AMC Manager

User's Manual

silex technology

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1. Introduction

Thank you for purchasing the AMC Manager utility.

1-1. Introduction

This manual provides information on how to configure and use the AMC Manager.

Disclaimers

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- The content of this manual is subject to change without notice.
- The screen display may vary depending on the application software version, or the operating system, Web browser and its version of the PC. Some instructions may not be applicable.
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- AMC Manager is a registered trademark of Silex Technology.
- Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.
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2. What is AMC Manager?

This chapter explains each function of the AMC Manager.

2-1. AMC Manager's Features

The AMC Manager provides unified and remote control of the Silex devices connected both in wired or wireless network, such as status monitoring, configuration change, firmware update, restart, etc. It can save your time of maintenance for devices installed to many locations, as well as find a possible problem for quicker resolution.
There are 3 types of AMC Manager as follows.

- AMC Manager® (non-free version) (* hereinafter "AMC Manager® Standard")
- AMC Manager® E model (non-free version)
- AMC Manager® Free (free version)

Each one has different features. See below table for details.

Features	AMC Manager® Standard	AMC Manager® E model	AMC Manager® Free
Number of controllable devices	Up to 10000 devices	Up to 10000 devices	Up to 10 devices
Number of devices that can be controlled at a time	Up to 10000 devices	Up to 10000 devices	Up to 10 devices
Number of groups that can be created	Up to 100 groups	Up to 100 groups	Up to 2 groups
Number of devices that can be registered to 1 group	Up to 1000 devices	Up to 1000 devices	Up to 10 devices
Status monitoring	Supported	Supported	Supported
Configuration using Web browser	Supported	Supported	Supported
IP configuration	Supported	Supported	Supported
Individual configuration, bulk configuration	Supported	Supported	Supported
Firmware update	Supported	Supported	Supported
Factory default configuration	Supported	Supported	Supported
Restart	Supported	Supported	Supported
Configuration using import file	Supported	Supported	Supported
Alert notification by email	-	Supported	-
Allow Emergency Use	-	Supported	-
Operating Status Check	-	Supported	-
Radio Signal Strength Control	-	Supported	-
Log Viewer	Supported	Supported	-
Syslog	-	Supported	-
Survey Assistant	-	Supported	-
Mesh Monitor	Supported	Supported	-
Edit Location	Supported	-	-
Link to AMC Manager Plus	Supported	-	-
Encryption of Configuration Files	Supported	-	Supported

AMC Manager's Features

The AMC Manager has following features:

Common user interface for Silex products

For maintenance of the Silex Access Points or station products, many configuration features are installed to the AMC Manager, which can monitor device status, change the configuration and update the firmware version, etc. It can reduce the maintenance cost for the network administrators.

Remote control / monitoring

The status information (wireless LAN status, device status, etc.) can be monitored and the configuration (channel, IP, SSID, etc.) can be changed from a remote place. A network error or device error can be predicted, prevented and resolved from a remote place.

Bulk configuration / firmware update

Even when Silex devices are installed to multiple locations, the configuration can be changed or the firmware can be updated at once. You can save the time of maintenance as well as easily change the security settings such as SSID regularly.

Survey Assistant plug-in provides a remote wireless survey feature (AMC Manager® E model only)

By using the Survey Assistant plug-in together with Silex product, your wireless environment can be visualized as a graph. Because of this, you can check the wireless LAN status and the environmental changes from a remote place in order to keep a stable wireless connection.

Note

- "Survey Assistant plug-in" is a plug-in function which can be used with the Silex network display adapter products such as SX-ND-4350WAN, etc.

Alert notification by email (AMC Manager® E model only)

When an error occurred on AMC Manager® E model or Silex devices, it can be alerted to users by email.

Syslog information (AMC Manager® E model only)

Syslog information is retrieved from Silex devices and then saved as data base. The saved information can be accessed by Log Viewer.

Allow Emergency Use (AMC Manager® E model only)

Silex device setting can be changed to the emergency setting or reset to the normal use setting easily by registering bulk configuration files, when Silex device setting needs to be changed in case of emergency.

Operating Status Check (AMC Manager® E model only)

Operating status information (e.g. total operating hours, screen projection period, number of wireless client devices, etc.) is retrieved from the compatible Silex devices and it can be visualized as a graph. Also, it is possible to make a graph of unified operating status for grouped Silex devices. The retrieved information can be saved to an image file or CSV file.

Link with AMC Manager Plus (AMC Manager® Standard only)

After various information of Silex products (e.g. communication errors, etc.) is collected by AMC Manager® Standard, AMC Manager Plus can show them onto the smartphones or tablet devices. It is possible to link with AMC Manager Plus by installing the plug-in utility "AMC Manager Plus Utility".

AMC Manager's Operating Environment

Name	Details
OS	Windows 10 (32bit/64bit) Windows 11 Windows Server 2016 Windows Server 2019 Windows Server 2022 Windows Server 2025
Languages	English Japanese Chinese
Supported devices	Silex's network devices * Please visit our homepage for compatible devices.
Number of controllable devices	Up to 10000 devices (non-free version) Up to 10 devices (free version)
Supported transport layer protocol (Port number is occupied)	TCP(#60000) UDP(#60000) UDP(#60001)

TIP

- Windows on ARM is not supported.

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3. Installing AMC Manager

This chapter explain how to install the AMC Manager.

TIP

- Use the latest version of AMC Manager®.

3-1. Before You Begin

License Information

To use non-free version of AMC Manager, following information is required that you may have registered when the license is issued or purchased. Please get the information beforehand.

- License key
- Company name
- Name
- Email address

Note

- When you are to install AMC Manager Free, above license information is not necessary.

Checking Device Compatibility

In order to use the AMC Manager, the Silex product must support the AMC Manager.
Please check the compatibility on our website below.
Also, depending on the product, you may need to change the setting of it.
For details, refer to the user's manual of each product.

URL	
USA/Europe	https://www.silextechnology.com/
Japan	https://www.silex.jp/

3-2. Installing AMC Manager

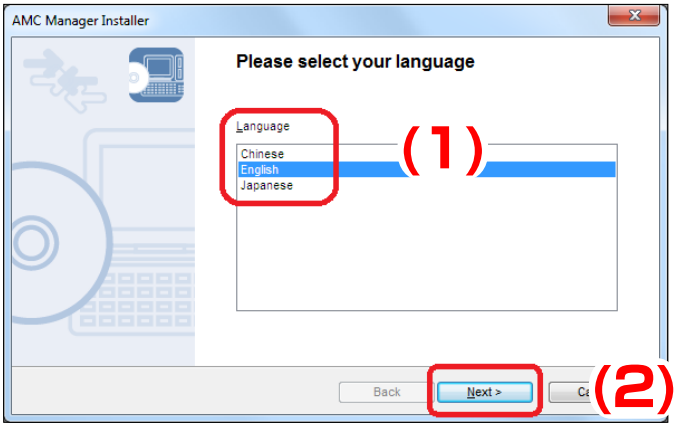
Start the installer to install the AMC Manager.

1. Double-click **Setup.exe** of the AMC Manager on your PC.

Note

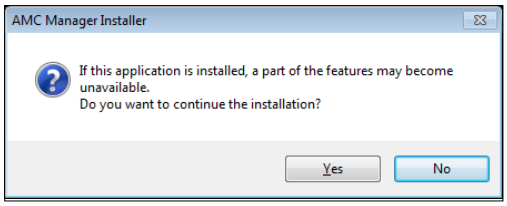
- When the user account control is enabled on your PC, the User Account Control screen is displayed (the screen may differ depending on your OS). If it is displayed, click **Continue** or **Yes**.

2. Select a language and click **Next**.

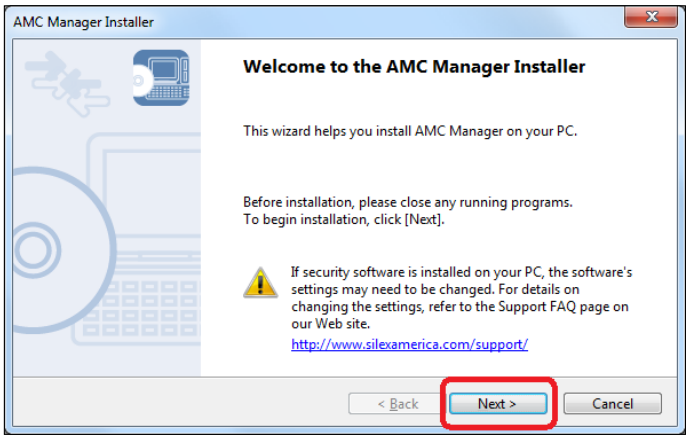


Note

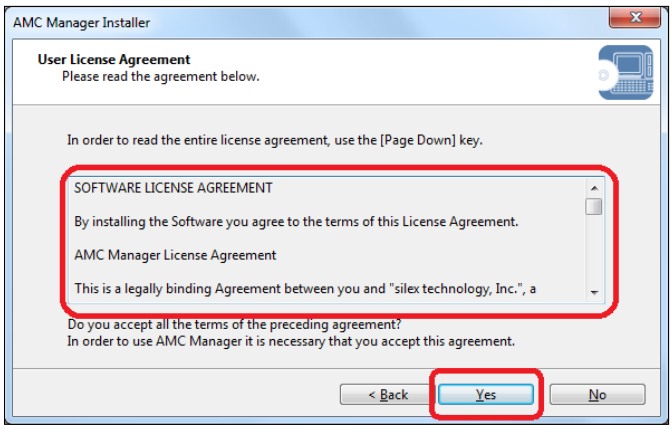
- When AMC Manager has already been installed, the message below may appear depending on version of the utility you are going to install.
- If the message appears, click **Yes** and go on to **3**.



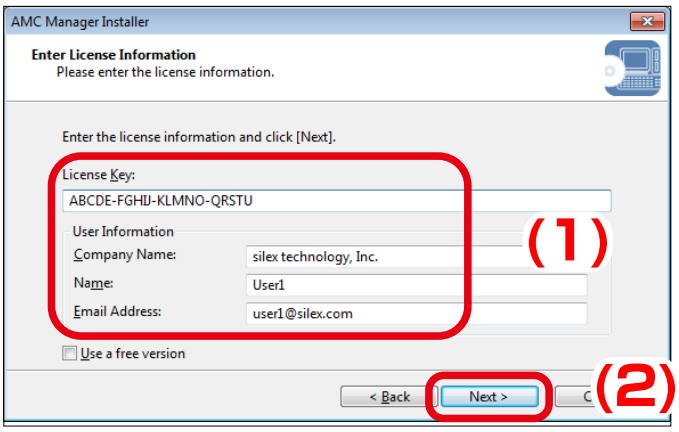
3. Click **Next**.



4. Read the software license notes and click **Yes** when you agree with the terms and conditions.



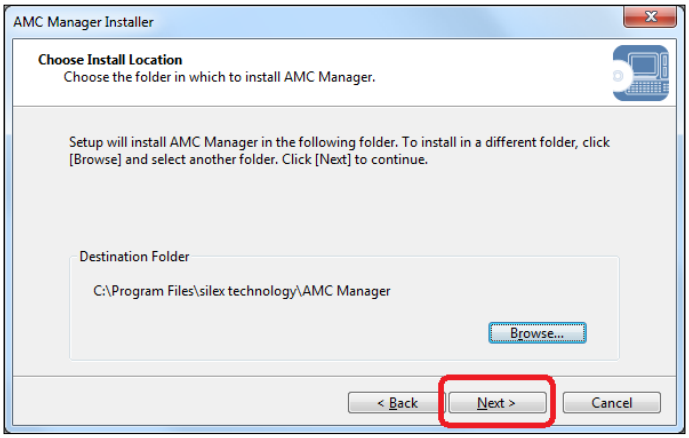
5. When you are to use the non-free version, enter the license information of registered license and click **Next**. If the AMC Manager has already been installed to your PC, the screen below is not displayed.



Note

- When you are to use the free version, check the check box at **Use a free version** and click **Next**.

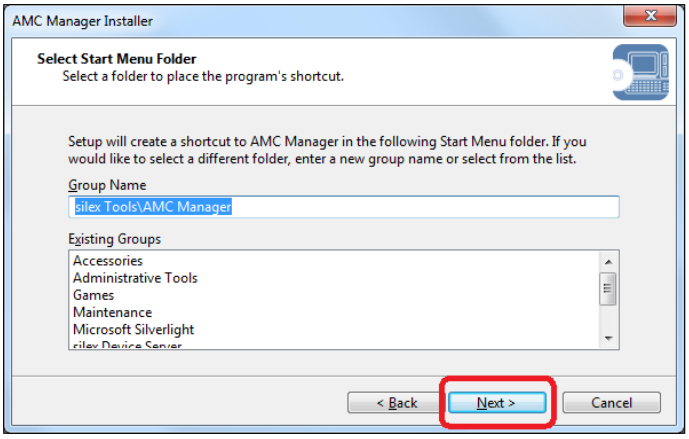
6. Select a folder to install the AMC Manager into and click **Next**.



Note

- By defaults, the AMC Manager is installed to **(C:\Program Files) \silex technology\AMC Manager** on your PC.
- By clicking **Browse**, you can change the folder to install the AMC Manager into.

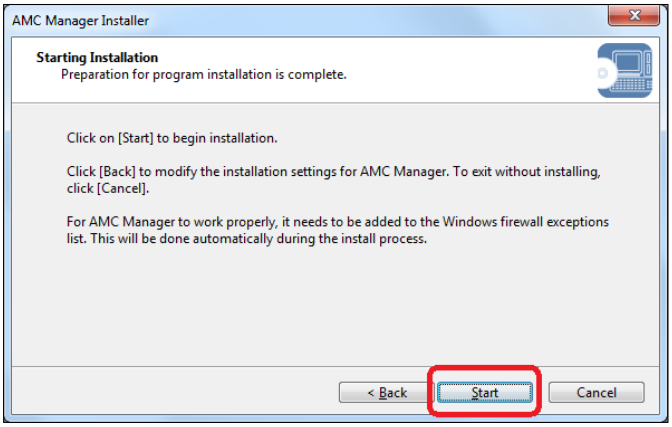
7. Specify a group name to be displayed at the start menu and click **Next**.



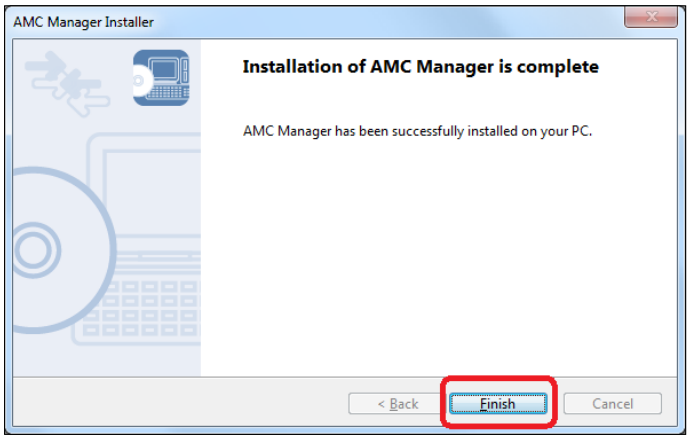
Note

- By defaults, the group name is set as **silex Tools\AMC Manager**.
- It is possible to change the group name.

8. Click **Start** to start the installation.



9. Click **Finish**. The AMC Manager will start.



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4. AMC Manager

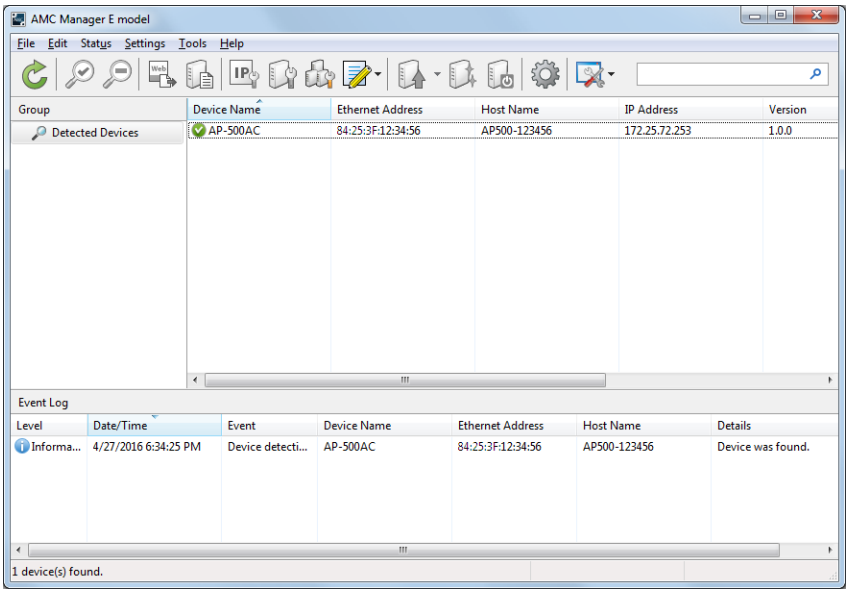
This chapter explains how to use the AMC Manager.

4-1. Starting/Finishing AMC Manager

How to start and finish the AMC Manager is explained.

Starting AMC Manager

1. Click **Start** - **All (apps)** - **silex Tools** - **AMC Manager**.
The AMC Manager will be started.



Note

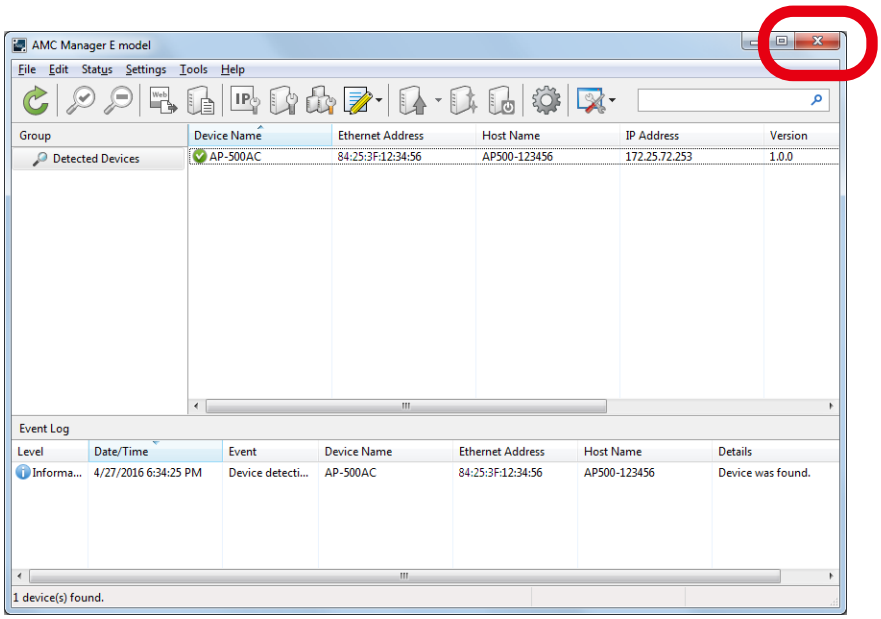
- For Windows 10
  Click **Start** - (**All apps**) - **silex Tools** - **AMC Manager** - **AMC Manager**.

TIP

- If the **Start-up Password** is set at the **Option** window, password entry is required when AMC Manager is started.
- If an incorrect password is entered on AMC Manager® Standard/AMC Manager® Free, password entry will be disabled for a certain period of time.

Finishing AMC Manager

1. Click the close button from top right of the window.
The AMC Manager will be finished.



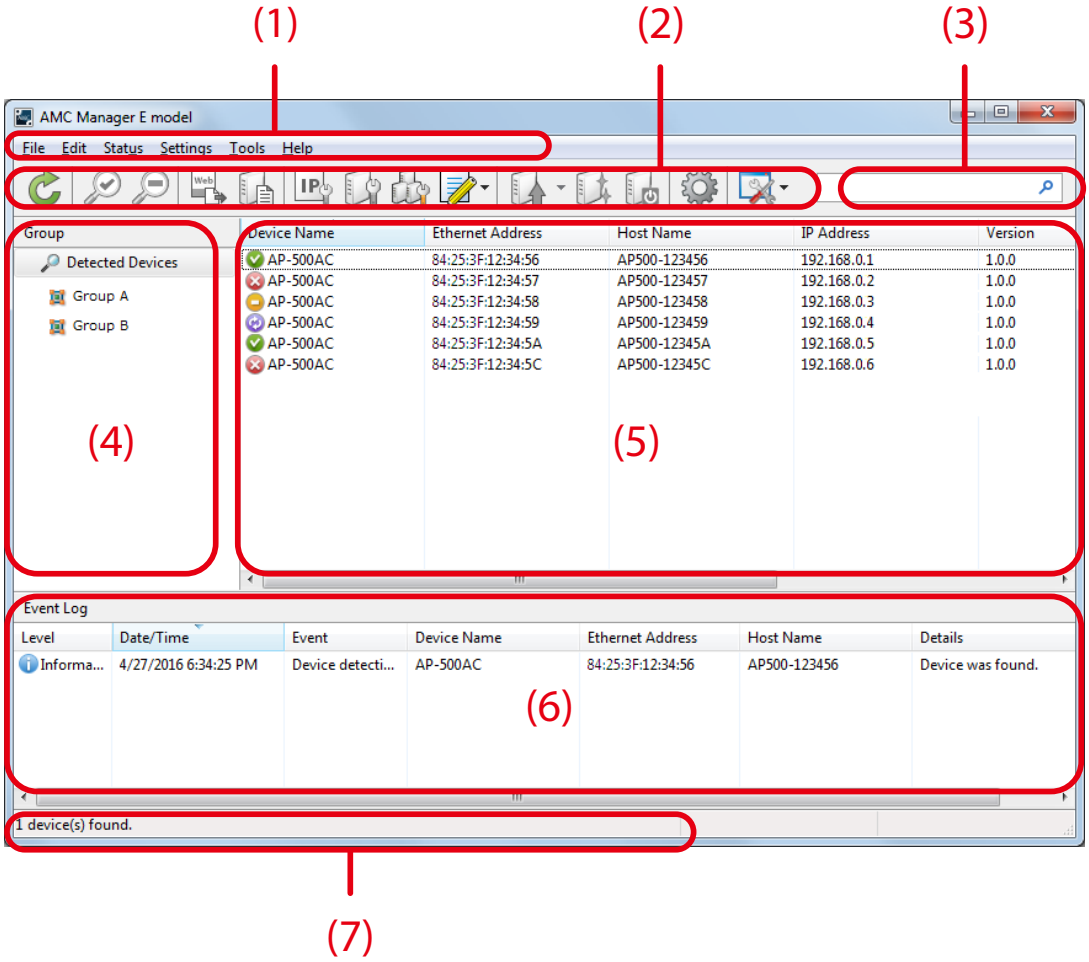
Note

The AMC Manager can also be finished by the method below.

- Click **File** - **Exit** from the menu bar.

4-2. AMC Manager's Main Window

The following explains the AMC Manager's main window.



(1) Menu bar

Executes each function of the AMC Manager.

(2) Tool bar

Executes each function of the AMC Manager.

(3) Search box

Searches for the entered text and shows the matched devices in the list.

(4) Group list

Shows a list of created groups.

(5) Device list

Shows a list of the Silex devices running on a network and the operating status of each.

(6) Log list

Shows the event logs.

(7) Status bar

Shows the general information of the Silex device selected on the list.

Menu Bar

Executes each function of the AMC Manager such as configuring the search settings, retrieving the device information, etc.

File Edit Status Settings Tools Help

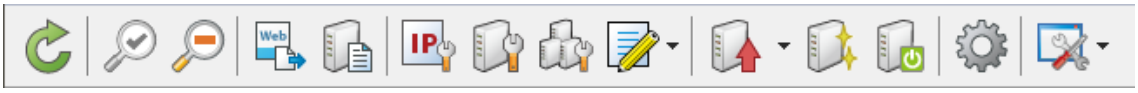
Menu	Name	Details
File	Refresh	Refreshes the device information on the list. The devices will be detected and displayed even if they are in factory defaults.
	Exit	Finishes the AMC Manager.
Edit	Add Group	Creates a new group.
	Edit Group	Opens the edit window for the selected group.
	Delete Group	Deletes the selected group.
	Import Group	Reads group configuration from a file.
	Export Group	Saves group configuration to a file.
Status	Start Monitoring	Starts monitoring for the selected device. The status will be refreshed at the specified interval.
	Stop Monitoring	Stops monitoring for the selected device. The status will not be refreshed unless you refresh it manually.
	Properties	Displays the properties window.
	Edit Location	Edits a location of the device. (AMC Manager® Standard only)
	Get System Log	Retrieves the system log.
Settings	Configure Using Web Browser	Displays the Web configuration interface.
	IP Configuration	Configures the IP address.
	Device Configuration	Configures a single device.
	Bulk Configuration	Configures multiple devices in bulk.
	Create Configuration File	Creates the configuration file to use for bulk configuration.
	Merge Configuration File	Merges the configuration files.
	Firmware Update	Updates the device firmware.
	Factory Default Configuration	Resets the device to the factory defaults.
	Restart	Restarts the device.
	Show Device Configuration	Receives the setting of selected devices and shows it as a list.
Tools	Option	Changes the optional settings of the AMC Manager.
	Start Survey Assistant	Starts the Survey Assistant. (AMC Manager® E model only)
	Configure Using Import File	Configure multiple devices at once using an import file.
	Start Mesh Monitor	Starts the Mesh Monitor. (AMC Manager® Standard and AMC Manager® E model only)
	Start AMC Manager Plus Utility	Starts the AMC Manager Plus Utility. (AMC Manager® Standard only)
	Start Log Viewer	Starts the Log Viewer. (AMC Manager® Standard and AMC Manager® E model only)
	Allow Emergency Use	Displays the emergency use setting window. (AMC Manager® E model only)
	Check Operating Status	Shows the operating status window. (AMC Manager® E model only)
	Check Group Operating Status	Shows the group operating status window. (AMC Manager® E model only)
Help	Silex Homepage	Opens the homepage of Silex Technology, Inc.
	License Information	Shows the license information.
	About AMC Manager	Shows the version information.

Note

- Even if the device has the default settings and is not configured yet, it will be detected by clicking the **Refresh** button, as the AMC Manager can discover the devices with a different IP address class when the devices are running in the same network as the PC.
- It is impossible to select the function when it is not supported by the device.

Toolbar

Executes each function of the AMC Manager such as configuring the search settings, retrieving the device information, etc.



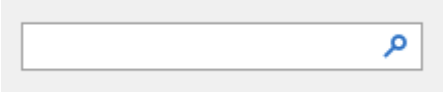
Icon	Name (Tooltip)	Details
	Refresh	Refreshes the device information on the list. The devices will be detected and displayed even if they are in factory defaults.
	Start monitoring	Starts monitoring for the selected device. The status will be refreshed at the specified interval.
	Stop monitoring	Stops monitoring for the selected device. The status will not be refreshed unless you refresh it manually.
	Configure using Web browser	Displays the Web configuration interface.
	Properties	Displays the properties window.
	Configure the IP address	Configures the IP address.
	Configure the device	Configures a single device.
	Configure multiple devices in bulk	Configures multiple devices in bulk.
	Create the configuration file	Creates the configuration file to use for bulk configuration.
	Firmware update	Updates the device firmware.
	Factory default configuration	Resets the device to the factory defaults.
	Restart	Restarts the device.
	Option	Changes the optional settings of the AMC Manager.
	Start the plug-in tools	Starts the plug-in tools of AMC Manager.

Note

- Even if the device has the default settings and is not configured yet, it will be detected by clicking the **Refresh** button, as the AMC Manager can discover the devices with a different IP address class when the devices are running in the same network as the PC.

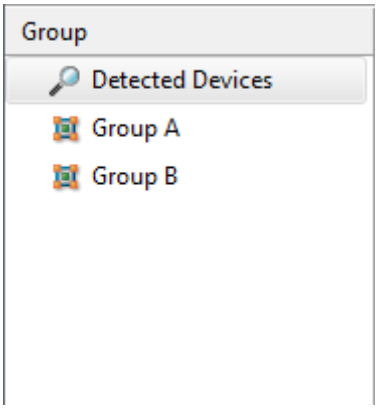
Search box

Searches for a certain text and shows the devices that include that text. The text search is handled on all items of the device list.



Group list

Shows a list of created groups. If a group is selected, the devices registered to that group will be displayed in the device list.



Note

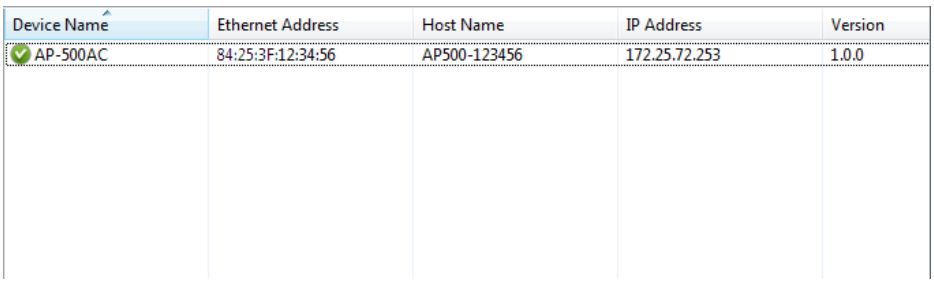
- Right-clicking on a group list will show the context menu. The context menu provides the same function as "**Edit**" of menu bar, at which groups can be added or edited.

TIP

- When AMC Manager® Free is used, up to 10 devices are displayed at **Detected Devices**.

List View (Device List)

Shows a list of the Silex devices running on a network and the operating status of each.



Device Name	Ethernet Address	Host Name	IP Address	Version
AP-500AC	84:25:3F:12:34:56	AP500-123456	172.25.72.253	1.0.0

Name	Details
Device Name	Shows the device status icon and device name.
Ethernet Address	Shows the Ethernet Address.
Host name	Shows the host name.
IP Address	Shows the IP Address.
Version	Shows the firmware version.
Status	Shows the status information.
Information	Shows the information string received from the device. It differs depending on the device. (AMC Manager® Free and AMC Manager® E model only)
Location	Shows the location of installation. This information can be edited at **Edit Location**. (AMC Manager® Standard only)
Last Update Time	Shows the time of last status update.

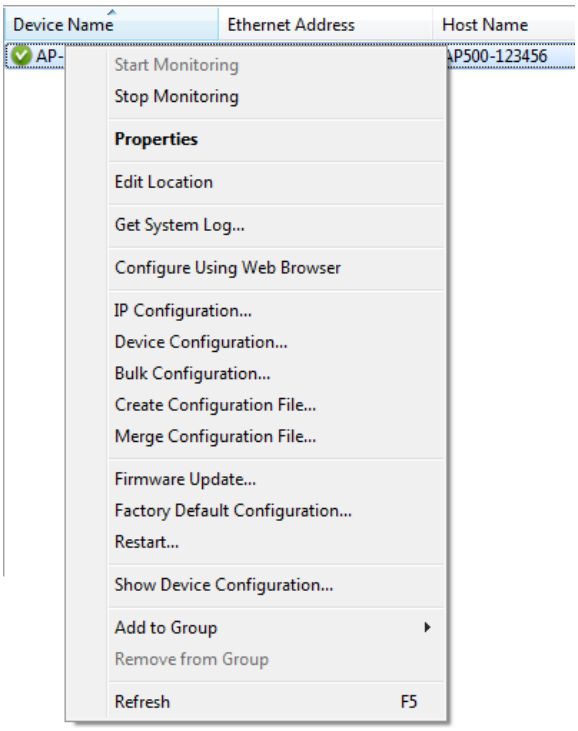
Icon	Status	Details
	Refreshing the status	Retrieving the device status.
	Ready	Device is operating.
	Ready (factory defaults)	Device is operating with the factory default settings.
	Ready (no password set)	Device is operating without a password.
	No reply	Device is not found on a network.
	No reply (factory defaults)	Device is not found on a network.
	Not a monitoring target	Device is not a target for monitoring.
	Not detected	Device is not detected.

Note

- If you click a column header, the order of devices will be sorted by the column you have clicked.

Context menu

If one device is right-clicked on the device list, the context menu is displayed.
The context menu provides each function of the AMC Manager such as device monitoring, configuration, etc. of the selected device.



Name	Details
Start Monitoring	Starts monitoring for the selected device. The status will be refreshed at the specified interval.
Stop Monitoring	Stops monitoring for the selected device. The status will not be refreshed unless you refresh it manually.
Properties	Displays the properties window.
Edit Location	Edits the location of installation (AMC Manager® Standard only)
Check Operating Status	Shows the operating status window. (AMC Manager® E model only)
Check Group Operating Status	Shows the group operating status window. (AMC Manager® E model only)
Get System Log	Opens the system log window.
Configure Using Web Browser	Displays the Web configuration interface.
IP Configuration	Configures the IP address.
Device Configuration	Configures a single device.
Bulk Configuration	Configures multiple devices in bulk.
Create Configuration File	Creates the configuration file to use for bulk configuration.
Merge Configuration File	Merges the device configuration files.
Firmware Update	Updates the device firmware.
Factory Default Configuration	Resets the device to the factory defaults.
Restart	Restarts the device.
Show Device Configuration	Receives the setting of selected devices and shows it as a list.
Add to Group	Adds a device to group.
Remove from Group	Removes a device from group.
Refresh	Refreshes the device status.

[Log list]

Log list shows the event information of AMC Manager including executed operations, network monitoring results, etc..
Information of log list is initialized when AMC Manager is started but the past logs would remain on Log Viewer.

Level	Date/Time	Event	✓	Device Name	Ethernet Address	Host Name	Details
Informa.	2016/04/27 1...	Device detection		AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection		AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection		AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection		AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 0...	Device detection		AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun

Name	Details
Level	Shows the icons of warning level.
Date/Time	Shows the date/time of event.
Event	Shows the event type.
Device Name	Shows the device name.
Ethernet Address	Shows the Ethernet Address.
Host Name	Shows the host name.
Details	Shows the details of the event.

Icon	Level Type	Details
	Information	Configuration change, device detection, etc.
	Error	Configuration change error, communication error, etc.
	Warning	Monitoring stop, etc.

Note

- When AMC Manager® E model is used, syslog information can be accessed. The syslog icon and level type are as follows.

Icon	Level Type	Details
	Emergency	Shows importance level of syslog that is retrieved from device
	Alert	
	Critical	
	Error	
	Warning	
	Notice	
	Information	
	Debug	

Event Type	Details
IP configuration	IP address is configured.
Configuration change	Configuration is changed.
Initialization	Configuration is initialized.
Restart	Device is restarted.
Firmware update	Firmware is updated.
Log retrieval	System log is retrieved.
Mail transmission	Alert notification is sent by email when an error occurred on AMC Manager® E model or monitored devices.
Monitoring start	Device monitoring is started.
Monitoring stop	Device monitoring is stopped.
Device detection	Device reply is sent.
Device loss	Device reply is lost (communication error).
Device recovery	Device reply is found again after it is lost.
Change detection	Configuration is changed or firmware is updated by a method other than AMC Manager.
Application start	AMC Manager is started.
Application close	AMC Manager is finished.
Device syslog	Syslog information is received from device.

Note

- If you click a column header, the order of logs will be sorted by the column you have clicked.

Status Bar

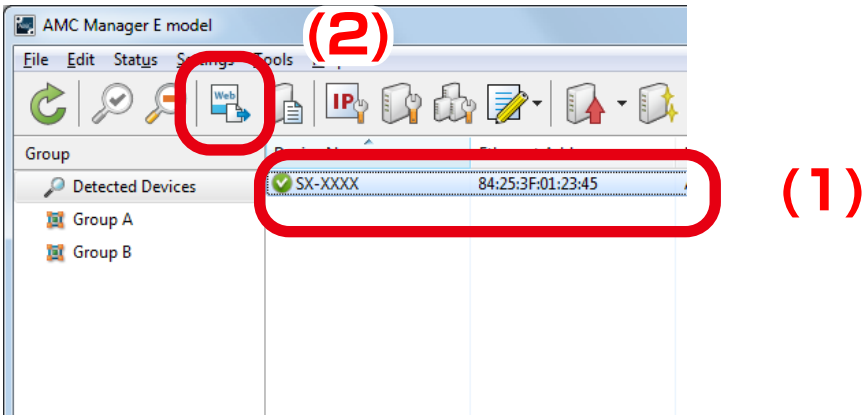
Shows the numbers of active devices or selected devices.
When only one device is selected on the list, the Ethernet Address and IP Address of that device will be displayed.

4-3. Displaying the Web Configuration Interface

The following explains how to display the Web configuration interface of the Silex device. In the Web configuration interface, you can check the detailed status as well as configure the advanced settings.

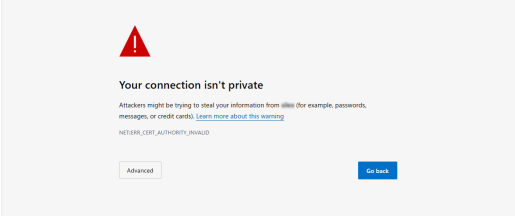
Displaying Web Configuration Interface

1. Select a device in the list and click the **Configure using Web browser** icon from the toolbar.



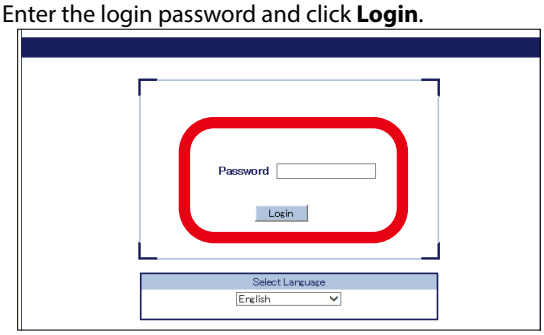
Note

- The Web configuration interface can also be displayed by one of the following methods:
  - Select the device and click **Settings** - **Configure Using Web Browser** from the menu bar.
  - Right-click on the device and select **Configure Using Web Browser** from the context menu.
- When an IP address class is different between the device and your PC, the Web configuration interface cannot be displayed. See **4-4. Configuring IP Address** for details on how to change the IP address of the device.
- If a warning screen appears, click **Advanced** and then click **Continue to x.x.x.x (unsafe)**.

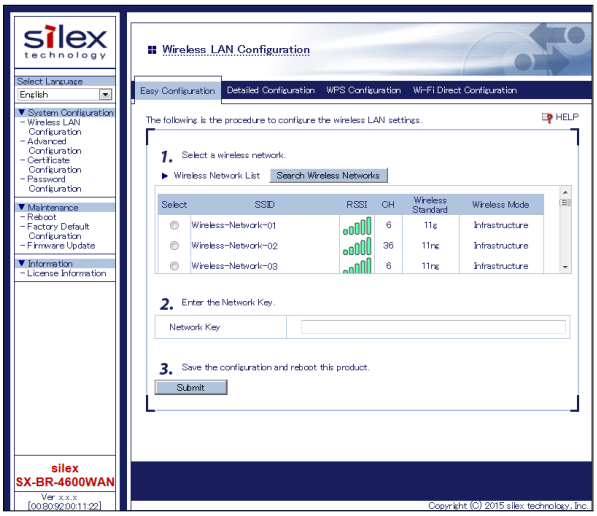


- When the login password configuration window is displayed, enter the login password to configure for the device and click **Submit**.

- When the login password is set to the device, the window below is displayed.
  Enter the login password and click **Login**.



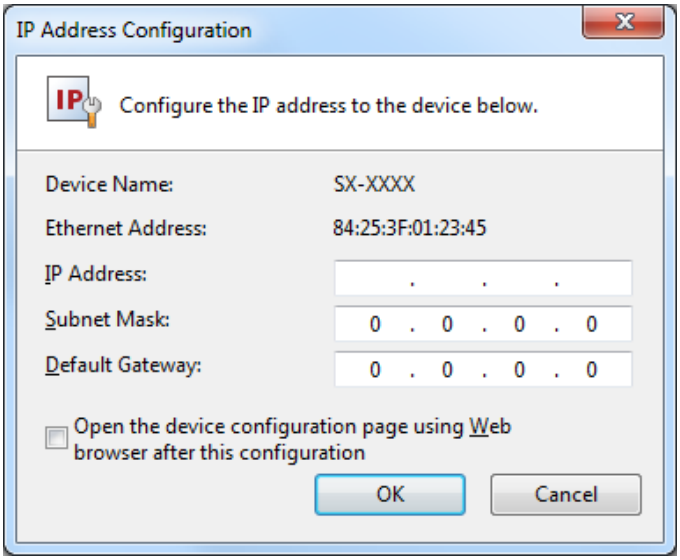
2. The Web browser will run and the Web configuration interface of the device will be displayed. For details on the Web configuration interface, refer to the user's manual of that device.



4-4. Configuring IP Address

How to configure an IP address to the Silex device is explained.
IP address can be configured from the **IP Address Configuration** window.

IP Address Configuration Window



Name	Details	Default Value
Device Name	Displays the device name.	-
Ethernet Address	Displays the Ethernet Address.	-
IP Address	Enter the IP Address to configure.	None
Subnet Mask	Enter the Subnet Mask to configure.	0.0.0.0
Default Gateway	Enter the Default Gateway to configure.	0.0.0.0
Open the device configuration page using Web browser after this configuration	Check this check box when you wish to display the Web configuration interface of the device after finishing the configuration. The URL "**http://(IP Address)/**" will be used to display the Web configuration interface.	OFF
[OK] button	Configures the entered IP Address to the device.	-
[Cancel] button	Cancels the configuration and closes the window.	-

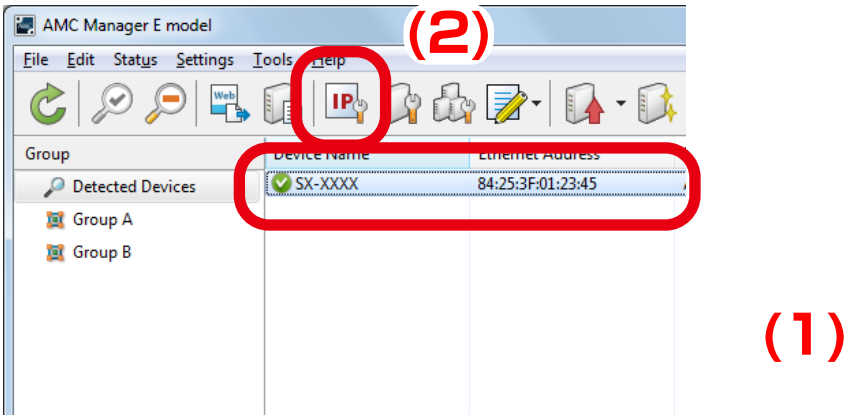
Configuring IP Address

1. Before configuring the IP address to the device, the IP address of the PC needs to be changed.
Change the IP address of the PC to the one that can be communicated with the device after the configuration.

Sample Setting)

Sample IP address for device	Sample IP address for PC
192.168.0.10	192.168.0.100
172.25.10.10	172.25.10.100

2. Select the device to configure the IP Address from the list and click the **Configure the IP address** icon on the toolbar.

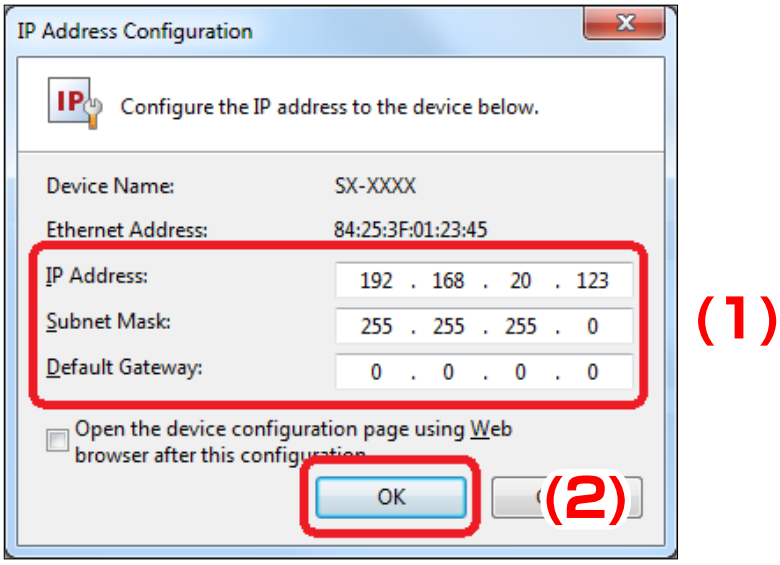


Note

IP Address can also be configured by one of the following methods:

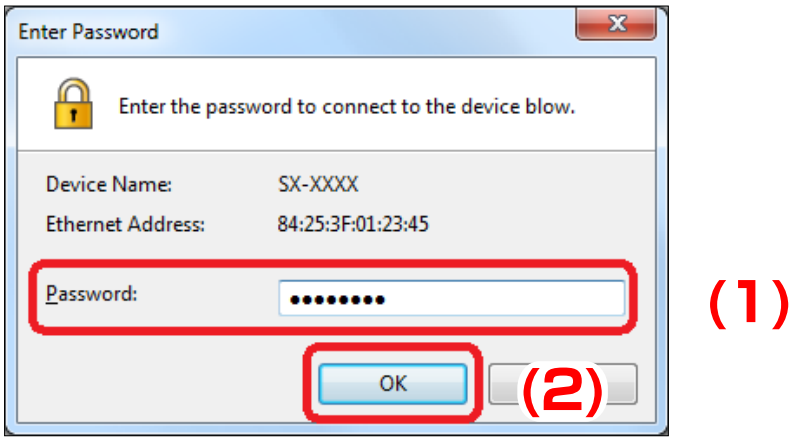
- Select the device and click **Settings** - **IP Configuration** from the menu bar.
- Right-click on the device and select **IP Configuration** from the context menu.

3. In the **IP Address Configuration** window, enter the IP Address and click **OK**.
If you wish to display the Web configuration interface after you finish the IP Address configuration, check the check box at **Open the device configuration page using Web browser after this configuration** and then click **OK**.

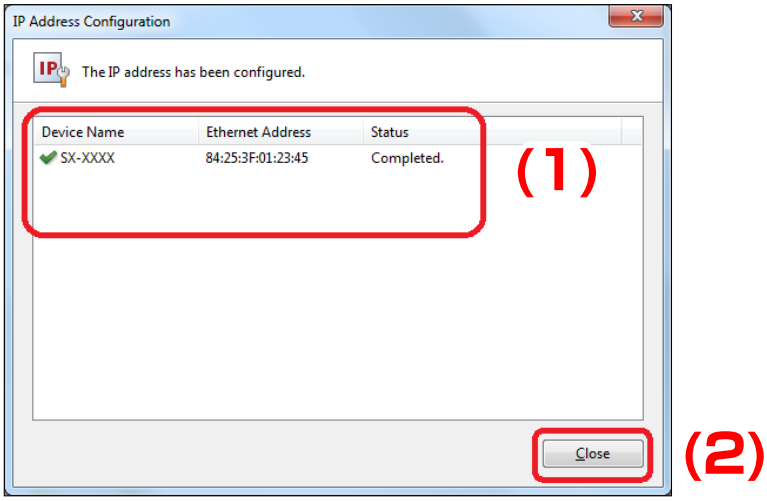


Note

- When a password is set to the device, the window below is displayed.
  Enter the password of the device and click **OK**.



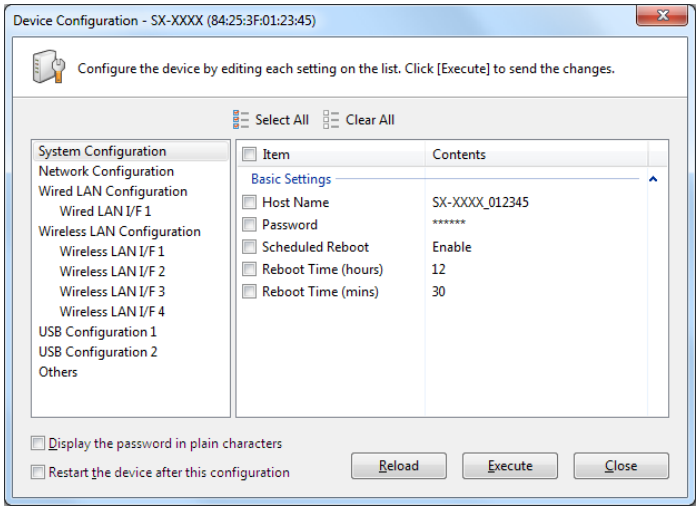
4. The result of IP Address configuration is displayed.
If you have checked the check box at **Open the device configuration page using Web browser after this configuration**, your Web browser will run to display the Web configuration interface. Click **Close** to close the **IP Address Configuration** window.



4-5. Individual Device Configuration

How to configure a single device is explained.
The device can be configured from the **Device Configuration** window.

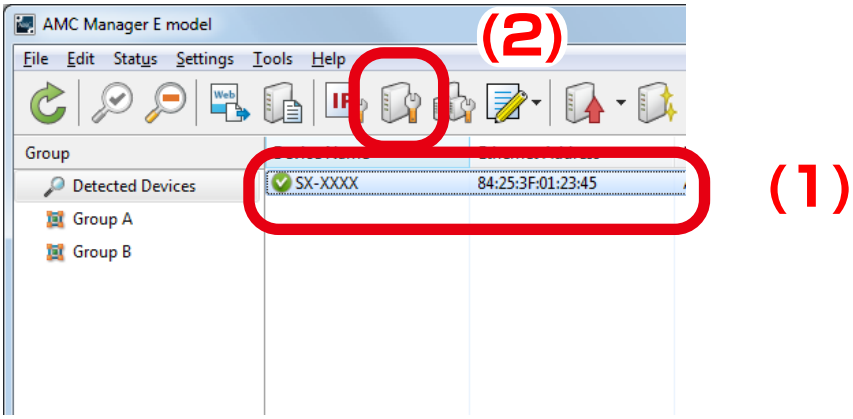
Device Configuration Window



Name	Details
Window title	Shows the device name and the Ethernet Address.
Select All	Clicking this will check the check boxes of all setting items.
Clear All	Clicking this will clear the check boxes of all setting items.
Configuration menu	Menu of settings. If one menu item is clicked, the detailed settings will be displayed on the list.
List of settings	Contents of settings. The settings displayed on this list will vary depending on the device you configure. Each setting will show the current settings of the device. Check the check box of the items you want to configure.
Display the password in plain characters	Check this check box when you do not want to hide the password.
Restart the device after this configuration	Check this check box when you want to restart the device automatically after finishing the configuration.
[Reload] button	Reloads the setting information.
[Execute] button	Executes the configuration.
[Close] button	Closes the window.

Configuring Device

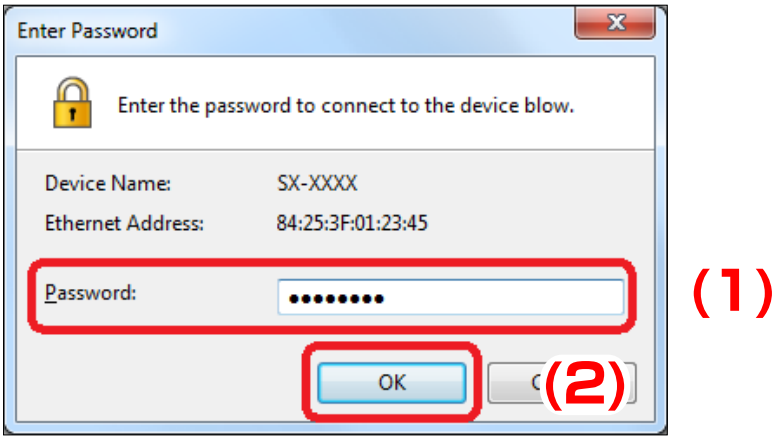
1. Select a single device from the list and click the **Configure the device** icon from the toolbar.



Note

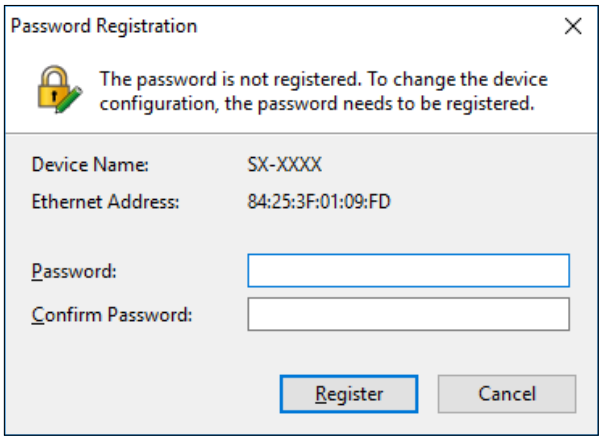
- The device can also be configured by one of the following methods:
  - Select the device and click **Settings** - **Device Configuration** from the menu bar.
  - Right-click on the device and select **Device Configuration** from the context menu.

2. When the login password is set to the device, the window below is displayed. Enter the login password and click **OK**.



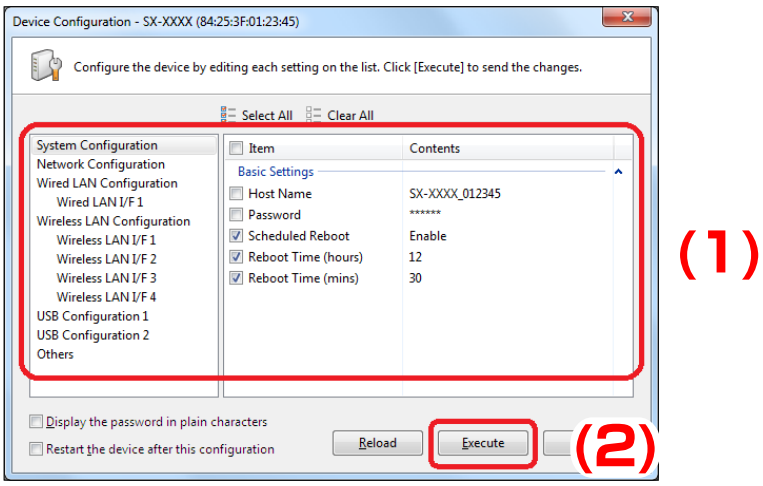
Note

- When the login password is not set to the device, the window below is displayed. Enter the login password to configure for the device and click **Register**. When the password registration is completed, the device list is displayed. Start from **1** again.



3. In the **Device Configuration** window, the current settings are displayed on the setting list. Check the check box of the items you want to configure, edit the settings and click **Execute**.

If you want to restart the device automatically after finishing the configuration, check the check box at **Restart the device after this configuration** and then click **Execute**.



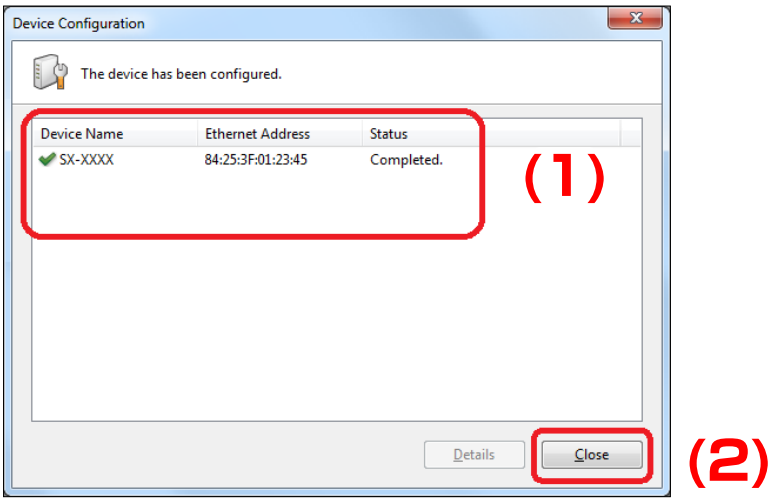
TIP

- The configuration will perform for those you have checked the check boxes. Clear the check box of the items you do not want to change the configuration.
- The changes will take effect after the device is restarted. If you have not selected the automatic restart, please restart the device manually. See **Restarting Device** for how to restart the device.

Note

- The configurable settings will differ depending on each device. For details, refer to the operating manual of that device.

4. The result of configuration is displayed.
If you have checked the check box at **Restart the device after this configuration**, the device will restart and the configuration will take effect automatically. Click **Close** to close the **Device Configuration** window.



4-6. Bulk Configuration

The following explains how to configure multiple devices in bulk.
For bulk configuration, the configuration file is used to send the settings to the devices.

Before You Begin

In order to configure multiple devices at once, the configuration file needs to be created first. The configuration file can be created by one of the following 4 methods:

(1) Creating from the selected device

The configuration file is created using the setting information of the device displayed on the list.

(2) Creating from a template

The configuration file is created using a template of each device.

(3) Editing the existing file

The existing configuration file can be edited.

(4) Merging multiple configuration files

Multiple configuration files are merged to one as a new file.

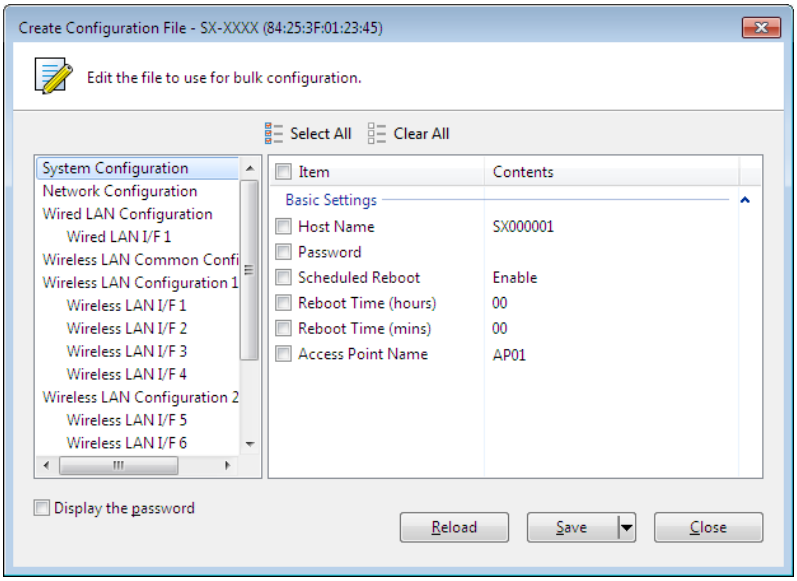
TIP

- When the login password is not set to a device, please include that setting to the configuration file.
  If the login password is not set, the bulk configuration does not perform correctly.

(1) Creating from the selected device

The configuration file is created using the setting information of the device displayed in the list. The current settings of the configured device can be utilized.
The configuration file is created in the **Create Configuration File** window.

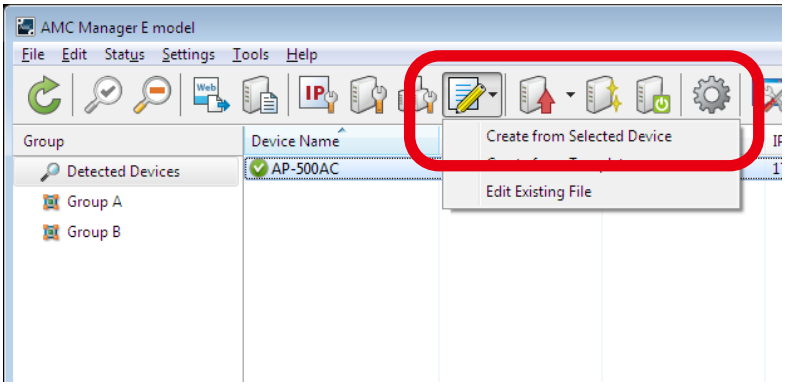
[Create Configuration File Window]



Name	Details
Window title	Shows the device name and the Ethernet Address.
Select All	Clicking this will check the check boxes of all setting items.
Clear All	Clicking this will clear the check boxes of all setting items.
Configuration menu	Menu of settings.
List of settings	Contents of settings. Each setting will show the current settings of the device. The settings displayed in this list will vary depending on the device you configure. Check the check box of the items you want to configure.
Display the password	Check this check box when you do not want to hide the password.
[Reload] button	Reloads the setting information.
[Save] button	Saves the edited settings as a configuration file.
[Close] button	Closes the window.

[Creating Configuration File]

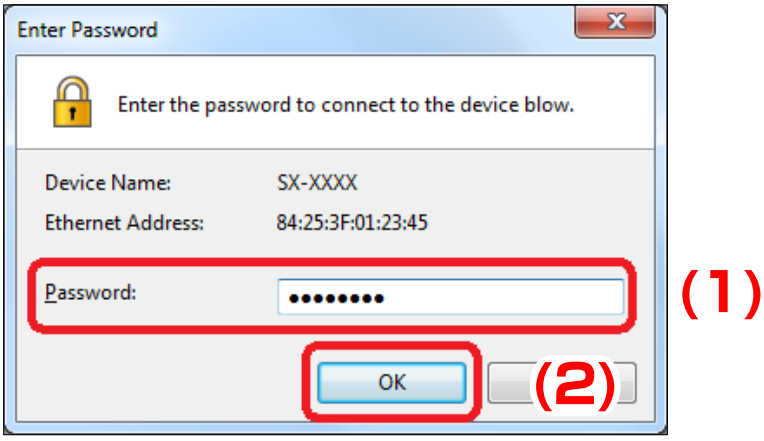
1. Select the device you want to use the configuration of and click the **Create the configuration file** icon and click **Create from Selected Device** from the toolbar.



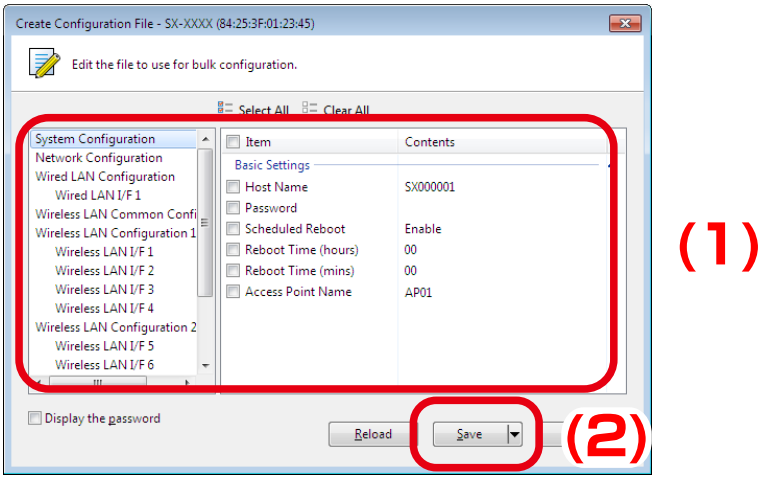
Note

- The configuration file can also be created by one of the following methods:
  - Select the device and click **Settings** - **Create from Selected Device** from the menu bar.
  - Right-click on the device and select **Create Configuration File** from the context menu.

- When a password is set to the device, the screen below is displayed.
  Enter the password of the device and click **OK**.



2. In the **Create Configuration File** window, the settings of the current device are displayed on the list. Check the check box of the items you want to use for the configuration file, edit the settings and click **Save**.



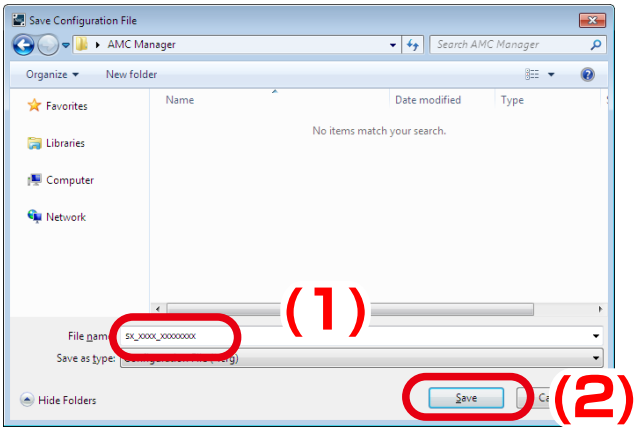
TIP

- Only the items you have checked the check box will be updated. Clear the check box of the items you do not want to change the configuration.

Note

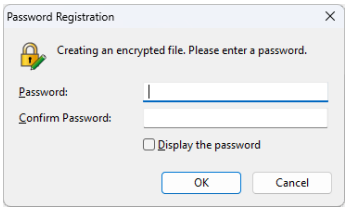
- The configurable settings will differ depending on each device. For details, refer to the operating manual of that device.

3. In the dialog to save the configuration file, specify the file name and click **Save**.



Note

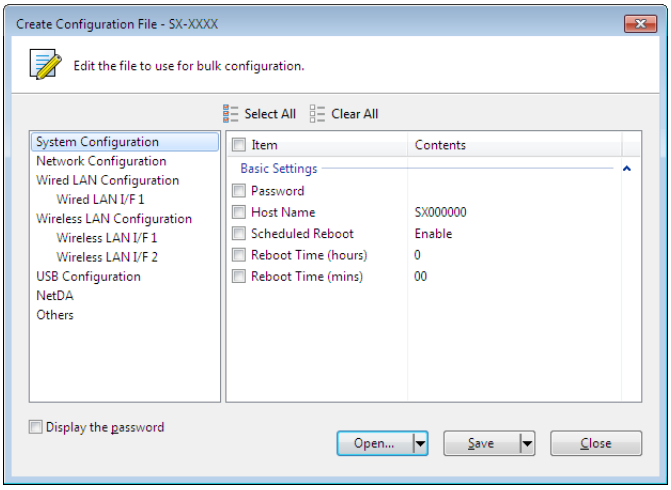
- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") will automatically be selected as a file type to save. Enter the password for the configuration file, then. It is also possible to select a normal configuration file (with the extension ".cfg") as a file type.



(2) Creating from a template

The configuration file can be created in the **Create Configuration File** window using a template for each device.

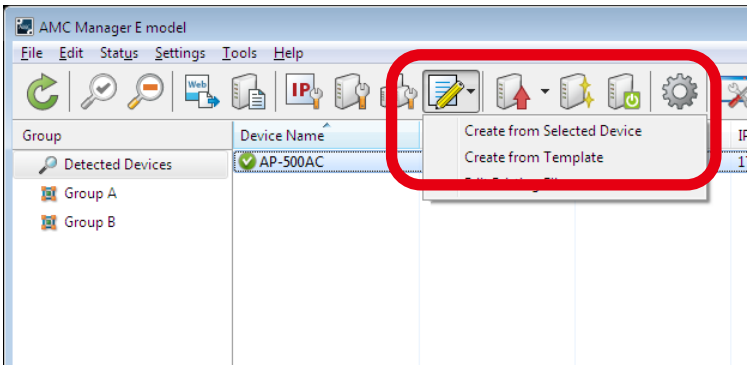
[Create Configuration File Window]



Name	Details
Window title	Shows the device name of the selected template.
Select All	Clicking this will check the check boxes of all setting items.
Clear All	Clicking this will clear the check boxes of all setting items.
Configuration menu	Menu of settings.
List of settings	Contents of settings. The settings displayed in this list will vary depending on the device you have selected. Check the check box of the items you want to configure.
Display the password	Check this check box when you do not want to hide the password.
[Open] button	Opens the existing configuration file.
Open Template	Opens the window to select a template of the configuration file.
[Save] button	Saves the entered settings as a configuration file.
[Close] button	Closes the window.

[Creating Configuration File]

1. Click the **Create the configuration file** icon and click **Create from Template** from the toolbar.

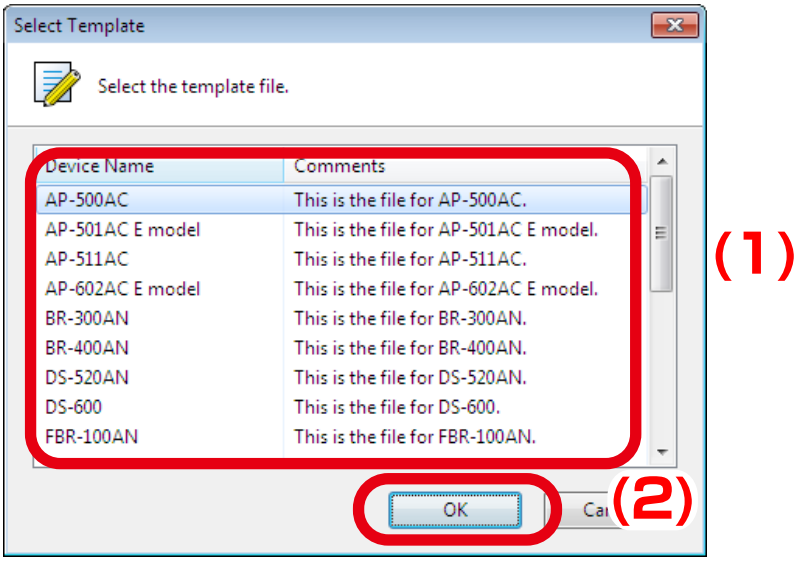


Note

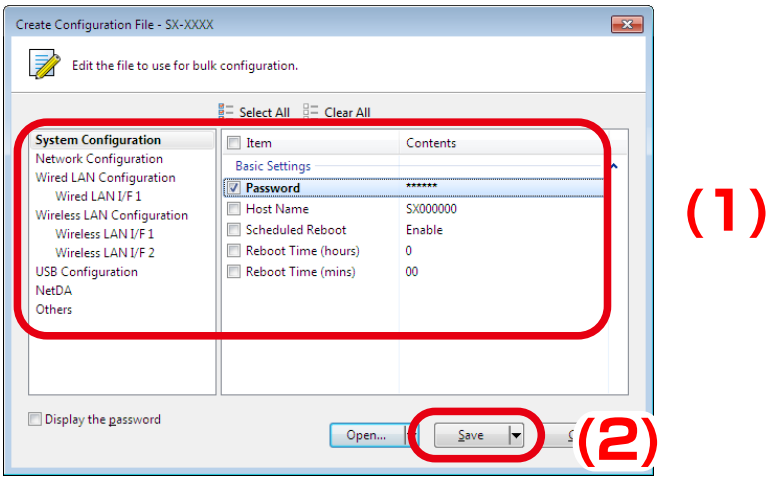
The configuration file can also be created by a method below:

- Click **Settings** - **Create Configuration File** - **Create from Template** from the menu bar.

2. In the **Select Template** window, select the device to configure and click **OK**.



3. In the **Create Configuration File** window, check the check box of the items you want to use for the configuration file, edit the settings and click **Save**.



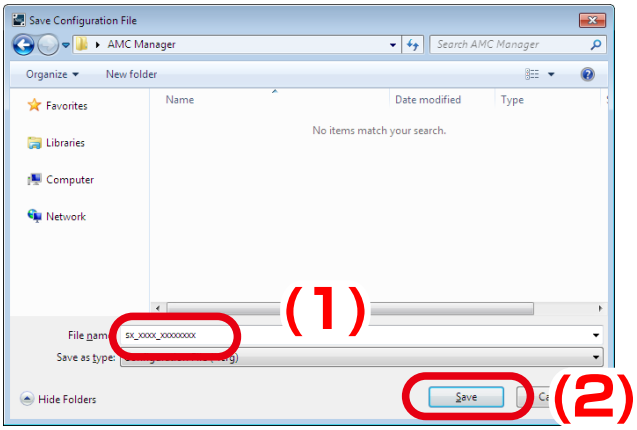
TIP

- Only the items you have checked the check box will be updated. Clear the check box of the items you do not want to change the configuration.

Note

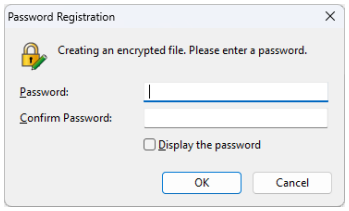
- The configurable settings will differ depending on each device. For details, refer to the operating manual of that device.

4. In the dialog to save the configuration file, specify the file name and click **Save**.



Note

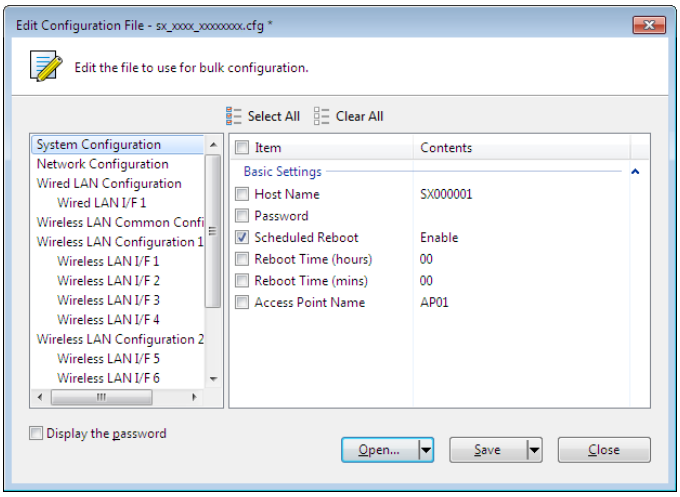
- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") will automatically be selected as a file type to save. Enter the password for the configuration file, then. It is also possible to select a normal configuration file (with the extension ".cfg") as a file type.



(3) Editing the existing file

The existing template can be edited in the **Edit Configuration File** window.

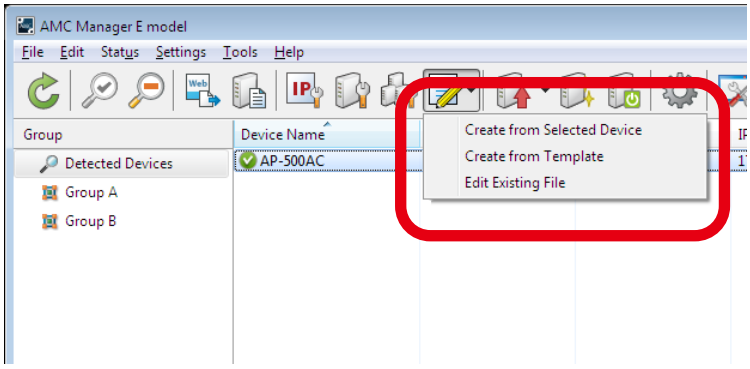
[Edit Configuration File Window]



Name	Details
Window title	Shows the file name of the selected configuration file.
Select All	Clicking this will check the check boxes of all setting items.
Clear All	Clicking this will clear the check boxes of all setting items.
Configuration menu	Menu of settings.
List of settings	Contents of settings. The settings displayed in this list will vary depending on the device you have selected. Check the check box of the items you want to configure.
Display the password	Check this check box when you do not want to hide the password.
[Open] button	Opens the existing configuration file.
Open Template	Opens the window to select a template of the configuration file.
[Save] button	Saves the entered settings as a configuration file.
[Close] button	Closes the window.

[Editing Configuration File]

1. Click the **Create the configuration file** icon and click **Edit Existing File** from the toolbar.

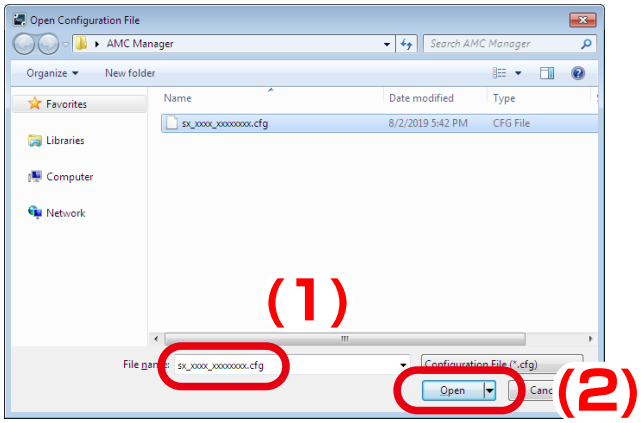


Note

The configuration file can also be created by a method below:

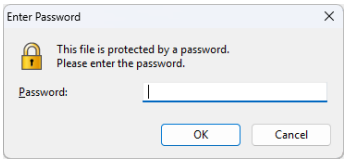
- Click **Settings** - **Create Configuration File** - **Edit Existing File** from the menu bar.

2. In the dialog to open the configuration file, select the configuration file to edit and click **Open**.

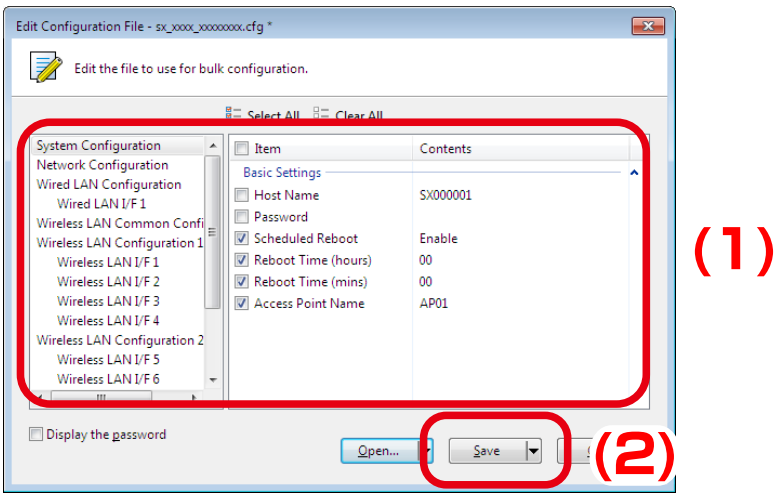


Note

- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") can be selected as a file type to open. The password entry will be needed to open the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.



3. In the **Edit Configuration File** window, check the check box of the items you want to edit, edit the settings and click **Save**.



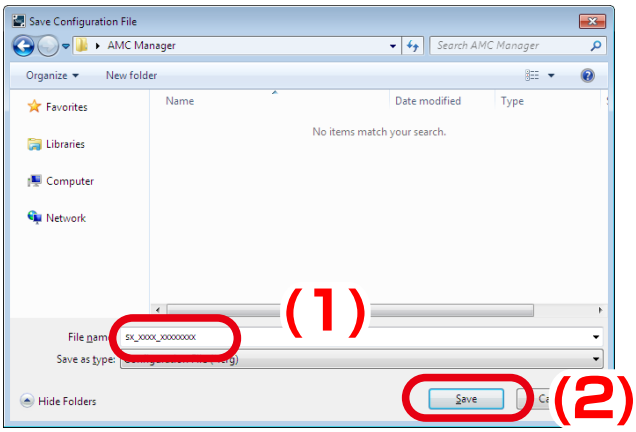
TIP

- Only the items you have checked the check box will be updated. Clear the check box of the items you do not want to change the configuration.

Note

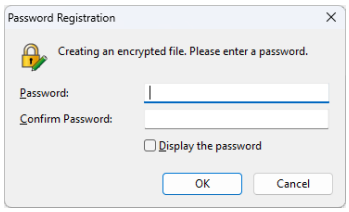
- The configurable settings will differ depending on each device. For details, refer to the operating manual of that device.
- To change the file name, click ▼ next to **Save** and then click **Save As**.

4. If **Save As** is clicked, the dialog to save the configuration file is displayed. Specify the file name and click **Save**.



Note

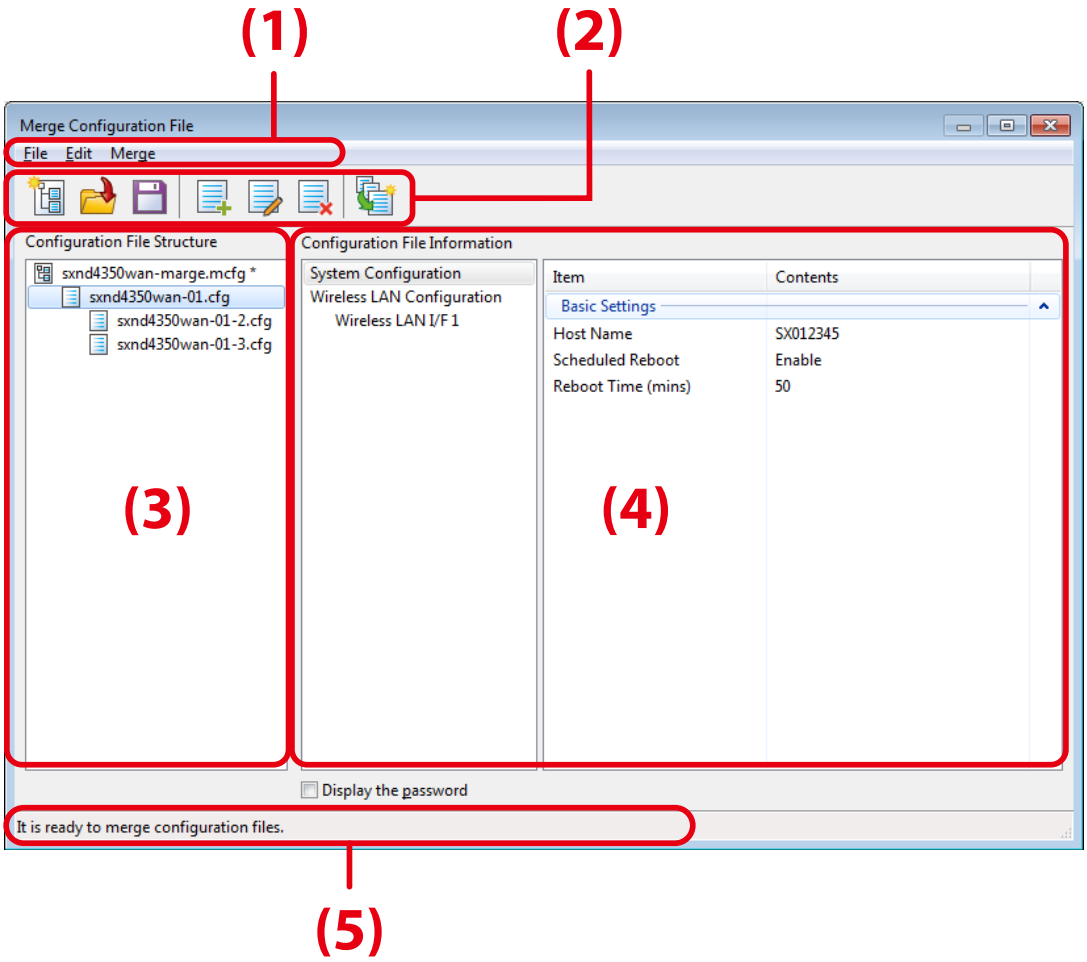
- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") will automatically be selected as a file type to save. Enter the password for the configuration file, then. It is also possible to select a normal configuration file (with the extension ".cfg") as a file type.



(4) Merging multiple configuration files

Multiple existing configuration files can be merged into one as a new file.

[Merge Configuration File Window]



(1) Menu bar

Controls the project files and configuration files.

(2) Toolbar

Controls the project files and configuration files.

(3) Configuration File Structure

Shows the configuration files managed by the project file.

(4) Configuration File Information

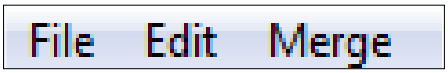
Shows the merge status and the settings of selected configuration files.

(5) Status bar

Displays edit status of the project file.

Menu bar

Menu bar provides all available functions of configuration merge window, such as creating project file, adding configuration file, etc.



Menu	Name	Details
File	Create New Project File	Creates a new project file.
	Open Project File	Opens an existing project file.
	Save	Saves change of the project file.
	Save As	Saves a project file.
	Exit	Closes the configuration file merge window.
Edit	Add Configuration File	Adds the existing configuration file to the project.
	Edit Configuration File	Opens the selected configuration file from the project.
	Delete Configuration File	Deletes the selected configuration file from the project.
Merge	Merge Configuration File	Merges settings of each configuration file based on project file and creates a new configuration file.

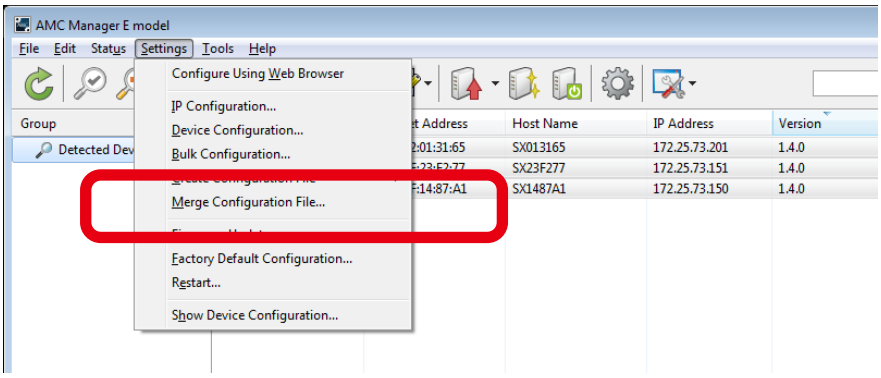
Toolbar

Toolbar provides all available functions of configuration merge window, such as creating project file, adding configuration file, etc.

Icon	Name (Tooltip)	Details
	Create New Project File	Creates a new project file.
	Open Project File	Opens an existing project file.
	Save	Saves change of the project file.
	Add Configuration File	Adds the existing configuration file to the project.
	Edit Configuration File	Opens the selected configuration file from the project.
	Delete Configuration File	Deletes the selected configuration file from the project.
	Merge Configuration File	Merges settings of each configuration file based on project file and creates a new configuration file.

[Merging Multiple Configuration Files]

1. From the menu bar, click **Settings** - **Merge Configuration File.**

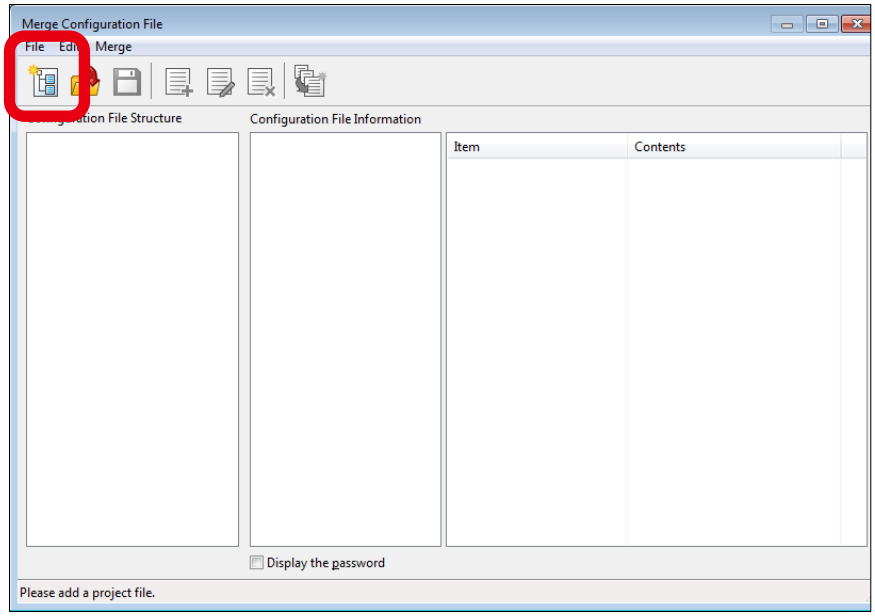


Note

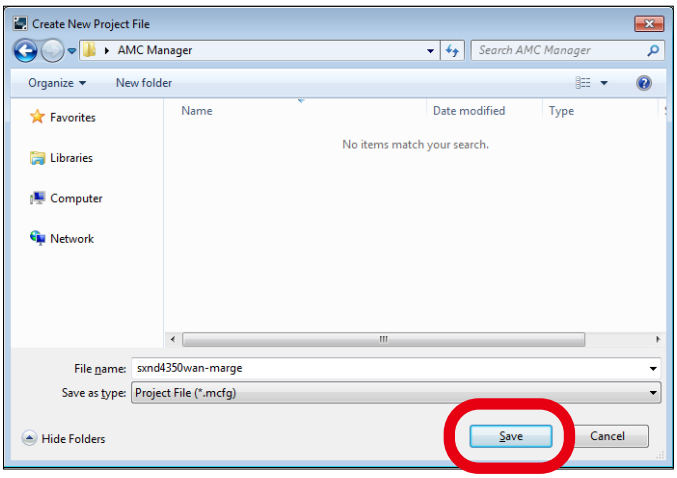
The **Merge Configuration File** window can also be displayed by the method below.

- Select **Merge Configuration File** from the right-click menu.

2. In the **Merge Configuration File** window, click the **Create New Project File** icon from the toolbar to create a project file.



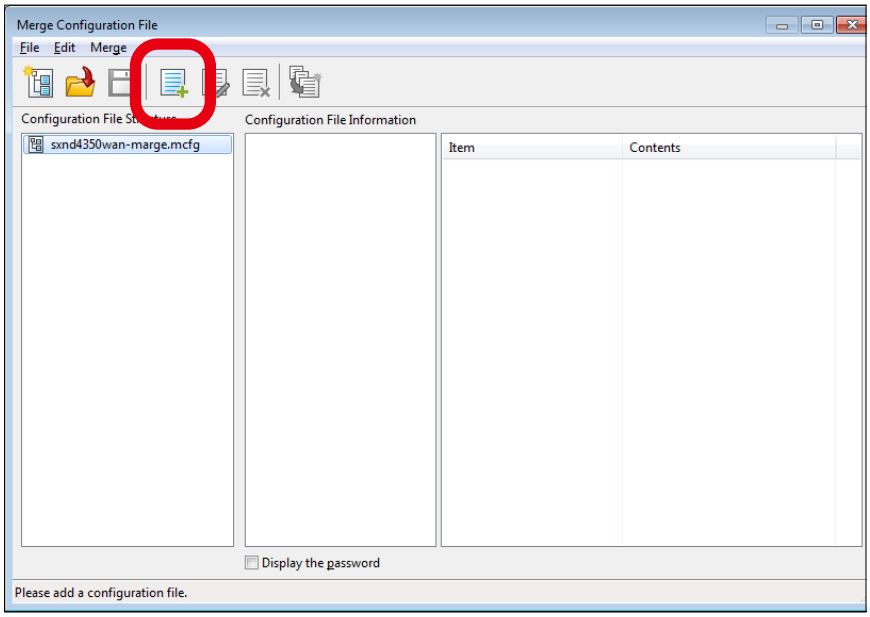
3. In the **Create New Project File** window, enter the file name and click **Save**.



Note

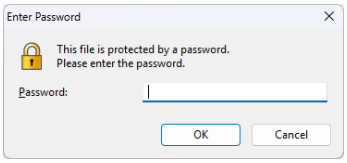
- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".mcfgx") will automatically be selected as a file type to save.
  It is also possible to select a normal configuration file (with the extension ".mcfg") as a file type.

4. The created project file is displayed under **Configuration File Structure**.
Click the **Add Configuration File** icon to add configuration files to merge.

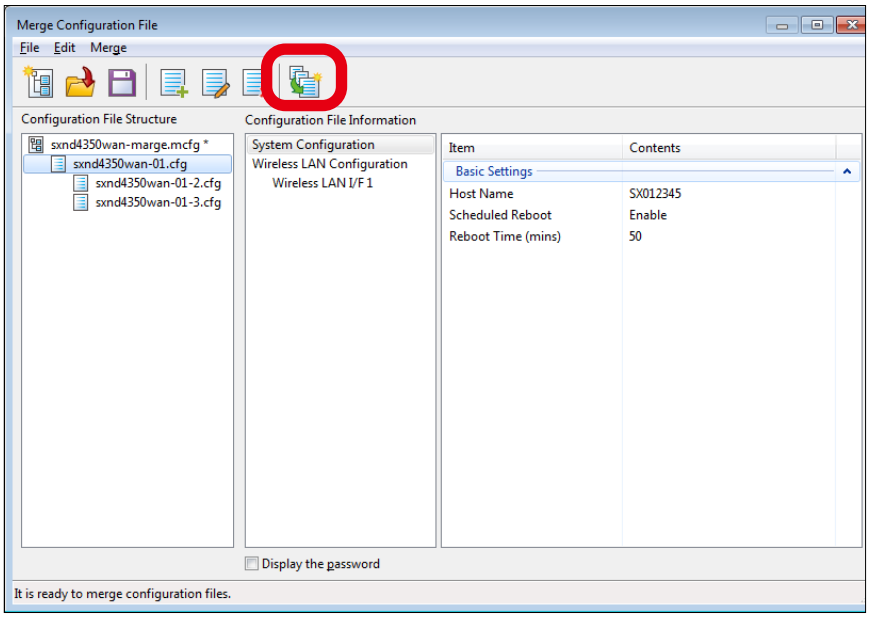


Note

- If a configuration file is added to another configuration file, they are displayed as a tree view. When there are different settings between upper file and lower file, the setting of the lower file will be applied for bulk configuration file.
- To merge password-protected configuration files, the password entry will be needed.



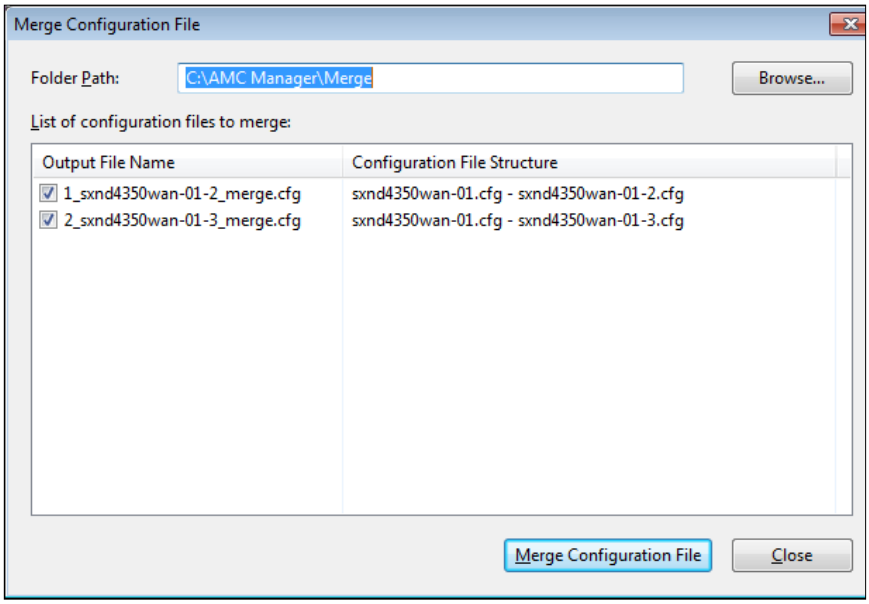
5. After the configuration files are added, click the **Merge Configuration File** icon.



Note

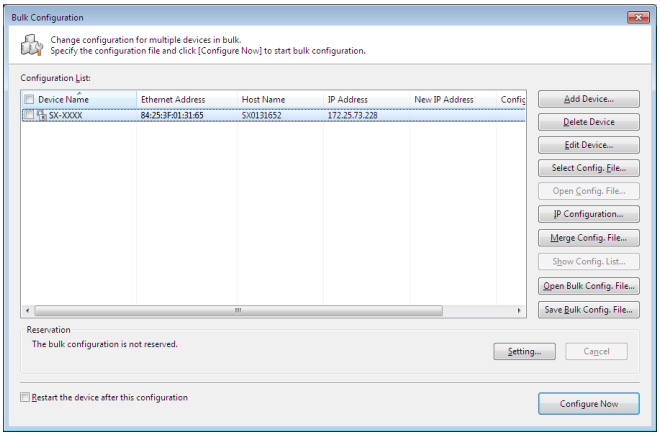
- **Configuration File Information** shows the settings merged between upper file and lower file.
- Settings to be changed after the file merge will be highlighted in red.
- Categories including the changed settings will also be highlighted in red.

6. In the **Merge Configuration File** window, specify the folder path, check the files to output and click **Merge Configuration File**.



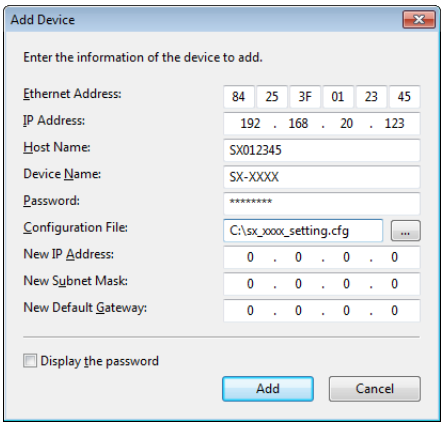
Name	Details
Folder Path	Specify the path to save the merged file. By default, "project file path\Merge" is selected as folder path. To change it, click **Browse** and select a new folder.
List of configuration files to merge	This is a list of the new configuration files to output. **Output File Name** shows a file name of the configuration file to output while **Configuration File Structure** shows the associated configuration files. By default, the **Output File Name** checkbox is checked. The default output file name will be "X_file name_merge.(extension)". * 'X' represents the list number. By double-clicking the output file name, the file name can be changed. When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") will automatically be selected as a file type to output. Enter the password for the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.
[Merge Configuration File] button	Creates a new configuration file according to the settings specified at **Folder Path** and **List of configuration files to merge**.
[Close] button	Closes the window.

Bulk Configuration Window



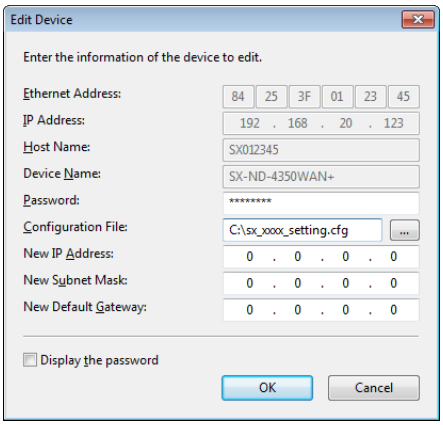
Name	Details
Configuration List	Shows the name, Ethernet Address, Host Name, IP Address of the devices you may want to configure in bulk. Also, the name of configuration file to use for bulk configuration is displayed. Check the check box of the devices you want to configure in bulk.
[Add Device] button	Adds a device to the configuration list. If clicked, the **Add Device** window is displayed.
[Delete Device] button	Deletes the device from the configuration list.
[Edit Device] button	Select one device in the configuration list and select the configuration file to use. If clicked, the **Edit Device** window is displayed.
[Select Config. File] button	Select the devices in the configuration list and select the configuration file to use. Two or more devices can be selected.
[Open Config. File] button	Opens the **Edit Configuration File** window at which you can edit the configuration file selected for the device.
[IP Configuration] button	Opens the **IP Address Configuration** window at which you can specify the IP address to configure to the device. By selecting two or more devices, sequential IP addresses can be configured.
[Merge Config. File] button	Merges multiple configuration files into one file. Opens the **Merge Configuration File** window.
[Show Config. List] button	Shows the setting of configuration file to use for the device whose check box is on.
[Open Bulk Config. File] button	Opens the existing bulk configuration file. The devices to configure in bulk and configuration file of each are displayed in the list.
[Save Bulk Config. File] button	Saves the list of devices and configuration files as a bulk configuration file. The bulk configuration file can also be used for emergency use. For details, refer to "**4-14. Allowing Public Use In Case Of Emergency**".
Reservation	Shows the reservation of the bulk configuration. By clicking **Open the target file** that is displayed after the reservation is made, the registered bulk configuration file can be opened. (AMC Manager® E model only)
[Setting] button	Opens the reservation window. When no devices are displayed on the configuration list, the error message is displayed. (AMC Manager® E model only)
[Cancel] button	Deletes the reservation. (AMC Manager® E model only)
Restart the device after this configuration	Check this check box if you want to restart the devices after finishing the bulk configuration.
[Configure Now] button	Starts the bulk configuration. Configuration will be loaded to the devices that you have selected the configuration file and have checked the check box.

Add Device Window



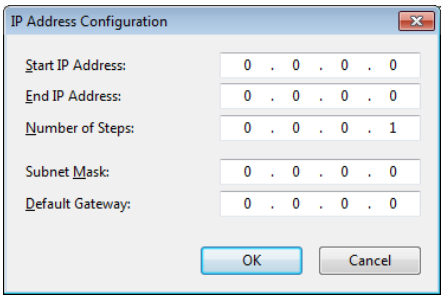
Name	Details
Ethernet Address	Enter the Ethernet Address of the device to add.
IP Address	Enter the IP Address of the device to add.
Host Name	Enter the Host Name of the device to add.
Device Name	Enter the name of the device to add.
Password	Enter the password configured to the device.
[Configuration File] button	Select the configuration file to use for the device. When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") can be selected as a file type. The password entry will be needed to specify the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.
New IP Address	Specify the IP address to configure. When 0.0.0.0 is specified, **New IP Address**, **New Subnet Mask** and **New Default Gateway** are not configured to the device.
New Subnet Mask	Specify the Subnet Mask to configure. When 0.0.0.0 is specified, it is not configured to the device.
New Default Gateway	Specify the Default Gateway to configure. When 0.0.0.0 is specified, it is not configured to the device.
Display the password	Check this check box when you do not want to hide the password.
[Add] button	Adds the device.
[Cancel] button	Cancels the settings and closes the window.

Edit Device Window



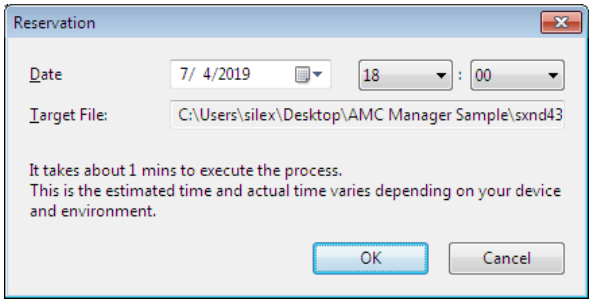
Name	Details
Ethernet Address	Enter the Ethernet Address of the selected device.
IP Address	Enter the IP Address of the selected device.
Host Name	Enter the Host Name of the selected device.
Device Name	Enter the name of the selected device.
Password	Enter the password configured to the device.
[Configuration File] button	Select the configuration file to use for the device. When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") can be selected as a file type. The password entry will be needed to specify the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.
New IP Address	Specify the IP address to configure. When 0.0.0.0 is specified, **New IP Address**, **New Subnet Mask** and **New Default Gateway** are not configured to the device.
New Subnet Mask	Specify the Subnet Mask to configure. When 0.0.0.0 is specified, it is not configured to the device.
New Default Gateway	Specify the Default Gateway to configure. When 0.0.0.0 is specified, it is not configured to the device.
Display the password	Check this check box when you do not want to hide the password.
[OK] button	Sets the selected configuration file to the device.
[Cancel] button	Cancels the edit and closes the window.

IP Address Configuration Window



Name	Details
Start IP Address	Specify the start IP address for the address range to configure.
End IP Address	Specify the end IP address for the address range to configure.
Number of Steps	Specify the number to increment when sequential IP addresses are configured to the devices by taking the addresses from the specified range (between start IP address and end IP address).
Subnet Mask	Specify the subnet mask to configure.
Default Gateway	Specify the default gateway to configure.
[OK] button	If clicked, the IP address to configure is displayed at **New IP Address** in the **Configuration List**. The new IP address is automatically pre-assigned by taking the address from the specified address range (between start address and end IP address) based on the number of steps.
[Cancel] button	Cancels the edit and closes the window.

Reservation Window



Name	Details
Date	Specify the time when the bulk configuration should be executed. Click ▼ to set the date and time.
Target File	Shows a path of the bulk configuration file.
[OK] button	Sets the reservation using the specified date and time.
[Cancel] button	Closes the window.

Bulk Configuration Using a Reservation Function

By using the reservation function, multiple devices can be configured in bulk at the specified date/time. How to make the reservation is explained below.

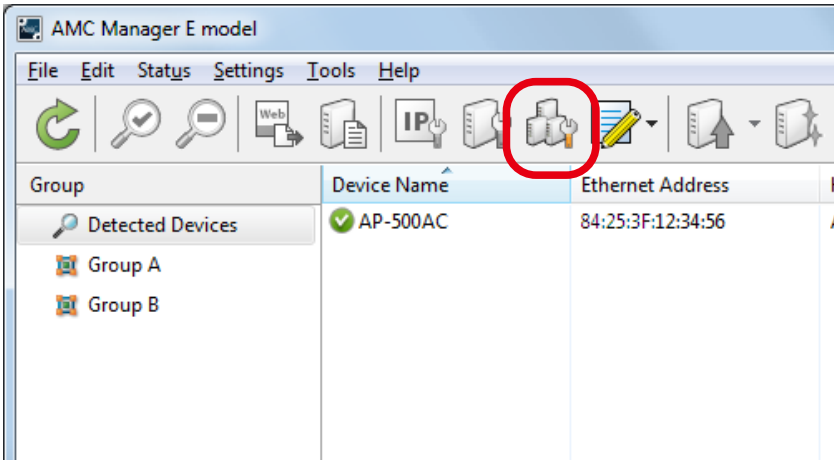
TIP

- Only AMC Manager® E model supports the reservation function.
- To use the reservation function, time synchronization must be completed in your system using the Windows Time service.
- The bulk configuration using the reservation function can run even when the PC is locked.
- Do not allow the PC to go to sleep mode or to be shut down after the reservation is made. The bulk configuration may start at unexpected time.
- Make sure that bulk configuration and firmware update do not run at the same time with the same devices using the reservation function.

For bulk configuration using the reservation function, the bulk configuration file needs to be created in advance.
For how to create the bulk configuration file, refer to **4-14. Allowing Public Use In Case of Emergency** - **Before You Begin**.

[Making a Reservation for Bulk Configuration]

1. Click the **Configure multiple devices in bulk** icon from the toolbar.

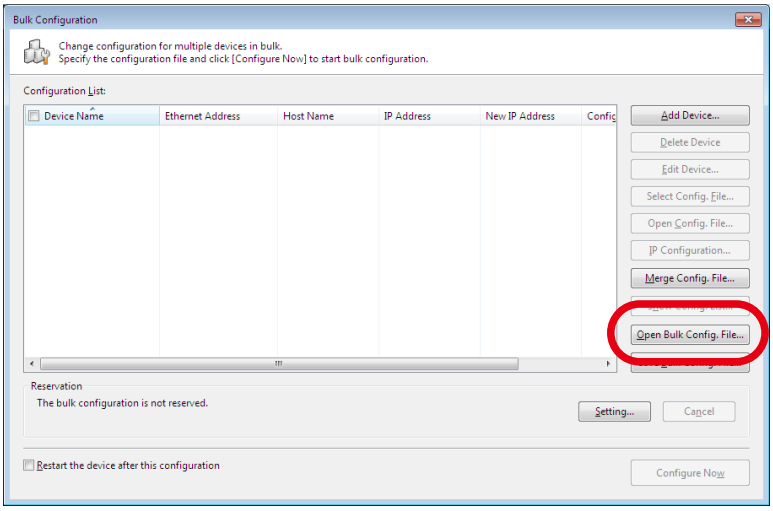


Note

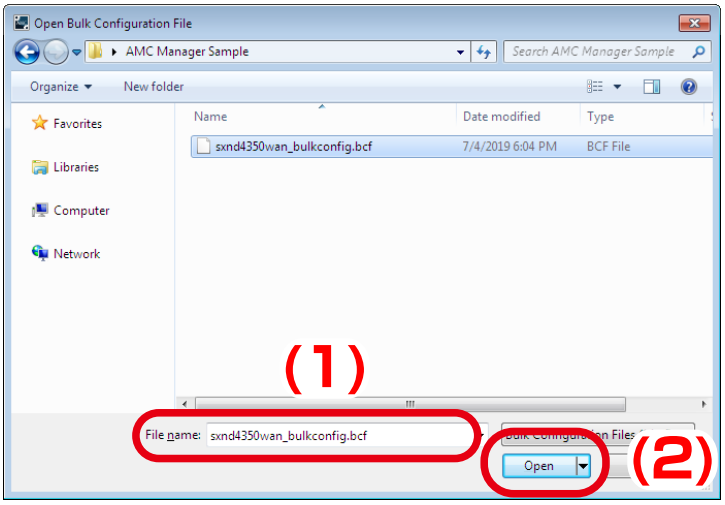
The bulk configuration window can also be displayed by a method below:

- Select the devices to configure in bulk and click **Settings** - **Bulk Configuration** from the menu bar.

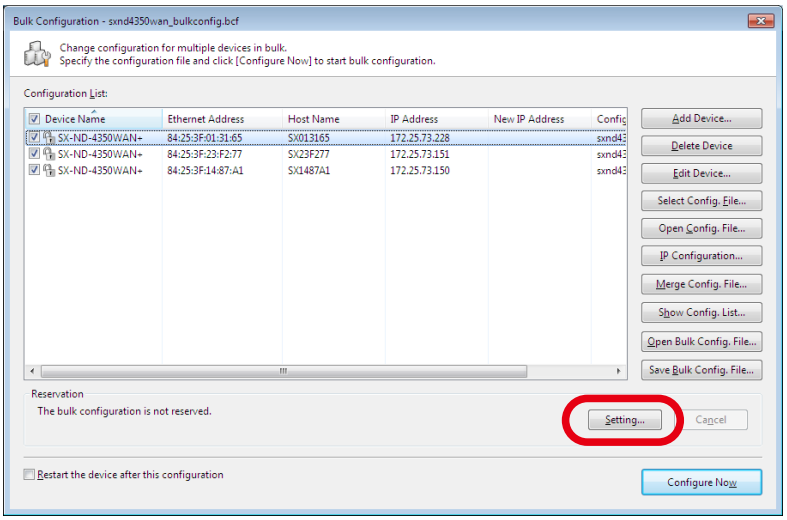
2. In the **Bulk Configuration** window, click **Open Bulk Config. File**.



3. Select a bulk configuration file to use and click **Open**.



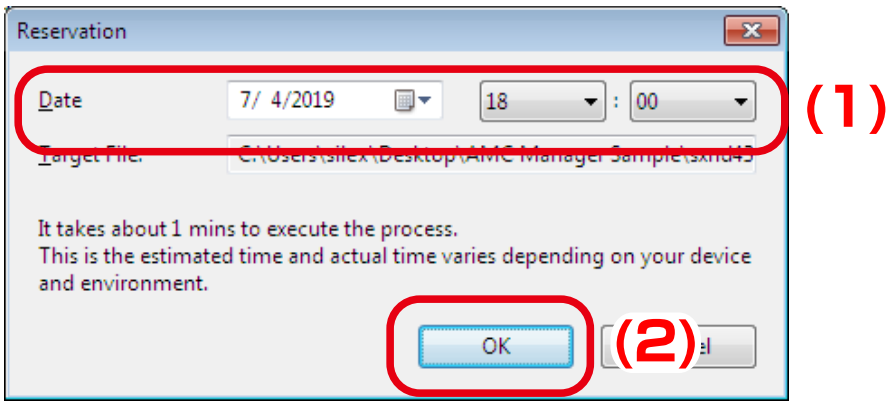
4. Click **Setting** to set the time to execute bulk configuration based on the selected file.



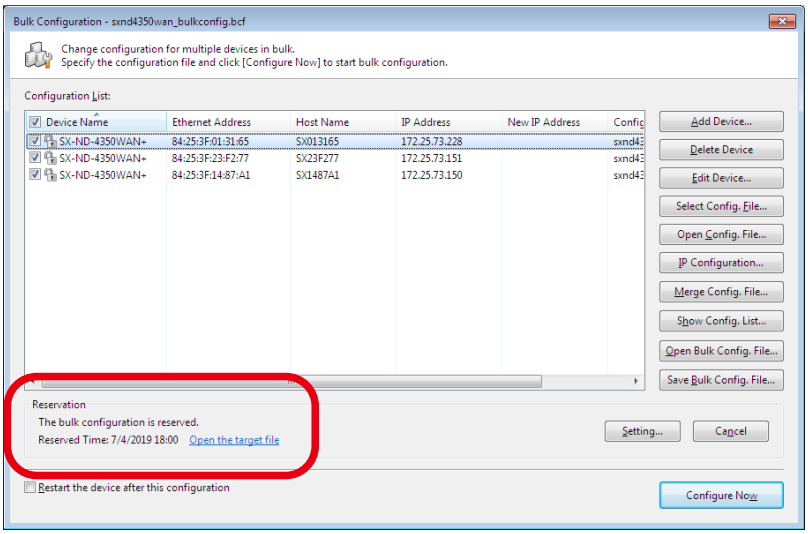
Note

- Only the devices you have checked the checkbox will be the target for bulk configuration.
- If you want to restart the device automatically after finishing the bulk configuration, check the checkbox at **Restart the device after this configuration** and then click **Setting**.

5. In the **Reservation** window, specify the date/time for bulk configuration and click **OK**.

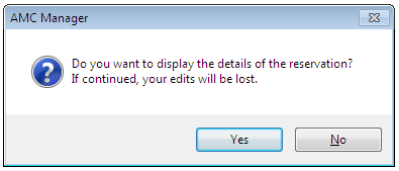


6. Check that the start time of bulk configuration is displayed at **Reservation**.

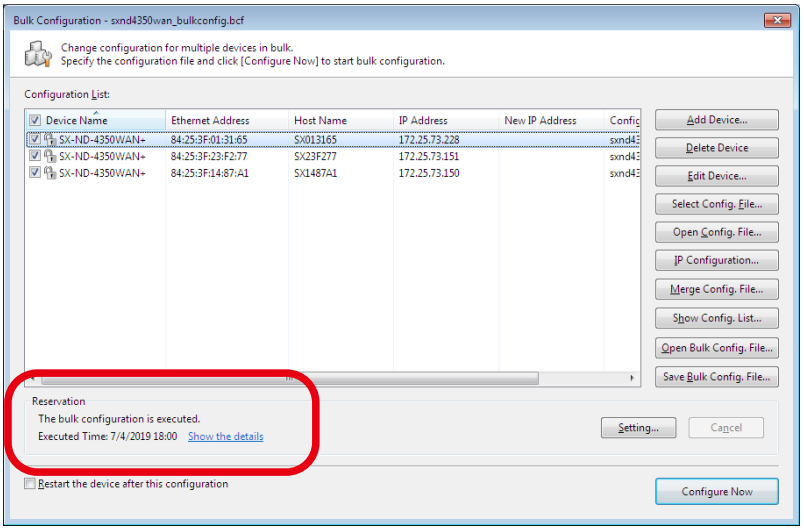


Note

- Clicking **Open the target file** will display the confirmation message below. If **Yes** is clicked on the message, the details of the reserved file is displayed.



7. The reservation has been made.
When the bulk configuration is executed according to the reservation, the information is changed to below.

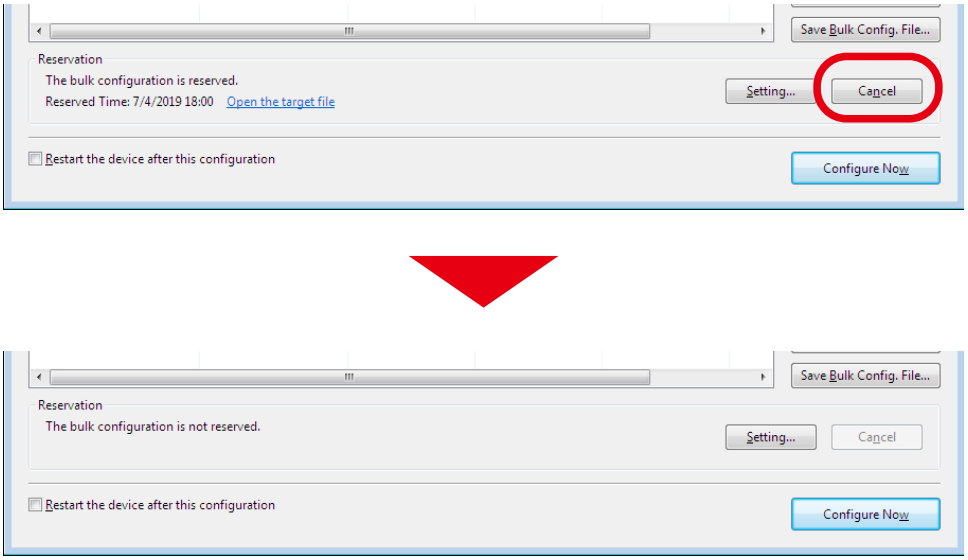


Note

- If **Show the details** is clicked, the result of bulk configuration is displayed.

[Cancelling a Reservation]

The reservation can be deleted by clicking **Cancel**.



Configuring Devices in Bulk

The following is an example of configuring multiple devices at once using the configuration file.

Note

- In the bulk configuration, the settings saved in the configuration file will be sent to the devices.
- When you configure the device-specific values such as IP Address or host name, use the configuration file of each device. The configuration file can also be used to update the common setting that is shared among several devices, such as SSID or Pre-Shared Key of the wireless security.

TIP

- Only the items you have checked the check box will be updated. Make sure that you have created the configuration file in which the check box is checked for those you want to update.
- When AMC Manager® Free is used, up to 10 devices can be configured at a time.

1. For the bulk configuration of IP address, the IP address of the PC needs to be changed beforehand. Change the IP address of the PC to the one that can be communicated with the devices after the bulk configuration.

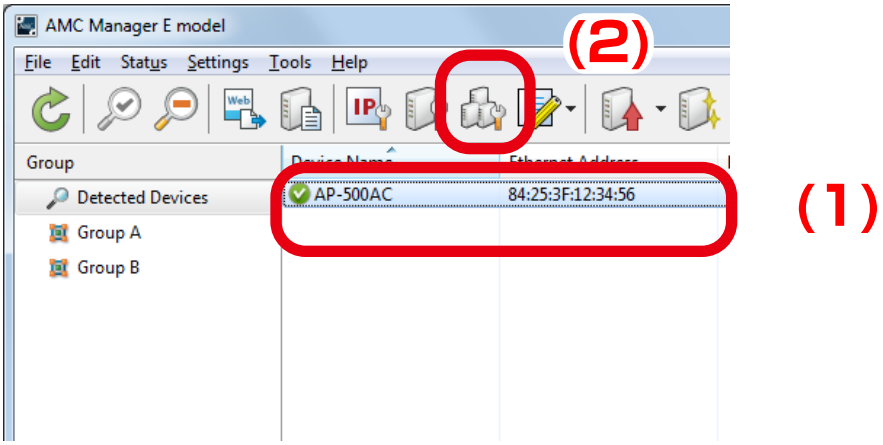
Sample setting)

Sample IP address setting for bulk configuration	Sample IP address setting for PC
192.168.0.10 - 192.168.0.30	192.168.0.100
172.25.10.10 - 172.25.10.25	172.25.10.100

TIP

- The bulk configuration of IP address can be used for initial configuration.

2. Select the devices to configure in bulk from the list of the AMC Manager and click the **Configure multiple devices in bulk** icon from the toolbar.

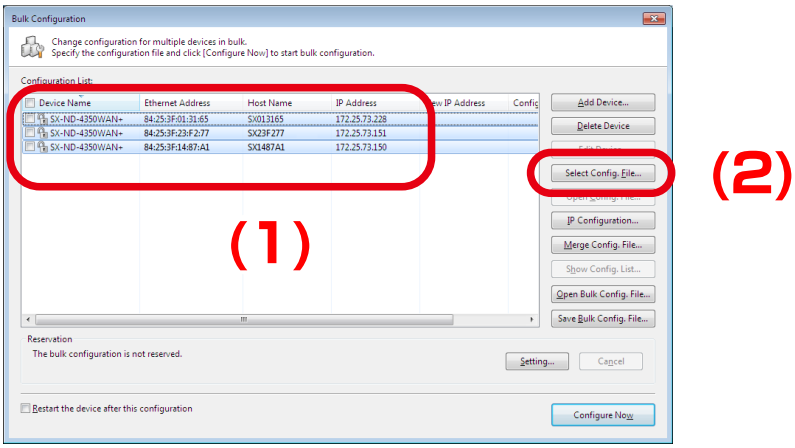


Note

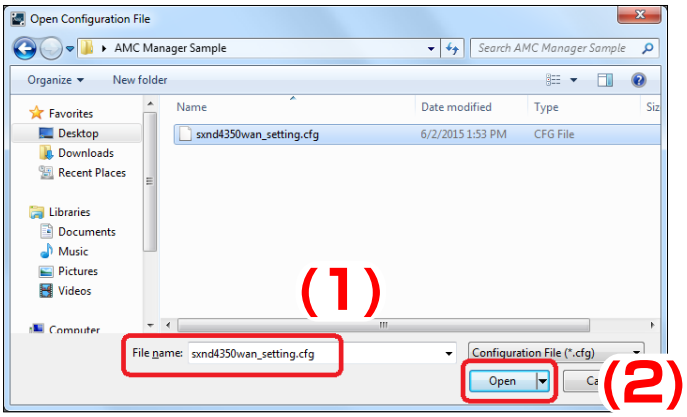
The bulk configuration window can also be displayed by a method below:

- Select the devices to configure in bulk and click **Settings** - **Bulk Configuration** from the menu bar.

3. In the **Bulk Configuration** window, select the devices to configure in bulk from the **Configuration List** and click the **Select Config. File** button.

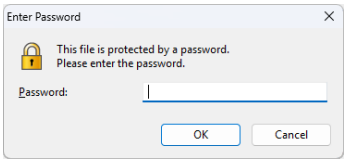


4. Select the configuration file that you have created to use for bulk configuration and click **Open**.

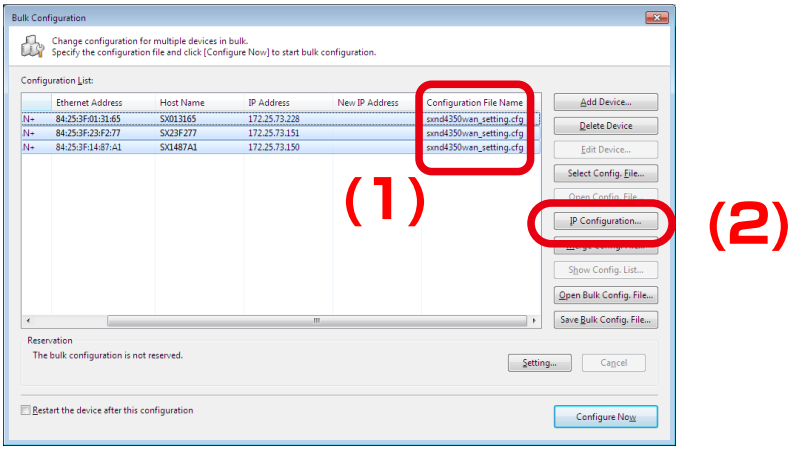


Note

- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") can be selected as a file type to open. The password entry will be needed to open the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.



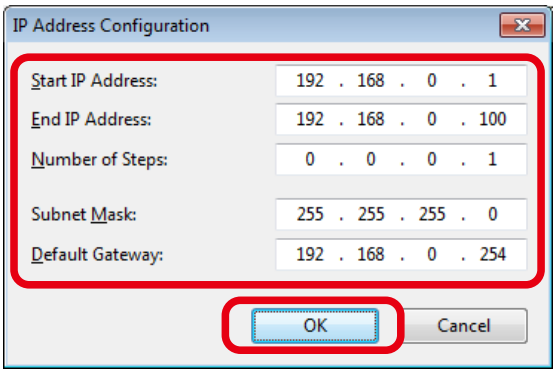
5. The selected file is displayed at **Configuration File Name** in the **Configuration List**.
Go on to **8** to configure the devices using the configuration file.
To specify the IP addresses to configure, click **IP Configuration**.



Note

- Information of the devices to configure in bulk and the configuration files can be saved by clicking **Save Bulk Config.File**. Once the bulk configuration is saved, it can be used for **Emergency Use**.

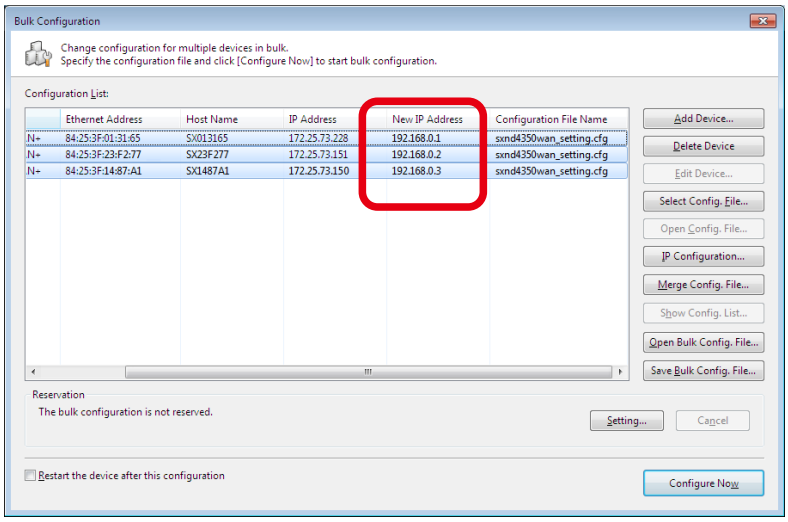
6. In the **IP Address Configuration** window, specify the IP address range to configure. When finished, click **OK**.



Note

- When IP address is configured to 3 devices with above setting, the first one will get "192.168.0.1" as same as **Start IP Address**, and the second one and the third one will get "192.168.0.2" and "192.168.0.3" respectively as the address is incremented by 1 as specified to the number of steps.

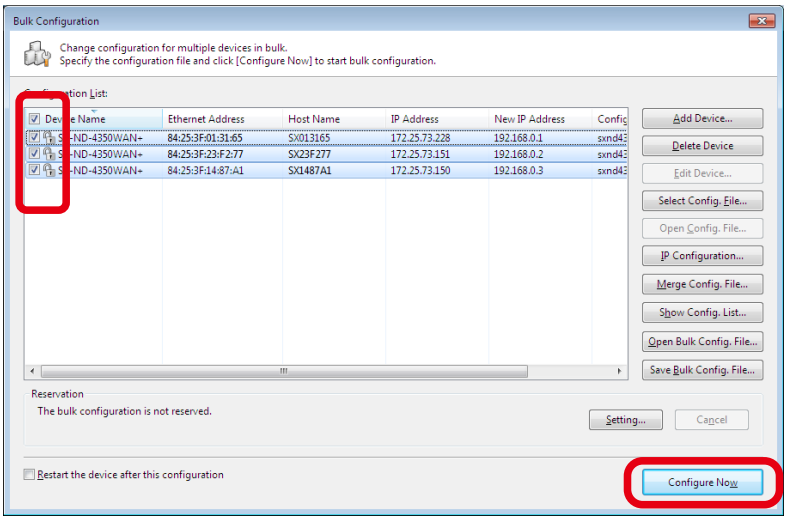
7. The IP addresses to configure are pre-specified and displayed at **New IP Address** in the **Configuration List**.



Note

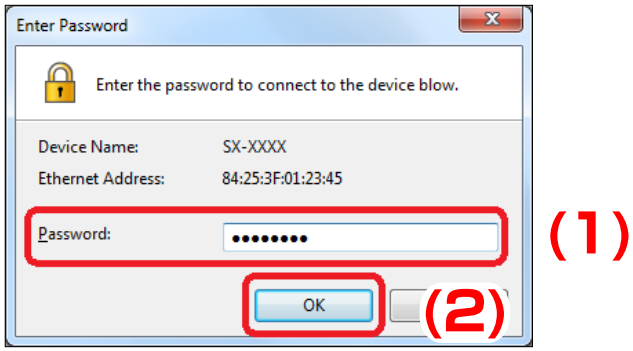
- If the address is displayed at **New IP Address** when the other address is specified in the configuration file, the address displayed at **New IP Address** will be configured to the device.

8. Check the check box of the devices to configure in bulk and click **Configure Now**.

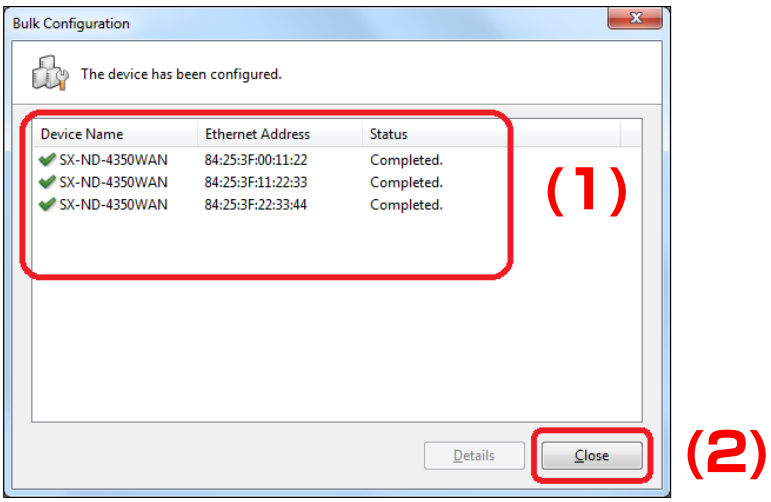


Note

- Clicking **Save Bulk Config. File** saves information of devices and configuration files to use for bulk configuration. The saved file can be used for the emergency use feature.
- When a password is set to the device, the screen below is displayed. Enter the password of the device and click **OK**.



9. The bulk configuration performs and the result is displayed.
Click **Close**.



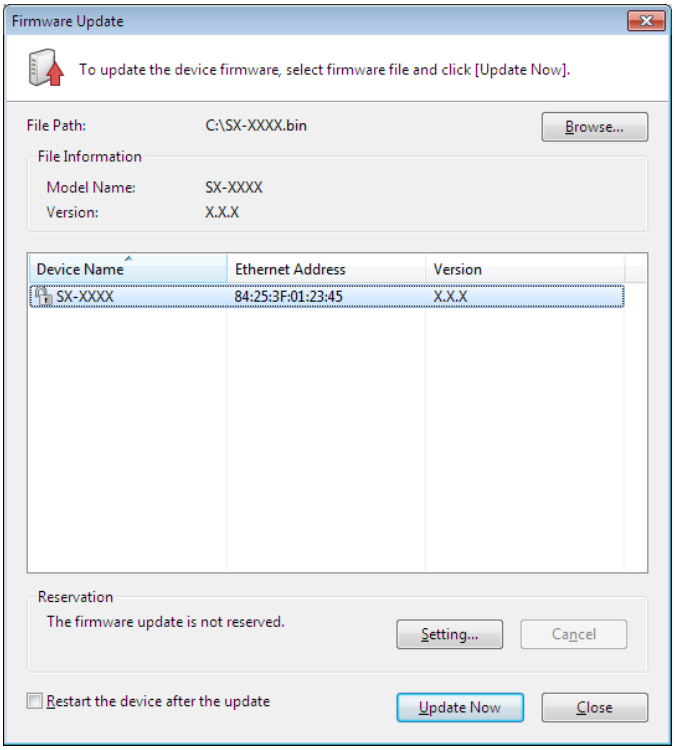
TIP

- If the result status does not say "Completed", modify the setting of the configuration file and try again. For how to make changes to the configuration file, see **4-6. Bulk Configuration** - **Before You Begin** - **(3) Editing the existing file**.

4-7. Firmware Update

How to update the device firmware is explained.
The firmware can be updated from the **Firmware Update** window. The latest firmware file can be downloaded from our website.

Firmware Update Window

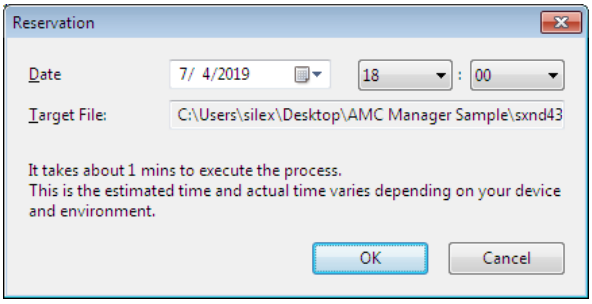


Name	Details
[Browse] button	Select the firmware file (BIN file format or ZIP file format including BIN file).
File Path	Shows the file path to the selected firmware file.
Model Name	Shows the device model of the firmware file.
Version	Shows the firmware file version.
(List of devices)	Shows the name, Ethernet Address and current firmware version of the devices to update.
Reservation	Shows the reservation of the firmware update. By clicking **Show the details** that is displayed after the reservation is made, the firmware file and the reserved devices are displayed. (AMC Manager® E model only)
[Setting] button	Opens the reservation window. (AMC Manager® E model only)
[Cancel] button	Deletes the reservation. (AMC Manager® E model only)
Restart the device after the update	Check this check box if you want to restart the device after finishing the firmware update.
[Update Now] button	Executes the firmware update.
[Close] button	Closes the window.

TIP

- Some Silex devices need a version update file with the same file name as BIN file, when the firmware version is updated using AMC Manager.
- BIN file and version update file must be saved in the same folder (ZIP file).

Reservation Window



Name	Details
Date	Specify the time when the firmware update should be executed. Click ▼ to set the date and time.
Target File	Shows a path of the firmware file.
[OK] button	Sets the reservation using the specified date and time.
[Cancel] button	Closes the window.

Firmware Update Using a Reservation Function

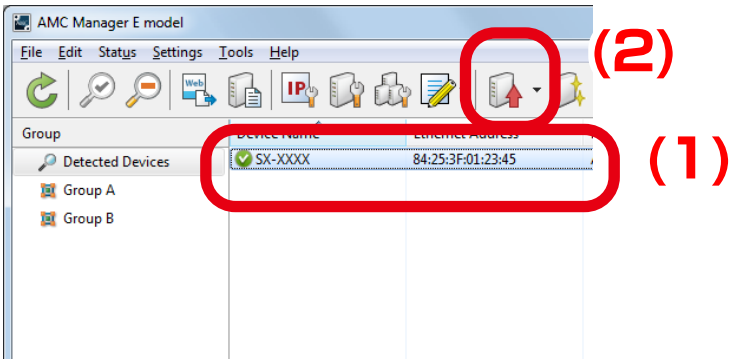
By using the reservation function, the device firmware can be updated at the specified date/time. How to make the reservation is explained below.

TIP

- Only AMC Manager® E model supports the reservation function.
- To use the reservation function, time synchronization must be completed in your system using the Windows Time service.
- The firmware update using the reservation function can run even when the PC is locked.
- Do not allow the PC to go to sleep mode or to be shut down after the reservation is made. The firmware update may start at unexpected time.
- Make sure that bulk configuration and firmware update do not run at the same time with the same devices using the reservation function.

[Making a Reservation for Firmware Update]

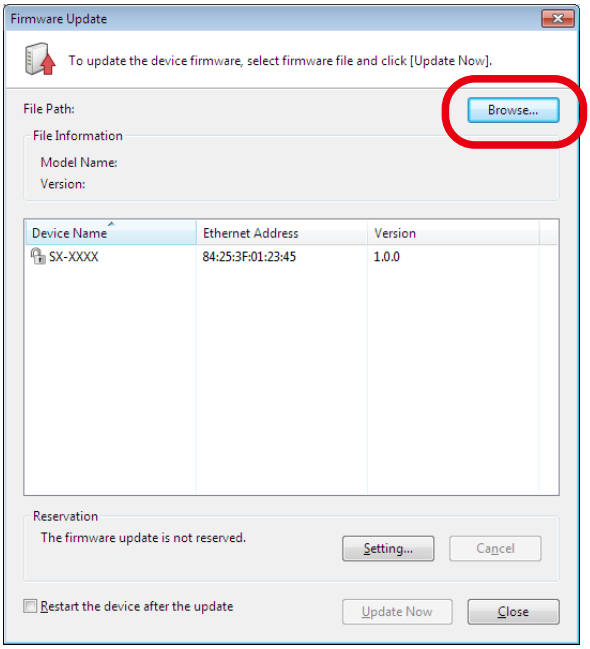
1. Select the device to update the firmware from the list and click the **Firmware update** icon from the toolbar.



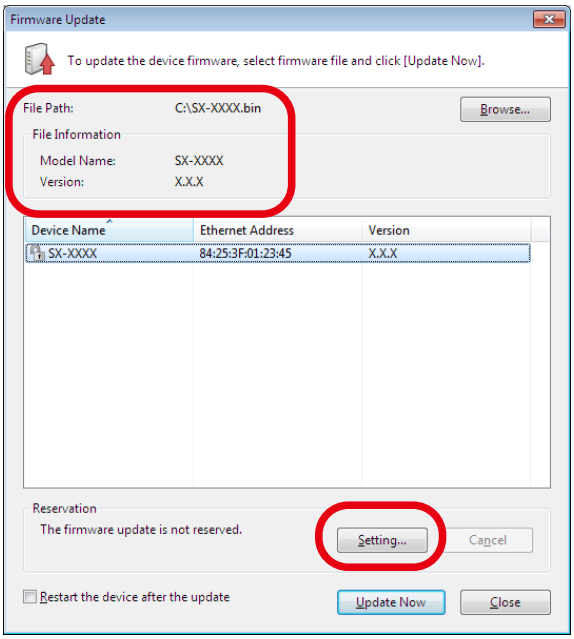
Note

- The firmware update window can also be displayed by the methods below:
  - Click **Settings** - **Firmware Update** from the menu bar.
  - Right-click on the device and select **Firmware Update** from the context menu.
- If ▼ on the right of the **Firmware update** icon is clicked, the history of used firmware files is displayed (up to 9 files). If the firmware file is selected from the history, you will not have to select it manually at the **Firmware Update** window.

2. In the Firmware Update window, select the firmware file (BIN file format or ZIP file format including BIN file) by clicking **Browse**.



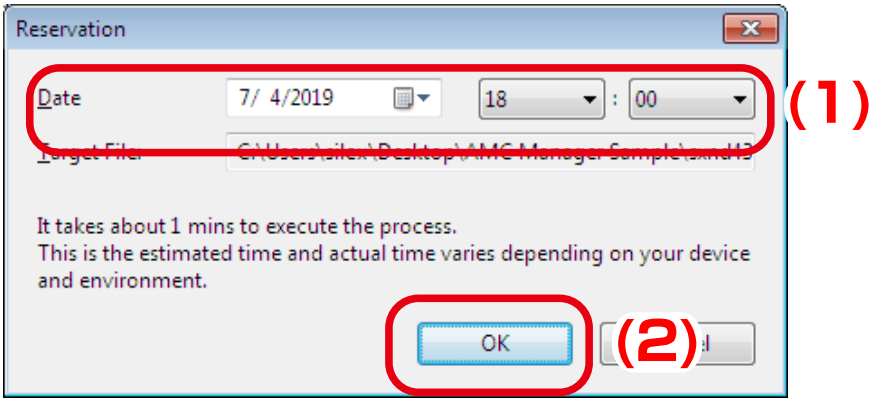
3. Check the file information of the selected firmware and click **Setting**.



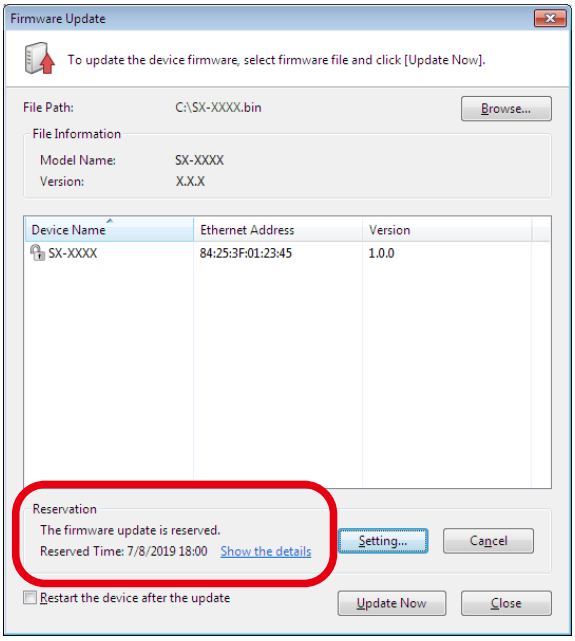
Note

- If you want to restart the device automatically after finishing the firmware update, check the check box at **Restart the device after the update** and then click **Setting**.

4. In the **Reservation** window, specify the date/time for firmware update and click **OK**.

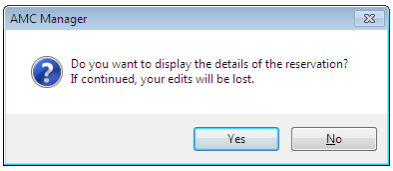


5. Check that the start time of firmware update is displayed at **Reservation**.

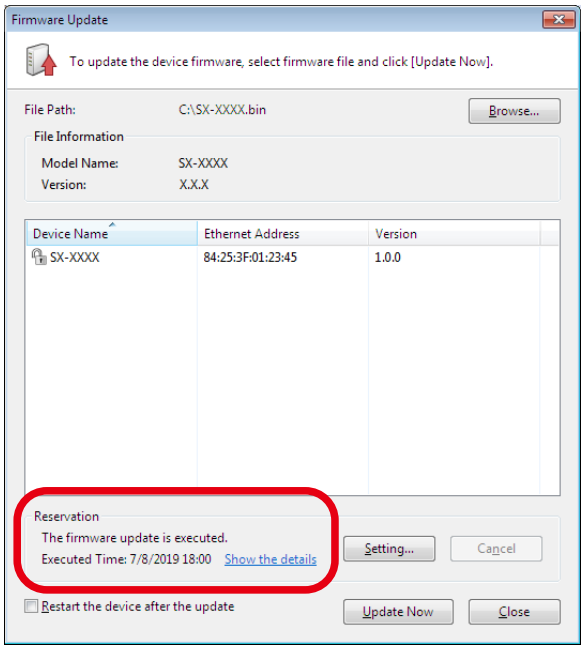


Note

- Clicking **Show the details** will display the confirmation message below. If **Yes** is clicked on the message, the details of the reserved firmware file is displayed.



6. The reservation has been made.
When the firmware update is executed according to the reservation, the information is changed to below.

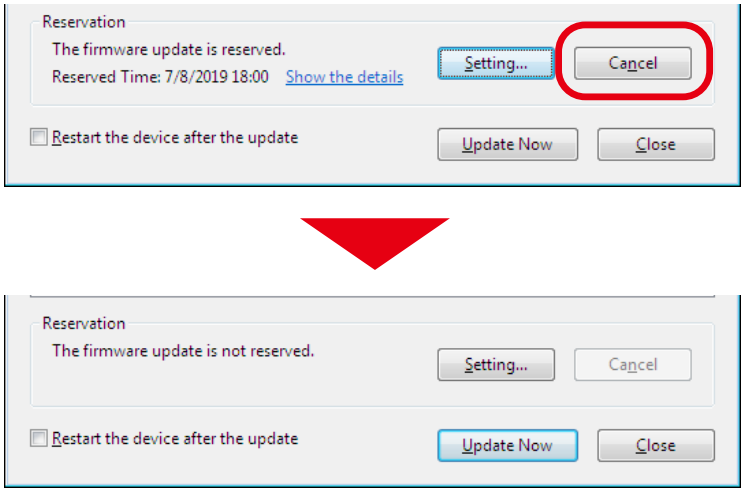


Note

- If **Show the details** is clicked, the result of firmware update is displayed.

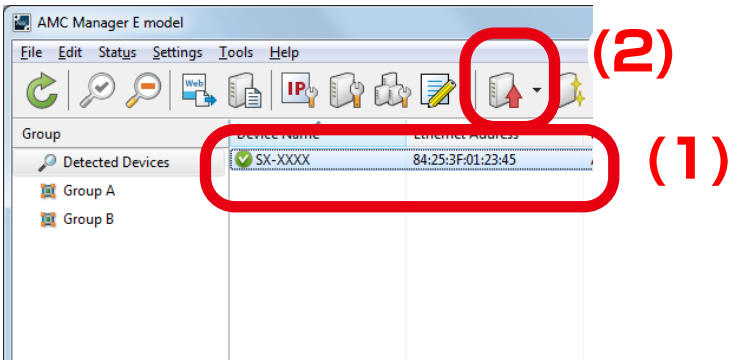
[Cancelling a Reservation]

The reservation can be deleted by clicking **Cancel**.



Updating Firmware

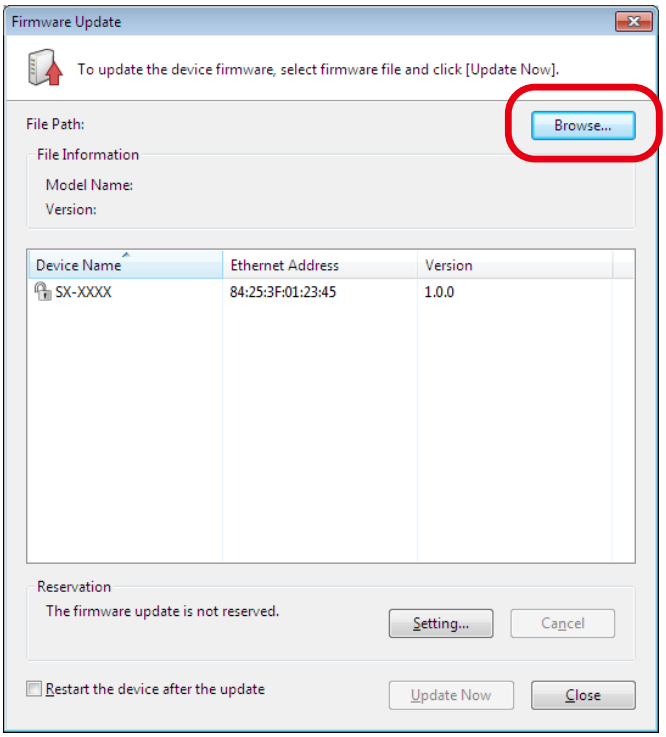
1. Select the device to update the firmware from the list and click the **Firmware update** icon from the toolbar.



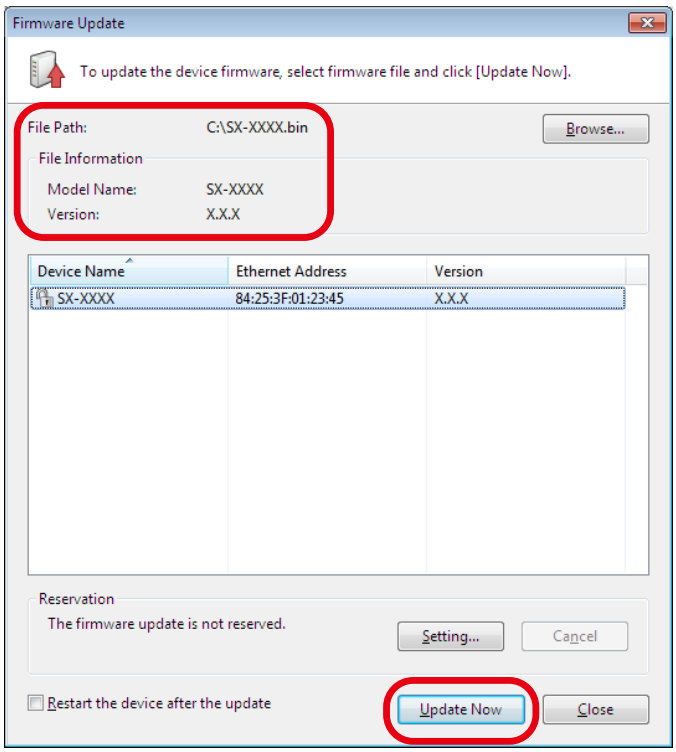
Note

- The firmware update window can also be displayed by the methods below:
  - Click **Settings** - **Firmware Update** from the menu bar.
  - Right-click on the device and select **Firmware Update** from the context menu.
- If ▼ on the right of the **Firmware update** icon is clicked, the history of used firmware files is displayed (up to 9 files). If the firmware file is selected from the history, you will not have to select it manually at the **Firmware Update** window.

2. In the Firmware Update window, select the firmware file (BIN file format or ZIP file format including BIN file) by clicking **Browse**.



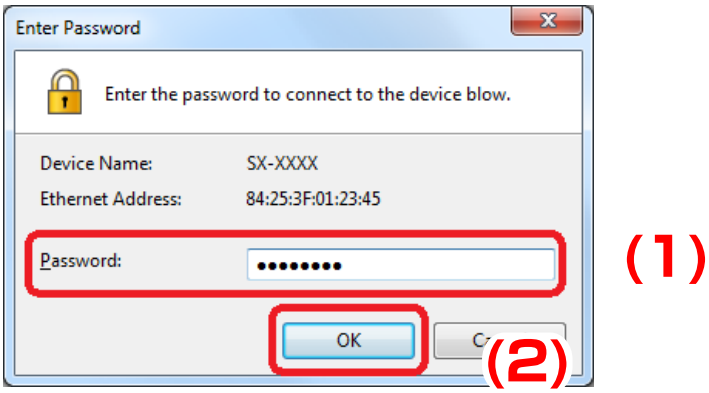
3. Check the file information of the selected firmware and click **Update Now**.
If you want to restart the device automatically after completing the firmware update, check the check box at **Restart the device after the update** and then click **Update Now**.



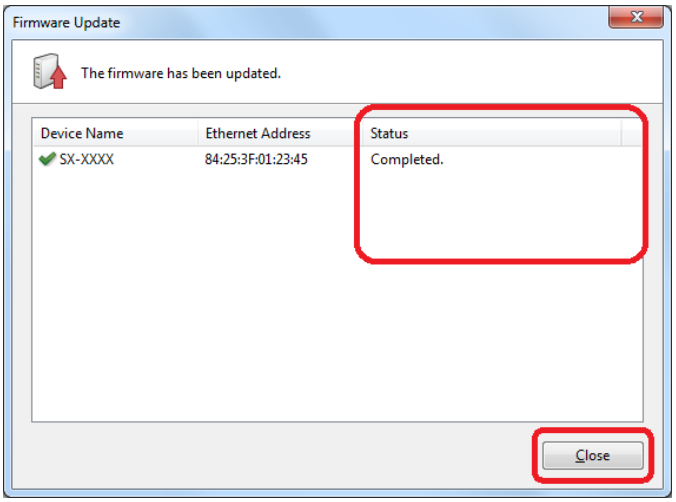
TIP

- The new firmware will take effect after the device is restarted. If you have not selected the automatic restart, please restart the device manually. See **Restarting Device** for how to restart the device.
- When AMC Manager® Free is used, up to 10 devices can be controlled at a time.

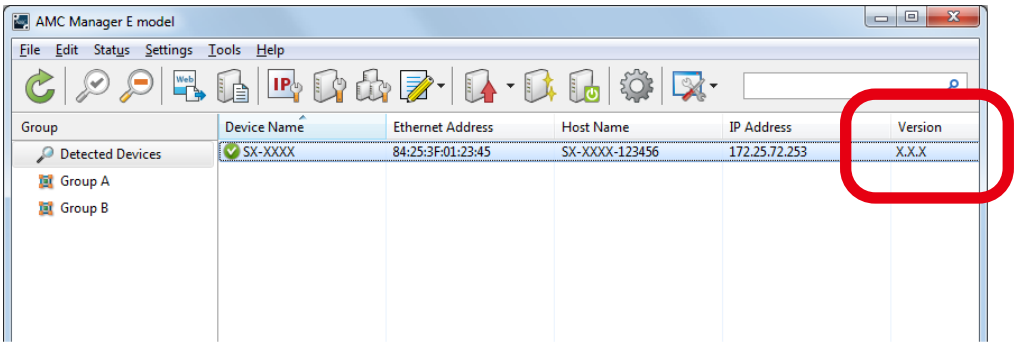
4. Enter the password of the device and click **OK**.
If the password is not configured to the device, the window below is not displayed.



5. The firmware of the selected device has been updated.
Click **Close** to close the **Firmware Update** window.

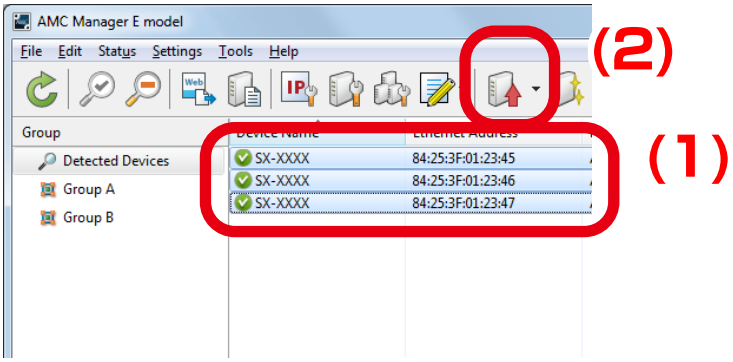


6. In the main window of the AMC Manager, check that the version information is changed for the device you have updated the firmware.



Updating Firmware of Multiple Devices at Once

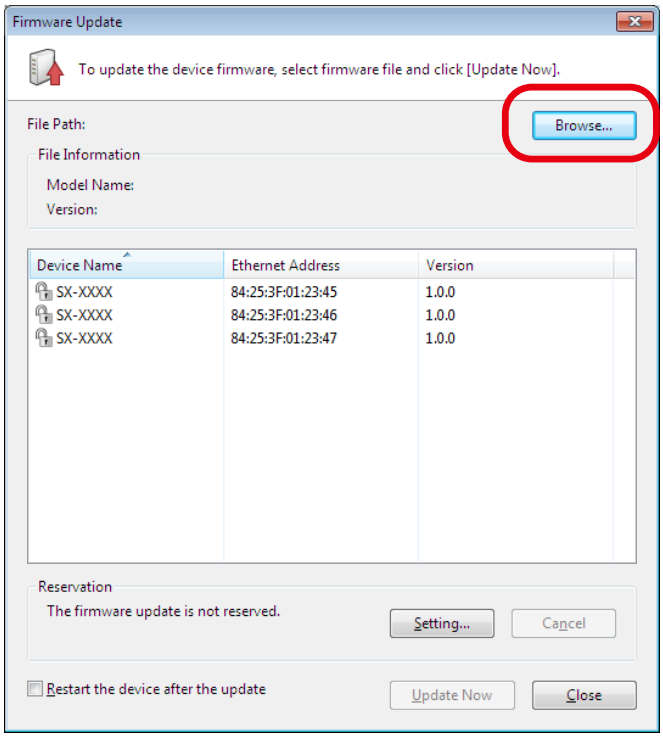
1. Select multiple devices to update the firmware from the list and click the **Firmware update** icon from the toolbar.



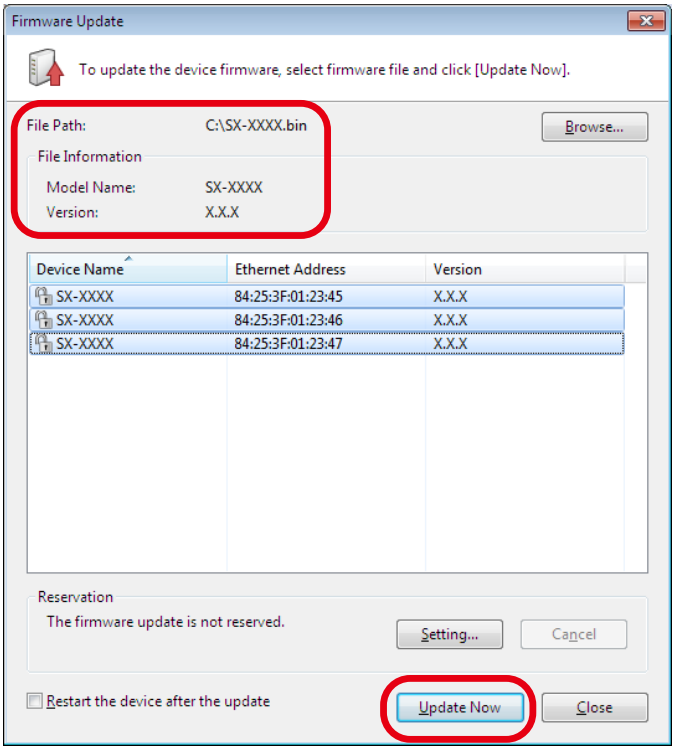
Note

- The firmware update window can also be displayed by the methods below:
  - Click **Settings** - **Firmware Update** from the menu bar.
  - Right-click on the device and select **Firmware Update** from the context menu.
- If ▼ on the right of the **Firmware update** icon is clicked, the history of used firmware files is displayed (up to 9 files). If the firmware file is selected from the history, you will not have to select it manually at the **Firmware Update** window.

2. In the Firmware Update window, select the firmware file (BIN file format or ZIP file format including BIN file) by clicking **Browse**.



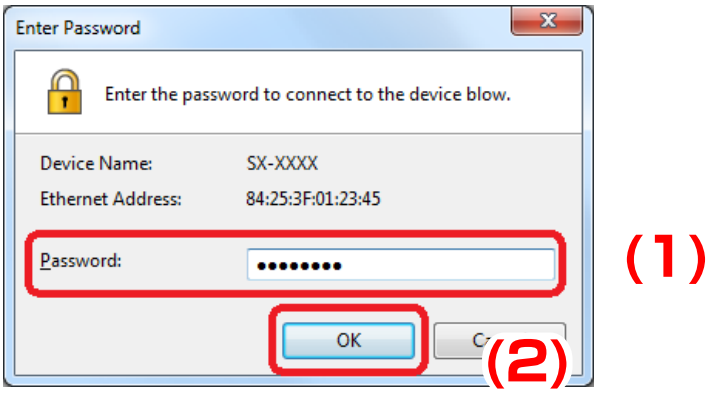
3. Check the file information of the selected firmware and click **Update Now**.
If you want to restart the device automatically after completing the firmware update, check the check box at **Restart the device after the update** and then click **Update Now**.



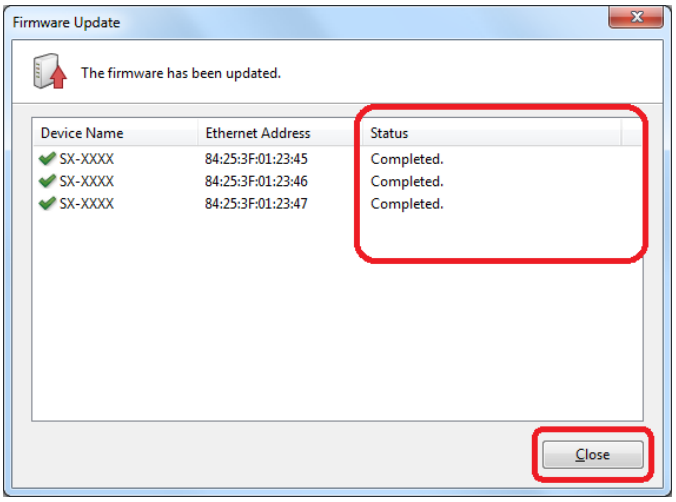
TIP

- The new firmware will take effect after the device is restarted. If you have not selected the automatic restart, please restart the device manually. See **Restarting Device** for how to restart the device.
- When AMC Manager® Free is used, up to 10 devices can be controlled at a time.

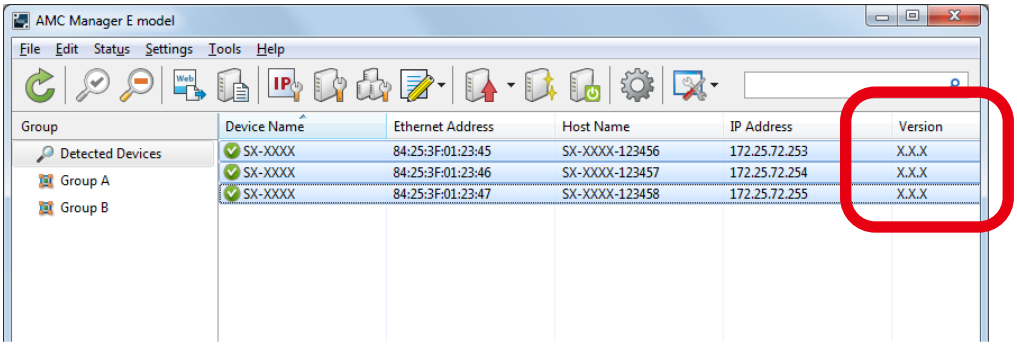
4. Enter the password of the device and click **OK**.
If the password is not configured to the device, the window below is not displayed.



5. The firmware of the selected device has been updated.
Click **Close** to close the **Firmware Update** window.



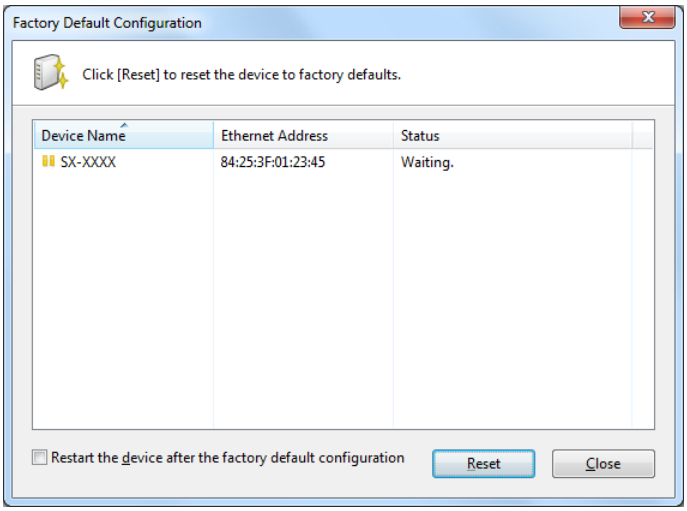
6. In the main window of the AMC Manager, check that the version information is changed for the device you have updated the firmware.



4-8. Factory Default Configuration

How to reset the device to the factory default setting is explained.
The device can be initialized from the **Factory Default Configuration** window.

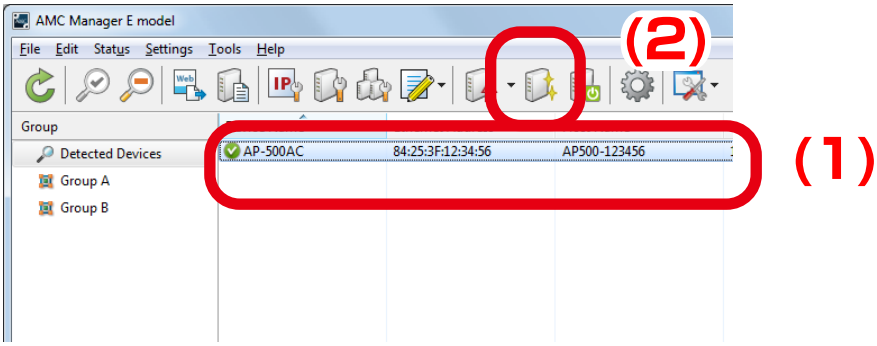
Factory Default Configuration Window



Name	Details
(List of devices)	Shows the name, Ethernet Address, current status of the devices to initialize. The devices can be initialized when they are in the "Waiting" status.
Restart the device after the factory default configuration	Check this check box if you want to restart the device after finishing the factory default configuration.
[Reset] button	Executes the initialization.
[Close] button	Closes the window.

Factory Default Configuration

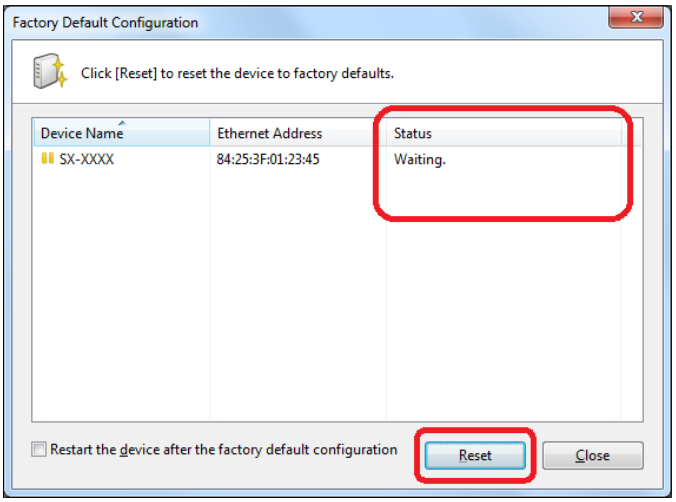
1. Select the device to initialize from the list and click the **Factory default configuration** icon from the toolbar.



Note

- The firmware can also be initialized by the methods below:
  - Click **Settings** - **Factory Default Configuration** from the menu bar.
  - Right-click on the device and select **Factory Default Configuration** from the context menu.

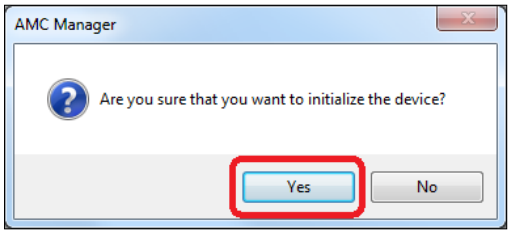
2. In the **Factory Default Configuration** window, check that the status message says **Waiting** for the device to initialize and click **Reset**.
If you want to restart the device automatically after completing the factory default configuration, check the check box at **Restart the device after the factory default configuration** and then click **Reset**.



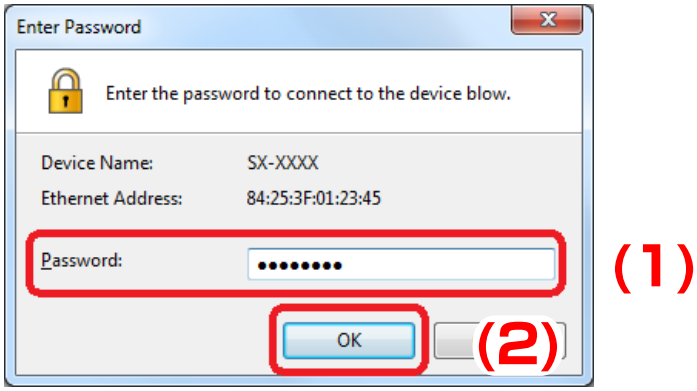
TIP

- The initialization will take effect after the device is restarted. If you have not selected the automatic restart, please restart the device manually. See **Restarting Device** for how to restart the device.
- When AMC Manager® Free is used, up to 10 devices can be controlled at a time.

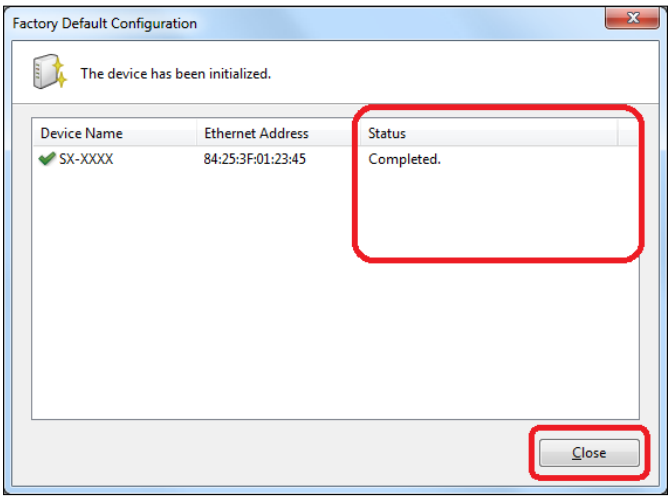
3. Click **Yes** to the confirmation message.



4. Enter the password of the device and click **OK**.
If the password is not configured to the device, the window below is not displayed.



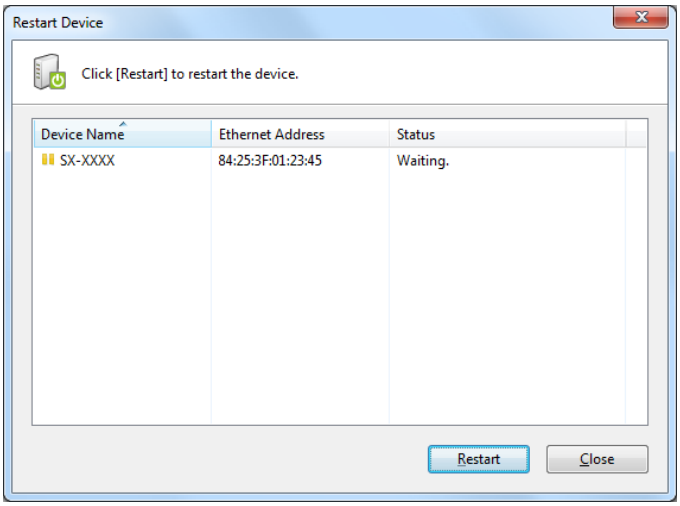
5. Check the result and click the **Close** button.



4-9. Restart

How to restart the device is explained.
The device can be restarted from the **Restart Device** window.

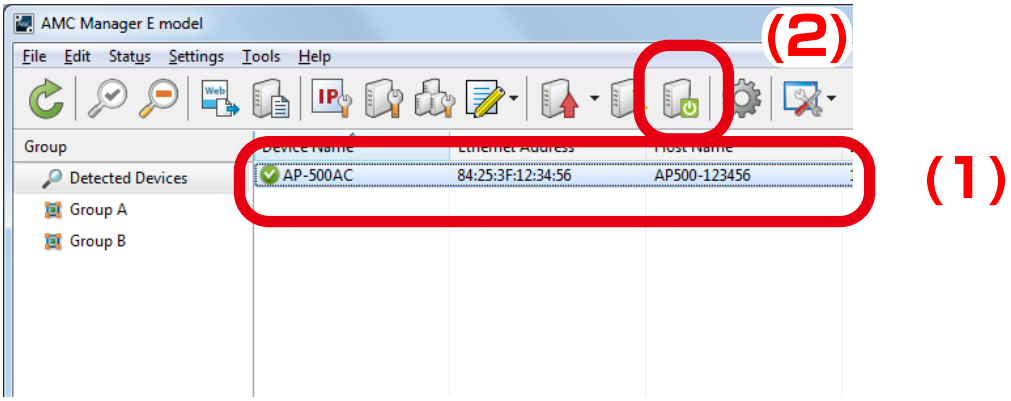
Device Restart Window



Name	Details
(List of devices)	Shows the name, Ethernet Address, current status of the devices to restart. [Status] The devices can be restarted when they are in the "Waiting" status.
[Restart] button	Restarts the device.
[Close] button	Closes the window.

Restarting Device

1. Select the device to restart from the list and click the **Restart** icon from the toolbar.

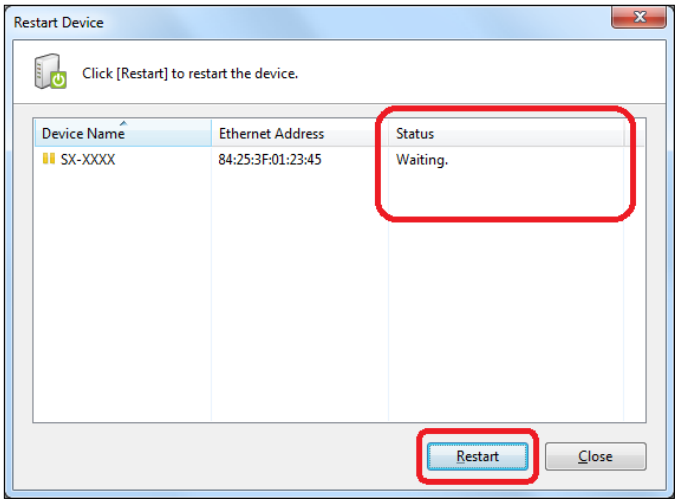


Note

The device can also be restarted by the methods below:

- Click **Settings** - **Restart** from the menu bar.
- Right-click on the device and select **Restart** from the context menu.

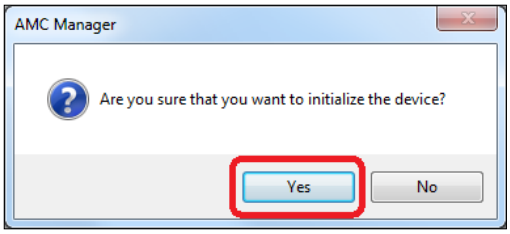
2. In the **Restart Device** window, check that the status message says **Waiting** for the device to restart and click **Restart**.



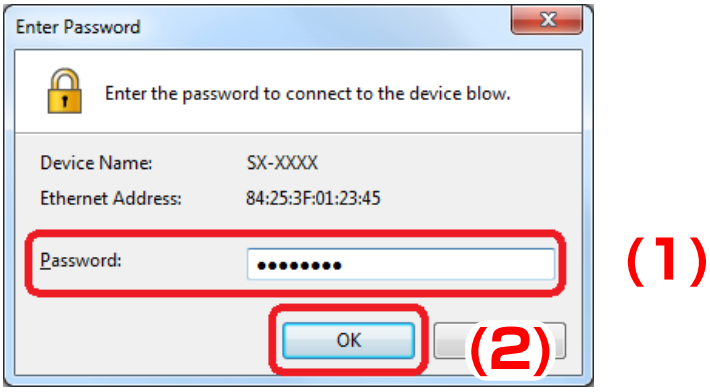
TIP

- When AMC Manager® Free is used, up to 10 devices can be controlled at a time.

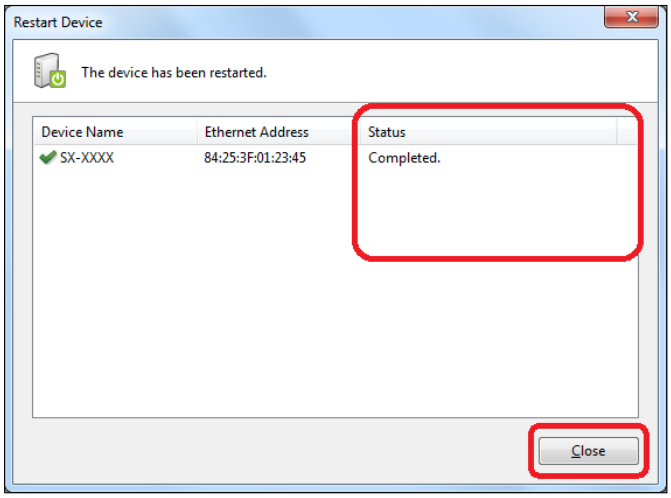
3. Click **Yes** to the confirmation message.



4. Enter the password of the device and click **OK**.
If the password is not configured to the device, the window below is not displayed.



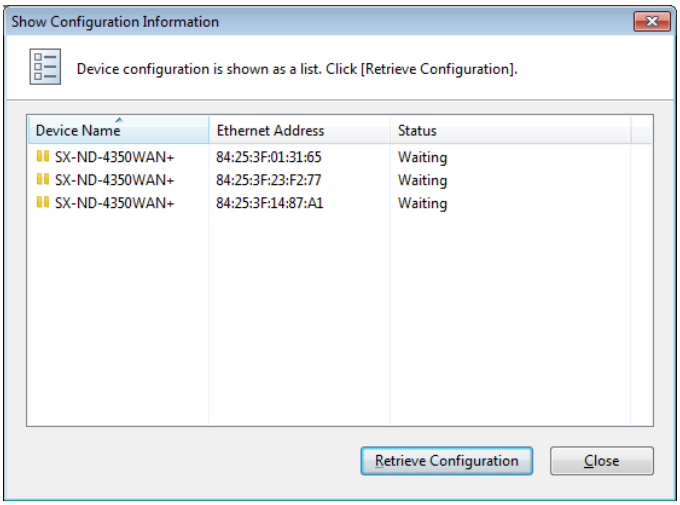
5. Check the result and click the **Close** button.



4-10. Showing Device Configuration List

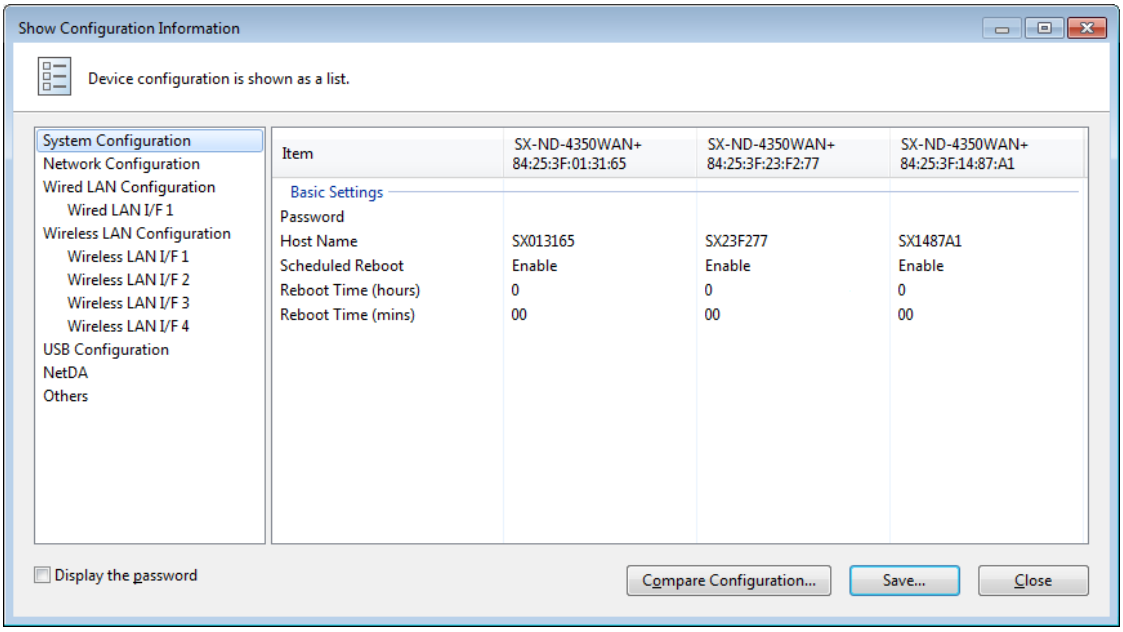
How to retrieve configuration information from multiple devices and show it as a list is explained. The configuration information can be shown as a list on the configuration retrieval window.

Configuration Retrieval Window



Name	Details
(List of devices)	Device name, Ethernet Address and status of the devices are displayed. When the status is "**Waiting**", configuration information can be retrieved from the device.
[Retrieve Configuration] button	Retrieves configuration information from the devices.
[Close] button	Closes the configuration retrieval window. After the configuration information is retrieved from the devices, the configuration information is displayed as a list.

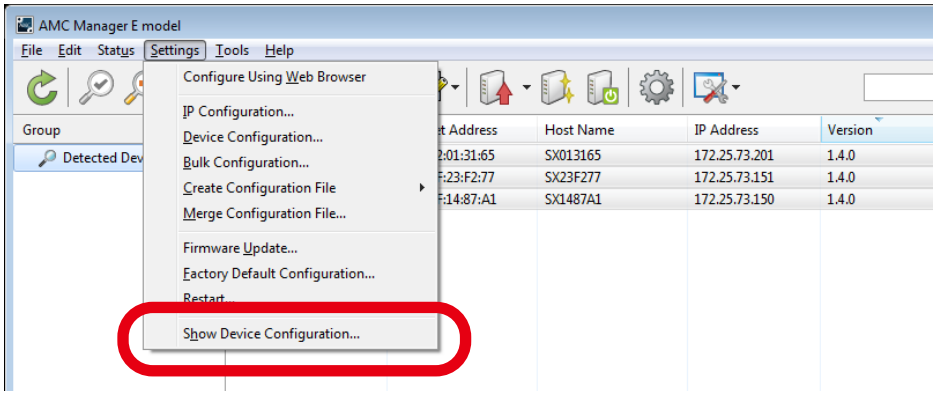
Configuration List Window



Name	Details
(Menu)	Shows menu of configuration information.
(Configuration information)	Shows the device configuration information. Configuration of each device is displayed. The displayed settings will vary depending on the selected devices.
Display the password	When the password information does not need to be hidden, check the check box.
[Compare Configuration] button	Opens a dialog to select a configuration file to compare. If comparison is executed, the different settings will be highlighted in red. Comparison target will be those you have checked the check box when the configuration file is created.
[Save] button	Saves the device configuration as CSV file.
[Close] button	Closes the configuration information window.

Showing Device Configuration

1. Select the devices to show configuration as a list and click **Settings** - **Show Device Configuration** from the menu bar.

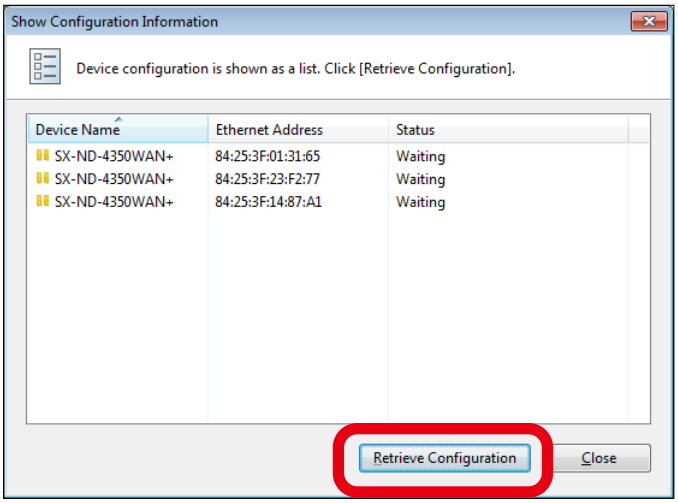


Note

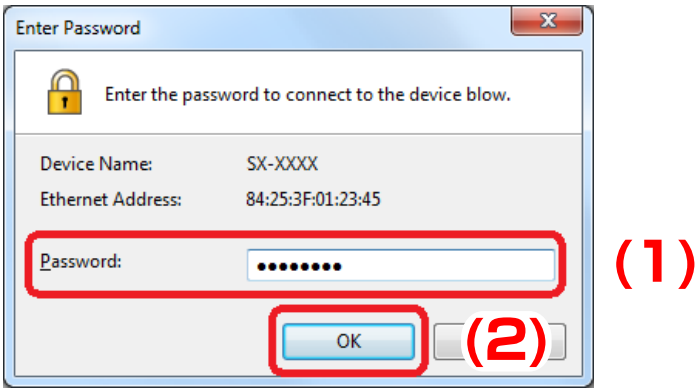
The **Show Device Configuration** window can also be displayed by the method below.

- Select **Show Device Configuration** from the right-click menu.

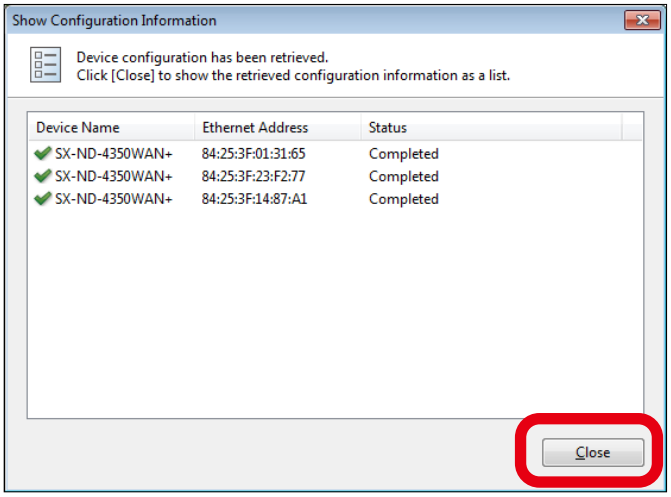
2. In the **Show Configuration Information** window, check the status is "**Waiting**" for the devices to retrieve configuration information and click **Retrieve Configuration**.



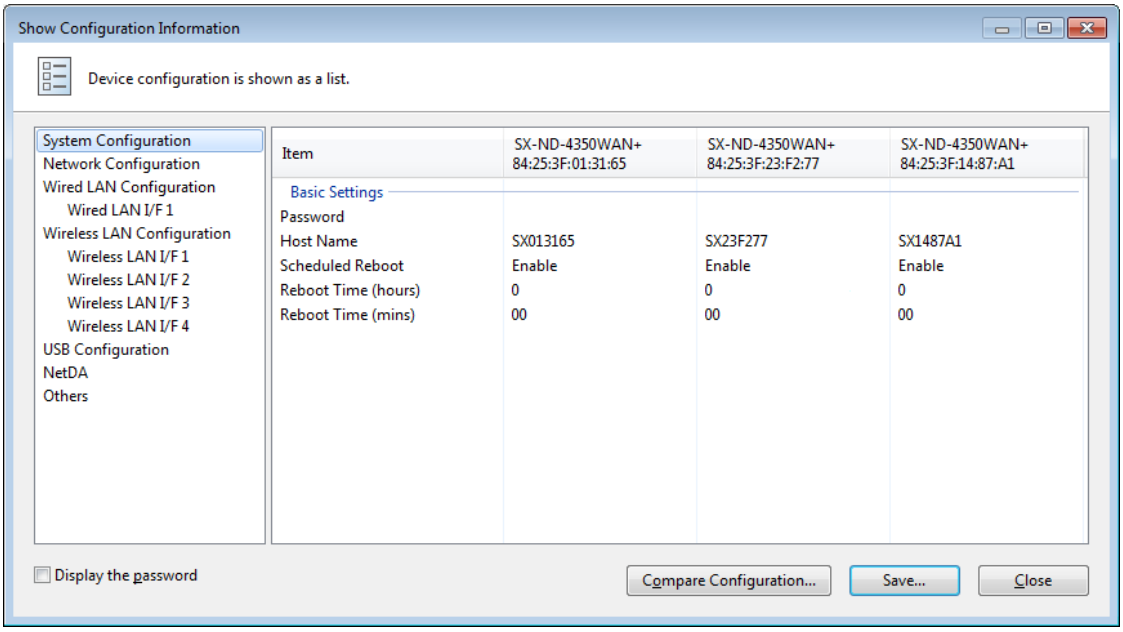
3. Enter the password of the device and click **OK**.
If the password is not configured to the device, the window below is not displayed.



4. The result of configuration retrieval is displayed.
Check the status and click **Close**.

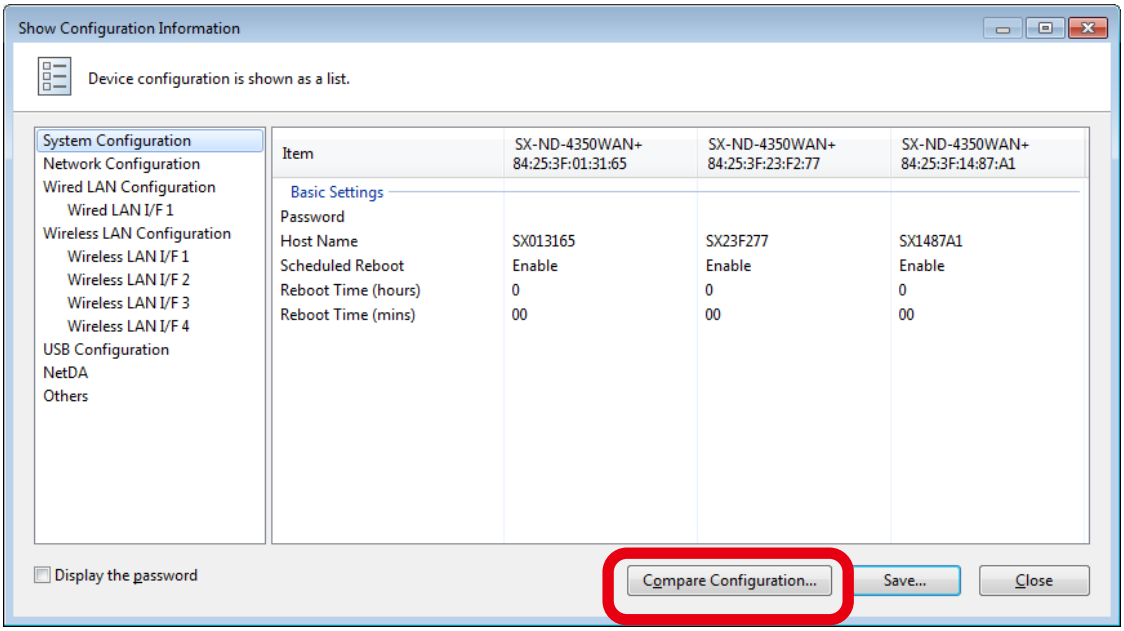


5. The configuration information of selected devices is displayed as a list.

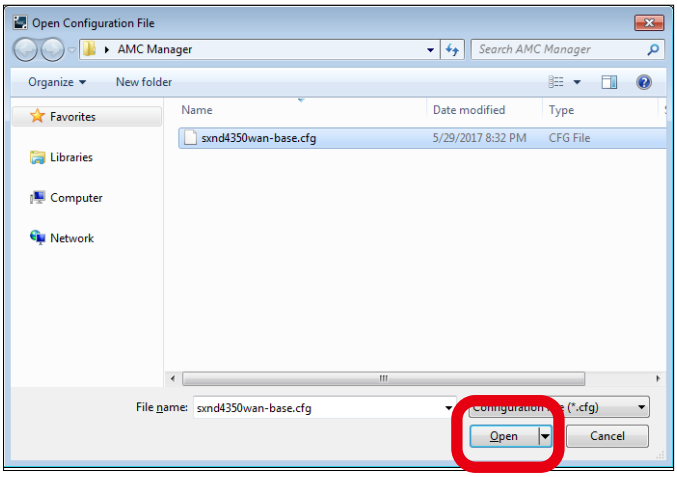


Configuration File Comparison

1. When a list of device configuration information is displayed, click **Compare Configuration**.

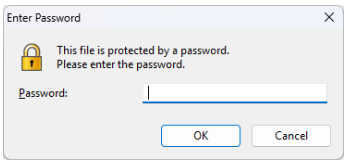


2. Select the configuration file to compare and click **Open**.

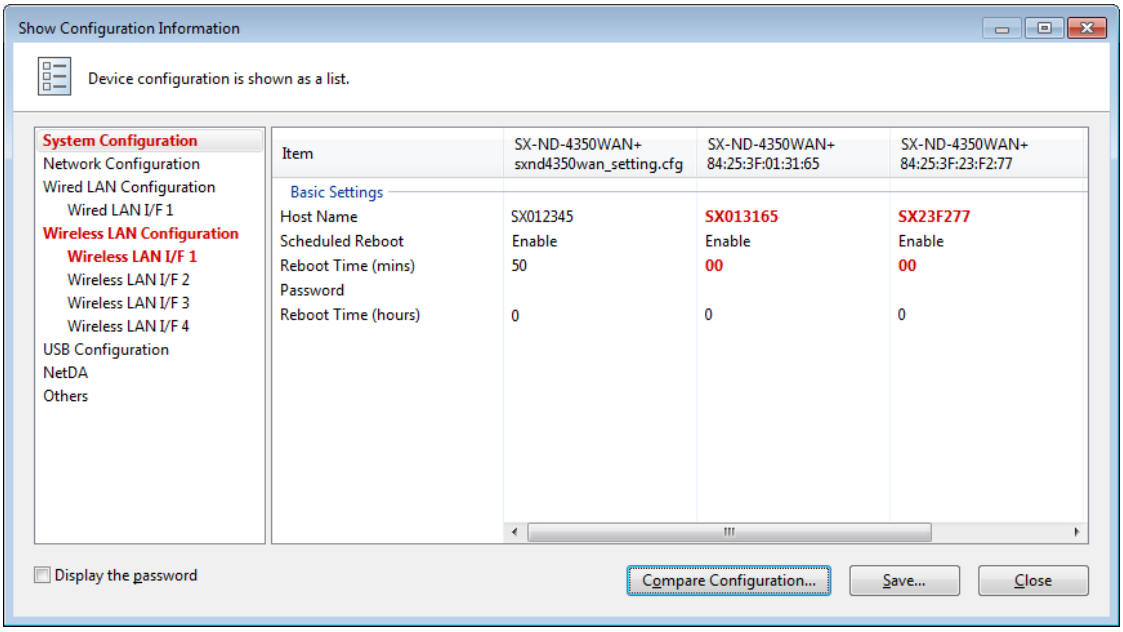


Note

- When AMC Manager® Standard/AMC Manager® Free is used, a password-protected configuration file (with the extension ".cfgx") can be selected as a file type to open. The password entry will be needed to open the configuration file, then. Please note that a normal configuration file (with the extension ".cfg") can also be selected as a file type.



3. In the **Show Configuration Information** window, the setting of selected configuration file is displayed. When the device configuration differs from the selected configuration file, such portion will be highlighted in red.



Note

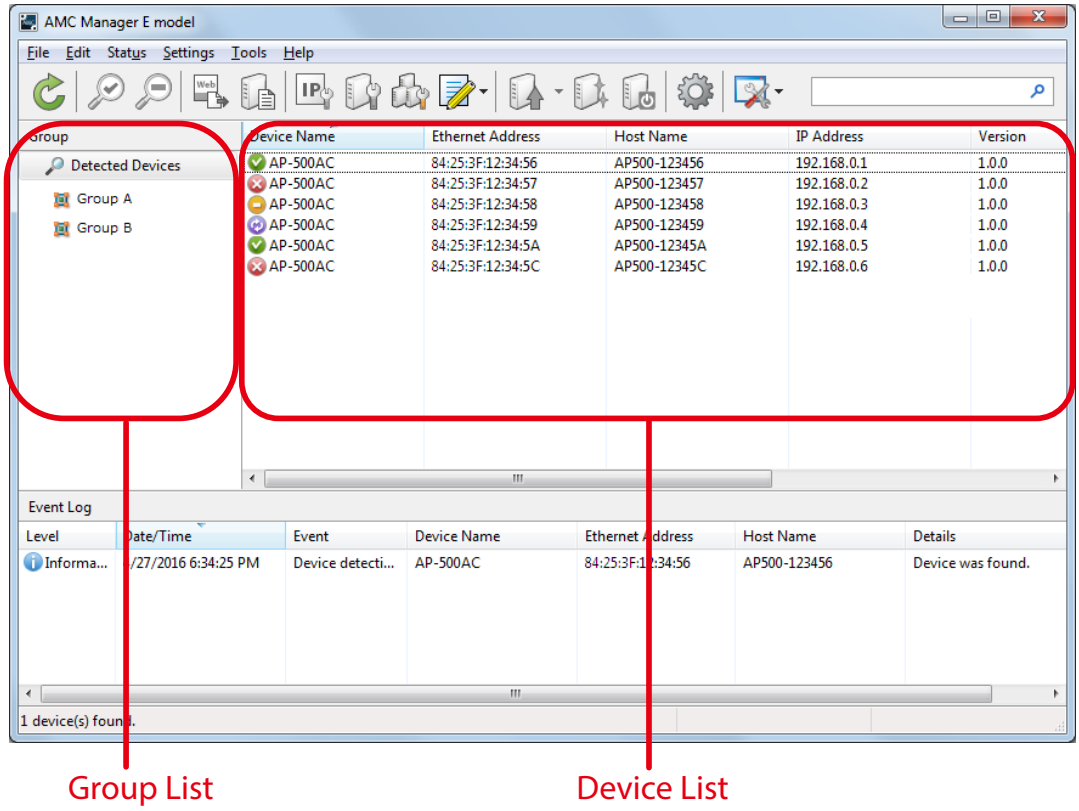
- The menu item will also be highlighted in red when the device configuration of that menu item differs from the compared configuration file.

4-11. Device Group Management

Following explains how to make a group of devices.
Groups can be created and devices can be registered to the created groups.
Up to 100 groups can be created. Up to 1,000 devices can be registered per group.

> **TIP**
> - When AMC Manager® Free is used, up to 2 groups can be created. Also, up to 10 devices can be registered for each group.

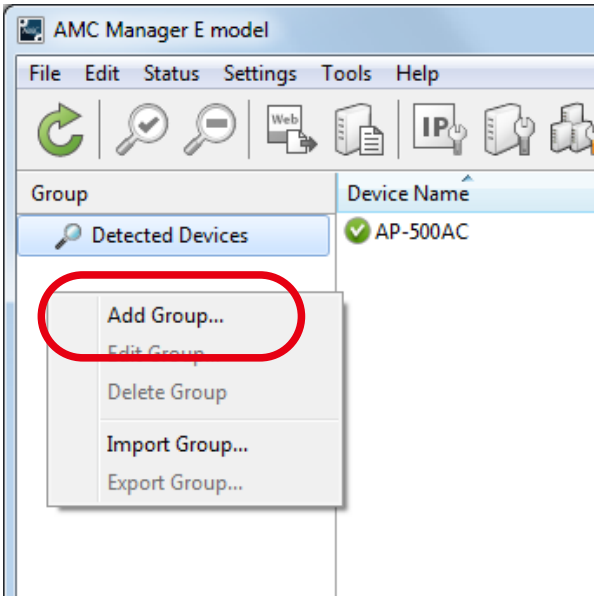
Group List and Device List



Name	Details
Group list	A list of created groups is displayed.
Device list	A list of devices that belong to the selected group is displayed. When **Detected Devices** is selected in the group list, all devices will be displayed in the device list. When AMC Manager® Free is used, up to 10 devices are displayed at **Detected Devices**. If you click a column header, the order of devices will be sorted by the column you have clicked.

Creating Group

1. Right-click on the group list and select **Add Group** from the context menu.

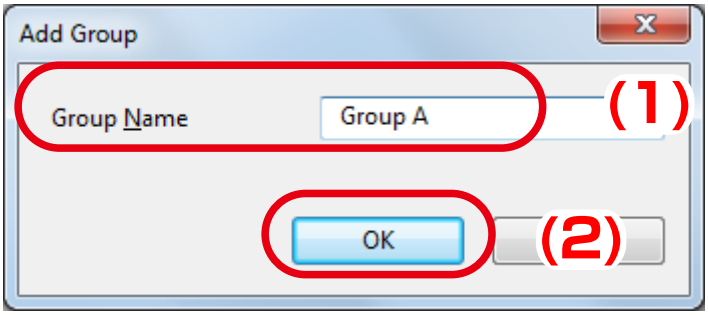


Note

It is also possible to add a group by following.

- From the menu bar, click **Edit** - **Add Group**.

2. Enter a group name and click **OK**.



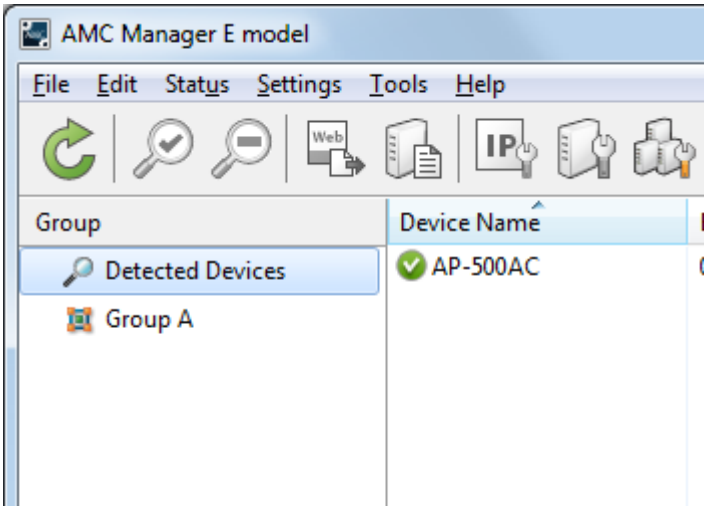
Note

- Up to 32 characters can be used for group name.
- Up to 100 groups can be created.

TIP

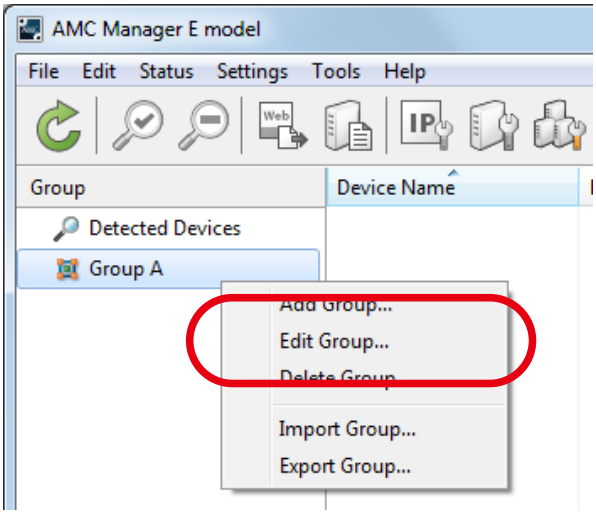
- When AMC Manager® Free is used, up to 2 groups can be created. Also, up to 10 devices can be registered for each group.

3. The created group is displayed in the list.



Adding Device to Group

1. Right-click on a group in the group list and select **Edit Group** from the context menu.

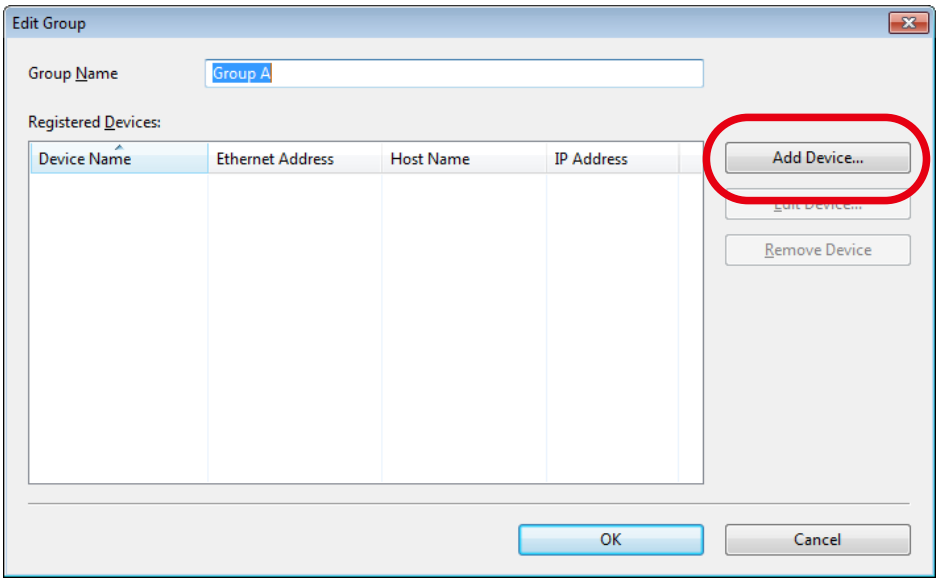


Note

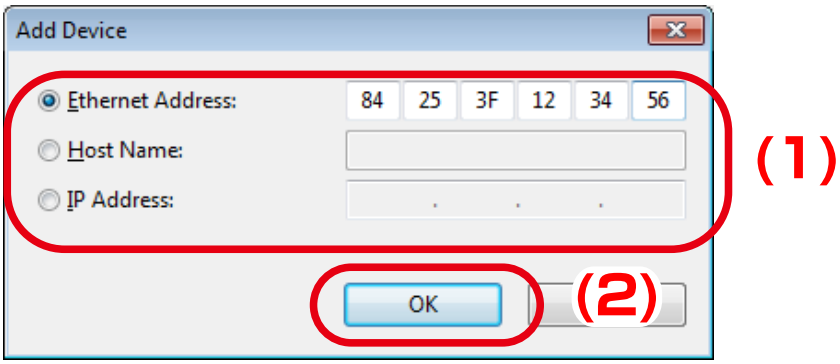
It is also possible to edit a group by following.

- Select a group in the group list and click **Edit** - **Edit Group** from the menu bar.

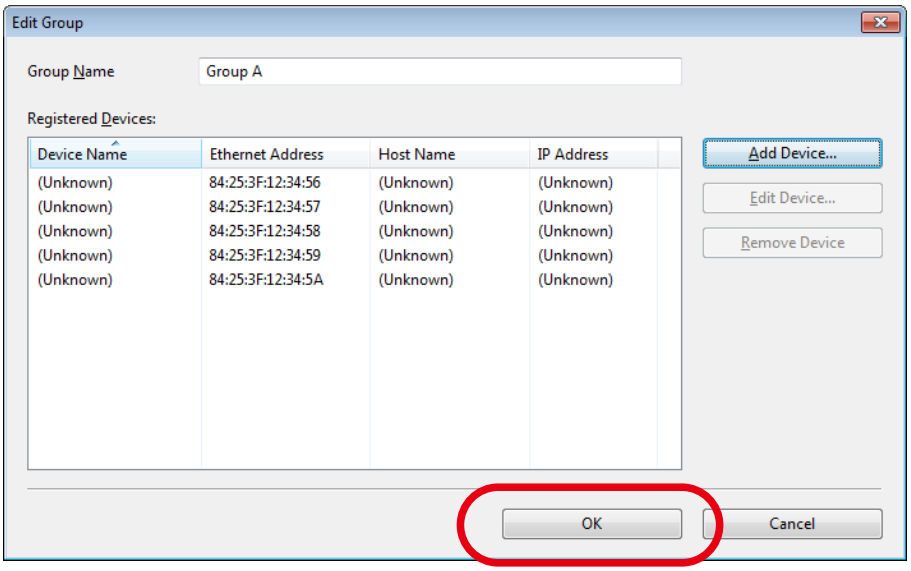
2. Click **Add Device**.



3. Enter **Ethernet Address**, **Host Name** or **IP Address** of the device to add and click **OK**.



4. The registered device is displayed in the list.
   To add another device, go back to **2** and repeat the same process.
   Click **OK** when it is finished.



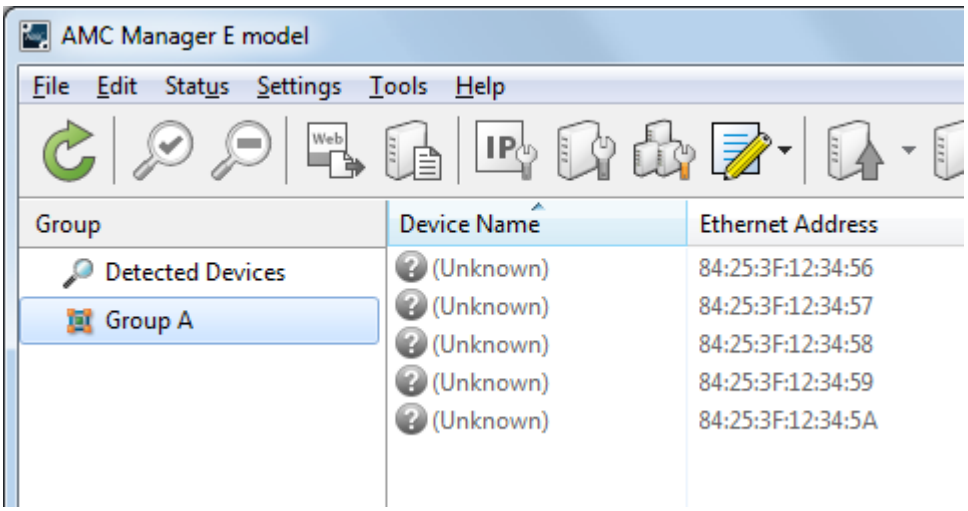
Note

- **(Unknown)** is displayed except for those you have entered at 3, until the device is detected by AMC Manager on network.
- Up to 1,000 devices can be registered per group.

TIP

- When AMC Manager® Free is used, up to 10 devices can be registered for each group.

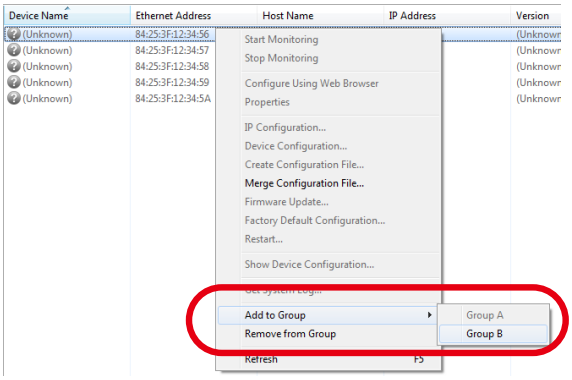
5. The device is added to the group.



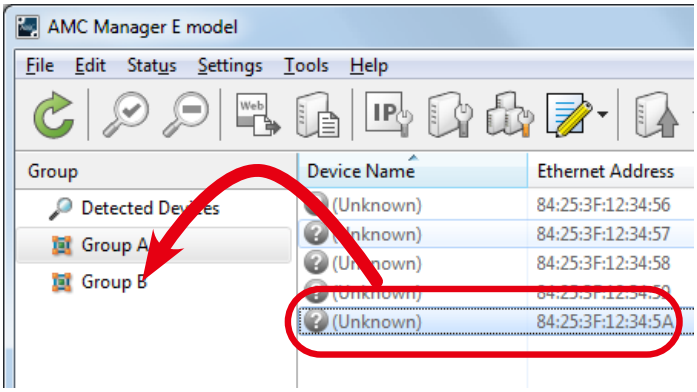
Note

It is also possible to add a device to group by following.

- Right-click on the device in the device list, select **Add to Group** from the context menu and select the group.



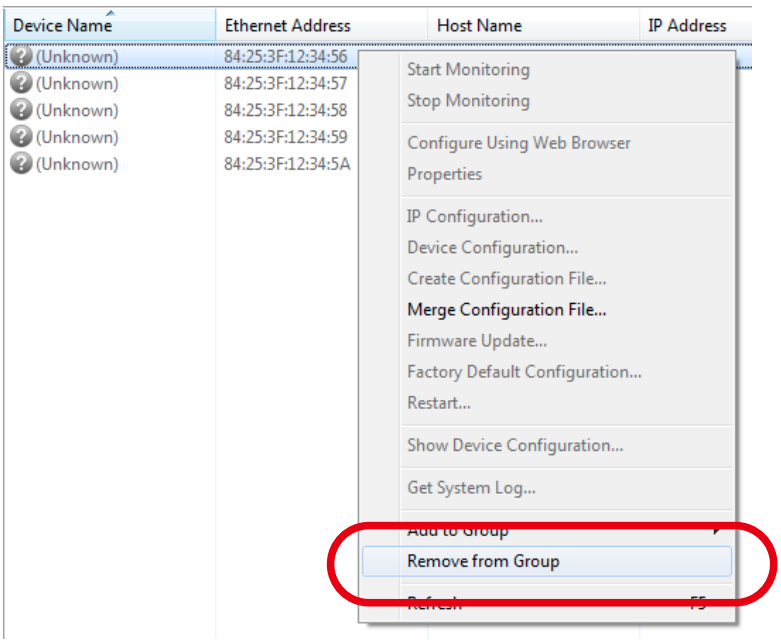
- Select a device in the device list and drag & drop it on the group.



- When AMC Manager® Free is used, up to 10 devices can be registered for each group.

Deleting Device from Group

1. Right-click on a device to remove from the group and select **Remove from Group** from the context menu.

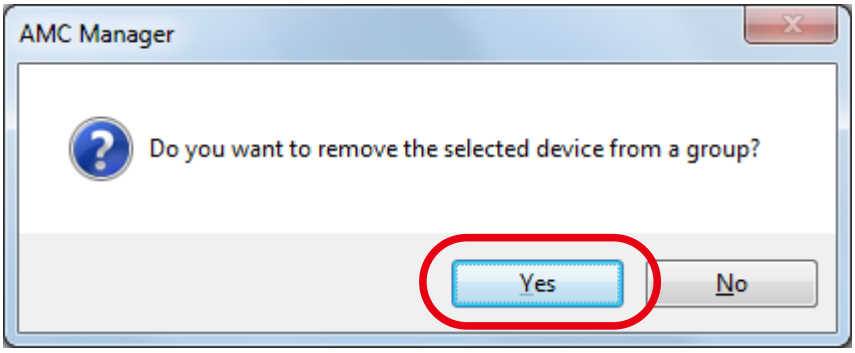


Note

It is also possible to remove a device from group by following.

- Select a device in the device list and press the Delete key.

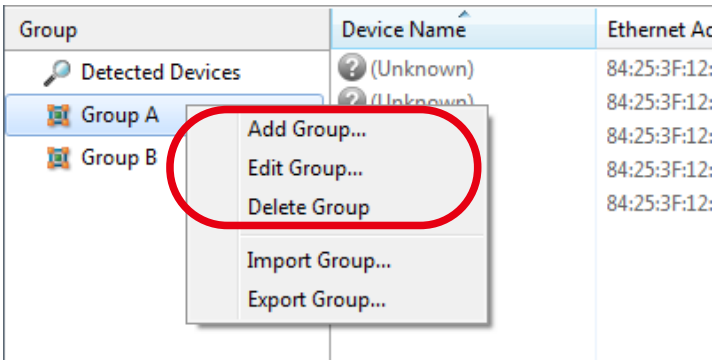
2. Click **Yes**.



Editing Group Information

Following explains how to change the group name and registered devices.

1. Right-click on a group in the group list and select **Edit Group** from the context menu.

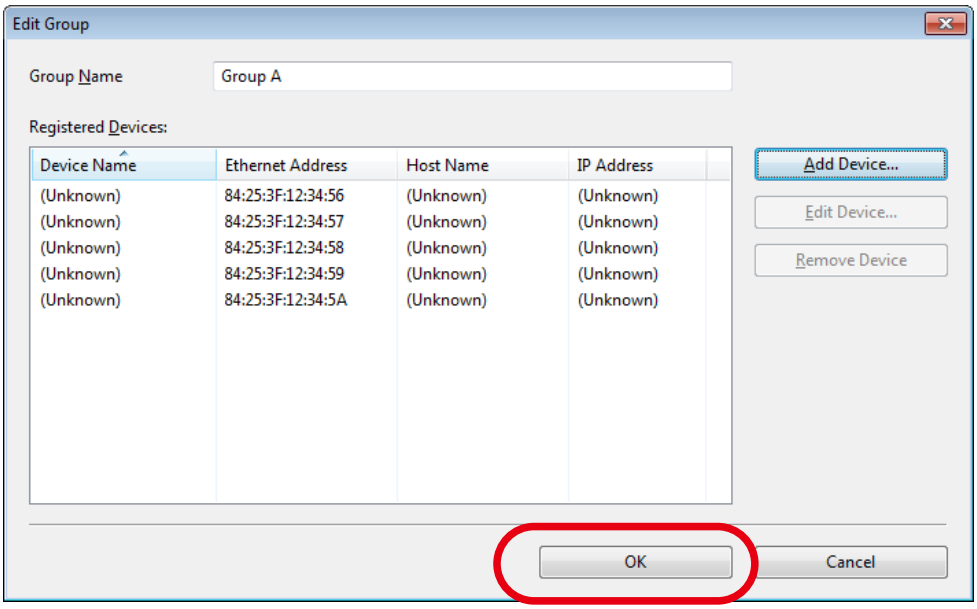


Note

It is also possible to edit a group by following.

- Select a group in the group list and click **Edit** - **Edit Group** from the menu bar.

2. Enter a group name when it needs to be changed. To delete or change the registered devices, select a device from the list and click **Edit Device** or **Remove Device**. When the edit is finished, click **OK**.



Exporting/Importing Group Information

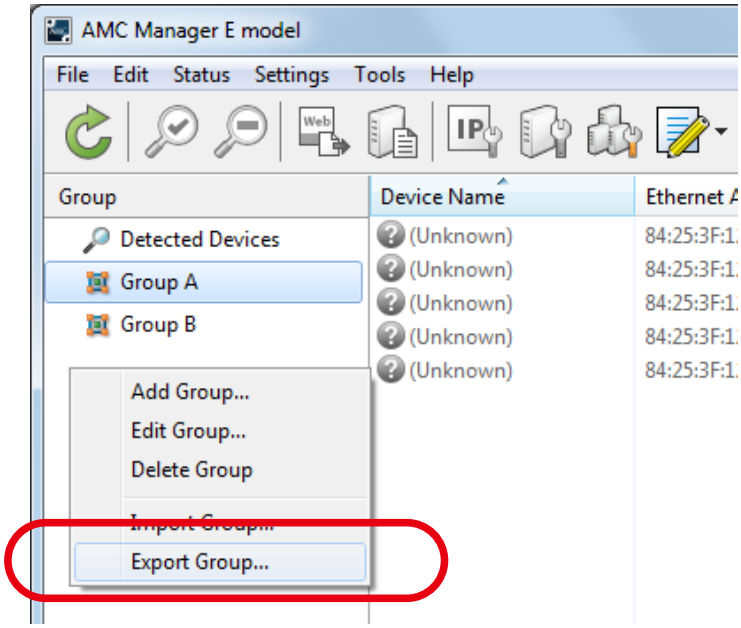
By exporting the group information, the created group information can be saved as a file. Also, it is possible to register the group and device configuration by importing the file.

Note

- If **Export Group** is done, all registered groups are saved as a file. It is impossible to export them partially.
- If **Import Group** is done, group information is added from an external file to present ones on AMC Manager.
- The group information may not be correctly imported if the different version of AMC Manager is used when the group information is exported and imported.

Exporting Group Information

1. Right-click on a group in the group list and select **Export Group** from the context menu.

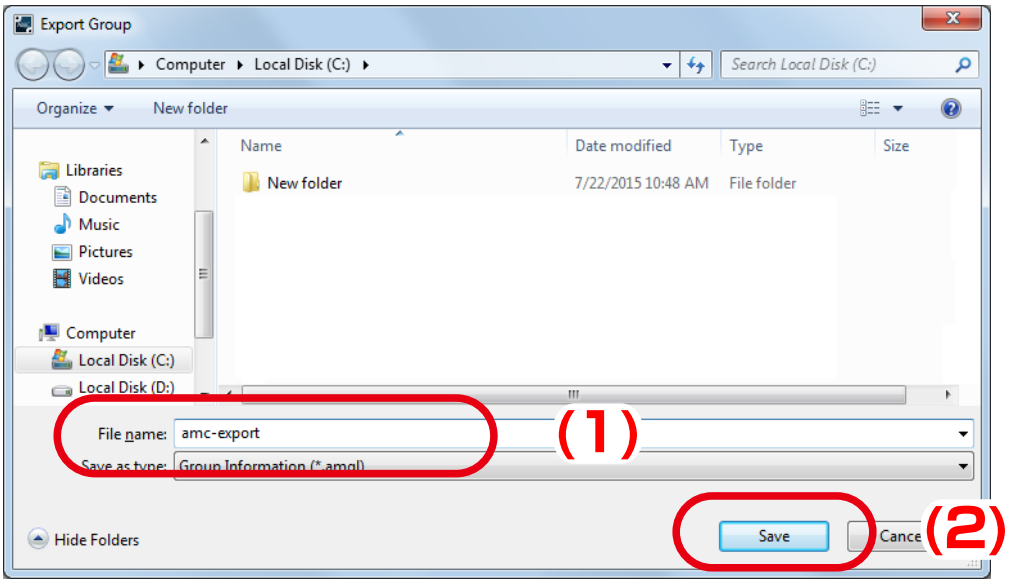


Note

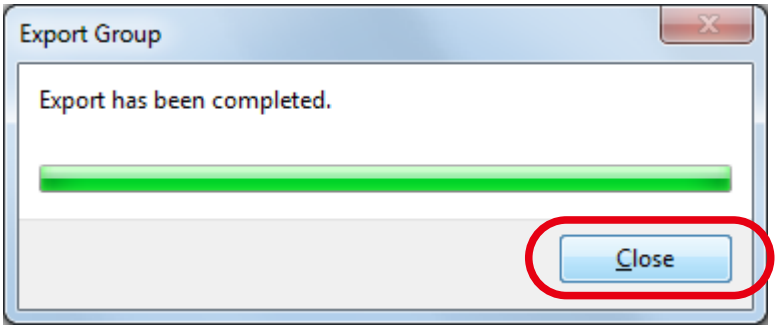
It is also possible to export a group by following.

- From the menu bar, click **Edit** - **Export Group**.

2. Specify a file name and click **Save**.

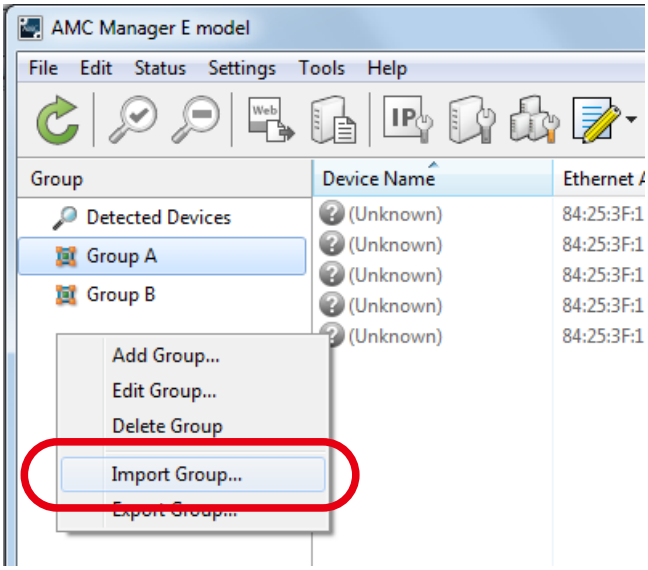


3. Click **Close**.



Importing Group Information

1. Right-click on a group in the group list and select **Import Group** from the context menu.

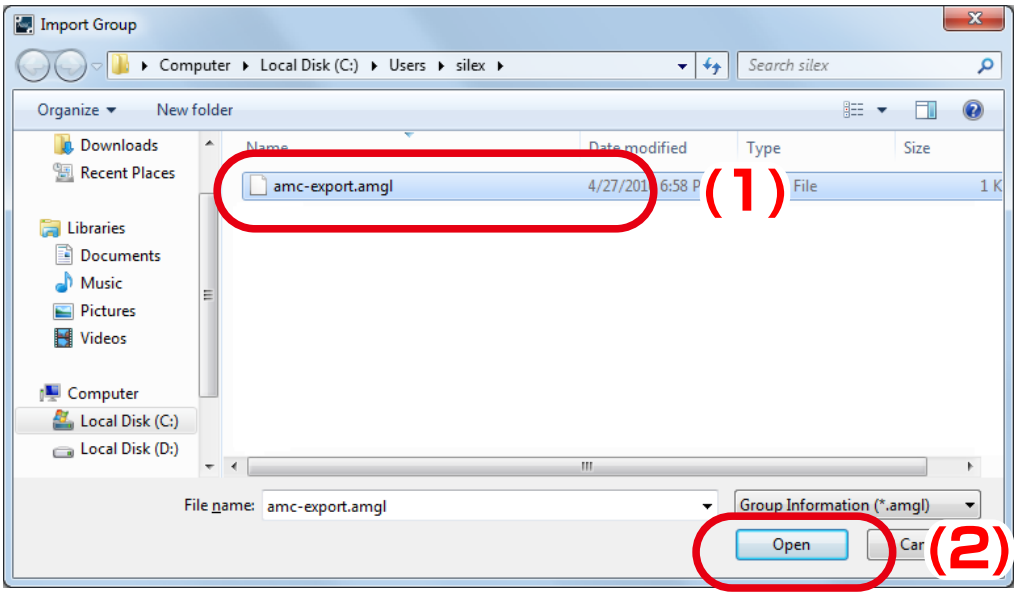


Note

It is also possible to import a group by following.

- From the menu bar, click **Edit** - **Import Group**.

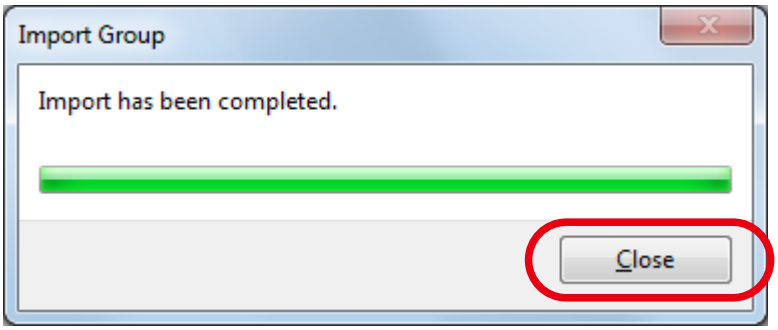
2. Select a file to import and click **Open**.



TIP

- When AMC Manager® Free is used, up to 2 group information files can be imported. By importing one group information file, up to 10 devices can be added.

3. Click **Close**.



4-12. Accessing Logs on Log Viewer

The following explains how to access the event logs saved by AMC Manager using the Log Viewer.

Note

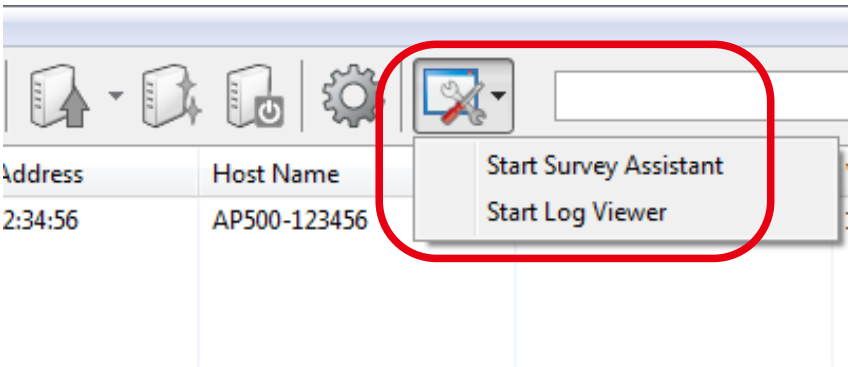
- It is possible to specify the retention period of event logs by AMC Manager's option setting.

TIP

- Only AMC Manager® Standard and AMC Manager® E model support Log Viewer.

Starting Log Viewer

1. From the tool bar, click **Start Log Viewer**.

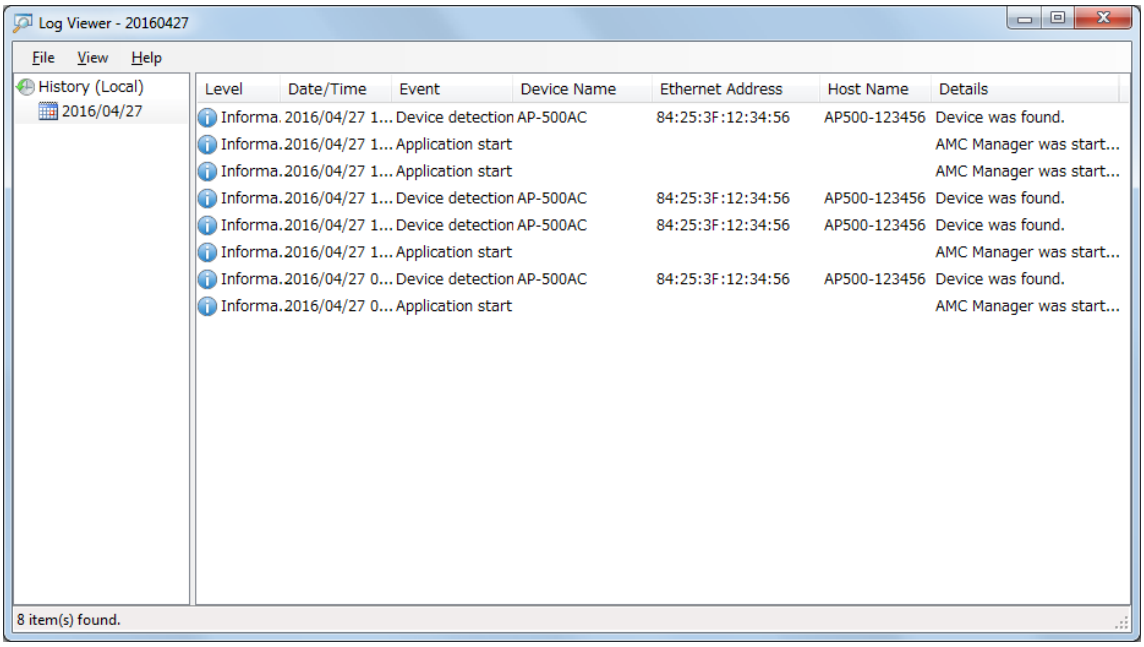


Note

It is also possible to start Log Viewer by following.

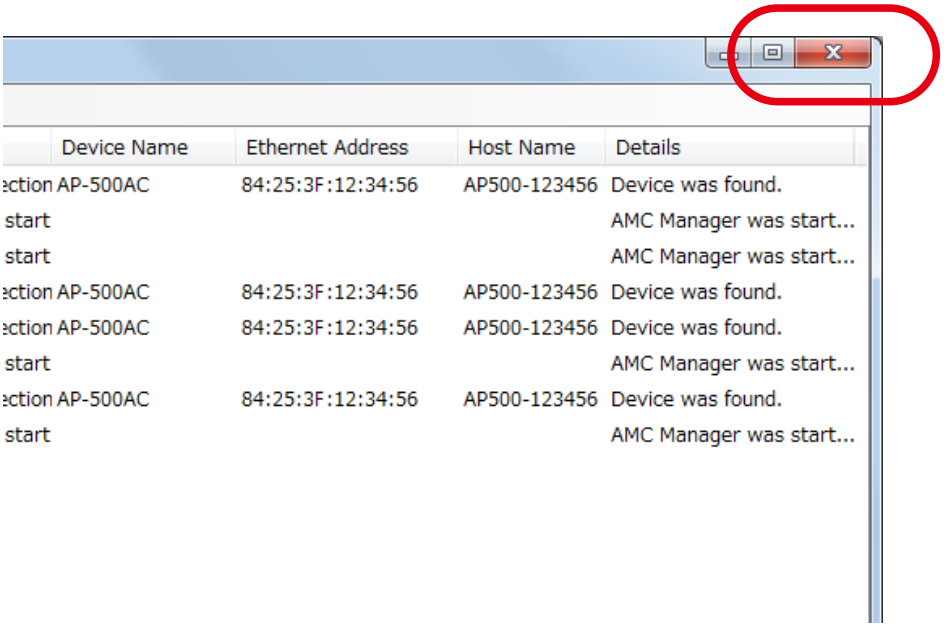
- From the menu bar, click **Tools** - **Start Log Viewer**.

2. Log Viewer is started.



Finishing Log Viewer

1. Clicking the close button on top right of the window will finish Log Viewer.



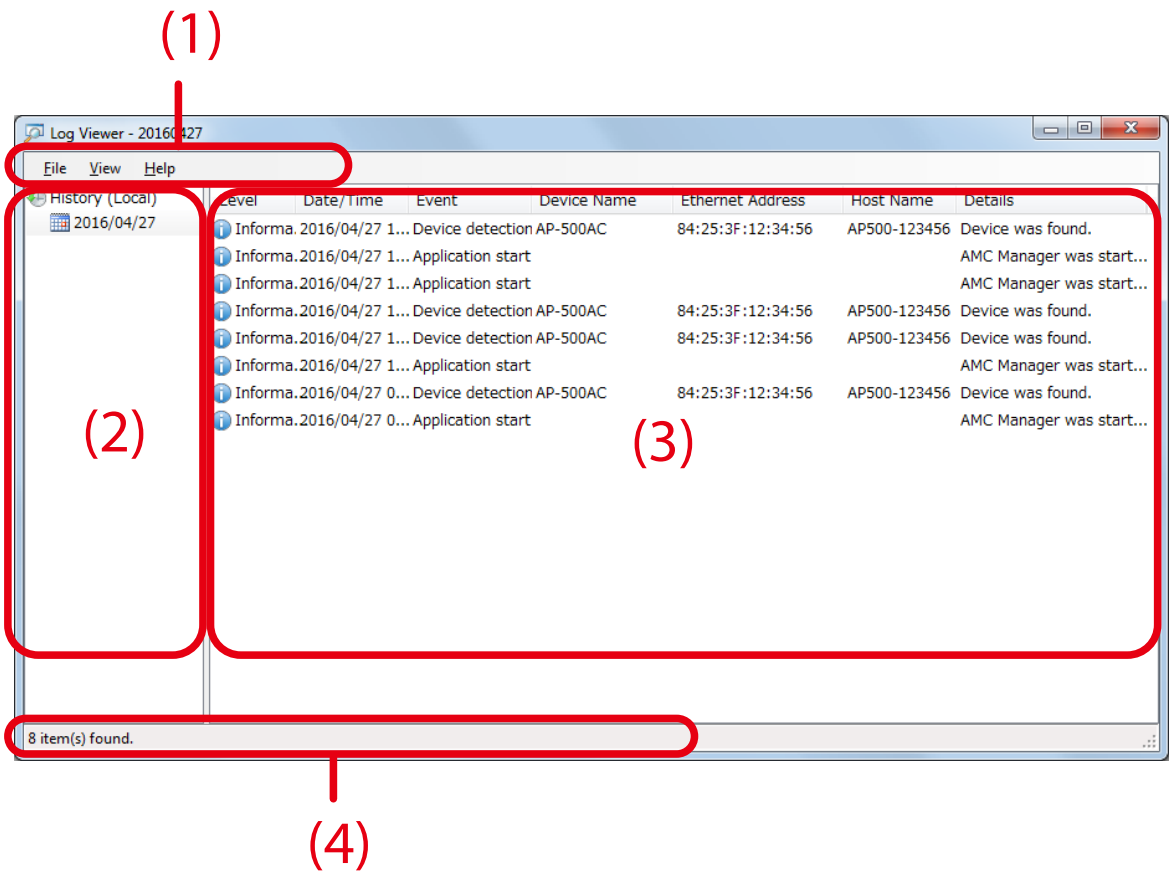
Note

It is also possible to finish Log Viewer by following.

- From the menu bar, click **File** - **Close**.

Log Viewer's Window

Following explains on the Log Viewer's window.



(1) Menu bar

Provides each function of Log Viewer, such as export, advanced search, etc.

(2) Date/Opened Files

Shows the date of logs and the name of opened Log Viewer files.

(3) Log list

Shows a list of event logs.

If you click a column header, the order of logs will be sorted by the column you have clicked.

(4) Status bar

Shows a number of logs, etc.

[Menu bar]

Menu bar provides each function of Log Viewer, such as export of logs, advanced search, etc.

Menu	Item	Details
File	Open	Reads the Log Viewer format files.
	Export	Saves the log information as Log Viewer format or CSV file.
	History	Shows the opened Log Viewer format files.
	Clear All History	Clears the history of opened files.
	Close	Finishes Log Viewer.
View	Refresh	Refreshes the Log Viewer information.
	Advanced Search	Enables filter for search to show specified log information only.
Help	About Log Viewer	Shows the version information.

Note

- The present information on log list will be saved to a file if "**Export**" is done. If a search filter is enabled by **Advanced Search**, the filtered information will be saved to a file.

[Log list]

Log list shows the event logs saved by AMC Manager.

Level	Date/Time	Event	Device Name	Ethernet Address	Host Name	Details
Informa.	2016/04/27 1...	Device detection	AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection	AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection	AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 1...	Device detection	AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun
Informa.	2016/04/27 0...	Device detection	AP-500AC	84:25:3F:12:34:56	AP500-123456	Device was foun

Name	Details
Level	Shows the icons of warning level.
Date/Time	Shows the date/time of event.
Event	Shows the event type.
Device Name	Shows the device name.
Ethernet Address	Shows the Ethernet Address.
Host Name	Shows the host name.
Details	Shows the details of the event.

Icon	Level Type	Details
	Information	Configuration change, device detection, etc.
	Error	Configuration change error, communication error, etc.
	Warning	Monitoring stop, etc.

Note

- When AMC Manager® E model is used, syslog information can be accessed. The syslog icon and level type are as follows.

Icon	Level Type	Details
	Emergency	Shows importance level of syslog that is retrieved from device
	Alert	
	Critical	
	Error	
	Warning	
	Notice	
	Information	
	Debug	

Event Type	Details
IP configuration	IP address is configured.
Configuration change	Configuration is changed.
Initialization	Configuration is initialized.
Restart	Device is restarted.
Firmware update	Firmware is updated.
Log retrieval	System log is retrieved.
Mail transmission	Alert notification is sent by email when an error occurred on AMC Manager® E model or monitored devices.
Monitoring start	Device monitoring is started.
Monitoring stop	Device monitoring is stopped.
Device detection	Device reply is sent.
Device loss	Device reply is lost (communication error).
Device recovery	Device reply is found again after it is lost.
Change detection	Configuration is changed or firmware is updated by a method other than AMC Manager.
Application start	AMC Manager is started.
Application close	AMC Manager is finished.
Device syslog	Syslog information is received from device.

Note

- If you click a column header, the order of logs will be sorted by the column you have clicked.

Filter Condition

If a display filter is set by clicking on column header of Log Viewer, only specified logs can be displayed on the log list.
For filter condition, there are **Level**, **Date/Time**, **Event**, **Device Name**, **Ethernet Address**, **Host Name** and **Details**, and the supported filter condition is different between AMC Manager® Standard and AMC Manager® E model.
Following tables show the difference of compatibility for filter conditions.

[Level]

Condition Item	AMC Manager® Standard	AMC Manager® E model
Error	Supported	Supported
Information	Supported	Supported
Warning	Supported	Supported
Critical	Supported	Supported
Alert	-	Supported
Emergency	-	Supported
Notice	-	Supported
Debug	-	Supported

[Event]

Condition Item	AMC Manager® Standard	AMC Manager® E model
IP configuration	Supported	Supported
Configuration change	Supported	Supported
Initialization	Supported	Supported
Restart	Supported	Supported
Firmware update	Supported	Supported
Log retrieval	Supported	Supported
Monitoring start	Supported	Supported
Monitoring stop	Supported	Supported
Device detection	Supported	Supported
Device loss	Supported	Supported
Device recovery	Supported	Supported
Change detection	Supported	Supported
Application start	Supported	Supported
Application close	Supported	Supported
Device syslog	-	Supported
Mail transmission	-	Supported

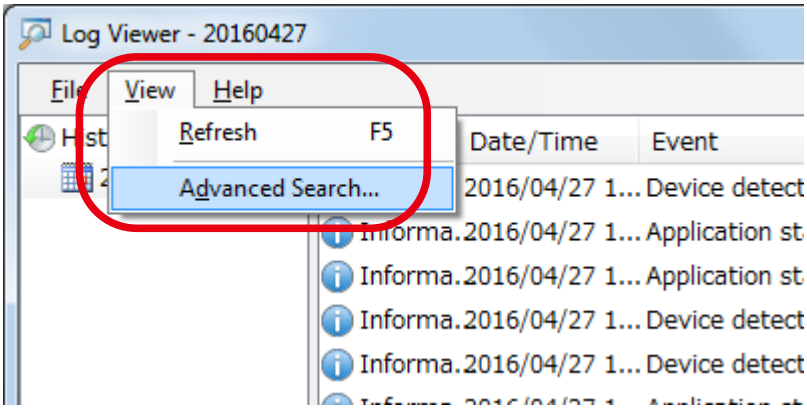
[Details]

Condition Item	AMC Manager® Standard	AMC Manager® E model
IP address was successfully configured.	Supported	Supported
IP address configuration failed.	Supported	Supported
Configuration was successfully changed.	Supported	Supported
Configuration change failed.	Supported	Supported
Firmware was successfully updated.	Supported	Supported
Firmware update failed.	Supported	Supported
Device was successfully initialized.	Supported	Supported
Initialization failed.	Supported	Supported
Device was successfully restarted.	Supported	Supported
Restart failed.	Supported	Supported
System log was successfully retrieved.	Supported	Supported
System log retrieval failed.	Supported	Supported
Device monitoring started.	Supported	Supported
Device monitoring stopped.	Supported	Supported
Device was found.	Supported	Supported
Reply was lost.	Supported	Supported
Recovered from network error.	Supported	Supported
Configuration was changed.	Supported	Supported
Device was initialized.	Supported	Supported
Firmware was changed.	Supported	Supported
AMC Manager was started.	Supported	Supported
AMC Manager was closed.	Supported	Supported
Alert notification mail has been sent.	-	Supported
Failed to send an alert notification mail.	-	Supported

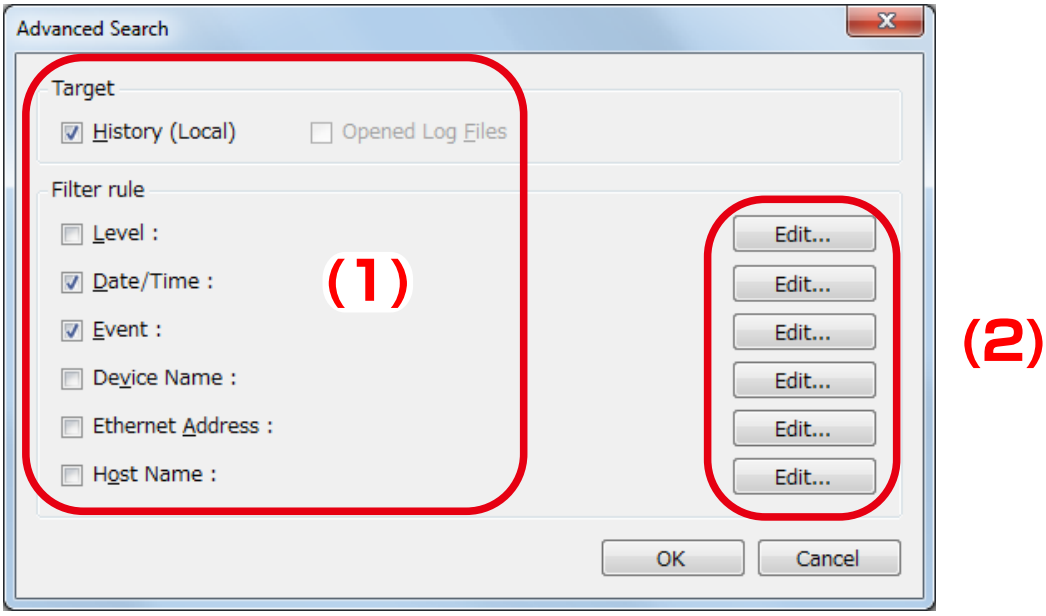
Searching for Logs

It is possible to search for event logs using a filter of advanced search. Only matched logs will be displayed in the log list.

1. From the menu bar, click **View** - **Advanced Search**.



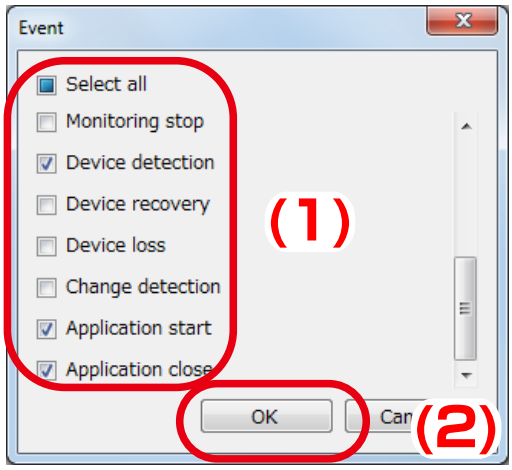
2. Check the search target and filter settings and click **Edit**.



Note

- "**Opened Log Files**" of the target can be selected only when Log Viewer format file is opened.

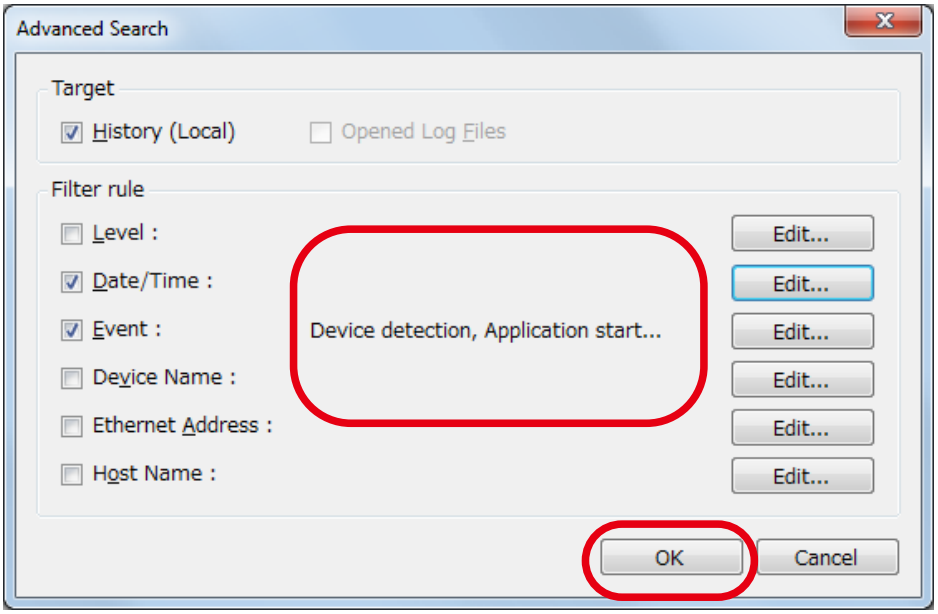
3. Check the filter conditions to use and click **OK**.



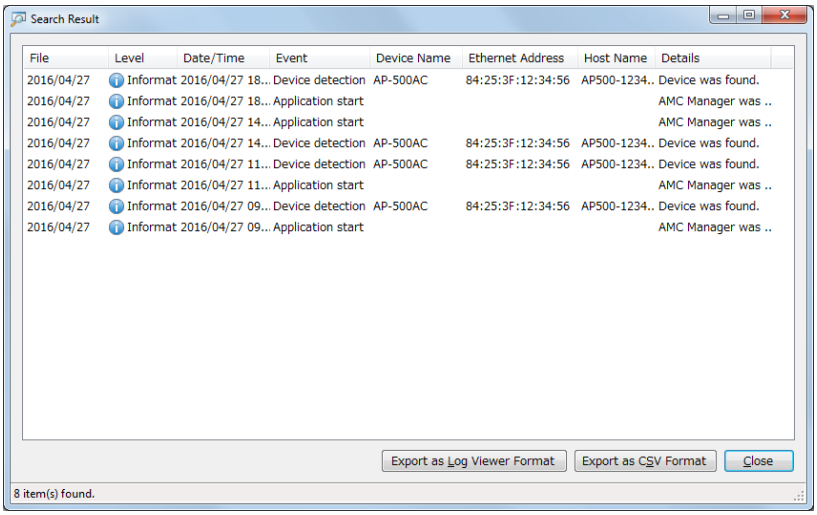
Note

- Enter the date/time, device name, etc. according to the filter conditions.

4. To configure more filter conditions, go back to **2** and repeat the same process.
Once the filter setting is configured, it is displayed in the window.
When necessary filters are configured, click **OK**.



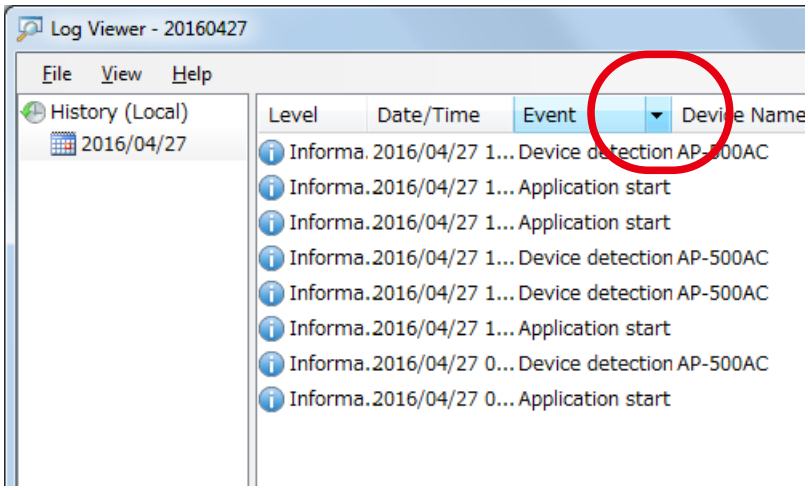
5. The search result is displayed.



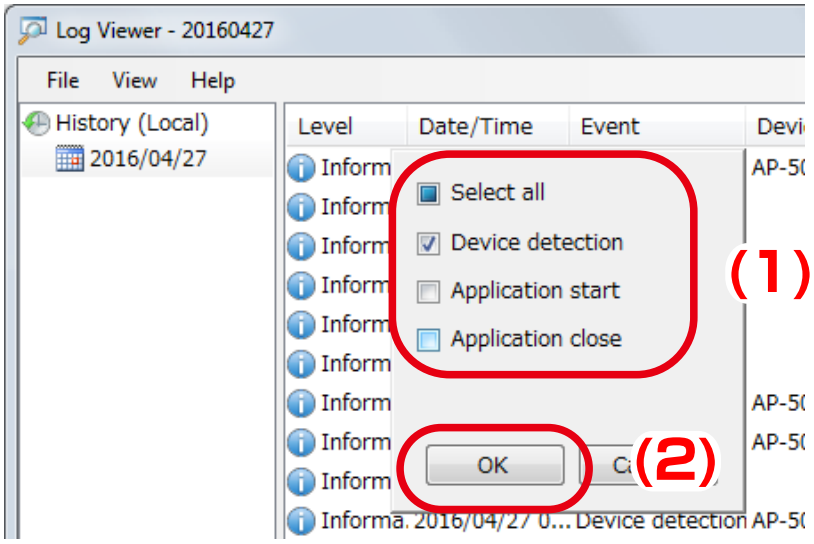
Using Filter of Log List

It is possible to set a filter individually on each item of the log list. Only matched logs will be displayed in the log list.

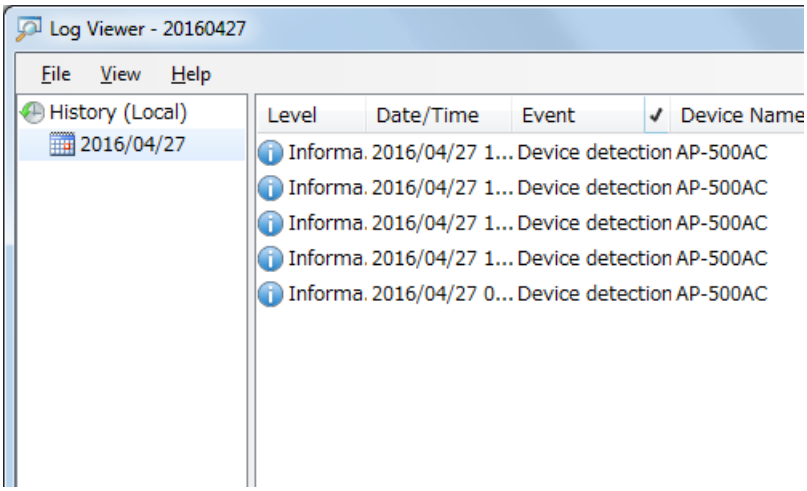
1. If a cursor is moved closer to column header, split button is displayed. Click the split button of the item that you want to enable filter on.



2. Check the items you want to show in the list and click **OK**.



3. Event logs are filtered by the selected conditions.



Note

- When a filter is used, check mark will be displayed in the column header of that filter.

Saving Event Logs to File

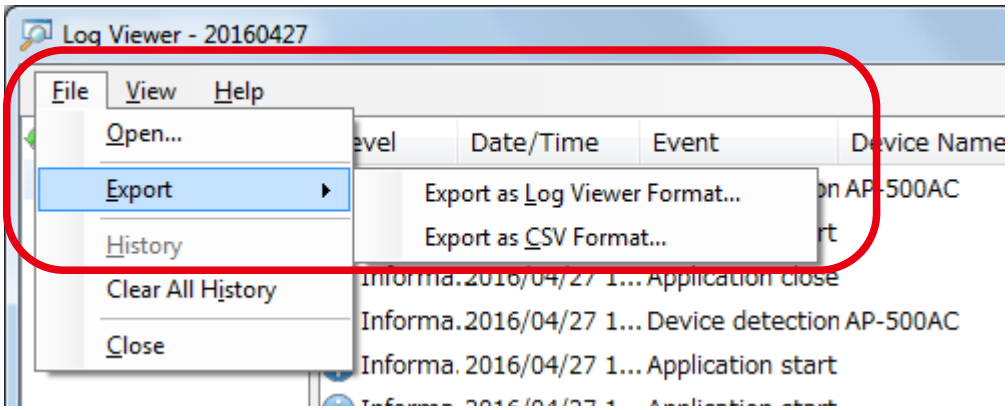
It is possible to export event logs and save it as a file. The file can be saved in either Log Viewer format or CSV file. If the file is saved in Log Viewer format file, it can be opened by Log Viewer.

Note

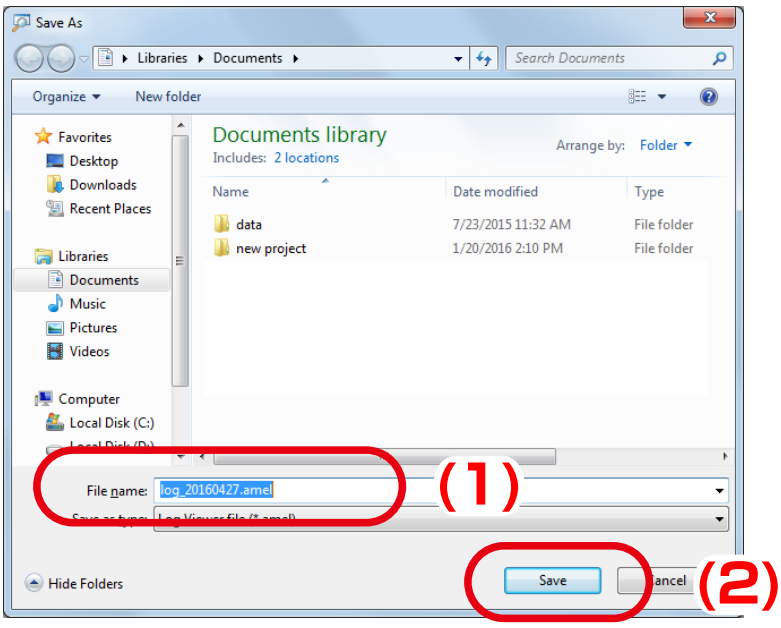
- Log Viewer saving format differs between AMC Manager® Standard and AMC Manager® E model.

	Compatible Log Viewer Format
AMC Manager® Standard	.amel
AMC Manager® E model	.amelx

1. From the menu bar, click **File** - **Export** - **Export as Log Viewer Format** or **Export as CSV Format**.



2. Specify a file name and click **Save**.



Opening Event Logs

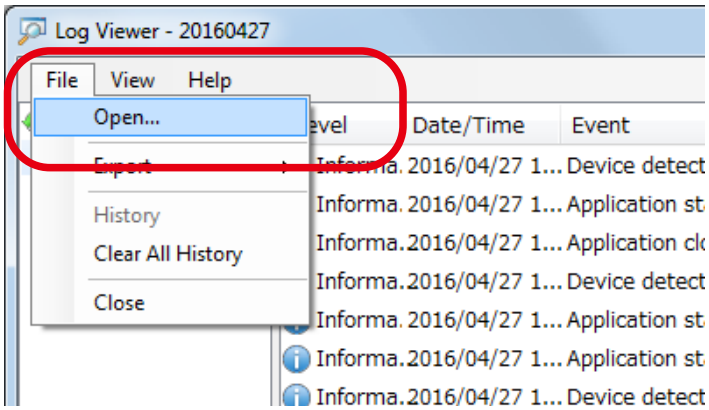
Once the event logs are exported and saved as Log Viewer format file, it can be imported by Log Viewer.

Note

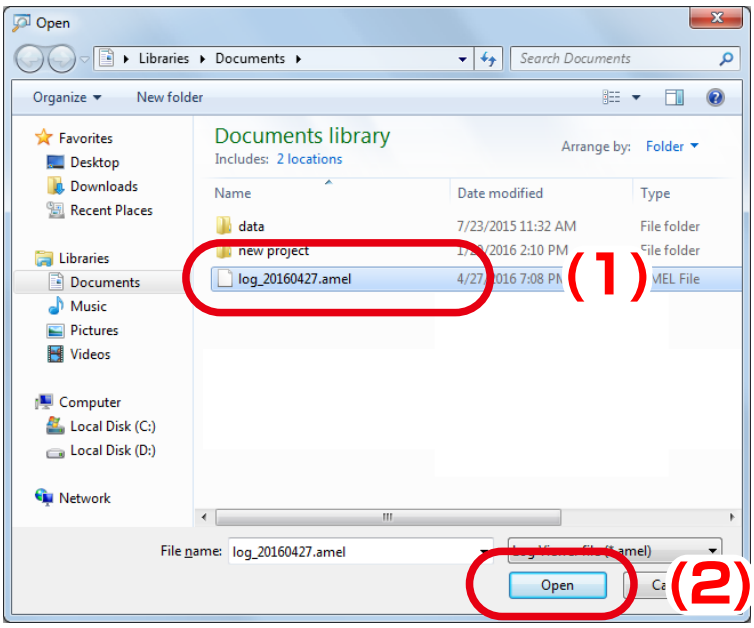
- Log Viewer format differs between AMC Manager® Standard and AMC Manager® E model.
- AMC Manager® Standard's Log Viewer is not able to read AMC Manager® E model's Log Viewer format.

	Compatible Log Viewer Format
AMC Manager® Standard	.amel
AMC Manager® E model	.amel .amelx

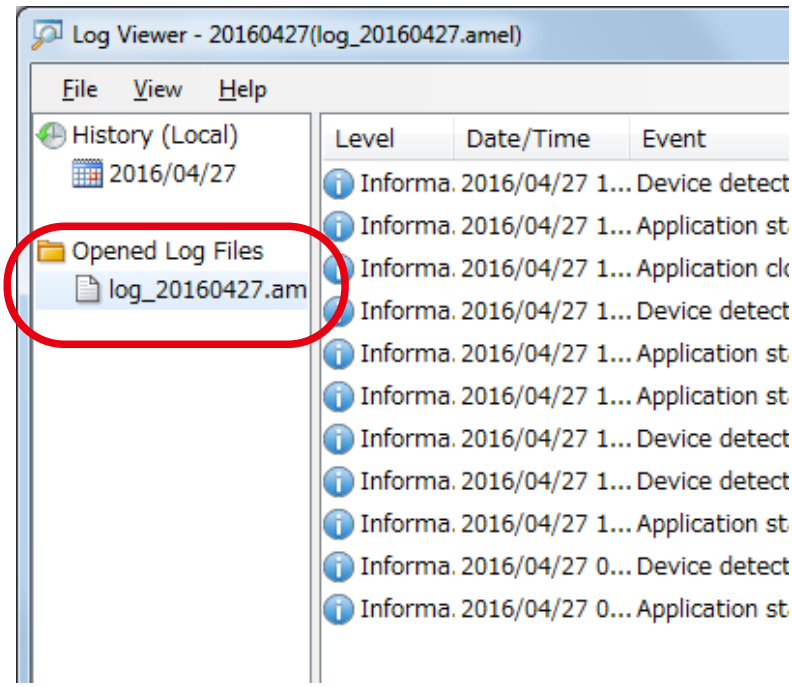
1. From the menu bar, click **File** - **Open**.



2. Select a Log Viewer format file and click **Open**.

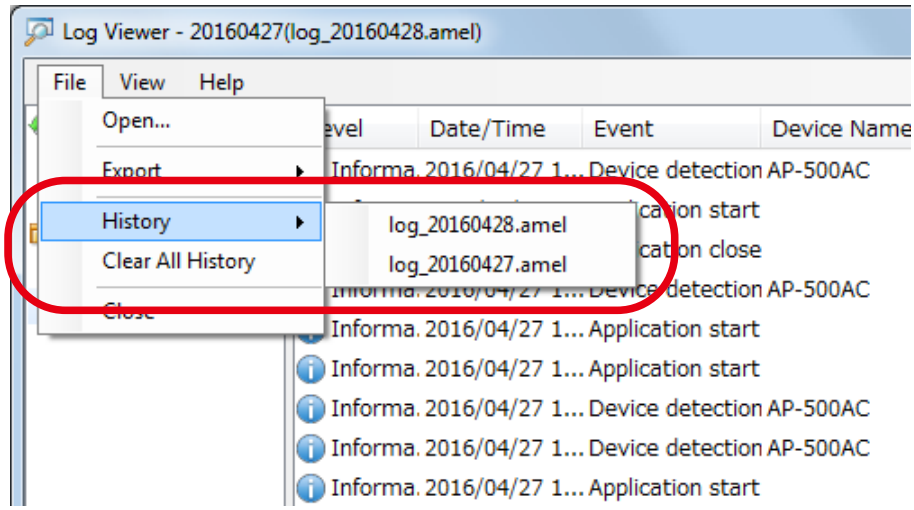


3. The file is opened.



Note

- The history of imported files is displayed at **History** of **File** menu. Up to 5 files are displayed as history. If the file is clicked on the history, the file is opened.



4-13. Alert Notification

Alert notification is a function that sends alert email when an error occurred on AMC Manager® E model and/or the monitored devices. Alert condition and receiver's address can be specified.

```
2 event(s) occurred as follows.

Date/Time         : 2017/01/23 13:21:07
Device Name       : SX-ND-4350WAN+
Device Information: 00:80:92:01:31:65 (SX001122)
Event             : Device reply was lost.

Date/Time         : 2017/01/23 13:21:07
Device Name       : BR-300AN
Device Information: 84:25:3F:01:09:E8 (SX0109E7)
Event             : Device reply was lost.

-------------------
Sent by AMC Manager
```

TIP

- Alert notification feature is supported by AMC Manager® E model only.

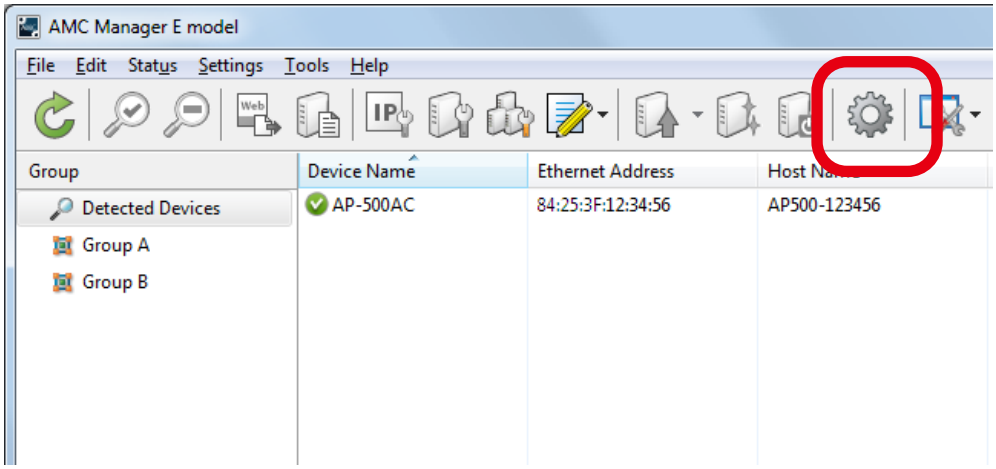
Alert Condition

Alert condition can be set by checking the check box of each condition at **Option** setting window. Following conditions can be specified.

Group	Condition	Details
For AMC Manager	System log capacity exceeded	Syslog data size exceeded its capacity and the past logs were deleted.
	Start-up password authentication failed	AMC Manager® E model start-up password authentication failed for 3 times.
	Emergency use function was executed	Emergency use function was executed.
For Device	Too many wireless client devices were connected to the device	41 or more wireless client devices were connected to the device.
	Device setting was changed or initialized	Device setting was changed or initialized by a method other than your AMC Manager® E model.
	Device firmware was changed	Device firmware was changed by a method other than your AMC Manager® E model.
	Device reply was lost	Device reply was lost.
	Wireless client device failed to connect to the device	Wireless client device failed to connect to the device.
	Error occurred on wireless module of the device	Error occurred on wireless module of the device.
	Device failed in Smart Wireless Setup	Smart Wireless Setup failed.
	DFS function started on the device	DFS function ran on the device.

Alert Notification Settings

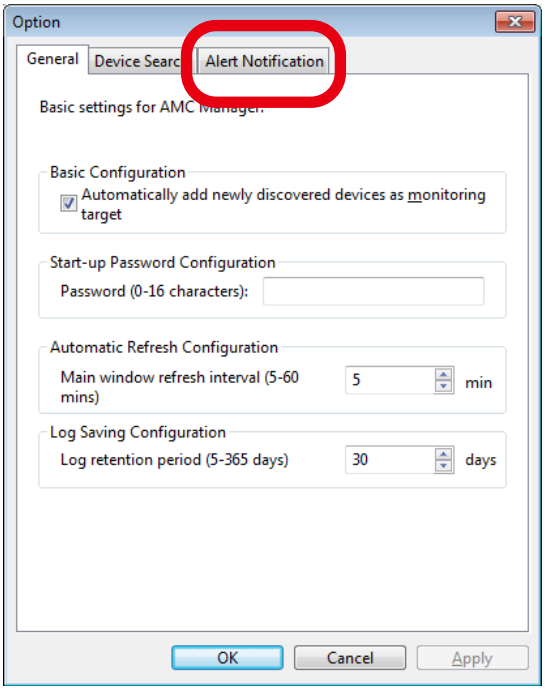
1. Select the **Option** icon from the toolbar.



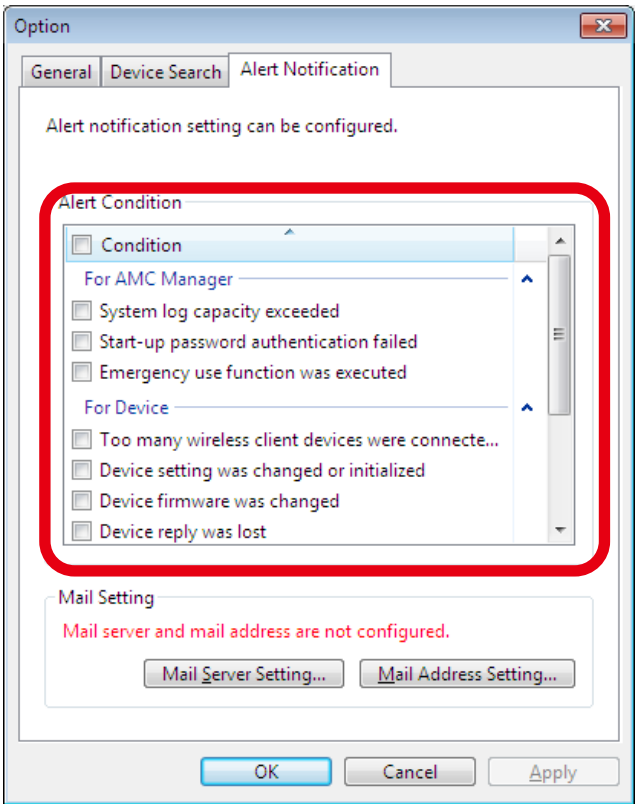
Note

- The **Option** window can also be displayed by clicking **Tools** - **Option** from the menu bar.

2. In the **Option** Window, click the **Alert Notification** tab.

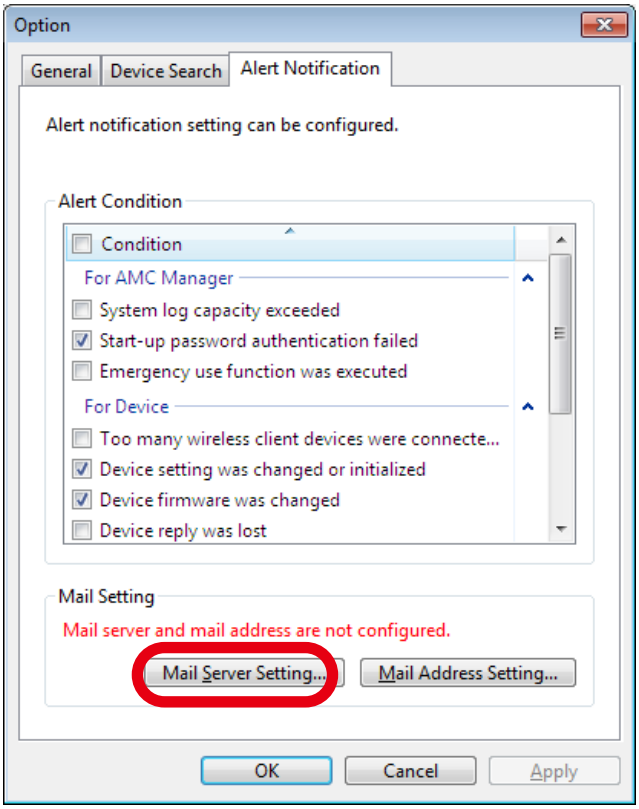


3. In the **Alert Notification** tab, select the condition to send alert email.

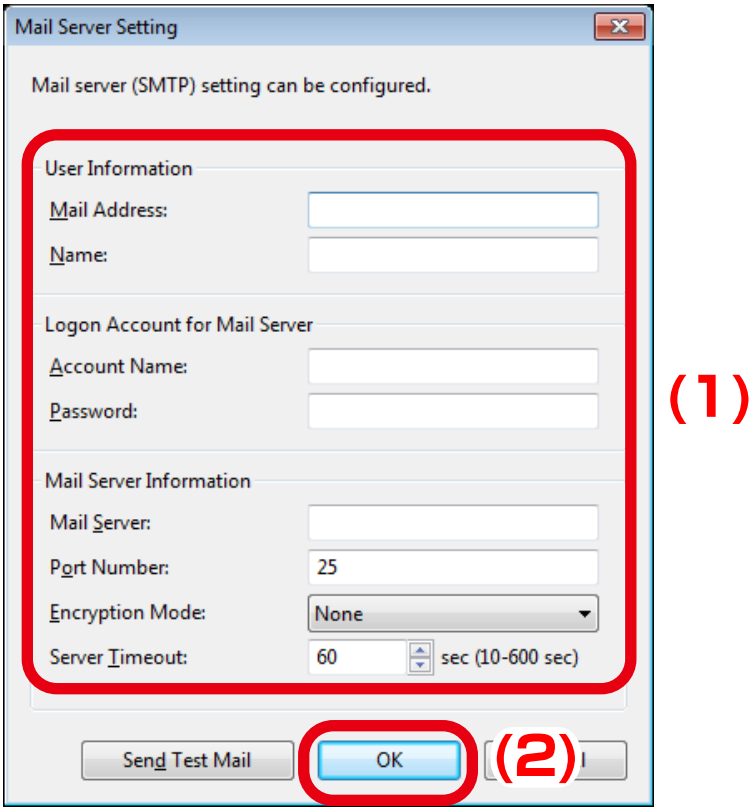


(1)

4. Click **Mail Server Setting** to configure the mail server setting.



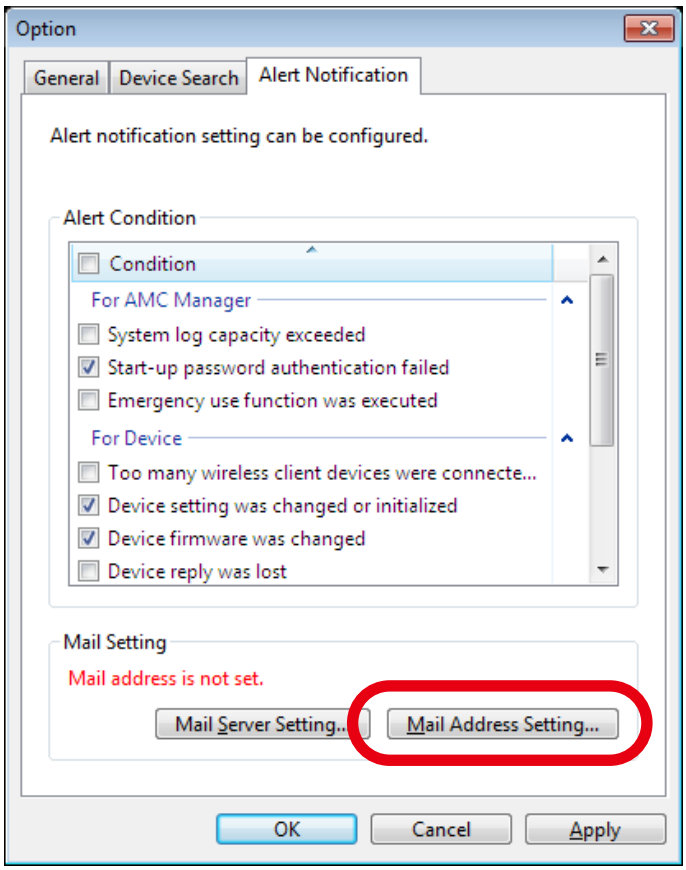
5. In the **Mail Server Setting** window, enter each setting and click **OK**.



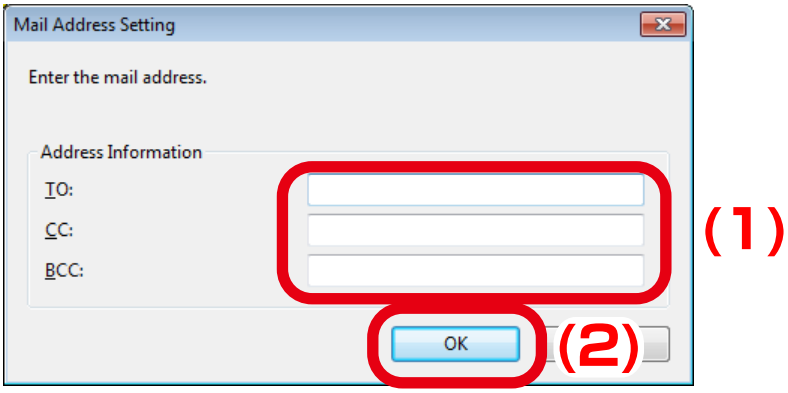
Note

- Clicking **Send Test Mail** will send a test mail to the address configured at **User Information**.
- Test mail is sent with a subject "AMC Manager Test Mail".

6. Click **Mail Address Setting** to set the address to receive alert email.

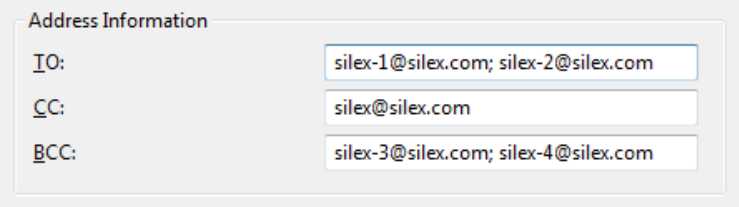


7. In the **Mail Address Setting** window, enter the address to receive alert email and click **OK**.

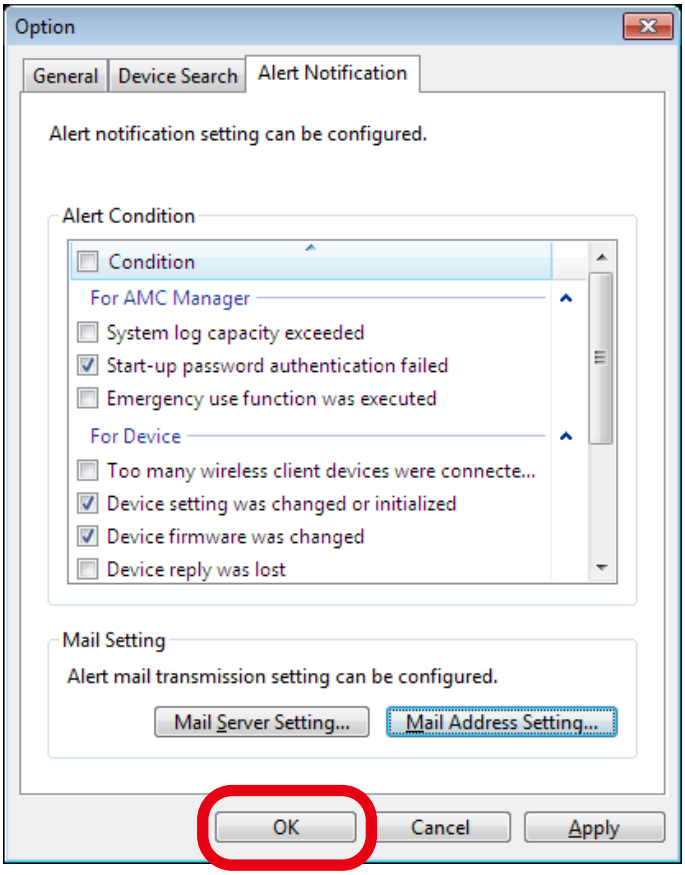


Note

- Multiple addresses can be registered by separating them with semicolon (;).



8. Click **OK** to close the **Option** window.



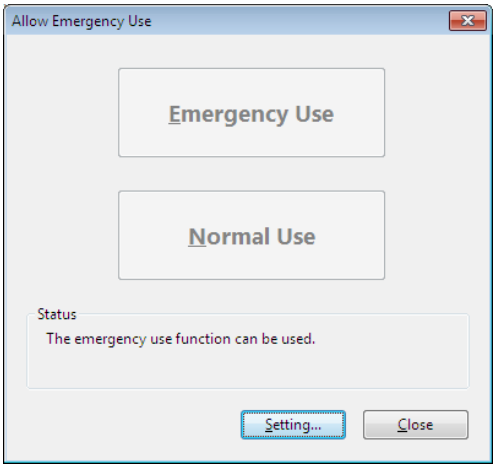
4-14. Allowing Public Use In Case of Emergency

If the Emergency Use feature is used, use of Silex Technology's Access Points can be opened to public in case of emergency.
By previously setting a bulk configuration file for emergency use, the device settings can be changed all at once just by clicking a button. If a bulk configuration file for normal use is prepared, it can be used to reset all devices back to normal use just by clicking a button.

TIP

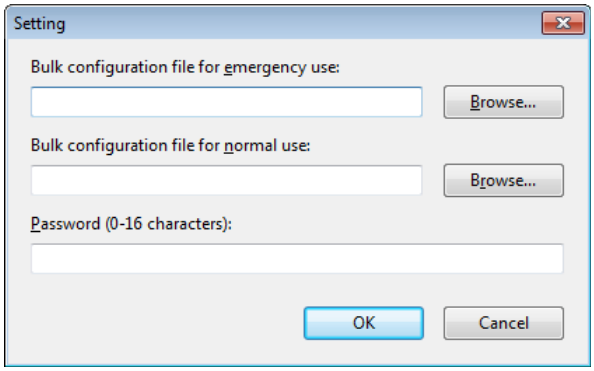
- The emergency use setting is a feature of AMC Manager® E model.

Emergency Use Setting Window



Name	Details
[Emergency Use] button	Executes bulk configuration for emergency use.
[Normal Use] button	Executes bulk configuration for normal use.
Status	Shows the operating status of emergency use function.
[Setting] button	Opens a dialog to select a bulk configuration file.
[Close] button	Closes the **Allow Emergency Use** window.

Setting Window



Name	Details
Bulk configuration file for emergency use	Select a bulk configuration file to use when **Emergency Use** button is clicked. Click **Browse** to select the file.
Bulk configuration file for normal use	Select a bulk configuration file to use when **Normal Use** button is clicked. Click **Browse** to select the file.
Password	Set the password to start the emergency use feature. The password must be 0-16 characters.
[OK] button	Saves the setting and closes the window.
[Cancel] button	Closes the window without saving the setting.

Before You Begin

How to create a bulk configuration file is explained.
To use the emergency use feature, bulk configuration file needs to be respectively registered for emergency use setting and normal use setting.

TIP

- Only the items you have checked the check box will be updated. Make sure that you have created the configuration file in which the check box is checked for those you want to update.

1. Check the password of the device to allow emergency use.

2. For "**Password**"of the configuration file, set the password that you have checked at **1**.

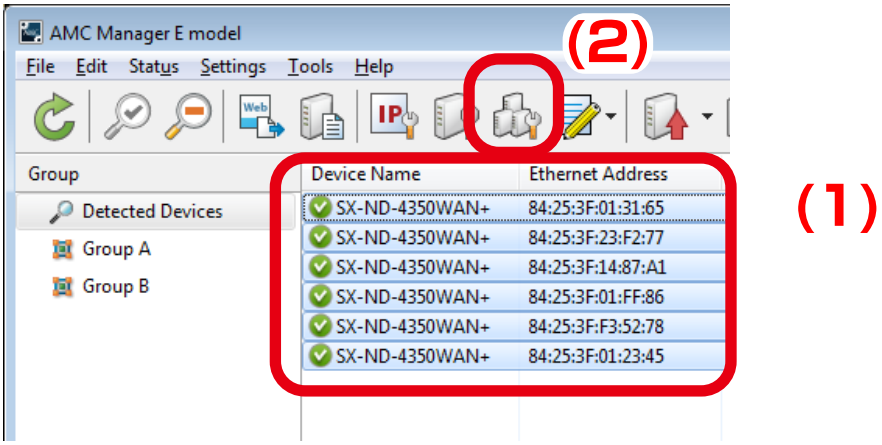
TIP

- If there is a device whose password does not match, the setting will not be replaced on that device.

Note

- For details on the configuration file, refer to **4-6. Bulk Configuration** - **Before You Begin**.

3. Select the devices to configure in bulk from the list of the AMC Manager® E model and click the **Configure multiple devices in bulk** icon from the toolbar.

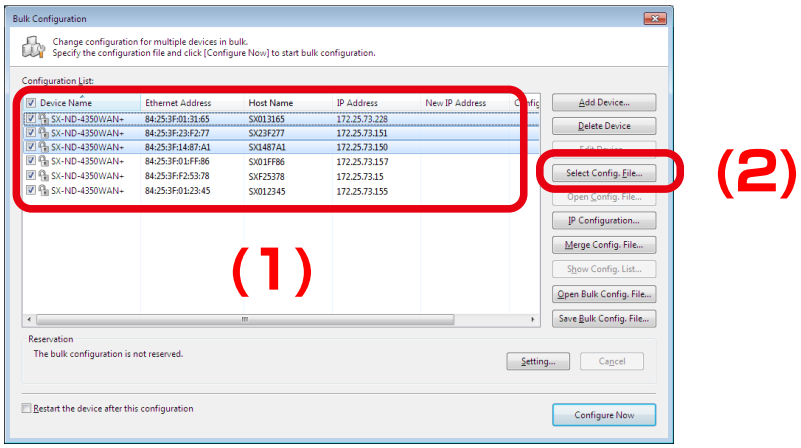


Note

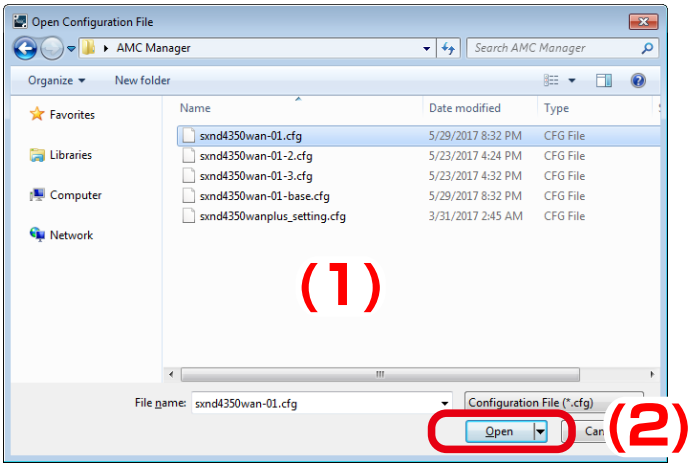
The bulk configuration window can also be displayed by a method below:

- Select the devices to configure in bulk and click **Settings** - **Bulk Configuration** from the menu bar.

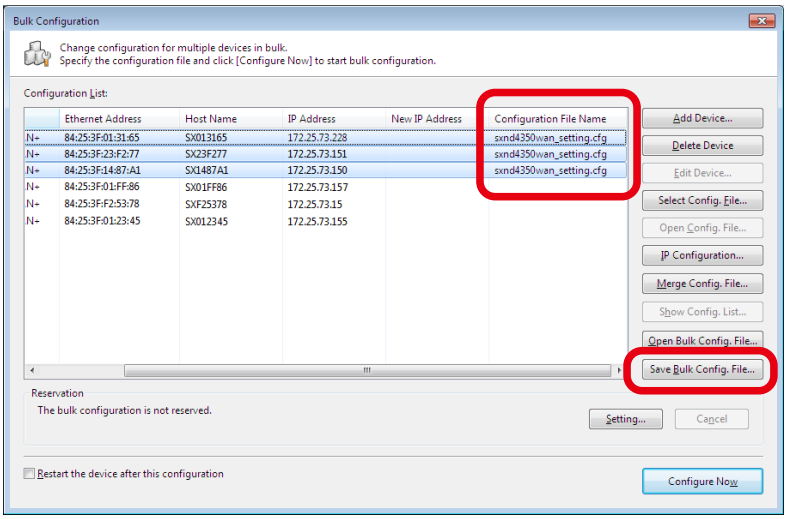
4. In the **Bulk Configuration** window, select the devices to configure in bulk from the **Configuration List** and click the **Select Config. File** button.



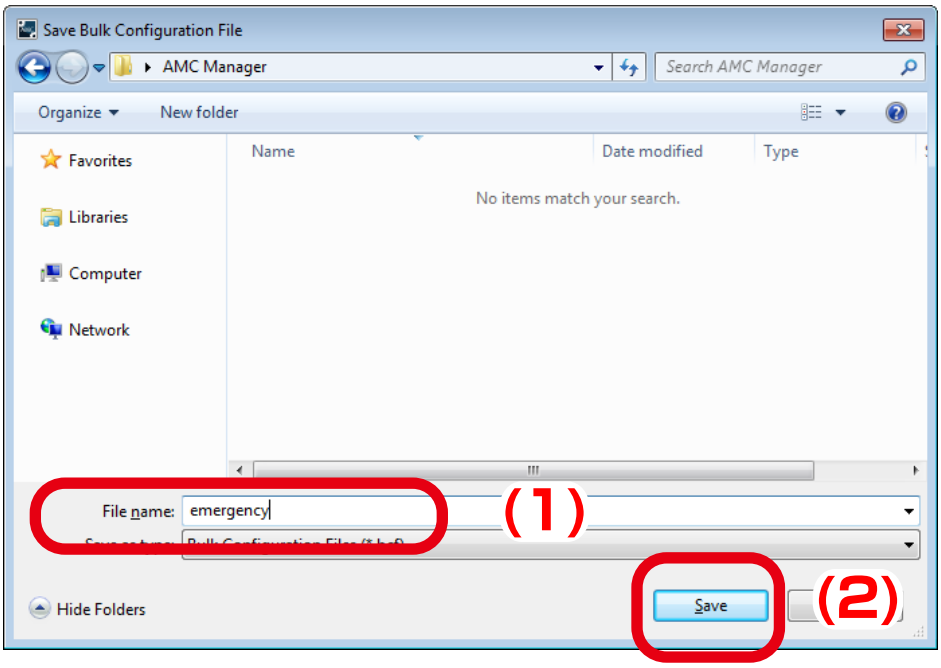
5. Select the configuration file that you have created to use for bulk configuration and click **Open**.



6. The configuration file has been selected for the devices and the **Bulk Configuration** window is displayed again. Repeat the same process at **4-5** to select the configuration file for each device.
When finished selecting the configuration file for all devices, click **Save Bulk Config. File**.

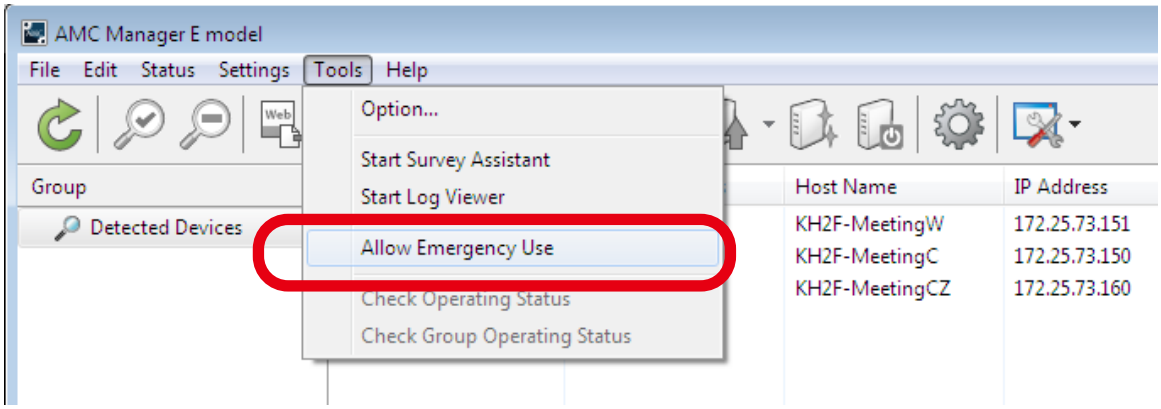


7. In the **Save Bulk Configuration File** window, enter the file name and click **Save**.

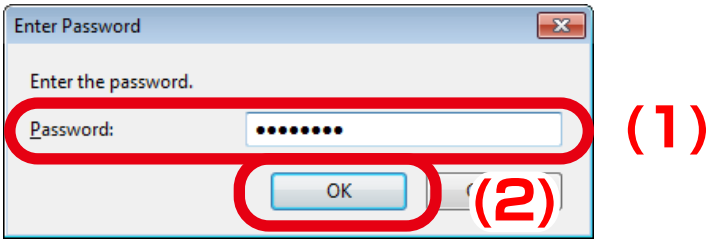


Configuring Emergency Use Setting

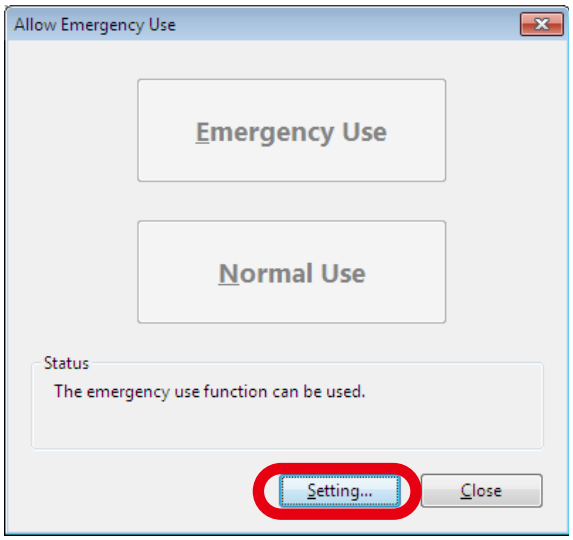
1. From the menu bar, click **Tools** - **Allow Emergency Use.**



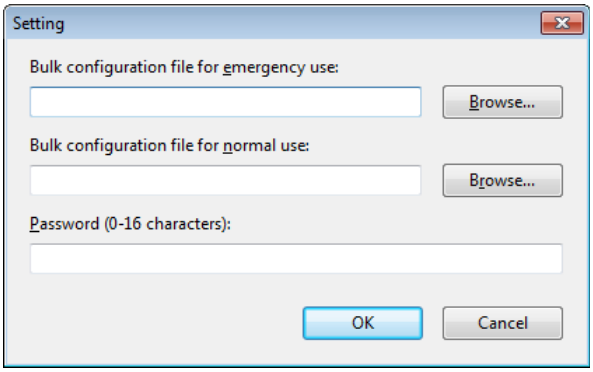
2. When a password is set for the emergency use feature, the window below is displayed. Enter the password and click **OK**.



3. In the **Allow Emergency Use** window, click **Setting**.



4. In the **Setting** window, select the configuration files to use when **Emergency Use** or **Normal Use** is clicked.



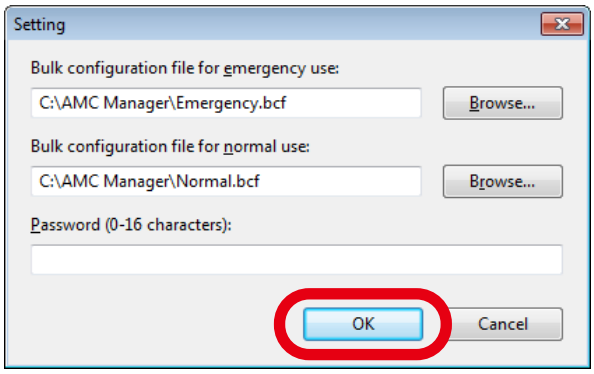
Note

- Clicking **Browse** opens a dialog to select a file. In the dialog, select a bulk configuration file to use and click **Open**.
- For details on how to create a bulk configuration file, refer to **4-14. Allowing Public Use In Case of Emergency - Before You Begin**.
- If a password is set, the password entry will be required before the **Allow Emergency Use** window is displayed.

TIP

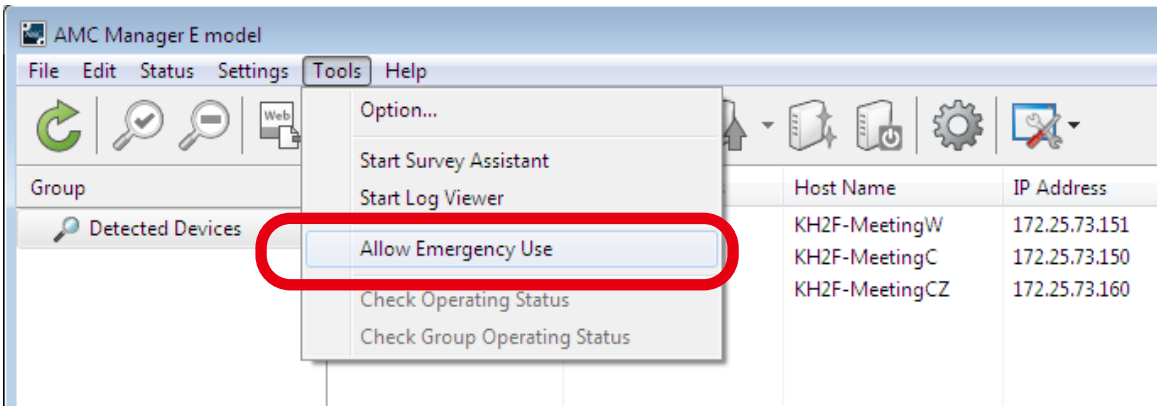
- Only one bulk configuration file can be specified respectively for emergency use setting and normal use setting.

5. When finished selecting bulk configuration files, click **OK**.

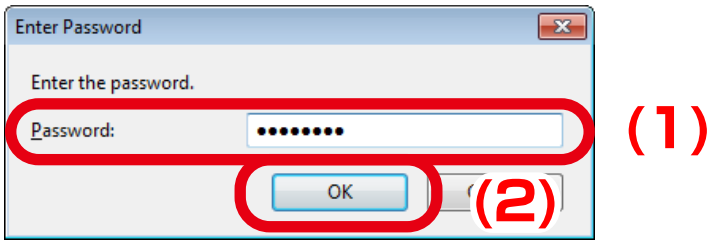


Using Emergency Use Feature

1. From the menu bar, click **Tools** - **Allow Emergency Use.**



2. When a password is set for the emergency use feature, the window below is displayed. Enter the password and click **OK**.



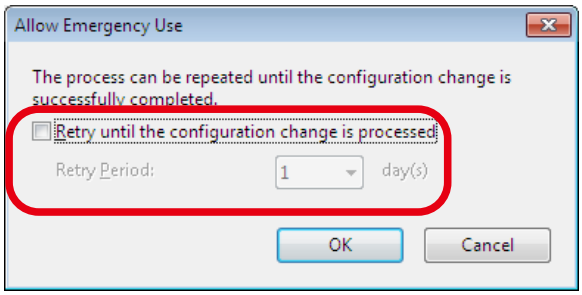
3. To apply emergency use setting to the devices, click **Emergency Use** at the **Allow Emergency Use** window.

TIP

- If following settings are changed on the devices as result of emergency use configuration, the devices may be lost in the network or AMC Manager may fail to change the settings of those devices.
  - IP Address (IP Address, Subnet Mask, Default Gateway)
  - DHCP (DHCP on/off, DHCP Server on/off)
  - VLAN (VLAN ID)
  - MAC Address Filter

  Please check that inappropriate setting is not configured to the devices beforehand that can make the devices fail to communicate with others.

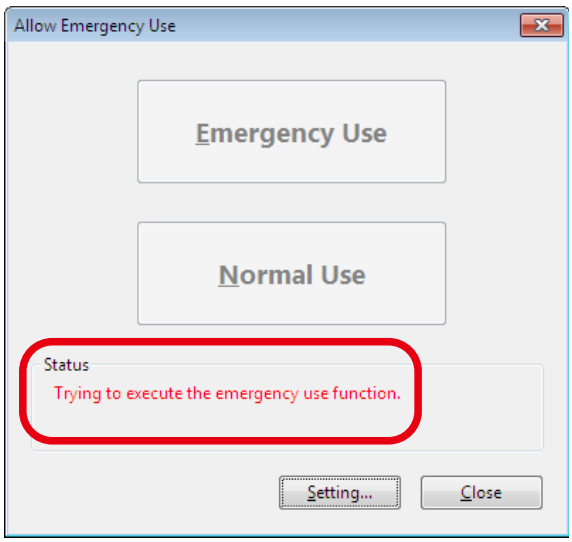
4. When **Retry until the configuration change is processed** is checked, the configuration will continue for the specified number of days until it is successfully configured on the devices. When the setting is entered, click **OK**.



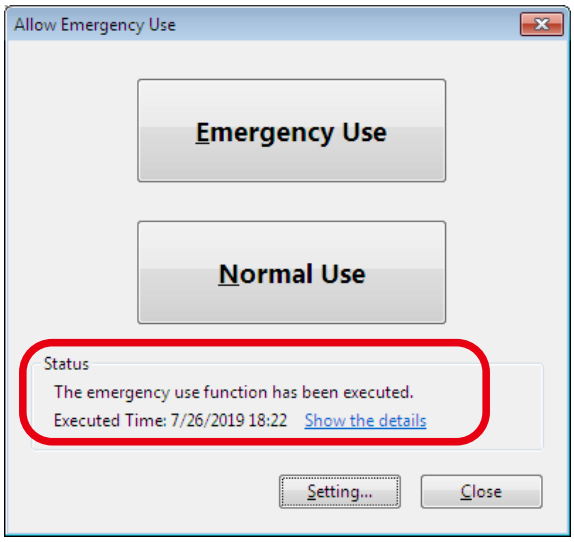
Note

- When **Retry until the configuration change is processed** is not checked, the configuration will run only once.
- The retry period can be selected from 1-5 days.

5. When the emergency use configuration is in progress, the windows below is displayed.



6. When the emergency use configuration is completed, the windows below is displayed.

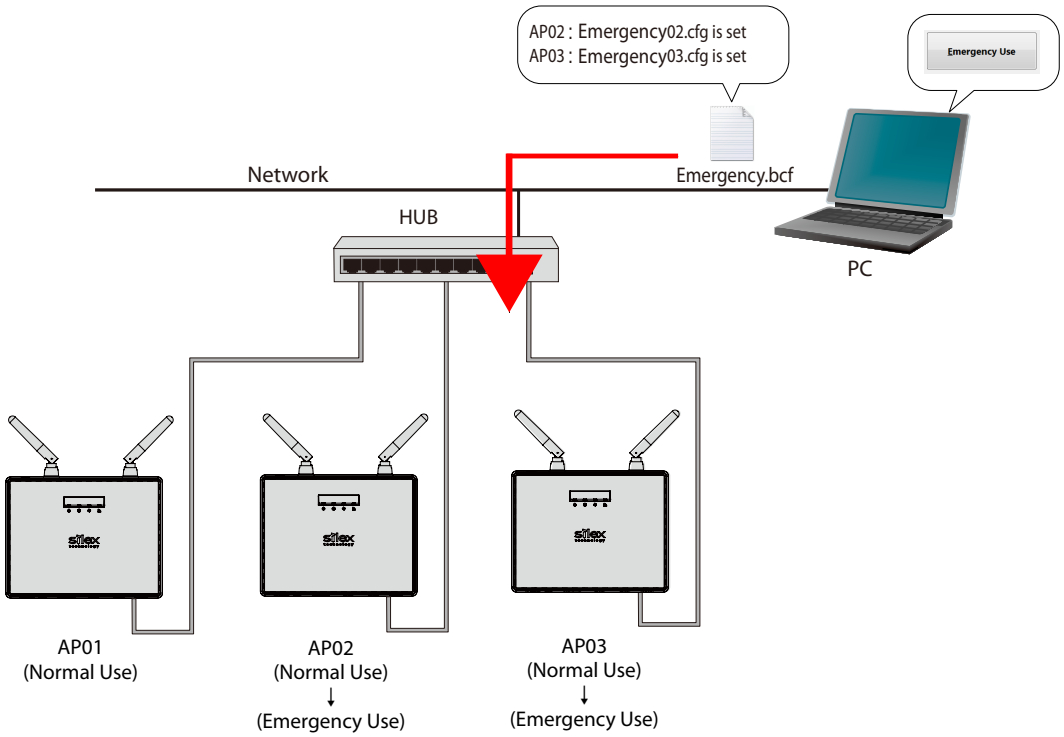


Note

- Clicking **Show the details** will display the result of emergency use configuration.

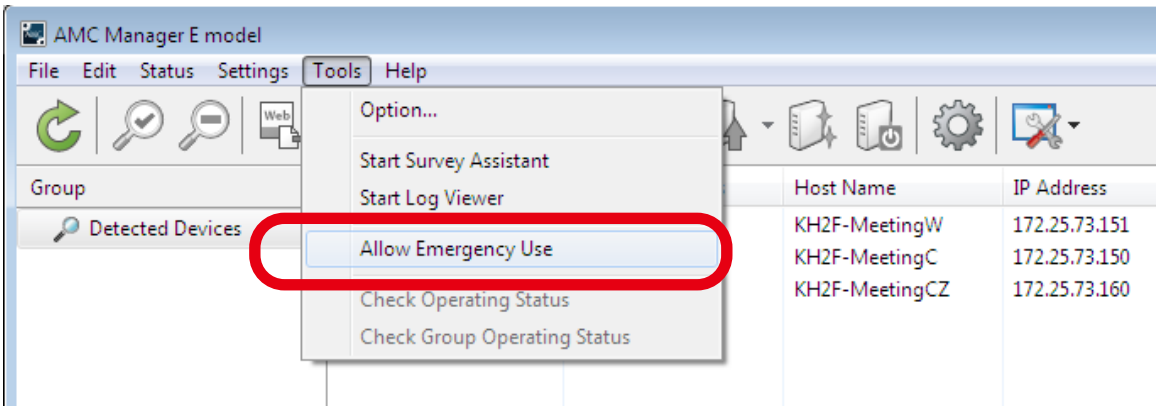
[Sample of executing emergency use configuration]

As shown in the following configuration, if **Emergency Use** is clicked when **Emergency.bcf** is applied, AP02 and AP03 settings are changed.

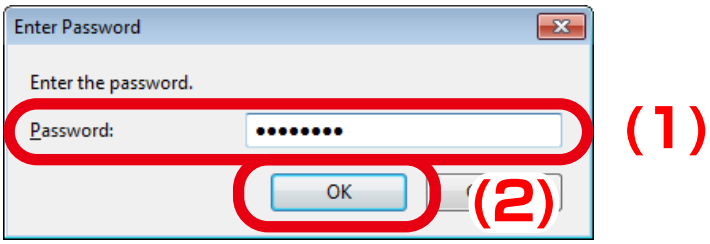


Resetting to Normal Use

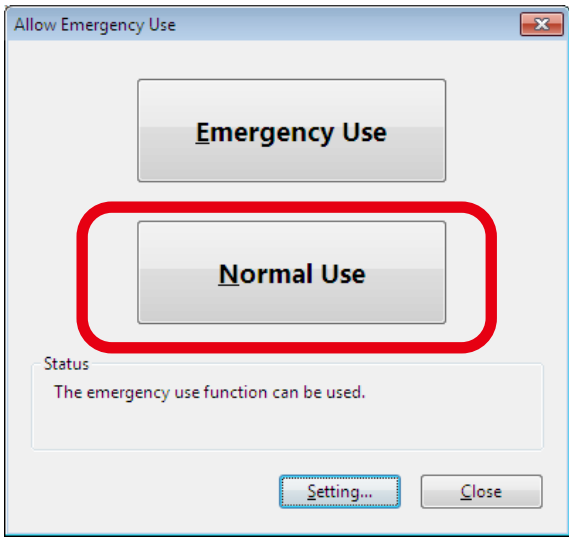
1. From the menu bar, click **Tools** - **Allow Emergency Use.**



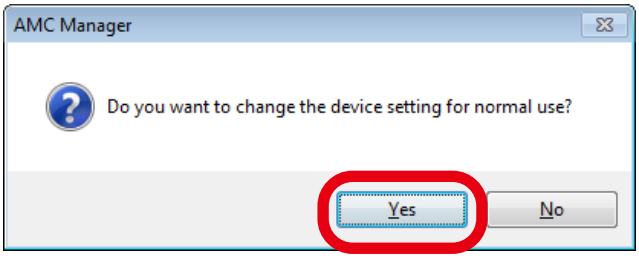
2. When a password is set for the emergency use feature, the window below is displayed. Enter the password and click **OK**.



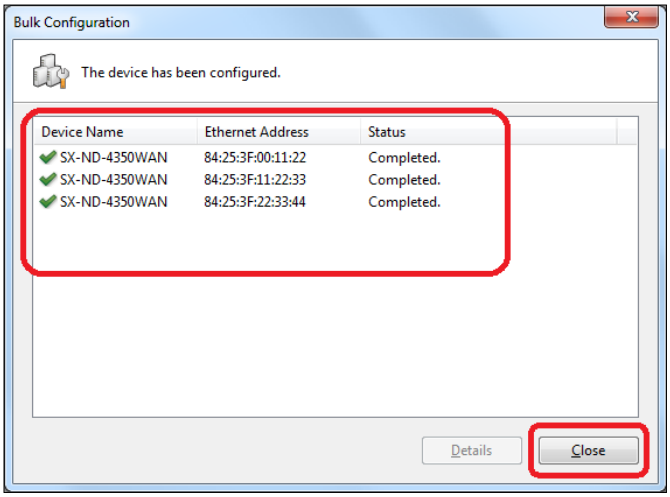
3. To reset the device back to normal use setting, click **Normal Use** at the **Allow Emergency Use**.



4. Click **Yes** to the confirmation message

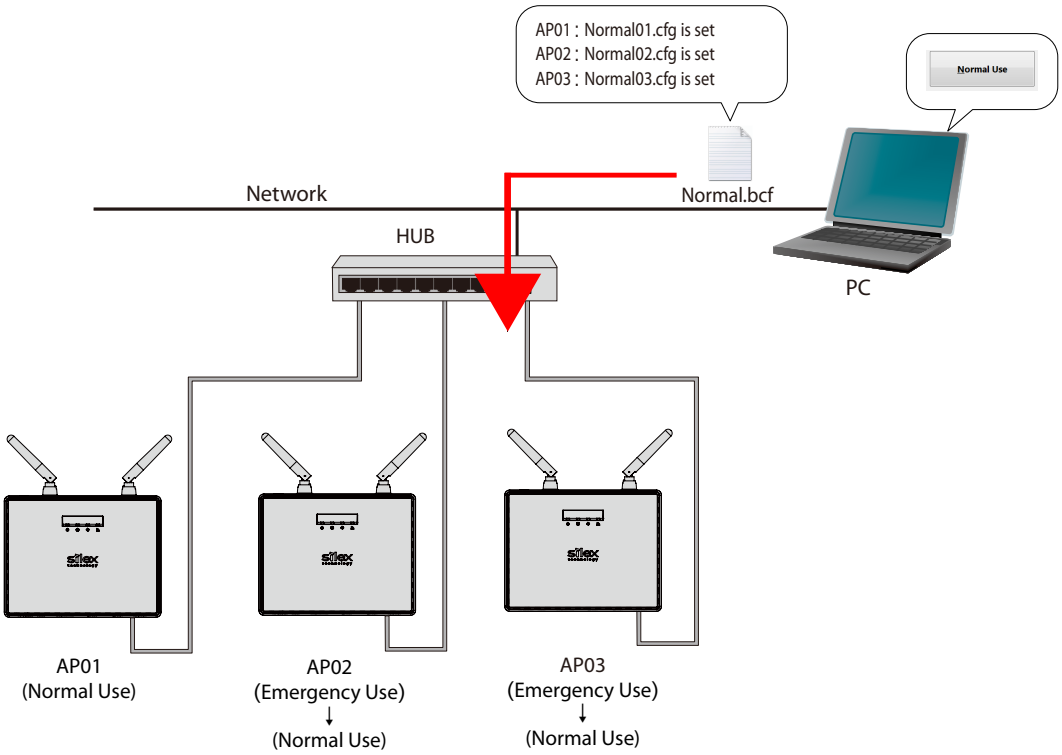


5. Bulk configuration for normal use is executed and the result is displayed.
Click **Close**.



[Sample of executing normal use configuration]

As shown in the following configuration, if **Normal Use** is clicked when **Normal.bcf** is applied, AP02 and AP03 settings are changed.



4-15. Checking Device Operating Status

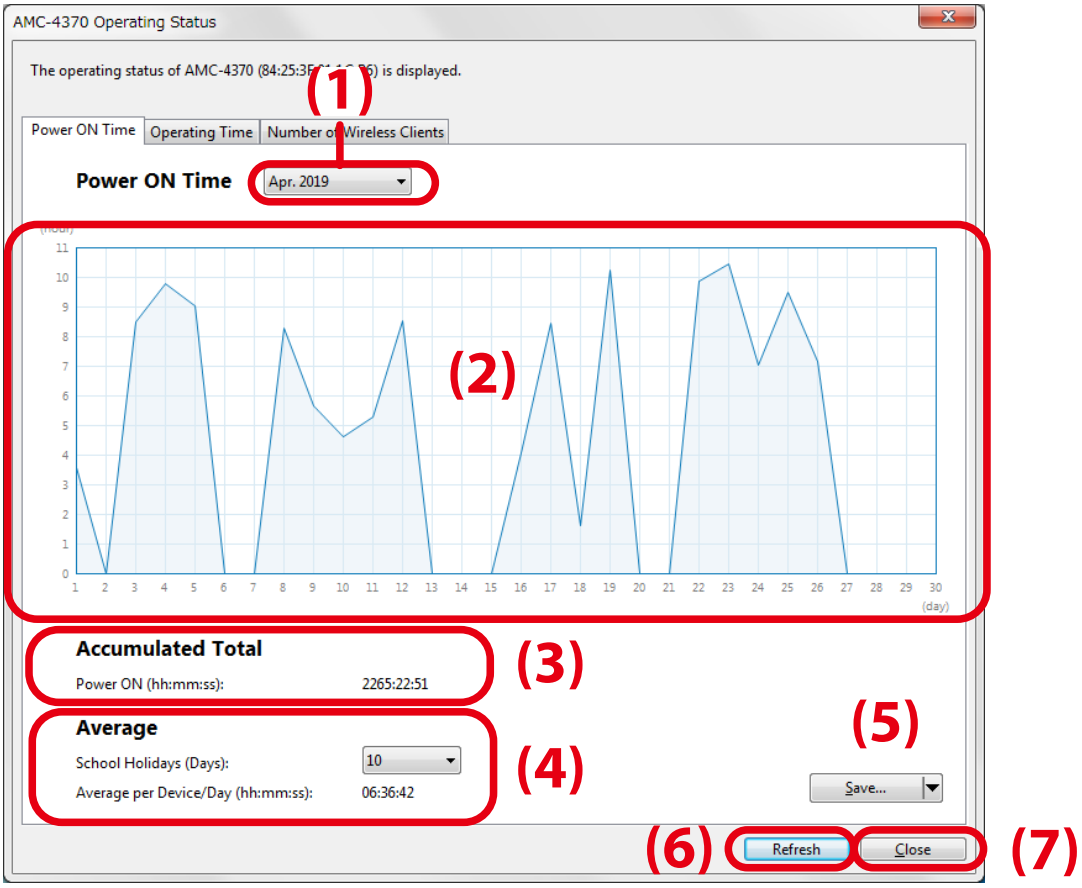
The operating status check feature can show a graph that displays a transition of the device usage time and the number of the connected wireless clients.
It can also show the total operating time, the number of devices connected to wireless LAN interface and how long the device is connected using the projection assistant software "SX Virtual Link Display for Education".

TIP

- Only AMC Manager® E model supports the operating status check.
- To use the operating status check feature, the device needs to support it.

Graph Window for Power-ON Time

The following explains the graph window for power-on time.



(1) Date

Select the year/month of the graph to display.

(2) Graph Area

This area displays the graph of the month you have selected.

(3) Accumulated Total

Total power-on time of the device is displayed.

(4) Average

This area shows the average power-on time per device/day excluding the information of school holidays of the month.

(5) [Save] button

The displayed status information can be saved to a CSV file or an image file.

(6) [Refresh] button

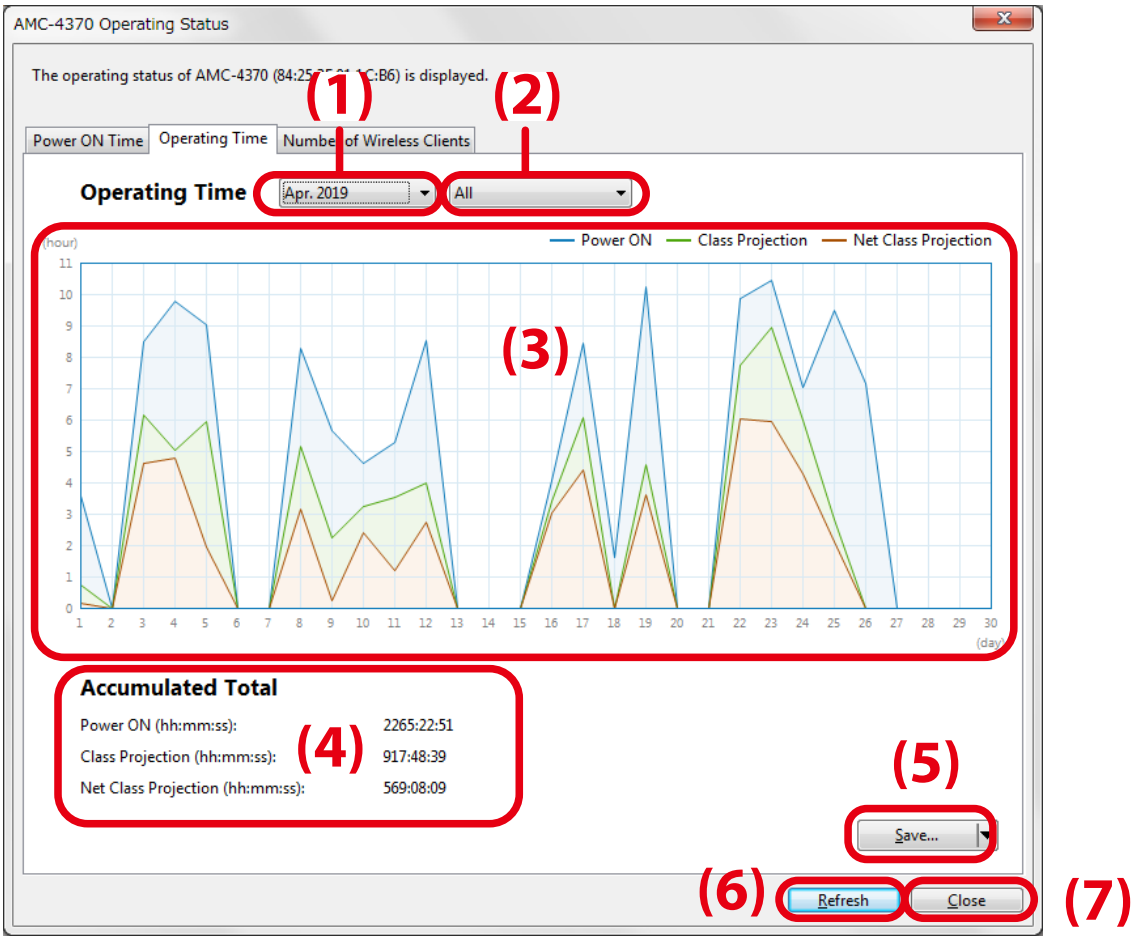
The graph is refreshed at **Power ON Time**, **Operating Time** and **Number of Wireless Clients** tabs.

(7) [Close] button

The operating status window is closed.

Graph Window for Operating Time

The following explains the graph window for operating time.



(1) Date

Select the year/month of the graph to display.

(2) Type of Graph

Select whether to show one or all of the followings.

Data Type	Details
Power ON	Total operating time of the device
Class Projection	A period of class projection. This shows the time length of the class that was handled using the projection assistant software "SX Virtual Link Display for Education"
Net Class Projection	A period of net class projection. This shows the actual time length of display projection that was handled using the projection assistant software "SX Virtual Link Display for Education".

(3) Graph Area

This area displays the graph corresponding to the month and type of graph you have selected.

(4) Accumulated Total

Total operating time is displayed for **Power ON**, **Class Projection** and **Net Class Projection**.

(5) [Save] button

The displayed status information can be saved to a CSV file or an image file.

(6) [Refresh] button

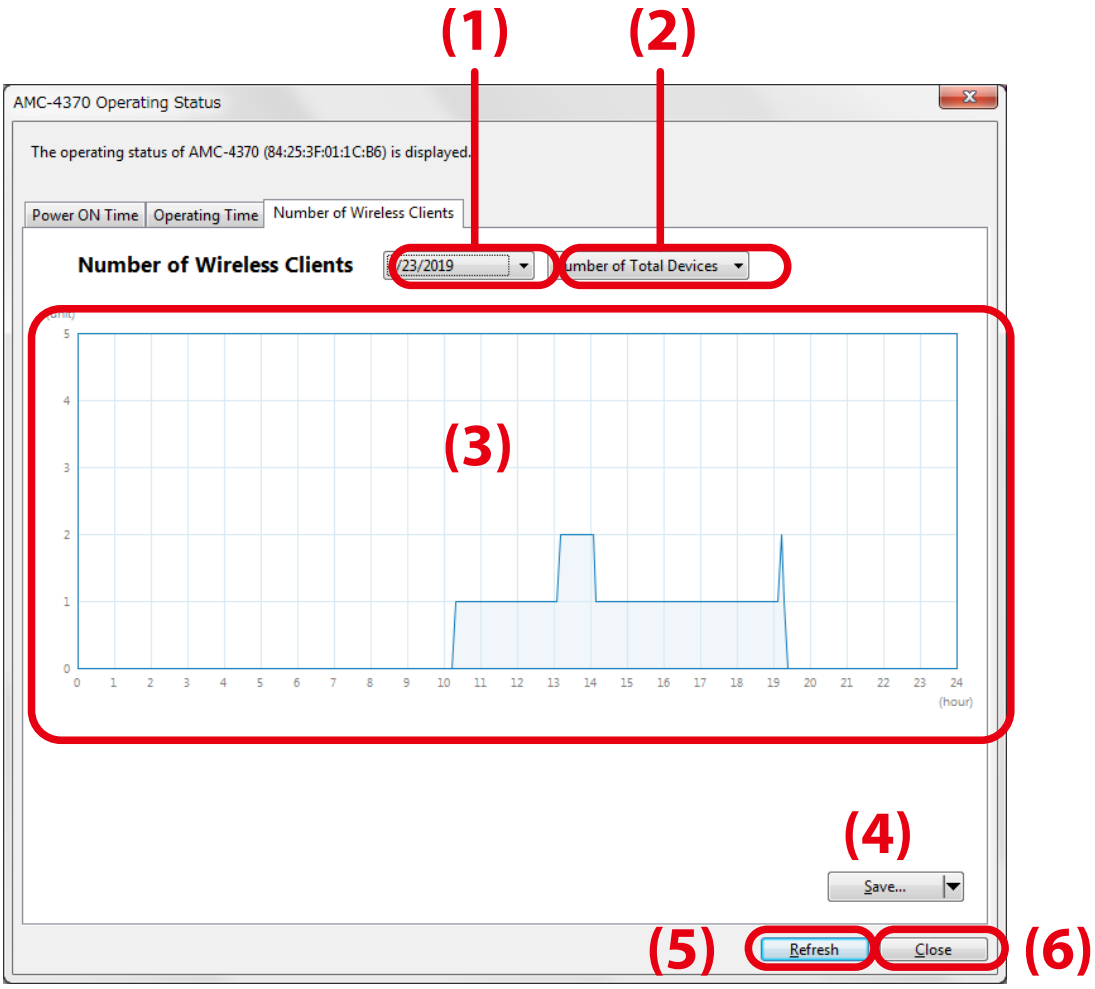
The graph is refreshed at **Power ON Time**, **Operating Time** and **Number of Wireless Clients** tabs.

(7) [Close] button

The operating status window is closed.

Graph Window for Number of Wireless Clients

The following explains the graph window for number of wireless clients.



(1) Date

Select the year/month of the graph to display.

(2) Type of Graph

Specify the type of the graph to display. The graph can show the number of connected wireless client devices for each wireless LAN interface or for all wireless LAN interfaces.

(3) Graph Area

This area displays the graph corresponding to the date and type of graph you have selected.

(4) [Save] button

The displayed status information can be saved to a CSV file or an image file.

(5) [Refresh] button

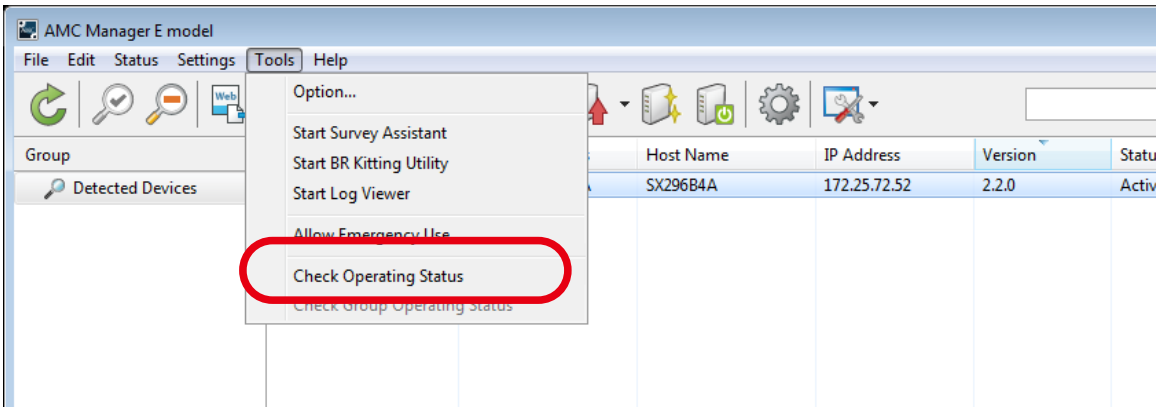
The graph is refreshed at **Power ON Time**, **Operating Time** and **Number of Wireless Clients** tabs.

(6) [Close] button

The operating status window is closed.

Checking Device Operating Status

1. From the menu bar, click **Tools** - **Check Operating Status.**

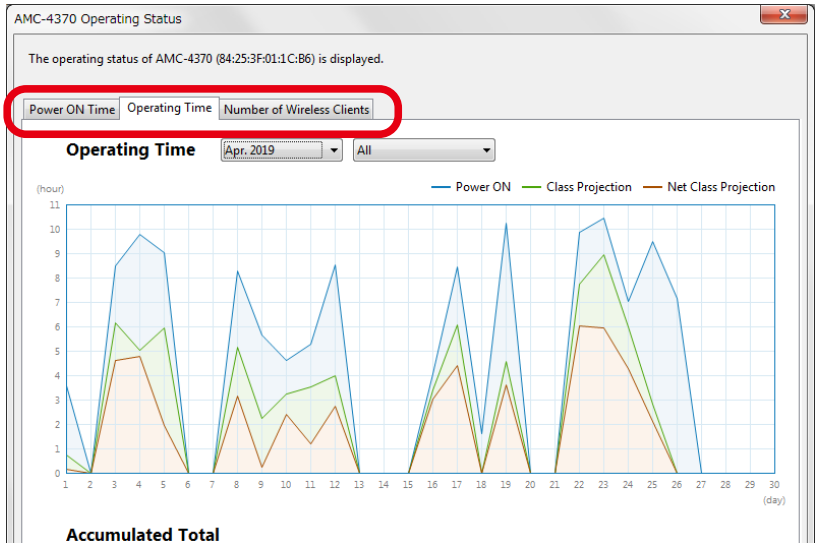


Note

- To check the operating status of the grouped devices, select **Check Group Operating Status**.
- The **Operating Status** window can also be displayed by the method below.
  - Right-click on the device in the device list and select **Check Operating Status** or **Check Group Operating Status** from the displayed menu.

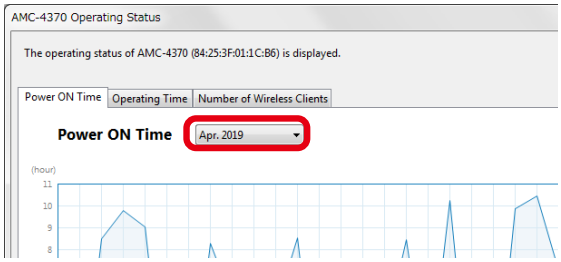
2. The operating status window is displayed.

- To see the power-on time of the connected device, click the **Power ON Time** tab.
- To see the power-on time, class projection time (length of the connected time) and net class projection time (length of the projected time) of the connected device, click the **Operating Time** tab.
- To see the number of the connected wireless client devices, click the **Number of Wireless Clients** tab.

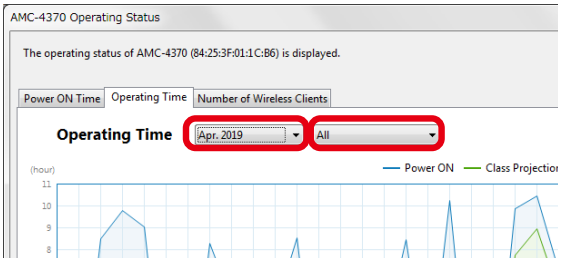


3. Click the pull-down menu (for date and graph type) to select the graph to display.

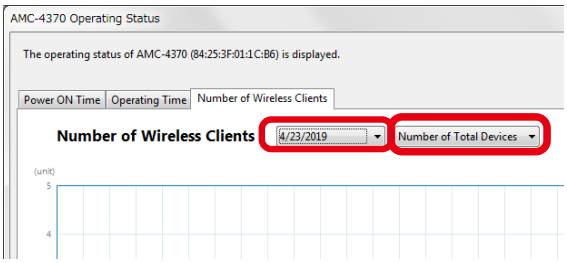
To see the power-on time



To see the operating time

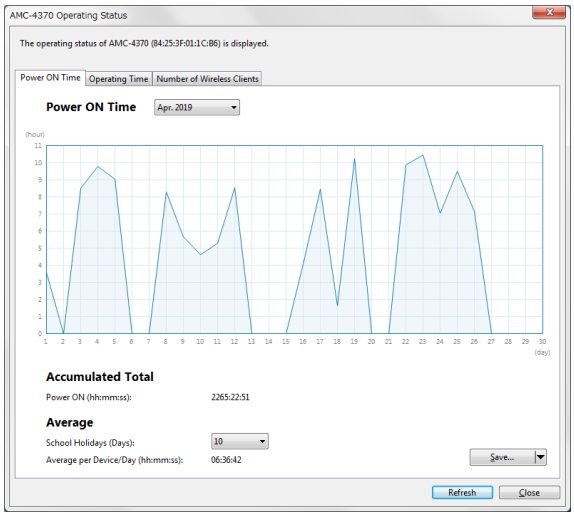


To see the number of wireless client devices

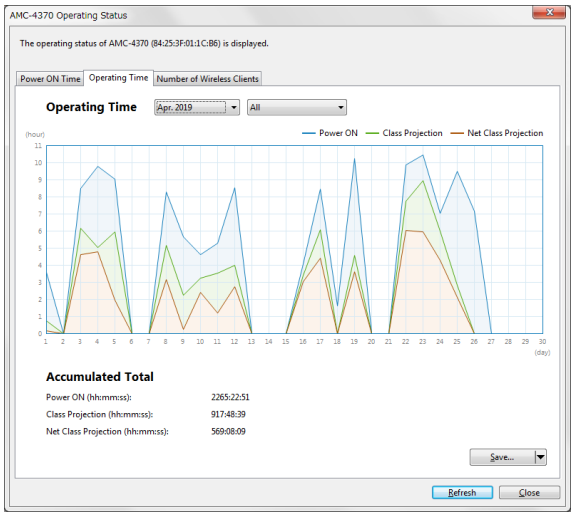


4. The graph is displayed according to your selection.

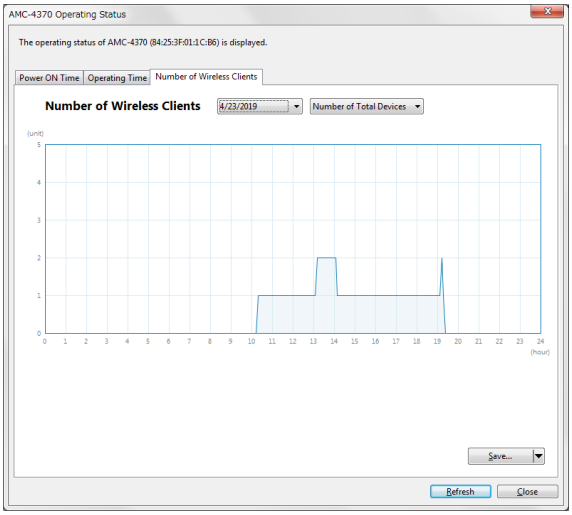
Graph for power-on time



Graph for operating time



Graph for the number of wireless client devices



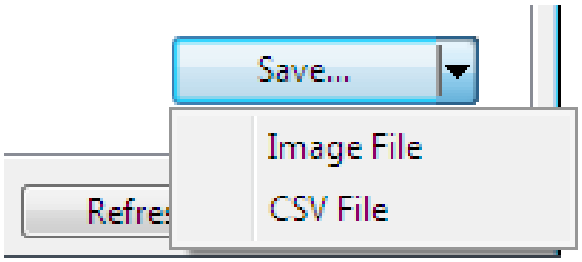
Note

- When the operating status window is displayed by clicking **Check Group Operating Status**:
  - **Power ON Time** tab shows a graph of the total power-on time for grouped devices.
  - **Operating Time** tab shows a graph of the total operating time for grouped devices.
  - **Number of Wireless Clients** tab shows a graph of the maximum number of connected client devices per day for the selected group.

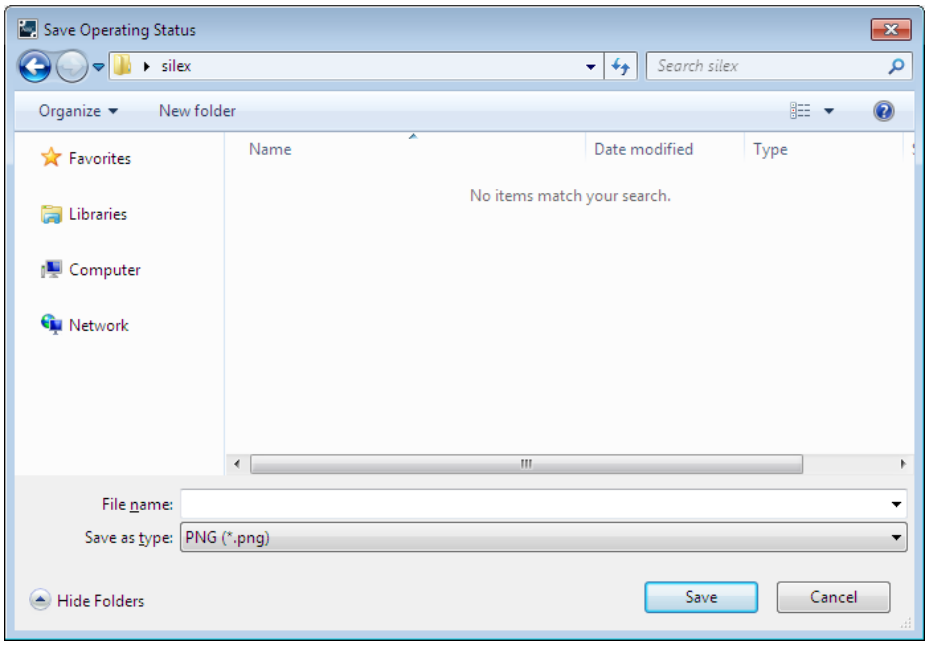
Saving Graph as a File

The following explains how to save a graph to an image file.

1. Click **Save** - **Image File**.

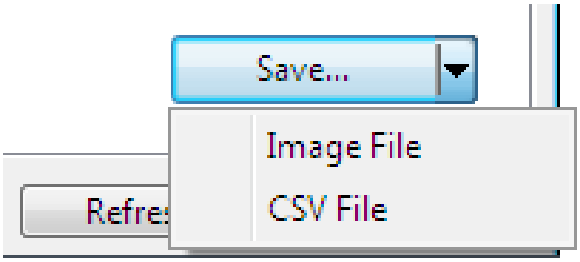


2. Specify the file name, file format (PNG, JPEG, Bitmap) and where to save the file, and click **Save**. The operating status will be saved as you have specified.

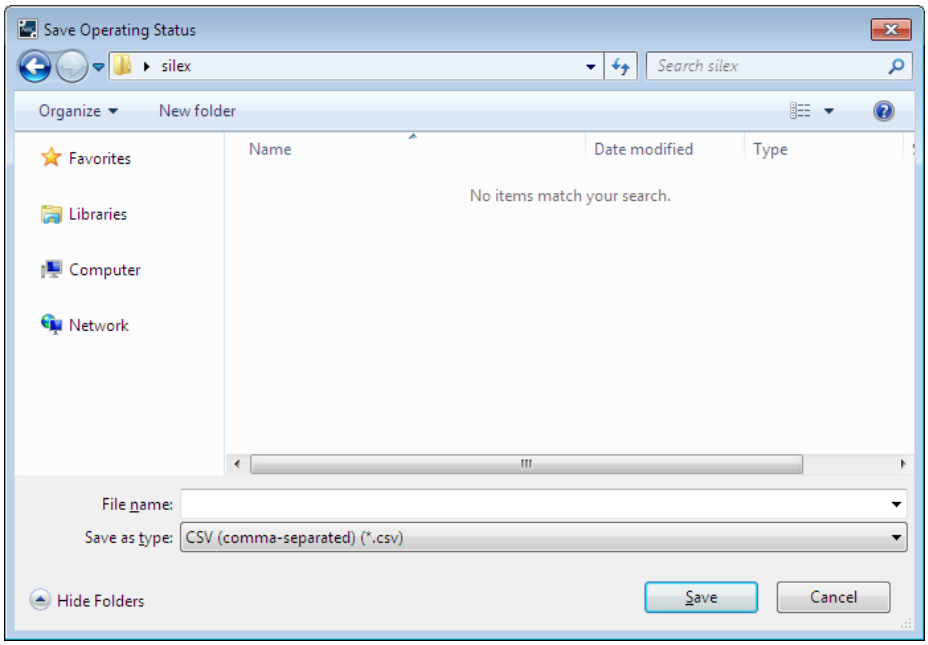


The following explains how to save a graph to a CSV file.

1. Click **Save** - **CSV File**.



2. Specify the file name and where to save the file and click **Save**.
The operating status will be saved to a CSV file.



CSV File Format

The statistics information for the operating status can be saved as a CSV file.
The information is saved in the format below.

Operating Status for Each Device

CSV file for "Power ON Time"

	A	B	C	D
1	#Host Name	Ethernet Address		
2	SX296B87	84:25:3F:01:1C:B6		
3				
4	#Power ON (sec)	Date		
5	0	1/1/2020		
6	0	1/2/2020		
7	0	1/3/2020		
8	0	1/4/2020		
9	0	1/5/2020		
10	31326	1/6/2020		
11	10858	1/7/2020		
12	30573	1/8/2020		

	A	B	C	D
31	10591	1/27/2020		
32	31305	1/28/2020		
33	31588	1/29/2020		
34	28955	1/30/2020		
35	0	1/31/2020		
36				
37	#Accumulated Power ON (sec)			
38	12073272			
39				
40	#School Holidays	Average (sec)		
41	12	26726		

Name	Details
#Host Name	Shows the host name.
Ethernet Address	Shows the Ethernet Address.
#Power ON (sec)	Shows the power-on time in seconds (by using one row for one day).
Date	
#Accumulated Power ON (sec)	Shows the total power-on time. This is the accumulated amount of time since the power-on time is recorded.
#School Holidays	Shows the number of days for **School Holidays** that has been set at **Graph Window for Power-ON Time**.
Average (sec)	Shows the average power-on time per day, which is calculated using the actual number of operating days (number of days of the month minus the number of school holidays of the month).

CSV file for "Operating Time"

	A	B	C	D
1	#Host Name	Ethernet Address		
2	SX296B87	84:25:3F:29:6B:87		
3				
4	#Power ON (sec)	Class Projection (sec)	Net Class Projection (sec)	Date
5	0	0	0	1/1/2020
6	0	0	0	1/2/2020
7	0	0	0	1/3/2020
8	0	0	0	1/4/2020
9	0	0	0	1/5/2020
10	31326	24066	12993	1/6/2020
11	10858	3126	1077	1/7/2020
12	30573	26602	22126	1/8/2020

	A	B	C	D
31	10591	5678	2193	1/27/2020
32	31305	18181	13321	1/28/2020
33	31588	17203	13029	1/29/2020
34	28955	20900	8092	1/30/2020
35	0	0	0	1/31/2020
36				
37	#Accumulated Power ON (sec)	Accumulated Class Projection (sec)	Accumulated Net Class Projection (sec)	
38	12073272	5705047	3691223	
39				
40				
41				

Name	Details
#Host Name	Shows the host name.
Ethernet Address	Shows the Ethernet Address.
#Power ON (sec) Class Projection (sec) Net Class Projection (sec) Date	Shows the time information below using one row for one day. #Power ON (sec) : Device operating time Class Projection (sec) : This is the time of the class that is held using SX Virtual Link Display for Education. Net Class Projection (sec) : Time is the time of display projection that is performed using SX Virtual Link Display for Education.
#Accumulated Power ON (sec)	Shows the total power-on time. This is the accumulated amount of time since the power-on time is recorded.
Accumulated Class Projection (sec)	Shows the total time of **Class Projection**. This is the accumulated amount of time since the class projection time is recorded.
Accumulated Net Class Projection (sec)	Shows the total time of **Net Class Projection**. This is the accumulated amount of time since the net class projection time is recorded.

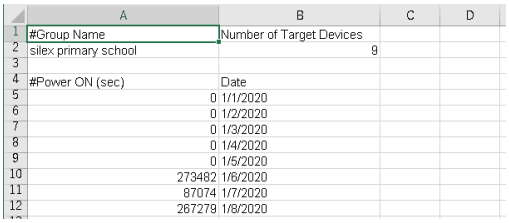
CSV file for "Wireless Clients"

	A	B	C	D
1	#Host Name	Ethernet Address	Wireless LAN I/F	
2	SX296B87	84:25:3F:29:6B:87	Number of Total Devices	
3				
4	#Number of Wireless Clients	Date/Time		
5	1	1/30/2020 09:38:51		
6	1	1/30/2020 09:43:50		
7	1	1/30/2020 09:48:49		
8	1	1/30/2020 09:48:50		
9	1	1/30/2020 09:53:49		
10	1	1/30/2020 09:53:50		
11	1	1/30/2020 09:58:51		

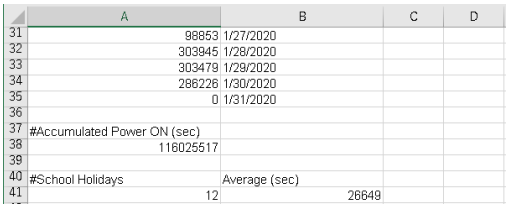
Name	Details
#Host Name	Shows the host name.
Ethernet Address	Shows the Ethernet Address.
Wireless LAN I/F	Shows the information selected for **Type of Graph** at **Graph Window for Number of Wireless Clients**.
#Number of Wireless Clients Date/Time	Shows the number of connected wireless clients by adding one row each time when such information is retrieved from the device.

Operating Status for Grouped Devices

CSV file for "Power ON Time"



	A	B	C	D
1	#Group Name	Number of Target Devices		
2	silex primary school	9		
3				
4	#Power ON (sec)	Date		
5	0	1/1/2020		
6	0	1/2/2020		
7	0	1/3/2020		
8	0	1/4/2020		
9	0	1/5/2020		
10	273482	1/6/2020		
11	87074	1/7/2020		
12	267279	1/8/2020		



	A	B	C	D
31	98853	1/27/2020		
32	303945	1/28/2020		
33	303479	1/29/2020		
34	286226	1/30/2020		
35	0	1/31/2020		
36				
37	#Accumulated Power ON (sec)			
38	116025517			
39				
40	#School Holidays	Average (sec)		
41	12	26649		

Name	Details
#Group Name	Shows the group name.
Number of Target Devices	Shows the number of devices in the group.
#Power ON (sec)	Shows the power-on time in seconds (by using one row for one day). This is the total amount of the grouped devices.
Date	
#Accumulated Power ON (sec)	Shows the total power-on time of the grouped devices. This is the accumulated amount of time since the power-on time is recorded.
#School Holidays	Shows the number of days for **School Holidays** that has been set at **Graph Window for Power-ON Time**.
Average (sec)	Shows the average power-on time for one device per day, which is calculated using the actual number of operating days (number of days of the month minus the number of school holidays of the month).

CSV file for "Operating Time"

	A	B	C	D
1	#Group Name	Number of Target Devices		
2	silex primary school	9		
3				
4	#Power ON (sec)	Class Projection (sec)	Net Class Projection (sec)	Date
5	0	0	0	1/1/2020
6	0	0	0	1/2/2020
7	0	0	0	1/3/2020
8	0	0	0	1/4/2020
9	0	0	0	1/5/2020
10	273482	24066	12983	1/6/2020
11	87074	3126	1077	1/7/2020
12	267279	26802	22126	1/8/2020

	A	B	C	D
31	98853	5678	2193	1/27/2020
32	303945	18181	13321	1/28/2020
33	303479	17203	13029	1/29/2020
34	286226	20900	8092	1/30/2020
35	0	0	0	1/31/2020
36				
37	#Accumulated Power ON (sec)	Accumulated Class Projection (sec)	Accumulated Net Class Projection (sec)	
38	116025517	5705047	3691223	
39				
40				
41				

Name	Details
#Group Name	Shows the group name.
Number of Target Devices	Shows the number of devices in the group.
#Power ON (sec) Class Projection (sec) Net Class Projection (sec) Date	Shows the time information below using one row for one day. #Power ON (sec) : Device operating time (total amount of time as a group) Class Projection (sec) : This is the time of the class that is held using SX Virtual Link Display for Education (total amount of time as a group). Net Class Projection (sec) : Time is the time of display projection that is performed using SX Virtual Link Display for Education (total amount of time as a group).
#Accumulated Power ON (sec)	Shows the total power-on time of the grouped devices. This is the accumulated amount of time since the power-on time is recorded.
Accumulated Class Projection (sec)	Shows the total time of **Class Projection** for the grouped devices. This is the accumulated amount of time since the class projection time is recorded.
Accumulated Net Class Projection (sec)	Shows the total time of **Net Class Projection** for the grouped devices. This is the accumulated amount of time since the net class projection time is recorded.

CSV file for "Wireless Clients"

	A	B	C	D
1	#Group Name	Number of Target Devices	Wireless LAN I/F	
2	silex primary school	9	Number of Total Devices	
3				
4	#Number of Wireless Clients	Date		
5	0	1/1/2020		
6	0	1/2/2020		
7	0	1/3/2020		
8	0	1/4/2020		
9	0	1/5/2020		
10	36	1/6/2020		
11	24	1/7/2020		
12	26	1/8/2020		

Name	Details
#Group Name	Shows the group name.
Number of Target Devices	Shows the number of devices in the group.
Wireless LAN I/F	Shows the information selected for **Type of Graph** at **Graph Window for Number of Wireless Clients**.
#Number of Wireless Clients Date	Shows the maximum number of wireless clients connected to the grouped devices per day. One row is used for one day.

4-16. Radio Signal Strength Control

Silex Technology's wireless products always output radio signals at a constant level.
By using the radio signal strength control feature, the device can output the radio signals at the specified time and strength, and decrease it when the specified time is over.

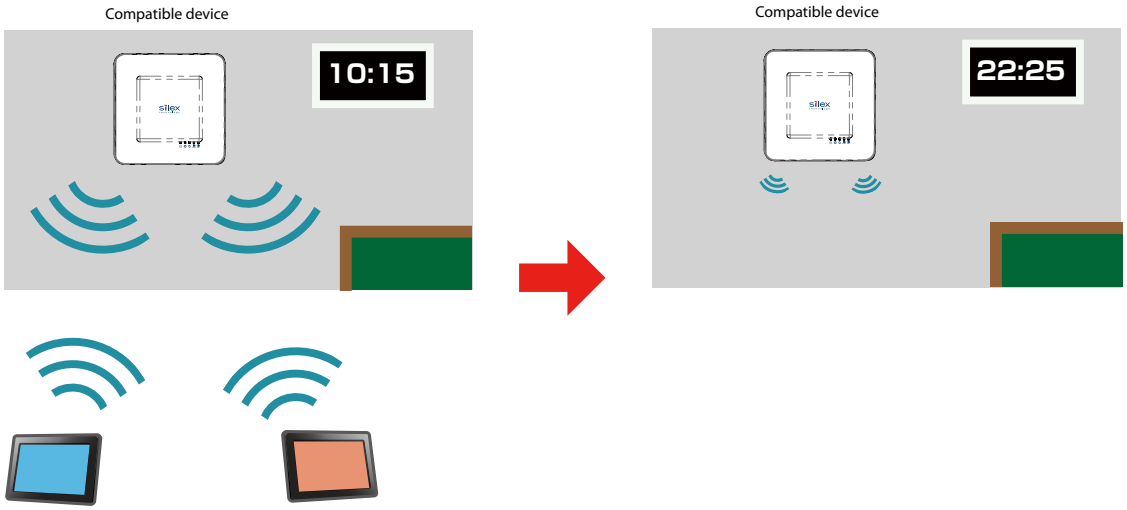
TIP

- To use the radio signal strength control, the device needs to get the time information from the NTP server.
- To use the radio signal strength control, the device needs to support it.
- Only AMC Manager® E model supports the radio signal strength control.

Radio Signal Strength Control

If this feature is used, the device operates with the specified signal strength only for the specified time period. When the specified time period is over, a lower signal strength will be used.

Example) When the time is set to 9:00-18:00



Note

- By specifying the date and start/end time for **TX Power Control Schedule Exception**, the signal strength level can be increased for that period.
- When the specified period of time is over, the transmission power is fixed to 5%.

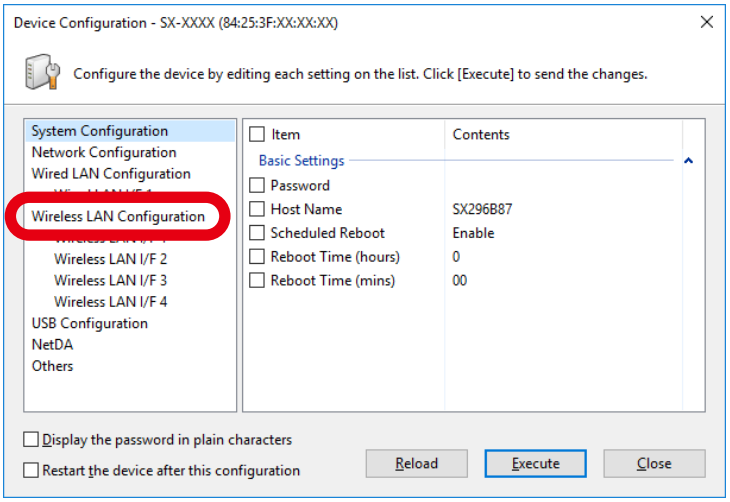
Radio Signal Strength Control Setting

1. The radio signal strength control can be configured at the device configuration window. To open the device configuration window, refer to **4-5. Individual Device Configuration - Configuring Device** and follow the instructions at step 1-3.

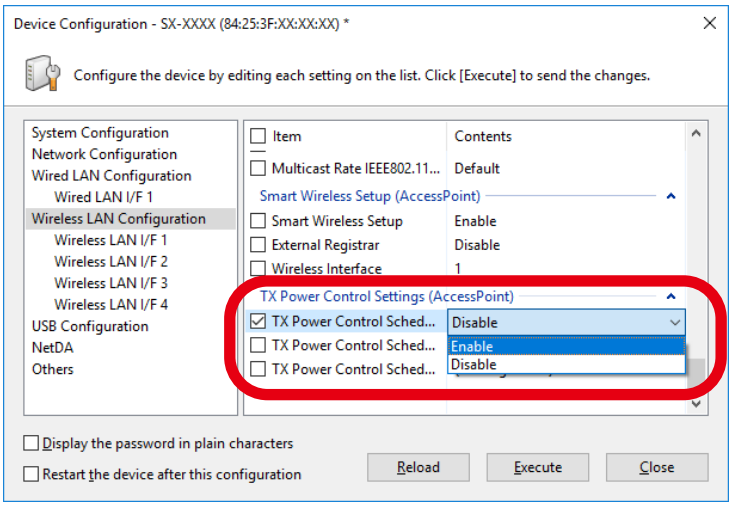
Note

- The following explains the configuration method for each device. If you want to use the configuration file, edit the corresponding setting on the file.

2. Select **Wireless LAN Configuration** or **Wireless LAN Common Configuration** from the menu.

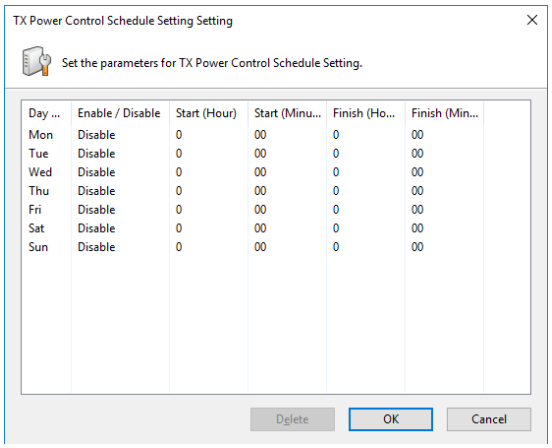


3. Check the check box at **TX Power Control Schedule Function** and select **Enable** from the menu.

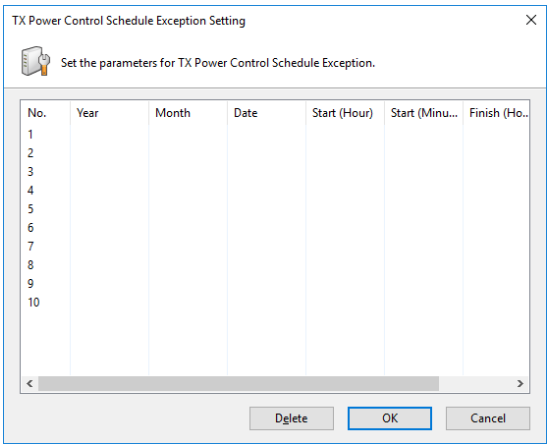


4. Check the check box at **TX Power Control Schedule Setting** and **TX Power Control Schedule Exception**. Clicking these items will open the dialog at which you can configure the TX power control schedule. Configure the appropriate setting.

TX Power Control Schedule Setting



TX Power Control Schedule Exception Setting

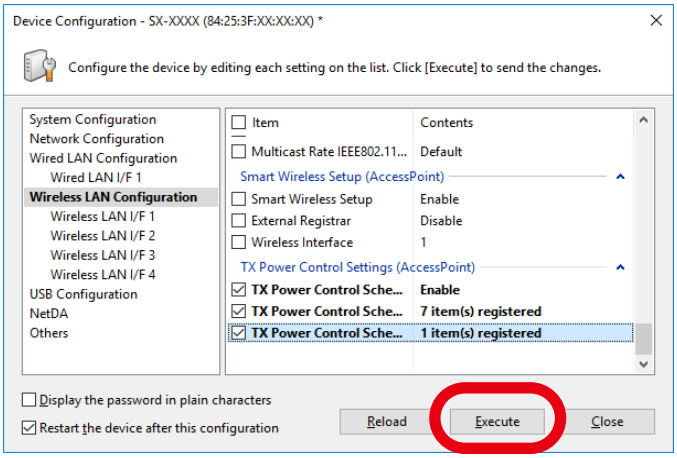


Note

- In the **TX Power Control Schedule Setting** window, it is possible to specify the time to strengthen the TX power for each day of the week. Enable/Disable the TX power control and specify the start/end time for each day of the week.
- In the **TX Power Control Schedule Exception Setting** window, specify the date and start/end time.

5. When the edit is finished, click **Execute**.

To automatically restart the device after the configuration is done, check the check box at **Restart the device after this configuration** and then click **Execute**.



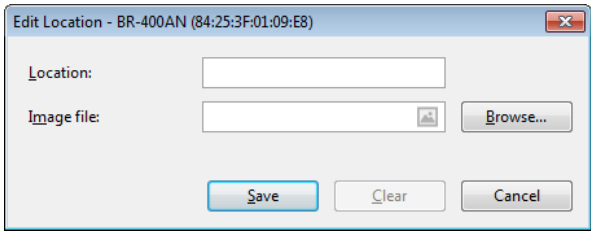
4-17. Registering Device Location

For devices displayed on the **Device List**, it is possible to register the locational information (text information) and the image. Once registered, it can be referred from AMC Manager® Standard or from the smartphone or tablet at which AMC Manager Plus is installed.

TIP

- Only AMC Manager® Standard supports registration of the locational information.
- AMC Manager® Free and AMC Manager® E model do not support this feature.

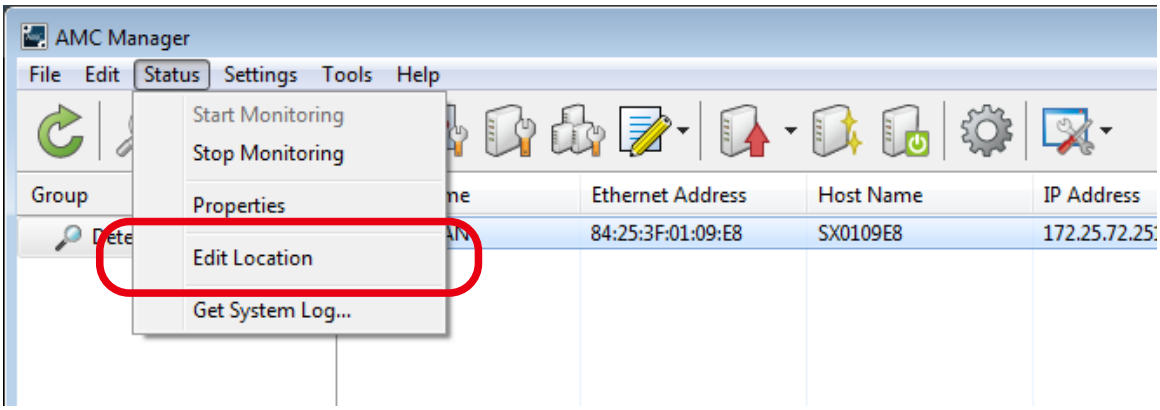
Location Edit Window



Name	Details
Location	Enter the text information for the device location. This information will be displayed at **Device List** and AMC Manager Plus.
Image file	Register the image that shows the device location. This information will be displayed at the device properties window and AMC Manager Plus.
icon	This icon can be clicked when the image is registered. Once clicked, the registered image is displayed.
[Save] button	The setting is saved and the edit window is closed.
[Clear] button	The saved information is deleted. For AMC Manager Plus, the locational information will be reset to the default one.
[Cancel] button	The edit window is closed without saving the entered setting.

Registering Locational Information

1. From the menu bar, click **Status** - **Edit Location.**

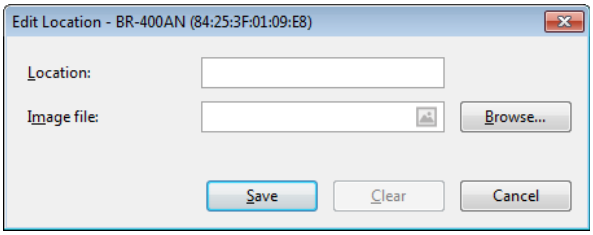


Note

The **Edit Location** window can also be displayed by the method below.

- Right-click on the device in the device list and select **Edit Location** from the displayed menu.

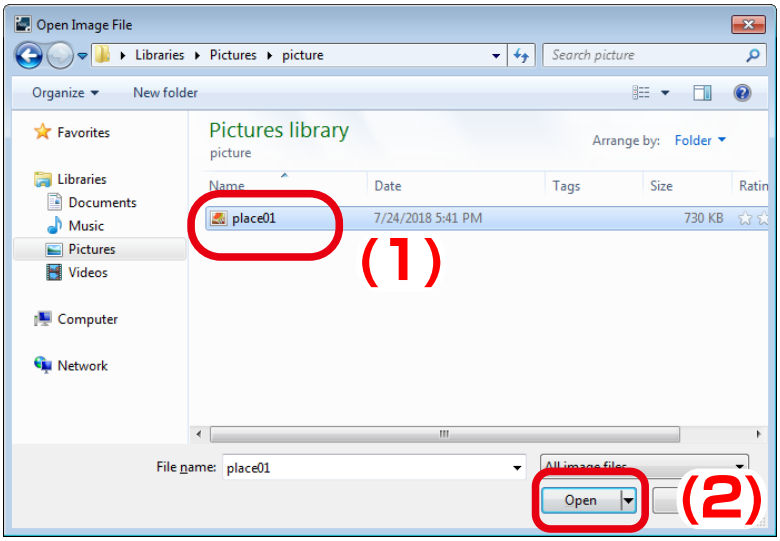
2. In the **Edit Location** window, enter the text information to **Location**.
Click **Browse** to register the image of location.



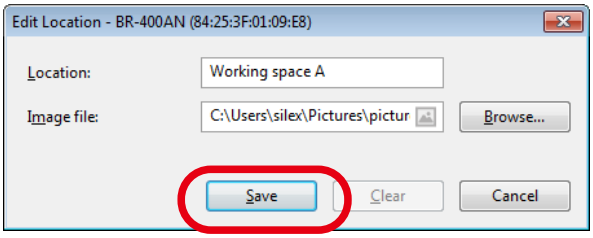
Note

- It is possible to register either a text or image for the location.

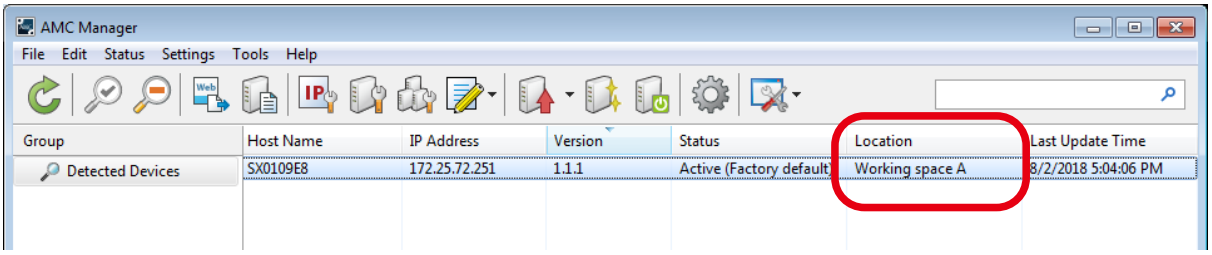
3. In the **Open Image File** window, select the image to use and click **Open**.



4. After the locational information is entered, Click **Save**.



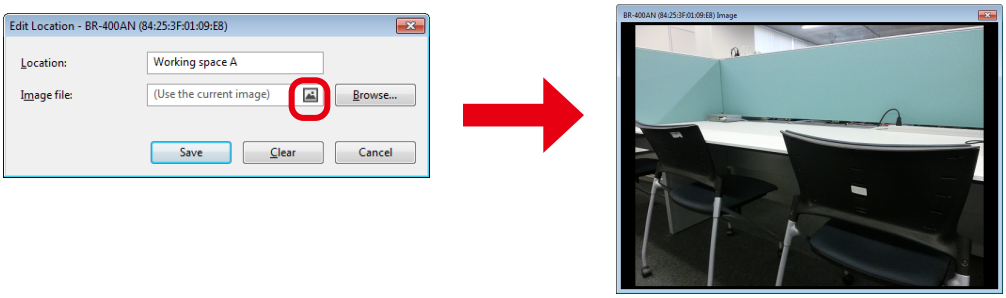
5. The locational information has been registered. The registered text is displayed at **Location** in the **Device List**.



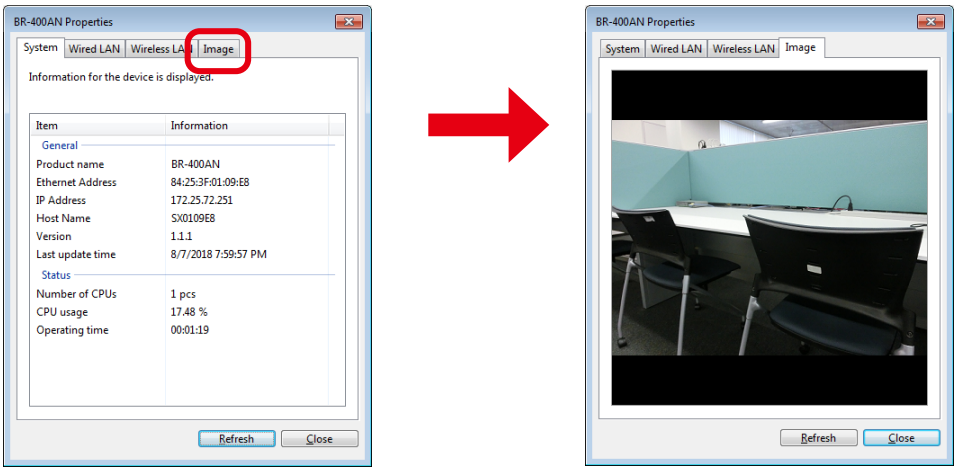
Note

- After the locational image is registered, it can be seen by the procedures below.

  - Click the icon from the **Edit Location** window.



  - Click the **Image** tab from the device properties window.



4-18. Importing Configuration Information

For some devices, configuration can be changed using an import file.
The following describes how to export configuration information from a device over the network and how to import an import file and certificate files to the device.

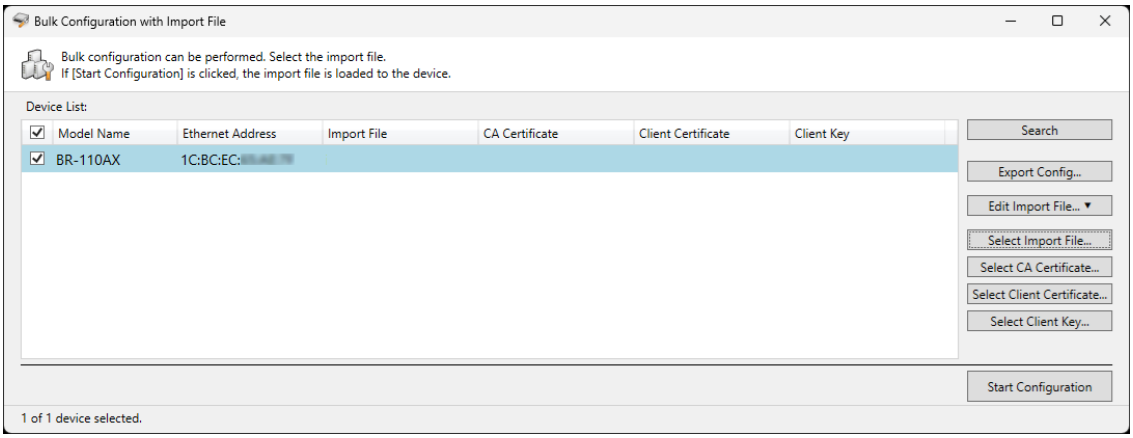
The following device supports an import file.

- BR-110AX

TIP

- Please note that there are devices whose settings can only be changed using an import file.
- Up to 10 devices can be configured simultaneously using AMC Manager® Free.

Import File Bulk Configuration Window



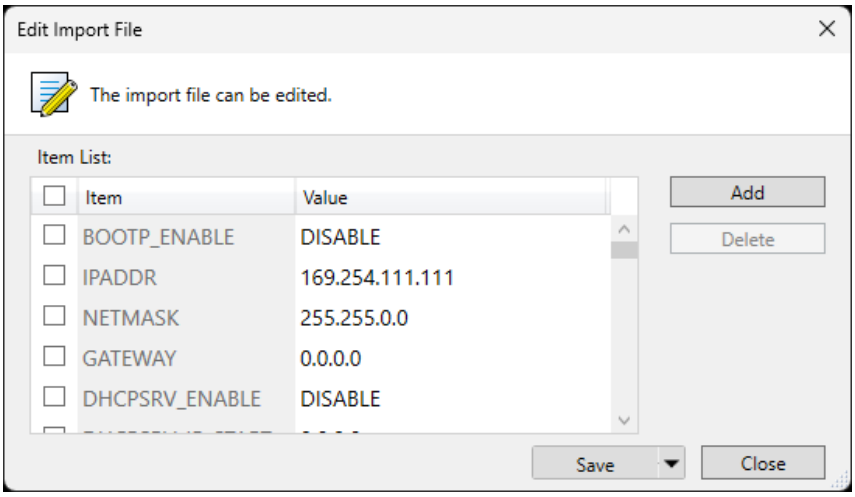
Name	Details
Device List	Displays the model name, Ethernet address, import file name, CA certificate file name, client certificate file name, and client key file name of devices to configure in bulk. Devices whose check boxes are checked will become the targets for bulk configuration.
[Search] button	Searches the network for target devices and displays the results in the device list. When clicked, the current device list is cleared before the search results are displayed. This button is unavailable while a search is in progress.
[Export Config] button	Obtains configuration information from the device selected in the device list and saves (exports) it to a file. When clicked, a window for selecting the destination folder is displayed, and then a communication window is displayed. This button can be clicked when one or more devices are selected.

Name	Details
[Edit Import File] button (drop-down) - Create from Selected Device - Edit Existing File	Opens the import file editor window. From the drop-down list, select whether to create a new file from the device configuration information (**Create from Selected Device**) or open an existing file (**Edit Existing File**). Please note that **Create from Selected Device** can be clicked when only one device is checked.
[Select Import File] button	Specifies the import file to be sent to all selected devices. When clicked, a file selection window is displayed. The name of the selected file is displayed under the **Import File** column of the device list. This button can be clicked when one or more devices are selected.
[Select CA Certificate] button	Specifies the CA certificate file to send. When clicked, a file selection window (*.pem) is displayed. This button can be clicked when one or more devices are checked.
[Select Client Certificate] button	Specifies the client certificate file to send. When clicked, a file selection window (*.pem) is displayed. This button can be clicked when one or more devices are checked.
[Select Client Key] button	Specifies the client key file to send. When clicked, a file selection window (*.pem) is displayed. This button can be clicked when one or more devices are checked.
[Start Configuration] button	Starts sending the import file to the selected devices. This button can be clicked when one or more devices are checked. When the sending process is completed, the device list will automatically be refreshed.

TIP

- If the CA certificate, client certificate, or client key file contains invalid information when they are selected, an error message is displayed.

Import File Editor Window



Name	Details
Item List	Displays configuration items and values.
[Add] button	Adds a configuration item.
[Delete] button	Deletes the configuration items whose check boxes are ON.
[Save] button	Saves the configuration items and values to the import file. To change the file name, click [▼] next to **Save** and then click **Save As**.
[Close] button	Closes the import file editor window.

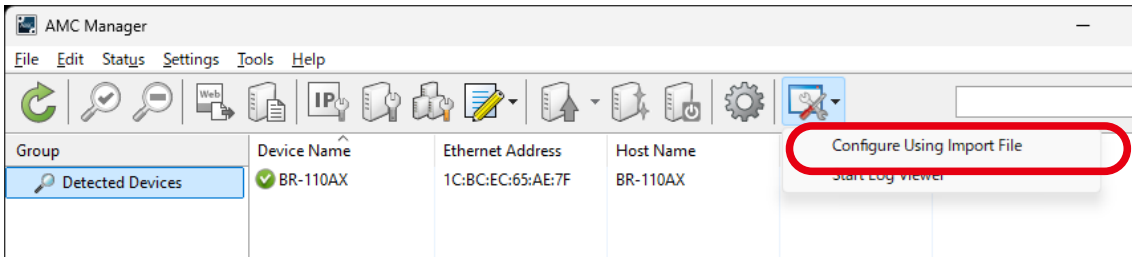
Preparing an Import File

The following describes how to prepare an import file.
There are two methods; one is editing configuration information exported from a device using a text editor, and the other is editing it in the import file editor window.

Exporting and Saving Configuration Information

By clicking **Export Config**, the configuration information can be obtained from a device and saved into a file.

1. Click the **Start the plug-in tools** icon and select **Configure Using Import File** from the displayed menu.

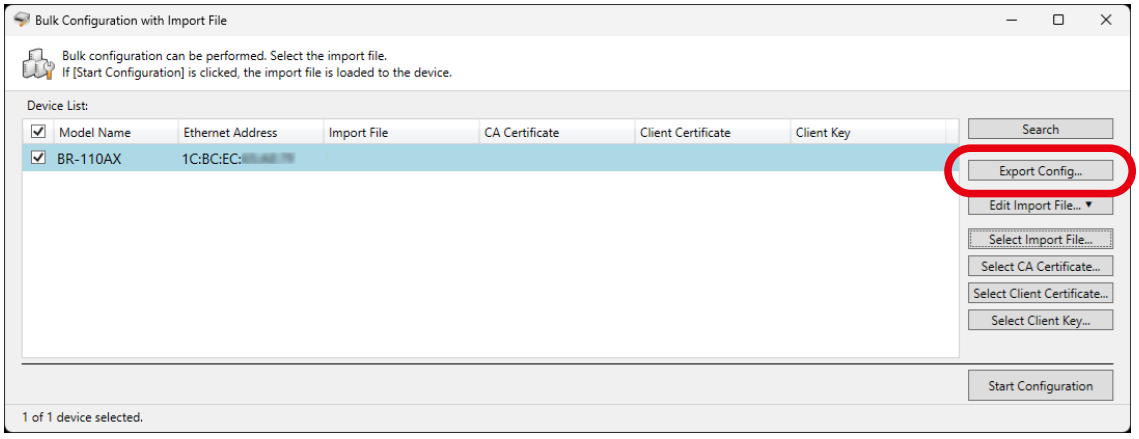


Note

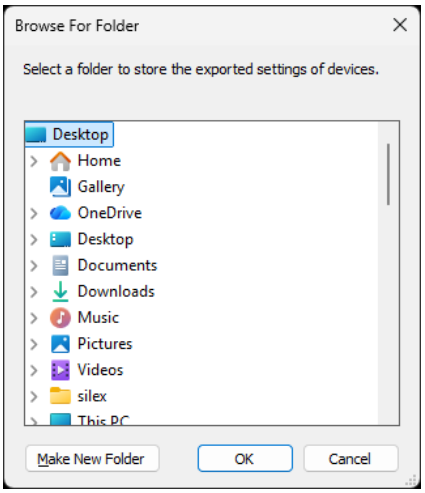
The same window can also be started by a method below:

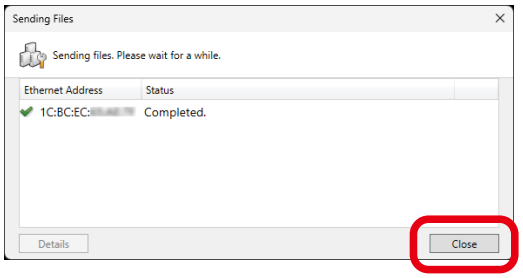
- Click **Tools** - **Configure Using Import File** from the menu bar.

2. Select the device to configure in the device list and click **Export Config**.



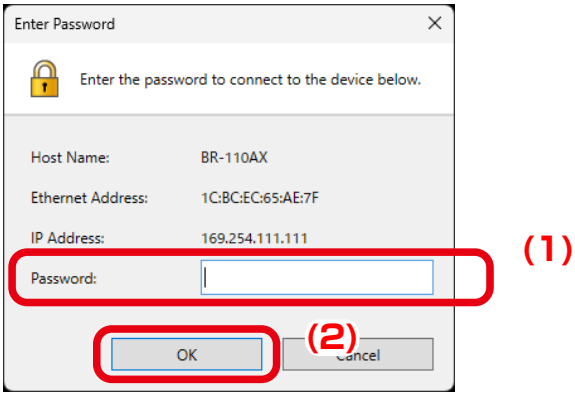
3. Select the destination folder to export the import file.
When the export is complete, click **Close**.



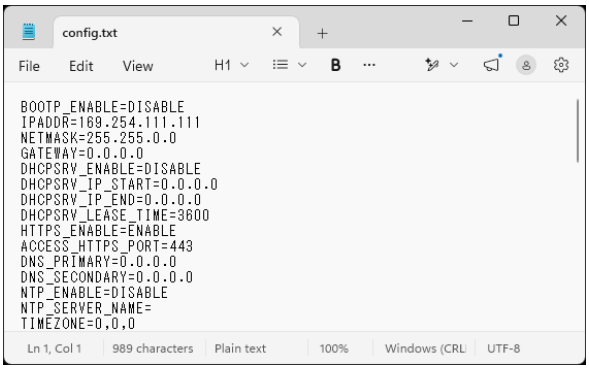


Note

- The last-used destination folder is displayed.
- The exported configuration information is saved to:
  <selected folder>\<device's Ethernet address (without colons)>\Config.txt
- When a password is set to the device, the screen below is displayed.
  Enter the password of the device and click **OK**.



4. Edit the exported import file using a text editor, and then save it.



Note

- For details on each configuration item and value, refer to the User's Manual of the device.

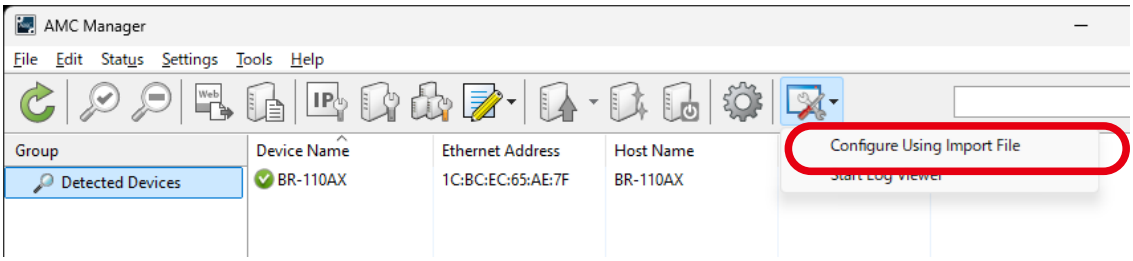
The preparation of the import file is now complete.

Proceed to **Configuration Using an Import File**.

Editing Configuration Information in the Import File Editor Window

This section describes how to see and edit the contents of an import file in the import file editor window. There are two methods for obtaining the file to use as the basis for editing: one is to create a new file from a device, and the other is to open an existing import file.
In the following procedures, how to create a new file from a device is explained.

1. Click the **Start the plug-in tools** icon and select **Configure Using Import File** from the displayed menu.

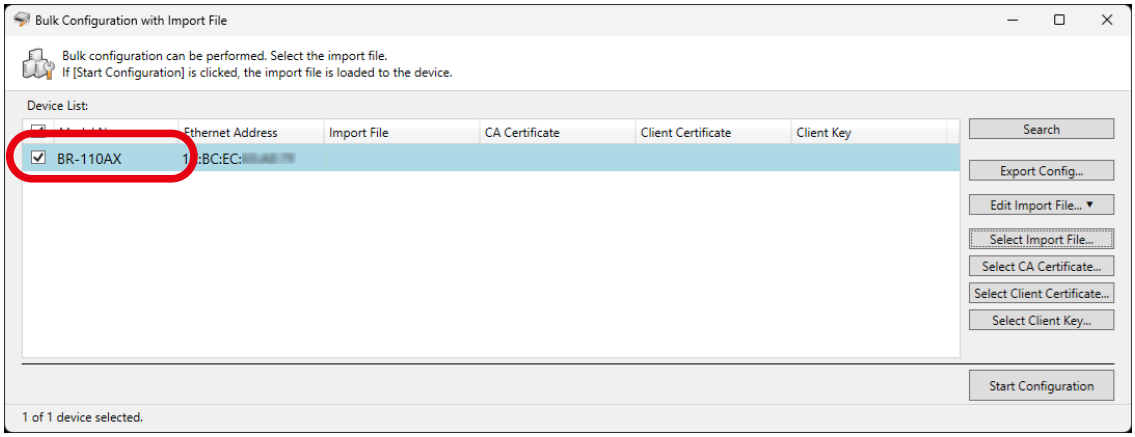


Note

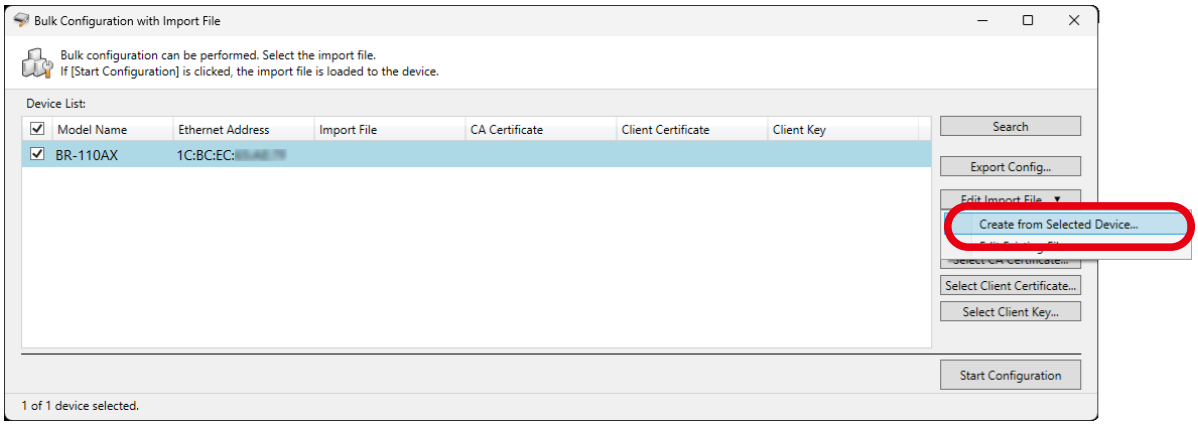
The same window can also be started by a method below:

- Click **Tools** - **Configure Using Import File** from the menu bar.

2. In the device list, select only one device from which an import file is to be created.

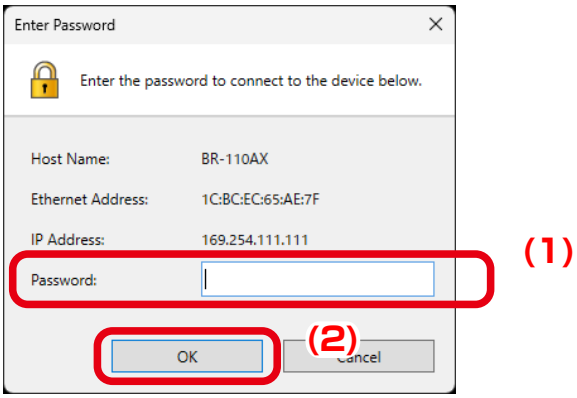


3. Click **Edit Import File - Create from Selected Device**.

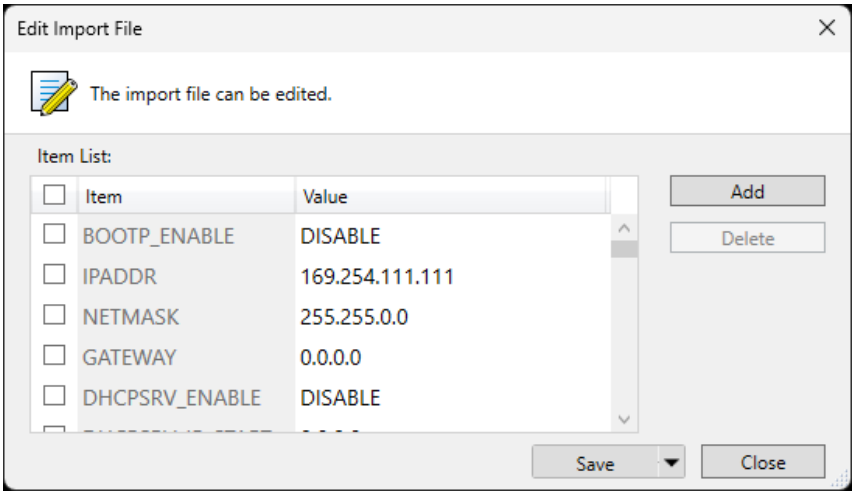


Note

- When a password is set to the device, the screen below is displayed.
  Enter the password of the device and click **OK**.



4. The import file editor window is displayed.
Edit the values of the configuration items to change.

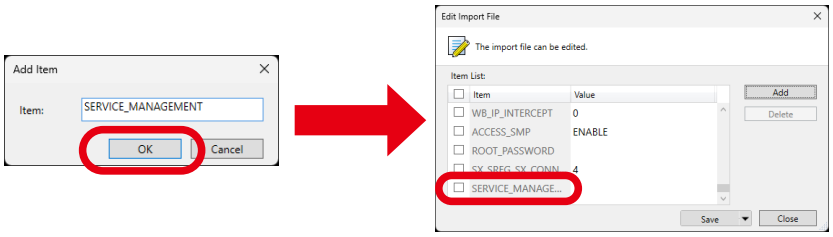


TIP

- Up to 32 characters can be entered for an item name, and up to 256 characters can be entered for a value.

Note

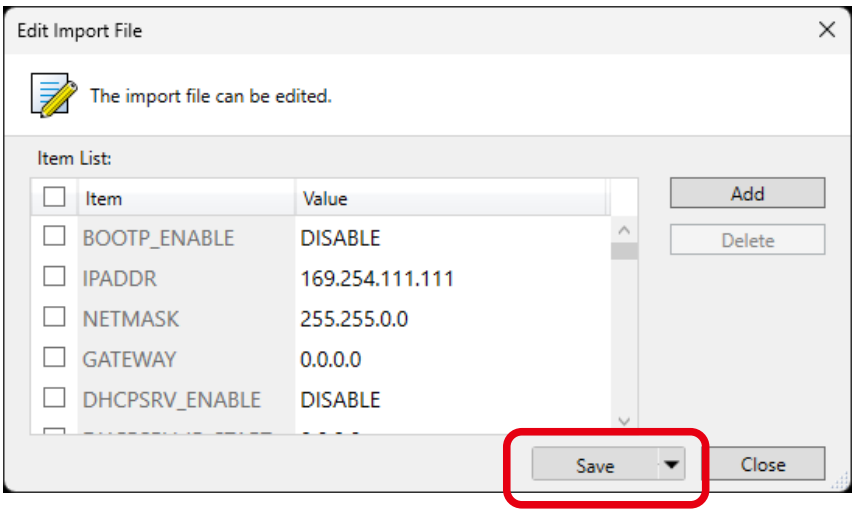
- Clicking **Add** displays the screen below. Enter the name of the item that you want to add to the import file and click **OK**. The item is added to the end of the **Item List**.



- The displayed items will vary depending on the selected model. For the supported configuration items and values, refer to the User's Manual of the device.
- To delete a configuration item, select the corresponding check box and click **Delete**. The configuration item is removed from the **Item List**.

5. After making the changes, click **Save**.

When **Save As** is selected, the dialog for saving the import file is displayed. Specify a file name and click **Save**.



Note

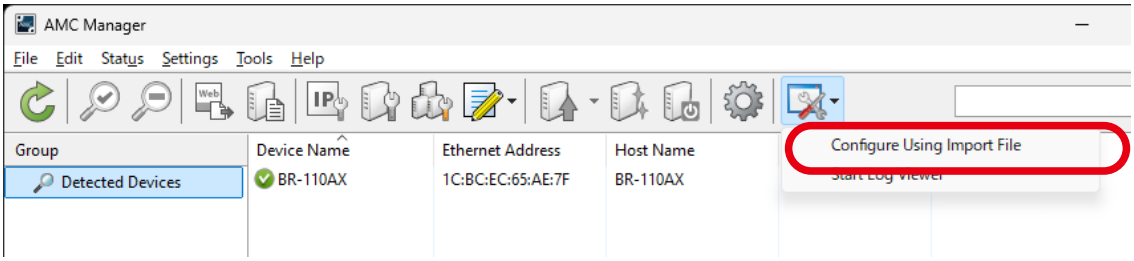
- To change the file name, click [▼] next to **Save** and then click **Save As**.

The preparation of the import file is now complete.

Proceed to **Configuration Using an Import File**.

Configuration Using an Import File

1. Click the **Start the plug-in tools** icon and select **Configure Using Import File** from the displayed menu.

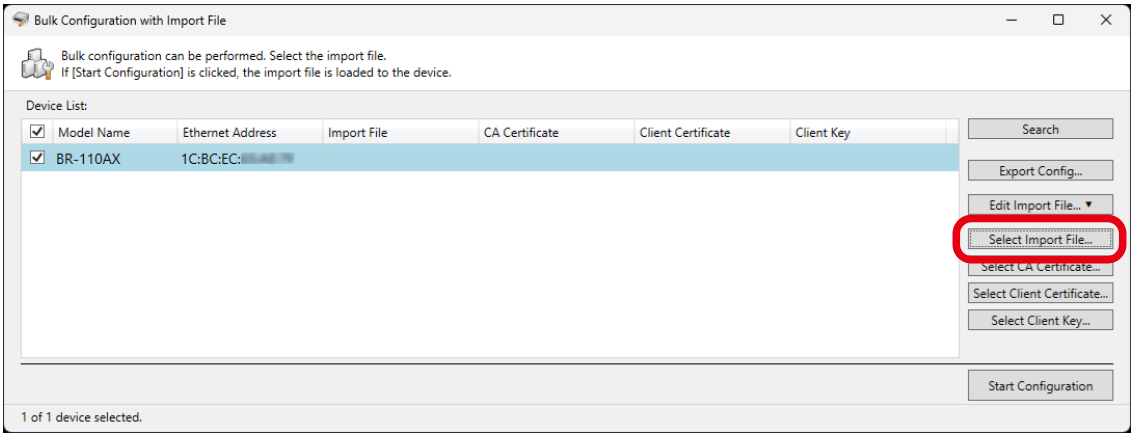


Note

The same window can also be started by a method below:

- Click **Tools** - **Configure Using Import File** from the menu bar.

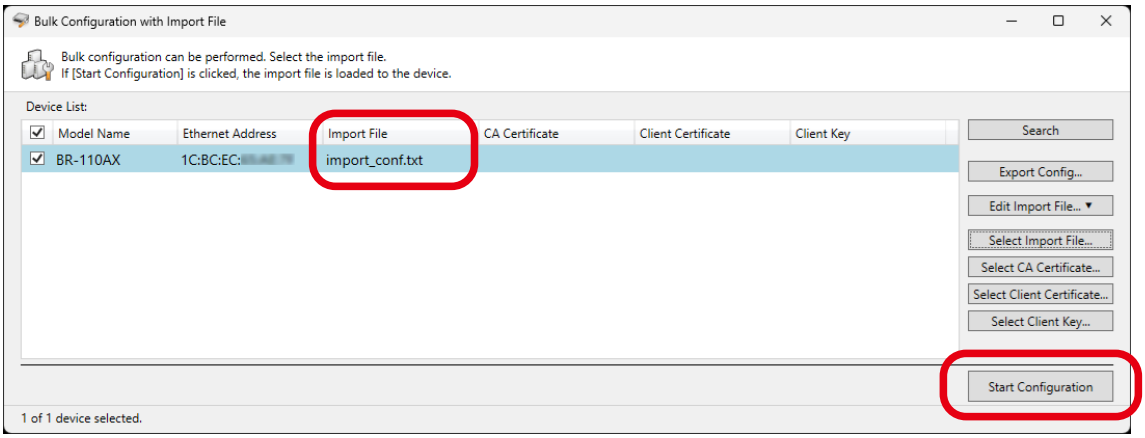
2. Select the device to import the configuration to.
Click **Select Import File**, and then select the import file that you have edited at **Preparing an Import File**.



TIP

- When using an EAP authentication method, certificate files can also be uploaded at the same time. Click **Select CA Certificate**, **Select Client Certificate**, and **Select Client Key**, and then select the files to upload.

3. Confirm that the name of the selected configuration file is displayed under **Import File**, and then click **Start Configuration**.

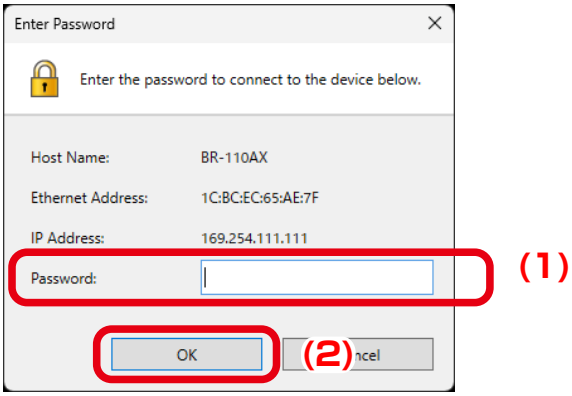


TIP

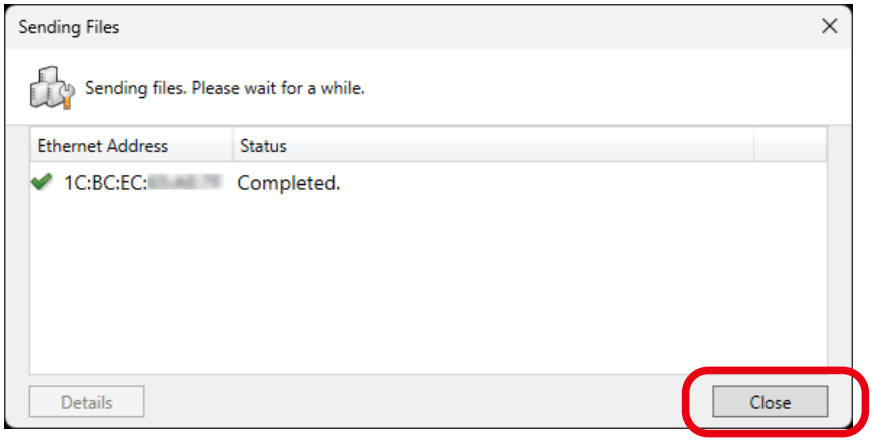
- If no file is selected, or if both the client certificate and client key are not selected, a warning is displayed and the files are not sent.
- After the configuration is sent, a device search is performed again on the **Bulk Configuration with Import File** window. Then, the following devices may not be displayed in the device list.
  - Devices that are still in the process of restarting
  - Devices for which network settings, such as the IP address, have been changed

Note

- When a password is set to the device, the screen below is displayed.
  Enter the password of the device and click **OK**.

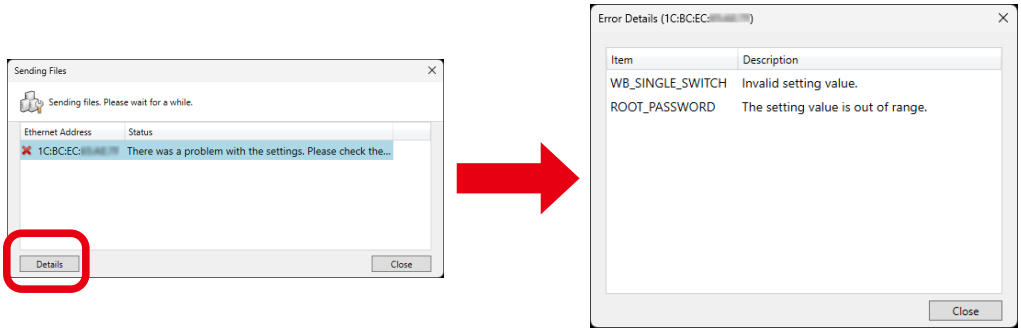


4. The execution results are displayed. The device automatically restarts and operates with the new settings.
Click **Close**.



TIP

- If there are any items in the import file that cannot be set to the device, select the device and click **Details** to view detailed error information.

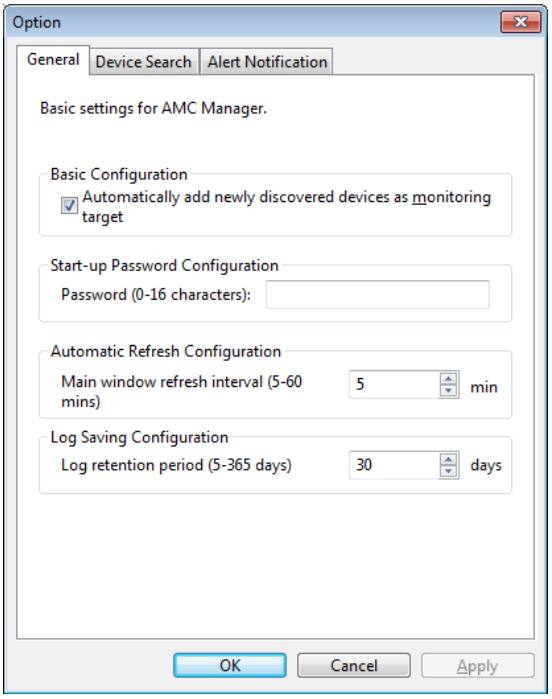


4-19. AMC Manager's Optional Settings

The following explains how to configure the operational settings as well as device search settings for the AMC Manager.
The operational settings can be configured at the **Option** window.

Option Window

General Tab

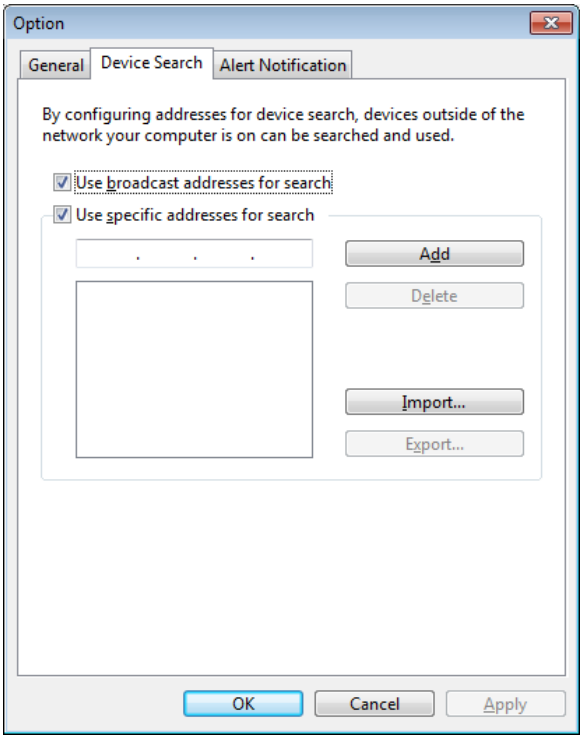


Name	Details	Default Value
Automatically add newly discovered devices as monitoring target	Adds the new devices as monitoring target when the AMC Manager detected it. Once the device is added as the monitoring target, the status of that device is refreshed regularly.	ON
Password	Sets the AMC Manager's start-up password. The password must be 0-16 characters.	None
Main window refresh interval	Sets the interval to refresh the operating status for the devices to monitor (1-60 min).	5 min
Log retention period	Sets the number of days to save event logs. The value must be 5 - 365.	30 days
[OK] button	Saves the settings and closes the window.	-
[Cancel] button	Cancels the settings and closes the window.	-
[Apply] button	Saves the settings.	-

Note

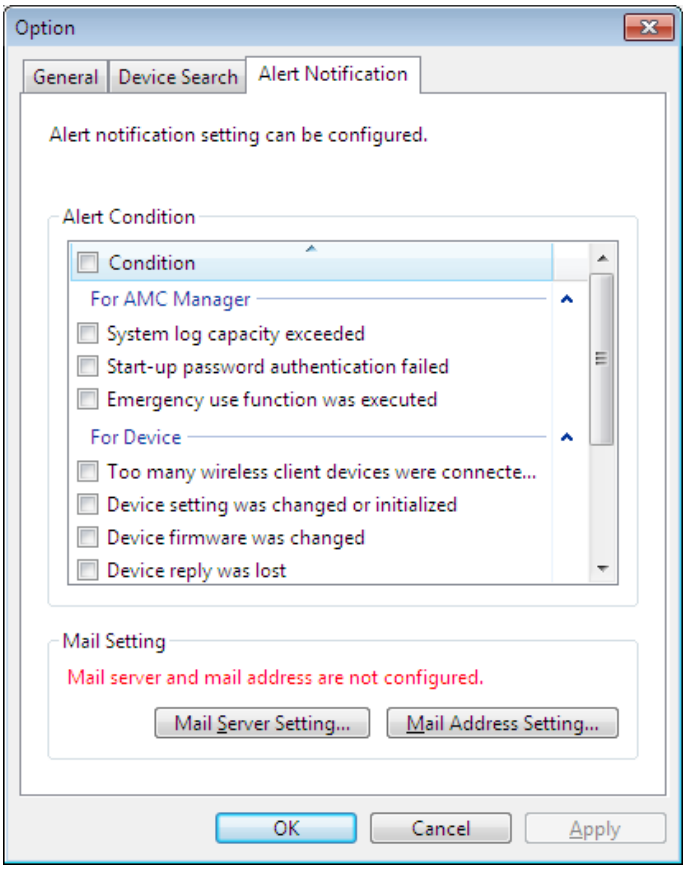
- Event logs are saved for a period specified at **Log retention period** and can be accessed using Log Viewer.

Device Search Tab



Name	Details	Default Value
Use broadcast addresses for search	Check the check box when you use the broadcast address for searching the devices.	ON
Use specific addresses for search	Check the check box when you use the specific address for searching the devices.	ON
(Address field)	Enter the address to register.	None
[Add] button	Adds the address entered to the address field. Up to 1024 addresses can be registered to the address list.	-
[Delete] button	Deletes the address from the address list.	-
[Import] button	Reads IP address from external file and adds it to address for device search.	-
[Export] button	Outputs the registered IP address as external file.	-
[OK] button	Saves the settings and closes the option setting window.	-
[Cancel] button	Cancels the settings and closes the window.	-
[Apply] button	Saves the settings.	-

Alert Notification Tab

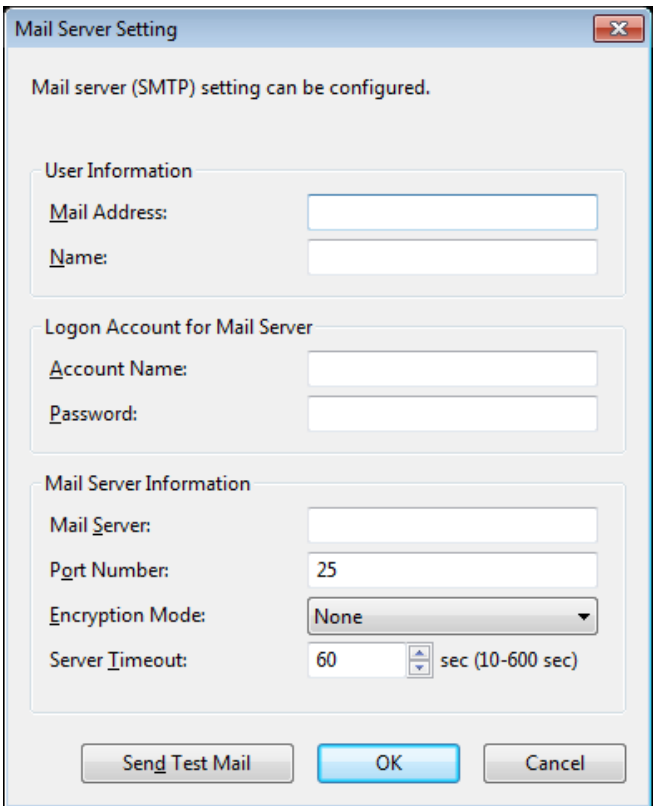


Name	Details	Default Value
System log capacity exceeded	Alerts when syslog data size exceeded its capacity and the past logs were deleted.	OFF
Start-up password authentication failed	Alerts when AMC Manager® E model start-up password authentication failed for 3 times.	OFF
Emergency use function was executed	Alerts when Emergency use function was executed.	OFF
Too many wireless client devices were connected to the device	Alerts when 41 or more wireless client devices were connected to the device.	OFF
Device setting was changed or initialized	Alerts when the device setting was changed or initialized by a method other than your AMC Manager® E model.	OFF
Device firmware was changed	Alerts when the device firmware was changed by a method other than your AMC Manager® E model.	OFF
Device reply was lost	Alerts when the device reply was lost.	OFF
Wireless client device failed to connect to the device	Alerts when the wireless client device failed to connect to the device.	OFF
Error occurred on wireless module of the device	Alerts when an error occurred on wireless module of the device.	OFF
Device failed in Smart Wireless Setup	Alerts when Smart Wireless Setup failed.	OFF
DFS function started on the device	Alerts when DFS function ran on the device.	OFF
[Mail Server Setting] button	Opens the mail server setting window.	-
[Mail Address Setting] button	Opens the mail address setting window.	-
[OK] button	Saves the setting and closes the **Option** window.	-
[Cancel] button	Closes the **Option** window.	-
[Apply] button	Saves the setting.	-

TIP

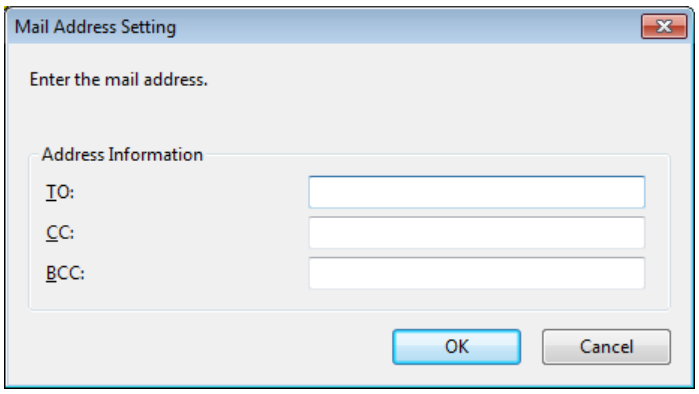
- Alert notification tab is displayed at AMC Manager® E model only.

Mail Server Setting Window



Name	Details	Default
Mail Address	Enter the sender's address. Up to 63 characters can be used.	None
Name	Enter the sender's name. Up to 31 characters can be used.	None
Account Name	Enter the account name to logon to mail server. Up to 63 characters can be used.	None
Password	Enter the password to logon to mail server. Up to 63 characters can be used.	None
Mail Server	Enter the IP address or host name of mail server (SMTP). Up to 127 characters can be used.	None
Port Number	Enter the port number of mail server (SMTP). The value must be 1-65535.	25
Encryption Mode	Sets the type of encryption to connect to mail server. **None** or **TLS** can be selected.	None
Server Timeout	Sets the timeout period to cut off connection from mail server (SMTP). The value must be 10-600 sec.	60sec
[Send Test Mail] button	Sends a test mail with the entered settings.	-
[OK] button	Saves the settings and closes the **Option** window.	-
[Cancel] button	Closes the **Option** window.	-

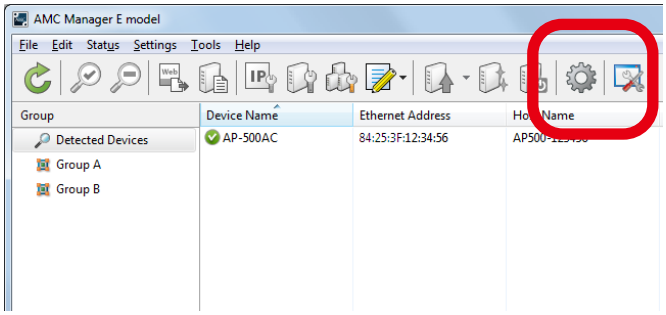
Mail Address Setting Window



Name	Details	Default
TO	Enter the receiver's address (TO). Multiple addresses can be specified by separating them with semicolon (;). Up to 1023 characters can be entered.	None
CC	Enter the receiver's address (CC). Multiple addresses can be specified by separating them with semicolon (;). Up to 1023 characters can be entered.	None
BCC	Enter the receiver's address (BCC). Multiple addresses can be specified by separating them with semicolon (;). Up to 1023 characters can be entered.	None
[OK] button	Saves the settings and closes the **Option** window.	-
[Cancel] button	Closes the **Option** window.	-

Changing AMC Manager Settings

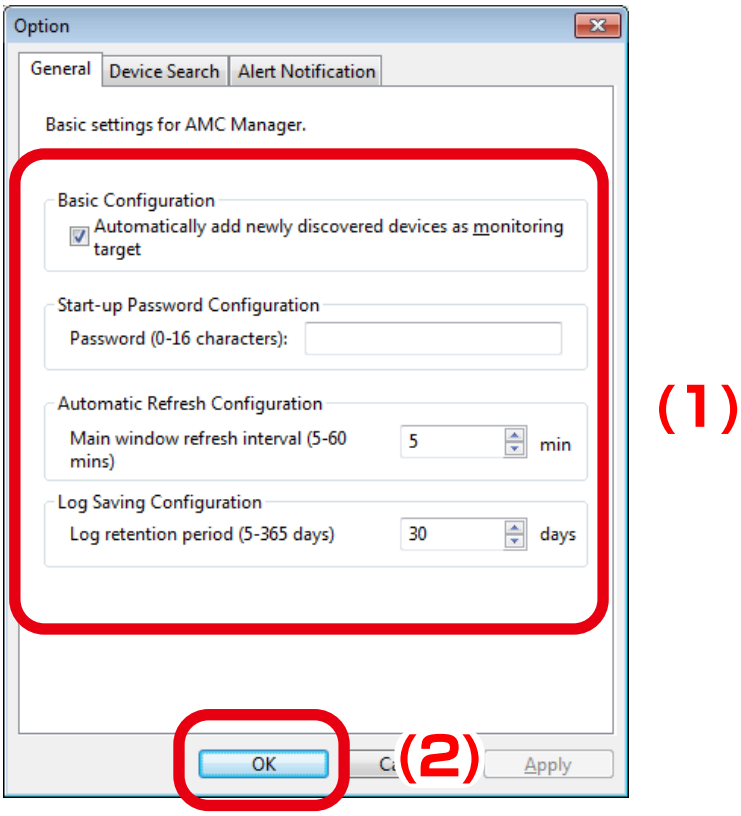
1. Select the **Option** icon from the toolbar.



Note

- The **Option** window can also be displayed by clicking **Tools** - **Option** from the menu bar.

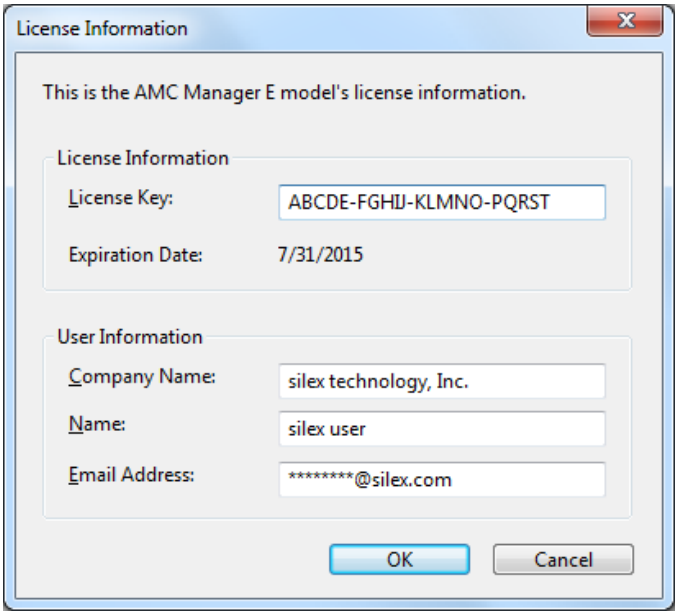
2. In the **Option** window, configure the settings and click **OK**.



4-20. License Information

The following explains how to update the license information for the AMC Manager.
The license information can be displayed and changed in the **License Information** window.

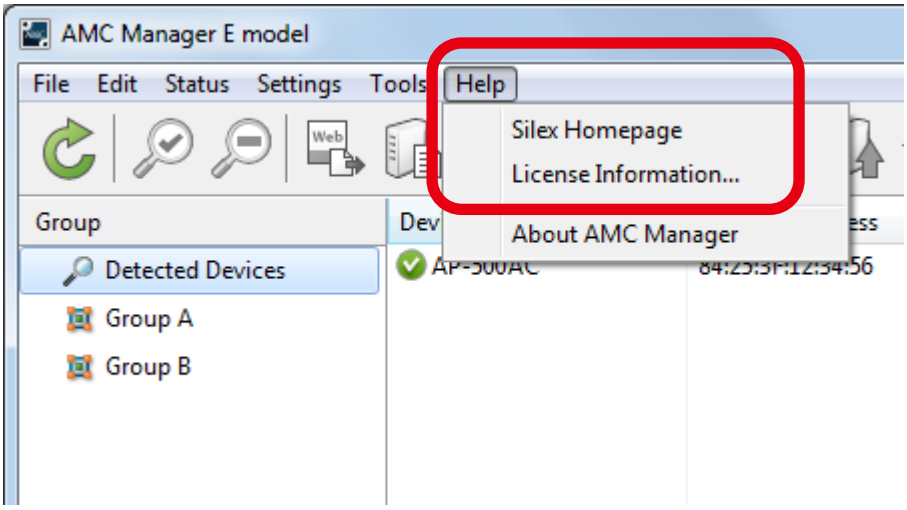
License Information Window



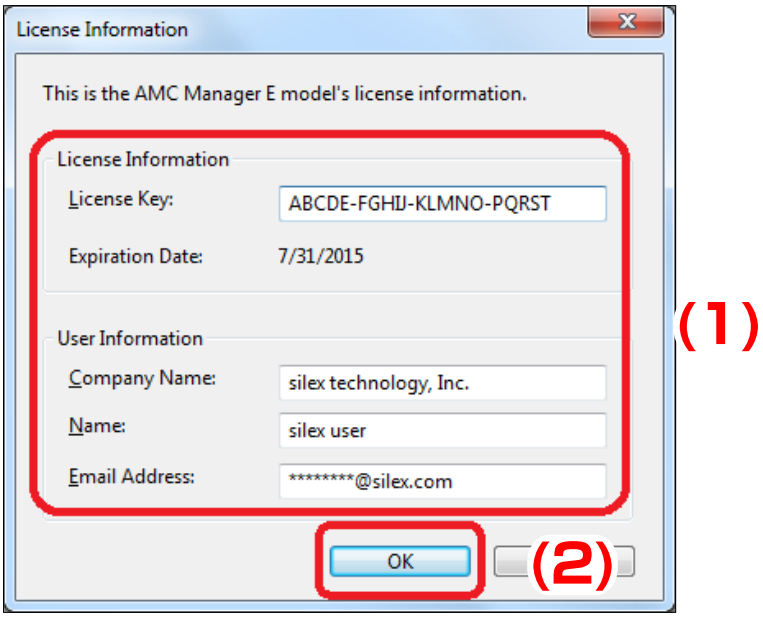
Name	Details	
License Key	Shows the registered license key. (Up to 23 characters can be used.)	
Expiration Date	Shows the expiration date for the license. The followings are displayed.	
	Information	Meanings
	Indefinite	There is no expiration for the license.
	Date (MM/DD/YYYY)	Expiration date
	This license is expired.	The registered license is expired. Please get a new license key.
	Enter the license key.	Failed to register the license key. Please enter the correct license key.
	This is a free version.	This is displayed when AMC Manager® Free is used.
Company Name	Shows the company name (up to 64 characters).	
Name	Shows the user name (up to 64 characters).	
Email Address	Shows the email address (up to 254 characters).	
[OK] button	Registers the license information.	
[Cancel] button	Cancels the settings and closes the window.	

Updating License Key

1. Click **Help** - **License Information** from the menu bar.



2. To change the license information, enter the new information for **License Key**, **Company Name**, **Name** and **Email Address** and click **OK**.



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5. Survey Assistant

This chapter explains how to use the Survey Assistant.

5-1. Survey Assistant's Features

The **Survey Assistant** is the plug-in exclusively designed for the AMC Manager® E model. It graphically shows the information collected by the Silex product, such as wireless status, radio interference, etc.

Survey Assistant's Features

The **Survey Assistant** has the following features:

Graphic display

Shows a graph of wireless environment scanned by the Silex product which can run with the Survey Assistant plug-in.

Diagnostic feature

Shows the caution or warning on a radio interference.

Graph on a map

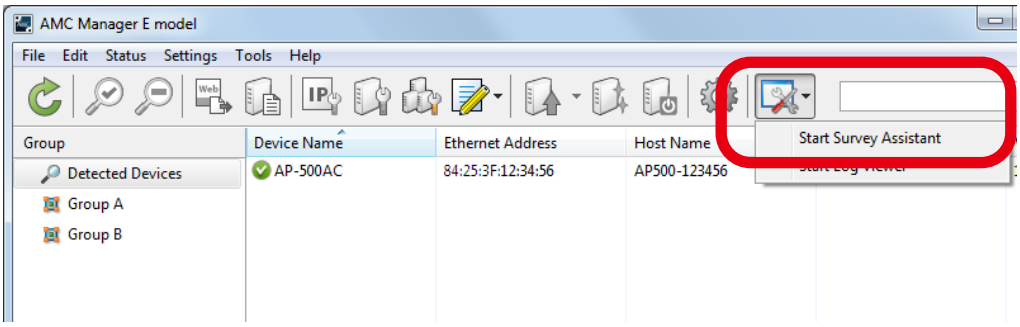
Shows a graph of the scanned wireless information on the map which you have specified as a background image. By using the floor map image of where the Silex product is installed, the graph can be displayed on each spot of installation on the map.

5-2. Starting/Finishing Survey Assistant

How to start/finish the Survey Assistant is explained.
The Survey Assistant is a plug-in exclusively designed for the AMC Manager® E model.
It is impossible to start the Survey Assistant only.

Starting Survey Assistant

1. Select the device to use from the device list of AMC Manager® E model and click the **Start Survey Assistant** from the toolbar.



Note

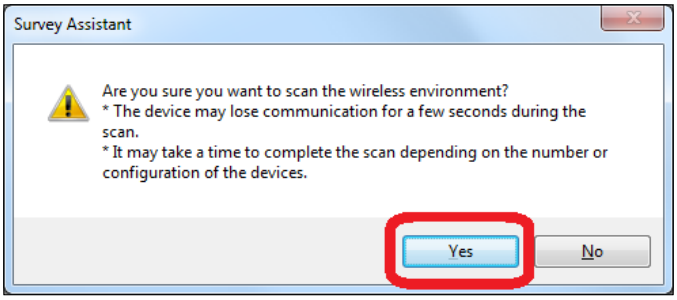
The Survey Assistant can also be started by a method below:

- Click **Tools** - **Start Survey Assistant** from the menu bar.

The Survey Assistant will use a different view mode depending on how the device is selected on the AMC Manager® E model.

- When one device is selected, **Single View Mode** will used.
- When multiple devices are selected, **Multi View Mode** will be used.
- When no devices are selected, **Multi View Mode** will be used.

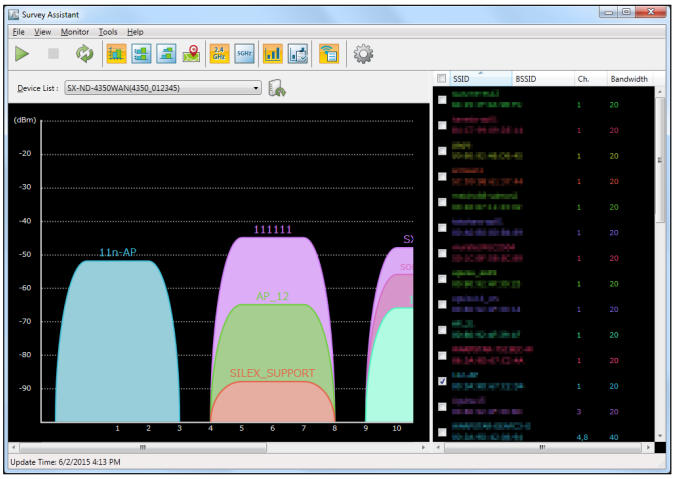
2. Click **Yes** to the confirmation message.



Note

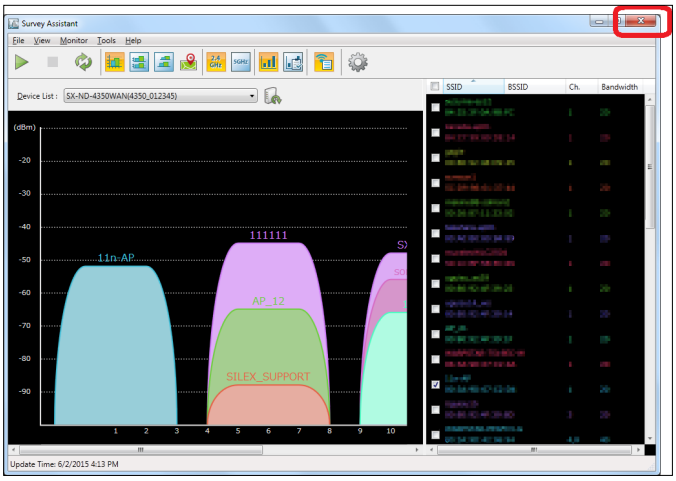
- When **No** is clicked, the scan will not perform and the graph will not appear.

3. The Survey Assistant will start and the scan result of wireless environment will be displayed.



Finishing Survey Assistant

1. Click the close button on top right of the window.

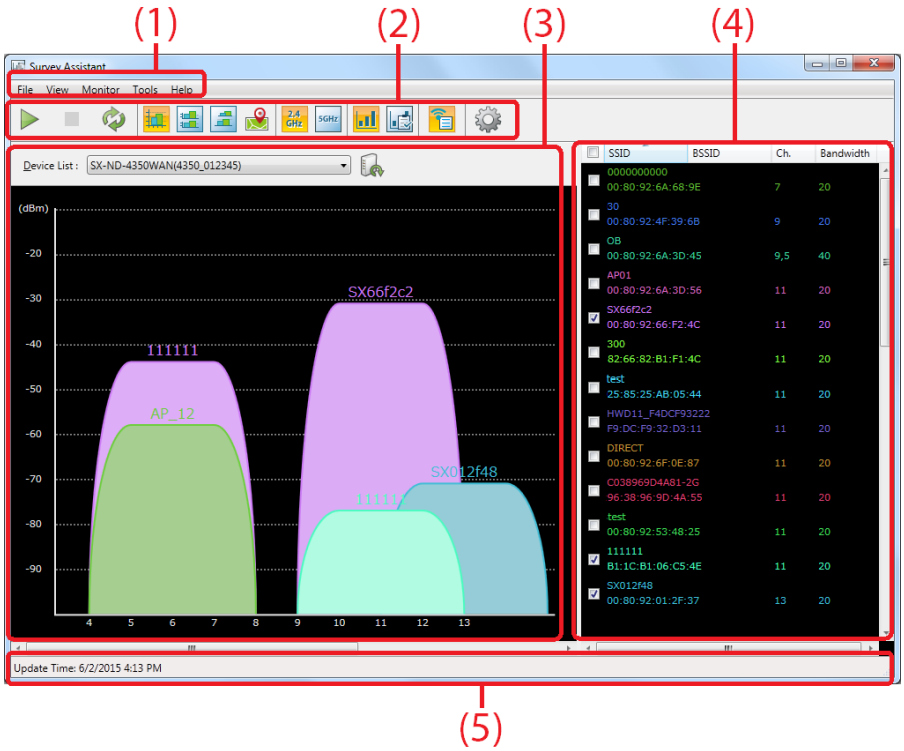


Note

- The Survey Assistant can also be finished by a method below.
  - Click **File** - **Finish** from the menu bar.

5-3. Survey Assistant's Main Window

The Survey Assistant collects the wireless environmental information and shows it as a graph. The following explains on the main window and menu of the Survey Assistant.



(1) Menu bar

Provides each function of the Survey Assistant such as a view mode change, etc.

(2) Toolbar

Provides each function of the Survey Assistant such as a view mode change, etc.

(3) Graph area

Shows the graph of retrieved wireless information according to the view mode.

(4) SSID list

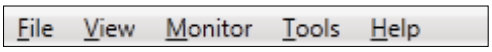
Shows the SSIDs of the retrieved wireless information as a list.
By selecting the SSID from the list, the corresponding graph can be displayed.

(5) Status bar

Shows the operating status.

Menu Bar

This provides each function of the Survey Assistant such as a view mode change, etc.



Menu	Items	Details
File	Refresh	Refreshes the graphs by retrieving the wireless environmental information from all devices.
	Cancel Refresh	Cancels the refresh.
	Finish	Finishes the Survey Assistant.
View	Single View Mode	Shows the graph of one device.
	Multi View Mode	Shows the graphs of multiple devices.
	Historical View Mode	Shows the graph of one device with its past graphs.
	Map Mode	Shows the graph with the specified image on the back such as a floor map image, etc.
	2.4GHz	Shows the graph of 2.4GHz wireless.
	5GHz	Shows the graph of 5GHz wireless.
	Color View	Shows the SSIDs in a different color for each.
	Diagnostic View	Shows the caution or warning for the radio interference according to the specified conditions.
	SSID List	Shows a list of SSIDs.
Monitor	Start Monitoring	Opens the setting window for device monitoring. The wireless environmental information is retrieved according to the monitor setting.
	Stop Monitoring	Stops the device monitoring.
Tools	Option	Opens the option setting window.
Help	Silex Homepage	Opens the Silex's homepage.
	About Survey Assistant	Shows the version information.

Note

- When a monitoring is in process, the refresh button is disabled.

Toolbar

This provides each function of the Survey Assistant such as a view mode change, etc.

Icon	Item(Tooltip)	Details
	Start monitoring	Opens the setting window for device monitoring. The wireless environmental information is retrieved according to the monitor setting.
	Stop monitoring	Stops the device monitoring.
	Refresh graphs of all devices	Refreshes the graphs by retrieving the wireless environmental information from all devices.
	Cancel the refresh	Cancels the refresh.
	Show the graph of a single device	Shows the graph of one device.
	Show the device graph as a list	Shows the graphs of multiple devices.
	Show the history of scan results	Shows the graph of one device with its past graphs.
	Show the graph on the map	Shows the graph with the specified image on the back such as a floor map image, etc.
	2.4GHz band	Shows the graph of 2.4GHz wireless.
	5GHz band	Shows the graph of 5GHz wireless.
	Show the color graph	Shows the SSIDs in a different color for each.
	Find the radio interference	Shows the caution or warning for the radio interference according to the specified conditions.
	SSID list	Shows/Hides a list of SSIDs.
	Option	Opens the option setting window.

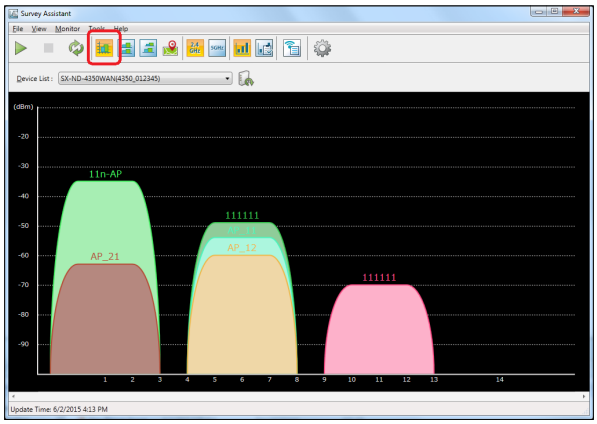
Note

- When a monitoring is in process, the **Refresh graphs of all devices** icon is disabled.

Graph Area

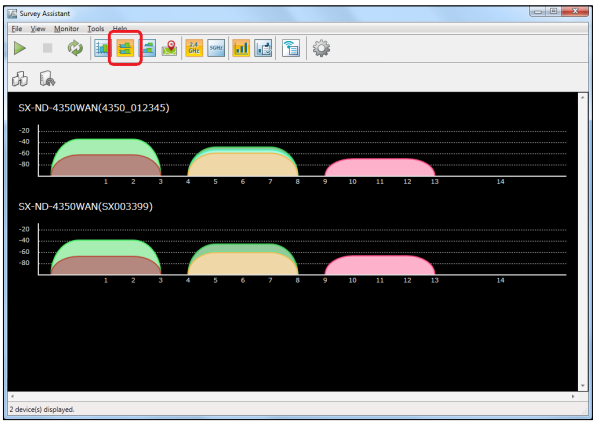
This shows the graph of retrieved wireless environmental information according to the view mode. There are 4 types of view mode; **Single View Mode**, **Multi View Mode**, **Historical View Mode** and **Map Mode**.

Single View Mode



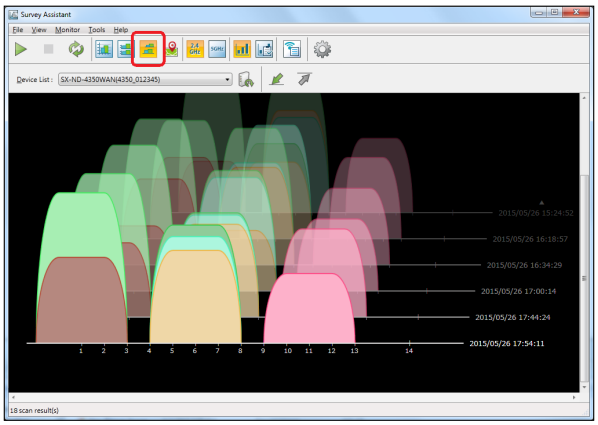
Shows the graph of one device

Multi View Mode



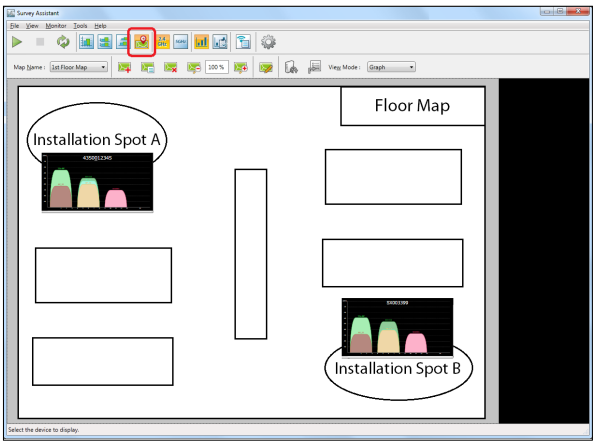
Shows the graphs of multiple devices as a list

Historical View Mode



Shows the history of graphs for one device

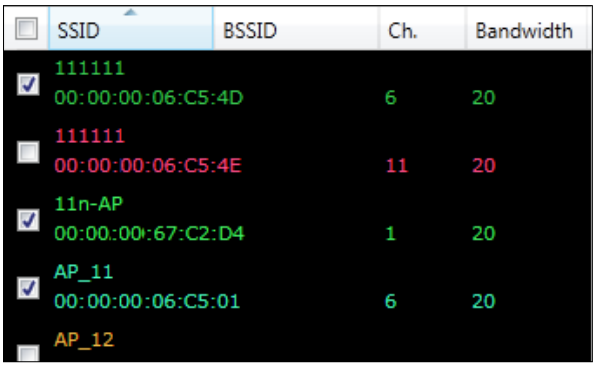
Map Mode



Shows the graph on the map which is selected as a background image.

SSID List

This shows the SSIDs of the retrieved wireless information as a list.
The graphs will be displayed for the SSIDs whose check boxes are checked.

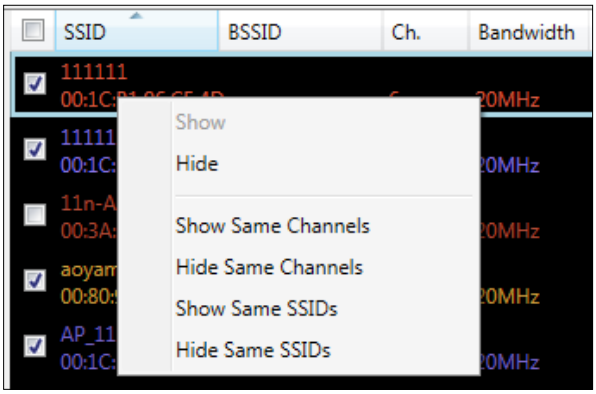


Note

- If the check box is cleared, the graph of that SSID will not be displayed. When too many graphs are displayed on your wireless environment, you can hide unnecessary ones by clearing the check boxes.

Context Menu

If the SSID is right-clicked on the list, the context menu will be displayed. From the context menu, you can show or hide the same channels or same SSIDs as the one you select.

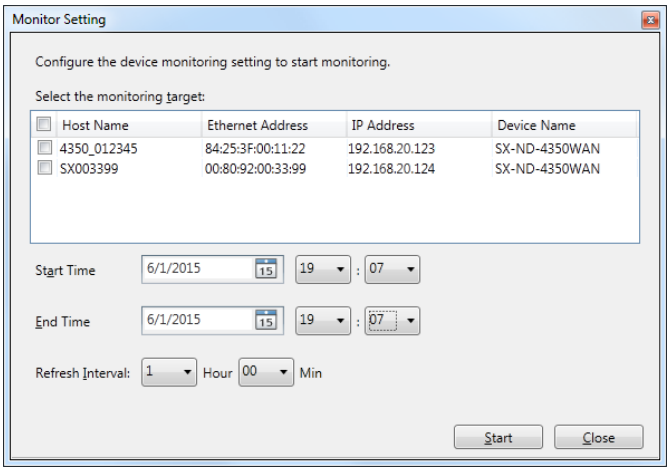


Name	Details
Show	Shows the graph by checking the check box of the SSID.
Hide	Hides the graph by clearing the check box of the SSID.
Show Same Channels	Shows all SSIDs with the same channel as that of the SSID you select.
Hide Same Channels	Hides all SSIDs with the same channel as that of the SSID you select.
Show Same SSIDs	Shows all SSIDs with the same name as that of the SSID you select.
Hide Same SSIDs	Hides all SSIDs with the same name as that of the SSID you select.

5-4. Device Monitoring

The wireless environmental information can be retrieved regularly from the device by specifying it as a monitoring target. The device to retrieve the information and the interval of retrieving it can be configured at the **Monitor Setting** window. The retrieved information will be displayed as a graph using the **Historical View Mode**.

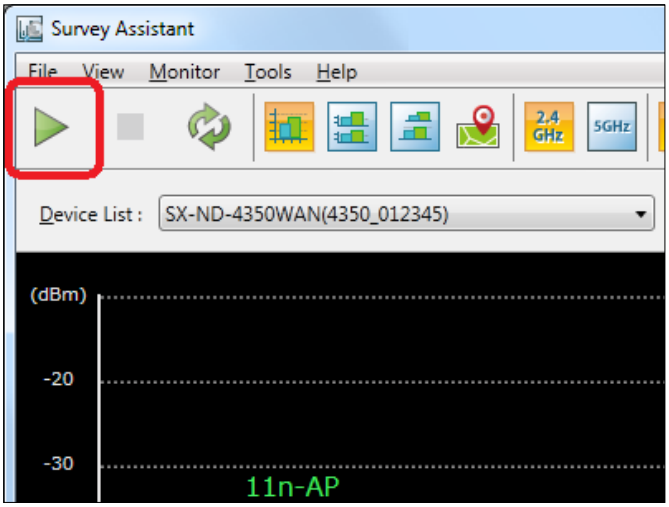
Monitor Setting Window



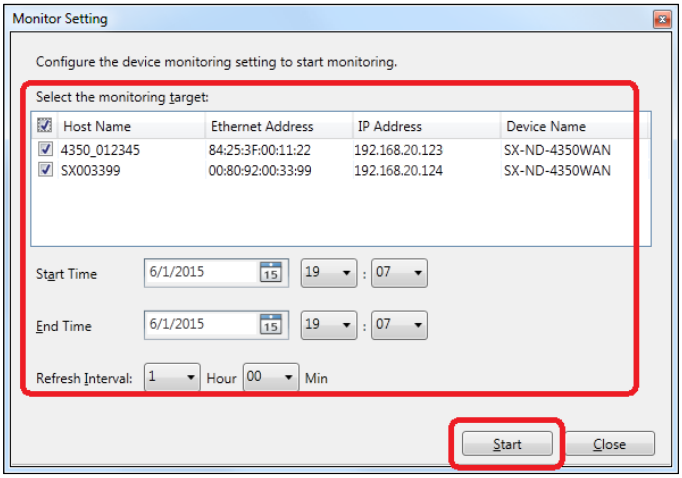
Name	Details
Select the monitoring target	Select the device to monitor. If the check box is checked, the device will be added as a monitoring target.
Start Time	Specify the time to start monitoring. If the time earlier than the current time is specified, the monitoring will start immediately.
End Time	Specify the time to finish monitoring.
Refresh Interval	Specify the interval to retrieve the wireless environmental information.
[Start] button	Starts monitoring with the specified conditions.
[Close] button	Closes the window.

Device Monitoring

1. Click the **Start monitoring** icon from the toolbar.



2. Specify the devices to monitor as well as the start/end time for monitoring and click **Start**.



Note

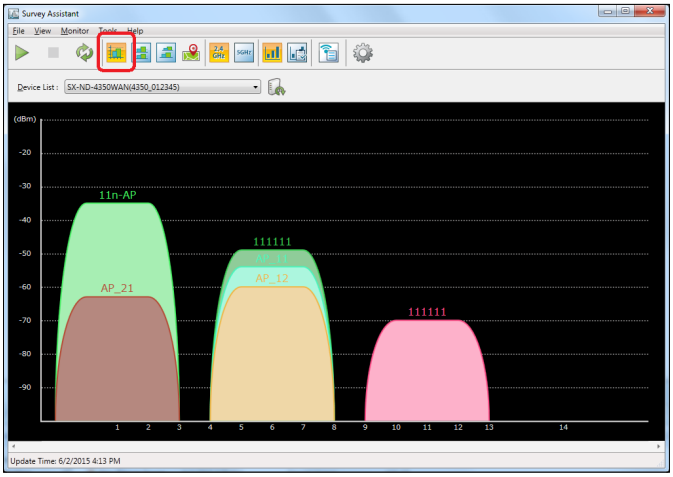
- When a monitoring is in process, the **Refresh graphs of all devices** icon is disabled.

5-5. View Mode

The Survey Assistant can switch the view mode to display the graph of wireless information retrieved from the device.

Single View Mode

Click the **Show the graph of a single device** icon from the toolbar.
The graph will be displayed for the single device you selected. In the graph, the horizontal axis represents the wireless channel while the vertical axis represents the signal strength.



Note

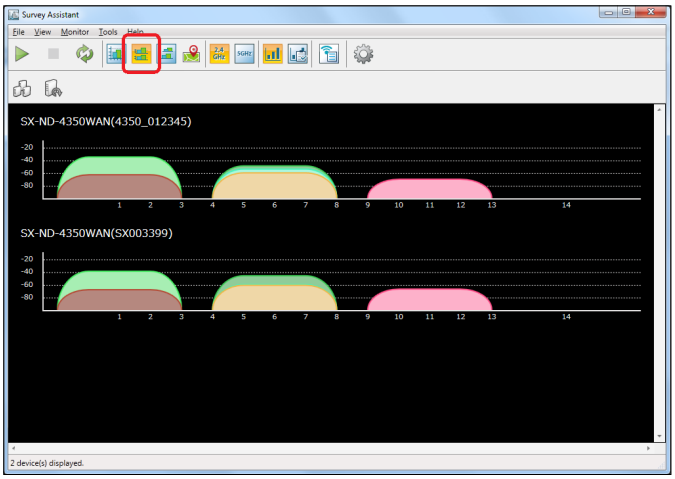
The Single View Mode can also be enabled by a method below.

- Select the device and click **View** - **Single View Mode** from the menu bar.

Icon	Name(Tooltip)	Details
-	Device List	Select the device from a pull-down menu.
	Refresh the graph of selected device	Refreshes the graph of the selected device by scanning the wireless environmental information.

Multi View Mode

Click the **Show the device graph as a list** icon from the toolbar.
The graphs will be displayed for the multiple devices you selected. The horizontal axis represents the wireless channel while the vertical axis represents the signal strength.



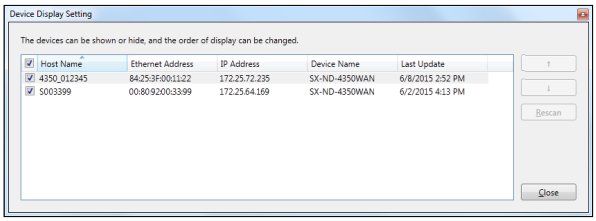
Note

The Multi View Mode can also be enabled by a method below.

- Select the device and click **View** - **Multi View Mode** from the menu bar.

Icon	Name(Tooltip)	Details
	Device display setting	Opens the **Device Display Setting** window.
	Refresh the graph of selected device	Refreshes the graph of the selected device by scanning the wireless environmental information.

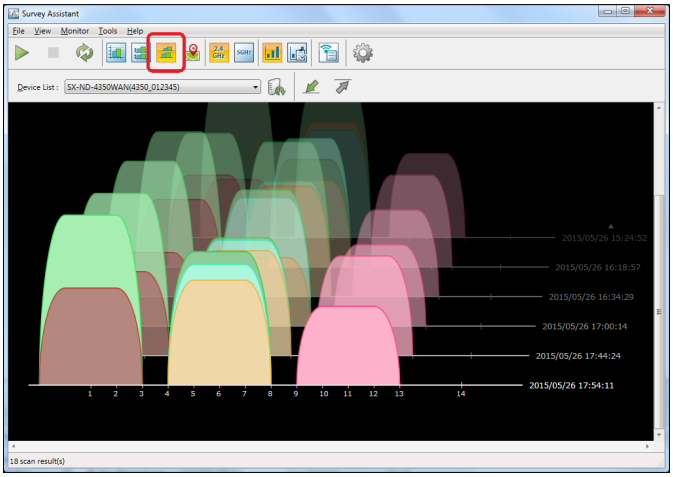
Device Display Setting Window



Name	Details
(Device list)	Select the device to display the graph. The graphs will be displayed for the devices you checked the check boxes.
↑ ↓ button	Moves up/down the graph.
[Rescan] button	Rescans the wireless environmental information.
[Close] button	Closes the window.

Historical View Mode

Click the **Show the history of scan results** icon from the toolbar.
The history of graph will be displayed in a chronological order. In the graph, the horizontal axis represents the wireless channel, the vertical axis represents the signal strength and the depth represents the scanned time.



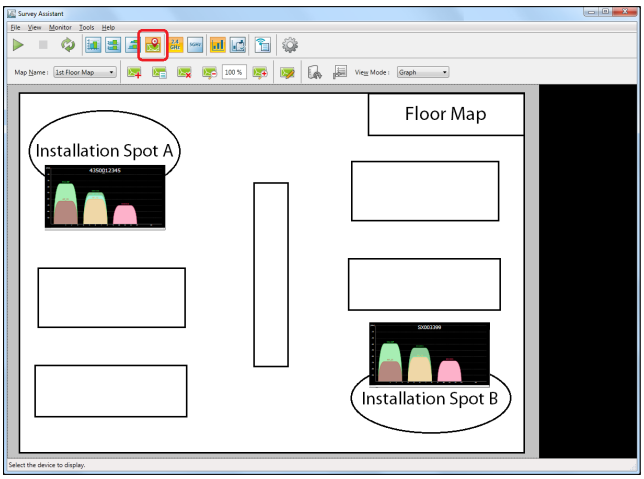
Note

- The Historical View Mode can also be enabled by a method below.
  - Select the device and click **View** - **Historical View Mode** from the menu bar.
- Up to 100 graphs can be displayed as the history.

Icon	Name(Tooltip)	Details
-	Device List	Select the device from a pull-down menu.
	Refresh the graph of selected device	Refreshes the graph of the selected device by scanning the wireless environmental information. A newest graph always comes to the front.
	Move the graph to front	Moves the graph to the front.
	Move the graph back	Moves the graph to the back.

Map Mode

Click the **Show the graph on the map** icon from the toolbar.
The graph can be displayed on the image that is specified as the background.
For details on the map setting and the graph allocation, see **5-8. Showing Device Graph on Map**.



Note

The map mode can also be enabled by a method below.

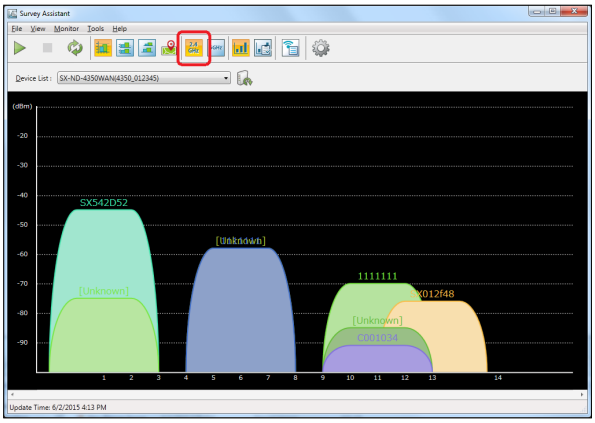
- Select the device and click **View** - **Map Mode** from the menu bar.

Icon	Name(Tooltip)	Details
-	Map Name	Select the map to use from the pull-down menu.
	Add a new map	The new map can be created.
	Edit the current map	The current map can be edited. It is possible to change the map name and background image.
	Delete the current map	Deletes the current map
	Zoom out the map	Zooms out the current map.
	Zoom in the map	Zooms in the current map.
	Switch to the graph edit mode	Transits to the graph edit mode. The graph can be shown on the map image.
	Refresh the displayed graphs	Refreshes the graph of the current device by scanning the wireless environmental information. This refreshes all graphs on the map.
	Show the selected device on a graph	Shows the selected graph in **Single View Mode**. When multiple graphs are selected, they will be shown in **Multi View Mode**.
-	View Mode	Switches the graph to the device information which includes a host name, IP address, SSID, etc.

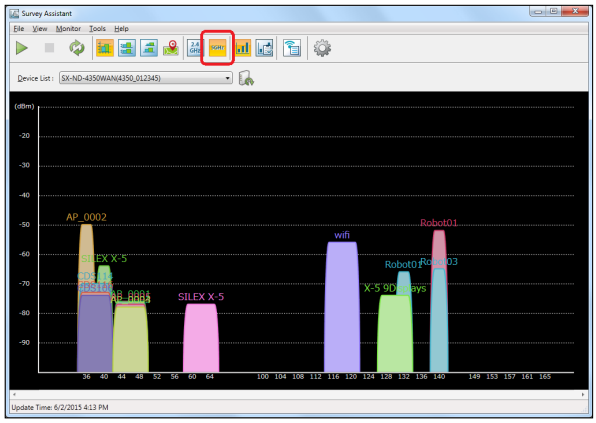
5-6. Changing Bandwidth

The bandwidth can be switched by clicking the **2.4GHz band** /**5GHz band** icons from the toolbar to show the corresponding information on the graph.

2.4GHz band



5GHz band



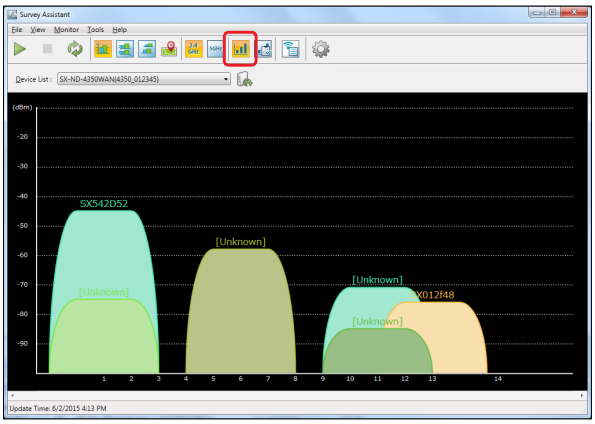
Note

The bandwidth can also be switched by the methods below:
- Select the device and click **View** - **2.4GHz** from the menu bar.
- Select the device and click **View** - **5GHz** from the menu bar.

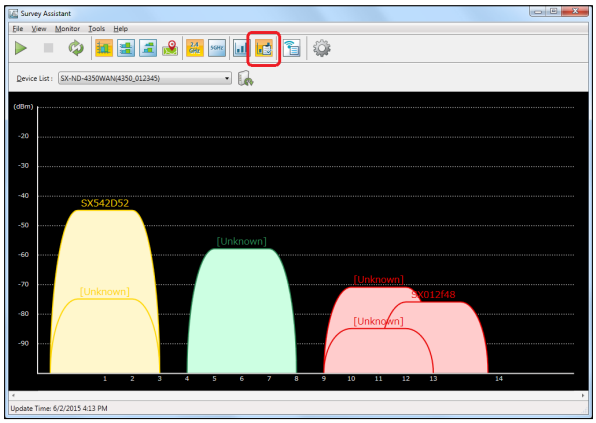
5-7. Changing View Mode

The view of graph can be switched by clicking **Show the color graph of wireless environment** or **Find the wireless interference** from the toolbar.
In the **Color View**, each graph is displayed in a different color.
In the **Diagnostic View**, the graph is displayed in yellow (for caution) or red (for warning) according to the specified conditions, or in gray for those not matching the conditions.
The diagnostic settings can be configured in the option window.

Color View



Diagnostic View



Color	Diagnostic result
Green	Normal
Yellow	Caution
Red	Warning
Gray	N/A

Note

- The view mode can also be changed by the methods below:
  - Select the device and click **View - Color View** from the menu bar.
  - Select the device and click **View - Diagnostic View** from the menu bar.
- In the diagnostic view, the color will be applied in the order of Warning(Red) > Caution(Yellow) > Normal(Green). If there is one graph that matches both conditions of Warning(Red) and Caution(Yellow), a higher priority is given to Warning (Red).
- Every time when the graph is changed using the SSID list, the Survey Assistant will recheck them all with the diagnostic conditions.

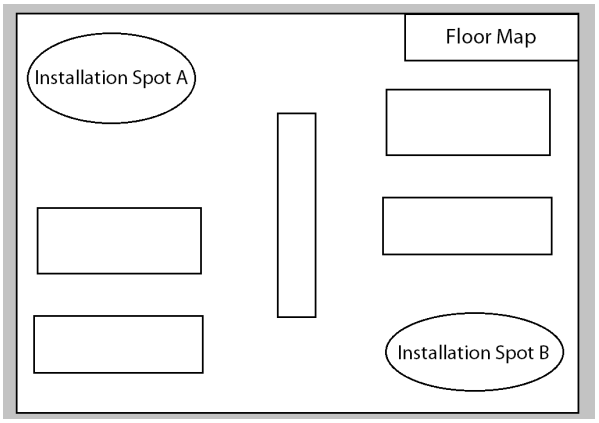
5-8. Showing Device Graph on Map

How to show the graph on the background image is explained.
The graph of wireless environmental information can be displayed on the floor map image of where the wireless devices are installed, by adding it as the background image of graph area. Two or more sets of the map and graph can be registered.

Before You Begin

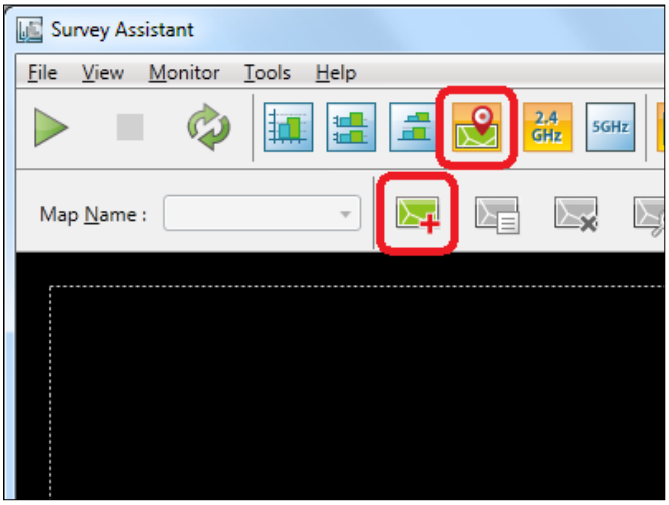
Prepare the image to use as a map.
The supported file format is BMP only.

Sample of Image

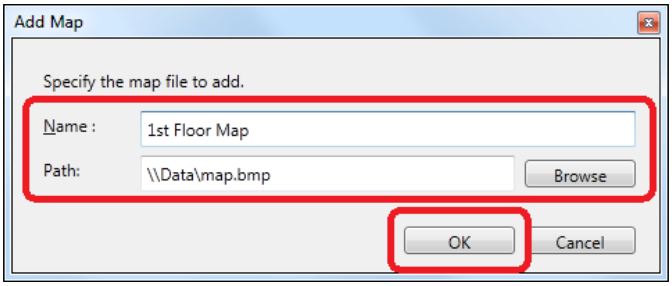


Creating Map

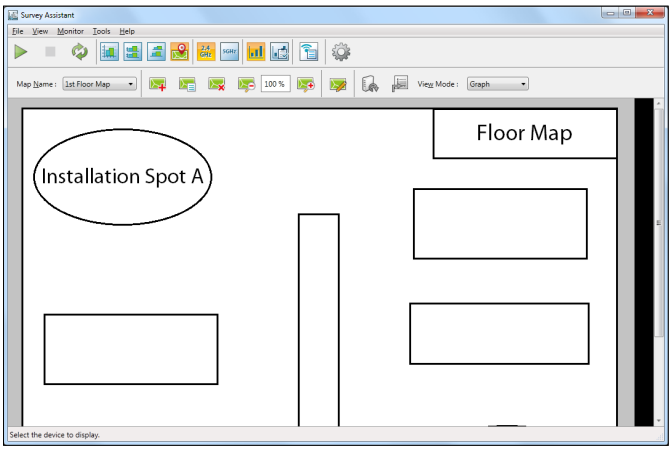
1. Click the **Show the graph on the map** icon and then **Add a new map** icon from the toolbar.



2. In the **Add Map** window, set a name of the map to add, specify where the image is saved and click **OK**.

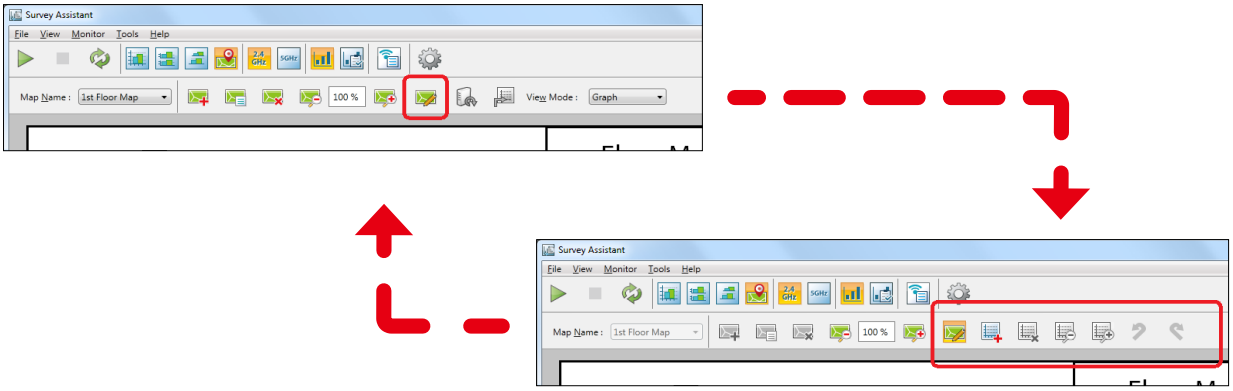


3. The map is created and the image is applied as the background.



Graph Edit Mode

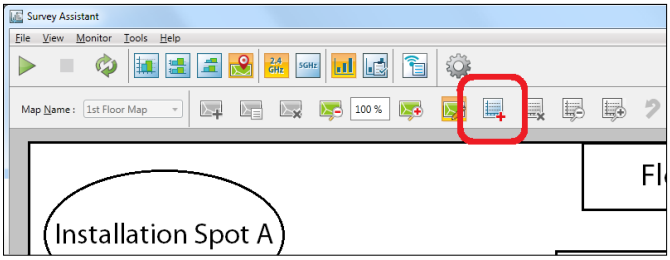
If the **Switch to the graph edit mode** icon is clicked when the Map Mode is used, the graph edit mode is enabled. In the graph edit mode, the graph can be added to the map.



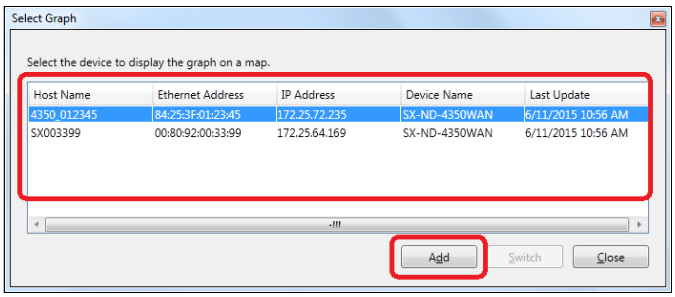
Icon	Name(Tooltip)	Details
-	Map Name	Select the map to use from the pull-down menu. In the pull-down menu, the create maps are displayed.
	Zoom out the map	Zooms out the map.
	Zoom in the map	Zooms in the map.
	Finish the graph edit mode	Finishes the graph edit mode.
	Add the graph to the map	Adds the graph to the map.
	Delete the graph	Deletes the selected graph from the map.
	Zoom out the graph	Zooms out the graph.
	Zoom in the graph	Zooms in the graph.
	Undo	Undoes the last action.
	Redo	Redoes the last action.

Adding Graph to Map

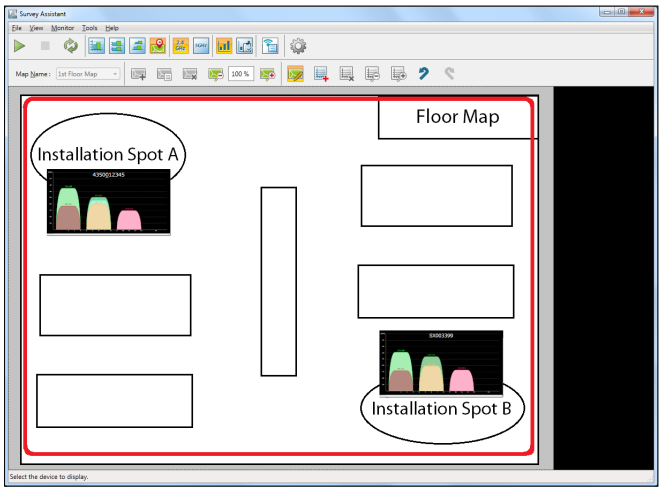
1. When the **Switch to graph edit mode** icon is clicked, the graph edit icons are displayed. Click the **Add the graph to the map** icon then.



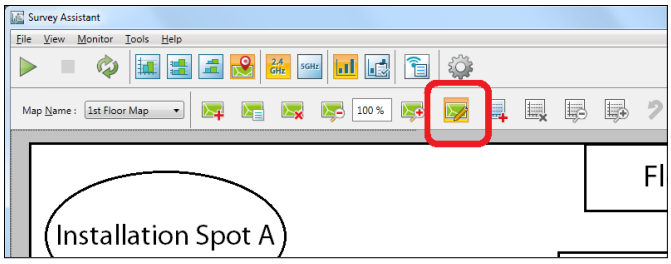
2. Select the device to display the graph on the map from the list and click **Add**.



3. The graph of the selected device is shown on the map.
Move the graph to a desired position on the map by dragging it.
To add more graphs, repeat the same process from **1**.



4. Click the **Finish the graph edit mode** icon from the toolbar.

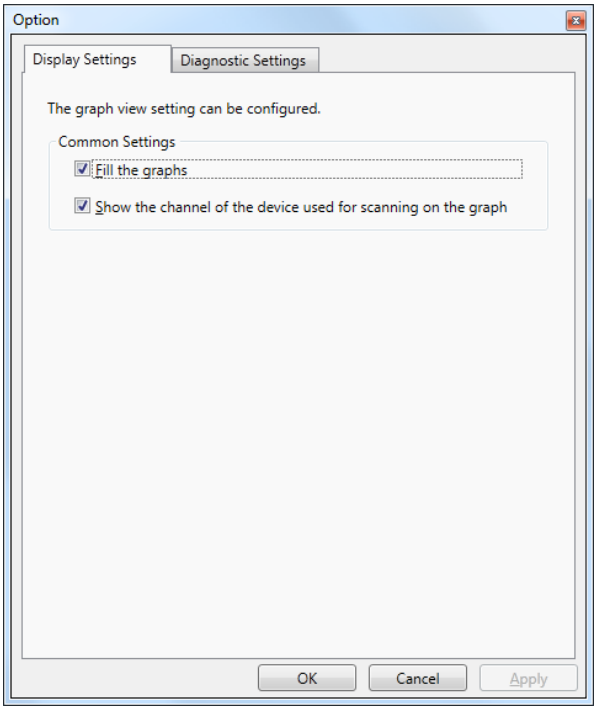


5-9. Survey Assistant's Optional Settings

The following explains how to configure the graph display settings as well as diagnostic mode settings. The operating settings can be configured from the option window.

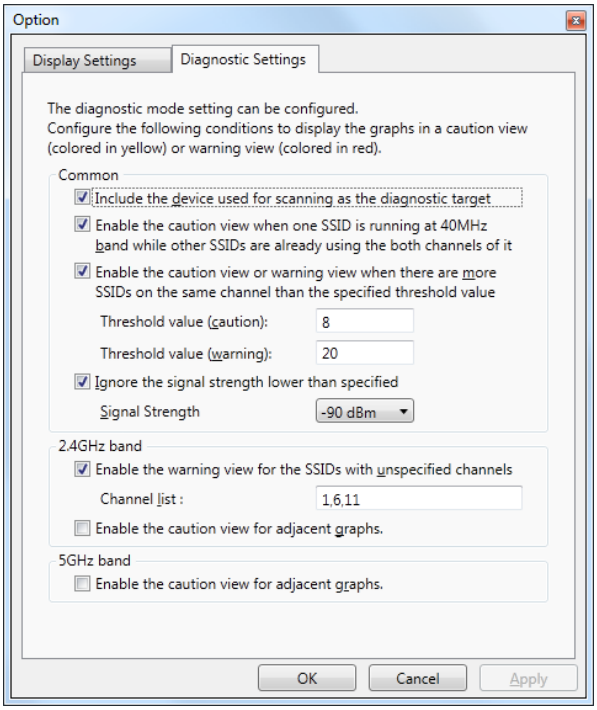
Option Window

Display Settings Tab



Name	Details	Default Value
Fill the graphs	Paints out the graphs. When the check box is cleared, overlapping graphs can easily be distinguished.	ON
Show the channel of the device used for scanning on the graph	Adds a red line for the channel of the device used for wireless survey. The red line is shown under the channel on the horizontal axis.	ON
[OK] button	Saves the settings and closes the window.	-
[Cancel] button	Cancels the settings and closes the window.	-
[Apply] button	Saves the settings.	-

Diagnostic Settings Tab



Name	Details	Default Value
Include the device used for scanning as the diagnostic target	Includes the device used for wireless survey as the target of radio interference search. The Survey Assistant shows the graphs of wireless environment excluding the device used for the scanning.	ON
Enable the caution view when one SSID is running at 40MHz band while other SSIDs are already using the both channels of it	In 802.11n, two channels can be combined together to use as 40MHz band. If both channels are used by other SSIDs, it will be notified in the caution view (yellow).	ON
Enable the caution view or warning view when there are more SSIDs on the same channel than the specified threshold value	When there are more SSIDs on one channel than the specified threshold value, it will be notified in the caution view (yellow) or warning view (red).	ON
Threshold value (caution)	Specify the number of SSIDs to display in the caution view (yellow).	8
Threshold value (warning)	Specify the number of SSIDs to display in the warning view (red).	20
Ignore the signal strength lower than specified	Shows the SSIDs with a lower signal strength in gray. Such SSIDs will not be included to the radio interference search.	ON
Signal Strength	Specify the threshold value for the signal strength to ignore.	-90dBm
Enable the warning view for the SSIDs with unspecified channels	In 2.4GHz band, if the SSIDs are running at the channel which is not specified by the channel list, they will be notified in the warning view (red).	ON
Channel list	Specify the channel not to show in the warning view in 2.4GHz band. For 2.4GHz band, it is recommended to keep 5 or more channel interval between each channel for the bandwidth not to overlap (e.g. "**1, 6,11**").	1,6,11

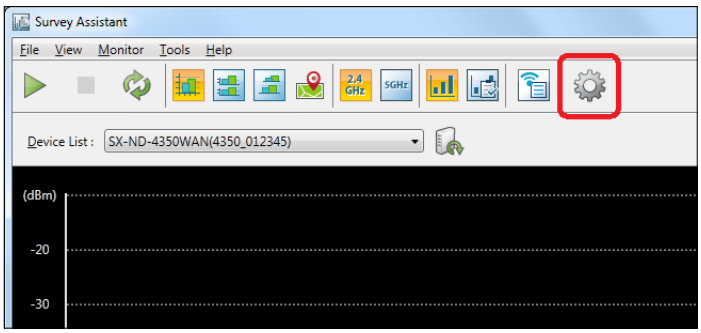
Name	Details	Default Value
Enable the caution view for adjacent graphs	In 2.4GHz, the SSIDs of adjacent graphs will be shown in the caution view (yellow).	OFF
Enable the caution view for adjacent graphs	In 5GHz, the SSIDs of adjacent graphs will be shown in the caution view (yellow).	OFF
[OK] button	Saves the settings and closes the window.	-
[Cancel] button	Cancels the settings and closes the window.	-
[Apply] button	Saves the settings.	-

Note

- In 2.4GHz, overlapping graphs will always be notified in the warning view (red) when the channel interval is equivalent to or less than 3 channels.
- As the number of available channels is often not enough in a wireless environment, it is recommended to use the same channel than the channel of the overlapped bandwidth. When the channels of the overlapped bandwidth are used, they may break the wireless packet of each other, while the bandwidth can be shared between the channels because of the carrier sense if the same channel is used.

Changing Survey Assistant Settings

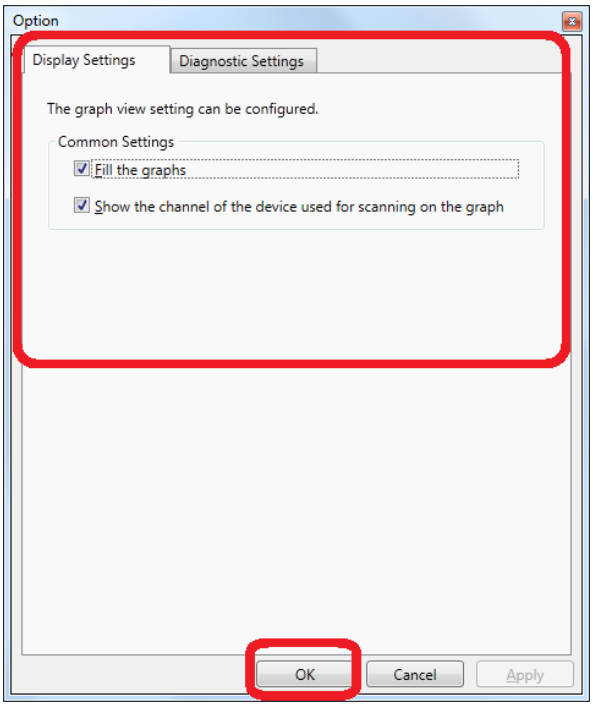
1. Click the **Option** icon from the toolbar.



Note

- The **Option** window can also be displayed by clicking **Tools** - **Option** from the menu bar.

2. In the **Option** window, edit the settings and click **OK**.



A. Appendix

A-1. Uninstalling AMC Manager

How to uninstall the AMC Manager is explained.
Follow the instructions below to uninstall the AMC Manager.

TIP

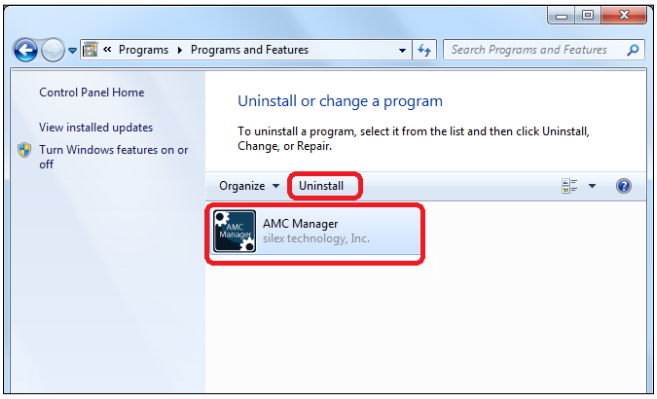
- For uninstallation, you must login to the PC with administrative privileges.

1. Click **Start** - **All (apps)** - **silex Tools** and right-click on **AMC Manager** and click **Uninstall**.

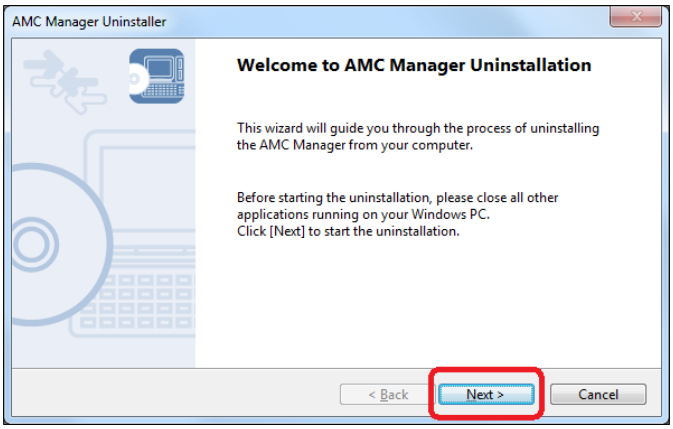
Note

- For Windows 10, click **Start** - (**All apps**) - **Windows System** - **Control Panel**.

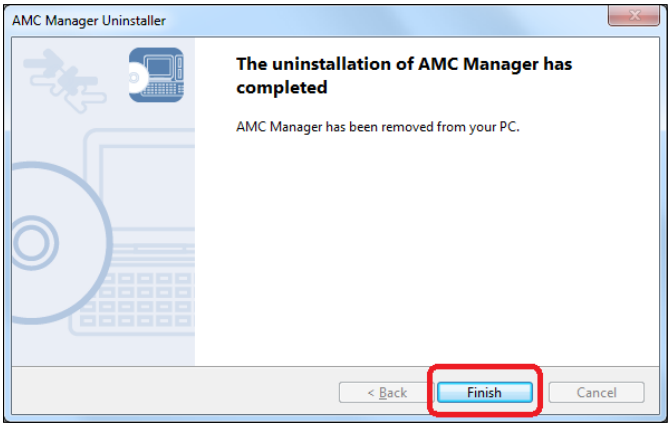
2. Select the **AMC Manager** from the list and click **Uninstall**.



3. Click **Next** to begin the uninstallation.



4. Click **Finish**.



A-2. Latest Firmware Downloads

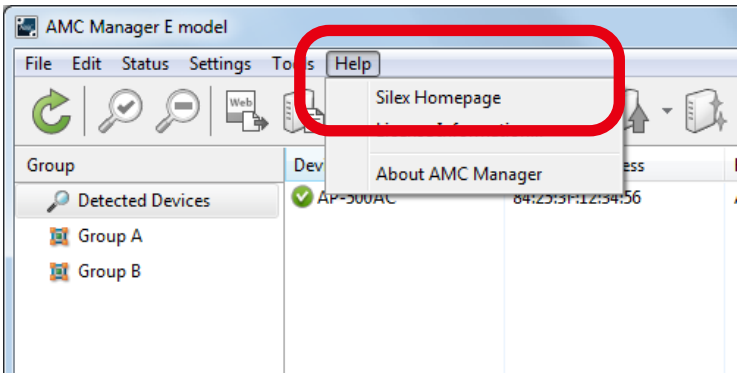
The latest firmware file can be downloaded from the Silex homepage.
Please access our homepage and go to the support & download section.

URL	
USA/Europe	https://www.silextechnology.com/
Japan	https://www.silex.jp/

Note

Silex homepage can also be accessed by the methods below:

- On the AMC Manager, click **Help** - **Silex Homepage** from the menu bar.
- On the Survey Assistant, click **Help** - **Silex Homepage** from the menu bar.



A-3. Customer Support Center

Customer Support is available for any problems that you may encounter. If you cannot find the relevant problem in this manual or on our website, or if the corrective procedure does not resolve the problem, please contact Silex Technology Customer Support.

Contact Information	
USA	support@silexamerica.com
Europe	support@silexeurope.com
Japan	support@silex.jp

Note

- Please also visit our homepage for the latest FAQ and product information.

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