CITIZEN

CUPS Driver Guide

For Ver. 1.2.6

CITIZEN SYSTEMS JAPAN CO., LTD.

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1. Introduction

1.1 Outline

This document describes an installation procedure and the function of the CUPS driver. Before using, please read this document, and use it correctly.

CUPS (Common Unix Printing System) is a standard printing system of Unix-based OS such as Linux and macOS. The target reader of this document is expert of Unix-based OS and printing systems works correctly. If you do not understand what this document tries to explain, please leave the installation/setting to experts.

1.2 Supported OS

This driver supports the following operation system.

- Linux (32bit/64bit).
- Mac OSX 10.9 or higher.

1.3 Operating environment

The explanation of this document is tested in the following environment.

Linux Distribution		CUPS Ver.
Red Hat	CentOS 6.10 (x86)	1.4.2
	CentOS 8.2 (x64)	2.2.6
Debian	Ubuntu 16.04.5 LTS (x86)	2.1.3
	Ubuntu 20.04.1 LTS (x64)	2.3.1
	Raspbian Strech (ARM)	2.2.1

Macintosh	CUPS Ver.
Mac OSX (Intel) 10.15.7	2.3.1
Mac OSX (Apple Silicon) 11.2.1	2.3.4

1.4 Supported Model

Supported models of this driver are as shown below.
For details of each model, refer to the Printer User's Guide.

CBM1000, CD-S500,CT-D101, CT-D150, CT-D151, CT-E301, CT-E351, CT-E601, CT-E651, CT-S751, CT-P29X, CT-S2000/2000L, CT-S251, CT-S280, CT-S281, CT-S300, CT-S310/310II, CT-S601/601II, CT-S651/651II, CT-S801/801II, CT-S851/851II, CT-S4000, CT-S4500, PMU22XX, PMU23XX, PPU700, CMP-20II, CMP-30II

2. Steps of CUPS driver installation

Driver installation takes following 2 steps.

Step1: Printer driver installation (Explanation in section3)

Step2: Adding printer to CUPS (Explanation in section4)

3. Printer driver installation

By this installation job, files (PPD=definition file and filter file) in the package are copied.

3.1 CUPS driver installation procedure to Linux

These instructions use CentOS8.2 as the example operation system. Depending on the version of the CentOS, there are some differences in the picture. But it is a similar procedure.

In Red Hat based Distribution, RPM package is used for installation.

The RPM file installation can be done either on GUI or command line (terminal).

"DEB" package file is also available.

As the installation steps for the Debian based distribution like Ubuntu are close to the explanation of RPM file.

Please refer to this document for the installation with DEB package file as well.

(Exception: Explanation for command line is added for DEB file.)

If supplied RPM or DEB files are not suitable for your environment, source code of the driver is available at

https://www.citizen-systems.co.jp/en/printer/download/#driver

It is necessary to compile and install the driver at user side. Simple instruction is available at the site.

3.1.1 RPM file installation on GUI

	Double-click RPM file. It is not mandatory to put the ROM file on the desktop like left picture.
	When the message like left picture comes up, press "Install" button.
	When password for root is required, please enter the root password. The installation of the printer driver is executed.

3.1.2 RPM file installation or update on command line

Enable the root privileges by "su" command.

Move to the directory where the RPM file is located.

Run "rpm" command with "-U" option and file name.

Example: rpm -U ctzpos-cups-1.2.6-0.i386.rpm

(For the DEB package file of Debian based distribution, use the dpkg command with "-i" option and file name.)

3.2 CUPS driver installation procedure to macOS

These instructions use macOS 10.15.7 as the example operation system. Depending on the version of the macOS, there are some differences in the picture. But it is a similar procedure.

3.2.1 Steps of the installation

	Double-click the disk image file (.dmg) to mount disk image. Then double-click the package file. It is not mandatory to put the file on the desktop like the picture.
	When the message like left picture comes up, press "Continue" button.

When the message like left picture comes up, press "Continue" button.

If you agree with the software license agreement, press "Agree" button.

When the message like left picture comes up, press "Install" button.
Printer driver files are installed to boot volume.

	Please enter the password. If you log-in as the user without administrator privileges, enter the name and password for administrator.
	When installation is finished successfully, you can see the screen like this. Press “Close” button to finish installation.

4. Adding printer to CUPS

This procedure is the same in Linux and macOS.

4.1 Automatic installation

After the printer driver installation is done, if the plug & Play function is effective for USB/parallel interface, printer driver is automatically added to CUPS by connecting USB/Parallel interface printer.

On the browser, navigate to http://localhost:631. This is the home page of CUPS.

Installed driver can be found on the "Printers" tab.

4.2 Manual installation

This example shows the steps to install driver of CT-S651II connected via serial port.

On the browser, navigate to http://localhost:631.

Choose "Administration" tab or click the link of "Adding Printers and Classes"

Press "Add Printer" button.

If user name & password is required, please enter the user name and password of the administrator.

If the serial port to connect the printer is shown in the port list, choose the port (Ex. Serial Port #1) and press "Continue".

If the printer interface is LAN or WLAN, select the AppSocket/HPJetDirect other network printer, Socket://IP address: 9100 and please enter.

When serial port setting menu is shown, choose the setting to match the serial port of the connected printer. (Serial port setting of the printer can be checked by self printing.) Press "Continue" button.

If you like, enter any name to "Name", "Description" and "Location".
In this example, "CITIZEN_CT-S651II" is set to "Name".
If you want to share the driver, put the check mark in "Share This Printer".

This is to choose the PPD file which is copied from RPM file.
Choose "CITIZEN" from "Maker" list and press "Continue" button.

Choose the model to install in the "Model" list and press "Add Printer" button. This will end the printer driver installation and move to "Set Default Options" menu.
If you continue setting for "Set Default Options", please move to section 5.2.

Added printer driver CT-S651II can be found on the "Printers" tab.

5. Driver function and settings

This procedure is the same in Linux and macOS.

5.1 Steps up to the "Set Default Options" menu

Choose "Printers" tab.

Installed drivers are shown. Choose the link of the driver for function setting.

"Maintenance" and "Administration" menu can be found.

In the "Maintenance" menu, choose "Print Test" for test printing.

In the "Administration" menu, choose "Set Default Options" for driver option (function) setting.

5.2 "Set Default Options" menu

In this menu, "General", "Drawer Options", "Cut Options" and "Buzzer Options" are available unique options our CUPS driver. (Depending on the model, those options are not available or not effective.)

Because "Banners", "Policies" are common function of CUPS, explanation is omitted.

5.2.1 General

"General" is the option to choose the Color Model, the media size, the paper media and the paper type.

Choose the Color Model. You can choose Monochrome or Grayscale.

Choose the combination of maximum print area width and print area length. Listed paper size depends on the printer driver.

Choose the paper media. You can choose Normal Paper or Label/BM Paper.

You can choose Receipt or Ticket as paper types. Receipt allows flexible paper length according to the data length to avoid waste of paper. Ticket print in fixed length even the print data is short.

5.2.2 Drawer Options

"Drawer Options" is to set cash drawer type and pulse length to send to the cash drawer.

Choose #2 for cash drawer1 and choose #5 for cash drawer2.

Usually, it is not necessary to adjust the pulse to send to cash drawer but when necessary, change the value.

5.2.3 Cut Options

Cutting method for middle page end (Page) and cutting method for receipt end (Job) can be chosen.

For the normal paper, there can be maximum 6 different cutting method combinations by partial cut, full cut and no cut.

For the label/black mark paper, cut or no cut can be chosen.

5.2.4 Buzzer Options

Buzzer function of printer can be utilized from the driver.

The timing of buzz can be selected from top of receipt (Job Start) or end of receipt (Job End). Number of buzz can be selected from 1 to 9. Default setting is no buzz.

6. CUPS driver uninstallation

6.1 CUPS driver uninstallation procedure of Linux

6.1.1 Deleting driver from CUPS

From Administration menu explained in section 5.1, choose “Delete Printer”.

6.1.2 RPM file uninstallation on GUI

If the software to manage the package is available, uninstall the RPM file.

6.1.3 RPM file uninstallation on command line

Enable the root privileges by “su” command.

Run the “rpm” command with “-e” option and file name (no file extension).

Example: rpm -e ctzpos-cups-1.2.6-0.i386

(For the DEB package file of Debian based distribution, use the dpkg command with “-r” option and file name.)

6.2 CUPS driver uninstallation procedure of macOS

6.2.1 Deleting driver from CUPS

From Administration menu explained in section 5.1, choose “Delete Printer”.

6.2.2 Delete the filter file and the PPD file

Installer installs the filter file and PPD file.

If you want to delete the files, run “Terminal” and delete filter files and PPD files by “rm” command. Deleting file requires administration privileges. So use “sudo” command like “sudo rm *[file]*”.

[Installed file list]

Filter file

Library	Printers	CITIZEN	Filter	rastertocbm1k
				rastertocds500
				rastertocts2kl
				rastertocts801ii

PPD file

Library	Printers	PPDs	Contents	Resources	CBM1000.ppd.gz
					CDS500.ppd.gz
					CTD150.ppd.gz
					CTD151.ppd.gz
					CTE351.ppd.gz
					CTE651.ppd.gz
					CTP29X.ppd.gz
					CTS2Klabel.ppd.gz
					CTS251.ppd.gz
					CTS253.ppd.gz
					CTS255.ppd.gz
					CTS257.ppd.gz
					CTS751.ppd.gz
					CTS280.ppd.gz
					CTS281.ppd.gz
					CTS300.ppd.gz
					CTS310.ppd.gz
					CTS310II.ppd.gz
					CTS401.ppd.gz
					CTS601.ppd.gz
					CTS601II.ppd.gz
					CTS651.ppd.gz
					CTS651II.ppd.gz
					CTS801.ppd.gz
					CTS801II.ppd.gz
					CTS851.ppd.gz
					CTS851II.ppd.gz
					CTS2000.ppd.gz
					CTS4000.ppd.gz
					CTS4500.ppd.gz
					PMU22XX.ppd.gz
					PMU23XX.ppd.gz
					PPU700.ppd.gz
					CMP20II.ppd.gz
					CMP30II.ppd.gz

6.2.3 Delete the package information

Package information added by the installation can be deleted as follows.

Command to delete package information

```
sudo pkgutil --forget jp.co.citizen-systems.cupsdriver.pkg
```

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