Panasonic®
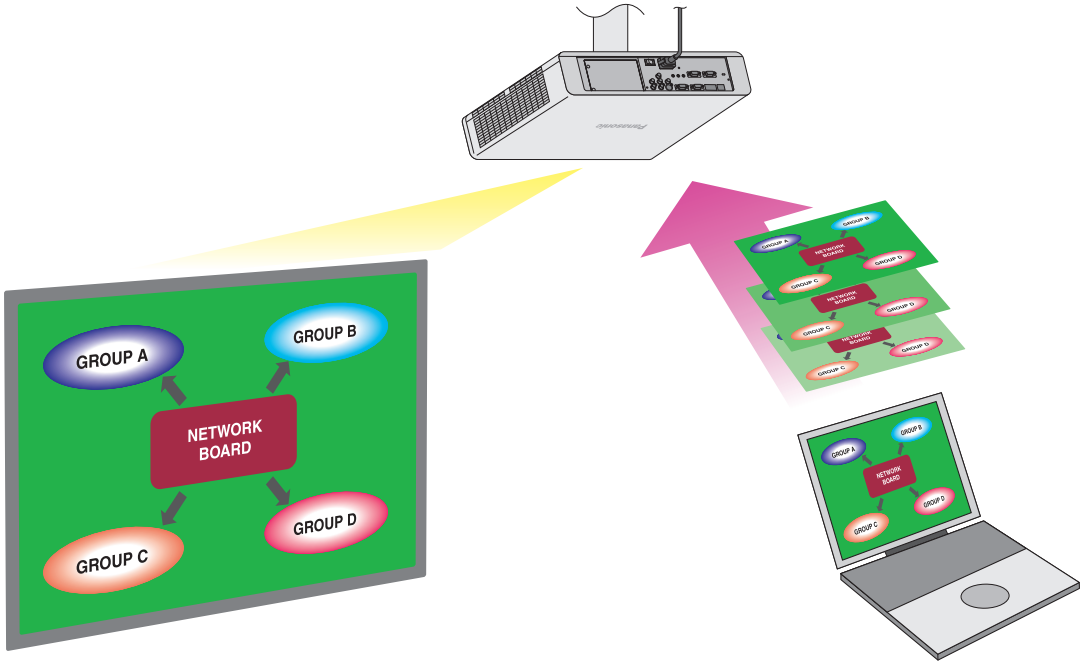
Operating Instructions

Wireless Manager ME6.3

Wireless Manager mobile edition 6.3

Mac

Thank you for purchasing this Panasonic product.
Before using this software, please read the instructions carefully.

Contents

Introduction

Contents (cont.)

Introduction

Software Licensing Agreement

Use of this Software is governed by the terms defined in this "Software Licensing Agreement".

● Article 1 License
The users obtain the license of the software (i.e. the information recorded or contained in CD-ROM, operating instructions or others), but the copyright or intellectual property right of the software does not transfer to the users.

● Article 2 Use by a Third Party
Licensee may not transfer or allow any third party, to use or copy the Software, whether free of charge or not.

● Article 3 Restrictions on Copying the Software
Licensee may make a single copy of the Software in whole or in part solely for backup purposes.

● Article 4 Computer
Licensee may install and use the Software on more than one computer owned or managed by Licensee.

● Article 5 Reverse Engineering, Decompiling or Disassembly
Licensee may not reverse engineer, decompile or disassemble the Software. Panasonic shall not be bound by warranty for any defects in the Software caused by Licensee's reverse engineering, decompiling or disassembly of the Software. Furthermore, Panasonic or its distributors or dealers will not be responsible for any damage to the Licensee caused by Licensee's reverse engineering, decompiling or disassembly of the Software.

● Article 6 After-sales Service
If you have a problem with the software, please contact the customer support center by telephone.Panasonic shall undertake to notify Licensee of whether the problem is a known error in the program ("bug"), or whether the way in which the Software is to be used should be modified.
Furthermore, the Software is subject to revision without prior notice.

● Article 7 Indemnification
Panasonic's liability with respect to this Software is limited to the conditions defined in Article 6 herein.
Panasonic or any of its distributors or dealers shall not be liable for any damage suffered by Licensee, either directly or through claims from a third party, arising from or in connection with Licensee's use of the Software.
Furthermore, Panasonic Corporation does not guarantee the successful operation of the software unless it is used with any of Panasonic projectors.

● Article 8 Export Control
Licensee agrees not to export or re-export the Software to any county other than the country of purchase of the projector in any form without the appropriate export licenses under the regulations of the country where Licensee resides or of any other country as may be required by such export or re-export.

Wireless Manager mobile edition 6.3 (referred to as "Wireless Manager ME 6.3" in this document) uses the following software programs.
A portion of this software is based in part on the work of the Independent JPEG Group.

Please note the following.
- ● Panasonic Corporation hereby disclaims all liability for any damages or losses, whether suffered directly or indirectly, which have been caused by the use of or by trouble occurring in the projector.
- ● Panasonic cannot be held liable for damages arising from data corruption or loss as a result of using this projector.
- ● The illustrations and screen displays given in this manual may differ from what is actually displayed.
- ● In this manual, the operations are described basically on the Mac OS X v10.8 screen.
- ● The specifications of this software are subject to change without notice.

Request Regarding Security

When using this software, security breaches of the type described below are conceivable.

- Leakage of your private information via the software
- Illegal operation of the software by a malicious third-party
- Harm to or cessation of operation of the software by a malicious third-party

Take steps to ensure that the projector and computer used are secured and protected.

- Make sure the password is as hard to guess as possible.
- Change the password periodically.
- Panasonic Corporation and its affiliated companies never directly ask customers for their password.
  Do not give out your password even if directly asked by a third-party representing themselves as Panasonic Corporation.
- Use the product in a network that is kept secure by firewall and other settings.
- Establish a password for the computer that will be used in order to restrict the users who can log in.

Security-related precautions to be followed when using wireless LAN products

The advantage of a wireless LAN is that information can be exchanged between a computer or other such equipment and an access point using radio waves as long as you are within range for radio transmissions.
On the other hand, because the radio waves can travel through obstacles (such as walls) and are available everywhere within a given range, problems of the type listed below may occur if security-related settings are not made.

- A malicious third-party may intentionally intercept and monitor transmitted data including the content of e-mail and personal information such as your ID, password, and/or credit card numbers.

- A malicious third-party may access your personal or corporate network without authorization and engage in the following types of behavior.
    Retrieve personal and/or secret information (information leak)
    Spread false information by impersonating a particular person (spoofing)
    Overwrite intercepted communications and issue false data (tampering)
    Spread harmful software such as a computer virus and crash your data and/or system (system crash)

Since most wireless LAN adapters or access points are equipped with security features to take care of these problems, you can reduce the possibility of these problems occurring when using this product by making the appropriate security settings for the wireless LAN device.

Some wireless LAN devices may not be set for security immediately after purchase. To decrease the possibility of occurrence of security problems, before using any wireless LAN devices, be absolutely sure to make all security-related settings according to the instructions given in the operation manuals supplied with them.
Depending on the specifications of the wireless LAN, a malicious third-party may be able to break security settings by special means.
If you cannot perform security settings yourself when using wireless LAN, please contact the Panasonic Support Center.

Panasonic asks customers to thoroughly understand the risk of using this software without making security settings, and recommends that the customer make security settings at their own discretion and responsibility.

Using the Software

Using this software, the displays appearing on the computer screen can easily be projected using a projector.
The basic steps to start projecting are described below.

■ Preparations

1 **Turn on the power of the projector.**

2 **Press the <Panasonic APP> button / <NETWORK > button on the remote control (or press the <INPUT SELECT> button on the projector).**

3 **Check the network ID of the projector.**
☞ "Checking the projector" (page 13)

Network ID indication
(Projector image)

4 **Install the software on the computer.**
☞ "Installing the software" (page 10)

■ Starting the Software

5 **Start the software, and register the projector.**
☞ "Starting the Software" (page 15)
When using multiple projectors or when making connection by direct specification of the IP address (page 15), click the [Search further...] button and find additional projectors from the <Find Projectors> screen (page 18).

■ Selecting the Projector

6 **Click the projector that matches the network ID checked in step 3.**
☞ "<Simple connection> screen" (page 16)
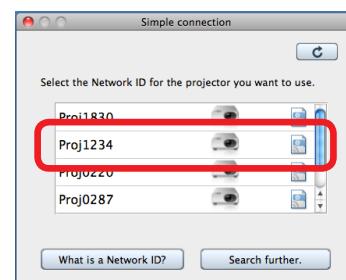
■ Projection

7 **Click ▶ of the launcher.**
What appears on the computer screen is now projected from the projector.
☞ "Launcher" (page 35)

✎ **Memo** ✎
● The restrictions of this software vary with the projector used.
   For the latest information, see the "List of Compatible Projector Models" in our website (http://panasonic.net/avc/projector/).
   If there is the CD-ROM of this software in the accessory of the projector, see the "List of Compatible Projector Models" in the application launcher in it.
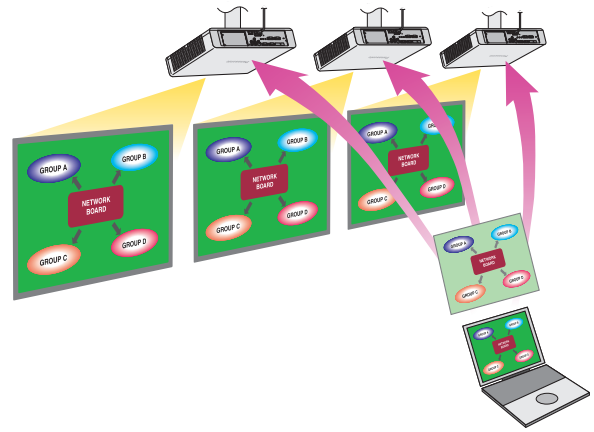

Attention
● When using the projector's wireless LAN connection function, the 2.4 GHz or 5 GHz band frequencies are used.
   For details, such as precautions during use of wireless LAN connections and the channels you can use for wireless LAN, refer to the operating instructions of the projector.

Introduction

Using the Software (cont.)

■ <Projecting from multiple projectors>

The images shown on the screen of a single computer can be projected from multiple projectors (up to eight).
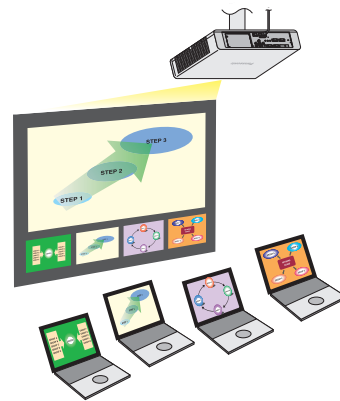
■ <Multi live mode>

● **4-screen multi style**
Used for presentations involving multiple computers.

● **4-screen index style**
This style is convenient in cases where you wish to focus attention on one of four presentations displayed simultaneously.

● **16-screen index style**
This style is convenient in cases where you wish to display a large number of presentations as a list.

■ <Remote control>
The "Browser Remote Control" makes it possible to control projectors using a variety of buttons that appear on a web browser.
Models that support "Browser Remote Control": You can perform operations identical to those on the projector's remote control via your computer's web browser.
Models that do not support "Browser Remote Control": You can operate the projector via a simplified remote control screen.

■ <WEB control>
It is possible to control the projector using the computer's web browser.

■ <Content Manager>
You can open Content Manager directly from this software for projectors equipped with Content Manager.

7

Introduction

Check your computer

■ Necessary environment for computers to be connected

- First, check your computer to see whether or not it has a wired LAN or a built-in wireless LAN function.
- Before connecting the projector to the computer, be sure to check the following settings.
- Operation is not guaranteed for all wireless LAN adapters and built-in wireless LAN adapters.

■ Wireless LAN

Check 1 **Wireless LAN settings**
- Is your wireless LAN adapter properly recognized?
- Is the wireless LAN adapter switched on?
- Install the wireless LAN adapter driver beforehand.
  For details on how to install the driver, refer to the instructions accompanying the wireless LAN adapter.

Check 2 **Login user's settings**
- Can you log in with the administrator's privileges?

Check 3 **Computer's settings**
- When security (firewall) software and utilities for wireless LAN adapter are installed, these may prevent connection of the projector.
- Has the firewall for blocking unsolicited programs been turned off or shut down?
  ☞ "Frequently Asked Questions" (page 55)

■ Wired LAN

Check 1 **For wired LAN**
- Is the cable properly connected?
- The specifications for cables vary depending on the system configurations. Confirm the projector settings and the cable specification.

Check 2 **Wired LAN settings**
- Is your wired LAN adapter properly recognized?
- Is your wired LAN adapter switched on?
- Install the wired LAN adapter driver beforehand.
  For details on how to install the driver, refer to the instructions accompanying the wired LAN adapter.

Check 3 **Computer's settings**
- When security (firewall) software is installed, it may prevent connection of the projector.
- Has the firewall for blocking unsolicited programs been turned off or shut down?
  ☞ "Frequently Asked Questions" (page 55)

Check your computer (cont.)

■ System requirements

To use this software, the computer must satisfy the following requirements.

OS:	Mac OS X v10.8, Mac OS X v10.9, Mac OS X v10.10
	The Japanese, English and Chinese versions of the above operating systems are supported.
	Operation is not guaranteed on an OS that was not pre-installed or clean-installed.
Web browser:	For WEB Control function: Safari 6.0/7.0/8.0
	For Browser Remote Control function: Safari 6.0/7.0/8.0
	For opening Content Manager: Safari 6.0/7.0/8.0
CPU:	Intel Core 2 Duo or higher processor or compatible processor installed
	Intel Core i5 or higher recommended for projection
Memory:	1024 MB or more
Hard disk:	At least 100 MB free space
	(Extra free space is required to save the projector information.)
Hardware conditions:	CD or DVD drive (for installing software and viewing the operating instructions)
	For connection by wired LAN:
	LAN terminal (10BASE-T, 100BASE-TX or 1000BASE-T) is necessary
	For connection by wireless LAN:
	Wireless LAN adapter (IEEE802.11 b/g/n) is necessary
Monitor screen:	High Color (16 bits) or up
Desktop area:	1024 dots × 768 dots or more
	2880 dots × 1800 dots or less

✎ **Memo** ✎
- If you are logged in to a "normal" user account, sound may not be output from the computer. If sound is not output from the internal speakers, quit this software, and then make sure that "Internal Speakers" is selected in "Output" of "Sound" in "System Preferences". If it is not selected, manually switch to "Internal Speakers".
- On a computer that has an automatic graphics switching function, projection may fail if "System Configuration" → "Energy Saving" → "Automatic Graphics Switching" is enabled. If projection fails, disable this function.
- When connecting under the IEEE802.11n standard, the wireless LAN adapter, projector and access point used must all support the 11n standard.
  ☞"Using the [USER1], [USER2] and [USER3] settings to select the projectors" (page 24)
- When using the projector at the [S-DIRECT] or [M-DIRECT] setting, use a wireless LAN adapter that supports "WPA2/AES".
- When using Mac OS X v10.9/v10.10, the "App Nap" function may cause the projected video to stop midway through. In such cases, disable the "App Nap" function. Refer to "How do I disable control via 'App Nap' for Mac OS X v10.9/v10.10" in Frequently Asked Questions for the procedure.

Operation is not guaranteed for all computers that meet the above conditions.

Preparations

9

Installing/Uninstalling the software

■ Installing the software

1 Start the installer.

When the CD-ROM of this software is attached to the projector
① Insert the CD-ROM on which the software is recorded into the CD drive.
② Double-click Double-click "MAC" → "WMmac6.∗.dmg"*1 in the CD-ROM drive.
③ "WMmac6.∗"*1 is now mounted on the Desktop.

When the software has been downloaded from the web site
① Double-click the "WMmac6.∗.dmg"*1 file that has been downloaded from the web site.
② "WMmac6.∗"*1 is now mounted on the Desktop.

> ✎ **Memo** ✎
> ● Check the support information for the latest version of the software at the following web site:
>   (http://panasonic.net/avc/projector/).
> ● Install the software using an account with administrator privileges.
> ● *1 The "∗" represents various version numbers.

2 Double-click "Wireless Manager" on the virtual disk that has been mounted.

3 Follow the on-screen instructions to install the software.

4 Click [Restart].

10
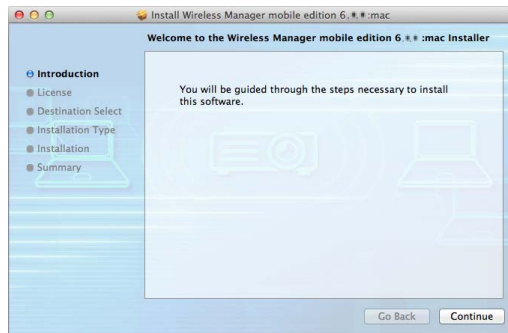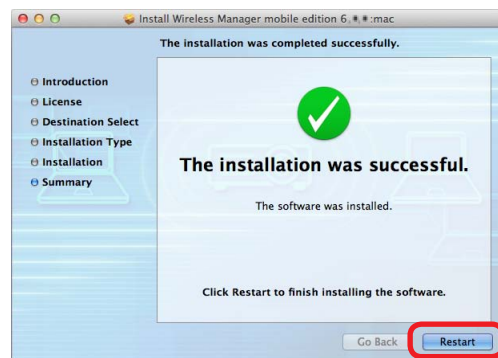
Installing/Uninstalling the software (cont.)

■ Uninstalling the software

1 **Start the installer.**

When the CD-ROM of this software is attached to the projector
① Insert the CD-ROM on which the software is recorded into the CD drive.
② Double-click "MAC" → "WMmac6.∗.dmg"*1 in the CD-ROM drive.
③ "WMmac6.∗"*1 is now mounted on the Desktop.

2 **Double-click "WMUninstaller" on the virtual disk that has been mounted.**
● With this operation, the driver used for the sound is uninstalled.

3 **Drag and drop** **where it has been installed in Trash.**

4 **Select "Empty trash…" from the "Finder" menu.**
● With this operation, the software is uninstalled.

✎ **Memo** ✎
● If only the driver used for the sound has been uninstalled, the sound will no longer be output.
● *1 The "∗" represents various version numbers.

Preparations

How to connect the computer with the projector or projectors

There are 8 ways to connect the computer to the projectors.

Using the [SIMPLE] setting
This is used for easy wireless communication between the projector and various terminals (computers, tablets, smartphones, and other mobile devices).
☞ Page 22

Using the [S-DIRECT] setting
This is used to easily communicate between the projector or projectors and computer wirelessly.
☞ Page 22

Using the [S-MAP] setting
This is used for a projector model which does not support [S-DIRECT].
☞ Page 22

Using the [1] to [4] settings
These are used for projector models which do not support [S-DIRECT] or [S-MAP].
Also, they are used when multiple projectors are used at the same time.
☞ Page 22

Using the [M-DIRECT] setting
This is used when specifying a particular network and security key to communicate with the projector or projectors.
☞ Page 27

Using the [USER1] to [USER3] settings
These are used when using an existing network or access point for communication.
Also, they are used when multiple projectors are used at the same time.
☞ Page 24

Using the projectors with a wired LAN connection
This is used when the projector or projectors and computer are connected using a LAN cable.
Also, it is used when multiple projectors are used at the same time.
☞ Page 29

Using the projectors by searched IP addresses
This is used when communicating with the projector or projectors utilizing the search function based on IP addresses.
☞ Page 32

If the account does not have administrator privileges

If you logged onto the computer using an account without administrator privileges, projectors whose wireless LAN connection setting is set to [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], or [4] cannot be used.
● Depending on the projector, the wireless LAN connection setting may be referred to as the network number.

Projectors that can be used
☞ "Using the [USER1], [USER2] and [USER3] settings to select the projectors" (page 24)
☞ "Using the [M-DIRECT] setting to select the projectors" (page 27)
☞ "Using the projectors with a wired LAN connection" (page 29)
☞ "Using the projectors by searched IP addresses" (page 32)

✎ **Memo** ✎
● The network settings of the computer must be established using an account with administrator privileges.
● Administrator privileges are required to install this software.

Checking the projector

■ **Powering up the projector**
Turn on the power of the projector.

■ **Setting the input**
Press the <Panasonic APP> button / <NETWORK> button on the remote control (or press the <INPUT SELECT> button on the projector), and switch the input to [Panasonic APPLICATION] or [NETWORK].
A standby screen is displayed in the image projected by the projector.
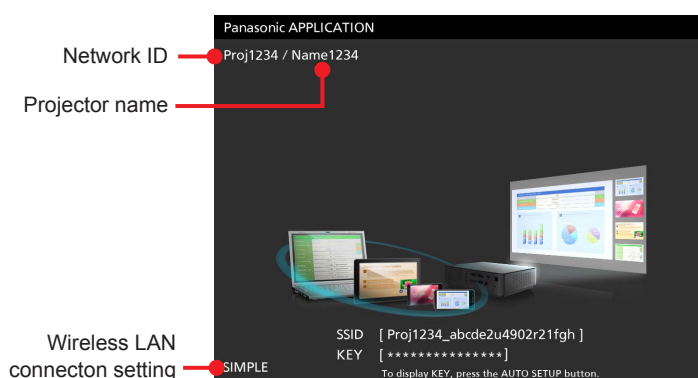
■ **Checking the projector**
Check the projector's wireless LAN connection setting, projector name, and network ID.
The locations where this information is displayed may vary depending on the projector.

● **For projectors that display the standby screen** (Projector image)

The standby screen may not appear even for projectors that display that screen if another user is already projecting an image or if the multi live mode (Page 45) is being used in the 4-screen or 16-screen index style.In such cases, you can check the network ID by pressing the AUTOSETUP button.
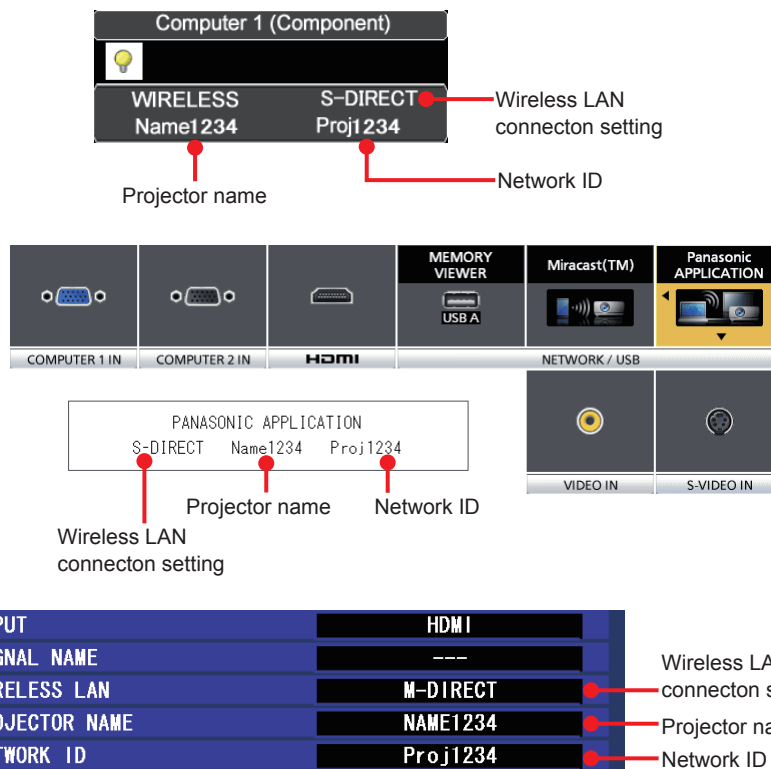
・**Example of standby screen display.**

Network ID ── Proj1234 / Name1234

Projector name ──

Wireless LAN connecton setting ── SIMPLE

Panasonic APPLICATION

SSID   [Proj1234_abcde2u4902r21fgh]
KEY   [＊＊＊＊＊＊＊＊＊＊＊＊＊＊]
To display KEY, press the AUTO SETUP button.

● **For projectors that do not display the standby screen** (Projector image)

・ **Example of input guidance display.**

NETWORK

WIRELESS S-DIRECT ── Wireless LAN connecton setting
Name1234 Proj1234

Projector name ──   ── Network ID
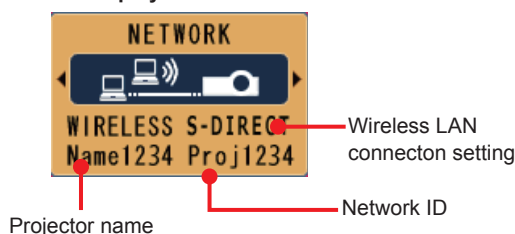
INPUT	NETWORK
SIGNAL NAME	XGA-A1
MEMORY NO	A1
WIRELESS LAN	S-DIRECT
PROJECTOR NAME	NAME1234
NETWORK ID	Proj1234

Wireless LAN connecton setting

Projector name

Network ID

13

Computer 1 (Component)

WIRELESS S-DIRECT
Name1234 Proj1234

→ Wireless LAN connecton setting

Projector name

Network ID

			MEMORY VIEWER	Miracast(TM)	Panasonic APPLICATION
			USB A		
COMPUTER 1 IN	COMPUTER 2 IN	HDMI		NETWORK / USB	

PANASONIC APPLICATION
S-DIRECT   Name1234   Proj1234

VIDEO IN	S-VIDEO IN

Projector name   Network ID

Wireless LAN connecton setting

INPUT	HDMI
SIGNAL NAME	---
WIRELESS LAN	M-DIRECT
PROJECTOR NAME	NAME1234
NETWORK ID	Proj1234

Wireless LAN connecton setting

Projector name

Network ID

- If the input guidance does not appear, press the <MENU> button of the projector, and on the menu that is now displayed, select [DISPLAY OPTION] → [INPUT GUIDE] → "ON" or "DETAILED".

■ **Checking the network status**

The network setting information can be checked using the projector's menu.
- Press the <MENU> button of the projector and, on the menu that is now displayed, select [NETWORK] → [NETWORK STATUS] to check the detailed network setting information.
- To easily connect to the computer with a wireless LAN, the [SIMPLE] or [S-DIRECT] setting is useful.
  ☞ "Using the [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], and [4] settings to select the projectors" (page 22)

> ✎ Memo ✎
> - Depending on the projector used, the network setting method differs with wireless LAN networks.
>   ☞ [Wireless LAN settings] in the Operating Instructions for the projector

Preparations

14

Starting the Software

To start the software:

Click ![Wireless Manager icon] Wireless Manager **on the Dock or installation destination.**

When the software starts, the <Simple connection> screen and launcher appear.
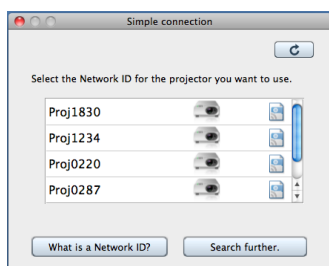
Switch the search screen according to the projector being used and the projector's wireless LAN connection settings.

■ **Using the <Simple connection> screen**
● When using the [SIMPLE], [S-DIRECT], [S-MAP], [USER1] to [USER3], and [M-DIRECT] settings with a single projector

■ **Connection procedure**
Make the connection using the <Simple connection> screen (page 16).

When using the [USER1] to [USER3] and [M-DIRECT] settings, you must make network settings on the computer according to the projector's wireless LAN settings.(page24-28)

■ **Using the <Find Projectors> screen**
● When using the [SIMPLE], [S-DIRECT], [S-MAP], [USER1] to [USER3], [1] to [4], and [M-DIRECT] settings with a single projector
● When using the [USER1] to [USER3] and [1] to [4] settings with multiple projectors
● When using the [USER1] to [USER3] and [M-DIRECT] settings with an IP search

■ **Connection procedure**
Click [Search further...] in the <Simple connection> screen and work from the <Find projectors> screen. (page 18)
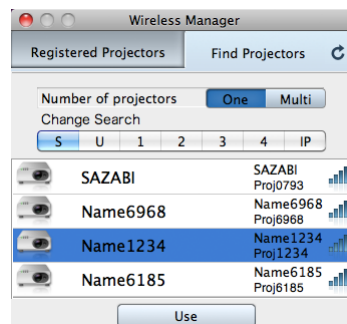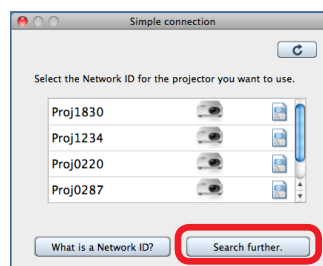
✎ **Memo** ✎
● When the "A simple connection screen is displayed at startup" checkbox is selected in the option settings, the <Simple connection> screen is displayed when the software starts.
☞ "Setting the options" (page 44)
● If the "A simple connection screen is displayed at startup" checkbox is not selected in the option settings and not a single projector has been registered, the <Register Projectors> screen will appear when the software starts.
☞ "Setting the options" (page 44)

Starting the Software (cont.)

■ <Simple connection> screen

You can project a computer screen from the projector quickly and easily in the screen that appears when the software starts. You can also create shortcut files for connecting to the projector or projecting images.

Displays the <Check Network ID> screen

Displays the <Find Projectors> screen
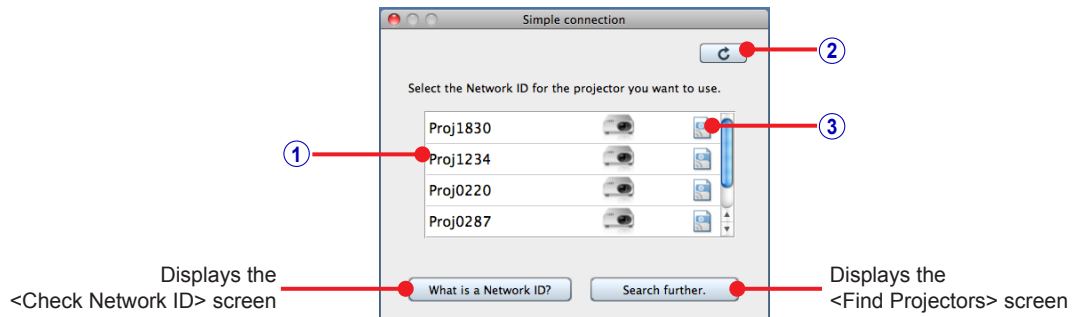
① Network ID
This is an ID that consists of "Proj" and four digits to identify the projector.
☞ "Checking the projector" (page 13)

② Refresh button
Click this button to update the projector search results to the latest state.

③ Shortcut file creation button
Click this button to create a shortcut file for the respective projector. You can create the following two types of shortcuts.
● Creating shortcut files for connection

 Double-clicking this icon automatically connects to the projector that was selected during creation.

● Creating shortcut icons for projection

 Double-clicking this icon automatically projects to the projector that was selected during creation.

■ <Check Network ID> screen

This screen allows you to check the network ID verification method.
To open the <Check Network ID> screen, click [What is a Network ID] in the <Simple connection> screen.

Displays where the network ID of projectors that do not display the standby screen is displayed

Closes this screen

16

Starting the Software (cont.)
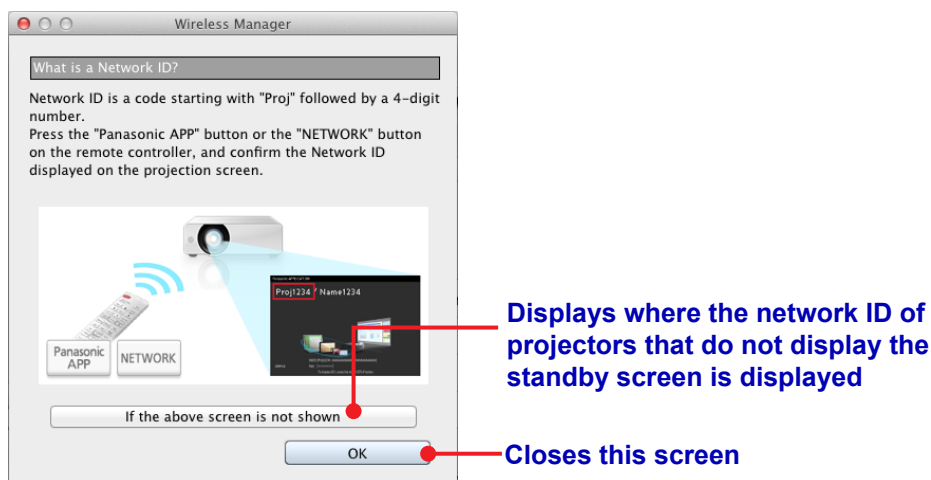
■ <Registered Projectors> screen

By registering the projectors, what is displayed on the computer screen can be projected from the projectors quickly.
A total of up to four groups, each consisting of one projector or multiple projectors, can be registered.
☞ "Registering projectors or groups" (page 38)

This displays the <Find Projectors> screen

Launcher ☞ Page 35

Select to close the software ☞ Page 36

Select to close the <Registered Projectors> screen
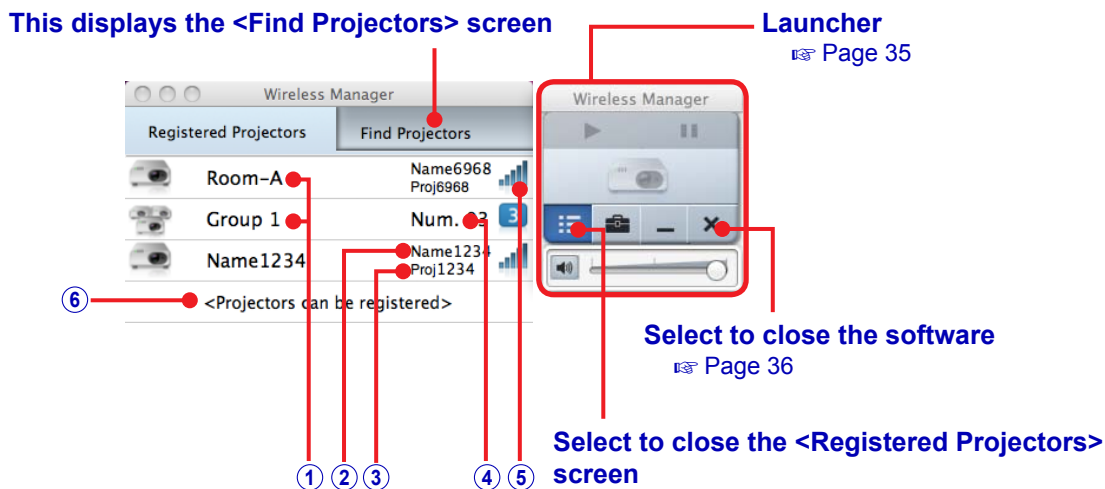
① Registered name
This is the name of the projector or group that has been registered in the software.
☞ "Changing the registered name" (page 41)

② Projector name
This is the name that has been set in the projector.
However, if the wireless LAN setting is [SIMPLE], "SIMPLE" will be displayed instead of the name that was set on the printer.
☞ "Checking the projector" (page 13)

③ Network ID
This ID consists of Proj and a 4-digit number for identifying the projector.
☞ "Checking the projector" (page 13)

④ Number registered
This is the number of the projectors configuring the group.
When registering the group, this number is displayed instead of the projector name and network ID.

⑤ Network
This indicates the wireless LAN connection setting that was configured when the projector was registered.

📶	**[SIMPLE], [S-DIRECT], or [S-MAP]** This indicates the signal strength level.
– –	**[SIMPLE], [S-DIRECT], or [S-MAP] was specified during registration, but it cannot be found.**
1 to 4	**[1] to [4]**
U	**[WIRED LAN], [M-DIRECT], [USER1] to [USER3], [IP]**

⑥ Unregistered area
<Projectors can be registered> is displayed if there is space for the projector registration. When this area is clicked, the display switches to the <Register Projectors> screen.

> ✎ **Memo** ✎
> ● If no projectors have been registered, the projectors or groups will not be displayed on the <Registered Projectors> screen.
> ● When the mouse cursor is placed over the number registered, the projector names and network IDs of all the projectors that have been registered are displayed on a popup window.

Starting the Software

17

Starting the Software (cont.)

■ <Find Projectors> screen

This displays the <Registered Projectors> screen

Selected projector

Select this to close the <Find Projectors> screen
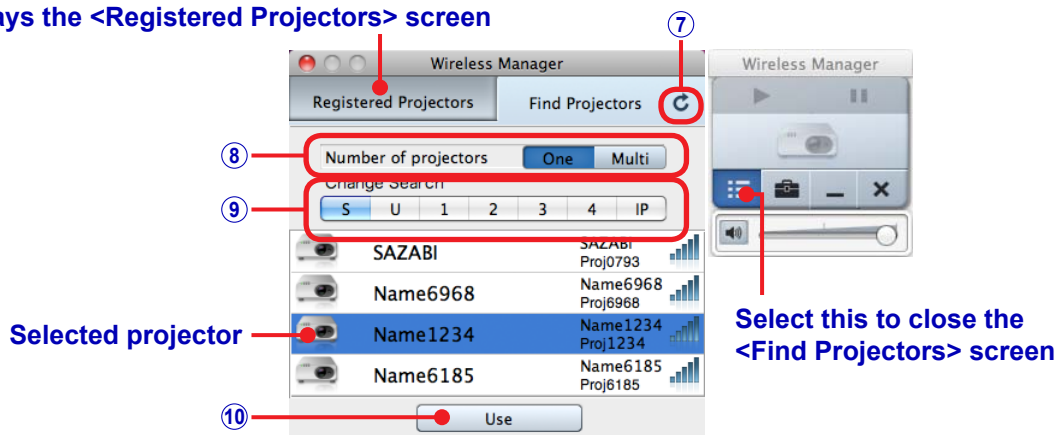
⑦ Update button
By clicking this button, the projector search results are updated to the latest status.

⑧ [Number of projectors] buttons
Click the [One] button or [Multi] button to switch the number of the projectors to be used at the same time.
When [Multi] has been selected, it is not possible to click the [S] for [Change Search] buttons.

⑨ [Change Search] buttons
Click these buttons to search for and display projectors that match the corresponding wireless LAN connection setting.
Check the wireless LAN connection setting of the projector to be used, and click the corresponding button to switch to it.

| Button	Projectors searched
[S] [SIMPLE] [S-DIRECT] [S-MAP]	This searches for projectors whose wireless LAN connection has been set to [SIMPLE], [S-DIRECT], or [S-MAP]. It is useful when a projector is to be used immediately without even setting the computer's network. It is not possible to project displays simultaneously using multiple projectors. ☞ "Using the [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], and [4] settings to select the projectors" (page 22)
[U] [USER] [M-DIRECT] [WIRED LAN]	This searches for projectors whose wireless LAN connection has been set to [USER1] to [USER3] or [M-DIRECT], or the projectors connected via wired LAN. ☞ "Using the [USER1], [USER2] and [USER3] settings to select the projectors" (page 24) ☞ "Using the [M-DIRECT] setting to select the projectors" (page 27) ☞ "Using the projectors with a wired LAN connection" (page 29)
[1] to [4]	This searches for projectors whose wireless LAN connection has been set to [1] to [4]. ☞ "Using the [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], and [4] settings to select the projectors" (page 22)
[IP]	This searches a projector by specifying its IP address. ☞ "Using the projectors by searched IP addresses" (page 32)

18

⑩ **[Use] button**

By clicking this button, projection from the selected projector is enabled.

> ✎ **Memo** ✎
> - If you logged onto the computer using an account without administrator privileges, projectors whose wireless LAN connection setting is set to [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], or [4] cannot be used.
> - WEP (Wired Equivalent Privacy) is not applied to wireless LAN connection [1].
> - WEP is applied to wireless LAN connections [2] to [4], so set the projector's wireless LAN connection to [2] to [4] when more security is required.
> - Even when [ENCRYPTION] is set to [NONE] on a projector whose wireless LAN connection is [1] or [USER] ([USER1] to [USER3]), AES encryption has been implemented for all the wireless LAN connections ahead of time, so important video and audio data is protected.
> - To select a projector, a wireless LAN connection identical to that set on the projector must be selected using the [Change Search] button. To check the wireless LAN connection setting of a projector, check the projector's network menu or check the standby screen.
>   ☞"Checking the projector" (page 13)

19

Selecting registered projectors

Select an already registered projector on the <Registered Projectors> screen, and use it to project what is displayed on the computer screen.

When an already registered group is selected, the computer screen can be projected using multiple projectors.

● Before proceeding, turn on the projector and verify the wireless LAN connection setting, projector name, and network ID.
  ☞ "Checking the projector" (page 13)
  ☞ "Registering projectors or groups" (page 38)

1 Start the software , and display the <Registered Projectors> screen.
  ☞ "Starting the Software" (page 15)
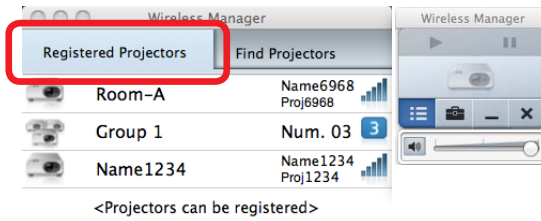
2 Click the projector that matches the projector name and network ID displayed on the projector.

Network ID indication
(Projector image)
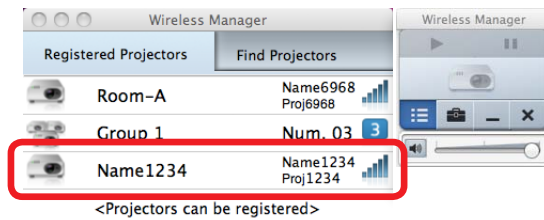
Example of <Registered Projectors> screen display
(Screen of this software)

✎**Memo**✎
● The locations where the projector name and network ID are displayed may vary depending on the projector.
  ☞"Checking the projector" (page 13)
● If the wireless LAN setting is [SIMPLE], "SIMPLE" will be displayed instead of the name that was set on the printer.
● When the mouse cursor is placed over "Number registered", the Projector names and Network IDs of all the projectors which have been registered are displayed on a popup window.

Selecting registered projectors (cont.)

When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.
☞ "Launcher" (page 35)

● Click [Yes] when the screen on which to confirm the network setting changes is displayed.
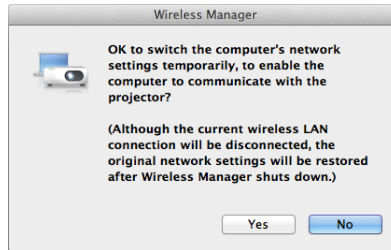
● If administrator privileges are required, input the administrator's name and password.

21

Using the [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], and [4] settings to select the projectors

Select the projector to use from among the projectors whose wireless LAN connection is set to [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], or [4]
● The [SIMPLE], [S-DIRECT], and [S-MAP] settings are useful for easy connection to the computer via wireless LAN.
● Before proceeding, turn on the projector and verify the wireless LAN connection setting, projector name, and network ID.
  ☞ "Checking the projector" (page 13)

1 **Start the software , and display the <Simple connection> screen.**
  ☞ "Starting the Software" (page 15)

When selecting projectors from the <Simple connection> screen with the [SIMPLE], [S-DIRECT], or [S-MAP] setting
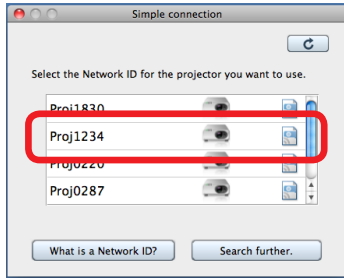
In the list, click the projector that matches the network ID displayed on the projector.
Launcher operation is enabled with the the projector becomes ready for operation.
You don't need to do procedure steps 2 and on.

When selecting projectors from the <Find projector> screen with the [SIMPLE], [S-DIRECT], [S-MAP], [1], [2], [3], or [4] setting
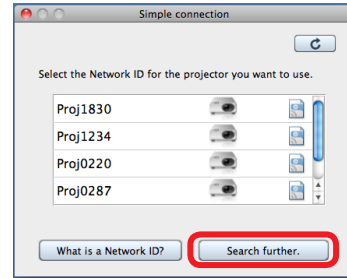
Click [Search further...] and display the <Find projectors> screen.
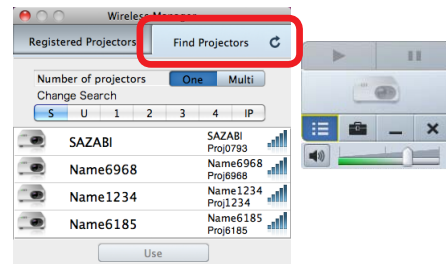
Afterwards, proceed to step 2 of the procedure.

2 **Click the [One] or [Multi] button for [Number of projectors] depending on the number of projectors to be used, and click the [Change Search] button that corresponds to the wireless LAN connection setting displayed on the projector.**
  If the wireless LAN connection setting is [SIMPLE], [S-DIRECT], or [S-MAP], click [S]. If it is [1], [2], [3] or [4], click the button with the same number.
  ● When the <Find Projectors> screen is displayed, [One] is selected.

Network ID indication
(Projector image)
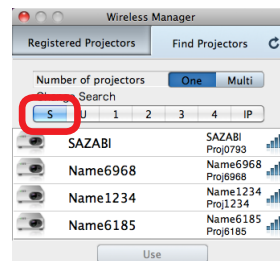
Example of <Find Projectors> screen display
(Screen of this software)

22

3 **Click the projector that matches the projector name and network ID displayed on the projector.**
When using multiple projectors at the same time, select all the projectors to be used.

Network ID indication
(Projector image)
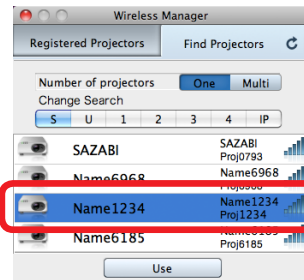
Example of <Find Projectors> screen display
(Screen of this software)

4 **Click [Use].**
When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.
☞ "Launcher" (page 35)

✐ **Memo** ✐
● Click [Yes] when the screen on which to confirm the network setting changes is displayed.
  ☞ Page 21
● The locations where the projector name and network ID are displayed may vary depending on the projector.
  ☞ "Checking the projector" (page 13)
● When multiple projectors have been selected to be used, select [Multi] for [Number of projectors] buttons.
  Up to 8 projectors can be used at the same time.
  ☞ Page 18

Selecting the Projector

Using the [USER1], [USER2] and [USER3] settings to select the projectors

Select the projector whose wireless LAN connection is set to [USER1], [USER2], or [USER3].

● Before proceeding, turn on the projector and verify the projector name and network ID.
☞ "Checking the projector" (page 13)

■ Projector settings

1 Select the network settings of the projector.
① On the projector menu screen, select [Network] → [WIRELESS LAN] → [USER1] (or [USER2] or [USER3]).
② Set the network.
☞ Operating Instructions for the projector

For an AD HOC connection ("Glossary" ☞ page 53) (Connection is made using the factory settings)	
SSID	Panasonic Projector
DHCP	Off
IP address	192.168.11.100
Subnet mask	255.255.255.0
Default gateway	192.168.11.1
Mode	AD HOC
Authentication	Open
Encryption	None
Channel	11

For a connection via an access point (DHCP) ("Glossary" ☞ page 53)	
SSID	Input the name of the access point to be connected.
DHCP	On
Mode	INFRASTRUCTURE
Authentication	Input the settings to match the access point to be connected.
Encryption	
Channel	

● Before selecting any other settings, check them with the network administrator.

■ Computer settings

2 Set the computer's network in line with the projector settings.
If the projector's settings are the same statuses as when the projector was shipped from the factory, use the computer with the DHCP function of the computer set to "On".
● Before setting the computer's network settings, check them with the network administrator.

3 Connect the computer to the network that has been set for the projectors.

Click 📶 at the far right of the menu bar, and connect to the network whose SSID has been set in the projector.

```
Wi-Fi: On
Turn Wi-Fi Off

M-DIRECT1234                    🔒 📶
AP02                            🔒 📶
PD21822A61E00Name18220...       🔒 📶

Devices
Panasonic Display4              🔒 📶
✓ Panasonic Projector              📶
Disconnect from Panasonic Projector

Join Other Network...
Create Network...
Open Network Preferences...
```
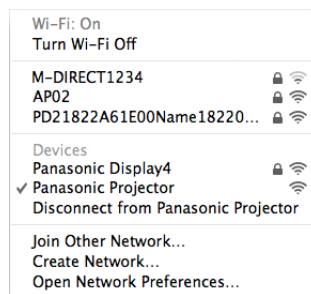
✎ **Memo** ✎
● If the network cannot be found, check the operating instructions of the wireless LAN adapter used.
● If the wireless LAN cannot be connected via the access point even though the projector settings have been established correctly, contact the manufacturer of the access point used.

■ Selecting the projector

4 **Start the software** **, and display the <Simple connection> screen.**
☞ "Starting the Software" (page 15)

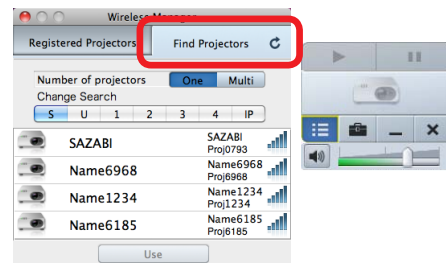When using one projector using the <Simple connection> screen

In the list, click the projector that matches the network ID displayed on the projector.
Launcher operation is enabled with the the projector becomes ready for operation.
You don't need to do procedure steps 5 and on.

When using one or more projectors using the <Find projector> screen

Click [Search further...] and display the <Find projectors> screen.

Afterwards, proceed to step 5 of the procedure.

5 **Click the** [One] **or** [Multi] **for [Number of projectors] buttons depending on the number of projectors to be used, and click the** [U] **for [Change Search] buttons.**

6 **Click the projector that matches the projector name and network ID displayed on the projector.**
When using multiple projectors at the same time, select all the projectors to be used.

Network ID indication
(Projector image)

Example of <Find Projectors> screen display
(Screen of this software)

● If the projector cannot be found even though the network settings have been established correctly, use "Using the projectors by searched IP addresses" (☞ page 32).

Selecting the Projector

25

7 Click [Use].

When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.

☞ "Launcher" (page 35)

✐ **Memo** ✐
- Before setting the computer's network settings, check them with the network administrator.
- The locations where the projector name and network ID are displayed may vary depending on the projector.
  ☞ "Checking the projector" (page 13)
- When multiple projectors have been selected to be used, select ❲ Multi ❳ for [Number of projectors] buttons.
  Up to 8 projectors can be used at the same time.
  ☞ Page 18

Selecting the Projector

26

Using the [M-DIRECT] setting to select the projectors

The projectors and computer are connected directly in the infrastructure mode.
(An access point is not required.)
☞ "Infrastructure Mode" (page 53)

● Before proceeding, turn on the projector and verify the projector name and network ID.
  ☞ "Checking the projector" (page 13)

■ Projector settings

1 Select the network settings of the projector.
 ① On the menu screen, select [NETWORK] → [WIRELESS LAN] → [M-DIRECT].
  ② Set the network.
  ☞ Operating Instructions for the projector

Factory settings	
SSID	M-DIRECT + last 4 digits of network ID
IP address	192.168.12.100
Subnet mask	255.255.255.0
Channel	1
Key	M-DIRECT + last 4 digits of network ID Example: "M-DIRECT1234"

> **Attention**
> ● Before selecting any other settings, check them with the network administrator.
> ● If the same factory setting for [Key] is kept without changing it, there is a danger that information may be leaked by a third party. Be absolutely sure to change it.

■ Computer settings

2 Set the computer's network in line with the projector settings.
  If the projector's settings are the same statuses as when the projector was shipped from the factory, use the computer with the DHCP function of the computer set to "On".
  ● Before setting the computer's network settings, check them with the network administrator.

3 Connect the computer to the network that has been set for the projectors.

  Click 📶 at the far right of the menu bar, and connect to the network whose SSID has been set in the projector.

Selecting the Projector

27

■ Selecting the projector

4 Start the software 📽, and display the <Simple connection> screen.
☞ "Starting the Software" (page 15)

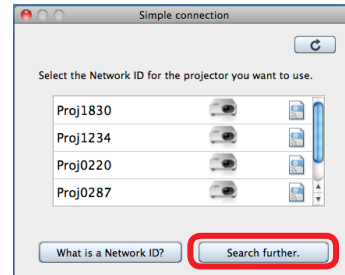When using one projector using the <Simple connection> screen
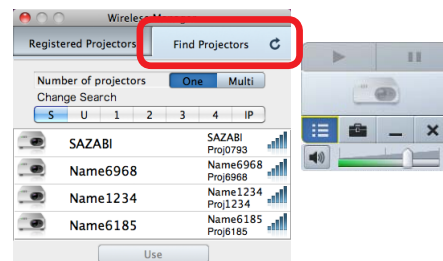

In the list, click the projector that matches the network ID displayed on the projector.
Launcher operation is enabled with the the projector becomes ready for operation.
You don't need to do procedure steps 5 and on.

When using one or more projectors using the <Find projector> screen

Click [Search further...] and display the <Find projectors> screen.
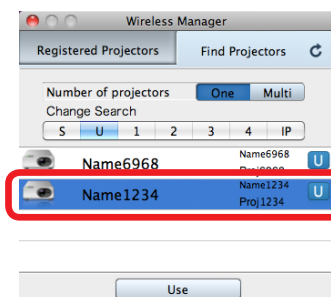

Afterwards, proceed to step 5 of the procedure.

5 Click the [One] for [Number of projectors] buttons, and click the [U] for [Change Search] buttons.

6 Click the projector that matches the projector name and network ID displayed on the projector.
When using multiple projectors at the same time, select all the projectors to be used.

Network ID indication
(Projector image)
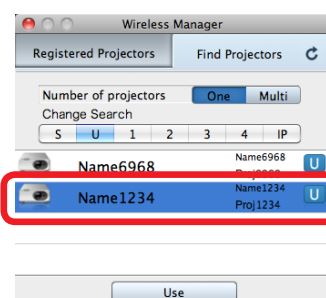
Example of <Find Projectors> screen display
(Screen of this software)

● If the projector cannot be found even though the network settings have been established correctly, use "Using the projectors by searched IP addresses" (☞ page 32).

7 Click [Use].
When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.
☞ "Launcher" (page 35)

┌───
│ ✎ **Memo** ✎
│ ● Before setting the computer's network settings, check them with the network administrator.
│ ● The locations where the projector name and network ID are displayed may vary depending on the projector.
│   ☞ "Checking the projector" (page 13)
└───

Selecting the Projector

Using the projectors with a wired LAN connection

Connect the projectors and computer using a wired LAN.

● Before proceeding, turn on the projector and verify the projector name and network ID.
  ☞ "Checking the projector" (page 13)

■ Projector settings

1 **Select the network settings of the projector.**
  ① On the menu screen, select [NETWORK] → [WIRED LAN].
  ② Set the network.
  ☞ Operating Instructions for the projector

Factory settings	
DHCP	Off
IP address	192.168.10.100
Subnet mask	255.255.255.0
Default gateway	192.168.10.1

■ Computer settings

2 **Change the TCP/IP setting.**
  ① Select [System Preferences] → [Network].
  ② Click "Ethernet" on the connection list.
  ③ Change [Configure IPv4] to "Manually".
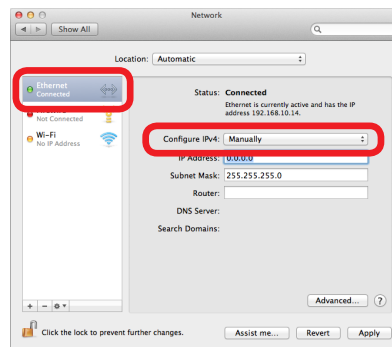
3 **Set the computer's network in line with the projector settings.**
  Input the values in the "IP Address", "Subnet Mask" and "Router" boxes.
  ● Before setting the computer's network settings, check them with the network administrator.

When connecting to a projector whose network settings are the factory settings	
IP address	192.168.10.101
Subnet mask	255.255.255.0
Router	192.168.10.1

29
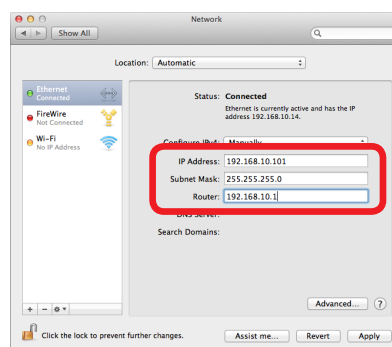
Using the projectors with a wired LAN connection (cont.)

■ Selecting the projector

4 Start the software 🖵, and display the <Simple connection> screen.
☞ "Starting the Software" (page 15)

When using one projector using the <Simple connection> screen

In the list, click the projector that matches the network ID displayed on the projector.
Launcher operation is enabled with the the projector becomes ready for operation.
You don't need to do procedure steps 5 and on.

When using one or more projectors using the <Find projector> screen

Click [Search further...] and display the <Find projectors> screen.

Afterwards, proceed to step 5 of the procedure.

**5 Click the [One] or [Multi] for [Number of projectors] buttons depending on the number of projectors to be used, and click the [U] for [Change Search] buttons.**

6 Click the projector that matches the projector name and network ID displayed on the projector.
When using multiple projectors at the same time, select all the projectors to be used.

Network ID indication
(Projector image)

Example of <Find Projectors> screen display
(Screen of this software)

● If the projector cannot be found even though the network settings have been established correctly, use "Using the projectors by searched IP addresses" (☞ page 32).

Selecting the Projector

7 **Click [Use].**

When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.

☞ "Launcher" (page 35)

✎ **Memo** ✎

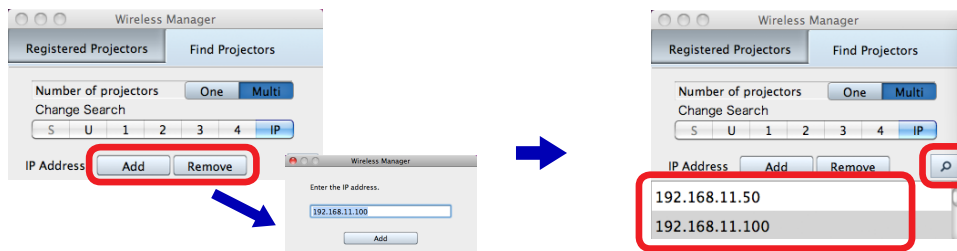- Before setting the computer's network settings, check them with the network administrator.
- The locations where the projector name and network ID are displayed may vary depending on the projector.
  ☞ "Checking the projector" (page 13)
- When multiple projectors have been selected to be used, select [Multi] for [Number of projectors] buttons.
  Up to 8 projectors can be used at the same time.
  ☞ Page 18

Selecting the Projector

Using the projectors by searched IP addresses

Search for the projector by inputting its IP address directly.
- The projector and computer must have already been connected to a network that enables communication. For details, check with the network administrator.
- Before proceeding, turn on the projector and display the standby screen.
  ☞ "Checking the projector" (page 13)

1 **Start the software [icon] , and display the <Simple connection> screen.**
   ☞ "Starting the Software" (page 15)
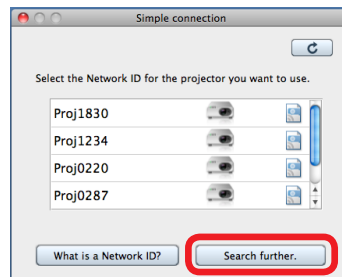
Click [Search further...] to display the <Find projectors> screen.
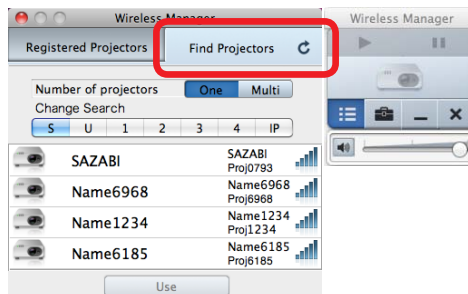
2 **Click the [One] or [Multi] for [Number of projectors] buttons depending on the number of projectors to be used, and click the [IP] for [Change Search] buttons.**
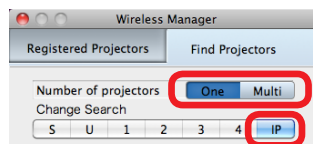
■ When communicating with one projector

**3** **Input the IP address of the projector to be used, and click [🔍] .**
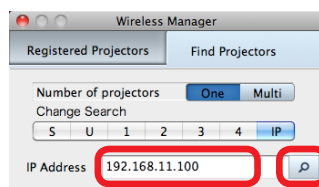
32

4 After checking the projector name and network ID of the projector that was found, click [Use].

When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.

☞ "Launcher" (page 35)

Network ID indication
(Projector image)
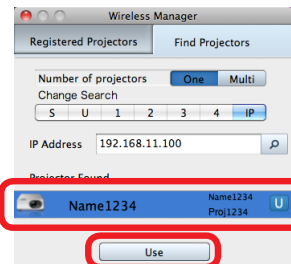
Example of <Find Projectors> screen display
(Screen of this software)

✎ **Memo** ✎
● The locations where the projector name and network ID are displayed may vary depending on the projector.
☞ "Checking the projector" (page 13)

■ When communicating with multiple projectors

3 Click [Add], input the IP addresses of all the projectors to be used, and click 🔍 .
● To delete an IP address which has been input, select the IP address to be deleted, and click [Remove].

4 After checking the projector name and network ID of the projector that was found, click [Use].

When the projector is set to the status in which it is ready to start projecting, the launcher operation is enabled.

☞ "Launcher" (page 35)

Network ID indication
(Projector image)

Example of <Find Projectors> screen display
(Screen of this software)
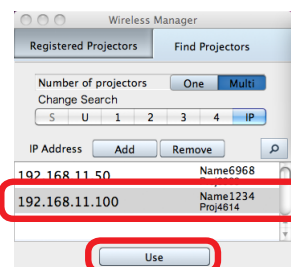
✎ **Memo** ✎
● The locations where the projector name and network ID are displayed may vary depending on the projector.
☞ "Checking the projector" (page 13)
● When multiple projectors have been selected to be used, select Multi for [Number of projectors] buttons.
Up to 8 projectors can be used at the same time.
☞ Page 18

Selecting the Projector

When a password has been set for a projector

If the computer has been connected to a projector in which a network password has been set, the <Enter Password> screen is displayed.
Input the password of the network that has been set in the projector, and click [OK].
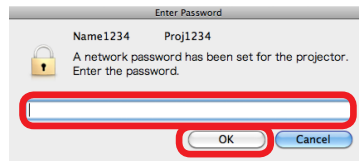
> ✎ **Memo** ✎
> ● When [Cancel] is clicked on the <Enter Password> screen, the previous screen for selecting the projectors is restored.
>   For details on how to set the password, refer to the operating instructions for the projector used.
> ● If there is multiple projectors which require a password to be entered among the projectors to be used, the <Enter Password> screen is displayed for each projector.
>   Check the network ID, and enter the appropriate password.

When a projector is equipped with Content Manager

When connected to a projector projector equipped with Content Manager, the following screen appears.

[Use]
Connect to the projector and enable projection.

[Confirm the connection]
Make the indicator on the projector to which you are attempting to connect blink.

[View Content Manager]
Display Content Manager using the computer's web browser.

[Quit operation]
Return to the screen to select the projector.

> ✎ **Memo** ✎
> ● You can check the status of signage playback and signage settings using Content Manager.
>   For details on the signage playback and signage settings function, refer to the Operating Instructions for the projector.

Operating the launcher

When you start the software, the launcher apears with the <Simple connection> screen.
Many different kinds of operations such as performing the projector operations (starting and stopping projection), adjusting the volume level and displaying other screens can be carried out using the launcher.
The buttons used to control the projection take effect when the computer can communicate with the projector.

■ Launcher

① **Starts and stops the projection.**
This changes to ■ (stop) during projection.

② **Temporarily stops the projection.**
This can be operated only during projection.
When it has been operated, the image projected is frozen.

③ **Indicates the status of communication with the projector using an icon.**
When communicating with one projector, the icon for 1 projector is displayed.
When communicating with multiple projectors, the icon for 3 projectors is displayed.

	No projection possible	No communication as no projector has been selected.
	Projection possible	One or more projectors are selected and communicating.
	Now projecting	At present, one or more projectors are communicating and projecting images.

④ **Displays the <Simple connection>, <Registered Projectors>, or <Find Projectors> screen.**
Displays a projector selection screen. The screen that appears is that which was used when the project to be used for projection is selected.

⑤ **Displays the <Option> screen.**
☞ Page 44

⑥ **Minimizes the launcher display.**

⑦ **Adjusts the volume level.** (This is not displayed as a default setting.)
☞ Page 36

⑧ **Closes the software.**
☞ Page 36

✎ **Memo** ✎
● The launcher is not displayed on the projected images.
● The position of the launcher can be changed to the desired position by dragging it using the mouse.
● When the launcher display has been minimized and placed in the Dock, the launcher can be displayed again by clicking [icon] on the Dock.

● If "Start projection when a projector is selected" (☞ page 44) has been enabled, projection will start even without clicking ▶ when the computer has finished communicating with the projector.
● It may not be possible to play some movie parts depending on which application is used to play movies.

Projection

Operating the launcher (cont.)

- When you operate start operation of a projector that is in standby using the launcher, the projector turns on and starts projection.

Attention
- When performing an operation to turn on the projector, be sure there is no one in the vacinity of the projector to avoid shining the projector's light into a person's eyes.

✎ **Memo** ✎
- Do not register power content to the timetable unless precautions have been taken during installation to ensure that the projector's light does not shine into the eyes of nearby people should projection start suddenly.

■ Adjusting the volume level

- **Adjust [🔊━━━○━] of the launcher.**

   This enables the volume of the sound which is output to be adjusted.

■ If the icon for adjusting the volume is not displayed

Click [🧰] of the launcher to open the [Option] screen, select [Settings], and check "Produce audio along with video during projection".
☞

✎ **Memo** ✎
- Neither can it be used when communicating simultaneously with multiple projectors.

■ Closing the software

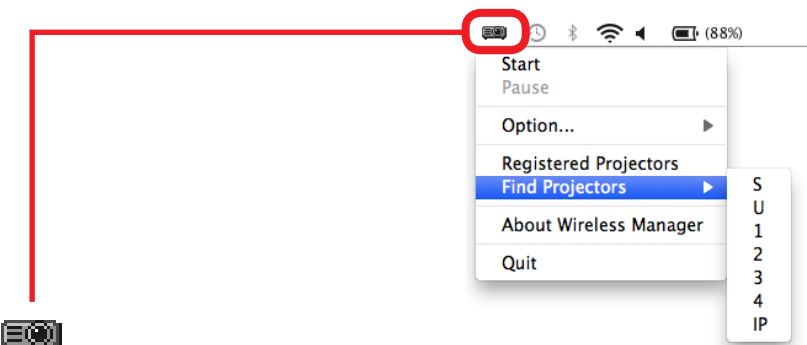- **Click [×] of the launcher.**

✎ **Memo** ✎
- If the "A simple connection screen is displayed at startup" checkbox is not selected in the option settings and not a single projector has been registered, the projector that was used last will be automatically registered. If you were using multiple projectors in such cases, the projectors will be automatically registered as a group.
  The same projector(s) can be selected again later from the <Registered Projectors> screen, allowing you to start projection quickly.
  ☞

Projection

Operating the menu bar

When on the menu bar is clicked, the menu for operating the software and projector is displayed.
When the software is started up, the launcher is displayed, but the same operations can be performed from this menu as well.

| **No projection possible (monochrome display)** | A projector has not been selected. |
| **Projection possible (green display)** | A projector has been selected. |
| **Now projecting (blue display)** | Images are now being projected from the projector. |

Start	Select this to start the projection. While projection is underway, the item's display changes to [Stop projection]. When [Stop projection] is selected, the projected image turns black.
Pause	Select this to temporarily stop (pause) the projection. The image projected will pause when this item has been selected. While projection is paused, the item's display changes to [Resume projection].
Option	Select this to display the <Option> screen. ☞ Page 44
Registered Projectors	Select this to display the <Registered Projectors> screen. ☞ Page 17
Find Projectors	When a network number is selected from the pull-down menu, the <Find Projectors> screen is displayed. The projector with the selected network number is searched, and the result is displayed. ☞ Page 18
About Wireless Manager	Select this to display the version information of the software.
Quit	Select this to quit the software.

Projection

Registering projectors or groups
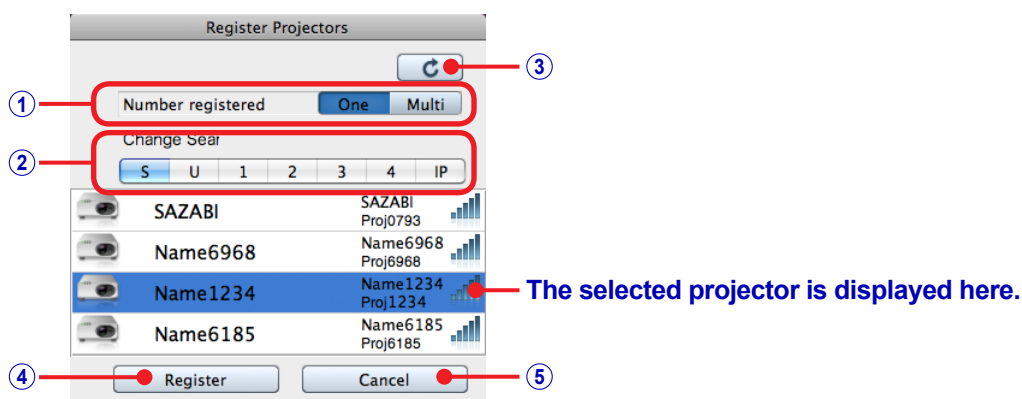
A total of up to four groups, each consisting of one projector or multiple projectors, can be registered on the <Registered Projectors> screen.
By registering a projector, what is shown on the computer screen can be projected using this projector with a single click.
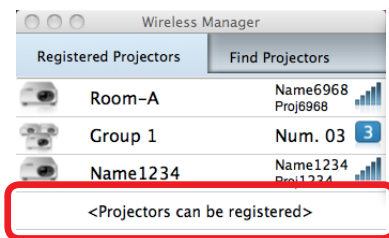
When <Projectors can be registered> on the <Registered Projectors> screen is clicked, the <Register Projectors> screen is displayed.

■ <Register Projectors> screen

The selected projector is displayed here.

① **[Number registered] buttons**
Use these buttons to register one projector or multiple projectors as a group.

② **[Change Search] buttons**
Select the search method using these buttons.
☞ "[Change Search] buttons" (page 18)

Button	Projectors searched
S	This searches for projectors whose wireless LAN connection has been set to [SIMPLE], [S-DIRECT], or [S-MAP]. It is not possible to project from multiple projectors simultaneously.
U	This searches for projectors whose wireless LAN connection has been set to [USER1] to [USER3] or [M-DIRECT], or the projectors connected via wired LAN.
1 to 4	This searches for projectors whose wireless LAN connection has been set to [1] to [4].
IP	This searches a projector by specifying its IP address.

③ **Update button**
By clicking this button, the projector search results are updated to the latest status.

④ **[Register] button**
Select this to register the selected projector and return to the <Registered Projectors> screen.
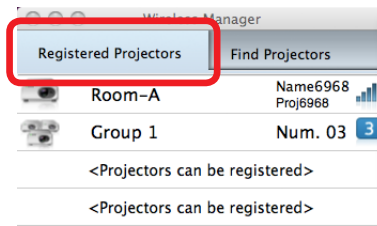☞ Page 17

⑤ **[Cancel] button**
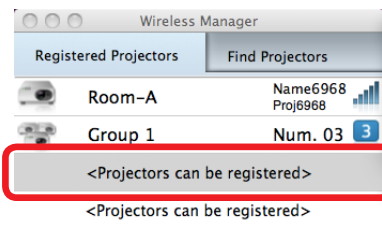Select this to return to the <Registered Projectors> screen.
☞ Page 17

Registering and Editing the Projectors

38

Registering projectors or groups (cont.)

Described here are the steps taken to register projectors and groups.

1 **Start the software** **, and display the <Registered Projectors> screen.**



2 **Click <Projectors can be registered> to display the <Register Projectors> screen.**

3 **Click the** [One] **or** [Multi] **button for [Number registered] depending on the number of projectors to be registered, and click the [Change Search] button that corresponds to the wireless LAN connection setting displayed on the projector.**

If the wireless LAN connection setting is [SIMPLE], [S-DIRECT], or [S-MAP], click [S].
For details on other wireless LAN connection settings, refer to "Projectors searched" under "[Change Search] buttons" (☞ page 18).

● When the <Register Projectors> screen is displayed, [One] is selected.

● When [Multi] has been selected, it is not possible to select [S].

Network ID indication
(Projector image)
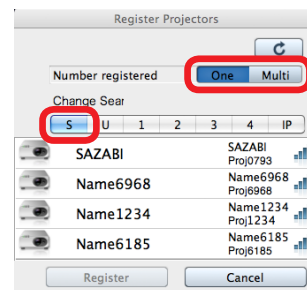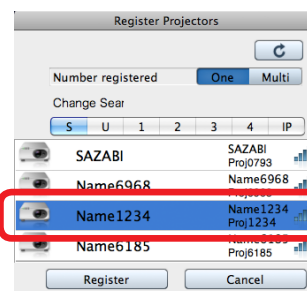
Example of <Register Projectors> screen display
(Screen of this software)

4 **Click the projector that matches the projector name and network ID displayed on the projector.**

Network ID indication
(Projector image)

Example of <Register Projectors> screen display
(Screen of this software)
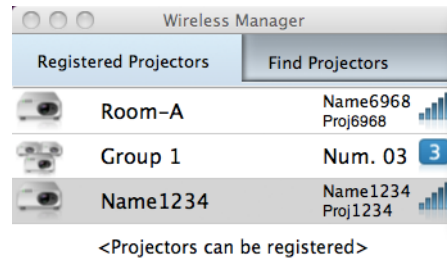
Registering projectors or groups (cont.)

5 Click [Register].

The registered projector appears on the <Registered Projectors> screen.

Example of <Register Projectors> screen display
(Screen of this software)

**Example of <Registered Projectors> screen display**
(Screen of this software)

> ✎ **Memo** ✎
> ● The locations where the projector name and network ID are displayed may vary depending on the projector.
>   ☞ "Checking the projector" (page 13)
> ● If the wireless LAN setting is set to [SIMPLE], the network ID will be registered as the registered name. The projector name will be registered as the registered name for other wireless LAN settings.
>   To change the registered name, refer to "Changing the registered name" (☞ page 41).
> ● When registering multiple projectors as a group, select the [Multi] for [Number registered] buttons, and register all the projectors to be used.
> ● When registering multiple projectors as a group, the wireless LAN connection setting of each projector must be the same.
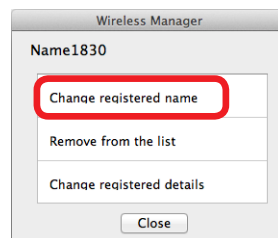
Registering and Editing the Projectors

Changing the registered name

The registered names of the projectors or groups registered on the <Registered Projectors> screen can be changed.
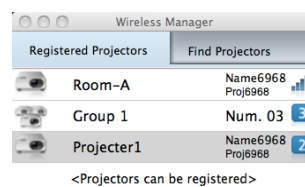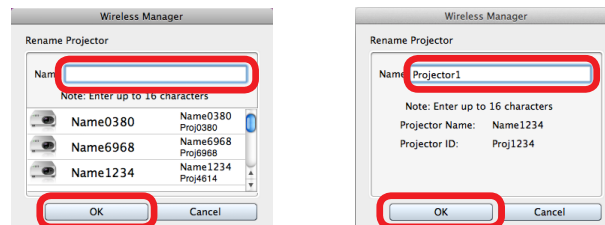
1 On the <Registered Projectors> screen, move the mouse cursor to the name of the projector or group to be changed, and click the secondary button ("right-click").
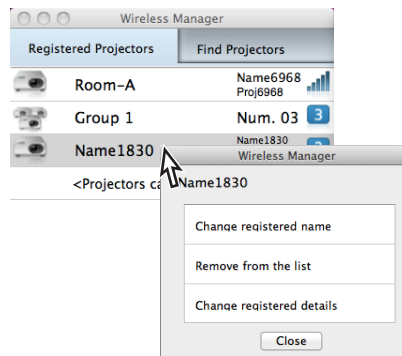
2 Click [Change registered name].

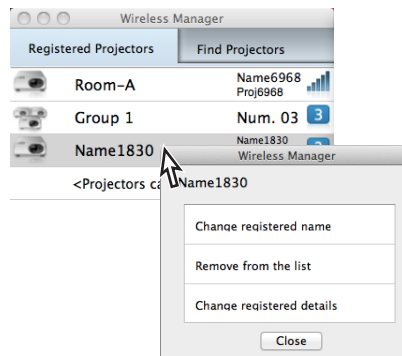**3** Input the new name, and click [OK].

✐ **Memo** ✐
● Up to 16 characters can be input.
● The characters listed below cannot be used.
   ¥ / : * ? " < > |

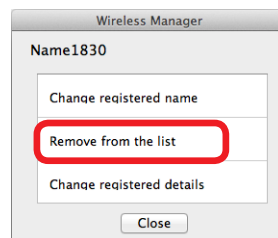# Removing registered projectors or groups

Projectors or groups registered on the <Registered Projectors> screen can be removed.
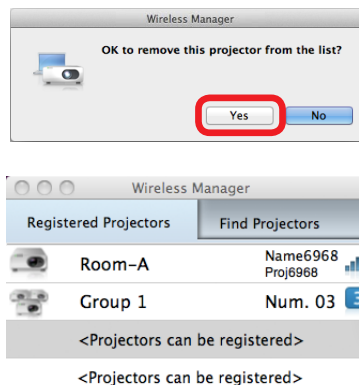
1 On the <Registered Projectors> screen, move the mouse cursor to the projector or group to be removed, and click the secondary button ("right-click").

2 Click [Remove from the list].

3 A message to confirm the removal appears. To remove the projector, click [Yes].

Changing to another projector or group

A projector or group registered on the <Registered Projectors> screen can be changed to another projector or group.

1 **On the <Registered Projectors> screen, move the mouse cursor to the projector or group to be changed, and click the secondary button ("right-click").**
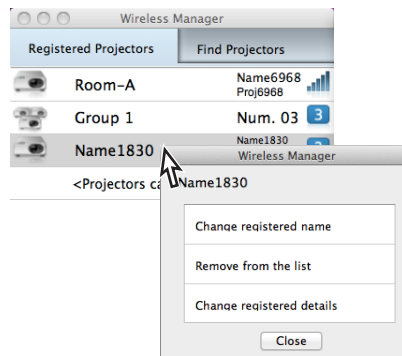
2 **Click [Change registered details].**
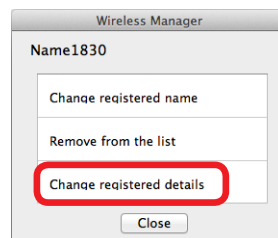
3 **Search for the other projector.**
   ☞ "Registering projectors or groups" (page 38)

4 **A message to confirm the change appears. To change the projector, click [Yes].**

43

Setting the options

Settings such as the ones used during projection can be changed using the option function.

Click ![Option] on the launcher to open the <Option> screen.

■ Settings

■ "Project at high picture quality (affects performance)"

The projected images are projected at a high picture quality.
In this case, however, the speed at which the projected images are displayed may be slower since priority is given to the picture quality.
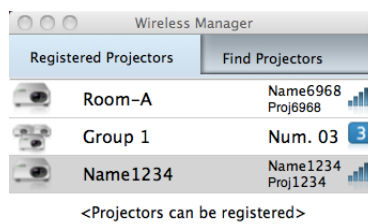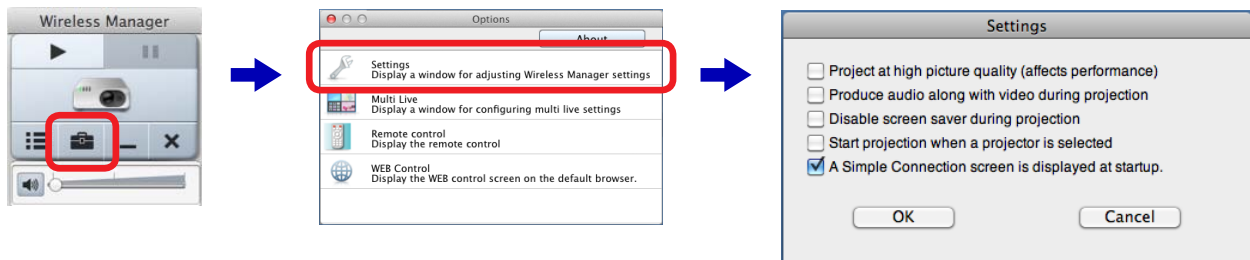Remove the check if precedence is to be given to the speed at which the projected images are to be displayed.

■ "Produce audio along with video during projection"

Check this to output sound from the projector during projection.
Remove the check if no sound is to be output.
● Neither can it be used when communicating simultaneously with multiple projectors.

■ "Disable screen saver during projection"

Check this to disable the computer's screen saver function during projection.
● Please remember that the password protected screen saver is disabled if you need to leave your computer.

■ "Start projection when a projector is selected"

When a projector is selected on the <Registered Projectors> screen or <Find Projectors> screen, projection starts automatically.
There is no need to click ▶ of the launcher.

■ Other setup

■ "A simple connection screen is displayed at startup"

When the software is started, the <Simple connection> screen appears if this checkbox is selected, and the <Register Projectors> or <Find Projectors> screen appears if the checkbox is cleared.
● When this checkbox is cleared and no projectors have been registered, the <Register Projectors> screen appears. Turn on the projector you want to use, and follow the instructions on the screen to register the projector with the software.
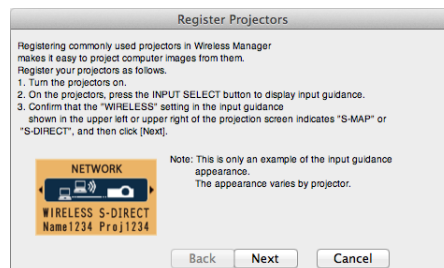
✎ **Memo** ✎
● To end operation without registering the projectors, click [Cancel].

Multi live mode

When using the multi live mode, images can be projected by multiple individuals from multiple computers through one projector.
This function comes in handy when holding meetings attended by participants using a multiple number of computers.

Presentations can be made using computers operated by up to four individuals.

<4-screen multi style> ☞ page 47

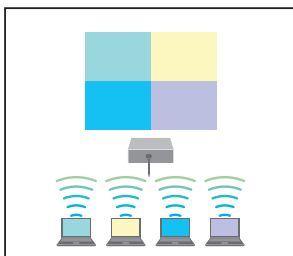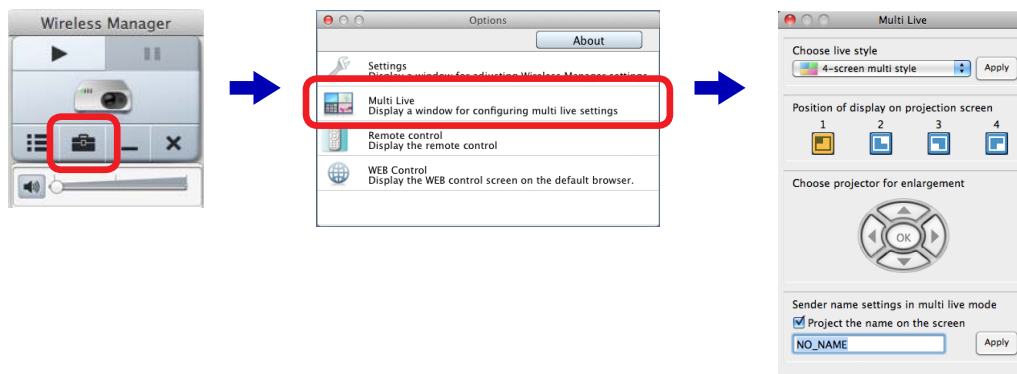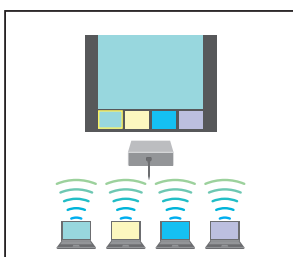In this style, what is shown on up to four computer screens is displayed at the same time. What is shown on each computer screen can be checked at the same time so this is ideal for meetings in which all the individuals participate.

The presenters can expedite the proceedings using up to four computers.

<4-screen index style> ☞ page 48

In this style, thumbnails of the four computer screens can be displayed, and what is shown on the computer that has been selected using the remote control can be displayed on all the screens.
The presenters can expedite the presentation while switching the images to appear on all the screens, and commentary tailored to the situation at hand can be given.
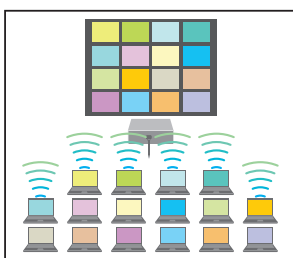
Style for presentations made by larger numbers or to larger numbers of people at university seminars or academic conferences.

<16-screen index style> ☞ page 49

In this style, thumbnails of 16 computer screens can be displayed.
This style is ideal to display what is shown on multiple computer screens in the form of a matrix at university seminars, academic conferences, group study sessions, and so on.

Optional Functions

45

Multi live mode (cont.)

■ How to switch the live style

● The screen style can be switched using the projector menu.
Select "MULTI-LIVE" on the projector's "Network" menu, and press the <ENTER> button.
☞ Operating Instructions for the projector

4-screen multi style

MULTI-LIVE

4-screen index style

MULTI-LIVE

16-screen index style

MULTI-LIVE

● The screen style can be switched using the software.
Select the screen style on the software's <Multi Live> screen.

> **✎ Memo ✎**
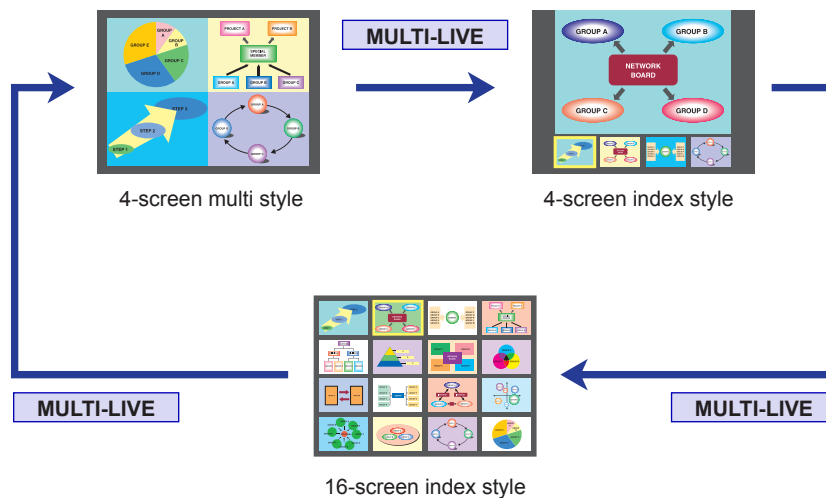> ● When the projector starts up, it resumes in the current style the last time the projector was turned off.
> ● When there is no communication with one or more projectors, the <Multi Live> screen cannot be operated except for "Setting the sender's names" (page 50).
>   The status of communication with the projector is indicated by an icon in the "Launcher" (page 35).
> ● No <Multi Live> screen operations can be performed while communicating with multiple projectors.
> ● To exit the multi live mode, select "Full screen style" from "Choose live style", and click [Apply].
> ● If, while communicating with five or more computers in the 16-screen index style, the style is switched to the 4-screen multi style, communication with the fifth and subsequent computers will be cut off.
> ● It is not possible to select the live style while images from the projectors are being shown in the full screen style. Stop projecting the images from the projectors, and then select the live style.

Optional Functions

46

Multi live mode (cont.)

■ 4-screen multi style

What is shown on up to four computer screens is projected at the same time from one projector.

1 Click on the launcher, and click "Multi Live" on the <Option> screen.
☞ "The screen style can be switched using the software." (page 46)

2 Select "4-screen multi style" from "Choose live style", and click [Apply].
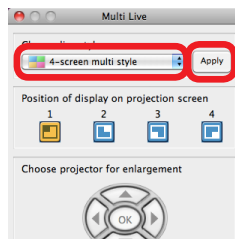
3 Click the icon for the position where the images are to be projected.
● Select where on the screen the images are to be projected.
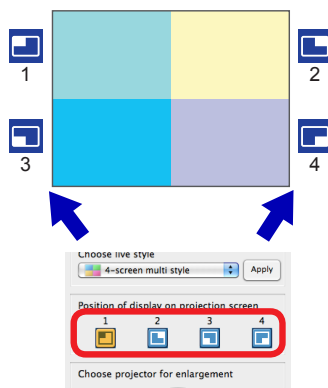
4 Click ▶ of the launcher.
What appears on the computer screen is now projected from the projector.

● **Switching the projection position**
To change the position where the images are to be projected, click icon of the "Position of display on projection screen".

● **Releasing the 4-screen multi style**
To release the 4-screen multi style, select "Full screen style" from "Choose live style", and click [Apply].

✐ **Memo** ✐
● If what is shown on a second computer screen is projected at a position where the first computer has already been projecting an image, the image projected is switched to what is shown by the second computer.
● "4-screen multi style" can only be selected when full-screen live is in progress or when the other terminals are using "4-screen multi style".

Optional Functions

■ 🖵 4-screen index style

In this style, what is shown on up to four computer screens is projected simultaneously from one projector using index screens and a large screen.

1 Click 📠 on the launcher, and click "Multi Live" on the <Option> screen.
☞ "The screen style can be switched using the software." (page 46)

2 Select "4-screen index style" from "Choose live style", and click [Apply].
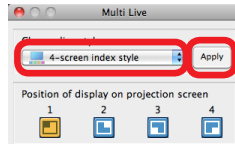
3 Click the number of the position where the image is to be projected.
● Select where on the index screen (sub screen) the image is to be projected.
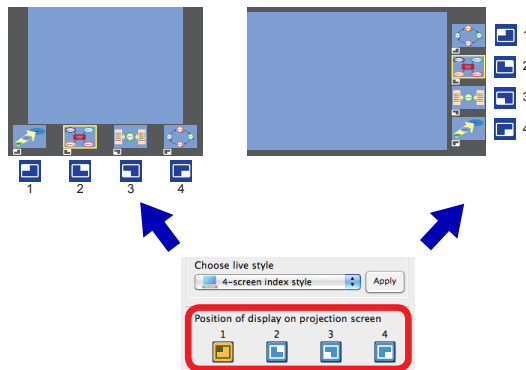
4 Click ▶ of the launcher.
What appears on the computer screen is now projected from the projector.

● **Switching the projection position**
To change the position where the images are to be projected, click icon of the "Position of display on projection screen".

● **Full-screen displays**
To display an image on the full screen, click 🔘 of "Choose projector for enlargement", select the index screen to be enlarged (move the yellow frame), and click 🆗.
When 🆗 is clicked again, the image is displayed on the full screen.
To return to the index screen, click 🆗 again.

● **Releasing the 4-screen index style**
To release the 4-screen index style, select "Full screen style" from "Choose live style", and click [Apply].
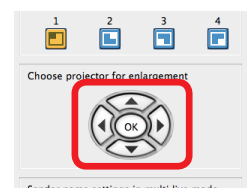
> ✐ **Memo** ✐
> ● When other computers are projecting images in the 4-screen index style, these images can be projected only onto an unused index screen (sub screen).
> ● The menus on the projector side and the remote control (page 50) can also be used to switch between the full-screen display and index screen display.
>
> ● Some projector models have 🔼🔽 (page) buttons on their remote controls, but these buttons cannot be used to operate the target index screen (yellow frame).
> ☞ Operating Instructions for the projector

Optional Functions

Multi live mode (cont.)

■ ▦ 16-screen index style

What is shown on the up to 16 computer screens can be projected simultaneously from one projector.

1 **Click ▦ on the launcher, and click "Multi Live" on the <Option> screen.**
    ☞

2 **Select "16-screen index style" from "Choose live style", and click [Apply].**
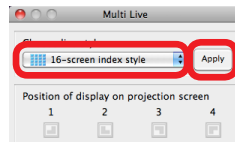
3 **Click ▶ of the launcher.**
    What is shown on the computer screens is automatically projected on the vacant index screens (sub screens).
    It is not possible to select where the images are to be displayed.

- **Full-screen displays**
    To display an image on the full screen, click ⊕ of "Choose projector for enlargement",
    select the index screen to be enlarged (move the yellow frame), and click ⊙.
    When ⊙ is clicked again, the index screen is restored.

| Index screen | | Full-screen |
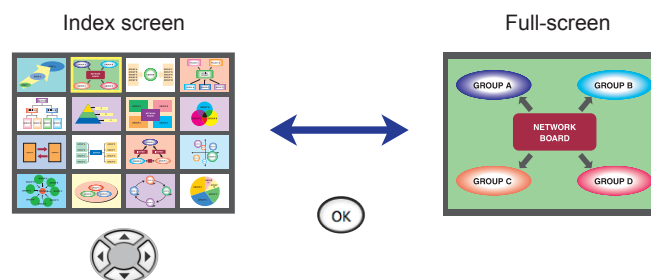
- **Releasing the 16-screen index style**
    To release the 16-screen index style, select "Full screen style" from "Choose live style", and click [Apply].

✎ **Memo** ✎
- When other computers are projecting images in the 16-screen index style, these images can be projected only onto an unused index screen (sub screen).
- The menus on the projector side and the remote control (page 50) can also be used to switch between the full-screen display and index screen display.
- Some projector models have ▲▼ (page) buttons on their remote controls, but these buttons cannot be used to operate the target index screen (yellow frame).
   ☞ Operating Instructions for the projector

49

Multi live mode (cont.)

■ Setting the sender's names

The names of the senders can be displayed on the images projected in the multi live mode.

1 **Check "Project the name on the screen" on the <Multi Live> screen.**

2 **Input the name of the sender, and click [Apply].**
● Input up to eight half-size alphanumerics.
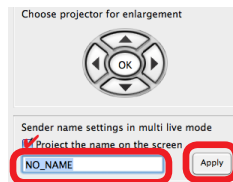
> **Memo** ✎
> ● When the 4-screen index style or 16-screen index style is used, the sender's name will be displayed even if the "Project the name on the screen" check has been removed.

Remote control

Remote Control or Browser Remote Control can be displayed on the computer screen to control projectors.

Browser Remote Control lets you control projectors using various buttons that are displayed on the computer's web browser. The buttons displayed vary depending on the model of the communicating projector.
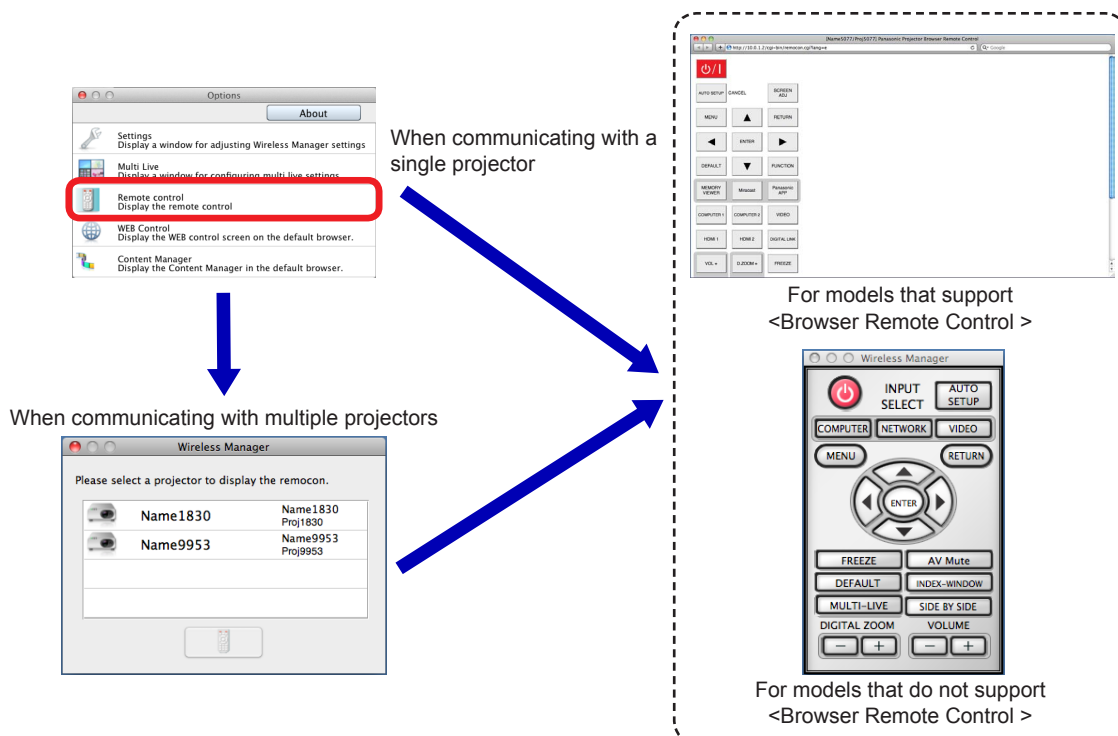
When communicating with a single projector

For models that support
<Browser Remote Control >

When communicating with multiple projectors

For models that do not support
<Browser Remote Control >

> **Memo** ✎
> ● Remote control is only possible when communicating with a projector.
>   The status of communication with the projector is indicated by an icon in the "Launcher" (page 35).
> ● To control multiple projectors, select each projector and control them individually.
> ● "Browser Remote Control" can only be displayed for projectors that support it. For details on supported models, refer to "List of Compatible Projector Models" on the Panasonic website (http://panasonic.net/avc/projector/).
> ● When controlling projectors that do not support browser remote control, some buttons may not be usable.

Optional Functions

WEB control

The projectors can be controlled using the computer's web browser.
☞ Operating instructions of projectors or Network Operations
● If communication with multiple projectors is underway, select the projector to be operated, and click [WEB Control].
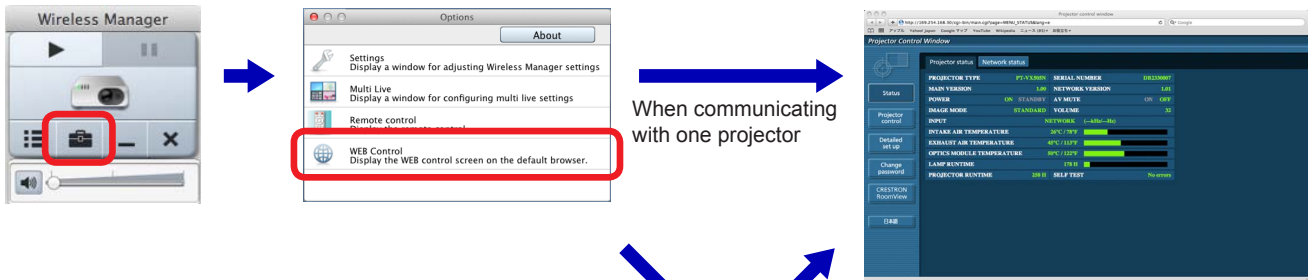
When communicating with one projector
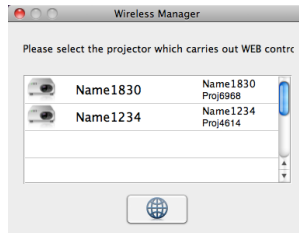
When communicating with multiple projectors

⚠ **Memo** ⚠
● Remote control is only possible when communicating with a projector.
  The status of communication with the projector is indicated by an icon in the "Launcher" (page 35).
● Depending on the types of the projectors with which communication is underway, the information displayed in the web browser may differ.

Content Manager

You can display Content Manager using your computer's web browser.
☞ Operating Instructions for the projector
● When communicating with multiple projectors, select the projector for which to display Content Manager, and click [Content Manager].

When communicating with one projector

When communicating with multiple projectors
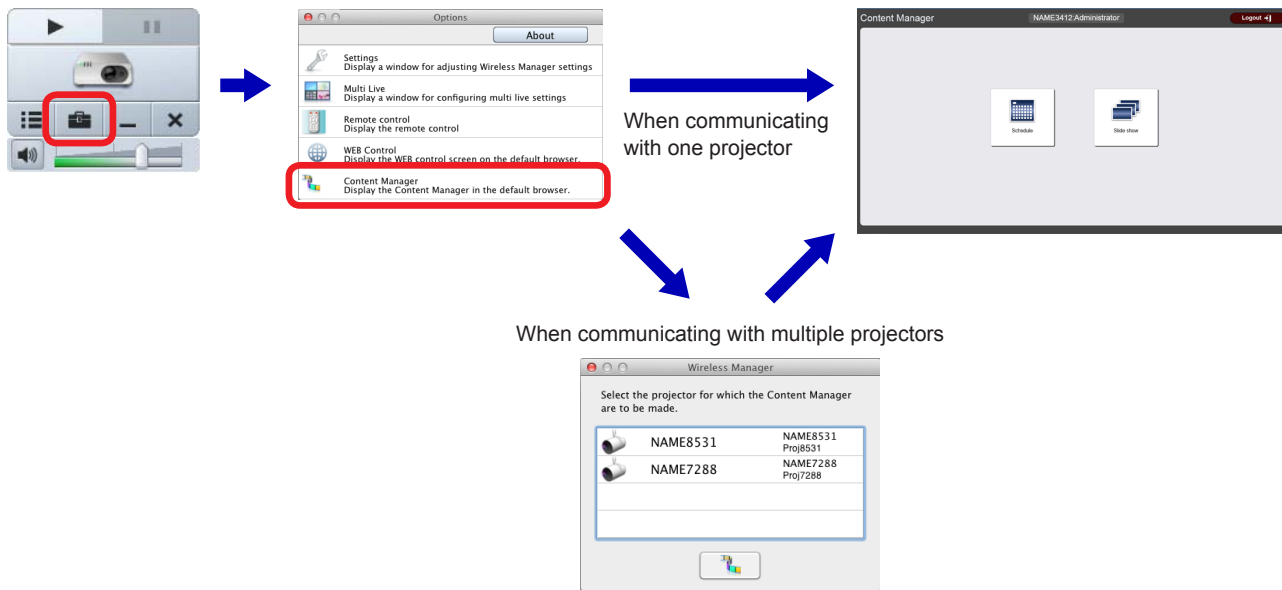
✎ Memo ✎
● [Content Manager] will only appear in the options screen when communicating with a projector equipped with Content Manager.
● Depending on the model of the projector with which you are communicating, the supported web browsers and the content displayed in the web browsers may differ.
☞ Operating Instructions for the projector

Version information

The version information of the software can be displayed.

Optional Functions

Glossary

Word	Explanation
Access point	This is a device which serves as a transmitter and receiver of radio signals when a computer and network are connected using a wireless LAN. When a computer is connected to an access point, it can communicate through the network connected to the access point.
Account User account	This refers to the registered name used to identify the individual (user) who uses the computer, and it may be "administrator" or "standard user". It may not be possible for a standard user to use some functions or software applications.
Account with administrator privileges	This account enables changes affecting other users to be made.
AD HOC	This is the mode in which computers communicate with each other directly, rather than via access points.
AES	Abbreviation for "Advanced Encryption Standard". The standard prevents the decryption of the encryption keys by continually changing the keys even during communication for greater security. Since the hardware performs the encryption processing, the access point must also support AES. Next generation standard cryptography standardized by the National Institute of Standards and Technology (NIST).
Default Gateway	The devices that are used for different network standards from yours. Default Gateway enables a connection with other network, by adjusting bilateral differences such as communication protocols. If no gateway is specified for the IP address of access destination, data will be sent to the host set as the default gateway.
DHCP	Abbreviation for "Dynamic Host Configuration Protocol". This function automatically assigns IP addresses to the connected equipment. If a device with the DHCP server function is present within a LAN, it automatically assigns IP addresses to the connected equipment.
Encryption	This refers to converting data into a form which is not understandable to other people. Decisions are made in advance on the rules (algorithms) and keys (network keys) for converting the data between the sender and receiver, and the data converted (encrypted) by the sender is restored to its original form (decrypted) by the receiver. Important exchanges can be made without their being read by other parties.
Firewall	This is a security system designed to protect computers from unauthorized access via a network (such as the internet). Unauthorized access is prevented by restricting the data exchanged between the network and computer, and allowing only authorized data to pass through to the computer.
Hub	This device brings together cables of the same type in order to relay information. USB hubs and network hubs are examples.
Infrastructure Mode	In this mode, communication passes through an access point.
IP address	Internet Protocol (IP) is a protocol for distributing data, and the address corresponding to the data distribution destination is called the IP address. The same IP address cannot be used within the same LAN.
LAN	Abbreviation for "Local Area Network". This is a network with a relatively narrow range such as inside a company.
Login	This action establishes the status in which a network or computer system can be accessed. It is also called 'logon'.

Appendices

Glossary (cont.)

Word	Explanation
MAC address	This is the intrinsic ID number that is allocated to each network adapter. Every network adapter in the world is given its own number, and it is based on this number that data is sent and received between adapters. This address is expressed by combining an intrinsic number controlled and allocated by IEEE to each manufacturer with a number which the manufacturer allocates to each of its adapters.
MPEG	This refers to a group of technology standards aimed at efficiently compressing digital moving images. One such standard is MPEG2 which has an excellent image quality and is used for DVD-Video and other video formats. Another standard is MPEG1 which has a lower compression rate than MPEG2, and is used by video CDs. Yet another standard is MPEG4 for distributing images with a low image quality and high compression rate over telephone lines and other lines with a low communication speed.
Open System/OPEN	This is an authentication of wireless signals employing a public key encryption system.
Protocol	This is a common convention or rule required for data communication between computers. In order to enable data exchanges between different computers, it is necessary to have at both ends the same convention or rule governing such aspects as the timing at which the data is sent and received, and the format used for information which is to be sent and received. For instance, many different kinds of software communicate data over the internet using a protocol called TCP/IP (Transmission Control Protocol/Internet Protocol).
Router	This device serves as a relay between different networks, and it establishes a connection between them. When data is transferred over a network, it must select the appropriate transfer path from among a multiple number of networks.
SSID	Abbreviation for "Service Set ID". The SSID identification code must be set to distinguish equipment included in a wireless LAN that uses access points from equipment not included in that LAN. This may appear as the "ESSID" or the "network name" for wireless LAN adapters made by some manufacturers.
Subnetmask	This limits the range of the IP addresses assigned to computers in order to divide the network into a number of sections during TCP/IP connection. The value used to divide the network at this time is called the subnetmask.
WEP	Abbreviation for "Wired Equivalent Privacy". This is a method for encrypting communication data. The encryption key is created and notified only to the communicating user, so the communication data cannot be decrypted by a third party.
Wireless LAN	This is a network which uses signals to communicate wirelessly. It obviates the need for a LAN cable connection since the data is sent and received using a common wireless frequency. SSID or WEP can be used to ensure that the transfer of information remains secure.

Appendices

Frequently Asked Questions

■ No wireless connection can be made between my projector and my computer.

● **Has the software been started up?**
  This software must be started in the computer in order to enable wireless transmissions of images to the projector.
● **Have the correct network settings been established?**
  When selecting a projector whose wireless LAN connection setting is [USER1], [USER2], [USER3], or [M-DIRECT], check whether the correct network settings hav e been established for the projector and for the computer.
● **When the firewall is [ON]**
  Stop the firewall, and then start this software.

■ When computer has no administrator privileges.

If there are no administrator privileges, the administrator's name and password must be input.

■ The connection to the wireless LAN or wired LAN is lost.

If projection has been suspended or communication has been cut off, select the projector again on the projector list.
If it is still not possible to communicate with the projector, turn off the power of the projector, wait until the projector has cooled down (until the main unit's power monitor changes from orange to red), and then turn off the main unit's main power switch if it has one.
If it does not have one, disconnect the power cable.
Turn the power back on, and then select the projector again from the software.
(☞ Page 20)

■ Making a wireless LAN connection while using the internet.

● In a wireless LAN environment which enables connection to the internet, it may be possible both to connect to the internet and use the wireless LAN communication with the projector by incorporating the projector in the wireless LAN environment.
  (☞ Page 24)
● If you have a wired internet connection, this projector allows wireless use simultaneously with a wired connection to the internet.

■ The connection cannot be established with IEEE802.11g / IEEE802.11n.

● In environments with wireless LAN adapters that support both IEEE802.11b and IEEE802.11g, the connection may be established via IEEE802.11b.
● In some operating environments, the connection may be established via IEEE802.11b, depending on the location, radio signal conditions, distance, or other factors.
● Some wireless LAN adapters only support AD HOC connections via IEEE802.11b.
● IEEE802.11n can be used only when the [SIMPLE], [S-DIRECT], [M-DIRECT], wireless module (Part No.: ET-WM200) and infrastructure connection (with access point for 802.11n) are used.
  The [SIMPLE], [S-DIRECT], [M-DIRECT] and wireless module can be used on only a certain models of the projectors. For details on supported functions, refer to "List of Compatible Projector Models" on the Panasonic website (http://panasonic.net/avc/projector/). Alternatively, if you have the CD-ROM of this software that was supplied with the projector, refer to "List of Compatible Projector Models" in the CD-ROM's application launcher.

■ The transfer rate is slow.

● The transfer rate may be slower in some operating environments (depending on such factors as the location, radio signal conditions or distance).
● Avoid placing metal objects or other conductors near the wireless LAN antenna of a computer, otherwise the transfer rate may be slower.

Appendices

Frequently Asked Questions (cont.)

■ Projection start fails.

When a computer is equipped with graphics automatic switch function, projection start may fail if "graphics automatic switch" of "energy saving" in "system environment settings" is enabled.
If projection start fails, then use after disabling this function.

■ Image display is slow or animation is not displayed smoothly.

- Is the computer CPU speed slow?
  (☞ Page 9)
  Displaying images and playing animations depend to a large extent on the performance of the computer's CPU.
- Adverse effects may be exerted if there is any wireless communication in the vicinity.
- If ⛃ [Option] on the launcher → [Settings] → "Project at high picture quality (affects performance)" is selected, the screen display speed may become slower.
  (☞ Page 44)
- The speed may be slower when any other applications are running concurrently.

■ Contents of DVD, MPEG2 or Blu-ray Disc cannot be played on computer.

- The following restrictions apply when the software is running.
  • DVD, MPEG2 and Blu-ray disc moving images cannot be played.
  • If a 3D type of application is used, problems may arise. For instance, the performance of the application may be reduced or images may not be displayed.

- Exit the software, and try using the software with a computer cable or HDMI cable connected.
  (Depending on the player used to play the moving images, it may not be possible to play them.)

■ There is a time lag between operations at the computer and results in the projected image.

- This software reads the screen, compresses the data and transmits it to the projector. In the projector, the received data are extracted and then projected. Some delays occur in this system, due to the processing time and factors in the wireless environment. Different computers may also produce varying lag times.

■ I can't change the live style.

- Select ⛃ [Option] on the launcher → [Multi Live] → select the live style using "Choose live style", and click [Apply]. The style is switched.
  (☞ Page 46)
- When you click [Multi Live] on the remote control, the style is switched.
  (☞ Page 50)
- It is possible to switch by selecting "MULTI-LIVE" from the "Network" menu of the projector, and then pressing the <ENTER> button.
- It is not possible to switch the style while images are displayed using Full Screen.
  First stop projecting the images, and then change the live style.

Appendices

56

Frequently Asked Questions (cont.)

■ No sound of the computer is heard from the projector during projection.

- After installing this software, always reboot the system.
- Neither can it be used when communicating simultaneously with multiple projectors.
- Sound is not output if the driver has been uninstalled.
- If sound is not output from the internal speakers after you quit this software, make sure that [Internal Speakers] is selected in [Output] of [Sound] in [System Preferences].
  If it is not selected, manually switch to [Internal Speakers].

■ The software's colors are not displayed properly and the characters are hard to read.

- Check the [Colors] setting on the [Display] tab in [System Preferences].
  Set [Colors] to "approx. 32000 Colors" or higher.
  Images cannot be projected at the [256 colors] setting.

■ I cannot lower the display brightness.

- **Is a checkmark placed in the "Disable screen saver during projection" checkbox?**
  Select ▣ [Option] on the launcher → [Settings], and if a check mark has been entered for "Disable screen saver during projection", the brightness of the built-in display will not be lowered.
  (☞ Page 44)

■ The projector does not turn on when projecting from a searched projector.

- If the [STANDBY MODE] setting is set to [NORMAL] on a PT-VW345N, PT-VX415N, or other projector, that projector may not turn on during projection.
  Perform the following in such cases.
- For PT-VW345N and PT-VX415N projectors
  Turn on the projector, and change the [MENU] → [PROJECTOR SETUP] → [ECO MANAGEMENT] → [STANDBY MODE] setting from [NETWORK] to [NORMAL].
- For other projectors
  Turn on the projector, and change the [ECO MANAGEMENT] → [STANDBY MODE] setting in the menu from [ECO] or [NETWORK] to [NORMAL].

■ The wireless LAN connection setting, projector name, and network ID do not appear on the projector.
■ The projector cannot be searched.

- When using a PT-VZ575N, PT-VW535N, PT-VX605N, PT-VW345N, PT-VX415N, PT-VW355N, or PT-VX425N projector, the wireless LAN connection setting, projector name, and network ID may not appear or may not be found, depending on the settings. Perform the following in such cases.
  If [MENU] → [NETWORK] → [CONNECTION LOCK] is set to [OFF]: Press the <Panasonic APP> button on the remote control (or the input selection button on the projector) to change the input to [Panasonic APPLICATION].
  If [MENU] → [NETWORK] → [CONNECTION LOCK] is set to [MEMORY VIEWER], [Miracast(TM)] or [MIRRORING]
 : Set [CONNECTION LOCK] to [Panasonic APPLICATION].

Appendices

Frequently Asked Questions (cont.)

■ The projected image stops in Mac OS X v10.9/v10.10.

When the Wireless Manager window becomes inactive (i.e., the window is minimized or hidden behind another window) in Mac OS X v10.9/v10.10, the projected image may stop due to the "App Nap" function of the OS. In such cases, perform the following to disable the App Nap setting of this software, and disable the App Nap function on the OS.

<Disabling the App Nap setting>
1. Quit the Wireless Manager software.
2. Display the information about this software.
   Select [Finder] - [Applications] - [Wireless Manager], and select [Get Info] from the right-click menu.
3. Disable the App Nap setting.
   Place a check mark next to [Prevent App Nap] in the information screen.
4. Close the information screen.
5. Start Wireless Manager.
   Click [Wireless Manager] in its installation location or in the Dock.
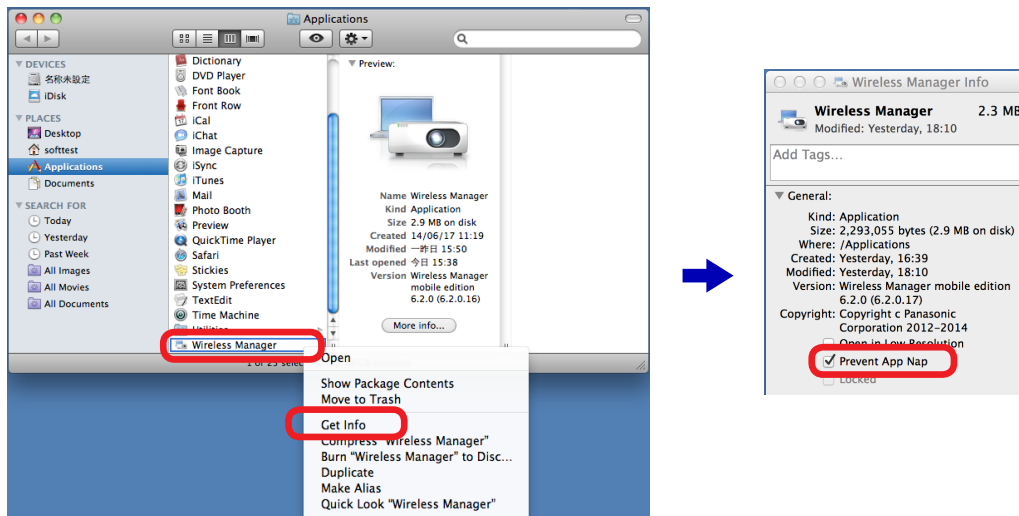
■ Projected video stops midway through when playing back video at full screen in Mac OS X v10.9/v10.10.

If you start projecting while playing back a video at full screen in Mac OS X v10.9/v10.10, the projected video may stop midway through.
In such cases, change the display size of the playback video.

Example: Changing the setting in QuickTime Player
If you are using QuickTime Player as your media player, select [View] → [Fit to Screen] in the menu bar.

✐ **Memo** ✐
● In addition to the information presented here, refer also to the FAQ (frequently asked questions) section in our website (http://panasonic.net/avc/projector/).

Trademarks

- Mac, Mac OS, OS X, QuickTime and App Nap are trademarks of Apple Inc.,registered in the U.S. and other countries.
- Intel, Intel Core2 Duo and Intel Core i5 are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and/or other countries.
- Miracast™ is trademark of the Wi-Fi Alliance.
- Other company names, product names or other names noted in this manual are trademarks or registered trademarks of the respective companies. Note that ® and TM marks are not indicated in the text of this manual.