LaTeX resources

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> You were lucky. We lived for three months in a paper bag in a septic tank.
>
> Monty Python's *Four Yorkshiremen* sketch

When I started TeX-ing, things were right tough. I got my distribution in twenty four separate emails, which I had to stick together, to run a decode program, to convert to a file, to drop to the disk to make the executables. And, there was no shelf of books to consult, no pile of tutorials to peruse, no Internet group with fancy-pants search capabilities.

But it built character. It made you hard . . . or nuts — why the heck did I ever continue? Of course, I continued because of the output, which was wonderful.

No, the old days were the bad old days. Today there are many resources for someone who is trying to begin working with TeX and LaTeX. So many, in fact, that a person can be unsure of which to use.

This is my guide to which books to check out, documentation files to print, and software packages to know about. It is meant for, say, a student or administrative assistant who has work to do and finds that they need to get it done with TeX.

I'm a Linux person so I can't give Mac or Windows advice, I unfortunately am comfortable in no language other than English, and I've read only the books that I've read. So I admit that my opinions are biased. But what can you do with opinions besides impose them on others?

1 Carrying on

I know that I am going to regret, in this age of search engines, writing an article that will appear online containing both terms "LaTeX" and "Carrying on" but I mean this in the way that it is used in the LaTeX manual: here's the information.

1.1 Books and journals

Someone starting out should use LaTeX. I keep these two books in reach.

- *LaTeX: A Document Preparation System (2nd ed.)*[1] by Lamport is the manual by the software's author. It is well-written, if perhaps spare.

- *The LaTeX Companion*[2] by Mittelbach, et al., is a monumental effort that summarizes most of the important packages and techniques.

Also widely recommended for its how-to material is *A Guide to LaTeX*[3] by Kopka and Daly. I like to have access to Knuth's *TeXbook*[4] and to *TeX By Topic*[5] by Eijkhout. However, I don't use these often; for instance, Knuth's book is across campus in the library.

I read two journals. The journal of the TeX Users Group is *TUGboat*.[6] Getting this is one of the major benefits of joining TUG (many languages and areas have their own user group;[7] consider joining for the publications and for the meetings). The online journal *The PracTeX Journal*[8] is a recent entry but perfect for someone feeling their way around the landscape.

1.2 Shorter writings

Suck these down off the Internet, print them out, and three-hole punch them.

- The most-often recommended tutorial is *The Not-So Short Guide to LaTeX2e*.[9]

- The American Math Society's material is documented in the *AMS Math Guide*.[10]

- I look for symbols that I don't even know the name of in the *Comprehensive List of Symbols*.[11]

- To understand how to incorporate and place graphics I refer to *Using Imported Graphics in LaTeX and pdfLaTeX*.[12]

- Sometimes the best way to learn the right thing to do is to be smacked for doing something that you shouldn't. If you know that you have bad

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[1] ISBN-13: 978-0-201-52983-8

[2] ISBN-13: 978-0-201-36299-2
[3] ISBN-13: 978-0-321-17385-0
[4] ISBN-13: 978-0-201-13448-3
[5] http://www.eijkhout.net/tbt/
[6] http://www.tug.org/TUGboat/
[7] http://www.tug.org/usergroups.html
[8] http://www.tug.org/pracjourn/
[9] http://www.ctan.org/tex-archive/info/lshort/
[10] http://www.ctan.org/tex-archive/macros/latex/required/amslatex/
[11] http://www.ctan.org/tex-archive/info/symbols/comprehensive/
[12] http://www.ctan.org/tex-archive/info/epslatex/

habits, or if you need to find out that you have them, then *l2tabu*[13] will tell you what is taboo.

1.3 Web pages

Many web pages offer help with TEX and LATEX. One that I cannot live without is Robin Fairbairns's *English FAQ*.[14] Another favorite is the *TUG web resources page*.[15]

Even with those two, I sometimes just google for an answer. The advice that I get is typically useful, although it can be outdated.

1.4 Discussion

Internet talk about TEX and LATEX has been going on for . . . as long as there has been an Internet. From time to time I scan the Usenet group `comp.text.tex`[16] for ideas and help; you can also search this group.

1.5 CTAN

The Comprehensive TEX Archive Network[17] is our community's archive. You can search[18] or browse the tree[19] including the LATEX subtree.[20] We (I run one of the core nodes) hold about 5000 packages of TEX-related materials.

1.6 Supporting tools

There are many tools that help you work with LATEX. To type the input I use Emacs with the AUC-TEX[21] macro package. I output everything to PDF so I view it with *Adobe Reader*[22] or *xpdf*[23] (which lets me easily refresh the document and comes up faster than the Reader on a slow connection, but sometimes shows my document a bit differently).

I don't use bibliography tools but the standard is BibTEX.[24]

1.7 Add-on LATEX packages

There are many packages to enhance LATEX, but these are the ones that I find essential. They are all available from CTAN; however, most likely they are all already included in your TEX installation, because they are all popular.

- Make the most of the mathematical capabilities of (LA)TEX with the *AMS LATEX*[25] package.
- Page layout is tricky. Adjust the size and orientation of your page with *geometry*.[26] Get control over headers and footers with *fancyhdr*.[27]
- Import graphics into a LATEX document with the *graphicx*[28] package. This package includes the *color* material. If there is more that you want to do in color than this package seems to provide then use *xcolor*.[29]
- Make an index with *makeidx*.[30]
- The *verbatim*[31] package has a number of useful environments, including a `comment` environment to omit parts of the document. For computer code, I use *listings*.[32]
- I like footnotes numbered per-page so I use *footmisc*.[33]
- The *hyperref*[34] package gives you hyperdocument features, such as making table of contents entries link to the corresponding document part.
- Typeset web addresses with *url*,[35] which is also great for computer file names and works either with or without *hyperref*.
- *Beamer*[36] gives me fine presentation slides.

2 Signing off

There are many more resources around than there used to be, thank goodness. The ones here are what I would mention to someone who is only trying to use TEX and LATEX to get their work out the door.

To repeat, these are my opinions only. If you don't like them — if for instance you think footnotes numbered per-page should be a capital offense — then you can go live in a paper bag!

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[13] http://www.ctan.org/tex-archive/info/l2tabu
[14] http://www.tex.ac.uk/faq
[15] http://tug.org/interest.html
[16] http://groups.google.com/group/comp.text.tex
[17] http://www.ctan.org/
[18] http://www.ctan.org/search.html
[19] http://www.ctan.org/tex-archive/
[20] http://www.ctan.org/tex-archive/macros/latex/
[21] http://www.gnu.org/software/auctex/
[22] http://www.adobe.com/products/acrobat/readermain.html
[23] http://www.foolabs.com/xpdf/
[24] http://en.wikipedia.org/wiki/BibTeX

[25] http://www.ams.org/tex/amslatex.html
[26] http://www.ctan.org/tex-archive/macros/latex/contrib/geometry/
[27] http://www.ctan.org/tex-archive/macros/latex/contrib/fancyhdr/
[28] http://www.ctan.org/tex-archive/macros/latex/required/graphics/
[29] http://www.ctan.org/tex-archive/macros/latex/contrib/xcolor/
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[34] http://www.tug.org/applications/hyperref/
[35] http://www.ctan.org/tex-archive/macros/latex/contrib/misc/url.sty
[36] http://latex-beamer.sourceforge.net/