

# Panasonic<sup>®</sup>

## Operating Instructions

Digital photo management software

### PHOTOfunSTUDIO 5.0 HD Edition

Thank you for using PHOTOfunSTUDIO.  
Before use, please read these instructions carefully.

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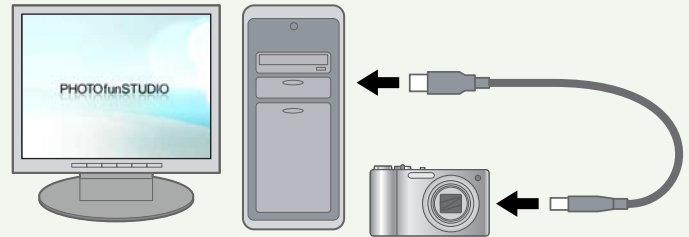
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# When using for the first time

## What can this software do?

### Copy from a digital camera to a PC

still pictures and motion pictures with this software



### View

still pictures and motion pictures

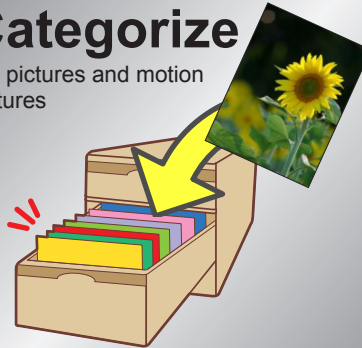


### Enjoy

slide shows

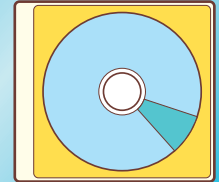
### Categorize

still pictures and motion pictures



### Create a DVD

from AVCHD/AVCHD Lite motion pictures

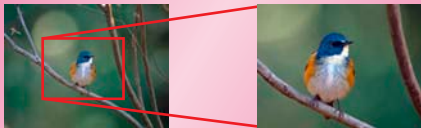


### Back up

still picture and motion pictures data

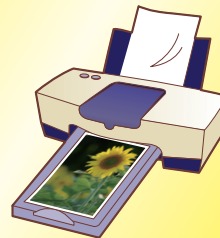
### Process

still pictures and motion pictures



### Print

still pictures



### Send

by E-mail



### Post

on the Internet

# Copying recorded pictures to a PC and displaying them

Here, the procedure is described for copying still pictures or motion pictures that are recorded with a digital camera onto a PC.

## 1 Connect

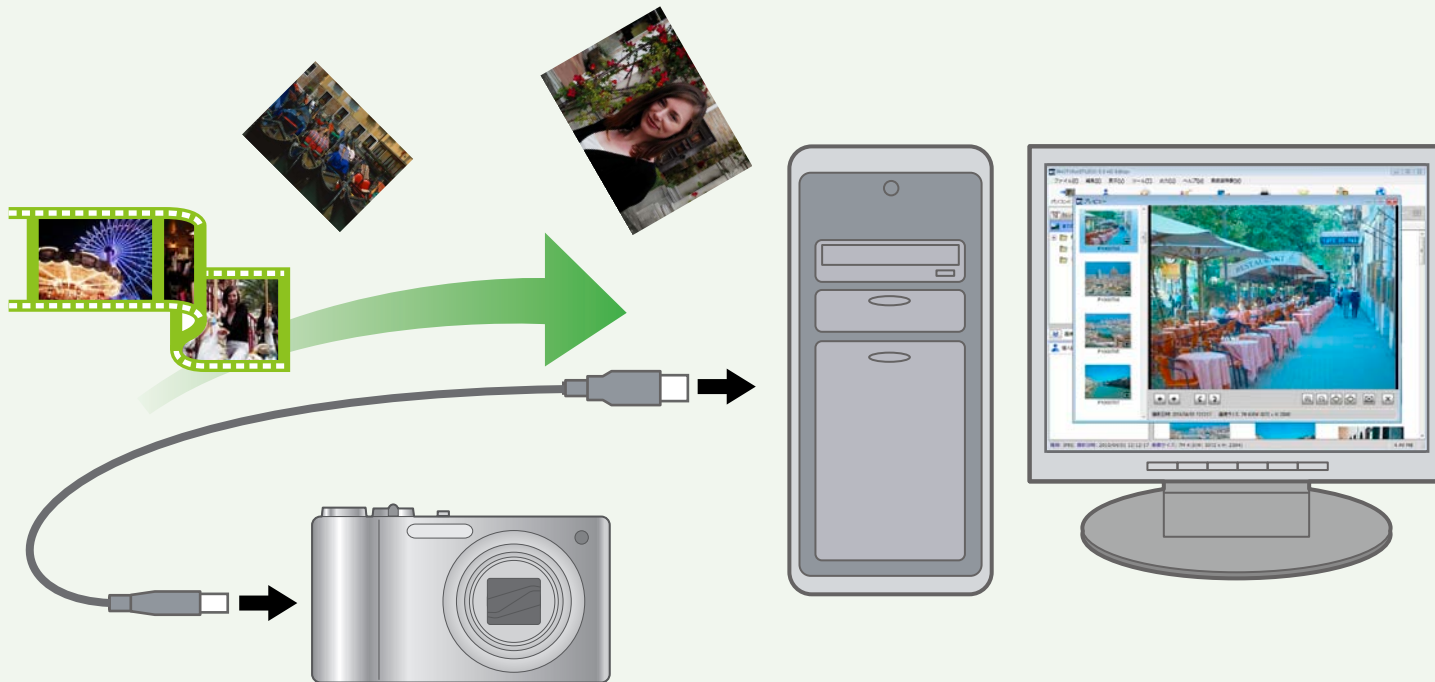
a digital camera to a PC (→6)

## 2 Copy

pictures (→7)

## 3 View

copied pictures (→9)



### Tips

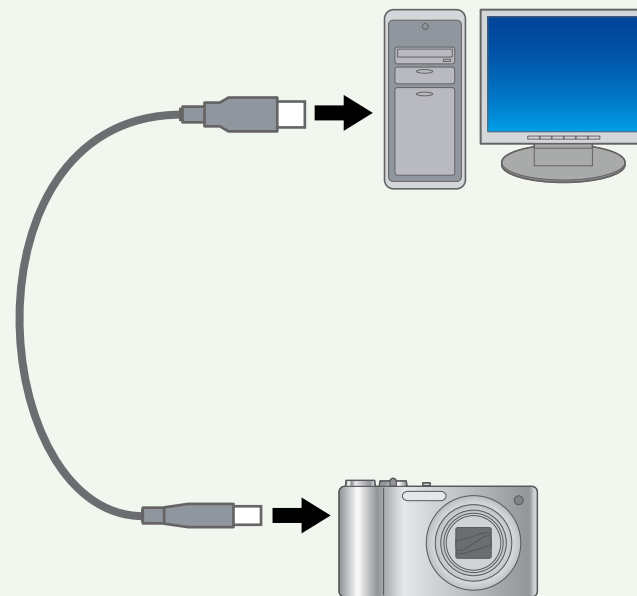
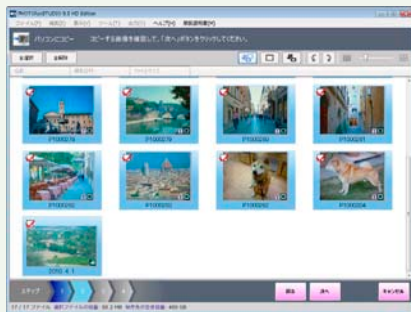
- For details, refer to the pages where each function is described.


## Copying recorded pictures to a PC and displaying them

# 1 Connect a digital camera to a PC (→16)

- 1 Start the PC.
- 2 Turn on the digital camera.
- 3 Connect with the supplied USB connection cable.
- 4 Set the digital camera to PC connection

The [Copy to PC] screen is displayed.

**Tips**

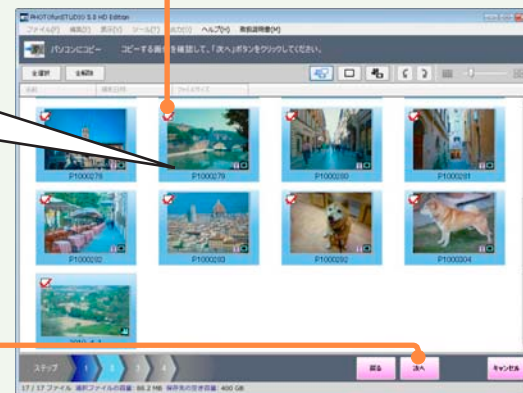
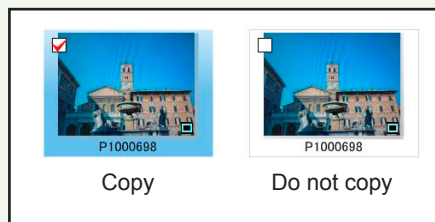
- If the [Copy to PC] screen is not displayed, select the PHOTOfunSTUDIO icon in the Windows automatic playback window (operation selection window).
- If the Windows automatic playback window (operation selection window) is displayed, click  to close the window.
- If a window other than the PHOTOfunSTUDIO window is displayed, such as the LUMIX Simple Viewer window, click [No] to close the window.

Copying recorded pictures to a PC and displaying them

## 2 Copy pictures (→19)

### 1 If there are any pictures that you do not want to copy, click and deselect them.

When the box in the top left of a picture is selected, the picture will be copied to the PC.



### 2 Click [Next].

#### Tips

- All the functions of this software can be used by copying pictures to a PC.

## Copying recorded pictures to a PC and displaying them

3 Click the copy destination folder.

4 Select the setting for the subfolder to create in the copy destination folder.

For example, if you select [Day of acquisition], a folder with today's date is created and the pictures are copied to this folder.

5 Click [Execute].

6 When the confirmation message is displayed, click [Yes].

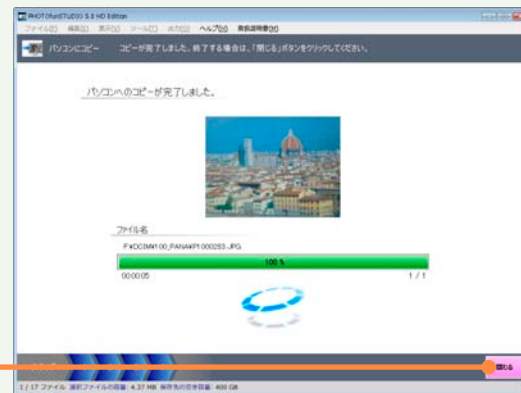
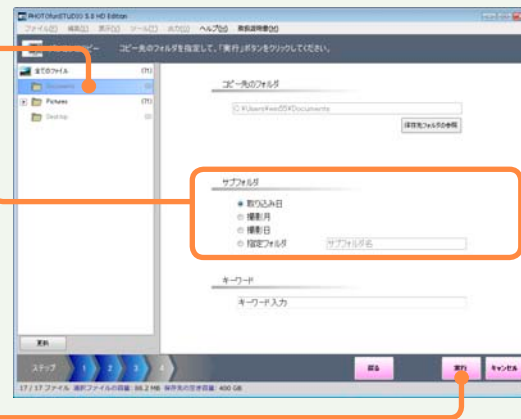
The digital camera pictures are copied to the PC.

7 When the copying completion message is displayed, click [OK].

8 Click [Close].

The PHOTOfunSTUDIO main window is displayed.

9 When the confirmation message is displayed, click [Yes].






Copying recorded pictures to a PC and displaying them

## 3 View copied pictures (→34)

### 1 Click the folder that contains copied pictures.

If the subfolder is not displayed, click .

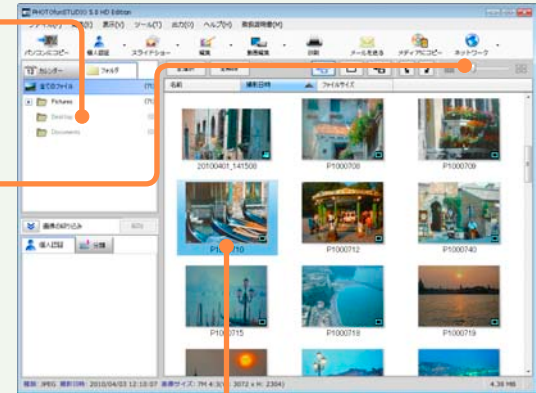
### 2 Searching for pictures You can also search for pictures that you want to view by using the slider to enlarge a reduced picture (thumbnail).

### 3 Double-click the picture that you want to view.

The playback window is displayed.  
Motion pictures start playing back automatically.

### 4 If you want to view another picture, click a thumbnail on the left side.

### 5 Click to return to the main window.



<Playback window>



# Before use

## Introduction

### ■ About the contents of these instructions

- Please note that some of the explanations and screens covered in these operating instructions may differ from the actual screens and contents. (Differences may also occur depending on your PC's operating environment).
- No information is provided about basic PC operations and terms. Please refer to the relevant PC manual.
- The contents of these operating instructions may be subjected to changes without prior notice.
- Reproduction of these operating instructions in part or in full without permission is prohibited.
- The description of Windows® in these operating instructions is based on the Windows Vista® screen.
- In these operating instructions pictures are used from PHOTOfunSTUDIO 5.0 HD Edition, with some exceptions.
- The English, French, German, Spanish and Simplified Chinese versions of this software are available to the OS of the corresponding languages. If you use an OS of another language, the English version of this software will be installed and become available.
- Pages to be referred to are shown as (→00).
- In these operating instructions, PHOTOfunSTUDIO 4.0 HD Edition is indicated as "PHOTOfunSTUDIO".
- In these operating instructions, a memory card refers to an SD memory card, including the internal memory.
- The usable operation items on the menu and right-click menu depend on the operation status of PHOTOfunSTUDIO or status of the selection of the pictures. The unusable items are displayed in gray.
- Depending on the digital camera, some of the models do not have functions like [BABY] Mode, [PET] Mode, [TRAVEL DATE], [DATE STAMP], [TEXT STAMP], face categorization (Face Recognition), RAW files, etc. mentioned in these instructions.

### ■ Precautions for use

- Do not pull out the connected cable of media (memory card and DVD, etc.) or digital camera when using it with this software. There is a possibility that the software may not work normally or the data under transmission may be damaged.
- If the PHOTOfunSTUDIO cannot be started due to the lack of system resources, close other applications and then restart the PHOTOfunSTUDIO.
- If a large number of pictures are selected, it takes time to display as a thumbnail view.
- Depending on the environment used, the thumbnail might not be displayed normally when more than 10,000 pictures are displayed.

### ■ About the network function

- This service is available as of November 1, 2009.
- In future, a guarantee of operation is not offered for any service or changes in the specifications of YouTube™. Please note that the contents of the service or the window which can be used might change at any time without prior notice.
- Do not upload the motion pictures protected by copyright except when permission has been obtained from the related right holder.

## Introduction

### About personal information

Personal information of name and age is included in the recorded picture when the name or birthday is set in the digital camera's [BABY] Mode.

Since the Face Recognition function extracts the characteristics of the face to categorize, characteristic information of the face and the face picture will be saved on the PC.

In addition, personal information of name and age will be saved on the PC if name and birthday are set in the face picture.

### ■ Management and disclaimer of personal information

- Information including personal information may be altered or vanish due to erroneous operation, static electricity, accident, malfunction or repair etc.

Please note in advance that Panasonic is not liable in any way for any direct or indirect damage or loss resulting from the alteration or vanishing of information including personal information.

### ■ Always erase personal information when it is transferred to another party or disposed of

- To protect personal information, always erase the information on the hard disk before transferring to another party or disposing of it.
- “Format” or “Delete” using the PC will only modify the file management information, and it will not erase the data in the hard disk completely. It is recommended that you physically destroy the hard disk or use the commercially available PC data deletion software to completely erase the data in the hard disk before transferring to another party or disposing of it.

# Supported picture files

Picture files which can be handled in PHOTOfunSTUDIO are in the following formats.

## Still picture

<b>JPEG format</b>	Extensions: .JPG, .JPEG, .JPE	JPEG is an abbreviation for Joint Photographic Experts Group, and derives from the designation of the committee that has developed this compression format. This file format adopts the data compression method that thins out color data from a colored image to the extent that the human eye cannot discern.
<b>BMP format</b>	Extensions: .BMP	BMP is an abbreviation of Bitmap, and an image format most commonly used in Windows®. ● Some BMP files with special formats are excluded.
<b>TIFF format</b>	Extensions: .TIF, .TIFF	TIFF is an abbreviation of Tagged Image File Format. Although the data is compressed, it can be regenerated after being saved (lossless compression). This means that the picture quality does not deteriorate even when the data is re-saved.
<b>RAW format</b>	Extensions: .RAW, .RW2	This is raw picture data that is recorded with a digital camera and has not been processed. If JPEG image data for thumbnails is contained in a RAW file, a thumbnail is displayed in List Mode. RAW files containing no thumbnail information will be displayed as [RAW] and are incompatible.

## Motion picture

<b>Motion JPEG format (MOV motion picture)</b>	Extensions: .MOV	QuickTime motion picture files are the target files. (QuickTime VR motion pictures which are created with panorama stitching are played with QuickTime Player.)
<b>AVCHD format (AVCHD/AVCHD Lite motion picture)</b>	Extensions: .CONT	It is a motion picture recorded based on the AVCHD standard (high definition quality). ● CONT files are administrative files automatically created when copying to a PC. The actual data of the motion picture is saved as an m2ts file. ● Do not delete, change, or move the files or folders related to the AVCHD/AVCHD Lite motion pictures using the Explorer or similar. It will make it impossible to playback or edit.
<b>MPEG2 format (MPEG2 motion pictures)</b>	Extensions: .MPG	MPEG2 is a motion picture format widely used for DVD videos and so on.

## Important

- Pictures recorded using this software or using the digital camera compatible with this software can be used. (However, motion pictures in DVD-Video format are not compatible.) Pictures recorded by any other digital camera or other software might not be displayed correctly or operate normally.
- Only pictures with a recording date between 1971 and 2037 can be handled correctly.
- Files other than those described above are not compatible and will not be displayed.
- When the size of the picture file is very large or the picture is in a special format, it may not be displayed.
- There are some functional limitations on compatible files like categorization, processing, retouch, output, motion picture edit / output function etc. Please read the explanation of each function.

# System requirements

The PC environment required for using this software is described below.

<b>Personal computer</b>	<p>For Windows® 7: IBM® PC/AT compatible personal computer having Intel® Pentium® III 1GHz or higher CPU (including compatible CPU)          For Windows Vista®: IBM® PC/AT compatible personal computer having Intel® Pentium® III 800 MHz or higher CPU (including compatible CPU)          For Windows® XP: IBM® PC/AT compatible personal computer having Intel® Pentium® III 500 MHz or higher CPU (including compatible CPU)</p> <p><b>Recommended environment for AVCHD/AVCHD Lite motion picture function</b>          For playing motion pictures: Intel® Core™ 2 Duo 2.16 GHz/Pentium® D 3.2 GHz or higher          For editing motion pictures: Intel® Core™ 2 Quad 2.6 GHz or higher</p> <p><b>The minimum environment for AVCHD/AVCHD Lite motion picture function (environment which can be played back for 2 frames/seconds):</b>          Intel® Pentium® III 1 GHz or higher</p>
<b>OS</b>	<p>Preinstalled          Microsoft® Windows® 7 Starter          Microsoft® Windows® 7 Home Basic          Microsoft® Windows® 7 Home Premium          Microsoft® Windows® 7 Professional          Microsoft® Windows® 7 Ultimate          Microsoft® Windows Vista® Home Basic or Service Pack 1/Service Pack 2          Microsoft® Windows Vista® Home Premium or Service Pack 1/Service Pack 2          Microsoft® Windows Vista® Business or Service Pack 1/Service Pack 2          Microsoft® Windows Vista® Ultimate or Service Pack 1/Service Pack 2          Microsoft® Windows® XP Home Edition Service Pack 2/Service Pack 3          Microsoft® Windows® XP Professional Service Pack 2/Service Pack 3</p>
<b>RAM</b>	<p>For Windows® 7: 1GB or more          For Windows Vista®: 512 MB or more          For Windows® XP: 512 MB or more          For AVCHD/AVCHD Lite motion picture function: 1 GB or more</p>
<b>Display</b>	<p>High Color (16 bit) or more (32 bit or more recommended)          Desktop resolution of 1024×768 pixels or more (1280×1024 pixels or more recommended)          Video card          For Windows Vista®: Graphics card complying with DirectX® 10          For Windows® XP: Graphics card complying with DirectX® 9.0c          DirectDraw® overlay support          PCI Express™ x16 is recommended</p>

## System requirements

<b>Free hard disk space</b>	Ultra DMA-100 or higher 450 MB or more for installing software <ul style="list-style-type: none"> <li>● When writing to DVD, twice the amount of free space as the disc is necessary.</li> <li>● 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.</li> </ul>
<b>Necessary software</b>	For Windows Vista® DirectX® 10 For Windows® XP DirectX® 9.0c <ul style="list-style-type: none"> <li>● If you install the software in a PC that is not compatible with DirectX® 9.0c, the PC may stop operating properly. If you are unsure if your PC is compatible, contact the maker.</li> </ul> .NET framework 2.0 SQL Server Compact 3.5 Internet Explorer 6.0 or more QuickTime Player
<b>Sound</b>	Windows compatible sound device
<b>Drive</b>	CD-ROM drive (required for installing software) <ul style="list-style-type: none"> <li>● A compatible drive and media are required for DVD writing.</li> </ul>
<b>Interface</b>	USB port (Hi-Speed USB (USB2.0))
<b>Other requirements</b>	Mouse or equivalent pointing device

## System requirements

- Even if the system requirements mentioned in these operating instructions are fulfilled, some personal computers cannot be used.
- The operation of this software will not be guaranteed when fonts other than English fonts are selected and used.
- This software may not run properly on user-built computers.
- This software cannot be used on Microsoft Windows® 3.1, Windows® 95, Windows® 98, Windows® 98SE, Windows® Me, Windows NT® and Windows® 2000.
- Operation is not guaranteed on Microsoft® Windows Vista® Enterprise, Windows® 7 Enterprise, Windows® XP Media Center Edition, Tablet PC Edition and not compatible with 64 bit operation systems.
- Operation on an upgraded OS is not guaranteed.
- Multi-boot environment is not supported.
- This software does not support the multi-monitor environments.
- Only the system administrator can install or uninstall this software.
- Log on with an administrator account or standard user account before using this software. You cannot use this software with a guest account.
- When PHOTOfunSTUDIO is running, energy conserving functions such as Windows screen savers, sleep or automatic display cannot be used.
- If the settings for the size of characters in the screen settings dialog box in Windows is larger than the standard size, some buttons may be displayed off-screen and cannot be operated. In this case, restore the character size to standard size.
- 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 Windows Vista® Ultimate with the user interface set to other languages using the Multi-language User Interface (MUI) function is not guaranteed.
- Only AVCHD/AVCHD Lite motion pictures that were created with the following can be handled.
  - This software
  - Digital camera that had this software supplied with it

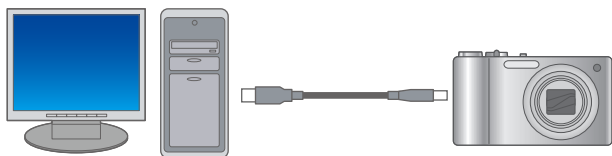
# Setting up

## Connecting a digital camera to a PC


When a digital camera compatible with this software is connected, a picture can be acquired from the memory card of camera, or a picture can be recorded on a memory card from a PC.

### Important

Make sure that there is enough power remaining in the battery of the digital camera and notebook computer. If possible, use the AC adaptor.



### Tips

- For details on connecting, refer to the operating instructions for the digital camera.
- When the digital camera is correctly recognized by the PC, it is added to [Computer] ([My Computer]) as a drive.
- If a window other than the PHOTOfunSTUDIO window is displayed, such as the LUMIX Simple Viewer window, click [No] to close the window.
- If the [Copy to PC] screen is not displayed, select the PHOTOfunSTUDIO icon in the Windows automatic playback window (operation selection window).
- If the Windows automatic playback window (operation selection window) is displayed, click  to close the window.
- Do not operate the digital camera or disconnect the USB connection cable while transferring data from the digital camera. The software may not function correctly and damage the data being transferred.
- Pictures cannot be copied from this software to some digital cameras. In such cases, please use an SD card reader/writer etc.

## 1 Start the PC.

## 2 Turn on the digital camera.

## 3 Connect the digital camera to the PC.

Connect by fully inserting the USB connection cable that is supplied with the digital camera.

## 4 Set the digital camera to PC connection.

When the digital camera is recognized by the PC, the [Copy to PC] screen is displayed.

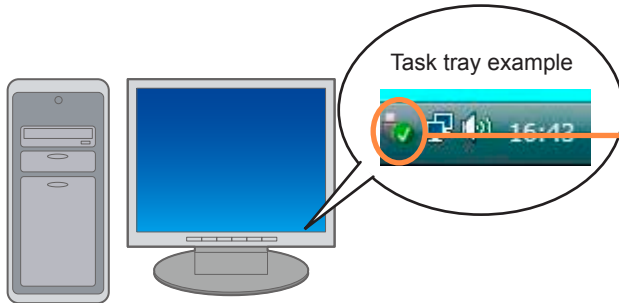
To copy pictures to the PC, follow the instructions. (→18)







## Connecting a digital camera to a PC

### Removing the digital camera from the PC



- 1** Make sure that the digital camera is not accessing the PC, such as performing a writing operation.

---

- 2** Double-click  or  on the task tray of the PC.

---

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

When multiple USB devices are displayed, you can double-click each to check which is the digital camera.

---

- 4** Remove the USB connection cable from the PC.

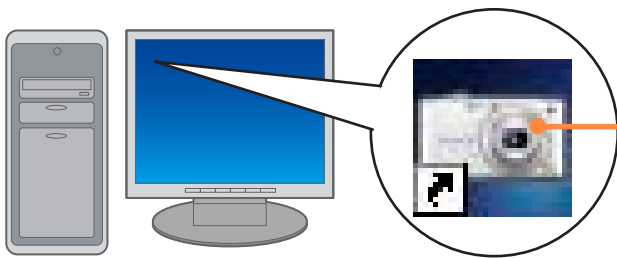
---

- 5** Turn off the digital camera.

# Starting PHOTOfunSTUDIO

## Important

Before using for the first time, be sure to select [Start] → [All Programs] → [Panasonic] → [PHOTOfunSTUDIO 4.0 HD Edition] → [Readme] and read the supplementary explanation and the latest information.



## 1 Double-click on the desktop.

In the Start menu, select [All Programs] → [Panasonic] → [PHOTOfunSTUDIO 4.0 HD Edition].

## Tips

- Checks for application updates when launched (→128)
- When starting the software for the first time, it may take some time to display the window because first it analyzes the pictures that are saved on the PC.
- When a digital camera is connected to the PC or a memory card is set, PHOTOfunSTUDIO starts automatically and the [Copy to PC] screen is displayed. (→18)

## To exit



## 1 Click on the window.

You can also exit by selecting [File] → [Exit] from the menu.

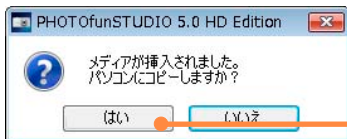
## 2 When the confirmation message is displayed, click [OK].

# Saving pictures

## Copying pictures from a digital camera or memory card to a PC

### Important



Do not operate the digital camera or disconnect the USB connection cable while transferring data.

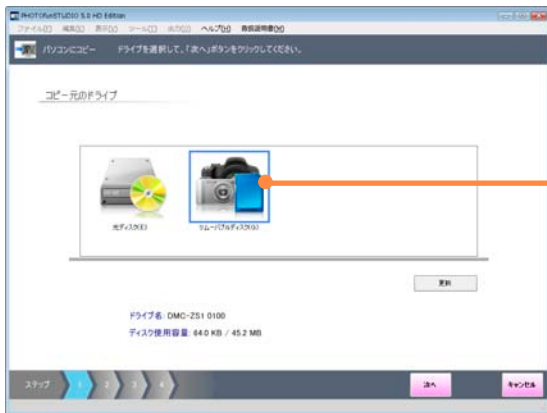


**1** Connect the device, such as a digital camera or memory card reader.

**2** Click [Yes].

The [Copy to PC] screen is displayed.

- If the window is not displayed, click  [Copy to PC].
- You can also display the screen by selecting [File] → [Copy to PC] from the menu.
- If the Windows automatic playback window (operation selection window) is displayed, click  to close the window.



**3** If the selection window for the location to copy from is displayed, select the drive and click [Next].

- If the connected drive or memory card is not displayed, click [Refresh].

**4** Select the pictures to copy to the PC.

When the box in the top left of a picture is selected, the picture will be copied to the PC.

- Click a picture to select or deselect it.
- Click [Select all] to select all the pictures.
- Click [Deselect all] to deselect all the pictures.

**5** Click [Next].

## Copying pictures from a digital camera or memory card to a PC

**6** Select the copy destination folder.**■ To save in a folder that is not displayed**

- ① Click **[Browse save destination folders]**.
- ② **Select a folder and click [OK]**.
  - To create a new folder to save to, click **[Make New Folder]**, enter a folder name, and click **[OK]**.

**7** Select the subfolder into which to sort the pictures.

**[Day of acquisition]**: Save in a folder for today's date.  
(Example: 20100701)

**[Recording month]**: Save in a folder for the month of recording.  
(Example: 201006)

**[Recording day]**: Save in a folder for the date of recording.  
(Example: 20100630)

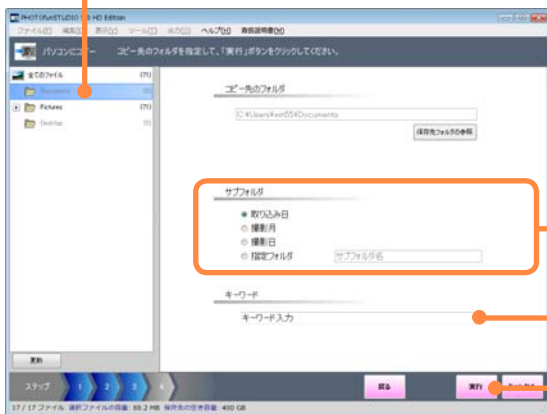
**[Specified folder]**: Save in a folder that you create yourself.  
(Example: Wedding)

**8** Enter a keyword.

(Up to 32 characters (single-byte) can be used.)  
The entered keywords can be used for categorized display.  
If you do not want to set a keyword, go to step **9**.

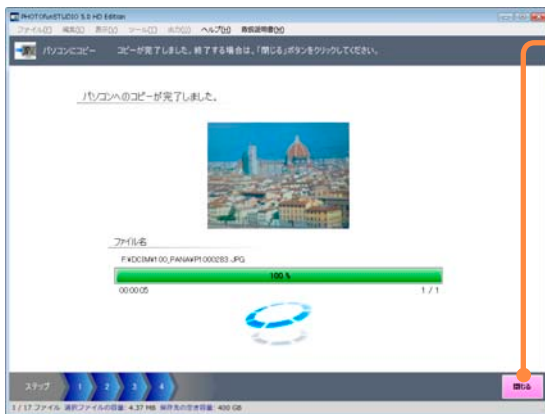
**9** Click **[Execute]**.**10** When the confirmation message is displayed, click **[Yes]**.

The pictures are sorted and copied into the set folders.

**Tips**

- The following characters cannot be used for the keyword.  
\\ ? / " ; : , < > ! \* | ' ^ [ ] % \_
- You cannot set "Enter keyword" as a keyword.

## Copying pictures from a digital camera or memory card to a PC



**11** When the copying completion message is displayed, click [OK].

**12** When the completion window is displayed after copying, click [Close].

### Tips

- The pictures that can be copied are pictures on a memory card that were recorded using this software or a digital camera that supports this software, and motion pictures on a DVD that are recorded in AVCHD format.  
Pictures recorded with other digital cameras or other software might not be copied, output or played back with this software.
- Only pictures with a recording date between 1971 and 2037 can be handled correctly.
- Do not delete, change, or move the files (extensions .cont/.m2ts/.tmb/.iis etc.) or folders related to the copied AVCHD/AVCHD Lite motion pictures using Explorer or a similar method. It will make it impossible to play back or edit.  
(Files related to the AVCHD/AVCHD Lite motion pictures are created in the same location as the copied file.)

## Copying pictures from a digital camera or memory card to a PC

### About saving folders

The following copy destinations are set by default.

- Documents (My Documents)
- Pictures (for Windows Vista or Windows 7)
- Desktop

When Windows is installed on drive C, the folder locations are as follows.

#### For Windows 7

Documents

C:\Users\*(User Name)* \Public \Documents

Pictures

C:\Users\*(User Name)* \Public \Pictures

Desktop

C:\Users\*(User Name)* \Public \Desktop

#### For Windows Vista

Documents

C:\Users\*(User Name)*\Documents

Pictures

C:\Users\*(User Name)*\Pictures

Desktop

C:\Users\*(User Name)*\Desktop

#### For Windows XP

My Documents

C:\Documents and Settings\*(User Name)*\My Documents

Desktop

C:\Documents and Settings\*(User Name)*\Desktop

# Basic operations

## About the main window

### Menu bar

Different functions are arranged by item.

### Tool bar

Buttons are provided for frequently used functions.  
A menu is displayed when some of these buttons are clicked.

### Folder display area

#### Calendar display area

The folders or calendar items are displayed in a list. Pictures in the selected folder or recording date here are displayed in the display area on the right of the folder or date.

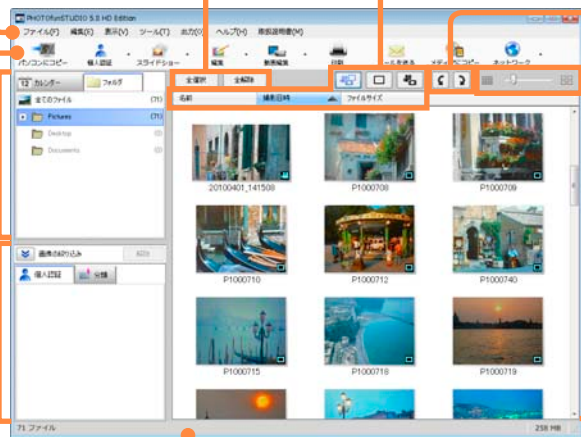
The number of pictures is displayed on the right of the folder or date.

### Narrow setting area

You can set narrowing conditions by Face Recognition or by categorization item for the pictures to be displayed.

### Information area

Displays data such as information on the picture selected in the display area and the status of the currently executed function.



You can select or deselect all the displayed pictures.

You can change the order of the picture list in the display area and specify the data format for the pictures to display.

You can rotate the selected still picture 90 degrees.

You can enlarge or reduce the pictures in the display area.

### Display area

The pictures that correspond to the folder or calendar item specified on the left and the conditions in the narrow setting area are displayed in a list.

- Files that are not compatible are not displayed.

- Icon description

- Still picture

- RAW: RAW format still picture

- MOV: MOV motion picture

- AVCHD/AVCHD Lite motion picture

- AVCHD/AVCHD Lite motion pictures edited with this software

- MPEG2: MPEG2 motion pictures

- QuickTime VR: QuickTime VR motion pictures

- ★: Pictures for which [FAVORITE] is set with a supported digital camera

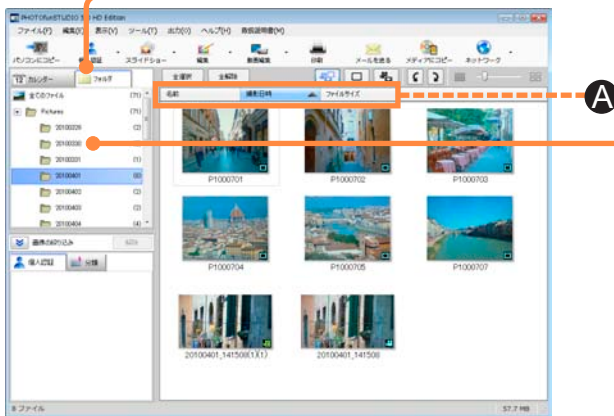
- 🔒: Protected pictures (read-only)

- ℹ️: There is information such as a title or name

# Switching between window display styles

## Displaying pictures in a folder in list view (thumbnail display)

Only pictures in a registered folder can be displayed.




### 1 Click [Folder].

The window display style is switched.

- You can also switch by selecting [View] → [Display mode] → [Thumbnail display] from the menu.

### 2 Click the folder that you want to view.

The pictures in the folder are displayed in a list.

- Click  or double-click the folder name to expand or hide the subfolders.
- Double-click a picture to display the playback window.

### ■ Changing the picture order

#### ① Select an item by which to sort the data (A).

**[Name]:** Displays in name order.

**[Date of recording]:** Displays in recording date order.

**[File size]:** Displays in file size order.

- Click again to switch from ascending (▲) to descending (▼) order.

- You can also change the order by selecting [View] → [Sorting pictures] from the menu.

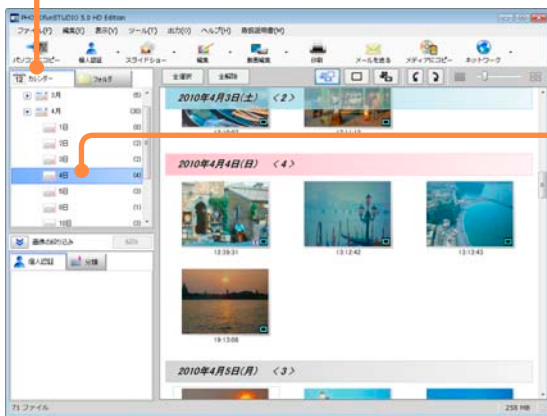
### Tips

- Simple playback is performed when the mouse pointer is placed on a motion picture thumbnail.
- To set the addition or registration, etc. of registration folders (→26)



## Switching between window display styles

### Displaying pictures with the same recording date (calendar display)




#### 1 Click [Calendar].

The window display style is switched.

- You can also switch by selecting [View] → [Display mode] → [Calendar display] from the menu.

#### 2 Click on the displayed year, month, and day.

The calendar display switches to the selected year, month and day.

- Years, months and days on which pictures are not recorded are not displayed.
- Click  or double-click a year or month to expand or hide the months or days.
- Year calendar display



Double-click a month that displays a picture to switch to the month calendar display.

- Month calendar display



Double-click a day that displays a picture to switch to the recording date calendar display.

- Recording date calendar display



Double-click a picture to display the playback window.

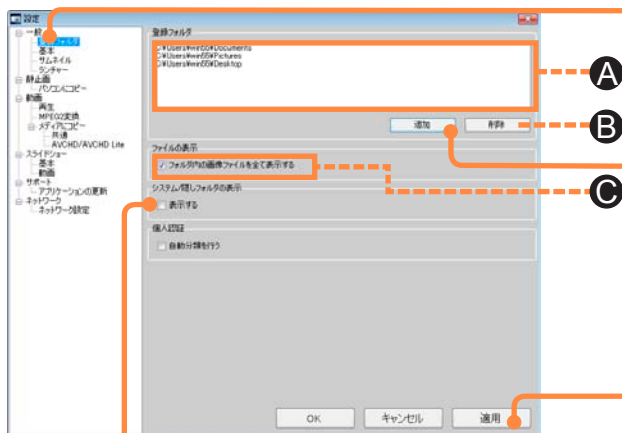
#### Tips

- The update date and time is displayed for pictures that do not have recording date and time information.
- In the year calendar display or month calendar display, place the mouse pointer on a month or day for which a thumbnail is displayed to display in order the pictures that were recorded on that month or day.
- To set the addition or registration, etc. of registration folders ([→26](#))

## Switching between window display styles

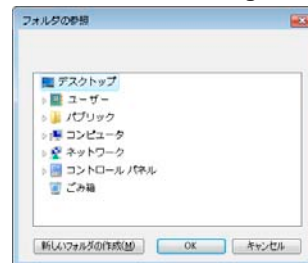
### Adding registration folders

Adding or registering display folders.



Add a check mark when you wish to display system / hidden folders.

- ① Select [Tools] → [Settings] from the menu.
- ② Click [General] — [Registration folder].
- A: Currently registered folders
- ③ Click [Add].
- ④ Select the folder to register and click [OK].



- ⑤ Click [Apply].
  - When [OK] is clicked, the settings are applied and the window is closed.
  - Select the folder and click [Delete] (B) to delete a registration folder.

### ■ Displaying the picture files of subfolders

The default setting will display all the files.

- If you do not wish to display all subfolder pictures, remove the check mark from [Display all picture files from the folder] (C).

#### Tips

- When a folder is added, it may take some time to display the window because first the picture category information and other data are analyzed.
- Even if you delete the registration folder, the folders that are saved on the PC and the pictures inside the folders are not deleted.
- When changing [Display system/hidden folders] settings, refresh the window display with [View] → [Refresh] after the changes.
- A maximum 30 registration folders can be added.

# Selecting pictures

Select pictures to display, copy, move or edit, etc.

In addition to selecting pictures by clicking a thumbnail, you can also select them by adding a check mark in the picture selection window of each function.

## ■ Selection

Click a picture to add a frame around it.

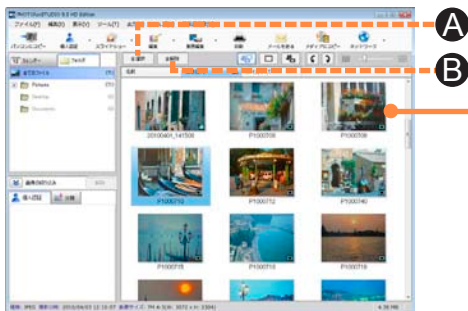


## ■ Check mark

Click the picture to add a check mark.



## To select pictures



## 1 Click pictures in the display area.

Clicked picture is enclosed by a frame and the picture is selected.

- To select two or more pictures  
Click the pictures while holding down the [Ctrl] key.
- To select two or more successive pictures  
Select the first picture, then hold down the [Shift] key while you select the last picture.
- To select all displayed pictures
  - Click [Select all] (A).
  - Left-click the display area, then hold down the [Ctrl] key while you press the [A] key.
- To deselect pictures
  - Click [Deselect all] (B).
  - Click a location other than a picture in the display area.

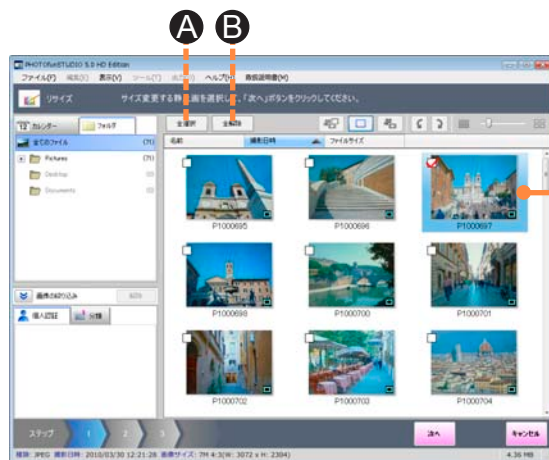
## Tips

- Pictures cannot be selected in the year calendar display or the month calendar display.
- Thumbnails with an [Error] display will be shown for either of the following reasons:
  - The folders or picture files have been moved or deleted using different software after folders were registered or the picture files were copied using this software.
  - The registry folder designated with this software does not exist. Refer to the "Display" section in "Troubleshooting (Q&A)" for help (→118)

## Selecting pictures

### Adding check marks to pictures

When selecting the target pictures in the screen for the executed function, such as copying to PC or picture editing, click the picture to add a check mark.



### 1 Click the picture.

A check mark is added and the picture is selected.

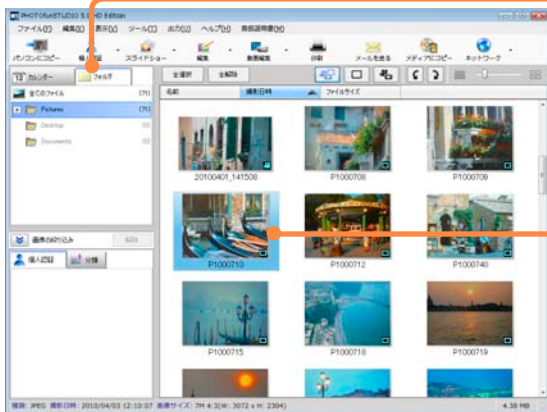
When you close this function and return to the main window, the check marks are deselected.

- You can add check marks to multiple pictures.
  - Click [Select all] (A).
  - Left-click the display area, then hold down the [Ctrl] key while you press the [A] key.
- To deselect a check mark
  - Click a picture that contains a check mark.
- To deselect all marks
  - Click [Deselect all] (B).

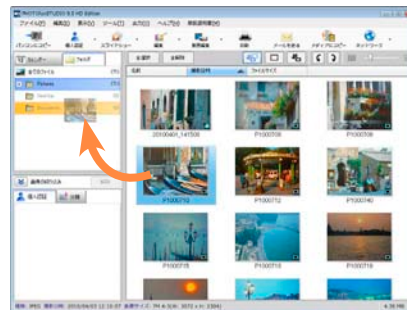
### Tips

- Using check marks, you can select pictures in different folders at the same time.

# Copying/moving pictures



- 1 Click [Folder].
- 2 Select the picture that you want to copy or move.
  - You can select multiple pictures.
- 3 Drag and drop the picture to the destination folder.



- To copy, drag and drop while holding down the [Ctrl] key.

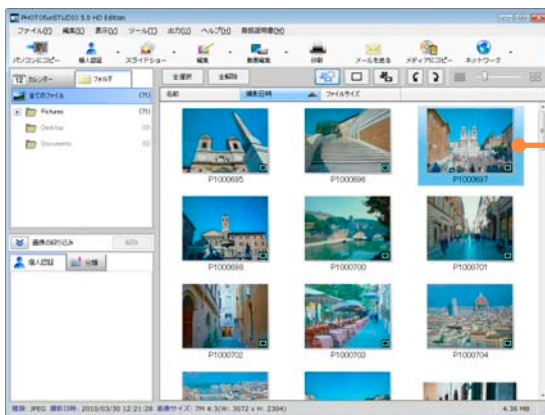
- 4 When the confirmation message is displayed, click [Yes].

## Tips

- The keyboard can also be used for copying or moving pictures. ([Ctrl]+C = copy, [Ctrl]+V = paste, [Ctrl]+X = move)
- You can also copy or move pictures by selecting the picture and using the right click menu. (→33)
- Pictures cannot be copied or moved during the calendar display.
- Folders can be moved by dragging and dropping sub-folders into a different folder. (To copy, hold [Ctrl] while dragging and dropping.)
- AVCHD/AVCHD Lite motion pictures on a memory card or DVD cannot be copied with this operation. Use [Copy to PC].
- When copying to a memory card, CD or DVD, use [Copy to media].
- Update the display if operation result is not reflected.

# Deleting pictures

You can delete pictures that are saved on your PC.



**1** Select the picture that you want to delete.

- You can select multiple pictures.

**2** Select [File] → [Delete] from the menu.

- You can also delete by pressing the [Delete] key.

**3** When the confirmation message is displayed, click [Yes].

The picture is deleted.

## Tips

- To delete pictures recorded on a memory card, delete them with the digital camera. (See the operating instructions for the digital camera for details.)
- Do not use Explorer or a similar method to delete any file or folder related to the AVCHD/AVCHD Lite motion pictures that have been copied to the PC. It will make it impossible to play back or edit.
- When all still pictures and motion pictures are displayed, choose a folder and select [Delete Folder] from the right-click menu to delete the selected folder and all pictures contained therein. Use Explorer to delete folders containing contents that cannot be deleted with this software, such as non-compatible files.

# Protecting pictures

You can protect against accidental deletion. When protection is set, pictures are read-only and cannot be deleted.

- 1 Select the picture that you want to protect.**

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- 2 Select [File] → [Protect] → [ON] from the menu.**
  - When [OFF] is selected, the picture protection is canceled.

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- 3 When the confirmation message is displayed, click [Yes].**

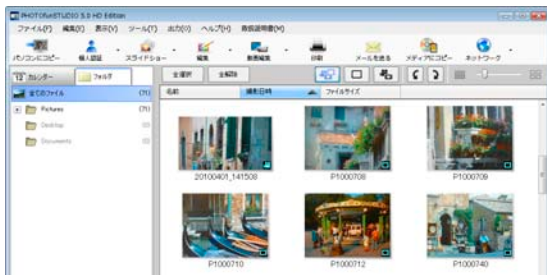
The picture is protected.

## Tips

-  is displayed for pictures set to Protect ON and they cannot be deleted or overwritten with edited data. To delete or overwrite a picture, first change the setting to Protect OFF to cancel the protection.
- Pictures for which [PROTECT] is set with a supported digital camera are set to Protect ON when copied to a PC.
- Pictures for which Protect ON is set also keep their protection setting when copied to media. (Except for AVCHD/AVCHD Lite motion pictures)

## Refreshing the display

If the display is not updated with the results of operations such as picture edits, refresh the display manually.




### 1 Select [View] → [Refresh] from the menu.

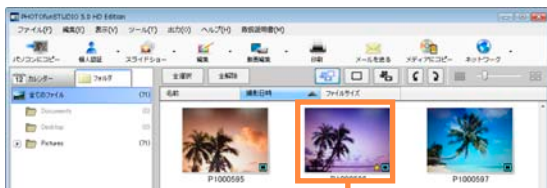
The display is refreshed.

#### Tips

- If the display is not updated with file or folder operations that you perform using other software, refresh the display.

## Setting as Favorites

If you set a picture as a favorite,  will be displayed on the picture, as with pictures set as [FAVORITE] on compatible digital cameras.



A picture set as a favorite

### 1 Select the picture you want to set as a favorite.

### 2 Select [File] → [Favorites] → [ON] from the menu.

- Select [OFF] to remove the favorites setting.

### 3 When the confirmation message is displayed, click [Yes].

- The picture will be set as a favorite.

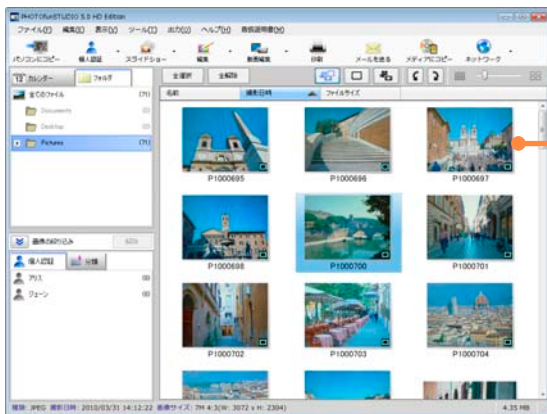
#### Tips

- Pictures for which [FAVORITE] is set with a supported digital camera are set to Favorite ON when copied to a PC.
- Pictures for which Favorite ON is set also keep their favorite setting when copied to media. (Except for AVCHD/AVCHD Lite motion pictures)



# Using right-click menus

When a picture or folder is selected and right-clicked, some functions pop up.



**1** Select a picture.

**2** Right-click on the picture.

The right-click menu is displayed.

再生(P)
スライドショー(L)
切り取り(T)
コピー(C)
貼り付け(P)
名前の変更(C)
消去(D)
プロテクト(O) ▶
お気に入り(F) ▶
プロパティ(R)

**3** Select a function.

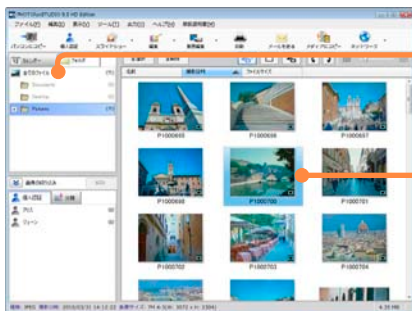
## Tips

- The menu that is displayed depends on the status of the picture or folder.
- The only characters available when changing the names of AVCHD/AVCHD Lite motion pictures are ASCII characters (i.e. single-byte alphanumerics, etc).

# Viewing pictures

## Displaying the playback window

You can display pictures that are saved on the PC.



### 1 Click the folder that contains the picture that you want to view.

The pictures in the folder are displayed in a reduced view.

- When using the calendar display, set the recording date calendar display.

### 2 Select the picture that you want to view and double-click it.

The playback window is displayed.

### 3 You can enlarge or reduce a still picture, or play back a motion picture.



#### Tips

- When playing motion pictures, the pictures and/or voice may be interrupted depending on the performance of your PC.
- Depending on the PC environment, [Windows Aero] function of Windows Vista, or the motion picture to play back, missing frames or colors may occur during playback, or the motion picture may not play back smoothly.  
It may occur more often when it is played back in full screen.
- Frame rates for the playback of AVCHD/AVCHD Lite motion pictures by PC CPU (Values are just a guideline)

CPU	Frame rates (fps)
Pentium III 1.0 GHz or higher	2
Pentium 4 Hyper-Threading Technology 3.0 GHz or higher	8 (NTSC: 10)
Pentium D 3.0 GHz or higher	25 (NTSC: 30)
Pentium D 3.2 GHz, Core 2 Duo 2.16 GHz or higher	50 (fields) (NTSC: 60)

However, the frame rate may become lower than the table depending on the environment or the usage of the PC.

## Displaying the playback window

### About the playback window

#### ■ During still picture display



Display area pictures

Operation panel

- : Displays the previous picture.
- : Displays the next picture.
- : Rotates 90 degrees counter-clockwise.
- : Rotates 90 degrees clockwise.
- : Enlarges the picture.
- : Reduces the picture.
- : Displays in the original size.
- : Displays to fit the window size.
- : Displays the full-screen view.
- : Closes the playback window.

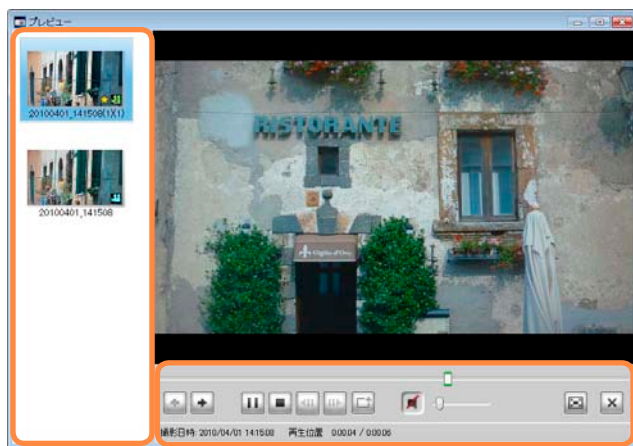
**Date of recording**: Displays the recording date of the picture.

**Picture Size** : Displays the picture size.

**Display area pictures**: Pictures that are displayed in the display area of the main window.  
Click to switch the display.

## Displaying the playback window

### During motion picture playback



Display area pictures

Operation panel

- : Displays the previous picture.
- : Displays the next picture.
- : Pauses.
- : Plays back.
- : Stops.
- : During pause, performs reverse playback by frame.
- : During pause, performs forward playback by frame.
- : Saves the paused window as a still picture.
- : Audio is being output (click to mute).
- : Audio is muted (click to output audio).
- : Adjusts the volume.
- : Displays the full-screen view.
- : Displays in the original size. (Only in full-screen mode)
- : Displays to fit the window size. (Only in full-screen mode)
- : Closes the playback window.

**Slider:** Displays the playback position of the motion picture. Drag to the left or right to move the playback position.

**Date of recording:** Displays the recording date of the picture.

**Play position:** Displays the current playback position and the length of the motion picture.

**Display area pictures:** Pictures that are displayed in the display area of the main window.  
Click to switch the display.

### About the full-screen display

Double-click the playback window or click to display the full-screen display.

- To return to the original size, double-click the window again, or click .
- When the mouse pointer is removed from the operation panel during the full-screen display and no operation is made for about 3 seconds, the operation panel disappears. Move the mouse to display it again.

# Displaying detailed picture information



**1** Select the picture whose detailed information you want to view.

**2** Select [File] → [Properties] from the menu.

The picture information window is displayed.

**3** Check the information.

Item	Description
File information	The file name, file size, file type, file location, etc.
Camera information	Name of manufacturer of the digital camera used, model name, recording date, shutter speed, aperture value, etc.
Categorisation information	Categorization information such as category and individual names

- A symbol such as [-] is used for items for which there is no information.
- The displayed items vary depending on the format of the picture file.

## ■ To enter a comment

You can enter any text that you want and save it with the picture. (Up to 128 (single-byte) characters)

- ① Click [Comment].
- ② Enter the text and click [Apply].

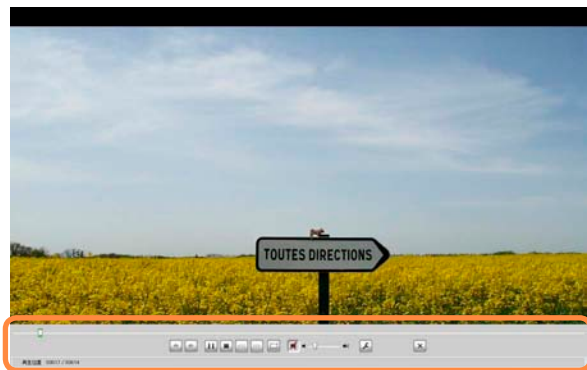
## Tips

- Camera information of picture files that were recorded by a digital camera not made by Panasonic or that have been processed may not be properly displayed.
- You can only add a comment to pictures that have been copied to your PC.  
It is impossible to add a comment to pictures on a memory card, etc.


# Playing back slide shows

## Viewing a slide show immediately









You can make a slide show out of the pictures (still / motion pictures in any format other than RAW) in the display area and play it back. The music and switching effects follow the settings. (→40)



Operation panel

- 1 Select the folder or pictures.
- 2 Click  [Slide show] and then select [Playback now].

The slide show will start.

- : Pauses.
- : Plays back.
- : Stops.
- : Audio is being output (click to mute).
- : Audio is muted (click to output audio).
- : Changing the slide show setting. (→40)
- : Adjusts the volume.
- : Exits the slide show.

**Slider:** Displays the playback position of the slide show. Drag to the left or right to move the playback position.

**Play position:** Displays the current playback position and the length of the slide show.

- When the mouse pointer is removed from the operation panel and no operation is made for about 3 seconds, the operation panel disappears. Move the mouse to display it again.

### Tips

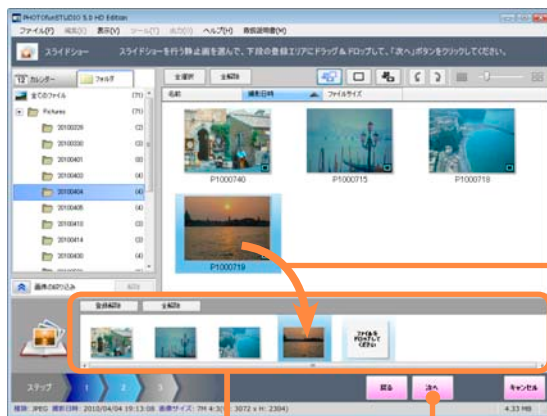
- [Playback now] cannot be performed for the slide show in the year calendar display or the month calendar display.
- When there are more than 1,000 displayed pictures, they may not play back correctly.

## Playing back slide shows

### Selecting pictures to create a slide show

You can create a slide show in which you can add your favorite music or transition effects to pictures (still / motion pictures in any format other than RAW) in the display area.

You can save created slide shows and play them back whenever you want.



Registration area

### 1 Click [Slide show] and then select [Create new/edit].

The slide show registration listing screen is displayed.

- You can also display it by selecting [Tools] → [Slide show] → [Create new/edit] from the menu.

### 2 Select [Register new] and click [Next].

### 3 Select the still pictures to play back in the slide show, and drag and drop them into the registration area.

They are played in order from left to right.

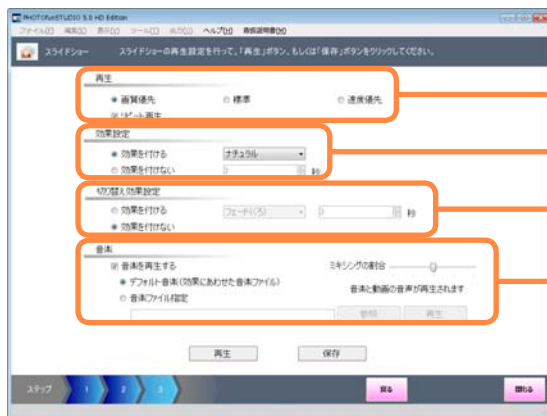
- To change the order  
Drag and drop the pictures to set the order that you want.
- To remove from the slide show  
Select the pictures that you do not want to play back and click [Remove from list].
- To start registering again from the beginning  
Click [Deselect all] in the registration area.

### 4 Click [Next].

#### Tips

- If you create a slide show with more than 1,000 still pictures, it may not play back correctly.

## Playing back slide shows



## 5 Change the slide show settings.

- If you do not want to change the settings, go to step 5.

### ■ Playback

Set the slide show picture quality.

Setting	Recommended system environment
[Picture quality priority]	Core 2 Duo 2.4 GHz or higher
[Normal]	Pentium 4 1.6 GHz or higher
[Speed priority]	Pentium III 800 MHz or higher

[Repeat playback]: Playback is repeated.

### ■ Effect setting

[Apply effect]: The selected picture effect is used while the picture is displayed.

Select an effect from the pull-down menu.

[Do not apply effect]: The interval for picture switching can be set between 1 and 99 seconds.

### ■ Transition effect settings

[Apply effect]: The selected picture effect is used when switching the picture.

Select an effect from the pull-down menu.

The picture effects are set within a range of 3 – 5 seconds.

[Do not apply effect]: Ensures no effect is attached when switching the picture.

### ■ Music

[Play music]: Add music to the slide show for playback.

[Default music (music file for the effect)]:

Play back the music of the picture effect that is set in [Effect setting].

[Specify a music file]: Click [Browse], select the music file that you want, and add it to the slide show for playback.

Click [Playback] to preview.

### Tips

- Please note that depending on the system environment and usage status it may not play back normally even with the recommended systems. For example:
  - When this software is being used while other software is operating.
  - When using a PC equipped with a video card that shares the video memory and main memory.
  - When the free space on the system drive or temporary file storage drive is extremely low.
- Music files in MP3, WMA or WAV format can be used. However, it may not be possible to play back some files. (Content with copyright protection, etc.)



## Playing back slide shows



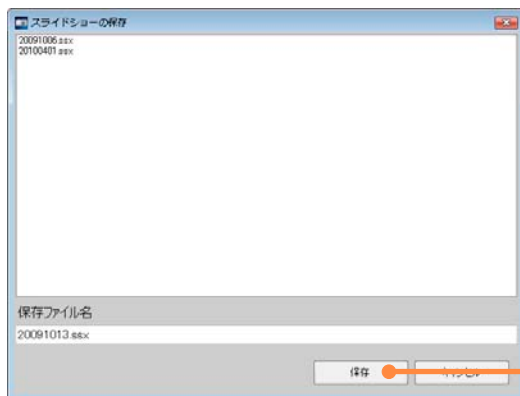
## 6 Click [Save].

The [Save slide show] window is displayed.  
 ● Click [Playback] to play back the created slide show.

## 7 Enter a file name and click [Save].

The slide show is saved.

## 8 Click [Close].



## Playing back slide shows

### Playing back saved slide shows



- 1 Click  [Slide show] and then select [Playback from saved file].

The slide show registration listing screen is displayed.

- You can also display it by selecting [Tools] → [Slide show] → [Playback from saved file] from the menu.

- 2 Select a file and click [Next].

The saved slide show is loaded.

- 3 Click [Next].

- 4 Check the settings and click [Playback].

The slide show will start.

## Playing back slide shows

### Deleting a slide show

Deleting a saved slide show.



**1** Click  [Slide show] and then select [Delete].

The slide show registration listing screen is displayed.

- You can also display it by selecting [Tools] → [Slide show] → [Delete] from the menu.

**2** Add a check mark to the slide show file you wish to delete.

**3** Click [Execute].


**4** Click [Close].

## Playing back slide shows

### Converting slide shows to MPEG2

With this software, slide shows created with this software can be converted to the widely used MPEG2 format.



**1** Click  [Slide show] and then select [Convert MPEG2].

The [Convert MPEG2] screen is displayed.

- You can also display it by selecting [Tools] → [Slide show] → [Convert MPEG2] from the menu.

**2** Click the slide show file you want to convert.

**3** Click [Next].

**4** Set the saving destination.

**5** Click [Execute].

The slide show is changed to MPEG2 format.

**6** Click [OK].

**7** Click [Close].

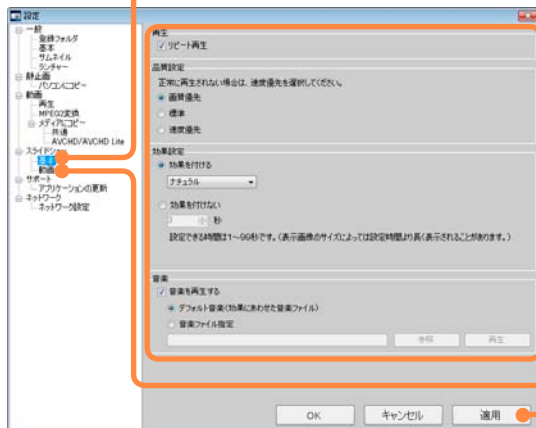
#### Tips

- Only one file at a time can be converted to MPEG2.

## Playing back slide shows

### Settings for slide shows

You can set the switching effects and music for when immediate playback is performed for a slide show.



#### 1 Select [Tools] → [Settings] from the menu.

The settings window is displayed.

#### 2 Click [Slide show] — [Basic].

#### 3 Change the settings.

The setting items are the same as when creating a new slide show. (→37)

#### 4 Click [Slide show] — [Movie].

#### 5 Change the settings.

The setting items are the same as when creating a new slide show. (→37)

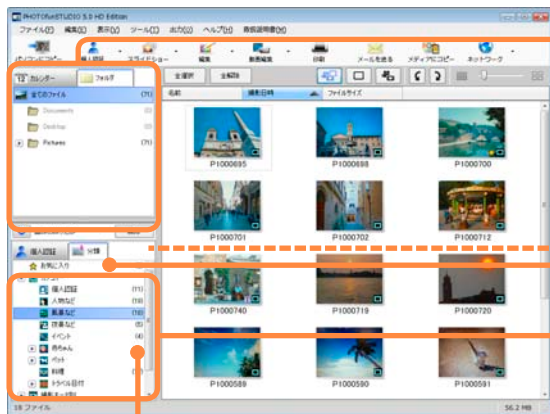
#### 6 Click [Apply].

- When [OK] is clicked, the settings are applied and the window is closed.

# Searching for pictures

## Viewing categorized pictures

The pictures saved on the PC are automatically categorized according to information such as recording scene and keyword (only still pictures). If you filter the display by selecting a categorization item, you can search for the still picture that you want from a large number of pictures.

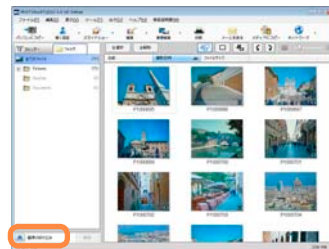


Number of categorized pictures

### 1 Select the folder or recording date to display.

To search from all your pictures, click [All files] in the folder display.

### 2 If the narrow setting area is not displayed, click .



### 3 Click [Category].

### 4 Select the categorization item to display.

The corresponding still pictures are displayed in the display area.

- To cancel the narrowing by categorization item, click [Deselect] (A).
- When the folder or recording date to be displayed is reselected, the narrowing is deselected.

#### Tips

- Multiple narrowing conditions (categorization items) cannot be selected.
- When this software is exited, the narrowing by categorization is deselected.

## Viewing categorized pictures

## About categorization items

Categorization item	Description																						
CATEGORY	<p>Pictures are categorized by the respective categories, similar to the [CATEGORY PLAY] function of LUMIX digital cameras.</p> <table border="1" data-bbox="427 236 1497 645"> <thead> <tr> <th data-bbox="427 236 600 266">Category</th> <th data-bbox="600 236 1497 266">Scene modes</th> </tr> </thead> <tbody> <tr> <td data-bbox="427 266 600 296">Face Recognition</td> <td data-bbox="600 266 1497 296">Still pictures categorized as Face Recognition.</td> </tr> <tr> <td data-bbox="427 296 600 351">PORTRAIT etc.</td> <td data-bbox="600 296 1497 351">[PORTRAIT], [i-PORTRAIT], [SOFT SKIN], [SELF PORTRAIT], [TRANSFORM], [NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [BABY], [i-BABY]</td> </tr> <tr> <td data-bbox="427 351 600 381">SCENERY etc.</td> <td data-bbox="600 351 1497 381">[SCENERY], [i-SCENERY], [SUNSET], [AERIAL PHOTO], [i SUNSET]</td> </tr> <tr> <td data-bbox="427 381 600 436">NIGHT SCENERY etc.</td> <td data-bbox="600 381 1497 436">[NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [NIGHT SCENERY], [i-NIGHT SCENERY], [STARRY SKY]</td> </tr> <tr> <td data-bbox="427 436 600 491">EVENTS</td> <td data-bbox="600 436 1497 491">[SPORTS], [PARTY], [CANDLE LIGHT], [PANNING], [FIREWORKS], [BEACH], [SNOW], [AERIAL PHOTO]</td> </tr> <tr> <td data-bbox="427 491 600 521">BABY</td> <td data-bbox="600 491 1497 521">[BABY], [i-BABY]</td> </tr> <tr> <td data-bbox="427 521 600 552">PET</td> <td data-bbox="600 521 1497 552">[PET]</td> </tr> <tr> <td data-bbox="427 552 600 582">FOOD</td> <td data-bbox="600 552 1497 582">[FOOD]</td> </tr> <tr> <td data-bbox="427 582 600 612">UNDERWATER</td> <td data-bbox="600 582 1497 612">[UNDERWATER], [i SNORKELLING]</td> </tr> <tr> <td data-bbox="427 612 600 642">Travel date</td> <td data-bbox="600 612 1497 642">[TRAVEL DATE]</td> </tr> </tbody> </table>	Category	Scene modes	Face Recognition	Still pictures categorized as Face Recognition.	PORTRAIT etc.	[PORTRAIT], [i-PORTRAIT], [SOFT SKIN], [SELF PORTRAIT], [TRANSFORM], [NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [BABY], [i-BABY]	SCENERY etc.	[SCENERY], [i-SCENERY], [SUNSET], [AERIAL PHOTO], [i SUNSET]	NIGHT SCENERY etc.	[NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [NIGHT SCENERY], [i-NIGHT SCENERY], [STARRY SKY]	EVENTS	[SPORTS], [PARTY], [CANDLE LIGHT], [PANNING], [FIREWORKS], [BEACH], [SNOW], [AERIAL PHOTO]	BABY	[BABY], [i-BABY]	PET	[PET]	FOOD	[FOOD]	UNDERWATER	[UNDERWATER], [i SNORKELLING]	Travel date	[TRAVEL DATE]
Category	Scene modes																						
Face Recognition	Still pictures categorized as Face Recognition.																						
PORTRAIT etc.	[PORTRAIT], [i-PORTRAIT], [SOFT SKIN], [SELF PORTRAIT], [TRANSFORM], [NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [BABY], [i-BABY]																						
SCENERY etc.	[SCENERY], [i-SCENERY], [SUNSET], [AERIAL PHOTO], [i SUNSET]																						
NIGHT SCENERY etc.	[NIGHT PORTRAIT], [i-NIGHT PORTRAIT], [NIGHT SCENERY], [i-NIGHT SCENERY], [STARRY SKY]																						
EVENTS	[SPORTS], [PARTY], [CANDLE LIGHT], [PANNING], [FIREWORKS], [BEACH], [SNOW], [AERIAL PHOTO]																						
BABY	[BABY], [i-BABY]																						
PET	[PET]																						
FOOD	[FOOD]																						
UNDERWATER	[UNDERWATER], [i SNORKELLING]																						
Travel date	[TRAVEL DATE]																						
AUTO SCENE MODE	Categorizes pictures that are recorded in Auto Scene Mode into scenes that are automatically identified.																						
Recorded mode	<p>Pictures are categorized by the scene mode in which they were recorded.</p> <ul style="list-style-type: none"> <li>● The pictures that can be categorized are AVCHD / AVCHD Lite or MPEG2 format motion pictures or still pictures in RAW or JPEG format with Exif information that have been saved with scene information.</li> <li>● Pictures recorded in Advanced Scene Mode are categorized by detailed scenes in the respective folders of [PORTRAIT], [SCENERY], [SPORTS], [NIGHT PORTRAIT], and [MACRO].</li> <li>● Categorizes pictures that are recorded in Intelligent Auto Mode into scenes ([i-PORTRAIT], [i-SCENERY], etc.) that are automatically identified.</li> </ul>																						

## Viewing categorized pictures

Categorization item	Description
Model Name	Pictures are categorized by the name of the manufacturer and model of the camera used for recording. <ul style="list-style-type: none"><li>● The only pictures that can be categorized are AVCHD / AVCHD Lite or MPEG2 format motion pictures or still pictures in RAW or JPEG format with Exif information that have been saved with model name information.</li></ul>
Keyword	Pictures are categorized by the keywords that were set when copying to the PC.

**Tips**

- Categorization may not be performed in some recording modes or scene modes.
- The recording mode and scene mode types vary depending on your digital camera.



# Face Recognition

## Registering the face pictures

If you register the face (person) that you want to categorize, the faces on the still pictures that are saved on the PC can be analyzed for this face and categorized accordingly.

Number of persons that can be registered	Face pictures that can be registered
20 persons	5 pictures per person

### ■ Linking with the Face Recognition function of a digital camera

Also, when Face Recognition is performed for still pictures with a digital camera that has a Face Recognition function and they are then copied to a PC with this software, information such as the face pictures and names are registered on the PC and the pictures are categorized automatically.

- The face pictures that are registered on the PC may be different from the face pictures that are registered with the Face Recognition setting of the digital camera.
- If a still picture is taken where a different subject is recorded after half-pressing the shutter, resulting in the information of the different person being added to the still picture, it may be registered as a different person.
- If a still picture for which Face Recognition was registered or changed with this software is copied to a memory card, the registered information is not displayed on the digital camera.

### About Face Recognition

Face Recognition does not guarantee steady recognition even if the person is registered.

Also, it may not correctly distinguish between parents and children, or brothers and sisters, with similar facial characteristics.

- The face of a subject other than a person (pets etc.) cannot be detected.
- Face Recognition may not be performed correctly or at all in the following cases:
  - The face is not facing the camera.
  - The face is at an incline.
  - The face is extremely bright or dark.
  - There are few shadows on the face.
  - The face is blocked by sunglasses, glasses reflecting light, hair, a hat, etc.
  - The face is recorded at a small size.
  - When the face does not fit in the frame because it is too close or shifted to one side.
  - The expression is greatly different.
  - When the characteristics of the face changed due to aging.

### Tips

- If you register face pictures that show different facial expressions, it will improve the Face Recognition function.

## Registering the face pictures



### 1 Click [Face Recog.] and select [Register/edit face].

The registration list window for [Register/edit face] is displayed.

- You can also display it by selecting [Tools] → [Face Recognition] → [Register/edit face] from the menu.

### 2 Click [Register new].



### 3 Enter a name.

(Up to 32 characters (single-byte) can be used.)

### 4 Register a date of birth.

By registering a date of birth, the age when the picture was recorded can be displayed on the property window.

If you do not want to register a date of birth, go to step 5.

- ① Click [Register date of birth] to select the check box.
- ② Click  (  in Windows XP) to display the calendar, and set the date of birth.
  - You can click the year display of the calendar to change the display in yearly units.

### 5 Click [Next].

## Registering the face pictures

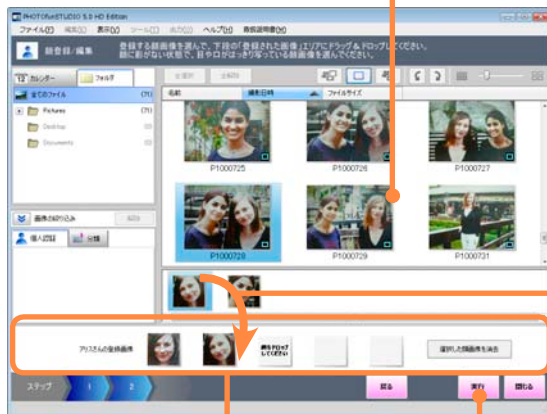
### 6 Select still pictures that contain a face to be registered.

If a face is recognized in the still pictures, the face pictures are displayed.

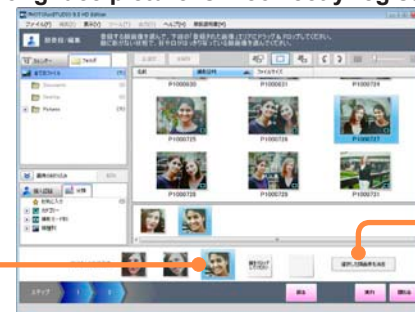
### 7 Drag and drop the face pictures to the registration area.

Up to five pictures can be registered for one person.

■ When a wrong face picture is incorrectly registered



Registration area



① Select the face picture to delete from the registered face pictures.

② Click [Delete selected face picture].

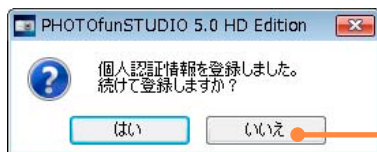
### 8 Click [Execute].

## Registering the face pictures



### 9 Click [Yes].

The Face Recognition information is registered.



### 10 To exit the Face Recognition registration or changes, click [No].

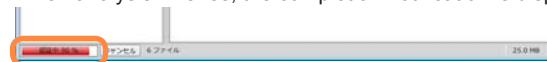
- To continue the registration or changes, click [Yes] to return to the registration list window.

### 11 Click [Close].

### 12 To categorize the pictures of the registered person, click [Yes].

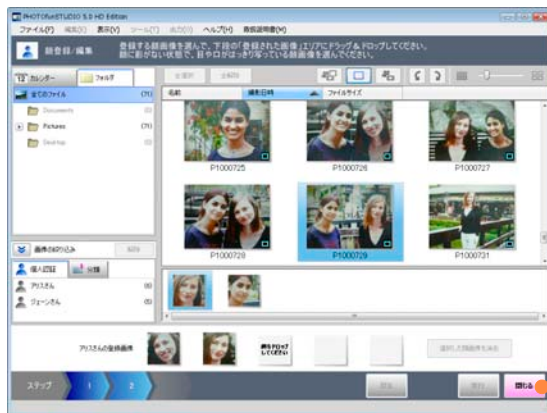
Analysis starts for the still pictures, and they are categorized.

- When analysis finishes, the completion notification is displayed.



Analysis status

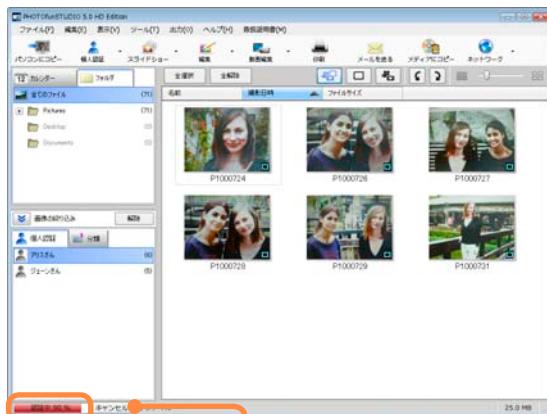
- If you click [No], the Face Recognition categorization is not updated.



# Analyzing still pictures for categorization by Face Recognition

## Analyzing saved still pictures

Categorizes still pictures currently in the saving folders using the registered face pictures for Face Recognition.



Analysis status

Cancel analysis

### Tips

- Analysis will take a lot of time if there are many saved pictures.
- Even if you change the face pictures for Face Recognition, the changes will not be reflected in the categorization unless you perform analysis of the still pictures.
- If you set automatic analysis, the Face Recognition categorization will always be kept up to date. (→ 54)

## 1 Click [Face Recog.] and then select [Start face analysis].


- You can also start the analysis by selecting [Tools] → [Face Recognition] → [Start face analysis] from the menu.

## 2 When the confirmation message is displayed, click [Yes].

- Analysis starts for the still pictures, and they are categorized.
- When analysis finishes, the completion notification is displayed.

### ■ To stop the analysis process

#### ① Click [Cancel].

- You can cancel by clicking  [Face Recog.] and selecting [Cancel face analysis], or by selecting [Tools] → [Face Recognition] → [Cancel face analysis] from the menu.

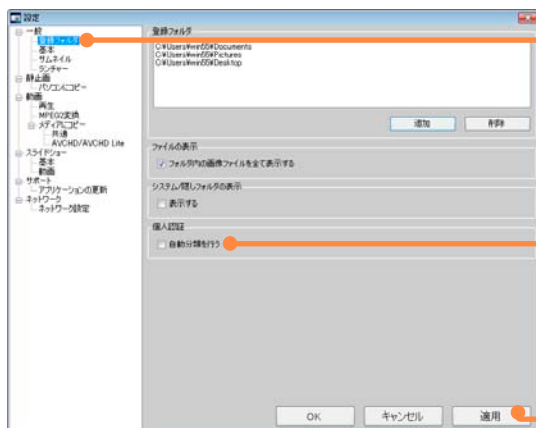
### ■ To categorize by Face Recognition only the still pictures in a specific folder

- ① In the folder display, select the folder with the still pictures that you want to categorize.
- ② Right-click and select [Folder face analysis].

## Analyzing still pictures for categorization by Face Recognition

### Performing automatic Face Recognition analysis

When pictures are copied to a PC or new Face Recognition information is registered, automatic analysis of the saved pictures can be performed to refresh the Face Recognition categorization up to date.



**1** Select [Tools] → [Settings] from the menu.

The settings window is displayed.

**2** Click [General] — [Registration folder].

**3** Set whether or not to perform automatic analysis.

When this check box is selected, the pictures are analyzed automatically to always keep the Face Recognition categorization up to date.

**4** Click [Apply].

- When [OK] is clicked, the settings are applied and the window is closed.

# Changing registered contents



## 1 Click [Face Recog.] and select [Register/edit face].

The registration list window for [Register/edit face] is displayed.

- You can also display it by selecting [Tools] → [Face Recognition] → [Register/edit face] from the menu.

## 2 Click the person that you want to change.

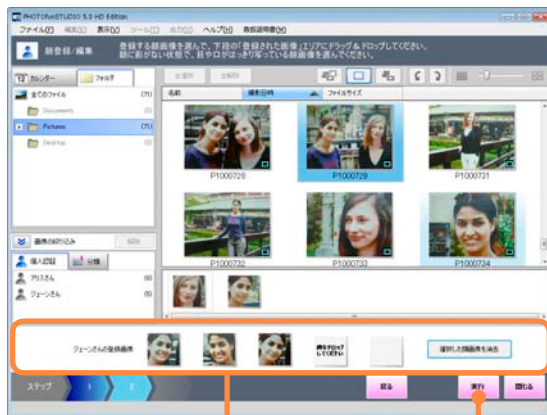
## 3 Correct the name.

(Up to 32 characters (single-byte) can be used.)

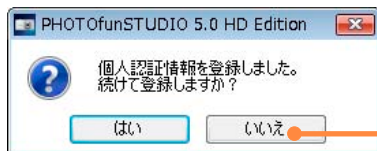
## 4 Correct the date of birth.

## 5 Click [Next].

## Changing registered contents



Registration area



## 6 Add or delete a face picture.

■ To add a face picture

- ① Select the picture to add.
- ② Drag and drop the face pictures to the registration area.

■ To delete a face picture

- ① Select the face picture to delete from the face pictures in the registration area.
- ② Click [Delete selected face picture].

## 7 Click [Execute].

## 8 Click [Yes].

The contents are registered.

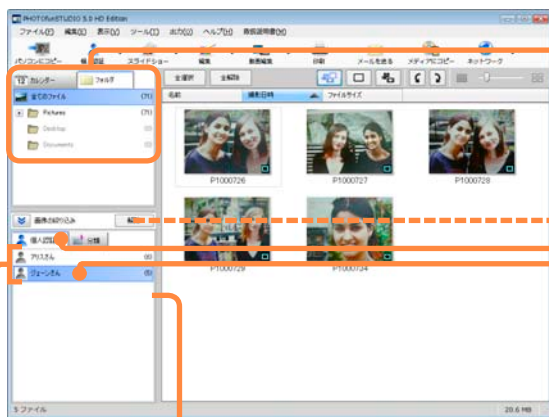
## 9 To exit the Face Recognition registration or changes, click [No].

- To continue the registration or changes, click [Yes] to return to the registration list window.

## 10 Click [Close], and if you wish to perform face analysis and categorize again click [Yes] to exit.



# Displaying only still pictures that contain a specific person



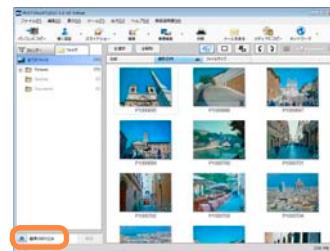
Number of pictures that contain the person

Face Recognition list

## 1 Select the folder or recording date to display.

To search from all your pictures, click [All files] in the folder display.


## 2 If the narrow setting area is not displayed, click .



## 3 Click [Face Recog.].

## 4 In the Face Recognition list, select the person that you want to display.

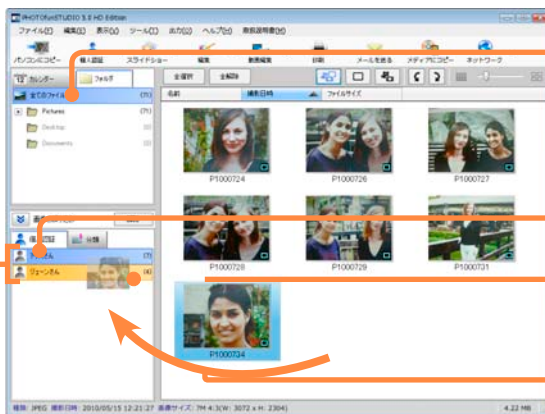
The corresponding pictures are displayed in the display area.

- To cancel the narrowing by Face Recognition, click [Deselect] .
- When the folder or recording date to be displayed is reselected, the narrowing is deselected.


### Tips

- One person can be used as the narrowing condition (individual).
- Right click on a name shown in the Face Recognition List and select [Change Name] to alter it. Multiple lists can be combined by giving the same name to each of the desired lists. However, names already registered for Face Recognition cannot be altered.
- When a name has not been registered in the Face Recognition settings on a digital camera that has a Face Recognition function, no name is displayed in the Face Recognition list.
- When this software is exited, the narrowing by Face Recognition is deselected.

# Correcting categorizations of incorrect persons



Face Recognition list

- 1 Select [All files] in the folder display.
- 2 If the narrow setting area is not displayed, click .
- 3 Click [Face Recog.].
- 4 In the Face Recognition list, select a registered person.
- 5 Drag and drop the incorrectly categorized still pictures to the correct categorization destination in the Face Recognition list.
- 6 When the confirmation message is displayed, click [Yes].

The Face Recognition picture display is corrected.

- 7 Click [OK].

## ■ To delete from the categorization

- ① In the Face Recognition list, select a registered person.
- ② Right-click a still picture and select [Delete].
- ③ When the confirmation message is displayed, click [Yes].
- ④ Click [OK].

## Tips

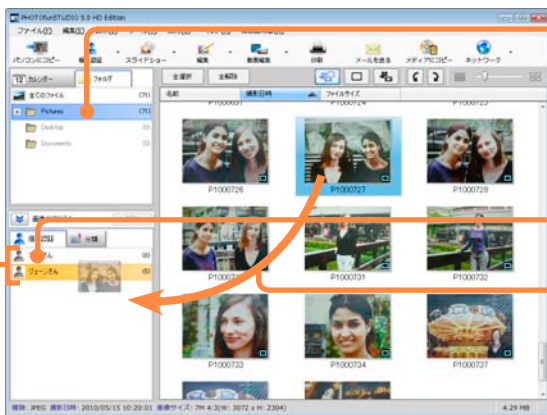
- Still pictures deleted from the category will not be returned to their original category even if the selection is narrowed by Face Recognition again. To return the still picture to its original category, use drag and drop to move it to the desired Face Recognition List category.

# Manually categorizing still pictures for which Face Recognition does not work

You can manually categorize still pictures for which the Automatic Face Recognition does not work.

## Preparation:


Check still pictures for which the Face Recognition does not work.



Face Recognition list

- 1 Display a still picture that you want to categorize for Face Recognition.

---

- 2 If the narrow setting area is not displayed, click .

---

- 3 Click [Face Recog.].

---

- 4 Drag and drop the still picture to a categorization destination in the Face Recognition list.

---


- 5 When the confirmation message is displayed, click [Yes].  
It is added to the Face Recognition picture display.

---

- 6 Click [OK].

# Deselecting Face Recognition registrations



- 1 Click  [Face Recog.] and select [Remove from list].

The registration list window for [Remove from list] is displayed.  
 ● You can also display it by selecting [Tools] → [Face Recognition] → [Remove from list] from the menu.

- 2 Select the person to be deselected and add a check mark.

- 3 Click [Execute].

- 4 When the confirmation message is displayed, click [Yes].

It is deleted from the registration list.

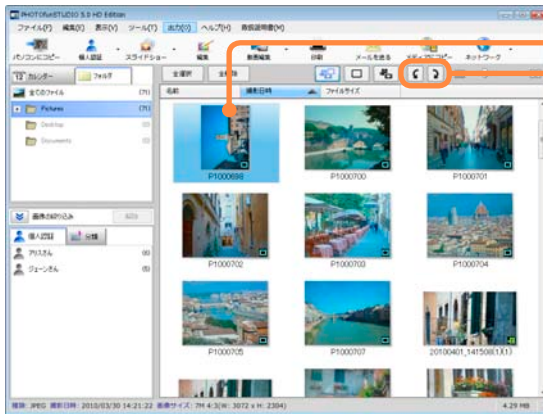
- 5 Click [OK].

## Tips

- Even if the Face Recognition registration is deleted, the original still pictures are not deleted.
- Right click on a name in the Face Recognition List and select [Delete category results] to delete the name. Face Recognition registrations cannot be deleted.

# Editing still pictures

## Rotating pictures



**1** Select the still picture to rotate.

**2** Click  or .

- You can also rotate a picture by selecting [Edit] → [Edit still picture] → [Counter-clockwise Rotation] or [Clockwise Rotation] from the menu.

**3** When the confirmation message is displayed, click [Yes].

The picture rotates 90 degrees clockwise or counter-clockwise.

■ When a still picture without Exif information is rotated

When a still picture without Exif information is rotated, a still picture in JPEG format that has Exif information is newly created.

① When the confirmation message is displayed, click [OK].

### Tips

- For still pictures in RAW format and JPEG format that have Exif information, rotation is performed by correcting the Exif information only. With some software, the picture may not seem to be rotated.
- When you rotate many pictures at one time, it may take time to finish the process.

# Resizing a picture

## 1 Click [Edit] and then select [Resize].

The [Resize] screen is displayed.

- You can also resize a picture by selecting [Edit] → [Edit still picture] → [Resize] from the menu.

## 2 Select a picture by selecting its check box and click [Next].

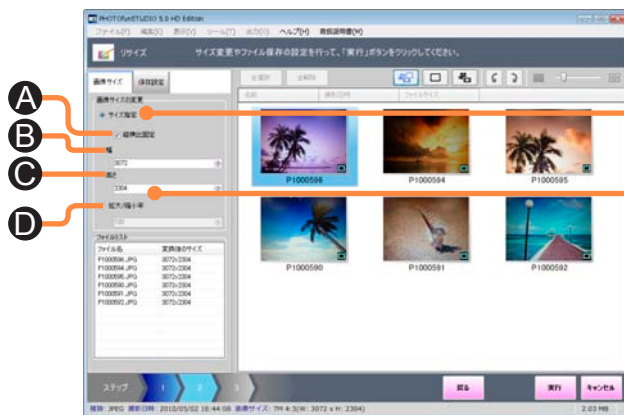
## 3 Set the size after the change.

### Specify Size

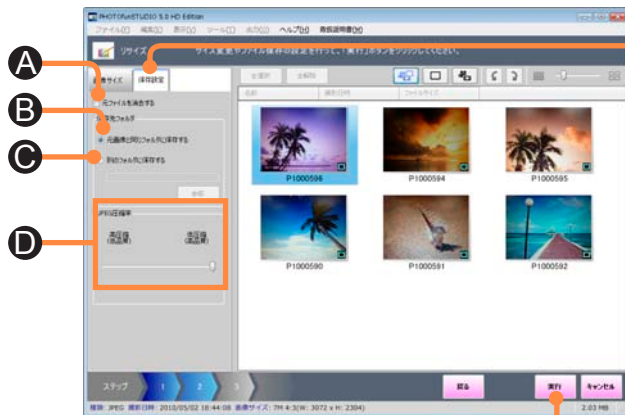
- Ⓐ: Fix the aspect ratio.
- Ⓑ: Set the width of the picture after the change.
- Ⓒ: Set the height of the picture after the change.

### Expansion/reduction ratio

- Ⓓ: Set the zoom ratio for the picture size after the change in a range of 1 % to 200 %.



## Resizing a picture



## 4 Click [Save Settings].

- Delete the original file

- Ⓐ: Delete the original picture.

- Save Destination Folder

- Ⓑ: Save in the same folder as the original picture.

- Ⓒ: Save in a different folder. Click [Browse] and select the save destination.

- JPEG compression ratio

- Ⓓ: With JPEG format, the compression ratio can be set with the slider.

When the slider is moved to the left, the picture data size becomes smaller and the picture quality deteriorates.

## 5 Click [Execute].

## 6 When the confirmation message is displayed, click [Yes].

The picture is resized according to the settings.

- About the confirmation message for print retouching information

When overwrite original picture is set in [Save Settings], a confirmation message is displayed to warn that the print retouching information will be lost.

When [Yes] is clicked, an original picture is overwritten by the resized picture.

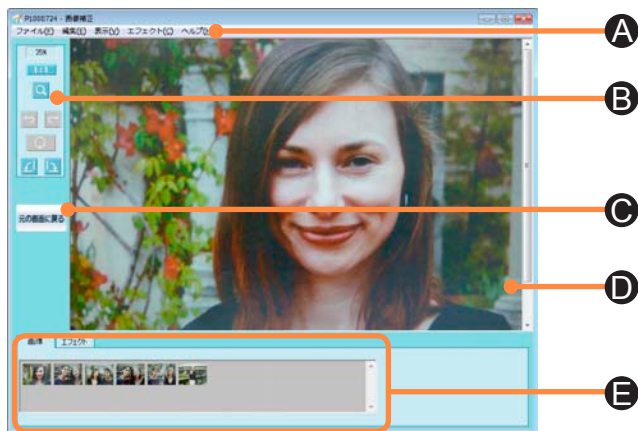
## 7 Click [OK].

## 8 Click [Close].

**Tips**

- If you select multiple pictures and resize them, it may take time to finish the process.

# Retouching pictures (changing brightness or color)



## 1 Click [Edit] and then select [Retouch].

The [Retouch] screen is displayed.

- You can also retouch a picture by selecting [Edit] → [Edit still picture] → [Retouch] from the menu.

## 2 Select a picture and click [Execute].

The screen changes to display the picture retouch window.

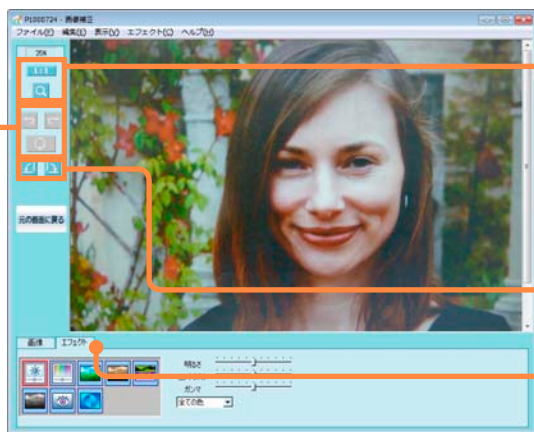
- Ⓐ: The menus of the picture retouch function are positioned here.
- Ⓑ: Buttons for frequently used functions.
- Ⓒ: Return to the main window.
- Ⓓ: Picture window.
- Ⓔ: Editing panel.

[Picture]: Display the pictures that can be retouched.

[Effect]: Operation panel for the retouch function.





## Retouching pictures (changing brightness or color)





### 3 Retouch the picture.

#### ■ Enlarge the picture

- ① Click .
- ② Click the picture window.
  - To display the actual size, click .
  - Select [View] → [Fit window] to display everything in the picture window.
  - Select [View] → [Zoom] from the menu to select the magnification.




#### ■ Rotate the picture

Click  (rotate 90 degrees counter-clockwise) or  (rotate 90 degrees clockwise).

#### ■ Change the brightness or color of the picture

- ① Click [Effect].
- ② Select a retouch function.
- ③ Adjust the effect.

#### ■ Cancel the previous operation

- Click .
- To restore a canceled operation, click .
  - To return a picture to its initial state, click .

### 4 Select [File] → [Save] or [Save As...] from the menu and save the picture.

### 5 Click [Return to original screen].

The screen changes to display the main window.

- You can double-click another picture from [Picture] to continue picture retouching.

### 6 Click [Close].

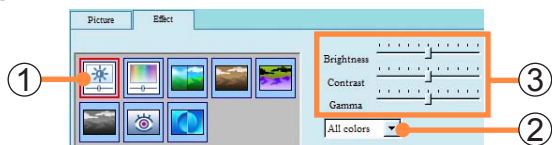
#### Tips


- To display pictures that were saved in a different folder with [Save As...], add a registration folder in [Tools] → [Settings]. (→23)
- Some pictures sizes cannot be fully displayed on the picture window even if [Fit window] is selected.

## Retouching pictures (changing brightness or color)

## About effects

## ■ Brightness &amp; Contrast



- ① Click .
- ② Select the color for retouching.
- ③ Move the slider to adjust the effect.


## ■ Hue &amp; Saturation



- ① Click .
- ② Move the slider to adjust the effect.

## ■ Sharpness



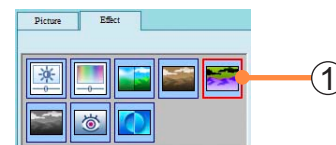
- ① Click .
- ② Move the slider to adjust the effect.

## ■ Sepia



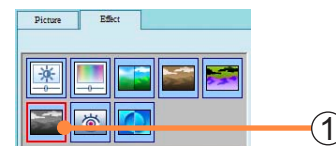
- ① Click .

## ■ Negative



- ① Click .

## ■ Grey Scale




- ① Click .

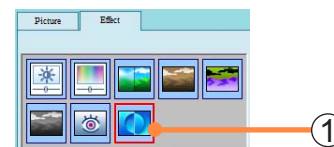
## Retouching pictures (changing brightness or color)

## ■ Red Eye Remove



- ① Click .
- ② Position the frame over an eye that has turned red because of the flash.
- ③ Click [Apply].

## ■ Auto Enhancement



- ① Click .

## ■ Cutting

- ① Select [Effect] → [Crop Picture] from the menu.



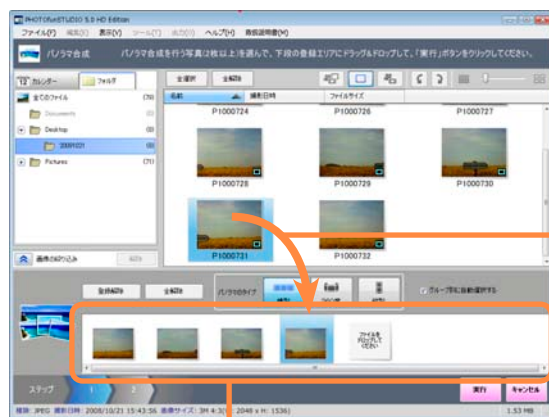
- ② Adjust the frame to specify the area to cut.
  - You can also specify the area to cut by entering the [Width] and [Height] in [Picture Size].
- ③ Click [OK].

## Tips

- The effect of red eye elimination and automatic retouching varies with the picture.
- When a picture is printed incorporating the picture quality correction function, do not execute auto correction with the retouch function. The picture may be corrected too much.

# Creating a panorama picture by stitching still pictures

By connecting several pictures, you can create a panorama still picture.



Registration area

## 1 Click [Edit] and select [Panorama stitch].

The [Panorama stitch] screen is displayed.

- You can also display it by selecting [Edit] → [Edit still picture] → [Panorama stitch] from the menu.

## 2 Select the still pictures to be joined by panorama stitching, then drag and drop them to the registration area.

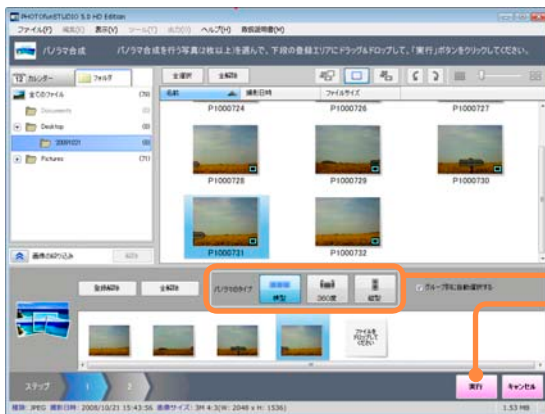
The pictures will be stitched from left to right. For vertical type panoramas, the left-right order will change to top to bottom. The number of pictures able to be registered will vary according to the type of panorama. Refer to Step 3.

- To change the order  
Drag and drop the pictures to establish the correct order.
- To remove pictures from the panorama stitch  
Select the pictures not to be stitched and click [Remove from list].
- To start registering again from the beginning  
Click [Deselect all] in the registration area.

### Tips

- With the [Select automatically by group] function on, when you select one picture, every picture related to that picture is automatically selected. Pictures recognized as part of the same group by this function are those of the same size saved by the LUMIX [PANORAMA ASSIST] and taken within 40 seconds.
- Pictures of different sizes and mixed portrait / landscape pictures cannot be stitched together as a panorama.

## Creating a panorama picture by stitching still pictures



### 3 Select the panorama type.

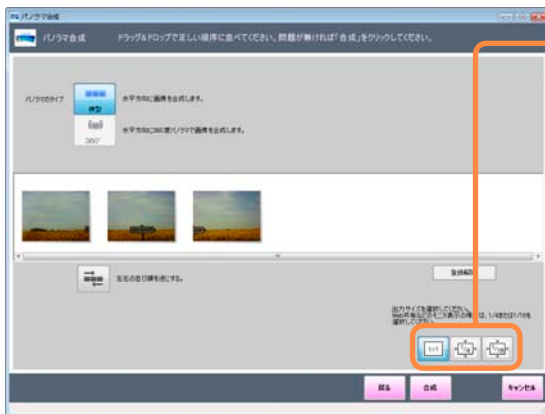
Horizontal type: stitching pictures horizontally. From 2 to 16 pictures can be registered.

360 degrees: stitching pictures horizontally through 360 degrees centered on the picture taker's position. From 6 to 32 pictures can be registered.

Vertical type: stitching pictures vertically. From 2 to 8 pictures can be registered.

### 4 Click [Execute].

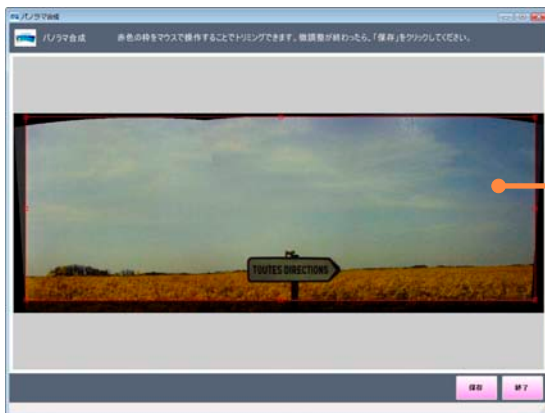
## Creating a panorama picture by stitching still pictures



**5** Check the order of still pictures to be stitched and select [Output size] and [Panorama type].

■ Output size

- : Select when you wish to print.
  - : Reduces the original picture size. Select when you wish to display the panorama picture on a PC, etc.
  - : Reduces the original picture size. Select when you wish to display the panorama picture on a PC, etc. or to attach to e-mail.
- The left-right or top-bottom order of the photos for stitching can be reversed with .
  - Switching again to [Horizontal type] or [360 degrees] is possible if the panorama type was set as [Horizontal type] or [360 degrees] in Step 3 or if there are 6 or more still pictures.



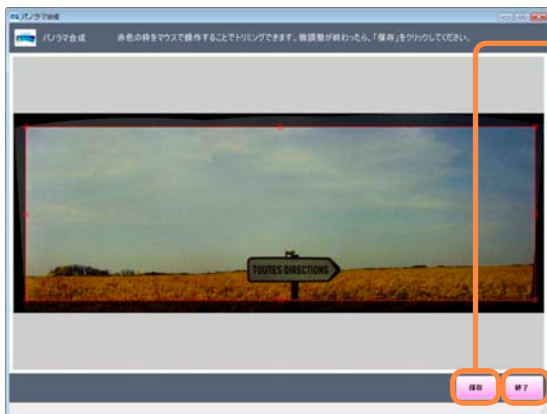
**6** Click [Stitch].

**7** Use the red trimming frame to specify the area to be cut and saved.

**Tips**

- Stitching may sometimes be impossible for the selected output size depending on the PC you are using. In such cases, either reduce the number of photos to be stitched or select a smaller output size.

## Creating a panorama picture by stitching still pictures

**8** Click [Save].

The screen for inputting the file name is displayed.

**9** Input the file name, select the panorama saving format and save.

- JPEG format (extension: .jpg)  
All types of panorama pictures (horizontal type, 360 degrees, vertical type) can be saved.
- QuickTime format (extension: .mov)  
Horizontal type or 360 degrees panorama pictures can be saved.

**10** Click [Exit].

- Return to the main window.

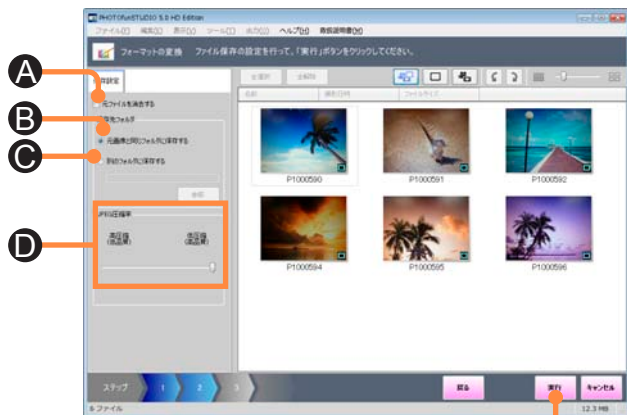
**Tips**

- QuickTime VR motion pictures are played back with QuickTime Player by double clicking the thumbnail.
- If QuickTime VR motion pictures are not played back by double clicking, right click the icon in Explorer and associate them with QuickTime using Properties.
- Printing panorama still pictures ([→80](#))
- Adjusting panorama still pictures (JPEG format) ([→64](#))

# Processing still pictures

## Converting data format

You can convert still pictures in BMP format and TIFF format to JPEG format. You can also change the compression ratio of still pictures in JPEG format.



**1** Select [Tools] → [Still picture tool] → [Format conversion] from the menu.

The [Format conversion] screen is displayed.

**2** Select a picture by selecting its check box and click [Next].

**3** Select the save settings.

■ Delete the original file

Ⓐ: Delete the original picture.

■ Save Destination Folder

Ⓑ: Save in the same folder as the original picture.

Ⓒ: Save in a different folder. Click [Browse] and select the save destination.

■ JPEG compression ratio

Ⓓ: With JPEG format, the compression ratio can be set with the slider. When the slider is moved to the left, the picture data size becomes smaller and the picture quality deteriorates.

**4** Click [Execute].

**5** When the confirmation message is displayed, click [Yes].

The picture data format is changed.

**6** Click [OK].

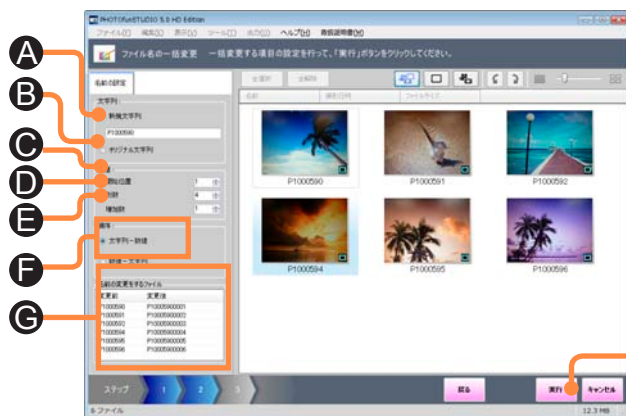
**7** Click [Close].

### Tips

- Even if you convert a picture in JPEG format to a lower compression (higher quality) than the original data, the quality will not improve.



# Changing several picture file names at one time



## ■ Name Settings

### Setting a character string

- Ⓐ: The file name is a combination of the characters entered here and a serial number.  
(Up to 32 characters (single-byte) can be used.)
- Ⓑ: The file name is a combination of the original file name and a serial number.

### Setting a number

- Ⓒ: The settable range for the starting number of the serial number is 0 to 1000.
- Ⓓ: The settable range for the number of digits for the serial number is 1 to 9.
- Ⓔ: The settable range for the increment of the serial number is 1 to 1000.

### Setting the order

- Ⓕ: Set the order of the character string and number that will be used as the file name.

## ■ Files to be renamed

- Ⓖ: Check the file name after conversion.

- 1 Select [Tools] → [Still picture tool] → [Batch Rename] from the menu.

The [Batch Rename] screen is displayed.

- 2 Select a picture by selecting its check box and click [Next].

- 3 Set the file name.

- 4 Click [Execute].

- 5 When the confirmation message is displayed, click [Yes].

The file names are changed according to the settings.

- 6 Click [OK].

- 7 Click [Close].




## Tips

- If there is a file having the same name and the same serial number, the serial number will be skipped and next number will be set.

## Changing the recording date

You can correct the recording date and time of pictures that were recorded while the time setting of the digital camera was incorrect. By applying the gap between the actual recording time and the recorded time (correction time) to other pictures, you can correct at the same time the recording date of multiple pictures that were recorded while the time setting was incorrect.

Example:

Picture		Recording time before the change	When setting the date and time after the change July 1, 2010 12:00:00	When setting the correction time [Date correction] 546 [Time correction] +12:00:00
Reference picture		January 1, 2009 0:00:00	July 1, 2010 12:00:00	July 1, 2010 12:00:00
Selected picture		January 1, 2009 1:00:10	July 1, 2010 12:00:00	July 1, 2010 13:00:10
Selected picture		January 2, 2009 10:00:30	July 1, 2010 12:00:00	July 2, 2010 22:00:30

## Changing the recording date

## 1 Select [Tools] → [Still picture tool] → [Change recording date] from the menu.

The [Change recording date] screen is displayed.

- You can change the recording date of only JPEG pictures with Exif information (containing the recording date information).  
When the confirmation message is displayed, click [OK].


## 2 Select a picture by selecting its check box and click [Next].

## 3 Select one picture to use as a reference.

- Ⓐ: Recording date and time of the selected picture
- Ⓑ: Recording date and time after the change

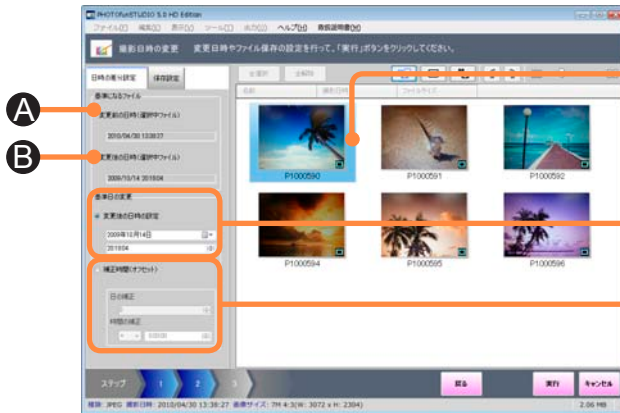
## 4 Set the recording date and time for after the change.

■ To set the correct recording date and time

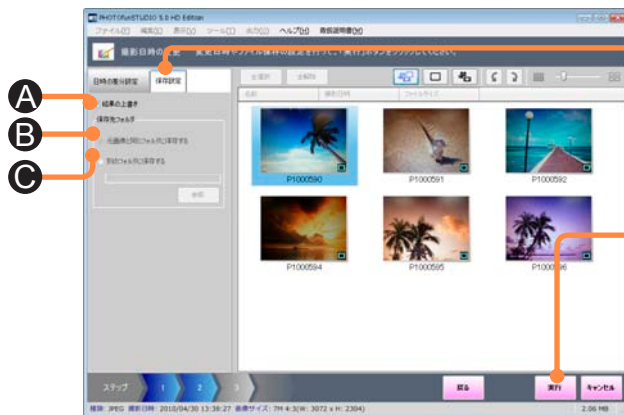
- ① Click [Date and time setting for after the change].
- ② Click  (▼ in Windows XP) to display the calendar, and set the recording date.
  - You can click the year display of the calendar to change the display in yearly units.
- ③ Set the recording time.

■ To set the time difference

- ① Click [Correction time (offset)].
- ② Click [Date correction] and set by how many days to correct the date.
- ③ Click [Time correction] and set by how many hours to correct the time.



## Changing the recording date



## 5 Click [Save Settings].

- A: Overwrite and save.
- B: Save in the same folder as the original picture.
- C: Save in a different folder. Click [Browse] and select the save destination.

## 6 Click [Execute].

## 7 When the confirmation message is displayed, click [Yes].

The recording date and time are changed to the set date and time.

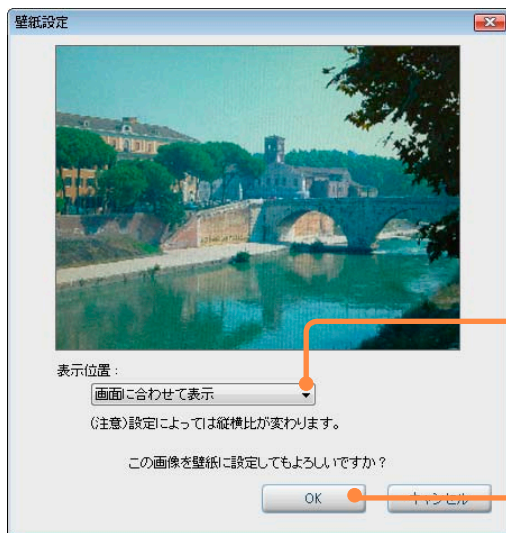
## 8 Click [OK].

## 9 Click [Close].

### Tips

- Change the recording date within a range of 1971 to 2037.
- In the case of pictures recorded with the [BABY] Mode, [PET] Mode or with the [TRAVEL DATE] function by the digital camera that supports these functions, the age in months/years or the number of travel days is not changed even if the recording date has changed.

# Using a picture as wallpaper



## 1 Select [Tools] → [Still picture tool] → [Register as wallpaper] from the menu.

The [Register as wallpaper] screen is displayed.

## 2 Select a picture by selecting its check box and click [Execute].

You can select only one picture.

## 3 Select a display position.

**[Fit to screen]:** Display pictures matching the desktop size.

**[Center]:** Display in the center of the desktop.

**[Tile]:** Display by duplicating and laying on the entire screen.

## 4 Click [OK].

It is set as the wallpaper.

### ■ When the picture is larger than the desktop size

A confirmation window for resizing is displayed.

If you want to reduce the picture to the desktop size, click [Yes].

## 5 Click [Close].

### Tips

- If the wallpaper is not displayed, click the desktop and press the [F5] key.
- When a picture with an aspect ratio that is different from that of the PC display is set as the wallpaper with [Fit to screen], the aspect ratio will be changed. In this case, set to [Center] or [Tile].
- [PHOTOfunSTUDIO.bmp] will be created in Pictures (My Pictures).

# Adding date and title information to a picture

You can create still picture data on which information such as the recording date or title is added.



## 1 Select [Tools] → [Still picture tool] → [Burn-in] from the menu.

The [Burn-in] screen is displayed.

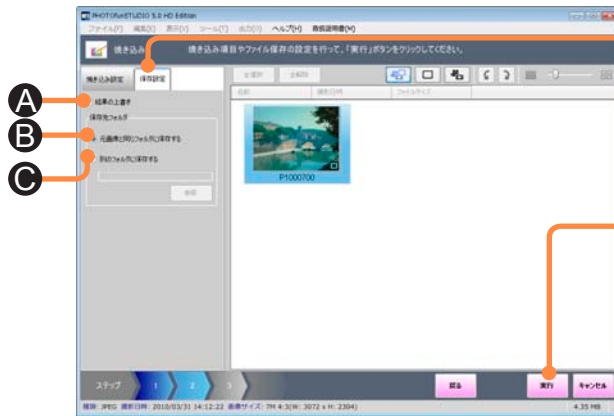
- You can add information only to JPEG pictures with Exif information. When the confirmation message is displayed, click [OK].

## 2 Select a picture by selecting its check box and click [Next].

## 3 Set the items that you want to burn in.

- Ⓐ Burn-in the recording date.
- Ⓑ Burn-in the number of travel days.  
(Only pictures recorded with [TRAVEL DATE] on a digital camera that is compatible with the [TRAVEL DATE] function.)
- Ⓒ Burn-in the age in months/years.  
(Only pictures recorded with [AGE] on a digital camera that is compatible with [BABY] Mode and [PET] Mode.)
- Ⓓ Burn-in the destination selected in Travel Mode.
- Ⓔ Burn-in the names registered with face recognition in [BABY] Mode and [PET] Mode.
- Ⓕ Burn-in the title information.

## Adding date and title information to a picture



## 4 Click [Save Settings].

- A: Overwrites the original picture.
- B: Save in the same folder as the original picture.
- C: Save in a different folder. Click [Browse] and select the save destination.

## 5 Click [Execute].

## 6 When the confirmation message is displayed, click [Yes].

A picture is created with information such as the date or title burned in according to the settings.

#### ■ About the confirmation message for print retouching information

When overwrite original picture is set in [Save Settings], a confirmation message is displayed to warn that the print retouching information will be lost.

When [Yes] is clicked, an original picture is overwritten by a picture with burned-in information such as the date or title.

## 7 Click [OK].

## 8 Click [Close].

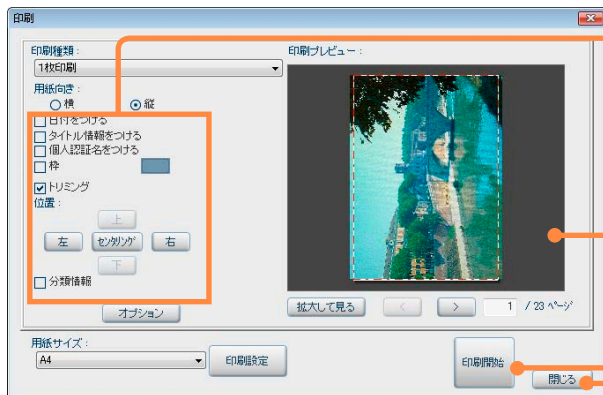
### Tips

- Up to 3 lines are burned in to the bottom right of the picture, in the order of recording date, number of travel days or age in months/years, and title information.
- No further information may be burned in for pictures to which date or title information has already been burned in using the digital camera's [DATE STAMP] or [TEXT STAMP] functions.  
(If there are pictures with the date and title information burned-in by other than the [DATE STAMP] and the [TEXT STAMP] functions, the message will not appear, so check the contents carefully before performing the burn-in.)
- The color and size of the characters used for the burned-in date and title information cannot be changed.
- When burn-in is performed, the picture quality may deteriorate.
- The date may not be properly burned-in to pictures if the date was not set on the digital camera when the picture was taken or if it was recorded by a digital camera not manufactured by Panasonic.





## Printing pictures



### 5 Select the information and other items to print.

**[Show date]:** The recording date is printed.

If the number of travel days or age in months/years are recorded for a picture, these too are printed.

**[Show title information]:** The title information is printed.

**[Show Face Recog. name]:** The name registered in the Face Recognition function is printed.

**[Frame]:** A frame is set around the picture.

Click  to change the frame color.

**[Trimming]:** Cut the picture so that the printing fills the paper.

Click [Top], [Bottom], [Left] and [Right] to adjust the printing position.

Click [Centring] to move the picture to the center.

**[Categorisation information]:** Comments or keywords are printed.

### 6 Check the print preview.

Click   to check the print preview of other pictures.

- The print preview also changes if you directly enter the page number.

**[Enlarged view]:** Display an enlarged view of the print preview.

### 7 Click [Print start].

The printing starts.

- To stop printing while it is processing, click [Cancel].

### 8 Click [Close].

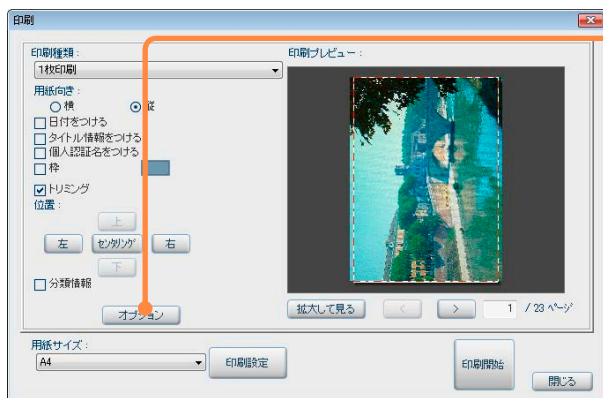
### 9 Click [Close] after returning to the [Print] screen.

#### Tips

- If there are pictures imprinted with the date and title information from a digital camera that is compatible with the [DATE STAMP] and [TEXT STAMP] functions, the message "The same data will be printed over the existing date and the title information" appears when [Show date] or [Show title information] is checked.
  - If [Yes] is clicked, the recording date, title information, Face Recognition name, etc., will be printed.
  - If [No] is clicked, the check boxes are cleared. (If there are pictures with the date and title information burned in using a different function, the message will not appear, so check the contents carefully in [Print Preview].)
- If [Show date] is selected for a picture that does not have recording date information, the last update date is printed.
- The date may not be properly printed for pictures recorded before the date was set or with digital cameras that were not made by Panasonic.
- The display format of the date follows the Windows settings (Regional Settings).

## Printing pictures

## Setting the information to print



1 Click [Options] in the print window.

2 Set the information to print.

■ **Date setting**

Ⓐ: Print the travel date.

Ⓑ: Print the age in months/years of a baby or pet.

■ **Set title information**

Ⓒ: Prints the destination, and the name, age and title of the baby or pet.

■ **Face Recog. name settings**

Ⓓ: Print the age.

■ **Set the categorisation information**

Ⓔ: Print the comments.

Ⓕ: Print the keywords.

Ⓖ: Make the background transparent.

■ **Font setting**

Ⓗ: Set the font.

■ **Common settings**

Ⓘ: Select the color in which to print the characters.

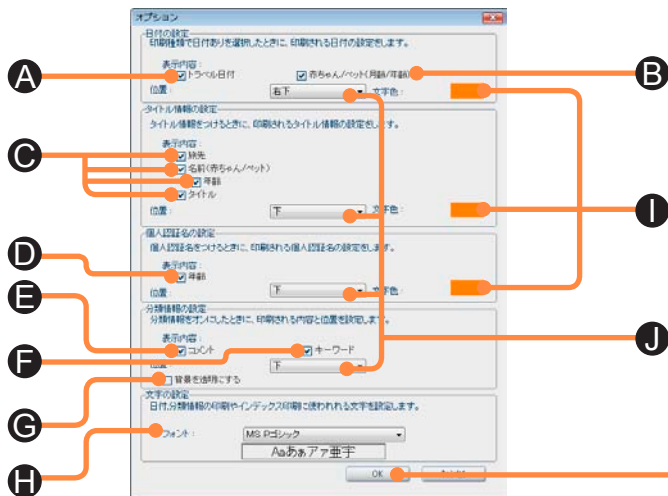
⓷: Select the printing position.

3 Click [OK].

The screen returns to the print window.

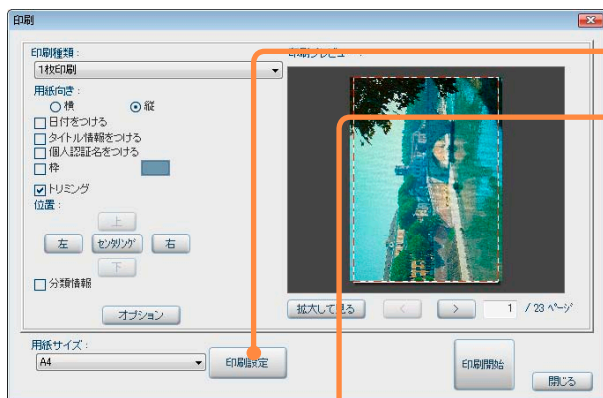
**Tips**

- The title information or Face Recognition name is usually printed in the top left or bottom left, but if this will overlap the date setting position, it is printed on the right side of the picture.
- If the title has too many letters, it may overlap the date. This can be prevented by changing the display position setting.



## Printing pictures

### Setting the printer



**1** Click [Print settings] in the print window.

**2** Select a printer.

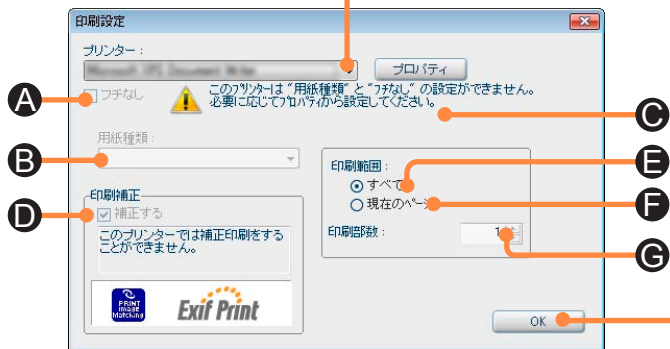
- Click [Properties...] to display the properties window for the printer.

**3** Set the printer.

- Ⓐ: If supported by the printer, perform borderless printing.
- Ⓑ: Select the paper.
- Ⓒ: You can select the picture quality using the paper settings.
- Ⓓ: If supported by the printer, use PRINT Image Matching information or Exif Print information to retouch the picture.
- Ⓔ: Print all the selected pictures.
- Ⓕ: Print only the picture displayed in the print preview.
- Ⓖ: Set the number of copies to print.

**4** Click [OK].

The screen returns to the print window.

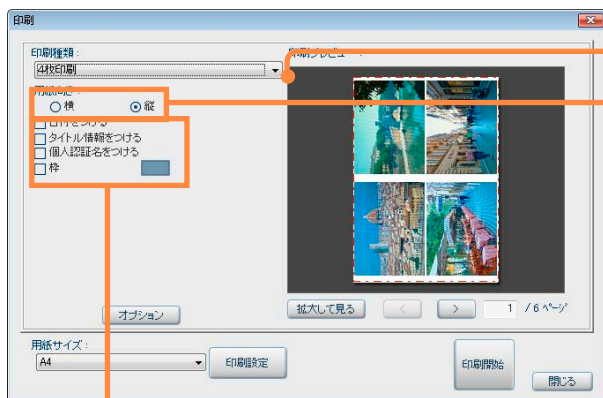


#### Tips

- If you are using a printer compatible with Epson EasyPrint module, you can select [Borderless] and [Paper Type:] after installing the module that is supplied with the printer.

## Printing pictures

### Printing multiple pictures on one sheet of paper



**1** Select multiple picture printing from [Printing Type:] in the print window.

Item	Description
Print 2 pictures on a page	Print two pictures on one sheet of paper.
Print 4 pictures on a page	Print four pictures on one sheet of paper.
Print 8 pictures on a page	Print eight pictures on one sheet of paper.


**2** Select the direction of the paper.

**3** Select the information and other items to print.

**[Show date]:** The recording date is printed.  
If the number of travel days or age in months/years are recorded for a picture, these too are printed.

**[Show title information]:** The title information is printed.

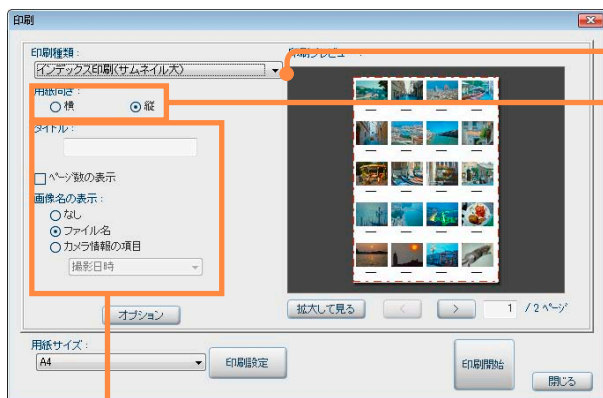
**[Show Face Recog. name]:** The name registered in the Face Recognition function is printed.

**[Frame]:** A frame is set around the picture.  
Click  to change the frame color.

**4** Print.

## Printing pictures

### Printing many thumbnails on one sheet of paper



- 1 Select index printing from [Printing Type:] in the print window.

Item	Description
large thumbnail	Print about 20 thumbnails on one sheet of paper.
medium thumbnail	Print about 40 thumbnails on one sheet of paper.
small thumbnail	Print about 80 thumbnails on one sheet of paper.
Adjust to paper	Adjust to the paper size and print up to about 160 thumbnails on one sheet of paper.

- 2 Select the direction of the paper.

- 3 Select the information and other items to print.

**[Title:]**: The title that is entered is printed in the upper part of the paper.

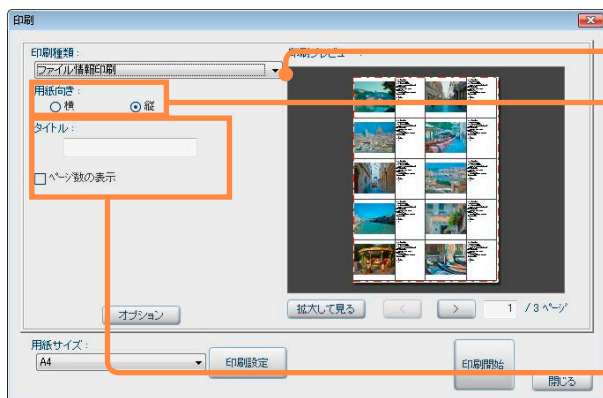
**[Display of number of pages]**: The page number is printed in the lower part of the paper.

**[Display of picture name:]**: Select the information to print under the thumbnail.

- 4 Print.

## Printing pictures

### Printing file information or camera information next to pictures



- 1 Select information printing from [Printing Type:] in the print window.

Item	Description
Print file information	Print information such as the file name and picture size.
Print camera information	Print recording information.

- 2 Select the direction of the paper.

- 3 Select the information and other items to print.

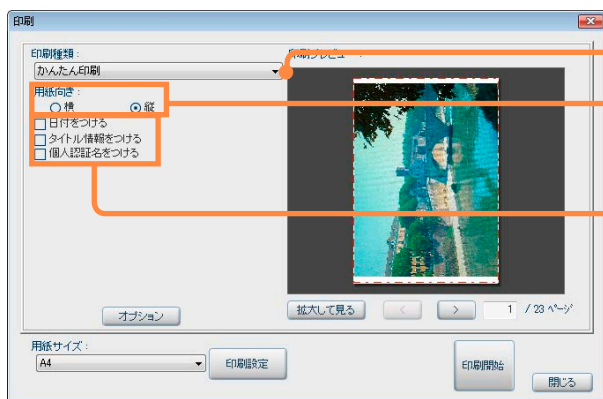
**[Title:]**: The title that is entered is printed in the upper part of the paper.

**[Display of number of pages]**: The page number is printed in the lower part of the paper.

- 4 Print.

## Printing pictures

### Printing recorded pictures in SIMPLE MODE



**1** Select [Simple Print] from [Printing Type:] in the print window.

**2** Select the direction of the paper.

**3** Select the information and other items to print.

**[Show date]:** The recording date is printed.

If the number of travel days or age in months/years are recorded for a picture, these too are printed.

**[Show title information]:** The title information is printed.

**[Show Face Recog. name]:** The name registered in the Face Recognition function is printed.

**4** Print.

#### Tips

- Pictures are arranged on the paper according to the picture mode setting that was specified while recording.  
The print size of pictures is as given below.

Picture mode setting	Print size
4"×6"/10×15cm	L size (89×127 mm)
E-MAIL	A7 size (70×93 mm)
ENLARGE	Size adapted to print paper

Pictures recorded in different modes are not printed together on the same sheet of paper.

When printing pictures other than the ones recorded in SIMPLE MODE, those pictures are printed in the size adapted to printing paper.

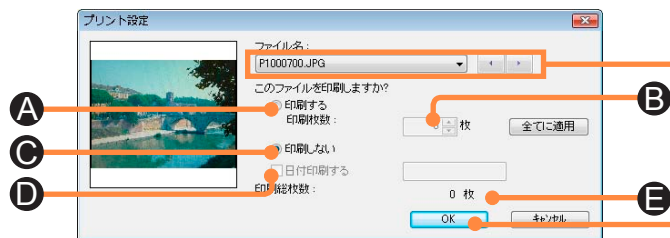
## Print settings (DPOF setting)

You can perform settings such as the number of copies to print for still pictures (JPEG or TIFF format) in a memory card that were recorded with a digital camera.

The memory card that contains the pictures with the print settings can then be used with a printer or other device that supports DPOF.

### Preparation:

Connect your device, such as an SD card reader/writer in which a memory card is set.



**1** Select **[Output]** → **[Print Set[DPOF]]** from the menu.

**2** Select a drive (memory card) and click **[Next]**.

**3** Select a picture by selecting its check box and click **[Execute]**.

**4** Select a picture.

**5** Set the number of copies to print.

- A:** Print.
- B:** The settable range for the number of copies to print is 0 to 999.  
(If 0 is set, printing is not performed.)
- C:** Do not print.
- D:** Print the recording date.
- E:** Total number of pictures set for printing.  
Click **[Apply All]** to apply the same settings to all the selected pictures.

**6** Click **[OK]**.

**7** Click **[Close]**.

### Tips

- If you change a file name of a picture etc. on the PC, the picture cannot be print set.
- Pictures on memory cards unsupporting DPOF cannot be print set.
- The contents of the print setting will be saved as **[AUTPRINT.MRK]** in the **[MISC]** folder in the memory card.



## Sending by e-mail

You can attach pictures to an e-mail.

You can also convert a picture to a specified size before sending it.

The picture formats that can be attached to e-mails are BMP, JPEG, TIFF and MOV.



### 1 Click [Send e-mail].

The [Send e-mail] screen is displayed.

- You can also display it by selecting [Output] → [Send e-mail] from the menu.

### 2 Select a picture by selecting its check box and click [Execute].

You can attach up to 20 pictures at one time.

### 3 Select whether to send the picture unchanged or whether to resize or convert the file format first.

#### ■ To send the picture unchanged

Check the size and then click [Send]: Go to step 5.

#### ■ To convert the picture

Click [User settings]: Go to step 4.

#### Tips

- Large-size pictures cannot be sent depending on the mail setting. In such cases resize the picture or convert the file format before sending it.

## Sending by e-mail



## 4 Process the picture.

● Motion pictures cannot be processed.

① **Convert items such as the format or size of the picture data.**

### ■ Picture Conversion

Ⓐ: Specify the picture size.

Ⓑ: Enter the picture width.

Ⓒ: Enter the picture height.

Ⓓ: Fix the picture aspect ratio.

Ⓔ: Specify the picture size using an expansion ratio or reduction ratio.

Ⓕ: The settable range for the expansion ratio and reduction ratio is 1 % to 200 %.

### ■ File Conversion

Ⓖ: For JPEG format, specify the file size for the picture.

Ⓗ: Select the picture data format.

② **Click [Preview] to check how the picture will look after processing.**

③ **Click**   **to convert other pictures.**

Click [Applies to all files] to process all pictures in the same way.

④ **Click [OK].**

Returns to the window in step 3.

## 5 Send the e-mail.

The new e-mail window is displayed with the picture file attached.

Enter the address, title and message, and send the e-mail.

## 6 Click [Close].

### ■ E-mail software settings

If you cannot attach a picture to an e-mail, exit from PHOTOfunSTUDIO, and then set up the e-mail software.

#### ① Start the e-mail software.

- If you activate it for the first time, set the mail addresses, etc.

#### ② If the message, [Would you like to make it your default client?] appears, select [Yes].

If the message does not appear, refer to the operating instructions of the e-mail software to set the e-mail software as the default client.\*

- The contents of the message vary depending on the e-mail software that you are using.

\* Setting example:

#### **For Windows Vista or Windows 7**

- 1 Select [Start] → [Control Panel] and open [Internet Options].
- 2 Select [Set programs] in the [Programs] tab and open [Set your default programs].
- 3 Select your e-mail software and click [Set this program as default].
- 4 Click [OK].

#### **For Windows XP**

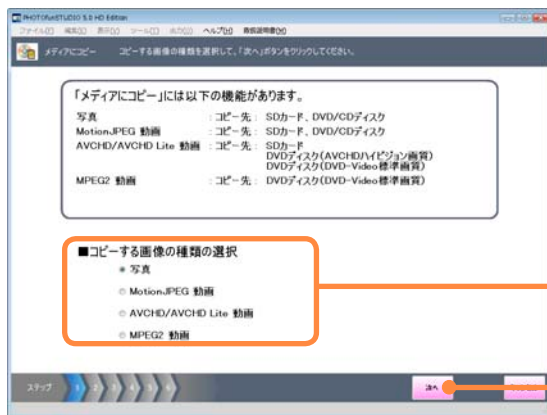
- 1 Select [Start] → [Control Panel] and open [Internet Options].
- 2 Open the [Programs] tab and select your e-mail software in [E-mail].
- 3 Click [OK].

### Tips

- With e-mail software other than Windows Mail, Microsoft Outlook and Microsoft Outlook Express, attaching pictures to e-mails using this function may not work.
- It is recommended to restrict the total file size of an e-mail (the file size of the message text plus the attached pictures) to 1 MB.
- Also read the operating instructions for the e-mail software.

# Copying pictures to a memory card

Still pictures and MOV motion pictures that have been saved on a PC (hard disk) can be copied to a memory card. You can play back these copied pictures on a digital camera.



**1** Click  **[Copy to media]**.

The [Copy to media] screen is displayed.

**2** Select the type of picture that you want to copy.

**[Still Picture]:** Copy still pictures.

**[Motion JPEG motion picture]:**  
Copy MOV motion pictures.

**3** Click **[Next]**.

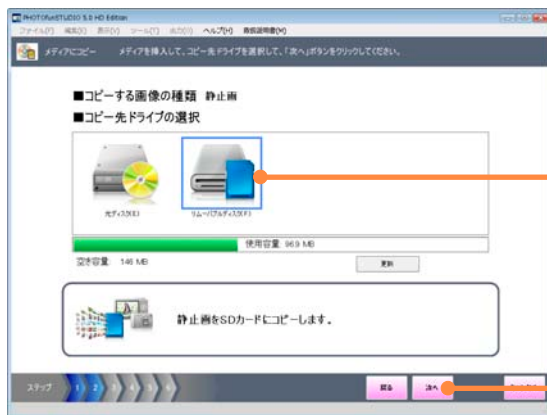
**4** Connect a device, such as an SD card reader/writer, in which a memory card is set.

● If the media is not displayed, click [Refresh].

## Tips

- About copying AVCHD/AVCHD Lite or MPEG2 motion pictures (→97)

## Copying pictures to a memory card



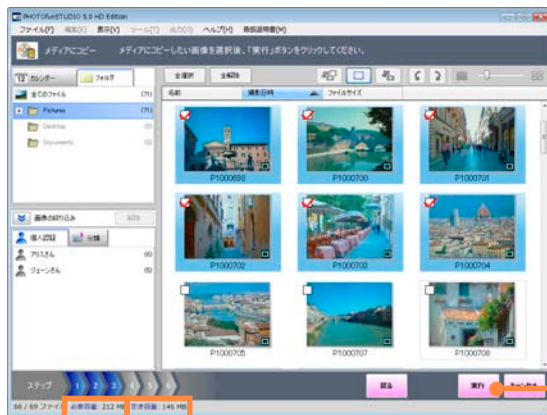
**5** Select the drive (memory card).

**6** Click [Next].

**7** Select a picture by selecting its check box.

Check the total data size of the selected pictures and the free space available on the card.

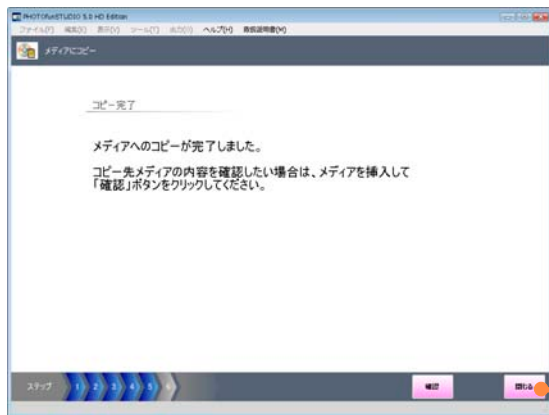
**8** Click [Execute].



Space  
required

Space  
available

## Copying pictures to a memory card



## 9 When the confirmation message is displayed, click [Yes].

The pictures are copied.

## 10 Click [Close].

- Click [Confirm] to display the pictures on the memory card.

## 11 When the confirmation message for the completion of [Copy to media] is displayed, click [Yes].

### ■ Saving folder, saving format, and file name

The picture save location and file name will be as shown below.\*



\* The alphabetic characters of folder names differ from those in the figure, depending on the model used.

- Data in BMP format is converted to JPEG pictures with Exif information.
- The associated files are also copied at the same time. If an MOV motion picture was copied, a JPEG picture with the same file name is created.
- If there are multiple saving folders, pictures are saved in the folder with the largest folder number.
- If there is no saving folder, a [100\_PANA] folder is created automatically.
- Numbers following the last number in the folder are assigned to files.

### Tips

- Use a memory card with sufficient free space. If the free space is lacking, pictures are written only halfway.
- The copied pictures cannot be played back on some digital cameras.

# Backing up pictures to a CD or DVD

If your PC has a drive that can write to a CD or DVD, then you can copy still pictures and MOV motion pictures to a CD-R/RW or DVD-R/RW.

## Important

- Types of discs on which pictures can be written using this software may vary with the version of Windows:

Windows version	CD-R/RW	DVD-R/RW
Windows XP	○	—
Windows Vista/ Windows 7	○	○

○: Writable    —: Not writable

## Preparation:

Check the writing drive settings.

- ① **Open [Properties] for the drive.**

- ② **Select the [Recording] panel.**

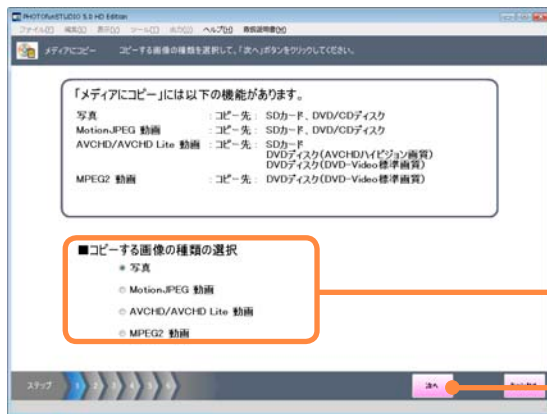
- ③ **Set as follows.**

For Windows 7: Select the correct writing drive.

For Windows Vista: Select the correct writing drive.

For Windows XP: Enable CD writing.

- When a Panasonic DVD MULTI drive is used with Windows XP, a message will be displayed confirming the writing of data to a DVD-RAM. To write data to a CD-R/RW, select [No] to enable the CD writing function.



- 1 Click  [Copy to media].

The [Copy to media] screen is displayed.

- 2 **Select the type of picture that you want to copy.**

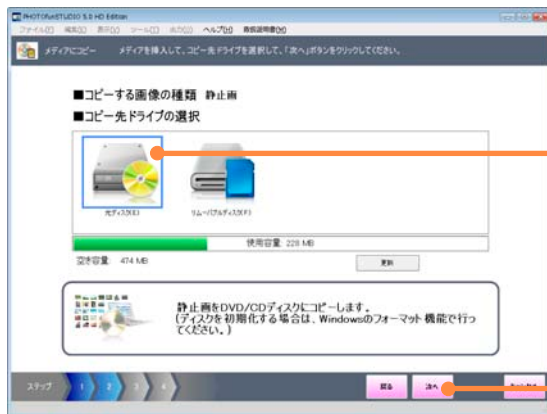
[Still Picture]: Copy still pictures.

[Motion JPEG motion picture]:  
Copy MOV motion pictures.

- About copying AVCHD/AVCHD Lite or MPEG2 motion pictures  
(→97)

- 3 Click [Next].

## Backing up pictures to a CD or DVD



## 4 Insert the disc that you want to write to into the drive.

- If the media is not displayed, click [Refresh].

## 5 Select the writing drive.

## 6 Click [Next].

## 7 Select a picture by selecting its check box.

Check the total data size of the selected pictures and the free space available on the disc.

## 8 Click [Next].

The Windows standard writing wizard starts.

## 9 Enter the disc title.

- For Windows Vista, the writing speed can also be set.

## 10 Click [Next].

Writing to the disc starts.





## Backing up pictures to a CD or DVD



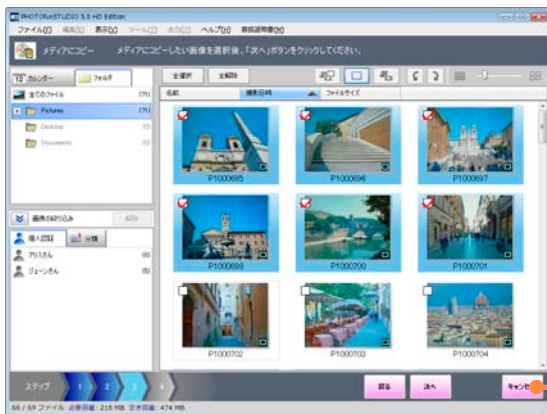
## 11 Click [Finish].

The display returns to the [Copy to media] screen.

- You can also follow the instructions on the wizard to write the same pictures onto a different disc.

## 12 Click [Cancel].

## 13 When the confirmation message for the completion of [Copy to media] is displayed, click [Yes].



### Tips

- If there are files that are ready for writing to disc in Windows Explorer, a confirmation message is displayed. If copying to CD/DVD is executed, these files that are ready for writing are canceled.
- To copy pictures to a DVD-RAM or a disc formatted in the Windows Vista Live File System, first exit this software and then execute using Windows Explorer.

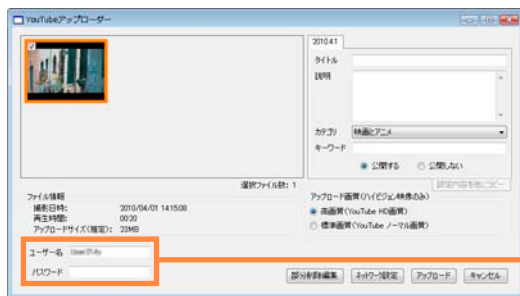
# Uploading motion pictures to YouTube

It is easy to upload motion pictures saved on a PC to YouTube.

- Future operation is not guaranteed if YouTube changes its services or specifications. Please note that the contents of the service or the windows may be changed at any time without prior notice. (This service is available as of June 1, 2009.)
- Do not upload videos protected by copyright except when you hold copyright of the contents or permission has been obtained from the related right holder.

## Preparation:

- Connect the PC to the Internet.
- Register a YouTube account in advance to obtain a user name and password.



## 1 Click [Network] and then select [Upload to YouTube].

The [Upload to YouTube] screen is displayed.

- You can also display it by selecting [Output] → [Network] → [Upload to YouTube] from the menu.

## 2 Select a motion picture by selecting its check box and click [Execute].

A maximum of 10 motion pictures can be uploaded at a time.  
The [YouTube Uploader] is displayed.

## 3 Enter the YouTube [User name] and [Password].

- The user name is remembered from the second time.

## Uploading motion pictures to YouTube

### 4 Select a motion picture.

The selected motion picture is the target for uploading.

- Double-click to play back.

### 5 Enter information to display on YouTube, such as the title of each motion picture.

**A:** Select the motion picture whose information you want to edit.

**B:** Enter a title.

**C:** Enter the contents of the motion picture.

**D:** Select the category of the motion picture.

**E:** Enter keywords.

**F:** Set whether or not to post to the public.

**G:** You can copy the same contents to other motion pictures.

**H:** Set the upload picture quality for the AVCHD / AVCHD Lite motion picture.

### 6 Check the file information.

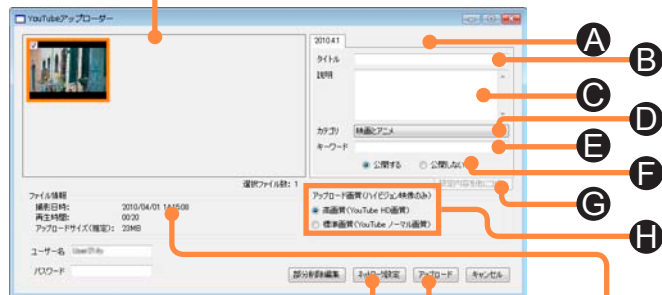
A motion picture of up to 10 minutes in length can be uploaded.

#### ■ Editing AVCHD/AVCHD Lite or MPEG2 motion pictures

If you click [Delete partially], you can delete unnecessary parts to shorten the motion picture. (→93)

- The edit results will not be saved.
- The file size after editing will not be displayed.

### 7 Click [Upload].



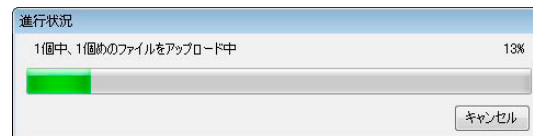
A proxy settings window is displayed.

- Ask your Internet provider for the setting method, such as whether to match the proxy (server) settings with the settings of your web browser (such as Internet Explorer).

## Uploading motion pictures to YouTube

- 8** When the confirmation message for the content copyright is displayed, check the contents, select the check box and click [OK].

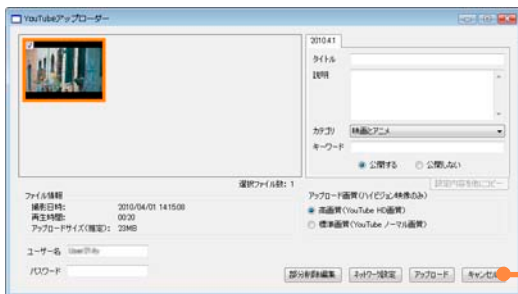
The motion picture is uploaded.



- 9** Click [OK].

- 10** Click [Cancel].

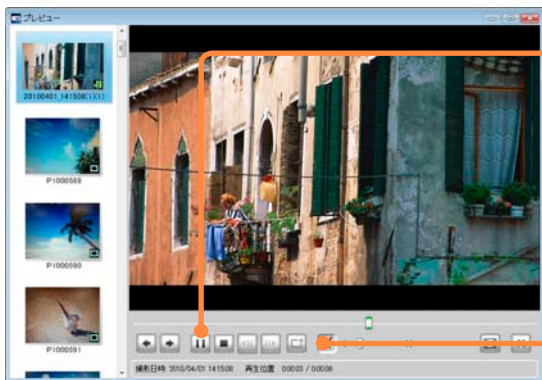
- 11** Click [Close].



# Editing motion pictures

## Creating still pictures from motion pictures

You can extract a frame from a playing motion picture and save it as a still picture in JPEG format with Exif information.



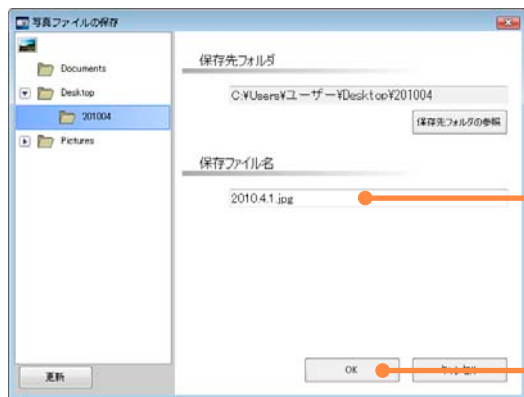
**1** In the playback window, pause the motion picture at the location where you want the still picture.

- You can also display the playback window by selecting [Edit] → [Edit movie] → [Capture] from the menu.

**2** Click .

**3** Select the save destination folder.

- To save in a folder that is not displayed
  - ① Click [Browse save destination folders].
  - ② Select the folder that you want or create a new folder, and then click [OK].



**4** Enter the file name.

**5** Click [OK].

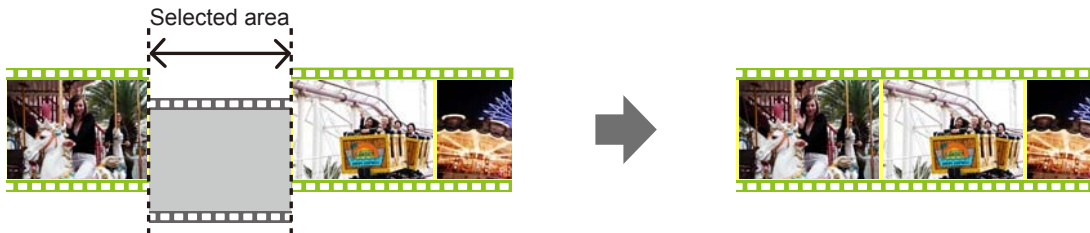
A still picture with the same picture size as the motion picture is saved.


# Editing AVCHD/AVCHD Lite or MPEG2 motion pictures/copying to media

## Deleting a part of a motion picture

You can delete mistakes or unnecessary parts of AVCHD/AVCHD Lite or MPEG2 motion pictures that have been copied to the PC.

- Partial deletion cannot be performed for motion pictures shorter than 2 seconds.



- 1** Click  [Edit movie] and then select [Delete partially].

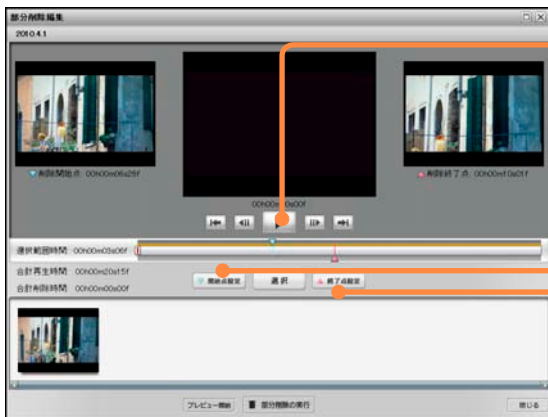
The [Delete partially] screen is displayed.

- You can also display it by selecting [Edit] → [Edit movie] → [Delete partially] from the menu.

- 2** Select one motion picture and click [Execute].

The [Delete partially] screen is displayed.

## Deleting a part of a motion picture



**3** Click to start playback the motion picture and click to pause at the delete start position.

- You can select the playback position by moving the slider.

**■ Fine position adjustments**

: Frame back/frame forward

: Skip forward or back by about 0.5 seconds

**4** Click [Set start point] to decide the starting point.

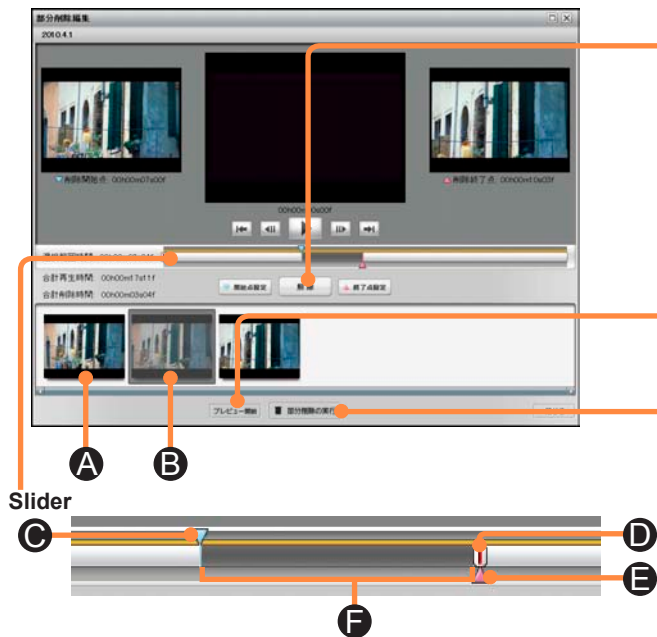
- You can also decide the starting point by dragging on the slider.

**5** Click to restart the playback, and click to pause at the delete end position.

**6** Click [Set end point] to decide the ending point.

- You can also decide the ending point by dragging on the slider.

## Deleting a part of a motion picture



- **C**: Delete start point.
- **D**: Current playback position.
- **E**: Delete end point.
- **F**: Deletion range.

## Tips

- You can also edit AVCHD motion pictures with a picture size of 1920×1080 that were recorded with a digital camera that is compatible with this software. However, for the NTSC specification, note that because the editing will be performed in 15-frame units, the delete position may deviate slightly. Further, frame back/frame forward operations cannot be performed in the [Delete partially] window.

## 7 Click [Select] to confirm the range.

Thumbnails are displayed of the start point and end point, and the range to be deleted is displayed in gray.

- If you want to select multiple ranges, repeat steps 3 to 7.
- To cancel a selected range, select the corresponding thumbnail and click [Release].
  - **A**: Thumbnail that represents the range that will remain.
  - **B**: Thumbnail that represents the range that will be deleted.

## 8 Click [Start preview] to check the edit results.

- You can cancel the playback by clicking [Stop Preview].

## 9 Click [Partially delete].

The motion picture after editing will be newly created and saved in the same folder as the original motion picture.

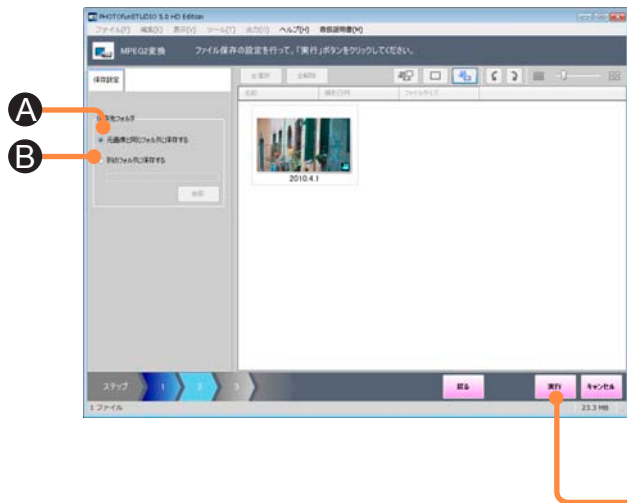
- **M** will be added to the thumbnail of the created motion picture.
- A lot of time is required for processing. Do not operate the PC until the operation is completed.

## 10 Click [Close].



# Converting AVCHD/AVCHD Lite motion pictures to MPEG2

AVCHD/AVCHD Lite motion pictures can be converted to MPEG2 format.



## 1 Select [Edit movie]→[Convert MPEG2] from the menu.

The [Convert MPEG2] screen is displayed.

- You can also display it by selecting [Edit] → [Edit movie]→[Convert MPEG2] from the menu.

## 2 Add a check mark to the picture to select it, and click [Next].

## 3 Select the save settings.

### ■ Save Destination Folder

- Ⓐ: Save in the same folder as the original picture.
- Ⓑ: Save in a different folder. Click [Browse] and select the save destination.

## 4 Click [Execute].

## 5 When the confirmation message is displayed, click [Yes].

The picture data format is changed.

## 6 Click [OK].

## 7 Click [Close].

### Tips

- Conversion of motion pictures can take several hours.

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)

Here, the methods for recording AVCHD/AVCHD Lite or MPEG2 motion pictures that are saved on a PC to a memory card or DVD are described.

### Important

- Memory cards or DVDs of AVCHD standard created by this software can be played back only with playback devices that are compatible with AVCHD standards. (They cannot be played back with ordinary DVD players which are not compatible with AVCHD standard.)  
Do not insert the discs into any non-compatible device, because the discs may not be ejected or the device may delete data on the disc after displaying a message prompting disc formatting.  
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.
- For DVD-R with dual layer on single side, motion pictures 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.
- Do not delete, revise, or move the folders on the discs or the files in the folders. The data may not play back.
- The top menu can be displayed only on playback devices capable of playing back the top menu.

### Usable memory cards / DVDs (media)

Recording format	Picture quality	Recordable media	Top menu	Adding to media with previous recording*1	Playback device
AVCHD format	High definition quality	Memory card*2	Cannot create	Possible	Devices compatible with AVCHD standard
		DVD-RAM (12 cm single sided/double sided)*3	Can create	Possible*4	Devices compatible with AVCHD standard
		DVD-R (12 cm single sided/double sided/dual layer on single side) DVD-RW (12 cm single sided/double sided)	Can create	Not possible	Devices compatible with AVCHD standard
DVD-Video format	Standard quality	DVD-R (12 cm single sided/double sided/dual layer on single side) DVD-RW (12 cm single sided/double sided)	Can create	Not possible	Ordinary DVD player

\*1 Only when adding to media where recording was done with AVCHD standards.

\*2 For an SDHC memory card (4 GB to 32 GB), a reader/writer supporting the SDHC will be required.

\*3 DVD-RAM of the 2.6 GB and 5.2 GB double sided type cannot be used.

\*4 Adding is not possible if protection is set. Clear the settings with the device used to set the protection, or enable the Auto protect settings (→107).

### Tips

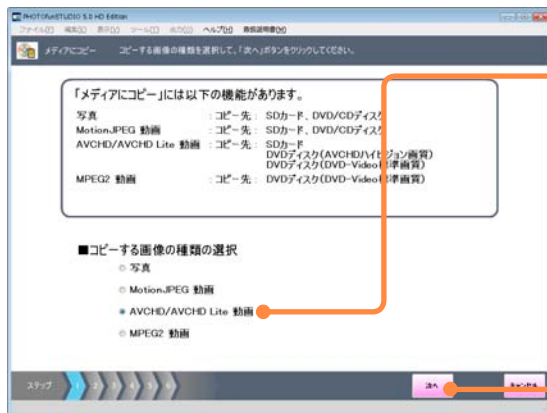
- This software cannot be used to write to Blu-ray discs.

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)

## Copying to media

## Important

- 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 connected or disconnected.
  - This software is forcibly closed.



## 1 Click [Copy to media].

The [Copy to media] screen is displayed.

## 2 Select [AVCHD/AVCHD Lite video] or [MPEG2 video].

- For details on copying still pictures and MOV motion pictures: ([→83, 86](#))
- When recording to a DVD, check the media type.

## 3 Click [Next].

## 4 Set the media.

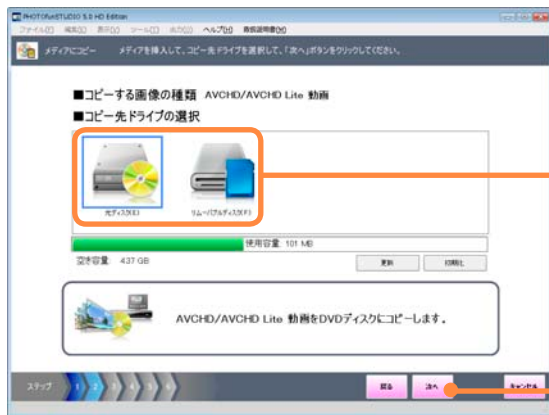
Connect a device, such as an SD card reader/writer, in which a memory card is set, or insert the disc that you want to write to into the drive.

- If the media is not displayed, click [Refresh].

## Tips

- MPEG2 motion pictures cannot be written to SD cards.

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)



**5** Select the writing drive or memory card.

**6** Click [Next].

**7** Select the copy settings.

**■ Copy method (when writing to DVD only)**

- A**: Copy in high definition quality.  
(MPEG2 motion pictures cannot be copied in AVCHD format)
- B**: Copy in standard quality, in a format that can be played back on ordinary DVD players.

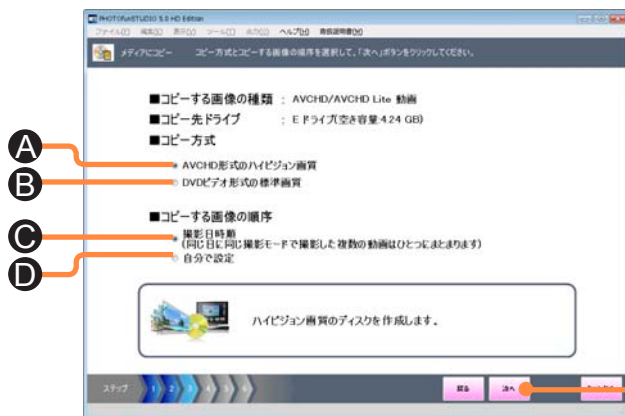
**■ Order of pictures to be copied**

- C**: Copy in the recording date order. If you copy with this setting, multiple motion pictures that were recorded on the same day and in the same mode are combined together.
- D**: You can select the playback order.

**8** Click [Next].

**9** Select a picture by selecting its check box.

Check the total data size of the selected pictures and the free space available on the disc.



**A**

**B**

**C**

**D**

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)





## 10 Click [Next].

The top menu creation window is displayed.

### ■ When adding to a memory card or DVD-RAM

When a memory card or DVD-RAM is set that already contains recordings in the AVCHD standard, a confirmation message about adding data will appear. Select [Yes].

 or  is displayed on motion pictures that have already been recorded.

- If you do not want to add data, remove or format the media.

## 11 Set the top menu background and layout.

- A top menu cannot be created when recording to a memory card. Go to step **13**.

- ① Check the recording destination.
- ② Check the data size to see if it will fit on the memory card or DVD.
- ③ Select the recording picture quality (DVD-Video only).
- ④ Select the background and layout.

**A:** You can select the background design.

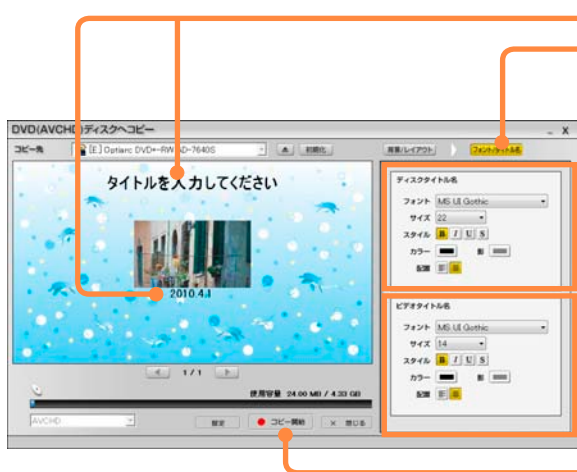
If you select [User's picture], a still picture (JPEG format) on the PC can be used for the background.

**B:** You can select the picture layout.

If [No menu] is selected, you cannot set the background design or title.

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)

## 12 Set the title.



① Enter the page title and picture title.

② Click [Font/Title].

③ Select the character settings for the disc title.

[Font]: Set the character type.

[Size]: Set the character size.

[Style]: Set the character style.

 B: Characters will be bold. I: Characters will be italic. U: Underlines will be added. S: Shading will be added.

[Colour]: Set the character color.

[Shading]: When  S is selected in [Style], set the shading color.

[Align]: Set the character layout.

④ In the same way, set the video title.

## 13 Click [Start copying].

## ■ If protection cannot be set

If disc protection cannot be set by the drive, a confirmation message is displayed.

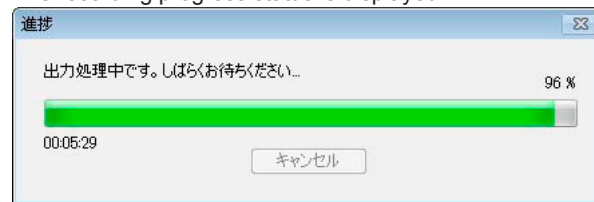
Click [Yes] to start copying.

- The created disc may not be recognized correctly by other playback devices.

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)

## 14 When the confirmation message is displayed, click [Yes].

The recording progress status is displayed.



- Clicking [Cancel] will cancel the recording.  
However, with DVD-R/RW, the recording can be canceled only during data conversion. It is not possible to cancel the recording during writing.

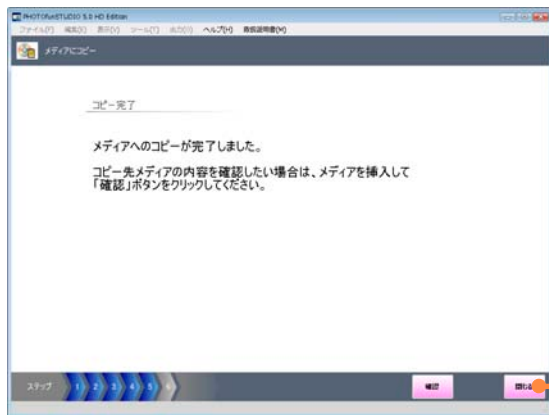
---

## 15 When the recording completion message is displayed, click [OK].

The display returns to the [Copy to media] screen.

- If a confirmation message is displayed asking if you want to continue and record to another media, click [Yes] or [No].
-

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)



## 16 Click [Close].

- Click [Confirm] to display the pictures on the media.

## 17 When the confirmation message for the completion of [Copy to media] is displayed, click [Yes].

## Tips

- It takes time to record all the data. Do not operate the PC until the recording is completed.
- Motion pictures of less than one second or motion pictures without sound cannot be written on.
- When playing back a recorded disc, the playback may be interrupted between motion pictures.
- When recording fails due to a problem with the media, replace the media as prompted by the message. The section of the data at which the failure occurred will be re-recorded onto the new media.
- For DVD-R with dual layer on single side, motion pictures 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.
- When writing in DVD-Video format
  - It may take several hours, because the motion pictures need to be converted into MPEG2 format.
  - Because it is necessary to record at least about 1 GB of data in DVD-R/RW due to the standard, when the produced data is less than 1 GB, dummy data will be added so that the data totals about 1 GB.
  - If a motion picture contains fast movements, the contours may lose their focus or noise may occur when the motion picture is converted. Quality may be improved if you select [Picture quality priority] as the picture quality setting for conversion in the settings of the motion picture function. (→106)



## Writing to a memory card or DVD (AVCHD format/DVD-Video format)

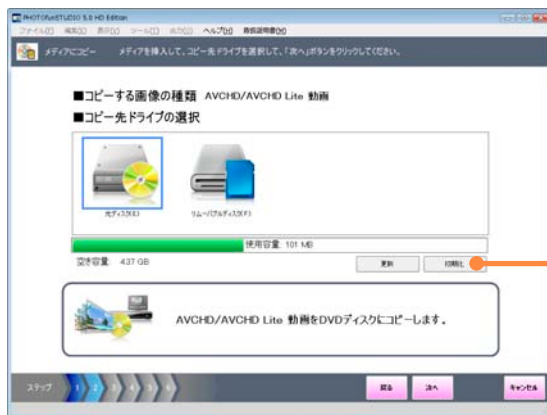
### Disc format

A DVD must be formatted in the following cases.

- When the DVD-RAM to be used for recording data is not formatted in the UDF 2.5 format, or is new.
- When you want to record data onto a used DVD-RAM/RW.  
(However, data can be additionally recorded to DVD-RAM if the content already recorded is in the AVCHD standard.)

### Important

- Formatting will delete all existing data on the disc. Since the format process cannot be canceled, be careful and confirm the contents of the disc.
- When recording the data in AVCHD standard to a DVD with this software, the disc must be formatted by this software. The format tool that comes with the DVD drive may not support the AVCHD standard.
- If you cannot format the disc, change the auto protect setting to on or cancel the setting with the device that set the protection. (If a disc has the Auto protect setting enabled, format will clear the Auto protect setting.)

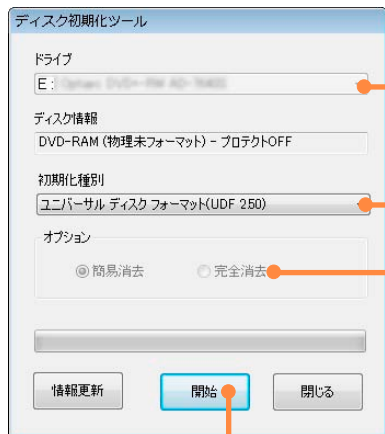


**1** Click [Initialize] in the selection window for the copy destination drive (→98).

The [Disc initializing tool] screen is displayed.

- You can also display it by clicking [Initialize] in the top menu creation window (→99).

## Writing to a memory card or DVD (AVCHD format/DVD-Video format)



## 2 Set the formatting contents.

- ① **Check the drive.**  
After replacing the disc or reconnecting the drive, click the [Refresh].
- ② **Select the formatting type.**  
[Blank]: Select when formatting a DVD-RW.  
[Universal disk format (UDF 2.50)]:  
Select when recording to a DVD-RAM in AVCHD format.
- ③ **Select an option.**  
[Simple erasure]: Logical formatting is executed in a short time (about 1 minute). If data is already recorded on the disc, only information in the table of contents will be deleted.  
[Complete erasure]: The disc will be physically formatted.  
Depending on the speed of the drive and the disc, it may take a long time. If data is already recorded on the disc, all data will be deleted.

## 3 Click [Start].

## 4 When the confirmation message is displayed, click [Yes].

- A message appears indicating that complete erasure will take a long time.

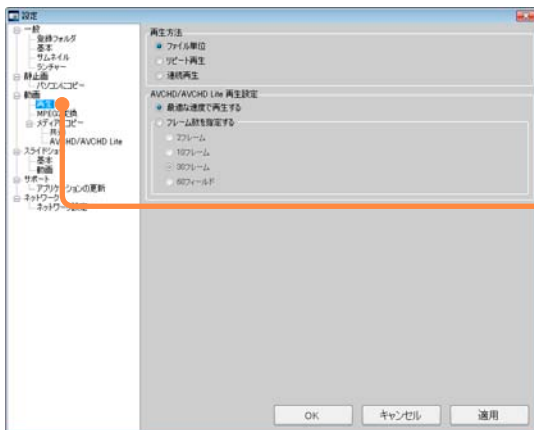
## 5 When the formatting completion message is displayed, click [OK].

### Tips

- Format in UDF 2.0 format is not supported. If a disc is used in an ordinary DVD recorder, it must be formatted in UDF 2.0 format with the format tool on the DVD drive. (For the operation method, refer to the operating instructions for the drive.)
- Memory cards must be formatted with the digital camera that this software supports.
- Only discs that can be used with this software can be formatted. (However, it is impossible to format a DVD-R.)
- For a double sided disc, format one side first and then format the other side.

# Setting motion picture functions

You can select settings related to the functions for motion picture playback and recording to discs or other media.



**1** Select [Tools] → [Settings] from the menu.

**2** Change the motion picture playback settings.

① Set one motion picture playback method and AVCHD/AVCHD Lite playback settings.

### ■ Playback method

**[File unit]:** Play back the displayed motion picture to the end and then stop.

**[Repeat playback]:** Play back one motion picture repeatedly.

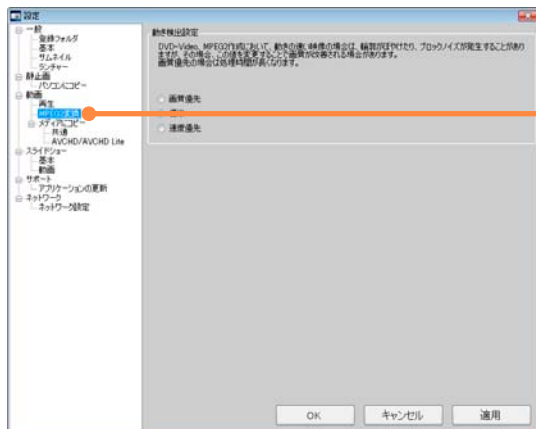
**[Continuous playback]:** Continuous playback of all the motion pictures displayed as thumbnails.

### ■ AVCHD/AVCHD Lite playback settings

**[Play with optimum speed]:**  
Play back at a speed suitable for the PC's CPU performance.

**[Specify number of frames]:**  
If playback is not good, select a low number of frames. It may improve.  
The frames may skip or playback may become less smooth if a higher frame rate than the current setting is selected.

## Setting motion picture functions



## ② Set MPEG2 picture quality

### ■ Motion detection settings

#### [Picture quality priority]:

It will convert with picture quality priority to prevent the noise. It may take a long time to convert. It is recommended to use this setting when converting a fast moving motion picture.

**[Normal]:** It will convert with standard quality.

**[Speed priority]:** It will convert with minimal time. More noise tends to occur for fast moving motion pictures.

## 3 Change the settings for copying to media.

### ① Set the hard disk work area and the disc writing speed.

#### ■ Work area setting

The work area is an area on the PC's hard disk that is used temporarily when working.

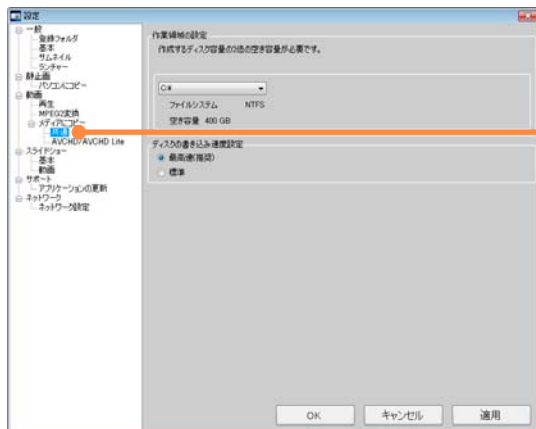
Select a drive with twice the size of free space than the size of the disc to create.

- It may not be possible to write in DVD-Video when a drive with FAT32 file system is selected. Select a NTFS drive.

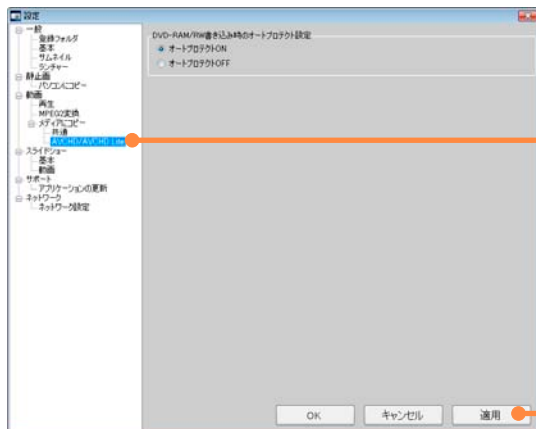
#### ■ Disc write speed setting

**[Max. speed (recommend)]:** Write at the maximum speed of the drive.

**[Normal]:** Select if recording failed. It may improve.



## Setting motion picture functions



- ② Select the settings for recording in AVCHD format.
- Auto protection settings for writing to DVD-RAM/RW  
**[Auto Protect ON]:** The protect setting is turned off temporarily when adding data to a DVD in AVCHD standard that is set as protected. (Protect setting is set again when the DVD is ejected.)  
**[Auto Protect OFF]:** Recording to the protected DVD is not possible.

## 4 Click [Apply].

- When [OK] is clicked, the settings are applied and the window is closed.

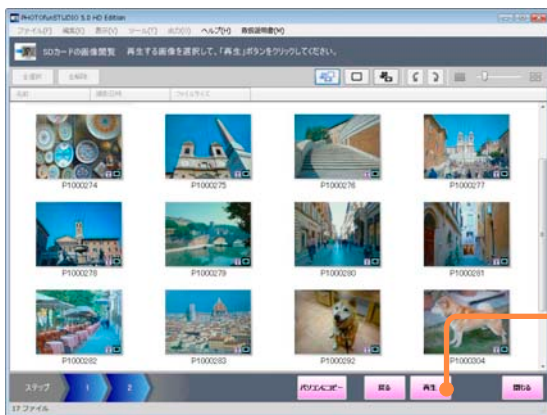
### Tips

- You can also select the settings for copying to media by clicking [Settings] in the top menu creation window (→99).
- The DVD-RAM/RW that was recorded with auto protect enabled is set as protected, so it may not be possible to format by other DVD recording software or Explorer.  
 In this case, formatting the disc with this software will cancel the protect setting, and enable other software to format the disc.  
 ([Complete erasure] will take a long time, so it is recommended to use [Simple erasure].)
- When auto protect is enabled, protection is set after recording even for DVDs immediately after formatting for which protection is not set.

# Convenient functions

## Displaying memory card pictures

Pictures inside a memory card are displayed. Pictures stored on media other than a memory card cannot be displayed.



### 1 Select [File] → [SD card picture browsing] from the file.

The [SD card picture browsing] screen is displayed.

### 2 Select the drive containing the pictures you wish to display, and click [Next].

- When the connected drive or memory cards are not displayed, click [Refresh].

### 3 Select the picture and click [Playback].

The selected picture is played back.

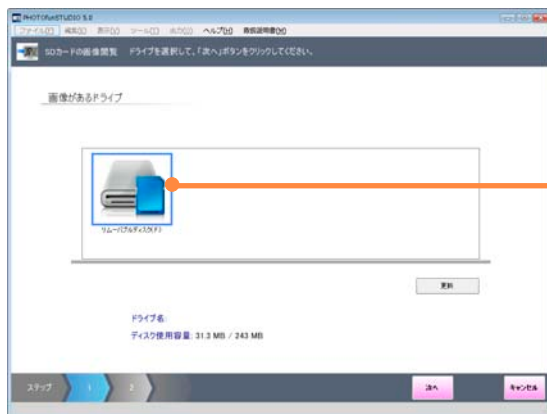
- The picture also plays back by clicking it.
- Click [Copy to PC] to go to the selection window for pictures you want to copy.

#### Tips

- If you click [Playback] prior to selecting pictures, the first picture will be played back.  
If you click [Playback] after having selected pictures, the selected pictures will be played back.

# Deleting pictures from memory cards

This software can be used to delete pictures stored on memory cards. Pictures stored on media other than memory cards cannot be deleted with this software.



## 1 Select [File] → [Delete SD card pictures] from the menu.

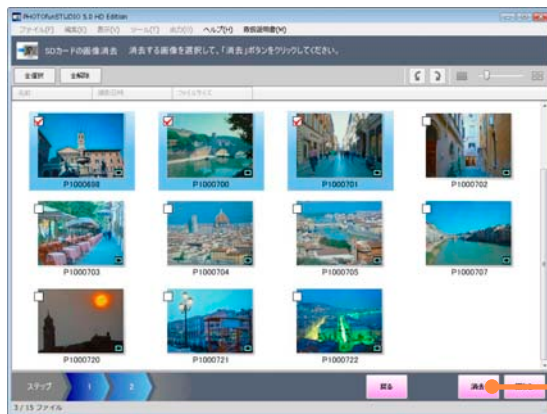
[Delete SD card pictures] screen will be displayed.

## 2 Select the drive containing the pictures you wish to delete, and click [Next].

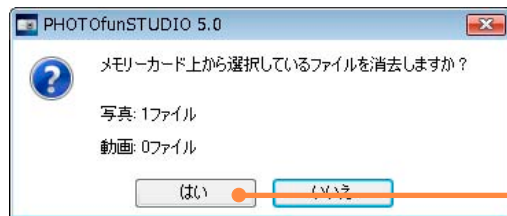
- If the connected drive or memory card is not displayed, click [Refresh].

## 3 Select a picture you wish to delete by selecting its check box, and click [Delete].

## 4 When the confirmation message is displayed, click [Yes].



## Deleting pictures from memory cards



**5** When the confirmation message is displayed again, click [Yes].

- Selected pictures will be deleted.

**6** Click [OK].

**7** Click [Close].

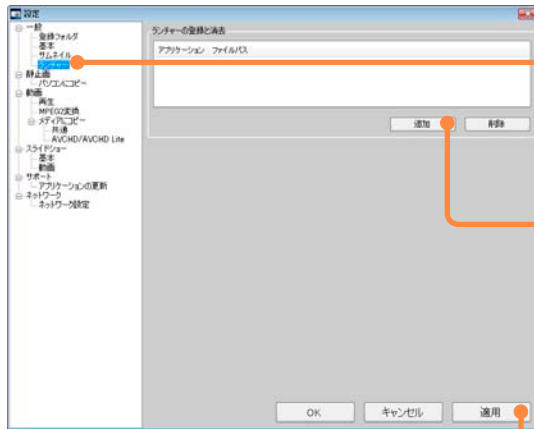
**Tips**

- Pictures cannot be deleted if the write-protect switch on the memory card is set to the [LOCK] position.
- Pictures cannot be deleted if protection settings have been applied with compatible digital cameras.



# Registering other software

Up to 10 software programs can be registered in the menu, allowing you to execute them directly using this software.



## 1 Select [Tools] → [Settings] from the menu.

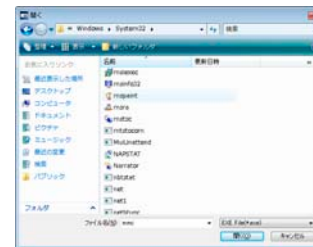
The settings window is displayed.

## 2 Click [General] — [Launcher].

## 3 Click [Add].

- No further programs may be added if 10 software programs have already been registered. Deregister any programs that are no longer required.

## 4 Select the executable file (.exe) for the software that you want to register and click [Open].



## 5 Click [Apply].

The software is registered.

- When [OK] is clicked, the settings are applied and the window is closed.

### Tips

- Register software that is compatible with the pictures.

## Registering other software

### Opening pictures with registered software

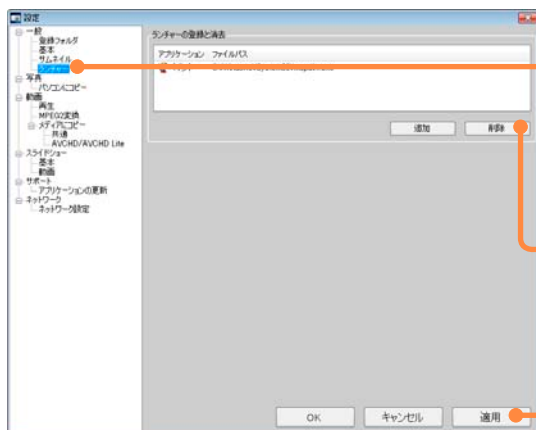
#### Tips

- A confirmation message will be displayed if 10 or more pictures are selected to be shown. If [Yes] is clicked, a maximum of 10 pictures will be opened with the registered external program. If [No] is clicked, the application does not start up.
- If the operation is made without selecting a picture, the software will simply start up.

- 1 Select a picture.
- 2 Select the registered software in [Tools] → [External program] from the menu.

The registered software starts up with the selected picture open.

### Clearing registered software

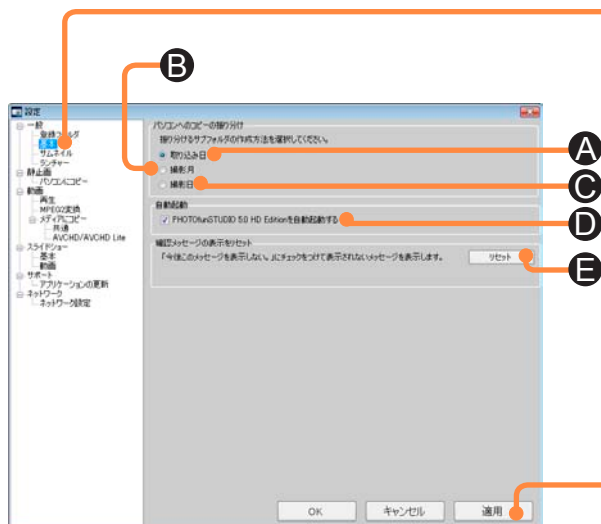


- 1 Select [Tools] → [Settings] from the menu.  
The settings window is displayed.
- 2 Click [General] — [Launcher].
- 3 Select a registered software program and click [Delete].  
The software is cleared.
- 4 Click [Apply].

- When [OK] is clicked, the settings are applied and the window is closed.

# Changing the settings for copying pictures to a PC

You can change the settings for copying pictures from a digital camera or memory card to a PC.



**1** Select [Tools] → [Settings] from the menu.

**2** Click [General] — [Basic].

**3** Change the settings.

#### ■ Sorting for copying to PC

- **A**: Save in a subfolder for the copying date (today).
- **B**: Save in a subfolder for the recording month.
- **C**: Save in a subfolder for the recording date.

#### ■ Automatic start **D**

When this check box is selected, the software starts up when a digital camera or memory card is connected and displays the [Copy to PC] screen.

#### ■ Reset confirmation message display **E**

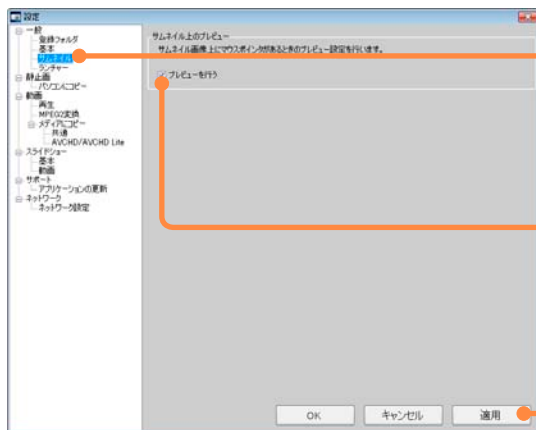
Disabled confirmation screen will be re-enabled.

**4** Click [Apply].

- When [OK] is clicked, the settings are applied and the window is closed.

# Performing simple playback of thumbnail motion pictures

You can set a function where a preview is performed when the mouse pointer is placed on a motion picture thumbnail.



**1 Select [Tools] → [Settings] from the menu.**

The settings window is displayed.

**2 Click [General] — [Thumbnail].**

**3 Set whether or not to preview.**

When this check box is selected, simple playback is performed simply by placing the mouse on a motion picture thumbnail.

**4 Click [Apply].**

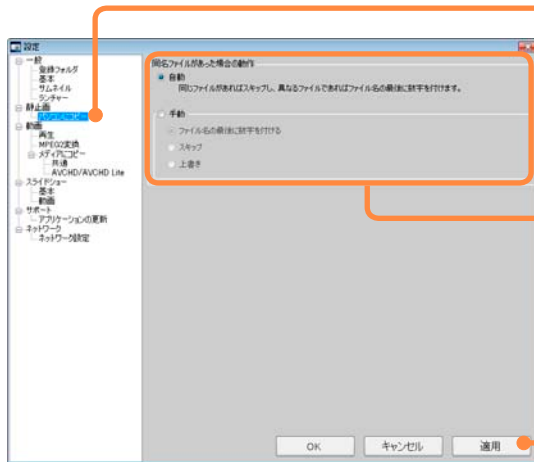
- When [OK] is clicked, the settings are applied and the window is closed.

## Tips

- Audio is not played during simple playback.
- The frame rate in simple playback is approx. 2 frames a second.
- When [Preview] is set, simple playback is performed even for a thumbnail that collectively displays multiple pictures, such as the recording month or recording date in the calendar display.
- When preview is enabled, the pictures may not be displayed smoothly depending on the performance of your PC.

# Setting the operation when the same file name exists

You can set the operation if there is a still picture of the same name already in the save destination folder (including the subfolder) when copying to a PC.



## 1 Select [Tools] → [Settings] from the menu.

The settings window is displayed.

## 2 Click [Still Picture] — [Copy to PC].

## 3 Set the operation when there are files with the same name.

**[Auto]:** Modification date, time and size of file are compared. And if a same file is identified, then it is judged as an identical file and thus pictures from it are not acquired. If one of them is different from the other, then pictures are acquired by adding a numerical character in the brackets at the end of the file name.

**[Manual]:** Perform the specified process.

**[Add number to the end of the file name]:**

Save with a different name.

**[Skip]:** Do not save.

**[Overwrite]:** Overwrites if the file is the same (same update date, size). If the file is not the same, it does not overwrite and save but instead adds a number in parentheses at the end of the file name.

## 4 Click [Apply].

● When [OK] is clicked, the settings are applied and the window is closed.

### Tips

- When copying a picture file that has an associated file (→124), if there is a file with the same name as either file in the save destination folder, [Operation when the same file name exists] is followed for both files. However, note that in the case of AVCHD/AVCHD Lite motion pictures, they are saved using different names if there are already files with the same names.

# Checking software update information

## Automatically checking update information

Software update information is automatically checked each time PHOTOfunSTUDIO is activated, and guides you to the latest updates as necessary.

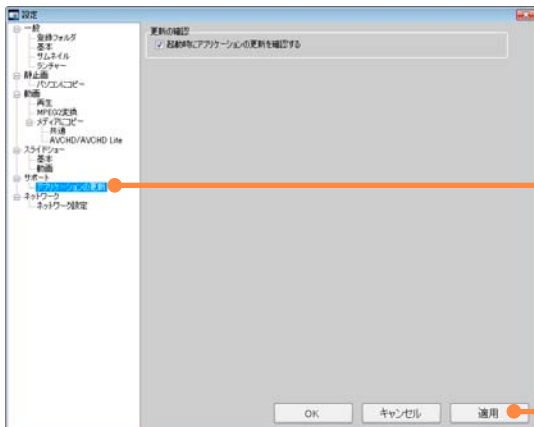
- Confirmation of update information is also possible by selecting [Help] → [Check for application updates] from the menu.

### Tips

- The default setting ensures update information is checked each time the program is activated.
- For the software update procedure, refer to the support page that is displayed.



## 1TR?



- 1** Select [Tools] → [Settings] from the menu.
- 2** Click [Support] — [Application update].
- 3** Change the update information setting.  
If you add a check mark, the software update information is checked each time the program is activated.
- 4** Click [Apply].  
● When [OK] is clicked, the settings are applied and the window closed.

# Others

## Menu list

### File

Menu item		Description	Reference
Copy to PC		Copies a picture from a device such as a digital camera or memory card to a PC.	18
SD card picture browsing		Displays pictures in SD cards.	
Delete SD card pictures		Delete pictures stored on memory cards.	
Delete		Deletes a picture.	28
Protect	ON	Protects a picture against accidental deletion.	113
	OFF	Cancels the protection.	
Favorite	ON	Sets the selected pictures as favorites.	113
	OFF	Cancels favorites.	
Properties		Displays information about a picture.	34
Exit		Exits PHOTOfunSTUDIO.	12

### Edit

Menu item		Description	Reference
Edit still picture	Counter-clockwise Rotation	Rotates a still picture 90 degrees counter-clockwise.	56
	Clockwise Rotation	Rotates a still picture 90 degrees clockwise.	56
	Resize	Resizes a picture.	57
	Retouch	Changes the brightness or color of a picture.	59
	Panorama stitch	Stitches several still pictures to create a panorama picture.	
Edit movie	Capture	Generates a still picture from a motion picture.	92
	Delete partially	Deletes unnecessary parts from an AVCHD/AVCHD Lite motion picture.	93
	Convert MPEG2	Deletes unnecessary parts from an AVCHD/AVCHD Lite or MPEG2 motion picture.	

### View

Refresh		Refresh manually if the display is not updated with the edit results.	29
Display mode	Thumbnail display	Displays the pictures in a folder.	22
	Calendar display	Displays the pictures by recording date.	24

## Menu list

### View (continued)

Menu item		Description	Reference
Picture to display	All	Displays all (corresponding) still pictures and motion pictures.	<a href="#">21</a>
	Still Picture	Displays still pictures only.	<a href="#">21</a>
	Movie	Displays motion pictures only.	<a href="#">21</a>
Sorting pictures	ascending order	Sorts the picture display in ascending order.	<a href="#">22</a>
	descending order	Sorts the picture display in descending order.	<a href="#">22</a>
	Name	Displays in name order.	<a href="#">22</a>
	Recording date	Displays in recording date order.	<a href="#">22</a>
	File size	Displays in file size order.	<a href="#">22</a>

### Tools

Menu item		Description	Reference
Settings		Displays the settings dialog box.	<a href="#">40, 105 - 112</a>
Face Recognition	Register/edit face	Registers and changes the Face Recognition information and face pictures.	<a href="#">45, 50</a>
	Remove from list	TR	
	Start face analysis	Starts face analysis for Face Recognition.	<a href="#">48</a>
	Cancel face analysis	Cancels face analysis for Face Recognition.	<a href="#">48</a>
Slide show	Playback now	Sets the selected pictures in a slide show for viewing.	<a href="#">35</a>
	Create new/edit	Creates or edits slide shows using preferred settings	
	Playback from saved file	Displays the saved slide show.	
	Delete		
	Convert MPEG2	Converts the created slide show to MPEG2 format.	<a href="#">39</a>
Still picture tool	Format conversion	Converts the picture format of a still picture.	<a href="#">63</a>
	Batch Rename	Changes the file names of multiple pictures.	<a href="#">64</a>
	Change recording date	Corrects an incorrect recording date and time.	<a href="#">65</a>
	Register as wallpaper	Sets a picture as the desktop wallpaper.	<a href="#">68</a>
	Burn-in	Creates still pictures on which the recording date or recorded name are burned in.	<a href="#">69</a>
External program		Starts a registered external program.	<a href="#">108</a>



## Menu list

### Output

Menu item		Description	Reference
Print		Prints pictures.	71
Send e-mail		Sends pictures by e-mail.	80
Copy to media		Copies the pictures to a memory card or CD/DVD.	83, 86, 97
Network	Upload to YouTube	Uploads motion pictures to YouTube.	89
Print Set[DPOF]		Sets information such as the number of pictures to print.	79

### Help

Menu item		Description	Reference
About		Displays the version of this software.	—
Check for application updates		Checks the application update information.	

### Manual

Menu item		Description	Reference
Manual		Displays the operating instructions (this manual).	—

## Right-click menu list

Functions that cannot be executed because of the operating status or other reasons are displayed in gray and cannot be selected.

### ■ When pictures (or thumbnails) are right-clicked

Menu item		Description	Reference
Playback		Displays the selected picture on the playback window.	<a href="#">31</a>
Slide show		Sets the selected pictures in a slide show for viewing.	<a href="#">35</a>
Cut		Cuts the selected picture.	—
Copy		Copies the selected picture	—
Paste		Pastes cut or copied pictures.	—
Change Name		Alters the file name of the selected picture.	—
Delete		Deletes the selected picture.	<a href="#">28</a>
Delete (When selection is narrowed by Face Recognition information)		Deletes the Face Recognition category information of the selected picture.	<a href="#">55</a>
Protect	ON	Protects a picture against accidental deletion.	<a href="#">113</a>
	OFF	Cancels the protection.	
Favorite	ON	Sets the selected pictures as favorites.	<a href="#">113</a>
	OFF	Cancels favorites.	
Properties		Displays information about the selected picture.	<a href="#">34</a>

### ■ When folders are right-clicked

Menu item		Description	Reference
Create folder		Creates a new folder.	—
Change folder name		Changes the folder name.	—
Delete folder		Deletes the folder.	—
Folder face analysis		Categorizes the pictures in a folder by Face Recognition.	<a href="#">48</a>
Cut		Cuts the selected folder.	—
Copy		Copies the selected folder.	—
Paste		Patches the cut or copied folder.	—

**Right-click menu list****■ When Face Recognition lists are right-clicked**

Menu item	Description	Reference
Change Name	Changes the name of the selected list.	<a href="#">52</a>
Delete category results	Deletes the selected list.	<a href="#">55</a>

# Troubleshooting (Q&A)

## Display

Symptom	Check
Display is possible in thumbnail mode, but not in the playback window.	The maximum supported size is exceeded. Only thumbnail display is possible for pictures that have Exif data thumbnail pictures.
There are two files with the same name.	Two files associated with each other (associated files) have the same name except for the extension. If the association with the files is not established, it cannot be reproduced by the digital camera in some cases.
Even after a motion picture that was previously saved is deleted, a still picture identical to the motion picture remains.	When you record MOV motion pictures with a digital camera, both motion pictures (MOV file) and still pictures (JPEG file) are recorded. When motion pictures were copied with PHOTOfunSTUDIO 3.1 or an earlier version, a still picture with the same name (associated file) was also copied. If you want to delete them both, select both files and delete them.
Cannot display the picture that you want.	If the display is narrowed by Face Recognition or categorization item, deselect the narrowing. Also check whether the picture format for display is set to still pictures only or motion pictures only.
The error thumbnail is displayed.	If the [Error] thumbnail remains even after selecting [View] → [Refresh] on the menu, the cause could be one of the following: <ul style="list-style-type: none"> <li>● The picture file does not exist The file may have been moved or deleted by a different software program. Clicking on the thumbnail with [Error] displayed will bring up a confirmation message to update the folder in which the selected picture has been stored.</li> <li>● No registered folder exists Check to see if the folder exists using Explorer or another file manager. If the designated registry folder is on a removable device such as an external hard disk drive, check that the device is properly connected and select [View] → [Refresh] on the menu.</li> </ul>

## Troubleshooting (Q&A)

### Connection and PC saving

Symptom	Check
Even when your digital camera and PC are connected using the USB connection cable, the PC does not recognize the digital camera.	Is any memory card inserted into the digital camera? Depending on the digital camera, it becomes necessary to set the digital camera to be connected with the PC. For details, refer to the operating instructions for the digital camera.
Thumbnails are not displayed correctly in the [Copy to PC] screen.	Motion pictures recorded with devices not compatible, or motion pictures created with other software cannot be displayed as a thumbnail, or “?” is displayed in the thumbnail and they cannot be played back.

### Motion picture

Symptom	Check
Motion picture cannot be displayed.	Only motion pictures that were recorded with a digital camera that had this software supplied with it, or recorded using this software can be displayed. (However, motion pictures in DVD-Video format are not compatible.) Motion pictures that were edited with another device or software cannot be displayed even if recorded by a digital camera that had this software supplied with it.
Motion picture does not play back correctly.	Close any other software if it is running. Try updating the device drivers for the sound card or video card. Depending on the [Windows Aero] function of the Windows Vista, PC environment, or the motion picture to play back, missing frames or colors may occur during the playback, or the motion picture may not play back smoothly. There may be noise in the audio or the motion picture may not playback smoothly at the part where the resolution or audio of the motion picture is switched. It may play back with a lower frame rate depending on the processing performance of the PC, making it unable for a smooth playback.
Panorama pictures saved in QuickTime format cannot be played back	Pictures cannot be played back if not associated with QuickTime Player. Right click on the icon in Explorer and associate the picture with QuickTime Player. After doing this, double clicking on the thumbnail will play it back.
Motion picture cannot be edited.	Only the motion pictures or still pictures on the PC are able to be edited or used to create media. Copy the pictures on the media to the PC first.
Edited differently to the specified frame.	It may be edited differently to the frame specified in the editing operation depending on the motion picture.

## Troubleshooting (Q&A)

Symptom	Check
It cannot access the drive with other software such as Explorer.	The drive in use by this software cannot be accessed by other software. Close this software before accessing with other software.
Formatting of the DVD-RAM/RW that was recorded with this software is not possible.	The DVD-RAM/RW that was recorded with auto protect enabled is set as protected, so it may not be able to format with other DVD recording software or Explorer. In this case, the protect setting is cleared by formatting the disc with this software, making it possible to format with other software. ([Complete erasure] takes a long time, so it is recommended to use [Simple erasure])
Data addition for AVCHD/AVCHD Lite motion pictures is impossible.	Data can be added only to the following media. <ul style="list-style-type: none"> <li>● DVD-RAM or memory card that was recorded with this software.</li> <li>● Memory card that was recorded with compatible digital camera.</li> </ul>
Cannot write to CD/DVD.	A CD/DVD drive that is compatible with the Windows standard writing wizard is necessary. If the [Recording] tab is not displayed in [Properties] of your CD/DVD drive, the drive is not compatible with the writing wizard and cannot be used. Windows XP is compatible with CD writing only.
An error occurs when writing an AVCHD/AVCHD Lite motion picture.	Following reasons are possible. <ul style="list-style-type: none"> <li>● It is not a compatible media.</li> <li>● In the case of a memory card, it was not formatted on a compatible file system. <ul style="list-style-type: none"> <li>➔ <b>Format the memory card with a compatible digital camera. (All recorded data will be deleted.)</b></li> </ul> </li> <li>● Drive and disc are incompatible. <ul style="list-style-type: none"> <li>➔ <b>Use a disc that is recommended for the drive.</b> (Some discs may not play back even if the recording has completed correctly. Execute playback confirmation after recording.)</li> </ul> </li> <li>● Affected by the condition of the drive where the OS is installed or the drive specified as the work area. <ul style="list-style-type: none"> <li>➔ <b>Defragment as necessary.</b> To defragment, select [Computer] (My Computer) in the Start menu, right-click the icon of the hard disk drive, and select [Properties] → [Tools] → [Defragment Now] → [Defragment now]. However, do not defragment while this software is running.</li> </ul> </li> <li>● Other software is running. <ul style="list-style-type: none"> <li>➔ <b>Exit. It may fail to record or damage the disc.</b> (In particular, software for DVD or CD writing, or programs that use a lot of memory, such as motion picture recording or encoding software.)</li> </ul> </li> </ul>

## Troubleshooting (Q&A)

Symptom	Check
<p>An error occurs when writing an AVCHD/AVCHD Lite motion picture. (Continued)</p>	<ul style="list-style-type: none"> <li>● Software that uses drives, such as DVD writing software from another company or packet write software, or an ASPI driver is installed.               <ul style="list-style-type: none"> <li>➔ <b>Uninstall all such software and drivers, and reinstall this software.</b></li> </ul> </li> <li>● Other software with the UDF disc read function is installed.               <ul style="list-style-type: none"> <li>➔ <b>Temporarily stop the function or uninstall the other software with the UDF disc read function.</b></li> </ul> </li> <li>● Multiple hardware programs are connected.               <ul style="list-style-type: none"> <li>➔ <b>Disconnect other USB devices such as an SD card reader and check the operation. (Especially when recording using external drives.)</b></li> <li><b>However, do not connect or disconnect while recording.</b></li> </ul> </li> <li>● Video camera, drive, hard disk, or SD card adaptor is connected with a USB connection.               <ul style="list-style-type: none"> <li>➔ <b>Use another USB port. (Such as a USB port on the rear of the PC.)</b></li> </ul> </li> <li>● Affected by the firmware of the drive (control program recorded on the main unit).               <ul style="list-style-type: none"> <li>➔ <b>Update the firmware of the PC and drive to the latest versions. (There may be updates of the firmware on the websites.)</b></li> </ul> </li> <li>● Affected by the standard CD recording function of the OS.               <ul style="list-style-type: none"> <li>➔ <b>Disable the function.</b></li> </ul> </li> </ul>
<p>Cannot record.</p>	<p>AVCHD/AVCHD Lite motion picture shorter than 2 seconds cannot be recorded onto the disc.</p>
<p>A message saying that it has exceeded the specification limit is displayed and it cannot record.</p>	<p>It cannot record because the number of motion pictures has exceeded the specification limit of the AVCHD standard or this software.</p> <ul style="list-style-type: none"> <li>- Maximum number of AVCHD/AVCHD Lite motion pictures: 3950</li> <li>- Maximum number of AVCHD/AVCHD Lite motion pictures recorded on the same day: (For memory card) 200 (For DVD) 99</li> </ul> <p>However, number of videos that can be recorded may be less when there are scenes with different recording modes within a single video.</p>
<p>An error message is displayed when destination drive is specified.</p>	<p>Close other software using the drive. Error message may be displayed when exchanging the media. Select the drive again. If it is a conflict with other recording software, uninstall that software.</p>
<p>Picture is disturbed during recording, and cannot record correctly.</p>	<p>Exit from this software and restart the PC.</p>

## Troubleshooting (Q&A)

Symptom	Check
Cannot record to the media formatted with the Windows Explorer on the PC.	Format the disc with this software when the disc is used to record with this software. Discs formatted with software other than this software (e.g. Windows Explorer) cannot be used. Format the memory card with a digital camera that is compatible with this software.
Cannot record to brand new DVD-RAM.	Commercially available DVD-RAM is formatted as UDF 2.0 format, so to record with AVCHD standard, it needs to be formatted to UDF 2.5 using this software.
Cannot add to the DVD-RAM.	The data cannot be recorded if the disc is set to protect. Remove the protect setting with the device that was used to set the protection. Or, it is possible to add if it is recorded with the AVCHD standard without removing the protection, if the auto protect setting is enabled.
Cannot stop the recording.	For the DVD-R/RW, the recording can be stopped by clicking the [Cancel] while converting the data, but it cannot be stopped while recording the data.
Disc error message is displayed.	The data cannot be recorded when the type of disc or formatting is not compatible with the recording format.

### Playback on other devices

Symptom	Check
Outline of the motion picture gets fuzzy or noise occurs.	When a fast moving motion picture is recorded in DVD-Video format, outline may get fuzzy or noise may occur during the conversion. It may improve by setting the picture quality setting for the conversion to [Picture quality priority] in the [Motion detection settings] window.
Motion pictures with an aspect ratio of 16:9 are displayed as 4:3 when played back.	When an MPEG2 motion picture with 16:9 is played with Windows Media Player or similar, it may be played back as 4:3.
Outline of the motion picture is not displayed when the created disc is played back with other device.	Part of the outline of the motion picture may not be displayed when played back on some devices such as TV.
Created AVCHD standard memory cards or discs cannot be played back.	AVCHD standard discs or cards created using this software can only be played back with devices compatible with each format.
Created disc cannot be played back.	Play back with a device that is compatible to the type of disc.



## Troubleshooting (Q&A)

Symptom	Check
Playback of the created AVCHD standard memory card or disc is interrupted for a few seconds.	Playback may be interrupted for a few seconds between scenes when recorded onto media.
The media created in DVD-Video format cannot be played back with the Windows Media Player.	Audio of the MPEG2 file recorded on the media is Dolby Digital format. Audio is not played back if the codec for Dolby Digital is not installed.
Last motion picture is cut off slightly when the created disc is played back.	The last motion picture may become about 0.5 seconds shorter when recorded in DVD-Video format.
The media created cannot be viewed by the Explorer.	The media recorded with AVCHD standard is recorded with UDF 2.5 format file system, so it cannot be viewed by the PC without the driver for the UDF 2.5 installed.

## Others

Symptom	Check
Uploading to YouTube cannot be performed properly.	Confirm that the login information (user name and password) is correct. Confirm that the PC is connected to the Internet. Confirm that the resident software (such as anti-virus software and the firewall, etc.) is not blocking access to YouTube. Check the YouTube sites.
When the date that the recording of motion picture started and ended is a different date, which will become the "recording date"?	The date that the recording of the motion picture started will become the "recording date".
A message regarding insufficient memory is displayed.	A message regarding insufficient memory may be displayed when handling large volumes of motion pictures or still pictures. In this case, install more memory (the problem may be corrected by increasing the virtual memory). Please contact the PC manufacturer on how to install more memory or how to increase the virtual memory.

# Glossary

## ● AVCHD format

This standard is for the recording and playback of high definition video.

Some digital cameras can record motion pictures in AVCHD or AVCHD Lite. Then, with this software, these motion pictures can be copied in high definition quality to a memory card or DVD. (Playback is possible on devices compatible with AVCHD.)

## ● MPEG2 format

A picture data compression format and part of the MPEG standard.

With this software, AVCHD or AVCHD Lite motion pictures can be converted to the MPEG2 format, the standard picture quality.

## ● DPOF

DPOF stands for Digital Print Order Format, which is standard for record printing information to memory card. It can be used in DPOF-compliant memory card, printer.

## ● DVD-Video

This format can be played back on ordinary DVD players.

With this software, motion pictures that were recorded in AVCHD or AVCHD Lite can be converted to DVD-Video format to create a DVD.

## ● Exif

Exif is an abbreviation for Exchangeable Image File Format.

This format embeds information other than a picture in a JPEG or TIFF file. The thumbnail, recording date and time, digital camera name, focal length, aperture, shutter speed, white balance, GPS information (positional information) and other information can be recorded.

Using the Exif information, PHOTOfunSTUDIO can print the recording date and do automatic categorizing.

## ● Exif Print (Exif2.2)

Nickname of Exif2.2

Exif2.2 refers to technology that accurately prints data recorded with the digital camera on the printer.

If you have an Exif2.2-compliant printer and digital camera, the printer uses the information recorded when the picture was taken for the prints.

## ● PRINT Image Matching

This is technology created by Seiko Epson Corporation that enables digital cameras and printers to work together.

If you have a compliant digital camera and printer, you can reflect the conditions during recording and the photographer's intention more precisely on prints.

## ● Associated file

In PHOTOfunSTUDIO, two files associated with each other are called "associated files". (e.g., JPEG files and MOV files, JPEG files and TIFF files, etc.)

The two files that satisfy the following conditions are judged to be associated files.

- They exist in the same folder.
- Their file names are identical except for the extension.
- Their file names are compliant with the DCF standards\*.

\* This software recognizes as a DCF-compliant file any file with a file name composed of a base name of 8 single-byte characters and an extension of 3 single-byte characters, and with a base name whose first 4 digits consists of single-byte uppercase alphanumeric or "\_" and last 4 digits are a number from 0001 to 9999.

(DCF, which is an abbreviation of the Design rule for Camera File system, is a record format compliant to the file system standard of Japan Electronics and Information Technology Industries Association (JEITA).)

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