

A Preliminary List of the Most Common \LaTeX Commands

“Is \LaTeX hard to use?” – “It’s easy to use—if you’re one of the 2% of the population who thinks logically and can read an instruction manual. The other 98% of the population will find it very hard or impossible to use.” (Leslie Lamport, the author of \LaTeX)

Paragraphs

$\text{\textbackslash textbackslash}$ - \

$\text{\textbackslash or \newline}$ - new line

$\text{\textbackslash par}$ - new paragraph

$\text{\textbackslash newpage}$ - new page

$\text{\textbackslash onecolumn}$ - one column per page

$\text{\textbackslash twocolumn}$ - two columns per page

$\text{\textbackslash singlespacing}$ - single spacing

$\text{\textbackslash onehalfspacing}$ - one and a half spacing

$\text{\textbackslash doublespacing}$ - double spacing

$\text{\textbackslash noindent}$ - the first line will not be indented

In case additional vertical space is needed enter $\text{\textbackslash vspace[height]}$, if you need horizontal space enter $\text{\textbackslash hspace [width]}$.

$\text{\textbackslash sep\textbackslash aration}$ - suggests hyphenation between these letters, but does not switch off other possibilities

Special Characters

$\text{\textbackslash pounds}$ - £ - $\text{\textbackslash \$}$ - \$ - \textbackslash \& - & - $\text{\textbackslash LaTeX}$ - $\text{\textbackslash \LaTeX}$ - $\text{\textbackslash copyright}$ - © - $\text{\textbackslash c\{c\}}$ - ç - $\text{\textbackslash c\{C\}}$ - Ç

$\text{\textbackslash ldots}$ - ...

$\text{\textbackslash symbol\{no\}}$ - enables different special characters in combination with the package *pifont*

Formatting

`\textbf{bold}` - **bold**

`\textsl{skewed}` - *skewed*

`\textit{italics}` - *italics*

`\emph{emphasised: result depends on documentclass}` - emphasised: result depends on documentclass (mostly underlined or italics)

`\textsc{small caps}` - SMALL CAPS

`\uline{underlined}` - underlined (requires “ulem” package)

`\uuline{double underlined}` - double underlined (requires “ulem” package)

`\uwave{wavy underline}` - ~wavy underline (requires “ulem” package)

`\sout{crossed out}` - ~~crossed out~~ (requires “ulem” package)

`\textcolor{red}{text}` - produces coloured text (requires “xcolor” package)

`2` - ²

`\textsubscript{2}` - ₂

`\usepackage[left=2.5cm,right=2cm,top=2cm,bottom=2.5cm]{geometry}` – modifies margins

Back to normal...

`\normalsize` – switches back to standard font size

`\normalfont` – switches back to standard font

`\normalcolor` – switches back to black or predefined colour

Hierarchy of Headlines

`\part{...}` (only in book class)

`\chapter{...}` (only in book, report, & script class)

`\section{...}`

`\subsection{...}`

`\subsubsection{...}`

`\paragraph{...}`

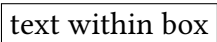
`\subparagraph{...}`

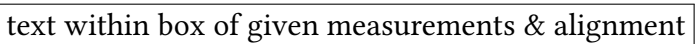
`\section/subsubsection etc.*{...}` - * results in single headline without headline number; for global settings, there are more elegant solutions

Frames & Enumerations

`\mbox{text}` - hidden box with text


`\makebox[width][l|r|s]{text}` - hidden box with given measurements with text

`\fbox{text}` - 

`\framebox[width][l|r|s]{text}` - 

centred is default!

(requires “fancybox” package)

`\fbox{frame}` - `{frame}` - 

`\doublebox{double frame}` - 

`\shadowbox{frame with shadow}` - 

`\ovalbox{oval frame}` - 

`\Ovalbox{bold oval frame}` - 

A Helping Hand When Editing Longer Text

Of course you can highlight your text or add a comment in \LaTeX as well!

`\textcolor{red}{important to remember}` - **important to remember**

`\marginpar{remarks are written into page margin}` -

`\todo{remarks & annotations in page margin}` -

The package “latexdiff” enables track changes in your document & provides different options (requires Perl interpreter).

remarks
are
writ-
ten
into
page
mar-
gin

remarks
&
an-
nota-
tions
in
page
mar-
gin

Font Size & Text rotation

font sizes are always relative to the size preset in the preamble or in the document class

`\tiny{smallest possible}` - smallest possible

`\scriptsize{still small}` - still small

`\footnotesize{footnotesize small}` - footnotesize small

`\small{small}` - small

`\normalsize` - standard size, the size defined by the document class or in the preamble

`\large{somewhat larger}` - **somewhat larger**

`\Large{even larger}` - **even larger**

`\LARGE{large}` - **large**

`\huge{huge}` - **huge**

`\Huge{really huge}` - **really huge**

`\begin{rotate}{10}`{rotates text with xÂ°} - `\end{rotate}`- rotates text with xÂ°

(Relative) Sizes

usual absolute measures are: cm, mm, pt, em (height & width of standard character)

relative sizes: `<factor 0-1>\textwidth` - uses the defined fraction of the text width defined in the documentclass

`<factor 0-1>\columnwidth` - uses the defined fraction of the column width (in documents with several columns or in minipage environment)

`<factor 0-1>\pageheight` - uses the defined fraction of the text height of the page defined in the documentclass

Cross references

`\label{<label name>}` - defines cross reference marker; it is common to use abbreviations as prefixes to indicate what the label refers to: e.g. “tab:OverviewInterviews” (for tables), “chap:Interviews” (for chapters, sections etc.), & “fig:OverviewInterviews” (for figures)

`\ref{<label name>}` - inserts reference to number of section/table/figure

`\pageref{<label name>}` - inserts reference to page number of section/table/figure

`\vref{<label name>}` - inserts reference to section/table/figure & number of cross reference (requires *varioref* package)

References

The commands used for references to the bibliography vary according to the bibliography package, the backend, and the style used. In general, there are different options:

- quotation within parenthesis
- quotation as footnotes
- quotation without parenthesis

With the “biblatex” package, for instance, the commands look as follows:

- `\parencite[<added content prior to reference, e.g. “cf.”, “see”, “amongst others” etc.>][page no.]{reference key}`
- `\parencites[<added content prior to reference>][page no.]{reference key,reference key,...}` - used for several references; added content usually refers to the first reference
- `\textcite[<added content prior to reference>][page no.]{reference key}` - results in author’s name in text, year of publication in parenthesis
- `\footcite{reference key}`
- `\cite[<added content prior to reference>][page no.]{reference key}`

content in squared brackets is optional & might be left blank

Graphics & Footnotes

If using PDF \LaTeX & other more modern kernels are used (i.e. direct conversion to PDF) *.png, *.jpg, & *.jpeg files can be used (requires “graphicx” package); is using the indirect/ ordinary \LaTeX / \LaTeX conversion only *.eps files can be implemented

`\includegraphics[width=4cm]{<filename.eps/png/jpg>}` - inserts a graphic with 4cm of width

`\includegraphics[width=0.5 \textwidth]{<filename.eps/png/jpg>}` - inserts a graphic that is half the width of a standard line

`\includegraphics[height=4cm,angle=5]{<filename.eps/png/jpg>}` - inserts a graphic of 4cm height and rotates it with 5°

`\footnote{text of the footnote}` - ¹

Tables

Basic tables are really easy to create:

`\begin{table}[hb]`

`\caption{This table was really easy to create!}`

`\footnotesize`

`\begin{tabular}{l|c|r} \hline`

The first cell is left-aligned\ldots & the second centred\ldots & the third right-aligned. `\\ \hline`

The double-backslash ends a line, & the \& ends a cell entry, \& & the \textbackslash hline command draws a line.

`\end{tabular}\normalsize\end{table}`

Table 1: This table was really easy to create!

| | | |
|-----------------------------------|----------------------------|----------------------------------|
| The first cell is left-aligned... | the second centered... | the third right-aligned. |
| The double-backslash ends a line, | the & ends a cell entry, & | the \hline command draws a line. |

The main disadvantage is that there is no automatic line break in cells & cell width is not optimised.

¹text of the footnote

More advanced tables require packages such as “tabulary”, “tabularx” (allow for automatic line breaks & width of rows), “multirow”, & “multicol” (enables content to span over several cells).

```
\begin{table}[htb!]
\caption{Overview of Conducted Interviews}
\label{tab:Interviews}
\footnotesize
\centering
\begin{tabulary}{.9\textwidth}{L|L|L|r}
\toprule
\rowcolor{green} No. of Interview & Category of Interview
Partner & Organisation and/\,or Name & Date \\ \toprule
1 & \multirow{2}{2}[-6]{*} Bank & 1 Representative Bank of Scotland
& March 2020 \\
2 & & 1 Representative Santander & June 2021 \\
3 & Interest Organisation & 1 Representative Transparency
International & October 2021 \\ \bottomrule
\end{tabulary}
\end{table}
\normalsize
```

The squared brackets after the initial floating environment marker “table” ([htb!]) requests to position the table here, at the top, or at the bottom of the page.

\rowcolor provides a background colour for the respective row.

After defining the width, the alignment of columns (c, l, r) is defined. Columns with letters in lowercase will not allow for automatic line break, which makes the column with the shortest text the most suitable candidate. Results are usually better, if at least one column is fixed. For columns with capital letters the column width and line breaks will be arranged automatically. After the command \multirow the number of rows the cell should span is provided, the following number in square brackets provides a correction for misalignment of text in the following columns. In the following argument the format of the spanned column can be defined, while the asterisk indicates that the same alignment is used as defined for the column. The column that should be spanned is left empty in the following line.

| Table 2: Overview of Conducted Interviews | | | |
|---|-------------------------------|---|--------------|
| No. of Interview | Category of Interview Partner | Organisation and/ or Name | Date |
| 1 | Bank | 1 Representative Bank of Scotland | March 2020 |
| 2 | | 1 Representative Santander | June 2021 |
| 3 | | 1 Representative Transparency International | October 2021 |

Assembled by Alexander Haarmann (email: haarmann@hertie-school.org)

Feel free to adapt and amend the list according to your own needs!! – In addition, take a look at Allison’s introduction! Some of the commands are explained in more detail there.