Yamaha Audio Network Monitor User Guide

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Notice
This software is optimized for the SWP1-8, SWP1-8MMF, and SWP1-16MMF (subsequently referred to as the SWP1 series). For this reason, there must be at least one SWP1 series unit on the network.
Note that even if there is another Yamaha-made switch on the network, some functions will be unavailable until an SWP1 series unit is found.

About the user guide

This user guide assumes that you are using an SWP1 series unit. If you are using a different Yamaha-made network switch (such as the SWX series), the displays might differ.

Contents

About Yamaha Audio Network Monitor

Yamaha Audio Network Monitor monitors the entire network from your computer, including information for Yamaha L2 switches (such as the SWP1 series) and all Dante-enabled devices on a Dante network.

The main functions are as follows.

- LAN map function (page 9) detects the network topology and visualizes the entire network.
- The port status and bandwidth usage of Yamaha switches and Yamaha wireless AP units can be viewed.
- You can open the Web GUI (page 22) of a Yamaha switch or Yamaha wireless AP on the network, and view or edit its settings.
- 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.
- The snapshot function (page 18) is useful for automatically testing network abnormalities or troubleshooting.
- You can assign identification labels to each device.

Terminology

L2MS (Layer 2 Management Service)	A system for managing Yamaha network devices at the layer 2 level
Controller	• Yamaha Audio Network Monitor • The Yamaha router (or Yamaha switch) that is assigned as the controller
Slave	• SWP1 series unit (cannot be assigned as the controller) • SWX series • Yamaha wireless AP (cannot be assigned as the controller)
Equipment	• Dante-enabled device • Computer, etc.

Notes regarding equipment detection

- Construct the network so that only one controller exists in a network. If two or more controllers exist, the LAN map function will not work correctly.
- L3 switches made by another manufacturer, Yamaha routers, and L2MS slaves and equipment that are subordinate to a router made by another manufacturer cannot be shown correctly.
- Equipment that are connected to an L2 switch made by another manufacturer are shown as equipment connected to the immediately-previous L2MS slave device. However, depending on the structure of the network, it might not be possible to show them.

Steps to use the software

1	Verify that Yamaha Audio Network Monitor runs on your computer.	page 4
2	Install Yamaha Audio Network Monitor.	page 4
3	Make network settings.	page 6

Software operating requirements

OS	Windows 7: Home Premium or higher, Windows 8/8.1 (both 32-bit and 64-bit editions of Windows are supported)
CPU	32-bit: 2 GHz or faster Intel Core/Pentium/Celeron family processor 64-bit: Processor that supports Intel64 (however, the program will run in a 32-bit system)
Hard disk space	200 MB or more free space (not including the Dante Controller)
Other	Mouse or other pointing device Ethernet (1000BASE-T/100BASE-TX/10BASE-T) (This will not work via wireless LAN.) Dante Controller must be installed (*)

(*) This can be downloaded from the Dante Controller download page of the following website.
http://www.yamahaproaudio.com/

NOTE

The operating requirements listed above are for Yamaha Audio Network Monitor version 1.0.1.
Refer to the following URL for the latest information on the current version of the software and operating requirements.
http://www.yamahaproaudio.com/
Depending on the computer you're using, the operating requirements might be greater than listed above.

Installing the software

If you want to start Dante Controller from Yamaha Audio Network Monitor, you must install Dante Controller as well. For details on installing Dante Controller, refer to “Dante Controller User Guide.”

Follow the steps below to install Yamaha Audio Network Monitor.

1. In the location where you decompressed the downloaded compressed file, double-click “setup.exe.”

The Yamaha Audio Network Monitor setup dialog box appears.

NOTE

If the “User Account Control” dialog box appears, click [Continue] or [Yes].

2. Perform the installation as directed in the screen.

NOTE

During the installation procedure, a dialog box will ask you to install WinPcap and Dante Discovery / Dante Control and Monitoring functions. If these applications have not been installed, install them as directed.

Uninstalling the software

You can uninstall Yamaha Audio Network Monitor from “Control Panel.” The appearance of the control panel will differ depending on the operating system.

1. Go to [Control Panel] → [Programs and Features] or [Uninstall a Program], select the item that you want to uninstall, and click [Uninstall or Change].

A dialog box appears.

2. Perform the uninstallation as directed in the screen.

NOTE

- If the “User Account Control” dialog box appears, click [Continue] or [Yes].
- 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 from the [Uninstall or Change] screen.

Network settings

For SWP1 series units, the IP address is used to allow access to the Web GUI (page 22). As necessary, you can use Yamaha Audio Network Monitor to set the IP address of each SWP1 series unit.
With the factory settings, the IP addresses are set automatically.

NOTE
For details and notes regarding network connections, refer to the following URL.
http://www.yamahaproaudio.com/

Network settings on the SWP1 series unit

When connecting the SWP1 series unit to a network that consists of Dante-enabled devices without DHCP server

With the factory settings, a link local address of 169.254.0.0/16 is specified. This is the same subnet as the Dante Primary network.

NOTE
In order to access the Web GUI or to monitor the Dante status, the computer and the related devices must be on the same subnet.

When connecting an SWP1 series unit to a network in which there is a DHCP server

With the factory settings, this is specified automatically by DHCP.

If you want to specify the IP address manually

Make the setting appropriately for the connected LAN. For details, ask the LAN administrator. For the procedure, refer to page 13.

Network settings on the computer

1. **Connect the computer and Dante-enabled units to the SWP1 series unit.**

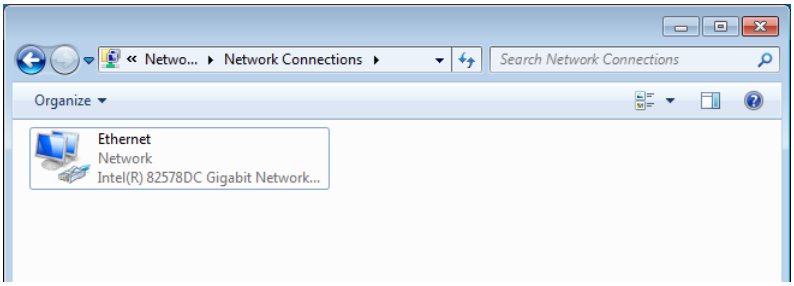
   NOTE
   Connect the computer to the SWP1 series unit's port that is assigned as VLAN 1.

2. **Power-on each device.**

3. **Start Yamaha Audio Network Monitor.**

   NOTE
   If the “User Account Control” dialog box appears, click [Continue] or [Yes].

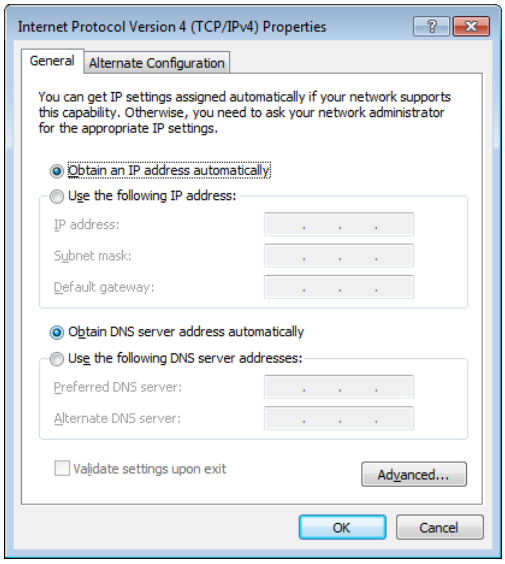
4. **Click [Settings] menu → [Open PC’s IP Address Settings].**
   The “Network Connections” dialog box appears.



5. **Right-click the network adapter to which the SWP1 series unit is connected, and click [Properties].**
   The “Local Area Connection Properties” dialog box appears.

6. **Select [Internet Protocol Version 4 (TCP/IPv4)], and click [Properties].**
   The “Internet Protocol Version 4 (TCP/IPv4) Properties” dialog box appears.

7. Click [Obtain an IP address automatically].



NOTE

If you want to specify the IP address manually, choose [Use the following IP address] and enter an address.

8. Click [OK].

9. Close the "Local Area Connection Properties" dialog box and the "Network Connections" dialog box.

NOTE

In some cases, the Windows firewall might block Yamaha Audio Network Monitor when you make settings. Select the [Private Network] check box, and click [Allow Access].

Dante Controller settings

1. On the "Toolbar," press the Dante Controller button Dante Controller to start Dante Controller.

2. Select the network adapter that you will use with Dante Controller.

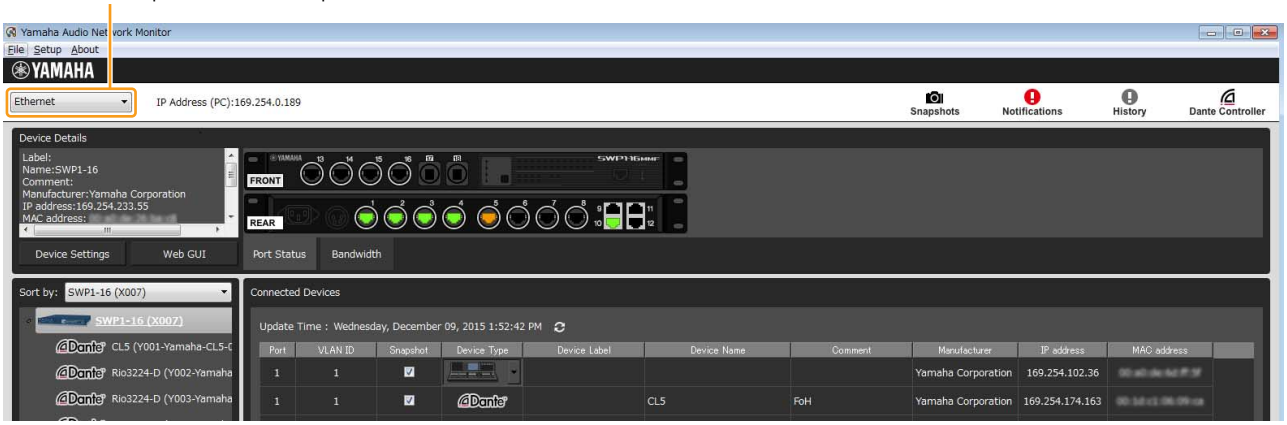
NOTE

- For details on Dante network settings, refer to "Dante Controller User Guide."
- If the network adapter used for Dante control in Dante Controller is not specified correctly, it might not be possible to correctly detect Dante-enabled devices in the LAN map screen of Yamaha Audio Network Monitor.

Startup

1. Start Yamaha Audio Network Monitor from the Start menu or from a shortcut.

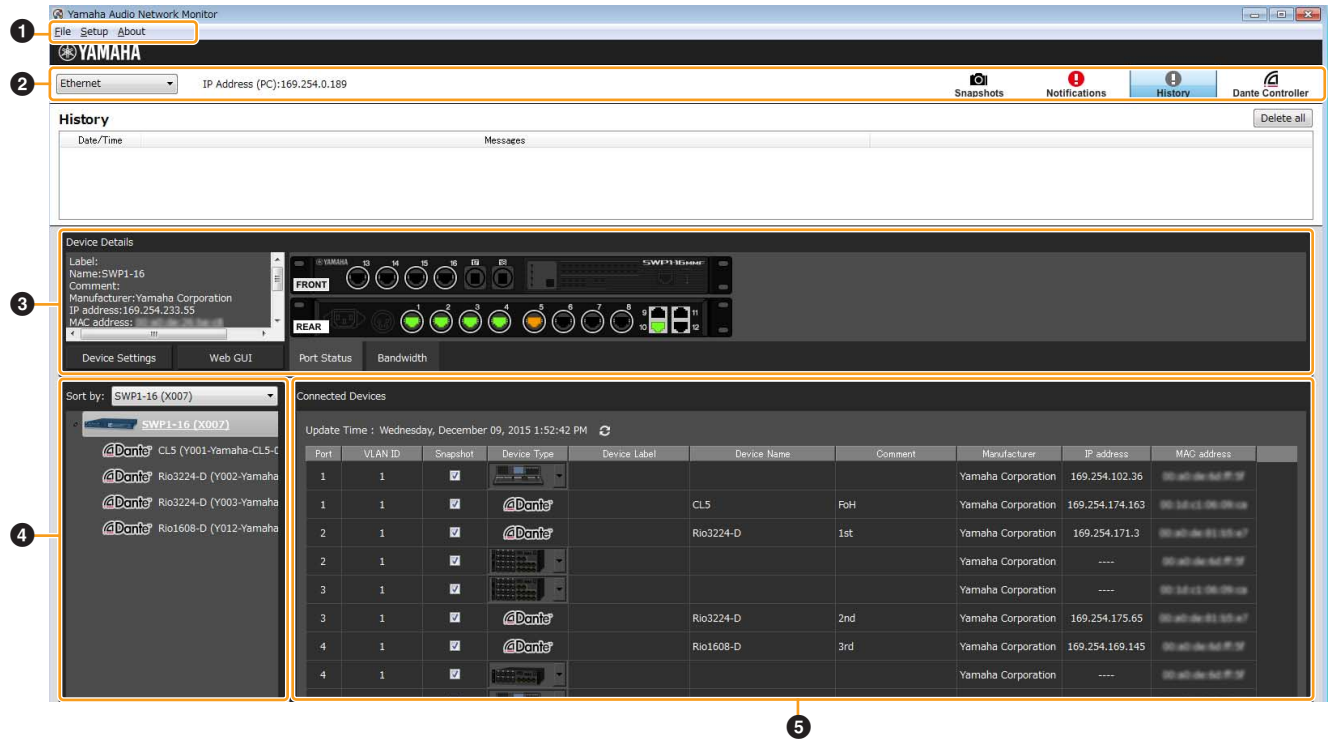
Network adapter selection pull-down menu



2. From the pulldown menu, select the network adapter to which the network that you want to monitor is connected.

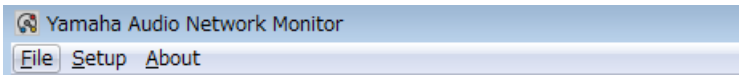
LAN map screen structure

This screen visualizes the state of the network. You can verify the connection status of the devices, or change the slave settings.



❶ **Menu bar (page 9)**
❷ **Toolbar (page 10)**
❸ **“Device Details” view (page 11)**
❹ **“Tree” view (page 15)**
❺ **“Connected Devices” view (page 15)**

Menu bar



Menu	Command	Summary	Dialog box that appears
[File]	**[New]**	Initializes the current snapshot held internally by Yamaha Audio Network Monitor. If a snapshot is internally held, a confirmation message appears.	
	[Open Snapshot File]	Opens a snapshot file that was saved on the computer.	[Open Snapshot File] dialog box
	[Save As]	Saves the snapshot held internally by Yamaha Audio Network Monitor as a different file. The saved file has a filename extension of “.nms.”	[Save As] dialog box
	[Exit]	Exits Yamaha Audio Network Monitor.	
[Setup]	**[Open IP Settings for PC]**	Opens the “Network Connections” control panel item. Use this to change the IP address of the network adapter.	“Network Connections” dialog box

Menu	Command	Summary	Dialog box that appears
[Setup]	**[Import Label Settings]**	Loads device labels displayed in the Connected Devices view from a file.	[Import Label Settings] dialog box
	[Export Label Settings]	Saves device labels specified in the Connected Devices view as a file. The saved file has a filename extension of ".nml."	"Export Label Settings" dialog box
	[Basic Settings]	Displays a dialog box in which you can make basic settings for Yamaha Audio Network Monitor.	"Basic Settings" dialog box
[About]	**[About]**	Displays detailed information such as the version of Yamaha Audio Network Monitor.	"Version Information" dialog box
	[Legal]	Displays a license screen for Yamaha Audio Network Monitor.	"Legal" dialog box

Tool buttons

Button, etc.	Summary	Recalled display, etc.
 **Network adapter selection pull-down menu**	Selects the network adapter to which the network monitored by Yamaha Audio Network Monitor is connected. If you change the network adapter, the snapshot internally held in Yamaha Audio Network Monitor is discarded.	
IP address (PC)	Indicates the IP address that is assigned to the currently selected network adapter.	
 **[Snapshots] button** *Will not function until an SWP1 series unit is found	Saves the current state of connections as a snapshot inside Yamaha Audio Network Monitor, and starts monitoring.	"Save Snapshot" dialog box
 **[Notifications] button**	Shows a message when there is a change in the current network and snapshot (the previously-saved network status). The message disappears when the network returns to its previous state. The message history is added to the history area.	Notifications area
 **[History] button**	Shows the history of various messages. The "Clear All" button deletes the entire message history.	History area
 **[Dante Controller] button**	Starts Dante Controller that is installed on the computer.	Dante Controller

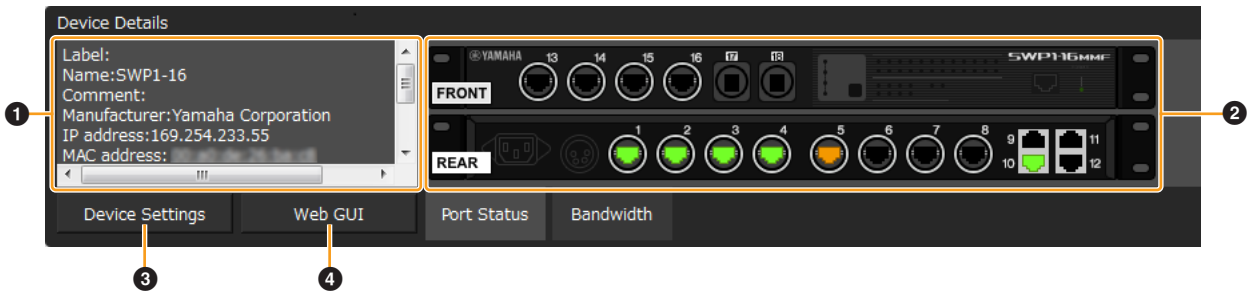
For details on the messages that are shown in the notifications area and history area, refer to "Messages shown in both the notifications area and the history area" (page 20).

“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 content differs between Yamaha network switches such as SWP1 series units and Dante-enabled devices.

For a Yamaha network switch

The following is shown for a network switch that can be recognized by Yamaha Audio Network Monitor.



❶ Device Details

The following information is shown. Depending on the device, some items are not shown.

Label	Shows the device label that was entered in the device settings dialog box or the connected device view.
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.
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	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.
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.

❷ Port Status

This area shows a graphic representation of the switch's port information. Use the tabs located below the graphic to switch the information that is shown.

■ When the port status tab is selected

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

Port	Description
	1000BASE-T

Port	Description
	100BASE-TX
	10BASE-T
	Error has occurred
	Cautionary status
	Link down

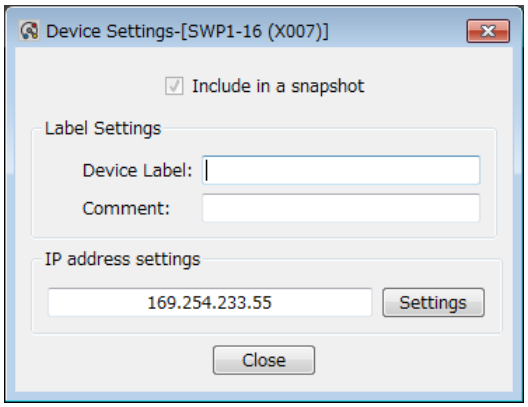
■ When the bandwidth usage tab is selected

This area shows the bandwidth usage of each port.

Port	Description
	Bandwidth usage 95% – 100%
	Bandwidth usage 85% – 95%
	Bandwidth usage 75% – 85%
	Bandwidth usage 65% – 75%
	Bandwidth usage 55% – 65%
	Bandwidth usage 45% – 55%
	Bandwidth usage 35% – 45%
	Bandwidth usage 25% – 35%
	Bandwidth usage 15% – 25%
	Bandwidth usage 7.5% – 15%
	Bandwidth usage 0% – 7.5%
	Error has occurred
	Cautionary status
	Link down

❸ [Device Settings] button

When you click this, the “Device Settings” dialog box appears.
Here you can turn on/off the snapshot function of the SWP1 series unit, and specify its label and IP address.



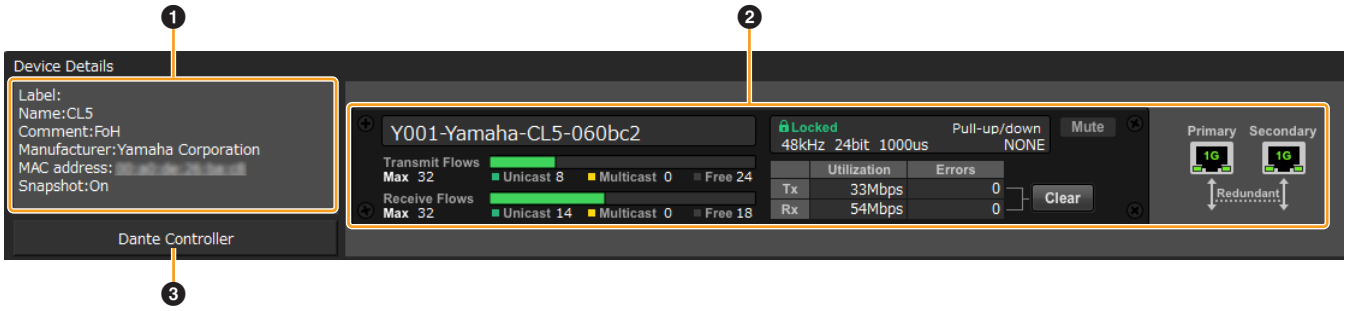
[Include in a snapshot] check box	Turns the snapshot function on/off for each device. For a slave device, this is fixed on.
Label Settings	Allows you to freely enter a label and comment to distinguish the individual unit.
IP address settings [Settings] button	When you click this, the “IP address settings” dialog box appears.
[Close] button	When you click this, the “Device Settings” dialog box closes.

❹ [Web GUI] button (shown only for a slave device)

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 make basic settings for the Yamaha switch and perform maintenance.
For details, refer to “Logging in to the Web GUI” (page 22).

For a Dante-enabled device

Information about the Dante-enabled device is shown.



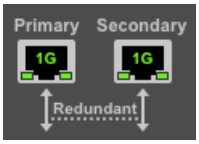
❶ Device Details

This area shows the following information.

Label	Shows the device label that was entered in the connected devices view.
Name	Shows the model name of the Dante-enabled device.
Comment	Shows the comment that was entered in the connected devices view.
Manufacturer	Shows the manufacturer name of the Dante-enabled device.
MAC address	Shows the MAC address of the Dante-enabled device.
Snapshot	Shows whether the device is monitored by the Snapshot function (On) or not monitored (Off).

❷ Information for the Dante-enabled device

This area shows information for the Dante node.

Name	Shows the label of the Dante-enabled device.
[Transmit Flows]	Shows the transmit flow status. Green: Number of unicast flows Yellow: Number of multicast flows
[Receive Flows]	Shows the receive flow status. Green: Number of unicast flows Yellow: Number of multicast flows
[Locked]/[Unlocked] Indicator	Indicates whether the audio signal is locked or unlocked. Locked : Locked Unlocked : Unlocked
Sampling frequency/ bit-length/latency	Shows the sampling frequency, bit-length, and latency of the audio signal. The latency is shown in µ second units.
[Pull-up/down]	Shows the sampling rate pull-up/pull-down setting.
[Mute] indicator	Lit when the Dante-enabled device is muted. Mute : Muted Mute : Not 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 sets 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. 

NOTE

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].
http://www.yamahaproaudio.com/

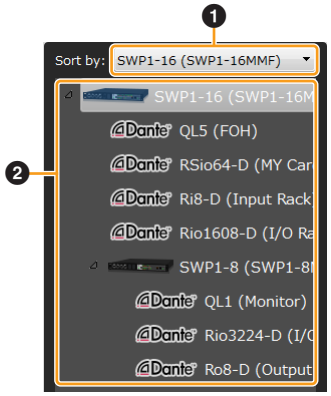
❸ [Dante Controller] button (shown only for Dante-enabled devices)

You can click this to start Dante Controller and make 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.

“Tree” view

This shows the Yamaha switch and Yamaha wireless AP and Dante-enabled devices detected by Yamaha Audio Network Monitor.
The device name and the number of connected devices (slave 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 slave device are shown.

NOTE
This will not function until an SWP1 series unit is found.



❶ Sorting order selection pull-down menu

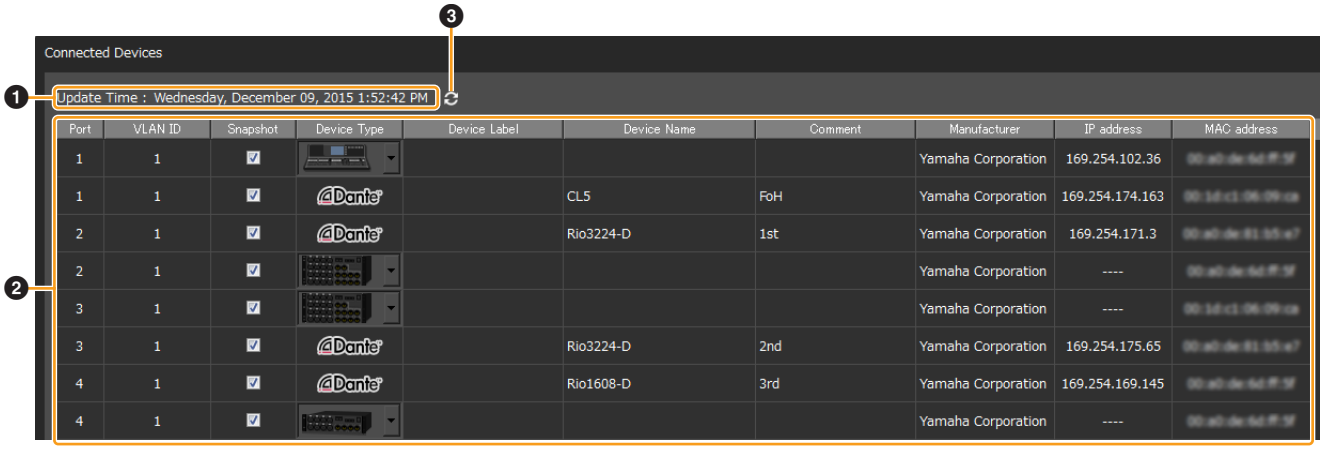
Selects the Yamaha switch that you want to appear at the top of the tree view. These are shown in their connection order relative to the selected Yamaha switch.

❷ Tree view

Shows the Yamaha switch and Yamaha wireless AP and Dante-enabled devices detected by Yamaha Audio Network Monitor.
If a device that was recorded in the snapshot is no longer found, or if the connection port is different, a red error icon is shown for the slave that is above the corresponding device. If a device that was not recorded is newly found, a blue notification icon appears on the slave that is above the corresponding device.

“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 “Slave monitoring time interval” of “Basic settings” has elapsed (page 17).
When you click the [Refresh] button of the connected devices view, information for the devices connected to the slave is refreshed.



❶ Update Time

Shows the time at which information was last captured for the equipment that are connected to the Yamaha switch that is selected in the tree view.

❷ List

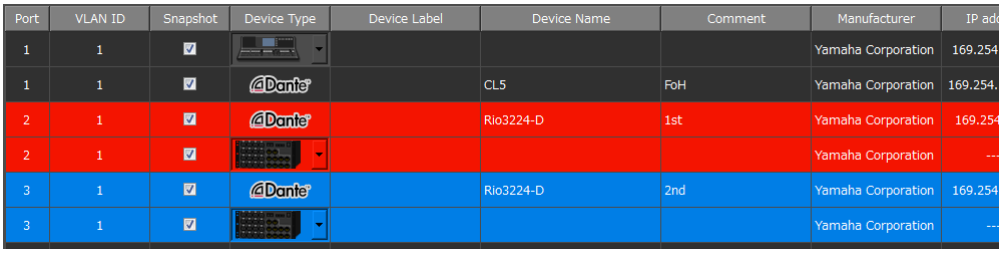
Shows a list of information for the devices that are connected to the slave that is selected in the tree view.

Port	Shows the port number of the slave to which the device is connected. 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.
Snapshot	Specifies whether each device is included as a target of the snapshot function.
Device Type	Shows an icon that indicates the type of device. You can use the pull-down menu to switch the icon that is displayed.
Device Label	Allows you to freely enter a label to distinguish each individual device.
Device Name	Shows the model name of the device.
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.
IP address	Shows the IPv4 address of the device.
MAC address	Shows the MAC address of the device.

NOTE

- If multiple Dante-enabled devices are connected as 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,” “Device Name,” and “Manufacturer” can be moved to another computer by using the [Settings] menu commands [Export Label Settings] and [Import Label Settings].
- Since “Comment” is saved in the snapshot, these settings can be switched together by using “Save As” and “Open.”

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



❸ [Refresh] button

Refreshes the information for the other slaves or equipment that are connected to the slave that is selected in the tree view.

LAN map function settings

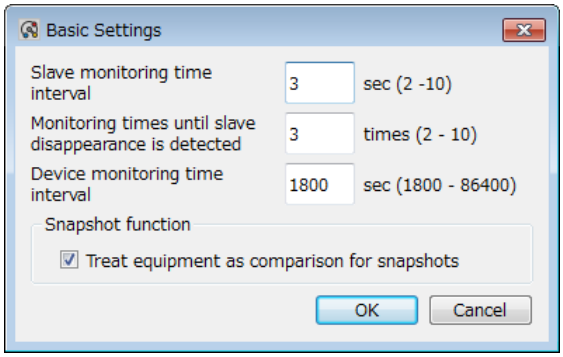
The LAN map function uses a proprietary layer 2 protocol to ascertain the network topology of Yamaha network devices and visualize the entire network. Since layer 2 communication is used, the network topology can be ascertained without depending on the IP address settings of the devices.
The Yamaha Audio Network Monitor or Yamaha router that performs LAN map control is called the “controller.” The Yamaha switch or Yamaha wireless AP that is controlled by the controller is called the “slave.” Other devices (such as a Dante-enabled device or a computer) are called “equipment.”

NOTE

This will not work correctly if the same LAN includes more than one controller whose LAN map control function is turned on. If you want to use the LAN map function with Yamaha Audio Network Monitor, turn off the LAN map control function for the other controllers.

1. On the “Settings” menu, click “Basic Settings.”

The “Basic Settings” dialog box appears.



Slave monitoring time interval	Specifies the interval between sending packets that search for slaves. The LAN map is updated each time the monitoring time specified here elapses.
Monitoring times until slave disappearance is detected	Specifies the number of search packets to be transmitted until it is determined that the slave has disappeared.
Device monitoring time interval	Specifies the interval at which to search for equipment connected to the computer or slave.
Snapshot function **“Treat equipment as comparison for snapshots” check box**	Turns the snapshot function on/off. This specifies whether equipment are also subject to error monitoring when monitoring the network status after a snapshot is created.

2. Select the “Treat equipment as comparison for snapshots” check box.

NOTE

By default, this check box is selected.

3. Click the [OK] button.

This causes the equipment to also be included in the snapshot function.

4. As necessary, specify whether each equipment is included as a target of the snapshot function.

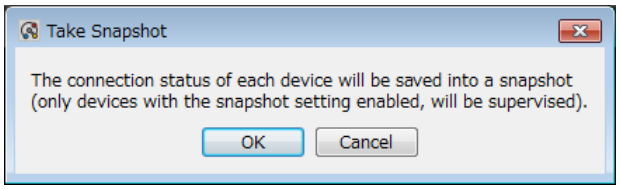
You can make these settings in the [Snapshot] field of the connected devices view.

Using the snapshot function

The snapshot function compares the current network connection status with the previously-saved network connection status (snapshot), and if a change is found, displays a warning message. To use the snapshot function, proceed as follows.

1. **In advance, make the necessary settings as described in “LAN map function settings” (page 17).**

2. **Click the Snapshot button** Snapshots **.**
   The “Save Snapshot” dialog box appears.



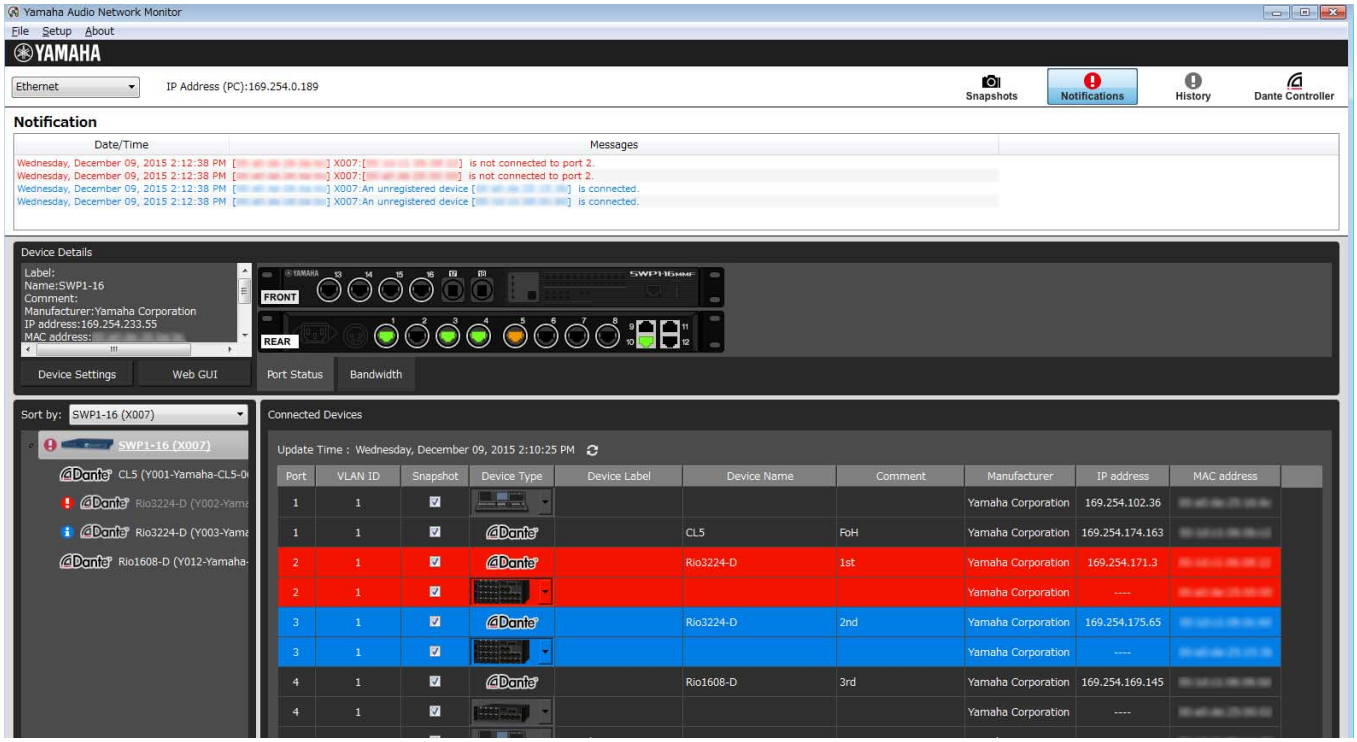
3. **Click the [OK] button.**

   NOTE

   Since the comments assigned to each device are saved in the snapshot, these settings can be switched together by using “Save As” and “Open.”

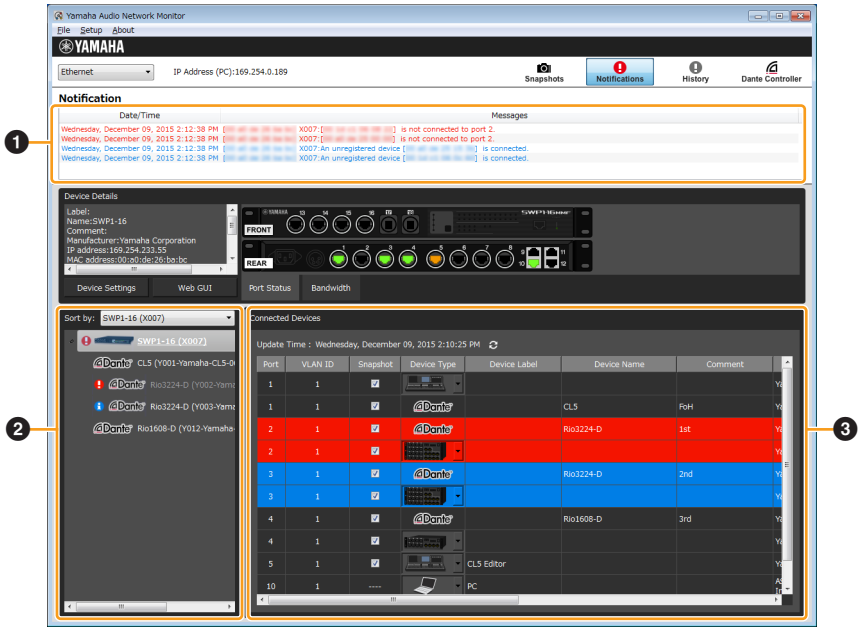
If a change is detected

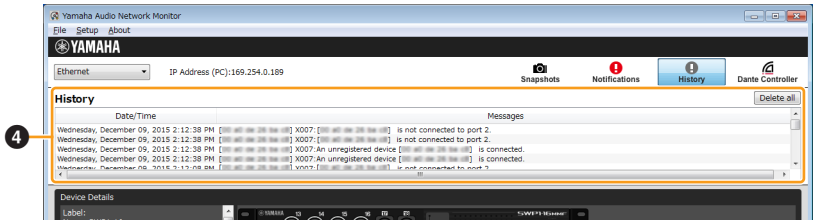
A warning message (page 25) appears in the notifications area. If a device that was recorded in the snapshot is no longer found, or if the connection port is different, a red error icon is shown for the slave that is above the corresponding device. If a device that was not recorded is newly found, a blue notification icon appears on the slave that is above the corresponding device.



Notification function

LAN map uses the switch control function and the snapshot function to monitor the network. A message is displayed if a change is detected in the network.





❶ Notifications area

Messages regarding the current network are shown here. When a new message is added to the notifications area, it appears automatically; you can also display it by clicking the “Notifications” button. When a message is displayed, you can close the notifications area by clicking the “Notifications” button.

Date and time: Shows the time at which the message was output.

Content: Shows the message that was output by the switch function or snapshot function.

❷ Tree view

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

❸ Connected devices view

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

❹ History area

Shows the history of notification messages. Up to 1,000 items are saved in the history; when the maximum number of items is exceeded, the oldest message is deleted. If the message shown in the notification area has not changed from the previous message, it is not added to the history.

Clear all button: Clears the messages from the history.

Date and time: Shows the time at which the message was output.

Content: Shows the message that was output by the slave error detection function or the snapshot function.

NOTE

Some messages are shown in both the “notifications area” and the “history area,” while some messages are shown only in one area.

Messages shown in both the notifications area and the history area

Messages indicating a slave error

The following messages appear when an error occurs on a slave. “mac” indicates the MAC address of the device that is the subject of the message, “n” indicates the port number, “route” indicates the route, and “x” indicates the QoS transmit queue number.

Messages
[mac] label: A loop occurred at ports (n1, n2...) of the Yamaha switch.
[mac] label: The loop at the Yamaha switch was resolved.
[mac] label: Connected via the backup route. (Master route: port)
[mac] label: Connected via the master route.
[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 has returned to normal at port (n) of the Yamaha switch. (QoS transmission queue: x)
[mac] label: Port (n) of the Yamaha switch stopped supplying power.
[mac] label: Port (n) of the Yamaha switch stopped supplying power because a class of device which exceeded the power supply class setting was detected.
[mac] label: Class3 (15.4W) power from port (n) has stopped because paired port began supplying Class4 (30W) power.
[mac] label: Port (n) of the Yamaha switch stopped supplying power because the maximum power has been exceeded.
[mac] label: The power supply has stopped because the maximum power has been exceeded at port (n).
[mac] label: Port (n) of the Yamaha switch stopped supplying power because the internal temperature exceeded 60 degrees Celsius.
[mac] label: Port (n) of the Yamaha switch stopped supplying power because the fan malfunctioned.
[mac] label: Port (n) of the Yamaha switch stopped supplying power because the power supply malfunctioned.
[mac] label: Port (n) of the Yamaha switch started supplying power to a Class0 device.
[mac] label: Port (n) of the Yamaha switch started supplying power to a Class1 device.
[mac] label: Port (n) of the Yamaha switch started supplying power to a Class2 device.
[mac] label: Port (n) of the Yamaha switch started supplying power to a Class3 device.
[mac] label: Port (n) of the Yamaha switch started supplying power to a Class4 device.
[mac] label: The Yamaha switch has stopped supplying power.
[mac] label: The power supply interruption of the Yamaha switch was resolved.
[mac] label: The power being supplied from the Yamaha switch has exceeded the maximum power supply capacity.
[mac] label: The power supply overload of the Yamaha switch was resolved.
[mac] label: An error occurred in the power supply of the Yamaha switch.
[mac] label: The power supply abnormality of the Yamaha switch was resolved.
[mac] label: The fan of the Yamaha switch malfunctioned.
[mac] label: The fan malfunction of the Yamaha switch was resolved.

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, “n” indicates the port number, and “route” indicates the route. Messages are not shown for equipment that are not the subject of monitoring by the snapshot function.

Messages
[mac] label: Device status matches the snapshot.
[mac] label: An unregistered device [mac] label is connected.
[mac] label: [mac] label is not connected to port n.
[mac] label: There is a device with an incorrect connection port. Connect [mac] label to port n.
[mac] label: There is a port with an incorrect device connected. Connect [mac] label to port n.
Create a snapshot.
Started creating a snapshot.
Finished creating a snapshot.
Snapshot creation canceled.
Failed to create a snapshot.

Dante-related notifications

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

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

Other notifications

Messages
Snapshot load cancelled – file is not valid.
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.
Label settings file load cancelled – file is not valid.
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.

Logging in to the Web GUI

Recommended web browsers

The following web browsers are recommended for the Web GUI.

Windows	• Microsoft Internet Explorer 9, 10, 11 • Google Chrome 37 or later • Mozilla Firefox 32 or later
Mac	• Apple Safari 7 or later

Notice

- In Yamaha Audio Network 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 might be rare cases in which the layout is disordered. If this occurs, re-access the page.

To use the Web GUI, proceed as follows.

1. In the “Device Settings” view, click the Web GUI button; alternatively, enter the IP address directly into your web browser.

In some cases, a password entry dialog box might appear.

2. If a dialog box appears, enter the [User name] and [Password].

3. Click the [OK] button.

The Web GUI screen of the device currently selected in the tree appears in the default browser.

NOTE

If the Web GUI does not appear, it could be that the subnet settings of the switch and computer do not match. Check the subnet settings.

Administrative password

For SWP1 series devices

With the factory settings, the administrative password is set as follows.

User name	administrator
Password	(blank)

The following items can be set for each CONFIG (DANTE/USER).

- Administrator password setting
- IP address settings
- Time zone and NTP settings
- Firmware update settings
- SYSLOG settings
- Web GUI language setting

If you want to back up the settings, start up with the Dante or the User configuration, and execute [Export CONFIG file] from the Web GUI.

For devices other than the SWP1 series

For the factory-set administrator password, refer to the user manual of each model.

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 in the upper right of the Web GUI screen.

Updating the firmware

The firmware of the SWP1 series can be updated from the Web GUI.

Notice

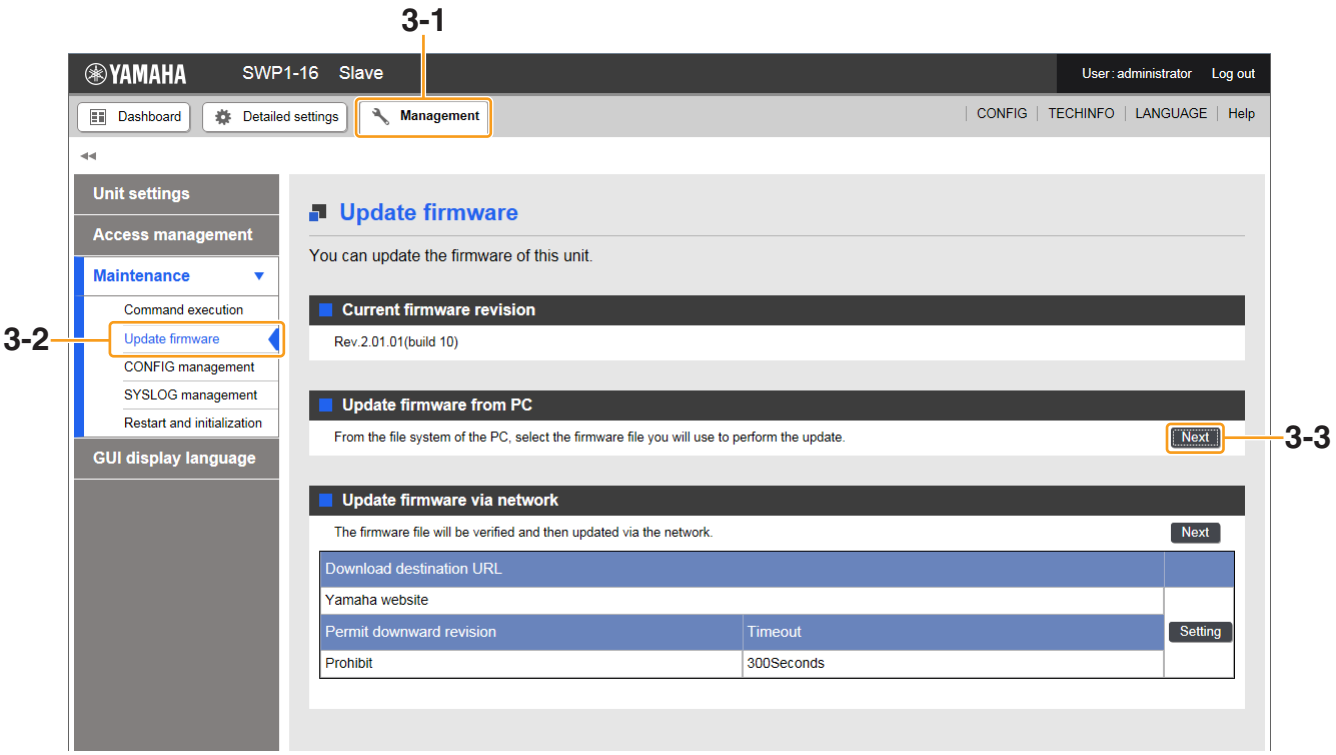
- After starting a firmware update, do not perform any other operation until the update is completed and the Yamaha switch has restarted. If the update is halted before completion, the Yamaha switch might become unusable.
- When the firmware update is completed, the Yamaha switch automatically restarts; this causes all communication to be interrupted.
- Do not disconnect cables while the firmware is being updated. Doing so might make the Yamaha switch unusable, requiring it to be brought in for servicing.

1. Download the firmware file from the Yamaha Pro Audio site.

http://www.yamahaproaudio.com/

2. In Yamaha Audio Network Monitor, click the Web GUI button; alternatively, enter the IP address directly into your web browser to start the Web GUI.

3. In the Web GUI, load the firmware to perform the update.



NOTE

If connected to the Internet, you can also update the firmware from the Web GUI via the network.

Dialog box messages

The following messages are shown in dialog boxes.

Warning messages

Messages
This PC has no network interface.
There is no snapshot. Click the snapshot button to create a snapshot.
No Yamaha SWP1 Series units found on the network – a snapshot file cannot be created.
Dante Controller was not found. Please install Dante Controller.
No Yamaha SWP1 Series units found on the network – the state of the selected device cannot be displayed.
The snapshot file could not be opened.
The snapshot file could not be saved.
The label setting file could not be opened.
Label setting file could not be saved.
Failed to update the firmware.
Failed to set the IP address.
Invalid IP address – the web settings screen could not be opened.
The snapshot file could not be deleted.

Error messages

Messages
There is no OUI file. Backup the necessary information, and re-install.
The OUI file could not be loaded. Backup the necessary information, and re-install.
The data folder could not be created.
Failed to start the specified snapshot file.

Shortcut keys

Result	Key operation
Edit a cell in a list	F2
Update the connection status of the currently selected slave	F5

Troubleshooting

Symptom	Cause	Action
LAN map is not displayed correctly	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.	This software does not support a wireless LAN. Select a wired network adapter.
	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 it is still not displayed, check the settings in the “Basic Settings” dialog box.
	The SWP1 series unit is being operated with VLAN PRESET C, and this software is connected to the VLAN 2 network.	If you want to use VLAN PRESET C on the SWP1 series unit, connect this software to VLAN 1. However even if connected to VLAN 1, the display might not be correct depending on the connection status of VLAN 2.
	Switches or wireless AP units made by another manufacturer are connected.	Since this software is optimized for the SWP1 series, it cannot display switches or wireless AP units made by other manufacturers.
Serial number is not shown in device details	This is not displayed because SWP1 series units do not maintain the serial number inside the unit. In some cases, this might be displayed for other Yamaha switches or Yamaha wireless AP units.	–
Dante-enabled device is detected as a conventional terminal	Dante Controller is not installed.	Install Dante Controller, and make network adapter settings in Dante Controller.
	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 SWP1 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 an equipment.	–
One 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 Dante-enabled device not made by Yamaha.	–
Snapshot function does not work	A snapshot has not been saved.	Press the [Snapshot] button to save the current connection status.
	An equipment is not the object of snapshot monitoring.	• In the “Basic Settings” dialog box, select the “Treat equipment as comparison for snapshots” check box. • In the connected devices view, select Snapshot for each device.
Can't display the Web GUI	The computer’s network settings are not appropriate.	• In Yamaha Audio Network Monitor, obtain the IP address of the computer and the IP address of the applicable device before you access the Web GUI. • It could be that the subnet settings of the switch and computer do not match. Check the network settings of each unit. • If the Web GUI does not appear even though the network settings are correct, try accessing the Web GUI once again.

Yamaha Pro Audio global website:
http://www.yamahaproaudio.com/

Yamaha Downloads
http://download.yamaha.com/

Manual Development Department

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