

SONY

3-860-898-11(1)

DV Still Image Capture Board

Operating Instructions

Owner's Record

The serial number is located on the board. Record the serial number in the space provided below. Refer to this number whenever you call upon your Sony dealer regarding this product.

Model No. DVBK-2000

Serial No. _____

DVBK-2000/2000E

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This manual shows how to use the basic functions of DV software. Regarding the functions which are not explained in this manual, and the contents of the commands of each menu, refer to help menu attached to the DV software.

For Customers in the U.S.A.

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The shielded interface cable recommended in this manual must be used with the equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

Compliance tests on this product were carried out for the EU Directive, 89/336/EEC using a HP Computer model Vectra VL 5/100 as a representative host unit for this product.

User registration

To receive the customer services, complete and return the registration card included in your package.

Overview

Combination of your PC with DV Still Image Capture Board DVBK-2000/2000E and DV equipment can give you the following operations.

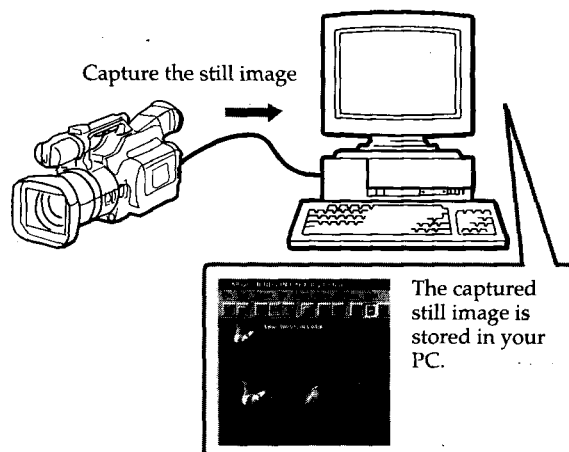
Capture still image from DV equipment

You can capture the picture input from the DV equipment to your PC as an encoded still image. The encoded still image you captured is stored in called "Album" or "Library".

This function is convenient if you use it as the followings.

- To make a homepage of internet.
- To print it out with adding title.

There is another use of captured still image. Let's find out your use for your favorite things.



Record the still image created with your PC in DV equipment

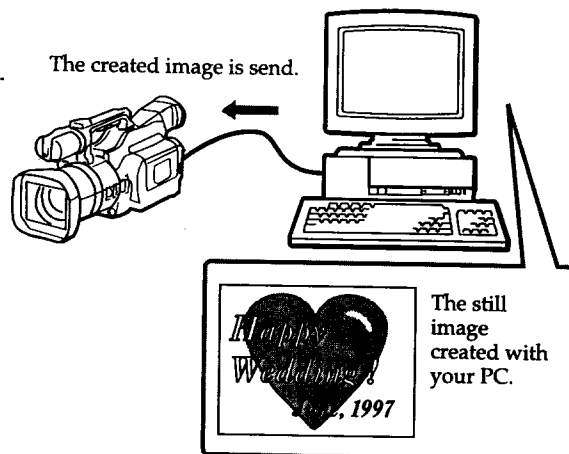
You can record the still image created with your PC, or the edited image captured from DV equipment, into the DV equipment.

You can record the still image one by one, and also, recording the whole still image at a time.

This function is convenient if you use it as follows.

- To record the title created with your PC at the beginning of the tape.
- To re-record the captured still image with note by PC.

There are also another use of captured still image. Let's find out your use for your favorite things.



What kind of format of the saved still image ?

The DV software automatically saves the still image into your hard disk in DV format at the time of capturing the picture input and assigns a file name (with the ".DVF" file extension for Windows but no extension for Macintosh).

Overview (continued)

What is DV file format ?

The DV file formatted document is an image document compressed with the same method (algorithm) used by DV equipment. A single image (720 x 480 pixels, 16,770,000 colors) saved in this format can be compressed to about 120 KB for DVB 2000 and a single image (720 x 576 pixels, 16,770,000 colors) to about 140 KB for DVBK-2000E.

Any image displayed on the preview, album or library window of DV software is a simply-decoded image. You can display the original image by decoding it. When you change the image format into BMP/PIC the data size of a single still image becomes about 1 MB for DVBK-2000 and about 1.3 MB for DVBK-2000E.

How captured images are managed ?

DV software groups and manages the captured still images in units called "Album" or "Library".

- Album: Each album contains the image files, which is exactly the same as the relation between pictures and an album.
- Library: Each library file contains the representative image files picked up from a tape.

Album and library files are managed with a management file with ".DVA" extension. (no extension for Macintosh)

When an Album or Library is made for the first time, a folder with the same name as the management file is made in the place where the management file is stored. The captured images are stored in the folder.

Each Album or Library can store up to 150 captured images. (The maximum number of images depends on your system configuration.)

About this manual

This manual explains how to install the capture software and the supplied software, and how to use the software.

For the latest information on the supplied software

For Windows, see "Readme.txt" file on the supplied CD-ROM for the latest information on the supplied software, using "NOTEPAD" program.

For Macintosh, see "Read Me" file on the supplied CD-ROM. Double-click to read it.

For the information on menu commands

For Windows, you can use the on-screen help system to get information on menu commands and keyboard shortcuts. Choose "Topics" from the "Help" menu.

For Macintosh, refer to "Reference Guide for Macintosh".

System requirements

Your PC and system software must meet the minimum requirements to use the capture board and the supplied software.

■ Windows

IBM PC/AT or compatibles

CPU: Pentium 100 MHz and above (133 MHz or above is recommended.)

PCI bus: 1 slot

RAM: 16 MB or more (32 MB or more is recommended.)

Video board and display driver:
SVGA (800 X 600 pixels with 65,536 colors or better)

Memory space:
256 KB

IRQ: 1

Hard disk space:
10 MB or more

CD-ROM drive

OS: Microsoft Windows 95 (Microsoft Windows 3.1 and WindowsNT are invalid.)

Video monitor:
SVGA (800 x 600 pixels with 65,536 colors or better)

■ **Macintosh**

Macintosh or compatibles

CPU: PowerPC 601 and above
PCI bus: 1 slot
RAM: For DVBK-2000:
16 MB or more (32 MB or more is
recommended.)
For DVBK-2000E:
20 MB or more (32 MB or more is
recommended.)
Video display ability:
800 x 600 pixels with 32,000 colors or
better)
Hard-disk space:
10 MB or more
CD-ROM drive
OS: MacOS 7.5.2 or later
Display: 800 x 600 pixels with 32,000 colors or
better

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Documentation © 1997 Sony Corporation

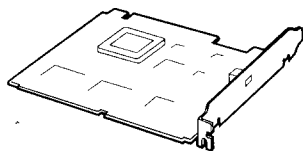
- Microsoft, MS-DOS and Windows are the registered trademarks of Microsoft Corporation.
- IBM and PC/AT are the registered trademarks of International Business Machines Corporation.
- Pentium is the registered trademarks of Intel Corporation.
- Macintosh is the registered trademarks of Apple Computer Inc.
- Adobe is the registered trademark and Adobe PhotoDeluxe is the trademark of Adobe Systems Inc.
- Other companies and product names are the trademarks or the registered trademarks of each company.

Checking the supplied items

Check to make sure you have received the following items in the carton.

If something is missing, contact the dealer from whom you purchased the DVBK-2000/2000E or our service facility.

Capture Board (1)



DV connecting cable VMC-2DV (1)



A CD-ROM for DV software installation
(1 disc: Windows/Macintosh hybrid)

Warranty card

Supplied software
A CD-ROM for Adobe PhotoDeluxe installation (1 disc)

Installing the capture board

Notes on installing the board

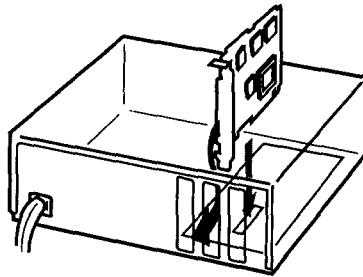
- Turn off the power on your PC and peripheral equipment before installation or removal. If you do not, the DV capture board, PC and peripheral equipment may be damaged.
- Do not directly touch the components on the board, or they may be damaged by static electricity. If you need to touch the board, touch a metal object to discharge the electricity before you touch the board.
- Be sure that the current consumption of installed board does not exceed the maximum supplied current rating. The DV capture board requires a current of 0.6 A at maximum. If you install other boards on your PC, refer to each instruction manual to check how much electrical current is required.
- Do not leave the board on a surface which is prone to static electricity, for example, on the carpet. This may damage the board.
- Do not directly touch the connectors on the board.
- The board incorporates sophisticated electronic parts. Do not drop or damage the board.
- When removing the board from your PC, refer to the instruction manual for your PC. If you disconnect it by force, the DV capture board and PC may be damaged.
- Do not moisten the DV capture board.

Installing the capture board

For windows, the capture board corresponds to the plug & play of Windows 95.

Before installing the capture board, be sure to write down the five digit serial number from the label on the capture board. This number is necessary for registration during the start up procedure.

- 1** Turn off your PC.
- 2** Disconnect the power cord from the wall outlet.
Not doing so may cause malfunctions when connecting the capture board.
- 3** Open your PC case and remove the cover of PCI bus slot for inserting capture board.
For details, read the instruction manual for your PC.
- 4** Insert the capture board into the slot and put on screws.



- 5** Replace the case on your PC.
- 6** Turn on your PC.
The next procedure depends on your PC.
Read the next page of "Installing the driver" for Windows.

For Macintosh, proceed to "Installing the DV software (Macintosh)" (Page 19).

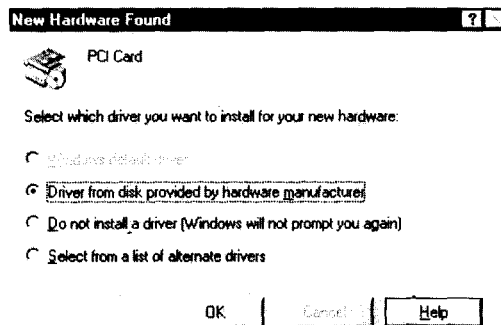
Installing the driver (Windows)

When turning the power on after inserting the cap board, Windows 95 automatically detects the cap board, and instructs to install the needed software. Depending on the instruction of Windows 95, the operating procedures for installing the software may be varied.

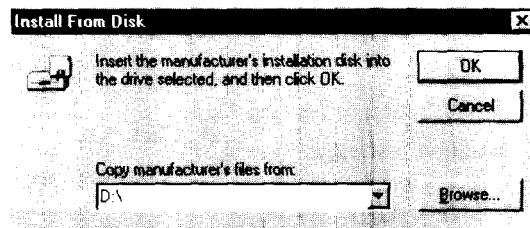
- If the "New Hardware Found" display is brought up, see the next page of "**A** When the "New Hardware Found" window is brought up".
- If the "Update Device Driver Wizard" display is brought up, see page 14 of "**B** When the "Update Device Driver Wizard" window is brought up".

A When the “New Hardware Found” window is brought up

- 1 Select “Driver from disk provided by hardware manufacturer” and click “OK”.



The following display appears.



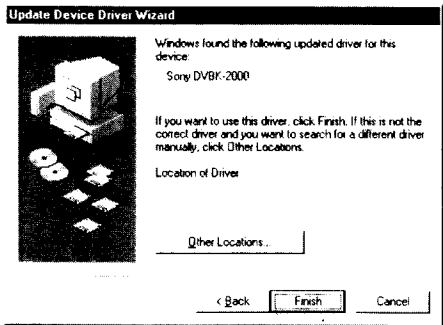
- 2 Insert the CD-ROM for installation into the CD-ROM drive and specifies the CD-ROM drive for “Copy manufacturer’s files from:”.
- 3 Click “OK”.

The installation of software automatically starts.

When the installation is complete, go to step on page 15 of “Installing the DV software (Windows)”.

B When the “Update Device Driver Wizard” window is brought up

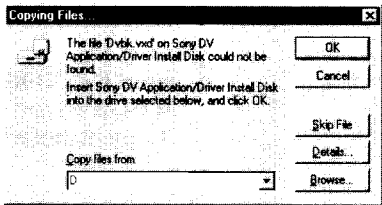
- 1** Insert the installer CD-ROM into the CD-ROM drive and click “Next”.



- 2** Click “Finish”.
“Insert Disk” warning display appears.



- 3** Click “OK”.
“Copying Files...” appears.

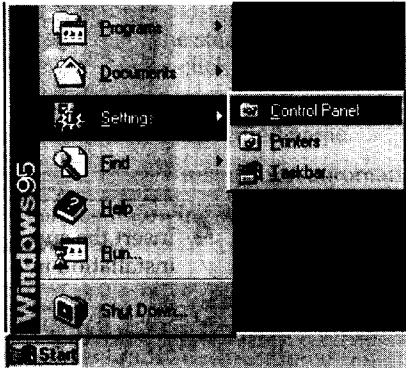


- 4** Specifies the CD-ROM drive for “Copy files from” and click “OK”.
The installation of software automatically starts.
When the installation is complete, go to step on next page of “Installing the DV software (Windows)”.

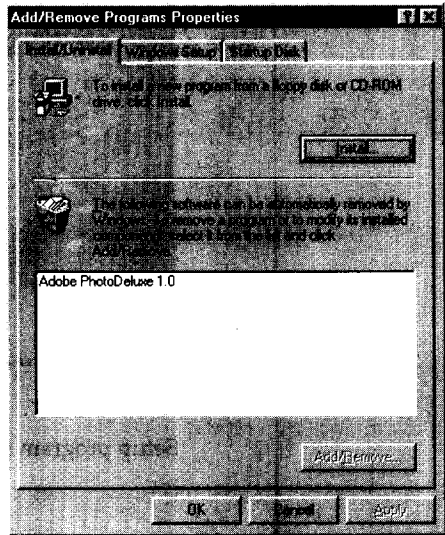
Installing the DV software (Windows)

Install DV software in your hard disk. Before installing the software, make sure that the capture board is installed properly.

- 1 Click "Start" menu and set the pointer to "Settings", and then click "Control Panel".
"Control Panel" window appears.



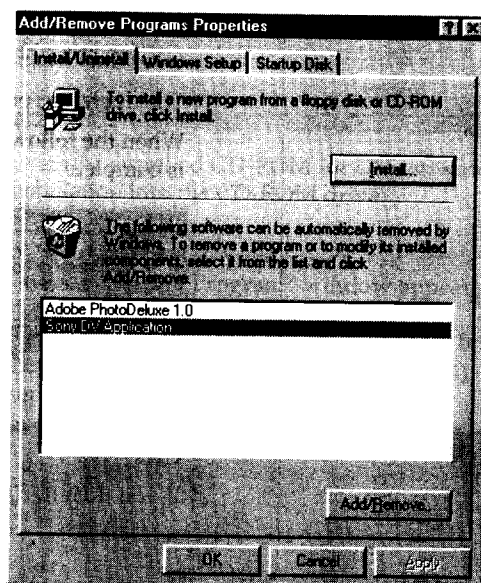
- 2 Double-click "Add/Remove Programs".
"Add/Remove Programs Properties" window appears.



Uninstalling the DV software

If you do not need the DV software, uninstall the software as follows:

- 1 Click "Start" menu and set the pointer to "Settings", and then click "Control Panel".
"Control Panel" window appears.
- 2 Double-click "Add/Remove Programs" of "Control Panel", and then click "Install/Uninstall" tab.
"Add/Remove Programs Properties" appears.



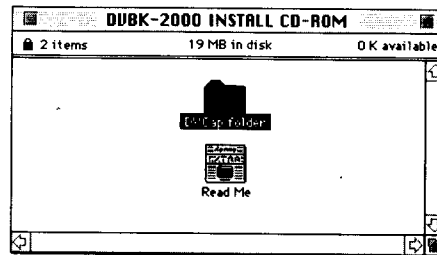
- 3 Select "Sony DV Application" from the program list below and click "Add/Remove...".
Uninstaller starts up and a display to confirm deleting appears.
- 4 Click "OK".
Uninstall the program automatically.

Installing the DV software (Macintosh)

Install DV software in your hard disk. Before installing the software, make sure that the capture board is installed properly.

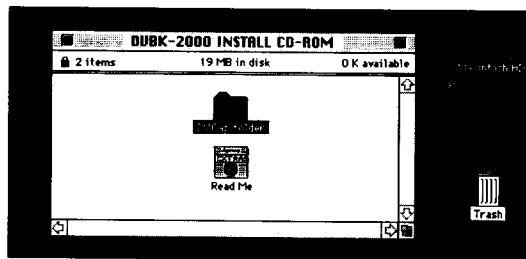
- 1 Insert the supplied CD-ROM (DV software installer) in the CD-ROM drive.

A folder containing the DV software appears.



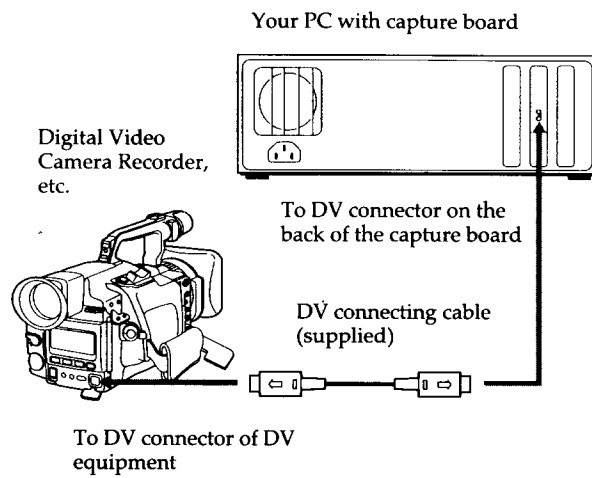
- 2 Drag the "DVCap folder" folder to the hard disk icon.

The DV software is copied to your Macintosh.



Connecting the DV (Digital Video) equipment

Connect the digital video equipment with DV terminal to your computer using the DV connecting cable.



Notes

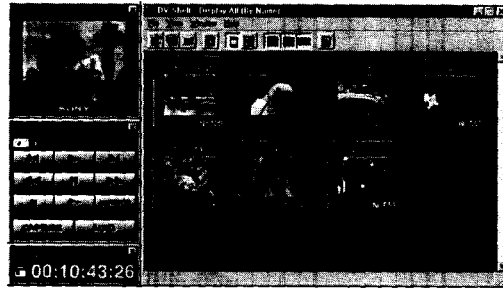
- Use only the supplied connecting cable. Other brands of cables may cause malfunctions.
- Insert the connecting cable into the connector in straight, not doing so may cause malfunctions.
- Keep metal objects away from the connector pins to avoid short circuits.

Starting the DV software (Windows)

When you finish installing the DV software and connecting DV equipment, start the DV software.

- 1 Click "Start" and position the pointer over "Program", select "Sony DV Application", then click "DV Shelf".

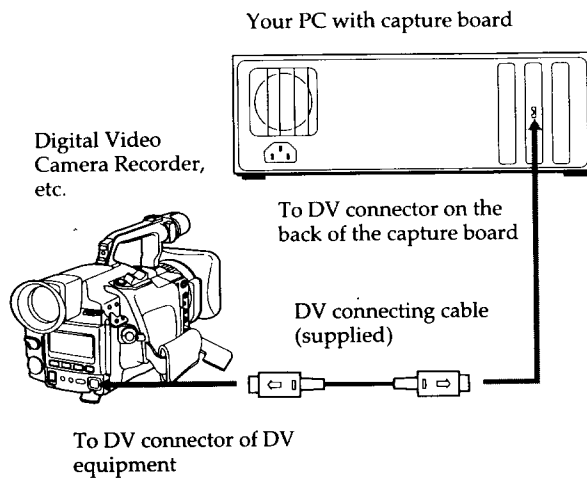
The DV software is activated and the initial display appears.



- Refer to page 23 about information on each display.
- Refer to page 35 to 44 about information on basic operations.

Connecting the DV (Digital Video) equipment

Connect the digital video equipment with DV terminal to your computer using the DV connecting cable.



Notes

- Use only the supplied connecting cable. Other brands of cables may cause malfunctions.
- Insert the connecting cable into the connector in straight, not doing so may cause malfunctions.
- Keep metal objects away from the connector pins to avoid short circuits.

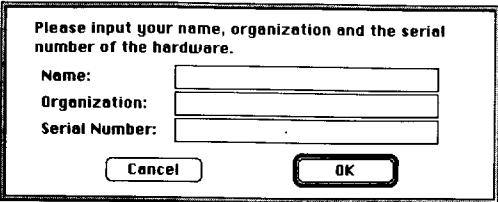
Starting the DV software (Macintosh)

When you finish installing the DV software and connecting DV equipment, start the DV software.

1 Double-click "DVCap" icon.

The DV software is activated and the user registration display appears.

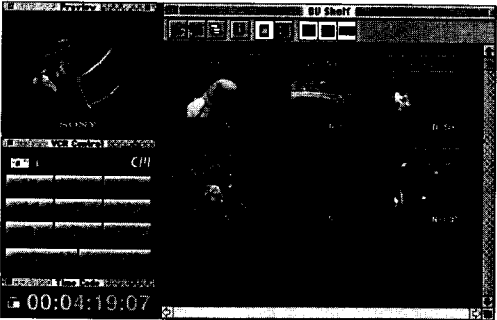
Clicking "DVCap" icon and clicking "Open" from the "File" menu bring up the same display.

A rectangular dialog box with a title bar. The text inside reads: "Please input your name, organization and the serial number of the hardware." Below this are three labeled input fields: "Name:", "Organization:", and "Serial Number:". At the bottom are two buttons: "Cancel" and "OK".

2 Enter your name, organization and serial number then click "OK".

You need to enter your name, organization and serial number only when you start the software for the first time. The five-digit serial number is the number written down before installing the capture board.

The DV software is activated and the initial display appears.

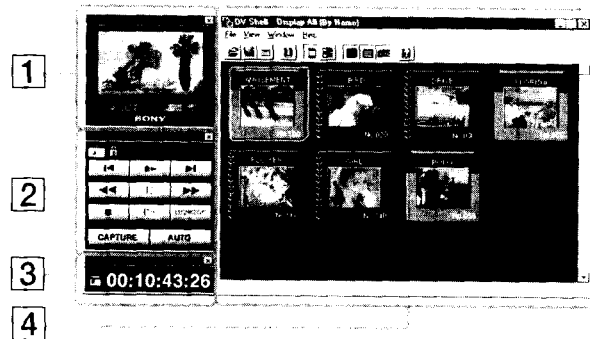


- Refer to page 23 about information on each display
- Refer to page 35 to 44 about information on basic operations.

Configuration of display

Display just after startup

When you start the DV software, the following display appears.



(Windows display)

1 Preview window

Displays the video from the connected DV equipment.

2 VCR Control window

Controls the connected DV equipment. You can also capture the image from this window, but cannot start recording with the DV equipment.

3 Time Code window

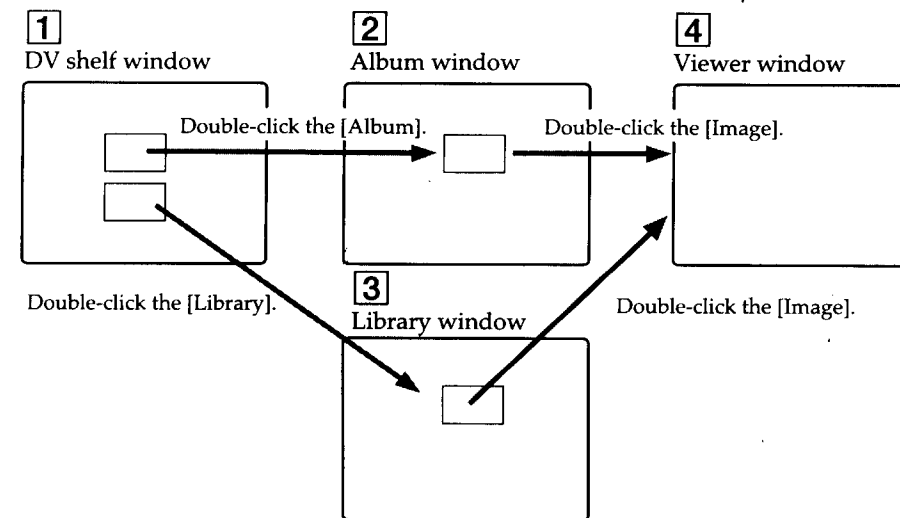
Displays the time code, recorded date or recorded time of the video being played back on the connected DV equipment.

4 DV Shelf window

Displays albums and libraries and manages albums and libraries by making or deleting a file, etc.

Configuration of display (continued)

Display transition



1 DV shelf window

Displays the albums and libraries that have been saved at present. You can open your favorite album or library from this window and can confirm the image in the album or library. (Album window or Library window)
Also, this DV shelf window is used for making a new album or library. When starting up the DV software, this window opens.

2 Album window

Displays the images that have been captured in the selected album at present.
You can open and confirm your favorite image (Viewer window). You can also add the captured image and the image created with your PC as you like, so the album is convenient to store your favorite images.

3 Library window

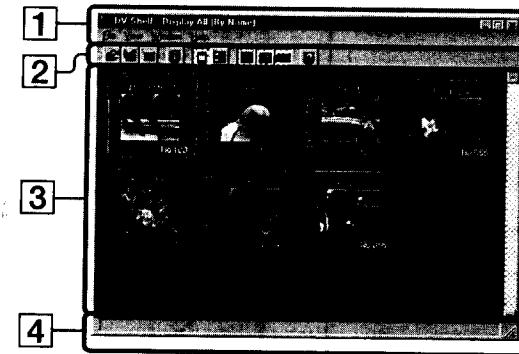
Displays the images that have been captured in the selected library at present.
You can open and confirm your favorite image (Viewer window). You can use Library as an index of a cassette tape corresponding to the cassette with cassette memory (only available when using a DV equipment applicable for cassette memory writings).

4 Viewer window

Decodes and displays the encoded image that is selected from the album or library window. This window is used when saving the decoded image as BMP / PICT or JPEG format file.

Names and functions of display

DV Shelf window



(Windows display)

1 Menu bar

Displays menu items for various functions. (No menu bar for Macintosh)

2 Tool bar

Functions frequently used are displayed as buttons.



Open:

Displays a dialog box and opens a favorite album/library.



Rescan:

Checks albums/libraries in the DV shelf folder and updates the information.



Preferences:

Set the operation environment of the DV software.



Information:

Displays detailed information of the selected album/library.



Normal View:

Displays the album/library with a representative image and title.



Detailed View:

Displays the album/library with detailed information.



Show/Hide Preview Window:

Show/Hide the preview window.



Show/Hide VCR Control Window:

Show/Hide the VCR control window.



Show/Hide Time Code Window:

Show/Hide the time code window.



Help:

Displays "Topics". (Not for Macintosh)

3 Album/library display area

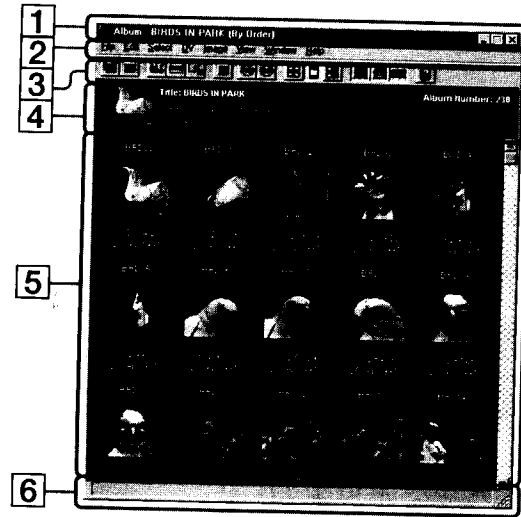
Displays album or library.

4 Status bar

Displays information. (Not for Macintosh)

Names and functions of display (continued)

Album window



(Windows display)

1 Title bar

Displays the Album title.

2 Menu bar

Displays menu items for various functions. (Not for Macintosh)

3 Tool bar

Displays the button icons for functions which you use frequently.



Rescan:

Checks the image files in the folder of selected album and updates the album management information.



Preferences:

Sets the operating environment of DV software.



Select All:

Selects all images in the album.



Select None:

Releases all selection of images in the album.



Toggle Selection:

Switches images in the album between selected and non-selected.



Decode:

Decode the selected image and displays it to the Viewer window.



Image Information:

Displays the detailed information on the selected image. (for Macintosh only)



Rotate CCW:

Turns a selected image round in a 90-degree arc. counterclockwise.



Rotate CW:

Turns a selected image round in a 90-degree arc. clockwise.



Index View:

Displays image only.



Normal View:

Displays image with the name, time code and recorded date.



Detailed View:

In addition to the image, the more information is displayed in detail, such as recorded date and time, or captured date and time.



Show/Hide Preview Window:

Show/Hide the preview window.



Show/Hide VCR Control Window:

Show/Hide the VCR control window.



Show/Hide Time Code Window:

Show/Hide the time code window.



Help:

Displays "Topics" (Not for Macintosh).



4 Album information display area

Displays the representative image, title name, album number and comment.



5 Image display area

The images saved in the album currently are brought up in a small size.

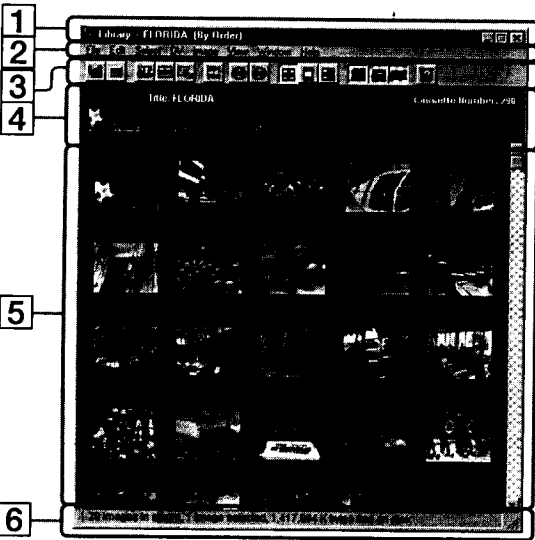


6 Status bar

Displays information.

Names and functions of display (continued)

Library window



(Windows display)

1 Title bar

Displays the Library title.

2 Menu bar

Displays menu items for various functions. (Not for Macintosh)

3 Tool bar

Displays the button icons for functions which you use frequently.



Rescan:

Checks the image files in the folder of selected Library and updates the Library management information.



Preferences:

Sets the operating environment of DV software.



Select All:

Selects all images in the Library.



Select None:

Releases all selection of images in the Library.



Toggle Selection:

Switches images in the Library between selected and non-selected.



Search:

Cue up the tape where the selected image is recorded, when the DV cassette used to capture a image to the Library is set.



Image Information:

Displays the detailed information on the selected image. (for Macintosh only)



Rotate CCW:

Turns a selected image round in a 90-degree arc. counterclockwise.



Rotate CW:

Turns a selected image round in a 90-degree arc. clockwise.



Index View:

Displays image itself only.



Normal View:

Displays image with the name, time code and recorded data.



Detailed View:

In addition to the image, the more information is displayed in detail, such as recorded date and time, or captured date and time.



Show/Hide Preview Window:

Show/Hide the preview window.



Show/Hide VCR Control Window:

Show/Hide the VCR control window.



Show/Hide Time Code Window:

Show/Hide the time code window.



Help:

Displays "Topics". (Not for Macintosh)



4 Library information display area

Displays the representative image, title name, cassette number and comment.



5 Image display area

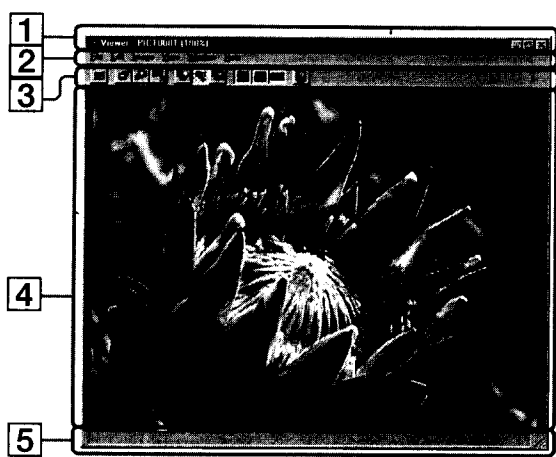
The images saved in the library currently are brought up in a small size.



6 Status bar

Displays information.

Viewer window



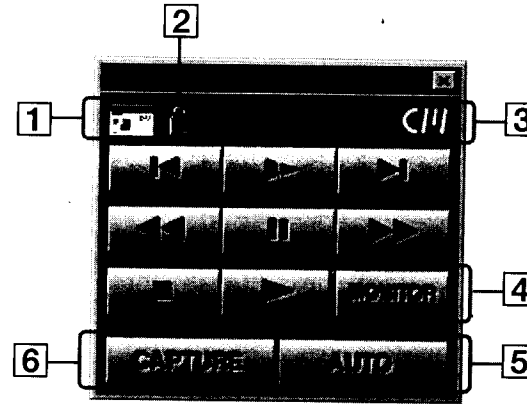
(Windows display)

- 1 Title bar**
Displays the name of the opened image.
- 2 Menu bar**
Displays menu items for various functions. (Not for Macintosh)
- 3 Tool bar**
Displays the button icons for functions which you use frequently.
 -  **Save as:**
Saves the displayed image in PICT/JPEG format. (for Macintosh only)
 -  **Preferences:**
Sets the operating environment of DV software.
 -  **Zoom Out:**
Reduces and displays the image in order of 400%, 300%, 200%, 100% and 50%.
 -  **Zoom In:**
Magnifies and displays the image in order of 50%, 100%, 200%, 300% and 400%.
 -  **100 %:**
Displays the image in 100 % size.

-  **No De-interlace:**
Displays an image without de-interlace.
-  **Adaptive De-interlace:**
Compares two fields which composes the image and de-interlaces by averaging only the parts that differ.
-  **Field De-interlace:**
Interpolates and de-interlaces fields to compose an image.
-  **Show/Hide Preview Window:**
Show/Hide the preview window.
-  **Show/Hide VCR Control Window:**
Show/Hide the VCR control window.
-  **Show/Hide Time Code Window:**
Show/Hide the time code window.
-  **Help:**
Displays "Topics" (Not for Macintosh).
- 4 Image display area**
Displays the decoded image.
- 5 Status bar**
Displays information (Not for Macintosh).

Names and functions of display (continued)

VCR control window



(Windows display)

1 Cassette tape display

When the cassette tape is inserted in the DV equipment, it is brought up brightly. When not, it is brought up darkly.

2 Write protect display

When the cassette tape is on write protect status, it is brought up.

3 Cassette memory display

When the cassette tape with cassette memory is inserted in the DV equipment corresponding to the cassette memory, it is brought up.

4 MONITOR button

Turns the preview display on/off.

5 AUTO button

Starts/terminates auto-capturing images. While transmitting the image to the DV equipment, it is brought up darkly, and you cannot click it.

6 CAPTURE button

Captures an image. While transmitting the image to the DV equipment, it is brought up darkly, and you cannot click it.

Capturing the image from the DV equipment to PC

Let's exercise for capturing the image from the DV to your PC. Capture the image and save it as a standard image file.

Operating procedures

1 Create an album necessary for capture (see page 36).

Before capturing the image, create an album to put images in.

2 Capture images (see page 38).

By playing back the tape, operating the VCR control window, capture the images.

3 Save the images in BMP/PICT (see page 39).

For various applications, save the images in standard image file format.

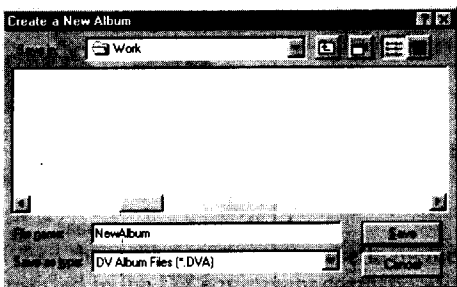
Capturing the image from the DV equipment to PC (continued)

Creating an album necessary for capturing

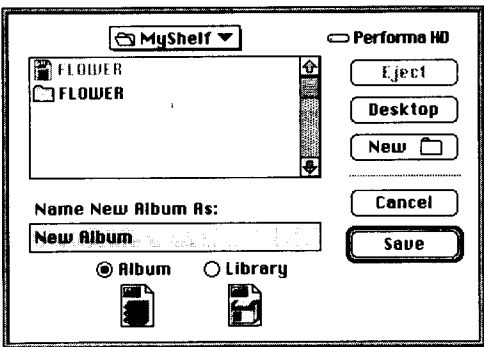
- 1** Set the DV equipment on playing status.
If you use a Sony's digital video camera recorder, insert the cassette tape and set the power switch to "VIDEO".
- 2 Windows:** Click "Start" button to set the pointer to "Program", select "Sony DV Application" and then "DV Shelf".
- Macintosh:** Double-click "DVCap".

The DV software starts up.

- 3 Windows:** Click "File" menu, set the pointer to "New" and select "Album".



Macintosh: Choose "New" from the "File" menu.



- 4 Windows:** Enter the album name and click "Save".

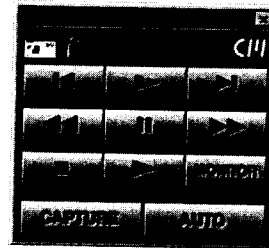
Macintosh: Click "Album", enter the album name and click "Save".

New album appears and now you can capture the image.

Capturing the image from the DV equipment to PC (continued)

Capturing images

- 1 Start playback using the VCR control window.



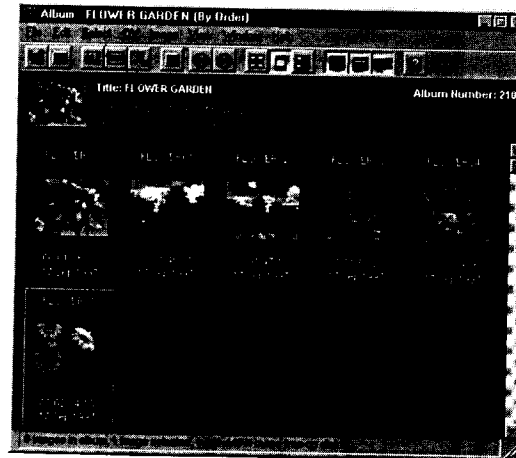
(Windows display)

⏮	Frame (reverse)
⏪	Slow
⏩	Frame (forward)
⏮	Rewind
⏸	Pause
⏩	Fast forward
■	Stop
▶	Playback

The image being played back is displayed in the preview window.

- 2 Click "CAPTURE" when you find a favorite image.

When you click "CAPTURE", the selected image is saved in your PC. The captured image is saved in DV format in your hard disk and is added to the album.

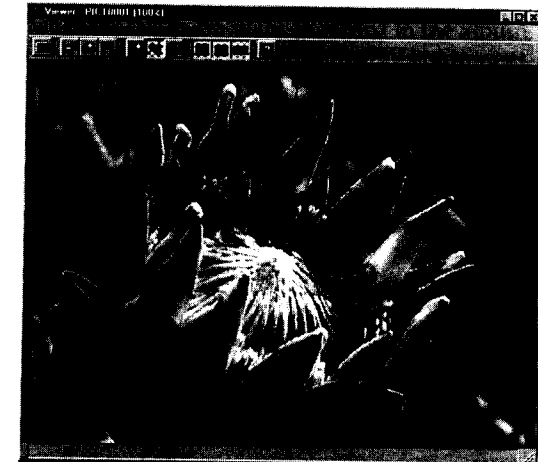


(Windows display)

Saving the images in BMP/PICT

- 1 Double-click the captured image.

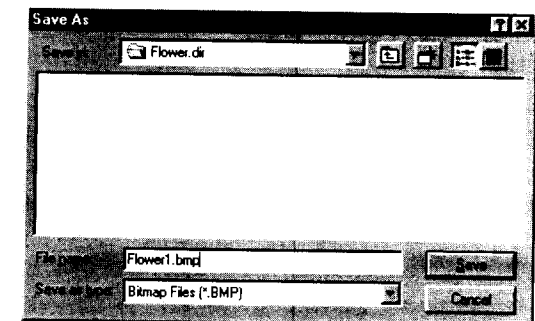
The viewer window appears.



(Windows display)

- 2 Windows: Choose "Save As" from the "File" menu, and click "BMP".

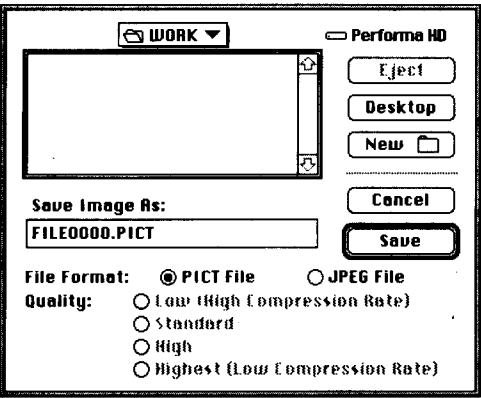
"Save as BMP format" appears.



(Windows display)

Capturing the image from the DV equipment to PC (continued)

Macintosh: Choose "Save as" from "File" menu.
The following dialog box appears.



3 Windows: Enter the name and click "Save".

The image is saved in BMP format.

Macintosh: Click "PICT", enter the name and click "Save as".

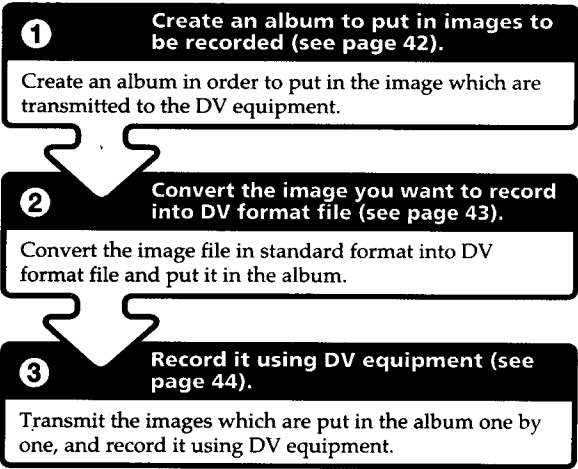
The image is saved in PICT format.

Recording the image of your PC by DV equipment

Record the image created by your PC into the DV equipment.

Put the image that you want to record in the album, then record it by transmitting to the DV equipment.

Operating procedures



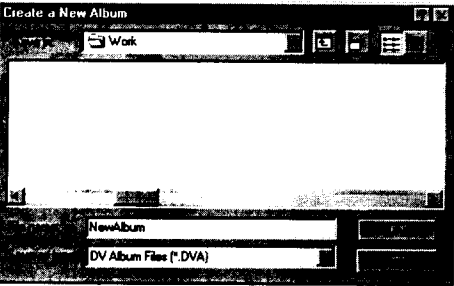
Creating an album to put in images to be recorded

1 Set the DV equipment on playing status.
If you use a Sony's digital video camera recorder, insert the cassette tape and set the power switch to "VIDEO".

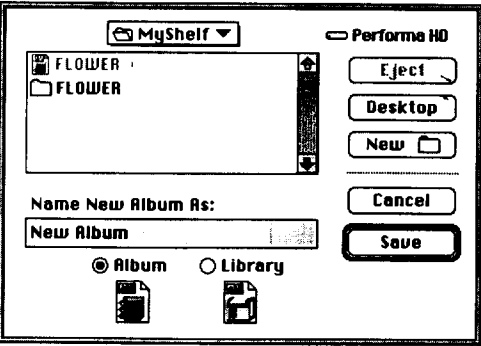
2 Windows: Click "Start" button, set the pointer to "Program", select "Sony DV Application" and then select "DV Shelf".

Macintosh: Double-click "DVCap".
The DV software starts up.

3 Windows: Click "File" menu, set the pointer to "New" and select "Album".
The following dialog box appears.



Macintosh: Choose "New" from the "File" menu.
The following dialogue box appears.



Note
You must adjust the pixel size of an image in BMP/ PICT or JPEG format as follows using an image process software.

- DVBK-2000: 640 x 480 pixel (Normal) or 852 x 480 pixel (Wide)
- DVBK-2000E: 768 x 576 pixel (Normal) or 1024 x 576 pixel (Wide)

Hint
You can copy image files from other albums or libraries and record them in the DV equipment.

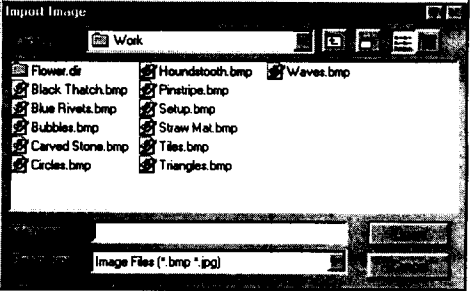
4 Windows: Enter the album name and click "Save".

Macintosh: Click "Album", enter the name and click "Save".
New album appears and now you can import images to the album.

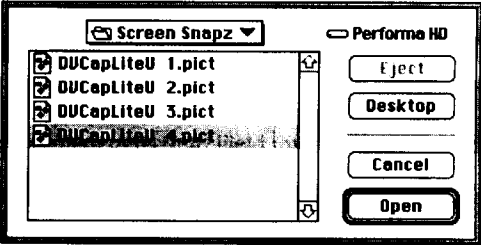
Converting the image you want to record into DV format file

Convert the image file in BMP/ PICT or JPEG format into DV format file to add it to the album.

1 Choose "Import" from the "File" menu.
The following dialogue box appears.



(Windows display)



(Macintosh display)

2 Select the image file you want to record by DV equipment, then click "Open".

The selected image is saved in DV format, and it is added to the album. (This does not affect the original image file.)

When you want to record the two or more images, repeat steps 1 and 2.

Recording the image of your PC by DV equipment (continued)

Recording by DV equipment

You can record the image you select by click in the DV equipment. Refer to help regarding how to record the two or more images at a time.

("Help" is not displayed in Macintosh.)

- 1 Choose "Start DV Transmission" from the "DV" menu.

DV transmission mode is set and the selected image is transmitted to the DV equipment afterward.

- 2 Select an image you want to record on the album window.

- 3 Start recording by DV equipment.

If you use a Sony's digital video camera recorder, press ●REC.

The image selected in step 2 is recorded by the DV equipment. The image you click is kept until you click the next image.

Specifications

Capture board

Power consumption

3 W or less

Operating temperature

5°C to 35°C (-41°F to 95°F)

Operating humidity

20 % to 80 %

Input/output connector

DV connector (IEEE1394 standard) x 1

Corresponding video format

NTSC (DVBK-2000)/PAL (DVBK-2000E)

Dimensions

About 124 x 108 mm (4.9 x 4.3 inches)

(w/d, excluding projections)

Power requirement

5 V DC, 0.6 A

Mass

80 g (2.8 oz)

DV software

Captured file format

DV standard (SD specification)

Decode format

DV full decode

- DVBK-2000 (NTSC)

640 x 480 pixels (Normal)/852 x 480 pixels (Wide)

- DVBK-2000E (PAL)

768 x 576 pixels (Normal)/1024 x 576 pixels (Wide)

Clear frame filter

Movement detection/Field interpolation

Preview display

160 x 120 pixels/320 x 240 pixels

Software DV monitor

- DVBK-2000 (NTSC) 640 x 480 pixels

- DVBK-2000E (PAL) 768 x 576 pixels

VCR control

Playback / Pause / Stop / Fast forward / Rewind /
Slow (forward / reverse) / Picture search (forward /
reverse) / Frame (forward / reverse)

Others

Supplied accessories

See page 9

Troubleshooting

Image input from the connected DV equipment does not appear.

- The capture board is not installed properly.
→ Install the capture board properly. (See page 10)
- The DV connecting cable is not connected properly.
→ Connect the cable properly. (See page 20)
- The power of the connected DV equipment is not turned on.
→ Turn on the power of the DV equipment.

The decoded image has something wrong with color tone of the image.

- The screen resolution of Windows is not set to "High Color (65536 colors or better)".
→ Double-click "Display" icon on the control panel, and open "Settings" tab to set the "Color palette" to "High Color (16 bit)" or better.
- "Color gradation" of the Macintosh display is not set to "32,000" or better in "Colors".
→ Double-click "Monitor" or "Monitor & Sound" in the control panel and set "Color gradation" to "32,000" or better in "Colors".

Cannot convert the image file into DV format file

— DVBK-2000 (NTSC)

- Attempted to convert images other than 640 x 480 pixels or 852 x 480 pixels.
→ Convert the images after adjusting to 640 x 480 pixels or 852 x 480 pixels.

— DVBK-2000E (PAL)

- Attempted to convert images other than 768 x 576 pixels or 1024 x 576 pixels.
→ Convert the images after adjusting to 768 x 576 pixels or 1024 x 576 pixels.
- Attempted to convert images other than BMP/PICT or JPEG format files.
→ Convert the images after changing format to BMP/PICT or JPEG.

Technical information

Number of pixels in the image

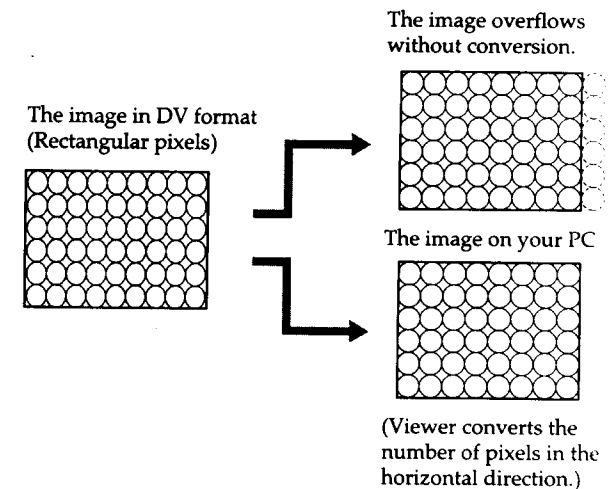
In 525/60 system (NTSC, DVBK-2000)

The number of pixels in the image differs for DV equipment, IBM PC/AT (or compatibles) and Macintosh, but the screen ratio is the same 4:3.

- DV format video: 720 x 480 pixels
- IBM PC/AT (VGA mode), Macintosh (13-inch mode): 640 x 480 pixels

The reason why DV format has more pixels in the horizontal direction is that each pixel in DV format is rectangular; taller than it is wide.

However, since pixels on the PC are square, the image overflows in the horizontal direction when the DV software decodes and displays the image. To prevent this, DV software converts the number of the pixels in the horizontal direction from 720 to 640 before it decodes and displays the image.



Technical information (continued)

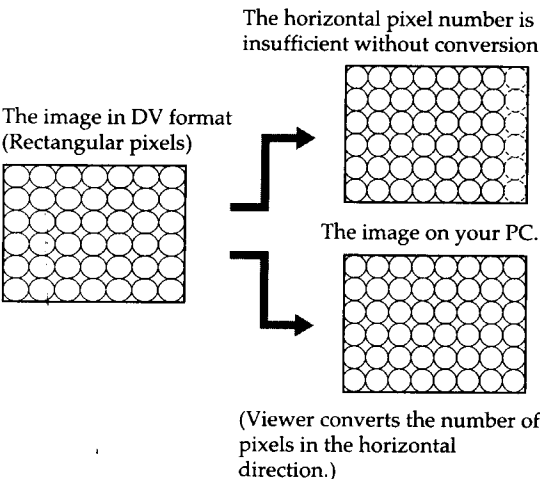
In 625/50 system (PAL, DVBK-2000E)

The number of pixels in the image differ for DV equipment, IBM PC/AT (or compatibles) and Macintosh, but the screen ratio is the same 4:3.

- DV format video: 720 x 576 pixels
- IBM PC/AT (VGA mode), Macintosh (13-inch mode): 768 x 576 pixels

The reason why DV format has less pixels in the horizontal direction is that each pixel in DV format is rectangular; wider than it is taller.

However, since pixels on the PC are square, the image is insufficient in number of horizontal pixels when the DV software decodes and displays the image. To prevent this, DV software converts the number of the pixels in the horizontal direction from 720 to 768 before it decodes and displays the image.



When you capture a picture record in wide mode

In 525/60 system (NTSC, DVBK-2000)

The DV format video equipment records a wide picture at 720 x 480 pixels by compressing the 16:9 ratio image in the horizontal direction.

The DV software decodes this image after expand the compressed image so that the DV software displays the image at 852 x 480 pixels.

In 625/50 system (PAL, DVBK-2000E)

The DV software video equipment records a wide picture at 720 x 576 pixels by compressing the 16:9 ratio image in the horizontal direction.

The DV software decodes this image after expand the compressed image so that the DV software displays the image at 1024 x 576 pixels.

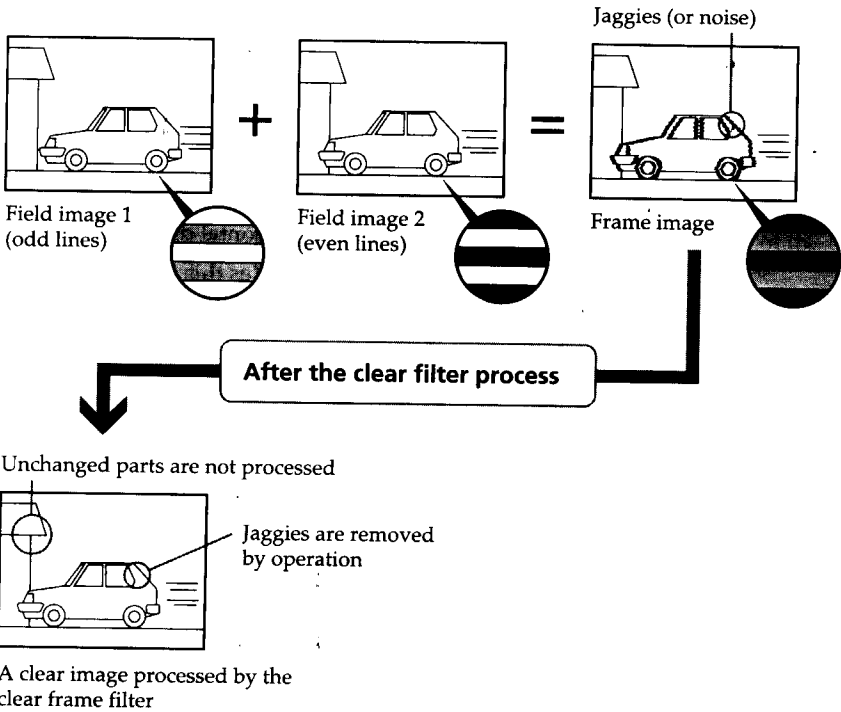
The clear frame filter

A TV image on the screen is refreshed at a rate of 60 times (NTSC) or 25 times (PAL) per second. However, the whole image is not refreshed at a time. Usually, there are two passes over the screen and every other line is painted at first time and then the rest of lines are painted. This means that an image consisting of every other lines is refreshed at a rate of 60 times (NTSC) or 50 times (PAL) per second. (Interlacing) The DV software imports an image (frame image) at a rate of 30 times (NTSC) or 25 times (PAL) per second. When the successive images change drastically, there may be a mismatch between the two images (field image) of a rate of 60 times (NTSC) or 50 times (PAL) per second, resulting in a screen image with jaggies.

The clear frame filter corrects the jaggies.

Technical information (continued)

When "Adaptive De-interlace" is selected from "Image" menu of the Viewer window, the clear frame filter compares the two fields and extracts jaggies. It creates an average image by operation and applies to the image, thus a clear image is obtained.



When "Field De-interlace" is selected from "Image" menu, one of the two fields is interpolated to make a frame image. This method is effective to a quick moving image. However, a less resolution is obtained compared when the clear frame filter is used.

Caution

Even though your DV equipment is compatible with cassette memory, there may be some features not available because of the level of compliance or difference between manufacturer's specification. For more information, call the manufacturer of your DV equipment.

1) Optional spec

The adoption of this specification depends on each manufacturer. It specifies the data format recorded in the cassette memory to maintain the compatibility. However, the adoption of this and the type of data to be recorded (product specification) vary from manufacturer to manufacturer.

Cassette memory

What is cassette memory ?

The DV cassette is equipped with a new feature called cassette memory (optional spec.¹⁾)

The feature is as follows. An IC (Integrated circuit) called cassette memory, can be built in the DV cassette. You can select a cassette with or without cassette memory at a shop. (CII mark is attached DV cassette with cassette memory.)

The cassette memory can record basic data on tape and a variety of data to provide a new usage. When used together with a DV equipment for cassette memory, the following functions are available.

- Recording index information that are used conveniently for the instant access playback.
- Recording and playing back the camera information for confirmation of settings at recorded.

Functions available when used together with DVBK-2000/2000E

When you create libraries to use a DV equipment with cassette memory and a DV cassette with cassette memory, you can link the libraries with the DV cassette. This is very useful when managing many cassettes.

Cassette memory compatibility

The level of compatibility of Sony's DV equipment is as follows.

Model	Compatibility level
DCR-TRV7/ TRV7E	Read/write
DCR-PC7/PC7E	Non compatible
DCR-VX1000/ VX1000E	Read only
DCR-VX700/ VX700E	
DCR-VX9000/ VX9000E	
DHR-1000/ 1000E	

About aspect ratio conversion

A DV formatted image file composes of 720 x 480 pixels (DVBK-2000) or 720 x 576 pixels (DVBK-2000E) and each pixel is rectangular; taller than it is wide (NTSC) or wider than it is tall (PAL).

However, since pixels on the PC are square, the image overflows (NTSC) or is insufficient in number (PAL) in the horizontal direction when displayed. To prevent this, DV software converts the number of pixels in the horizontal direction from 720 to 640 (DVBK-2000) or 720 to 768 (DVBK-2000E) before the image is displayed.

And also, before image files (640 x 480 pixels for DVBK-2000, 768 x 576 pixels for DVBK-2000E) created by PC and saved in BMP/PICT or JPEG format are encoded to the DV format, the number of pixels in the horizontal direction is converted from 640 to 720 (DVBK-2000) or from 768 to 720 (DVBK-2000E).

This correction is called "Aspect Ratio Conversion".

The aspect ratio conversion during decode decreases the data size because it decreases/increases the number of the pixels.

Therefore, the image quality may be degraded when a DV formatted image file is saved in BMP/PICT or JPEG format after the aspect converted and it is converted back to a DV formatted image file.

To prevent this, decode or encode an image file without the aspect conversion.

For example, consider a case that an image is captured from a DV equipment to your PC and record it as a still image using a DV equipment after title is added.

- 1** Choose "Preferences" from the "File" menu, and select "Decode".
- 2** Set "Aspect Ratio Conversion" to "Off" and decode an image file without any correction.
- 3** Choose "Save as" from the "File" menu in Viewer window and save the decoded image in BMP/PICT or JPEG format.
- 4** Import the save image using the supplied Adobe PhotoDeluxe or the like and add an title.

Notice that when the image is encoded to the DV format again, the added title is reduced in the horizontal direction by 8/9 (DVBK-2000 NTSC) or expanded by 16/15 (DVBK-2000E PAL).

Therefore, it is recommended that in advance a title is expanded in the horizontal direction by 9/ (DVBK-2000 NTSC) or reduced by 15/16 (DVBK-2000E PAL).

- 5** Select "File" from the Album window and "Import" from "File" to import the image to which the title is added.

The image file of 720 x 480 pixels (NTSC) or 720 x 576 pixels (PAL) is converted to a DV format file, not Aspect-converted.

Thus you can add a title to an image without degrading the quality. Try this method when you want to suppress the degradation to the minimum.

Glossary

DV format

An image is compressed in the same way the DV equipment compresses.

The data size is kept rather small, otherwise large, using compression algorithm.

BMP format (Windows)

Windows-compatible bit-mapped graphic image format. The extension is ".bmp".

PICT format (Macintosh)

A standard file format supported by Macintosh.

JPEG format

Abbreviation for Joint Photographic Experts Group. An image-compression standard is proposed by this group and the group name is used to as a format type.

Image files can be made small by this compression method. In the DV software the priority between quality and compression rate can be selected. However, you cannot get exactly the same image you originally compressed when you save the image in this format. The extension is ".jpg" for Windows.

Cassette memory

The DV cassette has an optional function that enables the built-in IC called Cassette memory. You can select a DV cassette with/ without Cassette memory on purchase.

You can store basic data on tape and a variety of data that provides a new use in Cassette memory. When the DV equipment compliant with Cassette memory is used, you can;

- Store the content information convenient for quick access when recording.
- Store/play back the camera information used to confirm settings when recording.

Slide show

Function than can display several images one by one successively.

The DV software can transmit the slide show to the DV equipment for video recording.

Decode

A DV formatted image file needs to be uncompressed before it is displayed. In the DV software, "to decode" means "to uncompress".

As a general, encoding means to convert based on the specified rules and decoding means to resume the converted data.

Caution

Even though your DV equipment is compliant with Cassette memory, some functions may not be available due to the level of compatibility or manufacturer.

Contact the manufacturer of your DV equipment about details.

SONY®

3-861-291-12(

DV Still Image Capture Board

Reference Guide for Macintosh

DVBK-2000/2000E

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Capturing the Image

Capturing an image from the DV equipment

You can capture an image from the DV equipment and save it to the disk as DV format image.

- 1 Make sure the DV equipment is ready to play.
- 2 Open an existing album or library, or create a new one.
- 3 Play the tape using the VCR control window.
- 4 When you find your favorite image in the preview window, click "CAPTURE."

The image that displayed in the preview window when you clicked "CAPTURE" will be captured into the album or library.

Capturing images from the DV equipment automatically

If you want to set the DV software to start capturing automatically, click "AUTO" instead of "CAPTURE" in the above procedure so that "AUTO" lights in red.

When you click "AUTO" once again, or the specified number of images are captured, the automatic capturing will be terminated.

Setting automatic capturing

You can customize some capturing settings such as the capturing condition, the maximum number or the interval of the capturing.

- 1 Select "Preferences" from the "File" menu.
The Preferences dialog appears.
- 2 Select "Capture" page.
- 3 Modify any settings.

You can capture the image by double clicking the preview window.

You can also capture the image by pressing "0" in the 10 key pad. When you use "0" key, you have to change the software setting.

See page 34 for details.

Notes on the size of an importable image:
DVBK-2000 (NTSC Color System):

You can import an image of 640 x 480 pixels (normal) or 852 x 480 pixels (wide).

Although you can also import a PICT or JPEG format image of the 720 x 480 pixels (normal, DV format original size), the image will be reduced to 8/9 scale horizontally when you display it on the PC or the DV equipment, since it will be converted to the DV format without changing the aspect ratio.

DVBK-2000 (PAL Color System):

You can import an image of 768 x 576 pixels (normal) or 1024 x 576 pixels (wide).

Although you can also import a PICT or JPEG format image of 720 x 576 pixels (normal, DV format original size), it will be expanded to 16/15 scale horizontally when displayed on the PC or the DV equipment, since it will be converted to the DV format without changing the aspect ratio.

For details, see "Technical information" in the operating instructions

Importing an image created on your computer to the album

You can add a PICT or JPEG image to your album by converting them to the DV format image file.

- 1** Open an existing album or create a new one.
- 2** Select the album window and choose "Import" from the "File" menu.
- 3** Select a PICT or JPEG image and click "Open."

The image will be converted to the DV format and added to the album.

Managing the Captured Image

Selecting images

To select an image

Click an image that you want to select.

The selected image is highlighted in green

To select more images

While pressing the Command key, click the image that you want to select.

To deselect one of the selected images

While pressing the Command key, click the selected image that you want to deselect.

To select the images by specifying a range

Click the first image, and then click the last image that you want to select while pressing the Shift key. Thus you can select all of the images within the range.

Copying / moving images to another window

To move an image to another album

Drag an image icon in the album window and drop it onto the other album window.

To copy an image to another album

While pressing the Option key, drag an image icon from the album/library window and drop it onto another album window.

Notes

- You cannot move or copy any image into the album window which doesn't show the images in the specified order (By Custom Order).
- You cannot move or copy images into the library windows.
If you move the image from the library window to other album window, the image is copied (not moved) to the album.
- When you move the image to the album on another disk, the image is copied (not moved) to the album.

Notes

- For the JPEG format, the file size depends on the image quality. If you choose higher image quality, the image file size becomes larger.

It is recommended that you select the compression rate based on the priority of image quality or file size.

- You can also save an image without changing the aspect ratio.

To do this, select "Preferences" from the "File" menu, then choose Decode and turn off converting the aspect .

For details of the aspect ratio, refer to the "Technical Information" in the operating instructions.

Deleting images

You can delete any unwanted images in the album or library window.

- 1 In the album or library window, select images that you want to delete.
- 2 Select "Delete Images" from the "Image" menu or press the "delete" key.
- 3 When the message is displayed, click "OK".
If you do not want to delete the image, click "CANCEL".

Saving an image in PICT or JPEG format

To save an image in PICT format

- 1 In the album or library window, double-click the image that you want to save.
The selected image is displayed in the viewer window.
- 2 Select "Save As" from the "File" menu.
- 3 Select "PICT" and enter the file name, then click "Save."

To save an image in JPEG format

- 1 In the album or library window, double-click the image that you want to save.
The selected image is displayed in the viewer window.
- 2 Select "Save As" from the "File" menu.
- 3 Select "JPEG" and image quality, enter the file name, then click "Save."

Managing the Captured Image (continued)

Changing the name of images

The image will be automatically named during capturing, however, you may also change this name.

To change the name of one image

- 1 Select the album or library window and choose "Normal View" from the "View" menu.
- 2 Click the name of the image you want to change.
The name part will be highlighted, and the cursor will blink.
- 3 Enter the new name of the image, then click the image.

To change each name of a group of images

- 1 In the album or library window, select images whose name you want to change.
- 2 Choose "Rename Images" from the "Image" menu.
The "Rename Images" dialog appears.
- 3 Enter the rule for the group of images.
Image names will be represented as "the specified characters and 1-5 digits and the specified character."

Searching for images by name in the album or library window

You can search for images in the album or library by specifying the name of the image.

- 1 Select the album or library window and choose "Select By Name" from the "Selection" menu.
The Select By Name dialog appears.
- 2 Enter the character(s) to search for and click "OK."
All of the images whose name include the specified characters will be selected.

Adding a comment to the image

You can add a comment to each image. Also you can see the comment of each image by selecting "Detailed View" from the "View" menu.

- 1** Select the album or library window and choose an image for which you want to add a comment.
- 2** Select "Image Information" from the "Image" menu.
The "Image Information" window appears.
- 3** Enter the comment and close the window.

Changing the information display

To switch the information display, select the type of information to display from the "View" menu.

- **Index View** : Displays the images only.
- **Normal View** : Displays the images with the name, the time code, recorded date. In this view mode, you can click the name of an image to change it.
- **Detailed View** : Displays the images with the name, the time code, recorded date and time, captured date and time, and the comment.

Managing the Captured Image (continued)

Changing the display order

To switch the display order, select the type of display order from the "View" menu.

- **By Custom Order** : Displays the images by any user-defined order. Use this mode to add an image from another album or library.

In this mode, you can change display order by dragging the desired image to the desired position.

- **By Name** : Displays the images by alphabetical order of the name.
- **By Time Code** : Displays the images by the time code.
- **By Recorded Date** : Displays the images by the recorded date.
- **By Captured Date** : Displays the images by the captured date.

Printing the list of images in the window

You can print the list of images which is displayed in the album/library window.

- 1 Select the album or library window and choose "Page Setup" from the "File" menu.
The Page Setup dialog appears.
- 2 Set up any necessary options then click "OK."
- 3 Select "Print Album" (or "Print Library") from the "File" menu.
The Print dialog appears
- 4 Click "OK" (or "Print") to start printing.

Displaying an Image Using the Viewer

To shrink or magnify an image

To shrink an image

Select "Zoom Out" from the "View" menu.

You can shrink an image by 400%, 300%, 200%, 100%, or 50%.

To magnify an image

Select "Zoom In" from the "View" menu.

You can magnify an image by 50%, 100%, 200%, 300%, or 400%.

To display an image by the specified magnification

Select the magnification from the "View" menu.

You can choose the magnification from 50%, 100%, 200%, 300%, or 400%.

The viewer window will automatically resize to fit the image.

To make an image to fit in the window

Select "Fit to Window" from the "View" menu.

This allows you to automatically zoom in or out so that the entire image fits in the viewer window.

To view an image by full screen

Select "Full Screen" from the "View" menu.

This allows you to display an image by magnifying it to fit the screen size.

To return to the previous magnification, click the mouse to display the menu bar and select "Restore" from the "View" menu (you can also press the <.> key with holding down the Command key).

Displaying an Image Using the Viewer (continued)

Rotating an image

You can rotate an image in the viewer window. Use this feature to correct an image taken by putting the camera horizontally.

To rotate an image 90 degrees clockwise

Select "Rotate CW" from the "View" menu.

To rotate an image 90 degrees counterclockwise

Select "Rotate CCW" from the "View" menu.

Improving the focus of an image

When you capture an image with a lot of movement, it may appear slightly jaggy. You can interpolate in the viewer window to improve the focus.

If partly jaggy

Select "Adaptive Deinterlace" from the "Image" menu.

DV software compares the two field images comprising an image to detect discrepancies caused by movement, then synthesizes the two field images to even out the differences.

This will preserve the overall image quality because the static part of the image does not lose its quality.

If entirely jaggy

Select "Field Deinterlace" from the "Image" menu.

This interpolates frame images by compensating with a field image. This will completely remove the jaggy, but the image quality is lower than "Adaptive Deinterlace" because field data is lost.

To display an image without interpolation

Select "No Deinterlace" from the "Image" menu.

This displays an image without interpolation.

Printing the image displayed on the screen

You can print an image which is displayed in the viewer window.

- 1** Select "Page Setup" from the "File" menu.
The Page Setup dialog box appears.
- 2** Set up any necessary options then click "OK."
- 3** Select "Print" from the "File" menu.
The Print dialog appears.
- 4** Click "OK" (or "Print") to start printing.

Using Captured Images

You can control the slide show from the Slide Show menu.

- **Full screen/Original size:** Switches the image size between full screen and original size.
- **Auto/Manual:** Selects whether the slide show is played automatically at the specified interval or played frame by frame manually.
- **End:** Terminates the slide show.

The following four menus are effective only in the manual play mode.

- **Previous:** Displays the previous image.
- **Next:** Displays the next image.
- **First:** Displays the first image.
- **Last:** Displays the last image.

If you want to change the display interval

Select "Decode" in "Preferences" from the "File" menu and specify the interval.

Displaying a slide show on the screen

You can display the images selected in the album or library window as a slide show on the screen.

To record the slide show on the DV equipment, see next page.

- 1 Select images to display as a slide show in the album or library window.
- 2 Select "Slide Show" from the "Image" menu.
Slide show displays images in the selected order.
- 3 Click your mouse during the slide show to display the menu bar.
- 4 To stop the slide show, select "End" from the "Slide Show" menu.

You can also stop the slide show by pressing the <.> key with holding down the Command key.

Recording images in albums or libraries with DV equipment

You can transmit and record the images in an album/library with the DV equipment.

- 1 Select the album or library window and choose "Start DV Transmission" from the "DV" menu.
It starts the DV transmission mode in which you can transmit the selected images.
- 2 Click images to transmit.
- 3 Start recording with the DV equipment.
Clicking an image transmits it to be recorded.
- 4 To stop recording, stop recording with the DV equipment and select "Stop DV Transmission" from the "DV" menu.

About the DV transmission mode

There are two modes for DV transmission:

- **DV transmission mode:** Transmits the selected images. To start this mode, choose "Start DV Transmission" from the "DV" menu.
- **DV slide transmission mode:** Transmits the selected images as a slide show to the DV equipment. To start this mode, choose "Start DV Slide Show" from the "DV" menu.

To stop the slide show

Select "Stop DV Slide Show" from the "DV" menu.

When a slide transmission is stopped, the DV software returns to the DV transmission mode.

To stop transmission to the DV equipment, select "Stop DV Transmission" from the "DV" menu.

To add narration or back ground music (BGM) afterwards

To prevent image jaggy in the DV transmission mode, check "Single Field Transmission" in the DV Transmission page of the preference window. In this case, you cannot dub the audio on the tape on which you recorded the image.

If you want to record a jagged image for audio dubbing, perform Adaptive Deinterlace to the image or Deinterlace to the field first and save it as a PICT file. Reloading the compensated image by deinterlacing it with the DV software enables postrecording by transmitting and recording by the DV equipment without checking the "Single Field Transmission."

Recording slide show with DV equipment

You can transmit and record the images in an album/library as a slide show with the DV equipment.

- 1 Open the album or library which contains the images you want to record in a slide show.
- 2 Select "By Custom Order" from the "View" menu.
- 3 Drag images in the window and arrange in the order to display.
A slide show displays images in the window from left to right, top to bottom.
- 4 Choose "Start DV Transmission" from the "DV" menu.
It starts the DV transmission mode, allowing the selected images to be transmitted.
- 5 Click the image you want to record first.
- 6 Start recording with the DV equipment.
- 7 Select "Start DV Slide Show" from the "DV" menu.

A slide show is started. Displayed images are recorded with the DV equipment one after another.

Using Captured Images (continued)

Creating the DV Cassette label

To make a DV cassette label, create a PICT format file to be used to print the cassette label.

The file created here includes the label boundary, and title image.

Before actual printing, you need to type the title for the labels with image processing software, such as Adobe PhotoDeluxe, which comes with the DV software. Sticker papers are useful for printing the label.

- 1** In the DV Shelf window, select an album/library from which you can make the cassette label.
- 2** Select "DV Cassette Label" from the "File" menu.
This previews the cassette label.
- 3** Set the options for the cassette label and then click "Save".

<<Cassette type>>

Select either mini cassette or standard cassette as the cassette type.

<<PICT file>>

Select "Bitmapped" or "Vector."

When you process the created label image with Adobe PhotoDeluxe, select "Bitmapped", and when you process the image with an application which supports drawing objects of a PICT file (such as MacDraw), select "Vector."

<<Boundary>>

You can specify whether or not a boundary is displayed.

- 4** Enter name and click "Save."

Managing Albums and Libraries

Creating a new album or library

You need to create an album or library before capturing images.

- 1 Select "New" from the "File" menu.
- 2 Select "Album" or "Library", type the album or library name and click "Save."

When you create an album or library, the DV format file is saved in a folder which is automatically created with the same name as the album or library name under the DV Shelf folder (by default).

Opening an album or library

Select "Open" from the "File" menu and specify the album or library to open.

You can also open one by double-clicking the icon of an album or library in the DV Shelf window.

Searching for an album or library

You can search for an album or library by specifying its text.

- 1 Select the DV Shelf window and choose "Find" from the "File" menu.
The Find dialog appears.
- 2 Type the text to find and click "OK."
The first album or library whose title contains the specified text is selected among the displayed albums and libraries.
- 3 Select "Find Again" from the "File" menu.
The next album or library whose title contains the same text is selected.

Managing Albums and Libraries (continued)

Deleting an album or library

You can delete an album or library. If you delete an album or library, all image files in it are also deleted.

- 1** In the DV Shelf window, select the album or library to delete.
Or, select the album or library window to delete.
- 2** Select "Delete" from the "File" menu in the DV Shelf window, or select "Delete Album/Library" from the "File" menu in the album/library window.

The message appears.

- 3** Click "OK."
If you do not want to delete the album or library, click "CANCEL."

Changing title of album or library

You can rename an existing album or library title.

- 1** In the DV Shelf window, select the album or library to rename.
Or, select the album or library window to rename.
- 2** Select "Rename" from the "File" menu in the DV Shelf window, or select "Rename Album/Library" from the "File" menu in the album/library window.

The Rename Album/Library dialog appears.

- 3** Type a new title and click "OK."

Editing album/library information

You can make comments on an album or library.

- 1** In the DV Shelf window, select the album or library to make comments on.
Or, select the album or library window to make comments on.
- 2** Select "Information" from the "File" menu.
When you select the album or library window in step 1 above, select "Album/Library Information" from the "File" menu instead.
The Album/Library Information dialog appears.
- 3** Enter the comments and then click "OK."
You can number albums and libraries. These numbers are useful to sort albums and libraries when you display them by number.

Picking title image

You can pick a title image from the images in an album or library. Select an representative image for the album or library.

The title image is displayed in the information display area of the album or library window and in the DV Shelf window.

- 1** In the album or library window, select one image for the title image.
- 2** Select "Pick Title Image" from the "Image" menu.
The picked image is displayed in the information display area of the album or library window and in the DV Shelf window.

If there is no title image for an album or library

A blue image appears.
If you delete the title image or move the title image to the other album, a blue image also appears.

If you close the album/library window without the title image

The first image in an album or library is picked as the title image when you close the window.

Managing Albums and Libraries (continued)

Cuing up the album or library image

You can cue up where the selected image is recorded by rewinding or fast-forwarding the tape in the DV equipment.

- 1 In the album/library window, select the image to search for.
- 2 Select "Search" from the "DV" menu.
The DV equipment start to rewind or fast-forward the tape to cue up the selected image.

Linking library with cassette with memory

You can display only the associated libraries with the tape by linking libraries with a tape.

- 1 Load a cassette in the DV equipment.
- 2 Open the libraries to link to the tape.
- 3 Select "Link" from the "DV" menu.
Once you link, you do not need to link again.

Unlinking

Select "Unlink" from the "DV" menu in the library window.

Displaying linked libraries

Use a DV cassette with cassette memory in the DV equipment which supports it to display only those libraries which are linked to the tape.

To use this function, you need to link the libraries to the cassette with memory beforehand.

Select the DV Shelf window and choose "Linked Libraries Only" from the "View" menu.

Only those libraries which are linked to the tape are displayed.

To return to the normal view

Select "Display All" from the "View" menu.

Note on cuing up

The precision for search depends on your DV equipment.

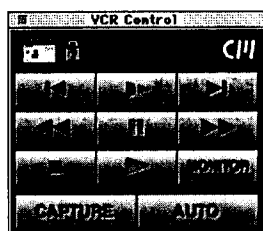
Note on the link option

This link option is available only when your equipment supports the functions to read from and write to cassette memory.

Other Functions

Using VCR control window

Use the VCR control window to control the DV equipment and capture images. You can also use numeric keys to do the same thing as using the VCR control window.



VCR Control window

◀◀ Rewind

- If you click this button while a tape is not running, you can rewind the tape.
- If you click this button while a tape is running, you can rewind the tape while viewing the images.
- If you click this button while a tape is being rewound, you can view the images while rewinding the tape.

▶ Play

Plays a tape.

▶▶ Fast-forward

- If you click this button while a tape is not running, you can fast-forward the tape.
- If you click this button while a tape is running, you can fast-forward the tape while viewing the images.
- If you click this button while a tape is being fast-forwarded, you can view the images while fast-forwarding the tape.

|| Pause

Pauses the tape.

Other Functions (continued)

■ Stop

Stops the tape.

◀ Frame (reverse)

If you click this button during playback pause, you can reverse the tape frame by frame.

▶ Frame (forward)

If you click this button during playback pause, you can forward the tape frame by frame.

▶▶ Slow

Plays the tape at 1/5 the normal speed. You can change the direction with the ◀ and ▶ buttons.

MONITOR ON/OFF

Turn on the preview display. You can capture images faster during auto capturing by turning off the preview display. While the preview display is turned off, a message, "MONITOR OFF" is displayed in the preview screen.

CAPTURE

Captures images as still images.

AUTO

Captures the specified number of images automatically.

To specify the number of images and interval setting, select "Preferences" from the "File" menu to display the preference dialog and make settings in the "Capture" page 30.

Using preview window

You can view the images currently played in the DV equipment in the preview window.

Resizing preview window

- 1 Click the SONY logo in the preview window.

A pop-up menu to resize the preview window appears.

- 2 Select a size.

160 x 120, 320 x 240: You can preview image at the specified size.

Software DV Monitor: You can preview image in their actual size or full screen. If you select the software DV monitor, you cannot capture images.

Setting the preview resolution

Select "Preferences" from the "File" menu and set the "Preview" page in the "Preferences" dialog.

Capturing images in the preview window

You can capture an image by double clicking the image in the preview window when an album window or library window is active.

Previewing in full screen

You can view the images from the DV equipment in full screen (software DV monitor function).

Click the SONY logo in the preview window to display a pop-up menu and select "Software DV Monitor."

To quit the software DV monitor, click a mouse button to display the menu bar and select "End" from the "Software DV Monitor" menu (you can also quit by pressing the <.> key with holding down the Command key).

Other Functions (continued)

Using time code window

In the time code window, you can display the time code, recorded date, and recorded time of the tape being played in the DV equipment.

Switching display

Click the icon on the left of the time code window to display a pop-up menu and select your preference.



Time Code window

You can also switch the contents of the time code window in the following order by double clicking:

Time Code → Recorded Date → Recorded Time →
Time Code → ...

- **Time Code:** The time code of the tape being played in the DV equipment
- **Recorded Date:** The recorded date of the tape being played in the DV equipment
- **Recorded Time:** The recorded time of the tape being played in the DV equipment

Exchanging image files in DV format between Macintosh and Windows

You can use DV format image files created on Macintosh on Windows and vice versa by the following procedure. However, you can not use album and library files.

To exchange data between a Macintosh and a Windows PC, you need PC Exchange (control panel document) on the Macintosh. If you have not installed PC Exchange, install it from the MacOS CD-ROM.

To use a DV format image file on Windows

- 1** Change an image file name to 8 alphanumeric characters with ".dvi" extension.
- 2** Save the file on a DOS formatted floppy disk.
- 3** Read it on a Windows PC.

To use a DV format image file created on Windows

- 1** Save an image file in a DOS formatted floppy disk on a Windows PC.
- 2** Read the disk on a Macintosh.

About the DV Shelf folder

When you create albums and libraries, they are stored in the DV Shelf folder by default. By initial settings, the DV Shelf folder is specified as the MyShelf folder in the DVCap folder.

You can open or rename albums and libraries using their icons in the DV Shelf window. If you store albums and libraries in other folders than the DV Shelf folder, you can not manipulate them from the DV Shelf window.

If you want to change the DV shelf folder

To change the DV Shelf folder to other folder, use the "General" page in the Preferences dialog. The change is effective after you restart the DV Software.

You can start the DV software by double-clicking a DV format file created with the Windows PC

Set a type in PC Exchange. The type of the DV format file on Macintosh is ".dvi."
For details, see the Macintosh documentation.

■Display All

Displays all albums and libraries in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Albums Only

Displays only albums in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Libraries Only

Displays only libraries in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Linked Libraries Only

Displays only libraries which are linked to the cassette tape in the DV equipment. When you select this command, a check mark (✓) is displayed before the command name.

Window menu

■Show/Hide Preview Window

Show/Hide the preview window.

■Show/Hide VCR Control Window

Show/Hide the VCR control window.

■Show/Hide Time Code Window

Show/Hide the Time code window.

■Show/Hide Tool Bar

Show/Hide the tool bar.

■Show/Hide Status Bar

Show/Hide the status bar.

Note on "Linked Libraries Only"

This command is available only in following conditions:

- The connected DV equipment supports the cassette memory and a cassette with cassette memory.
- The cassette tape has been linked with library.

About the description in the command reference

The menus and their items depend on the selected windows type in the DV software.

Therefore, the descriptions of commands for a menu are classified by window.

To get help about a menu command

Find the page which describes the menus in the windows that contains the selected menu command.

Menus for each window

The menu items changes according to the active window.

- When the DV Shelf window is active:
 - File
 - Edit
 - View
 - Window
- When the Album/Library window is active:
 - File
 - Edit
 - Selection
 - DV
 - Image
 - View
 - Window
- When the Viewer window is active:
 - File
 - Edit
 - Image
 - View
 - Window

DV Shelf Window

File Menu

■New

Creates a new album or library. When you select this command, a dialog appears. Type the file name in the space provided, specify whether it is an album or library, and click Save.

When you create an album or library, the DV format file is contained in a folder which is automatically created with the same name as the album or library name under the MyShelf folder in the DVCap folder (by default).

■Open

Opens an album or a library window.

Select the album or library you want to open in the dialog and click "Open."

■Close

Hides the DV Shelf window.

■Rescan

Rescans albums and libraries in the DV Shelf folder to update the display of the DV Shelf window if it is different from the contents of the DV Shelf folder.

■Information

Displays information for the selected album or library.

You can edit a comment in the window or set a number for an album or library.

■Rename

Changes the selected album or library name.

Type a new title in the Rename Album/Library dialog.

It is displayed as the new title for the album or library in the DV Shelf window.

DV Shelf Window (continued)

■DV Cassette Label

Creates a PICT file which can be used to print a label based on the information of the selected album or library in the DV Shelf window.

- **Cassette type:** Select either mini or standard for the cassette type.
- **Bitmapped/Vector:** When you process images with Adobe PhotoDeluxe, select "Bitmapped", and when you process images with an application which supports drawing objects of a PICT file (such as MacDraw), select "Vector."
- **Boundary:** You can specify whether or not a boundary is displayed on the label.

Type the title for the labels with image processing software, such as Adobe PhotoDeluxe, which comes with the DV software, before actual printing. Sticker papers are useful for printing.

■Delete

Deletes the selected album or library in the DV Shelf window.

Select the album/library to be deleted before choosing this command. Click "OK" when the "Delete" dialog box appears.

If you delete an album or library, all image files in it are also deleted.

■Find

Searches through the albums and libraries for a specified text in their titles.

Selecting this command displays the Find dialog. Type the text to find and then click "OK".

The first album or library which contains the specified text is selected.

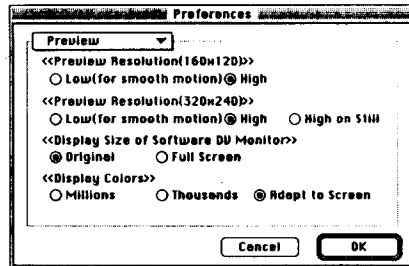
■Find Again

Finds the next album or library which contains the same text.

■ Preferences

Sets the system settings of the DV software. The Preferences dialog appears. This dialog has several pages. Select the desired page to set up your preferences from the pop-up menu.

Preview



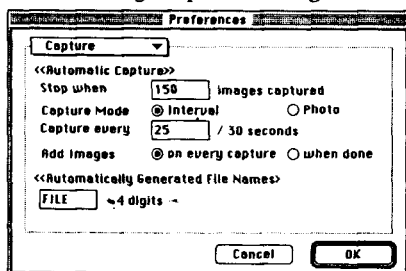
- **Preview Resolution (160 x 120):** Selects the resolution to display the preview window at 160 x 120 pixels.
 - Low (for smooth motion): The motion looks smooth but the image resolution is low.
 - High: The image displayed in high resolution.
- **Preview Resolution (320 x 240):** Selects the resolution to display the preview window at 320 x 240 pixels.
 - Low (for smooth motion): The motion looks smooth but the image resolution is low.
 - High: The image displayed in high resolution.
 - High on Still: You can preview in the low-resolution mode at normal speed and in the high-resolution mode in slow mode and at a pause.

DV Shelf Window (continued)

- **Display Size of Software DV Monitor:** Selects the initial image size to display the image from the DV equipment with the software DV monitor function.
 - Original: Displays the image in the center of the window at the original size.
 - Full Screen: Display the image on full screen without changing the aspect ratio.
- **Display Colors:** Sets number of colors to display the images in the preview window.
 - Millions: Displays in 16.7 million colors.
 - Thousands: Displays in 32000 colors.
 - Adapt to Screen: Displays in the specified colors in the "Monitor" or "Monitor & Sound" control panel.

Capture

Sets the image capture settings.



- **Automatic Capture:**
 - Stop when [] images captured: Specifies the maximum number of images to be auto-captured at once.
 - Capture Mode: Select "Interval" or "Photo" when the DV software captures images automatically.
 - Interval: Captures images at the specified interval. If you wish to capture at equal intervals, select this mode.
 - Photo: Captures images taken in the photo mode (still mode). If you wish to automatically capture only the images taken in the photo mode, select this mode.

- Capture every $\frac{1}{30}$ (DVBK-2000) or 25 (DVBK-2000E) seconds: Sets the minimum interval to capture images. You can set this value only when you select "Interval".

- Add Images: Selects when image files are displayed in an album or library. You can set this option only when you select "Interval".

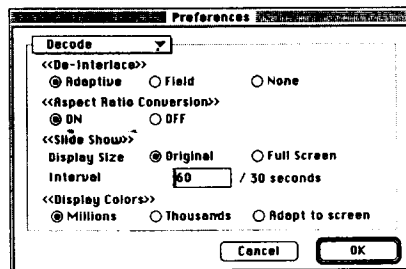
on every capture: Displays each image after it is captured.

when done: Displays all images after capturing. When you specify a short interval for capturing, this option is recommended.

- **Automatically Generated File Names:** Type a standard file name for the captured image.

Specify the file name. When images are captured, four digit numbers are automatically added to the specified characters of a file name to make unique file names.

Decode



- **De-Interlace:** Selects interpolation method for image.

- Adaptive: Compares the two field images comprising an image to detect discrepancies caused by movement, then synthesizes the two field images to even out the differences.

This will preserve the overall image quality because the static part of the image does not lose its quality.

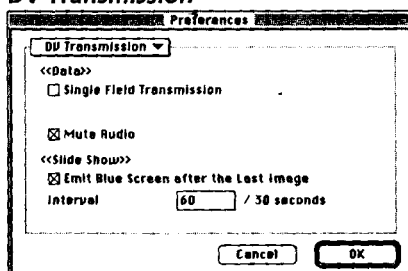
- Field: Interpolates frame images by compensating with a field image. This will completely remove the noise, but the image quality is lower than "Adaptive" because field data is lost.

- None: Does not interpolate.

DV Shelf Window (continued)

- **Aspect Ratio Conversion:** Selects whether or not to convert the aspect ratio in decoding or displaying images.
- **Slide Show:**
 - **Display Size:** Selects how a slide show is initially displayed.
 - Original: Displays the image in the center of the window at the original size.
 - Full Screen: Display the image on full screen without changing the aspect ratio.
 - **Interval [] / 30 (DVBK-2000) or 25 (DVBK-2000E) seconds:** Specifies the minimum interval to change the image by 1/30 (DVBK-2000) or 1/25 (DVBK-2000E) seconds.
- **Display Colors:** Sets number of colors to display the images in a decoded DV file.
 - **Millions:** Displays in 16.7 million colors.
 - **Thousands:** Displays in 32000 colors.
 - **Adapt to screen:** Displays in the specified colors in the Monitor or Monitor & Sound control panel.

DV Transmission



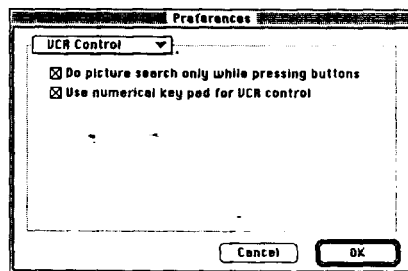
- **Data**
 - **Single Field Transmission:** Check this option when you want to correct for flickering images. When you record images on a tape with this option checked, dubbing is unavailable for the tape.

- **Mute Audio:** Sound information is contained in the captured images. If you send these images without checking this option to a DV equipment, the sound in the images may be heard as noise. When you check this option, you can suppress the noise.

- **Slide Show**

- **Emit Blue Screen after the Last Image:** Check this option when you want to transmit a blank picture at the end of slide transmission. When you uncheck this option, slide transmission ends with the last picture.
- **Interval []/30 (DVBK-2000) or 25 (DVBK-2000E) seconds:** Sets the interval to change images. The time specified in this box is the minimum interval to switch to the next image. You can specify the time by 1/30 (DVBK-2000) or 1/25 (DVBK-2000E) seconds.

VCR Control

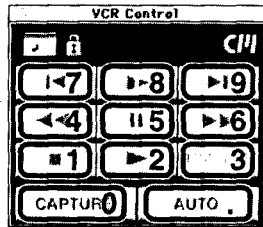


- **Do picture search only while pressing buttons:** when you check this option, the search function is only active while you click and hold down the mouse button on the rewind / fast-forward buttons.

When you uncheck this option, the tape does not return to playback unless you click ►PLAY.

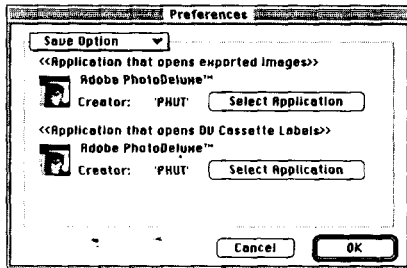
DV Shelf Window (continued)

- **Use numeric key pad for VCR control:** Checking this option allows you to manipulate the DV equipment by numeric key pad corresponding to the VCR control window.



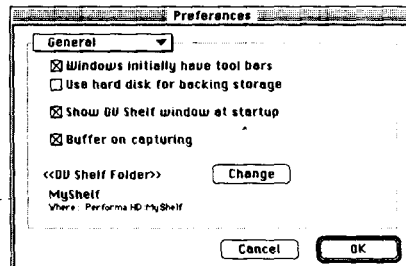
The VCR control window and corresponding numeric key pad

Save option



- **Application that opens exported images:** Selects the application to start when you double click a PICT or JPEG format image converted from the DV format. Click "Select Application" to display the application selection dialog box, select an application and click "OK."
- **Application that opens DV Cassette Labels:** Selects the application to start when you double click an image created as a DV cassette label. Click "Select Application" to display the application selection dialog box, select an application and click "OK."

General



- **Windows initially have tool bars:** If you check this option, the tool bar is displayed when an album, library, or viewer window is opened.
- **Use hard disk for backing storage:** If you check this option, you can run the DV software even when enough free memory space is not available by using the hard disk as a auxiliary working space. Note that the processing speed gets slower. This setting is not effective before you restart the DV software.
- **Show DV Shelf window at startup:** If you uncheck this option, the DV Shelf window is not opened when the DV software is started.
- **Buffer on capturing:** If the DV software does not work properly while capturing, check this option.
- **DV Shelf Folder:** Specifies a folder for the DV Shelf. Click "Change" to display the selection dialog box for the DV Shelf folder. Select a folder you want to use and click "Select (selected folder name)." This setting is not in effect until you restart the DV Software.

■Quit

Quits the DV software.

DV Shelf Window (continued)

Edit menu

■Cut

Cuts the selected text and saves it into the Clipboard.

■Copy

Copies the selected text to the Clipboard.

■Paste

Inserts the text in the Clipboard to the text box.

View menu

■Normal View

Displays albums or libraries as icons. An album is shown as a book and a library as a cassette, and each icon has the album or library title. When you select this command, a check mark (✓) is displayed before the command name.

■Detailed View

Lists albums or libraries as a table.

The fields in the table contain a representative image, title, attribute (album or library), recorded date, and comments. When you select this command, a check mark (✓) is displayed before the command name.

■By Name

Arranges albums and libraries to display by name.

Titles are sorted in alphabetical order. When you select this command, a check mark (✓) is displayed before the command name.

■By Recorded Date

Arranges albums and libraries by recorded date.

When you select this command, a check mark (✓) is displayed before the command name.

■By Number

Arranges albums and libraries to display by number.

When you select this command, a check mark (✓) is displayed before the command name.

■Display All

Displays all albums and libraries in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Albums Only

Displays only albums in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Libraries Only

Displays only libraries in the DV Shelf folder. When you select this command, a check mark (✓) is displayed before the command name.

■Linked Libraries Only

Displays only libraries which are linked to the cassette tape in the DV equipment. When you select this command, a check mark (✓) is displayed before the command name.

Window menu

■Show/Hide Preview Window

Show / Hide the preview window.

■Show/Hide VCR Control Window

Show / Hide the VCR control window.

■Show/Hide Time Code Window

Show / Hide the Time code window.

■Show/Hide Tool Bar

Show / Hide the tool bar.

■Show/Hide Status Bar

Show / Hide the status bar.

Note on "Linked Libraries Only"

This command is available only in following conditions:

- The connected DV equipment supports the cassette memory and a cassette with cassette memory.
- The cassette tape has been linked with library.

DV Shelf Window (continued)

■ Previous Window

Displays the previous window.

■ Next Window

Displays the next window.

■ Arrange Windows

Arranges the windows neatly on the Desktop.

■ Close Viewers

Closes all viewer windows currently open.

■ DV Shelf

Displays the DV Shelf window on top.

Album/Library Window

Note on rescanning images

If you added or deleted images in the album or library with the DV software, you do not need to use this command. Use this command when you copy or move image files on the Macintosh desktop.

Notes on importing images

- You can convert only those files whose size is 640 x 480 (DVBK-2000) or 768 x 576 (DVBK-2000E) pixels (normal) or 852 x 480 (DVBK-2000) or 1024 x 576 (DVBK-2000E) pixels (wide).
- You can import PICT or JPEG image files of 720 x 480 (DVBK-2000) or 720 x 576 (DVBK-2000E) pixels (normal, DV format original size), but the images in those files are reduced horizontally by 8/9 (DVBK-2000) or expanded horizontally by 16/15 (DVBK-2000E) times because the files are converted without changing the aspect ratio.

For details, see "Technical information" in the operating instructions.

File menu

■New

Creates a new album or library.

■Open

Opens an album or library.

■Close

Closes the current album or library window.

■Rescan

Rescans the image files in the current album or library to update album or library file. It is convenient to refresh the album/library windows after copying the DV image files from the external drives.

■Import (for Album window only)

Adds PICT or JPEG files to the existing album after converting those file formats to DV format.

Select the image file to convert in the dialog box and click "Open".

■Album/Library Information

Displays information for the current album or library.

■Rename Album/Library

Renames the title of the current album or library.

■Delete Album/Library

Deletes the current album or library.

■Page Setup

Sets up print page.

■Print Album/Library

Prints an album and library.

■Preferences

See Preferences in the DV Shelf window. (Page 29)

■Quit

Quits the DV software

Album/Library Window (continued)

Edit menu

■Cut

Cuts the selected text and saves it into the Clipboard.

■Copy

Copies the selected text to the Clipboard.

■Paste

Inserts the text in the Clipboard to the text box.

Select menu

■Select All

Selects all images.

■Select None

Deselects all images.

■Toggle Selection

Toggles the selection status between selected and deselected.

■Select By Name

Selects an image by specifying its name.

Enter the text to select in the selection dialog box and click "OK".

You can specify a condition for the selection whether the title should match the specified text completely or partially.

DV menu

■Single Capture

Captures a single image from the DV equipment.

■Start/Stop Auto Capture

Starts/Stops auto capturing images from the DV equipment.

Note on the DV transmission mode

Recording does not automatically start when you start the DV transmission mode.

You cannot operate the DV equipment for recording from the VCR control window. Start recording by operating the DV equipment when the images have started to be transmitted.

■Start/Stop DV Transmission

Starts/Stops DV transmission.

In the DV transmission mode, the image that you clicked is displayed in the preview window and transmitted to the DV equipment every time you click an image.

When you select "Start DV Slide Show" in this mode, you can set in the DV slide transmission mode.

Select "Stop DV Transmission" to return to the normal mode.

■Start/Stop DV Slide Show

Starts/Stops DV slide transmission.

In the DV slide transmission mode, the images in the album or library window are transmitted as a slide show to the DV equipment.

In this mode;

- Selecting "Stop DV Slide Show" cancels the DV slide transmission mode and sets in the DV transmission mode.
- Selecting "Stop DV Transmission" cancels both the DV slide transmission mode and the DV transmission mode.

■Search

Cue up where the selected image is recorded by rewinding or fast-forwarding the tape in the DV equipment.

■Link (for Library window only)

Links the current library to the tape with cassette memory in the DV equipment.

■Unlink (for Library window only)

Unlinks the current library with the currently linked tape.

Album/Library Window (continued)

Image menu

■Decode

Decodes the selected image to display in the viewer window.

You can view the image in the viewer window. Double clicking an image does the same thing.

■Slide Show

Displays the selected images like a slide show.

To specify the interval to change the image, select Decode in "Preferences" from the "File" menu.

■Export

Exports the selected images in PICT or JPEG format.

Specify the format and folder in the Export dialog box and click "Save."

■Rotate CW

Rotates the image 90 degrees clockwise.

■Rotate CCW

Rotates the image 90 degrees counterclockwise.

■Image Information

Displays detailed information about the selected image.

You can edit the comments for the image in the information display window.

■Rename Images

Renames the titles of the selected images at once.

All the titles are renamed with the specified name + 1-5 digits numbers + suffix.

■Delete Images

Deletes the selected images.

Note on the slide show

Selecting this command does not transmit images to the DV equipment. To transmit images, choose Start/Stop DV Slide Show from the DV menu.

■Pick Title Image

Picks the selected image as a representative image for an album or library. The picked image is displayed in the information area of the album or library window and in the DV Shelf window.

If no image is picked for an album or library, a blue image is displayed.

View menu

■Index View

Displays only images. When you select this command, a check mark (✓) is displayed before the command name.

■Normal View

Displays images normally.

Titles, time codes, and recorded date are displayed as well as images. When you select this command, a check mark (✓) is displayed before the command name.

■Detailed View

Displays images in detail. Titles, time codes, recorded date and time, captured date and time, and comments are displayed as well as images. When you select this command, a check mark (✓) is displayed before the command name.

■By Custom Order

Displays images in a user defined order. When you select this command, a check mark (✓) is displayed before the command name.

You can change the display order of images in this mode by dragging them.

■By Name

Arranges the displayed images alphabetically. When you select this command, a check mark (✓) is displayed before the command name.

Album/Library Window (continued)

■By Time Code

Arranges the displayed images in the order of time code. When you select this command, a check mark (✓) is displayed before the command name.

■By Recorded Date

Arranges the displayed images in the order of recorded date. When you select this command, a check mark (✓) is displayed before the command name.

■By Captured Date

Arranges the displayed images in the order of captured date. When you select this command, a check mark (✓) is displayed before the command name.

Window menu

■Show/Hide Preview Window

Show/hide the preview window.

■Show/Hide VCR Control Window

Show/hide the VCR control window.

■Show/Hide Time Code Window

Show/hide the time code window.

■Show/Hide Tool Bar

Show/hide the tool bar.

■Previous Window

Displays the previous window.

■Next Window

Displays the next window.

■Arrange Windows

Arranges the windows neatly on the desktop.

■Close Viewers

Closes all viewer windows currently open.

■DV Shelf

Displays the DV Shelf window on top.

Viewer Window

File menu

■New

Creates a new album or library.

■Open

Opens an album or library.

■Close

Closes the viewer window.

■Save As

Saves the active image as a PICT or JPEG file.

The save dialog appears after selecting this command. Specify the file type and click "Save."

You can select image quality when you select "JPEG."

■Save Selection

Saves the selected portion of the image as a PICT file.

Selecting this command displays the save dialog. Specify the file name and folder and click "Save."

■Page Setup

Selects paper to print. Specify paper size, orientation, and margins. Note that the setting option depends on your printer.

■Print Image

Prints the current image.

The image is printed at the magnification specified in Page Setup regardless of the view size.

To start printing, click "OK" in the print dialog box.

■Preferences

See Preferences in the DV Shelf window. (Page 29)

■Quit

Quits the DV software

Viewer Window (continued)

Edit menu

■Cut

Cuts the selected text and saves it into the Clipboard.

■Copy

Performs two functions:

- Copies the selected text and saves it into the Clipboard.
- Copies the selected portion of the image to the Clipboard.

■Paste

Inserts the text in the Clipboard to the text box.

Image menu

■Rotate CW

Rotates the image 90 degrees clockwise.

■Rotate CCW

Rotates the image 90 degrees counterclockwise.

■No Deinterlace

Displays an image without interpolation.

■Adaptive Deinterlace

Compares the two field images comprising an image to detect discrepancies caused by movement, then synthesizes the two field images to even out the differences.

This will preserve the overall image quality because the static part of the image does not lose its quality.

■Field Deinterlace

Interpolates frame images by compensating with a filed image. This will completely remove the noise, but the image quality is lower than "Adaptive Deinterlace" because field data is lost.

View menu

■Zoom In

Magnifies the view of the active image. You can zoom in from 50%, 100%, 200%, 300%, to 400% in this order.

■Zoom Out

Reduces the view of the active image. You can zoom out from 400%, 300%, 200%, 100%, to 50% in this order.

■50%

Displays the current image at half the actual size.

■100%

Displays the current image in its actual size.

■200%

Displays the current image at double the actual size.

■300%

Displays the current image at three times the actual size.

■400%

Displays the current image at four times the actual size.

■Full Screen/Restore

Displays the entire image by magnifying it to fit the screen size, or displays the image at the previous size.

■Fit To Window

Adjusts the magnification so that the entire image fits in the current window.

■Fit Window Size

Resizes the viewer window to fit the image.

Viewer Window (continued)

Window menu

■Show/Hide Preview Window

Show/hide the preview window.

■Show/Hide VCR Control Window

Show/hide the VCR control window.

■Show/Hide Time Code Window

Show/hide the Time code window.

■Show/Hide Tool Bar

Show/hide the tool bar in the selected window.

■Previous Window

Switches the view to the previous window.

■Next Window

Switches the view to the next window.

■Arrange Windows

Arranges the windows neatly on the desktop.

■Close Viewers

Closes all viewer windows currently open.

■DV Shelf

Displays the DV Shelf window on top.