ELMO

Instruction Manual

Document Camera Controller Software

Image Mate

Please read this manual carefully before using Image Mate.

Contents

Introduction **4**
Welcome! 4
Notes 4
Before Use **5**
System Requirements 5
When Using a Computer Running Windows 5
When Using a Computer Running Mac OS X 6
Installing/Uninstalling and Setting Up 7
When Using a Computer Running Windows 7
When Using a Computer Running Mac OS X 7
Explanation of Screens and Buttons **8**
Main Window 8
Live Image Display Window 9
Image Display Window 11
Movie Display Window 13
AVI Files (For Windows/ Mac) 13
MP4 Files (For Windows) 14
Recording Tool Window 16
Document Camera Remote Control Window 17
Settings Window 18
Recording **20**
About Recording 20
Recording Using Normal Recording 20
Recording Using Long-Time Recording 21
Watching a Movie **22**
Playing a Movie 22
Viewing a Still Image **23**
Displaying a Still Image 23
Using the Drawing Tools **24**
Changing Pen Settings 24
Drawing a Figure 26
Deleting a Figure 27
Adjusting an Image 29
File Converter **31**
Using File Converter 31
Troubleshooting **32**
Reference **33**
Disclaimer 33

Trademarks 33
License 33
Acknowledgements and Copyrights 33

Introduction

Welcome!

Thank you very much for purchasing this Document Camera from ELMO Co., Ltd.
This instruction manual will guide you through using the Image Mate document camera controller software.
Please read this instruction manual carefully before using Image Mate.

Notes

- The sample screens shown in this manual may differ from those you see while using our software.
- When USB Mode is set to Mass Storage on this device, Image Mate will not operate correctly. Be sure to set the mode to Application Mode.
- For the latest instruction manual, installation manual, and firmware information, go to the ELMO web site.
- When using Image Mate, be sure to refer to the instruction manual supplied with the device.
- Depending on the OS, Image Mate may not display the correct fonts.

Before Use

System Requirements

Your computer must meet the following requirements to use the applications.

When Using a Computer Running Windows

Computer model	Hardware running a supported operating system
OS	Windows 7, Windows Vista, Windows XP 64-bit versions supported (excluding Windows XP 64-bit version)
Minimum operating specifications	Intel Core 2 Duo or equivalent or better RAM: 2 GB or more
Hard disk	1 GB or more
Display	1024 x 768 pixels or more Approximately 16.7 million colors
USB	Built-in USB port (Hi-Speed recommended)
Document camera	• L-12 • L-1ex • L-1zero • L-1zero r • TT-02RX • TT-02s • L-1n • P10S • P30S • P10 • HV-110u • FF-1 • CO-10 (i-Pochette) (64-bit version not supported) • P100 • P100N

Caution

- If a sound device cannot be used, some of the functions may not operate.

When Using a Computer Running Mac OS X

Computer model	Hardware running Mac OS X
OS	Mac OS X 10.6.7
Minimum operating specifications	Powercomputer G4, G5 Intel Core 2 Duo, Intel Xeon RAM: 1 GB or more
Hard disk	1 GB or more
Display	1024 x 768 pixels or more Approximately 16.7 million colors
USB	Built-in USB port (Hi-Speed recommended)
Software	QuickTime 7.1.6
Document camera	• L-12 • L-1ex • L-1zero • L-1zero r • TT-02RX • TT-02s • L-1n • P10S • P30S • P10 • HV-110u • FF-1 • P100 • P100N

● If a sound device cannot be used, some of the functions may not operate.

Installing/Uninstalling and Setting Up

When Using a Computer Running Windows

Installing

1. Login as an administrator, and then insert the CD-ROM into the computer.
2. The installation program is launched.

(If the installation program does not start, double click the file "**index.htm"** on the CD-ROM.)

3. Select the appropriate language, run Image Mate install, and then follow the instructions on the screen to install the program.

Setting up

1. Connect the document camera to the computer using the supplied USB cable, and then turn on the power for the device.
2. Select the Image Mate icon and launch Image Mate.

Uninstalling

1. Login as an administrator.
2. From the **Start** menu, select **ELMO**, **Image Mate**, and then click **Uninstall.**
3. The uninstallation program is launched. Follow the instructions on the screen to uninstall the program.

When Using a Computer Running Mac OS X

Installing

1. Login as an administrator, and then insert the CD-ROM into the computer.
2. From the **Mac** folder in the root folder of the CD-ROM, double click the file "**ImageMate.pkg"**.
3. The installation program is launched. Follow the instructions on the screen to install the program.

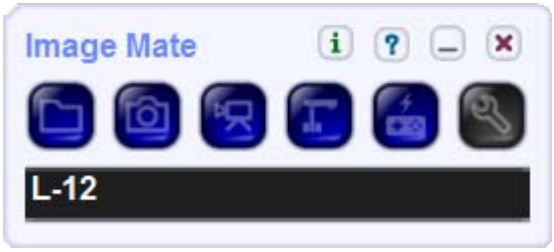
Setting up

1. Connect the document camera to the computer using the supplied USB cable, and then turn on the power for the device.
2. Select the "**Applications/Image Mate.app**" and launch Image Mate.

Explanation of Screens and Buttons

Main Window

When the application is launched, the following Main Window appears.



Icon	Details	Shortcut
	Open a still image or movie file created using Image Mate.	Ctrl + O
	Capture and display a still image from the document camera. You can also draw figures on the captured still image. "Image Display Window"	Ctrl + P
	Display the recording tool. "Recording Tool Window"	Ctrl + R
	Display images from the document camera in real time. It is also possible to draw figures on images. "Live Image Display Window"	Ctrl + L
	Display the document camera remote control. "Document Camera Remote Control Window"	Ctrl + C
	Perform Image Mate settings. "Settings Window"	Ctrl + S
	Display the versions of Image Mate and the document camera.	None
	Open Help.	None
	Minimize the Main Window.	None
	Close the Main Window and exit Image Mate.	Ctrl + Q

Live Image Display Window

This function displays live images from the document camera.
You can draw figures on the displayed live image.

For a description of Live Image tools, refer to the following table.

Icon	Name	Details	Shortcut
	Pen Tool	Draw lines and shapes. The current shape is displayed.	Ctrl + P
	Pen Settings	Display the pen settings tool. The current pen settings are displayed.	None
	Eraser Tool	Erase a figure you have drawn.	None
	Clear All	Erase all the figures you have drawn.	Ctrl + A
	Undo	Return to the previous state. There is an upper limit to the number of times the program can go back.	Ctrl + Z
	Redo	Reverse the Undo operation.	Ctrl + Y
	Save As	Save a still image with a new name.	None

Icon	Name	Details	Shortcut
	Just Fit	Display at the optimum size for the current window.	Ctrl + J
	Zoom In	Enlarge the image.	Ctrl + +
	Zoom Out	Reduce the image.	Ctrl + -
	Hand Tool	Enter Hand Tool mode.	Ctrl + H
	Rotate image	Rotate an image sent from the document camera 180°.	None

Caution

- The shortcuts can be used at the selected window.
- Pressing the **Esc** key closes full screen display during full screen display and closes the window during normal display.

- The highlighted functions can be used in the expert mode of the Settings Window.
- For details about drawing, see Drawing a Figure.

Image Display Window

Capture live images from the document camera as a still image or open and display still image files. You can draw figures on the displayed still image.

For a description of the Image Display tools, refer to the following table.

Icon	Name	Details	Shortcut
	Pen Tool	Draw lines and shapes. The current shape is displayed.	Ctrl + P
	Pen Settings	Display the pen settings tool. The current pen settings are displayed.	None
	Eraser Tool	Erase a figure you have drawn.	None
	Clear All	Erase all figures you have drawn.	Ctrl + A
	Undo	Return to the previous state. There is an upper limit to the number of times the program can go back.	Ctrl + Z
	Redo	Reverse the Undo operation.	Ctrl + Y
	Rotate Clockwise	Rotate the image 90° clockwise.	None

Icon	Name	Details	Shortcut
	Adjust Image	Display the image adjustment tool.	None
	Overwrite	Overwrite the current file and save.	Ctrl + S
	Save As	Save an image with a new name.	None
	Just Fit	Display at the optimum size for the current window.	Ctrl + J
	Zoom In	Enlarge the image.	Ctrl + +
	Zoom Out	Reduce the image.	Ctrl + -
	Hand Tool	Enter Hand Tool mode.	Ctrl + H

- The shortcuts can be used at the selected window.
- Pressing the **Esc** key closes full screen display during full screen display and closes the window during normal display.

- The highlighted functions can be used in the expert mode of the Settings Window.
- For details about drawing, see Drawing a Figure.

Movie Display Window

Play movie files created using Image Mate.
The Movie Display Window differs by file type.

AVI Files (For Windows/ Mac)

For a description of the Movie Display tools, refer to the following table.

Icon	Name	Details	Shortcut
	Play	Play the selected movie file.	Ctrl + P
	Pause	Pause playback.	Space
	Volume	Adjust the playback volume.	None
	Mute	Mute the playback sound.	None

Caution

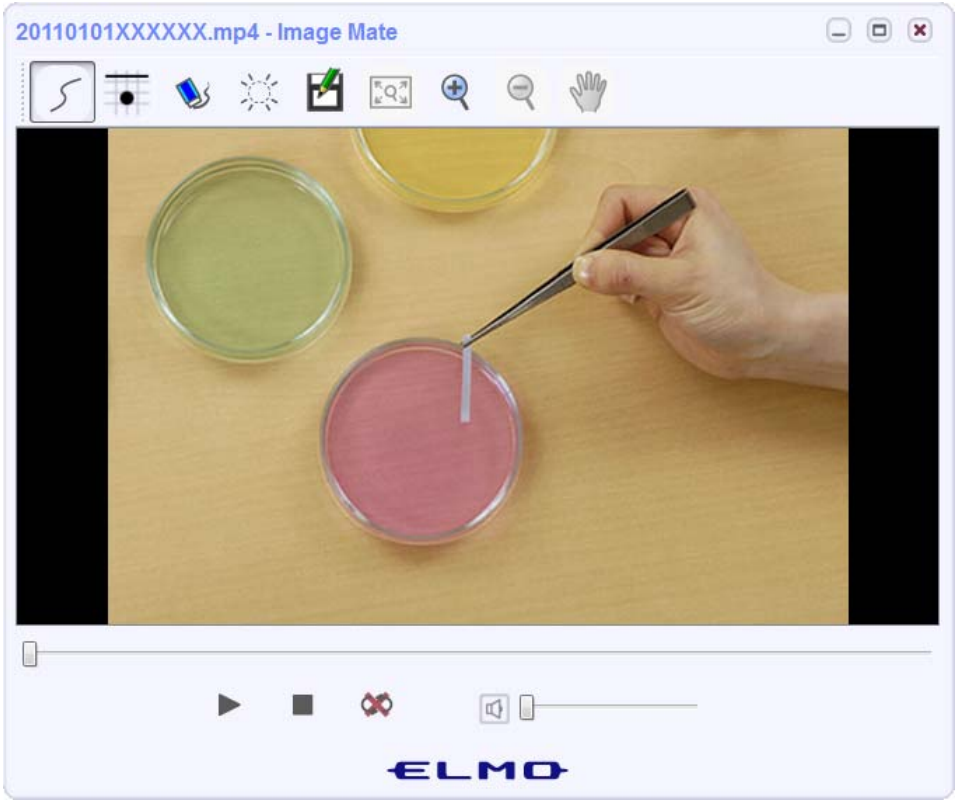
- The shortcuts can be used at the selected window.
- Pressing the **Esc** key closes full screen display during full screen display and closes the window during normal display.

Note

- For details, see Playing a Movie.

MP4 Files (For Windows)

You can draw figures on the displayed movie.



For a description of the Movie Display tools, refer to the following table.

Icon	Name	Details	Shortcut
	Pen Tool	Draw lines and shapes. The current shape is displayed.	Ctrl + P
	Pen Settings	Display the pen settings tool. The current pen settings are displayed.	None
	Eraser Tool	Erase a figure you have drawn.	None
	Clear All	Erase all figures you have drawn.	Ctrl + A
	Undo	Return to the previous state. There is an upper limit to the number of times the program can go back.	Ctrl + Z
	Redo	Reverse the Undo operation.	Ctrl + Y
	Save As	Save a still image with a new name.	None

Icon	Name	Details	Shortcut
	Just Fit	Display at the optimum size for the current window.	Ctrl + J
	Zoom In	Enlarge the image.	Ctrl + +
	Zoom Out	Reduce the image.	Ctrl + -
	Hand Tool	Enter Hand Tool mode.	Ctrl + H
	Play	Play the selected movie file.	None
	Pause	Pause playback.	None
	Stop	Stop playback.	None
	Repeat	Repeat image playback.	None
	No Repeat	Play the image once.	None
	Volume	Adjust the playback volume.	None
	Mute	Mute the playback sound.	None

Caution

- The shortcuts can be used at the selected window.
- Pressing the **Esc** key closes full screen display during full screen display and closes the window during normal display.

Note

- For details, see Playing a Movie.
- For details about drawing, see Drawing a Figure.

Recording Tool Window

This function allows you to record live images from the document camera and save them to your computer.

	Indicates normal recording.
	Indicates long-time recording.

Icon	Name	Details
	Start recording	Start recording images.
	Stop recording	Stop recording images.
	Disk space used	Displays the amount of disk space used for the current recording.
	Recording time elapsed	Displays the elapsed recording time. Days/Hours: Minutes: Seconds

- The shortcuts can be used at the selected window.
- Use the **Esc** key to close the window.

Document Camera Remote Control Window

This function allows you to operate the document camera.

Icon	Name	Details	Shortcut
	Zoom In	Zoom in.	+
	Zoom Out	Zoom out.	-
	Focus (Near)	Focus near.	None
	Focus (Far)	Focus far.	None
AF	Auto Focus	Adjust the focus automatically.	Enter
	Brightness (Brighten)	Brighten the camera image.	Page Up
	Brightness (Darken)	Darken the camera image.	Page Down
	Reset Brightness	Set the brightness to the factory setting.	None
	Close	Close the Document Camera Remote Control Window.	Esc

Caution

- The digital zoom of the document camera cannot be operated with the Zoom In/Out functions.
- If the brightness setting of this device is set to Manual, the Reset Brightness function cannot be used.

Note

- The shortcuts for the main operations of the document camera can be used when Image Mate is active.

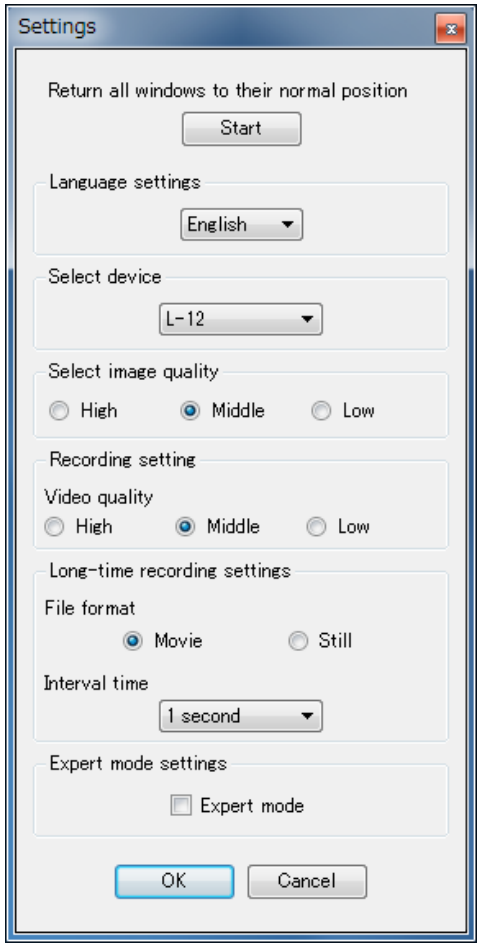
Settings Window

Image Mate can be configured with various settings.

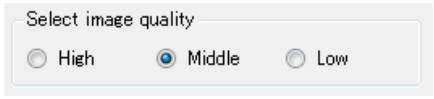
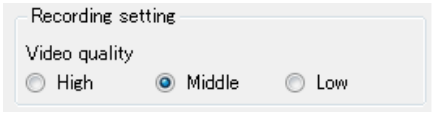
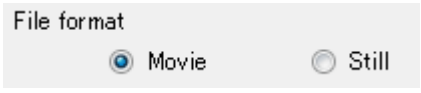
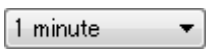
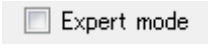
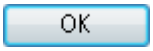
- Return each window to its normal position
- Switch the display language
- Switch the document camera to be controlled
- Switch the image size
- Switch the image quality
- Switch to expert mode

Settings to be performed before using long-time recording

- Set save file format
- Set interval time



Display	Details
Start	Return each window to its normal position.
English	Switch the display language.
L-12	Select the document camera connected to the computer.

<table>
<tr><th>Display</th><th>Details</th></tr>
<tr><td>
</td><td>Set the size of the images used with Image Mate.
• The display may differ depending on the status of the document camera.
<table>
<tr><th>Model</th><th>Document camera status</th><th>Selectable image sizes</th></tr>
<tr><td rowspan="3">L-1ex/
TT-02RX</td><td>DIP switch: SXGA</td><td>1280 x 1024, 1024 x 816, 640 x 512</td></tr>
<tr><td>DIP switch: WXGA</td><td>1280 x 800, 1024 x 640, 640 x 400</td></tr>
<tr><td>DIP switch: XGA</td><td>1280 x 960, 1024 x 768, 640 x 480</td></tr>
<tr><td rowspan="5">P10</td><td>DIP switch: SXGA
OSD setting: SXGA</td><td>1280 x 1024, 1024 x 816, 640 x 512</td></tr>
<tr><td>DIP switch: SXGA
OSD setting: 720P</td><td>1280 x 720, 1024 x 576, 640 x 360</td></tr>
<tr><td>DIP switch: WXGA</td><td>1280 x 800, 1024 x 640, 640 x 400</td></tr>
<tr><td>DIP switch: XGA</td><td>1280 x 960, 1024 x 768, 640 x 480</td></tr>
</table></td></tr>
<tr><td> 
</td><td>Select the quality of the images from the document camera.</td></tr>
<tr><td> 
</td><td>Select the recording video quality.</td></tr>
<tr><td> 
</td><td>Select the save file format for long-time recording. Recording Using Long-time Recording</td></tr>
<tr><td> 
</td><td>Set the interval time for shooting images in long-time recording. Select from 1 second, 3 seconds, 5 seconds, 10 seconds, 30 seconds, 1 minute, 3 minutes, 5 minutes, 10 minutes, 30 minutes, 1 hour, 3 hours, 6 hours, 12 hours, or 24 hours.</td></tr>
<tr><td> 
</td><td>Switch to expert mode settings.
In expert mode, extended functions can be used.</td></tr>
<tr><td> 
</td><td>Confirm the settings.</td></tr>
<tr><td>
</td><td>Cancel the settings.
The shortcut for this button is the Esc key.</td></tr>
</table>

Recording

About Recording

There are two recording methods. You can use “Normal recording”, which records live images as a movie (Recording Using Normal Recording), or you can use “Long-time recording”, which records images at times (interval times) set beforehand (Recording Using Long-Time Recording).
In “Normal recording”, audio from a microphone connected to the computer can be recorded along with the live image recording.
In “Long-time recording”, you can select a recording method from movie or still image. Audio from a computer cannot be recorded during long-time recording.

Caution

- Depending on the computer’s performance and load, you may not be able to record images and audio properly.
- Depending on the computer’s performance and image scenes, the images and the audio may not be synchronized.
- You may not be able to play movies recorded using Image Mate under other environments.
- The recording time may differ from the created movie time.
- If the empty space on the disk is 5% or less, recording is stopped.

Recording Using Normal Recording

Live images are recorded as a movie.
Audio from a microphone connected to the computer is recorded.

1. Open the Settings Window

   Select from the Main Window.

2. Perform recording settings

   Set the following item at the Settings Window.
   - Image quality

3. Open the Recording Tool Window

   Select from the Main Window.

4. Start recording

   Select next to the symbol.

5. Save the movie file
   - Set the destination and file name, and then save the file.
   - Recording starts.

   The following items are displayed during recording:

   - The disk space used is indicated by the red bar.
   - The recording time is displayed as follows: Days/Hours: Minutes: Seconds

- The recording tool button and recording start button flash.

6. Stop recording

Select next to the symbol.

Recording Using Long-Time Recording

You can record at times (interval times) set from the Settings Window beforehand.
You can choose a recording method between movie and still image.
Audio from a computer cannot be recorded during long-time recording.

1. Open the Settings Window

Select from the Main Window.

2. Perform recording settings

Set the following items at the Settings Window.

- Image quality
- Image size
- File format
- Interval time

3. Open the Recording Tool Window

Select from the Main Window.

4. Start recording

Select next to the symbol.

5. Save the movie file

- Set the destination and file name, and then save the file.
- Recording starts.

The following items are displayed during recording:

- The disk space used is indicated by the red bar.
- 00/00:00:00 The recording time is displayed as follows: Days/Hours: Minutes: Seconds
- The recording tool button and recording start button flash.

6. Stop recording

Select next to the symbol.

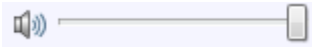
Watching a Movie

Playing a Movie

1. Select a file

   Select from the Main Window, and then select the recorded file you want to play.
   When a file is selected, it is automatically played.
   The Movie Display Window differs by the selected file.

2. Play the recorded file

- Play the file.
- Pause playback.
-  Adjust the playback volume between 0 (mute) and 100 (maximum).
- Mute the playback sound.

- Depending on the computer's operating environment and the file type, the file may not be played correctly.

- When you use Windows, it is possible to draw on the displayed recorded image by selecting an mp4 file. For details, see Drawing a Figure.

Viewing a Still Image

Displaying a Still Image

1. Select the still image file

   Select from the Main Window, and then select a still image file.
   The selected still image file is displayed.

Using the Drawing Tools

Changing Pen Settings

1. Select Pen Settings to open the Pen Settings Window.

Note

- The Pen Settings Window is closed if a certain amount of time passes after it is displayed or after the cursor is moved inside the window and then outside the window.

2. Select a figure

Icon	Name	Details
	Free hand	Make free hand drawings.
	Straight line	Draw a straight line.
	Square	Draw a square shape.
	Circle	Draw a circle.

3. Select the line width

Icon	Name	Details
	Thin	Draw a thin line.
	Regular	Draw a regular line.
	Thick	Draw a thick line.

4. Select fill

Icon	Name	Details
	Fill	Fill a drawn figure.
	Lines only	Draw a figure using lines only.

5. Select a line type

Icon	Name	Details
	Solid line	Draw a figure using solid lines.
	Dotted line	Draw a figure using dotted lines.

6. Select a color

Draw using the selected color.

7. Select transparency

Icon	Name	Details
	High	Draw using high transparency.
	Low	Draw using low transparency.
	None	Draw using no transparency.

Caution

- Depending on the selected shape, some settings cannot be changed.

Note

- Transparency can be selected using expert mode at the Settings Window.

Drawing a Figure

1. Draw a figure

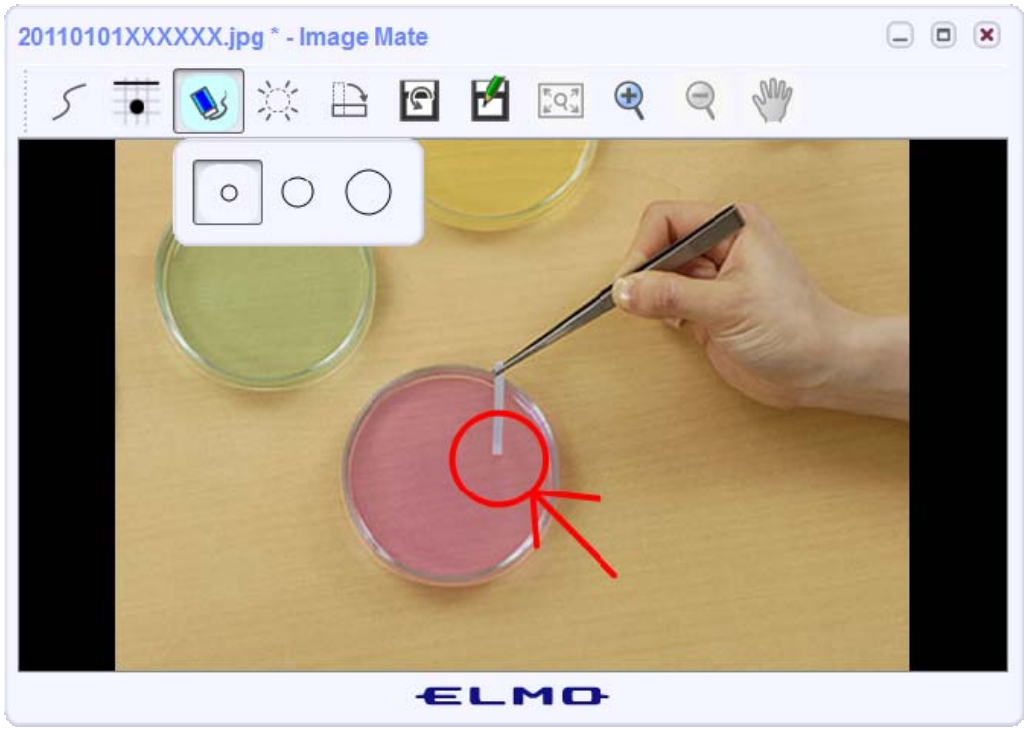
   You can draw figures on captured still images, live images from the document camera, displayed still images and, when you use Windows, recorded mp4 files.

Deleting a Figure

You can erase figures you have drawn on still images and movies. You can erase either partially or completely (Clear All).

■ When Erasing Partially

1. Select



2. Select the size of the eraser

Icon	Name	Details
	Small	Erase using a small eraser.
	Medium	Erase using a medium eraser.
	Large	Erase using a large eraser.

- The Eraser Settings Window is closed if a certain amount of time passes after it is displayed or after the cursor is moved inside the window and then outside the window.

3. Erase the figure

■ When Erasing Completely (Clear All)

1. Select

All drawings are erased.

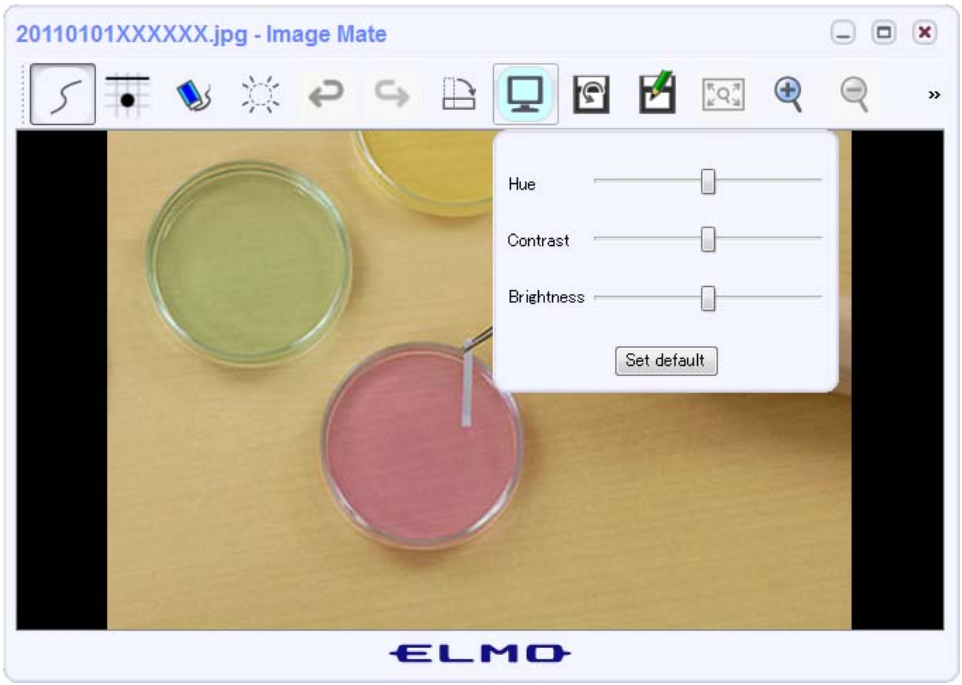
Adjusting an Image

The hue, contrast, and brightness of a still image can be changed. This is effective when captured images are difficult to make out.

Note

- Image adjustment can be used in the expert mode of the Settings Window.

1. Select to open the Image Adjustment Window.

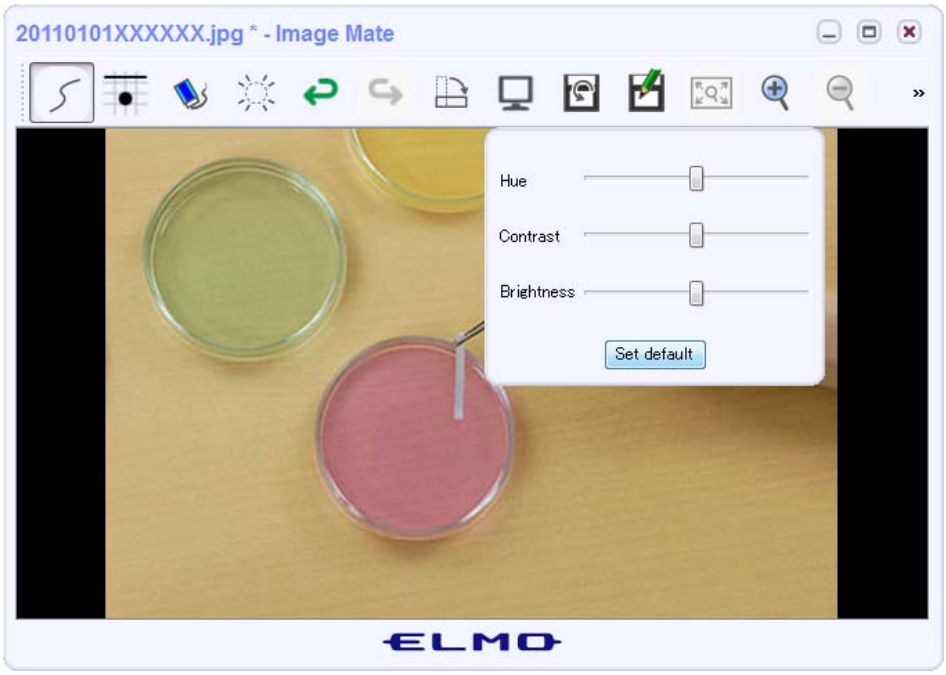


2. Move the sliders to adjust the image.

Name	Details
Hue	Change the hue of the image.
Contrast	Change the contrast of the image. If the slider is moved to the left, the image becomes blurred. If the slider is moved to the right, the image becomes clearer.
Brightness	Change the brightness of the image. If the slider is moved to the left, the image becomes darker. If the slider is moved to the right, the image becomes brighter.

3. Cancelling changes

Select the Set default button to return all settings to their default settings.



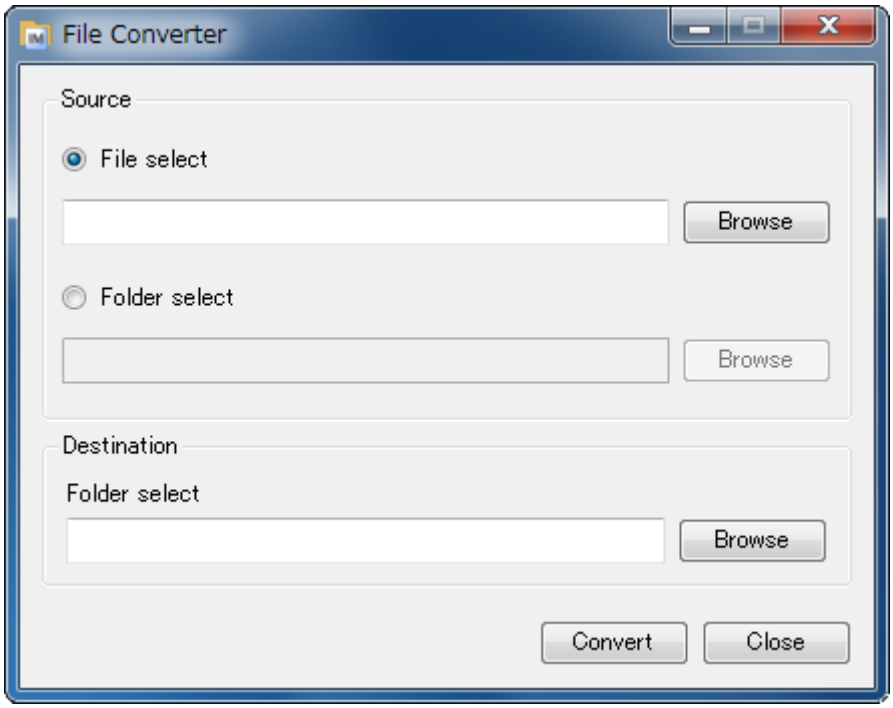
File Converter

Using File Converter

File Converter converts selected files into an image format that can be read by the SD card in the device.

The source file formats are BMP and JPEG.

If you are using a computer running Windows, click **Start**, point to **All Programs**, **ELMO**, **Image Mate**, and then click **File Converter**. The following window appears.



Item	Details
File select	Select the source file to be converted.
Folder select	Select the source folder containing the files to be converted. All files in the specified folder are converted. • Files in the subfolders of the specified folder are not converted.
Destination	Select the folder in which to save the converted images.
Convert	The source files selected using File Select or Folder Select is converted.
Close	Exit File Converter.

Troubleshooting

If trouble occurs or if you have any questions, refer to this section first.
If the problem is not resolved, refer to the warranty, and then contact the place of purchase.

[The Document Camera is not connected] is displayed in the Main Window.	
Is the power for the document camera turned on?	Turn on the power for the document camera.
Are the document camera and computer connected by a USB cable?	Connect the document camera and computer using the USB cable included with the document camera.
Is the document camera setting set to "Mass Storage Mode"?	If the document camera setting is set to "Mass Storage", the document camera cannot be connected. Change the document camera setting to "Application". *For details, refer to the Instruction Manual of the document camera you are using.

Reference

Disclaimer

(i) The contents of this manual and our software are subject to change without prior notice.
(ii) Our software may not function as intended due to compatibility issues with the peripheral devices and installed softwares.
(iii) ELMO Co., Ltd. cannot be held responsible for either direct or indirect damages suffered by users while using our software.

Trademarks

(i) Image Mate is a trademark or registered trademark of ELMO Co., Ltd.
(ii) Intel, Intel Core, and Intel Xeon are registered trademarks of Intel Corporation.
(iii) Windows 7, Windows Vista, and Windows XP are trademarks of Microsoft Corporation in the United States and other countries.
(iv) Apple, the Apple logo, Mac, Mac OS, Macintosh, and QuickTime are trademarks of Apple Inc. registered in the United States and other countries. Mac is the service mark of Apple Inc.
(v) Other product and corporate names may be trademarks or registered trademarks of their respective companies.

License

This product is licensed under the AVC Visual Patent Portfolio License ("AVC Video") for the personal and non-commercial use of a consumer for:
(i) Playing AVC Video that was recorded by a consumer engaged in a personal and non-commercial activity and/or,
(ii) Playing AVC Video that was obtained from a provider licensed by MPEG-LA, LLC to provide AVC Video.
Additional information relating to promotional and commercial uses may be obtained from MPEG-LA, LLC in the United States.

Acknowledgements and Copyrights

- This software is based in part on the work of the Independent JPEG Group.