

An Example Document

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1 Introduction

This file basically functions as a cheat sheet for common tasks and techniques you might want to do in L^AT_EX. Note that this contains more than we could cover in the session. Specifically, this also contains a small bibliography, so you have to tell your editor to run BibT_EX.

2 Paragraphs and comments

Hello, world! Blah blah blah. Blah blah blah. Blah blah blah. Blah blah blah. Blah blah. See Section 3.1.1 at page 2.

Second paragraph. Third paragraph (not). every word on a separate line.

A whole sentence on a line in its entirety.

thisisaverylongword

3 Section headers

3.1 A section of a section

A section without a number

3.1.1 Sub sub section

Paragraph

4 Third section

This is a URL: www.example.com

5 Formatting

You can make text *italic*, **bold-face**, `fixed-width`, `sans-serif`, SMALL CAPS.

This is *emphasised* (really) *text*!

6 Lists

- This an item.
- This is also an item.
 - One
 - Two
 - Three

1. first
2. second
3. third

- a) first
- b) second
- c) third

See element 2 and 3b.

7 Maths

Use dollar signs for in-line maths: $x_i = y_i^2 + y^{(x-1)} + 5$ and $\sum_{i=0}^k x_i$ are formulas.

$$\sum_{i=0}^k x_i$$

- Super/subscripts: x^2 , x_i , x_i^2 , $x^{(1-y)}$
- Greek letters: $\alpha = \beta + \gamma^\delta$ (don't use them to write actual Greek; use `\selectlanguage` instead).

Further reading

- <https://en.wikibooks.org/wiki/LaTeX/Mathematics>

8 Escaping special characters

Characters reserved by the $\text{T}_{\text{E}}\text{X}$ language: `\`, `{`, `}`, `%`, `$`, `_`

Some non-English latin characters:

ä ö ü ß æ, å, ø, ð, ð

ð is iz en igzɑ:mpl

Also:

- $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$ provides some easy-to-type short hands for special characters. There's ‘single quotes’, “double quotes”, or those «French quotes».
- Also, you can make nice-looking dashes – if you are so inclined. Some people—mostly Americans—also like those super-long dashes.

Further reading

- The Comprehensive $\text{L}_{\text{A}}\text{T}_{\text{E}}\text{X}$ Symbol List (a. k. a. `symbols-a4.pdf`):
<https://www.ctan.org/tex-archive/info/symbols/comprehensive/>
- The `tipa` manual:
<http://mirrors.ctan.org/fonts/tpa/tpa/doc/tipaman.pdf>

9 Examples

- (1) This is an example
- (2) * This is example a bla
- (3) This is example a bla
 - a. one
 - b. two

See (2) and (3a).

Examples with glosses:

- (4) Dieses Beispiel hat zwei Zeilen
this example has two lines
'This example has two lines'
- (5) Dieses Beispiel hat drei Zeilen
di:zəs baɪʃpi:l hat dʁai tsai:n
this example has three lines
'This example has three lines'
- (6) If things don't line up then you can make them!
If things do not line up you can easily make them!
'See?'

10 Spaces

Some argument-less commands like `\LaTeX` consume the space after it. You can avoid this problem by either adding curly braces behind the `\LaTeX` command, around the `\LaTeX` command or by escaping the space after the `\LaTeX` command with a backslash. Some commands don't consume the space but I can never remember, which, so I just put all the curly braces everywhere.

Also, `\,` creates a thin space, which is useful for stuff like abbreviations or units of measurements (e. g. 1.5 kg)

11 Localisation

The `babel` package add support for multi-language text.

- Hey! Heute ist der 2. Oktober 2023!
- Hey! Today is October 2, 2023!
- Hey! Today is 2nd October 2023!
- Сегодня — 2 октября 2023 г.! (You can't type Cyrillic without this...)

Further reading

- The `babel` user guide:
<http://mirrors.ctan.org/macros/latex/required/babel/base/babel.pdf>

12 Tables

```
line 1          line 1, again  also line 1
another line    whoop-di-do    yay
foo             bar           baz
is what        programmers    say
```

line 1	line 1, again	also line 1
another line	whoop-di-do	yay
foo	bar	baz
is what	programmers	say

line 1	line 1, again	also line 1
another line	whoop-di-do	yay
foo	bar	baz
is what	programmers	say

line 1	line 1, again	also line 1
another line	whoop-di-do	yay
foo	bar	baz
is what	programmers	say

Tabelle 1: This is a floating table. \LaTeX will decide where to put it.

Table 1 is a floating table. That means \LaTeX will ultimately decide where it will end up in your document.

- If you say `[t]` it puts it at the top of a page.
- If you say `[b]` it puts it at the bottom of a page.
- If you say `[h]` it puts it *somewhere here*TM.

It's recommended to avoid language like *see the following table* or *see the table above*. Instead point to your table using a cross reference.

13 Images and figures

The `figure` environment in Figure 1 works just like `table` (i.e. it's position is decided by \LaTeX).

14 Footnotes

Look down¹. Can you see Footnote 1?²

¹ Look, I'm at the bottom and all numbered well and stuff.

²Of course you can.



Abbildung 1: Stock image of a Bratwurst

15 Citations

You can cite Smith (2023) in-line, or you can just add parenthetical citations (Müller and Lapinsky 1986) to your text. Also, you can add page numbers to your citations (Acton et al. 1997: 13–14) or additional labels (cf. Glargh the Blob 2030: 54).

Fun fact 1: You can easily create your own bibliography style by running `latex makebst` on the command-line and answering a bunch of questions.

Fun fact 2: I already made a bibliography style – two, in fact – `bibstyle-en.bst` for English and `bibstyle-de.bst` for German.³ If you want to use them for your stuff, go ahead.

16 References

Acton, Alice, Bob Bard, and Sam Server. 1997. ‘Our experience with Eve and Mallory.’ Sam Server (ed.), *Good and Bad Actors in Communication*. New York: Sam’s Books, 94–132.

Glargh the Blob. 2030. *The Befriending of Sol 3: A Case Study for the Peaceful Progression of the Coexistence Expansion Programme of the Glorious Zlog Empire*. Ph.D. thesis, Zlog State University, Zlog Prime.

Müller, Max and Larry Lapinsky. 1986. *The Kant Files*. Vienna: Kriminalverlag.

Smith, John. 2023. ‘My life as a smith.’ *Journal of Smithery* 2, 33–44.

³I. e. no Oxford comma, & instead of the word *and*, and other stuff I don’t remember.