Documentation of GraphicP

Szabó Péter
<pts@fazekas.hu>

September 9, 2008

Abstract

This is the documentation of GraphicP, a system that provides an easy, fast and reliable method for including external images into LaTeX and plain TeX documents. The `\includegraphics` macro of GraphicP is a drop-in replacement of the same command of LaTeX `graphics.sty` and `graphicx.sty`, but with many enhancements. Input images are ususally in EPS or PDF format. Drivers for xdvi, dvips, pdftex and dvipdfm are included. Perl scripts are provided for faster bounding box manipulations.

1 Availability and usage

You can download GraphicP from `http://www.inf.bme.hu/~pts/graphicp-latest.tar.gz`.

Load GraphicP with `\usepackage{graphicp}` instead of `\usepackage{graphicx}`. Use the `\includegraphics` macro as usual, but beware of the differences.

2 Quick feature list

Features over LaTeX `\usepackage{graphicx}`:

- both plain TeX and LaTeX support
- specified width=... and height=... are strictly enforced, without rounding
- image scaling calculations are much more accurate
- works with *dvips -E* bounding-box calculations, even with buggy dvips 5.86e
- doesn't have to open the .eps file for reading the bbox
- xdvi doesn't forcibly crop (clip) the image to the bbox
- Below feature: allows the image descend below the baseline (supports depth, not only width and height)
- drop dependency on Perl, parse Adobe DSC comments in EPS files
- non-standard, quick, DSC-like parsing for special PDF files
- an enhanced epstopdf utility
- the img_bbox.pl utility
- the pdfboxes.pl utility
- voluntary clipping (cropping)
- all 8 mirror and rotate transformation (must be a multipe of 90 degrees)
- does not rely on the filename to determine the FileFormat
- embeds each image file only once with pdfTeX and dvipdfm
- [long term plan] imtrix: unified PSTricks/PSFrag support for EPS and PDF

3 Further reading

The full documentation hasn't been written yet. See the file `graphicp.sty` for more information.

To see samples, try the following compilation procedures:

```
tex laltest  # or: latex laltest
xdvi laltest
dvips -o laltest.ps laltest
dvipdfm -v laltest
xpdf laltest.pdf

pdftex laltest  # or: pdflatex laltest
xpdf laltest.pdf

latex '\def\graphicPdriver{dvips}\input laltest'
xdvi laltest
dvips -o laltest.ps laltest

tex '\def\graphicPdriver{dvipdfm}\input laltest'
dvipdfm -v laltest
xpdf laltest.pdf
```