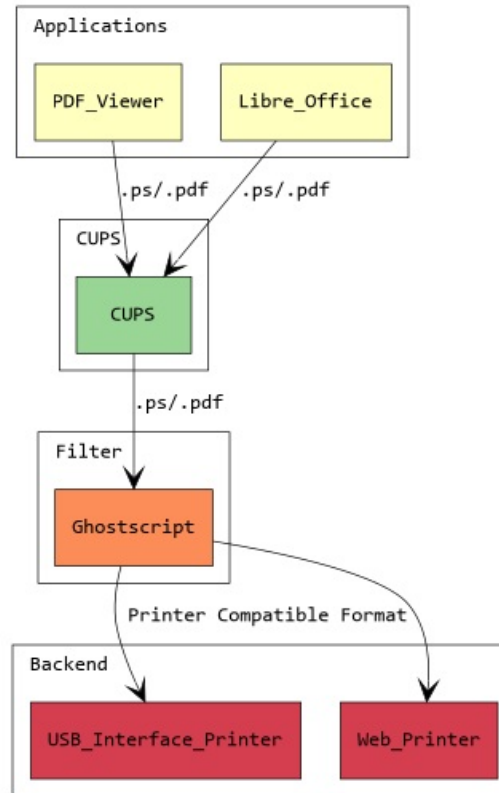


# **Install HPLIP and Configure CUPS**

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# 1 How to Print a Document in Linux



see [https://wiki.archlinux.org/index.php/CUPS#Print\\_steps](https://wiki.archlinux.org/index.php/CUPS#Print_steps)

## 2 Requirement to Print a Document

- 1. .pdd file for the printer
- 2. filters, HP printers use filters other than GhostScript
- 3. **non-free** binary plugin<sup>1</sup>

Some HP printers require proprietary software technologies to allow full access to printer features and performance. Unfortunately, these technologies cannot be open sourced, but to resolve this HP uses a binary plug-in for these printers. This plug-in works in conjunction with our Linux Open Source Printing Software to improve the printing experience for HP's Linux Printing Customers. Additionally, it requires the user to read and agree to a license agreement at the time of driver installation. However, to limit confusion, there is a single plug-in file (for each HPLIP release) for all plug-in enabled devices.

HP LaserJet 1020 Plus Printer	Required	2.7.10	Printing support.
HP LaserJet 1020 Printer	Required	2.7.10	Printing support.

1, 2 are included in HPLIP. 3 needs to be manually installed.

<sup>1</sup>. see [https://developers.hp.com/hp-linux-imaging-and-printing/binary\\_plugin.html](https://developers.hp.com/hp-linux-imaging-and-printing/binary_plugin.html)



## 3 Install HPLIP

### In Arch Linux

```
sudo pacman -Syu hplip
```

### In OpenWrt

The existing package for OpenWrt I found is Old/Obsolete.

 arbu split package further	f42aa6b on 11 Nov 2016 5 commits
 utils/hplip	split package further 4 years ago

Maybe a more detailed survey should be conducted.

### Install by Hand.

Reference <https://github.com/archlinux/svntogit-packages/blob/packages/hplip/trunk/PKGBUILD>

## 4 Install binary plugin

### In Arch Linux

```
yay -S hplip-plugin
```

or

```
wget https://aur.archlinux.org/cgit/aur.git/tree/PKGBUILD?h=hplip-  
plugin && makepkg
```

### In OpenWrt

Reference <https://aur.archlinux.org/cgit/aur.git/tree/PKGBUILD?h=hplip-plugin>

## 5 Use CUPS in Command Line

Detect USB Printer

```
$ lsusb
```

Start CUPS service

```
$ systemctl start org.cups.cupsd.service  
$ systemctl enable org.cups.cupsd.service
```

Find Driver(.ppd)

```
$ lpinfo -m | grep 1020
```

Find Printer

```
$ lpinfo -v
```

Create queue

```
$ lpadmin -p HP_1020 -E -v "usb://HP/LaserJet%201020?serial=JL3RFGB" -  
m drv:///hp/hpcups.drv/hp-laser_ns_1020.ppd  
$ lpoptions -d HP_1020  
$ lpoptions -p HP_1020 -o PageSize=A4
```

Print

```
$ lpr xxx.pdf
```

## 6 Trouble Shooting

see <https://wiki.archlinux.org/index.php/CUPS/Troubleshooting> and `man cupsctl`

**Switch the logging level to DEBUG.**

```
$ cupsctl --debug-logging
```

Or manually edit `/etc/cups/cups.conf`

### View log.

The log file is in `/var/log/cups`

- . `/var/log/cups/error_log` Main log file, includes detailed information of every printing step if you turn the logging level to debug.
- . `/var/log/cups/page_log` Echoes a new entry each time a print is successful.
- . `/var/log/cups/access_log` Lists all cupsd http1.1 server activity