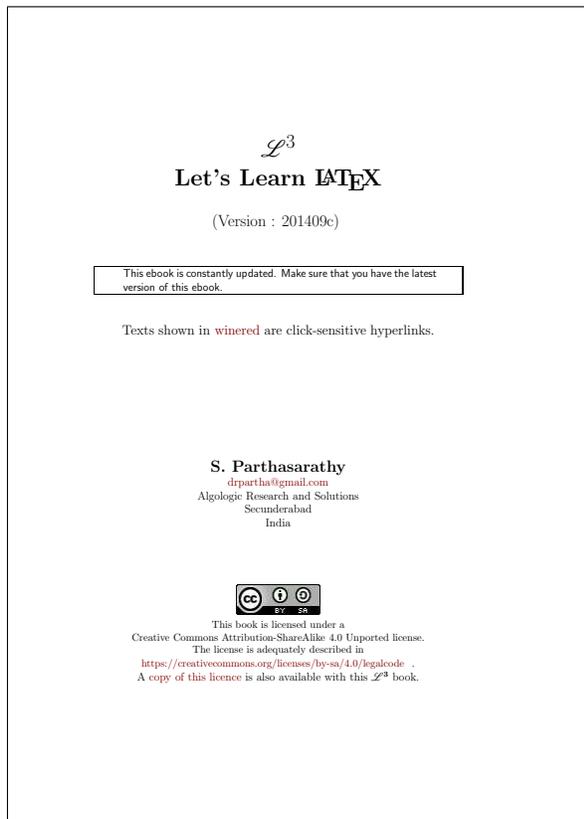


**Book review: *Let's Learn L<sup>A</sup>T<sub>E</sub>X*,  
by S. Parthasarathy**

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S. Parthasarathy, *Let's Learn L<sup>A</sup>T<sub>E</sub>X*, <http://www.freewebs.com/profpartha/teachlatex.htm>, 2014. 24 pp., free ebook. Version 201408e.



This is a free ebook licensed under the Creative Commons Attribution-ShareAlike 4.0 Unported license. The preface starts with a tribute to Richard Stallman and brief information about FOSS (free and open source software—the acronym could do with an expansion in the book). The preface then states that the purpose of the book is to encourage hacking as a method of learning L<sup>A</sup>T<sub>E</sub>X. The book, rather than being a reference text containing instructions and definitions, provides a list of example documents that the reader can try out and modify as a learning tool.

The idea of learning by hacking example code is a useful concept, and one that I often employ when investigating a new programming language. However, I'm concerned that the sample documents provided with this book use obsolete code and deprecated practices. Some illustrations follow below.

Most of the sample documents use the obsolete L<sup>A</sup>T<sub>E</sub>X 2.09 font commands, such as `\bf`. These are

deprecated in L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> and should be avoided [5]. There are also some instances where a font changing declaration, such as `\Huge`, is followed by an unnecessary group, which may confuse the reader into thinking the command requires an argument. For example, on line 50 of `certif0.tex` there are two sets of redundant braces in

```
{\bf{\Huge{'\LaTeX\ hands-on'}}}
```

since neither `\bf` nor `\Huge` have an argument. Only the outermost set of braces scope the effects of the declarations.

Many of the sample documents load the `epsfig` package [7]. The original `epsfig` style that was provided with L<sup>A</sup>T<sub>E</sub>X 2.09 is now obsolete and should not be used. Current T<sub>E</sub>X distributions provide a newer `epsfig` package that is just a wrapper package that loads the `graphicx` package [2]. The recommended practice is to use `graphicx` directly and not specify the image file extensions [4]. Incidentally, there is also no longer any need to specify the `dvips` package option, which occurs in many of the sample documents. The only time a driver option is needed is in the cases where it can't be determined, such as `dvipdfm` [10]. Omitting the driver and the file extensions helps to make the document more portable.

Curiously, some of the documents, such as the file `spacing.tex` load both `epsfig` and `graphicx`, which is redundant. There are other instances of unnecessary repetition where there are multiple attempts to load the same package. For example, in the file `torture1.tex` not only are both `epsfig` and `graphicx` loaded on line 5, but there is also an attempt to load `epsfig` on line 11 and `graphicx` on line 13. Similarly, there are two attempts to load `amssymb` (on lines 4 and 10), `amsmath` (on lines 4 and 8) and `amsfonts` (on lines 4 and 9). Removing this duplication would provide a more streamlined example.

On the subject of images, the image files aren't actually provided with the sample documents for copyright and licensing issues, so I think it would be useful if the author could mention the use of the `demo` option provided by the `graphicx` package, which would enable the documents to be compiled without error. Alternatively, perhaps mention the image files provided with the `mwe` package [9].

There is prolific use of `\` within paragraphs in the sample documents, which is generally best avoided [1]. I think using paragraph breaks instead of `\` would be more appropriate in most of these cases, and blank lines would additionally help readability of the code.

More surprising is the use of `\` immediately before paragraph breaks. The L<sup>A</sup>T<sub>E</sub>X user guide [6, p. 213] warns against this as it produces underfull `\hbox` warnings and extra vertical space. (If vertical spacing is required between paragraphs, there are more appropriate methods of achieving this [3].)

I was somewhat bemused by the line `%\documentstyle[epsfig, picinpar, 12pt]{article}` in the file `latexography.tex`. Even though the line is commented, `\documentstyle` should not appear in any modern L<sup>A</sup>T<sub>E</sub>X tutorial, except where it is being pointed out as obsolete. There's a danger here that new curious users may uncomment the line and try it out.

I was interested to see that the sample document `kuralengtam3a.tex` loads the `fontspec` package [8], which is a X<sub>Y</sub>L<sup>A</sup>T<sub>E</sub>X and LuaL<sup>A</sup>T<sub>E</sub>X package. It's not often that a L<sup>A</sup>T<sub>E</sub>X tutorial uses a different engine. I think this is a good idea, but it would help if the author pointed out to the reader in a comment at the start of the file that X<sub>Y</sub>L<sup>A</sup>T<sub>E</sub>X or LuaL<sup>A</sup>T<sub>E</sub>X is required, otherwise users eager to compile the sample document before reading it may not realise they need a different engine.

This sample document requires the Arial font. As a GNU/Linux user, I don't have any commercial fonts installed, and it wasn't immediately obvious at what point the document was switching to Arial, but the command-line invocation of `grep Arial *` tracked it down to eight of the accompanying files. After I had replaced all instances of `Arial` with `Liberation Sans` in those files, I was able to get the document to compile without error. Windows users won't have this problem, but I was puzzled by the author's choice of Arial rather than a free font given the book's FOSS ethos.

If the author updates the sample documents so that the redundancy, obsolescence and deprecated practices are removed, this book could be a useful tool in learning L<sup>A</sup>T<sub>E</sub>X and introducing the reader to X<sub>Y</sub>L<sup>A</sup>T<sub>E</sub>X.

## References

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