Cups/Tea4Cups

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What's CUPS used for?

- -CUPS stands for Common UNIX printing System
- -CUPS is a printing system that allows computer work as a print server.
- -CUPS is a host that allows print jobs to be processed through the backend
- -CUPS main components consist of a filter system that converts the print data using a print spooler and scheduler

What's Tea4cups?

- -Tea4Cups is a backend of CUPS that can be modified to capture print jobs and saved them to a allocated directory
- -Tea4Cups can be used to save print jobs as PDF files
- -Tea4Cups can be used to monitor print jobs uses. For example how many papers has a user printed that day.
- -There are three ways Tea4Cups backend can be modified which are
 - Filters
 - PreHooks
 - Posthooks

This is how Tea4Cups backend works

```
DATA1=DATA2 without a Tea4CUPS filter.
        CUPS | DATA1 | Tea4CUPS | DATA2 | Tea4CUPS | DATA3 |
Input file |--->| + |----->| filter |----->| wrapped |----->| Printer |
           | cups-filters | | | backend | |
                               Prehooks <---+
                                                  +---> Posthooks
```

README file of how to install and configure TEA4CUPS and merge it with the backend of CUPS

```
Proot@cups2:~/tea4cups-3.12_official
                                                                           Proot@cups2:~/tea4cups-3.12_official
                                                                                directly instead of using lpadmin then don't forget to
Installation :
                                                                                restart CUPS.
                                                                                (Use this last method if autodetection doesn't work because
                                                                                the version of CUPS you use is too old)
 0 - Download Tea4CUPS from :
                                                                            4 - Copy tea4cups.conf into CUPS' configuration directory (where
                                                                                cupsd.conf resides) :
        http://www.pykota.com/software/tea4cups
      and extract it :
                                                                                  $ cp tea4cups.conf /etc/cups/
        $ tar -zxf tea4cups-x.yy.tar.gz
                                                                            5 - Modify tea4cups.conf to suit your needs. Several examples
                                                                                are included.
        where x.yy is Tea4CUPS' version number.
                                                                             6 - There's no 6 !
  1 - Copy the 'tea4cups' command into CUPS' backend directory,
      for example :
        $ cp tea4cups /usr/lib/cups/backend
                                                                           Troubleshooting:
      If you use CUPS v1.2 or higher you must do this as well:
                                                                            1 - Set "LogLevel debug2" and "MaxLogSize 0" in CUPS' cupsd.conf
        $ chown root.root /usr/lib/cups/backend/tea4cups
                                                                            2 - Restart CUPS.
        $ chmod 700 /usr/lib/cups/backend/tea4cups
 2 - Restart CUPS in order for this new backend to be detected.
                                                                            3 - Set "debug: yes" in the [global] section of tea4cups.conf
      NB : For this to work you need CUPS 1.1.15 or higher.
                                                                            4 - Print something on a print queue managed
      You can use Tea4CUPS with older versions if you want, but
                                                                                by Tea4CUPS.
      without autodetection.
                                                                             5 - Look at CUPS' error log file for diagnostic and error messages.
  3 - Either from CUPS' web interface, add new printers with
                      ed' in front of the device's name.
      Or by directly modifying CUPS' printers.conf file, or with
                                                                           CUPS (Common UNIX(r) Printing System) is trademark property of Easy Software
      the lpadmin command line tool, just prepend each DeviceURI
      value with 'tea4cups://'. If you modified printers.conf
      directly instead of using lpadmin then don't forget to
                                                                           You can download CUPS from :
      (Use this last method if autodetection doesn't work because
                                                                                  http://www.cups.org
      the version of CUPS you use is too old)
  4 - Copy tea4cups.conf into CUPS' configuration directory (where
      cupsd.conf resides) :
                                                                           Please e-mail bugs to : alet@librelogiciel.com (Jerome Alet)
```

tea4cups.conf

```
[LP351]

**posthook test : lp -dCups-PDF $TEADATAFILE

**Another example : a PDF generator which creates PDF documents

**in the user's home directory under the names JOB-iiii.pdf

**where iiii is the job id :

**Beware : using -$TEAUSERNAME here doesn't work because the - is not expanded.

**NB : for this to work you might have to print with 'lp -o raw'

**prehook rawpdf : /bin/cat $TEADATAFILE | su $TEAUSERNAME -c "ps2pdf - '/usr/bin/getent passwd $TEAUSERNAME | /usr/bin/cut -f 6,6 -

**prehook rawpdf : /bin/cat $TEADATAFILE | /usr/bin/ps2pdf - /var/spool/cups-pdf/root/$TEAUSERNAME-$TEATITLE-$TEAPRINTERNAME-$TEACOP

**prehook_rawpdf : /bin/cat $TEADATAFILE | /usr/bin/ps2pdf - /var/spool/cups-pdf/root/$TEAUSERNAME/$TEAPRINTERNAME-$TEACOP

**prehook_rawpdf : /bin/cat $TEADATAFILE | /usr/bin/ps2pdf - /var/spool/cups-pdf/root/$TEAUSERNAME/$TEAPRINTERNAME-$TEACOP

**prehook_rawpdf : /bin/cat $TEADATAFILE | /usr/bin/ps2pdf - /var/spool/cups-pdf/root/$TEAUSERNAME/$TEAPRINTERNAME-$TEACOP

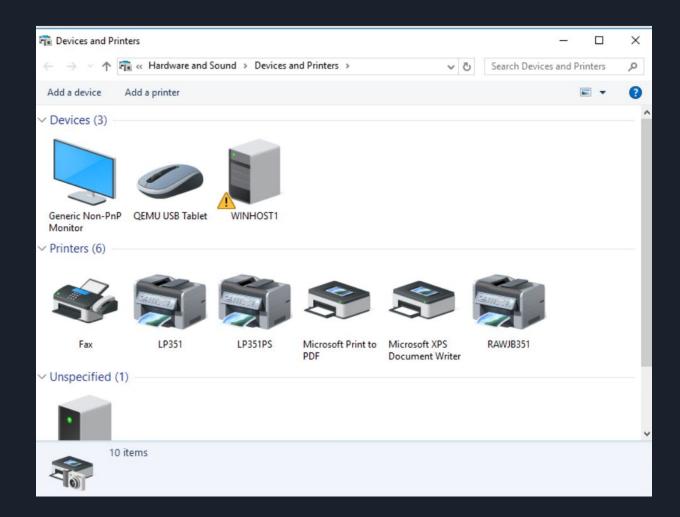
**prehook_rawpdf : /bin/cat $TEADATAFILE | /usr/bin/ps2pdf - /var/spool/cups-pdf/root/$TEAUSERNAME/$TEAPRINTERNAME-$TEACOP
```

Windows installation

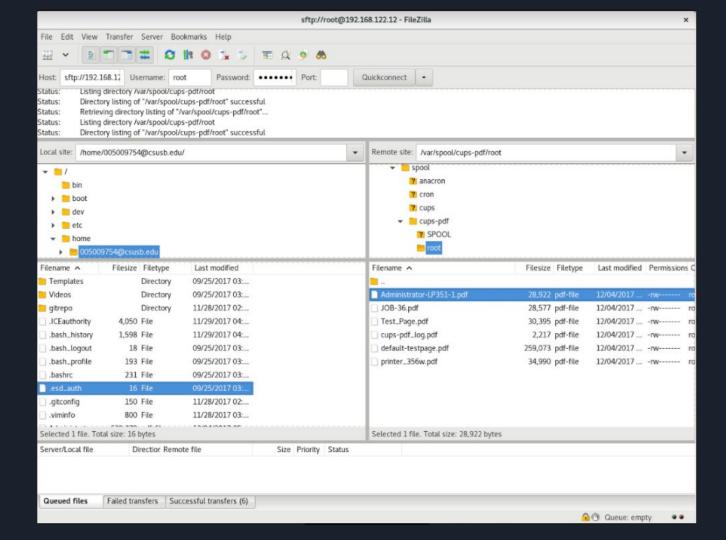
First to begin printing with windows operating system a designated
 Postscript driver should be installed and the specific printer must added to CUPS ip addressed.

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> Add-PrinterDriver -name "HP Universal Printing PS"/PS C:\Users\Administrator> cmd /c rundll32 printui.dll,PrintUIEntry /b "LP351Fs/LP351" /m "HP Universal Printing PS"
```



Security		Device Settings		About
General	Sharing	Ports	Advanced	Color Management
	LP351PS			
ocation:				
Comment:				
Model: Features	HP Universa	al Printing PS		
	HP Universa		Paper available:	
Color: No Double-sid	ded: Yes		Paper available: Letter	^
Features Color: No	ded: Yes			^
Features Color: No Double-sid Staple: No Speed: Un	ded: Yes			^
Features Color: No Double-sid Staple: No Speed: Un	ded: Yes known			Print Test Page



References

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- -"CUPS." Wikipedia, Wikimedia Foundation, 5 Dec. 2017, en.wikipedia.org/wiki/CUPS.
- -"PyKota's Home." *Tea4CUPS' HomePage PyKota's Home*, www.pykota.com/software/tea4cups.