



## Lib4RI Training Series

### Getting started with L<sup>A</sup>T<sub>E</sub>X

Trainers: Federico Cantini & Frank Hösli

29th November 2022

# Contents

<b>1</b>	<b>Software installation</b>	<b>2</b>
1.1	Installing L <sup>A</sup> T <sub>E</sub> X . . . . .	2
1.1.1	GNU/Linux . . . . .	2
1.1.2	Mac OS <sup>©</sup> . . . . .	2
1.1.3	Windows <sup>©</sup> . . . . .	2
1.2	Installing T <sub>E</sub> Xstudio . . . . .	2
1.2.1	GNU/Linux . . . . .	2
1.2.2	Mac OS <sup>©</sup> . . . . .	3
1.2.3	Windows <sup>©</sup> . . . . .	3
1.2.4	On-line tools . . . . .	3
<b>2</b>	<b>Useful resources</b>	<b>4</b>
2.1	General L <sup>A</sup> T <sub>E</sub> X info, documentation and resources . . . . .	4
2.2	T <sub>E</sub> Xdistributions . . . . .	4
2.3	GUIs . . . . .	4
2.4	On-line editors/systems . . . . .	4
2.5	More about bibliography and citations . . . . .	5
2.6	Video tutorials . . . . .	5
2.7	Collaborative documents wtiring with L <sup>A</sup> T <sub>E</sub> X and Git . . . . .	5

# 1 Software installation

## 1.1 Installing L<sup>A</sup>T<sub>E</sub>X

### 1.1.1 GNU/Linux

Install T<sub>E</sub>XLive 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>.

### 1.1.2 Mac OS<sup>©</sup>

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 MikT<sub>E</sub>X via 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).

### 1.1.3 Windows<sup>©</sup>

1. Go to: <https://miktex.org/download> and download the Basic MiK<sub>T</sub>E<sub>X</sub> 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>.

## 1.2 Installing T<sub>E</sub>Xstudio

### 1.2.1 GNU/Linux

**Option 1:** Install T<sub>E</sub>Xstudio from your distribution's repository.

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

### 1.2.2 Mac OS©

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

### 1.2.3 Windows©

**Option 1:** From <https://www.texstudio.org/#download> download the suitable installer version, install and run the application. In case *TeXstudio* 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.

### 1.2.4 On-line tools

If, for any reason, the local installation is not an option, use one of the following on-line tool: Overleaf: <https://overleaf.com/>

## 2 Useful resources

### 2.1 General L<sup>A</sup>T<sub>E</sub>X 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 LaTeX wikibook, a comprehensive guide to LaTeX: <https://en.wikibooks.org/wiki/LaTeX>
- Learn LaTeX in 30 minutes (on Overleaf website): [https://www.overleaf.com/learn/latex/Learn\\_LaTeX\\_in\\_30\\_minutes](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.easynome.at/ctan/info/symbols/comprehensive/symbols-a4.pdf>

### 2.2 T<sub>E</sub>X 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.xmlmath.net/texmaker/>
- Lyx: <https://www.lyx.org/>

### 2.4 On-line editors/systems

- Overleaf: <https://overleaf.com/>

## 2.5 More about bibliography and citations

- Using BibTeX: <https://ctan.math.illinois.edu/biblio/bibtex/base/btxdoc.pdf>
- Designing BibTeX styles: <https://mirrors.rit.edu/CTAN/biblio/bibtex/base/btxhak.pdf>
- NatBib:
  - <https://gking.harvard.edu/files/natnotes2.pdf>
  - <https://mirrors.concertpass.com/tex-archive/macros/latex/contrib/natbib/natnotes.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 Video tutorials

- <https://cosmolearning.org/courses/getting-started-with-latex/video-lectures/>
- [https://www.overleaf.com/learn/latex/LaTeX\\_video\\_tutorial\\_for\\_beginners\\_\(video\\_1\)](https://www.overleaf.com/learn/latex/LaTeX_video_tutorial_for_beginners_(video_1))

## 2.7 Collaborative documents writing with L<sup>A</sup>T<sub>E</sub>X 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://en.wikibooks.org/wiki/LaTeX/Collaborative_Writing_of_LaTeX_Documents)
- <https://github.com/LKedward/latex-github-collab>