M0010493B

SANUPS

UPS Control System

SANUPS SOFTWARE

Install Guide

for Windows

SANYO DENKI

E

ENGLISH

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1. Introduction

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

1.1 Operating Environments

1.1.1 Hardware

CPU	: **x86/x64: Intel Pentium-compatible processor**
	(**PentiumIII**or higher recommended)
	Itanium: Itanium2 or higher processor
Memory	: 128 Mbytes or more (256 Mbytes or more recommended)
Disk capacity	: 120 Mbytes or more free space available
Display	: Resolution 800 × 600, 256 colors or more

1.1.2 Software

OS : **Windows 2000**

Professional / Server / Advanced Server

Windows XP

Professional / Home Edition
Professional x64 Edition

Windows Server 2003

Standard Edition / Enterprise Edition
Standard x64 Edition / Enterprise x64 Edition
Enterprise Edition for Itanium-based systems

Windows Server 2003 R2

Standard Edition / Enterprise Edition
Standard x64 Edition / Enterprise x64 Edition

Windows Vista

Business Edition / Ultimate Edition / Enterprise Edition
Business 64-bit Edition / Ultimate 64-bit Edition
Enterprise 64-bit Edition

Windows Server 2008 (*1)

Standard Edition / Enterprise Edition

Windows Web Server 2008 (*1)

Windows Server 2008 for Itanium-based Systems (*2)

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

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

<Starting OS automatically>

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

For Windows XP:

ServicePack 2 or later must be installed.

For Windows Server 2003:

ServicePack 1 or later must be installed.

For Windows 8:

Windows 8 Pro or Windows 8 Enterprise must be installed.

For OS other than above:

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

2. Before Installing SANUPS SOFTWARE

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

2.1 Checking the Operating Mode of the UPS

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

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

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

2.2 Checking the Communication with the UPS

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

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

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

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

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

2.3 Checking the Connection Method of a Computer

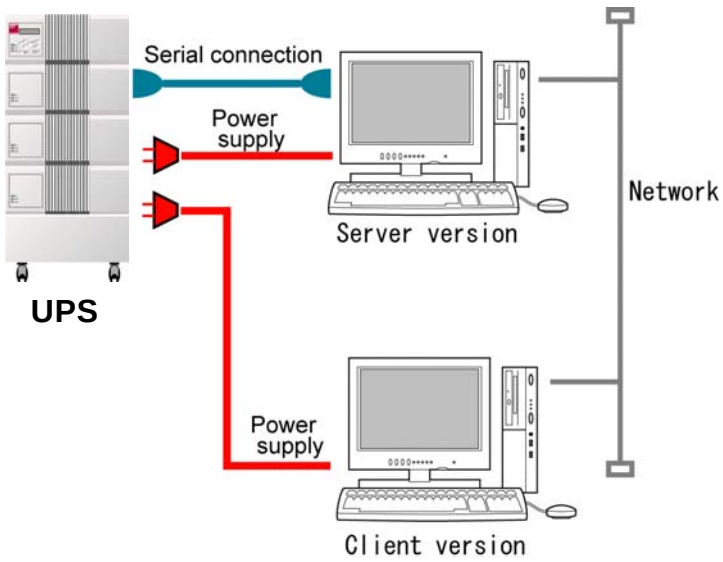
The method used to connect a computer to the UPS (direct serial connection with UPS or via LAN interface card) is specified during the setup operation after **SANUPS SOFTWARE** is installed. For this reason, it is necessary to decide, in advance, how the UPS is to be connected to a computer where **SANUPS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

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

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

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

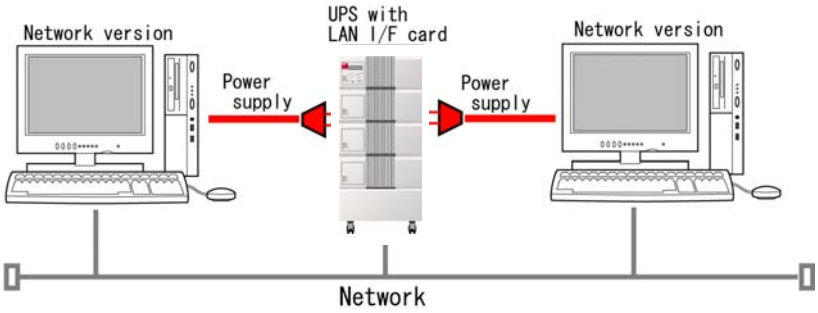
Using a serial cable to connect



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

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

Using a LAN interface card to connect



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

3. Installing SANUPS SOFTWARE

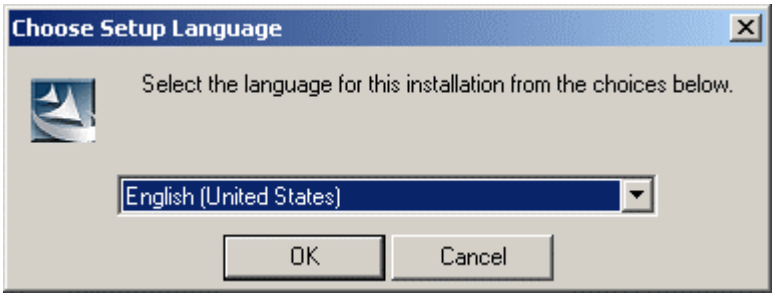
The following operation can only be performed by users with administrative rights（Administrators）.

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

3.1 Starting the Install Program

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

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



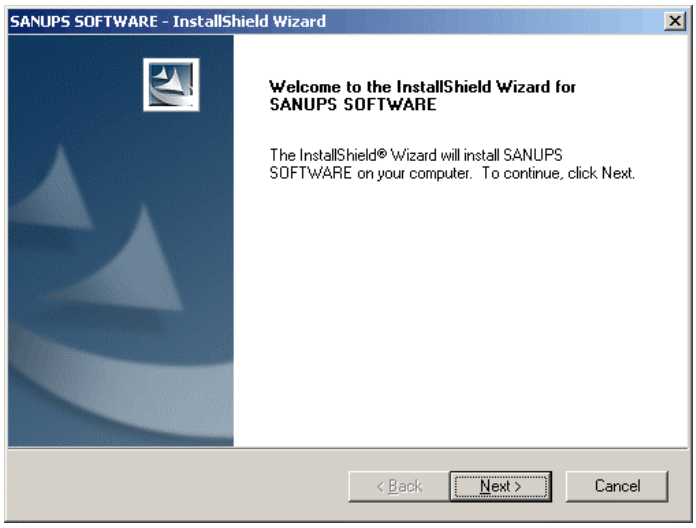
Once a language is selected here, it cannot be changed later.

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

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

<Starting install program by Windows 8 / Windows Server 2012>
- In the Modern UI Style, set install CD, select the display of "Tap to choose what happens with this disc.", "Install or run program from your media" screen will be shown and choose "Run setup.exe" then install program will be started.
- In the Desktop Style, start File Explorer and double click (select) **Setup.exe** from CD-ROM drive then install program will be started.

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

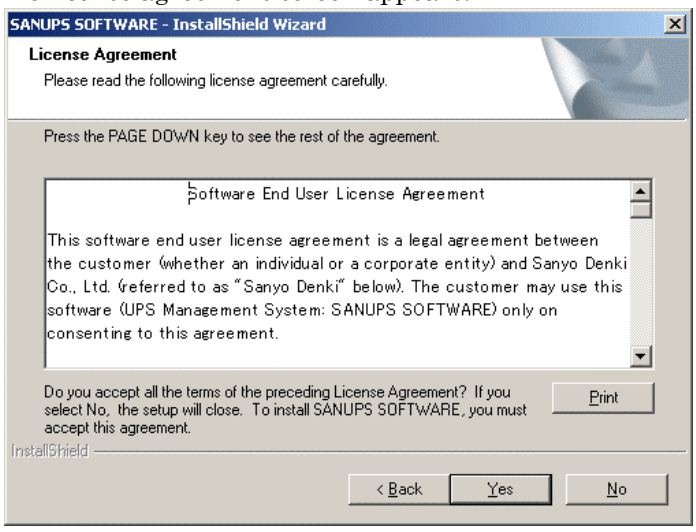


(5) Click (select) the **"Next"** button.

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

3.2 Checking the license agreement

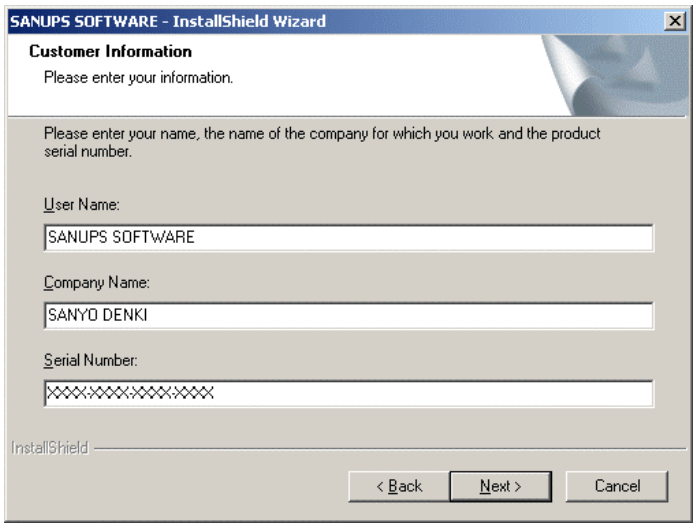
(1) The license agreement screen appears.



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

3.3 Entering user information

(1) The user information input screen appears.



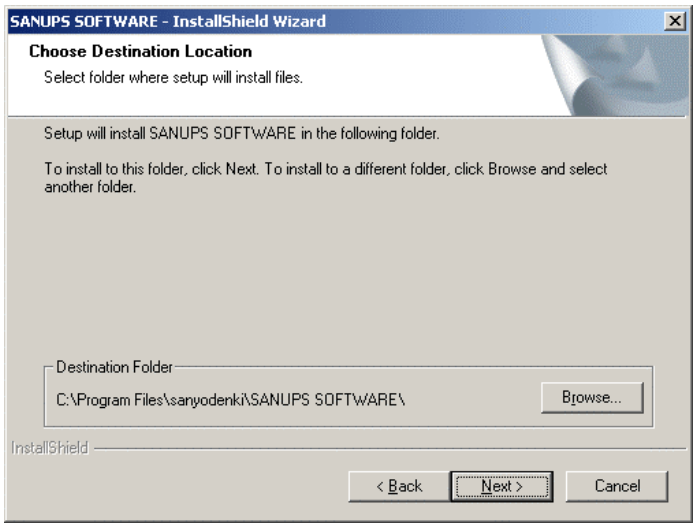
(2) Enter a user name, company name, and serial number in the **[User Name]**, **[Company Name]**, and **[Serial Number]** text boxes respectively.

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

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

3.4 Checking the install folder

(1) The install destination selection screen appears.

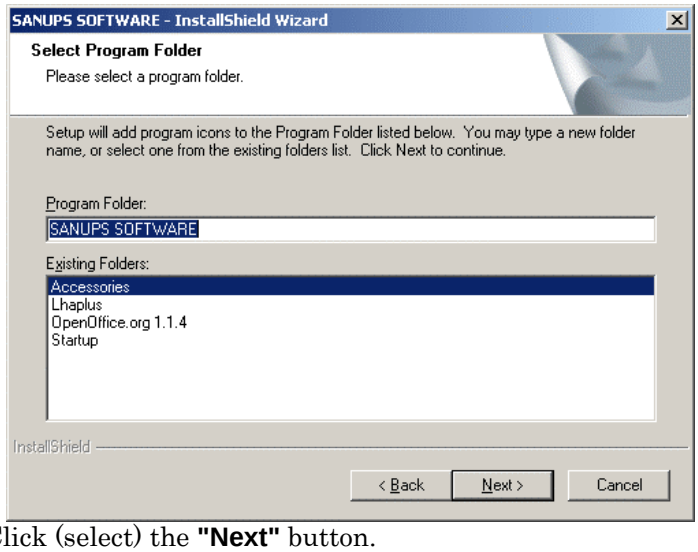


You can change the destination to use to install **SANUPS SOFTWARE**.

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

3.5 Selecting a program folder

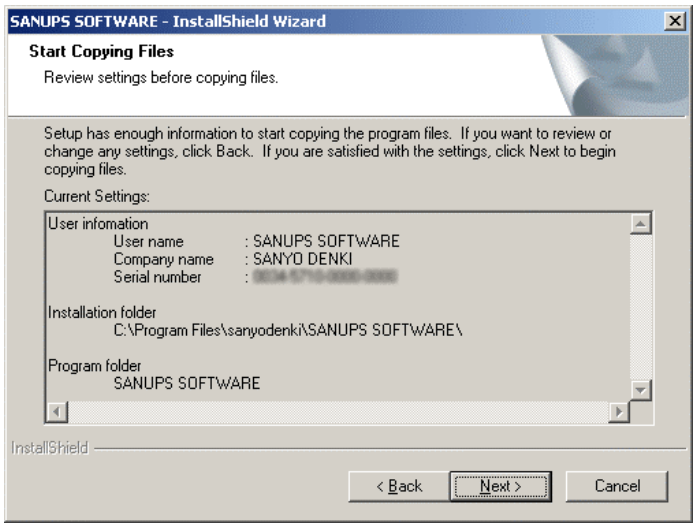
(1) The program folder selection screen appears.



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

3.6 Confirming the start of file copying

(1) The file copy start confirmation screen appears.



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

3.7 Copying files (executing installation)

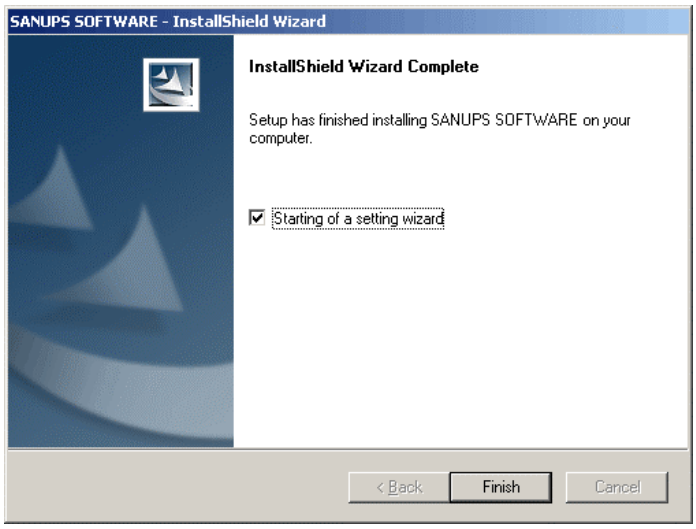
(1) **SANUPS SOFTWARE** files are copied to the hard disk.

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

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

3.8 Completing installation

(1) The setup completion screen appears.



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

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

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

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

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

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

4. Setting Up SANUPS SOFTWARE

After **SANUPS SOFTWARE** installed, use the wizard described in Section 4.1 , "Using the Setup Wizard" to register the UPS.
When the registration is finished, **SANUPS SOFTWARE** can start normally.

4.1 Using the Setup Wizard

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

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

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

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

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

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

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

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

4.1.1 If the computer is a server connected to the UPS

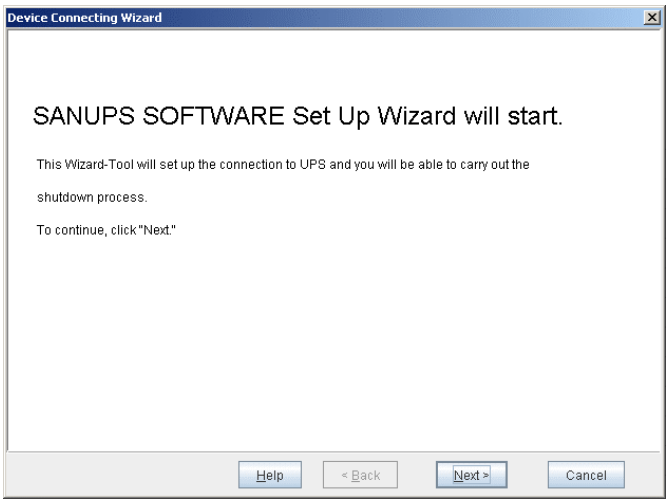
If the computer where **SANUPS SOFTWARE** is installed is connected to the UPS using a serial cable, use the following procedure to set up **SANUPS SOFTWARE**.

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).

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

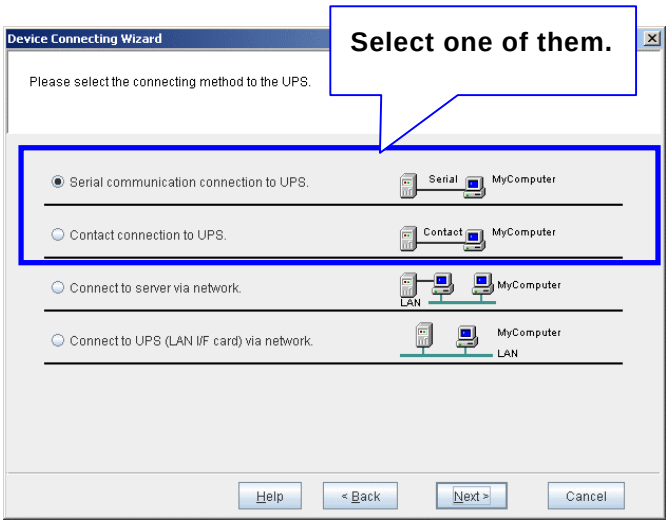
< Information >
For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "**sg4 0**" using command line.



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

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

(B) Select a UPS connection method.

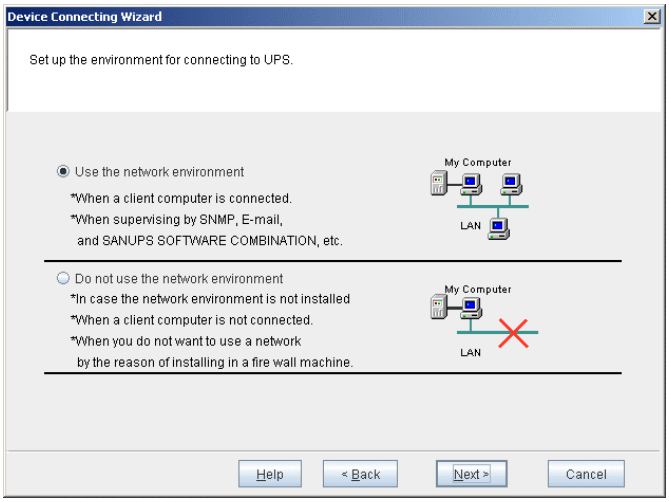


Select a connection method to connect the UPS. If the UPS is connected to a server, select serial communication or contact connection.

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

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

(C) Select a UPS environment to use.



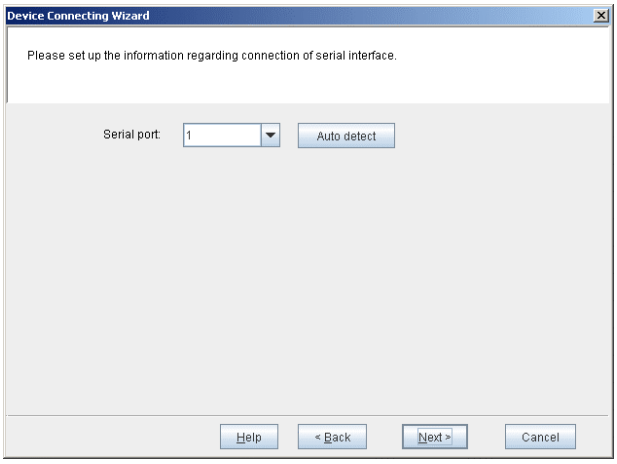
Select the environment that is used by the computer.
(See the following table for the selection.)

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

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

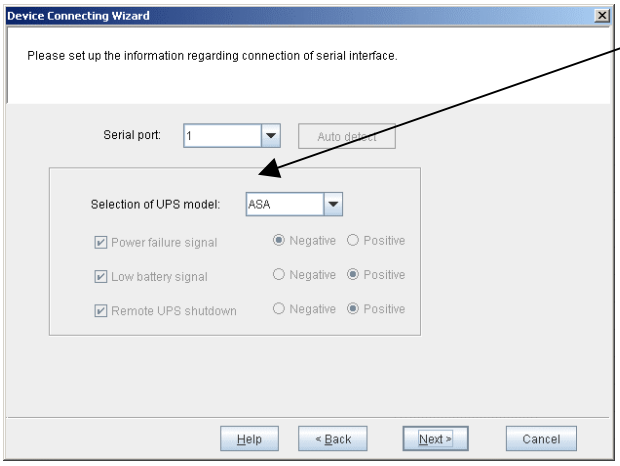
(D) Set up serial cable connection.

(a) If serial connection is used



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

(b) if contact connection is used



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

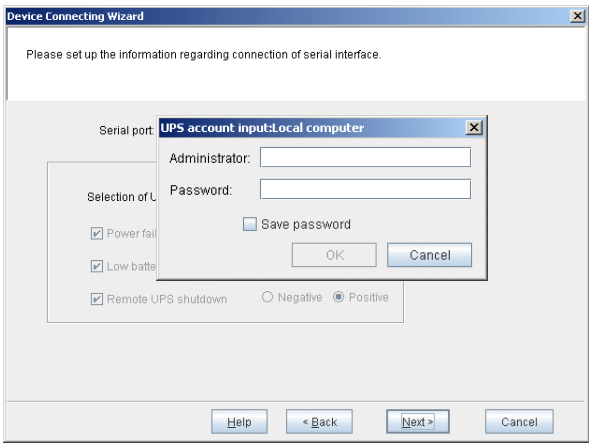
※To use a UPS that is not available on the [Selection of UPS model] drop-down list, select [Others] from the list, and then set up the polarity information of the external transfer signal of the UPS.

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

< About selecting a COM port >

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

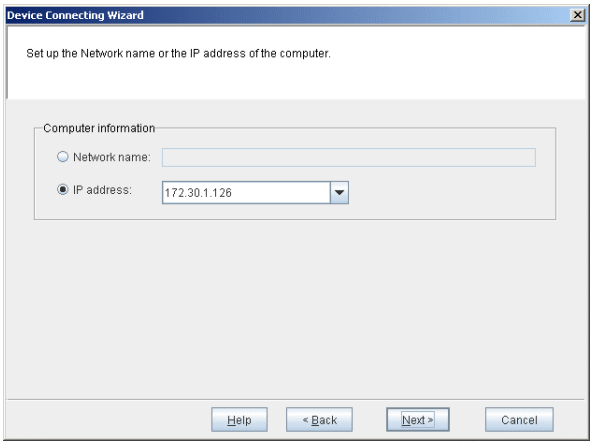
(E) Enter the UPS account information.



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

(Note1) The password is case sensitive.

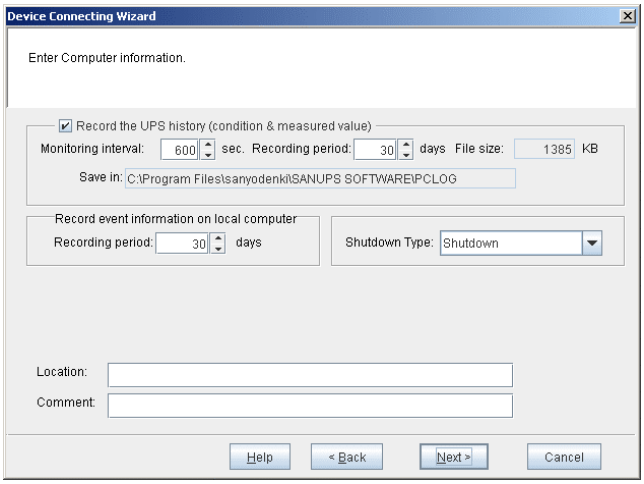
(F) Enter information about the computer (1)



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

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

(G) Enter information about the computer (2)



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

< Information >

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

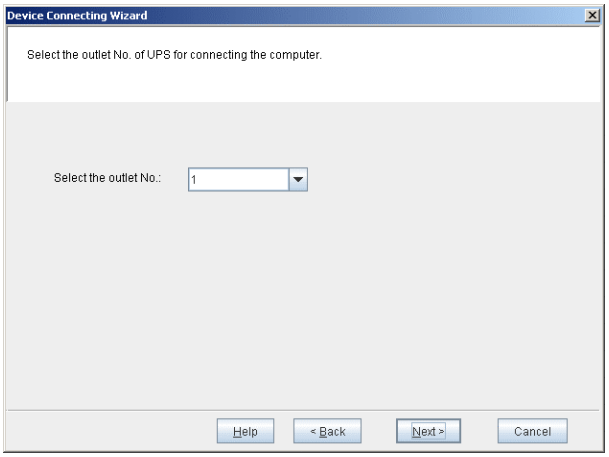
※ Types of shutdown and how to use them

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

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

(H) Specify the UPS output outlet connection

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

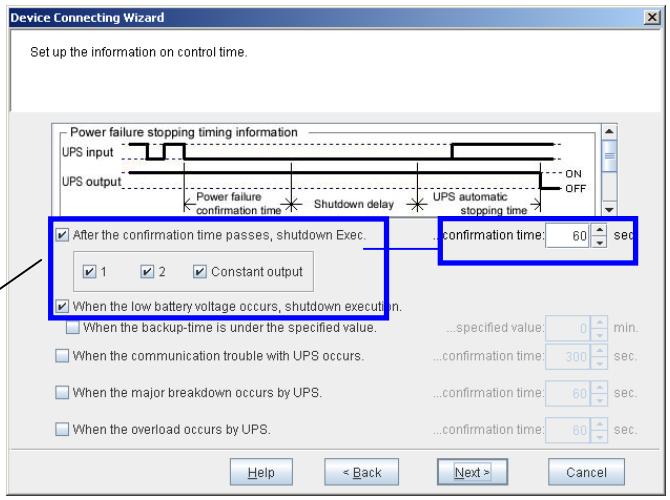


Select an output outlet number for the UPS connected to the computer.

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

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

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



Use this screen to specify how to control the UPS.

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

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

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

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

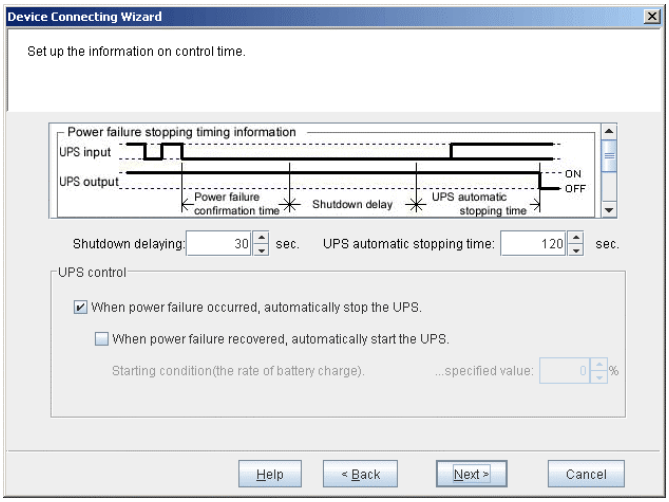
- **If the check box of a output number is cleared**

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

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

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

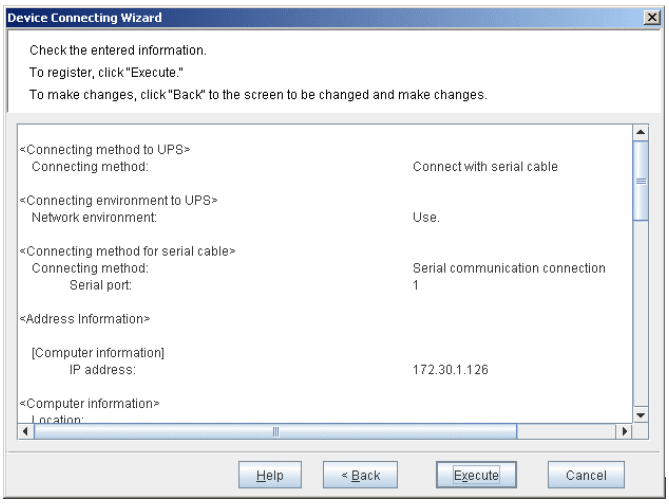
(J) Set up the information on UPS control time (2)



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

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

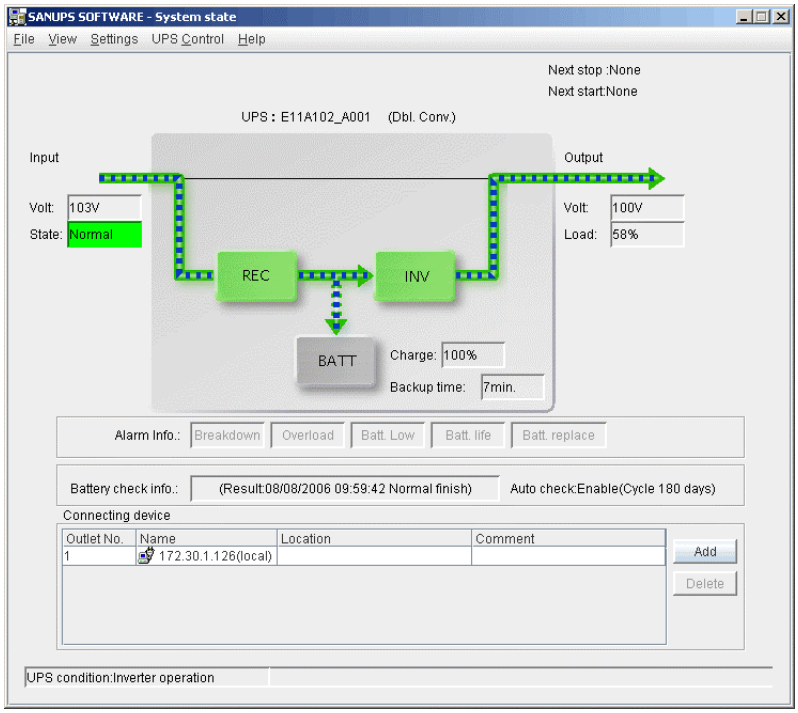
(K) Check the entered information



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

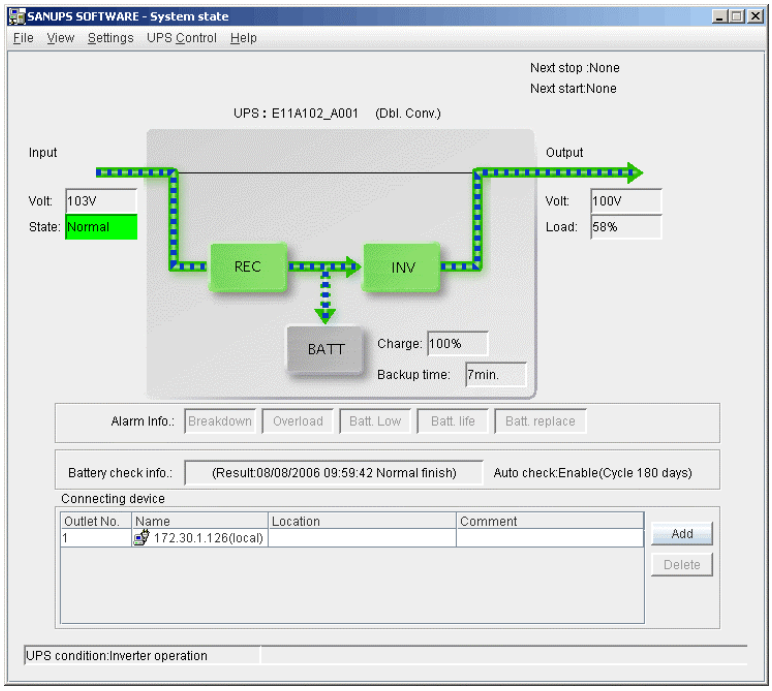
If you want to change any information, click the "Back" button to return to the appropriate screen.

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



The **SANUPS SOFTWARE** main screen appears.

(L) Check the connection of the local computer



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

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

(M) Check the UPS connection

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

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

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

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

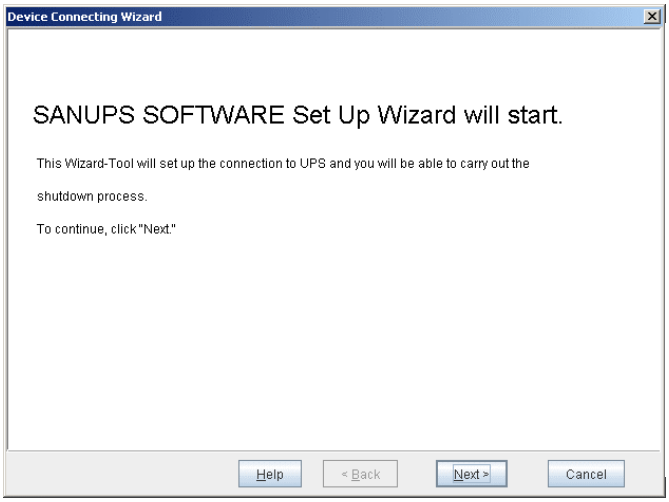
4.1.2 If the UPS is connected to a client

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

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

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

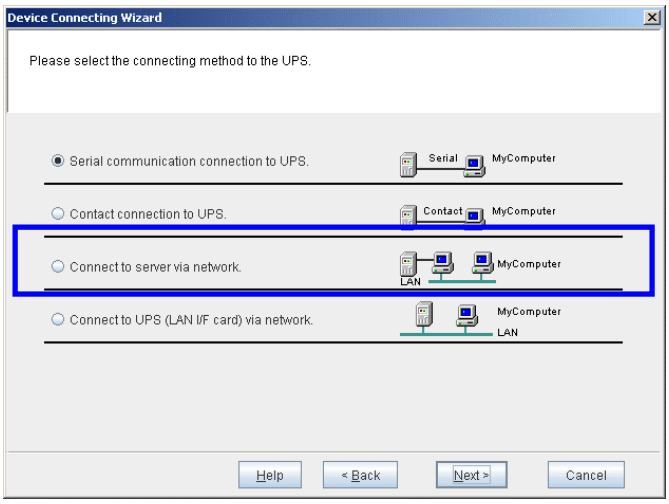
< Information >
For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "**sg4 0**" using command line.



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

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

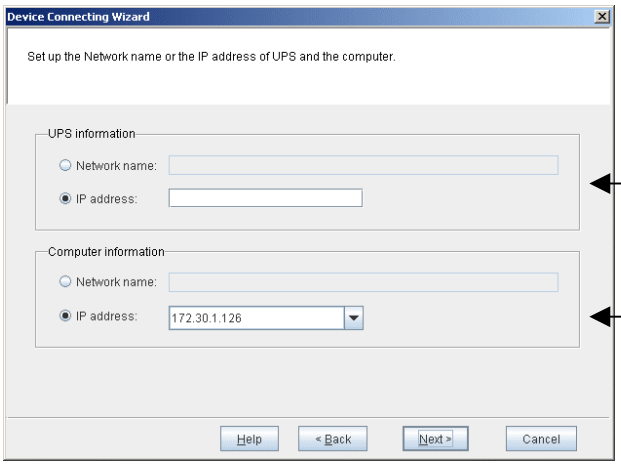
(B) Select a UPS connection method.



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

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

(C) Set up the network



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

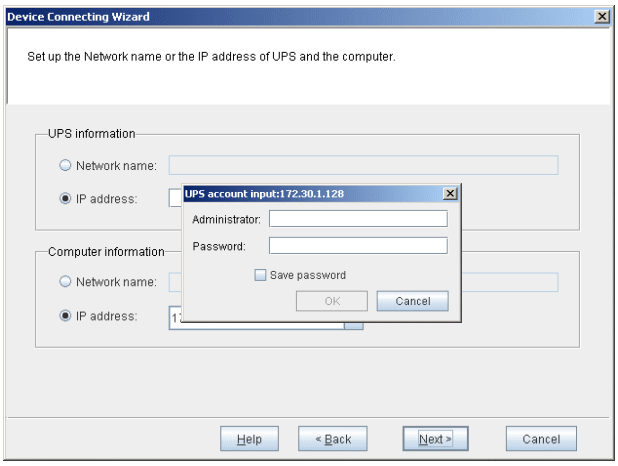
Specify the network information of the server computer.

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

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

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

(D) Enter the UPS account information

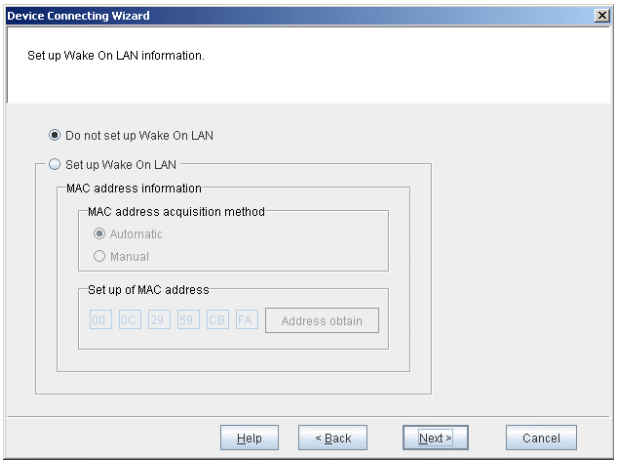


Enter account information of the UPS administrator. Use the following default values for the input.
Administrator**: upsadmin**
Password:**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

(E) Set up Wake On LAN

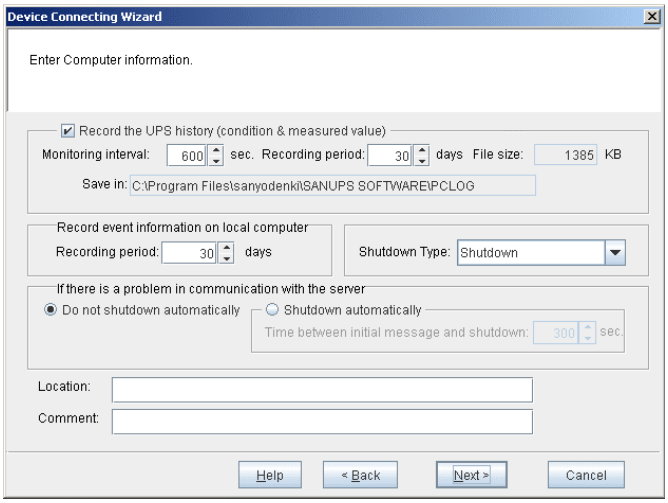
If the computer supports the Wake On LAN function, after power is supplied from the UPS, the power of the computer can be turned on automatically.



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

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

(F) Enter the computer information



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

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

※ Types of shutdown and how to use them

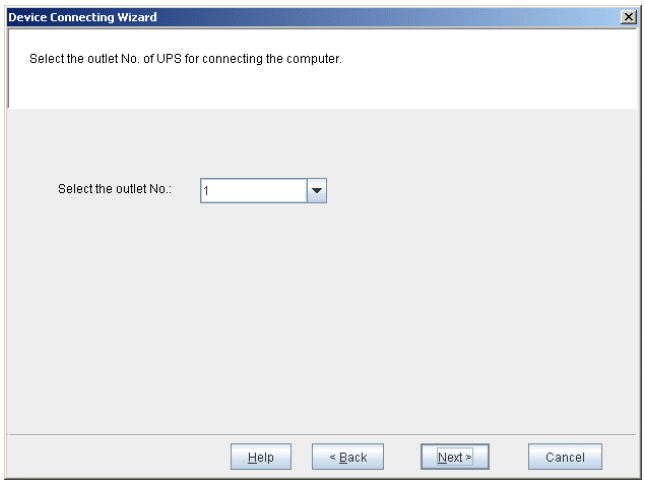
Shutdown	Description
Shutdown	Shut down the computer.
Shutdown and turn off power	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for **Windows** that supports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

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

(G) Specify the UPS output outlet connection

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

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

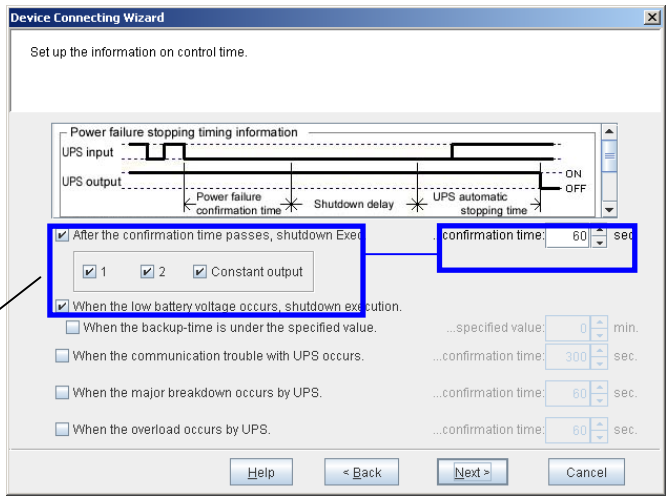


Select an output outlet number for the UPS connected to the computer.

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

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

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



Use this screen to specify how to control the UPS.

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

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

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

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

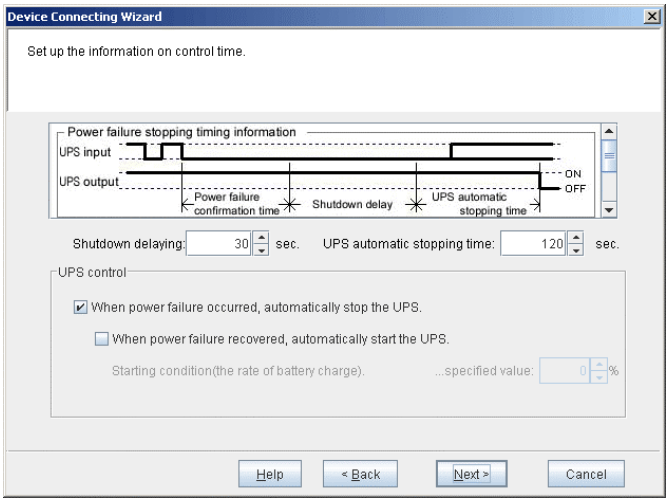
- **If the check box of a output number is cleared**

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

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

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

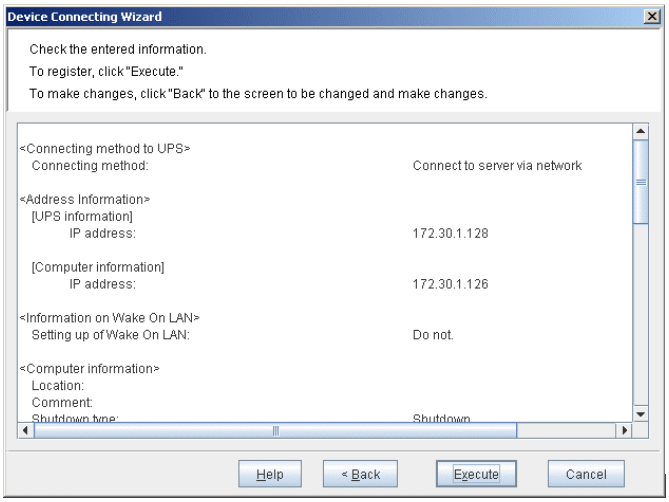
(I) Set up the information on UPS control time (2)



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

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

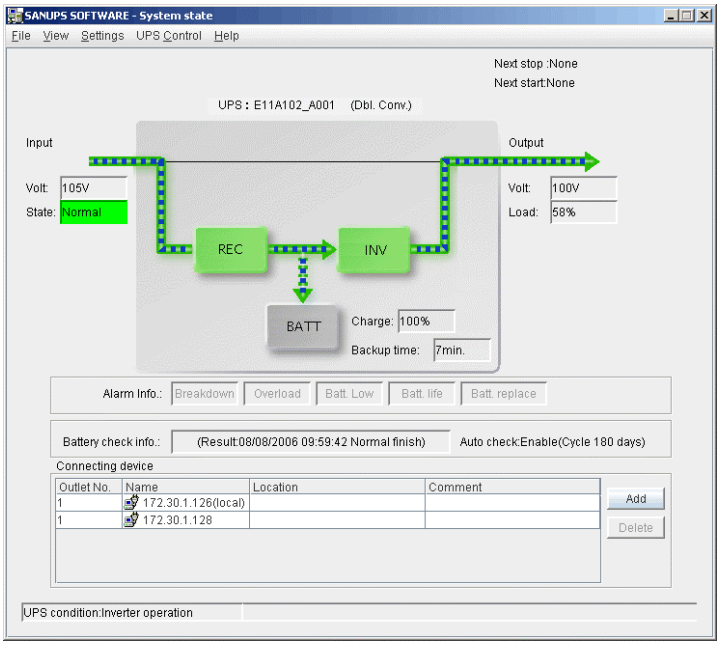
(J) Check the entered information



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

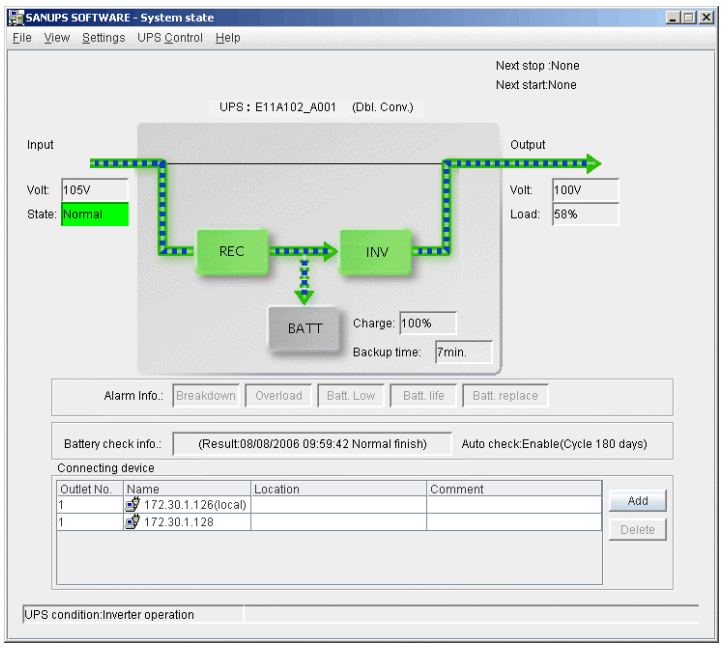
If you want to change any information, click the **"Back"** button to return to the appropriate screen.

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



The **SANUPS SOFTWARE** main screen appears.

(K) Check the connection of the local computer



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

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

(L) Check the UPS connection

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

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

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

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

・ Is the UPS connected correctly using a serial cable?

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

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

・Is the firewall enable?

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

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

4.1.3 If the UPS is connected to a network

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

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

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

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

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

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

To confirm setting status

[1] Log in by administrator account, and execute the following command.

netsh interface tcp show global

[2] Confirm setting value of ECN.

Setting value will be shown either "enable"(enabled) or "disable"(disabled).

To change ECN in "disable"(*1)

Change by either one of two following methods under log in by administrator account.

1) Execute "**ECN_DISABLE.BAT**" of **SANUPS SOFTWARE** install folder.

2) Execute the following command from command prompt.

netsh interface tcp set global ecncapability=disabled

To change ECN in "enable"(*1)

Change by either one of two following methods under log in by administrator account.

1) Execute "**ECN_ENABLE.BAT**" of **SANUPS SOFTWARE** install folder.

2) Execute the following command from command prompt.

netsh interface tcp set global ecncapability=enabled

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

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

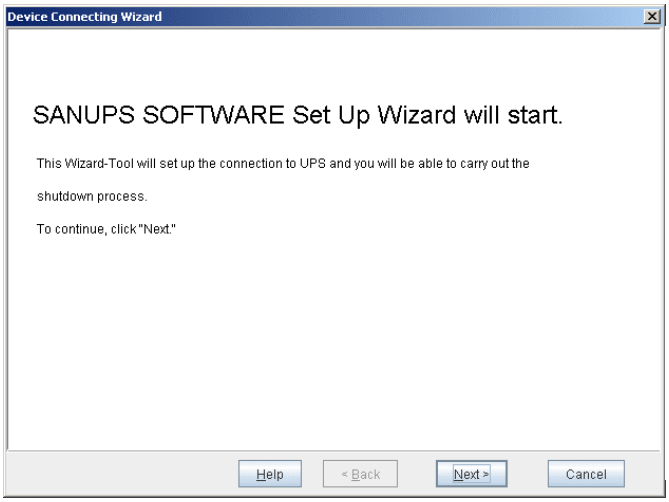
If the computer is connected to the UPS with LAN interface card embedded, use the following procedure to set up.

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

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

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

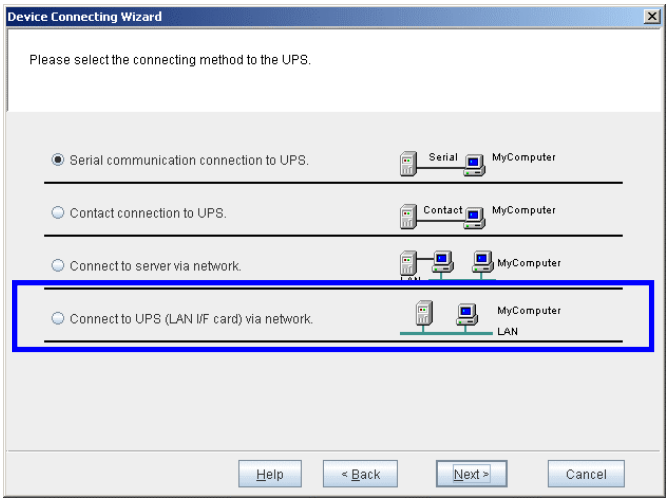
< Information >
For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core,** move to the folder where **SANUPS SOFTWARE** is installed, and then execute "**sg4 0**" using command line.



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

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

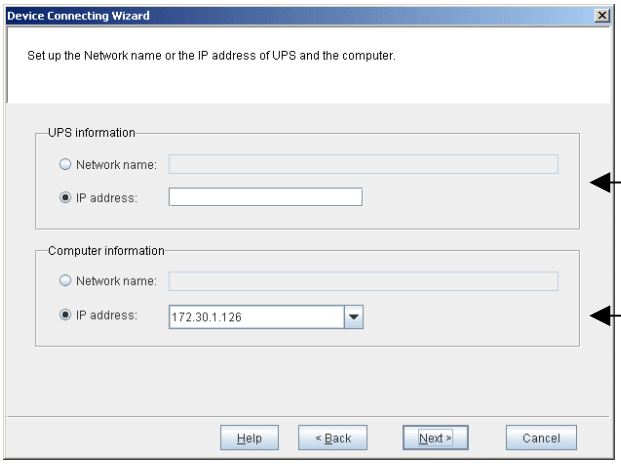
(B) Select a UPS connection method



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

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

(C) Set up the network



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

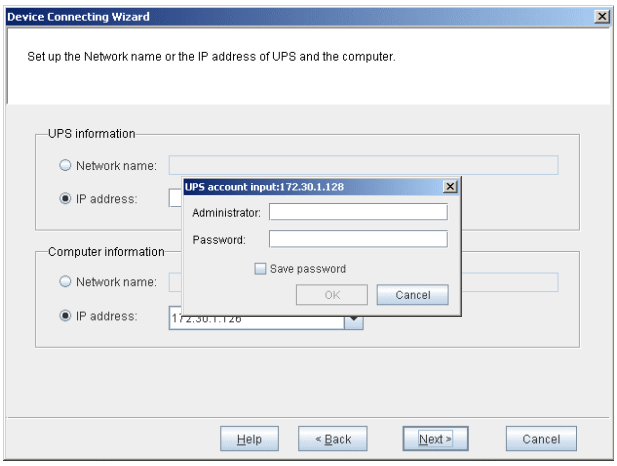
Specify the network information of the UPS (LAN I/F card) .

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

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

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

(D) Enter the UPS account information

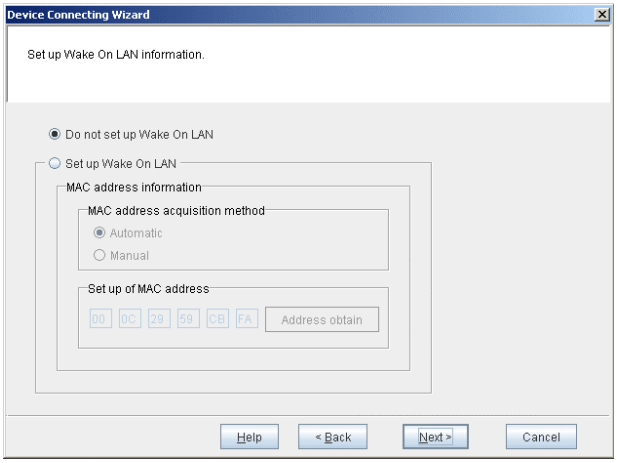


Enter account information of the UPS administrator.
Use the following default values for the input.
Administrator**: upsadmin**
Password:**UpsAdmin**(Note1)
Then, click the **"OK"** button**.**
After user authentication is performed, proceed to the next screen.

(Note1) The password is case sensitive.

(E) Set up Wake On LAN

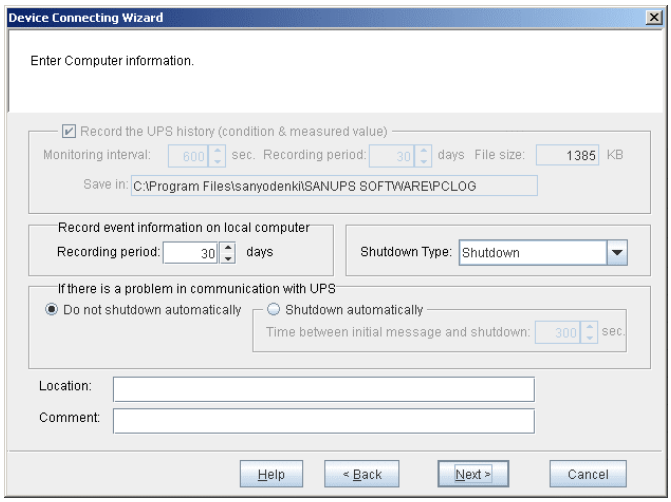
If the computer supports the Wake On LAN function, after power is supplied from the UPS, the power of the computer can be turned on automatically.



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

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

(F) Enter the computer information



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

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

※ Types of shutdown and how to use them

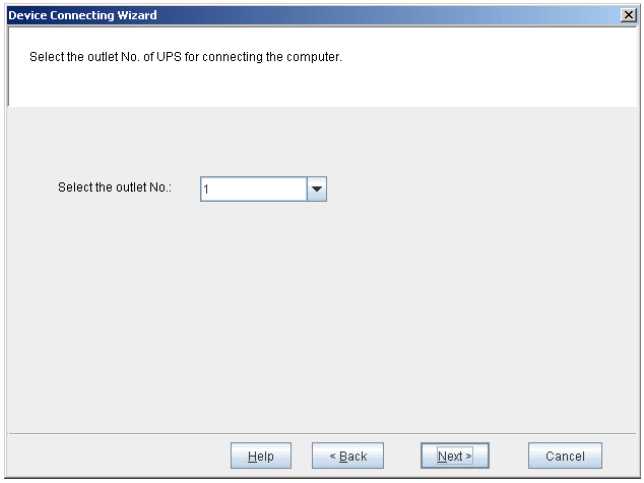
Shutdown	Description
Shutdown	Shut down the computer.
Shutdown and turn off power	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for **Windows** that supports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

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

(G) Specify the UPS output outlet connection

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

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

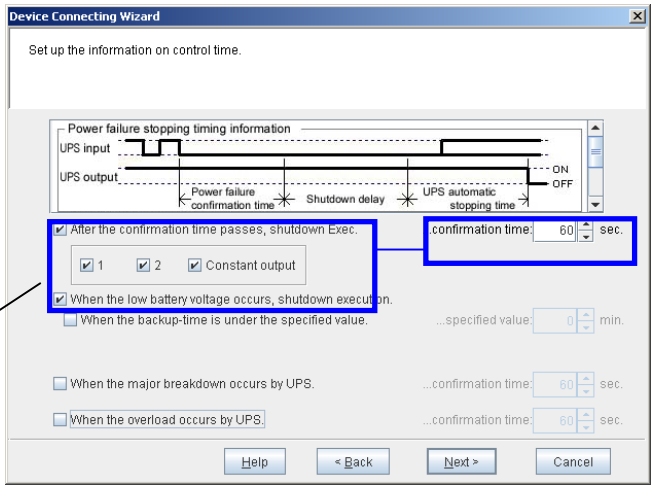


Select an output outlet number for the UPS connected to the computer.

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

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

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



Use this screen to specify how to control the UPS.

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

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

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

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

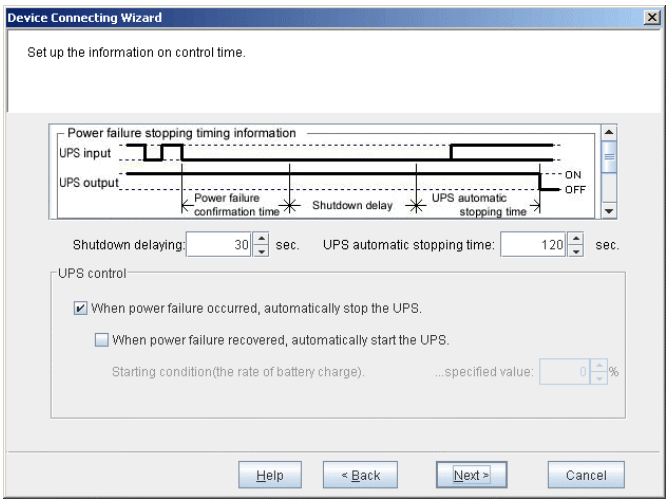
- **If the check box of a output number is cleared**

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

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

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

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

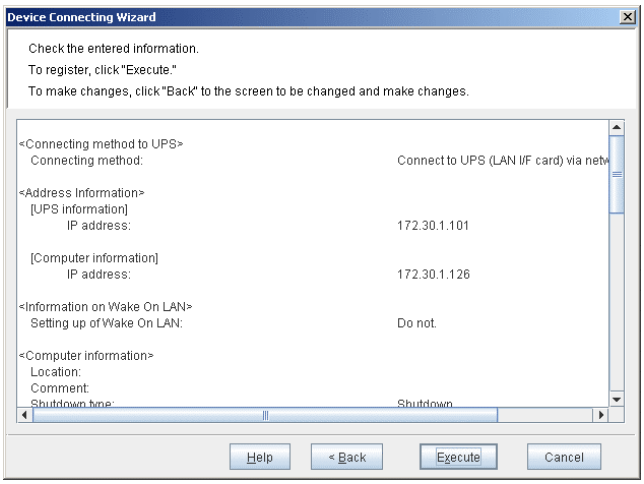


Use this screen to continue the operation on the previous screen and specify how to control the UPS.

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

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

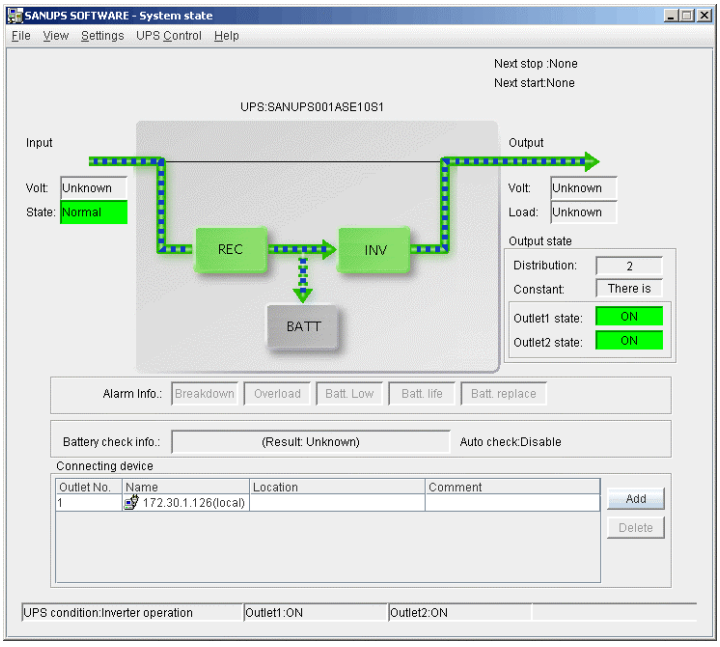
(J) Check the entered information



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

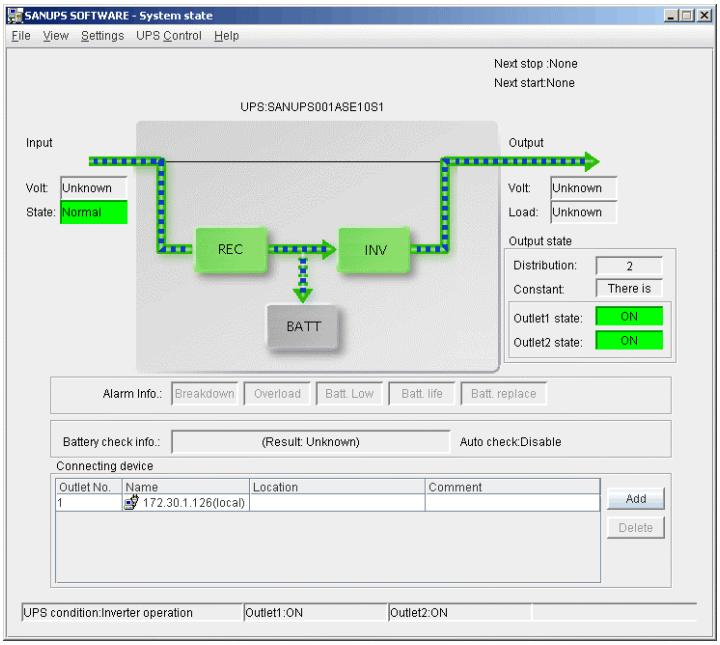
If you want to change any information, click the **"Back"** button to return to the appropriate screen.

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



The **SANUPS SOFTWARE** main screen appears.

(K) Check the connection of the local computer



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

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

(L) Check the UPS connection

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

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

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

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

・ Is the UPS connected correctly using a serial cable?

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

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

・Is the firewall enable?

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

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

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.

● Uninstall the **SANUPS SOFTWARE** program.

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

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

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

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

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

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

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

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

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

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

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

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

[2] Stop the UPS service using commamd line.

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

[4] Execute uninstallation using commamd line.

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

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

Appendix A Precautions for using Windows

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About constraint of automatic starting function of a computer

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

Windows XP SP1

Windows Server 2003 (Service Pack none)

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

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

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

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

Example)

Enable the "Function of starting up a computer immediately after receiving power."

Enable the "Function of wake up" (Ring signal, Wake On LAN)

etc.

BIOS setting content varies according to variety of computer.

For details, read a manual of the computer, or contact your supplier of the computer.

<Note>

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

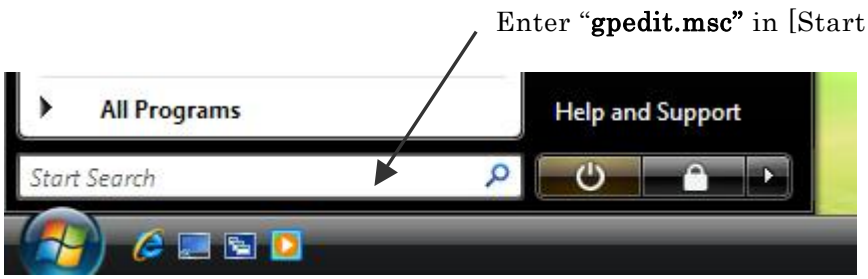
2. When using OS since **Windows XP**, after automatic shutdown by UPS control software, the computer might be turned off automatically without displaying the following message. In this case the computer might not start automatically even if power is supplied from UPS.

"It is now safe to turn off your computer"

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

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

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



* The above figure shows Windows Vista.

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

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

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

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

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

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

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

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

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About constraint in using a terminal service

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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.

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Before using Windows Firewall

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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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.)

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About System log of Event viewer

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

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

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

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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.