SONY
Help Guide

Microphone Array System Manager
MASM-1

This Help Guide describes how to operate the MASM-1 Microphone Array System Manager.

Overview and Setup

- Overview
- Operating Environment
- Installation
- Operation Flow

Screen Structure

- Password Setup Screen
- Login Screen
- Main Screen
- [Register] Tab
- [Settings] Tab
- [Calibrate] Tab
- [Monitor] Tab
- [Update] Tab
- [Options] Screen
- [About] Screen

Miscellaneous

- Usage Precautions
- Trademarks

5-020-094-11(1) Copyright 2020 Sony Corporation

Microphone Array System Manager
MASM-1

Overview

The MASM-1 Microphone Array System Manager is application software for configuring and operating an array of MAS-A100 Beamforming Microphones collectively by remote control via a network.

5-020-094-11(1) Copyright 2020 Sony Corporation

Microphone Array System Manager
MASM-1

Operating Environment

This application runs in the following environment.

- OS: Microsoft Windows 10 (64-bit versions)
- Processor: 2 GHz or higher
- Memory: 4 GB or higher
- Storage free capacity: 300 MB or higher
- Display resolution: 1280×720 or higher
- Browser: Google Chrome (version 70 or higher, installed in the default location)
- Other: .NET framework (4.7.2 or higher)

5-020-094-11(1) Copyright 2020 Sony Corporation

Microphone Array System Manager
MASM-1

Installation

Download the installer from the following URL, launch the installer, and follow the instructions.
URL: https://pro.sony/product-resources/software-firmware/masm-1

5-020-094-11(1) Copyright 2020 Sony Corporation

Operation Flow

This section describes the basic workflow after the application is installed.

1. **Launch the application.**

   The password setup screen appears. The login screen appears if a password has already been configured.

2. **Enter a password, and press the [SET] button.**

   The login screen appears.

3. **Enter the configured password, and press the [LOGIN] button.**

   The main screen appears.

4. **This screen is used to discover MAS-A100 units on the network and register settings on the [Register] tab of the right pane.**

   The registered MAS-A100 units can then be calibrated, monitored, and reconfigured collectively using this application.

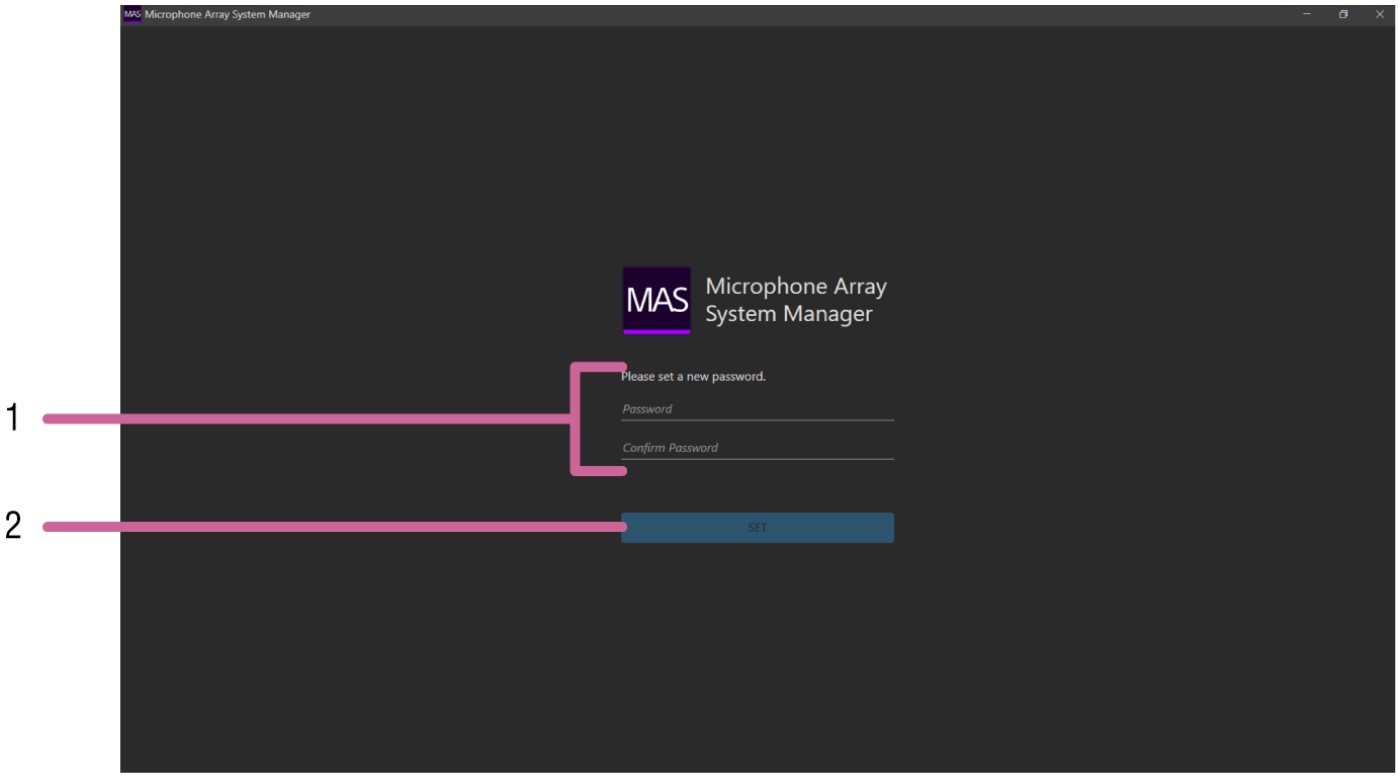
Related Topic

- Password Setup Screen
- Login Screen
- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

Password Setup Screen

This screen is used to configure the password for logging in to this application.
It is displayed automatically when the application is launched for the first time after installation.



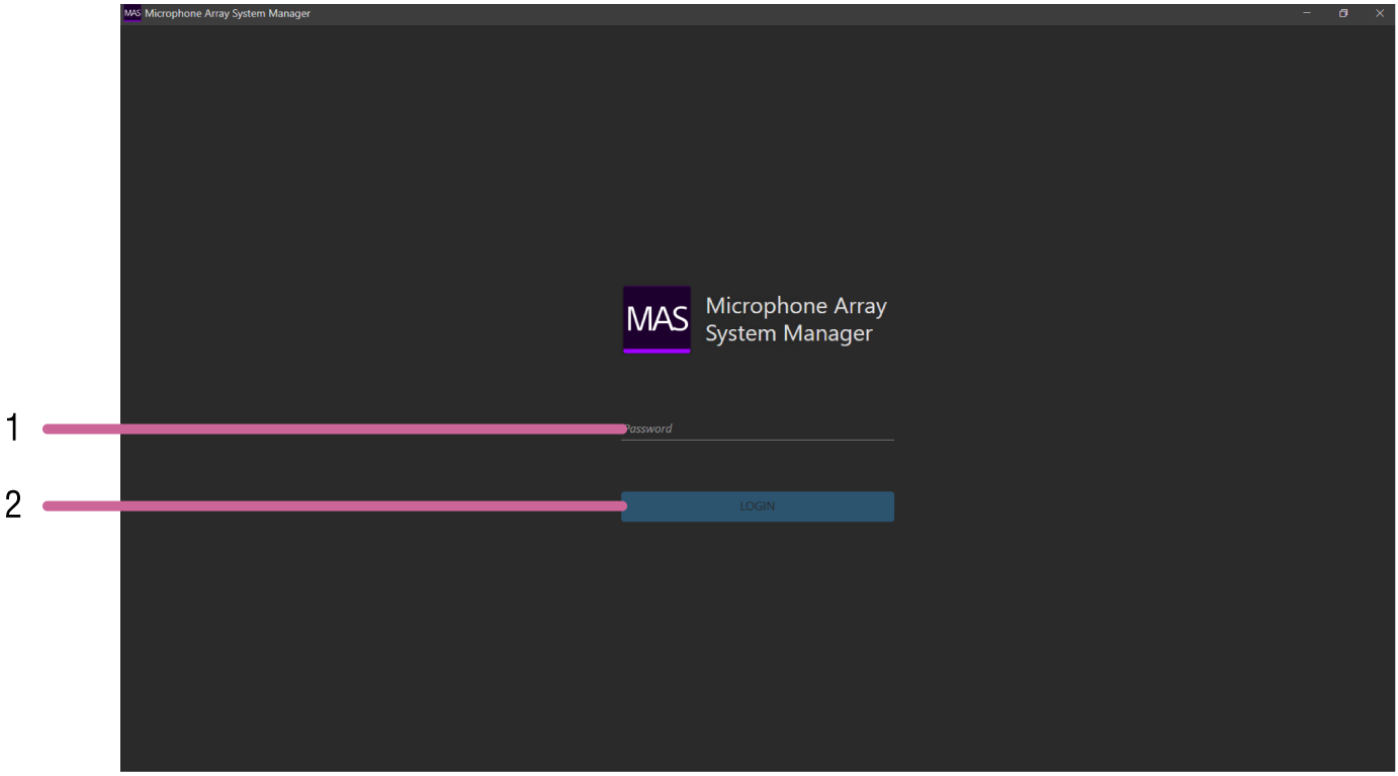
1. **Password input fields**
   Enter the same password comprising 8 to 64 characters in both input fields.
   Passwords must contain at least one upper-case letter, one lower-case letter, and one numeral.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

2. **[SET] button**
   Press to register the entered password.

5-020-094-11(1) Copyright 2020 Sony Corporation

Login Screen



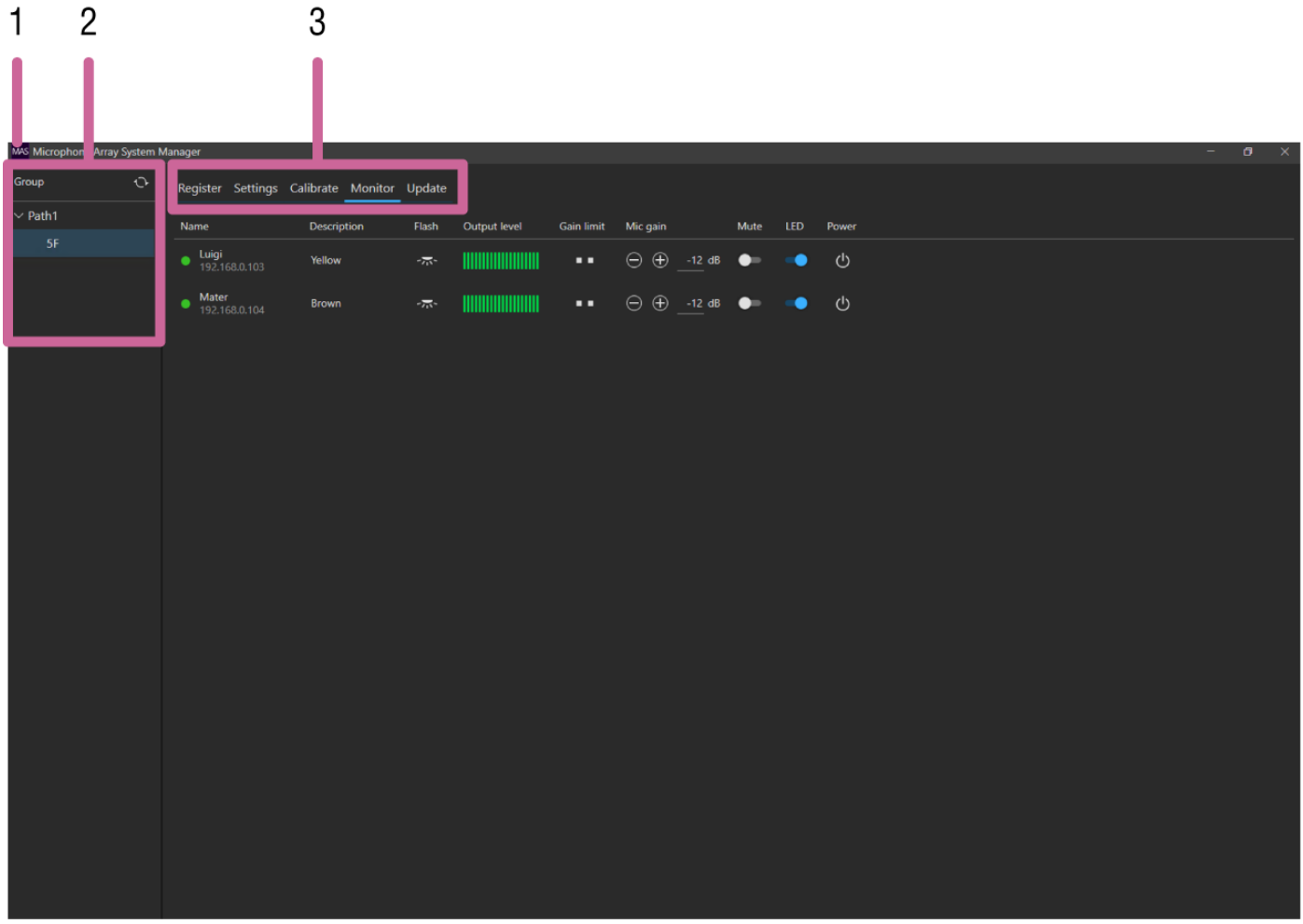
1. **Password input field**
   Enter the password that was configured when launching the application for the first time.

2. **[LOGIN] button**
   Press to log in after entering the password.

5-020-094-11(1) Copyright 2020 Sony Corporation

Main Screen

This screen appears after logging in.



1. **“MAS” icon**
   Press to display the menu. Use this when you want to view the [Options] page or [About] page.

2. **[Group] pane**
   Displays the registered MAS-A100 units arranged by groups. Press a group name to display information about the MAS-A100 units comprising the group in the right pane.
   Pressing ↻ updates the display.

3. **Function tabs**
   These tabs are used to register, configure, and monitor MAS-A100 units.

Related Topic

- [Register] Tab
- [Settings] Tab
- [Calibrate] Tab
- [Monitor] Tab
- [Update] Tab

- [Options] Screen
- [About] Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[Register] Tab

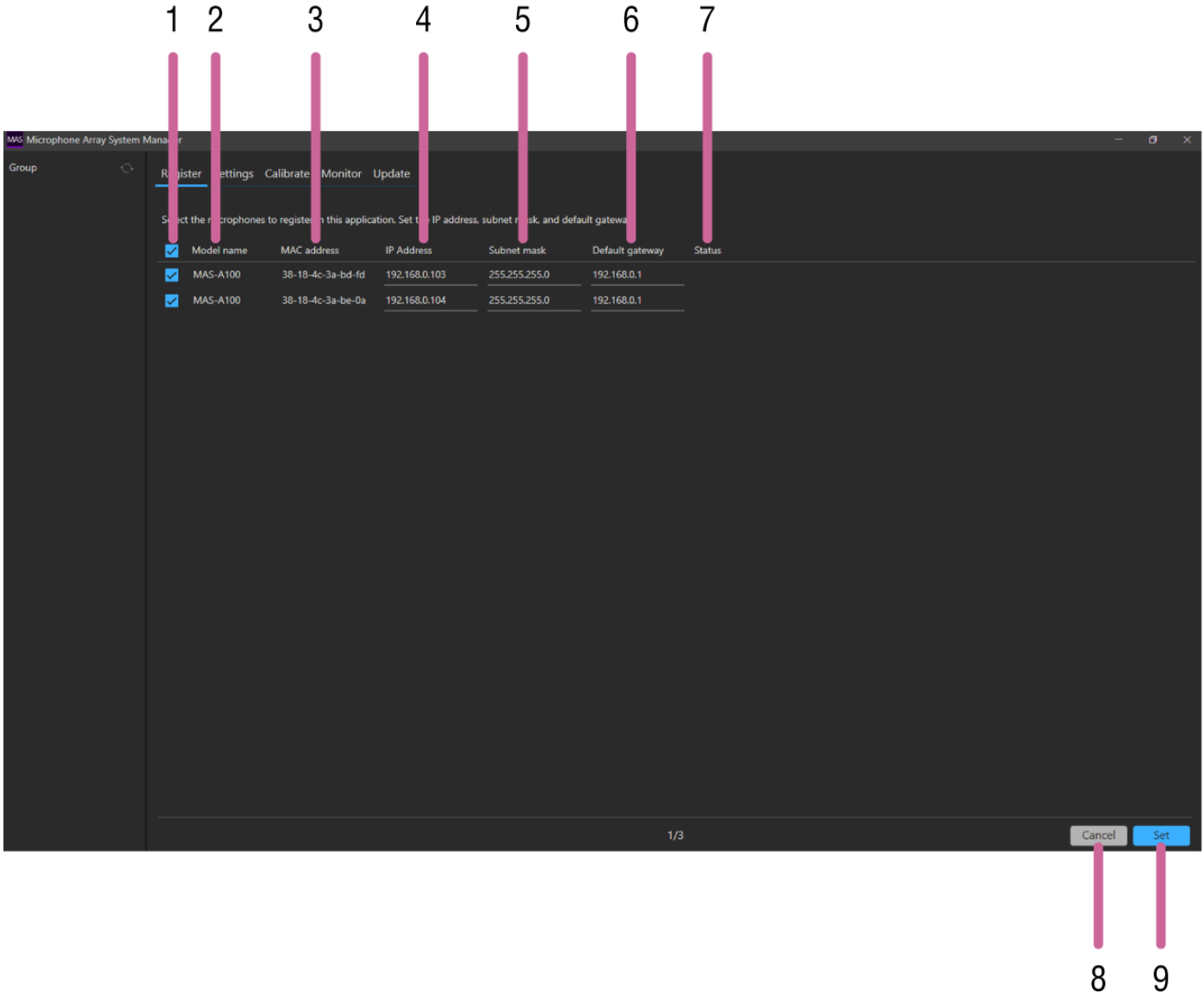
MAS-A100 discovery screen

Displayed by selecting the [Register] tab.

1. **[Scan] button**
   Scans for MAS-A100 units connected to the same segment (same layer 2 network) as the computer on which this application is installed.

Scan result screen (1/3)

Displays a list of the discovered MAS-A100 units. You can configure the network connection of each MAS-A100, as required.



1. **Checkbox**
   Place a check mark beside MAS-A100 units that you want to register in this application.

2. **[Model name]**
   Displays the model name.

3. **[MAC address]**
   Displays the MAC address of each MAS-A100.

4. **[IP Address]**
   Displays the IP address of each MAS-A100. Press to change the value.

5. **[Subnet mask]**
   Displays the subnet mask of each MAS-A100. Press to change the value.

6. **[Default gateway]**
   Displays the default gateway of each MAS-A100. Press to change the value.

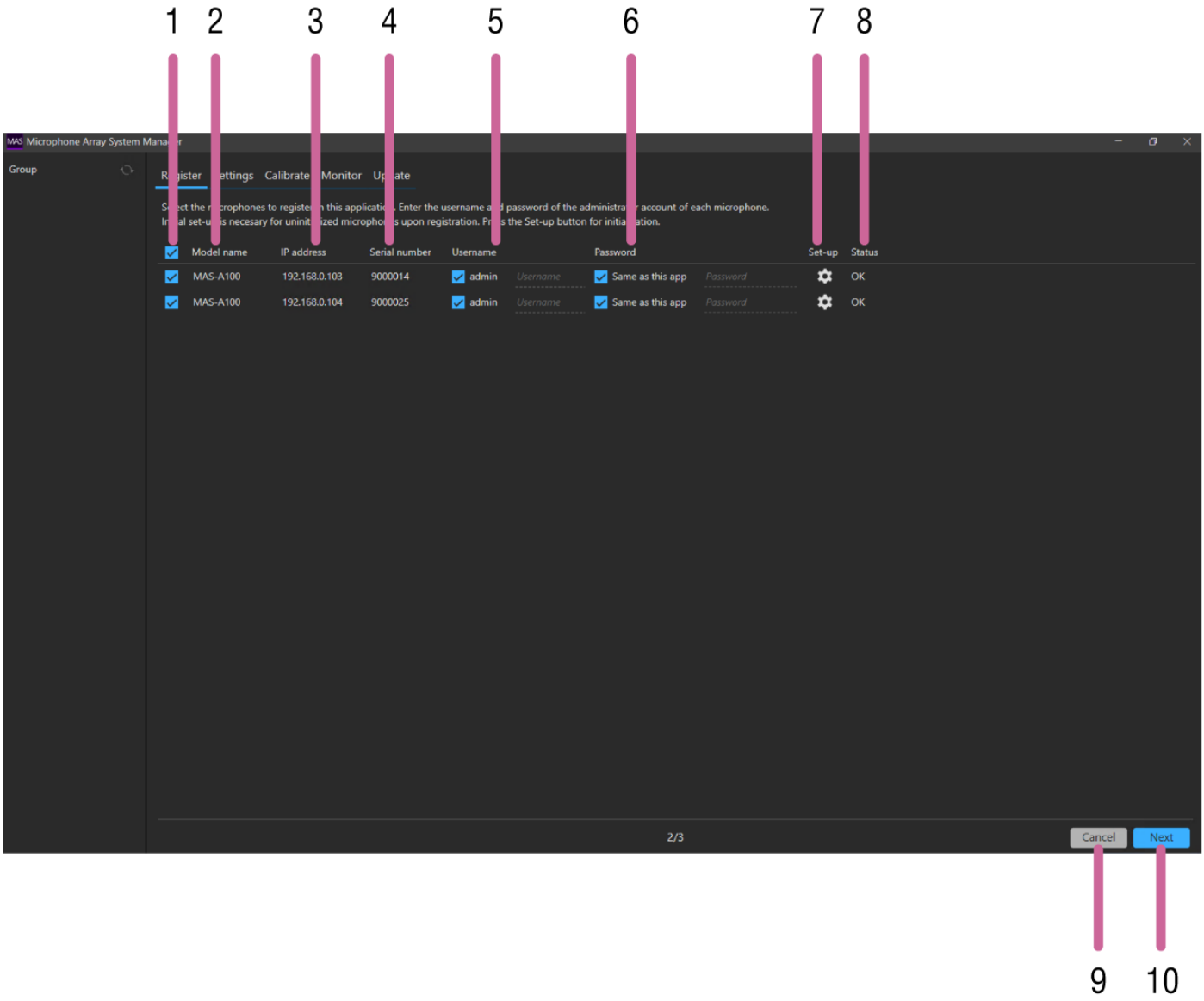
7. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

8. **[Cancel] button**
   Press to return to the MAS-A100 discovery screen.

9. **[Set] button**
   Applies the configured settings, and displays the next screen.

MAS-A100 initial setup screen (2/3)

Displays a list of the MAS-A100 units selected on the scan result screen. Configure the required settings for controlling each MAS-A100 from this application.



1. **Checkbox**
   Place a check mark beside MAS-A100 units that you want to register in this application.

2. **[Model name]**
   Displays the model name.

3. **[IP address]**
   Displays the IP address of each MAS-A100.

4. **[Serial number]**
   Displays the serial number of each MAS-A100.

5. **[Username]**
   Enter the administrator user name comprising 5 to 16 characters for each MAS-A100.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

   Placing a check mark in [admin] is equivalent to entering the “admin” user name.

6. **[Password]**
   Enter the administrator user password comprising 8 to 64 characters for each MAS-A100.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

   Placing a check mark in [Same as this app] is equivalent to entering the same password used to log in to this application.

7. **[Set-up]**
   Press the icon to launch Google Chrome with the web UI of the corresponding MAS-A100. The MAS-A100 is initialized using the web UI.

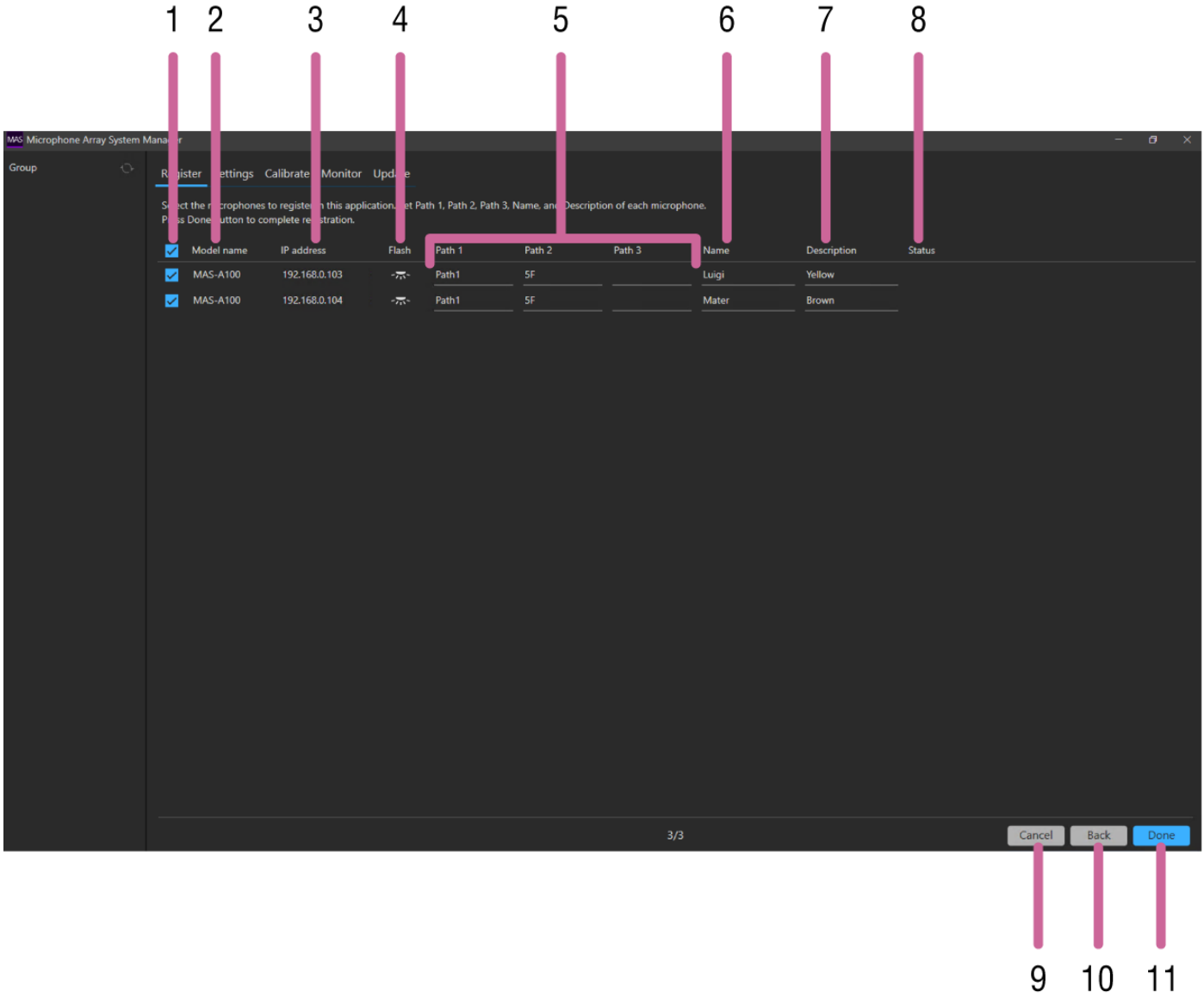
8. **[Status]**
   Displays the status of each MAS-A100.
   If [OK] is not displayed, it indicates that some further action is required in order to register the MAS-A100 in this application.
   [OK]: Indicates that the MAS-A100 is ready to be registered in this application.
   [Uninitialized]: MAS-A100 unit is in the factory default state. Initialize (set up) the MAS-A100.
   [IP address is not accessible.]: IP address of the MAS-A100 cannot be accessed. Check the network connection, IP address setting of the MAS-A100, and HTTP proxy setting of the PC running this application.
   [Username and Password do not match.]: Settings entered in [Username] or [Password] do not match the settings configured on the MAS-A100. Enter the correct settings.

9. **[Cancel] button**
   Press to return to the MAS-A100 discovery screen.

10. **[Next] button**
    Applies the configured settings, and displays the next screen.

MAS-A100 information setup screen (3/3)

Displays a list of the MAS-A100 units selected on the MAS-A100 initial setup screen. Configure information, such as the location, to identify each MAS-A100 unit.



1. **Checkbox**
   Place a check mark beside MAS-A100 units that you want to register in this application.

2. **[Model name]**
   Displays the model name.

3. **[IP address]**
   Displays the IP address of each MAS-A100.

4. **[Flash]**
   Press the icon to start the LED of the MAS-A100 flashing.

5. **[Path 1], [Path 2], [Path 3]**
   Enter information, such as name of building, floor number, and room name.
   [Path 1] input is mandatory. Enter a character string comprising 4 to 16 characters.
   Character strings up to 16 characters can be entered in [Path 2] and [Path 3]. If a character string is entered in [Path 3], input in [Path 2] becomes mandatory.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

   Character strings entered in [Path 1], [Path 2], and [Path 3] are used by this application as the names of groups displayed on the [Group] pane for grouping microphones. Normally, MAS-A100 units located within the same room must have the same entries for [Path 1], [Path 2], and [Path 3].

6. **[Name]**
   Enter a name comprising 4 to 16 characters to identify the MAS-A100.
   Input is mandatory.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

7. **[Description]**
   Enter a character string of up to 16 characters describing the MAS-A100.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

8. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

9. **[Cancel] button**
   Press to return to the MAS-A100 discovery screen.

10. **[Back] button**
    Press to return to the scan result screen.

11. **[Done] button**
    Press to register each MAS-A100 with the configured content in this application.

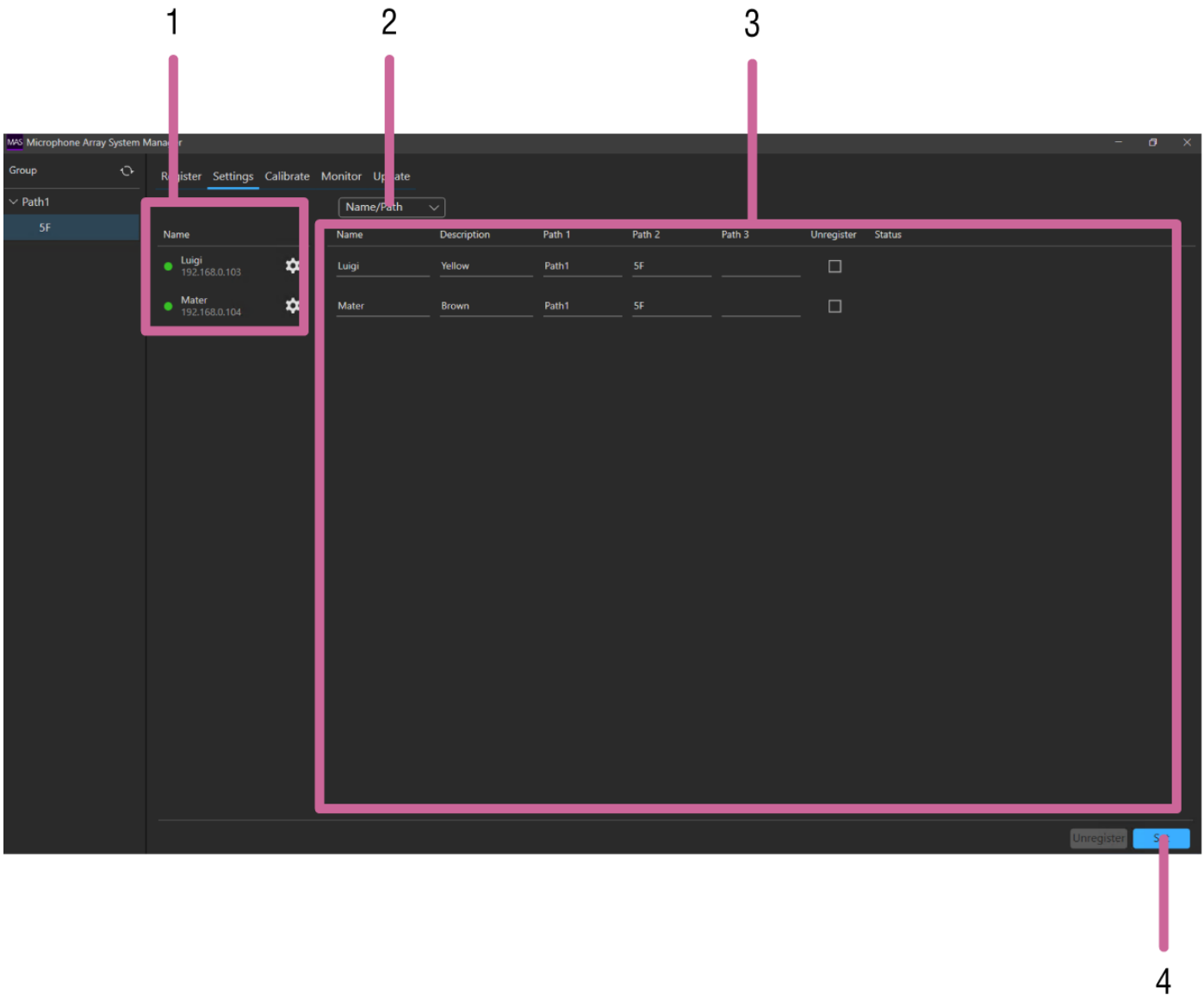
Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[Settings] Tab

Parts common to all pages



1. **[Name]**
   Displays the configured name and IP address of each MAS-A100.
   Press ⚙ to display the web UI of each MAS-A100.
   The color of the status lamp indicates the status of the MAS-A100.
   Green (Active): Audio for speech reinforcement is output from the Main output and Rec output of the MAS-A100.
   Amber (Mute): Main output of the MAS-A100 is temporarily silent. The Rec output audio is output.
   Red (Standby): Main output and Rec output of the MAS-A100 are silent, and temporary MAS-A100 settings (values configured on the [Calibrate] tab or [Audio] page) are reset to defaults.
   Gray (offline): MAS-A100 is not accessible. The MAS-A100 settings cannot be changed.

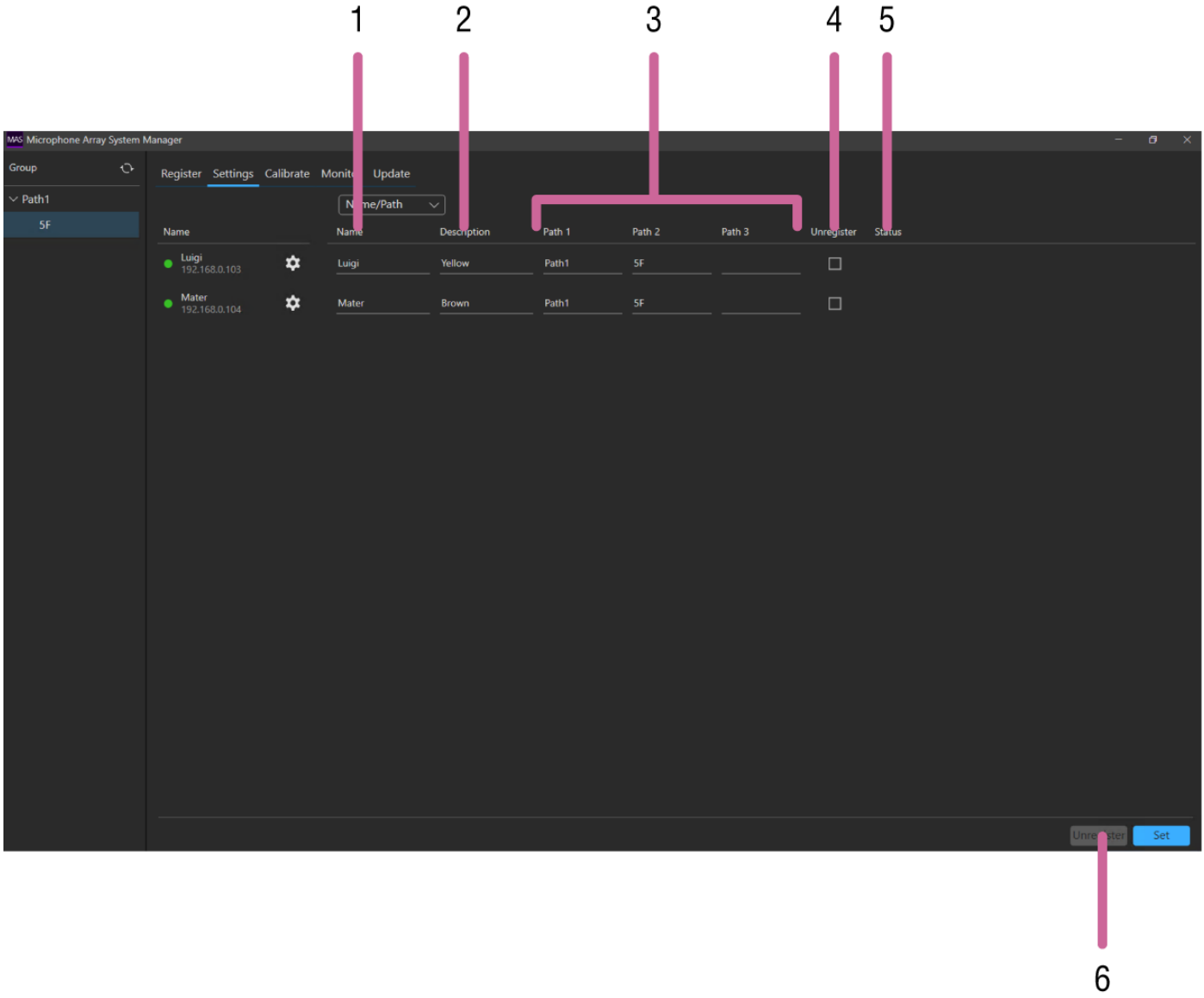
2. **Pull-down menu**
   Select the page to display.

3. **Parameter display area**
   Displays the content of the page selected using the pull-down menu.

4. **[Set] button**
   Press to apply the changed settings.

[Name/Path] page

This page is used to change the settings configured when the MAS-A100 was registered.



1. **[Name]**
   Enter a name comprising 4 to 16 characters to identify the MAS-A100.
   Input is mandatory.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbol characters (! “ ‘ ( ) * + - . _ < >)

2. **[Description]**
   Enter a character string of up to 16 characters describing the MAS-A100.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbol characters (! “ ‘ ( ) * + - . _ < >)

3. **[Path 1], [Path 2], [Path 3]**
   Enter information, such as name of building, floor number, and room name.

[Path 1] input is mandatory. Enter a character string comprising 4 to 16 characters.
Character strings up to 16 characters can be entered in [Path 2] and [Path 3]. If a character string is entered in [Path 3], input in [Path 2] becomes mandatory.
The following characters are valid.

- Alphabetic characters
- Numeric characters
- Symbol characters (! “ ‘ ( ) * + - . _ < >)

Character strings entered in [Path 1], [Path 2], and [Path 3] are used by this application as the names of groups displayed on the [Group] pane for grouping microphones. Normally, MAS-A100 units located within the same room must have the same entries for [Path 1], [Path 2], and [Path 3].

4. **[Unregister] checkbox**
   Place a check mark beside MAS-A100 units that you want to unregister from this application.

5. **[Unregister] button**
   Press to unregister the MAS-A100 units for which a check mark is placed in the [Unregister] checkbox.

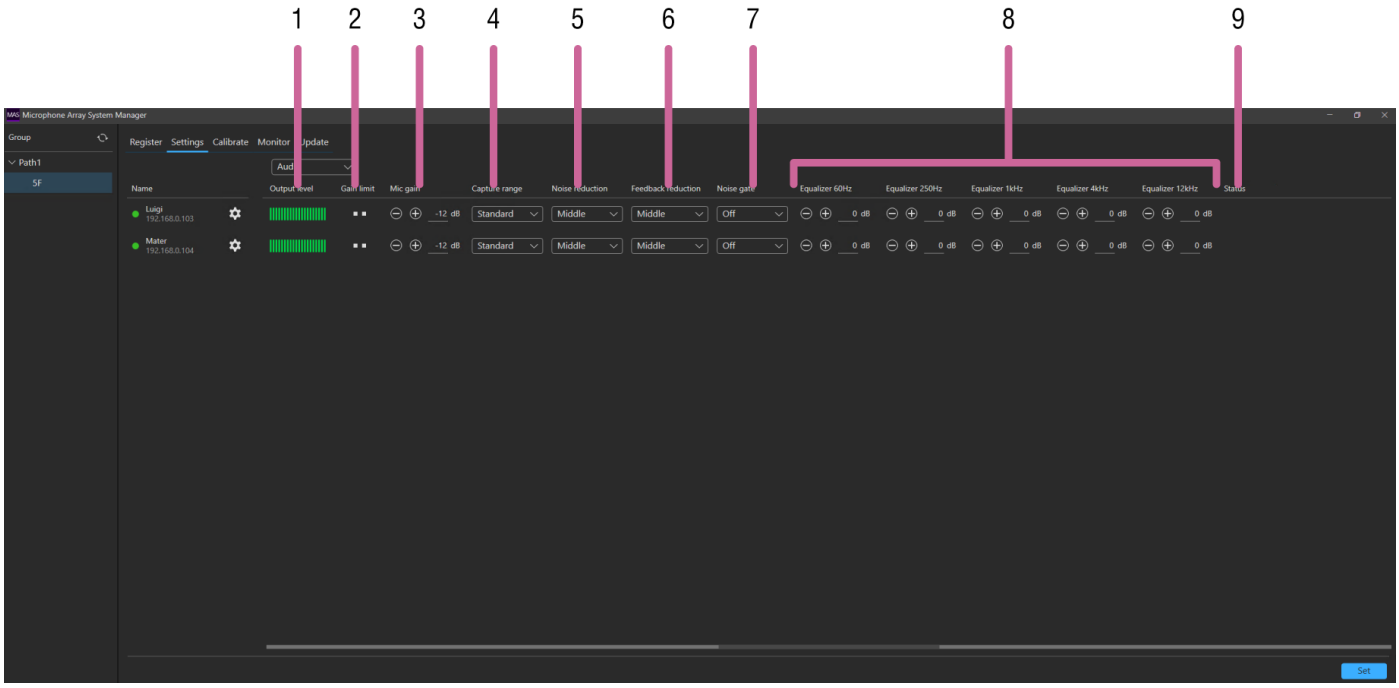
6. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

[Audio] page

This page is used to check/change the audio settings of the MAS-A100.

Note

- The settings specific to the Main output and settings that are common to both the Main output and Rec output can be checked/changed. Check/change Rec output settings using the web UI of the MAS-A100.



1. **[Output level]**
   Displays the output level using a green audio level bar. This cannot be changed.

2. **[Gain limit]**
   Displays the gain limit status.
   When one lamp is displayed, the microphone gain has reached the limit for suppressing feedback and maintaining audio quality.
   When two lamps are displayed, the microphone gain has exceeded the limit and that audio quality has deteriorated.

To avoid deterioration in audio quality, set the microphone gain in the range so that the gain limit lamps are not lit or only one lamp is lit.

3. **[Mic gain]**
   Displays the default value of the microphone gain.
   Press the +/– buttons, or press the value and enter a new value directly, to change the setting.
   Changes are applied immediately without pressing the [Set] button.

4. **[Capture range]**
   Selects the capture range.

5. **[Noise reduction]**
   Selects the noise reduction level.

6. **[Feedback reduction]**
   Selects the feedback reduction level.

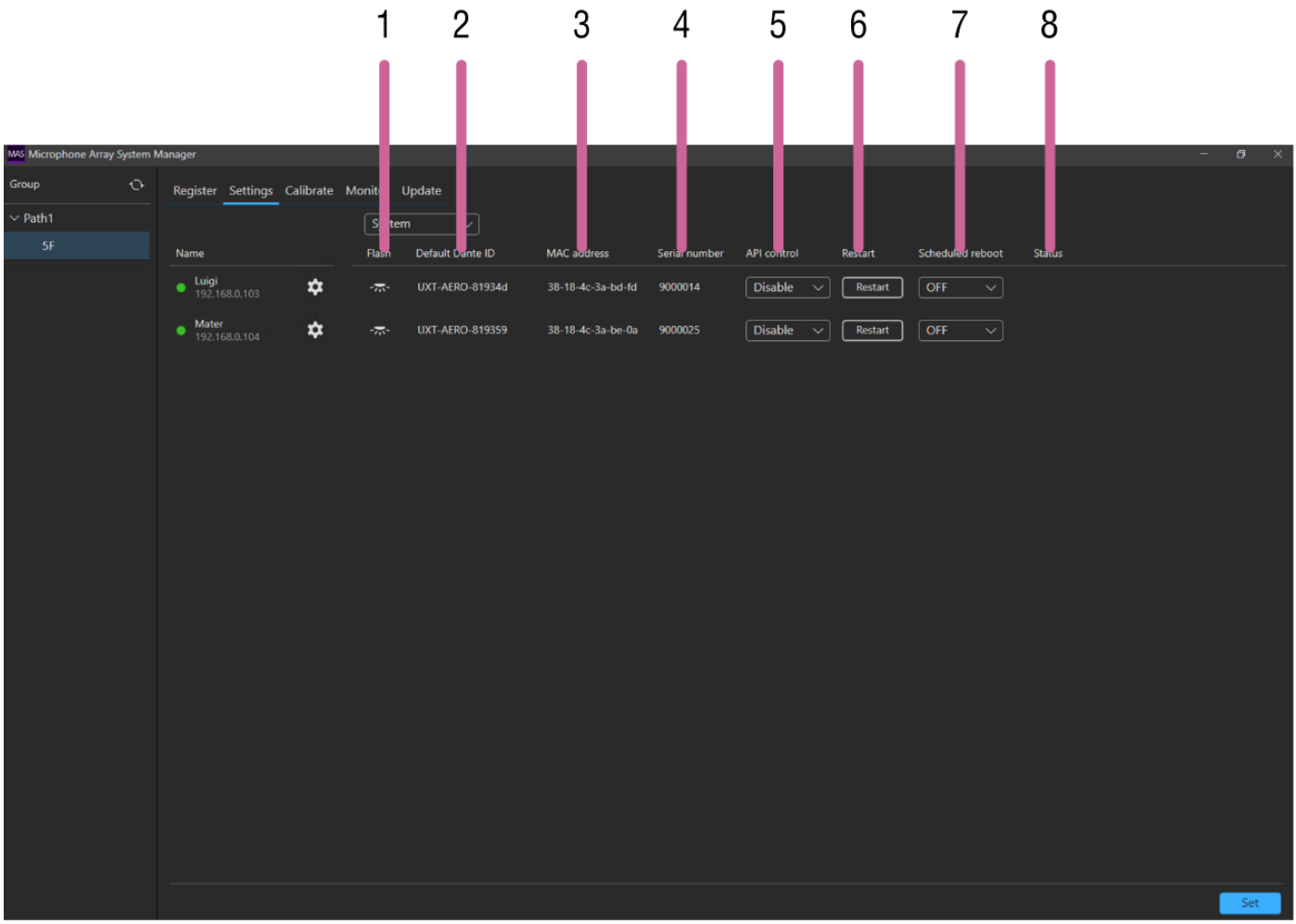
7. **[Noise gate]**
   Selects the noise gate level.

8. **[Equalizer 60Hz], [Equalizer 250Hz], [Equalizer 1kHz], [Equalizer 4kHz], [Equalizer 12kHz]**
   Displays the default equalizer value for each frequency.
   Press the +/– buttons, or press the value and enter a new value directly, to change the setting.
   Changes are applied immediately without pressing the [Set] button.

9. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

[System] page

This page is used to check/change the system settings of the MAS-A100.



1. **[Flash]**
   Press the icon to start the LED of the MAS-A100 flashing.

2. **[Default Dante ID]**
   Displays the Default Dante ID of each MAS-A100.

3. **[MAC address]**
   Displays the MAC address of each MAS-A100.

   Note

   - The value displayed is the MAC address used for MAS-A100 settings and operation. The MAC address for use as a Dante device is shown by Dante Controller.

4. **[Serial number]**
   Displays the serial number of each MAS-A100.

5. **[API control]**
   Selects whether to enable control of the MAS-A100 from an external device.

6. **[Restart] button**
   Press to restart the MAS-A100.

7. **[Schedule reboot]**
   You can set a time to reboot the MAS-A100 automatically.
   To disable automatic rebooting of the MAS-A100, set to [OFF].

8. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

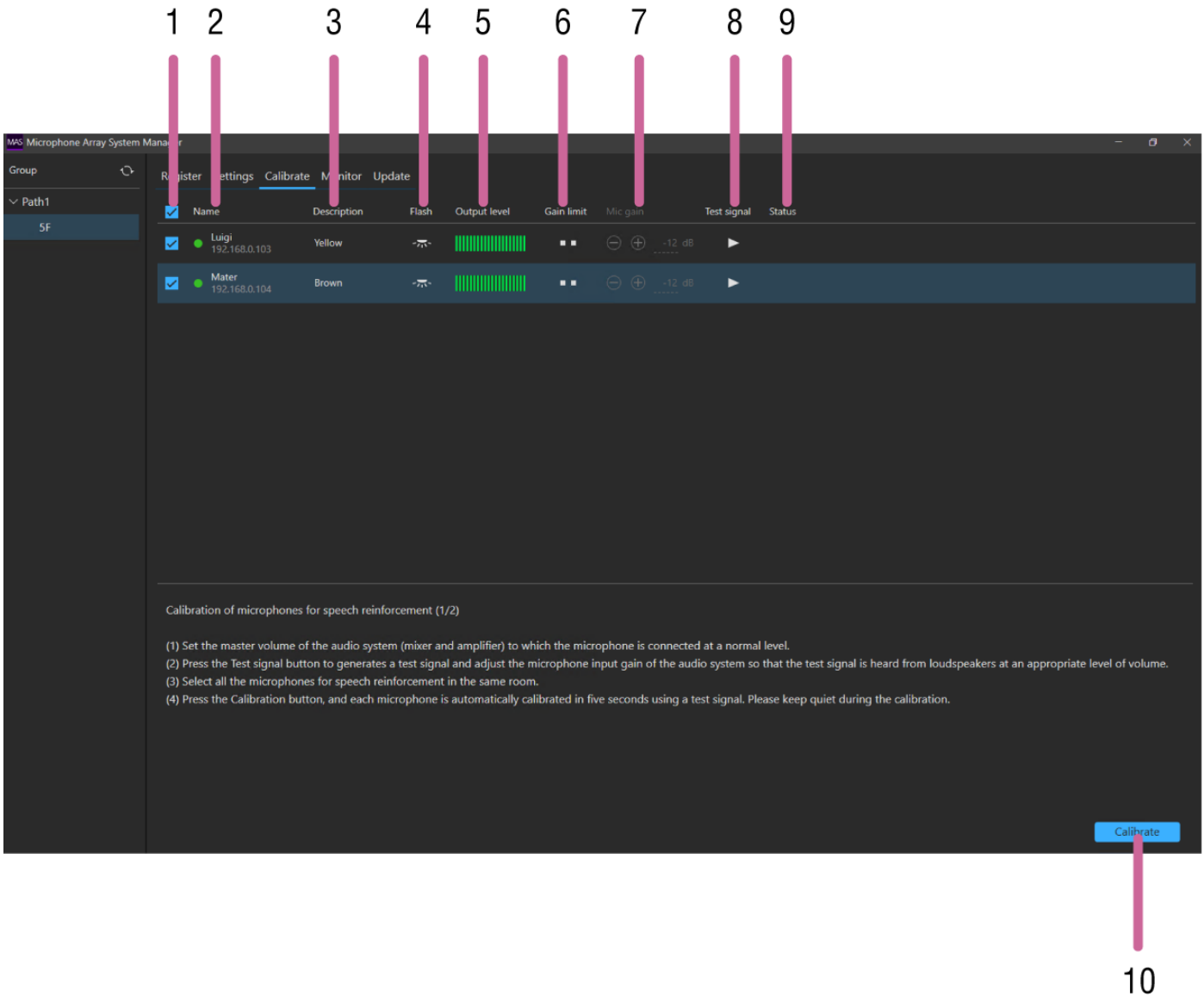
Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[Calibrate] Tab

Calibration screen (1/2)



1. **Checkbox**
   Place a check mark beside each MAS-A100 that you want to calibrate.

2. **[Name]**
   Displays the status lamp, name, and IP address of each MAS-A100.
   The color of the status lamp indicates the status of the MAS-A100.
   Calibration cannot be performed when the MAS-A100 is offline (status lamp is gray).

3. **[Description]**
   Displays the description of each MAS-A100.

4. **[Flash]**
   Press the icon to start the LED of the MAS-A100 flashing.

5. **[Output level]**

Displays the output level using a green audio level bar. This cannot be changed.

6. **[Gain limit]**
   Displays the gain limit status.

7. **[Mic gain]**
   Displays the default value of the microphone gain.
   This cannot be changed using this screen.

8. **[Test signal]**
   Press the icon to output an audio test signal (0 dB level). Press again to stop the test signal.

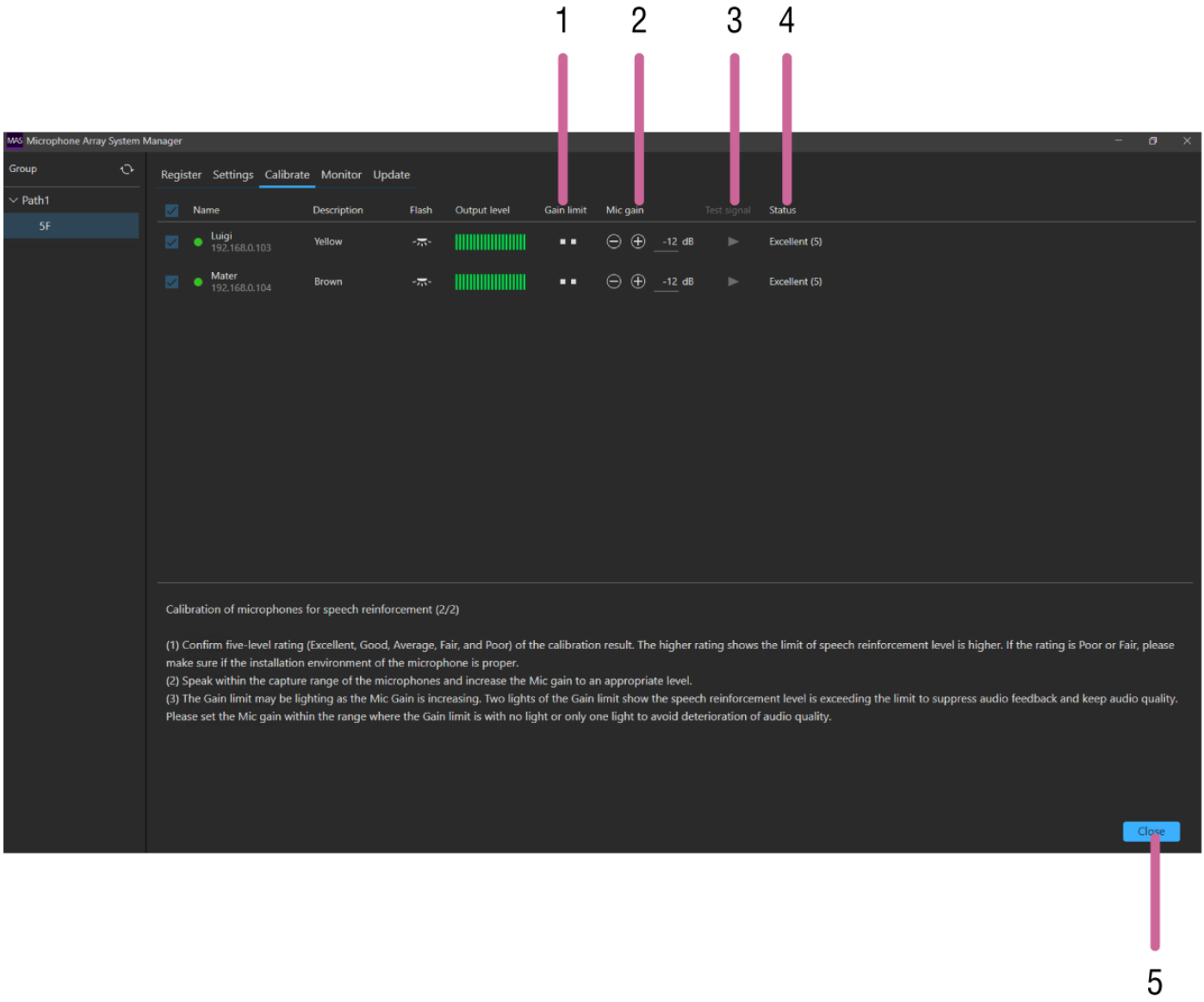
9. **[Status]**
   Displays error messages for each MAS-A100 if a problem occurs.

10. **[Calibrate] button**
    Press the button to start calibration. A noise signal is output from each MAS-A100 for about 5 seconds.
    For multiple MAS-A100 units, each MAS-A100 outputs the noise signal in sequence.

Result screen (2/2)

Note

- Items without a description are the same as on the calibration screen.



1. **[Gain limit]**

Displays the gain limit status.
When one lamp is displayed, the microphone gain has reached the limit for suppressing feedback and maintaining audio quality.
When two lamps are displayed, the microphone gain has exceeded the limit and that audio quality has deteriorated. To avoid deterioration in audio quality, set the microphone gain in the range so that the gain limit lamps are not lit or only one lamp is lit.

2. **[Mic gain]**
   Displays the default value of the microphone gain.
   This is set to –12 dB immediately after calibration.
   Press the +/– buttons, or press the value and enter a new value directly, to change the setting.

3. **[Test signal]**
   This cannot be operated using this screen.

4. **[Status]**
   Displays a 5-level rating of the calibration. The higher the rating value, the higher the limit for speech reinforcement of the audio.
   If the rating is [Fair (2)] or [Poor (1)], review the installation environment of the MAS-A100 and the audio system settings, and then perform calibration again.

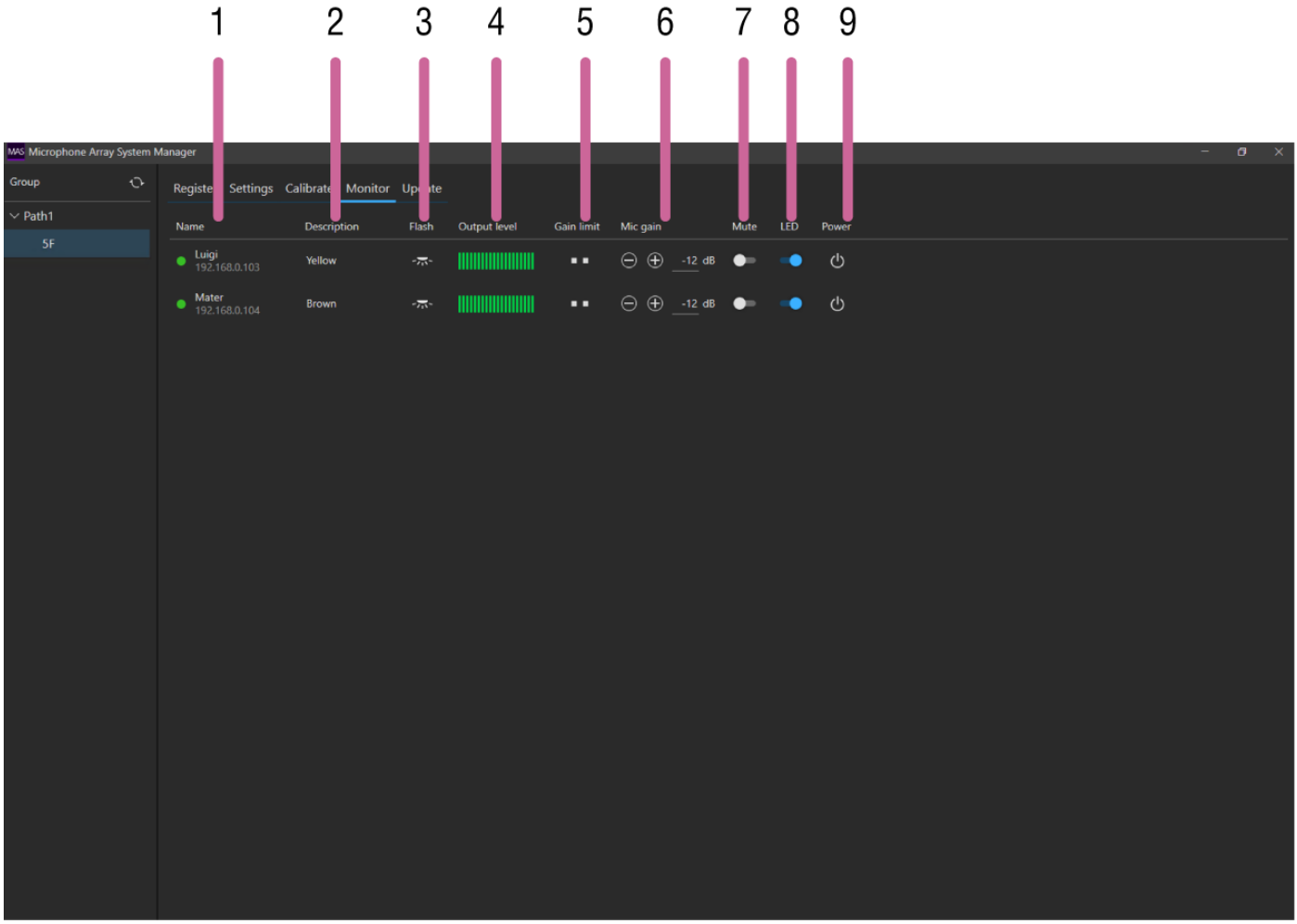
5. **[Close] button**
   Applies the microphone gain settings, and exits calibration.

Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[Monitor] Tab



1. **[Name]**
   Displays the status lamp, name, and IP address of each MAS-A100.
   The color of the status lamp indicates the status of the MAS-A100.
   Information is not displayed when the MAS-A100 is offline (status lamp is gray).

2. **[Description]**
   Displays the description of each MAS-A100.

3. **[Flash]**
   Press the icon to start the LED of the MAS-A100 flashing.

4. **[Output level]**
   Displays the output level using a green audio level bar. This cannot be changed.

5. **[Gain limit]**
   Displays the gain limit status.
   When one lamp is displayed, the microphone gain has reached the limit for suppressing feedback and maintaining audio quality.
   When two lamps are displayed, the microphone gain has exceeded the limit and that audio quality has deteriorated.
   To avoid deterioration in audio quality, set the microphone gain in the range so that the gain limit lamps are not lit or only one lamp is lit.

6. **[Mic gain]**
   Displays the default value of the microphone gain.
   Press the +/– buttons, or press the value and enter a new value directly, to temporarily change the microphone gain setting.
   The changed setting reverts back to the default setting when the MAS-A100 switches from Active state to Standby state.
   To change the setting permanently, use the [Settings] tab.

7. **[Mute]**
   Turns audio muting of the MAS-A100 on/off.

8. **[LED]**
   Turns the LED of the MAS-A100 on/off.

9. **[Power]**
   Switches the state of the MAS-A100. Press the icon to toggle between Active state and Standby state.

Related Topic

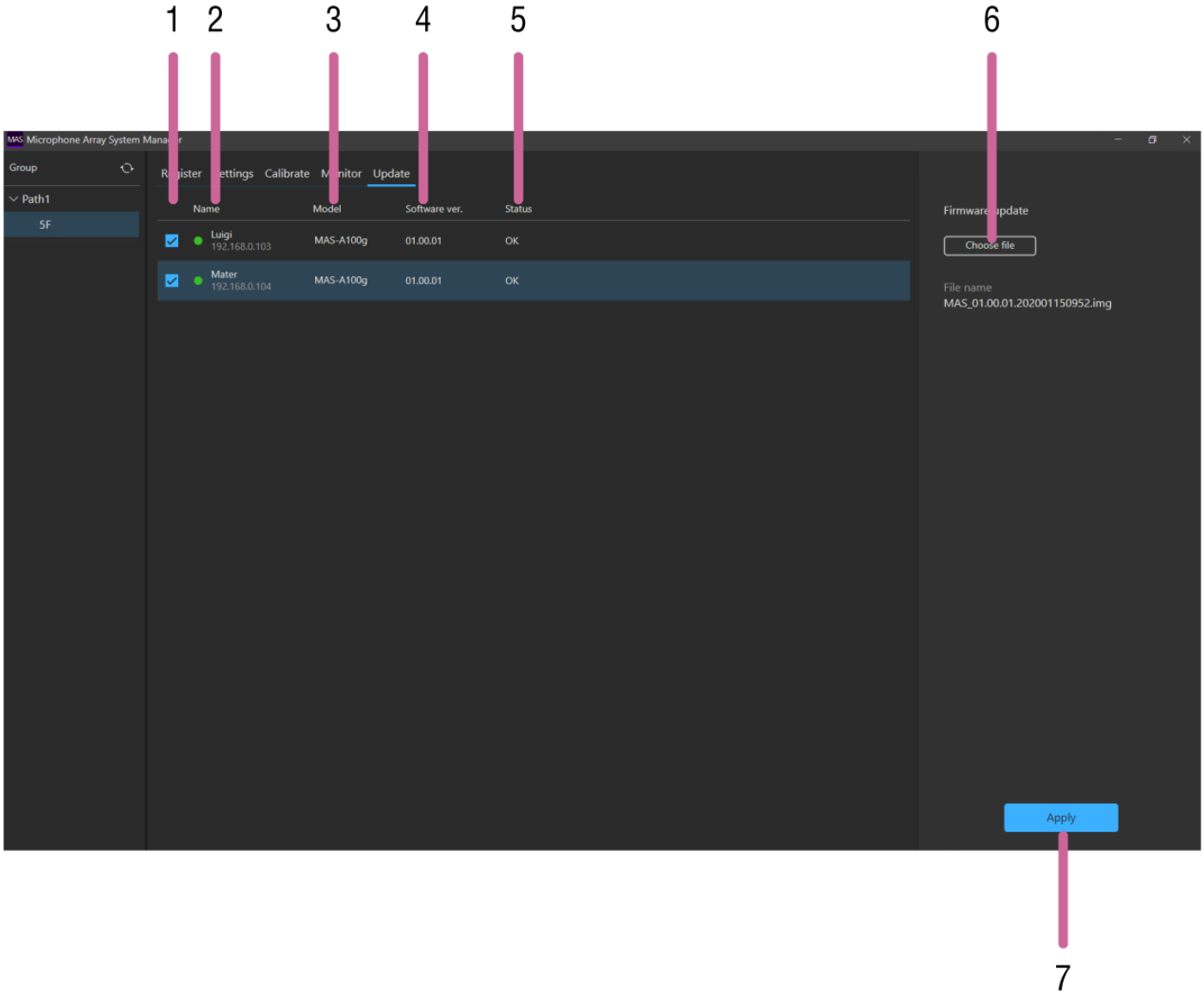
- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[Update] Tab

Note

- Download the MAS-A100 firmware beforehand from the Sony website.



1. **Checkbox**
   Place a check mark beside each MAS-A100 whose firmware you want to update. Up to ten units can be selected at any one time. When ten units become selected, the other checkboxes are grayed out.

2. **[Name]**
   Displays the status lamp, name, and IP address of each MAS-A100.
   The color of the status lamp indicates the status of the MAS-A100.
   Firmware cannot be updated when the MAS-A100 is offline (status lamp is gray).

3. **[Model]**
   Displays the model name.

4. **[Software ver.]**

Displays the current firmware version of each MAS-A100.

5. **[Status]**
   Displays the status of each MAS-A100.
   The firmware can be updated only on MAS-A100 units for which the status is [OK].

6. **[Choose file] button**
   Selects the firmware file to use for updating.

7. **[Apply] button**
   Applies the firmware update.

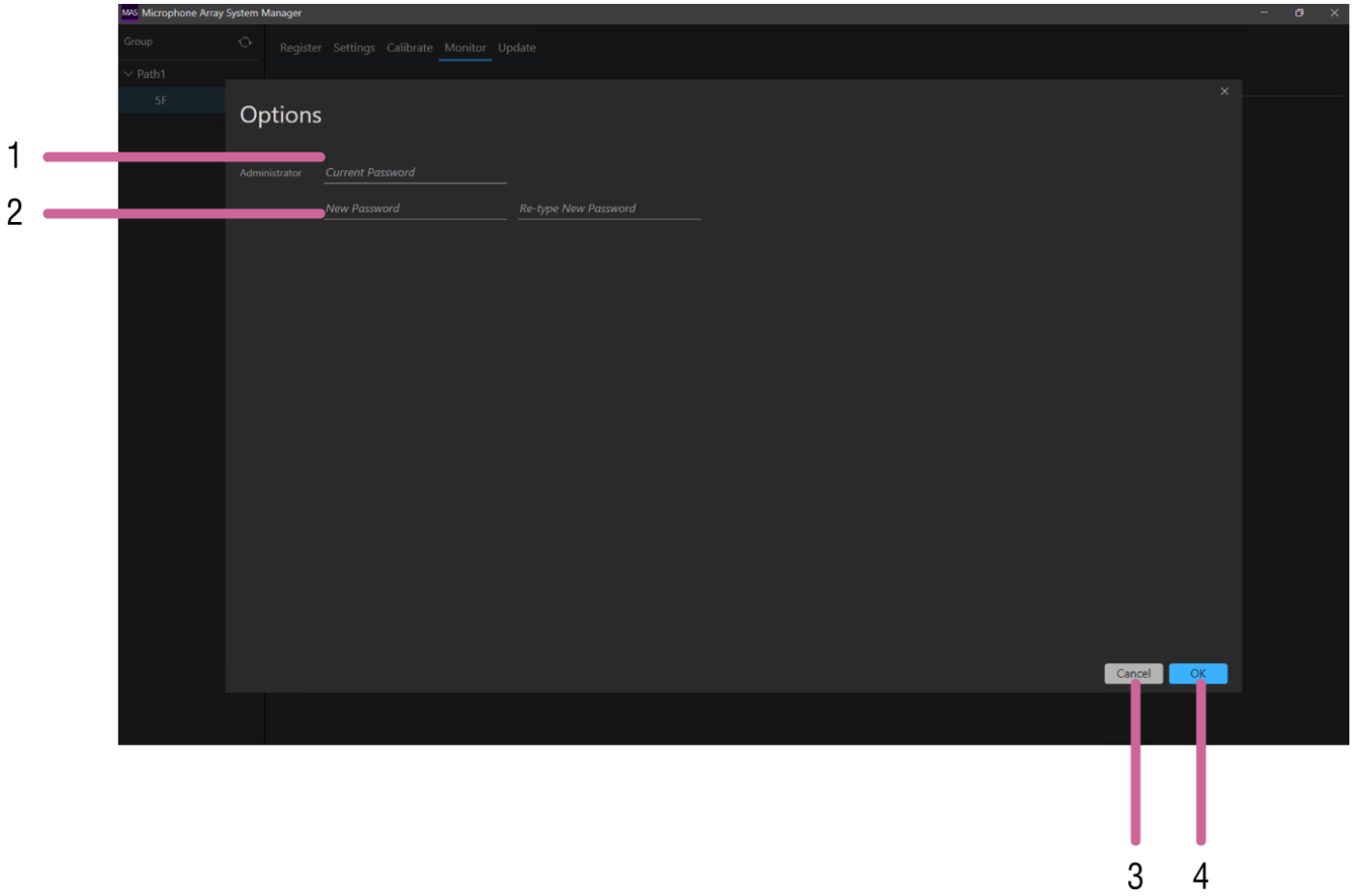
Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

Microphone Array System Manager
MASM-1

[Options] Screen



1. **Current password input field**
   Enter the currently configured password.

2. **New password input field**
   Enter a new password comprising 8 to 64 characters.
   Enter the same password in both input fields.
   Passwords must contain at least one upper-case letter, one lower-case letter, and one numeral.
   The following characters are valid.

   - Alphabetic characters
   - Numeric characters
   - Symbols (! $ % ‘ ( ) = - ~ ^ | @ ` [{ }] _ / ? < > + * .)

3. **[Cancel] button**
   Press to discard changes and close the [Options] screen.

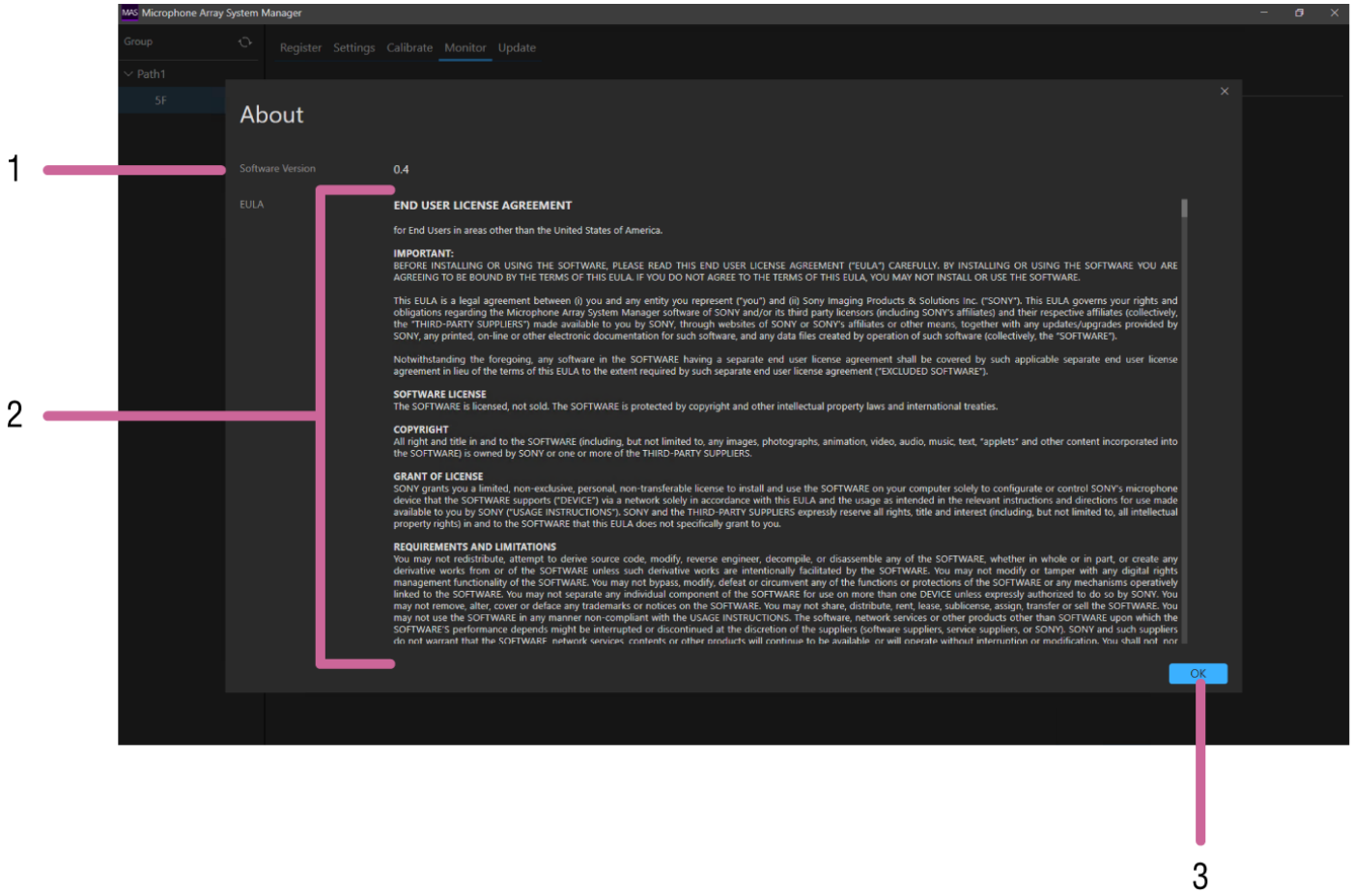
4. **[OK] button**
   Press to apply changes and close the [Options] screen.

Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

[About] Screen



1. **[Software Version]**
   Displays the software version.

2. **EULA**
   Displays the End User License Agreement.

3. **[OK] button**
   Press to close the [About] screen.

Related Topic

- Main Screen

5-020-094-11(1) Copyright 2020 Sony Corporation

Usage Precautions

Security

- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND RESULTING FROM A FAILURE TO IMPLEMENT PROPER SECURITY MEASURES ON TRANSMISSION DEVICES, UNAVOIDABLE DATA LEAKS RESULTING FROM TRANSMISSION SPECIFICATIONS, OR SECURITY PROBLEMS OF ANY KIND.
- Depending on the operating environment, unauthorized third parties on the network may be able to access the unit. When connecting the unit to the network, be sure to confirm that the network is protected securely.
- From a safety standpoint, when using the unit connected with the network, it is strongly recommended to access the Control window via a Web browser and change the access limitation settings from the factory preset values. Changing the password regularly is also recommended.
- Do not browse any other website in the Web browser while making settings or after making settings. Since the login status remains in the Web browser, close the Web browser when you complete the settings to prevent unauthorized third parties from using the unit or harmful programs from running.

5-020-094-11(1) Copyright 2020 Sony Corporation

Trademarks

- Windows is a registered trademark of United States Microsoft Corporation in the United States and/or other countries.
- Google Chrome is a registered trademark of Google Inc.
- Dante is a registered trademark of Audinate Pty Ltd.
- Other company names, product names, and system names appearing in this document are trademarks or registered trademarks of their respective owners. Trademarked items are not indicated by ® or ™ symbols in this document.

5-020-094-11(1) Copyright 2020 Sony Corporation