

The ppmcheck 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 L^AT_EX kernel or some package your package depends on adds a `whatisit` or `\kernOpt`, and your test files will fail even if the PDF files look the same as before and are still correct.

This `ppmcheck` 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 `ppmcheck.lua` file to the correct folder when you install this tool. If a manual installation is needed, you could download `ppmcheck.lua` from CTAN and install it to `TEXMF/scripts/ppmcheck/ppmcheck.lua`.

The `ppmcheck` 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("ppmcheck.lua"))
```

Then you could run the following commands

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

The first run of `ppmcheck` 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 `ppmcheck` 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 `ppmcheck` tool will use `.png` file, and you could change it in `build.lua` file like this:

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

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

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