

# 1 Printers and Printing

The Unit has a number of printers at its disposal;

Printer	Features	Class Queue	Notes
HP LaserJet P2055c	Basic, A4 mono laser	ps5	5th Floor
Kyocera Colour	A4 colour laser	ps5c	5th Floor
KM BizHub C353	A4/A3, Multifunction printer/copier	bizhub353	Cost per sheet (0.4p mono, 5p colour)

The networked printers are all accessed via a central print server and are listed on the print server pages. When using the printers it is preferable to use the classes as queue names as these will remain constant even when the underlying physical printer changes.

The central printer server is based on CUPS which uses the Internet Printing Protocol (IPP). The Linux clients also use CUPS. As this is a central system, every machine sees the same queues and has the same defaults.

## 1.1 Linux printing commands (CUPS)

Full CUPS documentation is online. Frequently used commands are listed here.

- How do I check the status of an `lpr` print job ?

Use the `lpq` command, e.g; `lpq -Pps5`

- How do I cancel an `lpr` print job ?

Use `lpq` to get the job number and use the `cancel` command; e.g. `cancel 1256`.

You can also cancel jobs via the web interface although not from any of the laptop networks.

- How do I print duplex and select paper-size or trays ?

```
lpr -Pps5 -o sides=one-sided filename
lpr -Pps5 -o sides=two-sided-long-edge filename
lpr -Pps4 -o media=A4,MultiPurpose,Transparency filename
```

- How do I print many pages to a side (N-up) ?

```
lpr -Pps5 -o number-up=4
```

The utility `psnup` is also available.

- How do I activate the stapler on the photocopier?

The printer options can be discovered like this;

```
lpoptions -pbizhub353 -l | grep -i staple
Staple/Staple: *None 1Staple(Left) 1Staple(Right) 2Staples
```

So to select one staple, applied to the left, do this;

```
lpr -Pbizhub353 -o Staple="1Staple(Left)" somepaper.pdf
```

## 1.2 Customising

The `lpoptions(1)` command saves the options for your printers. Like the `lpr` command, it accepts printer options using the `-o` argument:

```
lpoptions -o prettyprint
lpoptions -o media\section{A4 -o sides}two-sided-long-edge
lpoptions -p ps4 -o media\section{A4 -o scaling}100
```

Once saved, any subsequent `lpr` command will use them when you print.

### 1.3 Printing from the Laptop Networks ( Gatsby Wired, GatsbyWPA, eduroam or UCL Guest wireless )

You need to configure your OS to point to the printer server 'caxton.gatsby.ucl.ac.uk'. The printer 'ps4' is used as an example here but the other printer names are valid. If you are having problems, a good diagnostic is browsing to <http://caxton.gatsby.ucl.ac.uk:631/>. If you can do this, then your laptop can connect to the server.

#### 1.3.1 Linux

Simply edit `/etc/cups/client.conf` so that it has 'ServerName caxton.gatsby.ucl.ac.uk'. Print using `lpr` etc as above. You can also specify the print server explicitly, e.g. `lpr -h caxton.gatsby.ucl.ac.uk -P ps4`.

#### 1.3.2 Mac OS X

Add an IPP printer, using the name 'caxton.gatsby.ucl.ac.uk' and queue 'printers/ps4'.

#### 1.3.3 Windows

Add network printer, using the URL <http://caxton.gatsby.ucl.ac.uk:631/printers/ps4>. You can select any Postscript driver, for example try 'Generic/MS Publisher'.

