P2ZZ-0370-02ENZ0

fi Series

Image Scanner Driver for macOS

User's Guide

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Introduction

Thank you for using the Image Scanner Driver for macOS.
This manual describes the overview and operations of this product.
The contents of this manual are subject to change as this product is updated.

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Manufacturer

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Use in High-Safety Applications

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Abbreviations Used in This Manual

The following abbreviations are used in this manual.

Name	Indication
Image Scanner Driver for macOS	macOS Driver
Intel®	Intel

Screen Examples in This Manual

The screenshots used in this manual are the ones used in macOS Mojave v10.14.
The actual screens and operations may differ depending on the version.
If the actual screen differs from the screen examples in this manual, operate by following the actual displayed screen.

Notice

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Issue date: November 2019
Issued by: PFU Limited

How to Use the macOS Driver

How to use the macOS driver is described below.

macOS Driver Overview

This section describes an overview of the macOS driver.
The macOS driver is a driver software for Image Scanner fi Series corresponding to the standard interface "ICA (*)" that is provided for capturing images with macOS.
The macOS driver has the following functions:

- ICA driver function
  - Scanning with Image Capture
    Image Capture which is an application for scanning images is built into macOS by default.
    To scan a document with Image Capture with an Image Scanner fi Series, install this product on a computer in which macOS is installed.
  - Scanning with an image scanning application which supports ICA
    You can scan a document with an Image Scanner fi Series by using a third-party image scanning application which supports ICA.

  Refer to References for Developing an Application for Scanning an Image with ICA Driver Functions (page 39) in Appendix to develop an application for scanning an image with ICA driver functions.
- Management Tool
  Used to manage consumables and configure the settings such as the period of time before the scanner is automatically turned off, the offset value, and the magnification level.
  For details, refer to Management Tool (page 26).
- Maintenance Information Obtaining Command
  A command is provided, which obtains all system information that is required for scanner maintenance.
  For details, refer to Maintenance Information Obtaining Command (page 36).

***:**ICA (Image Capture Architecture) is a specification proposed by Apple Inc. for scanner control on macOS.

Supported Scanners

The supported scanners are shown below.

- fi-800R
- fi-7180
- fi-7160
- fi-7140
- fi-7030

Provided Product Units

Operating system	Package (installer) file name	Package format
• macOS Catalina v10.15 • macOS Mojave v10.14	pfufs-macOS_10.15_2.x.x.dmg	dmg

The file name is made up of the following:

macOS_10.15: This is the latest version of macOS which is supported by this package.

2.x.x: This is the version of the driver.

dmg: This is the format of the package.

System Requirements

The system requirements are shown below.

- **Operating system**
  - macOS Catalina v10.15
  - macOS Mojave v10.14
- **Hardware**

  The hardware requirements are shown below.

Disk Space Required	2 MB
CPU	Intel Core™ i5 2400S 2.3GHz
Memory	8.0 GB

Installation and Uninstallation Procedures

Procedures are shown below for installation and uninstallation of the macOS driver.

Obtaining the macOS driver

The macOS driver can be downloaded from the following website.
http://imagescanner.fujitsu.com/global/dl/
For details, contact the distributor/dealer where you purchased our scanners.
For details about the contact list, refer to Customer Support (page 38).

Preparation

- Copy the installer that was downloaded from the website to the installation target computer.
- Disconnect the scanner from the computer before installing or uninstalling the driver.

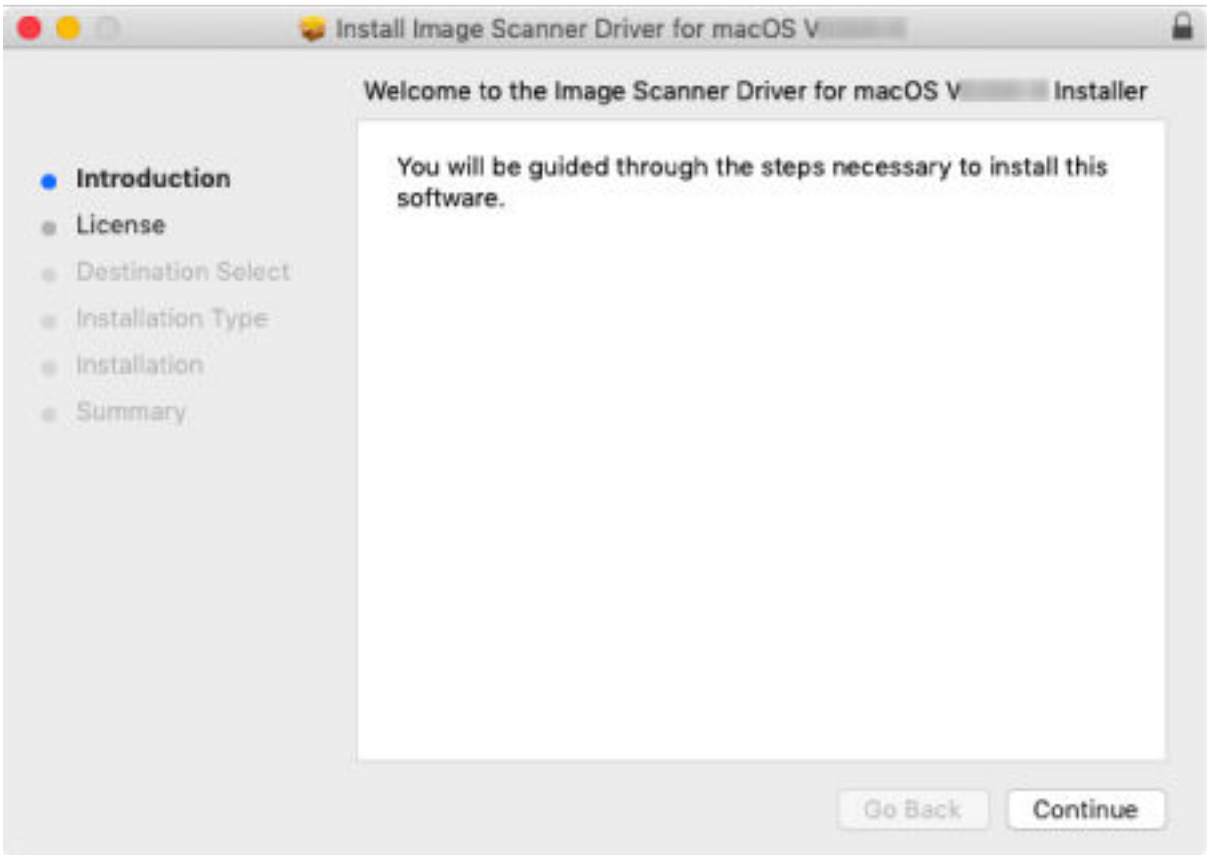
Installation Procedure

Install the macOS driver in the following procedure:

1. **Double-click the installer (pfufs-macOS_10.15_2.x.x.dmg) that is copied to the computer.**
   The package (pfufs-macOS_10.15_2.x.x.pkg) appears.

2. **Double-click the package.**
   The installation window appears.

3. **Install the driver by following the instructions displayed on the installation window.**



HINT

- When a window asking you for permission to perform an installation appears, enter the user name and password for the computer and click the [Install Software] button.
- If an installation is performed on the computer and the product is already installed, the message "You do not need to install this product because it is already installed." appears and the installation is canceled.

4. **After the installation is complete, connect the scanner to the computer and turn it on.**

5. **Start up Image Capture to check scanning operations.**
   For details, refer to Scanning with Image Capture (page 20).

How to check the installed software

The following folder is saved in the "Application" folder when the macOS driver is installed.
Folder name: fi Series

- You can check whether or not this product is installed by checking whether the folder exists or not.
- You can check the version of this product by referring to "Version.txt" in the folder.
- You can browse this manual by double-clicking "fi Series User's Guide.app" in the folder under the environment in which Internet access is allowed.

Uninstallation Procedure

Uninstall the macOS driver in the following procedure:

HINT

Administrator privileges for a computer are required for a user to uninstall the macOS driver. Log in as a user with administrator privileges.

1 In Finder, select [Applications] → [Utilities] and double-click [Terminal].

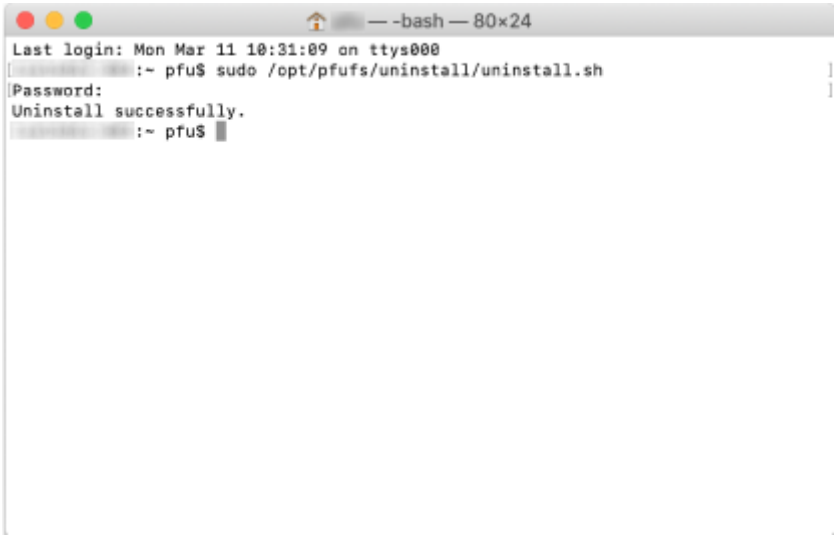
The Terminal window appears.
Commands (string of characters) can be entered directly in the Terminal window.

2 Run the following command.

```
sudo /opt/pfufs/uninstall/uninstall.sh
```

3 Enter a password for a user with administrator privileges and press the [Enter] key on the keyboard.

The macOS driver is uninstalled.



HINT

- Uninstalling the macOS driver does not delete any images that were scanned before the uninstallation.
- When connecting the scanner to a computer after the macOS driver is uninstalled, Image Capture may recognize the scanner accidentally, resulting in an error. In this case, restart the computer.

Scan Settings for Image Capture

The scan settings which can be set with Image Capture are shown below:
Default settings are indicated in **bold characters**.
In addition to the Image Capture settings, the macOS driver settings are displayed in the scan settings for Image Capture.
For details about the macOS driver settings, refer to macOS Driver Function Details (page 16).
Although there are some exceptions, most of the setting items and parameters for the Image Capture specifications are applied as they are. The setting items and parameters are subject to change regardless of the macOS specifications.

Item	Setting Parameter
Kind	Text/Black & White/Color
Resolution (*1)	**150 dpi**/200 dpi/240 dpi/300 dpi/400 dpi/500 dpi/600 dpi
Size (*1)	**A4 (210 × 297 mm)** B5/JIS B5 (182 × 257 mm) Letter (216 × 279.4 mm) Legal (216 × 355.6 mm) A5 (148 × 210 mm) Executive (184.2 × 266.7 mm) A6 (105 × 148 mm) JIS B6 (128 × 182 mm) Business card (90 × 55 mm)
Orientation	Up/Right/Down/Left
Duplex (check box)	Clear/Select
Scan To	Pictures Desktop Documents Movies Downloads Photos Preview Mails Others...
Name	Scan
Format	JPEG HEIC (*2) TIFF PNG JPEG 2000 GIF

Item	Setting Parameter
	BMP PDF
Combine into single document (check box)	Clear/Select
Image Correction	None/Manual When [Manual] is selected, the following options appear and you can set them. The displayed options vary depending on the setting for [Kind]. ● When [Text] is set - [Threshold] - [Dither] (check box) ● When [Black & White] is set - [Brightness] - [Contrast] ● When [Color] is set - [Brightness] - [Tint] - [Temperature] - [Saturation]

***1:**The setting parameter for the macOS driver specifications is applied to the setting parameter for this item.

***2:**This setting parameter appears when macOS Catalina v10.15 is used and [Color] is set for [Kind].

macOS Driver Function Details

Functions which can be set with the macOS driver are shown below:
Default settings are indicated in **bold characters**.

Function	Setting Parameter	Notes
Cropping (for fi-800R)	None **Auto** Overscan	The necessary part of a scanned image is cropped. ● None Outputs an image in the specified document size. When the actual document size is smaller than the specified document size, the background color around the document is white. ● Auto The document size is detected automatically, and the image is cropped. The specified setting for [Size] is ignored. When multiple documents in different paper sizes are scanned continuously by using U-turn Scan, each scanned image is output in the same size as each scanned document. ● Overscan Background areas are added to the top, bottom, left, and right of the image.
Cropping (for fi-7180/fi-7160/ fi-7140)	None (with black background) None (with white background) **Auto (Speed emphasis)** Auto (Accuracy emphasis) Overscan	The necessary part of a scanned image is cropped. ● None (with black background) Outputs an image in the specified setting for [Size]. When the actual document size is smaller than the specified document size, the background color around the document is black. ● None (with white background) Outputs an image in the specified setting for [Size]. When the actual document size is smaller than the specified document size, the background color around the document is white. ● Auto (Speed emphasis) The document size is detected automatically, and an image is cropped with priority given to the process speed. The specified setting for [Size] is ignored. When multiple documents in different paper sizes are scanned continuously through the ADF, each scanned image is output in the same size as each scanned document. ● Auto (Accuracy emphasis)

Function	Setting Parameter	Notes
		The document size is detected automatically, and an image is cropped with priority given to the cropping accuracy. The specified setting for [Size] is ignored. When multiple documents in different paper sizes are scanned continuously through the ADF, each scanned image is output in the same size as each scanned document. ● Overscan Background areas are added to the top, bottom, left, and right of the image.
Cropping (for fi-7030)	None **Auto** Overscan	The necessary part of a scanned image is cropped. ● None Outputs an image in the specified document size. When the actual document size is smaller than the specified document size, the background color around the document is white. ● Auto The document size is detected automatically, and the image is cropped. The specified setting for [Size] is ignored. When multiple documents in different paper sizes are scanned continuously through the ADF, each scanned image is output in the same size as each scanned document. ● Overscan Background areas are added to the top, bottom, left, and right of the image.
Multifeed detection	Off **On (Overlapping)** On (Length) On (Overlapping +Length)	This parameter can be set for fi-7180/fi-7160/fi-7140/fi-7030 or for U-turn Scan on fi-800R. Specify an action when two or more documents that are overlapped are fed at the same time. Scanning thick documents such as plastic cards will be falsely detected as multifeed. In this case, set [Off] for this parameter. ● Off Does not detect multifeed. When one of the following conditions is specified if a multifeed is detected, scanning is stopped. ● On (Overlapping) An error is detected as a multifeed when two or more documents that are overlapped are fed at the same time. ● On (Length) Monitors the document length during feeding, and detects multifeed according to the deviation of detected lengths.

Function	Setting Parameter	Notes
		● On (Overlapping+Length) Monitors the length and the overlapping of a document during feeding, and detects a multifeed.
Prepick	**On** Off	This parameter can be set for fi-7180/fi-7160/fi-7140/fi-7030. When this parameter is set to [On], a document is fed until it reaches the position in which the document will be scanned. This helps to shorten the scanning time.
Dropout color	White Red Green Blue **None**	Removes colors other than black from an image. For example, only black characters can be scanned from a document that consists of black characters and red frames. This parameter is enabled when [Text] or [Black & White] is set for [Kind]. This parameter is ignored when [Color] is set for [Kind].
Text clarity	**None** Smoothing Emphasis-Level 1 Emphasis-Level 2 Emphasis-Level 3 Descreen-Level 1 Descreen-Level 2 Descreen-Level 3 Descreen-Level 4	Corrects characters, lines, and the background of an image. The effects vary depending on the type of document. ● Smoothing Smoothens the curves of characters and lines. ● Emphasis Emphasizes the contour of characters and lines. The setting can be set in 3 levels. The higher the level you set, the more emphasized the contour becomes. ● Descreen Reduces the moire that appears on the image when [Color] or [Black & White] is set for [Kind]. The setting can be set in 4 levels The higher the level you set, the less moire appears.
Tone adjustment	None **Normal** Soft Sharp Bright	Adjusts the tone of the entire image. When [Text] is set for [Kind], specifying a parameter other than [None] emphasizes white in an image. ● None No adjustments are performed. This is recommended when a document type is a text document. ● Normal Outputs a scanned image in a standard image quality. ● Soft Outputs a scanned image in a softened image quality. ● Sharp Outputs a scanned image in a clear, sharpened image quality. ● Bright

Function	Setting Parameter	Notes
		Outputs a scanned image in a brighter image quality.
Blank page skip	Off On (Low sensitivity) On (Medium low sensitivity) **On (Default)** On (Medium high sensitivity) On (High sensitivity)	Specify a sensitivity level to detect characters, lines, pictures and photographs on the scanned image. When the sensitivity level is high, the scanned images are more likely to be recognized as blank pages. If a scanned image that is not blank is detected as a blank page, set a lower sensitivity level. **HINT** When this parameter is set to [On] and the [Duplex] check box is cleared in Image Capture, if a document that has a blank front page is scanned, the scanned image is removed and is not output.
Scan button monitor	Off **On**	Monitors the [Scan] button of the scanner and performs a scan when it detects that the [Scan] button was pressed if this parameter is set to [On].

Scanning a Document

Scanning with Image Capture is described below:

Scanning with Image Capture

The procedure for scanning a document with Image Capture is described below:

Preparation

Connect the scanner to the computer with the USB cable, and turn the scanner on.

1. **Start up Image Capture from Finder or Launchpad on Dock.**

   The names of the connected scanners are displayed in the device list on the left side of the window.

2. **Select a scanner from the device list.**

3. **Click the [Show Details] button.**

   The scan settings are displayed on the right side of the window.

4. **Check or modify the scan settings.**
   For details on the scan settings, refer to Scan Settings for Image Capture (page 14) or macOS Driver Function Details (page 16).

5. **Load documents in the scanner.**
   For details, refer to the Operator's Guide of the scanner that is used.

6. **Click the [Scan] button on the bottom right of the Image Capture window.**

   Scanning starts.

Monitoring the Scan Button with Image Capture

Scanning can be performed by pressing the [Scan] button on the scanner when the scan button is being monitored by Image Capture.
The procedure for scanning documents with the scan button being monitored is described below:

Preparation

Connect the scanner to the computer with the USB cable, and turn the scanner on.

1. **Start up Image Capture from Finder or Launchpad on Dock.**

   The names of the connected scanners are displayed in the device list on the left side of the window.

2. **Select a scanner from the device list.**

   The scan settings are displayed on the right side of the window.

3. **Check or modify the scan settings.**

4. **Load documents in the scanner.**
   For details, refer to the Operator's Guide of the scanner that is used.

5. **Make sure that [Scan button monitor] is set to [On] in the scan settings. If [Scan button monitor] is set to [Off], set it to [On].**

6. **Click the [Scan] button on the scanner.**

   Scanning starts.

How to Fix Errors That Occur While Performing a Scan

This section describes how to fix errors that occur while performing a scan. The display messages for various types of errors that occur when scanning with Image Capture are also included as a reference.

Error Code	Display Message in Image Capture (Reference)	Cause, Result of the Cause, and the Corrective Action
0x02000000	An input-output error occurred in the scanner.	**Cause** An error occurred during communication with the scanner. The scanner may be turned off or the interface cable may have been unplugged during operation. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Check that the power cable or USB cable of the scanner is connected properly. Make sure that the scanner is not in the middle of a scan when unplugging the cable.
0x03800131 0x03800150	Paper jammed in the ADF.	**Cause** Paper jam occurred in the ADF. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Turn off the scanner and remove the document from the ADF. Do not use force to pull out jammed documents, and make sure to open the ADF first. If document jams occur frequently, clean the inside of the scanner. For details about how to clean the inside of the scanner, refer to the Operator's Guide of the scanner that is used.
0x03800240	Scanner cover is open.	**Cause** Scanning cannot be performed because the ADF cover of the scanner is open.

Error Code	Display Message in Image Capture (Reference)	Cause, Result of the Cause, and the Corrective Action
		Result of the Cause The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Close the ADF, and then try scanning again.
0x03800320	No documents in the ADF paper chute.	**Cause** There are no documents left in the ADF paper chute (feeder). **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Load some documents in the ADF paper chute (feeder).
0x03800755 0x03800756	Multifeed detected.	**Cause** Multiple sheets that are overlapped in the inside of the scanner are scanned at the same time. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Remove the documents, check the scanned images, and then load the documents again.
0x03800801 0x03800804	The sensor(s) are dirty.	**Cause** The sensor(s) are dirty. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Open the ADF and clean the sensor(s). For details about how to clean the sensor(s), refer to the Operator's Guide of the scanner that is used.

Error Code	Display Message in Image Capture (Reference)	Cause, Result of the Cause, and the Corrective Action
0x03800C59	Could not start scanning. Remove either of the documents from one of the following. - ADF paper chute (feeder) - Return path opening	**Cause** There are documents in both the ADF paper chute (feeder) and in the return path opening. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Remove documents from one of the following: - ADF paper chute (feeder) - Return path opening
0x03802078	The button for cancellation on the device was pressed.	**Cause** Scanning was stopped with the [Stop] button on the scanner. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** A document may be remaining in the scanner. Open the ADF and remove the document.
0x99100010	An abnormality has occurred during communication.	**Cause** An error occurred during communication with the scanner. The scanner may be turned off or the interface cable may have been unplugged during operation. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Check that the power cable or USB cable of the scanner is connected properly. Make sure that the scanner is not in the middle of a scan when unplugging the cable.
0x99200010	Not enough memory available to complete this operation.	**Cause** Memory ran out during a scanning process.

Error Code	Display Message in Image Capture (Reference)	Cause, Result of the Cause, and the Corrective Action
		Result of the Cause The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** If other applications are running, quit all applications other than Image Capture. In addition, change the settings such as the resolution and the paper size to reduce the image size, and then try scanning again. If the problem persists, add memory.
Value other than 0x00	An input-output error occurred in the scanner.	**Cause** A scanning error occurred. **Result of the Cause** The scanner stops the scanning process and the image scanning application returns an error. **Corrective Action** Turn off the scanner and restart the computer. Turn on the scanner, and then try scanning again. If the problem still persists, contact the distributor/dealer where you purchased this product. For details about the contact list, refer to Customer Support (page 38).

Management Tool

The management tool allows you to maintain the scanner and configure the settings such as the waiting time before the scanner enters power saving mode, the period of time before the scanner is automatically turned off when it is left unused, the magnification level, and the offset value.
Details on how to use this management tool and its functions are described below.

How to Use the Management Tool

HINT

- Before using the management tool, quit Image Capture first.
- Administrator privileges for a computer is required for a user to run the command with an option to configure the settings. Log in as a user with administrator privileges.
  Refer to the table in Functions, Options, and Setting Values for Arguments (page 28) to check the options which require administrator privileges.

1 In Finder, select [Applications] → [Utilities] and double-click [Terminal].

The Terminal window appears.
Commands (string of characters) can be entered directly in the Terminal window.

2 Specify an option and an argument for the "pfufsconsumables" command and then execute the command.

```
pfufsconsumables <option> <setting value for an argument>
```

- When an option which does not require administrator privileges is specified
  The command is performed immediately.

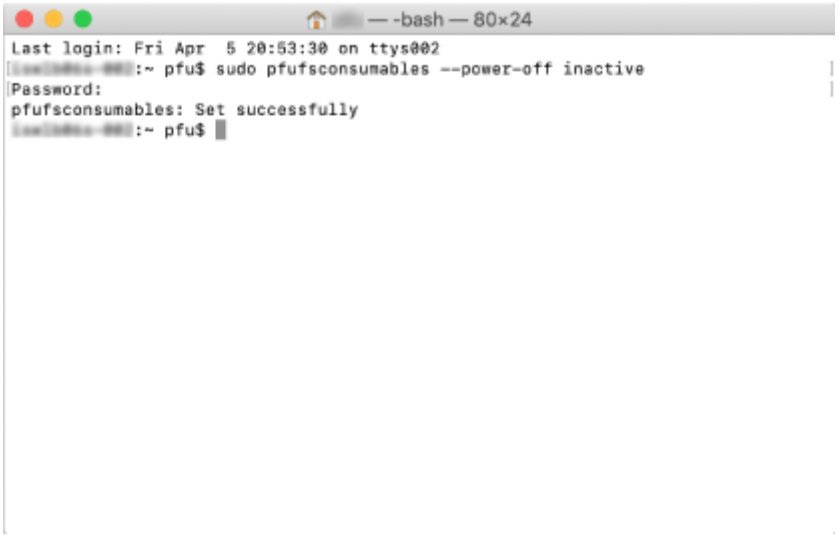
  Example: The command which confirms the connection of the scanner

  ```
  pfufsconsumables -L
  ```

- When an option which requires administrator privileges is specified
  A password is required if you enter "sudo" first and run the "pfufsconsumables" command.
  Enter a password for a user with administrator privileges and press the [Enter] key on the keyboard to run the command.

  Example: The command for setting the scanner to be automatically turned off

  ```
  sudo pfufsconsumables --power-off inactive
  ```



Functions, Options, and Setting Values for Arguments

No.	Function	Option	Setting value for an argument	Notes
1	Listing the scanners that are connected	-L or --list-devices	None	The following information is displayed for each scanner that is connected: ● Scanner name ● Location ID
2	Specifying a scanner	-d or --device-name	Scanner name:Location ID Example: pfufsconsumables –d fi-800R:4245880832 --info	If you do not specify this option, the scanner that is detected first is specified. For the Location ID, specify the values that are listed when the command is executed with option "-L" or "--list-devices" specified.
3	Displaying the Help information	-h or --help	None	The Help information for the management tool is displayed.
4	Displaying the version of the management tool	-V or --version	None	The version of the management tool is displayed.
5	Displaying the scanner information	--info	None	The following information about the scanner is displayed: ● Scanner name ● Firmware version ● Serial number ● Consumable counters ● Waiting time before the scanner enters power saving mode/time period before the scanner is automatically turned off when it is left unused ● Magnification level and offset value
6	Clearing the number of sheets scanned after cleaning (*1)	--after-cleaning-clear	None	The number of sheets scanned after cleaning is cleared.

No.	Function	Option	Setting value for an argument	Notes
7	Clearing the counter number for the pad unit (*1)	--pad-clear	None	The counter number for the pad unit is cleared.
8	Clearing the counter number for the brake roller (*1)	--brake-roller-clear	None	The counter number for the brake roller is cleared.
9	Clearing the counter number for the pick roller (*1)	--pick-roller-clear	None	The counter number for the pick roller is cleared.
10	Setting the waiting time before the scanner enters power saving mode (*1)	--sleeptimer	5 to 115	● Specify a value in minutes (that is a multiple of 5) for the waiting time before the scanner enters power saving mode. If the specified time that is not in multiples of 5, it is rounded down to the time in multiples of 5. ● Up to a value of 235 can be specified for the parameter depending on the scanner model.
11	Setting the time period before the scanner is automatically turned off when it is left unused (*1)	--power-off	inactive 1-hour 2-hours 4-hours 8-hours	Specify an option to keep the scanner on even when it is left unused or specify one of the following time periods before the scanner is automatically turned off. ● inactive (inactive) ● 1-hour (1 hour) ● 2-hours (2 hours) ● 4-hours (4 hours) ● 8-hours (8 hours)
12	Setting the offset value (*1)	--u-turn-front-offset-main	-4 to 4 (*0.5 mm) (Step: 1)	Specify the front offset value in U-turn Scan for main scanning (widthways).
		--u-turn-front-offset-sub		Specify the front offset value in U-turn Scan for sub scanning (lengthways).

No.	Function	Option	Setting value for an argument	Notes
		--return-front-offset-main		Specify the front offset value in Return Scan for main scanning (widthways).
		--return-front-offset-sub		Specify the front offset value in Return Scan for sub scanning (lengthways).
		--u-turn-back-offset-main		Specify the rear offset value in U-turn Scan for main scanning (widthways).
		--u-turn-back-offset-sub		Specify the rear offset value in U-turn Scan for sub scanning (lengthways).
		--return-back-offset-main		Specify the rear offset value in Return Scan for main scanning (widthways).
		--return-back-offset-sub		Specify the rear offset value in Return Scan for sub scanning (lengthways).
		--adf-front-offset-main		Specify the front offset value in the ADF for main scanning (widthways).
		--adf-front-offset-sub		Specify the front offset value in the ADF for sub scanning (lengthways).
		--adf-front-offset-end-of-page		Specify the ADF front offset value for the bottom edge of the document.
		--adf-back-offset-main		Specify the rear offset value in the ADF for main scanning (widthways).
		--adf-back-offset-sub		Specify the rear offset value in the ADF for sub scanning (lengthways).
		--adf-back-offset-end-of-page		Specify the ADF rear offset value for the bottom edge of the document.

No.	Function	Option	Setting value for an argument	Notes
13	Magnification adjustment (*1)	--u-turn-magnification-adjustment	-3.1 to 3.1% (Step: 0.1)	Specify the U-turn Scan magnification level for sub scanning (lengthways).
		--return-magnification-adjustment		Specify the Return Scan magnification level for sub scanning (lengthways).
		--adf-magnification-adjustment		Specify the ADF magnification level for sub scanning (lengthways).

***1:**Administrator privileges for a computer are required for a user to set this option.
For details about how to set this option, refer to "When an option which requires administrator privileges is specified" in step 2 in How to Use the Management Tool (page 26).

- If you specify two or more options from No.1, No.3, No.4, and No.5 at the same time, only the first option is applied.
  For example, when the following command is executed, only the version of the management tool is displayed.

```
pfufsconsumables -V --info
```

- If you specify an option from No.1, No.3, No.4, and No.5 and an option from No.6 through No.13 at the same time, the option from No.6 through No.13 is not applied.
  For example, when the following command is executed, the version of the management tool is displayed, but the waiting time before the scanner enters power saving mode is not applied.

```
pfufsconsumables --sleeptimer 60 -V
```

- The following message appears when an option from No. 6 onwards is specified.

  When the specified option is set successfully: Set successfully

  When the specified option is not set successfully:unrecognized option 'xxxxx'
  ('xxxxx' indicates the specified option.)

  You can confirm the result of the specified option by specifying the "--info" option in No.5 in order to display the scanner information.

- To output the displayed results of the scanner information into a text file (.txt) by using the management tool, execute the following command:

  Example:

```
pfufsconsumables --info > result_of_info.txt
```

  "result_of_info.txt" in the above command is an arbitrary text file name.

Models and Supported Functions

The models that support each function (option) are shown below.

Function (Option)	Scanner Model		
	fi-800R	fi-7180 fi-7160 fi-7140	fi-7030
Listing the scanners that are connected -L or --list-devices	✓	✓	✓
Specifying a scanner -d or --device-name	✓	✓	✓
Displaying the Help information -h or --help	✓	✓	✓
Displaying the version of the management tool -V or --version	✓	✓	✓
Displaying the scanner information --info	✓	✓	✓
Clearing the number of sheets scanned after cleaning --after-cleaning-clear	✓	✓	✓
Clearing the counter number for the pad unit --pad-clear	✓	–	–
Clearing the counter number for the brake roller --brake-roller-clear	–	✓	✓
Clearing the counter number for the pick roller --pick-roller-clear	✓	✓	✓
Setting the waiting time before the scanner enters power saving mode --sleeptimer	✓	✓	✓
Setting the time period before the scanner is automatically turned off when it is left unused --power-off	✓	✓	✓
Setting the front offset value in U-turn Scan for main scanning (widthways) --u-turn-front-offset-main	✓	–	–
Setting the front offset value in U-turn Scan for sub scanning (lengthways) --u-turn-front-offset-sub	✓	–	–
Setting the front offset value in Return Scan for main scanning (widthways)	✓	–	–

Function (Option)	Scanner Model		
	fi-800R	fi-7180 fi-7160 fi-7140	fi-7030
--return-front-offset-main			
Setting the front offset value in Return Scan for sub scanning (lengthways) --return-front-offset-sub	✓	–	–
Setting the rear offset value in U-turn Scan for main scanning (widthways) --u-turn-back-offset-main	✓	–	–
Setting the rear offset value in U-turn Scan for sub scanning (lengthways) --u-turn-back-offset-sub	✓	–	–
Setting the rear offset value in Return Scan for main scanning (widthways) --return-back-offset-main	✓	–	–
Setting the rear offset value in Return Scan for sub scanning (lengthways) --return-back-offset-sub	✓	–	–
Setting the front offset value in the ADF for main scanning (widthways) --adf-front-offset-main	–	✓	✓
Setting the front offset value in the ADF for sub scanning (lengthways) --adf-front-offset-sub	–	✓	✓
Setting the ADF front offset value for the bottom edge of the document --adf-front-offset-end-of-page	–	–	✓
Setting the rear offset value for the ADF for main scanning (widthways) --adf-back-offset-main	–	✓	✓
Setting the rear offset value in the ADF for sub scanning (lengthways) --adf-back-offset-sub	–	✓	✓
Setting the ADF rear offset value for the bottom edge of the document --adf-back-offset-end-of-page	–	–	✓
Adjusting the U-turn Scan magnification level for sub scanning (lengthways) --u-turn-magnification-adjustment	✓	–	–
Adjusting the Return Scan magnification level for sub scanning (lengthways) --return-magnification-adjustment	✓	–	–

Function (Option)	Scanner Model		
	fi-800R	fi-7180 fi-7160 fi-7140	fi-7030
Adjusting the ADF magnification level for sub scanning (lengthways) --adf-magnification-adjustment	–	✓	✓

✓ :Supported

–: Not supported

Messages and Return Values

This section describes the message format and return values of the management tool.

Message Format

The message format of the management tool is shown below:

pfufsconsumables: message

Procedure for Obtaining a Return Value

The procedure for obtaining a return value of the management tool is shown below:

1. **In Finder, select [Applications] → [Utilities] and double-click [Terminal].**

   The Terminal window appears.
   Commands (string of characters) can be entered directly in the Terminal window.

2. **Run a command with an option for the management tool.**

3. **Run the following command on the same Terminal window.**

```
echo $?
```

Return Value	Description
0x00	Applying the specified settings or clearing the counter was successfully completed.
Value other than 0x00	An error has occurred. Applying the specified settings or clearing the counter failed.

Maintenance Information Obtaining Command

To obtain the system information which is required during maintenance, use the Maintenance Information Obtaining command.

Procedure for Obtaining Maintenance Information

The procedure for obtaining maintenance information with the Maintenance Information Obtaining command is shown below:

HINT

Administrator privileges for a computer are required for a user to use the Maintenance Information Obtaining command. Log in as a user with administrator privileges.

1 **In Finder, select [Applications] → [Utilities] and double-click [Terminal].**

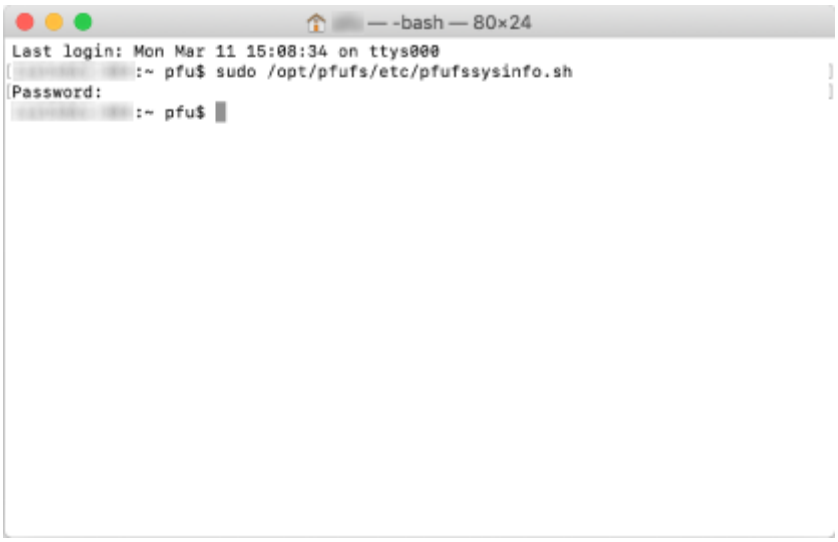
The Terminal window appears.
Commands (string of characters) can be entered directly in the Terminal window.

2 **Enter and run the following command.**

```
sudo  /opt/pfufs/etc/pfufssysinfo.sh
```

3 **Enter a password for a user with administrator privileges and press the [Enter] key on the keyboard.**

The system information that is necessary for maintenance is saved into the home directory with the following file name:
Path: /Users/(user name)
File name: pfufssysinfo.txt



Information That Can Be Obtained

Information that can be obtained with the Maintenance Information Obtaining command is shown below:

- System date
- Kernel information
- Operating system version
- Memory information
- USB device information
- System log

Customer Support

- **Contact for Inquiries**

  For inquiries regarding the scanner, refer to the following website:

Contact for Inquiries	http://imagescanner.fujitsu.com/g-support.html

  If you cannot find the information for inquiries on the above website, refer to the website below:

Contact for Inquiries	http://imagescanner.fujitsu.com/warranty.html

Appendix

References for Developing an Application for Scanning an Image with ICA Driver Functions

Details of ICA (Image Capture Architecture) can be confirmed below:
Read them as needed.

- **Image Capture Applications**

  You can obtain the information about the overview of ICA and how to create an application with the ICA driver.
  https://developer.apple.com/library/content/documentation/Carbon/Conceptual/ImageCaptureServicesProgrammingGuide/01Introduction/01Introduction.html

- **Sample code**

  You can refer to a sample source of a sample application which scans a document with a scanner (ICA driver).
  https://developer.apple.com/library/archive/samplecode/ScannerBrowser/Listings/ReadMe_txt.html

  The distributor/dealer where you purchased this product cannot respond to inquiries on the above content.
  Make an inquiry by visiting the "Apple Developer" support page on the website of Apple Inc.