Panasonic

Operating Instructions

High definition Image Management/Easy Editing Software

HD Writer AE 1.0 for HDC

Thank you for using HD Writer AE.

Before use, please read these instructions completely.

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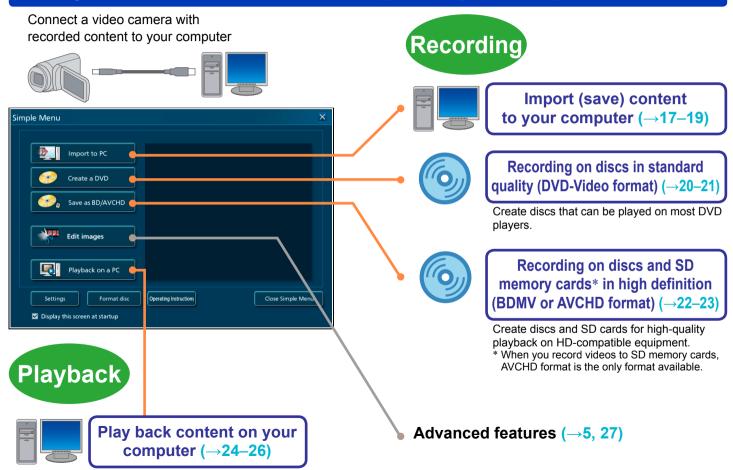
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Introduction

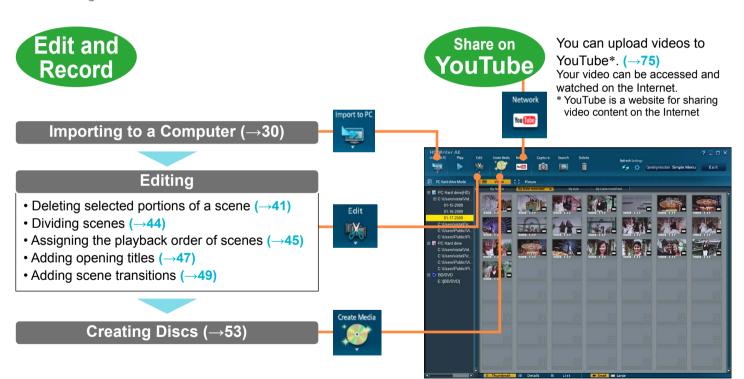
What you can do with this software (basic operations)



What you can do with this software (advanced features)



Connect a video camera with recorded content to your computer



Read before starting operation

Contents of these operating instructions

- The description of Windows in these operating instructions is based on the Windows Vista® screen.
- Please note that the explanations and screen images in these operating instructions may differ from the actual explanations and screen images due to version upgrades of the software and the use environments of PCs.
- For instructions on using your computer, optical disc drive, or video camera, or instructions on the Windows operating system, refer to the respective Operating Instructions.

■ Steps to protect important image data

- To be prepared in case of accidents or technical problems, back up captured data that is important to you by importing it to your computer and creating a disc or taking other measures.
- Before deleting the original image data, confirm that it was recorded correctly to your computer, to disc or to SD memory card
- Do not modify or delete files or folders ([AVCHD], [BDMV], [DCIM], [DVD RTAV], or others) used by this software.

Important

- Playback of discs or SD memory cards created with this software in BDMV format or AVCHD format is only possible on equipment which is compatible with each format. Do not insert these media in incompatible equipment. Not only will playback be unsupported, it may not be possible to eject the media. Additionally, valuable content may accidentally be deleted after a message is displayed requesting you to format the media.
- The recorded and/or edited content is for personal use only and may not be reproduced or exported without permission from the copyright holder.

Terms

BDMV

This is a standard for recording and playing back high-definition images on Blu-ray discs.

AVCHD

This is a standard for recording and playing back high definition images.

DVD-Video

A format that can be played on most DVD players.

Scene

This means the image recorded during one recording (after starting recording until it is stopped).

Video

In this software, "scenes" (video content with the same recording date, for example) in the same folder are collectively referred to as "videos."

Top menu

A feature for displaying an interface similar to a table of contents when a disc is played. (Top menu is not displayed on video cameras. Top menus are only displayed on devices that support this feature.)

SD cards

In these instructions, SD memory cards and SDHC memory cards are collectively referred to as SD cards.



General precautions

Not compatible with the following video formats and content

- Video recorded on video cameras that are not compatible with this software
- Video captured using other devices cannot be imported. To import video from a previous Panasonic high-definition video camera, use the version of HD Writer provided with that video camera.

Media containing data recorded with previous Panasonic highdefinition video cameras or data recorded with other devices cannot be imported with this software.

- Video created or edited with other software
- Commercial DVD or Blu-ray video content

■ General information about using the software

- Do not execute the following operations while the software is running. Doing so may cause defects (damage to media, etc.).
- Turn off the PC or video camera, or restart the PC.
- Switch the user or log off.
- Change the screen settings.
- Use the screen saver or the power-saving functions (makes the PC enter the standby or sleep modes after a certain time has elapsed without any operation on the PC).
- Use other software (especially software for writing to DVDs or CDs, or recording/encoding software with a high CPU utilization and large memory requirements).
- Use the shared drive of another PC connected to the network.
- BD-RE Ver. 1.0 / Ver. 2.1 standard disc cannot be used.
- DVD disc in AVCREC standard is not supported.

Discs and drive

- If the drive is being used by another software (Explorer, etc.), the drive cannot be used with this software. Close the software before using the drive with this software. (If the drive is being used by this software, the drive cannot be used with other software.)
- Before using this software, ensure that the transfer mode of the drive is set to [DMA]. If it is not set to [DMA], set it to [DMA] by referring to the operating instructions of your drive. (It may be impossible to set it to [DMA] depending on your PC.)
- Use the type of discs recommended for your disc drive, and avoid soiling or scratching them. Reading and recording may not be possible with dirty or scratched discs.
 Discs that are incompatible with the disc drive may not be recognised, or recording may not be possible.
- The recording speeds (2x, 4x, etc.) for drives and discs indicate the maximum speed and not the actual recording speed. (Speeds may vary depending on the combination of drive and disc or the use conditions.)

Operations during disc recording

If the following actions are executed while the data is being recorded onto a disc, recording may not complete properly, and the disc, device, or data may be damaged.

- Operations for user switching or logging off from Windows[®].
- Operation of other recording software.
- Connection cables for a PC or a DVD device (an external DVD drive) are inserted or removed, or the power is turned on or off.
- Other USB devices such as SD card reader are installed or removed.
- This software is forcibly closed.

General precautions

Disc creation

- Video recorded in DVD-Video format must be at least 2 seconds long. Video recorded in DVD-VR format must be at least 3 seconds long.
- Conversion may be required when recording, depending on the images. In this case, because the image has to be encoded again, recording takes longer and image quality may also be degraded.
- When recorded in DVD-Video format, the end section of the image may be shortened for about 0.5 seconds.

Playback and use of produced media

- Discs created in AVCHD standard cannot be accessed with equipment or software that does not support the AVCHD standard. (Also, because the filing system uses a UDF 2.5 format, the files on the disc cannot be checked on a PC using Windows® Explorer unless UDF 2.5 has been installed.)
- Discs created in BDMV standard cannot be accessed with equipment or software that does not support the BDMV standard. (Also, because the filing system uses a UDF 2.6 format for BD-R or UDF 2.5 format for BD-RE, the files on the disc cannot be checked on a PC using Windows® Explorer unless each format has been installed.)
- DVD-Video and DVD-VR format cannot be played back, imported, or edited.
- Pictures on a disc cannot be imported. This software is not capable of importing pictures from a disc recorded with the DVD burner and a video camera connected.
- For DVD-R discs with dual layer on single side, images may be frozen or sounds may be inaudible for a moment when shifting from the first layer to the second layer, depending on the player.
- Normal playback may not be possible (a narrow, small, or incomplete playback window may be displayed) when using some models of older equipment (even if the equipment is compatible with the disc) or with some types of recorded data.
- The recording mode is not displayed when discs or SD cards created using this software are played back using the HD video camera.

SD cards

- Recording on used SD cards may require formatting (initialisation).
 - SD cards must be formatted by using video cameras compatible with this software.
- Do not insert or remove SD cards when importing data from SD cards or recording data on discs. Removing SD cards then may cause data corruption or SD card damage.
- Use of SDHC memory cards requires SDHC-compatible equipment.
- If the write-protect switch has been set to [LOCK], recording is not possible.
- Initialising SD cards or deleting card data only modifies file management information. Data on SD cards is not completely deleted. We recommend physically destroying SD cards or thoroughly deleting all data on SD cards when disposing of SD cards or transferring ownership. Use discretion in managing data on SD cards.

■ Functions using online services

- Because YouTube™ services and specifications are subject to change, operation of online services cannot be guaranteed in the future. Available services and screens are subject to change without notice.
 - (These services are valid as of December 1, 2008.)
- Unless you are the copyright holder or you have obtained permission from the copyright holder, do not upload videos protected under copyright.

Operating environments

System requirements

PC	IBM® PC/AT compatible personal computer with an Intel® Pentium® II 1.0 GHz or higher CPU (including compatible CPU) When using playback function and the MPEG2 output function, Intel® Core™ 2 Duo 2.16 GHz or higher, Intel® Pentium® D 3.2 GHz or higher, or AMD Athlon™ 64 X2 Dual-Core 5200+ or higher is recommended. When editing content or using seamless transfer functions or continuous photo playback function, an Intel® Core™ 2 Quad 2.6 GHz processor or higher is recommended.				
os	Preinstalled Microsoft® Windows Vista® Home Basic or Service Pack 1 Microsoft® Windows Vista® Home Premium or Service Pack 1 Microsoft® Windows Vista® Ultimate or Service Pack 1 Microsoft® Windows Vista® Business or Service Pack 1 Microsoft® Windows Vista® Business or Service Pack 1 Microsoft® Windows® XP Home Edition Service Pack 2/Service Pack 3 Microsoft® Windows® XP Professional Service Pack 2/Service Pack 3 Microsoft® Windows® 2000 Professional Service Pack 4				
RAM	Windows Vista®: 1 GB or more Windows® XP/2000: 512 MB or more (1 GB or more recommended)				
Display	High Colour (16 bit) or more (32 bit or more recommended) Desktop resolution of 1024 x 768 pixels or more (1280 x 1024 pixels or more recommended) Windows Vista®: Video card complying with DirectX® 9.0c (DirectX® 10-compatible video card is recommended) Windows® XP/2000: Video card complying with DirectX® 9.0c DirectDraw® overlay support PCI Express™ x 16 is recommended				
Hard disk	Ultra DMA-100 or higher 450 MB or more free space for installing software • Recording to optical discs or SD cards requires twice the amount of free space as the size of the disc or SD card to be created. When automatically splitting data over multiple discs, 17 GB of free space are required. • If the compression setting is enabled, errors will occur during recording. Clear the check for [Compress this drive to save disk space] in [Properties] for the hard disk drive.				
Necessary software	Windows Vista®: Microsoft® DirectX® 10 (preinstalled in Windows Vista®) Microsoft® DirectX® 10.1 (preinstalled in Windows Vista® SP1) Windows® XP/2000: Microsoft® DirectX® 9.0c (preinstalled in Windows® XP SP2/SP3) ■ Installing the software on a computer that is not compatible with these versions DirectX® may cause the computer to stop operating normally. If you are unsure if your PC is compatible, contact the manufacturer.				
Sound	DirectSound® support				

Operating environments

Drive	CD-ROM drive (for installation) When writing to DVD or BD, a compatible drive and media are necessary.				
Interface	port (Hi-Speed USB (USB2.0))				
Video cameras connected via USB	Panasonic HD video cameras this software is provided with				
Content	Content captured using Panasonic HD video cameras this software is provided with				
Other requirements	Mouse or equivalent pointing device, an environment with Internet access (required for online functions "YouTube Uploader")				

- Depending on the performance of your personal computer, a message about playback performance may appear during installation.
- Even if the system requirements mentioned in these operating instructions are fulfilled, some personal computers cannot be used.
- Supplied CD-ROM is available for Windows only.
- This software is not compatible with Microsoft[®] Windows[®] 3.1, Windows[®] 95, Windows[®] 98, Windows[®] 98 SE, Windows[®] Me, and Windows NT[®].
- Operation is not guaranteed on Microsoft® Windows Vista® Enterprise, Windows® XP Media Center Edition, Tablet PC Edition and not compatible with 64 bit operation systems.
- When 2 or more USB devices are connected to a PC, or when devices are connected through USB hubs or by using extension cables, proper operation is not guaranteed.
- Operation on an upgraded OS is not guaranteed.
- Operation on an OS other than the one pre-installed is not quaranteed.
- This software does not support the multi-boot environments.
- Windows Vista®: Log on with an administrator account or a standard user account before using this software. The software will not function with a Guest account.
 - Windows® XP/2000: Log on with an administrator account before using this software. (Installation and uninstallation of the software requires an administrator account.)
- This software does not support the multi-monitor environments.

- For fonts and screen settings, use the standard Windows® settings.
 Characters may not display properly depending on the settings.
- This software cannot be used simultaneously with other time-shifting image editing software or video capture products. Note that other software running background processes, timer recording in particular, may cause this software to malfunction.
- This software operates only when the built-in clock on the PC is set to a value within the following range.
 From 0:00 on January 1, 1970, to 23:59 on December 31, 2037.
 If the built-in clock is set to a value outside this range, this software may not be activated or operated properly.
- This software can only handle images recorded with this software or a Panasonic video camera that this software accompanied. Images created with other video cameras, DVD recorders, software and commercial DVD videos and BD videos are not supported.

Optical discs and SD cards supported for recording

		Blu-ray	/ discs		DVD discs	DVD discs		ds*6*7
		0	0	0	0	0	Panasonic CARRIE	Panasonic Superior Su
		BD-R	BD-RE	DVD-RAM*2	DVD-R	DVD-RW	SD memory card	SDHC memory card
		12 Single Dual layer o		12 cm Single sided/ Double sided	12 cm Single sided/ Dual layer on single side	12 cm Single sided	512 MB - 2 GB	4 GB - 32 GB
Dogordina	High definition	BDN	1V*9			AVCHD		
Recording Format	Standard quality	_	_	DVD-VR	DVD-V	/ideo*4		-
Appending		0	0	0	_	_	0	0
	Format	Required*1	Required*1	Required*1*3	_	Required*1*5	Required*8	Required*8
	Picture	_	_	_	_	_	JPEG	(DCF)

- +R and +RW DVD discs can be used for recording in AVCHD format.
- Playback of BDMV, AVCHD, DVD-VR, and DVD-Video content requires equipment compatible with the respective formats.
- •8 cm discs are not supported.
- Recording errors may occur, depending on the disc quality.
- *1 Can be formatted by using this software.
- *22.6 GB and 5.2 GB double-sided DVD-RAM discs are not supported.
- *3 The type of formatting DVD-RAM discs varies depending on whether AVCHD or DVD-VR will be used. (→79)
- *4 DVD-Video can be played on most DVD players.

- *5 Used DVD-RW discs can be used again for recording after formatting.
- *6 Includes miniSD cards (up to 2 GB), microSD cards (up to 2 GB) and microSDHC cards (up to 8 GB). (As of November 2008.)
- *7 SD cards must have a capacity of at least 32 MB for video recording. Additionally, operation is not guaranteed when recording video to 32 MB – 256 MB SD cards. SD cards of 8 MB – 128 MB can be used to store photos.
- *8 SD cards must be formatted by using video cameras compatible with this software.
- *9 BD-RE disc: Compatible with Blu-ray Disc Rewritable format BD-R disc: Compatible with Blu-ray Disc Recordable format

Recording length of optical discs and SD cards

For BDMV and AVCHD format

Approximate Recording Length Per Disc/Card

	_	Approximate Necessary Early of Blood Card			
		Image quality			
		HA	HG	HX	HE
		(Best quality)	(High quality)	(Standard)	(Long duration)
Blu-ray discs	25 GB	approx. 3 h	approx. 3 h 50 min	approx. 5 h 30 min	approx. 8 h 20 min
BD-R/BD-RE	50 GB	approx. 6 h	approx. 7 h 40 min	approx. 11 h	approx. 16 h 40 min
DVD discs	4.7 GB	approx. 35 min	approx. 45 min	approx. 1 h 5 min	approx. 1 h 40 min
	8.5 GB	approx. 1 h 5 min	approx. 1 h 15 min	approx. 2 h	approx. 3 h
SD cards	8 GB	approx. 1 h	approx. 1 h 20 min	approx. 2 h	approx. 3 h
	16 GB	approx. 2 h	approx. 2 h 40 min	approx. 4 h	approx. 6 h
	32 GB	approx. 4 h	approx. 5 h 20 min	approx. 8 h	approx. 12 h

■ For DVD-Video and DVD-VR format

Approximate Recording Length Per Disc

		Image quality		
		(High quality)	(Standard)	
DVD-R/RW	4.7 GB (Single sided)	approx. 1 h	approx. 1 h 30 min	
(DVD-R/RW (DVD-Video)	8.5 GB (Dual layer on single side)	approx. 1 h 50 min	approx. 2 h 40 min	
DVD-RAM (DVD-VR)	4.7 GB	approx. 1 h		

Preparation

Connect the video camera to a computer

By connecting a compatible video camera to your computer with the included cable, you can import content on the internal recording media of the video camera or on the SD card installed in the video camera to your computer or create discs.

Important

To avoid draining the battery of notebook computers or video cameras, use an AC adapter with these devices.



1 Start the computer.

2 Turn on the video camera.

 $oldsymbol{3}$ Connect the video camera to a computer.

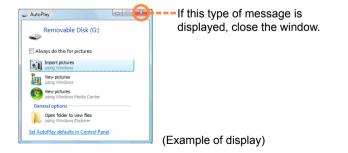
Insert the USB cable included with the video camera firmly into the USB port.

Set the video camera to the mode for connecting to a PC.

For details, refer to the operating instructions for the video camera.

5 Confirm that the video camera is recognised by the computer.

The video camera is correctly recognised by the computer if the video camera is added as a drive in [Computer] (or [My Computer]).



Connect the video camera to a computer

Tip

- For further details, also refer to the video camera manual.
- To record to optical discs or SD cards, use a disc drive or SD card reader/writer. (Some video cameras support recording to the SD card in the video camera.)
- Do not operate the video camera or disconnect the USB cable during the transfer of video camera data. The software may malfunction, and data may be lost.
- When the computer has been connected to a video camera which is running on battery power, a warning message is displayed when the remaining battery charge is low. The level of the remaining charge indicated in the message serves solely as a general guide so connect the AC adapter as soon as possible.

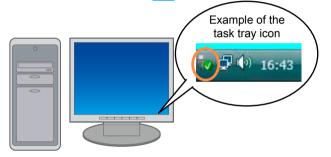
SD card connection

When using an SD card slot or reader/writer, connect the device before starting this software. (For connection instructions, refer to the Operating Instructions of the computer or SD card.)

 If you connect the device after startup, select the drive on the [SD] tab of the [Settings] window, and then click [OK]. (→84)

Disconnecting the video camera from the computer

- 1 Confirm that the video camera is not recording or being accessed in some way.
- 2 Double-click works in the task tray.



3 Select [USB Mass Storage Device] and click [Stop].

If multiple USB devices are displayed, you can double-click each to check the video camera.

- Disconnect the USB cable from the computer.
- 5 Turn off the video camera.

Starting the software

Important

Do the following before starting the software.

- Close other software and resident programs.
- Disable the screen saver or power-saving functions (functions to make the computer enter standby or sleep mode when a specified time has elapsed without any operations on the PC).

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Double-click Double-click on the desktop to start the program.

Startup is also possible by selecting [Start]→[All Programs]→ [Panasonic]→[HD Writer AE 1.0]→[HD Writer AE].

Tip

First startup

- A window is displayed regarding the licence agreement. Read the agreement carefully before continuing.
- From the Start menu, select [All Programs]→[Panasonic]→[HD Writer AE 1.0]→[Read this before starting], and then read the supplemental explanations and late-breaking information.

Exiting the software

Click Close Simple Menu or X

The "Simple Menu" is closed.

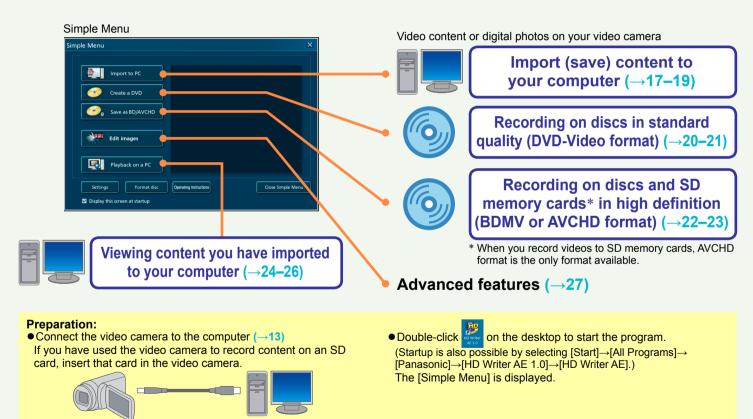
2 Click Exit or X

Basic operations

Feature overview

This section summarizes basic software operations. The following operations are possible using the [Simple Menu].

● If the main window (→28) is displayed instead of this one, click [Simple Menu] in the upper-right corner to display the [Simple Menu].

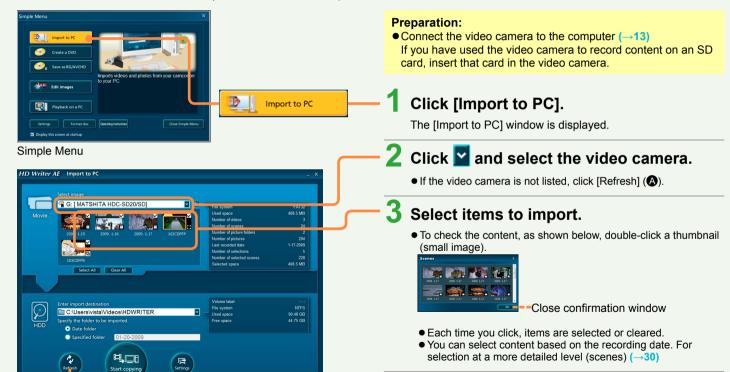


X End

Refresh

Start copying

Video content or digital photos on your video camera can be imported to your computer, where it will be grouped by recording date. (Video captured using other devices cannot be imported. To import video from a previous Panasonic high-definition video camera, use the version of HD Writer provided with that video camera. Media containing data recorded with previous Panasonic high-definition video cameras or data recorded with other devices cannot be imported with this software.)





If importing is not possible

- If the information area (a) displays yellow letters, nothing is selected for importing, no media is loaded, or there is a similar problem.
- If the information area (⑥) displays red letters, there is not enough free space in the importing destination, or there is another similar problem.
- A "?" will appear in the thumbnail for data recorded with previous Panasonic highdefinition video cameras or with other devices. This data cannot be imported.



4 Click and select an importing destination (a folder on your computer).

Subfolders for each recording date are created in the selected folder, and the content is imported there.

Recording dates are used for the subfolder names.

- To import all content to a single folder, select [Specified folder]
 (B) and enter the name in the text box next to this option.
 Note that these characters are not supported: \/: *?" <> |
- 5 Click [Start copying].
 - This button is not available unless you have selected at least one video or photo.
- 6 Click [OK] when the confirmation message is displayed.
 - If you click [Cancel], the previous window is displayed.

Importing now begins, and the status is shown in the progress indicator.

- Importing the data takes time. Do not operate the computer until importing is finished.
- To cancel importing in progress, click [Cancel].
- 7 Click [OK] when a message is displayed indicating importing is finished.

■ Storage locations of imported content

Content is imported to subfolders (named with dates) in the folder selected in step 4, or to your specified folder.



- To rename these date folders or your specified folder after importing, right-click the folder and select [Properties], and then change the name in [Title]. (Names are a maximum of 64 singlebyte characters.)
- Content on SD Media Storage, optical discs, or SD cards can also be imported to your computer

In step 2, select the SD Media Storage, optical disc, or inserted SD card instead of your video camera.

- Top menus are not imported if you select only some items with a top menu for importing.
- The video recorded by other than video cameras this software provided with cannot be imported from SD Media Storage to PC.

Tip

- Register a new folder to import content to a destination other than folders displayed in step 4. ("Registering new folders" →33)
- Content captured on video cameras that support relay recording using relay recording is treated as a single video.
- For further details on methods of importing $(\rightarrow 30)$

Importing only content that you have not already imported (differential importing)

Each time you attempt to import content on the internal recording media of the video camera or on the SD cards* installed in the video camera, and that include content already imported, the new content is automatically detected, and only the new one will be imported. (*This feature applies only to SD card content recorded with HD video cameras this software is provided with. However, adding content from another video camera will prevent the differential content from being recognised.)



(Selected): Subject to importing

- Content that you have captured since importing the previous content
- Content that you have edited on the video camera since importing the previous content

(Cleared): Not subject to importing

• Content already imported (labeled (Note that once content has been imported, it is not subject to importing again, even if you have deleted it from your computer.)

Tip

 Click the check boxes to select or clear items, as desired. To restore the previous state after any changes, click [Refresh] ().

Recording on discs in standard quality (Simply Create DVD-Video Disc)

Video content captured with a video camera can be recorded on DVD discs in standard quality. DVD discs recorded this way can be played on most DVD players.

- For a list of supported discs (→11)
- Content that does not fit on a single disc will be automatically split and recorded over multiple discs. However, this function may not be available if the work area file system is FAT32. ([Work area setting] →81)
- Top menus (an interface for discs similar to a table of contents →54) are also created automatically. For instructions on changing the top menu design (→82)



Recording on discs in standard quality (Simply Create DVD-Video Disc)



Content on SD cards or on your computer can also be recorded to a DVD disc (except for video content converted into the MPEG2 format)

In step 2, select an inserted SD card or a folder on your computer instead of your video camera.

- Data cannot be imported between the same kinds of media, such as from one DVD disc to another or from one SD card to another.
- Different media cannot be used to record to a single media.

Tip

- Discs created this way are for playback only. Additional content cannot be recorded on them.
- Lower-performance computers may require a significantly longer time for disc recording.
- Digital photos cannot be recorded with this function. To record photos ("Recording photos" →67)
- When creating media of relay recorded video content continuously recorded on different memory (e.g. hard disk or SD cards) with compliant video cameras, only video content in the memory selected at the time of connection is imported.
- For further details on recording on various media (→53)

4 Click and select the DVD disc to record to.

5 Click 🗹 and select the video image quality.

[High quality]: Priority to video quality [Standard quality]: Priority to recording capacity

Click [Start writing].

• This button is not available unless you have selected at least one item.

7 Click [OK] when the confirmation message is displayed.

• If you click [Cancel], the previous window is displayed.

Recording now begins, and the status is shown in the progress indicator.

- It takes time to record all the data. Do not operate the computer until recording is finished.
- Clicking [Cancel] when changing discs or during data conversion will stop recording in progress. However, recording cannot be stopped when data is being written.
- Content that does not fit on a single disc during DVD recording will be split and recorded over multiple discs. The approximate number of discs needed is indicated (B). Follow the instructions displayed to switch to a new disc.
- During multi-disc recording, you can stop recording when it is time to load the second or subsequent disc. Information about the remaining content will be displayed then. To record the remaining content later, refer to this information and select the content again, and then resume recording.
- If a media problem causes recording to fail, follow the instructions to replace the media. The content you were recording when the failure occurred will be recorded again on the new media.

Click [OK] when a message is displayed indicating that recording is complete.

Recording on discs and SD cards in high definition (Simply Create BD/DVD/SD Card (AVCHD))

Video content captured with a video camera can be recorded on discs and SD cards in high definition.

Discs and SD cards recorded this way can be played on HD-compatible equipment. (This includes Blu-ray players when you record to Blu-ray discs or HD-compatible DVD recorders supporting AVCHD standard when you record to DVD discs, for example.) They can also be played using this software.

- For a list of supported discs and SD cards (→11)
- Typical DVD players do not support playback. If you prefer to use typical DVD players, record in DVD-Video format (standard quality). (→20)
- Content that does not fit on a single disc will be automatically split and recorded over multiple discs.
- Top menus (an interface for discs similar to a table of contents →54) are created automatically when recording to media other than SD cards.
 For instructions on changing the top menu design (→82)



Simple Menu



Preparation:

- Connect the video camera to the computer (→13).
 If you have used the video camera to record content to an SD card, insert that card in the video camera.
- Load the BD-R/RE, DVD-R/RW, DVD-RAM disc or SD card to record to.

When using SD cards, see "SD card connection" (\rightarrow 14).

1 Click [Save as BD/AVCHD].

• The [Save as BD/AVCHD] window is displayed.

2 Click and select the video camera.

• If the video camera is not listed, try clicking [Refresh] (A).

3 Select the items to record.

- Each time you click, items are selected or cleared.
- You can select content based on the recording date. For selection at a more detailed level (scenes) (→30)

Recording on discs and SD cards in high definition (Simply Create BD/DVD/SD Card (AVCHD))



 Content on storage media or on your computer can also be recorded to an optical disc or SD card

In step 2, select inserted media or a folder on your computer instead of your video camera.

- Data cannot be imported between the same kinds of media, such as from one disc to another or from one SD card to another.
- Different media cannot be used to record to a single media.

Tip

- When content is recorded to storage media, playback may be interrupted a few seconds between scenes.
- Digital photos cannot be recorded with this function. To record photos ("Recording photos" →67)
- When creating media of relay recorded video content continuously recorded on different memory (e.g. hard disk or SD cards) with compliant video cameras, only video content in the memory selected at the time of connection is imported.
- For further details on recording to various media (→53)

4 Click

and select the optical disc or SD card to record on.

5 Click [Start writing].

 This button is not available unless you have selected at least one item.

6 Click [OK] when the confirmation message is displayed.

• If you click [Cancel], the previous window is displayed.

Recording now begins, and the status is shown in the progress indicator.

- With media other than DVD-R/RW and BD-R discs, recording can be stopped by clicking [Cancel]. With DVD-R/RW and BD-R discs, recording can be stopped by clicking [Cancel] when changing discs or during data conversion. However, recording cannot be stopped when data is being written.
- It takes time to record all the data. Do not operate the computer until recording is finished.
- Content that does not fit on a single disc will be split and recorded over multiple discs. The approximate number of discs needed is indicated (B). Follow the instructions displayed to switch to a new disc.
- During multi-disc recording, you can stop recording when it is time to load the second or subsequent disc. Information about the remaining content will be displayed then. To record the remaining content later, refer to this information and select the content again, and then resume recording.
- If a media problem causes recording to fail, follow the instructions to replace the media. The content you were recording when the failure occurred will be recorded again on the new media.

Click [OK] when a message is displayed indicating that recording is complete.

Viewing content on a computer

Video content and photos you have imported to your computer can be viewed on your monitor.

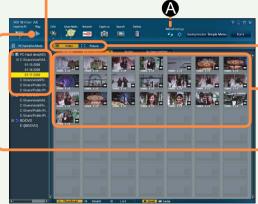


Click [Playback on a PC].



After the window for assistance is displayed, check the information and click [Close] to close it.





Main Window

Tip

 Alternatively, in step 2 you can select a connected video camera or inserted media. Content shown as thumbnails can be played. For further details on playback (→34)

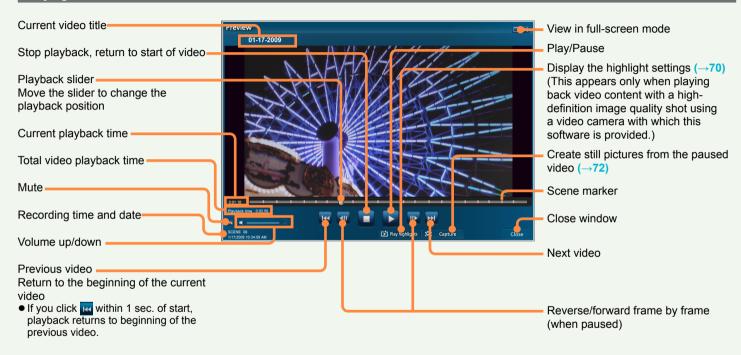
- Click the folder where you imported the content to.
 - If the folder is not listed, try clicking [Refresh] (A).
- Click [Video] or [Picture].
- Click the folder or thumbnail for playback.
 - Content can also be played by right-clicking and selecting [Playback] in the menu displayed, or by double-clicking thumbnails.
- Click [Play].

The selected video or photo is now played in the preview window. $(\rightarrow 25-26)$

• For videos, selecting a folder will play all clips in the folder. Selecting a thumbnail will play all scenes in the folder after that scene, one after another.

Viewing content on a computer

Playing video content

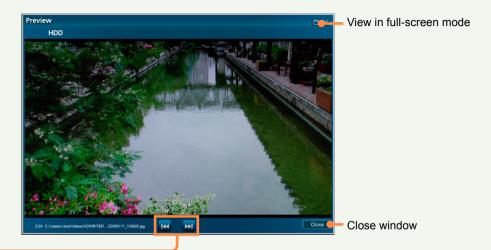


Tip

- If no action is taken for about 3 seconds in full screen mode, the controls are hidden. Move the mouse to display them again.
- Double-click the screen to view content in full-screen mode. Double-click again to view at the original size.

Viewing content on a computer

Viewing photos



Previous/next photo

■ Viewing photos by recording date

You can view photos saved on your computer by recording date. In the media/folder selection area, click by [Recording date], under [PC Hard drive]. Select a desired date to display all photos captured on that date in the content viewing area.



Tip

- Double-click the screen to view content in full-screen mode. Doubleclick again to view at the original size.
- You cannot play back photos shot using high-speed burst shooting on this window. (→ 71)

Advanced Features

Feature overview

This section describes more advanced software operations. The following operations are possible.

Import content to your computer (→30-33)



Edit content on your

Play content (\rightarrow 34–35)

Delete content (→36)

Deleting unnecessary portions of content

- · Dividing scenes
- Assign the playback order
- Adding opening titles
- Adding scene transitions
- · Edit digital photos
- · Protect content/rename content

Record on optical discs and SD cards (→53–69)

Use convenient features $(\rightarrow 70-77)$

- · Create still pictures from video
- · View highlights of video content
- Viewing photos shot using high-speed burst shooting
- · Combine scenes
- · Search for desired content
- Upload content to YouTube

Use the main window (—next page) for general operations such as importing, playback, and editing. This window is displayed when you close the Simple Menu that appears immediately after the software starts up.

 If the message at right is displayed when media is loaded, the main window will also be displayed if you select [Import to PC/save to disc/playback on PC].



Tip

 To prevent the [Simple Menu] from being displayed at startup, clear the check mark by [Display this screen at startup] in the lower-left corner of the [Simple Menu].



Feature overview

► Main window

Control buttons-

Type of content -

Video: video content

• Picture: photo or other still picture

Rearrange display order

 Click to sort in ascending (▲) or descending (▼) order. The order changes each time you click.

Change display format

 Information shown when viewing content by [Details] varies depending on the type of content. The William Company of the Company o

—Access the [Simple Menu] (→16)

Display the [Settings] panel (→81–85)

Update information in the areas for media or folder selection and content previewing

Content preview area

 Content of media or folders selected in the media/folder selection area is shown here.

Resize thumbnails

 By default, small thumbnails are displayed.

Media/folder selection area



[Panasonic Video Camera]: Detected video cameras



[PC Hard drive (HD)]:

High-definition content imported to the computer using this software

 Subfolders where you have imported HD content are displayed. (These folders are inside folders you have registered in this software.) To register or deregister folders for storing content (→33)



[PC Hard drive]:

Standard-definition content converted using this software



[PC Hard drive] (Displayed when the [Picture] tab is selected):

Digital photos imported to the computer using this software



[SD]: Detected SD card drives



[BD/DVD]: Detected BD/DVD drives

Click
 ■ to expand listed items.
 (Click again to close the information.)

To examine media or folders:

This example illustrates how to examine video camera content.

Click directly under [Panasonic Video Camera]. (The file path, indicated here by G:\, varies depending on the computer used.)

 If nothing is listed under [Panasonic Video Camera], click ▶, which will change to ➡.



• If [Panasonic Video Camera] is not listed, try clicking [Refresh].

Feature overview

► Main window

Content preview area

Content in the preview area is displayed as folders or thumbnails.

Folders

When importing to a date folder, videos with the same recording date are saved in the same folder.

Additionally, photos shot using high-speed burst shooting with a video camera are saved together in a single folder.



1 Type of content

: Video



Photos shot using highspeed burst shooting

■Thumbnails

Thumbnails are small images representing video content or photos.

1) Type of content

: Video



: Photo or other still picture

② Protection setting



: Protected content



3 Importing status



: Imported to the computer

(Shown only for content on the internal recording media of the video camera or on the SD card installed in the video camera. Not shown for SD card devices.)



: Recorded on BD-R/RE or DVD-R/RW disc



: Recorded on DVD-RAM disc



Recorded on SD card

The "recorded" icons are not displayed on the [Create a DVD]
 (→20) and [Save as BD/AVCHD] (→22) screens.



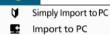
- Up to 9,999 scene and photo thumbnails can be displayed.
- For large amounts of content, it may take some time to display thumbnails.

Content (video content in AVCHD format, and photos) on the internal recording media of the video camera, an SD card installed in the video camera, an SD card which has been connected using an SD card slot or a device such as an SD card reader/writer, or content (videos in BDMV format or AVCHD format) on a disc created with this software can be imported to your computer. This content can also be edited after it is imported to the computer. $(\rightarrow 37)$

On the main window, click



to display the [Import to PC] menu.



Simply Import to PC (For details →17)

Used when importing all content to the computer.

- Able to select images based on the recording dates.
 Unimported content is detected automatically (differential importing →19).
- Handa kan in a firm of the control of

Import to PC

(See information starting on the next page)

Used when importing specific content.

• Individual scenes can be selected.

Important

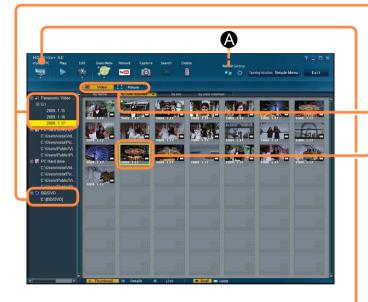
- Only video content or photos can be imported to your computer using this software. Other data cannot be imported.
- Importing requires 1.3 times more free space than the size of the content
- Top menus are not imported.
- Do not use Windows Explorer or other software to delete, modify, or move content (folders or files) imported to the computer using this software. This prevents the content from being managed by this software.
- When using the SD Media Storage drive (VW-PT2), data cannot be imported using [Import to PC]. Use the procedure in [Simply Import to PC]. (→17-19)

Preparation:

 Load the media to import from (connect the video camera and computer, for example (→13))
 When using SD cards, see "SD card connection" (→14).



- Video captured using other devices cannot be imported. To import video from a previous Panasonic high-definition video camera, use the version of HD Writer provided with that video camera. Media containing data recorded with previous Panasonic highdefinition video cameras or data recorded with other devices cannot be imported with this software.
- Note that content captured while using the world time function of video cameras is imported to a separate folder even if it has the same recording date.
- Content captured on video cameras that support relay recording using relay recording is treated as a single video.
- Up to 9,999 videos and photos can be stored in [PC Hard drive (HD)], [PC Hard drive] and [PC Hard drive] respectively. (The maximum capacity may be less than this, in some cases.)



- 1 Click the drive or folder to import from.
 - If the drive or folder is not listed, try clicking [Refresh] (A).
 - Previous Panasonic high-definition video cameras, or media containing data recorded with previous Panasonic highdefinition video cameras or with other devices, cannot be connected to this software.
- 2 Click [Video] or [Picture].
- 3 Click the content to select it for importing.



Selected items are outlined in yellow.

- To select multiple items, hold the [Ctrl] key while clicking the thumbnails.
- When a drive or folder is selected, all content in it is selected for importing.
- 4 Click [Import to PC], and then select [Import to PC].

The importing window (\rightarrow next page) is displayed.

 Importing is also possible by right-clicking items in step 3 and selecting [Import to PC].

Current item/total items Thumbnail of content to import Name, length, and size of content Import to PC Title: 2009 1 17 Resolution and audio format Date folder Specified folder 3 Close window

Previous/next

■ Storage locations of imported content

Content is imported to subfolders (named with dates or as specified) in the folder selected in step 5.

PC Hard drive(HD)
C:\Users\vista\Vid...

O1-15-2009

Content imported here (example: date folder)

 To rename these date folders or your specified folder after importing, right-click the folder and select [Properties], and then change the name in [Title]. (Names are a maximum of 64 singlebyte characters.)

5 Click and select an import destination (a folder on your computer).

 You can register other folders on your computer, if desired. ("Registering new folders" →next page)

Subfolders for each recording date are created in the selected folder, and the content is imported there.

Recording dates are used for the subfolder names.

- By default, folders are named with the most recent recording date of content, in the order [month-day-year].
- To import all content to a single folder, select [Specified folder]
 (A) and enter the name in the text box next to this option.
 Note that these characters are not supported: \/:*?"<>|

6 Click [Start].

7 Click [Yes] when the confirmation message is displayed.

• To cancel this process, click [No].

Importing now begins, and the status is shown in the progress indicator.

- To cancel importing in progress, click [Cancel].
- Importing the data takes time. Do not operate the computer until recording is finished.

Click [OK] when a message is displayed indicating importing is finished.

Registering or deregistering destination folders

- Registering new folders
 - ① Click [Settings] on the main window. (Otherwise, right-click [PC Hard drive (HD)] or [PC Hard drive] in the media/folder selection area and select [Set Target folder].) The settings panel is displayed.
 - (2) Click the [PC HDD] tab.



- (3) Click [Add].
- 4 Select a folder to register and click [OK].
- © Click [OK] to close the [Settings] panel.
 Folders you register are listed under [PC Hard drive (HD)] and [PC Hard drive] in the media/folder selection area.

■ Deregistering folders

- 1 Select the folder in [Registration folder] and click [Delete].
- ② Click [OK] when the confirmation message is displayed.
- ③ Click [OK] to close the [Settings] panel.
 - Folders are only deregistered. The content itself is not deleted.



Up to 10 folders can be registered.

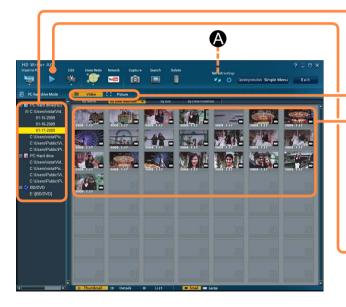
Playing content

You can play content (videos in AVCHD format and photos) on the computer, internal recording media of the video camera, an SD card installed in the video camera, an SD card which has been connected using an SD card slot or a device such as an SD card reader/writer, or content (videos in BDMV format or AVCHD format) on a disc created with this software.

 Playback is possible only for content imported to the computer using this software. Content imported using Windows Explorer or similar software cannot be played.

Preparation:

 Load the media (insert media in the video camera and connect the camera, for example (→13))
 When using SD cards, see "SD card connection" (→14).



Click the drive or folder where content for playback is stored.

- If the drive or folder is not listed, try clicking [Refresh] (A).
- Previous Panasonic high-definition video cameras, or media containing data recorded with previous Panasonic highdefinition video cameras or with other devices, cannot be connected to this software.

2 Click [Video] or [Picture].

3 Click the folder or thumbnail for playback.

- For videos, selecting a folder will play all videos in the folder.
 Selecting a thumbnail folder will play all scenes in the folder after that scene, one after another.
- Content can also be played by right-clicking and selecting [Playback] in the menu displayed, or by double-clicking thumbnails.
- If you do not see the folder where desired content is stored, select [Settings]→[PC HDD]→[Registration folder] (→82) and switch to the drive where the desired content is.

4 Click [Play].

The content selected is now played in the preview window. Sound is played in 2-channel mode.

• For details about the preview window (\rightarrow 25–26)

Playing content



- Top menus are not played. To play the top menu, use equipment that supports top menu playback.
- Depending on graphics features (such as [Windows Aero] in Windows Vista®), your computer environment, and the content being played, frames may be dropped and colour loss may occur during playback, and playback may not be smooth. These problems are more likely to occur in full-screen mode.
 - Additionally, in sections where the resolution or audio format changes, noise may be produced, and playback may not be smooth.
- If errors in reading a disc occur, playback may resume from the next item after the affected position.
- Playback of content in DVD-Video and DVD-VR format is not supported.
- Problems such as dropped frames are normal in the preview window (where image quality is reduced) and in full-screen mode. For best results during playback, use AVCHD-compatible video cameras and playback equipment.

Frame rates for various computer processors are as follows. (These are guideline values.)

Processor	Frame Rate (fps)
Pentium® III 1.0 GHz – Pentium® 4 Hyper-Threading Technology 3.0 GHz	2
Pentium® 4 Hyper-Threading Technology 3.0 GHz – Pentium® D 3.0 GHz	10
Pentium® D 3.0 GHz – Pentium® D 3.2 GHz	30
Pentium® D 3.2 GHz or higher, Core™ 2 Duo 2.16 GHz or higher	60 (fields)

 Actual frame rates may be lower, depending on the computer environment and conditions of use. Conditions when frame rates may be lower:

- When other software is running during installation of this software
- When other software is running during video playback with this software
- When using a computer with a video card that shares memory for the main memory and video memory
- When there is minimal free space on the system drive or the drive where temporary files are created

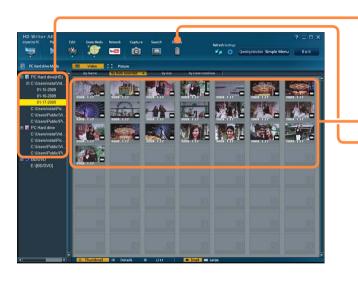
■ Intelligent Scene Selection

[INTEL. SCENE] is a video camera function, available only during playback on video cameras. It is not provided by this software. For the following content and media, undesired scenes may not be skipped using the [INTEL. SCENE] video camera function.

- Content which was, in part, imported to the computer using [Import to PC]
- Content managed in some way using the [Video editing] function
- Media created selecting some content with [Create Media]
- Media created selecting some content with [Save as BD/ AVCHD]

Delete content

You can delete content imported to the computer using this software.



- 1 Click the folder where content for deletion is stored.
- 2 Click the folder or thumbnail for deletion.
 - To select multiple thumbnails, hold the [Ctrl] key while clicking the thumbnails.
 - Only one folder can be selected.
- 3 Click [Delete].
- Click [OK] when the confirmation message is displayed.
 - To cancel this process, click [Cancel].

Important

Once content has been deleted, it cannot be restored. Always check content carefully before deletion.

- When folders are deleted, all data in the folder is deleted, including data other than the content.
- Scenes that have been protected cannot be deleted. Additionally, videos containing protected scenes cannot be deleted. First, clear the protection. (→52)

Tip

- Content can also be deleted by right-clicking thumbnails and selecting [Delete] in the menu displayed.
- When you delete all content in a folder, the folder itself is also deleted.
- Deletion may take a long time, depending on the content.

Content imported to your computer can be edited. The following operations are possible.

Edit video content $(\rightarrow 37-52)$

- Deleting selected portions of a scene (→41)
- Dividing scenes (→44)
- Assigning the playback order of scenes (→45)
- Adding opening titles (→47)
- Adding scene transitions (→49)

Edit digital photos (→51)

Protect content/ rename content (→52)





Tip

- Only video content and photos you have imported to your computer can be edited. For information on importing (→17-19, 30-33)
- Although files and folders for content imported to the computer using other software may be displayed, they cannot be managed with this software. Always use this software to import content to the computer.
- New files are created after you edit content, leaving the original files in the state before editing.
- Editing requires an amount of free work space on the computer at least equivalent to the size of the content for editing.

► Editing video content (basic operations)



Video editing area



Name of storage folder (Can be changed as needed)

Selecting scenes to edit

1 Click [Edit] and select [Video editing].

The video editing area is displayed.

- 2 Drag a scene to edit to the video editing area.
- Edit video content
 - Deleting selected portions of a scene (→41)
 - Dividing scenes (→44)
 - ◆ Assigning the playback order of scenes (→45)
- Adding opening titles (→47)
- Adding scene transitions (→49)

Saving edited videos

1 Click [Save as AVCHD Format] or [Save as MPEG2 Format].

[Save as AVCHD Format]:

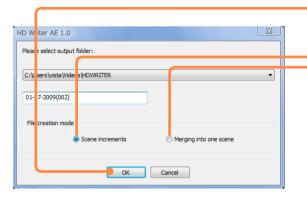
Save content in AVCHD format (→Below)

[Save as MPEG2 Format]:

Save content in MPEG2 format (→Next page)

- ■When select [Save as AVCHD Format]
- Click and select a destination for saving the file.
 - Edited scenes are saved in separate folders from the original data.

Editing video content (basic operations)



Click [OK].

Processing status is shown in the progress indicator.

- When there are multiple scenes in the video editing area
 Save each scene as an individual AVCHD file.
- Combine scenes and save as a single AVCHD file.
- To cancel editing, click [Cancel].

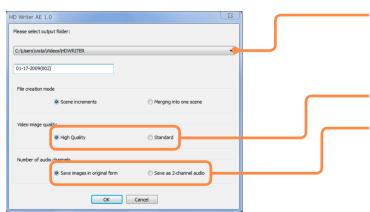
Click [OK] when a message is displayed indicating that processing is finished.

Edited content is saved as a new file.

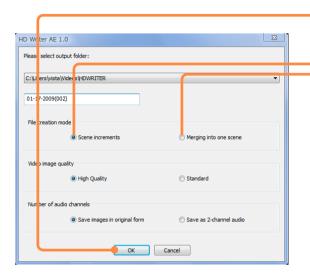
The file name is identified in the message indicating completion.

5 Click [Close] to close this window.

- ■When selecting [Save as MPEG2 Format]
- 2 Click and select a destination where you want to save the file.
 - Edited scenes are saved in separate folders from the original data.
 - When the destination hard disk is in FAT or FAT32 format, MPEG2 files exceeding 4 GB cannot be produced.
- 3 Select the video image quality.
- Select the number of audio channels.
 - [Save as 2-channel audio] is available when converting 5.1 channel content.
 - Converting 5.1 channel video content to MPEG2 format by using [Save images in original form] produces content with an aspect ratio of 16:9 and 5.1 channel sound, which may be incompatible with software that does not specifically support this format. Conversion using [Save as 2-channel audio] may improve compatibility.



► Editing video content (basic operations)



Click [OK].

Processing status is shown in the progress indicator.

- When there are multiple scenes in the video editing area
 Save each scene as an individual MPEG2 file.
 - Combine scenes and save as a single MPEG2 file.
- To cancel editing, click [Cancel].

6 Click [OK] when a message is displayed indicating that processing is finished.

Edited content is saved as a new file.

The file name is identified in the message indicating completion.

Click [Close] to close this window.

Tip

- Recording date information will correspond to information of the opening scene.
- Up to approximately 12 hours of video content can be saved.
- This software is only compatible with MPEG2 files with accompanying information files.
- Renaming files using Windows Explorer or similar software will prevent the files from being managed by this software.
- Conversion of some content may result in out-of-sync or dropped frames, or conversion may fail.
- Converting content to MPEG2 format enables you to use the content in other software for working with DVD-Video content.
- The resulting MPEG2 files can also be recorded on various media using this software.

- Chapter points will not be maintained when creating DVD discs from MPEG2 files produced with the [Merging into one scene] function.
 (→59)
- If the original content includes scenes with both 2 and 5.1 channel audio, combining them will produce a file with 5.1 channel audio. (Audio channel information can be checked in the [Properties] window.)
- If scenes with rapid motion are affected by blurry image edges or video noise after MPEG2 conversion, selecting [Settings]→[Convert MPEG2]→[Picture quality priority] may improve the image quality.
 (→83)
- MPEG2 files produced this way have an accompanying information file (MTV file).

► Editing video content (Delete partially)

Deleting selected portions of content

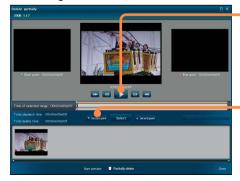
Delete unneeded portions of video content or portions with shooting errors as follows.

Only video content imported to your computer can be edited. First, import the content to your computer. (-17-19, 30-33)

• Video content to be edited must be at least two seconds long.



Video editing area





- 1 Follow the steps in "Selecting scenes to edit" (\rightarrow 38).
- 2 Click a scene.
 - Select only one scene.
- 3 Click [Edit] and select [Delete partially].

The [Delete partially] window is displayed.

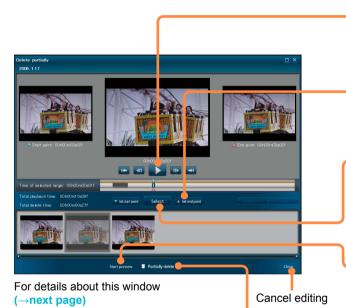
4 Click to play the scene. Click to pause playback at the starting position for deletion.

Click \rightarrow to fine-tune the position. (\rightarrow 43)

5 Click [Set start point] to identify the starting point.

Otherwise, you can drag ▼ to identify the starting point.

► Editing video content (Delete partially)



- Click again to resume playback.
 Click to pause playback at the ending position for deletion.
- 7 Click [Set end point] to identify the ending point.

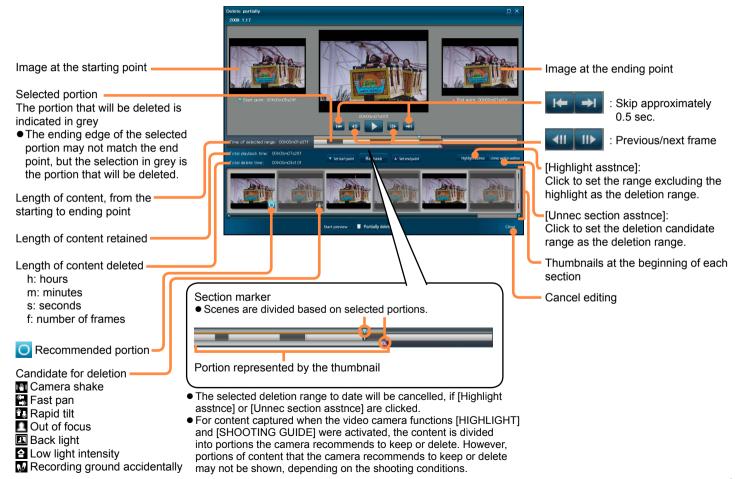
Otherwise, you can drag \(\Delta \) to identify the ending point.

- Click [Select] to confirm this selection.
 - The portion that will be deleted is indicated in grey
 - Thumbnails of the starting and ending points are displayed.
 - To select multiple portions, repeat steps 3–7.
 - To clear the selection, click the corresponding thumbnail and click [Release].
- Play the video content to check the portion that will remain after deletion.
- 10 Click [Partially delete].

Results of editing are applied to the video editing area.

- To save as a video
 - Follow the steps in "Saving edited videos" (→38).

► Editing video content (Delete partially)



Editing video content (Dividing scenes)

Scenes can be divided at desired positions.

Only content imported to your computer can be edited. First, import the content to your computer. (\rightarrow 17–19, 30–33) Video content to be divided must be at least four seconds long.



Assigning the playback order/adding opening titles/adding effects

You can group content imported to your computer that was recorded on various dates and assign the playback order. You can also add opening titles and scene transitions, such as fading.



Assigning the playback order

1 Click [Edit] and select [Video editing].

The video editing area is displayed.

- 2 Drag a scene to edit to the video editing area.
 - Repeat this process to collect desired scenes.
 - To add video content or scenes from another folder, select the folder and go to step 2.
 - Videos are expanded into scenes when added to the video editing area.
 - To cancel this process, click [Close] (A).



 Changing the playback order of scenes/Deleting scenes in the video editing area (
 —next page)

Assigning the playback order/adding opening titles/ adding effects

- Changing the order of scenes
- 1) Drag scenes to the desired position.



■ Deleting scenes in the video editing area

- 1 Click a scene to remove.
 - To select multiple scenes, hold the [Ctrl] key while clicking the thumbnails.
- 2 Click [Delete].



- Scenes are only removed from the video editing area. The content itself is not deleted.
- Deletion is also possible by right-clicking scenes and selecting [Delete] in the menu displayed.

To save as a video

Follow the steps in "Saving edited videos" (→38).







Assigning the playback order/adding opening titles/ adding effects

Adding opening titles

Titles can only be added to the opening scenes.

Preparation:

Arranging scenes and videos in the video editing area (→45)

1 Click [Title].

The [Insert Title] window is displayed.

2 Enter the title and specify effects.

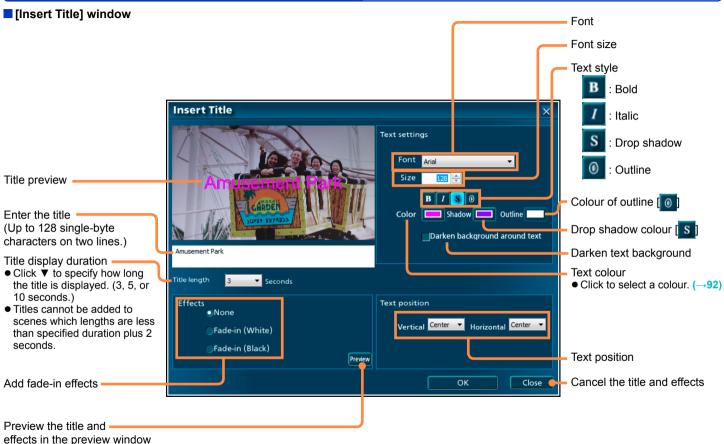
(For details about this window → next page)

 If not all text is displayed, or if text covers images in the content, change the font or reduce the size.

3 Click [OK].

- To cancel this process, click [Cancel].
- A new opening title scene will be added. (This is indicated by on the thumbnail.)
- To change the titles, first delete the opening title scene, and create a new title scene again.
- To delete titled scenes in the video editing area, first delete the adjacent scene labeled with an icon (1).
- Titles cannot be added to scenes labeled (1).

Assigning the playback order/adding opening titles/ adding effects







Assigning the playback order/adding opening titles/ adding effects

Adding scene transitions

Preparation:

- Arranging scenes and videos in the video editing area (→45)
- 1 Click the scene before the scene for effects.
- 2 Click [Transition].

The [Insert Transition] window is displayed.

3 Specify the desired effect.

(For details about this window →next page)

4 Click [OK].

- To cancel this process, click [Cancel].
- The effect is now added to the scene. (This is indicated by 🗊 on the thumbnail.)
- To change the effect, delete the scene with the effect and create a new one.
- To delete scenes with effects in the video editing area, first delete the adjacent scene labeled with an icon (•••).
- Scenes with effects cannot be rearranged.

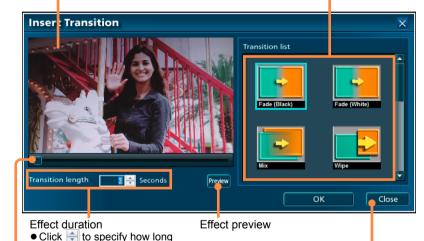
Tip

 It may take some time to save content in AVCHD format with effects between scenes of different resolutions.

Assigning the playback order/adding opening titles/ adding effects

■ [Insert Transition] window

Preview window



Playback position
Move the playback slider to change the playback position.

plus 2 seconds.

the effect is displayed.

Transitions cannot be added

to scenes which lengths are

less than specified duration

(3, 4, or 5 seconds.)

Effect

[Fade (Black)]/[Fade (White)]

The previous scene fades out to black or white, and the next screen gradually fades in.

[Mix]

Scenes are momentarily superimposed as the next scene fades in.

[Wipe]

The next scene is revealed as if a curtain is drawn back.

[Slide]

The previous scene slides right, revealing the next scene.

[Zoom-in]

The next scene appears in the centre of the previous scene and gradually expands.

[Zoom-out]

The previous scene gradually shrinks, and the next scene appears in the background.

[Stretch]

The previous scene shrinks, transforming into the next scene.

[Corner wipe]

The next scene emerges from the upper-left corner, moving toward the other corners.

[Corner slide]

Cancel the transition effects

The next scene slides diagonally down and to the right from the upper-left corner.

[Corner zoom]

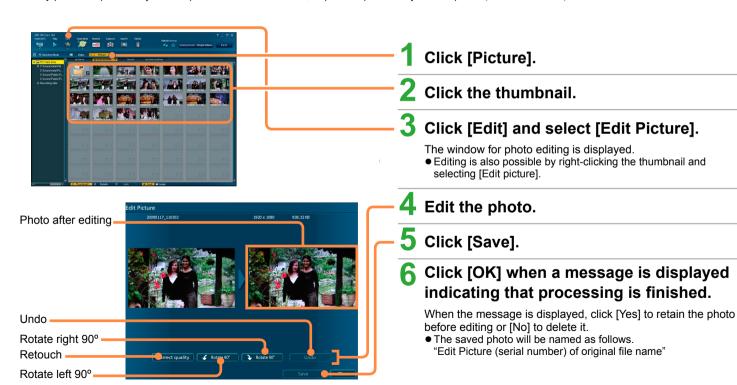
The next scene expands diagonally down and to the right from the upper-left corner.

► Editing digital photos

Photos can be retouched or rotated.



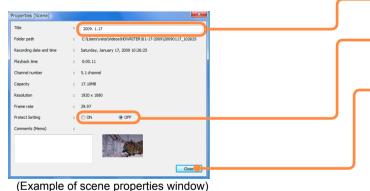
Only photos imported to your computer can be edited. First, import the photos to your computer. (→17-19, 30-33)



► Protecting and renaming content

In the properties window, content can be renamed or protected from accidental deletion.

- Video, scenes, pictures, and folders can be renamed.
- Only scenes and photos can be protected.



In the content viewing or media/folder selection area of the main window

Right-click a thumbnail or folder and select [Properties].

The properties window is displayed.

- To rename content
 Change the name in [Title].
 - Names are a maximum of 64 single-byte characters.
- To protect content or clear protection Click [ON] or [OFF] in [Protect Setting].
- 2 Click [Close].



- [Title] is the name as displayed in this software.
 The file name itself cannot be changed by renaming the title.
- <u>Th</u>umbnails of protected scenes and photos are labeled with this icon:

Image captured with video cameras or imported to computers can be recorded on optical discs and SD cards in a variety of formats. This section describes some considerations and precautions to understand before recording.

◆Also refer to the description of drive settings (→7) and information on media supported for recording (→11).

▶ Recording

Recording formats

Several recording formats are available for video content and photos, and each format has particular characteristics. Choose the optimal recording format for your needs.

Recording Format	Image Quality	Characteristics	Available Media	Playback Equipment
BDMV format	High definition	 Additional recording is possible on discs recorded with this software. Top menus can be created. 	BD-R/RE (12 cm, single-sided, single-sided/dual layer)	Equipment compatible with Blu-ray discs
AVCHD format	High definition	 Additional recording is possible on discs recorded with this software other than DVD- R/RW discs. Top menus can be created on media other than SD cards. 	DVD-R* (12 cm, single-sided, single-sided/dual layer) DVD-RW* (12 cm, single-sided) DVD-RAM (12 cm, single-sided, double-sided) SD cards	AVCHD-compatible equipment ■ Typical DVD players do not support playback. (Can be played with this software on a computer.)
DVD-Video format	Standard definition	 Additional recording is not possible for discs recorded with this software. Top menus can be created. 	DVD-R (12 cm, single-sided, single-sided/dual layer) DVD-RW (12 cm, single-sided) ■ Recording is not possible on prerecorded discs. However, DVD-RW discs can be used for recording after being formatted. (→78)	Typical DVD players
DVD-VR format	Standard definition	 Additional recording is possible on discs recorded with this software. Top menus cannot be created. 	DVD-RAM (12 cm, single-sided, double-sided)	DVD-VR-compatible equipment and software
DCF format (Picture)		 Format designed for recording photos on SD cards. 	SD cards	Playback or printing is possible with DCF-compatible equipment (digital cameras, TVs, and printers. etc.)

^{* +}R and +RW types of DVD disc are also supported.

Top menus



Creating media with this software will create a "top menu" interface that serves as a table of contents. To view content, select thumbnails in the top menu. Customize the design of top menus as desired when creating them.

- Top menus cannot be created when recording to SD cards or recording in DVD-VR format.
- Top menus are displayed only on equipment that supports this feature. They cannot be played on video cameras or in this software.
- Creating top menus is optional. (Content is played back in the order of recording.)
- Top menus are automatically created in the default design when you use [Simply Create BD/DVD/SD Card (AVCHD)] (→22-23) or [Simply Create DVD-Video Disc] (→20-21). To change the top menu design (→82)

▶ Recording

Automatic multi-disc recording

Content will be automatically divided for recording over multiple discs only under these conditions.

- The content exceeds the capacity of one disc when you are using [Simply Create BD/DVD/SD Card (AVCHD)] (→22-23) or [Simply Create DVD-Video Disc] (→20-21) to create media
- More than 99 items of content are recorded to a disc using [Simply Create DVD-Video Disc] (→20-21)

Tip

- Content is automatically divided so that the final scene fits on the disc.
- The approximate number of discs needed is displayed, but recording may require fewer or more discs.

▶ Recording

Additional recording on media with existing content

Formats supporting additional recording: Blu-ray discs (BDMV), DVD-RAM (AVCHD), SD cards (AVCHD), and DVD-RAM (DVD-VR)

When recording additional content, you can add content to media recorded with this software by using the same recording format as the existing content.

When you load media with existing content, a confirmation message about additional recording is displayed. Select [Yes] if you will add content. (If you select [No], content cannot be added.)

 Media with existing content is identified by this icon in top menu thumbnails: (On SD cards, thumbnails are labeled as follows:

If you will not add content, click the \triangle button or eject the media. (For information about how content on media without top menus (such as media in DVD-VR format) is displayed (\rightarrow 65))

Tip

- Content cannot be added to protected DVD-RAM discs. Clear protection settings with the equipment originally used to protect the disc. When recording in AVCHD format, there is no need to clear the protection setting before adding content if auto protection is enabled. (→85)
- Additional content can also be recorded to SD cards when photos have been recorded to the cards.

► [Create Media] menu

The [Create Media] menu is used when recording to optical discs and memory cards.

Recording Recording Media Subject to recording **Format** Order In the main window, click this button to access the menu: Content on the internal recording media of the video camera or on the SD card installed in the video BD-R/RE **BDMV** camera Content imported to the computer (except for video content By converted into the MPEG2 format) recordina Content on the internal recording date media of the video camera or on DVD-RAM the SD card installed in the video DVD-R/RW*3 **AVCHD** camera Content imported to the computer SD cards Authoring menu (except for video content converted into the MPEG2 format) His Simply Create BD/DVD/SD Card (AVCHD)-**BDMV** BD-R/RE Content imported to the computer DVD-RAM Create BD/DVD (AVCHD)-(except for video content Any order DVD-R/RW*3 **AVCHD** converted into the MPEG2 format) Create SD Card (AVCHD)-SD cards*2 Content on the internal recording Simply Create DVD-Video Discmedia of the video camera or on Βv the SD card installed in the video Create DVD-Video Disc-DVD-R/RW DVD-Video camera recordina Content imported to the computer date Create DVD-VR (DVD-RAM) Disc-(except for video content converted into the MPEG2 format) Create SD Card (Pictures) DVD-R/RW DVD-Video Any order DVD-RAM*2 DVD-VR Content imported to the computer SD cards **DCF** *1 Content is automatically divided for recording over multiple discs if it does not fit on one.

^{*2} Top menus are not created.

^{*3 +}R and +RW types of DVD disc are also supported.

► Recording video content

Video content and scenes can be selected from a variety of folders of content imported to the computer with this software for recording in any order on optical discs and SD cards. You can record in high or standard definition.

Video and scenes can be combined on a single disc or SD card.

- Content for recording in DVD-Video format must be at least 2 seconds long. Content for recording in DVD-VR format must be at least 3 seconds long.
- Videos converted to MPEG2 format can also be used in DVD-Video or DVD-VR recording. However, it cannot be combined with high-definition content.

Preparation:

- Import the video content to the computer
- Exit all other software
- Be sure to exit other software that may access the optical drive, such as Windows Explorer.
- Load the media for recording
- When using SD cards, see "SD card connection" (→14).
- When recording video content to SD cards, use a compatible video camera to initialise the cards.
- When adding content to DVD-RAM discs, clear any protection by using the equipment originally used to protect the disc. When recording in AVCHD format, there is no need to clear the protection setting before adding content if auto protection is enabled. (→85)
- Recording requires twice the amount of free space (for a work folder) as the capacity of the disc or SD card you are creating. To change the work folder (→81)

Important

Do not do the following during recording. These operations may prevent successful recording and damage discs or equipment.

- -Disconnect cables or cords of computer or DVD equipment or turn equipment on or off
- -Log off in Windows (as by switching users)
- -Force this software to close
- -Install or remove an SD card

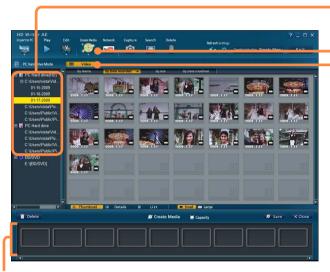
Time required for recording

- Recording will take some time. The amount of time required for recording varies depending on disc specifications and optical drive performance. For details, refer to the Operating Instructions of the disc and drive.
- Recording may take several hours especially in the following cases.
 Recording videos on discs by converting from standard quality to high-definition
- -Recording small video content in DVD-Video format (because specifications require that dummy data be appended even to files less than about 1 GB to make them about 1 GB)

► Recording video content

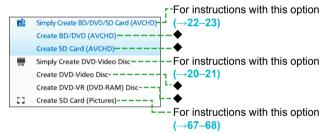
Selecting video content to record

In the authoring area, add video content to record.



Authoring area

- 1 Click a folder on your computer.
- 2 Select [Video].
- 3 Click [Create Media] and select the type of media to create.



This example illustrates the procedure when you select one of the options labeled ◆.

The media authoring area is displayed.

For details about the [Create Media] menu (→56)



Tip

- Optical drives in use by this software cannot be used by other software.
- Content editing is not possible while the authoring area is displayed.
 Complete any required editing (such as dividing scenes) in advance.
- The scene point information is retained as chapter points even after recording, except in the following cases.
- -In DVD-Video format, the scene is after the 256th scene
- -If selecting [Merging into one scene] when editing and saving video $(\longrightarrow\!\!40)$

► Recording video content

4 Drag video content to the authoring area.

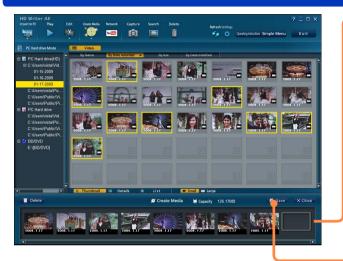
- You can add scenes and videos. However, photos cannot be added.
- Repeat this process to choose the video content (up to 99 items). To select multiple items, hold the [Ctrl] key while clicking the thumbnails.
- To add video content from another folder, select the folder and then perform step 4. However, current selection will be cancelled if you select content in folders not on the computer or content in different folders such as in [PC Hard drive].
- Referring to [Capacity] (A) as a guideline, select an amount of content that will fit on the disc or SD card. Note that the actual amount of data recorded may be different.
- Content will be recorded in the order you drag it to the authoring area, one thumbnail after another. However, content can be recorded as a single file when you record in DVD-VR format. (→84)
- Video content is expanded into scenes when you add video content from the [PC Hard drive (HD)] to the media creation area when you record in AVCHD format.
- When video content has been registered, the scenes in that content will be automatically recorded in the order in which they were shot.
- To cancel authoring, click (B).

Removing content from the authoring area

- (1) Click a scene to remove.
 - To select multiple items, hold the [Ctrl] key while clicking the thumbnails.
- ② Click [Delete].



- Thumbnails are only removed from the authoring area. The content itself is not deleted.
- Removal is also possible by right-clicking thumbnails and selecting [Delete] in the menu displayed.



► Recording video content

Changing the order of content

1) Drag thumbnails to the desired position.



5 Click [Save].

For BD-R/RE, DVD-R/RW, DVD-RAM (AVCHD format), or SD cards:

A window is displayed for creating the top menu.

(→next page)

For DVD-RAM (DVD-VR format):

A window is displayed for creating the disc. $(\rightarrow 65)$

- When you have specified [Makes seamless if the recording modes are the same] in [Seamless setting during SD, DVD or BD recording] (—85), a message is displayed if any scenes are in different recording modes (with different resolution, frame rates, or number of audio channels). In this case, select scenes recorded in the same mode.
- When recording in DVD video format, registering the video to the media creation area allows the video to be played back continuously without interruption between individual scenes.
- For continuous playback without interruption between individual scenes when recording in AVCHD/BDMV/DVD-VR format, select the scenes you wish to play continuously and combine them into a single file.

To combine scenes into single files, use the "Editing content on your computer" ([Merging into one scene]) operation (\rightarrow 39–40).

► Recording video content

Recording selected video content (for BD-R/RE (BDMV), DVD-RAM · DVD-R/RW · SD card (AVCHD), DVD-R/RW (DVD-Video))

Follow these steps when recording on BD-R/RE, DVD-R/RW discs or SD cards, or on DVD-RAM discs in AVCHD format.



Example when recording in DVD-Video format

When you click [Save] in step 5 (→Previous page)

- 6 A window is displayed for creating the top menu.
 - SD cards
 Because no top menu can be created, the following window is displayed.



- 7 Click and select the media to record on.
 - Video cameras cannot be selected as the destination

► Recording video content



Example when recording in DVD-Video format

8 Check the space available for recording on the media.

 Content exceeding the available space is indicated in red. In this case, click [Close] and remove video content from the authoring area.

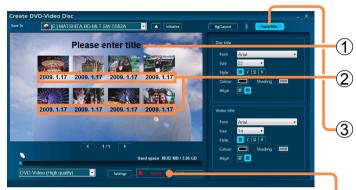
When recording on SD card, go to step 12, because no top menu can be created.

9 Click **→** and select the video image quality.

[High quality]: Priority to video quality [Standard quality]: Priority to recording capacity

10 Determine a top menu design.

- [No menu] is also available.
 No top menu is created, and content is played in the order it was recorded.
- 1 Click [Bg/Layout].
- 2 Select your preferred design.
 - To use a particular image file as the background: Select [User's picture], specify a JPEG file on the computer, and click [Open]. (Images with an aspect ratio of 4:3 are displayed with black bars at right and left.)
- (3) Click to select the thumbnail layout.
 - If there are many thumbnails, they will be distributed on multiple pages.
- To choose different content, click [Close] and change your selection in the authoring area.



Example when recording in DVD-Video format

► Recording video content

11 Enter the title.

- Click the title to enable input.
- 1) Enter the page title.

(Up to 64 single-byte characters.)

- The same page title is displayed on all pages. For a titleless top menu, leave the title information blank.
- 2 Enter thumbnail titles.

(Up to 24 single-byte characters.)

- By default, thumbnails are labeled with the name of the video or scene.
- 3 Click [Font/Title] and complete the font settings.

(For details →92)

• If not all text is displayed, or if text covers other images, change the font or reduce the size.

12 Click [Record].

- If the message "Insert a new disc" is displayed, recording on the current disc is not possible. The disc may already have been recorded. Insert a blank or formatted disc.
- If the computer hard disk is compressed, a message regarding drive compression may be displayed and recording may not be possible.

Clear the check for [Compress this drive to save disk space] in [Properties] for the hard disk drive.

13 Click [OK] when the confirmation message is displayed.

• To cancel this process, click [No].

Recording now begins, and the status is shown in the progress indicator.

- Recording will take some time. Do not operate the computer until recording is finished.
- A confirmation message is displayed if you have set [Seamless setting during SD, DVD or BD recording] to [Makes seamless even if the recording modes are different] because recording may take some time. If the recording time indicated is acceptable, click [Yes] to continue with recording. (—85)
- With media other than DVD-R/RW and BD-R discs, recording can be stopped by clicking [Cancel]. With DVD-R/RW and BD-R discs, recording can be stopped by clicking [Cancel] when changing discs or during data conversion. Recording cannot be stopped when data is being written.

1 4 Click [No] when a message is displayed indicating that recording is complete.

- Click [No] if you are finished recording. Click [Yes] to record the same content to another media. Insert a new media and click [OK].
- Some optical drives may switch to a new disc automatically before this final step in recording.

► Recording video content



- If a media problem causes recording to fail, follow the instructions to replace the media. The content you were recording when failure occurred will be recorded again on the new media.
- Advanced settings for the recording speed and other details are available in the [Settings] window. (→82)
- If there is unwanted content recorded on a DVD-RAM disc, formatting the disc will delete all content (→78). Content cannot be removed individually.

■ Notes on recording

- Recording in BDMV format or AVCHD format
- If there are gaps between content during playback, you can adjust playback in [Seamless setting during SD, DVD or BD recording] (—85).

Recording in DVD-Video format

- If scenes with rapid motion are affected by blurry image edges or video noise, selecting [Convert MPEG2]→[Picture quality priority] may improve the image quality. (→83)
- Video content with Dolby Digital 5.1 channel audio is recorded in 5.1 channel DVD-Video format.

► Recording video content

Recording selected video content (DVD-RAM (DVD-VR format))

Follow these steps when recording on DVD-RAM discs in DVD-VR format.

• Video recorded in DVD-VR format must be at least 3 seconds long.



When you click [Save] in step $5 (\rightarrow 60)$

- 6 A window is displayed for creating the media.
- 7 Click and select the media to record on.
 - Any existing video on the media is also displayed.
 - To choose different content, click [Close] and change your selection in the authoring area.

► Recording video content



- Check the space available on the media.
 - Content exceeding the available space is indicated in red. In this case, click [Close] and remove video content from the authoring area.
- 9 Click [Record].
- 1 O Click [Yes] when the confirmation message is displayed.
 - To cancel this process, click [No].

Recording now begins, and the status is shown in the progress indicator.

- Recording will take some time. Do not operate the computer until recording is finished.
- Recording cannot be stopped when data is being written.
- 11 Click [OK] when a message is displayed indicating that recording is complete.

Tip

- If there is unwanted content recorded on a DVD-RAM disc, formatting the disc will delete all content (→78). Content cannot be removed individually.
- The audio track of content in DVD-VR format is recorded in Dolby Digital format.

► Recording photos

Digital photos and other still pictures on your computer can be recorded on SD cards. These images are recorded in a format that can be viewed on digital cameras and similar devices (DCF format). Images in BMP or PNG format are converted to JPEG format before saving.

For a list of supported SD cards (→11)

Preparation:

Insert the SD card. (See "SD card connection" →14)

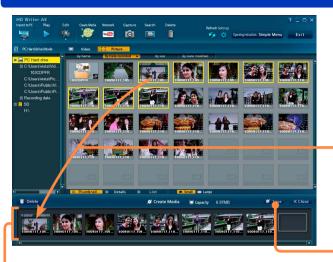


Click [Picture].

2 Click [Create Media] and select [Create SD Card (Pictures)].

The media authoring area is displayed.

Authoring area



Authoring area

Tip

- DCF: Design rule for Camera File system. This recording format conforms to file system specifications of the Japan Electronics and Information Technology Industries Association (JEITA).
- Photos in DCF format cannot be converted to video content.

► Recording photos

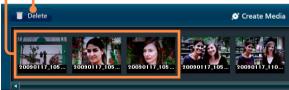
3 Drag photos for recording to the authoring area.

- Repeat this process to choose desired photos (up to 99 photos).
 To select multiple items, hold the [Ctrl] key while clicking the thumbnails.
- The current selection will be cancelled if you select content in folders not on the computer.

Removing photos from the authoring area

- ① Click a photo to remove.
 - To select multiple items, hold the [Ctrl] key while clicking the thumbnails.
- ② Click [Delete].





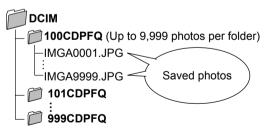
- Thumbnails are only removed from the authoring area. The content itself is not deleted.
- Removal is also possible by right-clicking thumbnails and selecting [Delete] in the menu displayed.

4 Click [Save].

The window for creating DCF content for SD cards is displayed.



Folder structure and names of files created



- If there are multiple storage folders, photos are saved in the highest-numbered folder.
- If there are no storage folders, a folder named [100CDPFQ] is created.
- As the file name, the final number in the folder is assigned.

► Recording photos

5 Click and select the destination SD card.

If the SD card already contains photos, the photos are displayed.

- To choose different content, click [Close] and change your selection in the authoring area.
- 6 Check the space available on the card.
 - Content exceeding the available space on the SD card is indicated in red. In this case, click [Close] and remove thumbnails from the authoring area.
- **7** Click [Record].
- Click [Yes] when the confirmation message is displayed.
 - To cancel this process, click [No].

Recording now begins, and the status is shown in the progress indicator.

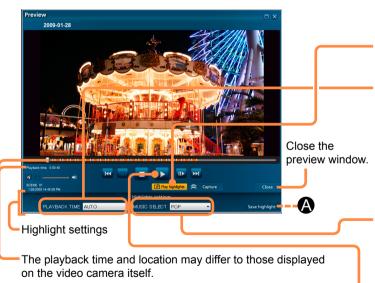
- Recording cannot be stopped when data is being written.
- Do not operate the computer until recording is finished.
- Glick [OK] when a message is displayed indicating that recording is complete.

Using convenient features

► Viewing highlights of video content (Highlight Playback)

You can watch highlights of the main situations in video content.

The feature can only be used with video content captured by using video cameras with which this software is provided. This feature is available for video content which has been imported to the computer or stored on the internal recording media of the video camera or on the SD card installed in the video camera. (except for video content converted into the MPEG2 format.) Multiple scenes captured on the same day are treated as a single video. (However, in the case of content on the internal recording media of the video camera or on the SD card installed in the video camera, scenes captured in other recording modes are treated as separate video content, even if recorded on the same day.)



- Saving portions viewed during highlight playback
 - Click **(A)**, specify where to save the content, and click [OK].
 - Edited scenes are saved in separate folders from the original data.
 - Only content imported to your computer can be saved.
 - Music is not saved.

- 1 Follow steps 1 to 4 in "Playing content" (\rightarrow 34).
- Click [Play highlights].
 - Highlight settings are displayed below.
- Select the playback time.

 [APPROX 90 SEC.]:

Display highlights for about a one-minute and half period [APPROX 3 MIN.]:

Display highlights for about a three-minute period [AUTO]: Display highlights for a period determined by the software (up to approx. five minutes)

- In the content timeline, highlights are indicated in orange.
- Highlights may not be detected up to content.

Specify the music.

You can select "POP," "CLASSICAL," "NATURAL," "DYNAMIC" or "NO MUSIC" to fit the nature of the video content. If you select "User selection," you can use the WAV (LPCM), WMA and MP3 format files inside the computer. (The filename will be displayed in the music selection field.)

• If "NO MUSIC" is set, the sound heard during shooting is used.

Play back the video content.

 The highlighted sections are played back using the settings established above.

Using convenient features

Viewing photos shot using high-speed burst shooting (Continuous photo playback)

A series of consecutive photos shot using the high-speed burst function of a video camera with which this software is provided can be viewed continuously. (NTSC: Up to 180 shots, PAL: Up to 150 shots)

The feature is available only with the high-speed burst photos imported to the computer or internal recording media of the video camera or SD card installed in the video camera.



Click the folder containing the highspeed burst photos.

2 Click [Play].

The window for previewing a series of photos is displayed.

No. of current shot in the series

Current photo

Previous photo

Next photo

Continuous still picture player

MAA0002 jee

Reverse playback/pause

Reverse/forward shot by shot

Play/pause

Rotate left or right 90°

Slow playback (full speed, 1/2, 1/3, and 1/4 speed)

Tip

- Double-clicking the folder containing the high-speed burst photos in step 1 will display all photos. Double-clicking a photo after this will display the window for previewing series of photos.
- Ratios for slow playback are a guideline only; actual playback speed depends on the performance of your computer.

Using convenient features

Creating still pictures from video

You can save individual frames of video content as still image files. These images are saved in JPEG format.



- In the preview window (→25), pause the video at the position to save a still image.
- **2** Click [Capture].
- In the save dialog box displayed, specify where to save the image (1) and click [OK] (2).



Name of storage folder (Can be changed as needed)

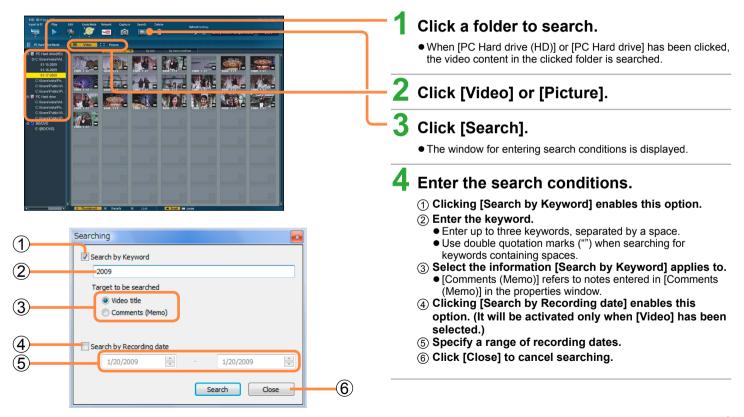
4 Click [OK] when a message is displayed indicating that the image has been created.



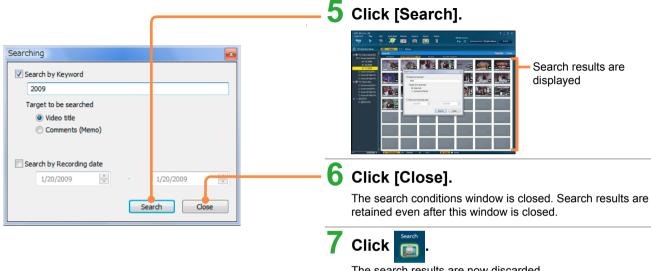
• This operation is also possible by using [Capture] button.

Searching for desired content

You can search video content and photos by name, recording date (video content only), or comments entered in the properties window (\rightarrow 94). This feature applies to content in folders you have registered as destinations for saving content on the computer. (\rightarrow 82)



► Searching for desired content



The search results are now discarded.

• Search results can also be cleared by clicking [Close] in the upper-right corner of the screen.

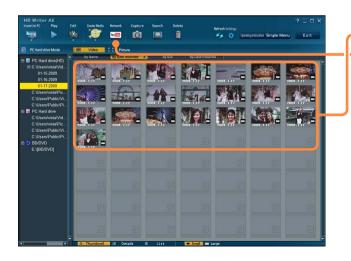
Uploading content to YouTube

Content imported to your computer can easily be uploaded to YouTube.

- Because YouTube[™] services and specifications are subject to change, operation of online services cannot be guaranteed in the future.
 Available services and screens are subject to change without notice. (These services are valid as of December 1, 2008.)
- Unless you are the copyright holder or you have obtained permission from the copyright holder, do not upload videos protected under copyright.

Preparation:

 Create an account on the YouTube website in advance, and have your user name and password ready



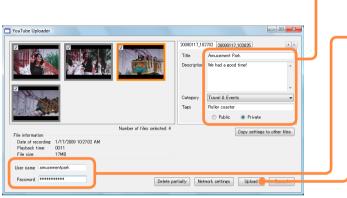
1 Click a scene to upload.

• To select multiple scenes, hold the [Ctrl] key while clicking the thumbnails. Up to 10 scenes can be uploaded at once.

2 Click [Network].

[YouTube Uploader] is displayed.

Uploading content to YouTube



(For details about this window →next page)

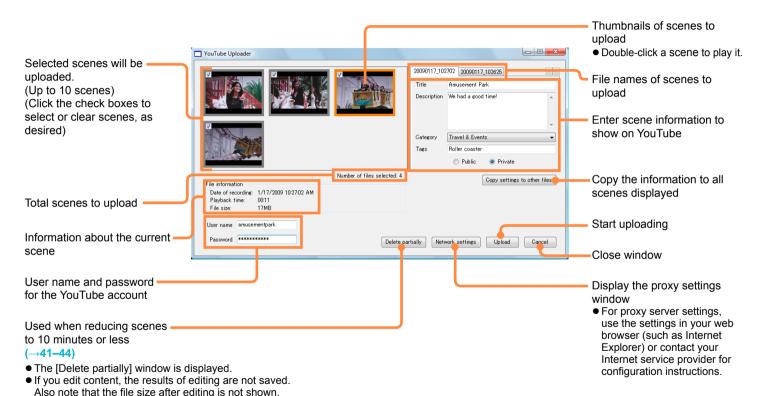
- 3 Enter titles and other information shown on YouTube for each scene.
- 4 Enter your YouTube user name and password.
 - The user name is stored once you have entered them.
- 5 Click [Upload].
- 6 After reading the copyright verification message, click to indicate acceptance, and then click [OK].



 Video content is uploaded after being compressed to a size suitable for uploading. Compression may take some time, depending on the performance of your computer.

► Uploading content to YouTube

[YouTube Uploader] window



Other

Formatting discs

Format discs in the following situations. Use this software to format discs that you will use with this software.

- When recording to new BD-R/RE discs
- When recording to new DVD-RAM discs in AVCHD format
- When reusing DVD-RW discs
- When using DVD-RAM discs that you have used in other equipment (Formatting is not required when adding content to DVD-RAM discs recorded with this software.)
- When deleting all data on BD-RE, DVD-RAM or DVD-RW discs

Important

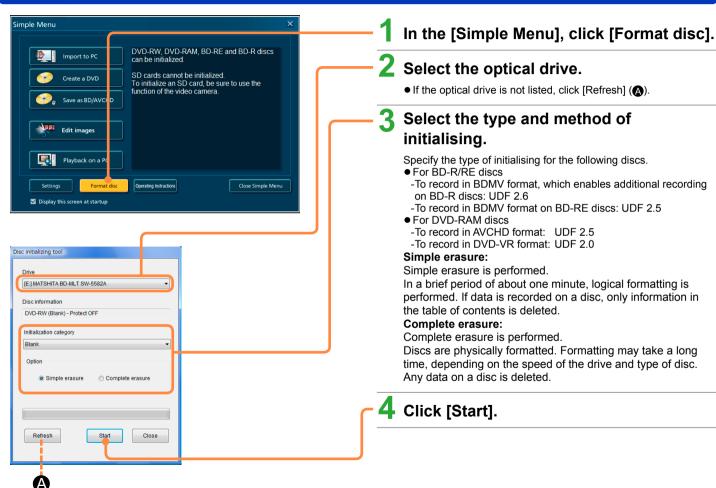
Formatting deletes all data on a disc. This data cannot be restored. Check the content carefully before formatting.

 Clear any protection by using the equipment originally used to protect the disc. Otherwise, activate the [Auto Protect] setting (—85) before formatting. (Auto protect is deactivated after formatting.)

Tip

- DVD-R discs can be used without formatting them. (Formatting is not possible for these discs.)
- Format both sides of double-sided discs, one side after another.
- When recording video content to SD cards, use a compatible video camera (→10) to format the cards.

Formatting discs



Formatting discs

- 5 Click [Yes] when the confirmation message is displayed.
 - If you click [No], the previous window is displayed.
 - A message is displayed indicating that complete erasure may take some time. Click [Yes] to continue.
- 6 Click [OK] when a message is displayed indicating that initialising is complete.
- **7** Click [Close].



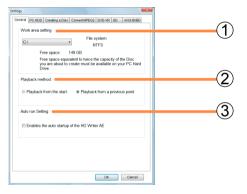
 Formatting is also possible by clicking the [Initialize] button in the window for creating top menus displayed during authoring, for example.

In the [Settings] window, you can complete advanced settings for various functions.

• To display all setting panels, click [Settings] in the [Simple Menu] window. To display only the setting panel for a particular operation window, click [Settings] in that window.

General settings panel

For general software settings.



(1) [Work area setting]

Click ▼ and specify where the work area is located. (This area is used temporarily during software operations.)

- Selecting a drive with a FAT32 file system may prevent you from using [Create a DVD]. Select an NTFS drive.
- Refer to [Free space] and select a drive with sufficient space. The amount of free space affects software operation in the following ways.
- -Less than 17 GB: Cannot record over multiple discs
- -Less than 5 GB: Some functions may not work correctly
- -Less than 300 MB: Some editing functions are not available
- ② [Playback method]

Specify how videos are played.

[Playback from the start]: Always play videos from the start [Playback from a previous point]: Resume playback from the previous position

(3) [Auto run Setting]

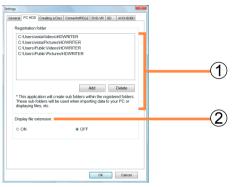
Automatically start this software when a video camera is connected to the computer.

By default, this option is selected.

 Auto run can also be activated or deactivated by right-clicking this icon in the task tray:

■ PC HDD panel

Settings for registration of content folders on the computer and display of file names.



(1) [Registration folder]

Register folders to use when importing content to the computer. Folders registered here are listed under [PC Hard drive (HD)] and [PC Hard drive] in the media/folder selection area of the main window. (—28)

- Registering folders
 - 1. Click [Add].
 - 2. Select a folder to register and click [OK].
 - 3. Click [OK] to close the settings panel.

Registered folders are listed under [PC Hard drive (HD)] and [PC Hard drive] in the media/folder selection area.

- Up to 10 folders can be registered.
- Removable drives and network folders cannot be registered.
- Deregistering folders
 - 1. Select the folder in [Registration folder] and click [Delete].
 - 2. Click [OK] when the confirmation message is displayed.
 - 3. Click [OK] to close the settings panel.
 - Folders are only deregistered. The folder and the content itself is not deleted.

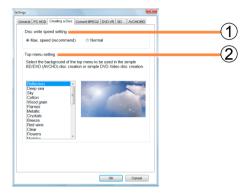
② [Display file extension]

Include file extensions such as m2ts in the file names displayed.

• By default, this option is [OFF].

■ Disc creation panel

For DVD-Video recording settings. $(\rightarrow 20, 61)$



1 [Disc write speed setting]

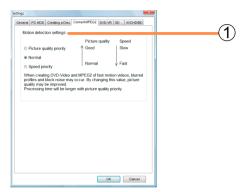
Specify the disc write speed.

- By default, this option is [Max. speed]. Normally, keep the setting at [Max. speed]. If recording fails, specifying [Normal] may be effective.
- ② [Top menu setting]

You can change the top menu background automatically created when you use [Simply Create BD/DVD/SD Card (AVCHD)] (\rightarrow 22–23) or [Simply Create DVD-Video Disc] (\rightarrow 20–21) to create media

■ MPEG2 conversion panel

For conversion settings used for MPEG2 output or DVD-Video creation.



1) [Motion detection settings]

Specify image quality settings applied during conversion.

[Picture quality priority]

Prevent any video noise during conversion, as much as possible. Although conversion may take a long time with this option, we recommend it when converting scenes with rapid motion.

[Normal] (Default setting)

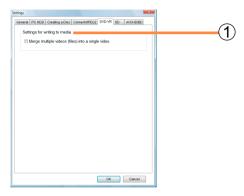
Content is converted in standard quality.

[Speed priority]

Content is converted as quickly as possible. Scenes with rapid motion are more susceptible to video noise.

DVD-VR panel

For DVD-VR recording settings. $(\rightarrow 65)$



① [Settings for writing to media]

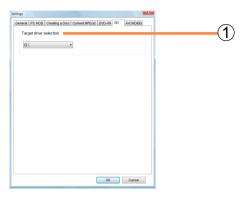
[Merge multiple videos (files) into a single video.]

Record all content dragged to the authoring area as a single file.

(→59)

SD panel

For specifying the SD card drive.



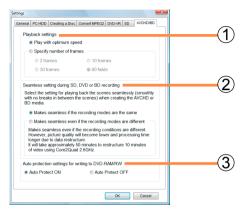
1 [Target drive selection]

Select SD card drives shown in the media/folder selection area.

 If selected drives are not recognised (as when you connect an SD card drive after this software starts up), select the drive again and click [OK].

AVCHD/BD panel

For AVCHD recording settings. (\rightarrow 22, 61)



1 [Playback settings]

Change the number of frames per second (frame rate) as desired. Normally, use the default setting of [Play with optimum speed].

- The frame rate can be checked in the [Properties] window.
- If playback fails, it may be improved by selecting [Specify number of frames] to use a lower frame rate than the current setting.
- Selecting a higher frame rate than the current setting may cause dropped frames, and playback may not be smooth.
- ② [Seamless setting during SD, DVD or BD recording] Specify processing between scenes for uninterrupted playback when you collect multiple scenes for recording in BDMV format or AVCHD format.

Regardless of the settings made here, the [Simply Create BD/DVD/SD Card (AVCHD)] ([Save as BD/AVCHD]) operation will follow the setting [Makes seamless if the recording modes are the same].

[Makes seamless if the recording modes are the same] Processing for seamless playback between scenes longer than three seconds that are recorded in the same mode (with the same resolution, frame rate, and number of audio channels).

 There will be gaps in playback between scenes of different recording modes or scenes of three seconds or less.

[Makes seamless even if the recording modes are different] Processing for seamless playback even between scenes recorded in different modes and shorter than three seconds. However, conversion will take some time, and the image quality will be inferior. With this option, we recommend using an Intel® Core™ 2 Quad 2.6 GHz or higher processor. (As a guideline, it takes about 50 minutes to record 10 minutes of content with Intel® Core™ 2 Quad 2.6 GHz.)

 The resolution, frame rate, and number of audio channels can be checked in the [Properties] window.

③ [Auto protection settings for writing to DVD-RAM/RW] [Auto Protect ON]

Disable protection temporarily when recording in AVCHD format to DVD discs protected according to AVCHD specifications, and in similar situations. When these discs are ejected, they are protected again. Even unprotected DVD discs (such as discs immediately after initialisation or formatting) are protected when ejected, after recording or other operations.

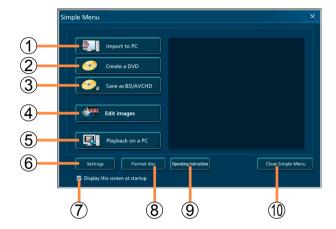
[Auto Protect OFF]

Prevent recording or similar operations on protected DVD discs.

 DVD-RAM/RW discs recorded with [Auto Protect ON] selected are protected and it may not be possible to initialise or format them with other recording software or similar programs. In this case, you can format the discs using formatting functions of this software.
 (→78)

Because complete erasure may take a long time, we recommend simple erasure.

Simple Menu (→16)



1 [Import to PC]

Import content on the internal recording media of the video camera or on the SD card installed in the video camera or on optical discs or SD cards to your computer. $(\rightarrow 17)$

② [Create a DVD]

Record video content on the computer, or the internal recording media of the video camera, the SD card installed in the video camera, the SD card which has been connected using an SD card slot or a device such as an SD card reader/writer to DVD-R/RW discs in DVD-Video format. (—20)

③ [Save as BD/AVCHD]

Record video content on the computer, or the internal recording media of the video camera, the SD card installed in the video camera, the SD card which has been connected using an SD card slot or a device such as an SD card reader/writer to discs in BDMV or AVCHD format or to SD cards in AVCHD format. (—22)

4 [Edit images]

Editing on the main window $(\rightarrow 37)$

⑤ [Playback on a PC]

Play content on the computer, the internal recording media of the video camera, an SD card installed in the video camera, optical discs, or SD cards. (\rightarrow 24)

6 [Settings]

Display the settings window (→81)

⑦ [Display this screen at startup]

Clearing this option prevents the Simple Menu from being displayed at startup, from the next startup, $(\rightarrow 27)$

[Format disc]

Format discs (→78)

[Operating Instructions]

Display the operating instructions (this manual)

(1) [Close Simple Menu]

■ Main window (→28)



- 1 Media/folder selection area
- ② [Video]/[Picture]

Types of content shown in the content viewing area

- [Picture] is not shown during video editing or when creating video content for recording to media.
- ③ [Refresh]

Update information in the media/folder selection area and content viewing area

4 [Settings]

Display the settings window (→81)

- (5) [Operating Instructions]
 Display the operating instructions (this manual)
- ⑤ [Simple Menu] Display the Simple Menu

(7) [Import to PC] (→17–19, 30–33)

[Play] (→34-35)

[Edit] (→37-52)

[Create Media] (→53–69)

[Network] (→75–77)

[Capture] (→72)

[Search] (→73-74)

[Delete] (→36)

- 8 Indicates the selected media
- (a) [By Name]/[By Date recorded]/[By size]/[By Date modified]
 For changing the display order
- (1) [Thumbnail]/[Details]/[List]

For changing the display format

- 1 For changing the thumbnail size
- ① [Exit]

Exit this software

(13) Content viewing area

The content of selected discs, SD cards, or folders in the media/ folder selection area

- (4) Help button/Minimize button/Maximize button/Exit button
- Video editing area (→38)

Displayed at the bottom of the window when [Video editing] is selected.



■ Authoring area (→59)

Displayed at the bottom of the window when [Create Media] is selected



[Import to PC] $(\rightarrow 17)$ /[Create a DVD] $(\rightarrow 20)$ / [Save as BD/AVCHD] (\rightarrow 22) window



(Example of [Create a DVD] window)

- (1) Source for importing
 - Drives with loaded media are labeled with this icon:
 - [Import to PC] window: Shows the internal recording media of the video camera, the SD card installed in the video camera, optical discs. and SD cards.
 - [Save as BD/AVCHD] window: Shows video cameras, discs. SD cards, and storage folders on the computer $(\rightarrow 82)$.
 - [Create a DVD] window: Shows video cameras, SD cards, and storage folders on the computer (\rightarrow 82). Disc cannot be selected as sources for importing.
- 2 Eject media

- ③ Content for importing
 - Thumbnails cannot be moved by dragging and dropping them.
- (4) [Select All]/[Clear All]

Select or clear all items for importing

- (5) Information about items selected for importing, such as total size
 - Shown in yellow if no media is loaded, no content is selected, or there is another problem.
- 6 Destination for importing
 - Drives with inserted media are labeled with this icon:



- (7) Select the video image quality ([Create a DVD] window only)
- (8) Information about the destination selected for importing
 - Problems (items for which there is insufficient free space or the file system is different, for example) are shown in red.
- (9) [Refresh]

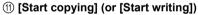
Refresh the information shown

- Click if a drive is not listed.
- The content selection status returns to the default status.
- (10) [Settings]

Display the settings window (\rightarrow 81)



(Example of [Create a DVD] window)



Start importing or writing the content.

- The button displayed varies depending on the window.
- Before disc recording, this button is not available if only photos are selected.
- If buttons cannot be clicked, check ⑤ and ⑧.
- (12) [Format disc]

Format discs (→78)

(13) [End]

Close window

(4) [Date folder]: Import to subfolders for each recording date [Specified folder]: Import all content to a single folder



(Example of [Import to PC] window)

- Window for copying to the computer
 - For details about this window $(\rightarrow 32)$
- Preview window (video content)
 - For details about this window (\rightarrow 25)
- Preview window (photos)
 - For details about this window (\rightarrow 26)
- Editing video: window for creating titles
 - For details about this window (\rightarrow 48)
- Editing video: window for inserting transitions
 - For details about this window $(\rightarrow 50)$
- Editing video: partial deletion window
 - For details about this window $(\rightarrow 43)$

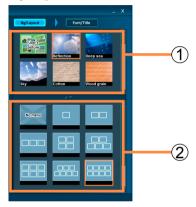
■ Window for creating top menus (→61–64)



- (1) Recording destination
- ② During disc recording A: Open/close drive tray (Some drives may not close the tray automatically.)
- 3 Top menu being edited
- (4) Change to the previous or next page
- (5) Indicates how much space is used
 - The ratio of space used to recording capacity is indicated as a bar.
 Any portion of content exceeding the recording capacity is shown in red.
 - If the disc already contains data, the total is indicated.
 - If no media is loaded, the recording capacity is set at 12 cm DVD disc.
- (6) Select the video image quality
- 7 Used space/recording capacity
- (8) [Settings]
 Display the setting

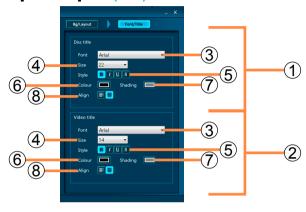
Display the settings window (→81)

- [Record]
 Start recording
- (1) [Close]
 Close window
- [Bg/Layout] area (→62)



- (1) For selecting a background design
- (2) For selecting a thumbnail layout
 - Selecting [No menu] omits top menu creation. Video content is played back in the order it was recorded. Additionally, the background design and title cannot be specified.

● [Font/Title] area (→63)



① [Disc title]

Text settings for page titles

② [Video title]

Text settings for content titles

③ [Font]

For selecting the font

(4) [Size]

For selecting the font size

⑤ [Style]

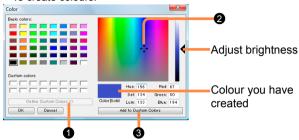
Click to add text styles (Click again to remove text styles)

B (Bold)/ / (Italic)/ U (Underlined)/ S (Drop shadow)

6 [Colour]

For selecting the text colour

• To create colours:



- 1 Click [Define Custom Colors]
- 2 Click a desired colour
- 3 Click [Add to Custom Colors]
 The colour is added to [Custom colors].
- ⑦ [Shading]

When you have applied a drop shadow by clicking sin 5, select the drop shadow colour (see 6) for colour settings)

(8) [Align]

For selecting the text position

\blacksquare Authoring window for DVD-VR format (\rightarrow 65)



- (1) Recording destination
- 2 [Settings]

Display the settings window (\rightarrow 81)

- (3) Capacity in use/recording capacity
- (4) [Record]

Start recording

⑤ [Close]

Close the window (cancel this operation)

- (6) Indicates how much space is used
 - The ratio of space used to recording capacity is indicated as a bar. Any portion of content exceeding the recording capacity is shown
 - If the media already contains data, the total is indicated.
- (7) Recording progress

- (8) Open/close DVD drive tray (Some drives may not close the tray automatically.)
- Ontent already recorded:
 Ontent already recorded:



Content to record:

- **[YouTube Uploader] window**For details about this window (→77)
- Properties window (→52)

Right-clicking video content, picture, a folder, or disc or SD card and selecting [Properties] displays the [Properties] window, enabling you to check relevant details. You can also rename these items or add comments.

 Some information may not be shown, depending on the type of content or media.

Scene



Photo



① [Title]

Title of content

- Video files, scenes, pictures and folders on the computer can be renamed. (Up to 64 single-byte characters.)
- ② [Protect Setting] (→52)
- ③ [Comments (Memo)]

Enter comments (up to 64 single-byte characters)

- This information can be used when searching for content. (→73)
- If this software crashes or is forced closed, entered comments may be deleted.
- 4 [Close]

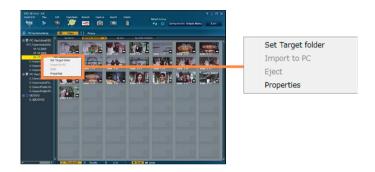
Apply any changes and close the window

(5) [Recording date and time]

Shortcut menus

Shortcut menus are displayed by right-clicking folders, media, content, and other screen elements.

Menu in the media/folder selection area



[Set Target folder]

(When [PC Hard drive (HD)], [PC Hard drive] or a folder is selected).

Add a new folder. $(\rightarrow 33)$

[Import to PC] (When media is selected)

Import all content on the media, or folder to the computer.

(→17–19)

[Eject] (When an optical drive is selected)

Open the drive tray.

[Properties]

Enables you to check details about the folder or media. $(\rightarrow 94)$

Shortcut menus

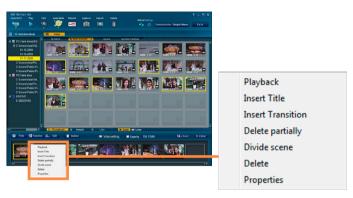
■ Menu in the content viewing area



[Playback]
Play the content. (→25–26)
[Import to PC] (When media is selected)
Import the selected content to the computer. (→17–19)
[Edit picture] (When a photo is selected)
For editing the selected photo. (→51)
[Delete Videos]/[Delete scenes][Delete Pictures]
Delete the selected content. (→36)
[Properties]
Enables you to check details about the content. (→94)

Shortcut menus

■ Video editing area menu



[Playback]

Verify editing results. Scenes within the video editing area will be played back in order.

[Insert Title]

For adding a title to the first scene. $(\rightarrow 47-48)$

[Insert Transition]

For adding an effect as the transition between scenes. $(\rightarrow 49-50)$

[Delete partially] (When video content is selected)

Delete a portion of the selected video. (\rightarrow 41–43)

[Divide scene] (When video content is selected)

Divide the selected video. $(\rightarrow 44)$

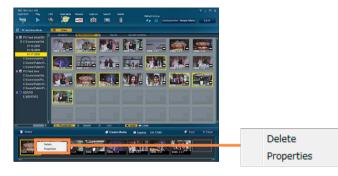
[Delete]

Remove the selected content from video editing area. $(\rightarrow 46)$

[Properties]

Check details about the content, as needed. $(\rightarrow 94)$

■ Authoring area menu



[Delete]

Remove the selected content from the authoring area. $(\rightarrow 59)$ [Properties]

Check details about the content, as needed. $(\rightarrow 94)$

Startup

Startup	
Symptom	Corrective Action
The software does not start.	Windows Vista®: Log on with an administrator account or a standard user account before using this software. The software will not function with a Guest account. Windows® XP/2000: Log on with an administrator account before using this software. Multiple users cannot start the software at the same time. Make sure another user has not started the software. It takes time for the software to start, or the software may not start, if there are any damaged or corrupted images.
The screen saver or the power-saving functions do not operate.	While this software is started, the screen saver or the power-saving functions (function to make the PC enter the standby or sleep modes after a certain time has elapsed without any operation on the PC) are disabled. Since this software may not operate properly, the screen saver and the power-saving functions must be disabled before starting this software.

Display/playback

Symptom	Corrective Action
Video cannot be displayed.	 You can display only videos recorded with this software or a video camera that this software accompanied. This software cannot process videos created with other devices or software. This software cannot process a video recorded with the video camera this software accompanied if it was edited with other devices or software.
Images do not play back properly.	 Close any other software that is running. Update the device driver for the sound card or video card. Images played may have frame drops, colour-dulling or a jerky effect depending on the [Windows Aero] functions of Windows Vista®, the environment of the PC in use or the images themselves. Also, there may be noise in the sound or images may not be played back smoothly at the point where the resolution of the image and the sound are switched. Depending on the throughput of the PC, playback may be jerky due to a reduced frame rate. (-35)

Symptom	Corrective Action
Voice is not audible.	 For Windows Vista®: From the start menu, select [Control Panel] → [Hardware and Sound] → [Sound] → [Speakers], and then click [Properties]. Confirm that [Use this device (enable)] is selected in [Device usage] on the [General] tab or that [Speakers] and [Line input] are not muted on the [Levels] tab. For Windows® XP/2000: Confirm that [Volume Control] and [Line input] are not muted in [Volume Control] window of the PC. Voice will not play back while the image is paused.
Pauses of a few seconds occur when playing back produced BDMV or AVCHD standard SD card or a disc.	 ● Breaks of a few seconds can occur between scenes when playing back media produced by [Save as BD/AVCHD]. ● When processing has been performed so as to have more than 99 consecutive scenes play back seamlessly, a break will occur between playback of the 99th and 100th scenes. (However, if the 99th and 100th scene are from the same video, the break in playback will occur where the video starts.) ● If the [Seamless setting during SD, DVD or BD recording] has been set to [Makes seamless if the recording modes are the same] when recording, breaks in playback will occur between scenes which are under 3 seconds in length and of different recording modes (resolution, frame rate, or number of sound channels) (→85).
Outlines of video are out of focus, or noise occurs.	To record fast moving images in DVD-Video format, the contours may be out of focus or noise may occur when converting images. When recording fast moving images, setting the [Picture quality priority] in the [Convert MPEG2] panel window may improve the quality (-83) .
Media produced in the DVD-Video format cannot be played back using Windows Media® Player.	The sound of MPEG2 files recorded on the media is in Dolby Digital format. This sound will not be played back on PCs which do not have Dolby Digital Codec installed.
Video with an aspect ratio of 16:9 is displayed at 4:3.	MPEG2 video with an aspect ratio of 16:9 may be played back at 4:3 in Windows Media Player and similar software.
Even though the data is played back on the video camera, top menu is not played back.	The top menu will be displayed on a player capable of playing back the top menu. The top menu will not display on a video camera.
When the produced disc is played back on another device, zones surrounding the image are not displayed.	Portions of the area around the image may not be displayed on some playback equipment such as televisions.

Symptom	Corrective Action
The produced SD card or a disc in BDMV or AVCHD standard does not play back.	Playback of discs or SD cards created with this software in BDMV format or AVCHD format is only possible on equipment which is compatible with each format. • Some video cameras do not support playback of video on SD cards.
Cannot play discs created with this software.	Play the disc in equipment compatible with the type of disc you have created.
When the produced SD card or disc is played back with another device, audio may be heard from one side only.	Audio recorded in DolbyDigital 5.1 ch and played back through stereo (2 ch) speakers may be heard from one side only. If available on your TV receiver, we recommend turning on the surround sound function. Refer to the operating instructions of your TV receiver for instructions.
When the produced disc is played back, the end of the image is slightly truncated.	When recorded in DVD-Video format, the end of an image may be truncated by about 0.5 seconds.

Connection/Import

Symptom	Corrective Action
If other software is already running, this software does not start up automatically when the video camera is connected.	 Other programs may prevent this software's automatic start-up function from operating correctly when the video camera is connected. Please change the settings of the other software or uninstall it completely.
The video camera is connected but not displayed on the window or recording fails.	 Click [Refresh] in the main window or other windows. This will update the drive information, which may enable display. If the video camera has not been set for connection with the PC, it will not be displayed. (For details, refer to the operating instructions for the video camera.) Some video cameras are not supported by Windows® 2000. Video cameras cannot be used as the destination for recording video.
When an SD card is inserted, the card is not displayed in the media/folder selection area.	 SD cards are not displayed unless they are connected before this software is started. If you connect the SD device or insert an SD card after startup, select the drive on the [SD] tab of [Settings], and then click [OK]. (→84) An SDHC memory card (4 GB to 32 GB) will not be displayed unless using a reader/writer that supports SDHC.

Symptom	Corrective Action
Thumbnails are not correctly displayed on the importing window.	 Since image data produced with video cameras other than compatible video cameras (→10) or other software does not have thumbnail folders, they are not displayed. The wrong TV system, NTSC or PAL, may have been selected when the software was originally installed. Select "About HD Writer AE 1.0" from "?" at the top right of the main window, and check the TV system. If the wrong system was selected, you will need to reinstall the software. When collecting content and recording in BDMV or AVCHD format, scenes processed for seamless playback may be displayed as a single video in the importing window. ("Seamless setting during SD, DVD or BD recording"→85)

Editing

Symptom	Corrective Action
Images cannot be edited.	Only content (video or photos) stored on the computer can be edited or used in media creation. Import content stored on other media to your computer before use. $(\rightarrow 17, 30)$
Results of editing do not match the frames I selected.	With some types of video content, frames may not match the frames selected during editing.
Images output in MPEG2 format cannot be handled with DVD-Video production software.	When 5.1 channel video is exported to MPEG2 format using [Save images in original form], the aspect ratio is 16:9 and the sound is 5.1 channel. It may not be possible to use this content in software that does not specifically support this format. In this case, try exporting with [Save as 2-channel audio]. $(\rightarrow 39)$

Recording

Symptom	Corrective Action
Data cannot be recorded.	Video recorded in DVD-Video format must be at least 2 seconds long. Video recorded in DVD-VR format must be at least 3 seconds long.
Cannot record – message appears saying maximum limit has been exceeded.	No further recording will be possible if the number of scenes or videos exceeds the maximum number allowed by this software or by the AVCHD standards. - Maximum number of scenes: 3630 (for Blu-ray discs or SD cards) 999 (for DVD discs) - Maximum number of videos: 200 (for Blu-ray discs or SD cards) 99 (for DVD discs) The number of videos that can be recorded may be reduced if individual videos contain scenes recorded in different recording modes.
Cannot record photos to an optical disc.	Photos cannot be recorded on an optical disc. Record photos to SD cards. (→67)
An error message is displayed when I select the drive to record to.	 Close any other software using the drive. An error message may be displayed when media is replaced. Reselect the drive. Other recording software may be interfering with operation. In this case, uninstall the other recording software.
The image is distorted during burning and is not burned properly.	Close this software and restart the PC.
Cannot record on a new DVD-RAM disc.	Commercially available DVD-RAM discs are sold in UDF 2.0 format. To record in AVCHD format with this software, format them as UDF 2.5. $(\rightarrow 78)$
Cannot record on the card or disc after formatting it using Windows® Explorer.	When using this software to record on optical discs, use this software to format the discs (\rightarrow 78). SD cards must be formatted by using video cameras compatible with this software (\rightarrow 10). Optical discs formatted by using applications other than this software (such as Windows Explorer) are not supported.
Cannot add content to a DVD-RAM disc.	If the disc is protected, recording is not possible. Clear any protection by using the equipment originally used to protect the disc. When you are recording in AVCHD format, data can be appended by enabling auto protection, even without clearing the protection. (→85) ■ Video recorded in DVD-Video format must be at least 2 seconds long. Video recorded in DVD-VR format must be at least 3 seconds long.

Symptom	Corrective Action
Cannot stop recording midway through.	 With DVD-R/RW and BD-R discs, recording can only be stopped by clicking [Cancel] when changing discs or during data conversion, not when data is being written.
A disc error message is displayed.	Recording is not possible using unsupported types of discs or discs in unsupported formats. (For a list of supported discs: \rightarrow 11)
Error occurs while data are being recorded.	Consider the following as factors for this problem. The media is not supported. (For a list of supported media: →11) When recording on SD cards, the cards must be formatted with a file system compatible with this software. Use compatible video cameras (→10) to format SD cards. (Recorded data will be deleted.) There may be a compatibility problem between the drive and disc. Use discs recommended for the drive. (With some discs, playback may not be possible even if recording is completed normally. Check playback after recording.) Recording may be affected by the state of the hard disk drive where the operating system is installed or the drive used for working space. Optimize the hard disk if necessary. From the Start menu, select [Computer] ([My Computer]), right-click the hard disk icon and select [Properties]→[Tools]→ [Defragment Now]→[Continue]→[Defragment now] ([Properties]→[Tools]→ [Defragment Now]→[Defragment]). However, do not optimize the hard disk while this software is running. Other software may be running. Exit other applications. Using other software at the same time may cause recording to fail, or it may damage discs. (In particular, do not use DVD or CD recording software or other recording or encoding software that requires a large amount of memory.) Other DVD writing software, packet writing software, or similar software that uses the optical drive may be installed, or an ASPI driver may be installed. Uninstall the other software and drivers and then reinstall this software. Other software with features for reading UDF discs may be installed. In this case, temporarily stop the software or uninstall it.

Symptom	Corrective Action
Error occurs while data are being recorded. (Continued)	 Multiple peripherals may be connected to the computer. ⇒ Particularly if you are using an external optical drive for recording, disconnect SD card readers or other USB devices and check software operation. However, do not connect or disconnect these devices during recording. ◆ Video cameras, optical drives, hard disk drives, or SD card adapters may be connected via USB. ⇒ Use a different USB port (for example, a USB port on the back of the computer). ◆ Operation may be affected by the firmware (a control program stored on the equipment) of your optical drive. ⇒ Update the firmware of your computer or optical drive. (Firmware updates may be available on the manufacturer's website.) ◆ Operation may be affected by CD recording functions provided by the operating system as a standard feature. ⇒ Disable these functions. ◆ Because some video cameras cannot play back video from SD cards, an error message is displayed if you attempt to use this software to record on SD cards formatted by using these video cameras. (Recording is possible, however.)
Images cannot be added.	Recording additional video content is only possible on the following media. Blu-ray discs, DVD-RAM discs and SD cards which you have recorded to using this software SD cards recorded on by using video cameras DVD-RAM discs recorded on by a DVD burner compatible with the video camera Blu-ray discs recorded on by a BD burner compatible with the video camera

Recording (SD card)

Symptom	Corrective Action
Cannot format an SD card.	SD cards cannot be formatted on this software. Format them on the video camera that this software supports. (→10)

Other

Symptom	Corrective Action
Cannot access the optical drive using Windows Explorer or other software.	Other software cannot access an optical drive currently in use by this software. Exit this software before accessing the optical drive.
The free space displayed on this software is less than the free space displayed on Windows® Explorer.	If you record on discs in BDMV format or AVCHD format, the free space indicated by this software is the space available on discs for continuous recording, which may be less than the free space indicated by Windows Explorer.
Cannot see the produced media on Windows® Explorer.	 Since the media recorded in AVCHD standard is recorded in UDF 2.5 format, they cannot be displayed on a PC where the UDF 2.5 driver is not installed. Since video content is recorded in UDF 2.6 on BD-R or in UDF 2.5 on BD-RE, they cannot be displayed on a PC where each UDF driver is not installed.
A message during importing or editing indicates that no additional registration is possible, and content cannot be saved.	You have exceeded the maximum capacity in [PC Hard drive (HD)] or [PC Hard drive], [PC Hard drive] (about 9,999 items, respectively). Delete unnecessary videos or photos in these destinations and try saving the content again.
DVD-RAM/RW discs recorded with this software cannot be initialised or formatted.	DVD-RAM/RW discs recorded with [Auto Protect ON] selected are protected and it may not be possible to initialise or format them with other recording software or similar programs. In this case, you can initialise the discs using formatting functions of this software (→78). Because complete erasure may take a long time, we recommend simple erasure.
If recording is started on a different date than when it is finished, which date is identified in [Recording date and time]?	[Recording date and time] indicates the date a recording is started.
A message appears indicating insufficient memory.	An error message indicating insufficient memory may appear when handling large volumes of video or pictures. Please increase the amount of available memory. (In some cases, this problem may also be solved by increasing the amount of virtual memory.) For instructions on how to increase the amount of memory or virtual memory, please consult your PC's manufacturer.

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