MITSUBISHI ELECTRIC

<ORIGINAL>

CE

Air Conditioning Control System
Centralized Controller
AE-200A/AE-50A/EW-50A
AE-200E/AE-50E/EW-50E
Update Tool

SD SDHC Java POWERED

Instruction Book

For distribution to dealers and contractors

Contents

1. Introduction 3
   - 1-1. What is AE-200 Update Tool? 3
   - 1-2. PC requirements 3
   - 1-3. System descriptions 4
   - 1-4. System restrictions 5
2. Preparation 6
   - 2-1. How to obtain the update file 6
   - 2-2. Installation procedures of Update Tool 6
   - 2-3. Setting the PC's IP address 8
   - 2-4. Installation procedures of .NET Framework 9
3. Usage instructions 10
   - 3-1. Main screen 11
   - 3-2. Inputting the IP addresses of centralized controllers 13
   - 3-3. Checking the versions of the centralized controllers 15
   - 3-4. Selecting the update file 17
   - 3-5. Updating the centralized controllers 18
   - 3-6. Saving the IP addresses of centralized controllers 21
4. Troubleshooting 22

Before using the controller, please read this Instruction Book carefully to ensure proper operation.
Retain this manual for future reference.

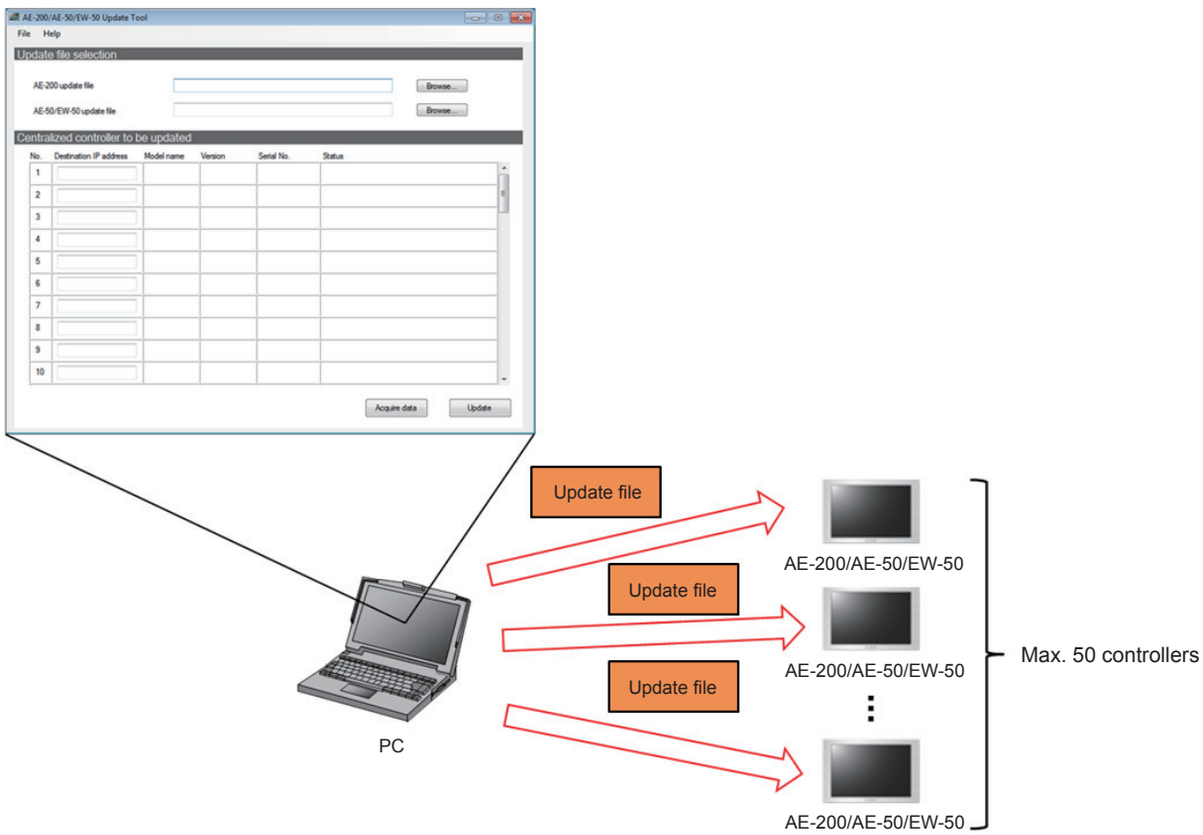
Terms used in this manual

- “Centralized Controller AE-200A/AE-200E” is referred to as “AE-200”.
- “Centralized Controller AE-50A/AE-50E” is referred to as “AE-50”.
- “Centralized Controller EW-50A/EW-50E” is referred to as “EW-50”.

1. Introduction

1-1. What is AE-200 Update Tool?

Update Tool is a tool that can update the software of all AE-200/AE-50/EW-50 controllers that are connected in the air conditioning control system at once.

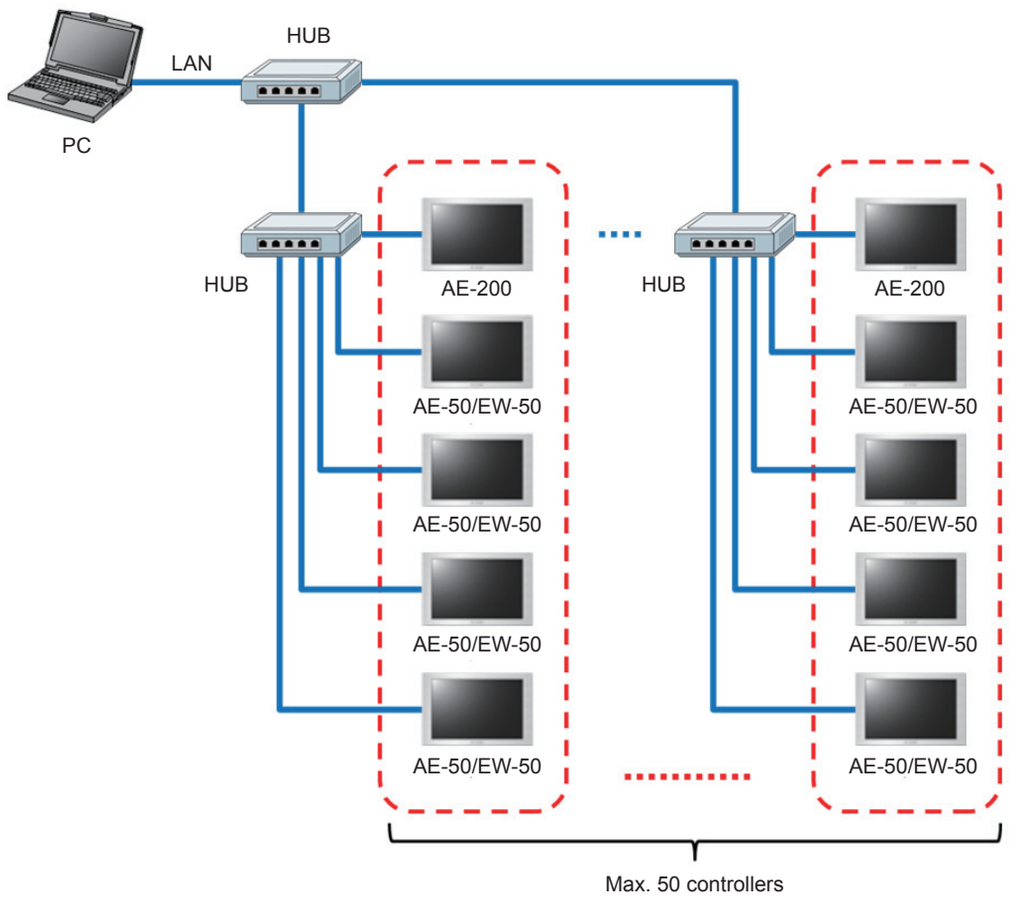


1-2. PC requirements

Item	Requirements
CPU	1 GHz or better (at least 2 GHz recommended)
Memory	2 GB or better
Screen resolution	1024 x 768 or better
OS	Windows 7 (32bit/64bit) Windows 8.1 (64bit) Windows 10 (64bit) * .NET Framework 4.0 or later is required.
Internal LAN port or LAN card	100 BASE-TX or better
Pointing device	Mouse, etc.

1-3. System descriptions

The system configuration image is shown below.



Important

- When connecting the AE-200/AE-50/EW-50 via a LAN, be sure to use the “LAN1” port.

1-4. System restrictions

- AE-200 Update Tool is exclusively used for AE-200/AE-50/EW-50. Do not use this tool for other products.
- The AE-200/AE-50/EW-50 software cannot be downgraded to an earlier version.
- Up to 50 AE-200/AE-50/EW-50 controllers can be updated at the same time.

Note

- The communication between AE-200/AE-50/EW-50 and the air conditioning units will stop while the software is being updated. Although the unit in operation may detect a communication error and an error sign may appear on the local remote controllers, the unit will continue its operation and be operable from the local remote controllers.

* Note that Mr. Slim indoor units or systems with no local remote controllers may detect a communication error and come to an abnormal stop.

- While the software is being updated, up to 60-minute worth of energy management data and billing function data will not be recorded.
- When an AE-50/EW-50's Pulse Input (PI) function is used, the pulse that is input while the software is being updated will not be counted.

Important

- Record the operation status of the air conditioning units immediately before updating the software. After the software update is completed, check the operation status of the units, and manually operate the units as necessary.
- Some operations and functions, such as scheduled operations, billing function, Peak Cut control, energy management function, will be disabled while the software is being updated. Check the setting details of these functions beforehand, and update the software when it does not affect these functions.
- If the functions in the table below are used, avoid updating the AE-200/AE-50/EW-50 software during the time period indicated in the right column.

Function in use	Time period in which the update is prohibited
Electricity charge apportioning function (with Charge Calculation Tool)	AM 5:00 – 5:10
Electricity charge apportioning function (with TG-2000A)	AM 4:05 – 4:35
Malfunction log backup (with TG-2000A)	AM 0:05 – 0:15
Peak Cut data backup (with TG-2000A)	AM 2:00 – 2:10
Measurement trend data backup (with PI controller, AI controller, or TG-2000A)	AM 1:05 – 1:15

2. Preparation

2-1. How to obtain the update file

For how to obtain the latest update file, contact the dealer from which the Update Tool was obtained.

2-2. Installation procedures of Update Tool

Important

- If your OS is Windows 7, check beforehand that .NET Framework version 4.0 or later is installed. Refer to section 2-4 “Installation procedures of .NET Framework” for details.

Note

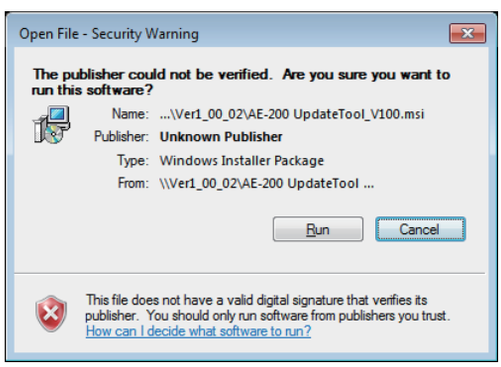
- The version of the installed .NET Framework can be checked by selecting the Windows Start menu and then choosing [Control Panel] > [Program and Features].

Procedures

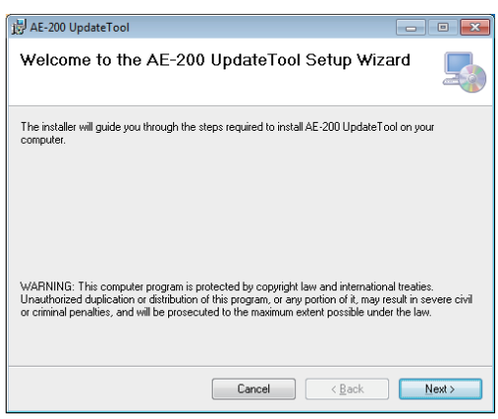
1. Double-click “AE-200 UpdateTool_V***.msi” that was downloaded.

   * “V***” indicates version number. (“V100” indicates Ver. 1.00.)

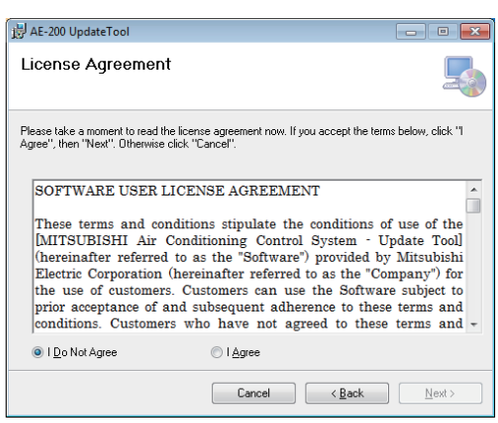
2. If the “Security Warning” message appears, click [Run].



3. When the “Setup Wizard” screen appears, click [Next].



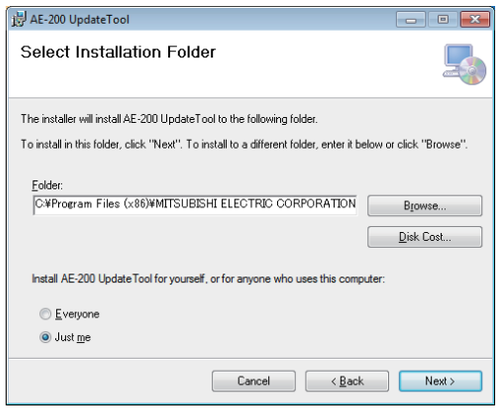
4. The “License Agreement” screen will appear. Read through, select [I Agree], and click [Next].



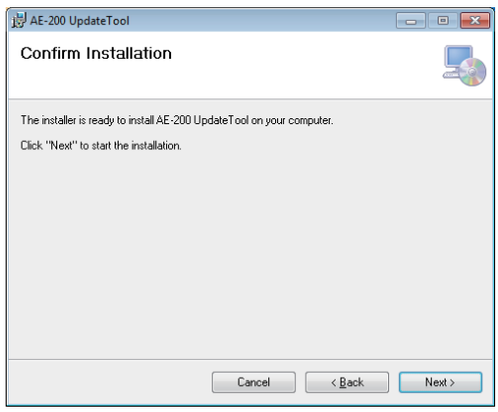
5. The “Select Installation Folder” screen will appear. Select the save destination folder and click [Next].

Note

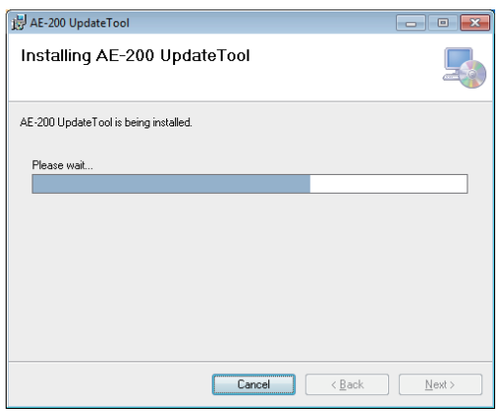
- To allow all users who can login the PC to have access to the Update Tool, check that the [Everyone] checkbox is selected and then click [Next].



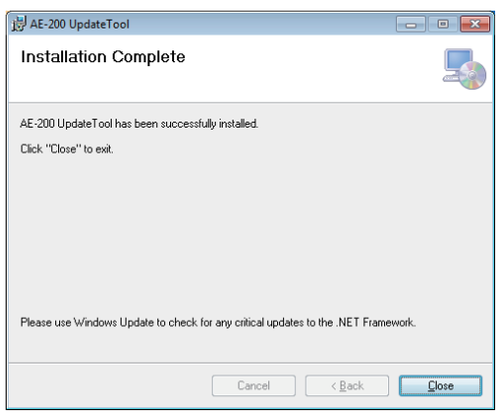
6. When the “Confirm Installation” screen appears, click [Next].



7. The Update Tool will be installed.



8. Once installation is completed, click [Close].

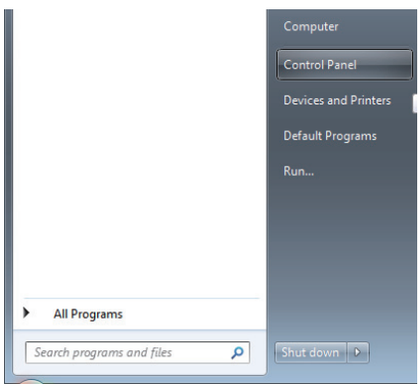


2-3. Setting the PC's IP address

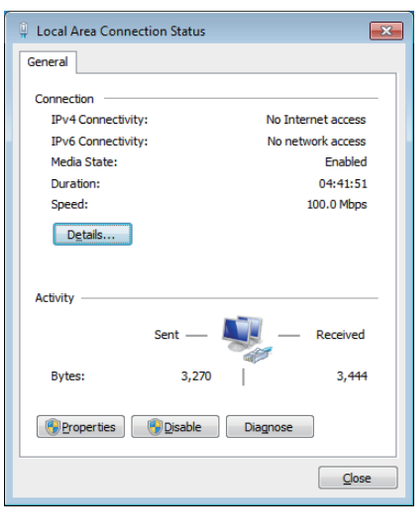
Set the PC's IP address so that settings data can be sent from the Update Tool to the AE-200/AE-50/EW-50. When setting the PC's IP address, set a network address in the same system as the IP address for the AE-200/AE-50/EW-50.
(Example: AE-200 IP address: 192.168.11.1; PC IP address: 192.168.11.150)
When connecting the AE-200/AE-50/EW-50 to an existing LAN, consult the system administrator to decide the IP address.

Procedures

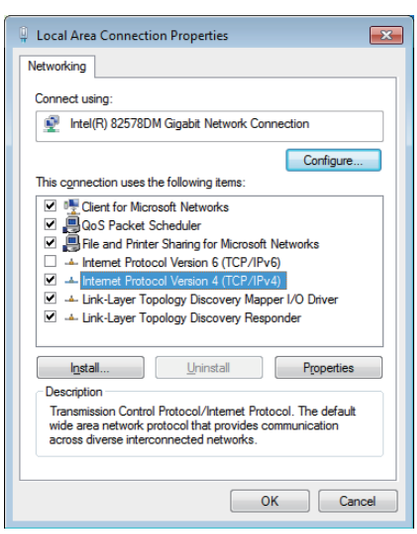
1. Click [Control Panel] in the Start menu.



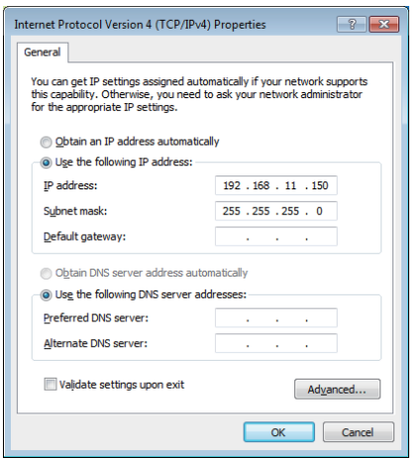
2. Click [Network and Sharing Center] > [Local Area Connection].
3. In the "Local Area Connection Status" window, click [Properties].



4. Click [Internet Protocol Version 4 (TCP/IPv4)] to select it, and click [Properties].



5. In the [Internet Protocol Version 4 (TCP/IPv4) Properties] window, check the radio button next to [Use the following IP address].
6. Enter the PC's IP address (e.g., [192.168.11.150]) in "IP address".
7. Enter the subnet mask [255.255.255.0] (unless otherwise specified) in "Subnet mask".
8. In "Default gateway", enter the gateway address as necessary.



Important

- Consult the system administrator to decide the IP, subnet mask, and gateway addresses.
- Take a note of the IP, subnet mask, and gateway addresses before changing them.

9. Keep clicking [OK] or [Close] to close all windows.

2-4. Installation procedures of .NET Framework

If .NET Framework 4.0 is not already installed, download the .NET Framework 4.5.2 installer from the URL shown below, and then install it.

URL for when the Internet is connected (Web installer) (English):
http://www.microsoft.com/en-US/download/details.aspx?id=42643

URL for when the Internet is not connected (Offline installer) (English):
http://www.microsoft.com/en-US/download/details.aspx?id=42642

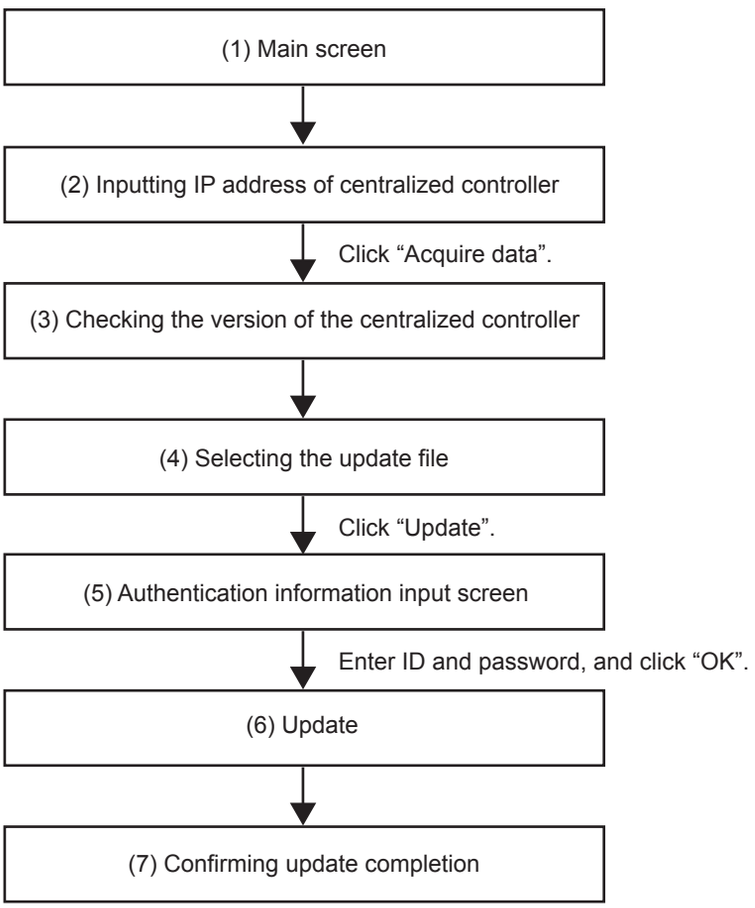
* Other language can also be selected from this website.

Important

- If the system is not connected to the Internet, you will need to download the offline installer beforehand.

3. Usage instructions

See the entire flowchart below to use the Update Tool. For details of each process, refer to the reference section shown in the table below.

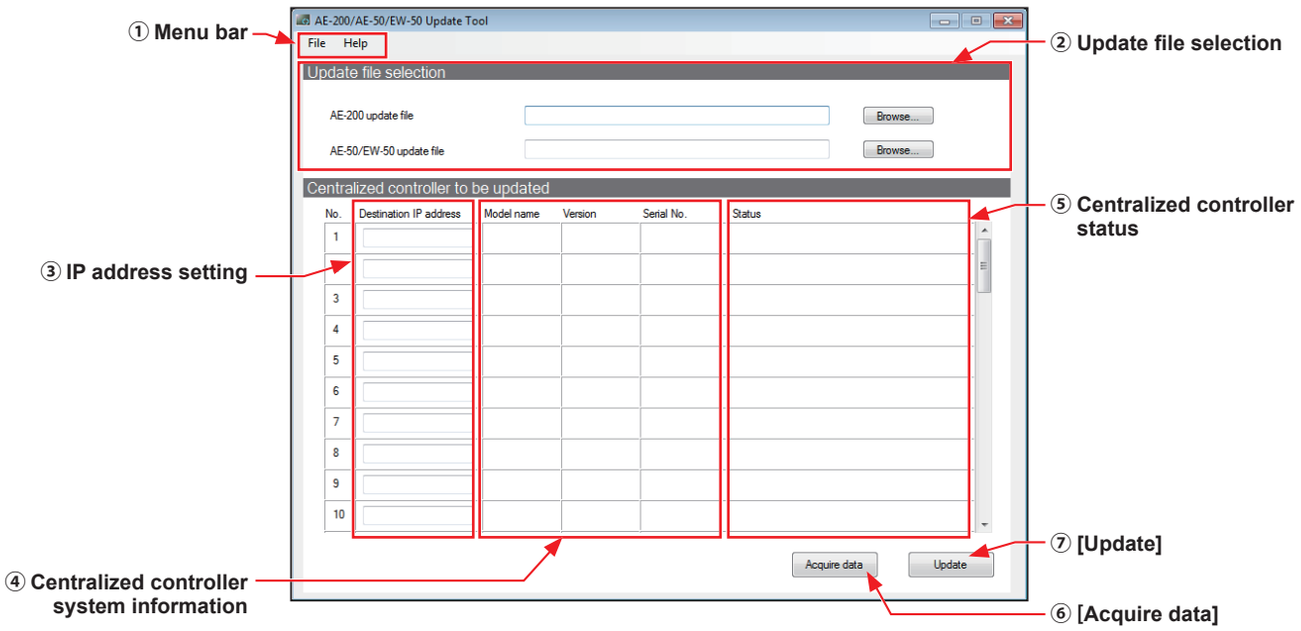


	Process	Reference section
(1)	Main screen	3-1 “Main screen”
(2)	Inputting IP address of centralized controller	3-2 “Inputting IP address of centralized controller”
(3)	Checking the version of the centralized controller	3-3 “Checking the version of the centralized controller”
(4)	Selecting the update file	3-4 “Selecting the update file”
(5)	Authentication information input screen	3-5 “Updating the centralized controllers”
(6)	Update	3-5 “Updating the centralized controllers”
(7)	Confirming update completion	3-5 “Updating the centralized controllers”

3-1. Main screen

3-1-1. Screen configuration

When the Update Tool is started up, a main screen will appear.

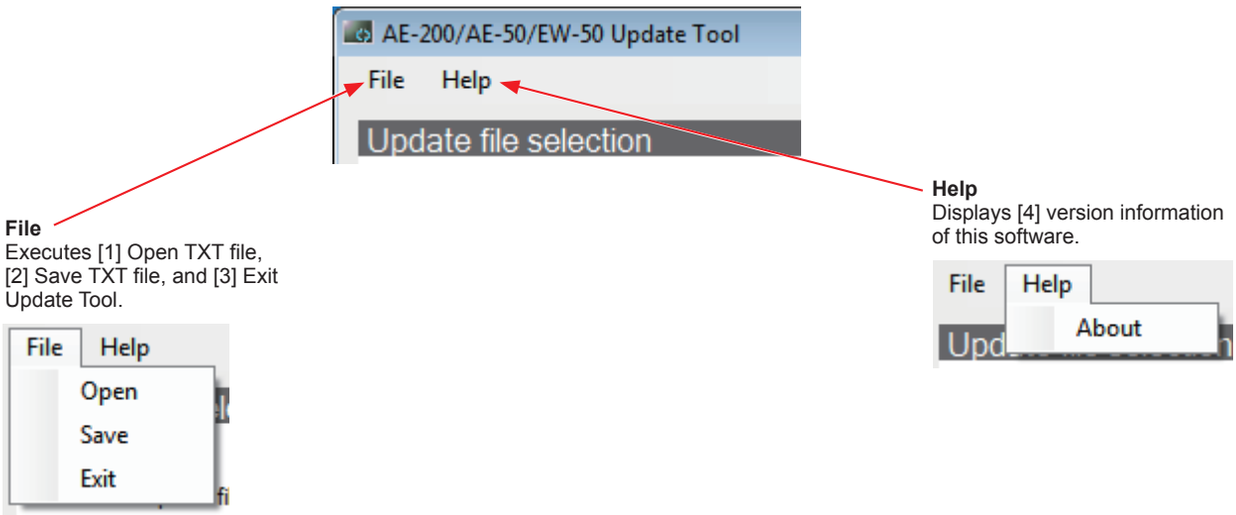


	Function	Operation method	Description
①	Menu bar	Operations such as to load the TXT file in which the destination IP addresses are entered, save the entered destination IP addresses, exit the Update Tool, and to check the version information are possible.	Refer to sections 3-1-2 “List of menu bar operations”, 3-2-2 “When loading IP addresses from TXT file”, and 3-6 “Saving the IP addresses of centralized controllers”.
②	Update file selection	Select the update file for the centralized controller.	Refer to section 3-4 “Selecting the update file”.
③	IP address setting	The area in which settings of the IP address of the centralized controller to be updated are made.	Refer to section 3-2 “Inputting IP address of centralized controller”.
④	Centralized controller system information	The system information of a given centralized controller is displayed.	
⑤	Centralized controller status	The status regarding the update of a given centralized controller is displayed.	
⑥	[Acquire data]	Click to acquire the system information of the centralized controllers whose IP address is entered in the IP address setting area.	Refer to section 3-3 “Checking the version of the centralized controller”.
⑦	[Update]	Click to update the centralized controllers whose IP address is entered in the IP address setting area.	Refer to section 3-5 “Updating the centralized controllers”.

Note

- Up to 50 centralized controllers can be updated at the same time.

3-1-2. List of menu bar operations



[1] Open TXT file

Click [File] > [Open] in the menu bar to load the TXT file in which the destination IP addresses are entered.

[2] Save TXT file

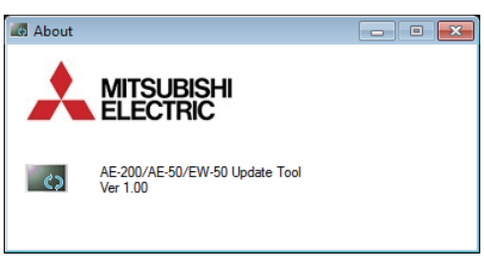
Click [File] > [Save] in the menu bar to save the IP addresses that are entered in the IP address setting area on the PC.

[3] Exit Update Tool

Click [File] > [Exit] in the menu bar to exit the Update Tool.

[4] Version information

Click [Help] > [About] in the menu bar to display the version of the current Update Tool. (The sample screen below is a screen when the Update Tool is Ver. 1.00.)

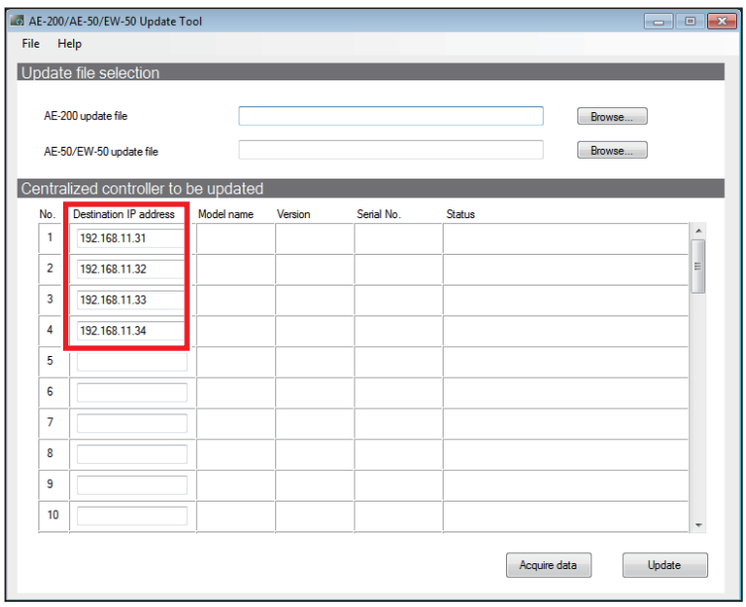


3-2. Inputting the IP addresses of centralized controllers

3-2-1. When inputting IP addresses directly

Procedures

1. Enter the IP address of the centralized controller to be updated in each “Destination IP address” column.



Important

- Enter the IP address in one-byte characters in the following formula.
  [XXX.XXX.XXX.XXX] (XXX: Integer number between 0 and 255)
  Example: [192.168.1.1]
  Do not enter any characters other than the above (including tab and space).

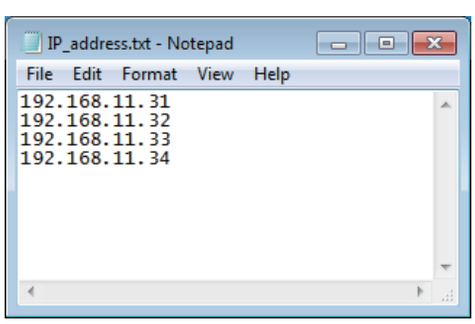
3-2-2. When loading IP addresses from TXT file

Note

- The Update Tool can load the IP addresses of the centralized controllers that were entered in the TXT file.

Procedures

1. Using a notepad etc, create a file of the IP address data of the centralized controllers in a TXT file.



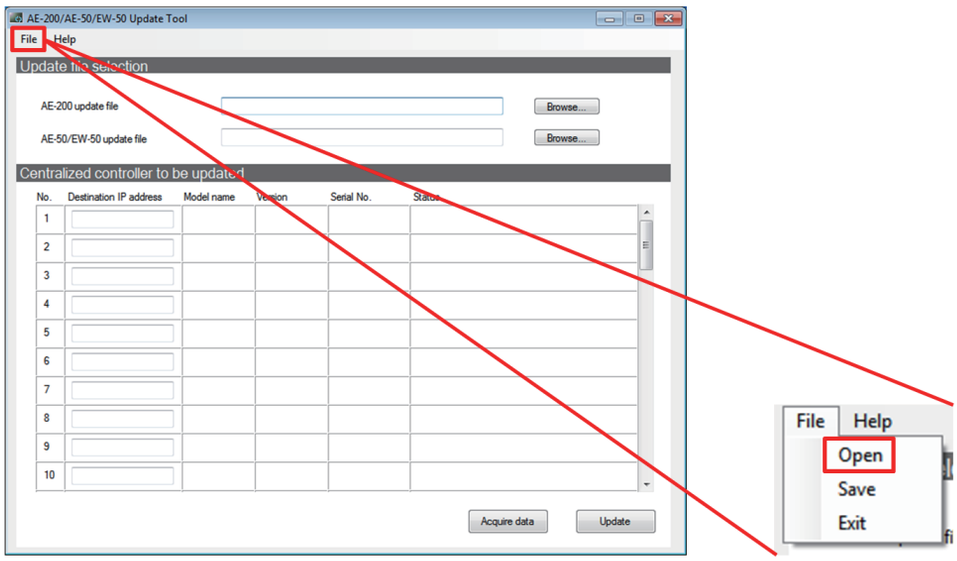
Note

- Up to 50 IP addresses can be loaded.
- When only line feed is inserted, it will appear as a blank line.

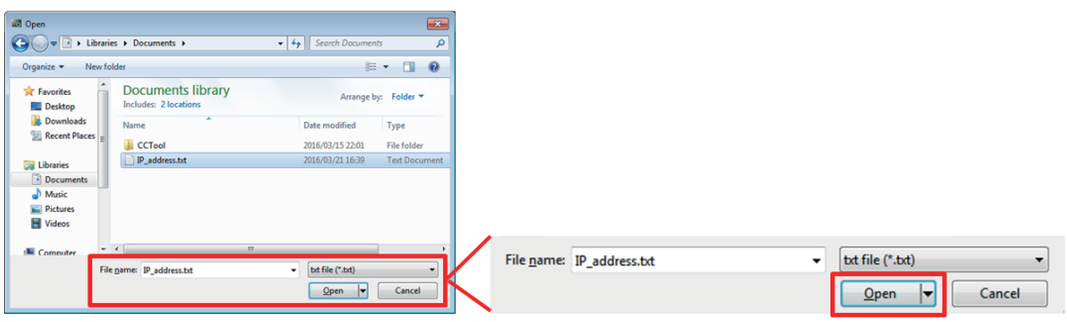
Important

- Enter the IP address in one-byte characters in the following formula.
  [XXX.XXX.XXX.XXX] (XXX: Integer number between 0 and 255)
  Example: [192.168.1.1]
  Do not enter any characters other than the above (including tab and space).

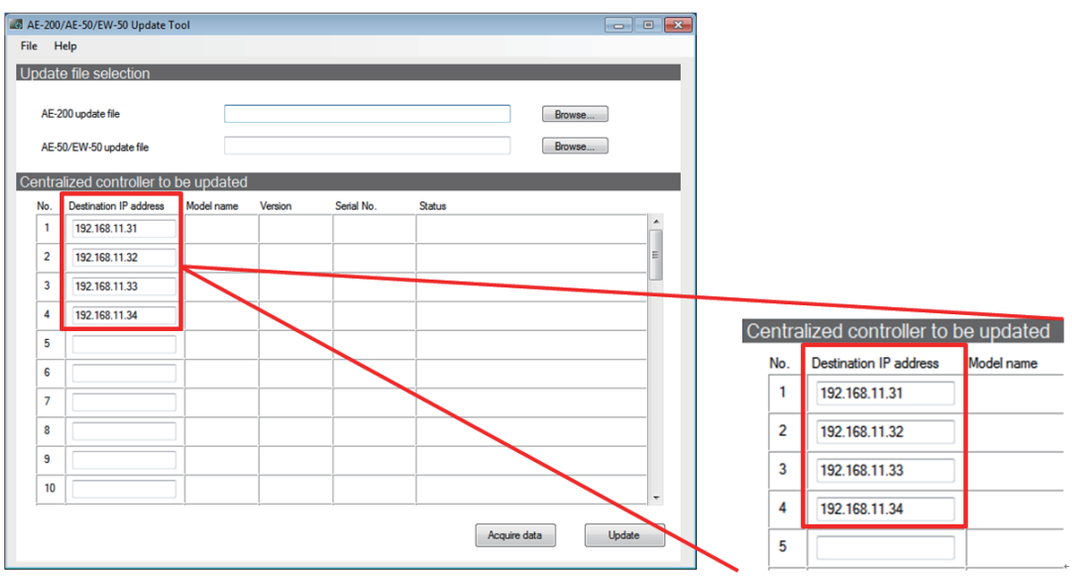
2. Click [File] > [Open].



3. A screen to select a file will appear. Select the TXT file that was created in step 1 above, and click [Open].



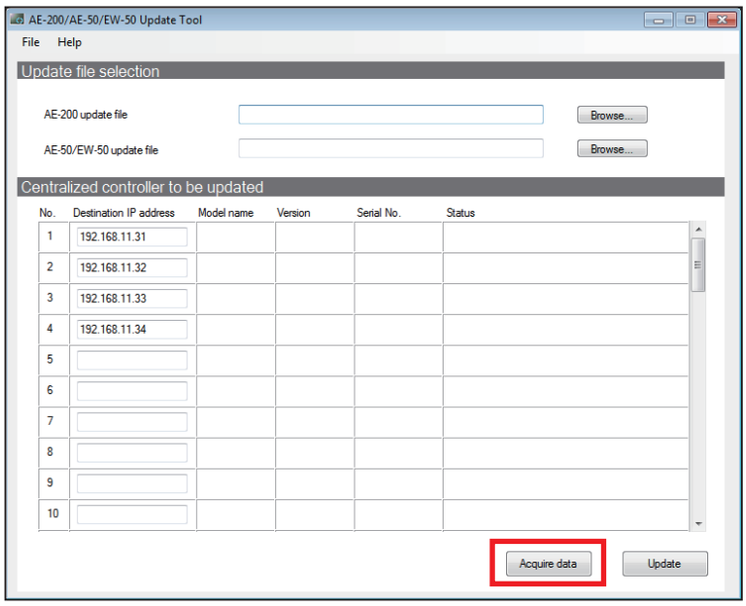
4. The IP addresses of the centralized controllers to be updated will be loaded and displayed in the “Destination IP address” column.



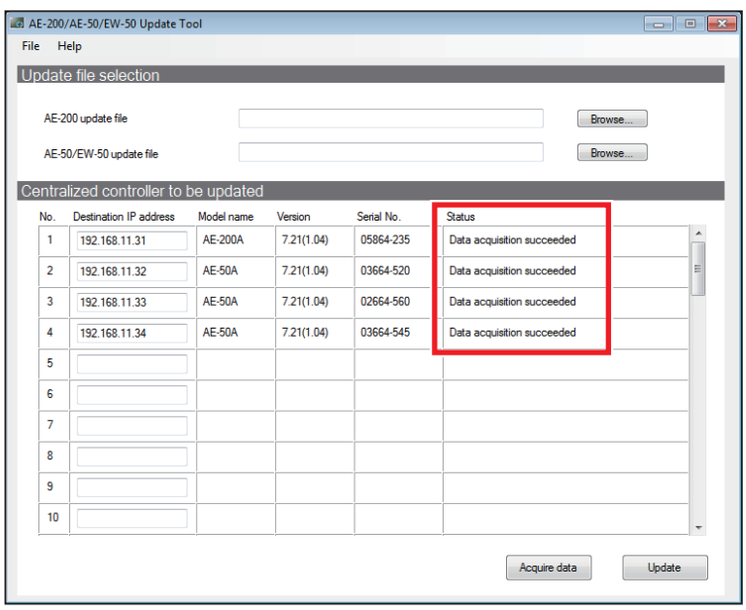
3-3. Checking the versions of the centralized controllers

Procedures

1. Click [Acquire data].



2. The information shown in the next page will appear in the “Status” column for each destination IP address.



	Display information in the “Status” column	Explanation
1	Acquiring data...	The centralized controller data are being acquired. The message will appear in black.
2	Data acquisition succeeded	The centralized controller data have been successfully acquired. The message will appear in black. When the data acquisition is successfully completed, the model name, version, and serial number of the centralized controller will be displayed on the main screen.
3	Data acquisition failed	The centralized controller data have failed to be acquired. The message will appear in red.
4	Invalid IP address	The IP address entered in “Destination IP address” is not in the correct format. The message will appear in red.
5	IP addresses overlap	The IP addresses entered in “Destination IP address” overlap. The message will appear in red.
6	The equipment is not applicable for update.	The data of the equipment that is not an update target (AE-200/AE-50/EW-50) have been successfully acquired. The message will appear in red. When this message appears, the model name, version, and serial number of the centralized controller will be displayed on the main screen.

Note

- When “Data acquisition failed,” “Invalid IP address,” or “IP addresses overlap” appears in the “Status” column of the main screen, refer to section 4 “Troubleshooting”.
- On the main screen, the centralized controller model name is displayed in “Model name,” the current software version of the centralized controller is displayed in “Version,” and the centralized controller serial number is displayed in “Serial No.”.

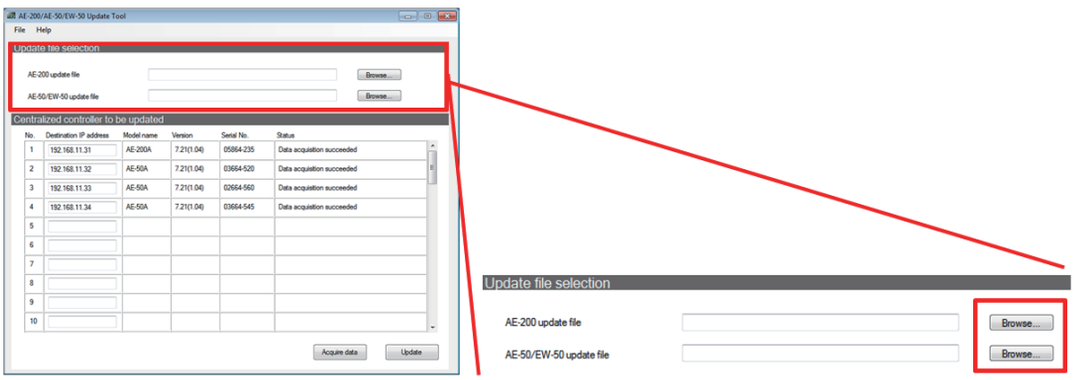
Important

- Do not click at the top right corner of the main screen while the data is being acquired.

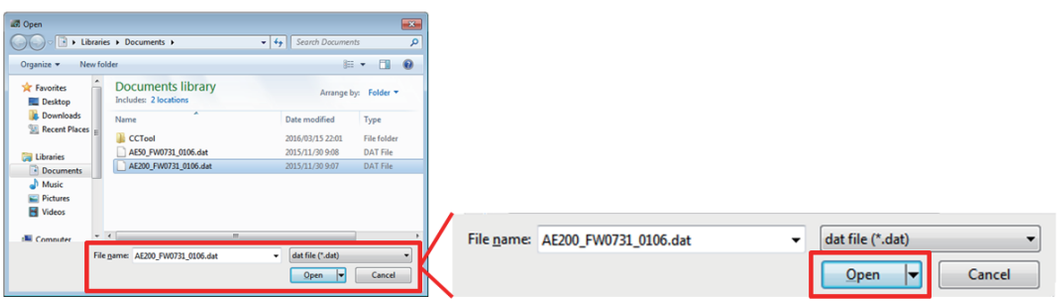
3-4. Selecting the update file

Procedures

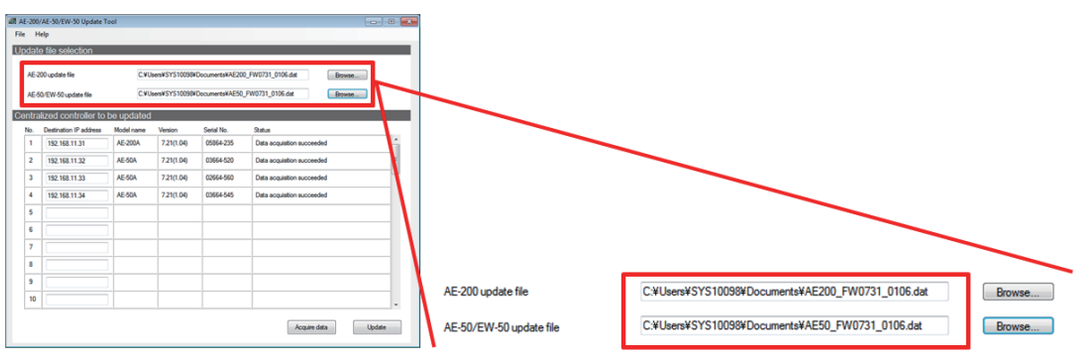
1. Click [Browse...].



2. A screen to select a file will appear. Select the update file, and click [Open].



3. If the update file exists, the file name will be displayed in the text box.



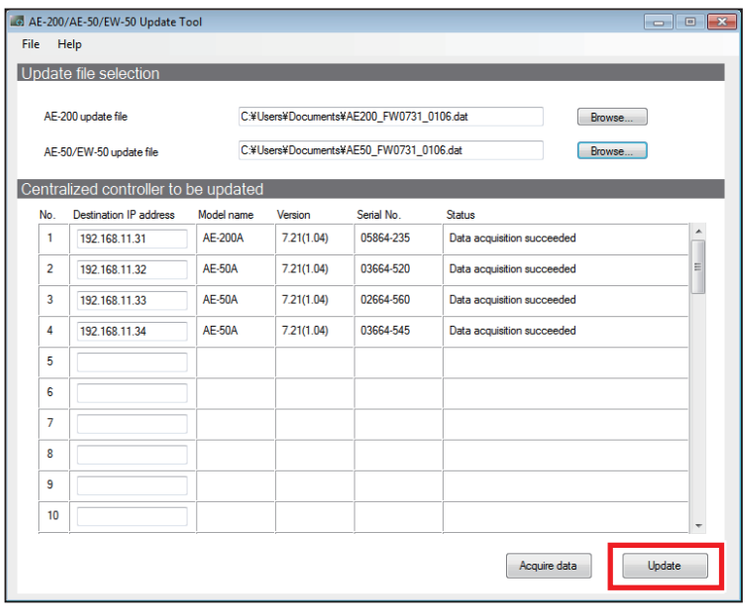
Note

- Select “AE200_FW####_****.dat” for an update file for AE-200. (####: software version)
- Select “AE50_FW####_****.dat” for an update file for AE-50/EW-50. (####: software version)

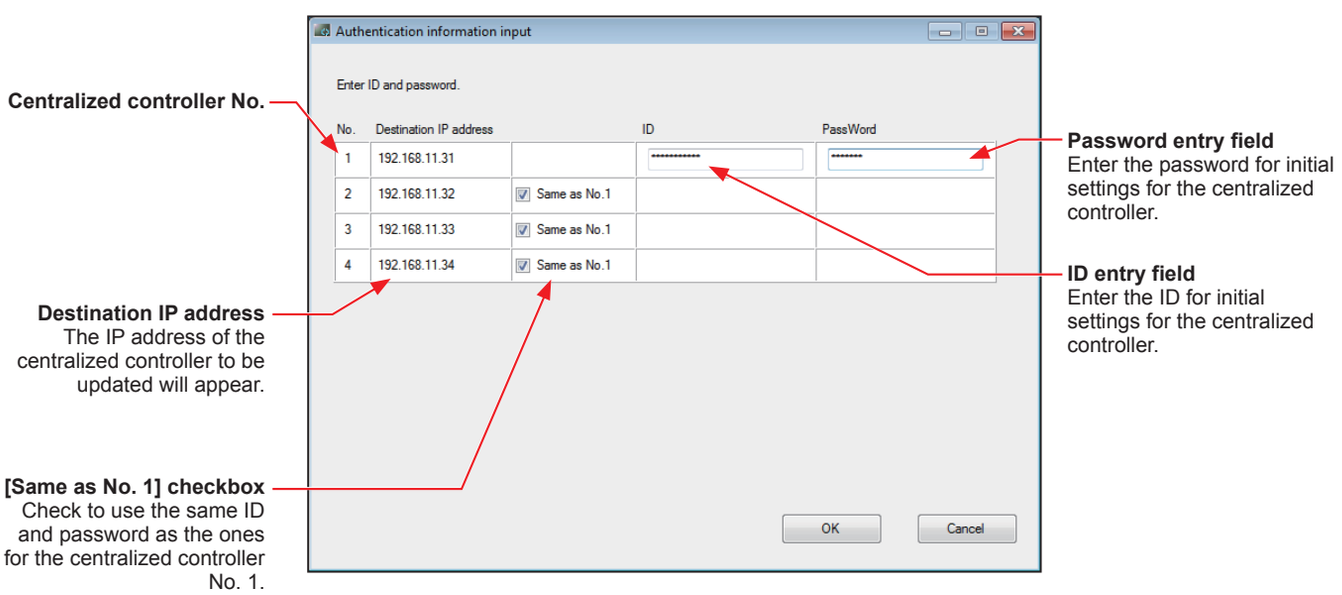
3-5. Updating the centralized controllers

Procedures

1. Click [Update] to display the “Authentication information input” screen.



2. Enter the ID and password for initial settings for the centralized controller to be updated.
   If the ID and password are the same as the ones for the centralized controller No. 1, check the checkbox next to [Same as No. 1].

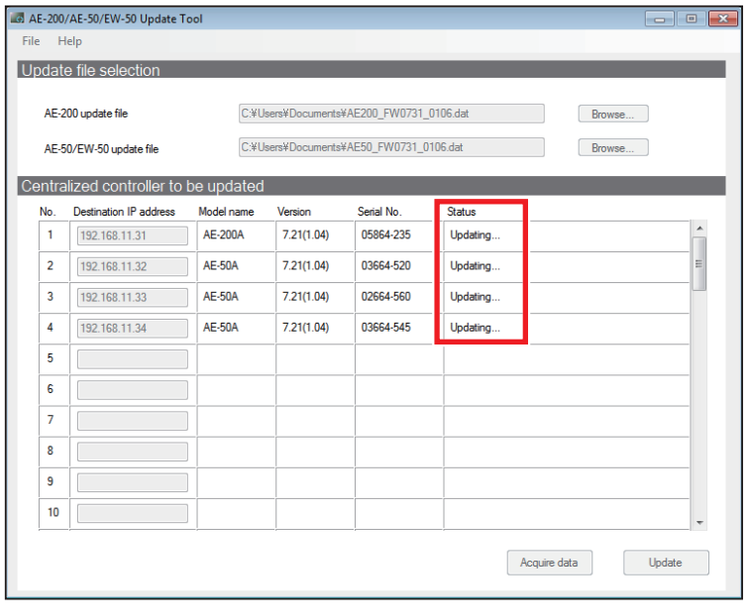


Note

- For No. 2 or later, even when the IP address is not displayed in the “Destination IP address” column of No. 1, if [Same as No. 1] is checked, the same ID and password as the ones for No. 1 can be used.

3. Click [OK] on the “Authentication information input” screen. The screen will close and the update will start.

4. The update status will appear in the “Status” column of the main screen.



	Display information in the “Status” column	Explanation	Display order
1	Authentication succeeded	The centralized controller authentication has been successfully completed. The message will appear in black.	1
2	Authentication failed	The centralized controller authentication has failed. The message will appear in red.	
3	Communication failed	The centralized controller communication has failed. The message will appear in red.	
4	Already updated	The centralized controller is already updated. The message will appear in red.	
5	Updating...	The centralized controller is being updated. The message will appear in black.	2
6	Update completed	The centralized controller update has been successfully completed. The message will appear in black.	3
7	Update failed	The centralized controller update has failed. The message will appear in red.	

Note

- The following is the approximate time required for update. The time varies with the number of centralized controllers and software versions.

	Time required for update [min]	
Number of centralized controllers to be updated	Ver. 7.24 or earlier	Ver. 7.31 or later
4	9	7
10	15	10
20	25	15
40	45	25
50	55	30

- The following centralized controllers will not be updated.
  - No destination IP address is entered.
  - “The equipment is not applicable for update.” or “Already updated” is displayed in the “Status” column of the main screen.
- When “Authentication failed,” “Communication failed,” or “Update failed” appears in the “Status” column of the main screen, refer to section 4 “Troubleshooting”.
- The following 7905 error message may appear on the AE-200 during the update process if the software versions of AE-200 and all AE-50/EW-50 that are connected to the AE-200 temporarily do not match.

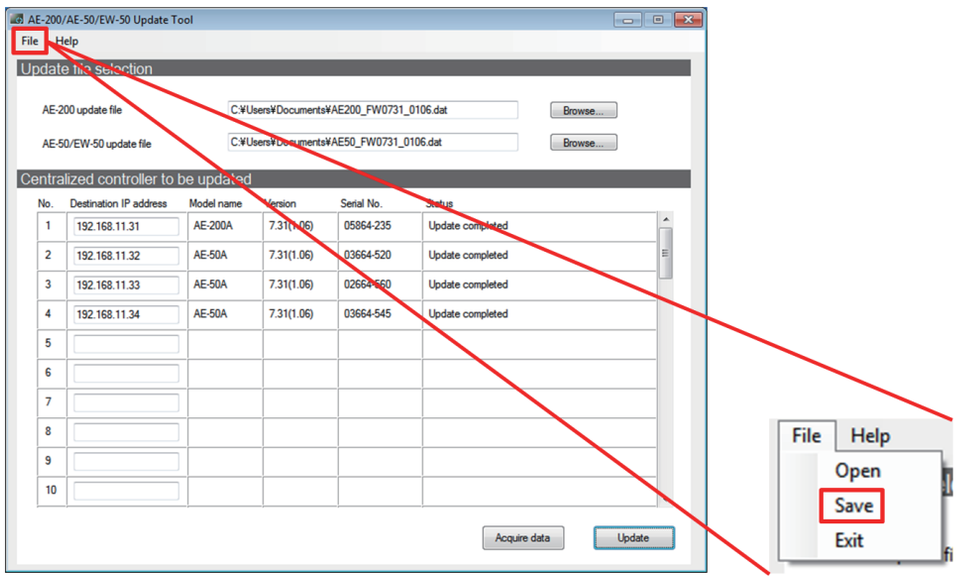
* The error will automatically be reset when the software versions match.

Important

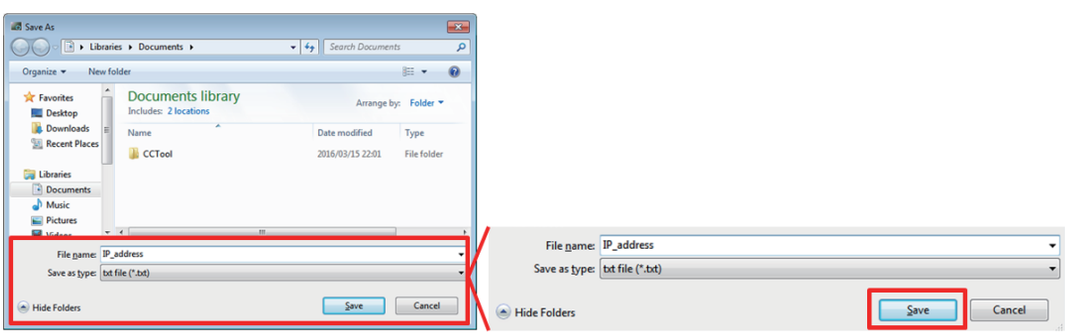
- Do not click at the top right corner of the main screen, disconnect the LAN cable, or turn off the power to the AE-200/AE-50/EW-50 during the update process.

3-6. Saving the IP addresses of centralized controllers

1. Click [File] > [Save].

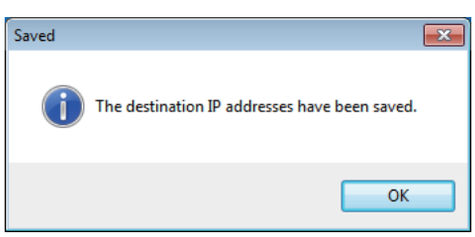


2. A screen to select a file will appear. Specify any arbitrary name in “File name”, and click [Save].



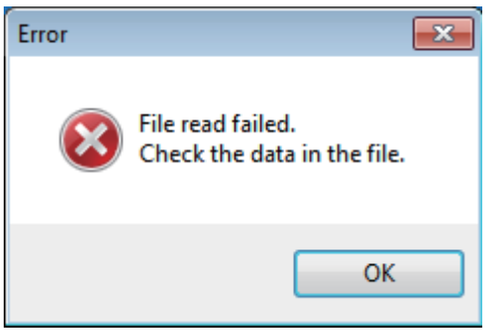
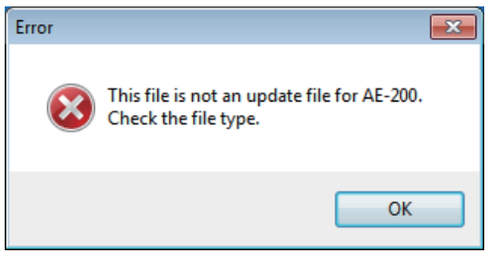
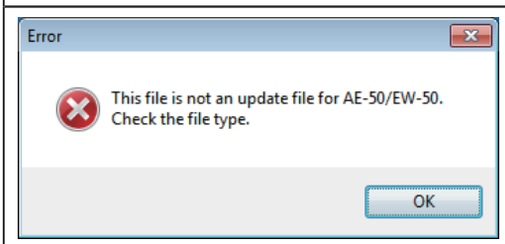
Note

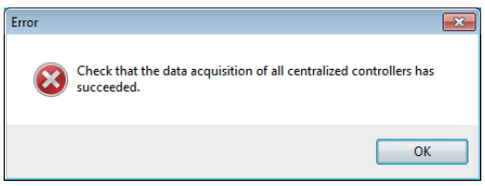
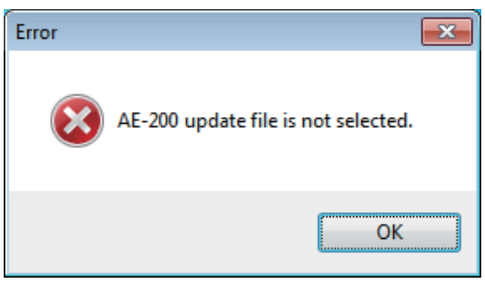
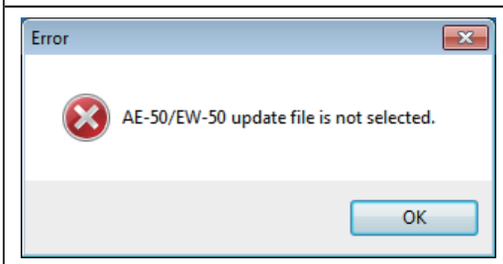
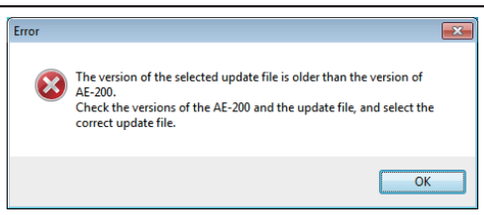
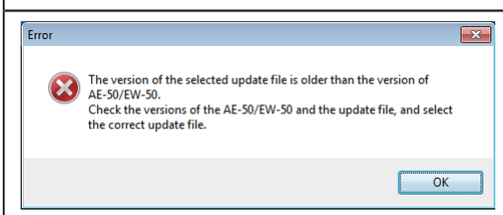
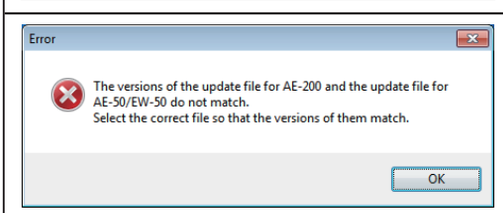
• When the saving the IP addresses is completed, the following window will appear.

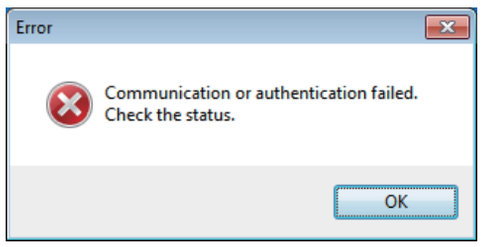


4. Troubleshooting

See the table below and troubleshoot accordingly.

No.	Problem		Possible cause	Solution
1	An error occurs when the TXT file is loaded.		• The TXT file is not created according to the specified format.	• Check if the TXT file is created according to the specified format in section 3-2-2 “When loading IP addresses from TXT file”.
2	An error occurs when the update file is selected.		• A wrong file is selected.	• Check if the name of the selected file is “AE200_FW####_****.dat”. (####: software version) Then, re-select the correct file.
3			• A wrong file is selected.	• Check if the name of the selected file is “AE50_FW####_****.dat”. (####: software version) Then, re-select the correct file.
4	An error occurs when the centralized controller data is acquired.	The message “Data acquisition failed” appears in the “Status” column of the main screen.	• The IP address of the centralized controller is different from the one entered in the main screen. • The LAN connection with the centralized controller entered in the “Destination IP address” column is not established.	• Check if the IP address of the centralized controller is correct. Then, enter the correct IP address. • Check for proper LAN connection between the PC with the Update Tool installed and the centralized controller.
5		The message “Invalid IP address” appears in the “Status” column of the main screen.	• The IP address is not entered according to the specified format.	• Check if the IP address is entered according to the specified format in section 3-2 “Inputting IP address of centralized controller”.
6		The message “IP addresses overlap” appears in the “Status” column of the main screen.	• The IP addresses entered in “Destination IP address” of the main screen overlap.	• Check the IP address of the given centralized controller in error, and re-enter the correct IP address.

No.	Problem		Possible cause	Solution
7	An error occurs when [Update] is clicked on the main screen.		• The data acquisition of all centralized controllers has not been completed.	• Check the “Destination IP address” and “Status” columns of the main screen to see if there are any centralized controllers whose data have not been acquired. Then, click [Acquire data] on the main screen to complete the data acquisition.
8			• The update file for AE-200 is not selected.	• Click [Browse...] for AE-200 and select the correct update file.
9			• The update file for AE-50/EW-50 is not selected.	• Click [Browse...] for AE-50/EW-50 and select the correct update file.
10			• The version of the selected update file is older than the version of AE-200.	• Click [Browse...] for AE-200 and select the update file whose version is earlier than the version of AE-200.
11			• The version of the selected update file is older than the version of AE-50/EW-50.	• Click [Browse...] for AE-50/EW-50 and select the update file whose version is earlier than the version of AE-50/EW-50.
12			• The versions of the update file for AE-200 and the update file for AE-50/EW-50 do not match.	• Check the versions of the update file for AE-200 and the update file for AE-50/EW-50. Then, re-select the update file so that the versions of them match.

No.	Problem		Possible cause	Solution
13	An error occurs when the centralized controllers are updated.		• The LAN connection with the centralized controller is cut off. • The ID and password of the centralized controller entered in the authentication information input screen are wrong.	• Check for proper LAN connection between the PC with the Update Tool installed and the given centralized controller in error. • Re-enter the ID and password for initial settings for the given centralized controller in error.
14		The message “Update failed” appears in the “Status” column of the main screen.	• The LAN connection with the centralized controller is cut off during the update process. • The centralized controllers cannot properly be updated due to the communication failure etc.	• Check for proper LAN connection between the PC with the Update Tool installed and the centralized controller. Then, click [Acquire data] on the main screen to see if the version of the centralized controller has been updated. If not properly updated, update again.

This product is designed and intended for use in the residential, commercial and light-industrial environment.

The product at hand is based on the following EU regulations:

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU
- Restriction of Hazardous Substances 2011/65/EU

Please be sure to put the contact address/telephone number on this manual before handing it to the customer.

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
MANUFACTURER: MITSUBISHI ELECTRIC CORPORATION Air-conditioning & Refrigeration Systems Works
5-66, Tebira 6 Chome, Wakayama-city, 640-8686, Japan

WT08302X01