



PDF comparison to test one package

Asked today Modified today Viewed 41 times



Do any of you use PDFs to test the good outputs of their packages?

2

I plan to do the following.



1. Build by hand examples that I indicate to be correct: TEX + PDF files.



2. Each time I update my source code, I recompile the TEX files of the first step to compare their PDFs to those marked as correct.



Do you do this? Is there an existing script that already does this?

packages-testing

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edited 8 hours ago

asked 8 hours ago

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projetmbc

11.8k

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3 ▲ 13build can do this, although typically testing using the .log is better. I think we need more detail to provide a solid answer – Joseph Wright ♦ 8 hours ago

I need to check that no regression has been done in the output of, for example, tables of variation, or probabilistic trees... This is for visual outputs. – projetmbc 7 hours ago
Delete

2 ▲ it is much more reliable to diff the log, add \showoutput so the log has a symbolic representation of the output. l3build will automate normalising away paths and times. This is how the latex test suite has worked for over 30 years – David Carlisle 6 hours ago

@DavidCarlisle Is there some demos, or tutorials showing how to think like a (La)TeX tester? – projetmbc 6 hours ago

2 ▲ texdoc l3build or look at the test files in any of the latex3 or ho-tex github repositories – David Carlisle 6 hours ago

1 ▲ tug.org/TUGboat/tb36-3/tb114wright.pdf or look at github.com/josephwright/siunitx for an example using l3build for a smaller stand-alone package – Joseph Wright ♦ 3 hours ago

1 Answer

Sorted by: Highest score (default)



This can be automated with l3build

3

with a directory layout containing



build.lua



pkg.sty

testfiles/test1.lvt



build.lua

```
module = "pkg"
```

```
sourcefiles={"*.sty"}
```

pkg.sty

```
\ProvidesPackage{pkg}[2022-11-19 l3build example package]
```

```
\def\foo{abc}
```

testfiles/test1.lvt

```
\documentclass{article}
```

```
\usepackage{pkg}
```

```
\input{regression-test}
```

```
\begin{document}
```

```
\START
```

```
\TEST{basic expansion}{\show\foo}
```

```
\showoutput
```

```
abc \foo
```

```
\foo
```

```
\end{document}
```

You can automate running the test.

`build.lua` sets up the package, I need to specify the `.sty` is source here as normally it assumes `.sty` are generated from `.dtx` sources.

The test file is a latex document, but conventionally given `.lvt` extension. You can test in various ways, here I use `\show` but also `\showoutput` which shows a symbolic representation of the pdf output.

Then

```
l3build save test1
```

will run latex and save a normalised test result log file as `test1.tlg` Assuming this looks good this would normally be checked in to source control.

```
l3build check
```

will then run all tests

```
$ l3build check
Running checks on
test1 (1/1)
--> failed
```

```
Check failed with difference files
- ./build/test/test1.luatex.diff
- ./build/test/test1.xetex.diff
```

as luatex uses latin modern opentype and our saved result showoutput is using computer modern, so save engine specific reference results:

```
cp ./build/test/test1.luatex.log testfiles/test1.luatex.tlg
cp ./build/test/test1.xetex.log testfiles/test1.xetex.tlg
```

Then check again:

```
$ l3build check
Running checks on
test1 (1/1)

All checks passed
```

Now if we make a change to the package

```
\ProvidesPackage{pkg}[2022-11-19 l3build example package]

\def\foo{
% egreg left a space
abc}
```

and run check:

```
$ l3build check
Running checks on
  test1 (1/1)
      --> failed
```

```
Check failed with difference files
- ./build/test/test1.luatex.diff
- ./build/test/test1.pdfTeX.diff
- ./build/test/test1.xeTeX.diff
```

Then you need to check the diffs and revert the change, or update the tlg files.

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answered 5 hours ago



David Carlisle

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2315

Great. I like that kind of automation. Thanks for this big small example! Hoping that egreg will not see your example. :-) – [projetmbc](#) 5 hours ago
