Lib4RI

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Lib4RI Training Series

Getting started with LaTeX

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Contents

1 Software installation

1.1 Required software

A working LaTeX(`https://www.latex-project.org/`) installation is required to attend the course. Please follow the instructions for your operating system in section 1.2

The installation of a GUI is also recommended. TeX*studio* (`https://www.texstudio.org/`) is a GUI (Graphical User Interface) to the LaTeX system with editing, preview and other features. It is available for GNU/Linux, Mac OS X and Windows. To install it please follow the instructions in section 1.3

If, for any reason, the local installation is not an option, you can use the on-line service Overleaf: `https://overleaf.com/` (see section 1.4).

1.2 Installing LaTeX

1.2.1 GNU/Linux

Install TeXLive from the repository of your distribution.
Alternatively:

1. Go to: `https://www.tug.org/texlive/acquire-netinstall.html` and download the install-tl-unx.tar.gz file.

2. Follow the installation instructions: `https://www.tug.org/texlive/quickinstall.html`.

1.2.2 Mac OS©

1. On macOS High Sierra or higher download the proper package (`https://miktex.org/download`) and follow the installation instructions (`https://miktex.org/howto/install-miktex-mac`).

2. On older versions of macOS install MikTeXvia the Homebrew package manager (`https://brew.sh/`):
   ```
   brew tap miktex/miktex
   brew install miktex
   ```

Alternatively, the installer at 1) can be built from source following the instructions from `https://miktex.org/howto/build-mac` (this requires that *Xcode* is installed).

1.2.3 Windows©

1. Go to: `https://miktex.org/download` and download the Basic MiKTeX Installer (choose the 64- or 32-bit version depending on your system).

2. Run the downloaded file and follow the installation instructions: `https://miktex.org/howto/install-miktex`.

1.3 Installing TEX*studio*

1.3.1 GNU/Linux

Option 1: Install TEX*studio* from your distribution's repository.

Option 2: Download the suitable package for your system from `https://www.texstudio.org/#download` and install it.

1.3.2 Mac OS©

From `https://www.texstudio.org/#download` download the *dmg* file and run the application. (OS X 10.12+ is required).

1.3.3 Windows©

Option 1: From `https://www.texstudio.org/#download` download the suitable installer version, install and run the application. In case TEX*studio* does not appear in the list of the installed applications and in the application search, manually add here `C:\Users\cantinfe\AppData\Roaming\Microsoft\Windows\Start Menu\Programs` a shortcut to the executable file here `C:\Users\cantinfe\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\texstudio.exe`

Option 2: Option 2: Download from the same page the *portable* version, unzip it and run the application.

1.4 Overleaf

To use Overleaf you can create a free account on the service website (`https://overleaf.com/`). Alternatively you can log in with your existing ORCID or Google credentials.

2 Useful resources

2.1 General LaTeX info, documentation and resources

- LaTeX Project homepage: `https://www.latex-project.org/`
- TeX related material and software (including additional packages): `https://ctan.org/`
- The renowned "not so short" intro to LaTeX:`https://tobi.oetiker.ch/lshort/`
- The LaTeXwikibook, a comprehensive guide to LaTeX: `https://en.wikibooks.org/wiki/LaTeX`
- Learn LaTeXin 30 minutes (on Overleaf website): `https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes`
- TeX Users Group: `https://www.tug.org/`
- TeX stack exchange: `https://tex.stackexchange.com`
- A collection of templates: `https://www.latextemplates.com/`
- Another collection of templates: `https://www.overleaf.com/latex/templates`
- The Comprehensive LaTeX Symbol List `https://mirror.easyname.at/ctan/info/symbols/comprehensive/symbols-a4.pdf`
- A collection of LaTeX tutorials `https://latex-tutorial.com/`

2.2 TeX distributions

- TeX live: `https://www.tug.org/texlive/`
- MikTeX: `https://miktex.org/`
- MacTeX: `https://www.tug.org/mactex/`

2.3 GUIs

- TeXstudio: `https://www.texstudio.org/`
- TeXmaker: `https://www.xm1math.net/texmaker/`
- Lyx: `https://www.lyx.org/`

2.4 On-line editors/systems

- Overleaf: `https://overleaf.com/`

2.5 More about bibliography and citations

- Getting started with BibLaTeX: https://www.overleaf.com/learn/latex/Articles/Getting_started_with_BibLaTeX
- Bibliography management with BibLaTeX: https://www.overleaf.com/learn/latex/Bibliography_management_with_biblatex
- BibLaTeX citation styles: https://www.overleaf.com/learn/latex/Biblatex_citation_styles
- Getting started with BibTeX: https://www.overleaf.com/learn/latex/Bibliography_management_with_bibtex
- Using BibTeX: https://ctan.math.illinois.edu/biblio/bibtex/base/btxdoc.pdf
- Designing BibTeXstyles: https://mirrors.rit.edu/CTAN/biblio/bibtex/base/btxhak.pdf
- NatBib:
  - https://gking.harvard.edu/files/natnotes2.pdf
  - https://ctan.math.utah.edu/ctan/tex-archive/macros/latex/contrib/natbib/natbib.pdf
- BibTeX style examples: https://verbosus.com/bibtex-style-examples.html
- Choosing a BibTeX style: https://www.reed.edu/cis/help/LaTeX/bibtexstyles.html
- DOI to BibTeX citation: https://doi2bib.org/

2.6 Useful packages

- babel – Multilingual support for LaTeX , LuaLaTeX , XeLaTeX , and Plain TeX https://ctan.org/pkg/babel
- graphicx – Enhanced support for graphics https://ctan.org/pkg/graphicx
- hyperref – Extensive support for hypertext in LaTeX https://ctan.org/pkg/hyperref
- amsmath – AMS mathematical facilities for LaTeX https://ctan.org/pkg/amsmath
- authblk – Support for footnote style author/affiliatio https://ctan.org/pkg/authblk
- BibLaTeX – Sophisticated Bibliographies in LaTeX https://ctan.org/pkg/biblatex

- mhchem – Typeset chemical formulae/equations and H and P statements https://ctan.org/pkg/mhchem

2.7 Video tutorials

- https://www.overleaf.com/learn/latex/LaTeX_video_tutorial_for_beginners_(video_1)

2.8 Collaborative documents writing with LaTeX and Git

- https://www.overleaf.com/blog/collaborating-with-latex-and-git-2012-10-16
- https://en.wikibooks.org/wiki/LaTeX/Collaborative_Writing_of_LaTeX_Documents
- https://github.com/LKedward/latex-github-collab