

Cleveland State University

EEC 414/503

Writing in Electrical and Computer Engineering

Lecture 11

Technical Typesetting

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Technical Typesetting

- Microsoft Word
 - WYSIWYG
 - Equation editing and cross-referencing is awkward
- LaTeX
 - Like learning a new programming language
 - Very powerful
 - Free!
 - Placement of figures/tables is awkward

LaTeX

- If you have lots of equations, use LaTeX
- User Interface
 - High level
 - Scientific Word, LyX, TeXmacs, ...
 - Low level
 - Any text editor will work
 - TeXnicCenter, WinShell, **Texmaker**, ...

TeX

- Began as a personalized typesetting system in 1977 with Donald Knuth
- TeX can be extended with “packages”
 - LaTeX is the largest and most popular package, developed by Leslie Lamport in the early 1980s (TeX : LaTeX) as (C : C++)
 - AMS-TeX, produced by Amer. Math. Soc.

LaTeX

- First LaTeX book published in 1985
 - LaTeX: A Document Preparation System, by Leslie Lamport
- Now there are dozens of LaTeX books
- Many implementations of TeX and LaTeX
 - MiKTeX: www.miktex.org

Getting Started with LaTeX

1. Download MiKTeX from www.miktex.org
2. Download Texmaker from www.xm1math.net/texmaker
3. Run LaTeX: TeX file → DVI file
4. Run it again to resolve cross references
5. Use YAP (Yet Another Previewer, part of MiKTeX) to view the DVI file
6. Print the DVI file to your printer or to PDF

LaTeX Sample

- See Sample.tex, Refs.tex, Sample.eps
- Start Texmaker
 - Texmaker menu items
 - File → Open → Sample.tex
 - Tools → LaTeX (F2) (creates LOG and AUX files)
 - Tools → View DVI (F3)
 - Tools → DVI -> PDF (F9) (creates PDF file)