

Print To File with CUPS

The purpose of printing to file is to diagnose any print output issues by seeing what the CUPS driver is sending to the printer. A file can be created which shows the code being sent to the printer. This file can be sent to Zebra support to assist in diagnosing print issues.

The first step required is to alter the CUPS Configuration File so that a File device option can be added and made available. The easiest way to access the Configuration File is through the CUPS driver.

Start from the CUPS driver Home page at either <http://localhost:631/> or 127.0.0.1:631/

From the Home screen select Administration



CUPS 1.4.2

CUPS is the standards-based, open source printing system developed by [Apple Inc.](#) for Mac OS® X and other UNIX®-like operating systems.



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From the Administration page select Edit Configuration File

Home Administration Classes Online Help Jobs Printers

Printers

Add Printer Find New Printers Manage Printers

Classes

Add Class Manage Classes

Jobs

Manage Jobs

Server

Edit Configuration File View Access Log View Error Log View Page Log

Server Settings:

Advanced ▶

- Show printers shared by other systems
- Share printers connected to this system
 - Allow printing from the Internet
- Allow remote administration
- Use Kerberos authentication (FAQ)
- Allow users to cancel any job (not just their own)
- Save debugging information for troubleshooting

Change Settings

The Configuration File opens in an editor.

Edit Configuration File

```
Require user @SYSTEM
Order deny,allow
</Limit>
<Limit Pause-Printer Resume-Printer Enable-Printer Disable-Printer Pause-
Printer-After-Current-Job Hold-New-Jobs Release-Held-New-Jobs Deactivate-Printer
Activate-Printer Restart-Printer Shutdown-Printer Startup-Printer Promote-Job
Schedule-Job-After CUPS-Accept-Jobs CUPS-Reject-Jobs>
AuthType Default
Require user @AUTHKEY(system.print.operator) @admin @lpadmin
Order deny,allow
</Limit>
<Limit CUPS-Authenticate-Job>
AuthType Negotiate
Require user @OWNER @AUTHKEY(system.print.operator) @admin
@lpadmin
Order deny,allow
</Limit>
<Limit All>
Order deny,allow
</Limit>
</Policy>
BrowseWebIF Yes
PreserveJobFiles Yes
FileDevice Yes
```

Save Changes Use Default Configuration File

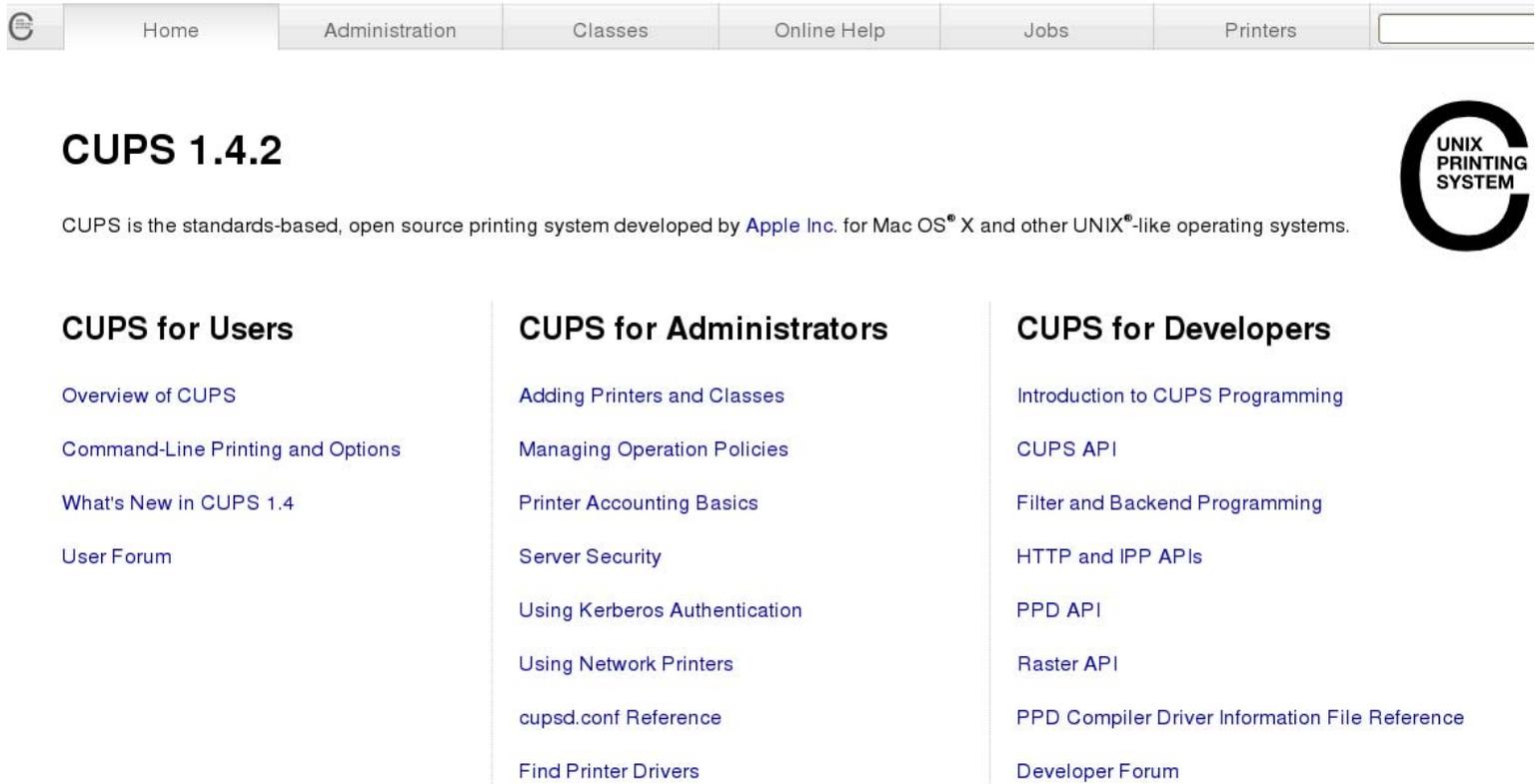
Add the following new entry at the very bottom of the file: FileDevice Yes

Then click Save Changes. You may be prompted for an administrator username and password. If you are not certain what this would be you will need to contact your Linux or MAC Administrator.

Once the change is saved successfully, you will now be able to add a new Queue Name that can be used to send output to a file. This only needs to be entered once to your current Configuration File.

Now you can complete the following steps to add printers with a path to a file entered.

From the Home screen select Adding Printers and Classes



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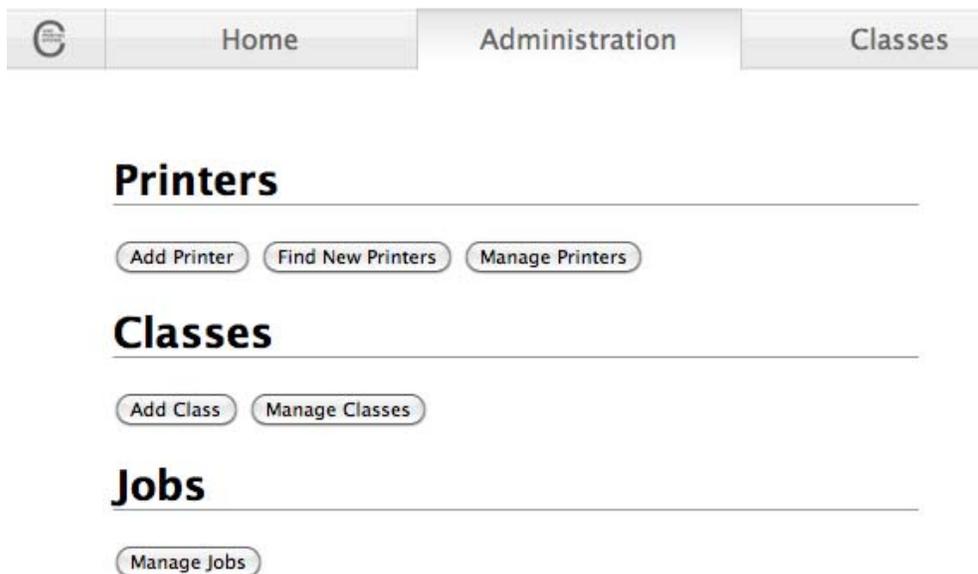
CUPS for Administrators

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Select Add Printer (Classes are just a way grouping similar printers if a customer chooses to)



Printers

- [Add Printer](#)
- [Find New Printers](#)
- [Manage Printers](#)

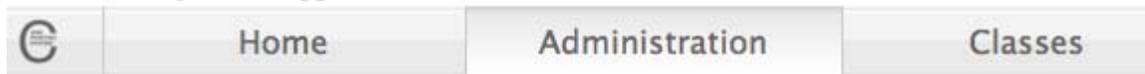
Classes

- [Add Class](#)
- [Manage Classes](#)

Jobs

- [Manage Jobs](#)

The following screen appears



Add Printer

⚙ Looking for printers...

Local Printers: Fax Printer (fax)

Discovered Network Printers:

Other Network Printers:

Continue

Once Add Printer completes you will need to select an option from the completed screen. Since you will be entering the path to a file, the option you select here is not critical. You can just choose AppSocket/HP JetDirect to provide the necessary entry point for the file path.

Add Printer

Local Printers: Fax Printer (fax)
 Bluetooth-Modem
 EPSON FireWire

Discovered Network Printers:

Other Network Printers: Internet Printing Protocol (http)
 Internet Printing Protocol (ipp)
 LPD/LPR Host or Printer
 Windows Printer via SAMBA
 AppSocket/HP JetDirect

Continue

Click

Continue

In the Connection box enter file:/ and the file name you wish to use.

For example:

file:/ZebraCodeZPL.txt

Add Printer

Connection:

Examples:

http://hostname:631/ipp/
http://hostname:631/ipp/port1

ipp://hostname/ipp/
ipp://hostname/ipp/port1

lpd://hostname/queue

socket://hostname
socket://hostname:9100

See "[Network Printers](#)" for the correct URI to use with your printer.

NOTE: An error occurred at the end of setup if “File:” was entered rather than “file:” so this is case sensitive. No warning occurs at time of entry.

Click

Next you will need to enter the Name that will display as the Queue Name

Add Printer

Name:

(May contain any printable characters except "/", "#", and space)

Description:

(Human-readable description such as "HP LaserJet with Duplexer")

Location:

(Human-readable location such as "Lab 1")

Connection: file:/ZebraCodeZPL.txt

Sharing: Share This Printer

Description and Location are not required.

Click

Scroll down to Zebra. Then Click

Continue

Add Printer

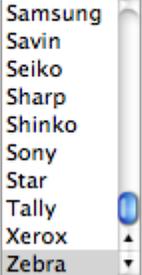
Name: PrintToFileZPL

Description:

Location:

Connection: file:/ZebraCodeZPL.txt

Sharing: Do Not Share This Printer

Make:  Samsung
Savin
Seiko
Sharp
Shinko
Sony
Star
Tally
Xerox
Zebra

Continue

Or Provide a PPD File: no file selected

Add Printer

Name: PrintToFileZPL

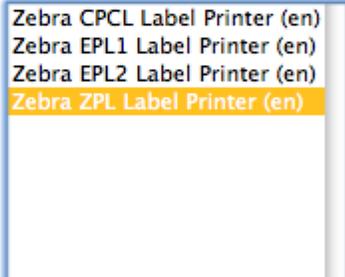
Description:

Location:

Connection: file:/ZebraCodeZPL.txt

Sharing: Do Not Share This Printer

Make: Zebra

Model:  Zebra CPCL Label Printer (en)
Zebra EPL1 Label Printer (en)
Zebra EPL2 Label Printer (en)
Zebra ZPL Label Printer (en)

Or Provide a PPD File: no file selected

Select the appropriate language based on the printer model you would be sending to:

Within the CUPS driver, Zebra printers are not selected by model only by printer language.

CPCL is a mobile printer language (some mobile printers can also understand EPL or ZPL).

EPL1 & EPL2 are primarily desktop printer languages.

ZPL is primarily a tabletop printer language or desktops ending with a -Z (Ex: LP2844-Z).

*G-Series printers understand both EPL and ZPL.

After selecting a language click

Add Printer

On this final screen choose any desired settings for Media Size, Resolution, and Media Type the click Set Default Options and the setup steps are complete.

General Printer Settings Banners Policies

General

Media Size: 4.00x5.00"

Resolution: 203dpi

Media Type: Printer Default

Set Default Options

To test, you could now print a Test Page by clicking the Printers tab.



Then click the new PrintToFileZPL Queue Name created.



Search in Printers: Search Clear

Showing 11 of 11 printers.

Queue Name	Description	Location	Make and Model	Status
CPCL	test		Zebra CPCL Label Printer	Idle
EPL1			Zebra EPL1 Label Printer	Idle - "Re
EPL2			Zebra EPL2 Label Printer	Idle - "Re
GK420D	Ethernet-10.3.50.100	LAB	Zebra ZPL Label Printer	Idle
print	print		Zebra CPCL Label Printer	Idle
PrintToFileEPL1			Zebra EPL1 Label Printer	Idle
PrintToFileEPL2			Zebra EPL2 Label Printer	Idle
PrintToFileZPL	PrintToFileZPL		Zebra ZPL Label Printer	Idle

A “Print Test Page” option is available in the drop down list after clicking Maintenance

PrintToFileZPL (Idle, Accepting Jobs, Not Shared)

Maintenance Administration

Description: PrintToFileZPL

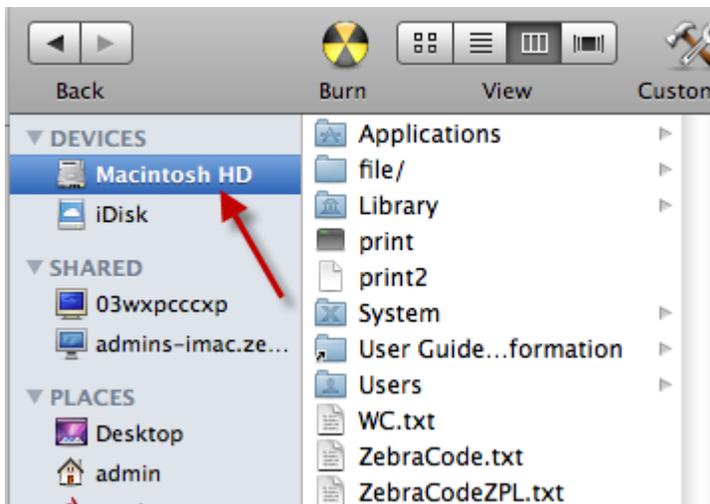
Location:

Driver: Zebra ZPL Label Printer (grayscale)

Connection: file:/ZebraCodeZPL.txt

Defaults: job-sheets=none, none media=adobe_w288h360_4x5in

On the Mac this stores the file under Macintosh HD.



Note: On supported Linux OS's it may be easier to specify file:/etc/ZebraCodeZPL.txt.

In this example a ZPL file was created. Once you have located the file, use a text editor to open and view its contents. This is a print to file of the Print Test Page option with the graphics data removed to show ZPL code only.

```
~SD30
~DGR:CUPS.GRF,103530,102,
.....^XA
^PR12,12,12
^LH0,0
^MNY
^LT120
^MTD
^MMC,Y
~TA120
^JZN
^FO0,0^XGR:CUPS.GRF,1,1^FS
^IDR:CUPS.GRF^FS
^XZ
```

If you are using multiple Queues for different printer languages you could create a separate output files for each language.