

Working with PostScript files in UNIX

Introduction

PostScript is one of the most commonly used file types for displaying and printing documents in UNIX.

This document describes some of the ways that PostScript files can be handled on the ITS UNIX service. It details some of the applications and utilities available for manipulating PostScript files.

Printing

All of the ITS networked laser and colour printers can accept PostScript (PS) files. They do not, however, accept Encapsulated PostScript (EPS) files. Users with EPS files are advised to use one of the applications or utilities detailed in this document to convert EPS files to PS before attempting to print. More information on printing from UNIX can be found in the ITS document [InfoSheet 127: Printing from the ITS UNIX service](#).

Applications

The ITS UNIX service has three applications which are recommended for use with PostScript files.

gv **gv** is an application for viewing PS and EPS files. It can be useful for looking at PS files before sending them for printing. For more information, see the ITS document [InfoSheet 75: gv – a viewer for PostScript and PDF files](#).

xfig **xfig** is a drawing package that can import and export PS files. It can be used as an easy way to annotate or add to existing PS files. See [InfoSheet 79: xfig – a drawing package](#).

ImageMagick **ImageMagick** is a program for displaying and manipulating images. It can be used to convert images between various file formats including EPS and PS files. See [InfoSheet 96: ImageMagick on Unix](#).

Utilities

The ITS UNIX system also has several utilities for handling PostScript files. They are all

available by typing the appropriate command at a UNIX prompt.

a2ps

a2ps allows you to convert a text file into a PostScript file. A typical a2ps command is of the form:

```
a2ps -R -o outputfile inputfile
```

This produces a portrait oriented PostScript file from the text in *inputfile*. Alternatively, the **-R** option can be replaced with **-r** for landscape output.

Other options available in a2ps include **-C** which adds line numbers to the output (useful when outputting programs) and **--center-text=***text* which uses the specified *text* as the page title.

fixps

fixps attempts to fix common problems that occur in PostScript files. A typical command is of the form:

```
fixps -o outputfile inputfile
```

mp

The **mp** program reads a file and outputs a 'prettified' version in PostScript format. **mp** can process multiple input files and can be useful for producing printable copies of messages from an entire mail folder. A typical command to produce a copy of a Pine mail folder is:

```
mp -A4 ~/Mail/foldername > outputfile
```

Note: depending on the number of messages in the folder, the file produced by mp can be quite large and you may wish to consider putting the file in **/tmp**.

mp also has a **-F** option which uses the From address of each message as the page title in the PostScript file.

Replacing **foldername** with ***** causes **mp** to output the entire Mail collection. **mp** can be used effectively with **psnup** to produce archives of email messages.

nenscript

nenscript operates in a similar way to **a2ps**, it is a utility for creating PostScript versions of standard text files. A typical command to convert a text file to PostScript is:

```
nenscript -poutputfile inputfile
```

psmerge

psmerge merges several PS documents into a single file. A typical command is of the form:

```
psmerge file1.ps file2.ps... >outputfile.ps
```

psmerge has a series of options.

-e : produce Encapsulated PostScript rather than PostScript.

-rN : rotate N degrees anti-clockwise.

-sMxN : scale image by factor M in X direction and N in Y direction.

-tMxN : translate (shift) image M points in X direction and N points in Y direction.

The **-r**, **-s** and **-t** options must be applied to each inputfile individually.

The installed version of **psmerge** is part of the **Starlink** collection. Documentation on **psmerge** can be obtained by typing the following commands at a UNIX prompt:

```
star.init
```

```
findme psmerge
```

The documentation will be displayed in a web browser window.

psnup

psnup places several pages of a PostScript file on each side of paper. It can be useful for reducing printing costs in situations where presentation is not important. E.g. printing an archive copy of a document. A typical command is of the form:

```
psnup -pa4 -nup 4 inputfile outputfile
```

The **-p** option is used to specify the paper size (in this case A4) and the **-nup** option is used to specify the number of pages to be fitted to a side (in this case 4.)

psresize

psresize rescales and recentres a PostScript file to fit a different size of paper. It is useful to convert PS files to A4 for printing on the ITS network printers from other paper sizes (commonly US letter.) A typical command for converting a file to A4 is:

```
psresize -pa4 inputfile outputfile
```

psselect

psselect selects pages from an existing PostScript file and puts them in a new file. If you only want to print selected pages rather than making a new file, it is recommended that **gv** is used to print marked pages rather than using **psselect**. A command to select pages 1, 2, 3, 4, 8 and 12 from a file would look like:

```
psselect -p1-4,8,12 inputfile outputfile
```

pstops

pstops shuffles the order of pages in a postscript file. The command structure for this utility is quite complicated and users are advised to read the manual pages by typing:

```
man pstops
```

at a UNIX command prompt before using this tool.

Further information

There are manual pages available for all of the applications and utilities mentioned in this document (with the exception of **psmerge**.) They are available by typing the appropriate command at the UNIX prompt. For example,

```
man psselect
```

to view the man pages for the **psselect** utility.