AIRSTAGE™

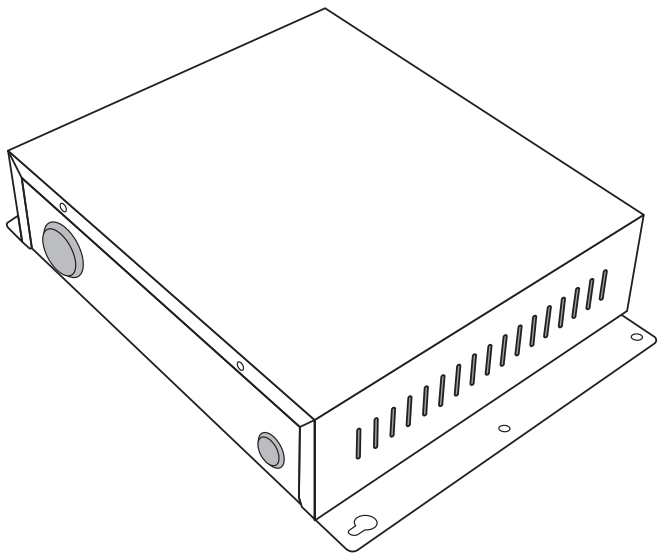
APPLICATION MANUAL

English

APPLICATION MANUAL

Tool for Network Convertor

UTY-VLGX



KEEP THIS MANUAL FOR FUTURE REFERENCE

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Contents

*1 PC : Personal Computer

*2 PCB : Printed Circuit Board

*3 BMS : Building Management System

*1 XIF: External Interface File

Notice

Please print the “Application Manual” in “Manual” folder of the attached CD-ROM before start the setting operation work from now. Please prepare the “Installation Manual” attached that.

1.OUTLINE

- Connecting the Tool for Network Convertor installed PC on the “Network Convertor”, setting or the setting contents can be confirmed.

  The main functions are as follows.

  a) Setting (When Initial Setting)

  1) “Indoor/Outdoor Unit Addresses”

  2) “Configuration Properties”

  3) “Making/Modifying the XIF”

  b) Confirming

  1) “Indoor/Outdoor Unit Addresses”

  2) “Configuration Properties”

  3) “FROM Check Sum of CPU (H8)”

1-1. System Outline

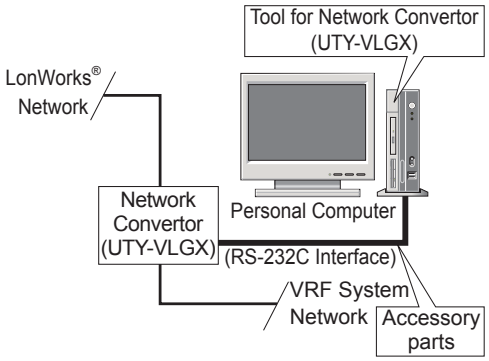


Fig. System Outline

- The layout of the system is shown in Fig. System Outline. Setting and confirming the Network Convertor are performed using a PC.
  The RS-232C interface of the PC is used to connect the Tool for “Network Convertor” to the PC.

* LonWorks® is registered trademark of Echelon Corporation in the United States and other countries.

1-2. Setting (Initial Setting) & Confirming Flow

- The Setting (Initial Setting) & confirming flow for the Network Convertor is as follows. (Fig. Setting (Initial Setting) & Confirming Flow)
- Following are the work item during on line operation. However, XIF making is also possible during off line operation.

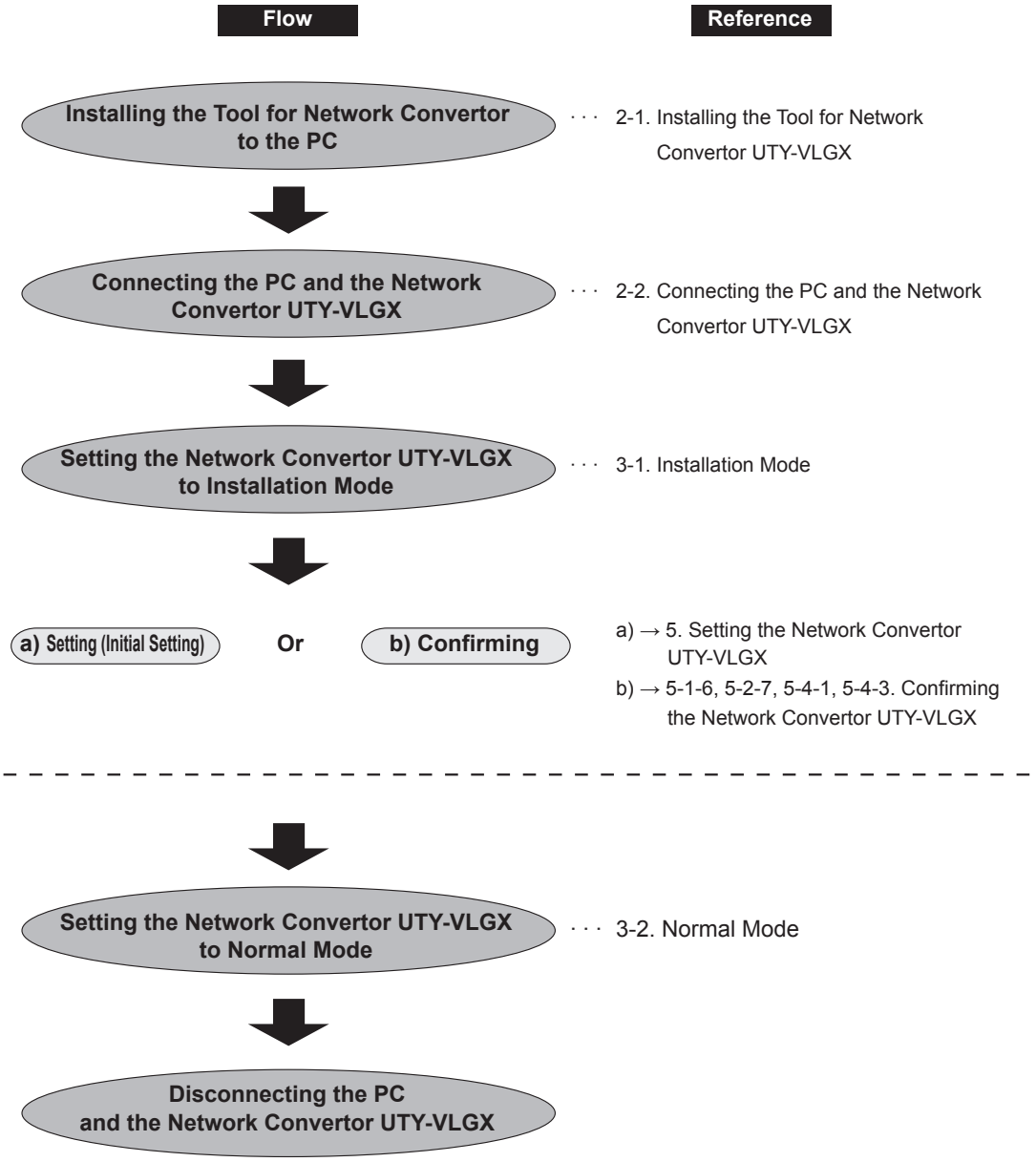


Fig. Setting (Initial Setting) & Confirming Flow

2.SETTINGS

- Install the application and connect the PC and Network Convertor according to the following explanations.

2-1. Installing the Tool for Network Convertor

- If not installing the Tool for Network Convertor to a PC, install it according to the following explanation.

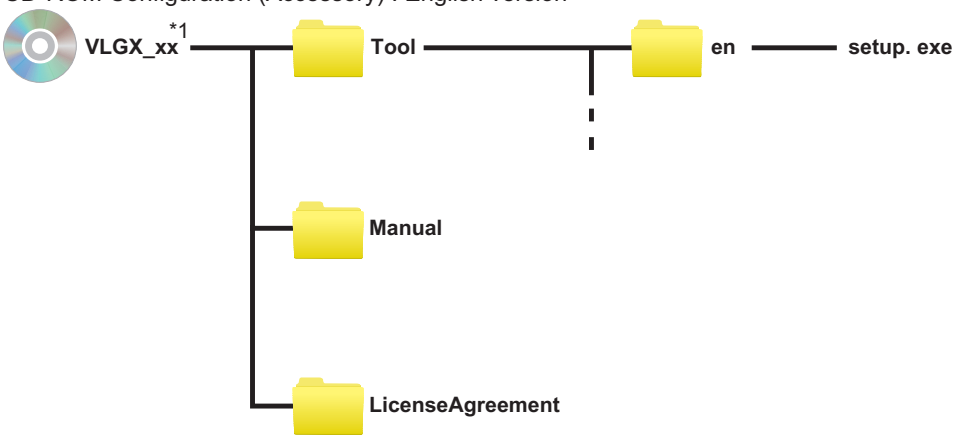
2-1-1. Operating Environment

- This program requires the following operating environment.

Personal Computer Specifications

	Tool for Network Convertor (UTY-VLGX)
CPU	At compatible machine that runs Microsoft® Windows®
Memory	1GB (Vista & 7), 128MB (XP) or more
Display	1024 x 768 dots or more, High color (16bit) or more
Interface	Serial(RS232C) port (x1) *Please be sure to use "COM1"
Operating System	Microsoft® Windows® XP Professional (English version/Chinese version) Service pack 3 or later Microsoft® Windows® Vista Home Premium (English version/Chinese version) Service pack 1 or later Microsoft® Windows® 7 Professional (English version/Chinese version) * 64-bit version of Windows®are not supported.
Required Hardware	CD-ROM drive
Required Software	Adobe® Reader 9.0 or later

CD-ROM Configuration (Accessory) : English version



*1. xx is arbitrary character.

2-1-2. Installing the Tool for Network Convertor

- Use the following procedure to install the Tool for Network Convertor.

1 Double-click the file “setup.exe”.

◆ Please follow the instructions on PC screen to install the Tool for Network Convertor.

2-1-3. Uninstall the Tool for Network Convertor

- Please follow the method of uninstall of each PC about the method of uninstall of Tool for Network Convertor.

2-2. Connecting the PC and Network Convertor

- Connect the PC to the Network Convertor with the included cable*. Use the following procedure to connect the PC to the Network Convertor.
  * Cable: D-Sub 9-pin female connector - 3-pin female connector (Fig. 1). This cable is packed in the carton of the “Network Convertor”.

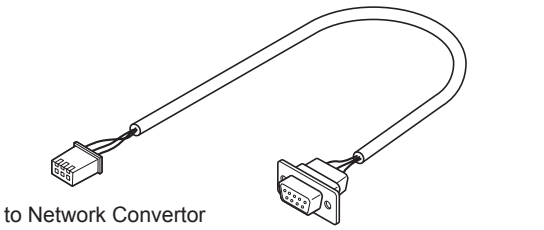


Fig 1. Connector Cable

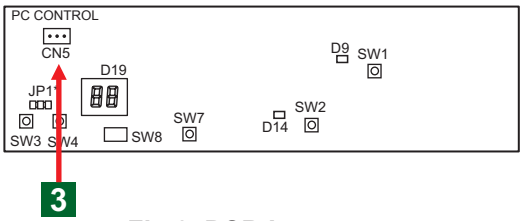


Fig 2. PCB Layout

Notice

Please start setting operation after putting the backup battery of the Network Convertor into the state of “ON”. (For detail, please refer to the Installation manual)

1. Turn off the power of both the PC and Network Convertor.
2. Remove the cover of the Network Convertor using a screwdriver.
   (Please refer to the Installation Manual)
3. Connect the 3-pin connector to the PC_CONTROL socket (CN5) on the PCB in the case. (Fig.2)
4. Connect the D-Sub 9-pin female connector to the 9-pin serial port (COM 1) of the PC.
5. Turn on the power of both the PC and Network Convertor.

Notice

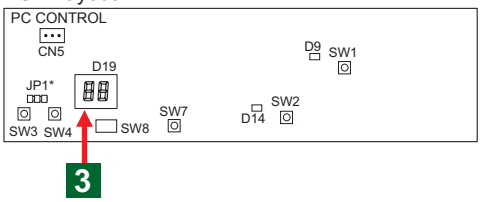
The serial port connected with Network Convertor must use “COM 1”.

3.SETTING THE PCB

- When setting or confirming the Network Convertor, the PCB must be set to the installation mode. (See par. 3-1)

3-1. Installation Mode

PCB Layout



D19 LED

When start

Fig. 1

Blinking

Fig. 2

The stand-by state of communication

Fig. 3

- Set the Network Convertor to the “installation mode” according to the following procedure.

1 Remove the cover of the Network Convertor.

2 Make sure that the power of the Network Convertor is ON.

3 Select the special mode by pressing and releasing SW7 (reset button) while holding down SW4 (set button) until special mode “1” (Blinking) is displayed. Please keep holding down SW4 (set button) a few seconds after releasing the SW7 (reset button). Fig. 2 (Lighting). It becomes Installation Mode.

4 Press SW4 (SET button). “1” (Lighting) will appear as shown in Fig. 3.

3-2. Normal Mode

Fig. 1

NORMAL MODE

Fig. 2

- For normal operation, the PCB must be set to the normal mode.
  Set the Network Convertor to the normal mode according to the following procedure.

1 Turn the power off and on or press SW7 (reset button) to exit from installation mode.
Anyone of the code in D19 LED display.

D19 LED Display Code

(1) Normal code

Normal code	Contents
	Normal mode
	Set state of “Tool for Network Convertor”
	Address setting mode
	Under maintenance
	FB* and unit address allocation information is registered with “Tool for Network Convertor"

FB*: Functional Blocks

Note

When error occurs, “LED Display (D19)” on the PCB of the Network Convertor will display the error code. Or, the content is displayed on the screen of PC.

(2) Error code

Error code	Contents
	FB and unit address allocation information is not registered
	Main PCB error
	VRF Network error
D9 LED lit or blinking  D9 D9	Communication error (The Error of the Network interface Device on the VRF System side)
D14 LED lit or blinking  D14 D14	Communication error (The Error of the Network interface Device on the BMS side)*1
	When V series or S series is connected

*1. D14 is ON for 1 second, OFF for 1 second, and repeats. When D19 is in Normal mode, Commissioning is unset.

4.BASIC OPERATION

- The basic operation of the Tool for Network Convertor is described in the following explanations.

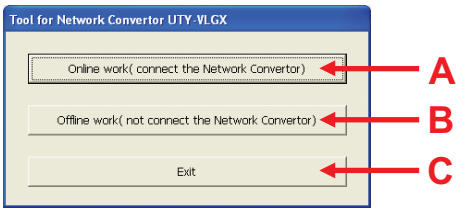
4-1. Starting the Tool for Network Convertor.

1 On the taskbar, click [Start] → [Programs] → [Tool for UTY-VLGX] → [Tool for UTY-VLGX] The screen shown in the PC.

◆ Start the Tool for Network Convertor. Open the screen of “Connection environment” menu.

4-2. Selecting the “Connection environment” between the Network Convertor and the Tool for Network Convertor.

“Connection environment” menu



- Click the selected button of the “Connection environment” menu.

The items that can be selected are as follows.

A. “Online work (connect the Network Convertor)” : Network Convertor and Tool for Network Convertor connect and perform the setting operation.

B. “Offline work (not connect the Network Convertor)” : XIF file making is also possible during off line operation.

C. “EXIT” : End the Tool for Network Convertor.

Notice

Please check the following if error occurs when begin to communicate with Network Convertor.

1. Is the cable connecting the Network Convertor with PC disconnected?
2. Is the “COM 1” of the serial port of PC used?
3. Is there a power supply of Network Convertor?
4. Is the Network Convertor is set in “Installation Mode"?

Note

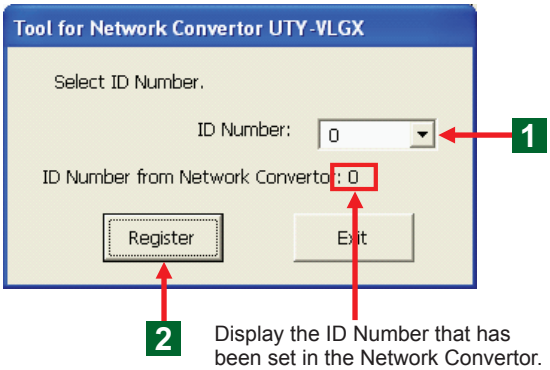
When error occurs, the “Error” message display will displayed on the screen of PC. The error is displayed on the “LED (D19)” of the Network Convertor. Please refer to the “LED Display Code (D19)” of the “3-2 Normal Mode”. Please contact authorized service personnel.

Note

It is the “Connection environment” of the relation of 1 to 1, the Tool for Network Convertor and the Network Convertor. The trouble of the VRF system and BMS is not affected.

4-3. Setting the “ID Number” of the Network Convertor.

“Select ID Number”



- When connect 1 BMS with 2 or more Network Convertors, “Tool for Network Convertor (Application Software)” must be reactivated after the setting of the “Network Convertor” of different “ID Number” ends, when 2 or more “Network Convertor” is set up.
- Set the ID Number of the set up Network Convertor.

◆ This screen opens automatically when the connection environment menu is selected.

Note

The default value of “ID Number” is set as 0. Please set Each different “ID Number” when you set up 2 or more Network Convertor.

Note

The maximum number of Network Convertor that can be connected with 1 BMS is 4.

Please set each different “ID Number” from 0 to 3.

1 Click the [▼] button to select the setting “ID Number”.

2 Click “Register” button.

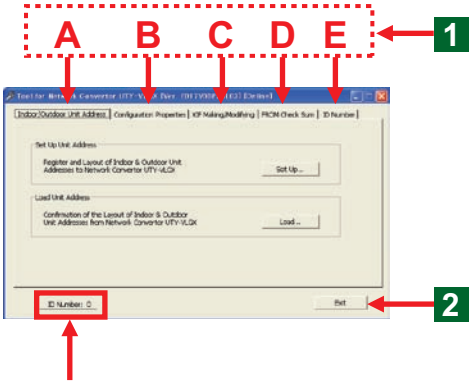
- Set the selected “ID Number” in the Network Convertor.

Notice

If the “Exit” button is clicked, the Tool for Network Convertor will end.

4-4. Switching the function of the Tool for Network Convertor./end.

Function switching (Tab)
“Indoor/Outdoor Unit Address”



Display the “ID Number” of Network Convertor that is in setting.

- If the function switching tab is clicked, the function and the screen will switch.

1 Click the tab of the selected function.

The items that can be selected are as follows.

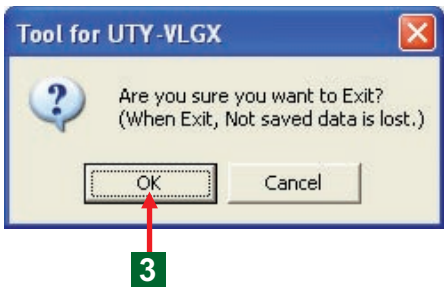
A. “Indoor/Outdoor Unit Address” :
Register the Address data in the Network Convertor.
→ “Indoor/Outdoor Unit Address”

B. “Configuration Properties” :
Set the communication mode between the Network Convertor and BMS
→ “Configuration Properties”

C. “XIF Making/Modifying” :
In order to binding on the Network Integration Tool, make the necessary XIF file.
→ “XIF Making/Modifying”

D. “FROM Check Sum” :
Display the “FROM Check Sum” and Software Version of the CPU used in the Network Convertor.
→ “FROM Check Sum”

E. “ID Number”
Set “ID Number” on the Network Convertor.
→ “ID Number”



- End the Tool for Network Convertor.

2 Click “EXIT” button.

◆ The screen of the end confirmation of “Are you sure you want to Exit? (When Exit, Not saved data is lost.) opens.

3 Click “OK” button.

◆ End the Tool for Network Convertor.

Notice

Delete the made data information when end the application. Then end the operation after save the necessary setting file.

5. SETTING THE NETWORK CONVERTOR (INITIAL SETTING)

Each of the following operations to set (initial setting) the Network Convertor is explained.

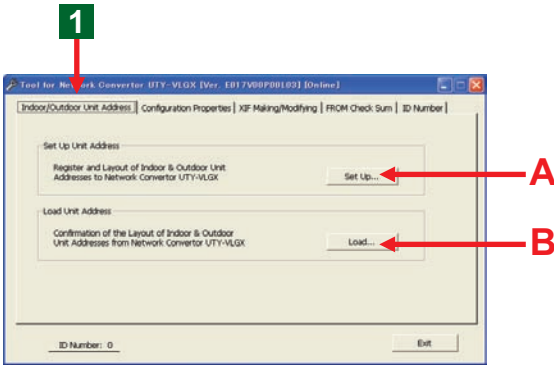
1) “Layout of Indoor & Outdoor Unit Address”..... (required)

2) “Configuration Properties”..... (not required)

3) Making the “XIF”data.....(required)

5-1. “Layout of Indoor & Outdoor Unit Address” data is made.

“Indoor/Outdoor Unit Address”



1 Click the “Indoor/Outdoor Unit Address” tab.

◆ The screen of the “Indoor/Outdoor Unit Address” opens.

Note

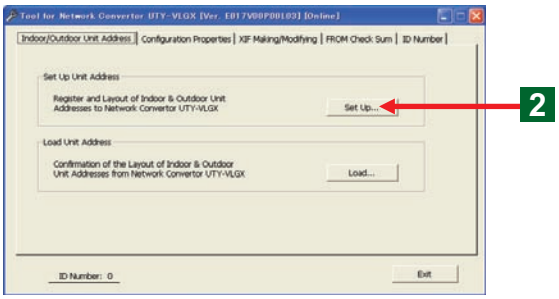
The functions that can be selected are as follows.

A. “Set Up Unit Address” :
Make the “Layout of Indoor & Outdoor Unit Address” data and register the Network Convertor. In addition, the file of the made setting information can be saved in PC. The saved PC data can be confirmed.

B. “Load Unit Address” :
The read of the “Layout of Indoor & Outdoor Unit Address” data registered in the Network Convertor. The Tool for Network Convertor can be confirmed and the file can be saved.

C. Printing :
The “Layout of Indoor & Outdoor Unit Address” date that “Loads” from the “Network Convertor” can be printed.

“Indoor/Outdoor Unit Address”



- Register the “Layout of Indoor & Outdoor Unit Address” data in the Network Convertor.

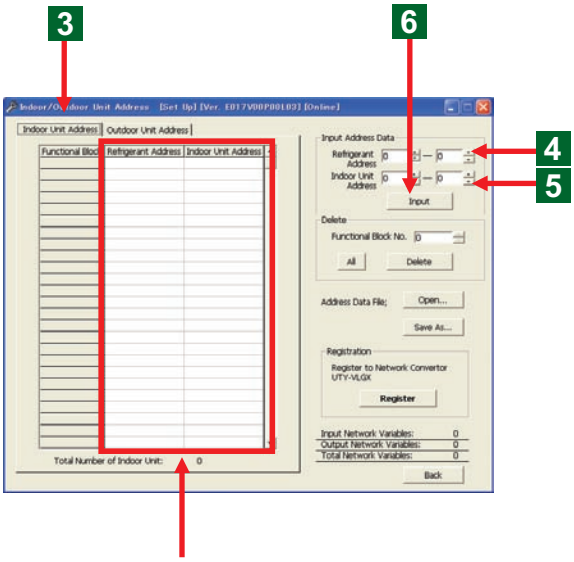
2 Click the button of the “Set Up”.

◆ The screen of the “Set Up Unit Address” opens.

Note

In order to control the Indoor Unit and Outdoor Unit that exists in VRF system from BMS, the “Layout of Indoor & Outdoor Unit Address” is the related Address.

"Set Up Unit Address" (Indoor Unit)



Display section of Address that has been Layout

- Begin setting the "Set Up Unit Address".
- First, set the "Refrigerant Address" and the "Indoor Unit Address".

3 Click the tab of the "Indoor Unit Address" on the Address List Part.

◆ Switch the setting of the "Indoor Unit Address" on the Address List Part.

- Register the "Refrigerant Address" and the "Indoor Unit Address".

4 Select the Address Number after click the "▲" "▼" button of the "Refrigerant Address".

5 Select the Address Number after click the "▲" "▼" button of the "Indoor Unit Address".

6 Click "Input" button.

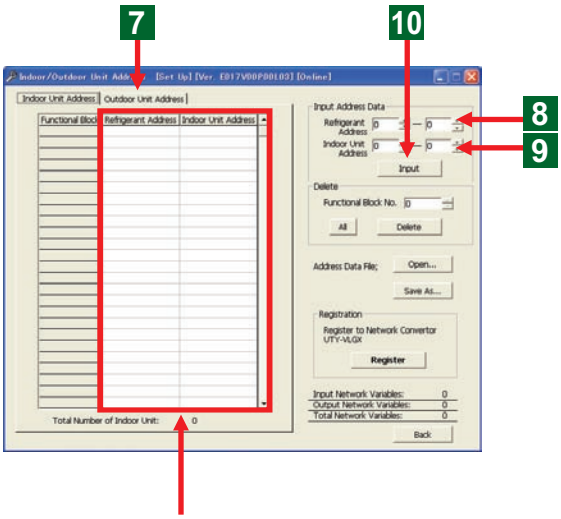
Notice

Please set the same "Refrigerant Address" of the "Indoor Unit" and the "Outdoor Unit".

Note

The "FB No." is automatically allocated to the "Refrigerant Address" and the "Indoor/Outdoor Unit Address" in this tool.

"Set Up Unit Address" (Outdoor Unit)



Display section of Address that has been Layout

For example: The attaching method of the Outdoor

Outdoor Unit	No. of Address		
Master	0	-	-
Master + Slave1	0	1	-
Master + Slave1 + Slave2	0	1	2

- Continue to register the "Refrigerant Address" and the "Outdoor Unit Address".

7 Click the tab of the "Outdoor Unit Address" on the display section of the Address that has been Layout.

8 **9** Input the "Refrigerant Address" and the "Outdoor Unit Address".
Please refer to the "Example : the input method of address" as follows.

10 Click "Input" button.

◆ The "FB No." is automatically allocated to the "Registered" "Refrigerant Address" and "Outdoor Unit Address".

Note

If input "Indoor/Outdoor Unit Address" The "FB No." was automatically allocated as the following.
"Indoor Unit Address" is from 0 to 127.
"Outdoor Unit Address" is from 0 to 99.

Note

The "Refrigerant Address" can be input from 0 to 99. The "Indoor Unit Address" can be input from 0 to 63.
* Now, the maximum number that can be set up is 48.
The "Outdoor Unit Address" can be input from 0 to 3.
* The address of the present VRF system is from 0 to 2.

Note

The "Outdoor Unit Address" including the case of set up 1 outdoor unit must be set from 0. And then, please set it in the order of 1, 2. Don't jump the order of the number. Please refer to the attachment of the "Outdoor Unit Address" on the left.

For example : the input method of address

Notice:

Please prepare the material of the “Indoor/Outdoor Unit Address” and the “Refrigerant Address” registered in “VRF system” that can be understand at a glance before start inputting “Address”.
The setting method of the registered address is explained by using a case.

For example:

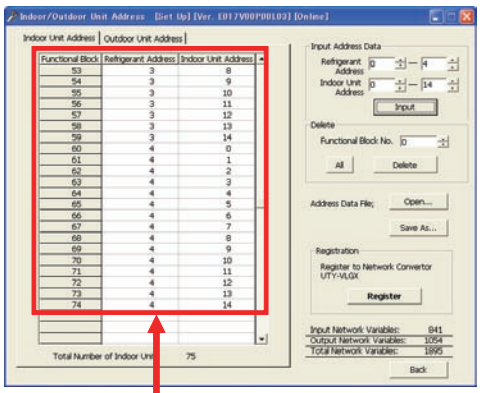
Register the following equipment address of the VRF system.

- **VRF system**

Refrigerant System: 6 Systems
Outdoor Unit: 17 Units
Indoor Unit: 83 Units

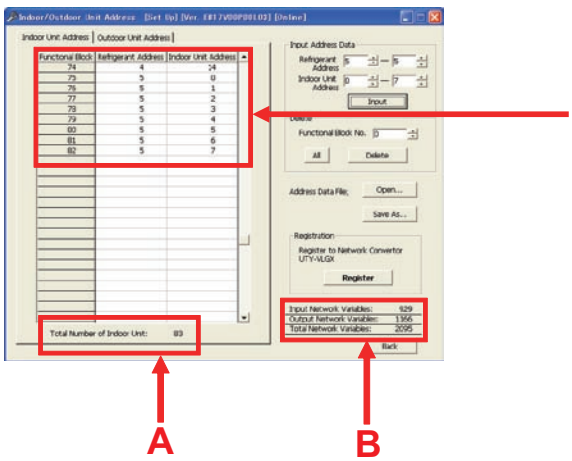
Refrigerant System	Indoor Unit	Outdoor Unit
0	15	3
1	15	3
2	15	3
3	15	3
4	15	3
5	8	2
Total 6	Total 83	Total 17

“Set Up Unit Address” (Indoor Unit) (Fig. 1)



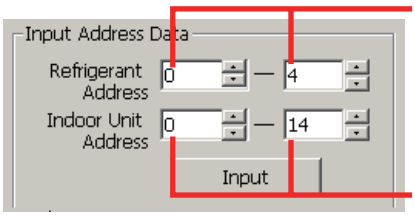
15 “Indoor Unit” each is set in the 0 to 4 system of the “Refrigerant Address”.

“Set Up Unit Address” (Indoor Unit) (Fig. 2)



- Please input the “Outdoor Unit Address” according to the instructed input method of the “Indoor Unit Address” and the same knacks till now.
- 2 or more “Refrigerant Address” and “Indoor Unit Address” can be input in a batch.

(1) Input the “Refrigerant Address” from 0 to 4, and the “Indoor Unit Address” from 0 to 14.



Input lower limit of 0, and upper limit of 4

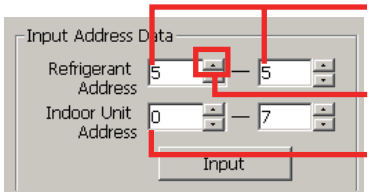
Input lower limit of 0, and upper limit of 14

(2) Click “Input” button.

◆ 15 Indoor Unit each is set in the 0 to 4 system of the “Refrigerant Address”. Moreover, the “FB No” is automatically allocated. (Fig 1.)

- Register 5 of the “Refrigerant Address”.
  Register from 0 to 7 of the “Indoor Unit Address”.

(1) Input 5 of the “Refrigerant Address”, and from 0 to 7 of the “Indoor Unit Address”.



Input from 5 to 5 (the lower limit and the upper limit are the same number) of lower limit “▲” button

Input lower limit of 0, and upper limit of 7

(2) Click “Input” button.

◆ 8 “Indoor Unit” is set in the 5 system of “Refrigerant Address”. Moreover, the “FB No” is automatically allocated. (Fig. 2)

Note

When the lower limit and the upper limit are in the state of the same number, if click the “▲” button of the lower limit, the lower limit and the upper limit will switch at the same time. It is convenient when a single setting is input.

8 “Indoor Unit” is set in the 5 system of “Refrigerant Address”.
And then, the input equipment address is displayed on the upper part of this window.

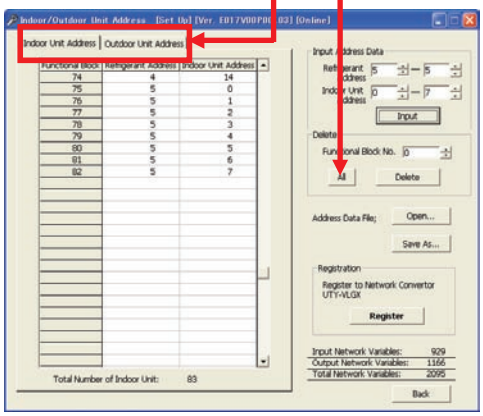
Note

The following information necessary for System Integration is automatically displayed.
A. “Indoor/Outdoor Unit” FB Display the total number of the unit.
B. The Network Variable Number that sent and received by the “Network Convertor” is displayed:
Input: Received total number of NV*.
Output: Sent total number of NV.
Total: Sum total of the input and Output.

* NV : Network Variable

5-1-1. Delete all data of “Layout of Indoor & Outdoor Unit Address”

“Set Up Unit Address”



- Delete all data of “Layout of Indoor & Outdoor Unit Address”.

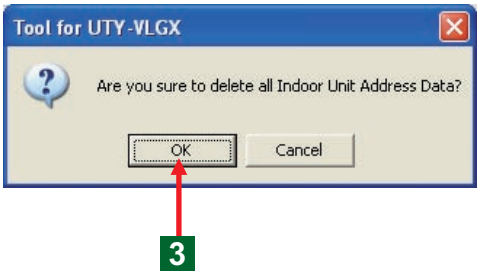
1 Click the tab of “Indoor Unit Address” or “Outdoor Unit Address” with the deleted Address.

2 Click the “All” button of the “Delete” section.

◆ Open the screen of “Are you sure to delete all Indoor Unit Address (Outdoor Unit Address) Data?.” for confirmation of deleting all data.

3 Click “OK” button.

◆ The address content of the opened “Indoor Unit Address” or “Outdoor Unit Address” was deleted.

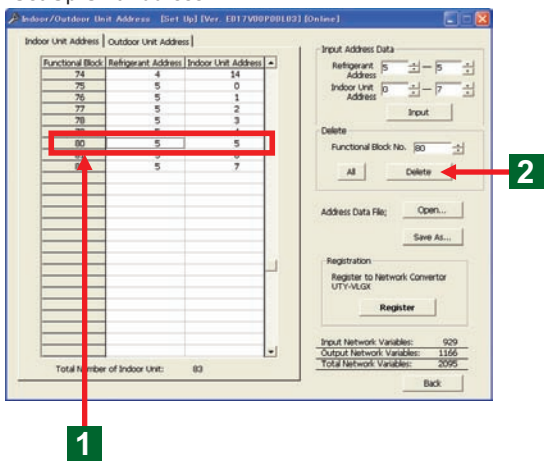


Note

If “All” button is clicked, all the address data will be deleted. It is not possible to regain. Please pay attention to it.

5-1-2. Delete any data of “Layout of Indoor & Outdoor Unit Address”.

“Set Up Unit Address”



- Delete any data of “Layout of Indoor & Outdoor Unit Address”.

[The selection method of the “FB No.” on the display of Address List]

1 Click the “FB” of the address list display.

◆ Select the line of the selected “FB” and “Indoor & Outdoor Unit Address”.

◆ The selected “FB No.” of the “Delete” section was displayed in window.

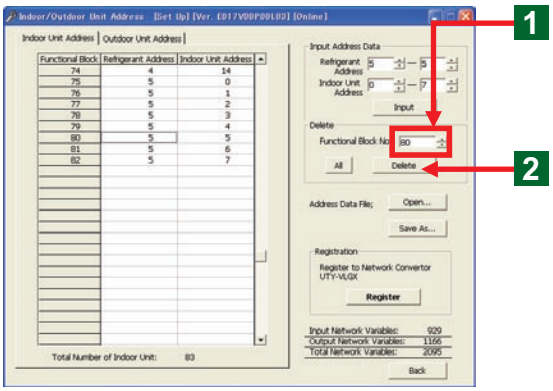
2 Click “Delete” button.

◆ The deleted “FB” and “Indoor & Outdoor Unit Address” disappear on the display.

Note

When any line is deleted, the Address of FB below the deleted line will move up automatically.

"Set Up Unit Address"



[The setting method of the deleted "FB No." on the "Delete" part of the display]

1 Click "▲" "▼" button to select the "FB No." in the "Delete" section.

2 Click "Delete" button.

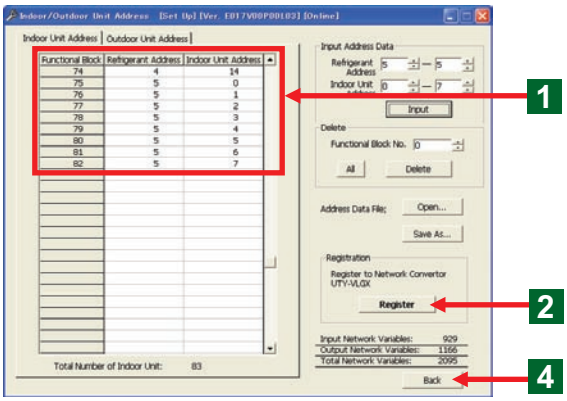
◆ The address list of the line of selected "FB" was deleted.

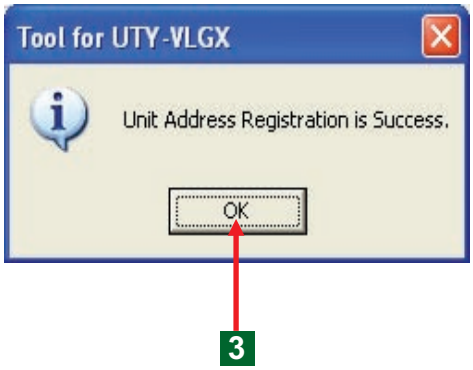
Note

In case of Address of any "FB" was deleted, the FB below the deleted one will move up automatically.

5-1-3. Register the data of "Layout of Indoor & Outdoor Unit Address" in Network Convertor.

"Set Up Unit Address"





- Register the data of "Layout of Indoor & Outdoor Unit Address" in Network Convertor.

1 Confirm the data information of the "Layout of Indoor & Outdoor Unit Address".

2 Click "Register" button.

◆ The screen of "Now, Registering Indoor Unit Address Data" displays that the Indoor Unit is in registration. (The screen will close automatically)

◆ Register the data information of the "Layout of Indoor & Outdoor Unit Address" in the Network Convertor

◆ After "Register" is completed, the screen of the "Unit Address Registration is Success" opens.

3 Click "OK" button.

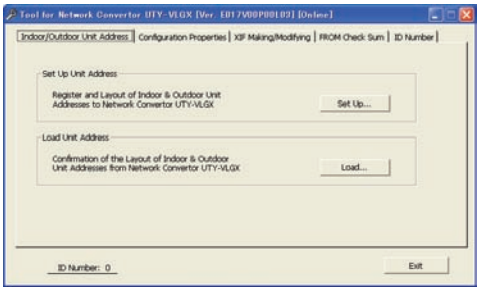
◆ The screen of the "Register" is completion closes.

◆ If it is "Success", the D19 (LED) in the "Network Convertor" will display "Ud".

Note

"Register" the data information in the Network Convertor becomes effective only in case of the "Connection environment" menu is in "Online work" state. In case of using on the "Offline work" state, after a necessary file is saved once, Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

Function switching (Tab)
“Indoor/Outdoor Unit Address” :



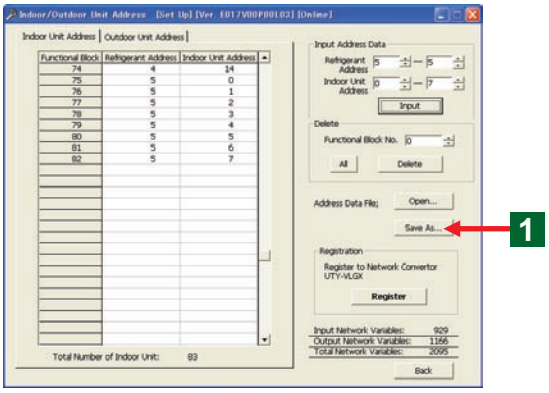
- After each operation ends, return to the function switching (Tab) screen.

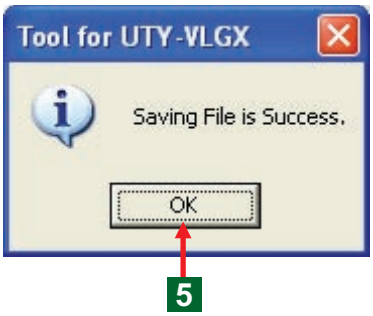
4 Click “Back” button.

◆ The “Indoor/Outdoor Unit Address” screen opens.

5-1-4. Saving the file of the “Layout of Indoor & Outdoor Unit Address” data registered in the Network Convertor in PC.

“Set Up Unit Address”





- Save the file of the made “Layout of Indoor & Outdoor Unit Address” data in PC.

1 Click “Save As...” button.

◆ The window of “Save” opens.

2 Select a file saving directory.

3 Fill in the “File name when saving it”.

4 Click the “Save As...” button.

◆ Start saving.

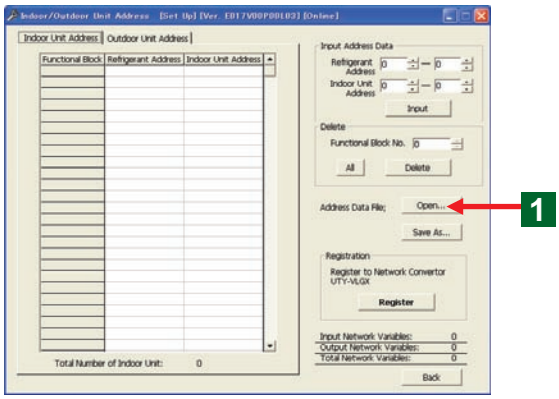
◆ After the file saving is completed, the screen of “Saving File is Success” opens.

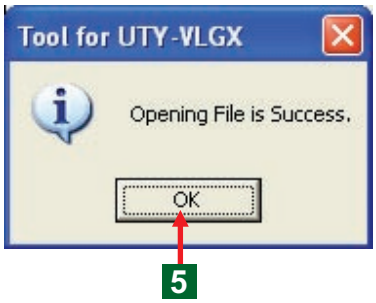
5 Click “OK” button.

◆ That screen closes.

5-1-5. Opening the saved file data of the “Layout of Indoor & Outdoor Unit Address” in PC.

“Set Up Unit Address”





- Saved the “Layout of Indoor & Outdoor Unit Address” data from PC is confirmed or changed.

1 Click “Open” button.

- ◆ The window of “Open” opens.

2 Open the directory that the file is saved.

3 Select the read in file.

4 Click the “Open” button.

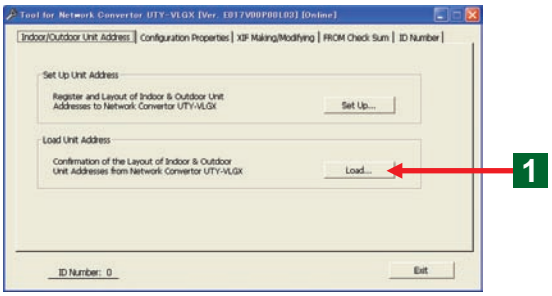
- ◆ Start opening
- ◆ After the file reading in is completed, the screen of “Opening File is Success” opens.

5 Click “OK” button.

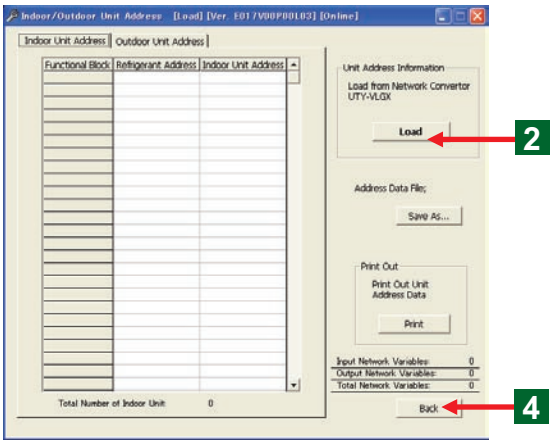
- ◆ That screen closes.

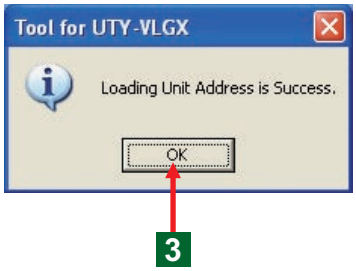
5-1-6. Confirming the read in of the “Layout of Indoor & Outdoor Unit Address” data registered in the Network Convertor.

“Indoor/Outdoor Unit Address”



“Load Unit Address”





- Confirm the read in of the “Layout of Indoor & Outdoor Unit Address” data information registered in the Network Convertor.

1 Click the “Load” button.

- ◆ The screen of the “Load Unit Address” opens. The previous data might be displayed sometimes. Please press the button of step **2** to display the new data.

2 Click “Load” button.

- ◆ Read in the “Layout of Indoor & Outdoor Unit Address” that has already been set the Network Convertor.
- ◆ Use tab to switch the display of the read in “Indoor Unit Address” and “Outdoor Unit Address” in the display section.
- ◆ After “Load” is completed, the screen of the “Loading Unit Address is Success” opens.

3 Click “OK” button.

- ◆ That screen closes.

- Confirm the data information of the read in address. Please refer to 5-1-7 when that file of data is saved.
- Returns to the function menu after each operation ends.

4 Click “Back” button.

- ◆ The “Indoor/Outdoor Unit Address” screen opens.

Note

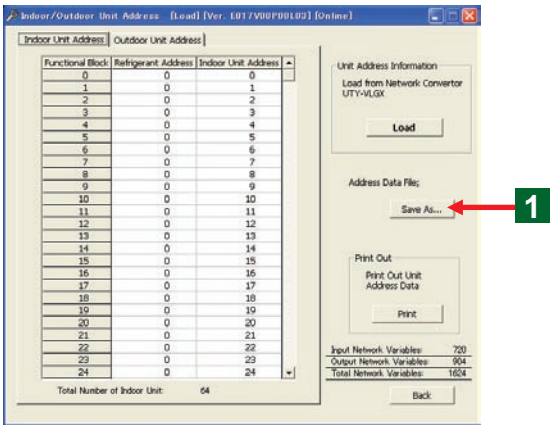
“Load” the data information from the Network Convertor becomes effective only in case of the connection environment menu is in “Online work” state. In case of using on the “Offline work” state, after a necessary file is saved once, Please switch to “Online work” state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

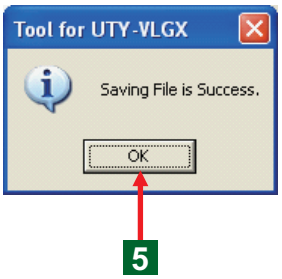
Note

The data that displayed on the “Load” will not disappear even if the display of the “Indoor/Outdoor Unit Address” is returned with “Back” button. In addition, in case of the display of the “Load Unit Address” is open, please pay attention that the content of previous “Load” will be displayed, when “Load” is not made.

5-1-7. Saving the file of the data of the “Layout of Indoor & Outdoor Unit Address” read in from the Network Convertor.

“Load Unit Address”





- Here, the file of the data information of “Layout of Indoor & Outdoor Unit Address” was saved in PC.

1 Click “Save As...” button.

◆ The window of “Save with Name” opens.

2 Select a file saving address.

3 Fill in the “File name when saving it”.

4 Click the “Save As...” button.

◆ Start saving

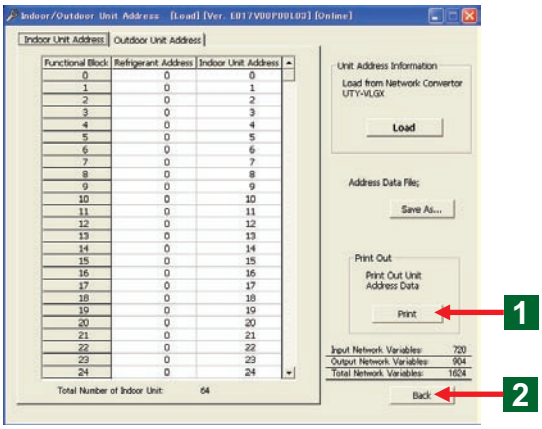
◆ After the file saving is completed, the screen of “Saving File is Success” opens.

5 Click “OK” button.

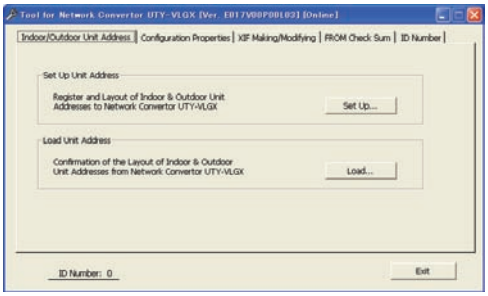
◆ That screen closes.

5-1-8. Printing the data of the “Layout of Indoor & Outdoor Unit Address” read in from the Network Convertor.

“Load Unit Address”



“Indoor/Outdoor Unit Address”



- Print the “Layout of Indoor & Outdoor Unit Address” data information.

1 Click “Print” button.

◆ The window of “Print” opens.

Note

Please follow the operating manual of the printer connected with the PC for the detailed setting of the print.

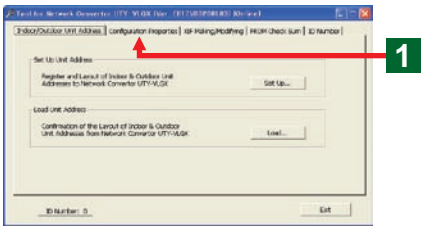
- After each operation ends, return to the function switching (Tab) screen.

2 Click “Back” button.

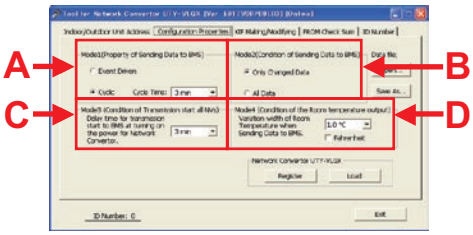
◆ The “Indoor/Outdoor Unit Address” screen opens.

5-2. Setting the communication mode between the Network Convertor and BMS.

Function switching (Tab)
“Indoor/Outdoor Unit Address”



“Configuration Properties”



- Switch to “Configuration Properties”.

1 Click the “Configuration Properties” tab.

◆ The “Configuration Properties” screen opens.

Note

The default setting of “Configuration Properties” is as follows:

“Mode 1 (Property of Sending Data to BMS)”:
Cyclic, Cyclic Time: 3 min.
“Mode 2 (Condition of Sending Data to BMS)”:
Only Changed Data
“Mode 3 (Condition of Transmission start all NVs)”:
3 min.
“Mode 4 (Condition of the Room temperature output)”:
1.0˚C Unit: Celsius

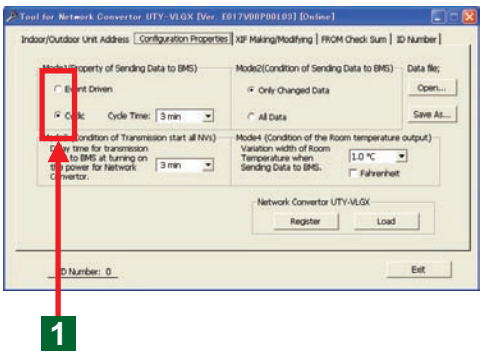
Note

Please set as follows if it is possible.

A. “Mode 1 (Property of Sending Data to BMS)”
B. “Mode 2 (Condition of Sending Data to BMS)”
C. “Mode 3 (Condition of Transmission start all NVs)”
D. “Mode 4 (Condition of the Room temperature output)”

5-2-1. Setting the “Mode 1 (Property of Sending Data to BMS)”.

“Configuration Properties”



- Set the timing in which it begins to send the registered data information of the “Indoor/Outdoor Unit” from Network Convertor to BMS.

Note

Please select as follows if it is possible.
“Event Driven” sends information uploading from the VRF system in real time to BMS.
“Cyclic” keeps the information uploading from the VRF system for certain time according to the set timing and then sends to BMS.

Note

In case of the “Cyclic” of sending information to BMS in a timing of certain time is set, it will be lack of real time property when “Cycle Time” is set at a long time. Moreover, the traffic amount of information will increase when setting at a short time.

1 Click the check box of the “Event Driven” or “Cyclic”.

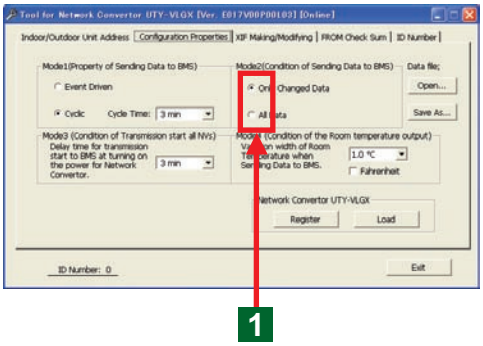
- When “Cyclic” is set, “Cycle Time” is set with “▼” button.

Note

The range of the “Cycle Time” can be set is from 2 min to 30 min. (the interval is 1min.)

5-2-2. Setting the “Mode 2 (Condition of Sending Data to BMS)”.

“Configuration Properties”



- Set the condition of information sent from the Network Convertor to BMS.

1 Click the check box of the “Only Changed Data” or “All Data”.

Note

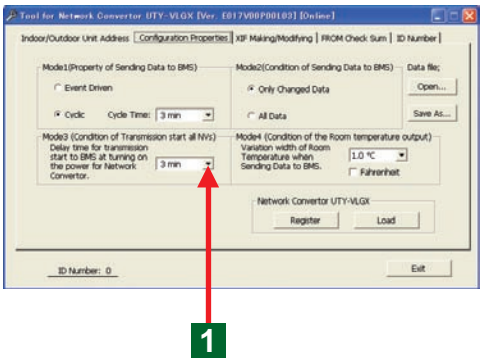
Please select as follows if it is possible.
“Only Changed Data” only sends the changed information to BMS.
“All Data” sends all data to BMS.

Note

It is possible to decrease the traffic amount of information sends to BMS compare with the “All Data” situation because only the changed information is selected, when the “Only Changed Data” is set.

5-2-3. Setting the “Mode 3 (Condition of Transmission start all NVs)”.

“Configuration Properties”



- After the power supply of Network Convertor is put into operation, set the beginning time for communication. Please make the settings suitable for the system.

1 The “Delay time for transmission start to BMS” is set by Click “▼” button.

Note

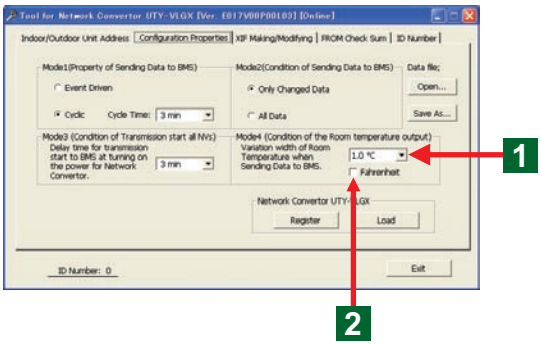
Because the equipment with different start up time exists together, the communication start is made stand by.
Set the standby time and to avoid the trouble of communication.

Note

The range of the beginning time for sending information can be set from 1min. to 30 min. (the interval is 1 min.)

5-2-4. Setting the “Mode 4 (Condition of the Room temperature output)”.

“Configuration Properties”



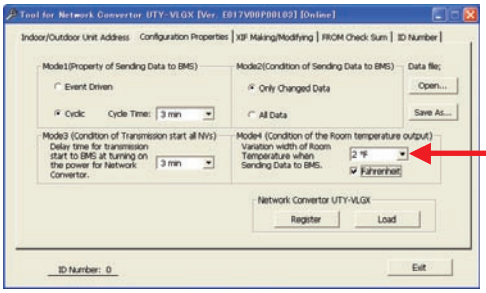
- In case of sending data information when the room temperature changes, set the minimum change range of the output room temperature data.

1 The “changing range of the room temperature” can be selected by Click “▼” button.

Note

The changing range of the sending room temperature data can be set at 0.5˚C to 10.0˚C (the interval is 0.5˚C). Moreover, in case of it is displayed in Fahrenheit, the changing range can be set at 1˚F to 20˚F (the interval is 1˚F). The traffic amount of information increases when the changing range is set small. Information can not be uploaded if the changing range is set big. The difference is generated in the operation condition of VRF system and the monitoring situation on the BMS side.

“Configuration Properties”



The temperature is displayed in Fahrenheit (˚F).

Note

The temperature unit can be switched from Centigrade (˚C) to Fahrenheit (˚F).

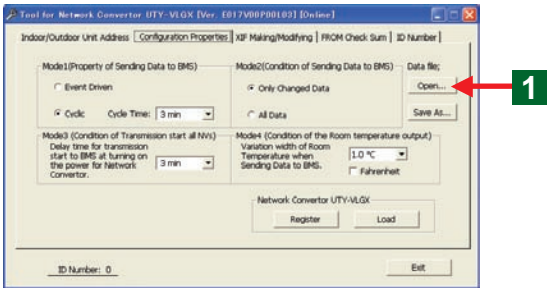
- In case of switching the temperature display from Centigrade (˚C) to Fahrenheit (˚F).

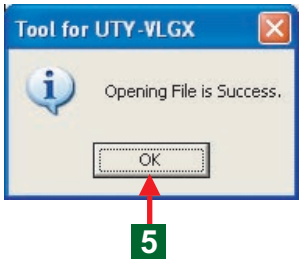
2 Click the check box of “Fahrenheit”.

◆ The temperature display is switching from Centigrade (˚C) to Fahrenheit (˚F).
If the check box is clicked again, it will return to display in Centigrade (˚C).

5-2-5. Opening the data saved in PC to the Tool for Network Convertor.

“Configuration Properties”





- Confirm the reading content of the set information saved in the file in PC.

1 Click “Open” button.

◆ The window of “Open the file” opens.

2 Open the directory that the file is saved.

3 Select the read in file.

4 Click the “Open” button.

◆ Start opening.

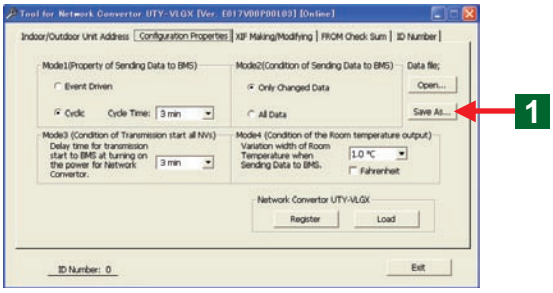
◆ After the file reading in is completed, the screen of “Opening File is Success” opens.

5 Click “OK” button.

◆ That screen closes.

5-2-6. Saving the setting data in PC.

“Configuration Properties”



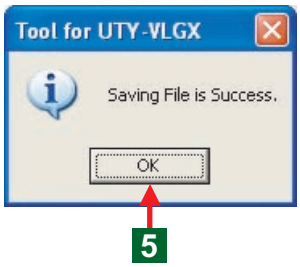
- Confirm the change or else of the read in data information of the Tool for Network Convertor, and save the file in PC.

1 Click “Save As...” button.

◆ The window of “Save with Name” opens.

2 Select a file saving directory.

3 Fill in the “File name when saving it”.



4 Click the “Save As...” button.

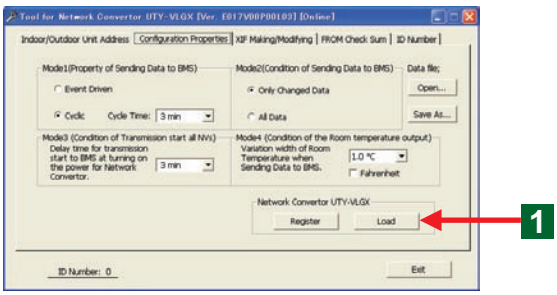
- ◆ Start saving.
- ◆ After the file saving is completed, the screen of “Saving File is Success” opens.

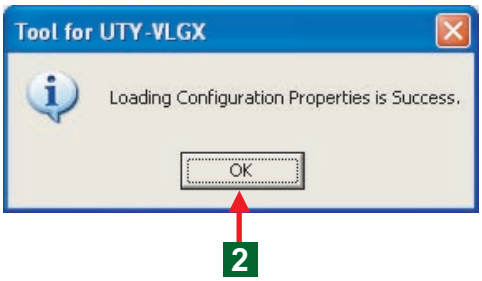
5 Click “OK” button.

- ◆ That screen closes.

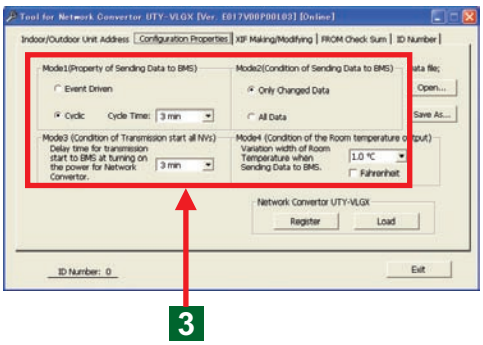
5-2-7. Opening the setting data in Network Convertor.

“Configuration Properties”





“Configuration Properties”



- Read the setting information in the Network Convertor into the Tool for Network Convertor, and confirm its content.

Note

Please save the file of the content displaying in the present display with “Save As...”, for certain circumstance need it later before reading in the set information from the Network Convertor with “Load” button.

1 Click “Load” button.

- ◆ The setting information read from Network Convertor in the Tool for Network Convertor is displayed on the screen.
- ◆ After “Load” is completed, the screen of the “Loading Configuration Properties is Success” opens.

2 Click “OK” button.

- ◆ That screen closes.

3 Change the displayed content of the setting information of the Network Convertor.

Note

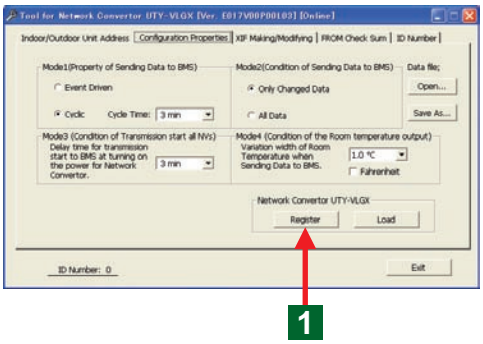
About the operation of changing the settings, please refer to from 5-2-1 to 5-2-4.

Note

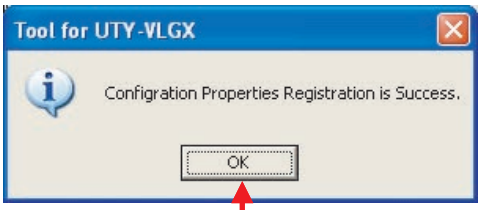
“Load” the data information from the Network Convertor becomes effective only in case of the “Connection environment” menu is in “Online work” state. In case of using on the “Offline work” state, after a necessary file is saved once, please switch to “Online work” state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

5-2-8. Register the setting data in Network Convertor.

“Configuration Properties”



1



2

- Confirm the set (changed) data information, and register it in Network Convertor.

1 Click “Register” button.

◆ The setting content is registered in the Network Convertor, and the screen of the “Configuration Properties Registration is Success” opens.

2 Click “OK” button.

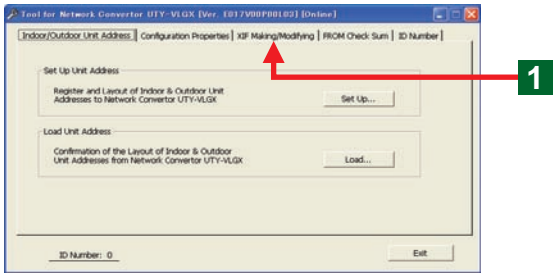
◆ The registration of the setting data ends.

Note

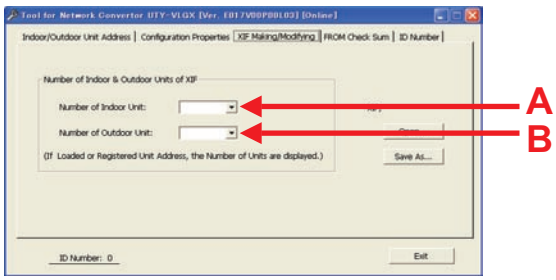
“Register” the data information in the Network Convertor becomes effective only in case of the connection environment menu is in “Online work” state. In case of using on the “Offline work” state, after a necessary file is saved once, Please switch to “Online work” state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

5-3. Making the “XIF” file.

Function switching (Tab)
“Indoor/Outdoor Unit Address”



“XIF Making/Modifying”



- In order to make Binding with the Network Integration Tool, the necessary “XIF” file is made.
- “ID Number” related information is included in the “XIF” file. The “ID Number” “Register” in the “Network Convertor” must be in consistent with the ID Number” when the “XIF” file is made.

1 Click the tab of the “XIF Making/Modifying”.

◆ The “XIF Making/Modifying” screen opens.

Note

The made item is as follows.

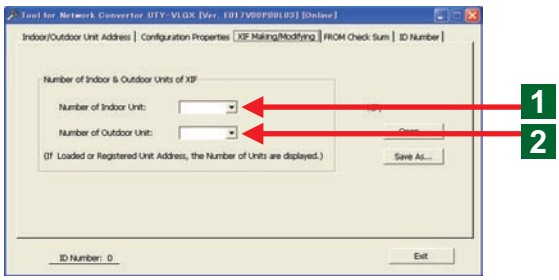
A. “Number of Indoor Unit”
B. “Number of Outdoor Unit”

Note

When 5-1-3 “Register” and 5-1-6 “Load” succeed, it is displayed as defaults based on the unit number information of the communicated “Indoor Unit” and “Outdoor Unit” with the Network Convertor.

5-3-1. Making the “XIF” file on the Tool for Network Convertor. (In case of the Default value is changed)

“XIF Making/Modifying”



- In order to make Binding, the necessary “XIF” file is made.

1 Set the number of the controlled indoor unit by clicking the [▼] button of the “Number of Indoor Unit”.

2 Set the number of the controlled outdoor unit by clicking the [▼] button of the “Number of Outdoor Unit”.

Note

The “Number of Indoor Unit” that can be controlled is from 1 to 128 (maximum is128).

Note

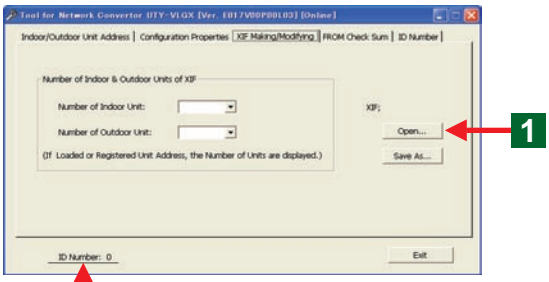
The “Number of Outdoor Unit” that can be controlled is from 1 to 100 (maximum is100).

Note

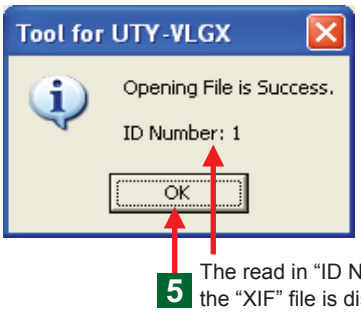
“XIF” file is the data necessary for “Binding”.
Please definitely input the same unit number with the number of the “Indoor/Outdoor Unit Address” registered in the Network Convertor in 5-1.

5-3-2. Opening the saved “XIF” file in PC.

“XIF Making/Modifying”



The connecting “ID Number” of “Network Convertor” is displayed.



The read in “ID Number” of the “XIF” file is displayed.

- The “XIF” file saved in the PC is read in the Tool for Network Convertor.

1 Click “Open” button.

- ◆ The window of “Open the file” opens.

2 Open the directory that the file is saved.

3 Select the read in file.

4 Click the “Open” button.

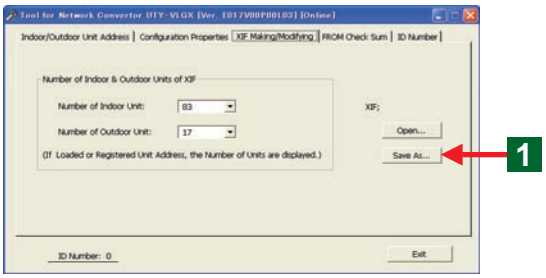
- ◆ Start opening.
- ◆ After the file reading in is completed, the screen of “Opening File is Success” opens.
- ◆ The read in ID Number” of the “XIF” file” is displayed on the sub-display. The “Network Convertor” that is different from the “ID Number” of Network Convertor doesn’t operate.

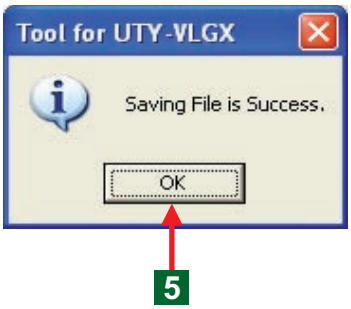
5 Click “OK” button.

- ◆ That screen closes.

5-3-3. Saving the “XIF” file made by the Tool for Network Convertor in PC.

“XIF Making/Modifying”





- Save the file of the “XIF” file made by the Tool for Network Convertor in PC.

1 Click “Save As...” button.

- ◆ The window of “Save with Name” opens.

2 Select a file saving address.

3 Fill in the “File name when saving it”.

4 Click the “Save As...” button.

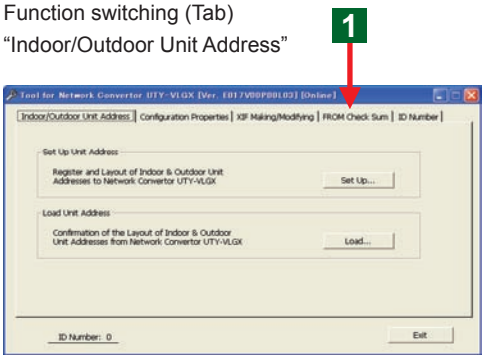
- ◆ Start saving.
- ◆ After the file saving is completed, the screen of “Saving File is Success” opens.

5 Click “OK” button.

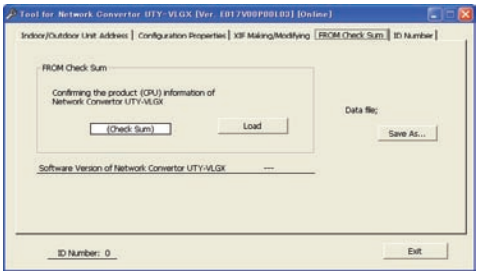
- ◆ That screen closes.

5-4. Confirming the product information of the Network Convertor.

Function switching (Tab)
"Indoor/Outdoor Unit Address"



"FROM Check Sum"



- Confirm the "FROM Check Sum" data information of the CPU mounted on the Network Convertor and the software version information.

1 Click the tab of the "FROM Check Sum".

Note

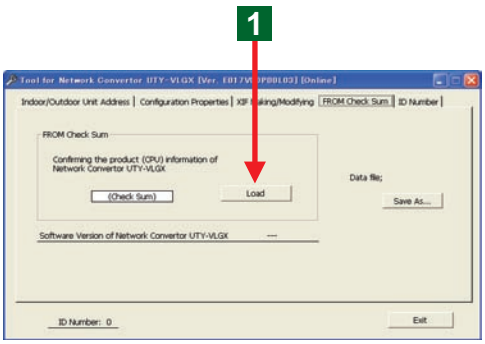
Please confirm as follows if it is possible.

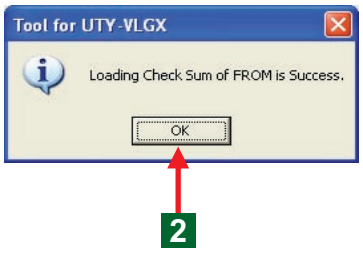
1. "Software Version of UTY-VLGX CPU"
2. CPU information

◆ The "FROM Check Sum" screen opens.

5-4-1. Confirming the load in the information of the "FROM Check Sum" in the Network Convertor.

"FROM Check Sum"





- Confirm the "FROM Check Sum" information of the Network Convertor.

1 Click "Load" button.

◆ The numerical value of the "FROM Check Sum of CPU" is displayed in the display section.

◆ The "Software Version of UTY-VLGX CPU" is displayed on the lower part of the "FROM Check Sum".

◆ The screen of the "Loading Check Sum of FROM is Success" opens.

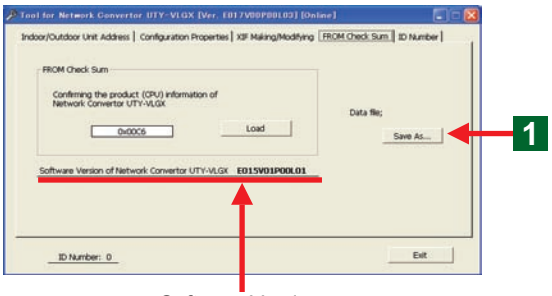
2 Click "OK" button.

Note

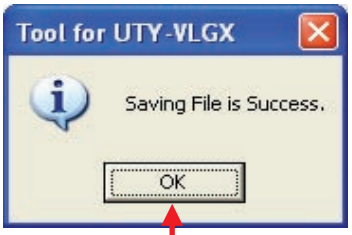
"Load" the data information from the Network Convertor becomes effective only in case of the "Connection environment" menu is in "Online work" state. Nothing can be made when in "Offline work" state. Please switch to "Online work" state by restarting the Tool for Network Convertor. (For detail, please refer to 4-2)

5-4-2. Saving the information of the “FROM Check Sum” in the Network Convertor in PC.

“FROM Check Sum”



Software Version



- Save the file of the data information of the “FROM Check Sum” read from the Network Convertor in PC.

1 Click “Save As...” button.

- ◆ The window of “Save with Name” opens.

2 Select a file saving address.

3 Fill in the “File name when saving it”.

4 Click the “Save As...” button.

- ◆ Start saving.
- ◆ After the file saving is completed, the screen of “Saving File is Success” opens.

5 Click “OK” button.

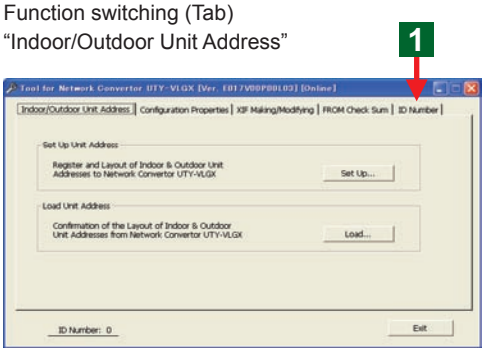
- ◆ That screen closes.
- ◆ Software Version of the “Network Convertor UTY-VLGX CPU” is indicated.

Note

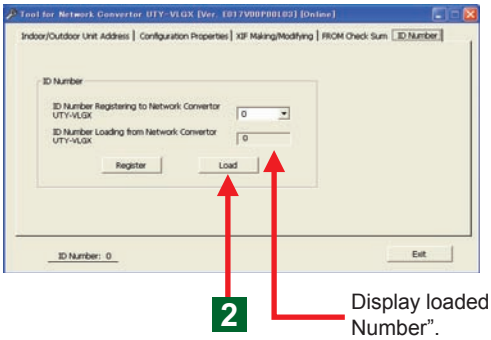
Please contact with authorized service personnel of this software version when the problem occurs on the Network Convertor.

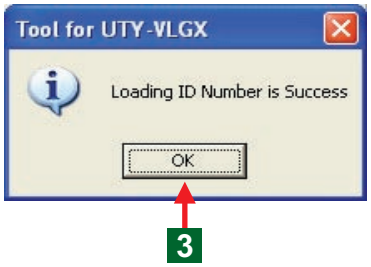
5-4-3. Changing the “ID Number” of the Network Convertor.

Function switching (Tab)
“Indoor/Outdoor Unit Address”

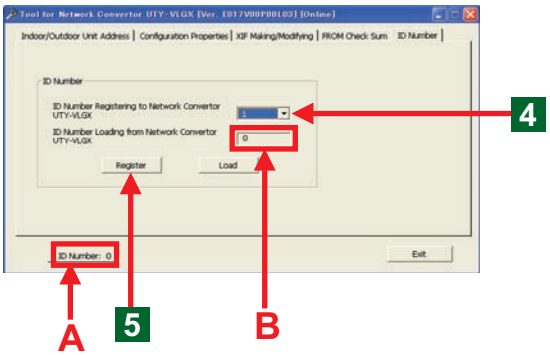


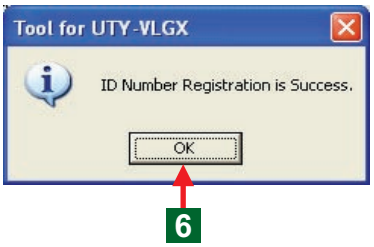
“ID Number”





“ID Number”





- Sets/changes the “ID Number”.

1 Click the tab of the “ID Number”.

Note

In “Register”, the setting information of the “ID Number” to the Network Convertor is registered.
In “Load”, read in the information of the “ID Number” set in the Network Convertor.

- In order to confirm the information of the “ID Number” set in the Network Convertor, it is read in the Tool for Network Convertor.

2 Click “Load” button.

◆ The Information of the “ID Number” is read in from the Network Convertor. The content is displayed in the window of the “ID Number Loading from Network Convertor”.

◆ After “Load” is completed, the screen of the “Loading ID Number is Success” opens.

3 Click “OK” button.

◆ That screen closes.

- In case of changing the “ID Number”.

4 Click the [▼] button to select the “ID Number” want to set.

◆ The selected “ID Number”. It is displayed in the window of the “ID Number Registering to Network Convertor UTY-VLGX”.

5 Click “Register” button.

◆ The changed content is registered in the Network Convertor, and the screen of the “ID Number Registration is Success” opens.

6 Click “OK” button.

◆ The screen closes. The registration of the changed data ends.

Note

When the “ID Number” of “Network Convertor” is changed, try to make and revise the “XIF” file again.

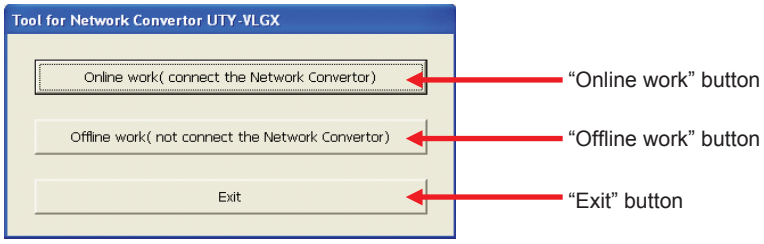
Note

Online:
If the “ID Number” selected in Step [4] is “Registered”, the display of ID Number of [A] and [B] will be reflected.

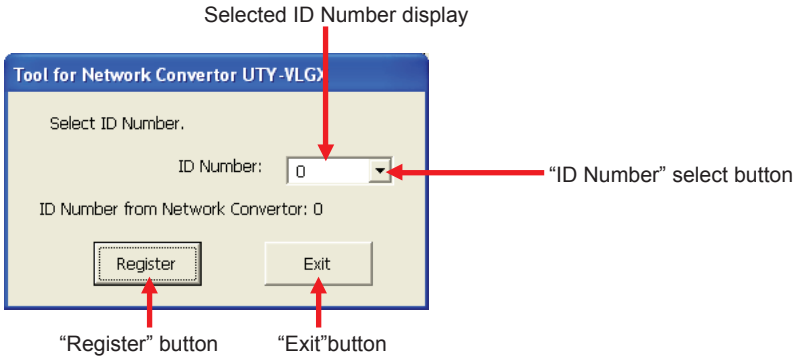
Offline:
If the “ID Number” is selected in Step [4], the display of [A] will change at the same time.
However, the display of [B] will not change.

6.DESCRIPTION OF THE MAIN SCREEN

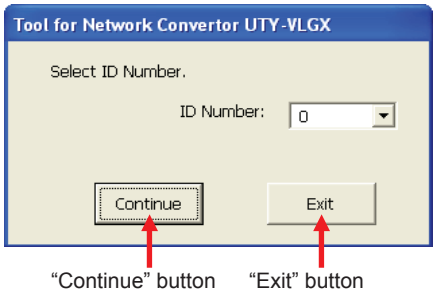
“Connection environment” menu screen



“ID Number” screen (Online)

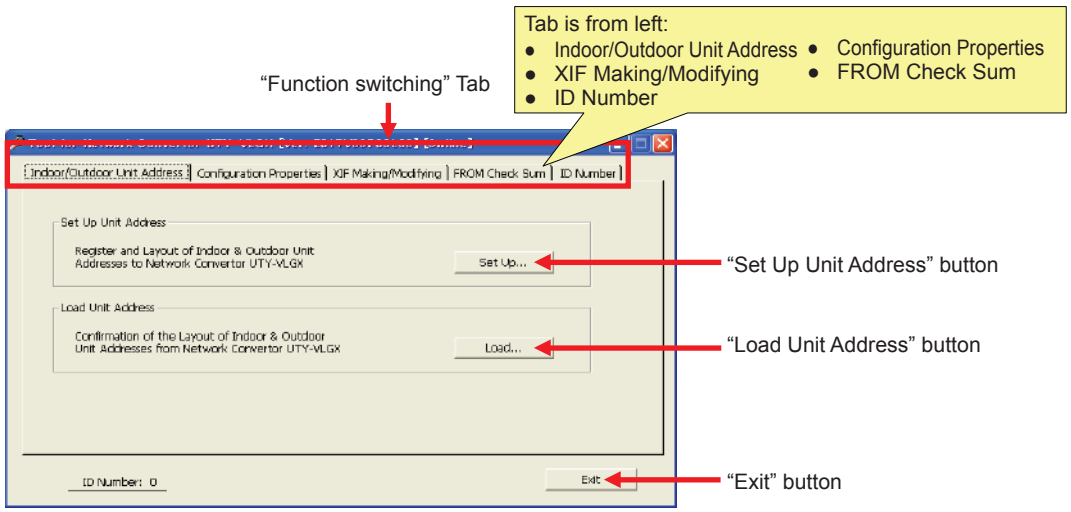


“ID Number” screen (Offline)

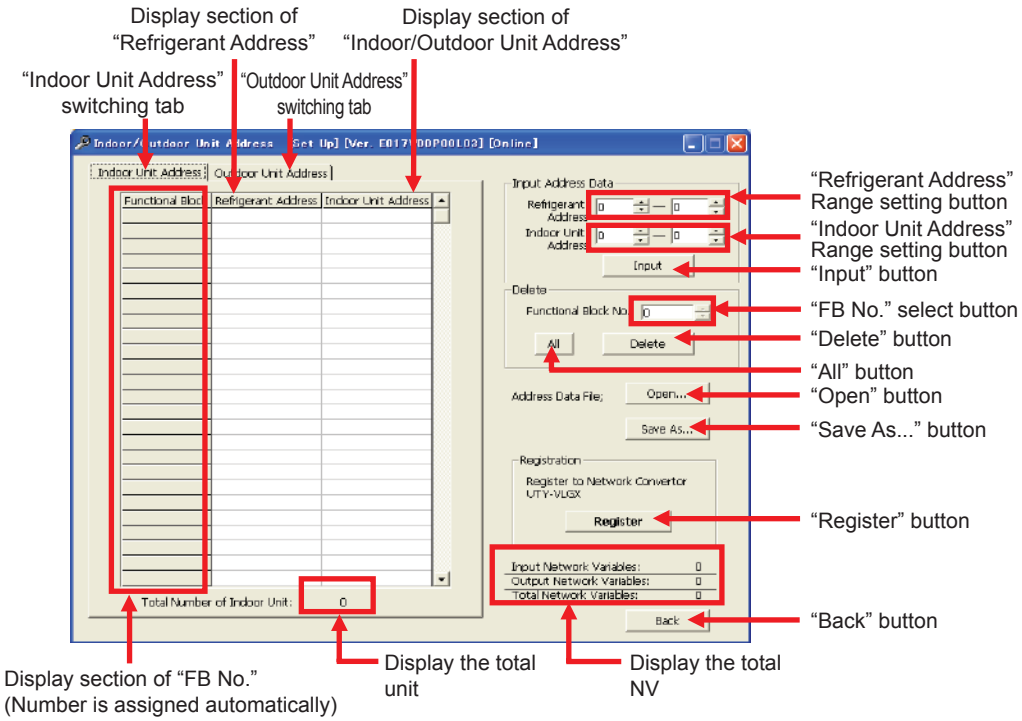


Function switching (Tab)

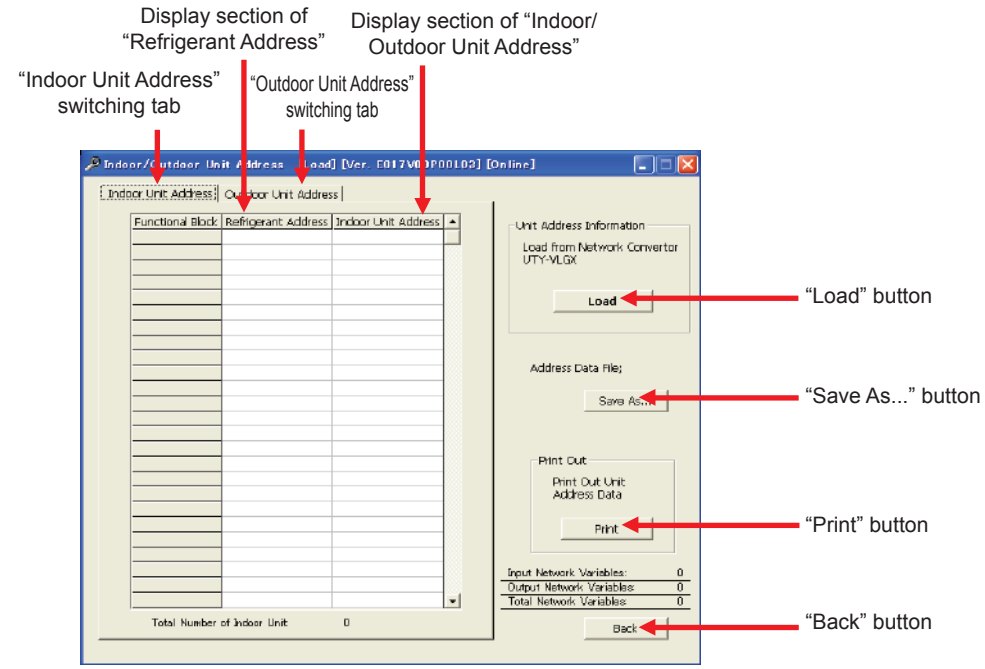
“Indoor/Outdoor Unit Address” screen



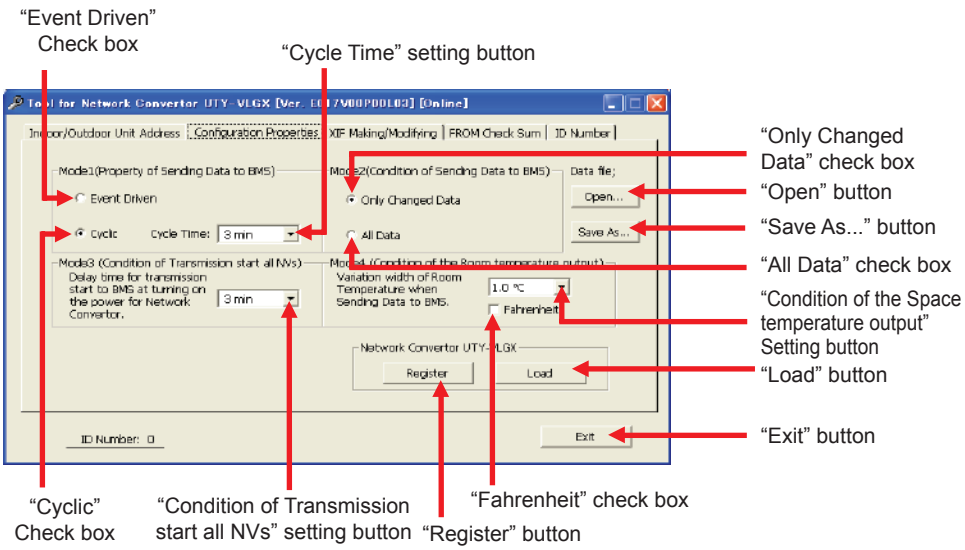
“Set Up Unit Address” screen



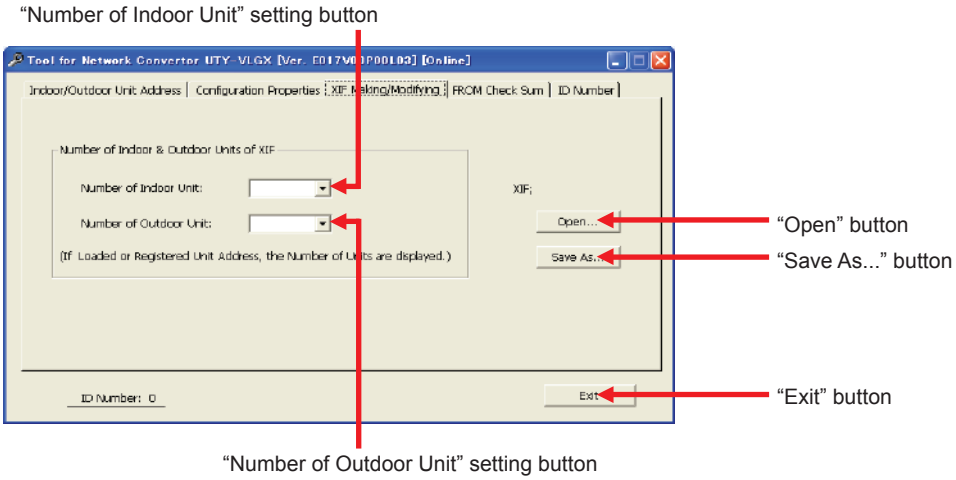
“Load Unit Address” screen



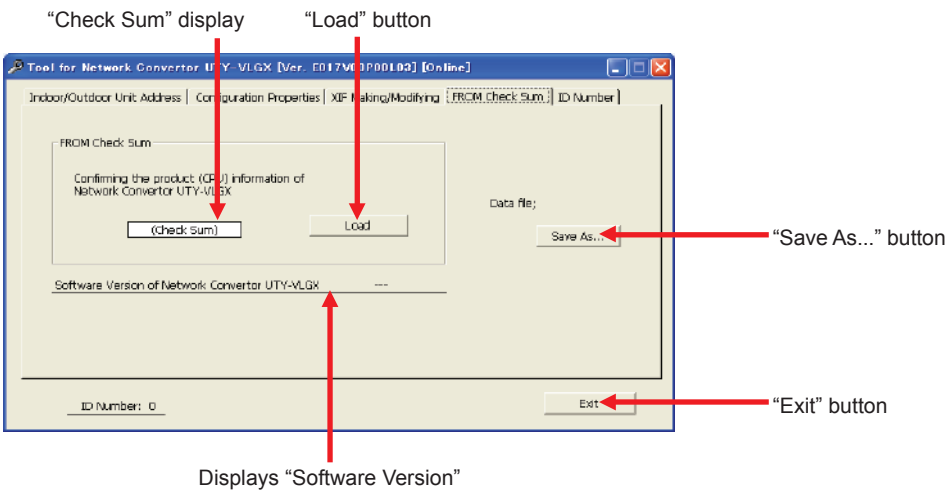
“Configuration Properties” screen



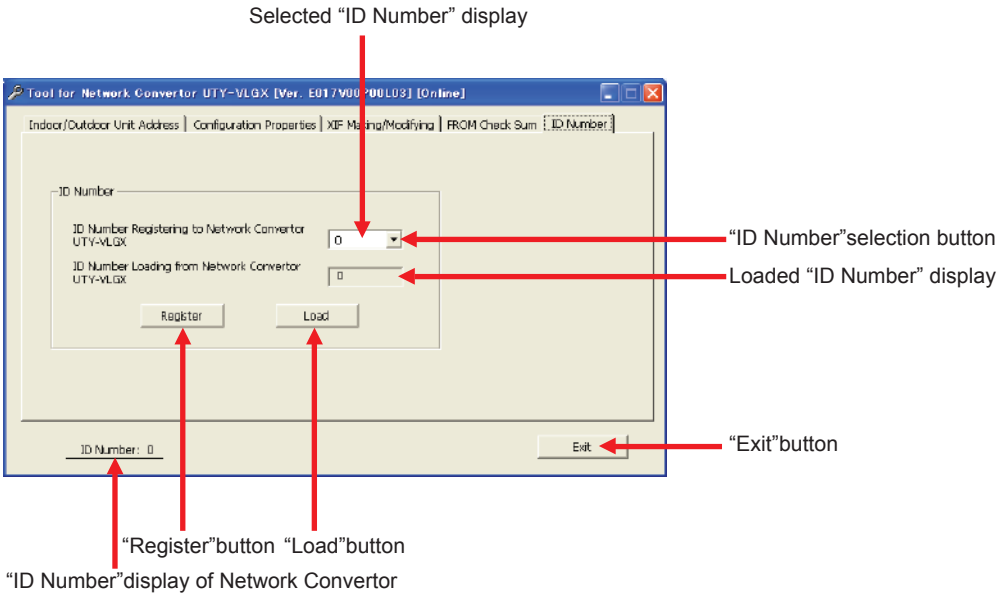
“XIF Making/Modifying” screen



“FROM Check Sum” screen



ID Number (Change)" screen



7.SERVICE PIN

When the Binding & Commissioning is done by Network Integration Tool, it is used to recognize the Network Convertor.

If the Service Pin is pushed, the Neuron ID will be sent.

PCB Layout