Multi Projector Monitoring and Control Software

Setup and Operation Manual

June, 2008

Contents

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Request Regarding Security

When using this product, security breaches of the type described below are conceivable.
- Leakage of your private information via this product
- Illegal operation of this product by a malicious third-party
- Harm to or cessation of operation of this product by a malicious third-party

Be sure to implement sufficient security measures.
- Make sure the password is as hard to guess as possible.
- Change the password periodically.
- Matsushita Electric Industrial Co., Ltd. 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 Matsushita Electric Industrial Co., Ltd.
- Always use on a network that has safety protection such as a firewall implemented.
- Set passwords, and limit the users that are permitted login access.

Operating Environment

PC	OS	Windows 2000 SP4 or later
		Windows XP Home Edition / Professional SP2 or later
		Windows Vista Home Basic/Home Premium/Business/Ultimate/Enterprise or later
		* 64-bit Windows and Mac are not supported.
	Display resolution	1024 x 768 pixels or higher is recommended
	Other	Wired or wireless LAN connectivity
Projector	Applicable models	• PT-F100NT/FW100NT/F200NT * For network models only • PT-D5600/DW5000/D5700/DW5100/D4000/D3500 • PT-D7700/DW7000 * Optional network board ET-MD77 series required. • PT-D10000/DW10000/DZ12000/D12000

- Proper operation cannot be guaranteed if the above system requirements are not met or if a self-built computer is used.
- Proper operation cannot be guaranteed for all computers even if they satisfy the above requirements.

Function List

Connection/registration	Maximum number of registerable projectors: 1,024 units
Grouping	Categorizes projectors into groups using "groups" or "keywords." Group: Up to 1,024 units, hierarchical arrangement (tree view), drag-and-drop for "move" and "register" Keyword: Up to 1,024 units
Brief information display (monitoring function)	Displays a list of multiple projectors registered in a selected group/keyword. Projector name, status (power ON/Mute/Warning/Error: Icon indication), input terminal, input signal, model name, serial number
Detailed information display (monitoring function)	Displays detailed information of a selected projector in text format. Brief information display + lamp selection, lamp output, lamp status, operating/remaining time, intake/exhaust temperature, optical module temperature, module operating time, software version (main/NT), self-diagnosis results
Error display	Displays a list of projectors that generated warnings/errors. Projector name, group name, detection time, error status Error log storage The log of generated warnings/errors can be output to a file.
Control function	Executes a control command in multiple projectors in a group. Power ON/OFF, AV Mute ON/OFF, input channel switching
Scheduling function	Executes the above three types of control commands at a specified day and time Maximum number of scheduled operations: 100, repeated operation (day of week/every day + time) possible
Other	Opens Web Control screen.

Preparation

■ PC

Network Setup

- Set the IP address, subnet mask and gateway according to the operating environment. (Consult your network administrator.
- Turn off the proxy setting in the browser or register the IP addresses of the projectors to the proxy exceptions list.

■ Projectors

Network Setup

- Set the host name (projector name), IP address, subnet mask, and gateway. (Consult your network administrator.)

    Set DHCP to OFF and set a fixed IP address, making sure that the entered IP address is not used by any other device on the LAN.

    If the entered IP address is used by another device, the projector cannot be registered.

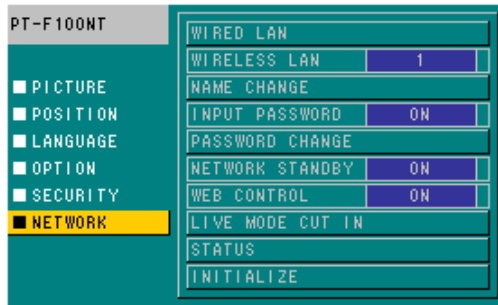   The host name set for the projector is displayed as the projector name on the software.

- Enable Web Control, Network Standby and PJLink Control.

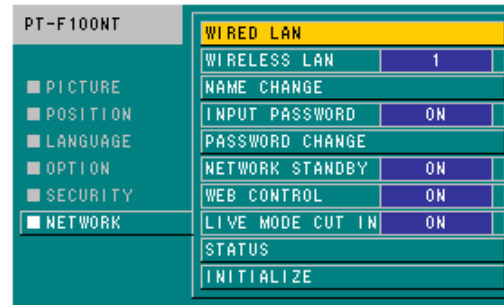   For models in which the Web port number can be set, set the port number to "80."

Others

- Disable Input Auto Search.

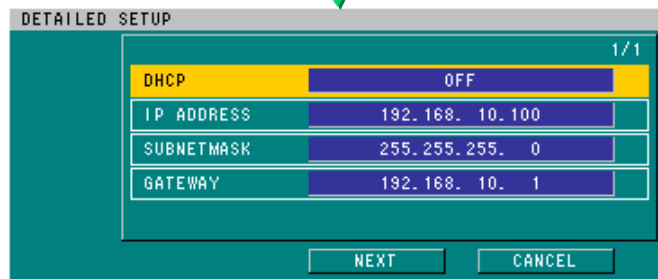# ■ Projector Network Setting Screen (F100NT, with wired LAN connection)

PT-F100NT	
■ PICTURE	WIRED LAN
■ POSITION	WIRELESS LAN 1
■ LANGUAGE	NAME CHANGE
■ OPTION	INPUT PASSWORD ON
■ SECURITY	PASSWORD CHANGE
■ NETWORK	NETWORK STANDBY ON
	WEB CONTROL ON
	LIVE MODE CUT IN
	STATUS
	INITIALIZE

Select **NETWORK.**

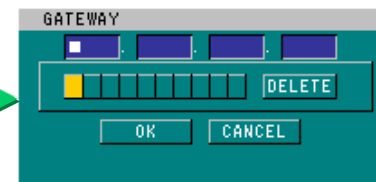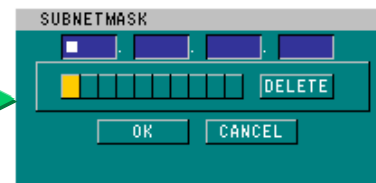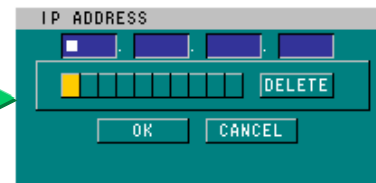| PT-F100NT	
■ PICTURE	WIRED LAN
■ POSITION	WIRELESS LAN 1
■ LANGUAGE	NAME CHANGE
■ OPTION	INPUT PASSWORD ON
■ SECURITY	PASSWORD CHANGE
■ NETWORK	NETWORK STANDBY ON
	WEB CONTROL ON
	LIVE MODE CUT IN ON
	STATUS
	INITIALIZE

1. Set **NETWORK STANDBY** to ON.
2. Set **WEB CONTROL** to ON.

The projector name can be changed by clicking **Name Change**.

Select **WIRED LAN**.

DETAILED SETUP
1/1

DHCP	OFF
IP ADDRESS	192.168. 10.100
SUBNETMASK	255.255.255. 0
GATEWAY	192.168. 10. 1

NEXT   CANCEL

Set **DHCP** to OFF.

IP ADDRESS
■ . . .
[ ] DELETE
OK   CANCEL

SUBNETMASK
■ . . .
[ ] DELETE
OK   CANCEL

GATEWAY
■ . . .
[ ] DELETE
OK   CANCEL

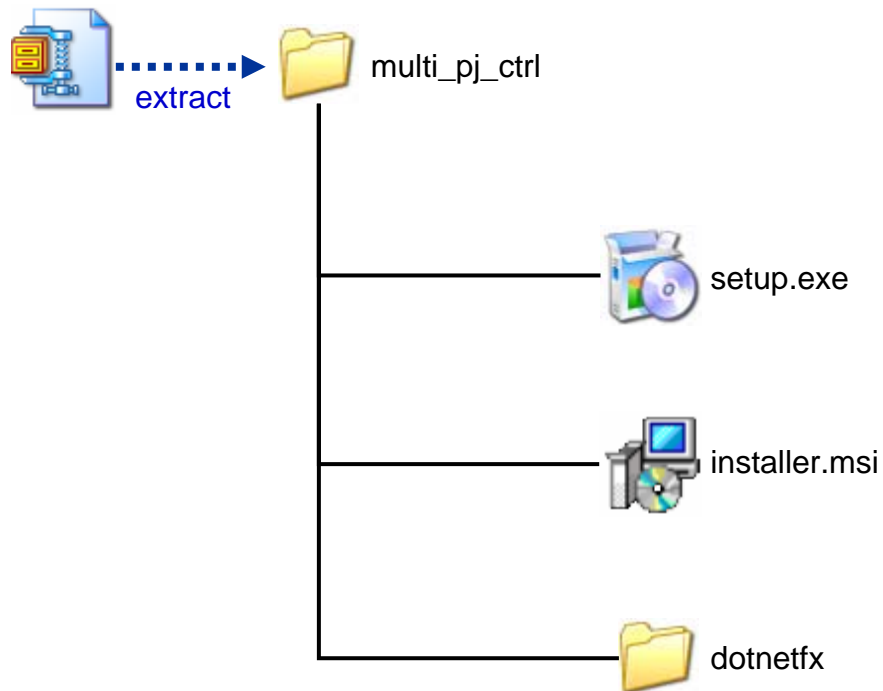Consult your network administrator for the IP address, subnet mask and gateway to enter.

After entering all of the settings, click **OK** to apply them.

Installation

- **Preparing Software**

  Contents of Installation Folder
  - The following shows the folder structure

extract → multi_pj_ctrl

- setup.exe
- installer.msi
- dotnetfx

■ Installation

Execute "setup.exe" in the folder of the desired language located in the main program folder to initiate the installation process.

- If the software is already installed, a screen for repair or uninstallation will appear.
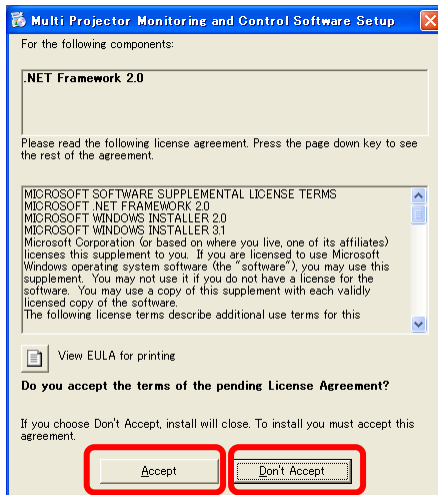
When the license agreement screen appears, select **I Agree**, and click **NEXT** or **OK** in all subsequent screens.

If Microsoft .NET Framework 2.0 is installed in the PC, an installer will automatically start up. In that case, install the program by following the instructions of the installer.

After the software is installed, the following shortcut icon appears on the desktop.

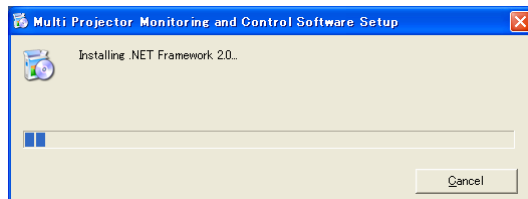# ■ Installation Screen (when .NET Framework 2.0 is not installed)

Click **Don't Accept**.

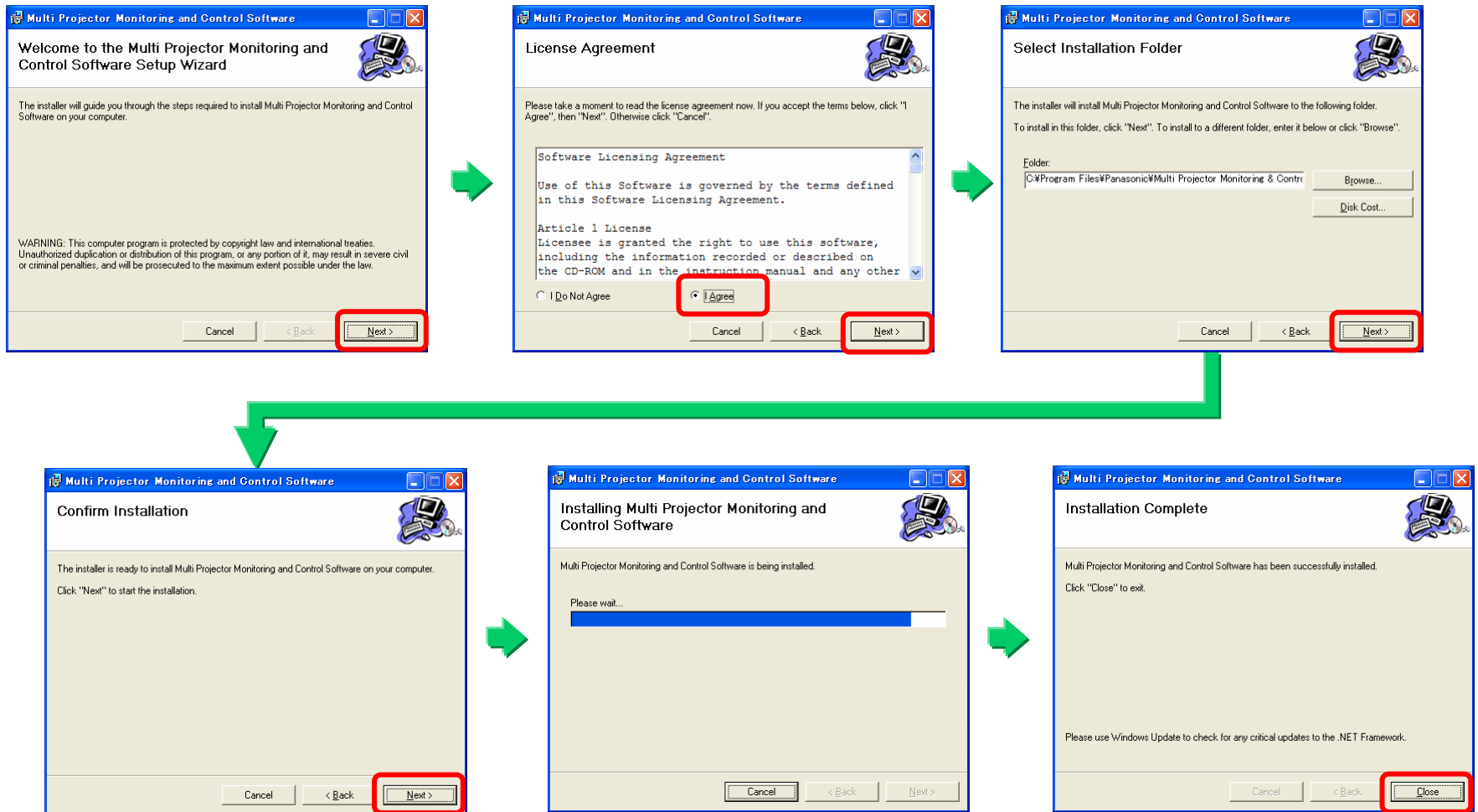Clicking **OK** cancels the installation process

Click **Accept**.

Installation of .NET Framework 2.0
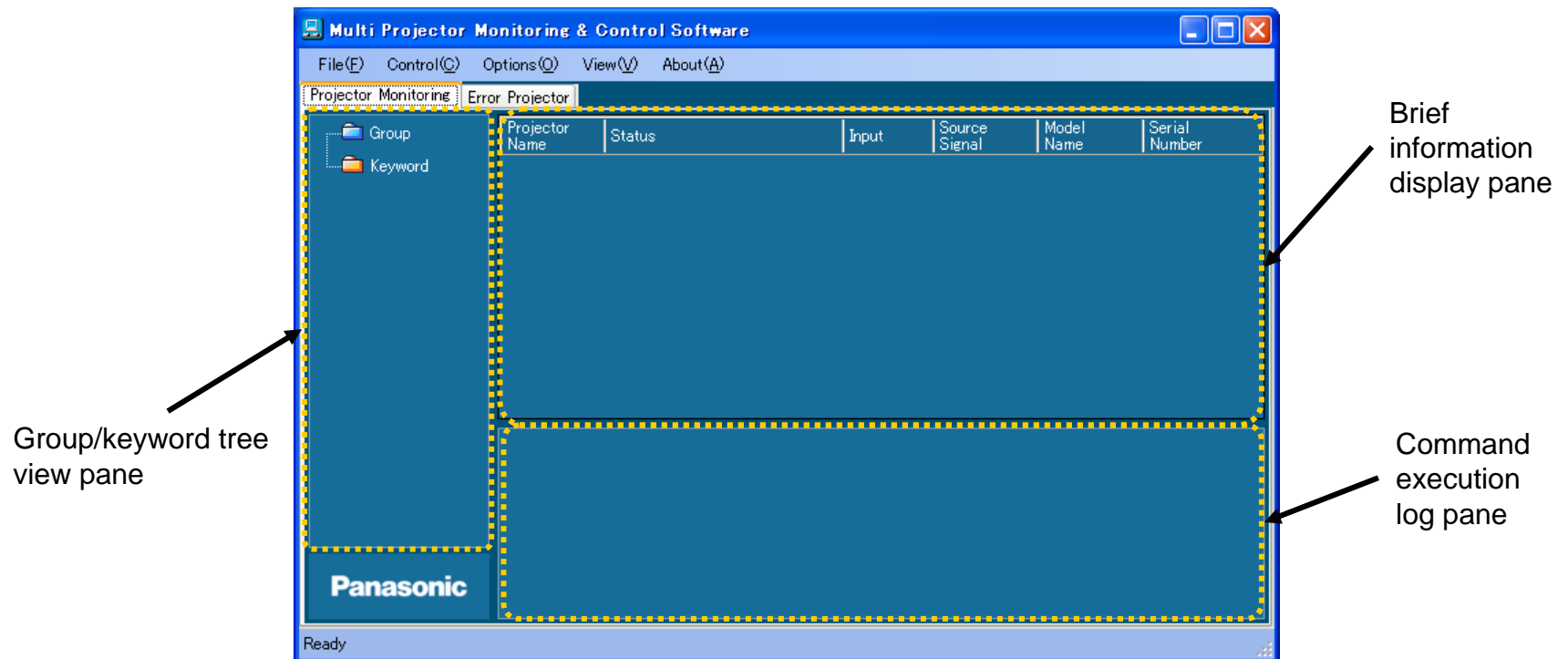
To the first screen shown on the next page

■ Installation Screen (when .NET Framework 2.0 is installed)
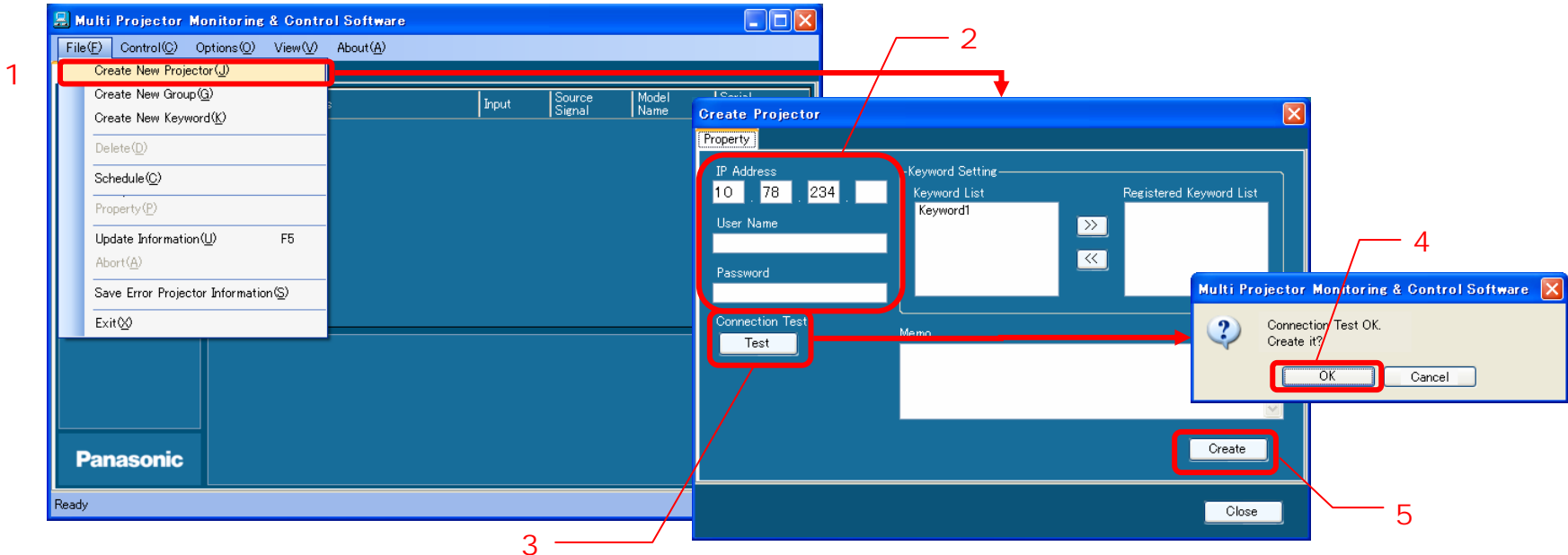
■ Confirming Program Startup

After the software is installed, double-click the shortcut icon on the desktop to make sure that the program starts up properly.

- **If the Japanese-version and/or Chinese-version program is installed in a PC running an OS other than the Japanese/Chinese version, screens may not appear properly.**

Group/keyword tree view pane

Brief information display pane

Command execution log pane

Operation Instructions (1)

■ Projector Registration

1. Select the desired group icon in the group/keyword tree view pane, and perform either (a) or (b).

   (a) On the menu bar, select **File** → **Create New Projector** (**1** in the above diagram).

   (b) Right-click the selected group icon, and select **Create New Projector** in the context menu.

2. Enter the IP address of the projector to connect to, user name and password (**2** in the above diagram).

3. Select **Test** (**3**) to conduct a connection test.

   → If the connection test does not end successfully, check the IP address, user name and password.

4. Click **OK** in the connection test success/registration confirmation dialog box (**4** in the above diagram).

   ⇒ A projector icon will be created in the group/keyword tree view pane.

   It is possible to register a projector without performing the connection test by clicking the **Create** button (**5** in the above diagram).
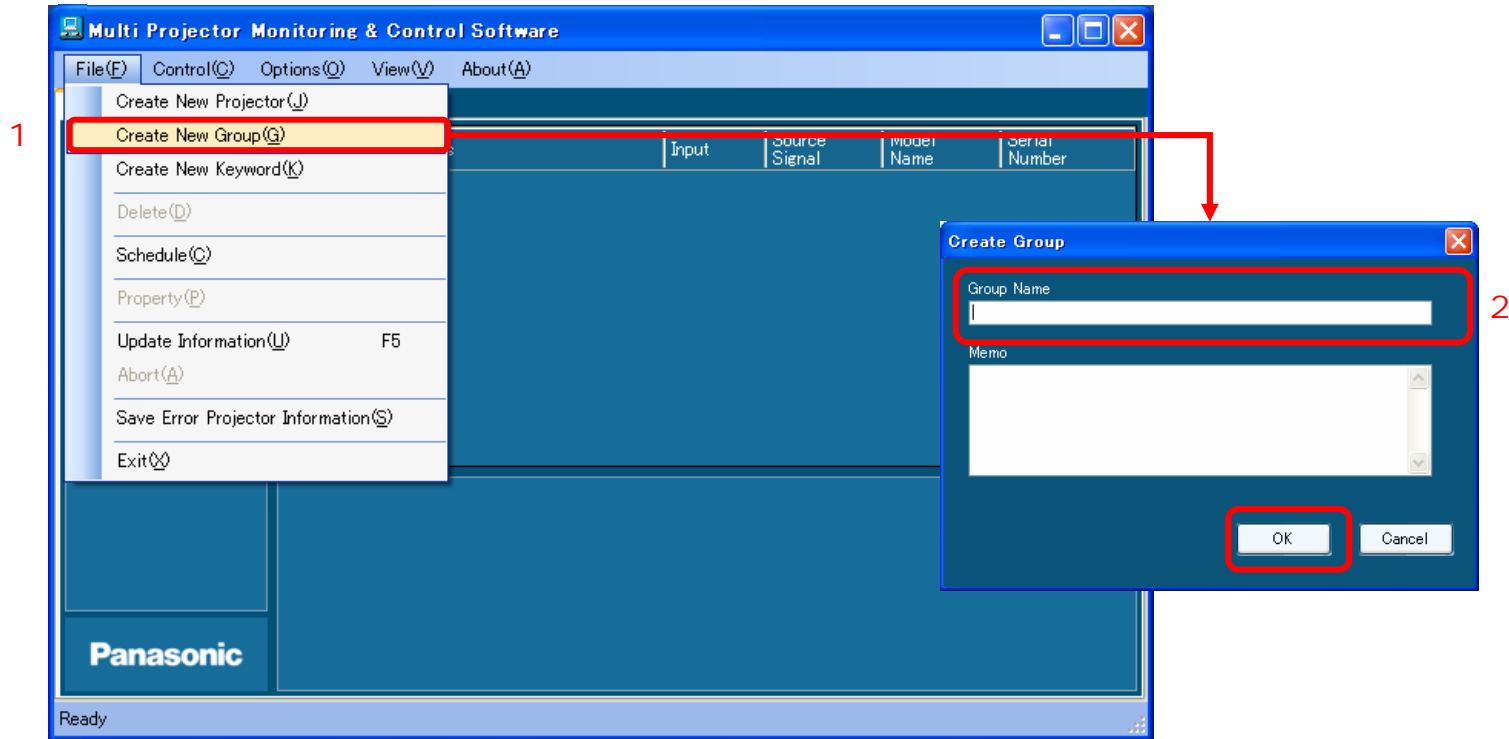
■ About User Name and Password

The default user name and password are shown in the table below.

If the password has been changed in the Web Control screen, enter the currently valid password.

Model number	User Name	Default Password
F100NT/FW100NT/F200NT	user1	None
D5600/DW5000/D5700/DW5100/D4000/D3500 D7700/DW7000 D10000/DW10000	user1	panasonic
DZ12000/D12000	admin1	panasonic

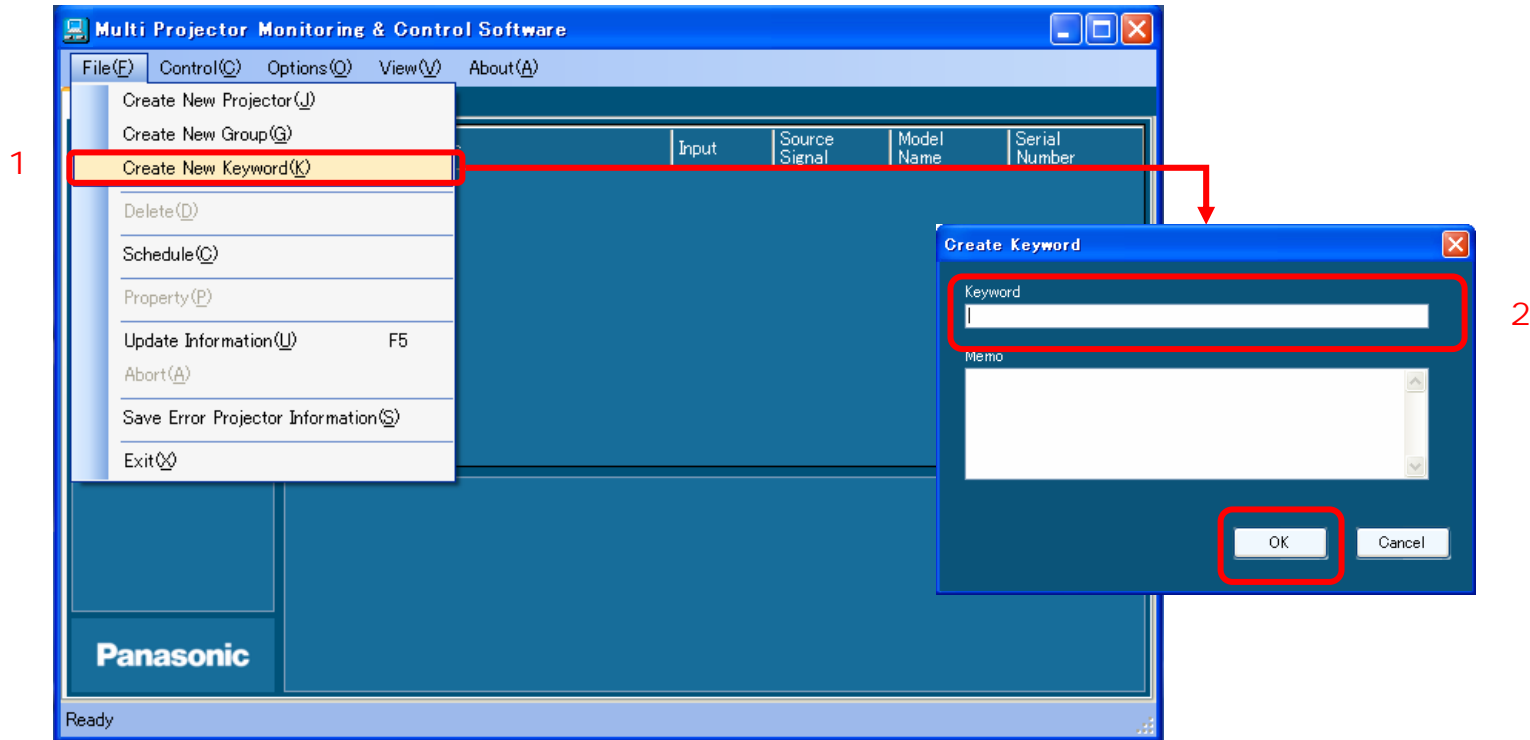# Operation Instructions (2)

■ Creating a Group

1. Select the desired group icon in the group/keyword tree view pane, and perform either (a) or (b).

   (a) On the menu bar, select **File → Create New Group** (**1** in the above diagram).

   (b) Right-click the selected group icon, and select **Create New Group** in the context menu.

2. Enter a new group name (max. 128 characters) in the **Group Name** text box (**2** in the above diagram), and click **OK**.

   (* A memo may be added, if desired.)

   ⇒ A new group icon will be created in the group/keyword tree view pane.

Operation Instructions (3)

■ Creating a Keyword

1. Select the desired group/projector/keyword icon in the group/keyword tree view pane, and select **File → Create** New Keyword (**1** in the above diagram) on the menu bar.
2. Enter a new keyword (max. 128 characters) in the **Keyword** text box (**2** in the above diagram), and click **OK**.
   (* A memo may be added, if desired.)
   ⇒ A new keyword icon will be created in the group/keyword tree view pane.

Operation Instructions (4)

- **Registering a Projector to a Group**

  A projector can be registered to a group or moved from one group to another by dragging the icon of the projector in the group/keyword tree view pane onto the icon of the destination group.
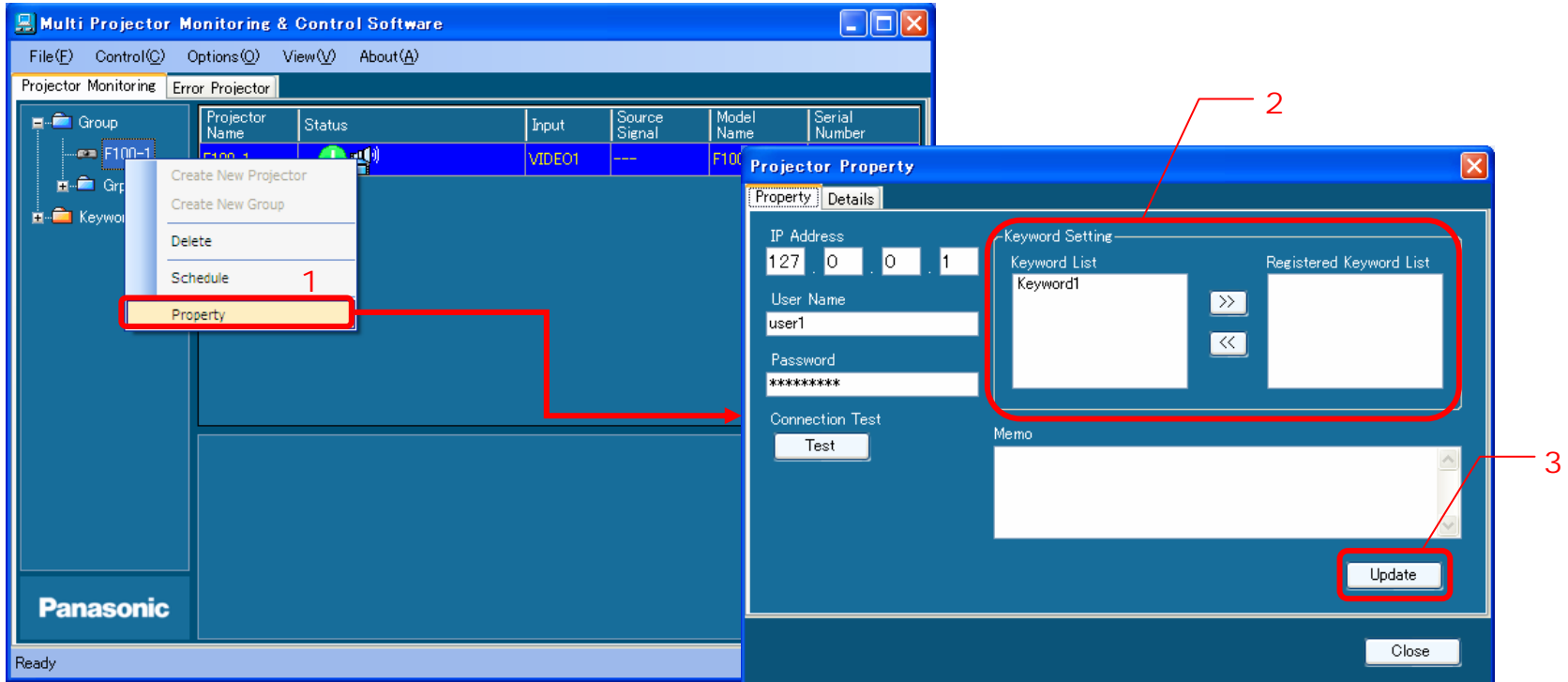
- **Relocation/Rearrangement of a Group in the Hierarchical Level**

  A group can be moved/rearranged in the hierarchical level by dragging the group icon onto another group in the group/keyword tree view pane.
  - The above operation also moves the groups and projectors belonging to that group.
  - The information of the operation schedules (described in a later section) for the relocated projectors and the group will also be moved together.
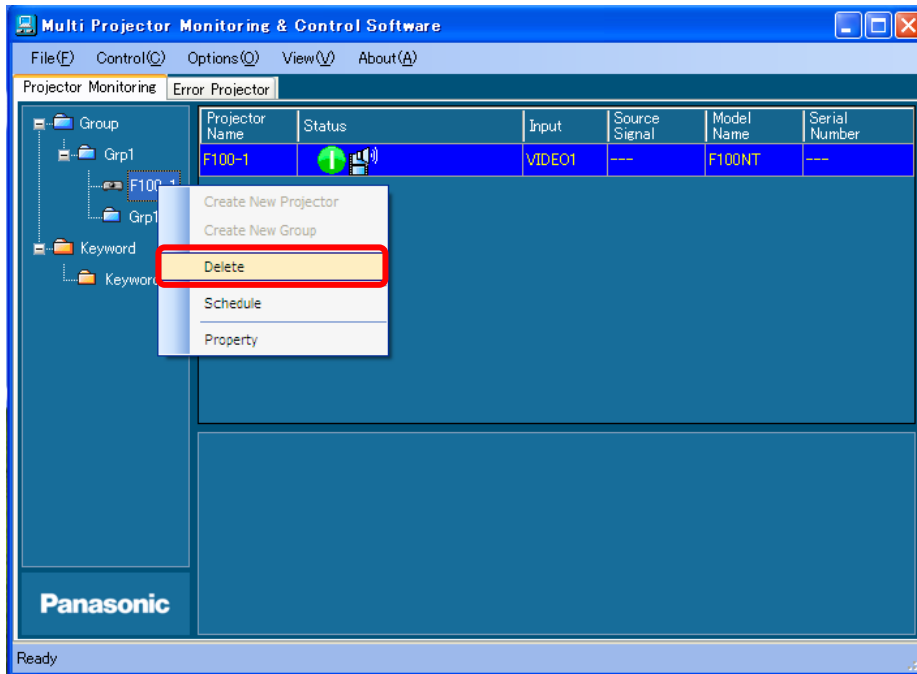
Operation Instructions (5)

■ Assigning a Keyword to a Projector

1. Select the desired projector icon in the group/keyword tree view pane, and perform either (a) or (b).
    (a) Right-click the selected projector icon, and select **Property** in the context menu (**1** in the above diagram).
    (b) Select **File → Property** on the menu bar.
2. Move the keyword to be assigned from **Keyword List** to **Registered Keyword List** by using the >> button (**2** in the above diagram).
3. Click **Update** (**3** in the above diagram) to assign the keyword.

* To cancel the keyword assignment, follow the above procedure in reverse.

■ Deleting a Registered Projector/Group/Keyword

Select the projector/group/keyword icon to be deleted in the group/keyword tree view pane, and perform either
(a) or (b).
(a) Select **File** → **Delete** on the menu bar (see the above diagram).
(b) Right-click the selected icon, and select **Delete** in the context menu.

When a confirmation dialog box appears, click **OK**.

* A group registered with projectors cannot be deleted. To delete such a group, delete the registered projectors or change the registered location of the projectors (move to another group) first.

Operation Instructions (6)

Brief Information Display (Monitoring Function)

Displayed information will be updated according to the settings.

- Information will be automatically updated every 10 minutes in the default setting.

Information is displayed by group or keyword.

Information that cannot be obtained is indicated by "---".

The display of the signal name and serial number is dependent on the model.
Signal name display is not supported by F100/FW100/F200, D3500, D5600/DW5000 or D7700/DW7000 models.
Serial number display is supported on models of the D12000 series and newer.

Displays the information of all projectors that belong to the selected group/keyword.

Projector Name | Status | Input | Source Signal | Model Name | Serial Number

Contents of Status Display

All-time display

- Power supply status
- AV Mute status

OR

- Not connected or information update failure
- Information acquisition failure

Displayed only when detected

- Lamp warning or error
- Temperature warning or error
- Filter warning or error
- Other warning or error

List of Status Icons

Not connected

Information update failure

Information acquisition failure

Power supply status

Power ON

Power OFF (Standby)

Cooling operation

Warm-up operation

AV mute status

AV Mute OFF

AV Mute ON

Warning/error

Lamp warning

Lamp error

Temperature warning

Temperature error

Filter warning
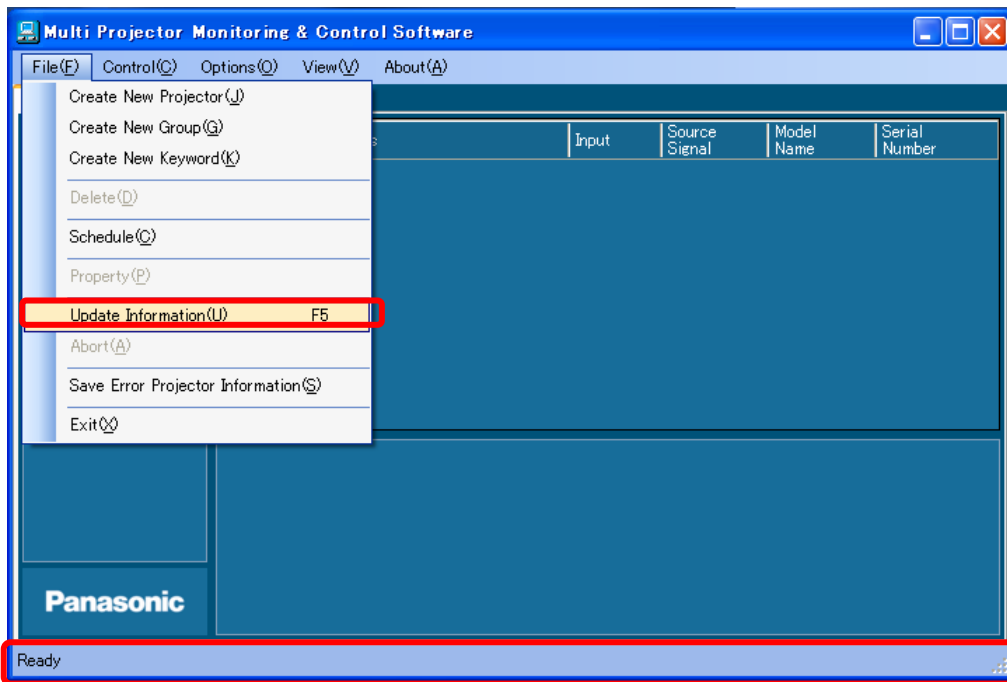
Filter error

Other warning

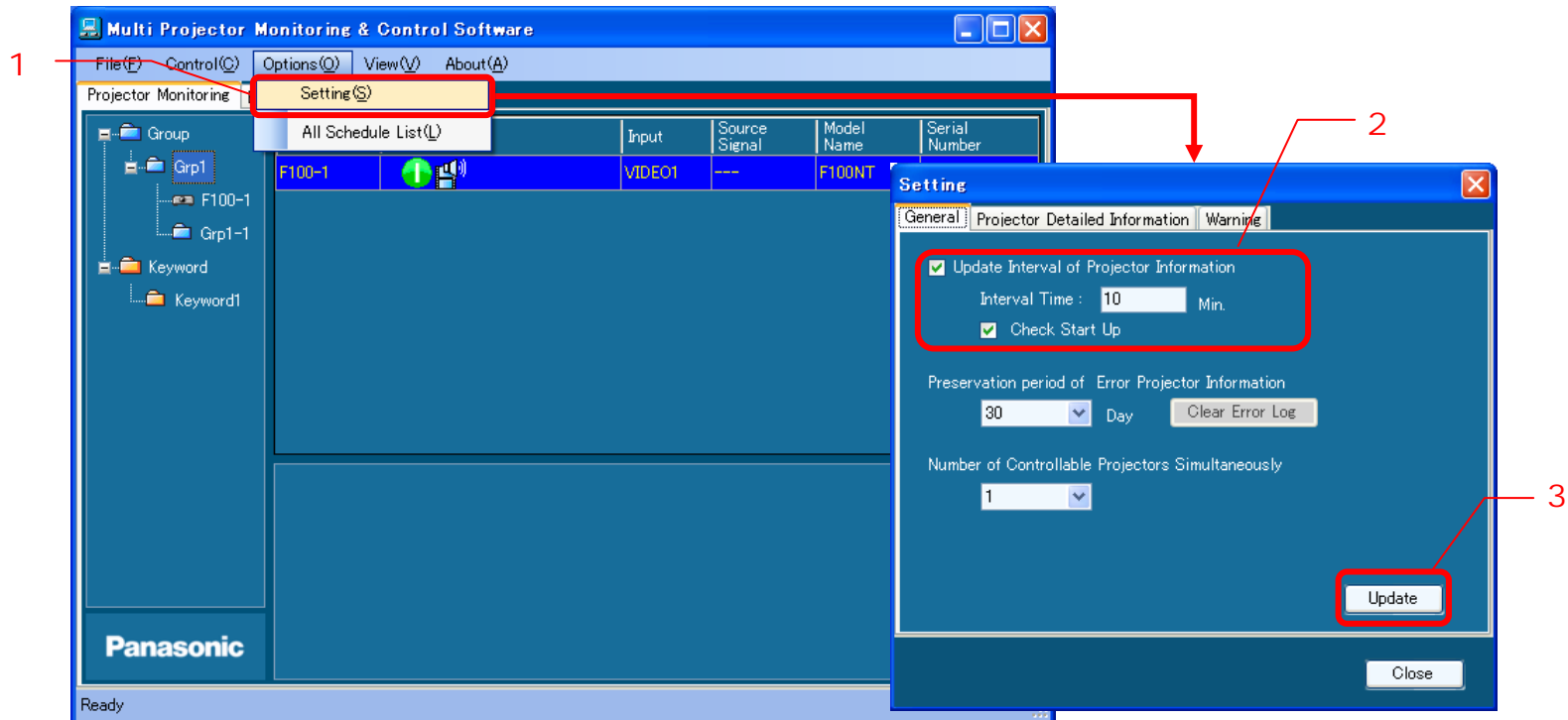Other error

(Fan error, cover open, etc.)

To display up-to-date information after the status of a projector has changed due to operations performed with a remote control or control panel, perform either (a) or (b) below.

(a) Press the F5 button on the keyboard.
(b) Select **File** → **Update Information** on the menu bar (**1** in the diagram below).

The indication on the status bar (**2** in the left diagram) changes from **Ready** to **Updating Projector Information** and a progress bar appears on the right side. When the status bar indicates **Ready** again, the displayed information has been updated.
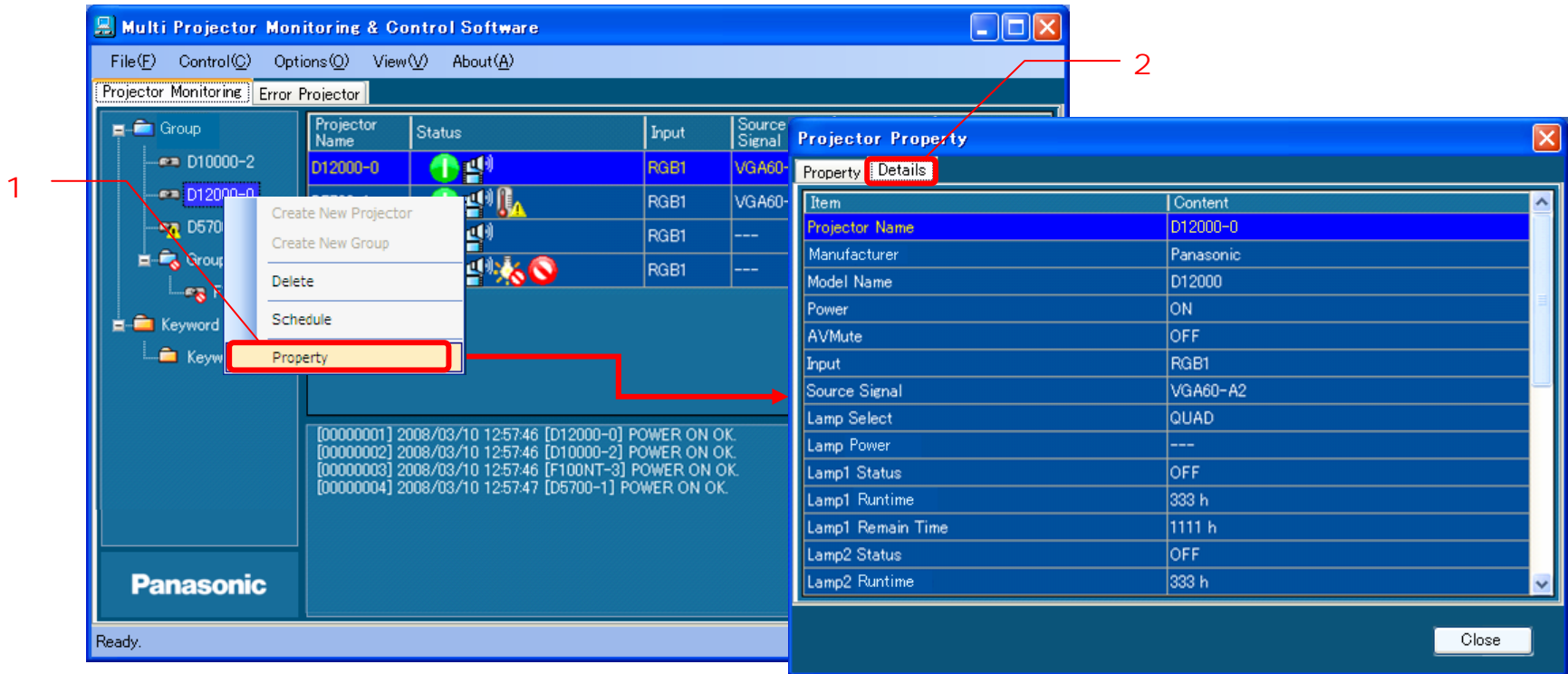
1

2

Information Acquisition Interval Setting Change

1. Select **Options** → **Setting** on the menu bar (**1** in the above diagram).
2. Select the **General** tab, and enter the desired time (unit: minutes) in the **Interval Time** text box (**2** in the above diagram).The setting range is from 1 to 9,999 minutes, in 1-minute steps.
   * If the **Update Interval** of **Projector Information** checkbox is not selected, information will not be updated automatically.
   * If the **Check Start Up** checkbox is selected, information will be updated at each startup of the software.
3. Click **Update** to apply the new settings (**3** in the above diagram).

Operation Instructions (7)

■ Detailed Information Display (Monitoring Function)

1. Select the desired projector icon in the group/keyword tree view pane, and perform (a), (b) or (c).
    (a)   Right-click the selected projector icon, and select **Property** in the context menu (**1** in the above diagram).
    (b)   Select **File → Property** on the menu bar.
    (c)   Right-click the projector in the brief information display pane, and select **Property** in the context menu.
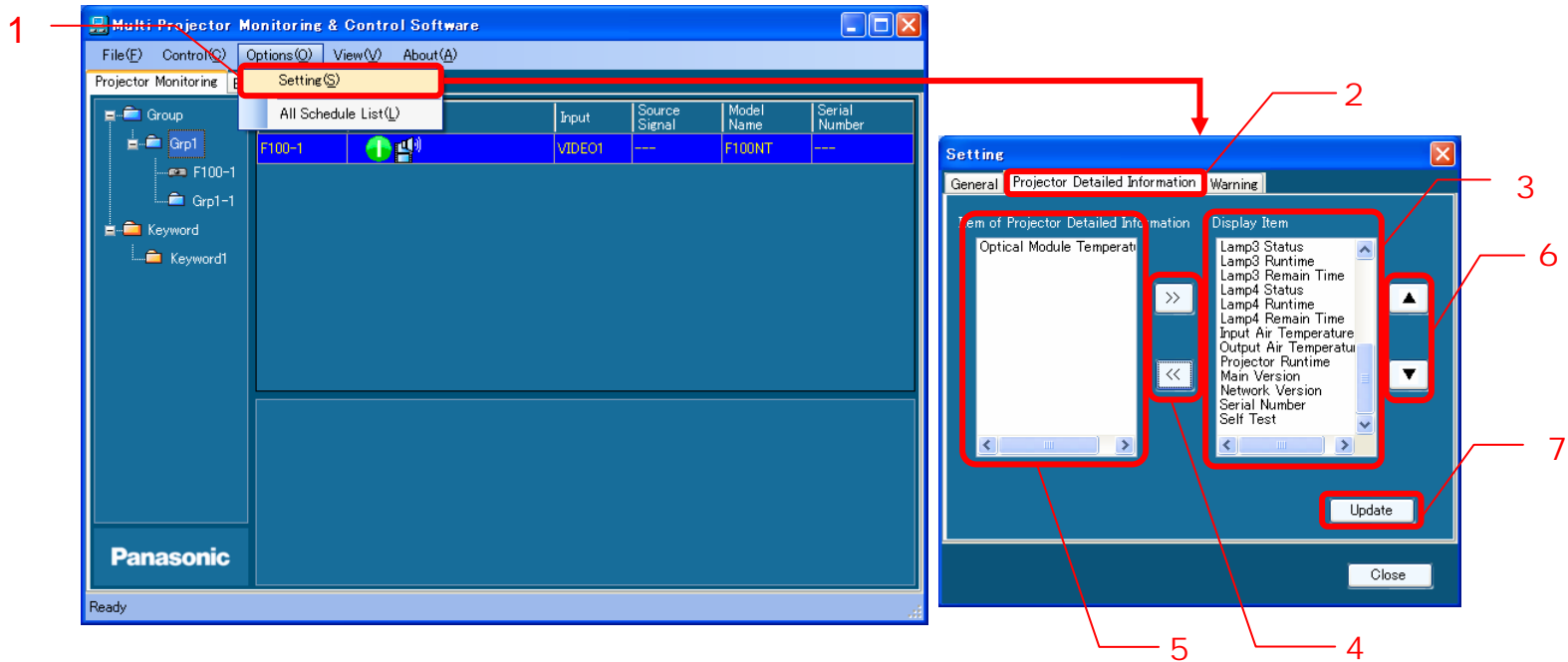2. Select the **Details** tab (**2** in the above diagram) in the displayed window.

    Only when step (a) or (b) described in step 1 above is performed.
3. Information that could not be obtained is indicated with "---".

Items Indicated in Detailed Information Display

- The detailed information display shows the information listed in the table below.

Item	Description	Item	Description
Projector Name	Projector name	Lamp 3 Status	Lamp 3 status
Manufacturer	Manufacturer's name	Lamp 3 Runtime	Lamp 3 operating time
Model Name	Model name	Lamp 3 Remain Time	Lamp 3 remaining time
Power	Power supply status	Lamp 4 Status	Lamp 4 status
AV Mute	AV Mute status	Lamp 4 Runtime	Lamp 4 operating time
Input	Input channel	Lamp 4 Remain Time	Lamp 4 remaining time
Source Signal	Input signal	Input Air Temperature	Intake temperature
Lamp Select	Lamp selection	Output Air Temperature	Exhaust temperature
Lamp Power	Lamp output	Optical Module Temperature	Optical module temperature
Lamp 1 Status	Lamp 1 status	Projector Runtime	Projector operating time
Lamp 1 Runtime	Lamp 1 operating time	Main Version	Main microcomputer software version
Lamp 1 Remain Time	Lamp 1 remaining time	Network Version	Network microcomputer software version
Lamp 2 Status	Lamp 2 status	Serial Number	Serial number
Lamp 2 Runtime	Lamp 2 operating time	Self Test	Self-diagnosis results
Lamp 2 Remain Time	Lamp 2 remaining time		

■ Addition/Deletion of Items to/from Detailed Information Display and Change of Display Sequence

1. Select **Options** → **Setting** on the menu bar (**1** in the above diagram).
2. Select the **Projector Detailed Information** tab (**2** in the above diagram) in the **Setting** window.
   i. Select an item in the **Display Item** list (**3** in the above diagram), and move it to the **Item of Projector Detailed Information** list (**5** in the above diagram) by using the << button (bottom button in **4** in the above diagram) to delete it from the detailed information display. Select an item in the **Item of Projector Detailed Information** list, and move it to the **Display Item** list by using the >> button (top button in **4** in the above diagram) to add it to the detailed information display.
   ii. Select an item in the **Display Item** list, and move it up or down by using the "▲" or "▼" button (**6** in the above diagram) to change the display sequence in the detailed information display.
3. Click **Update** (**7** in the above diagram) to apply the setting change.

Operation Instructions (8)

■ Error Display (Monitoring Function)

Multi Projector Monitoring & Control Software

File(F) Control(C) Options(O) View(V) About(A)

Projector Monitoring | Error Projector

	Projector Name	Status	Input	Source Signal	Model Name	Serial Number
Group	D12000-0		RGB1			
D10000-2	D5700-1		RGB1			
D12000-0	D10000-2		RGB1			
D5700-1	F100NT-3		RGB1			
Group2						
F100NT-3						
Keyword						
Keyword1						

Multi Projector Monitoring & Control Software

File(F) Control(C) Options(O) View(V) About(A)

Projector Monitoring | Error Projector

Error Projector Name	Group	Checked Time	Error Status
D10000-2	Group	2008/03/10 12:50:04	
D5700-1	Group	2008/03/10 12:50:04	
F100NT-3	Group	2008/03/10 12:50:04	

Ready.

As soon as a warning or error is generated, the pertinent icon changes.
* When a warning and an error occur simultaneously, they are indicated as an error. The icon of the group to which the warning/error generating projector belongs also changes.

Panasonic

Projector/group icon

Warning generation: ⚠ appears at the lower right of the icon.

Error generation: 🚫 appears at the lower right of the icon.

* Keyword icons will not change.

When icons indicating a warning or error are shown, select the Error Projector tab.
⇒ The display changes to a screen that shows a list of all projectors that have generated a warning or error.
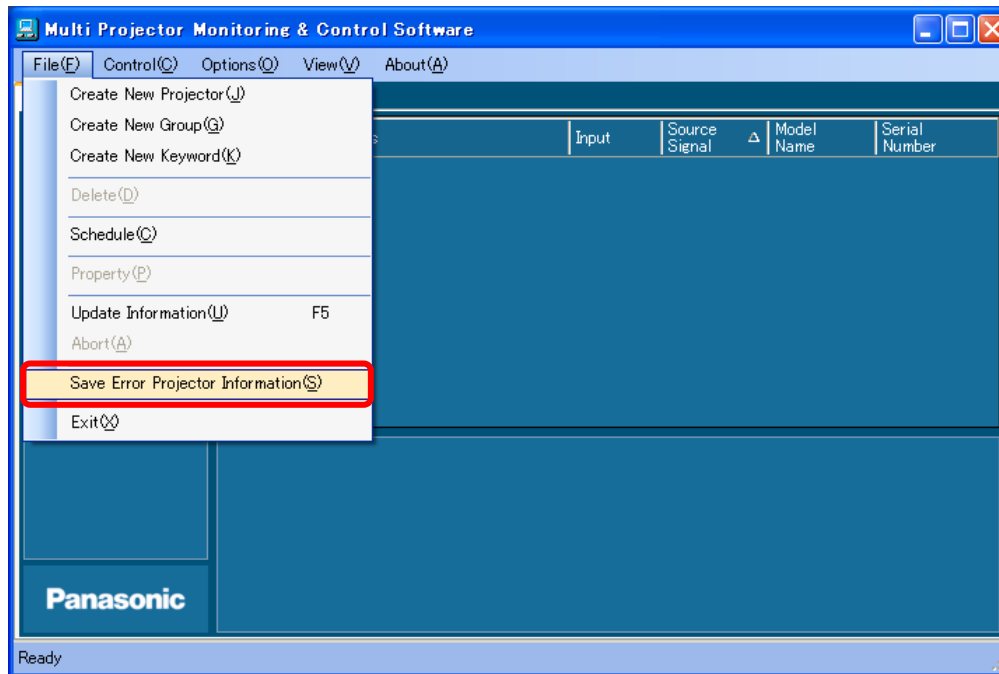
Warning/Error Generating Conditions

- When a warning or error is detected, the projector unit will be set to the following status.

Detected warning/error	Projector status
Temperature warning	Intake temperature, exhaust temperature or optical module temperature is high. Optical module temperature is low.
Temperature error	Intake temperature, exhaust temperature or optical module temperature is high. Optical module temperature remained low for a certain time duration. Intake temperature, exhaust temperature or optical module sensor is disconnected.
Lamp warning	Lamp replacement time has been reached.
Lamp error	Lamp replacement is overdue, lamp illumination failed, lamp is not installed, or lamp is malfunctioning.
Filter warning	Low remaining amount of ARF.
Filter error	Filter is clogged, ACR/ARF is not installed, filter winding failed, or there is no remaining ARF.
Other warning	—
Other error	Lamp unit cover remaining open, fan error, shutter error, aperture error, color wheel error, ACR/ARF not installed, filter cleaning process time-out, DC voltage error, lens shift error, internal clock battery replacement required, no response from internal IC, software version check error, microcomputer software error, microcomputer internal error, etc.

For further details, refer to the operation manual of the projector.

■ Error Log Storage/File Output

The projector error log is stored for the time period specified in the software. The error log can also be output to a file (csv format).

- Select **File** → **Save Error Projector Information** on the menu bar, and select the location to save the log and enter a file name (see the above diagram).
- Select **Options** → **Setting** on the menu bar, and click the General tab. Set the error log storage period to 15, 30, 60 or 90 days in the **Preservation period of Error Projector Information** section. The error log can be cleared by clicking the **Clear Error Log** button.

About Error Log File Contents

- The error log file describes error information in the following format.

```
Multi Projector Monitoring & Control Software          ← Software name
Version, V.1.0L017                                     ← Version
Time, 2008/04/07  13:55:03                             ← Date and time of file storage

Projector Name, Developer, Model Name, Checked Time, Error Status, Self Diagnosis
F100NT-3, Panasonic, F100NT, 2008/03/10 12:54:47, 120000, 0000000000000000
D5700-1, Panasonic, D5700, 2008/03/21 08:11:47, 002000, 0000000000000000
D10000-1, Panasonic, D10000, 2008/03/24 21:31:47, 000200, 00000000000000000000000000000000
FW100NT-2, Panasonic, FW100NT, 2008/04/01 14:01:47, 000010, 0000000000000000
[EOF]                                                  ← File end indication
```

- The following information is stored.

    Projector name

    Manufacturer's name

    Model name

    Time when error generation was confirmed

    Error status: Acquired error information (6 digits)

    Self-diagnosis information: Self-diagnosis information (16 or 32 digits) that can be obtained by the self-diagnosis command

- Provide this information when contacting the Service Department.

Operation Instructions (9)

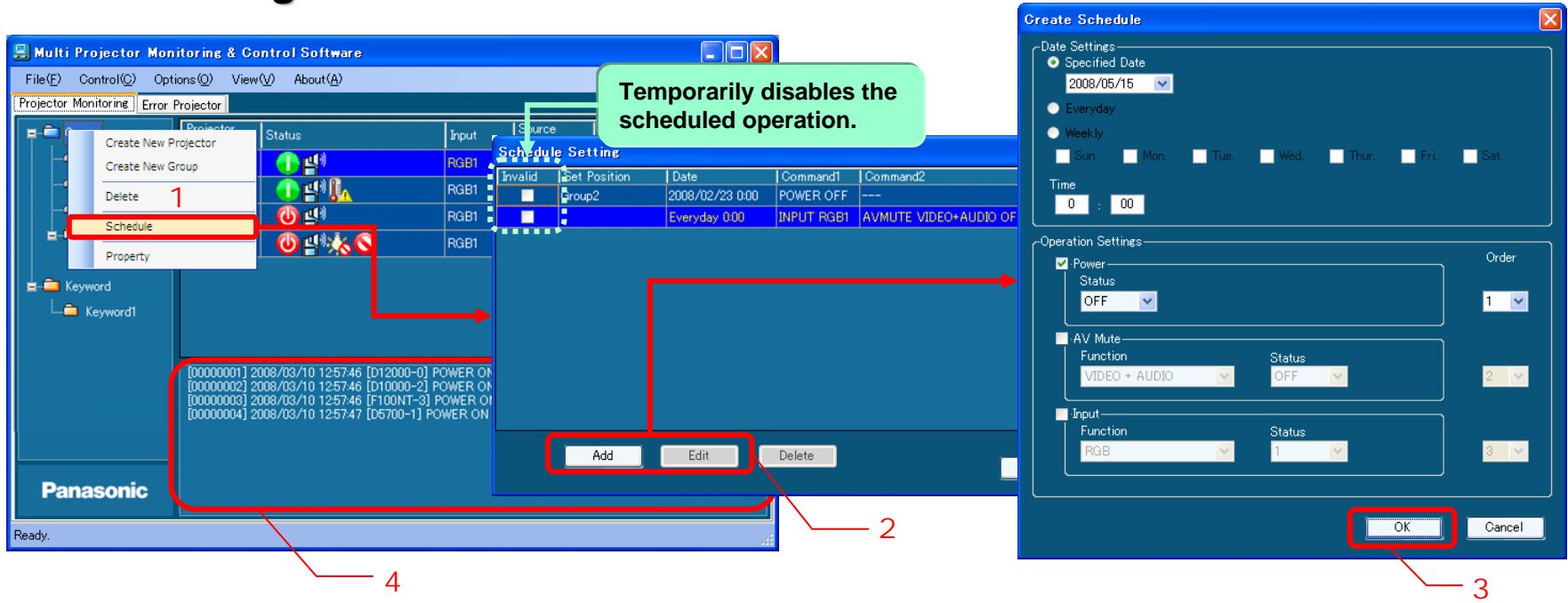## ■ Executing a Control Command

1. Select a group/keyword/projector icon in the group/keyword tree view pane (**1** in the above diagram).
2. Select **Control → Control Command** on the menu bar to open the control command execution window (**2** in the above diagram).
3. After selecting a command, click **Start** (**3** in the above diagram).

   Executable commands   Power ON/OFF, AV Mute ON/OFF (Audio/Video/Video & Audio), input terminal switching (RGB 1-9/Video 1-9/Digital 1-9/Storage 1-9/Network 1-9)

4. The results of command execution will be shown in the **Command Execution Result** section (**4** in the above diagram) and in the command execution log pane (**5** in the above diagram).

Operation Instructions (10)

■ Scheduling Function

Temporarily disables the scheduled operation.

1. In the group/keyword tree view pane, select the icon of a group/keyword/projector to be programmed for a scheduled operation, and perform either (a) or (b).
   (a) Right-click the selected icon, and select **Schedule** in the context menu (**1** in the above diagram).
   (b) Select **File** → **Schedule** on the menu bar.
2. To add a new schedule, click **Add**. To correct or change an existing schedule, select that schedule and click **Edit** (**2** in the above diagram).   * Schedules indicated in the **Set Position** section cannot be modified.
3. Create a schedule and click **OK** (**3** in the above diagram).
   Setting items   Command start time: Specified date/Everyday/Weekly (multiple days of the week can be specified) + Time
                          Control command: Power ON/OFF, AV Mute ON/OFF, input terminal switching (one each, sequence can be changed)
4. The set command is executed at the specified time (PC clock time). The results will be displayed in the command execution log pane (**4** in the above diagram).

Correcting/Changing Schedules in "Set Position"

- When a schedule is set from a location other than the selected group/keyword/projector, The "Set Position" indicates the location where the schedule was programmed. If it was set for the group to which the projector belongs, "**G: Group Name**" is indicated. If it was set for the keyword assigned to the projector, "**K: Keyword**" is indicated.

- To correct/change a schedule indicated in "**Set Position**," close all schedule setting windows, select a group or keyword indicated in "**Set Position**" in the group/keyword tree view pane, and follow the schedule correction/change procedure described on the previous page.

Displaying a Schedule List and Confirming Overlapping Schedules

- If there are overlapping schedules (with the same start time specified twice or more), proper operation of the projector cannot be guaranteed. Therefore, it is necessary to correct overlapping schedules.

Displaying the Schedule "Set Position"
K: Keyword
P: Projector
G: Group

Overlapping schedules (with the same start time specified twice or more) are indicated in red.

1. Select **Options** → **All Schedule List** on the menu bar.
2. A list of schedules will be displayed.
   If there are overlapping schedules for one or more projectors, the lines will be indicated in red.
   ⇒ In that case, perform the schedule correction/change procedure described in the previous pages to cancel overlapping schedules or check the **Invalid** checkbox shown at the center of the diagram on page 33 to temporarily disable the schedules.

Operation Instructions (11)

■ Opening the Web Control Screen

To open the Web Control screen, double-click a projector name in the brief information display pane or right-click it and select **Web Control**.
The Web Control screen can also be opened from a Web browser.

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