

Academic and Research Computing Quick Study

◆ HELPFUL HINTS FOR THE RENSSELAER COMPUTING COMMUNITY ◆

Quick Study #16

November 2002

Printing from RCS UNIX Systems

Public printers are located in many places across campus, including the VCC and the computer lab/classrooms. For a list of printer names, locations, and features, go to the ARC homepage, click on [Printing](#), then [RCS Public Printers](#). Each computer location has a default printer. For example, if you are in one of the computer classrooms/labs, the default printer will be the one in that room.

Printing Charges

Black & White		Color	
Onesided (self-service)	6¢ /page + 2¢ /job	Phaser 350/850 (paper)	40¢ /page + 20¢ /job
Onesided (vclw)	5¢ /page + 2¢ /job	Phaser 850DP (twosided: vcph3let)	40¢ /page + 20¢ /job
Twosided (vclw)	8¢ /sheet + 2¢ /job	Phaser 750 (paper)	50¢ /page + 20¢ /job
Onesided B-size (vcblw)	8¢ /page + 2¢ /job	Phaser 750 (transparency)	\$1/page + 20¢ /job
Twosided B-size (vcblw)	5¢ /page + 2¢ /job	Phaser 780B (B-size paper: vc780b)	70¢ /page + 20¢ /job
Labels (vclbl30)	25¢ /page + 10¢ /job		

At the start of each fall and spring semester, each user receives a free allocation of \$12.50 for black & white printing. (The allocation is \$6.25 for each summer session.) After this allocation is used up, charges are added to your (or your department's) monthly Bursar bill from Rensselaer. Charges for color printing are always charged to your Bursar bill. To check the status of your printing account, see <http://www.rpi.edu/dept/cct/apps/rcsaccinfo.html>. Before clicking on "Start the Application," scroll down and read the section on "Print Usage." Alternatively, you can issue the UNIX `pagestatus` command from a UNIX window or via a SecureCRT session.

Using the UNIX Printing Commands

RCS printers are POSTSCRIPT printers that also print plain text, dvi files, and man pages. Printing man pages and dvi files are special cases described below. The standard UNIX printing commands are:

- `lpr filename` To print a text (ASCII) file or a POSTSCRIPT file
- `lpq` To check on the status of jobs in the print queue
- `lprm nnn` To delete your job, numbered *nnn*, from the print queue

The above commands assume the default printer. You can verify the name of the printer used by looking in the "Messages" window after issuing the `lpr` command. To display the default printer name before using `lpr`, use the Verbose option on the `lpq` command: `lpq -V`

Selecting a Printer. If you are using a UNIX workstation, you can select your printer by using the `printerchooser` application from the RCS Applications menu.

Alternatively, all the above printing commands accept the `-P` option to specify a printer other than the default. For example, to print the file `myfile` on the duplex POSTSCRIPT printer in the VCC:

```
lpr -Pvclw myfile
```

Checking the Print Queue. To check on the status of your job, issue the command `lpq`. If you have used a printer other than the default, you must include the `-P` option to specify the printer (for example, `lpq -Pvclw`). The `lpq` command also takes the option `-V`, which provides a more verbose response, including the printer's full name, its current status, and a list of the queued jobs.

Cancelling a Print Job. To cancel a job, first use the **lpq** command to find your job number. Then issue the command: **lprm nnn**, replacing *nnn* with your job number. If you did not use the default printer, be sure to include the **-P** option on the **lprm** command.

Special Options Available With VCLW

The VCLW duplex (twosided) POSTSCRIPT printer is located in the VCC, with output filed in the output racks near the VCC South lab in that building. This printer has some special options accessible via the **-X** option on the **lpr** command, including the following, where all the options on the same line are synonyms:

onesided	twosided=no	duplex=no	
twosided	twosided=yes	duplex=yes	(default)
duplex=tumble	twosided=tumble		(prints back of sheet upside down)

The cost is 8¢ per two-sided sheet. If you choose to print one-sided sheets by specifying **-Xonesided** on the **lpr** command, the cost is 5¢ per page. An additional charge of 2¢ per job applies in both cases.

Printing Unix Manual Pages

You can print a man page (as plain text) by “piping” the output from the **man** command to **lpr**. For example, to print the man page describing the **psnup** program (described below):

```
man psnup | lpr
```

Printing DVI Files

DVI files are device independent files generated by the programs **T_EX** and **L_AT_EX**. To print a DVI file on an RCS POSTSCRIPT printer, use the POSTSCRIPT driver **dvips**. The command

```
dvips myfile
```

sends the file **myfile.dvi** to the default printer. It is also possible to specify a printer with the **-P** option. Other **dvips** options include landscape printing, selection of pages, placing output in a file, and changing the magnification. For a complete description of **dvips**, see the man page for **dvips**.

Printing Labels

The VCC printer named VCLBL30 is dedicated to printing labels from RCS. Each label sheet contains 30 labels in a 3x10 format, and a **L_AT_EX**-based program on RCS enables you to prepare your labels in the correct format. By default, the program puts five lines on a label, although you can fit six lines maximum. The cost is 25¢ per page plus 10¢ per job, and output is placed in the VCC output racks. Detailed instructions are in *Quick Study #27, Printing Mailing Labels From RCS*, available at the Help Desk in the VCC. It’s also available on-line via the **Quick Studies and Memos** link from the [Academic & Research Computing](#) homepage in RPInfo.

Landscape and n-up Printing

Two utility programs allow you print in landscape orientation and/or print multiple pages on one sheet of paper: the program **enscript** reads plain text files; the program **psnup** reads POSTSCRIPT files. Below are two examples. See the man pages for these programs for complete information.

The following command prints a two-up landscape (rotated) listing of the file **myprogram.c** (**enscript** also accepts the **-P** option for selecting a printer).

```
enscript -2r myprogram.c
```

In the command below, **psnup** reads a POSTSCRIPT file called **printfile.ps** and formats it as 2x2 pages in portrait orientation. Note that the file must be piped to **lpr** to be printed.

```
psnup -n4 printfile.ps | lpr
```