Introduction to LaTeX

for Word users

Karol Kowalik

kowalikk@eeng.dcu.ie

September 22 , 2004

DCU

Introduction

Content

- Introduction
- Content
- What is LaTeX
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation
- How to deal with problems?

- What is LaTeX?
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation under Windows
- How to deal with problems?

Content

- What is LaTeX?
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation under Windows
- How to deal with problems?

Content

- What is LaTeX?
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation under Windows
- How to deal with problems?

Content

- What is LaTeX?
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation under Windows
- How to deal with problems?

Content

- What is LaTeX?
- LaTeX vs Word
- Producing a Simple Document
- LaTeX Installation under Windows
- How to deal with problems?

DCU

What is LaTeX

TEX and LATEX?

Introduction

What is LATEX

- TEX and LATEX?
- Why use LATEX?
- Support for any language
- Other examples

LATEX vs Word

Producing a Simple Document

LATEX Installation

How to deal with problems?

TEX is a computer program created by Donald E. Knuth. It is aimed at typesetting text and mathematical formulas.

LATEX is a macro package which enables authors to typeset and print their work at the highest typographical quality, using a predesigned, professional layout. LATEX was originally written by Leslie Lamport. It uses the TEX formatter as its typesetting engine.

TEX and LATEX?

Introduction

What is LATEX

- TEX and LATEX?
- Why use LATEX?
- Support for any language
- Other examples

LATEX vs Word

Producing a Simple Document

LATEX Installation

How to deal with problems?

TEX is a computer program created by Donald E. Knuth. It is aimed at typesetting text and mathematical formulas.

LATEX is a macro package which enables authors to typeset and print their work at the highest typographical quality, using a predesigned, professional layout. LATEX was originally written by Leslie Lamport. It uses the TEX formatter as its typesetting engine.

Why use LaTeX?

Introduction

What is LaTeX

- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Portability (Unix, Linux, Amiga-OS, Apple, Windows, DOS)
- Flexibility (lots of packages)
- Precise control (Precise control)
- Quality of output (math formulas)
- Can be used to write documents in any language

Why use LaTeX?

Introduction

What is LaTeX

- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Portability (Unix, Linux, Amiga-OS, Apple, Windows, DOS)
- Flexibility (lots of packages)
- Precise control (Precise control)
- Quality of output (math formulas)
- Can be used to write documents in any language

Why use LaTeX?

Introduction

What is LaTeX

- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Portability (Unix, Linux, Amiga-OS, Apple, Windows, DOS)
- Flexibility (lots of packages)
- Precise control (Precise control)
- Quality of output (math formulas)
- Can be used to write documents in any language

Why use LaTeX?

Introduction

What is LaTeX

- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Portability (Unix, Linux, Amiga-OS, Apple, Windows, DOS)
- Flexibility (lots of packages)
- Precise control (Precise control)
- Quality of output (math formulas)
- Can be used to write documents in any language

Why use LaTeX?

Introduction

What is LaTeX

- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Portability (Unix, Linux, Amiga-OS, Apple, Windows, DOS)
- Flexibility (lots of packages)
- Precise control (Precise control)
- Quality of output (math formulas)
- Can be used to write documents in any language

Support for any language

Introduction

What is LaTeX
- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

การใช้ภาษาไทยกับ LaTeX

如何使用 LaTeX 生成中文 PDF 文件
— How to Generate Chinese PDF Files with LaTeX

Ελληνικά στο LaTeX.

Other examples

Introduction

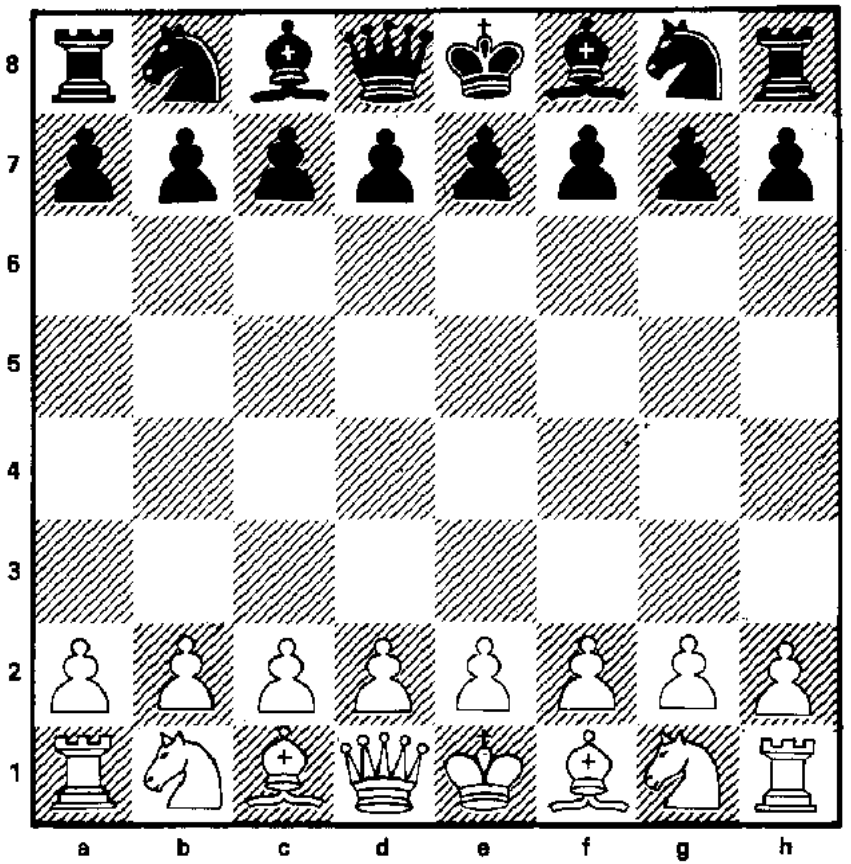
What is LaTeX
- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?



Other examples

Introduction

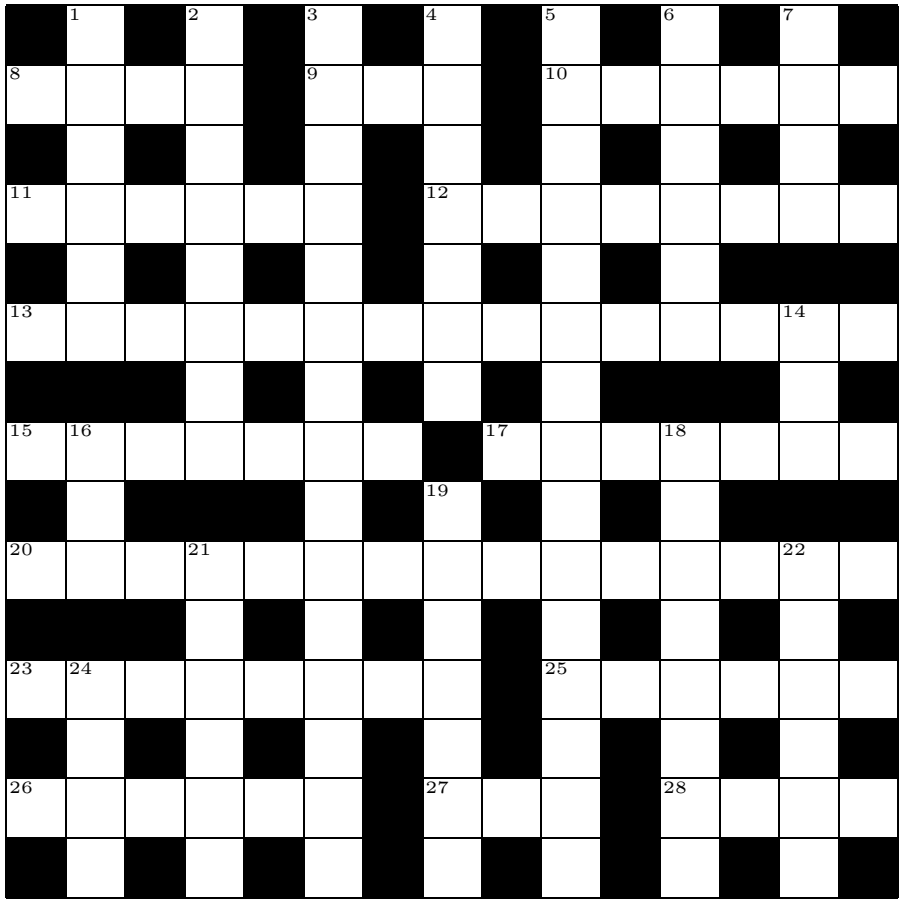
What is LaTeX
- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?



Other examples

Introduction

What is LaTeX

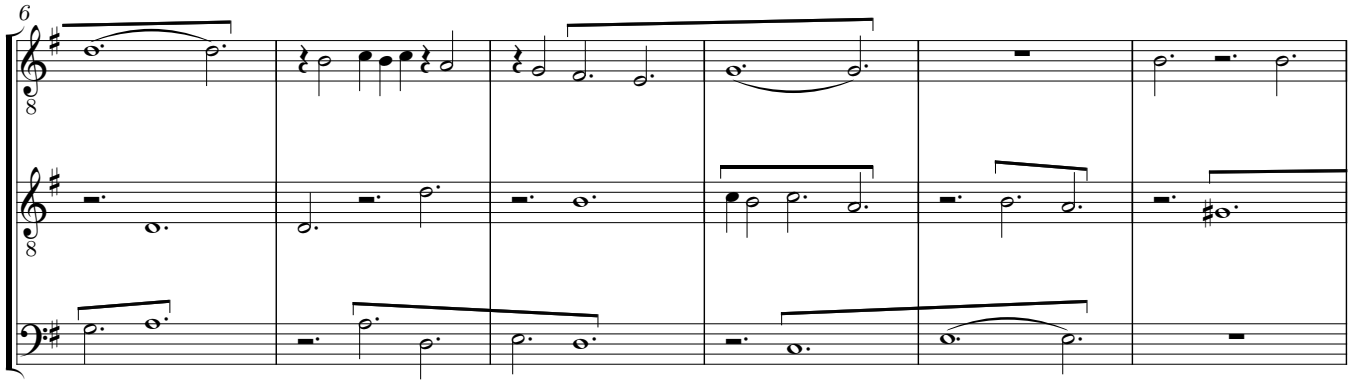
- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?



Other examples

Introduction

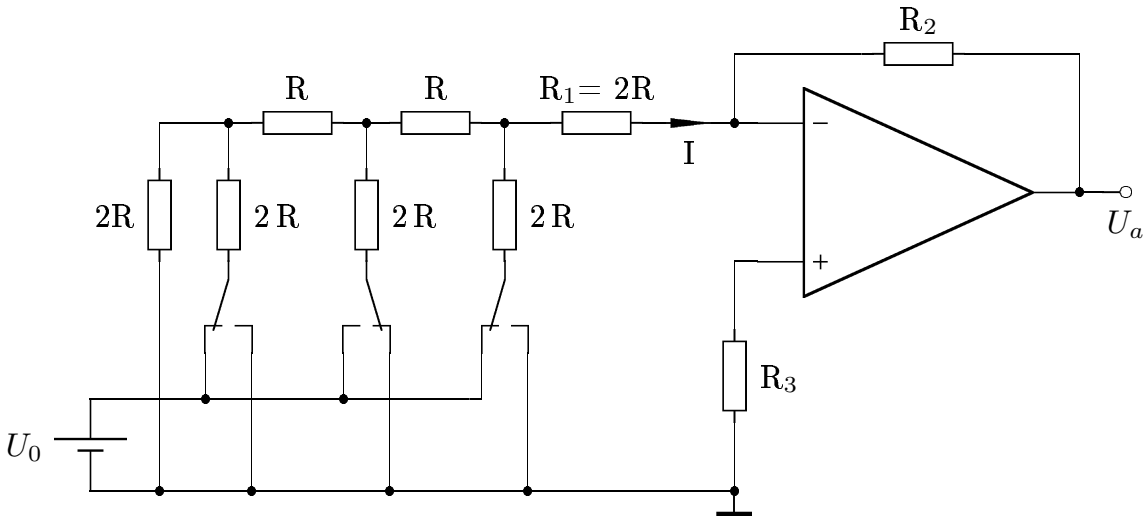
What is LaTeX
- TeX and LaTeX?
- Why use LaTeX?
- Support for any language
- Other examples

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?



LaTeX vs Word

LaTeX vs Word

Introduction
What is LaTeX
LaTeX vs Word
LaTeX vs Word
Quality
Math equations
Producing a Simple Document
LaTeX Installation
How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

LaTeX vs Word

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

- Suitability for large projects
  - clear, explicit separation of content from what defines document style
  - ease with which a table of contents, bibliography and index can be generated
  - ability to split books, etc, into smaller more manageable pieces that are easily combined once writing is complete
- Stability and interchangeability of documents (as opposed to Word 6 vs. Office 95 vs. Office 97 vs. Office 2000 vs. Office XP)
- No pressure to **UPGRADE NOW OR ELSE!**
- No Word viruses

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version:

Word

- Microsoft Error Reporting

- version:

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version: 3

Word

- Microsoft Error Reporting

- version: Word 2

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version: 3.1

Word

- Microsoft Error Reporting

- version: Word 6

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version: 3.14

Word

- Microsoft Error Reporting

- version: Office 95

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version: 3.141

Word

- Microsoft Error Reporting

- version: Office 2000

Quality

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

TeX

- monetary awards

- version: 3.141592

Word

- Microsoft Error Reporting

- version: Office XP

Math equations

Introduction

What is LaTeX

LaTeX vs Word

- LaTeX vs Word
- Quality
- Math equations

Producing a Simple Document

LaTeX Installation

How to deal with problems?

Word:

$$\iiint_G \left[u\nabla^2 v + (\nabla u, \nabla v)\right] d^3V = \oiint_S \left(u\frac{\partial v}{\partial n} + v\frac{\partial u}{\partial n} \right) d^2A$$

LaTeX:

$$\iiint_{\mathcal{G}} \left[u\nabla^2 v - v\nabla^2 u\right] d^3V = \oiint_{\mathcal{S}} \left(u\frac{\partial v}{\partial n} - v\frac{\partial u}{\partial n} \right) d^2A$$

DCU

Producing a Simple Document

Simple Document

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?


```
\documentclass[a4paper,12pt]{article}

\usepackage{...}
% ----------------------------------------------------
\begin{document}
% ----------------------------------------------------
 .
 .
 .

% ----------------------------------------------------
\end{document}
```

Hello World

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

```
\documentclass{article}

\begin{document}
Hello World!
\end{document}
```

Author info

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?


```
\title{A Sample Document}
\author{Karol Kowalik}
\date{...}
\maketitle
```

Document structure

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document
- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

```
\part{...}
\chapter{...}
\subsection{...}
\subsubsection{...}
\paragraph{...}
\subparagraph{...}
```

Necessary steps to produce a document

Introduction

What is LaTeX

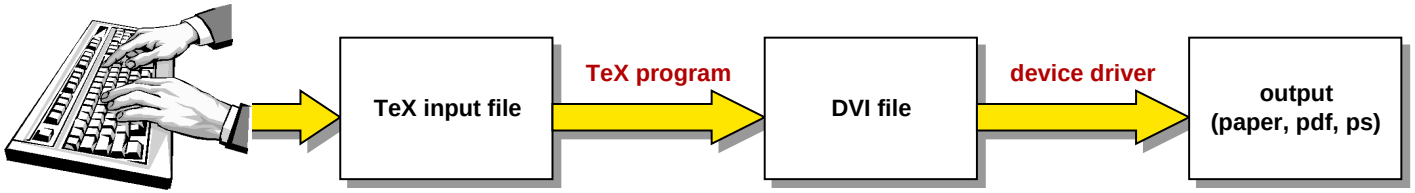
LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?



LaTeX file types

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

- **.tex** LaTeX or TeX input file. Can be compiled with latex.
- **.sty** LaTeX macro package. This is a file you can load into your LaTeX document using the **"usepackage"** command.
- **.cls** Class files define what your document looks like. They are selected with the **"documentclass"** command.
- **.dtx** Documented TeX. This is the main distribution format for LaTeX style files.
- **.ins** Is the installer for the files contained in the matching .dtx file.

LaTeX file types

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

- **.tex** LaTeX or TeX input file. Can be compiled with latex.
- **.sty** LaTeX macro package. This is a file you can load into your LaTeX document using the **"usepackage"** command.
- **.cls** Class files define what your document looks like. They are selected with the **"documentclass"** command.
- **.dtx** Documented TeX. This is the main distribution format for LaTeX style files.
- **.ins** Is the installer for the files contained in the matching .dtx file.

LaTeX file types

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

- **.tex** LaTeX or TeX input file. Can be compiled with latex.
- **.sty** LaTeX macro package. This is a file you can load into your LaTeX document using the **"usepackage"** command.
- **.cls** Class files define what your document looks like. They are selected with the **"documentclass"** command.
- **.dtx** Documented TeX. This is the main distribution format for LaTeX style files.
- **.ins** Is the installer for the files contained in the matching .dtx file.

LaTeX file types

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

- **.tex** LaTeX or TeX input file. Can be compiled with latex.
- **.sty** LaTeX macro package. This is a file you can load into your LaTeX document using the **"usepackage"** command.
- **.cls** Class files define what your document looks like. They are selected with the **"documentclass"** command.
- **.dtx** Documented TeX. This is the main distribution format for LaTeX style files.
- **.ins** Is the installer for the files contained in the matching .dtx file.

LaTeX file types

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

- Simple Document
- Hello World
- Author info
- Document structure
- Necessary steps to produce a document
- LaTeX file types

LaTeX Installation

How to deal with problems?

- **.tex** LaTeX or TeX input file. Can be compiled with latex.
- **.sty** LaTeX macro package. This is a file you can load into your LaTeX document using the **"usepackage"** command.
- **.cls** Class files define what your document looks like. They are selected with the **"documentclass"** command.
- **.dtx** Documented TeX. This is the main distribution format for LaTeX style files.
- **.ins** Is the installer for the files contained in the matching .dtx file.

LaTeX Installation

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter
    `http://www.toolscenter.org/`
  - WinEdt
    `http://www.winedt.com/`
  - LyX
    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter
    `http://www.toolscenter.org/`
  - WinEdt
    `http://www.winedt.com/`
  - LyX
    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter
    `http://www.toolscenter.org/`
  - WinEdt
    `http://www.winedt.com/`
  - LyX
    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter
    `http://www.toolscenter.org/`
  - WinEdt
    `http://www.winedt.com/`
  - LyX
    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter

    `http://www.toolscenter.org/`
  - WinEdt

    `http://www.winedt.com/`
  - LyX

    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter

    `http://www.toolscenter.org/`
  - WinEdt

    `http://www.winedt.com/`
  - LyX

    `http://www.lyx.org/`

How to set up LaTeX for Windows

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- **Step One –** MiKTeX

  `http://www.miktex.org/`

- **Step Two –** Ghostscript and GSview

  `http://www.cs.wisc.edu/~ghost/`

- **Step Three –** Acrobat Reader

  `http://www.adobe.com/products/acrobat/readstep2.html`

- **Step Four –** Windows Editor:
  - TeXnicCenter
    `http://www.toolscenter.org/`
  - WinEdt
    `http://www.winedt.com/`
  - LyX
    `http://www.lyx.org/`

Support Programs

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

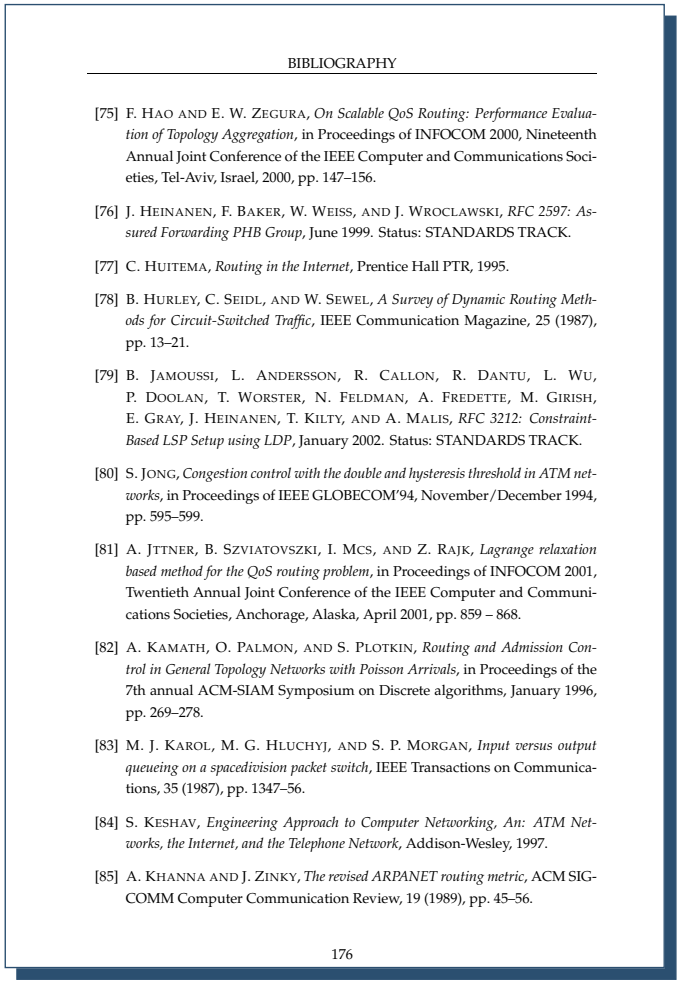
- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- BibTeX
- Visual Thought

  `http://tersesystems.com/code/?overview=vt14`
- Gnuplot

  `http://www.gnuplot.info/`



BIBLIOGRAPHY

[75] F. Hao and E. W. Zegura, *On Scalable QoS Routing: Performance Evaluation of Topology Aggregation*, in Proceedings of INFOCOM 2000, Nineteenth Annual Joint Conference of the IEEE Computer and Communications Societies, Tel-Aviv, Israel, 2000, pp. 147–156.

[76] J. Heinanen, F. Baker, W. Weiss, and J. Wroclawski, *RFC 2597: Assured Forwarding PHB Group*, June 1999. Status: STANDARDS TRACK.

[77] C. Huitema, *Routing in the Internet*, Prentice Hall PTR, 1995.

[78] B. Hurley, C. Seidl, and W. Sewel, *A Survey of Dynamic Routing Methods for Circuit-Switched Traffic*, IEEE Communication Magazine, 25 (1987), pp. 13–21.

[79] B. Jamoussi, L. Andersson, R. Callon, R. Dantu, L. Wu, P. Doolan, T. Worster, N. Feldman, A. Fredette, M. Girish, E. Gray, J. Heinanen, T. Kilty, and A. Malis, *RFC 3212: Constraint-Based LSP Setup using LDP*, January 2002. Status: STANDARDS TRACK.

[80] S. Jong, *Congestion control with the double and hysteresis threshold in ATM networks*, in Proceedings of IEEE GLOBECOM'94, November/December 1994, pp. 595–599.

[81] A. Jttner, B. Szviatovszki, I. Mcs, and Z. Rajk, *Lagrange relaxation based method for the QoS routing problem*, in Proceedings of INFOCOM 2001, Twentieth Annual Joint Conference of the IEEE Computer and Communications Societies, Anchorage, Alaska, April 2001, pp. 859 – 868.

[82] A. Kamath, O. Palmon, and S. Plotkin, *Routing and Admission Control in General Topology Networks with Poisson Arrivals*, in Proceedings of the 7th annual ACM-SIAM Symposium on Discrete algorithms, January 1996, pp. 269–278.

[83] M. J. Karol, M. G. Hluchyj, and S. P. Morgan, *Input versus output queueing on a spacedivision packet switch*, IEEE Transactions on Communications, 35 (1987), pp. 1347–56.

[84] S. Keshav, *Engineering Approach to Computer Networking, An: ATM Networks, the Internet, and the Telephone Network*, Addison-Wesley, 1997.

[85] A. Khanna and J. Zinky, *The revised ARPANET routing metric*, ACM SIGCOMM Computer Communication Review, 19 (1989), pp. 45–56.

176

Support Programs

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

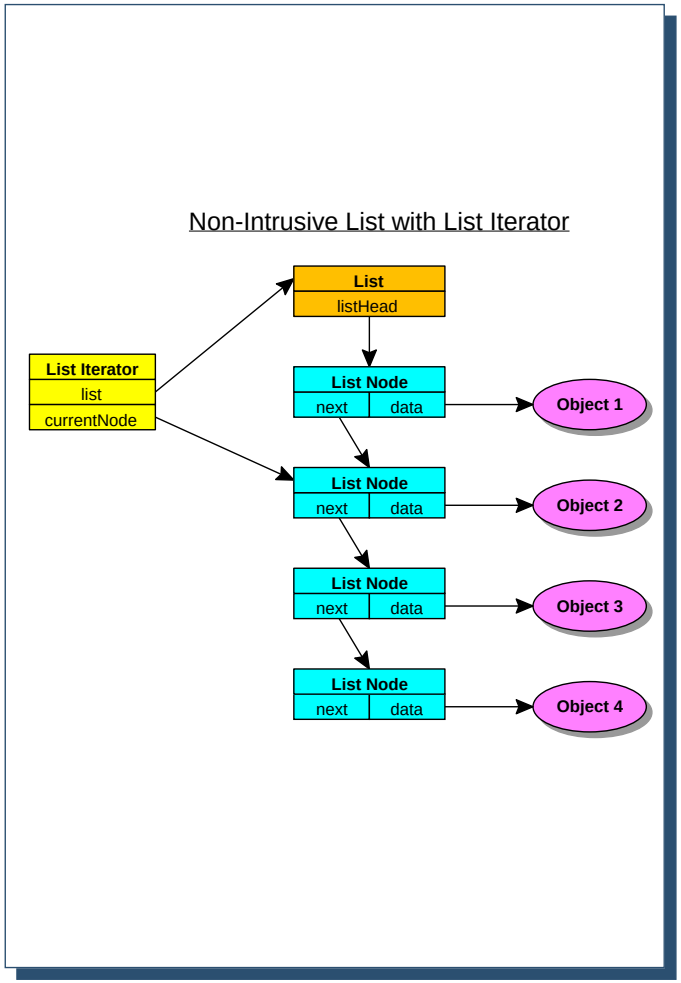
- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- BibTeX
- Visual Thought

  `http://tersesystems.com/code/?overview=vt14`
- Gnuplot

  `http://www.gnuplot.info/`



Support Programs

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

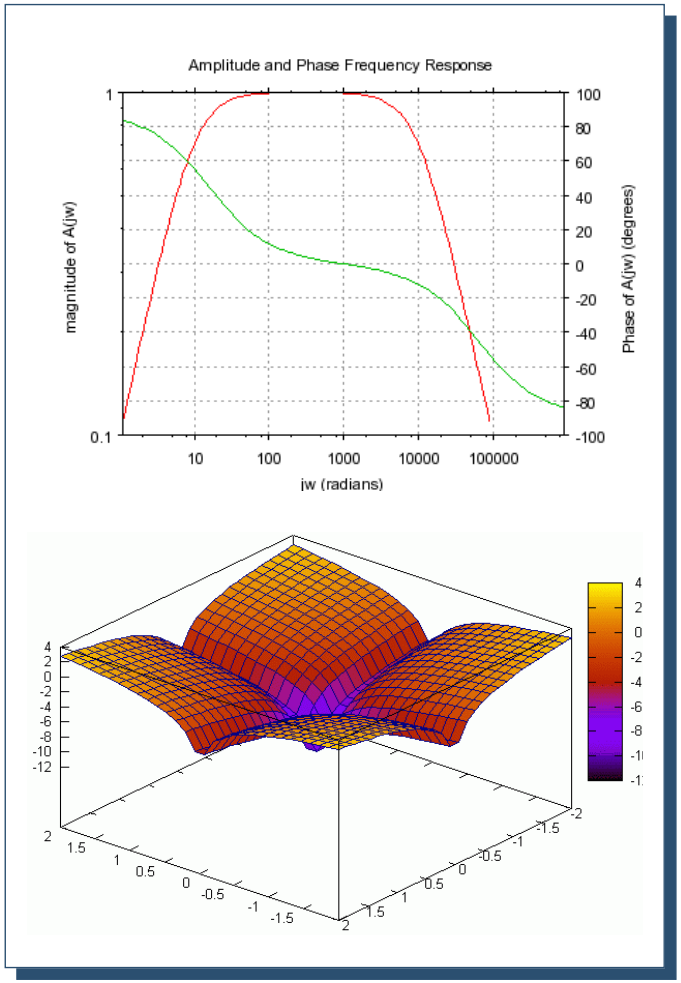
- How to set up LaTeX for Windows
- Support Programs

How to deal with problems?

- BibTeX
- Visual Thought

  http://tersesystems.com/code/?overview=vt14
- **Gnuplot**

  http://www.gnuplot.info/



DCU

How to deal with problems?

Help

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

Help

- **The Not So Short Introduction to LaTeX2e**

  `http://www.tex.ac.uk/tex-archive/info/lshort/english/lshort.pdf`

- **LaTeX for Word Processor Users**

  `http://www.tex.ac.uk/tex-archive/info/latex4wp/latex4wp.pdf`

- **Comprehensive TeX Archive Network**

  `http://www.ctan.org/` or `http://www.tex.ac.uk/`

- **LaTeX Navigator**

  `http://tex.loria.fr/english/`

- **TeX Catalogue**

  `http://www.ctan.org/tex-archive/help/Catalogue/`

Help

Introduction

What is LaTeX

LaTeX vs Word

Producing a Simple Document

LaTeX Installation

How to deal with problems?

Help

- The Not So Short Introduction to LaTeX2e

  http://www.tex.ac.uk/tex-archive/info/lshort/english/lshort.pdf

- **LaTeX for Word Processor Users**

  http://www.tex.ac.uk/tex-archive/info/latex4wp/latex4wp.pdf

- Comprehensive TeX Archive Network

  http://www.ctan.org/ or http://www.tex.ac.uk/

- LaTeX Navigator

  http://tex.loria.fr/english/

- TeX Catalogue

  http://www.ctan.org/tex-archive/help/Catalogue/

Help

Introduction
What is LaTeX
LaTeX vs Word
Producing a Simple Document
LaTeX Installation
How to deal with problems?
Help

- The Not So Short Introduction to LaTeX2e

  http://www.tex.ac.uk/tex-archive/info/lshort/english/lshort.pdf

- LaTeX for Word Processor Users

  http://www.tex.ac.uk/tex-archive/info/latex4wp/latex4wp.pdf

- **Comprehensive TeX Archive Network**

  http://www.ctan.org/ or http://www.tex.ac.uk/

- LaTeX Navigator

  http://tex.loria.fr/english/

- TeX Catalogue

  http://www.ctan.org/tex-archive/help/Catalogue/

Help

Introduction
What is LaTeX
LaTeX vs Word
Producing a Simple Document
LaTeX Installation
How to deal with problems?
Help

- The Not So Short Introduction to LaTeX2e

  http://www.tex.ac.uk/tex-archive/info/lshort/english/lshort.pdf

- LaTeX for Word Processor Users

  http://www.tex.ac.uk/tex-archive/info/latex4wp/latex4wp.pdf

- Comprehensive TeX Archive Network

  http://www.ctan.org/ or http://www.tex.ac.uk/

- **LaTeX Navigator**

  http://tex.loria.fr/english/

- TeX Catalogue

  http://www.ctan.org/tex-archive/help/Catalogue/

Help

Introduction
What is LaTeX
LaTeX vs Word
Producing a Simple Document
LaTeX Installation
How to deal with problems?
Help

- **The Not So Short Introduction to LaTeX2e**

  `http://www.tex.ac.uk/tex-archive/info/lshort/english/lshort.pdf`

- **LaTeX for Word Processor Users**

  `http://www.tex.ac.uk/tex-archive/info/latex4wp/latex4wp.pdf`

- **Comprehensive TeX Archive Network**

  `http://www.ctan.org/` or `http://www.tex.ac.uk/`

- **LaTeX Navigator**

  `http://tex.loria.fr/english/`

- **TeX Catalogue**

  `http://www.ctan.org/tex-archive/help/Catalogue/`