

# DATA PROJECTOR

## XJ-S38/XJ-S48

## XJ-S58/XJ-S68

### Data Projector

#### USB Function Guide

- Be sure to read the precautions in the separate User's Guide (Basic Operation). For details about setting up the Data Projector and about lamp replacement, see the User's Guide (Basic Operation).
- Be sure to keep all user documentation handy for future reference.

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# About this manual...

This manual explains function and operations when any one of the following devices is connected to the USB port of the CASIO XJ-S38/XJ-S48/XJ-S58/XJ-S68 Data Projector.

- USB memory device or USB card reader
- CASIO Multi Projection Camera (YC-400/YC-430)
- CASIO Graphing Calculator (fx-9860G Series)



## Important!

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For information about functions and operations when a YW-2 Wireless Adapter is connected to the Data Projector's USB port, see page 6 of this manual and the user documentation on the CD-ROM that comes with the separate YW-2L\* Wireless Adapter.

\* The YW-2L comes packaged with a YW-2 Wireless Adapter and the Wireless Connection 2 software for your computer.

## Terms and Conventions

In this manual, there are many procedures that require parallel operations on the Data Projector and your computer. The following are special terms and conventions used in this manual to differentiate between the Data Projector and computer.

- **projection area**

This is the entire rectangular area that is projected by the Data Projector. Certain Data Projector operations will cause messages and menus to appear within the projection area.

- **computer screen**

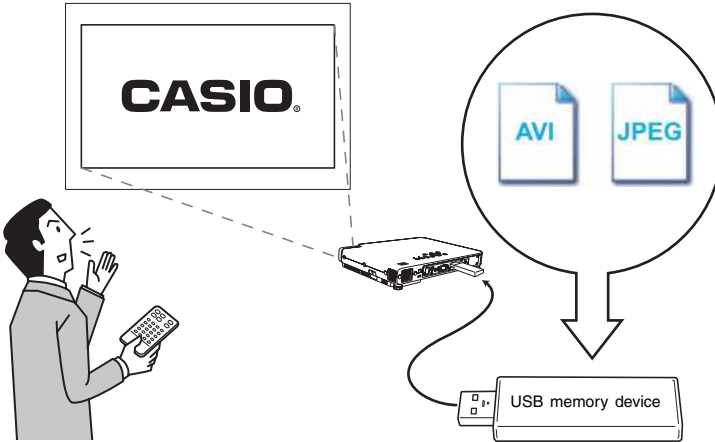
This is the physical display device of your computer.

# About the Data Projector's USB Functions

The USB port that is built into the Data Projector lets you connect an external USB device and use it as an input source for image projection.

## USB Memory Device or Memory Card

You can connect a commercially available USB memory device or USB card reader to the USB port and project images and movies stored on the USB memory device or memory card.

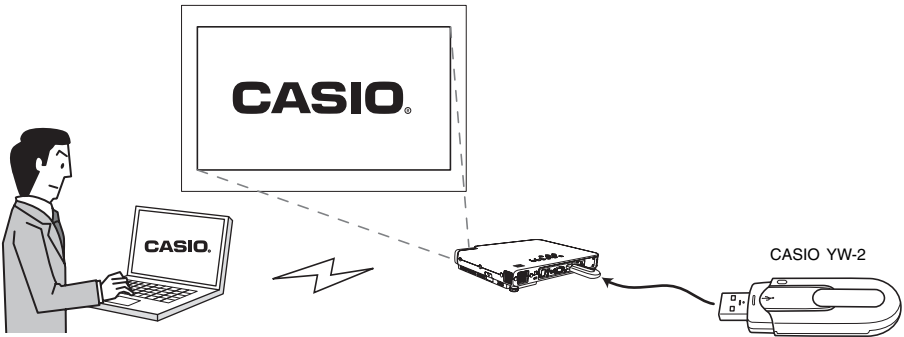


Refer to the following for details.

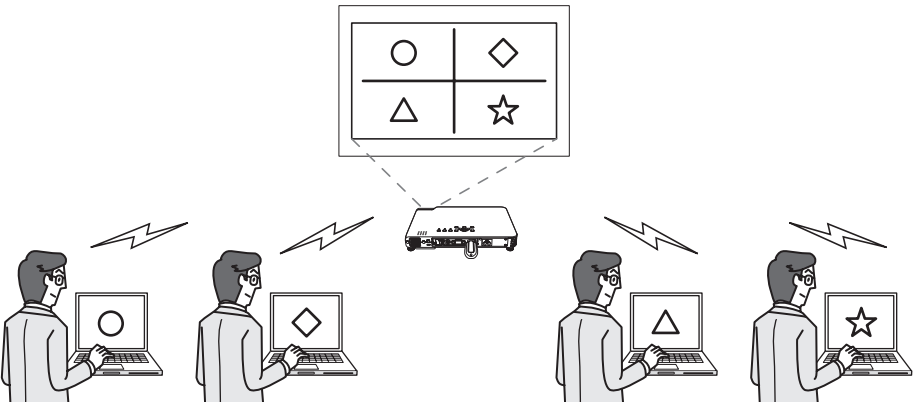
For more information about this:	Refer to this section of this manual:
Supported USB memory devices	"Supported USB Memory Devices" (page 13)
Supported image and movie file formats	"Supported Playback Data Types" (page 14)
Saving image data to a USB memory device or memory card	"Preparing a Presentation by Saving Image Files to a Memory Device or Memory Card" (page 14)
Projecting image and movie data from a USB memory device	"Playing a Presentation with Viewer" (page 27)

## Wireless Adapter (CASIO YW-2)

Establishing a connection between the Data Projector and a computer over a wireless LAN makes it possible to project the display contents of the computer's screen from the Data Projector.



You can have up to four computers connected to the Data Projector over a wireless LAN at the same time. Use the remote controller that comes with the Data Projector to select which of the four computer screens you want to project.

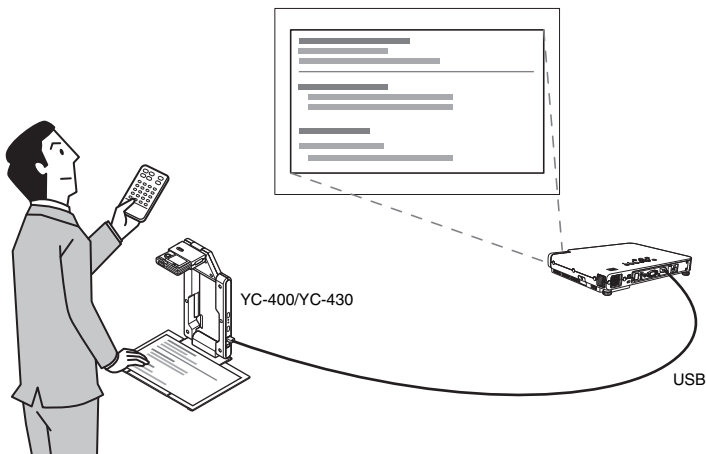


### Important!

- The optional YW-2L Wireless Adapter is required in order to perform the above procedure. The YW-2L package includes a YW-2 wireless adapter for the Data Projector and Wireless Connection 2 software for establishing a LAN connection between the Data Projector and a computer.
- For details about the operation required to establish a wireless LAN connection between the Data Projector and a computer, see the user documentation on the CD-ROM that comes with the YW-2L.

## Document Camera (CASIO YC-400/YC-430)

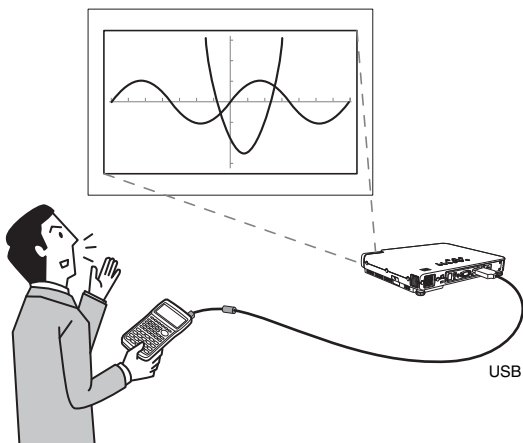
You can connect a CASIO Document Camera to the Data Projector's USB port and project the images of documents placed on the document stage of the YC-400/YC-430.



For more information, see “Performing a Presentation Using the YC-400/YC-430 Document Camera” on page 47.

## Graphing Calculator (CASIO fx-9860G Series)

You can use USB port to connect the CASIO fx-9860G series graphing calculator to the Data Projector and project calculator screen images with the projector.



For details, see “Projecting the Screen Image of a Graphing Calculator” (page 59).

# Connecting a USB Device to the Data Projector

What happens when you connect a USB device to the Data Projector depends on the current configuration of the Data Projector's plug-and-play setting. Plug-and-play is enabled under the Data Projector's initial default settings. For more details about the plug-and-play setting, see "Setup Menu Contents" in the User's Guide.

## Turning On the Data Projector after Connecting a USB Device

Normally when you turn on the Data Projector without a USB device connected, the Data Projector will check the RGB terminal and then the VIDEO terminal for a signal. If it finds a signal, the Data Projector will select it automatically and project the signal contents.

If you turn the Data Projector on while a USB device is connected to its USB port, it will perform one of the following operations (depending on its current plug-and-play setting).

### When plug-and-play is enabled:

When this type of device is connected:	The Data Projector does this automatically when turned on:
USB memory device or USB card reader with memory card loaded	Starts up Viewer (page 27) and projects the Viewer screen.
YW-2 Wireless Adapter	Starts up Wireless and projects the Wireless screen.
YC-400/YC-430 Document Camera	Checks the RGB terminal and then the VIDEO terminal for an input signal. If it finds a signal, the Data Projector will select it automatically and project the signal contents. Note that the Document Camera is not detected automatically.

### When plug-and-play is disabled:

Turning on the Data Projector with a USB device connected while plug-and-play is disabled will cause it to perform the same initial operation it performs when no device is connected. That is, it checks the RGB terminal and then the VIDEO terminal for an input signal. If it detects an input signal, the Data Projector will select it automatically and project the signal contents. In this case, however, either Viewer or Wireless will start up in the background, depending on the type of USB device that is connected to the Data Projector.



## Connecting to a USB Device while the Data Projector is On

If you connect a USB device to the Data Projector's USB port while it is turned on, it will perform one of the following operations (depending on its current plug-and-play setting).

### When plug-and-play is enabled:

When this type of device is connected:	The Data Projector does this automatically:
USB memory device or USB card reader with memory card loaded	Starts up Viewer (page 27) and projects the Viewer screen.
YW-2 Wireless Adapter	Starts up Wireless and projects the Wireless screen.
YC-400/YC-430 Document Camera	Starts up the YC Camera application (page 47) when the Document Camera is turned on and projects the YC Camera application screen.

### When plug-and-play is disabled:

In this case, the image that is currently being projected does not change. However, Viewer, Wireless, or the YC Camera Application will start up in the background, depending upon the type of USB device that is connected to the Data Projector.

## Changing the Input Source while a USB Device is Connected

On the Data Projector's remote controller, press the [INPUT] key to change the input source. Each time you press the [INPUT] key, the Data Projector will check the RGB terminal, VIDEO terminal, and USB port for an input signal. If it finds a signal, it will select it as the input source automatically and project its contents.

# Installing Data Projector Software

Use the procedures in this section to install the software that comes bundled with the Data Projector onto your computer.

When you want to do this:	Install this software:
Convert a PowerPoint file, PDF file, Web page, or other data to an image file that can be projected from the projector, and store it on a USB memory device or memory card	EZ-Converter PRO
<ul style="list-style-type: none"><li>● Convert PowerPoint files to image files, arrange the sequence of image files, and store data to a USB memory device or memory card</li><li>● Convert image files to monochrome negatives for projection onto a blackboard</li></ul>	EZ-Converter 1.1

## Minimum System Requirements

The following describes minimum computer system requirements to run the bundled software.

- Operating System: Microsoft® Windows Vista® SP1, Windows® XP SP3, or 2000 Professional SP4
- Computer: IBM PC/AT or compatible that conforms to the following conditions.
  - Windows Vista®, Windows® XP, or 2000 Professional pre-installed
  - PowerPoint 2000, 2002, 2003, or 2007 installed (to use EZ-Converter 1.1)
  - CPU: Pentium® III 800MHz or higher; CPU recommended for your computer's operating system
  - Memory: 256MB minimum or amount of memory recommended for operating system being run
  - Hard Disk: At least 40MB for installation or at least 60MB when running
  - Display: Full-color display with resolution of at least 800 × 600 that is supported by above operating systems and the computer being used.
  - Input Device: Keyboard or other pointing device (mouse supported above operating system or equivalent device)
- Normal operation may not be possible under certain hardware configurations.
- Operation is not supported on a computer running Windows® NT, Me, 98SE, 98, 95, or 3.1, or on a Macintosh or Mac OS computer.
- Operation on a computer upgraded to Windows Vista®, Windows® XP, or 2000 Professional from another operating system is not supported.
- Operation is not supported under Windows Vista® 64-bit version.
- Operation on a computer running Windows® XP Professional x64 Edition is not supported.

## To install software

### 1 Place the bundled CD-ROM into your computer's CD-ROM drive.

- This displays the dialog box shown below.



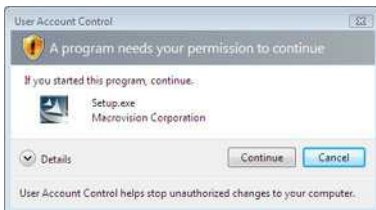
### 2 Select the check box of the software you want to install.

### 3 Click the [Install] button.

- This will start installation.

### 4 Keep clicking the [Next] button on the dialog boxes that appear.

- If your computer is running Windows Vista and the dialog box shown below appears, click [Continue].

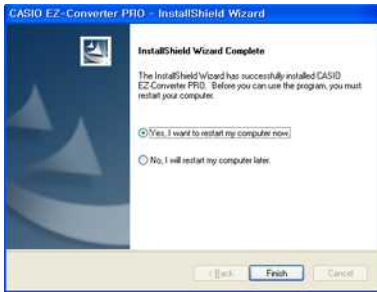


- If your computer is running Windows XP and the dialog box shown below appears, click the [Continue Anyway] button.



- If your computer is running Windows 2000 and the message "The software you are about to install does not contain a Microsoft digital signature." appears, click the [Yes] button.

- The dialog box shown below will appear after installation is complete.



**5** Click the [Finish] button.

# Projecting Presentation Images from a USB Memory Device or Memory Card

This section explains how to perform the following operations.

- How to use the bundled EZ-Converter PRO and EZ-Converter 1.1 software to save image files to a USB memory device or memory card
- How to use the Data Projector Viewer to play back image and/or movie files that have been saved to a USB memory device or memory card



## **Important!**

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In order to perform the procedures in this section, you will first need to install the software from the bundled CD-ROM onto your computer. For more information, see “Installing Data Projector Software” (page 10).

## **Supported USB Memory Devices**

The Data Projector supports connection of the following types of FAT/FAT32 format USB memory devices.

- USB memory
- USB Mass Storage Class compatible digital cameras

For details about supported USB memory devices (products whose operation has been confirmed), see the CASIO website at <http://world.casio.com/projector/support/en/>.

Connecting a commercially available USB card reader to the Data Projector makes it possible to handle data on memory cards supported by the reader the same way as USB memory device data. For details about supported USB card readers, see the CASIO website.

## Supported Playback Data Types

The data types listed below can be played back using the Data Projector's Viewer.

### Image Files

Playback is supported JPEG (jpg, jpeg, jpe; excluding progressive format) format or BMP (bmp) format image files up to 6 Mbytes in size.

### Movie Files

Playback is supported for the following movie file formats.

- **MPEG-4 Type avi Format Movie Files Recorded on a CASIO Digital Camera**

Applicable Models: See the CASIO website at <http://world.casio.com/projector/support/en/>.

Applicable Recording Modes: Fine Mode (640 × 480, 30fps, up to 15MB),  
Normal Mode (640 × 480, 30fps, up to 15MB),  
Long Play Mode (320 × 240, 15fps)

Applicable Audio Format: wav

- **Motion JPEG Type avi Format Movie Files Recorded on a CASIO Digital Camera**

Applicable Models: See the CASIO website at <http://world.casio.com/projector/support/en/>.

Applicable Recording Modes: Long Play Mode (320 × 240, 15fps)

Applicable Audio Format: wav

- **mp4 Format Movie Files Converted Using Computer Software**

Applicable Formats: VGA (640 × 480) size (25fps maximum when less than 15MB,  
15fps maximum for 15MB or greater recommended),  
QVGA (320 × 240) size (15fps maximum recommended)

Applicable Audio Format: AAC

## Preparing a Presentation by Saving Image Files to a Memory Device or Memory Card

In order to use a USB memory device or memory card for a presentation, you must first save the image files to the applicable media. The software that comes with the Data Projector helps to simplify the presentation preparation procedure.

You can use EZ-Converter PRO to convert files (PowerPoint, PDF, etc.) that are on your computer's hard disk to image files, and save the image files to a USB memory device or memory card. With EZ-Converter 1.1, you can rearrange the projection sequence of image files, and convert images to monochrome negative to make them easier to view when projecting onto a blackboard.

### Using EZ-Converter PRO

EZ-Converter PRO is software that converts computer files to JPEG image files that can be used in presentations.

You can convert a file using the print function of the application used to create the file.



CASIO EZ-Converter PRO  
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## Important!

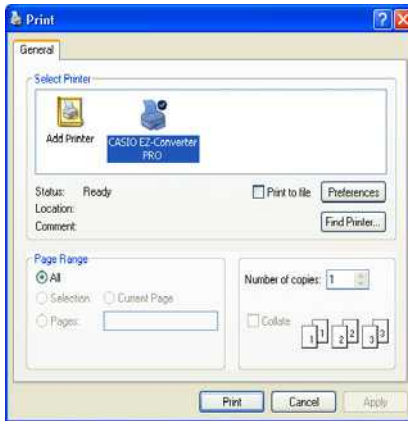
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Operation of EZ-Converter PRO has been verified for the following applications. No guarantees are made concerning operation with any particular application.

- Word 2000 / 2002 / 2003 / 2007
- Excel 2000 / 2002 / 2003 / 2007
- PowerPoint 2000 / 2002 / 2003 / 2007
- Adobe Reader / Acrobat Version 6 / 7 / 8
- WordPad Version 5 / 6

## To convert a document to an image file

- 1 Using the appropriate application, open the document that you want to convert to an image.**
- 2 Perform the required procedure in the application you are using to launch a print operation.**
  - This will display a dialog box for configuring print settings. The sample below shows the dialog box for a document opened with WordPad.



- 3 Depending on the application you used to open the document, perform one of the following operations.**
  - WordPad, etc.: Use "Select Printer" to select "CASIO EZ-Converter PRO".
  - Adobe Reader, PowerPoint, Word, etc.: In the "Printer" group, click the "Name" down arrow button and then select "CASIO EZ-Converter PRO" from the menu that appears.



## Note

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Steps 4 through 6 are required only if you want to change the output image file size and resolution settings from their initial defaults (Size: 1024 × 768, Resolution: Standard). If you want to use the initial default settings without changing them, skip these steps and jump to step 7.

**4 Click the [Properties] button or [Preferences] button.**

- This will display the CASIO EZ-Converter PRO Properties dialog box or a printer setup dialog box. Actual button names and dialog box names depend on the application you are using.

**5 Configure the output image file size and resolution settings.**

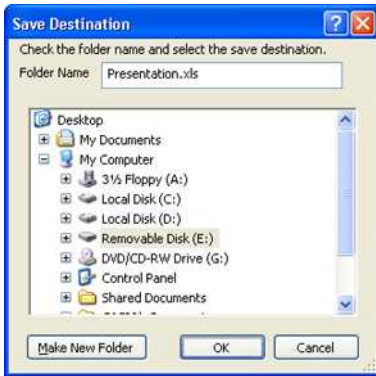
- To specify the size, click the image size down arrow button and then select the image file size from the menu that appears.
- For the quality setting, select the button next to either “Normal-quality” or “High-quality”.

**6 Click the [OK] button.**

- This will close the CASIO EZ-Converter PRO Properties dialog box and return to the print setup dialog box.

**7 Click the [OK] button.**

- This will display a dialog box for selecting the location where you want to store the image file.



**8 Click the drive where you want to save the image file.**

- If you want to save the image file in an existing folder, click the folder to select it.

**9 In the “Folder Name” text box, enter the name of the folder where you want to save the image file.**

- The name you enter here will be used for both the file name and for name of the folder where the image file is saved. If the document has multiple pages, each page will be saved as a separate image file, with each file named using the following format: Entered Name - XXX (XXX is a three-digit serial number).

**10 Click the [OK] button.**

- This will start the conversion process. Wait until the message “JPEG image output complete!” appears.



**Important!**

A dialog box with the message “The name you specified is already used by another folder. Specify a different name.” may appear when you perform step 10.

If it does, click the dialog box’s [OK] button to return to the Save Destination dialog box, and change the name in the “Folder Name” text box.



### **Tip: Convertible document types**

The aspect ratio (horizontal:vertical) of the image projected by the Data Projector is 4:3. Because of this use of a page aspect ratio setting that comes as close to this as possible is recommended. Projecting an image file whose aspect ratio has been altered may cause deterioration of the projected image's resolution.

### **Document File Conversion Precautions**

#### **Microsoft PowerPoint**

On the print dialog box, be sure to select the "Scale to fit paper" check box.

#### **Microsoft Word**

- Regardless of whether or not you are using initial default settings, you should display the CASIO EZ-Converter PRO Properties dialog box and click the [OK] button.
- Depending on the type of document you are converting, output of the image file can take an extremely long time. If this happens, clear the "Background printing" check box on the print dialog box.

#### **Microsoft Excel**

Display the print preview, adjust the range of the area that you want to output to the image file, and then perform the output.

# Using EZ-Converter PRO Launcher

EZ-Converter PRO Launcher lets you use drag and drop to convert a document to an image file and to access document conversion help.


## To use EZ-Converter PRO Launcher

- 1 On your computer's Windows Start menu, select [All Programs] - [CASIO] - [EZ-Converter PRO].
- 2 Carefully read the "Important!" message that appears, and then click the [OK] button.
  - This will display EZ-Converter PRO Launcher.




- 3 Select the operation you want to perform.

### To convert a document to an image file

1. Drop the document you want to convert to an image file onto .
  - Read the contents of the "File Drag & Drop Precautions" dialog box that appears.
2. If the application used to create the document you dropped onto the icon in step 1 is already running, quit it.
  - Be sure to perform this step. If you continue this procedure without quitting the application, the document will be output to the printer that is currently configured for the application.
3. On the "File Drag & Drop Precautions" dialog box, click the [OK] button.
4. Now perform the procedure starting from step 7 under "To convert a document to an image file" (page 15).



### Important!

- The above works only with a document that can be opened by double-clicking its icon (one that has an associated application). A document that does not have an associated application or a document that cannot be printed for some reason cannot be converted to an image file using drag and drop.
- Some documents that are associated with certain applications will open with the associated application as soon as they are dragged to , without displaying the save dialog box. If this happens, perform the application's print operation.

### To display the CASIO EZ-Converter PRO Properties dialog box

Click .

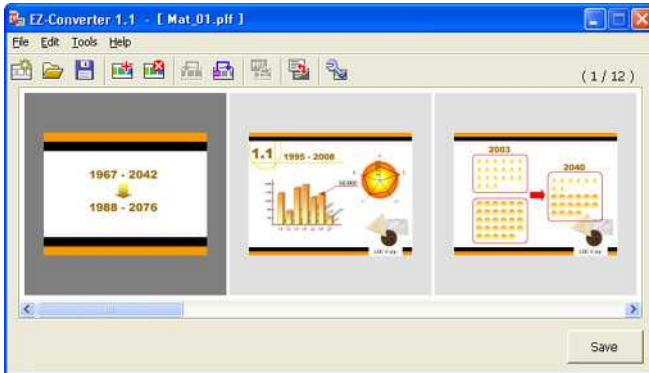
### To display help

Click .

- 4 To exit EZ-Converter PRO Launcher, click the [x] button.

## Using EZ-Converter 1.1

EZ-Converter 1.1 is software that lets you register images on your computer as presentation data, rearrange the projection sequence of the images that make up a presentation, select image transition effects, and more. It also can be used to convert a PowerPoint file to presentation data.



ImageKit7

Copyright © 2005 Newton Corp.



### Note

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Presentation data created with EZ-Converter 1.1 consists of image files (jpg) and a presentation file (plf). The presentation (plf) file contains playback settings that control the playback sequence of the image files on the USB memory device or memory card. For details about projection using presentation file settings, see “Using the Presentation Menu” (page 35).

## To create presentation data

- 1** On your computer's Windows Start menu, select [All Programs] - [CASIO] - [EZ-Converter].
  - This will display EZ-Converter 1.1 window.
- 2** Select [Tools] - [Options].
  - This will display the Options dialog box.
- 3** Configure the image file size and resolution settings to be applied when presentation data is saved.
  - To specify the size, click the image size down arrow button and then select the image file size from the menu that appears.
  - For the quality setting, select the button next to either "Normal-quality" or "High-quality".
- 4** Click the [OK] button to close the Options dialog box.
- 5** Use Windows Explorer to locate the image files (jpg, jpeg, bmp) you want to include in the presentation, and drag them to the EZ-Converter 1.1 window.
  - This will insert the image files into the presentation data and display their thumbnails in the EZ-Converter 1.1 window.
- 6** Repeat step 5 as many times as necessary to add all of the image files you want.
  - You can select and drag multiple files, if you want.
  - A single presentation can contain up to 500 image files.
- 7** In the EZ-Converter 1.1 window, rearrange the sequence of files, delete files, and configure playback settings as required.
  - For information about rearranging the sequence of files, see EZ-Converter 1.1 help.
  - For information about configuring playback settings, see "To configure presentation data playback settings" on page 22.
- 8** To save the presentation data, click the [Save] button or select [File] - [Save Presentation File As].
  - This will display the Save As dialog box.
- 9** Enter the file name you want and then click the [OK] button.
  - This will display a dialog box for specifying the location where you want to store the file.
- 10** Specify the location where you want to store the file and then click the [OK] button.
  - This will create a folder with the name you specified in step 9 and store the presentation data in the folder.

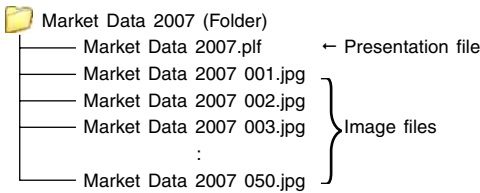


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**Note**

Performing this procedure will generate the presentation data shown below, based on the file name you specified in step 9.

Example: When you input the folder name “Market Data 2007” for a 50-image presentation




## To create presentation data by converting a PowerPoint File



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**Important!**

In order to perform the following procedures, PowerPoint 2000, 2002, 2003, or 2007 will need to be installed on the computer.

- 1** Perform steps 1 through 4 of the procedure under “To create presentation data” (page 20).
- 2** Either click the  button or select [File] - [Convert PowerPoint File].
  - This will display the Select a PowerPoint file dialog box.
- 3** Select the PowerPoint file you want to convert and then click the [Open] button.
  - This displays the Converting PowerPoint file dialog box.
  - After conversion is complete, the EZ-Converter 1.1 window will reappear with thumbnails of the converted images.
- 4** Perform the procedure from step 7 under “To create presentation data” (page 20).




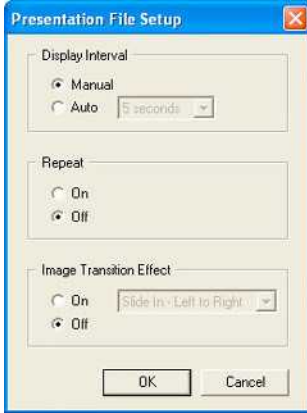
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**Note**

Instead of steps 2 and 3 of the above procedure, you could also drop a single PowerPoint file into the EZ-Converter 1.1 window.

## To configure presentation data playback settings

- 1 On the EZ-Converter 1.1 window, display the presentation data whose playback settings you want to configure.
  - For details about how to do this, see “To create presentation data” (page 20) and “To open a presentation file” (page 23).
- 2 Either click the  button or select [Tools] - [Presentation File Setup].
  - This displays the Presentation File Setup dialog box.



- 3 Configure the settings you want.

### To configure image change settings

Under [Display Interval], click either [Manual] or [Auto]. If you select [Auto], you then can click the down arrow button to the right and specify the display interval of each image.

### To configure the repeat setting

Under [Repeat], click either [On] (repeat) or [Off] (one time).

### To configure the image transition effect setting

Under [Image Transition Effect], select either [On] (transition effect enabled) or [Off] (transition effect disabled). If you select [On], you then can click the down arrow button to the right to select the effect you want to use.


- 4 After configuring all the settings you want, click the [OK] button.



### Note

You also can configure playback settings on the projector by performing a presentation with the projector's viewer function. For details, see “To save presentation data image files only” (page 24) and “Configuring Viewer Setup Menu Settings” (page 41).

## To open a presentation file

- 1** Either click the  button or select [File] - [Open Presentation File].
  - This displays the Open Presentation File dialog box.
- 2** Select the presentation (plf) file you want to open and then click [Open].
  - This will open the selected presentation file and display in the EZ-Converter 1.1 window thumbnails of the image files that are linked to the presentation file.

## To convert all presentation data images to monochrome negative


Converting color images to monochrome negative makes the projected images easier to view on a blackboard.

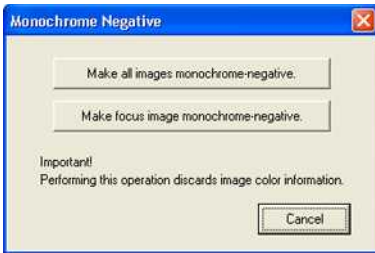


### Important!

---

Monochrome negative images cannot be converted back to color images. You can, however, cancel a conversion immediately after you perform it by using the [Edit] - [Undo] command.

- 1** On the EZ-Converter 1.1 window, open the presentation data you want to convert.
- 2** Either click the  button or select [Tools] - [Monochrome Negative].
  - This will cause the dialog box shown below to appear.



- 3** Click the [Make all images monochrome-negative] button.
  - This will convert all of the image files contained in the presentation data to monochrome negative.




### Note

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If you want to convert only selected images to monochrome negative, click the [Make focus image monochrome-negative] button in step 2.

## To save edited presentation data

Either click the  button or select [File] - [Save Presentation File]. This saves the edited presentation data by replacing the original data.

## To save edited presentation data as a new file

- 1 Either click the [Save] button or select [File] - [Save Presentation File As].
  - This will display the Save As dialog box.
- 2 Enter the file name you want and then click the [OK] button.
  - This will display a dialog box for specifying the location where you want to store the file.
- 3 Specify the location where you want to store the file and then click the [OK] button.

## To save presentation data image files only



### Note

---

Perform the following operation to save the image files only (without creating a presentation file) when you want the images to be optimized for the projector's Viewer setup menu settings while performing a presentation using the Data Projector's Viewer function.

- 1 Select [Tools] - [Options] to display the Options dialog box.
- 2 Clear the check box next to "Create presentation file (\*.plf)."



- 3 Click the [OK] button to close the dialog box.
- 4 Perform the procedure under "To save edited presentation data" (page 24) or "To save edited presentation data as a new file" (page 24).
  - Only the image files are saved to the specified folder, without creating a presentation file.



### Note

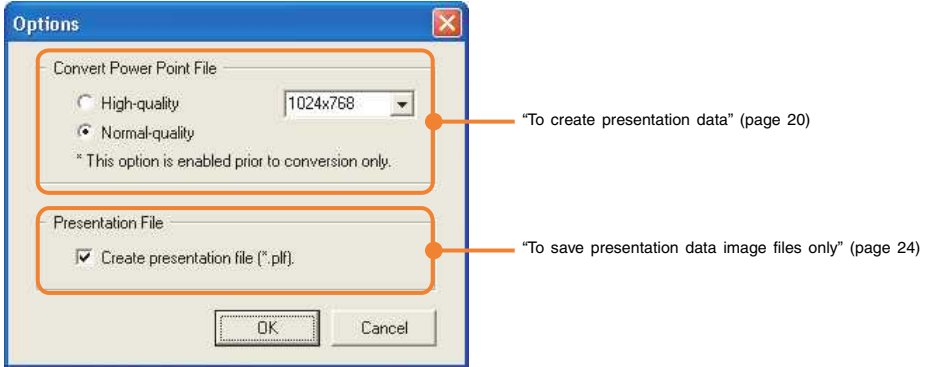
---

In order to create a presentation file when you perform a save operation, display the Options dialog box and select the check box next to "Create presentation file (\*.plf)."















## Option Settings

Selecting [Tools] - [Options] on the EZ-Converter 1.1 window will display an Options dialog box, which you can use to configure the settings of various operations. Refer to the sections of this manual shown below for details about the settings you can configure on the Options dialog box.



## EZ-Converter 1.1 Menu and Button Reference

This section provides detailed information about the EZ-Converter 1.1 menu commands and about the buttons that appear on the EZ-Converter 1.1 window.

To do this:	Perform this menu operation:	Or click this button:
Convert a PowerPoint file to presentation data and display it in the EZ-Converter 1.1 window	[File] - [Convert PowerPoint File]	
Clear presentation data currently in the EZ-Converter 1.1 window	[File] - [Clear Presentation File]	
Open an existing presentation (plf) file and display its contents in the EZ-Converter 1.1 window	[File] - [Open Presentation File]	
Save the presentation data currently in the EZ-Converter 1.1 window to an existing file, which overwrites the current contents of the existing file	[File] - [Save Presentation File]	
Save the presentation data currently in the EZ-Converter 1.1 window to a new file	[File] - [Save Presentation File As]	
Save the presentation data currently in the EZ-Converter 1.1 window under a different name	[File] - [Save Presentation File As]	
Exit EZ-Converter 1.1	[File] - [Exit]	–
Undo the last editing operation you performed on the EZ-Converter 1.1 window	[Edit] - [Undo]	–
Add an image file to the presentation data currently in the EZ-Converter 1.1 window	[Edit] - [Add Image to Presentation File]	
Delete an image file from the presentation data currently in the EZ-Converter 1.1 window	[Edit] - [Delete Image from Presentation File]	
Move an image file in the presentation data currently in the EZ-Converter 1.1 window one position to the left (towards the beginning)	[Edit] - [Move Image Back]	
Move an image file in the presentation data currently in the EZ-Converter 1.1 window one position to the right (towards the end)	[Edit] - [Move Image Forward]	
Configure playback settings of the presentation data currently in the EZ-Converter 1.1 window	[Tools] - [Presentation File Setup]	
Convert all presentation data image files (or the selected image file) in the presentation data currently in the EZ-Converter 1.1 window to monochrome negative	[Tools] - [Monochrome Negative]	
Configure EZ-Converter 1.1 options	[Tools] - [Options]	–
Display EZ-Converter 1.1 help	[Help] - [Help]	–
Display EZ-Converter 1.1 version information	[Help] - [About EZ-Converter 1.1...]	–

## Playing a Presentation with Viewer

Viewer is a Data Projector built-in application for playing back image and movie files that are stored on a memory device that is currently loaded via the Data Projector's USB port (USB memory device, memory card loaded in a USB card reader, etc.)

Viewer starts up automatically when a supported USB memory device is plugged into the Data Projector USB port, or when a memory card is loaded into a USB card reader that is connected to the Data Projector's USB port.



### Note

---

- All of the operations in this section are performed using the Data Projector's remote controller keys or the Data Projector's keys.
- For details about USB memory devices, see "Supported USB Memory Devices" (page 13).

## To connect a USB memory device to the Data Projector

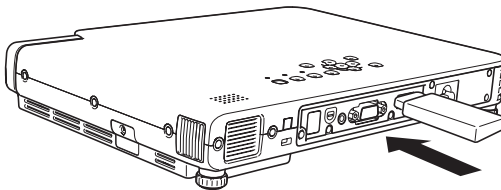
### 1

#### Turn on the Data Projector.

- Wait until the Data Projector's POWER/STANDBY indicator is lit green.

### 2

#### Plug the USB memory device that contains the data you want to project with Viewer into the Data Projector's USB port.



- After the Data Projector detects the USB memory device, it will start up Viewer automatically and display a menu of files (page 30) or menu of drives (page 29) on the USB memory device.



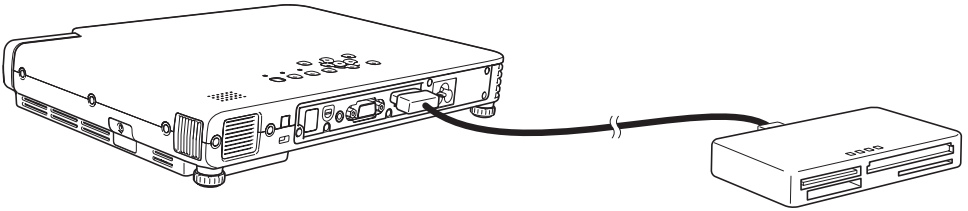
### Note

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- Viewer will not start up automatically if the Data Projector's plug-and-play feature is turned off. In this case, you will need to press the [INPUT] key to switch the input source to the USB memory device. For more details about the plug-and-play setting, see "Setup Menu Contents" in the User's Guide.
- Only files of formats that are recognized by the Data Projector (jpg, jpeg, jpe, bmp, avi, mp4) appear in the file menu. Note that even if a file appears in the file menu, it does not mean that the file can be displayed or played back by the Data Projector.
- The file menu displays USB memory device contents in the following sequence: folders, movie files, image files. For details about how to play back a movie file, see "Using Viewer to Play a Movie" (page 39).

# Connecting a USB Card Reader to the Data Projector

- 1 Turn on the Data Projector.**
  - Wait until the Data Projector's POWER/STANDBY indicator is lit green.
- 2 Connect the USB card reader to the Data Projector USB port.**



- 3 Load the memory card that contains the data you want to project with Viewer into the card slot of the USB card reader.**
  - For details about how to load a memory card into the USB card reader, see the user documentation that comes with the reader.
  - After the Data Projector detects the loaded memory card, it will start up Viewer automatically and display a menu of files (page 30) or menu of drives (page 29) on the memory card.



## Note

---

- Viewer will not start up automatically if the Data Projector's plug-and-play feature is turned off. In this case, you will need to press the [INPUT] key to switch the input source to the memory card. For more details about the plug-and-play setting, see "Setup Menu Contents" in the User's Guide.
- Only files of formats that are recognized by the Data Projector (jpg, jpeg, jpe, bmp, avi, mp4) appear in the file menu. Note that even if a file appears in the file menu, it does not mean that the file can be displayed or played back by the Data Projector.
- The file menu displays USB memory device contents in the following sequence: folders, movie files, image files. For details about how to play back a movie file, see "Using Viewer to Play a Movie" (page 39).

## Drive Menu Operations

If the USB memory device or memory card has multiple drives, a menu of drives will appear when Viewer starts up. There are two different views for the drive menu: an icon view and a tree view.



Icon View



Tree View



### Note

All detected drives are displayed with a USB memory device icon, regardless of the media type (USB memory device or any type of memory card).

### To view the files on a particular drive

- 1 Use the cursor keys to move the highlighting to the drive whose files you want to view.
- 2 Press the [ENTER] key.
  - This will display the files in the root directory of the drive you selected.

### To switch between the icon view and the tree view

Press the [O] key.

### To update the drive menu with the latest information

Press the [Δ] key.

## File Menu Operations

There are two different views for the file menu: a thumbnail view and a tree view.



Thumbnail View



Tree View

### Thumbnail View

This view shows thumbnails of the image files and movie files contained on the USB memory device or memory card. Folders are shown as icons.



### Note

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A question mark (?) in place of a thumbnail indicates an image file that cannot be displayed by Viewer for some reason.

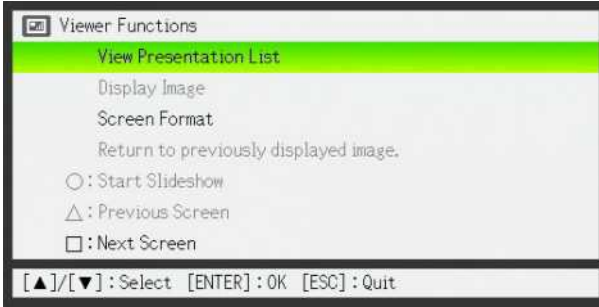
### Tree View

This view shows a Windows Explorer type tree representation of the folders, image files, and movie files on the USB memory device or memory card.

## To switch between the thumbnail view and the tree view

### 1 Press the [FUNC] key.

- This displays the Viewer function menu shown below.



### 2 Use the [▼] key to move the highlighting to "Screen Format" and then press the [ENTER] key.

- This toggles between the thumbnail view and the tree view.

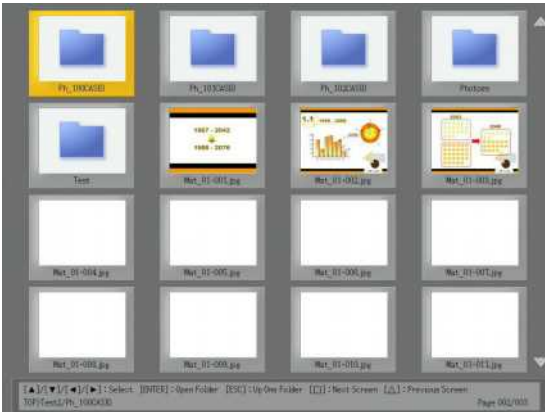
## To scroll file menu pages

To scroll to the next menu page press the [□] key. To scroll back to the previous page, press the [△] key.



### Note

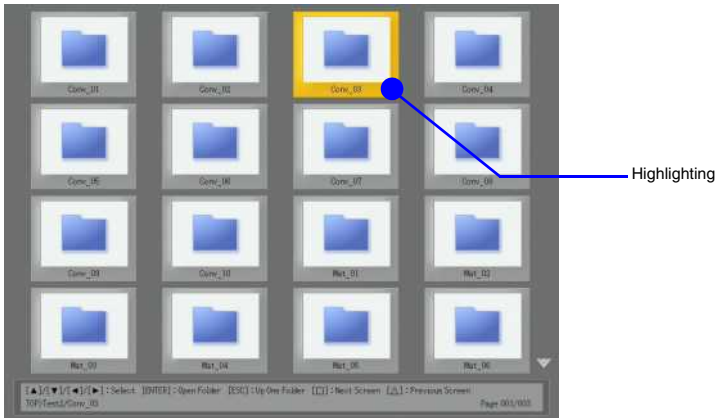
Arrow indicators appear on right side of the file menu to indicate that there are more files above (▲) or below (▼) the current screen. Press the [□] key to scroll down when ▼ is indicated, or [△] key when ▲ is indicated.



## To select a file or a folder

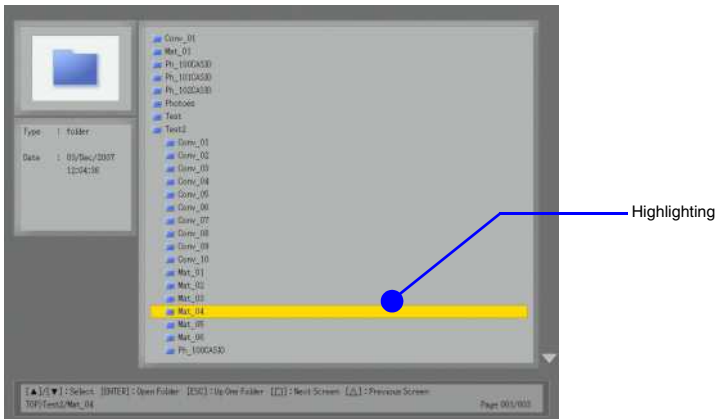
### Thumbnail View

Use the cursor keys to move the highlighting to the file or folder you want to select.



### Tree View

Use the [▲] and [▼] cursor keys to move the highlighting to the file or folder you want to select.





## To open a folder

- 1 Use the cursor keys to select the file you want to open.
- 2 Press the [ENTER] key.
  - This opens the selected folder and displays a menu of its contents.
  - With the tree view, you could also press the [▶] key instead of the [ENTER] key.

## To close the current folder and move up to the next level

### Thumbnail View

Press the [ESC] key.

### Tree View

Press the [ESC] key or the [◀] key. This will collapse the folder where the highlighting is currently located and move the highlighting to the next higher level.

## To select a file menu item and display its image

- 1 Use the cursor keys to select the file whose image you want to display.
- 2 Press the [ENTER] key.
  - This will display a full-size version of the image that fills the projection area.
- 3 To return to the file menu, press the [ESC] key.



---

### Note

- If the selected file is too large to fit within the projection area, the message “Cannot display an image file.” will appear.
- For information about operations you can perform while the image of a file is being projected, see “Operations during Image File Content Projection” (page 37).

## To start a slideshow from a particular image file

- 1 Use the cursor keys to select the file whose image from which you want to start the slideshow.
- 2 Press the [○] key.
  - This will display a full-size version of the image that fills the projection area. Now the Data Projector will advance to the next image automatically at a regular interval (default: 5 seconds).
  - If “Manual” is selected for the “Image Switching” setting, the image will not change automatically. In this case, press the [▶] key to advance to the next image.
- 3 To stop the slideshow and return to the file menu, press the [ESC] key.



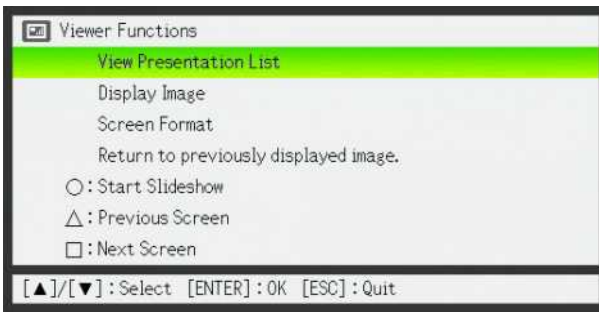
## Note

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- A slideshow displays the image files (jpg or bmp) that are included in the same folder as the image file you select in step 1 of the above procedure. All other files are ignored.
- For details about operations you can perform during a slideshow, see “Operations during a Slideshow” (page 38).
- For information about how you can specify the interval between images, image transition effects, and other playback settings, see “Configuring Viewer Setup Menu Settings” (page 41).
- A slideshow that uses presentation data created with EZ-Converter 1.1 will be played back in accordance with the playback settings included in the presentation data. For details, see “To configure presentation data playback settings” (page 22).

## To move the highlighting to the previously projected image file

- 1** While the thumbnail view or tree view is being projected, press the [FUNC] key.
  - This will display the Viewer function menu.



- 2** Use the [▼] key to move the highlighting to “Return to previously displayed image.” and then press the [ENTER] key.

- This returns to the image file that was projected immediately before the last projected file.



## Note

---

This function comes in handy in the following cases.

- To return the highlighting to the last projected image file after projecting a movie file.
- To return the highlighting to the image where a slideshow was paused in order to project a movie file.

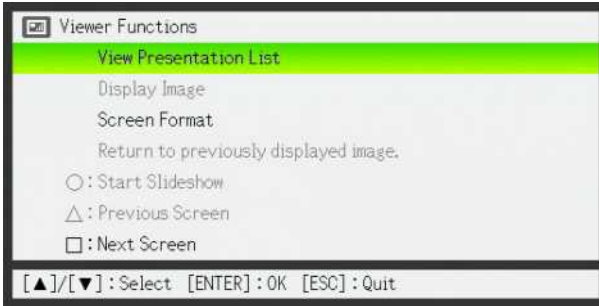
# Using the Presentation Menu

The folder that contains the presentation file created using the EZ-Converter 1.1 software (page 19) that comes bundled with the Data Projector is called a “presentation folder”. Presentation folders appear along with other folders on the Viewer file menu, and they are indistinguishable from other folders. Because of this, Viewer also provides a “presentation menu” that makes it easy to find all of the presentation folders that are included on a USB memory device or memory card.

## To view the presentation menu

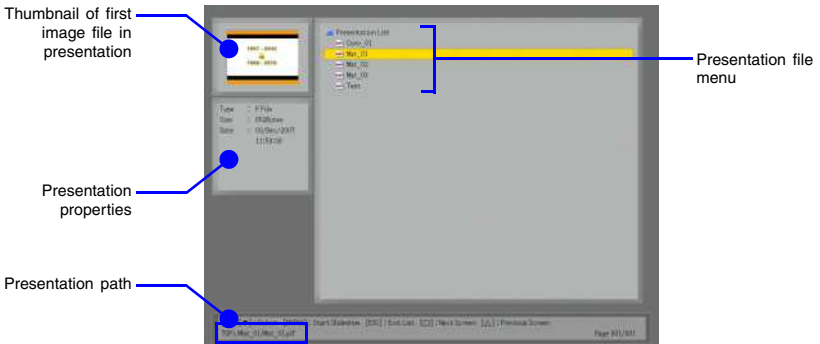
### 1 While the Viewer file menu is shown, press the [FUNC] key.

- This displays the Viewer function menu shown below.



### 2 Check to make sure that “View Presentation List” is selected and then press the [ENTER] key.

- This displays a presentation menu like the one shown below.



## To perform a slideshow by running a presentation file

- 1** Use the [▼] and [▲] keys to move the highlighting to the presentation file you want to run.
- 2** Press the [ENTER] key or the [○] key.
  - This will start the currently selected presentation file.
  - The image file sequence, display time for each image, and image transition effect will all be in accordance with the settings stored in the presentation file. For more information, see “To configure presentation data playback settings” on page 22.
- 3** To stop the slideshow, press the [ESC] key.



---

### Note

- The file menu (not the presentation menu) will reappear after the slideshow stops when you press the [ESC] key or after it stops automatically.
- For details about operations you can perform during a slideshow, see “Operations during a Slideshow” (page 38).

## To return to the file menu from the presentation menu

Press the [ESC] key.

# Operations during Image File Content Projection

## To scroll between image files

Use the [▶] and [◀] keys.

To do this:	Press this key:
Display the content of the next image file	[▶]
Display the content of the previous image file	[◀]



### Note

Scrolling to a file that is too large to fit within the projection area will cause the message “Cannot display an image file.” to appear.

## To rotate an image

Use the [▲] and [▼] keys.

To do this:	Press this key:
Rotate the image 90 degrees right	[▲]
Rotate the image 90 degrees left	[▼]



### Note

You can also rotate an image by pressing the [FUNC] key to display the Viewer function menu. Move the highlighting to “Rotate Right” or “Rotate Left” and then press the [ENTER] key.



## To start a slideshow from the currently displayed image file content

Press the [○] key.



### Note

You can also start a slideshow from the currently displayed image file content by pressing the [FUNC] key to display the Viewer function menu. Move the highlighting to “Start Slideshow” and then press the [ENTER] key.

## To return to the file menu from image file content

Press the [ESC] key.

# Operations during a Slideshow

## To pause a slideshow while auto image change is turned on

Press the [□] key.

## To unpause a slideshow while auto image change is turned on

Press the [○] key.

## To scroll between image files during a slideshow

Use the cursor keys.

To do this:	Press this key:
Scroll to the content of the next image file	[▶]
Scroll to the content of the previous image file	[◀]



### Note

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After scrolling to an image file, the slideshow will scroll to the next image file automatically after the preset time interval if “Auto” is selected for the “Image Switching” setting. Note, however, that this is not true while the slideshow is paused.

## To stop a slideshow and return to the file menu

Press the [ESC] key.

## Slideshow Start Error

The error message shown below may appear when you attempt to start a slideshow using one of the procedures under “To start a slideshow from a particular image file” (page 33), “To perform a slideshow by running a presentation file” (page 36), or “To start a slideshow from the currently displayed image file content” (page 37).

There is a problem with the slideshow setup file. Cannot start the slideshow.

If this happens, use EZ-Converter 1.1 to create a new presentation file and store it on the USB memory device or memory card. Next, use the new presentation file to run the slideshow.

## Using Viewer to Play a Movie

This section explains procedures you can use to play a movie using Viewer.



### Note

---

For details about movie files whose playback is supported, see “Supported Playback Data Types” (page 14).

### To play a movie file

- 1 On the file menu, select the movie file you want to play.**
  - For information about how to select a particular file on the file menu, see “To select a file or a folder” (page 32).
- 2 Press the [ENTER] key.**
  - This will start playback of the selected movie file.
  - If the movie includes audio of a format that is supported by the Data Projector, the audio will be played back with the video.
- 3 To stop movie playback and return to the file menu, press the [ESC] key.**



### Note

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- Pressing the [ENTER] key while a file whose playback is not supported by the Data Projector is selected will cause the error message “This movie file cannot be played back.” to appear.
- To output audio to an external speaker, use commercially available audio cable to connect the speaker to the AV terminal of the Data Projector. On the “Option Settings 2” of the “Setup” menu, select “Line” for the “USB Audio Out” setting.
- Never connect earphones or headphones to the Data Projector AV terminal.

## Operations during Movie File Playback

You can perform the operations described below during movie file playback.

To do this:	Perform this operation:
Pause movie playback	Press the [ENTER] key. To restart movie playback after it has been pause, press the [ENTER] key again.
Fast reverse	Press the [◀] key.
Fast forward	Press the [▶] key.
Stop movie playback	Press the [ESC] key.
Jump to the beginning of the currently playing movie file and pause there	1. Press the [FUNC] key to display the viewer function menu. ● “Jump to Beginning” should be selected by default. 2. Press the [ENTER] key.
Jump to the end of the currently playing movie file and pause there	1. Press the [FUNC] key to display the viewer function menu. 2. Use the [▼] key to move the highlighting to “Jump to End” and then press the [ENTER] key.
Skip to the beginning of the next movie file (on the file menu) and play it	1. Press the [FUNC] key to display the viewer function menu. 2. Use the [▼] key to move the highlighting to “Skip to Next Movie” and then press the [ENTER] key.
Skip to the beginning of the previous movie file (on the file menu) and play it	1. Press the [FUNC] key to display the viewer function menu. 2. Use the [▼] key to move the highlighting to “Skip to Previous Movie” and then press the [ENTER] key.
Turn display of the playback time on and off	Press the [○] key or perform the following steps. 1. Press the [FUNC] key to display the viewer function menu. 2. Use the [▼] key to move the highlighting to “Time Indicator On/Off” and then press the [ENTER] key.



### Note

Pressing the [FUNC] key during movie playback will pause playback and display the Viewer function menu. Playback will resume when you press the [ESC] key to close the Viewer function menu.



# Configuring Viewer Setup Menu Settings



## Note

- When you perform a slideshow by running a presentation file created with EZ-Converter 1.1, the slideshow settings on the Viewer setup menu (Image Switching, Slideshow Display Interval, Slideshow Transition Effect, and Slideshow Repeat) are changed automatically to the playback settings (page 22) saved in the presentation file you are running.
- When you want to perform a slideshow of saved image data using EZ-Converter 1.1 in accordance with the Viewer setup menu settings, save the image files only without creating a setup file (\*.plf) with EZ-Converter 1.1. For details, see “To save presentation data image files only” (page 24).

## To configure Viewer setup menu settings

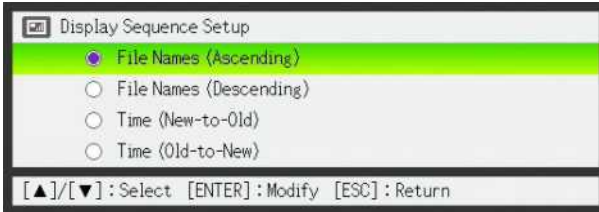
- 1** Press the [MENU] key to display the setup menu.
- 2** Press the [▼] key to move the highlighting to “USB” and then press the [ENTER] key.
- 3** Press the [▼] key once to move the highlighting to “Setup” and then press the [ENTER] key.
  - This will display the Viewer setup menu.
- 4** Use [▼] and [▲] to select the menu item whose setting you want to change.

**5** What you should do next depends on whether or not [ENTER] is displayed at the far right of the setting you are configuring (the one that is highlighted).

**If [ENTER] is displayed:**

- a. Press the [ENTER] key.
- b. On the submenu that appears, use [▼] and [▲] to move the highlighting to the setting you want to select.

Example: The following is the submenu that appears when “Display Sequence Setup” is selected in step 2, above.



- c. Press the [ENTER] key.
- d. To return to the Viewer setup menu, press the [ESC] key.

**If [ENTER] is not displayed:**

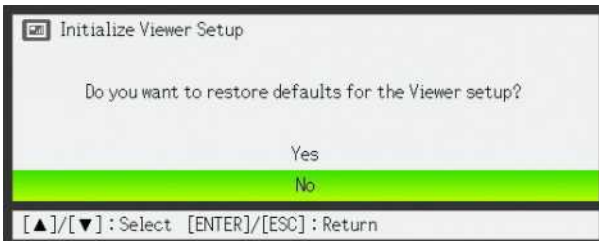
Press the [◀] or [▶] key to select the setting you want (so its button is ●).

**6** Repeat steps 4 and 5 to configure other settings, if you want.

**7** After all the settings are the way you want, press the [MENU] key to exit the Viewer setup menu.

**To restore all settings on the Viewer setup menu to their initial factory defaults**

- 1** Press the [MENU] key to display the setup menu.
- 2** Press the [▼] key to move the highlighting to “USB” and then press the [ENTER] key.
- 3** Press the [▼] key once to move the highlighting to “Setup” and then press the [ENTER] key.
  - This will display the Viewer setup menu.
- 4** Press the [▼] key to move the highlighting to “Initialize Viewer Setup” and then press the [ENTER] key.
  - This displays the dialog box shown below.



- 5** Use the [▲] key to select “Yes”.
- 6** To restore all the settings to their initial defaults, press the [ENTER] key.
  - To exit the operation without doing anything, press [ESC] instead of [ENTER].
- 7** To exit the Viewer setup menu, press the [ESC] key.


## Viewer Setup Menu Contents

This section provides detailed explanations of all of the items included on the Viewer setup menu. The initial default setting for each item is indicated by an asterisk (\*).

Setting Name	Description
Image Zoom	In the case of image sizes other than XGA, specifies whether or not to enlarge or reduce (zoom) images to fit the projection area. <b>Zoom*:</b> Turns on image zooming. <b>No Zoom:</b> Turns off image zooming.
Display Sequence Setup	Specifies the sequence of images in the file menu or presentation menu. <b>File Names (Ascending)*:</b> Displays files in file name ascending order. <b>File Names (Descending):</b> Displays files in file name descending order. <b>Time (New-to-Old):</b> Displays files by the time they were last modified, from the newest to the oldest. <b>Time (Old-to-New):</b> Displays files by the time they were last modified, from the oldest to the newest.
Startup Mode	Specifies whether the initial view when Viewer is started up is the thumbnail view or tree view. See “File Menu Operations” (page 30) for more information. <b>Thumbnails*:</b> Specifies thumbnail view. <b>Tree:</b> Specifies tree view.
Image Switching	Specifies the slideshow image change method. <b>Manual*:</b> Specifies manual image change. <b>Auto:</b> Specifies auto image change.
Slideshow Display Interval	Specifies how long each image will remain displayed during a slideshow. <b>5 seconds*, 10 seconds, 30 seconds, 1 minute, 5 minutes</b>
Slideshow Transition Effect	Specifies the image transition effect to be used during a slideshow. <b>Off, Slide In - Left to Right*, Slide In - Right to Left, Slide In - Top to Bottom, Slide In - Bottom to Top, Wipe - Left to Right, Wipe - Right to Left, Wipe - Top to Bottom, Wipe - Bottom to Top, Dissolve</b>

Setting Name	Description
Slideshow Repeat	<p>Specifies whether or not slideshows and movie file playback should repeat when the end it reached.</p> <p><b>On:</b> Slideshows and movie playback are repeated.</p> <p><b>Off*:</b> Slideshows and movie playback are not repeated.</p>
Movie Display	<p>Specifies the display size during movie playback.</p> <p><b>Zoom*:</b> Enlarges to the size of the projection area.</p> <p><b>No Zoom:</b> Specifies the original size of the movie file.</p>
Initialize Viewer Setup	<p>Returns all Viewer setting menu items to their initial default settings. For details, see "To restore all settings on the Viewer setup menu to their initial factory defaults" on page 42.</p>

# Viewer Error Messages

Message	Cause	Required Action
There is a problem with the slideshow setup file. Cannot start the slideshow.	There is some problem with the presentation file created with EZ-Converter 1.1.	Use EZ-Converter 1.1 to regenerate the entire set of presentation data (presentation file and image files) and save the new data to the USB memory device or memory card.
Folder does not contain any image files.	There is no displayable folder, image file, or movie file in the folder you are trying to access with Viewer.	<ul style="list-style-type: none"> <li>● Use EZ-Converter 1.1 to generate presentation data and save it to the USB memory device or memory card.</li> <li>● Copy image files or movie files from your computer to the folder on the USB memory device or memory card.</li> </ul>
Cannot display an image file.	The image file cannot be displayed because it is too large to display within the projection area or because there is something wrong with it.	<p>Make sure the image files on the USB memory device or memory card are no larger than 6 Mbytes.</p> <p> <b>Important!</b> _____ Progressive JPEG image files are not supported.</p>
Could not find an image file.	One or more image files that were saved as presentation data cannot be found.	Use EZ-Converter 1.1 to regenerate the entire set of presentation data (presentation file and image files) and save the new data to the USB memory device or memory card.
This movie file cannot be played back.	The file you are trying to play back is an unsupported format or there is something wrong with it.	<ul style="list-style-type: none"> <li>● Convert the unsupported file to a file format that is supported and copy it to the USB memory device or memory card.</li> <li>● Copy a movie file that is a format supported by Viewer to the USB memory device or memory card.</li> </ul>

# Viewer Troubleshooting

## **Some folders and/or files are not displayed in the file menu**

- All the folders and/or files contained in a folder will not be displayed if there are more than 999 folders and/or files inside the folder. If this happens, reduce the number of folders and/or files in the folder.
- Viewer supports up to 10 folder nesting levels on a USB memory device or memory card. Anything past the 10th nested folder is not displayed by Viewer.

## **How can I get images to appear more quickly?**

When you select a BMP image or a large image file recorded with a digital camera on the Viewer's image menu, it takes considerable time before the image appears. To ensure that images appear quickly during your presentation, use EZ-Converter 1.1 to convert the images to presentation data. This will cause images to be converted to JPEG images, which appear on the display more quickly.

## **I am having a hard time getting the results I want when playing a slideshow.**

- Use EZ-Converter 1.1 to convert the images you want to use in the slideshow to presentation data.
- In order to start a slideshow by highlighting an image file in a folder that is not a presentation data folder, you first need to use the Viewer Setup menu to configure slideshow settings (Slideshow Display Interval, Slideshow Transition Effect, Image Switching, Slideshow Repeat).

This section explains how to connect the CASIO YC-400/YC-430 Multi PJ Camera System (document camera) to the Data Projector in order to project the images of documents placed on the document stage of the document camera. The Data Projector's built-in application named YC Camera is used to project document images.



## Important!

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A YC-400 document camera can be connected to the Data Projector only if the camera is running firmware version 1.1 or higher. For information about checking the firmware version of your YC-400 document camera, visit the CASIO website at: [http://world.casio.com/projector/download/en/yc\\_400\\_firmup/](http://world.casio.com/projector/download/en/yc_400_firmup/)

## YC Camera Application Function and Operation Overview

YC Camera is an application built into the Data Projector that makes it possible to control the YC-400/YC-430 document camera from the Data Projector. With the YC Camera application you can project the image of documents placed on the document stage of the document camera. Connecting the document camera to the Data Projector's USB port and turning on the document camera will cause the YC Camera application to start up automatically.

## Connecting the Document Camera to the Data Projector

This section provides the basic steps you need to perform in order to connect the document camera to the Data Projector and project the image of documents placed onto the document camera's document stage.



## Important!

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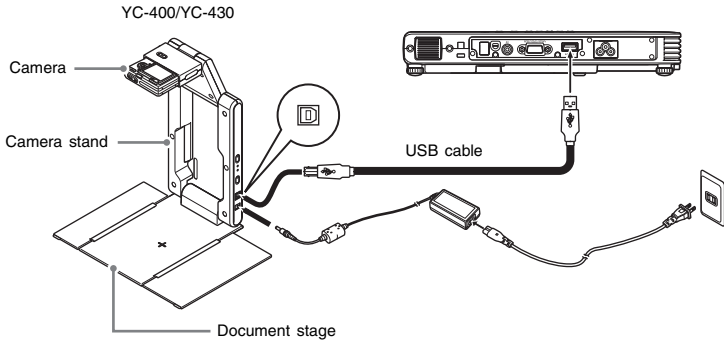
- The procedure below assumes that the Data Projector's plug-and-play feature is turned on (which is the initial default setting). If you have turned off plug-and-play, turn it back on before performing the procedure below. For more details about the plug-and-play setting, see "Setup Menu Contents" in the User's Guide.
- The resolution of recorded images is fixed at 4 megapixels when a YC-400/YC-430 Document Camera is connected to the Data Projector. The resolution setting cannot be changed in this case.

## To connect the document camera to the Data Projector and project the image of a document

### 1 Turn on the Data Projector.

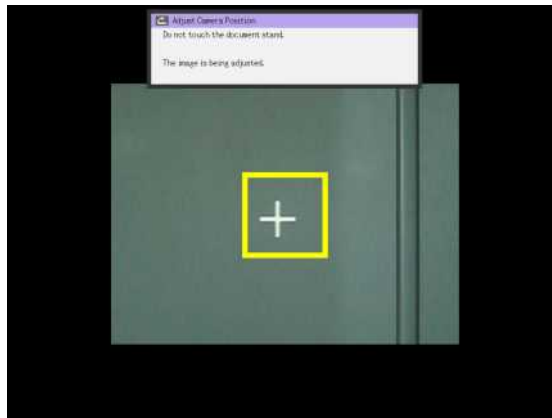
- Wait until the Data Projector's POWER/STANDBY indicator is lit green.

### 2 Connect the document camera to the Data Projector using the USB cable that comes bundled with the document camera.



### 3 With nothing on the document stage, press the [⏻] (power) button on the camera stand.

- This will turn on the document camera, which will cause its lens to extend.
- The Data Projector will recognize the document camera and start up the YC Camera application automatically. When the YC Camera application starts up, the Data Projector will project an image of the document stage along with a dialog box for adjusting the document camera position.

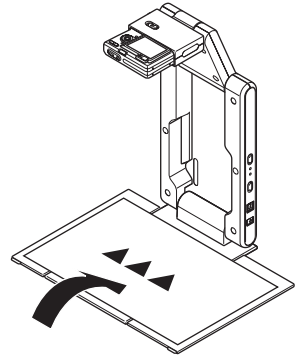
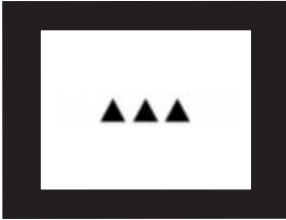


- If the document camera is positioned correctly, position adjustment will end automatically and the dialog box will close. At this time the monitor screen (the image being picked up by the document camera) will be projected.
- If the document camera is not positioned correctly, a message prompting you to adjust the document camera position will appear. Follow the instructions shown in the message to adjust the document camera position.



#### 4 Place the document whose image you want to project onto the document camera's document stage.

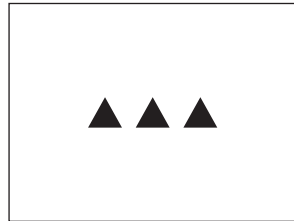
- Be sure to place the document in the center of the stage, and do not let any part of the document extend off the edges of the stage.
- When placing a landscape orientation document onto the document stage, the top of the page should face towards the camera stand.
- Initially the monitor image will be projected, and so the image will appear a bit fuzzy.



- When the document camera senses that the document on the stage is not being moved, it will record its image and switch from the fuzzy monitor image to a high-resolution image (recorded image) automatically.



Rough (Monitor) Image



Recorded Image

#### 5 Now you can replace the document currently on the stage with another one.

- This will switch to the recorded image of the next document automatically.



#### Note

Step 5 above is what happens while the Data Projector's YC Camera application is configured with its initial default settings. The recorded image will not switch automatically if you have changed the "Operation Mode" setting of the YC Camera application to "Manual Capture". For more information, see "YC Camera Application Setup Menu Contents" on page 57.

# YC Camera Application Operations

This section explains the various types of projection operations you can perform with the YC Camera application and how to configure YC Camera application settings.



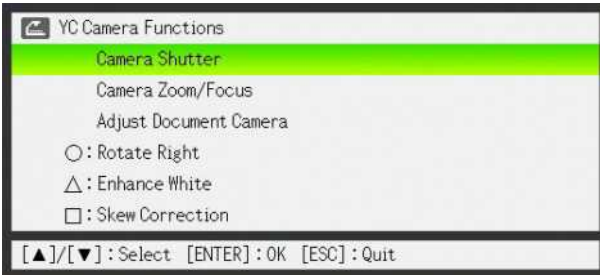
## Important!

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The procedures in this section assume that you have already connected the Document Camera to the Data Projector as explained under “Connecting the Document Camera to the Data Projector” (page 47), and that the Data Projector’s YC Camera application is running.

## YC Camera Application Projection Operations

The operations in this section are performed using the YC Camera function menu, which appears when you press the [FUNC] key while the YC Camera application is running.



Some operations can be performed using the remote controller’s [○], [△], and [□] keys.

### To release the document camera shutter manually

- 1 Press the [FUNC] key to display the YC Camera application function menu.**
  - The “Camera Shutter” item should be highlighted by default.
- 2 Press the [ENTER] key to release the document camera shutter.**
  - This will cause the image recorded with the document camera to be projected.



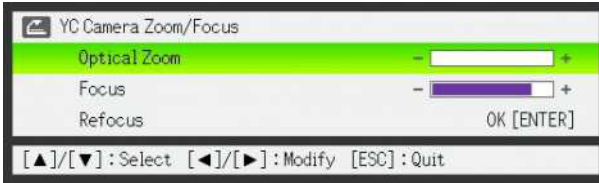
## Note

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While a rough monitor image or recorded image is projected, you can release the shutter manually by pressing the [ENTER] key, without pressing the [FUNC] key.

## To adjust the document camera's zoom setting

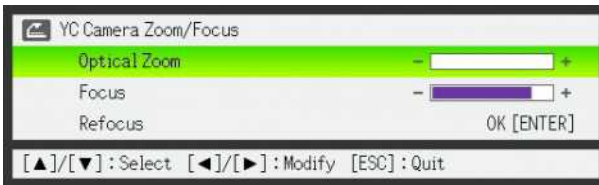
- 1 Press the [FUNC] key to display the YC Camera application function menu.
- 2 Use the [▼] key to move the highlighting to “Camera Zoom/Focus” and then press the [ENTER] key.
  - This causes the YC Camera Zoom/Focus dialog box to appear in the projection area. The “Optical Zoom” item should be highlighted by default.



- 3 Use the [▶] and [◀] keys to adjust the document camera's zoom setting.
- 4 After the zoom setting is the way you want, press the [ESC] key.
  - This will close the YC Camera Zoom/Focus dialog box.

## To adjust document focus manually

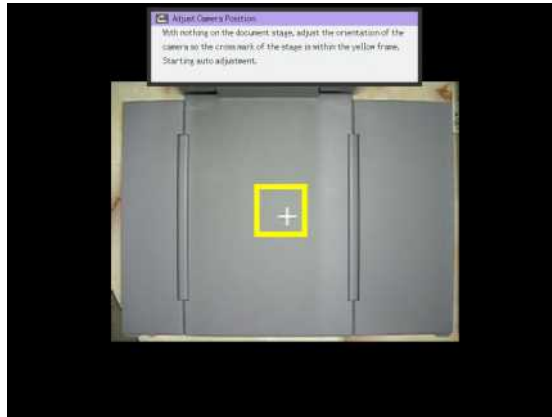
- 1 Press the [FUNC] key to display the YC Camera application function menu.
- 2 Use the [▼] key to move the highlighting to “Camera Zoom/Focus” and then press the [ENTER] key.
  - This causes the YC Camera Zoom/Focus dialog box to appear in the projection area.



- 3 Press the [▼] key to move the highlighting to “Focus”.
- 4 Use the [▶] and [◀] keys to adjust the document camera's focus.
- 5 After the focus is the way you want, press the [ESC] key.
  - This will close the YC Camera Zoom/Focus dialog box.

## To adjust the camera position

- 1 Remove all documents and objects from the document stage.
- 2 Press the [FUNC] key to display the YC Camera application function menu.
- 3 Use the [▼] key to move the highlighting to “Adjust Camera Position” and then press the [ENTER] key.
  - This displays the camera position adjustment dialog box.
- 4 Point the document camera downwards so the lens is pointed towards the document stage.
  - Aim the camera as instructed by the text that appears in the projection area.



- When the document camera is positioned correctly, position adjustment will end and the dialog box will close. At this time the monitor screen (the image being picked up by the document camera) will be projected.

## To rotate the currently projected image



### Note

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This operation will affect only the image that is currently being projected. The projection image produced the next time you release the shutter will be projected in accordance with the settings on the YC Camera Application Setup Menu (page 55).

- 1 Press the [FUNC] key to display the YC Camera application function menu.**
- 2 Use the [▼] key to move the highlighting to “Rotate Right” and then press the [ENTER] key.**
  - This will rotate the projected image 90 degrees to the right.
  - Instead of steps 1 and 2 above, you can also rotate the projected image by pressing the [○] key.

## To perform white enhancement on the currently projected image



### Note

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- White enhancement causes the background of the projected image to be white enhanced, which helps to make the text on a document easier to read.
- This operation will affect only the image that is currently being projected. The projection image produced the next time you release the shutter will be projected in accordance with the settings on the YC Camera Application Setup Menu (page 55).



### Important!

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You can perform white balance only on a projected image that has been skew corrected. For more information, see the note under “To perform manual skew correction on the currently projected image” (page 54).

- 1 Press the [FUNC] key to display the YC Camera application function menu.**
- 2 Use the [▼] key to move the highlighting to “Enhance White” and then press the [ENTER] key.**
  - This will enhance the white of the projected image.
  - Instead of steps 1 and 2 above, you can also white enhance the projected image by pressing the [△] key.

## To perform manual skew correction on the currently projected image



### Note

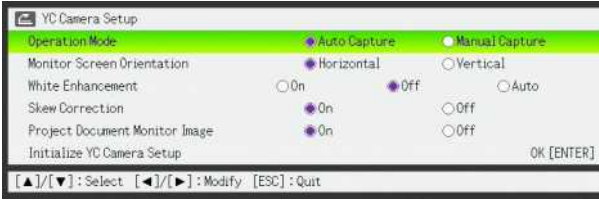
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- Skew correction automatically straightens the image of a document that is misaligned on the document stage of the document camera. Under its initial defaults, the YC Camera application is configured to perform skew correction automatically. You can also turn off auto skew correction. If you do, you can use the following procedure to adjust image alignment manually.
- This operation will affect only the image that is currently being projected. The projection image produced the next time you release the shutter will be projected in accordance with the settings on the YC Camera Application Setup Menu (page 55).

- 1 Press the [FUNC] key to display the YC Camera application function menu.**
- 2 Use the [▼] key to move the highlighting to “Skew Correction” and then press the [ENTER] key.**
  - This will straighten the projected image.
  - Instead of steps 1 and 2 above, you can also perform skew correction of the projected image by pressing the [□] key.

# Configuring YC Camera Application Setup Menu Settings

You can use the YC Camera setup menu to configure various YC Camera application operation settings.



## To configure YC Camera application setup menu settings

- 1 Press the [MENU] key to display the setup menu.
- 2 Press the [▼] key to move the highlighting to “USB” and then press the [ENTER] key.
- 3 Press the [▼] key once to move the highlighting to “Setup” and then press the [ENTER] key.
  - This will display the YC Camera application setup menu.
- 4 Use [▼] and [▲] to select the menu item whose setting you want to change.
- 5 Press the [◀] or [▶] key to select the setting you want (so its button is ●).
- 6 Repeat steps 4 and 5 to configure other settings, if you want.
- 7 After you are finished, press the [ESC] key to exit the setup menu.

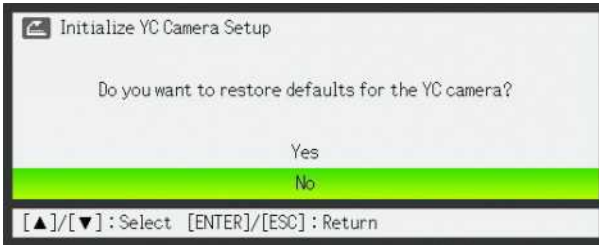


### Note

Anytime you change the “White Enhancement” or “Skew Correction” setting, the new setting goes into effect from the next image you record with the document camera after exiting the setup menu. Other settings go into effect as soon as you exit the setup menu.

**To restore all settings on the YC Camera application setup menu to their initial factory defaults**

- 1** Press the [MENU] key to display the setup menu.
- 2** Press the [▼] key to move the highlighting to “USB” and then press the [ENTER] key.
- 3** Press the [▼] key once to move the highlighting to “Setup” and then press the [ENTER] key.
  - This will display the YC Camera application setup menu.
- 4** Press the [▼] key to move the highlighting to “Initialize YC Camera Setup” and then press the [ENTER] key.
  - This displays the dialog box shown below.

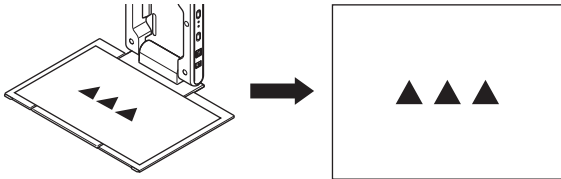
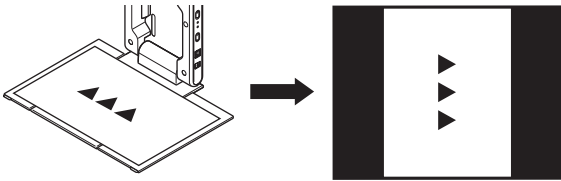



- 5** Use the [▲] key to select “Yes”.
- 6** To restore all the settings to their initial defaults, press the [ENTER] key.
  - To exit the operation without doing anything, press [ESC] instead of [ENTER].
- 7** After you are finished, press the [ESC] key to exit the setup menu.



## YC Camera Application Setup Menu Contents

This section provides detailed explanations of all of the items included on the YC Camera application setup menu. The initial default setting for each item is indicated by an asterisk (\*).

Setting Name	Description
Operation Mode	<p>Specifies whether recording of documents placed on the document stage of the document camera should be performed automatically or manually.</p> <p><b>Auto Capture*:</b> Automatically records the image of a document whenever it is placed on the document stage.</p> <p><b>Manual Capture:</b> Requires manual release of the shutter each time a document is placed on the document stage.</p>
Monitor Screen Orientation	<p>Switches the monitor screen orientation.</p> <p><b>Horizontal*:</b> Records the document on the document stage horizontally.</p>  <p><b>Vertical:</b> Records the document on the document stage vertically.</p> 
White Enhancement	<p>Specifies whether or not white enhancement should be performed on the projected image.</p> <p><b>Off*:</b> Turns off white enhancement.</p> <p><b>On:</b> Turns on white enhancement.</p> <p><b>Auto:</b> The decision whether or not to perform white enhancement is made automatically in accordance with the image being recorded.</p> <p> <b>Important!</b> _____ White enhancement cannot be performed while the "Skew Correction" setting is "Off".</p>

Setting Name	Description
Skew Correction	<p>Specifies whether or not skew correction should be performed automatically on the projected image.</p> <p><b>On*:</b> Turns on automatic skew correction.</p> <p><b>Off:</b> Turns off automatic skew correction.</p>
Project Document Monitor Image	<p>Specifies whether or not the camera's monitor image should be projected when a document is removed from the document stage.</p> <p><b>On*:</b> Displays the monitor image.</p> <p><b>Off:</b> Does not display the monitor image.</p>
Initialize YC Camera Setup	<p>Returns all YC Camera application setup menu items to their initial default settings. For details, see "To restore all settings on the YC Camera application setup menu to their initial factory defaults" on page 56.</p>

# Projecting the Screen Image of a Graphing Calculator

You can connect a CASIO graphing calculator to the Data Projector using a USB cable and project the calculator's screen image with the Data Projector. USB connection of the following CASIO graphing calculators is supported.

- fx-9860G Series

## To project the screen image of a graphing calculator

### 1 Set the graphing calculator up for data communication.

Enter the LINK Mode, and configure the "WakeUp" and "Capture" settings as shown below.

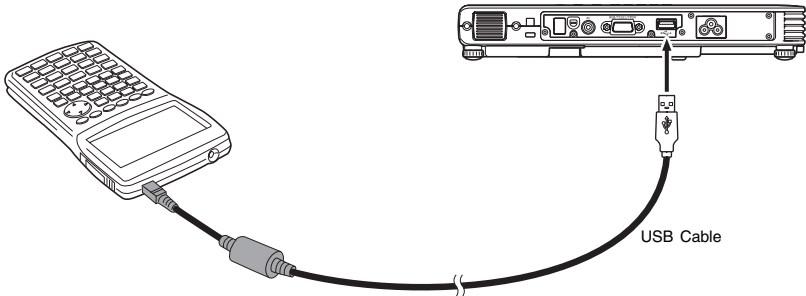


- Be sure to configure these communication settings before you connect the calculator to the Data Projector.
- See the user documentation that comes with your calculator for details about configuring these settings.

### 2 Turn on the Data Projector.

### 3 Use the USB cable that came with the graphing calculator to connect it to the Data Projector as illustrated below.

- This will project an image of the graphing calculator from the Data Projector.



\* The illustration shows the fx-9860G as an example.



## Important!

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- If an hourglass figure appears in the image projected from the Data Projector when you connect the calculator, perform some operation on the calculator. This should cause the hourglass to disappear and enable normal projection.
- If the calculator does not operate properly after you connect it to the Data Projector, try disconnecting the USB cable from the calculator and then reconnecting it. If this does not correct the problem, disconnect the USB cable from both the Data Projector and the calculator. Turn the Data Projector off and then back on again, and then reconnect the calculator.

**CASIO®**

**CASIO COMPUTER CO.,LTD.**  
6-2, Hon-machi 1-chome  
Shibuya-ku, Tokyo 151-8543, Japan