The ppmcheckpdf tool

Convert PDF to PNG and compare PNG files after l3build

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The l3build system is a useful and powerful tool for regression testing. With l3build you normally print the contents of some boxes from .lvt files to corresponding .tlg files. Sometimes LaTeX kernel or some package your package depends on adds a whatisit or \kern0pt, and your test files will fail even if the PDF files look the same as before and are still correct.

This ppmcheckpdf tool provides an alternative way for regression testing: Instead of printing box contents in .lvt files, you could just convert PDF files to PNG files and compare PNG files after l3build finishes its job.

1 Installation

Normally your TeX distribution will copy ppmcheckpdf.lua file to the correct folder when you install this tool. If a manual installation is needed, you could download ppmcheckpdf.lua from CTAN and install it to TEXMF/scripts/ppmcheckpdf/ppmcheckpdf.lua.

The ppmcheckpdf tool uses pdftoppm program for image converting. This program is installed by default on MiKTeX. For TeX Live, you can install it by running

```
tlmgr install wintools.windows
```

on Windows, or running

```
sudo apt-get install poppler-utils
```

on Ubuntu/Debian Linux.

2 Usages

First create a buildend.lua file with the following lines in the folder of your package (next to build.lua file for l3build):

```
kpse.set_program_name("kpsewhich")
dofile(kpse.lookup("ppmcheckpdf.lua"))
```

Then you could run the folllowing commands

```
l3build check
texlua buildend.lua
```

The first run of ppmcheckpdf will save image and md5 files to testfiles folder, and the subsequent runs of it will compare new md5 values with existing md5 values.

You could force ppmcheckpdf to save new image and md5 files to testfiles folder by passing save option to it:

```
l3build check
texlua buildend.lua save
```

3 Customizations

The pdftoppm program supports several types of image files. By default the ppmcheckpdf tool will use .png file, and you could change it in build.lua file like this:

```
imgext = ".ppm"
```

```
imgext = ".pgm"
```

```
imgext = ".pbm"
```