ZPL emulation barcode printers

CITIZEN CUPS Driver Guide

Ver1.0.0 issued on June 28, 2012

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Introduction

CUPS (Common Unix Printing System) becomes standard of printing systems on Linux.
The target reader of this document is expert of Linux. If you do not understand what this document tries to explain, please leave the installation/setting to the experts.

The target OS of this document is the one supporting CUPS and RPM and those function should work properly.

The explanation of this document are tested in the environment of

Fedora17
Kernel Linux3.3.4-5.fc17.i686
GNOME 3.4.1
CUPS1.5.2
Firefox 12.0
Printer CL-S400DT

If there is environmental difference from above, it is necessary to read this document taking the difference into the consideration.

"DEB" package file converted from RPM file by "alien" 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 our Web site as well. It is necessary to compile and install the driver at user side. Simple instruction is available at http://www.citizen-systems.co.jp/english/support/download/printer/driver/cups/source/

Caution

*** As the driver is designed for Zebra emulation (ZPL), printer must support Zebra emulation.**

*** Driver is not designed for specific model but for generic specifications of our barcode printers. Therefore, it is necessary to change the settings after the driver installation according to the specification of each model and configuration.**

1. Steps of CUPS driver installation

CUPS driver installation using RPM package file takes following 2 steps.

Step1: RPM file installation (Explanation in section2)

Step2: Adding printer to CUPS (Explanation in section3)

2. RPM file installation

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

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

2.1 RPM file installation on GUI

	Copy the RPM file to the PC. Right-click on the RPM file. Choose "Open With Software Install" like left picture.
	When the message as the left picture comes up, press "Install" button. When password for root is required, please enter the root password.

2.2 RPM file installation on command line

Enable the root privileges by "su" command.

Move to the directory where the RPM file is located.

Run "rpm" command with "–i " option and file name.

Example: rpm -i ctzcls-cups-1.0.0-0.noarch.rpm

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

3. Adding printer to CUPS

3.1 Basic installation

After the RPM file installation is done, the installation steps are slightly different by the printer interface. This example shows the steps to install driver of CL-S400DT connected via serial port.

	On the browser, navigate to http://localhost:631. This is the home page of CUPS.
	Choose "Administration" tab and press "Add Printer" button.
	If user name & password is required, please enter "root" and password of "root".

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

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.

Enter any name to "Name", "Description" and "Location".
In this example, "CL-S400DT" is set to "Name"
If you want to share the driver, put the check mark in "Share This Printer".
Press "Continue" button.

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

Choose "CITIZEN Barcode Printer" 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 refer to section 4.2.

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

3.2 Installation for Plug & Play interface

After the RPM file installation is done, connect the printer. If the interface is USB/parallel interface (where plug & Play function works), printer is automatically recognized by the CUPS.

And the steps to install driver is slightly different from basic installation.

	Press "Add Printer" on "Administration" tab.
	Printer can be found at "Local Printers" Choose the printer and press "Continue".

The “Name” and “Description” are already filled. Follow the steps of basic installation from here. If necessary, you can change them.

When the driver installation is finished, driver can be found with the name recognized by CUPS.

4. Driver function and settings

4.1 Steps up to the "Set Default Options" menu

Installed driver is shown on the "Printer" tab.

Choose the link of the driver.

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

"Maintenance" covers

- Print Test Page
- Pause Printer
- Reject jobs
- Move All Jobs
- Cancel All Jobs

"Administration" covers

- Modify Printer
- Delete Printer
- Set Default Options
- Set as Server Default
- Set Allowed Users

4.2 "Set Default Options" menu

Driver is not designed for specific model but for generic specifications of our barcode printers.
Therefore, it is necessary to change the settings after the driver installation according to the specification of each model and configuration.
In this menu, "General" and "Printer Settings" are unique options available on our CUPS driver.
Since "Banners" and "Policies" are common function of CUPS, explanation is omitted.

4.2.1 General

You can choose following setting in "General".

Media Size:
- 1.25x0.25" - 6.00x6.50"
- Custom

Resolution:
- 203 dpi or 300 dpi

Media Sensor:
- Continuous
- See Through
- Reflect

Print Method:
- Printer Default
- Thermal Transfer
- Direct Thermal

4.2.2 Printer Settings

You can choose following setting in "Printer Settings".

Print Darkness:
- 1 - 30

Print Speed:
- 1inch/sec.-10inches/sec.

Vertical Position:
- 0 dot - 120 dots

Function Select:
- Tear-Off
- Peel-Off
- Rewinder
- Cutter

Paper Position:
- -120 dots - 120 dots

5. CUPS driver uninstallation

5.1 Deleting driver from CUPS

From “Printer” menu explained in section 4.2, choose “Delete Printer”.

5.2 RPM file uninstallation on GUI

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

5.3 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 ctzcls-cups

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