

## Configuring PDF $\TeX$ ify to Include EPS Graphic Files

This section is optional, but contains some valuable information for those who want to create PDF files that include Encapsulated PostScript (EPS) Files. These are the industry standard graphics files, which can be created, for example, with Adobe Illustrated.

The  $\TeX$ ify option in WinEdt is a very convenient way to process  $\LaTeX$  files. Because there may be internal references in a  $\LaTeX$  document, it might be necessary to run  $\LaTeX$  on a document more than once so that these references are correct. For example, my Test-JDF.tex file needs  $\LaTeX$  to run twice since it automatically gives page numbers on the right top margin as **Page xx of yy Pages**. The first time  $\LaTeX$  is run, it determines the number of pages in the test. The second time  $\LaTeX$  is run it adds the correct page number headings to the pages.

The  $\TeX$ ify option (Little Brown Bear) detects how many times  $\LaTeX$  needs to be run and then runs it that many times. Following this, if all is well, it opens YAP and displays the DVI file. I have used this option when I have run  $\LaTeX$  in class, and suggested it for your own implementation, so by this time you should be familiar with the process, if not the exact details of its workings.

There is also an option called PDF $\LaTeX$  that creates PDF files instead of DVI files, and then sends these to Adobe Acrobat for viewing. This is useful because PDF files are the industry and government standard, even the IRS files are PDFs. The procedure is the same as in  $\LaTeX$  it is just that the output is in the more widely used PDF format rather than the DVI format.

However, although I want PDF files as my final output, PDF $\LaTeX$  would not work for me. My documents commonly include a lot of graphics, and professional graphics files are commonly in Adobe Encapsulated PostScript (EPS) format. This is an ASCII, that is, person-readable, format and these files are often quite large. They can be converted to the much smaller binary, that is, machine-readable, PDF format by using Adobe Acrobat software (which is not freeware). PDF $\LaTeX$  did not recognize EPS graphic files, so for it to be useful all the EPS files had to first be converted to PDF files. Since my books might contain thousands of graphics files, this is not a minor problem.

I got around the problem by creating my own version of PDF $\LaTeX$  that took a TeX file, created a DVI file, then created a PostScript (PS) files that included the graphic files, and finally used the Adobe Acrobat software to convert this to a PDF file. This worked, but I was never able to get it to include the multiple runs of  $\LaTeX$  that makes  $\TeX$ ify so useful. Clearly, it would be useful to have a PDF $\TeX$ ify option as well that would incorporate the nice features of  $\TeX$ ify but create PDF files as output, and additionally permitted the inclusion of graphics files in EPS format.

I contacted the developer of WinEdt, Aleksander Simonic, and told him about my problem, and in this latest version of WinEdt he has included an option to solve this problem. You may never need to include EPS graphics files

in your documents, but if you want to have the option of doing so, here is how.

First you need some (free) software, called **GhostScript** for creating PostScript files.

- Go to the internet site

`http://pages.cs.wisc.edu/~ghost/`

- Click on the line **GPL Ghostscript**.
- This should take you to the site

`http://pages.cs.wisc.edu/~ghost/doc/GPL/index.htm`

- Go to the link

`http://sourceforge.net/projects/ghostscript/`

- At that site you will find a green box that says **Download GhostScript**. Find the line that says GPL GhostScript 8.70 and click on it.
- Transfer the file to where ever you like to save download files and run the .EXE file to install GhostScript.
- Accept the default setting, and note that 40 meg of hard drive space is required.
- When the installation finishes there will be a window tell you where your personal information is located.
- You probably don't need to read the Readme file, just exit out of Explorer.

Now we need to do a minor configuration in WinEdt and we are done.

We need to change PDF<sub>T</sub>E<sub>X</sub>ify, so go to

Options/Execution Mode/TeX Output

Then change PDF<sub>T</sub>E<sub>X</sub>ify Output to the last entry, that is, to

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tex -> ps -> pdf (dvips + Ghostscript)
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and click OK.

Now if you run using the the Brown Bear with the Adobe symbol in the background it will

- Close the current PDF file if it is open.
- Run L<sup>A</sup>T<sub>E</sub>X as many times as it needs in order to get all the references correct,

- Create the DVI file from the TeX file,
- Create a PS (PostScript) file from the DVI file,
- Convert the PS file to a PDF file, converting both text and graphics,
- Save the PDF file in the directory with the TEX file,
- Open the PDF file in Adobe Acrobat.