

## SOME COMMENTS ON PDFTEX

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### Unexpected graphics rotation

I am currently writing an engineering textbook using  $\LaTeX$ . I started out using the sequence produce dvi, convert to Postscript, and view with Ghostview. I have been converting to PDF using the facility in Ghostview because this form is easier to share with my fellow authors.

I suppose I am rather slow on the uptake, I must have seen the pdftex banner when invoking  $\LaTeX$  for some time without recognizing that pdftex could be used to produce PDF without intermediate steps. Anyway, I read the pdftex documentation, converted all my graphics to PDF files using Ghostscript, read the document on pdftex, and generated a format file.

I made the first run. Much to my surprise my efforts were successful, except for one little problem. All my graphics had rotated by  $90^\circ$ .

All the graphics in my book are generated with a 2D drawing programme or are Excel graphs. All figures were prepared in their original programmes in landscape format and were "printed" to a file by using a Windows Postscript printer driver. Incidentally, all the graphics files appear rotated  $90^\circ$  and in portrait mode when viewed in Ghostscript. Consequently each time I used `\includegraphics`, I would incorporate `angle=270`. This is simply as background, the figures appear as I want them in a Postscript output generated through  $\LaTeX$  and dvips.

### Solution and suggestion

As suggested in pdftex-l.pdf, I had made the conversion from PS to PDF using the pdfwrite device in Ghostscript. I had checked a sample by bring the PDF graphic into Ghostview, it matched the in portrait orientation for the original PS graphic. After finding the unwanted rotation problem, I then brought the image into Adobe Reader and Photoshop only to find that the conversion process had applied a rotation. I imagine that Ghostscript does this rotation to make it easier for the reader to view on the screen.

I did some investigation of Ghostscript and I found that specifying `-dPDFSETTINGS#/printer` would perform a conversion without the rotation. I then reconverted all my PS files with that switch and pdftex works beautifully.

I am sure that you are aware of this situation, but I would like to suggest that some comment could be included in the pdftex documentation. I had read the information in pdftex-l.pdf, but there was no mention of possible unexpected rotations when converting using Ghostscript.

As I indicated, I am basically delighted with the ability to convert a 350 page book directly into PDF very rapidly. I want to thank the many people involved, the work on pdftex has certainly simplified my work.

### Unexpected vertical space in figures

I do seem to be having some anomalous behaviour, however, that I would like to point out. I have one page in the book with two stacked graphics that appears differently depending on whether the route latex - dvips - ps -pdf is chosen or whether the conversion is made directly with pdftex. I have cut out the L<sup>A</sup>T<sub>E</sub>X code used so you can see if there are any incompatible packages. The two pages are presented as attached files dvi\_ps\_pdf.pdf and pdf.pdf. The top graphic was checked and the original is 10 in. x 3.66 in., as with all other of my graphics, it is in landscape form. The bottom graphic is 11 in. x 8.5 in. landscape. As you can see, the pdftex conversion introduces a large vertical space between the caption and the figure.

```
\batchmode
\documentclass[letterpaper]{article}
\usepackage{vmargin}
\usepackage{graphicx}
\usepackage{ifthen}
\usepackage{lscape}
\usepackage{mathrsfs}
\usepackage{float}
\usepackage[timestamp,light]{draftcopy}
\usepackage{hyperref}
\setpapersize{USletter}
\setmargins{2.0in}{1.5in}{4.5in}{7.0in}{0.3in}{0.2in}{0.3in}{0.2in}
%
\begin{document}
%
\begin{figure}[!tp]
\includegraphics[angle=270,width=0.95\textwidth]{fig3_6_6a.pdf}
\caption{Cross-section of brake operating valve.}
\label{fig:3_6_6a}
\vspace{0.2\textheight}
\includegraphics*[angle=270,width=0.95\textwidth,trim=108 0 108 0]{%
fig3_6_5.pdf}
\caption{Cross-section of disc spring assembly.}
\label{fig:3_6_5}
\end{figure}
%
\end{document}
```

I have not attached the original graphics files, I did not want to overburden you.