SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE
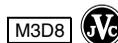
This document explains the basic information such as system requirements, installation and connections, etc. for the provided software.
For details on the operation, refer to the software instruction manual included on the CD-ROM in PDF format.

CAUTION:
● Operate this equipment according to the operating procedures described in this manual.
● Use only the provided CD-ROM. Never use any other CD-ROM to run this software.
● Do not attempt to modify this software.
● Changes or modifications not approved by JVC could void user's authority to operate the equipment.

How to handle a CD-ROM
● Take care not to soil or scratch the mirror surface (opposite to the printed surface). Do not write anything or put a sticker on either the front or back surface. If the CD-ROM gets dirty, gently wipe it with a soft cloth outward from the center hole using a circular motion.
● Do not use conventional disc cleaners or cleaning spray.
● Do not bend the CD-ROM or touch its mirror surface.
● Do not store your CD-ROM in a dusty, hot or humid environment. Keep it away from direct sunlight.

You can find the latest information (in English) on the provided software program at our world wide web server at http://www.jvc-victor.co.jp/english/index-e.html

Notice for Users

Use of this software is authorized according to the terms of the software license.
When contacting the nearest JVC office or agency in your country about this software (refer to the JVC Worldwide Service Network at http://www.jvc-victor.co.jp/english/worldmap/index-e.html), please fill out the following and have the appropriate information ready.

Product Name		
Model		
Problem		
Error Message		
PC	Manufacturer	
	Model	☐ Desktop ☐ Laptop
	CPU	
	OS	
	Memory	MB
	Available Hard Disk Space	MB

Please note that it may take some time to respond to your questions, depending on their subject matter.
JVC cannot answer questions regarding basic operation of your PC, or questions regarding specifications or performance of the OS, other applications or drivers.

System Requirements

■ For copying still image files to a PC

The following requirements must be satisfied to connect the camcorder to a PC using the USB cable, and to copy still image files from the memory card in the camcorder.

OS : Windows® XP Home Edition (pre-installed)
Windows® XP Professional (pre-installed)

Connector : USB connector

■ For using HD Capture Utility, MPEG Edit Studio™ Pro LE, ImageMixer DVD

The following requirements must be satisfied to connect the camcorder to a PC using an i.LINK cable, to import MPEG-format video stream, and to edit video clips on a PC.

OS : Windows® XP Home Edition (pre-installed)
Windows® XP Professional (pre-installed)

CPU : Intel Pentium® 4 (2 GHz or faster)

RAM : 256 MB (DDR SDRAM or DRD RAM) or more
384 MB or more if the main RAM is used for the video memory
(512 MB recommended)

Hard disk drive : UltraATA100 (7200 rpm or faster recommended)

Connector : IEEE1394 (i.LINK) connector

Display : 1024 x 768 or greater

Video memory : 32 MB or more

■ For creating a DVD Video

In addition to the system requirements above, a DVD recording drive which is compatible with ImageMixer DVD is required. (DVD-RAM disc is not supported by ImageMixer DVD.)
For details on compatible DVD recording drives, visit the web site of Pixela Corporation.
http://www.imagemixer.com/

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■ For holding a video conference over the Internet

The following requirements must be satisfied to use a camcorder as a web camera for video conference over the Internet.

Hardware

OS   : Windows® XP Home Edition (pre-installed)
                       Windows® XP Professional (pre-installed)

Connector   : USB connector

Software

Windows® Messenger Ver4.6 or later is required. If an old version is installed, download and install the latest version from the web site of Microsoft Corporation.
http://www.microsoft.com/

Miscellaneous

Internet access and an e-mail address are required.
You can also find the latest information (in English) at our world web site.
http://www.jvc-victor.co.jp/english/index-e.html

NOTES:
● Some functions may not work properly depending on the PC environment.
● If your counter party uses Windows® NetMeeting®, you cannot communicate using Windows® Messenger. Use Windows® NetMeeting® 3.0 or later.
● If you are using a dial-up router or a broadband router, refer to the router's instruction manual.
● If you are using a firewall or a router with the dial-up connection, it is not possible to connect to the Internet properly.
● Consult your Internet service provider whether Windows® Messenger can be used or not.
● The quality of images or sound during video conference may differ depending on the condition of Internet access.

● The system requirements information is not a guarantee that the provided software will work on all personal computers meeting those requirements.
● Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
● Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.

Software Installation

Follow the procedure described below to install the software. From the [Setup] dialog box in step **3**, you can install the following software.

HD Capture Utility
This application is used to import MPEG-format video stream from a camcorder, or to export the edited video clip back to the camcorder.

Audio converter
This application is used to convert audio files into different format. You can add background music or audio effect to the video clip. This application is installed automatically when installing HD Capture Utility.

MPEG Edit Studio™ Pro LE
This application is used to edit MPEG-format video clips.
● The provided MPEG Edit Studio™ Pro LE is an application with limited functions and some setting items cannot be selected.

ImageMixer DVD
This application is used to create a DVD Video.

Adobe® Acrobat® Reader 5.0
This application is used to read PDF files.

1 **Load the provided CD-ROM in the PC.**
After a moment, the [Important Notice] dialog box appears.
● If the [Important Notice] dialog box does not appear, click [My Computer] from the [Start] menu and then double-click the CD-ROM icon.

2 **Confirm the contents, and then click [Next].**
After a moment, the [Setup] dialog box appears.

● From the [Setup] dialog box, you can install the desired software.

3 **Click [Install] on the right side of the desired software.**
The installation of the selected software starts.
● The procedure differs depending on the software. Follow the on-screen instructions to complete the installation.
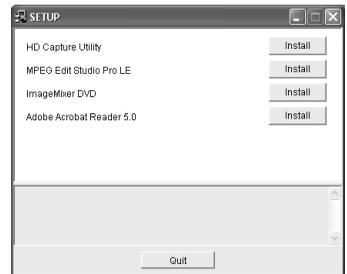
Following steps are the example of HD Capture Utility.

4 **In the [Choose Setup Language] dialog box, select [English], and then click [OK].**
The [InstallShield Wizard] dialog box appears.

5 **Click [Next].**
The [Welcome to the installation wizard for capture utility] dialog box appears.

6 **Click [Yes].**
The [License Agreement] dialog box appears.

7 **Click [Next].**

The [Customer Information] dialog box appears.

8 **Input your information in all boxes, and then click [Next].**
- If you do not input your information in all boxes, you cannot click [Next].
- When you are a personal user, input any letters in the [Company Name] box.

The [Choose Destination Location] dialog box appears.

9 **Click [Next].**

The installation begins.

10 **Click [Next].**

After a moment, the [Install Shield Wizard Complete] dialog box appears.

11 **Click [Finish].**

Repeat the procedure to install other software.

Note on installing MPEG Edit Studio™ Pro LE
Enter the serial number which is printed on the label on the CD-ROM case.
- When entering the serial number, consider the case (upper or lower) and difference between number and alphabet.

NOTES:
- The software instruction manual is included on the CD-ROM in PDF format. Double-click the [JVC] folder and then double-click the [Docs] folder. Open the "Start.pdf" file and click the button of the desired language. Note that Adobe® Acrobat® Reader must be installed to read PDF files.
- For details on how to use **Windows® Messenger**, refer to "VIDEO CONFERENCE OVER THE INTERNET" in the software instruction manual on the CD-ROM.
- If you perform installation of a software that is already installed, uninstallation will start. In this case, perform the installation again after uninstallation is finished.

Connections

Use the USB cable or i.LINK cable to connect the camcorder to a PC.
● For the operation on the camcorder, refer to the camcorder's instruction manuals.

USB connection

Enables you to copy still image files in a memory card to a PC or to use the camcorder as a web camera for video conference over the Internet.

To USB connector

USB cable (provided)

To USB

PC
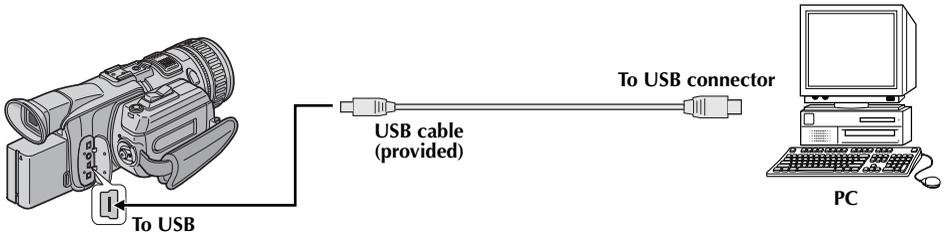
To copy still image files to a PC

1 **Make sure that there is a memory card in the camcorder.**

2 **Set the camcorder's Playback Mode Switch to "MEMORY".**

3 **Set the camcorder's Power Switch to "PLAY" while pressing down the Lock Button located on the switch.**
The camcorder turns on.

4 **Connect the camcorder to the PC with a USB cable.**
On the camcorder's LCD monitor [USB MODE] appears.

To use the camcorder as a web camera and hold a videoconference over the Internet

1 **Set the camcorder's Recording Mode Switch to "MEMORY".**

2 **Set the camcorder's Power Switch to "A" or "M" while pressing down the Lock Button located on the switch.**
The camcorder turns on.

3 **Connect the camcorder to the PC with a USB cable.**

The " PC " indicator appears on the camcorder's LCD monitor.
● When connecting an USB cable for the first time, the [Found New Hardware Wizard] dialog box appears. (☞ pg. 10 "Installing the drivers for using the camcorder as a web camera")
● For details on holding a video conference over the Internet, refer to the software instruction manual on the CD-ROM.

i.LINK connection

Enables you to import MPEG-format video stream to the PC (or export edited video clip to the camcorder).
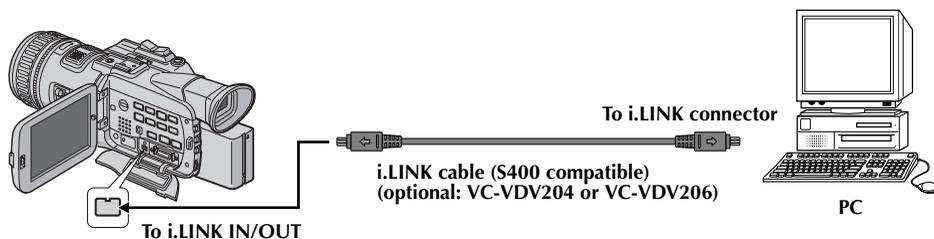
To i.LINK connector

i.LINK cable (S400 compatible)
(optional: VC-VDV204 or VC-VDV206)

To i.LINK IN/OUT

PC

1 **Set the camcorder's Power Switch to "PLAY" while pressing down the Lock Button located on the switch.**
● The camcorder turns on.

2 **Set [i.LINK OUT] to [SW] in the camcorder's system setting menu.**

3 **Set the camcorder's output mode select switch to [MPEG2].**

4 **Connect the camcorder to the PC with an i.LINK cable.**
● When connecting an i.LINK cable for the first time, the [Found New Hardware Wizard] dialog box appears. (☞ pg. 9 "Installing the driver for importing MPEG-format video stream")

NOTES:
● **It is recommended to use the AC Power Adapter/Charger as the power supply instead of the battery pack.**
● Do not turn on or off the camcorder or switch the playback mode on the camcorder when the USB cable is connected.
● If you connect the camcorder to the PC through a USB hub, compatibility issues between the hub and the PC may result in instability in the operation of the PC. If this happens, connect the camcorder directly to the PC, not through the hub.
● Do not use an extension USB cable.
● Never disconnect the USB cable while the message [ACCESSING FILES] appears on the camcorder's LCD monitor.

Driver Installation

Installing the driver for importing MPEG-format video stream
When you connect the camcorder to the PC with an i.LINK cable at first time, the driver is installed.

1 **Click [Install from a list or specific location (Advanced)] and then click [Next].**
   ● The driver search dialog box appears.
2 **Click [Don't search. I will choose the driver to install], and then click [Next].**
   ● The [Hardware Update Wizard] dialog box appears.
3 **Click [Sound, video and game controllers], and then click [Next].**
   ● The dialog box to select the manufacture and model appears.
4 **Click [JVC] for manufacture and [JVC Tape Device] for model, and then click [Next].**
   ● The [Update Driver Warning] dialog box appears. If not, go to step **6**.
5 **Click [Yes].**
   ● The [Completing Found New Hardware Wizard] dialog box appears.
6 **Click [Finish].**

Installing the drivers for using the camcorder as a web camera

When you connect the camcorder to the PC with a USB cable at first time, four drivers are installed in succession.

NOTE:
Click [Continue Anyway] when the message [Has not passed Windows Logo testing] appears. Be sure not to select [Stop Installation]. If you do so, the drivers will not be installed correctly.

1 **Load the provided CD-ROM in the PC.**
 ● If the [Important Notice] dialog box appears, click [Next] and then [Quit] to close the dialog box.

2 **Click [Install from a list or specific location (Advanced)] and then click [Next].**
 ● The driver search dialog box appears.

3 **Click the next three items in the order below.**
 ① [Search for the best driver in these location]
 ② [Include this location in the search]
 ③ [Browse]

4 **Double-click the CD-ROM drive icon and the [XP] folder, and then click [OK].**
 ● The driver search dialog box appears.

5 **Click [Next].**
 ● The warning message appears.

6 **Click [Continue Anyway].**
 ● After a moment, the [Found New Hardware Wizard] dialog box appears.

7 **Click [Finish].**
 ● After a moment, the [Found New Hardware Wizard] dialog box appears again.

8 **Repeat steps 2 to 7 until the [Found New Hardware Wizard] dialog box does not appear.**
 ● After you repeat steps **2** to **7** four times, the installation is completed.

Viewing the Contents of a Memory Card

1 **Connect the camcorder to the PC with a USB cable. (☞ pg. 7)**
The [Removable Disk] window appears on the PC's screen after a moment.
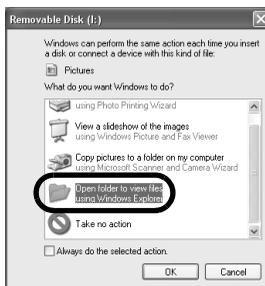
2 **Select [Open folders to view files using Windows Explorer] and click [OK].**
Still images (extension ".jpg") are stored in the [DCIM] folder.
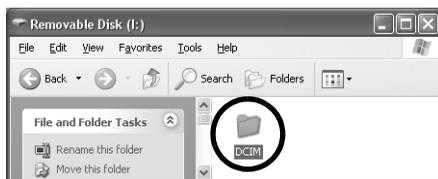
If the [Removable Disk] window does not appear, confirm the connection (☞ pg. 7) or perform the following procedure.
① Click [Start], and then click [My Computer].
The [Removable Disk] icon which represents the memory card in the camcorder appears in the [My Computer] window.
② Double-click the [Removable Disk] icon.

NOTES:
● Never disconnect the USB cable while the message [ACCESSING FILES] is displayed on the camcorder's LCD monitor.
● Saving the wrong kinds of files in a memory card or deleting files or folders from a memory card can cause problems with the operation of the camcorder. Delete unnecessary files by the operation on the camcorder.
● If you are using a brand new memory card, you need to initialize the memory card with the camcorder first. You may not be able to copy files from the memory card to the PC without doing so.
● The file extension may not appear depending on the setting.

Copying Still Images to a PC

Still image files that are stored in a memory card can be copied to a PC and played back on the PC.

1 **Click [Start], and then click [My Picture].**

2 **Create a new folder, enter the folder name, and then double-click it.**

3 **Select the file to be copied in the [DCIM] folder.**

4 **Drag and drop the selected file in the destination folder created in step 2.**
- The message [ACCESSING FILES] appears on the camcorder's LCD monitor, and the file is copied from the memory card to the PC.

NOTE:
Never disconnect the USB cable while the message [ACCESSING FILES] is displayed on the camcorder's LCD monitor.

Still Images Playback

Double-click the still image file (extension ".jpg") to view a still image.

To print a still image
Click the icon for printing to display [Photo Printing Wizard].
Then you can select and print a still image.

   OR

Select the still image file, and then click [File] and [Print].
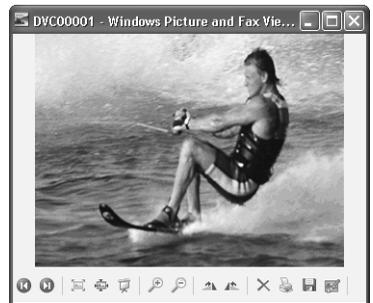
Disconnecting the USB Cable

Before replacing memory cards or turning off the PC, first disconnect the USB cable and turn off the camcorder.

1 **Confirm that the message [ACCESSING FILES] is not currently displayed on the camcorder's LCD monitor.**
● If the message [ACCESSING FILES] is currently displayed, wait until it disappears before proceeding.

2 **Double-click the [Safely Remove Hardware] icon in the status bar.**
The [Safely Remove Hardware] dialog box appears. if not, wait a while then go to step **5**.

3 **Select [USB Mass Storage Device], and then click [Stop].**
The [Stop a Hardware device] dialog box appears.

The model name depends on the connected camcorder.

4 **Click [OK].**
● A message indicating that the device can be safely removed appears.

The model name depends on the connected camcorder.

5 **Disconnect the USB cable.**

6 **Set the camcorder's Power Switch to "OFF".**
The camcorder turns off.

Importing MPEG-format Video Stream to a PC

1 **Connect the camcorder to the PC with an i.LINK cable. (☞ pg. 8)**

2 **Click [Start], go to [All Programs] – [PIXELA] – [HD Capture Utility], and then click [HD Capture Utility].**

● You can also double-click the [HD Capture Utility 1.0] icon on the desktop.

3 **Make sure that the camcorder's model name is displayed.**

● If the model name is not displayed, confirm the connection (☞ pg. 8) or reinstall the driver (☞ pg. 16).
● If a D-VHS VCR is connected simultaneously, select the camcorder's model name.

Model name

```
HD Capture Utility          _ ? 🔧 ✕
GR-HD1                              ▼
Timecode        : 00 : 12 : 14 : 00

 ◄◄      ❚❚      ►       ■      ►►

C:¥Documents and Settings¥User¥My ...¥Cap0004.m2t  📁

 Import          Start            Export
```

Import button   **Browse button**
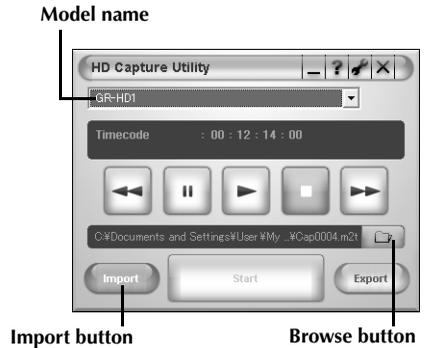
4 **Click [Import], and then click [Browse].**

The [Save As] dialog box appears.

5 **Specify the file name and location, and then click [Save].**

● Make sure to select a folder on the local hard disk.
● Approximately 150 MB (300 MB while importing) of the hard disk space is required for a 1-minute video stream. Select a destination with sufficient space for storage.

```
Save As                                    ? ✕
Save in: 🗀 HD Capture        ▼ ← 🗈 📑 ▦▾




File name:    Cap0001.m2t                    Save
Save as type: MPEGTS Files (*.m2t)      ▼    Cancel
```

— 14 —
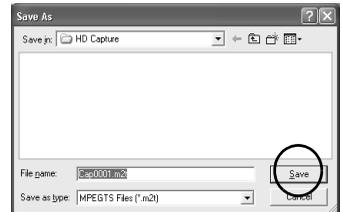
6 Start playback using control buttons.
● You can view playback on the camcorder's LCD monitor.

Control buttons

HD Capture Utility   _ ? 🔧 ×

GR-HD1

Timecode   : 00 : 12 : 14 : 00

◄◄   ❚❚   ►   ■   ►►

C:¥Documents and Settings¥User¥My ...¥Cap0004.m2t 📁

Import   Start   Export

Start button

7 Check playback on the camcorder's LCD monitor, and then click [Start] approximately 2 seconds before the scene from where importing to be started.

8 Check playback on the camcorder's LCD monitor, and then click [Cancel] after the scene to be imported finishes.

9 Click the close button on the upper right of the window to quit HD Capture Utility.

10 Disconnect the i.LINK cable.

11 Set the camcorder's Power Switch to "OFF".
The camcorder turns off.

NOTES:
● It is not possible to import a scene less than 5 seconds.
● The continuous scene may be divided into two or more files depending on the environment of you PC or condition of the tape.
● It is not possible to import video stream from other devices such as a D-VHS VCR.
● The HD Capture Utility is compatible only with MPEG-format video stream. To import DV-format video stream, use commercially available video edit software which is compatible with DV format.
● It is recommended to import video stream a little longer (including parts before and after the necessary part) than that you actually need. Unnecessary parts of the video clip can be deleted (cut) by MPEG Edit Studio™ Pro LE.
● If there are blank or drop-out parts, or switching point of recording mode between 480p and 720p, the video stream will be automatically divided into two or more files. The numbers are added to the file, for example "Cap0001.m2t", "Cap0001(0001).m2t", and "Cap0001(0002).m2t".

— 15 —

Reinstalling the driver

If the camcorder's model name does not appear in HD Capture Utility in spite of proper settings, the driver may not be correctly installed. In this case, reinstall the driver.

1 **Click [Start], right-click [My Computer], and then click [Property].**
The [System Property] window appears.

2 **Click the [Hardware] tab, and then click [Device Manager].**
The [Device Manager] window appears.

3 **Double-click [Sound, video and game controllers].**

4 **Right-click [JVC Tape Device], and then click [Delete].**
● If [JVC Tape Device] is not displayed, delete [AV/C Tape Recorder/Player] in [Other Devices].
The confirmation screen appears.

5 **Click [OK].**

6 **Disconnect the i.LINK cable, and connect it again.**
After a moment, the [Found New Hardware Wizard] dialog box appears.

7 **Reinstall the driver.(☞ pg. 9)**