HUMBOLDT-UNIVERSITÄT ZU BERLIN

LaTeX for Linguists

LaTeX 3: Graphics, tables & floats

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Contents

Including a graphic

- Load the **package** `graphicx`: `\usepackage{graphicx}`
- To include the graphic, use the following command (**file ending**, i.e. `.pdf`, doesn't need to be added) :

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\includegraphics[size of graphic]{path/name of graphic}
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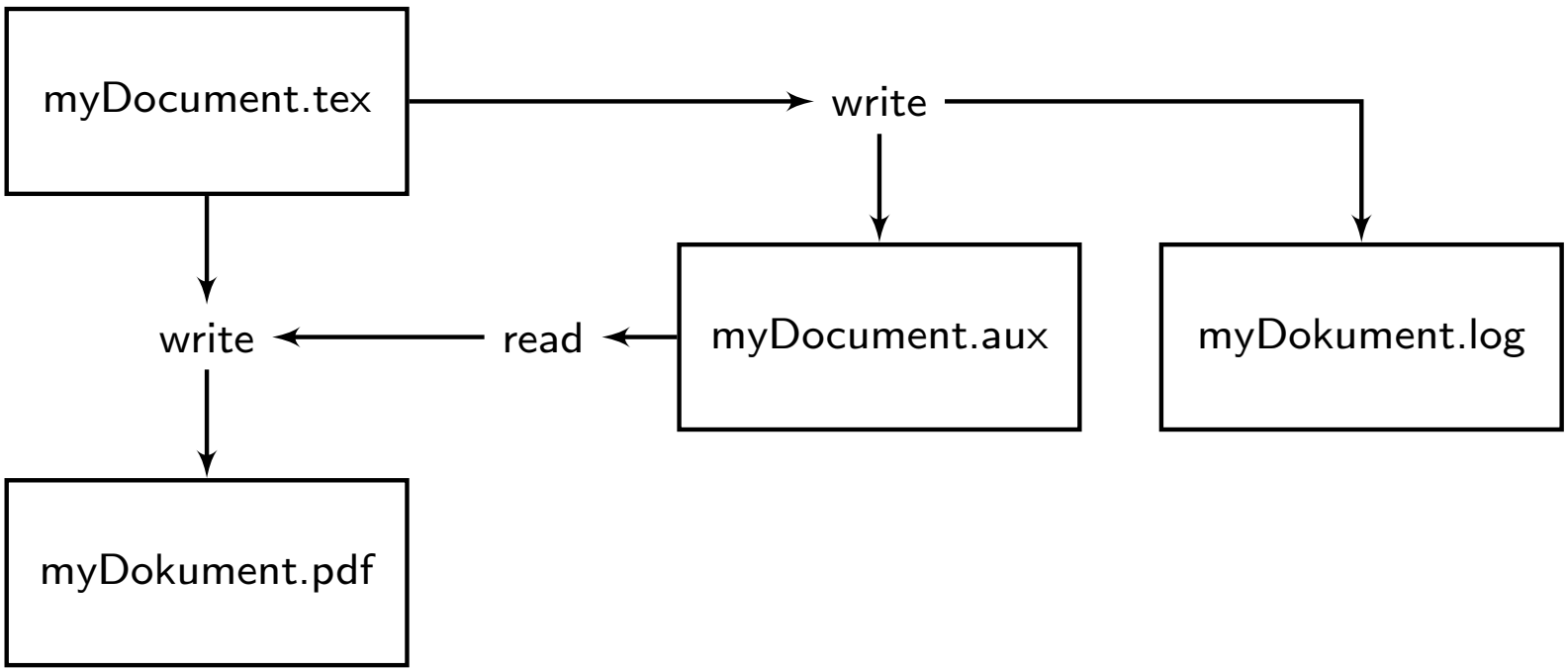
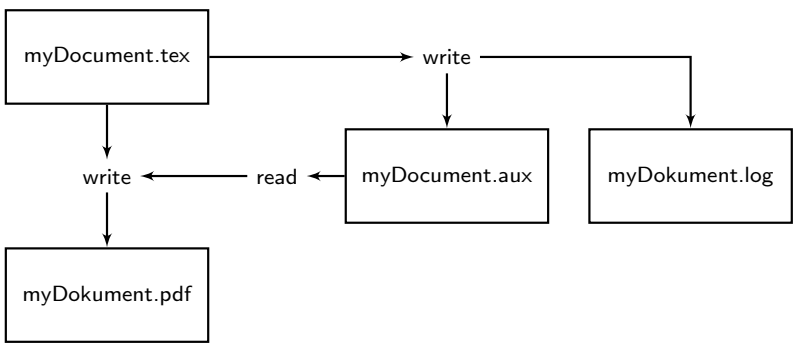



```
\includegraphics{LaTeX-flowchart-1.pdf}
```

Rescaling the graphic

Rescaling **relative** to the **original size** with the option `scale` (`scale=0.5` = 50 % of the original size)

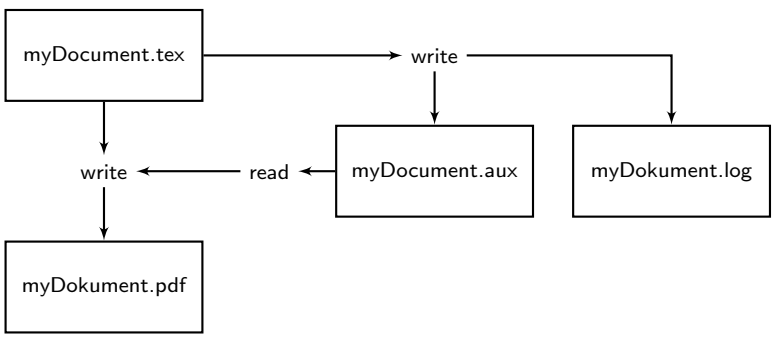
```
\includegraphics[scale=0.5]{LaTeX-flowchart-1.pdf}
```



Rescaling the graphic

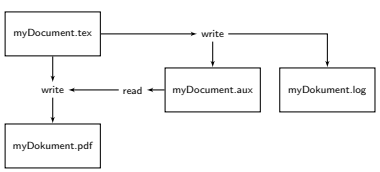
Rescaling with **absolute specification**

```
\includegraphics[width=5cm]{LaTeX-flowchart-1.pdf}
\includegraphics[height=5cm]{LaTeX-flowchart-1.pdf}
```



Rescaling **relative** to the **document size**

```
\includegraphics[width=\linewidth]{LaTeX-flowchart-1.pdf}
\includegraphics[width=.2\linewidth]{LaTeX-flowchart-1.pdf}
\includegraphics[width=.2\textwidth]{LaTeX-flowchart-1.pdf}
```



Formats and paths

- The following **formats** can be used with XeLaTeX and PDFLaTeX:
  - `.pdf` (vector graphics)
  - `.png` (raster graphics)
  - `.jpg` (raster graphics)
  - `.eps` (vector graphics) (in XeLaTeX or with `epstopdf` package in PDFLaTeX)

Formats and paths

- The following **formats** can be used with XeLaTeX and PDFLaTeX:
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  - `.png` (raster graphics)
  - `.jpg` (raster graphics)
  - `.eps` (vector graphics) (in XeLaTeX or with `epstopdf` package in PDFLaTeX)
- You must specify the place where you have saved the graphic **starting from the location of your `.tex`-file**.
  1. Graphic and `.tex`-file are in the same folder:
     `\includegraphics{LaTeX-flowchart-1}`
  2. Graphic is in a folder `graphics`. This folder is in the same folder as your `.tex`-file:
     `\includegraphics{graphics/LaTeX-flowchart-1}`
  3. `.tex`-file is in a folder. This folder and your graphic are in the same folder:
     `\includegraphics{../LaTeX-flowchart-1}`

Exercise

Go to
`https://github.com/langsci/latex4linguists/blob/master/2-1.md`
and follow the instructions of the first **three blocks** in your `.tex` file.

Tables

- **environment** for tables: `tabular`
- optional argument for **position** of table
- obligatory argument for **layout** inside a column
- separation of table cells: &
- End of a row: \\

Tables

- **environment** for tables: `tabular`
- optional argument for **position** of table
- obligatory argument for **layout** inside a column
- separation of table cells: &
- End of a row: \\

Example:

```
sample text
\begin{tabular}[t]{l|c|r}
0001 & 002 & 03 \\
\hline
0A & 000B & 00C \\
\hline
00i  & 0ii  & 000iii \\
\end{tabular}
```

sample text

0001	002	03
0A	000B	00C
00i	0ii	000iii

- possible values for the **obligatory argument**: `l` (left), `c` (centered), `r` (right), `p{length}` (fixed width), optionally `|` (pipe, for vertical lines between columns)
- each column must have an alignment specification (i.e. `l`, `c`, `r`, or `p`)

```
\begin{tabular}[t]{lc|r|p{1.5cm}}
00001 & 002 & 03 & 0004 \\
\hline
0A & 000B & 00C & 0000D\\
\hline
00i  & 0000ii & 000iii & iv\\
\end{tabular}
```

00001	002	03	0004
0A	000B	00C	0000D
00i	0000ii	000iii	iv

Floating environments

With floating environments, LaTeX puts figures or tables in the best position to avoid gaps in the layout.

```
It is not necessary that this text has
any meaning.
\begin{table}[htb]
\centering

\begin{tabular}[t]{l|l}
Eins & Zwei \\
\hline
Drei & Vier \\
\end{tabular}

\caption{Caption of my table}
\label{fig:TableFloat}
\end{table}
```

It is not necessary that this text has any meaning.

Eins	Zwei
Drei	Vier

Table 1: Caption of my table

- floating environment for **tables**: `table`
- floating environment for **figures**: `figure`
- In these environments, the command `\caption{ }` can be used.
- Optionally, preferences for the position can be given: `h` (here), `t` (top), `b` (bottom), `p` (extra page for floats).
- In the environment, you can specify the position of the figure/table (e.g. `\centering`).

```
\begin{figure}[htb]
\centering

\includegraphics{LaTeX-flowchart-1.pdf}
\caption{My first float}
\label{fig:FigFloat}
\end{figure}
```

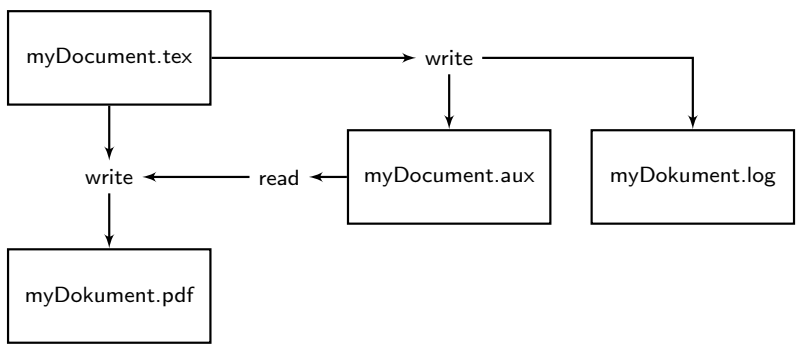

Fig. 1: My first float

List of figures and list of tables

With the following commands, a list of figures or a list of tables is automatically generated:

- `\listoffigures`
- `\listoftables`

Put these commands where your list of figures or tables should appear.

LaTeX collects the information from your captions for the lists.

Exercise

Go to
`https://github.com/langsci/latex4linguists/blob/master/2-1.md`
and follow the instructions of **all blocks** in your `.tex` file.

Internet sources I

- Link: Language Science Press
  `www.langsci-press.org`
  [Access: 02/01/2019]
- Twitter: TeX tips
  `https://twitter.com/textip`
  [Access: 10/04/2017]

Literature I

Freitag, Constantin & Antonio Machicao y Priemer. 2015. LaTeX-Einführung für Linguisten. Manuscript. https://www.linguistik.hu-berlin.de/de/staff/amyp/latex-einfuehrung.

Knuth, Donald E. 1986. *The TeX book*. Boston: Addison-Wesley.

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Nordhoff, Sebastian & Stefan Müller. 2018. Language Science Press: Complete set of guidelines. online. http://langsci.github.io/guidelines/latexguidelines/LangSci-guidelines.pdf.