

EPSON

EMP Link 21L

User's Guide

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1 About EMP Link 21L

1.1 What is EMP Link 21L?

EMP Link 21L is an application to control a SEIKO EPSON projector connected to your computer. Basically, the application provides the following two functions.

- Controlling the projector

From the connected computer, you can control the projector and change various settings of images projected from the projector.

- Setting a user logo

You can select a file, adjust its zoom ratio, and then send it to the projector as a user logo.

1.2 Operating environment

EMP Link 21L runs in the following environments.

For Windows

OS	Windows 95/98/Me/NT 4.0/2000
CPU	Intel Pentium 166 MHz or above
Memory	32 MB or more of available memory
Hard Disk Drive	5 MB or more of available space
Port	One of the following ports is required. -- Serial port -- USB port for Windows 98/Me/2000

The following table lists ports supported by each operating system.

OS	Serial Port	USB Port
Windows 95	Supported	-
Windows 98	Supported	Supported
Windows Me	Supported	Supported
Windows NT 4.0	Supported	-
Windows 2000	Supported	Supported

Note: When using EMP Link 21L with a USB port, you need to separately install a dedicated driver (EPSON Projector USB-COM Driver). For details on the EPSON Projector USB-COM Driver, refer to Appendix A, "EPSON Projector USB-COM Driver" in this manual.

For Macintosh

OS	MacOS 8.6 - 9.1
CPU	Power PC or above
Memory	32 MB or more of available memory
Hard Disk Drive	5 MB or more of available space
Port	One of the following ports is required. -- Serial port -- USB port

Note: When you install EMP Link 21L on Macintosh, the necessary driver (EPSON Projector USB-COM Driver) is also automatically installed. For details on the EPSON Projector USB-COM Driver, refer to Appendix A, "EPSON Projector USB-COM Driver" in this manual.

1.3 Supported projectors

EMP Link 21L can be used with SEIKO EPSON projectors supporting the ESC/VP 21 commands.

1.4 How to use this manual

This manual illustrates how to operate EMP Link 21L using Windows 98 as an example. If your operating system is not Windows 98, then the screen shots shown in this manual may be different from what you actually see on your computer. However, this does not affect the operation. If an operation is different due to the difference of the operating system, this will be noted.

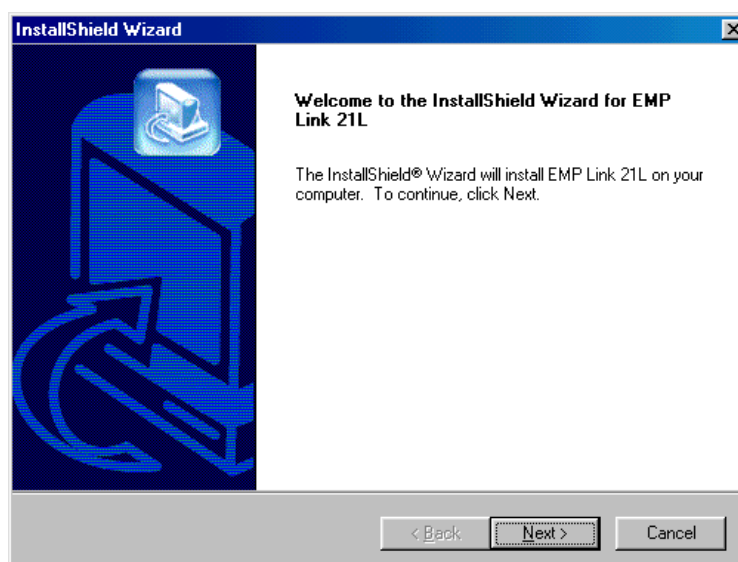
2 Installing EMP Link 21L

This section describes how to install EMP Link 21L.

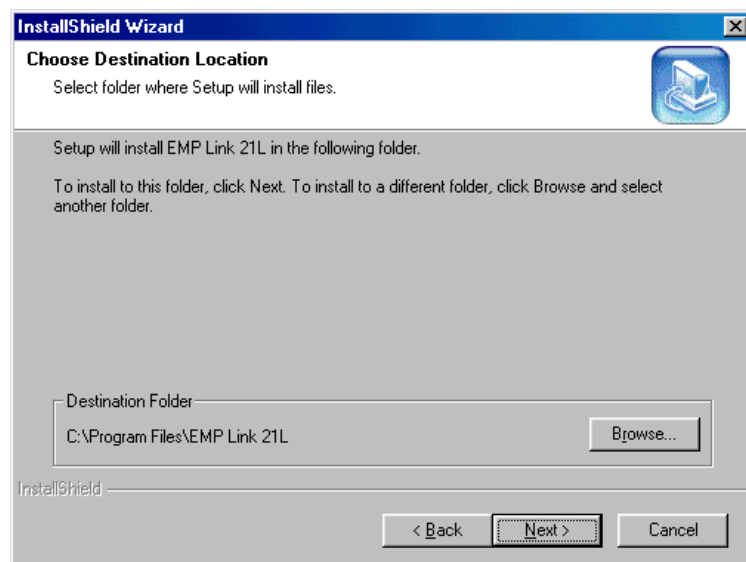
2.1 For Windows

Follow the procedure below to install EMP Link 21L. Make sure to exit any application that is still running.

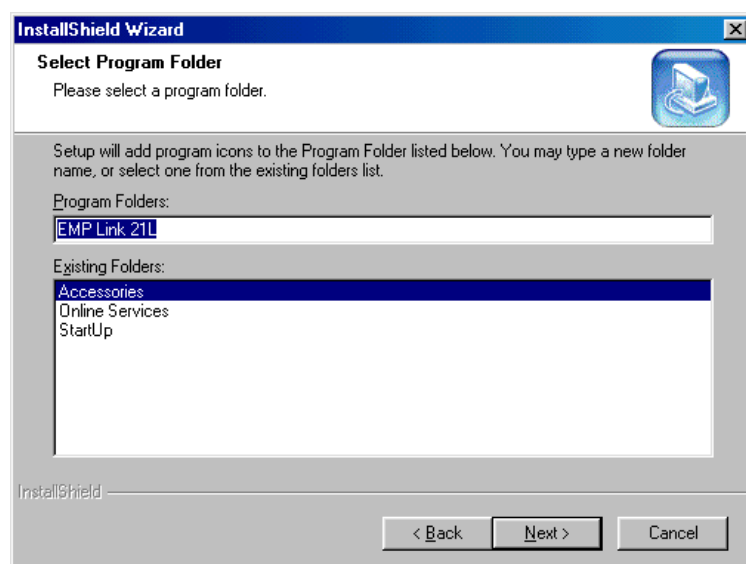
1. Double-click the downloaded file EMPLink21LSetup.exe.
2. The installation program starts and displays the following screen. Click [Next] to continue the installation procedure, or [Cancel] to cancel it.



3. Specify an installation destination folder. If the folder shown is the one you desire, click [Next]. To specify another folder, click [Browse] and select a folder. To cancel the installation procedure, click [Cancel].



4. Specify a program folder. To use a folder different from the displayed one, enter a new name or select another folder from the list. Click [Next] to continue the installation procedure, or [Cancel] to cancel it.



5. When the InstallShield Wizard Complete screen appears, click [Finish].

The installation procedure is completed. There is no need to restart the PC.

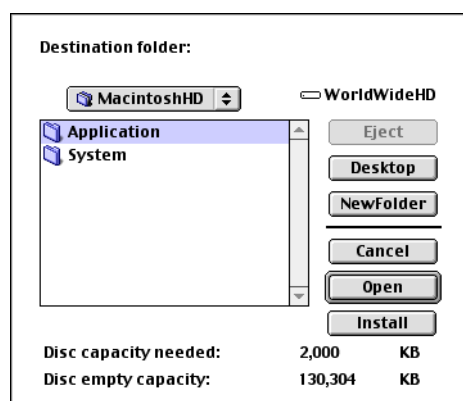
2.2 For Macintosh

Follow the procedure below to install EMP Link 21L to Macintosh.

1. Expand the downloaded file.
2. The EMPLink21LInstaller folder is created. Double-click Installer in the folder.
3. The installation program starts and displays the following screen. Click [OK] to continue the installation procedure, or [Quit] to cancel it.



4. Specify an installation destination folder. When you open the desired folder and click [Install], EMP Link 21L is installed into this folder. If you want to cancel the installation procedure, click [Cancel].



5. When the "Installing is completed. Restart Macintosh." message appears, click [OK].

The installation procedure is completed. Restart the computer.

3 Un-installing EMP Link 21L

This section explains how to un-install EMP Link 21L.

3.1 For Windows

Follow the procedure below to un-install EMP Link 21L from Windows.

1. Click the [Start] menu on the task bar.
2. Point to [Settings] and then select [Control Panel].
3. Double-click [Add/Remove Programs].
4. Click [EPSON EMP Link 21L].
5. Click the [Add/Remove] button.
6. Follow the instructions on the screen to un-install EMP Link 21L.

The un-installation procedure is completed.

3.2 For Macintosh

Follow the procedure below to un-install EMP Link 21L from Macintosh.


1. Drag and drop the EMP Link 21L folder into the Trash.
2. Drag and drop Link21L in [System Folder]-[Startup Items] to the Trash.
3. Select [Empty trash...] from the [Special] menu.

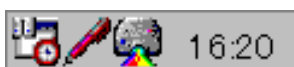
The un-installation procedure is completed.

4 Using EMP Link 21L

This section describes how to use EMP Link 21L as well as its various functions.

4.1 Starting EMP Link 21L (for Windows)

When Windows starts up, EMP Link 21L starts at the same time and becomes available on the task tray all the time. To display the EMP Link 21L screen (toolbar and dialog box), double-click  icon on the task tray. Alternatively, right-click the task tray to display the menu. From the menu, select [Display EMP Link 21L].



4.2 Starting EMP Link 21L (for Macintosh)

When Macintosh starts up, EMP Link 21L starts at the same time as well. To display its toolbar and dialog box, select [Show EMP Link 21L] from the [Window] menu.

4.3 Using the toolbar

This section describes how to use the EMP Link 21L toolbar and its various functions.



Settings screen display button

Clicking this button displays the following screen. From the screen, you can set the communications port and the shortcut key.



COM

Specify a port to connect. From the list of available ports, select the one you want to use.

Note: If the projector is connected to Windows via a USB port, then the port is treated as a COM port. To check the port number, perform the following procedure.

1. Click the [Start] menu.
2. Point to [Settings] and then select [Control Panel].
3. Double-click [System].
4. Click [Device Manager].
5. Double-click [Ports (COM & LPT)].

Show Dialog ShortCut

Specify a shortcut key to use to display the EMP Link 21L screen. The following keys or key combinations are available. By default, no shortcut key is used (OFF).

Windows: (OFF), F2, Ctrl+W, Ctrl+SPACE, Ctrl+Alt, Alt+Insert

Macintosh: (OFF), Ctrl+W, Ctrl+T, Ctrl+Space, Option+A, Option+Z



Simple adjustment screen display button

Clicking this button displays the following simple adjustment screen. On this screen, you can adjust the brightness, contrast, sharpness, sound volume, horizontal keystone, and vertical keystone of images projected from the projector.



Brightness adjustment

Adjust the brightness of images projected from the projector.



Contrast adjustment

Adjust the contrast of images projected from the projector.



Sharpness adjustment

Adjust the sharpness of images projected from the projector.



Sound volume adjustment

Adjust the sound volume of the projector.



Vertical keystone adjustment

Adjust the vertical keystone of the projector, which corrects any distortion in the vertical direction of images projected from the projector.



Horizontal keystone adjustment

Adjust the horizontal keystone of the projector, which corrects any distortion in the horizontal direction of images projected from the projector.



User logo setting screen display button

Clicking this button displays the following screen to set up a user logo. You can select a file, adjust its zoom ratio, and then send it to the projector as a user logo.



The following table lists the types of files you can use as user logos:

OS	File Type
Windows	BMP, JPEG
Macintosh	PICT, JPEG



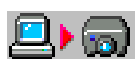
File selection dialog box display button

Clicking this button displays the file selection dialog box. You can then select a file to use as a user logo. If a file has already been selected, then the name of the file appears to the right of the button.



Zoom ratio adjustment

Set the zoom ratio of the user logo file. The following zoom ratios are available for selection: 100%, 200%, and 300%.



Download start button

Use this button to begin downloading a user logo file. This button is disabled if no file has been selected.

Note: While downloading a file, do not disconnect the communications cable connecting the computer and the projector.

**Source switching button (Computer/YCbCr)**

Use this button to switch the input source of the projector. Clicking the button switches the input source in the same sequence performed by the [Computer/YCbCr] button on the panel of the projector.

**Source switching button (Video)**

Use this button to switch the input source of the projector. Clicking the button switches the input source in the same sequence performed by the [Video] button on the panel of the projector.

**A/V Mute button**

Use this button to enable or disable the A/V Mute function of the projector. The button functions in the same way as the [A/V Mute] button on the panel of the projector.


**Power button**

Use this button to turn on/off the projector.

**Close button**

Use this button to close the EMP Link 21L screen.

4.4 Exiting EMP Link 21L (for Windows)

Right-click the EMP Link 21L's icon  on the task tray to display the menu. From the menu, select [Exit].



4.5 Exiting EMP Link 21L (for Macintosh)

From the [File] menu, select [Quit].

5 If a Problem Occurs

5.1 Communication with the projector is not possible.

Reason 1

The projector is not connected properly, or the projector is turned off.

Solution

Make sure the cable is correctly connecting the projector to your computer. Also, make sure the projector is turned on.

Reason 2

The projector does not support EMP Link 21L.

Solution

Make sure your projector supports EMP Link 21L.

Reason 3

The port is not correctly specified on the projector.

Solution

Make sure the port is correctly specified on the projector.

5.2 The user logo file cannot be downloaded.

Reason

The projector does not support user logo.

Solution

Read the operating manual that comes with the projector and confirm whether the projector supports user logo.

Appendix A About the EPSON Projector USB-COM Driver

If you use a USB cable to connect the projector to a Windows PC, you need to install the EPSON Projector USB-COM Driver on the PC before using EMP Link 21L.

For Macintosh, when you install EMP Link 21L, the EPSON Projector USB-COM Driver is also installed automatically. Therefore, no further installation procedure is required.

A.1 Operating environment

The EPSON Projector USB-COM Driver runs in the following environments.

For Windows

OS	Windows 98/98 Second Edition/Me/2000
CPU	Intel Pentium 166 MHz or above
Memory	32 MB or more of available memory
Hard Disk Drive	5 MB or more of available space
Port	USB port available on PC

For Macintosh

OS	MacOS 8.6 - 9.1 (restricted to pre-installed OS only)
USB Interface	USB Manager 1.2 or later
Memory	1 MB or more of available memory
Hard Disk Drive	1 MB or more of available space
Remarks	This driver uses SerialShimLib supplied with the OS. It does not run properly if SerialShimLib is not present in the [Extensions] folder.

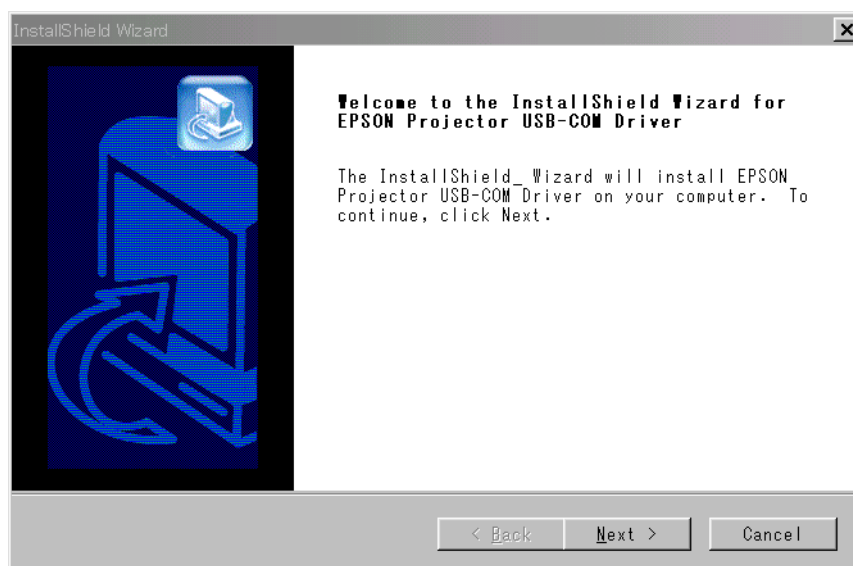
A.2 Installing the EPSON Projector USB-COM Driver

This section explains how to install the EPSON Projector USB-COM Driver.

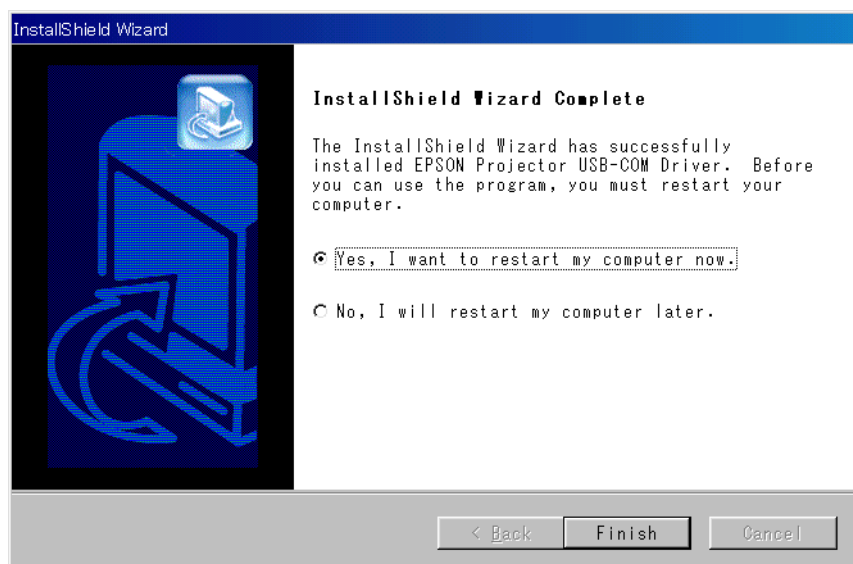
For Windows PC

Follow the procedure below to install the EPSON Projector USB-COM Driver. Make sure to exit any application that is still running.

1. Double-click the downloaded file Setup.exe.
2. The installation program starts and displays the following screen. Click [Next] to continue the installation procedure, or [Cancel] to cancel it.



3. When the following screen appears, the installation procedure is completed. Click [Finish] and then restart the PC.



For Macintosh

For Macintosh, when you install EMP Link 21L, the EPSON Projector USB-COM Driver is also installed automatically. Therefore, no further installation is required.

A.3 Un-installing the EPSON Projector USB-COM Driver

Follow the procedure below to un-install the EPSON Projector USB-COM Driver.

For Windows PC

1. Click the [Start] menu on the task bar.
2. Point to [Settings] and then select [Control Panel].
3. Double-click [Add/Remove Programs].
4. Click [EPSON Projector USB-COM Driver].
5. Click the [Add/Remove] button.
6. Follow the instructions on the screen to un-install the EPSON Projector USB-COM Driver.

The un-installation procedure is completed.

For Macintosh

1. Drag and drop the EPSON VCOM Driver in [System Folder] – [Extensions] to the Trash.
2. Select [Empty trash...] from the [Special] menu.

The un-installation procedure is completed.