M0011159

# SANUPS

UPS Control System

# SANUPS SOFTWARE

# Install Guide

SANYO DENKI

E

ENGLISH

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# Table of Contents


1. Introduction ..... 1

1.1 Operating Environments ..... 1

1.1.1 Windows ..... 1

1.1.2 Solaris ..... 4

1.1.3 AIX ..... 6

1.1.4 Linux ..... 8

2. Before Installing SANUPS SOFTWARE ..... 11

2.1 Checking the Operating Mode of the UPS ..... 11

2.2 Checking the Communication with the UPS ..... 11

2.3 Checking the Connection Method of a Computer ..... 12

3. Installing SANUPS SOFTWARE ..... 14

3.1 Windows ..... 14

3.1.1 Starting the Install Program ..... 14

3.1.2 Checking the license agreement ..... 15

3.1.3 Entering Customer information ..... 16

3.1.4 Checking the install folder ..... 16

3.1.5 Selecting a Setup Type ..... 17

3.1.6 Selecting Additional Functions (Custom setup type) ..... 17

3.1.7 Starting installation ..... 18

3.1.8 Completing installation ..... 19

3.2 Solaris ..... 20

3.2.1 Starting the install program ..... 20

3.2.2 Installing SANUPS SOFTWARE (Solaris 10 or later) ..... 21

3.2.3 Installing SANUPS SOFTWARE (Solaris8 and Solaris9) ..... 24

3.2.4 Restarting the computer ..... 26

3.3 AIX ..... 27

3.3.1 Starting the install program ..... 27

3.3.2 Installing SANUPS SOFTWARE ..... 27

3.3.3 Restarting the computer ..... 28

3.4 Linux ..... 29

3.4.1 Starting the install program ..... 29

3.4.2 Installing SANUPS SOFTWARE ..... 31

3.4.3 Restarting the computer ..... 32
4. Setting up SANUPS SOFTWARE ..... 33
4.1 Using the Setup Wizard (GUI Configuration Tool) ..... 33
4.1.1 If the computer is a server connected to the UPS ..... 34
4.1.2 If the UPS is connected to a client ..... 45
4.1.3 If the UPS is connected to a network ..... 55
4.2 Using the SETUP Wizard (CUI Setup Tool) ..... 65
4.2.1 About the registration (configuration) of the UPS ..... 65
5. About the SANUPS SOFTWARE Operation ..... 79
6. Uninstalling SANUPS SOFTWARE ..... 79
6.1 Windows ..... 79
6.2 Solaris 10 or later ..... 80
6.3 Solaris 8 or Solaris 9 ..... 81
6.4 AIX ..... 82
6.5 Linux ..... 83
Appendix A Precautions for using Windows ..... 84
Appendix B Precautions for using Linux ..... 91
Appendix C Precautions for using UNIX ..... 96
Appendix D About Using Silent Installation ..... 99

# 1. Introduction

**SANUPS SOFTWARE** is a software application that is used together with the 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.

When you use this product, it can also be used in IPv6 network environment.
(Note that some OS versions are not supported. For details of IPv6 support, see “1.1 Operating Environments” below.)
This manual describes how to install and set up **SANUPS SOFTWARE** version 3**.**

## 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**

Disk capacity : 300M bytes or more free space available
(During installation, 400Mbytes or more free space is required.)
Display : Resolution 800×600 or more, 256 colors or more

**(2) Software**

OS : **Windows XP**

**Professional** (*1) **/ Home Edition** (*1)
**Professional x64 Edition**

**Windows Server 2003**

**Standard Edition** (*2) **/ Enterprise Edition** (*2)
**Standard x64 Edition / Enterprise x64 Edition**
**Enterprise Edition for Itanium-based systems** (*2)

**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** (*3)

**Standard Edition / Enterprise Edition**

**Windows Web Server 2008** (*3)

**Windows Server 2008 for Itanium-based Systems** (*4)

**Windows 7** (*5)

**Professional / Ultimate / Enterprise**

**Windows Server 2008 R2** (*6)

**Standard / Enterprise**

**Windows Web Server 2008 R2** (*6)

**Windows Server 2008 R2 for Itanium-based Systems** (*4)

**Windows 8** (*5)

**Windows 8 / Windows 8 Pro / Windows 8 Enterprise**

**Windows Server 2012** (*6) (*7)

**Essentials / Standard / Datacenter**

**Windows 8.1** (*5)

**Windows 8.1 / Windows 8.1 Pro / Windows 8.1 Enterprise**

**Windows Server 2012 R2** (*6) (*7)

**Essentials / Standard / Datacenter**

**Windows 10** (*5)

**Home / Pro / Enterprise / Education**

(*1) ServicePack 2 or later must be installed.
(*2) ServicePack 1 or later must be installed.
(*3) Available for x86 and x64 Edition, also Server Core.
(*4) Available only for Full installation.
(*5) Available for x86 and x64 Edition.
(*6) Also Server Core.
(*7) If the Network connection with the LAN interface card that does not support IPv6, refer to “Precautions when using Windows Server 2012 with ECN function enabled” in “Appendix A Precautions for using Windows.”
(*8) If the computer starts automatically using power supplied by a UPS, refer to “About constraint of automatic starting function of a computer” in “Appendix A Precautions for using Windows.”
(*9) For details about the latest OS support, check the latest information in “Product Information” on the SANYODENKI SANUPS website.

<OS terminology in the Install Guide>
·Unless otherwise stated, “Windows Server 2003”, “Windows Server 2008”, and “Windows Server 2012” also include the respective “R2” versions.
·Unless otherwise stated, “Windows 8” and “Windows 8.1” are collectively referred to as “Windows 8”.

### (3) Support for IPv6 communications

The support for IPv4/IPv6 communications in **SANUPS SOFTWARE** varies depending on the OS version used. Refer to the support status in the following table.

| OS versions that support communication using IPv4/IPv6 addresses(*10) |
|---|
| **Windows 7**<br>**Windows 8**<br>**Windows 8.1**<br>**Windows 10**<br>**Windows Server 2008 R2**<br>**Windows Web Server 2008 R2**<br>**Windows Server 2008 R2 for Itanium-based Systems**<br>**Windows Server 2012**<br>**Windows Server 2012 R2** |
| OS versions that support IPv4 addresses only(*11) |
| **Windows XP**<br>**Windows Vista**<br>**Windows Server 2003**<br>**Windows Server 2003 R2**<br>**Windows Server 2008**<br>**Windows Web Server 2008**<br>**Windows Server 2008 for Itanium-based Systems** |

(*10)The computer network must have IPv6 enabled to support IPv6 communication using **SANUPS SOFTWARE**.

(*11) **SANUPS SOFTWARE** communicates using IPv4 only, even in environments where the computer supports IPv6 communications.

**Precautions about upgrading OS**

If upgrading from the OS in (*11) to the OS in (*10), first uninstall **SANUPS SOFTWARE** and then reinstall the software after upgrading.

Note that running **SANUPS SOFTWARE** as-is after upgrading OS is not guaranteed, because the program files that are installed will vary depending on the OS version.

### 1.1.2 Solaris

#### For SPARC

**(1) Hardware**

Disk capacity : 120 Mbytes or more free space available
Display : Resolution 800×600 or more, 256 colors or more
(when the GUI 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.

(*3) For details about the latest OS support, check the latest information in “Product Information” on the SANYODENKI SANUPS website.

**(3) Support for IPv6 communications**

The support for IPv4/IPv6 communications in **SANUPS SOFTWARE** varies depending on the OS version used. Refer to the support status in the following table.

| OS versions that support communication using IPv4/IPv6 addresses(*4) |
|---|
| **Solaris 10**<br>**Solaris 11** |
| OS versions that support IPv4 addresses only(*5) |
| **Solaris 8**<br>**Solaris 9** |

(*4)The computer network must have IPv6 enabled to support IPv6 communication using **SANUPS SOFTWARE**.

(*5) **SANUPS SOFTWARE** communicates using IPv4 only, even in environments where the computer supports IPv6 communications.

**Precautions about upgrading OS**

If upgrading from the OS in (*5) to the OS in (*4), first uninstall **SANUPS SOFTWARE** and then reinstall the software after upgrading.

Note that running **SANUPS SOFTWARE** as-is after upgrading OS is not guaranteed, because the program files that are installed will vary depending on the OS version.

### For x86

**(1) Hardware**

Disk capacity : 120 Mbytes or more free space available
Display : Resolution 800×600 or more, 256 colors or more
(when the GUI tools are used)

**(2) Software**

OS : **Solaris 10** (*6) (*7) , **11** (*7)

(*6) **Solaris 10** (3/05) or later version recommended
(*7) 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.
(*8) For details about the latest OS support, check the latest information in “Product Information” on the SANYODENKI SANUPS website.

**(3) Support for IPv6 communications**

Communication using IPv6 addresses is performed in **SANUPS SOFTWARE** if IPv6 is enabled in the OS used.

### 1.1.3 AIX

**(1) Hardware**

Disk capacity : 110 Mbytes or more free space available
Display : Resolution 800×600 or more, 256 colors or more
(when the GUI 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) For details about the latest OS support, check the latest information in “Product Information” on the SANYODENKI SANUPS website.

**(3) Support for IPv6 communications**

The support for IPv4/IPv6 communications in **SANUPS SOFTWARE** varies depending on the OS version used. Refer to the support status in the following table.

| OS versions that support communication using IPv4/IPv6 addresses (*2) |
|---|
| **AIX 6.1** (*4) |
| **AIX 7.1** (*5) |
| OS versions that support IPv4 addresses only(*3) |
| **AIX 5.1** |
| **AIX 5.2** |
| **AIX 5.3** |
| **AIX 6.1** (*6) |
| **AIX 7.1** (*6) |

(*2) The computer network must have IPv6 enabled to support IPv6 communication using **SANUPS SOFTWARE**. Also, **SANUPS SOFTWARE** might not correspond to the IPv6 communication by the OS patch level. OS version that corresponds to the IPv6 communication, please refer to the (*4) and (*5).
(*3) **SANUPS SOFTWARE** communicates using IPv4 only, even in environments where the computer supports IPv6 communications.
(*4) Supported versions of IPv6 communication require **TL (Technology Level) 6** or later.
For **AIX 6.1 TL6** to **TL8**, the following SP(ServicePack) are required.
For **AIX 6.1 TL6**, **SP11** or later is required.
For **AIX 6.1 TL7**, **SP7** or later is required.
For **AIX 6.1 TL8**, **SP2** or later is required.
(*5) For **AIX 7.1 TL0** to **TL2**, the following SP are required to IPv6 communication.
For **AIX 7.1 TL0**, **SP9** or later is required.
For **AIX 7.1 TL1**, **SP7** or later is required.
For **AIX 7.1 TL2**, **SP2** or later is required.
(*6) In the case of OS version that does not correspond to the (*5) or (*6), **SANUPS SOFTWARE** communicates using IPv4 only.
(*7) Use “oslevel -s” command, you can see the TL and SP value.
(For details on the “oslevel” command, refer to the appropriate manual.)

**Precautions about upgrading OS**

If upgrading from the OS in (*3) to the OS in (*2), first uninstall **SANUPS SOFTWARE** and then reinstall the software after upgrading.

**Precautions when using link-local addresses (IPv6) from computers with multiple network interfaces**

If a link-local address (IPv6) is selected as the local computer address when registering a device from a connection wizard (GUI tool), communication may not be possible if a network interface address is selected which has a lower priority than another network interface.

Use the CUI tool to check that a network interface address is selected that has a higher priority than other network interfaces.

This has no effect if a global address is selected.

### 1.1.4 Linux

**(1) Hardware**

Disk capacity : 130 Mbytes or more free space available

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

**(2) Software**

OS : **Red Hat Enterprise Linux v.3, v.4, v.5, v.6, v.7**
(x86, AMD64, EM64T, Itanium)
**SUSE Linux Enterprise Server 9, 10, 11, 12**
(x86, AMD64, EM64T)
**MIRACLE LINUX V4.0 SP2 and later**
（x86、AMD64、EM64T）
**MIRACLE LINUX Asianux Server 3, 4**
（x86、AMD64、EM64T）

**<VMware ESX Server>** (*1) (*2)
**VMware ESX Server 3.0, 3.5, 4.0, 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**”.

(*3) For details about the latest OS support, check the latest information in “Product Information” on the SANYODENKI SANUPS website.

### (3) Support for IPv6 communications

The support for IPv4/IPv6 communications in **SANUPS SOFTWARE** varies depending on the OS version used. Refer to the support status in the following table.

| OS versions that support communication using IPv4/IPv6 addresses(*4) |
|---|
| **Red Hat Enterprise Linux 3** |
| **Red Hat Enterprise Linux 4** |
| **Red Hat Enterprise Linux 5** |
| **Red Hat Enterprise Linux 6** |
| **Red Hat Enterprise Linux 7** |
| **SUSE Linux Enterprise Server 10 SP3 or later** |
| **SUSE Linux Enterprise Server 11 SP2 or later** |
| **SUSE Linux Enterprise Server 12** |
| **MIRACLE LINUX V4.0 SP2 or later** |
| **MIRACLE LINUX Asianux Server 3** |
| **MIRACLE LINUX Asianux Server 4** |
| **VMware ESX Server 4.0, 4.1** |
| OS versions that support IPv4 addresses only(*5) |
| **SUSE Linux Enterprise Server 9** |
| **SUSE Linux Enterprise Server 10(to SP2)** |
| **SUSE Linux Enterprise Server 11(to SP1)** |
| **VMware ESX Server 3.0, 3.5** |

(*4) The computer network must have IPv6 enabled to support IPv6 communication using **SANUPS SOFTWARE**.

(*5) **SANUPS SOFTWARE** communicates using IPv4 only, even in environments where the computer supports IPv6 communications.

**Precautions about upgrading OS**

If upgrading from the OS in (*5) to the OS in (*4), first uninstall **SANUPS SOFTWARE** and then reinstall the software after upgrading.

**Precautions when using link-local addresses (IPv6) from computers with multiple network interfaces**

**Red Hat Enterprise Linux for Itanium** is the target if it is being used.

If a link-local address (IPv6) is selected as the local computer address when registering a device from a connection wizard (GUI tool), communication may not be possible if a network interface address is selected which has a lower priority than another network interface.

Use the CUI tool to check that a network interface address is selected that has a higher priority than other network interfaces.

This has no effect if a global address is selected.

**<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.)

# 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 **Interface** of the UPS settings. If the UPS has the **Interface setting**, set it to the **Workstation mode**. There is also a model that is the configured to the **Workstation mode**.

*For information on how to set the UPS to the **Workstation 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 **Workstation 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**.**
Serial cable is used to connect to the serial port of the computer.

*Operation in the environment to be connected to the serial cable by using the USB serial conversion cable to the computer side is not guaranteed. And if a serial cable other than those designated by SANYODENKI is used, the operation is not guaranteed.

If a LAN interface card (option) is used, you set an IP address to the LAN interface card.

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

*LAN cable not included 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

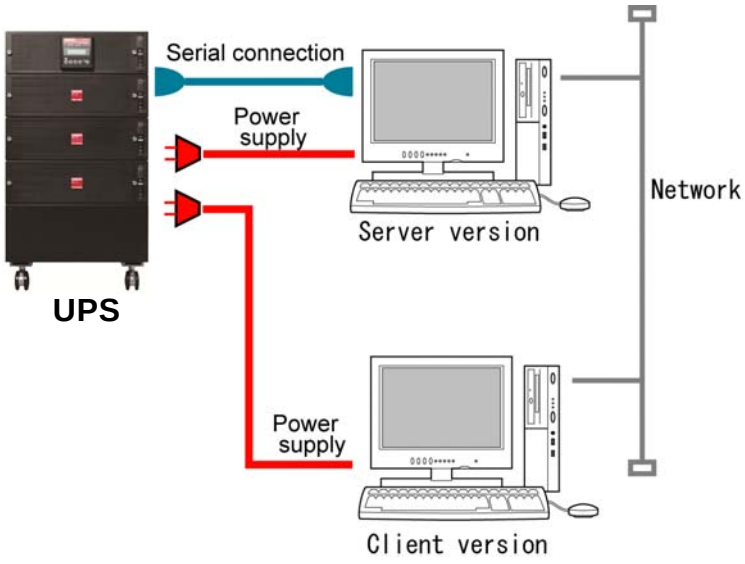
The method used to connect a computer to the UPS (direct serial connection with UPS or via LAN interface card) is specified during the setup operation after **SANUPS SOFTWARE** is installed. For this reason, it is necessary to decide, in advance, how the UPS is to be connected to a computer where **SANUPS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

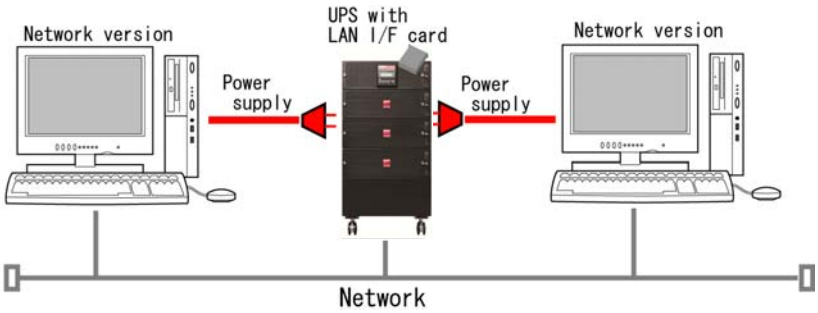
### Using a serial cable to connect




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 version**. (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 privileges（Administrators, root）.**

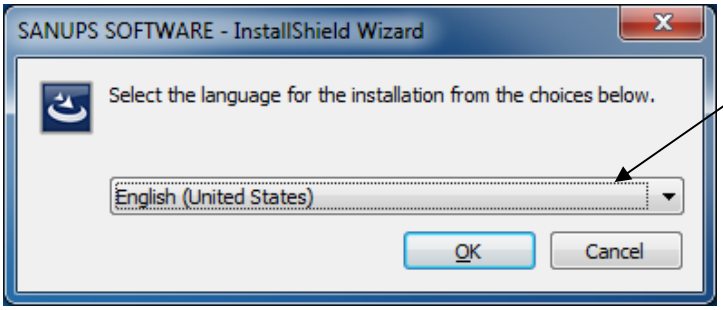
**If an older version of UPS Control Software is already installed, be sure to uninstall it and then install SANUPS SOFTWARE.**

## 3.1 Windows

### 3.1.1 Starting the Install Program

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

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




You can choose the Japanese language.

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

**If the install program does not start automatically**

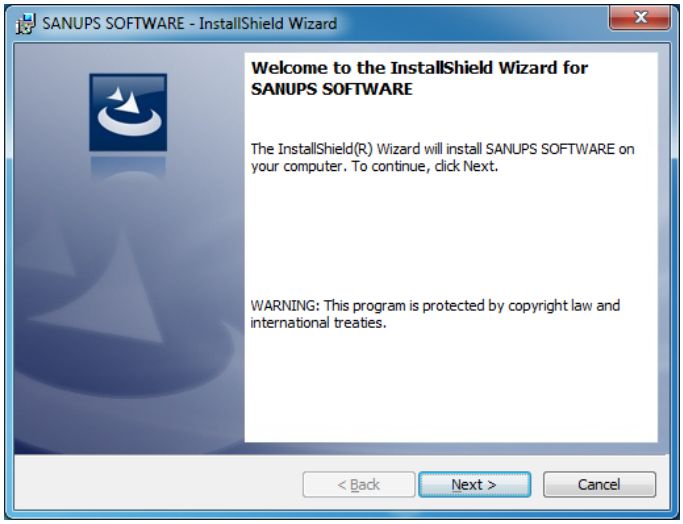
Start the Explorer. Locate the **Setup.exe** file on the Installation CD.
Double-click this file to start the install program.
When using **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**, execute "**Setup.exe**" on the Installation CD using commamd line.

**Starting install program at Windows 8 / Windows Server 2012 / Windows 10**

- In the Modern UI Style, set installation 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 Explorer and double click (select) **Setup.exe** from CD-ROM drive then install program will be started.

(3) Select a language, click the **OK** button.

(4) After the installation preparation screen is displayed, the following screen is displayed.

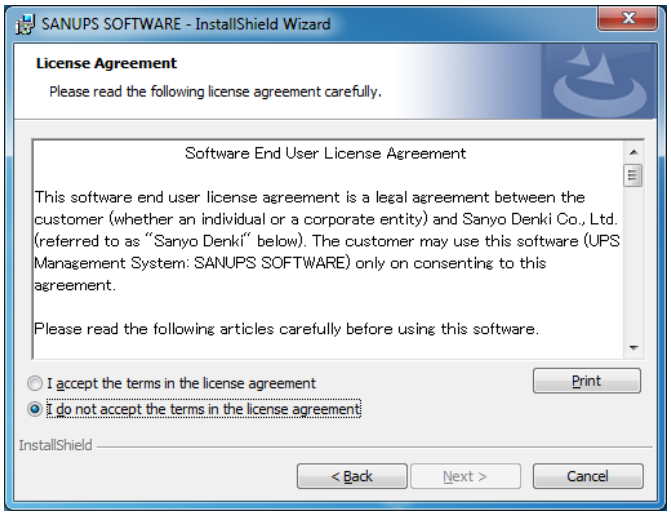



(5) Click the **Next** button.

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

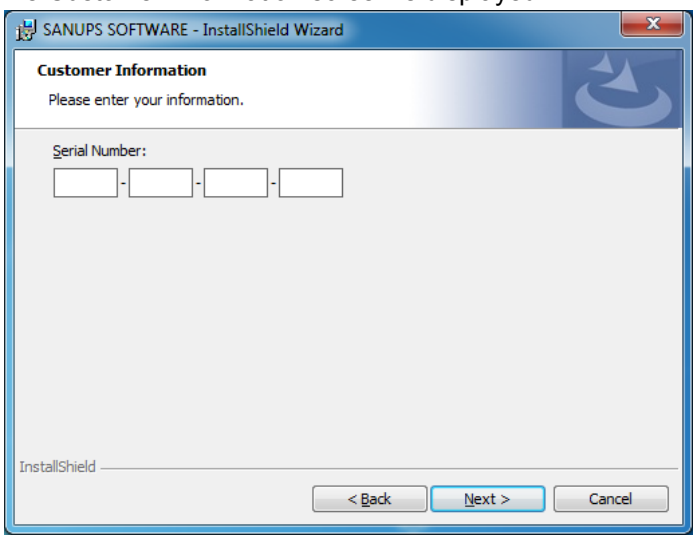
(1) The license agreement screen is displayed.




(2) If you agree with the license and want to continue the installation, select the “I accept the terms in the license agreement”, and click the **Next** button.

### 3.1.3 Entering Customer information

(1) The Customer Information screen is displayed.



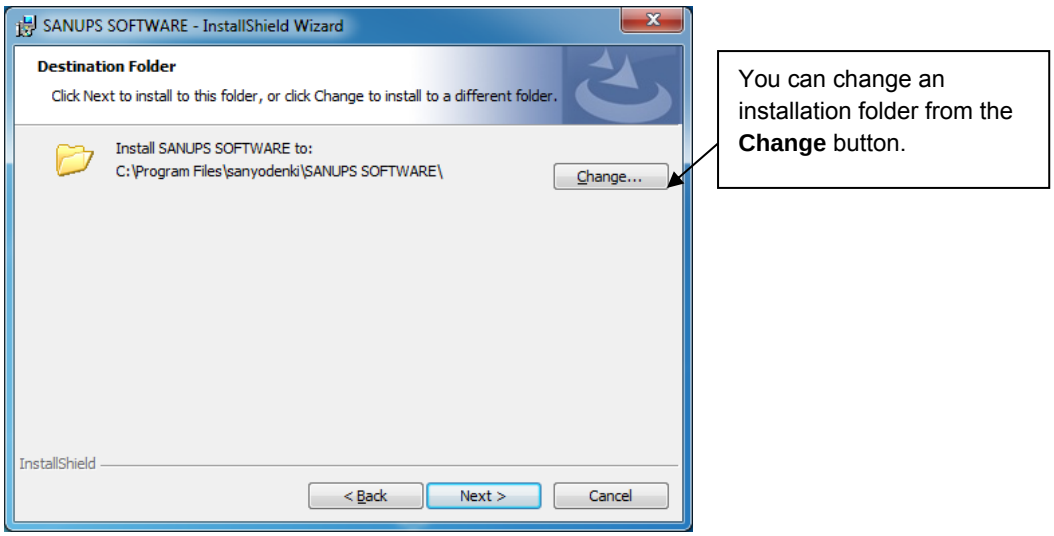

(2) Enter the **Serial Number**.

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

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

### 3.1.4 Checking the install folder

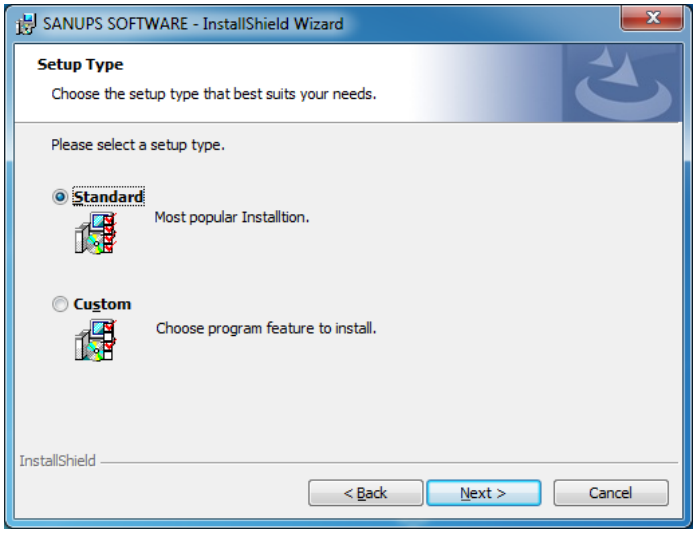
(1) The install destination folder screen is displayed.




(2) Confirm an installation folder, and click the **Next** button.

### 3.1.5 Selecting a Setup Type

(1) The Setup Type screen is displayed.

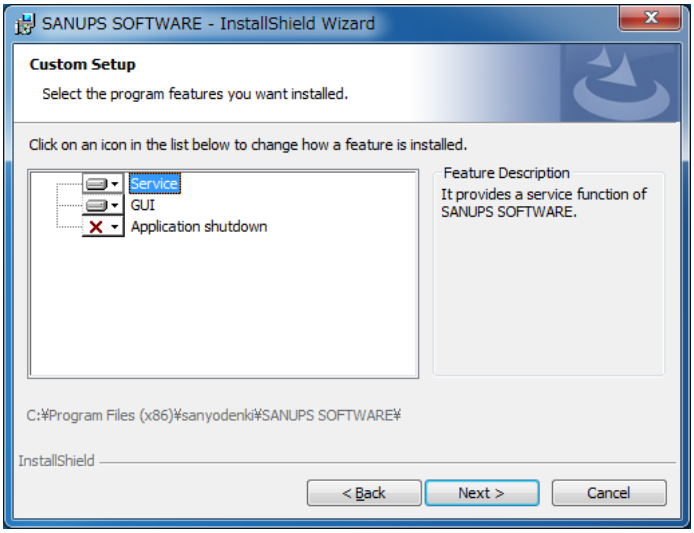



Select [Custom] if you want to install the application shutdown function.

(2) Select **Standard** or **Custum**, and Click the **Next** button.

### 3.1.6 Selecting Additional Functions (Custom setup type)

(1) The Custum Setup screen is displayed.

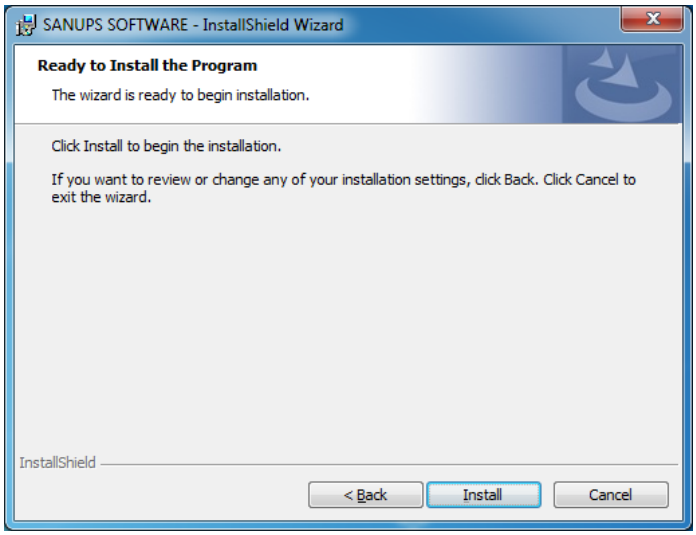



Set whether to install the application shutdown function.
(The application shutdown function can also be added after installation.)

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

### 3.1.7 Starting installation

(1) Ready to Install the Program display is diaplayed.



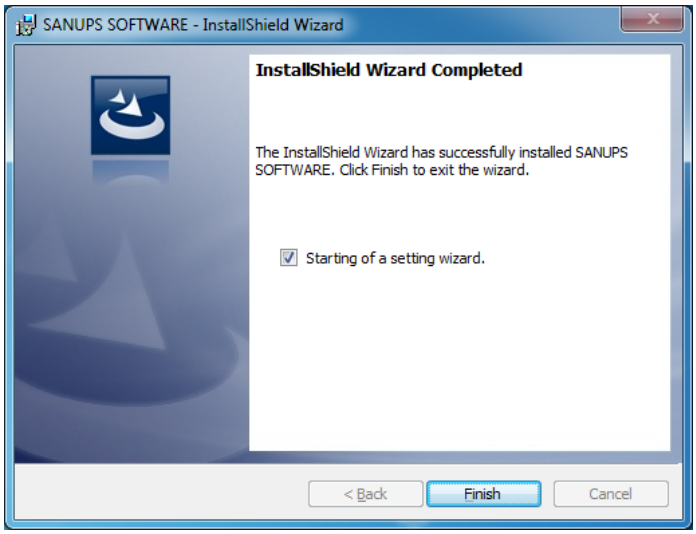

(2) Click the Install button, the installation is started.

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 is displayed.




(2) Click 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 " 4.1 Using the Setup Wizard (GUI Configuration Tool)".

***After installation finishes, you can use the setup wizard function to register the computer with the UPS so that the computer shuts down automatically in the event of a power failure.**

**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

The subsequent operations are implemented by a user with administrator privileges (root privileges).

### 3.2.1 Starting the install program

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

(2) Check the directory where the Installation CD is mounted.
If the Installation CD 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 Installation CD is mounted.
Move to the directory for the OS version in use.
(In the following example, the Installation CD is mounted in /cdrom.)

**<For SPARC version>**
**When using Solaris 10 or later**
**# cd /cdrom/sanupssoftware_u/solaris/sparc/solaris_10 <Return>**

**When using Solaris 8 or Solaris 9**
**# cd /cdrom/sanupssoftware_u/solaris/sparc/solaris_8_9 <Return>**

**<For x86 version>**
**When using Solaris 10 or later**
**# 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 a directory .

**SANYupsd** (UPS control system package)

Use the **pkgadd** command to install **SANYupsd.**
(For details on the **pkgadd** command, refer to the appropriate manual.)
The following Section 3.2.3 , "Installing SANUPS SOFTWARE" shows an example on how to use the **pkgadd** command to install **SANUPS SOFTWARE**.

### 3.2.2 Installing SANUPS SOFTWARE (Solaris 10 or later)

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 3.0.0".

**# pkgadd -d . <Return>**

The following packages are available:

1 SANYupsd SANUPS SOFTWARE (sparc) 3.0.0

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/sparc/solaris_10>

SANUPS SOFTWARE (sparc) 3.0.0
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 guitool included in this package be installed [y/n] **y**

> If you want to install the GUI tools, 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.
3 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

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.＞

**<About service auto start>**
If SANUPS SOFTWARE is installed in Solaris 10 or Solaris 11, the service automatically starts during installer operation.
After installation, restarting the computer to start the service is not required.

### 3.2.3 Installing SANUPS SOFTWARE (Solaris8 and Solaris9)

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 3.0.0".

**# pkgadd -d . <Return>**

The following packages are available:

1 SANYupsd SANUPS SOFTWARE (sparc) 3.0.0

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) 3.0.0
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.＞

### 3.2.4 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 "4. Setting up SANUPS SOFTWARE" and then register the UPS.

## 3.3 AIX

### 3.3.1 Starting the install program

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

(2) Mount the Installation CD. (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) From the use OS and patch level, move to the appropriate directory. Please confirm the directory name from the table below.

**# cd /mnt/aix/<directry_name> <Return>**

| | |
|---|---|
| **directry_name** | Check the OS corresponding from “1.1.3 AIX” - ”(3) Support for IPv6 communications” |
| **ss3v6** | If applicable to “OS versions that support communication using IPv4/IPv6 addresses”, move to the left of the directory. |
| **ss3v4** | If applicable to “OS versions that support IPv4 addresses only”, move to the left of the directory. |

(4) Run the install program.

The directory that you moved to in step (3) contains the install program.
Run the install program and then install the package.
The following Section, "3.3.2 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 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".

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

:

Install Completed.

### 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 "4. Setting up SANUPS SOFTWARE" and then register the UPS.

## 3.4 Linux

### 3.4.1 Starting the install program

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

(2) Mount the Installation CD.
If the Installation CD 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 Installation CD 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>**

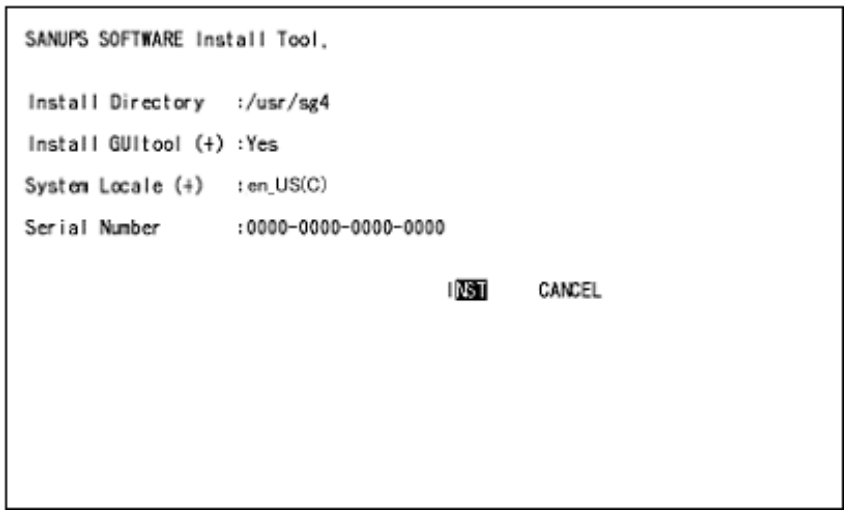
·**64 bit OS(Itanium)**

**# cd /mnt/cdrom/linux_ia64 <Return>**

(4) Start the install program.

**# ./install <Return>**

The following screen is displayed.



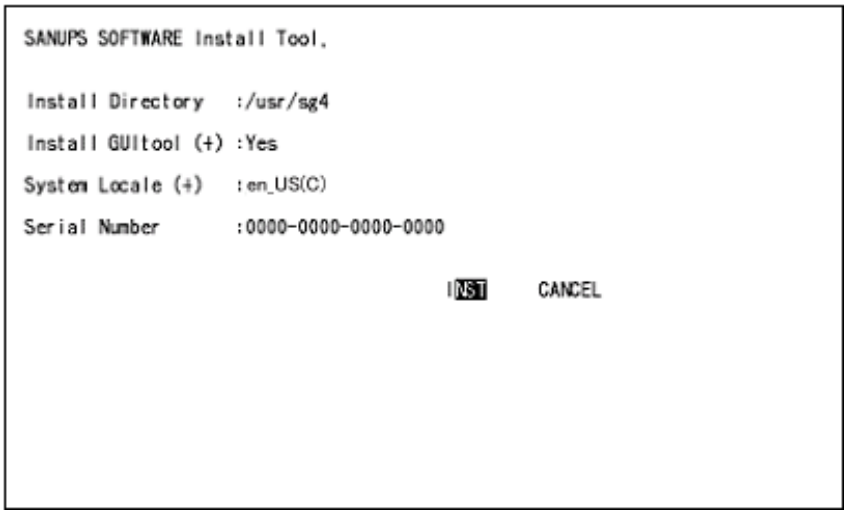

(Note) If **SANUPS SOFTWARE** is already installed and running, the install program does not function. If you want to reinstall **SANUPS SOFTWARE**, uninstall it first, and then reinstall.

### 3.4.2 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) Enter an install directory. (Default directory: **/usr/sg4**)
Enter a directory to install **SANUPS SOFTWARE**.
If the entered 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 GUI tools.
If you do not want to run GUI 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: due to the system language of your computer)

Select a locale suitable for the system environment.

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

Select **EUC-JP**, **UTF-8**, or **en-US**.

(Pressing the space bar toggles locale.)

| |
|---|
| English version is installed when 'en_ US (C)' is chosen.<br>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.

### 3.4.3 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 4, "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 |
|---|---|---|
| **Server connection with UPS** | **4.1.1** | ***1** |
| **Client connection with UPS** | **4.1.2** | ***2** |
| **Network connection with UPS** | **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 (the LAN interface card is 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 invalid.

### 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).

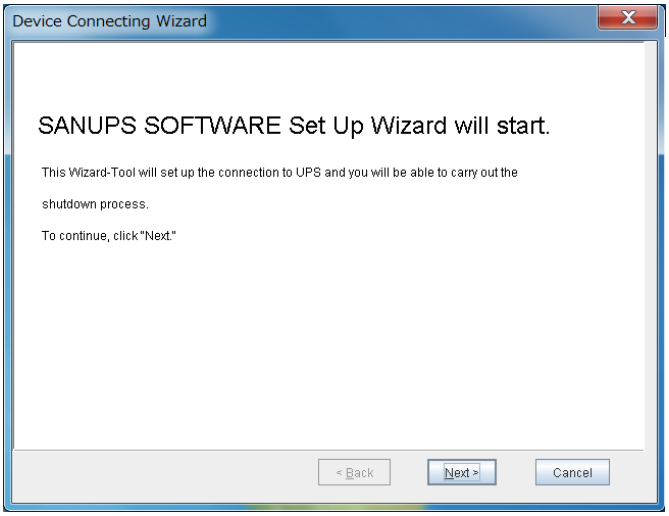
・If the OS is **Windows**

From the [Start] button on task bar, select [All Programs] – [UPS control system] – [SANUPS SOFTWARE].

> **< 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**

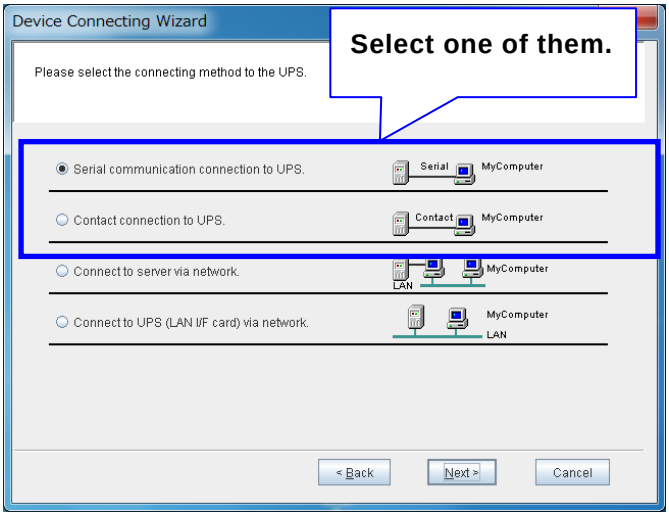
Move to the directory where **SANUPS SOFTWARE** is installed, and then execute **“./sg4 0”.**




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

Click the **Next** button to move to the next screen (Select 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.

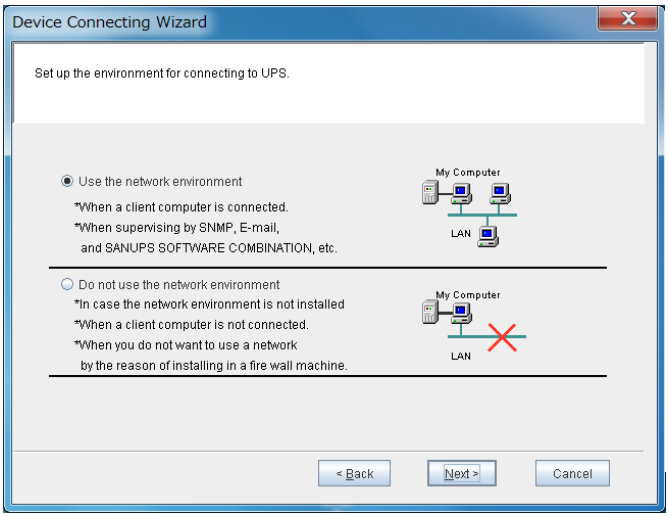
Click the **Next** button to move to the next screen (Select a UPS environment to use).

| Connection Method | Description |
|---|---|
| **Serial communication connection to UPS** | Use this method for UPS with serial interface or if a serial interface card is installed in the UPS. |
| **Contact connection to UPS** | 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. |

**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

（C）Select a UPS environment to use.



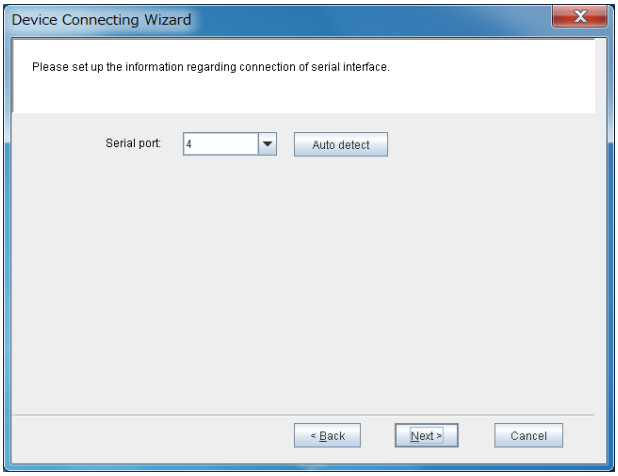

Select the environment that is used by the computer.
(See the following table for the selection.)

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

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

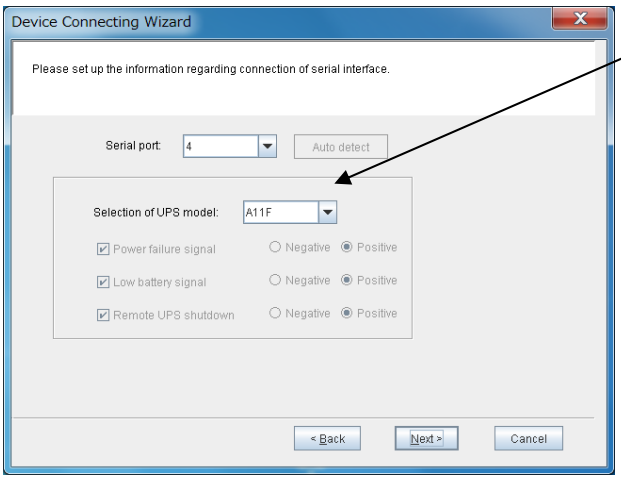
(D) Set up serial cable connection.

(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 (Enter UPS account information).

(b) if contact connection is used



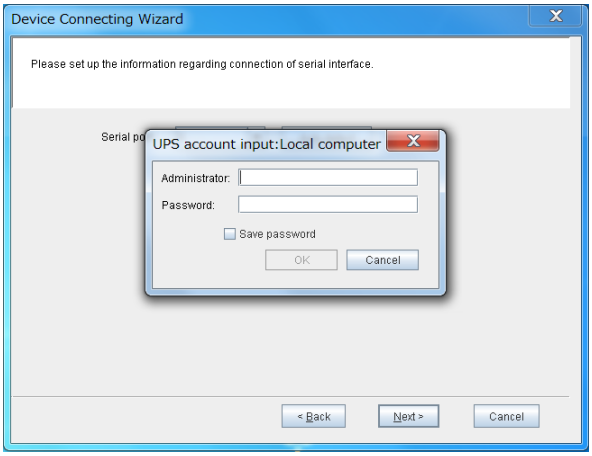

From the **[Selection of UPS model]** drop-down list, select the type of UPS to connect. (A signal setting appropriate for the selected UPS is specified automatically.).
Click the **Next** button to move to the next screen (Enter UPS account information).

* 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.

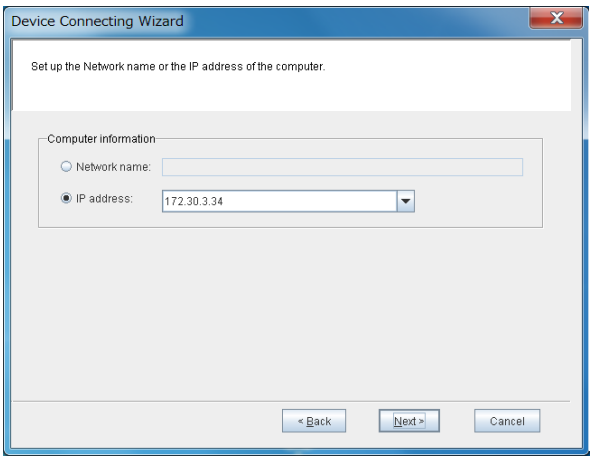
（E） Enter the UPS account information.




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 (Enter information about the computer (2)).

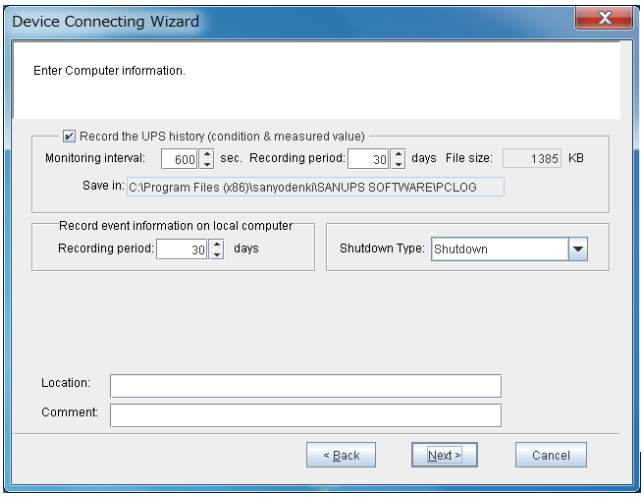
**About the displayed IP addresses**

If the computer is supported in an IPv6 environment (**SANUPS SOFTWARE** IPv6 supported OS), a list of IPv4/IPv6 addresses enabled in the computer's network settings are displayed.
If another computer is connected as a “client version”, select an IP address that supports connection with that computer.

**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

（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 the User Guide to change settings.

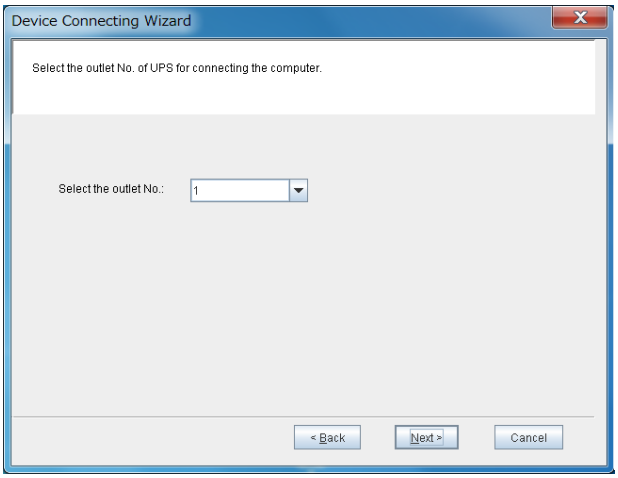
* Types of shutdown and how to use them

| 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 **ACPI [Advanced Configuration and Power Interface]**.) |
| **Suspend** | Suspend the computer. ( If your **Windows** computer supports the "Suspend".)<br>Do not use this shutdown type when you perform scheduled operation.<br>If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored. |

**< Information >**
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 power distribution control and the serial cable connection setting is **[Serial communication connection to UPS]**.
If the UPS does not have power distribution control 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.

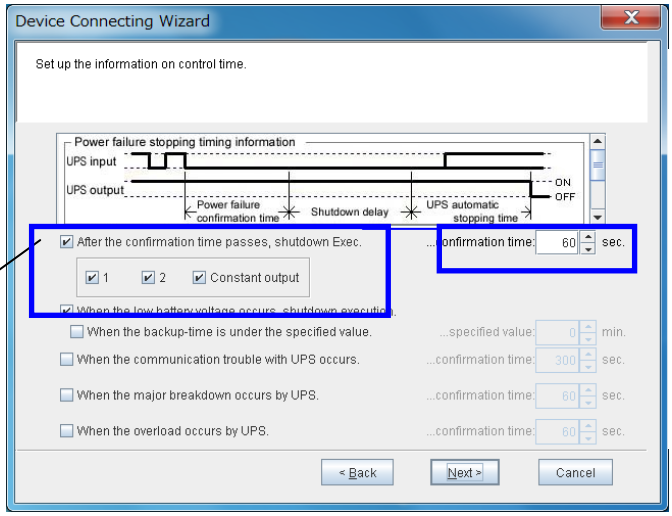



Select an output outlet number for the UPS connected to the computer.

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

**For auto start upon restoration of power and schedule control, do not connect the computer to a “Constant output” outlet.**

## (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（Set 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.

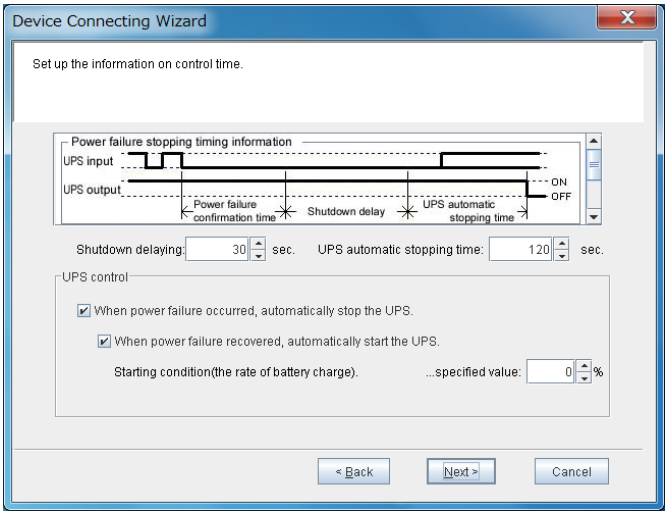
- **If the check box of a output number is cleared**

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.

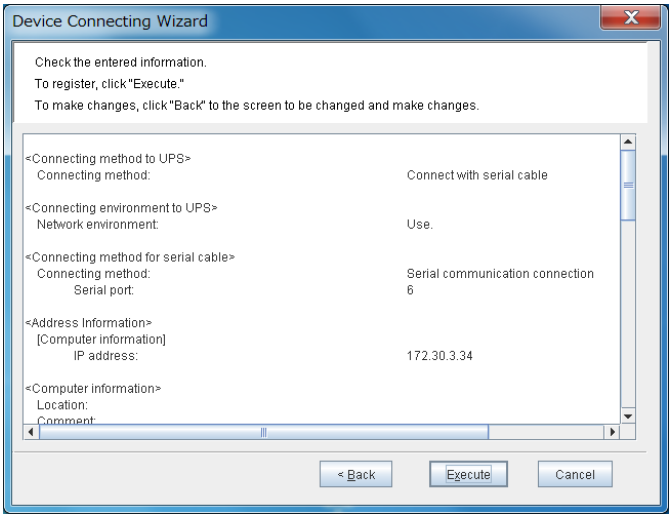
## (J) Set up the information on UPS control time (2)




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 (Check the entered information).

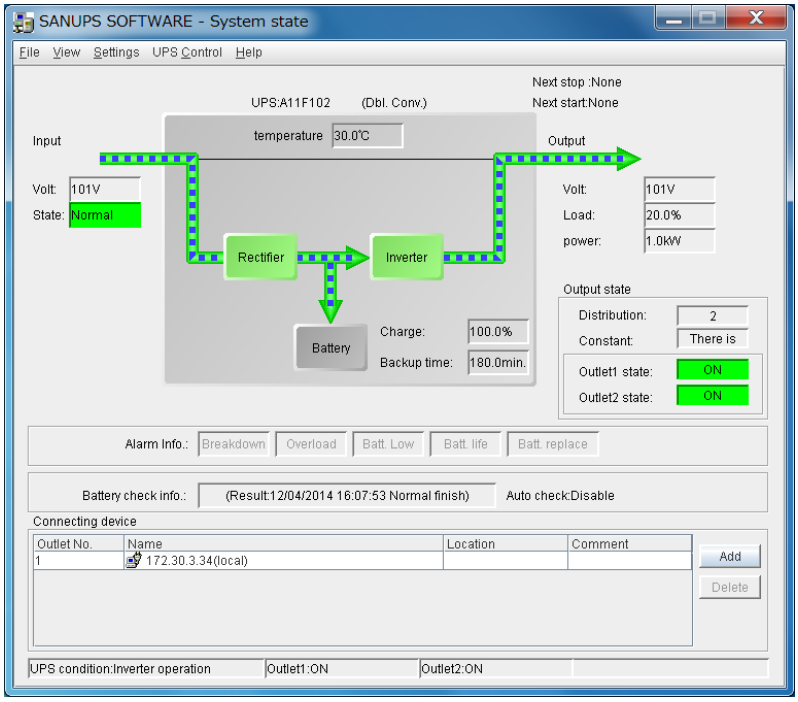
## (K) Check the entered information




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.

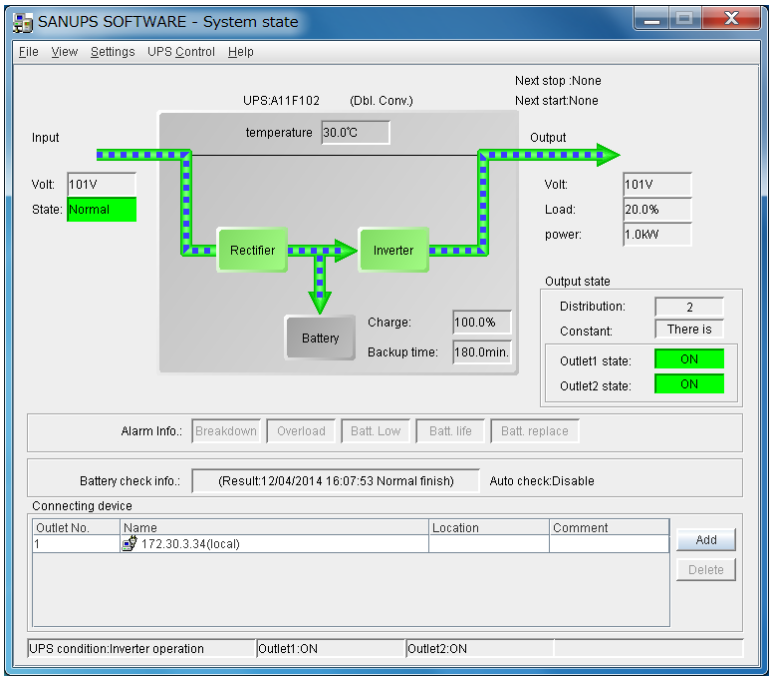
If you want to change any information, click the **Back** button to return to the appropriate screen.

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




When configuration using the setup wizard finishes, the **SANUPS SOFTWARE** main screen (System state screen) is displayed.

（L） Check the connection of the local computer




The local computer is displayed in “Connecting device”.

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

（M）Check the UPS connection

[1] Generate a pseudo power failure by turning off the input of the UPS.

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

[3] After the message appears, immediately perform recovery from the pseudo 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).

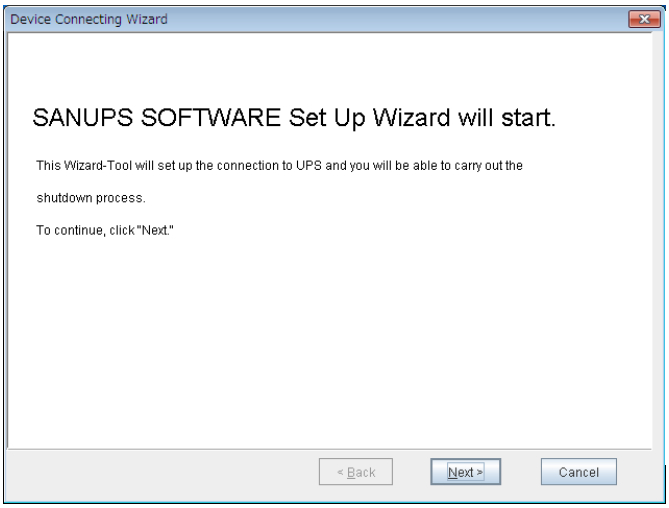
・If the OS is **Windows**

From the [Start] button on task bar, select [All Programs] – [SANUPS SOFTWARE] – [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**

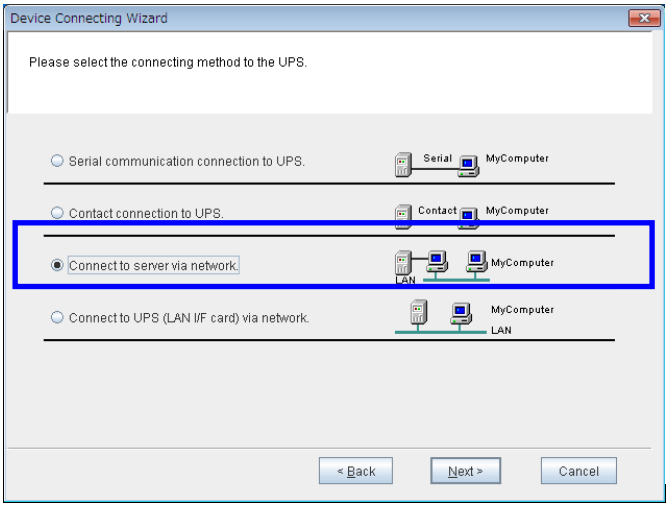
Move to the directory where **SANUPS SOFTWARE** is installed, and then execute **“./sg4 0”.**




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

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

（B）Select a UPS connection method.



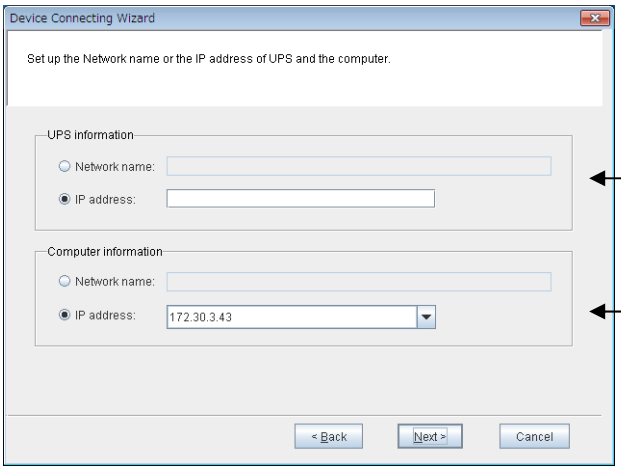

Select the **"Connect to server via network"** option.

Click the **Next** button to move to the next screen (Set up the network).

**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

（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.
Enter the name of the network connected to the server computer or select an IP address.

| Parameter | Description |
|---|---|
| **UPS information** | Specify the network information of the server computer.<br>Enter a network name or IP address. (*1) |
| **Computer information** | Specify the network information of the local computer.<br>Enter a network name or IP address. (*1) |

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

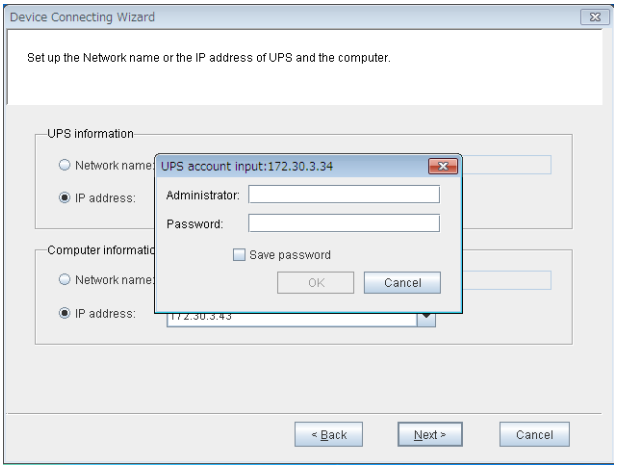
**About the displayed IP addresses (Computer information)**

If the computer is supported in an IPv6 environment (**SANUPS SOFTWARE** IPv6 supported OS), a list of IPv4/IPv6 addresses enabled in the computer's network settings are displayed.
Select an IP address that supports connection with the server computer.

**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

（D）Enter the UPS account information

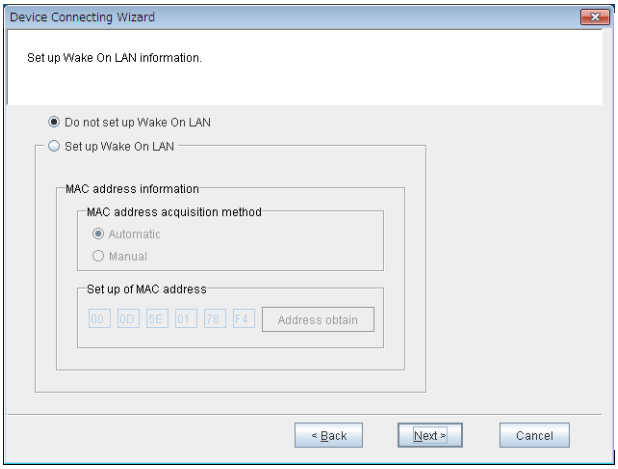



Enter account information of the UPS administrator.
Use the following default values for the input.
Administrator**: upsadmin**
Password：**UpsAdmin**(Note1)
Then, click the **OK** button**.**
After user authentication is performed, proceed to the next screen.

(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.



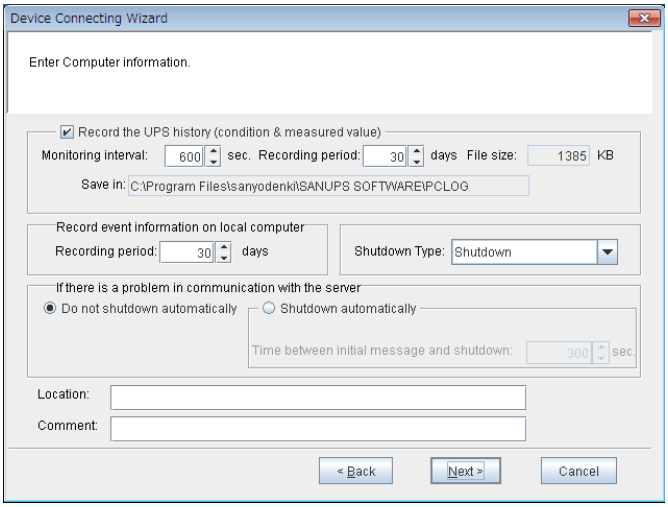

Set up the Wake On LAN function. (If you do not know the computer environment, select the **Do not set up Wake On LAN** option. Regardless of this setting, the operation of the UPS management system is not affected.)
Click the **Next** button to move to the next screen. (Eenter the computer information).

**<Information>**

After complete set up, settings information can be changed of Settings screen.

Please refer to “6. Explanation of Functions” of the User Guide to change settings.

### (F) Enter the computer information




On this screen, specify how to record the UPS history, shutdown type, location, and other 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 **ACPI [Advanced Configuration and Power Interface]**.) |
| **Suspend** | Suspend the computer. ( If your **Windows** computer supports the "Suspend".)<br>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. |

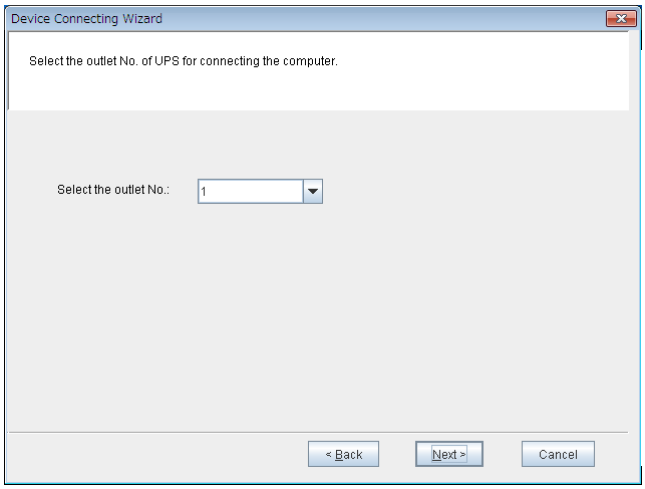
**<Information>**

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 is displayed when the UPS has power distribution control and the serial cable connection setting of the **SANUPS SOFTWARE** server version is **"Serial communication connection to UPS"**.

If the UPS does not have power distribution control 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.

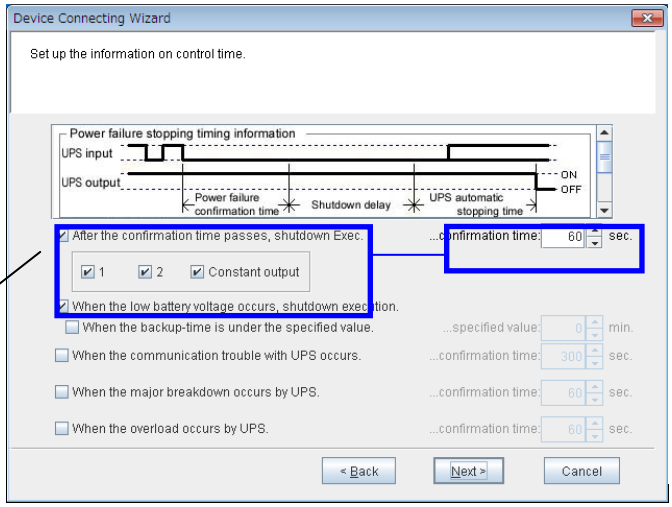



Select an output outlet number for the UPS connected to the computer.

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

**For auto start upon restoration of power and schedule control, do not connect the computer to a "Constant output" outlet.**

## （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（Set 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.

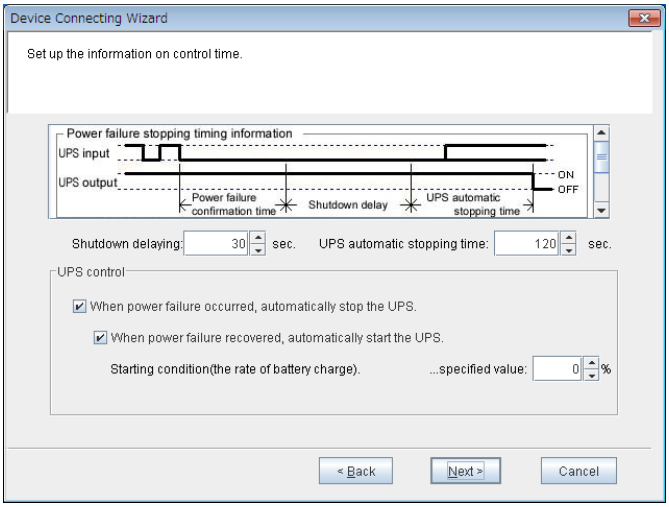
- **If the check box of a output number is cleared**

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.

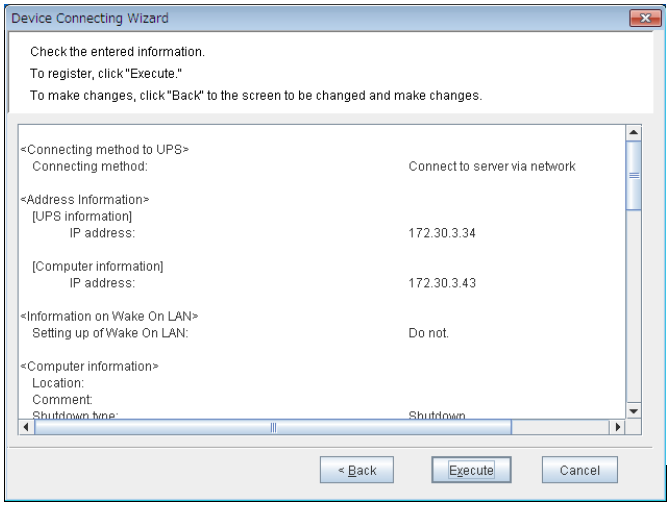
(l) Set up the information on UPS control time (2)




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 (Check the entered information).

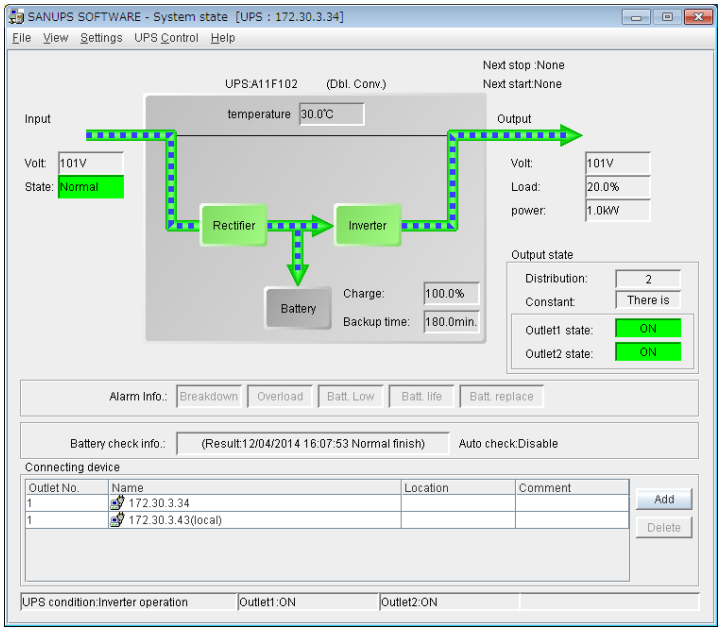
## （J）Check the entered information




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.

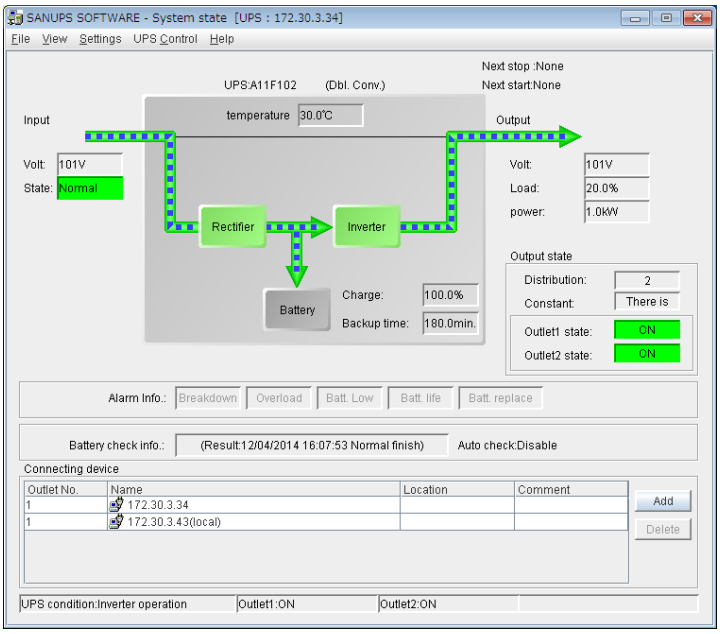
If you want to change any information, click the **Back** button to return to the appropriate screen.

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




When configuration using the setup wizard finishes, the **SANUPS SOFTWARE** main screen (System state screen) is displayed.

（K）Check the connection of the local computer




The local computer is displayed in “Connecting device”.

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

（L）Check the UPS connection

[1] Generate a pseudo power failure by turning off the input of the UPS.

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

[3] After the message appears, immediately perform recovery from the pseudo 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 configured correctly?

(There is a description of the Windows and Linux firewall set to "Appendix".)

**<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

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

**Before setting up - 1**

The UPS (LAN interface card) must be set to an IP address matching the usage environment. Finish setting the IP address before beginning the setup procedure.
(For details about configuration, refer to the Instruction Manual or User Guide of the LAN interface card.)

**Before setting up - 2**

When using **Windows Server 2012**, if connected to a network using a LAN interface card that does not support IPv6, refer to “Precautions when connecting a network to a LAN interface card from **Windows Server 2012**” in “Appendix A Precautions for using Windows.”

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

・If the OS is **Windows**

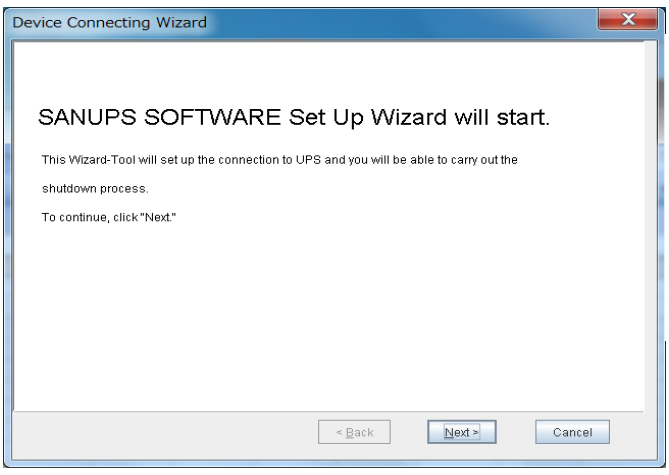
From the [Start] button on task bar, select [Programs] – [SANUPS SOFTWARE] – [SANUPS SOFTWARE].

**< 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**

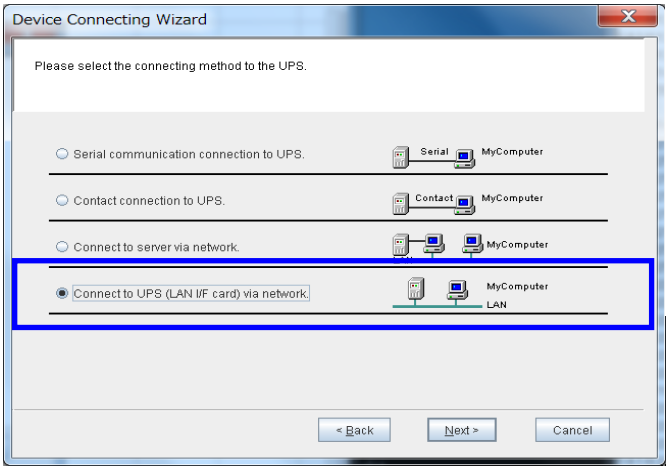
Move to the directory **where SANUPS SOFTWARE** is installed, and then execute **“./sg4 0”.**




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

Click the **Next** button to move to the next screen (Select a UPS connection method)

（B） Select a UPS connection method



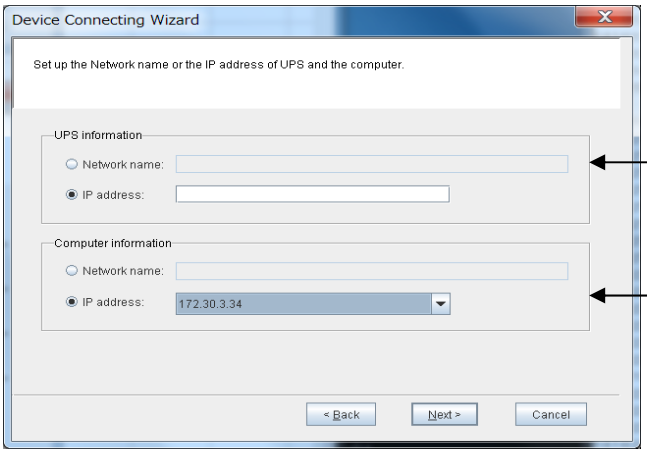

Select the **[Connect to UPS (LAN I/F card) via network]** option.

Click the **Next** button to move to the next screen (Set up the network).

**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

（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.
Enter the name of the network connected to the LAN interface card or select an IP address.

| 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]**.

**About the displayed IP addresses (Computer information)**

If the computer is supported in an IPv6 environment (**SANUPS SOFTWARE** IPv6 supported OS), a list of IPv4/IPv6 addresses enabled in the computer's network settings are displayed.
Select an IP address that supports connection with the LAN interface card.

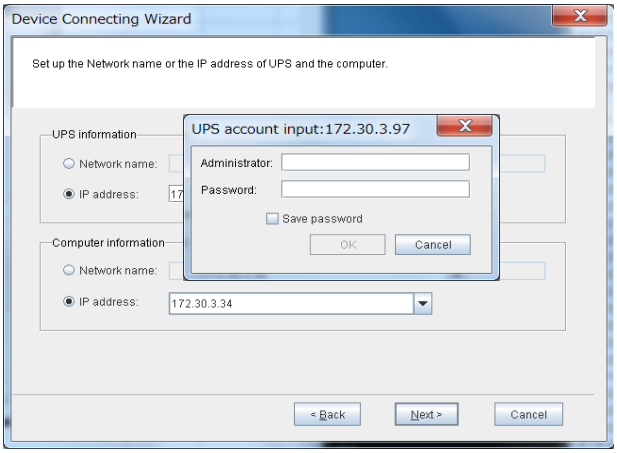
**Setup precautions**

These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

**Link local address (IPv6) usage for UPS Information**

The link local address set for the LAN interface card is the address specific to the LAN interface card. When replacing the LAN interface card due to malfunctions etc., a new address is assigned to the link local address. When connecting **SANUPS SOFTWARE**, use a fixed IP address.

（D）Enter the UPS account information

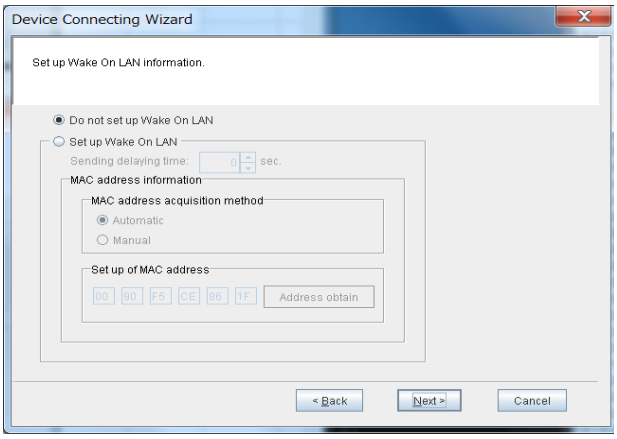



Enter account information of the UPS administrator.
Use the following default values for the input.
Administrator**: upsadmin**
Password：**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

（E）Set up Wake On LAN

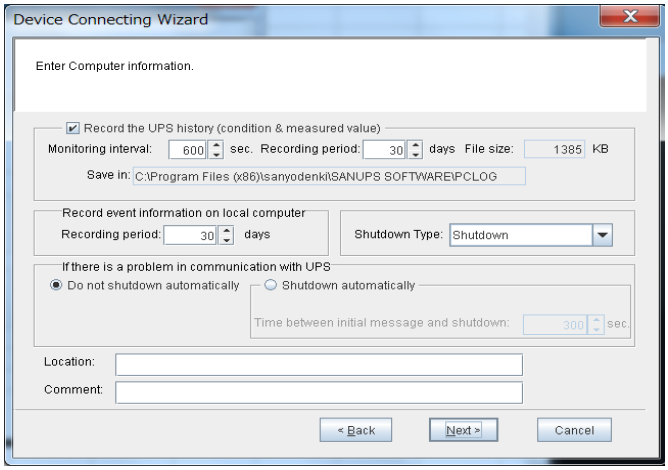
If the computer supports the Wake On LAN function, after power is supplied from the UPS, the power of the computer can be turned on automatically.




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. (Enter the computer information).

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

（F）Enter the computer information




On this screen, specify how to record the UPS history, shutdown type, location, and other 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.

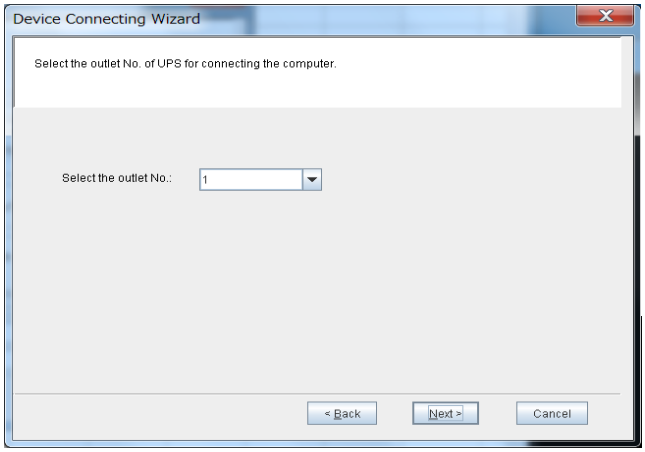
* Types of shutdown and how to use them

| 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 **ACPI [Advanced Configuration and Power Interface]**.) |
| **Suspend** | Suspend the computer. (If your **Windows** computer supports the "Suspend".)<br>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. |

**<Information>**
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 has power distribution control. If the UPS with LAN interface card does not have power distribution control or if it is connected to LAN ADAPTER, this screen does not appears. In this case, the outlet becomes fixed at [1] automatically.

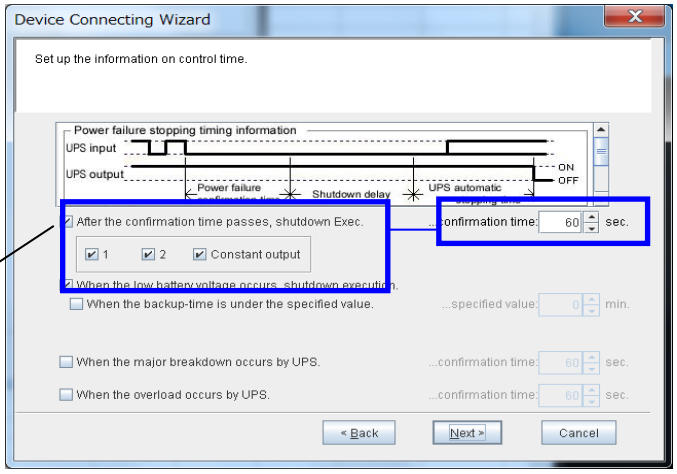



Select an output outlet number for the UPS connected to the computer.

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（Set 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.

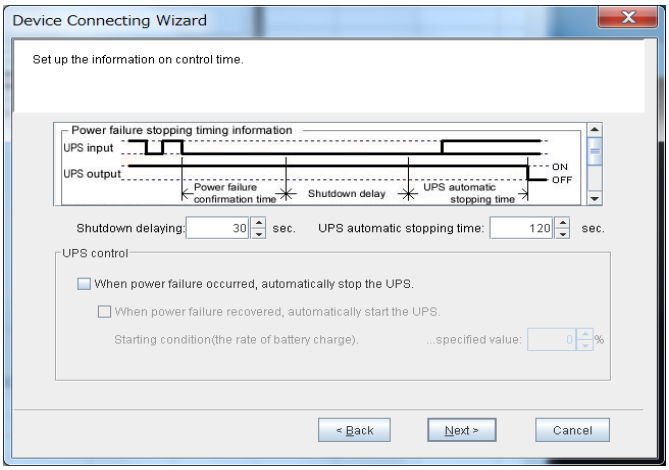
- **If the check box of a output number is cleared**

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.

(l) 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.

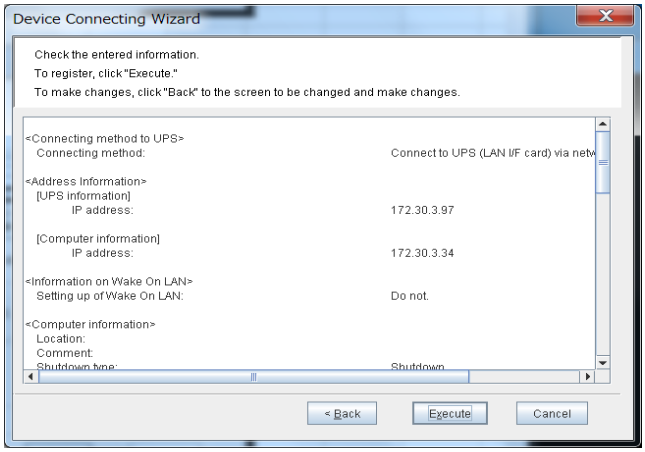
After specifying the information, click the **Next** button to move to the next screen (Check the entered information).

**<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.

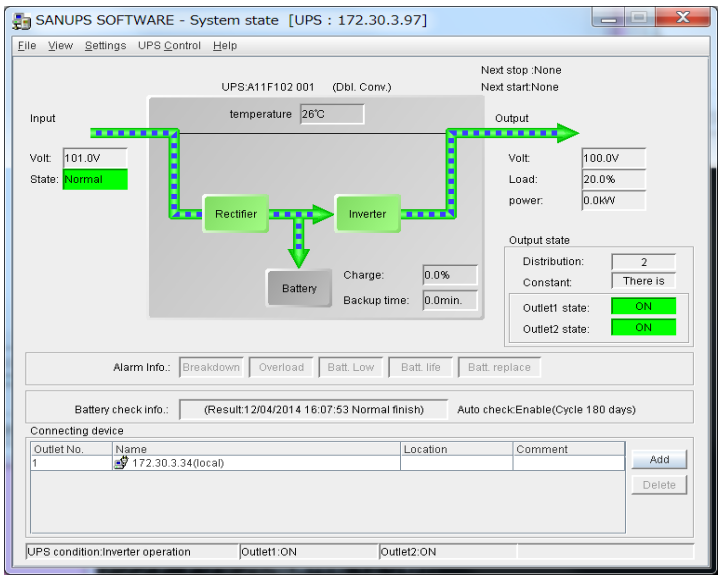
## （J）Check the entered information




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.

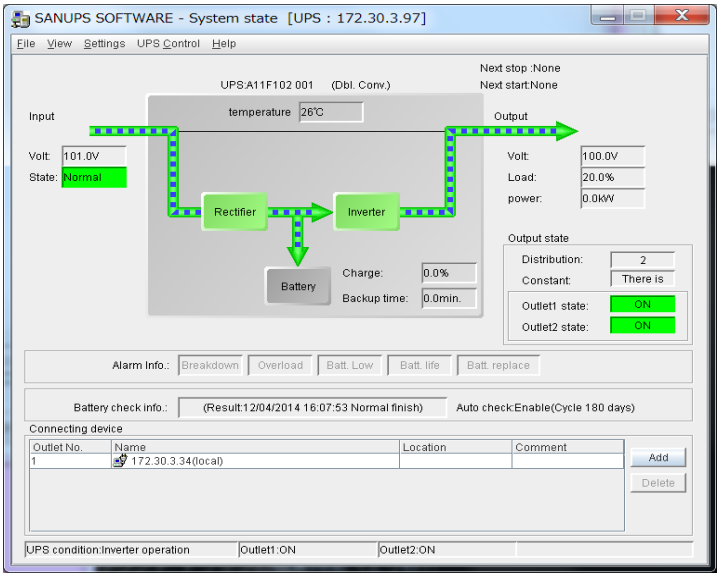
If you want to change any information, click the **Back** button to return to the appropriate screen.

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




When configuration using the setup wizard finishes, the **SANUPS SOFTWARE** main screen (System state screen) is displayed.

（K） Check the connection of the local computer




The local computer is displayed in “Connecting device”.

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

（L） Check the UPS connection

[1] Generate a pseudo power failure by turning off the input of the UPS.

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

[3] After the message appears, immediately perform recovery from the pseudo power failure.

| |
|---|
| If no power failure message appears on the screen after you perform simulated power failure, check the following.<br>・ Is the UPS connected correctly using a serial cable?<br>・ Is the **SANUPS SOFTWARE** service running?<br>(For information on operation of the service, refer to the "Appendix A Operation of the service" section in the User Guide.)<br>• Is the firewall configured correctly?<br>(There is a description of the Windows and Linux firewall set to "Appendix".) |

| |
|---|
| <Information><br>Shutdowm confirmation by this computer alone can be done, by using shutdown test function. |

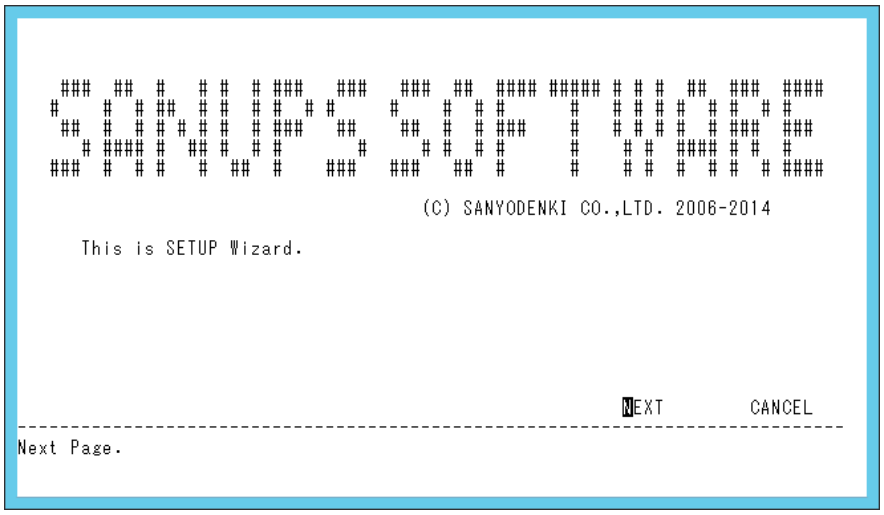
## 4.2 Using the SETUP Wizard (CUI Setup Tool)

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)

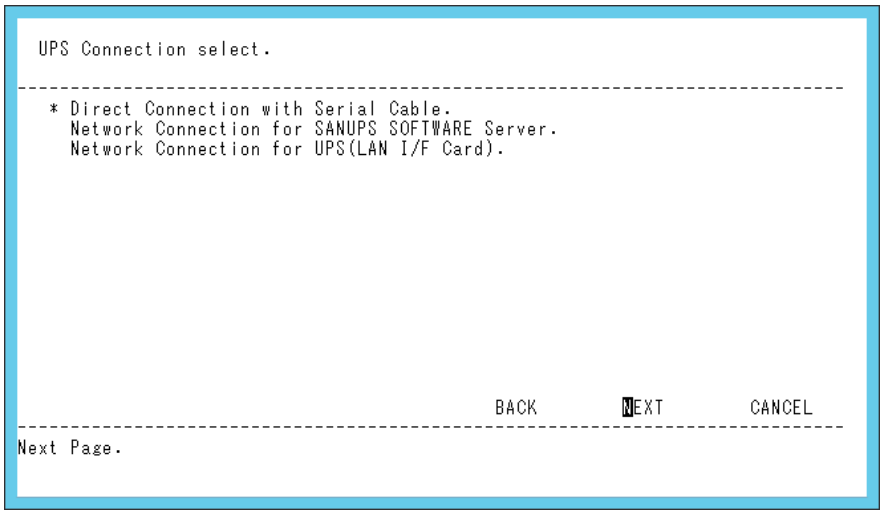
（B）The SETUP Wizard starts. Move the cursor to **[NEXT]** and press the space bar to accept it and then move to the next screen. (Use the arrow keys to move the cursor.)




(*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

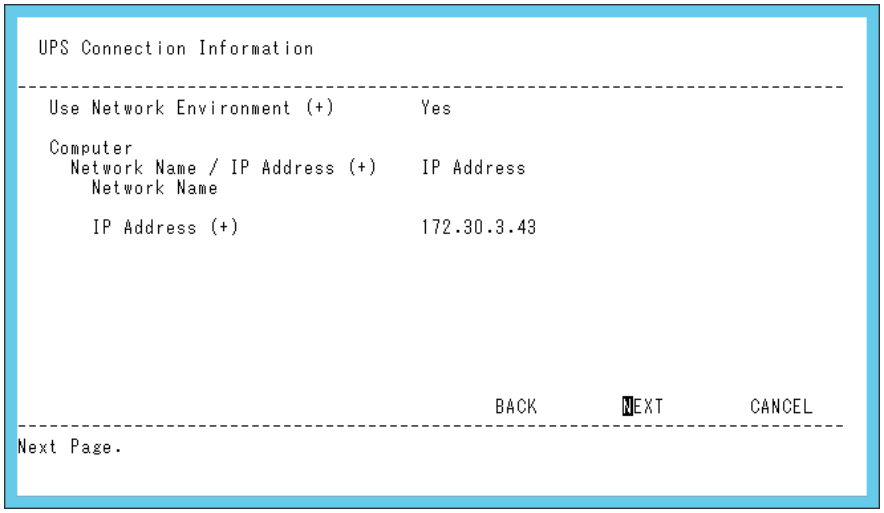
→ **(F)**

**<Information>**
This screen is displayed at initial setup only.

（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.

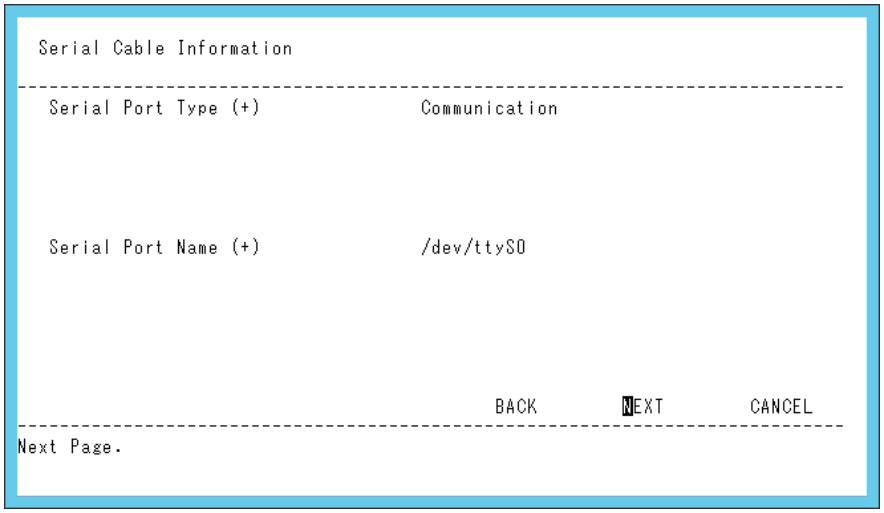
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)




| 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.)

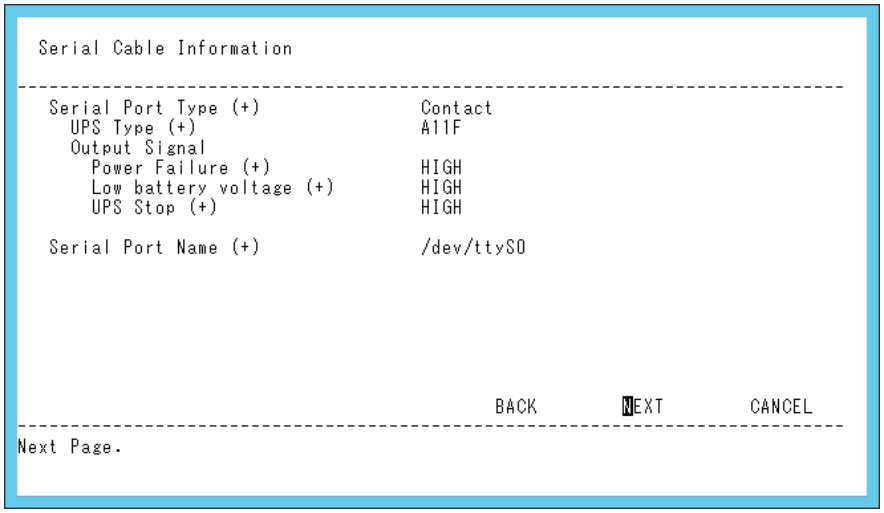
**When performing serial communication with the UPS**




| 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) |

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

**When performing contact connection with the UPS**

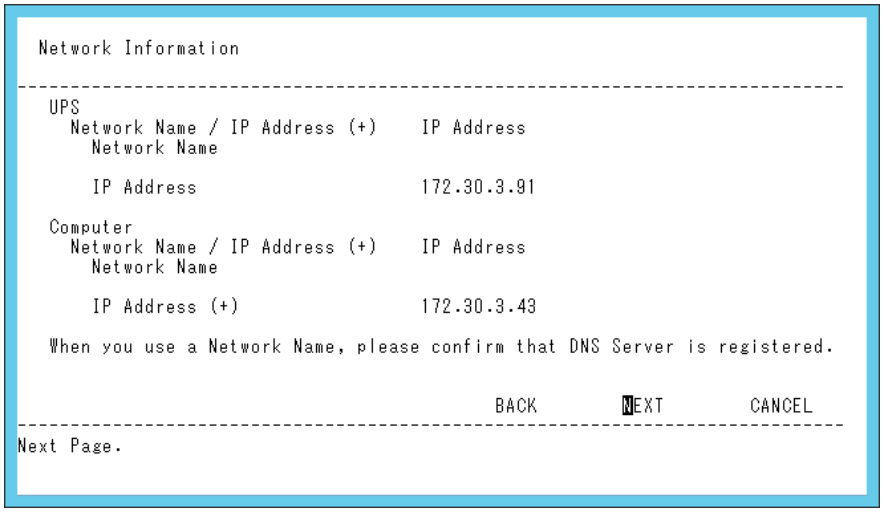



| Setting | Description |
|---|---|
| **Serial Port Type** | Specify UPS connection type: serial (**Communication**) or contact connection (**Contact**). |
| **UPS Type** | Specify the type of UPS (appears when **[Contact]** is selected) *1 |
| **Out Put Signal** | (Appears when **[Contact]** is selected) |
| **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 |
|---|---|
| **UPS** | |
| **Network Name / IP Address.** | Select a network setting method. |
| **Network Name** | Enter the network name. |
| **IP Address*** | Enter a IP address. |
| **Computer** | |
| **Network Name / IP Address.** | Select a network setting method. |
| **Network Name** | Enter the network name. |
| **IP Address** | If the computer has multiple IP addresses, select an IP address for communication with the UPS. |

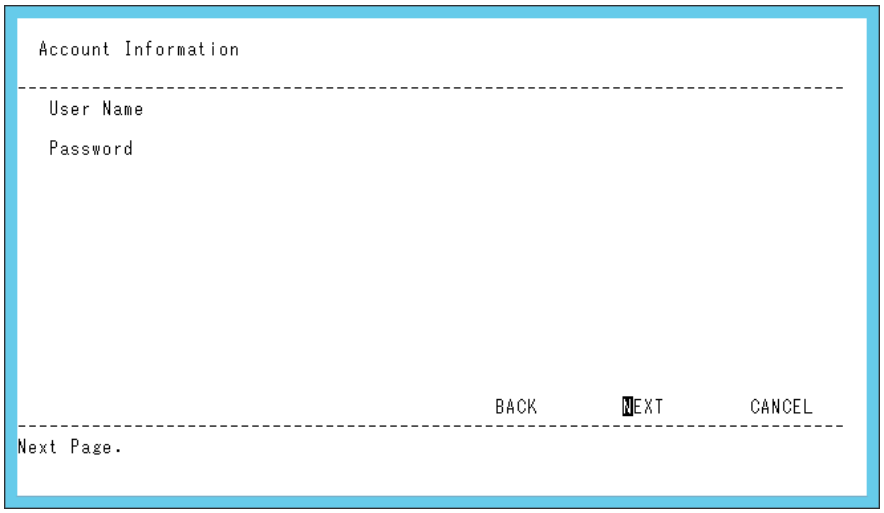
**< Note >**
If network name is used, it is necessary that the specified network name can be converted to an IP address using DNS server, etc.

**<Information>**
This screen is displayed at initial setup only.

**(*) IP addresses (IPv6) when using a LAN interface card**

When using a LAN interface card for IPv6, the link local address set for the LAN interface card is the address specific to the LAN interface card. When replacing the LAN interface card, a new address is assigned to the link local address. When connecting **SANUPS SOFTWARE**, use a fixed IP address.

（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.<br>(The input is not case sensitive.) |
| **Password** | Enter a password.<br>(The input is case sensitive.) |

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

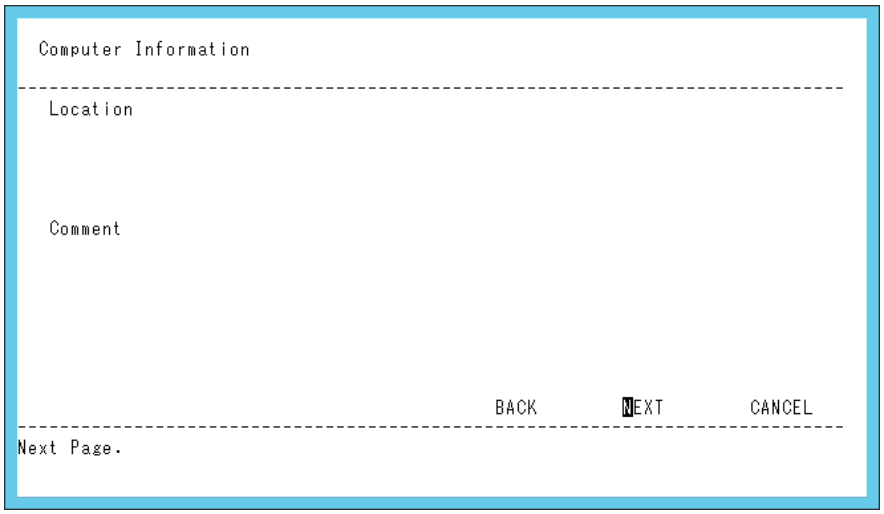
（H）Set up Wake On LAN. Select the Wake On LAN execution conditions and enter a MAC address. Move the cursor to **[NEXT]** and then press the space bar to accept it.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be used to select the setup content.)




| 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.<br>(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. |

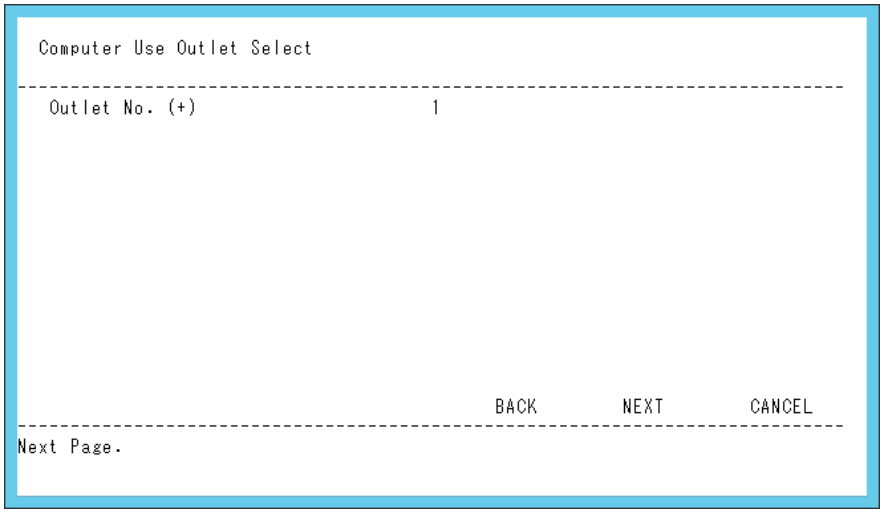
(*) This setting value will be available to set when the LAN interface card is used. However, the LAN interface card which is unsupported this function is unavailable.

(l) 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). |

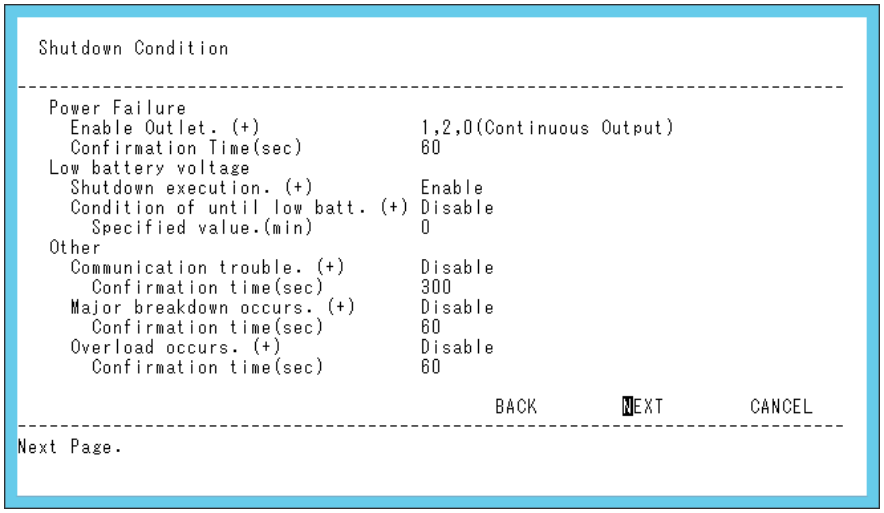
(J) Specify the number of the outlet that supplies power to the computer. After checking the information, move the cursor to **[NEXT]** and then press the space bar to accept it. For UPS with only one outlet, this setup is not performed. (The setup screen does not appear.)
(Use the arrow keys to move 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.<br>[1] outlet 1<br>[2] outlet 2<br>[0 (Continuous Output)] Continuous output |

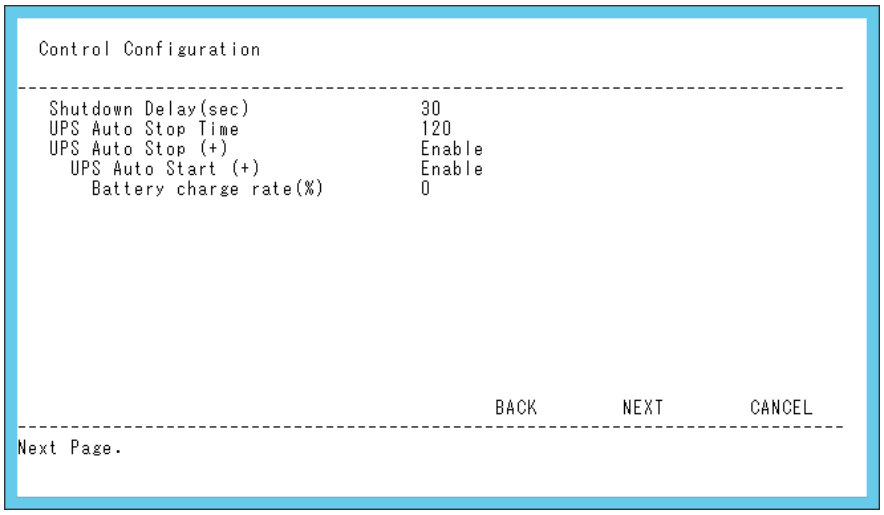
**While [Continuous output] allows connection of peripheral devices that do not require shutdown, do not connect to the computer using [Continuous output].**

（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.)<br>If the value is set to 0%, when the power is recovered, the UPS output is turned on immediately. |

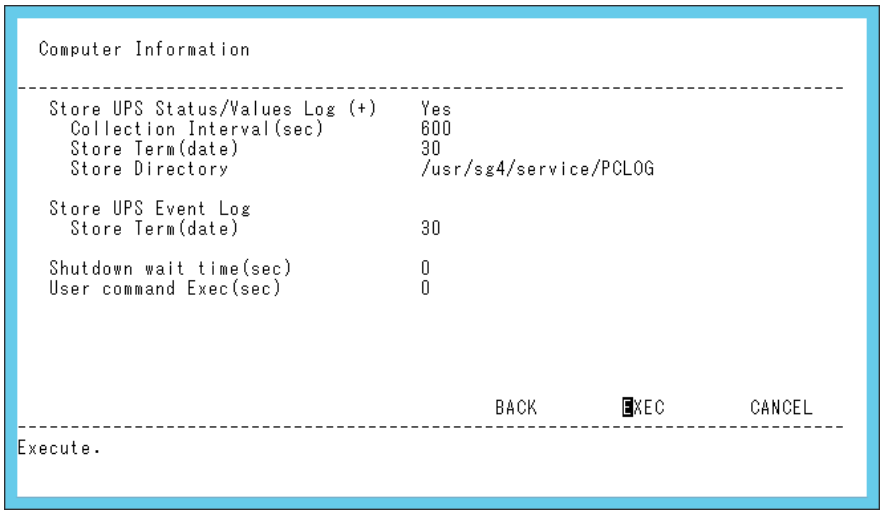
**< Information >**

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

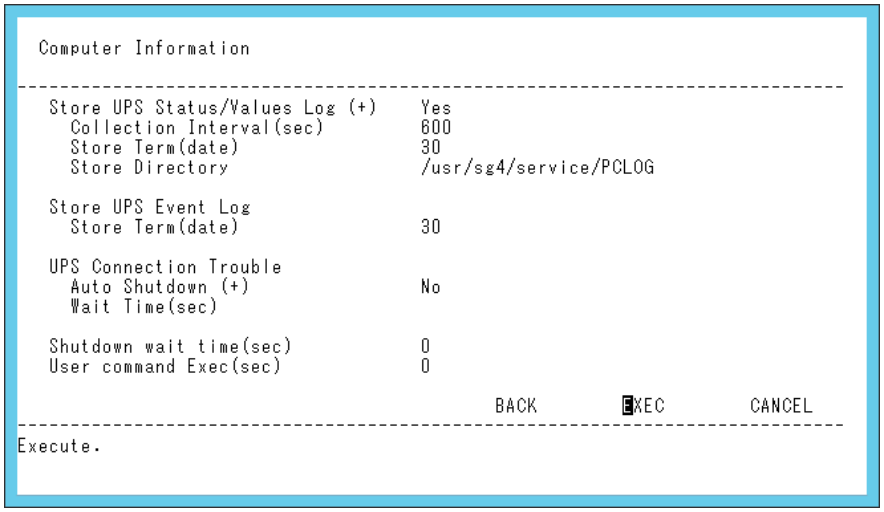
（M） Specify how to store the status/value log of the UPS. After checking the content of the setup, move the cursor to **[EXEC]** and then press the space bar to accept it.
The setup is finished.
(Use the arrow keys to move the cursor. A selection with (+) after it indicates that the space bar can be 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”.<br>(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** | |
| **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. |
| **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 Panel].
[2] Select the following menu in [Control Panel].
- [Add or Remove Programs] (For **Windows XP** or **Windows Server 2003**)
- [Programs and Features] **(**For **Windows Vista** or since **Windows Server 2008**)

[3] Select **[SANUPS SOFTWARE]** from the application list.
[4] Select [Change] on the screen or right-click the mouse and select [Change] from the context menu.
[5] The installer starts. On the [Program Maintenance] screen, select [Remove] to uninstall the program.

●Uninstall the **SANUPS SOFTWARE** program (For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**)
[1] Execute the followinf uninstall command using commamd line.

Example to execute command.

```
C:\> wmic product where name="SANUPS SOFTWARE" call uninstall
```

## 6.2 Solaris 10 or later

●Stop the **SANUPS SOFTWARE** service program

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

(permanently stop the **SANUPS SOFTWARE** service program)

```
# svcadm  disable sg4lite  〈Return〉
```

(temporarily stop the **SANUPS SOFTWARE** service program)

```
# svcadm  disable -t sg4lite  〈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) 3.0.0

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 Solaris 8 or Solaris 9

●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) 3.0.0

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.

## 6.4 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. 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 Windows 10**:
**Windows 10 Pro**, **Windows 10 Enterprise** or **Windows 10 Education** 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.
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.

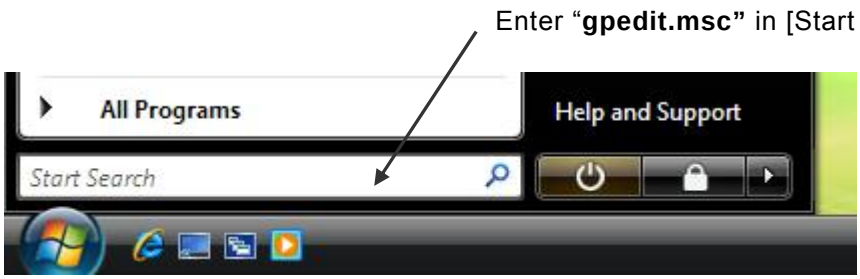
2. When using the OS since **Windows XP**, after automatic shutdown by UPS control software, the computer might be turned off automatically without displaying the following message. In this case the computer might not start automatically even if power is supplied from UPS.

“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 window 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.

<Procedures>For **Windows 10 Pro / Enterprise / Education.**

[1]Enter "**Edit Group Policy**" in Search Box on the task bar. Click ［Edit Group Policy］
[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 10 Pro / Enterprise / Education**, ［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.

**********

## 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］.
   For **Windows 10,** click on the Start button with the right mouse button. Select [Control Panel] from right click menus – [Administrative Tools] – [Windows Firewall with Advanced Security].

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.
   (If using IPv6 addresses, also enable the rules in [File and Printer Sharing (Echo Request - ICMPv6 In)].)

   When using **Windows 10**, also enable the rules in [Virtual Machine Monitoring (Echo Request-ICMPv4-In)] in [Inbound Rules]. (If using IPv6 addresses, also enable the rules in [Virtual Machine Monitoring (Echo Request - ICMPv6 In)].)

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] or [Allow access] to add GUI tool (javaw) to [Exceptions] of Windows Firewall.

   Even if you do not set an exception on the [Windows Security Alert] screen, refer to steps 1 and 2 above and add the GUI tool (javaw) to the Windows firewall exceptions.
   Register “javaw.exe”, located in the JRE\bin folder of the **SANUPS SOFTWARE** installation folder, in the input rule.
   (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.)

**********

## Restrictions for using Windows 8, Windows Server 2012 or Windows 10

**********

**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.

You might not be able to show a pop-up message in the Tablet mode of **Windows 10**.
If you are used the Tablet mode, shutdown from **SANUPS SOFTWARE** will be performed without any problems too.

**********

## Precautions when connecting a network to a LAN interface card from Windows Server 2012

**********

The following issues may arise if using a LAN interface card that does not support IPv6 (existing product) in combination with Windows Server 2012. Use after checking the following items.
You can also register/configure a computer which has the ECN function enabled using **SANUPS SOFTWARE** (or **SANUPS SOFTWARE COMBINATION**) running on a computer which has the ECN function disabled.

ECN(*1) Capability is enabled as the default for **Windows Server 2012.**

(*1)ECN (Explicit Congestion Notification) is a congestion control function of TCP communications.

Network communications become significantly slower if you access the LAN interface card using the GUI tool when **ECN** is enabled on your Windows OS. Then , the GUI tool screen display become slower.
Check whether ECN is enabled as described in "(1) Checking configurations" and disable it if it is "enabled" as described in "(2) Disabling ECN" before accessing the LAN interface card from the GUI tool.
Enable it again when you do not need to access the LAN interface card as described in "(3) Enabling ECN".(*2)

（*2）You can also register/configure a computer which has the ECN function enabled using **SANUPS SOFTWARE** (or **SANUPS SOFTWARE COMBINATION**) running on a computer which has the ECN function disabled.

### (1) Checking configurations

- Log in as a user with administrator privileges and open the command prompt, and run the following command.

  **netsh interface tcp show global**

- Check the ECN configuration in the displayed TCP global parameter.
  ECN Capability: enabled/disabled
  Disable it if it is "enabled" as described under (2).
  No need to modify if already disabled.

### (2) Disabling ECN (*3)

Change the setting using one of the following methods when logged in as an administrator.

Method 1: Run “**ECN_DISABLE.BAT**” located in the **SANUPS SOFTWARE** installation folder.

Method 2: Open the command prompt, and run the following command.

**netsh interface tcp set global ecncapability=disabled**

**(3) Enabling ECN** (*3)

Change the setting using one of the following methods when logged in as an administrator.
Method 1: Run “ECN_ENABLE.BAT” located in the SANUPS SOFTWARE installation folder.
Method 2: Open the command prompt, and run the following command.

```
netsh interface tcp set global ecncapability=enabled
```

(*3)You do not need to restart the OS after changing the configuration.

**The shutdown operation functions normally in the event of a power failure, even when used with the ECN function enabled.**

**********

## 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.

# 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". (*2).

**SUSE Linux Enterprise Server 9**

(*2): "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 (iptables)

**********

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.

(In the case of IPv4)
**# service iptables stop**
**# chkconfig iptables off**

(In the case of IPv6)
**# service ip6tables stop**
**# chkconfig ip6tables 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" or "/etc/sysconfig/ip6tables" (for IPv6).
<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 Red Hat Enterprise Linux 7 (firewalld)

**********

From **Red Hat Enterprise Linux 7**, “firewalld” can be used as the firewall function.

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 commands.

(temporarily stop firewall)
```
# systemctl stop firewalld
#
```
(permanently stop firewall)
```
# systemctl disable firewalld
```

Can also be set from the configuration tool of the Firewall

Also, if you want to open a port individually, use the following kind of procedure.
(Example: Opening TCP port 31000 for receiving notifications. Restart firewalld after setting the port to open.)
```
# firewall-cmd --permanent --add-port=31000/tcp
# systemctl stop firewalld
# systemctl start firewalld
```

The ports used by **SANUPS SOFTWARE** are list in “Appendix E Protocols and Server Ports Used” in the User Guide for reference.
(For details about firewall commands, refer to the manuals for the OS.)

**********

## 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.

**********

## Starting the GUI Tool in a Red Hat Enterprise Linux 6.0 x64 Environment

**********

If using the x64 version of **Red Hat Enterprise Linux 6.0**, the GUI tool cannot be started by default. You can start the GUI tool by adding the following environment variable to the GUI tool startup script.

The configuration method is as follows.
Open the “sg4” file (script file), located in the **SANUPS SOFTWARE** installation directory, in an editor.
Add the following line to the end of the file.

```
export LD_BIND_NOW=1
```

**********

## Indication of message box

**********

When you are using CDE environment, message box will pop up with the occurrence of events such as power failure. (Setting is unncessary if you login by root account.)
In order to indicate the message box in an environment logged in as a general user, please conduct the following command from the terminal program such as the terminal emulater.

$ **xhost +**

# 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,<br>・On GUI tool, a communication trouble occurs and the connection settings to the UPS cannot be conducted.<br>・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.)**

**********

## Indication of message box

**********

When you are using CDE environment, message box will pop up with the occurrence of events such as power failure. (Setting is unncessary if you login by root account.)
In order to indicate the message box in an environment logged in as a general user, please conduct the following command from the terminal program such as the terminal emulater.

$ **xhost +**

**If use the Solaris11**

Under Solaris11, root will be allocated to the special user account called roles. Therefore, to display message box under root logged in, need to be enter “xhost +”.

# Appendix D About Using Silent Installation

SANUPS SOFTWARE Windows version supports silent installation.
SANUPS SOFTWARE can be installed, changed, and uninstalled using combinations of the following commands.

The following examples describe methods for silent installation.

**<Install>**

Example 1: The following command performs installation with the default settings.
(Use the serial number displayed on the installation CD case).

```
start /w Setup.exe /s /v" /qn ISX_SERIALNUM="XXXX-XXXX-XXXX-XXXX""
  [1]        [2]   [3][4] [4]            [5]
```

[1]：Runs Windows command
[2]：SANUPS SOFTWARE installer program
[3]：Specifies silent install option
[4]：Specifies character string to pass to msi (Microsoft Windows Installer)
[5]：Tells mis to not display UI (user interface)
[6]：Specifies serial number “XXXX-XXXX-XXXX-XXXX”
(Enter the serial number displayed on the installation CD case.)

Example 2: The following command performs installation with the language set to “English”.

```
start /w Setup.exe /s /L1033 /v" /qn ISX_SERIALNUM="XXXX-XXXX-XXXX-XXXX""
                        [1]
```

[1]：Specifies the language to use. The example above uses the English language ID. (Japanese is selected if the ID is omitted.)

Example 3: The following command performs installation in the specified directory.

```
start /w Setup.exe /s /v" /qn ISX_SERIALNUM="XXXX-XXXX-XXXX-XXXX" INSTALLDIR=\"C:\SS""
                                                                    [1]
```

[1]：Specifies the installation directory. The above example specifies the “C:\SS” directory. (The installation path is enclosed using \"".)

Example 4: The following command includes the application shutdown function.

```
start /w Setup.exe /s /v" APPSD=1 /qn ISX_SERIALNUM="XXXX-XXXX-XXXX-XXXX""
                          [1]
```

[1]：Specifies to also install the application shutdown function.

**<Change>**

Example 1: Add the application shutdown function (using installation CD)

```
start /w Setup.exe /s /v" /qn ADDLOCAL=APP_ShutDown"
                                        [1]
```

[1]：Add the application shutdown function. (The installation CD must be mounted.)

Example 2: Add the application shutdown function (without using installation CD)

```
start /w msiexec.exe /i {C2282023-58DC-4DE5-91B5-611B690291E1} /qn ADDLOCAL=APP_ShutDown
                     [1]              [2]
```

[1]：Installs or configures the product.

[2]：Uses the above code as the globally unique identifier (GUID) of the installer package.

**<Uninstall>**

Example: Uninstall SANUPS SOFTWARE.

```
wmic product where name="SANUPS SOFTWARE" call uninstall
```

* When you run this command from the command prompt, run the command prompt in "Run as administrator".