

Canon

Digital Video Software Instruction Manual

Version 8 / Version 9

E

Mode d'emploi

F

Manual de Instrucciones

Es



If you are using Windows operating system, use the supplied DIGITAL VIDEO SOLUTION DISK **For Windows**.

If you are using Macintosh operating system, use the supplied DIGITAL VIDEO SOLUTION DISK **For Macintosh**.

Si vous travaillez avec le système d'exploitation Windows, utilisez le disque DIGITAL VIDEO SOLUTION DISK **For Windows** fourni avec l'appareil.

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Si está utilizando el sistema operativo Windows, use el disco DIGITAL VIDEO SOLUTION DISK **For Windows** suministrado.

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Read This First

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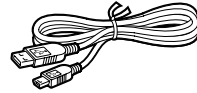
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Checking Supplied Accessories

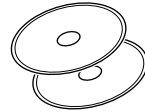
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Use the following accessories to download recorded images from a memory card to your computer.

- IFC-300PCU USB Cable



- DIGITAL VIDEO SOLUTION DISK For Windows
- DIGITAL VIDEO SOLUTION DISK For Macintosh



- Windows users: Move on to p. 10.
- Macintosh users: Move on to p. 86.

The explanations in this manual use mainly Windows 98 and Mac OS 9.2 screen shots.

Windows System Requirements

Please install the software on a computer meeting the following minimum requirements.

- OS:** Windows 98 (First or Second Edition)
Windows Me
Windows 2000
Windows XP (Home Edition, Professional)
* Proper operation is not guaranteed on an OS that has been upgraded from a previous version.
- Computer Model:** Computers that come with above OS preinstalled and have built-in USB ports.
- CPU:** Windows 98/Windows Me/Windows 2000: Pentium 150 MHz or better
Windows XP: Pentium 300 MHz or better
- RAM:** Windows 98/Windows Me/Windows 2000: 64 MB or more
Windows XP: 128 MB or more
- Interface:** USB: only preinstalled Windows 98/Windows Me/Windows 2000/Windows XP systems with built-in USB ports
- Free Hard Disk Space:**
- Canon Utilities
 - ZoomBrowser EX: 120 MB or more (Including the PhotoRecord printing program)
 - PhotoStitch: 40 MB or more
 - DV TWAIN Driver: 25 MB or more
 - DV WIA Driver: 25 MB or more
- Display:** 800 × 600 pixels/High Color (16 bit) or better, 1,024 × 768 pixels or better is recommended



- The USB interface is only supported for those computers that come with Windows 98/Windows Me/Windows 2000/Windows XP preinstalled and have built-in USB ports.
- Proper operation is not guaranteed on a dual CPU PC or on a user-built PC.
- Proper operation is not guaranteed on any particular system, even if it meets the requirements outlined above.
- A CD-ROM drive is required to install the software.
- Connect the USB cable directly to one of the computer's main USB ports. The interface may not function correctly if the camcorder is connected via a USB hub.

- The connection may not operate correctly if you are using other USB devices, excluding USB mice or keyboards, at the same time. If this occurs, disconnect the other devices from the computer and try reconnecting the camcorder.
- Do not connect two or more camcorders to the same computer via the USB interface. The connections may not operate correctly.
- Not all operations performed with a connection to a USB 2.0 compatible board can be guaranteed.

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Windows

What Can Be Accomplished with the Software

This topic introduces the main features of the software programs contained on the DIGITAL VIDEO SOLUTION DISK For Windows.

■ **TWAIN Driver** (📖 17)

TWAIN Driver is the driver software for Windows 98 and Windows 2000 that is required for downloading still images from a memory card to a computer.

■ **WIA Driver** (📖 18)

WIA Driver is the driver software for Windows Me that is required for downloading still images from a memory card to a computer.

■ **Canon DVC Storage Driver** (📖 19)

The Canon DVC Storage Driver is the driver software for Windows 98 that is required to download MPEG-4 movies from a memory card to a computer.

■ **ZoomBrowser EX** (📖 26)

- Downloading still images from a memory card to your computer.
- Categorizing and organizing large volumes of images.
- Creating mail attachments from still images. (Your e-mail program needs to be enabled as MAPI client.)

■ **PhotoRecord** (📖 46)

- Laying out and printing still images.
- Printing indexes.
- Creating still image albums.

■ **PhotoStitch** (📖 56)

Merging Panoramic Images.

This instruction manual explains how to install the software, what you can do with the main features and how to operate them. For more detailed operational instructions, refer to the Help menu of each software program.

Installing the Software

Installing the Digital Video Software

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- Before you attach the camcorder to the computer with the USB cable for the first time, you must install one of the following drivers onto the computer.

Windows 98/Windows 2000: TWAIN Driver (📖 17)

Windows Me: WIA Driver (📖 18)

- Users of Windows 2000 or Windows XP must first log in as an Administrator to install programs.



Windows XP Users:

Your digital video camcorder is equipped with the standard Picture Transfer Protocol (PTP). This protocol enables you to download still images (JPEG) by simply connecting the camcorder to a computer with the USB cable (the software such as the [Scanner and Camera Wizard] starts automatically).

However, please note that there are several limitations to downloading images with this method. To avoid these problems, install ZoomBrowser EX to download images.

- It may take a few minutes, after connecting the camcorder, until you can download images.
- Images protected on the camcorder may lose this setting once they are downloaded to the computer.

Windows

1. Close any programs that are running.

2. Set the DIGITAL VIDEO SOLUTION DISK For Windows in the computer's CD-ROM drive.

- The installer panel opens automatically.
- If the installer panel does not appear automatically, use the following procedures to display it.

Windows 98, Windows Me, Windows 2000:

1. Double-click the [My Computer] icon.
2. Right-click the CD-ROM icon and select [Open] from the displayed menu.
3. Double-click the [Setup.exe] icon.

Installing the Software

Windows XP:

1. Select [My Computer] from the [Start] menu.
1. Right-click the CD-ROM icon and select [Open] from the displayed menu.
3. Double-click the [Setup.exe] icon.

Depending on the setting of your computer, the file extension “.exe” may not appear.

3. Select your language.

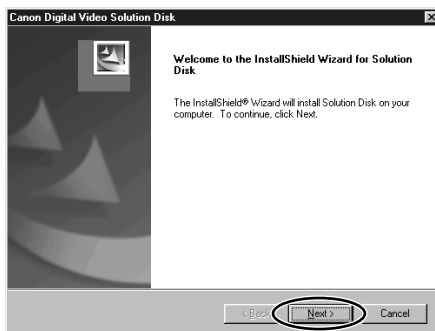
4. Click [Digital Video Software Installation].

For details about the DV Network Software, refer to the DV Network Software Instruction Manual.

Installer Panel



5. Click [Next].

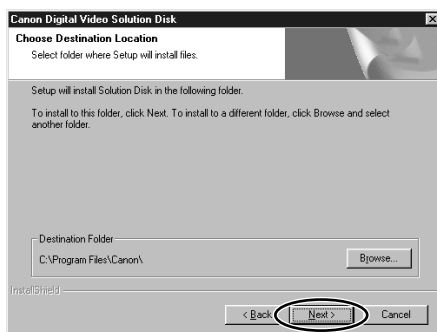


6. Select your country/region and click [Next].

7. Read the license agreement and click [Yes].

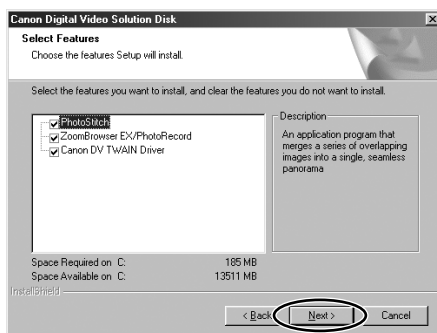
8. Confirm the installation destination and click [Next].

Normally, select (C:\Program Files\Canon).



9. Select the programs you wish to install and click [Next].

Confirm that there is a check mark beside the name of the program you wish to install.



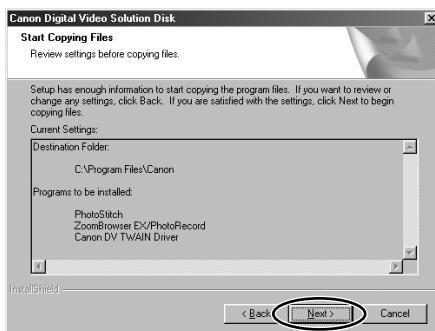
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Windows

Installing the Software

10. Review the installation settings and click [Next].

- Installation starts.
- If the “Digital signature not found” message appears, click [Yes].

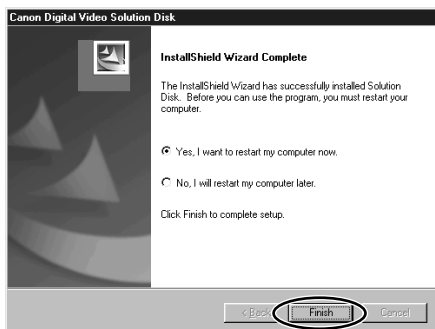


11. When the following window appears, click [OK].

This window only appears if you installed the TWAIN Driver or the WIA Driver.



12. When installation is complete, select [Yes, I want to restart my computer now.] and click [Finish].



13. When the computer has restarted and the regular desktop screen is displayed, remove the DIGITAL VIDEO SOLUTION DISK For Windows from the CD-ROM drive.



- When installation is complete, remove the DIGITAL VIDEO SOLUTION DISK For Windows before you connect the camcorder to the computer.
- Windows 98/Windows 2000/Windows Me: At this point, the files for the TWAIN Driver or WIA Driver have only been copied to your computer. To download still images via USB connection, finish installing the TWAIN driver or the WIA driver.

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Installing the TWAIN Driver/WIA Driver

Windows 98/Windows 2000/Windows Me: When you have installed the Digital Video Software, go on to install the TWAIN Driver or the WIA Driver. Users of Windows XP do not need to install a driver.

Windows 98/Windows 2000

TWAIN Driver

TWAIN Driver is the driver software for USB connection to Windows 98 and Windows 2000 that is required to download still images into ZoomBrowser EX.



Users of Windows 2000 must first log in as an Administrator to install the driver.

- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the Power Adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**

Wait until the card access indicator stops flashing.

- 4. Connect the camcorder to the computer using the supplied USB cable (□ 24).**

- If the "Digital signature not found" message appears, click [Yes].
- After a few moments, a message such as "New Hardware Found" appears and the TWAIN driver will be installed automatically.
- If you are prompted to restart the computer, restart the computer.
- When installation is complete, a window appears allowing you to select an application program to start.

See *Downloading Still Images* (□ 26) for how to start ZoomBrowser EX and download still images to the computer.

Installing the Software

Windows Me

WIA (Windows Image Acquisition) Driver

WIA Driver is the driver software for USB connection to Windows Me that is required to download still images into ZoomBrowser EX.



Read carefully before installing the WIA Driver:

When you have set the WIA Driver to start a particular application program when you connect the camcorder, the program may cause an error message similar to the following to appear: "TWAIN data source not found. Reinstall the scanner software." If this happens, select [WIA-camera model] in the application program as the TWAIN device.

- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the Power Adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**
Wait until the card access indicator stops flashing.
- 4. Connect the camcorder to the computer using the supplied USB cable (📖 24).**

- If the "Digital signature not found" message appears, click [Yes].
- After a few moments, a message such as "Found New Hardware" appears and the WIA driver will be installed.
- If you are prompted to restart the computer, restart the computer.
- When installation is complete, the Scanners and Cameras Wizard starts. See *Downloading Still Images* (📖 26) for how to start ZoomBrowser EX and download still images to the computer.

Installing the DVC Storage Driver (Users of Windows 98 Only)

If you wish to download MPEG-4 movies to the computer, install the DVC Storage Driver following the procedures below.

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1. Connect the power adapter to the camcorder.
2. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
3. Press the CARD STILL/MOVIE button.
4. Connect the camcorder to the computer using the supplied USB cable (see 24).

The Add New Hardware Wizard appears.

5. Set the DIGITAL VIDEO SOLUTION DISK For Windows in the computer's CD-ROM drive.

If the installer panel opens, close it.

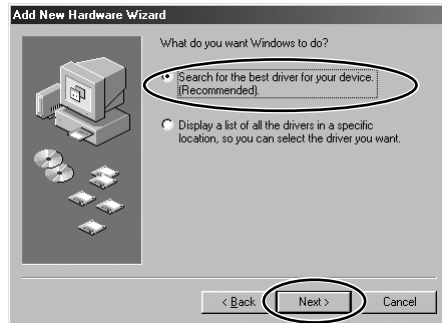
6. Click [Next].



Windows

Installing the Software

7. Select [Search for the best driver for your device. (Recommended).] and click [Next].

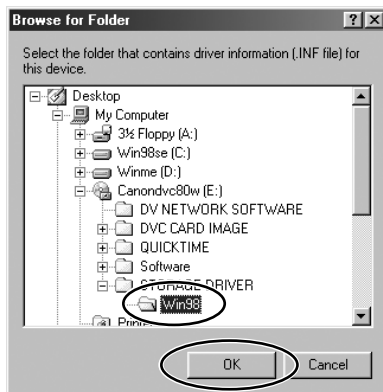


8. Select [Specify a location:] and click [Browse].



9. On the [Browse for Folder] window, double-click the CD-ROM icon, followed by [STORAGE DRIVER] and [WIN98], and click [OK].

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10. Click [Next].



Windows

Installing the Software

11. Click [Next].

The installation starts.



12. Click [Finish].

Installation is complete.



13. Check if the DVC Storage Driver has been installed correctly.

Double-click the [My Computer] icon on the desktop and check if [CANON_DV] appeared. If [CANON_DV] is not shown, restart your computer. If it still does not appear, installation has not been completed correctly (81).

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Windows

Connecting the Camcorder to a Computer

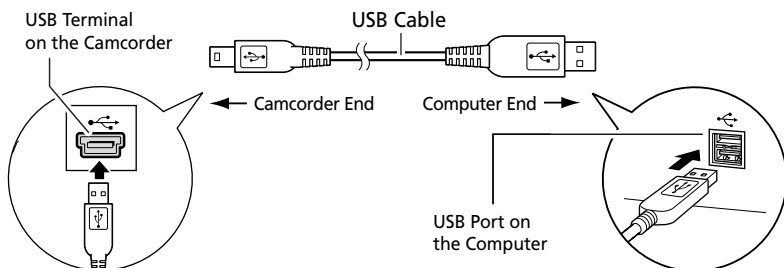


- Make sure the camcorder is set to [STANDARD]. Open the menu and select [SYSTEM]. Select [USB CONNECT], check that it is set to [STANDARD] and close the menu.
- Make sure the camcorder is being powered using the power adapter before connecting it to a computer.
- Be sure to install the Digital Video Software before you connect the camcorder to the computer.
- Connect the USB cable directly to one of the computer's main USB ports. The interface may not function correctly if the camcorder is connected via a USB hub.
- The connection may not operate correctly if you are using other USB devices, excluding USB mice or keyboards, at the same time. If this occurs, disconnect the other devices from the computer and try reconnecting the camcorder.
- Do not connect two or more camcorders to the same computer via the USB interface. The connections may not operate correctly.
- **Never allow the computer to go into standby (sleep) mode while a camcorder is connected via the USB interface. If it does happen, never disconnect the USB cable. Try to awaken the computer with the camcorder in the connected state. Some computers will not awaken properly if you disconnect the camcorder while they are in standby mode. Please refer to your computer manual for instructions regarding its standby mode.**

- 1. Insert a memory card into the camcorder.**
- 2. Connect the power adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**

Wait until the card access indicator stops flashing.

- 4. Attach the supplied USB cable to the computer's USB port and the camcorder's USB Terminal.**
 - If the "Digital signature not found" message appears, click [Yes].
 - Refer to your computer manual for the location of the computer's USB ports.
 - See your camcorder instruction manual for connecting instructions.



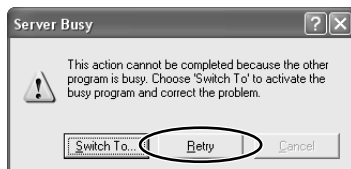
- Windows 98/Windows 2000/Windows Me: The first time you connect the camcorder to the computer via USB interface, install the TWAIN Driver or the WIA Driver (17,18).
- Windows XP: If a window appears prompting you to select an application program to start, select ZoomBrowser EX or Scanners and Cameras Wizard to start. If neither of these is selected, operation may not work correctly. You can also set the computer to start ZoomBrowser EX or Scanners and Cameras Wizard automatically (71).

Downloading Still Images (ZoomBrowser EX)

Below explains the procedure for connecting a camcorder to a computer using the USB cable. For connecting a PC card reader/writer, see *Using a PC Card Reader/Writer* (□ 31).



- Observe following precautions when the camcorder's card access indicator is flashing (the camcorder is reading or writing from or to the memory card). Failure to do so may cause memory card data to become corrupted.
 - Do not open the memory card cover, remove the memory card or detach the USB cable.
 - Do not turn off the camcorder or the computer.
 - Do not change the position of the POWER switch or the TAPE/CARD switch.
- Format the memory card with the camcorder or from the Camera Window (□ 34).
- Still images recorded onto the memory card or downloaded to the hard disk are important original data files. Create a copy of the file first before working on it on your computer.
- MPEG-4 movies cannot be downloaded with this procedure. Refer to *Downloading MPEG-4 Movies to a Computer* (□ 38).
- **For Windows XP Users:**
 - Do not rotate the image in the [Windows Picture and Fax Viewer] or in the explorer view. The file format of the original image will be changed and the image can no longer be displayed in ZoomBrowser EX or on the camcorder.
 - If the [Server Busy] window appears when you connect the camcorder to the computer, click [Retry].



- You cannot connect the camcorder to a computer if the memory card contains more than 1800 images. For best performance, we recommend keeping the number of images on the memory card below 100 when downloading still images to the computer.



- Motion JPEG movies recorded with other Canon camcorders can be downloaded with the same procedure as still images. Motion JPEG movies are displayed with a movie icon above the thumbnail.
- For instructions on how to set ZoomBrowser EX to start automatically, see page 71.

Starting ZoomBrowser EX

E

Windows 98/Windows 2000/Windows XP

1. Insert a memory card containing still images into the camcorder.
2. Connect the Power Adapter to the camcorder.
3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.

Wait until the card access indicator stops flashing.

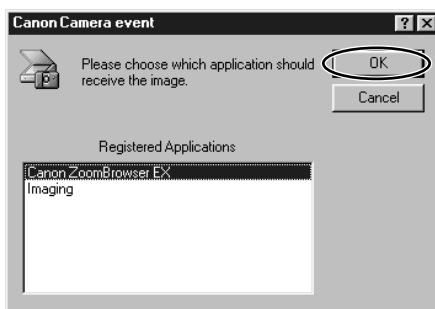
4. Connect the camcorder to the computer using the supplied USB cable (see 24).

- After a few moments, a window appears allowing you to select an application program to start.
- Windows XP: If the window does not appear or if "PC CONNECT" does not appear on the camcorder screen, start ZoomBrowser EX and open the Camera Window following the steps 5 to 7 for Windows Me.

5. Select [Canon ZoomBrowser EX] and click [OK].

- ZoomBrowser EX starts and opens the Camera Window, displaying the camcorder still images as thumbnails (small images).
- With Windows 2000, the name of the application program may not appear on the [Canon Camera event] window. In such case, double-click the ZoomBrowser EX icon on the desktop to start ZoomBrowser EX.
- If a camcorder and PC card reader are connected at the same time, a window appears allowing you to select the camcorder model. Confirm that [Canon Camera] or your camcorder model name is displayed and click [OK].

Windows



Downloading Still Images (ZoomBrowser EX)

Windows Me

1. Insert a memory card containing still images into the camcorder.
2. Connect the Power Adapter to the camcorder.
3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
Wait until the card access indicator stops flashing.
4. Connect the camcorder to the computer using the supplied USB cable (24).

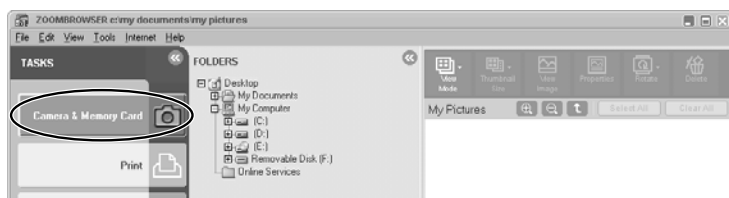
The Scanners and Cameras Wizard automatically opens. Click [Cancel] to close the Wizard.

5. Double-click the [ZoomBrowser EX] icon on the desktop.

ZoomBrowser EX starts and the Main Window appears.

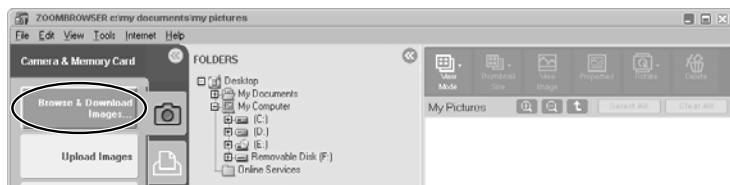


6. Click [Camera & Memory Card] in the Main Window.



7. Click [Browse and Download Images].

The Camera Window opens, displaying the memory card still images as thumbnails (small images).



Downloading Still Images to the Computer

1. In the Camera Window, select the still image you wish to download and click [Download image].

- An orange frame appears around the selected still image.
- You can select multiple images by continuously clicking on the images. Click on the image again to deselect.



Downloading Still Images (ZoomBrowser EX)

2. In the Download Settings window, confirm the settings and click [OK] (34).



The Camera Window closes and the Main Window opens. The downloaded images appear in the Main Window.



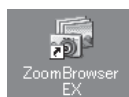
Using a PC Card Reader/Writer

E

The basic operations of ZoomBrowser EX are the same as when you connect the camcorder to the computer. Follow the procedure below to open the Camera Window.

For instruction on how to connect the PC Card Reader/Writer, please refer to its manual.

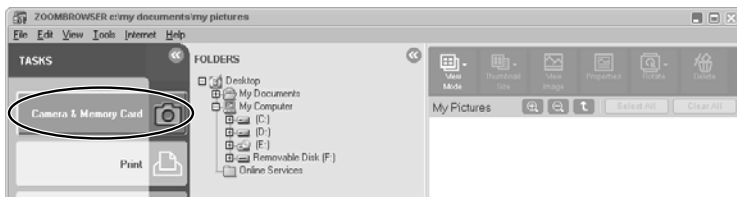
1. Insert a memory card containing still images recorded with the camcorder into the reader.
2. Windows 98/Windows 2000/Windows Me: Double-click the [ZoomBrowser EX] icon on the desktop.



Windows XP: When a window appears allowing you to select an application program to start, select [ZoomBrowser EX] and click [OK].

ZoomBrowser EX starts.

3. Click [Camera & Memory Card].

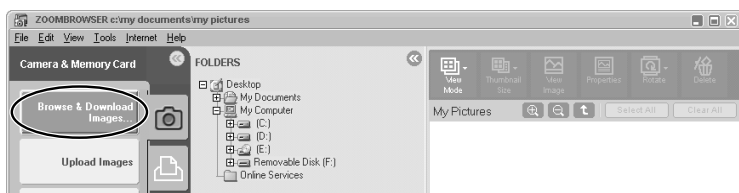


Windows

Downloading Still Images (ZoomBrowser EX)

4. Click [Browse & Download Images].

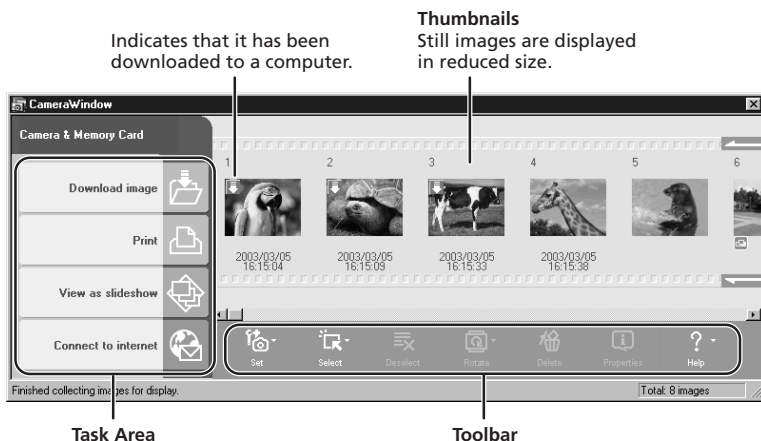
- The Camera Window opens, displaying the memory card still images as thumbnails (small images).
- If multiple PC card readers loaded with memory cards are connected or if a camcorder and a PC card reader are connected, a selection dialog will appear before the Camera Window opens. Select one of the devices to proceed and click [OK].



Using Other ZoomBrowser EX Functions

Camera Window

The Camera Window opens when a connection to a camcorder is initiated. Still images will be displayed as thumbnail (small) images. Buttons are activated when a still image is selected.



Task Area

- [Download image]:** Downloads selected still images to the computer.
- [Print]:** Prints selected still images. Menu options: Layout Print and Index Print.
- [View as slideshow]:** Starts a slide show after downloading the selected still images to the computer.
- [Connect to Internet]:** Attaches selected still images to an e-mail message.

Toolbar

- [Set]:** Adjusts the connection settings and camcorder settings. Menu options: Reconnect, Camera Settings, Slide*/DPOF, Add Image(s) and My Camera. (*The Slide function cannot be used.)
- [Select]:** Selects still images. Menu options: Select All, Select New, Select Print mark, Select Send mark, Select Slide Show mark and Invert Selection.
- [Deselect]:** Deselects still images.
- [Rotate]:** Rotates still images. Menu options: 90 degree left, 90 degree right and 180 degree.
- [Delete]:** Deletes selected still images.
- [Properties]:** Displays image information (such as shooting date/time and image size).
- [Help]:** Displays help topics.

Using Other ZoomBrowser EX Functions

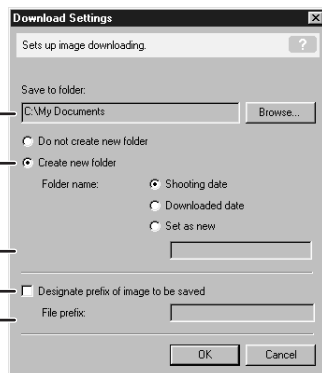
Download Settings Window

The following window appears when you select a task in the Task Area of the Camera Window.

Select a folder in which you wish to download and save the still image.

If you wish to create a new folder, select [Create new folder] and select the item you wish to use as folder name.

If you leave the box without check mark, the folder will be named in the form of "100-0001.JPG".
If you put a check mark in the box, you can designate a file prefix. The folder will be named "file prefix + 0001.JPG".



Camera Settings Window

You can adjust the date, time and owner settings in the Camera Settings window using the computer when the camcorder is connected. You can also check the battery charge and remaining memory card capacity.

1. In the Camera Window, click the [Set] button and select [Camera Settings] from the displayed menu.
2. Check or change the settings.
Click [OK] to close the window.

Input a camcorder owner name here (up to 31 characters).

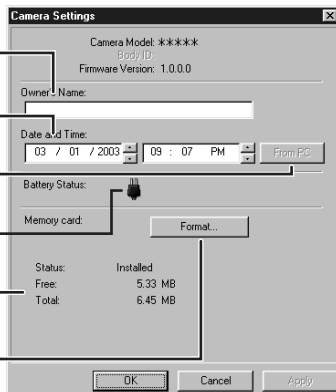
Set the date and time here.

Click this button to synchronize the camcorder to the computer's date and time settings.

Check the power status here.

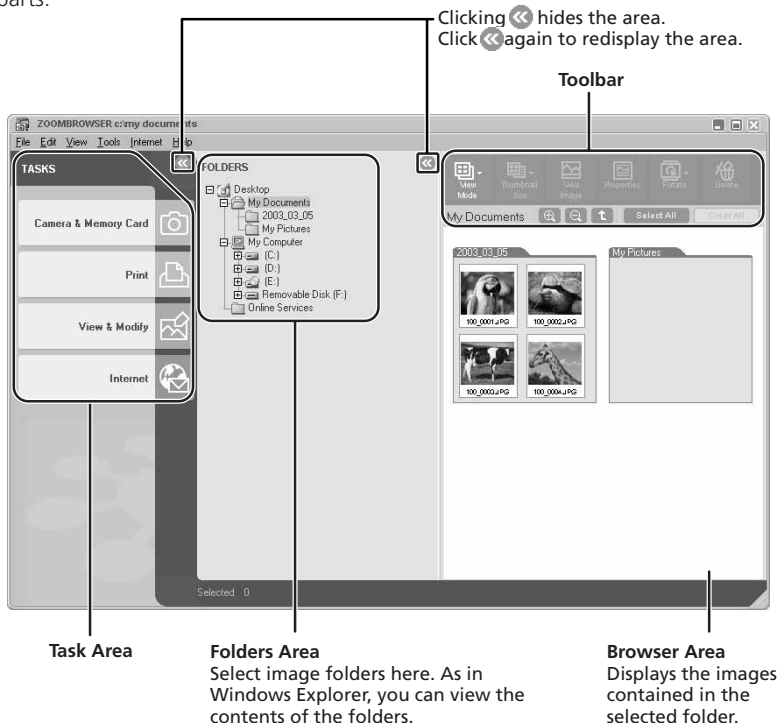
Check the remaining memory card capacity here.

Click this to format the memory card in the camcorder.



Main Window

ZoomBrowser EX's Main Window features various buttons and an image display area. This section introduces the names and functions of the various window parts.



Task Area (Main Menu)

- [Camera & Memory Card]:** Displays the Camera Window.
- [Print]:** Prints selected still images. Menu options: Layout Print and Index Print
- [View & Modify]:** Use this to view or edit still images. Menu options: View as a Slide Show, Edit Image and Stitch Photos.
- [Internet]:** Attaches selected still images to an e-mail message.

Using Other ZoomBrowser EX Functions

Toolbar

[View Mode]:

Switches between the Zoom Mode and Scroll Mode.

Scroll Mode:

Displays the images in the selected folder at a large, easy-to-view size. When there are more images than can fit in the Browser Area, a scroll bar appears at the right of the Browser Area. When a folder has been created within the selected folder, the folder appears as an icon.

Zoom Mode:

When a folder has been created within a folder, it displays all images within the nestled folder. Selecting the magnifying glass (+ or -) and clicking a folder or an image in the Browser Area changes the size at which an image is displayed or the folder level. You can also zoom up by double-clicking an empty part of the Browser Area or the tab of a folder name. It can only be selected in [Scroll Mode].

[Thumbnail Size]:

Selects the size at which images are displayed in the Browser Area. Menu options: 80 × 80, 160 × 160 and Column Number. It can only be selected in [Scroll Mode].

[View Image]:

Displays a still image in the Image Viewer window, or opens a window for playing back a movie.

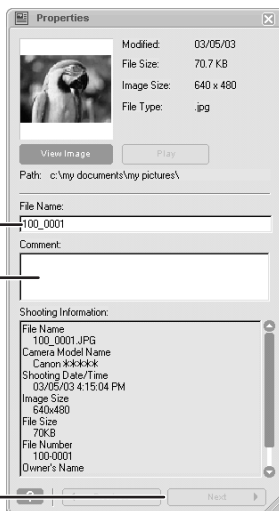
[Properties]:

Displays image information (such as shooting date/time and image size).

If you select an image in the Browser Area while the Properties window is open, the information in the window switches to the contents of the selected image.

You can change the file name or enter a comment.

Switch between images with this button when more than one image is selected.



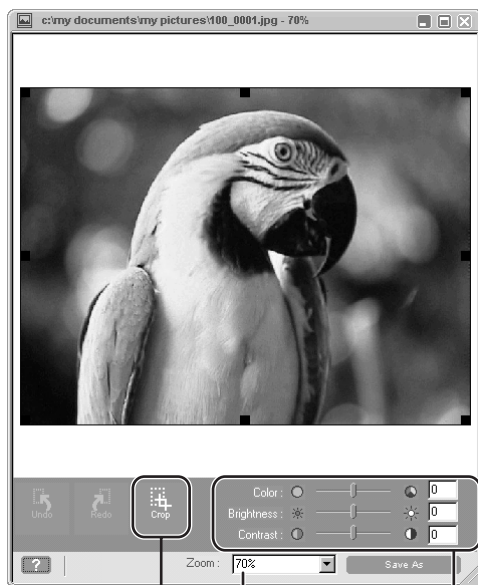
[Rotate]:
[Delete]:

Rotates selected still images.
Deletes selected still images.

E

Image Viewer Window

The Image Viewer window appears when you double-click a still image, or when you select a still image and click [View Image].



Zoom

You can change the zoom ratio.

Color, Brightness and Contrast


You can adjust the color, brightness and contrast by dragging the respective slide.

Crop

You can extract a part of the image.

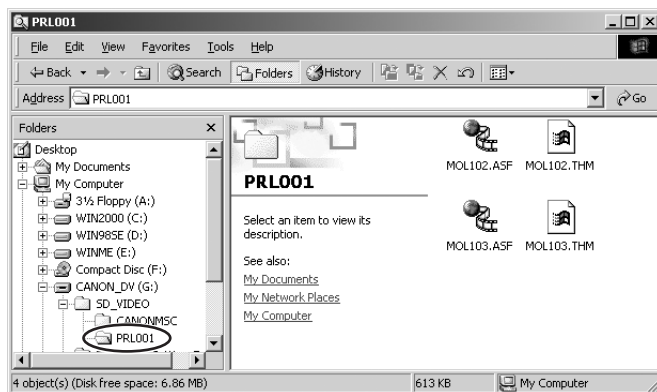
1. Click on the image and drag to form a rectangular frame.
You can move or change the size of the frame.
2. Click this button to extract the area within the frame.
The extracted part of the image appears.

Downloading MPEG-4 Movies to a Computer

 Users of Windows 98 must install the DVC Storage Driver to download MPEG-4 movies (□ 19).

1. Connect the power adapter to the camcorder.
2. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
3. Press the CARD STILL/MOVIE button.
4. Connect the camcorder to the computer using the supplied USB cable (□ 24).
 - With Windows Me, Windows 2000 and Windows XP, the driver will be installed automatically the first time you connect the camcorder to the computer.
 - Users of Windows 98 must install the DVC Storage Driver using the procedures in *Installing the DVC Storage Driver* (□ 19).
5. In Windows Explorer, double-click the [CANON_DV] icon followed by the [SD_VIDEO] and [PRL***] folders.

A number appears in place of the asterisk. Select the one that contains the movie file you wish to download.



6. Click on a movie file and drag it to the folder in which you wish to download the file.

The movie file is copied to the selected folder.

E

Playing Back MPEG-4 Movies on the Computer



- Windows Media Player 6.4 or higher is required to play back a MPEG-4 movie.
- If the movie is not played back correctly, connect to the Internet and double-click the MPEG-4 movie file. Windows Media Player will download the required software automatically. (Depending on the setting of Windows Media Player or your computer, download will not start automatically. Please consult the computer manufacturer or Microsoft for details.)

Double-click the movie file you wish to play back.

- Windows Media Player starts and plays back the movie.
- The first time you play back a movie, Windows Media Player downloads the required codec automatically.

Windows

Running a Slide Show

You can view selected still images in a slide show. Movies cannot be selected for a slide show.

1. Click [View & Modify] in the Main Window.



2. Click [View as a Slide Show].



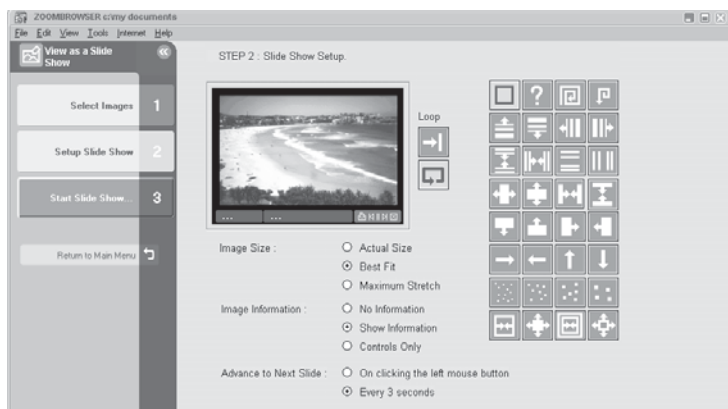
3. Select the images and select [Setup Slide Show].



4. Select the slide show settings.

E

- [Image Size]: Select the size of the still images.
- [Image Information]: Select to show image information such as file name or title.
- [Advance to Next Slide]: Select to advance manually or automatically. When you select "Every 3 seconds", you can select the interval in the control below (from 1 to 120 seconds).
- [Loop]: Select to stop the slide show after the last image or to continuously run it in a loop.
- [Effect]: Select the transition effect to be used when moving from one slide to another. When you click an effect, you can check the effect in the preview window.



Windows

5. Click [Start Slide Show].

Click  in the lower right corner to end the slide show.

Adding Sound to a Still Image

You can add a sound to a still image. The sound file needs to be in WAVE format (extension “.wav”) or in MIDI format (extension “.mid” or “.midi”). The sound cannot be played back on the camcorder.

Adding Sound to a Still Image

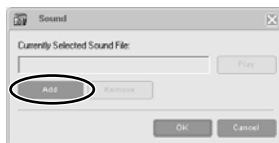
1. In the Main Window, select a still image and select [Add/Remove Sound] from the [Edit] menu.

The Sound Window appears.




2. Click [Add].

A window appears allowing you to select a file.




3. Select the sound file and click [Open].

4. Click [OK].

-  appears on the still image.
- The sound file will be copied to the same folder as the still image.



To remove sound from a still image, select [Remove] on the Sound Window in step 2.  disappears and the copied sound file will be deleted.

Playing Back the Sound

In the Main Window, select the still image with the sound attachment and select [Play Sound] from the [Edit] menu.

The [Play Sound] window appears and the sound will be played back.

Attaching Still Images to E-mail Messages

You can attach selected still images to an E-mail message.



To use this function, the e-mail program must be enabled as MAPI client. For details, refer to the instruction manual of the e-mail software.

E

1. Click [Internet] in the Main Window.



2. Click [Email Images].



Windows

Attaching Still Images to E-mail Messages

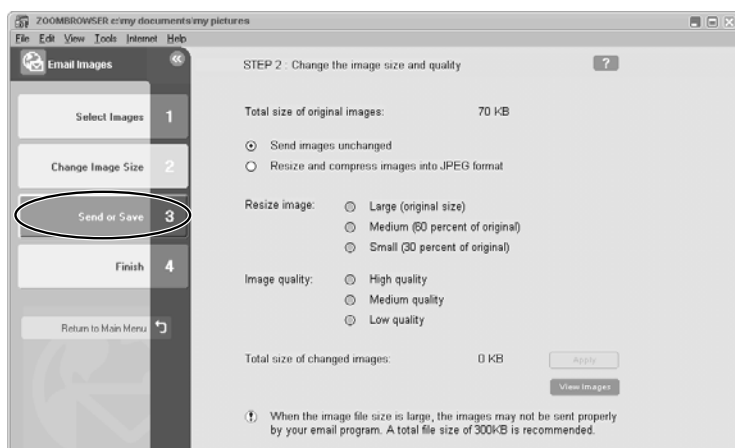
3. Select the images you wish to send in the Browser Area and click [Change Image Size].

You can select multiple images by continuously clicking on the images. Click on the image again to deselect.



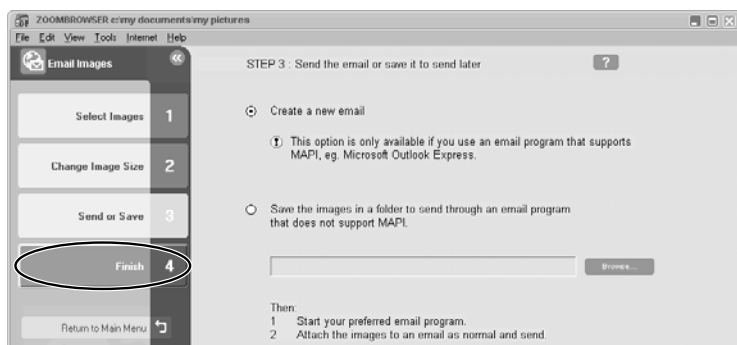
4. Select image size and quality, and click [Send or Save].

- If you wish to send the image without changes, select [Send images unchanged]. Normally select [Resize and compress images into JPEG format].
- [Resize Image]: Select the reduction ratio to the original image.
- [Image quality]: The lower the quality, the coarser becomes the image and smaller the file size.
- Pressing [Apply] displays the file size after the compression as [Total size of changed images].
- You can check the compressed image by pressing [View Images].



5. Select to send images by e-mail or to save the images in a folder and click [Finish].

- If you selected [Create a new email], your e-mail program starts and the selected images appear as an attachment in the message window. Input address, subject and your comments and send the message. E-mail programs not supporting MAPI do not start automatically. In this case, go back to step 5 and select [Save the images in a folder...].
- If you select [Save the images in a folder...] click [Browse] and select the destination folder. Start your e-mail program and attach the saved image to a message.



E

Windows

Printing Still Images (PhotoRecord)

PhotoRecord is a printing program. You can use this program to lay out the still images for printing. You can also create original albums and save them to your computer.



- Do not open the memory card cover, remove the memory card, detach the USB cable or turn off the camcorder while data is being transferred to the printer (when the camcorder's card access indicator is flashing). Doing so may cause memory card data to become corrupted.
- If you are using a network printer and the printer name (including the network path) exceeds 31 characters, it may not be possible to print from PhotoRecord. If this happens, open [Control Panel] on the [Start] menu. Click the [Printers] icon and change the name of the your printer, limiting its length to within 31 characters.



Movies cannot be printed.

1. Click [Print] in the Main Window.



2. Click [Layout Print].

When you have selected [Index Print] and click [Open Index Print], the Index Print Settings window appears. Select paper size and other settings and click [Print] to start printing.



3. Select the still image you wish to print and click [Captions for Printing].

E

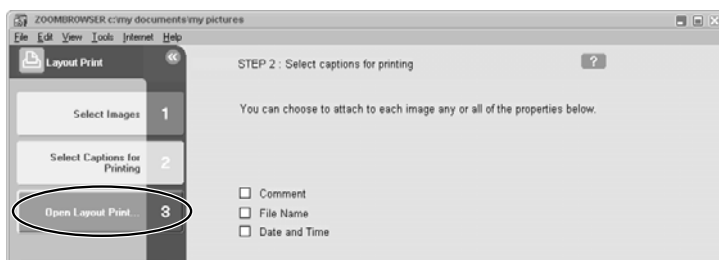
You can select multiple images by continuously clicking on the images. Click on the image again to deselect.



4. Select the image information you wish to include in the print and click [Open Layout Print].

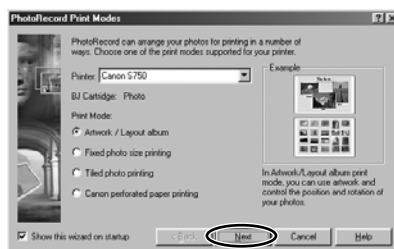
- Place a check mark beside the items you wish include in the print.
- If you wish to add a comment, right-click the mouse button on the still image, select [Properties] from the displayed menu and type in a comment.
- PhotoRecord starts and the PhotoRecord Print Modes window appears (p. 49).

Windows



Printing Still Images (PhotoRecord)

5. Select a print mode and click [Next].

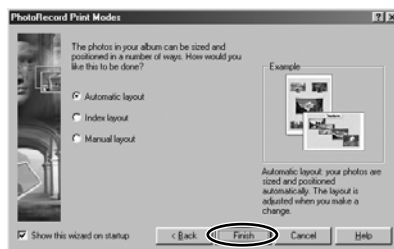


6. Select paper size and other settings and click [Next].



7. Select [Automatic Layout] and click [Finish].

The PhotoRecord window appears. If you wish to change the layout, select the layout in this window.



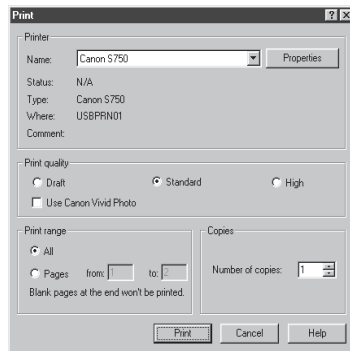
8. Click [PRINT] in the PhotoRecord window.

- The Print window appears.
- If you wish to save it as an album, select [Save As] from the [File] menu, select the destination folder and input the file name.



9. Click [Print] in the Print window.

Printing starts.



Selecting the Print Layout and Album Design

The PhotoRecord Print Modes window appears when you perform the steps 1 to 4 above or when you click [PRINT MODES] in the PhotoRecord window. Use this window to select print layout or album design.

1. Select the print mode.

- The available print modes options depend on the printer you are using.
- When you click [Next], a window for selecting the paper size appears.

Artwork/Layout album

You can create a colorful and fun design.

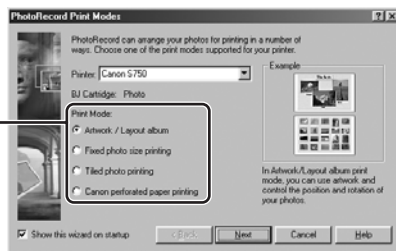
Fixed photo size printing

You can squeeze pictures into the paper size for printing.

Tiled photo printing

The program lays out and prints the specified number of images with no gaps between images on the page.

Canon perforated paper printing



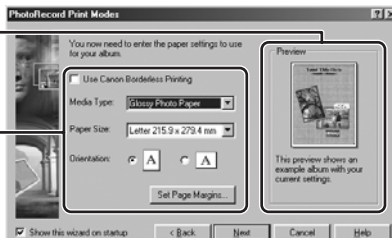
Printing Still Images (PhotoRecord)

2. Select the paper size.

When you click [Next], a window for selecting the layout appears.

Use the preview to check the print layout.

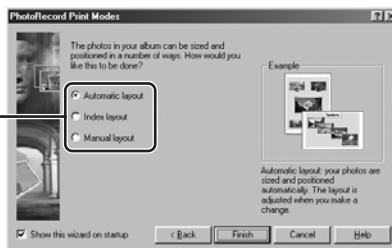
The paper type and size options correspond to the selected print mode.



3. Select the layout.

When you click [Finish], the PhotoRecord window appears.

Select the layout method.



The PhotoRecord Window

E

If you click [Save As] on the [File] menu, you can save the laid out page as an album.

Use these buttons to change how the images are aligned. Click the arrow ▼ to display a pop-up menu.



You can drag the images to move them to new positions.

Layout
Click this to switch between auto index and manual layout mode.

Print Modes
Click this to set the printing mode or paper size.

Fetch Photos
Click this to import still images.

Page Art
Click this to change the page background or borders.

Undo / Redo
Click these buttons to undo or restore the previous action.

Page title
To change the page title, click ▼ on the left side of the window and on the menu that appears, click [Title] and [Edit].

Image caption
To change the image caption, right-click the image and, on the shortcut menu, click [Caption] and [Edit]. Then, type a description about the image.

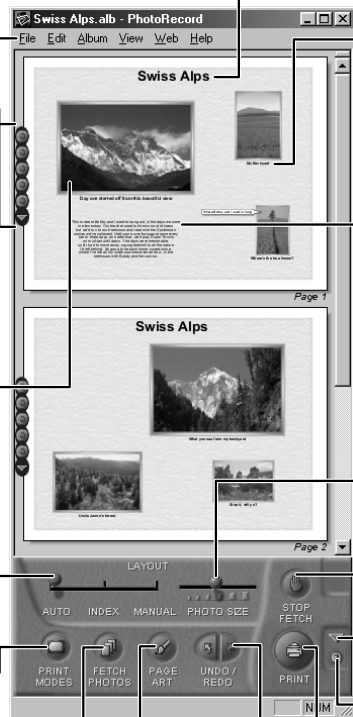
Text box
To add text to the page, click ▼ on the left side of the window and on the menu that appears, click [Add Text] and type what you want. Also, if you right-click the text box, you can click [Change Text] on the shortcut menu and change its frame or other artwork.

Image Size
Slide this tab to the left to shrink the image, right to expand it.

Stop Fetch
Click this to stop importing still images.

Switch between control panel sizes with this.

Click this to display Help.



Printing Still Images (PhotoRecord)



- You can add images directly to a page. You simply need to drag the image that you want from the Browser Display Area of ZoomBrowser EX to a page in the PhotoRecord window.

- **To Change the Page Artwork**

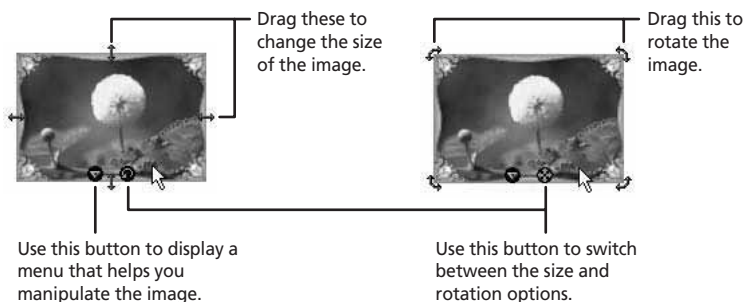
Click ▼ and select [Change Page Artwork] from the displayed menu.

- **To change the Photo Frame**

Click ▼ and select [Change Photo Frames] from the displayed menu.

- **Changing the size or rotation angle of an image**

Place your mouse pointer over the image that you want to change, then use the following operations to change its size or angle.

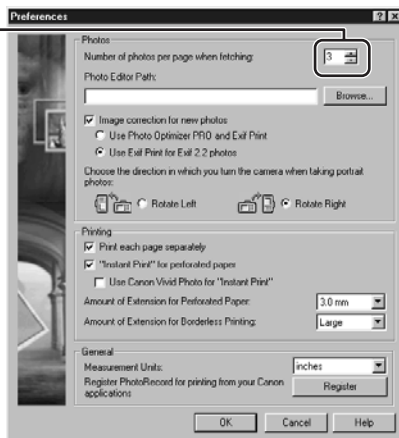


You cannot alter the size or rotation angle if you selected [Fixed photo size] or [Canon perforated paper] as the print mode.

○ Changing the number of images on a page

You can change the number of images on one page. On the [Edit] menu, click [Preferences] and specify the number of images you want to have on one page of the album.

Set the number of images on one page here.



E

Windows

Printing Still Images (PhotoRecord)

Adjusting Image Quality and Printing (Exif 2.2 Compliant)

The PhotoRecord utility features functions that allow you to print images with image quality adjustments and also supports the Exif 2.2 standard (or Exif Print). This function automatically selects optimal image correction settings to produce better prints.



Still images recorded with camcorders complying with the Exif 2.2 standard incorporate recording settings information, such as the recording conditions and scene mode, along with the image data. The Exif Print adjustment protocol uses this information to correct the image quality more accurately to reflect the recording settings.

1. Right-click an image you wish to print and select [Clip/Correct Photo].




2. Place a check mark beside [Exif Print] or [Photo Optimizer Pro] and click [Close].

The selected image will be corrected.



Selecting the Print Mode and Number of Copies (DPOF Print Settings)

You can select the image and the number of prints ( print setting) for automatic printing on a DPOF*-compliant printer. You can set the DPOF print settings also on the camcorder.

*Digital Print Order Format



When you are using a SD memory card, make sure the protect switch is set to allow recording.



The Edit Slide/DPOF window allows print settings on up to 998 still images. With some camcorders, DPOF print settings are limited to a maximum of 200 still images. In that case, all DPOF print settings on the 201st still image and onward will be erased.

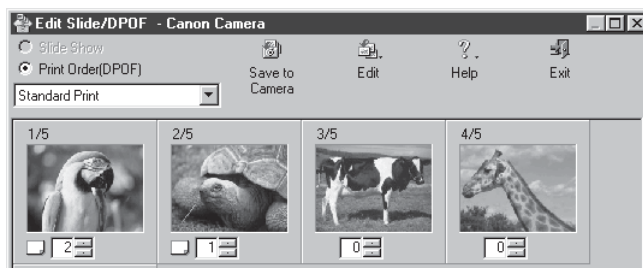
1. Click [Set] in the Camera Window and select [Slide/DPOF] in the displayed menu.

The Edit Slide/DPOF window appears.



2. Select the still image you wish to print and the number of copies.

- [Standard Print]: Prints selected images in the specified number of copies. Use the arrows next to the boxes below the image to select the number of copies.
- [Index Print] and the option [Titles] of the [Edit] menu (printing of date and file number) are not supported by the camcorder.



3. Click [Save to Camera].

The DPOF print settings will be saved to the memory card.

Merging Panoramic Images (PhotoStitch)

You can merge a series of overlapping still images into a single, seamless panorama. PhotoStitch automatically arranges still images recorded with the camcorder's Stitch Assist mode in their correct order and orientation, making it easy to merge them. Please refer to the Camcorder Instruction Manual to learn how to record in Stitch Assist mode.

The following instruction explains how to merge still images recorded in Stitch Assist mode with the camcorder.



Still images recorded in Stitch Assist mode with Wide-converter or Tele-converter attached cannot be merged correctly.

1. Click the arrow in the Camera Window.



2. In the confirmation window, click [OK].

PhotoStitch starts.



3. Arrange the order of the images and click [2.Merge].

Operational instructions are displayed in the upper section of the window.



4. Click [Start].



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5. Select [3. Save] and then click [Save].

- Select the destination folder, input the file name and click [Save].
- In the View the Saved Image? window, click [Yes]. The Viewer window opens and displays the merged image.



Windows



- You can record the surroundings in 360 degrees, and stitch them together later to form a 360-degrees cylinder. (In [1. Selection and Arrangement], select [Arrange] and [360 degrees].) By saving this stitched image in QuickTime VR format, you can then get a virtual view of the surroundings. For this, you need to have QuickTime installed on your computer. If it is not already installed, install it from the DIGITAL VIDEO SOLUTION DISK For Windows. Place the disk in the CD-ROM drive and click [QuickTime 5.0 Installation] in the installer panel.
- Please refer to the ZoomBrowser EX and PhotoStitch Help menu for more details.

Adding Still Images from Your Computer to the Memory Card

You can add still images from the computer to a memory card. You can also add sample images for card mix from the DIGITAL VIDEO SOLUTION DISK For Windows.



Only still images in JPEG format can be added to the memory card.

Adding Still Images to the Memory Card

1. Click [Camera & Memory Card] in the Main Window.



2. Click [Upload Images].



3. Select the images you wish to add and click [Open Camera Window].

You can select multiple images by continuously clicking on the images. Click on the image again to deselect.

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4. In the Add Image window, select the image size and click [Add].

- The selected images will be recorded to the memory card.
- When recording is complete, the images will appear in the Camera Window.



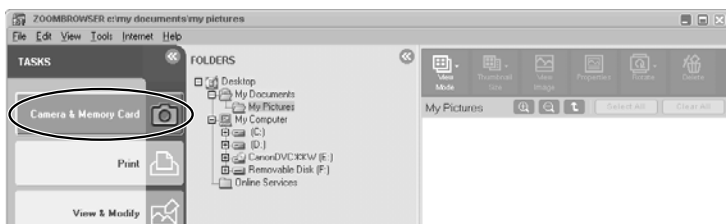
Windows

Adding Still Images from Your Computer to the Memory Card

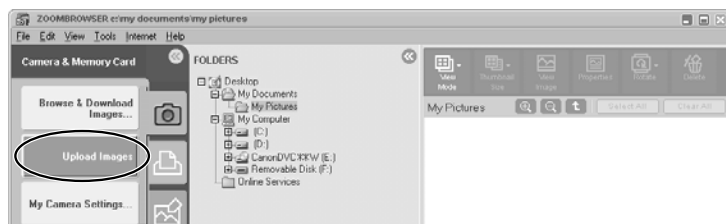
Adding Sample Images to the Memory Card

You can add sample images for card mix and card animation to the memory card. 4 images for CARD CHROMA, 2 images for CARD LUMINANCE, 2 images for CAMERA CHROMA and 4 images for CARD ANIMATION are provided on the DIGITAL VIDEO SOLUTION DISK For Windows.

1. Insert the DIGITAL VIDEO SOLUTION DISK For Windows to the computer's CD-ROM drive.
2. Click [Camera & Memory Card].

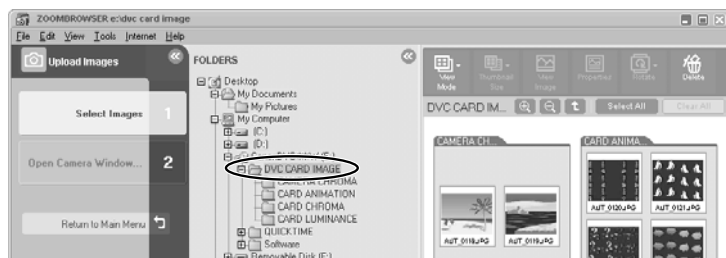


3. Click [Upload Images].



4. In the Folders Area of the Main Window, select the CD-ROM icon followed by [DVC CARD IMAGE].

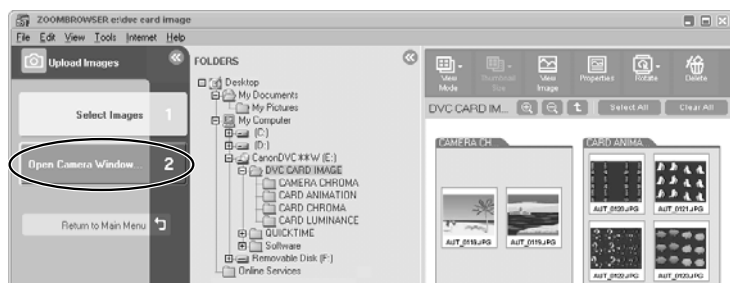
Sample images or folders for CARD CHROMA, CARD LUMINANCE, CAMERA CHROMA or CARD ANIMATION appear in the Browser Area.



5. Select the sample images you wish to add and click [Open Camera Window].

You can select multiple images by continuously clicking on the images. Click on the image again to deselect.

E



6. In the Add Image window, click [Add].

- The selected images will be recorded to the memory card.
- When recording is complete, the sample images will appear in the Camera Window.



Windows

Customizing Your Camcorder with the My Camera Settings

The start-up image, start-up sound, shutter sound, operation sound and self-timer sound are called the My Camera Settings.

ZoomBrowser EX already contains several My Camera Settings which can be selected in theme sets or individually. The "Animal" theme, for example features and animal in the start-up image and animal calls in each of the sound files. The files all begin with the same word (e.g. "Animal", "Baseball").

You can use the pre-recorded My Camera Settings (□ 65), add still images to the My Camera Window (□ 66) or create original sounds files (□ 67).



Observe following precautions while the My Camera Settings are saved to the camcorder.

- Do not open the memory card cover or remove the memory card.
- Do not detach the USB cable.
- Do not turn off the camcorder or computer.
- Do not change the position of the POWER switch or TAPE/CARD switch

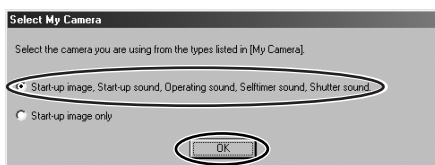
Displaying the My Camera Window

1. In the Main Window, click [Camera & Memory Card] followed by [My Camera Settings].

The Select My Camera window appears.

2. Select [Start-up Image, Start-up Sound, Operation Sound, Selftimer Sound and Shutter Sound] and click [OK].

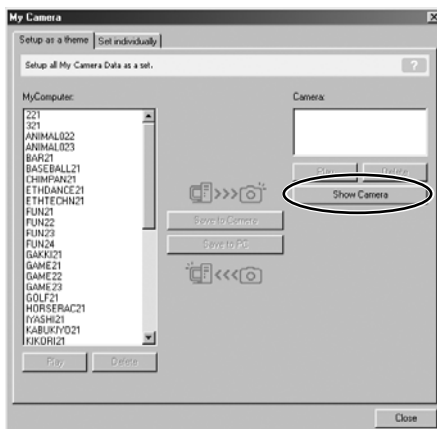
The option [Start-up Image only] is not supported by this camcorder.



3. Click [Show Camera] to display the My Camera Settings of the camcorder.

Do not click [Show Camera] when you wish to create an original sound file (📖 67).

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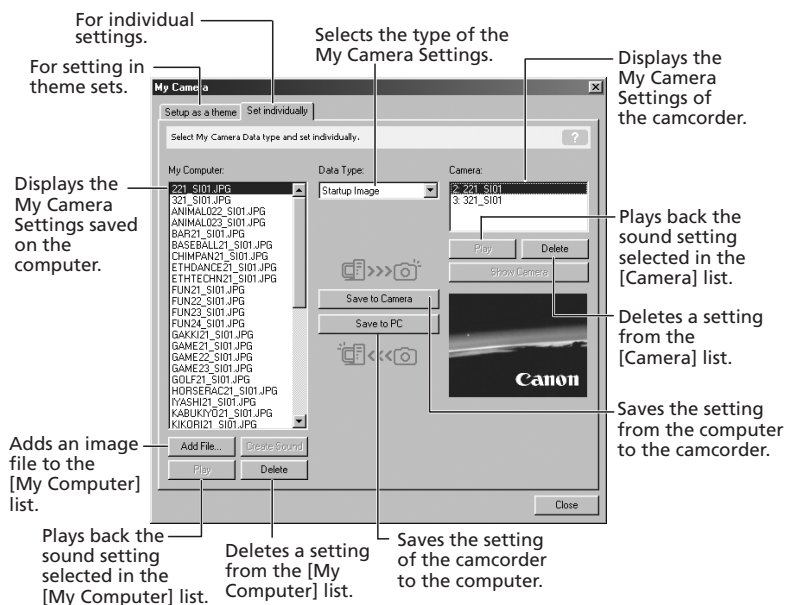


Alternatively, you can display the My Camera window from the Camera Window by clicking [Set] and selecting [My Camera] from the displayed menu. Note that you cannot create an original sound file (📖 67) when displaying the My Camera Window from the Camera Window.

Windows

Customizing Your Camcorder with the My Camera Settings

My Camera Window

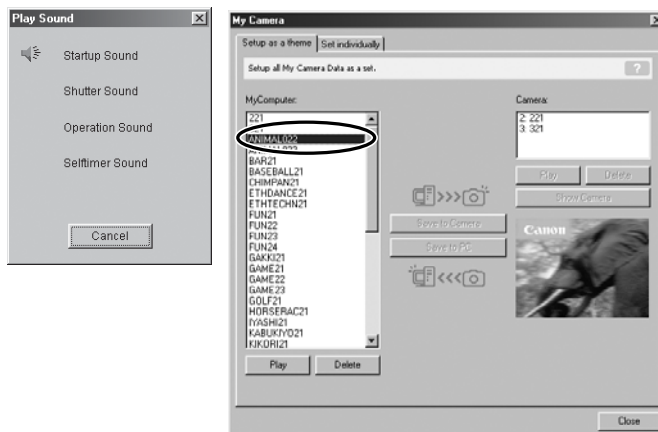


Saving the My Camera Settings to the Camcorder

E

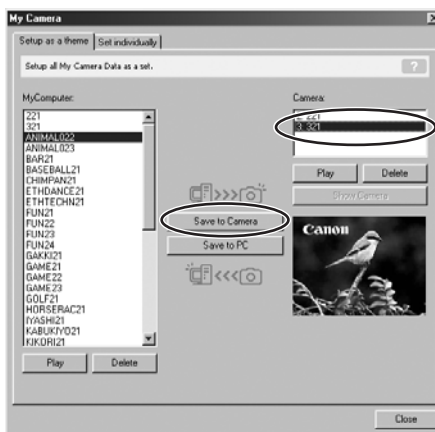
1. In the My Camera window, select the theme set you wish to save to the camcorder in the [My Computer] list.

- To change the settings individually, select the [Set individually] tab and select the setting type in the [Data Type] list.
- A window appears when you select a theme set and plays back the start-up, shutter, operation and self-timer sound.



Windows

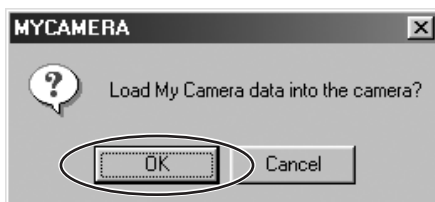
2. Select the setting you wish to replace in the [Camera] list and click [Save to Camera].



Customizing Your Camcorder with the My Camera Settings

3. On the confirmation window, click [OK].

- The selected setting replaces the old setting and appears in the [Camera] list.
- If you wish to use this setting on the camcorder, change the My Camera Setting on the camcorder itself. Refer to the Camcorder Instruction Manual for details.



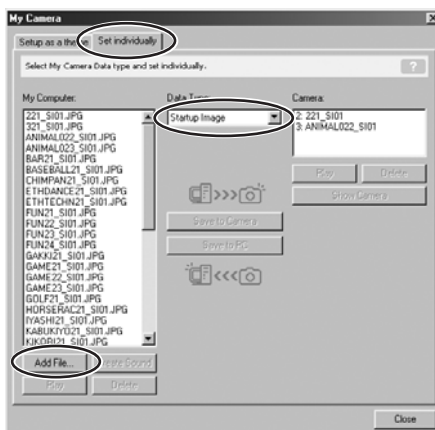
Adding Still Images to the My Camera Window



To use still images recorded with your camcorder, you need to download them to the computer before you can add them to the My Camera Window.

1. In the My Camera window, click the [Set individually] tab, select [Startup Image] in the [Data Type] list and click [Add File].

The file opening window appears.



2. Select the still image file (JPEG) you wish to add and click [Open].

The selected file appears in the [My Computer] list. You can now save the newly added file to the camcorder using the procedures described in *Saving the My Camera Settings to the Camcorder* (□ 65).



To delete a setting, select the file and click the [Delete] button below the [My Computer] list.

Creating an Original Sound File and Adding it to the My Camera Window



- QuickTime is required to play back the sound. If QuickTime is not already installed on your computer, install the QuickTime 5.0 program from the DIGITAL VIDEO SOLUTION DISK For Windows. Place the disk in the CD-ROM drive and click [QuickTime 5.0 Installation] in the installer panel.
- You need to connect a microphone to the computer.
- The following chart shows standard time lengths for My Camera sounds.

Sound Type	Lengths in Seconds	
	11.025 kHz	8.000 kHz
Start-up Sound	1.0 sec. or less	1.3 sec. or less
Shutter Sound	0.3 sec. or less	0.4 sec. or less
Operation Sound	0.3 sec. or less	0.4 sec. or less
Self-Timer Sound	2.0 sec. or less	2.0 sec. or less

Customizing Your Camcorder with the My Camera Settings

1. In the My Camera window, select the [Set individually] tab, select a sound type in the [Data Type] list and click [Create Sound].

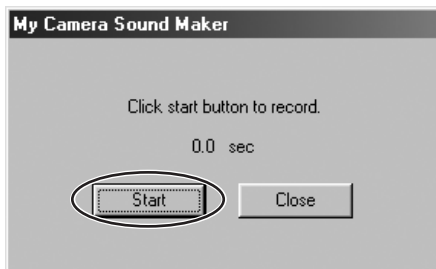
The My Camera Sound Maker window appears.



2. Click the tab of the sound type you wish to create and click [Record].



3. To begin recording, click the [Start] button.



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4. Click the [Stop] button to stop recording, and click [Close].

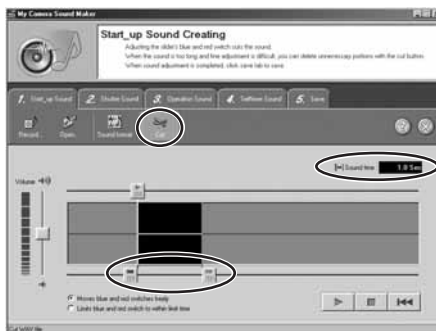
Recording stops automatically after 30 seconds.



Windows

5. Edit the sound data so that it conforms to the time limits.

- Select the sound type by clicking the [Sound Format] button.
- Adjust the length of the recording to conform with the time limits by moving the blue and red switches and clicking the [Cut] button.



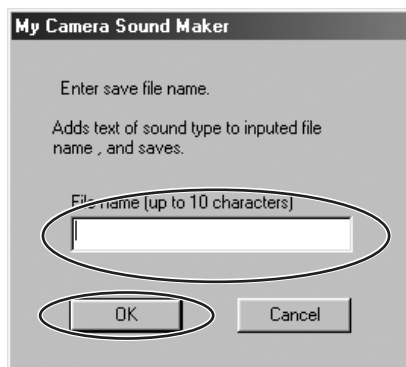
Customizing Your Camcorder with the My Camera Settings

- 6.** Click the [Save] tab, check if the sound file was created and click [Save].



- 7.** Input a file name and click [OK].

- Close the My Camera Sound Maker window.
- The created sound file appears in the [My Computer] list.
- You can now save the newly created sound file to the camcorder using the procedures described in *Saving the My Camera Settings to the Camcorder* (65).



Setting ZoomBrowser EX to Start Automatically

You can set ZoomBrowser EX to start automatically when you connect the camcorder to the computer.

E

Windows 98/Windows 2000

- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the Power Adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**

Wait until the card access indicator stops flashing.

- 4. Connect the camcorder to the computer using the supplied USB cable (24).**

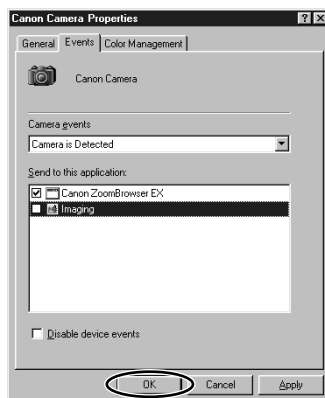
When a window appears allowing you to select an application program to start, click [Cancel].

- 5. Click the Windows [Start] menu and select [Settings] and [Control Panel].**
- 6. Double click the [Scanners and Cameras] icon.**
If you cannot find the [Scanners and Cameras] icon, see *TWAIN Driver/WIA Driver Uninstallation* (81).
- 7. Make sure that [Canon Camera] is selected and click [Properties].**
- 8. Click the [Events] tab.**

Setting ZoomBrowser EX to Start Automatically

9. Remove the check mark from all programs except ZoomBrowser EX and click [OK].

The next time the camcorder is connected, ZoomBrowser EX starts and the Camera Window opens automatically.



Windows Me

1. Insert a memory card containing still images into the camcorder.
2. Connect the Power Adapter to the camcorder.
3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
Wait until the card access indicator stops flashing.
4. Connect the camcorder to the computer using the supplied USB cable (24).
When the Scanners and Cameras Wizard opens, click [Cancel].
5. Click the Windows [Start] menu and select [Settings] and [Control Panel].
6. Double click the [Scanners and Cameras] icon.

If you cannot find the [Scanners and Cameras] icon, see *TWAIN Driver/WIA Driver Uninstallation* (81).

7. Double click the [Canon Camera] icon.

8. Click the [Events] tab.

9. In the [Actions] section, select [Start this program], set it to [Canon ZoomBrowser EX] and click [OK].

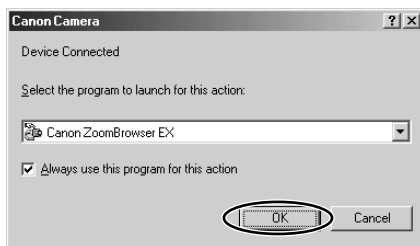
The next time the camcorder is connected, a window appears allowing you to select an application program to start.



Windows

10. Select [Canon ZoomBrowser EX], place a checkmark beside "Always use this program for this action" and click [OK].

- ZoomBrowser EX starts and the Camera Window opens automatically.
- The next time the camcorder is connected, ZoomBrowser EX starts and the Camera Window opens automatically.



Setting ZoomBrowser EX to Start Automatically

Windows XP

- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the Power Adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/ CARD switch to CARD.**

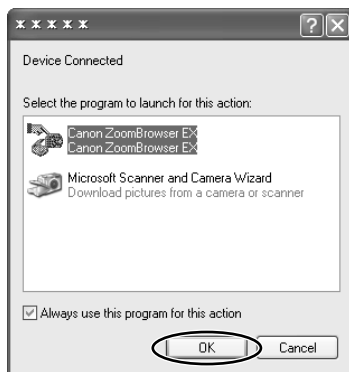
Wait until the card access indicator stops flashing.

- 4. Connect the camcorder to the computer using the supplied USB cable (see 24).**

A window appears allowing you to select an application program to start.

- 5. Select [Canon ZoomBrowser EX], place a check mark next to "Always use this program for this action" and click [OK].**

The next time the camcorder is connected, ZoomBrowser EX starts and the Camera Window opens automatically.



Uninstalling the Software

Uninstall the software when you wish to delete it from your computer or when reinstallation is required to fix corrupted files.

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Users of Windows 2000 and Windows XP must first log in as an Administrator to uninstall the driver and other programs.

Uninstalling ZoomBrowser EX

1. Click the Windows [Start] menu and select [Programs], [Canon Utilities], [ZoomBrowser EX] and [ZoomBrowser EX Uninstall].

The uninstall utility starts and removes ZoomBrowser EX.



Windows



- Uninstall also the Camera Window when you have uninstalled ZoomBrowser EX.
Click the Windows [Start] menu and select [Programs], [Canon Utilities], [Camera Window] and [Camera Window Uninstall].
- If you have uninstalled ZoomBrowser EX because of a corrupt database file or other problem, please also delete the Database folder, which can be found within the [C:\Program Files\Canon\ZoomBrowser EX] folder.
- PhotoRecord and PhotoStitch can be removed with the same procedure.

Uninstalling the Software

Uninstalling the TWAIN Driver/WIA Driver

Users of Windows XP do not need to uninstall the driver.

1. Connect the camcorder to the computer using the supplied USB cable (📖 24).

A window for selecting an application program or the Scanners and Cameras Wizard appears, or ZoomBrowser EX starts.

2. If the window for selecting an application program or the Scanners and Cameras Wizard appeared, click [Cancel]. If ZoomBrowser EX started, close it.

3. Click the Windows [Start] menu and select [Settings] and [Control Panel].

4. Double-click the [Scanners and Cameras] icon.

If you cannot find the [Scanners and Cameras] icon, see *TWAIN Driver/WIA Driver Uninstallation* (📖 81).

5. Windows 98/Windows 2000:

1. Delete [Canon Camera] from the [Scanners and Cameras Properties] list.
2. Click [OK] to close the window.
3. Click the Windows [Start] menu and select [Programs], [Canon Utilities], [DV TWAIN Driver x.x] and [TWAIN Driver Uninstall].
A version number appears in place of "x.x".

Windows Me:

1. Delete the camcorder icon from the [Scanners and Cameras] folder.
2. Click [OK] to close the window.
3. Click the Windows [Start] menu and select [Programs], [Canon Utilities], [DV WIA Driver x.x] and [WIA Driver Uninstall].
A version number appears in place of "x.x".

6. When the Confirm Uninstall window appears, click [OK].

The uninstall process starts.

7. When the Maintenance Complete window appears, click [Finish].

Uninstalling the DVC Storage Driver (Users of Windows 98 Only)

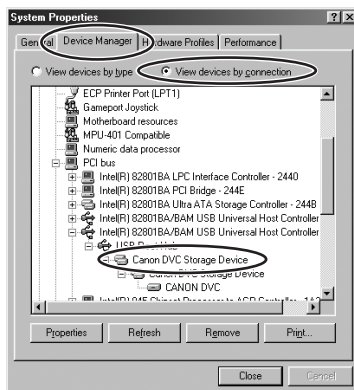
If the DVC Storage Driver has not been installed correctly, uninstall the driver.

E



Make sure to press the CARD STILL/MOVIE button to display the MPEG-4 movie playback mode before connecting the camcorder to the computer.

1. **Connect the camcorder to the computer using the supplied USB cable (24).**
2. **Click the Windows [Start] menu and select [Settings] and [Control Panel].**
3. **Double-click the [System] icon.**
The [System Properties] dialog appears.
4. **Click the [Device Manager] tab and select [View devices by connection].**



5. Delete [Canon DVC Storage Device].

1. Select [Canon DVC Storage Device] and click [Remove].
2. In the confirmation dialog, click [OK].
3. Click [OK] to close the [System Properties] dialog.

Uninstalling the Software

- 6.** Double-click the [My Computer] icon on the desktop followed by the [C:] drive and the [Windows], [System32] and [Drivers] folders.
- 7.** Find and delete the [CANDVNC.sys] file.
- 8.** Click [←Back] twice to go back to the [Windows] folder and double-click the [System] and [IOSUBSYS] folders.
- 9.** Find and delete the [CANDVNP.pdr] file.
- 10.** Click [←Back] twice to go back to the [Windows] folder and double-click the [Inf] folder.
If you do not find the [Inf] folder in the [Windows] folder, see *Troubleshooting* (□ 82).
- 11.** If the folder contains the [CANDV_98.inf] file, delete it.
- 12.** Click [←Back] to go back to the [Windows] folder and double-click the [Inf] and [Others] folders.
- 13.** Click on each file with the extension “.inf”. The Windows Notepad program starts and show the file contents. If you find a file that contains “CANDVNC.sys”, delete it.



The [Inf] folder contains numerous files that are critical to the computer's operation. Be extremely careful not to delete the wrong files. If you delete the wrong file, you may be unable to restart Windows.

Troubleshooting

Connection

E

❓ Camcorder is not recognized when connected to the computer.

→ Computer does not support the USB interface.

The USB interface is not supported for computer not in compliance with the following requirements. Acquire the necessary system to use the USB interface.

Requirements: Built-in USB port on a system pre-installed with Windows XP, Windows 2000, Windows Me, Windows 98 (First or Second Edition).

→ There is no memory card in the camcorder.

Insert a memory card into the camcorder.

→ The camcorder is not set to the correct mode.

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.

→ Camcorder is not correctly connected to the computer.

Read *Connecting the Camcorder to a Computer* (□ 24) and check the connection.

Ensure that you are using the correct cable and that its connectors are in good shape.

→ If you are experiencing operational problems, detach the USB cable from the camcorder and computer and terminate the connection. Restart the computer and then reconnect the camcorder.

→ TWAIN Driver or WIA Driver is not installed properly.

First uninstall the TWAIN/WIA Driver, then reinstall the driver from the DIGITAL VIDEO SOLUTION DISK For Windows (remove the check marks from the other programs when prompted to select the programs to be installed).

For uninstalling, refer to *Uninstalling the TWAIN Driver/WIA Driver* (□ 76).

For installing, refer to *Installing the TWAIN Driver/WIA Driver* (□ 17).

Troubleshooting

ZoomBrowser EX Operation

Cannot download still images

→ **The camcorder is not set to the correct mode.**

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.

→ **The camcorder is not set to the correct USB connection mode.**

Open the menu and select [SYSTEM]. Select [USB CONNECT], set it to [STANDARD] and close the menu.

Cannot download MPEG-4 movies.

→ **The camcorder is not set to the MPEG-4 Movie playback mode.**

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD. Press the CARD STILL/MOVIE button to display the MPEG-4 movie playback mode.

→ **MPEG4 movies cannot be downloaded with ZoomBrowser EX.**

See *Downloading MPEG-4 Movies to a Computer* (□ 38).

Image files or folders do not appear in ZoomBrowser EX.

→ **Images or folders shown in ZoomBrowser EX and the actual file contents may be different when an image file has been moved or copied using Windows functions or edited with a separate program.**

Click the [View] menu and select [Refresh Current Folder].

Driver Installation

Cannot install the TWAIN Driver/WIA Driver correctly.

→ **Does the system have a built-in USB port and did it come with Windows 98 (First or Second Edition), Windows Me or Windows 2000 preinstalled?**

→ **Camcorder is not correctly connected to the computer.**

Read *Connecting the Camcorder to a Computer* (□ 24) and check the connection.

Ensure that you are using the correct cable and that its connectors are in good shape.

→ **Are you using the power adapter to power the camcorder?**

→ **If the problem is not mentioned above, the TWAIN Driver/WIA Driver may not have been recognized by Windows.**

Uninstall (□ 76) and reinstall (□ 17) the driver.

Windows 98: Cannot install the DVC Storage Driver correctly.

- **Does your computer have a built-in USB port and did it come with Windows 98 (First or Second Edition) preinstalled?**
- **Camcorder is not correctly connected to the computer.**
Read *Connecting the Camcorder to a Computer* (□ 24) and check the connection.
Ensure that you are using the correct cable and that its connectors are in good shape.
- **Are you using the power adapter to power the camcorder?**
- **If the problem is not mentioned above, DVC Storage Driver may not have been recognized by Windows.**
Uninstall (□ 77) and reinstall (□ 19) the driver.

TWAIN Driver/WIA Driver Uninstallation

If you had problems uninstalling the driver, use the following procedures to remove it.



Use the procedures below for the following circumstances too.

- If you do not find [Scanners and Cameras] in the [Control Panel] or [Printers and Other Hardware].
- If [Canon Camera] or your camcorder model name does not appear in the [Scanners and Cameras Properties] or [Scanners and Cameras].
- If you connected the camcorder to the computer via the USB cable before installing the Digital Video Software.

Windows 98/Windows Me

Leave the camcorder connected to the computer.

- 1. Click the Windows [Start] menu and select [Settings] and [Control Panel].**
- 2. Double-click the [System] icon.**
The [System Properties] dialog appears.
- 3. Click the [Device Manager] tab.**

Troubleshooting

4. If [Canon Camera] appears under the [Other Devices] and [Imaging Devices] categories, use the following procedures to delete it.

1. Select [Canon Camera] and click [Remove].
2. In the confirmation dialog, click [OK].
3. Click [OK] to close the [System Properties] dialog.

5. Double-click the [My Computer] icon on the desktop followed by the [C:] drive and the [Windows] and [Inf] folders.

If the [Inf] Folder Is Not Visible in the [Windows] Folder

1. Windows 98: Click the [View] menu and select [Folder Options].
Windows Me: Click the [Tools] menu and select [Folder Options].
2. Click the [View] tab.
3. Windows 98: Set the [Hidden files] section to [Show all files].
Windows Me: Set the [Hidden files and folders] section to [Show hidden files and folders].
4. Click [OK].
This makes the [Inf] folder and files in the [Inf] folder visible.

6. Find and delete the [Drvdata.bin] and [Drvidx.bin] files.

7. In the [Inf] folder, double-click [Other] folder to open it.

8. With the OPTURA Xi, find and delete the [Canon.IncCAP009N.inf] file.

With the OPTURA300, find and delete the [Canon.IncCAP010N.inf] file.

If the above file is not contained in the [Other] folder, you do not need to delete anything.



The [Inf] folder contains numerous files that are critical to the computer's operation. Be extremely careful not to delete the wrong files. If you delete the wrong file, you may be unable to restart Windows.

Leave the camcorder connected to the computer.

- 1. Click the Windows [Start] menu and select [Settings] and [Control Panel].**
- 2. Double-click the [System] icon.**
- 3. Click the [Hardware] tab.**
- 4. Click the [Device Manager] button.**
- 5. If [Canon Camera] or your camcorder model name appears under the [Other Devices] and/or [Imaging Devices] categories, use the following procedures to delete it.**
 1. Select [Canon Camera] or the name of the camcorder model, right-click the mouse button and select [Delete].
 2. In the confirmation dialog, click [OK].
 3. Click [OK] to close the [System Properties] dialog.
Remove all copies of [Canon Camera] or your camcorder model name that appear in the [Other Devices] or [Imaging Devices] categories, or that appear more than once in one category.
- 6. Double-click the [My Computer] icon on the desktop, followed by the [C:] drive, and the [Winnt] and [Inf] folders.**

If the [Inf] Folder Is Not Visible in the [Winnt] Folder

Use the following procedures to show all files and folders.

 1. Click the [Tools] menu and select [Folder Options].
 2. Click the [View] tab.
 3. In the [Advanced setting] section, set the [Hidden files and folders] category to the [Show hidden files and folders] option.
If [Hide extensions for known file types] is selected, remove its check mark.
 4. Click [OK] to close the dialog.
This makes the [Inf] folder and the files in the [Inf] folders visible.

Troubleshooting

7. Look for the file starting with [OEM*].

- A number such as "0" or "1" will appear in place of the asterisk (*) above. You will also find another file called [Oem*.pnf], which will have the same number as the [Oem*] file. The two constitute one set.
- There may be many file sets starting with "Oem".
- If you double-click the [Oem*] file, the Windows Notepad program will start and show the file contents. Click each [Oem*] file until you find one that contains "*** Canon Camera Driver Setup File***" in its first line. When you find the correct file, note down its name and close the Notepad window.

8. Delete the [Oem*] file set.

Delete all [Oem*] and [Oem*.pnf] files, taking great care to delete the correct files.



The [Inf] folder contains numerous files that are critical to the computer's operation. Be extremely careful not to delete the wrong files. If you delete the wrong file, you may be unable to restart Windows.

If You Were Using ZoomBrowser EX Version 2 or 3 (This manual explains version 4)

Titles and comments added using a prior version than ZoomBrowser EX version 4 do not appear in ZoomBrowser EX 4 or higher.

→ Titles and comments added using a prior version of ZoomBrowser EX will not be displayed. Use the following procedure to display them.

1. In Windows Explorer, open the [Program] folder under the folder in which you installed ZoomBrowser EX 4 or higher (C:\Program Files\Canon\ZoomBrowser EX\Program).
2. Double-click [dbcobverter.exe].
3. Select the database you were using until now (C:\Program Files\Canon\ZoomBrowser EX\Program) and click the [Start] button.
Please note that with ZoomBrowser EX 4 or higher, both titles and comments appear in the comment list.

❓ Cannot find the image folders saved with a prior version than ZoomBrowser EX 4.

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→ **Image folders saved under the [Program Files] folder (such as [Image Library One]) cannot be displayed in the Main Window's Folder Area of ZoomBrowser EX 4 or higher. Use the following procedure to display them.**

1. In Windows Explorer, open the [Program Files] folder under the folder in which you installed ZoomBrowser EX 4 or higher (C:\Program Files\Canon\ZoomBrowser EX\Program\Image Library One).
2. Select the image folder you wish to display and copy the folder to a different destination.

Macintosh System Requirements

OS:	Mac OS 9.0-9.2, Mac OS X (Version 10.1/10.2)
Computer Model:	Computers that come with above OS preinstalled and have built-in USB ports.
CPU:	PowerPC
RAM:	Mac OS 9.0-9.2: 64 MB or more of application memory Mac OS X (10.1/10.2): 128 MB or more
Interface:	USB
Free Hard Disk Space:	Canon Utilities – ImageBrowser 50 MB or more – PhotoStitch 30 MB or more
Display:	800 × 600 pixels/32,000 colors or better, 1,024 × 768 pixels/32,000 colors or better is recommended



- Proper operation is not guaranteed on a user-built PC.
- Proper operation is not guaranteed on any particular system, even if it meets the requirements outlined above.
- ImageBrowser and PhotoStitch do not operate on disks formatted with the Unix File System (UFS).
- A CD-ROM drive is required to install the software.
- Connect the USB cable directly to one of the computer's main USB ports. The interface may not function correctly if the camcorder is connected via a USB hub.
- The connection may not operate correctly if you are using other USB devices, excluding USB mice or keyboards, at the same time. If this occurs, disconnect the other devices from the computer and try reconnecting the camcorder.
- Do not connect two or more camcorders to the same computer via the USB interface. The connections may not operate correctly.
- Not all operations performed with a connection to a USB 2.0 compatible board can be guaranteed.

What Can Be Accomplished with the Software

This topic introduces the main features of the software programs contained on the DIGITAL VIDEO SOLUTION DISK For Macintosh.

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■ ImageBrowser (📖 93)

- Downloading still images recorded onto a memory card to your computer.
- Categorizing and organizing large volumes of still images.
- Searching and organizing images chronologically.
- Creating mail attachments from still images.
- Laying out and printing still images.
- Printing indexes.

■ PhotoStitch (📖 120)

Merging panoramic images.

Installing the Software



Before you attach the camcorder to the computer with the USB cable for the first time, you must install the Digital Video Software.



Mac OS X Users:

Your digital video camcorder is equipped with the standard Picture Transfer Protocol (PTP). This protocol enables you to download images by simply connecting the camera to a computer with the USB cable (using software such as iPhoto or Image Capture preinstalled on Mac OS X). However, please note that there are several limitations to downloading images with this method. To avoid these problems, install ImageBrowser to download images.

- It may take a few minutes, after connecting the camcorder, until you can download images.
- Only AVI* movie files can be downloaded. Thumbnails cannot be downloaded.
 - * Two files are created in the camcorder (for example: [MVI_0001.AVI] and [MVI_0001.THM]). [MVI_0001.THM] files cannot be downloaded but movies can still be played back on the computer.
- Mac OS X 10.2
 - You may not be able to download images with iPhoto if the memory card contains an enormous volume of images (approx. 900 or more).
 - The Exif* version may change to 2.1 and image information may be modified when downloading images with Image Capture. To download images without any information changes, use the following procedures:
 1. Connect the camcorder to the computer and prepare it to transfer data.
 2. Start Image Capture.
 3. In the screen that appears, click [Options].
 4. Remove the checkmark from [Embed Colorsync profile] in the [Download Options] tab and click [OK].
 - * Images shot with camcorders complying with Exif Print incorporate shooting settings information, such as the shooting conditions and scene mode, along with the image data.

1. Close any programs that are running.

2. Set the DIGITAL VIDEO SOLUTION DISK For Macintosh in the computer's CD-ROM drive.

- 3. Mac OS 9.0-9.2:** Double click the CD-ROM icon, followed by the [Mac OS 9] and [Canon Digital Video Installer] icons.
Mac OS X (10.1/10.2): Double click the CD-ROM icon, followed by the [Mac OS X] and [Canon Digital Video Installer] icons.

The installer panel appears.

- 4. Select your language.**
5. Click [Digital Video Software Installation].

Installer Panel



- 6. Select the programs you wish to install and click [Install].**

Confirm that there is a check mark beside the name of the program you wish to install.

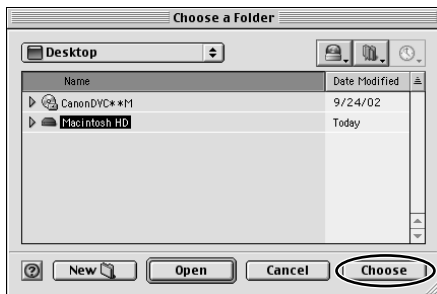


- 7. Select your country/region and click [Next].**
8. Read the license agreement and click [Agree].

Installing the Software

9. Select the installation destination and click [Choose].

Installation starts.



10. When the message "Installation has finished." appears, click [OK].



11. After the installation is complete, restart the computer as prompted.

Connecting the Camcorder to a Computer



- Make sure the camcorder is set to [STANDARD]. Open the menu and select [SYSTEM]. Select [USB CONNECT], check that it is set to [STANDARD] and close the menu.
- Make sure the camcorder is being powered using the power adapter before connecting it to a computer.
- Be sure to install the Digital Video Software before you connect the camcorder to the computer.
- Connect the USB cable directly to one of the computer's main USB ports. The interface may not function correctly if the camcorder is connected via a USB hub.
- The connection may not operate correctly if you are using other USB devices, excluding USB mice or keyboards, at the same time. If this occurs, disconnect the other devices from the computer and try reconnecting the camcorder.
- Do not connect two or more camcorders to the same computer via the USB interface. The connections may not operate correctly.
- **Never allow the computer to go into standby (sleep) mode while a camcorder is connected via the USB interface. If it does happen, never disconnect the USB cable. Try to awaken the computer with the camcorder in the connected state. Some computers will not awaken properly if you disconnect the camcorder while they are in standby mode. Please refer to your computer manual for instructions regarding its standby mode.**

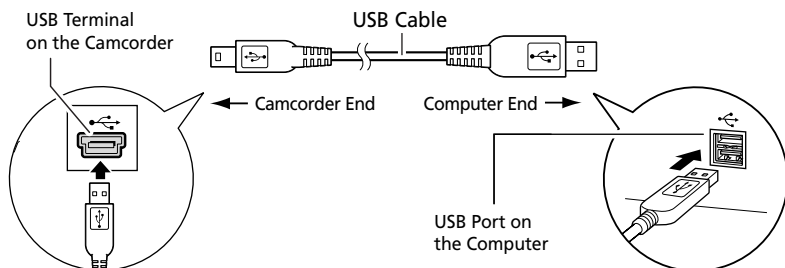
- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the power adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**
Wait until the card access indicator stops flashing.
- 4. Attach the supplied USB cable to the computer's USB port and the camcorder's USB Terminal.**

- Refer to your computer manual for the location of the computer's USB ports.
- See your camcorder instruction manual for connecting instructions.

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Macintosh

Connecting the Camcorder to a Computer



Downloading Still Images (ImageBrowser)

Below explains the procedure for connecting a camcorder to a computer using the USB cable.

For connecting a PC card reader/writer, see *Using a PC Card Reader/Writer* (📖 99).

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- Observe following precautions when the camcorder's card access indicator is flashing (the camcorder is reading or writing from or to the memory card). Failure to do so may cause memory card data to become corrupted.
 - Do not open the memory card cover, remove the memory card or detach the USB cable.
 - Do not turn off the camcorder or the computer.
 - Do not change the position of the POWER switch or the TAPE/CARD switch.
- Format the memory card with the camcorder or from the Camera Window (📖 101).
- Still images recorded onto the memory card or downloaded to the hard disk are important original data files. Create a copy of the file first before working on it on your computer.
- MPEG-4 movies cannot be downloaded with this procedure. Refer to *Downloading MPEG-4 Movies to a Computer* (📖 107).



- Motion JPEG movies recorded with other Canon camcorders can be downloaded with the same procedure as still images. Motion JPEG movies are displayed with a movie icon above the thumbnail.

Starting ImageBrowser

Mac OS 9.0-9.2

- 1. Insert a memory card containing still images into the camcorder.**
- 2. Connect the Power Adapter to the camcorder.**
- 3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.**

Wait until the card access indicator stops flashing.

Downloading Still Images (ImageBrowser)

4. Connect the camcorder to the computer using the supplied USB cable (📖 91).

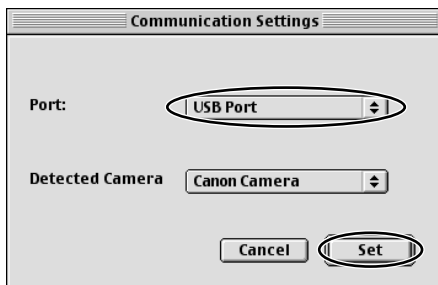
- ImageBrowser starts and the ImageBrowser Automation Wizard dialog appears. In the ImageBrowser Automation Wizard dialog, you can select the action that is carried out after ImageBrowser starts.
- A dialog with the previously selected automated settings will appear the next time you start ImageBrowser.
 1. To use these settings unchanged, click the [Start] button.
 2. To do nothing, click [Cancel].
 3. To change the settings, click [Settings Change], select the action and click [OK].

5. Select [Display Images] and click [OK].



The Communications Settings window appears. This window only appears the first time the camcorder is connected.

6. Confirm that [USB port] and [Canon Camera] are selected and click [Set].

The Camera Window opens, displaying the camcorder images as thumbnails (small images).



How to Set ImageBrowser to Not Start Automatically

1. Click the Apple menu  and select [Control Panels] and [Canon ImageBrowser Auto Launch].
The Settings for USB Connection dialog will display.
2. Click [The application program below will start] to clear the check mark.
3. Click the close box  at the upper left to close the dialog.
ImageBrowser will cease to start automatically thereafter.

Click here to close the dialog.



Mac OS X (10.1/10.2)



Do not connect the camcorder while the Classic environment is started. Likewise, do not start the Classic environment while the camcorder is connected.

1. Insert a memory card containing still images into the camcorder.
2. Connect the Power Adapter to the camcorder.
3. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
Wait until the card access indicator stops flashing.
4. Connect the camcorder to the computer using the supplied USB cable (📖 91).

Downloading Still Images (ImageBrowser)

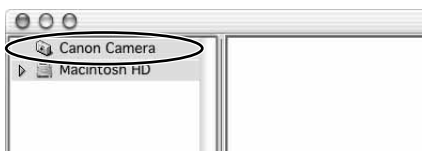
5. Double-click the [Canon ImageBrowser] icon on the desktop.

If the Canon ImageBrowser icon does not appear on the desktop, double-click the [Canon Utilities] folder on the drive on which the program was installed, followed by the [ImageBrowser] folder and [ImageBrowser] icon.



6. Click [Canon Camera] in the Explorer View section.

The Communications Settings window appears. This window only appears the first time the camcorder is connected.



7. Confirm that [USB port] and [Canon Camera] are selected and click [Set].

The Camera Window opens, displaying the camcorder images as thumbnails (small images).



Downloading Still Images to the Computer

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When using the ImageBrowser's Camera Window to download images from the camcorder's memory card, make sure to select [Macintosh HD]. The image will not be saved to the computer when [DCIM] is selected. Follow the instructions below.

1. Mac OS 9.0-9.2: Select [Macintosh HD] in the explorer view section.

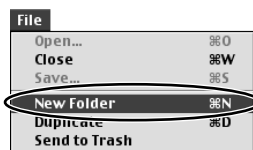
Mac OS X (10.1/10.2): Select the [👤 (user name)] subfolder of the [Users] folder in [Macintosh HD].



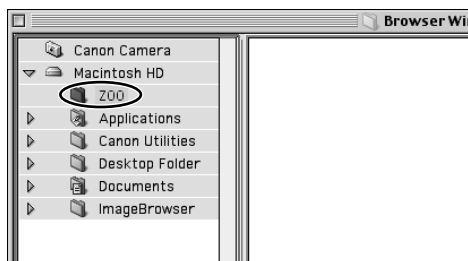
Explorer View Section

2. Create a new folder for saving images from the memory card in the camcorder.

Click the [File] menu and select [New Folder]. A folder with the name "Untitled" will be created. Click it to change the folder name as you wish. In this example, we will input "ZOO."



3. In the Explorer View Section, click the newly created folder.

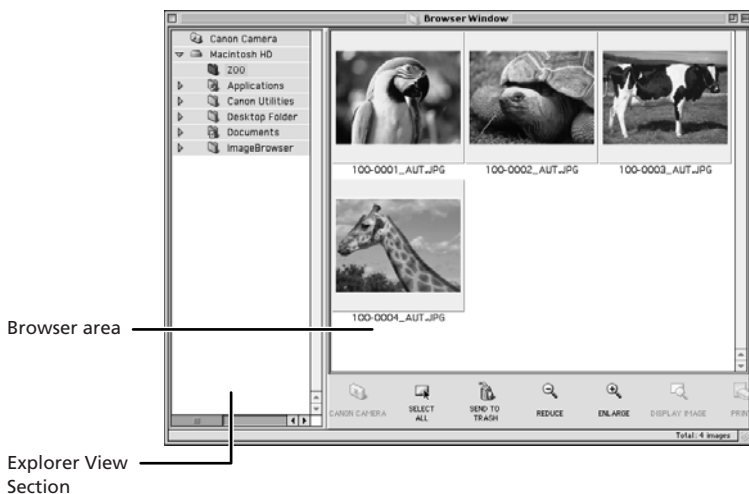
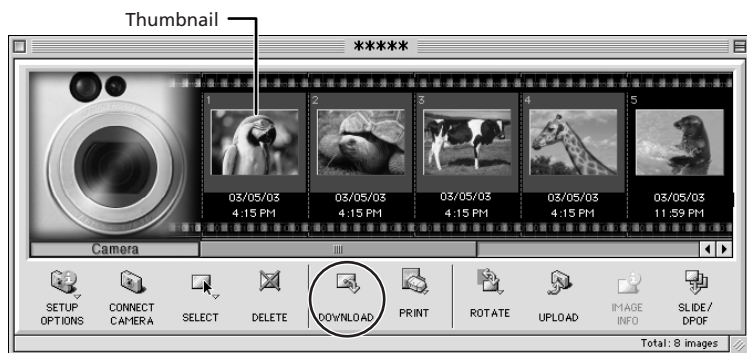


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Downloading Still Images (ImageBrowser)

4. Select still images in the Camera window and click [DOWNLOAD].

- A blue frame appears around the selected still image.
- Downloaded still images are saved to the computer and appear in the Browser area.



To disconnect the camcorder, click the close box (Mac OS 9.0-9.2) or the red close box (Mac OS X (10.1/10.2)) at the upper left of the Camera Window. The Camera Window will close.



- Double-clicking a still image on the camera window imports it to the computer.
- You can also download still images to the computer by dragging them from the Camera window and dropping them on the Browser area or the Explorer View Section.
- You can select multiple still images by holding down [Shift] or [Option] + [Shift] while clicking.

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Using a PC Card Reader/Writer

The basic operations of ImageBrowser are the same as when you connect the camcorder to the computer. Follow the procedure below to open the Camera Window.

For instruction on how to connect the PC Card Reader/Writer, please refer to the PC Card Reader Manual.

1. Insert a memory card into the reader.

Mac OS X (10.1/10.2): If a dialog appears, click the red close box.

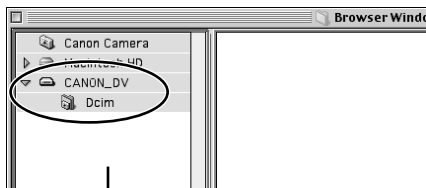
2. Double-click the [Canon ImageBrowser] icon on the desktop.

- ImageBrowser starts.
- If the icon does not appear on the desktop, double-click the folder in which you installed the program, followed by the [Canon Utilities] and [ImageBrowser] folders and the [ImageBrowser] file.



3. Double-click the [CANON_DV] and [DCIM] folders in the Explorer View Section.

The Camera Window opens, displaying the memory card images as thumbnails (small images).

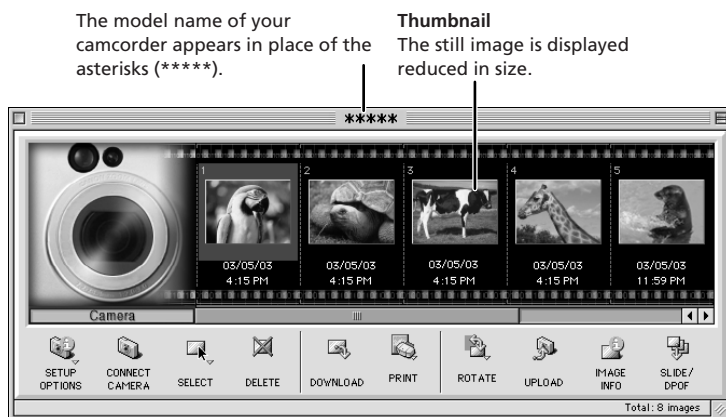


Explorer View Section

Using Other ImageBrowser Functions

Camera Window

The Camera Window opens when a connection to a camcorder is initiated. Still images will be displayed as thumbnail (small) images. Buttons are activated when a still image is selected.



- [SETUP OPTIONS]:** Adjusts the connection settings and camcorder settings. Menu options: Camera Settings, Communications Settings and My Camera.
- [CONNECT CAMERA]:** Reconnects the camcorder to the computer.
- [SELECT]:** Selects still images. Menu options: Select All and Deselect All.
- [DELETE]:** Deletes selected still images.
- [DOWNLOAD]:** Downloads selected image to the computer.
- [PRINT]:** Prints selected still images. Menu options: Layout printing and Index printing.
- [ROTATE]:** Rotates still images. Menu options: 90 degrees right, 90 degrees left and 180 degrees.
- [UPLOAD]:** Adds selected still images to the memory card.
- [IMAGE INFO]:** Displays image information (such as shooting date/time and image size).
- [SLIDE/DPOF]:** The [SLIDE] function cannot be used. [DPOF] allows you to select the print order settings.



Mac OS X (10.1/10.2): Be careful when erasing images in the ImageBrowser Camera Window. Even images you protected with the camcorder will be erased permanently.

Camera Setting Window

You can adjust the date, time and owner settings in the Camera Settings window using the computer when the camcorder is connected. You can also check the remaining memory card capacity.

1. In the Camera Window, click the [SETUP OPTIONS] button and select [Camera Settings] from the displayed menu.
2. Check or change the settings.
Click [OK] to close the window.

Input a camcorder owner name here
(up to 31 characters).

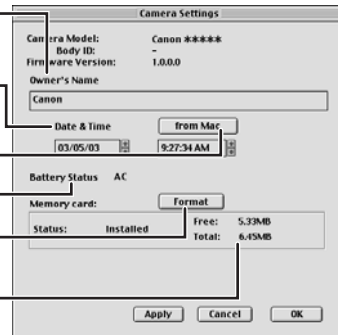
Set the date and time here.

Click this button to synchronize the camcorder
to the computer's date and time settings.

Check the power status here.

Click this to format the memory card
in the camcorder.

Check the remaining memory card
capacity here.



Using Other ImageBrowser Functions

Browser Window

This section describes the various parts of the Browser Window display.

Explorer View Section

Displays the disks and folders that you can use on your computer.

If you click the disclosure triangle on the left edge of the display, you can switch between collapsing and expanding the contents of that folder.

Browser Area

Displays the images contained in the selected folder.

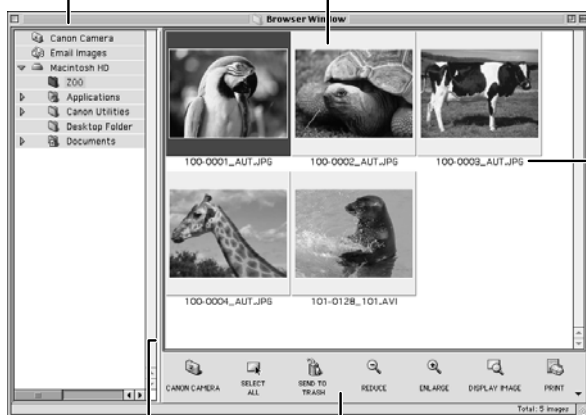


Image Name

This is where the file name of each individual still image/movie is displayed.

You can drag this line to change the position of the boundary between the Explorer View Section and the Browser Area.

Control Panel

This area contains buttons that allow you to perform a variety of functions.

You can drag this part of the frame to change the size of the Browser Window.

[CANON CAMERA]: Displays the Camera Window.

[SELECT ALL]: Selects all still images/movies in a folder.

[SEND TO TRASH]: Deletes selected still images/movies.

[REDUCE]: Reduces the size of the thumbnails in the Browser Area.

[ENLARGE]: Enlarges the size of the thumbnails in the Browser Area.

[DISPLAY IMAGE]: Displays a still image in the Image Viewer window, or opens a window for playing back a movie.

[PRINT]: Prints selected still images. Menu options: Layout printing and Index printing.

Image Viewer Window

The Image Viewer window appears when you double-click a still image, or when you select a still image and click [DISPLAY IMAGE].

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Enlarge or reduce the image

Current zoom ratio

CROP

You can extract a part of the image.

1. Click on the image and drag to form a rectangular frame.
You can move or change the size of the frame.
2. Click this button to extract the area within the frame.
The extracted part of the image appears.

ADJUST COLOR

Click here to display the Adjust Color window to adjust hue, saturation and lightness of the image by dragging the respective slide.

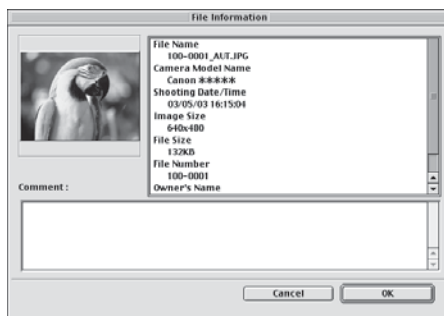
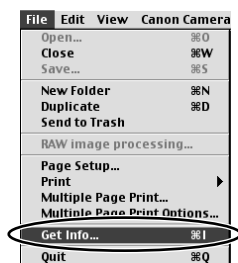
Macintosh

Using Other ImageBrowser Functions

Displaying the Image Information

You can check the image information such as shooting date/time or file size.

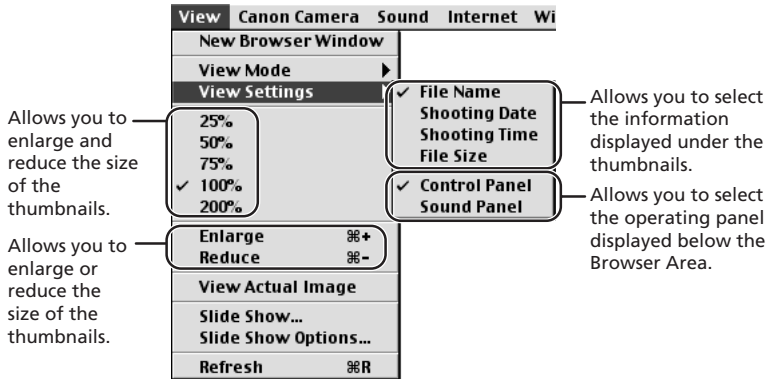
1. Select the image of which you wish to display the information.
2. From the [File] menu, select [Get Info].
 - The File Information window appears.
 - If you wish to add a comment, input it in the [Comment] area.
 - Click [OK] to close the window.



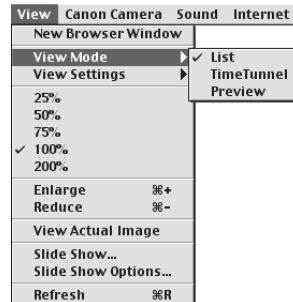
- It depends on your camcorder model which image information will be displayed.
- When you modify and save an image using another program, shooting information or comments may be lost.

[View] Menu

You can select the display settings of the Browser Area from the [View] menu.



If you select [View Mode] followed by [Preview] from the [View] menu, you can display a preview of a still image in the Browser Area. To stop displaying the preview image, select [View Mode] followed by [List] in the [View] menu.



Displaying Images in TimeTunnel

This program displays images in the order of the creation date.

1. In the [View] menu, select [View Mode] followed by [TimeTunnel].

The image information will be displayed when you point at an image.

The date/time at which the images were shot appears on the red line. You can change this date/time by double-clicking it on the display. A window similar to the one below appears. Specify the new date/time.

Move the slider up or down to move backward or forward in time.

Double-click a thumbnail to display it in another window.

Click to display the control panel.

[Display Tool Panel]:
Select to display or hide the tool panel.

[Auto Cruise]:
Enables or disables [Auto Cruise]. When [Auto Cruise] is active, the time movement continues even after you have moved and released the bar.

[Switch to Browser View]:
Exit TimeTunnel, and returns to the previous screen.

Tool Panel

Makes the TimeTunnel rings octagonal.

Changes the number of TimeTunnel rings.

Allows you to specify the date for the images displayed.

Makes the TimeTunnel look curved.

Downloading MPEG-4 Movies to a Computer

1. Connect the power adapter to the camcorder.
2. Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.
3. Press the CARD STILL/MOVIE button.
4. Connect the camcorder to the computer using the supplied USB cable (see 91).
5. Double-click the [CANON_DV] icon followed by the [SD_VIDEO] and [PRL***] folders.

A number appears in place of the asterisk. Select the one that contains the movie file you wish to download.



6. Click on the movie file and drag it to the folder in which you wish to download the file.

The movie file is copied to the selected folder.

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Downloading MPEG-4 Movies to a Computer

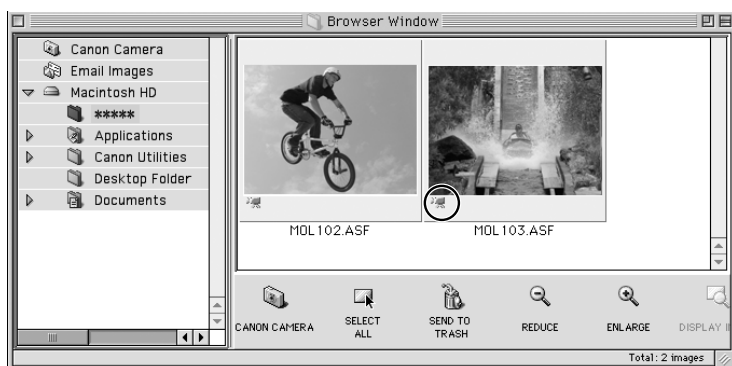
Playing Back MPEG-4 Movies on the Computer



QuickTime Player is required to play back a MPEG-4 movie. Furthermore, you need to download a plug-in decoder from the following homepage.
<http://www.canondv.com>

1. Double-click the [ImageBrowser] icon on the desktop.
2. In the Browser Area, double-click a file with a  (movie) icon.

QuickTime Player starts.



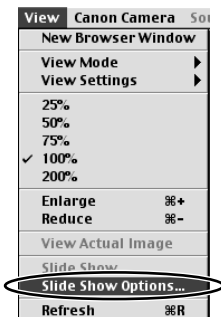
3. Click the ► (play) button in QuickTime Player.

The movie will be played back.



Running a Slide Show

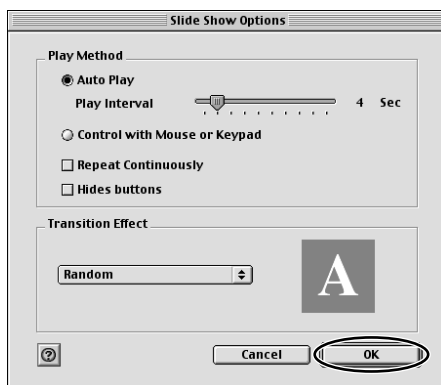
1. From the [View] menu, select [Slide Show Options].



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2. Select the slide show settings and click [OK].

- [Auto Play]: Moves to the next still image automatically. Select the interval by sliding the control under [Play Interval] (from 1 to 30 seconds).
- [Control with Mouse or Keypad]: Advances the slide show manually with the mouse or keyboard.
- [Repeat Continuously]: Runs the slide show in a loop.
- [Hide buttons]: Hides the buttons during the slide show.
- [Transition Effect]: Select the transition effect to be used when moving from one slide to another. When you select an effect, you can check the effect in the preview window.



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3. Select the images and select [Slide Show] from the [View] menu.

Click  on the lower right of the screen to end the slide show.

Adding Sound to a Still Image

To add sound to still images, use the MAC OS recording function. Depending on the computer, you may need to connect peripherals such as microphones.

Check if your computer settings allow recording.


The sound cannot be played back on the camcorder.

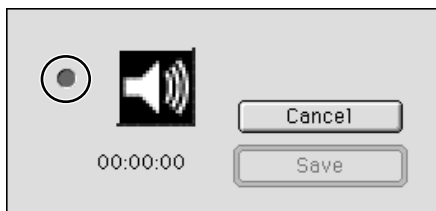
Adding Sound to a Still Image

1. In the Browser Area, select a still image and select **[Record]** from the **[Sound]** menu.

The recording window appears.




2. Click  and start recording when the **[Save]** button is enabled.



3. Click **[Save]** to stop recording.

-  appears on the still image.
- The sound file will be copied in AIFF format (extension ".AIF") to the same folder as the still image.



To remove sound from a still image, repeat step 1 and when a confirmation message appears, click **[OK]**. On the recording window, click **[Cancel]**.  disappears and the copied sound file will be deleted.

Playing Back the Sound

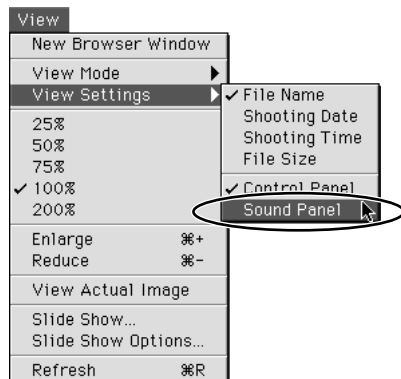
In the Browser Area, select the still image with the sound attachment and select [Play] from the [Sound] menu.

- The sound will be played back.
- You can control playback by selecting [Pause] or [Stop] from the [Sound] menu.

Using the Sound Panel

You can use the sound panel to record, playback and adjust the volume.

1. From the [View] menu, select [View Settings] and select [Sound Panel] from the displayed menu.



The sound panel appears.



2. In the Browser Area, select the still image with the sound attachment.

You can record or play back the sound, adjust the volume, or stop or pause playback.

Attaching Still Images to E-mail Messages

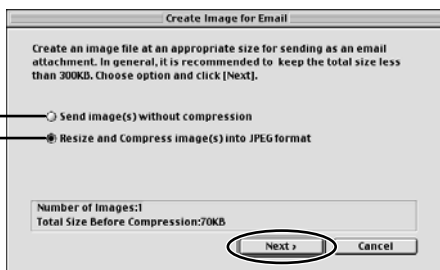
You can attach selected still images to an E-mail message.

1. Select the images you wish to send in the Browser Area.
2. From the [Internet] menu, select [Create Image for Email].



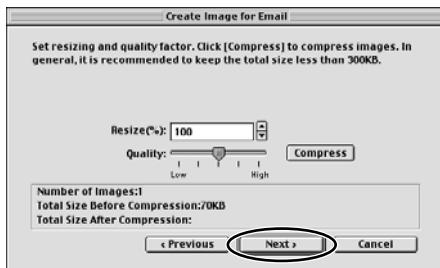
3. Specify the image size and click [Next].

Select this if you do not wish to reduce the size of the still image.
Normally, select this option.



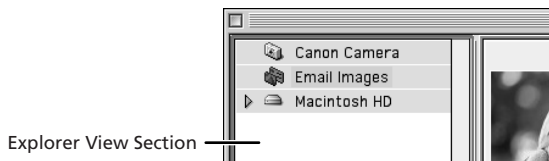
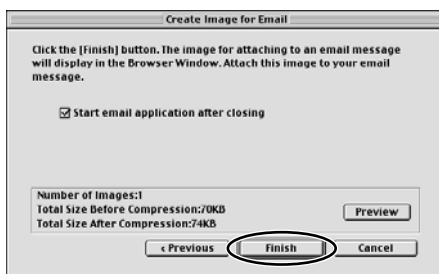
4. Specify the reduction ratio and image quality and click [Next].

- [Resize (%)] : Select the reduction ratio relative to the original size of the image.
- [Quality] : Select the image quality. The lower the quality, the rougher the image becomes, but the size of the file also becomes smaller.
- [Compress] : Use it to check the file size when you actually compress the image. The file size appears next to "Total Size After Compression".



5. Select whether you wish to start your e-mail program and click [Finish].

- If you have selected [Start email application after closing], your e-mail program starts automatically. Open a new e-mail message and attach the image. With some types of e-mail programs, you can attach images to e-mail messages simply by dragging them from the Browser Area to the new message window.
- Click [Preview] to check the changed image.
- The image will be saved to the [Email Images] folder in the explorer view section.



- You can set the e-mail program to start automatically in step 5. Note that some e-mail programs may not start automatically.

Mac OS 9.0 ~ 9.2: From the Apple menu, select [Control Panel], followed by [Internet] and click the [Email] tab. Change the setting in the displayed window.

Mac OS X (10.1/10.2): From the Apple menu, select [System Preferences], followed by [Internet] and click the [Email] tab. Change the setting in the displayed window.

- The images in the [Email Images] folder are saved in the following location:

Mac OS 9.0 ~ 9.2: Open the disk you installed ImageBrowser or the [Documents] folder, followed by [ImageBrowserUserData] and [Mail].

Mac OS X (10.1/10.2): Open the [Users] folder, followed by [User login name], [Library], [Preferences], [ImageBrowserUserData], and [Mail].

Printing Still Images (ImageBrowser)

You can select the layout when printing still images.



Do not open the memory card cover, remove the memory card, detach the USB cable or turn off the camcorder while data is being transferred to the printer (when the camcorder's card access indicator is flashing). Doing so may cause memory card data to become corrupted.

1. Select the still image(s) you wish to print in the Browser Window.

Movies cannot be printed.

2. Click [PRINT] and select [Layout printing] from the displayed menu.

- The Layout Options window and Print window appears.
- If the Layout Options window does not appear, display it by clicking [LAYOUT OPTIONS] in the Print window.

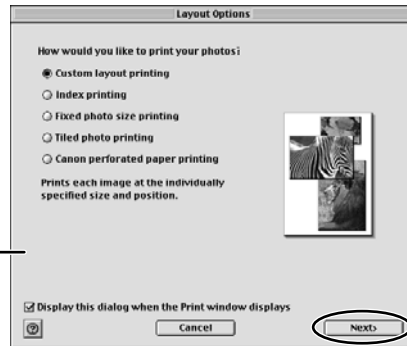


Print Window

3. In the Layout Options window, select a layout and click [Next].

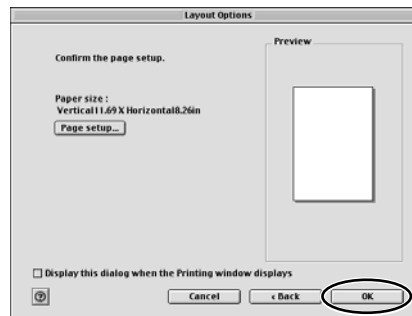
The Custom Layout printing option allows you to freely change the size and position of the still images for printing. The other options allow you to print an index or print onto Canon perforated paper. Canon perforated paper cannot be selected with Mac OS X (10.1/10.2).

Layout Options Window



4. Select a paper size and click [OK].

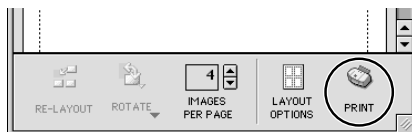
- The Print window opens, allowing you to change the layout and printing settings.
- The settings available will vary according to the type of layout selected in Step 3.



Printing Still Images (ImageBrowser)

5. Click [PRINT] in the Print window.

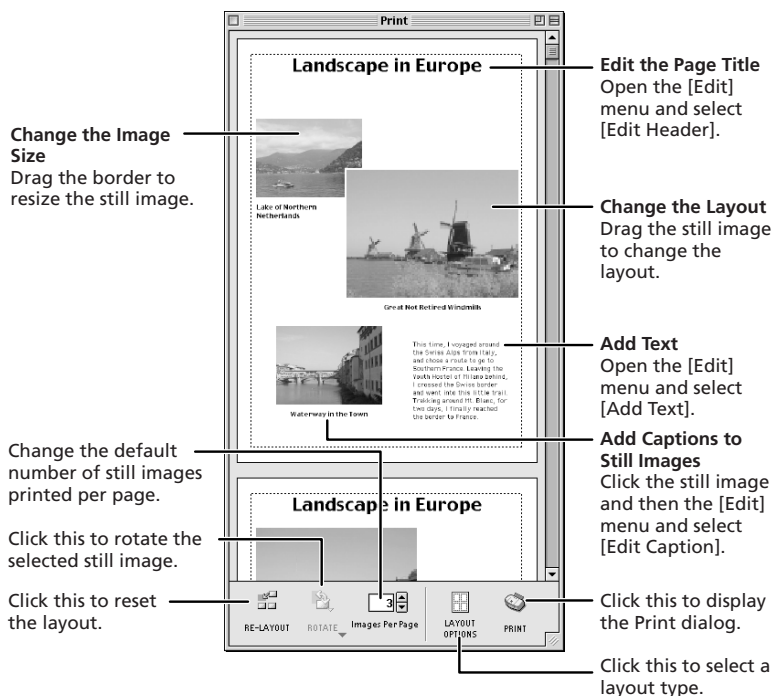
The Print dialog appears.



6. Click [Print].

Printing starts.

The Print Window



Adjusting Image Quality and Printing (Exif 2.2 Compliant)

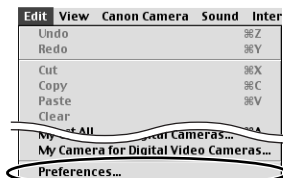
ImageBrowser allows you to print images with image quality adjustments. ImageBrowser also supports the Exif 2.2 standard (or Exif Print).



- Still images shot with camcorders complying with the Exif 2.2 standard incorporate shooting settings information, such as the shooting conditions and scene mode, along with the image data. The Exif Print adjustment protocol uses this information to correct the image quality more accurately to reflect the shooting settings.
- When printing from ImageBrowser, the image quality adjustment settings are active for all images.

Mac OS 9.0-9.2

1. Click the [Edit] menu in ImageBrowser and select [Preferences].



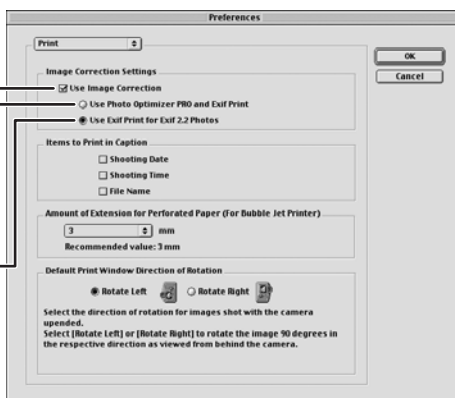
2. In the Preferences window, select [Print], set the image quality settings and click [OK].

See *Printing Still Images* for the next steps (p 114).

A check mark must be placed here to automatically correct the image quality.

Select this option to automatically correct images shot with Exif 2.2 compliant camcorders and other images.

Select this option to automatically correct only images shot with Exif 2.2 compliant camcorders.



Printing Still Images (ImageBrowser)

Mac OS X (10.1/10.2)

1. Click the [ImageBrowser] menu in ImageBrowser and select [Preferences].



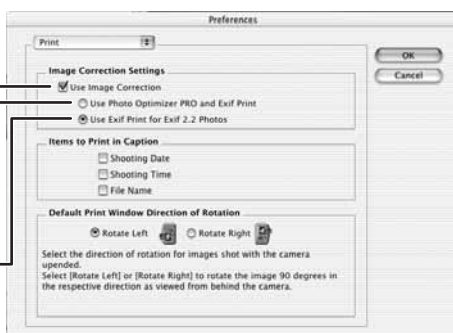
2. In the Preferences window, select [Print], set the image quality settings and click [OK].

See *Printing Still Images* for the next steps (114).

A check mark must be placed here to automatically correct the image quality.

Select this option to automatically correct images shot with Exif 2.2 compliant camcorders and other images.

Select this option to automatically correct only images shot with Exif 2.2 compliant camcorders.



Selecting the Print Mode and Number of Copies (DPOF Print Settings)

You can select the image and the number of print (print settings) for automatic printing on a DPOF*-compliant printer. You can set the DPOF print settings also on the camcorder.

*Digital Print Order Format



When you are using a SD memory card, make sure the protect switch is set to allow recording.



The Edit Slide/DPOF window allows print settings on up to 998 still images. With some camcorders, DPOF print settings are limited to a maximum of 200 still images. In that case, all DPOF print settings on the 201st still image and onward will be erased.

1. Click (SLIDE/DPOF) in the Camera Window.

The Edit Slide/DPOF window appears.



2. Select the still image you wish to print and the number of copies.

- [Standard Print]: Prints selected images in the specified number of copies. Use the arrows next to the boxes below the image to select the number of copies.
- [Index Print] and the option [Titles] of the [Edit] menu (printing of date and file number) are not supported by the camcorder.



3. Click [Save to Camera].

The DPOF print settings will be saved to the memory card.

Merging Panoramic Images (PhotoStitch)

You can merge a series of overlapping images into a single, seamless panorama. PhotoStitch automatically arranges still images recorded with the camcorder's Stitch Assist mode in their correct order and orientation, making it easy to merge them. Please refer to the Camcorder Instruction Manual to learn how to record in Stitch Assist mode.

The following instruction explains how to merge still images recorded in Stitch Assist mode with the camcorder.



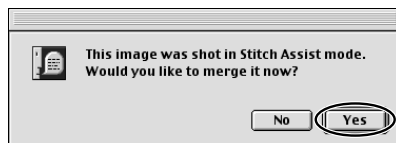
Still images recorded in Stitch Assist mode with Wide-converter or Tele-converter attached cannot be merged correctly.

1. Click the green stitch mark in the Camera Window.



2. In the confirmation window, click [Yes].

PhotoStitch starts.

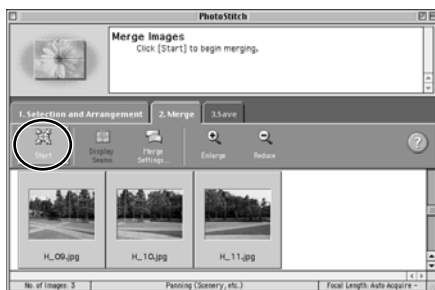


3. Arrange the order of the images and click [2.Merge].

Operational instructions are displayed in the upper section of the window.



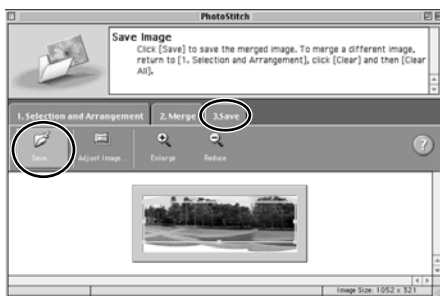
4. Click [Start].



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5. Select [3. Save] and then click [Save].

- Select the destination folder, input the file name and click [Save].
- In the View the Saved Image? window, click [Yes]. The Viewer window opens and displays the merged image.



- You can record the surroundings in 360 degrees, and stitch them together later to form a 360-degrees cylinder. (In [1. Selection and Arrangement], select [Arrange] and [360 degrees].) By saving this stitched image in QuickTime VR format, you can then get a virtual view of the surroundings.
- For more details, please refer to the ImageBrowser and PhotoStitch Help menu.

Macintosh

Adding Still Images from Your Computer to the Memory Card

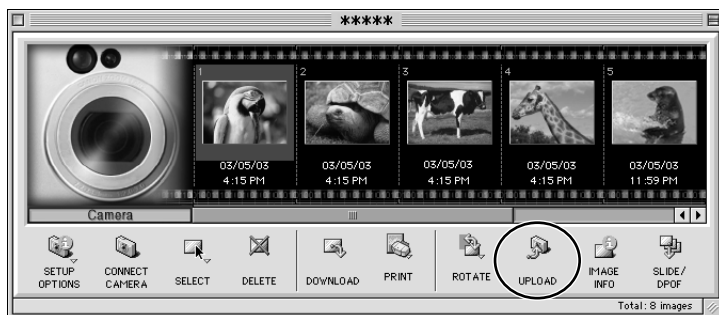
You can add still images from the computer to a memory card. You can also add sample images for card mix from the DIGITAL VIDEO SOLUTION DISK For Macintosh.



- Still images in JPEG, TIFF, PICT, and Windows bitmap format can be added to a memory card. However, the still images will be saved in JPEG format on the memory card.
- You can also add still images to a memory card by using drag and drop to move it from the browser area to the Camera window.

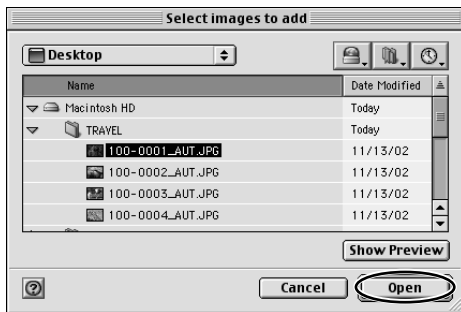
Adding Still Images to the Memory Card

1. In the camera window, click [UPLOAD].



2. Select the still image you wish to add and click [Open].

You can check the selected still image by clicking [Show Preview] in the [Select images to add] window.



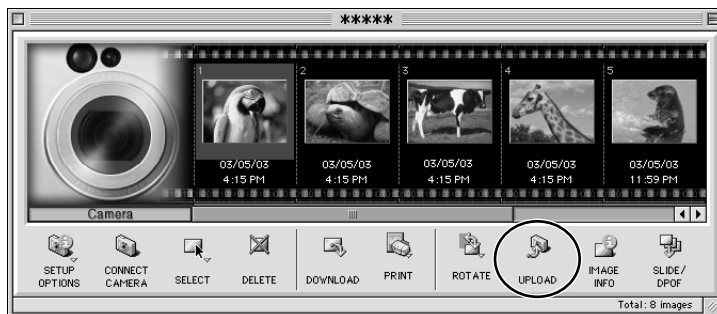
3. In the Add Image window, select the image size and click [Add].

- The selected images will be recorded to the memory card.
- When recording is complete, the images will appear in the Camera Window.

Adding Sample Images to the Memory Card

You can add sample images for card mix and card animation to the memory card. 4 images for CARD CHROMA, 2 images for CARD LUMINANCE, 2 images for CAMERA CHROMA and 4 images for CARD ANIMATION are provided on the DIGITAL VIDEO SOLUTION DISK For Macintosh.

1. In the camera window, click [UPLOAD].

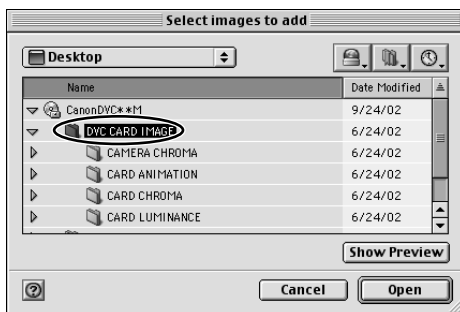


2. Insert the DIGITAL VIDEO SOLUTION DISK For Macintosh to the computer's CD-ROM drive.

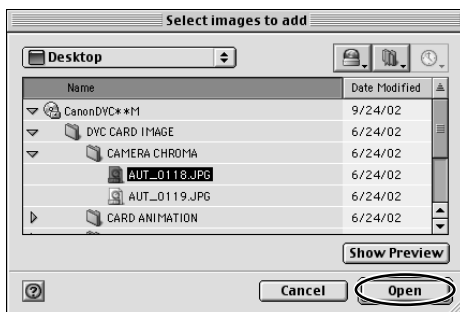
Adding Still Images from Your Computer to the Memory Card

3. Double-click the CD-ROM icon, followed by the [DVC CARD IMAGE] folder.

The folders [CARD CHROMA], [CARD LUMINANCE], [CAMERA CHROMA] or [CARD ANIMATION] appear.



4. Open the [CARD CHROMA], [CARD LUMINANCE], [CAMERA CHROMA] or [CARD ANIMATION] folder, select the image you wish to copy to the camcorder and click [Open].



5. In the Add Image window, click [Add].

- The selected images will be recorded to the memory card.
- When recording is complete, the images will appear in the Camera Window.

Customizing Your Camcorder with the My Camera Settings

The start-up image, start-up sound, operation sound, self-timer sound and shutter sound are called the My Camera Settings.

ImageBrowser already contains several My Camera Settings which can be selected in theme sets or individually. The "Animal" theme, for example features and animal in the start-up image and animal calls in each of the sound files. The files all begin with the same word (e.g. "Animal", "Baseball").

You can use the pre-recorded My Camera Settings (📖 128) or add still images to the My Camera Settings (📖 129).

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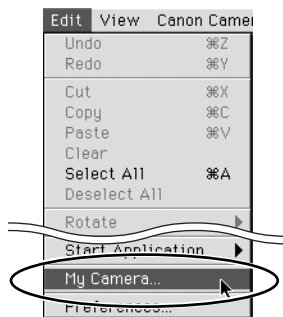
Observe following precautions while the My Camera Settings are saved to the camcorder.

- Do not open the memory card cover or remove the memory card.
- Do not detach the USB cable.
- Do not turn off the camcorder or computer.
- Do not change the position of the POWER switch or TAPE/CARD switch.

Displaying the My Camera Window

1. From the [Edit] menu in the Browser Window, select [My Camera].

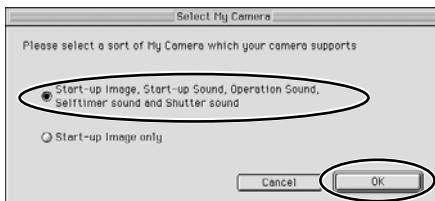
The Select My Camera window appears.



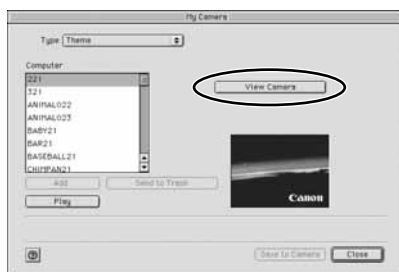
Macintosh

Customizing Your Camcorder with the My Camera Settings

2. Select [Start-up Image, Start-up Sound, Operation Sound, Selftimer Sound and Shutter Sound] and click [OK].



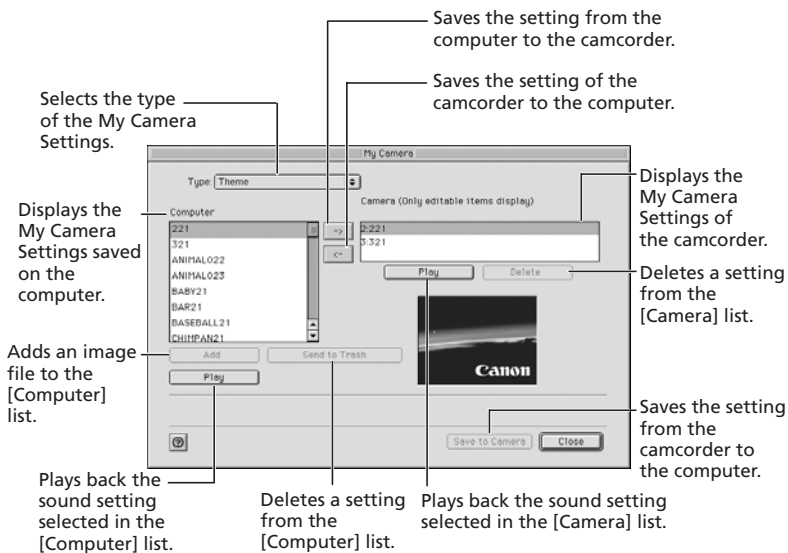
3. Click [View Camera] to display the My Camera Settings of the camcorder.



Alternatively, you can display the My Camera window from the Camera Window by clicking [SETUP OPTIONS] and selecting [My Camera] from the displayed menu.

My Camera Window

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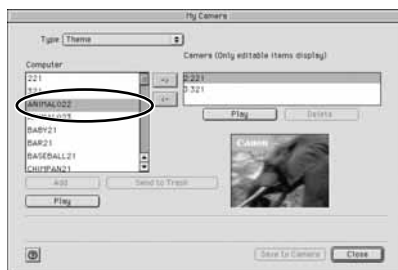
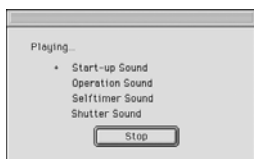


Macintosh

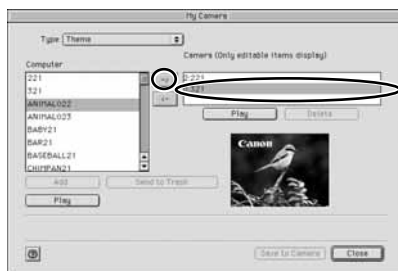
Customizing Your Camcorder with the My Camera Settings

Saving the My Camera Settings to the Camcorder

1. In the My Camera window, select the theme set you wish to save to the camcorder in the [Computer] list.
 - To change the settings individually, select the setting type in the [Type] list.
 - A window appears when you select a theme set and plays back the start-up, shutter, operation and self-timer sound.

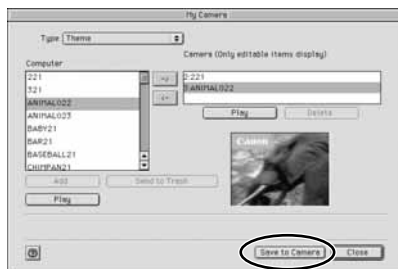


2. Select the setting you wish to replace in the [Camera] list and click .



3. On the confirmation window, click [OK].

4. Click [Save to Camera].



5. On the confirmation window, click [OK].

- The selected setting replaces the old setting and appears in the [Camera] list.
- If you wish to use this setting on the camcorder, change the My Camera Setting on the camcorder itself. Refer to the Camcorder Instruction Manual for details.

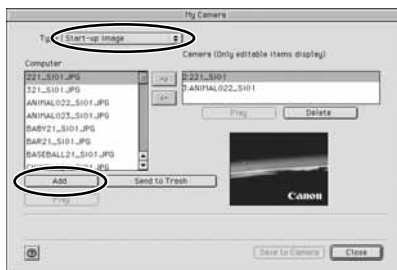
Adding Still Images to the My Camera Window



- To use still images recorded with your camcorder, you need to download them to the computer before you can add them to the My Camera Window.
- Sound cannot be added.

1. In the My Camera window, select [Start-up Image] in the [Type] list and click [Add].

The file opening window appears.



2. Select the still image file (JPEG) you wish to add and click [Open].

The selected file appears in the [Computer] list. You can now save the newly added file to the camcorder using the procedures described in *Saving the My Camera Settings to the Camcorder* (□ 128).



- To delete a setting, select the file and click the [Send to Trash] button below the [Computer] list.

Uninstalling the Software

Uninstall the software when you wish to delete it from your computer or when reinstallation is required to fix corrupted files.

Uninstalling ImageBrowser and PhotoStitch

Move the program's folder into the Trash to uninstall programs such as ImageBrowser and PhotoStitch.



If the program folders contain subfolders into which still images/movies have been saved, be careful not to accidentally delete those subfolders.

Troubleshooting

Connection

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? Camcorder is not recognized when connected to the computer.

→ Computer does not support the USB interface.

The USB interface is not supported for computer not in compliance with the following requirements. Acquire the necessary system to use the USB interface.

Requirements: Genuine Apple Computer brand computer with a built-in USB interface.

→ There is no memory card in the camcorder.

Insert a memory card into the camcorder.

→ The camcorder is not set to the correct mode.

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.

→ Camcorder is not correctly connected to the computer.

Read *Connecting the Camcorder to a Computer* (□ 91) and check the connection.

Ensure that you are using the correct cable and that its connectors are in good shape.

→ If you are experiencing operational problems, detach the USB cable from the camcorder and computer and terminate the connection. Restart the computer and then reconnect the camcorder.

Troubleshooting

ImageBrowser Operation

Cannot download still images

→ **The camcorder is not set to the correct mode.**

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD.

→ **The camcorder is not set to the correct USB connection mode.**

Open the menu and select [SYSTEM]. Select [USB CONNECT], set it to [STANDARD] and close the menu.

Cannot download MPEG-4 movies.

→ **The camcorder is not set to the MPEG-4 Movie playback mode.**

Turn the POWER switch to PLAY (VCR) and move the TAPE/CARD switch to CARD. Press the CARD STILL/MOVIE button to display the MPEG-4 movie playback mode.

→ **MPEG-4 movies cannot be downloaded with ImageBrowser.**

See *Downloading MPEG-4 Movies to a Computer* (□ 107).

Image files or folders do not appear in ImageBrowser.

→ **Images of folders shown in ImageBrowser and the actual file contents may be different.**

Click the [View] menu and select [Refresh].



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