QUICKREP — A QUICK REPORT WRITING CLASS

WITH PDF CAPABILITY – VERSION 0.1

Paul Walmsley

Signal Processing Group, Cambridge University Engineering Department

pjw42@cam.ac.uk

http://www-sigproc.eng.cam.ac.uk/~pjw42

18/11/99

Abstract

quickrep.sty is a LaTeX style file which is intended to facilitate the rapid production of documents in a few standard formats — in particular single and double column reports in 10, 11 and 12pt, which should be suitable for reports and conference proceedings. The output can be postscript or pdf — the pdf output benefits from the hypertext referencing functionality of hyperref.sty. Pdf output can also be optimised for on-screen viewing.

1 Introduction

quickrep was written to satisfy a number of requirements:

- A quick way of generating documents with standard layouts: reports, conference submissions, etc., without having to constantly fiddle with margin sizes for different font sizes
- Persuading neophytes to use LaTeX...
- The ability to produce pdf versions of documents in the absence of the distiller postscript munging engine.
- Nice looking pdf output, rather than suffer the fate of bitmapped (type 3) fonts.
- The ability to create pdf files optimised for on-screen viewing – ie. landscaped without the need to scroll pages.
- Choice of output format (ps/pdf/single/double column/on-screen) with minimal changes required to the document

`quickrep` is in its early stages and is probably very buggy and very incomplete. This brief guide describes some of the common ways in which it may be used.

2 Postscript reports/articles

`quickrep` can be used with both the report and article classes. The simplest documents can be created with the following

```
\documentclass[12pt]{article}
\usepackage[dvips]{quickrep}
```

```
\begin{document}
\title{A document}
\author{Fred}
\maketitle

stuff...
\end{document}
```

The `dvips` option indicates that you wish to create a regular postscript file. For a double column document use the following preamble

```
\documentclass[10pt,twocolumn]{article}
\usepackage[dvips]{quickrep}
```

`quickrep` will modify the page and title sizes accordingly for double columns and there is the option of using 10, 11 or 12 point fonts. If the Sabon font is installed on your system, then the `sabon` option will use this as the default font – this gives your documents a bit of a house-style look to them. Its probably not a good idea to use it for conference submissions though as it will look inconsistent with the other papers (in this case include the line `\usepackage{pslatex}` to use Times).

3 Producing pdf documents

The above formatting options hold for the creation of pdf documents. There are some slight but important differences though. There are three distinct ways to create pdf files.

1. Create a postscript file in the usual way (`latex/dvips`) and pass it through Adobe's distiller.

2. As above but pass it through ghostview's `ps2pdf`
3. Use `pdflatex` to create a pdf file directly from your latex file

There are relative merits to each of the above but some of the caveats are:

- If you are using 1 or 2 then you need to ensure you're using type 1 fonts or they will look really ugly on screen. The simplest way of accomplishing this is to include `\usepackage{pslatex}` in your document preamble. This will use the Times font (which isn't everyone's cup of tea) but should at least render properly (and makes your document a lot smaller). If you're using Acrobat (!!! - not sure if the following is true) then you could try using `dvips -P pdf file` where `file.tex` is your LaTeX source file[1]
- The advantage of 1 and 2 is that EPS files which you may have included are likely to be converted properly (however, Adobe Photoshop and other windows-generated EPS files often cause problems).
- The advantage of 3 is that if you have postscript versions of the fonts installed then they will render properly in the pdf file, so you're not restricted to times or cmr.
- One of the disadvantages of 3 is that you can't include EPS graphics. The way around this is to replace the any lines such as `\includegraphics{picture.eps}` with `\includegraphics{picture}`. This will now look for a file called `picture.pdf`. You need to copy all the EPS files into the current directory, run `epstopdf` on them all, and then `pdflatex` should be happy.
- If you use `psfrag` then 3 won't work properly for you. One solution is to create a minimal LaTeX file

[1] This will include the postscript (type 1) versions of the computer modern and ams fonts, which must be installed. They aren't included by default in the teTeX distribution but they are in the MikTeX distribution — http://www.tex.ac.uk/tex-archive/systems/win32/miktex/1.20/ get the files amsps.zip and cmps.zip

```
\documentclass{article}
\usepackage{graphicx,psfrag}
\pagestyle{empty}
\begin{document}
\psfrag{Delta}{$\Delta$}
\psfrag{sigmatheta}{$\sigma_\theta$}
\includegraphics{picture}
\end{document}
```

convert it into a postscript file (`latex/dvips`), then run ps2epsi to convert it to an EPS file.

4 Pdf Examples

Examples using each method are now given. To create a pdf file via distiller use:

```
\documentclass{article}
\usepackage[ps2pdf]{quickrep}
\usepackage{pslatex}
...
```

Process using `latex/dvips` and then pass through distiller. If you're using ghostview's ps2pdf, do the same thing except follow it with a pass through `ps2pdf`.

To create a pdf file direct from latex, use:

```
\documentclass{article}
```

```
\usepackage[pdftex]{quickrep}
...
```

Process using `pdflatex` to create a high quality pdf file.

If you wish to include other hypertext links in your document, use

```
\href{http://www.website.com}{here's a link}
```

or to quote the link address directly use

```
\url{http://www.company.com}
```

5 Optimising for on-screen viewing

When creating a pdf file which is likely to be viewed on-screen, eg for a presentation or as a document downloaded from the WWW then standard LaTeX document classes are generally inappropriate. By including the `online` option to `quickrep` the page is made much smaller (about 8in $\times$ 6in) and is in landscape orientation which allows a single page to fill the screen without the need for scrolling. (note that double column formatting is not advised when using this option)

```
\usepackage[pdftex,online]{quickrep}
```

6 Converting between pdf/ps formats

quickrepis intended to make it simple to produce multiple versions of a document in different formats with minimal changes. Generally a change of options on the documentclass or quickrep lines of the preamble and recompilation is sufficient to convert documents. It is a good idea to include graphics using the graphicx package and omit the .eps or .pdf suffices as this allows postscript or pdf files to be generated with minor changes required (caveats notwithstanding).

7 The title

There are a number of fields which may appear in the title block: title, subtitle, author, address, email, website and date. When creating pdf, the email and website fields become hypertext links.

```
\begin{document}
\title{A big report}
\subtitle{An epic in 17 parts}
\author{J. Smith}
\email{jsmith@company.com}
\website{http://www.company.com/~jsmith}
\end{document}
```

Note that unlike the use of '~' (the tilde) in the html package, it doesn't require special treatment.[2] However this does make it slightly incompatible with bib2html.

[2] ie '\~{}' in the html package

8 More Information

- See the hyperref documentation for more information on hypertext referencing.
- Tim Love's guide to html and pdf file production from LaTeX: http://www-h.eng.cam.ac.uk/help/tpl/textprocessing/makingWWWdocs.html
- David Arnold's pdf/LaTeX guides: http://online.redwoods.cc.ca.us/instruct/darnold/StaffDev/Index.htm

9 To do

- Improve the relative font sizes of fields in the title block
- Add macros to modify page sizes for specific conference requirements (or use geometry package?)
- More flexibility for graphics inclusion (ie not restricted to pdfs in current directory — use graphicx's rule declaration functions? or just redefine includegraphics?)