

OPERATION MANUAL

MV-410HS Web Browser

Version 1.0 - Rev.2

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1. Setup

1-1. Overview

MV-410HS Multi viewer is enabled to transmit videos to PC by the connection through a network. Use the Web browser, Internet Explorer to verify the transmitted videos.

1-2. System Requirements

To install MV-410HS Web Browser, your computer must meet the following requirements.

OS	Windows® XP operating system SP2 or later Professional (32-bit)	Windows® 7 operating system Professional (32/64-bit)
CPU	Pentium® 4 processor 1.3 GHz or faster	Intel® Core™2 Duo processor 2 GHz or faster
Memory	512 MB or more	2 GB or more
Display	Resolution of 1024 x 768pixels or better Must be capable of full color (24-bit) display	
Network port	Ethernet, at least one port 100BASE-TX/1000BASE-T	
Network cable	100BASE-TX: Category 5 or better 1000BASE-T : Category 6, or enhanced category 5	
Software	Windows® Internet Explorer 6.0 or later Java™ 6 (Supplied on the CD-ROM)	

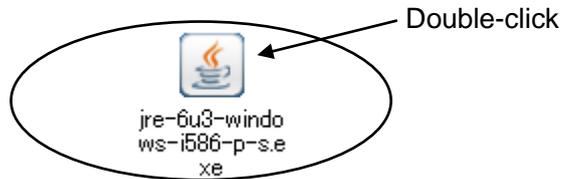
IMPORTANT

Using Java™ version other than 6 may cause improper operation of the Viewer screen.

To get the correct operation, install Java™ 6 from the supplied CD-ROM, or remove the earlier version in the "Add or Remove Programs" window.

1-3. Installing Java(TM)

- (1) Load the supplied Installation CD-ROM into the PC, and open the CD-ROM drive. Run the file "**jre-6u3-windows-i586-p-s.exe**" to start the setup wizard.



- (2) After the setup wizard is started, the setup window appears. Click **Accept** to start the installation.



- (3) When installation is completed normally, the screen shown below is displayed. Click **Finish** to quit the setup wizard.



1-4. Connections

To control MV-410HS over a LAN interface, be aware that the cables and equipment used vary depending on the connection method. Use a crossover LAN cable to connect the computer directly to the MV-410HS. Use a straight through LAN cable for the connection using a router or a hub.

IMPORTANT

A MV-410HS can accept the connection with one PC.

1-5. Communication Standard

The communication standards for serial control over a LAN interface is as follows.

Protocol	TCP/IP Protocol
IP address	<p>Setting range: 0.0.0.0 ~255.255.255.255</p> <p>However, there also are limitations on IP addresses set by the PC as shown below. Set the IP address in this range.</p> <div style="text-align: center;"> <p style="margin: 0;">192 . 168 . 0 . 1</p> <p style="margin: 0;"> </p> <p style="margin: 0;">1st octet 2nd octet 3rd octet 4th octet</p> </div> <p>1st octet: 1 to 223 (except 127) 2nd octet: 0 to 255 3rd octet: 0 to 255 4th octet: 1 to 254</p> <p>* This is set in the menu screen on the main unit. * The default setting is 192.168.0.1.</p>
Subnet mask length	<p>Setting range: 0 to 31</p> <p>* This is set in the menu screen on the main unit. * The default setting is 24.</p>
Gateway	<p>Setting range: 0.0.0.0 to 255.255.255.255</p> <p>* This is set in the menu screen on the main unit. * The value 0.0.0.0 signifies that the gateway has not been set. * The default setting is 0.0.0.0.</p>
MAC address	<p>This is already set at factory shipping (cannot be changed). * The setting can be confirmed in the menu screen on the main unit.</p>

IMPORTANT

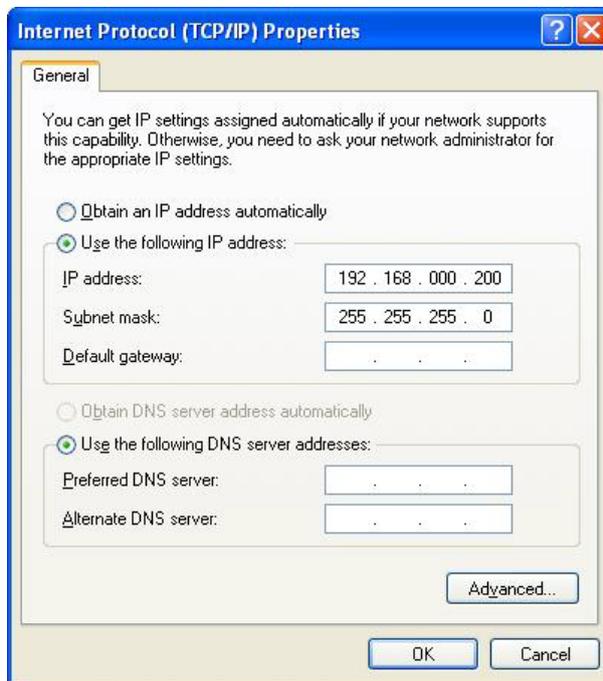
You cannot change the LAN communication standard settings for MV-410HS main unit from PC. The changes can be made on MV-410HS main unit. See MV-410HS Operation Manual, section 7-3. "LAN" for details.

1-6. PC Network Settings

The PC network settings need to match that of the MV-410HS. The procedure for making the network settings at the PC vary depending on the OS, so refer to the OS manual for details. This setting example shows the case when connecting to the MV-410HS with the default settings. The MV-410HS default settings are shown below.

IP address	192. 168. 0.1
Subnet mask length	24
Gateway	0.0.0.0

- Setting in Windows XP with the default Start menu setting**
 Click **Start** on the taskbar, open [**Control Panel**], and double-click "**Network Connections**". Right-click "**Local Area Connection**" icon to open [**Properties**] window. Double-clicking "**Internet Protocol (TCP/IP)**" under the [**General**] tab opens the [**Internet Protocol (TCP/IP) Properties**] window. Make the settings as shown in the example below. Make a note of the settings before changing them in case you need to return the IP address to its original settings later.



IP address for PC	192.168.0.yyy (yyy is any number from 2 to 254 except for the number set for the MV-410HS unit and the gateway number. In this example, the setting is yyy=200.)
Subnet mask	Set to 255.255.255.0.

- Setting in Windows XP with the Start menu setting changed to Classic**
 Click **Start** on the taskbar, select "**Settings**" → "**Network Connections**" and then right-click the "**Local Area Connection**" icon to open [**Properties**] window. Double-clicking "**Internet Protocol (TCP/IP)**" under the [**General**] tab opens the [**Internet Protocol (TCP/IP) Properties**] window. The settings are then made in the same way as 1) above.

When the settings are completed, click **OK**, and then close all setting windows.

2. Remote Control using Internet Explorer

2-1. Starting and Exiting Internet Explorer

To start Internet Explorer, go to **Start > Programs** and select "**Internet Explorer**".

- 1) Enter the IP address of MV-410HS which is set in the LAN menu of MV-410HS in the IP address box. If you have not changed the IP address, enter the default IP address "192.168.0.1". Then, click **ENTER**. If ID is set, the authentication window shown below is displayed.

* If ID is not set, the control screen opens when the connection is established.



- 2) Enter ID and password and click **OK**. When the entered ID and password match the stored data, the control screen opens.



The default settings on MV-410HS are as follows.

ID: ROOT

Password: 00000

IMPORTANT

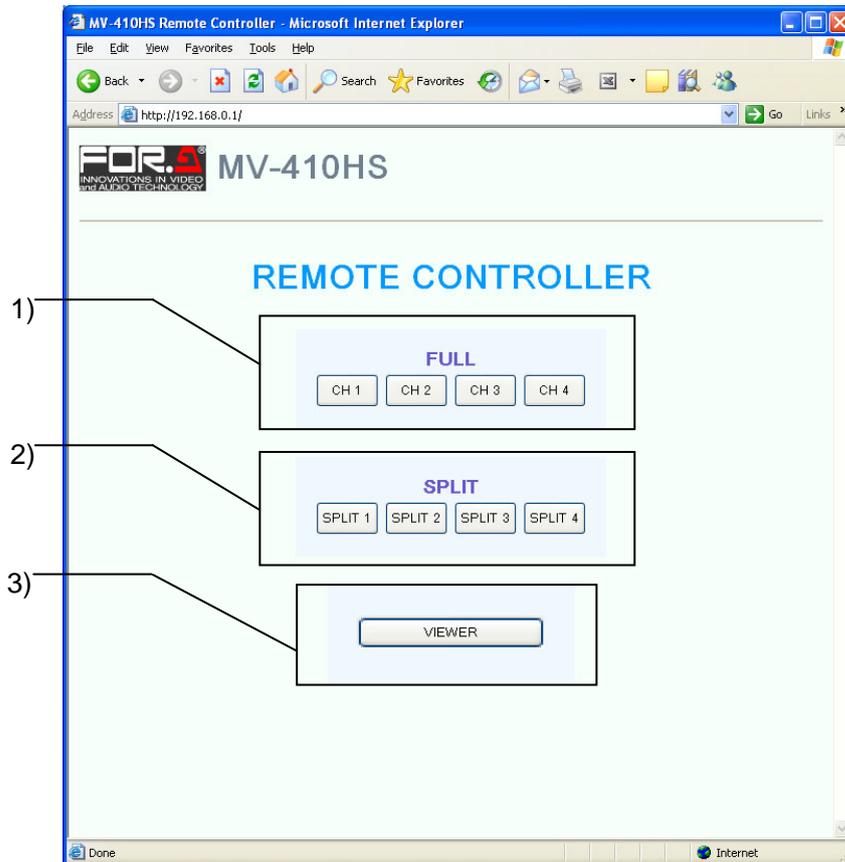
If the MV-410HS is rebooted while the connection is active, the operation of Internet Explorer may become unstable. Whenever you reboot the MV-410HS, restart the Internet Explorer.

2-2. Closing Internet Explorer

To close the Internet Explorer, click  at the top-right corner of the Internet Explorer window.

2-3. Internet Explorer - Controller

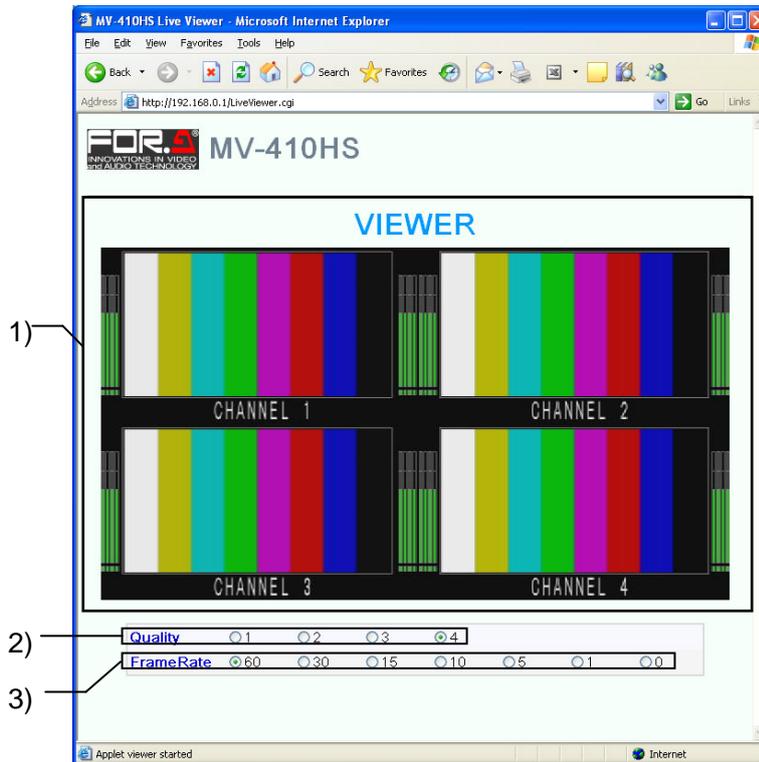
If the communication is established the window shown below is displayed.



- 1) **FULL CH1~CH4**
Displays the selected channel in full screen.
- 2) **SPLIT 1~4**
Displays the selected split screen layout.
- 3) **VIEWER**
Displays the Viewer screen of the Live Viewer.

2-4. Video Image Transmission (VIEWER)

Click the **VIEWER** button to open the VIEWER screen as shown below.



1) VIEWER Screen

Displays the image transmitted from MV-410HS. MV-410HS compresses the image data output from DVI OUT connector into both horizontally and vertically half size JPEG format and transmit the data.

2) Quality

Selects compression rate from numbers 1 to 4 for the JPEG image to transmit. The larger the number the higher the quality of image.

3) Frame Rate

Selects frame rate for the video image transmission.

If output frequency is set to 60Hz or 59.94Hz in the System page of Layout Editor System setting, the following rates are available: 0FPS, 1FPS, 5FPS, 10FPS, 15FPS, 30FPS, 60FPS

Also, if set to 50Hz, available rates are: 0FPS, 1FPS, 4FPS, 8FPS, 12FPS, 25FPS, 50FPS
0FPS stops the video image transmission. To regain the processing speed of the control screen that becomes slow, set the frame rate to 0FPS to stop the video image transmission.

IMPORTANT

The sufficient frame rate may not be obtained due to the transmitted video images, JPEG compression ratio, capability of the connected PC, network environment, or other factors. If it occurs, change the JPEG compression ratio to reduce the data volume being transmitted, or use the dedicated software, MV-410HS Live Viewer. If the frame rate is insufficient, the displayed image may become jerky. In this case, set the frame rate lower. Although settings for any of the followings are changed using Layout Editor, RS-232c/422/485/LAN command, or MV-410HS Live Viewer while displaying VIEWER screen, the parameter display on the VIEWER screen will not be updated.

- Output frequency - JPEG compression ratio - Frame rate

3. Troubleshooting

If any of the following problems occur during operation of your MV-410HS Live Viewer, proceed as indicated below to see if the problem can be corrected before assuming unit malfunction has occurred.

IMPORTANT

If the problem is not corrected by processing the actions below, power off the unit and power on again. If it does not correct the problem either, contact your dealer.

Problem	Check	Action
Unable to establish the connection with MV-410HS.	Is the MV-410HS powered on?	Check the MV-410HS is powered on.
	Does the PC meet the operating environment conditions?	Start with a PC that meets the operating environment conditions.
	Is the network connected correctly?	Check that the network wires and cables are connected properly.
		Check that the cable type is correct.
	Are the LAN adapter and other hardware operating properly?	Use the device manager or diagnostic program to check if the hardware is operating properly.
		Check that the drivers are installed correctly.
	Were the PC network settings made correctly?	Check that the TCP/IP protocol is installed and that the IP address and other settings are correct.
Were the MV-410HS network setting made correctly?	From the MV-410HS menu, check that the IP address and other settings are correct.	
Is the same IP address being used?	Check that no IP addresses are duplicated among all PCs and MV-410HS units in the network.	
VIEWER screen is not displayed.	Is the installed Java version correct?	Check that the running Java software is Java™ 6 in the "Add or Remove Programs" in control panel. If the running version is not Java(TM) 6, install Java™ 6 and remove any other version of Java™.