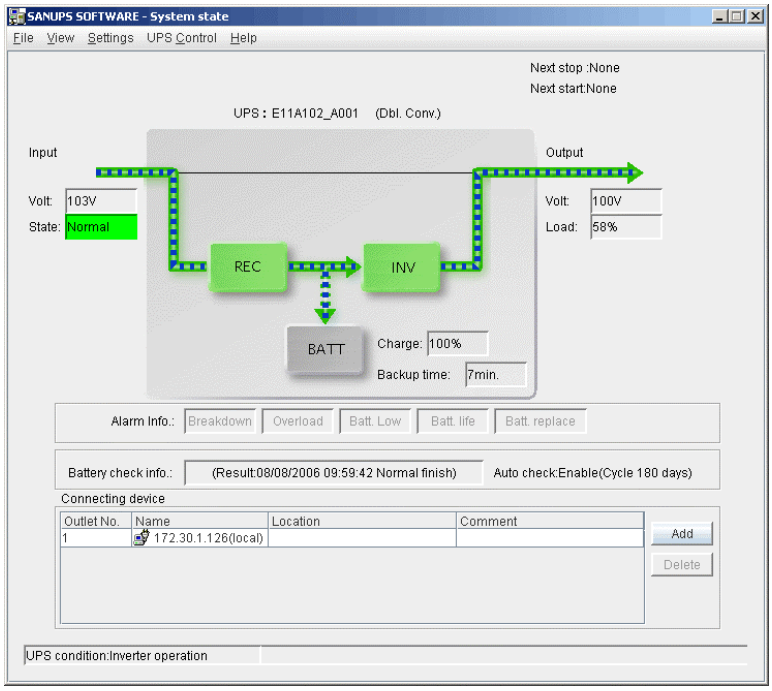
If you want to change any information, click the "Back" button to return to the appropriate screen.

↓ Click the **"Execute"** button. (Setup is finished.)



The **SANUPS SOFTWARE** main screen appears.

(L) Check the connection of the local computer



"Connecting device" indicates that the local computer is registered.

> The computer indicated as **(local)** is the local computer.

(M) Check the UPS connection

① Perform a simulated power failure such as turning off the UPS.

② Check that a power failure message appears on the screen.

③ After the message appears, immediately perform recovery from the simulated power failure.

> If no power failure message appears on the screen after you perform a simulated power failure, check the following.
> ・ Is the UPS connected correctly using a serial cable?
> ・ Is the **SANUPS SOFTWARE** service running**?**
> (For information on operation of the SANUPS SOFTWARE service, refer to the "Appendix A Operation of the service" section in the User Guide.)

4.1.2 If the UPS is connected to a client

If multiple computers are connected to the UPS that has a serial interface, for the computers other than the one that has been set up as server version of **SANUPS SOFTWARE**, set them up as **SANUPS SOFTWARE** client versions, using the following procedure.

(A) Start **SANUPS SOFTWARE** (connection wizard).

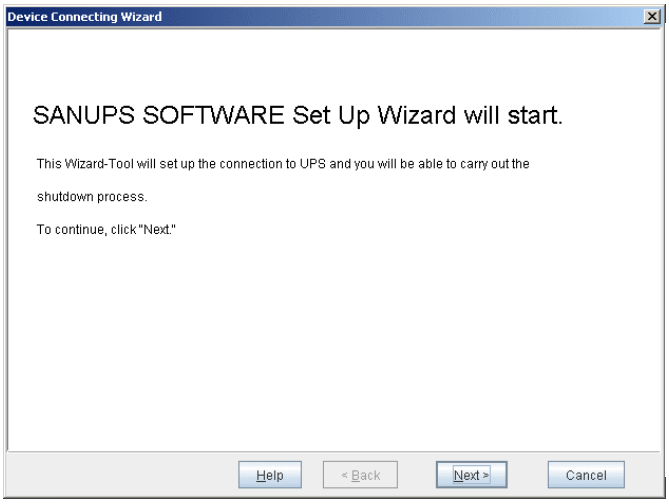
・If the OS is **Windows**

From the [Start] button on task bar, select [All Programs] – [UPS control system] – [SANUPS SOFTWARE].
(For **Windows2000**, from the [Start] button, select [Programs] – [UPS control system] – [SANUPS SOFTWARE].)

> **< Information >**
> For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "sg4 0" using command line.

・If the OS is not **Windows**

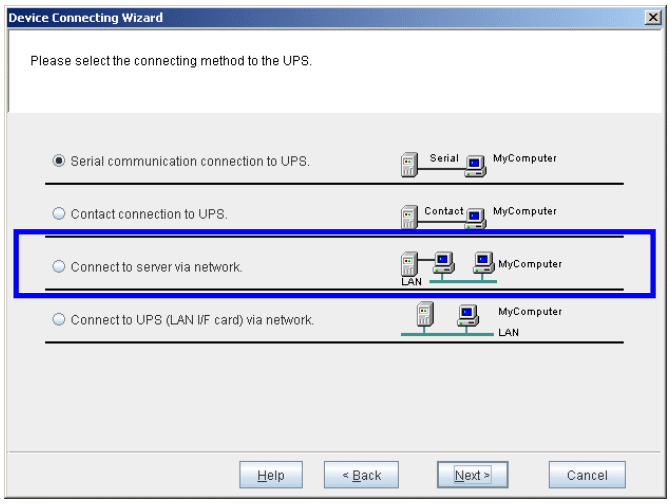
Move to the directory where **SANUPS SOFTWARE** is installed, and then execute **"./sg4 0".**



After **SANUPS SOFTWARE** starts, the screen shown on the left appears.

Click the **"Next"** button to move to the next screen (for selecting a UPS connection method).

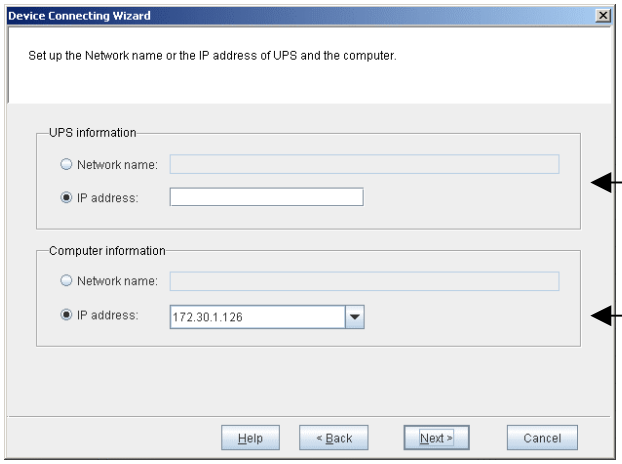
(B) Select a UPS connection method.



Select the **"Connect to server via network"** option.

Click the **"Next"** button to move to the next screen (for network setting).

(C) Set up the network



Specify the network information.
Click the **"Next"** button to move to the next screen.

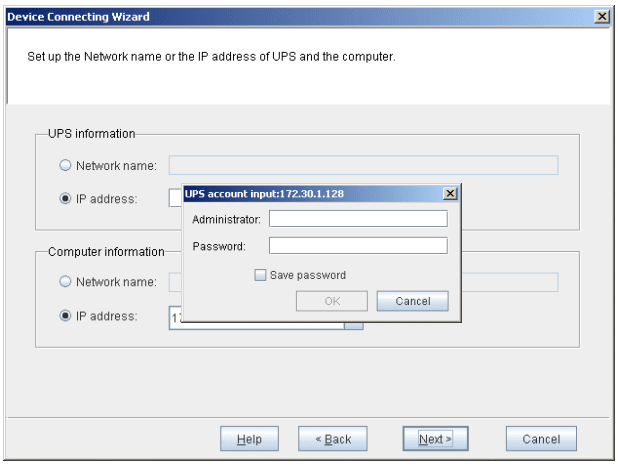
Specify the network information of the server computer.

Specify the network information of the local computer.
If multiple network cards are used, select the network used for the connection.

Parameter	Description
UPS information	Specify the network information of the server computer. Enter a network name or IP address. (※1)
Computer information	Specify the network information of the local computer. Enter a network name or IP address. (※1)

(※1) If the computer is managed by DHCP, etc. based on network name, use **[Network name]**.

(D) Enter the UPS account information

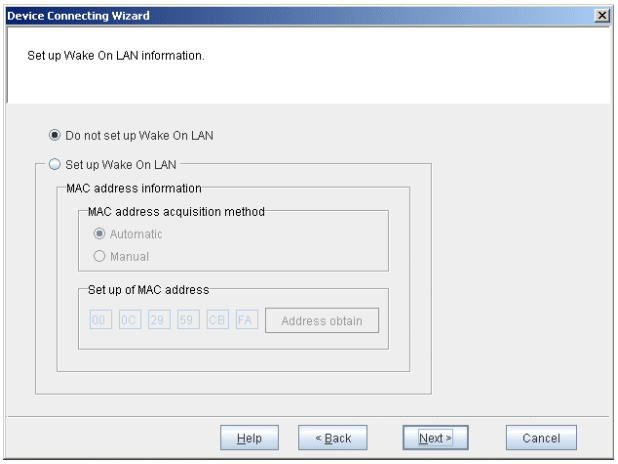


Enter account information of the UPS administrator. Use the following default values for the input.
Administrator**: upsadmin**
Password:**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

(E) Set up Wake On LAN

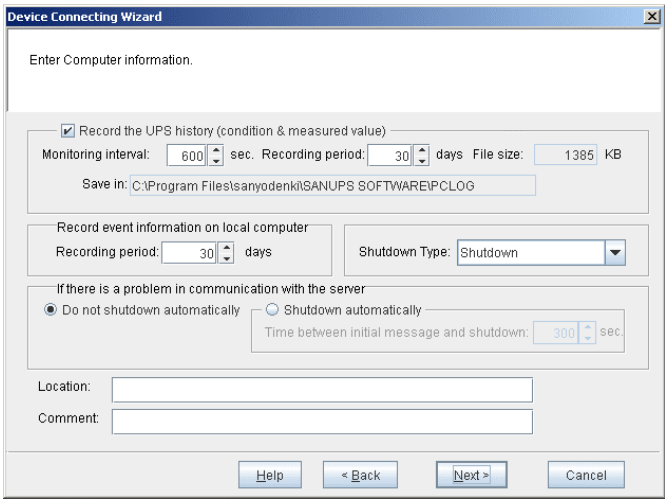
If the computer supports the Wake On LAN function, after power is supplied from the UPS, the power of the computer can be turned on automatically.



Set up the Wake On LAN function. (If you do not know the computer environment, select the **"Do not set up Wake On Lan"** option. Regardless of this setting, the operation of the UPS management system is not affected.)
Click the **"Next"** button to move to the next screen. (for entering computer information).

<Information>
After complete set up, settings information can be changed of this screen. Please refer to “6. Explanation of Functions” of users guides to change settings.

(F) Enter the computer information



On this screen, specify how to record the UPS history, shutdown type, location, and other accessory information. Also, specify what to do if communication with the server is cut off.
You can move to the next screen with no problem while leaving the **"Location"** and **"Comment"** text boxes blank.
Click the **"Next"** button to move to the next screen.

< Information >
If you connect multiple computers to the UPS and then manage them, the management will become easier if you enter the "Location" and "Comment" text boxes.

※ Types of shutdown and how to use them

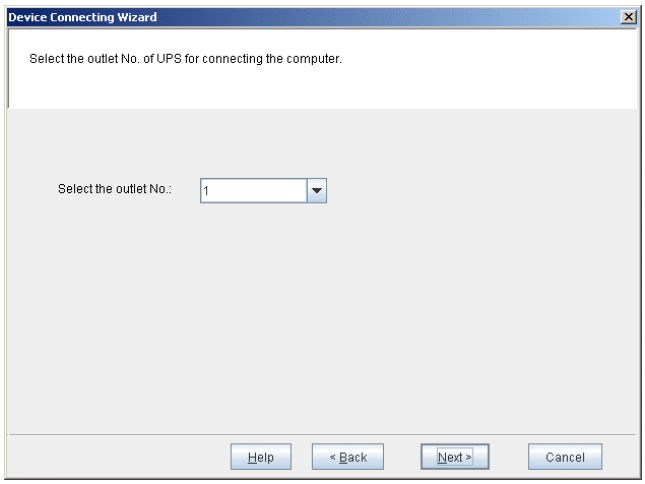
Shutdown	Description
Shutdown	Shut down the computer.
Shutdown and turn off power	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for **Windows** that supports **APCI [Advanced Power Configuration Interface]**.)
Suspend	Suspend the computer. (This shutdown type can be used only if the suspend function on **Windows** is enabled.) Do not use this shutdown type when you perform scheduled operation. If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored.

If use **Windows** and start automatically after power recover, please refer to “About constraint of automatic starting function of a computer” of “Appendix A Precautions for using **Windows**”.

(G) Specify the UPS output outlet connection

This screen appears when the UPS has multiple system outputs and the serial cable connection setting of the **SANUPS SOFTWARE** server version is **"Serial communication connection to UPS"**.

If the UPS does not have multiple system outputs or the serial cable connection setting of the **SANUPS SOFTWARE** server version is **"Contact connection to UPS"**, this screen does not appears. In this case, the outlet becomes fixed at [1] automatically.

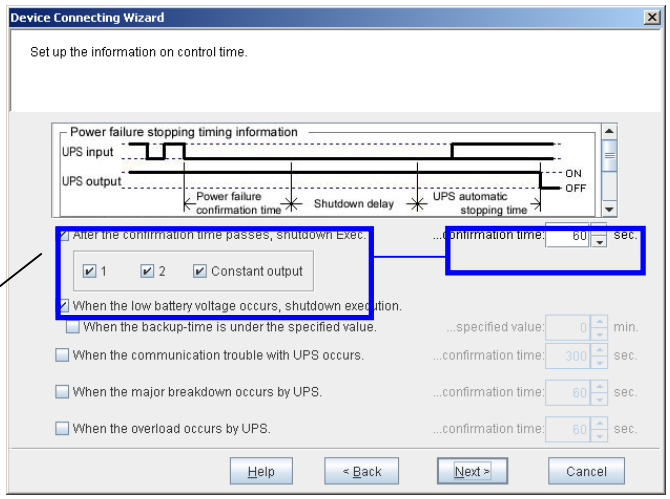


Select an output outlet number for the UPS connected to the computer.

Click the **"Next"** button to move to the next screen..

While "Constant output" allows connection of peripheral devices that do not require shutdown, do not connect to the computer using "Constant output".

(H) Set up the information on UPS control time (1)



Use this screen to specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for setting up the information on UPS control time (2)).

Specify whether to perform the shutdown sequence for the computer registered on the outlet of "1", "2", or "Constant output" (outlet "0") if the power failure state continues during the "confirmation time" period.
(For UPS that does not have the multiple system output function, only outlet "1" can be set.)

- **If the check box of a output number is selected**

The shutdown sequence for the computer connected/registered on the outlet of the selected number is performed when there is a power failure.

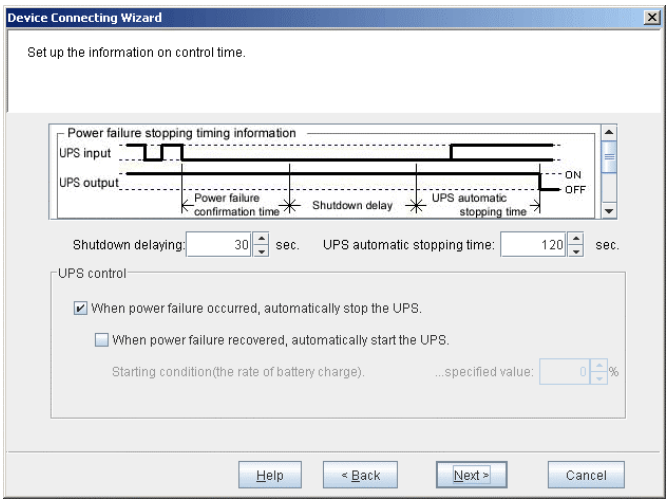
- **If the check box of a output number is cleared**

The shutdown sequence for the computer connected/registered on the outlet of the selected number is not performed when there is a power failure. (Shutdown is performed when the battery voltage is low.)

Also, if exclude the check of “After the comfirmation time passes, shutdown Exec.”, all computers will not be performed shutdown sequences until low battery voltage occurred during power failure.
If exclude the check of “When the low battery voltage occurs, shutdown execution.”, Shutdown will not be performed under low battery voltage occurred.

Attention:
If exclude the both checks of “After the comfirmation time passes, shutdown Exec.” And When the low battery voltage occurs, shutdown execution.”, shutdown computer will not be performed under power failure.
Under long time power failure, UPS stop may occure by battery discharge cut-off instead of automatically shutdown.
Please understand those operation, if exclude those two setting items.

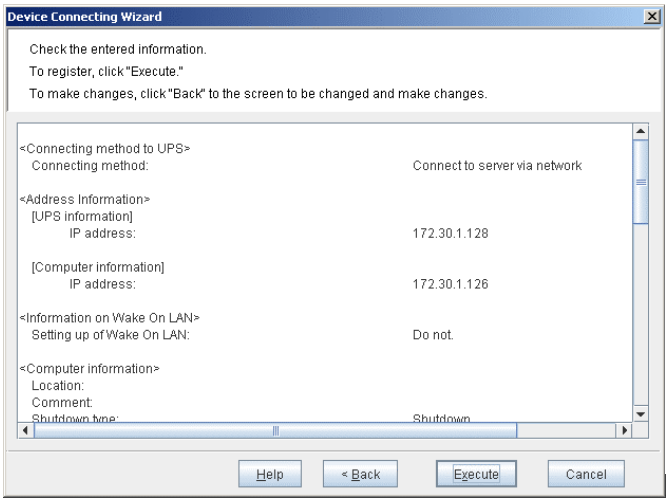
(I) Set up the information on UPS control time (2)



Use this screen to continue the operation on the previous screen and specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for checking the entered information).

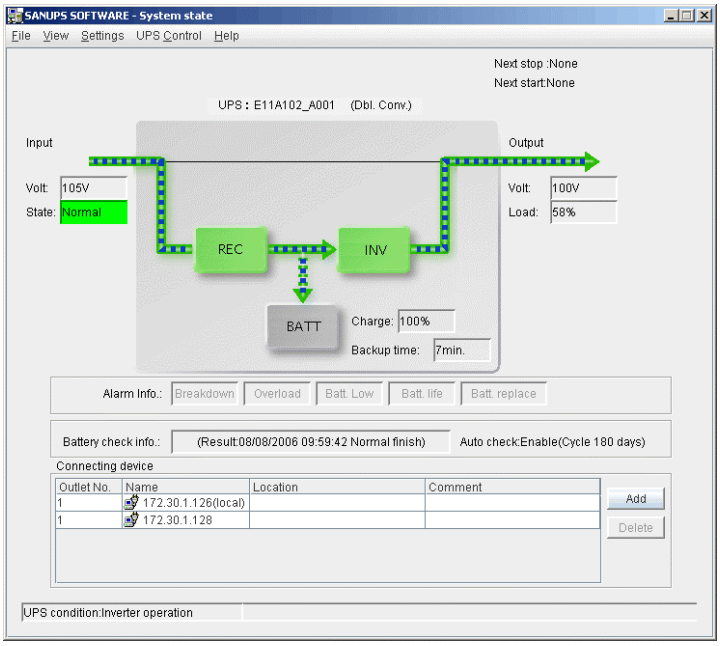
(J) Check the entered information



Use this screen to check the information entered during the wizard operation. If there is no problem in the entered information, click the **"Execute"** button.

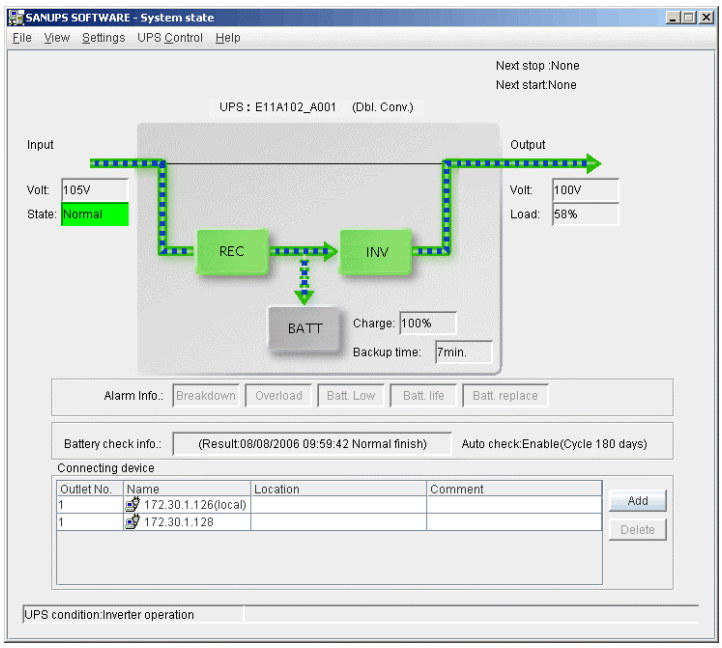
If you want to change any information, click the **"Back"** button to return to the appropriate screen.

↓ Click the **"Execute"** button. (Setup is finished.)



The **SANUPS SOFTWARE** main screen appears.

(K) Check the connection of the local computer



[Connecting device] indicates that the local computer is registered.

> The computer indicated as **(local)** is the local computer.

(L) Check the UPS connection

① Perform a simulated power failure such as turning off the UPS.

② Check that a power failure message appears on the screen.

③ After the message appears, immediately perform recovery from the simulated power failure.

> If no power failure message appears on the screen after you perform simulated power failure, check the following.
> ・ Is the UPS connected correctly using a serial cable?
> ・ Is the **SANUPS SOFTWARE** service running?
> (For information on operation of the service, refer to the "Appendix A Operation of the Service" section in the User Guide.)
> ・Is the firewall enable?
> (Please refer to “Attatchment”. There are comments about firewall setting).

> Information:
> Shutdowm confirmation by this computer alone can be done, by using shutdown test function.

4.1.3 If the UPS is connected to a network

Notice: To use Windows OS in ECN(*) is in "enable".

(*)ECN (Explicit Congestion Notification) is a function to prevent packet loss under congestion between routers has been occur by making data transmission speed slow. This function has been supported since **Windows Vista** (default value had been set as "**disable**"), but since **Windows Server 2012,** default value has been set as **"enable".**

To use LAN interface card and **Windows OS(Windows Server 2012)** which ECN is in **"enable"** by network connection, please confirm following contents in advance.

LAN interface card does not support ECN. If **Windows OS** which ECN is in "**enable**" like **Windows Server 2012** operates device registration or setting change under connecting to LAN interface card by network connection, monitor display of GUI tool will be slow because network connection will be very slow. So to use GUI tool by **Windows OS** which ECN is in **"enable"** like **Windows Server 2012**, please use GUI tool after changing ECN to be in "**disable**" temporarily or operate device registration or setting change by **SANUPS SOFTWARE** on the other computer.

Shutdown function under power failure will be operated normally even ECN is in "enable".

Please refer to the following order to confirm setting status and to change setting value of ECN.

To confirm setting status

[1] Log in by administrator account, and execute the following command.
netsh interface tcp show global
[2] Confirm setting value of ECN.
Setting value will be shown either "enable"(enabled) or "disable"(disabled).

To change ECN in "disable"(*1)

Change by either one of two following methods under log in by administrator account.
1) Execute "**ECN_DISABLE.BAT**" of **SANUPS SOFTWARE** install folder.
2) Execute the following command from command prompt.
netsh interface tcp set global ecncapability=disabled

To change ECN in "enable"(*1)

Change by either one of two following methods under log in by administrator account.
1) Execute "**ECN_ENABLE.BAT**" of **SANUPS SOFTWARE** install folder.
2) Execute the following command from command prompt.
netsh interface tcp set global ecncapability=enabled

(*1) Restart of OS by changing ECN setting value is not required.

In the case to use **Windows OS** which set up is arranged by "4.1.1 If the computer is a server connected to the UPS" or "4.1.2 If the UPS is connected to a client", it can be used as ECN is in setting value "enable.

If the computer is connected to the UPS with LAN interface card embedded, use the following procedure to set up.

Note: the UPS (LAN interface card) must be set to an IP address suitable for the environment in use. (For details on how to set up, refer to the
User Guide of the LAN interface card.

(A) Start **SANUPS SOFTWARE** (connection wizard).

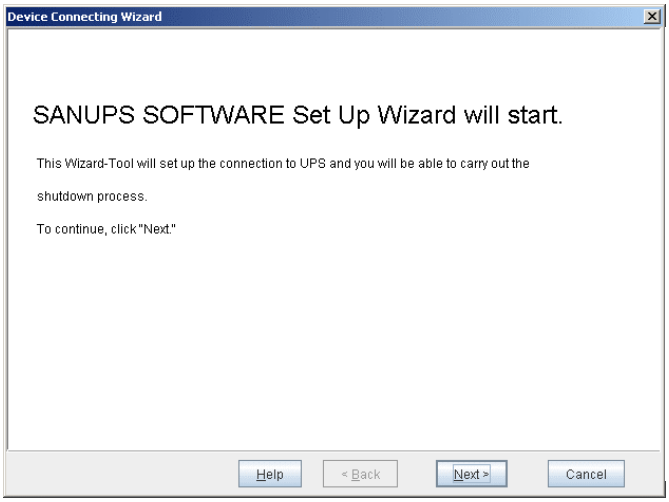
・If the OS is **Windows**

From the [Start] button on task bar, select [Programs] – [UPS control system] – [SANUPS SOFTWARE].
(For **Windows2000**, from the [Start] button, select [Programs] – [UPS control system] – [SANUPS SOFTWARE].)

> **< Information >**
> For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "sg4 0" using command line.

・If the OS is not **Windows**

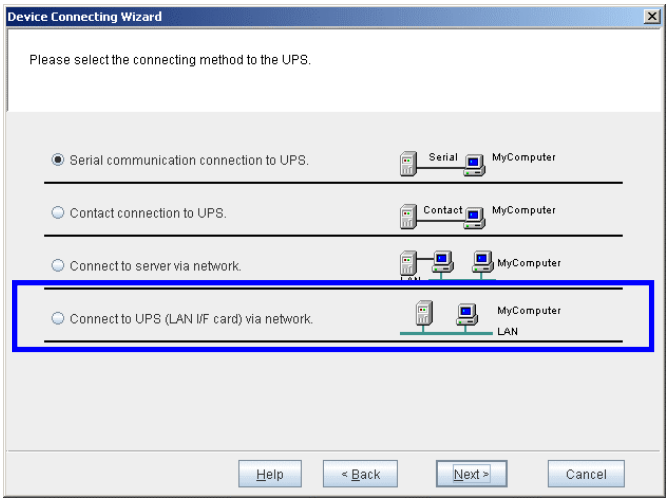
Move to the directory **where SANUPS SOFTWARE** is installed, and then execute **"./sg4 0".**



After **SANUPS SOFTWARE** starts, the screen shown on the left appears.

Click the **"Next"** button to move to the next screen (for selecting a UPS connection method)

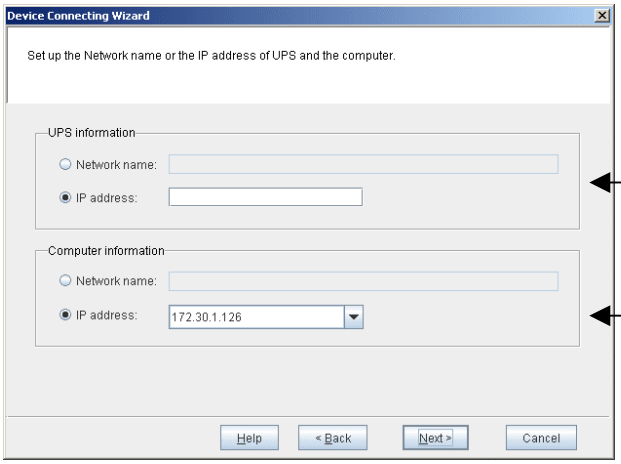
(B) Select a UPS connection method



Select the **[Connect to UPS (LAN I/F card) via network]** option.

Click the **"Next"** button to move to the next screen (for network setting).

(C) Set up the network



Specify the network information.
Click the **"Next"** button to move to the next screen.

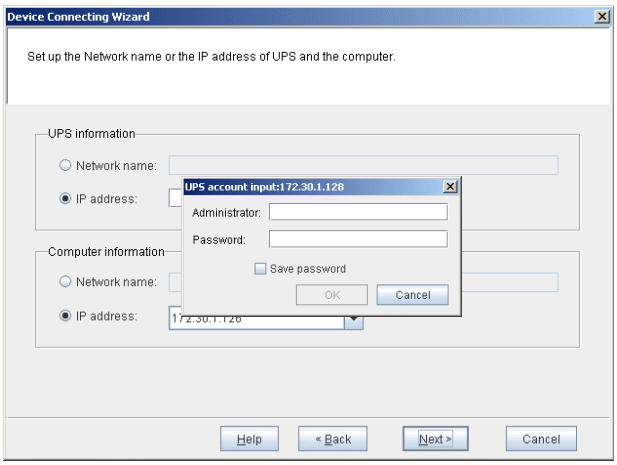
Specify the network information of the UPS (LAN I/F card).

Specify the network information of the local computer.
If multiple network cards are used, select the network used for the connection.

Parameter	Description
UPS information	Specify the network information of the UPS (LAN I/F card). Enter a network name or IP address. (※1)
Computer information	Specify the network information of the local computer. Enter a network name or IP address. (※1)

(※1) If the computer is managed by DHCP, etc. based on network name, use **[Network name]**.

(D) Enter the UPS account information

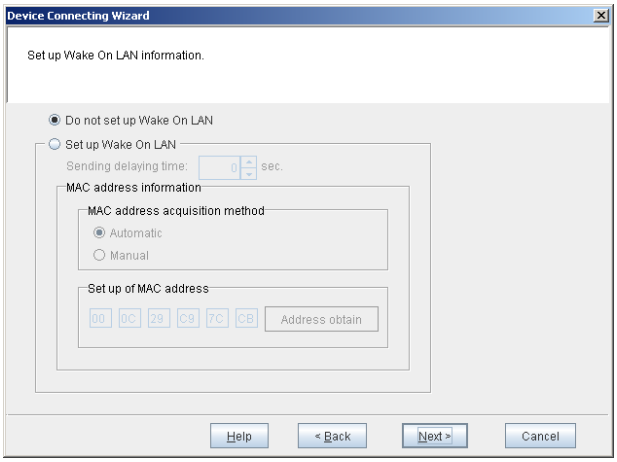


Enter account information of the UPS administrator.
Use the following default values for the input.
Administrator**: upsadmin**
Password:**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

(E) Set up Wake On LAN

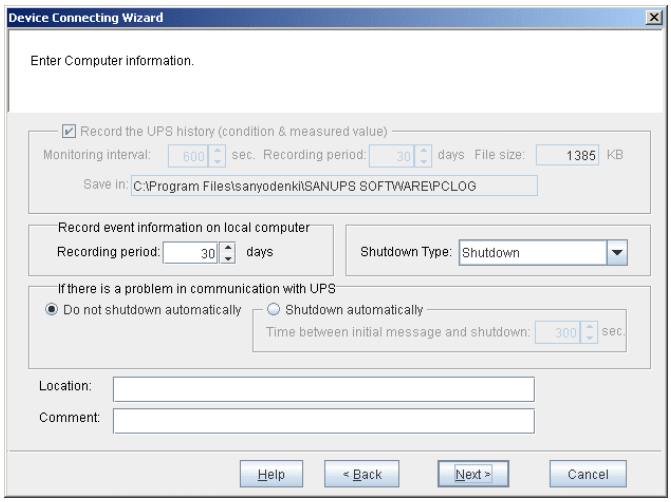
If the computer supports the Wake On LAN function, after power is supplied from the UPS, the power of the computer can be turned on automatically.



Set up the Wake On LAN function. (If you do not know the computer environment, select the **"Do not set up Wake On Lan"** option. Regardless of this setting, the operation of the UPS management system is not affected.)
Click the **"Next"** button to move to the next screen. (for entering computer information).

<Information>
After complete set up, settings information can be change from settings screen.
Please refer to “6. Explanation of Functions”

(F) Enter the computer information



On this screen, specify how to record the UPS history, shutdown type, location, and other accessory information. Also, specify what to do if communication with the LAN I/F card is cut off.
You can move to the next screen with no problem while leaving the **"Location"** and **"Comment"** text boxes blank.
Click the **"Next"** button to move to the next screen.

< Information >
If you connect multiple computers to the UPS and then manage them, the management will become easier if you enter the "Location" and "Comment" text boxes.

※ Types of shutdown and how to use them

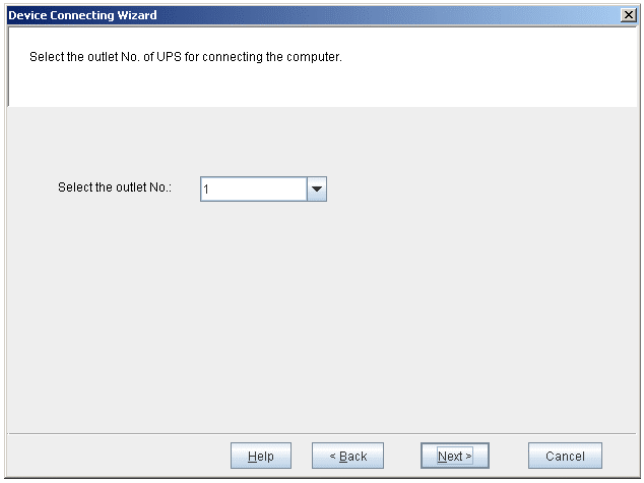
Shutdown	Description
Shutdown	Shut down the computer.
Shutdown and turn off power	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for **Windows** that supports **APCI [Advanced Power Configuration Interface]**.)
Suspend	Suspend the computer. (This shutdown type can be used only if the suspend function on **Windows** is enabled.) Do not use this shutdown type when you perform scheduled operation. If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored.

Starting computer automatically by using **Windows** after power recover, please refer to “About constraint of automatic starting function of a computer” of “Appendix A Precautions for using **Windows**”.

(G) Specify the UPS output outlet connection

This screen appears when the UPS with LAN interface card embedded has multiple system outputs.

If the UPS with LAN interface card embedded does not have multiple system outputs or if it is connected to LAN ADAPTER, this screen does not appears. In this case, the outlet becomes fixed at [1] automatically.

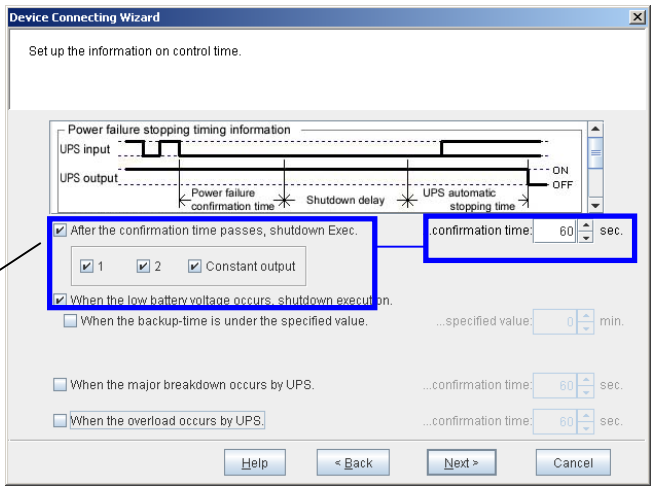


Select an output outlet number for the UPS connected to the computer.

Click the **"Next"** button to move to the next screen..

While "Constant output" allows connection of peripheral devices that do not require shutdown, do not connect to the computer using "Constant output".

(H) Set up the information on UPS control time (1)



Use this screen to specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for setting up the information on UPS control time (2)).

Specify whether to perform the shutdown sequence for the computer registered on the outlet of "1", "2", or "Constant output" (outlet "0") if the power failure state continues during the "confirmation time" period.
(For UPS that does not have the multiple system output function, only outlet "1" can be set.)

- **If the check box of a output number is selected**

Perform the shutdown sequence for the computer connected/registered on the outlet of the selected number, when there is a power failure.

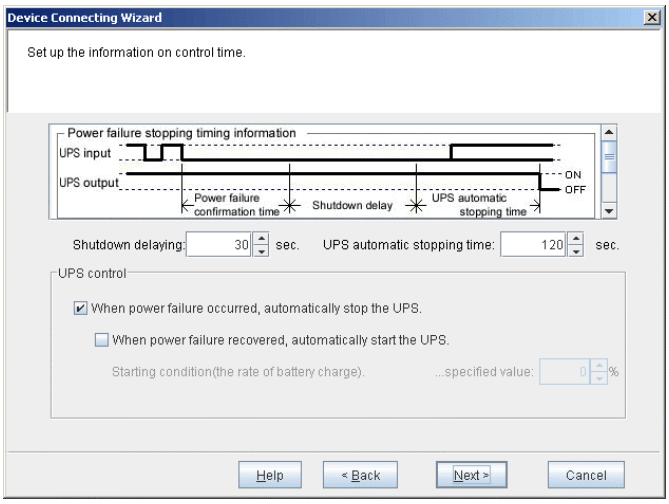
- **If the check box of a output number is cleared**

Do not perform the shutdown sequence for the computer connected/registered on the outlet of the selected number, when there is a power failure. (Perform shutdown when the battery voltage is low.)

Also, if exclude the check of “After the comfirmation time passes, shutdown Exec.”, all computers will not be performed shutdown sequences until low battery voltage occurred during power failure.
If exclude the check of “When the low battery voltage occurs, shutdown execution.”,
Shutdown will not be performed under low battery voltage occurred.

Attention:
If exclude the both checks of “After the comfirmation time passes, shutdown Exec.” And When the low battery voltage occurs, shutdown execution.”, shutdown computer will not be performed under power failure.
Under long time power failure, UPS stop may occurr by battery discharge cut-off instead of automatically shutdown.
Please understand those operation, if exclude those two setting items.

(I) Set up the information on UPS control time (2)

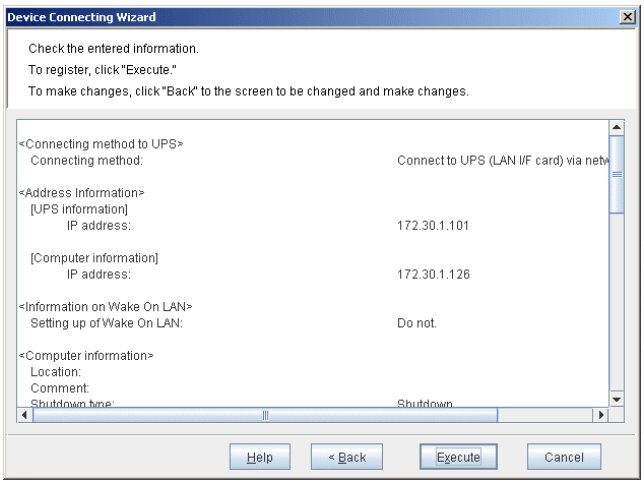


Use this screen to continue the operation on the previous screen and specify how to control the UPS.

After specifying the information, click the **"Next"** button to move to the next screen (for checking the entered information).

<Information>
According to types of LAN interface card, default setting value of “When power failure occurred, automatically stop the UPS.”, and “When power failure recovered, automatically start the UPS.” can be different.
Please confirm setting value according to environment.

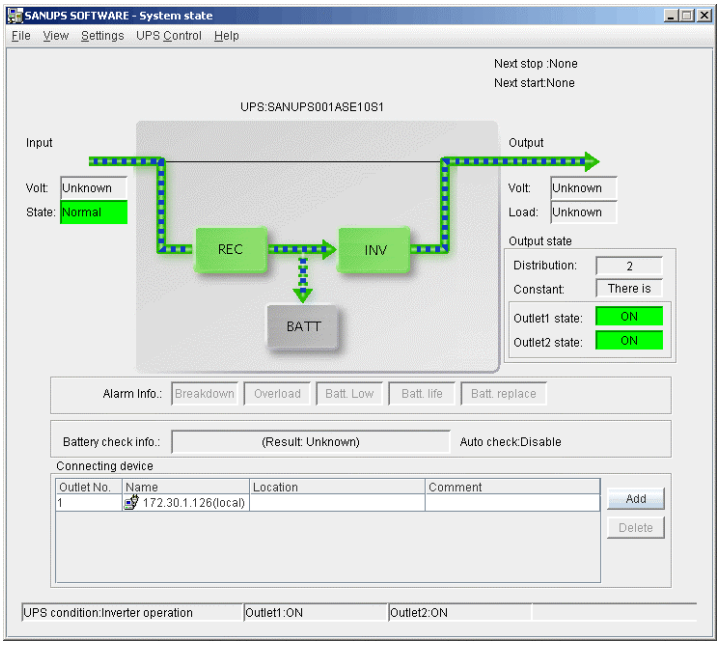
(J) Check the entered information



Use this screen to check the information entered during the wizard operation. If there is no problem in the entered information, click the **"Execute"** button.

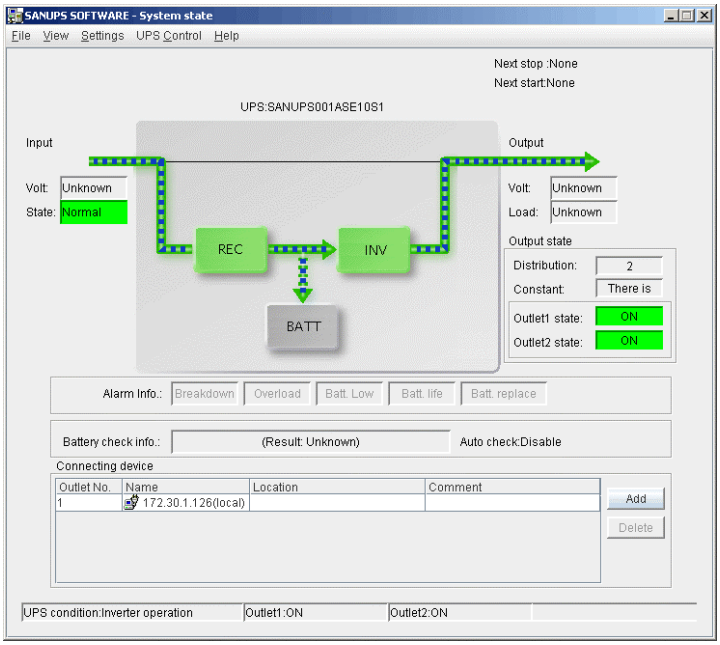
If you want to change any information, click the **"Back"** button to return to the appropriate screen.

↓ Click the **"Execute"** button. (Setup is finished.)



The **SANUPS SOFTWARE** main screen appears.

(K) Check the connection of the local computer



[Connecting device] indicates that the local computer is registered.

The computer indicated as **(local)** is the local computer.

(L) Check the UPS connection

① Perform a simulated power failure such as turning off the UPS.

② Check that a power failure message appears on the screen.

③ After the message appears, immediately perform recovery from the simulated power failure.

If no power failure message appears on the screen after you perform simulated power failure, check the following.

・ Is the UPS connected correctly using a serial cable?

・ Is the **SANUPS SOFTWARE** service running?

(For information on operation of the service, refer to the "Appendix A Operation of the service" section in the User Guide.)

・ Is the firewall enable?

(Please refer to “Attatchment”. There are comments about firewall setting).

Information:
Shutdowm confirmation by this computer alone can be done, by using shutdown test function.

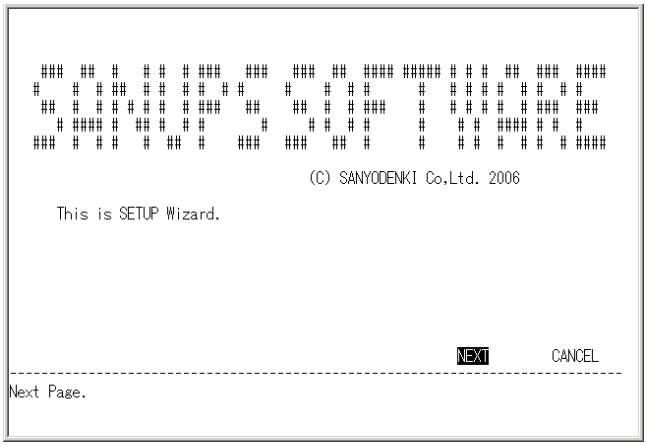
4.2 Using the SETUP Wizard (CUI Setup Tool)

If a GUI (graphical user interface) environment is not available, you can use a character-based tool to set up **SANUPS SOFTWARE** (**UNIX** and **Linux** only). The SETUP Wizard can be used to set up a computer so that when power failure occurs, the computer can be shut down automatically. Contents registered by the connection wizard can be changed later by using this tool.
This setup can be used not only from workstation where UPS service is installed, but also from remote PC for administrator.

4.2.1 About the registration (configuration) of the UPS

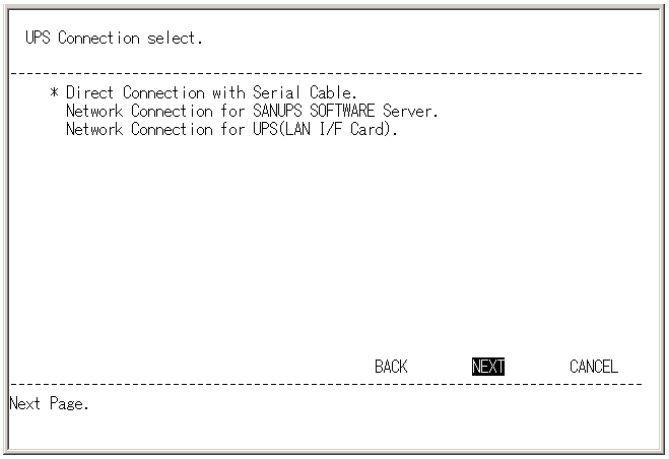
(A) From the console or the terminal, enter and then execute the **"./sg4setup"** command in the **SANUPS SOFTWARE** install directory. (※1)

(B) The SETUP Wizard starts. Move the cursor to **[NEXT]** and press the space bar to accept it and then move to the next screen. (Use the arrow keys to move the cursor.)



(※1) The **sg4setup** tool can be used to set up **SANUPS SOFTWARE** in the same way even after the UPS registration.

(C) Select a method to connect to the UPS. Move the cursor to a desired connection method, and then use the space bar to select the method. An asterisk (*) appears in front of the selected connection method.
After selecting a connection method, move the cursor to **[NEXT]** and then use the space bar to accept it.



Setting	Description
Direct Connection with Serial Cable.	Connect to UPS using a serial cable.
Network Connection for SANUPS SOFTWARE Server.	Connect to server via network. (Connect to a computer that is connected to the UPS using a serial cable.)
Network Connection for UPS (LAN I/F Card) .	Connect to the UPS (LAN/IF card) via a network.

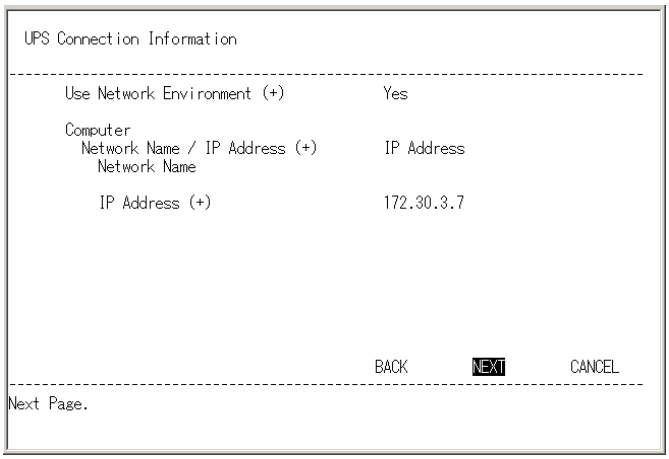
If **[Direct Connection with Serial Cable.]** is selected
→ (D)

If **[Network Connection for SANUPS SOFTWARE Server.]**
or **[Network Connection for UPS (LAN I/F Card) .]** is selected
→ (F)

(D) Select an environment to use UPS. You can specify to use a network environment and use as a UPS server, or as standalone without using any network environment.

After selecting an environment to use UPS, move the cursor to **[NEXT]** and then press the space bar to accept it.

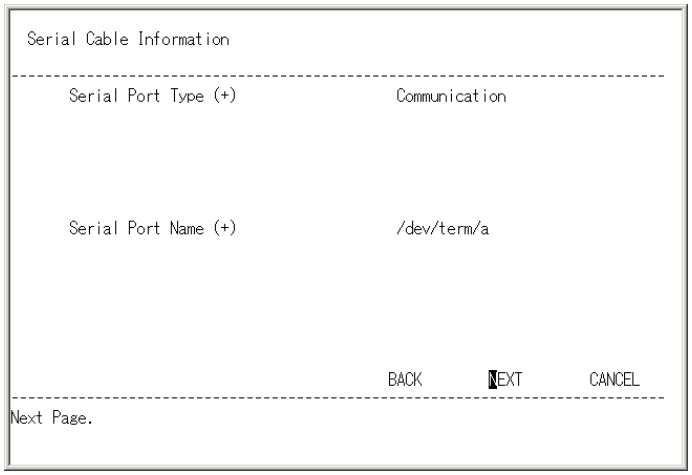
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Use Network Environment	Specify whether to use (Yes) or not use (No) a network environment.
Network Name / IP Address	Specify whether to use network name or IP address.
Network Name	Specify a network name.
IP Address	Specify an IP address.

(E) Select a serial cable connection method. Specify a connection method according to the environment. After specifying a connection method, move the cursor to **[NEXT]** and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)

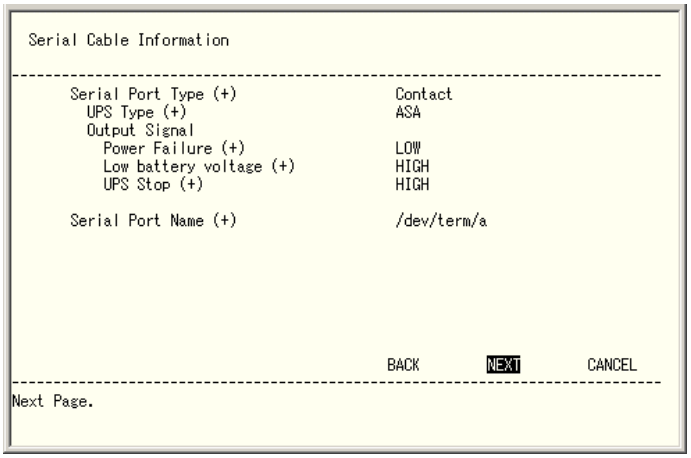
When performing serial communication with the UPS



Setting	Description
Serial Port Type	Specify UPS connection type: serial (**Communication**) or contact connection (**Contact**).
UPS Type	Specify the type of UPS (appears when **[Contact]** is selected) ※1

After specifying the connection method of serial cable, proceed to (G).

When performing contact connection with the UPS

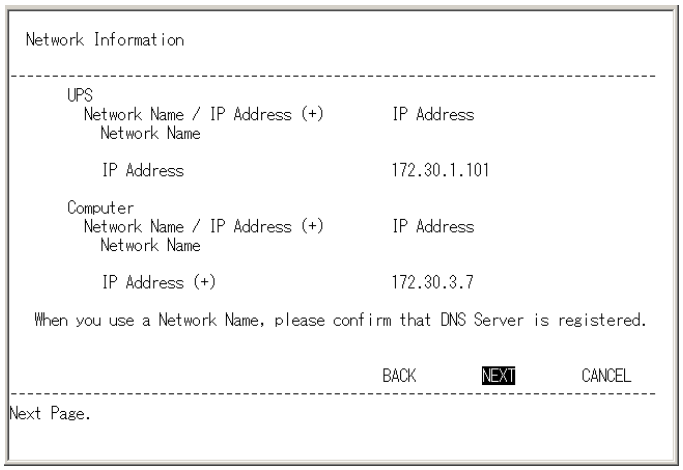


Setting	Description
Serial Port Type	Specify UPS connection type: serial (**Communication**) or contact connection (**Contact**).
UPS Type	Specify the type of UPS (appears when **[Contact]** is selected) ※1
Out Put Signal	(Appears when **[Contact]** is selected)
Power Failure	Displays whether the power failure signal is enabled or disabled, as well as power failure signal polarity. You can select LOW or HIGH.
Low battery voltage	Displays whether low battery voltage signal is enabled or disabled, as well as battery low signal polarity. You can select LOW or HIGH.
UPS Stop	Displays whether UPS shutdown is enabled or disabled, as well as UPS shutdown polarity. You can select LOW or HIGH.
Serial Port Name	Specify the serial port (device name) of the computer.

※1 In **[UPS Type]**, if the appropriate UPS model does not exist, select **[OTHER]**; in **[Out Put Signal]**, specify the UPS polarity. (The parameters of **[Out Put Signal]** can be changed only when **[UPS Type]** is set to **[OTHER]**.) For details of the value of each polarity, refer to the operating manual that comes with the UPS.

After specifying the connection method of serial cable, proceed to (G).

(F) Enter the network name or IP address of the UPS, as well as the network name or IP address of the computer. Check that the entered network names or IP addresses are correct. Move the cursor to **[NEXT]**, and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Network Name / IP Address.	Specify whether to use the network name of IP address.
Network Name	Specify a network name.
IP Address	Specify an IP address.

< Note 1 >

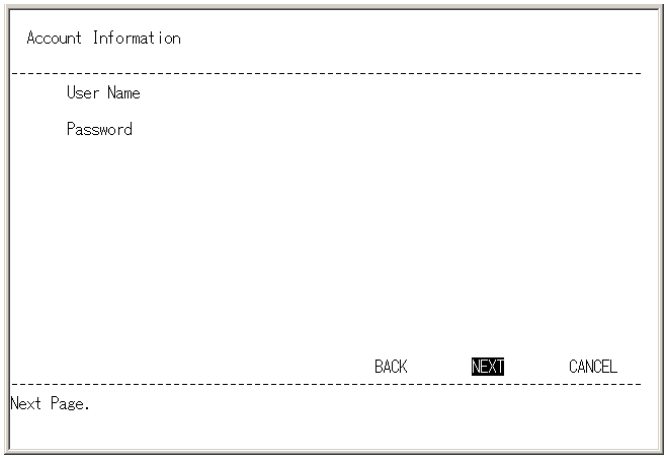
If network name is used, it is necessary that the specified network name can be converted to an IP address using DNS server, etc.

<Note 2 (when LAN interface card is used) >

When no DNS server is available so that name conversion is not performed, if you use **[Network Name]** and then specify up an address, the **[ERROR: Invalid Network Name]** message appears. (The ↑ and ↓ keys can no longer be used in the operation.) This is because the computer is waiting for a network name with "." (dot).

If this problem occurs while you are using an IP address to register, enter a "." (dot) after [Network Name] so that the ↑ and ↓ keys can now be used in the operation. Then, change the method to **[IP Address]** and then continue the registration.

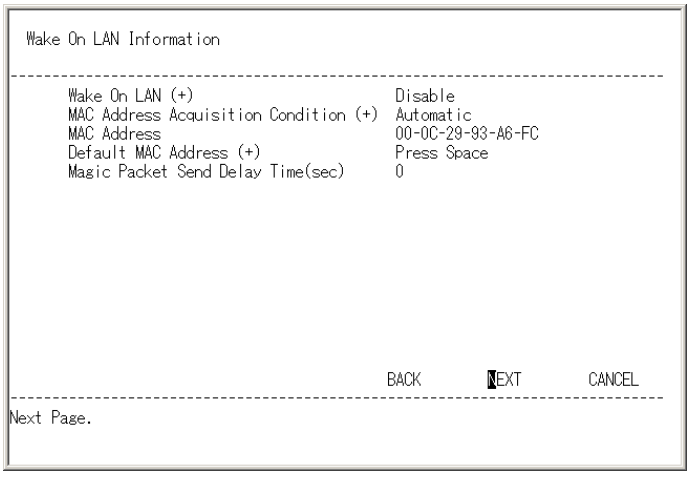
(G) Enter the account and password of the UPS. Then, move the cursor to **[NEXT]** and then press the space bar to accept it. (To move the cursor, use the arrow keys.)



Setting	Description
User Name	Enter a user name. (The input is not case sensitive.)
Password	Enter a password. (The input is case sensitive.)

To configure the settings for using a serial cable to connect to the UPS, proceed to screen (I) next.

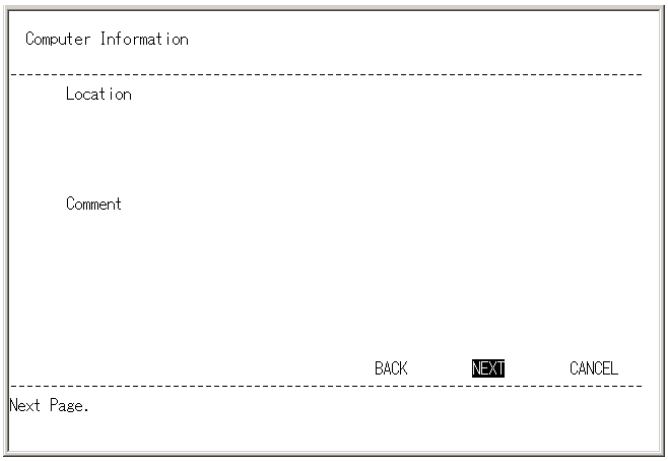
(H) Set up WakeOnLAN. Select the WakeOnLAN execution conditions and enter a MAC address. Move the cursor to **[NEXT]** and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Wake On LAN	Specify to enable or disable Wake On LAN.
MAC Address Acquisition Condition	If [Wake On LAN] is enabled, specify how to obtain the MAC address. (You can select [Automatic] or [Fixation] (set up the MAC address manually).)
MAC Address	If [MAC Address Acquisition Condition] is set to "Fixation", specify a MAC address here.
Default MAC Address	If [MAC Address Acquisition Condition] is set to [Fixation], [MAC Address] indicates the MAC address of the local computer.
Magic Packet Send Delay Time (※)	Specify the delay time in sending Magic Packet.

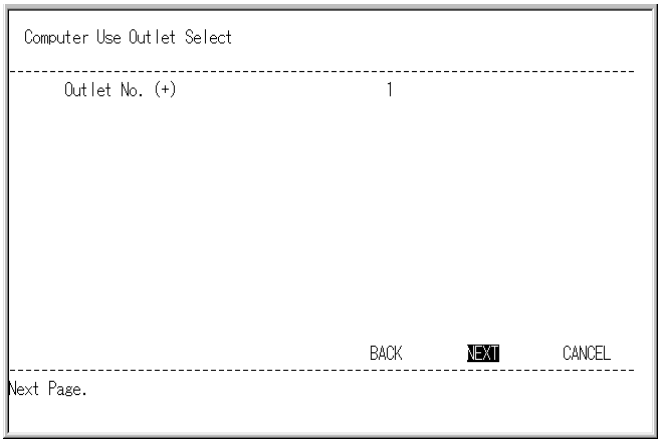
(※) This setting value will be available to set when the LAN interface card is used. However, the LAN interface card which is unsupported this function is unavailable.

(I) Enter the location of the computer as well as a comment, as necessary. Then, move the cursor to **[NEXT]** and then press the space bar to accept it.
(To move the cursor, use the arrow keys.)



Setting	Description
Location	Enter the location of the computer (can be blank).
Comment	Enter a comment (can be blank).

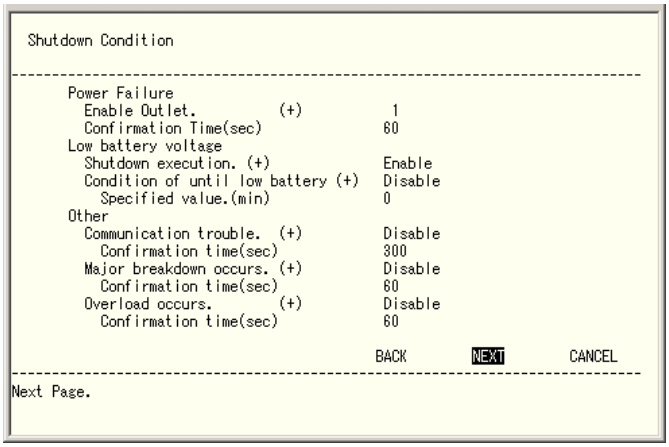
(J) Specify the number of the outlet that supplies power to the computer. After checking the information, move the cursor to **[NEXT]** and then press the space bar to accept it. For UPS with only one outlet, this setup is not performed. (The setup screen does not appear.)
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Outlet No.	Specify the number of the outlet that supplies power to the computer. [1] outlet 1 [2] outlet 2 [0 (Continuous Output)] Continuous output

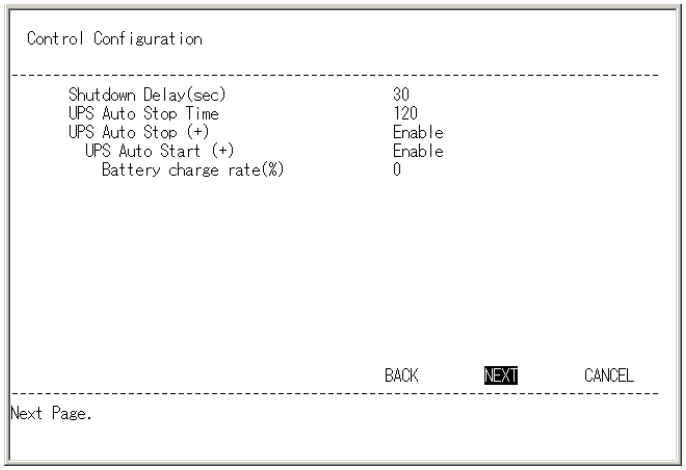
While [Continuous output] allows connection of peripheral devices that do not require shutdown, do not connect to the computer using [Continuous output].

(K) Set up the shutdown trigger. After checking the content of the setup, move the cursor to **[NEXT]** and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Power Failure	
Enable Outlet	Specify the number of the outlet to perform shutdown after the power failure confirmation time has elapsed.
Confirmation Time (sec)	Specify the power failure confirmation time, in seconds.
Low Battery voltage	
Shutdown execution.	Shut down the computer when the battery voltage becomes low.
Condition of until low battery	Specify whether to regard (Enable) or not (Disable) as low battery voltage when the battery's estimated backup time is shorter than the specified value.
Specified value. (min)	Specify the battery's estimated backup time, in minutes.
Other	
Communication trouble.	Specify whether to shut down (Enable) or not (Disable) when a serial communication error with the UPS occurs.
Major breakdown occurs.	Specify whether to shut down (Enable) or not (Disable) when major breakdown with the UPS occurs.
Overload occurs.	Specify whether to shut down (Enable) or not (Disable) when an overload with the UPS occurs.
Confirmation time (sec)	Specify the confirmation time of each shutdown trigger, in seconds.

(L) Set up the UPS stop control. After checking the content of the setting, move the cursor to **[NEXT]** and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)



Setting	Description
Shutdown Delay (sec)	Specify the shutdown delaying time, in seconds.
UPS Auto Stop Time	Specify the automatic stop time of the UPS, in seconds.
UPS Auto Stop	Specify whether to automatically stop (Enable) or not (Disable) the UPS when there is a power failure.
UPS Auto Start	Specify whether to automatically start (Enable) or not (Disable) the UPS during power recovery.
Battery charge rate (%)	Specify a rate so that when the battery charge rate exceeds this rate, the UPS output is turned on. (This setting is not possible if the UPS does not support this function.) If the value is set to 0%, when the power is recovered, the UPS output is turned on immediately.

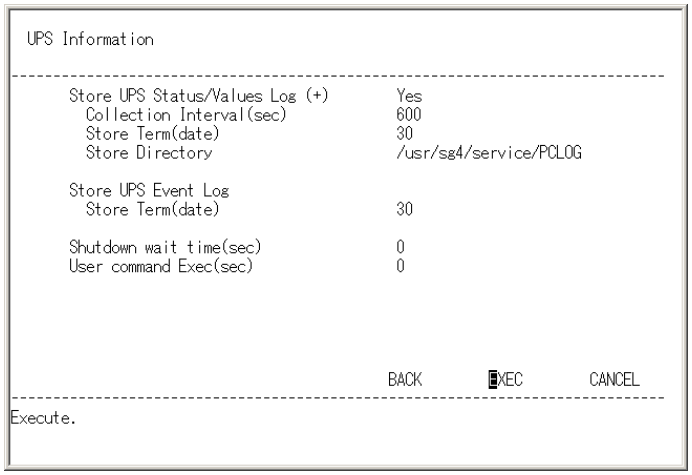
< Information >

The default UPS stop control values are listed below. (When a power failure occurs, the UPS stops after approximately 3 minutes 30 seconds.)

- Confirmation time : 60 seconds
- Shutdown delaying time : 30 seconds
- UPS stop time : 120 seconds

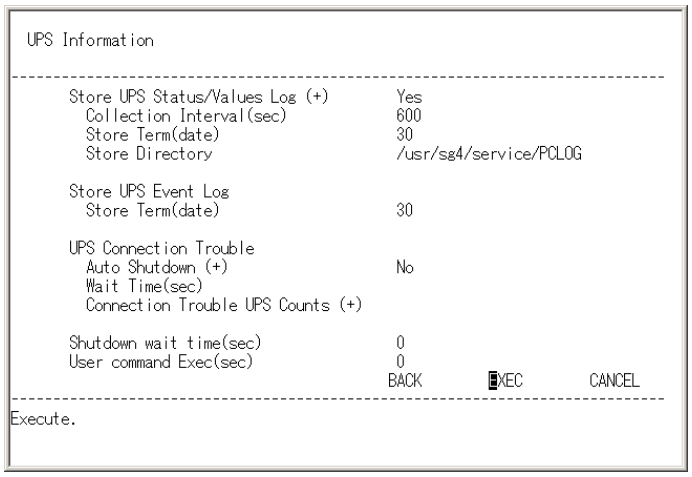
(M) Specify how to store the status/value log of the UPS. After checking the content of the setup, move the cursor to **[EXEC]** and then press the space bar to accept it.
The setup is finished.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)

UPS and serial cable connection configuration



Setting	Description
Store UPS Status/Values Log	Specify whether to store (Yes) or not (No) a log of the status and measurement values of the UPS.
Collection Interval (sec)	Specify the UPS monitoring interval, in seconds.
Store Term (date)	Specify the recording duration, in days.
Store Directory	Displays the directory where the log file is stored (cannot be changed).
Store UPS Event Log	
Store Term (date)	Specify the recording duration of event information, in days.
Shutdown wait time	Specify the wait time as seconds until execute the script by the event of “Shutdown execution” after “shutdown delay time” is passed.
User command Exec	Specify the time as seconds until execute the event script of “Shutdown execution”. (Shutdown will start after “Shutdown wait time” and “User command Exec” time is passed. It is available to set the delay time by using those times until starting the shutdown in each computer.)

LAN interface card connection configuration



Setting	Description
Store UPS Status/Values Log	Specify whether to store (Yes) or not (No) a log of the status and measurement values of the UPS.
Collection Interval (sec)	Specify the UPS monitoring interval, in seconds.
Store Term (date)	Specify the recording duration, in days.
Store Directory	Displays the directory where the log file is stored (cannot be changed).
Store UPS Event Log **Store Term (date)**	Specify the recording duration of event information, in days.
UPS Connection Trouble /Server Connection Trouble **Auto Shutdown**	Specify whether to automatically shut down (Yes) or not (No) when there is an error in the communication between the LAN interface card the server.
Wait Time (sec)	If [Auto Shutdown] is set to [Yes], specify the duration from the time the shutdown warning message appears to the time shutdown activates, in seconds.
Connection Trouble UPS Counts	When use the LAN interface card which supports UPS linkage function, choose the counts of the device to make shutdown under communication error occurs.
Shutdown wait time	Specify the wait time as seconds until execute the script by the event of “Shutdown execution” after “shutdown delay time” is passed.
User command Exec	Specify the time as seconds until execute the event script of “Shutdown execution”. (Shutdown will start after “Shutdown wait time” and “User command Exec” time is passed. It is available to set the delay time by using those times until starting the shutdown in each computer.)

5. About the SANUPS SOFTWARE Operation

For information on the operation of **SANUPS SOFTWARE**, refer to the User Guide, which is available as a PDF file. Use Acrobat Reader 7.0 or later version to view the file.

6. Uninstalling SANUPS SOFTWARE

To uninstall **SANUPS SOFTWARE** completely, use the following procedures.

The following operation can only be performed by users with administrative rights（Administrators）.

If uninstall under using server/client version or LAN interface card configuration, before deleting registered information of own device, information of own device will be remained in server device or LAN interface card side.
Please delete registered information of own deviece before uninstall.

6.1 Windows

● Uninstall the **SANUPS SOFTWARE** program.

[1] From the [Start] menu on task bar, select [Control Pane].

[2] Select the following menu in [Control Panel].

- [Add/Remove Applications] (For **Windows 2000**)
- [Add or Remove Programs] (For **Windows XP** or **Windows Server 2003**)
- [Programs and Features] (For **Windows Vista** or since **Windows Server 2008**)

[3] Select **[UPS Management System SANUPS SOFTWARE]** from the application list. Select [Remove] in [Modify or repair the program] to uninstall the application.

●Uninstall the **SANUPS SOFTWARE** program (For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**)

<When CD-ROM of **SANUPS SOFTWARE** is available>

[1] Insert **SANUPS SOFTWARE** CD-ROM in the CD-ROM drive of the computer.

[2] Execute the install program (**Setup.exe**) on the CD-ROM.

[3] Select the language selected at installation in [Choose Setup Language], click (select) the "OK" button.

[4] Select [Remove] in [Modify or repair the program] screen to uninstall.

<When CD-ROM of **SANUPS SOFTWARE** is not available>

[1] Move to the folder where **SANUPS SOFTWARE** is installed.
(Default installation folder/ C:\Program Files\Sanyodenki\SANUPS SOFTWARE)

[2] Stop the UPS service using commamd line.

[3] Delete registration of UPS service (SGUPSSVC.exe and SGSVC.exe) using commamd line.

[4] Execute uninstallation using commamd line.

Example to execute command (when installed in default installation folder.)

```
D:\>cd c:\Program Files\Sanyodenki\SANUPS SOFTWARE       ･･･････[1]
C:\Program Files\Sanyodenki\SANUPS SOFTWARE >net stop SGSVC     ･･････[2]
C:\Program Files\Sanyodenki\SANUPS SOFTWARE >SGUPSSVC.exe /UnRegServer     ･････[3]
C:\Program Files\Sanyodenki\SANUPS SOFTWARE >SGSVC.exe /UnRegServer          ･･････[3]
C:\Program Files\Sanyodenki\SANUPS SOFTWARE >wmic product where
   name="SANUPS SOFTWARE " call uninstall      ･･････[4]
```

6.2 Solaris

●Stop the **SANUPS SOFTWARE** service program

If the UPS control system is running, use the following command to stop the service program.

 # cd /etc/init.d <Return>

 # ./sg4lite stop <Return>

●Uninstall the **SANUPS SOFTWARE** program

After stopping the service program, use the **pkgrm** command to uninstall **SANUPS SOFTWARE**.

 # pkgrm SANYupsd ＜Return＞

```
The following package is currently installed:
   SANYupsd              SANUPS SOFTWARE
                        (sparc) 2.0.0

Do you want to remove this package? y

## Removing installed package instance <SANYupsd>

This package contains scripts which will be executed with super-user
permission during the process of removing this package.

Do you want to continue with the removal of this package [y,n,?,q] y
                              :
```

Several confirmation messages appear. When you enter [y] to all of the questions, the uninstallation starts.

6.3 HP-UX

●Stop the **SANUPS SOFTWARE** service program

If the UPS control system is running, use the following command to stop the service program.

 # cd /sbin/init.d <Return>

 # ./sg4lite stop <Return>

●Uninstall the **SANUPS SOFTWARE** program

After stopping the service program, use the **sg4uninstall** command to uninstall **SANUPS SOFTWARE**.

 # cd ＜Directory to be installed＞

If SANUPS SOFTWARE is installed in the default directory: **cd /usr/sg4**

 # ./sg4uninstall ＜Return＞

*** Confirm *** May I remove it? [y/n] (n) : **y**

To uninstall, enter "y".

＜Message of the swremove command will be indicated onwards.＞

:

Uninstall Completed.

6.4 AIX

●Stop the **SANUPS SOFTWARE** service program

If the UPS control system is running, use the following command to stop the service program.

 # cd ＜Directory to be installed＞/service ＜Return＞

If SANUPS SOFTWARE is installed in the default directory: **cd /usr/sg4/service**

 # ./sg4lite stop <Return>

●Uninstall the **SANUPS SOFTWARE** program

After stopping the service program, use the **sg4uninstall** command to uninstall **SANUPS SOFTWARE**.

 # cd ＜Directory to be installed＞

If SANUPS SOFTWARE is installed in the default directory: **cd /usr/sg4**

 # ./sg4uninstall ＜Return＞
*** Confirm *** May I remove it? [y/n] (n) : **y**

To uninstall, enter "y".

Uninstall Completed.

6.5 Linux

●Stop the **SANUPS SOFTWARE** service program

If the UPS control system is running, use the following command to stop the service program.

```
cd /etc/init.d
./sg4lite stop
```

●Uninstall the **SANUPS SOFTWARE** program

Run the following command.

```
# cd ＜Directory to be installed＞/service
./sg4uninstall
```

If it indicates "**Uninstall continue(y/n)?**" enter "**y**" and press return key.
If it indicates "**Ok(y/n)?**" for reconfirmation, enter "**y**" and press return key.
Uninstallation is complete when it indicates "**Uninstall Completed.**"

Appendix A Precautions for using Windows

****
About constraint of automatic starting function of a computer
****

1.When using following OS, it might be unavailable that automatic starting function by supplying the power from UPS.

Windows XP SP1
Windows Server 2003 (Service Pack none)

When the using computer supports the function of power turning off, the power is turned off after the computer shutdown without displaying following message.

"It's now safe to turn off your computer."

At this time, even if power is supplied from UPS, the computer might not start unless the computer is switched on.

Since automatic starting function of the computer depends on the hardware setting (BIOS setting) of the computer, it might be available by changing BIOS setting as follows.

Example)
Enable the "Function of starting up a computer immediately after receiving power."
Enable the "Function of wake up" (Ring signal, Wake On LAN)
etc.

BIOS setting content varies according to variety of computer.
For details, read a manual of the computer, or contact your supplier of the computer.

<Note>
For changing the BIOS setting, read the manual of the computer, and change it by responsibility in customer.
responsibility in customer.

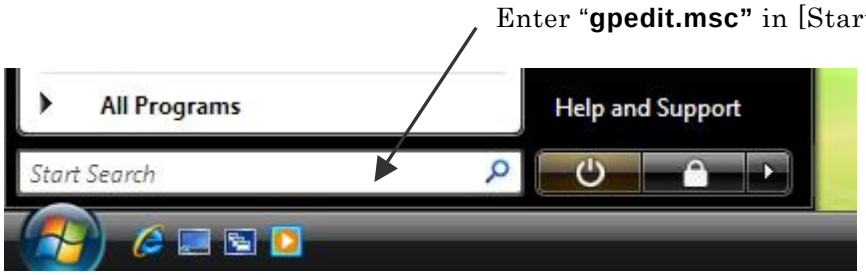
2. When using the OS since **Windows XP**, after automatic shutdown by UPS control software, the computer might be turned off automatically without displaying the following message. In this case the computer might not start automatically even if power is supplied from UPS.

"It is now safe to turn off your computer"

Change the setting according to the following procedures so as not to turn off automatically by shutdown from UPS control software.

<Procedures> For **Windows XP** to **Windows Server 2008R2**

1. Click [Start], click [Run], execute **"gpedit.msc"**.
   Otherwise, when using OS since **Windows Vista**, [Start] menu of enter **"gpedit.msc"** in [Start Search] (search field) to execute command.



* The above figure shows Windows Vista.

2. Expand [Local Computer Policy] – [Computer Configuration] – [Administrative Templates] – [System]
3. Double-click [Do not turn off system power after a Windows system shutdown has occurred].
4. Click the [Setting] tab, click [Enabled], and then click "OK" button.

* For **Windows sever 2008 Server Core**, use MMC from the remote machine (since **Windows Vista**).
Select [Group Policy Object Editor] – [Do not off system power after a Windows system shutdown has occurred], click [Enabled] to change the setting.
After setting, restart OS in order to take effect of the settings change.

<Procedures>For **Windows 8 Pro / Enterprise, Windows Server 2012.**

[1]Enter "**Edit Group Policy**" in Search windown of [Start]screen. Click [Settings] and select、[Edit group policy] (Open [Command Prompt] and enter "**gpedit**" is the same way)

[2][Local Group Policy Editor] screen will be opened. Opem [Local Computer Policy]－[Computer Configuration]－[Administrative Template]－[System]

[3]Double click [Do not turn off system power after a Windows system shutdown has occurred.].

[4]Select [Enabled] and click [OK].

For **Windows 8** except **Windows 8 Pro / Enterprise**, [Local Group Policy Editor] can not be started, so set computer starts automatically, by setting starts computer during power supply by BIOS setting or using Wake Up finction.

****

About constraint in using a terminal service

****

When using terminal service since **Windows XP** (remote desktop connection), the computer might not shut down under the following conditions.

When "Endlessly*" is checked in "Maximum time delay" - "Scheduled timing" - "Control time information", besides there are some users who exited session (disconnected status) without logoff on the remote client side.

* "Endlessly" is setting that waits until all users log off.

This is because the disconnected users are considered as logon status on the terminal server.

However, if power failure occurs, the computer will shutdown regardless of the conditions above.

****
Before using Windows Firewall
****

If [Windows Firewall] is set to “enabled”, UPS control software cannot communicate via a network. (There is no problem when it is set to “disabled”.)

When using network communication* of UPS control software, setting of [Exceptions] is required to pass through the firewall.

* When connecting to the UPS with LAN interface card or the server and client configuration of UPS control software.

<Procedures> For **Windows XP, Windows Server 2003**

1. From the [Start] menu, select [Control Panel] – [Windows Firewall].
2. Click [Exceptions] tab in [Windows Firewall] screen.
   Register **[SGUPSSvc.exe]** in the installation folder of **SANUPS SOFTWARE** to exceptions.
   (Default installation folder/ C:\Program Files\Sanyodenki\SANUPS SOFTWARE)
3. Click [Advanced] tab in [Windows Firewall] screen, select settings button in [ICMP], click [Allowincoming echo request] check box to allow receiving ICMP.

4. [Windows Security Alert] (name: **javaw**) message might appear when starting GUI tool of **SANUPS SOFTWARE.** In such a case, select [Unblock] to add GUI tool (javaw) to [Exceptions] of Windows Firewall.

   On [Windows Security Alert] message, when [Keep Blocking] or [Ask Me Later] is selested, add **[javaw.exe]** in JRE\bin folder in the installation folder of **SANUPS SOFTWARE** to exceptions according to above step 1 and 2.
   (Default installation folder/ C:\Program Files\Sanyodenki\SANUPS SOFTWARE)

<Procedures> For **Windows Vista** or since **Windows Server 2008**

1. For **Windows Vista** or **Windows 7,** select [Start] – [Control Panel] – [Administrative Tools] – [Windows Firewall with Advanced Security].
   For **Windows Server 2008**, select [Start] – [Administrative Tools] – [Windows Firewall with Advanced Security].
   For **Windows 8** or **Windows Server 2012,** Select [Control Panel] – [Administrative Tools] – [Windows Firewall with Advanced Security from [Settings]

2. Select [Inbound Rules], select [New Rule] from right click menus.
   Select Type of rule [Program], click [Next] button. Click [Bruwse] to enter **[SGUPSSvc.exe]** in the installation folder of **SANUPS SOFTWARE** in [This program path], click [Next] button.
   (Default installation folder/ C:\Program Files\Sanyodenki\SANUPS SOFTWARE)

   Select [Allow the connection], click [Next] button. Select a corresponding network, click [Next] button. Enter Name (e.g.: SGUPSSvc-Rule), click [Finish].

3. Double click Rule of [File and Printer Sharing (Echo Request- ICMPv4-In)] in [Inbound Rules], click [Enabled] check box in [General] tab to allow receiving ICMP.

4. [Windows Security Alert] (name: **Java(TM)2 Platform Standard Edition binary**) message might appear when starting GUI tool of **SANUPS SOFTWARE.** In such a case, select [Unblock] to add GUI tool (javaw) to [Exceptions] of Windows Firewall.

   On [Windows Security Alert] message, when [Keep blocking] is selested, register **[javaw.exe]** in JRE\bin folder in the installation folder of **SANUPS SOFTWARE** on Inbound Rules according to above step 1 and 2.
   (Default installation folder/ C:\Program Files\Sanyodenki\SANUPS SOFTWARE)

   * When using **Windows sever 2008 Server Core** or **Windows Server 2012 Server Core**, register **[SGUPSSvc.exe]** and **[javaw.exe]** on [Inbound Rules] to allow receiving ICMP using MMC from remote machine (since **Windows Vista**), as described above.

****

Before using **Windows Server 2003, Windows Server 2008**

****

Before using terminal service:

In the message sending function, the messages in which **"local"** is specified to destination are displayed on a console and a remote client.

However, a message to be checked by the system administrator is displayed only on a limited user. The message is displayed on the console in principle.
When the logon user is only the remote client, it is displayed on the active logon user detected first.

Following messages are the subjects.

- ・Warning message when the connected UPS is not set.
- ・Shutdown confirming message when communication error occurs between the UPS.
  (Only when shutdown is set if communication error occurs between the UPS.)

****

About System log of Event viewer

****

When installing **SANUPS SOFTWARE** on OS since **Windows Vista,** the following error logs might remain in the system log of event viewer.
An interactive service is not recommended on OS since **Windows Vista,** thus this status occurs. However, since operation is not affected, there is no need to do something.

Log name: System
Source: Service Control Manager
Event ID: 7030
Task category: None
Level: Error
Key word: Classic
Explanation: The SGUPSService service is marked as an interactive service.
However, the system is configured to not allow interactive services.
This service may not function properly.

****

Restrictions for using **Windows 8 or Windows Server 2012**

****

Windows 8 and **Windows Server 2012** has Modern UI Style in addition to original Desktop Style.
SANUPS SOFTWARE is not cover Modern UI Style, so pop-up message will not be shown under using Modern UI Styl.
However, pop-up message will not be shown under Desktop Style.

Shutdown from **SANUPS SOFTWARE** will be performed without any problems under using Modern UI Style.

Appendix B Precautions for using Linux

****

Before installation

****

On **Linux**, various installation forms are prepared to make easy a system architecture in accordance with the intended use. Therefore, for some installation form, a package required for this system might not be installed. Its probable packages are shown in the following table. Verify whether or not these are installed. If these are not installed, install the packages from OS installation CD.

＜Verify installation＞

Example) When using Red Hat Enterprise Linux v.5 (Itanium)

 # rpm -q libXp

If it is installed, "libXp-1.0.0-8" is displayed.

Linux OS	Package	File
Red Hat Enterprise Linux v.5 (Itanium)	libXp (※1)	libXp-1.0.0-8.ia64.rpm
SUSE Linux Enterprise Server 9 (x86)	setserial	setserial-2.17-577.i586.rpm
SUSE Linux Enterprise Server 9(AMD64,EM64T)	setserial	setserial-2.17-577.1.x86_64.rpm

(※1) When using the tool of "GUI", install this package.

****

About message display in the terminal window

****

When using the following OS, a message that is displayed at the occurrence of event might not be displayed.
This trouble occurs if using the terminal software "Konsol" (default installation version).
It is necessary to update "Konsol". (*1).

SUSE Linux Enterprise Server 9

(*1): "Konsol" is updated by updating Window manager "KDE" to version 3.3.

****

Firewall Setting for VMware ESX Server

****

Default of firewall (security level: high*1) is set to"enabled" on **VMware ESX Server.**

*1 All incomings or outgoings except for the port 902, 80(http) and 443, 22(ssh) are brocked.

If [Firewall] is set to "enabled", UPS control software cannot communicate via a network.
When using network communication*2 of UPS control software, execute [esxcfg-firewall] command to open the using port of UPS control software.

*2 When connecting to the UPS with LAN interface card or the server and client configuration.

The ports that need to open are as follows.
(And an example to execute "esxcfg-firewall" command is as follows.)

<When **VMware ESX Server Host** is connected to UPS by client connection or connected to the UPS with LAN interface card by network connection.>

Description	Port No.	Direction	Example of command
For Session establishment	30000/tcp	out	esxcfg-firewall --openport 30000,tcp,out,TCP-30000
For CUI tool connection	30003/tcp	out	esxcfg-firewall --openport 30003,tcp,out,TCP-30003
For notification receipt	31000/tcp	in	esxcfg-firewall --openport 31000,tcp,in,TCP-31000
Waiting for tool connection	31001/tcp	in	esxcfg-firewall --openport 31001,tcp,in,TCP-31001

Operate as follows to enable the settings of commands above.

1. Stop the UPS service.

   /etc/init.d/sg4lite stop

2. Restart VMware-hostd process.

   service mgmt-vmware restart

3. Restart the UPS service.

   /etc/init.d/sg4lite start

****

Firewall Setting for **Red Hat Enterprise Linux**

****

if firewall enabled, the UPS management software will not be able to perform network communication. If set to "Disable" firewall, there is no problem.
When performing network communication, you will need to open a network port for using UPS management software or disable the firewall.
(*)In case of a LAN I / F card use, or server / client version use.

If you want to disable the firewall, run the following command.

```
# service iptables stop
# chkconfig iptables off
```

Can also be set from the configuration tool of the Firewall

Also, if you want to open a port individually, we describe the port settings in "/etc/sysconfig/iptables".
<Example: For notification receipt Port No. 31000/tcp>

```
-A RH-Firewall-1-INPUT -m state -state NEW -m tcp -p tcp -dport 31000 -j ACCEPT
```

Detail of the Network port of **SANUPS SOFTWARE**, please refer to "Appendix E Protocols and Server Ports Used" of User Guide.（For iptables commands, please refer to the manual）

****

Firewall Setting for **SUSE Linux Enterprise Server**

****

When use the server/client composition or LAN interface card, set firewall as disable or open the Network port which is for **SANUPS SOFTWARE**.

Firewall setting is available by using "YaST" tool.
GUI tool version can start from the menu.
In CUI tool version, enter "yast" from console then execute.

It is also available to set "enable/disable" of firewall or opening for each Network port.

Appendix C Precautions for using UNIX

****

Before using of **Solaris**

****

1. About System Package

Under Solaris8 to 10

It is necessary to install the following packages in order to make this system operate.
(Verify an installation of the packages using command "**pkginfo <package name>**".)
When the packages are not installed, install from the OS Installation CD.

Package Name	Description
SUNWjiu8	If these packages are not installed, ・On GUI tool, a communication trouble occurs and the connection settings to the UPS cannot be conducted. ・Using the CUI tool, the connection settings to the UPS can be conducted, but the messages of the power failure occurrence etc. are not displayed on the terminal window and message box.
SUNWuiu8	

Under Solaris11

To operate **SANUPS SOFTWARE**, the below package is needed to install on which depends the usage environment. You can confirm presence of package installation by the command of **pkg info <package name>** or **pkg list**.

If the following packages are not installed, please install additional package from package repository.

< Using GUI tool >

Package name	Description
library/motif	Needed to display GUI tool. GUI tool cannot to be started without installation.
system/font/truetype/fonts-core	Improve display when display cannot to be fit in the display area as in data display of GUI tool.

< Not using GUI tool >

Package name	Description
—	Enable to use without package adding.

If client device which is connected to server device of **SANUPS SOFTWARE** Japanese version or LAN interface card Japanese version uses **SANUPS SOFTWARE**, additional install of the following package is required.

Package name	Description
system/library/iconv/unicode	Required to process the data contained in Japanese.
system/locale/extra	
system/library/iconv/extra	

2. About using of "Zone"

When using **Solaris 10 or after** :

When using under the environment on which Zone (non-global-zone) is constructed, install this system to global-zone. And use it on global-zone.
This system installed to global-zone cannot be used from non-global-zone.

3. Mounting of CD-ROM

The software of this product is to be installed from CD-ROM.
Generally, if you insert CD-ROM on the tray, it will be automatically mounted by Volume Manager.
If it is not automatically mounted even when you insert the CD-ROM on the tray, check if the Volume Manager is operating.

```
# ps –ef | grep vold
  root   254     1   0 19:53:30 ?          0:00 /usr/sbin/vold
  root   587   586   0 20:46:28 pts/5      0:00 grep vold
#
```

※vold will be replaced to rmvolmgr under Solaris11.

If the Volume Manager is not operating, you can start it with the following command.
(In Solaris8 to 10)
/etc/init.d/volmgt start
(In Solaris11)
svcadm restart rmvolmgr

If you wish to mount manually, conduct:
/usr/sbin/mount –F hsfs –o ro /dev/dsk/c0t6d0s0 /cdrom

(Device names may change according to the operation environment. Please set up according to the environment you are using. Please refer the manual pages for usage of commands.)

****

Before using of HP-UX

****

1. About OS patch

When using **HP-UX 11i v1** :

In order to operate CUI or GUI Tool, linker (ld) patch must be installed. As a reference,
OS patch later than PACHI-ID PHSS_26263 for 11i v1 must be installed. (You can check the information on OS patch by using "**/usr/sbin/swlist －l product | grep ld**" command.)
If the above patch is not installed, CUI or GUI Tool will not operate.

In addition, in order to operate GUI Tool, a patch necessary for Java environment must be installed in addition to the above. Please refer to the following site for the patch necessary for Java environment.
http://www.hp.com/products1/unix/java/patches/index.html

2. Using GUI tools under **HP-UX11iv2**

HP-UX11iv2 environment has become very slow if the behavior of the GUI tools.
In that situation, please set using CUI tools or if there is a "client version" computer, use GUI tools with that computer to set. There isn't any problem except GUI tool.