Epson Scan 2 Manual

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2. Overview

Epson Scan 2 is Linux software for Epson scanners & multifunction printer.
Epson Scan 2 has own front-end, it allows to set various scanner settings with graphical user interface and save the scanned images to the various file type.
It supports USB and network connection for the network capable scanners.
Scanner can be controlled via not only own front-end but also command line option.

3. Support

There is no official support provided for this software.

- For information regarding scanner hardware, repairs and replacement parts, please contact your local Epson dealer.

4. Notes/Limitations

- This guide contains information on using Epson Scan 2.
  For information about your scanner, see the manual shipped with your scanner.
- Commands are indicated in fixed width font.

5. How to install and uninstall

5.1. Installing the software

Please install in one of the following ways the downloaded package.

5.1.1. Auto Installation in script

Please run the script (install.sh) included in the downloaded package from terminal.

```
$ ./install.sh
```

You can confirm the brief description by specifying the command as below.

```
$ ./install.sh --help
```

5.1.2. Installation in command

If you installed in command, you must install multiple packages.
Open Terminal, then install the packages in the described order then from the command line.
Note:
The following commands needs to be performed as a root privilege.

[RPM]

1. Installing core package

   ```
   $ rpm --upgrade epsonscan2-{ver}-{rel}.{arch}.rpm
   ```

2. Installing plug-in package （When network scanning or optional image processing function is required）

   ```
   $ rpm --upgrade epsonscan2-non-free-plugin-{ver}-{rel}.{arch}.rpm
   ```

[DEB]

1. Installing core package

   $ dpkg --install epsonsacn2_{ver}–{rel}.{arch}.deb

2. Installing plug-in package （When network scanning or optional image processing function is required）

   $ dpkg --install epsonscan2-non-free-plugin_{ver}–{rel}.{arch}.deb

   Abbreviations used for package representations mean as follows:
   ver: package version
   rel: package release number
   arch: package architecture

*If you want to perform a network scan, you must configure the network connect device. Ref:「8.1. Network Connect Device」

5.1.3. Installation the package manager

You can install the package of this driver software by using package manager.
Note: The following description may be different on your environment.

- Double-click the Image Scan! for Linux binary package icon to install it.
- If you can find install option by right clicking on the package icon that you have downloaed(.dev / .rpm), you can specify it.

Please run the package installation in the following order.

1. core package
2. plugin package

5.1.4. Install from source file

It is possible to install Epson Scan 2 from the source file.

Please refer to the following procedure for build with cmake.

＊ All of the following procedures are performed on the command line.

1. Unzip the source package and move it to the source directory.

   `$ cd epsonscan2-x.x.x.x-x`

2. Install the required packages.

   Packages required for building Epson Scan 2 are automatically installed by executing the install-deps script in the source directory (Please connect to the network when running the script.).

   `$ ./install-deps`

3. Run cmake

   `$ cmake .`

   The following option can be specified.

Environment variable name	Setting contents
EPSON_INSTALL_ROOT	Specify installation location (full path)
BUILD_TYPE	Specify Release or Debug

4. Run make

   `$ make`

5. Run make install

   `$ sudo make install`

6. Installation complete

5.2. Notes for installation

An error might be occurred during the installation of Epson Scan 2.

In that case, try the following workaround.

- **The package installation order is not correct.**

Workaround :

Try the installation as following to the procedures described in "5. How to install and uninstall".

By using the auto installation script, it will install the package automatically in the correct order.

- Part of the package needed to install the Epson Scan 2 is missing

Workaround :

$ epsonscan2 depends on **libQt5Core** (>= 5.2.1); however:
  Version of **libQt5Core** on system is 5.1.4-1.

$ epsonscan2 depends on **libjpeg8** (>= 8c); however:
  Package **libjpeg8** is not installed.

For example, if you install from the command line, the above error is displayed. Try again installation of Epson Scan 2 after you have installed the missing package(s) that indicated in red characters as below.

[RPM]
$ yum install **qt5-qtbase-5.2-devel**
$ yum install **libjpeg-devel**

or
$ dnf install **qt5-qtbase-5.2-devel**
$ dnf install **libjpeg-devel**

or (In the case of openSUSE)
$ zypper install **qt5-qtbase-5.2-devel**
$ zypper install **libjpeg-devel**

[DEB]

$ apt-get isntall **qtbase5-5.2-dev**
$ apt-get isntall **libjpeg-dev**

＊The above commands need to be performed as a root privilege

＊The above command must be executed after connecting to the network.

5.3. Deletion of Software

You can uninstall the package of this driver software by using package manager, etc.
Or you can also uninstall this software package by opening a terminal and using
command lines input.
Note: The following commands needs to be performed as a root privilege.

[RPM]

1. Uninstallation of Network plugin package

   Note: Execute the following command only if you installed plugin package.

   $ rpm -e epsonscan2-non-free-plugin

2. Uninstallation of Core package

   $ rpm -e epsonscan2

[DEB]

1. Uninstallation of plugin package

   Note: Execute the following command only if you installed plugin package.

   $ dpkg --remove epsonscan2-non-free-plugin

2. Uninstallation of Core package

   $ dpkg --remove epsonscan2

6. Overview on Scanning

You can scan an image with Image Scan! for Linux using the following steps.

1. Make sure the scanner and the computer connected to the scanner are turned on.
2. Place a document on the scanner. See the user's guide of the scanner.
3. Run Epson Scan 2 on your computer.
   See "7. Running Epson Scan 2".
4. The main window appears.
   If model of multiple is connected to the computer, select the scanner.
   (If only one model is connected, you do not require to select.)
   See "8. Select scanner".
5. Make settings such as document source, image type, and resolution.
6. Select Image Format, Folder, and File Name.
7. Click the Scan button to start the image capture.

7. Running Epson Scan 2

You can start Epson Scan 2 either from the command line or Menu.

7.1. From the command line

At the command prompt, specify the following command to start Epson Scan 2.

`$ epsonscan2`

If more than one scanner is connected to the network or local, select a scanner you want to use from Device select dialog.
See "8. Select scanner"

7.2. From the menu

Select the icon of "Epson Scan 2" in the menu.
Note: Menu depends on your environment.

8. Select scanner

If more than one scanner is connected to the network or local, by clicking the scanner combobox at the top of the main window the list of available devices is displayed.

Please select the device you want to use from the list.

8.1. Network setting

Explains how to setup the network connected scanner from Epson Scan 2.

By installing the plug-in package, you can connect to the network connected scanner.

8.1.1. Network settings in the Main window

1. Connect the scanner to the network and set the IP address.
   For information on how to set the IP address, refer to the user manual shipped with your scanner.
2. Network setting in the Main window can be specified in Add Network Scanner dialog.
   There are two ways to display the Add Network Scanner dialog.

   － When you start epsonscan2 for the first time.

   － When you click on the scanner combo box at the top of the main window and press the "add" button.

3. Enter the IP address ,that is set to the scanner, to the address in the Add Network Scanner dialog then press the "Add" button.
4. Confirm that the specified IP address is added to the list, then click the OK button.

5. If the Main window is displayed, the network setting is completed normally.

8.1.2. Edit the file directly to perform network setting

---

1. Connect the scanner to the network and set the IP address.
   For information on how to set the IP address, refer to the user manual shipped with your scanner.
2. Please edit **/home/.epsonscan2/Network/epsonscan2.conf** file by using root privileges as below. (The .epsonscan2 directory is a hidden directory.)

   Example:

   [Network]
   192.168.11.2
   #192.168.11.5

   *The [Network] section will be included automatically, but if it is not included, be sure to add it.
   Below that, specify the IP address.
   Specify only one IP address per line (those cannot be recognized even if two or more entries are specified).
   By adding a # at the beginning of a line, that line is ignored.

3. Start Epson Scan 2.
   At startup, if the scanner on the network is recognized correctly, it starts without any problem.
   At this time, when multiple scanners are connected, select the scanner to use.
   Note：「8. Select scanner」

9. Explanation of Epson Scan 2 functions

Explain about functions in the Main window.

9.1. Scanner

You can select your scanner.
Select Settings to set how you want to connect the scanner and the computer.

9.2. Main Settings

You can make settings for the scanning method, as well as the scanned image specifications such as resolution, size of the original, and colors.
Note:

- Some items and settings may not be available depending on the scanner you are using.
  Read this help for the sections that apply to your scanner.
- Scanning may take some time depending on the features you selected.

■Document Source
You can select the source where the original is placed.
If you select Auto Detect, the take-up device is automatically selected. However, you may not be able to select Auto Detect depending on the scanner you are using.
ADF stands for Auto Document Feeder. (supported models only)

■Scanning Side

You can select the side of the original you want to scan when scanning from ADF.

Note:
To use this feature, make the following settings.

- Document Source > ADF
- Scanning Side > Double-Sided

■Document Size

You can select the size and the orientation of the original you placed.

Note:

- Some items and settings may not be available depending on the scanner you are using.
  Read this help for the sections that apply to your scanner.
- Put the mouse cursor on the Document Size to display the actual size (width × length).
- If the size of the original you want to scan is not on the list, select Customize, and then create the size manually.
- If the size is not listed when scanning a long original, create a custom document size or select Auto Detect (Long Paper).
- Depending on the length of an original, the resolution is limited.
- Click the Configuration button to change the unit size from the General tab.

− Auto Detect

The size of the original is detected automatically.
This may not be available depending on the scanner or the Document Source settings.
Long paper is not supported.

− Auto Detect (Long Paper)

The size of long paper is detected automatically. The size of long paper up to 3,000 mm (118.1 in.) is detected automatically.
This may not be available depending on the scanner or the Document Source settings.

Note:

- When using this feature, the scanning speed may be reduced.

- The maximum length of the long paper differs depending on the scanner you are using.

  For the specifications of long paper, see manual for the scanner.

■Document Size Screen

You can create a custom document size for your original by selecting the Main Settings tab > Document Size > Customize.

- Width/Length

  Enter the width and length of the original.
- Detect paper length

  The length of the original is automatically detected.

  You cannot enter the Length when using this feature.

  Note:

  When using this feature, the scanning speed may be reduced.
- Close button

  Saves the settings and closes the screen.

■Image Type

You can select the color of the output image based on the scanning purpose.

Note:

Some items and settings may not be available depending on the scanner you are using.

Read this help for the sections that apply to your scanner.

- Color

  Scans using 24-bit color (approximately 16,770,000 colors).
- Grayscale

  Scans using 8-bit gray (256 gradations).
- Black & White

  Scans using black and white binary.

■Resolution

You can set the resolution.

Note:

- If the optimal resolution is not in the list, you can manually enter a resolution. The range of the resolution you can enter differs depending on the scanner you are using.
- Depending on the length of an original, you cannot set a resolution higher than 300 dpi.

■Rotate

You can rotate the original clockwise and scan it. Select the rotation angle depending on the original you want to scan.
If you select Auto and scan the original, the image is rotated by detecting the orientation of the text information. However, this may take some time depending on the image size, and so on.
Select Settings to display the Rotate Settings screen. You can set the rotation method when you select Auto.

■Correct Document Skew

You can correct the slant of the original.
- Off
  The slant of the original is not corrected.
- Checked (Paper Skew)
  Corrects the slant of originals that are fed askew.
Note:

- When using this feature, areas that are fed askew are corrected using white.
- To use this feature, set the Resolution on the Main Settings tab to 600 dpi or less.
- This feature may not be able to correct documents that have been over skewed.

■Add pages after scanning

You can add different originals after scanning.
When this is selected, you can scan once, add a different original.

When saving in PDF or Multi-TIFF format, you can save them as one file.
When you have finished scanning, you can add images by pressing the Add button on the screen displayed.

Note:

- You cannot change the scan settings when you press the Add button and add images.

■Detect Double Feed

You can set this to display a warning when multiple originals are fed at the same time.
Note:

In the following cases, a warning is not displayed even when Detect Double Feed is set.

- When Carrier Sheet is selected in Document Source on the Main Settings tab.
- When Plastic Card is selected in Document Size on the Main Settings tab.

– Settings
  The Detect Double Feed Settings screen is displayed.

■Detect Double Feed Settings Screen

You can make detailed settings for Detect Double Feed.

Note:
Some items and settings may not be available depending on the scanner you are using.
Read this help for the sections that apply to your scanner.

– Ultrasonic sensor
  Detects a double feed using an ultrasonic sensor.
  Set the Detection Area and Paper Thickness to increase the detection precision.
– Paper Thickness
  Set the thickness or the type of the original when using Ultrasonic sensor.

- Detection Area

  Set the area to be detected in Ultrasonic sensor.

  Note:

  - Depending on the document type, feeding may pause before outputting the originals and scanning may be slower.
  - Depending on the condition of the overlapping originals, you cannot detect double feeding.
  - Depending on the originals, such as originals with damaged edges, irregular shaped originals, or originals with dark backgrounds, you cannot detect double feeding.
  - Some originals may be misdetected as double feeds, such as originals with lines or bands across the full width, originals with creases, or originals with a border frame.
  - To scan the originals without skewing, adjust the edge guides to fit the edge of the originals before scanning.

- Close button

  Saves the settings and closes the screen.

■Skip Blank Pages

You can skip blank pages if there are any in the originals.
If the result is not what you expected, select Skip Blank Pages > Settings, and then adjust Detection Level.
Note:

- Some pages may be incorrectly skipped as blank pages.
- This feature is not available when scanning double-sided originals that are stitched.
- This feature is not available when you select the Main Settings tab > Document Source > Scanner Glass.

■Skip Blank Pages Settings Screen

You can skip blank pages if there are any in the originals.
- Detection Level

You can adjust the amount of blank page detection. If you set this to a high level, you can skip any originals with light colors or offset as blank pages.

- Close button
  Saves the settings and closes the screen.

9.3. Advanced Settings

You can adjust the quality of scanned images on the Advanced Settings tab.
Note:

- Some items and settings may not be available depending on the scanner you are using.
  Read this help for the sections that apply to your scanner.
- Some items and settings may not be displayed depending on the type of scanned original.
- Before scanning, check if there is enough free space on the hard disk or memory.
- Scanning may take some time depending on the features you selected.

■Image Option

You can select the effect for the scanned image.

- Dropout
  You can remove the color specified from the scanned image, and then save it in grayscale or black and white. For example, you can erase marks or notes you wrote in the margins with color pen when scanning.

  Note:
  This feature is not available when selecting the Main Settings tab > Image Type > Color.
- Remove Background
  You can remove the background of the originals.
  You can select the level of the effect by selecting the Main Settings tab > Image Type > Color. If you select High, you can remove the background color of

the originals, such as colored papers, or papers discolored by sunlight or time. To use this feature, the background color of the originals should be the lightest color in the originals, and should be uniform. This feature is not applied correctly if there are patterns in the background, or there are text or illustrations which are a lighter color than the background.

Note:
This feature is not available when you select the Main Settings tab > Image Type > Black & White.

■Brightness

You can adjust the brightness for the whole image.
Note:
This feature is not available depending on the settings on the Main Settings tab > Image Type or the settings on the Advanced Settings tab.

■Contrast

You can adjust the contrast for the whole image. If you increase the contrast, the bright areas become brighter, and the dark areas become darker. On the other hand, if you lower the contrast, the differences between the bright and dark areas of the image are less defined.
Note:
This feature is not available depending on the settings on the Main Settings tab > Image Type or the settings on the Advanced Settings tab.

■Gamma

You can adjust the gamma (brightness of the intermediate range) for the whole image. If the image is too light or too dark, you can adjust the brightness.
Note:
This feature is not available depending on the settings on the Main Settings tab > Image Type or the settings on the Advanced Settings tab.

■Threshold

You can adjust the border for monochrome binary (black and white). Increase the

threshold, the black color area becomes larger. Decrease the threshold, the white color area becomes larger.

Note:

This feature may not be available depending on the settings on the Main Settings tab > Image Type or the settings on the Advanced Settings tab.

9.4. Image Format

You can select the save format for the scanned image. If you select Options, you can make detailed settings for each save format.

The following shows the supported save formats and extensions.

Note:

- Some items and settings may not be available depending on the scanner you are using.
  Read this help for the sections that apply to your scanner.
- You cannot make settings for any items in Image Format Options for PNM and PNG formats.

■PNM (*.pnm)

A file format that is supported by a wide variety of Linux applications.

■JPEG (*.jpg)

A file format which allows you to compress the data to be saved.

If the compression ratio is high, the image quality declines, and you cannot convert the image back to the original quality. Every time you save the image, the quality declines. We recommend saving the scanned image in TIFF format when processing the image.

■PNG (*.png)

A file format which allows you to compress the data to be saved.

The image quality does not decline by compressing.

■TIFF (*.tif)

A file format created to exchange data between various applications such as graphic software and DTP software.

■Multi-TIFF (*.tif)

A file format in which you can save multiple pages as one file.

You can save up to 200 pages per file.

To open a Multi-TIFF file, you need an application that supports Multi-TIFF.

Scanning may be interrupted depending on the number of originals, resolution settings, or the amount of free space on the hard disk.

■PDF (*.pdf)

A general file format that can be used across different operating systems and provides the same level of screen display and print result.

9.4.1. Image Format Options Screen

You can make detailed settings for each save format.

■Image Format

Select the save format for the scanned image.
Select the save format, and then make detailed settings.

Note:

- You cannot make settings for any items in Image Format Options for PNM and PNG formats.
- Some items and settings may not be available depending on the scanner you are using.
  Read this help for the sections that apply to your scanner.

■Close button

Saves the settings and closes the screen.

9.4.1.1. JPEG

■Encoding

Select an encoding system.

- Standard

  An encoding system to display images on the Internet on a Web browser by transcribing the image from the top to bottom.

- Progressive

  An encoding system to display images on the Internet on a Web browser by gradually displaying the image with higher precision.

  This system allows you to get a rough idea of the image data while it is still downloading.

■Image Quality

Set the compression level for the image.

If you set this as high quality data, the size of the file increases.

9.4.1.2. PDF

■Page Number

Set the number of pages to save in one file.

When you specify [Create file with all pages], you can save all pages in one file.

When you specify [Select number to make file], documents are counted up to the set number of pages and create new file.

9.4.1.3. TIFF/Multi-TIFF

Note:

The settings you made in either TIFF or Multi-TIFF are applied to each other. Check the settings when you want to scan using another image format.

■Compression

- Black & White

  You can select None or CCITT Group4. When CCITT Group4 is selected, you can compress the image file to approximately half the size.

9.5. File Name

You can set the file name for the scanned image.
The File Name Settings screen is displayed when Settings is selected.

9.6. Folder

You can select the save folder for the scanned image.
When Select is selected, the Location screen is displayed, and you can select a folder or create a new folder.

9.7. Scan Button

You can click this button to start scanning.

9.8. Configuration Screen

You can make settings for the operating environment for Epson Scan 2.

Note:
Some items and settings may not be available depending on the scanner you are using.
Read this help for the sections that apply to your scanner.

■Close button
Saves the settings and closes the screen.

9.8.1. General Tab

■Units
　Select the size unit used in Epson Scan 2.
■Use Last Used Settings
　When this is selected, the preview images and settings are saved before closing
Epson
　Scan 2.
　The settings used last time are displayed when the scanner starts.
■Open image folder after scanning
　When this is selected, the save folder opens after scanning.

9.8.2. Counter Tab

You can check the total number of scanned originals as well as the status of
consumables on the Counter tab.

Note:
Some items and settings may not be available depending on the scanner you are
using.
Read this help for the sections that apply to your scanner.

■Scan Counter
Displays the total number of scanned sheets and the number of errors that have
occurred.

■Roller Assembly Kit/Pickup Roller/Separation Pad
Displays the number of scanned originals fed by the scanner you are using, as well
as the number of sheets scanned using the consumables.
Once the number of scans exceeds the life cycle, a replacement message for the
consumables is displayed when Epson Scan 2 starts.

When this message is displayed, replace the consumables. If you do not replace the consumables and continue using the scanner, multiple originals may be fed at the same time or paper jam errors may occur.

■Reset button
When you press the Reset button, the counter for the number of scans for the consumables is reset.
After replacing the consumables, follow the instructions in the message to reset the number of scans.

9.8.3. Other Tab

Note:
Some items and settings may not be available depending on the scanner you are using.
Read this help for the sections that apply to your scanner.

■Reset Epson Scan 2
Press the Reset button to initialize all of the Epson Scan 2 settings except for the network scanner settings.

Note:
Initialize the settings for all installed scanners.

10. About command line functions

Epson Scan 2 can acquire images by command line option with the setting file. using (Main window is not displayed).

10.1. Scanning with setting file

To perform scanning with the specified setting bythe scan setting file, specify ″−−scan″ or ″−s″ as the options as follows.

$ epsonscan2 --scan [DeviceID|IP Address] [ScanSettingFilePath]

The meaning of each parameter is as follows.

Parameter	Meaning
DeviceID|IP Address	Specify Device ID* or IP Address for the scanner. *Device ID can be listed by "--list" command. Refer to [10.3. Display the list of devices local connecting].
ScanSettingFilePath	Full path of scan setting file(SF2/sf2 file). If it contains spaces, it should be inserted in double quotation marks.

- If connecting device is only one, [DeviceID|IP Address] can be skipped.
- If connecting device is multiple and [DeviceID|IP Address] is not specified, wthe first recognized scanner will be used.

If there are items and parameters not specified in the scan setting file, those items will be utilized with default parameters.

If command line is executed with this option start scanning as follows.
- The Main window is not displayed.
- When saving the file is completed, it will be quit automatically.
- If cancel scanning, it will be quit automatically..
- If an error occurred during scanning, it will be quit after displaying an error message on the command line.

10.2. Create setting file

To create the scan setting file, specify "--edit" or "-e" as options as follows.

$ epsonscan2 --edit [ScanSettingFilePath]

The meaning of each parameter is as follows.

Parameter	Meaning
ScanSettingFilePath	Full path of scan setting file（SF2/sf2 file） to create. If it contains spaces, it should be inserted in double quotation marks.

If command line is executed with this option, it works as follows.
- The Main window is displayed
- The "Scan" button will be changed to "Save" button, then the specified settings are saved to the scan setting file..

If an existing scan setting file is specified, that setting parameters will be applied in Main window settings.

10.3. Display the list of local connected devices

To display the list of scanners (except network connected devices) recognized by the driver, specify "--list" or "-l" option as follows.

$ epsonscan2 --list

If no supported scanner is connected, nothing will be displayed.

10.4. Network settings

To add an IP address for network scanning, specify ″--set-ip″ or ″-i″ option as follows.

$ epsonscan2 --set-ip [IP]

The meaning of each parameter is as follows.

Parameter	Meaning
IP	IP address for the scanner

IP address longer than 64 characters cannot be added.

10.5. **Display help**

To display brief description about command line function, specify ″--help″ or ″-h″ option as follows.

$ epsonscan2 --help