



# Yamaha LAN Monitor for Mac

User Guide

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# 1. Introduction

## 1.1. About Yamaha LAN Monitor

The Yamaha LAN Monitor provides information on Yamaha switches, and is used to monitor and control connected devices on your computer.

The main functions are as follows.

- You can detect the network topology and visualize the entire network.
- The port status, bandwidth, and power supply status of Yamaha switches can be viewed.
- You can monitor the status of each Dante-enabled device that exists on the network.
- You can also access Dante Controller with a single click, and unify the Dante network from a single computer.
- You can confirm the presence of network cameras (for emergency monitoring) and other devices.
- By registering the destination URL, you can access a terminal's GUI (such as a network camera) with a single click.
- Stopping and restarting the power supply from a Yamaha PoE switch to automatically/manually restart devices connected to a Yamaha PoE switch.
- You can open the Web GUI of a Yamaha switch on the network to view or edit its settings.
- You can view and change the settings of SWX2110/SWX2110P series devices that are not equipped with Web GUI.
- [The snapshot function](#) is useful for automatically testing network abnormalities or troubleshooting.
- You can update the firmware of your Yamaha switch, and import or export the CONFIG file for your Yamaha switch or Yamaha wireless LAN access point.
- You can assign identification labels to each device.
- The Yamaha LAN Monitor software is the follow up to the Yamaha Audio Network Monitor. Yamaha LAN Monitor can load snapshots and labels saved in Yamaha Audio Network Monitor.

## 1.2. Conventions used in this guide

### 1.2.1. Trademarks

- Dante is a trademark of Audinate.
- macOS, Finder, and LaunchPad are the trademarks of Apple Inc., registered in the United States and other countries.
- The company names and product names in this document are the trademarks or registered trademarks of their respective companies.

### 1.2.2. Terminology

<b>L2MS (Layer2 Management Service)</b>	A system for managing Yamaha network devices at the layer 2 level
<b>Manager</b>	The L2MS manager device (Yamaha LAN Monitor, Yamaha switch, etc.)
<b>Agent</b>	<ul style="list-style-type: none"> <li>• Yamaha switch</li> <li>• Yamaha wireless LAN access point</li> </ul>
<b>Device</b>	<ul style="list-style-type: none"> <li>• Dante-enabled device</li> <li>• Computer, etc.</li> </ul>
<b>Snapshot</b>	Status of connected devices which is saved within the Yamaha LAN Monitor
<b>Snapshot file</b>	A file storing snapshots

### 1.2.3. Guide Content

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- Copying or modifying the software or reproduction of this document, by any means, whether in whole or in part, is expressly forbidden without the written consent of Yamaha Corporation.
- Yamaha Corporation makes no representations or warranties with regard to the use of the software and documentation and cannot be held responsible for the results of the use of the software and this document.
- The software and this document may be revised and updated without prior notice.
- This software is not guaranteed to work with a touch-panel.
- Illustrations of product screens that appear in this document are for instructional purposes.
- Descriptions provided in this document are based on operations and screens used in macOS 10.14.

## 1.3. Steps to use the software

<b>1</b>	Compare the operating requirements for Yamaha LAN Monitor with your computer's operating environment.	<a href="#">Software operating requirements</a>
<b>2</b>	Install Yamaha LAN Monitor.	<a href="#">Installation</a>
<b>3</b>	Configure network settings on your computer.	<a href="#">Network settings on the computer</a>

## 1.4. Software operating requirements

OS	macOS 10.13.x / 10.14.x / 10.15.x / 11.x / 12.x / 13.x
CPU	Intel Core family processor, Apple silicon with Rosetta 2 installed
Storage	200 MB or more free space (not including the Dante Controller)
Display	Resolution: 1280 x 800 or higher
Other	Mouse or other pointing device Ethernet (This will not work via wireless LAN.)



The operating requirements listed above are for Yamaha LAN Monitor version 1.9.3. Refer to the following URL for the latest information on the current version of the software and operating requirements.

<http://www.yamaha.com/products/en/network/>  
<https://www.yamahaproaudio.com/>

Depending on the computer you're using, the operating requirements might be greater than listed above.



This software requires one or more L2MS-compatible Yamaha switches or Yamaha wireless LAN access points to be found on the network.

Note that this software will not function until an L2MS-compatible Yamaha switch or Yamaha wireless LAN access point is found.

## 1.5. Notes

### Notes regarding device detection

- Switches made by another manufacturer and agents and devices that are subordinate to a router made by another manufacturer cannot be shown correctly.
- Devices that are connected to a switch made by another manufacturer are shown as devices connected to the immediately previous agent. However, depending on the structure of the network, it might not be possible to show them.
- Do not connect any L2MS managers other than Yamaha LAN Monitor on the network. Also, only one Yamaha LAN Monitor can be used in the same network.
- Connect Yamaha LAN Monitor directly to the agent. If there is a device other than the agent between Yamaha LAN Monitor and the agent, the terminal or agent may not be recognized correctly.

### Notes regarding SWX2100/SWR2100P series PoE switch detection

When an SWX2100/SWR2100P series PoE switch is detected, power will also be supplied to PoE receiving devices connected to ports not configured to supply power.

### Notes regarding the power supply interruption function for the Yamaha PoE switch

Turn off the power supply interruption function for the Yamaha PoE switch when updating the firmware version of a PoE receiving device which is supplied power from the Yamaha PoE switch. Turn this function back on when the firmware update process is complete. The power supply interruption function may interrupt the power supply while updating firmware.

Interrupting the power supply may prevent the firmware update process from completing normally, possibly making the device unusable. To turn off the power supply interruption function for the Yamaha PoE switch, clear the Keepalive check box in the "Connected Devices" view.

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For details, refer to the description provided for the Keepalive check box in the list (2) for the [“Connected Devices” view](#).

### Notes regarding an agent with the stack function enabled

Management of an agent, whose stack function has been enabled and the firmware revision is of the following, is not supported.

Note that, even though detection is possible, correct information cannot be displayed.

- SWX3200-28GT/52GT Rev.4.00.15 or earlier
- SWX2310-28GT/52GT Rev.2.04.01 or earlier
- SWR2310-28GT Rev.2.04.01 or earlier
- SWX2310P-28GT Rev.2.02.14 or earlier

### Notes on printing and print preview of the “Whole map”

Depending on the number of terminals displayed on the Whole map and the execution environment of this software, the “Whole map” may not be printed or previewed correctly.

Such issues may be avoided by changing the “Preview size” of the “Whole map” to “A6.”

For details, refer to the description of the preview size of the “Whole map” described in the list (7) for the [“Basic Settings” dialog box](#).

The maximum number of units that can be supported to print with this software is the number of units that can be printed when the preview size is set to A6.

### Notes regarding detection of Dante-enabled devices

If the network adapter selection has been changed after starting Yamaha LAN Monitor, Dante-enabled devices may not be detected. If Dante-enabled devices cannot be detected, restart Yamaha LAN Monitor.

Also, in the environment where Dante Controller has been installed, select the network adapter in Dante Controller appropriately and then start Yamaha LAN Monitor.

### Notes regarding when using macOS10.15.x or later

In macOS10.15.x or later, do not turn off Wi-Fi.

If Wi-Fi is off, Yamaha LAN Monitor cannot detect the network adapter.

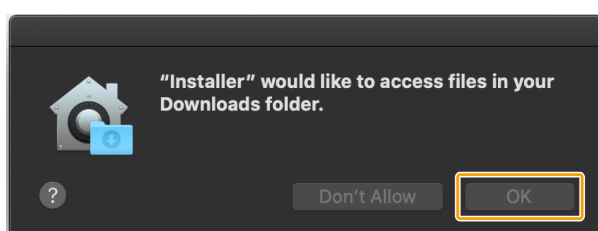
## 2. Installing and uninstalling Yamaha LAN Monitor

### 2.1. Installation

Follow the steps below to install Yamaha LAN Monitor.

1. Double-click the downloaded zip file and extract it to any location.
2. Double-click “Yamaha LAN Monitor VX.X.X.pkg” (where X is the version number) in the expanded directory.  
The Yamaha LAN Monitor setup dialog box appears.
3. Perform the installation as directed in the screen.

- If the following dialog box appears, click [OK].



- When the uninstallation of Yamaha LAN Monitor is completed, a dialog box will ask you to uninstall the Dante Discovery / Dante Control and Monitoring functions.  
If you use Yamaha switches on the Dante network and if you have not installed the Dante Control and Monitoring functions, install these functions in addition to the WinPcap function.
- If a dialog box appears prompting you to install Rosetta, follow the instructions in the dialog box. Yamaha LAN Monitor cannot be used on a Mac with an Apple M1 processor if Rosetta is not installed.

4. Restart the computer.

### 2.2. Uninstallation

1. Double-click “Uninstall Yamaha LAN Monitor” in the folder that was expanded during installation.  
The Yamaha LAN Monitor uninstallation dialog box appears.
2. Perform the uninstallation according to the onscreen instructions.



- \* If the “User Account Control” dialog box appears, click [Yes].
- \* When the uninstallation of Yamaha LAN Monitor is completed, a dialog box will ask you to uninstall the Dante Discovery / Dante Control and Monitoring functions. Perform the uninstallation as directed in the screen. However, the Dante Discovery/Dante Control and Monitoring function will not be properly uninstalled if another application that uses this function (such as Dante Controller) is currently installed.
- \* WinPcap and Dante Discovery / Dante Control and Monitoring functions will not be uninstalled. If you want to uninstall these functions as well, make sure that other applications are not using them, and then uninstall them individually using [Uninstall] or [Uninstall or change].



3. Restart the computer.

## 2.3. Installing Dante Controller

Dante Controller must also be installed to launch Dante Controller from Yamaha LAN Monitor. For details on installing Dante Controller, refer to the “Dante Controller User Guide.”

You can download Dante Controller and the Dante Controller User Guide from the downloads page of the website below.

<https://www.audinate.com/products/software/dante-controller>



Yamaha LAN Monitor uses the same network adapter as the one selected in Dante Controller to detect Dante-enabled devices. Therefore, in the environment where Dante Controller is installed, select the network adapter in Dante Controller appropriately and then start Yamaha LAN Monitor. When selecting a network adapter with Dante Controller, it is necessary to check “Use Shared Dante Interface”. If you change the network adapter selection in Yamaha LAN Monitor, the network adapter selection status of other applications (such as Dante Controller) that use the Dante shared interface will also be changed.

## 2.4. When using Yamaha LAN Monitor as a user other than the user who executed the installer

In order to use Yamaha LAN Monitor, the user must belong a group that can capture packets. The user who executed the installer will automatically be given group (lan\_monitor\_bpf) privileges allowing for capturing packets. However, for other users, it is necessary to perform the following operations and join the group called lan\_monitor\_bpf.

1. Click the key at the bottom of the screen in [System Preferences] → [Users and Groups], and enter the administrator user name and password.
2. From the list of groups, click lan\_monitor\_bpf and check (allow) the users who want to use LAN Monitor as a membership.

## 2.5. When using a computer with WireShark installed

When using WireShark and Yamaha LAN Monitor at the same time, you need to enable membership for users whom you want to be able to use to both the access\_bpf and lan\_monitor\_bpf groups.

## 3. Starting and exiting Yamaha LAN Monitor

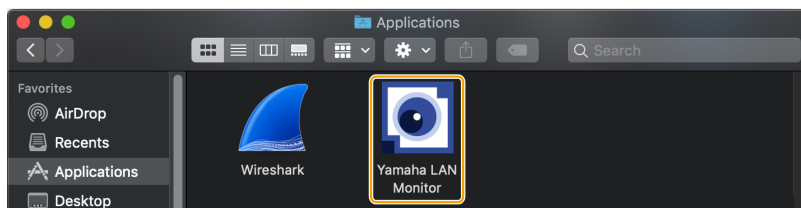
### 3.1. Starting

Start Yamaha LAN Monitor in one of the following ways.

A different startup sequence is used when directly starting up Yamaha LAN Monitor, and when starting it up from a snapshot file (nms file) saved on your computer.

- **Start Yamaha LAN Monitor from the Finder or from the LaunchPad.**

Load a snapshot file held by Yamaha LAN Monitor to display comparison results for the current network status and the snapshot file in the “Tree” view. If there is no snapshot file, only the current network status appears in the “Tree” view.



- **Double click a snapshot file (.nms file) saved to your computer to start up Yamaha LAN Monitor.**

Load the double clicked snapshot file to display comparison results for the current network status and the snapshot file in the “Tree” view.

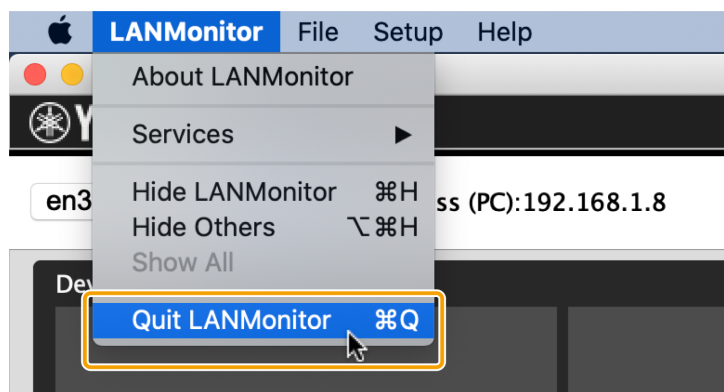


Snapshot is a function that stores the network connection status to Yamaha LAN Monitor. A snapshot file is a .nms file with snapshot data written to it. For more information about the snapshot function, refer to [“Using the snapshot function”](#).

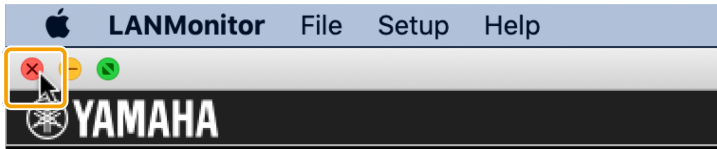
### 3.2. Exiting

Exit Yamaha LAN Monitor in one of the following ways.

- **Select the [LANMonitor] menu in the menu bar, then click [Quit LANMonitor].**



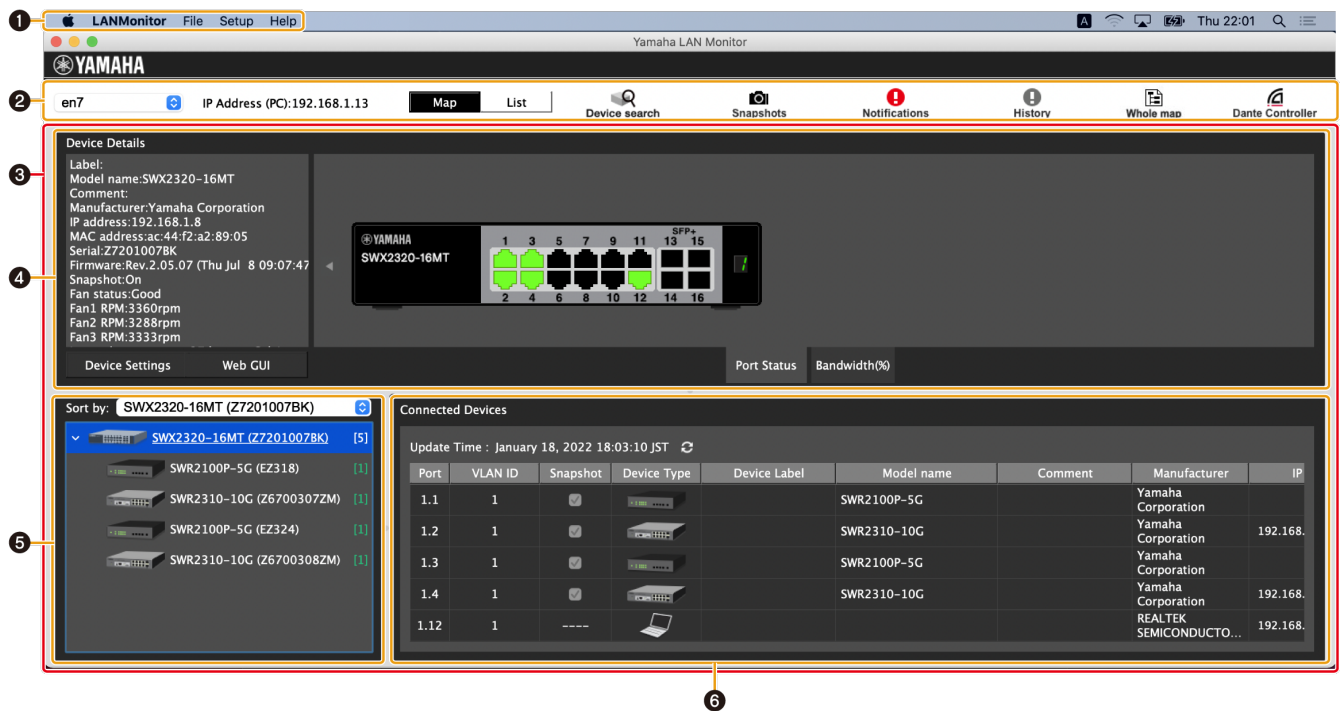
- Click the [X] button on the top left of the window.



When exiting Yamaha LAN Monitor, the window size and position, the device selected and the splitter status are stored together with the “Basic Settings” configured so that the operating environment when exiting Yamaha LAN Monitor is restored when restarting.

# 4. Yamaha LAN Monitor screen structure

The Yamaha LAN Monitor screen lists the current network status in the “Tree” view. Also, you can verify the connection status of the devices, or change some agent settings. The names of each component of the Yamaha LAN Monitor screen are described below.

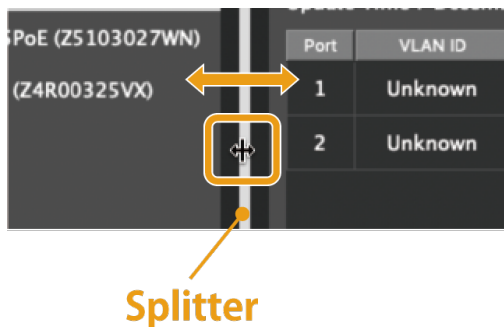


- ① Menu bar
- ② Toolbar and display area
- ③ Map screen
- ④ “Device Details” view
- ⑤ “Tree” view
- ⑥ “Connected Devices” view

## 4.1. Making screen layout changes

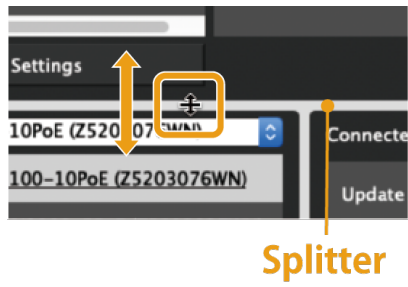
Use the screen splitter to freely resize view borders.

- **Changing the width of the “Tree” view and the “Connected Devices” view**  
 Drag the splitter horizontally (left and right) to resize.



- Changing the height of the “Device Details” view, the “Tree” view, and the “Connected Devices” view

Drag the splitter vertically (up and down) to resize.



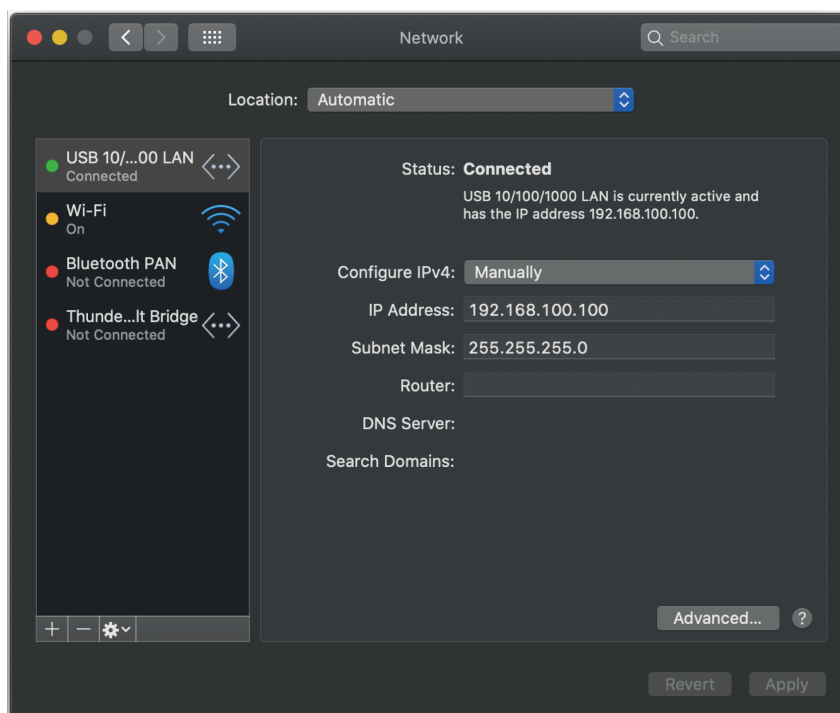
## 5. Network settings on the computer

Configure network settings for your computer.

1. Connect the computer to a network device.
2. Open “System Preferences” of macOS.
3. Click the [Setup] menu on the menu bar → [Open IP Settings for PC].  
The “Network Connections” window appears.



4. From the list of network adapters, select the wired LAN adapter that you want to use with LAN Monitor.



5. Set the IP address according to your network environment.



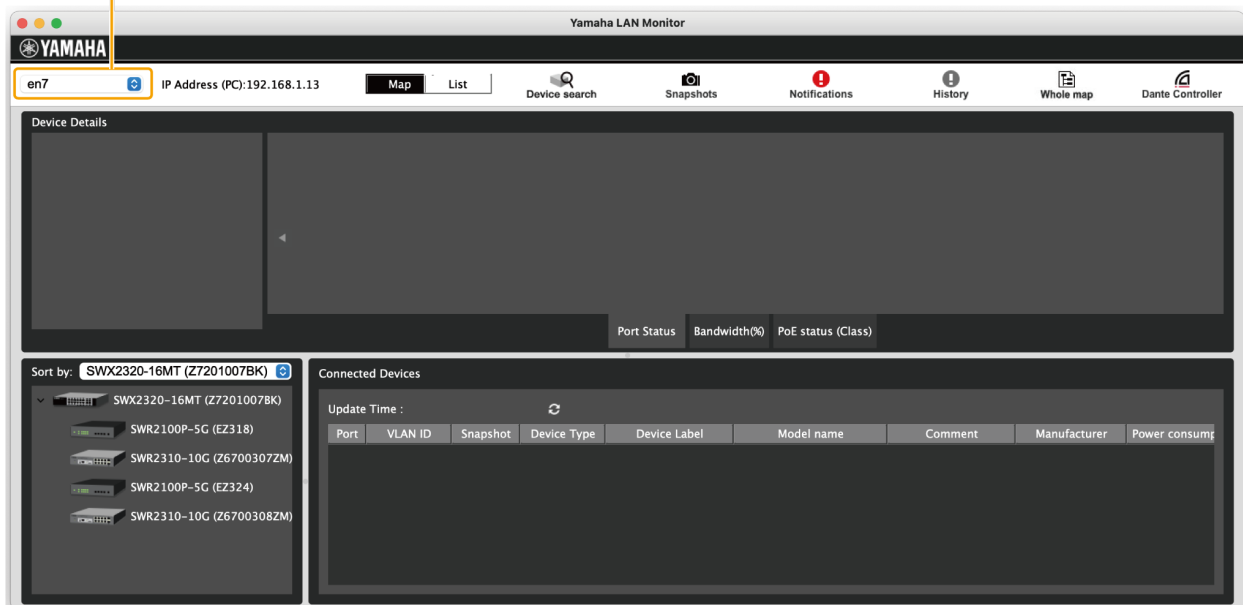
Note that the detection of Dante-enabled devices may not function if multiple network adapters have been “Connected”. Also, in macOS10.15.x or later, do not turn off Wi-Fi.

If Wi-Fi is off, Yamaha LAN Monitor cannot detect the network adapter.

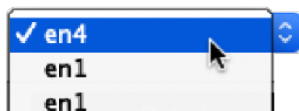
## 6. Basic operation

1. Start Yamaha LAN Monitor.

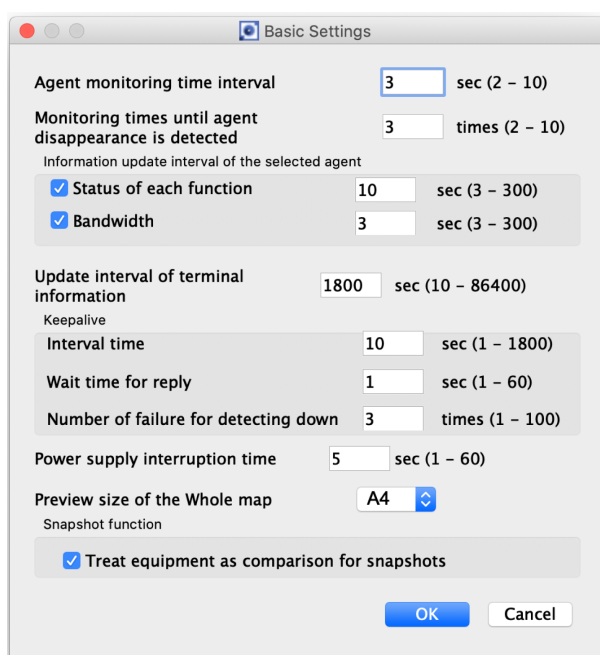
### Network adapter selection pull-down menu



2. From the network adapter selection pull-down menu in the toolbar, select the network adapter to which the network that you want to monitor is connected.

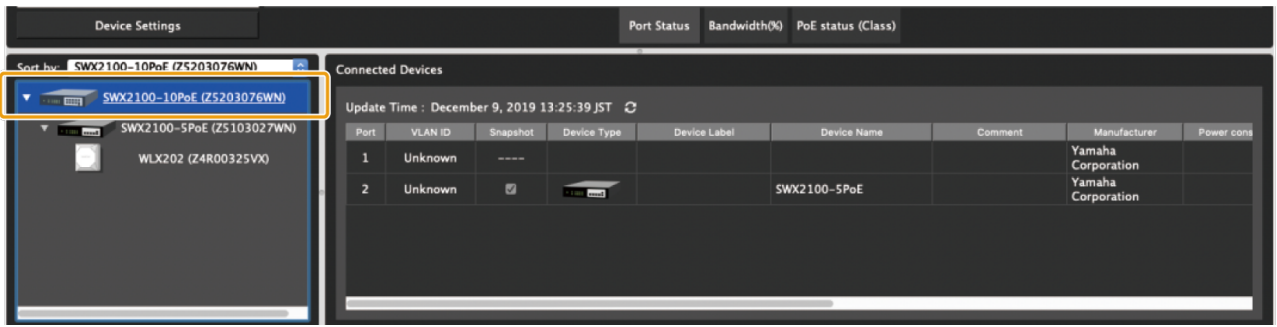


3. Click [Setup] in the menu bar → [Basic Settings] to configure basic Yamaha LAN Monitor settings. Click [OK] to apply settings.



For more details on [Basic Settings], refer to the [Basic Settings] section under the “Menu bar”.

4. Select the device you wish to monitor in the “Tree” view.

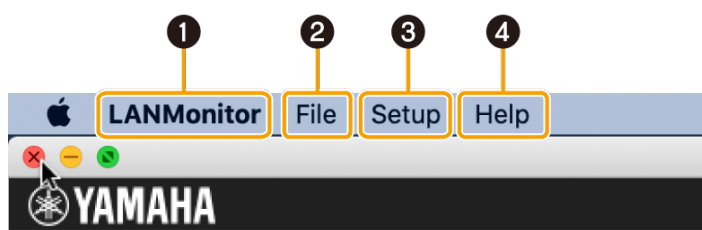


5. Click the [Snapshots] button on the toolbar to use the snapshot function, as needed. Click the [Snapshots] button to save the current network status, issues detected, and other information to Yamaha LAN Monitor as a snapshot.



## 7. Menu bar

This section provides descriptions of each menu on the menu bar: [File], [Setup] and [Help].

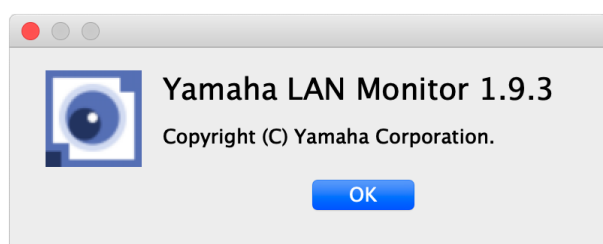


- ① [LANMonitor] menu
- ② [File] menu
- ③ [Setup] menu
- ④ [Help] menu

### 7.1. [LANMonitor] menu

#### 7.1.1. [About LANMonitor]

Displays Yamaha LAN Monitor version and copyright information.

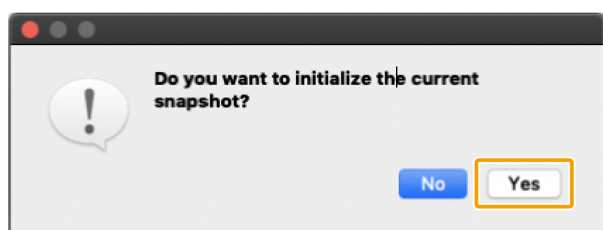


### 7.2. [File] menu

#### 7.2.1. [New]

Initializes the current snapshot held by Yamaha LAN Monitor.

If a snapshot is already held, a confirm initialization message appears. Click [Yes] to initialize the current snapshot.



#### 7.2.2. [Open Snapshot File]

Displays the "Open Snapshot File" dialog box.

In the "Open Snapshot File" dialog box, select a snapshot file saved to the computer or external memory device, then click [Open] to replace the snapshot currently held by Yamaha LAN Monitor with the selected snapshot.

At the same time, Yamaha LAN Monitor will compare the current network status with the snapshot and display the comparison results on the Map screen.

### 7.2.3. [Save As]

Displays the “Save As” dialog box. Saves the snapshot held by Yamaha LAN Monitor to the computer or an external memory device. The saved file has a filename extension of “.nms.”

### 7.2.4. [Exit]

Exits Yamaha LAN Monitor.

## 7.3. [Setup] menu

### 7.3.1. [Import Label Settings]

Opens the “Import Label Settings” dialog box.

Loads device labels displayed in the “Connected Devices” view from a file.

### 7.3.2. [Export Label Settings]

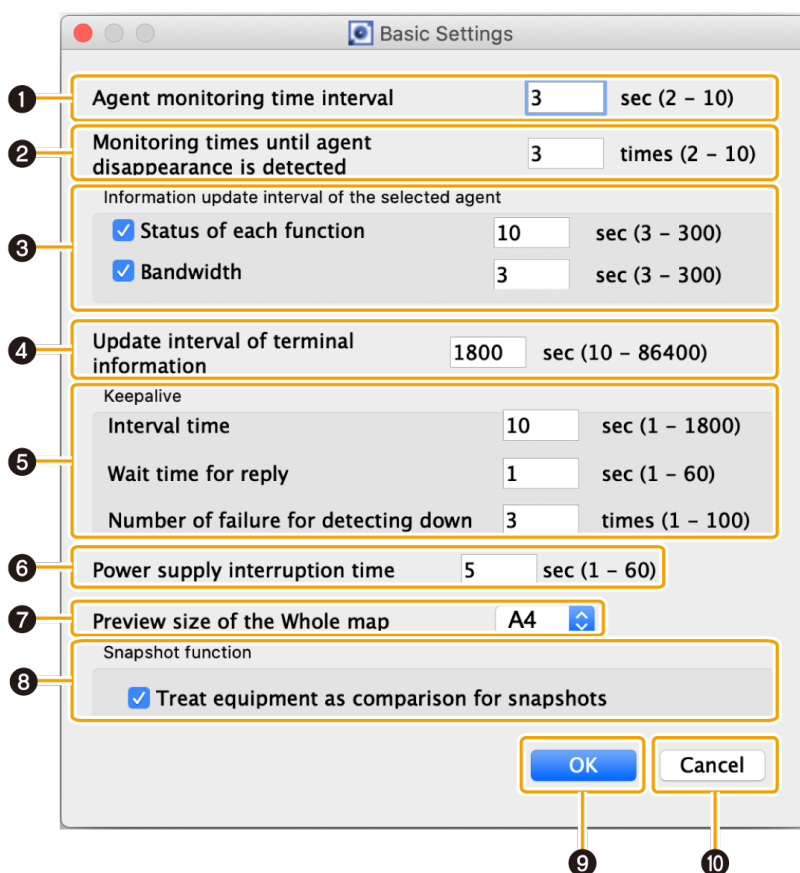
Opens the “Export Label Settings” dialog box.

Saves device labels specified in the “Connected Devices” view as a file. The saved file has a filename extension of “.nml.”

### 7.3.3. [Basic Settings]

Opens the “Basic Settings” dialog box.

Displays a dialog box in which you can make basic settings for Yamaha LAN Monitor.



---

### ① Agent monitoring time interval

Set the agent monitoring time interval in seconds.

- Setting range: 2 – 10 sec
- Default: 3 sec

This will detect the agent and update the Map screen every time the set amount of seconds elapses.

### ② Monitoring times until agent disappearance is detected

Set the monitoring times until agent disappearance is detected.

- Setting range: 2 – 10 times
- Default: 3 times

If the search packets have been sent for the set number of times without receiving a response packet from the agent, the corresponding agent is assumed lost.

### ③ Information update interval of the selected agent

Set the interval used when retrieving information for the currently selected agent in the tree view. Whenever the number of seconds set here elapses, various information will be retrieved from the currently selected agent in the tree view.

You can reduce Yamaha LAN Monitor's processing load by setting the update interval to a longer value.

- Status of each function:  
Sets the interval in seconds at which information other than bandwidth usage is retrieved.
  - Setting range: 3 – 300 sec
  - Default: Check box selected, 10 sec
- Bandwidth:  
Sets the interval in seconds at which bandwidth usage information is retrieved.
  - Setting range: 3 – 300 sec
  - Default: Check box selected, 3 sec

### ④ Update interval of device information

Set the device monitoring time interval in seconds.

- Setting range: 10 – 86400 sec
- Default: 1800 sec

This will detect devices connected to an agent every time the set amount of time elapses.

### ⑤ Keepalive

This pings agents and devices with an IP address to confirm their existence. This is used to set the ping interval, the wait time for reply, and the number of failed attempts before a connection is assumed to be down.

- Interval time:  
Set the ping interval in seconds.
  - Setting range: 1 – 1800 sec
  - Default: 10 sec

- **Wait time for reply:**  
Set the wait time for reply to pings in seconds.
  - Setting range: 1 – 60 sec
  - Default: 1 sec
- **Number of failure for detecting down:**  
Set the number of failures before a connection is detected as being down.
  - Setting range: 1 – 100 times
  - Default: 3 times

#### 6 Power supply interruption time

Suspends the power supply when a disrupted or inactive connection is detected. Set the power supply interruption time in seconds in case of interruption.

- Setting range: 1 – 60 sec
- Default: 5 sec

#### 7 Preview size of the Whole map

Select the size of the preview image of the “Whole map” generated for print preview and printing. If printing or previewing the “Whole map” has failed, the failure may be avoided by setting the preview size to A6.

#### 8 Snapshot function

- “Treat equipment as comparison for snapshots” check box:  
Clear this check box to exclude devices as targets for comparisons.
  - Default: Selected

#### 9 [OK] button

Applies the configured settings.



- The [OK] button is only available when acceptable input values have been input.
- Click the [OK] button to reset the monitoring timer and begin counting from 0 seconds again.

#### 10 [Cancel] button

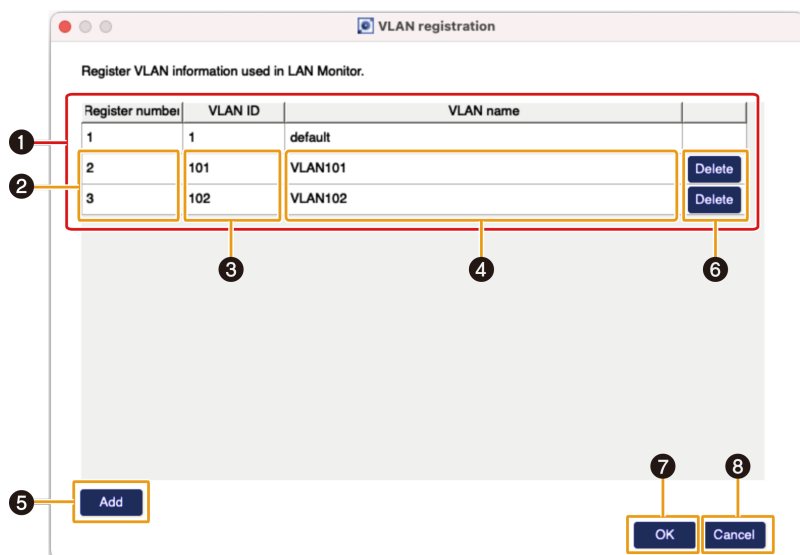
Closes the dialog box without applying setting changes.

### 7.3.4. [VLAN registration]

Open the “VLAN registration” dialog box.

Register the VLAN to use with the Yamaha LAN Monitor.

The VLAN you register here will be used when configuring the tagged VLAN for the switch. Also, as the registered VLAN information is saved in the label settings file, you can export the file from the “Export Label Settings” in the Setup menu.



#### 1 List of registered VLAN

Displays the list of the VLAN registered with the Yamaha LAN Monitor. “VLAN ID:1” is registered as the default VLAN and cannot be changed.

#### 2 “Register number” input area

Input the VLAN registration number here.

This number is only used as the ID number on the Yamaha LAN Monitor, and has no relation to the switch’s VLAN settings.

From two to 255 single-byte characters can be used for this value.

You cannot set the same number twice.

#### 3 “VLAN ID” input area

Input the VLAN ID here.

From two to 4094 single-byte characters can be used for this value.

You cannot set the same VLAN ID twice.

#### 4 “VLAN name” input area

Input the VLAN name here.

The VLAN name you input here is only shown on the Yamaha LAN Monitor display, and is not applied to the agent.

Up to 32 single-byte characters can be used for this value.

#### 5 [Add] button

Press this to add a VLAN.

Up to 32 VLANs can be registered.

#### 6 [Delete] button

Press this button for the row corresponding to the VLAN registration you wish to delete.

**7 [OK] button**

Press this to apply the setting contents.

**8 [Cancel] button**

Press this to close the dialog box without applying the changes you made to the settings.

## **7.4. [Help] menu**

### **7.4.1. [User Guide]**

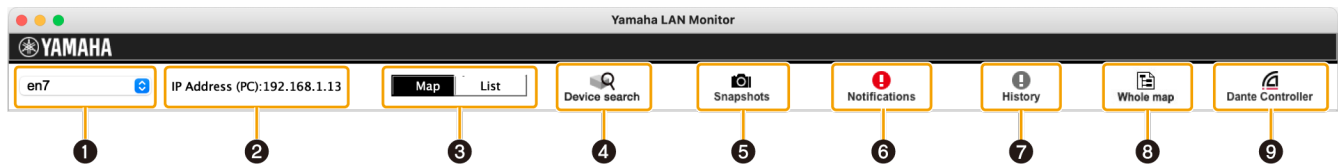
Access the Yamaha website and open the User Guide.

### **7.4.2. [Legal]**

Displays license information for open source software used by Yamaha LAN Monitor.

## 8. Toolbar and display area

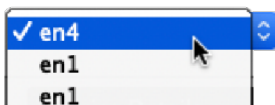
This section describes the display area and each button on the toolbar: [Device search], [Snapshots], [Notifications], [History], [Whole map] and [Dante Controller].



- ① Network adapter selection pull-down menu
- ② [IP Address (PC)]
- ③ Screen switching button
- ④ [Device search] button
- ⑤ [Snapshots] button
- ⑥ [Notifications] button
- ⑦ [History] button
- ⑧ [Whole map] button
- ⑨ [Dante Controller] button

### 8.1. Network adapter selection pull-down menu

Select the network adapter to be monitored by Yamaha LAN Monitor from the pull-down menu. If you change the network adapter, the snapshot internally held in Yamaha LAN Monitor is discarded.



Network adapters that have been disabled on a PC running Yamaha LAN Monitor will not appear.

When Yamaha LAN Monitor is started, the network adapter specified as the Dante shared interface is selected.

If the Dante Discovery/Dante Control and Monitoring function or Dante Controller is not installed, the network adapter that was selected when you last exited will be used.

If you change the network adapter selection, Dante-enabled devices may not be detected, but restarting Yamaha LAN Monitor will allow them to be detected normally.

### 8.2. [IP Address (PC)]

Indicates the IP address that is assigned to the currently selected network adapter.

### 8.3. Screen switching button

This is a toggle button to switch between the [Map screen](#) and the [List screen](#).  
If the Map screen is displayed, the “Map” button will appear in black.



If the List screen is displayed, the “List” button will appear in black.



### 8.4. [Device search] button



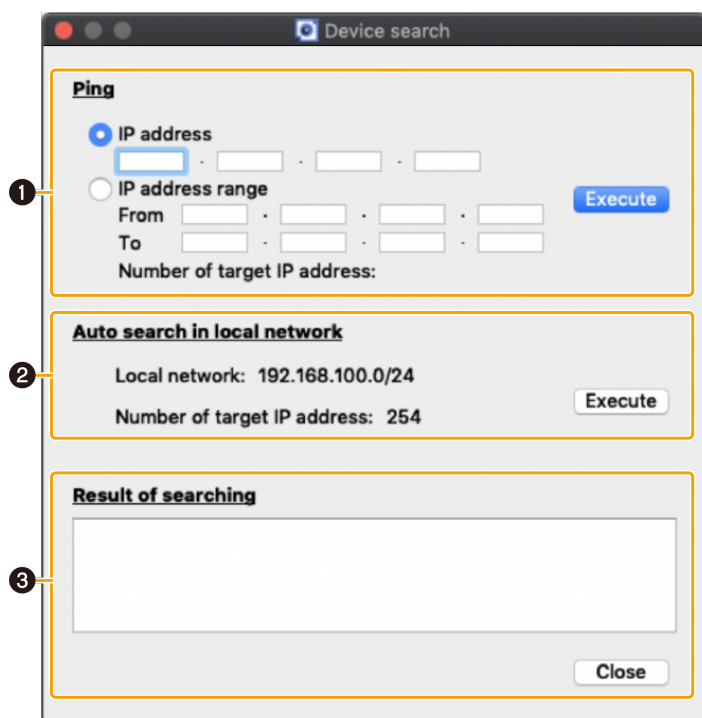
#### Device search

Opens the “Device search” dialog box. This function can use specified IP addresses to ping devices that are connected to the current network. This function also can search the IP addresses of all devices that are connected to the current network.

If the “Connected Devices” view does not list some devices on which you want to perform keepalive checks (life/death monitoring), you can execute this function to list the devices in the “Connected Devices” view.



A device that was discovered by the Device search function will disappear from the “Connected Devices” view if the device does not communicate for a certain period of time. If you want a discovered device to appear continuously in the “Connected Devices” view, enable keepalive check on the device. For details on keepalive check, refer to the description provided for the Keepalive check box in [2 List](#) for the [“Connected Devices” view](#).





## ① Ping

You can ping one or more specified IP addresses. Select a radio button to specify which type of test you want to execute.

Click the [Execute] button to start a ping test. The results of the ping test appear in the Result of searching area.

When you select [IP address] and execute a ping test, the Result of searching area displays the test results regardless of whether there is a reply.

When you select [IP address range] and execute a ping test, the Result of searching area lists only the IP addresses that replied.

- [IP address]  
Select this to ping a single IP address.
- [IP address range]  
Select this to ping a specified range of IP addresses.
  - From : Enter the starting IP address.
  - To : Enter the ending IP address.
- [Number of target IP address:]  
Shows the number of IP addresses in the specified range.  
During a ping test, this shows the number of sent ping messages and the rate of progression.
- [Execute]/[Stop] button  
Click the [Execute] button to start a ping test.  
During the ping test, this button switches to [Stop]. You can click this button to terminate the ping test.

## ② Auto search in local network

This area shows the network information and the number of target IP addresses of the network to which the selected network adapter belongs. Click the [Execute] button to start a search. The results of the search appear in the Result of searching area.

The Result of searching area lists only IP addresses that replied.



Do not change the IP address and subnet mask of the selected network adapter during a search.

- [Local network:]  
Shows the network information of the network to which the network adapter belongs.
- [Number of target IP address:]  
Shows the number of IP addresses to be searched. During a search, this shows the number of searched IP addresses and the rate of progression.
- [Execute]/[Stop] button  
Click the [Execute] button to start a search.  
During the search, this button switches to [Stop]. You can click this button to terminate the search.

## ③ Result of searching area

Shows the [results of a ping test or an auto search in local network](#).

## 8.5. [Snapshots] button




### Snapshots

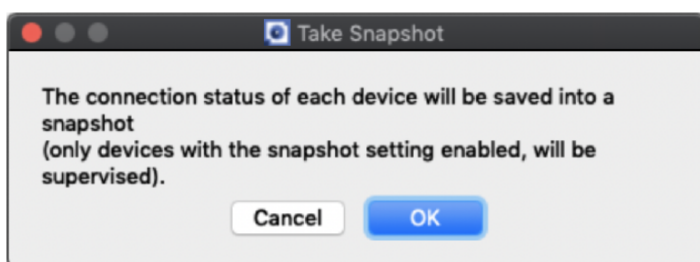
Saves the current network connection status to Yamaha LAN Monitor as a snapshot. Click the [Snapshots] button to display a save snapshot confirmation message. Click [OK] to save the snapshot.



- The snapshot function compares the current network connection status with the previously saved snapshot and displays a message in the “Notification” area when a change is detected.
- To save device information to a snapshot, in [Basic Settings] under [Snapshot function], select the [Treat equipment as comparison for snapshots] check box.
- The [Snapshots] button cannot be used until an agent is detected.
- Agents that have been detected by Yamaha LAN Monitor even once are not recognized as new agents.

### 8.5.1. Using the snapshot function

1. Click the  [Snapshots] button.  
This opens the “Take Snapshot” dialog box.



2. Click the [OK] button.  
This saves a snapshot and begins monitoring.



When a change is detected, click the [\[Notifications\] button to view details of changes made in the Notification area](#). For more details on the types of messages that appear, refer to “[If a change is detected](#)”.

## 8.6. [Notifications] button / “Notification” area



### Notifications

Shows a message in the “Notification” area when there is a change in the current network and snapshot (the previously-saved network status). The message disappears when the network returns to the same state as the snapshot.

#### Notification

Date/Time	Messages
December 9, 2019 13:49:04 JST	[00:a0:de:c1:b0:30] Z4R0032SVX[00:a0:de:2a:d3:6a] is not connected to port 1.
December 9, 2019 13:49:04 JST	[00:a0:de:2a:d3:6a] Z5103027WN[00:a0:de:c1:b0:30] is not connected to port 1.
December 9, 2019 13:49:04 JST	[00:a0:de:2a:d3:ff] Z5203076WN:An unregistered device [00:a0:de:2a:d3:5c] is connected.
December 9, 2019 13:49:04 JST	[00:a0:de:2a:d3:ff] Z5203076WN:There is a device with an incorrect connection port. Connect [00:a0:de:2a:d3:6a] to port 2.



- The message history is added to the “History” area. Click the [ **History** ] button to display the “History” area.
- For details on the types of messages displayed, refer to “[Messages shown in both the Notification area and the History area](#)”.


### 8.6.1. If a change is detected


A [message](#) appears in the “Notification” area. If a device that was saved in the snapshot is no longer found, or if the connection port is different, a red error icon (❗) is shown for the agent that is above the corresponding device. If a device that was not saved is newly found, a blue notification icon (ℹ) appears on the agent that is above the corresponding device.

The screenshot shows the Yamaha LAN Monitor interface. The Notification area (1) displays a table of messages. The Device Details section (2) shows information for a SWX2320-16MT device, including its IP address and port status. The Connected Devices table (3) lists the current network state.

Port	VLAN ID	Snapshot	Device Type	Device Label	Model name	Comment	Manufacturer	IP address
1.1	1	❗	SWR2100P-5G	SWR2100P-5G	SWR2100P-5G		Yamaha Corporation	----
1.2	1	ℹ	SWR2310-10G	SWR2310-10G	SWR2310-10G		Yamaha Corporation	192.168.1.11
1.4	1	ℹ	SWR2310-10G	SWR2310-10G	SWR2310-10G		Yamaha Corporation	192.168.1.12
1.5	1	❗	SWR2100P-5G	SWR2100P-5G	SWR2100P-5G		Yamaha Corporation	----
1.12	1	----	SWR2100P-5G	SWR2100P-5G	SWR2100P-5G		REALTEK SEMICONDUCTO...	192.168.1.13



### ① “Notification” area

Messages regarding the current network are shown here. When a new message is added, the “Notification” area appears automatically. The “Notification” area can also be displayed by clicking the [  Notifications ] button.

When a message is displayed, you can close the “Notification” area by clicking the [  Notifications ] button.

- Date/Time : Shows the date and time at which the message was output.
- Messages : Shows the message that was output by the switch function or snapshot function.

### ② Tree view

If a device that was saved in the snapshot is no longer found, or if the connection port is different, a red error icon () is shown for the agent that is above the corresponding device. If a device that was not saved is newly found, a blue notification icon () appears on the agent that is above the corresponding device.

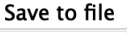
### ③ “Connected Devices” view

If a device saved in the snapshot is no longer found, the corresponding device is shown in red. If a device that had not been saved is newly found, the corresponding device is shown in blue.

## 8.7. [History] button / “History” area



The “History” area shows the history of various messages.

Click the [  ] button to save the entire message history to a text file.

Click the [  ] button to delete the entire message history.

Date/Time	Messages
June 12, 2023 19:04:15 JST	The L2MS manager (ec:b1:d7:51:bf:a0) other than this PC has been detected. Only one L2MS manager can be used in the same network.
June 12, 2023 18:15:14 JST	The word clock of <(00E04CC47D9E)> has been locked.
June 12, 2023 11:50:23 JST	Duplication with L2MS manager (c8:4b:d6:2d:43:d0) has been resolved.
June 12, 2023 11:49:53 JST	The L2MS manager (c8:4b:d6:2d:43:d0) other than this PC has been detected. Only one L2MS manager can be used in the same network.
June 9, 2023 17:45:21 JST	[ac:44:f2:a2:8a:04] :Port (3) of the Yamaha switch started supplying power to a Class4 device.



For details on the types of messages displayed, refer to “[Messages shown in both the Notification area and the History area](#)”.

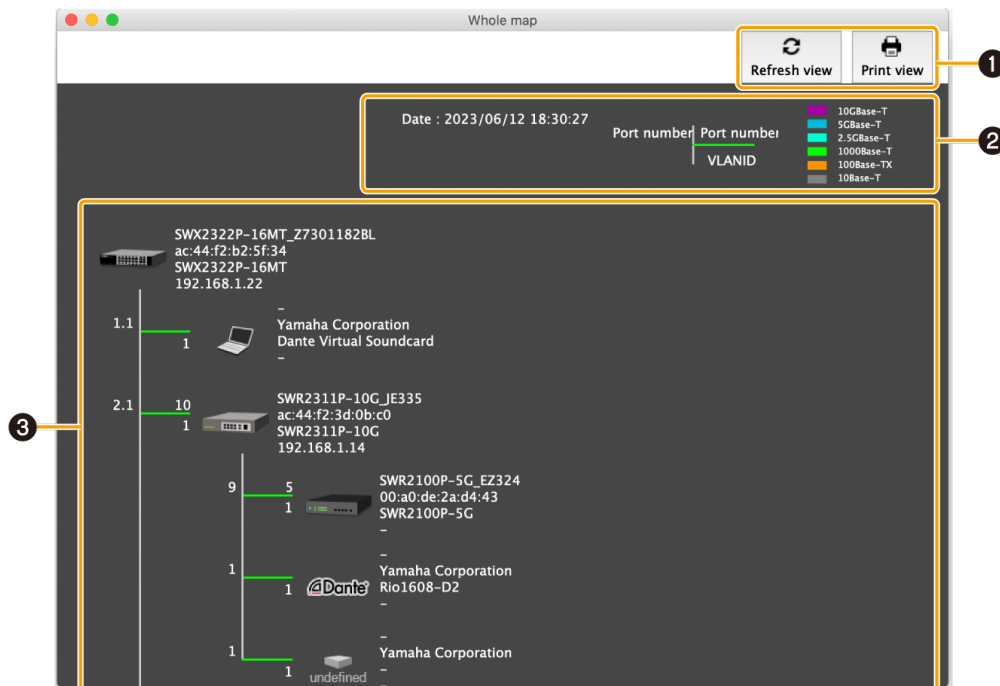
## 8.8. [Whole map] button





### Whole map

Displays the whole map screen. This displays all of the devices connected to the network in a single view.

A print function allows you to print the whole map that is being displayed.



### ① Button area

- 
 [ Refresh view ] button  
 Refreshes the information in the network configuration display area. Click this button to refresh with the latest information.
- 
 [ Print view ] button  
 Displays the print preview screen. You can print the whole map.

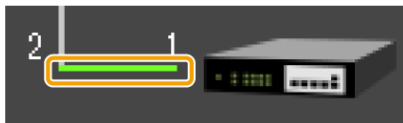
### ② Legend area

- "Date :"  
 Shows the date and time of when the whole map screen or the [Refresh view] button was operated.
- "Port number", "VLAN ID"  
 Shows the port number of the higher device (agent) ("2" in the figure below), the port number of the device connected to the higher device (agent) ("1" in the figure below), and the VLAN ID that joins the ports connecting the devices.



For the VLAN mode of trunk or hybrid, the set VLAN IDs are listed vertically.

- Link speed  
Shows the link speeds. The link speed between devices (the link speed for the port of the higher device) is indicated by a colored connection line between the device icons (the lime line in the figure below).



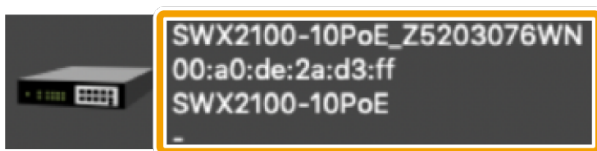
The link speed indicated by each color is described in the legend at the upper right of the screen.

### ③ Network configuration display area

Shows the information of agents and equipment in the network.

The following information is available depending on the type of the device.

- Agent  
Shows the name, MAC address, device name, and IP address (as shown in the figure below). The IP address appears as a hyphen (-) when the address cannot be obtained.



- Device  
Shows the IP address, manufacturer, device name, and comment (as shown in the figure below). The manufacturer, device name, and comment appear as hyphens (-) when nothing is specified.



- Dante device  
Shows the IP address, manufacturer, device name, and comment.  
The comment appears as a hyphen (-) when no comment is specified. If Dante Control and Monitoring has not been installed, Dante-enabled devices are identified as equipment, so the available information is the same as for "Equipment."

## 8.9. [Dante Controller] button



### Dante Controller

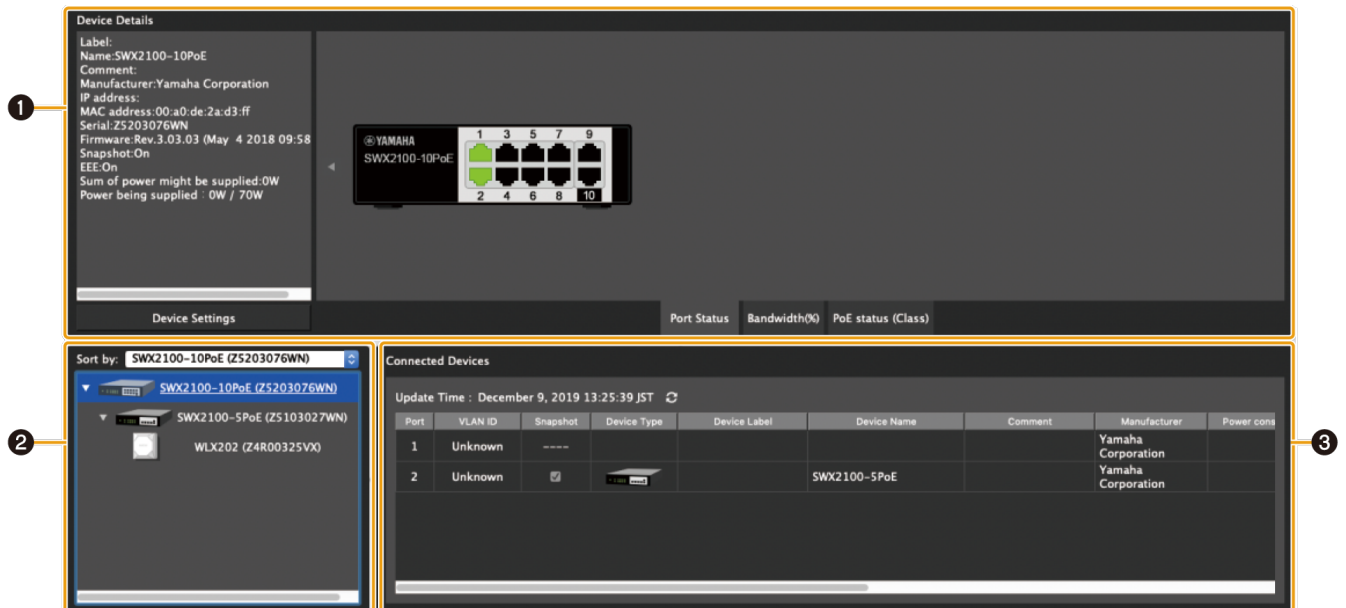
Starts the Dante Controller that is installed on the computer. Dante settings, such as patching, can be configured.

To display this button, [Dante Control and Monitoring must be installed](#).

If Dante Controller is not installed, an error message appears.

For details on using Dante Controller, refer to the Dante Controller User Guide.

## 9. Map screen

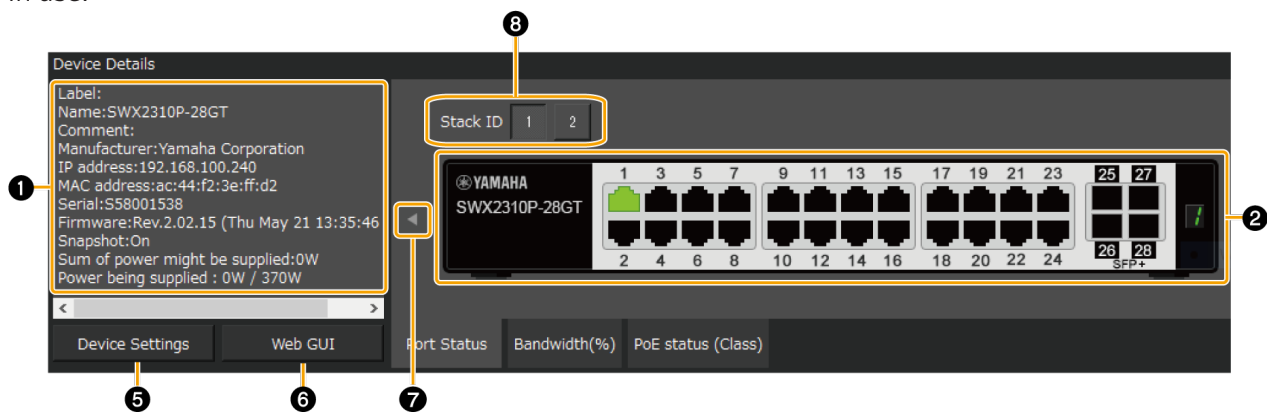


- ① "Device Details" view
- ② Tree view
- ③ "Connected Devices" view

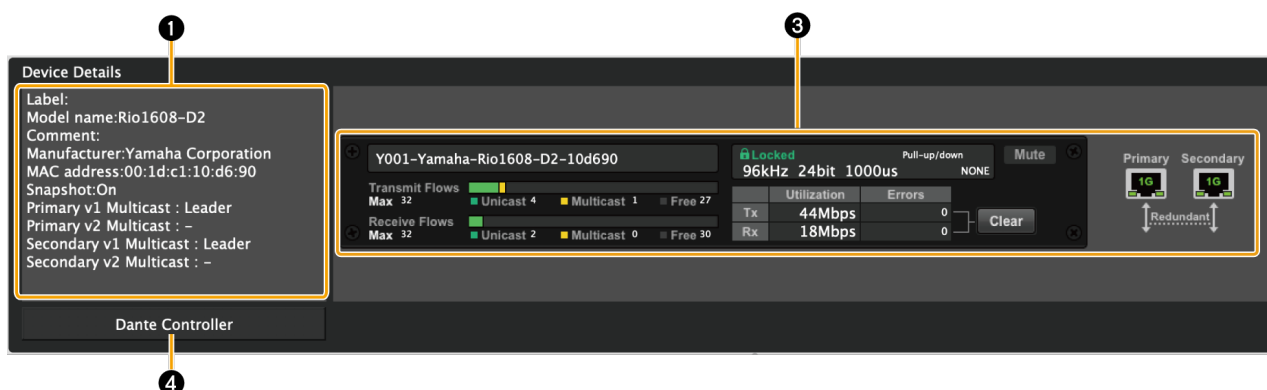
### 9.1. "Device Details" view

This shows detailed information about the device that is selected in the tree view.

The left side shows detailed information about the device, and the right side shows port information and information on the Dante-enabled device. The displayed contents will vary depending on the device in use.



For a Dante-enabled device



## ① Device Details

This area shows the following information. Depending on the device, some items will not be shown.

"Label"	Shows the device label that was entered in the "Device Settings" dialog box or the "Connected Devices" view.
"Model name"	Shows the model name of the device.
"Comment"	Shows the comment that was entered in the "Connected Devices" view. You can freely enter information about the on-site cabling or the role of the device.
"Manufacturer"	Shows the manufacturer name of the device.
"IP address"	Shows the IP address of the device. The IP address of the device can be changed in the "Device Settings" dialog box. This field is left blank for devices without an IP address.
"MAC address"	Shows the MAC address of the device.
"Serial"	Shows the serial number of the device.
"Firmware"	Shows the firmware revision of the device.
"Snapshot function"	Shows whether the device is monitored by the Snapshot function (On) or not monitored (Off).
"EEE"	Shows whether the power-saving function is enabled or disabled. This shows either Economy Mode or Normal Mode for SWX2200 series devices.
"Fan Status"	For a switch with a built-in fan, shows whether the fan is operating normally or malfunctioning.
"Fan RPM"	Shows the fan RPM for a switch with a built-in fan.
"Internal temperature"	Shows the internal temperature of the switch.
"Sum of power might be supplied"	Shows the sum of the maximum power capacity supplied to the switch-connected device. Note that the power supply may be interrupted, depending on the condition, if this value exceeds the limitation of the maximum power supply capacity for the PoE switch.
"Power being supplied"	Shows the total power supplied from each port on the switch and from the entire device.
"Link aggregation"	Shows the link aggregation type.
"Primary v1 Multicast"	Shows the clock status of the PTPv1 on the primary port.
"Primary v2 Multicast"	Shows the clock status of the PTPv2 on the primary port.
"Secondary v1 Multicast"	Shows the clock status of the PTPv1 on the secondary port.
"Secondary v2 Multicast"	Shows the clock status of the PTPv2 on the secondary port.



## 2 Port status

This area shows a graphic representation of information concerning the Yamaha switch and Dante-enabled devices. Use the tabs located below the graphic to switch the information that is shown.

- [Port Status] tab: Shows the connection status and communication speed of each port.
- [Bandwidth(%)] tab: Shows the bandwidth usage of each port. (For switches only)
- [PoE status (Class)] tab: This area shows the power supply status for each port. (For PoE-enabled switches only)

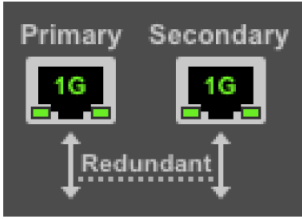


For more details on the graphic display, refer to [“Port icons in the “Device Details” view”](#).

The bandwidth usage update interval can be changed in the [“Basic Settings” dialog box](#), under “Information update interval for selected agent” - “Bandwidth”.

## 3 Information for the Dante-enabled device

This area shows information for the Dante-enabled device. To display information for the Dante-enabled device, [Dante Control and Monitoring must be installed](#).

Name	Shows the label of the Dante-enabled device.
“Transmit Flows”	Shows the transmit flow status.
“Receive Flows”	Shows the receive flow status.
“Locked” / “Unlocked” indicator	Indicates whether the audio signal is locked or unlocked.
Sampling frequency / bit-length / latency	Shows the sampling frequency, bit-length, and latency of the audio signal. The latency is shown in $\mu$ second units.
“Pull-up/down”	Shows the sampling rate pull-up/pull-down setting.
“Mute” indicator	Lit in red when the Dante-enabled device is muted.
“Tx” / “Rx”	Shows information about Dante transmission and reception. [Utilization] : Shows the current amount of transmission and reception in kbps units. [Errors] : Shows the number of errors that occurred during transmission and reception. The [Clear] button located at the right resets the indication of the [Errors] field to 0.
“Primary” / “Secondary”	Shows the status of the Dante “Primary” port and “Secondary” port. The link speed is shown inside the graphic of the port. The setting of the Dante “Secondary” port is shown below the graphic of the ports. 



For more about transmit flow and receive flow, and unicast and multicast, visit the following Yamaha Pro Audio site, navigate to [Training & Support] → [Self-Training] → [Dante Network Design Guide], and refer to [Multicast Settings].  
<https://asia-latinamerica-mea.yamaha.com/en/products/proaudio/>

**4 [Dante Controller] button**

You can click this to start Dante Controller and configure Dante settings, such as patching. If Dante Controller is not installed, an error message appears.

For details on using Dante Controller, refer to the Dante Controller User Guide.

**5 [Device Settings] button**

This shows the “Device Settings” dialog box.

For details, refer to “[Device Settings](#)” dialog.

**6 [Web GUI] button (shown only for an agent device with a Web GUI)**

When you click this, the Web GUI of the device currently selected in the tree appears in the default browser.

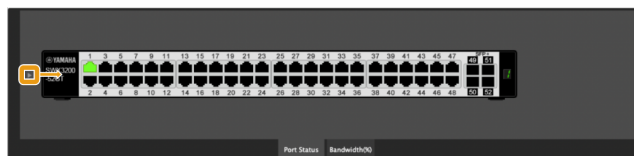
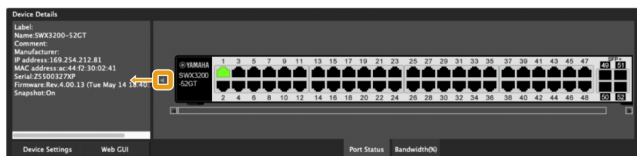
In the Web GUI, you can configure settings for Yamaha switch and Yamaha wireless LAN access point and manage them.

For details, refer to “[Logging in to the Web GUI](#)”.

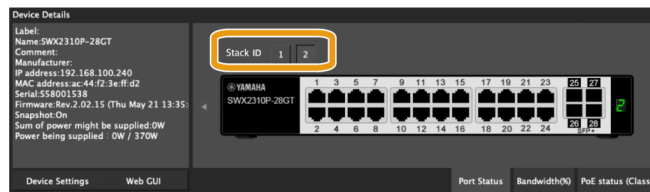
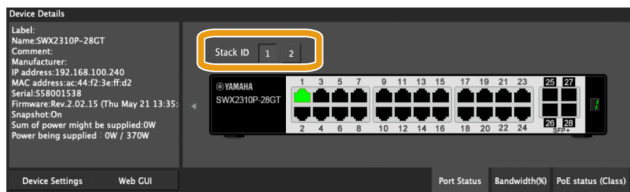
**7 Button to show/hide device details**

Click the button to switch whether device details are shown or hidden.

For Dante-enabled devices, the switch button is not shown.

**8 Button to switch Stack ID (shown only for an agent device with stack function enabled)**

When you click this, the port information of the device with the selected stack ID is displayed.

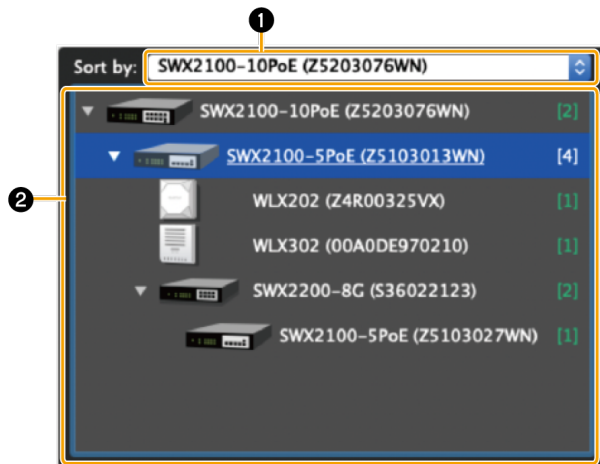


## 9.2. Tree view

This area shows the Yamaha switch, and Dante-enabled devices detected by Yamaha LAN Monitor. The device name and the number of connected devices (agent devices only) are shown at the right of the icon; when you click the open/close button [>] located at the left of the icon, the devices connected below that agent device are shown.



This will not function until a Yamaha switch is found.



### 1 Sorting order reference node selection pull-down menu

Selects the Yamaha switch that you want to appear at the top of the tree view. These are shown in their connection order relative to the selected Yamaha switch.



- Only the Yamaha switch for the current network will appear in the sorting order reference node selection pull-down menu.
- When starting Yamaha LAN Monitor, the Yamaha switch closest to the computer will serve as the starting point for the tree view.

### 2 Tree view

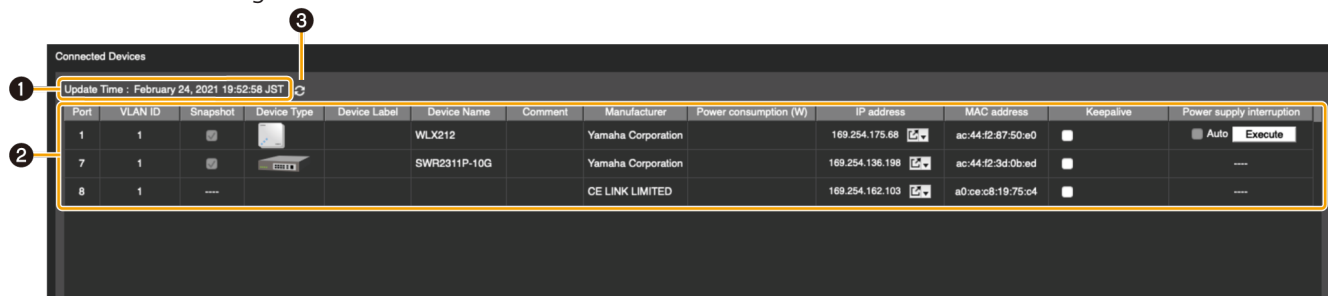
This area shows the Yamaha switch, and Dante-enabled devices detected by Yamaha LAN Monitor. If a device that was saved in the snapshot is no longer found, or if the connection port is different, a red error icon (❗) is shown for the agent that is above the corresponding device. If a device that was not saved previously is newly found, a blue notification icon (i) appears on the agent that is above the corresponding device. Of the Dante-enabled devices, a green flag icon (P) appears on the PTP Leader (Primary) device, and an orange flag icon (S) appears on the PTP Leader (Secondary) device.

### 9.3. “Connected Devices” view

When you click a Yamaha switch shown in the tree view, a list of the connected devices is shown in the “Connected Devices” view.

The “Connected Devices” view is updated each time that the time specified in “Information update interval of the selected agent” - “Status of each function” of “Basic Settings” has elapsed.

When you click the [Refresh] button of the “Connected Devices” view, information for the devices connected to the agent is refreshed.



#### ① “Update Time:”




Shows the date and time at which information was last captured for the devices that are connected to the Yamaha switch or Yamaha wireless LAN access point that is selected in the “Tree” view.

#### ② List

Shows a list of information for the devices that are connected to the agent that is selected in the “Tree” view.

Depending on the device, some items will not be shown. Click the title row to sort according to the item clicked.

“Port”	Shows the port number of the agent to which the device is connected. The switch port numbers that support the stack function are displayed in the format “[Stack ID].[Port number]”. If a Dante device has multiple logical ports for a single physical port, they are all shown with the same port number. On Yamaha Dante-enabled devices, there is no need to pay particular attention to non-Dante ports.
“VLAN ID”	Shows the VLAN ID joined by the port to which the device is connected. When multiple VLAN IDs are set, each VLAN ID will be separated with a comma. Maximum of 9 (trunk=8, access=1). The access port (A), and trunk port (T) will appear after the VLAN ID. However, (A) will not appear when only the access port is in use.
“Snapshot”	Specifies whether each device is included as a target of the snapshot function. Users can switch settings only for the devices other than agents. Agents cannot be changed.
“Device Type”	Shows an icon that indicates the type of device. If device is terminal that except Dante-enabled device, you can switch the icon that is displayed.
[Device Label]	You can enter a character string to identify the individual device.
[Model name]	Shows the model name of the device. Some devices allow you to input and edit the device name.
[Comment]	Allows you to freely assign a comment. You can enter information about the on-site cabling or the role of the device.
[Manufacturer]	Shows the manufacturer name of the device. Some devices allow you to input and edit the manufacturer name.

[Power consumption (W)]	<p>Enter the maximum power consumption of the device over a range of 0.0 – 90.0.</p> <p>Enter the maximum power consumption of the connected device, when known, to obtain an accurate view of the sum of the maximum power that might be supplied to the connected device.</p> <p>If [Power consumption (W)] is not entered, the maximum power supply defined for the power supply class will be used to calculate the [Sum of power might be supplied].</p>
"IP address"	<p>Shows the IPv4 address of the device.</p> <ul style="list-style-type: none"> <li>•  button (opens the Web browser) : this opens the registered URL in the Web browser. This button is only displayed for connected devices whose IP address can be acquired. The destination URL is registered as the URL shown below by default. http://&lt;IP_ADDR&gt;/ Note: "&lt;IP_ADDR&gt;" is the IP address of a connected device acquired by the Yamaha LAN Monitor Press the  button to open the registered URL in the Web browser. Press  to display the context menu for the following items.</li> <li>• Access via Web browser Opens the registered URL in the Web browser</li> <li>• Destination URL settings Opens the destination URL settings dialog box. In the destination URL settings dialog box, you can set the [Destination URL] that is used when pressing the "Open in Web browser" button.</li> </ul>
"MAC address"	Shows the MAC address of the device.
[Keepalive]	<p>Select this check box to perform keepalive checks on the device. If this check box is selected, Yamaha LAN Monitor pings the device to perform keepalive checks according to settings configured in the "<a href="#">Basic Settings</a>" dialog box.</p> <p>Selecting this check box will display the following depending on the circumstances.</p> <ul style="list-style-type: none"> <li>• Checking: Now checking.</li> <li>• UP: Successfully detected device.</li> <li>• DOWN: Failed to detect device.</li> </ul>
[Power supply interruption]	<p>Restart devices directly connected to the PoE-enabled Yamaha switch by turning the power supply on and off.</p> <p>The duration of power supply interruption is set in the "<a href="#">Basic Settings</a>" dialog box by configuring the "Power supply interruption time".</p> <ul style="list-style-type: none"> <li>• [Auto] check box: Select this check box to temporarily turn off the power supply to devices that could not be detected using [Keepalive]. This setting is only available when the [Keepalive] check box is selected.</li> <li>• [Execute] button: This manually interrupts the power supply. While off, a "Stopped" message will appear.</li> </ul>



- If multiple Dante-enabled devices are connected in a daisy-chain, the other devices are also shown together at the same port number as the device that is connected immediately below the switch.
- Of the settings in the above list, the settings of “Device Type”, [Device Label], [Model name], [Manufacturer], [Keepalive], [Power supply interruption] and [Destination URL] can be moved to another computer by using the [Setup] menu commands [Export Label Settings] and [Import Label Settings].  
Note that the “Label Settings file” generated by this software version cannot be imported to the software version 1.3.6 or earlier.
- Note that a snapshot notification will not be provided even if the keepalive status changes from “UP” to “DOWN.”

### List entry

To enter information in a list, or edit entered information, double click a cell. Entries up to the following character counts and within the following ranges are permitted.

- [Device Label], [Model name], [Comment], [Manufacturer] : Up to 128 characters
- [Power consumption (W)] : Up to the first decimal place within a range of 0.0 – 90.0



Content entered into the [Device Label] and [Comment] fields are shared with “Device Settings” dialog box. Changing entries in one will change the corresponding entry for the other.

### Show connection status

A snapshot saves the connected state of the devices at the time that you started monitoring. Subsequently, if a device saved in the snapshot is no longer found, the corresponding device is shown in red. If a device that had not been saved previously is newly found, the corresponding device is shown in blue.

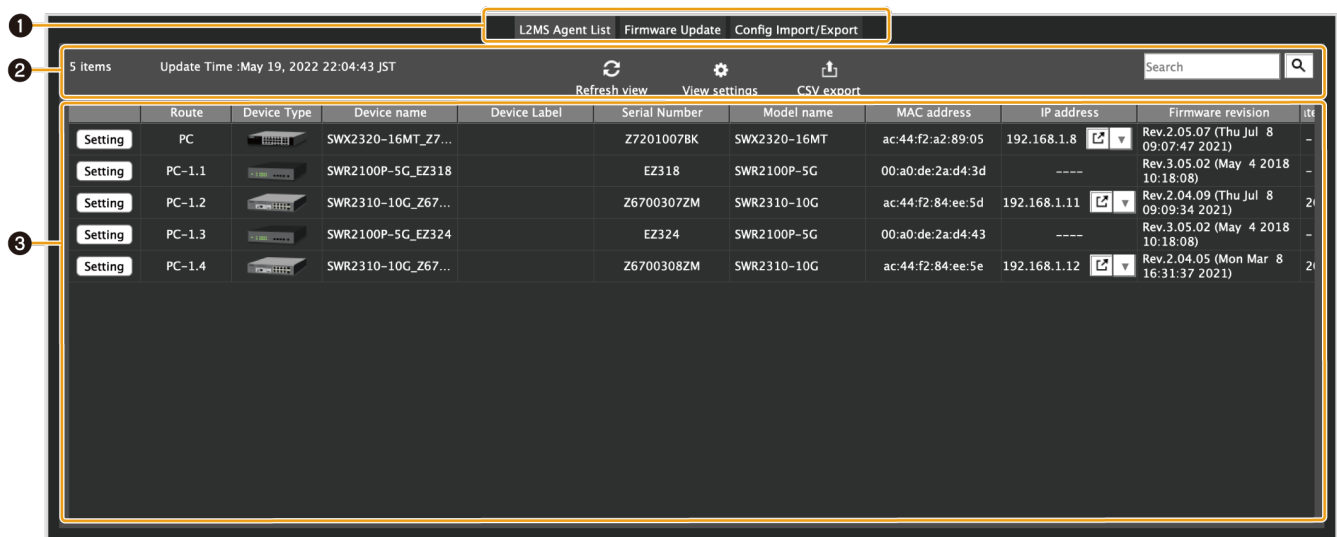
Port	VLAN ID	Snapshot	Device Type	Device Label	Device Name	Comment	Manufacturer	Power cons
1	Unknown	----					Yamaha Corporation	
3	Unknown	<input checked="" type="checkbox"/>			SWX2100-5PoE		Yamaha Corporation	
4	Unknown	<input checked="" type="checkbox"/>			SWX2100-5PoE		Yamaha Corporation	

### ③ [Refresh] button

Refreshes the information for the other agents or devices that are connected to the agent selected in the tree view.

# 10. List screen

This screen displays the agents managed by Yamaha LAN Monitor as a list.



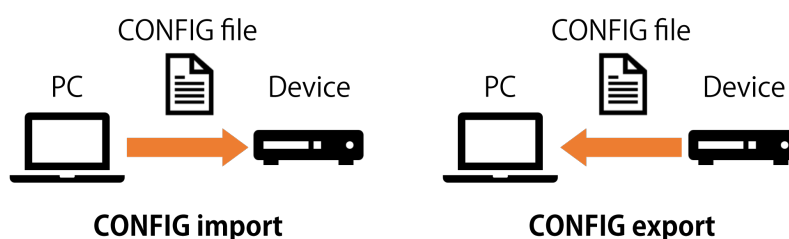
- ① List display switching button
- ② Operation panel
- ③ Device list

## ① List display switching button

Tab button to switch between the following three types of list views.

Tab name	Descriptions
L2MS Agent List	Displays a list of Yamaha switches and Yamaha wireless LAN access points being managed by LAN Monitor. For details, refer to <a href="#">“L2MS Agent List”</a> tab.
Firmware Update	From this tab, you can update the firmware for devices being managed by LAN Monitor, and view information about the firmware. For details, refer to <a href="#">“Firmware Update”</a> tab.
Config Import/Export	From this tab, you can import/export the CONFIG for devices being managed by LAN Monitor, and view information about the CONFIG. For details, refer to <a href="#">“Config Import/Export”</a> tab.

- “CONFIG import” is a function for applying the CONFIG file on the PC to the agent device.
- “CONFIG Export” is a function for saving the CONFIG file of the agent device to your PC.



## ② Operation panel

This panel shows the buttons for controlling the list display, the buttons to operate on the

currently selected device and a search box to narrow down the display by search term.

The buttons that appear on each tab are different.

For details, refer to [“L2MS Agent List” tab](#), [“Firmware Update” tab](#), [“Config Import/Export” tab](#).

### 3 Device list

Displays a list of devices corresponding to the currently selected tab.

Different devices are shown on each tab.

As with the list view of the [“Connected Devices” view](#), clicking on the title line will sort the list by the item you click.

For details, refer to [“L2MS Agent List” tab](#), [“Firmware Update” tab](#), [“Config Import/Export” tab](#).

## 10.1. “L2MS Agent List” tab

Displays a list of Yamaha switches and Yamaha wireless LAN access points being managed by LAN Monitor.

The content displayed will be automatically updated every 30 seconds.

You can also refresh the display manually by clicking the [“Refresh view” button](#).

The screenshot shows the 'L2MS Agent List' tab interface. At the top, there are three tabs: 'L2MS Agent List', 'Firmware Update', and 'Config Import/Export'. Below the tabs, there is a header area with a '5 items' indicator (1), an 'Update Time : May 19, 2022 22:04:43 JST' (2), a 'Refresh view' button (3), a 'View settings' button (4), a 'CSV export' button (5), and a search box (6). The main area contains a table with the following columns: Route, Device Type, Device name, Device Label, Serial Number, Model name, MAC address, IP address, and Firmware revision. The table lists four devices, each with a 'Setting' button (7) in the first column. The table data is as follows:

Route	Device Type	Device name	Device Label	Serial Number	Model name	MAC address	IP address	Firmware revision	
PC		SWX2320-16MT_Z7...		Z7201007BK	SWX2320-16MT	ac:44:f2:a2:89:05	192.168.1.8	Rev.2.05.07 (Thu Jul 8 09:07:47 2021)	-
PC-1.1		SWR2100P-5G_EZ318		EZ318	SWR2100P-5G	00:a0:de:2a:d4:3d	----	Rev.3.05.02 (May 4 2018 10:18:08)	-
PC-1.2		SWR2310-10G_Z67...		Z67003072M	SWR2310-10G	ac:44:f2:84:ee:5d	192.168.1.11	Rev.2.04.09 (Thu Jul 8 09:09:34 2021)	2i
PC-1.3		SWR2100P-5G_EZ324		EZ324	SWR2100P-5G	00:a0:de:2a:d4:43	----	Rev.3.05.02 (May 4 2018 10:18:08)	-
PC-1.4		SWR2310-10G_Z67...		Z67003082M	SWR2310-10G	ac:44:f2:84:ee:5e	192.168.1.12	Rev.2.04.05 (Mon Mar 8 16:31:37 2021)	2i

#### 1 Number of items displayed

Shows the number of entries displayed in the device list.

#### 2 “Update Time :”

Displays the date and time when the information for Yamaha switches and Yamaha wireless LAN access points being managed by LAN Monitor was last retrieved.

#### 3 “Refresh view” button

Press this to retrieve the information for the Yamaha switches and Yamaha wireless LAN access points being managed by LAN Monitor again. The display contents will be updated.

#### 4 “View settings” button

A dialog box for selecting items to be displayed in the [“L2MS Agent List” tab](#) will appear. Items checked in the dialog will be displayed, and items unchecked will be hidden.



## 5 “CSV export” button

Exports the list of switches/wireless APs currently being displayed to a CSV file.



Items that are hidden in the “View settings” will not be included in the exported CSV file.

Also, when narrowing down the search results, devices that are not shown in the search results are not included in the exported CSV file.

## 6 “Search” box

Narrows down the currently displayed device by string.

Type the string you want to search in the text box and press Enter key or the Search button to execute the search.

When a search is performed, only devices with information that matches the string entered in the text box will be displayed in the device list.

The title line of the table turns blue while the search is in progress, and “Displaying search results” is shown below the search box.

To cancel the search, empty the text box and press the Enter key or the Find button, or switch to a different tab.

Route	Device Type	Device name	Device Label	Serial Number	Model name	MAC address	IP address	Firmware revision
Setting PC-1.1		SWR2100P-5G_EZ318		EZ318	SWR2100P-5G	00:a0:de:2a:d4:3d	----	Rev.3.05.02 (May 4 2018 10:18:08)
Setting PC-1.3		SWR2100P-5G_EZ324		EZ324	SWR2100P-5G	00:a0:de:2a:d4:43	----	Rev.3.05.02 (May 4 2018 10:18:08)

## 7 Device list

The following information will be displayed for each device managed by LAN Monitor. Some items may not be displayed depending on the device.

In addition, items that are hidden in “View settings” will not be displayed.

“Route”	Displays routing information showing where the device is, respective to the PC running LAN Monitor. For example, the device labeled “PC” is directly connected to the LAN Monitor, and the device labeled “PC-3” is connected to port 3 of the switch connected to LAN Monitor. The switch port numbers that support the stack function are displayed in the format “<Stack ID>.<Port number>”.
“Device Type”	Shows an icon that indicates the type of device.
“Device name”	The device names of the Yamaha switch and Yamaha wireless LAN access point will be displayed. The device name is a character string set in the device itself.
“Device Label”	You can enter any text you like to identify the individual device. The device label is the information stored in LAN Monitor, and the edited information is not reflected in the device itself. This information is the same as the label information used in the <a href="#">“Connected Devices” view</a> .
“Serial Number”	Shows the serial number of the device.
“Model name”	Shows the model name.
“MAC address”	Shows the MAC address of the device.

<b>"IP address"</b>	Shows the IPv4 address of the device. As with the <a href="#">"Connected Devices" view</a> , you can use the opens the Web browser button.
<b>"Firmware revision"</b>	Shows the firmware revision of the device.
<b>"Date and time of last CONFIG import"</b>	Shows the date and time of the last CONFIG import. When you perform a CONFIG import, the information to be displayed in this area will be saved. This information will also be saved in the exported "Label Settings file".
<b>"CONFIG file of last import"</b>	Shows the file path of the last imported CONFIG file. When you perform a CONFIG import, the information to be displayed in this area will be saved. This information will also be saved in the exported "Label Settings file".
<b>"Comment"</b>	Allows you to freely assign a comment. You can enter information about the on-site cabling or the role of the device. This is the same as the "Comment" used in the <a href="#">"Connected Devices" view</a> .



When using the snapshot function, as well as the ["Connected Devices" view](#), if a device saved in the snapshot is no longer found, the corresponding device is shown in red. If a device that had not been saved previously is newly found, the corresponding device is shown in blue.

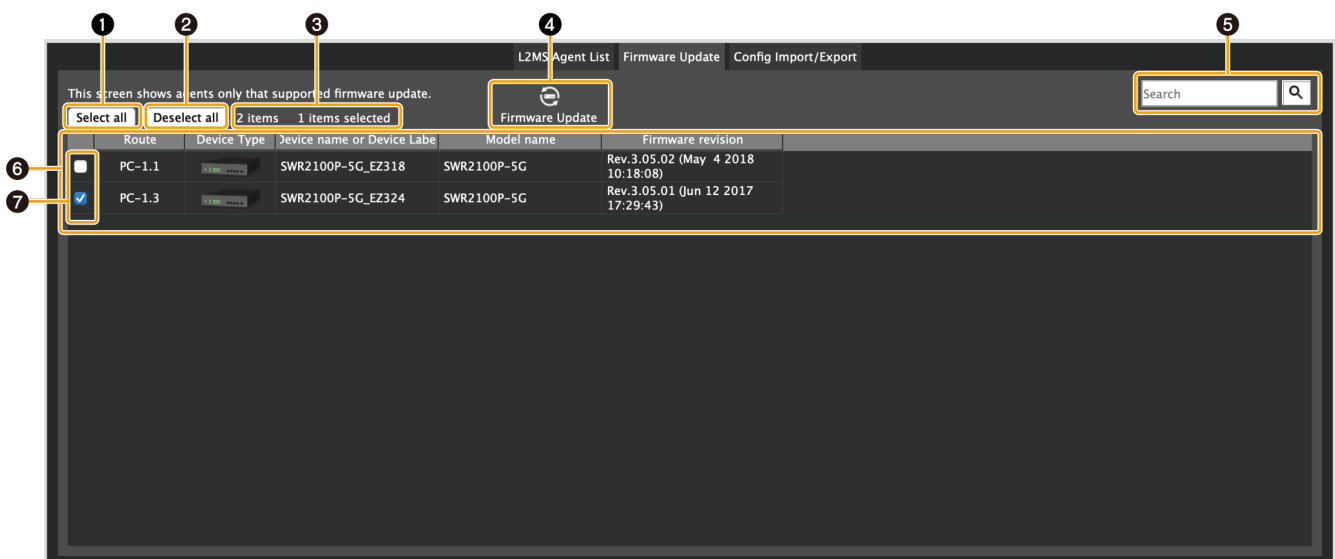
### 8 "Setting" button

This button opens the ["Device Settings" dialog](#).

## 10.2. "Firmware Update" tab

From this tab, you can update the firmware for devices being managed by LAN Monitor, and view information about the firmware.

Only devices that support firmware update from LAN Monitor will be displayed in this screen. When you select a device and then press the "Firmware Update" button, a dialog box will appear that confirms the firmware update of all selected devices at once. For details, refer to ["Update firmware on multiple units at once"](#).



### 1 "Select all"

Press the button to check the checkboxes of all the displayed devices, and all the devices will be

selected.

## ② “Deselect all”

Press the button to remove the check from the checkboxes of all devices displayed, leaving all devices unselected.

## ③ Number of items displayed and number of items selected

The number of devices displayed in the device list and the number currently selected will be displayed.

## ④ “Firmware Update”

Displays the dialog to update the firmware of the selected devices at once.

## ⑤ “Search” box

Narrows down the currently displayed device by string.  
The behavior is equivalent to the [“L2MS Agent List” tab](#).

## ⑥ Device list

Displays a list of devices that support firmware update from LAN Monitor.  
The items that will be displayed are as follows.

Check box	Used to select or deselect a device.
“Route”	The same contents as the <a href="#">“L2MS Agent List” tab</a> will be displayed.
“Device Type”	The same contents as the <a href="#">“L2MS Agent List” tab</a> will be displayed.
“Device name or Device Label”	If a device label has been set, the device label will be displayed; otherwise, the device name will be displayed.
“Model name”	The same contents as the <a href="#">“L2MS Agent List” tab</a> will be displayed.
“Firmware revision”	The same contents as the <a href="#">“L2MS Agent List” tab</a> will be displayed.

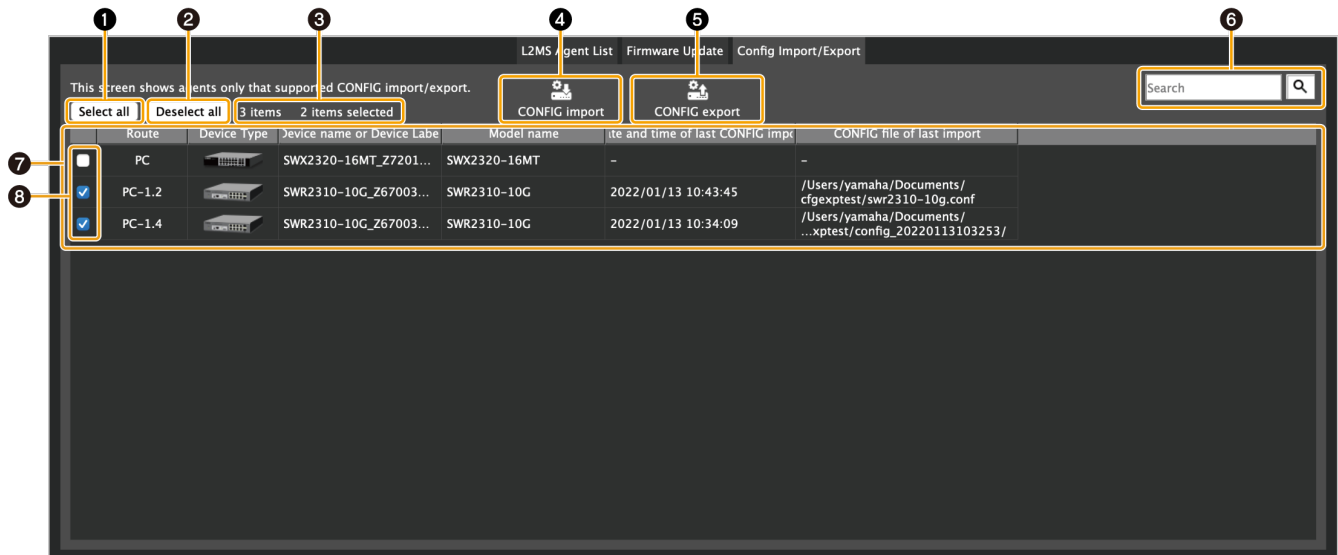
## ⑦ Check box

Used to select or deselect a device.

## 10.3. “Config Import/Export” tab

From this tab, you can import/export the CONFIG for devices being managed by LAN Monitor, and view information about the CONFIG.

Only devices that support CONFIG import/export from LAN Monitor will be displayed in this screen. When you select a device and then press the “CONFIG import” button or “CONFIG export” button, a dialog box will appear that confirms the CONFIG import/export of all selected devices at once. For details, refer to [“Import CONFIG on multiple units at once”](#) and [“Export CONFIG on multiple units at once”](#).



### 1 “Select all”

Press the button to check the checkboxes of all the displayed devices, and all the devices will be selected.

### 2 “Deselect all”

Press the button to remove the check from the checkboxes of all devices displayed, leaving all devices unselected.

### 3 Number of items displayed and number of items selected

The number of devices displayed in the device list and the number currently selected will be displayed.

### 4 “CONFIG import” button

Displays a dialog box to confirm importing CONFIG files in bulk for the currently selected devices.

### 5 “CONFIG export” button

Displays a dialog box to confirm exporting CONFIG files of the currently selected devices in bulk.

### 6 “Search” box

Narrows down the currently displayed device by string. The behavior is equivalent to the [“L2MS Agent List”](#) tab.

**7 Device list**

Displays a list of devices that support CONFIG import/export by LAN Monitor.  
The items that will be displayed are as follows.

Check box	Used to select or deselect a device.
"Route"	The same contents as the "L2MS Agent List" tab will be displayed.
"Device Type"	The same contents as the "L2MS Agent List" tab will be displayed.
"Device name or Device Label"	If a device label has been set, the device label will be displayed; otherwise, the device name will be displayed.
"Model name"	The same contents as the "L2MS Agent List" tab will be displayed.
"Date and time of last CONFIG import"	The same contents as the "L2MS Agent List" tab will be displayed.
"CONFIG file of last import"	The same contents as the "L2MS Agent List" tab will be displayed.

**8 Check box**

Used to select or deselect a device.

# 11. Configuring the device

With Yamaha LAN Monitor, you can configure some of the functions for Yamaha switches and Yamaha wireless LAN access points.

There are the following three methods for setting the device.

Setting method	Descriptions
<a href="#">"Device Settings" dialog</a>	You can set basic items such as IP address and device name. For models without a Web GUI, a detailed setting dialog will be displayed.
<a href="#">Web GUI</a>	Using the device's Web GUI, detailed settings for each function can be made. To access the Web GUI of the device, the IP address must be set appropriately in the "Device Settings" dialog, and IP communication must be maintained between the PC running Yamaha LAN Monitor and the device to be operated.
<a href="#">CONFIG import</a>	By importing a backup or pre-prepared CONFIG, you can apply the settings for each function all at once.

## 11.1. "Device Settings" dialog

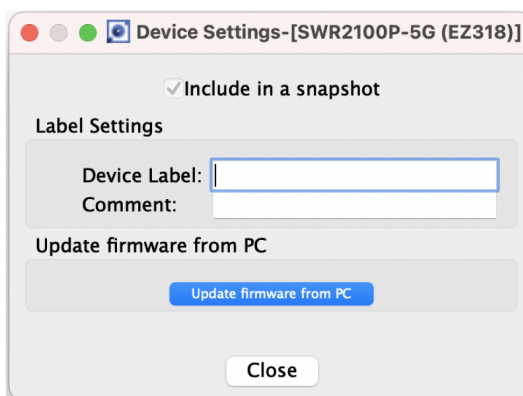
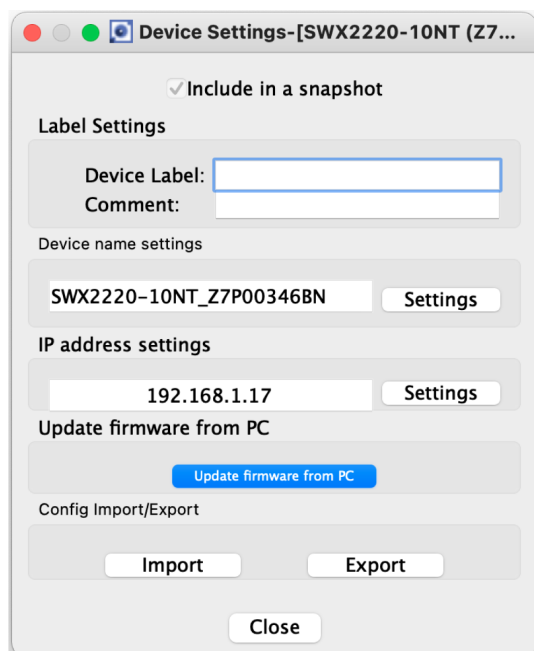
The "Device Settings" dialog can be displayed in the following two ways.  
Either way, the same dialog will be displayed.

- Map screen - "Device Details" view - "Device Settings" button
- List screen - "L2MS Agent List" tab - "Setting" button

The setting items displayed in the dialog vary from model to model.

### 11.1.1. For non-SWX2110/SWX2110P series Yamaha switch and Yamaha wireless LAN access point

Basic items such as label settings, device name settings, and IP address settings can be configured.  
Only items that are supported by the device will be displayed.



[Include in a snapshot] check box	Turns the snapshot function on/off for each device. For an agent device, this is fixed on. This item will be displayed for all devices.
"Label Settings"	You can enter any label or comments you like to identify each device. Since the labels and comments you set will only be used within LAN Monitor, this information can be associated with the device without changing the settings of the device itself. This item will be displayed for all devices.
"Device name settings"	Click the [Set] button to display the "Device name settings" dialog. The device name you set in "Device name settings" will be saved in the device itself.
"IP address settings"	Click the [Settings] button to display the "IP address settings" dialog box.
[Update firmware from PC] button	Click the [Update firmware from PC] button to display the "Update firmware from PC" dialog box.
"Config Import/Export"	Click the [Import] button to display the "CONFIG import" dialog. Click the [Export] button to display the "CONFIG export" dialog.
[Close] button	When you click this, the "Device Settings" dialog box closes. This item will be displayed for all devices.



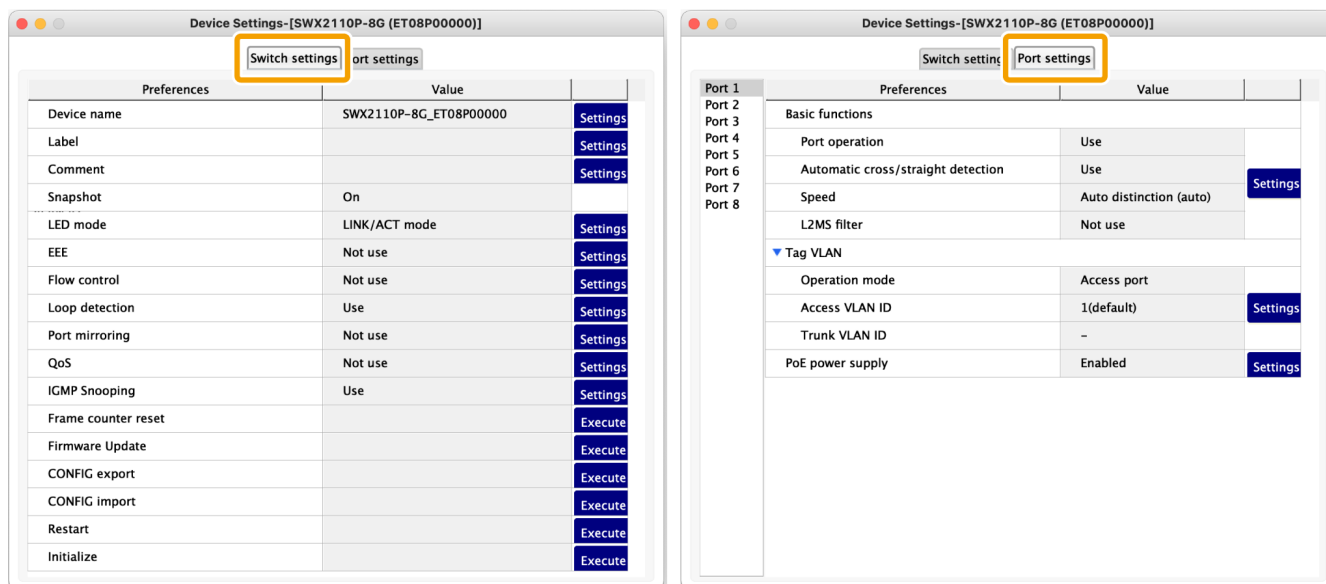
Some items will not be displayed until the firmware revision is acquired. If some items are not displayed, please wait for a while and then open the Device Settings dialog again.

## 11.1.2. For the SWX2110/SWX2110P series Yamaha switch

Use this to view or change the settings.

The tabs shown at the top of the dialog allow you to switch between information displays.

- [Switch settings] tab: View or configure the settings of the Yamaha switch.
- [Port settings] tab: Configure basic functions, VLAN, and other settings for each port.



### Switch settings

<b>Device name</b>	Changes the device name. Click the [Settings] button to display the “Device name” dialog box.
<b>Label</b>	Allows you to enter a label that distinguishes the individual device. Click the [Settings] button to display the “Label” dialog box.
<b>Comment</b>	Allows you to enter a comment. Click the [Settings] button to display the “Comment” dialog box.
<b>Snapshot</b>	Cannot be changed. This is fixed to “On.”
<b>LED mode</b>	Configures the LED mode settings. Click the [Settings] button to display the “LED mode” dialog box.
<b>EEE</b>	Configures the EEE settings. Click the [Settings] button to display the “EEE” dialog box.
<b>Flow control</b>	Configures the flow control settings. Click the [Settings] button to display the “Flow control” dialog box.
<b>Loop detection</b>	Configures the action of the switch when a loop is detected. Click the [Settings] button to display the “Loop detection” dialog box.
<b>Port mirroring</b>	Configures the port mirroring settings of the switch. Click the [Settings] button to display the “Port mirroring” dialog box.
<b>QoS</b>	Configures the QoS settings. Click the [Settings] button to display the “QoS” dialog box.
<b>IGMP Snooping</b>	Configures the IGMP snooping settings. Click the [Settings] button to display the “IGMP Snooping” dialog box.



<b>Frame counter reset</b>	Resets the frame counter. Click the [Execute] button to display a "Frame counter reset" confirmation message.
<b>Firmware Update</b>	Updates the firmware of the switch. Click the [Execute] button to display the "Firmware Update" dialog box.
<b>CONFIG export</b>	Export the CONFIG of the switch. Click the [Execute] button to display the "CONFIG export" dialog.
<b>CONFIG import</b>	Import the CONFIG of the switch. Click the [Execute] button to display the "CONFIG import" dialog.
<b>Restart</b>	Restarts the switch. Click the [Execute] button to display a "Restart" confirmation message.
<b>Initialize</b>	Initializes the switch. Click the [Execute] button to display an "Initialize" confirmation message.

### Port settings

Click the [Port settings] tab, and then click a port number to display the following setting items.

<b>Basic functions</b>	Configures the basic functions of the port. Click the [Settings] button to display the "Basic functions" dialog box.
<b>Tag VLAN</b>	Configures the tag VLAN settings. Click the arrow (▶) to display the [Settings] button. Click the [Settings] button to display the "Tag VLAN" dialog box.
<b>PoE power supply</b>	Configures the PoE power supply settings. This is displayed only for the SWX2110P-8G. Click the [Settings] button to display the "PoE power supply" dialog box.

## 11.2. Web GUI

If the Yamaha switch provide a web page for configuring settings, you can display this web page in your browser to configure basic settings and perform device management. This web page is referred to as a Web GUI.

For more information on recommended browsers for viewing the Web GUI, check the URL below.

[http://www.rtpro.yamaha.co.jp/RT/FAQ/gui/browser\\_en.html](http://www.rtpro.yamaha.co.jp/RT/FAQ/gui/browser_en.html)

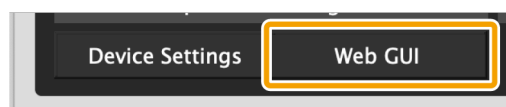


- In Yamaha LAN Monitor, wait for the IP address of the computer and the IP address of the applicable device to be displayed correctly before you access the Web GUI.
- Do not use the “Back” or “Forward” buttons of the web browser. In each page, there may occasionally be cases in which the layout is disordered. If this occurs, re-access the page.

### 11.2.1. Logging in to the Web GUI

To use the Web GUI, proceed as follows.

1. Click the [Web GUI] button on the “Device Details” view.  
A password entry dialog box will appear.



2. Enter your [User name] and [Password].  
For the factory-set user name and password, refer to the user manual of each model.
3. Click either the [OK] or [Login] button.  
The Web GUI screen of the device currently selected in the tree appears in the default browser.



If the Web GUI does not appear, it could be that the IP address or subnet settings of the Yamaha switch or Yamaha wireless LAN access point and the computer do not match. Check the IP address and subnet settings.

### 11.2.2. Web GUI help

Detailed explanations are provided for the settings in each screen of the Web GUI.

To access the help page, click the [Help] button on the Web GUI screen.

## 12. Update the firmware

LAN Monitor allows you to update the firmware in the following two ways.

- [Update the firmware one by one](#) from the “Device Settings” dialog.
- From the “Firmware Update” tab on the list screen, select “[Update firmware on multiple units at once](#)”.

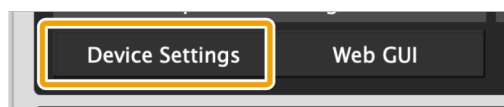


- Since L2MS is used for firmware updates, it is easy to update the firmware even without an IP address configured.
- For devices that do not support firmware update from LAN Monitor, you can use the [Web GUI](#) to update the firmware.

### 12.1. Update the firmware one by one

To update the firmware, follow the steps below.

1. Use one of the following methods to display the “Device Settings” dialog for the device that supports firmware update.
  - “Device Settings” button on the Map screen

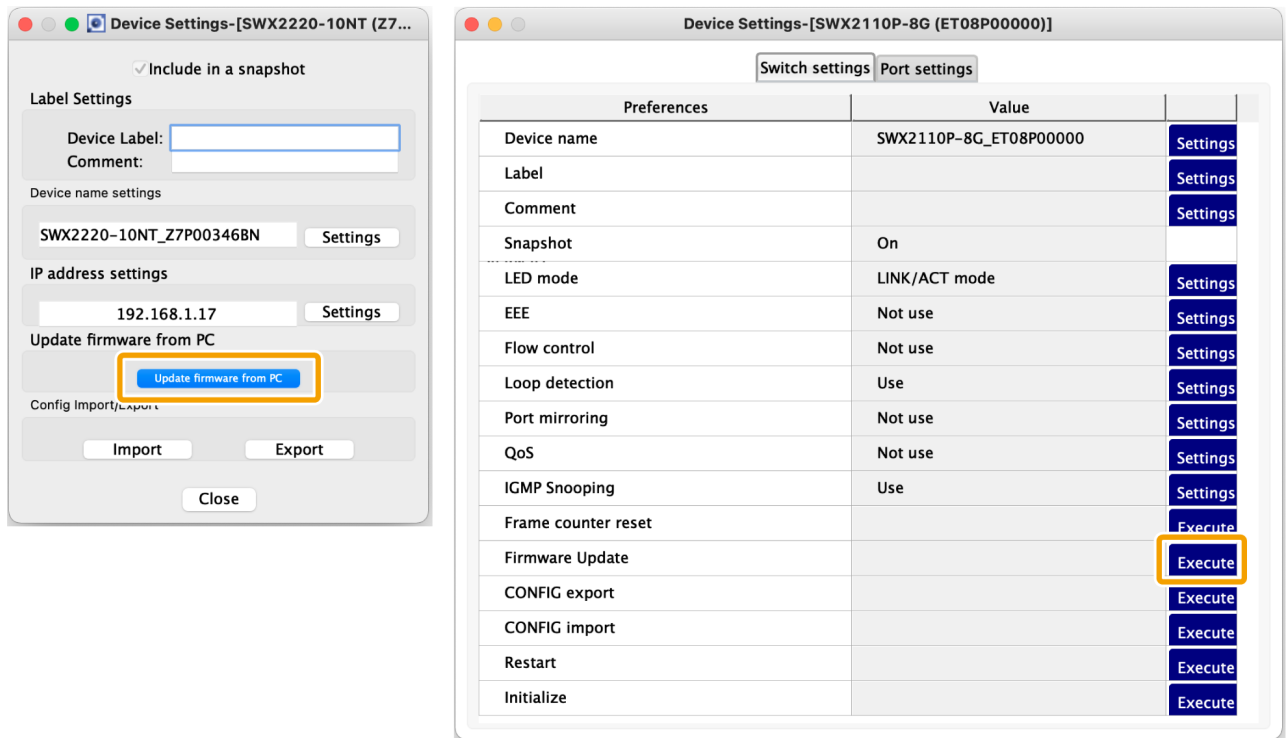


- “L2MS Agent List” tab on the List screen - “Setting” button

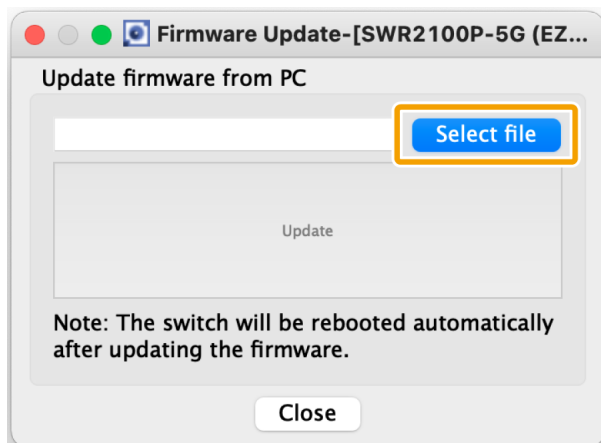
		L2MS Agent List		Firmware
5 items	Update Time :May 19, 2022 22:04:43 JST	Refresh view		
	Route	Device Type	Device name	Device Label
<b>Setting</b>	PC		SWX2320-16MT_Z7...	2720112
Setting	PC-1-1		SWP2100B-5G-57218	57218

12. Update the firmware

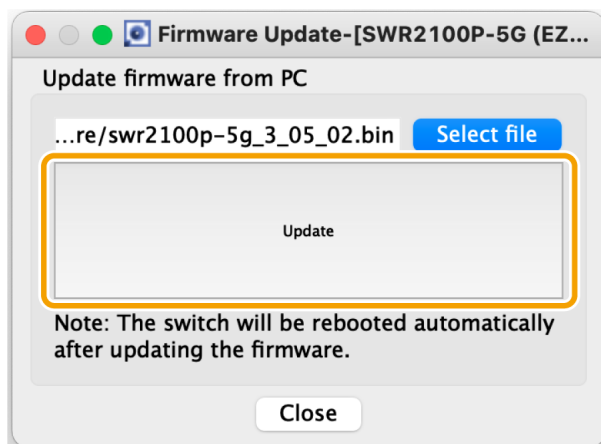
2. Click the "Update firmware from PC" button or the "Execute" button in the Firmware Update row.



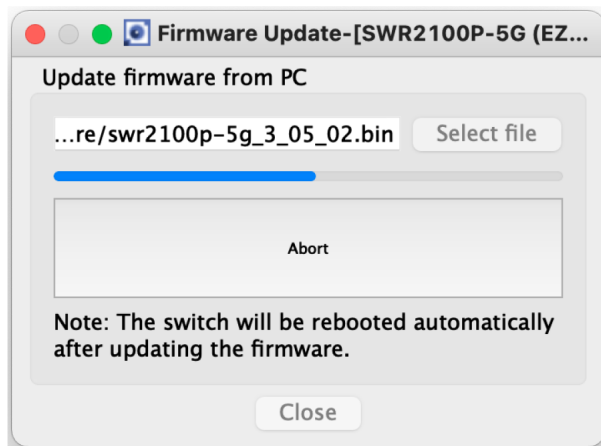
3. Click the "Select file" button to select the firmware file.



4. After selecting the file, click the "Update" button.



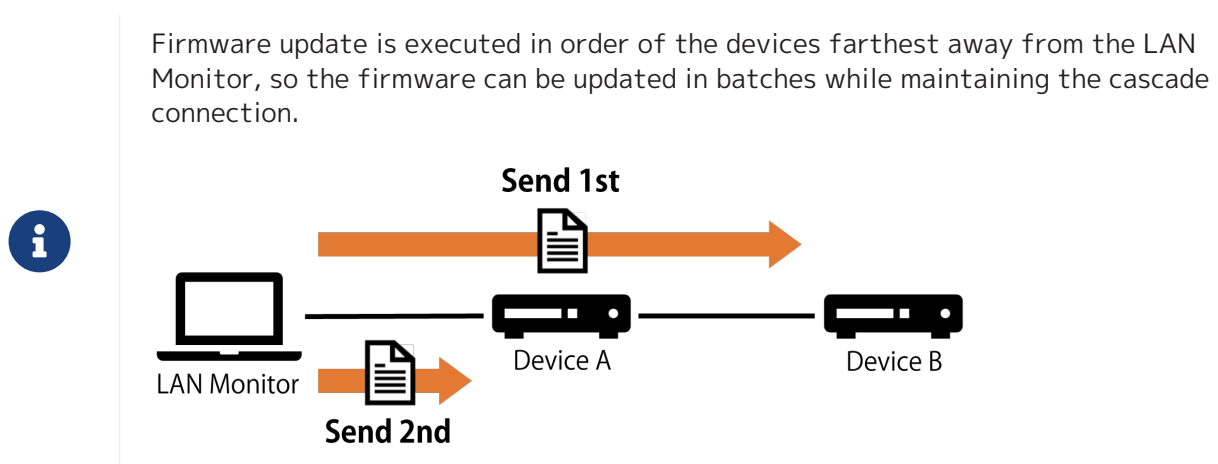
- Wait until the progress bar reaches 100%.



- After the reboot of the device with updated firmware is complete, check the firmware revision of the updated device.

## 12.2. Update firmware on multiple units at once

To update the firmware on multiple units all at once, follow the steps below.



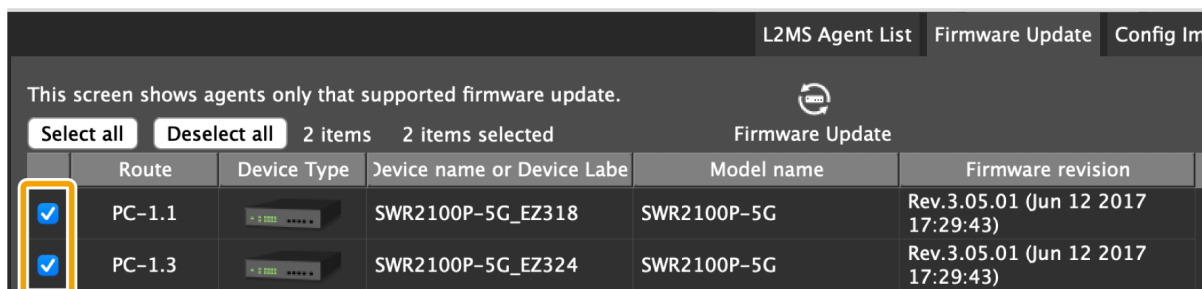
- Press the “List” button to open the List screen.



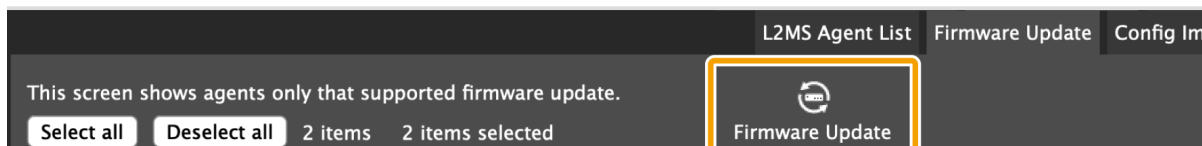
- Press the “Firmware Update” tab.



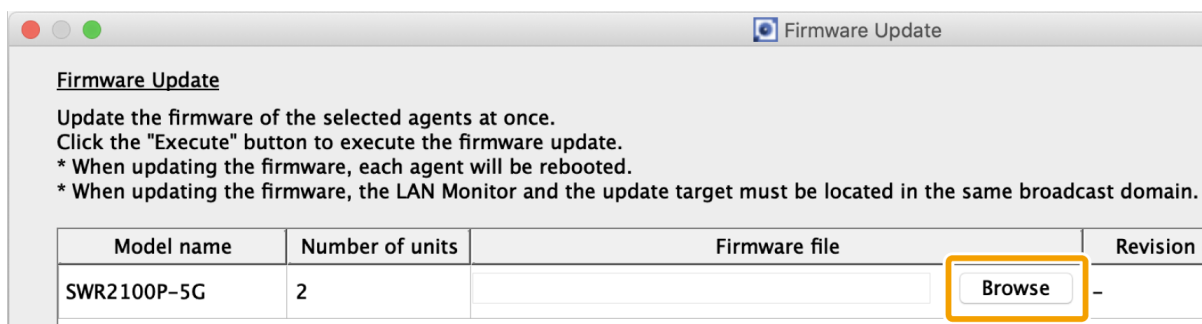
3. Check the checkboxes of the devices for which you want to update the firmware.



4. Press the "Firmware Update" button.



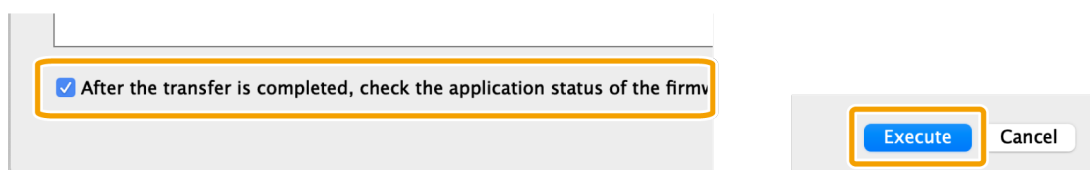
5. Click the "Browse" button to select the firmware file for each model.



6. After selecting the file, check the firmware revision of the file.

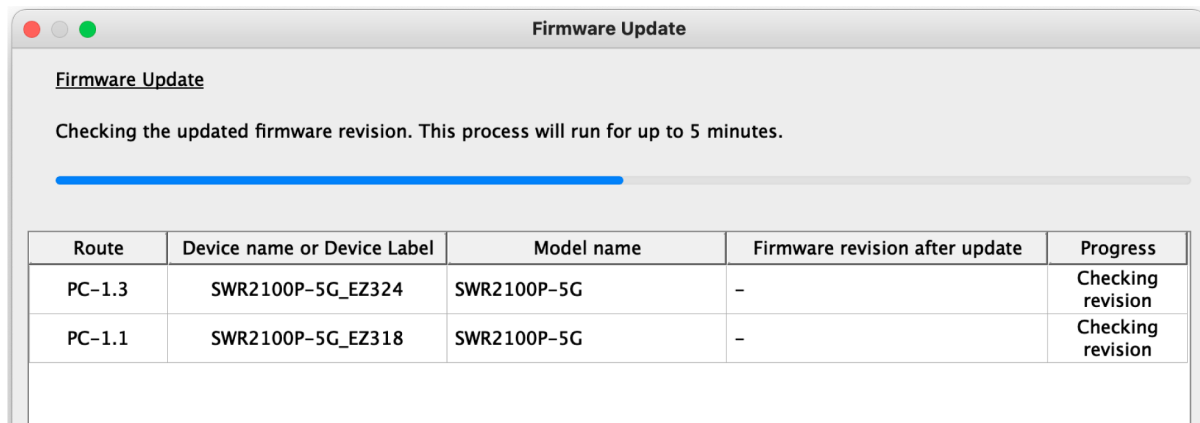


7. Select whether to perform a revision check after the file is sent, then press the "Execute" button.



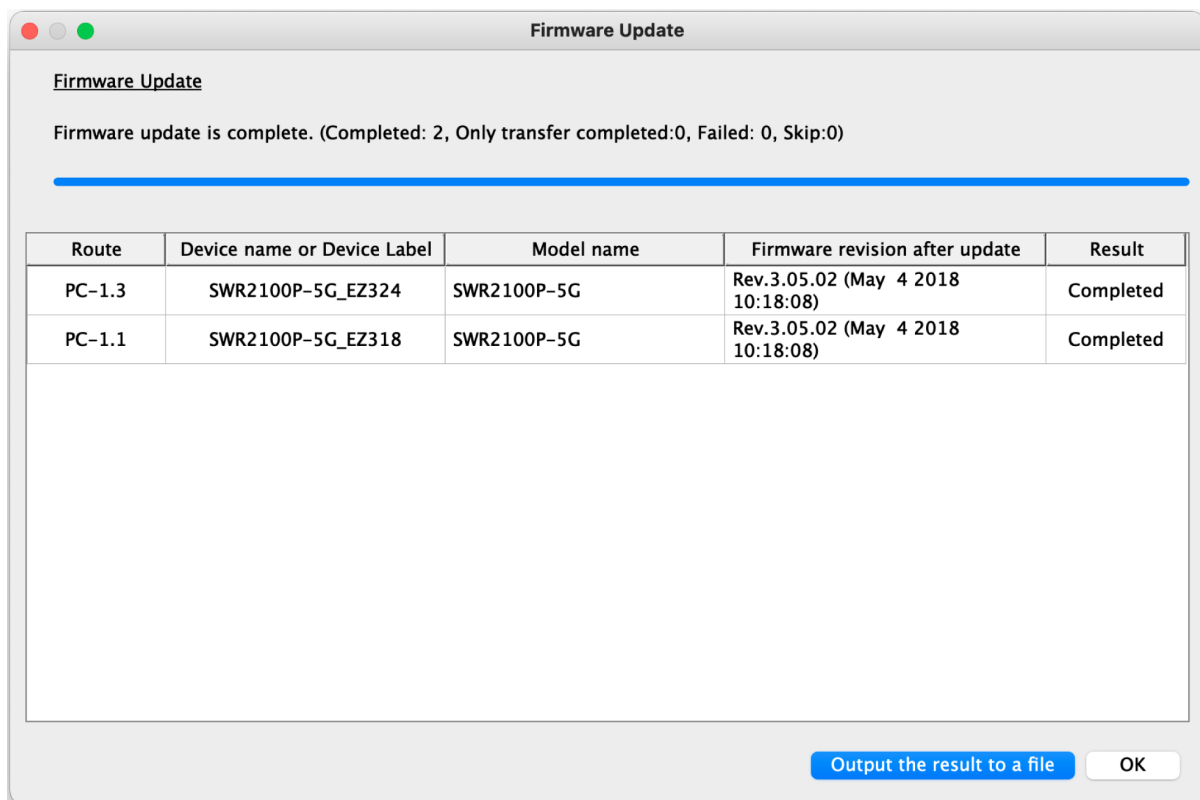
If this checkbox is enabled, the system verifies whether the firmware is properly applied to all devices to which the firmware file has been sent.

8. Wait until the progress bar reaches 100%.



The progress bar will be at 50% when the firmware file transfer is complete, and at 100% when the updated firmware revision has been verified.

9. Check the execution results and output the results to a file if necessary.



- For the execution result of the firmware update, please refer to "[Execution result of firmware/CONFIG bulk operation](#)".
- The execution result file is also automatically saved to the following location.  
~/Library/Application Support/Yamaha/LANMonitor/result

# 13. Import/Export the CONFIG

LAN Monitor allows you to import/export CONFIG in the following two ways.

- [Importing/exporting](#) from the “Device Settings” dialog, one unit at a time
- [Importing/exporting](#) from multiple units at once from the “Config Import/Export” tab on the List screen

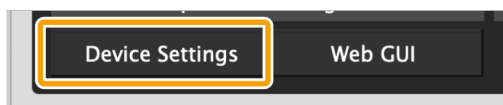


- By using the CONFIG export function, you can back up the CONFIG file of the agent device to your PC.
- You can use the CONFIG import function to apply CONFIG data to an agent device, including CONFIG data that was prepared in advance or data backed up from an agent device.
- Since L2MS is used for CONFIG import/export, it is easy to import/export the CONFIG even without an IP address configured.

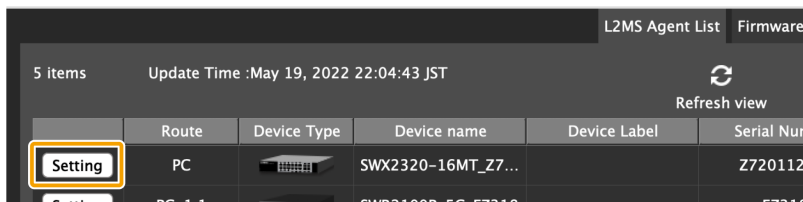
## 13.1. Import the CONFIG one by one

To import the CONFIG, follow the steps below.

1. Use one of the following methods to display the “Device Settings” dialog of the device that supports CONFIG import.
  - “Device Settings” button on the Map screen

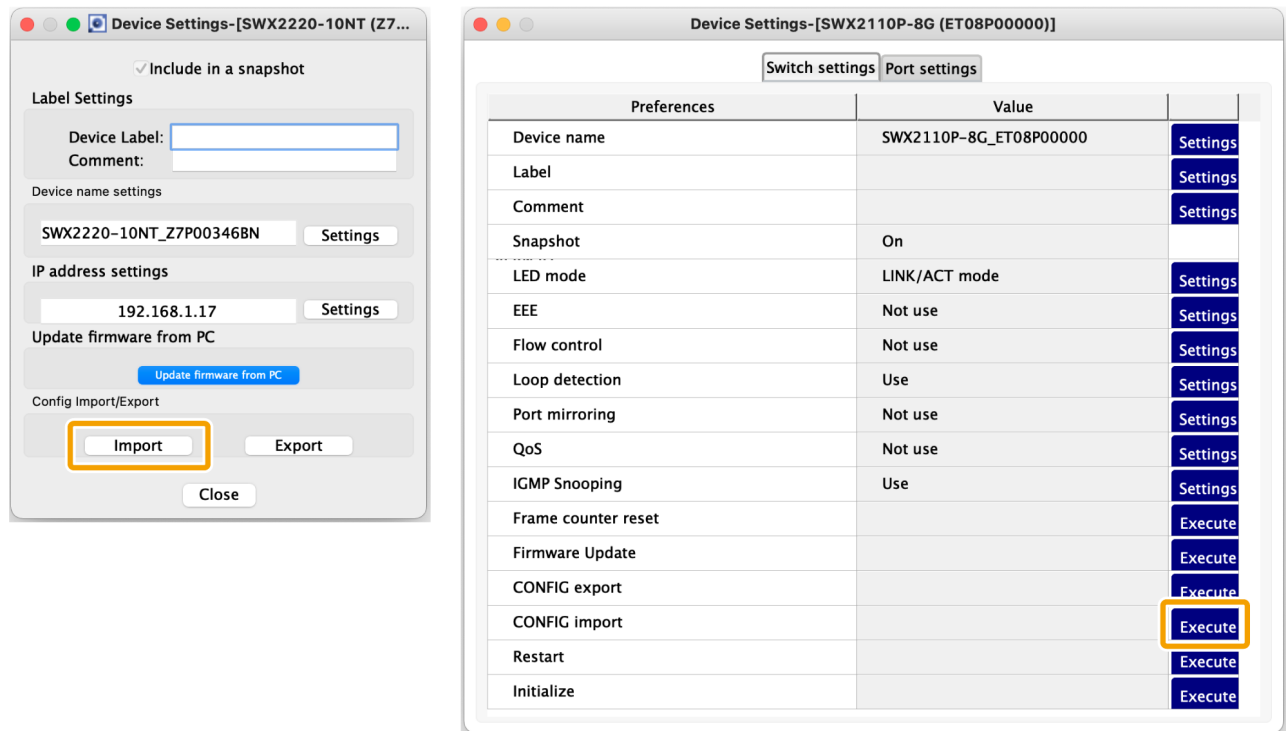


- “L2MS Agent List” tab on the List screen - “Setting” button

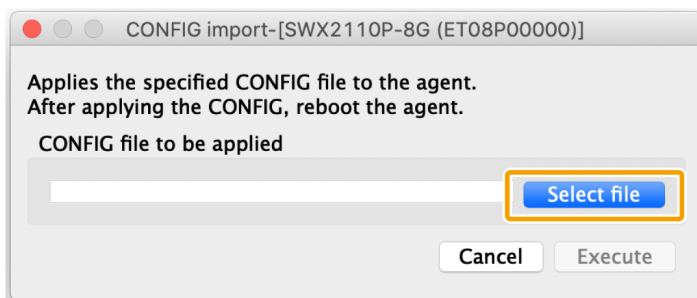




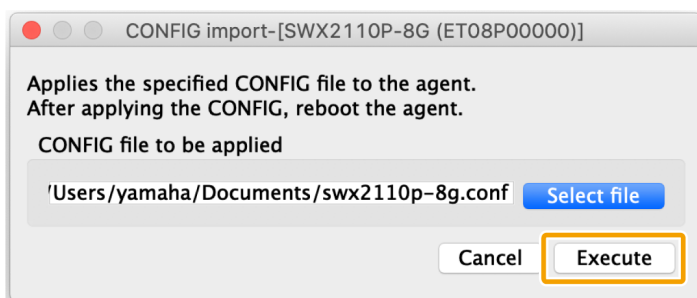
- Click the “Import” button or the “Execute” button in the CONFIG import row.



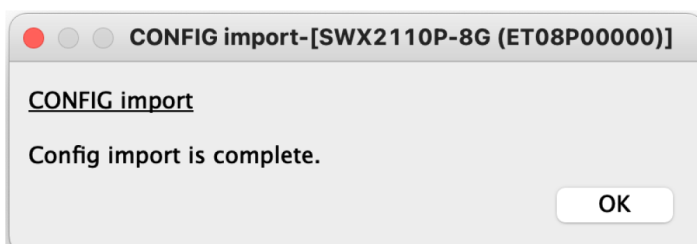
- Click the “Select file” button and select the file you want to import.



- After selecting the file, click the “Execute” button.



- When the following dialog box appears, the import of CONFIG is complete.



## 13.2. Import CONFIG on multiple units at once

To import CONFIG on multiple units all at once, follow the steps below.

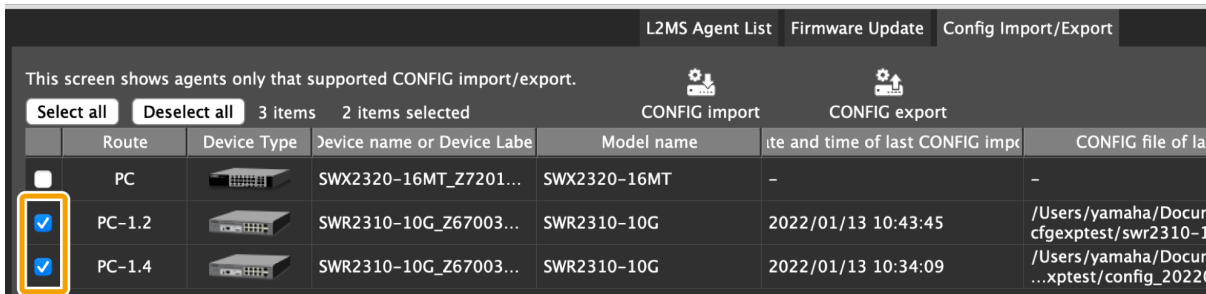
1. Press the "List" button to open the List screen.



2. Press the "Config Import/Export" tab.



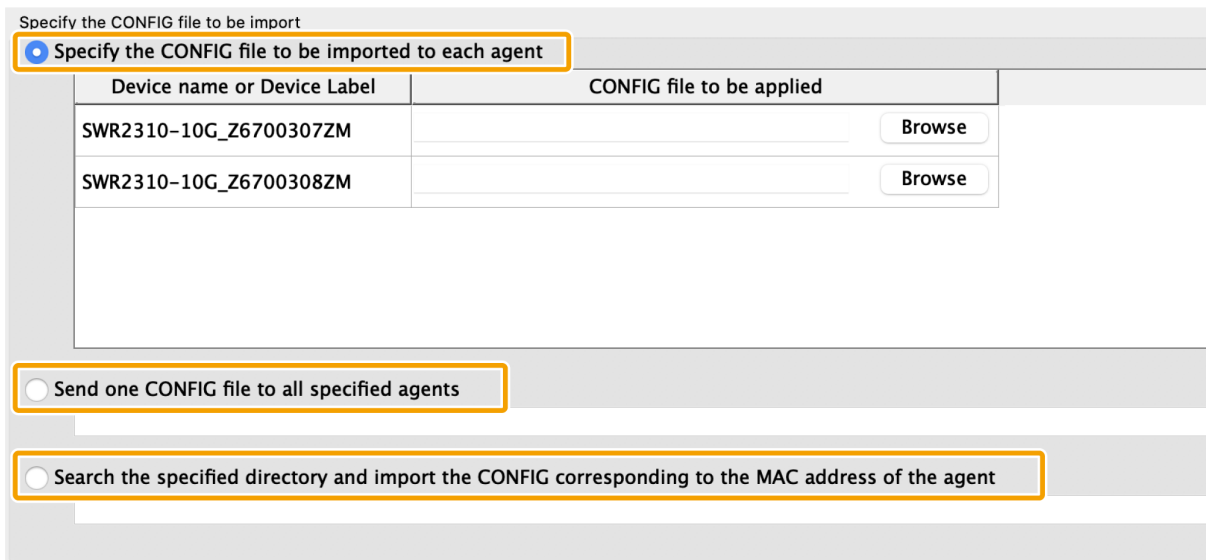
3. Check the checkboxes of the devices for which you want to import the CONFIG.



4. Press the "Config import" button.



5. Select one of the following three methods to specify the CONFIG to be imported.



How to specify the CONFIG to be imported	Descriptions
Specify the CONFIG file to be imported to each agent	Selects individual CONFIG files to import.

How to specify the CONFIG to be imported	Descriptions
Send one CONFIG file to all specified agents	Sends a single CONFIG file to all selected agents. Used to prepare multiple agents with the same settings. This item cannot be selected when multiple models are selected.
Search the specified directory and import the CONFIG corresponding to the MAC address of the agent	Automatically detects/imports CONFIG files in the specified directory. A CONFIG with the file name corresponding to the MAC address of the agent (<underscore-delimited MAC address>.conf) must be prepared in the specified directory. For example, the name of the CONFIG file for an agent whose MAC address is AC:44:F2:12:34:56 should be ac_44_f2_12_34_56.conf.

6. Press the “Browse” button according to how you want to specify the CONFIG file, and select the CONFIG file or directory.

Specify the CONFIG file to be import

Specify the CONFIG file to be imported to each agent

Device name or Device Label	CONFIG file to be applied
SWR2310-10G_Z6700307ZM	<input type="button" value="Browse"/>
SWR2310-10G_Z6700308ZM	<input type="button" value="Browse"/>

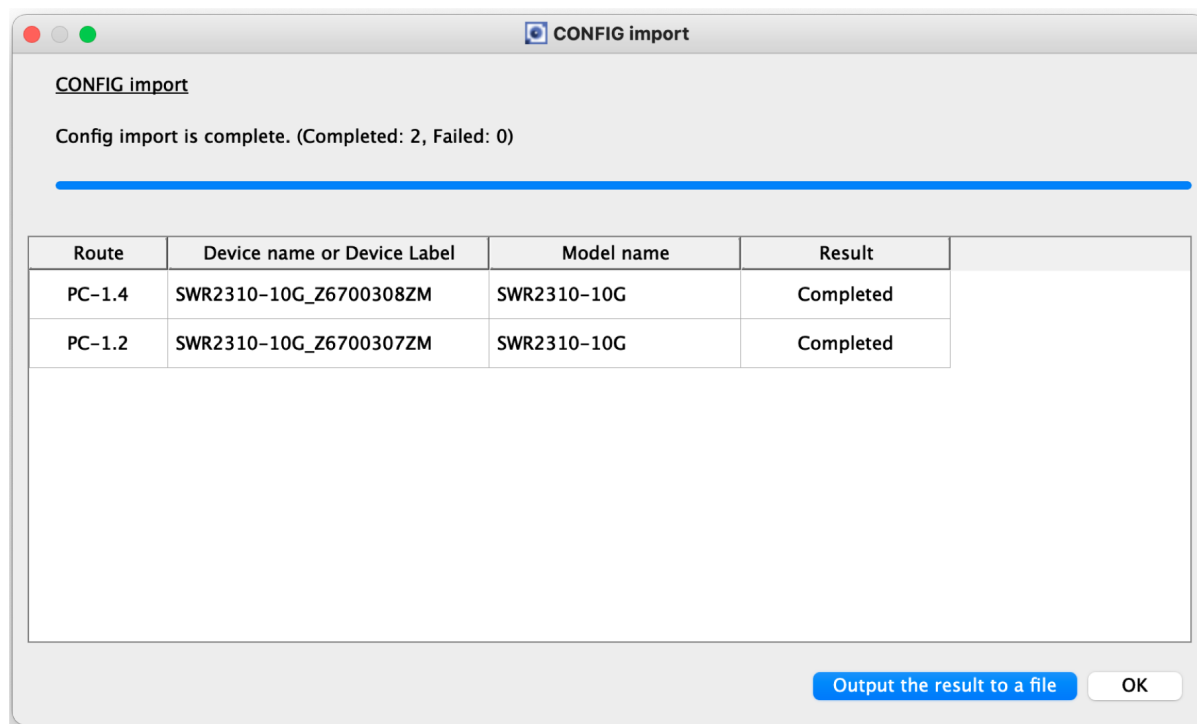
Send one CONFIG file to all specified agents

Search the specified directory and import the CONFIG corresponding to the MAC address of the agent

7. When you have finished selecting the CONFIG file or directory, press the “Execute” button.

8. Wait until the progress bar reaches 100%.

9. Check the execution results and output the results to a file if necessary.



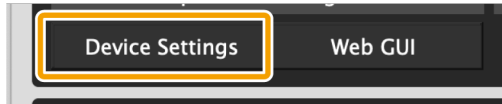
- For the execution result of the CONFIG import, please refer to "[Execution result of firmware/CONFIG bulk operation](#)".
- The execution result file is also automatically saved to the following location.  
~/Library/Application Support/Yamaha/LANMonitor/result

## 13.3. Export the CONFIG one by one

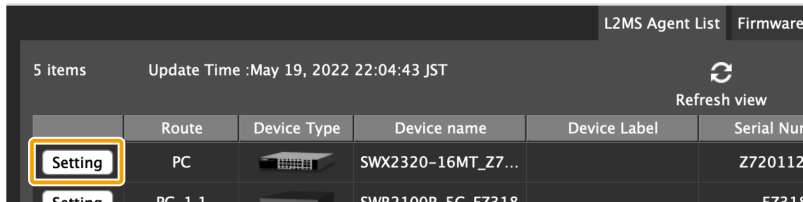
To export the CONFIG, follow the steps below.

1. Use one of the following methods to display the “Device Settings” dialog of the device that supports CONFIG export.

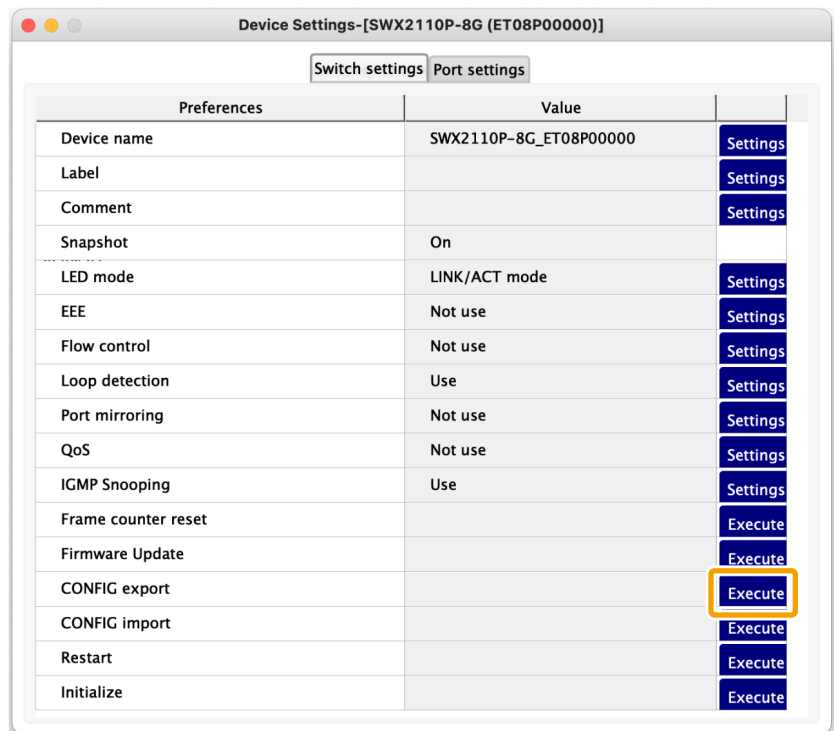
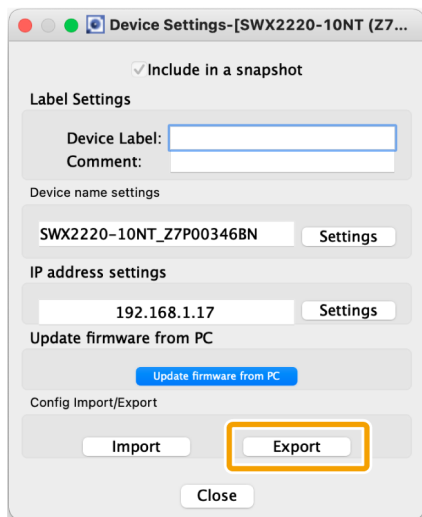
- “Device Settings” button on the Map screen



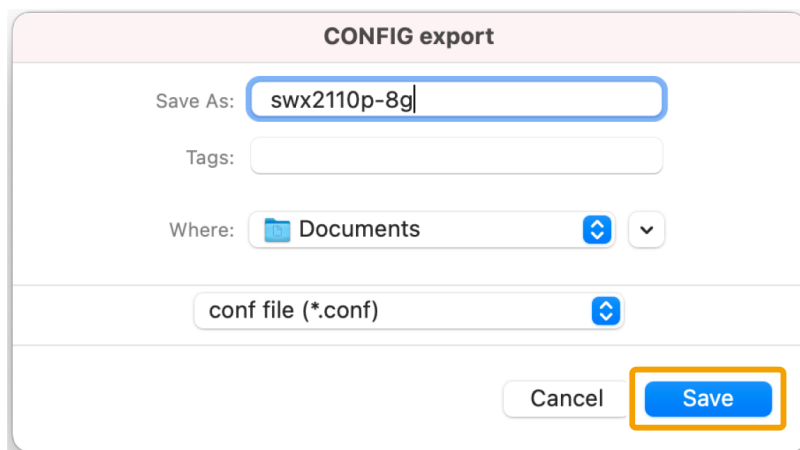
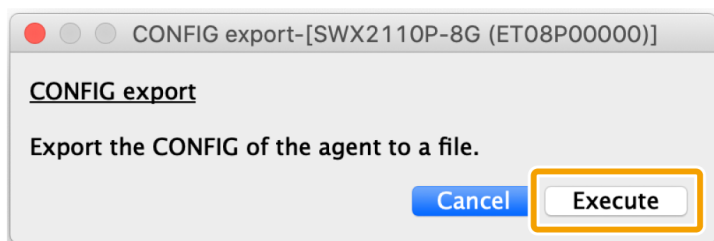
- “L2MS Agent List” tab on the List screen - “Setting” button



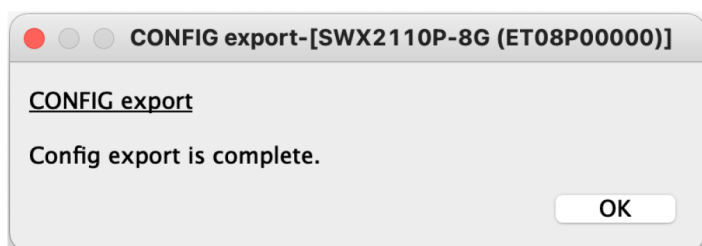
2. Click the “Export” button or the “Execute” button in the CONFIG export row.



3. Click the "Execute" button and specify a file name to save the file.



4. When the following dialog box appears, the export of CONFIG is complete.



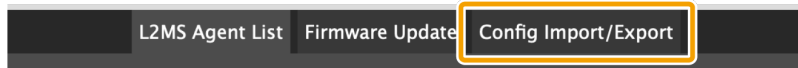
## 13.4. Export CONFIG on multiple units at once

To export CONFIG on multiple units all at once, follow the steps below.

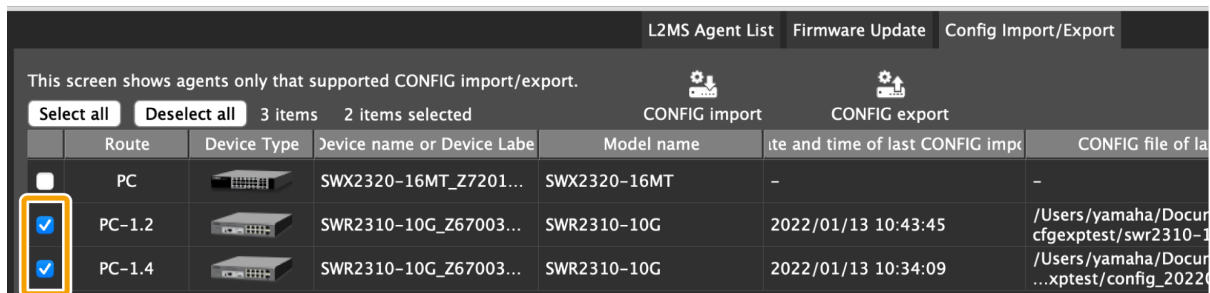
1. Press the “List” button to open the List screen.



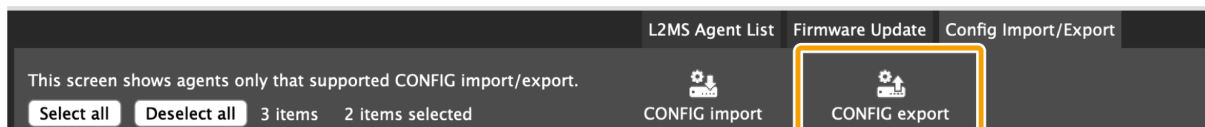
2. Press the “Config Import/Export” tab.



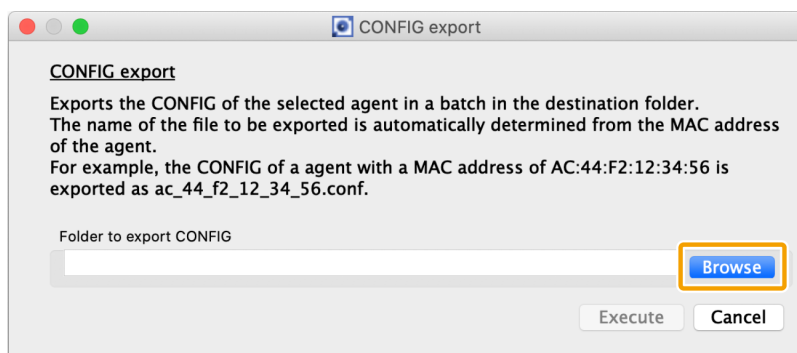
3. Check the checkboxes of the devices for which you want to export the CONFIG.



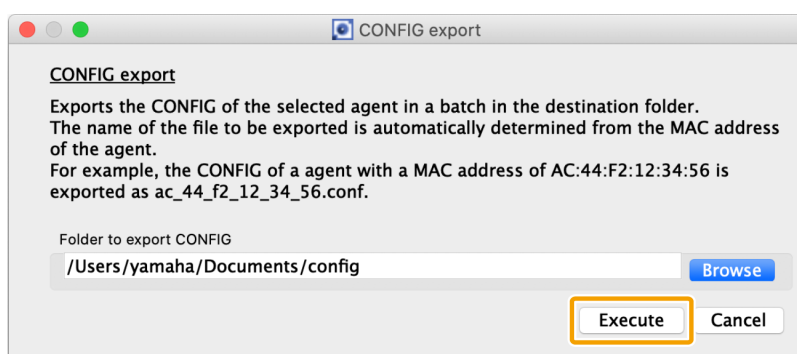
4. Press the “Config export” button.



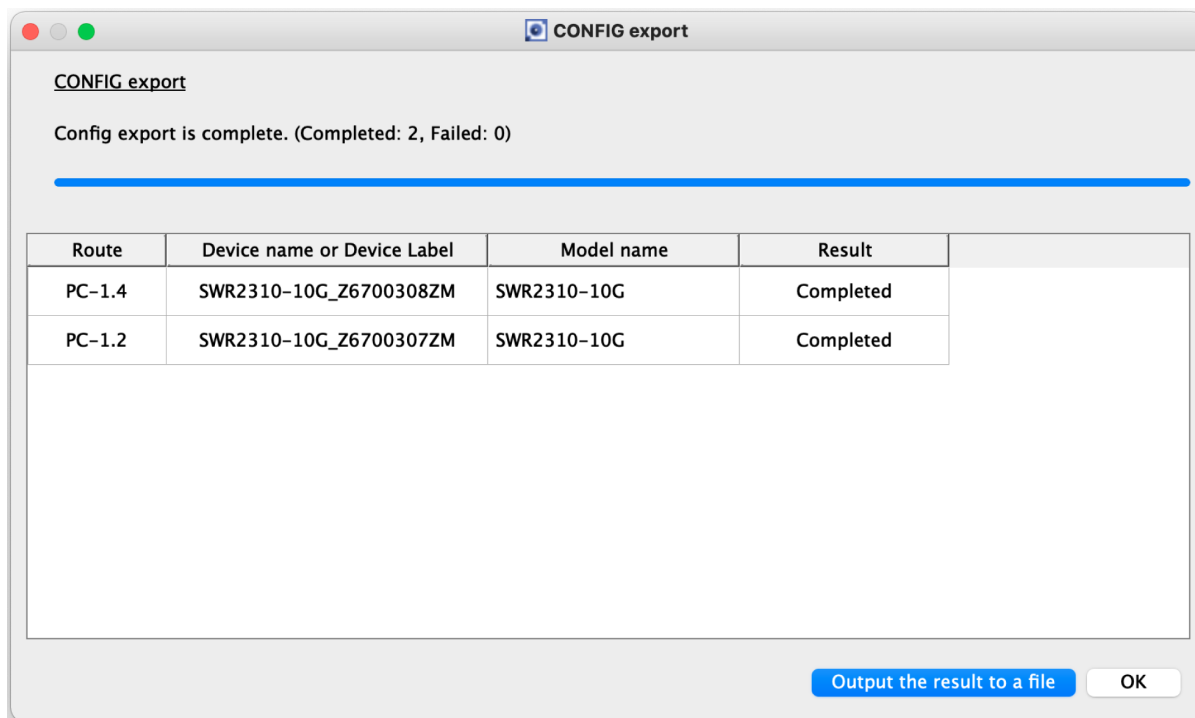
5. Press the “Browse” button and specify the folder where you want to save the exported CONFIG.



6. When you have finished selecting the destination folder for export, press the “Execute” button.



7. Wait until the progress bar reaches 100%.
8. Check the execution results and output the results to a file if necessary.



- For the execution result of the CONFIG export, please refer to "[Execution result of firmware/CONFIG bulk operation](#)".
- The execution result file is also automatically saved to the following location.  
~/Library/Application Support/Yamaha/LANMonitor/result



# 14. Resources

## 14.1. Port icons in the “Device Details” view

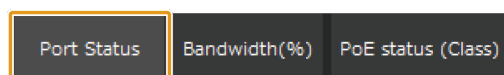
You can check the status of each port by checking the icon color and shape of each device port shown in the “Device Details” view.

In the “Device Details” view, switch between the [Port Status] tab, the [Bandwidth(%)] tab and the [PoE status (Class)] tabs to show the following icons.



- The [Bandwidth(%)] tab will only show Yamaha switches.
- The [PoE status (Class)] tab will only show Yamaha PoE switches.

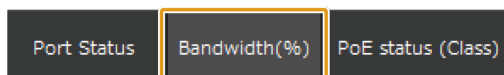
### 14.1.1. [Port Status] tab icons



This area shows the connection status and communication speed of each port.

Icon	Meaning
	Port normal (10GBASE-T)
	Port normal (5GBASE-T)
	Port normal (2.5GBASE-T)
	Port normal (1000BASE-T)
	Port normal (100BASE-TX)
	Port normal (10BASE-T)
	Port abnormality occurred
	Link down
	SFP port normal (10GBASE-LX/SX)
	SFP port normal (1000BASE-LX/SX) or stack link established
	SFP port abnormality occurred
	SFP port alert state
	Enable/disable status of 2.4 GHz / 5 GHz / 6 GHz wireless

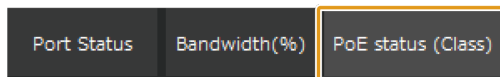
## 14.1.2. [Bandwidth(%)] tab icons



This area shows the bandwidth usage of each port (Yamaha switches only).

Icon	Meaning
	Bandwidth from 95% to 100%
	Bandwidth from 85% to less than 95%
	Bandwidth from 75% to less than 85%
	Bandwidth from 65% to less than 75%
	Bandwidth from 55% to less than 65%
	Bandwidth from 45% to less than 55%
	Bandwidth from 35% to less than 45%
	Bandwidth from 25% to less than 35%
	Bandwidth from 15% to less than 25%
	Bandwidth from 7.5% to less than 15%
	Bandwidth from 0% to less than 7.5%
	Abnormality occurred
	Link down
	As this is a stack port, bandwidth usage cannot be displayed
	Alert state (SFP port)

### 14.1.3. [PoE status (Class)] tab icons



This area shows the power supply status for each port (PoE-enabled Yamaha switches only).

Icon	Meaning
	Class 0 power supply in progress
	Class 1 power supply in progress
	Class 2 power supply in progress
	Class 3 power supply in progress
	Class 4 power supply in progress
	Class 5 power supply in progress
	Class 6 power supply in progress
	Class 7 power supply in progress
	Class 8 power supply in progress
	Power not supplied
	Power supply interrupted because the power supply function has been disabled, or the set power consumption limit has been exceeded
	The power supply has been interrupted or a fatal error has occurred with power supply control due to excess current

## 14.2. Messages shown in both the Notification area and the History area

Messages shown in both the “Notification” area and the “History” area are as follows.

### 14.2.1. Switch function error messages

The following messages appear when an error occurs with the switch function. **mac** indicates the MAC address of the device that is the subject of the message, **label** indicates the label identifying the device (does not appear when left blank), **m** indicates the stack ID, **n** indicates the port number, **t** indicates the temperature, **x** indicates the QoS transmit queue number, and **fn** indicates the fan number. “(Stack ID: **m**)” is not displayed for switch devices that do not have the stack function enabled.

Messages
[ <b>mac</b> ] <b>label</b> : The fan of the Yamaha switch malfunctioned.
[ <b>mac</b> ] <b>label</b> : A loop occurred at ports ( <b>n1</b> , <b>n2</b> ...) of the Yamaha switch.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class0 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class1 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class2 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class3 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class4 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class5 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class6 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class7 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch started supplying power to a Class8 device.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power because a class of device which exceeded the power supply class setting was detected.
[ <b>mac</b> ] <b>label</b> : Class3 (15.4W) power from port ( <b>n</b> ) has stopped because paired port began supplying Class4 (30W) power.
[ <b>mac</b> ] <b>label</b> : The power supply has stopped because the maximum power has been exceeded at port ( <b>n</b> ).
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power because the maximum power has been exceeded.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power because the internal temperature exceeded <b>t</b> degrees Celsius.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power because the fan malfunctioned.
[ <b>mac</b> ] <b>label</b> : Port ( <b>n</b> ) of the Yamaha switch stopped supplying power because the power supply malfunctioned.
[ <b>mac</b> ] <b>label</b> : The Yamaha switch has stopped supplying power.
[ <b>mac</b> ] <b>label</b> : An error occurred in the power supply of the Yamaha switch.
[ <b>mac</b> ] <b>label</b> : The power being supplied from the Yamaha switch has exceeded the maximum power supply capacity.
[ <b>mac</b> ] <b>label</b> : Connected via the backup route. (Main route: port ( <b>n</b> ))

Messages
[mac] label: Connected via the main route.
[mac] label: The loop at the Yamaha switch was resolved.
[mac] label: The power supply interruption of the Yamaha switch was resolved.
[mac] label: The power supply abnormality of the Yamaha switch was resolved.
[mac] label: The power supply overload of the Yamaha switch was resolved.
[mac] label: The fan malfunction of the Yamaha switch was resolved.
[mac] label: The level of light received at port (n) of the Yamaha switch is insufficient.
[mac] label: The level of light received at port (n) of the Yamaha switch is excessive.
[mac] label: The level of light received at port (n) of the Yamaha switch has returned to normal.
[mac] label: The transmission load is high at port (n) of the Yamaha switch. (QoS transmission queue: x)
[mac] label: The transmission load has reached the upper limit at port (n) of the Yamaha switch. (QoS transmission queue: x)
[mac] label: The transmission load of the Yamaha switch (n) has returned to normal. (QoS transmission queue: x)
[mac] label: The power voltage of the Yamaha switch (Stack ID: m) has exceeded the upper threshold.
[mac] label: A line surge has occurred in the power supply of the Yamaha switch (Stack ID: m).
[mac] label: The fan speed of the Yamaha switch (Stack ID: m) has increased.
[mac] label: The fan speed of the Yamaha switch (Stack ID: m) has decreased.
[mac] label: Fan (FAN fn) of the Yamaha switch (Stack ID: m) has stopped.
[mac] label: The CPU temperature of the Yamaha switch (Stack ID: m) has exceeded the threshold.
[mac] label: The CPU temperature of the Yamaha switch (Stack ID: m) has returned to normal.
[mac] label: A CPU temperature error has occurred on the Yamaha switch (Stack ID: m).
[mac] label: The PHY temperature of the Yamaha switch (Stack ID: m) has exceeded the threshold.
[mac] label: The PHY temperature of the Yamaha switch (Stack ID: m) has returned to normal.
[mac] label: A PHY temperature error has occurred on the Yamaha switch (Stack ID: m).
[mac] label: The SFP module temperature of the Yamaha switch (Stack ID: m) has exceeded the threshold.
[mac] label: The SFP module temperature of the Yamaha switch (Stack ID: m) has returned to normal.
[mac] label: A SFP module temperature error has occurred on the Yamaha switch (Stack ID: m).
[mac] label: The unit temperature of the Yamaha switch (Stack ID: m) has exceeded the threshold.
[mac] label: The unit temperature of the Yamaha switch (Stack ID: m) has returned to normal.
[mac] label: A unit temperature error has occurred on the Yamaha switch (Stack ID: m).
[mac] label: The PSE temperature of the Yamaha switch (Stack ID: m) has exceeded the threshold.
[mac] label: The PSE temperature of the Yamaha switch (Stack ID: m) has returned to normal.
[mac] label: A PSE temperature error has occurred on the Yamaha switch (Stack ID: m).
[mac] label: The power supply was forced to stop on the Yamaha switch (Stack ID: m) because the power delivery capacity was exceeded.

Messages
[ <b>mac</b> ] <b>label</b> : The power supply was forced to stop on the Yamaha switch (Stack ID: <b>m</b> ) due to a thermal abnormality.
[ <b>mac</b> ] <b>label</b> : The power supply was forced to stop on the Yamaha switch (Stack ID: <b>m</b> ) because the fan stopped.
[ <b>mac</b> ] <b>label</b> : The PoE power supply has recovered from forced stoppage of the Yamaha switch (Stack ID: <b>m</b> ).
[ <b>mac</b> ] <b>label</b> : The power supply was forced to stop on the Yamaha switch (Stack ID: <b>m</b> ) because of a power supply abnormality.
[ <b>mac</b> ] <b>label</b> : The MAC temperature of the Yamaha switch (Stack ID: <b>m</b> ) has exceeded the threshold.
[ <b>mac</b> ] <b>label</b> : The MAC temperature of the Yamaha switch (Stack ID: <b>m</b> ) has returned to normal.
[ <b>mac</b> ] <b>label</b> : A MAC temperature error has occurred on the Yamaha switch (Stack ID: <b>m</b> ).
[ <b>mac</b> ] <b>label</b> : A thermal sensor error has occurred on the Yamaha switch (Stack ID: <b>m</b> ).
[ <b>mac</b> ] <b>label</b> : The stack port ( <b>m.n</b> ) of the Yamaha switch has linked down.
[ <b>mac</b> ] <b>label</b> : The stack port ( <b>m.n</b> ) of the Yamaha switch has linked up.

### 14.2.2. Dante-related notifications

The following messages appear if there is a change in a Dante-enabled device.

Messages
The word clock of < <b>device name</b> > has been unlocked.
The word clock of < <b>device name</b> > has been locked.
The link is down for the primary port of < <b>device name</b> >. Dante is only working for the secondary port.
The link is down for the secondary port of < <b>device name</b> >. Dante is only working for the primary port.
The link is up for the primary port of < <b>device name</b> >.
The link is up for the secondary port of < <b>device name</b> >.
The Dante module of < <b>device name</b> > is operating in safe mode.

### 14.2.3. Messages generated by the snapshot function

The following messages appear when the snapshot function detects a network error, or when snapshot creation is started. **mac** indicates the MAC address of the device that is the subject of the message, **label** indicates the label identifying the device (does not appear when left blank), **n** indicates the port number. Messages are not shown for devices that are not the subject of monitoring by the snapshot function.

Messages
[ <b>mac</b> ] <b>label</b> : Device status matches the snapshot.
[ <b>mac</b> ] <b>label</b> : An unregistered device [ <b>mac</b> ] <b>label</b> is connected.
[ <b>mac</b> ] <b>label</b> : [ <b>mac</b> ] <b>label</b> is not connected to port <b>n</b> .
[ <b>mac</b> ] <b>label</b> : There is a device with an incorrect connection port. Connect [ <b>mac</b> ] <b>label</b> to port <b>n</b> .
Create a snapshot.
Started creating a snapshot.

Messages
Finished creating a snapshot.
Snapshot creation canceled.
Failed to create a snapshot.
[mac] label: There is a port with an incorrect device connected. Connect [mac] label to port n.

#### 14.2.4. Messages generated by the PoE function

The following messages appear when the PoE function detects abnormality in a power supply. **mac** indicates the MAC address of the device that is the subject of the message, **label** indicates the label identifying the device (does not appear when left blank), **q** indicates a number that represents the power, **n** indicates the port number, **portIp** indicates the IP address of the device connected to the port, and **portMac** indicates the MAC address of the device connected to the port. Messages are not shown for devices that do not support power supply.

Messages
[mac] label: The power being supplied from the Yamaha switch has exceeded the guard band range.
[mac] label: The power that might be supplied exceeds q W. The power being supplied from Yamaha switch might be interrupted according to the condition.
[mac] label: Yamaha switch has detected down of portIp (portMac).
[mac] label: Yamaha switch has detected portIp (portMac).
[mac] label: Yamaha switch has stopped supplying power to portIp (portMac).
[mac] label: Yamaha switch has started supplying power to portIp (portMac).
[mac] label: Sum of power might be supplied has exceeded the maximum power supply capacity.
[mac] label: Port (n) of the Yamaha switch stopped supplying power because the maximum power has been exceeded.
[mac] label: The power supply interruption on port (n) of the Yamaha switch was resolved.
[mac] label: Sum of power might be supplied has fallen below the maximum power supply capacity.

#### 14.2.5. Other notifications

Messages
The snapshot file is invalid. Stopped loading snapshot file.
An invalid value was included in the information of the snapshot file. Only the valid information has been applied.
There are conflicting MAC addresses. The MAC address information that was listed first has been applied.
The label settings file is invalid. Stopped loading label settings file.
An invalid value was included in the information of the label settings file. Only the valid information has been applied.
Conflicting MAC addresses exist in the label settings file. The MAC address information that was listed first has been applied.
The History file is invalid. Discarded History file.

**Messages**

The L2MS manager (**mac**) other than this PC has been detected. Only one L2MS manager can be used in the same network.

Duplication with L2MS manager (**mac**) has been resolved.

[**mac**] **label**: The L2MS manager (**mac**) other than this PC has been detected at port(**n**). Only one L2MS manager can be used in the same network.

[**mac**] **label**: Duplication with L2MS manager (**mac**) detected at port (**n**) has been resolved.



## 14.3. Messages shown in the Result of searching area for Device search

A device search using one or more IP addresses can return the following messages in the Result of searching area.

**X.X.X.X** indicates the IP address of a target device that was pinged or searched for.

Message	Description
<b>X.X.X.X</b> : Reply received.	A ping reply was returned from the target device.
<b>X.X.X.X</b> : Request timed out.	A ping reply was not returned from the target device. * This message is not shown for [IP address range] and [Auto search in local network].
<b>X.X.X.X</b> : Destination unreachable.	The search target does not exist. * This message is not shown for [IP address range] and [Auto search in local network].
<b>X.X.X.X</b> : An internal error occurred.	An internal error has occurred.

## 14.4. Execution result of firmware/CONFIG bulk operation

The following are the execution results displayed when executing bulk firmware update and bulk CONFIG import/export.

Result	Descriptions
Completed	The firmware update and CONFIG import/export processes have been completed successfully.
Only transfer completed (revision acquisition failed)	The firmware file transfer was completed but the updated firmware revision could not be retrieved, so the firmware may not have been applied correctly. Check the application status of the firmware separately.
Only transfer completed (revision mismatch)	The transfer of the firmware file is complete, but the revision of the transferred firmware file and the updated firmware revision are different. Check the application status of the firmware separately.
Only transfer completed (File revision unknown)	The transfer of the firmware file was completed, but it was not confirmed that the firmware was applied correctly because the revision of the transferred firmware file was incorrect. Check the application status of the firmware separately.
Skip	The firmware update was not performed because the revision of the firmware file you tried to transfer had already been applied.
Aborted	Firmware update or CONFIG import/export has been canceled by user operation.
Failed (Timeout)	A timeout occurred and the transfer of firmware or CONFIG failed. Check the connectivity of the device.
Failed (Application error)	An application error has occurred and the transfer of firmware or CONFIG has failed.
Failed (Busy)	The transfer of firmware or CONFIG failed because other processes are running on the device.
Failed (Invalid file)	The transfer of firmware or CONFIG failed because the selected file was invalid.
Failed (CONFIG doesn't exist)	The CONFIG did not exist on the device where you tried to export the CONFIG. The CONFIG of the device may have been deleted, or it may be in a factory default state.
Failed (Access permission error)	CONFIG could not be accessed because the agent is running in DANTE mode or for some other reason.
Failed (Unknown error)	Transfer of firmware or CONFIG failed due to reasons other than the above.

# 15. Troubleshooting

Symptom	Cause	Action
The device is not listed in the Map/List screen	Network adapter selection is incorrect.	Select the network adapter that is connected to the network that you want to monitor.
	A wireless LAN network adapter is selected.	Select a wired Ethernet network adapter as this software does not support wireless LAN.
	Because numerous devices are connected, it is taking a long time to search for devices.	This may take several minutes; please wait. Information is shown consecutively, starting with devices for which information gathering has completed. If a device is still not displayed, check the settings in the "Basic Settings" dialog box.
	Switches made by another manufacturer are connected.	Since this software is optimized for Yamaha switches, it cannot display switches made by other manufacturers.
Dante-enabled device is detected as a conventional terminal	The network adapter selection was changed after starting Yamaha LAN Monitor.	If the network adapter selection is changed after starting Yamaha LAN Monitor, Dante-enabled devices may not be detected. If Dante-enabled devices cannot be detected, restart Yamaha LAN Monitor.
	The appropriate adapter is not specified in Dante Controller.	Check the network adapter settings in Dante Controller.
	The computer is not connected to the same subnet as the Dante network.	Check the computer's connections and the switch's VLAN settings, and connect the computer to the same subnet as the Dante network. If you are using VLAN PRESET C on the SWP series unit, information cannot be obtained correctly if the computer is connected to VLAN 2. Connect it to VLAN 1.
	In this software, a computer on which Dante Virtual Soundcard is installed is detected as a device.	—
A single Dante-enabled device is detected as two terminals	This is because most Dante-enabled devices, even if they have only one physical port, have two communication ports internally: a communication port for Dante and a communication port for device control.	This is how the device is designed. Management will be easier if you assign the label and comment to these two ports.

Symptom	Cause	Action
Multiple devices are shown with the same port number	By design, if multiple Dante-enabled devices are connected as a daisy-chain, they are shown together at the same port number as the device that is connected immediately below the Yamaha switch.	-
	By design, devices that are connected below a switch made by another manufacturer are shown together immediately below the Yamaha switch that is located upstream of the switch made by the other manufacturer.	—
Some information of a Dante-enabled device cannot be obtained correctly	In some cases, it might not be possible to obtain certain information for a Dante-enabled device not made by Yamaha.	-
Snapshot function does not work	A snapshot has not been saved.	Click the [Snapshots] button to save the current connection status.
	A device cannot be the object of snapshot monitoring.	<ul style="list-style-type: none"> <li>• In the “Basic Settings” dialog box, select the “Treat equipment as comparison for snapshots” check box.</li> <li>• In the “Connected Devices” view, select Snapshot for each device.</li> </ul>
Can’t display the Web GUI	The computer’s network settings are not appropriate.	<ul style="list-style-type: none"> <li>• In Yamaha LAN Monitor, obtain the IP address of the computer and the IP address of the applicable device before you access the Web GUI.</li> <li>• It could be that the subnet settings of the switch and computer do not match. Check the network settings of each unit.</li> <li>• If the Web GUI does not appear even though the network settings are correct, try accessing the Web GUI once again.</li> </ul>
The printing result and the print preview of the “Whole map” becomes blank.	Available memory for this software is insufficient due to the number of terminals displayed on the Whole map and the execution environment of this software.	<ul style="list-style-type: none"> <li>• From the “Basic Settings,” change the “Preview size” of the “Whole map” to “A6”. Changing the “Preview size” of the “Whole map” to “A6” reduces the amount of memory used by this software.</li> <li>• Allocate available free memory for this software.</li> <li>• Disconnect unnecessary terminals if connected.</li> </ul>

Symptom	Cause	Action
The dialog "This PC has no network interface." is displayed and the network adapter cannot be displayed on Yamaha LAN Monitor.	Wi-Fi is off on macOS10.15.x or later.	<ul style="list-style-type: none"><li>• Turn on Wi-Fi in the network settings of macOS10.15.x or later.</li></ul>

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