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Chapter 1

Installing LaTeX

Knuth has published the source to T_EX back in a time when nobody knew about OpenSource and or Free Software. The License that comes with T_EX lets you do whatever you want with the source. But you can only call the result of your work T_EX if the program passes a set of tests Knuth has also provided. This has lead to a situation where we have free T_EX implementations for almost every Operating System under the Sun. In this chapter you will give some hints on what to install on Linux, Mac OS X and Windows to get T_EX working.

1.1 What to Install

For using LaTeX on any computer system, you need 3 essential pieces of software:

1. a text editor for editing your LaTeX source files.
2. the T_EX/L^AT_EX program for processing your L^AT_EX source files into typeset PDF or DVI documents.
3. a PDF/DVI viewer program for previewing and printing your documents.
4. a program to handle PostScript files and images for inclusion into your documents.

For all platforms there are many programs that fit the requirements above. Here we just tell about the ones we know, like and have some experience with.

1.2 T_EX on Mac OS X

1.2.1 Picking an Editor

Base your LaTeX environment on the TextMate editor! TextMate is not only a highly customizable, general purpose text editor, it also provides excellent LaTeX support and integrates tightly with the PDFView previewer. This combination of tools, lets you use LaTeX in a convenient and Mac-like manner. You can download a free trial version from the Textmate website on <http://macromates.com/> and purchase a full version for 39 EUR. If you know an equivalent OpenSource tool for the Mac, please let us know.

1.2.2 Get a T_EX Distribution

If you are already using Macports or Fink for installing Unix software under OS X, install LaTeX using these package managers. Macport users install LaTeX with `port install tetex`, Fink users use the command `fink install tetex`.

If you are neither using Macports nor Fink, download MacTeX, which is a precompiled LaTeX distribution for OS X. MacTeX provides a full LaTeX installation plus a number of additional tools. Get MacTeX from <http://www.tug.org/mactex/>.

1.2.3 Treat yourself to PDFView

Use PDFView for viewing PDF files generated by LaTeX, it integrates tightly with your LaTeX text editor. PDFView is an open-source application can be downloaded from the PDFView website on <http://pdfview.sourceforge.net/>. Download and install PDFView. Open PDFViews preferences dialog and make sure that the *automatically reload documents* option is enabled and that PDFSync support is set to the TextMate preset.

1.3 T_EX on Windows

1.3.1 Getting T_EX

First, get a copy of the excellent MiKTeX distribution from <http://www.miktex.org/>. It contains all the basic programs and files required to compile L^AT_EX documents. The coolest feature in my eyes is, that MiKTeX will download missing L^AT_EX packages on the fly and install them magically while compiling a document.

1.3.2 A L^AT_EX editor

L^AT_EX is a programming language for text documents. TeXnicCenter uses many concepts from the programming-world to provide a nice and efficient L^AT_EX writing environment in Windows. Get your copy from <http://www.toolscenter.org>. TeXnicCenter integrates nicely with MiKTeX.

Another excellent choice is the editor provided by the LEd project available on <http://www.latexeditor.org>

1.3.3 Working with graphics

Working with high quality graphics in L^AT_EX means, that you have to use Postscript (eps) or PDF as your picture format. The program that helps you deal with this is called GhostScript. You can get it, together with its own front-end GhostView from <http://www.cs.wisc.edu/~ghost/>.

If you deal with bitmap graphics (photos and scanned material). You may want to have a look at the open source photoshop alternative Gimp available from <http://gimp-win.sourceforge.net/>.

1.4 T_EX on Linux

If you work with Linux, chances are high that L^AT_EX is already installed on your system, or at least available on the installation source you used to setup. Use your package manager to install the following packages:

- tetex or texlive – the base T_EX/L^AT_EX setup.
- emacs (with auctex) – a Linux editor that integrates tightly with L^AT_EX through the add-on AucTeX package.
- ghostscript – a PostScript preview program.
- xpdf and acrobat – a PDF preview program.
- imagemagick – a free program for converting bitmap images.
- gimp – a free photoshop look-a-like.
- inkscape – a free illustrator/corel draw look-a-like.