

Designing Manuals with L^AT_EX

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Who developed L^AT_EX?

- T_EX is a typesetting system written by Donald Knuth at Stanford University in 1978.
- L^AT_EX is, as a collection of T_EX macros, a document preparation system initially written by Leslie Lamport in 1984.

Basic L^AT_EX syntax

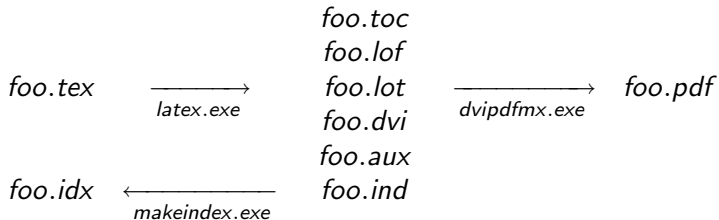
```
\documentclass[a4paper,10pt]{memoir}
\usepackage{dhucs}

\begin{document}
\frontmatter
\tableofcontents
\listoftables
\listoffigures

\mainmatter
\chapter{Overview}
\section{Summary}\label{sec:summary}
\subsection{Features}
blah blah blah\
Refer to Section \ref{sec:summary}.
\include{Installation}
\input{Setup}

\backmatter
\printindex
\end{document}
```

How to compile a T_EX document?



- c.bat

```

latex foo
makeindex foo
latex foo
latex foo
dvipdfmx foo
  
```

What kind of T_EX distribution should I install?

- OzTeX** A popular and up-to-date T_EX implementation for OS X and Mac OS.
- teTeX** One of the most popular distribution for Unix systems, developed primarily by Thomas Esser.
- fpTeX** A T_EX distribution for Win32 systems, developed by Fabrice Popineau and based on teTeX.
- MiKTeX** A popular and up-to-date T_EX implementation for Windows, developed by Christian Schenk. <http://www.miktex.org>
- ProTeXt** An easy-to-install T_EX distribution for Windows, based on MiKTeX.

What editors are available in Windows?

TeXmaker Free cross-platform L^AT_EX editor.

<http://www.xmlmath.net/texmaker/>

TeXnicCenter IDE designed for Windows, but incapable of handling two-byte characters. <http://www.texniccenter.org>

WinEdt Shareware IDE for Windows, but incapable of handling Unicode encoding (utf-8). <http://www.winedt.com>

EmEditor A text editor supporting every character encoding as well as Unicode. <http://www.emeditor.com>

Is there anything else that I should install?

- Adobe Reader** The standard PDF viewer. <http://www.adobe.com>
- GhostScript** An interpreter of the Adobe PostScript and Portable Document Format page description languages.
<http://www.ghostscript.com>
- DviOut** An DVI viewer, developed by Toshio Oshima
<http://ftp.ktug.or.kr/mirrors/dviout/>
- GraphicxMagick** An image format converter
<http://www.graphicsmagick.org>

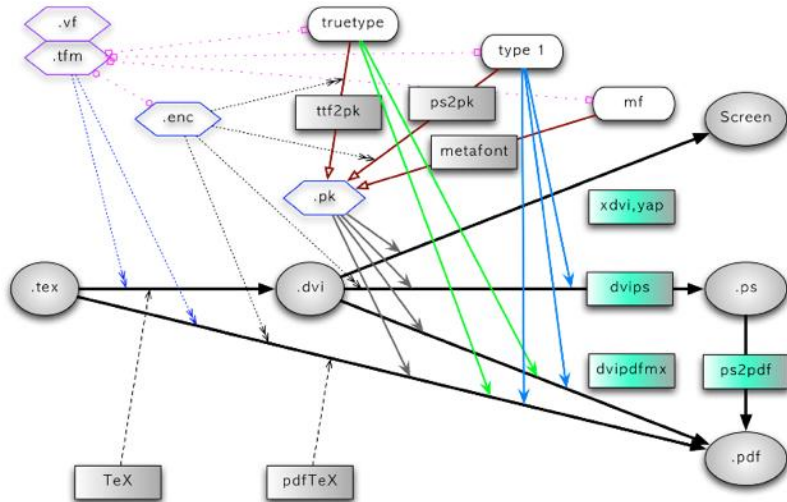
What references should I refer to?

`lshort-kr.pdf` <http://faq.ktug.or.kr/faq/lshort-kr>

[A Guide to L^AT_EX](#) 3rd edition, 1999, Addison-Wesley

[The L^AT_EX Companion](#) 2nd edition, 2004, Addison-Wesley

`memman.pdf` `/tex/texmf/doc/latex/memoir/memman.pdf`



Graphics in T_EX

- BMP → Raster EPS → PDF (.bb)
- Vector EPS → PDF (.bb)
- `\includegraphics[scale=\figscale]{fig}`

What is \LaTeX ?

What I need to use \LaTeX ?

Things you had better know

Designing manuals with \LaTeX

How do people read the manual?

What is the best layout for manuals?

Why should we modularize manuals?

How can we reuse then again select correct figure files?

How do people read the manual?

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- They read it using the product at the same time.
- They read it under severe stress.

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- They read it under severe stress.
- They read it not wholly but partially.

What is the best layout for manuals? I

- Enumerated section titles
- Captioned tables and figures
- Page header (and footer)
- Table of contents
- List of figures
- List of tables
- Cross-reference
- Index
- Graphics: charts, diagrams and illustrations.
- Sectional titles numbered to the level of subsection.
- All graphics to be consistent and optimum with a page format in size and proportion.
- Floating objects thrown into the discard.
- Pages with ragged bottoms.

What is the best layout for manuals? II

- Asymmetric two columns. The left column is allocated for section titles and graphics, and the right column is allocated for body text.
- Tables and figures flushed into the left with their captions.
- No more than two types of fonts but with their bold faces; however, index entries in the same fonts.

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- The file name database and conditional text make it possible.

How can we reuse then again select correct figure files?

- A same name given to figure files with a same feature.
- Looking over figure folders according to priority.