

PIASTA – Interkulturelles Leben und Studieren

LaTeX for Beginners

<https://nats-www.informatik.uni-hamburg.de/view/User/LaTeXNovember>

Instructor:

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Date:

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10:00 - 14:30

Seminar Description

LaTeX – an Alternative to the Classical Word Processing Programs

LaTeX is a professional word processing system that is especially often used in the sciences. But the uses of this free program are also very diverse for students of other courses of study.

Learning goals:

- Get to know the structure of LaTeX documents
- Get your first practical experience with LaTeX
- Be able to understand LaTeX and continue to learn with it on your own after the seminar

Topics:

- The basics LaTeX (<http://www.latex-project.org/>) and Software (Miktex, TexnicCenter, JabRef)
- Structure of a LaTeX document
- Completion of an academic article using LaTeX

Materials

Hand-out

All information can be found on <https://nats-www.informatik.uni-hamburg.de/view/User/LaTeXNovember>

Goals

- Get to know the structure of a LaTeX document
- Get your first practical experience with LaTeX and the software
- Be able to understand LaTeX and continue to learn with it on your own after the seminar
- Be able to write a scientific article with LaTeX
- Get ideas on how larger documents can be written with LaTeX, e.g. PhD thesis, diploma thesis, etc

After the seminar you **MUST** exercise to be really able to use LaTeX. Sometimes might be difficult, but **DO NOT GIVE UP!!!!**

Organization

Day 1

Time	Content
10:00	Organizational Let us know each other
11:00	Introduction to LaTeX
12:00	Break
12:30	First steps in LaTeX: the format of a document, text formatting, etc.
13:00	DO IT YOURSELF: Exercises
14:00	Discussions, Questions and Feedback

Day 2

Time	Contents
10:00	Organizational
10:30	LaTeX: Figures, Tables
11:00	DO IT YOURSELF: Exercises
12:00	Break
12:30	LaTeX: References, JabRef, other types of documents
13:00	DO IT YOURSELF: Exercises
14:00	Discussions, Questions and Feedback

What is an article? Elements of an article

A Sample ACM SIG Proceedings Paper in LaTeX Format[†]

[Extended Abstract][‡]

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ABSTRACT

This paper provides a sample of a LaTeX document which conforms to the formatting guidelines for ACM SIG Proceedings. It implements the document *Author's Guide to Preparing ACM SIG Proceedings Using LaTeX2_ε and BibTeX*. This source file has been written with the intention of being compiled under LaTeX2_ε and BibTeX.

The developers have tried to include every imaginable sort of "bells and whistles", such as a subtitle, footnotes on title, subtitle and authors, as well as in the text, and every optional component (e.g. Acknowledgments, Additional Authors, Appendices), not to mention examples of equations, theorems, tables and figures.

To make best use of this sample document, run it through LaTeX and BibTeX, and compare this source code with the printed output produced by the dvi file.

[†]Does NOT produce the permission block, copyright information nor page numbering). For use with ACM_PROCS_ARTICLE.SPCLS. Supported by ACM.

[‡]A full version of this paper is available as *Author's Guide to Preparing ACM SIG Proceedings Using LaTeX2_ε and BibTeX* at www.acm.org/exaddress.htm

[§]Dr. Trovato insisted his name be first.

[¶]The secretary disavows any knowledge of this author's actions.

^{††}This author is the one who did all the really hard work.

Categories and Subject Descriptors

H.4 [Information Systems Applications]: Miscellaneous;
D.2.8 [Software Engineering]: Metrics—complexity measures, performance measures

General Terms

Theory

Keywords

ACM proceedings, LaTeX, text tagging

1. INTRODUCTION

The *proceedings* are the records of a conference. ACM seeks to give these conference by-products a uniform, high-quality appearance. To do this, ACM has some rigid requirements for the format of the proceedings documents: there is a spec-

Among the elements of an article, there are the following: title, author, affiliation, (keywords), abstract, sections and subsections (Introduction, Methodology, Evaluation, Results, Data, Conclusions), References.

An article may contain text, pictures, tables, formulas etc.



Figure 4: A sample black and white graphic (.eps format) that needs to span two columns of text.

A Caveat for the TeX Expert

Because you have just been given permission to use the `\newdef` command to create a new form, you might think you can use TeX's `\def` to create a new command: *Please refrain from doing this!* Remember that your LaTeX source code is primarily intended to create camera-ready copy, but may be converted to other forms — e.g., HTML. If you inadvertently omit some or all of the `\def`s recompilation will be, to say the least, problematic.

3. CONCLUSIONS

This paragraph will end the body of this sample document. Remember that you might still have Acknowledgments or Appendices; brief samples of these follow. There is still the Bibliography to deal with; and we will make a disclaimer about that here: with the exception of the reference to the LaTeX book, the citations in this paper are to articles which have nothing to do with the present subject and are used as examples only.

4. ACKNOWLEDGMENTS

This section is optional: it is a location for you to acknowledge grants, funding, editing assistance and what have you. In the present case, for example, the authors would like to thank Gerald Murray of ACM for his help in codifying this *Author's Guide* and the .cls and .tex files that it describes.

5. ADDITIONAL AUTHORS

Additional authors: John Smith (The Thörvald Group, email: jsmith@affiliation.org) and Julius P. Kumquat (The Kumquat Consortium, email: jpkumquat@consortium.net).

6. REFERENCES

- [1] M. Bowman, S. K. Debray, and L. L. Peterson. Reasoning about naming systems. *ACM Trans. Program. Lang. Syst.*, 15(5):795–825, November 1993.
- [2] J. Braams. Babel, a multilingual style-option system for use with latex's standard document styles. *TUGboat*, 12(2):291–301, June 1991.

- [3] M. Clark. Post congress tristesse. In *TeX90 Conference Proceedings*, pages 84–89. TeX Users Group, March 1991.
- [4] M. Herlihy. A methodology for implementing highly concurrent data objects. *ACM Trans. Program. Lang. Syst.*, 15(5):745–770, November 1993.
- [5] L. Lamport. *LaTeX User's Guide and Document Reference Manual*. Addison-Wesley Publishing Company, Reading, Massachusetts, 1986.
- [6] S. Salas and E. Hille. *Calculus: One and Several Variable*. John Wiley and Sons, New York, 1978.

APPENDIX

A. HEADINGS IN APPENDICES

The rules about hierarchical headings discussed above for the body of the article are different in the appendices. In the appendix environment, the command `section` is used to indicate the start of each Appendix, with alphabetic order designation (i.e. the first is A, the second B, etc.) and a title (if you include one). So, if you need hierarchical structure within an Appendix, start with `subsection` as the highest level. Here is an outline of the body of this document in Appendix-appropriate form:

A.1 Introduction

A.2 The Body of the Paper

A.2.1 Type Changes and Special Characters

A.2.2 Math Equations

Inline (In-text) Equations

Display Equations

A.2.3 Citations

A.2.4 Tables

A.2.5 Figures

What is LaTeX. History

Donald E Knuth – The "Father" of TEX

- Born on January, the 10th 1938 in Milwaukee, Wisconsin
- Professor Emeritus of Computer Science at Stanford University
- since 1962: his masterpiece „The Art of Computer Programming“
- Knuth hat für 10 (!) Jahre die Arbeit an seinem Lebenswerk unterbrochen um TEX-System zu entwickeln.
- TEX ready on May, 21st 1986
- The name TEX is an abbreviation of a Greek word, which means art.

Leslie Lamport – The "Father" of LaTeX

- LaTeX appeared in 1984 to ease the work with TEX
- Pronunciation: [latech], [latek], [lähtech] **NOT LATEX!!!!!!**

1. TeX is a typesetting system, not a WYSIWYG system
2. Creating documents with TeX is easy to learn, but to learn how to program TeX is more difficult
3. TeX operates differently, when comparing to other word processing systems
4. TeX is often used for mathematical texts
5. TeX is ideal for scientific documents (eg articles, thesis, dissertation, etc), but TeX can also be used for other documents (curriculum vitae, presentations, POSTERS, etc.)
6. TeX supports more than 50 languages in almost all the writing systems of the world
7. LaTeX is a part of TeX

Comparison with Word

- Tex documents are portable
- TeX is available everywhere; TEX is freely available and costs nothing.
- The typographical quality of the output is very good
- Tex is multilingual
- TeX is extensible and there are large collections of such extensions
- TeX provides structural markup, TeX is a formatting program (a typesetting system)
- Tex is freely available
- Platform independent (all operation systems: Windows, Linux, MAC)

Characteristics	LaTeX	Word
Short Documents	-	++
Longer Documents	++	-
Ease of use	-	++
Layout Quality	++	+
Mathematical formulas	++	-
Formatting	++	-
Price, Availability	++	-
Compatibility	+	-

Office-Programs: WYSIWYG („What You See Is What You **Get**“)

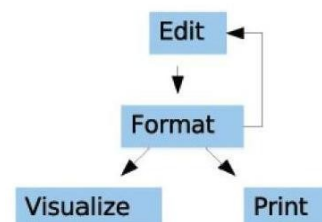
LaTeX: WYSIWYM („What You See Is What You **Mean**“)

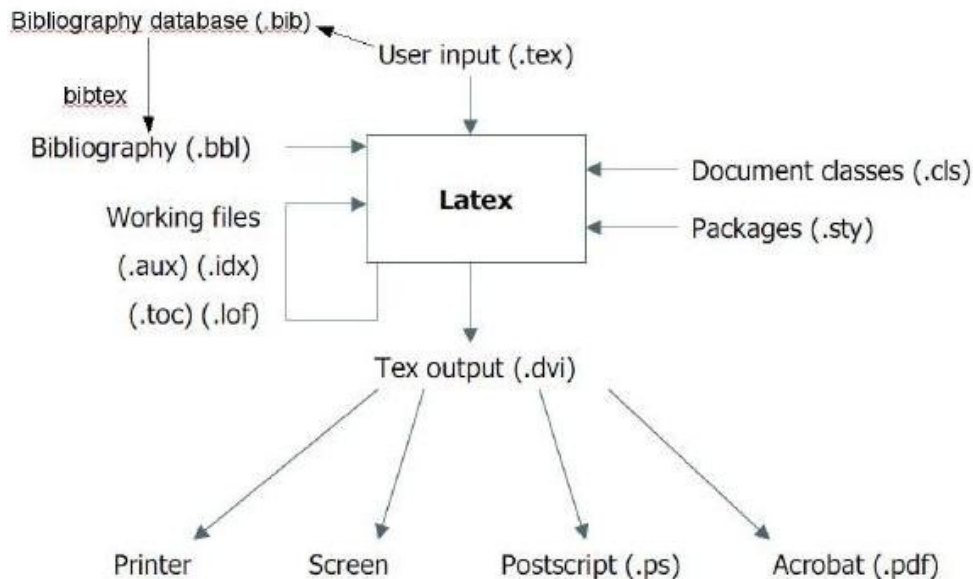
The Working Principle of TeX

Step I: You edit the document with an editor

Step II: Then arrange for the formatting of the document

Step III: You can display the result on the screen or print it.





Tools:

- The Editor: TexnicCenter
- The Formatter: MikTeX (the program that does the formatting)
- The Preview: Acrobat Reader (for PDF Files)
- The Print Driver: Program for the output of your printer
- The Reference Manager: JabRef

The appearance is controlled by the **sty** files (style files). The text is in the **tex** file. The bibliography is in the database file (if you work with BibTeX) – the **bib** file.

Main applications:

- latex – Tool for formatting the document and generating a device independent file (DVI file)
- pdflatex - Such as latex, but with a PDF file as output
- makeindex - Creates keyword lists
- bibtex - Creates the bibliography from the **bib** database

Software

- UNIX / LINUX: Kile, emacs+auctex (frontend), usually as engine - teTeX
- Windows: MikTeX, proTeXt, Personal TeX, BaKoMa, TeXlive (engine), TeXnic Center, WinEDT (frontend).
- MAC OS: gwTeX, teTeX, CMacTeX, MacTeX, OzTeX, Textures (engine), TexShop, TexMaker, Aquamacs, AlphaX (frontend)
- Other Programs: JabRef, LeD, WinShell etc.
- WYSIWYG tools: Lyx. MAC OS: also Textres, TeXniscope

We use:

MikTeX

TexnicCenter

JabRef

Connection between MikTeX and TexnicCenter: PATH-TO-PROGRAM/MikTeX.../bin/miktex

The Structure of a Document

Document class

`\documentclass[ARGUMENTS]{CLASS}`

Classes:

article – short Texts

report – For longer articles, a titlelevel more, than for *article*

book – Books

letter – Letters

slides – Slides

etc.

We will use the class *article*.

This class contains several optional arguments, such as: a4paper (for 297 × 210mm), otherwise it is default set the letterpaper (für 279.4 × 215.9mm)

Other arguments:

- Standard font sizes: 10pt , 11pt oder 12pt
- titlepage , notitlepage : Title of a page of its own, or not
- oneside , twoside : Choice between a single or double-sided layout. Margins have different sizes (for double-sided symmetrical considering the bond). There is a distinction between left and right headers and footers.

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

Commands

Example: `\documentclass{article}`

Format:

1. \ – Backslash shows LaTeX that a command is starting. ALWAYS
2. documentclass – Name of the command
3. {article} – extra parameter between "{" , "}" (Curly Brackets)

Further parameter need further "{", "}". It is also possible that no parameter is needed.

`\NAME_COMMAND[optional Arguments]{Parameter}`

Environments

Environments are special commands, which contain a larger domain. They contain text and / or further commands or environments

Example

`\begin{document}`

The text of the document

`\end{document}`

`\begin{NAME_ENVIRONMENT}`

.....

`\end{NAME_ENVIRONMENT}`

(Extra) Packages

LATEX is modular. There are many different basic functions. To expand the possibilities packages should be used. There are packages for many different tasks, for example, in order to load graphics or to set the encoding used. Packages are loaded in the so-called preamble, i.e. between `\documentclass {...}` and `\begin {document}`.

To insert a package, the following command is used:

`\usepackage[Options of the package]{Name of the package}`

Several packages can be loaded with only one command if no options must be specified. In this case the package names are separated by commas:

`\usepackage{Name1, Name2}`

ATTENTION: In our seminar we will not have access to all packages. You can add them at home, having an INTERNET connection.

Example

```
%Preamble
\documentclass{article}

\usepackage{babel}

%Front matter
\title{Test document}
\author{Name Surname}

\begin{document}
\maketitle

%Body

\begin{abstract}
Here is the abstract
\end{abstract}

\section{Test 1}
....

%Back matter
\bibliography{BIB_FILE}
\bibliographystyle{NAME}
\end{document}
```

For German

`\usepackage[german]{babel}` or `\usepackage[ngerman]{babel}` – activates the German syllable separation

`\usepackage[latin1]{inputenc}` – Allows the use of "Umlaute": ü, ö, ä, etc.

Some Rules

It does not matter if you separate the words by one, two or more spaces. In the output the correct space is used. Paragraphs are separated by blank lines. Again, the number of line breaks is not important.

The line break is calculated only by LaTeX. How the text in the editor is arranged it does not matter.

"%" character used for a comment. Everything after this sign (in a row) is omitted.

LaTeX is case-sensitive. For example, the following commands: `\Textit` and `\textit` are different.

Line Breaks

Attention at spaces and breaks in LaTeX!!!!

`\par` indicates a paragraph (you can use it instead of adding a blank line).

`\newline` causes a line break without starting a new paragraph and that without the line is set flush on both sides.

`\l` has the same effect. If necessary, determines the size of the distance between two lines (`\l [2ex]`).

\linebreak – almost the same, the line is set flush.

\nolinebreak prevents the line break.

Empty line – new paragraph

Page Breaks

\samepage or as environment: `\begin{samepage}` and `\end{samepage}` – a paragraph or a text part does not break between pages.

\pagebreak – page break, where the lower edge is held constant.

\nopagebreak prevents the page break.

\newpage – new page without compensating the bottom.

Commands for the Title-Page

\title{Title} Here, the title information is defined.

\date{Date} It is responsible for specifying the date of publication. With the command `\today` you can output the current date. When no date is needed, use `\date{}`

\author{Author} The command is self-explanatory. For several authors, the names separated by `\and`

\maketitle At the point where this command is used, all the title page commands are shown.

Sectioning Commands

\Level[Short form]{Title}

For the structure level there are available the following commands:

- **\part**
- **\chapter**
- **\section**
- **\subsection**
- **\subsubsection**
- **\paragraph**
- **\subparagraph**

The meaning of the commands is clear from its name. The use of some of these commands is dependent on the document class used.

Other Commands & Symbols

Contents: **\tableofcontents**

List of Figures / Tables: **\listoffigures** and **\listoftables**

<code>\</code>	<code>\textbackslash</code>
<code>%, #, &, \$, {, }, -</code>	<code>\SIGN</code>
<code>^</code>	<code>\textasciicircum</code>
<code>~</code>	<code>\textasciitilde</code>
<code> </code>	<code>\textbar</code>
<code><</code>	<code>\textless</code>
<code>></code>	<code>\textgreater</code>

Abstract

It is an environment:

```
\begin{abstract}
TEXT ABSTRACT
\end{abstract}
```

Formatting

\textup : Upright shape.

\textit : Italic shape

\textsl : Slanted shape.

\textsc : Small caps shape.

\textmd : Medium series.

\textbf : Boldface series

\textrm : Roman family.

\textsf : Sans serif family.

\texttt : Typewriter family.

There is also the command **\emph**, which sets the text as italics, if around there is 'normal' text, and the other way round.

\tiny : tiny

\footnotesize : the size of footnotes

\small : small

\normalsize : normal

\large : large

\Large : larger

\LARGE : even larger

\huge : huge

\Huge : huger

Font faces are activated by loading the specific package, e.g.:

lmodern – Latin Modern

times – Times

helvet – Helvetica

bookman – Bookman

iwona – Iwona

palatino – Palatino

You can have as result, exactly what you write in the ditor, if you use the environment **verbatim**:

```
\begin{verbatim}
```

```
....
```

```
\end{verbatim}
```

Positioning:

You can use the environments **flushleft**, **center** and **flushright**, for left, center and right, respectively.

Page layout: http://en.wikibooks.org/wiki/LaTeX/Page_Layout

Windows and Orphans:

In professional books, it's not desirable to have single lines at the beginning or end of a page. In typesetting such situations are called 'widows' and 'orphans'. Normally it is possible that widows and orphans appear in LaTeX documents. You can try to deal with them using manual page formatting, but there's also an automatic solution. LaTeX has a parameter for 'penalty' for widows and orphans ('club lines' in LaTeX terminology). With the greater penalty LaTeX will try more to avoid widows and orphans. You can try to increase these penalties by putting following commands in your document preamble:

```
\widowpenalty=300
\clubpenalty=300
```

Footnotes / Endnotes

```
\footnote{Footnote Text }
\endnote{Text}
```

Lists

Lists are environments

Basic forms:

1. Enumeration – **enumerate**
2. List with bullets – **itemize**
3. Concept explanation, definition – **description**

Each point / item in a list is marked with *item*. For **description** you have to use the form:

```
item[NAME: ] Explanation / Definition
```

Example:

```
\begin{enumerate}
\item Tomatoes
\item Apples
\end{enumerate}
```

```
\begin{description}
\item[Term] Explanation
\end{description}
```

Float Elements: Figures and Tables

Float elements are elements that can be / are moved.

Tables

Example:

```
\begin{table}[htbp]
\centering
\begin{tabular}{|l|l|l|}
\hline
Column 1 & Column 2 & Column 3\\
\hline
1 & Value 1 & Value 2\\
2 & Value 3 & Value 4\\
\hline
\end{tabular}
\caption{NAME}
\label{tab: Name}
\end{table}
```

Position:

h=hier

t= Top

b=Bottom

p=Page (new page)

You can use "!" to allocate more space for a specific item, e.g. `\begin{table}[!t]`

Several columns: `\multicolumn{number}{Position}{Text}`, Package needed: multicol

Figures

When you use pdflatex, you should use JPG figures (photos). You will need the package graphicx:

`\usepackage{graphicx}`

Add it in the preamble.

To add figures, it will be better if you save the pictures locally in a folder, where you write your text.

```
\begin{figure}[htbp]
```

```
\centering
```

```
\includegraphics[ARGUMENTE]{Path/NAME.jpg}
```

```
\caption{NAME}
```

```
\label{fig:Name}
```

```
\end{figure}
```

ARGUMENTS: `width=\textwidth` or `scale=1.5` or `height=2cm` or `angle=-90` etc.

Pictures:

	TeX and dvisps	pdfLaTeX
Best format	eps	pdf
Other formats	ps	jpg / jpeg, png, mps (metapost)

More information about floats and how to arrange them: <http://people.cs.uu.nl/piet/floats/node1.html>

Cross-References, Links

You can make references to elements that are associated with `\label{LABEL_NAME}`. You use the command: `\ref{LABEL_NAME}`. You can make references to tables, images, chapters, sections, etc.

You can create links with `\url{LINK}`. You will need the package url (`\usepackage{url}`).

References / Bibliography

`\bibliography{NAME_FILE}`

`\bibliographystyle{NAME}`

Possible styles: apa (together with the package natbib), alpha, abbrev, plain, acm, apalike, usw.

Differences appear in the order (could be alphabetically or as cited in the text) and in the way the citation is done (number, author+year, etc.). More on natbib: <http://merkel.zoneo.net/Latex/natbib.php>

Example:

Plain:

[1] Name Surname. Title. In Proceedings, pages 34--45, 2010.

Apalike:

[Surname, 2009] Surname, N. (2009). Title2. In Proceedings, pages 30--41.

You should compile the BIB file. Afterwards you should compile the TEX file 2-3 times to have the connections between the two files (the citations and the data cited).

You can cite using the command: `\cite{LABEL}`

The entries in the BIB File are of this form:

```
@REFERENCE_TYPE{LABEL,  
FIELD1={VALUE},  
FIELD2={VALUE},  
...  
}
```

Example:

```
@Inproceedings{name09,  
  author = {Name Surname},  
  title  = {Title2},  
  year  = {2009},  
  pages = {30-41},  
  booktitle = {Proceedings ....}  
}  
\cite{name09}
```

In order to generate the BIB File, we use JabRef.

Übersicht

[Bearbeiten]

Referenzart	notwendige Felder	optionale Felder
article	author, title, journal, year	volume, number, pages, month, note
book	author or editor, title, publisher, year	volume or number, series, address, edition, month, note, isbn
booklet	title	author, howpublished, address, month, year, note
conference	author, title, booktitle, year	editor, volume or number, series, pages, address, month, organization, publisher, note
inbook	author or editor, title, chapter and/or pages, publisher, year	volume or number, series, type, address, edition, month, note
incollection	author, title, booktitle, publisher, year	editor, volume or number, series, type, chapter, pages, address, edition, month, note
inproceedings	author, title, booktitle, year	editor, volume or number, series, pages, address, month, organization, publisher, note
manual	title	author, organization, address, edition, month, year, note
mastersthesis	author, title, school, year	type, address, month, note
misc	-	author, title, howpublished, month, year, note
phdthesis	author, title, school, year	type, address, month, note
proceedings	title, year	editor, volume or number, series, address, month, organization, publisher, note
techreport	author, title, institution, year	type, number, address, month, note
unpublished	author, title, note	month, year

Use a Reference-Manager program, such as: JabRef, EndNote, Zotero, etc. A comparison between such software you can find on http://en.wikipedia.org/wiki/Comparison_of_reference_management_software. Check which are the export / import functionalities in the software you use. For LaTeX we need a BIBTEX format.

Advantages of reference manager software: all in one place, search functions, extra information attached, etc.

Formulas

Mathematical environments:

Packages maybe needed: `\usepackage{amssymb,amsmath}`

Entering and leaving math mode in LATEX is normally done with the following commands and environments.

inline and outline formulas displayed equations

`$. . . $`

`\(... \)`
`\[...]` unnumbered

`\begin{equation*}`
...
`\end{equation*}`
Unnumbered

`\begin{equation}`
...
`\end{equation}`
Automatically numbered

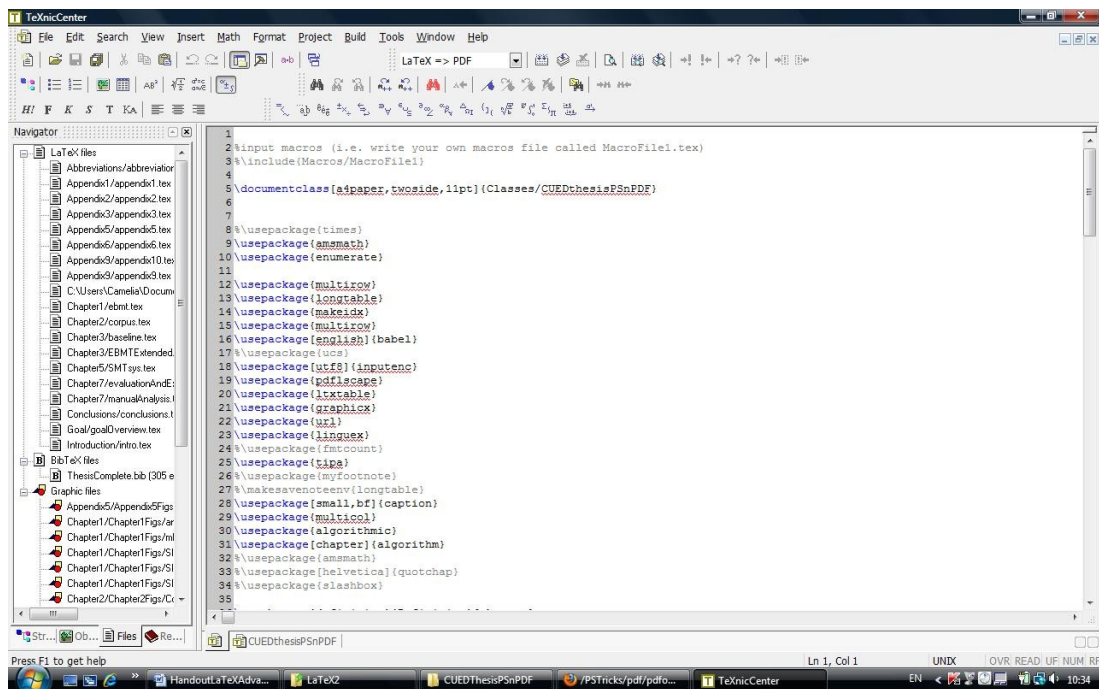
Spaces in formulas:

`\`, small space
`\:` medium space
`\;` large space
`\!` negative space

LaTeX and Long Documents

Working with Projects

Advantages: All in one 😊. See pictures



References / Bibliography

Books:

- **"Der Latex Wegweiser", Christiane Detig, Internat. Thomson Publ., 1997, ISBN 3-8266-0256-0 (German) – used for this Hand-out**
- "Der Latex-Begleiter", Frank Mittelbach, Michel Goossens, Johannes Braams, David Carlisle, Chris Rowley, 2. Auflage, ISBN 3-8273-7166-X (German)
- "Latex, A Document Preparation System", Leslie Lamport, 2nd edition, ISBN 0-201-52983-1
- "The Latex Companion", Frank Mittelbach, Michel Goossens, Johannes Braams, David Carlisle, Chris Rowley, 2nd edition, Addison Wesley, 2004, ISBN 0-201-36299-6
- "Guide to Latex", Helmut Kopka, Patrick W. Daly, 4th edition, Addison Wesley, 2003 ISBN 0321173856
- "The TeXbook", Donald Knuth, Addison Wesley, 1994, ISBN 0201134489

Slides:

- **LATEX-Workshop – Dissertationen mit LATEX, von Joanna Ludmiła Rycko Hermann Schwarz, HU Berlin, CMS, Arbeitsgruppe Elektronisches Publizieren, 9. Oktober 2006 – used for this Hand-out**

Collection of links:

- [Andrew Roberts' Guide](http://www.andy-roberts.net/misc/index.html) (<http://www.andy-roberts.net/misc/index.html>) Sehr gut!
- <http://en.wikibooks.org/wiki/LaTeX>
- [A Latex Encyclopedia](http://tex.loria.fr/) (<http://tex.loria.fr/>)
- [Latex Wikipedia](http://en.wikipedia.org/wiki/LaTeX) (<http://en.wikipedia.org/wiki/LaTeX>)
- [Installing Latex](http://www.stat.pitt.edu/stoffer/freetex.html) (<http://www.stat.pitt.edu/stoffer/freetex.html>)
- [Some examples](http://www.math.duke.edu/computing/tex/templates.html) (<http://www.math.duke.edu/computing/tex/templates.html>)
- [Latex: from beginner to Texpert](http://generaldisarray.wordpress.com/2006/04/20/latex-from-beginner-to-texpert/) (<http://generaldisarray.wordpress.com/2006/04/20/latex-from-beginner-to-texpert/>)
- [Latex Tutorial](http://www.artofproblemsolving.com/LaTeX/AoPS_L_GuideLay.php) (http://www.artofproblemsolving.com/LaTeX/AoPS_L_GuideLay.php)
- [Software](http://ctan.tug.org/) (<http://ctan.tug.org/>)
- [Help: Tex User's Group](http://www.tug.org/) (<http://www.tug.org/>)
- [LaTeX - tutorials](http://theoval.sys.uea.ac.uk/~nlct/latex/) (<http://theoval.sys.uea.ac.uk/~nlct/latex/>)
- [LaTeX on Windows](http://www.pinteric.com/miktex.html) (<http://www.pinteric.com/miktex.html>)
- [Word vs. LaTeX](http://openwetware.org/wiki/Word_vs._LaTeX) (http://openwetware.org/wiki/Word_vs._LaTeX)
- [LaTeX for Logicians](http://www.phil.cam.ac.uk/teaching_staff/Smith/LaTeX/) (http://www.phil.cam.ac.uk/teaching_staff/Smith/LaTeX/)
- [Jabref](http://jabref.sourceforge.net/) (<http://jabref.sourceforge.net/>) - open source bibliography reference manager
- [LaTeX Resources](http://www.tug.org/interest.html) (<http://www.tug.org/interest.html>)
- [LaTeX Editors](http://www.itsfd.de/texwin/) (<http://www.itsfd.de/texwin/>)
- [Other editors](http://www.latex-community.org/viewtopic.php?f=28&t=208) (<http://www.latex-community.org/viewtopic.php?f=28&t=208>)
- [Miktex](http://miktex.org/) (<http://miktex.org/>), [Texnic Center](http://www.toolscenter.org/) (<http://www.toolscenter.org/>)
- The comprehensive TEX archive network: www.ctan.org
- [BibTeX](http://www.bibtex.org/) (<http://www.bibtex.org/>)
 - o Materials in German / for German: [DANTE - Deutsch](http://www.dante.de/) (<http://www.dante.de/>)
 - o [DANTE - FAQ](http://www.dante.de/faq/de-tex-faq/html/de-tex-faq.html) (<http://www.dante.de/faq/de-tex-faq/html/de-tex-faq.html>)
 - o [LaTeX - Deutsch](http://www.abyter.de/latex.htm) (<http://www.abyter.de/latex.htm>)
 - o [Kochbuch für LaTeX](http://www.uni-giessen.de/hrz/tex/cookbook/cookbook.html) (<http://www.uni-giessen.de/hrz/tex/cookbook/cookbook.html>)
 - o [Wissenschaftlich publizieren mit LaTeX](http://freenet-homepage.de/vkiefel/latex.html) (<http://freenet-homepage.de/vkiefel/latex.html>)

Convert Latex

- [Latex2rtf](http://www.ctan.org/tex-archive/support/latex2rtf/) (<http://www.ctan.org/tex-archive/support/latex2rtf/>)
- o [LaTeX Convertors](ftp://ftp.tu-chemnitz.de/pub/tex/help/wp-conv/pc2txtbl.html) (<ftp://ftp.tu-chemnitz.de/pub/tex/help/wp-conv/pc2txtbl.html>)
- o [Winshell](http://www.winshell.org/modules/w2ltx_download/) Convert DOC in TEX. To make this transformation one can export a file form Open Office - tested under Linux (http://www.winshell.org/modules/w2ltx_download/)
- o [FAQ](http://www.dante.de/faq/de-tex-faq/txt/faq.11.txt) - List of converters and more.... (<http://www.dante.de/faq/de-tex-faq/txt/faq.11.txt>)
- o www.texify.com – Write LaTeX Formulas for Web
- o XLS to LaTeX: <http://cobweb.ecn.purdue.edu/~zhang97/xls2latex/>, [Excel2LaTeX 3.0](http://www.excel2latex.com)

Tools / Commands:

- o `jpeg2ps / dvips / ps2pdf / (latex, pdflatex, bibtex)`