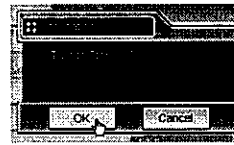**Chapter 7**

## 7. Controlling the projector

Describes controlling and setting of the projector by using the web browser.

# Power control and status check

Click **Power & Status** on the main menu. The control page will be displayed.
By clicking **ON** or **Standby** button on the page, the power of the projector can be controlled.

Confirmation window as shown in the below appears when the Standby button is pressed.

Popup confirmation window

| Item | Description |
| --- | --- |

**PJ status**

Power .........................Displays the status of the lamp. (ON, OFF, On starting up, On cooling down)
Status .........................Displays the status of the projector's power. (Refer to next page.)
Power control.............Controls the projector power by clicking the "ON" or "Standby" button.

**PJ temp.**

Inside temp.A ............Displays the surrounding temperature of lamp in the projector.
Inside temp.B ............Displays the surrounding temperature of panel in the projector.
External temp. ...........Displays the surrounding temperature of the intake vent.

⚠ .........The warning icon will appear if the temperature exceeds a specified value. Check if there is no object to obstruct the airflow around the intake or exhaust vent. It might be airfilter clogged. Clean up the airfilter.

*The temperature unit can be set either Centigrade or Fahrenheit in the item "Initial Setting". (☞p.52)

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✐ The projector cannot be turned on while the projector is cooling down.
✐ The web browser checks and updates the projector's condition every 30 seconds automatically.

## About projector condition

| Status | Description |
|---|---|
| Normal | Projector is operating normally. |
| Power management in operation | Power management is operating |
| Lamp failure | Lamp failure is occurring |
| Abnormal Temperature | The temperature of the projector became too high |
| Cooling down after abnormal Temp. | Projector detects abnormal temp. and is cooling down itself. |
| Standby after Abnormal Temp. | Projector detects abnormal temp. and is set into standby mode. |
| Power failure | Power failure has occurred inside the projector. Projector is turned off. Unplug the AC cord and contact a qualified service personnel for service. If the power failure occurs on the projector, "Power failure" is indicated on the status column and the information icon appears on the power column as shown below. Click this icon to display further information of the power failure. |



Click this icon to display further information of the power failure.
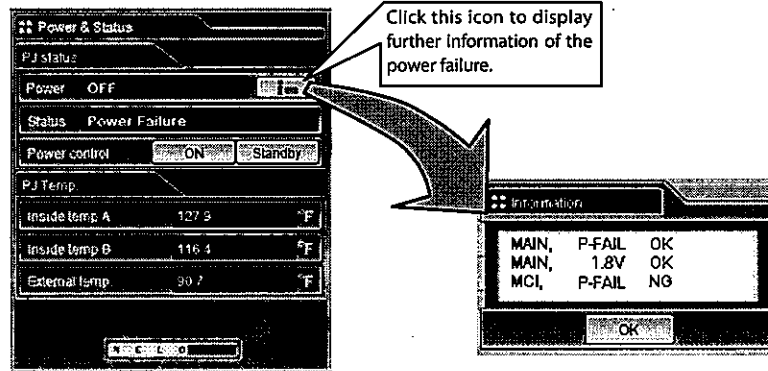
When a security (PIN code lock) has been set on the projector, you also cannot control it through the network. To control the projector through the network, unlock the security on the projector using with the projector's menu control.

Caution about turning on/off the projector via the networks
When turning on/off the projector via the networks, preset the projector as follows:
1. Select "Setting" from the Projector menu.
2. Select "Standby mode" from the Setting menu and set it as "Normal".
If you set this function as Normal, the network part of the projector is constantly provided with power even if the projector is turned off. If you set this as Eco, then the network part will be turned off when you turn off the projector. Consequently, you cannot turn on/off the projector via the networks.
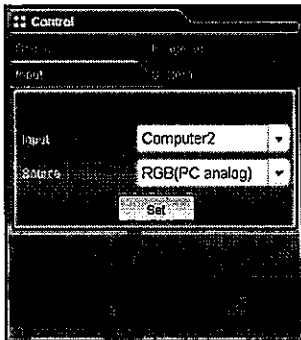
# Controls

Click **Control** on the main menu. The setting method differs depending on the contents of the page. Click on the page number to change pages and select desired setting items.

✐ Please see the owner's manual of the projector to have the further information of each control item.
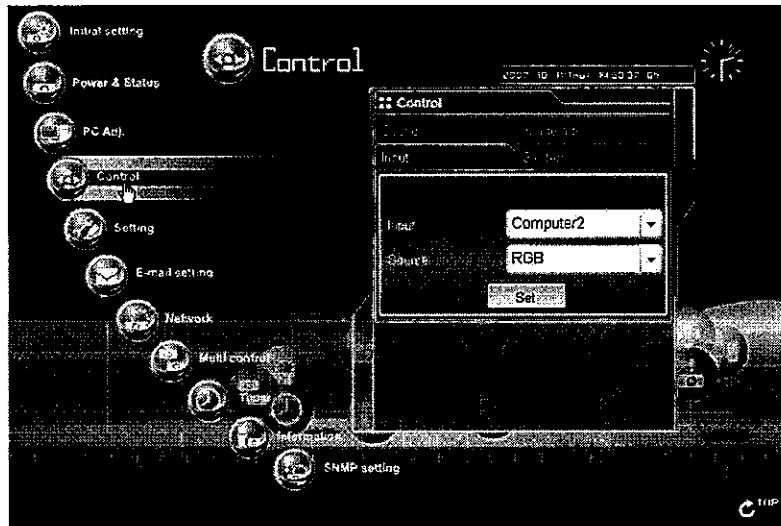


## Input

This function is to select the input mode and source mode of the projector. Click **Set** button after selecting the input and source mode.
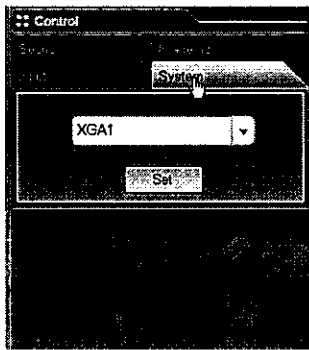


| Item | Description | |
|------|-------------|---|
| Input | Selects input mode of the projector. | |
| Source | Selects signal source of the input. | |
| | Computer1 : | RGB |
| | | Component |
| | | RGB(Scart) |
| | Computer2 : | RGB(PC analog) |
| | HDMI : | HDMI |
| | Video : | Video |
| | S-video : | S-video |
| | Network : | Network |

✐ The control page displays valid control items depending on the selected input mode, signal or functions of the projector you use, therefore, there may be different controls between the described items and actual control items on the page display. For further information , refer to the projector's owner's manual.

✐ When the projector is standby, only the timer on the setting menu is available; others are not available.

## System

This function is to select the system of signal input to the projector. The available system mode are listed on the pull-down menu button according to the input signal. Select a system and then click Set button.

### Available selection at the RGB(PC analog) input

| Item | Description |
|---|---|
| XGA1 | It automatically switches to the proper computer system of the input signal. |
| | * The computer system modes (VGA, SVGA, XGA. SXGA, UXGA, WXGA...) which meet the input signal listed. |

### Available selection at the Video/S-video/Scart input

| Item | Description |
|---|---|
| AUTO | It automatically switches to the proper color system of the input signal. |
| | * The selectable color systems are PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N. |
| | * AUTO is fixed at the Scart input. |

### Available selection at HDMI input

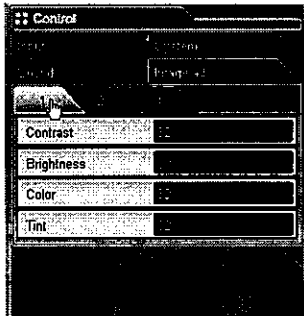| Item | Description |
|---|---|
| D-480p | It automatically switches to the proper scanning system of the input signal. |
| | * The selectable scanning systems are D-480i, D-575i, D-480p, D-575p, D-720p, D-1080i and D-1080p. |
| D-XGA | It automatically switches to the proper computer system of the input signal. |
| | * The computer system modes (D-VGA, D-SVGA, D-XGA. D-SXGA1...) which meet the input signal listed. |

### Available selection at the Component input

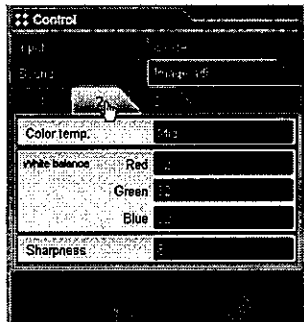| Item | Description |
|---|---|
| AUTO | It automatically switches to the proper scanning system of the input signal. |
| | * The selectable scanning systems are 480i, 575i, 480p, 575p, 720p, 1035i and 1080i. |

✐ If the modes (Mode1 to Mode5) stored in the item "PC Adjustment" (☞ p.72) are available, they are also listed together with the above mode.

# Image adjustment

This function is to adjust the projected picture image and save the image mode. To store the adjusted value, click **Store** button, and to load the adjusted value, click **Load** button.
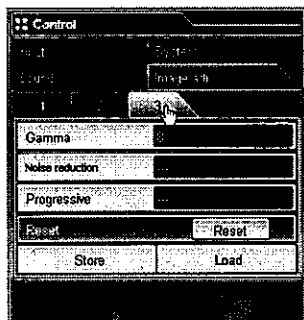
| Item | Description |
|---|---|
| Contrast | Adjusts picture contrast |
| Brightness | Adjusts picture brightness |
| Color | Adjusts picture color saturation |
| Tint | Adjusts picture hue |

| Item | Description |
|---|---|
| Color temp. | Sets a color temperature mode. |
| White balance Red, Green, Blue | Adjusts each white balance respectively. |
| Sharpness | Adjusts picture sharpness. |

*When the value of the white balance is changed, the color temp. indicates "Adj."

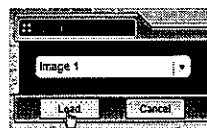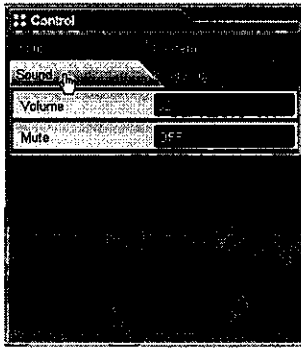| Item | Description |
|---|---|
| Gamma | Adjusts brightness of darker part of the picture. |
| Noise reduction | Switches noise reduction mode |
| Progressive | Switches progressive mode |
| Reset | Resets the Image adjustment to previous levels. |
| Store | Stores the Image adjustment values. Select an item [Image 1 - Image 4] from the pull-down menu and click Store button. |
| Load | Loads the Image mode. Select an image mode from the pull-down menu and click Load button. There may not be available mode depending on the input mode as shown in the table left. |

| Input source | | |
|---|---|---|
| Image mode | Video | Computer |
| Dynamic | ✔ | ✔ |
| Standard | ✔ | ✔ |
| Real | * | ✔ |
| Cinema | ✔ | * |
| Blackboard(Green) | ✔ | ✔ |
| Colorboard | ✔ | ✔ |
| Image 1 - 4 | ✔ | ✔ |

✐ The mark "✔" indicates the available image mode in the selected input source. The error message appears when the disabled image mode indicated with "*" is selected.

## Sound

This function is to adjust the sound of the projector. The values in the text box represent the current control value or status.
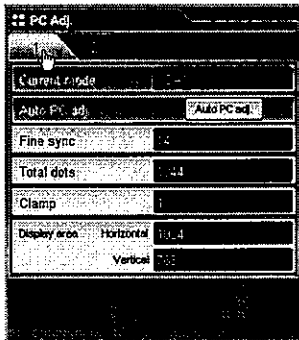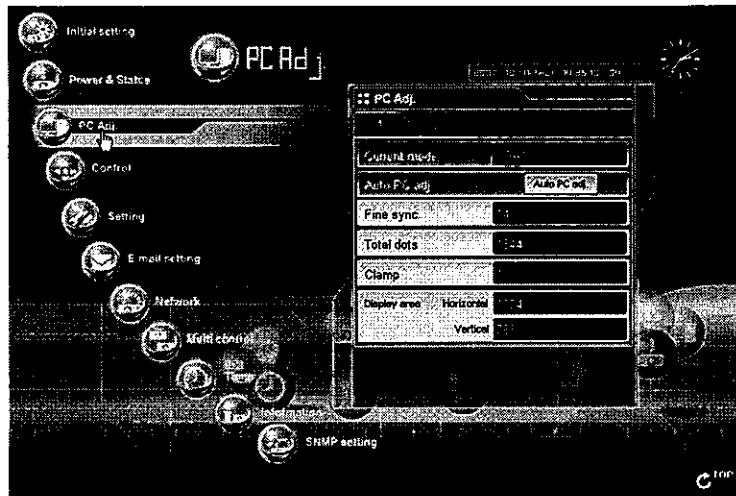


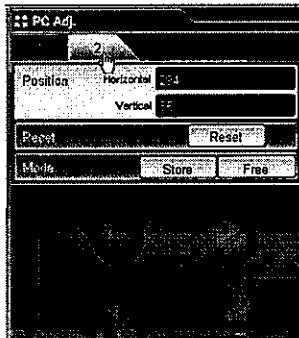| Item | Description |
| --- | --- |
| Volume | Adjusts the sound volume from the speakers. |
| Mute | Suppresses the sound. |

# PC adjustment

Click PC Adj. on the main menu. This function is to adjust the signal from the computer connected to the projector to obtain the proper picture image on the screen.





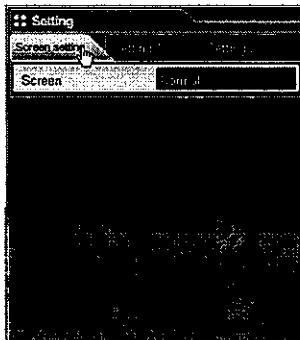| Item | Description |
|------|-------------|
| Current mode | Displays a current mode like VGA, SVGA, XGA, SXGA, UXGA, WXGA, etc. or MODE1 - MODE5 are the customized mode created by using the "Mode Store" function described below. |
| Auto PC adj. | Performs automatic adjustment. |
| Fine sync. | Performs Fine Sync adjustment. |
| Total dots | Adjust the number of total dots in the horizontal period. |
| Clamp | Adjusts the phase of the clamp. |
| Display area | |
| Horizontal | Adjusts the image area horizontally. |
| Vertical | Adjusts the image area vertically. |



| Item | Description |
|------|-------------|
| Position | |
| Horizontal | Adjusts the horizontal position of the screen. |
| Vertical | Adjusts the vertical position of the screen. |
| Reset | Resets the PC adjustments to the previous levels. |
| Mode Store | Stores the PC adjustment values. Select a mode no. [Mode1 - Mode5] from the pull-down menu. |
| Mode Free | Clear the PC adjustment values. Select a mode no. [Mode1 - Mode5] from the pull-down menu. |

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# Setting up the projector

● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●

Click **Setting** on the main menu. This function is to set up the projector. Select the sub menu [Screen setting], [Setting 1] or , [Setting 2] and then set up each setting.
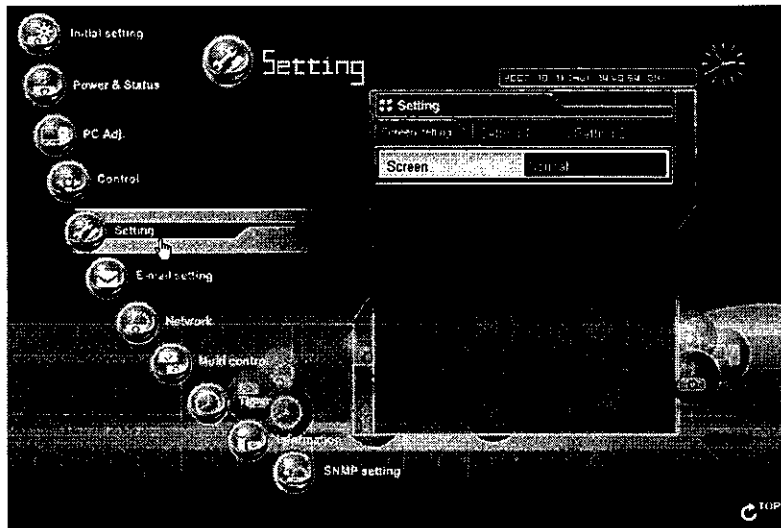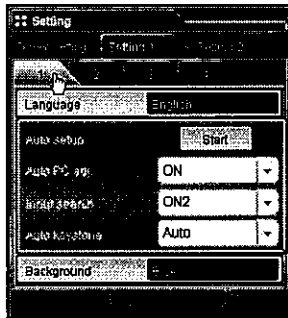


| Item | Description |
|------|-------------|
| Screen................... | Switches the screen mode. There may not be available mode depending on the input mode as shown in the table below. |

| Input source | | |
|---|---|---|
| Screen mode | Video | Computer |
| Normal | ✔ | ✔ |
| True | * | ✔ |
| Full | ✔ | ✔ |
| Zoom | ✔ | * |
| Wide | ✔ | * |
| Natural wide | ✔ | * |
| Custom | ✔ | ✔ |

✐ The mark "✔" indicates the available screen mode in the selected input source system. The error message appears when the disabled screen mode indicated with "*" is selected.

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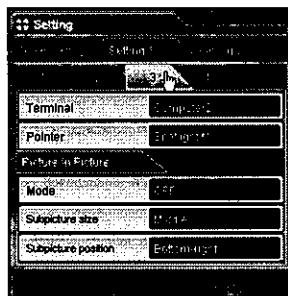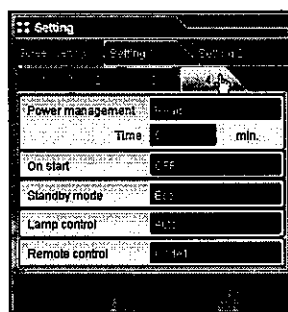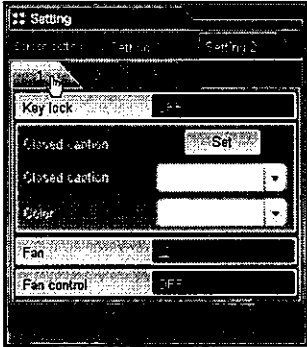| Item | Description |
|---|---|
| Language | Sets the language display of projector's on-screen display menu. |
| Auto setup | Executes the Auto PC Adj, and Input Search function below according to the each setting after clicking **Start** button. |
| Auto PC adj. | Sets Auto PC Adjustment mode. |
| Input search | Sets the auto-input signal detection mode. |
| Auto keystone | Sets Auto Keystone mode. |
| Background | Sets the screen background when no signal input. |

| Item | Description |
|---|---|
| Display | Switches on or off the on-screen menu display on the screen. |
| | Countdown off.... Displays image during the starting up. |
| Logo | Sets the logo display on the screen during the startup. |
| Ceiling | Sets the image top/bottom and left/right reversed. |
| Rear | Sets the image left/right reversed. |
| HDMI setup | Sets the input signal form of HDMI input. |
| Image | Sets the Digital R/G/B image level of HDMI. |
| Sound | Sets the audio input when using HDMI. |

| Item | Description |
|---|---|
| Terminal | Sets the terminal of "COMPUTER IN 2/MONITOR OUT". |
| Pointer | Sets the pointer form. |
| Picture in Picture | Sets the Picture in Picture mode and set the sub picture size and position. |
| Mode | Sets the Picture in Picture mode. |
| Subpicture size | Sets the sub picture size. |
| Subpicture position | Sets the sub picture position. |

| Item | Description |
|---|---|
| Power management | Sets into the selected power management mode if the input signal is interrupted and no control key is pressed for the specified period of time. |
| | *The specified time can be set 1 to 30 min. |
| On start | Sets the power-on mode when the AC cord is connected to the outlet. |
| Standby mode | Sets the network function enable or disable in the standby mode. |
| | Normal.....Enable |
| | Eco ...........Disable |
| Lamp control | Selects the lamp control mode. |
| Remote control | Sets the remote control code. |

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| Item | Description |
|---|---|
| Key lock | Sets the prohibition of controls either Projector or Remote control. |
| Closed caption | Sets the closed caption function. |
| Closed caption | Sets the closed caption mode. (OFF/CC1/CC2/CC3/CC4) |
| Color | Sets the color of the contents. (Color/White) |
| Fan | Sets the cooling options after turning off. |
| | L1 Normal cooling |
| | L2 Silent cooling |
| Fan control | Sets the fan control speed. |
| | Off Normal mode |
| | On1 Highland mode 1 |
| | On2 Highland mode 2 |
| | On3 fan speed Max mode |

| Item | Description |
|---|---|
| Lamp Corres. value | Displays the use time (Corresponding value) of the lamp and reset the counter. |
| Filter counter | Displays the filter use time. Reset the time after filter clean-up. |
| Filter warning | Sets the time to indicate the filter warning message on the screen. |

| Item | Description |
|---|---|
| Factory default | Sets all of the projector control items to the factory default setting except the following items. Lamp Corres. Value, PJ time, Filter time, PIN code lock and Logo PIN code lock. |
| No show | Sets the black out image temporarily. |
| Freeze | Sets the image to freeze mode. |
| P-Timer | Switches the P-Timer display. |
| | ON......... Starts P-Timer indication |
| | STOP...... Stops P-Timer counting |
| | OFF ....... Stops P-Timer indication |
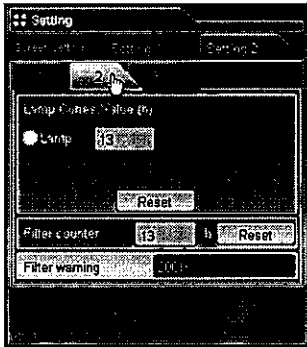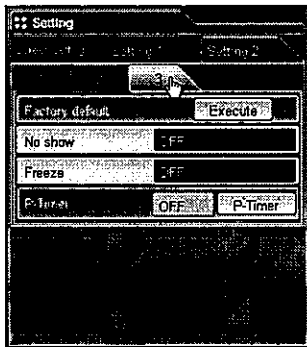
*75*

# Timer setting

●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●
This page is to set the timer to turn the projector off or on at a programmed day/date
and time. Follow the steps below for setting.
Click Timer on the main menu.

| "---" will appear on the cur-<br>rent time when the time is<br>not set up correctly. |
| Present time set on the<br>projector |



Select date

Select day

Set execute time
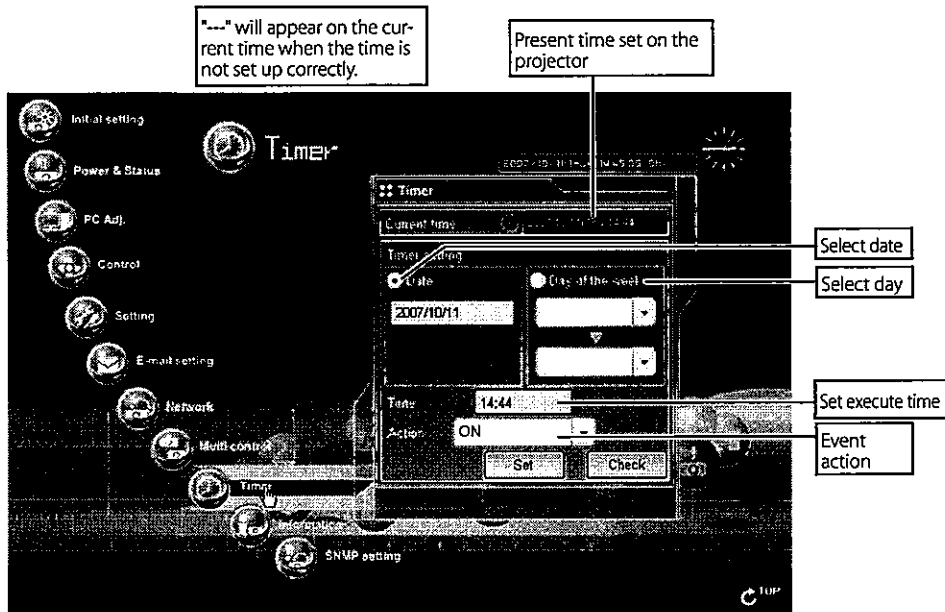
Event
action

## How to set the timer

### 1 Set a day or date

**To set the timer event at the same time everyday or every week,**
Select day entry with radio button and then select desired day from the pull-down menu button.
The selectable days are as follows:

     - Same time everyday     - Every week (days from Monday to Sunday)

**To set the timer event on specified date,**
select date entry with radio button and then type the date with (Year/Month/Date) format.

     Ex.: Type [2007/12/20] if you specify [December 20, 2007].

> This projector does not provide the built-in battery. The date and time information are lost when
> the projector turns off (when "Eco" is set for the stand-by mode (Refer to p.74)), or the network
> configuration is reset. The timer function is disable until time is set up correctly. When using the
> NTP address for time setting, the current time is acquired at the projector starting up and the timer
> function is activated after finishing the time setting correctly.

## 2 Set an execute time

Type the time with (Hour:Minute) and 24 hours format.

Ex.: Type [18:25] if you specify [PM 6 o'clock and 25 minutes].

## 3 Select an event action

Select an event action from the pull-down menu.

| Event | Action |
|---|---|
| ON | Turns on the projector |
| OFF | Turns off the projector |
| Lamp Auto | Changes lamp mode to "Auto" |
| Lamp High | Changes lamp mode to "High" |
| Lamp Normal | Changes lamp mode to "Normal" |
| Lamp Eco | Changes lamp mode to "Eco" |

## 4 Register an event

Click **Set** button to register the set timer event. Repeat steps 1 to 4 for another timer event setting.
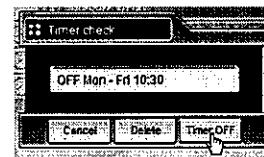
## Check the timer events

To check the set timer events, click **Check** button. The timer events are listed. The event with blue background color represents the timer-OFF event.
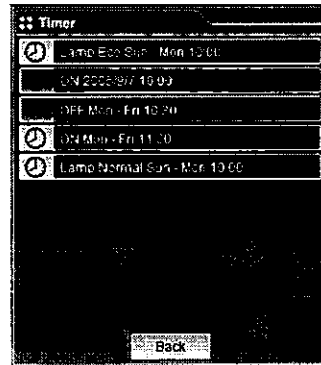


## Change the event mode

On the event list appearing by clicking **Check** button, click on the event you want to delete, disable or enable. Click **Cancel, Delete, Timer ON** or **Timer OFF** button on the popup pallet.



| Button | Operation |
|---|---|
| Cancel | Cancels the setting |
| Delete | Deletes the timer event |
| Timer OFF | Disable the timer event temporarily |
| Timer ON | Enable the timer event |

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## Notes on timer setting

✐ Up to 10 timer events can be registered. Timer events always operate according to the next valid event depending on the projector's power status. In the example below, event 3 turns on the projector so next event 4 (also turning on projector) will not be effective because the projector is already turned on. Similarly, when the projector is turned off by event 5, event 6 OFF will not be effective in turning it off again. But these secondary events (event 4 and event 6) will become effective if a person turns off the projector (after event 3 and before event 4) or turns on the projector (after event 5 and before event 6).
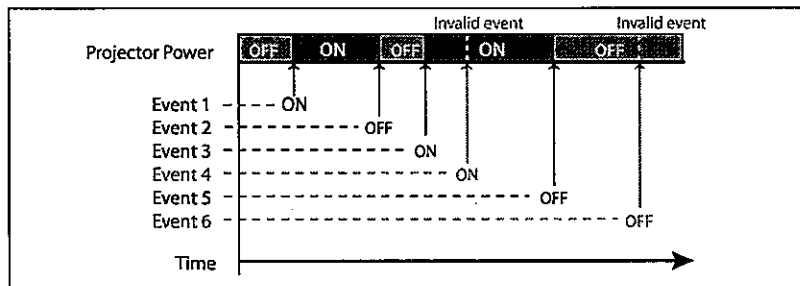


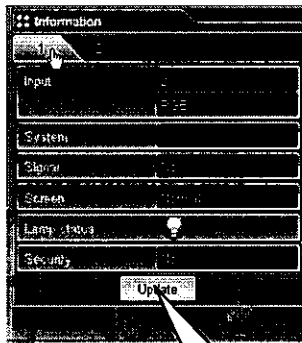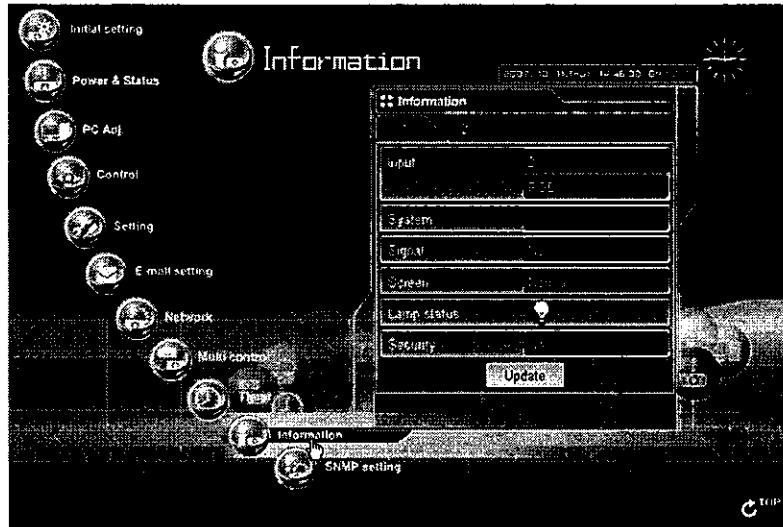✐ When the timer events are set at the same time, the last event set will override the previous events. For example, if there is an event like "ON at 8:00 everyday" and then new event is set like "OFF at 8:00 everyday", only the last setting event is effective.

✐ When the timer event ON occurs during cooling down period, this is invalid event because the projector cannot be turned on during that cooling down period.
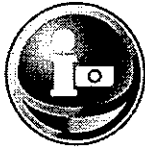
# Projector information

• • • • • • • • • • • • • • • • • • • • • • • •
This page is to display the basic information of the projector status. Click
**Information** on the main menu.



| Items | Description |
|---|---|
| Input......................Displays selected input and source. | |
| System...................Displays selected signal system. | |
| Signal.....................Input signal status | |
| Screen....................Displays screen mode. | |
| Lamp status ............Displays lamp status with an animation. Refer to the table on the next page. | |
| Security...................Displays the security (PIN code lock) status | |

Click this button to update the information

## Indication of the lamp status

| Icon display/background | Status |
|---|---|
| White-Yellow/Blue | Lamp on (Normal) |
| White-Yellow/Red | Lamp on (Lamp is being used over a specified use time, replace lamp immediately) |
| Gray/Blue | Lamp off (Normal) |
| Gray/Red | Lamp off (Lamp is being used over a specified use time, replace lamp immediately) |
| Red/Blue with X | Lamp failure (Lamp failure, check the lamp condition) |
| Red/Red with X | Lamp failure (Lamp failure and lamp is being used over a specified use time, replace the lamp immediately) |

| Items | Description |
|---|---|
| PJ time | Displays the accumulated use time of the projector. |
| Lamp Corres. Value | Displays the use time (Corresponding value) of the lamp. |
| Filter time | Displays the use time of the filter. |
| Timer | Displays the timer setting status. |
| | ON    Timer has been set. |
| | OFF   No timer setting. |
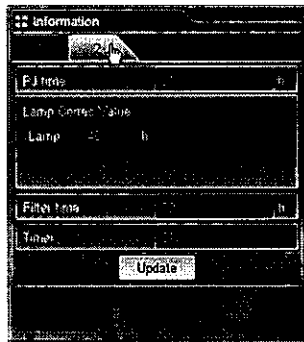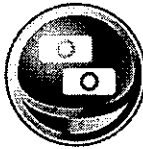
# Multi-control
## Controlling and setting the multi-projectors

When you install multiple projectors in the network, you can control and set up them together. Click **Multi Control** on the main menu to display the control page.

*Note:*

To control the multiple projectors, each projector must be set the same Network PIN code.
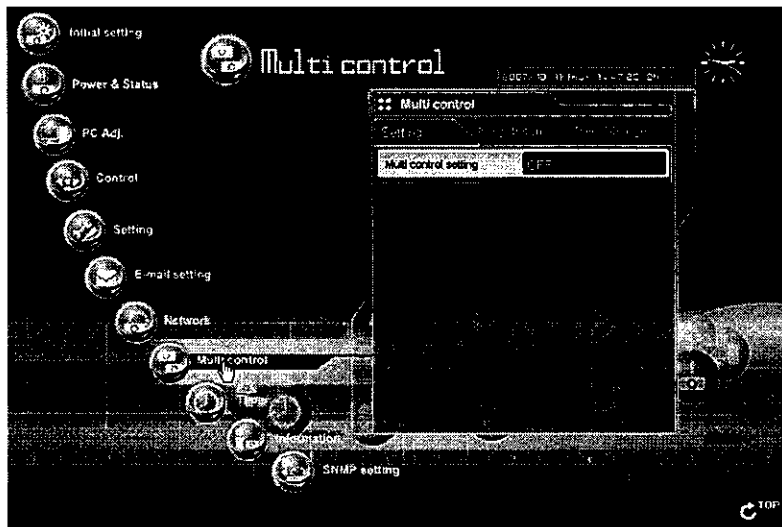


## Example of multi control
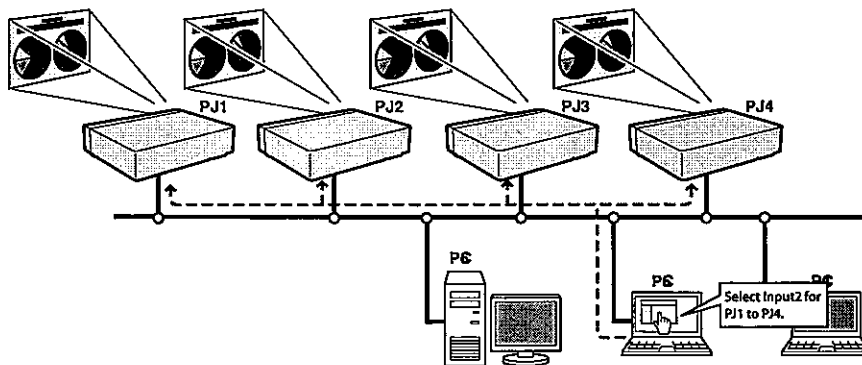
## Start/stop the multi control

To start or stop controlling the multi-projectors, click Multi control setting menu and select ON or OFF.

Switches on and off the multi-control function

**Multi control setting**

OFF..........Stops multi control function

ON..........Starts multi control function. The multi control menu will appear when ON is set. These items of menu are linked to the main menu.
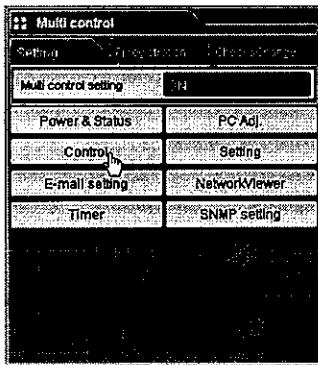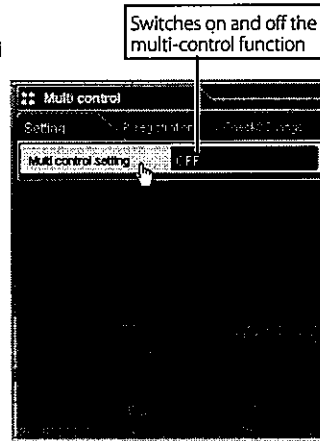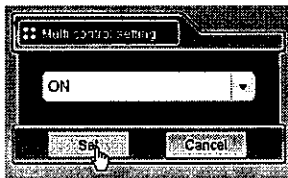
The multi controllable menus are "Power & Status", "PC adjustment", "Control", "Setting", "E-mail setting", "Timer", "SNMP setting" and "Network Viewer". Click each menu and perform setting and adjustment.

✐ The word "MULTI CONTROL" appears on the each control page while the multi control is operating.
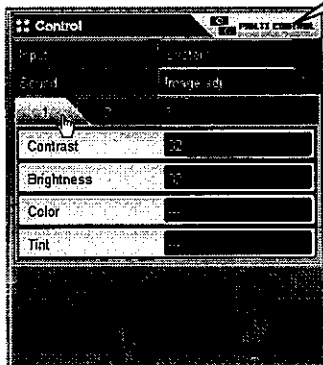
This shows the multi control is operating now.

## Register the projector

To use the multi control function, register the IP address of the projector you intend to control. Click  Pj registration sub menu tab and set the IP address, Memo and Multi control item, then click **Set** button.
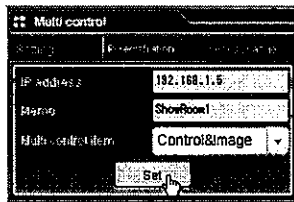


| Items | Description |
|---|---|
| IP address | Enter IP address of the projector to control |
| Memo | Enter projector name or installed location etc. |
| Multi control item | |
| Control | Controlling the projector |
| Control & Image | Controlling and displaying images |
| Image | Displaying the images |

## Confirmation of registered projector

To check the registered information, click **Check & Change** sub menu tab. The registered information of the projector is listed as the below.
* The word "none" is displayed if the "Memo" function is used.

* When you click on a listed IP address, the login page for the selected projector will be displayed with a new window.



Click here to close the sub menu Check & Change.
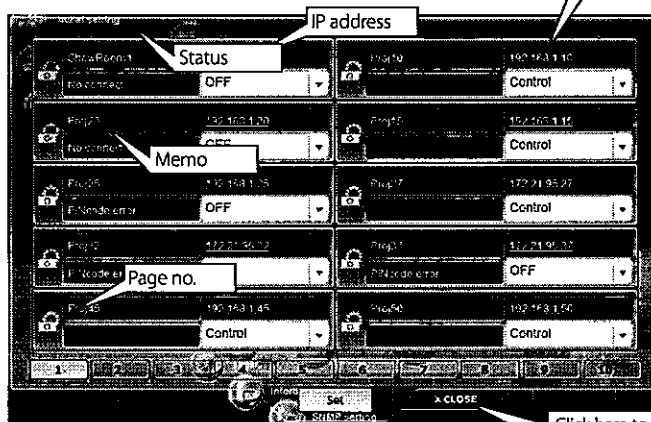
✐ 10 projectors can be registered per page and up to 100 sets can be registered for the multi-control.

## Change the mode of the registered projector

To change the mode of the registered projector, select a mode with the pull-down menu button under the IP address of the target projector and then click **Set** button.
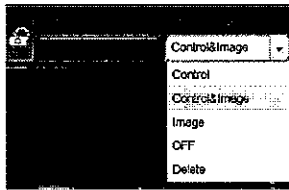
| Mode | Operation |
|---|---|
| Control | Controlling the projector |
| Control & Image | Controlling and displaying images |
| Image | Displaying the images |
| OFF | Excluding from the multi-control |
| Delete | Deleting from the multi-control |

*The multi control item is not changed during using the network viewer function. It is not available with the light mode.

## Status

If some of the registered projectors are disabled by some reasons (such as disconnecting the power source, disconnecting the LAN cable, disconnecting from the network), control changes will continue to be effective for the projectors that are still active. At the same time, the deactivated projectors are excluded from the multi-control. The status of the registered projectors are indicated under the projector name. See the table below for status indications.
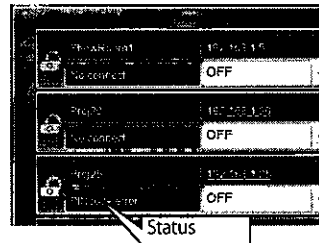
| Status | Description |
|---|---|
| (blank) | The projector is connected to the network correctly |
| No connect | The projector may not be connected to the network. Please check the connection and network configuration of this projector. |
| PIN code error | The PIN code is incorrect. The PIN code for the multi-controlled projectors must be the same. Change the PIN code of this projector to the common PIN code. (p.32, p.42) |
| File Error | Not displaying the images. Check if this projector is using the Network Capture function or Network Viewer function individually, or in the standby mode. |

*The projector updates the status at the time when the multi-control function is executed.

✐ If the multi-controlled projector is in the standby mode, items of "PC adj.", "Control" and "Setting" cannot be operated.

✐ Cannot register, delete or change the multi-control setting during using the network viewer function.

✐ It is recommended that a specified projector should be chosen for setting as a master when you use this multi-control function. The control for the multi-controlled projectors will become too complicated operation if this function is used for each projector.

✐ If the registered projector is not connected to the network, it will take a while to complete the multi-control operation because of waiting for the response from each registered projector.

✐ There are some disabled items in the multi-control function for the light mode.

## Check & Change page in the light mode
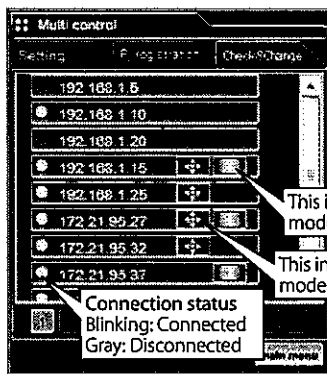
Following functions in the "Check & Change" page are not available in the light mode.
- Changing the control mode.
- Deleting the registered IP address
- Indicating the each status
- Indicating the each memo

This indicates that the mode is "Image".

This indicates that the mode is "Control".

Connection status
Blinking: Connected
Gray: Disconnected

(Check & Change page in the light mode)

## Controlling all together

"Power & Status", "PC adjustment", "Control" and "Setting" can be controlled all together. Set "ON" the multi control setting and adjust controls of each menu. The setting value is applied to the registered projectors sequentially .

✐ This is effective only if the multi control item of the registered projector is set to either "Control & Image" or "Control".
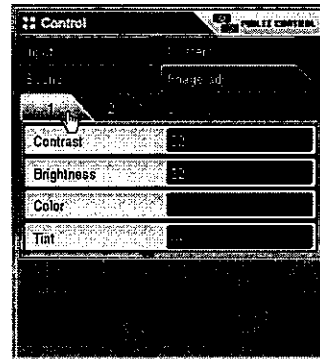
## Setting all together

"E-mail setting", "SNMP setting" and "Timer" can be set all together. Set "ON" the multi control setting and items of each menu. The setting value is applied to the registered projectors sequentially.

✐ This is effective only if the multi control item of the registered projector is set to either "Control & Image" or "Control".

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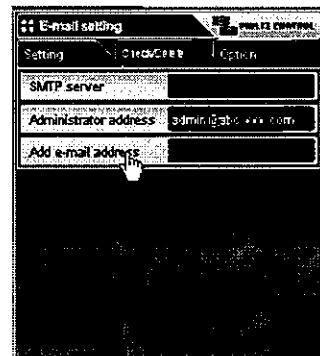
## Viewer auto setting all together

"Viewer auto display" can be set all together. Set "ON" the multi control setting and select [3] **Auto display** from **Viewer** sub menu (selected by 'Multi-control' - "Network Viewer" menu). Set the display time periods and repeat times for the auto image display. After clicking **Start** button, the registered projectors start playing back the auto image display in sequential.

✐ For further information of the Auto display, see "Using the network viewer function". (☞p.124)

✐ This is effective only if the multi control item of the registered projector is set to either "Control & Image" or "Image".
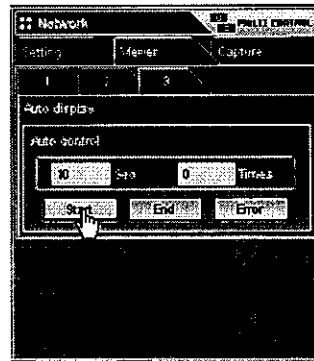
# Chapter 8

## 8. Network capture functions

Network Capture is a function to display the screen image and reproduce the sound of the computer via the network.
- Real Time Capture
- Network Communication
- Moderator Function
- Playing Movie files

# About Network Capture function

The Network Capture is a function to display the screen image and reproduce the sound of the computer which has a Network Capture 5 software by the projector through the network. This function has 3 kinds of mode as below.

### - Real Time Capture (☞p.91)

A function to display the screen image and reproduce the sound of the computer by the projector through the network in real time.

### - Network Communication (☞p.96)

This mode is to communicate by sharing the capture image of a computer with multiple computers and a projector. User can draw the text and figure on the captured image by using a drawing tool.

### - Moderator Function (☞p.107)

The moderator can project the participants' computer screen through the projector in meetings or in classes.

✐ Up to 30 computers can be registered.
✐ The Network Capture function cannot be used when the Network Viewer function is used. The Real Time Capture, Network Communication, Moderator function and Memory Viewer function cannot be used at the same time.

## Start up the Network Capture 5

To start up the Network Capture 5, click "Network Capture 5" from "Start" - "All Programs" - "Network Viewer & Capture 5" menu. The application window will appear and search the projectors in the network and list them on the projector list.

If any projector is not listed, check followings and then search again by pressing **PJ Search** button.

- Is the projector turning on and connected to the network?
- Is the network setting of projector and computer configuring correct?
- Is the same capture port no. used among computer and projectors?
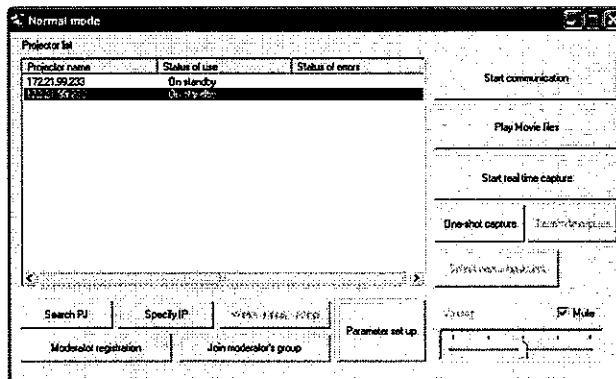
## Commands on the task bar

When the **Network Viewer & Capture 5** icon on the task bar is clicked, the popup menu will appear. It provides according to the operating modes as shown in the table below.

Network Capture activating

| Parameter set up... |
| --- |
| Window show.. |
| Version information.. |
| Shut down |

### Menu during Real time capturing

One-shot executing

| Start real time capture |
| --- |
| One-shot capture |
| Terminate capture |
| Window show.. |
| Version information.. |
| Shut down |

Real time capture executing

| One-shot capture |
| --- |
| Terminate capture |
| Window show.. |
| Version information.. |
| Shut down |

### Menu during Playing movie files

Playing movie files

| Terminate Play movie files |
| --- |
| Window show.. |
| Version information.. |
| Shut down |
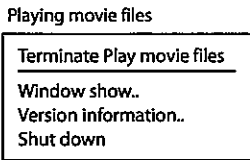
### Menu during Network Communication

Communication executing (Main PC)

| Capture transfer |
| --- |
| Terminate Communication |
| Version information.. |
| Shut down |

Communication executing (Sub PC)

| Start editing |
| --- |
| Terminate Communication |
| Version information.. |
| Shut down |

Communication executing (Sub PC)

| Capture transfer |
| --- |
| End editing |
| Version information.. |
| Shut down |
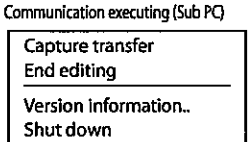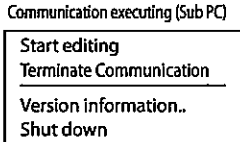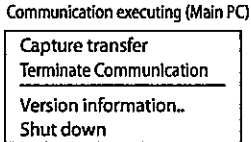
### Menu during Moderator function

One-shot executing

| Start real time capture |
| --- |
| One-shot capture |
| Terminate capture |
| Window show.. |
| Version information.. |
| Shut down |

Real time capture executing

| One-shot capture |
| --- |
| Terminate capture |
| Window show.. |
| Version information.. |
| Shut down |

Joining in Moderator's group (client PC)
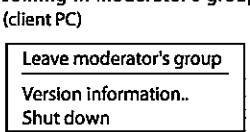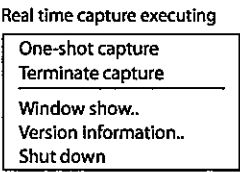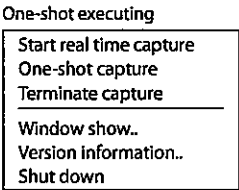
| Leave moderator's group |
| --- |
| Version information.. |
| Shut down |

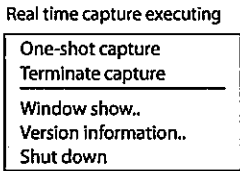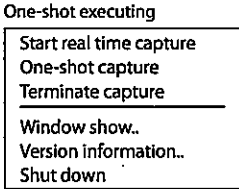| Items | Description |
| --- | --- |
| Start real time / Terminate capture | Starts / Terminates the real time capturing. (☞p.91) The screen image of the computer is projected on the screen in real time. |
| One-shot capture | Transfers the one-shot screen image of the computer. |
| Capture transfer | Transfers the screen image of the computer to the projector. The captured image edit window appears on the computer screen. |
| Select capture object* | Sets to display the capture window selection dialog. *This menu will appear when "Select capturing object" is checked on the parameter setting. (p.90) |
| Terminate communication | Terminates the network communication. |
| Start editing | Acquires the screen image in the network communication and displays it on the editing window on the computer. |
| Terminate editing | Terminates the editing window of the network communication. |
| Terminate Play movie files | Terminate the Play movie files. |
| Parameter set up | Sets the communication parameter between the computer and projector. For further information, see item "Parameter set up" on the next page. |
| Window show | Displays the application window on the screen. |
| Version information | Displays the version of this software. |
| Shut down | Quits the Network Capture 5 application. |

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## Parameter set up

Click **Parameter set up** button and setup the parameters on the Parameter setup window.

| Items | Description |
|---|---|

**Connection setting**

Capture port ............. Sets the capture port no. on the projector. Default is 9000.

Pincode ...................... Sets the Network PIN code on the projector.

PJ search time ............ Sets the time to search the projector between 1 to 60 seconds. Default is 5 seconds.

❑ Search PJ when starting up Network capture
  Check if Search PJ automatically starts when launching the network capture function.

❑ Select normal network adapter
  Uses default setting. Default is un-checked.

❑ Auto-power on ...... The projector turns on and projects the computer's captured image on the screen automatically when the network capture is executed while the projector is in the standby.

**Image setting**

Display adapter ......... Provided for the use of a computer with multiple network adaptors installed. Select a network adaptor which has the computer's screen to project with the projector and execute the network capture function. This is useful function when you make the presentation.

Select capturing object .... Check if you want to select an individual window on the computer screen. This is useful function when you open the multiple windows on the computer's screen. When you execute the capturing, the window selection dialog appears. Select a window name from the dialog window. The projected window size is automatically adjusted to fit the projector's screen size.

Sharpness .................. Select a capturing picture quality among "High, "Medium", "Low"

❑ Reduce image ........ Check if the capturing image resolution is more than projector's panel resolution (WXGA).

❑ Layer window capture. Check if layer window image capturing.

Capture start up time ...... Sets the delayed time from the capture start in second.

**Moderator function setting**

Nickname ................... Sets moderator's nick name

Moderator login password.. Sets Moderator's password



**Play Movie files setting**

Repeat times ............. Sets repeat times of the playing movie files. If set to "0", loop play the movie file lists endlessly.

✐ To check the Capture Port number, see item "Control by the web browser" (☞ p.93). To check the PIN code, see item "Network PIN code setting" (☞ p.32, p.42).

✐ Specify the port number of TCP/IP. The default port setting is 9000. There are some reserved port numbers and also some applications may use their own port numbers. If one of those port numbers is used, the alert dialog window will appear and let you know that it is an invalid port number. In that case, use another port number.

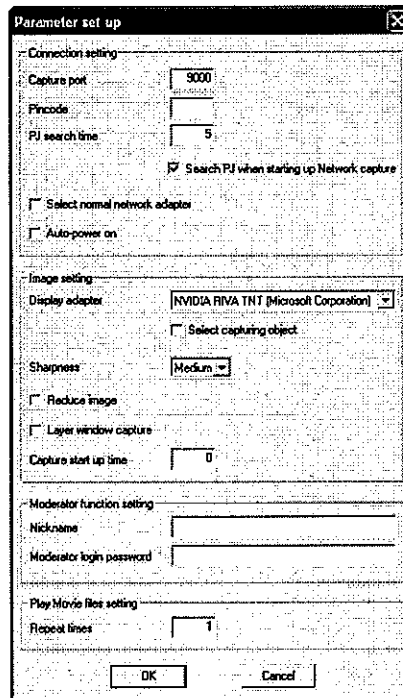✐ The reserved port numbers are http (80), ftp (21), telnet (23), (25), (110), etc. The port no. 4352, 10000, 10001 are reserved to control the projector through the LAN port.

# Using the Real Time Capture
• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •
This is a function to project the screen image and reproduce the sound of the computer by the projector in real time. The captured image projected by the projector can be selected from the computer, web browser and the projector respectively.

## Registering the computers

Up to 30 computers can be registered.

*1* Access to the control page of the projector by using the web browser. From the **Network** menu, click **Capture** tab to display the setting page.

*2* Switch to **Connection Setting** page by clicking the page number tab [3]. Enter the IP address of the computer to the PC number, and then click **Set** button. Click **Set** button to register the IP address for each page.

---
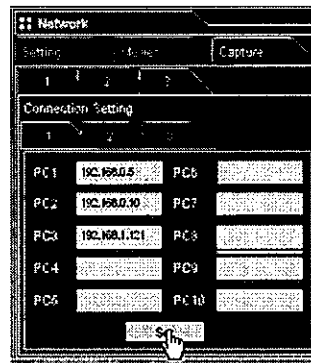
✐ When you capture the screen image of the movie player software with the real time capture function, the projector may not be able to reproduce the sound. To reproduce the sound in the projector correctly, follow the procedures below;
  • Start up the Network Capture 5 software first, start up the real time capture and then start up the movie player software.
  • Terminate the movie player software first and then terminate the real time capture.

✐ The registered computer enables to start capturing if only the Network Capture 5 is activated.

✐ The transfer speed of the captured image using the Real Time Capture function is depending on the network environment and data volume of the image. It cannot be supported for movie pictures.

✐ If you start capturing with the Select capturing object on the parameter set up window checked, the Select capturing object window below (right side) appears. Select the desired window title from the window list and click OK button.
If no window is opened, no window title is displayed on the window list as shown on the left figure. Even the new window is opened, the display of the Select capturing object window would not change. If you would like to capture the new window opened, click Update button to show the window title on the window list, select it and click OK button.

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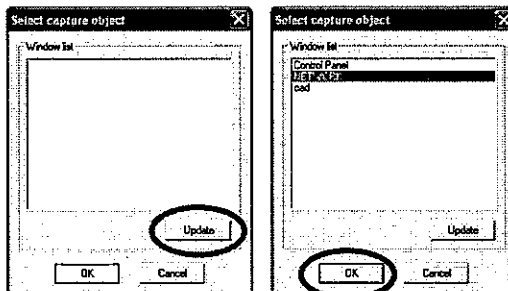
## [1] Control by the computer



Select input mode to "Network" previously.

*1* Start up Network Capture 5.

*2* Select the projector(s) listed on the projector list on the application window and click **Start real time capture**. The application window will disappear and then the screen image of the computer will appear on the projected screen in real time.

* You can select multiple projectors (up to 5) on the projector list.

• To stop capturing, click **One-shot capture** on the popup menu appearing by clicking on the Network Capture 5 icon on the task bar. The captured image of the computer on the screen is frozen.

• To restart capturing, click **Start real time capture** on the popup menu.

*3* To end capturing, click **Terminate capture** on the popup menu appeared by clicking on the Network Capture 5 icon on the task bar.

| |
|---|
| One-shot capture |
| Terminate Capture |
| Window show.. |
| Version information.. |
| Shut down |

✐ If the error message appears, check the item "Parameter set up" (☞ p.90).

✐ The sound output from the projector can be controlled with the volume slider and mute item on the application window of the Network Capture 5 software (☞ p.25-26, p.90).

## [2] Control by the web browser



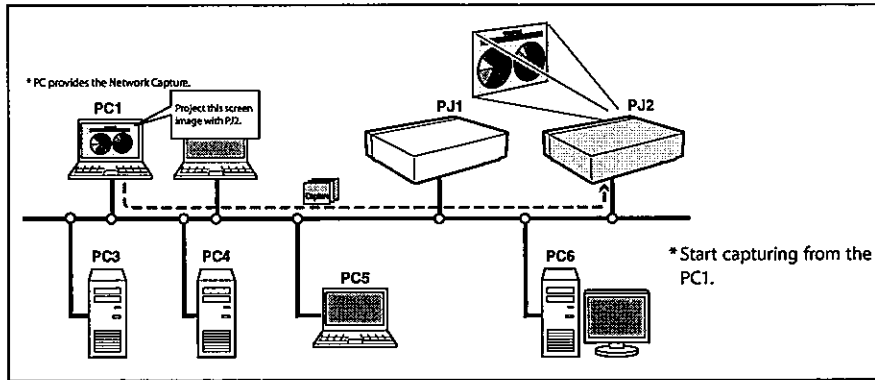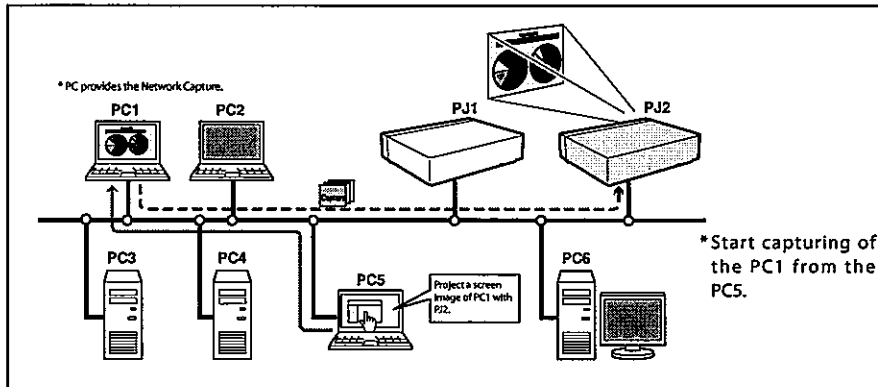Select "Network" as input mode previously.

*1* Access to the control page of the projector by using the web browser. From the **Network** menu, click **Capture** tab to display the setting page.

*2* Select the computer number from the pull-down menu button of "Connecting PC" and click **Start** button. The screen image of the selected computer will appear on the projected screen in real time.

• To stop capturing, click **One-shot** button. The captured image of the computer on the screen is frozen.

• To restart capturing, click **Start** button.

*3* To end capturing, click **End** button.

Set "On" when using the wireless mouse function
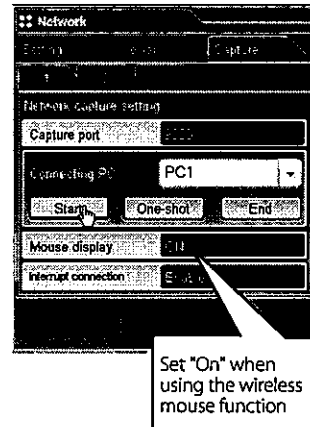
| Item | Description |
|------|-------------|
| Interrupt connection | Set enable or disable the real time capturing connection from other computers during executing the real time capturing operation. |

*✐ The IP address of the connecting PC should be registered previously (☞ p.91).*

*✐ If the error message appears, check item "Parameter set up" (☞ p.90).*

*✐ To use the capture function from the web browser or projector, the Network Capture 5 on the captured computer must be activated.*

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## [3] Control by the projector
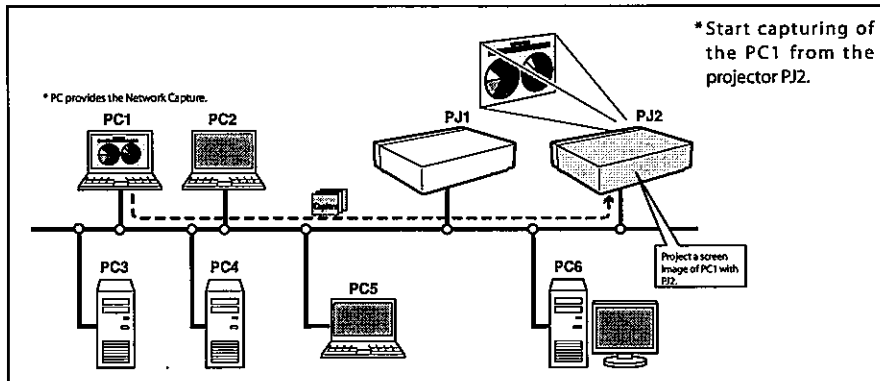


Select "Network" in the Input menu previously.

*1* Select "Network capture" in the Network menu. Press Point ▶ or SELECT button.

*2* Select "PC number" and press SELECT button and using Point ▲▼ buttons to select the PC number to connect, and then press SELECT button.

*3* Select "Connected" and then press SELECT button to start capturing. The screen image of the selected computer will appear on the projected screen in real time.

*4* To end capturing, select "Disconnect" and then press SELECT button.
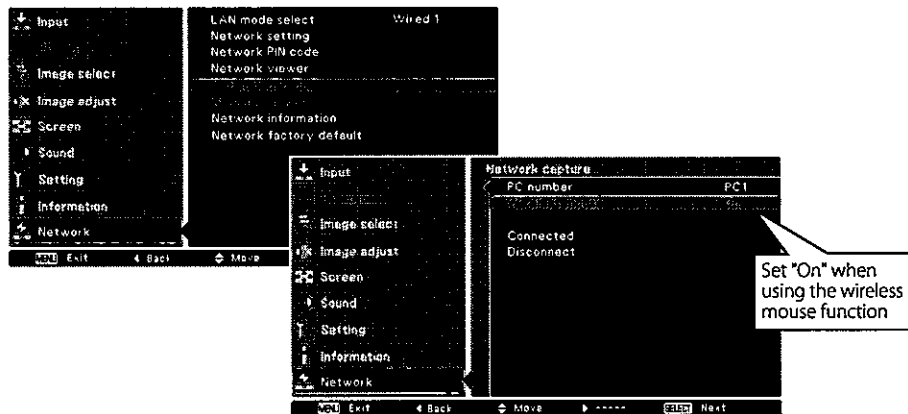


⌀ The IP address of the connecting PC should be registered previously (☞ p.91).

⌀ If the error message appears, check item "Parameter set up" (☞ p.90).

⌀ The projector does not provide the function to register the IP address of the computer and to set the parameter of the capturing. They should be registered by using the web browser previously (☞ p.91).

⌀ The remote control which is provided with the projector does not have the mouse operating function.

## [4] Control by the computer with USB memory
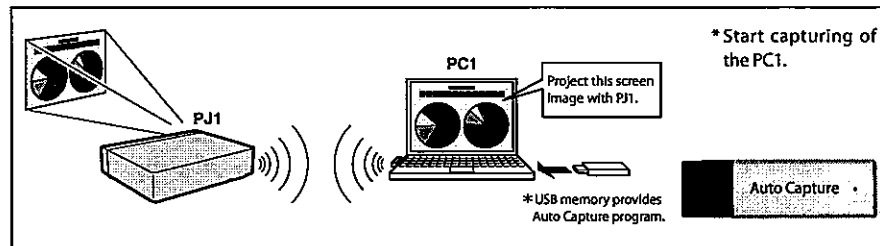


The real time capture function can run automatically on the computer without the Network Viewer & Capture 5 software installed by executing the Auto Capture program in the USB thumb drive connected to the computer. The USB thumb drive for Auto Capture is supplied with this projector.

1. Turn on the projector and select "Network" from the Input menu of the projector.
2. Select "LAN mode select" from the "Network" menu of the projector and press SELECT button. Select "Wireless Simple" with the Point ▲▼ buttons. (☞ p.41)
3. By connecting the above USB thumb drive, the removable disk window appears. Select "[Network Capture 5] Open Program using the program provided on the device." and then click OK.
4. Automatically, the activated executable file configures the Easy wireless setting. (If the network adaptor selecting window appears, select an option according to your network environment.) Then, it searches the projector, and starts the real time capture of the computer screen.
5. If the auto-run program does not start automatically, double-click "WinAutoCap5" in the USB thumb drive. (The auto-run program works only with Windows XP and Windows Vista.)

*The connection process of AutoCapture is different according to the equipped LAN adapter..
   In case of only the wired LAN adapter is provided in the computer:
   Connect to the network with the wired LAN adapter and search a projector.
   In case of only the wireless LAN adapter is provided in the computer:
   Change the LAN setting of the computer to SIMPLE and search a projector with the wireless LAN adapter.
   In case of both the wired and wireless LAN adapters are provided in the computer:
   When "Usually set it to a network adapter to use" is not checked; the network selection window is displayed.

6. For the following operations, refer to Page 92.

| Setting condition for automatically starting the real time capture function |
|---|
| Projector: Power: On, Input mode: Network, LAN mode select: Wireless Simple<br>The searching result becomes only one projector.<br>Computer PC1: Log in by Administrative<br>The wireless LAN card or the wired LAN card: Provided, Network Capture 5 software: NIL<br>Activate WinAutoCap5 in USB thumb drive |

✐ If the error message appears, check item "Parameter set up" (☞ p.90).

✐ When your computer provides multiple network adaptors, and "Select normal network adaptor" on the parameter setup window is un-checked, the network adaptor selecting window (☞ p.26) will appear.

✐ When plural projectors are found, the real-time capture will not start, but will become standby status. Release the wireless LAN SIMPLE setting of the projector which is not for the real-time capture.

✐ When the software of Network Capture 5 is not installed in the computer, the sound data is not transferred. If you want to transfer the sound data, install the software beforehand.

✐ If the specified files are copied in the root of commercial USB memory, you can also perform the AutoCapture.

## Example of advanced use

**Displays the presentation data stored in the computer by using the wireless mouse function from the projector.**

*1* Start capturing of the computer PC1 by using the projector.

Select "Network Capture" icon from the menu and select "PC1" and then select "Connect" (☞ p.94).
=> The Network Capture software installed in the selected computer will start capturing.

*2* On the image of the PC1 projected on the screen, search a presentation file data stored in the PC1 by using the wireless mouse function of the remote control supplied with the projector.

*3* Select a desired file and double click with the remote control.

=> The application by which the document was created starts and the projector projects the presentation picture on the screen.

*4* Start the presentation.

=> By using wireless mouse function, control the page browsing and some other operations for the PC1.

✎ For further instructions of the wireless mouse, please refer to the projector's owners manual.
✎ On the projected screen using with the network capture, the shape of the mouse pointer differs from the one on the computer's screen.



**Setting condition**

Projector
Input mode: Network
Registering the connection:
The IP address of the computer and proper parameter must be set to the PC1 (☞ p.90-91).
Mouse Display: "On" (☞ p.93)

Computer PC1
Software:
The Network Capture 5 is activated.
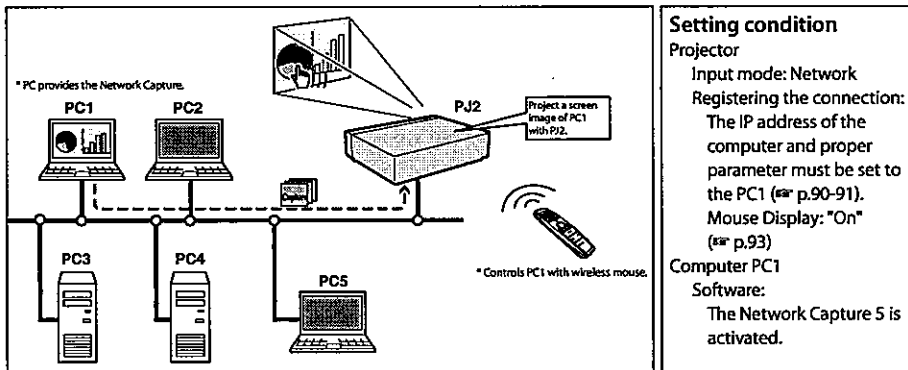
## Using the Network Communication
•••••••••••••••••••••••••••••••••••••••••••••

This Network Communication is to communicate by sharing the captured image of a computer with multiple computers and a projector. Users can draw the text and figure on the captured image by using a drawing tool.

The data that has the captured image of a Main PC and communication information is sent to the projector. The projector projects this data onto the screen and serves this data to other computers (Sub PC) at the same time. The Sub PC receives served captured data and displays it on the screen. The Main PC and Sub PC also can edit the captured image by using the drawing tool. This edited image is applied to all the computers automatically.
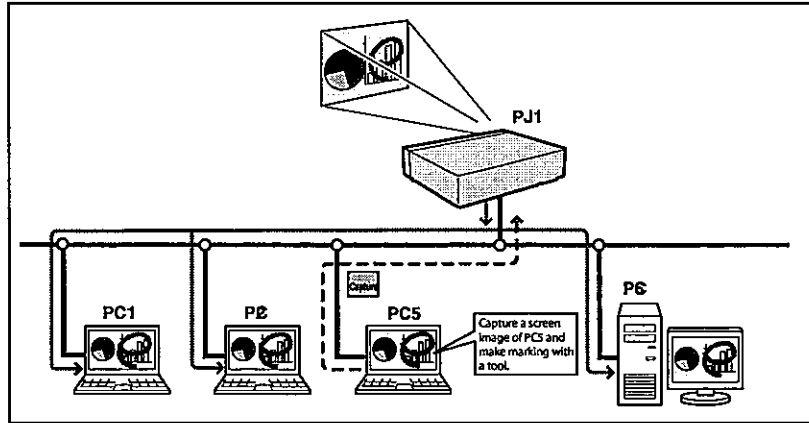
*The Main PC is a computer which started using communication function, and serves own computer screen captured image to the Sub PC. The Main PC has an authority to quit using whole communication. To become the Main PC, execute the command "Start Communication" or "Capture transfer". For further information, see item "How to use the Network Communication". (☞p.100)

*The Sub PC is a computer which receives a captured image from the Main PC. On the communication mode, the Sub PC can become the Main PC.

## Settings before using the Network Communication

To use the Network Communication, the capture setting of the projector must be set either [1] or [2] as described below.

[1] **Projector searches all the available subject computers in the network automatically.**

[2] **Subject computers are registered to the projector.**

Perform capture setting following to the description below.

### [1] When serving the capture data to all the subject computers in the network.

By using the web browser, display "Communication Setting" from menu "Network"-"Capture"-"Page 2". Confirm that the item Auto search subject PC is "ON". If "OFF", change mode to "ON".
* Projector can find up to 30 computers in the network.

### [2] When serving the capture data to the specific subject computers in the network.

Set the item Auto search subject PC "OFF" described in the above and then display "Connection Setting" from menu "Network"-"Capture"-"Page 3" with the web browser. Enter the IP address of subject computer and click Set button to register.
* Up to 30 computers can be registered to the projector.
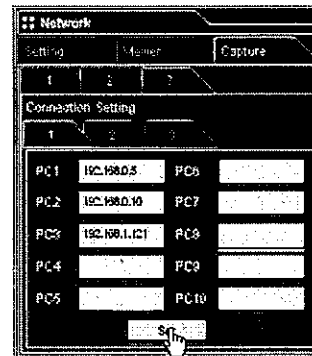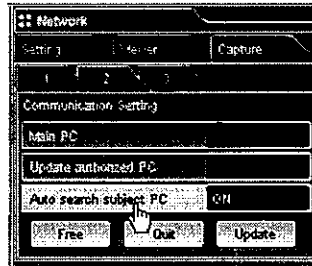
✐ To display the served capture data, the software Network Capture 5 must be installed on the computer.

## Description of capture editing window

Start Network Capture 5 and select the projector(s) on the projector list on the application window and click **Communication Start** button. The application window will disappear and the capture editing window will appear on the computer screen as below. For basic operation of each menu, refer to the item "Menu tree" below.



Menu

Tool bar

Capture Image

Authority status
indication frame
(☞p.100)
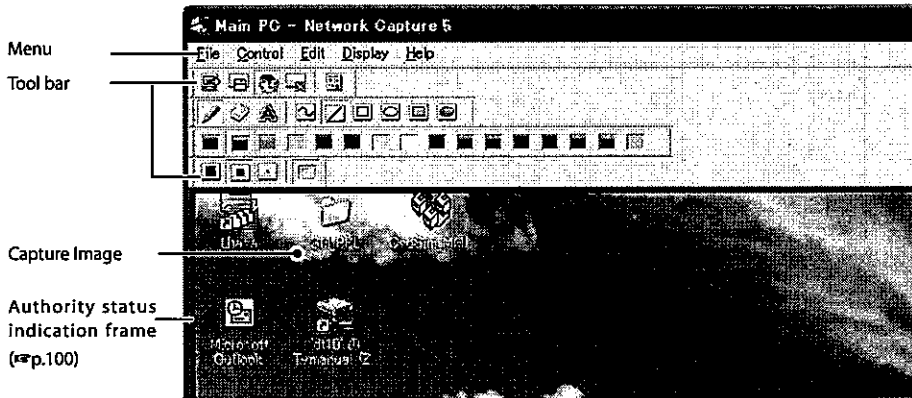
## Menu tree

| Menu | Submenu | | Operation |
|---|---|---|---|
| File | Save Communication | | Saves a captured editing image as the data(JPEG) |
| | | | Saves dialog window appears |
| | Terminate Communication *main pc only* | | Quits the communication mode |
| | End Editing *sub pc only* | | Closes the Editing window |
| Control | Capture transfer | | Captures a screen image and sends it to the projector |
| | Authority | | Acquires/releases the authority to edit the capture image |
| Edit | Tool | Pencil | Selects a pencil tool |
| | | Eraser | Selects an eraser tool |
| | | Letter frame | Selects a letter frame tool |
| | Form | Free | Draws line with freehand |
| | (Shape) | Straight line | Draws straight line |
| | | Square | Draws square |
| | | Oval | Draws oval |
| | | Square(Painting out) | Draws filled square |
| | | Oval(Painting out) | Draws filled oval |
| | Attribute | | Appears a attribute window |
| | Delete all | | Deletes all the drawings on the image |
| | Undo | | Cancels the last executed operation |
| Display | Full screen | | Switches capture editing window, normal or full screen |
| | Tool bar | Standard | Switches standard tool buttons on or off |
| | | Form(shape) | Switches form(Shape) tool buttons on or off |
| | | Color | Switches color tool buttons on r off |
| | | Attribute | Switches attribute tool buttons on or off |
| | Display on foreground | | Keeps capture editing window on foreground always |
| Help | Version information | | Displays software version number |

## Tool bar button names

The following commands are assigned to the tool bar buttons. For each operation, refer to the description of the item "Menu tree".

Command Tool  Save
Bar of Main PC communication Terminate Communication
      Capture
      transfer   Authority     Attribute

Standard
tool bar

Form
tool bar

                                              Oval(Painting out)
    Pencil     Letter    Straight line     Square(Painting out)
              frame
       Eraser       Free     Square Oval

Command Tool
Bar of Sub PC     End Editing

    Color pallet 16 colors

Color tool
bar

Attribute
tool bar

    Width (Large,    Translucence
    Medium, Small)

---

✐ To switch the tool bars displaying on or off, select each command from menu "Display"-"Tool bar".

✐ User can realign and join the tool bars (Standard, Shape, Color, Attribute), and change it to the floating pallet by a drag and drop of the tool bars.

✐ There are some disable buttons depending on the tools and authority mode. In that case the button appears in gray.

# How to use the Network communication

## Start the communication

*1* Display an image on the computer screen.

*2* Start Network Capture 5. The application window appears and the projectors in the network are listed.

*3* Select the projector(s) and click **Start Communication** button. The application window disappears and the capture editing window with a captured image appears on the computer screen. The projector displays captured image on the screen.

    ✐ If an error message appears, check the item "Parameter set up". (☞p.90)

## Join the communication (only for Sub PC)

*1* Start Network Capture 5. The application window appears and lists the projector in the network.

*2* Select a projector whose status on the projector list indicates "Communication starting", and click **Start communication** button. The application window disappears.

*3* Click **Start editing** menu on the popup menu appeared by clicking the Network Capture 5 icon on the task bar. The capture editing window with a captured image appears on the computer screen.

## Exit from the communication (only for Sub PC)

Click " ⚉:End editing" button on the standard tool bar. The capture editing window will be closed.

    ✐ This command is available with the Sub PC only.

    ✐ When "End editing" with the authority provided is executed, the authority will be released.

## End the communication

Click "⊡:Terminate Communication" button on the standard tool bar.

The capture editing window will be closed.

    ✐ This command is available with the Main PC only.

    ✐ The communication cannot be ended while other PC has the authority. To end communication forcibly, click the Capture 5 icon on the task bar and select "Shut down" on the popup menu.

## How to acquire and release the editing authority

To edit the capture image, each computer needs to acquire the authority respectively. To acquire the authority, click "⚙: Authority" button on the standard tool bar and then edit the capture image. The capture editing window indicates the authority status by changing the frame color depending on the current authority mode as follows.



    Red          Blue          Green

having an authority      other computer having an      ready to acquire an authority
                   authority
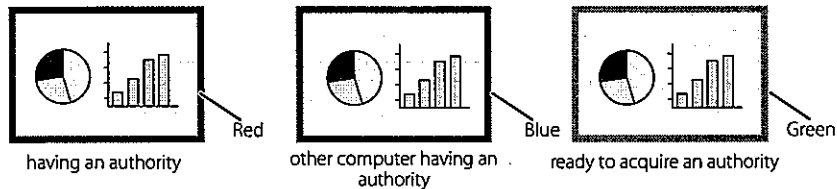
## Edit capture image

### Drawing figures

*1* Click " :Pencil" button on the form tool bar.
*2* Select its attribute (shape, width, color and translucence) from the form and attribute tool bar.
*3* Drag a mouse pointer on the screen image to draw the figure.

### Erase drawn objects

*1* Click " :Eraser" button on the form tool bar.
*2* Select its attribute (shape, width) from the form and attribute tool bar.
*3* Drag a mouse pointer on the screen image to erase the figure.

**Hints of the drawing**

- Straight line tool.................To draw the vertical line or horizontal line, drag a mouse pointer with shift key pressed.
- Square tool.............................To draw the quadrate, drag a mouse pointer with shift key pressed.
- Oval tool.................................To draw the perfect circle, drag a mouse pointer with shift key pressed.
- To cancel the drawing, select command "Edit"-"Undo" from the menu.
- To erase all the drawing at once, select command "Edit"-"Delete all" from the menu.
- The popup menu appeared by right clicking of the mouse is also available to select the tool and change the attribute.

### Setting of the drawing tool attribute

When clicking " :Attribute" button on the standard tool bar, the following window will appear. This window appears only if the pencil or eraser tool is selected.

| Figure attribute dialog | ⊠ |
|---|---|
| Width | Medium |

**Line width**
Large: 8 dots
Medium: 4 dots
Small: 2 dots

Color
Figure color

Sets translucent color

☑ An overlap is made into translucence.

Select a color on the color pallet appeared by clicking here.

| OK | Cancel |

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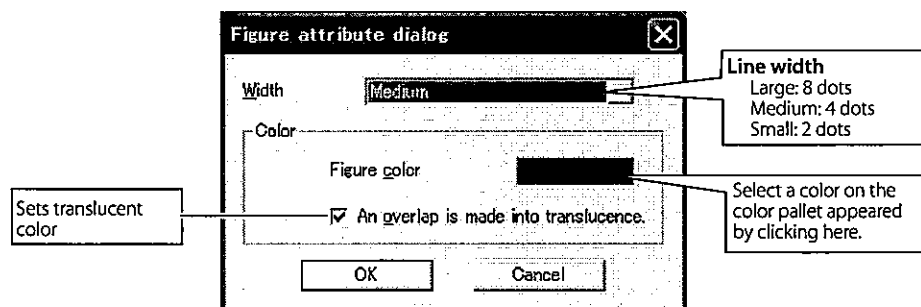
## Drawing letter

*1* Click " ⒜ :Letter frame" button on the form tool bar.

*2* Select a color of text with color tool bar.

*3* Drag a mouse pointer on the screen image to specify the area of the letter frame. The letter input dialog window will appear.

*4* Enter the letter onto the window.

To change the letter attribute, click **Letter attribute** button. See the item "letter attribute setting" below.

*5* Click OK button to fix the content. The entered letter appears on the captured image.
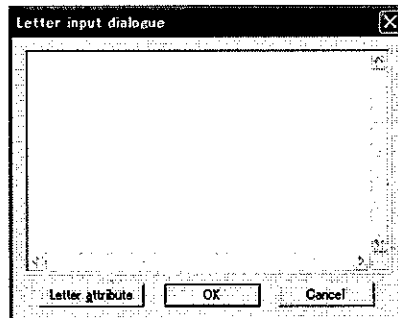
✐ If the entered letter overflows the area of letter frame, the letter frame is automatically extended downward.

✐ Up to 1000 characters can be used for a letter frame.

### Letter attribute setting

The font attribute setting window appears when clicking " 🗒 :Attribute" button on the standard tool bar with the letter frame tool selected, or clicking **Letter attribute** button on the letter input dialog window described the above.

Set type face, style, size and effects of the font

Predefined 16 colors are available.

Set translucent color
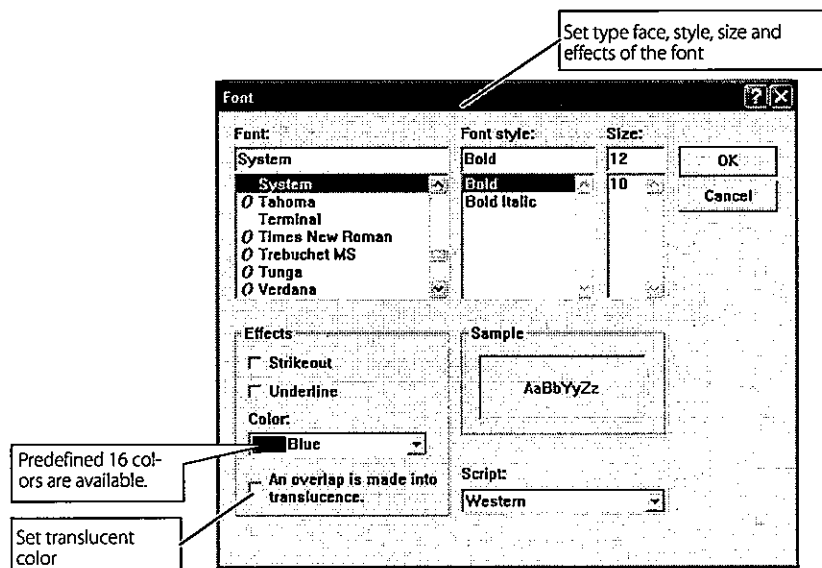
# Network Communication operation and change of state

Network Communication can be used under the environment which one or more computers are connected to the projector via the network.

## Preparation

Start up the Network Capture 5 software on the subject computer. Set standby the projector or turn it on. Check IP address of the subject computer is registered in the connection list (☞p.97).

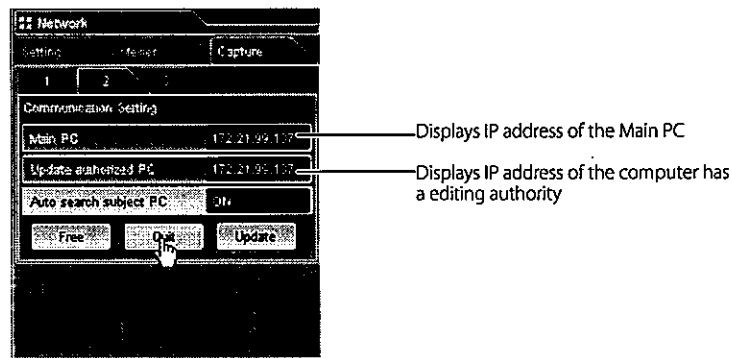| | Operation on the Main PC | | Operation on the Sub PC | |
|---|---|---|---|---|
| | | Frame | [1] Executing the command "Start Communication". | Frame |
| | [1] Executing the command "Start Communication".<br>→ The capture editing window appears on the screen. | R | Execute the command "Start Editing" on the task bar.<br>→ The capture image on the Main PC appears on the screen. | B |
| | [2] Editing the capture image.<br>→ The editing information is automatically transferred to the Sub PC. | R | → The editing information on the Main PC is reflected on the Sub PC. | B |
| | [3] Releasing the editing authority.<br>→ The color of authority status frame changes green. | G | → The color of authority status frame changes green. | G |
| On the Communication | → The color of authority status frame changes blue. | B | [2] Acquiring the authority.<br>→ The color of authority status frame changes red. | R |
| | → The editing information on the Sub PC is reflected on the Main PC. | B | [3] Editing the captured image using with the tools.<br>→ The editing information is automatically transferred to the subject PC. | R |
| | → The color of authority status frame changes green. | G | [4] Releasing the editing authority.<br>→ The color of authority status frame changes green. | G |
| | [4] Acquiring the authority.<br>→ The color of authority status frame changes red. | R | → The color of authority status frame changes blue. | B |
| | [5] Repeat steps [2], [3] if required. | | [5] Repeat steps [2] to [4] if required. | |
| | [6] Executing the command "Capture transfer" on the task bar.<br>→ Updating the editing window with a new captured screen image. | R | → A new captured screen image appears on the editing window. | B |
| | [7] Repeat steps [2] to [5]. | | | |
| | [8] Ending the communication.<br>→ The capture editing window disappears. | R | → The capture editing window disappears. | |

✐ The projector projects the edited captured image on the screen when the input mode of the projector is set "Network".
✐ The command "Save Communication" can be executed in any of the mode even if the PC does not have the authority.
✐ The arrow (→) shows a response to the command executed.
✐ The execution of the command "Terminate Communication" or "End Editing" on the Sub PC has no effect on the other subject computers.

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# Executing the forcing mode

The network capture setting of the web page provides a forcing executing command. This command executes the release of authority or ending the communication forcibly. This is useful when the other subject PC keeps an authority all the time, or when the condition of the communication is not stable. Click page 2 **Communication Setting** from the menu "Network"-"Capture". Execute command by clicking the button **Free, Quit** or **Update**.

Displays IP address of the Main PC

Displays IP address of the computer has a editing authority

| Item | Description |
|------|-------------|
| Free | Releases the editing authority forcibly |
| | → Sets condition which all the users can acquire an authority |
| Quit | Quits the communication forcibly |
| | → The capture editing window on all the computers closes forcibly. |
| Update | Acquires the latest communication status |
| | → Updates the IP address of the Main PC and Update authorized PC. |

# Moderator function
• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •
This function is useful for a moderator or a teacher to conduct a meeting or a class, where all the participants including the moderator (teacher) are assigned a computer, to project images from each participant's computer. A moderator (teacher) has the right to decide which computer image should be projected. One moderator (teacher) can conduct up to 50 computers.
This function enables you to project the participants' data directly in a short time and in real time without taking time to transfer the data to the computer connected to the projector.
The image data will not be limited by the computer's application because the data transfer of each computer adopts the screen capturing system.

Names and terms used in this chapter have following meanings.

| | |
|---|---|
| Moderator | Moderator or teacher |
| Client | Participant of meetings or the classes |
| Network Capture 5 | The application which the moderator and client use |



Projector

**Moderator**
Network Capture 5 is installed on the moderator's computer.

**Clients**
Network Capture 5 is installed on the Clients' computer.

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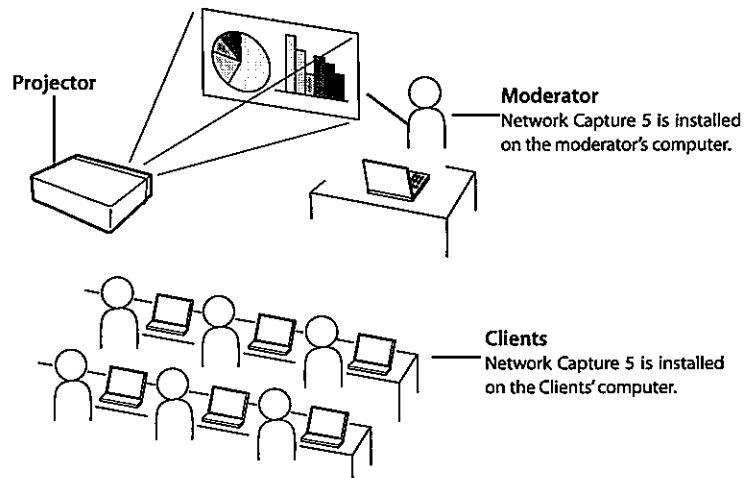
# Preparation for using the moderator function

First, follow the procedure in "2. Setup Procedure" → "Step 1-3" (p.18) and confirm that the setting status is set as written below.

•Network Capture 5 is installed on the moderator's computer and each client's computer and each computer image can be projected.

Following application window appears when the Network Capture starts. After clicking **Moderator registration** button, the application window changes to "Moderator mode" window as shown in the lower picture below.

**Normal mode application window**

Projector list    Status of use



Moderator          Join moderator's       Parameter
registration        group                  setting

**Moderator mode application window**

Projector list    Status of use    User              Client list



Start real time capture

Terminate capture

One-shot

Delete moderator's registration
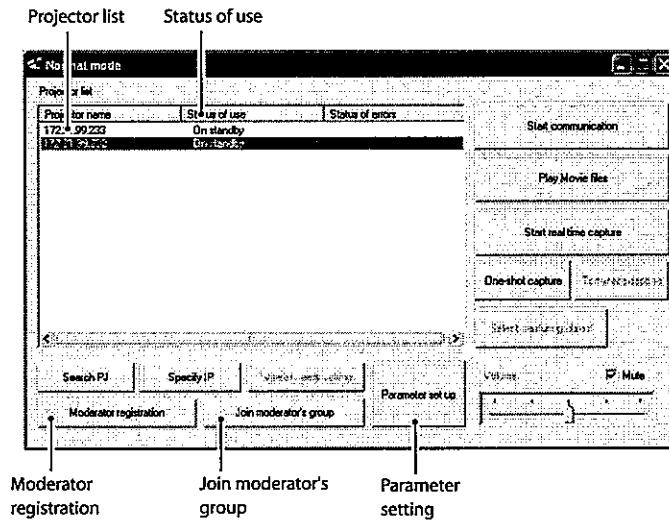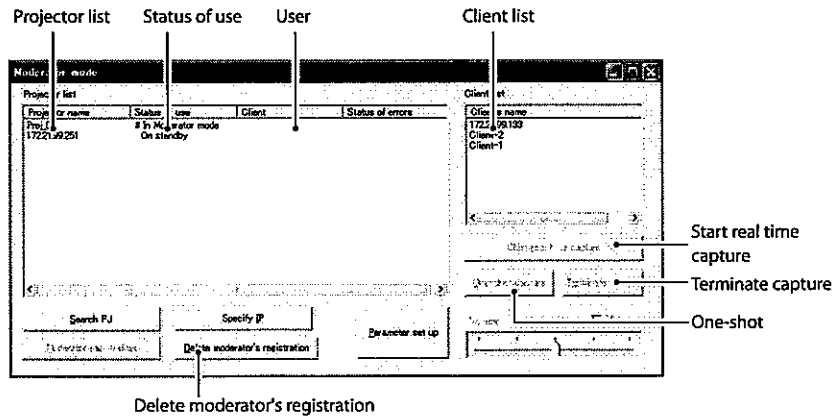
## Description of application window

Column          Description

Status ........................Indicates the projector's condition. On real time, On One-shot capture, On Standby, In Moderator mode, etc.
User.............................Indicates the client name (nickname or IP address) used by the projector.
Error...........................Indicates the error status during executing the real time capture or one-shot capture.
Parameter set up ...Sets the parameter of capturing. Moderator's nickname (less than 63 characters) and
               moderator's password (less than 15 characters) can be setup with this item. Also see the item
               "Parameter set up" (p.90) for other parameter setup.
Moderator registration ...Register a moderator's group
Delete moderator group ...Quit a moderator's group
Join moderator's group ...Join a moderator's group. Press this button after selecting the projector which is indicated with
               "In Moderator mode" on the status column.
Start real time capture..Capture (Project) the computer screen in real time. After the execution of "Start real time
               capture", and the application window disappears.
Terminate capture.....Terminate the real time capture.
One-shot capture......Copy and capture (project) the computer screen without modification. After the execution of
               One-shot, the application window disappears.
* See item " 3. Names and function of the operating screen " (p.25) for other description of application window.

# Using the moderator function

### Moderator operation

1. A moderator starts up the Network Capture 5. On the application window, select a projector on
the projector list to use and then click **Moderator registration** button. The mode of the application
window changes from "Normal mode" to "Moderator mode".

### Client operation

2. Each client starts up the Network Capture 5. On the application window, select a projector which is
indicated with "In Moderator mode" on the status column and then click **Join moderator's group**
button. The application window disappears.
When exiting from the moderator's group, click **Exit moderator group**
on the popup menu appearing by clicking the Network Capture 5 icon
on the task bar.

| Exit moderator's group |
| --- |
| Version information.. |
| Shut down |

### Moderator operation

3. The client's and moderator's nicknames or IP addresses of the computer appear on the client list of
the application window of the moderator when the client joins into the moderator's group.
4. The moderator selects a projector on the projector list and selects a client computer on the client list
to display the client computer's screen.
       When you register the multiple projectors in the moderator's group, select a projector on the
       projector in the moderator mode and click **Moderator registration** button to register it in
       the moderator's group one by one.
5. Click **Start real time capture** or **One-shot capture** button. The selected projector projects the
selected client computer's screen on the screen.
       When you project the capture image with the multiple projectors, select projectors on the
       projector list by holding the [Ctrl] key or [Shift] key.

The moderator and the clients can start the meeting with Moderator function.

# Moderator's password setting up
● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
This enables you to set up the password to join in the moderator's group.
Start up the network Capture 5 and click **Parameter set up** button on the application window. On the moderator function setting item on the parameter set up window, set up the password of **Moderator 's password**. Up to 15 characters can be used for the password. Default password is blank.

Following password input window appears on the screen when the client clicks **Join moderator's group** button on the application window to join in the moderator's group.

| Input moderator's group password | |
| --- | --- |
| Projector name | Proj_05 |
| Password | **** |
| OK | Cancel |
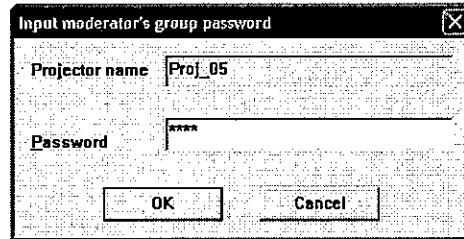
Enter a password and click **OK** button. When the password is authenticated correctly, the client can join in the moderator's group. The input password is registered in the moderator's password of the client.

# Unregister moderator status
● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●
1. Select the projector(s) which is registered as a moderator from the moderator mode application window.
2. Click the **Delete moderator's group** button. Selected projector will be unregistered on a moderator, and the application window changes "Normal mode". The column of status changes from "#On Moderating" to "On Standby". When there are multiple projectors to unregister, the application window maintains "Moderator mode" until all the registered moderator's groups are unregistered.

✻ Even after the moderator is unregistered, the application window of the Network Capture 5 appears on the screen to indicate that the moderator function is unregistered.
✻ After terminating the Network Capture 5, all the clients joined in the session will be unregistered.

# Error information

| Error messages | Cause and corresponding |
|---|---|
| Set up the parameter. | Error when the communication is executed. The parameter setting (host name, capture port) has not been set.<br>→ Check parameter setting (☞p.90) |
| It has not been registered to PJ as a group. | Error when Start Communication or Start real time capture is executed. The IP address of the computer has not been registered.<br>→ Register the IP address by using the web browser (☞p.97) |
| Cannot be displayed as PJ is under display. | Error when Start Communication or Start real time capture is executed. The other capture, viewer or memory viewer function is now operating.<br>→ Wait until the communication function is available. |
| Cannot connect to PJ. | Cannot establish the connection with the projector when the Start communication is executed, Terminate Communication, Capture transfer, Start real time capture or Terminate capture.<br>→ Check connection of the network cable. |
| Cannot transfer data to PJ. | Cannot transfer the data to the projector when the Start Communication, Terminate Communication, Capture transfer, Start real time capture or Terminate capture is executed. The time-out period is 10 seconds.<br>→ Check the connection of the network cable. |
| Cannot receive data from PJ. | Cannot receive the data from the projector when the Start Communication, Terminate Communication, Capture transfer, Start real time capture or Terminate capture is executed. The time-out period is 10 seconds.<br>→ Check the connection of the network cable. |
| Other PC has authority.<br>Cannot complete "Network Communication". | When executing the Terminate Communication, you cannot quit the communication because other computer has an authority |
| Other PC has authority. Cannot obtain authority. | Other computer has an authority. |
| Invalid port number | When the parameter is set, the reserved port number is specified.<br>→ Check the parameter setting (☞p.90) |
| PJ has not started Network Communication. Close the window and open it again. | The projector might have turned off during the communication.<br>→ Check the projector power and re-execute "Start communication". |

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# Playing the movie files
• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •
Although the quality of the real-time capture image of a computer screen is not so good, but you can
keep a high quality of projection image with this movie files playback function, which transmits movie
files from a computer to the projector and play the movies file with the projector.

1 Select a projector in the projector list and press "Play movie files" button.
Only one projector can project the movie. When you select two or more projectors, "Play movie files"
button cannot be pressed.
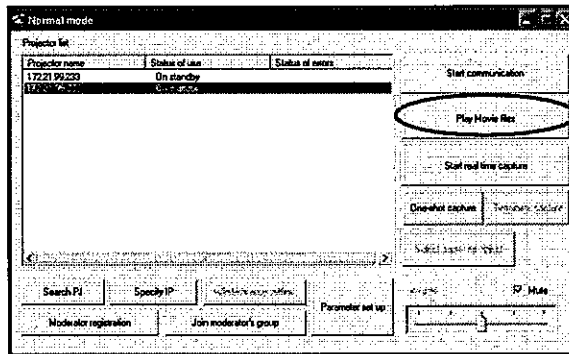


2 Play movie files dialog will be displayed. When press "Select files" button, the files which are in the
computer or connected — will be displayed. Select the movie files and click "Open" button.
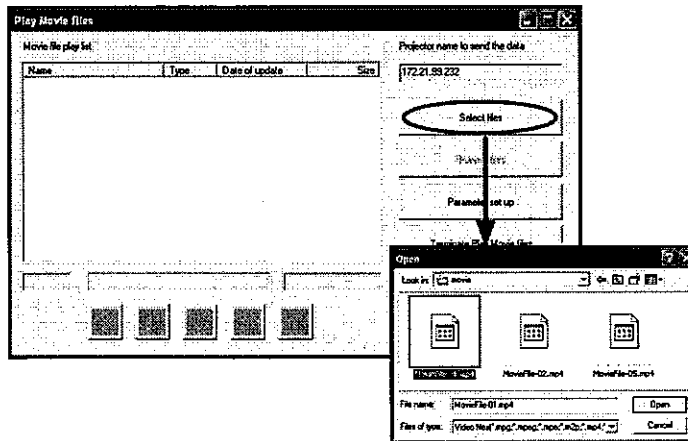


✐ The kind of movie files supporting movie file playback is as follows.
MPEG1, MPEG2, MPEG4, H.264, VC-1

*3* The selected movie file will be listed in the movie file list of the play movie files dialog and "Play" button will be effective.
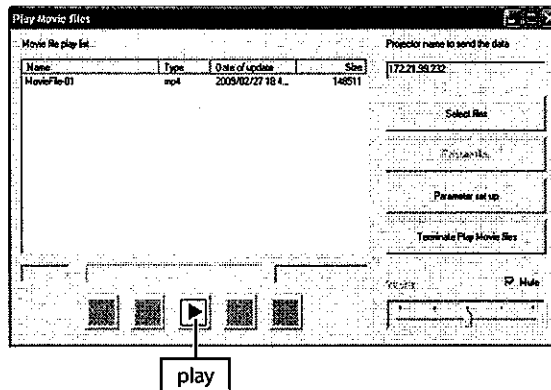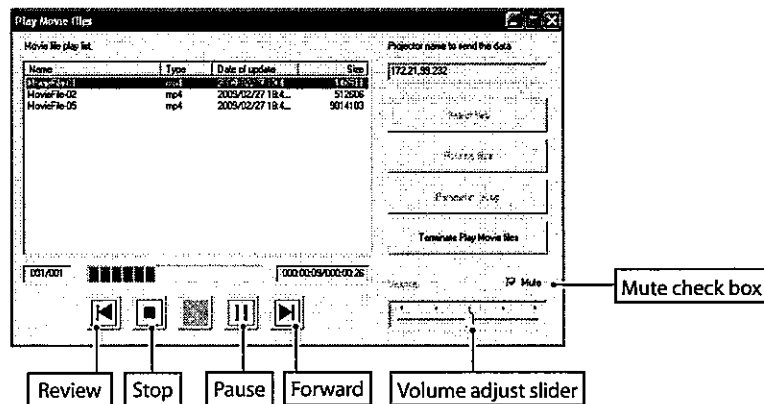


play

*4* When you play the plural moving files, repeat these steps and add the movie files in the movie files list. When you click the Name, Type, Date of update, or Size column header, you can change the sort order of the movie files list in either ascending or descending order. When you want to delete a movie file from the movie files list, choose the movie file and click "Release files" button.

*5* When "Play" button is pressed, the movies start to play in the order which line up into the movie files list. While playing the movie, other buttons in addition to "play" button are effective and you can operate to stop or pause. To change the volume of the movies, adjust the volume bar. To mute the sound, check the "Mute" check box. The current playing movie file is indicated with blue color. Adding or deleting files cannot be operated during playing a movie.



Review   Stop   Pause   Forward   Volume adjust slider

*6* To end the play movie, click the "Terminate Playing movie files" button.

*✍* The playing times can be set in the "Parameter set up" dialog which appears by pressing the "Parameter set up" button. If set to "0", the projector will loop play the movie file lists endlessly.
*✍* When being checked in "Mute" check box, the volume cannot be adjusted.

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**Chapter 9**

## 9. Network Viewer functions

Network Viewer is a function to display the image data stored in the file servers by the projector through the network.

Describes the file converter software File Converter 1, File Converter 2, the program creator software Program Editor, and how to use Network Viewer.

# Creating the available data [Network Viewer 5]

The image available with this projector is the JPEG format (.jpg). There are several types of JPEG data. Some data may not be projected. Before using the images with the Network Viewer function, it should be converted to the optimized JPEG data for this projector.

## [1] How to use the Network Viewer 5 (File Converter 1)

The File Converter 1 is a software to convert the images from the JPEG, bitmap or Power Point data to the optimized JPEG data for the projector.

### *Start up and quit the File Converter 1*

To start up the File Converter 1, click "Network Viewer 5 (File Converter 1)" menu from "Start" - "All Programs" - "Network Viewer & Capture 5" menu.

To quit the File Converter 1, click on the close box on the upper right-hand of the window.
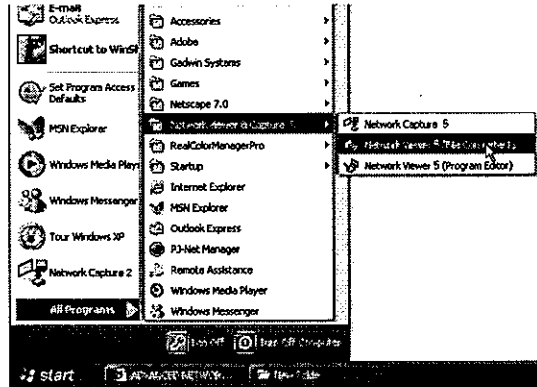
**File Converter 1 window**



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## Menu Tree

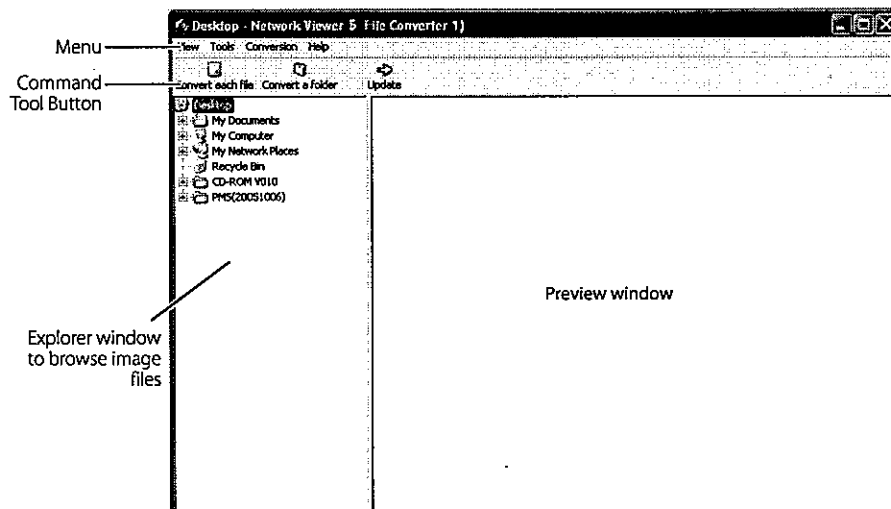| Menu | Sub Menu | Description |
|---|---|---|
| View | Update | Updates contents of the preview window |
| | Preview size | Sets size of the preview image, Large, Middle, Small |
| Tools | Option | Sets default of the output destination and conversion mode |
| Conversion | Convert each file | Converts a file into a JPEG file individually |
| | Convert a folder | Converts files in a folder into JPEG files at once |
| Help | Version information | Displays the version information |

## Command Tool Button

Convert
each file

Convert a
folder

Update

| View | ools | Conversion | Help |
|---|---|---|---|

Convert each file  Convert a folder  Update
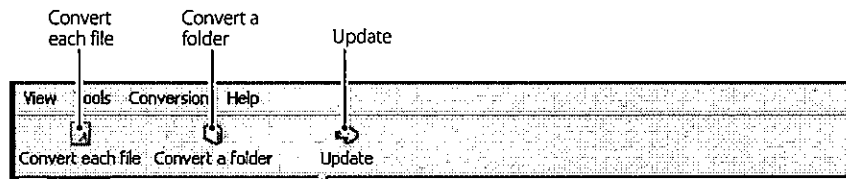
## Creating the available data

*1* Select a folder in which the image files are stored by the explorer window.

The preview images of the available image data (JPEG file, Bitmap file, power point file) in the selected folder are displayed on the preview window.

✐ On the preview window, the preview displayed with the red frame represents the unoptimized JPEG file nor Bitmap file for the projection. The preview without the red frame represents the optimized JPEG file for the projection. So you do not need to convert them again, but if you change the size or image quality, reconvert them.
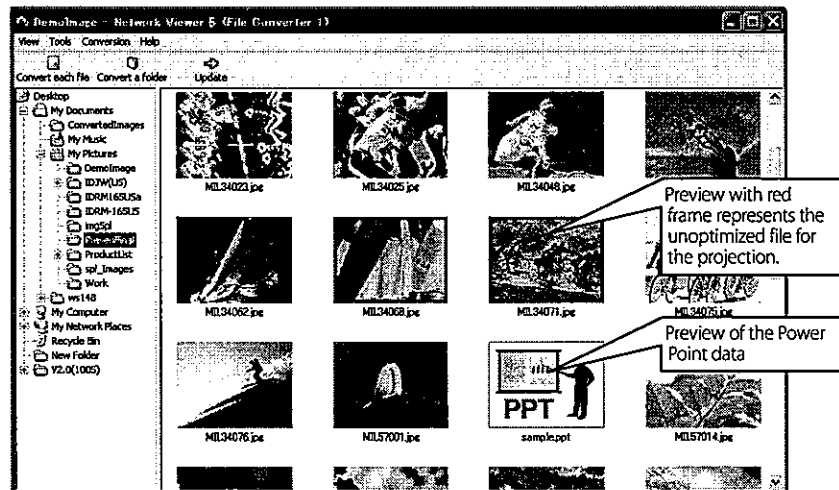
2 When converting each file, select a preview image first and then click **Convert each file**.

    ✐ To select two or more files at once, press and hold "Shift" key or "Ctrl" key and then click the preview images.

When converting all the files in a folder, select a folder and click **Convert a folder**.

3 As the confirmation window appears, check the conversion object and conversion type and then click OK button. The File converter 1 starts converting and stores the optimized files into the output folder. It enables you to select a local hard disk of your computer, shared computer in the network, and a directory of the FTP server. To change the conversion type or output destination, click **Change** button.

    ✐ If the power point file is included in the conversion object, the Microsoft Power Point software will start running and converting automatically.
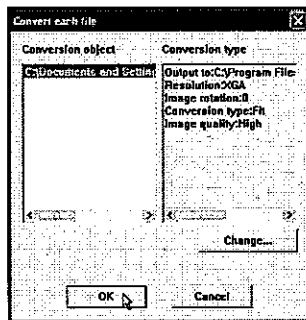
Dialog window shown during using "Convert each file" and "Convert a folder"

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    ✐ To convert images from the power point file, Microsoft Power Point software is should be installed in your computer.

    ✐ In the power point file conversion, all the pages are converted into JPEG files separately.

# Setting of output destination and conversion mode

When clicking **Change** button on the confirmation window in the step 3 on the previous page, following option setting window appears.

## Output destination

Select either **Folder** or **FTP server** as the output destination of the converted files.

### Folder

Output folder.........Specify a folder in the local hard disk or shared computer in the network

### FTP server

Host name..............Enter host name or IP address of the FTP server

Root Folder............Specify the root directory of the FTP server. Normally use "/".

User ID...................Enter your login account of the FTP sever.

Password.................Enter your password of the FTP server.

Output folder.........Specify a directory of the FTP server.

## Conversion mode

Resolution..............Selects output image resolution (VGA to SXGA+)

    ✐ The Image resolution higher than the projector's panel resolution cannot be displayed.

Image rotation.........Selects Image rotation (0, 90, 180, 270).

Conversion Type

Fit.............................Converts either width or height of the Image to fix the maximum screen width or height.

Justify
[both ends].................Converts width of the Image to fix the maximum screen width.

Justify
[top and bottom].........Converts height of the image to fix the maximum screen height.

Cut...........................Cuts image with the screen size not depending on the image size for the cutting modes. See the right figure.

    ✐ Select this mode when you want to have the images with the original size. Select each mode by clicking on the button.

Image Quality.........Selects an image conversion quality with "High", "Mid" or "Low".

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## [2] How to use the Network Viewer 5 (File Converter 2)

The File Converter 2 is a kind of the printer driver software to convert to the optimized JPEG data for the projection from the any documents created by the other software such as text editor, spreadsheet or presentation software. It is possible to convert to the JPEG file from the any kinds of documents created by the software which has a "print" menu.

## Creating the available data

*1* Open a document with the individual software.

*2* Select a "Print" sub menu and open the printing dialog. On the window, select "Network Viewer 5 (File Converter 2)" icon on "Select Printer" item and click **Print** button.
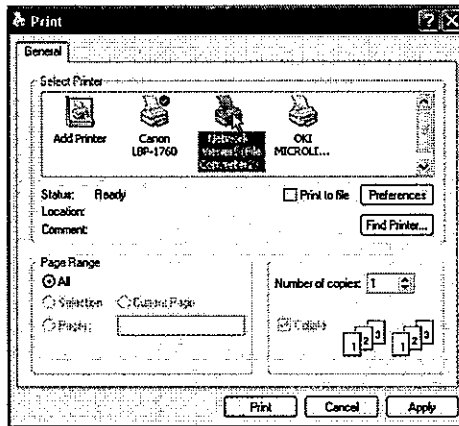


✐ Set the option setting for the page layout or paper setting by clicking **Preferences** button if required.

*3* Select a folder and click **Save** button.
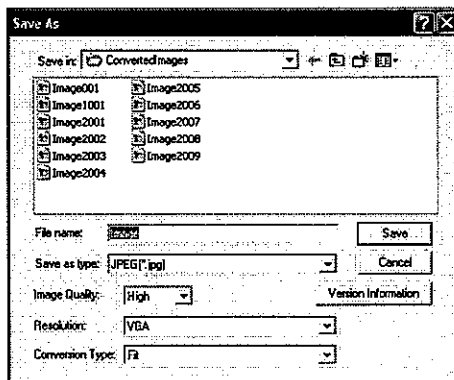


✐ The file name is named with "Image001" as default. If the converted image has 2 or more pages, the file names are numbered from "001" to "999" in serial order.

✐ Image quality and Conversion type can be set up on this window. For further information, please see "Setting of output destination and conversion mode" (☞ p.117).

✐ The white space may appear around the edges on the converted image depending on the type of the image data.

✐ The above procedure may differ in each computer environment and applications.
✐ The image data over 2 M bytes cannot be projected with Network viewer 5.

# Creating a program file [Program Editor]

Network Viewer 5 (Program Editor) is a tool to make a program file which specifies the display order of the images and its file path in the file server (FTP server). The Program Editor creates a folder "DispParam" at the login root directory in the FTP server, and files with each program name into this folder. These files are called "Program". By specifying the program file with the Network Viewer function, you can display the images in programmed order with the projector .

## Procedure of making program

*1* To start up the Program Editor, click "Network Viewer 5 (Program Editor)" menu from "Start" - "All Programs" - "Network Viewer & Capture 5" menu.

*2* Click **Connect** button.

*3* If the connection setting window appears, enter the each item and then click **OK** button.

The setting window disappears and then the programs are listed on the window if there are program files at the login directory in the connected FTP server.
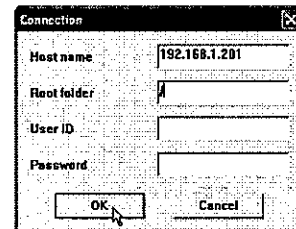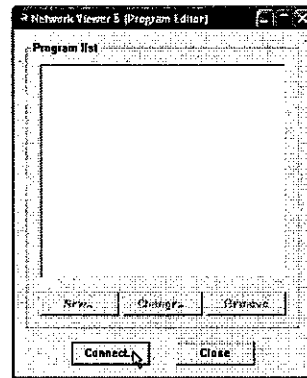
| Item | Description |
|---|---|
| Host name | Enter the FTP server name or IP address |
| Root Folder | Specify the root directory of the FTP server. Normally use "/". |
| User ID | Enter your login account of the FTP sever or use blank when you login as anonymous account for the FTP server |
| Password | Enter your password (PIN code) or use blank when you login as anonymous account. |

---

**IMPORTANT**
It is required to set the write permission mode for the login directory of the FTP server. In the read only mode, you will have an error when you register a new program.

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*4* Click **New** button.

*5* Enter a program name and click **Add** button.



*6* The folder selection window appears and select a folder in which the JPEG data are stored and then click **Add** button to register into the folder lists.
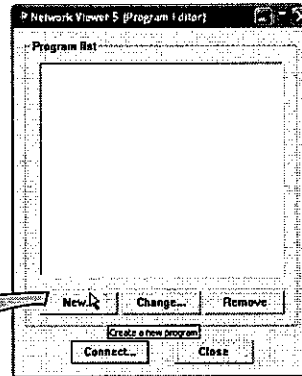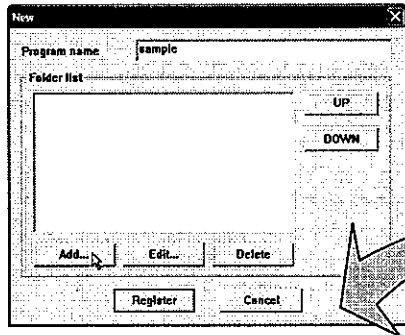


Change : Changes the contents of the program file.

Remove : Removes the program from the list.
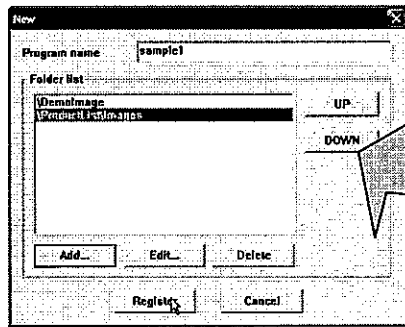


Add..................Displays the folder selection window.
Delete..............Deletes the folder path from the folder list.
UP....................Moves up the selected folder path.
DOWN..............Moves down the selected folder path.
Edit..................Used to set up the display order or display time of the image individually. For further
                        information, see the item "Setting up the display order and time of the images" on the next
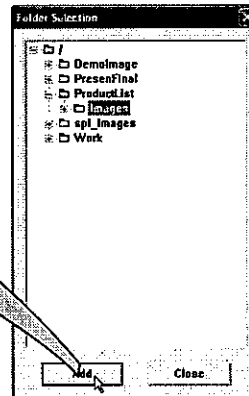                        page.

✔ The order of the display is listed in the folder list window. To change the order of the display, change the list order of the folder list by using UP or DOWN button.

✔ The programs are stored into the "DispParam" folder at the login root directory and this "DispParam" folder is made by software automatically.

*7* Click **Register** button to register the folder list into the program.

*8* Click **Close** button to quit the Program Editor.

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## Setting up the display order and time of the images

In the default setting, the display order of the images is the same as ASCII code order of the file name. To change the display order or to set up the display time, take the following procedures.

Display the folder list window in step 6 of the previous page.
*1* Select a folder list contains images to change.
*2* Click **Edit** button. The images in the selected folder are displayed with the file name on the index window.
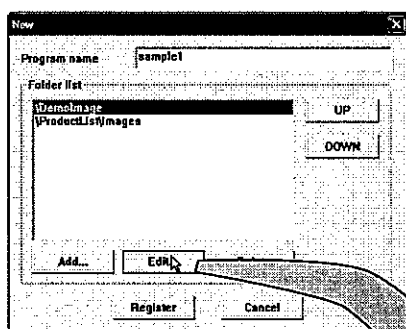
When "Image" from "View" menu is selected, the thumbnail of the image will be displayed (default setting). When "Icon" is selected, the icon image will be displayed.

✐ It takes a while to display thumbnails.

✐ The number in front of the file name indicates the display order of the image.



Display order number

File name
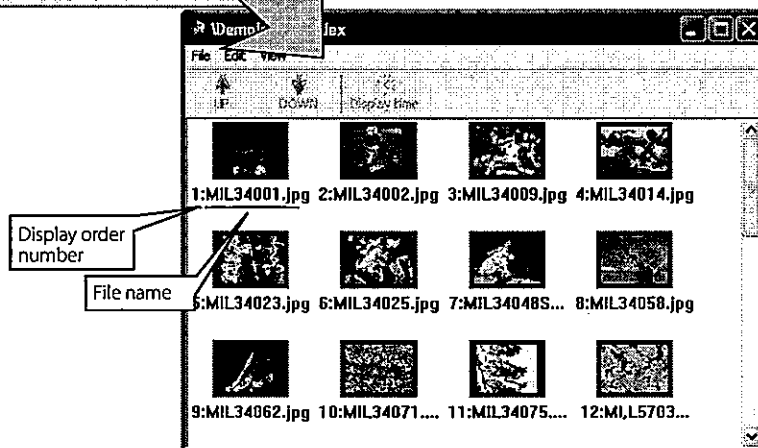
| Menu | Sub menu | Description |
|------|----------|-------------|
| File | Exit | Closes index window |
| Edit | UP | Steps up the display order of the selected images |
| | DOWN | Steps down the display order of the selected images |
| | Display time | Sets up the display time of the selected images |
| View | Image | Displays thumbnail of the images |
| | Icon | Displays images as the fixed icons |
| | Update | Updates images information on the index window |

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*3* To change the display order, select*1 files and then click **UP** or **DOWN** button on the menu bar to move them onto your desired place, or select files and then drag and drop them onto your desired place with mouse.

*4* To change the display time*2, select*1 files and then click **Display time** button on the menu bar to display the Display time setting window. Check "Display time" in the check box and set the display time. To cancel the display time, un-check the "Display time" in the check box.
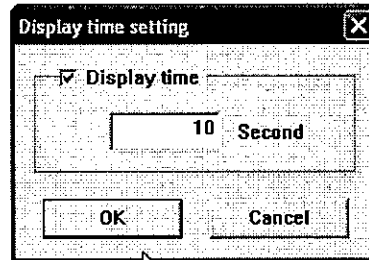
## Image frame on the index window

Image frame on the index window has 3 kinds of display modes as follows.

| | |
|---|---|
| No frame | : Shows that the image in the folder is unchanged |
| Blue frame | : Shows that image is added into the folder newly |
| Red frame | : Shows that image is deleted from the folder |
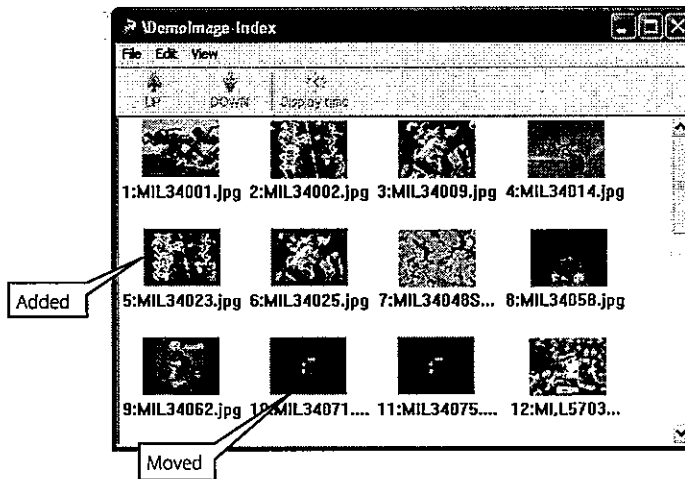
*1 Multiple files canbe selected at once by "Shift" or "Control" key, or with mouse cursor.
*2 3 to 240 seconds can be set up for display time.

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## Example of the created program selection

Use the web browser to access to the control page of the projector. Click "Viewer" of the Network menu on the web page, then connect to the FTP server and select the program name which was made at previous section. The projector starts displaying the images along the program. For further information, please see "Using the Network Viewer function" (☞ p.124).
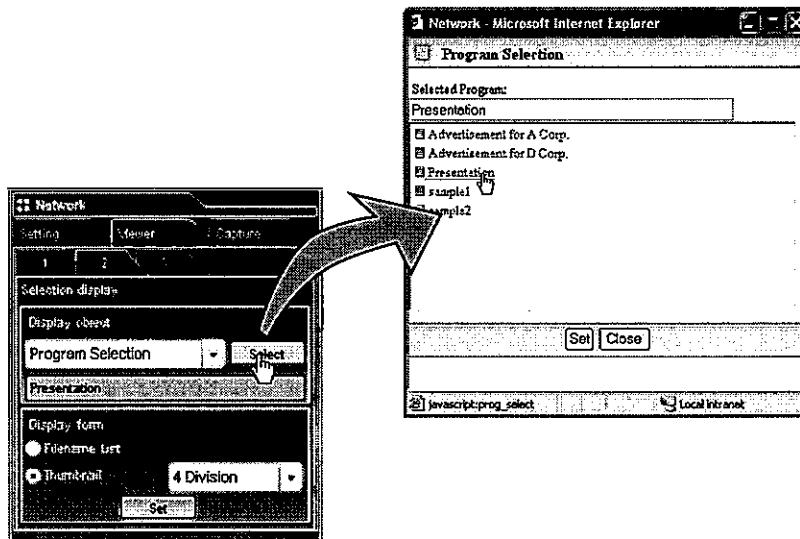
*🖉* This function is not available in the light mode.

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### The limitation of the Program file
There are several limitations for the program file as follows;
* The number of programs in a root folder is less than 1000.
* The number of folders in a program is less than 100.
* Total characters of folder name is less than 255.
* Total characters of program file name is less than 63.
* Do not make a program name started with "".
* Do not make a program name contained with following characters:
        \/ : . ; * ? " < > |
* The program name started with " "(space) is registered without the space.

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# Using the Network Viewer function

The Network Viewer is a function to acquire the JPEG image data from the file servers placed in the network and project them on the screen. The projected image data are specified by the folder unit. You can set the display time and the number of repeat, and also you can register those folders as the program. **\*The network viewer function cannot be used when the network capture function is used.**

### Condition to use the Network Viewer function:

\* Should be possible to use the FTP service with Windows 2000 Professional or XP Professional.

\* User has a full-access account to the FTP server, or the FTP server allows anyone to use with "Anonymous" account which also has a full-access mode.

\* The allowed number of simultaneous access from the same IP address is no fewer than 20.

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To use this function, it is necessary to disable "pop-up block" function of the web browser.

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## [1] Control by the web browser
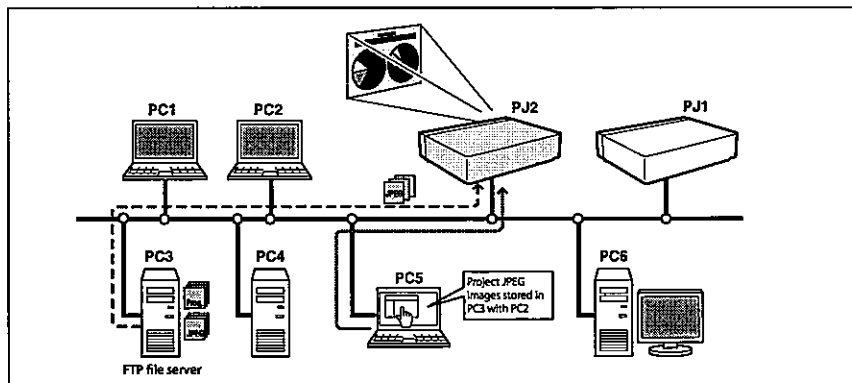


Select "Network" for input mode previously.

*1 Access to the control page on the projector by using the web browser.*

From the main menu, click **Network - Viewer** to display the setting page.

## 2 Setup the setting page [1] of the Visual display.

| Item | Description |
|------|-------------|
| Host name | Enter the host name or IP address of FTP server, yourftp.server etc. |
| Folder Path | Use "/"(root directory) normally, or enter the directory name follow the "/" as shown in the below example if you have a specified directory in the server. /data/ |
| User ID*¹ | Enter your login account of the FTP server |
| Password*¹ | Enter your password of the FTP server |
| Option*¹ | Set "Display ON" when you display the acquired preview images on the web browser. |
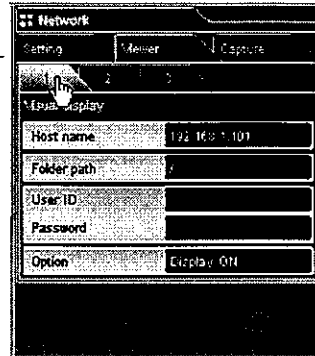
## 3 Setup the setting page [2] of the Selection Display.

Click **Select** after selecting the display object from the pull-down menu "Folder Selection" or "Program Selection". After the list window appears, select a program or folder and then click **Set** on the window.

Displays the path of the file or folder selected

Selects the display type either the listed with file name or listed with thumbnail. The thumbnail can be selected "4 division", "6 division" or "9 division".
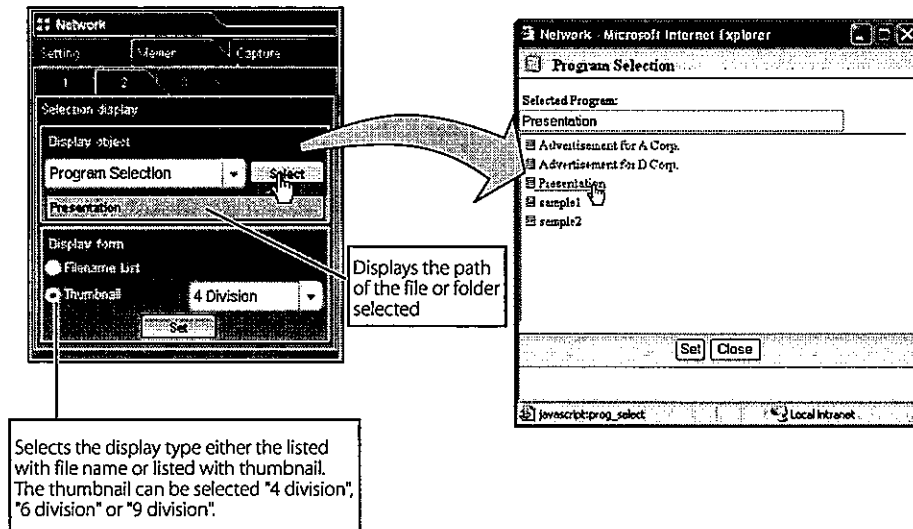
*✐ This function is not available in the light mode.*
*✐ See the item "Creating a Program file [Program Editor]"(☞ p.119) about program.*

---

**\*1 IMPORTANT NOTICE**
**Please note that if you use the FTP server with personal account except anonymous account, the user ID and password may be displayed on the browser depending on the version of the browser. We recommend that this function should be used with the anonymous account normally.**

After clicking **Set**, the file list or preview list of the selected folder or program is displayed on the window.

Decides a image to start auto display with radio button

Selects a page

**Thumbnail List** 1 2 3 4 5

○ ML34058.jpg
○ ML34062.jpg
○ ML34068.jpg
○ ML34071.jpg

The original image is displayed on another window by clicking on the preview image or file name

Close ⟨⟨ ⟩⟩ List

| Button | Operation |
|---|---|
| <<.....................................Go to the preceding start up image in the auto display function | |
| >>.....................................Go to the following start up image in the auto display function | |
| List...............................Switches to the List mode | |
| Thumbnail.............Switches to the thumbnail mode | |
| Close.........................Close the window | |

⊘ This function is not available in the light mode.
⊘ The preview image will not appear when the option is set "Display OFF".(☞p.125)

⊘ Up to 1000 images can be displayed.
⊘ When "folder selection" is selected, images placed at the first directory in the selected folder are displayed.
⊘ The display order of the images is the same as the ASCII character order when "folder selection" is selected, or is specified by the Program Editor when "program selection" is selected. (☞p.119)

## 4 Auto Display setting and control page [3]

Repeat times
(0 to 255 times)
* 0 means endless play

Display time*¹ of the
image (3 to 240 sec.)

Click here to check the
further information of
the file error

**Auto Control**

Status:

Repeat:　1

Number:　30 / 36

*The preview image will not
appear when the option is set
"Display OFF".(☞p.121)

Error info.

File error

Close　Stop　End　Error
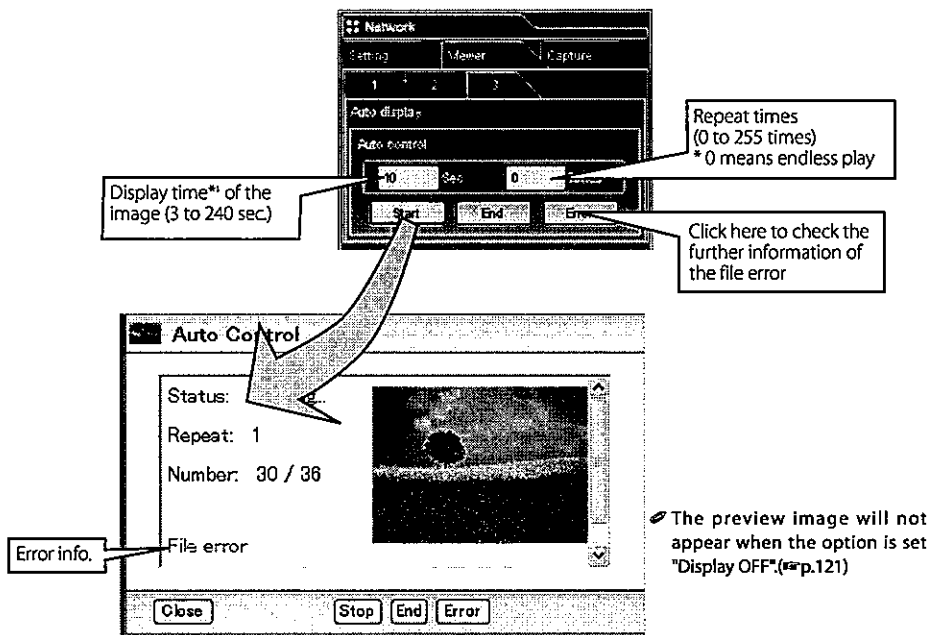
1. Click **Start** button to start the auto-display. The image in the selected folder or program is displayed on the projector's screen. The web browser opens another window and displays the preview images on the Auto Control window sequentially.
2. Click **Stop** button to stop the auto-display.
   - Restart the auto-display, click **Restart** button.
   * When the auto-display stops, it enables you to display the images manually by using [<<] or [>>] button.
3. Click **End** button to end the auto-display.
   - When the **Error** button is pressed, the further information of the file error is displayed.

For further error information, refer to the next page.

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*1 When the program file for auto-display is selected, the display time of each image gives preference to the setting specified by the program file over the setting specified by the auto-display function above. The images for which the display time is not set shows the display time specified by the auto-display function above.

* The display time is greatly affected by the network environment or the operation of multi control, so the image may not be displayed as the specified display time.

* The timing to switch images is not the same on the screen and on the web browser.

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## *Error information*

| Error type | Description |
|---|---|
| File Error | It is displayed when the projector cannot acquire the correct file images from the FTP server, or when the master projector is turned off during the multi-control. Click Error button to check the details. |
| Connection Error | It may be displayed when the slave projector is using the Network Viewer or Capture function during the multi-control. Check which projector has an error , see item "Multi Control/Check & Change" (☞ pp.83-84). |

✐ When the file error occurs during the auto-display, you may have the alert E-mail message. For further information, please see the item "3 Option selection for sending alert mail" (☞ pp.57-60).

## [2] Control by the projector
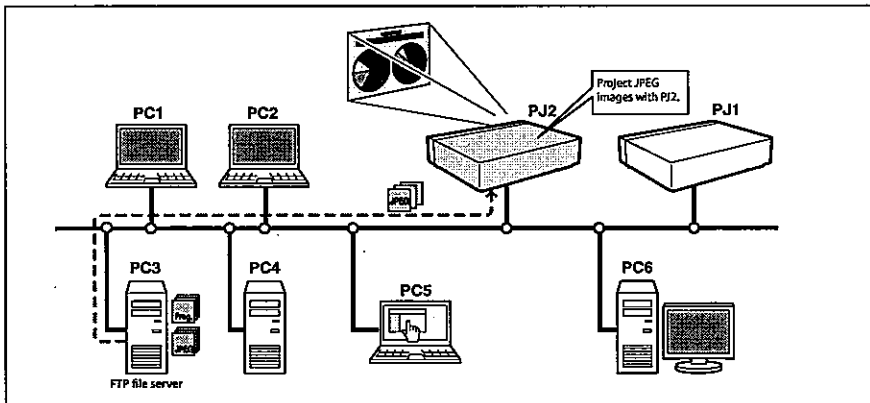


Select "Network" input mode previously.

*1* Select "Network Viewer" in the "Network" menu. Press Point ▶ or SELECT button.
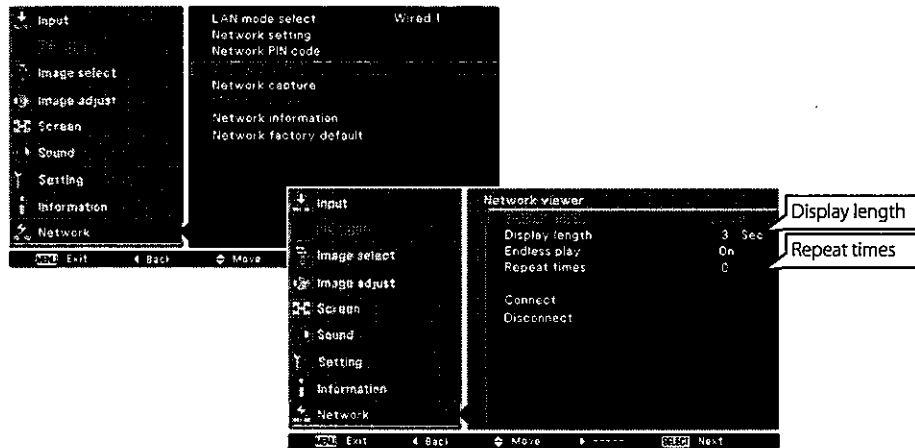
2 Select "Display mode" and press SELECT button, and then select "Auto" or "Manual" and then press SELECT button.

When selecting "Auto", set "Display length", "Endless play" and "Repeat times"

3 Select "Connect" and then press SELECT button to start displaying. The images in the FTP server are displayed on the screen.

  ✐ It enables you to browse the images by using the control buttons (▲,▼) on the remote control or on the projector.

    ▲ : Previous image display, ▼ : Next image display

4 To stop the display, select "Disconnect" and then press SELECT button.

| Item | Description |
|---|---|
| Display mode..........| Sets display periods and repeating times |
|  Auto ...................| Displays image automatically by setting "Display length" and "Repeat times" |
|  Manual ..............| Controls image display (browsing image backward or forward) manually. |
| Display length.........| Display time of image (3 to 240 sec.) |
| Endless play...........| Sets "On" to play continuously |
| Repeat times ..........| Repeat times (255 times maximum) |
| |  ✐ "0" is displayed when "Endless play" is set to "On". |

✐ In the automatic displaying mode [Auto], when the left-click on the remote control is pressed, automatic displaying stops and the manual displaying mode is set. When the right-click is pressed, automatic displaying restarts.

✐ The image data used for this function is the program or folder that the Network Viewer function used last time. The projector cannot specify particular images or file servers itself.

✐ The display time is greatly affected by the network environment or the operation of multi control, so the image display may not be displayed as it is set for the specified display time.

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# Use of the projector as FTP server

You can use the projector in which a USB memory is inserted into the USB terminal as an FTP server. By using it as an FTP server, you can save the projection data that is converted by Network Viewer 5 [File Converter1, File Converter2] on the USB memory, and project the data with the Network viewer function in this projector or the other projectors.

## Copy the data for projections to the projector which is put USB memory in.

*1* Start the Explorer of the computer, and then enter the IP address of the projector in which a USB memory is inserted (for example, ftp://192.168.1.201) to the address column.
Contents of the USB memory are displayed as follows.
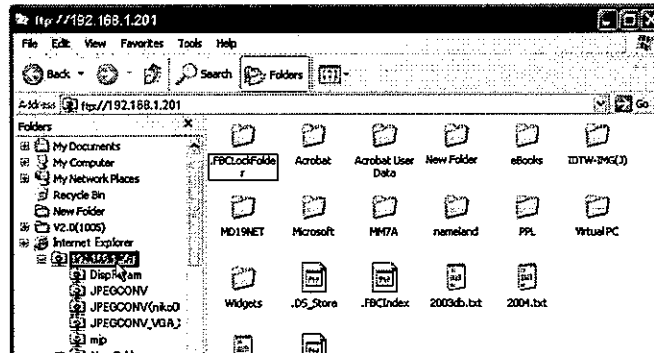


*2* Copy the data for projections in USB memory.

Note:
If the network PIN code is set for the projector, the authentication window appears as below. In this case, enter "user" in the user name and enter the network PIN code of the projector in the password.
*Be sure to enter "user" in the User Name
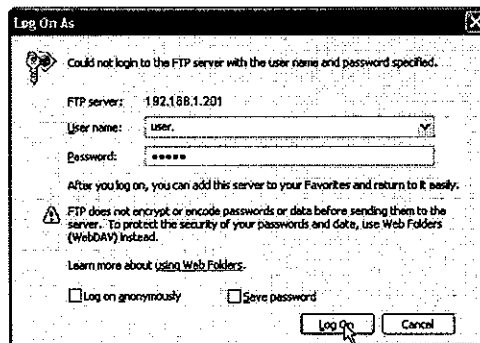
## Output the converted file directly to the projector with the USB memory.

The file converted by Network Viewer 5 [File Converter 1] can be output directly to the projector with the USB memory. Refer to the "Creating the available data" for details of Network Viewer 5 [File Converter 1]. (p.114)

Specify "FTP server" as an output destination of the converted file in the "Option" dialog of Network Viewer 5 [File Converter 1].

### *FTP server*

Host name..............Enter host name or IP address of the FTP server
Root Folder.............Specify the root directory of the FTP server. Normally use "/".
User ID...................If the network PIN code is set for the projector, enter "user".
Password................If the network PIN code is set for the projector, enter the network PIN code.
Output folder........Click **Reference** button and select the destination directory on the USB memory.
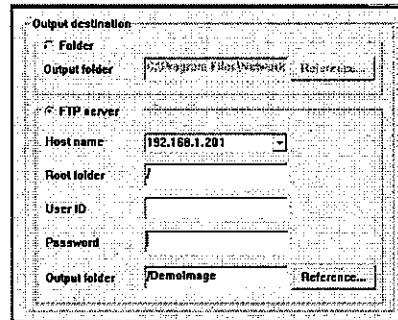
## Output the program file directly to the projector with the USB memory.

The program file created by Network Viewer 5 (Program Editor) can be output directly to the projector with the USB memory.
For details of Network Viewer 5 (Program Editor), refer to "Creating a program file" (p.119).

Host name..............Enter host name or IP address of the Projector
Root Folder.............Specify the root directory of the FTP server. Normally use "/".
User ID...................If the network PIN code is set for the projector, enter "user".
Password................If the network PIN code is set for the projector, enter the network PIN code.

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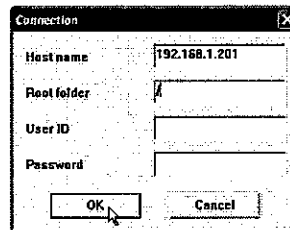
**Chapter 10**

## 10. Network Projector [Windows Vista]

This projector corresponds to "Connect to a network Projector" function that is the standard equipment for Windows Vista.

## Use of "Connect to a Network Projector"
• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

This projector corresponds to "Connect to a Network Projector" *1 function that is the standard equipment for Windows Vista*2. You can project the computer screen via a network without any software by using this function.

*1* Select "Network" from the input menu of the projector.
*2* Open the Connect to a Network Projector dialog by clicking the **Start** button, clicking **All Programs**, clicking **Accessories**, and then clicking **Connect to a Network Projector**. Then, click **Search for a projector (recommended)**.
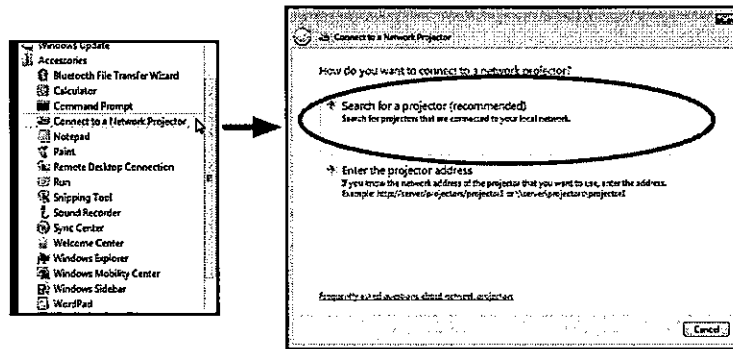


*3* A list of available projectors appears. Select the desired projector and click **Connect** button. If access to the selected projector is protected by a network PIN code, the password input column appears. Enter a network PIN code and then click **Connect** button.
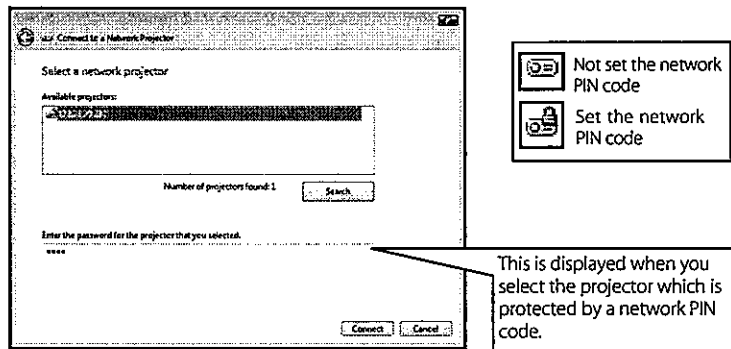


Note:
**Search for a projector (recommended)** wizard cannot find a projector if the projector and your computer are in the different network segment that is separated by the router. Select "Enter the projector address", and enter the network address of the projector to connect.
Refer to the following page for details.

*4* After you click **Connect** button, the 'Network Presentation' dialog box opens and then minimizes on the Windows task bar. Click **Pause/Resume** button to switch between pausing and continuing the presentation.
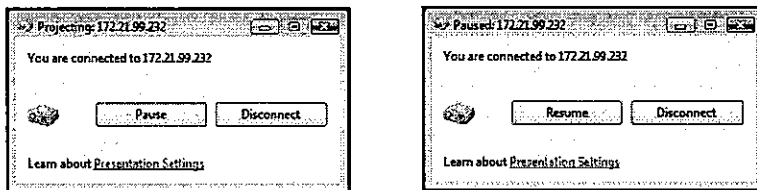


*5* Click **Disconnect** button to end the presentation.

## In case of a projector and your computer are in the different network segment:

When a projector and your computer are in the different network segment, connect to the projector by specifying the projector's network address.

*1* Open the **Connect to a Network Projector** dialog box, and then Click **Enter the projector address**.

*2* Enter the network address of a projector, and then click **Connect** button. If access to the selected projector is protected by a network password, enter a password and then click **Connect** button.

Enter a network address by following the two rules described below.
URL Address ..............(Example 1) http://server/projector/pj_01  (Example 2) http://10.170.99.232
UNC Pass.....................(Example) ¥¥server¥projector¥pj_01



Enter the network address of the projector.

Enter the network PIN code of the projector.
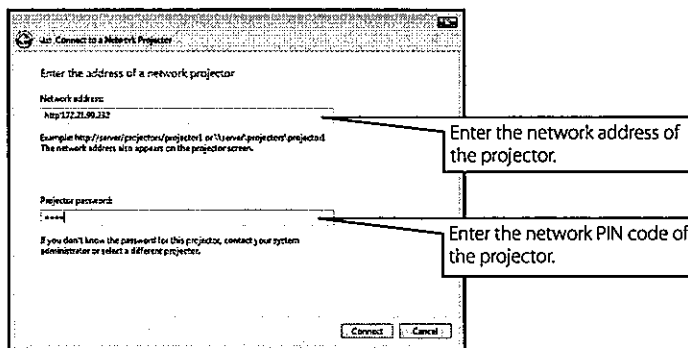
*3* Click **Connect** button to connect to the projector.

*1 Refer to the online help of Windows Vista for further details of "Connect to a Network Projector".
*2 This function is the standard equipment for the following editions of Windows Vista.
  Home Premium, Business, Enterprise, Ultimate

# Chapter 11

## 11. Appendix

Use of telnet
Web browser setting
Firewall setting
Troubleshooting
Terminology

# Use of telnet

You can control the projector by using the telnet application[1] installed on your computer. Normally, the telnet application is available on your computer.

*The telnet 10000 port is used to control the projector.

## Control

(For example, in case of using the telnet application of the Windows XP Professional.)

1. Select Run... submenu from Start menu on the computer. Type "telnet" onto the Open text area on the displayed window and press OK button.
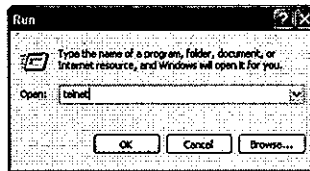


2. The telnet application will start and the following window will be displayed. Type as below to connect the projector.
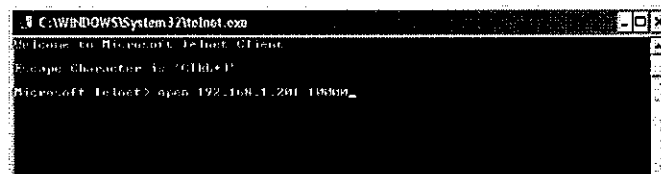


> open_192.168.1.201_10000 [return]

* Use the IP address assigned to the projector

3. When communication is established correctly, the word "PASSWORD:" appears on the window. Type the login password (Network PIN code[2]) for the projector and then press "Enter" key on the
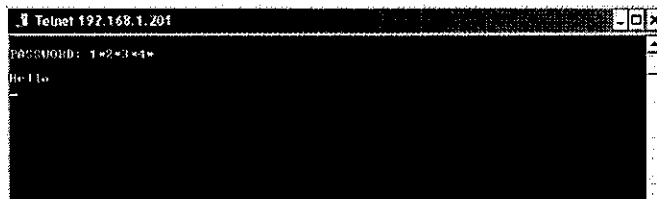


keyboard. If you do not set up the Network PIN code, just press "Enter" key.
When the word "Hello" is replied, login has been succeeded.

* The password "1234" is used for the example.

4. Type the commands, refer to below table, to control the projector and then press "Enter" key for termination. For example, type "C00" which is a command to turn on the projector, and press "Enter" key. Confirm the projector is turning on.
 * Enter with ASCII 64-byte capital characters and one-byte characters.

To disconnect the communication, press "Ctrl" key and "]" key at the same time, type "close" and then press "Enter" key on the Keyboard.
> close [return]

The table below shows the typical command lists for controlling this projector and please consult your local dealer for further information of another commands.

## Command list table

| Command | Function |
|---------|----------|
| C00 | Power on |
| C02 | Power off |
| C09 | Volume up |
| C0A | Volume down |
| C0B | Audio Mute on |
| C0C | Audio Mute off |
| C1C | Menu display on |
| C1D | menu display off |

*1 Further instructions about the telnet application, please see the on-line guide on your computer.
*2 The password is a Network PIN code decided item "Network PIN code setting" (☞p.32, 42). If the authentication of the entered password is failed 4 times continuously, the communication will be disconnected automatically. Please try again for the connection.
*3 If the password or any command is not entered for more than 30 seconds, the communication will be disconnected automatically. Please try again for the connection.

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# Web browser setting
●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●

This product is designed to enable the projector to be set up and controlled from an Internet web browser. Depending on the preference settings of the web browser, some control functions may not be available. Please make sure that the following functions are set up properly in the web browser.

## Active Script/JavaScript enable

There are some control items used with the JavaScript function in the setting pages. If the web browser is set not to use this JavaScript function, it may not control the projector properly. In that case, the following warning message will be displayed on the top of the page. To enable the JavaScript, please see further instructions on the next page.

## Flash Player enable

The setting page of this product contains the Flash contents. To display the setting page, the Adobe Flash Player version 6 or later is required to be installed on your computer. For further product information, see the Adobe homepage. (http://www.adobe.com). Even if your computer provides the Adobe Flash Player, the setting page does not appear on the web browser, in which case, check that Flash Player Plug-In(Shockwave Flash) is installed and set up correctly. please see further instructions on the next page and it is depending on the web browser.
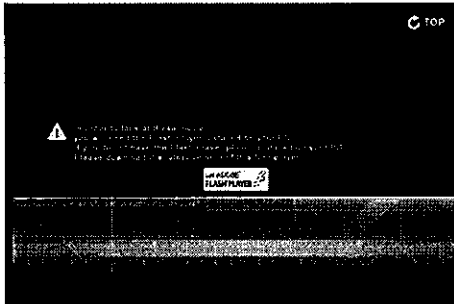
## Proxy setting

In some cases, your web browser is set up to use the proxy server for the internet or intranet connection. In that case, when you install this product into the local network, you should set up the proxy setting of web browser preference correctly. Especially when connecting the projector and computer with a UTP cross cable directly, or when the network does not provide the proxy server, make sure that "not use proxy server" is set up in your web browser preference. Please see item "Examples: OS/Browsers" in the next page for further setting up procedure.

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✐ There are various ways to change your browser preferences depending on the version or applications. Please see the setting instructions on next page showing examples and also refer to on-line help of your web browser.

## Examples: OS/Browsers

## Windows XP Professional

### *Internet Explorer v.6.0*
### ActiveScript setting

Select **Internet Options** from **Tools** menu on the web browser and then select **Security** tab and click **Customize Level...** button. On the security setting window, scroll down and find the **Scripting** item, make sure that "Enable" is selected in item **Active Scripting**.
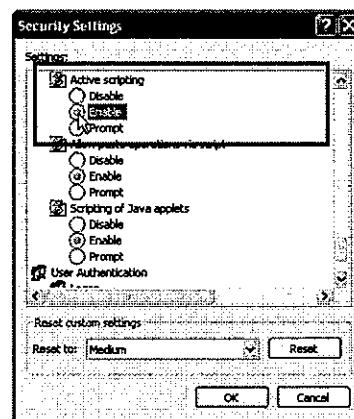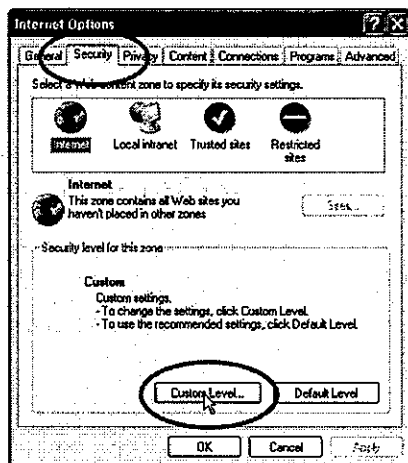




### Flash Player enable

**ActiveX controls and plug-ins setting**
Select **Internet Options** from **Tools** menu on the web browser and then select **Security** tab and click **Customize Level...** button. On the security setting window, scroll down and find the **ActiveX controls and Plug-ins** item, make sure that "Enable" is selected in item **Run ActiveX controls and plug-ins.**



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**Flash Player Add-on setting**

Select **Manage Add-ons...** from **Tools** menu on the web browser. Select "Add-ons currently loaded in Internet Explorer" from **Show** pull-down menu. Make sure that the "Shockwave Flash Object" is listed under the item "Enabled".

## Proxy setting

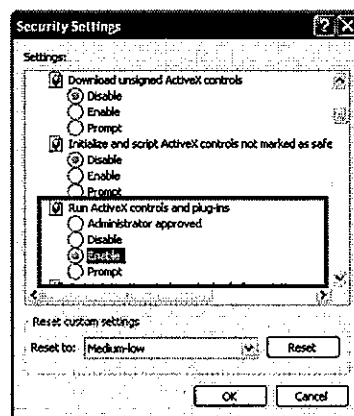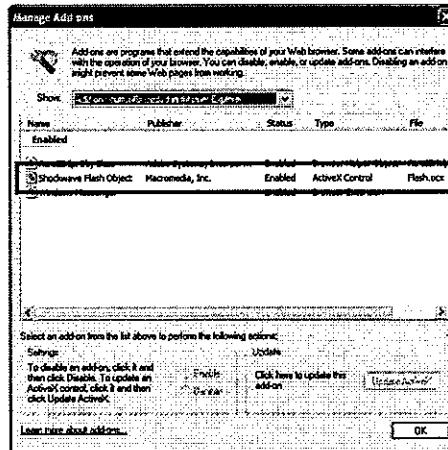Select **Internet Options** from **Tools** menu on the web browser and then select **Connection** tab and click **LAN Settings** button. Properly set up your web browser's the proxy server settings according to the local area network environment to which the projector is connected.

**- Using proxy server**

To use an external internet connection from the local area network, check the item **Use a proxy server** and enter the proxy server address and port correctly in the proxy settings window. For further instruction please consult your network administrator.

**- Not using proxy server**

Uncheck the item **Use a proxy server**.

If you connect the projector to the computer directly with UTP cross cable, it must be unchecked.

To designate proxy settings that will not use the proxy server when accessing the projector installed in the local area network, enter the IP address or domain name here.

## *Netscape Navigator v.7.0*

### JavaScript Setting

Select Preference from Edit menu on the web browser and then select the item **Advanced/Scripts & Plugins** in the Category column. Make sure that the **Enable JavaScript for Navigator** is checked.
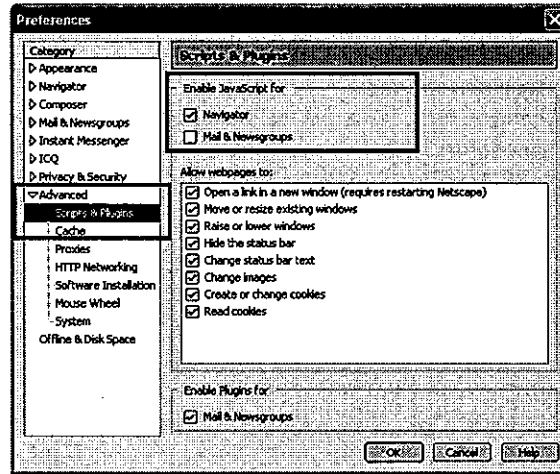
### Flash Player enable

**Flash Player Plug-in setting**
Select **About:Plug-ins** from **Help** menu on the web browser. The plug-ins software provided on the browser are listed on the page. Check that the **Flash Player Plug-in (Shockwave Flash)** is installed and set up correctly as below.
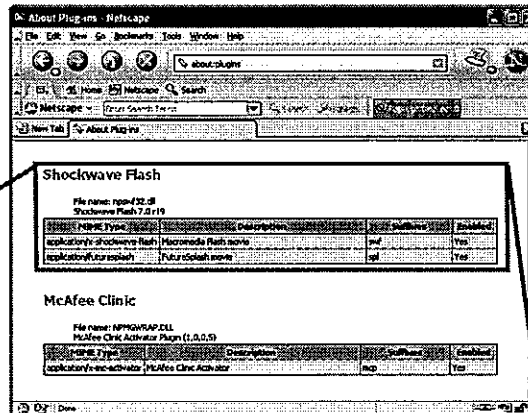
## Shockwave Flash

File name: npswf32.dll
Shockwave Flash 7.0 r19

| MIME Type | Description | Suffixes | Enabled |
|---|---|---|---|
| application/x-shockwave-flash | Macromedia Flash movie | swf | Yes |
| application/futuresplash | FutureSplash movie | spl | Yes |

## Proxy setting

Select **Preference** from **Edit** menu on the web browser and then select the item **Advanced/ Proxies** in the **Category** column. Properly set up your web browser's the proxy server settings according to the local area network environment to which the projector is connected.
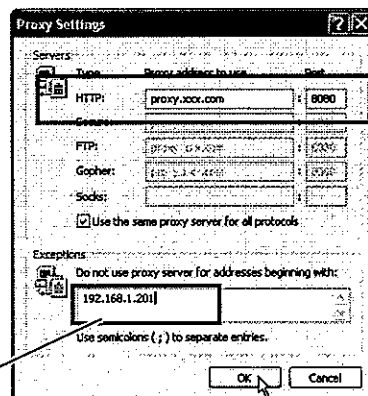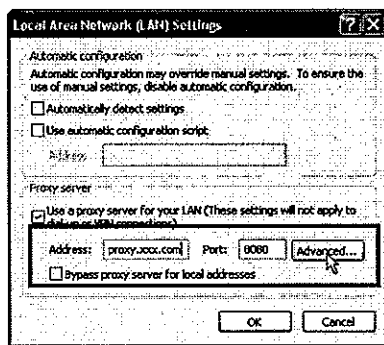
**- Using proxy server**
When you use an external internet connection from the local area network, select the item **Manual proxy configuration**. Enter the proxy server address and port number correctly on **HTTP Proxy** item. For further instruction please consult your network administrator.

**- Not using proxy server**
Select the item **Direct connection to the Internet** in the proxy setting window.
If you connect the projector to the computer directly with UTP cross cable, this must be selected.
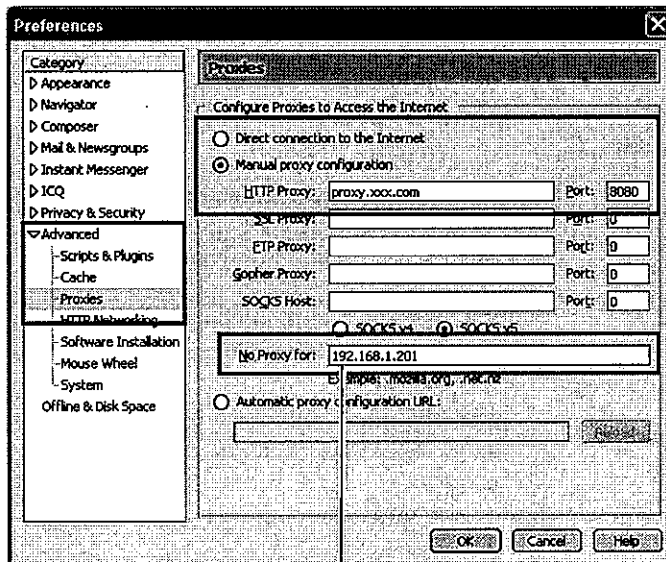


To designate proxy settings that will not use the proxy server when accessing the projector installed in the local area network, enter the IP address or domain name here.

# Firewall setting

If you use Windows XP SP2 or Windows Vista and using Network Capture 5, you may see the Windows security warning dialog as below. In that case, click "Cancel the block" button on the dialog to enable the function of Network Capture 5. (This page is described with Windows XP screen the example.)
Even if you select "Block", you can cancel the blocking following to the steps below;
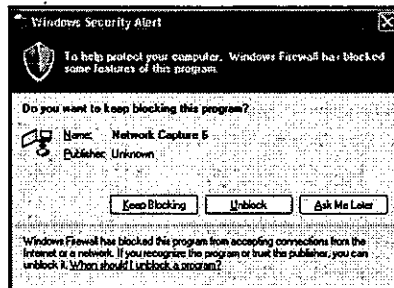


*1* Open **Control Panel** form **Start** menu and double-click **Windows Firewall** icon. The firewall setting window will appear.

*2* Select **General** tab and check that the setting on the firewall setting window as follows;

On (recommended)         checked
Don't allow exceptions         unchecked

*3* Select **Exceptions** tab and check the name of Network Capture 5 listed on the **Programs and Services**. If there is no program name, add the program by clicking **Add Program** button.

*4* Click **OK** to close setting.
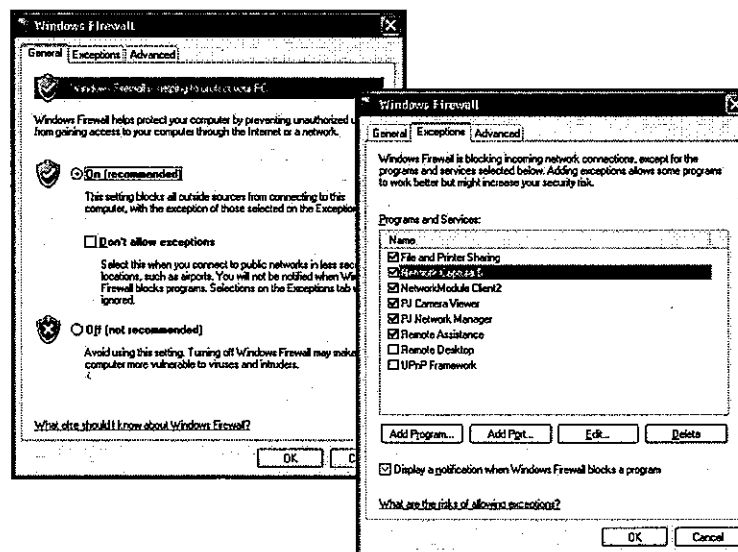
# Troubleshooting

If you have any trouble in setup or operation of the projector, refer to the troubleshooting items and check the relevant matters described.

■ **The computer cannot connect projectors.**

### Wired LAN
Is the LAN cable connected to the projector properly?
Is the LINK/ACT lamp of the LAN terminal lighting properly?
    Not lighting : The LAN setting of the projector is set "On"?
        See "Wired LAN setting" in the projector menu.
        The LAN cable is connected to the network HUB properly?

### Wireless LAN
Is the WIRELESS indicator on the side panel of the projector lighting?
If there are not any problems, confirm the LAN setting again.
If the computer supports Wireless LAN, activate the Network Capture 5 and try to connect with the Easy setting button. Refer to "5. Wireless LAN configuration" → "Easy wireless settings" (☞p.41).
If the wireless LAN card provides the firewall function itself, set up to disable its function.


■ **Cannot connect with easy wireless setting function**

Depending on the wireless LAN card or computer, this easy wireless setting function may not be available.

When your computer is using multiple network adaptors which are available in the setting, and their IP address groups are the same as shown below, this easy wireless setting function may not be succeeded.
    [For example]    IP address setting of Wired LAN adaptor in your computer    : 169.254.*.*
                    IP address setting of Wireless LAN adaptor in your computer    : 169.254.*.*


■ **Wireless LAN Connection cannot be established.**

### AdHoc Mode:
        When selecting Wireless 4 (factory default setting)

        Check each item in the Wireless Setting menu of the projector as follows:
*IP Address............................ Is the address appropriate? Should not be the same as the other IP address.
*Sub net.............................. Should be the factory default value, 255.255.0.0.
*Gateway............................. Should be the factory default value, 255.255.255.255
*Network Type................... Should be AdHoc mode
*ESSID/SSID....................... Should be the same as the setting of computer
                  ->Check the setting for the computer
*Is the Wireless channel set as 11 both for the computer and the projector?
                  -> The factory default channel of the projector is 11.
*WEP (Wired Equivalent Privacy) Should be disabled.

**Infrastructure Mode:**
When selecting Wireless 5 (factory default setting)

Check each item below in the Wireless Setting menu of the projector as follows:
\*IP Address.............................No setting is required.
\*Sub net................................Should be the same as the setting of the access point
\*Gateway...............................Should be the same as the setting of the access point
\*Network Type.......................Should be the Infrastructure mode
\*ESSID/SSID...........................Should be same as the setting of the access point

Check the settings for projector Client computer
\*IP Address.............................No setting is required.  Automatically set as DHCP.
\*Wireless Channel.................Should be 11
\*ESSID/SSID...........................Should be the same as the setting of the access point
\*WEP......................................Should be disabled.

\*When Wireless 5 is used, it is necessary DHCP server is under the environment enabling those servers communicate through networks. Some access points may have the DHCP function.  For detail of the settings, refer to the owner's manual for the devices or consult a system administrator of the network.

-----------------------------------------------------------------

Is the segment where the projector is installed different from the computer?
Specify IP Address directly on the optional setting. Refer to "4. Wired LAN Configurations" →
"Confirming the Operation" (☞p.30–31).

■ **Connection between computer and the projector via Wired LAN cannot be established.**
When selecting LAN1 (factory default setting)

Check IP address, Sub net and Gateway of the projector and computer.  For further details of the configuration, contact your system administrator.

-----------------------------------------------------------------

Is the segment where the projector is installed different from the projector?
Specify IP Address directly on the optional setting. Refer to "4. Wired LAN Configurations" →
"Confirming the Operation" (☞p.30–31).

■ **Cannot start up the browser**

Is the connection between PC and the projector with Network Capture 5 established?
No...............Check settings for Wireless/Wired LAN.
Yes...............Check settings of the proxy setting at browser. Refer to "Web browser setting" (p.138).

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■ **Although the connection between PC and the projector is established, images are not projected on the screen.**
Make sure Wireless/Wired is selected from the Input source menu of the projector.

■ **Cannot be turned on/off with the web browser.**
Make sure the settings of the projector are correct to use the projector with it.
Set the item Standby mode to "Normal" from Main menu → Setting menu.
Refer to "7. Controlling the projector" → " Power control and status check" (☞p.66).

■ **Wired / Wireless input cannot be changed. Network Capture 5 cannot be operated.**
Restart the projector or Network Capture 5.
Execute "Wired factory default" or "Wireless factory default" menu on the projector.

Caution: **After executing "Wired factory default" or "Wireless factory default" in the projector menu, all the network settings you have made will return to the factory default settings. See the items "Wired factory default" (☞p.34) and "Wireless factory default" (☞p.44) for the each factory default value.**

## Network capture

■ **Why doesn't the computer screen appear on the projected screen?**

1. Make sure that the input mode of the projector is "Network".
2. Check the parameter set up (☞p.90).
   Make sure that the numbers of the capture port is the same as the projector's port number. The default port number is 9000. If the alert message "Invalid Port No." appears, your computer may be using this port number already. In that case, use another port number.
3. Check the IP address of the computer is registered to the projector correctly (☞p.91).
4. Make sure that your computer is not using the firewall function. The projector may not be able to use the port due to this firewall function. In that case, please turn off this function temporarily. There are also some port limitations on the network equipment such as router. Please consult your network administrator.

■ **Speed of playing back images are very slow.**
When connecting on AdHoc mode, check which Wireless channel you are using.
If the computer using the same channel as yours is existing closely, the networking speed may be reduced or the communication unstable. Change the channel to resolve the problem. The channels of the projector and projector Client computer must be the same. Or adjust the Quality selection in the parameter setting.
Refer to "Parameter set up" (☞p.90).

■ **Projector does not reproduce the computer's sound during the real time capturing.**

To reproduce the sound in the projector correctly, follow the procedures below;

• Start up the real time capture and then start up the movie player software.

• Terminate the movie player software first and then terminate the real time capture.

Check that the "PJ Virtual Audio Device" is selected on the audio device panel of the computer. Double click **Sound and Audio Device** icon on the **Control Panel** of the computer. The property window appears. Click **Audio** tab on the property window and check that "PJ Virtual Audio Device" is selected on the **Default device** of **Sound playback** item.
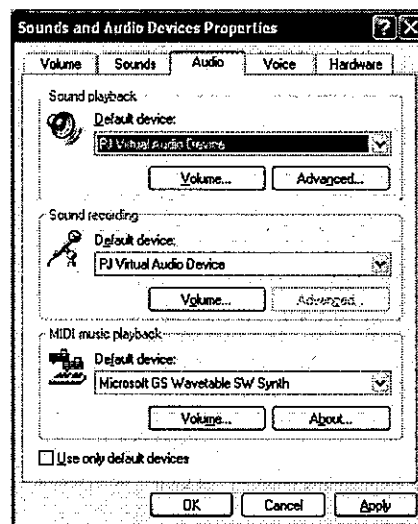


## Network Viewer

■ **Images from the file server don't appear on the screen?**

1. Make sure that the input mode of the projector is "Network".
2. Check the account setting of the FTP server.
3. The files in the FTP server must be optimized JPEG and converted by the File Converter 1 or 2. Please check data format. (☞p.114)
4. There are several limitations for image file name and program name. Please check file names and program names (☞p.123).
5. Make sure that your computer is not using the firewall function. The projector may not be able to use the port due to this firewall function. In that case, please turn off this function temporarily. There are also some port limitations on the network equipment such as router. Please consult your network administrator.

■ **I cannot make a new program file.**

Check your account of the FTP server. "Write enable" made should be set for its account.(☞p.117)

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## File Converter 1

■ **What kind of image formats can I convert?**

The File Converter 1 makes it available to convert into the JPEG format from the following image formats.

    Bitmap format (.bmp)
    JPEG format (.jpeg .jpg)
    Microsoft power point format (.ppt)

## File Converter 2

■ **Sometime I have the white frame images converted by the File Converter 2?**

It may have images with white frame due to the paper margin of the print driver depending on the image data.

■ **Sometime I have the incorrect images converted by the File Converter 2?**

Try to change the mode to "Disable" on "Document options" - "Print optimization" item on the "Network Viewer 5 (Driver) Advance Options" in the Network Viewer 5 (File Converter 2) Printer driver setting.
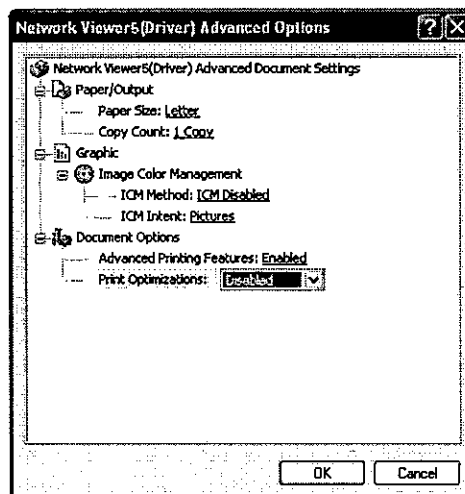
## Auto Capture

■ **I have deleted the AutoCapture program file on the supplied USB memory.**

**I want to perform the AutoCapture with a commercially available USB memory.**

To perform AutoCapture, you should have all files and folders of "Auto Capture" folder on 'Network Viewer & Capture 5 (CD-ROM)' on the root of USB memory. By copying or drag and dropping those files and folders on the root of a commercially available USB memory, you can perform the AutoCapture as well as a supplied USB memory.

**CD-ROM > AutoCapture**                                   **USB thumb drive**
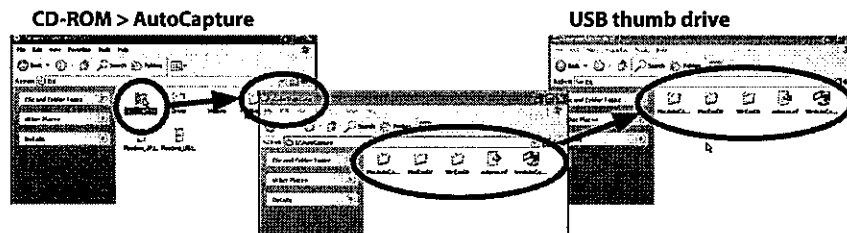


■ **Auto Capture does not start automatically.**

Depending on a computer or the security setting of the network, AutoCapture may not start automatically. Please make sure the examples as follows. Please consult your network administrator in detail.

- When setup as follows in a computer with Windows Vista
    Click **start** button, and click [Control Panel] - [AutoPlay], and **Take no action** is selected in "Software and games".
    - Please select the other options.

- When "Autorun.inf" is denied in a computer as an anti-security measure in your local area network environment.
    - Please consult your network administrator.

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# Terminology

• • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •

**DHCP server (Dynamic Host Configuration Protocol)**

It is necessary to set an IP address for each computer or equivalent equipment when a network is established by TCP/IP. If there exists DHCP server on the network, it will assign IP addresses to client computers every time they request it. If there exists equipment with DHCP server functions (such as a Windows 2000 server and a dial-up router) on the network, the DHCP server function may be automatically operating. Ask your system administrator whether the DHCP server is operating.

**ESSID (Extended Service Set Identifier)**

ESSID is the ID that is set to computers on Wireless LAN or access point in order to prevent each computer from being crossed. The computers or access point to which the same ESSID is set can communicate with each other. If an ESSID is different, it is impossible to communicate. ESSID distinguishes between lowercase and uppercase characters, and allows you to use English one byte characters and half-size symbols up to 32 characters.

**WEP (Wired Equivalent Privacy)**

WEP is a security protocol for Wireless LAN. It protects computers on Wireless LAN and access point from unauthorized access by setting a description code onto them. It is necessary to set the same decryption code for equipment.

**Wireless Channel**

It is necessary to divide frequency spectrums into some Wireless channels for Wireless communication, and to tune to the same channel between Wireless equipment. If you use the same channel on the same floor, and there are some Wireless LANs that have a different ESSID for each, the communication speed may become slow. In that case, using different channels for each Wireless LAN is effective, which lowers a possibility of mutual interference between Wireless LANs.

**MAC address (Media Access Control Address)**

MAC address is a physical address for every network interface. The MAC address consists of 6-byte hex number. The first 3 bytes are a Vendor ID controlled and assigned by IEEE. The last 3 bytes are controlled and assigned by the manufacturers of network interface (no duplication of MAC address). Therefore, MAC address is a unique physical address in the world. Ethernet sends and receives frames on the basis of MAC address.

**Wi-Fi (Wireless Fidelity)**

It is a brand name, showing that the interconnectivity between wireless LANs is certified by the Wi-Fi Alliance (formerly WECA). The products that passed the Wi-Fi Alliance interoperability test are given the certification of 'Wi-Fi certified' and permitted to use the Wi-Fi Logo. The products that have Wi-Fi logo are guaranteed to interoperate with other Wi-Fi products.

**Wi-Fi Alliance (Formerly Name: WECA (Wireless Ethernet Compatibility Alliance))**

It is an organization that aims to promote the spread of Wireless LAN, and it guarantees the interoperability of products that meet the Wireless LAN standard.

### IEEE802.11b

It is one of the wireless LAN standards set by 802 committee that formulates a standard of the LAN technology in IEEE (the Institute of Electrical and Electronics Engineers). By using the 2.4GHz license-free frequency band, you can perform communication at a speed of 11Mbps at the maximum.

### IEEE802.11g

By using the 2.4GHz license-free frequency band as well as IEEE802.11b, you can perform communication at a speed of 54Mbps at the maximum, which is about 5 times the speed of IEEE802.11g. Moreover, there is an upward compatibility with IEEE802.11b.

### IEEE802.11n

It is a next-generation Wireless LAN standard that is being developed with the aim of producing the maximum transmission speed of 600Mbps by using the technology called MIMO, combines multiple channels and performs transmission. It is being designed to have a compatibility with IEEE802.11b and IEEE802.11g.

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