

In short, in case the ranty bit gets a little laboured, the point of this piece is that in order to submit any work that may be made into PDF as an m\$-word document (because of some idiot requirement for this file-format), then just split the pages of the PDF, convert them to EPS, and include them as full-page 'graphics' in an ms-word document. . . I've even used this trick once, and got away with it, though I usually try to avoid any organisation that considers such a silly restriction in the first place.

Incredible though it may seem, even some moderately 'technical' (i.e. maths-using) conferences or *journals!* now require submission of publications in ms-word format. For example, IEEE Transactions on Dielectrics and Electrical Insulation has this requirement (a reason given was that it is necessary for speeding up submission, though it's quite incomprehensible *how* this requirement is necessary for that aim), and the International Symposium on High-Voltage Engineering in 2007 listed this requirement on its webpage (a reason given was that the 'conference software' being used had this limitation, and this is reasonable as the software is used by such-and-such percent of conferences — note no mention of *scientific* conferences. . .).

The rank stupidity of these requirements has several aspects to its causes and consequences. As more and more people think themselves conversant with computers, the idea becomes ever less natural that one should, as an editor or organiser, expect to consult with someone who *might* actually have a clue about available programs and formats and their advantages and disadvantages. People get used to the idea of starting a particular program, bundled with their computer, every time they're going to write anything, from a quick note to a paper or thesis. They expect everyone else will too. They haven't tried other concepts of typesetting, to find out their relative ease, nor have they thought of what a crazy situation we're in when much of the world is paying ludicrously high fees for using a proprietary writing-program when there exists an excellent Free alternative (OpenOffice) and other quite different, and generally preferable, ways of getting a typeset paper. Since the current situation is so often that most people do have a particular operating system and word-processor, and haven't explored much further, there's a good chance that many will feel satisfied with these restrictions. Many people will happily swallow almost any such requirement without being bothered by its folly and lack of reasoning. Feedback happens only weakly.

The bad points about a requirement of msword as a format for submission are at least the following. It is specific to one word-processor, or arguably one or so others (openoffice is pretty good at saving to this format), while a print-type format such as pdf can be generated by pretty much any program that one might use to write a document. This specificity encourages people to

buy the right to use this highly priced junk, which is particularly bad when they are in situations where money is a problem. Even if the availability were no trouble, the ‘WYSIWYG’ word-processor is in many ways a bad tool for the job of writing most technical works; a mark-up system such as Latex allows easy input of equations without add-on programs or lots of mouse-clicks, it handles references easily, and it doesn’t move text around all the time as one types — the content is the focus, and typesetting it all comes at the end, and (not least important), its output looks pleasing rather than atrocious. But even if authors want yet another program, e.g. some other more WYSIWYG thing, that they’re used to, *there needs to be a really pressing need for a specific word-processor file format in order to inflict the requirement that all users try using a particular program that some of them probably hardly know or intensely dislike!* Apart from this, m\$-office formats are well-known for their inability to show a document in the way it was seen on the author’s computer — plenty of conferences’ presentations and proceedings bear witness to this, with bizarre movements of figures, extra characters (e.g. Greek letters) replaced with squares or dots, certain corporate logos replaced with funny squiggles, etc. — PDF is at least a much *less unreliable* format, even if not perfect.

Is there any reason why one might see an advantage to m\$-word format, from the point of view of a clued-up editor? Not having to download so-called ‘acrobat reader’ (if working on platforms that don’t already have plenty of PDF readers) might be a slight boon to someone with a modem. . . Being able to make large changes to the document might be desired, but I see very little justification for this — the job of the editor and reviewers is to report their views, not to send back a ‘corrected’ version. Available PDF manipulation programs allow PDF files to have suitable headers, footers, and combined page-numbers inserted, as is shown by all the many conferences and journals that have PDF submission and yet achieve all of these miracles; having one copy of such a program, even if it’s a ‘licensed’ sort, can surely be managed by a journal or conference. In short, I see no compelling reason why PDF should not be an accepted format; people just don’t realise what a lot more versatile it is in terms of which programs could produce it, and what can be done with it at the editing side. Allowing PDF needn’t mean limiting other formats — one could still be allowed to submit ms-word if that were considered desirable for the authors; there are, anyway, free websites that offer conversion services.

So — to the main course. *If* one really wants to submit a document to a misguided organisation, without having to endure the hardship of converting nicely typeset work to you-know-what, the following may be of help.

Produce PDF output, e.g. by `pdflatex file.tex` or
`latex file.tex`; `dvips -f <file.dvi >file.ps`;
`ps2pdf file.ps file.pdf` or some other means...

Split the PDF file into pages, e.g. using PDF-toolkit,
`pdftk file.pdf burst` to produce files `pg_0001.pdf` etc.

Convert each page to encapsulated postscript (EPS), e.g. with the
`pdftops` command from poppler:

```
for f in pg_*.pdf ; do
pdftops -eps $f ${f//\.pdf/.eps}; done
```

Open a word-processor that can accept insertion of EPS graphics and
can save to ms-word format, i.e. ms-word or openoffice-writer (openof-
fice I'd suggest is better, since it makes the inserted graphics fill the
page neatly when they're over-sized). 'Insert'-'Picture'-'From file'.
Put in the first EPS image, then perhaps a page-break, then the next,
and so on. Save as a suitable ms-word file format.

Take a copy of the file, open the copy in ms-word, if available, to check
it — for those made in openoffice there'll probably be a conversion
process on the first opening in ms-word, in which the file-size grows
greatly (converting images to own metafile instead of EPS?)

Note that for printing or PDF-export of the .doc file, the result *can* be very
good, when the EPS contained proper vector representations of the pages'
text, and these have been preserved.