

# **SANUPS**

UPS Control System

# **SANUPS** **SOFTWARE**

## **Install Guide**

for Windows

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## 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

#### 1.1.1 Hardware

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

#### 1.1.2 Software

- OS : **Windows XP**  
**Professional<sup>(\*1)</sup> / Home Edition<sup>(\*1)</sup>**  
**Professional x64 Edition**
- Windows Server 2003**  
**Standard Edition<sup>(\*2)</sup> / Enterprise Edition<sup>(\*2)</sup>**  
**Standard x64 Edition / Enterprise x64 Edition**  
**Enterprise Edition for Itanium-based systems<sup>(\*2)</sup>**
- 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<sup>(\*3)</sup>**  
**Standard Edition / Enterprise Edition**
- Windows Web Server 2008<sup>(\*3)</sup>**
- Windows Server 2008 for Itanium-based Systems<sup>(\*4)</sup>**

**Windows 7** <sup>(\*5)</sup>  
**Professional / Ultimate / Enterprise**

**Windows Server 2008 R2** <sup>(\*6)</sup>  
**Standard / Enterprise**

**Windows Web Server 2008 R2** <sup>(\*6)</sup>

**Windows Server 2008 R2 for Itanium-based Systems** <sup>(\*4)</sup>

**Windows 8** <sup>(\*5)</sup>  
**Windows 8 / Windows 8 Pro / Windows 8 Enterprise**

**Windows Server 2012** <sup>(\*6) (\*7)</sup>  
**Essentials / Standard / Datacenter**

**Windows 8.1** <sup>(\*5)</sup>  
**Windows 8.1 / Windows 8.1 Pro / Windows 8.1 Enterprise**

**Windows Server 2012 R2** <sup>(\*6) (\*7)</sup>  
**Essentials / Standard / Datacenter**

**Windows 10** <sup>(\*5)</sup>  
**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”.

### 1.1.3 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 <sup>(*1)</sup>
Windows 7 Windows 8 Windows 8.1 Windows 10 Windows Server 2008 R2 Windows Web Server 2008 R2 Windows Server 2008 R2 for Itanium-based Systems Windows Server 2012 Windows Server 2012 R2
OS versions that support IPv4 addresses only <sup>(*2)</sup>
Windows XP Windows Vista Windows Server 2003 Windows Server 2003 R2 Windows Server 2008 Windows Web Server 2008 Windows Server 2008 for Itanium-based Systems

(\*1) The computer network must have IPv6 enabled to support IPv6 communication using **SANUPS SOFTWARE**.

(\*2) **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 (\*2) to the OS in (\*1), 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.

## 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 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 for 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

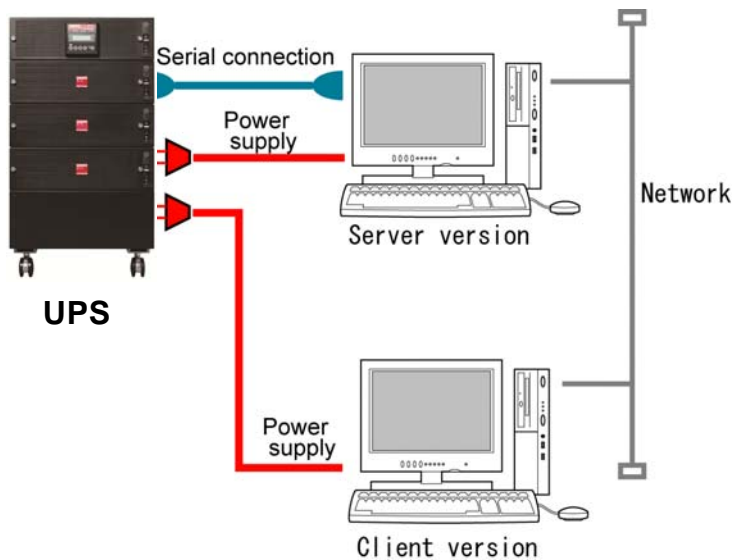
The method used to connect a computer to the UPS (direct serial connection with UPS or via LAN interface card) is specified during the setup operation after **SANUPS SOFTWARE** is installed. For this reason, it is necessary to decide, in advance, how the UPS is to be connected to a computer where **SANUPS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

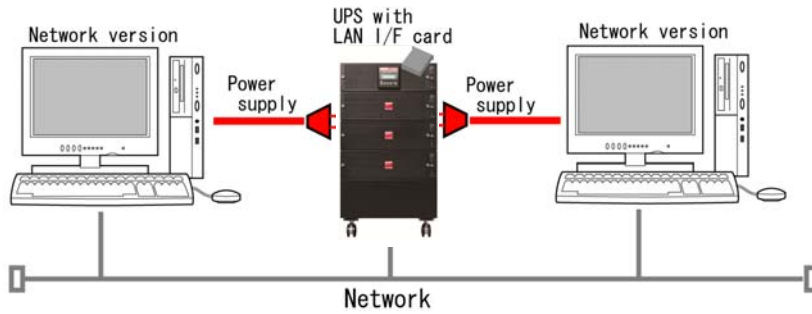


In this case, the computer connected to the UPS using a serial connection (including contact connection) is referred to as a **server version**, and all other computers are referred to as **client version**. (Server and client or client and client must be connected via a network.)

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 version**. (There is no distinction between server and clients.)

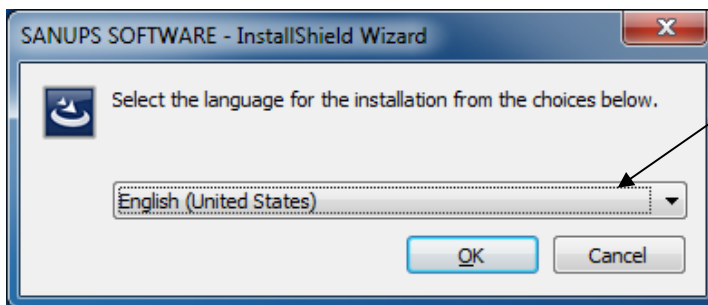
### 3. Installing SANUPS SOFTWARE

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

If an older version of 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 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.

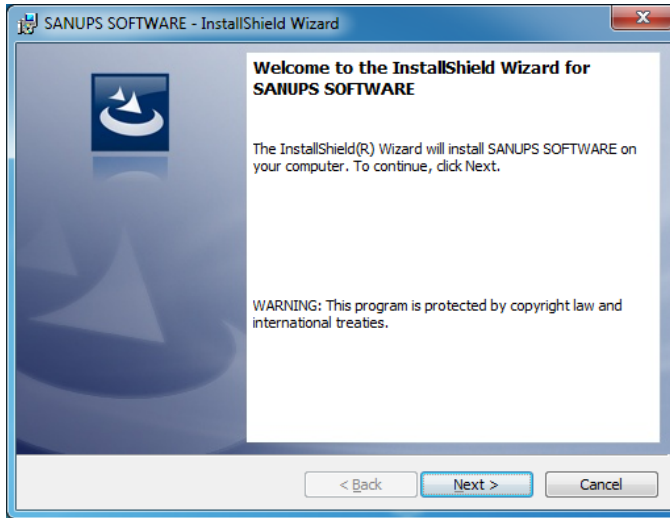
Once a language is selected here, it cannot be changed later.

**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 command 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.

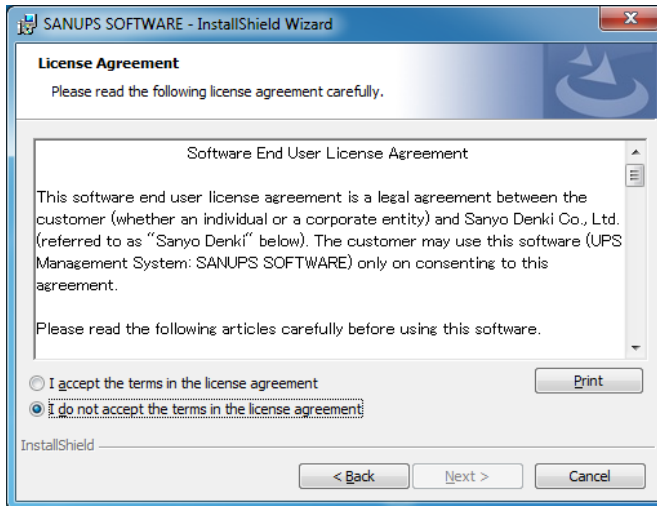


- (5) Click (select) the **"Next"** button.

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

### 3.2 Checking the license agreement

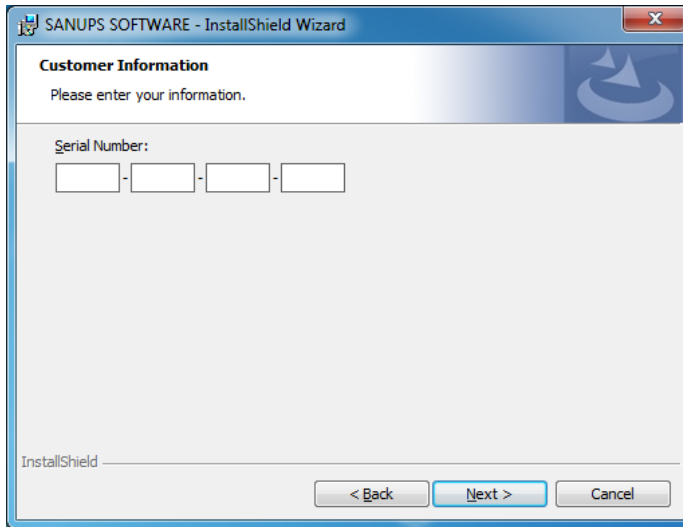
- (1) The license agreement screen is displayed.



- (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.

### 3.3 Entering Customer information

(1) The Customer Information screen is displayed.



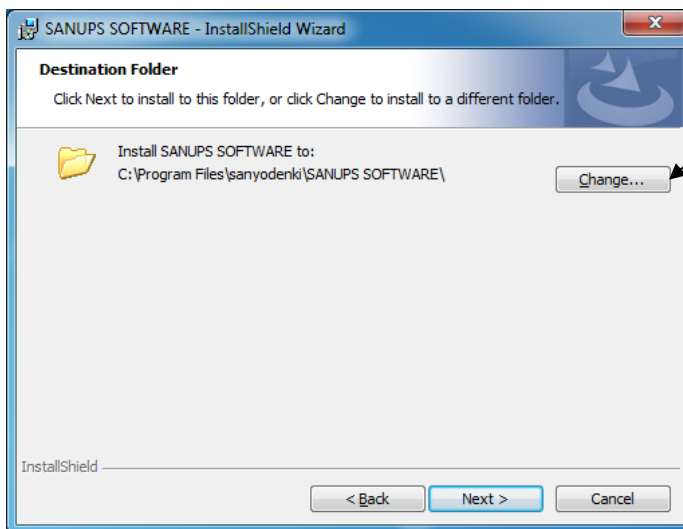
(2) Enter the **Serial Number**.

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

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

### 3.4 Checking the install folder

(1) The install destination folder screen is displayed.

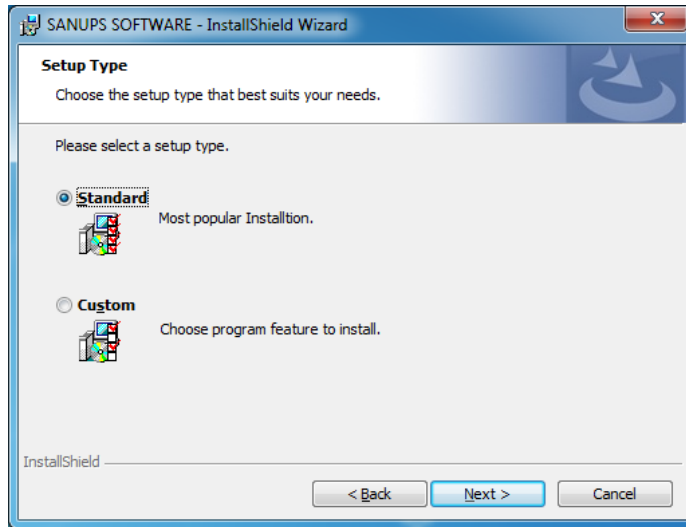


You can change an installation folder from the **Change** button.

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

### 3.5 Selecting a Setup Type

(1) The Setup Type screen is displayed.

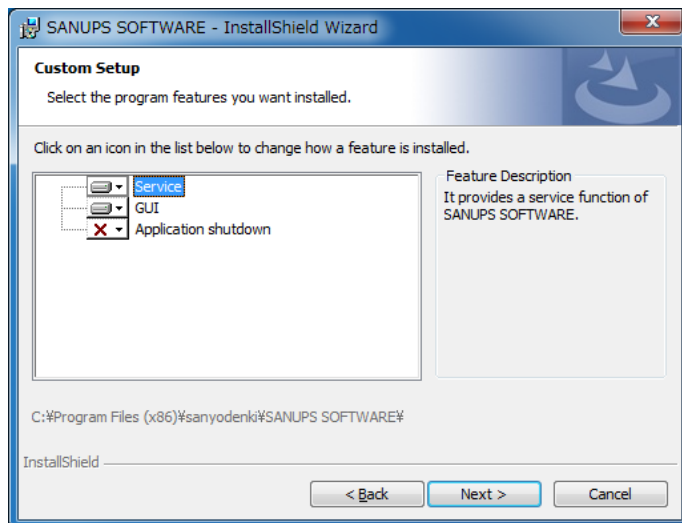


Select [Custom] if you want to install the application shutdown function.

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

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

(1) The Custom Setup screen is displayed.



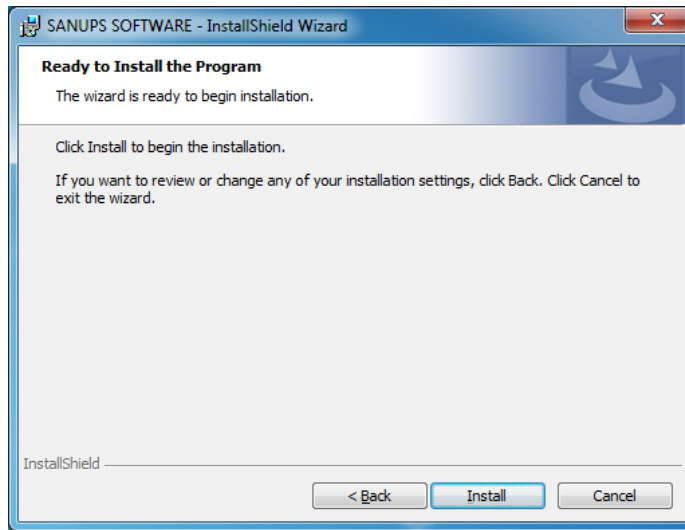
Set whether to install the application shutdown function.

(The application shutdown function can also be added after installation.)

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

### 3.7 Starting installation

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



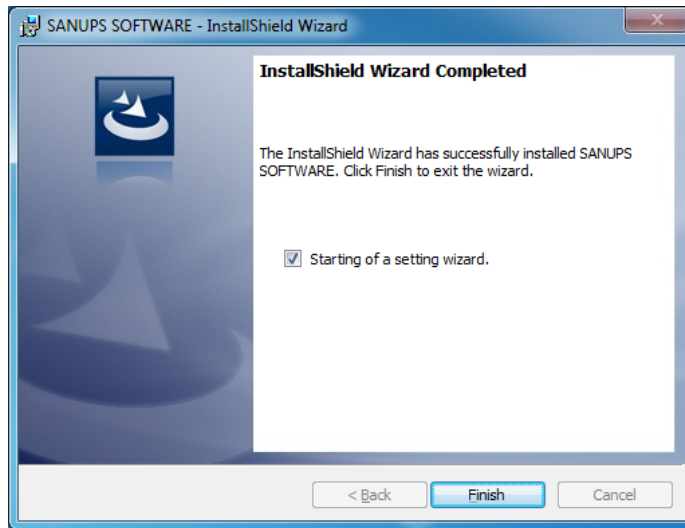
(2) Click the Install button, the installation is started.

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.**

### 3.8 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".

**\*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.

## 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
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.



### 4.1.1 When the computer is a server connection with 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**.

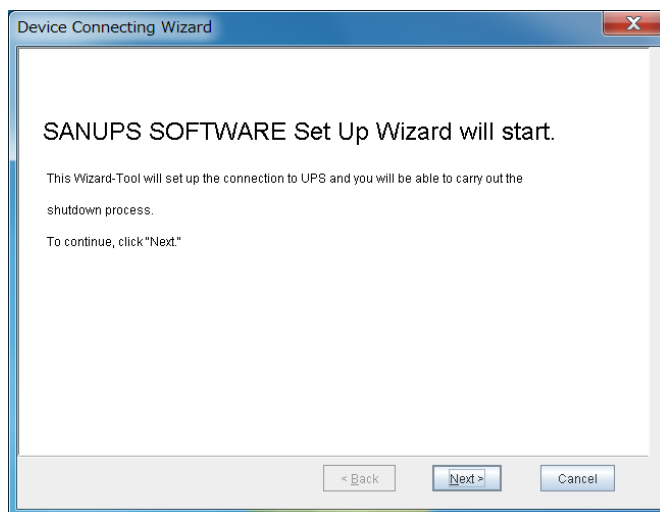
Note: Before using the wizard to set up **SANUPS SOFTWARE**, make sure the computer and the UPS are connected using a serial cable.

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

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

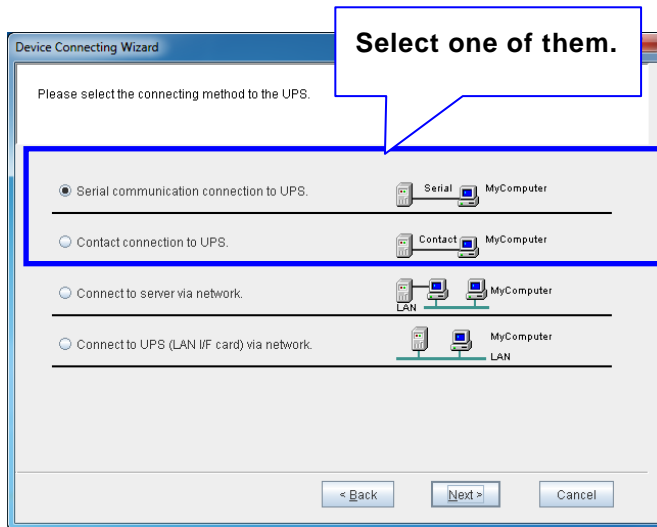


After **SANUPS SOFTWARE** starts, the screen shown on the left is displayed.

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

## Setting up SANUPS SOFTWARE

(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.

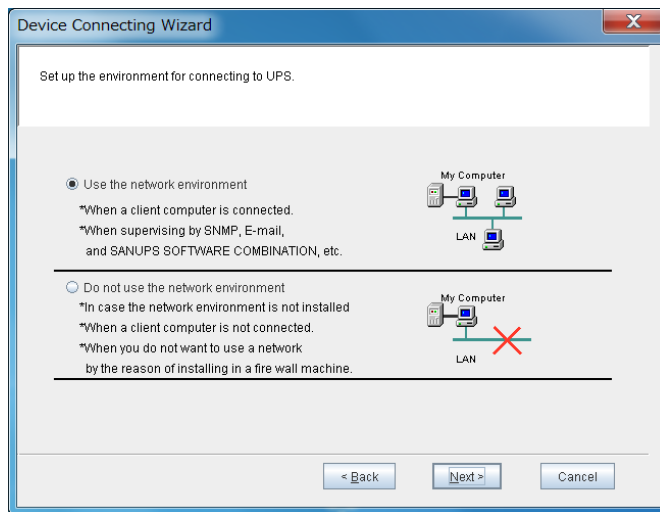
Click the **Next** button to move to the next screen (Select a UPS environment to use).

Connection Method	Description
<b>Serial communication connection to UPS</b>	Use this method for UPS with serial interface or if a serial interface card is installed in the UPS.
<b>Contact connection to UPS</b>	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.)

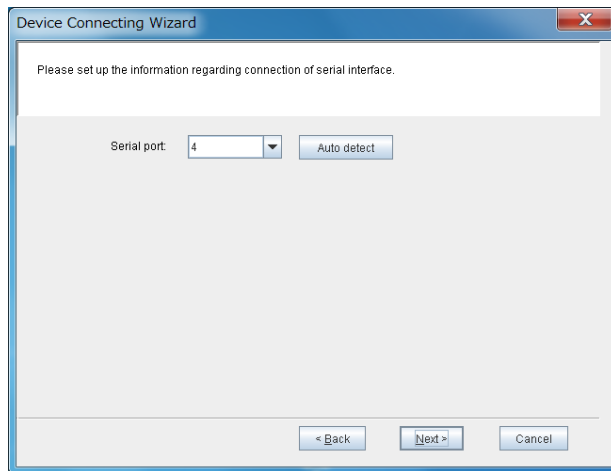
Click the **Next** button to move to the next screen (Set up the serial cable connection).

<b>SANUPS SOFTWARE Usage Environment</b>	Computer Environment
<b>Use the network environment</b>	<ul style="list-style-type: none"> <li>• if a client computer is used in the connection</li> <li>• if E-mail, <b>SANUPS SOFTWARE COMBINATION</b>, etc. are used for monitoring</li> </ul>
<b>Do not use the network environment</b>	<ul style="list-style-type: none"> <li>• if no network environment is installed</li> <li>• if no client computer is connected</li> <li>• if you do not want to use the network because, for example, you want to install on the firewall machine</li> </ul>

## Setting up SANUPS SOFTWARE

### (D) Set up serial cable connection.

#### (a) If serial connection is used

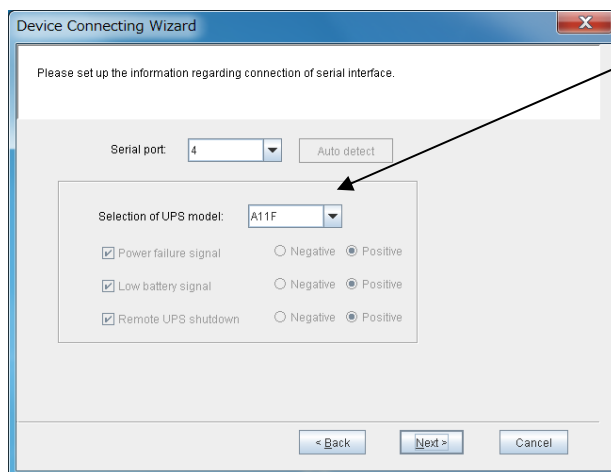


Select the serial port number of the computer.

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 the 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.)

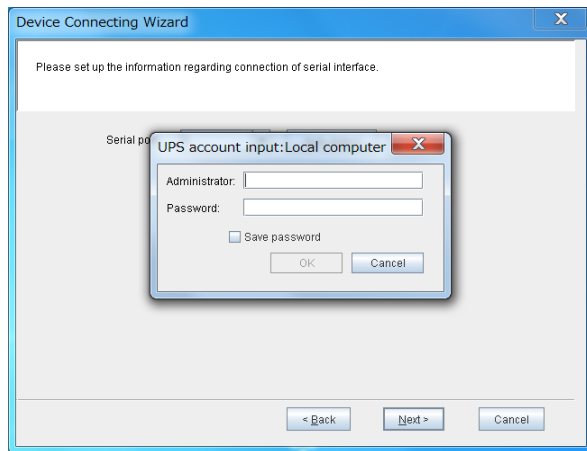
Click the **Next** button to move to the next screen (Enter UPS account information).

- \* 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.

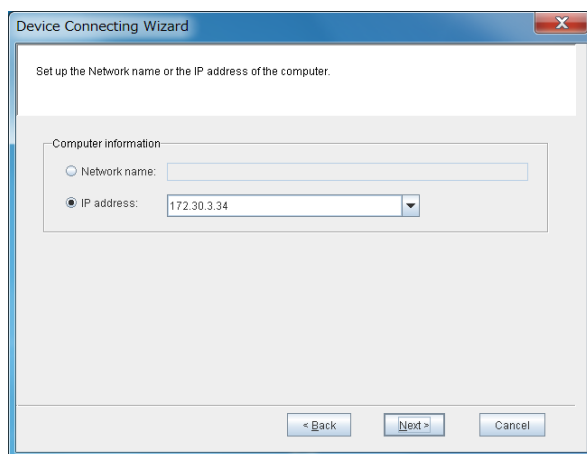
(E) Enter the UPS account information.



Enter account information of the UPS administrator.  
Use the following default values for the input.  
Administrator: **upsadmin**  
Password: **UpsAdmin**<sup>(Note1)</sup>  
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).

## Setting up SANUPS SOFTWARE

### (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
<b>Shutdown</b>	Shut down the computer.
<b>Shutdown and turn off power</b>	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 <b>Windows</b> that supports <b>ACPI [Advanced Configuration and Power Interface]</b> .)
<b>Suspend</b>	Suspend the computer. ( If your <b>Windows</b> computer supports the "Suspend".) <u>Do not use this shutdown type when you perform scheduled operation.</u> If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored.

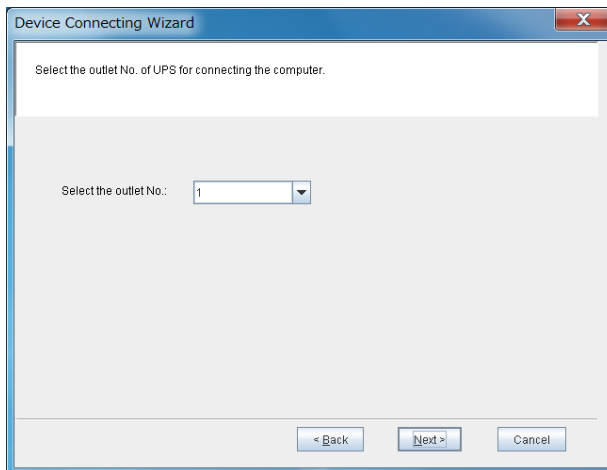
#### <Information>

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.



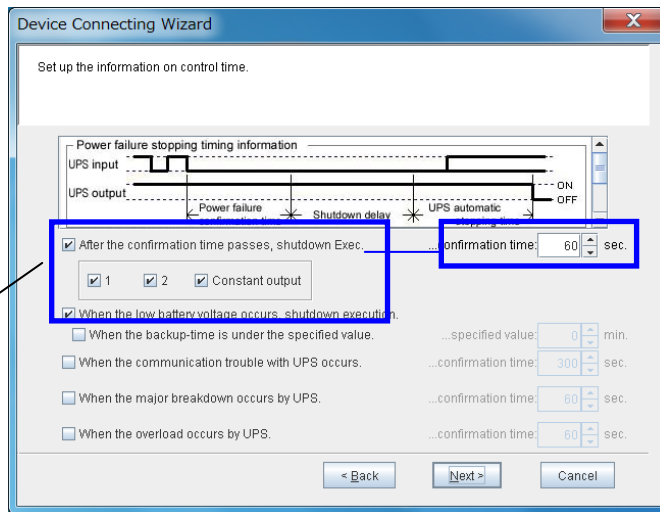
Select an output outlet number for the UPS connected to the computer.

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.**

## Setting up SANUPS SOFTWARE

### (1) 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 confirmation 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>

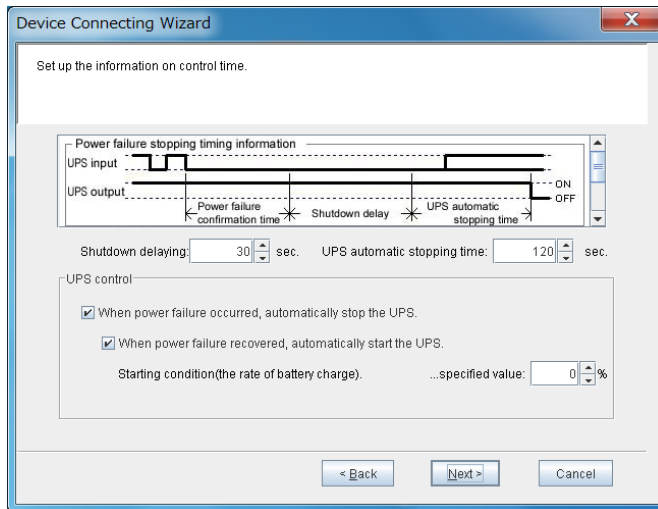
If exclude the both checks of "After the confirmation time passes, shutdown Exec." and "When the low battery voltage occurs, shutdown execution.", computer will not be shutdown.

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)

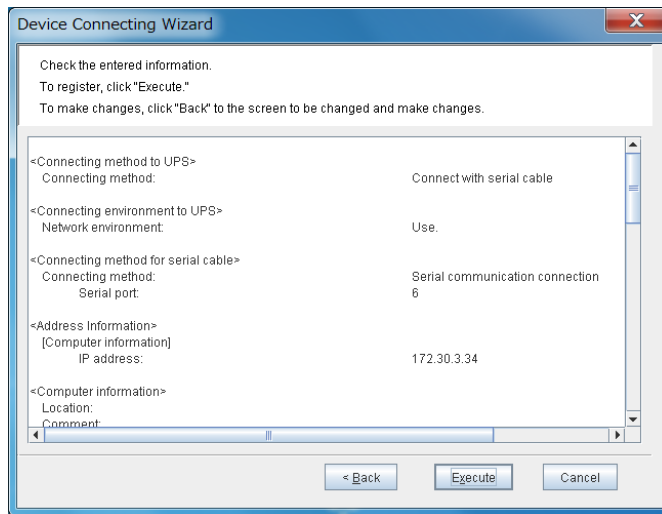


Use this screen to continue the operation on the previous screen and specify how to control the UPS.

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

## Setting up SANUPS SOFTWARE

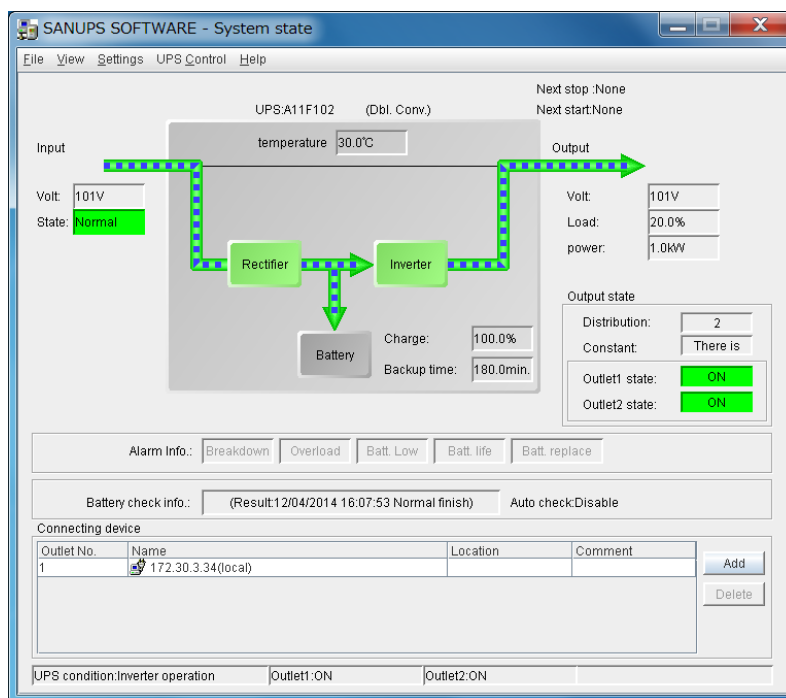
(K) Check the entered information



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.

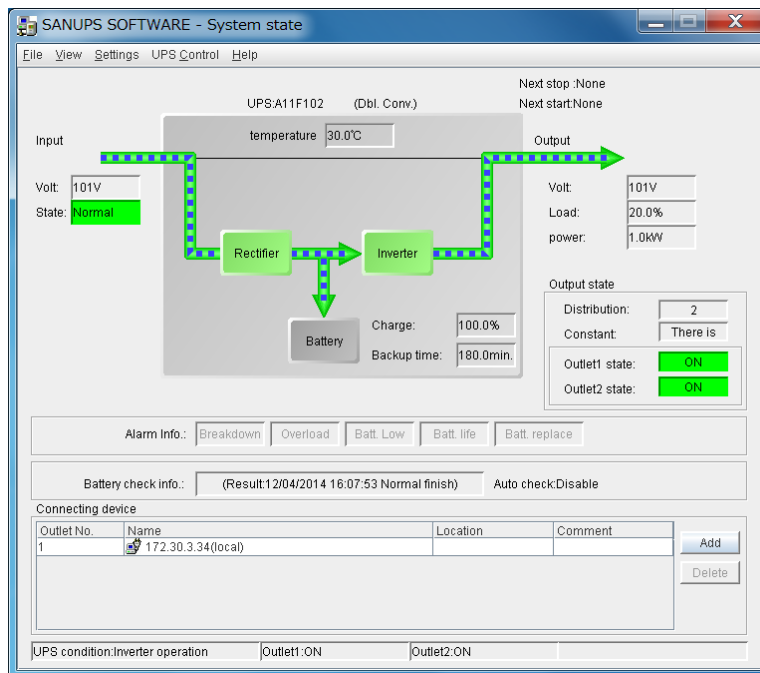
If you want to change any information, click the **Back** button to return to the appropriate screen.

↓ 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.)

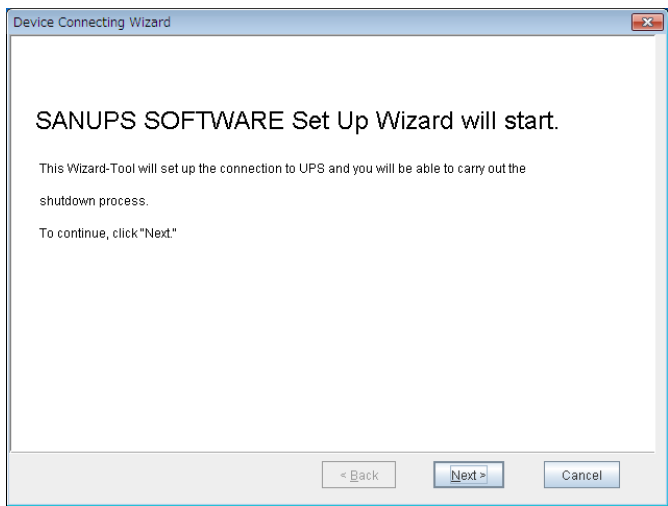
### 4.1.2 When the computer is a client connection with UPS

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] – [SANUPS SOFTWARE] – [SANUPS SOFTWARE].

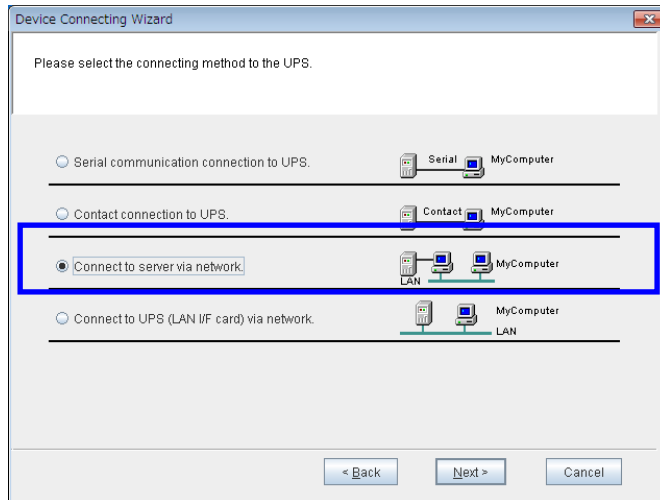
**< Information >**  
For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**, move to the folder where **SANUPS SOFTWARE** is installed, and then execute “**sg4 0**” using command line.



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).

## Setting up SANUPS SOFTWARE

### (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
<b>UPS information</b>	Specify the network information of the server computer. Enter a network name or IP address. <sup>(*)</sup>
<b>Computer information</b>	Specify the network information of the local computer. Enter a network name or IP address. <sup>(*)</sup>

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

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

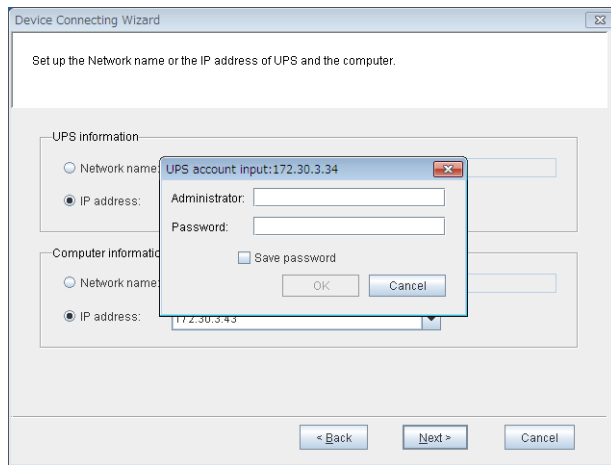
If the computer is supported in an IPv6 environment (**SANUPS SOFTWARE** IPv6 supported OS), a list of IPv4/IPv6 addresses enabled in the computer's network settings are displayed.

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

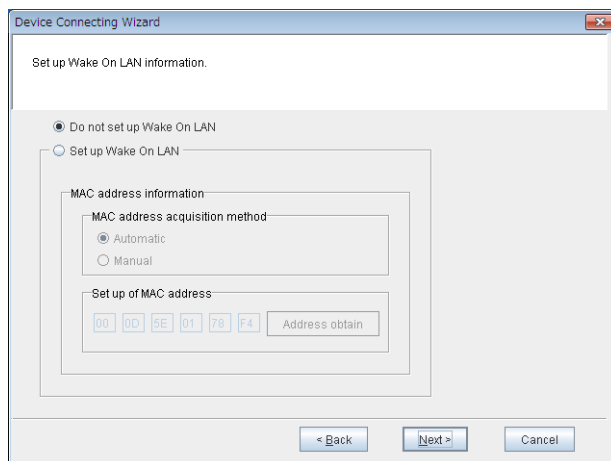


Enter account information of the UPS administrator.  
Use the following default values for the input.  
Administrator: **upsadmin**  
Password: **UpsAdmin**<sup>(Note1)</sup>  
Then, click the **OK** button.  
After user authentication is performed, proceed to the next screen.

(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 changed of Settings screen.  
Please refer to “6. Explanation of Functions” of the User Guide to change settings.

## Setting up SANUPS SOFTWARE

### (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
<b>Shutdown</b>	Shut down the computer.
<b>Shutdown and turn off power</b>	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 <b>Windows</b> that supports <b>ACPI [Advanced Configuration and Power Interface]</b> .)
<b>Suspend</b>	Suspend the computer. (If your <b>Windows</b> computer supports the "Suspend".) <u>Do not use this shutdown type when you perform scheduled operation.</u> If you use this shutdown type and perform scheduled operation, the popup messages that accompany the suspend and resume operations are stored.

#### <Information>

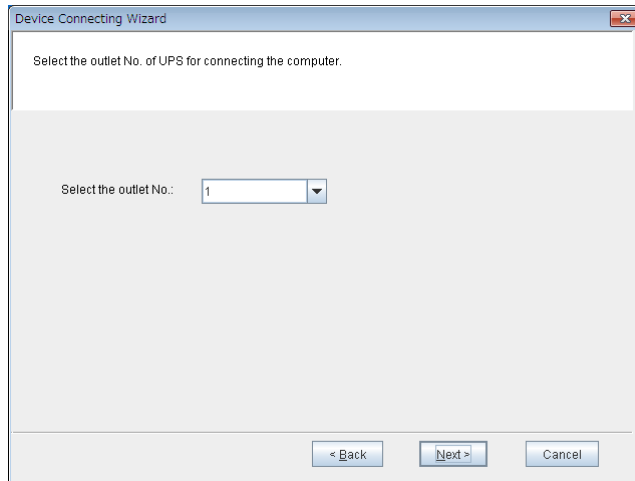
If use **Windows** and start automatically after power recover, please refer to "About constraint of automatic starting function of a computer" of "Appendix A Precautions for using **Windows**".



(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 appear. In this case, the outlet becomes fixed at [1] automatically.

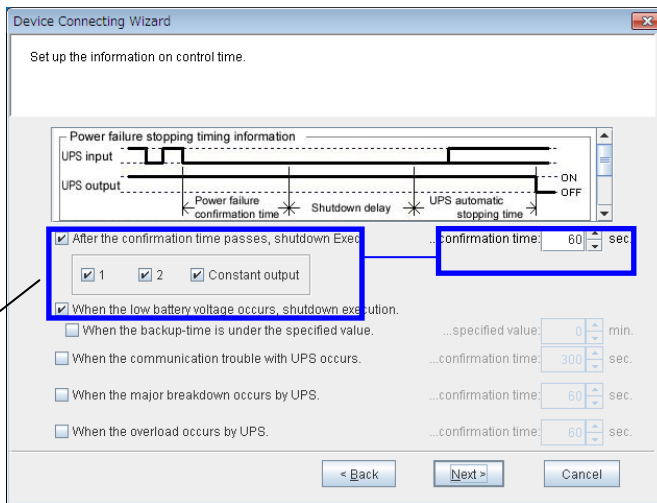


Select an output outlet number for the UPS connected to the computer.

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.**

(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 confirmation 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.

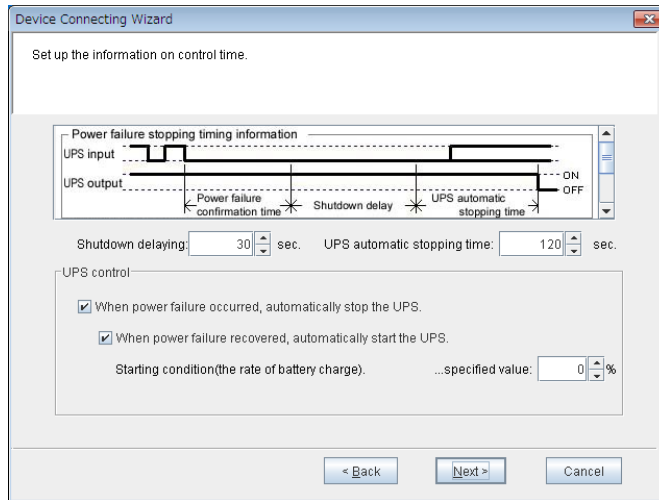
**<Attention>**

If exclude the both checks of "After the confirmation 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 occur by battery discharge cut-off instead of automatically shutdown.

Please understand those operation, if exclude those two setting items.

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

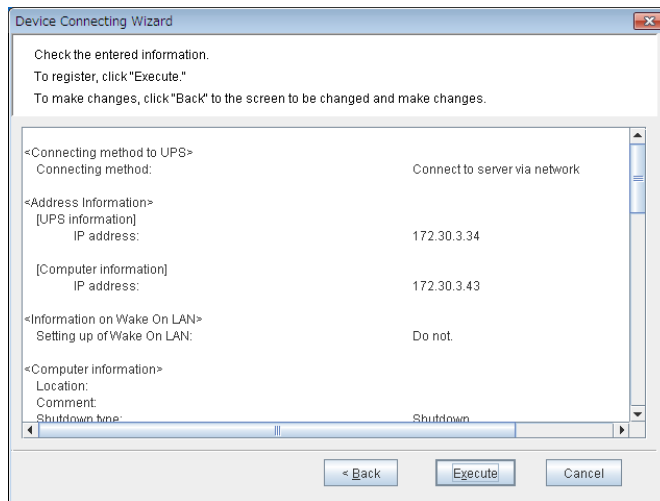


Use this screen to continue the operation on the previous screen and specify how to control the UPS.

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

## Setting up SANUPS SOFTWARE

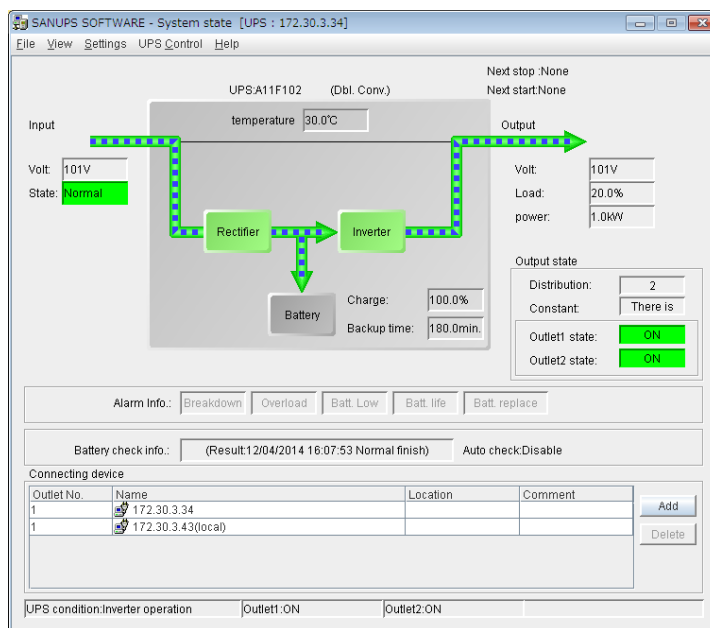
### (J) Check the entered information



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.

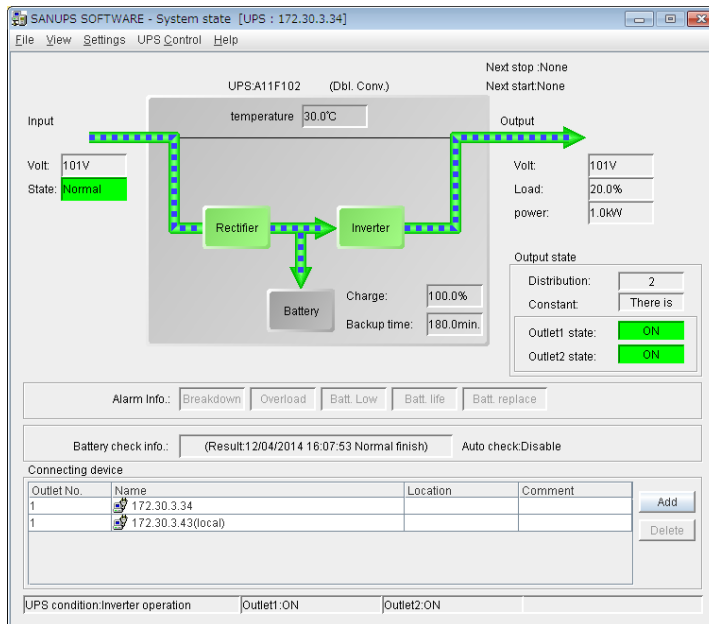
If you want to change any information, click the **Back** button to return to the appropriate screen.

↓ 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?

(Please refer to “Before using Windows Firewall” in “Appendix A Precautions for using Windows”).

**<Information>**  
Shutdown confirmation by this computer alone can be done, by using shutdown test function.

### 4.1.3 When the computer is a network connection with UPS

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**

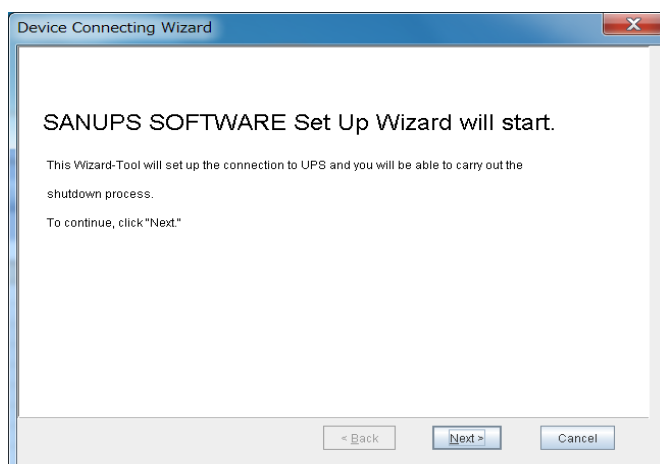
When using **Windows Server 2012**, if connected to a network using a LAN interface card that does not support IPv6, refer to “Precautions when connecting a network to a LAN interface card from **Windows Server 2012**” in “Appendix A Precautions for using Windows.”

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

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

#### **< Information >**

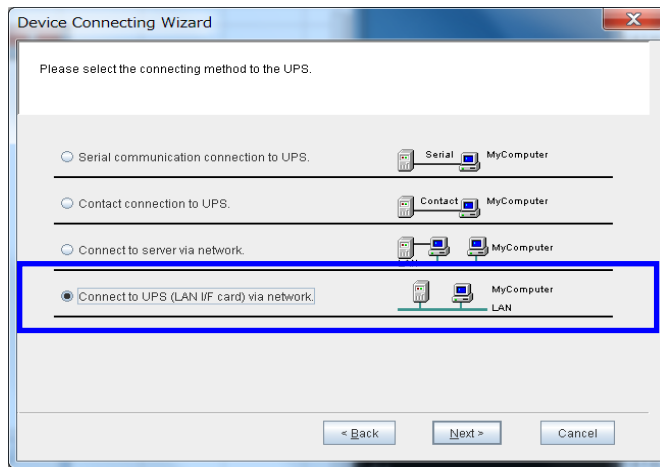
For **Windows Server 2008 Server Core** or **Windows Server 2012 Server Core**, move to the folder where **SANUPS SOFTWARE** is installed, and then execute “**sg4 0**” using command line.



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



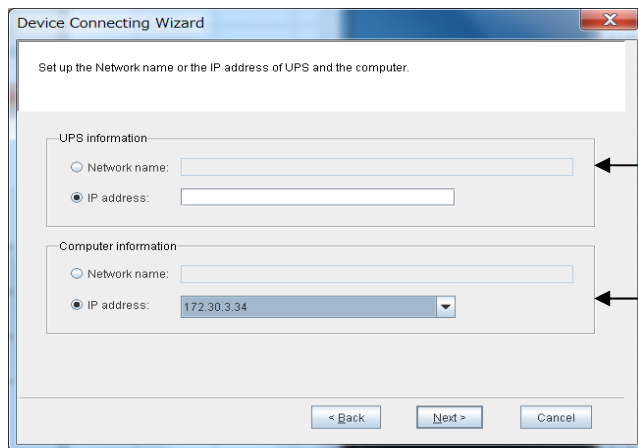
Select the [**Connect to UPS (LAN I/F card) via network**] option.

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
<b>UPS information</b>	Specify the network information of the UPS (LAN I/F card). Enter a network name or IP address. <sup>(*)</sup>
<b>Computer information</b>	Specify the network information of the local computer. Enter a network name or IP address. <sup>(*)</sup>

(\*) 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**

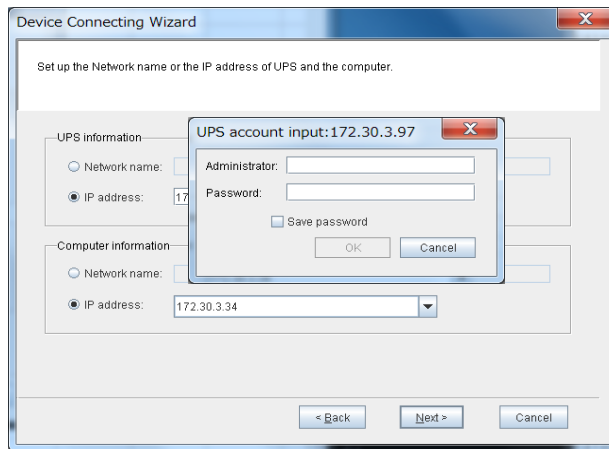
These settings cannot be modified later. (To change the settings, the registration information must be deleted and registered again).

**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

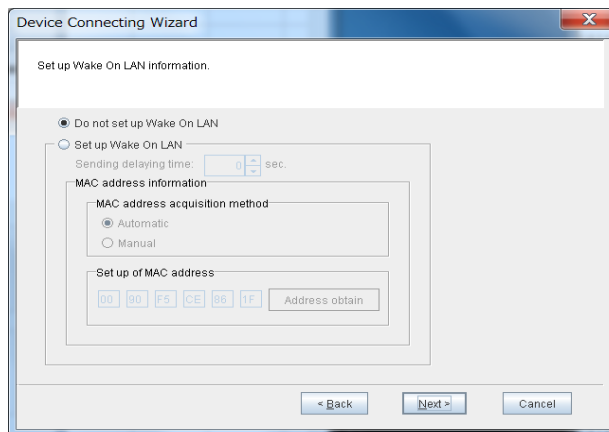


Enter account information of the UPS administrator.  
Use the following default values for the input.  
Administrator: **upsadmin**  
Password: **UpsAdmin**<sup>(Note1)</sup>  
Then, click the **OK** button.  
After user authentication is performed, proceed to the next screen.

(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.



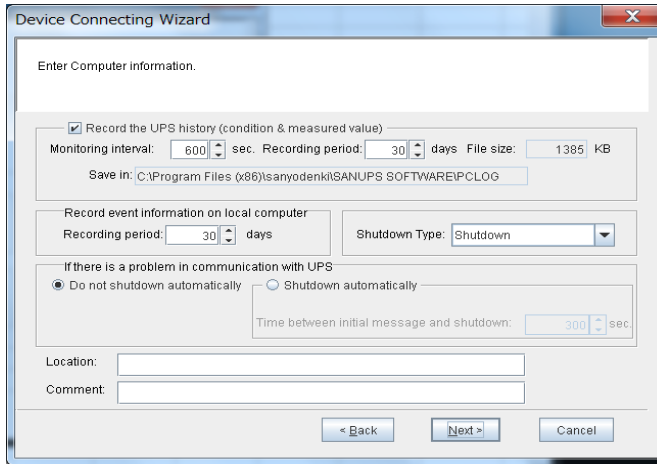
Set up the Wake On LAN function. (If you do not know the computer environment, select the **Do not set up Wake On LAN** option. Regardless of this setting, the operation of the UPS management system is not affected.)  
Click the **Next** button to move to the next screen. (Enter computer information).

**<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

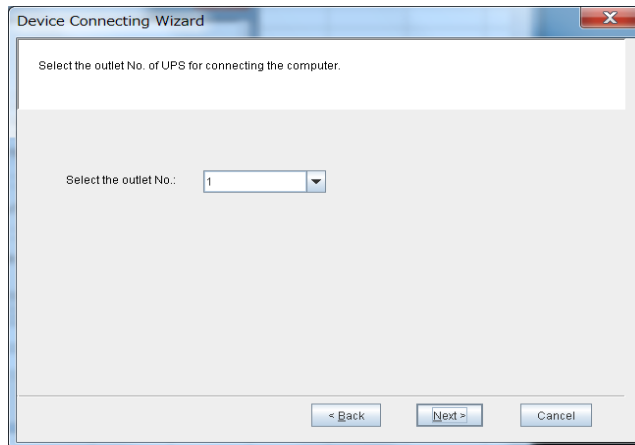
Shutdown	Description
<b>Shutdown</b>	Shut down the computer.
<b>Shutdown and turn off power</b>	After shutting down the computer, turn off its power. The power referred here is not the output power of the UPS, but the power of the computer itself. (This shutdown type can be used only for <b>Windows</b> that supports <b>ACPI [Advanced Configuration and Power Interface]</b> .)
<b>Suspend</b>	Suspend the computer. ( If your <b>Windows</b> computer supports the "Suspend".) <u>Do not use this shutdown type when you perform scheduled operation.</u> 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 appear. In this case, the outlet becomes fixed at [1] automatically.

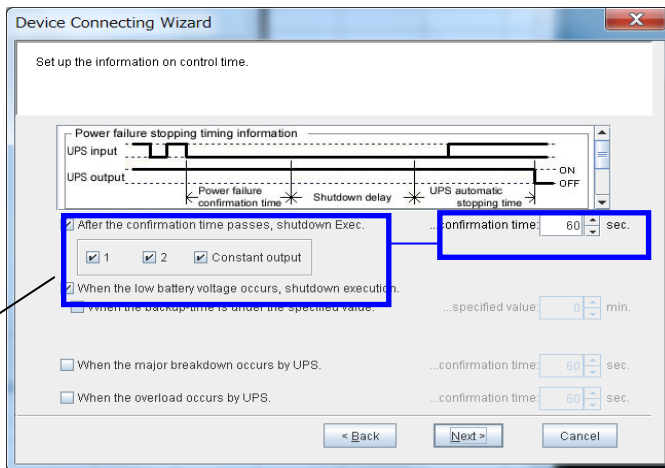


Select an output outlet number for the UPS connected to the computer.

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.**

(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 confirmation 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.

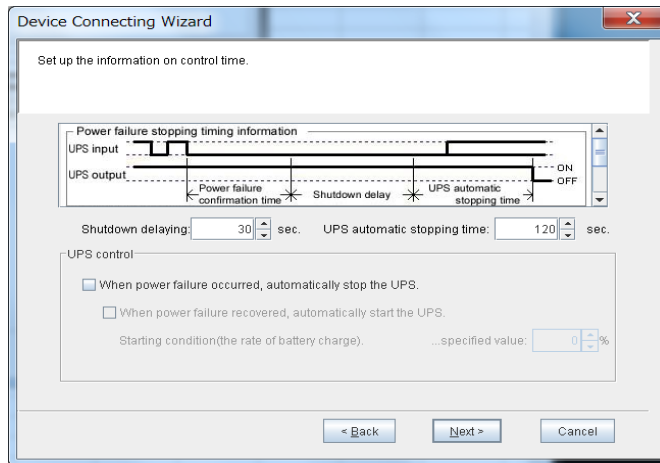
**<Attention>**

If exclude the both checks of "After the confirmation 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 occur 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)



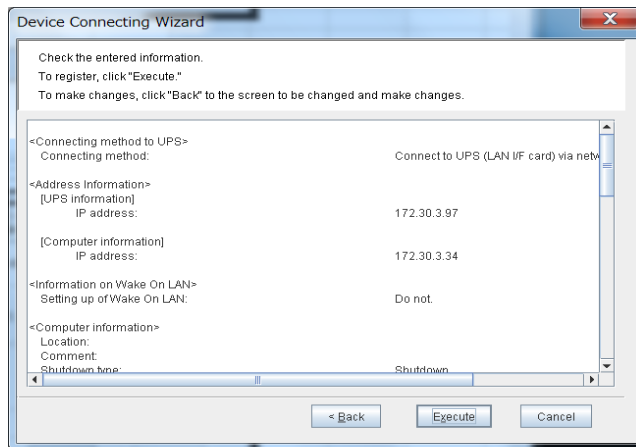
Use this screen to continue the operation on the previous screen and specify how to control the UPS.

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

## Setting up SANUPS SOFTWARE

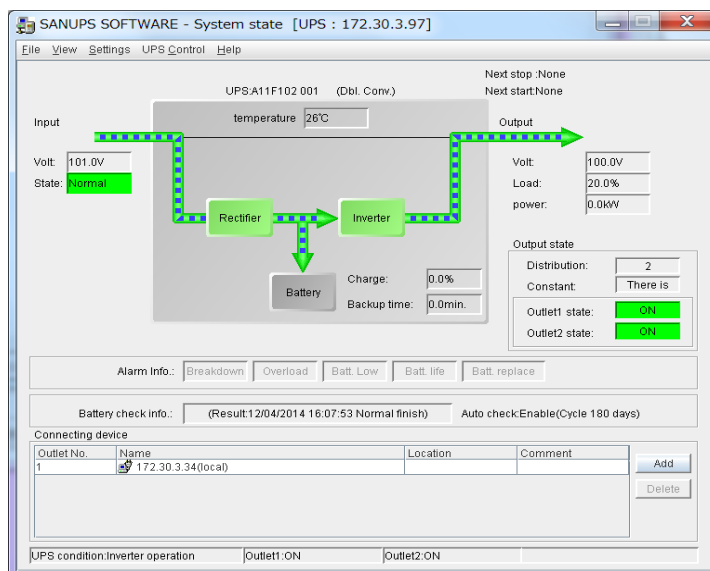
(J) Check the entered information



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.

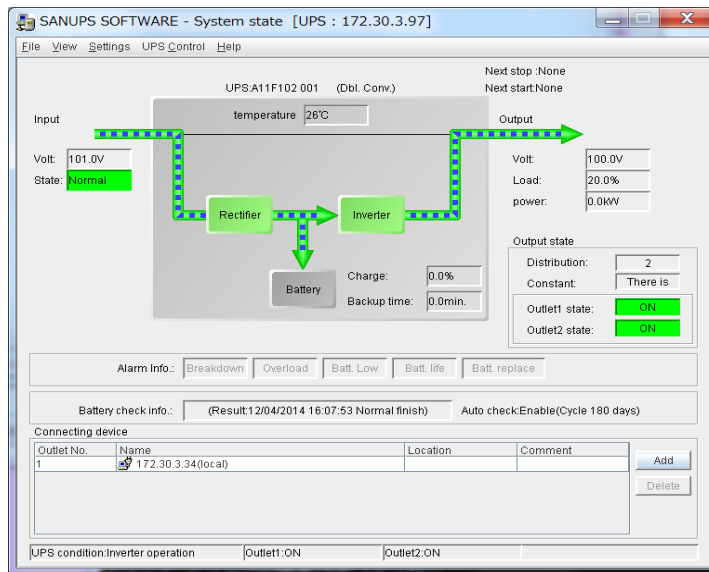
If you want to change any information, click the **Back** button to return to the appropriate screen.

↓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?

(Please refer to “Before using Windows Firewall” in “Appendix A Precautions for using Windows”).

**<Information>**  
Shutdown 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 device before uninstall.

- Uninstall the **SANUPS SOFTWARE** program.
  - [1] From the [Start] menu, 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 following uninstall command using command line.

Example to execute command.

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



## Appendix A Precautions for using Windows

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

1. When using the following OS, the OS must satisfy the following criteria for the computer to auto start if supplied with power from the UPS.

**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.

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### 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 [Browse] 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] 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.

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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.)

\*\*\*\*\*

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

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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.

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<sup>(\*1)</sup> 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".<sup>(\*2)</sup>

(\*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<sup>(\*3)</sup>

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** <sup>(\*3)</sup>

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**

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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.

## Appendix B 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 msixec.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".