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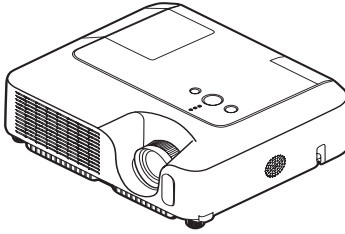
The following projector manual has not been modified or altered in any way.

3M

X62w

Multimedia Projector

Network Functions



This manual is only intended to explain Network Functions.

⚠ WARNING ► Before using this product, read the “Product Safety Guide” and related manuals to ensure proper use of this product. After reading them, store them in a safe place for future reference.

NOTE • The information in this manual is subject to change without notice.
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Caution

[Restriction in terms of inserts or pulls memory card and wireless LAN card]

Do not pull out the memory card and the wireless card while the power is on. The memory card can be pulled out only while the card access LED (Red) is off.

CAUTION

■ The accompanying 802.11g wireless LAN card uses the 2.4GHz radio frequency band. You do not need a radio license to use this card, but you should be aware of the following:

● **DO NOT USE NEAR THE FOLLOWING!**

- Microwave ovens
- Industrial, scientific or medical devices
- Designated low power radio stations
- Premises radio stations

Using the wireless LAN card near the above may result in radio interference, which in turn may result in a decrease in communication speed and even a complete loss of communication.

● Depending on the location where you attempt to use the wireless LAN card, there may be interference with the radio waves, which may result in a decrease in communication speed and even a complete loss of communication. In particular, please be aware that using the wireless LAN card in locations where there is reinforced steel, other metals and concrete may interfere with radio communication.

● **Available Channels**

The wireless LAN card uses the 2.4GHz radio frequency band, but depending on the country or region you are in, you might be limited to the channels you can use. Please refer to the following table for confirming where and with what channels you may use the accompanying 802.11g wireless LAN card. Please consult with your dealer for countries not included in the table.

Country or Region	Available Channel
Japan	1 to 11
USA	1 to 11
Taiwan	1 to 11
Canada	1 to 11
UK, Spain, Germany, Italy, Austria, Switzerland, Belgium, Sweden, Netherlands, Portugal, Denmark, Finland, Greece, Norway, France, Ireland, Luxembourg, Iceland	1 to 11

● You may not bring the wireless LAN card into countries not listed above as there is a possibility that use of the wireless LAN card in those countries could lead to an infringement of established radio laws.

1. Main functions

1.1 Live Mode (Project images from PC)

The main function of MIU (Multi Information processing Unit) is the Live Mode. On Live Mode, the projector displays the screen appearing on the PC via network, supported by “MIU Live Viewer” (Fig.1.1.a).

The “MIU Live Viewer” captures PC screen image using dedicated firmware “MIU Live Viewer” and sends it to projector through wired LAN or wireless LAN connection. (Refer to section 3 and 5 in detail.)

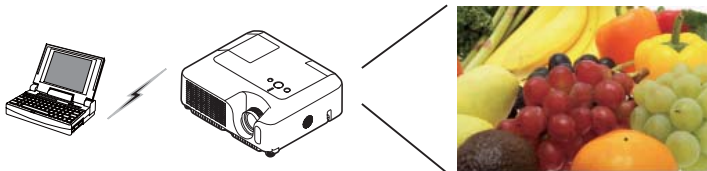


Fig. 1.1.a “MIU Live Viewer” outlines (through wireless LAN connection)

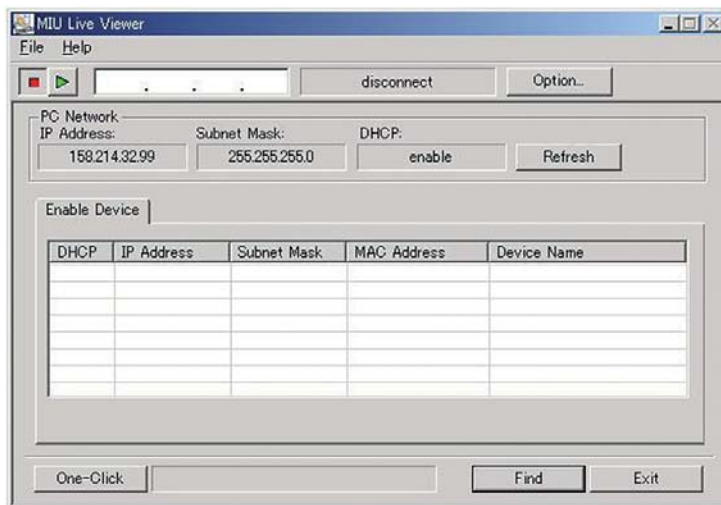


Fig. 1.1.b “MIU Live Viewer”

One projector can be connected with up to 4 PCs using “MIU Live Viewer”. (Refer to section 4.1 in detail.)

1.2 PC-LESS Presentation

(Display the images stored in SD card/USB memory.)

Other main function is “PC-LESS Presentation”. (Fig. 1.2.a) “PC-LESS Presentation” has 4 kinds of display modes.

- 1) Thumbnail display: Display many stored images in SD card and USB memory at once. (From now on, it is called “memory card” as SD card and USB memory combined.)
- 2) Display in full screen: Display 1 picture or moving picture in full screen.
- 3) Slide show: Switch images with set intervals.
- 4) Directory display: Display directories and files stored in memory card as listed.

[Supported memory cards]

- SD card
- USB memory (USB memory type, USB Hard Disk and USB card reader type)

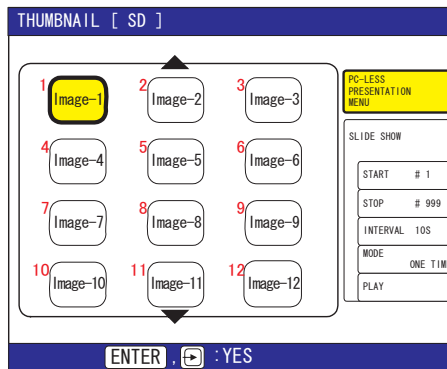


Fig. 1.2.a “PC-LESS Presentation” outlines

“PC-LESS Presentation” can be controlled via keypad on the Projector or IR Remote (refer 4.2 Utilize PC-LESS Presentation -Advanced).

You can also use “Remote Control” as shown in fig. 1.2.b, which enables selecting images, switching pages and switching display modes. “Remote Control” also switches mode between “MIU Live Viewer” and “PC-LESS Presentation”.

1.2 PC-LESS Presentation

(Display the images stored in SD card/USB memory.) (Continued)

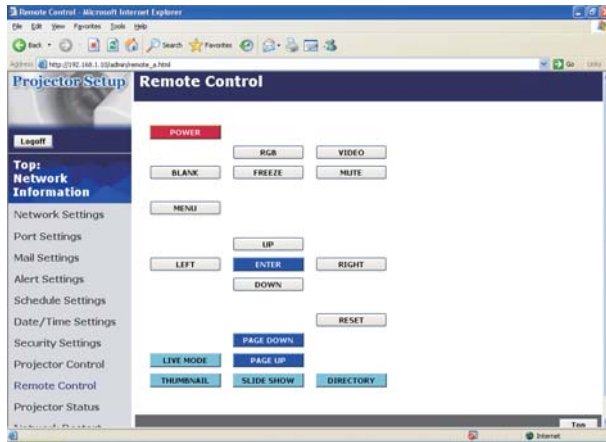


Fig. 1.2.b Remote Control

NOTE • There are following limitations for file name and directory name in PC-LESS Presentation.

- (1) The projector's language setting is Japanese.
Only alpha-numeric characters and Japanese are supported.
 - (2) The projector's language setting is not Japanese.
Only alpha-numeric characters and Latin-1 characters are supported.
- Data cannot be read correctly depending on the type of USB hard disk, USB memory and USB card reader.
 - When your USB hard disk can use a DC power supply adapter, please use it.

2. Equipment connection and network setting

2.1 Required equipment preparation

Followings are required for 1 projector and 1 PC connection. Multiple PC connection is described in section 4.1.

Projector: 1 unit

PC: 1 set (“MIU Live Viewer” installation is required for “MIU Live Viewer” usage.)

IEEE802.g wireless LAN equipment is required.

Depending on the type of wireless LAN card and PC you are using, the projector may not be able to communicate properly with your PC, even if the PC you are using is equipped with built-in wireless LAN function.

To eliminate communication problems, please procure a Wi-Fi certified wireless LAN card.

LAN cable (in case of wired connection): 1 piece * 1

SD Wireless Network Card (in case of wireless connection): 1 unit * 2

Memory card (in case of “PC-LESS Presentation” usage): 1 piece

* 1: When a projector and a PC are connected, use CAT-5 LAN cable.

* 2: Access point is required when wireless LAN connection is used as Infrastructure mode.

2.2 Network connection using “One-Click-Communication” function

This section explains how to connect network using “One-Click-Communication” function. This function makes PC and projector network connection very easy without complicated settings like IP address and SSID.

* This function cannot be used when multiple PCs or multiple projectors are connected.

* The system of Windows2000 Professional Service Pack 4 or Windows XP and the administrator authority are required to use “One-Click-Communication” function. (Administrator authority)

* This function might not work depending on your used wireless LAN driver.

If so, setup the connection manually. (☞ 10, 16 and refer to the User Manuals for your PC and wireless equipment.)

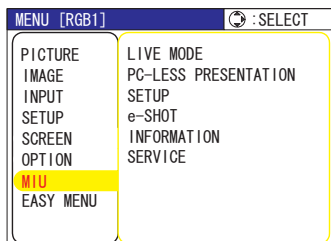
[Wired LAN connection]

1) When projector network settings such as IP address and subnet mask are changed, need to return to the projector factory default Network settings.

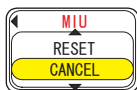
- ① Press the menu button on remote control or the ▲/◀/▶/▼ button on keypad. Then OSD menu will be displayed. If Easy Menu is displayed, change the menu to Advanced menu.

2.2 Network connection using “One-Click-Communication” function (Continued)

② Select the MIU menu by using ▲/▼ button.



③ Press the Reset key on remote control. Then Reset Menu will be displayed.



④ Press the ▲ button to reset the Network settings.

NOTE • SSID, WEP KEY will be set to factory default settings.
• If you like to set these items, please set again from WEB (📖 19).

- 2) Connect PC and projector using LAN cable to make it ready for communication.
- * In case of connecting with existing network, contact your network administrator.
- 3) Start up “MIU Live Viewer”. Window appears in fig. 2.2.a. (Refer to section 3.1 how to use “MIU Live Viewer”.)

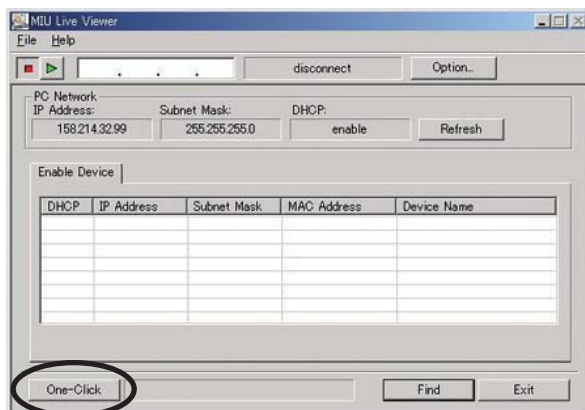





Fig. 2.2.a “MIU Live Viewer” initial window

2.2 Network connection using “One-Click-Communication” function (Continued)

- 4) Click “One-Click” button in fig. 2.2.a. Projector is found. Then capture start button  is pushed and real time display is started automatically.

[Wireless LAN connection]

- 1) When projector network settings such as IP address and subnet mask are changed, need to return to the projector factory default settings. ( 9)
- 2) In case 802.11b/g wireless LAN device is built-in the PC, make the LAN valid and other network connections invalid. If wireless LAN device is not built in the PC, connect 802.11b/g wireless LAN device and install device driver to the PC. (Refer to the user guide for wireless LAN device details.)
- 3) Start up “MIU Live Viewer”, then the window appears (shown in fig. 2.2.a).
- 4) Click “One-Click” button as shown in fig. 2.2.a. Then projector will be found and the capture start button  is activated then real time display is started automatically.

2.3 Manual network connection setting – Wired LAN -

When you need to set the original IP address and SSID other than factory default settings, need to set up network connection manually.

This section explains how to set up network connection manually.

2.3.1. Equipments connection

At first, connecting projector and PC with wired LAN connection to check PC setting and connection. Next section explains PC settings.

Connecting projector with network using LAN cable, and then set it ready to communicate with PC.

* Connecting with existing network, contact network administrator.

At last, turn on the projector. This is the end of Equipments connection.

2.3 Manual network connection setting – In case of wired LAN - (Continued)

2.3.2. Network settings

This is the explanation of network connection settings for Windows XP and Internet Explorer.

- 1) Log on to Windows XP as administrator authority. (*)
 - 2) Open “Control Panel” from “Start” menu.
 - 3) Open “Network and Internet Connections” in “Control Panel”. (Fig. 2.3.2.a)
- * Administrator authority is the account, which can access to all functions.

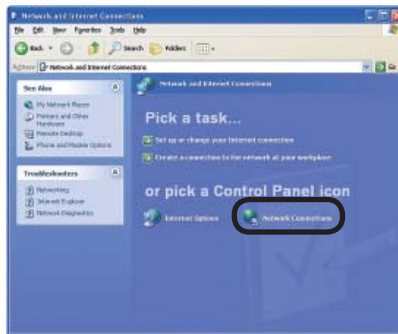


Fig. 2.3.2.a “Network and Internet Connections” window

- 4) Open “Network Connections”. (Fig. 2.3.2.b)

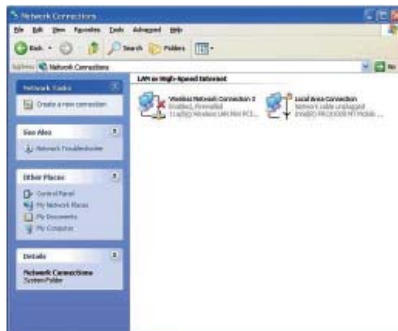


Fig. 2.3.2.b “Network Connections” window

2.3 Manual network connection setting – In case of wired LAN - (Continued)

- 5) When more than 2 usable network devices exist, make only one device “valid” that you want to use and the rest of devices “invalid”. (In this case, “Local Area Connection” is selected.)
- 6) Open “Local Area Connection Properties” window you use for network device. (Fig. 2.3.2.c)

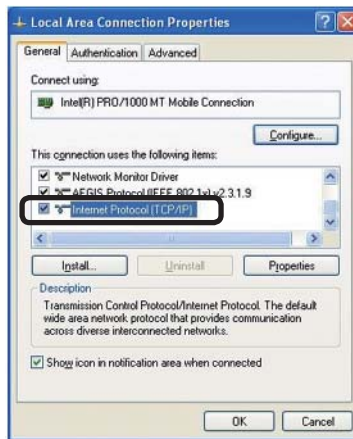


Fig. 2.3.2.c “Local Area Connection Properties” window

- 7) Set used protocol as “TCP/IP” and open “Internet Protocol (TCP/IP) Properties” window.

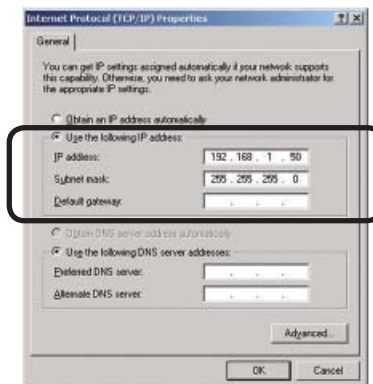


Fig. 2.3.2.d “Internet Protocol (TCP/IP) Properties” window

- 8) Set IP address, subnet mask and default gateway for PC.

2.3 Manual network connection setting – In case of wired LAN - (Continued)

[About IP address]

Network address portion of PC IP address should be common with projector's one but the PC total IP address should not be overlapped with other networked equipments.

For example, projector initial settings are as follows.

IP address: 192.168.1.10

Subnet mask: 255.255.255.0

Therefore, specify PC IP address as follows.

IP address: 192.168.1.xxx (xxx shows decimal number.)

Subnet mask: 255.255.255.0

Select from 1 to 254 for "xxx" not duplicating with any other equipments. In this case, projector has "192.168.1.10" IP address, specify from 1 to 254 except 10 for PC.

Projector IP address can be changed by using configuration utility. (Refer to section 2.5.)

When DHCP server exists in network, it is possible to set using IP address, which is automatically assigned to projector.

If projector and PC exist in the same network (i.e. network address is common), default gateway can be blank.

* DHCP is abbreviation for "Dynamic Host Configuration Protocol" and the function to provide necessary setting for network like IP address from server to client. Server that has DHCP function is called DHCP server.

* When projector and PC exist in different networks, default gateway setting is necessary. Contact network administrator in detail.

2.3 Manual network connection setting – In case of wired LAN - (Continued)

2.3.3 “Internet Option” setting

- 1) Click “Internet Options” in “Network and Internet Connections” window (Fig. 2.3.3.a) to open “Internet Properties” window. (Fig. 2.3.3.b)

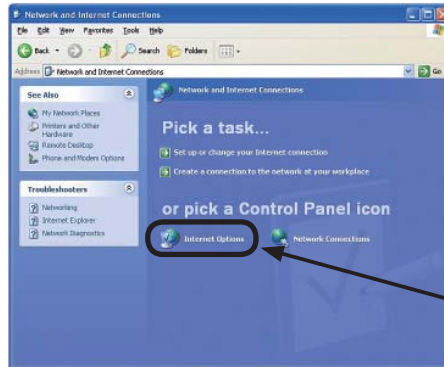


Fig. 2.3.3.a “Network and Internet Connections” window



Fig. 2.3.3.b “Internet Properties” window

- 2) Click “Connections” tab and then click “LAN settings” button to open “Local Area Network (LAN) settings”. (Fig. 2.3.3.c)

2.3 Manual network connection setting – In case of wired LAN - (Continued)

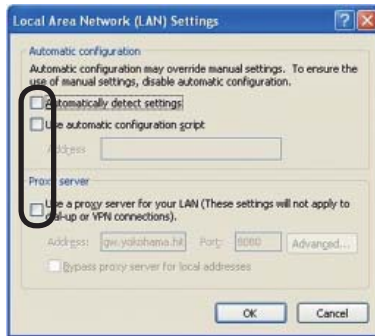


Fig. 2.3.3.c “Local Area Network (LAN) Settings” window

3) Uncheck all boxes in “Local Area Network (LAN) Settings” window. (Fig. 2.3.3.c)

2.3.4 Check connection

Check PC and projector are connected properly here. If it is not connected, check cable connections and settings are properly or not.

1) Start browser in PC and specify following URL, then click “Go” button.

URL: [http://\(Projector IP address\)/](http://(Projector IP address)/)

For example, if projector IP address is 192.168.1.10, specify

URL: <http://192.168.1.10/>

2) After enter your ID and password, if Fig. 2.3.4 appears, it succeeds.

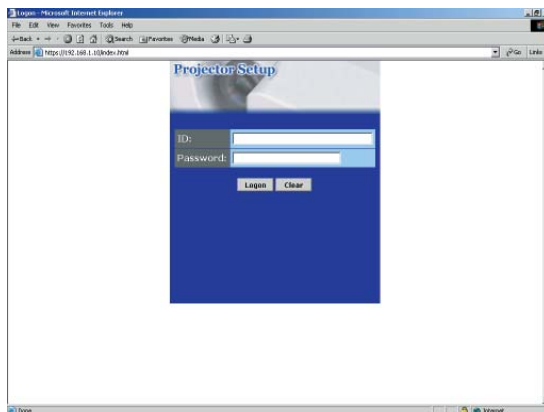


Fig. 2.3.4 “Logon Menu”

2.4 Manual network connection setting – For wireless LAN

By installing SD-Link11g card, PC and wireless LAN are able to communicate in both Ad-Hoc and Infrastructure modes.

How to set up wireless LAN connection manually.

2.4.1 Preparation for wireless LAN connection

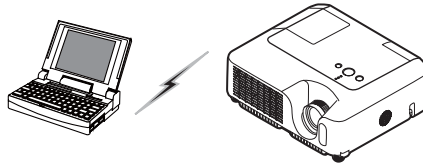


Fig. 2.4.1.a Without access point communication (Ad-Hoc)

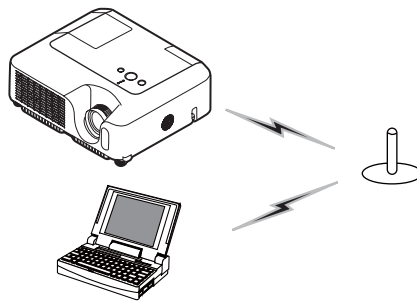


Fig. 2.4.1.b With access point communication (Infrastructure)

* Ad-Hoc is one of the wireless LAN communication methods without having access point to communicate.

* Infrastructure is one of the wireless LAN communication methods with having access point to communicate. If certain quantities of equipments are used, this mode is efficiently.

If communicating with existing network, contact your network administrator.

First, insert the SD wireless network card into SD Card slot ([📖 Inserting an SD card and USB memory of the Operator's Guide](#)).

Then, make PC ready for wireless communication.

In case 802.11b/g wireless LAN device is built-in the PC, make it valid and make other network connections invalid. If wireless LAN device is not built-in the PC, connect 802.11b/g wireless LAN device and install device driver. (Refer to the user guide for PC and wireless LAN device for detail.)

2.4 Manual network connection setting – For wireless LAN (Continued)

2.4.2 Wireless LAN connection set up

Using wireless LAN utility for Windows XP standard.

Wireless LAN initial settings for the projector is as follows.

Connection Control : Ad-Hoc
 SSID : wireless
 Channel : 1ch
 Encryption rating : None
 Communication speed: AUTO
 IP address : 192.168.1.10

* You can change these settings as you want. Use configuration utility or menu to change. (Refer to section 2.5)

1) Open "Network Connections". (Fig. 2.4.2.a)

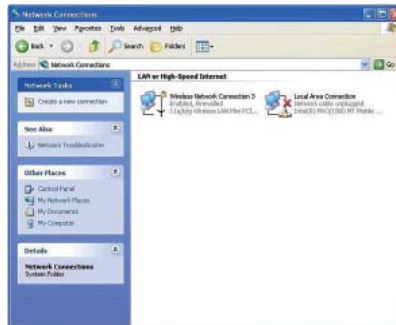


Fig. 2.4.2.a "Network Connections"

2) Make wireless network connection "Valid" and other network devices "Invalid".

3) Open "Wireless Network Connection Properties". (Fig. 2.4.2.b)

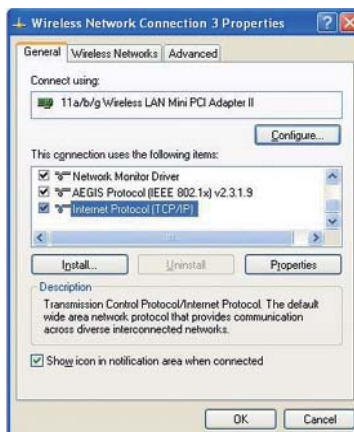


Fig. 2.4.2.b "Wireless Network Connection Properties" window (1)

2.4 Manual network connection setting – For wireless LAN (Continued)

- 4) Set used protocol as “TCP/IP” and open TCP/IP property. Set IP address and other settings as same as wired LAN connection set up. (📖 12)
- 5) Open “Wireless Networks” tab. (Fig. 2.4.2.c)



Fig. 2.4.2.c “Wireless Network Connection Properties” window (2)

- 6) Add check mark for “Use Windows to configure my wireless network settings” in “Wireless Network Connection Properties” window.
- 7) Click “Add” button in “Preferred networks” section in “Wireless Network Connection Properties” window (Fig. 2.4.2.c) to open “Wireless Network Properties” window. (Fig. 2.4.2.d)



Fig. 2.4.2.d “Wireless network Properties” window

2.4 Manual network connection setting – For wireless LAN (Continued)

8) Set each item as follows.

Network name (SSID): wireless

Data encryption: Invalid (Default setting is invalid.)

- * This explanation meets the projector default setting. If access point is used or data encryption is used, if needs to change settings properly. Refer to PC or wireless LAN device user guide for detailed information.
- * If using the existing network via access point, contact your network administrator.

2.5 Configuring and controlling the projector via a web browser

You can adjust or control the projector via a network from a web browser on a PC that is connected to the same network.

NOTE • Internet Explorer 5.5 or higher are required.

- If JavaScript is disabled in your web browser configuration, you must enable JavaScript in order to use the projector web pages properly. See the Help files for your web browser for details on how to enable JavaScript.

- If no operations are performed via a web browser for approx. 50 seconds the system will automatically log off. Please Re-log on to continue operations via a web browser.

- After you logon, a small, blank window will appear behind the main operation window. Please do not close this small, blank window. If this window is closed, the system will automatically log off after certain period of time even if an operation is being performed.

The small, blank window will close when the main operation window is closed.

- The small, blank window may be considered a pop-up and be blocked if you are using Windows XP Service Pack 2, or using other security software.

If Service Pack 2 blocks the window the following message will appear:

"Pop-up blocked. To see this pop-up or additional options click here..."

Please select "Temporarily Allow Pop-ups" or "Always Allow Pop-ups From This Site..." to allow the window to open.

- It is recommended that all web browser updates be installed. It is especially recommended that all users running Internet Explorer on a Microsoft Windows version prior to Windows XP Service Pack 2 install security update Q832894 (MS04-004) or the web browser interface may not be displayed correctly.

And when using an older version of Internet Explorer, during operations the browser will log out after 50 seconds.

2.5 Configuring and controlling the projector via a web browser (Continued)

When configuring or controlling the projector via a web browser, an ID and password are required. There are two types of IDs, Administrator IDs and User IDs. The following chart describes the differences between user and administrator IDs.

Item	Description	Administrator ID	User ID
Network Information	Displays the projector's current network configuration settings.	√	√
Network Settings	Displays and configures network settings.	√	N/A
Port Settings	Displays and configures communication port settings.	√	N/A
Mail Settings	Displays and configures e-mail addressing settings.	√	N/A
Alert Settings	Displays and configures failure & warning alerts.	√	N/A
Schedule Settings	Displays and configures schedule settings.	√	N/A
Date/Time Settings	Displays and configures the date and time settings.	√	N/A
Security Settings	Displays and configures passwords and other security settings.	√	N/A
Projector Control	Controls the projector.	√	√
Remote Control	Controls the projector like IR remote.	√	√
Projector Status	Displays and configures the current projector status.	√	√
Network Restart	Restarts the projector's network connection.	√	N/A

Below are the factory default settings for administrator IDs, user IDs and passwords.

Item	ID	Password
Administrator ID	Administrator	<blank>
User ID	User	<blank>

2.5 Configuring and controlling the projector via a web browser (Continued)

Refer to the following for configuring or controlling the projector via a web browser.
Example: If the IP address of the projector is set to 192.168.1.10:

- 1) Enter **[http://192.168.1.10/]** into the address bar of the web browser and the screen in Fig. 2.5.a will be displayed.
- 2) Enter your ID and password and click **[Logon]**.

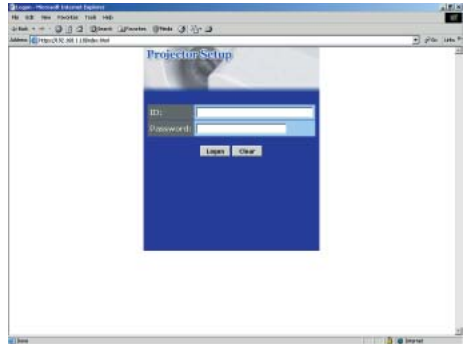


Fig. 2.5.a "Logon Menu"

If the logon is successful either the Fig.2.5.b or Fig.2.5.c screen will be displayed.

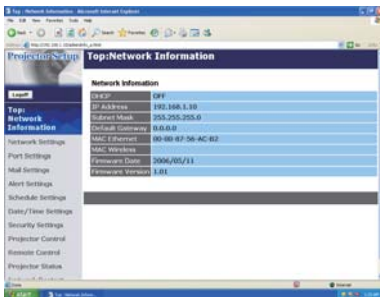


Fig. 2.5.b "Logon with administrator ID"

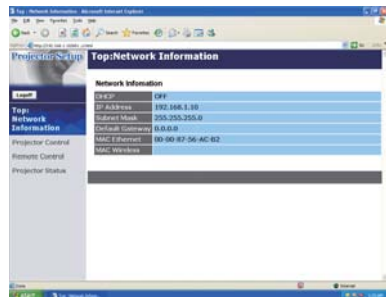
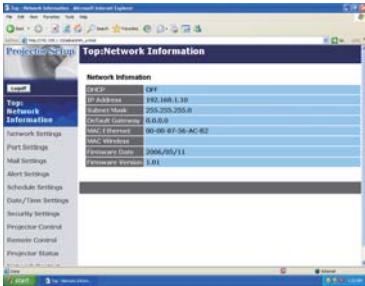


Fig. 2.5.c "Logon with user ID"

- 3) Click the desired operation or configuration item on the main menu located on the left-hand side of the screen (Fig. 2.5.b or Fig. 2.5.c).

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.1 Network Information



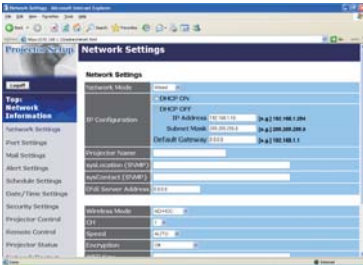
All screen images displayed in this manual are screens of a logon using an administrator ID. Any administrator only functions will not be displayed when using a user ID. Refer to the descriptions in each table.

Displays the projector's current network configuration settings.

Item	Description
DHCP	Displays the DHCP configuration settings.
IP Address	Displays the current IP address.
Subnet Mask	Displays the Subnet Mask.
Default Gateway	Displays the Default Gateway.
MAC Ethernet	Displays the Ethernet MAC address.
MAC Wireless	Displays the Wireless LAN MAC address.
Firmware Date	Displays the network firmware time stamp. This information is only displayed when logged on using an administrator ID.
Firmware Version	Displays the network firmware version number. This information is only displayed when logged on using an administrator ID.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.2 Network Settings



Displays and configures network settings.

Item	Description
NETWORK MODE	Select Network mode "wired" or "wireless".
IP Configuration	Configures network settings.
DHCP ON	Enables DHCP.
DHCP OFF	Disables DHCP.
IP Address	Configures the IP address when DHCP is disabled.
Subnet Mask	Configures the Subnet Mask when DHCP is disabled.
Default Gateway	Configures the Default Gateway when DHCP is disabled.
Projector Name	Configures the Projector name.
SysLocation (SNMP)	Configures the location to be referred to when using SNMP.
SysContact (SNMP)	Configures the contact information to be referred to when using SNMP.
DNS Server Address	Configures the DNS Server address.

2.5 Configuring and controlling the projector via a web browser (Continued)**2.5.2 Network Settings (Continued)**

Item	Description
Wireless Mode	Select "AD-HOC" or "Infrastructure".
CH (Communication channel)	Select using channel between "1" and "11". <div style="border: 1px solid black; padding: 5px;"> <p>NOTE • Depending on the country where you are the channels may vary. In addition, depending on the country or region where you are may be required to use a wireless LAN card that confirm to the standards in the respective country or region.</p> </div>
Speed (Communication speed)	Select communication speed.
Encryption	Select data encryption method.
WEP Key	Input WEP key, which has same length defined by WEP. When "64bit" or "128bit" is selected, input 10 characters or 26 characters respectively. Only numbers from "0" to "9" and alphabets from "a" to "f" can be used.
WPA Passphrase	Input WPA Passphrase. Available number of input characters is 8 to 63. Only alphabets, numbers and following symbols can be used. !#\$%&'()*+,-./[¥]^_`{ }~
SSID	Set SSID. Maximum number of input characters is 32. Only alphabets, numbers and following symbols can be used. !#\$%&'()*+,-./[¥]^_`{ }~

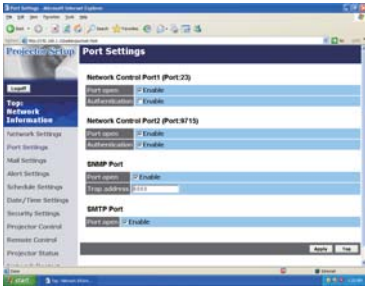
Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. When the configuration settings are changed, you must restart the network connection. You can restart the network connection by clicking **[Network Restart]** on the main menu.

- If you connect the projector to an existing network, consult a network administrator before setting server addresses.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.3 Port Settings



Displays and configures communication port settings.

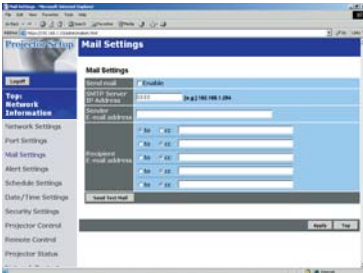
Item	Description
Network Control Port1 (Port:23)	Configures command control port 1 (Port:23).
Port open	Click the [Enable] check box to use port 23.
Authentication	Click the [Enable] check box when authentication is required for this port.
Network Control Port2 (Port:9715)	Configures command control port 2 (Port:9715).
Port open	Click the [Enable] check box to use port 9715.
Authentication	Click the [Enable] check box when authentication is required for this port.
SNMP Port	Configures the SNMP port.
Port open	Click the [Enable] check box to use SNMP.
Trap address	Configures the destination of the SNMP Trap in IP format.
SMTP Port	Configures the SMTP port.
Port open	Click the [Enable] check box to use the e-mail function.

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.4 Mail Settings



Displays and configures e-mail addressing settings.

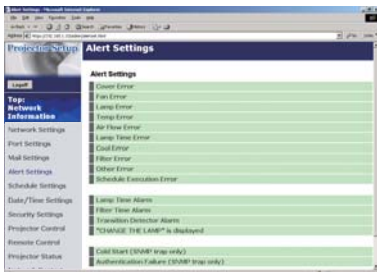
Item	Description
Send Mail	Click the [Enable] check box to use the e-mail function. Configure the conditions for sending email under [Alert Settings] .
SMTP Server IP Address	Configures the address of the mail server in IP format.
Sender E-mail address	Configures the sender e-mail address. The length of the sender e-mail address can be up to 255 alphanumeric characters.
Recipient E-mail address	Configures the e-mail address of up to five recipients. You can also specify [TO] or [CC] for each address. The length of the recipient e-mail address can be up to 255 alphanumeric characters.

Click the **[Apply]** button to save the settings.

- NOTE**
- You can confirm whether the mail settings work correctly using the **[Send Test Mail]** button.
 - If you connect the projector to an existing network, consult a network administrator before setting server addresses.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.5 Alert Settings



Displays and configures failure & warning alerts.

Item	Description
Cover Error	Configures Cover Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Fan Error	Configures Fan Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

2.5 Configuring and controlling the projector via a web browser (Continued)**2.5.5 Alert Settings (Continued)**

Item	Description
Lamp Error	Configures Lamp Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Temp Error	Configures Temp Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Air Flow Error	Configures Air Flow Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.5 Alert Settings (Continued)

Item	Description
Lamp Time Error	Configures Lamp Time Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Cool Error	Configures Cool Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Filter Error	Configures Filter Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

2.5 Configuring and controlling the projector via a web browser (Continued)**2.5.5 Alert Settings (Continued)**

Item	Description
Other Error	Configures Other Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Schedule Execution Error	Configures Schedule Execution Error alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Lamp Time Alarm	Configures Lamp Time Alarm alert settings.
Alarm Time	Configures the lamp time to alert.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

2.5 Configuring and controlling the projector via a web browser (Continued)

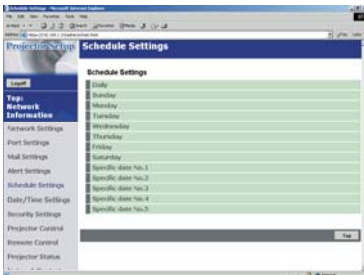
2.5.5 Alert Settings (Continued)

Item	Description
Filter Time Alarm	Configures Filter Time Alarm alert settings.
Alarm Time	Configures the filter time to alert.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Transition Detector Alarm	Configures Transition Detector Alarm alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
“CHANGE THE LAMP” is displayed	Configures alert settings for when “CHANGE THE LAMP” is displayed.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Send Mail	Click the [Enable] check box to enable e-mail alerts for this item.
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Cold Start	Configures Cold Start alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.
Authentication Failure	Configures Authentication Failure alert settings.
SNMP Trap	Click the [Enable] check box to enable SNMP Trap alerts for this item.

Click the **[Apply]** button to save the settings.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.6 Schedule Settings



Displays and configures schedule settings.

Item	Description
Daily	Configures the daily schedule.
Schedule	Click the [Enable] check box to enable daily scheduling.
Schedule List	Displays the current daily schedule.
Sunday	Configures the Sunday schedule.
Schedule	Click the [Enable] check box to enable Sunday scheduling.
Schedule List	Displays the current Sunday schedule.
Monday	Configures the Monday schedule.
Schedule	Click the [Enable] check box to enable Monday scheduling.
Schedule List	Displays the current Monday schedule.
Tuesday	Configures the Tuesday schedule.
Schedule	Click the [Enable] check box to enable Tuesday scheduling.
Schedule List	Displays the current Tuesday schedule.
Wednesday	Configures the Wednesday schedule.
Schedule	Click the [Enable] check box to enable Wednesday scheduling.
Schedule List	Displays the current Wednesday schedule.
Thursday	Configures the Thursday schedule.
Schedule	Click the [Enable] check box to enable Thursday scheduling.
Schedule List	Displays the current Thursday schedule.
Friday	Configures the Friday schedule.
Schedule	Click the [Enable] check box to enable Friday scheduling.
Schedule List	Displays the current Friday schedule.
Saturday	Configures the Saturday schedule.
Schedule	Click the [Enable] check box to enable Saturday scheduling.
Schedule List	Displays the current Saturday schedule.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.6 Schedule Setting (Continued)

Item	Description
Specific date No.1	Configures the specific date (No.1) schedule.
Schedule	Click the [Enable] check box to enable specific date (No.1) scheduling.
Month/Day	Configures the Month and date.
Schedule List	Displays the current specific date (No.1) schedule.
Specific date No.2	Configures the specific date (No.2) schedule.
Schedule	Click the [Enable] check box to enable specific date (No.2) scheduling.
Month/Day	Configures the Month and date.
Schedule List	Displays the current specific date (No.2) schedule.
Specific date No.3	Configures the specific date (No.3) schedule.
Schedule	Click the [Enable] check box to enable specific date (No.3) scheduling.
Month/Day	Configures the Month and date.
Schedule List	Displays the current specific date (No.3) schedule.
Specific date No.4	Configures the specific date (No.4) schedule.
Schedule	Click the [Enable] check box to enable specific date (No.4) scheduling.
Month/Day	Configures the Month and date.
Schedule List	Displays the current specific date (No.4) schedule.
Specific date No.5	Configures the specific date (No.5) schedule.
Schedule	Click the [Enable] check box to enable specific date (No.5) scheduling.
Month/Day	Set the Month and date.
Schedule List	Displays the current specific date (No.5) schedule.

Click the **[Apply]** button to save the settings.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.6 Schedule Setting (Continued)

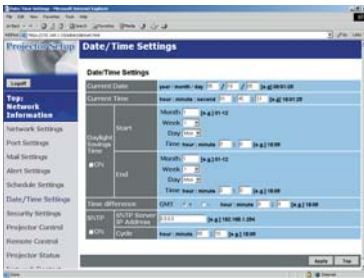
To add additional functions and events click the **[Add]** button and set the following items.

Item	Description
Time	Configures the time to execute commands.
Command	Configures the commands to be executed.
Power Parameter	Configures the parameters for power control.
Input Source Parameter	Configures the parameters for input switching.
Display Image Parameter	Configures the parameters for display of transfer image data.

Click the **[Register]** button to add new commands to the Schedule List.

Click the **[Delete]** button to delete commands from the Schedule List.

2.5.7 Date/Time Settings



Displays and configures the date and time settings.

Item	Description
Current Date	Configures the current date in Year/Month/Day format.
Current Time	Configures the current time in Hour:Minute:Second format.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.7 Date/Time Settings (Continued)

Item	Description
Daylight Savings Time	Click the [ON] check box to enable daylight savings time and set the following items.
Start	Configures the date and time daylight savings time begins.
Month	Configures the month daylight savings time begins (1~12).
Week	Configures the week of the month daylight savings time begins (First, 2, 3, 4, Last).
Day	Configures the day of the week daylight savings time begins (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
Hour	Configures the hour daylight savings time begins (0 ~ 23).
Minute	Configures the minute daylight savings time begins (0 ~ 59).
End	Configures the date and time daylight savings time ends.
Month	Configures the month daylight savings time ends (1 ~ 12).
Week	Configures the week of the month daylight savings time ends (First, 2, 3, 4, Last).
Day	Configures the day of the week daylight savings time ends (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
Hour	Configures the hour daylight savings time ends (0 ~ 23).
Minute	Configures the minute daylight savings time ends (0 ~ 59).
Time difference	Configures the time difference (hours:minutes). Set the same time difference as the one set on your PC. If unsure, consult your network administrator.
SNTP	Click the [ON] check box to retrieve Date and Time information from the SNTP server and set the following items.
SNTP Server IP Address	Configures the SNTP server address in IP format.
Cycle	Configures the interval at which to retrieve Date and Time information from the SNTP server. (hours:minutes).

Click the **[Apply]** button to save the settings.

- NOTE**
- The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed, The network connection can be restarted using **[Network Restart]** on the main menu.
 - If you connect the projector to an existing network, consult a network administrator before setting server addresses.
 - To enable the SNTP function, the time difference must be set.
 - The projector will retrieve DATE and TIME information from the timeserver and override time settings when SNTP is enabled.
 - The Internal Clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.8 Security Settings



Displays and configures passwords and other security settings.

Item	Description
Administrator authority	Configures the Administrator ID and Password.
Administrator ID	Configures the Administrator ID. The length of the text can be up to 32 alphanumeric characters.
Administrator Password	Configures the Administrator Password. The length of the text can be up to 255 alphanumeric characters.
Re-enter Administrator Password	Re-enter the above password for verification.
User authority	Configures the User ID and Password.
User ID	Configures the User ID. The length of the text can be up to 32 alphanumeric characters.
User Password	Configures the User Password. The length of the text can be up to 255 alphanumeric characters.
Re-enter User Password	Used to re-enter the above password for verification.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.8 Security Settings (Continued)

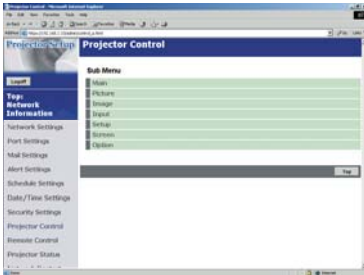
Item	Description
Network Control	Configures the Authentication Password for the command control.
Authentication Password	Configures the Authentication Password. The length of the text can be up to 16 alphanumeric characters.
Re-enter Authentication Password	Used to re-enter the above password for verification.
SNMP	Configures the community name if SNMP is used.
Community Name	Configures the community name. The length of the text can be up to 64 alphanumeric characters.
FTP	Configures the FTP user and password.
USER	Configures the user name. The length of the text can be up to 32 alphanumeric characters.
Password	Configures the password. The length of the text can be up to 32 alphanumeric characters.
Re-enter Password	Use to re-enter the above password for verification.

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.9 Projector Control



The items shown in the table below can be performed using the **[Projector Control]** menu. Select an item using the up and down arrow keys on the PC.

Most of the items have a submenu. Refer to the table below for details.

Controls the projector.

Item	Description
Main	
Power	Turns the power On/Off.
Input Source	Selects the input source.
Picture Mode	Selects the Picture Mode setting.
Blank On/Off	Turns Blank On/Off.
Mute	Turns Mute On/Off.
Freeze	Selects the Freeze setting.
Magnify	Controls the Magnify setting.
Picture	
Brightness	Adjusts the Brightness setting.
Contrast	Adjusts the Contrast setting.
Gamma	Selects the Gamma setting.
Color Temp	Selects the Color Temp setting.
Color	Adjusts the Color setting.
Tint	Adjusts the Tint setting.
Sharpness	Adjusts the Sharpness setting.
Active Iris	Selects the Active Iris setting.
MyMemory Recall	Recalls the MyMemory data.
MyMemory Save	Saves the MyMemory data.

2.5 Configuring and controlling the projector via a web browser (Continued)

2.5.9 Projector Control (Continued)

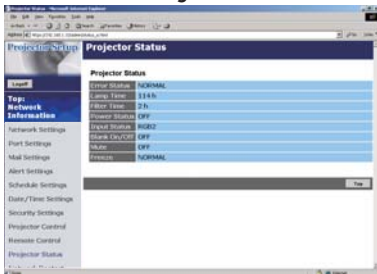
Item	Description
Image	
Aspect	Selects the Aspect setting.
Over Scan	Selects the Over Scan setting.
V Position	Adjusts the V Position.
H Position	Adjusts the H Position.
H Phase	Adjusts the H Phase.
H Size	Adjusts the H Size.
Auto Adjust	Performs Auto Adjustment.
Input	
Progressive	Selects the progressive setting.
Video NR	Selects the Video NR setting.
Color Space	Selects the Color Space.
Component	Selects the Component terminal setting.
C-Video Format	Selects the Video Format setting.
S-Video Format	Selects the S-Video Format setting.
Frame Lock	Enables/Disables Frame Lock.
RGB in-1	Selects the RGB1 input signal type.
RGB in-2	Selects the RGB2 input signal type.
Setup	
Auto Keystone Execute	Performs the Automatic keystone distortion correction.
Keystone	Adjusts the Keystone setting.
Whisper	Selects the Fan speed. (Normal or Whisper)
Mirror	Selects the Mirror status.
Volume	Adjusts the Volume setting.
Audio-RGB1	Assigns the Audio-RGB1 input terminal.
Audio-RGB2	Assigns the Audio-RGB2 input terminal.
Audio-Video	Assigns the Audio-Video input terminal.
Audio-S-Video	Assigns the Audio-S-Video input terminal.
Audio-Component	Assigns the Audio-Component input terminal.
Audio-MIU	Assigns the Audio-MIU input terminal.

2.5 Configuring and controlling the projector via a web browser (Continued)**2.5.9 Projector Control (Continued)**

Item	Description
Screen	
Language	Selects the Language for the OSD.
Menu Position V	Adjusts the vertical Menu Position.
Menu Position H	Adjusts the horizontal Menu Position.
Blank	Selects the Blank mode.
Startup	Selects the Startup screen mode.
MyScreen Lock	Turns MyScreen Lock On/Off.
Message	Turns the Message function On/Off.
Option	
Auto Search	Turns the Automatic signal search function On/Off.
Auto Keystone	Turns the Automatic keystone distortion correction function On/Off.
Auto on	Turns the Auto on function On/Off.
Auto off	Configures the timer to shut off the projector when no signal is detected.
My Button-1	Assigns the functions for the MY BUTTON1 buttons on the included remote control.
My Button-2	Assigns the functions for the MY BUTTON2 buttons on the included remote control.
Auto Adjust	Enables/Disables Auto Adjustment.
Remote Freq. Normal	Enable/Disable
Remote Freq. High	Enable/Disable

2.5 Configuring and controlling the projector via a web browser (Continued)

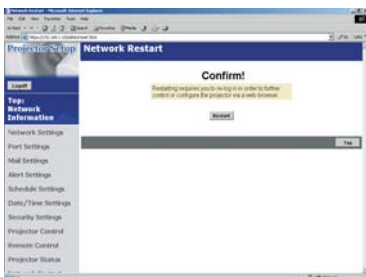
2.5.10 Projector Status



Displays and configures the current projector status.

Item	Description
Error Status	Displays the current error status
Lamp Time	Displays the usage time for the current lamp.
Filter Time	Displays the usage time for the current filter.
Power Status	Displays the current power status.
Input Status	Displays the current input signal source.
Blank On/Off	Displays the current Blank On/Off status.
Mute	Displays the current Mute On/Off status.
Freeze	Displays the current Freeze On/Off status.

2.5.11 Network Restart



Restarts the projector's network connection.

Item	Description
Restart	Restarts the projector's network connection in order to activate new configuration settings.

NOTE • Restarting requires you to re-log on in order to further control or configure the projector via a web browser.

2.5.12 Logoff

When logoff is clicked, the logon screen is displayed (27 : Fig. 2.5.a).

2.6 Utilize Web Remote Control

You can use your Web browser to remote control the projector once the projector is properly configured and connected to your PC via the wireless LAN card or via wired LAN.

NOTE • Do not attempt to control the projector with the projector's remote control and via your Web browser at the same time. Attempt to do so may causes a projector operational error.

Open browser when it is possible to communicate with projector. Corresponding browser is Internet Explorer 5.5 or later.

Specify [http://\(projector IP address\)/](http://(projector IP address)/) to start.

For example, <http://192.168.1.10/>

(Input this URL when IP address is not changed.)

After start up, enter your ID and password, and click [Logon]. Following window appears as shown in fig. 2.6.a.

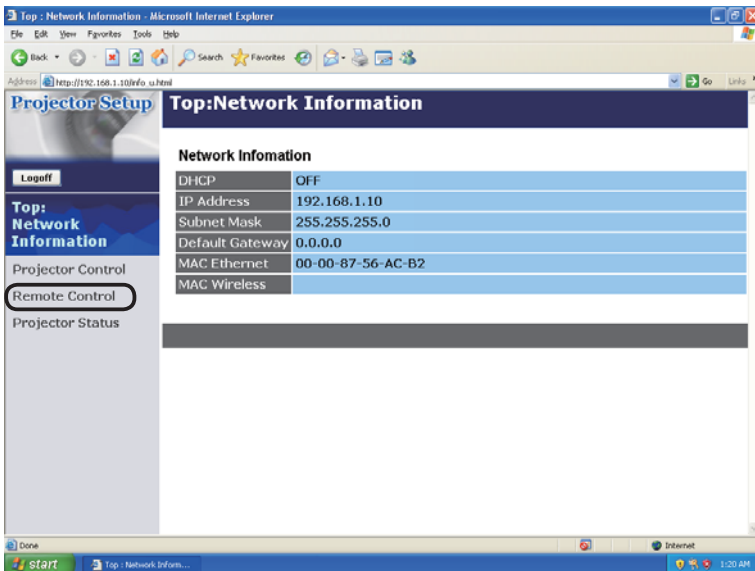
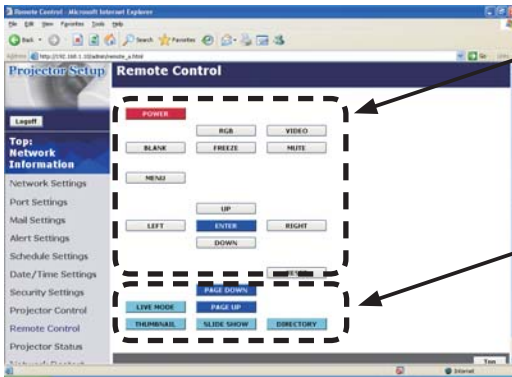


Fig. 2.6.a Utility selection window for Web Remote Control

2.6 Utilize Web Remote Control (Continued)

Click “Remote Control” in this window to display Web Remote Control as shown in fig.2.6.b.



The same operation as the bundled remote control will be done. UP/LEFT/RIGHT/DOWN corresponds to ▲/◀/▶/▼ respectively.

Each mode will be activated by clicking these buttons.

- LIVE MODE
- THUMBNAIL
- SLIDE SHOW
- DIRECTORY

Fig. 2.6.b Web Remote Control

NOTE • Web Remote Control does not support repeat function when it is kept clicking.

- Since automatic repeat function is not available, click the button necessary times to reach your demand.
- If you click the button continuously, some command will not be transferred. Wait for a while, and Click again.
- When the power button is pushed, a message comes up to confirm the operation. If you wish to turn it off, push OK, otherwise push CANCEL.
- PAGE DOWN and PAGE UP buttons on web remote control can not be used as mouse emulation function of the projector.

3. How to use Projector software – Basics -

3.1 How to use “MIU Live Viewer”

This section explains how to use the “MIU Live Viewer”.

3.1.1. Install “MIU Live Viewer”

In order to use the projector with a PC for Live Mode, you will first need to install the accompanying software on all the PCs you will be using.

Minimum PC Hardware and Software Requirements

- OS: Windows 2000 Professional Service Pack4, Windows XP Home Edition/Professional
- Graphic Interface: DirectX 6.1a or higher; Video RAM 4MB or higher (8MB recommended)
- CPU: Pentium III (600MHz or higher recommended)
- Display: VGA 640x480 or higher (XGA 1024x768 recommended) 65,536 simultaneous colors or higher

NOTE • Set your PC’s resolution to XGA or less.

• In some cases, Screen will not be displayed correctly like no displays larger than XGA portion.

• Images might not be transmitted, caused by OS version or the driver software for Network Adaptor.

It is highly recommended that OS and the driver should be updated to the latest.

- Memory: 64MB or higher (128MB or higher if using Windows XP)
- Available Hard Disk Space: 10MB or higher
- Web browser: Internet Explorer® (5.5 or higher)
- CD-ROM drive

- PC with PC card slot (PCMCIA Type-II) interface and IEEE802.11g wireless LAN PC card or PC with USB Interface and IEEE802.11g wireless LAN USB adaptor.

NOTE • Not required for PCs with built-in 802.11g wireless LAN.

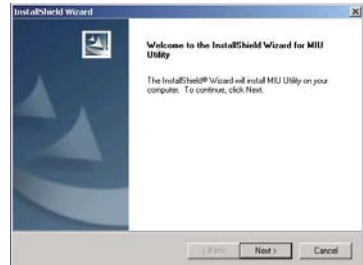
• Depending on the type of wireless LAN card and PC you are using, the projector may not be able to communicate properly with your PC, even if the PC you are using is equipped with built-in wireless LAN functionality.

Should communication problems occur, please procure a Wi-Fi certified wireless LAN card.

3.1 How to use “MIU Live Viewer” (Continued)

3.1.2. Software Installation Procedure

- 1) Turn on the PC.
- 2) Shut down all applications.
- 3) Insert the X62w Operator's Guide CD-ROM into the PC's CD-ROM drive.
Also visit www.3m.com/meetings for "MIU Live Viewer" software update.
- 4) After a moment, the Welcome to MIU Utilities Setup dialog will appear as shown on the right. Press Next.



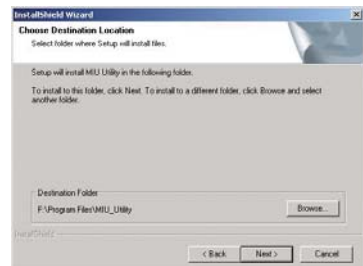
NOTE If the Welcome to MIU Utilities Setup dialog doesn't appear, proceed as follows:

- (1) Click on the Start button on the toolbar and select Run.
- (2) Enter E:software\setup.exe and then press OK.

↑ If your CD-ROM drive is not drive E on your PC, you will need to replace E with the correct drive letter assigned to your CD-ROM drive.

If software has been already installed, Uninstallation will be done. Click the cancel button, then uninstallation will be canceled. If you uninstalled the software by misoperation, please re-install the software from first procedure.

- 5) The License Agreement dialog appears. If you accept it, press the “Yes”.
- 6) The Choose Destination Location dialog appears. Press Next.



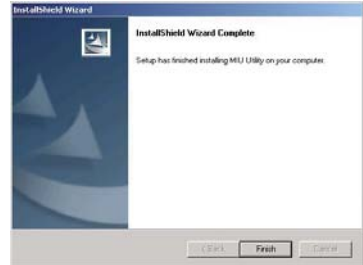
NOTE • The C:\Program Files\MIU_Utility folder will be created and the program will be installed into that folder.
• If you wish to install to a different folder, click Browse and select another folder.

- 7) Confirm the program folder name.
If MIU_Utility is okay, press Next to continue.
If not, enter the desired folder name and then press Next.



3.1 How to use “MIU Live Viewer” (Continued)

- 8) The Hardware Installation dialog appears. Press Continue Anyway.
- 9) After a moment, installation will complete and the Setup Complete dialog will appear as shown on the right. Click Finish. This completes the software installation. Then your PC automatically restarts.
 - (1) To confirm that the software as been properly installed, press the Start button on the toolbar, select All Programs and then select the MIU Utility folder.
 - (2) MIU Live Viewer will appear in that folder if the installation was successful.



3.1.3 Explanation of “MIU Live Viewer”

Double click “LiveViewer.exe” to start up. Fig. 3.1.3.a appears on your screen.

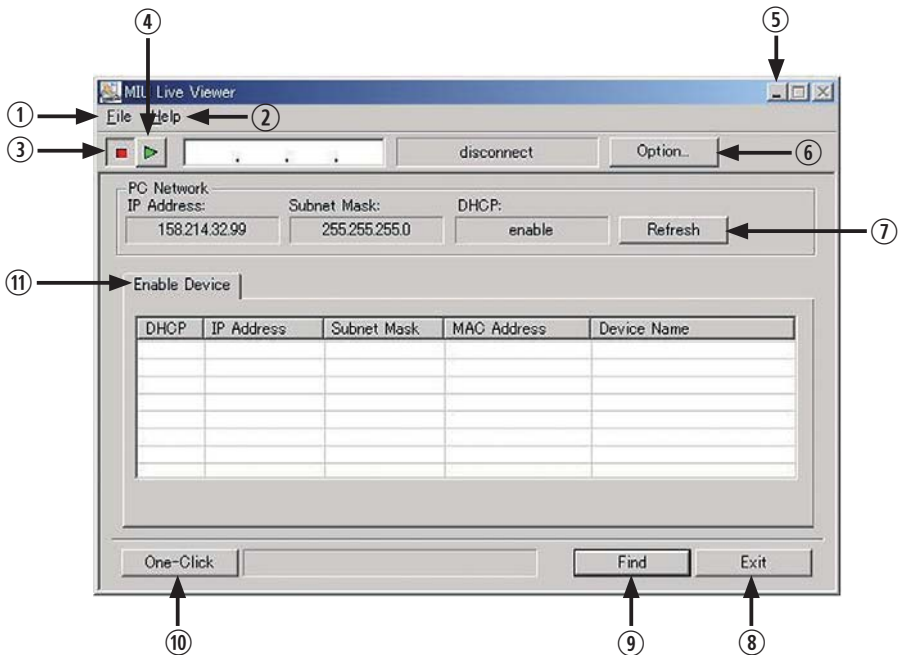


Fig. 3.1.3.a “MIU Live Viewer” Window

3.1 How to use “MIU MIU Live Viewer” (Continued)

["MIU Live Viewer" window: Fig. 3.1.3.a]

- 1) “File” button
Display file menu.
- 2) “Help” button
Display “MIU Live Viewer” information.
- 3) Stop button
Disconnect projector connection.
- 4) Capture start button
Start real time display.

NOTE • Pictures are not displayed correctly when the start/stop buttons are clicked repeatedly.

- 5) Minimize button
Close “MIU Live Viewer” window and display “MIU Live Viewer” as icon on the task tray.
- 6) “Option” button
Display Option window.
- 7) “Refresh” button
Refresh the current PC network setting.
- 8) “Exit” button
Terminate “MIU Live Viewer”.
- 9) “Find” button
Search connectable projectors.
- 10) “One-Click” button
Connect projector and PC without network setting of the PC.
- 11) “Enable Device”
Display network-connectable projector list.

NOTE • When Multi PC mode is not selected, if there is no other PC connected, the last image will be held on screen until getting out of Live Mode or turning the projector off.
Thanks to the feature, the PC can be used to prepare the next presentation file or others without showing it on screen if the communication to the projector is turned off.

3.1 How to use “MIU Live Viewer” (Continued)

[“Options” window]

[“General” tab, Fig. 3.1.3.b]

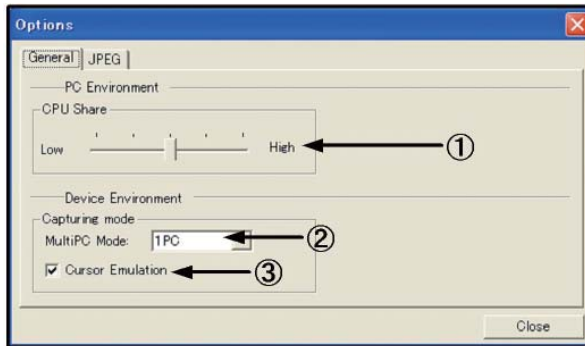


Fig.3.1.3.b “Options”, “General” tab

1) CPU Share

Set up any capturing performance on the PC screen by using control bar
Low (At the far left): Set this position when many CPU resources are required by applications other than “MIU Live Viewer”. This setting is not good for displaying frequently changed patterns due to decrease in screen refresh rate by “MIU Live Viewer” performance degrading.

High (At the far right): Set this position when “MIU Live Viewer” requires many CPU resources. Screen refresh rate increases when “MIU Live Viewer” is used, but decreases the speed of other application speed.

2) MultiPC Mode

Select connected PC quantity from 1PC to 4PCs.

3) Cursor Emulation

Enabling this function “ON”, display cursor (pointer) prepared by this projector when cursor is not displayed on output screen. Take out check mark to make it “OFF” when PC and projector both cursors are displayed.

3.1 How to use “MIU Live Viewer” (Continued)

[JPEG tab]

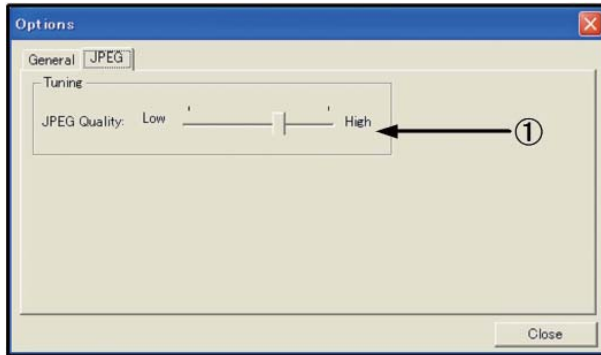


Fig. 3.1.3.c “Options”, “JPEG” tab

1) JPEG Quality

When “MIU Live Viewer” is used, it captures PC screen image. Then that is compressed as JPEG and sent to projector. By control bar in this tab, you can set compression rate.

Low (At the far left, Low picture quality): Make JPEG compression rate high. Screen refresh interval becomes shorter due to low volume transferred data, but picture quality decreases.

High (At the far right, High picture quality): Make JPEG compression rate low. Screen refresh interval becomes longer due to high volume transferred data, but picture quality increases.

[Icon in task tray]

To display “MIU Live Viewer” icon in task tray, click “Minimize” button in “MIU Live Viewer” window. The icon with yellow thunder mark shows that communication is connected, and it with red cross mark shows that it is disconnected. (Fig. 3.1.3.d shows while communication is disconnected.)

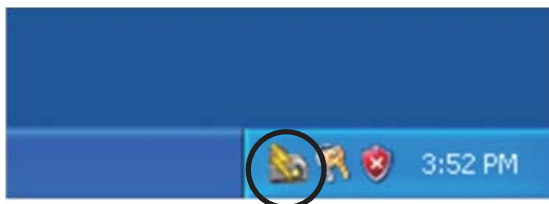


Fig. 3.1.3.d Icon in task tray

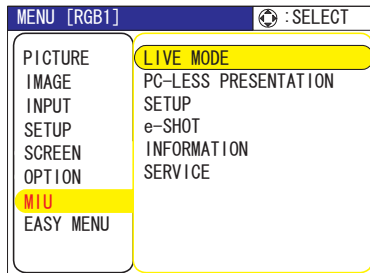
Double click “MIU Live Viewer” icon in task tray to display “MIU Live Viewer” window.

3.1.4 Utilize “MIU Live Viewer” – Basic -

This section explains basic of how to use “MIU Live Viewer” functions.

• Before start up the MIU Live Viewer, you have to set the projector into LIVE MODE by either of following way.

- 1) from Web Remote Control
 - (1) Select LIVE MODE
- 2) from OSD Menu
 - (1) Set the port into MIU menu by remote control or Keypad.
 - (2) Open the OSD Menu by pressing ▲/◀/▶/▼ Keypad button on the projector or Menu button on remote control.
 - (3) Select the LIVE MODE in MIU Menu, and press the ► button on Keypad on the projector or Enter button on remote control.



• After setting to the projector into LIVE MODE.

- 1) Start “MIU Live Viewer”. If “MIU Live Viewer” installation is not completed, install it referring to 3.1.1 Install “MIU Live Viewer”.

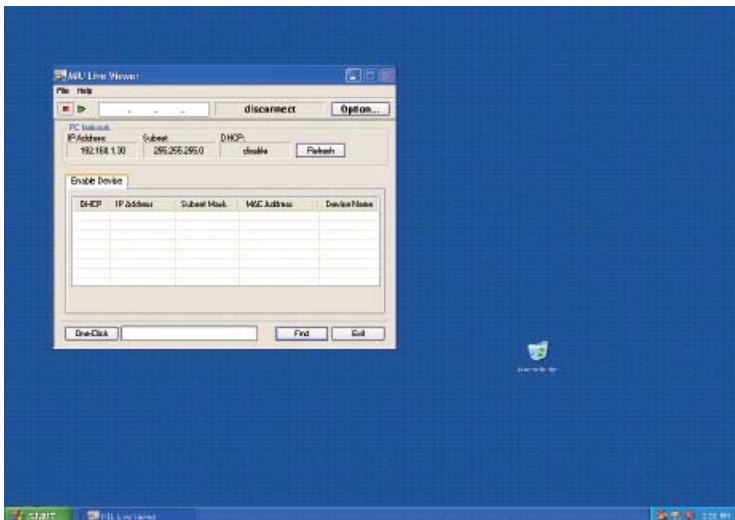


Fig. 3.1.4.a Screen after “MIU Live Viewer” starting up

3.1 How to use “MIU Live Viewer” (Continued)

- 2) Start Web Remote Control (refer to 2.6 Utilize Web Remote Control), and click “LIVE MODE” button on Web Remote Control to change projector mode to “MIU Live Viewer”. After changing, screen of the output monitor connected with projector turn all blue.
- 3) Perform following operations on “MIU Live Viewer”
 - (1) Click “Find” button to search communication available projector. If any projector is not found at “Enable Device” tab, try search again after referring section 2.2.

Display communication possible projector like this if available as a result of search.

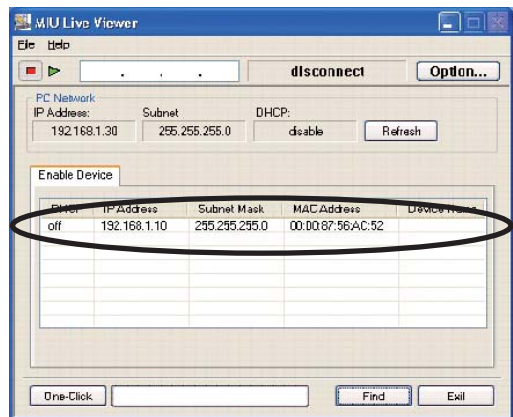


Fig. 3.1.4.b. Projector research result display (1)

- (2) When communication available projector is found at 1), click the found projector to select

Click the projector line to connect. IP address appears in the upper column.

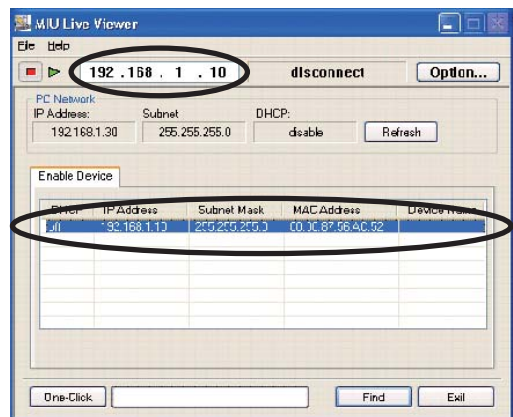


Fig. 3.1.4.c Projector research result display (2)

3.1 How to use “MIU Live Viewer” (Continued)

(3) Click Capture start button.

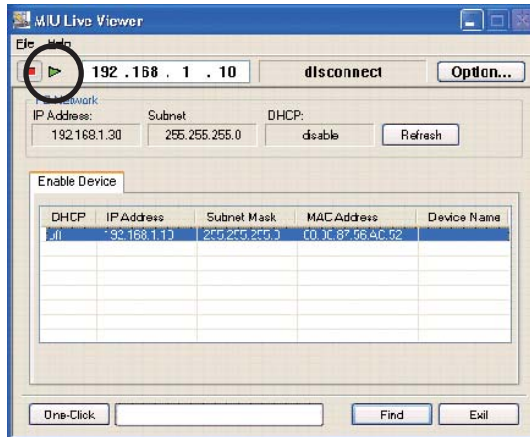


Fig. 3.1.4.d Start capturing

Based on the above operation, if captured picture of PC screen is displayed real time on monitor connected with projector, it is succeeded. Much easier to connect if you utilize “One-Click-Communication” function. (Refer to section 2.2.) This is basic usage. Refer to section 4.1 for further explanation of advanced MIU Live Viewer usage.

3.2 Utilize “PC-LESS Presentation” – Basic -

Explain basics of how to utilize “PC-LESS Presentation”.

- 1) Save JPEG picture files into root directory in SD card or USB Memory. Insert SD card into SD slot on projector or insert USB memory into AUX I/O slot on projector ([Inserting an SD card and USB memory of the Operator's Guide](#)).
- 2) Connecting as network refer to section 3 and start the Web Remote Control.
- 3) Click “THUMBNAIL” button on the Web Remote Control to change projector mode to “PC-LESS Presentation”. Then thumbnail appears.

To remove the SD card or USB memory,

- 4) Be sure to perform the REMOVE procedure using the SERVICE item in the MIU menu ([MIU Menu of the Operator's Guide](#)). When an error dialog appears in the procedure, please re-perform the procedure after waiting for a while.
- 5) When you remove the SD wireless network card, be sure to turn the projector off.
- 6) Remove the SD card or USB Memory. For removing the SD card, remove the SD card slot cover before, and put the cover back after.

3.2 Utilize “PC-LESS Presentation” –Basic - (Continued)

If thumbnail appears by above operation, it is succeeded. (Fig.3.2.a) This is basic usage. There are varieties of usage for “PC-LESS Presentation”. Refer to section 4.2 for further detailed explanation.

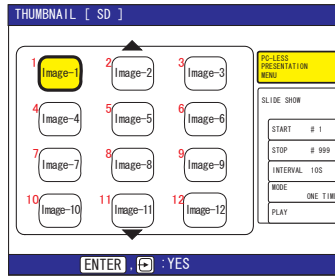
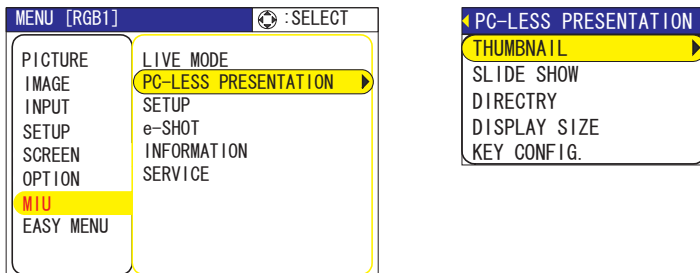


Fig. 3.2.a Thumbnail display

You can also activate “PC-LESS Presentation” from the OSD Menu.

- 1) Open the OSD Menu from the Menu button on the remote control or ▲/◀/▶/▼ button on Keypad.
- 2) Select “PC-LESS Presentation” on the MIU Menu. And press the Enter button on the remote control or ► button on Keypad. Then PC-LESS PRESENTATION Menu appears.



- 3) Select THUMBNAIL on PC-LESS PRESENTATION Menu. And press the Enter button on remote control or ► button on Keypad. Then thumbnail appears.

- ⚠ Caution
- Do not pull out memory card while file is accessed.
 - SDHC(4GB etc) SD memory is not supported. UP to 2GB.
 - Some SD memories and/or USB memories will not work correctly.
 - Security USB memory is not supported.

4. Utilize projector – Advanced -

4.1. Utilize “MIU Live Viewer” – Advanced -

This section explains how to connect multiple PCs.

4.1.1. Connect multiple PCs with one projector (Multiple PCs connection)

A projector can be connected with up to 4 PCs to display multiple windows.

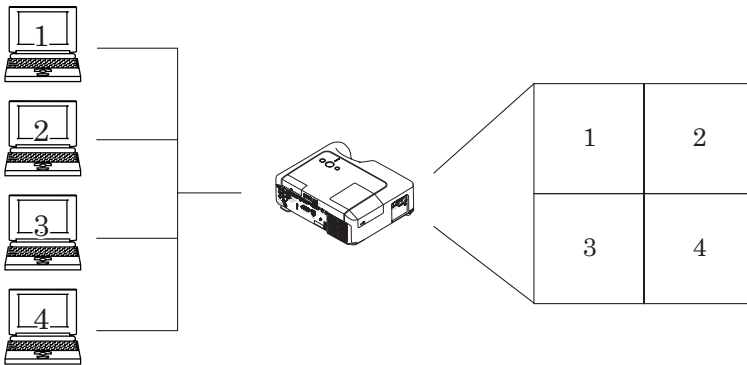


Fig. 4.1.1.a Multiple PCs connection outline

Followings are required for multiple PCs connection.

- From 2 to 4 PCs (“MIU Live Viewer” installation is required to all PCs to connect.)
- Projector: 1 unit
- Straight LAN cable: Required qty*
- Ethernet hub

* It is required to make all wireless PCs enabling wireless communication when doing multiple PCs connection as wireless LAN connection. SD-Link11g card for projector is required. If it is communicated by Infrastructure mode, access point is necessary. (📖 16)

4.1. Utilize “MIU Live Viewer” – Advanced - (Continued)

[Connection]

- 1) Connect all PCs and projector using LAN cables and hub as shown in fig. 4.1.1.a. Connect projector and output monitor with RGB cable.
- 2) Start up “MIU Live Viewer” in each PC. Check the IP address in PCs and confirm xxx of [192.168.1.xxx] in IP address is set different value in each PC.
- 3) Click “Find” button in “MIU Live Viewer” and search projector.
- 4) When projector is found, click “Option” button in “MIU Live Viewer”. Then open “General” tab and select the number of PCs to connect as MultiPC Mode. After selecting, click “Close” button.
- 5) Click Capturing Start button.
- 6) Repeat from 3) to 5) to all PCs.

* Display screen priority

In case of multiple PCs connection, priority is decided automatically comparing when each PC is connected. In each mode, priority is as shown in fig. 4.1.1.b. (Smaller number is prioritized.)

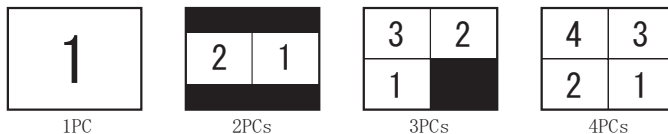


Fig. 4.1.1.b Priority in each mode

Detailed conditions and specifications for priority are as follows.

- a) The priority is high the PC that connects later.
- b) When Multi PC Mode (2 to 4 PCs) is changed to 1 PC, changed 1 PC has highest priority.
- c) Multi PC Mode can be changed settings freely even the PC is communicating.
- d) When the lower number than connected PCs is selected, lower priority PC screens are not displayed, but connections with projector are kept.
When more than 5 PCs are connected with projector, lower priority PC connection is disconnected.

NOTE • When Multi PC is selected, if the screen resolution on one of PCs is changed, the PC will be given the top priority, so the mode (1 to 4PCs) set on the PC will be effective on the projector.
• On Multi PC Mode, actual image resolution of each screen is 1/4 of the original, then small letters or lines might be hard to be illegible. It is recommended to use letters as large as possible. Or try manual H.Phase adjustment which might improve image quality.

4.2 Utilize “PC-LESS Presentation” – Advanced -

“PC-LESS Presentation” reads image data from memory cards inserted into SD or USB slot and perform followings.

SD Memory and SD Wireless card can not be inserted at the same time.

- Thumbnail display (Section 4.2.1)
- Display in full screen (Section 4.2.2)
- Slide show (Section 4.2.3)
- Directory display (Section 4.2.4)

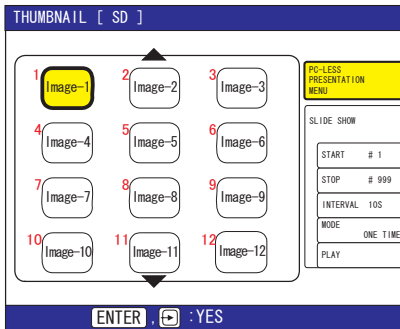


Fig. 4.2.a Thumbnail display



Fig. 4.2.b Display in full screen



Fig. 4.2.c Slide show



Fig. 4.2.d Directory display

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

Following picture and movie files can be displayed.

- JPEG (.jpeg, .jpg) * Progressive is not corresponded.
- BMP (.bmp)
- PNG (.png)
- MPEG4 (.mp4) * Supported bit resolution rate is less than 1Mbps in Simple Profile.
Supported resolution is less than VGA.
Supported Audio format is only AAC.

4.2.1 Thumbnail display

Fig.4.2.1 shows thumbnail display. Click [THUMBNAIL] button in the Web Remote Control to display menu on the screen in order to make thumbnail display. You can also display thumbnail by remote control or keypad (📖53).

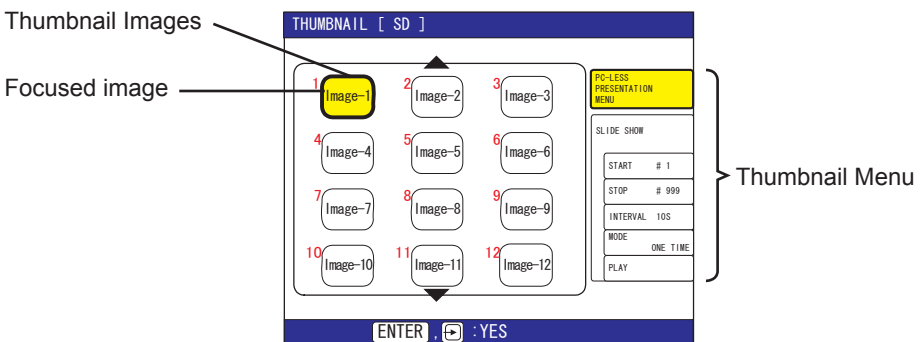


Fig. 4.2.1. Thumbnail display

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

Following operations can be accessible while thumbnail is displayed.

▲/◀/▶/▼ Remote control/Keypad	Move cursor.
PAGE UP PAGE DOWN Remote control	Switch pages.
ENTER Remote control INPUT Keypad	Display selected image in full screen.
MENU Remote control	Displays PC-LESS PRESENTATION Menu.

* These operations are not accessible while projector OSD menu is displayed.

- NOTE**
- Thumbnail display shows 12 pictures in 1 page as maximum.
 - It is not possible to change the input port by INPUT button when THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.
 - Displays the projector Menu before changing the input port .
 - Select the right edge images and press the ▶ button, then thumbnail menu will be selected.
 - Some error Icons will be displayed in thumbnail.



This file seems to be broken or not supported format.



This file exists only in Playlist (📖67), but does not exist anywhere.

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

4.2.2 Display in full screen

Full screen display (fig.4.2.2) shows a full display image on the PC. To make Full-screen display, click [MENU] button in the Web Remote Control menu on the screen. When select [PC-LESS Presentation], then [Thumbnail] from the menu, click [ENTER] so that moves to be full-screen display.



Fig.4.2.2 Full-screen Display

While displaying in full screen, following operation can be accessible from the Web Remote Control.

<p style="text-align: center;">◀/▶ or ▲/▼ (Selected on KEY CONFIG. MENU 60)</p>	<ul style="list-style-type: none"> • Rotate image 90 degrees clockwise or otherwise. Once image is rotated, it keeps the display image even though it is switched. (Thumbnail or slide show display) To return the original, rotating the image 360 degrees or erase play list in memory card. (Refer to section 4.3) • Moving the slide forward or backward.
<p><input type="button" value="ENTER"/> Remote control <input type="button" value="INPUT"/> Keypad</p>	Displaying thumbnail.
<p><input type="button" value="MENU"/> Remote control</p>	Displays PC-LESS PRESENTATION Menu.

* These operations are not accessible while projector OSD menu is displayed.

NOTE • It is not possible to change the input port by INPUT button of keypad when displaying the THUMBNAIL, SLIDE SHOW, or DIRECTORY.

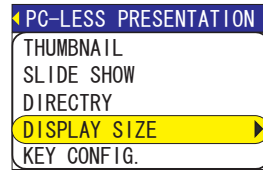
- Displays the projector Menu before changing the input port.
- Image might not be displayed properly at the beginning or end of MP4 file playback.

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

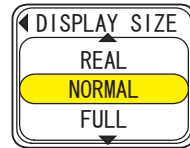
You can display the image file with your desired size.

1) Select the DISPLAY SIZE in PC-LESS PRESENTATION Menu.

2) Press the Enter button on the remote control or ► button on the Keypad.



3) Then DISPLAY SIZE menu appears.



4) Select your desired DISPLAY SIZE.

- REAL : Displays the image at original size.
 Displays the image at the center of screen if original size is smaller than the screen size.
 Displays only center of the image if original size is larger than the screen size.
- NORMAL : Displays the image for the maximum size on the screen, and keeps original aspect.
- FULL : Displays the image at the full size screen.
 Original aspect will be changed to full size display.

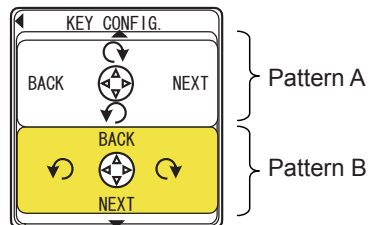
The animation file is always played at VGA mode if resolution is larger than VGA. The animation file is always played at the center of screen if resolution is smaller than VGA.

You can select the KEY configuration from 2 preset pattern assigned to ▲/▼/◀/▶ keys on Thumbnail or Directory mode.

1) Select the KEY CONFIG. in PC-LESS PRESENTATION Menu.

2) Press ► button.

3) The KEY CONFIG. menu appears.



4) Select the KEY CONFIG. pattern.

- pattern A : ◀ : rotation to left ▶ : rotation to right
 ▲ : previous image ▼ : next image
- pattern B : ◀ : previous image ▶ : next image
 ▲ : rotation to right ▼ : rotation to left

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

4.2.3. Slide show

Slide show (fig.4.2.3) displays a full screen image and move to the next interval. Click the “SLIDE SHOW” button in Web Remote Control, then Slide show will be played. Display time can be set by the Playlist (refer to section 4.3) and menu.

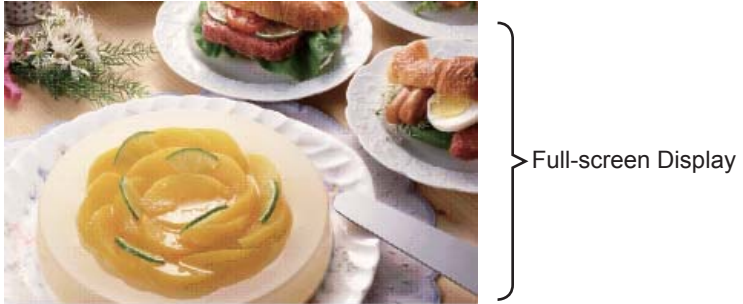


Fig. 4.2.3 Slide show

Following operations are accessible while slide show is displayed.

ENTER	Remote control	Display thumbnails.
INPUT	Keypad	
MENU	Remote control	Displays PC-LESS PRESENTATION Menu.

* These operations are not accessible while projector OSD menu is displayed.

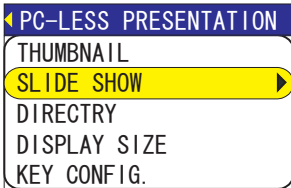
NOTE • It is impossible to change the input port by INPUT button if THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.

- Displays the projector Menu before changing the input port .
- Images can be displayed when it is recorded in the Playlist.
- Image can not be displayed in the thumbnail if it is not recorded in the Playlist. (67)
- The START #, STOP #, INTERVAL, and MODE are set by thumbnail menu once, this setting has more priority than the Playlist.
- If you would like to release the priority, delete the slidemode.txt file from directory.
- When SLIDE SHOW mode is set to ONE TIME, the last slide of the presentation will be held on screen till either of ENTER key the remote or INPUT key on the projector is pushed.

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

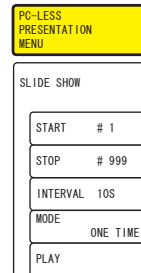
You can also play the Slide show with the projector Menu.

Select “SLIDE SHOW” on PC-LESS PRESENTATION Menu. And press the Enter button on the remote control or ► button on Keypad. Then Slide show will start.



You can play the Slide show at your desired configuration. Configure the Slide Show items in THUMBNAIL.

- 1) START # : Set the beginning number of Slide show.
- 2) STOP # : Set the end number of Slide show.
- 3) INTERVAL : Set the interval Slide show.
- 4) MODE : Select the Slide show mode.
 ONE TIME : Play the Slide show one time.
 ENDLESS : Play the Slide show endless.
- 5) PLAY : Play the Slide show.



4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

Following operations can be accessible while directory is displayed.

▲/▼	Moving selected item upward or downward.				
▶	Open the closed folder.				
◀	Close the folder.				
<table border="1"> <tr> <td>PAGE UP</td> <td>PAGE DOWN</td> </tr> </table> Remote control	PAGE UP	PAGE DOWN	Show undisplayed portion if the tree display is not fit inside the screen.		
PAGE UP	PAGE DOWN				
<table border="1"> <tr> <td>ENTER</td> <td>Remote control</td> </tr> <tr> <td>INPUT</td> <td>Keypad</td> </tr> </table>	ENTER	Remote control	INPUT	Keypad	Play displayable file. While directory is selected, thumbnail is displayed. It is not possible to play undisplayable file. Click “ENTER” while playing, so it returns to the directory display.
ENTER	Remote control				
INPUT	Keypad				
<table border="1"> <tr> <td>MENU</td> <td>Remote control</td> </tr> </table>	MENU	Remote control	Displays the menu.		
MENU	Remote control				

* These operations are not accessible while projector OSD menu is displayed.

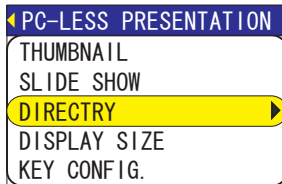
NOTE • It is not possible to change the input port by INPUT button when THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.

- Displays the projector Menu before changing the input port .
- Only alphanumeric characters can be used for directory name and file name.
- This directory display is able to show up to 10 layers. Over 10 layers of files and folders can not be shown. Some files and directories are not displayed if there are too many. In this case, delete some files in the directory or some directories in the memory card.

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

You can also display the directory with the projector Menu.

Select “DIRECTORY” in PC-LESS PRESENTATION Menu. And press the Enter button on remote control or ► button on Keypad. Then directory will be displayed.



[File information display]

File information display shows following information.

Displayable still image file

- File format (JPEG, PNG and BMP)
- Time stamp (When file is created)
- File size (Size of File)
- Image size (File resolution)

Displayable moving image file

- File format (MP4)
- Time stamp (When the file is created)
- File size (Size of File)
- Movie size (File resolution)
- Movie time (Play time)

Undisplayable file

- File format (Directory: Directory, Undisplayable file: File)
- Time stamp (When file is created)
- File size (Size of File)

4.2 Utilize “PC-LESS Presentation” – Advanced - (Continued)

4.2.5 “PC-LESS Presentation” error message

Error message is displayed at a specific condition while “PC-LESS Presentation” mode. It appears at the bottom and the gray area of screen.

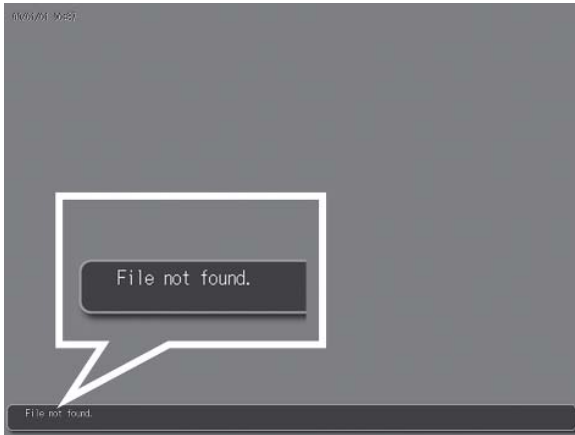


Fig. 4.2.5 “PC-LESS Presentation” error message

“PC-LESS Presentation” error message list

Error message	Error content	Display mode
File not found	Displayable file does not exist.	Display in full screen and slide show
Illegal Playlist file	Play list file has malfunction. (Over 64kB file, over 1022 characters per line in file or linefeed code malfunction)	Display in full screen and slide show

4.3 Playlist

Playlist is a DOS format text file, which decides the order of displayed still image files or moving image files in the thumbnail or the slide show.

Playlist file name is [imagelistdir.txt]. It is created in each folder when “PC-LESS Presentation” is displayed. The timing of playlist creation is when “PC-LESS Presentation” is displayed in the directory, which any playlist file does not exist. The playlist is created in the displayed directory.

NOTE • Playlist can not be overwritten. Once it is created, data remains. Therefore, the image can not displayed if it is additionally saved to the memory card that is on the playlist. In order to see added picture file, delete playlist.

Playlist is editable on the PC. Display time and rotation information at the slide show can be set based on specifying settings. Of course it is possible to make certain file image undisplayable in a playlist deleting 1 line relating to the file from playlist. Also, it is possible to see added picture image based on adding picture image file name and pass name of destination to save in playlist.

[Example of adding image file] (Pass name/pass name/.../file name, display time, rotation information)

```
images/photo1/img001.jpg
images/photo1/img002.jpg, 2000
images/photo1/img003.jpg, 500, rot1
images/photo1/img004.jpg
images/photo1/img005.jpg, 500, rot2
```

The number after the extension is the slide show display time. It can be set between 0 and 999900. (ms) Least input increment is 100 ms. The end of display time means rotation information. 90 degrees clockwise rotation becomes rot1, rot2 and rot3. (When no rotation, not specify or specify rot0.)

Display time and rotation information should be used “,” for separation.

⚠ Caution • Maximum characters for the playlist in 1 line at playlist is 1024 including linefeed. If it exceeds, playlist becomes invalid and error.

- Playlist maximum size is 64kB. If it exceeds, it becomes invalid.
- Playlist can register up to 999 image files. If it exceeds, first 999 files can be utilized.
- When image file is added to the memory card and be able to see on the screen, delete existing playlist in the memory card.

4.4 Failure & Warning Alerts via E-mail

The projector can automatically send an alert to specified e-mail addresses when the projector requires maintenance or has encountered an error.

NOTE • Up to five e-mail addresses can be specified.
• The projector may be not able to send e-mail if the projector suddenly loses power.

Mail Settings (26)

To use the projector's e-mail function please configure the following items via a web browser.

Example: If the IP address of the projector is set to 192.168.1.10/:

- 1) Enter [**http://192.168.1.10**] into the address bar of the web browser.
- 2) Enter the Administrator ID and Password and click [**Logon**].
- 3) Click [**Port Settings**] on the main menu.
- 4) Click the [**Enable**] check box to open the SMTP Port.
- 5) Click the [**Apply**] button to save the settings.

NOTE • A Network Restart is required after the SMTP Port configuration settings have changed. Click [**Network Restart**] and configure the following items.

- 6) Click [**Mail Settings**] and configure each item. Refer to the [**Mail Settings**] item in [**Configuring and Controlling the Projector via a Web Browser**] for further information.
- 7) Click the [**Apply**] button to save the settings.

NOTE • Click the [**Send Test Mail**] button in [**Mail Settings**] to confirm that the e-mail settings are correct. The following mail will be delivered to the specified addresses.

Subject line : Test Mail <Projector name>
Text : Send Test Mail
Date <Testing date>
Time <Testing time>
IP Address <Projector IP address>
MAC Address <Projector MAC address>

Mail Settings (Continued)

- 8) Configure the Failure/Warning Alerts via E-mail settings. Click **[Alert Settings]** on the main menu.
- 9) Select and configure each alert item. Refer to **[Alert Settings]** in **[Configuring and Controlling the Projector via a Web Browser]** for further information.
- 10) Click the **[Apply]** button to save the settings.

Failure/Warning e-mails are formatted as follows:

Subject line	:	<Mail title>	<Projector name>
Text	:	<Mail text>	
		Date	<Failure/Warning date>
		Time	<Failure/Warning time>
		IP Address	<Projector IP address>
		MAC Address	<Projector MAC address>

4.5 Projector management via SNMP

When SNMP is enabled, the projector is able to send Failure/Warning Alerts to a specified PC.

NOTE • It is recommended that SNMP functions be carried out by a network administrator.
• SNMP management software must be installed on the computer to monitor the projector via SNMP.

SNMP settings (25)

Configure the following items via a web browser to use SNMP.

Example: If the IP address of the projector is set to 192.168.1.10/:

- 1) Enter [**http://192.168.1.10**] into the address bar of the web browser.
- 2) Enter the Administrator ID and Password and click [**Logon**].
- 3) Click [**Port Settings**] on the main menu.
- 4) Click the [**Enable**] check box to open the SNMP Port.
Set the IP address to send the SNMP Trap to when a Failure/Warning occurs.

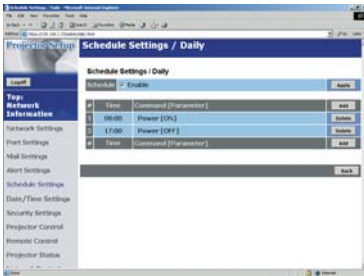
NOTE • A Network Restart is required after the SNMP Trap configuration settings have been changed. Click [**Network Restart**] and configure the following items.

- 5) Click [**Security Settings**] on the main menu.
- 6) Click [**SNMP**] and set the Community Name on the screen that is displayed.

NOTE • A Network Restart is required after the Community Name has been changed.
• Click [**Network Restart**] and configure the following items.

- 7) Configure the settings for Trap transmission of Failures/Warnings. Click [**Alert Settings**] on the main menu and select the Failure/Warning item to be configured.
- 8) Click the [**Enable**] check box to send out the SNMP trap for Failures/Warnings.
Clear the [**Enable**] check box when SNMP trap transmission is not required.
- 9) Click the [**Apply**] button to save the settings.

4.6 Controlling the Projector via Scheduling



The projector can be automatically controlled via scheduling.

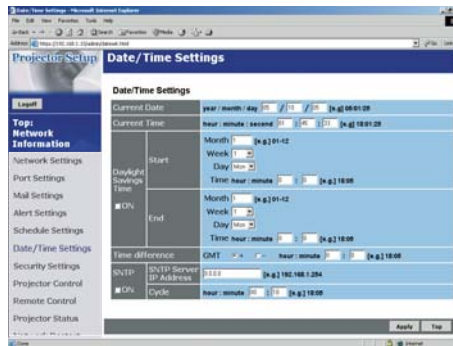
- NOTE** • You can schedule the following control events: Power ON/OFF, Input Source and Transferred Image Display.
- There are 3 types of Scheduling, 1) daily 2) day of the week 3) specific date.
 - The priority for scheduled events is as follows 1) specific date 2) day of the week 3) daily.
 - Up to five specific dates are available for scheduled events. Priority is given to those with the lower numbers when more than one event has been scheduled for the same date and time (e.g., 'Specific day No. 1' has priority over 'Specific day No. 2' and so on.
 - Be sure to set the date and time before enabling scheduled events.

Date/Time Settings (📖 34)

The Date/Time setting can be adjusted via a web browser.

Example: If the IP address of the projector is set to 192.168.1.10/:

- 1) Enter [**http://192.168.1.10**] into the address bar of the web browser.
Enter the Administrator ID and Password and click [**Logon**].
- 2) Click [**Date/Time Settings**] on the main menu and configure each item.
Refer to the [**Date/Time Settings**] item in [**Configuring and Controlling the Projector via a Web Browser**] for further information.
- 3) Click the [**Apply**] button to save the settings.



NOTE

- A Network Restart is required after the Daylight Savings Time or SNTP configuration settings have been changed.
- The battery for the built in clock may be dead if the clock loses time even when the DATE and TIME have been set correctly. Replace the battery by following the instructions on replacing the battery.
(📖 *Internal clock battery of the Operator's Guide*)
- The Internal Clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

Schedule Settings (📖 32)

Schedule settings can be configured from a web browser.

Example: If the IP address of the projector is set to 192.168.1.10:

- 1) Enter [**http://192.168.1.10/**] into the address bar of the web browser.
- 2) Enter the Administrator ID and Password and click [**Logon**].
- 3) Click [**Schedule Settings**] on the main menu and select the required schedule item. For example, if you want to perform the command every Sunday, please select the [**Sunday**].
- 4) Click the [**Enable**] check box to enable scheduling.
- 5) Enter the Date (Month/Day) for specific date scheduling.
- 6) Click [**Add**] and set the time, command and parameters and click [**Add This Schedule**] when you want to add a command.
- 7) Click the [**Delete**] button when you want to delete a schedule.
- 8) Click the [**Apply**] button to save the settings.

There are three types of scheduling.

- 1) Daily: Perform the specified operation at a specified time every day.
- 2) Sunday ~ Saturday: Perform the specified operation at the specified time on a specified day of the week.
- 3) Specific Date: Perform the specified operation on the specified date and time.

NOTE • In Standby mode the power indicator will flash green for approx. 3 seconds when at least 1 “Power ON” schedule is saved.

- When the schedule function is used, the power cord must be connected to the projector and the outlet and the power switch must be turned on, [|]. The schedule function does not work when the power switch is turned off, [O] or the breaker in a room is tripped. The power indicator will lights orange or green when the projector gets is receiving the power.

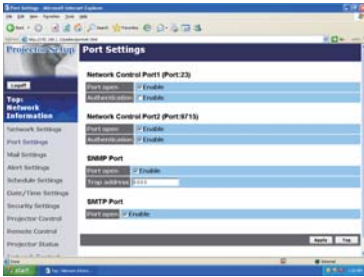
4.7 e-SHOT (Still Image Transfer) Display

The projector can display a still image that is transferred via the network.

e-SHOT transmission requires an exclusive application for your PC. Please visit www.3m.com/meetings to obtain the application and software update. Refer to the manual for the application for instructions.

Supported file types are JPG, BMP and PNG.

4.8 Command Control via the Network



You can configure and control the projector via the network using RS-232C commands.

Communication Port

The following two ports are assigned for the command control.

TCP #23

TCP #9715

NOTE • Command control is not available via communication port (TCP #9716) that is used for the e-Shot transmission function.

Command Control Settings (📖25)

Configure the following items from a web browser when command control is used.

Example: If the IP address of the projector is set to 192.168.1.10:

- 1) Enter [**http://192.168.1.10/**] into the address bar of the web browser.
- 2) Enter the Administrator ID and Password and click [**Logon**].
- 3) Click [**Port settings**] on the main menu.
- 4) Click the [**Enable**] check box to open [**Network Control Port (Port: 23)**] to use TCP #23. Click the [**Enable**] check box for the [**Authentication**] setting when authentication is required, otherwise clear the check box.
- 5) Click the [**Enable**] check box to open [**Network Control Port (Port: 9715)**] to use TCP #9715. Click the [**Enable**] check box for the [**Authentication**] setting when authentication is required, otherwise clear the check box.
- 6) Click the [**Apply**] button to save the settings.

Command Control Settings (Continued)

When the authentication setting is enabled, the following settings are required.

( 36)

- 7) Click [**Security Settings**] on the main menu.
- 8) Click [**Network Control**] and enter the desired authentication password. * See NOTE1.
- 9) Click the [**Apply**] button to save the settings. * See NOTE2.

NOTE1 • The Authentication Password will be the same for [**Network Control Port1 (Port: 23)**], [**Network Control Port2 (Port: 9715)**], and [**Image Transfer Port (Port: 9716)**].

NOTE2 • The new configuration settings are activated after restarting the network. Restart the network when any configuration settings are changed. The network connection can be restarted using [**Network Restart**] on the main menu.

Command format

Command formats differ among the different communication ports.

TCP #23

You can use the RS-232C commands without any changes. The reply data format is the same as the RS-232C commands. However, the following reply will be sent back in the event of authentication failure when authentication is enabled.

<Reply in the event of an authentication error>

Reply	Error code	
0x1F	0x04	0x00

TCP #9715

Send Data format

The following formatting is added to the header (0x02), Data length (0x0D), Checksum (1byte) and Connection ID (1 byte) of the RS-232C commands.

Header	Data length	RS-232Ccommand	Checksum	Connection ID
0x02	0x0D	13 bytes	1 byte	1 byte

- Header → 0x02, Fixed
- Data length → RS-232C commands byte length (0x0D, Fixed)
- RS-232C commands → RS-232C commands that start with 0xBE 0xEF (13 bytes)
- Check Sum → This is the value to make zero on the addition of the lower 8 bits from the header to the checksum.
- Connection ID → Random value from 0 to 255 (This value is attached to the reply data)

Reply Data format

The connection ID (the data is same as the connection ID data on the sending data format) is attached to the RS-232C commands reply data.

<ACK reply>

Reply	Connection ID
0x06	1 byte

<NAK reply>

Reply	Connection ID
0x15	1 byte

<Error reply>

Reply	Error code	Connection ID
0x1C	2 bytes	1 byte

<Data reply>

Reply	Data	Connection ID
0x1D	2 bytes	1 byte

<Projector busy reply>

Reply	Status code	Connection ID
0x1F	2 bytes	1 byte

<Authentication error reply>

Reply	Authentication Error code		Connection ID
0x1F	0x04	0x00	1 byte

Automatic Connection Break

The TCP connection will be automatically disconnected after there is no communication for 30 seconds after being established.

Authentication

The projector does not accept commands without authentication success when authentication is enabled. The projector uses a challenge response type authentication with an MD5 (Message Digest 5) algorithm.

When the projector is using a LAN, a random eight bytes will be returned if authentication is enabled. Bind this received 8 bytes and the authentication password and digest this data with the MD5 algorithm and add this in front of the commands to send.

Following is a sample if the authentication password is set to “password” and the random eight bytes are “a572f60c”.

- 1) Select the projector.
- 2) Receive the random eight bytes “a572f60c” from the projector.
- 3) Bind the random eight bytes “a572f60c” and the authentication password “password” and it becomes “a572f60cpassword”.
- 4) Digest this bind “a572f60cpassword” with MD5 algorithm.
It will be “e3d97429adffa11bce1f7275813d4bde”.
- 5) Add this “e3d97429adffa11bce1f7275813d4bde” in front of the commands and send the data.
Send “e3d97429adffa11bce1f7275813d4bde”+command.
- 6) When the sending data is correct, the command will be performed and the reply data will be returned. Otherwise, an authentication error will be returned.

5. Troubleshooting

Problem		Likely Cause	Things to Check	Reference Page Number	
No image		The projector is not turned on.	Is the projector's lamp on?	*17	
		The projector's input source isn't switched to MIU.	Is the projector switched to MIU?	*18	
Wireless / Wired	Live Mode	The projector that you want to connect to is nowhere to be found on the list of available projectors	The PC and/or projector's network settings are not configured correctly.	Check both the PC and projector's network settings. If you change the projector's settings, turn off the projector's AC power and then turn it on again. If you simply put the projector in STANDBY power mode and then turn it on again, the new settings might not take effect.	8, 10, 16
		Weak radio signal	<ul style="list-style-type: none"> • Bring the PC and projector closer together • Radio waves won't go through concrete and metal (steel doors, etc.) 	–	
	Can't communicate	The Projector isn't in Live Mode	Check the mode on MIU Menu to make sure that it is in the correct mode.	50	
	The projected image is rather slow compared to that of the PC	The projector isn't capable of relaying dynamic images such as PowerPoint® animation at full speed.	Try increasing the Capture Performance priority level. It may improve the speed a little.	48	
		The compression rate being used for transferring the images is too low.	Try setting the image compression to "Low." The resolution will drop in quality, but it may help improve the speed.	48	

(continued on next page)

Problem		Likely Cause	Things to Check	Reference Page Number	
Wireless / Wired	Live Mode	Lots of interference in the images	The compression rate being used for transferring the images is too high.	Try setting the image compression to "High." • You may experience a drop in speed.	49
		Two cursors appear	Cursor of the PC and cursor of the projector are displayed coming in succession.	Turn off the cursor Emulation of MIU MIU Live Viewer option.	48
		No cursor appears	Some PCs do not display the cursor in MIU MIU Live Viewer.	Turn off the cursor Emulation of MIU MIU Live Viewer option.	48
PC LESS	No information is shown after mass storage device is set on Thumbnail or Directory mode.	The mode setting is not renewed after the device is set.	Select either Thumbnail mode or Directory mode again, showing PC LESS Presentation Menu.	53, 63	
Wireless	Can't communicate	The wireless LAN card isn't inserted into the projector or the memory card is still inserted.	Insert the wireless LAN card that came with your projector into the module.	*12	
		There is closely another projector or other that has the same wireless setting.	Try changing of SSID and IP Address.	24 *54	
Wired LAN	Can't communicate	The PC and/or projector's network settings are not configured correctly.	Check both the PC and projector's network settings.	11-13	
		The wireless LAN card is inserted into the projector.	Remove the wireless LAN SD card from the projector (you can't use both wireless and wired LAN connections at the same time).	*12	
Others - Information from the projector to PC is not correct or completed - The projector does not respond - Image on screen is frozen		Communication between the projector and PC is not working well. MIU Functions of the projector is not working well.	Try "MIU RESTART" in MIU SERVICE MENU.	*58	

* User's Manual - Operating Guide

6. Specifications

Item	Specifications
Product name	Liquid crystal projector
File format	JPEG, PNG, BMP and MPEG4
Control software	Dedicated PC application and Web browser
Corresponding protocol	TCP/IP, DHCP client and HTTP server
Firmware OS	µITORN4.0 compliance
Network	Wireless LAN (IEEE802.11g) (Ad-Hoc and Infrastructure modes) Ethernet (100Base-TX/10Base-T)
Security	WEP(64/128bit), WPA-PSK/PSK2(TKIP/AES), SSID
PC application operational environment	OS: Windows® XP Home Edition/ Professional Windows® 2000 Professional CPU: Pentium III 600MHz or more is suggested. Memory size: 64M bytes or more, 128M bytes or more in case of XP Graphic I/F: DirectX 6.1 or later Video RAM: 4MB required (8MB recommended) HDD: 10MB CD-ROM drive Web browser: Internet Explorer 5.5 or later
SD card	SD card (Corresponding card is not confirmed yet.)
Wireless LAN card	C-guys SD-Link11g
USB	USB1.1 host mass storage class SBC/BOT type Following USB memories can be read/written. - USB memory type - Card reader type (Corresponding card is not confirmed yet.)

7. Warranty and After-sales service

If a problem occurs with the equipment, first refer to the “5. Troubleshooting” (📖 80) section and run through the suggested checks. If this does not resolve the problem, contact your dealer or service company. They will tell you what warranty condition is applied.

Intended Use

Before operating this machine, please read this entire manual thoroughly. The 3M™ Multimedia Projectors are designed, built, and tested for use indoors, using 3M lamps, 3M ceiling mount hardware, and nominal local voltages.

The use of other replacement lamps, outdoor operation, or different voltages has not been tested and could damage the projector peripheral equipment and/or create a potentially unsafe operating condition.

3M Multimedia projectors and Wall Display Systems are designed to operate in a normal office environment.

- 16° to 29°C (60° to 85° F)
- 10- 80 %RH (without condensation)
- 0- 1828 m (0-6000 feet) above sea level

The ambient operating environment should be free of airborne smoke, grease, oil and other contaminants that can affect the operation or performance of the projector.

Use of this product in adverse conditions will void the product warranty.

Let us help you make the most of your next presentation. We offer everything from presentation supplies to tips for better meetings. And we're the only transparency manufacturer that offers a recycling program for your used transparencies. For late-breaking news, handy reference and free product samples, call us toll-free in the continental United States and Canada, 24 hours a day, or visit our Internet Website.



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