DAIKIN

intelligent Manager III

Commissioning Manual





DAIKIN INDUSTRIES, LTD.

Introduction

For those who will apply and install intelligent-Manager III, we have prepared the intelligent-Manager III Commissioning Manual.
This manual provides detailed explanations from the very first step of the installation to the actual operation processes.

This manual consists of the three main sections given below.
1. intelligent-Manager New Installation Operation
2. intelligent-Manager Upgrade Operation
3. How to Use Engineering Tool

If you do not need to read from the beginning, you can find the pages you need in the contents in the next page and go through the manual.

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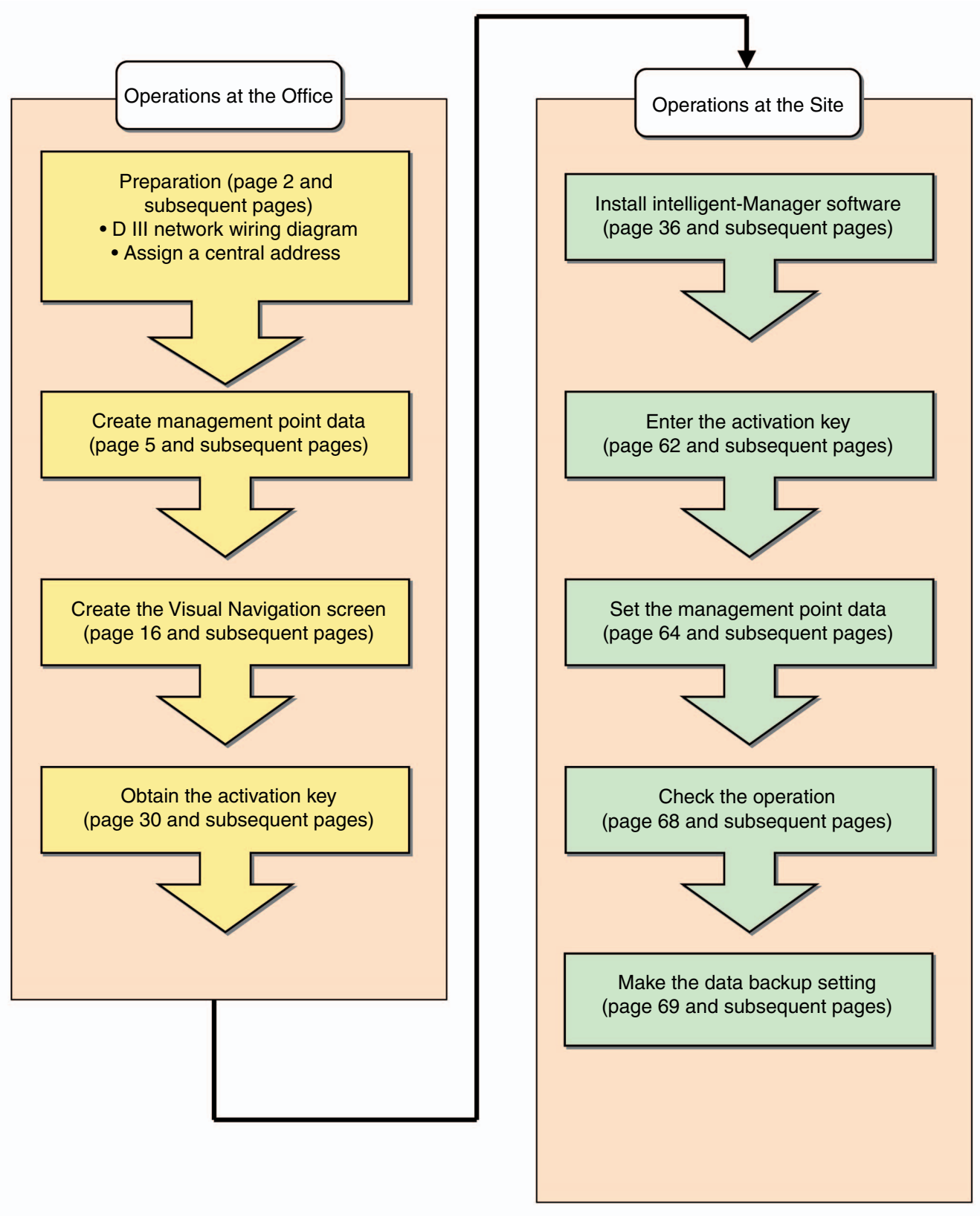
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1. intelligent-Manager New Installation Operation

1-1. Workflow



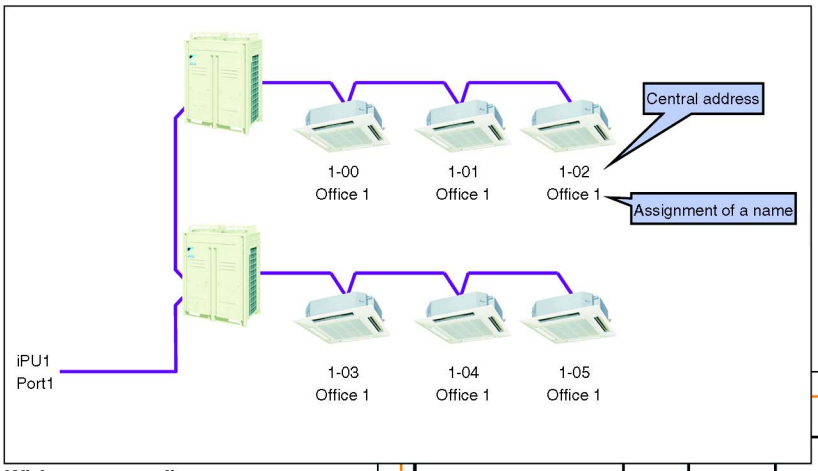
* Refer to "How to Use Engineering Tool" (from P. 76) while making the settings.

1-2. Operations at the Office

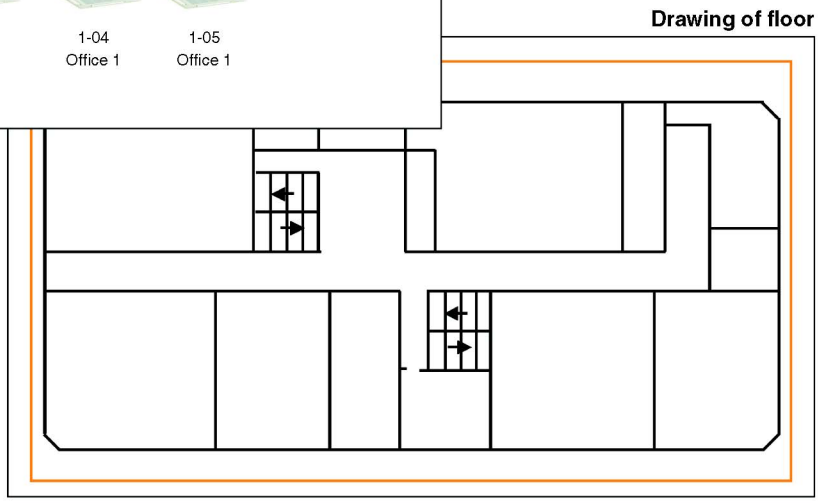
1-2-1. Preparations

a. Acquisition of Drawing for Air Conditioners

Firstly, you need to obtain the drawing and wiring diagram of the floor to which you will implement this system. For the details of the drawing and wiring system diagram of the floor, see intelligent-Manager Design Guide.



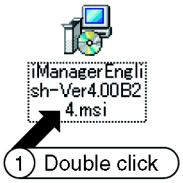
Wiring system diagram

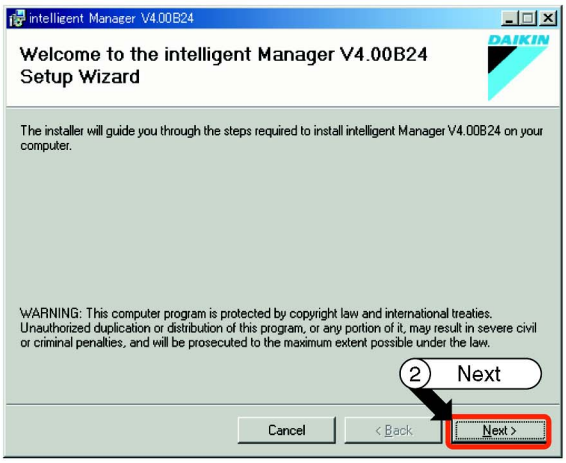


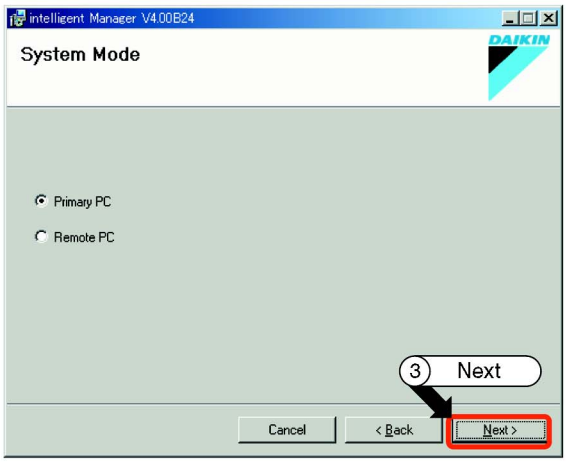
Drawing of floor

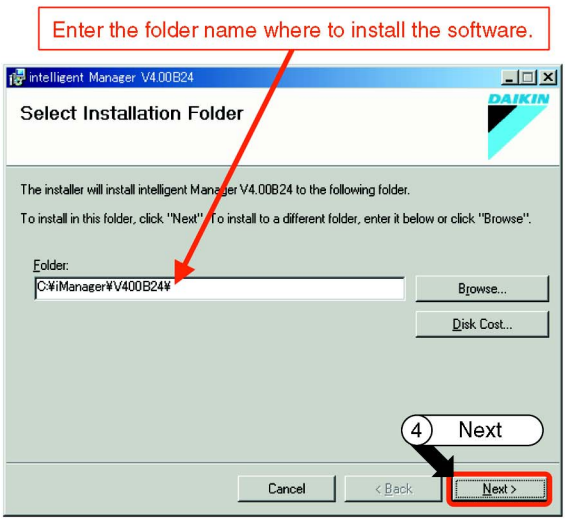
b. Installation of intelligent-Manager Software to Operation PC

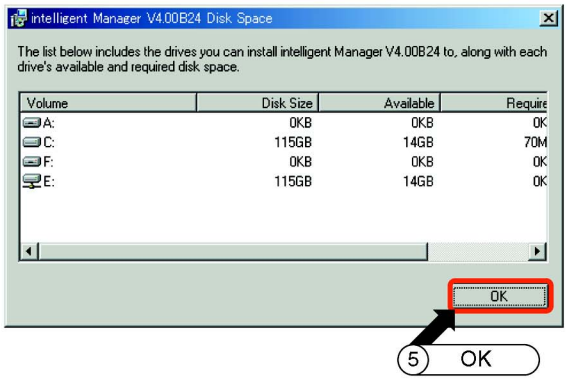
Install the intelligent-Manager software to the operation PC to create intelligent-Manager data.
You need to obtain the intelligent-Manager software first.
(If you have access to Distributor's Page of DAIKIN, download the software from the pages. If not, ask your distributor directly how to obtain the software.)
The procedure to install the software to the PC for the data creation operation is given below.

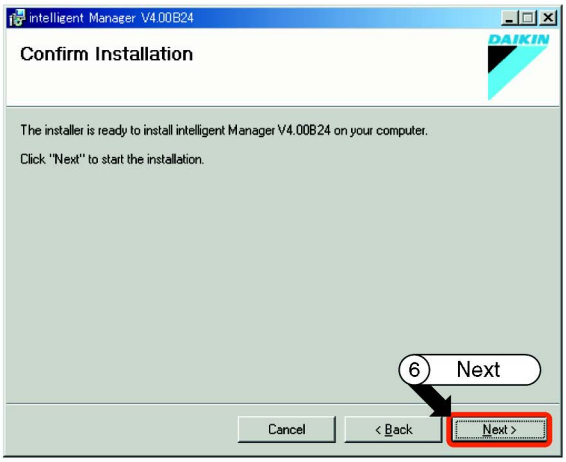


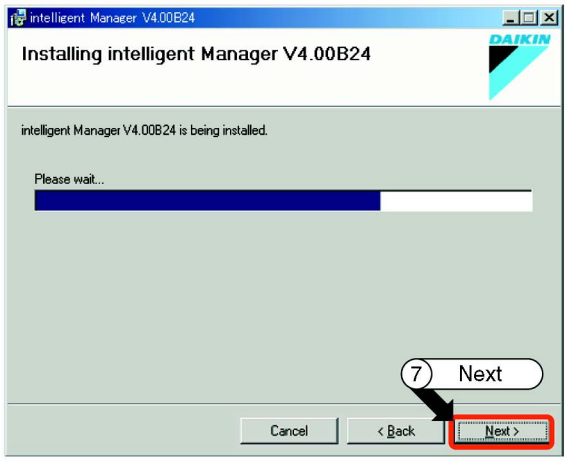






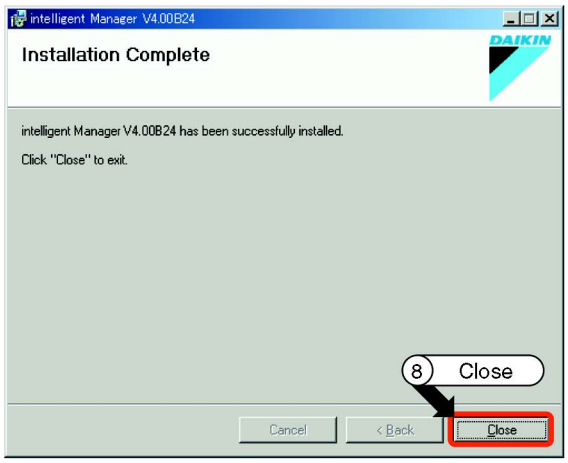






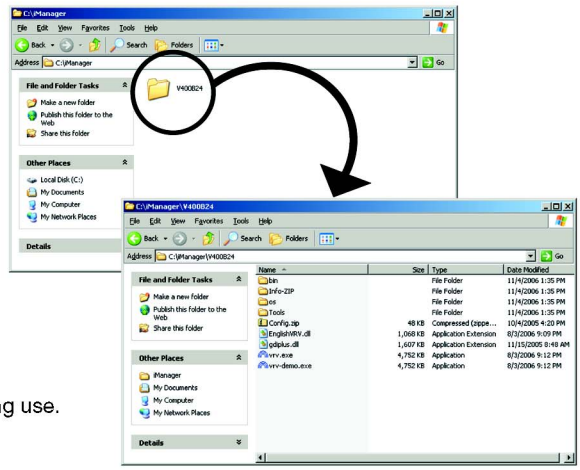
Go to Next Page

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Installation is completed.

9 Check the installed files.



Check that the files are installed in the specified path (c:¥iManager¥V400B24¥in this manual).

10 Delete the shortcut key.

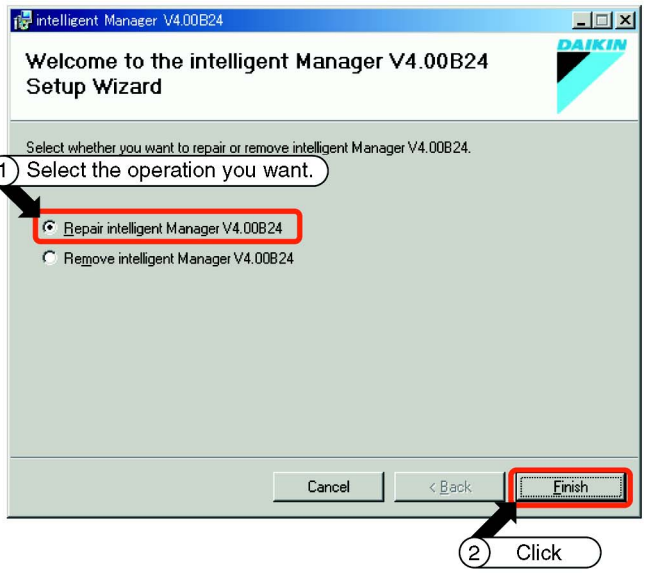


Imanager.lnk

A shortcut for intelligent-Manager is created on the desktop.
→ A shortcut on the desktop is not required for the PC for setting use.
Delete the shortcut.
This is the end of the installation to the operation PC.

Note:

To repair or remove the installed system, select an appropriate item, and then click Finish. The operation will automatically start.

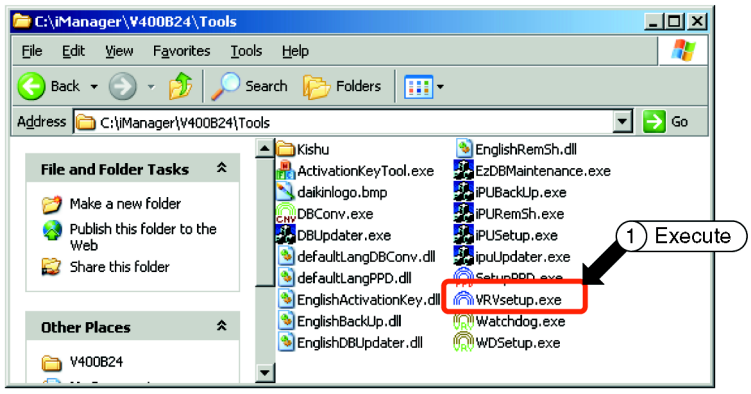


1-2-2. Creating Management Point Data

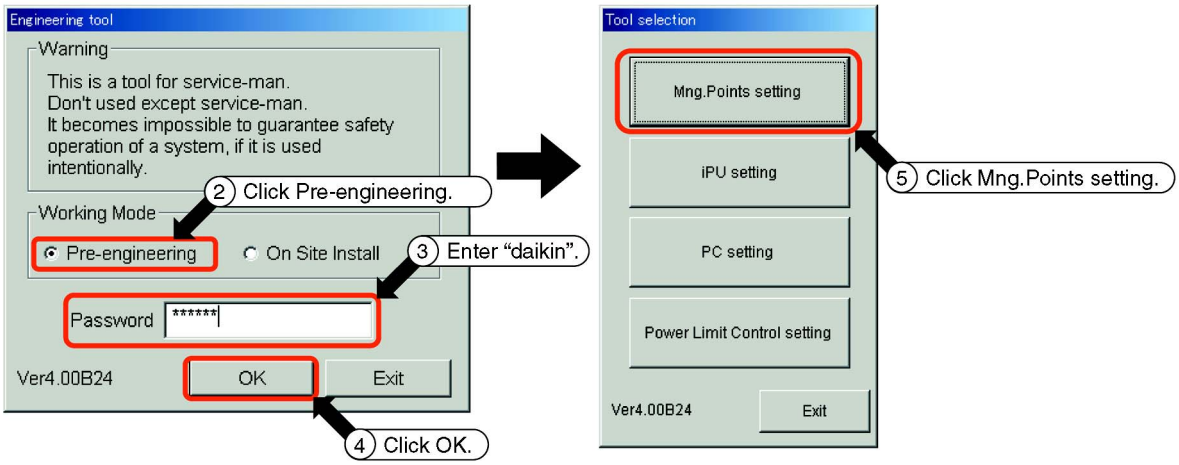
There are two methods of creating management point data: one uses the "management point data creation tool", and the other creates the data in a CSV file using Excel, etc. This section explains these two methods.

a. Method of Using Management Point Creation Tool

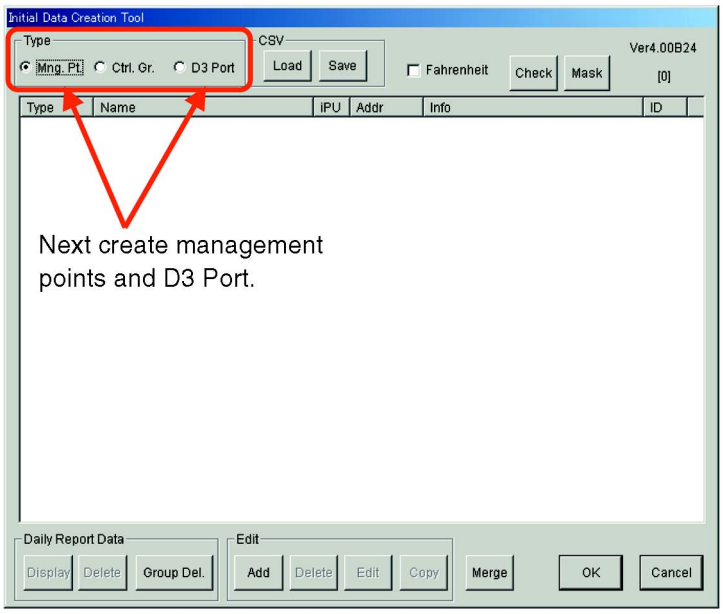
Execute ¥VRV Setup in the Tools folder.



Select Pre-engineering, enter daikin as a password, and then select Mng.Points setting.



Initial Data Creation Tool window is activated.

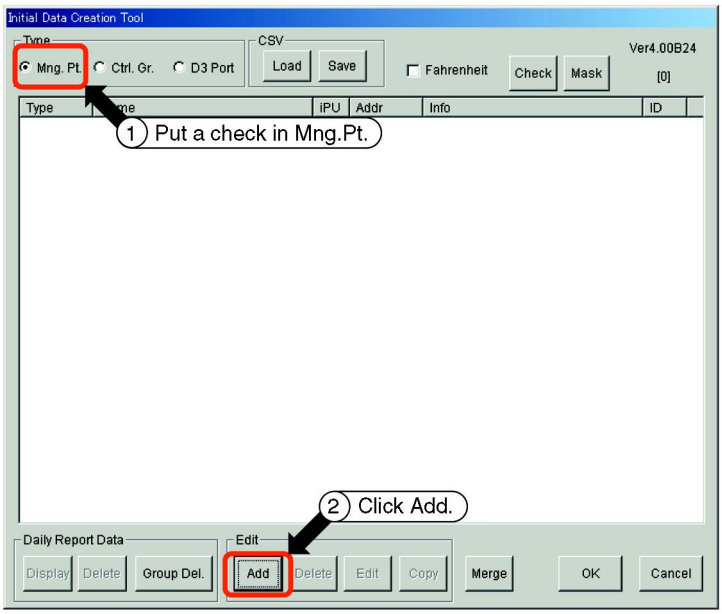


Note:

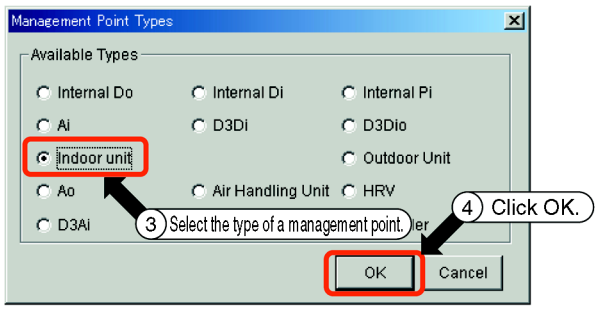
What is a management point?
One indoor unit is regarded as one management point.

Creation of a management point

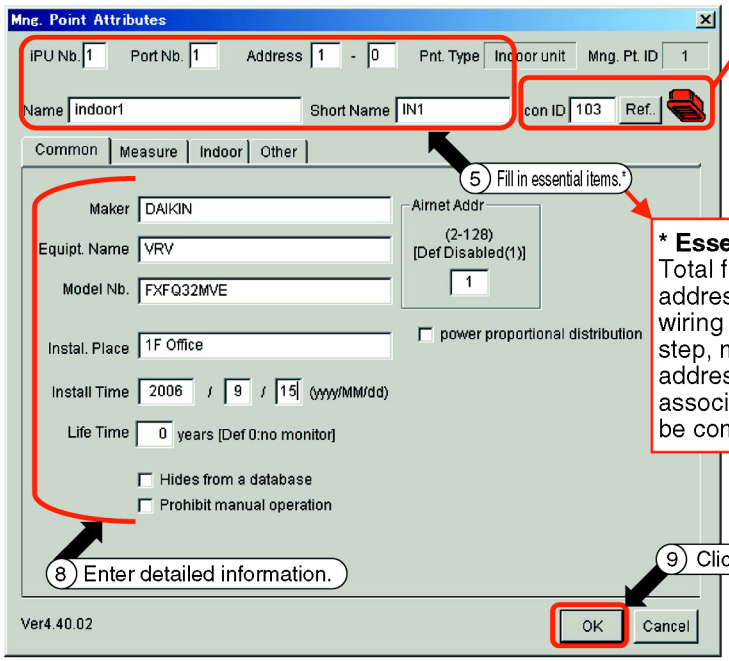
To create a management points, put a check in Mng.Pt and click Add.

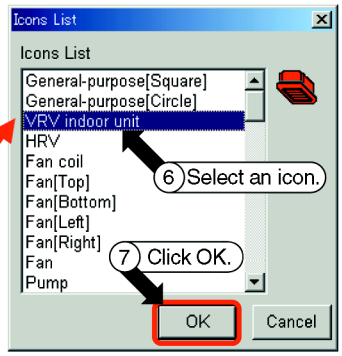


When the Management Point Types window appears, select the type of a management point you want to create.



The Mng. Point Attributes window appears. Enter the detailed information of each management point.

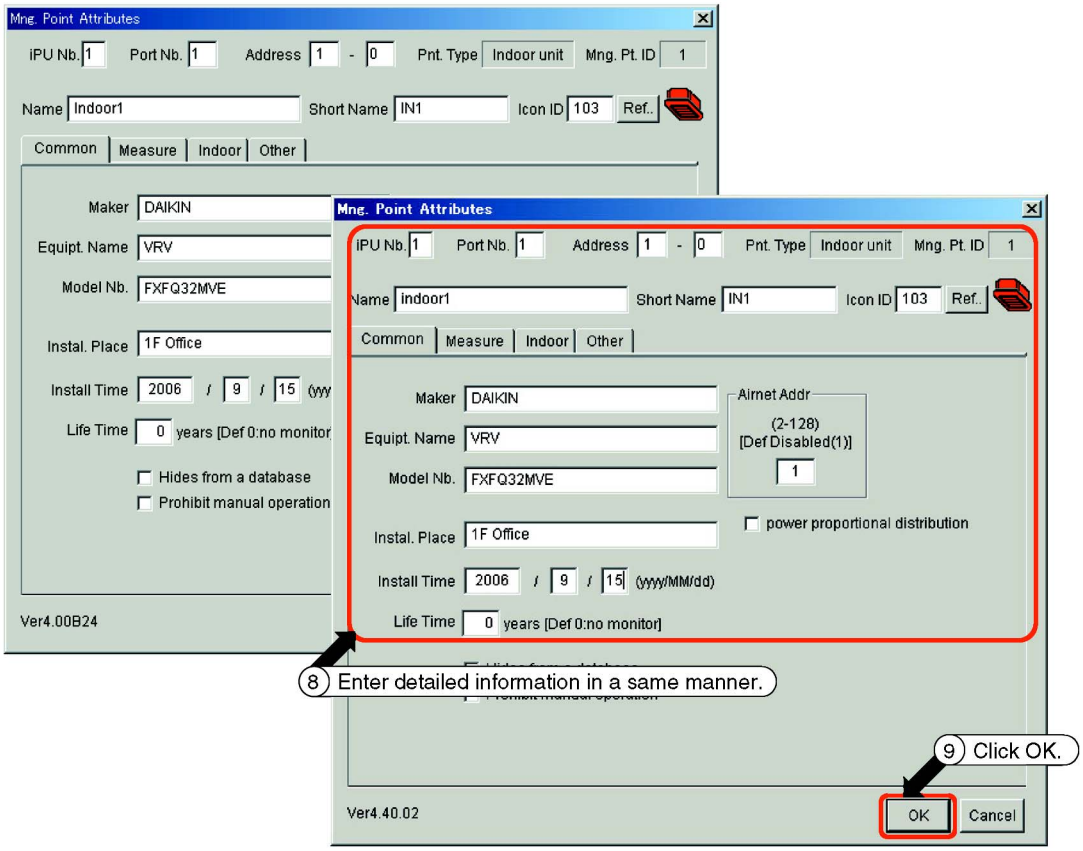




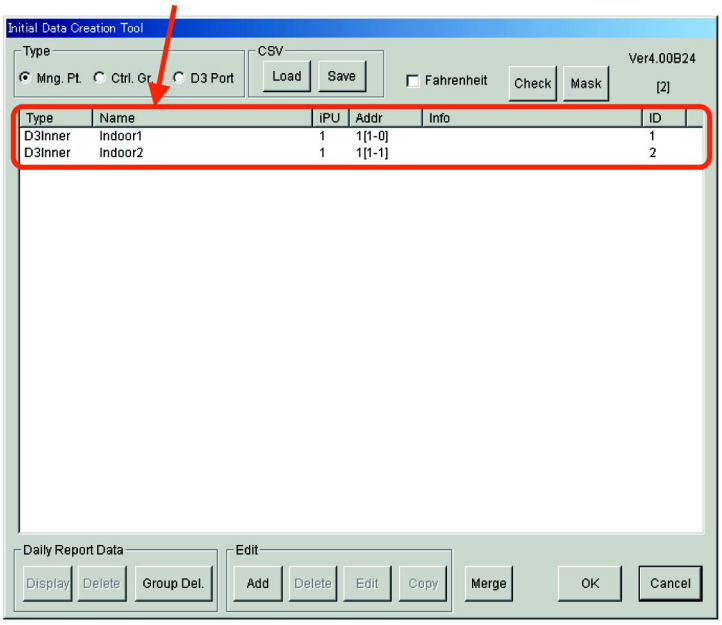
You can select any icon corresponding to the shape of the device.

*** Essential items**
Total five items including the iPU No., Port No., address, name, and abbreviation name. (The wiring diagram, which you obtained in the first step, must have the iPU No., Port No., and address.) The name and abbreviation should associate with an actual room and should not be complicated.

Repeat this procedure to create necessary management points.

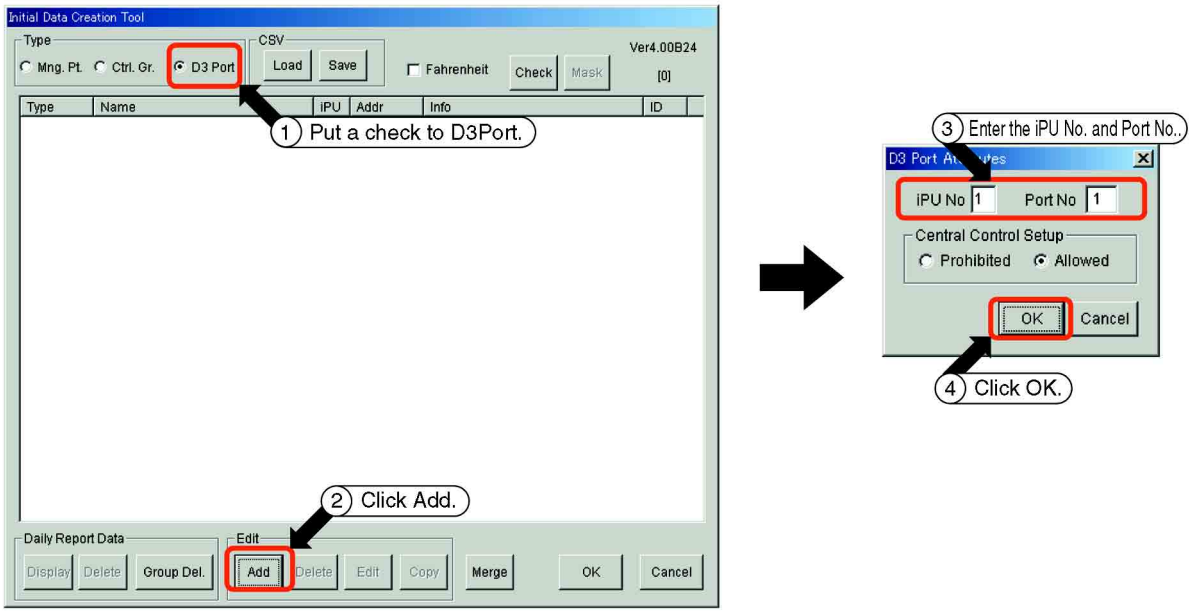


Verify that another management point is created.

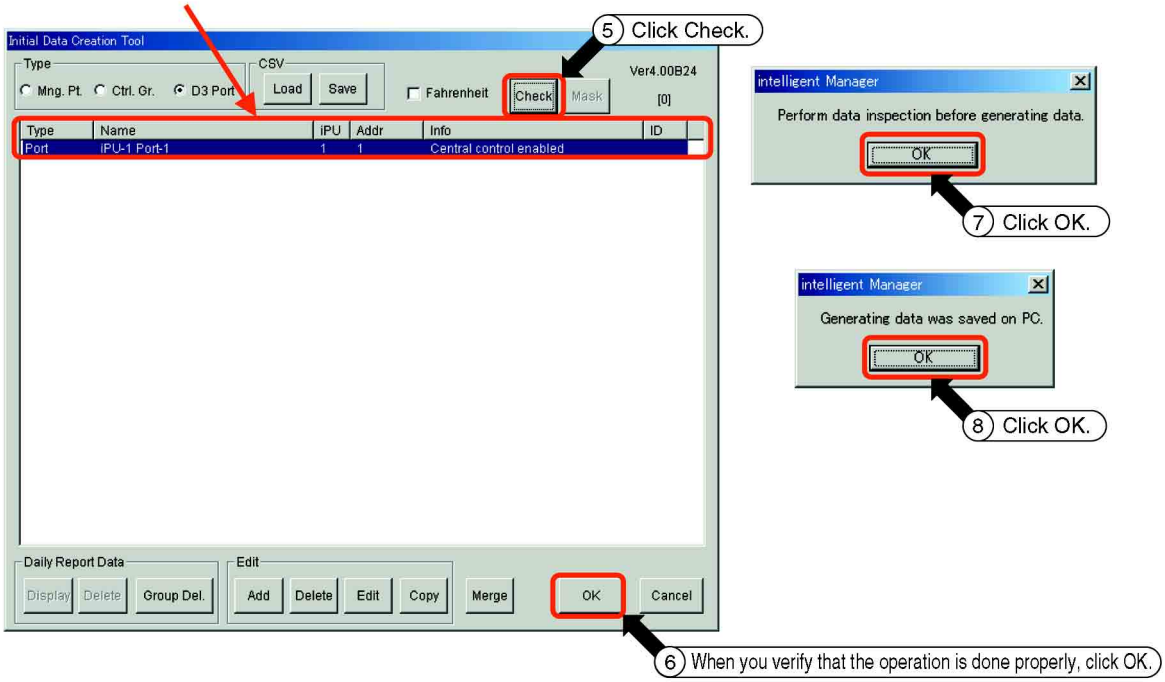


Creation of D3 Port

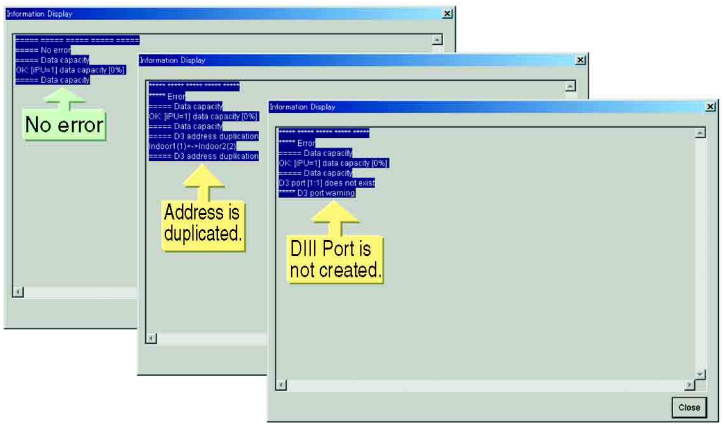
Create D3 Port which is used by a management point.



D3 Port is created. Check that all data has been correctly created. If an error is not displayed when you press the Check button, the management point data creation is completed.



Example of error window



Note:

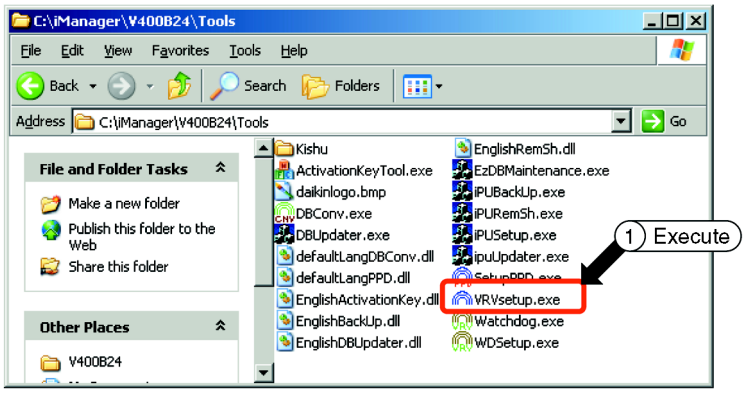
Major reasons of errors
(1) Duplication of an address or a name
(2) Failure to create D3 Port

b. Method of Creating Data in a CSV File

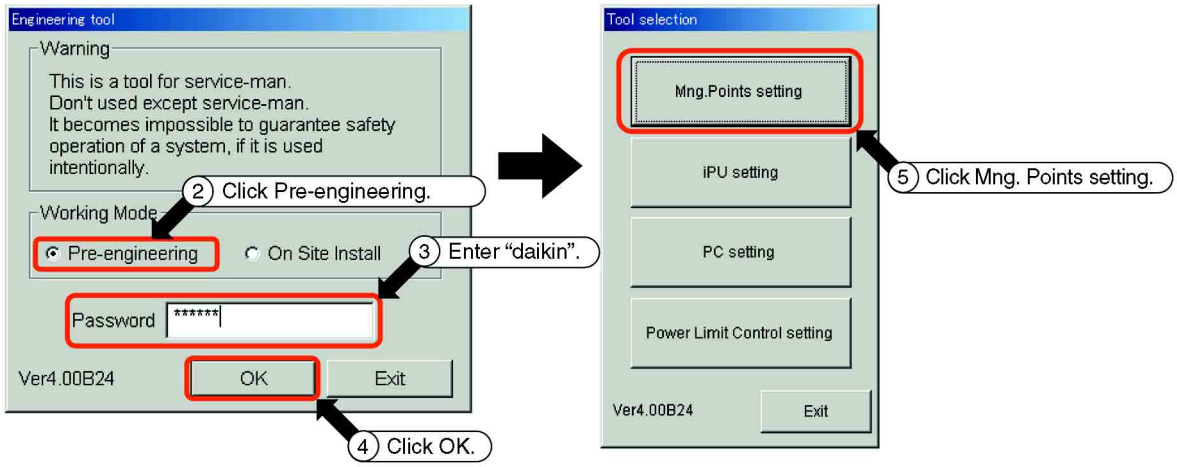
Creating CSV files has an advantage that input can be made efficiently when you have many floors and management points.
First, you need create a template of CSV files using the same tool as the aforementioned **a. Method of Using Management Point Creation Tool** (page 5).

Creation of a CSV File

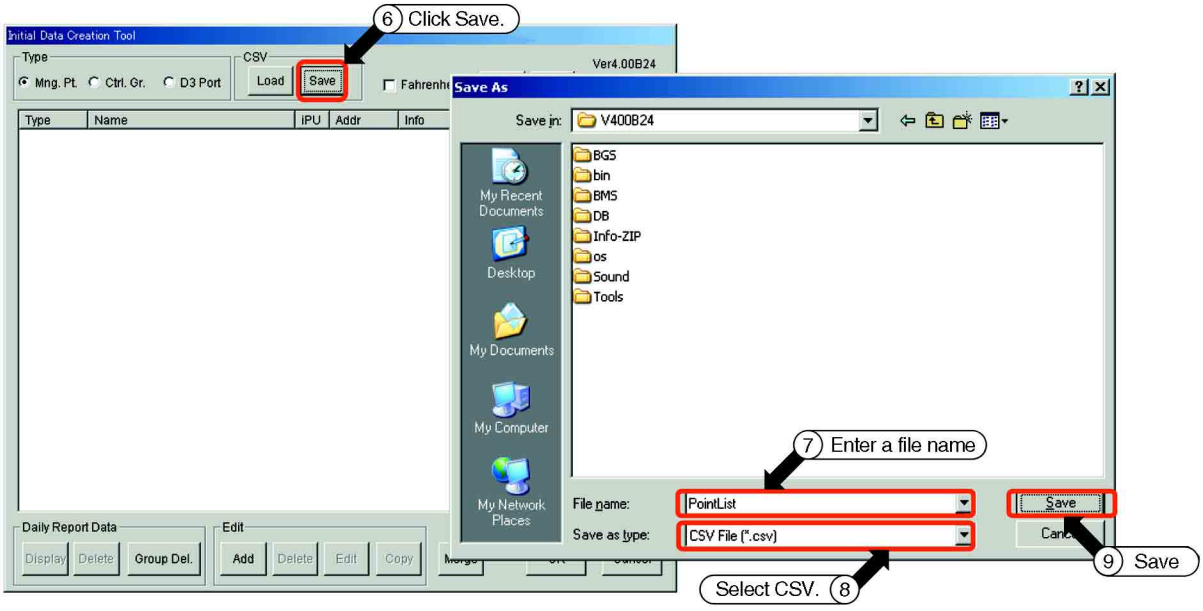
Execute ¥VRV Setup in the Tools folder.



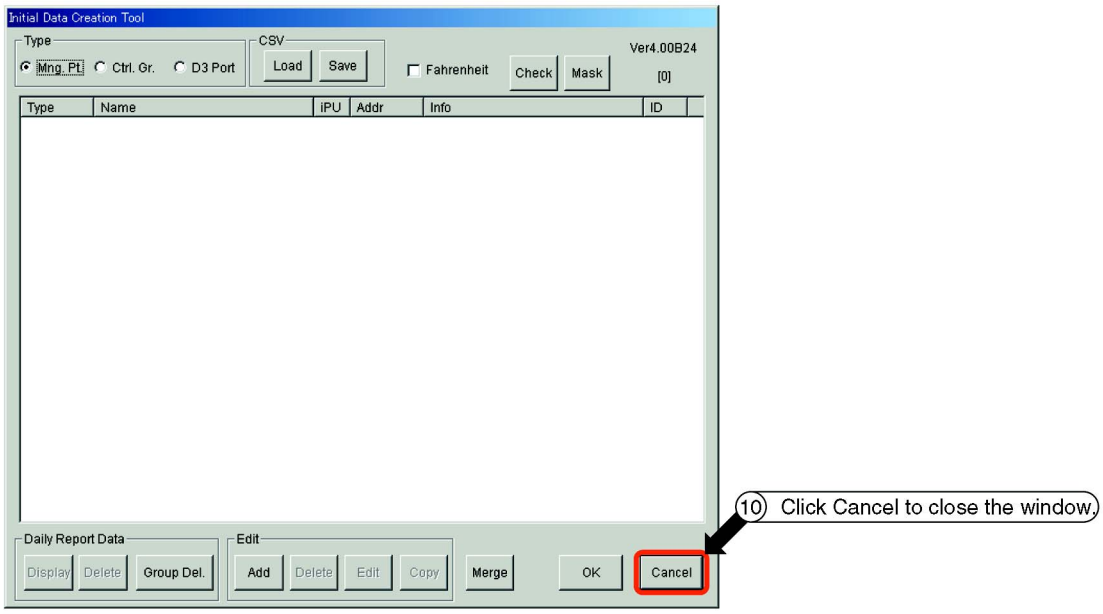
Select Pre-engineering and enter daikin as a password.

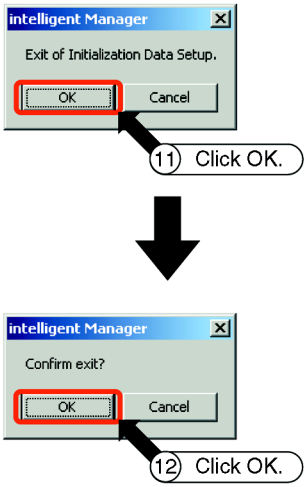


Click Save for CSV, and the data save window is opened. Enter a file name and save the file.
Select CSV for the type of the file.



After saving the CSV file, close Initial Data Creation Tool.

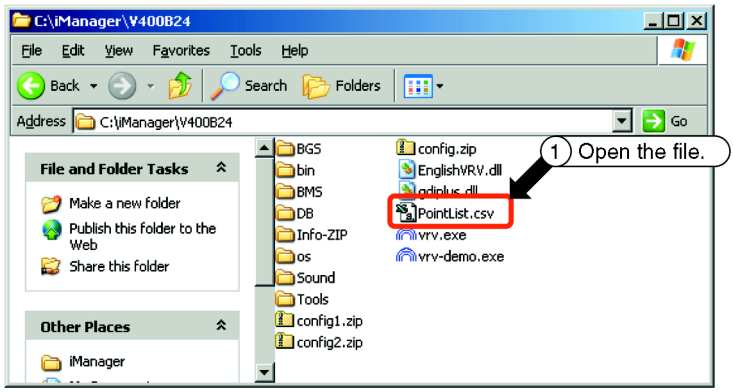




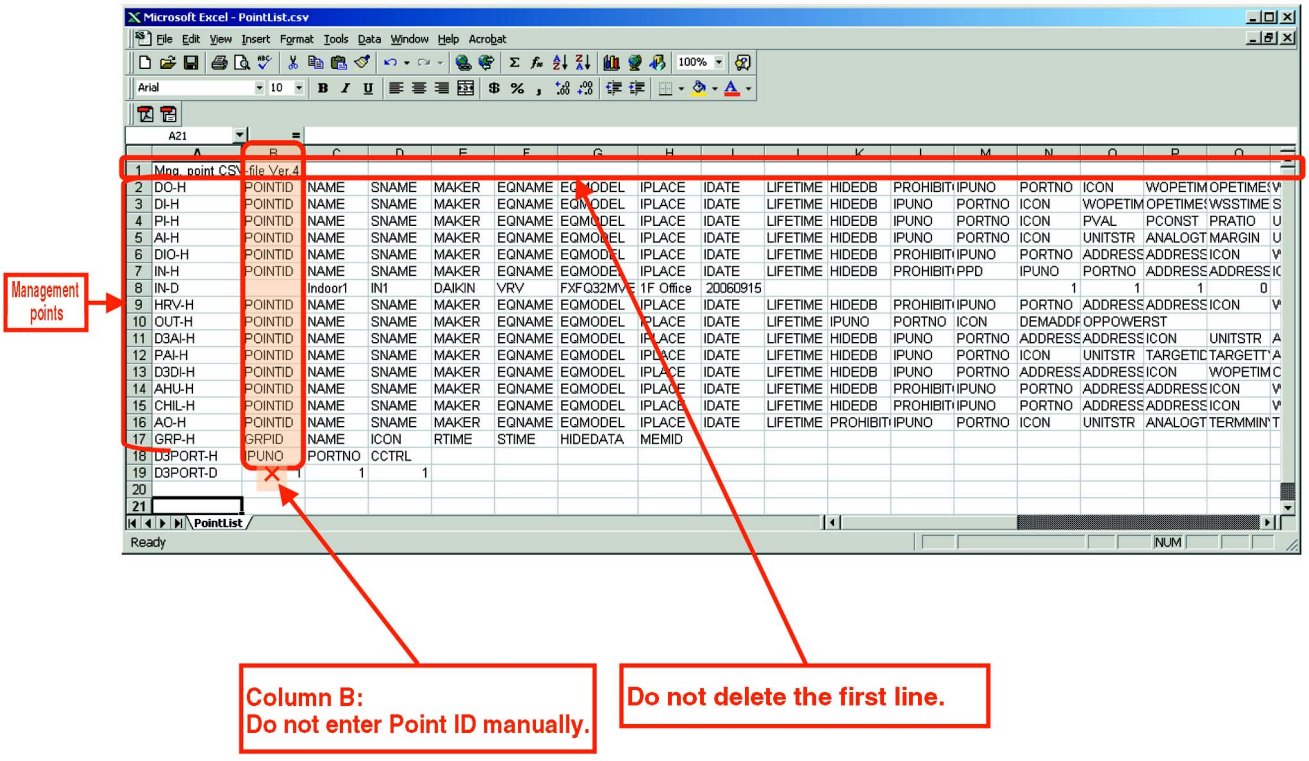
This is the end of creation of a CVS file template.
Next, enter and edit necessary information of this file.

Edit of a CSV file

Open the saved CSV file.



Edit the CSV file.
You can delete lines of which information is not for connected devices. (You may keep them.)
Be sure not to delete the first line.
(For more details of editing items, see **3-1-6. CSV Input/Output Function** (page 112).)
In the default setting, 15 types of management points are displayed from the 2nd line to 16th line in the column A.
Each line contains data items of each management point.
The list of names of management points is given in the next page.



Next, add the management point data (○○-D) line below each management point (○○-H).
○○-H means the Header line of each device.
(e.g.: In the case of indoor units, add the IN-D (Indoor Data) line below IN-H (Indoor Header) as many as the number of management points.)

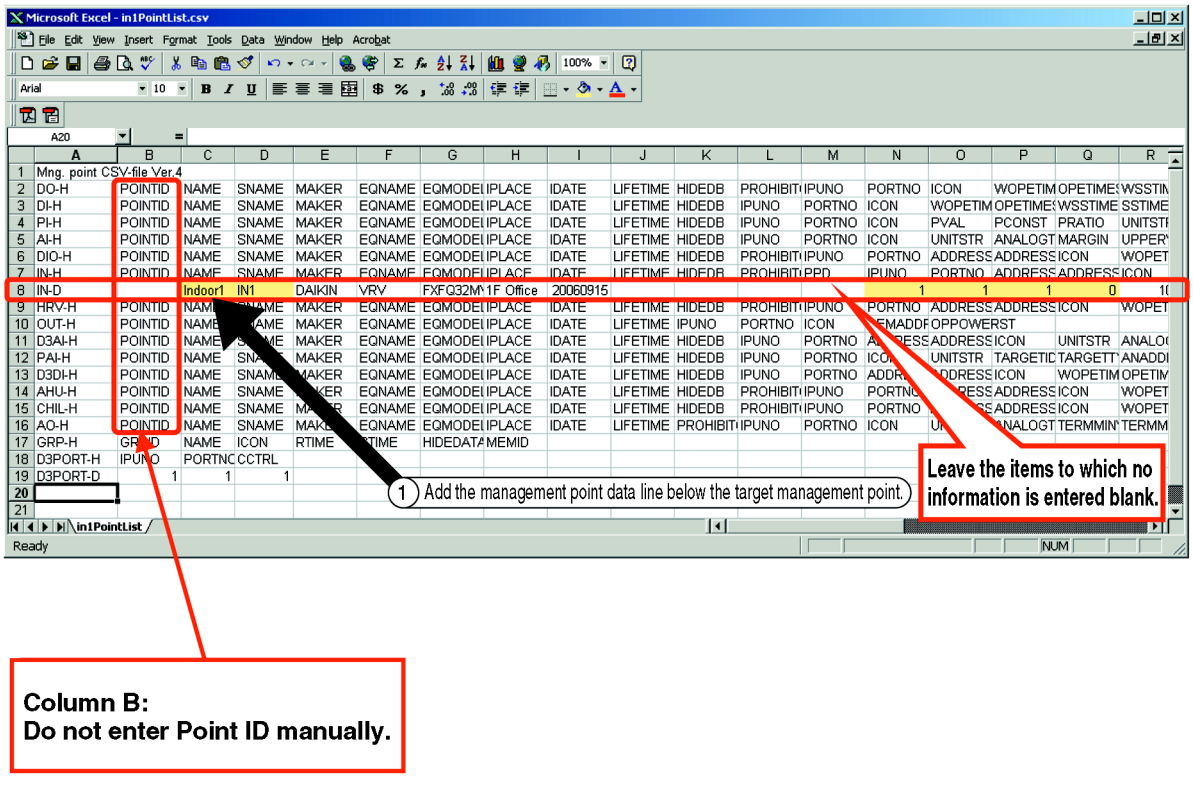
Be sure to enter **essential input items**.
(Regarding the description of each item, see the table below.
For more details, see **3-1-6. CSV Input/Output Function** (page 112).)

Essential input items

Mng.point	:Type of management point
NAME	:Name
SNAME	:Abbreviation name
IPUNO	:iPU No.
PORTNO	:Port No.
ADDRESS1,2	:Address No.

⚠ The column of input items varies according to the type of a management point. Before starting the input operation, be sure to verify the alphabets set in the cell.

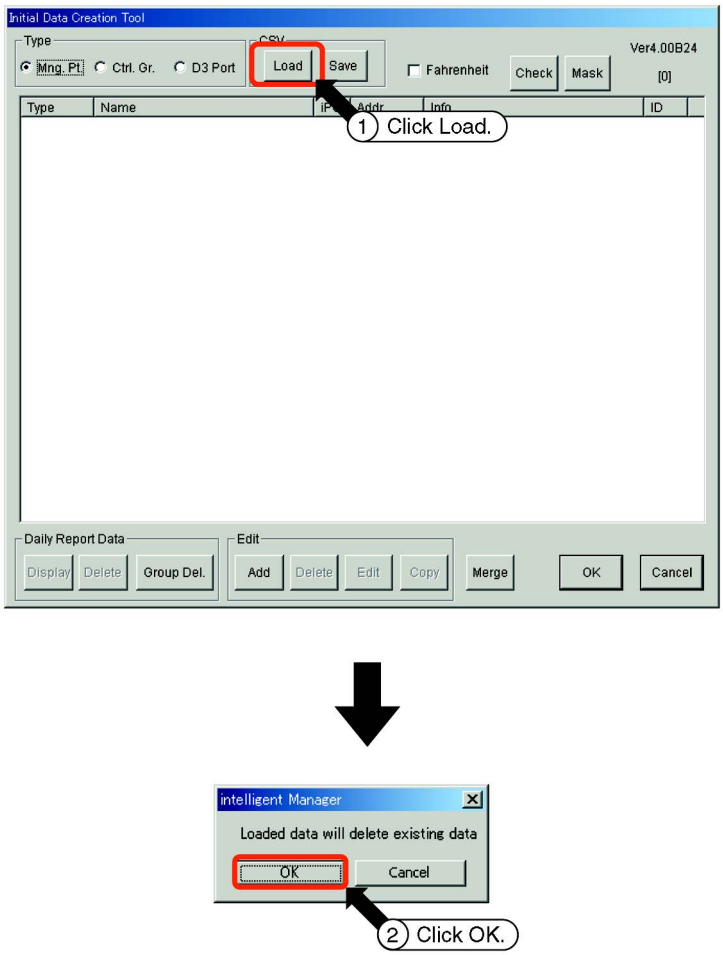
Type of management point	Header notation	Data notation
Internal Do	DO-H	DO-D
Internal Di	DI-H	DI-D
Internal Pi	PI-H	PI-D
Ai	AI-H	AI-D
D3Dio	DIO-H	DIO-D
Indoor unit	IN-H	IN-D
HRV	HRV-H	HRV-D
Outdoor unit	OUT-H	OUT-D
D3Ai	D3AI-H	D3AI-D
Pseudo Ai	PAI-H	PAI-D
D3Di	D3DI-H	D3DI-D
AHU	AHU-H	AHU-D
Chiller	CHIL-H	CHIL-D
Ao	AO-H	AO-D
Control Group	GRP-H	GRP-D



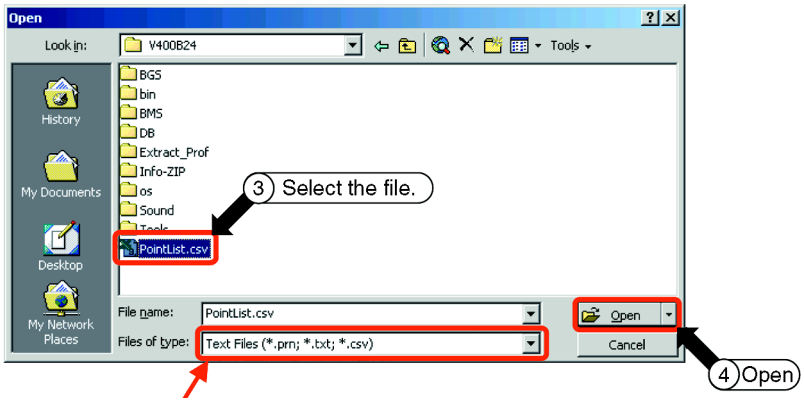
When you finish entering essential items, save the file. (You may overwrite the file.)
This is the end of creation of a CSV file.

Data Conversion of CSV File

Execute VRV Setup in the Tools folder.
Select Pre-engineering and enter daikin as a password. Click Mng. Points setting to activate Initial Data Creation Tool window. (The procedures are the same as ① to ⑤ in page 8.)
Then, load the CSV file that you created in advance.

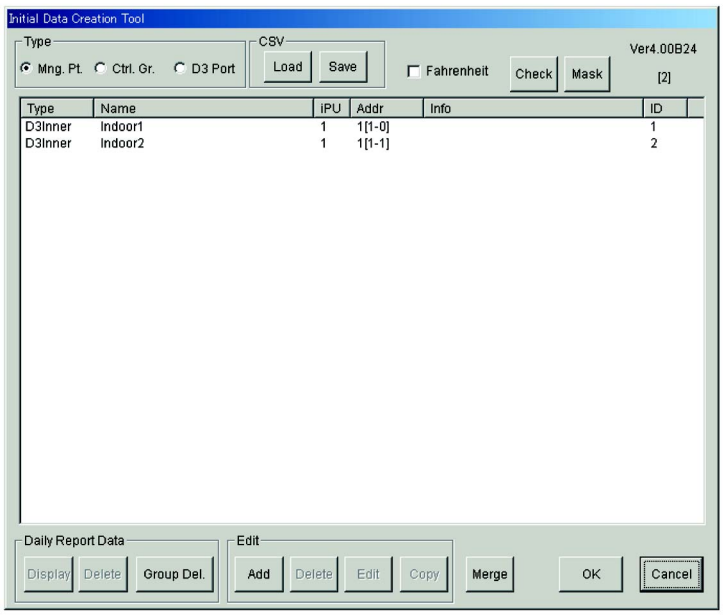


Press the Load button with the aforementioned procedure and select the CSV file.



Check that the type of the file is CSV.

The management point data created by the CSV file is loaded to Initial Data Creation Tool.

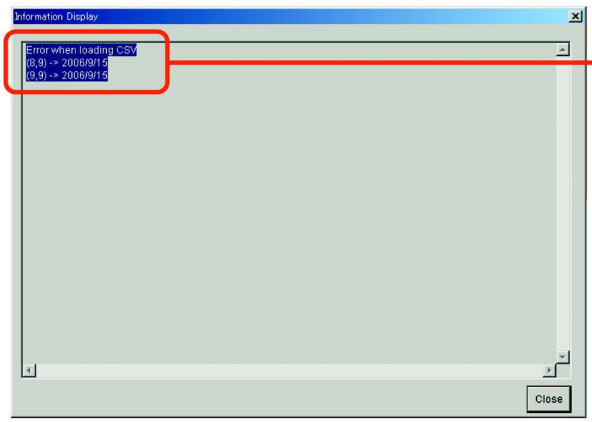


Add D3 Port. (The procedures are the same as those described in page 9.)

Note:

If the CSV file is inadequate, an error window appears when Initial Data Creation Tool loads it. In this case, correct the CSV file, and the reload it.

In the example given below, slash marks in dates are errors.



Error when loading CSV
(8,9) - > 2006/9/15
(9,9) - > 2006/9/15

CSV file
Errors are found in
Line 8, column 9 2006/9/15
Line 9, column 9 2006/9/15
Correct notation: 20060915
(Slash marks must not be included, and the month and day must be expressed in 2 digits.)

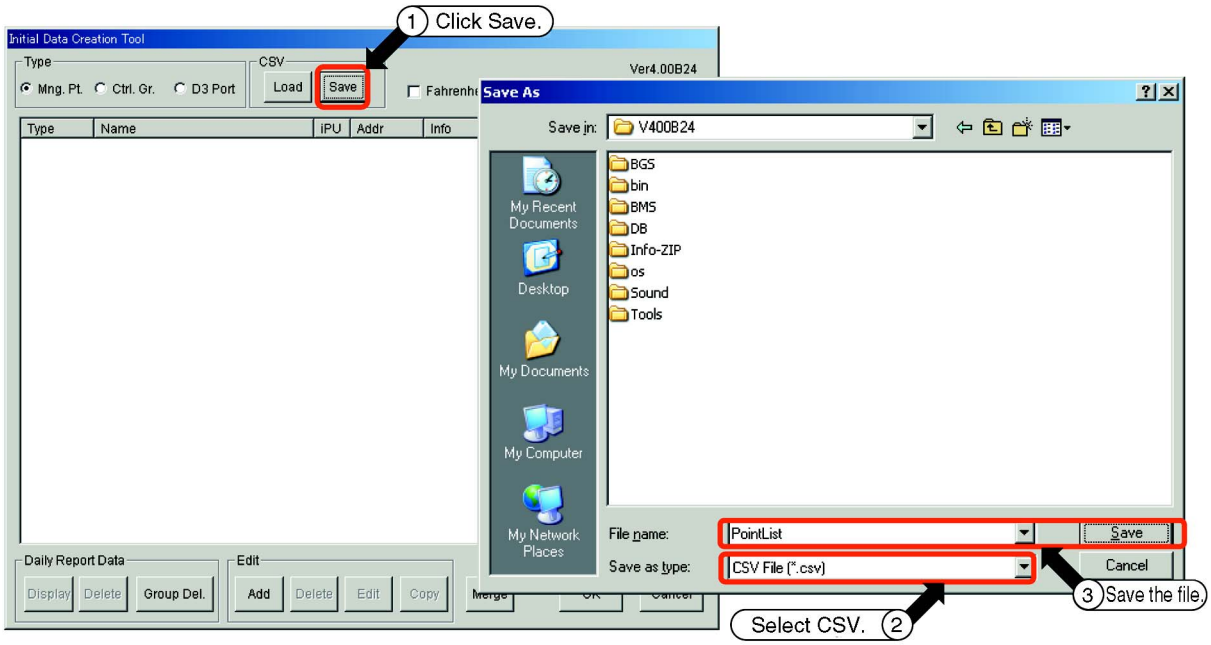
This is the end of the management point data creation operation.

How to Modify Created Management Point Data

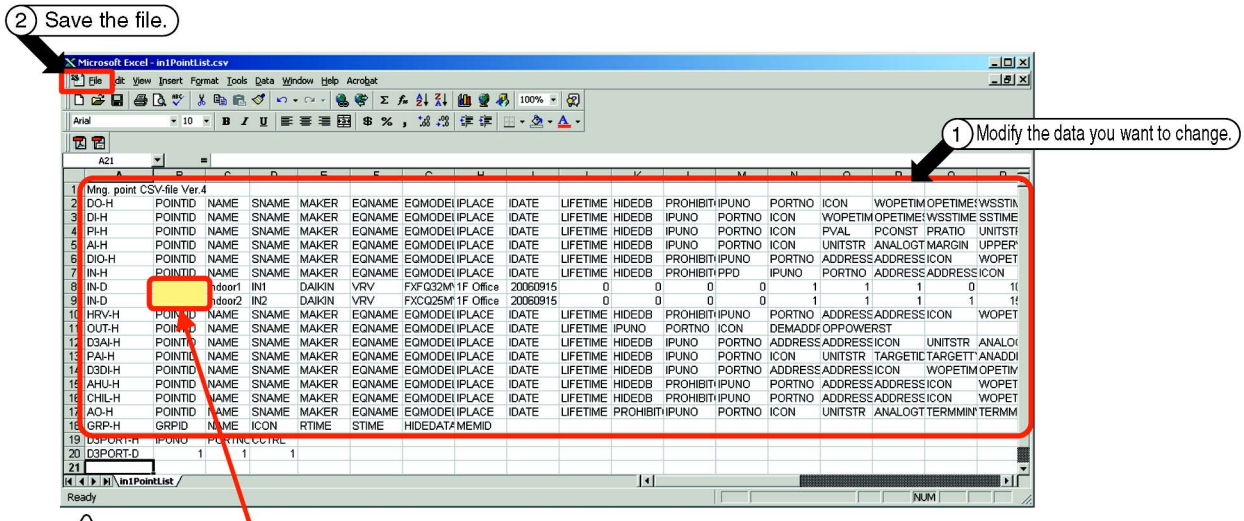
There are two ways to modify created management point data.
① Modification on Tool, and
② Modification in the CSV file.

This section explains ② **Modification in the CSV file**.

To modify data in the CSV file, you need to output data from Tool in the CSV format first.
Regarding the procedure, see **Creation of a CSV File** (page 9).



Next, open the output CSV file in Excel, etc.
In this CSV file, a management point ID (POINT ID) is assigned to each management point. **Do not change this management point ID (POINT ID) in the CSV file.**
① Open the CSV file and modify data you want to change.
② When you finish modification, save it in the CSV format.
Conduct the data conversion of the saved CSV file in accordance with the data conversion procedure described in page 16 and subsequent pages.



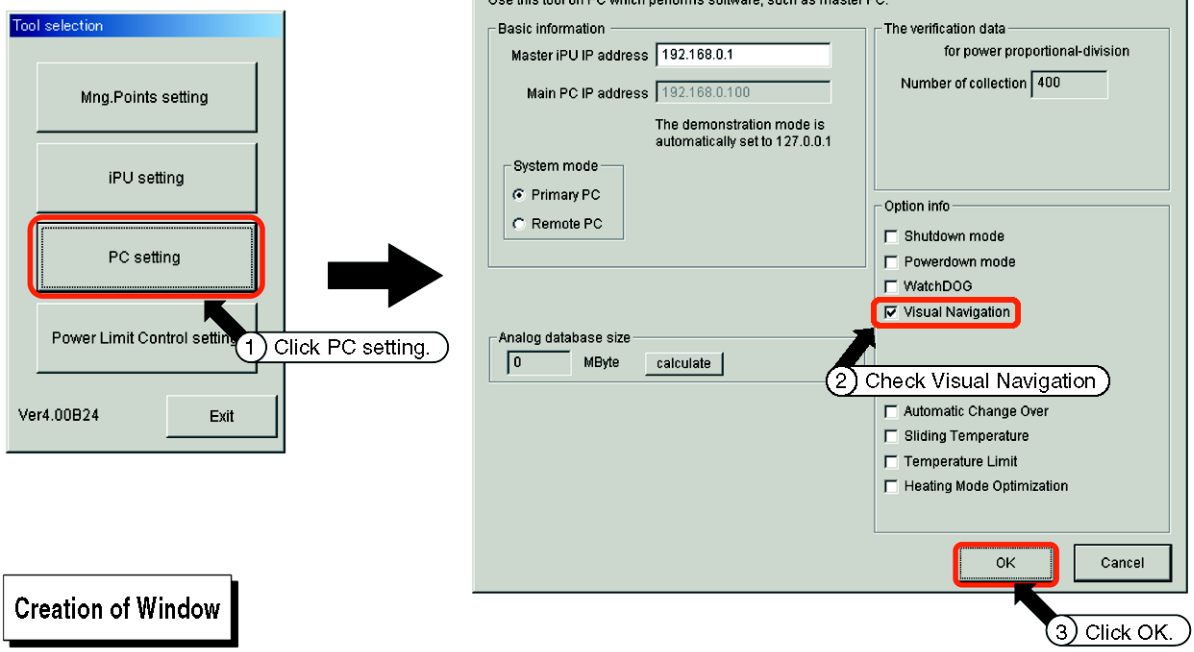
Do not change the assigned management point IDs. If you change them, data might not be loaded correctly. When you add a management point, leave its management point ID blank.

1-2-3. Creation of Visual Navigation Screen

a. Window Creation Flow

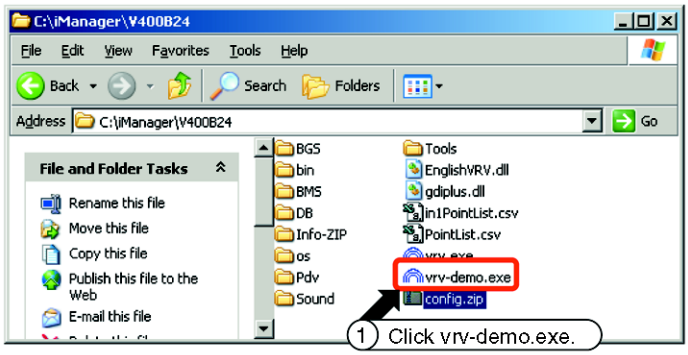
Preparation

Before actually starting to create the window, enable the Visual Navigation screen using the PC Setting tool.



Creation of Window

Execute vrv-demo.exe.



When i-Manager is opened, press the Login button.



Note:

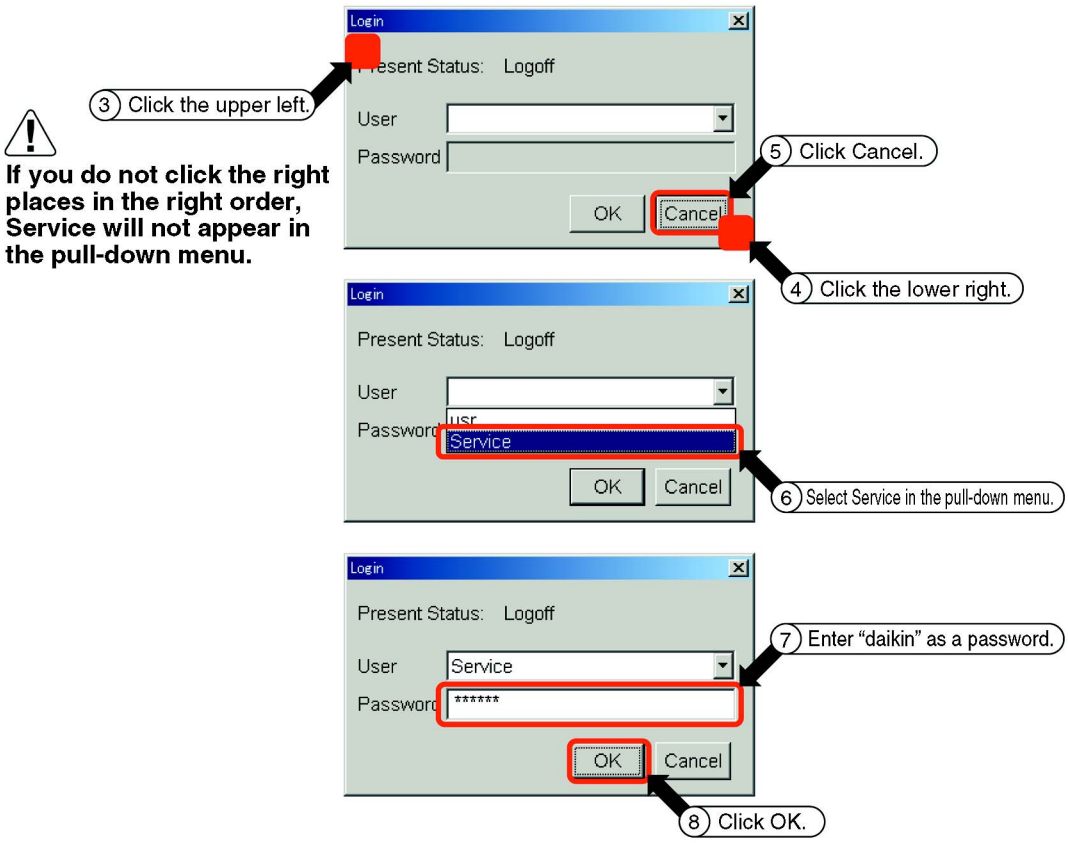
Points to Note for Windows XP

If the firewall setting is set on Windows XP, the dialog box shown below appears. If it appears, select “Reset Block.” Then, this dialog box will not appear any longer.

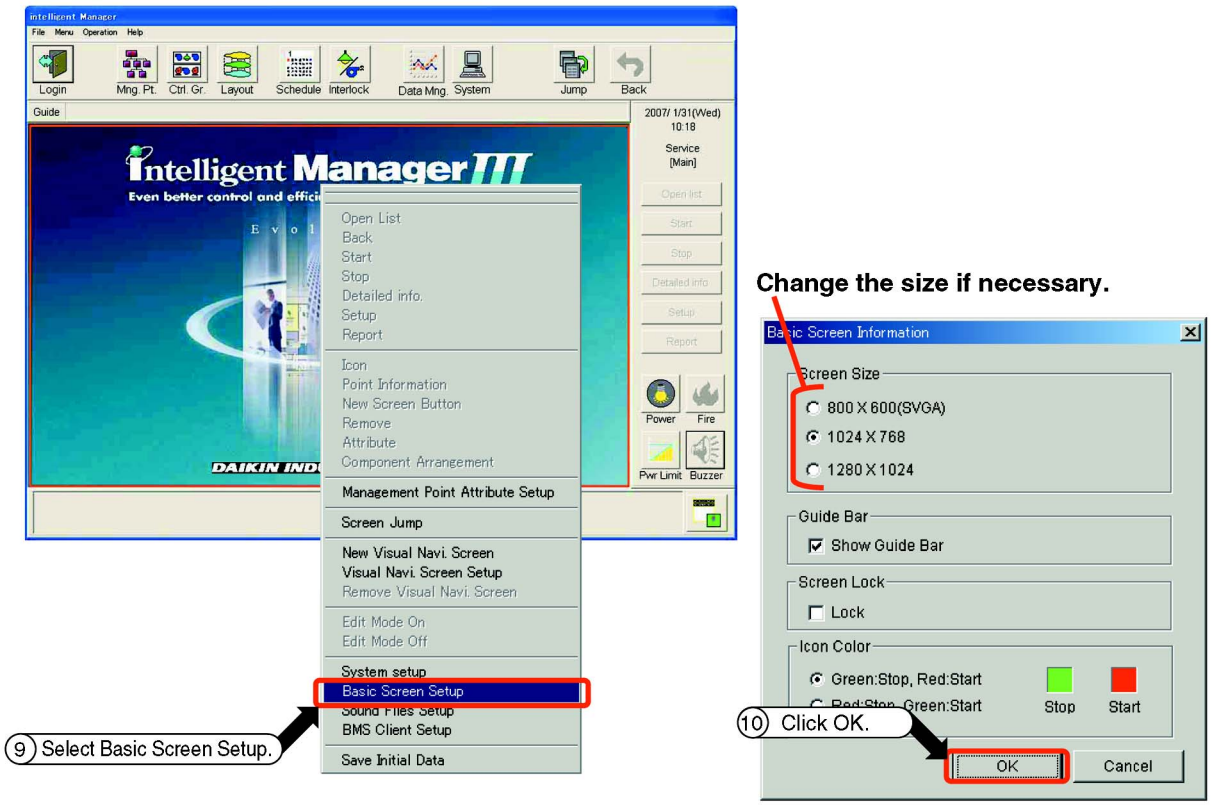


Reset the block.

Log in as Service. (**When you log in with other user account level, you cannot conduct the setting operation.**)
Click the **upper left, lower right, and Cancel button** in this order in the login window, and Service is displayed in the User pull-down menu. The password is "daikin".



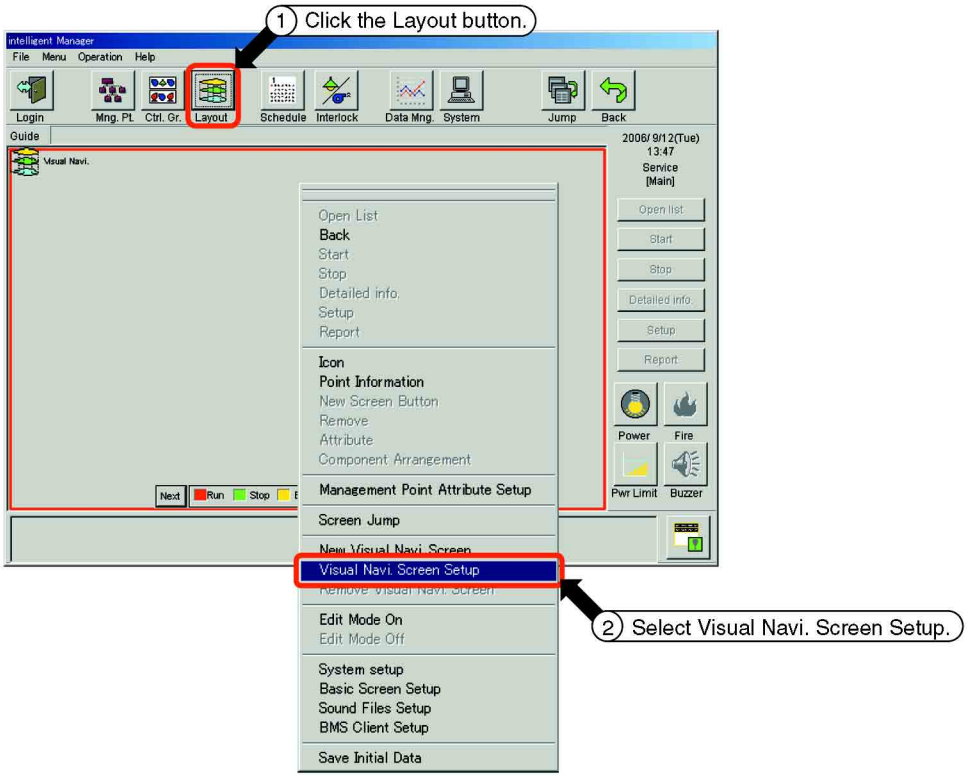
The login window is opened. **If it has a red frame, the operation is done correctly. You have logged in with the Service account.**
Next, set the screen size.
Right-click anywhere in the red frame to open a menu, and then select Basic Screen Setup from it.



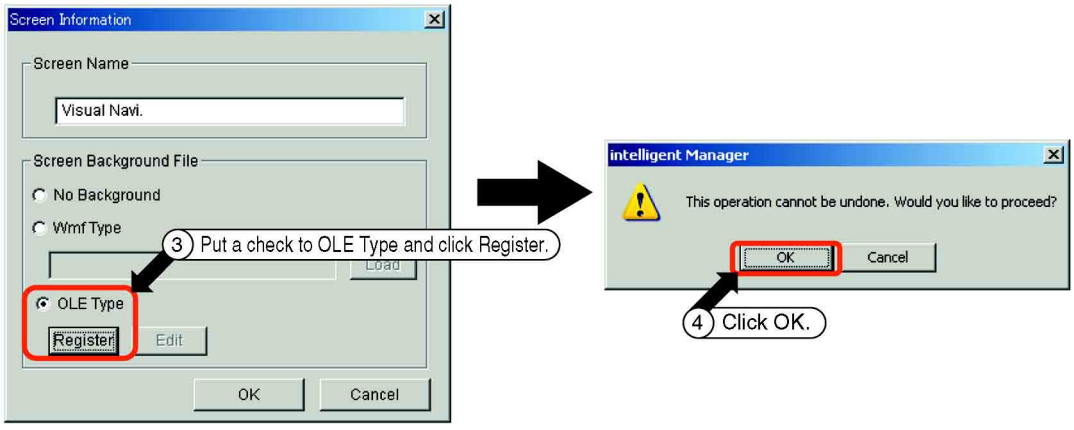
b. Creation of Background Screen

b-1.How to Draw Background Screen
(in the case of creating a new screen using PowerPoint)

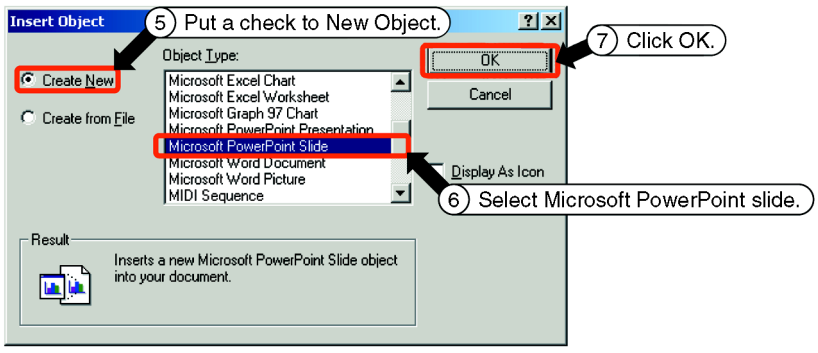
This section explains how to create a new screen using PowerPoint.
Click the Layout button to display the layout window, then right-click anywhere in the red frame to open a menu, and select Visual Navi. Screen Setup.



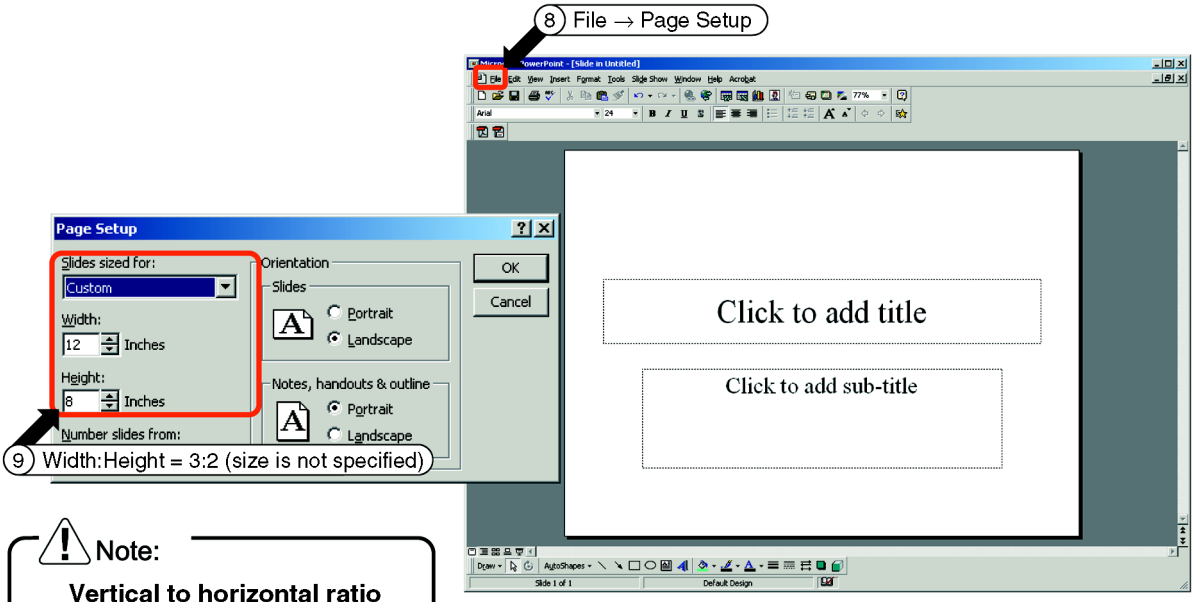
The Screen Information window is opened. Put a check to OLE Type and click Register.



The object insertion window is opened. Select New Object and PowerPoint from the window.



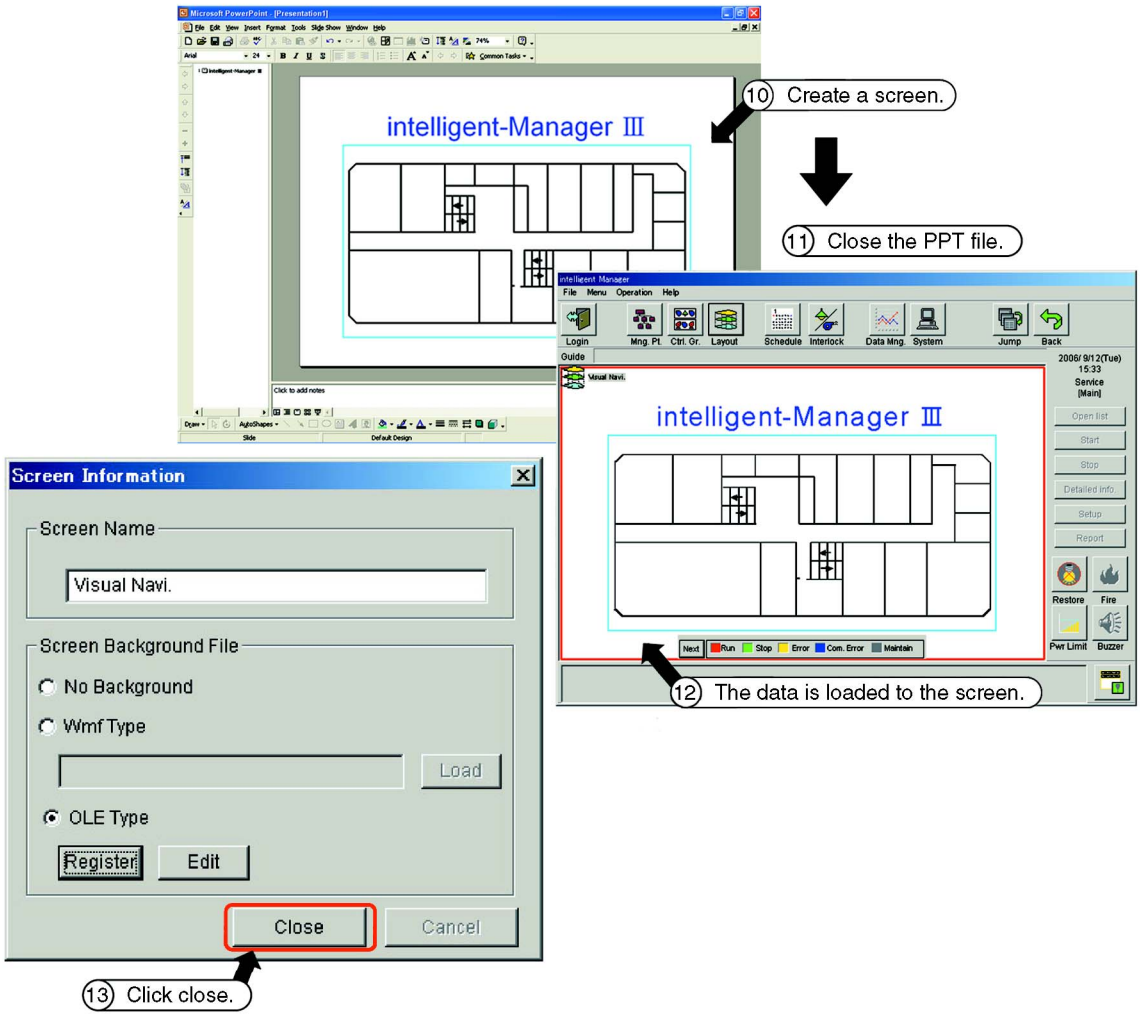
PowerPoint is activated.
At this point, **be sure to set the vertical to horizontal ratio of the screen to 2:3** in order to match it with the intelligent-Manager screen.



Note:

Vertical to horizontal ratio
Be sure to set it to 2:3.
(Size in cm is not specified.)
If the correct ratio is not correct, images are distorted in the i-Manager screen.

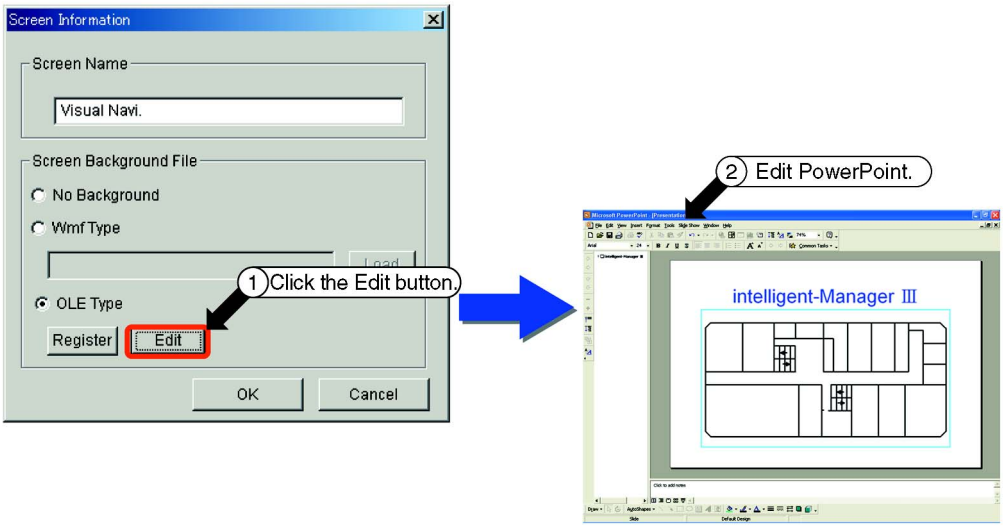
When you finish the creation of the background with PowerPoint, close the window. (You do not need to save it with PowerPoint.)



Note:

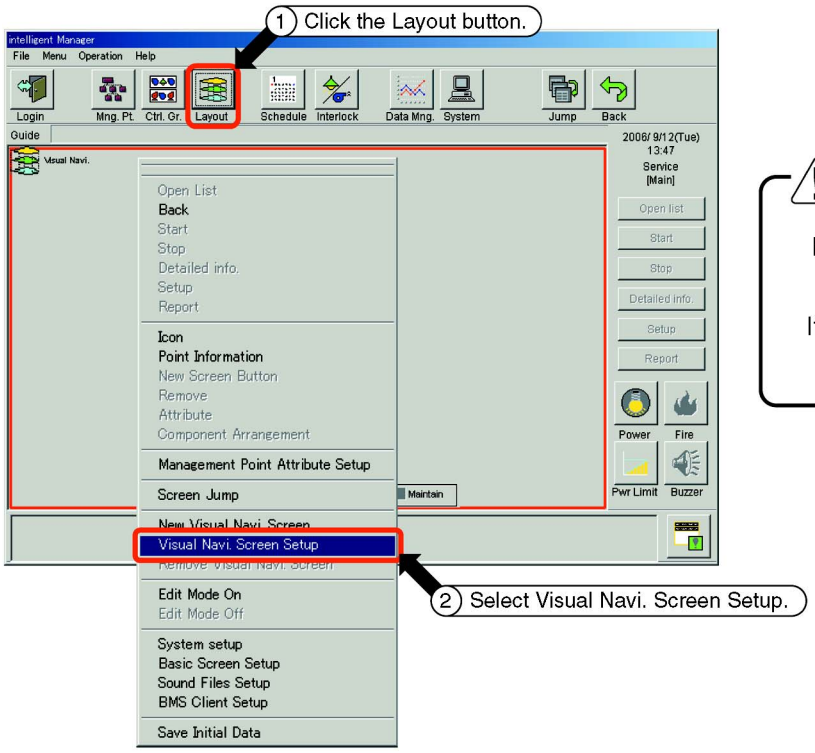
When modifying the created background screen

Select Visual Navi. Screen Setup and click the Edit button of the Screen Information window, and PowerPoint is activated and you can edit the background screen. When you finish the edit, close PowerPoint, and the screen is updated.



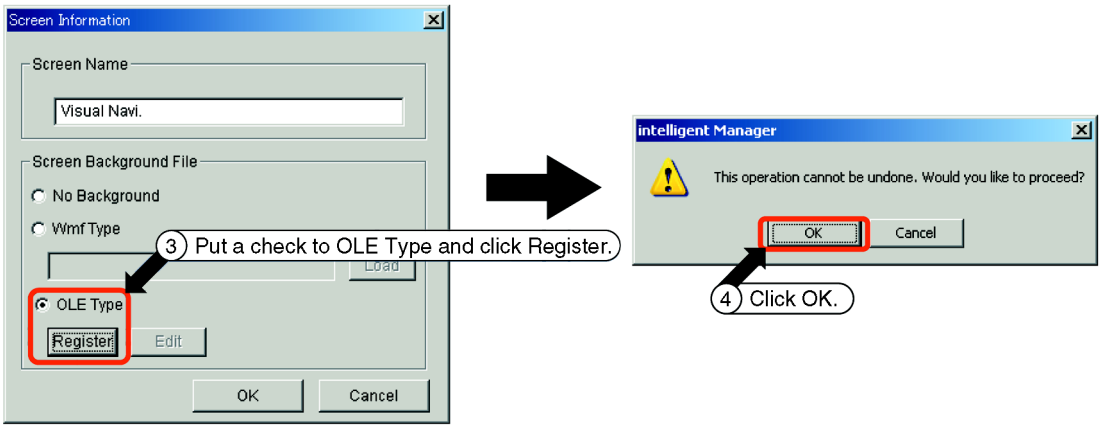
b-2.How to Draw Background Screen

This section explains how to load images created in advance to intelligent-Manager.
You should prepare background data in advance. (**Do not forget to set the vertical to horizontal ratio to 2:3.**)
Verify that it is the layout window, right-click anywhere in the red frame to open a menu, and select Visual Navi. Screen Setup.

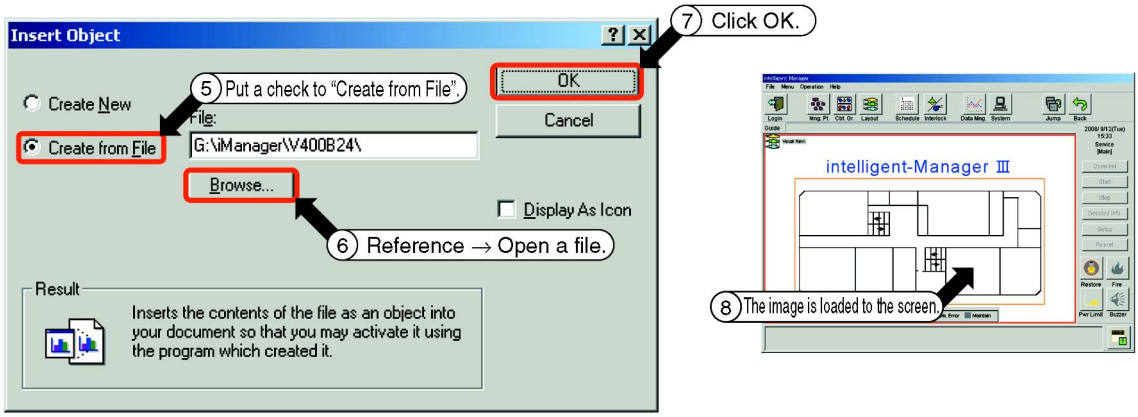


Note:
Vertical to horizontal ratio
Be sure to set the image to be prepared to 2:3.
(Size in cm is not specified.)
If the correct ratio is not correct, images are distorted in the i-Manager screen.

The Screen Information window is opened. Put a check to OLE Type and click Register.



The object insertion window is opened. Put a check to "Create from File" and select a file you want to use from "Reference", and the selected image is loaded to the screen.

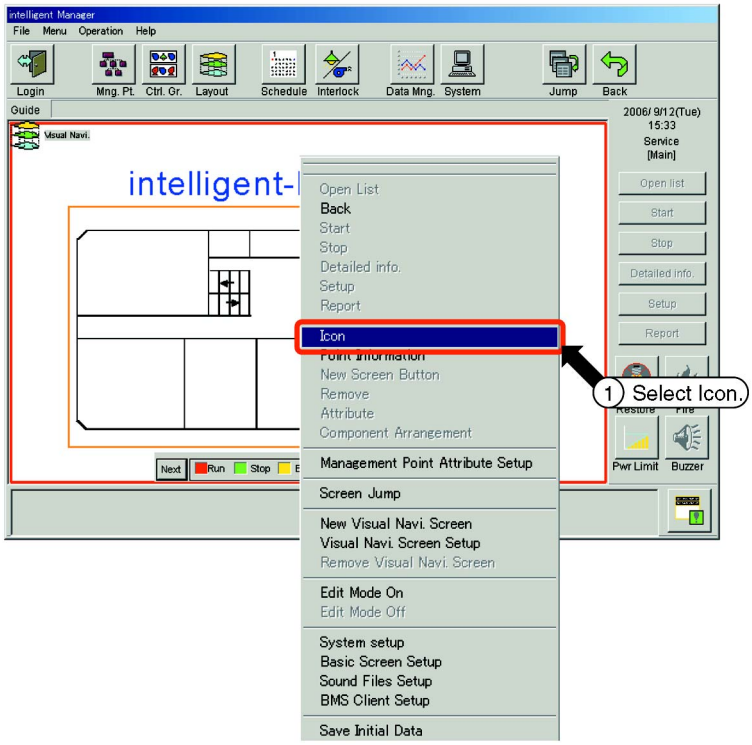


This is the end of the creation of the background screen.

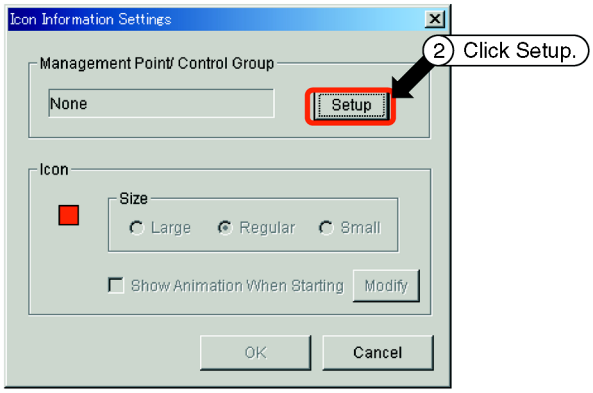
c. Screen Layout

Allocation of Management Point Icons

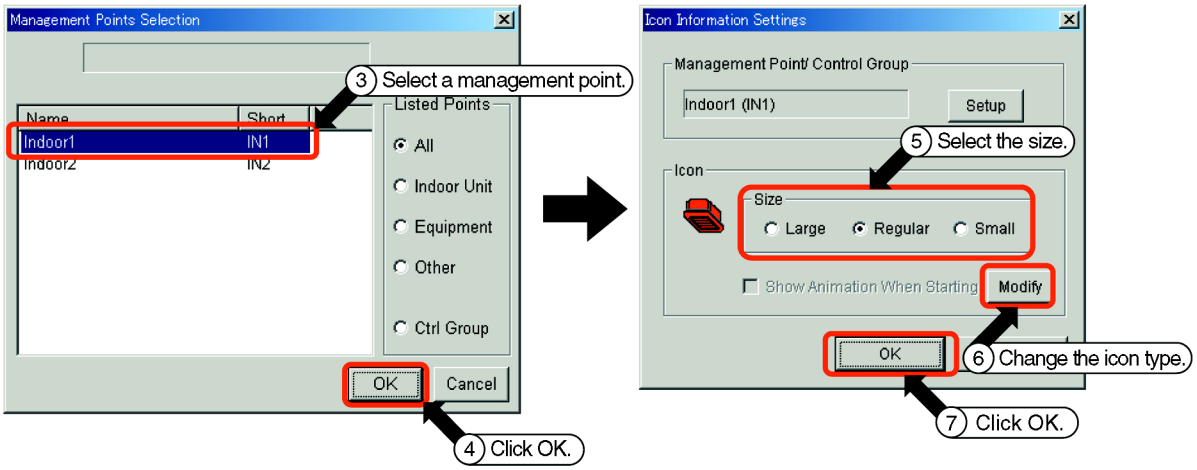
Affix icons of management points to the Visual Navigation Screen.
Check that the Layout window is opened, right-click anywhere in the red frame to open a menu, and select Icon from the menu.



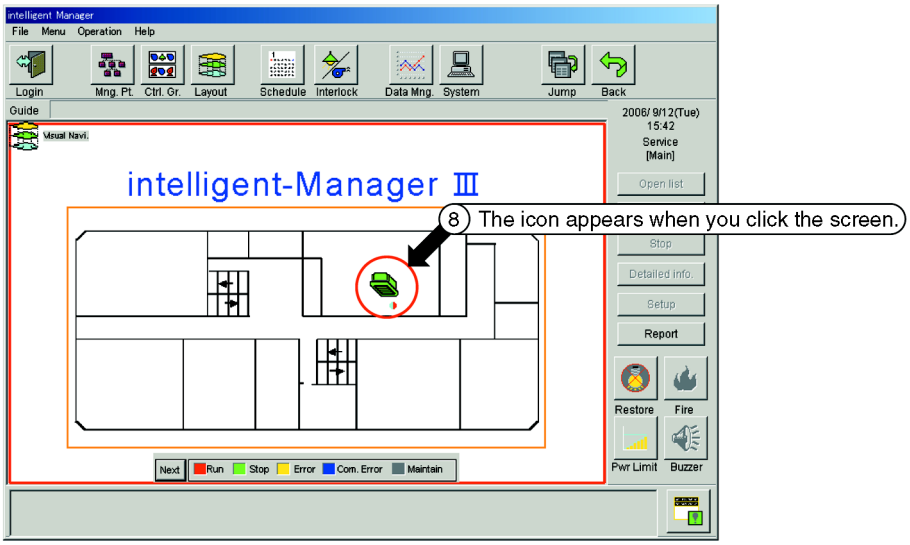
Click Setup in the Icon Information Settings window.



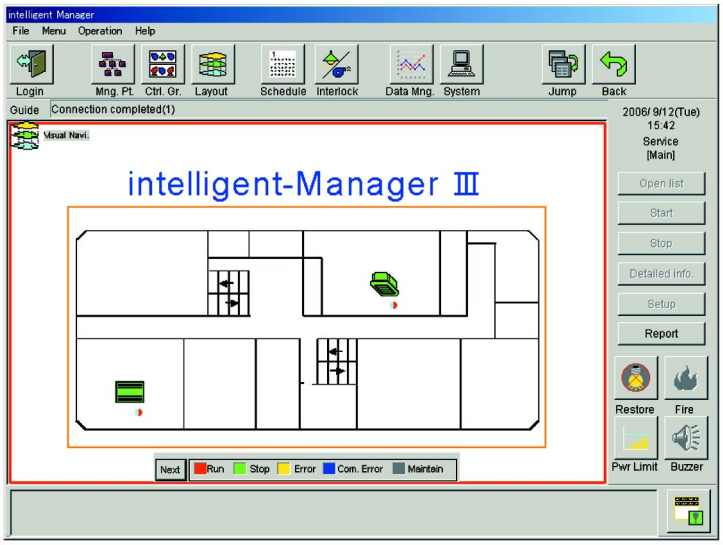
Select a management point corresponding to the icon you want to create in the Management Point Selection window. Set the size, etc. in the Icon Information Settings window.



Click the location where you want to place the icon.



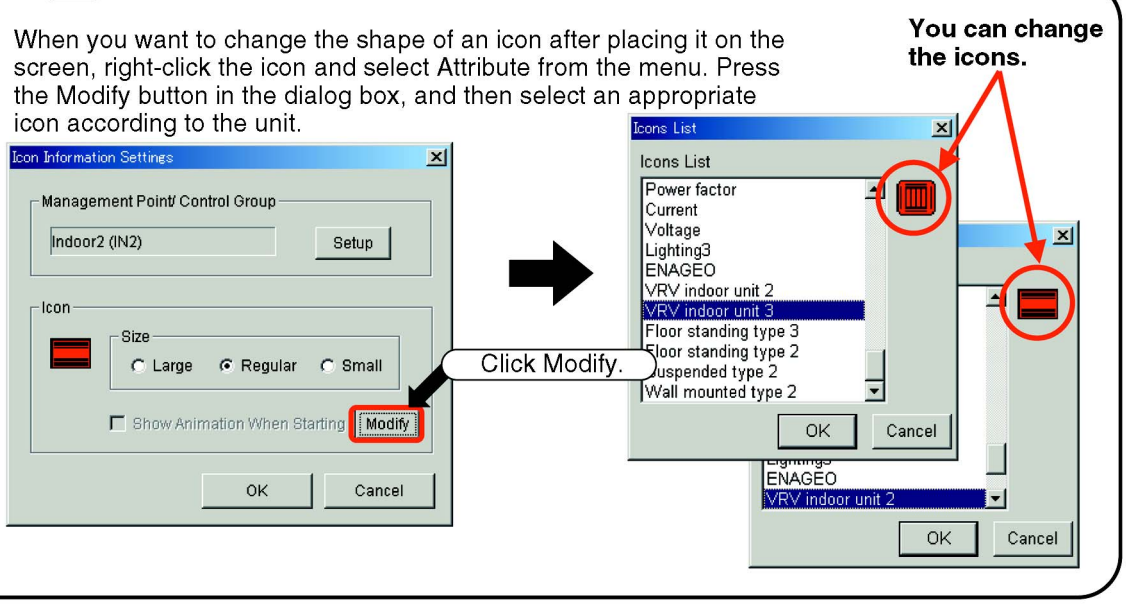
Create icons for other management points on the screen in the same way.



This is the end of allocation of management point icons.

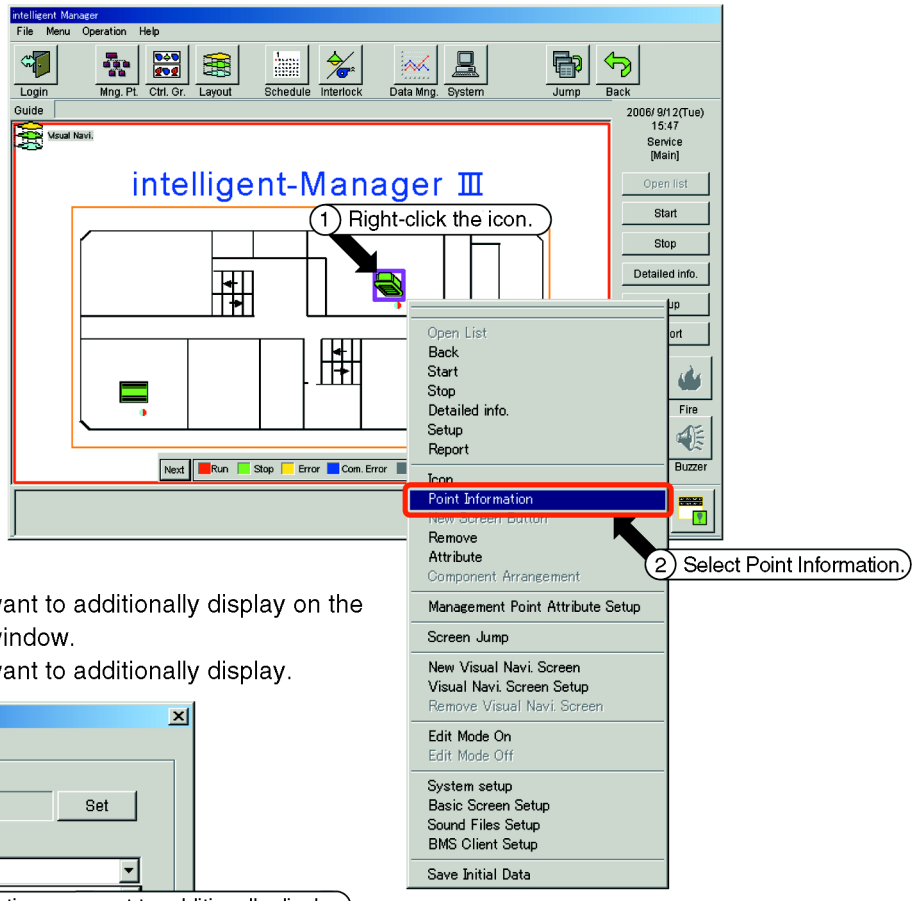
Note:

When you want to change the shape of an icon after placing it on the screen, right-click the icon and select Attribute from the menu. Press the Modify button in the dialog box, and then select an appropriate icon according to the unit.

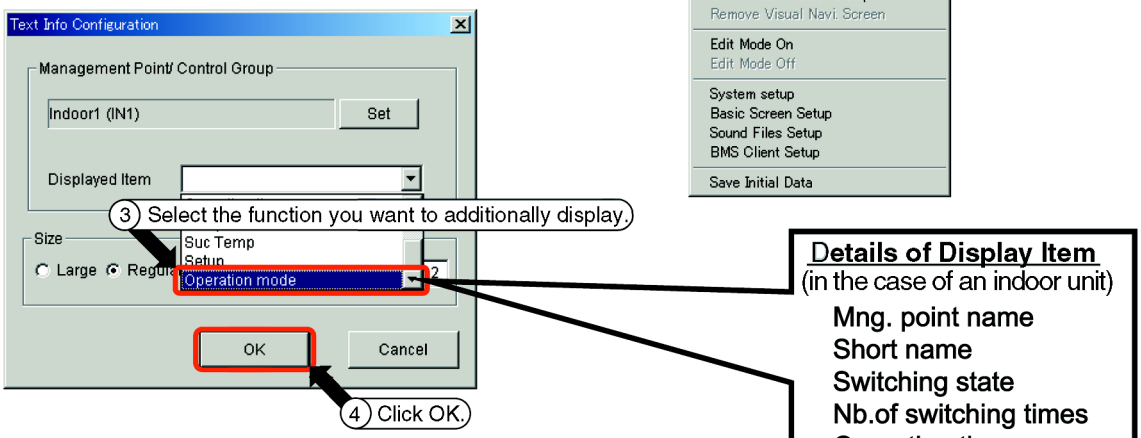


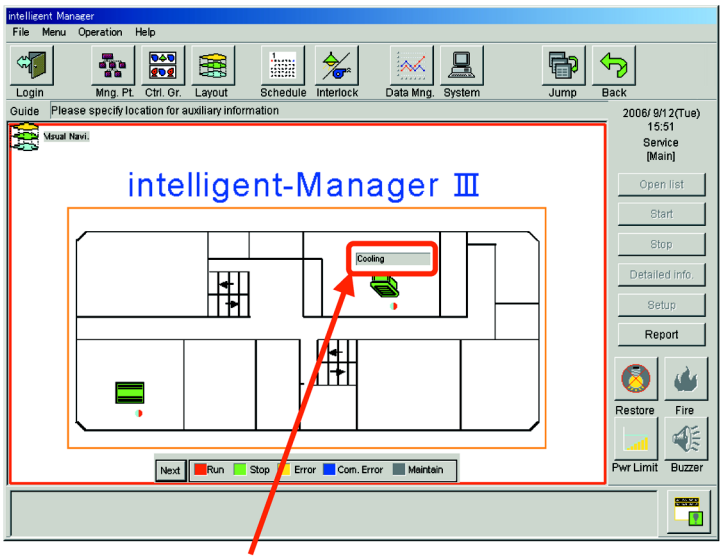
Setting of Information about Management Point

You can add the name, designated temperature, and suction temperature to management point icons on the Visual Navigation screen.
Right click the icon to which you want to add information to open a menu, and select Point Information from it.



Select the function you want to additionally display on the Text Info Configuration window.
Select the function you want to additionally display.

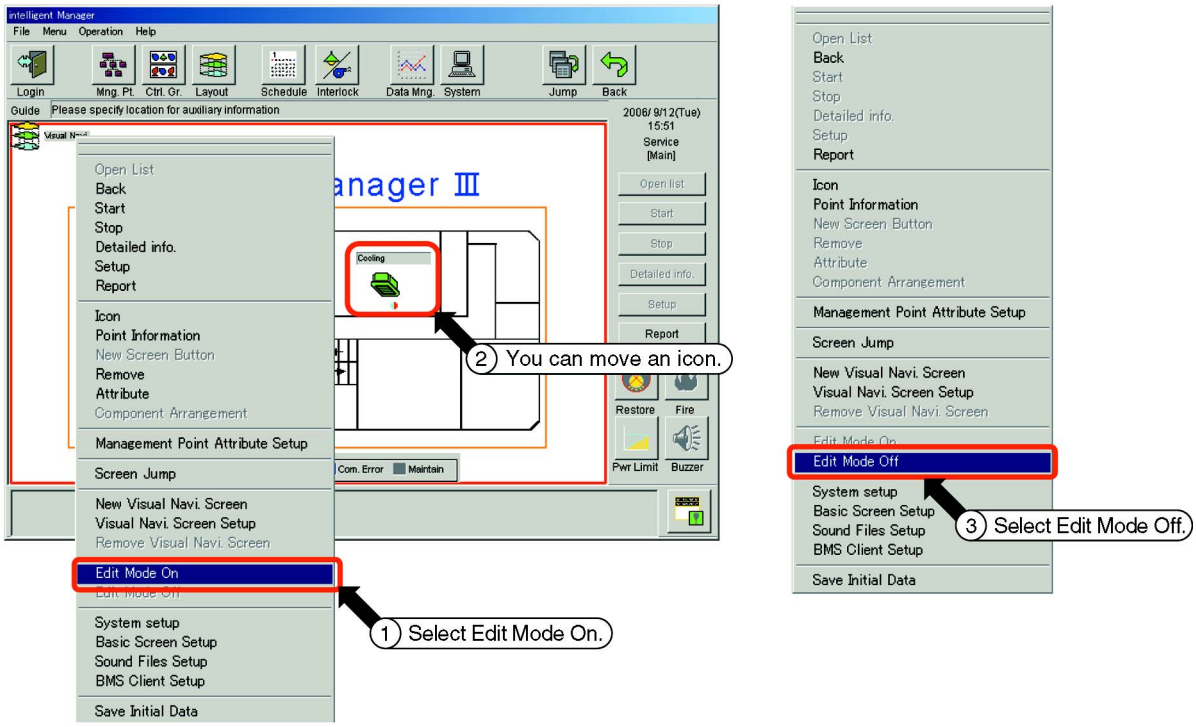




Repeat①, ②, ③ and ④ as many times as you need.

Edit of Position of Icons and Information

You can move icons and information to any place you want.
Right-click the screen to display a menu and select Edit Mode On from it.
When you finish the edit, select Edit Mode Off to restore the previous state.



Note:

Points to Note for Moving Icons/ Information

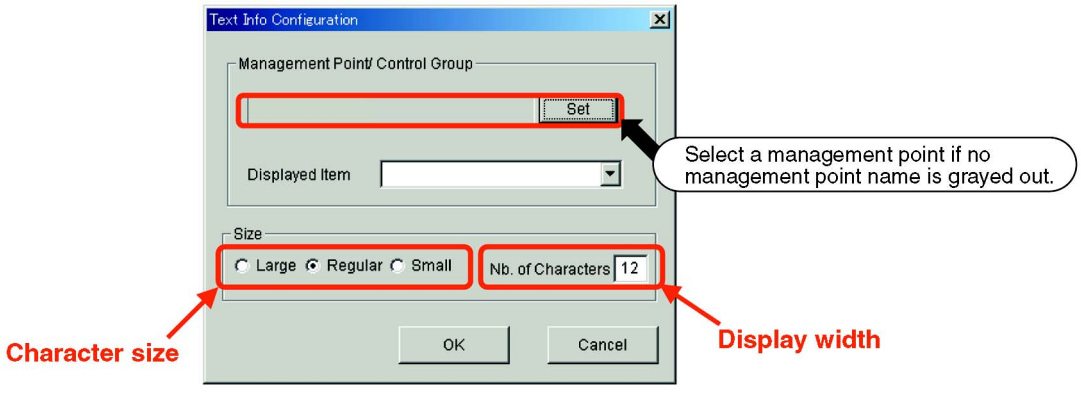
An icon and information is moved on grid lines when you move it as pressing the SHIFT button. (Grid lines are not displayed.)

Points to Note for Display of Information on Management Points

If you do not select a management point icon before right-clicking the screen, no management point is selected.
In this state, you cannot edit information. Click Set and select a management point.

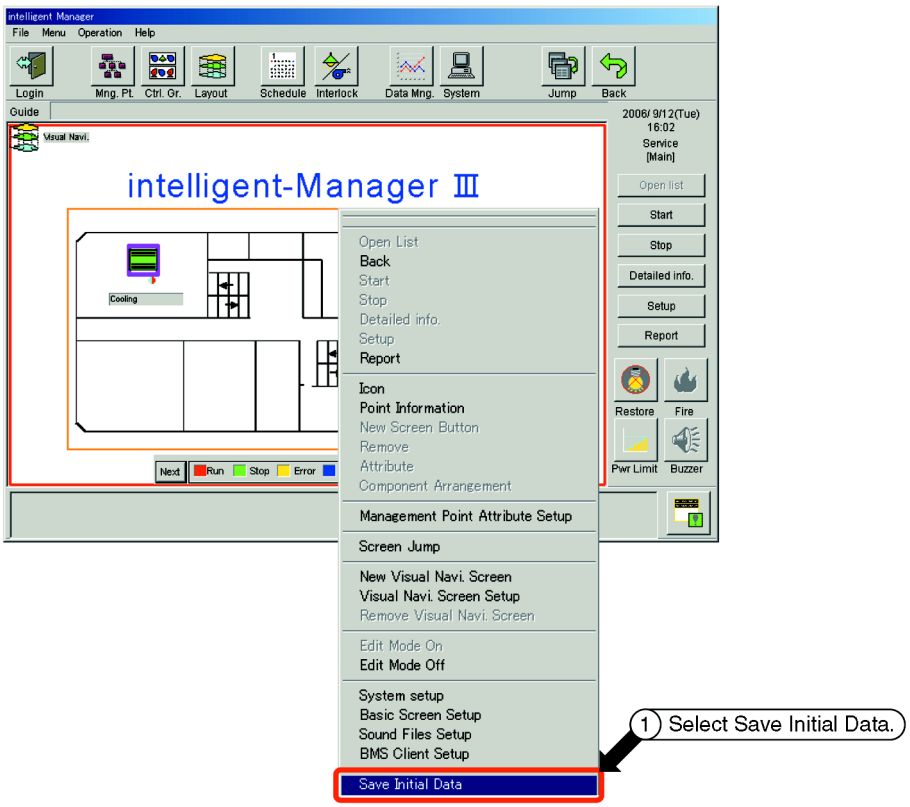
Detailed Setting of Information of Management Points

Set the character size and display width with Size in the Text Info Configuration window.



Saving Created Visual Navigation Screen

Save the settings.
Right-click anywhere within the red frame to open a menu, and select Save Initial Data from it.

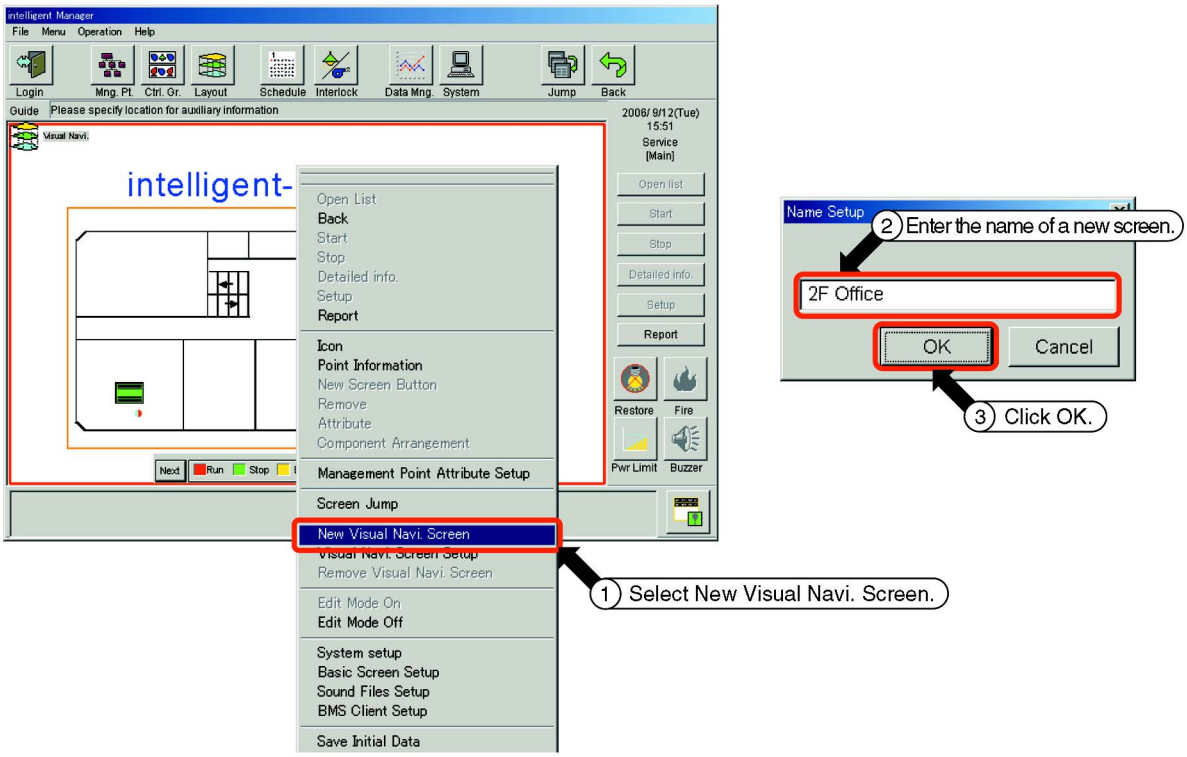


The created Visual Navigation screen has been saved.

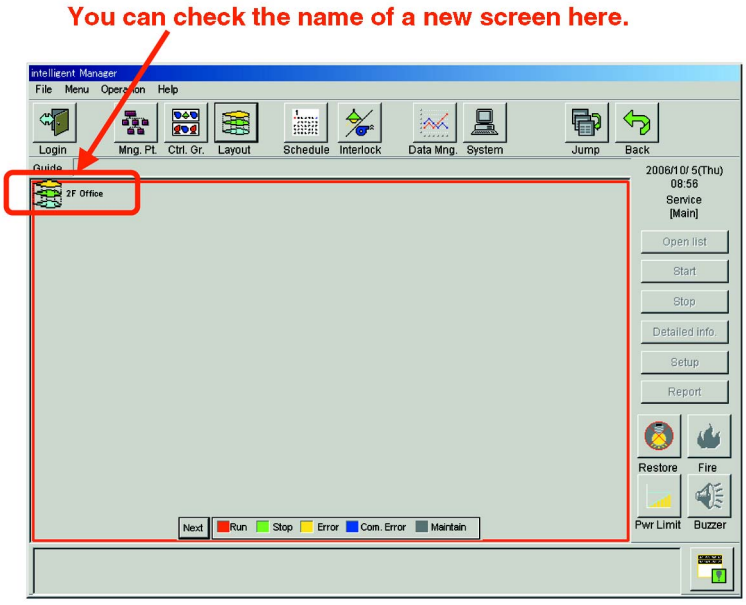
d. Creation of New Screen

Using intelligent-Manager, you can create multiple Visual Navigation screens. If you control a building with several floors using intelligent-Manager, create screens with the number of the floors you need to control, and add buttons which allow the user to jump between the screens so that control can be done easily.

Right-click anywhere within the red frame in the Visual Navigation screen to open a menu, and select New Visual Navi. Screen from it.

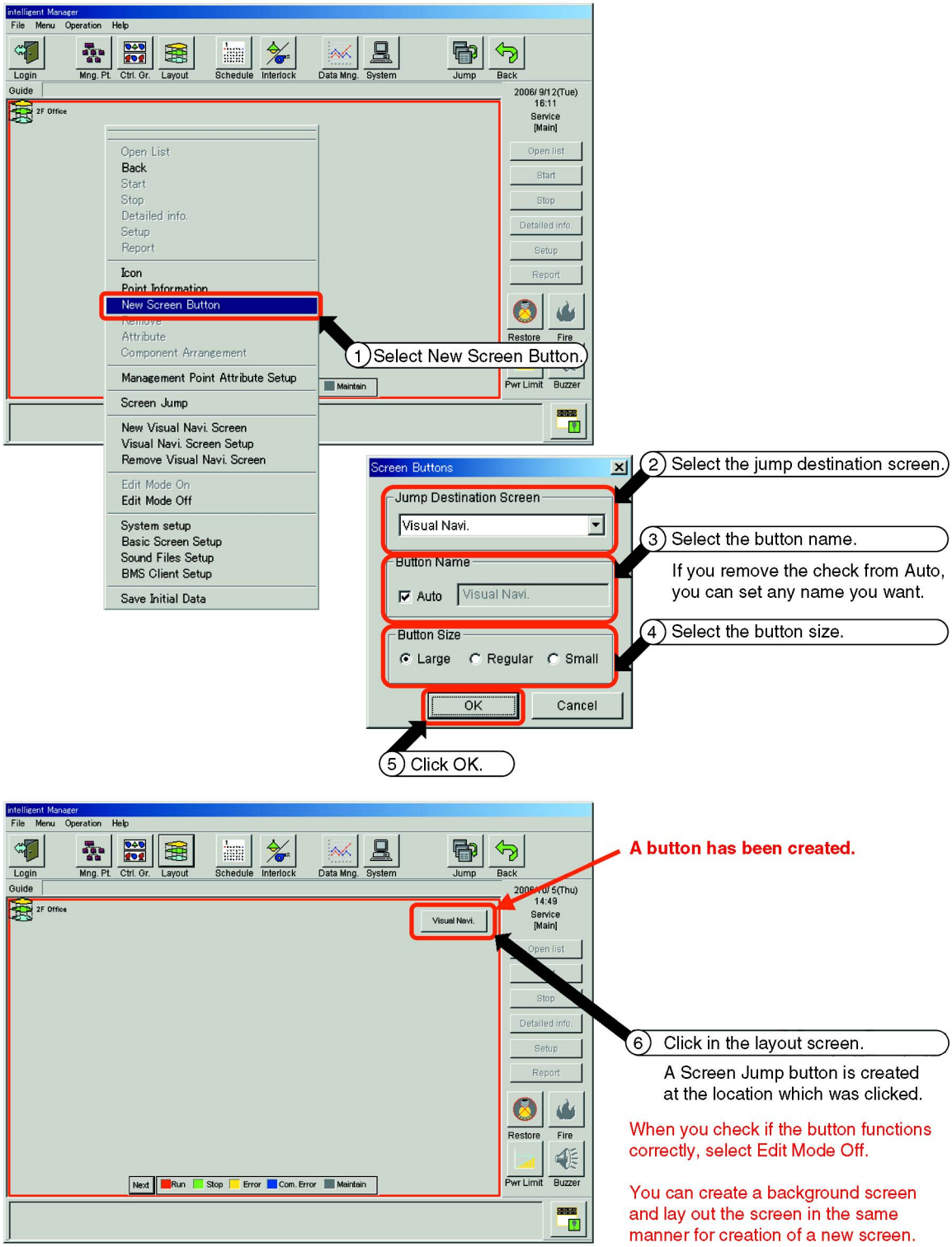


A new screen is created.
The way to load the background screen to a new screen is the same as **b. Creation of Background Screen** (page 18 and subsequent pages).



e. Creation of Screen Jump Button

If you create a jump button in each screen, you can easily jump to other screens.
Right-click anywhere within the red frame to open a menu, select New Screen Button from it, and make the settings such as the jump destination screen and button name.

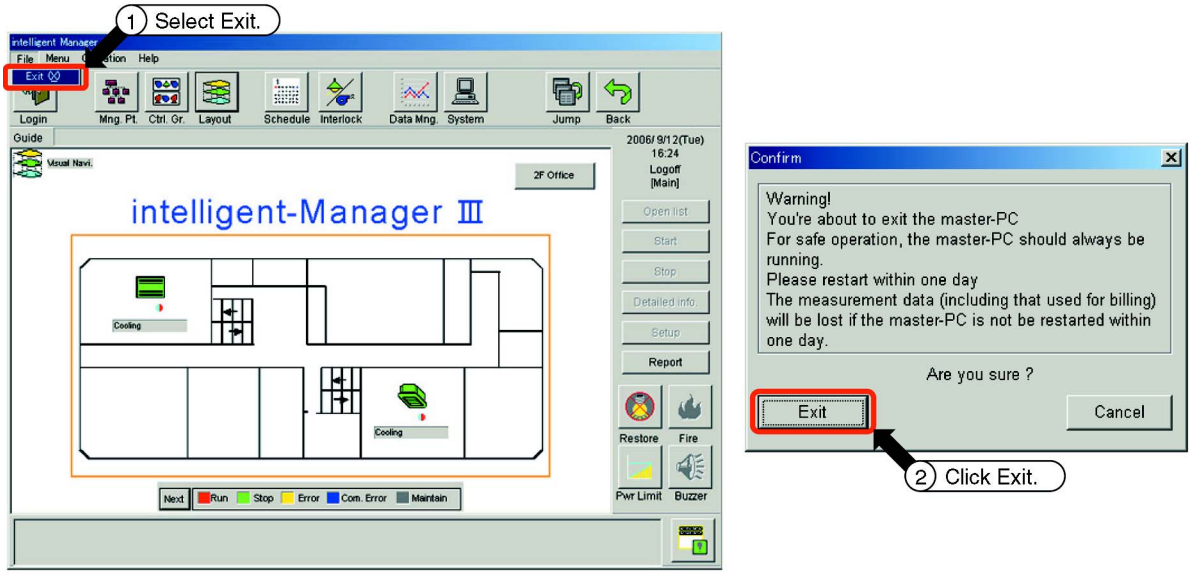


The Screen Jump button can be moved by selecting Edit Mode On and dragging the button.

This is the end of creation of a screen jump button.
You can save the created screen data in the same manner for **Saving Created Visual Navigation Screen** (page 26).

f. How to Exit

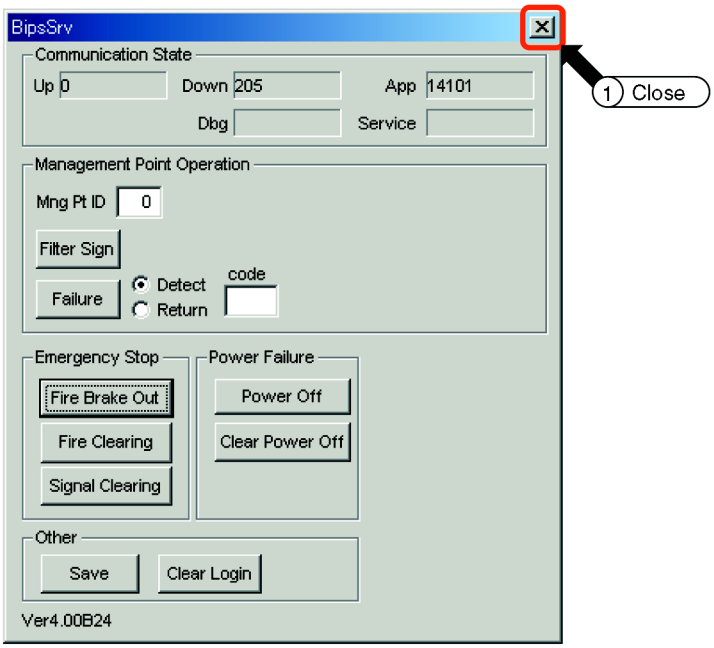
When you finish creating all data, save them and finish intelligent-Manager.
Select Exit from the pull-down menu in File.



You have finished intelligent-Manager.
This is the end of the basic operations at the office.

BipsSrv

BipsSrv is a dummy server to operate demonstration software.
When you activate intelligent-Manager, BipsSrv will be automatically activated in the screen.
Do not terminate it during activation.
When you finish (Exit) intelligent-Manager, be sure to close the BipsSr screen as well.



1-2-4. Acquisition of Activation Key

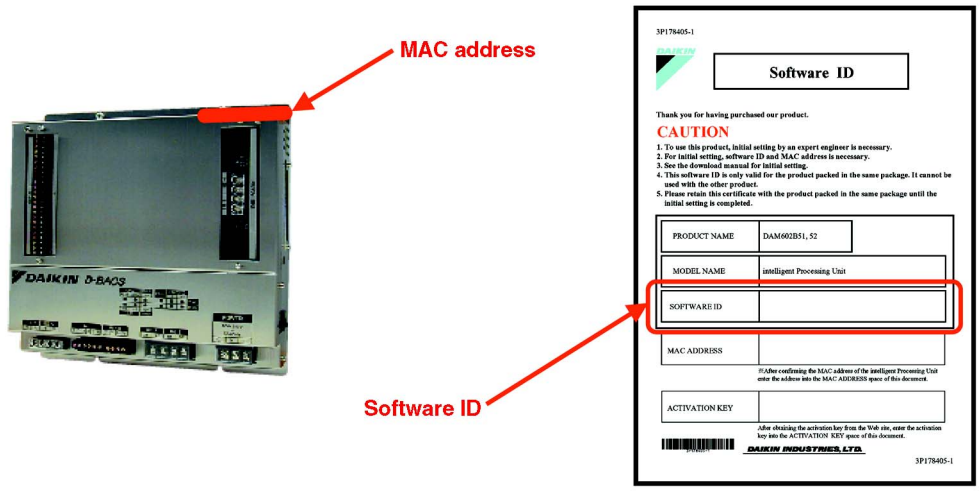
When you install intelligent-Manager at the site, you need an activation key.
This section explains how to access Distributor's Page and how to obtain an activation key. (If you do not have access to the Distributor's Page, you need to make inquiries with your distributor directly.)

a. Necessary information to acquire activation key

You need to prepare necessary information to obtain an activation key.

1. **MAC address** (assigned to the main unit)
2. **Software ID** (presented in the warranty card supplied with the main unit)

⚠ Activation requires the MAC address and software ID of the master iPU.

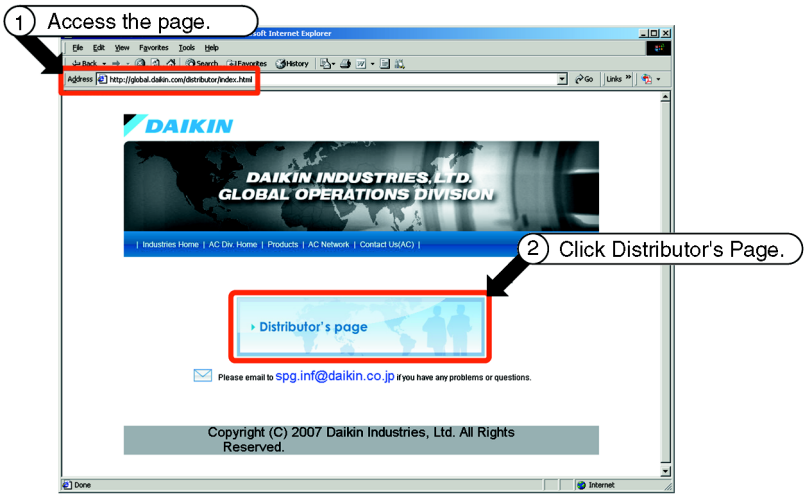


b. How to obtain activation key

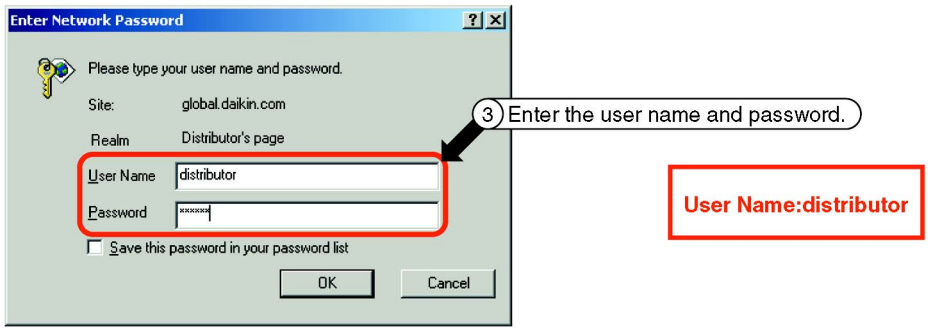
Access the activation key issuance page.

⚠ You need the environment in which you have access to the Internet.

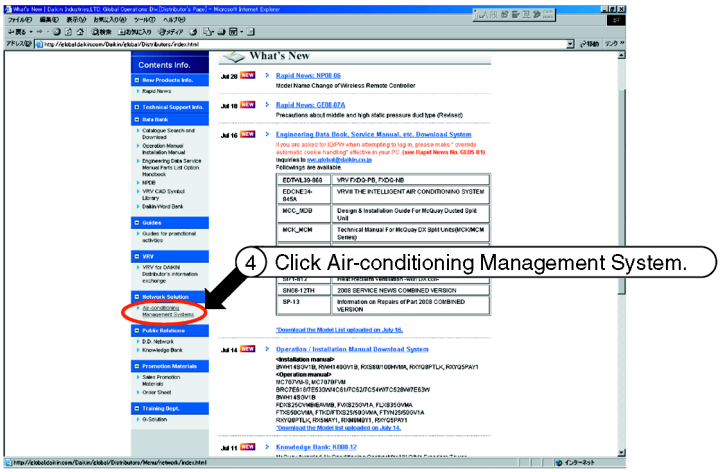
Access http://global.daikin.com/distributor/index.html and enter the Distributor's Page.



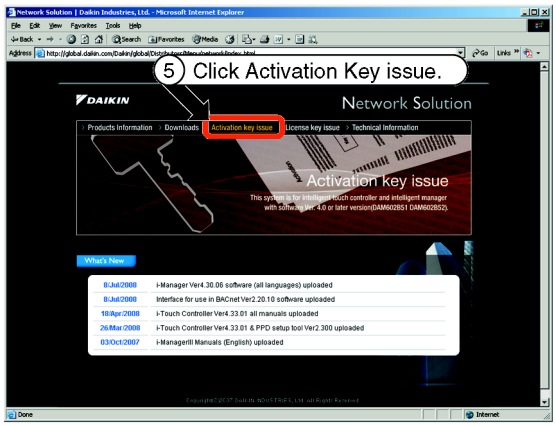
Enter the user name and password.



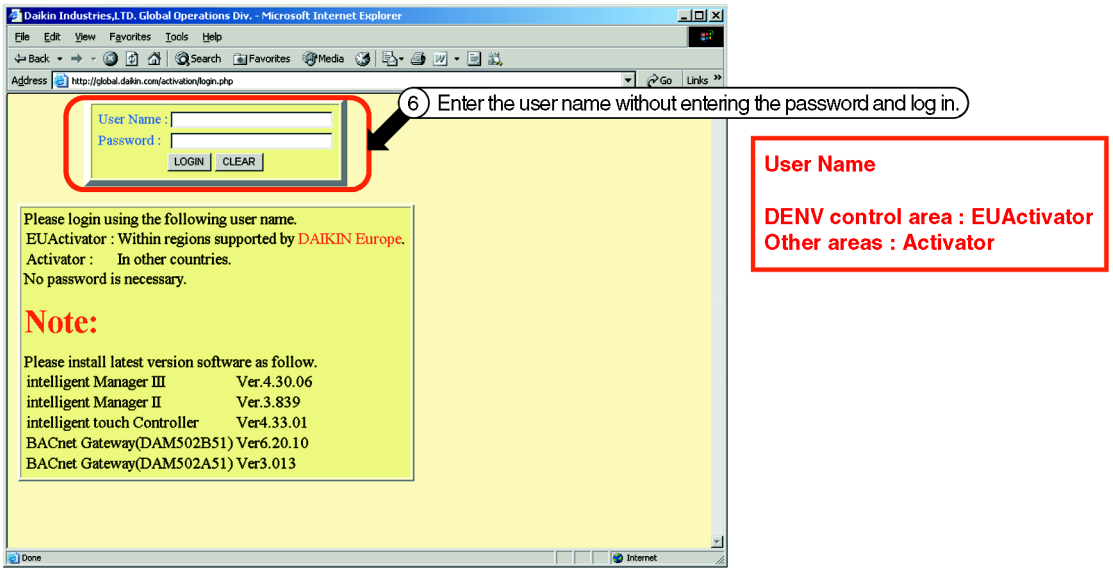
The Distributor's Page is opened.
Click Air-conditioning Management System to enter Network Solution page.



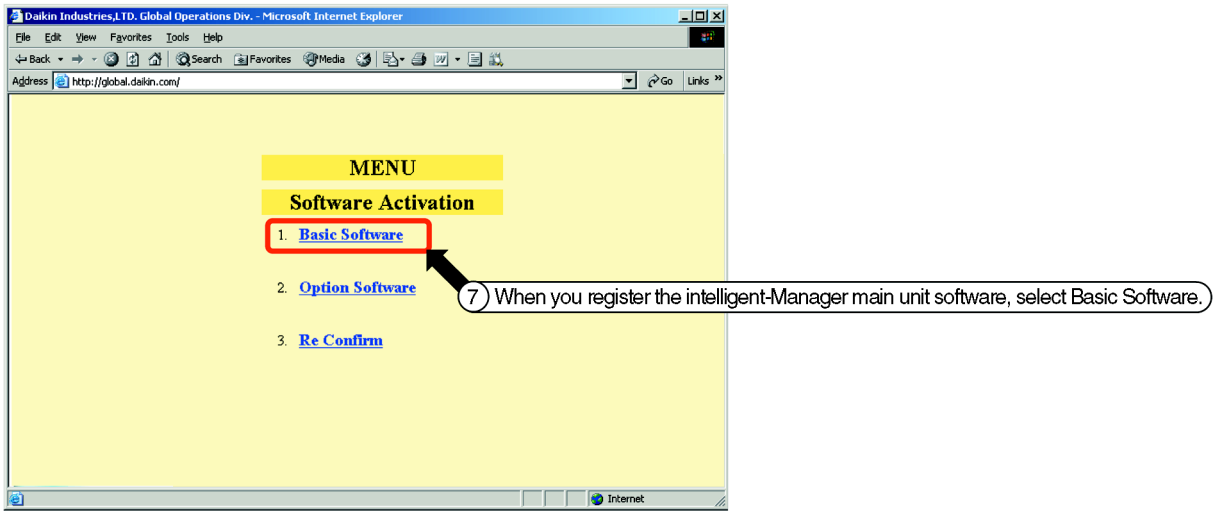
Click Activation Key issue in Network Solution page.



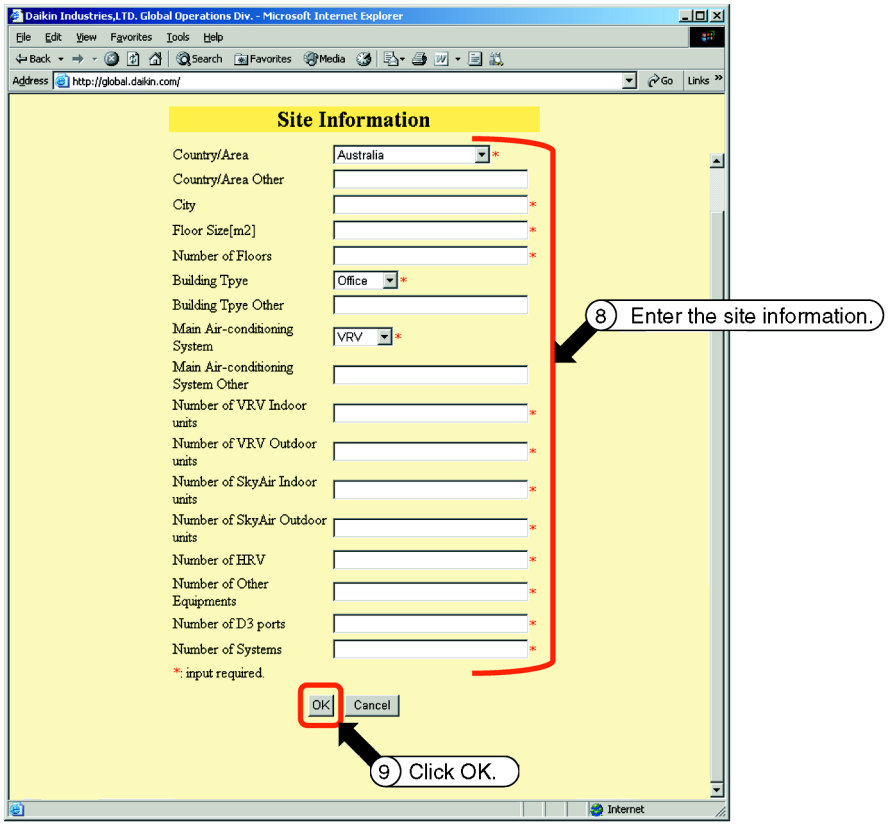
The activation key issuance window is opened. Enter the user name and log in.



The MENU window is opened. When you register the intelligent-Manger main unit software, select Basic Software.



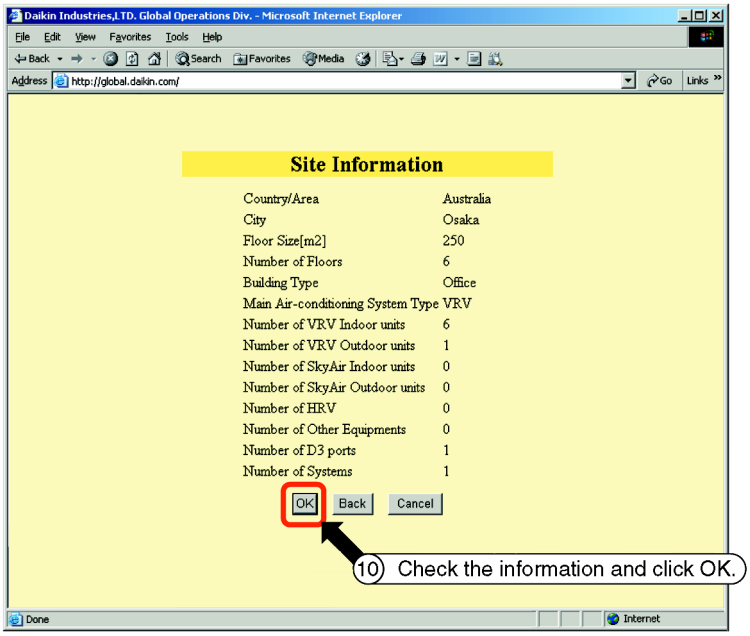
The Site Information window is opened. Enter the site information and press the OK button at the bottom of the window.
(The items with * mark are essential input items.)



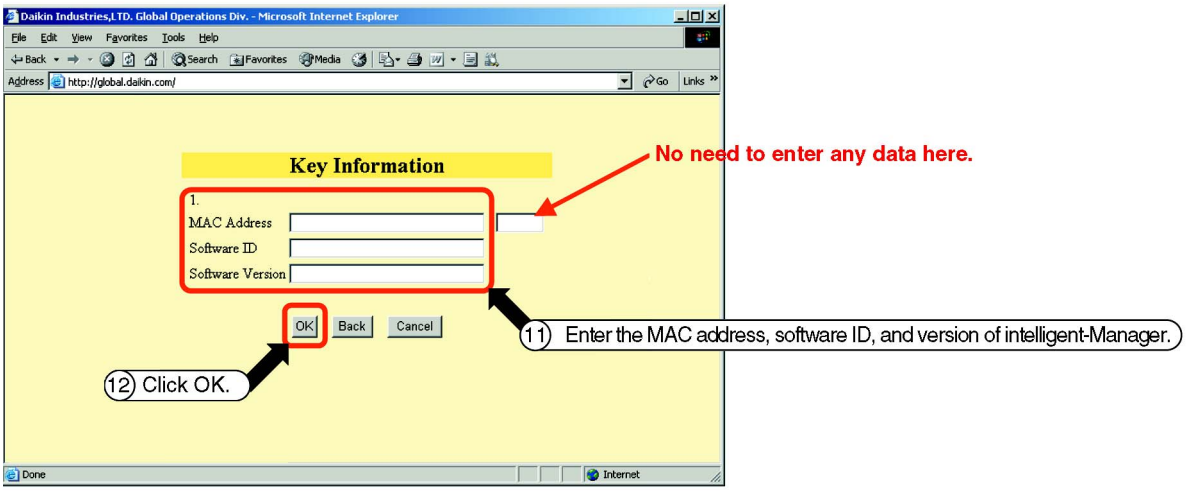
The items with * mark are essential input items.

Site information input items	Description
Country/Area *	Select the country where the site is located.
Country/Area Other	Enter the country/area if it is not included in the above list.
City *	Enter the location (city) of the site.
Floor Size[m2] *	Enter the floor size of the site.
Number of Floors *	Enter the number of floors of the site.
Building Tpye *	Select the building type.
Building Tpye Other	Enter the building type if it is not included in the above list.
Main Air-conditioning System *	Select the main air-conditioning system.
Main Air-conditioning System Other *	Enter the main air-conditioning system if it is not included in the above list.
Number of VRV Indoor units *	Enter the number of VRV indoor units to be installed at the site.
Number of VRV Outdoor units *	Enter the number of VRV outdoor units to be installed at the site.
Number of SkyAir Indoor units *	Enter the number of SkyAir indoor units to be installed at the site.
Number of SkyAir Outdoor units *	Enter the number of SkyAir outdoor units to be installed at the site.
Number of HRV *	Enter the number of HRV to be installed at the site.
Number of Other Equipments *	Enter the number of other devices to be installed at the site and managed by intelligent-Manager.
Number of D3 ports *	Enter the number of D3 Ports to be used at the site.
Number of Systems *	Enter the number of intelligent-Manager systems to be installed at the site. * Not the number of iPU units.

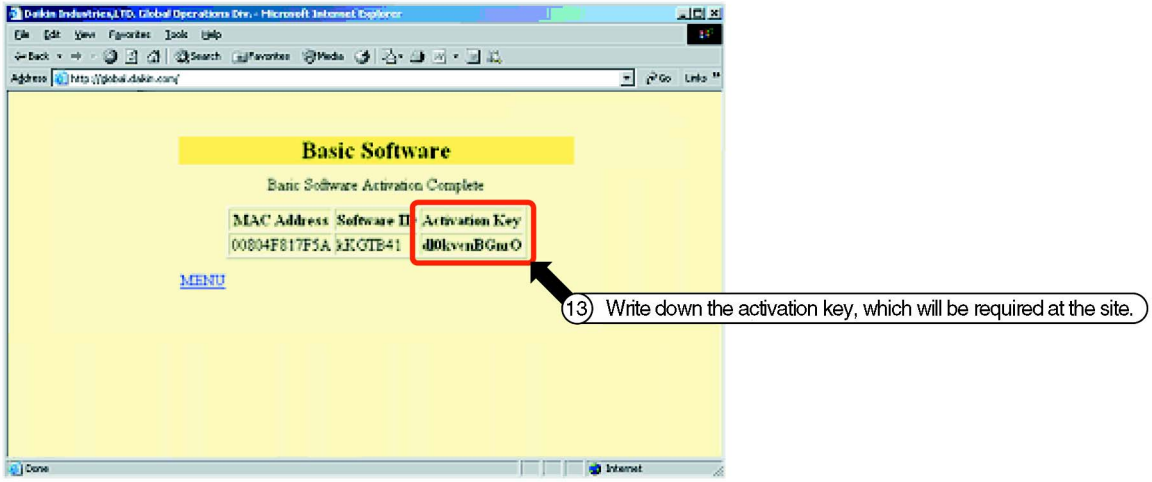
The input confirmation window of the Site Information window is opened. Check if the information is correct.



The Key Information window is opened. Enter the MAC address, software ID, and version of intelligent-Manager.



After the confirmation window is displayed, an activation key is displayed. Write down this key and bring it to the site upon installation. It is recommended to print out this window.



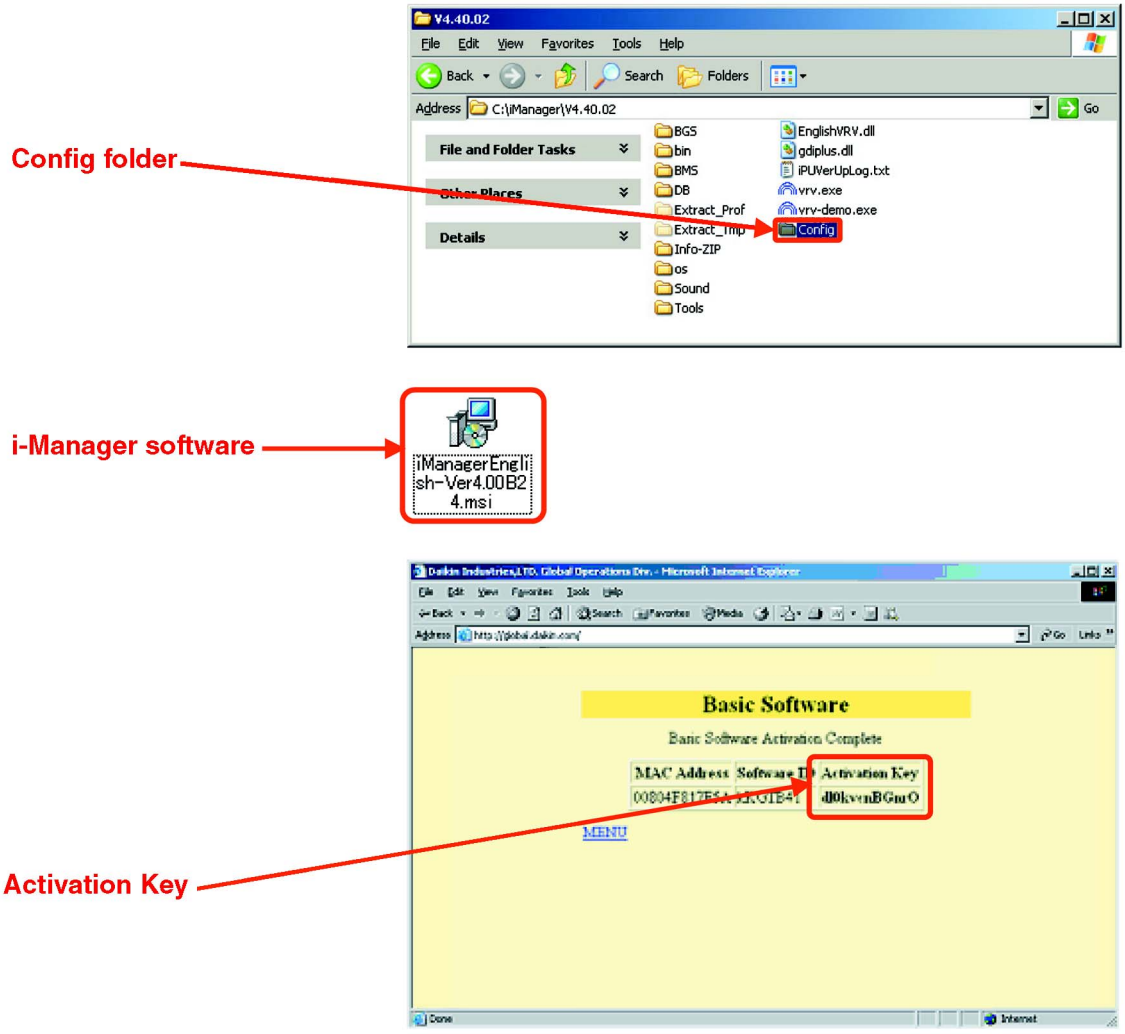
This is the end of the activation key acquisition operation.

1-2-5. Preparation for Operations at the Site

Data to be prepared

You need to bring the following items to the site where intelligent-Manager will be installed:

① Config folder
② intelligent-Manager software package
③ Activation key

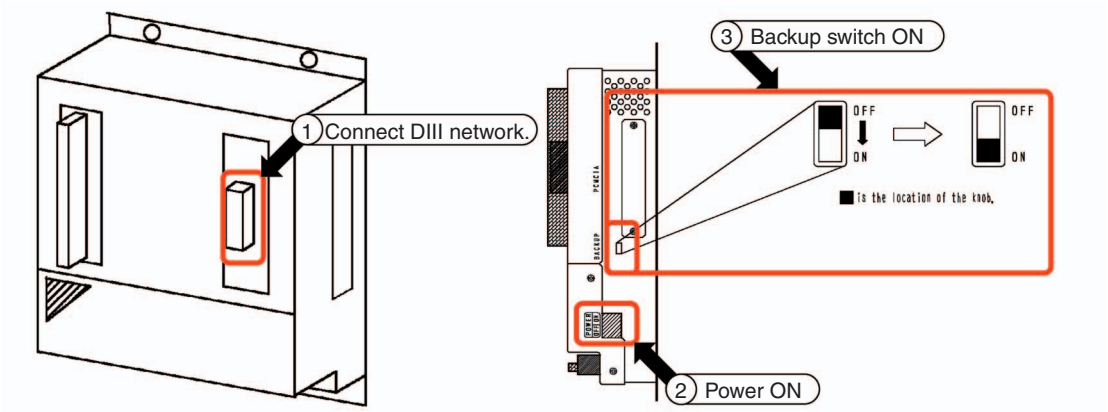


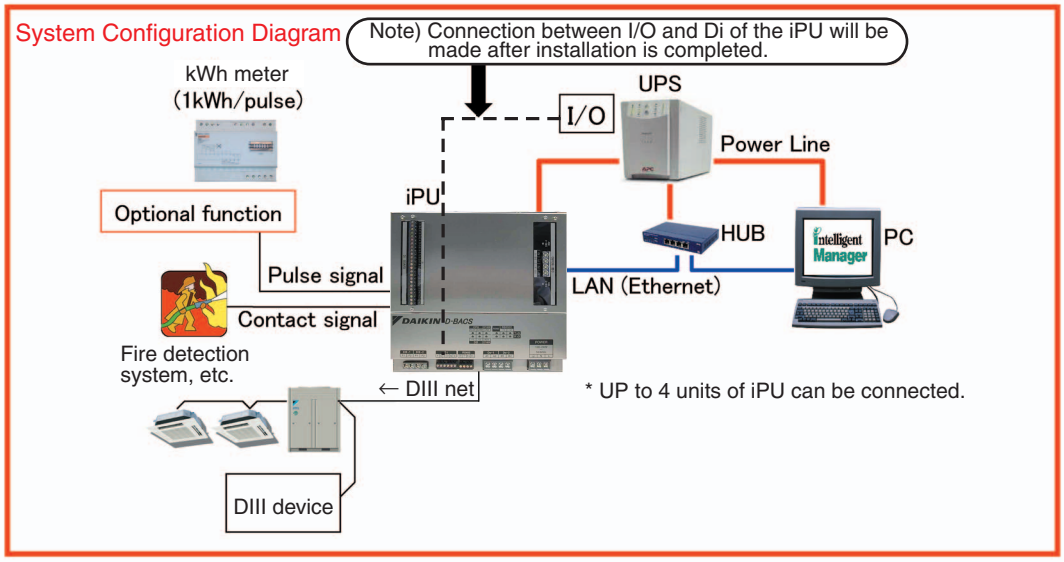
1-3. Operations at the Site

1-3-1. Installation of PC and iPU

a. Connection of Devices

Connect the cables such as DIII to the iPU in accordance with the wiring diagram. (For more details, see Installation Manual, etc.)
Connect the PC and UPS, etc. as shown in the figures below, and turn on the power of each device.
At this point, **be sure to turn on the Backup switch** of the iPU. If you continue the installation as it remains OFF, an error occurs, and the installation cannot be done correctly.





Caution:

Points to Note when Installing intelligent-Manager III

- **Be sure to turn on the battery backup switch before you start installing iPU.**
  There are the following two measures when you have installed iPU with the backup switch turned OFF according to the situation:
  (1) When you realize it before turning off the power of iPU after installation
  Turn ON the backup switch and continue the installation.
  (2) When you realize that the power of iPU is turned off after installation
  1. Turn OFF the power of iPU and the backup switch and leave them for 5 minutes.
  2. Turn ON the backup switch and install iPU again.

- **Do not enter space in the installation path name for intelligent-Manager software.**
  If the installation path includes space, an ftp error occurs during installation of the iPU software.
  If the error occurs, delete the space in the installation path, and redo the operation.

b. Setup of PC

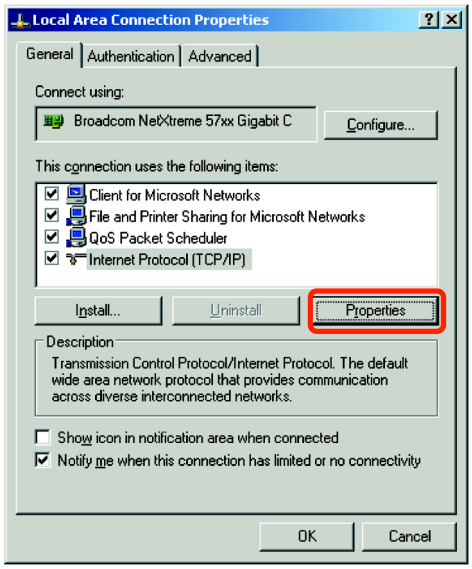
Installation of intelligent-Manager software

Install the intelligent-Manager software you have prepared to the PC to which intelligent-Manager will be installed.
The methods of acquiring and installing the software are same as those for 1-2-1. b Operations at the Office (page 3).

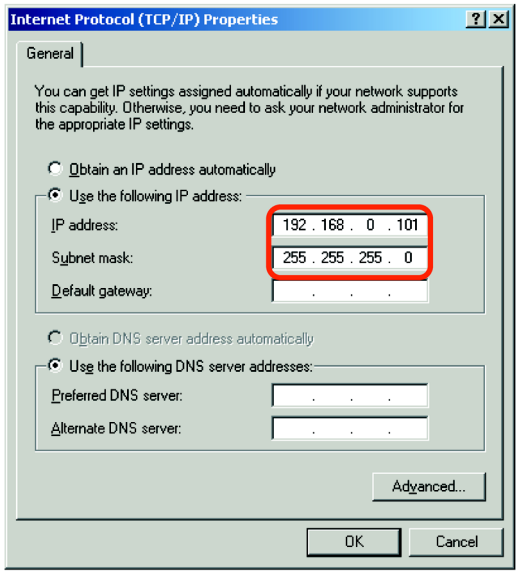
Setup of Network

Windows XP

(1) Choose [Control Panel] from the [Start] button and double-click the [Network connections] icon.
(2) Choose the [Local Area Connection] icon, click the right button of the mouse, and choose [Properties].
(3) Choose [Internet Protocol(TCP/IP)] and press the [Properties] button.

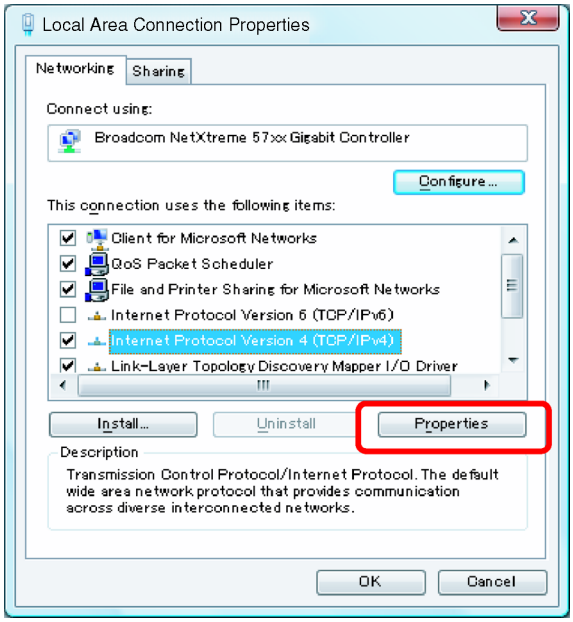


(4) Type [192.168.0.101] in the IP address field and [255.255.255.0] in the Subnet mask field.
* Configure [Default gateway] and [DNS] if necessary. (They do not have to be configured for a network exclusively for the intelligent-Manager system.)

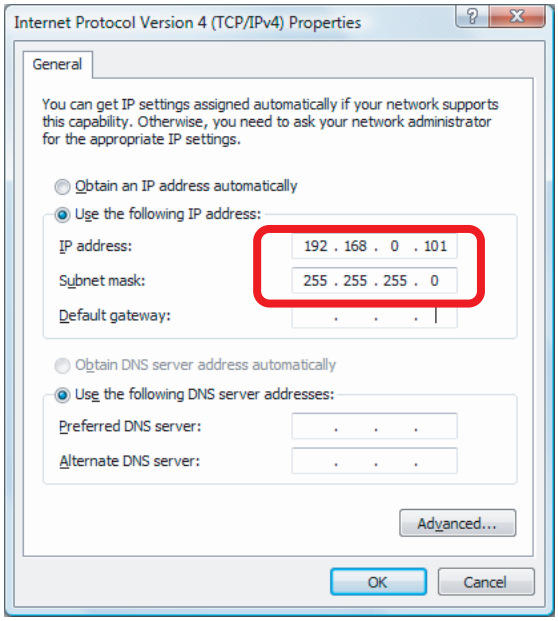


Windows Vista

(1) Choose [Control Panel] from the [Start] button and double-click the [Network and Sharing Center] icon. Then click [Manage network connections].
(2) Choose the [Local Area Connection] icon, click the right button of the mouse, and choose [Properties].
(3) Choose [Internet Protocol Version4(TCP/IPv4)] and press the [Properties] button.



(4) Type [192.168.0.101] in the IP address field and [255.255.255.0] in the Subnet mask field.
* Configure [Default gateway] and [DNS] if necessary. (They do not have to be configured for a network exclusively for the intelligent-Manager system.)



Auto startup/Login/Startup setting

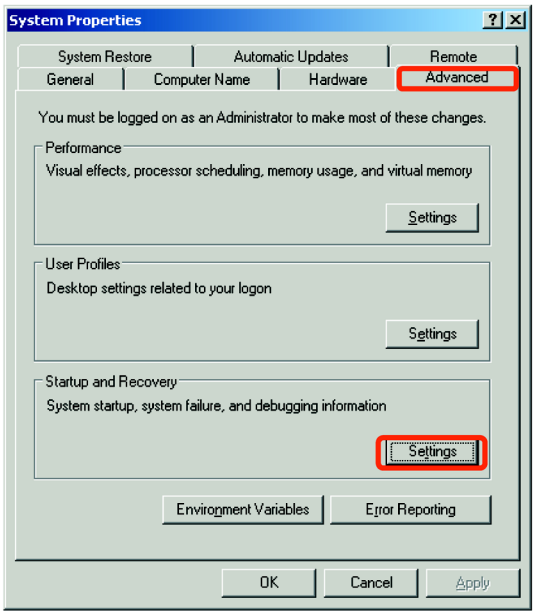
The intelligent Manager system is designed to run continuously.
However, in case of trouble(power failure, etc.), it has integrated features to stop and restart in a safely and smoothly.
To do so, Microsoft Windows system settings are needed to perform the following steps:

[Automatic Reboot]
[Automatic Logon]
[Automatic Start-up]

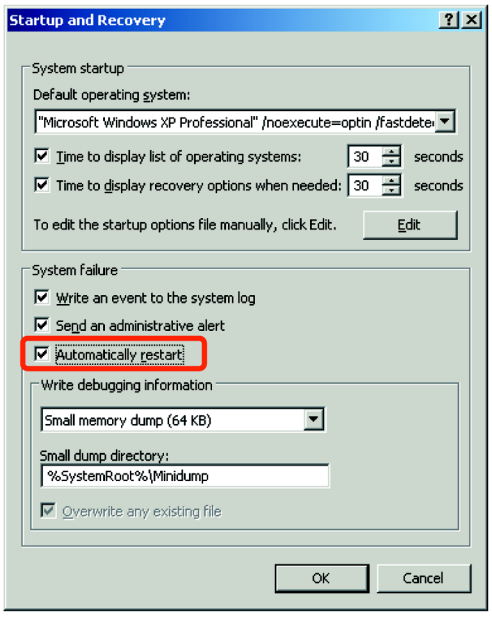
[Automatic Reboot]

Windows XP

Set to automatically reboot Windows when it ends abnormally.
(1) Choose [Control Panel] from the [Start] button and double-click the [System] icon.
(2) On the [Advanced] tab, press the [Settings] button under [Startup and Recovery].



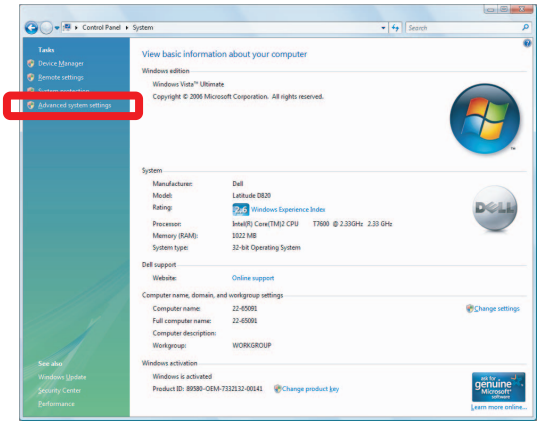
(3) Place a checkmark to the left of [Automatically restart].



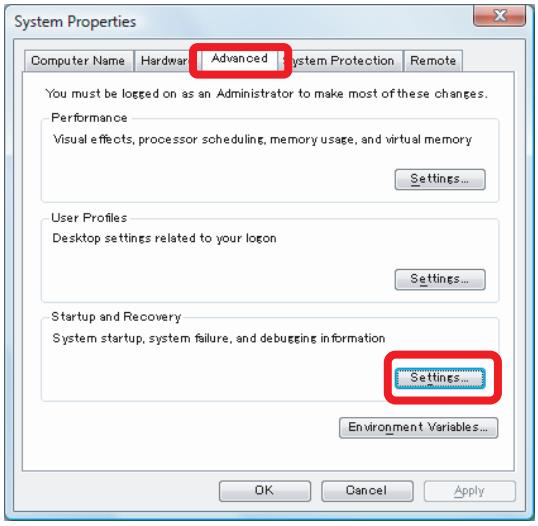
Windows Vista

Set to automatically reboot Windows when it ends abnormally.

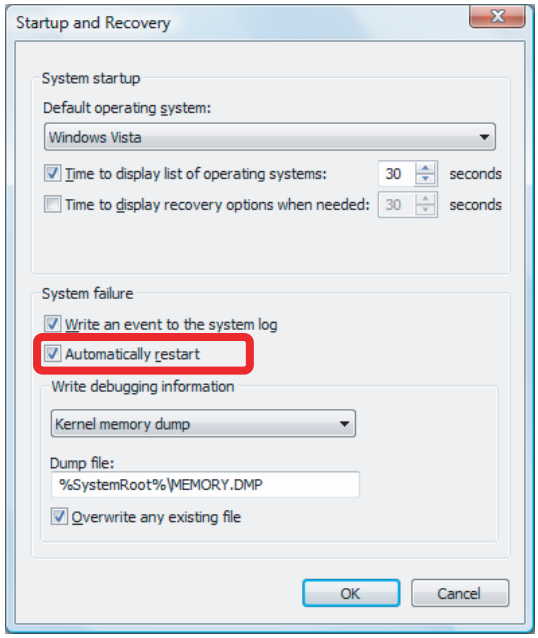
(1) Choose [Control Panel] from the [Start] button and double-click the [System] icon.
Then click [Advanced System setting].



(2) On the [Advanced] tab, press the [Settings] button under [Startup and Recovery].



(3) Place a checkmark to the left of [Automatically restart].



[Automatic Logon]

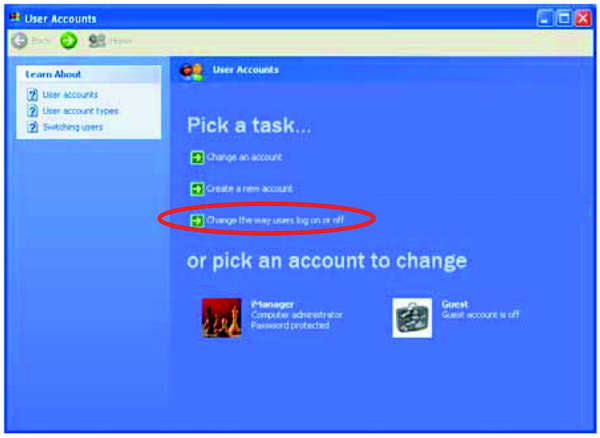
Windows XP

To start Windows XP, which is the OS of the monitoring PC, it is normally necessary to log on to it.
The automatic logon configuration allows Windows XP to start without the logon after the monitoring PC is powered on.
To logon automatically when Windows XP starts, the following conditions have to be met.

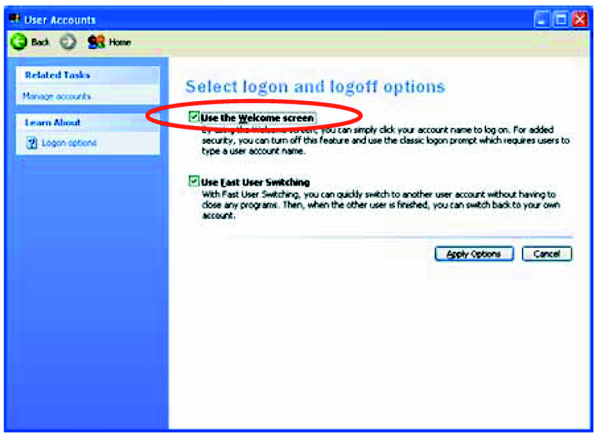
*"Welcome screen" is available.
*Access with guest account is disabled.
*Two or more user accounts have not been set up.
*The password for the user account has not been set.

To make "Welcome screen" available

(1) Choose [Control Panel] from the [Start] button and double-click the [User Accounts] icon.
(2) Click [Change the way users log on or off].



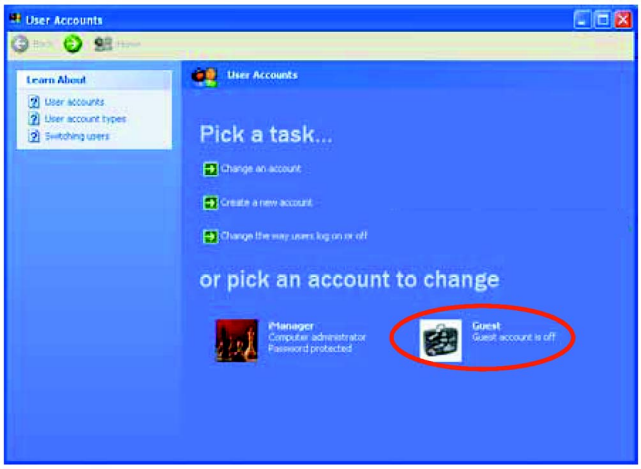
(3) Place a checkmark to the left of [Use the Welcome screen].



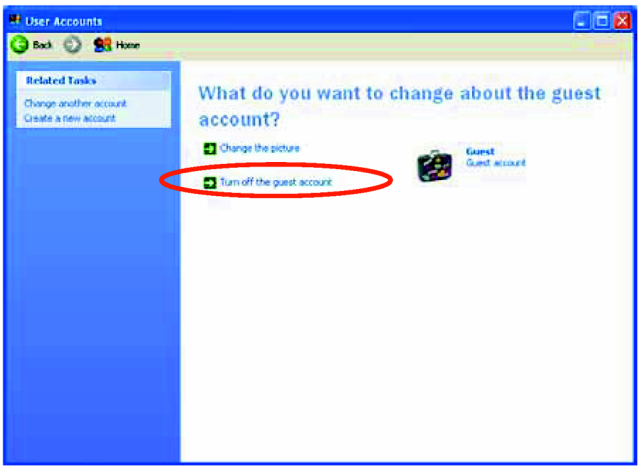
To disable access with the guest account

(1) Choose [Control Panel] from the [Start] button and double-click the [User Accounts] icon.

(2) Click [Guest].

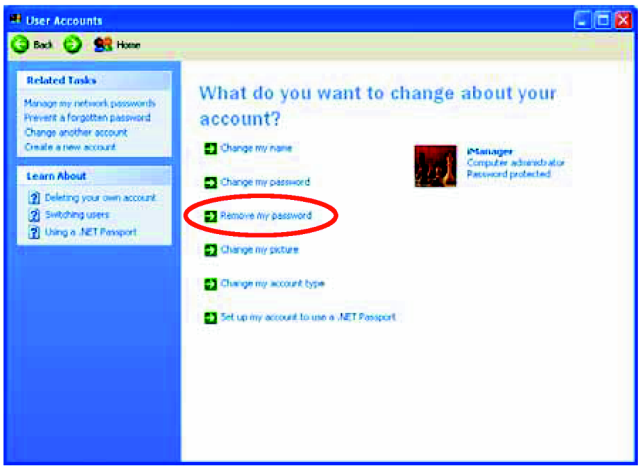


(3) Click [Turn off the guest account].

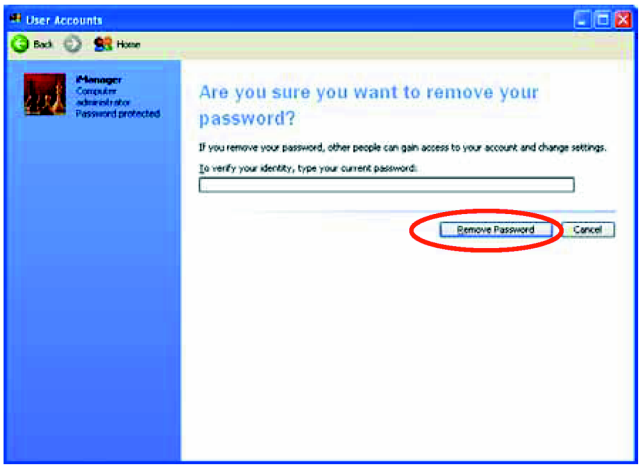


To remove the password for the user account

(1) Choose [Control Panel] from the [Start] button and double-click the [User Accounts] icon.
(2) Choose the user account, the password of which is to be removed.
(3) Click [Remove my password].



(4) Type the current password and click [Remove Password].



Windows Vista

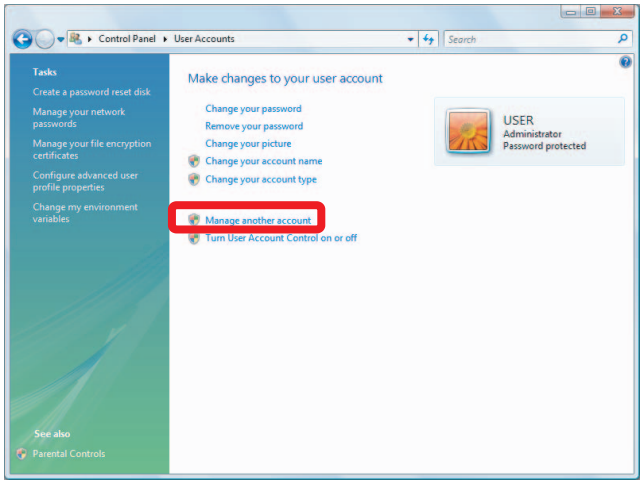
To start Windows Vista, which is the OS of the monitoring PC, it is normally necessary to log on to it.
The automatic logon configuration allows Windows Vista to start without the logon after the monitoring PC is powered on.

To logon automatically when Windows Vista starts, the following conditions have to be met.

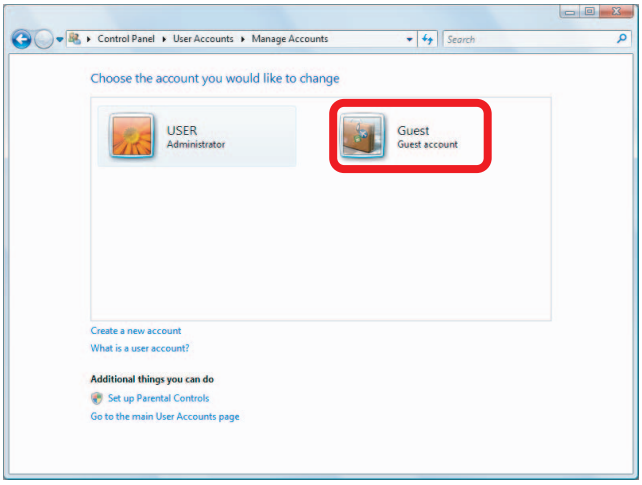
*Access with guest account is disabled.
*Two or more user accounts have not been set up.
*The password for the user account has not been set.

To disable access with the guest account

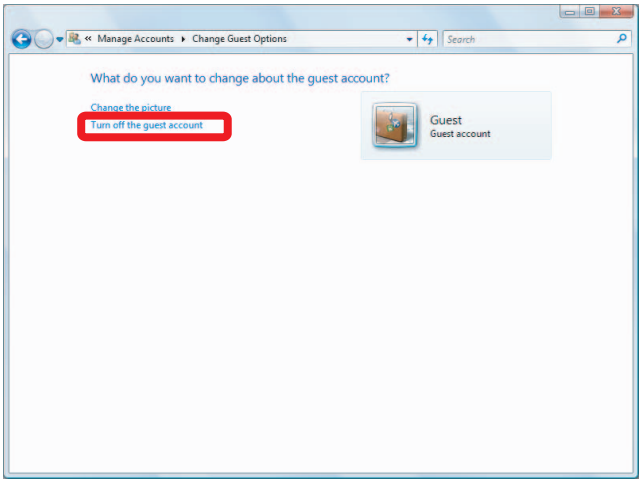
(1) Choose [Control Panel] from the [Start] button and double-click the [User Accounts] icon.
(2) Click [Manage another account].



(3) Click [Guest].



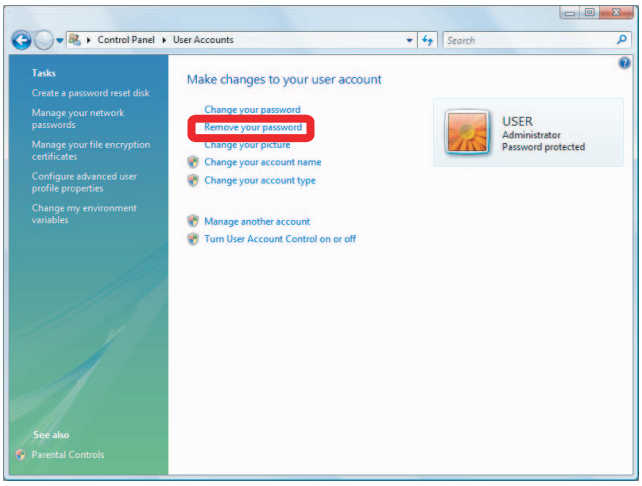
(4) Click [Turn off the guest account].



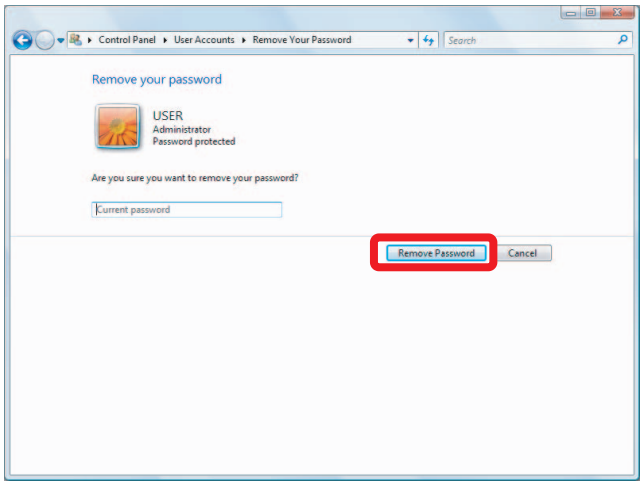
To remove the password for the user account

(1) Choose [Control Panel] from the [Start] button and double-click the [User Accounts] icon.

(2) Click [Remove your password].



(3) Type the current password and click [Remove Password].



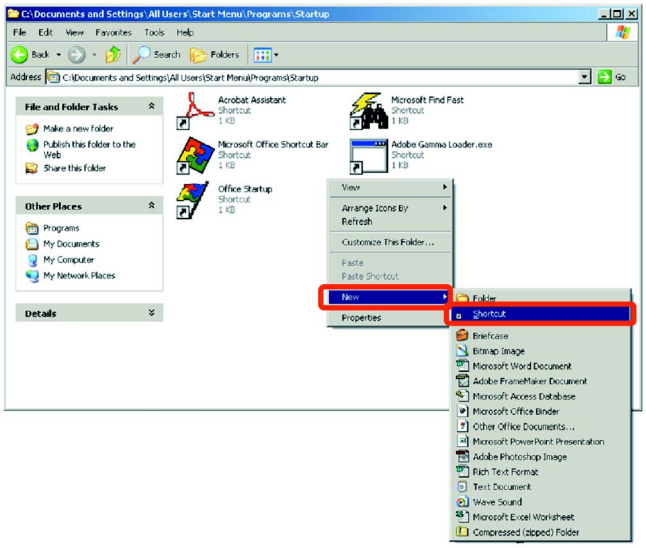
[Automatic Start-up]

Windows XP

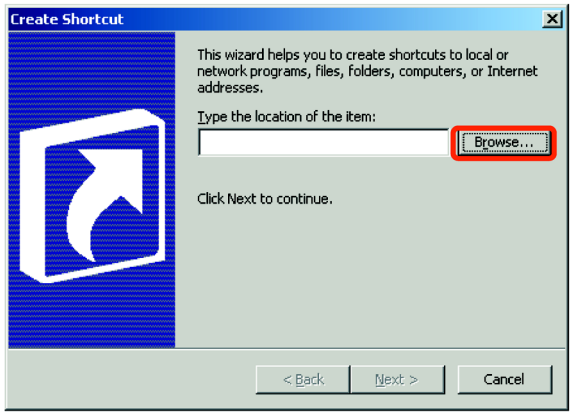
The following describes the configuration with which to start the monitoring PC software automatically after Windows starts after power-on.

(1) Open the folder [C:¥Documents and Settings¥All Users¥Start Menu¥Programs¥Startup].

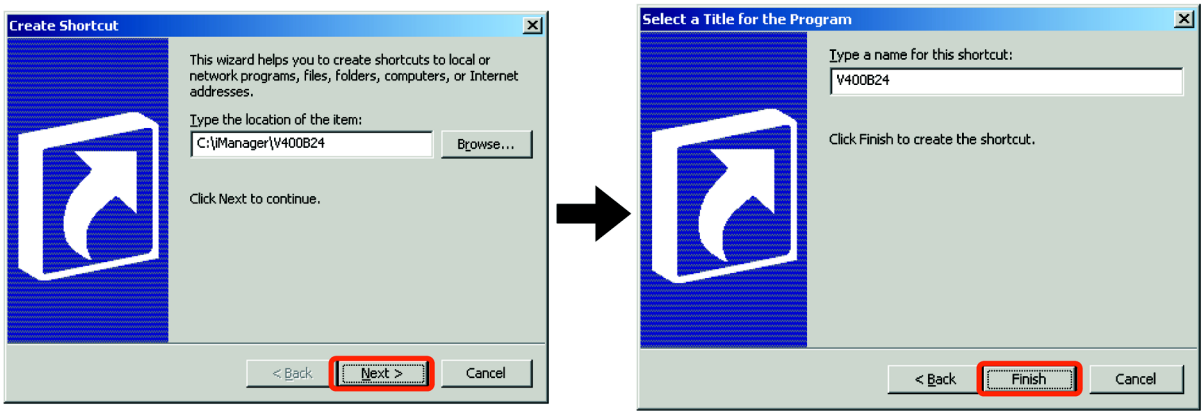
(2) Click the right button of the mouse and choose [New]->[Shortcut].



(3) Press the [Browse] button in the window to create the shortcut. Then, choose the monitoring PC software (e.g., C:¥iManager¥V4.31.00¥VRV.exe).



(4) Press the [Next] button, then [Finish] button.

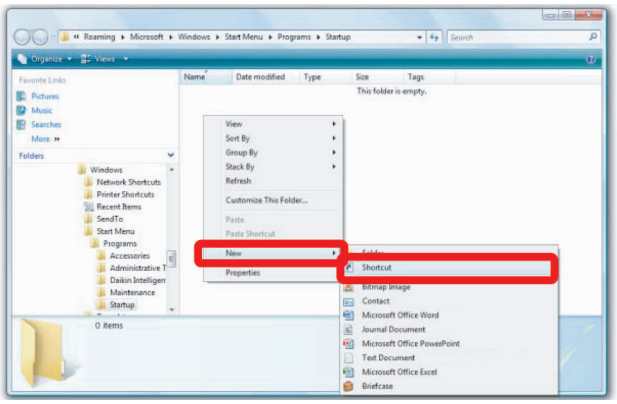


(5) Reboot the monitoring PC and check whether the monitoring PC software starts automatically.

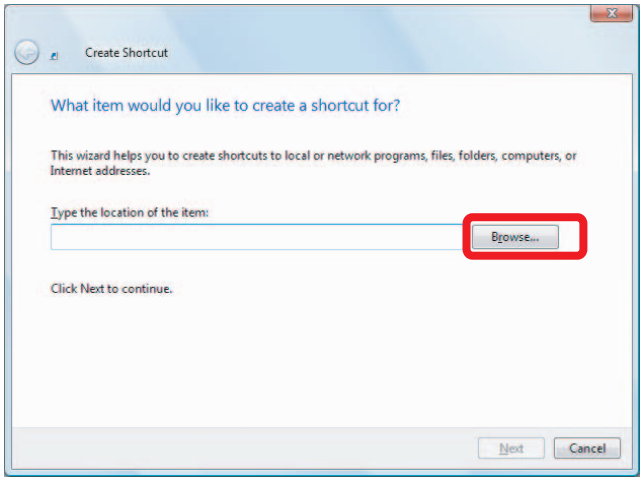
Windows Vista

The following describes the configuration with which to start the monitoring PC software automatically after Windows starts after power-on.

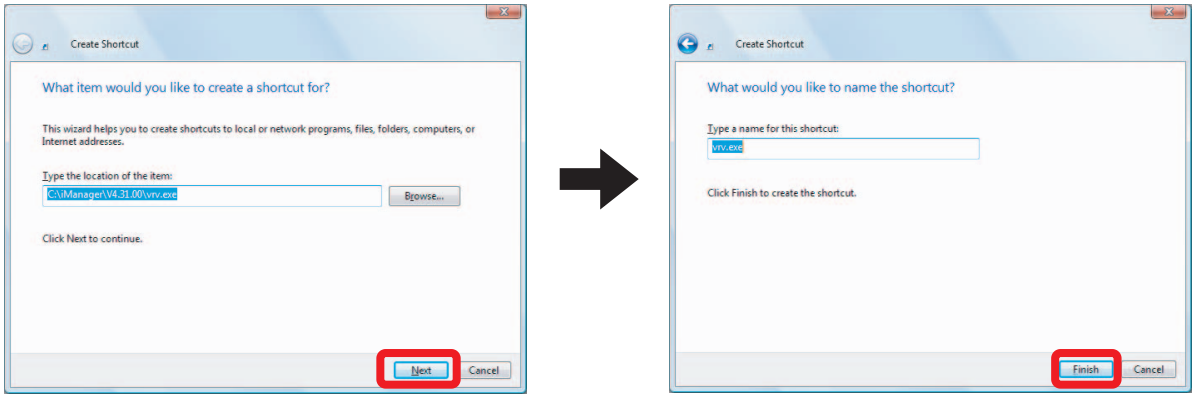
(1) Click [All Programs] from the [Start] button and shoose [Startup].
(2) Click the right button of the mouse on [Startup] and choose [Explorer].
(3) Click the right button of the mouse and choose [New]->[Shortcut]



(4) Press the [Browse] button in the window to create the shortcut. Then, choose the monitoring PC software (e.g., C:¥iManager¥V4.31.00¥VRV.exe).



(5) Press the [Next] button, then [Finish] button.



(6) Reboot the monitoring PC and check whether the monitoring PC software starts automatically.

Settings for Windows Vista

Microsoft Windows Vista uses an innovative GUI. Furthermore, great software changes have been made to Microsoft Windows Vista, such as the adoption of an improved user account control (UAC) function.

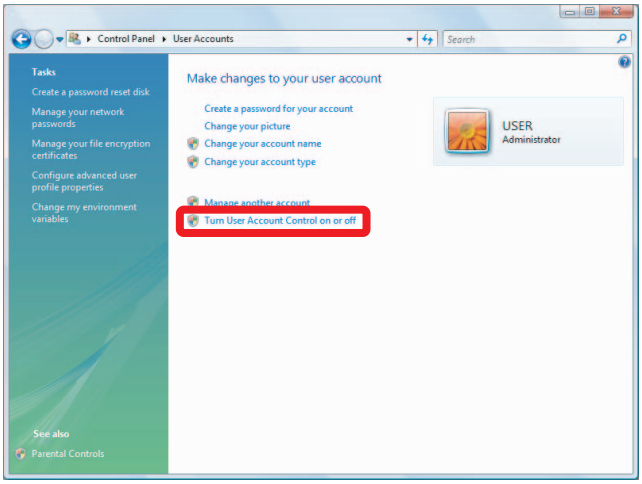
The following settings are required in order to operate the functions of intelligent Manager as specified on Windows Vista.

[Invalidation of UAC function]
[Windows design (screen setting) change]
[Taskbar setting change]

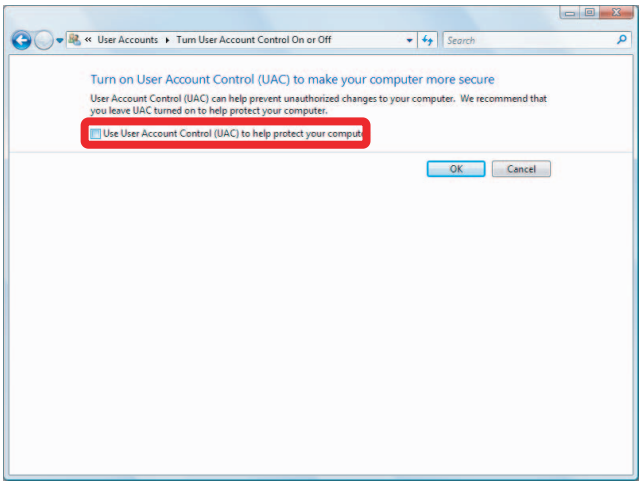
[Invalidation of UAC Function]

Windows Vista's UAC function displays a confirmation dialog box whenever an application is installed, setting changes are made, or an execution file provided with a security shield icon is started. The UAC function, however, may obstruct the execution of some functions of intelligent Manager while it displays a confirmation dialog. Therefore, be sure to invalidate the UAC function if Windows Vista is used sa an OS.

(1) Choose [Control Panel] from the [Start] button and double-click the [User Account] icon.
(2) Click [Turn User Account Control on or off].



(3) Uncheck [Use User Account Control (UAC) to help protect your computer] and press the [OK] button to restart the PC.



[Windows Design (Screen Setting) Changes]

If intelligent Manager is used in Windows Vista with the initial settings maintained, the position of character strings on the monitor panel screen may slip off. Therefore, make the following setting changes.

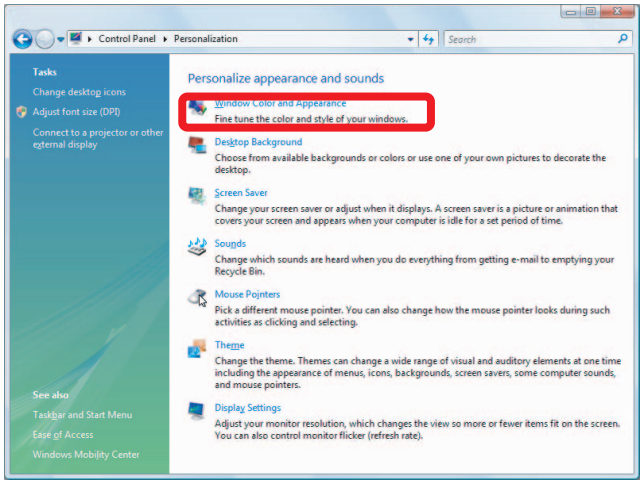
Windows border padding settings

Screen font settings

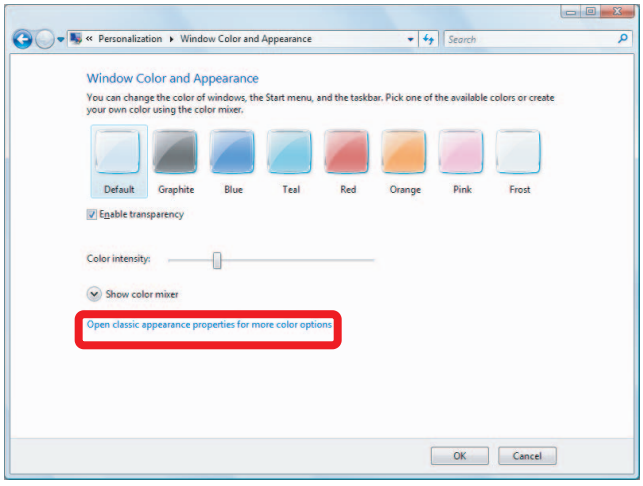
Windows Border Padding Settings

(1) Choose [Control Panel] from the [Start] button and double-click the [Personalization] icon.

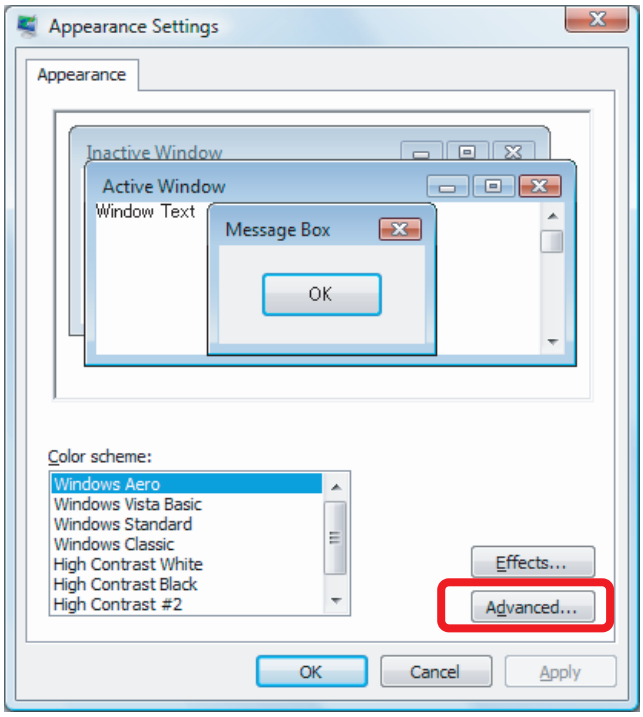
(2) Click [Window Collor and Appearance].



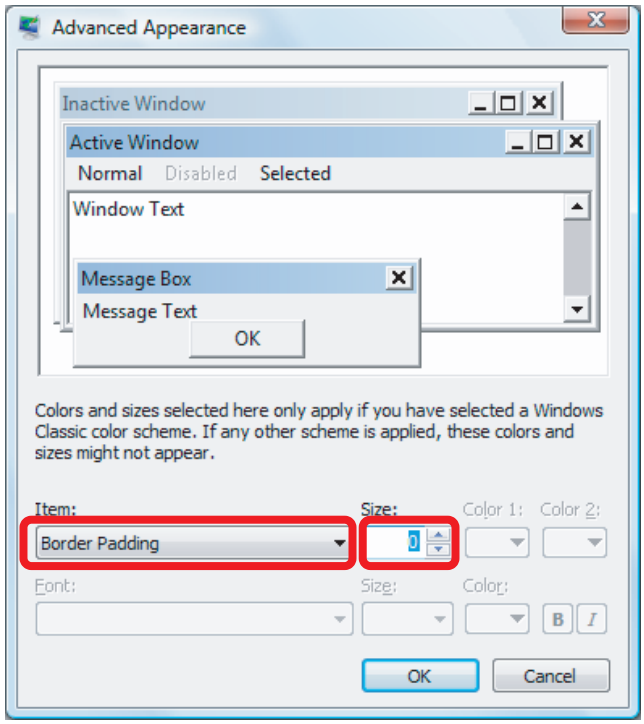
(3) Click [Open classic appearance properties for more color options].



(4) Click [Advanced].

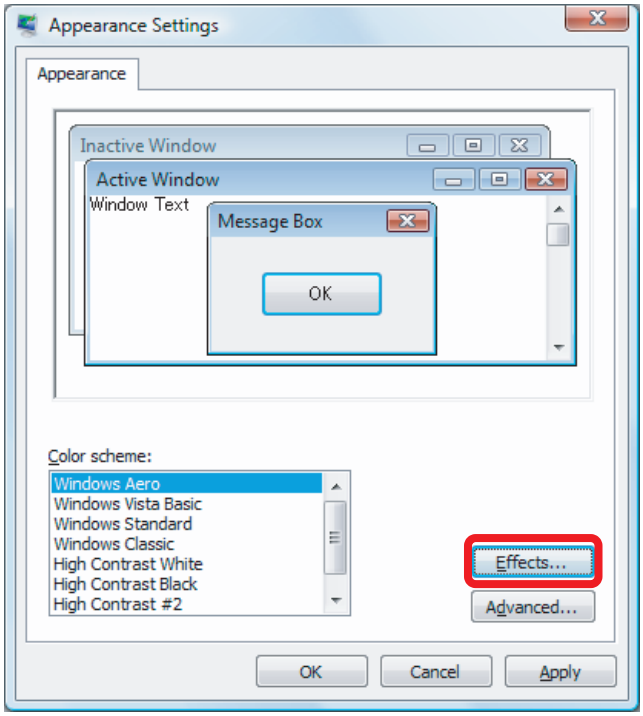


(5) Select the item [Border Padding] and set Size to [0].

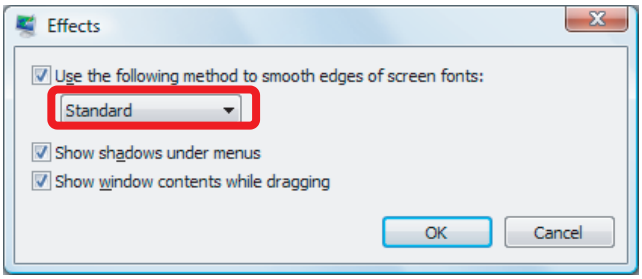


Screen Font Settings

(1) Choose [Control Panel] from the [Start] button and double-click the [Personalization] icon.
(2) Click [Window Collor and Appearance].
(3) Click [Open classic appearance properties for more color options].
(4) Choose [Effects].



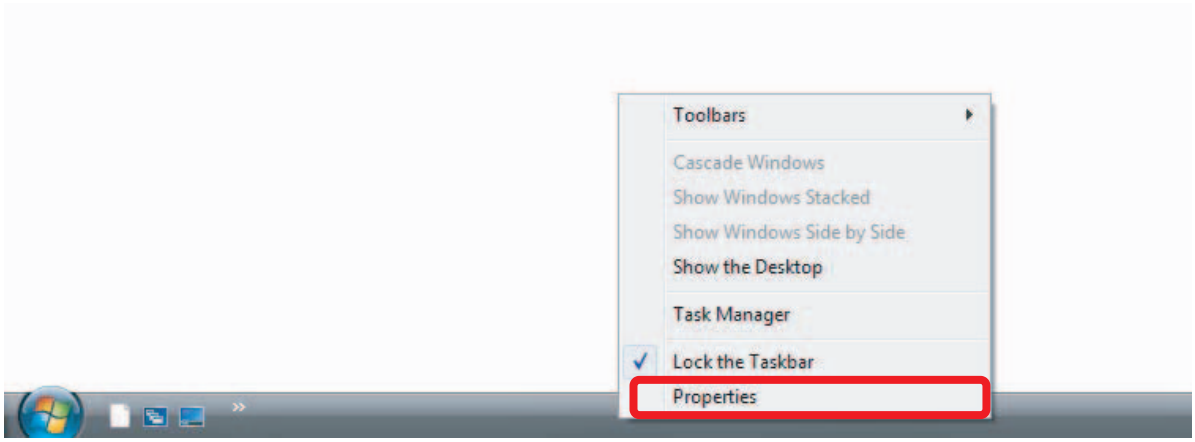
(5) Set the [Standard] screen font.



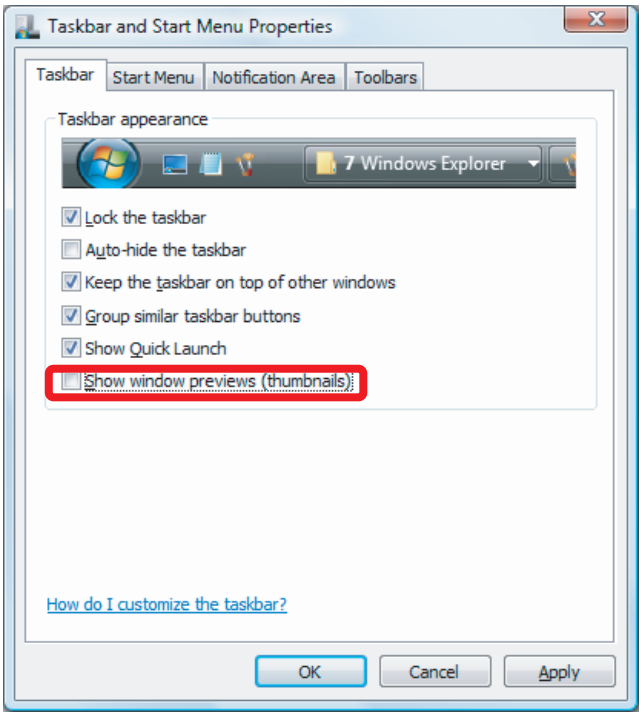
[Taskbar Setting Changes]

In Windows Vista, a window preview in a reduced size is displayed when the cursor is on the taskbar. When the window preview is displayed, the application may not start. Therefore, make the following settings.

(1) Right-click on the taskbar and choose [Properties].



(2) Uncheck [Show window previews (thumbnails)] and press the [OK] button.



Setup of UPS

Fundamentals

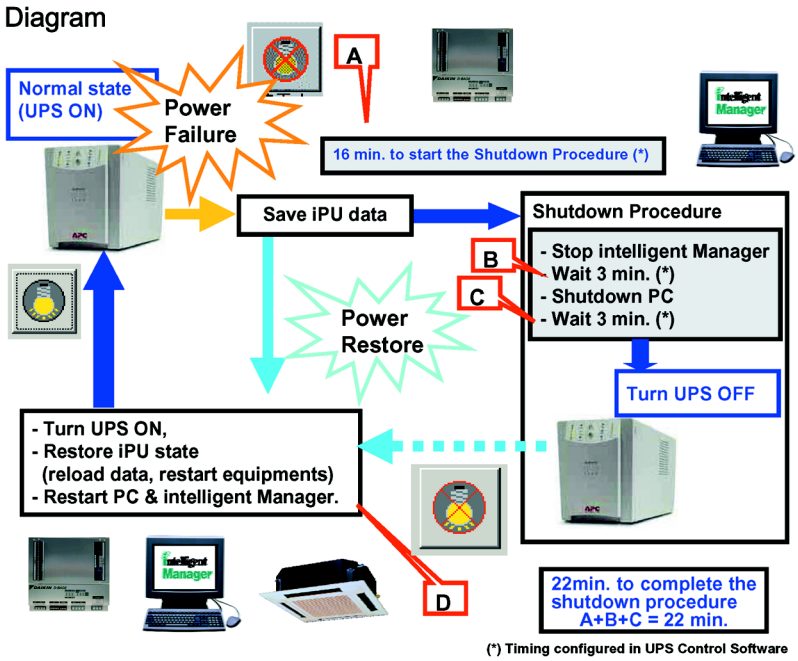
The intelligent Manager is designed for continuous operation. Therefore, automatic shutdown is carried out in the case of power failure, and automatic restart is carried out when the power is restored.
When the iManager detects a signal of power failure, the data of the iPU are locally saved in the memory (state of management points, etc).
When the power is restored, the data are read out from the memory so that the system can be restarted in its previous state.
During this time period, the interlocking automatic control function of the intelligent Manager system is deactivated.

Failure/Restore detection

The iManager system is equipped with an un-interruptible power supply (UPS) which power failure output signal is connected on the internal Di #1 of the master iPU. As well, in order to preserve the UPS battery, an optional shutdown input signal is connected to the internal Do #1 or #2 of the master iPU. If this option is not present, the iPU will automatically resume operation within 30 minutes from the power failure breakout. However, in the case of a software controlled UPS, this internal Do should not be connected.

Note: The master iPU and the network hub should always be connected to the same UPS.

Diagram



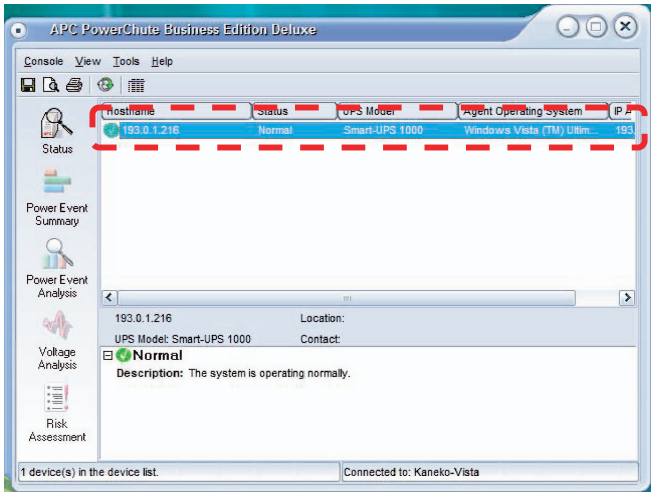
(1) Connect Di-1 to UPS output terminal (see in UPS documentation which terminal corresponds to "Power Failure" or "On battery" signal).
(2) Install and Setup UPS control software(Power Chute Plus) and reboot the PC.
[1] Insert this control software in the Automatic Start-up of WindowsXP(Vista).
[2] Configure the parameters as shown in the next page.
[3] Register the BipsShutdown.exe module to be carried out when the UPS control software starts the shutdown procedure.

Power Chute Plus settings

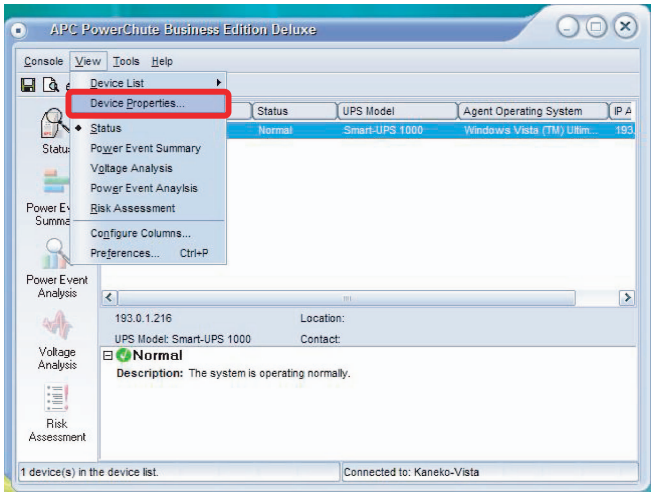
(APC PowerChute Bussiness Edition Ver.8.0)

Perform configuration as illustrated bellow (recommended model: UPS made by APC with the PowerChutecontrol software).The values of steps A to D are compulsory.

(1) Select the UPS to configure the settings for.

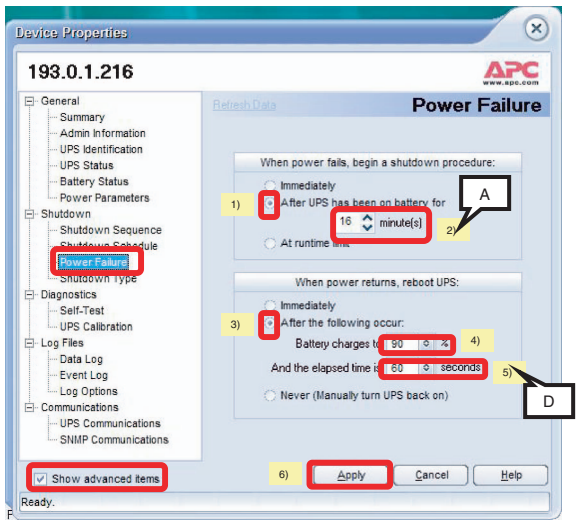


(2) Select [Device Properties] from the “View” menu.

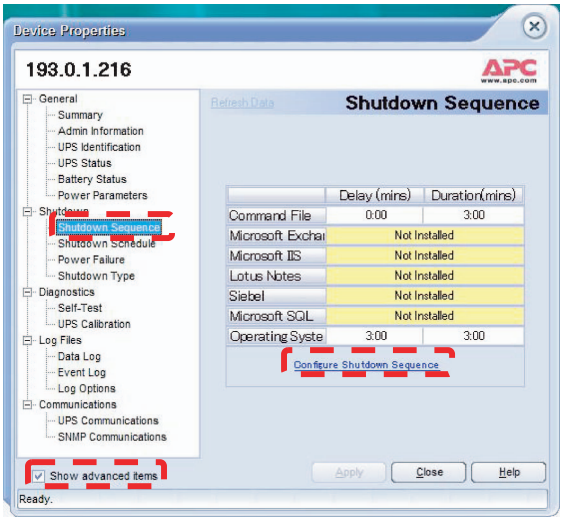


(3) Check “Show advanced items”, select “Power Failure”, and complete settings (1) - (6) in below.

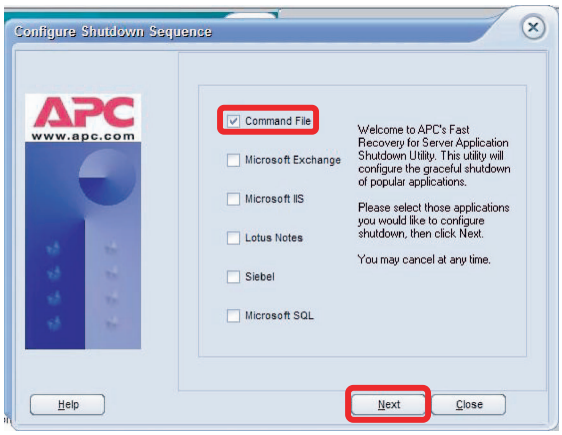
1) Select “After UPS has been on battery for”.
2) Set to “16 minutes”.
3) Select “After the following occur”.
4) Set to “90%”.
5) Set to “60 seconds.”
6) Click “Apply”.



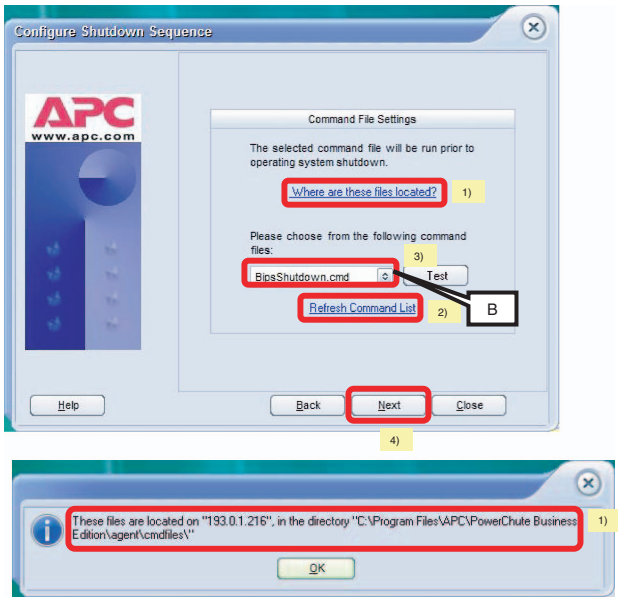
(4) Check “Show advanced items”, then select “Shutdown Sequence” and click [Configure Shutdown Sequence].



(5) Select “Command File” and click [Next].

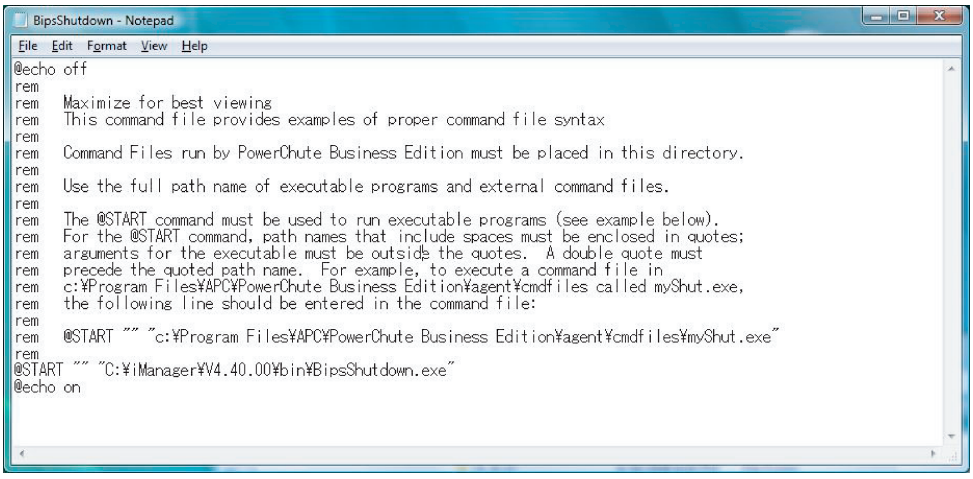


(6) 1) Click on [Where are these files located?] and create “BipsShutdown.cmd” in the path which is displayed.
2) Click on [Refresh Command List].
3) Select “BipsShutdown.cmd”.
4) Click [Next].



1) Contents of “BipsShutdown.cmd”.

■ Screen



■ Command contents

(The lines which begin with “rem” in the above screen capture have been omitted.)

@echo off

Do not display the echo message “Executing batch file”..

@START "" "C:¥iManager¥V4.40.00¥bin¥BipsShutdown.exe"

Executes “BipsShutdown.exe”.

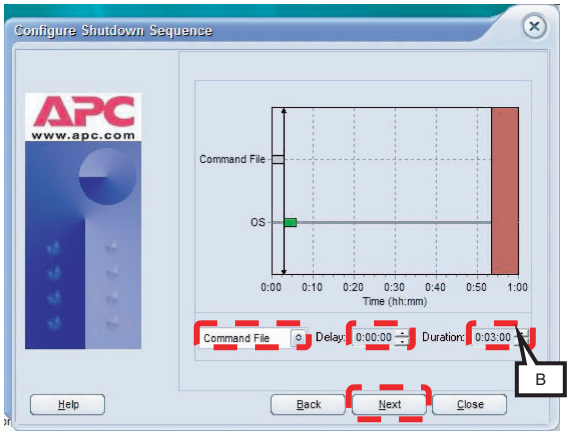
The first argument (in this example, the blank character string "") is the title of the command prompt screen which appears when the file is executed.

The second argument (in this example, "C:¥iManager¥V4.40.00¥bin¥BipsShutdown.exe") lists the path of the installed iManager “BipsShutdown.exe”. (This example shows the Ver. 4.40.00 iManager.)

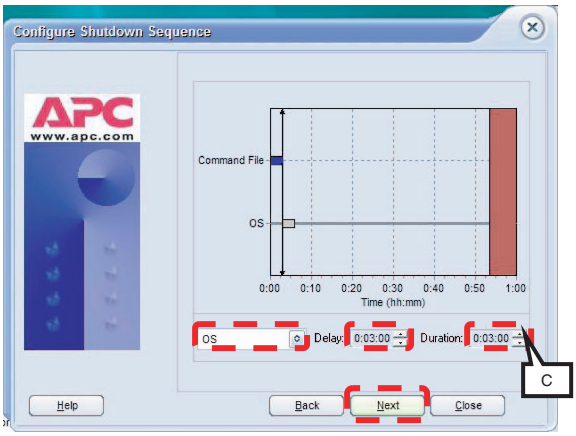
@echo on

Display the “Executing batch file” echo message. (Restores the Windows default setting.)

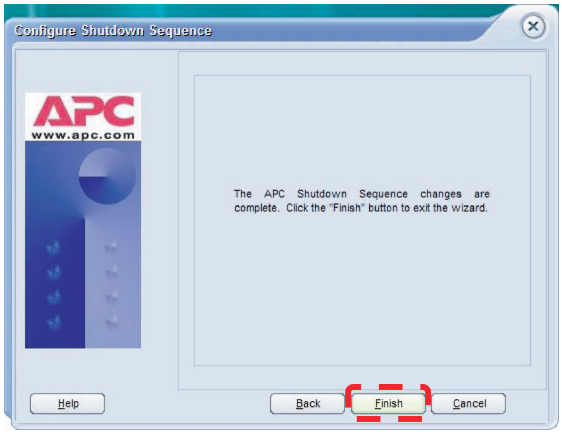
(7) Select “Command File” and set “Delay: 0 min”, “Duration: 3 min”.



(8) Select “OS” and set “Delay: 3 min”, “Duration: 3 min”. Then click [Next].



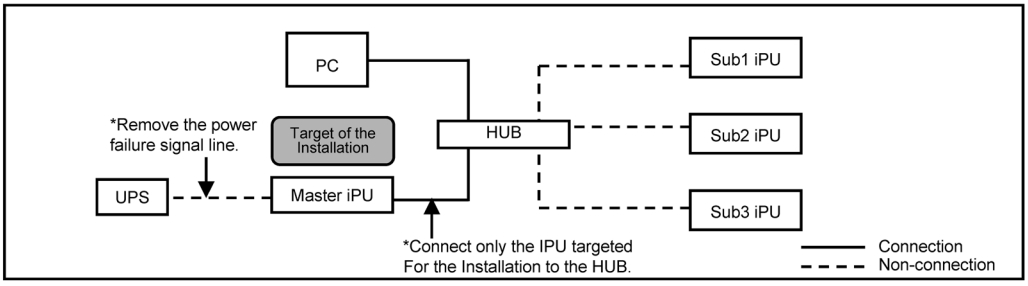
(9) Click [Finish].



1-3-2. Installation of iPU

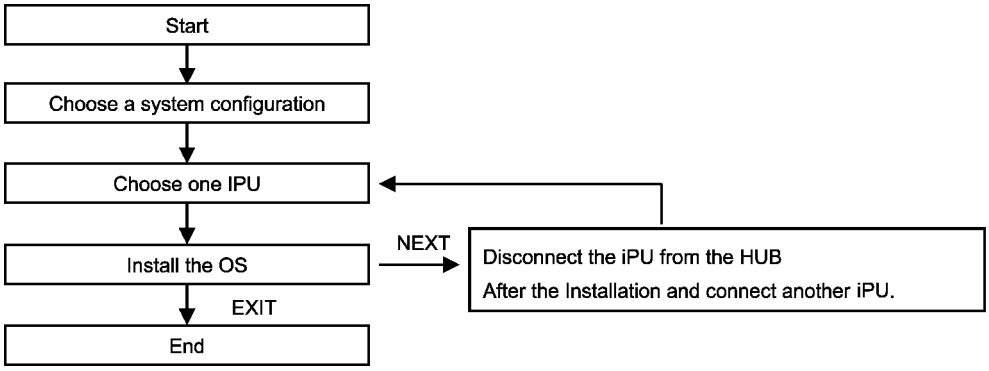
Before the Installation

(1) The installation tool installs the OS on iPUs.
(2) Confirm that “Automatically adjust clock for daylight savings changes” box in the time zone setting of Windows has been checked, for areas that change to daylight savings time. (If this box has not been checked, the time during the summer time at the time ofthe installation may not be accurate.)
(3) If a power failure signal line has been connected to the Di1 port of the Master iPU remove it.
(4) One iPU is installed at a time. If there are two or more iPUs, connect only one iPU to the HUB.



Installation Flowchart

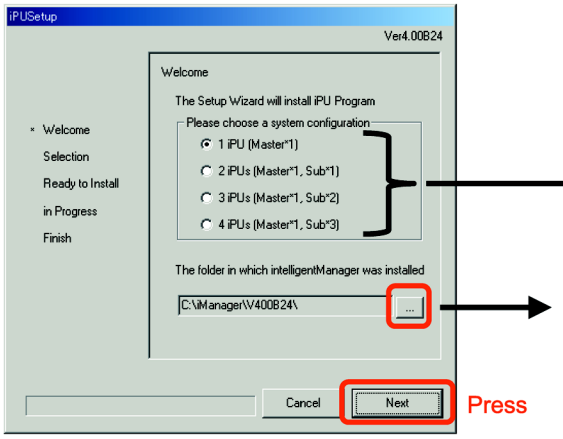
The flow for the installation is as follows.



Installation method

Start iPUSetup.exe in the Tools subfolder of the folder that was extracted from the compressed file “intelligent Manager”.

(1) Choose a system configuration

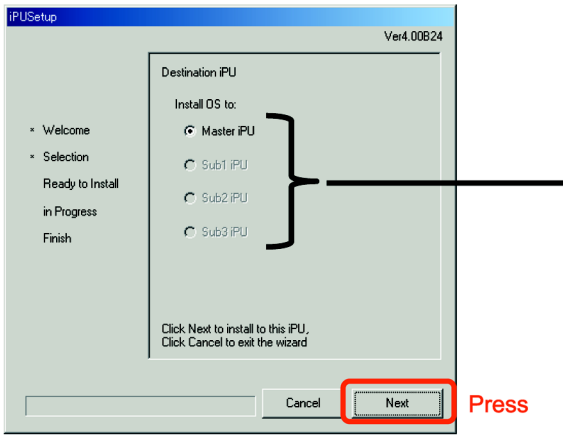


[1]Choose one from the following four system configurations.

-1 IPU (Master*1)
-2 IPUs (Master*1, Sub *1)
-3 IPUs (Master*1, Sub *2)
-4 IPUs (Master*1, Sub *3)

[2]Choose the folder in which the compressed file "i-Manager" was extracted.
If the folder in which the compressed file "i-Manager" was extracted is different from the folder shown here, change it using the [...] button.

(2) Choose an iPU for the OS installation



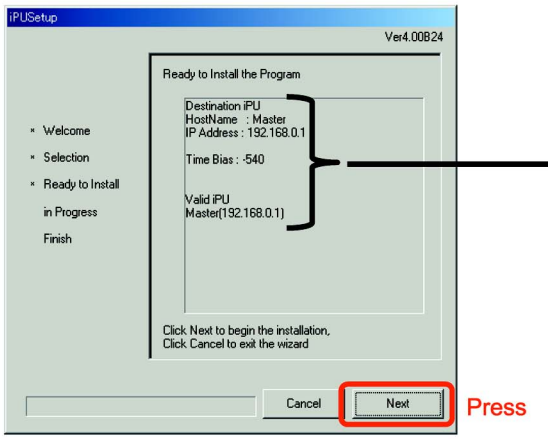
Choose one the following four IPUs for the OS installation.

-Master iPU
- Sub 1 iPU
- Sub 2 iPU
- Sub 3 iPU

Note:

If there are two or more iPUs, respect the procedures for each iPU.

(3) Check the iPU settings



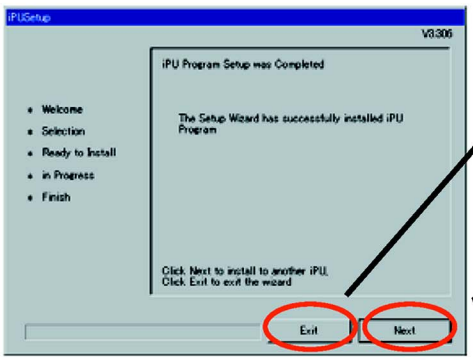
The details to be set in the iPU are displayed.
Confirm that Time Blas is correct and white down the settings.

-HostName
-IP Address
Time Blas

If the settings are correct, press the [NEXT] button to start the installation.

If the Time Blas is incorrect , press the [Cancel] button to stop the installation.
and set the time zone for Windows. Then, start the installation tool again to install.

(4) Proceed to the next step after the installation is complete



Press

After the OS is installed on all the iPUs, press the [Exit] button to end the installation. Then, power off iPU and restart it again.

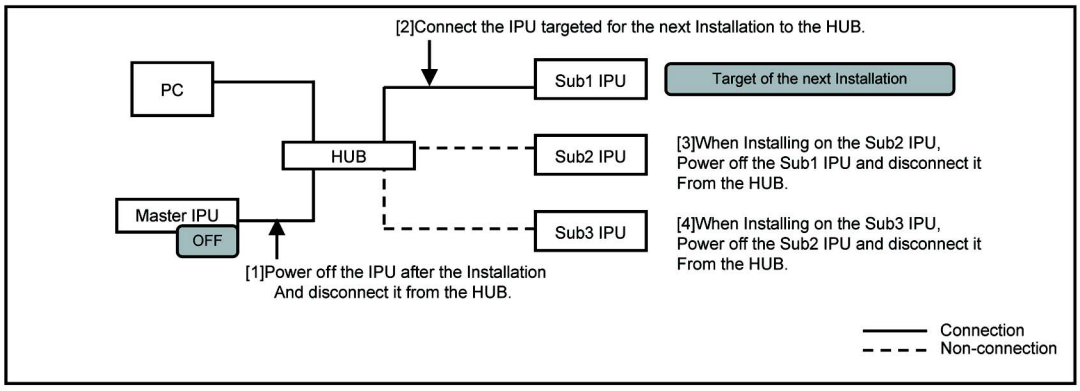
If there are two or more iPUs, continue the installation.
Power off the iPU after the installation and disconnect it from the HUB.

Then, connect the next iPU targeted for the next installation to the HUB and press the [Next] button.

The screen returns to the window shown in (2). Repeat the procedures from (2) for each oh the iPUs.

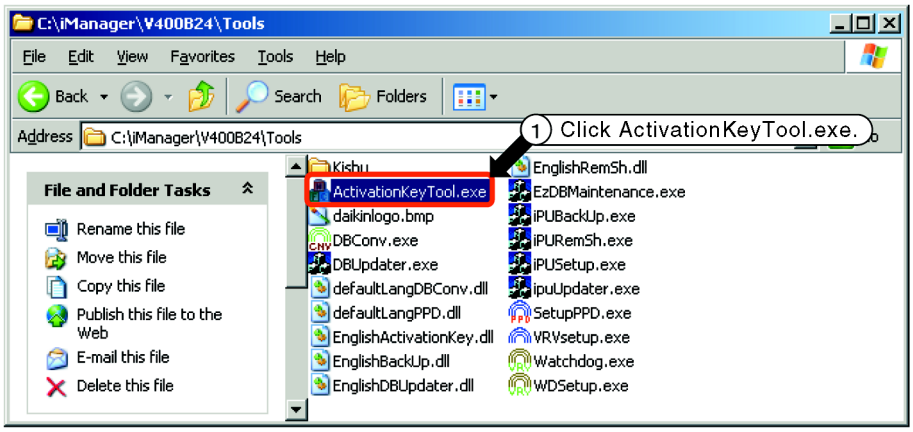
Note:

When the OS is installed on all the iPUs, the screen returns to the window shown in (2) even if the [Next] button is pressed.
Press the [Cancel] button in the window shown in (2) to exit the installation tool.
The installation stops when pushing the [EXIT] button. If there are iPUs on which the OS is not installed.
Start the installation tool again, choose the iPU on which the OS is not installed, and install the OS.

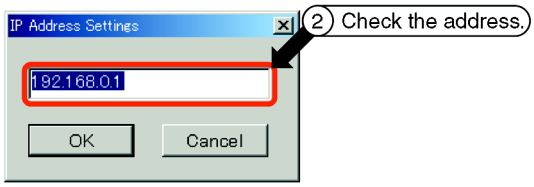


1-3-3. Input of Activation Key

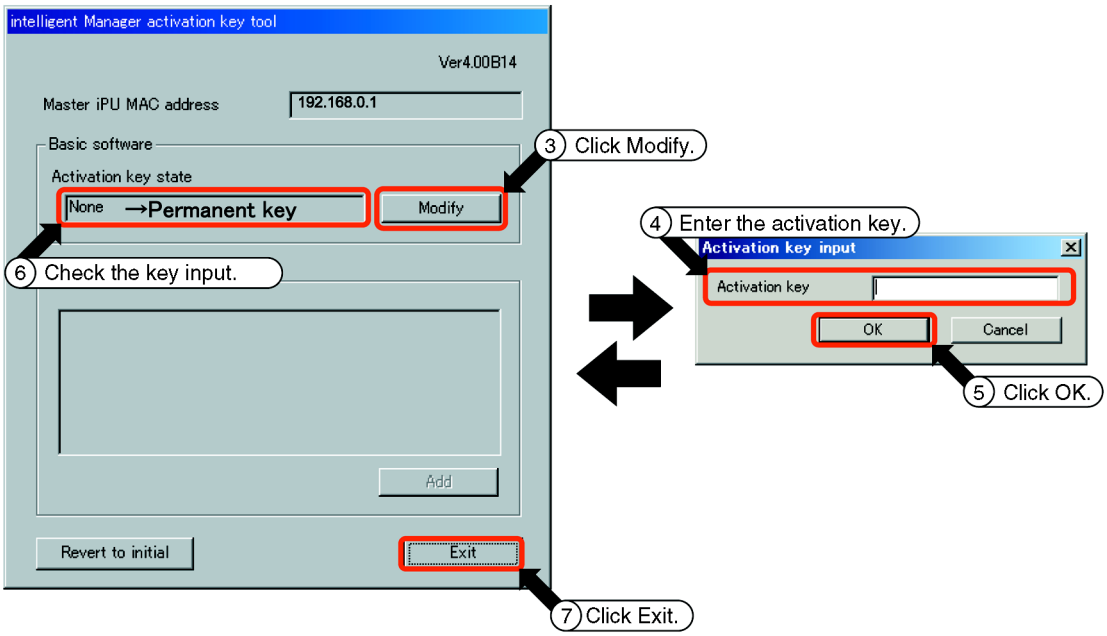
Enter the activation key that you obtained in advance.
Open ActivationKeyTool.exe in the Tools folder.



Check that the master iPU address is set.

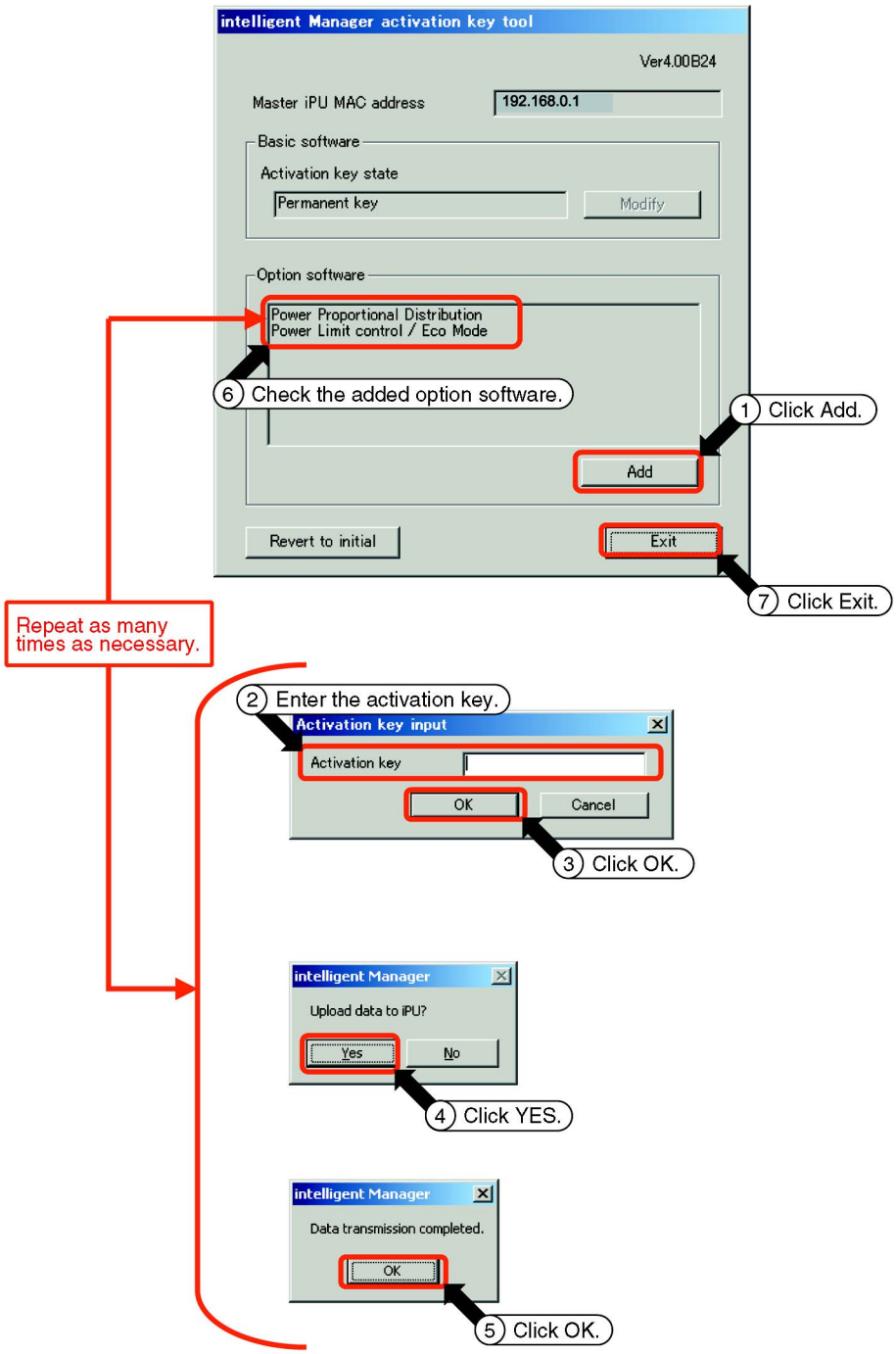


Press the Modify button and enter the activation key in the Activation key input window.



When adding option software

When you add option software, ActivationKeyTool.exe in the Tools folder is used.
Press the Add button and enter the activation key for the option software.

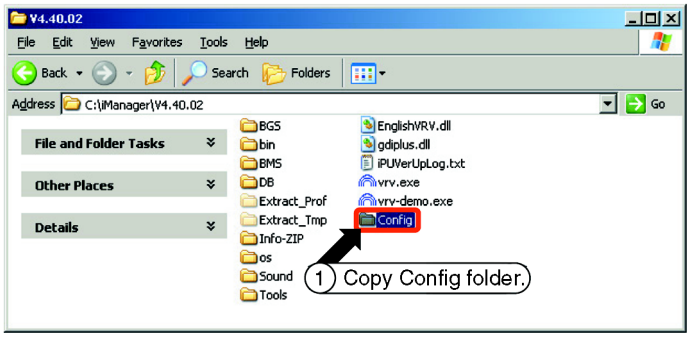


This is the end of addition of option software.
When you finish the setting, turn off the power, and then turn it on again.

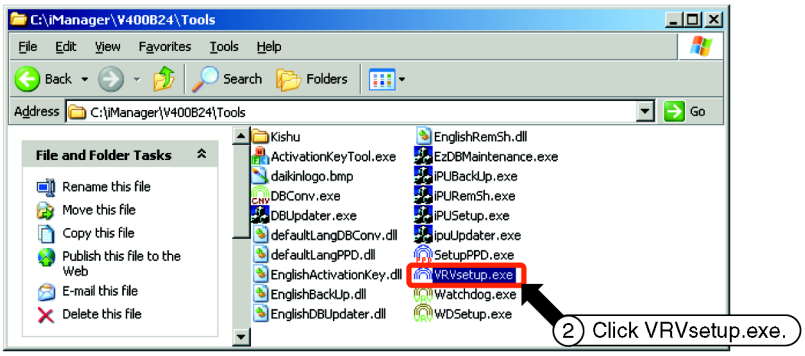
1-3-4. Management Point Data Setting

Load the management points which were created at the office to the PC to which the system will be installed.

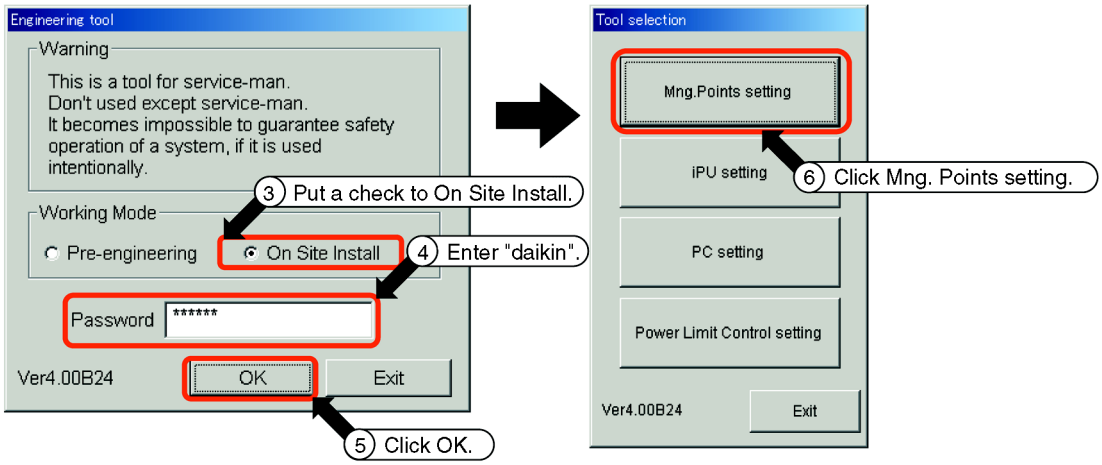
Copy config folder to the intelligent-Manager folder, which was created in the PC at the site. When a set up file is prepared with a software tool of version 4.41.00 or before, decompression of config.zip (the set up file) is required. Please make a copy of the set-up file referring to the Copying config folder (page 73).



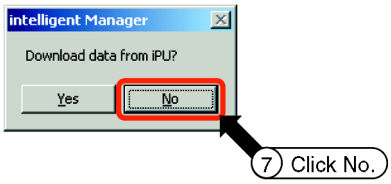
Open VRVsetup.exe in the Tools folder.

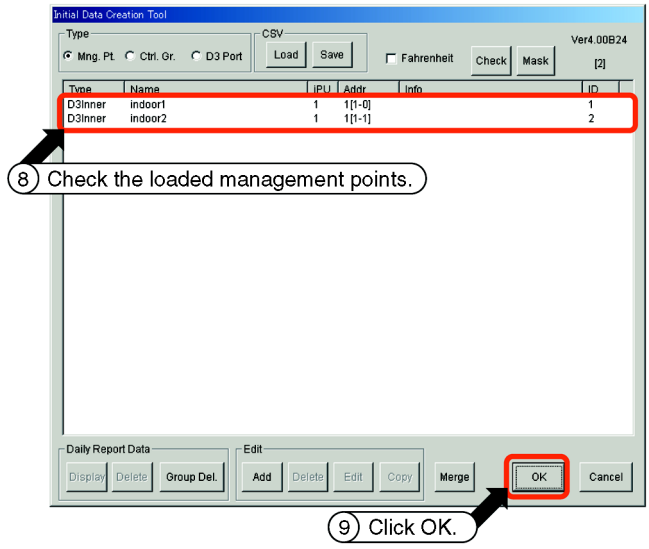


Put a check to On Site Install, enter "daikin" as a password, and select Mng. Points setting.

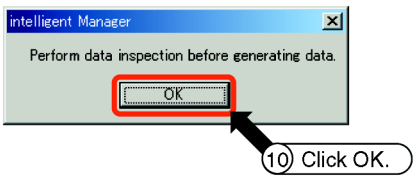


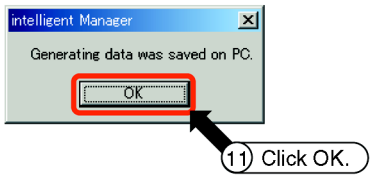
Select No for Download data from iPU.
The management points created at the office are loaded.

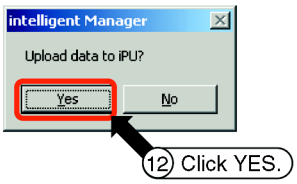


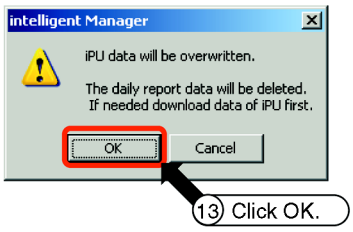


Data transmission starts.

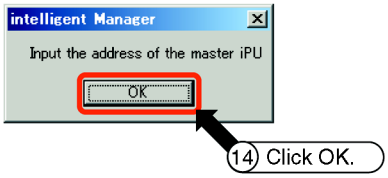


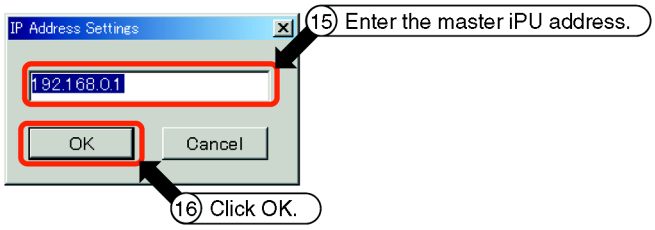




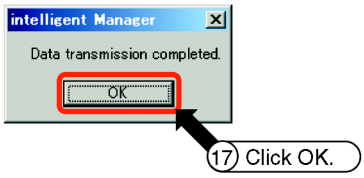


Enter the master iPU address.





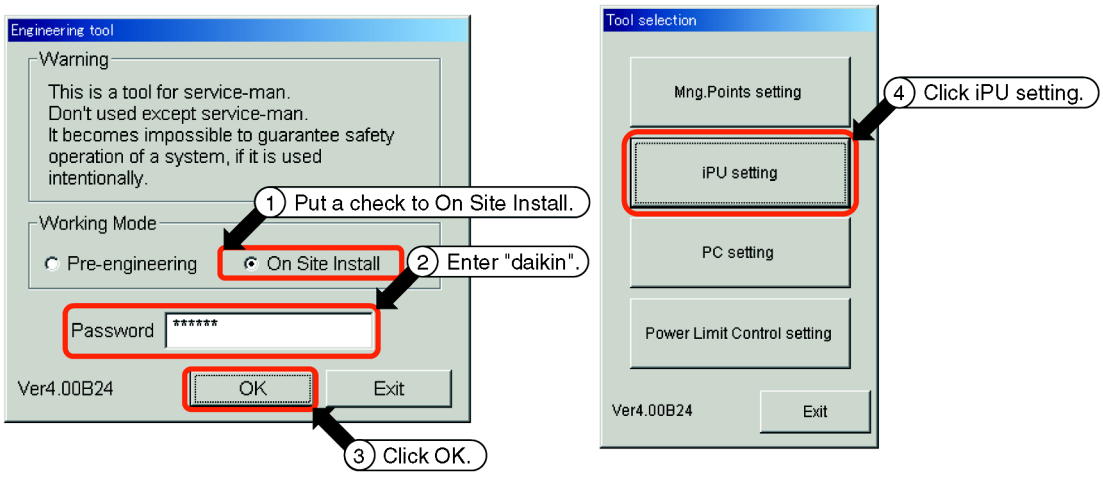
Data transmission is completed. Click OK.



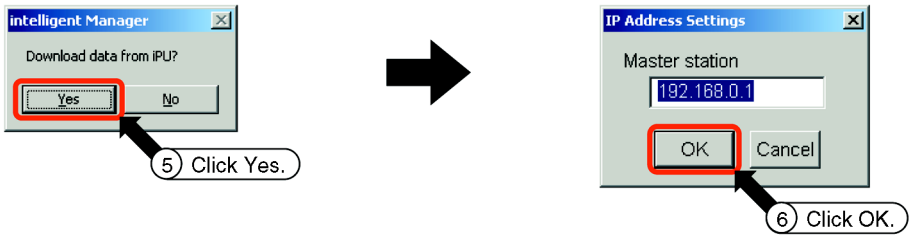
When you finish the setting, turn off the power, and then turn it on again.

Change of Network Setting when Connecting to the Existing LAN

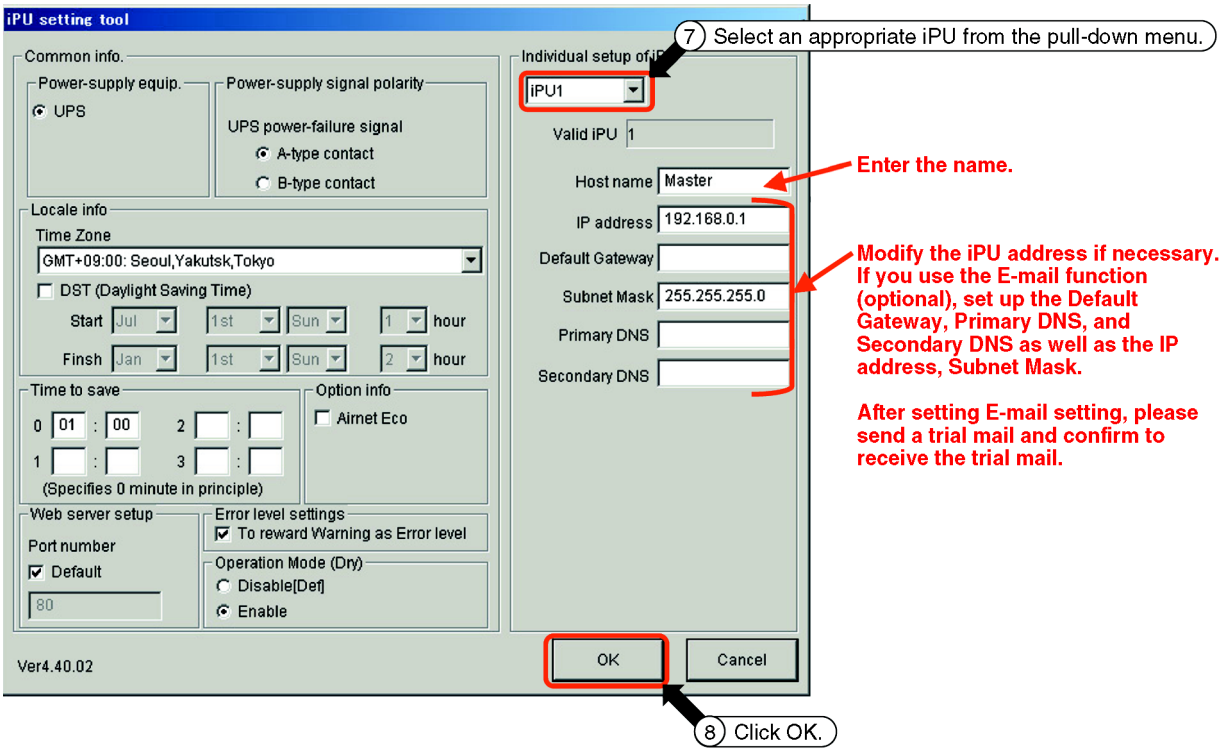
You need to set the iPU network information in accordance with the LAN. The network setting of the PC is also required.
Open VRVsetup.exe in the Tools folder, put a check to On Site Install, enter "daikin" as a password, and select iPU setting.



Select "Yes" for "Download data from iPU?" in the dialog box.



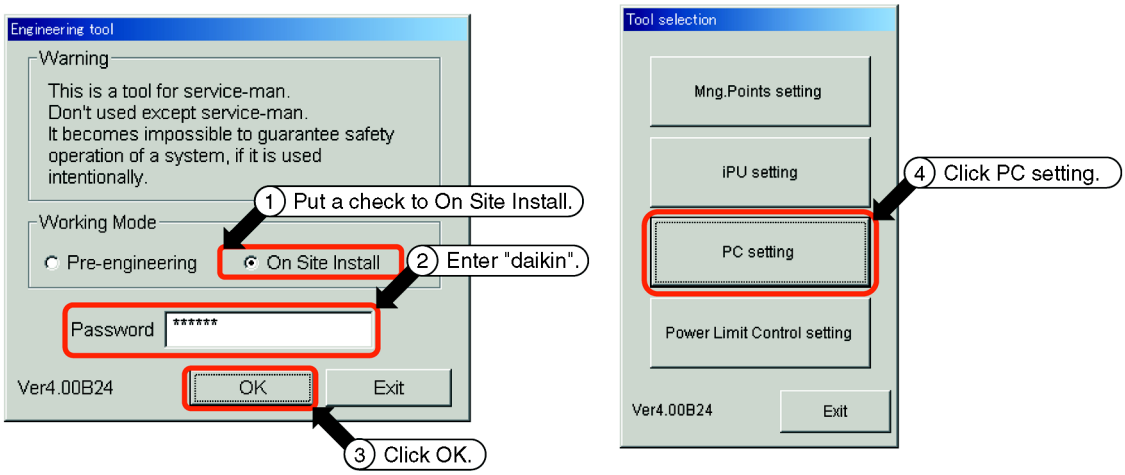
The iPU setting tool window is opened. Select an appropriate iPU from the pull-down menu and modify the iPU address if necessary.



When you finish the setting, turn off the power, and then turn it on again.

PC setting

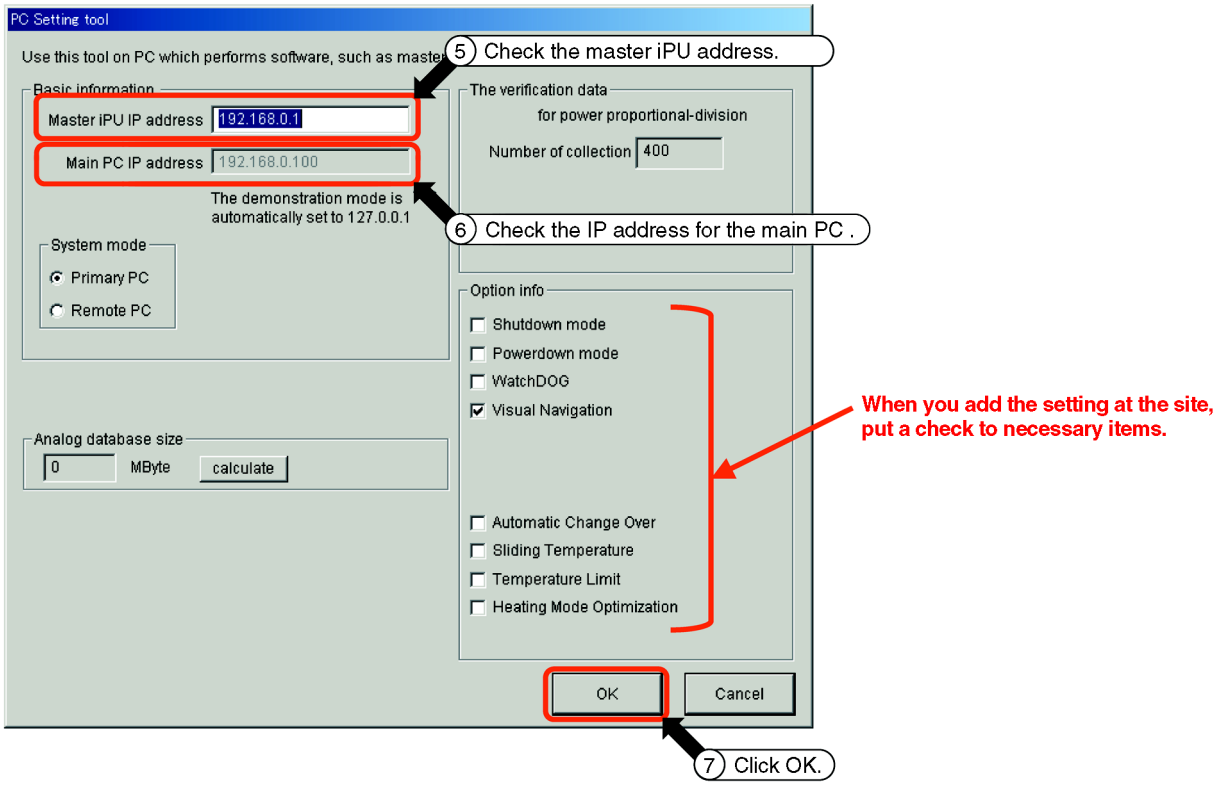
Open VRVsetup.exe in the Tools folder, put a check to On Site Install, enter "daikin" as a password, and select PC setting.



Verify the conditions.

When you change the master iPU address, be sure to change the address in this window as well.

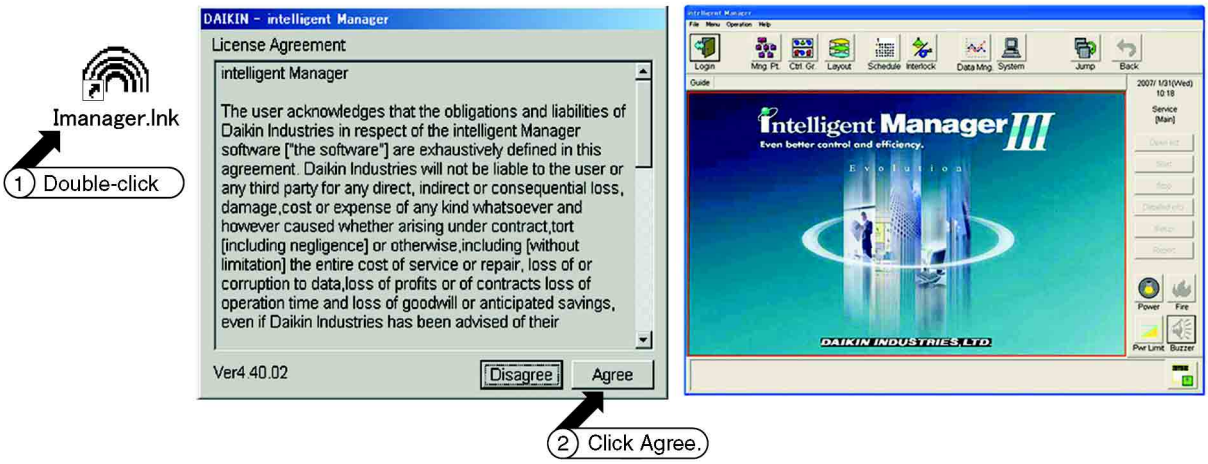
If “PrimaryPC” was selected for the system mode, set ⑤. If “RemotePC” was selected, set ⑥.



This is the end of settings of the PC at the site.

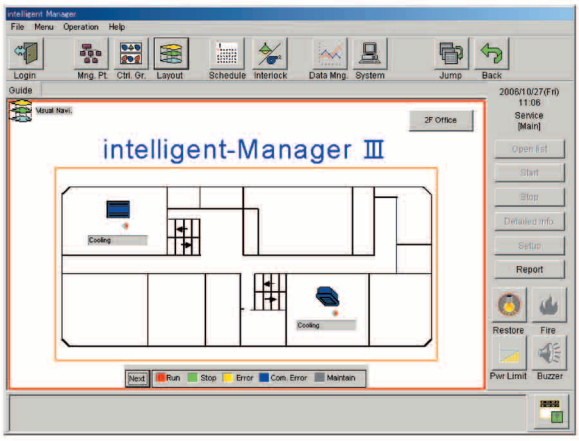
1-3-5. Operation Check

Check if the intelligent-Manager of which setting is done works property.
Double-click the intelligent-Manager icon on the desktop to start it up.



a. Communication Failure

Check if all management points correctly communicate with all air conditioners.
The point at which communication fails is displayed in a blue icon.



Note:
Possible causes of communication failure
- Address is not set.
- The specified address and the actual address do not match.
- The air conditioner is not connected.
- The D3 Port setting is incorrect.
- The wiring of the DIII cable is incorrect.

b. Operation

Check if a corresponding air conditioner responds when you operate an icon on the screen.
If an inappropriate air conditioner responds, find out the cause and take necessary measure.

Note:
Possible causes of operation failure
- The central address is incorrect.
- The wiring of the DIII cable is incorrect.

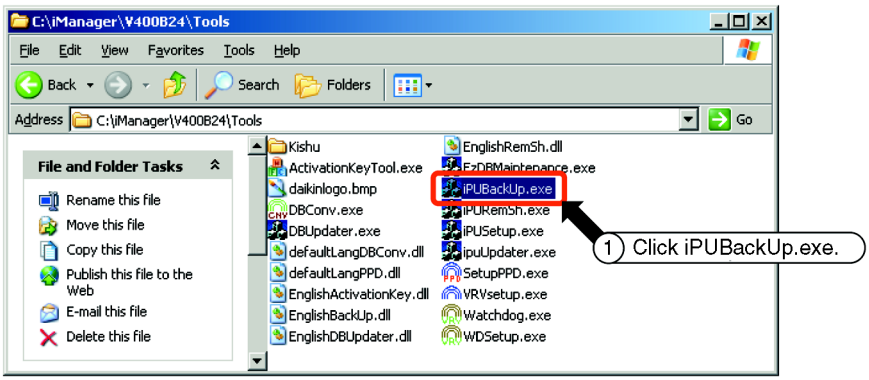
c. Check of Power Meter Reading

Check if the meter reading of the power meter and that of the intelligent-Manager match.
If they do not, find out the cause and take necessary measure.

Note:
Possible causes of the problem
- The pulse width of the power meter does not match the specified pulse width.
- The pulse cable from the power meter is 200m or more.
- The specifications of the power meter are out of the scope.

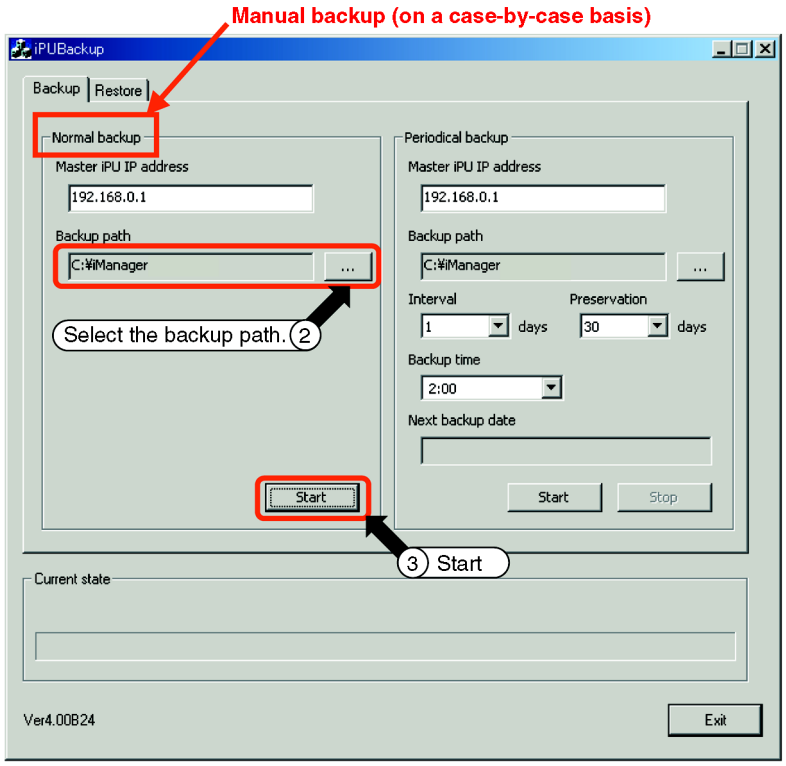
1-3-6. Data Backup Setting

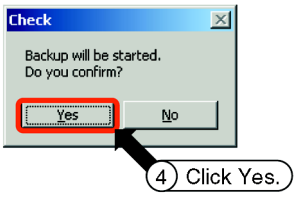
Make the setting to take a backup of the data in the iPU to the PC. The backup operation can be done manually and automatically.
Execute iPUBackUp.exe in the Tools folder.



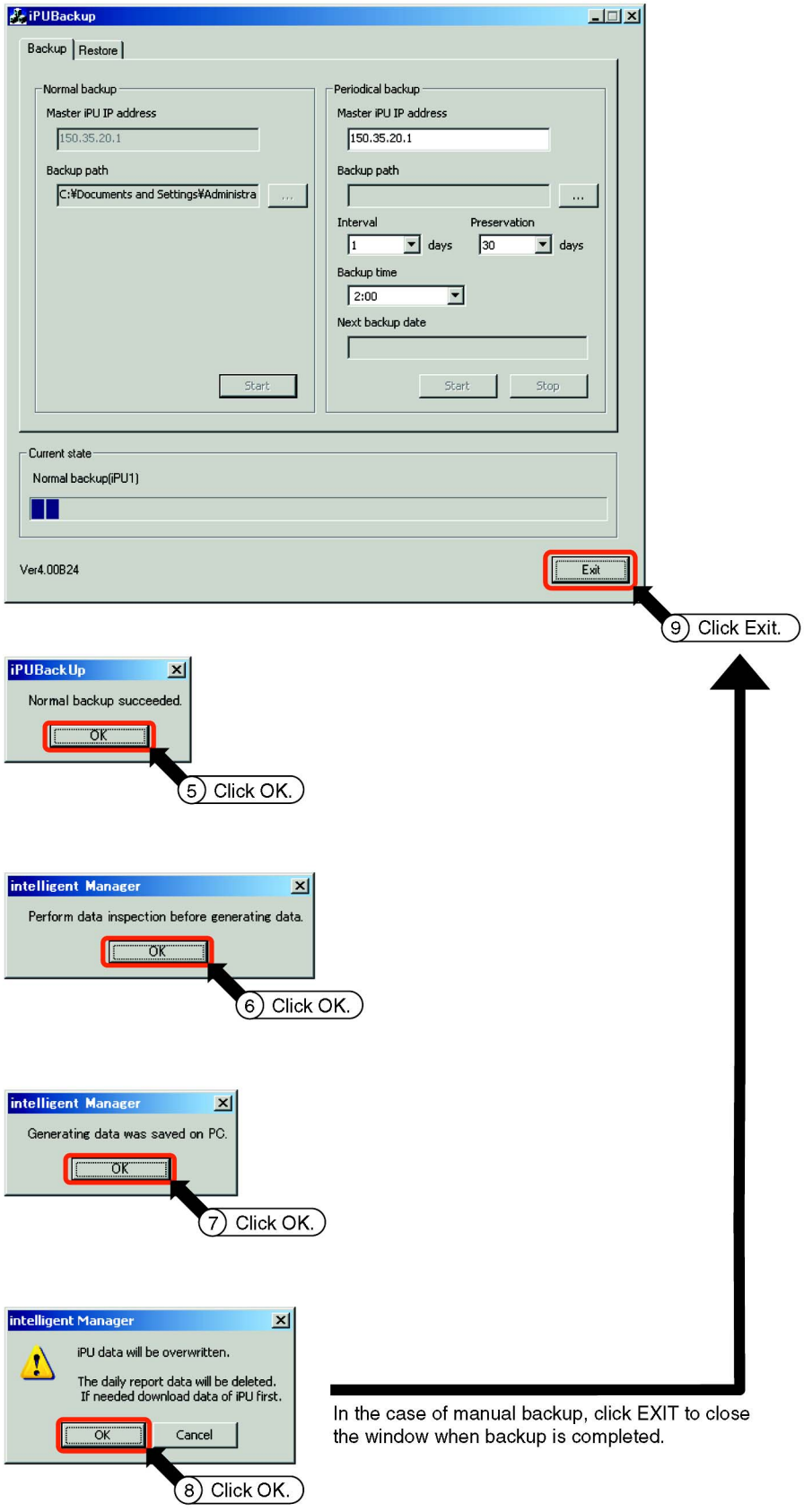
In the case of manual backup

Select the location where to store backup data and click the Start button.



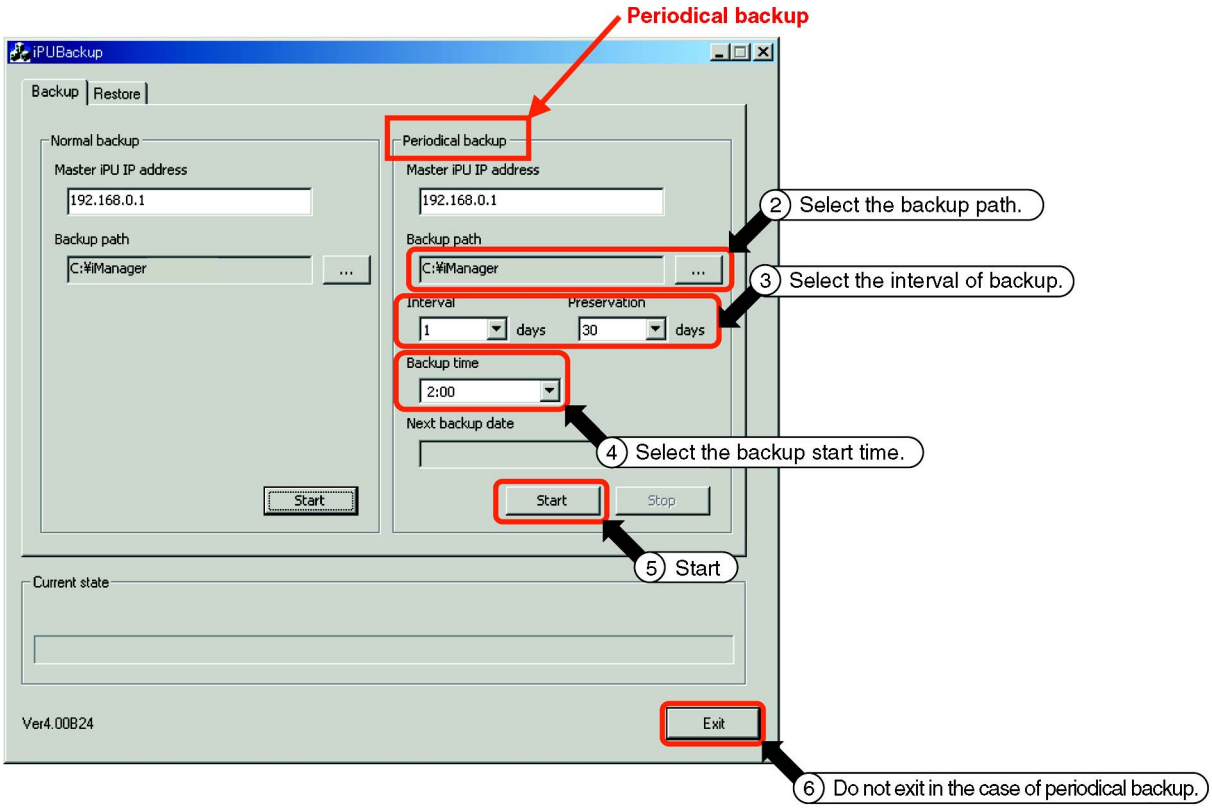


The backup operation starts.



In the case of automatic backup (on a periodical basis)

Select the location where to store backup data, select the interval of backup, backup start time, and then click the Start button.



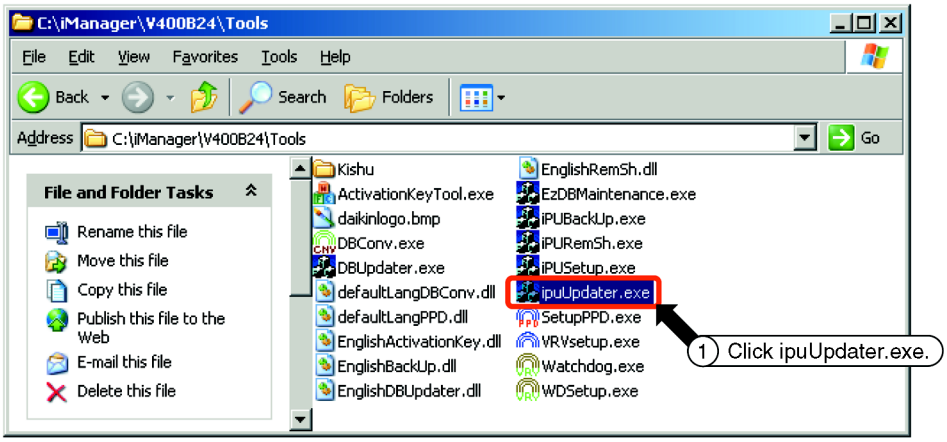
Do not click the Exit button.
To conduct the periodical backup, this window must be always activated.

2. intelligent-Manager Upgrade Operation

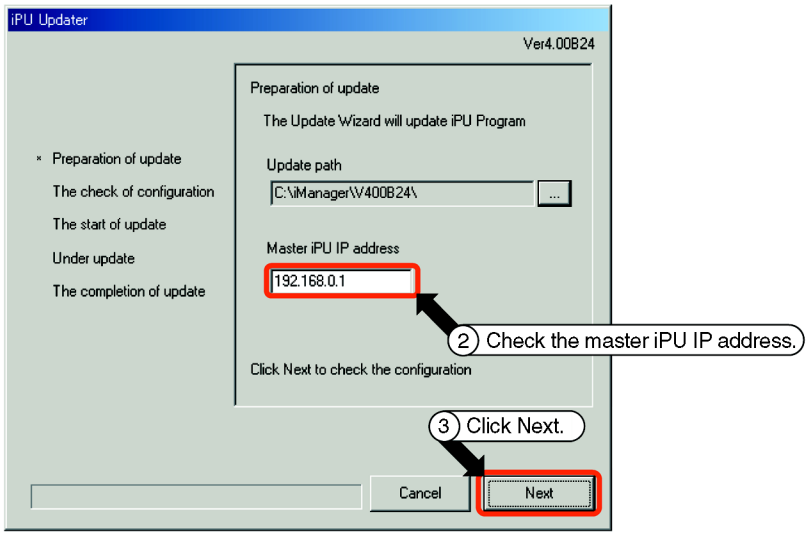
2-1. Upgrade of iPU Software

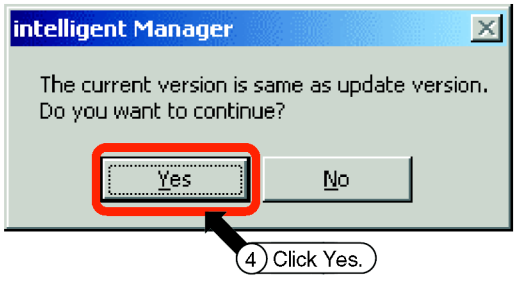
Upgrade of Software

When the iPU software is updated, the upgrade operation is required.
Install the new software to the PC and execute ipuUpdater.exe in the Tools folder.

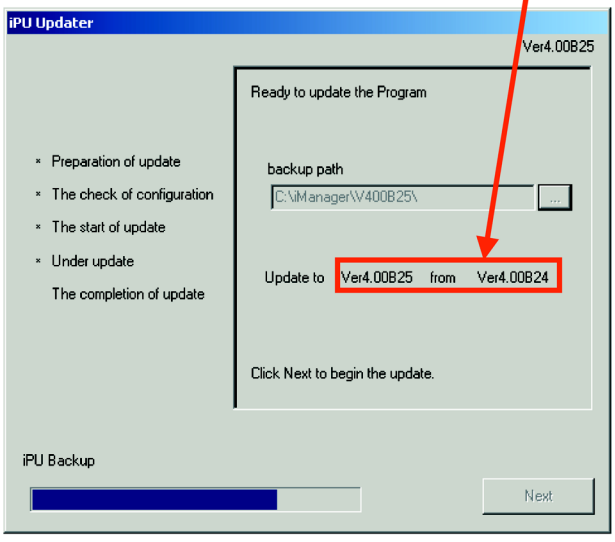


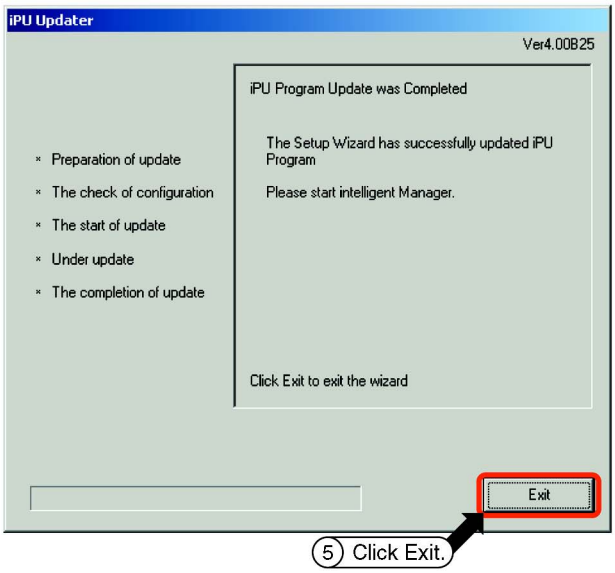
Check the master iPU IP address. (You should pay attention if you change the address upon network connection.)
Press Next, and information is loaded from the iPU, and necessary upgrade is started.





Once you update the software, you cannot undo it.





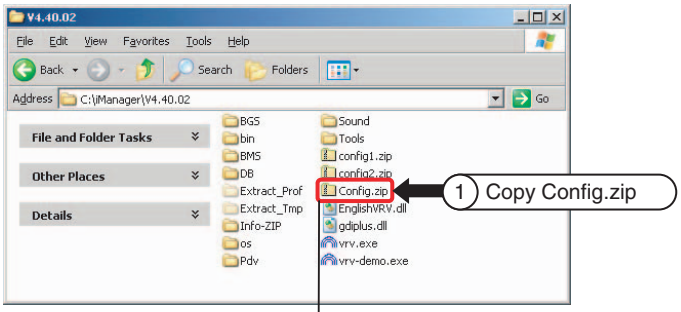
When you finish update, turn off the power.

Copying config folder

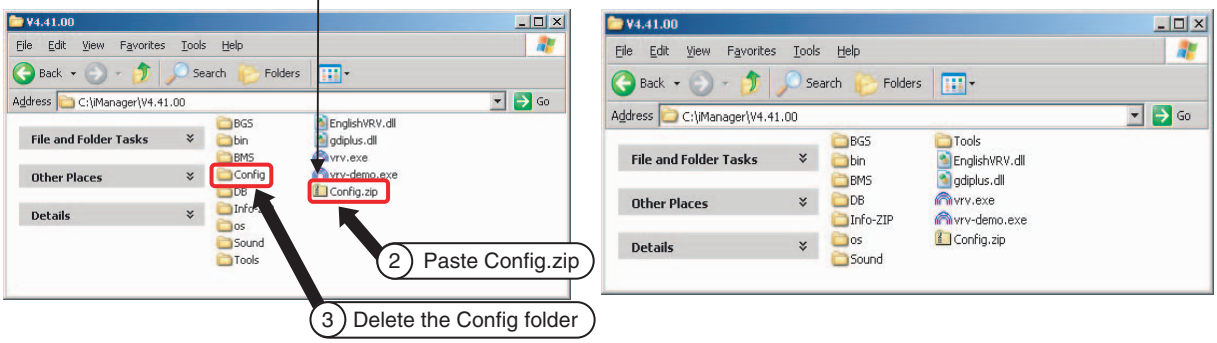
- If the version before upgrade is 4.41.00 or later, copy the config folder from the original folder to the newly installed folder.

- Before upgrading the version, if the version is Ver. 4.40.02 or before, decompression of config.zip (setting file) is required.
  Make a copy of Config.zip from the pre-version up folder to a folder newly installed to decompress the Config folder.

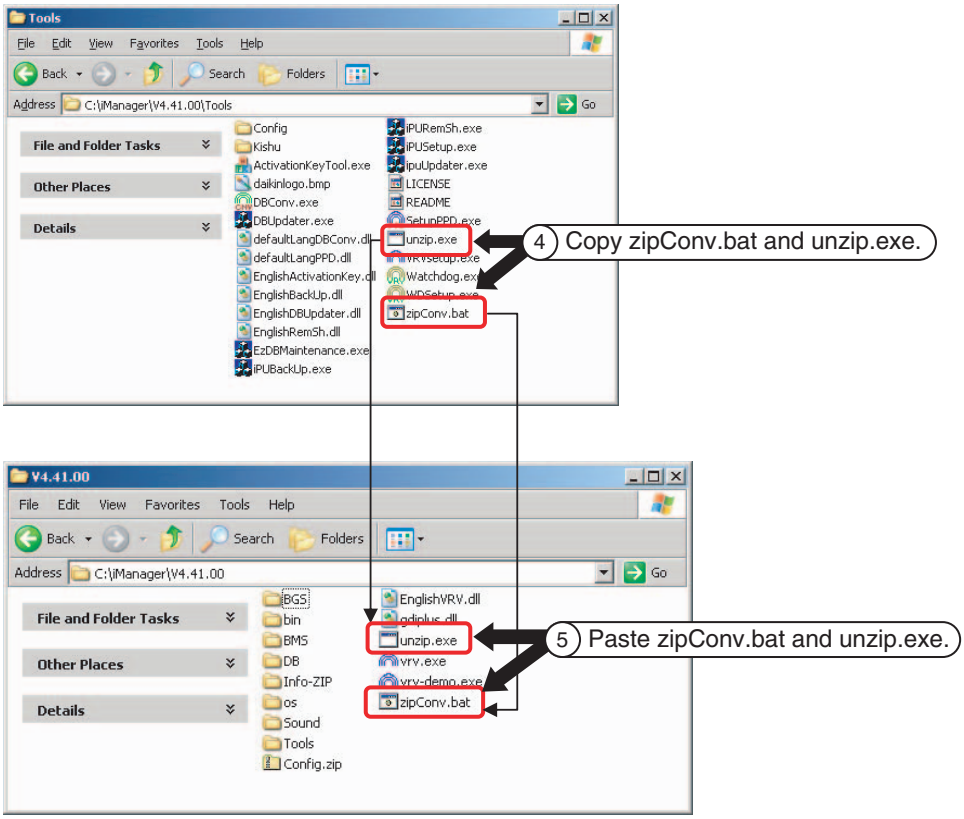
Folder before Version Up



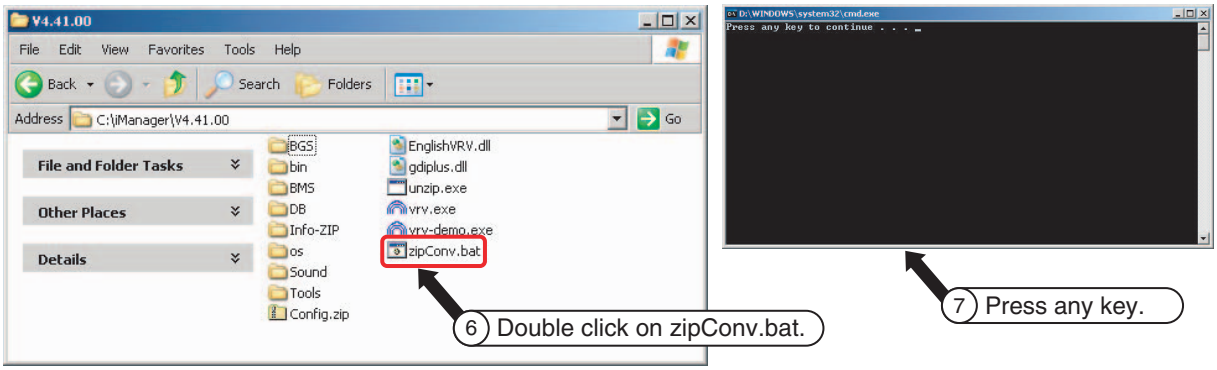
Folder Installed



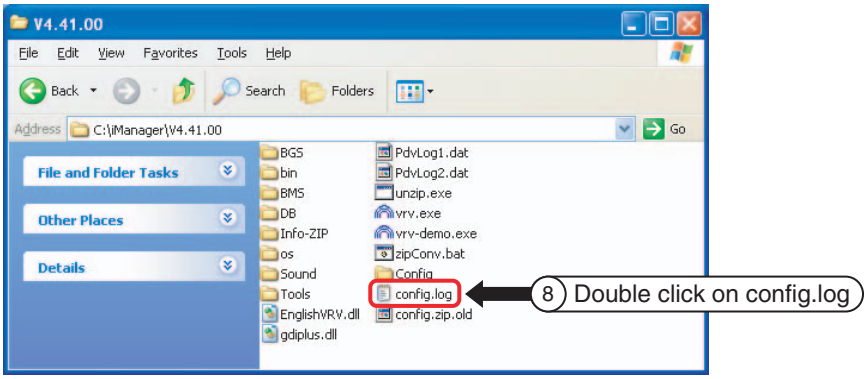
Make a copy of Conv.bat and unzip.exe from the Tools Folder to a newly installed folder.



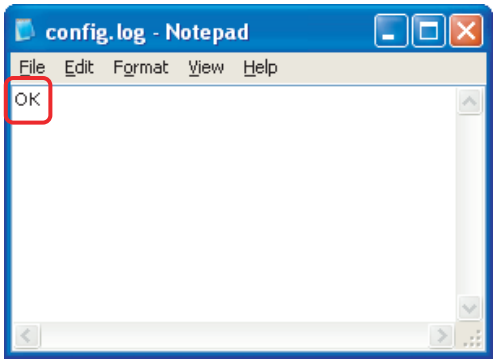
Decompress zipConv.bat by double click the icon.



When Config.zip is decompressed, the Config folder, log file (config.log) and backup file (config.zip.old) are prepared.



Open config.log file and complete if it is "OK".

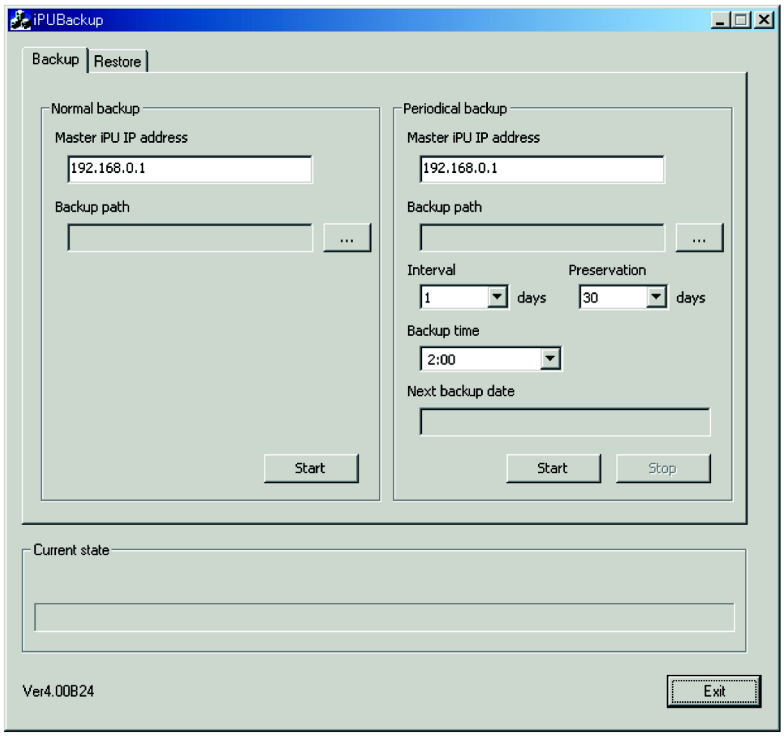


If any error has occurred during decompression, the message "NG: Error message" or "CmdErr: Error message" will be displayed. Details of possible errors are shown in the table below;

Log File Message	Contents of Errors
NG:file not found	Config.zip does not exist in the folder installed.
NG:directory already exists	Config folder already exists.
NG:file already exists	Config.zip.old already exists.
NG:cannot rename config.zip	Name of config.zip cannot be changed.
CmdErr:warning	A warning was generated but the action was completed normally.
CmdErr:fatal error	Fatal error, try again.
CmdErr:command line error	Command line error
CmdErr:not enough memory	Lack of memory size
CmdErr:disk is full	Disk becomes full.
CmdErr: user stopped the process	Interrupted by user
CmdErr:unknown error	Other errors

Changing backup folder

Since the backup path is changed, change the folder to store backup data to the new folder.



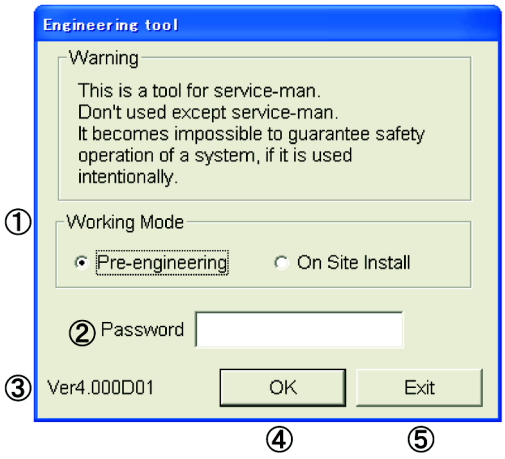
When you finish the operation, restart the PC.
This is the end of the upgrade operation.

3. How to Use Engineering Tool

This section explains the details of each tool.
First, an explanation of the main window is given before explanations of each window are provided.

Main Window

The image of the main window of the intelligent-Manager setup tool is given below.

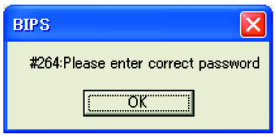


① **[Working Mode] radio button**
- Set the operation mode of each tool to **[Pre-engineering]** or **[On Site Install]**.
- Regarding the specifications of each tool depending on the operation mode, see a relevant chapter of each tool.
- In the default setting, **[Pre-engineering]** is selected.

② **[Password] text field**
- Prompting the user to enter a password before each tool is activated prevents general users from operating tools improperly.
- An authentication password is fixed (**"daikin"**).
- In the default setting, this field is blank.

③ **Version information field**
- The version of the monitoring board software is displayed.

④ **[OK] button**
- When this button is pressed, the password entered in the [Password] text field is checked if it is correct.
- If the password is correct, the window goes to the [Tool Selection] dialog box.
- If the password is not correct, a message dialog box is displayed, and the window returns to the main window.

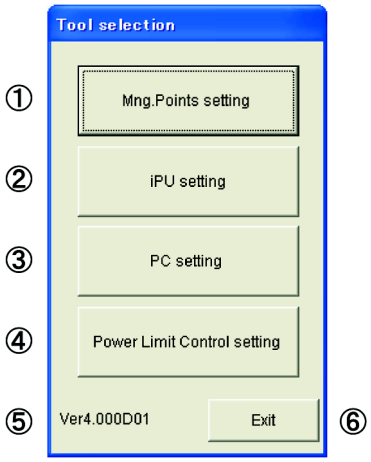


<When the password is incorrect>

⑤ **[Exit] button**
- When this button is pressed, this window is closed, and this tool is terminated.

[Tool selection] dialog box

This dialog box is used to activate setup tools.



① **[Mng. Points setting] button**
- When this button is pressed, the initial data setup tool is opened.

② **[iPU setting] button**
- When this button is pressed, the iPU data setup tool is opened.

③ **[PC setting] button**
- When this button is pressed, the monitoring board software setup tool is opened.

④ **[Power Limit Control setting] button**
- When this button is pressed, the target power control setup tool is opened.

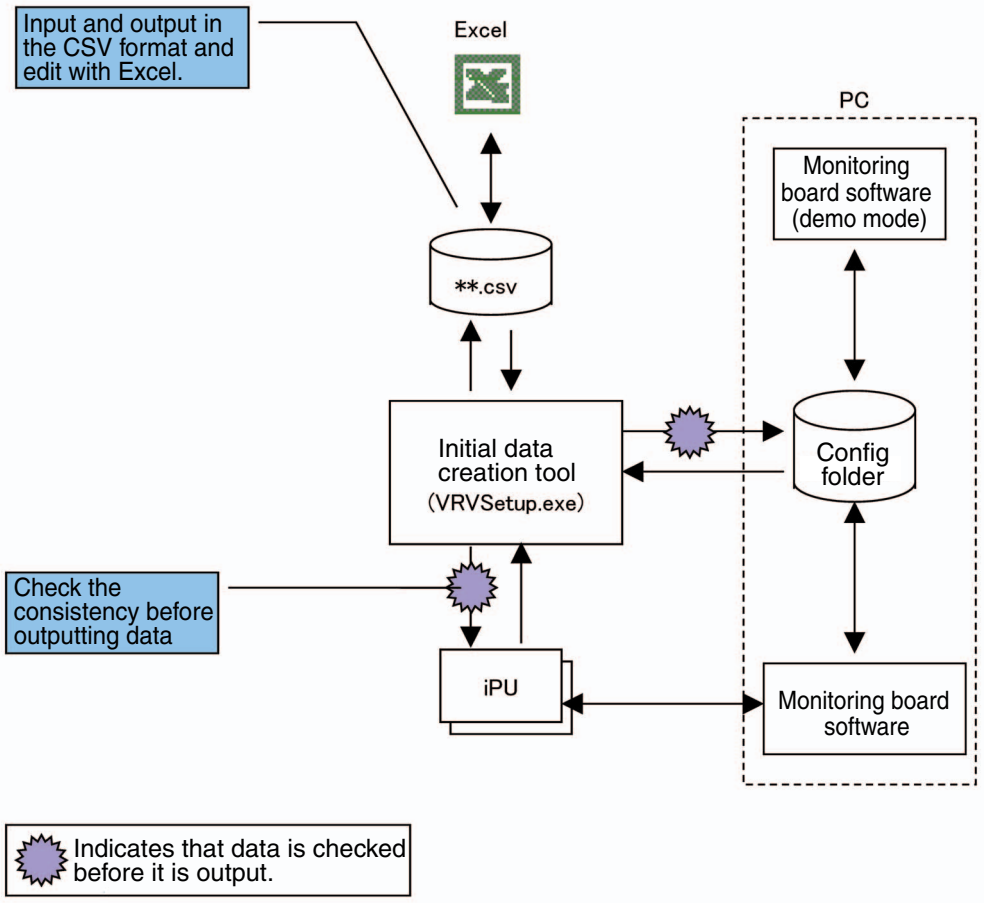
⑤ **Version information field**
- This shows the monitoring board software version.

⑥ **[Exit] button**
- When this button is pressed, this window is closed, and this tool is terminated.

3-1. Management Point Data Creation Tool

3-1-1. Function Overview

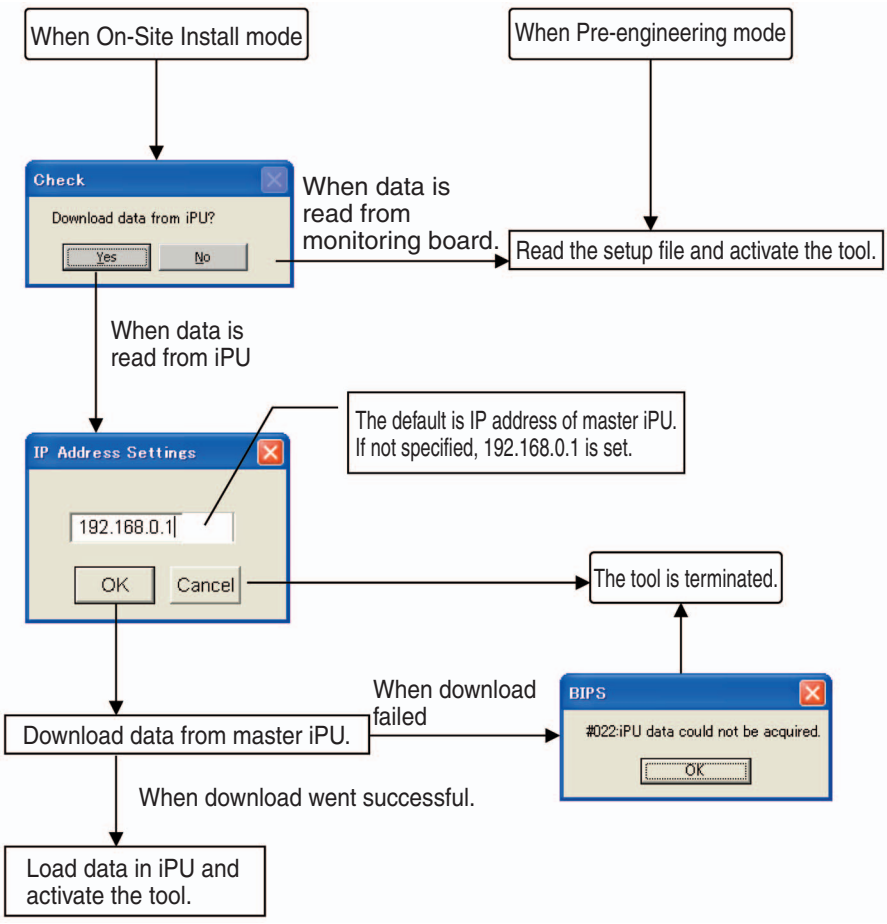
- Data of management points and control groups, etc., which are used by intelligent-Manager, are created using the **initial data creation tool**.
- The initial data creation tool **creates data of management points**, **control groups**, and **D III ports**.
- Data can be created without iPU.
  (In the case that data are created in advance and later uploaded to iPU at the site.)
- Based on the created data, you can activate the monitoring PC in the demo mode without iPU.
- The tool has a function to input and output the created data as CSV files.
  You can create data with tools such as Excel.
- The tool has a function to check the consistency of the created data before saving it to the iPU or monitoring PC.
  This prevents a failure of the iPU and monitoring PC from occurring due to incorrect data.
  For more details of check items, see **Appendix C** (page 171 and subsequent pages).



Operation when Tool is Activated

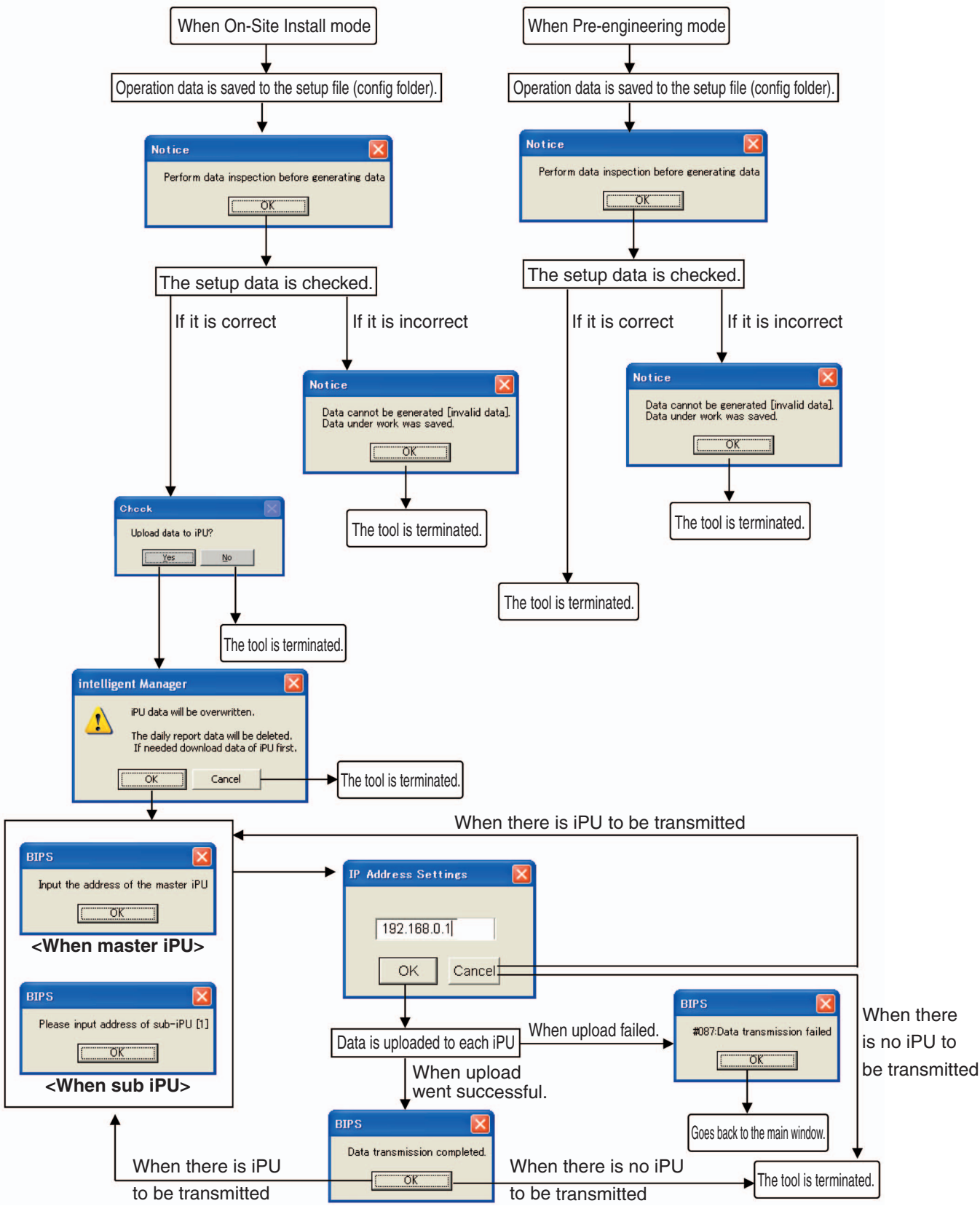
- If the operation mode is **[Pre-engineering]**, the setup data of the setup file (config folder) in the intelligent-Manager system folder is read, and then the tool is activated.
- If the operation mode is **[On Site Install]**, the setup data is read from the iPU, it is merged with the setup file in the intelligent-Manager system folder, and then the tool is activated.
- Regarding the merge of data, the setup data in the iPU has priority.
  In other words, if data (management points and control groups) with a same ID as the setup data in the iPU exists in the setup file in the intelligent-Manager system folder, priority is given to the setup data in the iPU.

Operation upon activation of the tool by operation mode



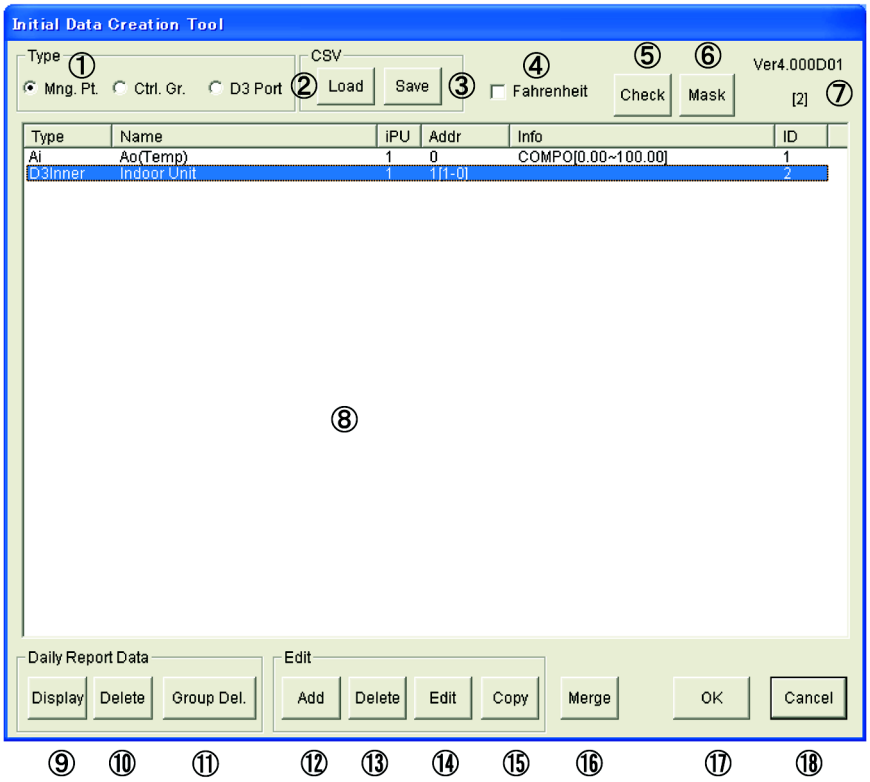
Operation upon Termination of Tool

- When you press the OK button of the tool, the input data is checked and data is saved according to the operation mode.
  Each operation according the operation mode when the OK button is pressed is shown below.



3-1-2. Main Window

The image of the main window of the **Initial Data Creation Tool** is shown below.



① **[Type] radio button**

- Specify the type of data (**Mng. Pt., Ctrl. Gr, or D3 Port**) to be displayed in the list.
- In the default setting, **Mng. Pt.** is selected.

② **[CSV: Load] button**

- CSV files are loaded when this button is pressed. For more details about this function, see **3-1-6 CSV Input/Output Function** (page 112).

③ **[CSV: Save] button**

- Data is saved in a CSV file when this button is pressed.
  For more details about this function, see **3-1-6 CSV Input/Output Function** (page 112).
- After displaying the file dialog box and specify the file name, save the data.

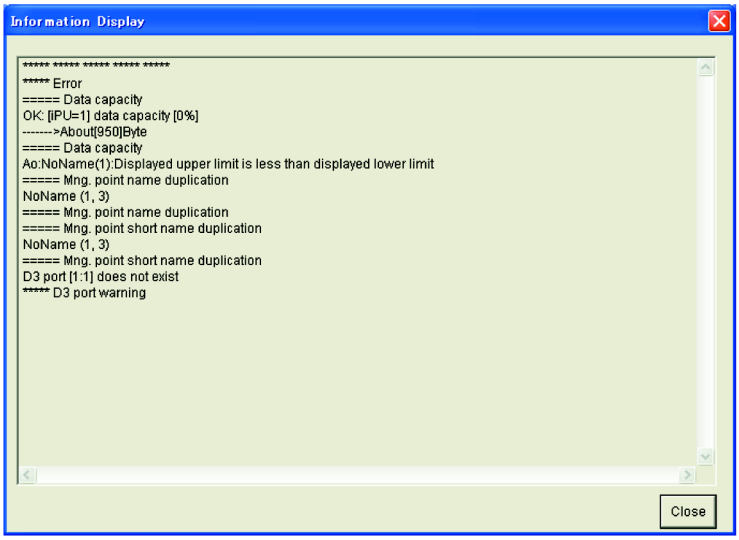
④ **[Fahrenheit] checkbox**

- When you put a check in this checkbox, temperatures are expressed in Fahrenheit.
- The items which can be expressed in Fahrenheit are given in the table below.
- In the default setting, the state of the loaded data is displayed. If no data exists, a check is not put (i.e., data are expressed in Celsius.)

Type of management point	Category	Item	Max/Min values in Celsius (default)	Max/Min values in Fahrenheit (default)	Max/Min values in analog (default)	Remarks
Indoor unit	Specified temperature limit	Upper limit of cooling	-127~127 (-127)	-197~261 (-197)	—	
		Lower limit of cooling	-127~127 (127)	-197~261 (261)	—	
		Lower limit of heating	-127~127 (-127)	-197~261 (-197)	—	
		Upper limit of cooling	-127~127 (127)	-197~261 (261)	—	
Ai	Monitoring of abnormal upper/lower values	No-reaction zone	0~512 (0)	0~922 (0)	0~9999.99(0)	Only when the analog type is "Temperature"
		Lower limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Upper limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
	Analog value	Minimum value	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Maximum value	-512~512 (100)	-890~954 (100)	-9999.99~9999.99(0)	
Ao	Analog value	MIN terminal value	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	Only when the analog type is "Temperature"
		MAX terminal value	-512~512 (100)	-890~954 (100)	-9999.99~9999.99(0)	
		MIN instruction value	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		MAX instruction value	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Instruction accuracy	-1 or 0	0	-2~3	
D III Ai	Monitoring of abnormal upper/lower values	No-reaction zone	0~512 (0)	0~922 (0)	0~9999.99(0)	Only when the sensor type is "Temperature" or "General", or the analog type is "Temperature"
		Lower limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Upper limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
	Analog value	Minimum value	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Maximum value	-512~512 (100)	-890~954 (100)	-9999.99~9999.99(0)	
Pseudo Ai	Monitoring of abnormal upper/lower values	No-reaction zone	0~512 (0)	0~922 (0)	0~9999.99(0)	When the targets for measurement are those listed below: Indoor unit: suction temperature Chiller: cooling water inlet temperature, cooling water outlet temperature AHU: Return temperature, outside air temperature, supply temperature
		Lower limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	
		Upper limit	-512~512 (0)	-890~954 (0)	-9999.99~9999.99(0)	

⑤ **[Check] button**

- When this button is pressed, the consistency of the setup data is checked, and the result is displayed in a message dialog box.

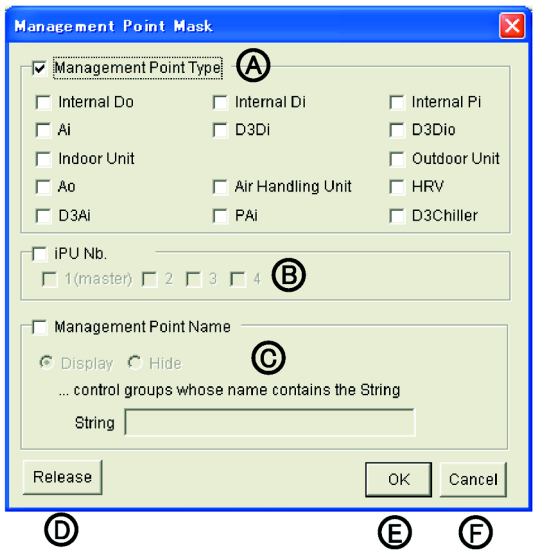


⑥ **[Mask] button**

- When this button is pressed, a dialog box to mask the data to be displayed in the list appears.
- When [D3 Port] is selected with the [Type] radio button, this button is grayed out.

Management Point Mask Dialog Box

This dialog box is used to make the settings to mask the data type to be displayed in the list.
This is also used in the [Analog Point Selection] dialog box in Pseudo Ai.



Ⓐ **[Management Point Type] field**

- Only the management point types with a check are displayed. If no check is put, all management points are displayed.
- If no check is put, the Management Point Type checkbox is grayed out.
- In the default setting, no check is put.

Ⓑ **[iPU Nb.] field**

- Only the management points which belong to the iPU Nos. with a check are displayed. If no check is put, all management points are displayed.
- If no check is put, the iPU Nb. checkbox is grayed out.
- In the default setting, no check is put.

Ⓒ **[Management Point Name] field**

- Only the management points including (or not including) a specific string in the name are displayed. If no check is put, all management points are displayed.
- When the [Display] radio button is selected, only the management points including the string specified in the [String] field are displayed.
- When the [Hide] radio button is selected, only the management points not including the string specified in the [String] field are displayed.
- If no check is put, the radio buttons and text field in this field are grayed out.
- In the default setting, no check is put.

Ⓓ **[Release] button**

- When this button is pressed, remove checks from all the settings in Ⓐ ~ Ⓒ, and reset the mask. (All management points are displayed.)

Ⓔ **[OK] button**

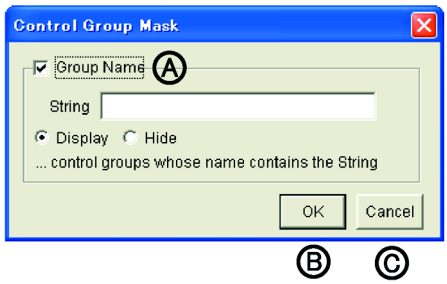
- When this button is pressed, the edit results are reflected to the system, and this window is closed.

Ⓕ **[Cancel] button**

- When this button is pressed, the edit results are discarded, and this window is closed.

Management Point Mask Dialog Box (Control Group)

This dialog box is used to make the settings related to the display when the control groups are displayed in the list of the main window.



Ⓐ **[Group Name] field**

- When a check is put in this field, only the control groups including (or not including) a specific string are displayed. If no check is put, all control groups are displayed.
- When the [Display] radio button is selected, only the control groups including the string specified in the [String] field are displayed.
- When the [Hide] radio button is selected, only the control groups not including the string specified in the [String] field are displayed.
- If no check is put, the radio buttons and text field in this field are grayed out.
- In the default setting, no check is put.

Ⓑ **[OK] button**

- When this button is pressed, the edit results are reflected to the system, and this window is closed.

Ⓒ **[Cancel] button**

- When this button is pressed, the edit results are discarded, and this window is closed.

⑦ **Information display area**

- The version number of this tool and the number of data in the list are displayed.

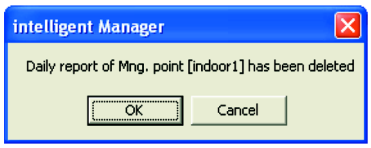
⑧ **List of data**

- The list of data in accordance with the data type specified with the [Type] radio button is displayed.
  Type: Type of data. When the data type is Management Point, the type of management point is displayed.
  Name: Name of data.
  iPU: iPU No. When the data type is Control Group, it becomes blank.
  Addr: Port No. or D III address. When the data type is Control Group, it becomes blank.
  Info: Detailed information about data.
  ID: Management point ID or control group ID. When the data type is D III port, it becomes blank.
- When you double click any item in the list, the same operation is performed as when you select the item and press the [Edit] button.

Type	Type (English)	Info	Info (display example)
Internal Do	Internal Do	Operation mode, instruction acceptable power supply state	Normal, Shutdown [Uninterruptable powered Mng. Point]
Internal Di	Internal Di	Di operation mode	Normal:, Power failure:, Error:
Internal Pi	Internal Pi	None (blank)	None (blank)
Ai	Ai	Upper/lower limits	COMPO [(Min val)~(Max val)]
Ao	Ao	Terminal Max/Min limits, instruction upper/lower limits, instruction acceptable power supply state	[(Term. Min)~(Term. Max)] : [Min of op. → Max of op.)], [Uninterruptable powered Mng. Point]
D3Di	D3Di	None (blank)	None (blank)
D3Dio	D3Dio	Instruction acceptable power supply state	[Uninterruptable powered Mng. Point]
Indoor unit	D3Inner	Wind direction, HMO (when enabled), wind "in steps" (when enabled), warning monitoring (when enabled), specified cooling temperature limit (when enabled), specified heating temperature limit (when enabled), instruction acceptable power supply state	[Fan direction], [HMO], Fan [in steps] , [Warning], [Restriction <Cool>], [Restriction <Heat>], [Uninterruptable powered Mng. Point]
Outdoor nit	D3Outer	Demand, instruction acceptable power supply state	[Demand:0],[Uninterruptable powered Mng. Point]
AHU	D3Airhan	Supply temperature, return temperature, return humidity, outside air temperature, outside air humidity, specified humidity, instruction acceptable power supply state, warning monitoring (when enabled)	[SA Temp.], [RA Temp.], [RA Hum.], [OA Temp.], [OA Hum.], [Set Hum.], [Uninterruptable powered Mng. Point], [Warning]
HRV	D3Vent	Ventilation mode (when enabled), warning monitoring (when enabled), instruction acceptable power supply state	[FFU], [Ventilation mode], [Warning], [Uninterruptable powered Mng. Point]
D3Ai	D3Ai	Sensor type (upper/lower limits in the case of general type)	Temp sensor.General [(Min val). (Max val)]
Pseudo Ai	Pseudo Ai	(When a measurement target is a management point) Measurement target management point (When a measurement target is an air network) Measurement target air network	(When a measurement target is a management point) Reference Mng. Point: (management point ID, measurement type) (When a measurement target is an air network) Reference A/N Data: (iPU Nb., Port Nb., A/N address, measurement type)
Chiller	D3Chiller	Cooling water inlet temperature, cooling water outlet temperature, instruction acceptable power supply state, warning monitoring (when enabled)	[Inlet temp.], [Outlet temp.], [Uninterruptable powered Mng. Point], [Warning]
Control group	Group	The number of management points	Member Nb. = (The number of management points)
D3Port	Port	Lower central setting	Central control enabled, Central control operation disabled

⑨ **[Daily Report Data: Display] button**

- When this button is pressed, the daily report data of the management point is displayed.
- In the following cases, this button is grayed out.
  - When the type of displayed data is Control Group or D III port
  - When no control point is selected in the list



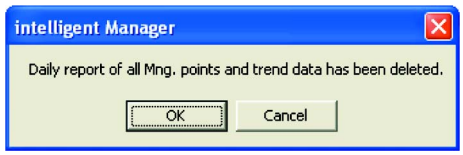
<Confirmation dialog box upon deletion of daily report data >

Display Items	Display Items (English)
Memory data Nb.	Memory data Nb.
Ring buffer pointer index	Ring buffer pointer index
Cumulated operation time	Cumulated operation time
Cumulated switching Nb. of times	Cumulated switching Nb. of time
Max. running time	The maximum running time
Pulse value	Pulse value
Invalid data	Invalid data

Type	Example of Display (English)
Internal Do, Internal Di, D3Di, D3Dio, indoor unit, HRV, AHU, chiller	Daily report of Mng. point [Name of the management point] Memory data Nb. 4 Ring buffer pointer index 1 Repeat the following operation 4 times. 0: 2000/01/07 00:00 Cumulated operation time: [value] sec Cumulated switching Nb. of time: [value] times The maximum running time: [value] sec When there is no data 0: Invalid data
Internal Pi	Daily report of Mng. point [Name of the management point] Memory data Nb. 4 Ring buffer pointer index 1 Repeat the following operation 4 times. 0: 2000/01/07 00:00 Pulse value [value] When there is no data 0: Invalid data
Ai, D3Ai, Pseudo Ai (When data is saved in iPU)	Daily report of Mng. point [Name of the management point] Memory data Nb. 576 Ring buffer pointer index 1 Repeat the following operation 576 times. 0: 2000/01/07 00:00 Analog value When there is no data 0: Invalid data
Ai, D3Ai, Pseudo Ai (When data is not saved in iPU)	Daily report of Mng. point [Name of the management point] Memory data Nb. 0 Ring buffer pointer index 0
Ao	Daily report of Mng. point [Name of the management point] #196:No daily report data
Outdoor unit	Daily report of Mng. point [Name of the management point]

⑩ **[Daily Report Data: Delete] button**

- When this button is pressed, the daily report data of the management point is deleted. Before deletion of the data, a confirmation dialog box appears.
- In the following cases, this button is grayed out.
  - When the type of displayed data is Control Group or D III port
  - When no control point is selected in the list



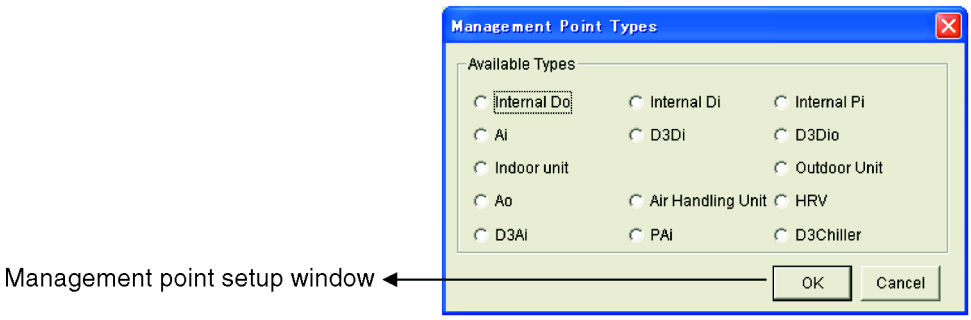
<Confirmation dialog box upon deletion of all daily report data>

⑪ **[Group Del] button**

- When this button is pressed, the daily report data and trend data of all management points are deleted. Before deletion of the data, a confirmation dialog box appears.

⑫ **[Edit: Add] button**

- When this button is pressed, a dialog box to add the new data is displayed according to the data type. For the management point data, the dialog box is displayed to select the management point type. In the default setting, [Indoor unit] is selected.



⑬ **[Edit: Delete] button**
- When this button is pressed, the data selected in the list are deleted.
- When no data is selected in the list, this button is grayed out.

⑭ **[Edit: Edit] button**
- When this button is pressed, a dialog box to edit the data selected in the list is displayed in accordance with the data type.
- When no data is selected in the list, this button is grayed out.

⑮ **[Edit: Copy] button**
- When this button is pressed, a copy of the data selected in the list is created.
- When no data is selected in the list, this button is grayed out.

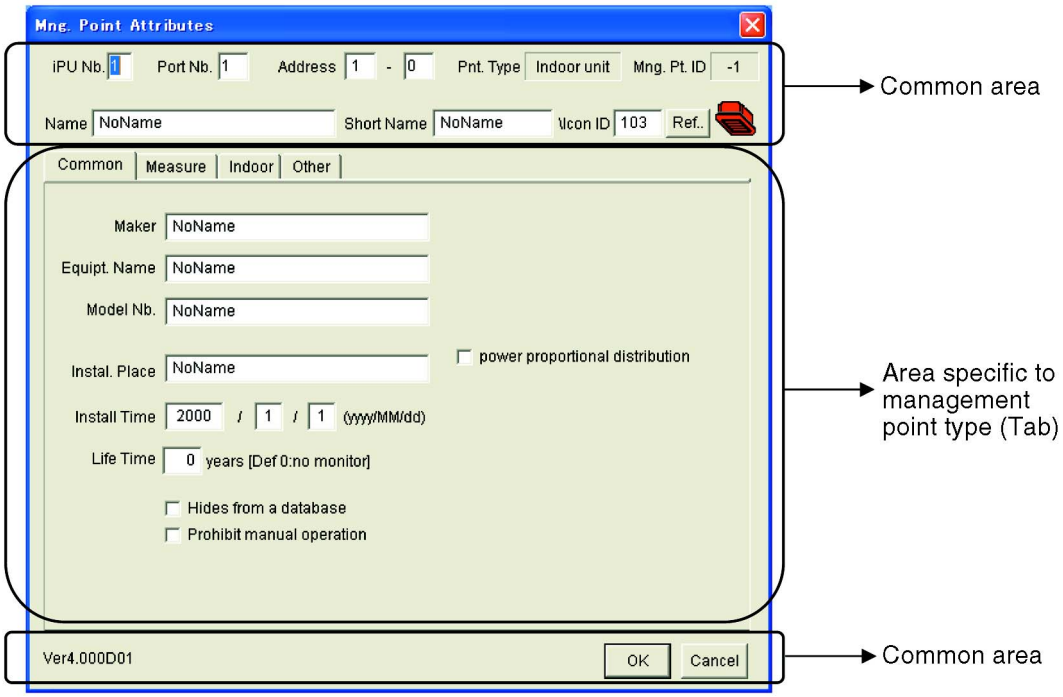
⑯ **[Merge] button**
- When this button is pressed, the confirmation dialog box and file dialog box shown below are displayed, and then the management point data in the file (config folder) specified in the file dialog box are merged with the data that the system is currently loading.
- When merging data, priority is given to the data that the system is currently loading.
  That is, when the data with the same ID is included in both of the data that the tool is loading and the file specified in the file dialog, priority is given to the data that the system is currently loading.
- When the data have a same ID but a different data type, an error log dialog box is displayed, and the data will not be merged.

⑰ **[OK] button**
- When this button is pressed, the setup data is saved, and then this tool is terminated.
  For more details of this function, see the section of "Operation Upon Termination of Tool".

⑱ **[Cancel] button**
- When this button is pressed, this tool is terminated without saving the setup data.
- The confirmation dialog box shown below is displayed before the tool is terminated.

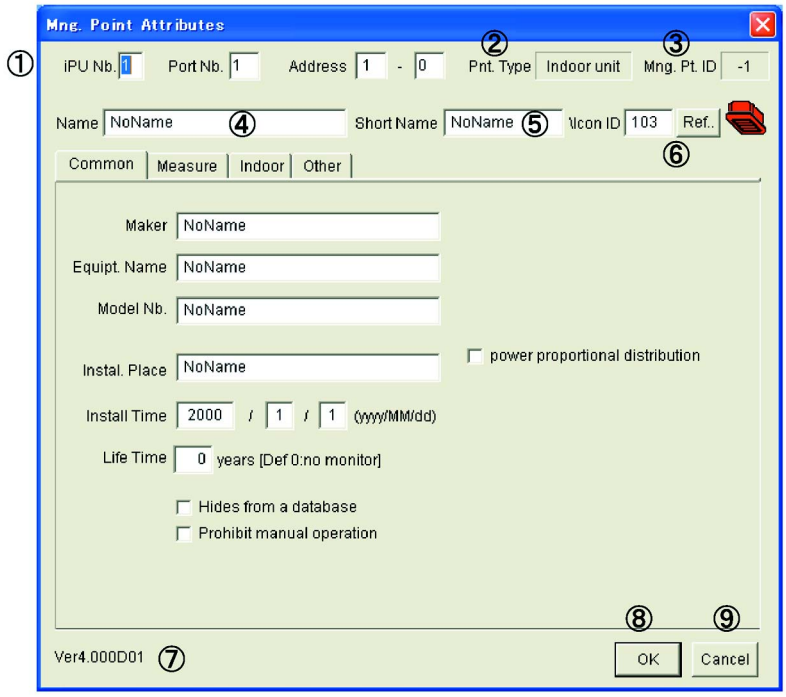
3-1-3. Management Point Setup Window

In this window, you can set the attributes of a management point when adding a new management point or editing an existing one.
As shown below, the independent setup window contains common setup items for all management points and those for each management point type.



3-1-3-1.[Common] Area

In this area, you can make the settings of the common items for management points.



① **[iPU Nb.], [Port Nb.], [Address] text field**

- Display and make the settings of the iPU No., port No., and D3 network address to which the management point belongs.
- The items to be displayed vary according to the management point type.

Management point type	iPU No.		Port No.		D3 network address	
	Display ON/ OFF switch	MAX/MIN value (default value)	Display ON/ OFF switch	MAX/MIN value (default value)	Display ON/ OFF switch	MAX/MIN value (default value)
Internal Do	○	1~4 (1)	○	1~2 (1)	×	—
Internal Di*1	○	1~4 (1)	○	1~20 (1)	×	—
Internal Pi*2	○	1~4 (1)	○	1~20 (1)	×	—
Ai	○	1~4 (1)	○	0~49 (0)	×	—
D3Di	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
D3Dio	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
Indoor unit	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
Outdoor nit	○	1~4 (1)	○	1~4 (1)	×	—
Ao	○	1~4 (1)	○	0~49 (0)	×	—
AHU	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
HRV	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
D3Ai	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)
Pseudo Ai	Δ*3	1~4 (1)	×	—	×	—
Chiller	○	1~4 (1)	○	1~4 (1)	○	1-0~4-15 (1-0)

*1: iPU No.=1, Port No.=1 is the dedicated port for the power failure signal. Refer to “[Contact] tab” on P95.
*2: Since iPU No.=1, Port No.=1 is the port for the power failure signal, it cannot be set.
*3: This item depends on the iPU No. to which a target management point of pseudo Ai belongs (grayed out).

② **[Pnt. Type] field**
- The management point type is displayed.

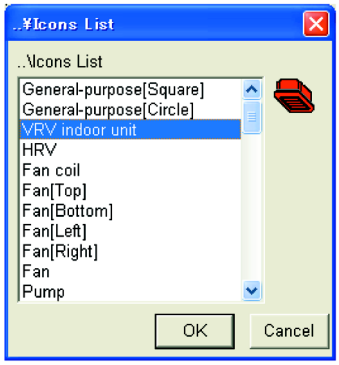
③ **[Mng. Pt. ID] field**
- The management point ID is displayed. The management point ID is automatically assigned by the system.

④ **[Name] text field**
- You can display and specify a management point name in this field.
- You cannot specify a management point name exceeding the maximum number of characters (i.e., 24 characters).

⑤ **[Short Name] text field**
- You can display and specify an abbreviated name of the management point in this field.
- You cannot specify an abbreviated name of the management point exceeding the maximum number of characters (i.e., 8 characters).

⑥ **[Icon ID] field**
- You can display and specify an icon in this field.
- You can input an icon ID or select an icon from the icon selection dialog box.
- The default values of the icon types for new management points are shown in the table below.
- When you press the [Ref.] button, a dialog box from which you can select an icon appears.
- When you double-click an item in the list, the item is selected, and the same operation when the [OK] button is pressed is conducted.

Management point type	Icon ID	Name of icon
Internal Do	102	General-purpose [Circle]
Internal Di	102	General-purpose [Circle]
Internal Pi	124	Meter
Ai	126	Temperature
D3Di	102	General-purpose [Circle]
D3Dio	102	General-purpose[Circle]
Indoor unit	103	VRV indoor unit
Outdoor unit	143	VRV outdoor unit
Ao	146	Slide
AHU	137	Air-handler
HRV	104	HRV
D3Ai	126	Temperature
Pseudo Ai	126	Temperature
Chiller	157	ENAGEO



<Icon selection dialog box>

⑦ **Version display field**
- The version No. of this tool is displayed.

⑧ **[OK] button**
- When this button is pressed, the edit results are reflected to the system, and this window is closed.
- Before the edit results are reflected to the system, the maximum and minimum values of the input data are checked.
  If the data are out of the scope, a dialog box indicating to that effect, and the results will not be reflected.

⑨ **[Cancel] button**
- When this button is pressed, the edit results are discarded, and this window is closed.

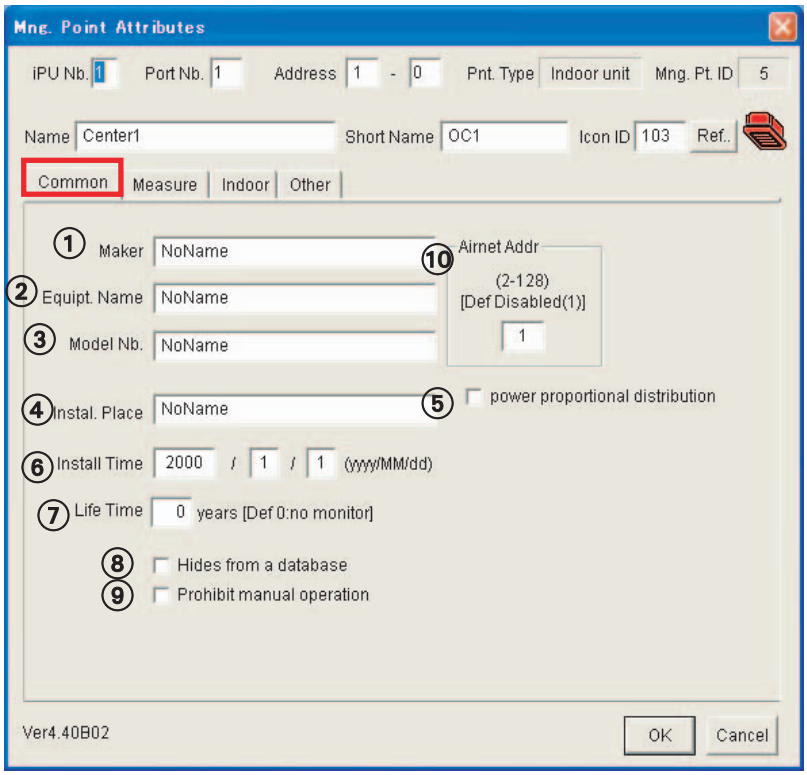
3-1-3-2. Area Specific to Management Point Type (Tab)

[Common] tab

You can make common settings for all management points in this tab.

Applicable management points

All management points



Some items are not displayed according to the management point type.

Management point type	⑤Power proportional distribution	⑧Hides from a database	⑨Prohibit manual operation	⑩Airnet Address
Internal Do	×	○	○	×
Internal Di	×	○	×	×
Internal Pi	×	○	×	×
Ai	×	○	×	×
D3Di	×	○	×	×
D3Dio	×	○	○	×
Indoor unit	○	○	○	○
Outdoor unit	×	×	×	○
Ao	×	×	○	×
AHU	×	○	○	×
HRV	×	○	○	×
D3Ai	×	○	×	×
Pseudo Ai	×	○	×	×
Chiller	×	○	○	×

① **[Maker] text field**
- You can display and specify the name of the maker.
- You cannot specify the name exceeding the maximum number of characters (i.e., 24 characters).

② **[Equipt. Name] text field**
- You can display and specify the name of the equipment.
- You cannot specify the name exceeding the maximum number of characters (i.e., 24 characters).

③ **[Model Nb.] text field**
- You can display and specify the name of the model number.
- You cannot specify the name exceeding the maximum number of characters (i.e., 24 characters).

④ **[Instal. Place] text field**
- You can display and specify the installation place.
- You cannot specify the installation place name exceeding the maximum number of characters (i.e., 24 characters).

⑤ **[power proportional distribution] checkbox**
- When a check is put to this checkbox, the management point is set as a target of power proportional distribution.
- In the default setting, a check is not put in this checkbox.

⑥ **[Install Time] field**
- You can display and specify the date of installation.
- The available range of the date is from January 1, 1975 to December 31, 2035.

⑦ **[Life Time] field**
- You can display and specify the durable years.
- The available range is from 0 to 99.
- In the default setting, 0 is set (no monitoring).

⑧ **[Hides from a database] checkbox**
- When a check is put to this checkbox, the management point is excluded from the data management.
- In the default setting, a check is not put in this checkbox.

⑨ **[Prohibit manual operation] checkbox**
- When a check is put to this checkbox, manual operation is prohibited.
- In the default setting, a check is not put in this checkbox.

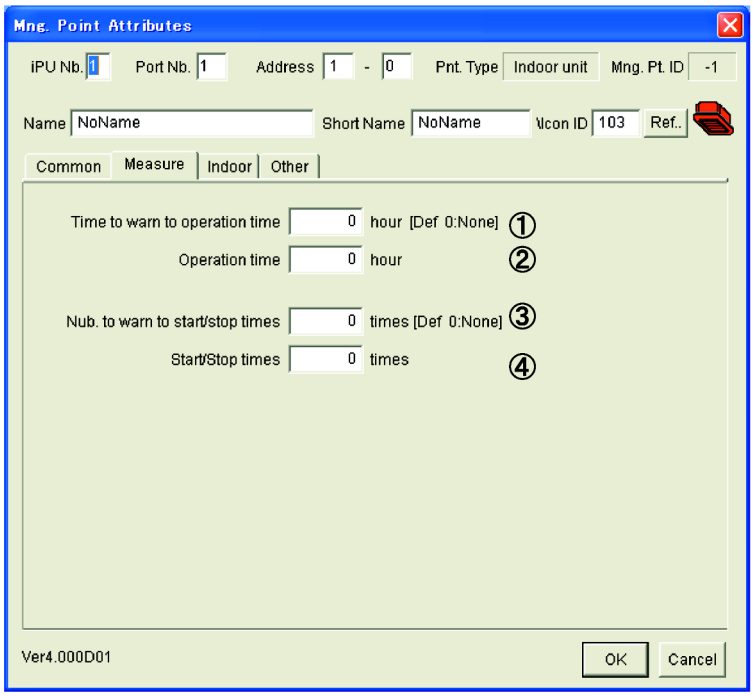
⑩ **[Airnet Address] text field**
- You can display and specify the Air network address.
- The available range of indoor unit is from 1 to 128.
- The available range of outdoor unit is from 0 to 127.
- In the default setting, 1 is set (disabled) for indoor unit, 0 is set (disabled) for outdoor unit.

[Measure] tab

You can make the settings related to accumulated values in this tab.

Applicable management points

Internal Do, Internal Di, D3Di, D3Dio, indoor unit, AHU, HRV, chiller



① **[Time to warn to operation time] text field**
- You can display and specify the warning time for the accumulated operation time.
- The available range is from 0 to 500000 hours.
- The default setting is 0 (no warning).

② **[Operation time] text field**
- You can display and specify the accumulated operation time.
- The available range is from 0 to 500000 hours.
- The default setting is 0.

③ **[Nub. To warn start/stop times] text field**
- You can display and specify the warning time for the accumulated number of times of operation.
- The available range is from 0 to 999999 times.
- The default setting is 0 (no warning).

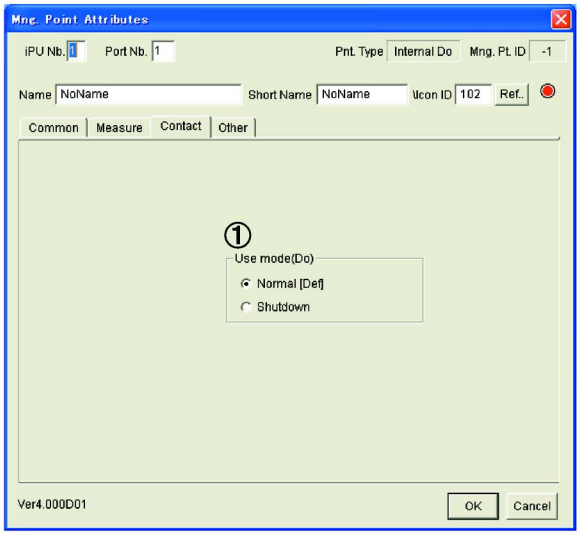
④ **[Start/Stop times] text field**
- You can display and specify the accumulated number of times of operation.
- The available range is from 0 to 999999 times.
- The default setting is 0.

[Contact] tab

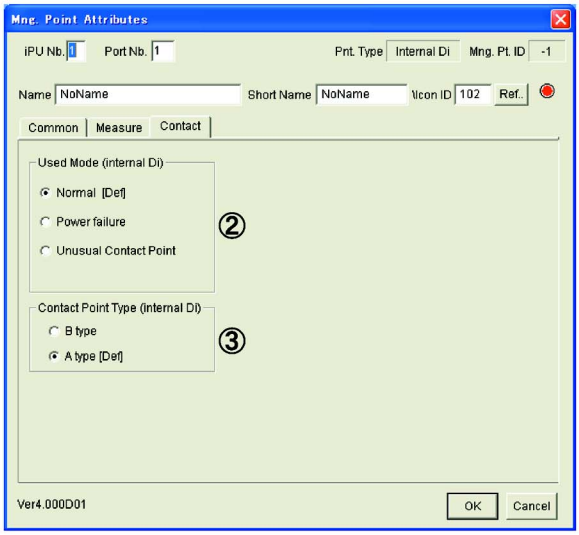
You can make common settings related to contact points (Dio) in this tab.

Applicable management points

Internal Do, Internal Di



<In the case of Internal Do>



<In the case of Internal Di>

① **[Use mode (Do)] radio button**

- You can display and settings related to the operation mode of Do.
- You can select either [Normal] (general) or [Shutdown] (for the shutdown signal to UPS).
- The default setting is Normal.

② **[Used Mode (internal Di)] radio button**

- You can display and settings related to the operation mode of Di.
- You can select either [Normal] (general) or [Power failure] (for the power failure signal input). You can select [Unusual Contact Point] (error signal from the facility).
- The default setting is [Normal].

③ **[Contact Point Type (internal Di) radio button**

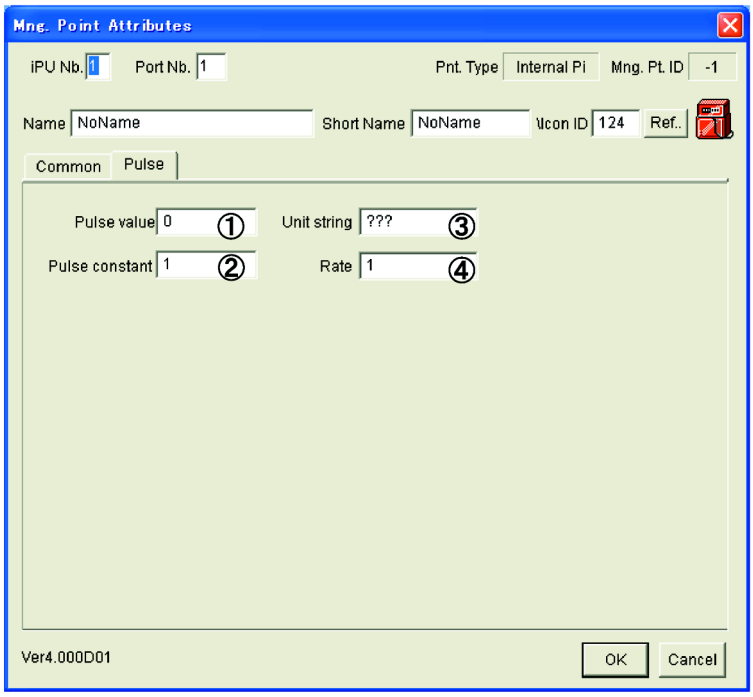
- You can display and settings related to the contact type of Di.
- You can select either [B type] (contact point B: ON when it is open) or [A type] (contact point A: ON when it is closed).
- The default setting is [A type].

[Pulse] tab

You can make settings related to the pulse value in this tab.

Applicable management points

Internal Pi



① **[Pulse value] text field**
- You can display and specify the pulse value.
- The available range is from 0 to 999999999.
- The default setting is 0.

② **[Pulse constant] text field**
- You can display and specify the pulse constant.
- The available range is from 0 to 999999999.
- The default setting is 1.

③ **[Unit string] text field**
- You can display and specify the unit string.
- You can enter a string with 0 to 8 digits.
- The default setting is "???".

④ **[Rate] text field**
- You can display and specify the multiplication rate.
- The available range is from 0.01 to 99999.99.
- The default setting is 1.

Note

Pulse value = Raw Pulse/Pulse constant
Pulse display = Pulse value * Rate

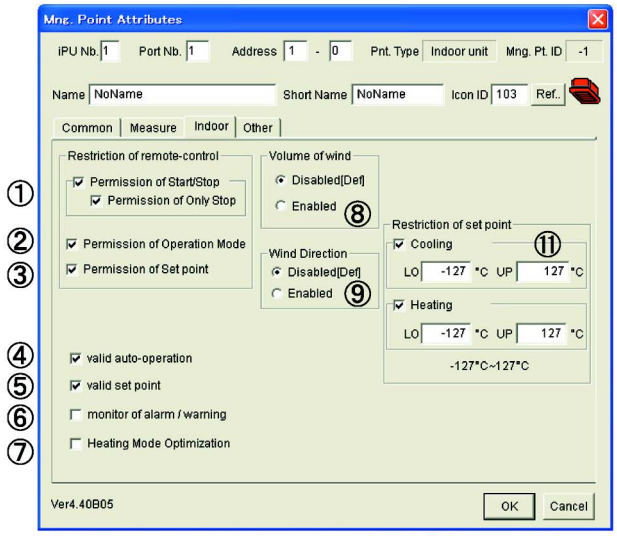
Ex1: 1 Pulse = 10 kWh
Pulse value = 0
Pulse constant = 1
Rate = 10

[Indoor] tab

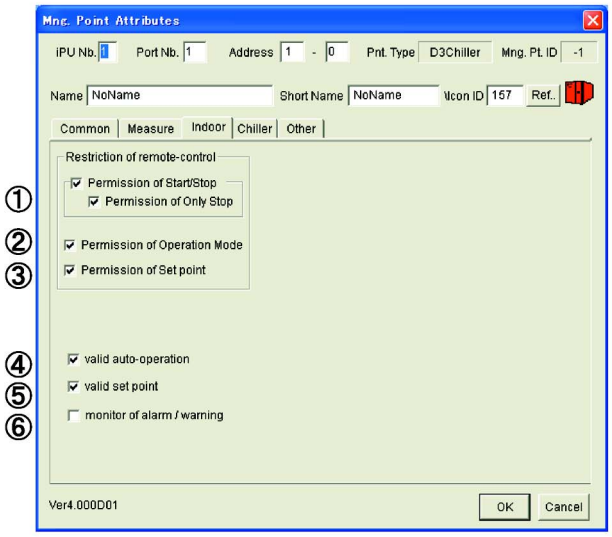
You can make settings related to the indoor unit in this tab.

Applicable management points

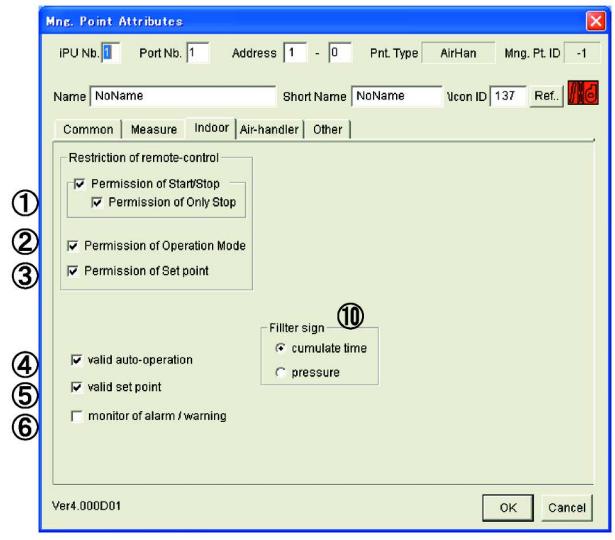
Indoor unit, chiller, AHU, HRV



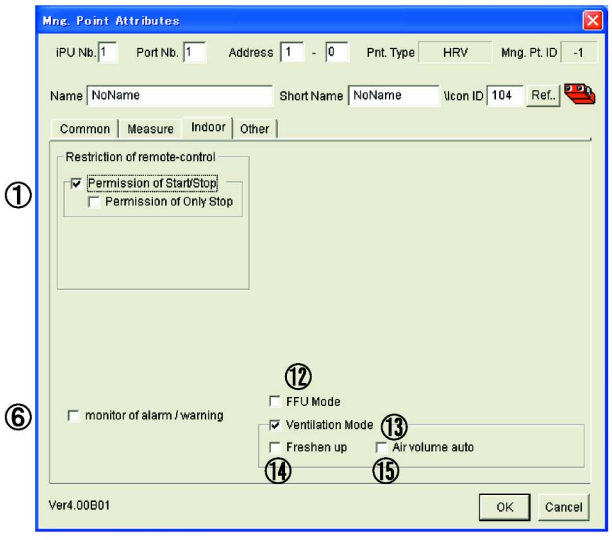
<In the case of indoor unit>



<In the case of chiller>



<In the case of AHU>



<In the case of HRV>

① **[Permission of Start/Stop], [Permission of Only Stop] checkbox**
- You can set [Permission of Start/Stop] and [Permission of Only Stop] regarding the operation of the remote control.
- If a check is not put to the [Permission of Start/Stop] checkbox, the [Permission of Only Stop] checkbox is grayed out.
- In the default setting, both start and stop are permitted.

② **[Permission of Operation Mode] checkbox**
- You can set [Permission of Operation Mode] regarding the operation of the remote control.
- In the default setting, a check is put in this checkbox.

③ **[Permission of Set point] checkbox**
- You can set [Permission of Set point] regarding the operation of the remote control.
- In the default setting, a check is put in this checkbox.

④ **[valid auto-operation] checkbox**
- When a put is check in this checkbox, the auto operation mode is enabled.
- In the default setting, a check is put in this checkbox.
- If an air conditioner does not support the auto operation mode, this setting is invalid.

⑤ **[valid set point] checkbox**
- When a put is check in this checkbox, the set point is enabled.
- In the default setting, a check is put in this checkbox (the set point is enabled).

⑥ **[monitor of alarm/warning] checkbox**
- When a put is check in this checkbox, the D3 alarm and warning are enabled.
- In the default setting, a check is not put in this checkbox (the function is disabled).

Note

When the function of To reward Warning as Error level enabled by iPU Setting Tool, D3 alarm is all treated as equipment error. The operation of this function is detailed in the table shown below.

Check of monitor of alarm/warning		Enabled		Disabled	
Check of the function To reward Warning as Error level		Enabled	Disabled	Enabled	Disabled
Equipment error	Icon display	a	a	a	a
	History display	c	c	c	c
D3 alarm	Icon display	a	b	a	b
	History display	c	d	c	f
D3 warning	Icon display	b	b	b	b
	History display	e	e	f	f

How to operate (Actions in occurrence/restoration)

[Icon display]

a In occurrence: Equipment error is displayed.
In restoration : Normal display

b No change

[History display]

c In occurrence (Detection after connection): [Name of control point] A/C error Unit [Indoor unit No.] is detected. Malfunction code
In occurrence (Detection from unconnection): A/C error Detection
In restoration: A/C error Restoration

d In occurrence: [Name of control point] Warning of unit [Indoor unit No.] is detected. Malfunction code
In restoration: Warning [end]

e In occurrence: [Name of control point] Cautions of unit [Indoor unit No.] is detected. Malfunction code
In restoration: Caution [end]

f Not displayed

*The history classifications c, d and e in the history displays are error history when error happens. They become release history during restoration.

⑦ **[Heating Mode Optimization] checkbox**
- When a put is check in this checkbox, the Heating Mode Optimization function is enabled.
- In the default setting, a check is not put in this checkbox (the function is disabled).

⑧ **[Volume of wind] radio button**
- You can specify the volume of wind to be monitored (Disabled or Enabled).
- In the default setting, None is selected.
- If an air conditioner does not support the volume of wind setting, this setting is invalid.

⑨ **[Window Direction] radio button**
- You can specify the wind direction to be monitored (Disabled or Enabled).
- In the default setting, Disabled is selected.
- If an air conditioner does not support the wind direction setting, this setting is invalid.

⑩ **[Filter sign] radio button**
- You can specify the filter sign setting (cumulate time/differential pressure type) of AHU.
- In the default setting, cumulate time is selected.

⑪ **[Restriction of set point] field**
- You can set the limitation of the set point.
- When a check is put in the [Cooling] and [Heating] checkboxes, the upper and lower limits of the set point restriction in the case of cooling or heating are limited within the specified range.
- When a check is not put in the [Cooling] and [Heating] checkboxes, the upper and lower limit value text fields are grayed out.
- In the default setting, a check is not put in either the [Cooling] or [Heating] checkboxes (no restriction of set point).

⑫ **[FFU Mode] checkbox**
The intelligent-Manager does not use this checkbox.

⑬ **[Ventilation Mode] checkbox**
- When a check is put in this checkbox, the ventilation mode is enabled.
- When a check is not put in this checkbox, both the [Freshen up] and [Air volume auto] checkboxes are grayed out.
- In the default setting, a check is not put in this checkbox (disabled).

⑭ **[Freshen up] checkbox**
- When a check is put in this checkbox, the freshen-up mode is enabled.
- In the default setting, a check is not put in this checkbox (disabled).

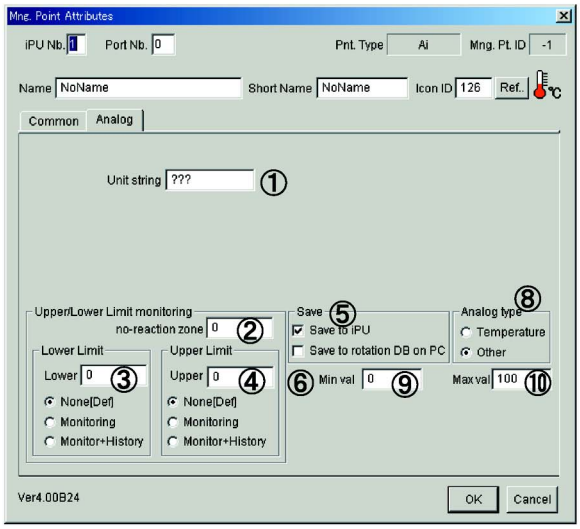
⑮ **[Air volume auto] checkbox**
- When a check is put in this checkbox, the auto air volume mode is enabled.
- In the default setting, a check is not put in this checkbox (disabled).

[Analog] tab

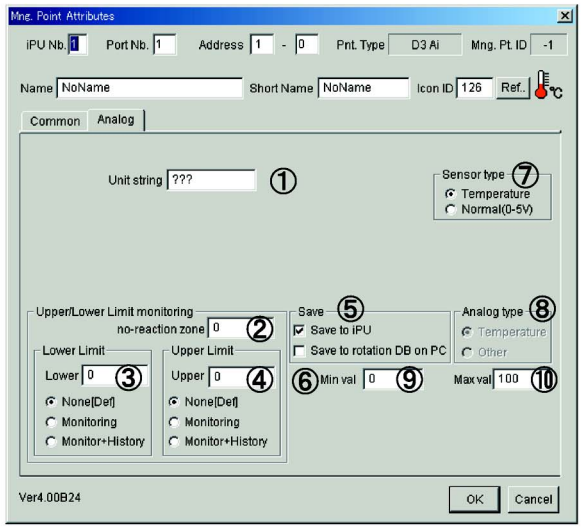
You can make settings related to the analog values (Ai and Ao) in this tab.

Applicable management points

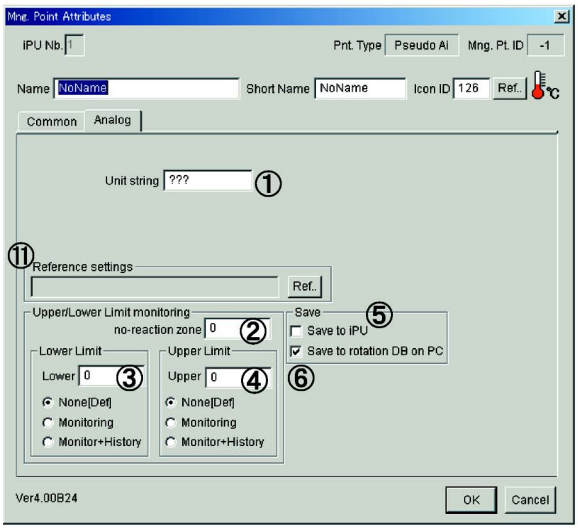
Ai, D3Ai, Pseudo Ai, Ao



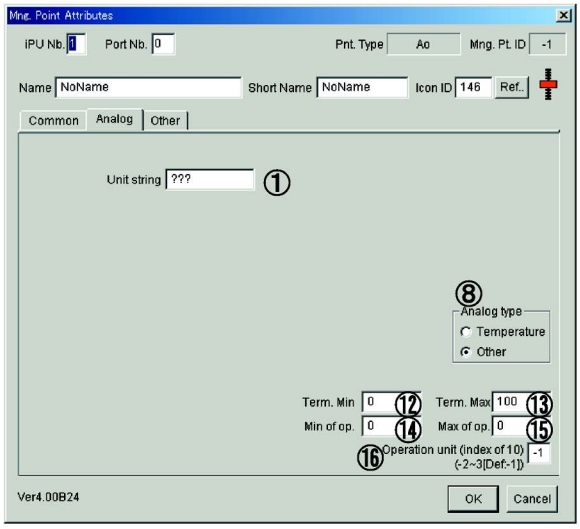
<In the case of Ai>



<In the case of D3Ai>



<In the case of Pseudo Ai>



<In the case of Ao>

① **[Unit String] text field**
- You can display and specify the unit string.
- You can enter a string with 0 to 8 digits.
- The default setting is "???".

② **[no-reaction zone] text field**
- You can display and specify the no reaction zone.
- Regarding the available input range, **see page 82**.
- The default setting is 0.

③ **[Lower Limit] field**
- You can display and specify the monitoring of abnormal lower limit.
- You can select either None, Monitoring, or Monitor + History using radio buttons.
- Regarding the available input range for the lower limit, **see page 82**.
- In the default settings, the lower limit is 0, and the monitoring state is None.

④ **[Upper Limit] field**
- You can display and specify the monitoring of abnormal upper limit.
- You can select either None, Monitoring, or Monitor + History using radio buttons.
- Regarding the available input range for the upper limit, **see page 82**.
- In the default settings, the upper limit is 0, and the monitoring state is None.

⑤ **[Save to iPU] checkbox**
- When a check is put in this checkbox, the trend value is saved to the iPU.
- In the default settings, a check is not put in the case of Pseudo Ai (the value is not saved), and a check is put in the case of other management points (it is saved).

⑥ **[Save to rotation DB on PC] checkbox**
- When a check is put in this checkbox, rotation saving to the database in the monitoring PC.
- In the default settings, a check is put in the case of Pseudo Ai (rotation is done), and a check is not put in the case of other management points (rotation is not done).

⑦ **[Sensor type] radio button**
- You can specify the sensor type of D3Ai.
- The default setting is Temperature (temperature sensor).
- When Temperature is selected, the [Analog type] radio button is grayed out.

⑧ **[Analog type] radio button**
- You can specify the type of the analog value (for general use or temperature use).
- When you select Temperature, analog values are treated as temperature.
  For more details, see the [Fahrenheit] checkbox section in the main window.
- The default setting is Other.

⑨ **[Min val] text field**
- You can display and specify the minimum value of analog values.
- Regarding the available input range, **see page 82**.
- The default setting is 0.

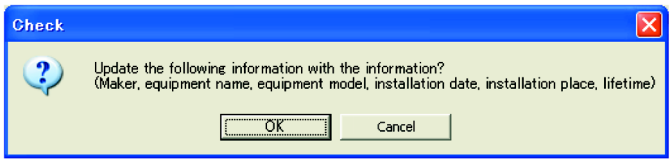
⑩ **[Max val] text field**
- You can display and specify the maximum value of analog values.
- Regarding the available input range, **see page 82**.
- The default setting is 100.

⑪ **[Reference Target] field**

- You can display and specify the target analog values and target management points of Pseudo Ai.
- The following items are displayed in the display area according to the setting of the target analog values.

Target analog value	Display item	Display example
Management point (indoor unit, AHU, chiller) measurement items	Management point ID, measurement target	PntID: (management point ID), Type: (measurement item)
Air network data measurement items	iPU No, port No., A/N address, measurement target	iPU Nb. (iPU No.), Port Nb. (port No.), A/N Address: (A/N address), Type: (measurement item)
No settings	None (blank)	None (blank)

- In the default setting, no target analog value is specified.
- When the [Ref.] button is pressed, the [Analog Point Selection] dialog box to select analog values appears.
- When you set the target analog values, the dialog box shown below appears.
  When you press the [OK] button, the following items of this management point are updated with the management points which include the target analog values.
  Maker, Equipt. Name, Model Nb., Instal. Place, Install Time, Life Time



⑫ **[Term. Min] text field**

- You can display and specify the minimum terminal value of Ao.
- Regarding the available input range, **see page 82**.
- The default setting is 0.

⑬ **[Term. Max] text field**

- You can display and specify the maximum terminal value of Ao.
- Regarding the available input range, **see page 82**.
- The default setting is 100.

⑭ **[Min of op.] text field**

- You can display and specify the minimum instruction value of Ao.
- Regarding the available input range, **see page 82**.
- The default setting is 0.

⑮ **[Max of op.] text field**

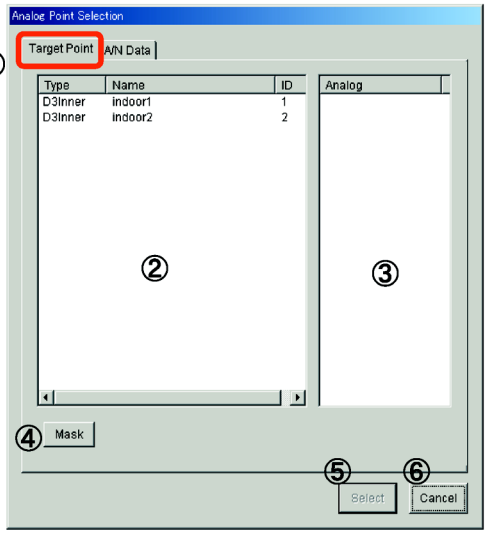
- You can display and specify the maximum instruction value of Ao.
- Regarding the available input range, **see page 82**.
- The default setting is 100.

⑯ **[Operation unit] text field**

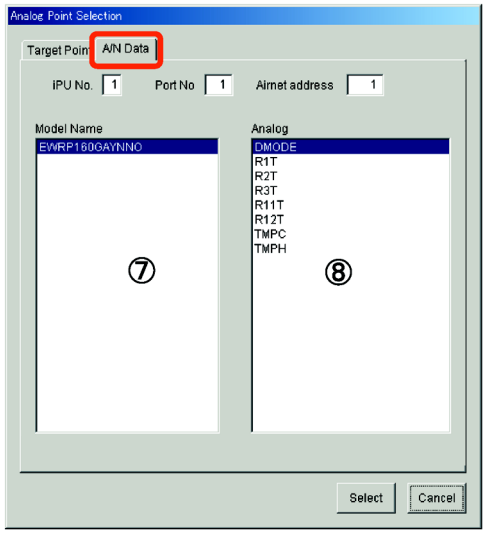
- You can display and specify the instruction accuracy (10 exponent) of Ao.
- Regarding the available input range, **see page 82**.
- The default setting is -1.

Analog Point Selection Dialog Box

- In this dialog box, you can specify the reference end for the Pseudo Ai and set analog values of target management points or target air network measurement items.
- When you set target air network measurement items, verify that the air network trial operation has done. If you run the air network again and change its configuration after the settings of the Pseudo Ai are done, remember that you need to make the settings of the Pseudo Ai again.
- The display of the Pseudo Ai is updated within 1 minute after the reference end is updated.



<Display of Target Point tab>



<Display of A/N Data tab>

① **Display tab**

- You can select targets of the Pseudo Ai among management points or air network data.
- In the default setting, the management points which are currently selected (Target Point tab) or air network data (A/N Data tab) are selected.
  When a check is not put in this checkbox, the management point (Target Point tab) is selected.
- In the On Site Install mode, the A/N Data tab is not displayed.
  (The air network data cannot be specified as a target of the Pseudo Ai.)

② **Management point list**

- In this field, a list of the management points (indoor units, chillers, AHU) with analog values is displayed.
- The items to be displayed are as follows:
  Type: management point type
  Name: name of a management point
  ID: management point ID
- In the default setting, the list of target management points is selected. If there is no target management point, no list is selected.

③ **Analog value list**

- A list of analog values, which can be targets of the Pseudo Ai, of the management points selected in the management point list.
- In the default setting, the list of target analog values is selected. If there is no target analog value, no list is selected.
- The types of selectable analog values by management point type are as follows:

Management point type	By analog values of Pseudo Ai
Indoor unit	Suction temperature
AHU	Specified temperature
	Supply temperature
	Return temperature
	Return humidity
	Outside air temperature
	Outside air humidity
Chiller	Cooling water inlet temperature
	Cooling water outlet temperature

④ **[Mask] button**
- When this button is pressed, a dialog box to mask the management points to be displayed in the list appears.

⑤ **[Select] button**
- When this button is pressed, the items selected in the list are saved as analog values of the Pseudo Ai, and this window is closed.
- If no analog value is selected in the analog value list, this button is grayed out.

⑥ **[Cancel] button**
- When this button is pressed, the edit results are discarded, and this window is closed.

⑦ **Air network cooling medium system candidate list**
- A list of air network cooling medium systems which can be measured by the Pseudo Ai is displayed.
- The items to be displayed are as follows:
  iPU Nb.: iPU number
  Port Nb.: Port number
  A/N Addr.: Air network address
  Model Name: Model name
- No candidate of the list is displayed until the air network data is loaded from the iPU. Once the data is loaded, it will be retained until the tool is terminated.
- In the default setting, the currently selected air network cooling medium system is selected. If there is no selected system, no list is selected.

⑧ **Air network measurement item candidate list**
- A list of target air network measurement items for Pseudo Ai in the items selected in the air network cooling medium system list is displayed.
- No candidate of the list is displayed until the air network data is loaded from the iPU. Once the data is loaded, it will be retained until the tool is terminated.
- In the default setting, the currently selected air network measurement item is selected. If there is no selected system, no list is selected.
- Regarding the selectable air network measurement items, see the table below.

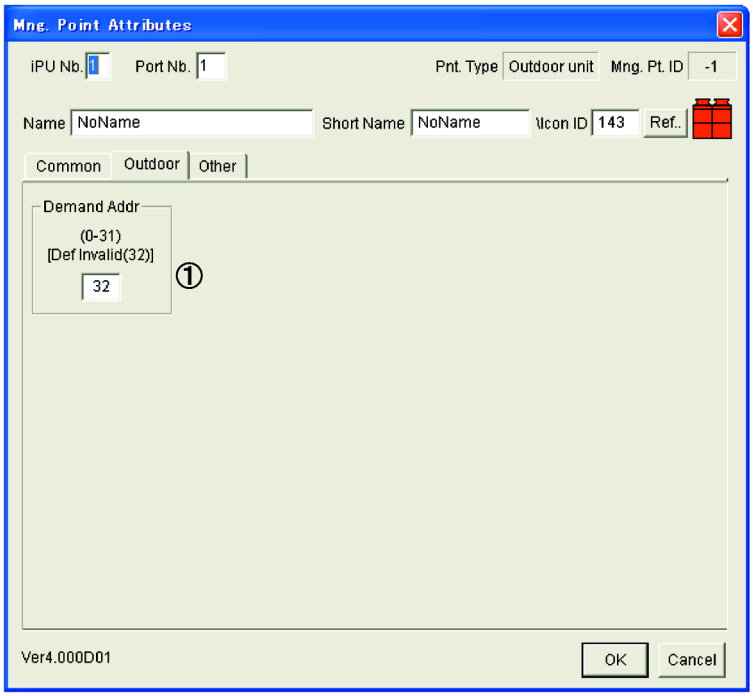
Air network model	Air network measurement items	Mark
CHESBAC (Model name: UWRYP*)	Outside air temperature	R3T
	Cooling water inlet temperature	R1T
	Cooling water outlet temperature	R2T
	Operation mode	DMODE
	Cooling water inlet temperature (outdoor unit 1)	R11T
	Cooling water outlet temperature (outdoor unit 1)	R12T
	Cooling set temperature	TempC
	Heating Set temperature	TempH

[Outdoor] tab

You can make the settings related to outdoor units.

Applicable management points

Outdoor units



① **[Demand Addr] text field**

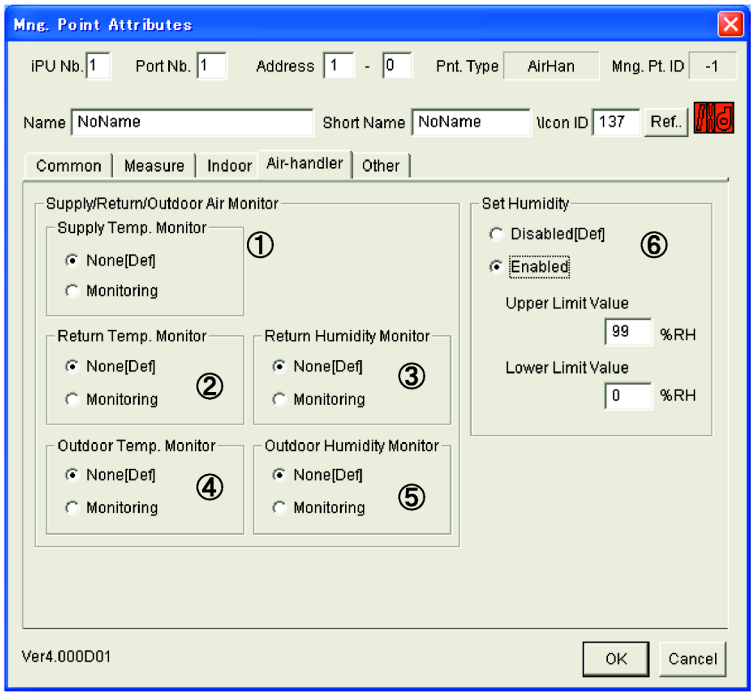
- You can display and specify the demand address.
- The available input range is from 0 to 32.
- The default setting is 32 (no setting).

[Air-handler] tab *The adaptor P plate for AHU is required to use this management point.

You can make the settings related to AHU.

Applicable management points

AHU



① **[Supply Temp. Monitor] radio button**
- You can specify whether or not to monitor the supply temperature.
- In the default setting, monitoring is disabled.

② **[Return Temp. Monitor] radio button**
- You can specify whether or not to monitor the return temperature.
- In the default setting, monitoring is disabled.

③ **[Return Humidity Monitor] radio button**
- You can specify whether or not to monitor the return humidity.
- In the default setting, monitoring is disabled.

④ **[Outdoor Temp. Monitor] radio button**
- You can specify whether or not to monitor the outdoor air temperature.
- In the default setting, monitoring is disabled.

⑤ **[Outdoor Humidity Monitor] radio button**
- You can specify whether or not to monitor the outdoor air humidity.
- In the default setting, monitoring is disabled.

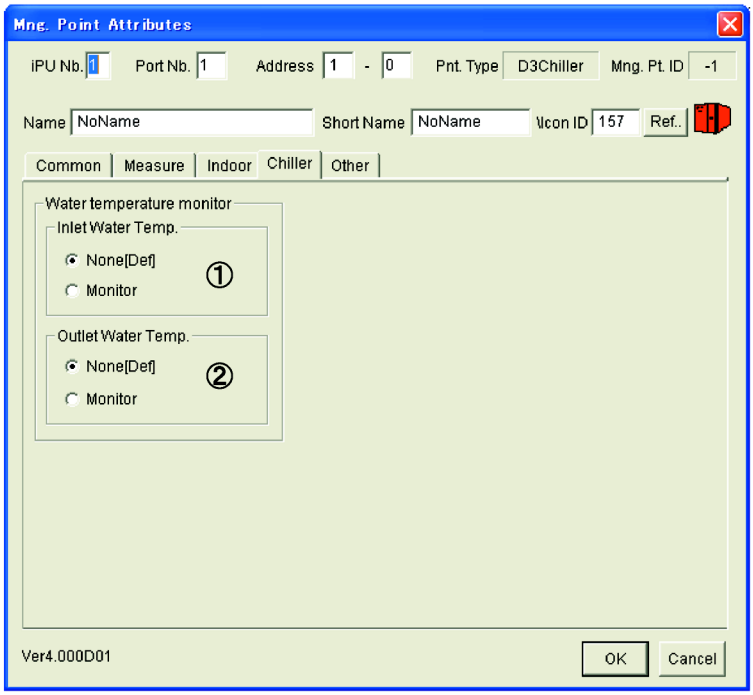
⑥ **[Set Humidity] radio button**
- You can specify whether or not to monitor/control the humidity setting.
- In the default setting, monitoring/control is disabled.
- When you select the Disabled radio button for Set Humidity, the text fields for Upper Limit Value and Lower Limit Value are grayed out.
- The input range for the upper and lower limits of the humidity setting is from 0 to 99%.
- In the default settings, the upper limit is 99%, and the lower limit is 0%.

[Chiller] tab

You can make the settings related to chillers.

Applicable management points

Chillers



① **[Inlet Water Temp.] radio button**

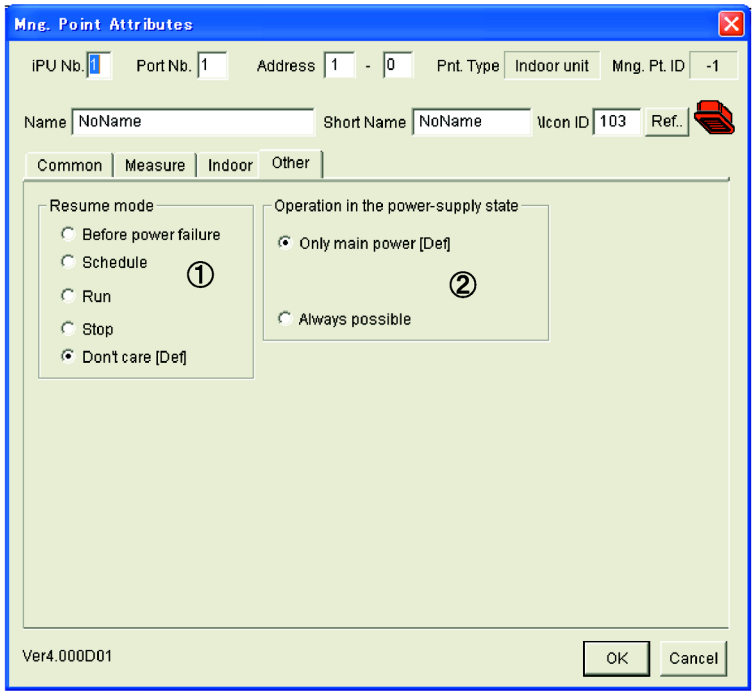
- You can specify whether or not to monitor the inlet water temperature.
- In the default setting, monitoring is disabled.

② **[Outlet Water Temp.] radio button**

- You can specify whether or not to monitor the outlet water temperature.
- In the default setting, monitoring is disabled.

[Other] tab

You can make the settings related to power failure/recovery of management points.



Some items are not displayed depending on the management point type. The details are shown in the table below.

Management point type	①Resume mode	②Operation in the power-supply state
Internal Do	×	○
D3Dio	○	○
Indoor unit	○	○
Outdoor unit	×	○
Ao	○	○
AHU	○	○
HRV	○	○
Chiller	○	○
Others	×	×

① **[Resume mode] radio button**

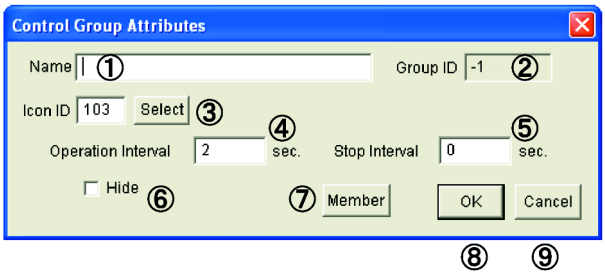
- You can set the mode upon power recovery.
- If the management point type is Ao, the [Run] and [Stop] buttons are grayed out.
- In the default setting, no power recovery control is set.

② **[Operation in the power-supply state] radio button**

- You can specify the power supply state which can be operated.
- In the default setting, the state can be operated only when power is supplied.

3-1-4. Control Group Setup Window

In this window, you can set the attributes of a control group when adding a new group or editing an existing one.



① **[Name] text field**
- You can display and specify the name of the control group.
- The default setting is blank (no string entered).
- You cannot specify the control group name exceeding the maximum number of characters (i.e., 24 characters).

② **[Group ID] field**
- The control group ID is displayed. The control group ID is automatically assigned by the system.

③ **[Icon ID] field**
- You can display and specify an icon in this field.
- You can input an icon ID or select an icon from the icon selection dialog box.
- The icon ID of a new control group is 103 (VRV indoor unit).
- When you press the [Select] button, a dialog box to select an icon appears.

④ **[Operation Interval] text field**
- You can display and specify the intervals of sequential startup.
- The input range is from 0 - 180 sec.
- The default setting is 2 sec.

⑤ **[Stop Interval] text field**
- You can display and specify the intervals of sequential stop.
- The input range is from 0 - 180 sec.
- The default setting is 0 sec.

⑥ **[Hide] checkbox**
- When a check is put in this checkbox, this control group will not be displayed in the "Control Group List" window of the monitoring board.
- In the default setting, a check is not put (the control group is displayed).

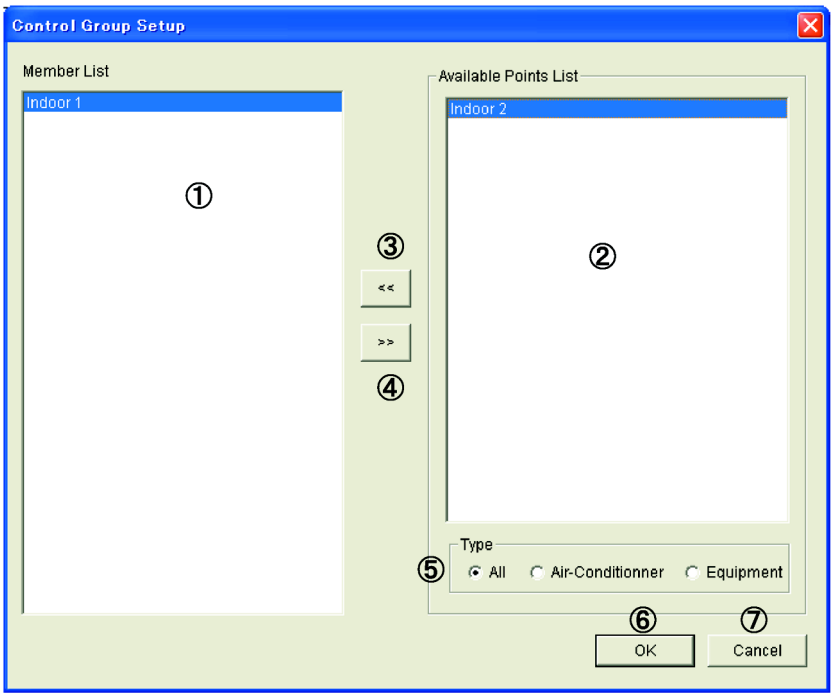
⑦ **[Member] button**
- When this button is pressed, a dialog box to edit management points belonging to this control group appears.

⑧ **[OK] button**
- The edited results are reflected to the system, and this window is closed.

⑨ **[Cancel] button**
- The edited results are discarded, and this window is closed.

Control Group Setup Dialog Box

You can edit the management points belonging to the control group.



① **[Member List] list**
- A list of the management points belonging to the control group is displayed.
- In the default setting, no member list is selected.

② **[Available Points List] list**
- A list of the management points which can be registered to the control group is displayed.
- In the default setting, no management point is selected.

③ **[<<] button**
- When you press this button, the management points selected in the [Available Points List] list are added to the end of the [Member List] list.
- When no management point is selected in the [Available Points List] list, this button is grayed out.

④ **[>>] button**
- When you press this button, the management points selected in the [Member List] list are deleted from the control group.
- When no management point is selected in the [Member List] list, this button is grayed out.

⑤ **[Type] radio button**
- When you select this button, the management points displayed in the [Available Points List] list are controlled by type. The control methods are shown below:

  All: All management points (excluding Ai, D III Ai, Pseudo Ai, Internal Pi, and outdoor units) are displayed.

  Air-Conditioner: Indoor units, HRV, chiller, and AHU

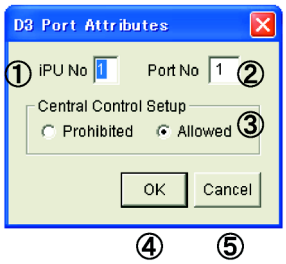
  Equipment: D III Di, D III Dio, Di, and Do.
- In the default setting, [All] is selected.

⑥ **[OK] button**
- The edited results are reflected to the system, and this window is closed.

⑦ **[Cancel] button**
- The edited results are discarded, and this window is closed.

3-1-5. DIII Port Setup Window

In this window, you can set the attributes of a D III port when adding a new port or editing an existing one.



① **[iPU No.] text field**
- You can display and specify the iPU number to which the D III port belongs.
- The available input range is from 1 to 4.
- The default setting is 1.

② **[Port No.] text field**
- You can display and specify the port number to which the D III port belongs.
- The available input range is from 1 to 4.
- The default setting is 1.

③ **[Central Control Setup] radio button**
- You can specify whether you allow or prohibit the lower central control setting
- The default setting is Allowed.

④ **[OK] button**
- The edited results are reflected to the system, and this window is closed.

⑤ **[Cancel] button**
- The edited results are discarded, and this window is closed.

3-1-6. CSV Input/Output Function

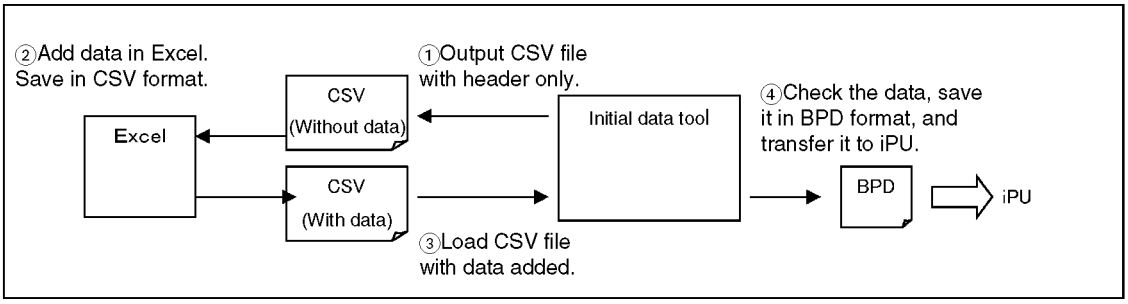
3-1-6-1. Overview

The initial data tool supports input and output of CSV files of management point data in order to reduce the man-hour of data creation. Also, a function to output a CSV file with a header only as a template is offered so that load upon initial setting can be reduced.

The expected operation methods are given below:

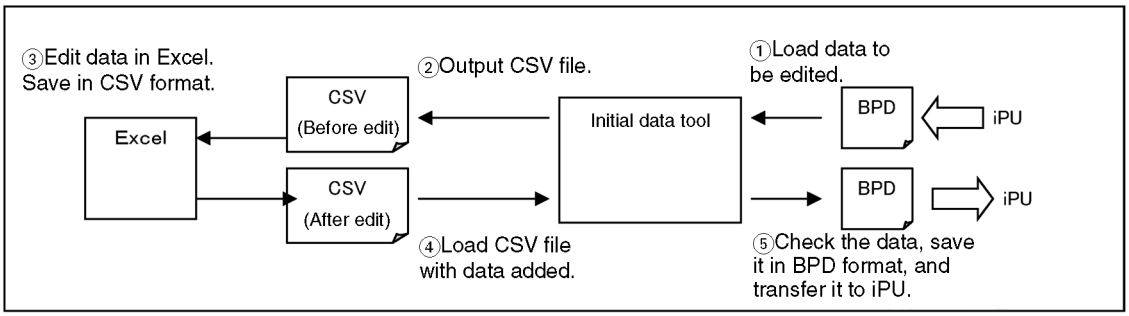
Upon initial setting

① The initial data tool outputs a CSV file which does not contain management point data and only has a header as a template file.
② Data is added to the template file in Excel, and the file is saved in the CSV format.
③ The initial data tool reads the CSV file to which the data is added.
④ The tool checks the data, outputs it in the BPD format, and transfers it to the iPU.



Upon editing

① The initial data tool loads the data to be edited (BPD file) from the HDD or iPU.
② All the items of the intelligent-Manager are output in a CSV file.
③ Only the data to be changed in Excel are edited and saved in the CSV file.
④ The initial data tool loads the CSV file of which data has been edited.
⑤ The data is checked, saved in BPD format, and transferred to iPU.



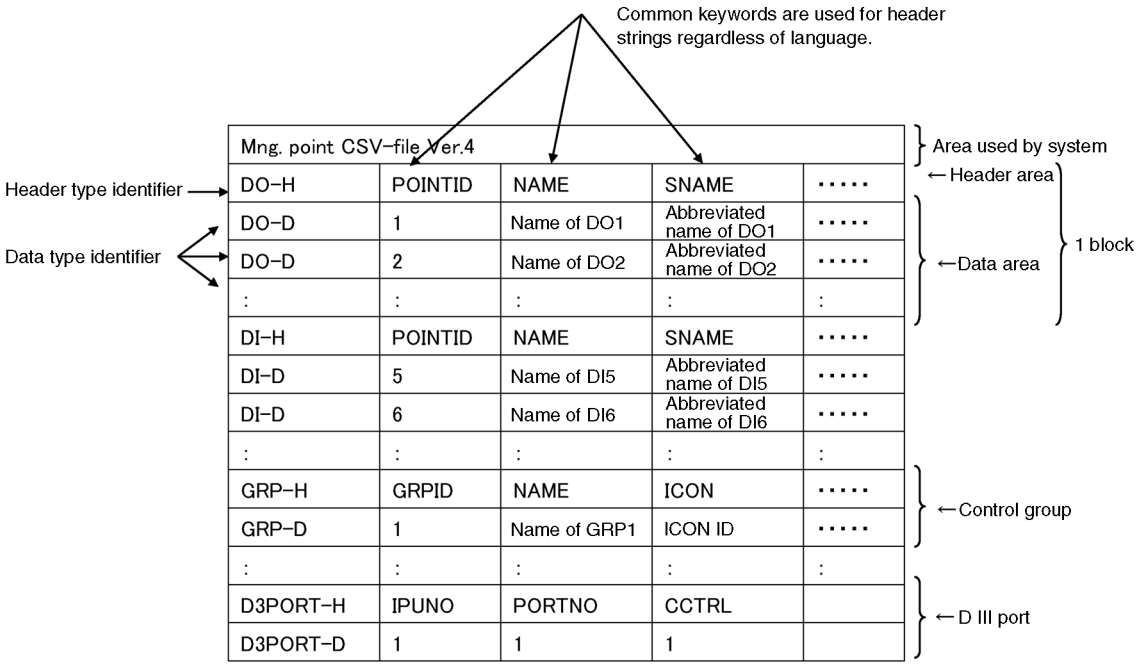
3-1-6-2. CSV File Format

- The CSV file format which is supported by the initial data tool is described below:
  - The delimiter is "," (comma).
  - The decimal marker is "." (period).
  - The digit delimiter is not be used.
  - Strings with commas

- Since CSV files which are output from the initial data tool are to be output only in the local character code of the PCs at the site, do not use them on OS in other languages.
- The numeric marks (decimal point, delimiter, etc.) of Windows might be different, and there are cases where the initial data tool might not be able to read the data if it is edited in Excel as it is.
  e.g.) In the case of France, the decimal marker is "," (comma) and delimiter is ";" (semi-colon) in the default settings. In this case, you need to set the "Decimal marker" to "." (period) and "Delimiter" to "," (comma) in "Regional Options" of Windows to set the format supported by the initial data tool.

3-1-6-3. CSV Output Specifications

- All the items, control groups, and DIII port information of all the management points supported by the intelligent-Manager are output.
- When the Celsius setting is selected in the initial data tool, values are output in Celsius.
- If you output a CSV file without data included as a template when you create new data, a CVS file only with headers of all the management point types, control groups, and DIII port is output.
- The data format of the CSV file is shown below. (For more details of the format of each data, see the Appendix B.)



Mng. point CSV-file Ver.4				
DO-H	POINTID	NAME	SNAME	·····
DO-D	1	Name of DO1	Abbreviated name of DO1	·····
DO-D	2	Name of DO2	Abbreviated name of DO2	·····
:	:	:	:	:
DI-H	POINTID	NAME	SNAME	·····
DI-D	5	Name of DI5	Abbreviated name of DI5	·····
DI-D	6	Name of DI6	Abbreviated name of DI6	·····
:	:	:	:	:
GRP-H	GRPID	NAME	ICON	·····
GRP-D	1	Name of GRP1	ICON ID	·····
:	:	:	:	:
D3PORT-H	IPUNO	PORTNO	CCTRL	
D3PORT-D	1	1	1	

- **Area used by system**
  This area contains the file version and control data for ID automatic assignment. The user must not to delete this area.
- **Header area and data area**
  The head area and data area are regarded as one block, and the data area is handled as the data in the row of the present header until the next header appears. Common keywords are used for the header items regardless of language.
  A unique string is used in a same type.

Header Type Identifier and Data Type Identifier

To identify the data type, identifiers are added to the top of the header area and data area respectively.

Management point type	Header type identifier	Data type identifier
Internal Do	DO-H	DO-D
Internal Di	DI-H	DI-D
Internal Pi	PI-H	PI-D
Ai	AI-H	AI-D
D3Dio	DIO-H	DIO-D
D3Di	D3DI-H	D3DI-D
Indoor unit	IN-H	IN-D
Outdoor unit	OUT-H	OUT-D
D3Ai	D3AI-H	D3AI-D
Ao	AO-H	AO-D
AHU	AHU-H	AHU-D
Chiller	CHIL-H	CHIL-D
HRV	HRV-H	HRV-D
Pseudo Ai	PAI-H	PAI-D
Control group	GRP-H	GRP-D
D3Port	D3PORT-H	D3PORT-D

3-1-6-4. CSV Input Specifications

- Input of all the items of all the management points supported by the intelligent-Manager is supported.
- The merge function is not supported, and management point data is created in accordance with input data. (This is not applied when input data is incorrect.)
- This function is expected to be used when the system is newly installed to a site.
  (If this is used when management points are updated, trend data, etc. will be discarded.)
- The specifications of the data format (file header, management point header + management point data) are the same as the output format.

  Handling of blank
  - If the management point ID and group ID are blank, unique IDs are automatically assigned.
  - If the string data is blank, a string of which length is 0 is set.
  - If the numeric value data is blank, the default value is set.

  Input of management point ID and group ID
  - It is recommended, from the aspect of operation, that you should leave the IDs blank and let the system automatically assign them when you add a management point and a group.
  - When you add an air conditioner management point and a virtual Ai management point at the same time, make the initial data tool read the management point and virtual Ai management point as leaving "TARGET ID" blank, output a CSV file after the management point ID is assigned, set the assigned air conditioner management point ID to "TARGET ID" of the virtual Ai management point, and make the initial data tool read it again.

  Handling of temperature (Fahrenheit)
  - When the initial data tool reads CSV files, it considers numeric values regarding temperature as Celsius/ Fahrenheit according to the Celsius/Fahrenheit setting in the initial data tool, and reads them accordingly.
    When it reads CSV files in which temperature values are saved in Fahrenheit, set Fahrenheit to the temperature setting of the initial data tool.

  Handling of prohibited characters
  - Since "," (comma) is regarded as a delimiter, if comma is included in string data, the number of rows becomes incorrect, resulting in a reading error.
  - When data is read, double quotations (") are not ignored.
    For instance, the string data 'ab"cd' is read as "abcd".

- The check items for input data and the operation in the case of an error are shown below:
  List of check items

Check items	Error display	Operation
File version is incorrect.	ON	Restore the previous management point data.
Length of sting is out of the specified range.	ON	Restore the previous management point data.
Not a numeric value.	ON	Restore the previous management point data.
Numeric value is out of the range.	ON	Restore the previous management point data.
Same ID (management point, control group) already exists.	ON	Restore the previous management point data.
Data type identifier is incorrect.	OFF	Skip the row and continue loading (regard it as a comment).

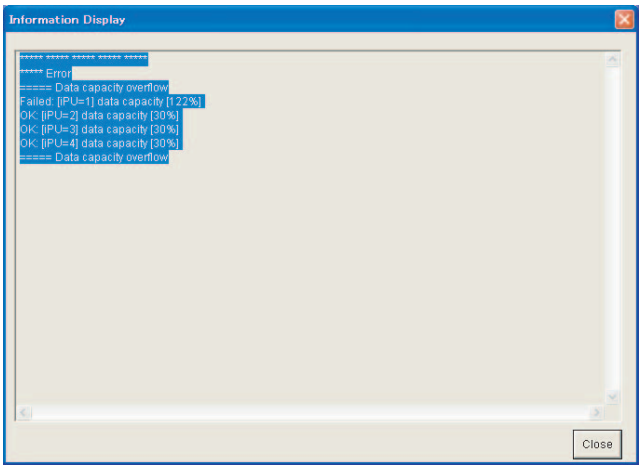
  Error display
  - When the file version is incorrect, "File format error". is displayed regardless of language.
    In other cases, no message is displayed, the column and row in which the error occurred are simply indicated, and incorrect data is displayed as it is.
    Display: (row number, column number) -> Contents of the cell
    e.g.) (10,5) -> aaaaaaaaaaaaaaaaaaaaaaaaa
    (10,6) -> 9999999999.99
    (11,2) -> 1

3-1-7. Concept of Management Point Registration

The capacity of memory reserved for management point data has limitations. An error message will be displayed if an attempt is made to register management points in excess of the capacity. At the time of management point registration, consider the following limitations ① through ③ and register the entire management points.

① The maximum memory reserved for management point data must not exceed 917000 bytes.

② If an attempt is made to register management points beyond this capacity, the following [Data capacity overflow] error message will be displayed when the Check button is pressed.



③ As shown in the following table, there are various types of management points, and the required memory capacity of each type varies.

<Table Memory Capacity of Management Points by Type>

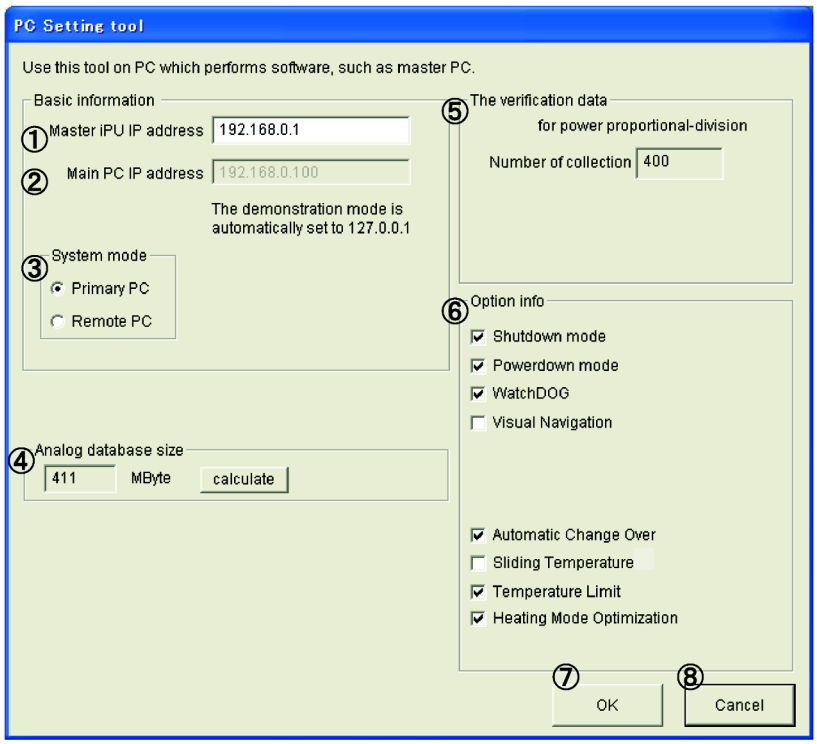
Type	Internal			Ai	Ao	D3 Di	D3 Dio	D3 Pi	Indoor unit	FCU (Indoor unit)	Outdoor unit	D3 Ai	Pseudo Ai	HRV	AHU	Chiller	Control Group	D3 port
	Do	Di	Pi															
Basic Cpacity (byte)	550	550	500	500	350	550	550	500	600	600	400	500	500	600	650	650	100+ Management Points *4	50
Capacity when saving trend(byte)	-	-	-	6850	-	-	-	-	-	-	-	6850	6850	-	-	-	-	-

<Calculation Example>

Example of iPU configuration	Approximate total capacity	Result
Indoor unit 1024 units	614400Byte (600Byte*1024)	OK
Indoor unit 834 units Pseudo Ai(Save trend data [Save to IPU] no) 834 point	917400Byte (600Byte*834 + 500Byte*834)	NG
Indoor unit 125 units Pseudo Ai(Save trend data [Save to IPU] yes)125 points	931250Byte (600Byte*125 + 6850Byte*125)	NG

3-2. PC Setup Tool

The image of the main window of the monitoring board PC setup tool is shown below.



① **[Master iPU IP address] edit box**

- This is used to set the IP address of the Master iPU.
- The default setting is "192.168.0.1".
- When [Remote PC] is selected in the [System mode] selection area, you cannot change the IP address.

② **[Main PC IP address] edit box**

- This is used to set the IP address of the Master iPU.
- The default setting is "192.168.0.100".
- When [Primary PC] is selected in the [System mode] selection area, you cannot change the IP address.

③ **[System mode] selection area**

- This is used to set the operation mode of the monitoring board PC.
- If the PC you want to set is the main monitoring board PC, select the [Primary PC] radio button.
- If the PC you want to set is the sub monitoring board PC, select the [Remote PC] radio button.
- In the default setting, the [Primary PC] radio button is selected.

④ **[Analog database size] setup area**

- This is used to set the upper limit size of an analog management points (Ai, D III Ai, and Pseudo Ai) database file.
- The upper limit size is enabled when "Save to rotation DB on PC" is set upon creation of an analog management point.
- The upper limit size can be set only from the "Calculate Required Volume dialog box".
- When the [Calculate] button is pressed, the "Calculate Required Volume dialog box" is displayed.
- The default setting is "0".

⑤ **[The verification data for power proportional-division] setup area**

- This is used to make the save setting for data files for power proportion inspection.
- In the [Number of collection] text box, the number of days to collect data files for power proportion inspection is displayed.
- On the intelligent-Manager, the number of collection is fixed to 400 days, and you cannot change the setting.
- Data files for power proportion inspection are stored in the "Pdv" folder under the monitoring board software execution path.
- In the "Pdv" folder, files as many as the number of days for collection are stored, and when the number of files reaches the number of days for collection, the files are overwritten from the oldest one.

⑥ **[Option info] setup area**

- This is used to set the options to be enabled on the monitoring board PC.
- The available options are listed below.

[Shutdown mode]	:	When this option is set, the monitoring board PC is shut down when the monitoring board software is terminated. If it is enabled, the [Shutdown] button is displayed when the monitoring board software is terminated.
[Powerdown mode]	:	When this option is enabled while [Shutdown mode] is set, the power is turned off at the time when the monitoring board PC is shut down upon termination of the monitoring board software. (The BIOS of the monitoring board PC must support the power-off function.)
[WatchDOG]	:	Select this option when you want to enable the Watchdog function.
[Visual Navigation]	:	Select this option when you want to use Visual Navigation.
[Power Proportional Distribution]	:	Select this option when you want to enable the power proportional distribution function.
[Power Limit control]	:	Select this option when you want to enable the target power control function.
[Eco mode]	:	Select this option when you want to enable the energy saving control function.
[Automatic Change Over]	:	Select this option when you want to enable the automatic cooling/ heating changeover function.
[Sliding Temperature]	:	Select this option when you want to enable the Sliding Temperature function.
[Temperature Limit]	:	Select this option when you want to enable the upper/lower limit room temperature guarantee function.
[Heating Mode Optimization]	:	Select this option when you want to enable the heating optimization control function.

- In the default setting, no check is put in the check box.

⑦ **[OK] button**

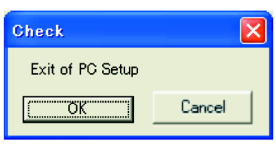
- The settings are saved, and the monitoring board PC tool is terminated.
- When the "System mode" is "Primary PC", if "Master iPU IP address" is incorrect, an error dialog box appears.
- When the "System mode" is "Remote PC", if "Main iPU IP address" is incorrect, an error dialog box appears.



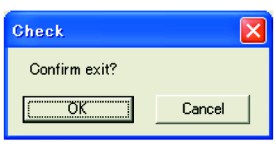
<Error dialog box>

⑧ **[Cancel] button**

- The monitoring board PC tool is terminated without saving the settings.
- The dialog box A is displayed before the tool is terminated.
- When the [Cancel] button is pressed in the dialog box A, the dialog box A is closed, and the monitoring board PC tool is not terminated.
- When the [OK] button is pressed in the dialog box A, the dialog box A is closed, and the dialog box B is displayed.
- When the [Cancel] button is pressed in the dialog box B, the dialog box B is closed, and the monitoring board PC tool is not terminated.
- When the [OK] button is pressed in the dialog box B, the dialog box B is closed, and the monitoring board PC tool is terminated.



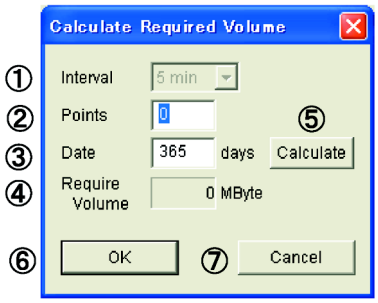
<Dialog box A>



<Dialog box B>

[Calculate Required Volume] dialog box

The image of the Calculate Required Volume dialog box is shown below.



① **[Interval] text box**

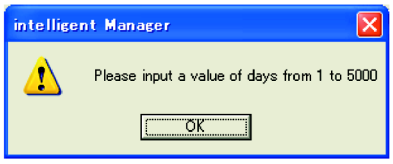
- The interval to save analog data are displayed.
- The interval is fixed to 5 minutes on the intelligent-Manager. You cannot change the setting.

② **[Points] edit box**

- This is used to set the number of management points to be saved.
- In the [Points] edit box, you can set only 1-byte numerals from 0 to 1000.
- If nothing is input in the [Points] edit box, an error dialog box A is displayed.
- If any input other than 1-byte numerals is made in the [Points] edit box, an error dialog box A is displayed.
- If a value entered in the [Points] edit box is out of the designated range, an error dialog box B is displayed.
- The default setting is "0".
- The setting value is checked at the time when the [Calculate] button is pressed.



<Error dialog box A>



<Error dialog box B>

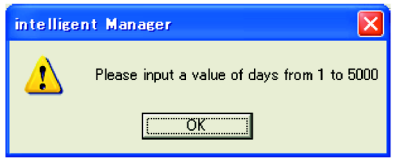
③ **[Date] edit box**

- This is used to set the number of days for which data is saved.
- In the [Date] edit box, you can set only 1-byte numerals from 0 to 5000.

- If nothing is input in the [Date] edit box, an error dialog box A is displayed.
- If any input other than 1-byte numerals is made in the [Date] edit box, an error dialog box A is displayed.
- If a value entered in the [Date] edit box is out of the designated range, an error dialog box B is displayed.
- The default setting is "365".
- The setting value is checked at the time when the [Calculate] button is pressed.



<Error dialog box A>



<Error dialog box B>

④ **[Require Volume] text box**

- The file size required to save analog data is displayed.
- The display is updated at the time when the [Calculate] button is pressed, and you cannot input the value directly.
- In the default setting, "0" is displayed.

⑤ **[Calculate] button**

- [Require Volume] is calculated based on the specified [Points] and [Date].

- The result of the formula given below is rounded up at the first decimal place and set as the [Require Volume] value.
  In this calculation, the header size is 276 bytes, 1-data size is 16 bytes, and the number of saving times per day is 288.

$$\frac{\text{<Header size> + (<1-data size> × <Days of saving> × <Number of management points to be saved> × <Number of saving times>)}}{1024 \times 1024}$$

⑥ **[OK] button**

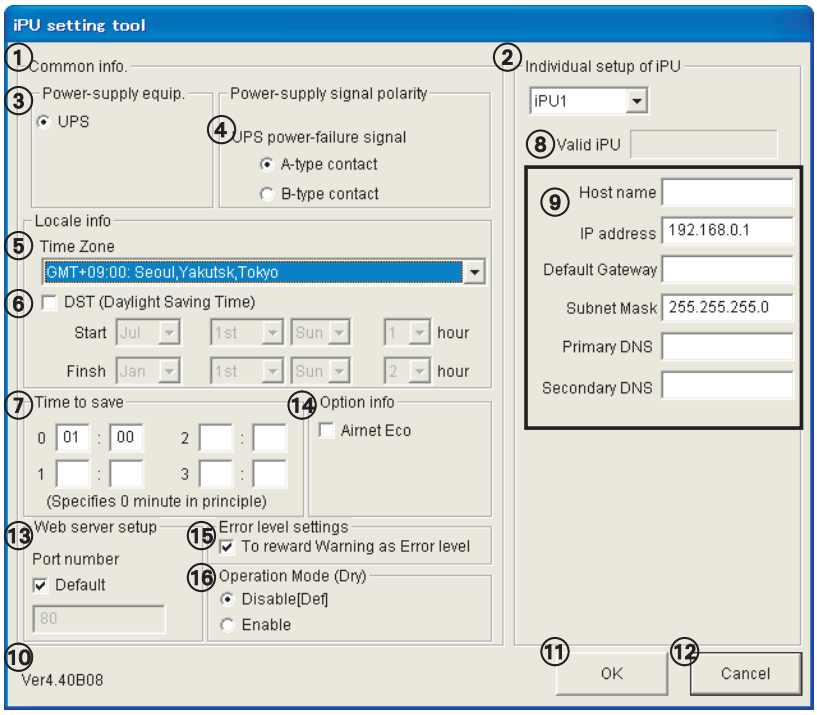
- The calculated [Require Volume] value is reflected to [Analog database size] in the main window, and the Calculate Required Volume dialog box is closed.

⑦ **[Cancel] button**

- The Calculate Required Volume dialog box is closed without performing any operation.

3-3. iPU Setting Tool

[iPU setting tool] dialog box



① **Common setting area**
- This is used to set the common items for all iPUs.

② **iPU individual setting area**
- This is used to make the setting of a selected iPU.
- In the default setting, iPU #1 is selected.

③ **[Power-supply equip.] selection area**
- This is used to select a power failure signal.
- On the intelligent-Manager, UPS only can be selected.

④ **[UPS power-failure signal] selection area**
- This is used to select the polarity (A-type contact or B-type contact) of the power failure signal.
- In the default setting, A-type contact is selected.

⑤ **[Time-zone] selection area**
- This is used to select the time zone.
- In the default setting, PC's time zone is selected.
- "GMT + 13:00" is not supported.

⑥ **DST setting area**
- This is used to set the daylight saving time.
- When a check is put in the checkbox, the daylight saving time setting is enabled. When a check is removed, the setting is disabled.
- In the default setting, the daylight saving time setting is enabled.

⑦ **[Time to save] setting area**
- This is used to set the time to save daily report data in the iPU. (Up to 4 times a day can be set.)
- The input format is "hour: minute", and if these fields are blank, no setting is made.
- In the default setting, data is saved once a day at 1:00.

⑧ **iPU list**
- The list of the iPUs which can be set is displayed. (The host names of the iPUs are divided by comma.)
- If the host name of iPU is entered, that iPU is considered as valid and displayed. If the host name is blank, the iPU is considered as invalid and not displayed.

⑨ **Network setting area**
- This is used to set the following network items:

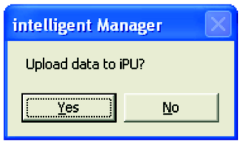
Host name	:	Host name (default value: none) (default value: none, Max. number of string: 64 characters)
IP address	:	IP address (default value: 192.168.0.1)
Default Gateway	:	Gateway (default value: none)
Subnet Mask	:	Subnet mask (default value: 255.255.255.0)
Primary DNS	:	Primary DNS (default value: none)
Secondary DNS	:	Secondary DNS (default value: none)

* If you use the E-mail function (optional), set up the Default Gateway, Primary DNS, and Secondary DNS as well as the IP address, Subnet Mask.

⑩ **Version display area**
- The version number of the iPU setting tool is displayed.

⑪ **[OK] button**
- In the case of the Pre-engineering mode, the setting data is saved, and the setting tool is terminated.
- In the case of the On Site Install mode, the setting data is saved, and then a **transmission confirmation dialog** box to confirm the transmission of setting data is displayed.
- When confirmation is made in the transmission confirmation dialog box, the settings are transmitted to the iPU which is specified in the **[iPU setting tool] dialog** box, and then the tool is terminated.
- When the transmission confirmation dialog box is canceled, the tool is terminated without transmitting the settings.
- When this button is pressed, if any of the following errors is found in the specified settings, a **setting error dialog** box is displayed, and the setting dialog box is displayed again.

Error condition	Message in the setting error dialog box
Invalid time (other than 00:00 to 23:59) is specified as the regular save time.	Time to save is invalid
The host name of the main iPU is not specified.	#268:Name of the Master iPU is empty
The IP address of the main iPU is not specified.	#269:IP address of the Master iPU is empty
Invalid characters (other than alphabets, numbers, minus, and underline) are entered in the host name.	iPU[1-4] #270:Host name is invalid
The same host name as other iPU is entered.	iPU[1-4] #271:Host name overlaps
Invalid address (other than 0.0.0.0 to 255.255.255.255) is entered in the IP address.	iPU[1-4] #049:IP address format is not correct
The same IP address as other iPU is entered.	iPU[1-4] #047:IP address already exists
Invalid address (other than 0.0.0.0 to 255.255.255.255, blank is acceptable) is entered in the subnet mask.	iPU[1-4] #077:Subnet mask setting value is invalid
Invalid address (other than 0.0.0.0 to 255.255.255.255, blank is acceptable) is entered in the primary DNS.	iPU[1-4] Invalid primary DNS
Invalid address (other than 0.0.0.0 to 255.255.255.255, blank is acceptable) is entered in the secondary DNS.	iPU[1-4] Invalid secondary DNS
Invalid value (see Table 1 in the next page) is entered in the port number of the Web server setting.	Failed in the setting of the port number Please set it to other numbers



<Transmission confirmation dialog box>



<Setting error dialog box>

⑫ **[Cancel] button**
- The setting is discarded, and the setting tool is terminated.

⑬ **Web server setting**
- This is used to set the port number to be used by the Web server.
- When a check is put in [Default], the default value (80) is set to the port number.
- The port number is displayed in the edit box.
- When a check is put in [Default], the edit box is grayed out.
- You can enter 1-byte numerals up to 5 digits in the edit box.
- Whether or not a value is out of the range is checked at the time when the [OK] button is pressed.

Settable values as port numbers to be used by the Web server
- The settable values in the Web server setting are shown in the table on the right.

Settable values
80
1024~8081
8083~11999
14000~16999
18000~29999
31000~59999
60001~65535

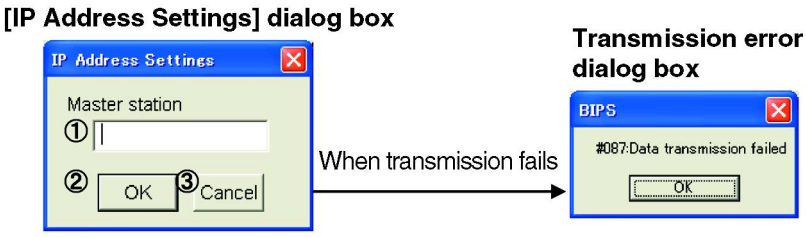
Settable values in the Web server setting

⑭ **[Airnet Eco] Check box**
- Set the Eco option of enable/disable.
- The Airnet Eco function become enabled after validation.
- In the initial state, it is disabled (no checking).

⑮ **[To reward Warning as Error level] checkbox**
- Set in case the reward warning is error level.
- In the initial state, it is enabled (checking).
- Monitor of alarm/warning is set by each control point. For the list of actions of enable/disable, please refer to the page 98.

⑯ **[Operation Mode (Dry)] radio button**
- Switch the Dry setting of enable/disable for the whole system.
- In the initial state, it is disabled.

[IP Address Settings] dialog box



① **Address input area**
- The address of iPU is entered.
- In the default setting, a value entered in the [iPU settings tool] dialog box is set as an input value.
- In the default setting, if no value is entered in the [iPU settings tool] dialog box, "192.168.0.1" is used as an input value.

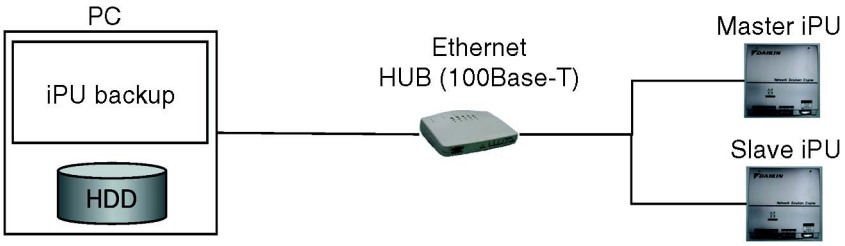
② **[OK] button**
- The setting data is transmitted to the iPU with the specified address.
- When transmission fails, a transmission error dialog box appears.

③ **[Cancel] button**
- Transmission of the setting data is canceled.

3-4. Backup/Restore Tool

3-4-1. Function Overview

- The iPU backup (iPUBackup.exe) is a tool to back up and restore the data in the FLASH and BBRAM of the iPU.
- You cannot activate multiple iPU backups at the same time.
- When you restore the data, you must terminate the monitoring board software.
- You must not terminate the iPU backup during backup or restore.
- The iPU backup is expected to be used in the environment shown below.

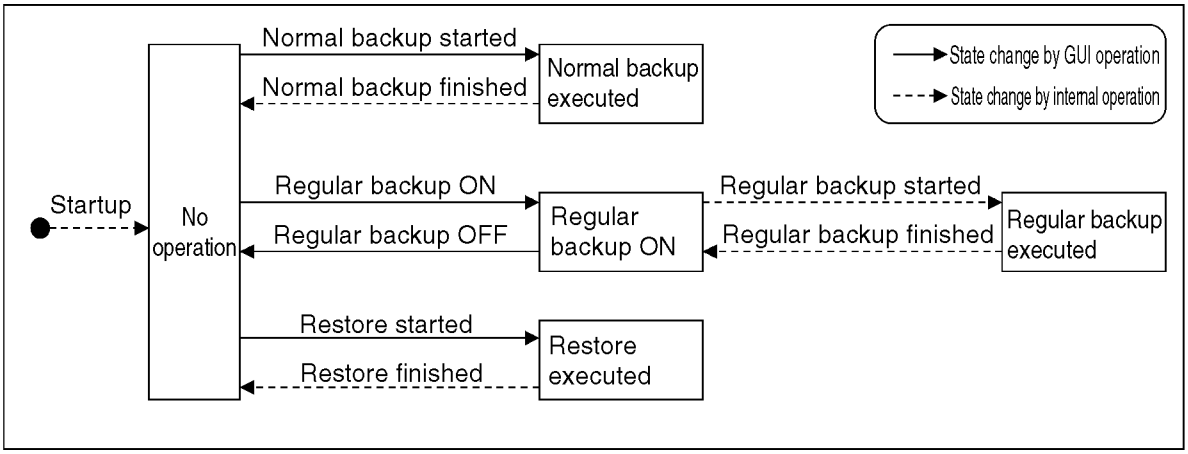


[Restrictions on Use of iPU Backup]

- The master iPU and slave iPU must be referenced through the network from the PC on which the iPU backup is used.
- If there is a firewall between the PC on which the iPU backup is used and the master iPU and slave iPU, the following ports must be available.
  - 20000
  - 20002

[Change in Stage of iPU Backup]

- The iPU backup has five different states, and the state is changed as shown below.
  (Regarding the periodical backup and normal backup, see **3-4-1-1. Backup.**)



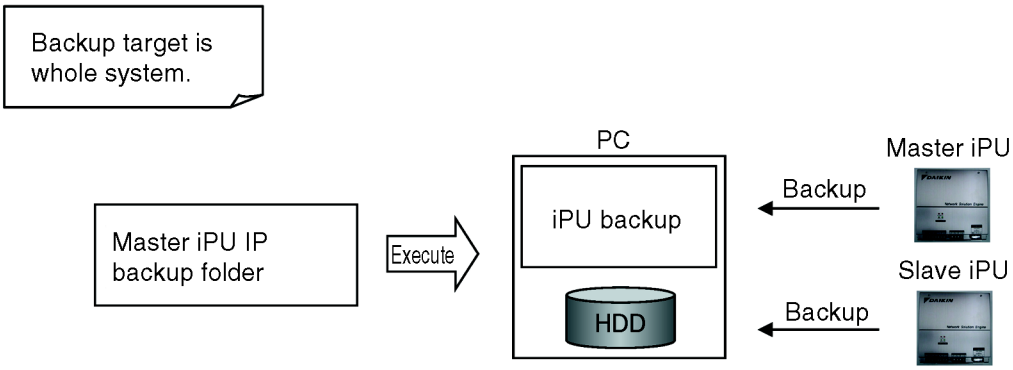
- You cannot conduct the following operations in each state of the iPU backup.

State \ Operation	Start normal backup	Set periodical backup	Start restore
While normal backup is executed	Not available (multiple activation)	Not available	Not available
While periodical backup is executed (including while periodical backup is ON)	Not available	Not available (multiple activation)	Not available
While restore is executed	Not available	Not available	Not available (multiple activation)

3-4-1-1. Backup

Target of Backup

- When you specify the master iPU, the iPU backup backs up the data of the slave iPU as well.
- You cannot back up only the master iPU or slave iPU.

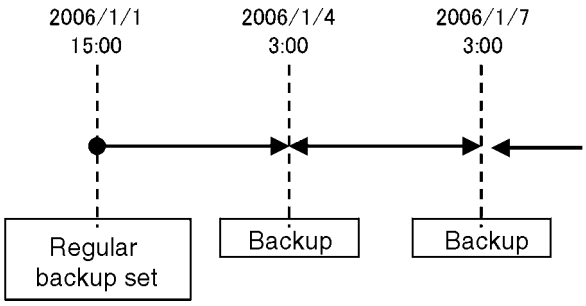


* Backup folder: Folder to store backed up data.

Normal backup and periodical backup

- The iPU backup supports the two backup methods:
  - Normal backup : Backup is executed at the timing when the user executes the operation.
  - Regular backup : Backup is executed at regular intervals specified in advance.
- When you conduct the periodical backup, the iPU backup needs to be always activated.
- The periodical backup is conducted at the specified time of the backup date.
  (It depends on the state of the PC, and the backup time might be shifted.)
- You cannot execute the normal backup while the periodical backup is executed.

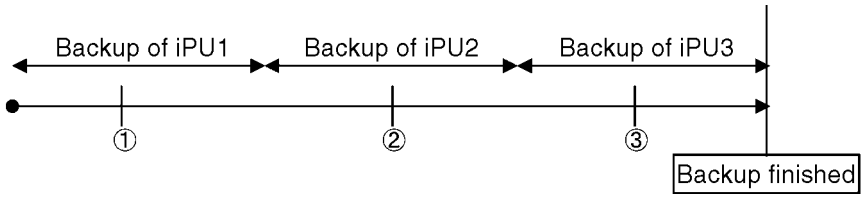
Example: When the backup interval is set to every 3 days, and the periodical backup time is set to 3 a.m.



When backup fails

- When the network is disconnected while backup is executed, the system considers that an error occurs and stops the backup.
- When an error occurs while the backup is executed, and the backup fails, the backup operation will not be resumed.

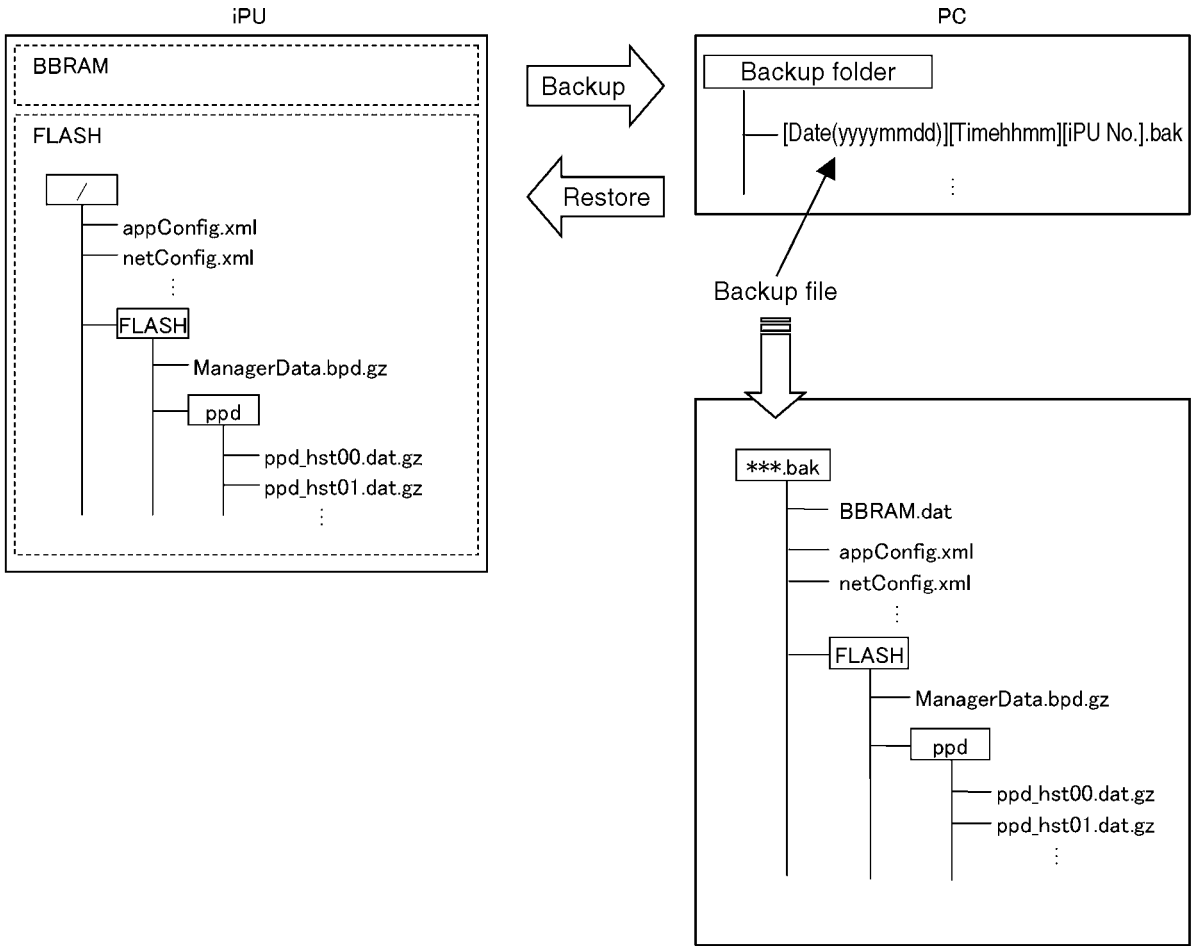
Example: When the system consists of 3 iPU units



Timing of error occurrence	iPU1	iPU2	iPU3
①	Backup is not done	Backup is not done	Backup is not done
②	Backup is done	Backup is not done	Backup is not done
③	Backup is done	Backup is done	Backup is not done

Backup files

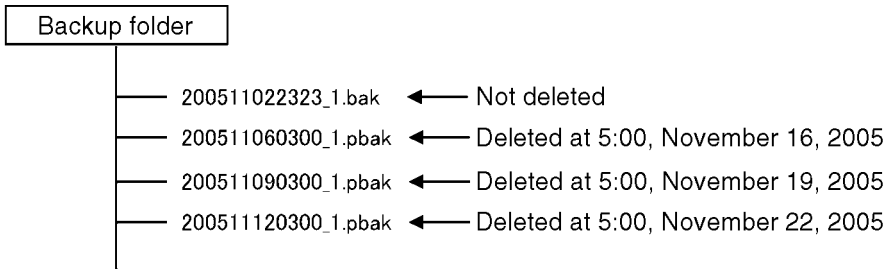
- Backed up files are integrated into one compressed file per iPU unit.
  This file is called a backup file.
- The name of a backup file is [Date (yyyymmdd)] [Time (hhmm)]_[iPU No.].bak.
  (The date and time are taken from the internal clock of the PC.)
  e.g.) The name of a backup file of the iPU 1, which is backed up on 11:23 (p.m.) of Nov. 2, 2005 will be 200511022323_1.bak.
- The extension of backup files created upon periodical backup will be "pbak".
- The backup files that the iPU backup can use are only those created by the iPU backup, and the operation is not guaranteed if the name or contents of backup files are modified manually.
- The data in BBRAM is saved in "BBRAM.dat".



Period to keep backup files

- You can set the period to keep backup files created by the periodical backup on the iPU backup.
- Backup files of which storage period is expired are deleted when the periodical backup goes successful.
- Backup files created by the normal backup will not be deleted even if their storage period is expired.
- Backup files which are not stored in the backup folder will not be deleted even if their storage period is expired.
- When "No Limit" is set to the storage period, backup files will not be deleted.

Example: When the storage period is set to 10 days, and the periodical backup time to 5:00



Execution results of periodical backup

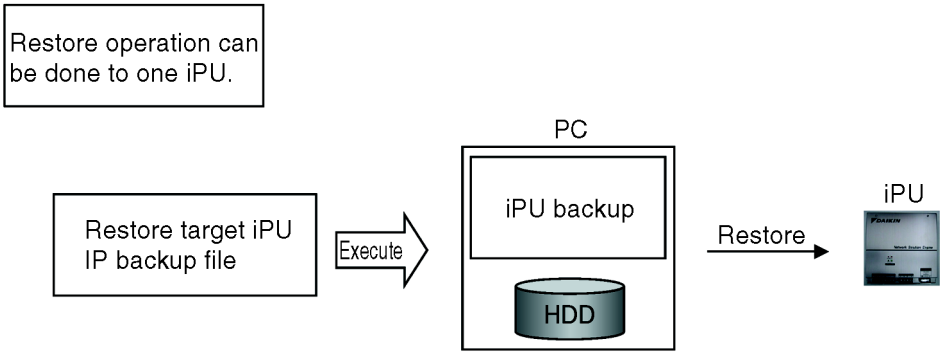
- Execution results of the periodical backup are added to "Backup.log" in the backup folder.
- If there is no "Backup.log" file, it is newly created.
- The format of "Backup.log" is shown below.

[Date (yyyy/mm/dd)] [Time (hh/mm)] periodical backup succeeded …When succeeded
[Date (yyyy/mm/dd)] [Time (hh/mm)] periodical backup failed …When failed

3-4-1-2. Restore

Target of Restore

- The iPU backup restores data to only one iPU which has the specified IP.
- When you want to restore data to multiple iPUs, you need to repeat the restore operation.
- The iPU backup restores the data in a specified backup file to the iPU.
  (You cannot use other files except backup files.)
- **When you restore data, all the data currently stored in the FLASH and BBRAM of the iPU are overwritten.**



State of iPU during the restore operation

- During the restore operation, the control is stopped.
- After the restore operation is finished, the iPU is restarted.

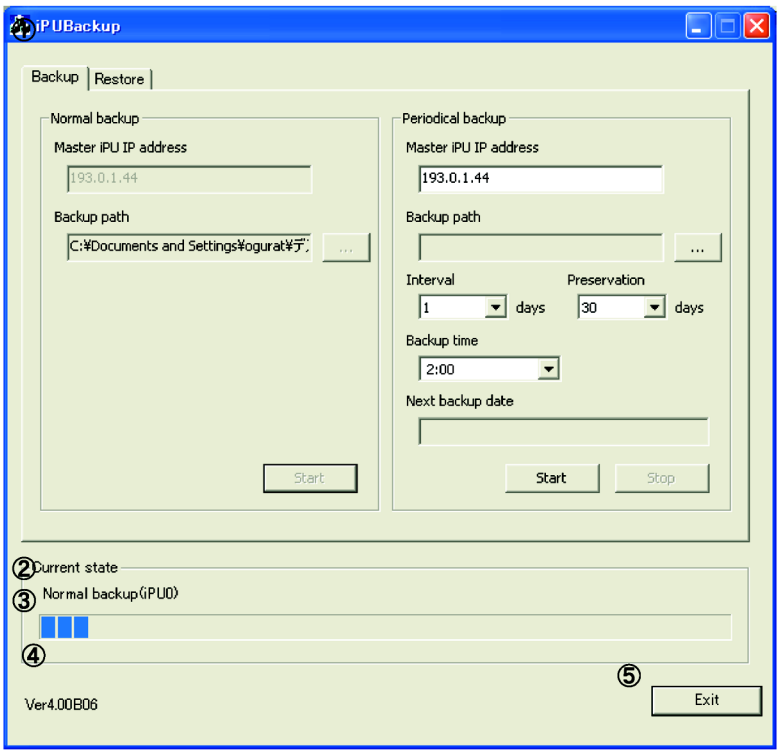
When restore fails

- When the network is disconnected while restore is executed, the system considers that an error occurs and stops the restore operation.

3-4-2. GUI Specifications

3-4-2-1.Main Window

- The main window of the iPU backup is shown below.



① **[Backup] / [Restore] tab**

- In the [Backup] tab, you can set and execute the backup operation.
- In the [Restore] tab, you can set and execute the restore operation.
- When the iPU is activated, the [Backup] tab is selected.

② **Current state**

- The current state is displayed.
- Nothing is displayed when the backup or restore operation is not executed.
- Nothing is displayed when the activation operation is executed.
- The following messages are displayed while the backup or restore operation is not executed.
  - During normal backup : "Normal backup ([iPU No.])"
  - During periodical backup : "Periodical backup ([iPU No.])"
  - During switching of maintenance mode : "Reboot in maintenance mode"
  - During restore operation : "Restore"

③ **Progress bar**

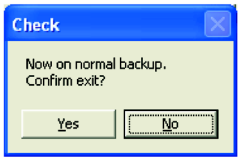
- The progress is indicated while the backup or restore operation is executed.
- The progress is indicated until the backup or restore operation is finished while the backup or restore operation is executed.

④ **Version information**

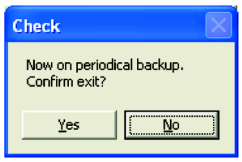
- The version number of the iPU backup is displayed.

⑤ **[Exit] button**

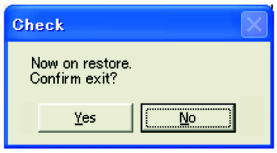
- When you press this button, the iPU backup is terminated.
- When you press the [Exit] button while the backup or restore operation is executed, a confirmation dialog box appears.
- When you press the [Cancel] button in the confirmation dialog box, the iPU backup is not terminated.



<Confirmation dialog box during normal backup>



<Confirmation dialog box during periodical backup>



<Confirmation dialog box during restore operation>

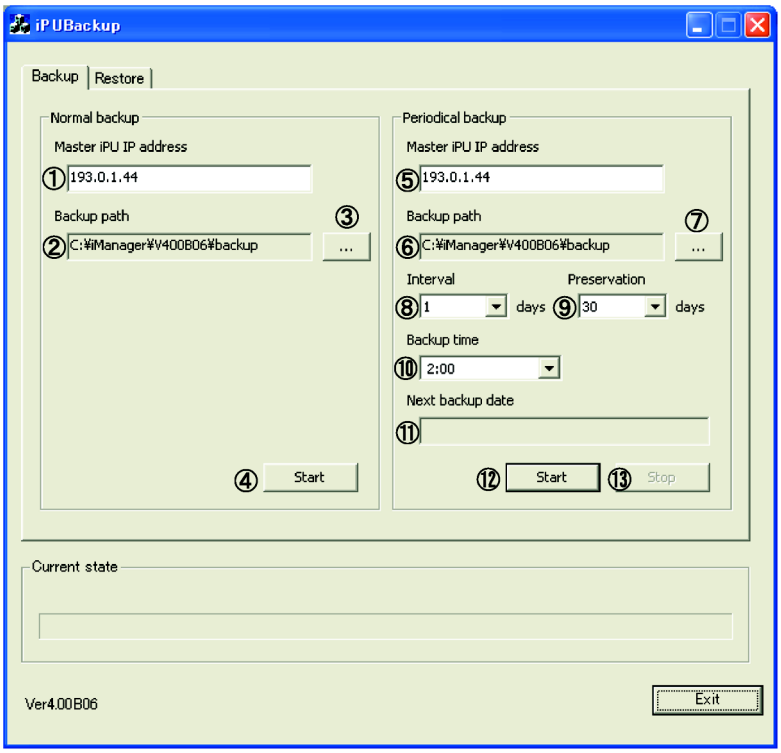
Minimization button

- When you press the minimization button of the backup/restore tool, the iPU backup is not displayed in the task bar, but in the task tray.
- To take it out from the task tray, double-click the icon in the task tray.



3-4-2-2.[Backup] tab

- In the [Backup] tab, you can set and execute the backup.



① **[Master iPU IP address] edit box**

- Enter the IP address of the master iPU for normal backup.
- In the default setting, the IP address of the master iPU specified in the "iPU setting tool" is displayed.
- When any string other than "xxx.xxx.xxx.xxx" (xxx is 1-byte numerals from 0 to 255) is entered, it results in an error.
- When the string is "255.255.255.255", it results in an error.
- Whether or not the entered string is correct is checked when the [Start] button is pressed.
- During the normal backup, this box is grayed out, and you cannot edit it.

② **[Backup path] text box**

- The backup folder for normal backup is displayed.
- In the default setting, no information is displayed.
- You cannot directly enter strings in the [Backup path] text box.
- When no check is put in the text box, it results in an error.
- Whether or not there is an error is checked when the [Start] button is pressed.

③ **[…] button**

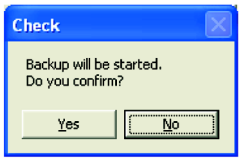
- When you press this button, the "Browse for Folder" dialog box to select a backup folder for normal backup appears.
- Select the folder in the Browse for Folder dialog box and press the [OK] button to close the dialog box. Then, the selected folder is set in the [Backup path] text box.
- When you press the [Cancel] button in the Browse for Folder dialog box, it is closed, and the setting in the [Backup path] text box remains unchanged.
- During the normal backup, this box is grayed out, and you cannot select it.



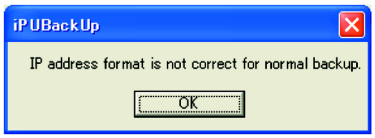
<"Browse for Folder" dialog box>

④ **[Start] button**

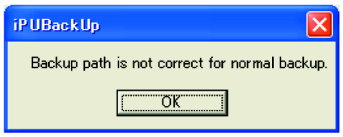
- When you press this button, the normal backup is started.
- Before the normal backup is started, a confirmation dialog box appears.
- If the values in the [Master iPU IP address] edit box and [Backup path] text box are incorrect, an error dialog box is displayed, and the backup is not started.
- If the value in the [Master iPU IP address] edit box is incorrect, an error dialog box A is displayed.
- If the value in the [Backup path] text box is incorrect, an error dialog box B is displayed.
- While the normal backup, periodical backup, or restore is executed, or while the periodical backup is set, the [Start] button is grayed out, and you cannot perform the normal backup.
- When the normal backup fails, an error dialog box C is displayed.



<Confirmation dialog box>



<Error dialog box A>



<Error dialog box B>



<Error dialog box C>

⑤ **[Master iPU IP address] edit box**

- Enter the IP address of the master iPU for periodical backup.
- In the default setting, the IP address of the master iPU specified in the "iPU setting tool".
- When any string other than "xxx.xxx.xxx.xxx" (xxx is 1-byte numerals from 0 to 255) is entered, it results in an error.
- When the string is "255.255.255.255", it results in an error.
- Whether or not the entered string is correct is checked when the [Start] button is pressed.
- While the periodical backup is set, or while the periodical backup is executed, this box is grayed out, and you cannot edit it.

⑥ **[Backup path] text box**

- The backup folder for periodical backup is displayed.
- In the default setting, no information is displayed.
- You cannot directly enter strings in the [Backup path] text box.
- If nothing is entered in the text box, it results in an error.
- Whether or not there is an error is checked when the [Start] button is pressed.

⑦ **[…] button**

- When you press this button, the "Browse for Folder" dialog box to select a backup folder for periodical backup appears.
- Select the folder in the Browse for Folder dialog box and press the [OK] button to close the dialog box. Then, the selected folder is set in the [Backup path] text box.
- When you press the [Cancel] button in the Browse for Folder dialog box, it is closed, and the setting in the [Backup path] text box remains unchanged.
- While the periodical backup is set, or while the periodical backup is executed, this box is grayed out, and you cannot select it.



<"Browse for Folder" dialog box>

⑧ **[Interval] combo box**

- This is used to specify the interval (the number of days) to perform the periodical backup.
- In the [Interval] combo box, you can select 1 to 50 (approx. 1.5 months).
- In the default setting, 1 is selected.
- While the periodical backup is set, or while the periodical backup is executed, this box is grayed out, and you cannot select it.

⑨ **[Preservation] combo box**

- This is used to specify the storage period of the periodical backup files.
- In the [Preservation] combo box, you can select 1 to 400 (approx. 13 months) or "No Limit".
- In the default setting, 30 is selected.
- While the periodical backup is set, or while the periodical backup is executed, this box is grayed out, and you cannot change it.

⑩ **[Backup time] combo box**

- This is used to specify the time to perform the periodical backup.
- In the [Backup time] combo box, you can select 00:00 to 23:00 (in increments of 1 hour).
- In the default setting, 02:00 is selected (1 hour after the default regular save time).
- While the periodical backup is set, or while the periodical backup is executed, this box is grayed out, and you cannot change it.

⑪ **[Next backup date] text box**

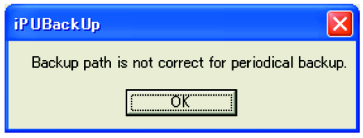
- The date when next periodical backup is executed is displayed.
- In the default setting, no information is displayed.
- The [Next backup date] text box is updated when the [Start] button is pressed or when the periodical backup is started.
- When you press the [Stop] button, the setting in the [Next backup date] text box is cleared.

⑫ **[Start] button**

- When you press this button, the periodical backup is started.
- While the periodical backup is set, or while the periodical backup or restore operation is executed, this box is grayed out, and you cannot select it.
- If the values in the [Master iPU IP address] edit box and [Backup path] text box are incorrect, an error dialog box is displayed, and the backup is not started.
- If the value in the [Master iPU IP address] edit box is incorrect, an error dialog box A is displayed.
- If the value in the [Backup path] text box is incorrect, an error dialog box B is displayed.



<Error dialog box A>



<Error dialog box B>

⑬ **[Stop] button**

- When you stop this button, the periodical backup is turned off.
- You can select this button only while the periodical backup is set.
- While the periodical backup is executed, the [Stop] button is grayed out, and you cannot select it.

Note

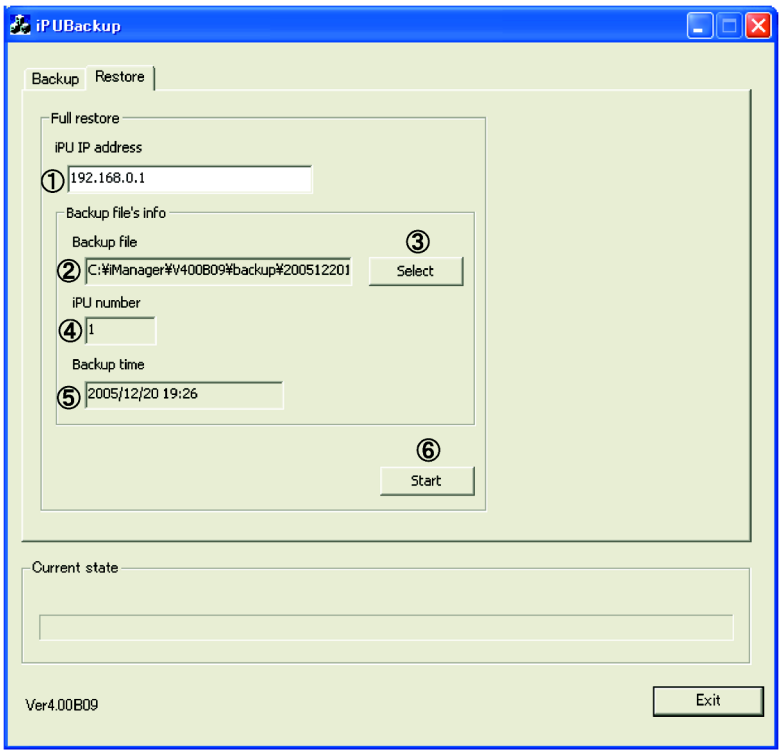
The following setting files are not backed up by iPU.

- Layout setting
- Monitoring panel PC setting
- Watchdog setting

Please back up the setting file folder (Config folder) when changing it or on a periodic basis.

3-4-2-3.[Restore] Tab

In the [Restore] tab, you can set and execute the restore operation.



① **[Master iPU IP address] edit box**

- Enter the IP address of the master iPU for restore.
- In the default setting, no information is entered.
- When any string other than "xxx.xxx.xxx.xxx" (xxx is 1-byte numerals from 0 to 255) is entered, it results in an error.
- When the string is "255.255.255.255", it results in an error.
- Whether or not the entered string is correct is checked when the [Start] button is pressed.
- During the restore operation, this box is grayed out, and you cannot edit it.

② **[Backup file] text box**

- The backup folder to be restored is displayed.
- In the default setting, no information is displayed.
- You cannot directly enter strings in the [Backup file] text box.
- If nothing is entered in this text box, it results in an error.
- Whether or not there is an error is checked when the [Start] button is pressed.

③ **[Select] button**

- When you press this button, the "Browse for Folder" dialog box to select a backup file appears.
- While the restore operation is executed, this box is grayed out, and you cannot select it.

④ **[iPU number] text box**

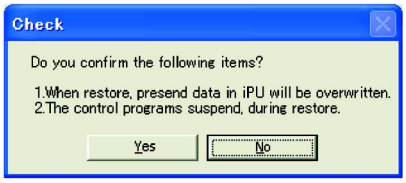
- The iPU number of the file displayed in [Backup file] is displayed.
- In the default setting, no information is displayed.
- When the setting in the [Backup file] is changed, this setting is also changed.
- You cannot directly enter a string in the [iPU number] text box.

⑤ **[Backup time] text box**

- The date and time when the file displayed in [Backup file] is backed up are displayed.
- In the default setting, no information is displayed.
- When the setting in the [Backup file] is changed, this setting is also changed.
- You cannot directly enter a string in the [Backup time] text box.

⑥ **[Start] button**

- When you press this button, the restore operation is started.
- Before the restore operation is executed, a confirmation dialog box appears.
- If the values in the [iPU IP address] edit box and [Backup file] text box are incorrect, an error dialog box is displayed, and the restore operation is not started.
- If the value in the [iPU IP address] edit box is incorrect, an error dialog box A is displayed.
- If the value in the [Backup file] text box is incorrect, or when no set file exists, an error dialog box B is displayed.
- While the normal backup, periodical backup, or restore is executed, or while the periodical backup is set, the [Start] button is grayed out, and you cannot perform the restore operation.
- When the restore operation fails, an error dialog box C is displayed.



<Confirmation dialog box>



<Error dialog box A>

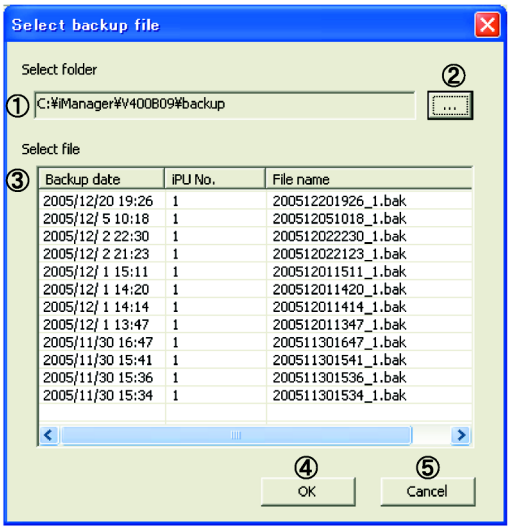


<Error dialog box B>



<Error dialog box C>

[Select backup file] dialog box



① **Folder Select text box**

- The folder which contains backup files is displayed.
- In the default setting, no information is displayed.
- You cannot directly enter strings in the Folder Select text box.
- Whether or not there is an error is checked when the [OK] button is pressed.

② **[…] button**

- When you press this button, the "Browse for Folder" dialog box appears.
- Select the folder in the Browse for Folder dialog box and press the [OK] button to close the dialog box. Then, the selected folder is set in the Folder Select text box.
- When you press the [Cancel] button in the Browse for Folder dialog box, it is closed, and the setting in the Folder Select text box remains unchanged.



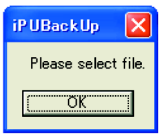
<"Browse for Folder" dialog box>

③ **Folder Select List**

- A list of backup files in the folder selected in the Folder Select text box is displayed.
- In the default setting, no information is displayed.
- In the Folder Select List, the following information is displayed.
  - Backup date : Date and time when the file is backed up.
  - iPU number : iPU number upon backup.
  - File name : Backup file name
- The File Select List is updated at the timing when the setting of the Folder Select text box is updated.
- The items are not selected when the initial state and the file select list are updated.
- Backup files with incorrect names are not displayed in the File Select List.

④ **[OK] button**

- The selected file is enabled, and the File Select dialog box is closed.
- If no item is selected in the File Select List, an error dialog box is displayed.



<Error dialog box>

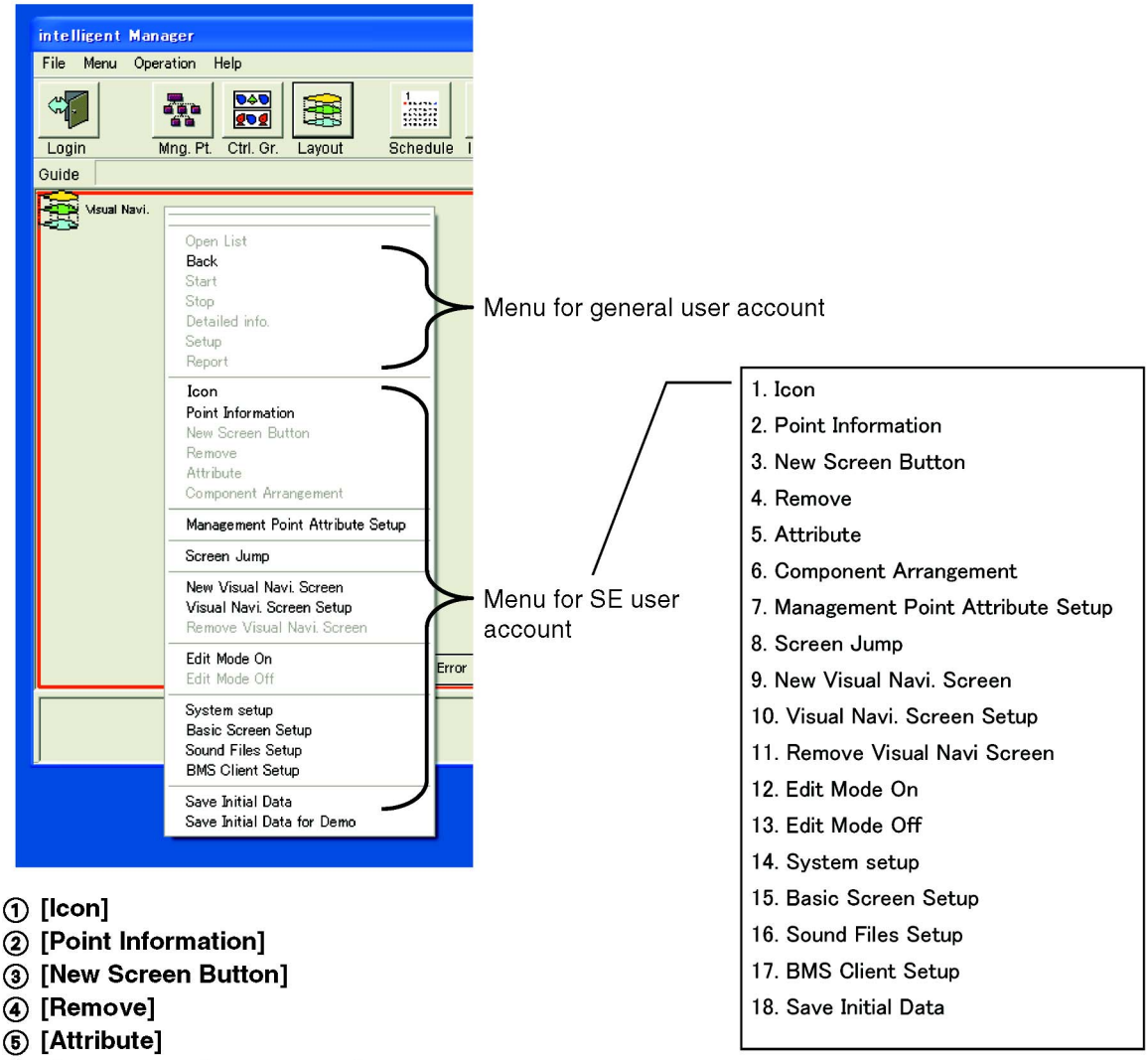
⑤ **[Cancel] button**

- The selected file is disabled, and the File Select dialog box is closed.

3-5. SE Function of Monitoring Board Software

3-5-1. Function Overview

You can activate the SE function from the SE mode menu.
The SE mode menu is displayed by clicking the right button of the mouse in the contents display area after logging in with the Service account.



① **[Icon]**
② **[Point Information]**
③ **[New Screen Button]**
④ **[Remove]**
⑤ **[Attribute]**
⑥ **[Component Arrangement]**

- Menu for Visual Navigation screen only. For more information, see **3-5-2. Visual Navigation Screen Creation Support Tool** (page 141).

⑦ **[Management Point Attribute Setup]**

- A dialog box to set the display specifications for management points is displayed.
  For more information, see **3-5-3. Management Point Data Setting Function** (page 152).

⑧ **[Screen Jump]**

- A dialog box to switch screens is displayed. For more information, see **3-5-4. Screen Switching Function** (page 157).

⑨ **[New Visual Navi. Screen]**
⑩ **[Visual Navi. Screen Setup]**
⑪ **[Remove Visual Navi Screen]**
⑫ **[Edit Mode On]**
⑬ **[Edit Mode Off]**

- Menu for Visual Navigation screen.
  For more information, see **3-5-2. Visual Navigation Screen Creation Support Tool** (page 141).

⑭ **[System setup]**
- A dialog box to set Watchdog and target power control is displayed.
  For more information, see **3-5-5. System Setup Function** (page 158).

⑮ **[Basic Screen Setup]**
- A dialog box to set the screen size and icon color of the monitoring board is displayed.
  For more information, see **3-5-6. Monitoring Screen Setup Function** (page 159).

⑯ **[Sound Files Setup]**
- A dialog box to set sound to be used as buzzer is displayed.
  For more information, see **3-5-7. Sound Files Setup Function** (page 160).

⑰ **[BMS Client Setup]**
- A dialog box to make the setting to activate applications specific to certain users from the monitoring. board is displayed.
  For more information, see **3-5-8. User Defined Application Setup Function** (page 161).

⑱ **[Save Initial Data]**
- The setting data is saved in the setup file (Config folder).

3-5-2. Visual Navigation Screen Creation Support Tool

- This is a tool (function) to create the Visual Navigation screen and has the following parts and functions to operate them.

Background screen file

A file of background of the layout. You can set a wmf-format or OLE-format file.
(The recommended OLE formats are Microsoft PowerPoint and Microsoft Visio)
The background screen must be a rectangle with 3 (horizontal) x 2 (vertical) ratio.
The Visual Navigation screen is configured by placing the following icons, supplemental information, and screen buttons on this background.

Icon part

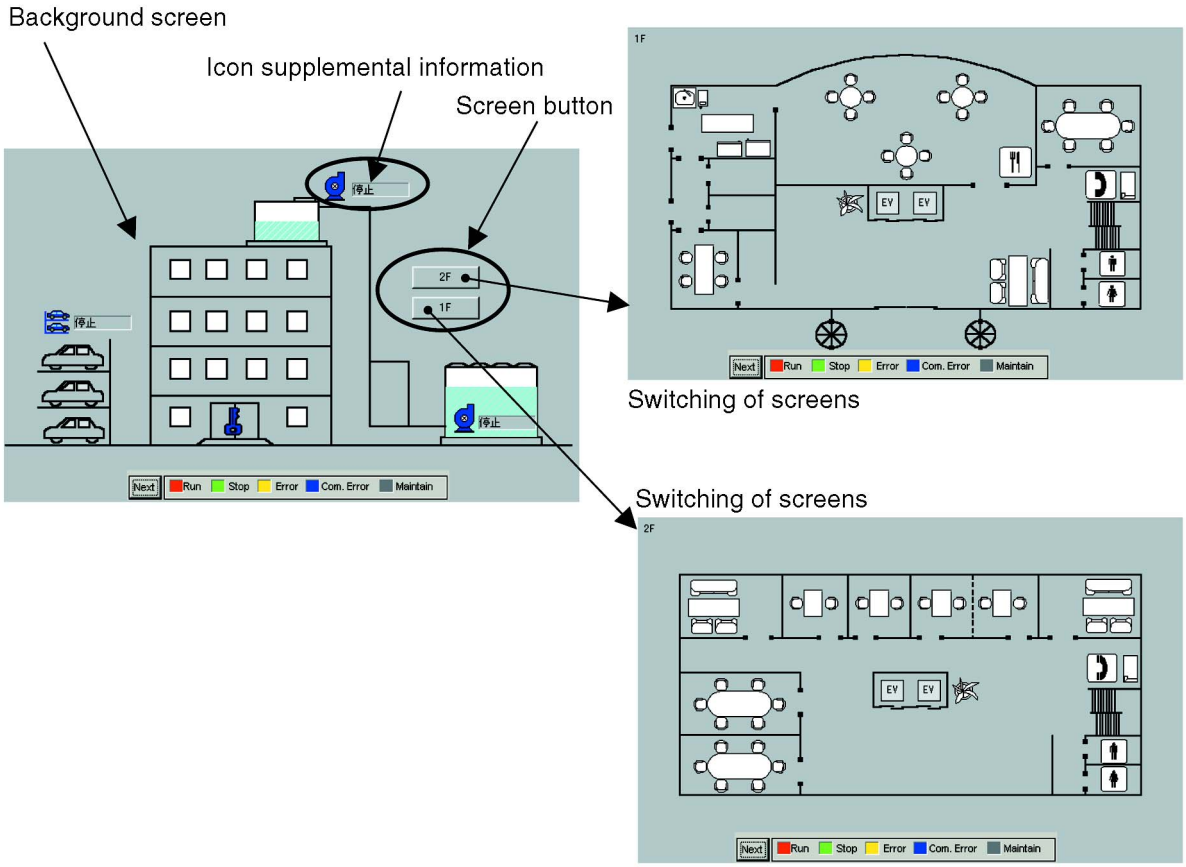
This part displays the state of management points and control groups.
The color of icons indicates the state.
You can select any icon to be assigned to each management point.

Supplemental information part

This part displays the information of a management point.
The information to be displayed varies according to the management point type. (For the content, see the monitoring)
The information of variable values, such as the Pi counter value, is automatically updated in association with change in values.

Window button

When multiple Visual Navigation screens are opened, a correlation diagram (hierarchy structure, etc.) of the Visual Navigation screens is created.
When you press a screen button, you can switch the screen to the one to which this button is assigned.
This function is expected to be used to display each floor of a multi-story building from the Visual Navigation screen.



- You can create a Visual Navigation screen from the SE mode menu.

The following explains the specifications for the menus in the SE mode menu related to the creation of a Visual Navigation screen.

① **[Icon]**
- The [Icon Information Settings] dialog box to affix an icon of a management point to the Visual Navigation screen is displayed.
- This menu is grayed out when the screen is not the Visual Navigation screen.

② **[Point Information]**
- The [Text Info Configuration] dialog box to affix supplemental information of a management point to the Visual Navigation screen is displayed.
- This menu is grayed out when the screen is not the Visual Navigation screen.

③ **[New Screen Button]**
- The [Screen Buttons] dialog box is displayed to affix the button (screen button) that jump other Visual Navigation screens to the Visual Navigation screen.
- This menu is grayed out in the following cases.
  When the screen is not the Visual Navigation screen.
  When there is only one Visual Navigation screen.

④ **[Remove]**
- This is used to delete the icons, supplemental information, and screen buttons on the Visual Navigation screen.
- Before deletion is executed, a confirmation dialog box is displayed.
- While the SE mode menu is displayed, if any icon, supplemental information, or screen button is not selected, this menu is grayed out.

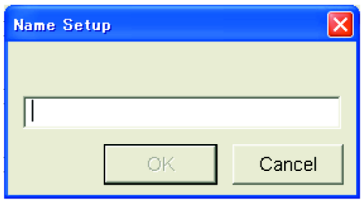
⑤ **[Attribute]**
- The dialog boxes ([Icon Information Settings], [Text Info Configuration], and [Screen Buttons]) to change the attributes of the icons, supplemental information, and screen buttons on the Visual Navigation screen are displayed.
- While the SE mode menu is displayed, if any icon, supplemental information, or screen button is not selected, this menu is grayed out.

⑥ **[Component Arrangement]**
- The [Component Arrangement] dialog box to adjust the display positions of the icons, supplemental information, and screen buttons on the Visual Navigation screen is displayed.
- This menu is grayed out in the following cases:
  Other than the Visual Navigation screen.
  When [Edit Mode] is OFF (⑬).
  While the SE mode menu is displayed, if any icon, supplemental information, or screen button is not selected.

[Limits on Visual Navigation screen]
- When you create a Visual Navigation screen, it is recommended that it is created within the following limits:
  - Number of Visual Navigation screens : Up to 100 screens
  - Number of icons in one screen : Up to 100 icons
  - Background screen file size : Up to 5 Mbytes per Visual Navigation screen, Up to 10 Mbyte of all Visual Navigation screens

⑨ **[New Visual Navi. Screen]**

- The [Name Setup] dialog box to create a new Visual Navigation screen is displayed.
- Specifications of the [Name Setup] dialog box
  In the default setting, no string is entered in the text field.
  If no string is entered in the text field, the OK button is grayed out.
  You can enter 1 to 32 characters in the text field.
  When you press the [OK] button, the [Name Setup] dialog box is closed, and a new Visual Navigation screen is created.
  When you press the [Cancel] button, input is discarded, and the [Name Setup] dialog box is closed.



<[Name Setup] dialog>

- When a new Visual Navigation screen is created, the contents display area is switched to the newly created screen.

⑩ **[Visual Navi. Screen Setup]**

- The [Screen Information] dialog box to set the attributes of the Visual Navigation screen is displayed.
- This menu is grayed out when the screen is not the Visual Navigation screen.

⑪ **[Remove Visual Navi. Screen]**

- The [Screen List] dialog box to delete a Visual Navigation screen is displayed.

⑫ **[Edit Mode On]**

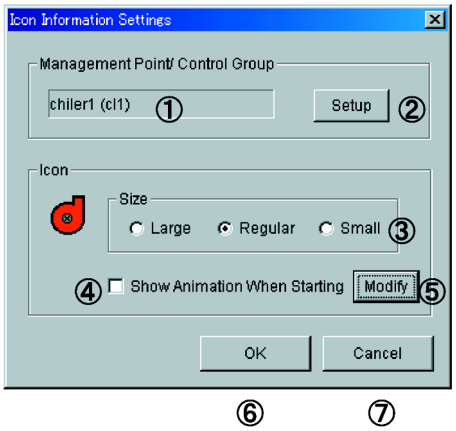
- The edit mode of the Visual Navigation screen is turned ON.
- When the edit mode is ON, you cannot jump screens.
  Change in the Visual Navigation screen by pressing the screen button.
- This menu is grayed out in the following cases:
  When the screen is not the Visual Navigation screen.
  When the edit mode has been already ON.
- When the edit mode is ON, you can move within the Visual Navigation screen by dragging an icon, supplemental information, or screen button with the mouse.
  The moving range is not limited.

⑬ **[Edit Mode Off]**

- The edit mode of the Visual Navigation screen is turned OFF.
- You cannot perform the following operations when the edit-mode is OFF:
  Movement within the Visual Navigation screen by dragging an icon, supplemental information, or screen button with the mouse
  Deletion of supplemental information and screen buttons using the [Remove] menu
  Setting of attributes using the [Attribute] menu.
- This menu is grayed out in the following cases:
  When the screen is not the Visual Navigation screen.
  When the edit mode has been already OFF.

[Icon Information Settings] dialog box

This is used to add an icon of a management point to the Visual Navigation screen or change the icon.



① **Name field**
- The name (abbreviated name) of the management point/control group is displayed.
- When the management point/control group is not set (when a new icon is added), None is displayed.

② **[Setup] button**
- When you press this button, the [Management Points Selection] dialog box to select a management point/control group is displayed.

③ **[Size] radio button**
- You can select the icon size.
- When the management point/control group is not set, this radio button is grayed out.

④ **[Show Animation When Starting] checkbox**
- When a check is put in this checkbox, animation of the icon is conducted during operation.
- This checkbox is grayed out in the following cases:
  When no management point/control group is set.
  When the icon does not support animation.

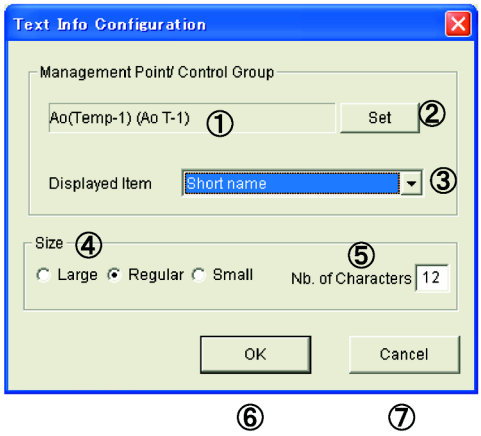
⑤ **[Modify] button**
- When you press this button, the [Icons List] dialog box to select an icon is displayed.
- When no management point/control group is set, this button is grayed out.

⑥ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.
- When no management point/control group is set, this button is grayed out.

⑦ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

[Text Info Configuration] dialog box

This is used to add supplemental information of a management point to the Visual Navigation screen or change the information.



① Name field

- The name (abbreviated name) of the management point/control group is displayed.
- When the management point/control group is not set (when supplemental information is newly added), None is displayed.

② [Set] button

- When you press this button, the [Management Points Selection] dialog box to select a management point/control group is displayed.

③ [Displayed Item] combo box

- This is used to select appropriate supplemental information according to the management point type/ control group.
- The default value when a management point/control group is selected using the [Set] button is "Name".
- When any management point/control group is set, this combo box is grayed out.
- The items that can be set to the supplemental information are shown in the table below:

Type	Name	Abbreviated name	Switching state	No. of switching	Operation time	Pulse counter	Pulse value	Analog value (Ai, Ao)	Suc Temp. (*1)	Setup temperature (*1)	Operation mode (*2)	Outdoor unit capacity
Displayed Item	Mng. point name	Short name	Switching state	Nb. of switching times	Operati on time	Pulse counter	Pulse value	Analog value	Suc Temp. or Temp.	Setup	Operation mode	Outdoor unit capacity
Internal Do	○	○	○	○	○	×	×	×	×	×	×	×
Internal Di	○	○	○	○	○	×	×	×	×	×	×	×
Internal Pi	○	○	×	×	×	○	○	×	×	×	×	×
Ai	○	○	×	×	×	×	×	○	×	×	×	×
D3Di	○	○	○	○	○	×	×	×	×	×	×	×
D3Dio	○	○	○	○	○	×	×	×	×	×	×	×
Indoor unit	○	○	○	○	○	×	×	×	○	○	○	×
Outdoor unit	○	○	×	×	×	×	×	×	×	×	×	○
Ao	○	○	×	×	×	×	×	○	×	×	×	×
AHU	○	○	○	○	○	×	×	×	×	○	○	×
HRV	○	○	○	○	○	×	×	×	×	×	○	×
D3Ai	○	○	×	×	×	×	×	○	×	×	—×—	×
Pseudo Ai	○	○	×	×	×	×	×	○	×	×	—×—	×
Chiller	○	○	○	○	○	×	×	×	×	○	○	×
Control group	○	×	×	×	×	×	×	×	×	×	×	×

*1: You cannot select supplemental information on the suction temperature and specified temperature during a communication error.

*2: The ventilation mode is displayed on HRV.

④ **[Size] radio button**
- You can select the font size for supplemental information.
- When the management point/control group is not set, this radio button is grayed out.

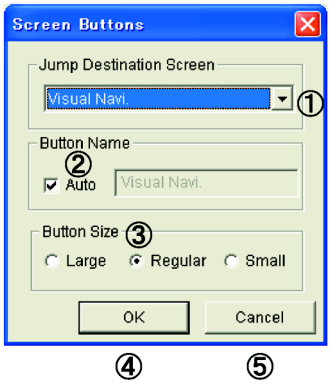
⑤ **[Nb. of Characters] text field**
- You can set the number of characters of supplemental information.
- The input range is 1 to 32.

⑥ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.
- When no management point/control group is set, this button is grayed out.

⑦ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

[Screen Buttons] dialog box

This is used to add a screen button to the Visual Navigation screen or change an existing button newly.



① **[Jump Destination Screen] combo box**
- You can select the Visual Navigation screen to which you want to jump.
- A list of other screens is displayed.
- In the default setting, the top screen is selected.

② **[Button Name] field**
- You can set the string to be displayed in a screen button.
- When a check is put in the [Auto] checkbox, the name of the Visual Navigation screen to which you jump is used as the string.
  When no check is put in the checkbox, the string of the text field is used as a string.
- The input range of the text field is 0 to 32 characters.
- When a check is put in the [Auto] checkbox, the text filed is grayed out.
- In the default setting, a check is put in the [Auto] checkbox.

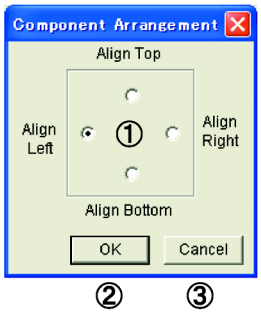
③ **[Button Size] radio button**
- You can select the screen button size.
- In the default setting, [Regular] is selected.

④ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑤ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

[Component Arrangement] dialog box

This is used to adjust the display position of icons, supplemental information, and screen buttons.

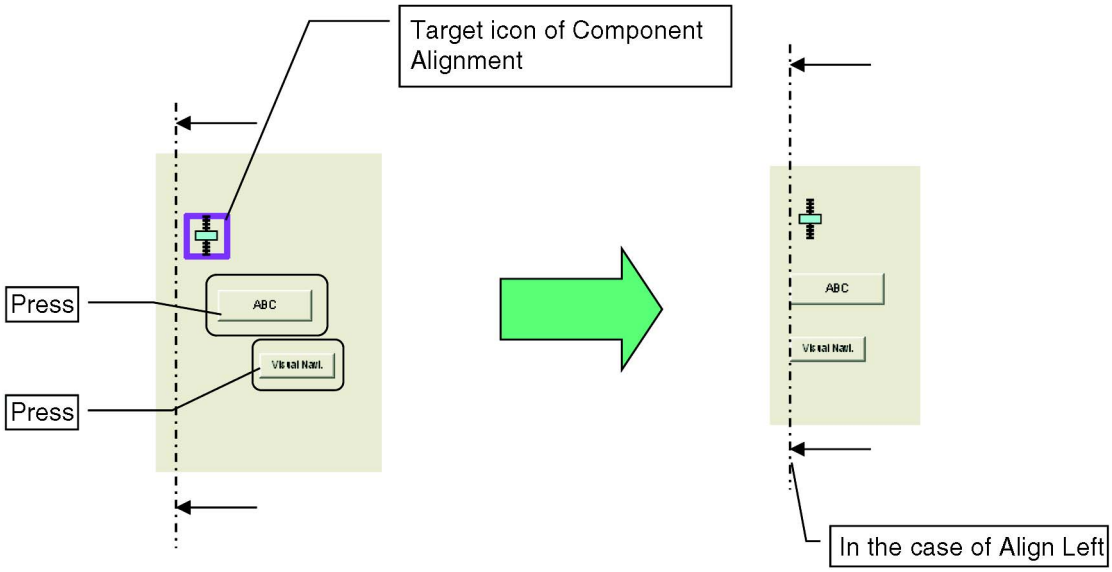


① **[Align] radio button**

- This button is used to determine the direction of positioning.
- In the default setting, [Align Left] is selected.

② **[OK] button**

- When you press this button, this window is closed.
- When you press any icon, supplemental information, or a screen button in the Visual Navigation screen, the display position of that component is adjusted to the position specified with the [Align] radio button. See the below.

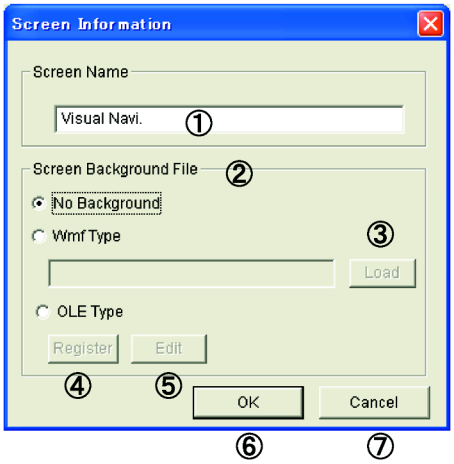


③ **[Cancel] button**

- When you press this button, the edit results are discarded, and this window is closed.

[Screen Information] dialog box

This is used to set the attributes of the Visual Navigation screen.



① **[Screen Name] text field**
- You can display and specify the screen name.
- The input range is 1 to 32 characters.

② **[Screen Background File] radio button**
- You can select the file type of the background screen.
- When you select [No Background], [Load], [Register], and [Edit] buttons are grayed out.
- When you select [Wmf Type], [Register] and [Edit] buttons are grayed out.
- When you select [OLE Type], [Load] button is grayed out. If no OLE-type file is registered, the [Edit] button is grayed out.

③ **[Wmf Type] field**
- When you press the [Load] button, a file dialog box to register a wmf file is displayed.
- The registered wmf file is displayed in the text field.

④ **[Register] button**
- A dialog box to register an OLE-type file is displayed.
- When the OLE type is not a figure, its icon only is displayed on the Visual Navigation screen.

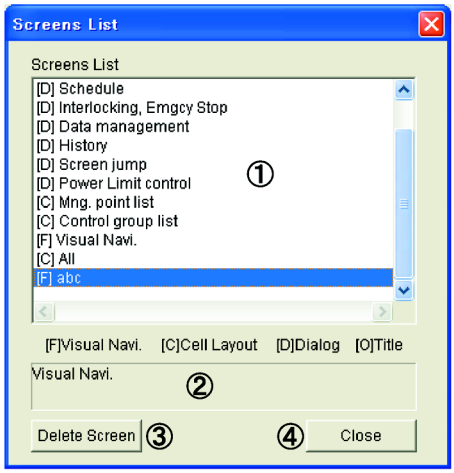
⑤ **[Edit] button**
- An application to edit a registered OLE-type file is opened.

⑥ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑦ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

[Screens List] dialog box

This is used to delete a Visual Navigation screen.



① **[Screens List] list**

- A list of screens is displayed.
- In the default setting, the currently activated screen is displayed.

② **Screen information display area**

- The information of the screen selected in the [Screens List] list is displayed.
- The details of the display information are shown in the table below:

Screen type	Display information (English)
[D]: Dialog screen	Dialog screen Standard screen [cannot be deleted]
[F]: Visual Navigation screen (root screen)	Visual Navi. Standard screen [cannot be deleted]
[F]: Visual Navigation screen (other screens)	Visual Navi.
[C]: Cell screen	Cell layout Standard screen [cannot be deleted]
[O]: Title screen	Title Standard screen [cannot be deleted]

③ **[Delete Screen] button**

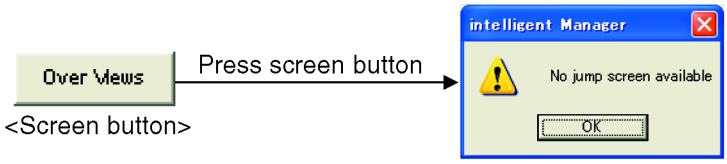
- When you press this button, the screen selected in the [Screens List] list is deleted after confirmation is made with a confirmation dialog box, and this window is closed.
- When the currently displayed screen is deleted, the screen goes to the title screen after this window is closed.
- When the screen selected in the [Screens List] list is not a Visual Navigation screen (excluding the default screen), this button is grayed out.

④ **[Close] button**

- This window is closed.

Operation of the screen button of the deleted screen

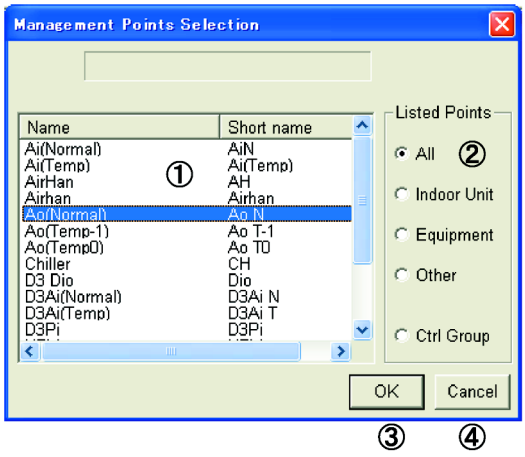
- After you delete a screen, if you press the screen button of that deleted screen, a warning dialog box is displayed.



<When the applicable screen has been deleted>

[Management Points Selection] dialog box

This is used to select a management point/control group.



① **Management point/control group list**

- A list of management points/control groups is displayed. You can select only one item.
- The items to be displayed are shown below:
  Name: name
  Short name: abbreviated name

② **[Listed Points] radio button**

- The management point/control group type to be displayed on the management point/control group list is determined in accordance with the selection of the radio button.
  The available selections are shown below:
  All: all management points
  Indoor Unit: indoor units, HVR, chillers, AHU
  Equipment: D III Di, D III Dio, Di, Do
  Other: Ao, D III Ai, Ai, Pi, outdoor units, Pseudo Ai
  Ctrl Group: control groups
- In the default setting, [All] is selected.

③ **[OK] button**

- When you press this button, the edit results are reflected to the system, and this window is closed.
- When no management point/control group is set in the management point/control group list, this button is grayed out.

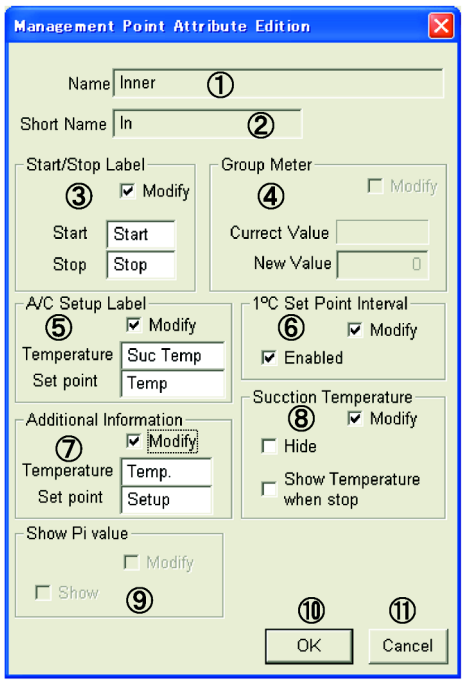
④ **[Cancel] button**

- When you press this button, the edit results are discarded, and this window is closed.

3-5-3. Management Point Data Setting Function

[Management Point Attribute Edition] dialog box

This is used to set the display specifications of management points.



① **[Name] text field**
- The name of the management point is displayed.

② **[Short Name] text field**
- The abbreviated name of the management point is displayed.

③ **[Start/Stop Label] field**
- The labels for [Start] and [Stop] are set.
- When a check is put in the [Modify] checkbox, the settings are reflected to the system.
- When a check is not put in the [Modify] checkbox, [Start] and [Stop] text fields are grayed out.
- The input range of the [Start] and [Stop] text fields is 0 to 8 characters.

④ **[Group Meter] field**
- The meter value (value applying the multiplication rate to the counter value) is set.
- When a check is put in the [Modify] checkbox, the value in the [New Value] text field is reflected to the system.
- The current value is displayed in the [Current Value] text field.
- When a check is not put in the [Modify] checkbox, the [New Value] text field is grayed out.
- The input range of the value is 0 to 999999999.

⑤ **[A/C Setup Label] field**
- The labels for [Set point] and [Suction Temperature] are set.
- When a check is put in the [Modify] checkbox, the settings are reflected to the system.
- When a check is not put in the [Modify] checkbox, [Temperature] and [Set point] text fields are grayed out.
- The input range of the [Temperature] and [Set point] text fields is 0 to 8 characters.

⑥ **[1°C Set Point Interval] field**
- The increment of the temperature setting is set.
- When a check is put in the [Modify] checkbox, the setting is reflected to the system.
- When a check is not put in the [Modify] checkbox, the [Enabled] checkbox is grayed out.
- The increment is 1°C when a check is put in the [Enabled] checkbox, and 0.1°C when a check is not put.
- When the Fahrenheit setting is specified, this field is not displayed.

⑦ **[Additional Information] field**
- The label when the temperature display (default: Temp.) and specified temperature display (default: Setup) are done with the supplemental information of the layout and cell screens is set.
- When a check is put in the [Modify] checkbox, the setting is reflected to the system.
- When a check is not put in the [Modify] checkbox, [Temperature] and [Set point] text fields are grayed out.
- The input range of the [Temperature] and [Set point] text fields is 0 to 6 characters.

⑧ **[Suction Temperature] field**
- The setting of the suction temperature display in the supplemental information of the layout and cell screens is made.
- When display OFF is selected, the supplemental information field is not displayed in the cell screen. In the Visual Navigation screen, [****] is displayed.
- When a check is put in the [Modify] checkbox, the setting is reflected to the system.
- When a check is not put in the [Modify] checkbox, [Hide] and [Show Temperature when stop] checkbox are grayed out.
- When a check is put in the [Hide] checkbox, the suction temperature is not displayed.
- When a check is not put in the [Hide] checkbox, the [Show Temperature when stop] checkbox is grayed out.
- When a check is put in the [Show Temperature when stop] checkbox, the suction temperature is displayed even when the system is stopped.

⑨ **[Show Pi value] field**
- The setting whether or not to display the meter (Pi) value in the supplemental information of the layout and cell screens is made.
- When display OFF is selected, the supplemental information field is not displayed in the cell screen. In the Visual Navigation screen, [****] is displayed.
- When a check is put in the [Modify] checkbox, the setting is reflected to the system.
- When a check is not put in the [Modify] checkbox, the [Show] checkbox is grayed out.
- When a check is put in the [Show] checkbox, the meter (Pi) value is displayed.

⑩ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑪ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

The settable items by management point type are shown in the table below:

Management point type	③ Start/Stop Label	④ Group Meter	⑤ A/C Setup Label	⑥ 1°C Set Point Interval *1	⑦ Additional Information	⑧ Sucction Temperature	⑨ Show Pi value
Internal Do	○	×	×	×	×	×	×
Internal Di	○	×	×	×	×	×	×
Internal Pi	×	○	×	×	×	×	○
Ai	×	×	×	×	×	×	×
D3Di	○	×	×	×	×	×	×
D3Dio	○	×	×	×	×	×	×
Indoor unit	○	×	○	○	○	○	×
Outdoor unit	×	×	×	×	×	×	×
Ao	×	×	×	×	×	×	×
AHU	○	×	Δ*1	○	Δ*1	×	×
HRV	○	×	×	×	×	×	×
D3Ai	×	×	×	×	×	×	×
Pseudo Ai	×	×	×	×	×	×	×
Chiller	○	×	Δ*1	○	Δ*1	×	×

○ : Displayed, ×: Grayed out, Δ*1: [Specified temperature display] only can be set.
*1 : When the Fahrenheit setting is selected, these items are not displayed.

[Analog management point setting] dialog box

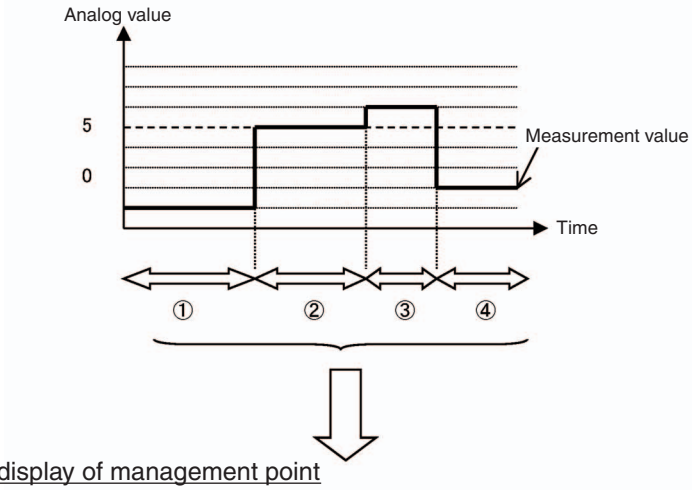
- In the analog management point setting dialog box, you can set the string to be displayed in a cell of an analog management point in the monitoring board.
  The string is displayed in the area where analog values are displayed.
- The string is registered together with the display conditions (management points > constant), and it will be displayed in the supplemental information in the cell when the conditions are satisfied.
- You can register up to 8 display settings (combination of conditions and string), and the string of the setting which is satisfied first is displayed in the order of registration.
- When no condition is satisfied, an analog value is displayed as it is.
- This function can be also used when you monitor the operation mode of the CHESBAC with the Pseudo Ai and when you display the string of the operation mode in the screen.
  The setting in this case is shown below:

Setting of Pseudo Ai management point

No.	Condition	String
1	< 1.1	Heating
2	< 2.1	Cooling
3	< 4.1	Cooling Heat Recovery
4	< 5.1	Heating Heat Recovery
5	< 6.1	Auto Heat Recovery

Relation between CHESBAC operation mode and numeric values
0 :
1 : Heating
2 : Cooling
3 :
4 : Heat recovery when priority is given to cooling
5 : Heat recovery when priority is given to heating
6 : Auto heat recovery
7～ :

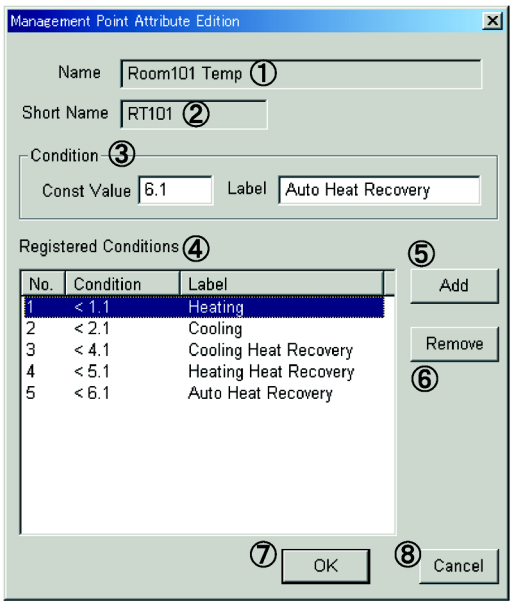
Change in management point value



Cell display of management point

①	②	③	④
Display setting No. 1 satisfied	Display setting No. 4 satisfied	Display setting No. 5 satisfied	Display setting No. 2 satisfied
OpeMode Chessbac Nb.1 Heating DMODE_C1	OpeMode Chessbac Nb.1 Heating Heat Recovery DMODE_C1	OpeMode Chessbac Nb.1 Auto Heat Recovery DMODE_C1	OpeMode Chessbac Nb.1 Cooling DMODE_C1

- The screen image of the analog management point setting dialog box is shown below.



① **[Name] text field**
- The name of the management point is displayed.

② **[Short Name] text field**
- The abbreviated name of the management point is displayed.

③ **[Condition] field**
- You can input the constant value (Const Value) and label (Label) of the display condition.
- The input range of the constant value varies according to the analog type of the specified management point as shown below.

Analog type		Input range
Temperature	Celsius	-512~512
	Fahrenheit	-890~954
General		-9999.99~9999.99

- The input range of the label is 0 to 32 characters.
- In the default setting, the constant value is 0, and the label is blank.

④ **[Registered Conditions] list**
- A list of the registered display settings is displayed.
- The items in the list are sorted in the ascending order of constant values.
- In the default setting, no setting is selected.

⑤ **[Add] button**
- You can add the display setting entered in the [Condition] field.
- If the constant value in the [Condition] field is out of the input range, blank, or the number of registered display settings reached the upper limit, this button is grayed out.

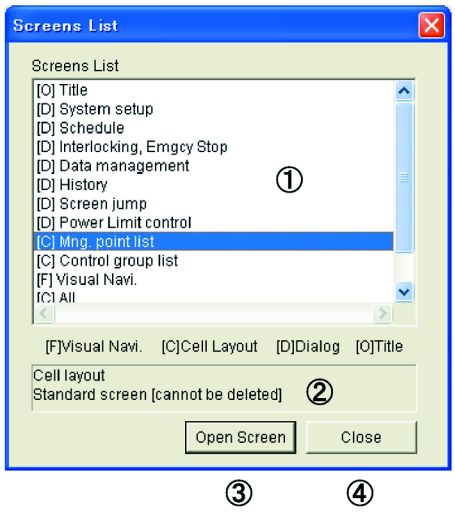
⑥ **[Remove] button**
- You can delete the selected display setting from the list.
- When no display setting is selected in the list, this button is grayed out.

⑦ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑧ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

3-5-4. Screen Switching Function

This function is used to switch screens.



① **[Screens List] list**

- A list of screens is displayed.
- In the default setting, the currently activated screen is selected.

② **Screen information display area**

- The information of the screen selected in the [Screens List] list is displayed.
- The details of the display information is same as the screen information display area of the [Screens List] dialog box.

③ **[Open Screen] button**

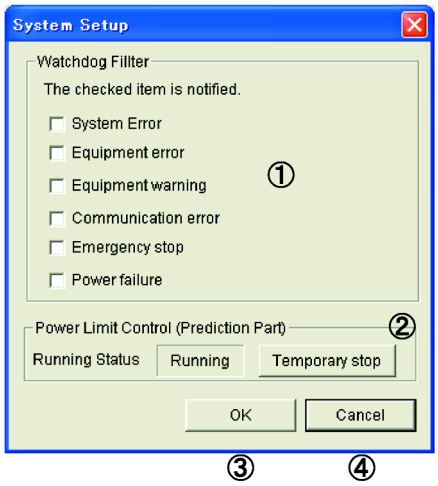
- When you press this button, the screen selected in the [Screens List] list is opened, and this window is closed.

④ **[Close] button**

- This window is closed.

3-5-5. System Setup Function

This function is used to set Watchdog and target power control.

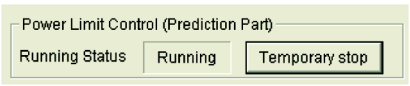


① **[Watchdog Filter] checkbox**

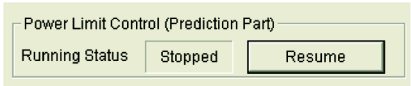
- When a check is put in a checkbox, the specified error information type is notified to the Watchdog Notifier.
- In the default setting, a check is not put any checkbox at all.
- If “To reward warning as Error level” (P124) is enabled, then when the alarm (Equipment warning) occurs at the A/C unit, it is not sent as an alarm notification (Equipment warning) instead, it sent as an error notification (Equipment error).

② **[Power Limit Control (Prediction Part)] field**

- When the [Temporary stop] button is pressed, the control unit of the target power control is temporarily stopped, and the label of the button is changed to [Resume].
- When the [Resume] button is pressed, the control unit of the target power control is resumed, and the label of the button is changed to [Temporary stop].
- In the default setting, "Running" ([Temporary stop] button) is selected.



<When control unit running>



<When control unit stopped>

③ **[OK] button**

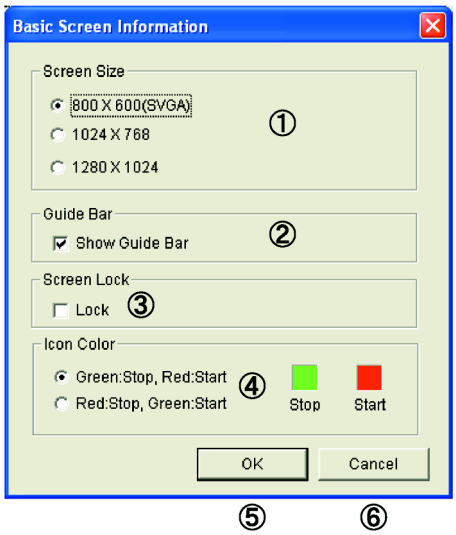
- When you press this button, the edit results are reflected to the system, and this window is closed.

④ **[Cancel] button**

- When you press this button, the edit results are discarded, and this window is closed.

3-5-6. Monitoring Screen Setup Function

This function is used to make the settings related to the monitoring screen.



① **[Screen Size] radio button**

- You can set the screen size of the monitoring screen.
- The default setting is 800 x 600.

② **[Guide Bar] checkbox**

- When a check is put in this checkbox, the guide display area is displayed.
- In the default setting, a check is put in this checkbox. (The guide display area is displayed.)

③ **[Screen Lock] field**

- When a check is put in the [Lock] checkbox, the monitoring board is fixed to the currently displayed coordinate position.
  (Consequently, you cannot move the monitoring board screen.)
- In the default setting, a check is put in this checkbox. (The monitoring board screen is not fixed.)

④ **[Icon Color] button**

- You can select the icon colors for operation and stop.
- The default setting is "Green: Stop, Red: Start".

⑤ **[OK] button**

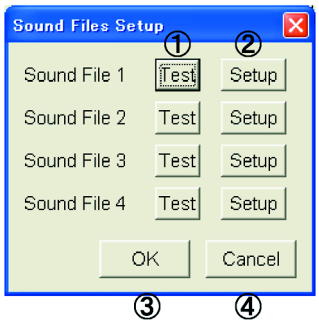
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑥ **[Cancel] button**

- When you press this button, the edit results are discarded, and this window is closed.

3-5-7. Sound File Setup Function

This function is used to make the setting of the sound to be used as a buzzer.
The screen image is shown below. Sound File 1 to File 4 correspond to Buzzer 1 to Buzzer 4.



① **[Test] button**
- When you press this button, the selected sound file is sounded as a test.

② **[Setup] button**
- When you press this button, a file dialog box to set the sound file (sound1.wav ~ sound 4.wav in the Sound folder) is opened.

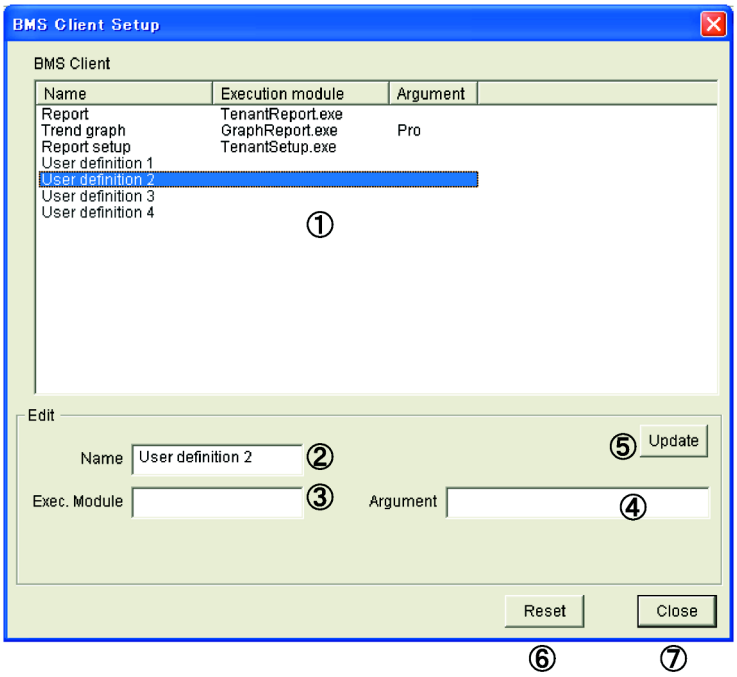
③ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

④ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

3-5-8. User Defined Application Setup Function

- A dialog box to make the setting to activate applications specific to certain users from the monitoring board is displayed.
- An application is activated in the following format.
  **.exe IP address of data base Specified date and time (time_t) Argument

The screen image is shown below.



① **Application list**

- A list of applications is displayed.
- [Report], [Trend graph] and [Report setup] show the applications defined by the intelligent-Manager, and User definition 1 to 4 show the user defined applications.
- The display items are shown below:
  Name: A name of the application
  Execution module: An execution file name of the application
  Argument: An argument to be passed to the application
- In the default setting, nothing is selected.

② **[Name] text field**

- You can display and specify the name of the application selected in the application list.
- The input range is 0 to 24 characters.

③ **[Exec. Module] text field**

- You can display and specify the execution file name of the application selected in the application list.
- The input range is 0 to 64 characters.

④ **[Argument] text field**

- You can display and specify the argument of the application selected in the application list.
- The input range is 0 to 64 characters.

⑤ **[Update] button**
- When you press this button, the name, execution file, and argument are passed on to the application selected in the application list.
- When no application is selected in the application list, this button is grayed out.

⑥ **[OK] button**
- When you press this button, the edit results are reflected to the system, and this window is closed.

⑦ **[Cancel] button**
- When you press this button, the edit results are discarded, and this window is closed.

3-6. Simplified Database Maintenance Tool

3-6-1. Function Overview

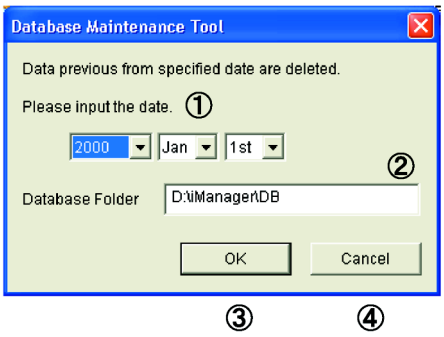
- The simplified database maintenance tool (EzDBMaintenance.exe) is a tool to reduce the database size by deleting old data in the intelligent-Manager database.
- Data with the data prior to the specified data are deleted from the database.
- The data deletion target databases among those in the DB folder are listed below:

Accumulated data	: Sekisan.db
Pulse data	: Puls.db
Analog trend data	: Analog.db
Air conditioner power hourly report	: PowerACHour.db
Demand data	: Demand.db
Demand prediction data	: DmdPredict.db

- Since this tool does not back up the databases, the deleted data are completely eliminated from the disk. For security reasons, you need to back up the database files before using this tool.

3-6-2. GUI Specifications

Main window

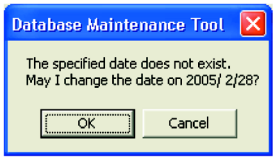


① **Date field**
- You can specify the date.
- The settable range is from Jan 1, 2005 to Dec 31, 2037.
- The default setting is Jan. 1, 2000.

② **[Database Folder] text field**
- You can specify the folder of the database to be deleted.
- The default setting is the DB folder under the intelligent-Manager system folder in which this tool is installed.

③ **[OK] button**
- When you press this button, a confirmation window is displayed.
- If a nonexistent date is entered in the date field, a confirmation window is displayed, and the setting in the date field is changed to an existing date.

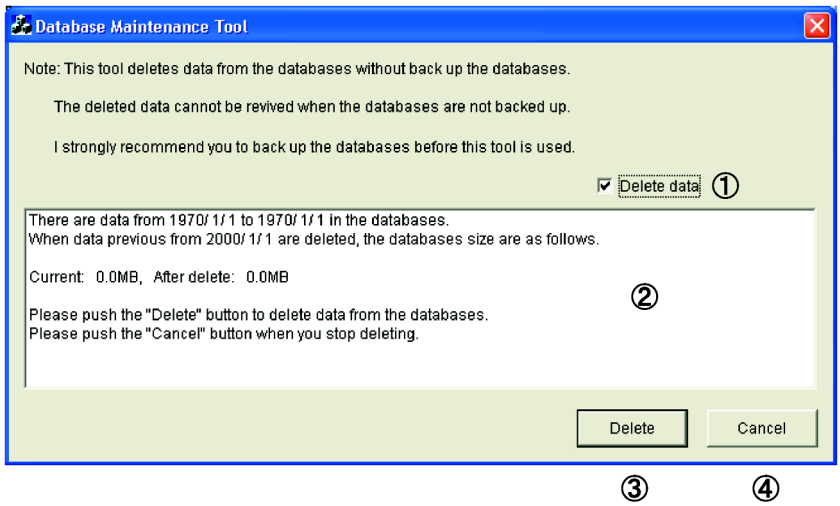
④ **[Cancel] button**
- When you press this button, this window is closed.



<When a nonexistent date is entered>

Confirmation window

This window is used to confirm deletion of a database.



① **[Delete data] checkbox**

- You are prompted to confirm deletion of the database.
  If a check is not put in this checkbox, you cannot delete databases.
- In the default setting, a check is not put in this checkbox.

② **Deletion information text field**

- The storage period of the data in the database, and how much the database size will be reduced if you delete the data prior to the specified data are displayed in MB.

③ **[Delete] button**

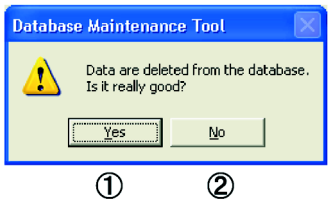
- When you press this button, a final confirmation dialog box is displayed.
- When a check is not put in the [Delete Data] checkbox, this button is grayed out.

④ **[Cancel] button**

- When you press this button, the screen returns to the main window.

Final confirmation dialog box

This dialog box is used to make final confirmation of database deletion.

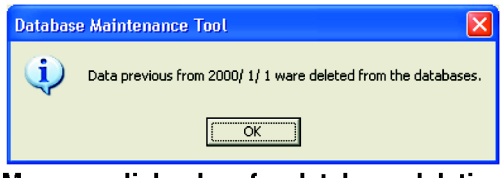


① **[Yes] button**

- When you press this button, the data with the date prior to the specified date are deleted from the database.
- After deletion, the result is displayed in the message dialog box.

② **[No] button**

- When you press this button, the screen returns to the confirmation window.



<Message dialog box for database deletion>

Appendix A. Management Point Engineering Item List

A list of management point engineering items is displayed in the table below.
You can make the settings using the initial data tool.

Category	No.	Item (English)	Value	iManager	BIPS	Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Indoor unit	Fan coil (indoor unit)	Outdoor unit	D3Ai	P Ai	HRV	AHU	Chiller	Remarks
Common	1	Management point ID	Positive integer	○									○								
	2	Name	Character string(24word)	○									○								
	3	Short name	Character string(8word)	○									○								
	4	Maker name	Character string(24word)	○									○								
	5	Equipment name	Character string(24word)	○									○								
	6	Model number	Character string(24word)	○									○								
	7	Install Place	Character string(24word)	○									○								
	8	Install Time	Character string (YYYYMMDD)	○									○								
	9	Life Time	Year (0: Not monitored)	○									○								
	10	Power proportional distribution	OFF [Def]/ON	○	○								○	○							
	11	Hides from a database	Yes/No [Def]	○	○	○	○	○	○		○	○	○	○		○	○	○	○	○	
	12	Prohibition of manual operation	Allowed/Prohibited [Def]	○	○	○				○		○	○	○				○	○	○	
	13	iPU number	int	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
	14	Port number	int	○	○	○	○	○	○	○	○	○	○	○	○	○		○			
	15	Upper address (group)	int	○	○						○	○	○	○		○		○			
	16	Lower address (unit)	int	○	○						○	○	○	○		○		○			
	17	Icon ID	int	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Stop/ resume power	18	Operation in the power supply state	Only when power is supplied [Def]/Always available (Power supply is not stopped)	○	○	○					○	○	○	○	○			○	○	○	
	19	Resume mode	Return to state before power failure/ Follow schedule/ Run/Resume/No operation [Def]	○	○							○	○	○				○	○	○	
Monitoring	20	Comm.Err.Monitor.Level	Monitoring only [Def]/ Monitoring + history	○	○																Monitoring only
	21	Equipt. Err.Monitor.Level	Monitoring only / Monitoring + history [Def]	○	○																Monitoring + history
	22	Time limit monitor	Not monitored [Def]/ Monitoring only/Monitoring + history	○	○																Not monitored
	23	Time limit	Second	○	○	○	○				○	○	○	○				○	○	○	
Accumulation	24	Time to warn to operation time	Time (0 [Def]: Not monitored)	○	○	○	○				○	○	○	○				○	○	○	
	25	Operation time	Time	○	○	○	○				○	○	○	○				○	○	○	
	26	Nub. to warn to start / stop times	Number of times (0 [Def]: Not monitored)	○	○	○	○				○	○	○	○				○	○	○	
	27	Start / Stop times	Number of times	○	○	○	○				○	○	○	○				○	○	○	
Dio	28	Use mode(Do)	Normal [Def]/Shutdown	○	○	○															
	29	Use mode(Internal Di)	Normal [Def]/Power stoppage (UPS/private power generation/main power supply)/abnormal contact	○	○		○														
	30	Contact Point Type(Di)	Contact B/Contact A	○	○		○														
Pi	31	Pulse value	int	○	○			○													
	32	Pulse constant	int	○	○			○													
	33	Power ratio	float	○	○			○													
	34	Unit string	Character string (8word)	○	○			○													
	35	Pulse width	10msec[Def] or 00msec	○	○			○													
Ai / Ao	36	Unit installation place	Character string (24word)	○	○				○	○						○	○				
	37	Unit string	Character string (8word)	○	○				○	○						○	○				
	38	No-reaction zone	float	○	○				○							○					
	39	Upper limit	float	○	○				○							○	○				
	40	Lower limit	float	○	○				○							○	○				
	41	Level of upper limit error monitoring	Not monitored [Def]/ Monitoring only/Monitoring + history	○	○				○							○	○				
	42	Level of lower limit error monitoring	Not monitored [Def]/ Monitoring only/Monitoring + history	○	○				○							○	○				
	43	Type	Compo-BUS [Def]/BA-BUS	○	○				○												Compo-Bus fixed
	44	Sensor type	Temperature (thermistor)/ general (0 - 5 V)	○	○											○					
	45		Temperature/others						○	○						○					Added to support Fahrenheit

Category	No.	Item (English)	Value	iManager	BIPS	Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Indoor unit	Fan coil (indoor unit)	Outdoor unit	D3Ai	P Ai	HRV	AHU	Chiller	Remarks
Ai / Ao	46	P Ai measurement target management point ID	int	○	○												○				
	47	P Ai measurement point	Suction temperature	○	○												○				
	48	Target point type	Not available/temperature	○	○												○				
	49	Save to iPU	Yes [Def]/No	○	○				○							○	○				
	50	Save to rotation DB on PC	Yes/No [Def]	○	○				○							○	○				
	51	Minimum value	float	○	○				○							○					
	52	Maximum value	float	○	○				○							○					
	53	Minimum terminal value	float Def:0		○					○											
	54	Maximum terminal value	float Def:100		○					○											
	55	Minimum instruction value	float Def:0		○					○											Added by Ao support
	56	Maximum instruction value	float Def:0		○					○											Added by Ao support
	57	Instruction accuracy (10 exponent)	-2~3(Def:-1)		○					○											Added by Ao support
Air conditioner	58	Restriction of remote-control:Permission of Start/stop	Available [Def]/Not available	○	○								○	○				○	○	○	
	59	Restriction of remote-control: Permission of only stop	Available [Def]/Not available	○	○								○	○				○	○	○	
	60	Restriction of remote-control: Permission of operation mode	Available [Def]/Not available	○	○								○	○					○	○	
	61	Restriction of remote-control: Permission of set point	Available [Def]/Not available	○	○								○	○					○	○	
	62	The child unit of a remote control group	Parent [Def]/Child	○	○								○	○				○	○	○	
	63	Valid auto operation	Available [Def]/Not available	○	○								○	○					○	○	
	64	Valid set point	Available [Def]/Not available	○	○								○	○					○	○	
	65	Monitor of alarm/warning	Yes [Def]/No	○	○								○	○				○	○	○	
	66	Heating mode optimization	Yes [Def]/No	○	○								○	○							
	67	Volume of wind	Yes/No [Def]	○	○								○	○							
	68	Wind direction	Yes [Def]/No	○	○								○	○							
Specified temperature limit	69	Cooling temperature limit	Yes [Def]/No	○	○								○	○							
	70	Cooling lower limit	int	○	○								○	○							
	71	Cooling upper limit	int	○	○								○	○							
	72	Heating temperature limit	Yes [Def]/No	○	○								○	○							
	73	Heating lower limit	int	○	○								○	○							
	74	Heating upper limit	int	○	○								○	○							
Outdoor unit	75	Demand address	Invalid [Def]/0 - 31	○	○										○						
AHU	76	Filter Sign	Different pressure/time accumulation [Def]	○	○														○		
	77	Supply Temp. Monitor	Yes [Def]/No	○	○														○		
	78	Return Temp. Monitor	Yes [Def]/No	○	○														○		
	79	Return Humidity Monitor	Yes [Def]/No	○	○														○		
	80	Outdoor Temp. Monitor	Yes [Def]/No	○	○														○		
	81	Outdoor Humidity Monitor	Yes [Def]/No	○	○														○		
	82	Set Humidity	Yes [Def]/No	○	○														○		
	83	Upper Limit Value	int	○	○														○		When "Specified humidity monitoring control" is enabled
	84	Lower Limit Value	int	○	○														○		When "Specified humidity monitoring control" is enabled
Chiller	85	Water Temperature Monitor(Input)	Yes [Def]/No	○	○															○	
	86	Water Temperature Monitor(Output)	Yes [Def]/No	○	○															○	
HRV	87	FFU Mode	Yes [Def]/No	○	○													○			
	88	Ventilation Mode	Yes [Def]/No	○														○			
	89	Freshen Up	Yes [Def]/No	○														○			When "ventilation mode" is enabled
	90	Air Volume Auto	Yes [Def]/No	○														○			When "ventilation mode" is enabled

Appendix B. Initial Data Tool CSV Format

- The CSV format for the initial data tool is shown in the table below.
- The numeric value of each item refers to the row number. (The first one is fixed to the data type identifier.) Blank items indicate that there are no relevant data.

Category	Keyword	Contents	Value	Management point														Control group	DIIIPort
				Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Air conditioner	Outdoor unit	D3Ai	P Ai	HRV	AHU	Chiller		
Common	—	Header type identifier	—	DO-H	DI-H	PI-H	AI-H	AO-H	D3DI-H	DIO-H	IN-H	OUT-H	D3AI-H	PAI-H	HRV-H	AHU-H	CHIL-H	GRP-H	D3PORT-H
	—	Data type identifier	—	DO-D	DI-D	PI-D	AI-D	AO-D	D3DI-D	DIO-D	IN-D	OUT-D	D3AI-D	PAI-D	HRV-D	AHU-D	CHIL-D	GRP-D	D3PORT-D
	POINTID	Management point ID	1~1,000,000	2															
	GRPID	Control group ID	1~1,000,000															2	
	NAME	Name	Character string(ASCII 24byte)	3														3	
	SNAME	Abbreviated name	Character string(ASCII 8byte)	4															
	MAKER	Maker name	Character string(ASCII 24byte)	5															
	EQNAME	Equipment name	Character string(ASCII 24byte)	6															
	EQMODEL	Equipment No.	Character string(ASCII 24byte)	7															
	IPLACE	Installation location	Character string(ASCII 24byte)	8															
	IDATE	Installation date	Character string (YYYYMMDD)	9															
	LIFETIME	Durable years	0~99(0: Not monitored)	10															
	HIDEDB	Exclusion from data management	0: Not excluded 1: Excluded	11	11	11	11		11	11	11		11	11	11	11	11		
	PROHIBITOP	Prohibition of manual operation	0: Not prohibited 1: Prohibited	12				11		12	12				12	12	12		
	PPD	Application of proportional charge	0: Not applied 1: Applied								13					13	13		
	IPUNO	iPU No.	1~4	13	12	12	12	12	12	13	14	11	12	12	13	13	13		2
	PORTNO	Port No.	1~20	14	13	13	13	13	13	14	15	12	13		14	14	14		3
	ADDRESS1	Upper address (group)	1~8						14	15	16		14		15	15	15		
	ADDRESS2	Lower address (unit)	0~15						15	16	17		15		16	16	16		
	ICON	Icon ID	0~999	15	14	14	14	14	16	17	18	13	16	13	17	17	17	4	
Monitoring	COMMONLV	Communication error monitoring level	1: Monitoring, 2: Monitoring + History																
	EQMONLV	Equipment error monitoring level	1: Monitoring, 2: Monitoring + History																
	LMTIME	Continuous running time limit	0~9999999(sec)																
	LMMONLV	Continuous running time limit monitoring level	0: None, 1: Monitoring, 2: Monitoring + History																
Accumulation	WOPETIME	Accumulated running time warning value	1 to 500000 (hours) (0: Not monitored)	16	15				17	18	19				18	18	18		
	OPETIMES	Accumulated running time	0 to 1800000000 (sec)	17	16				18	19	20				19	19	19		
	WSSTIMES	Accumulated running/ stop times warning value	1 to 999999 (hours) (0: Not monitored)	18	17				19	20	21				20	20	20		
	SSTIMES	Accumulated running/ stop times	1 to 999999 (times)	19	18				20	21	22				21	21	21		
Dio	DOMODE	Do operation mode	0: Normal, 1: Shutdown signal	20															
	OPPOWERST	Instruction acceptable power supply state	0: Only power is supplied 2: Always available	21															
	DIMODE	Di operation mode	0: Normal, 1: Power stoppage, 3: Abnormal contact		19														
	CPTYPE	Contact type	0: Contact B, 1: Contact A		20														
Pi	PVAL	Pulse value	0~999999999			15													
	PCONST	Pulse constant	1~999999			16													
	PRATIO	Multiplication rate	0.01~99999.99			17													
	UNITSTR	Unit string	Character string (ASCII 8byte)			18													
	PWIDTH	Pulse width	10 or 100																

Category	Keyword	Contents	Value	Management point														Control group	DIIIPort
				Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Air conditioner	Outdoor unit	D3Ai	P Ai	HRV	AHU	Chiller		
Ai/Ao	UNITPLACE	Unit installation location	Character string (ASCII 24byte)																
	UNITSTR	Unit string	Character string (ASCII 8byte)				15	15					17	14					
	TARGETID	Measurement target management point	ID											15					
	TARGETTYPE	Measurement item	0: Invalid, 1: Suction temperature											16					
	ANALOGTYPE	Analog type	0: Normal, 1: Temperature				16	16					18						
	MARGIN	No reaction zone	0~9999.99				17						19	17					
	UPPERVAL	Upper limit	-9999.99~9999.99				18						20	18					
	LOWERVAL	Lower limit	-9999.99~9999.99				19						21	19					
	ULMMONLV	Upper limit error monitoring level	0: None, 1: Monitoring, 2: Monitoring + History				20						22	20					
	LLMMONLV	Lower limit error monitoring level	0: None, 1: Monitoring, 2: Monitoring + History				21						23	21					
	BUSTYPE	Type	0:Compo-BUS, 1:BA-BUS																
	SENSOR	Sensor type	0: Temperature, 1: General										24						
	SAVEIPU	Save in iPU	0: Not save 1: Save				22						25	22					
	SAVEPC	Save in PC	0: Not save 1: Save				23						26	23					
	MINVAL	Minimum value	-9999.99~9999.99				24						27						
	MAXVAL	Maximum value	-9999.99~9999.99				25						28						
	TERMMINVAL	Minimum terminal value	float Def:0					17											
	TERMMAXVAL	Maximum terminal value	float Def:100					18											
	OPMINVAL	Minimum instruction value	float Def:0					19											
	OPMAXVAL	Maximum instruction value	float Def:0					20											
	OPUNIT	Instruction accuracy (10 exponent)	-2~3(Def:-1)					21											
Air conditioner	PERMITSS	Remote control operation and stop	0: Prohibited, 1: Allowed								23				22	23	23		
	PERMITOS	Remote control stop only	0: Prohibited, 1: Allowed								24				23	24	24		
	PERMITOM	Switch of remote control operation modes	0: Prohibited, 1: Allowed								25					25	25		
	PERMITSP	Remote control temperature setting	0: Prohibited, 1: Allowed								26					26	26		
	RCMODE	Remote control group	0: Parent, 1: Child																
	AUTOOPE	Auto operation mode	0: Invalid, 1. Valid								27					27	27		
	SETPOINT	Temperature setting	0: Invalid, 1. Valid								28					28	28		
	ALARMMON	D3 warning/alarm monitoring	0: Invalid, 1. Valid								29				24	29	29		
	HEATOPTIMIZ	Heating optimization	0: Invalid, 1. Valid								30								
	WNDVOL	Wind volume monitoring/control	0: None, 1: 2 step, 2: 3 step								31								
	WNDDIRECT	Wind direction monitoring/control	0: Invalid, 1. Valid								32								
	COOLLIMIT	Specified cooling temperature limit	0: Invalid, 1. Valid								33								
	CLOWLIMIT	Lower cooling limit	-127~127								34								
	CUPLIMIT	Upper cooling limit	-127~127								35								
	HEATLIMIT	Specified heating temperature limit	0: Invalid, 1. Valid								36								
	HLOWLIMIT	Lower heating limit	-127~127								37								
	HUPLIMIT	Upper heating limit	-127~127								38								

Category	Keyword	Contents	Value	Management point														Control group	DIII Port
				Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Air conditioner	Outdoor unit	D3Ai	P Ai	HRV	AHU	Chiller		
HRV	FFU	FFU mode	0: Invalid, 1. Valid												25				
	VMODE	Ventilation mode	0: Invalid, 1. Valid																
	FRESHENUP	Fresh-up	0: Invalid, 1. Valid												26				
	AUTOVOL	Auto wind volume	0: Invalid, 1. Valid												27				
AHU	FILTERSIGN	Filter sign	0: Accumulated time, 1: Different pressure													30			
	SATEMP	Monitoring of supply temperature	0: Invalid, 1. Valid													31			
	RATEMP	Monitoring of return temperature	0: Invalid, 1. Valid													32			
	RAHUMI	Monitoring of return humidity	0: Invalid, 1. Valid													33			
	OATEMP	Monitoring of outside air temperature	0: Invalid, 1. Valid													34			
	OAHUMI	Monitoring of outside air humidity	0: Invalid, 1. Valid													35			
	SETHUMI	Humidity setup	0: Invalid, 1. Valid													36			
	MAXHUMI	Specified humidity lower limit	0~99													37			
	MINHUMI	Specified humidity upper limit	0~99													38			
Chiller	IWTEMP	Monitoring of inlet water temperature	0: Invalid, 1. Valid														30		
	OWTEMP	Monitoring of outlet water temperature	0: Invalid, 1. Valid														31		
Outdoor unit	DEMADDR	Demand address	(32: invalid)									14							
Stop/ resume power	RESUME	Power resume mode	0: Return to state before power is resumed, 1: Schedule, 2: Run, 3: Stop, 4: No operation							22	39					39	32		
	OPPOWERST	Instruction acceptable power supply state	0: Only when power is supplied 1: Always available							23	40	15				40	33		
Control group	RTIME	Sequential activation interval	0~999999															5	
	STIME	Sequential stop interval	0~999999															6	
	HIDEDATA	Hide display	0: Not hid, 1: Hid															7	
	MEMID	ID of management point that it belongs to	ID															8 or later	
DIII Port	CCTRL	Lower central setting	0: Invalid, 1. Valid																4

Appendix C. Initial Data Tool Check Item List

- The initial data tool supports the function to check the relevancy of the data before saving created data in the iPU or the monitoring board PC.
  This check can be conducted at any timing by pressing the [Check] button.
- A list of check items by data type is shown in the table below.
  "○" indicates an error (transmission to iPU is not available) and "Δ" indicates warning (transmission to iPU is possible).

Category	Message (English)	Conditions	Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Indoor unit	Fan coil (indoor unit)	Outside unit	D3Ai	P Ai	HRV	AHU	Chiller	Control group	DIII Port
Common	#234:Name not setup.	When a name with the character length of 0 or blank is entered	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Mng. point name duplication	When an existing management point name is entered								○									
	#242:Short name not setup	When a name with the character length of 0 or blank is entered	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Mng. point short name duplication	When an existing management point short name is entered								○									
	#025:iPU Nb. error	When 1 ≤ iPU No. ≤ 4 is not satisfied	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
DIII	Port number error	When 1 ≤ Port No. ≤ 4 is not satisfied						○	○	○	○	○	○		○	○	○		
	#035:D3 address error	When [1 - 0] ≤ address ≤ [8 - 15] is not satisfied						○	○	○	○		○		○	○	○		
	D3 address duplication	When there are multiple management points with same iPU No., port No., and D3 address						○	○	○	○		○		○	○	○		
Di,Pi	Port number error	When 1 ≤ Port No. ≤ 20 is not satisfied		○	○														
	Internal Di / internal Pi address duplication	When there are multiple Di and Pi with same iPU No. and port No.		○	○														
	#277:Fail of Di-port:1 [power failure signal]	When the iPU No. = 1 and the port No. = 1		○	○														
	#278:Incorrect setup of power signal [connect UPS signal to master-iPU]	When [Used Mode] is set to [Power failure] and 1 ≤ iPU No. ≠ 1 is satisfied		○															
	#279:Incorrect setup of power signal [connect UPS signal to port 1]	When [Used Mode] is set to [Power failure] and 1 ≤ Port No. ≤ 4 is not satisfied		○															
	#099:Pulse constant setup error	When 0 ≤ [Pulse constant] < 999999 is satisfied			○														
Do	Port number error	When 1 ≤ Port No. ≤ 2 is not satisfied	○																
	Internal Do address duplication	When there are multiple Do with same iPU No. and port No.	○																
Ai	Port number error	When 1 ≤ Port No. ≤ 49 is not satisfied				○													
	Analog address duplication	When there are multiple Ai with same iPU No. and port No.				○													
	#125:Illegal maximum/minimum value	When [Min val] ≥ [Max val] is satisfied				○							○						
	Analog type error [Unfixed]	When the analog value type is unfixed												○					
	The reference Mng. point is inaccurate	When the Ai measurement target management point is unfixed												○					
	iPU number differs from the Reference Mng. point's iPU number.	When the Ai measurement target management point does not match the iPU No.												○					
	Analog type error [Invalid]	When the analog type is not a target of analog value acquisition												○					

Category	Message (English)	Conditions	Internal Do	Internal Di	Internal Pi	Ai	Ao	D3Di	D3Dio	Indoor unit	Fan coil (indoor unit)	Outside unit	D3Ai	P Ai	HRV	AHU	Chiller	Control group	DIII Port
Ao	Port number error	When 0 ≤ Port No. ≤ 49 is not satisfied					○												
	Analog address duplication	When there are multiple Ao with same iPU No. and port No.					○												
	#126:Maximum Value lower than minimum value	When [Term Min.] ≥ [Term Max.] is satisfied					○												
	Displayed upper limit is less than displayed lower limit	When [Max of op.] ≥ [Min of op.] is satisfied					○												
	Displayed upper limit is more than maximum value	When [Max of op.] > [Term Max.] is satisfied					○												
	Displayed lower limit is less than minimum value	When [Min of op.] < [Term Min.] is satisfied					○												
	#282:Step of analogue point is too small	When analog type temperature and Celsius and instruction accuracy < -1					○												
	#281:Step of analogue point is too large	When analog type temperature and Celsius and instruction accuracy > 0					○												
	#282:Step of analogue point is too small	When analog type temperature and Fahrenheit and instruction accuracy < 0					○												
	#281:Step of analogue point is too large	When analog type temperature and Fahrenheit and instruction accuracy > 0					○												
	#281:Step of analogue point is too large	See *1.					○	*1: When ((([Term.Max] - [Term.Min]) / 0xfff) / 10^ [instruction accuracy]) > 9.0, 0xfff is a resolution of COMPO-BUS. *2: When ((([Term.Max] - [Term.Min]) / 0xfff) / 10^ [instruction accuracy]) > 1.1, 0xfff is a resolution of COMPO-BUS.									
	#282:Step of analogue point is too small	See *2.					△												
Indoor unit	#273:Incorrect temperature-restriction in cooling [max<min]	When the minimum cooling value > maximum cooling value								○	○								
	#274:Incorrect temperature-restriction in heating [max<min]	When the minimum heating value > maximum heating value								○	○								
Outdoor unit	#089:Demand address error	When 0 ≤ demand address ≤ 32 is not satisfied										○							
	Outdoor unit demand address duplication	When there are multiple outdoor units with same demand address										○							
Air handling unit	Setting humidity upper /lower limit err	When the humidity upper limit ≤ humidity lower limit														○			
Control group	Control group name duplication	When an exiting control group name is entered																○	
	#160:Invalid Mng. Pt. in the control group :	When there is no management point which belongs to the control group member																○	
DIII Port	Mng. point does not exist on D3 port	When a management point does not exist on the D III port																	△
	D3 port does not exist	When the D III port does not exist while the management point exists																	○
	Equipment and A/C are sharing a D3 port	When an air conditioner and equipment co-exist on the same port *3																	△
	Central and A/C are sharing a D3 port	When an air conditioner and central equipment co-exist on the same port *3																	△
	Equipment and Central are sharing a D3 port	When equipment and central equipment co-exist on the same port *3																	△
	D3 port address duplication	When a D III port with same iPU No. and port No. exists																	○

*3: Air conditioner: indoor unit, outdoor unit, HRV
Equipment: D3Di, D3Dio, D3Pi, D3Ai
Central equipment: AHU, chiller

Appendix D. iPU Data List

- A list of data to be set by the iPU setup tool is shown below.

Item	Sub item	Default value
Host name	Master	—
	Slave 1	—
	Slave 2	—
	Slave 3	—
IP address	Master	192.168.0.1
	Slave 1	192.168.0.2
	Slave 2	192.168.0.3
	Slave 3	192.168.0.4
Sub network mask	Master	255.255.255.0
	Slave 1	255.255.255.0
	Slave 2	255.255.255.0
	Slave 3	255.255.255.0
Default gateway	Master	—
	Slave 1	—
	Slave 2	—
	Slave 3	—
Primary DNS	Master	—
	Slave 1	—
	Slave 2	—
	Slave 3	—
Secondary DNS	Master	—
	Slave 1	—
	Slave 2	—
	Slave 3	—
Web port number		80
Temperature display type		Celsius
UPS power failure signal		Contact A
Periodical save time 1		1:00
Periodical save time 2		—
Periodical save time 3		—
Periodical save time 4		—
Time zone		Following the time zone setting of the PC in which the trial operation tool is activated.
Availability of DST		
Weekly DST	Start month	
	Start week	
	Start day	
	Start time	
	End month	
	End week	
	End day	
	End time	

Using İntelligent Manager Ⅲ

WARNING

1.To use intelligent Manager, it is necessary to purchase additional equipment, such as a personal computer and a UPS. Contact your distributor or the manufacturer for details.

2. Installation of intelligent Manager must be performed by a Daikin-trained engineer.

3.Do not install additional software, such as games, on the personal computer used to run intelligent Manager.

4.Changing the system settings of the personal computer used to run intelligent Manager could cause intelligent Manager to malfunction. Do not change the personal computer's system settings under any circumstances.

5.Once a month, adjust the clock of the personal computer and iPU used to run intelligent Manager.

•The contents within this catalogue are effective as of July 2008. Note that changes to the content due to product improvements and the like may be conducted without prior notice.

•Please contact a Daikin representative before using an İntelligent Manager Ⅲ.

•Besides İntelligent Manager Ⅲ, Daikin also markets various other A/C management devices. Feel free to contact Daikin for catalogues or any necessary information.

•Ethernet is a registered trademark of Xerox corporation.

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About ISO 9001

ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.

EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.

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