

JVC

MPEG Edit Studio™ Pro LE
ImageMixer DVD
HD Capture Utility
Audio converter

ENGLISH



INSTRUCTIONS

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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.

ATTENTION:**When connecting a USB cable to PC**


- Never switch the playback mode on the camcorder when the USB cable is connected. It may cause the camcorder not to be recognized by the PC. If it occurs, confirm that the PC is not accessing the camcorder, then disconnect the USB cable and connect it again.
- Never turn on or off the camcorder when the USB is connected. It may cause malfunctions of the PC.

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>

- Microsoft®, Windows®, NetMeeting®, HotMail®, MSN® and DirectX® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Windows Media™ is a trademark of Microsoft Corporation in the United States and/or other countries.
- KDDI R&D LABs. and MPEG Edit Studio are trademarks of KDDI Corporation.
- Pentium® is a registered trademark of Intel Corporation in the United States.
- Other product and company names included in this instruction manual are trademarks and/or registered trademarks of their respective holders.

The support center differs depending on the application.
For details on each application's support center,  pg. 8.

Reading this document

This document consists of the following sections.

Before use, please read “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE” for preparation.

■ Editing MPEG-format video clips

This section explains how to edit MPEG-format video clips on a PC, including the following features.

- Editing and creating your own original video clip (☞ pg. 6)
- Exporting the edited MPEG-format video clip to a camcorder or D-VHS VCR (☞ pg. 20)
- Creating a DVD Video for the edited MPEG-format video clip (☞ pg. 27)

Before editing, refer to “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE” for importing MPEG-format video stream to a PC using an i.LINK cable.

■ Holding a video conference over the Internet

This section explains how to use a camcorder as a web camera and to hold a video conference over the Internet. (☞ pg. 33)

■ Appendix

This appendix contains troubleshooting and index.

Meanings of symbols

The following symbols are used in this document.

NOTE:

Indicates problems that could occur while using these software, phenomena that may appear to be a problem, limitations on the use of these software, or other information that is useful to know.



Indicates pages where related information can be found.

CONTINUED ON NEXT PAGE

Indicates that the explanation continues on the next page.

Copyrights

Under copyright law, any material that you may edit with this software cannot be used for any purpose other than your own personal enjoyment without the permission of the copyright holder. Note that this restriction applies when dubbing tracks from a CD as background music for your own movies.

Endless possibilities

■ Edit your own movies (MPEG Edit Studio™ Pro LE)

Create your own original movies by editing MPEG-format video clips that you have imported to your PC from your camcorder. Now you can be the director! Just shoot video with your camcorder and then edit it on your PC.

Once you have finished editing your movie, you can export it back to your camcorder or D-VHS VCR.

NOTES:

- For the software installation and importing/exporting video clips, refer to "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE".
- The provided MPEG Edit Studio™ Pro LE is an application with limited functions and some setting items cannot be selected.

■ Create a DVD video (ImageMixer DVD)

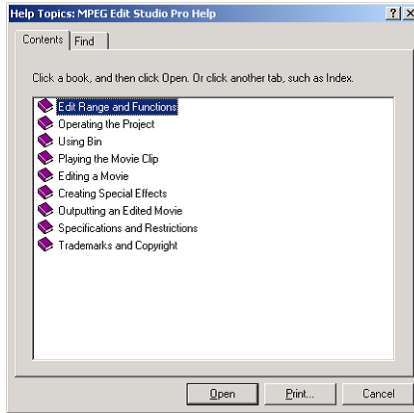
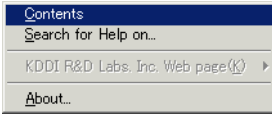
After you edit a movie on your PC, you can burn your own movie to a DVD. For creating a DVD Video, a DVD recording drive is required.

Help

This manual only provides an overview of MPEG Edit Studio™ Pro LE and ImageMixer DVD. For more details, refer to the help.

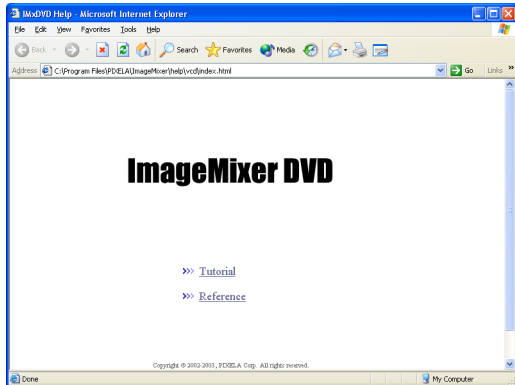
MPEG Edit Studio™ Pro LE

To display the help, click [Help] and then click [Contents].



ImageMixer DVD

To display the help, click the ? button on the upper right on the window.



JVC Customer Support Center

For more details on how to use MPEG Edit Studio™ Pro LE, refer to the JVC Worldwide Service Network at <http://www.jvc-victor.co.jp/english/worldmap/index-e.html>.

PIXELA User Support Center

For more details on how to use ImageMixer DVD, HD Capture Utility and Audio converter, refer to the following User Support Center.

North America (Los Angeles)

Telephone: +1-213-341-0163

Europe (U.K.)

Telephone: +44-1489-564-764

Asia (Philippines)

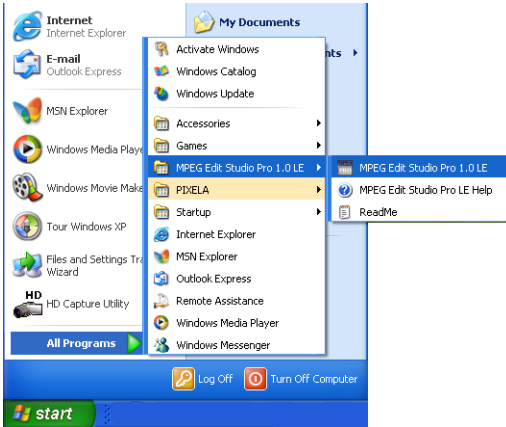
Telephone: +63-2-438-0090

Launching MPEG Edit Studio™ Pro LE

NOTE:

For the software installation and importing/exporting video clips, refer to “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.

1 Click [Start], go to [All Programs] – [MPEG Edit Studio Pro 1.0 LE], and click [MPEG Edit Studio Pro 1.0 LE].



Saving a project and exiting MPEG Edit Studio™ Pro LE

To save

If you want to quit MPEG Edit Studio™ Pro LE while editing video clips, save a project before quitting. Click [File], and then click [Save As...].

To exit

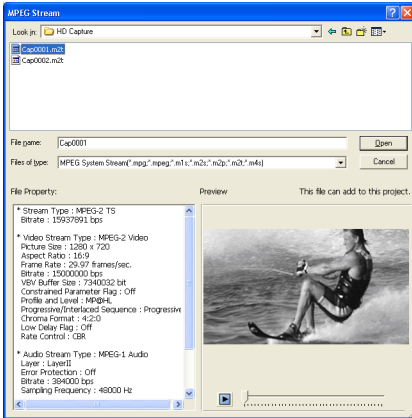
Click [File], and then click [Exit].

To open a saved project

Click [File], and then click [Open Project...].

Adding the MPEG-format video stream to bin

- 1 Click [Bin], and then click [Add MPEG File...].
The [MPEG Stream] dialog box appears.



- 2 Selecting an MPEG file (extension "m2t") imported by HD Capture Utility.

The message [This file can add to this project] appears.

- To import the MPEG-format video stream from the camcorder, refer to "Importing MPEG-format Video Stream to a PC" (p. 14) in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE".

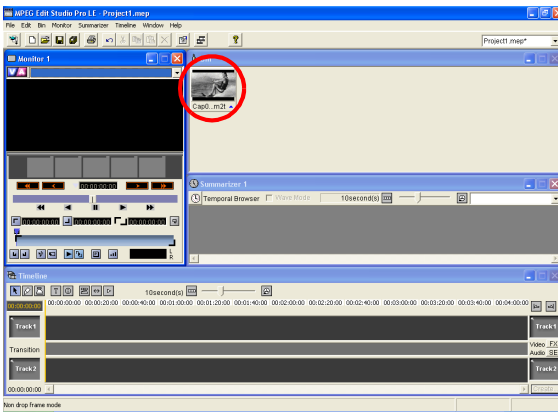
- 3 Click [Open].

The [Information] dialog box appears.

- 4 Click [OK].

The selected file is added to [Bin].

- Repeat these steps to add other files.



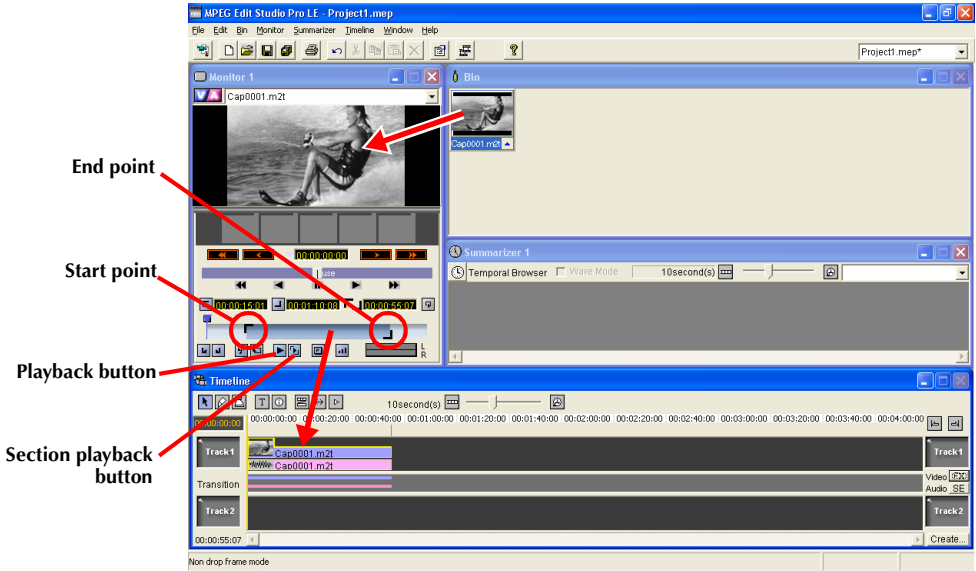
NOTE:

MPEG files of HD (720p) and SD (480p) mode cannot be added to the same project.

Editing video clips

Cut editing

If there are unnecessary parts in the recorded video clip, you can cut out only the necessary parts.



- 1 Drag-and-drop a file from [Bin] to [Monitor].**
The video clip appears on [Monitor].
- 2 Set the edit section by dragging edit-start point and edit-end point.**
 - To play back the whole file, click the Playback button.
 - To play back the edit section, click the section Playback button.
- 3 Drag-and-drop the edit section from [Bin] to [Timeline].**
The edit section appears on [Timeline].

Merging video clips

To merge multiple video clips and create one video clip, drag-and-drop other video clips to [Timeline]. Various effects can be applied by using the transition effect when switching from a video clip to another video clip. For more details, refer to the help.

Adding background music or audio effect

Converting to MPEG2 format

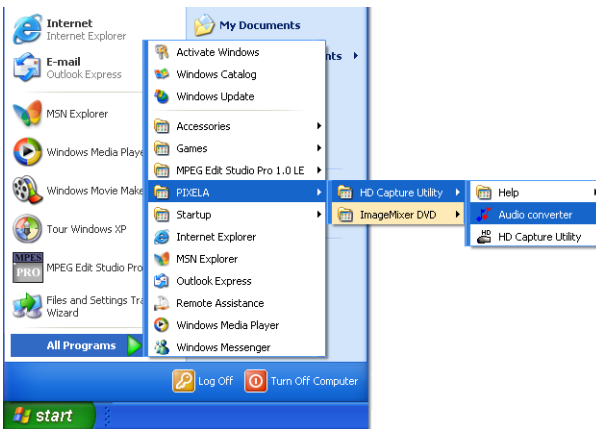
To use an audio file created on a PC as background music or audio effect, first convert that audio file to MPEG2 format (MPEG2 Program Stream) using Audio converter.

You can convert audio files of the following formats to MPEG2-format files (extension “mpg”) with Audio converter.

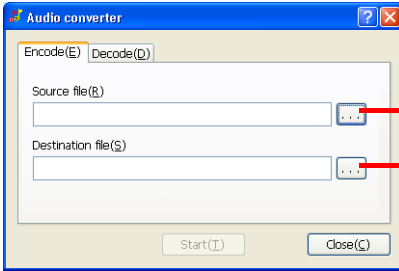
- WAVE (extension “wav”)
- Windows Media™ Audio (extension “wma”)
- MPEG Audio (extension “mpg”)
- MPEG Audio LayerII (extension “mp2”)
- MPEG Audio LayerIII (extension “mp3”)

1 Click [Start], go to [All Programs] – [PIXELA] – [HD Capture Utility], and then click [Audio converter].

- You can also double-click the [Audio converter1.0] icon on a desktop.



2 Click the [Encode] tab, and then click [...] to browse for the source file.



Click to browse for the source file.

Click to browse for the destination.

The [Open] dialog box appears.

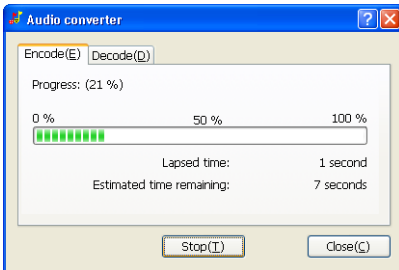
3 Select an audio file to be converted, and then click [Open].

4 Click [...] to browse for destination.

The [Save As] dialog box appears.

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

6 Click [Start].



After a moment, [Conversion completed.] appears, and an MPEG2-format audio file is saved.

7 Click [OK].

8 Click  on the upper right of the window to exit Audio converter.

Adding audio files

You can add audio files created by Audio converter to [Bin] using the same procedure as for video clips. (pg. 10, "Adding the MPEG-format video stream to bin")

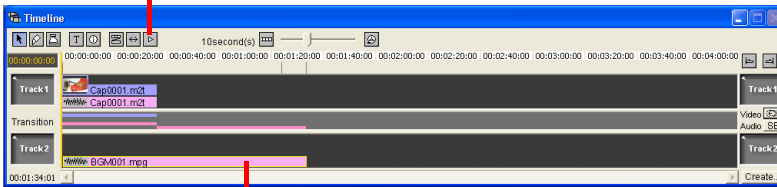
If there are unnecessary parts in the audio file, you can cut out only the necessary parts. (pg. 11, "Cut editing")

Mixing audio files

1 Drag-and-drop an audio file from [Bin] to Track 2 in the [Timeline] window.

- In this example, there is already a video clip in Track 1.

Preview button

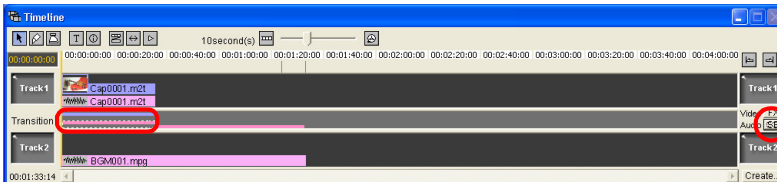


Audio file

The audio file appears in the [Timeline] window.

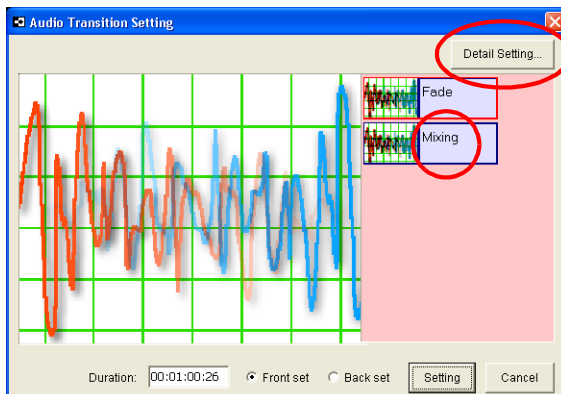
2 Click the Preview button to start playback, and confirm the position and volume of the added audio.

3 Click [SE] in the [Timeline] window, and then click the section where the audio of Track 1 overlaps the audio of Track 2 on the [Transition] track.



The [Audio Transition Setting] dialog box appears.

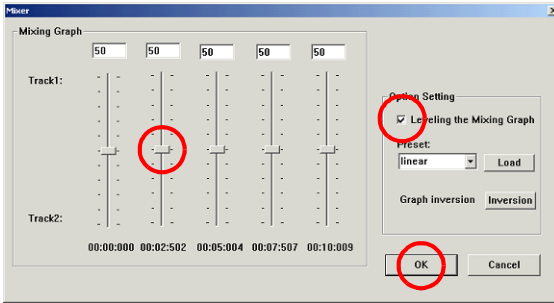
4 Click [Mixing], and then click [Detail Setting...].



The [Mixer] dialog box appears.

5 Select the check box [Leveling the Mixing Graph], adjust mixing balance between Track 1 and Track 2 by moving the slider, and then click [OK].

- If you want to adjust mixing balance synchronizing with time, take a check mark off and move the sliders separately.

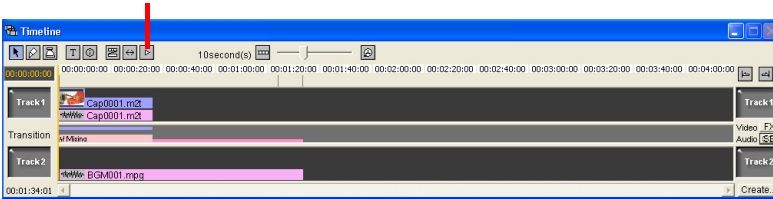


6 Click [Setting].

7 Click the Preview button to start playback, and confirm the volume.

- To readjust the mixing balance, repeat steps 3 – 6.

Preview button



Operation flow

If you have a commercially available audio processing software, you can process the audio of a video clip edited by MPEG Edit Studio™ Pro LE by following the procedure below.

After processing the audio, replace the processed audio with the original audio. Now you can add an audio effect that cannot be performed by MPEG Edit Studio™ Pro LE, and you can also mix multiple audio materials.

1 Output an audio file from MPEG Edit Studio™ Pro LE, and convert the audio file to WAVE format with Audio converter.

☞ pg. 17, "Exporting and converting an audio file"

2 Process an audio file (WAVE format) with your audio processing software.

- Refer to the instruction manual of your audio processing software.

3 Convert the processed audio file to MPEG2 format with Audio converter, and add it to MPEG Edit Studio™ Pro LE.

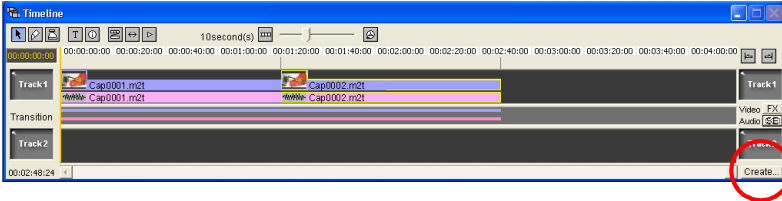
☞ pg. 12, "Adding background music or audio effect"

Exporting and converting an audio file

Exporting an audio file

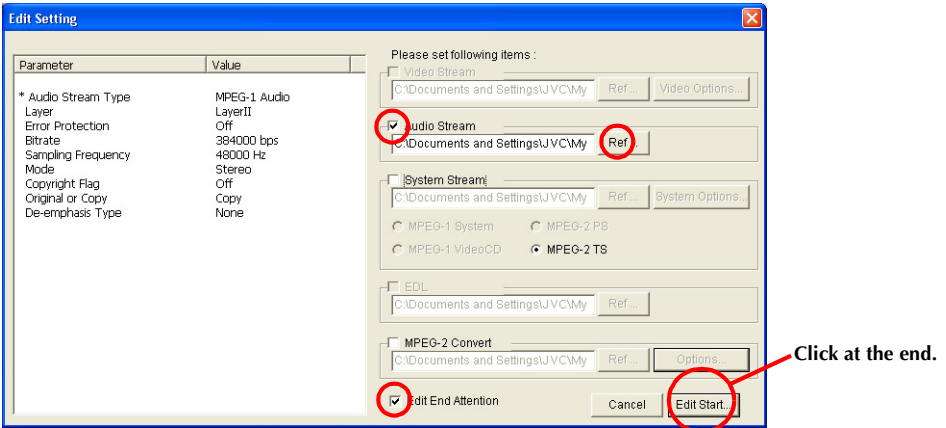
You can export only audio from a video clip edited by MPEG Edit Studio™ Pro LE. Exported file is saved as an MPEG1-format (MPEG1 Elementary Stream) audio file (extension “m1a”).

- 1 Click [Create...] in the [Timeline] window.



The [Edit Setting] dialog box appears.

- 2 Select the check box [Edit End Attention] and [Audio Stream], and then click [Ref...].



The [Save Audio Stream File] dialog box appears.

- 3 Specify the file name and location, and then click [Save].

- 4 Click [Edit Start...].

The [Edit spooler] indication appears, and an MPEG1-format audio file is exported. When exporting is complete, [Finished] appears.

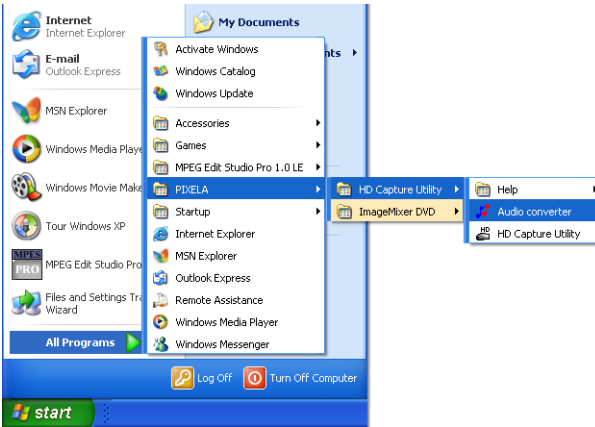
- 5 Click [OK].

Converting an audio file to WAVE format

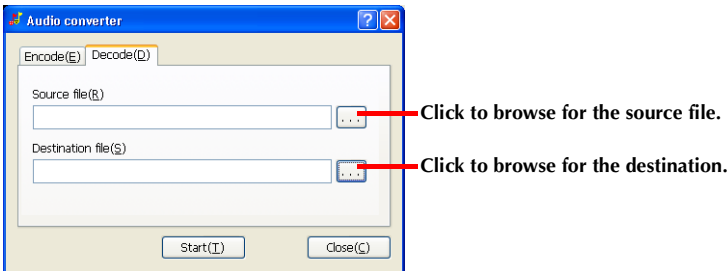
You can convert MPEG1-format audio file (extension “m1a”) to a general WAVE-format file (extension “wav”).

1 Click [Start], go to [All Programs] – [PIXELA] – [HD Capture Utility], and then click [Audio converter].

- You can also double-click the [Audio converter1.0] icon on a desktop.



2 Click the [Decode] tab, and then click [...] to browse for the source file.



The [Open] dialog box appears.

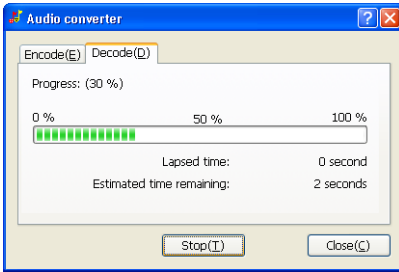
3 Select an audio file to be converted, and then click [Open].

4 Click [...] to browse for destination.

The [Save As] dialog box appears.


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

6 Click [Start].



After a moment, [Conversion completed.] appears, and an WAVE-format audio file is saved.

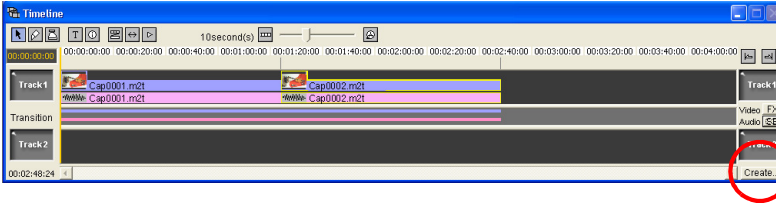
7 Click [OK].

8 Click  on the upper right of the window to exit Audio converter.

Exporting from MPEG Edit Studio™ Pro LE

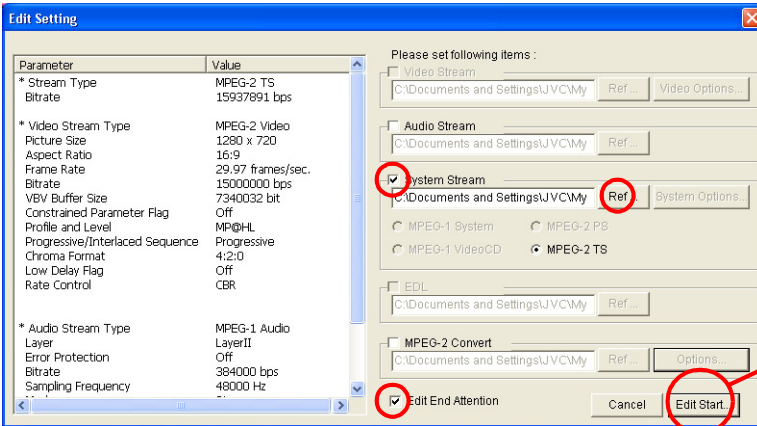
To export a video clip to a camcorder or D-VHS VCR, first export the edited video clip as an MPEG2-TS format file (extension "m2t") from MPEG Edit Studio™ Pro LE.

- 1 Click [Create...] in the [Timeline] window.



The [Edit Setting] dialog box appears.

- 2 Select the check box [Edit End Attention] and [System Stream], and then click [Ref...].



The [Save System Stream File] dialog box appears.

- 3 Select the destination of a file to be exported, and then click [Save].

- 4 Click [Edit Start...].

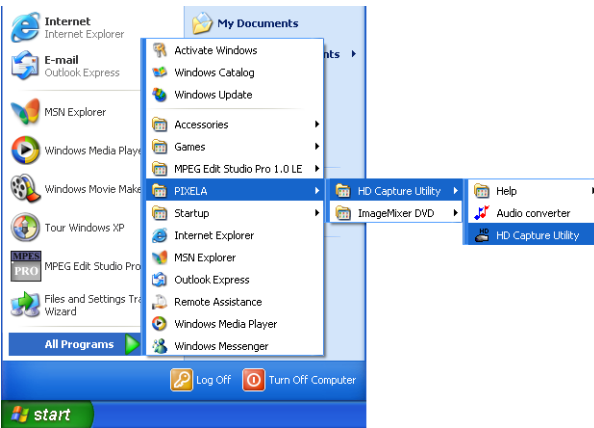
The [Edit spooler] indication appears, and an MPEG2-TS format file is exported. When exporting is complete, [Finished] appears.

- 5 Click [OK].

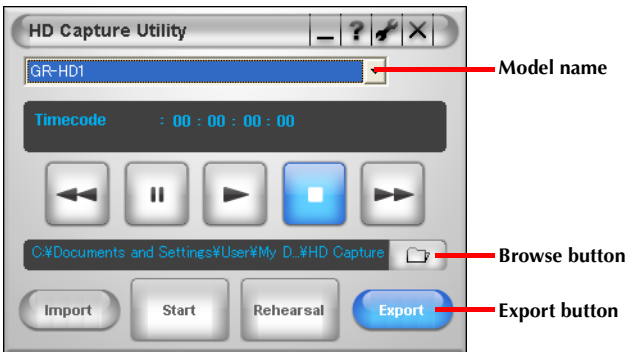
Exporting to a camcorder

To export a video clip to a camcorder, use HD Capture Utility.

- 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 "S/AV INPUT" to "OFF" in the camcorder's playback menu.**
- 3 Connect the camcorder to the PC with an i.LINK cable.**
 - For details, refer to "Connections" (pg. 7) in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE".
- 4 Click [Start], go to [All Programs] – [PIXELA] – [HD Capture Utility], and click [HD Capture Utility].**
 - You can also double-click [HD Capture Utility 1.0] icon on the desktop.



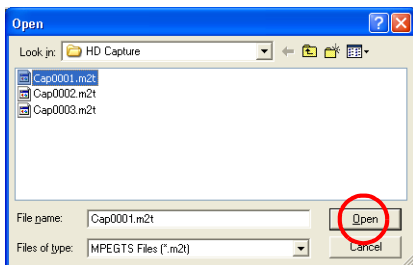
- 5 Make sure that the camcorder's model name is displayed.**
 - If the model name is not displayed, confirm the connection or reinstall the driver (pg. 16, "Reinstalling the driver") in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE".
 - If a D-VHS VCR is connected simultaneously, select the camcorder's model name.



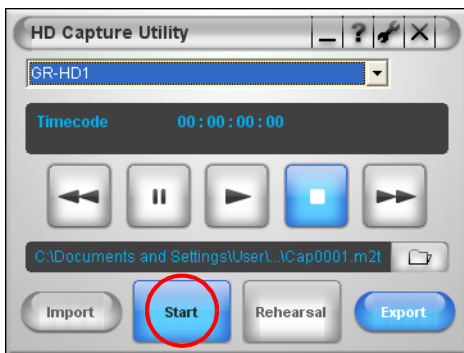
6 Click [Export], and then click the Browse button.

- The [Open] dialog box appears.

7 Select the file (extension "m2t") you want to export, and then click [Open].




8 Insert a recordable cassette to the camcorder, and then click [Start].



The [Exporting] indication appears, and the camcorder starts recording. After a moment, recording stops, and then [Completed to export file.] appears.

9 Click [OK].

10 Click  on the upper right of the window to exit HD Capture Utility.

To confirm the image before exporting

In step **8**, clicking [Rehearsal] starts playback of the selected video clip on the camcorder's LCD monitor. However, the video clip is not recorded on the tape.

NOTE:

If the video clip is not played back on the camcorder's LCD monitor even when you click [Start] or [Rehearsal], check the settings of input mode, etc. on the camcorder.

Exporting to a D-VHS VCR

You can export an MPEG-format video clip to a compatible D-VHS VCR (HM-DH30000, HM-DH40000) by connecting the D-VHS VCR to a PC with an i.LINK cable.

1 Export a video clip using MPEG Edit Studio™ Pro LE.

☞ pg. 20, "Exporting from MPEG Edit Studio™ Pro LE"

2 Connect the D-VHS VCR to the PC with an i.LINK cable.

- Set the D-VHS VCR to the i.LINK input mode. For details, refer to the D-VHS VCR's instruction manual.
- If the D-VHS VCR is connected for the first time, install the driver. (☞ pg. 24, "Installing the driver for a D-VHS VCR")
- If the model name is not displayed, confirm the connection or reinstall the driver (☞ pg. 26).

3 Export a video clip to the D-VHS VCR.

☞ pg. 21, "Exporting to a camcorder"

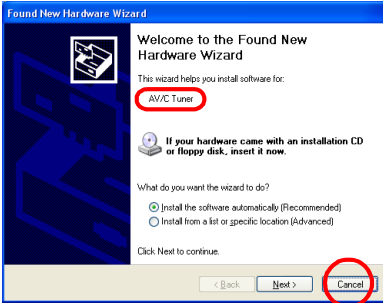
(Select the model name of the D-VHS VCR instead of the camcorder)

Installing the driver for a D-VHS VCR

If the D-VHS VCR is connected for the first time, the [Found New Hardware Wizard] dialog box appears. Then install the driver following the procedure below.

1 Confirm that [AV/C Tuner] is displayed, and then click [Cancel].

- If [AV/C Tape Recorder/Player] is displayed instead, follow the procedure in “Installing the driver for importing MPEG-format video stream” (pg. 9) in “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.



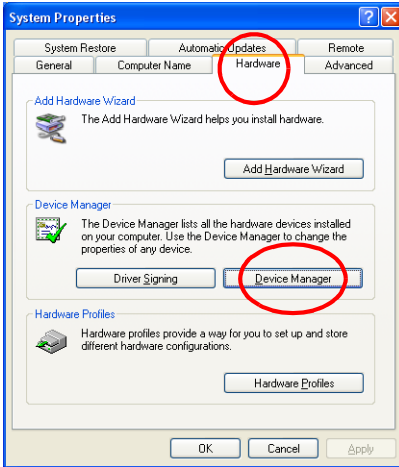
The [Found New Hardware Wizard] dialog box is closed.

2 Click [Start], right-click [My Computer], and then click [Property].



The [System Property] window appears.

3 Click the [Hardware] tab, and then click [Device Manager].



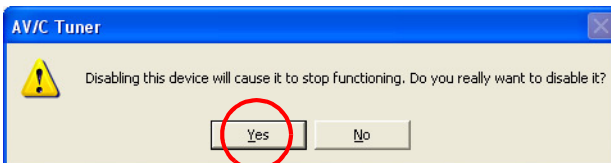
The [Device Manager] window appears.

4 Double-click [Other devices], right-click [AV/C Tuner], and then click [Disable].



The confirmation message appears.

5 Click [Yes].



Reinstalling the driver

If the D-VHS VCR's model name does not appear in HD Capture Utility, check the settings and connection of the D-VHS VCR.

If the model name does not appear 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 [Uninstall].

- If [JVC Tape Device] is not displayed, delete [AV/C Tape Recorder/Player] in [Other devices].

The confirmation screen appears.

5 Click [OK].

6 Double-click [Other devices].

7 Right-click [AV/C Tuner], and then click [Uninstall].

The confirmation screen appears.

8 Click [OK].

9 Disconnect the i.LINK cable once, and connect it again.

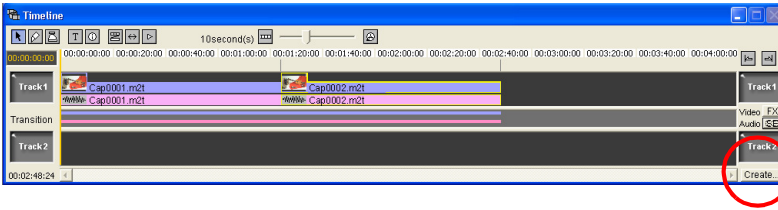
After a moment, the [Found New Hardware Wizard] dialog box appears.

10 Reinstall the driver. (☞ pg. 24, "Installing the driver for a D-VHS VCR")

Exporting a video clip

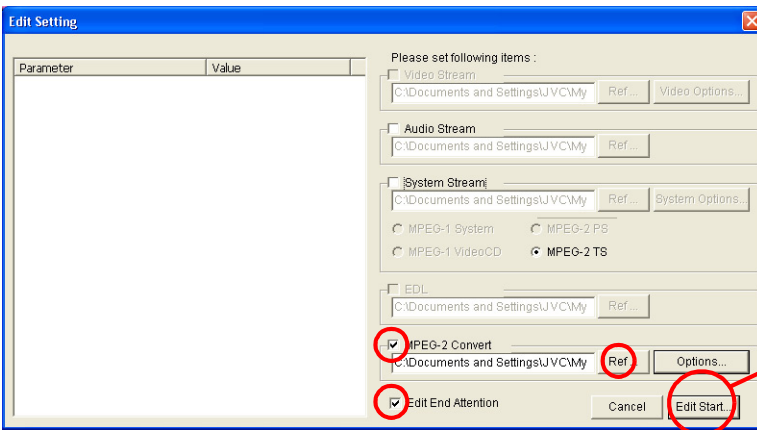
To create a DVD Video, export the edited video clip as an MPEG2-PS format file (extension "mpg") from MPEG Edit Studio™ Pro LE.

1 Click [Create...] in the [Timeline] window.



The [Edit Setting] dialog box appears.

2 Select the check boxes [Edit End Attention] and [MPEG-2 Convert] only, and then click [Ref...].



Click at the end.

The [Save MPEG Stream File] dialog box appears.

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

4 Click [Edit Start...].

The [Edit spooler] indication appears, and MPEG-format video clip is exported. When exporting is complete, [Finished] appears.

5 Click [OK].

NOTES:

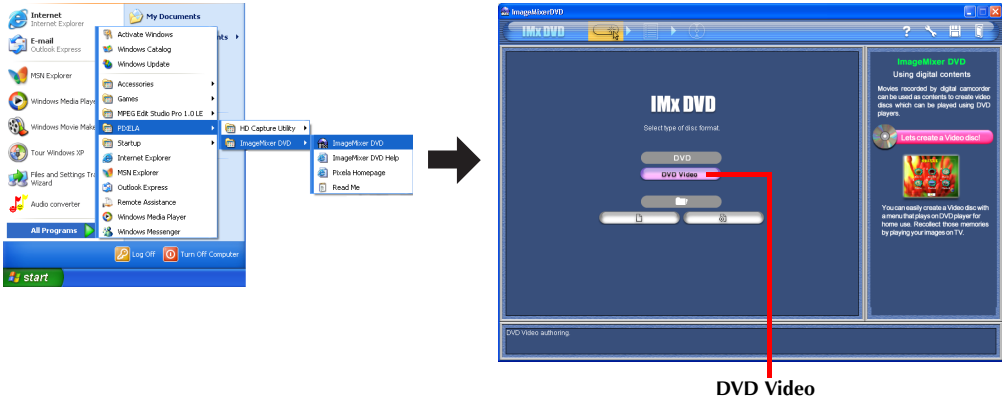
- Exporting a video clip takes time. It may take more than 20 times as long as the actual length of the video clip depending on the PC environment.
- If it takes long time to export video clip, click [Option] after step **3** to adjust [Convert Speed] in the [MPEG-2 Convert] dialog box. However, select [Normal] if the priority is its picture quality.
- Some video playback applications such as Windows Media™ Player may not be able to play back the MPEG2 file for DVD Video.

Launching ImageMixer DVD

To create a DVD Video, use ImageMixer DVD.

- 1 Click [Start], go to [All Programs] – [PIXELA] – [ImageMixer DVD], and then click [ImageMixer DVD].

- You can also double-click the [ImageMixer DVD] icon on a desktop.

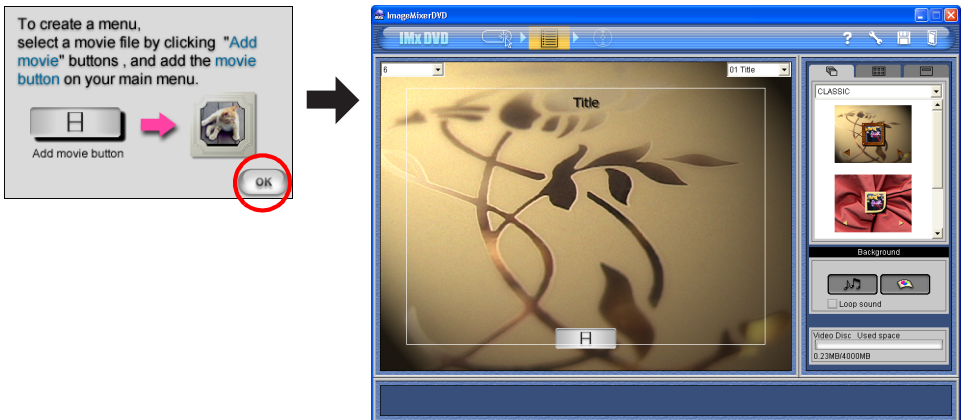


- 2 Click [DVD Video] to create a DVD Video.

The instruction message appears.

- 3 Read the instruction and click [OK].

The layout menu screen appears.



Saving a project and exiting ImageMixer DVD

To save

If you want to quit ImageMixer DVD while editing menu screen, save a project before quitting. Click the Save button on the upper right of the window.



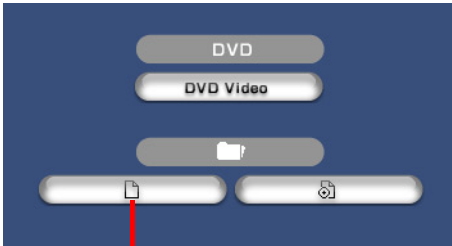
Save button Exit button

To exit

Click the Exit button on the upper right of the window.

To open a saved project

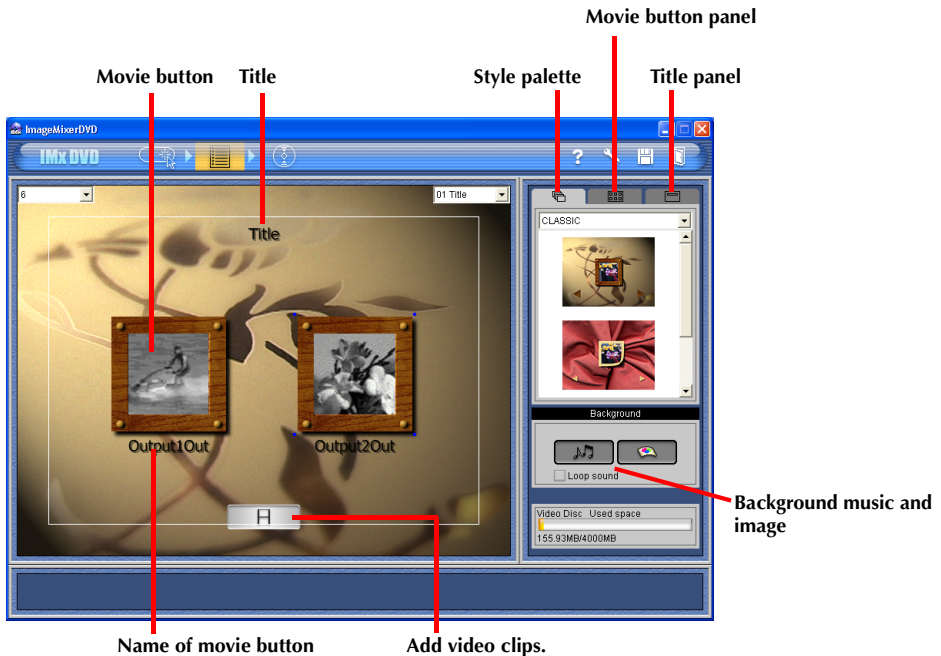
Click the Open button and select a project.



Open button

Customizing the menu screen

You can design and edit the menu screen of a DVD Video by adding video clips (extension “mpg”) which have been exported from MPEG Edit Studio™ Pro LE.



1 Enter the DVD title.

2 Add video clips (extension “mpg”).

The added video clips are displayed as movie buttons.

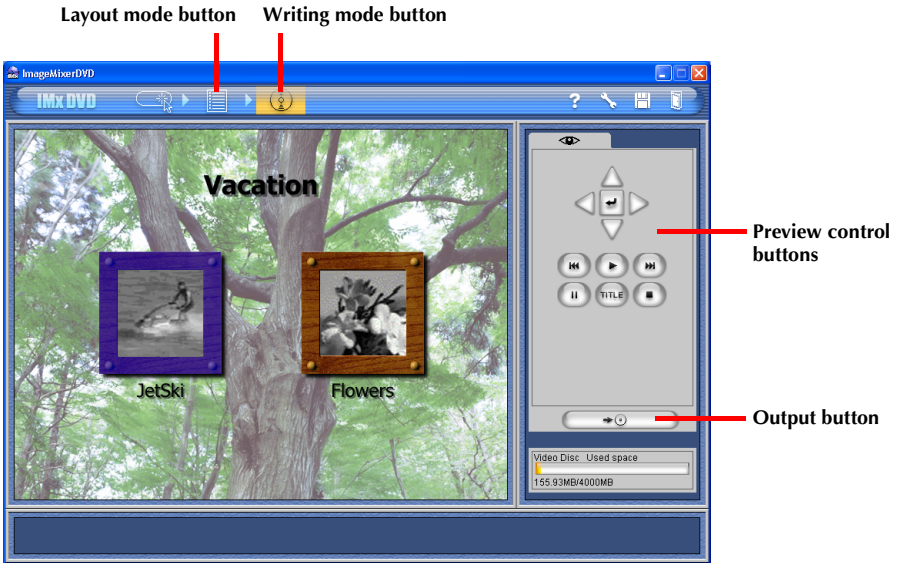
- You can add up to 4 GB of video clips for a disc and up to 6 movie buttons for a menu screen.

3 Rename the movie buttons.

- You can also change the style of the button.

Writing to a disc

After completing the menu screen, write video clips to a disc.



1 Click the Writing Mode button.

The preview screen appears

2 Check the result of your customizing using the Preview Control buttons.

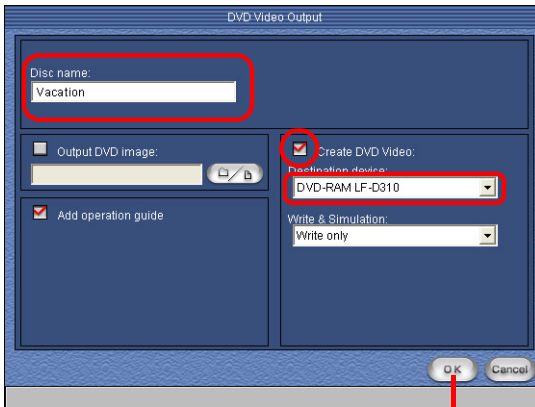
- If you find a part to be corrected, click the Layout Mode button.

3 Click the Output button.

The [DVD Video Output] dialog box appears.

4 Enter the disc name, select the check box [Create DVD Video], and then select the recording drive.

- For the disc name, you can enter up to 30 single-byte letters and numbers.



Click at the end.

5 Set a disc to the drive, and then click [OK].

A DVD Video is created.

If your drive is not compatible with ImageMixer DVD,
Contact PIXELA User Support Center (☎ pg. 8).

NOTES:

- Usable DVD disc differs depending on the drive. Refer to your drive's instruction manual.
- It is not possible to write to a DVD-RAM disc.
- It is not guaranteed that the created DVD Video can be played back on a DVD player.

Preparing Windows® Messenger

To hold a video conference over the Internet with a camcorder, use Windows® Messenger.

1 Connect to the Internet and set up Windows® Messenger.

- Start Windows® Messenger and register your e-mail address and other information. For details, refer to the Windows® Messenger help.

2 Connect the camcorder to the PC with a USB cable.

- For details, refer to “Connections” (☞ pg. 7) in “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.
- If the camcorder is connected for the first time, install the drivers. Refer to “Installing the drivers for using the camcorder as a web camera” (☞ pg. 10) in “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.

3 In the main screen of Windows® Messenger, click [Tools] and then select [Audio and Video Tuning Wizard...].

4 Select [JVC PIX-MCV Audio Capture] and then click [Next].

- Make sure that the image from the camcorder is displayed.

5 Click [Next]. In the microphone setting, specify [JVC PIX-MCV Audio Capture]. In the speaker setting, specify the sound board that you are using.

- If you specify [JVC PIX-MCV Audio Capture] for the microphone setting, you cannot select [Use headphones].

6 Click [Next]. Check the speaker or headphone volume.

- Click [Test] and check for sound from your speakers or headphones.

7 Click [Next]. Check the microphone volume.

- The microphone volume is automatically adjusted. Speak into the camcorder microphone and check the microphone volume level so that the green bar extends into the yellow range.
- If the bar does not swing, return to step **2**, and turn the camcorder on again.

8 Click [Next] and exit the Wizard.

Videoconferencing

- 1 Connect to the internet.**
- 2 Set this camcorder's Recording Mode Switch to "MEMORY".**
- 3 Set this camcorder's Power Switch to "A" or "M" 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.**
 - For details, refer to "Connections" (☞ pg. 7) in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE".
- 5 Log on to the Windows® Messenger.**
 - Register your friend's e-mail address beforehand. For details, refer to the Windows® Messenger help.
- 6 In the Windows® Messenger screen, make sure that someone is online besides yourself.**
 - Another friend must be online for you to call.
- 7 Right-click the name of your friend.**
- 8 Click [Start Video Chat].**

The video conference screen appears while you wait for a response from your friend. You can now begin the video conference if your friend clicks [Agree].

NOTE:

Never turn the Power Switch of a camcorder during video conference.

If the Image does not appear

- Upgrade to Windows® Messenger 4.6 or later. You can download the latest version of Windows® Messenger from the Microsoft web site.
<http://www.microsoft.com/>
- Update your version of Windows® XP. Click the [Start], and select [Windows Update] in [All Programs]. For details, refer to the Windows® XP help or the Microsoft web site.
<http://www.microsoft.com/>
- Update device drivers. (☞ pg. 35)

For details, refer to the help for the Windows® Messenger. Details on how to use Windows® Messenger are expected to be available on the JVC web site.

JVC web site:

<http://www.jvc-victor.co.jp/english/index-e.html>

Updating device drivers

NOTE:

Disconnect any other USB audio devices from PC before performing the following procedure.

1 Connect the camcorder to the PC with a USB cable.

- For details, refer to “Connections” (☞ pg. 7) in “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.

2 Click [Start], right-click [My Computer], and then click [Property].

The [System Property] window appears.

3 Select the [Hardware] tab, and then click [Device Manager].

- If there is [JVC], [GR-HD1] or [JY-HD10] in [Other devices], delete it.

4 Disconnect the USB cable from the camcorder, and then restart the PC.**5 Load the provided CD-ROM in the PC, and then install drivers.**

- For details, refer to “Installing the drivers for using the camcorder as a web camera” (☞ pg. 10) in “SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE”.

6 Repeat steps 2 and 3 to open the [Device Manager] window to confirm the following drivers are displayed.

- [JVC PIX-MCV Video Capture] in [Imaging Device]
- [JVC PIX-MCV Audio Capture] in [Sound, video and game controllers]
- [JVC Composite PIX-MCV Device] and [JVC Communication PIX-MCV Video Driver] in [Universal Serial Bus Controller]

Troubleshooting

General

SYMPTOM	CORRECTIVE ACTION
The [Found New Hardware Wizard] dialog box appears.	<ul style="list-style-type: none"> • When connecting a camcorder with a USB cable, disconnect the USB cable, then connect the USB cable again. • When connecting a camcorder or a D-VHS VCR with an i.LINK cable for the first time, install the driver. (☞ pg. 9 in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE" or pg. 24) • When connecting a camcorder or a D-VHS VCR with an i.LINK cable for the second time or more, disconnect the i.LINK cable, then connect the i.LINK cable again.
The PC does not return from the power saving mode.	<ul style="list-style-type: none"> • Disconnect the USB cable or the i.LINK cable, then restart the PC. • When connecting a USB cable or an i.LINK cable, set the power saving function (suspend, resume, etc.) to off.
Troubles occurs while the application operates.	<ul style="list-style-type: none"> • Restart the PC.

NOTE:

When using a laptop PC, operation may be interrupted by a warning when the battery is nearly exhausted.

- If there is software which monitors the status of the battery running in the [StartUp] folder...
Close the application, or delete/move its icon from the [StartUp] folder and reboot your PC.
- If you are using your PC's power management function...
Right-click the [My Computer] icon, then select [Properties]–[System Properties]–[Device Manager]–[System Devices]–[Advanced Power Management Support]. Deactivate the power management function.

Reading the memory card

SYMPTOM	CORRECTIVE ACTION
Although the USB cable is connected, nothing is displayed.	<ul style="list-style-type: none"> • Double-click the [Removable Disk] within [My Computer]. (☞ pg. 11 in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE") • Make sure that the USB cable is connected securely. (☞ pg. 7 in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE") • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector. • Make sure that the USB (Universal Serial Bus) controller within [Device Manager] is usable.
Cannot copy or save files.	<ul style="list-style-type: none"> • Make sure that there is enough free space available in the drive where you are trying to copy or save a file. • Make sure that the drive where you are trying to copy or save a file is not write-protected. • Make sure that a file with the same name does not already exist where you are trying to copy or save a file. • Either use a USB hub that has its own power supply, or connect the USB cable directly to the PC's USB connector.
The created date of the file is not displayed correctly on the information display.	<ul style="list-style-type: none"> • The created date is not displayed if the date is not set on the camcorder when recording.

MPEG Edit Studio™ Pro LE

QUESTION	ANSWER
When using a PC that does not satisfy the requirements for CPU speed described in "System Requirements" in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE", what kind of troubles may occur?	Frames of a preview image may be skipped or sound may be interrupted while editing with MPEG Edit Studio™ Pro LE.
How much free hard disk space is necessary to edit a video clip?	Approximately 300 MB of free hard disk space is necessary for a minute of video clip.
Is it possible to edit video clips recorded by a camcorder other than the HD camcorder or video clips downloaded from the Internet?	MPEG Edit Studio™ Pro LE is an application only for MPEG2-TS format. Video clips recorded by a camcorder other than the HD camcorder or video clips other than those of MPEG2-TS format cannot be used.
Is it possible to send edited video clips via the Internet?	A file exported by MPEG Edit Studio™ Pro LE is not suitable for sending via the Internet. Convert a MPEG2-format file exported for a DVD Video to a file of small capacity, using a commercially available video editing software which is compatible with MPEG2 format.
Is it possible to play back edited video clips with Windows Media™ Player?	At the moment, there is no application to play back a file of MPEG2-TS format. Even if playback is possible, smooth playback is difficult with a current PC performance. (As of April, 2003) It is recommended to play back a MPEG2-format file with a DVD playing software.
Is it possible to make background music from CD music?	Import CD music as an audio file of WMA format using Windows Media™ Player, and convert it to an audio file of MPEG2 format with Audio converter. Then you can import the audio file by MPEG Edit Studio™ Pro LE. (☞ pg. 12)
Is it possible to add narration to video clips?	Import voice as an audio file of WMA format through a microphone using a sound recorder, and convert it to an audio file of MPEG2-format with Audio converter. Then you can import the audio file by MPEG Edit Studio™ Pro LE. (☞ pg. 12)
Files imported by HD Capture Utility cannot be added.	This symptom occurs when data on the tape cannot be read correctly. If this problem persists, clean the reading head using the head cleaner.
The audio file which has been exported as [Audio Stream] cannot be added to [BIN].	Audio files that were exported as [Audio Stream] have a different streaming format and thus cannot be added to [BIN]. First convert their format using Audio converter before adding them to [BIN].
The movement of the images in [Monitor] and [Preview] look unnatural and the audio periodically cuts out.	The [Monitor] and [Preview] function only as simply playback tools provided for checking the images. That unnatural appearance is not a malfunction.

CONTINUED ON NEXT PAGE

The transition timing is different from the image in [Preview].	The [Monitor] and [Preview] function only as simply playback tools provided for checking the images. That unnatural appearance is not a malfunction.
The images in [Monitor] and [Preview] are abnormal.	<ul style="list-style-type: none"> • Upgrade the display adapter driver to the latest version. (Contact your PC manufacturer for details.) • Display the [Display Properties], and then click the [Settings] tab and [Advanced]. Click the [Troubleshoot] tab, and then set [Hardware accelerator] to the second position from "None" which indicates deactivating the DirectDraw accelerator. This can sometimes solve the problem.
The message indicating that there is enough memory is sometimes displayed while operating.	<ul style="list-style-type: none"> • Rather than editing the entire film, edit several seconds of clips for each block, then export the file. When exporting, select [System Stream] (☞ pg. 20). When you have edited all of your clips, merge them all into a file to create one entire movie. • Operations can sometimes become somewhat smoother by increasing the amount of RAM. Refer to your PC's instruction manual for details.
An error occurs and operation stops.	This symptom occurs when data on the tape cannot be read correctly. If this problem persists, clean the reading head using the head cleaner.
Operations become slower when there are many video clips in [Timeline].	<ul style="list-style-type: none"> • Rather than editing the entire film, edit several seconds of clips for each block, then export the file. When exporting, select [System Stream] (☞ pg. 20). When you have edited all of your clips, merge them all into a file to create one entire movie. • Operations can sometimes become somewhat smoother by increasing the amount of RAM. Refer to your PC's instruction manual for details.
It takes a long time to export an MPEG2-format video clip for DVD Video from MPEG Edit Studio™ Pro LE. Why does it take so much time when the file was originally recorded in MPEG2 format?	Both MPEG-format videos recorded by the HD camcorder and MPEG2-format files for DVD Video are "MPEG2 format", but they differ in nature in the following points; Bit rate, interlace, GOP structure, image size (for 720p) and frame rate (for 480p) Because of the differences, MPEG2-format videos are re-encoded when exporting.
When the title is set for a longer time, it takes a long time when exporting a video clip as [System Stream].	Video clip with the title is re-encoded into MPEG2 format when exporting. This causes the extra time for processing.
MPEG2-format files exported for DVD Video cannot be played using video playing software.	Playing a file is not possible if the MPEG2 decoder (CODEC) of the video playing software does not support the file to be played.
The image quality of the DVD Video that was created using the exported file is worse than the original images. The image quality is poor even comparing with regularly sold DVD videos.	<ul style="list-style-type: none"> • DVD Video has a lower image quality standard than MPEG2-format video recorded by the HD camcorder. • To create an MPEG2 format video clips for the DVD Video standard, re-encoding is required and the image quality deteriorates as a result. • Regularly sold DVD Videos have a variable bit rate (VBR). MPEG2-format video has a constant bit rate (CBR) to increase the encoding speed.

HD Capture Utility

QUESTION	ANSWER
Is it possible to export MPEG-format video clips to another manufacturer's D-VHS VCR?	Operations are not guaranteed. There are no restrictions regarding other manufacturers' products.
Is it possible to edit imported MPEG-format video clips with video editing software other than MPEG Edit Studio™ Pro LE?	At the moment, there is no video editing software to edit an MPEG-format (MPEG2-TS) video clip. Even if a compatible application is marketed, the operation cannot be assured. (As of April, 2003)
Video clips dubbed from the HD camcorder to a D-VHS VCR can be imported from a D-VHS VCR using HD Capture Utility. However, why is it not assured in this instruction manual?	HD camcorder and D-VHS VCR are considered to be the same to the PC. The formats compatible with both HD Capture Utility and MPEG Edit Studio™ Pro LE are limited. However, a D-VHS VCR can record a variety of video formats. For that reason, importing from a D-VHS VCR is not guaranteed.
The model name of the camcorder is not displayed.	<ul style="list-style-type: none"> • Check if the camcorder has the following settings. <ul style="list-style-type: none"> Power switch: "PLAY" Playback mode switch: "VIDEO" Output mode select switch: "MPEG" "i.LINK OUT" setting: "SW" • Check the connection of the i.LINK cable. • Either disconnect and then connect the i.LINK cable again, or set the power switch on the camcorder to "OFF" and then set it to "PLAY" again. • Restart your computer. • If there are other devices connected to the PC's IEEE 1394 (i.LINK) connector, disconnect them. • Re-install the driver. (☞ pg. 16 in "SOFTWARE INSTALLATION AND USB/i.LINK CONNECTION GUIDE")

<p>An imported video stream has been separated into several files.</p>	<ul style="list-style-type: none"> • It is normal for scenes (each recording) to be separated into several files. • One scene can be also separated for the following reasons; <ul style="list-style-type: none"> The hard disk writes too slowly. Another application software is running. Windows function caused an interruption (such as the power management or screen saver) The data was not read correctly because of dirt or scratch on the tape. (If this problem persists, clean the reading head using the head cleaner.)
<p>The message which indicates the blank part continues for 5 seconds appears, and importing stops.</p>	<p>The video stream cannot be imported if the tape is damaged or dirty.</p>
<p>A video clip cannot be imported.</p>	<ul style="list-style-type: none"> • It is not possible to import a scene less than 5 seconds. • It is not possible to import a scene recorded in DV mode. • This symptom occurs when data on the tape cannot be read correctly. If this problem persists, clean the reading head using the head cleaner.
<p>The beginning or final portion of the scene, which is exported to another device, is not recorded.</p>	<p>This happens depending on the specifications of the connected device. In this case, add scenes (not necessary to be recorded) to the beginning or end of the scene when editing the video clip.</p>

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MPEG Edit Studio™ Pro LE
ImageMixer DVD
HD Capture Utility
Audio converter

