

PSTricks

pst2pdf

Running a PSTricks document with pdflatex;
v. 0.13

December 14, 2011

pst2pdf

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pst2pdf is a Perl script for running a PSTricks document in a last run with pdflatex.

Thanks to: Rolf Niepraschk

Table 1: Possible optional arguments for the Perl script pst2pdf

<i>name</i>	<i>values</i>	<i>default</i>	<i>description</i>
-imageDir	literal	images/	the directory for the created images
-Iext	literal	.pdf	the extension for \includegraphics, can be empty, then \includegraphics decides which image is used.
-DPI	integer	75	the dots per inch for a created png file, if possible
-Iscale	real	1	the value for the option scale in \includegraphics. Important when using a greater dpi value.
-tempDir	literal	.	the temporary directory for the temp files
-verbose	boolean	1	for a long pst2pdf log
-clear	boolean	0	delete all temporary files
-noImages	boolean	0	create no images, build only the pdf with the already existing images
-runBibTeX	boolean	0	runs bibtex
-runBiber	boolean	0	runs biber if a file with extension .bcf exists

1 Introduction

PSTricks as PostScript-related package uses the programming language PostScript for internal calculations. This is an important advantage, because floating point arithmetic is no problem. Nearly all mathematical calculation can be done when running the DVI-file with Ghostscript. However, creating a PDF file in a direct way with pdf_lat_ex is not possible. pdf_lat_ex cannot understand the PostScript-related stuff. Instead of running pdf_lat_ex one can use the Perl script pdf2eps, it extracts all PSTricks-related code into single documents with the same preamble as the original main document. Then the script runs this document, clips all whitespace around the image and creates a .pdf, .eps, and .png image of the PSTricks-related code. In a last run which is the pdf_lat_ex the PSTricks code in the main document is replaced by the created images.

2 Running the Perl script

The general syntax for the Perl script is simple

```
pst2pdf file .tex options
```

The options listed in Table 1 refer only to the script and not the L^AT_EX file.

After the pst2pdf run there exists a pdf file called \jobname-pdf.pdf. And when not using the -clear option also the corresponding T_EX file \jobname-pdf.tex. The preamble of the document should contain all code which is important to the PSTricks code.

3 PStricks code

The per scripts scans the files for `pspicture` and `postscript` environments, which are then taken with its contents from the main file to create stand alone documents with the same preamble as the main document. The `pspicture` environment can be nested, the `postscript` one not! But it can contain an environment `pspicture`, but not vice versa. The `postscript` environment should always be used, when there is some code before a `pspicture` environment or for some code which is not inside of a `pspicture` environment.

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