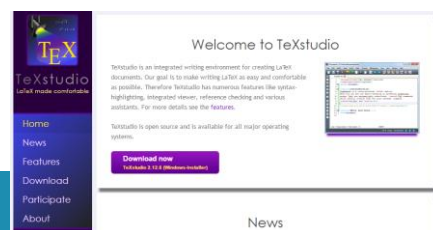


Introduction to LaTeX

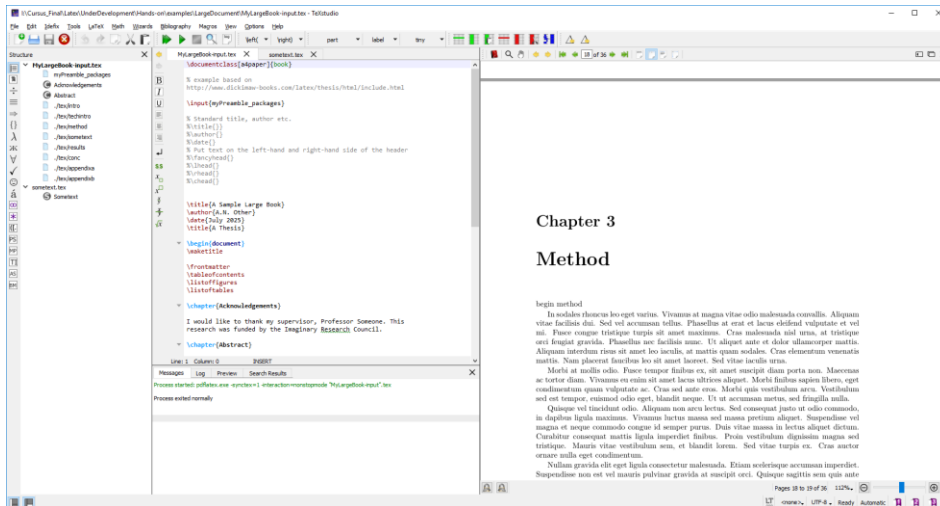
TeXstudio

TeXstudio

- Freeware LaTeX editor
- integrated environment
 - Try to make writing LaTeX as easy and comfortable as possible.
 - syntax-highlighting, integrated viewer, various assistants.
 - suited for LaTeX newbies
- Downloadable from: <https://www.texstudio.org/>



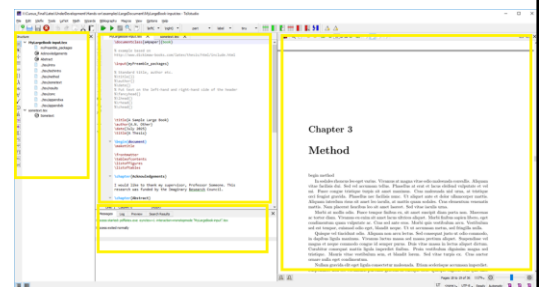
TeXstudio



KU LEUVEN

TeXstudio

- Structure view
 - Skeleton of your document
 - Useful for navigation
- Main editor area
- Message area
- Preview
 - Built-in pdf viewer
 - Source pdf synchronization



KU LEUVEN

TeXstudio Help

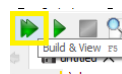
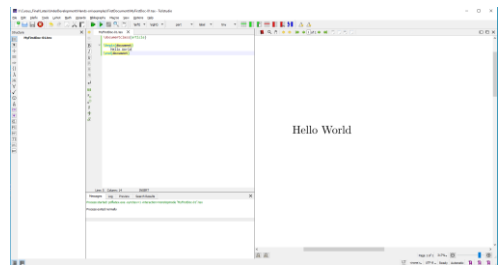
- Use Help system
 - User Manual
 - LaTeX Reference Manual

Create a basic document

- Start TeXstudio
- Create a new empty file
 - File > New
 - Ctrl-N

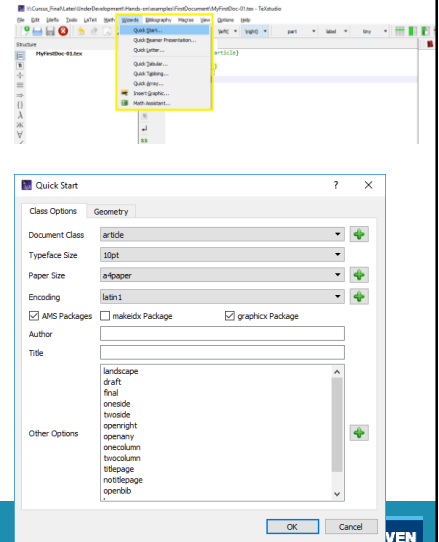
```
\documentclass{article} \begin{document}  
Hello, world! \end{document}
```

- View the result: click on build and view icon



Create document using the Wizard

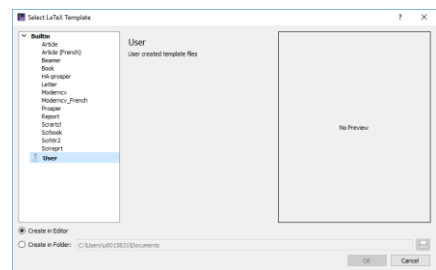
- Quickstart
- Select document + options
- Enter text in between
- `\begin{document}`
`\end{document}`
- Click on Build and View to see the result



Create document from template

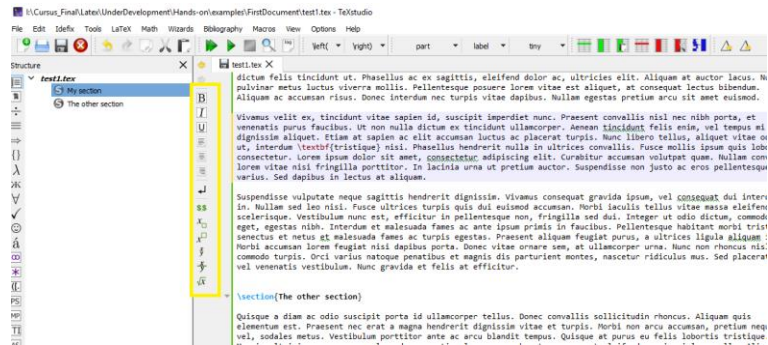


- Create a new file
 - File > New From templateChoose from builtin
- Create your own templates
 - File > Make Template
 - Stored under `\AppData\Roaming\texstudio\templates\user`

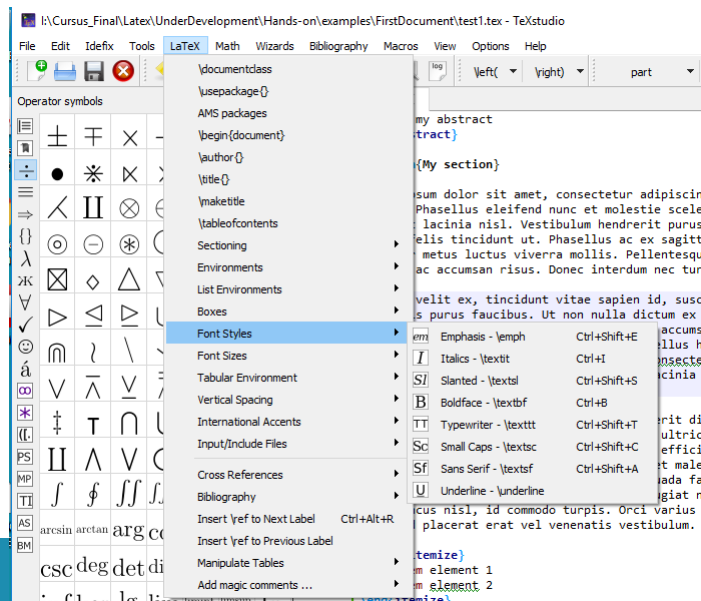


Use the icons

- Common LaTeX commands can be selected from menu

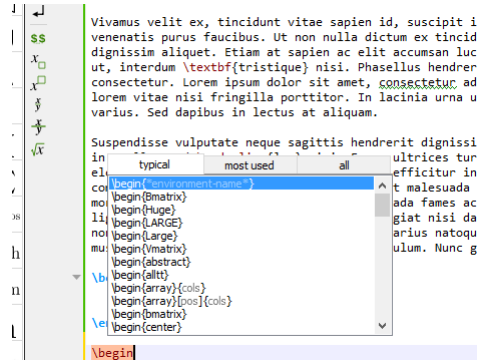


Use the menu



Enter LaTeX commands

- Start typing a command
- Auto-complete with ctrl-space



Compile

- Default: use pdflatex and build pdf output
 - Configured in Options Menu

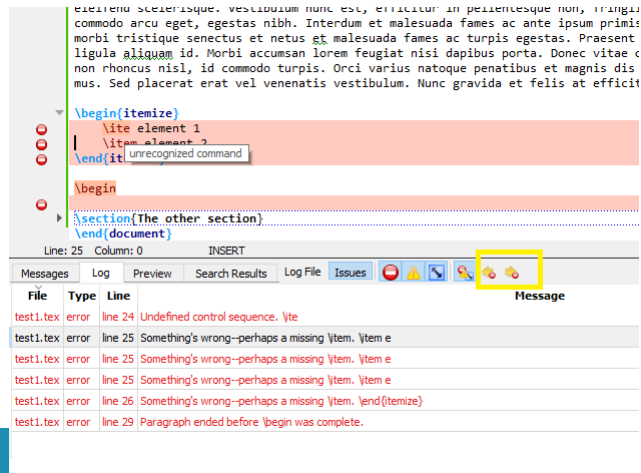


- Use the icons
 - Build and View F5
 - Compile F6
 - View F7



Error search

- Use 'arrow-icon' to search for previous / next errors
- Hovering

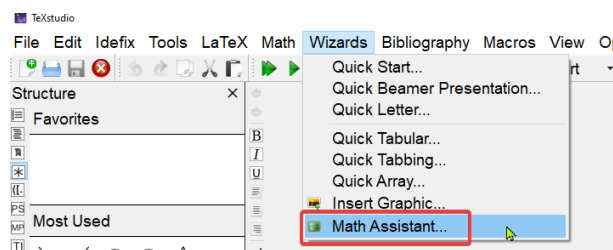


13

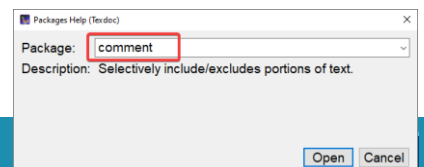
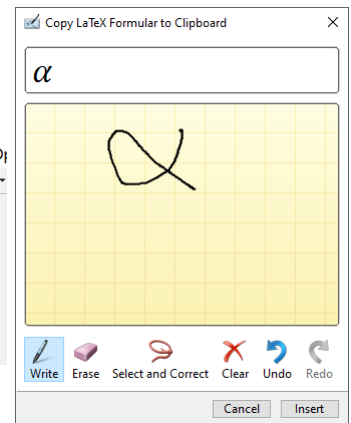
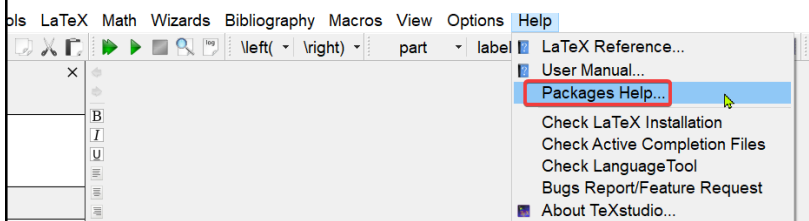
KU LEUVEN

Things to like

- Math assistant



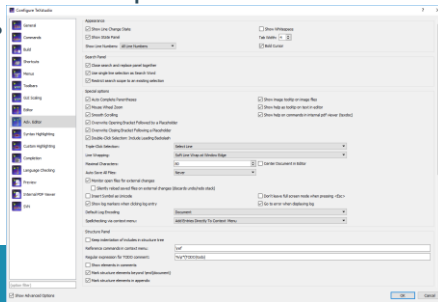
- Packages help



Useful options



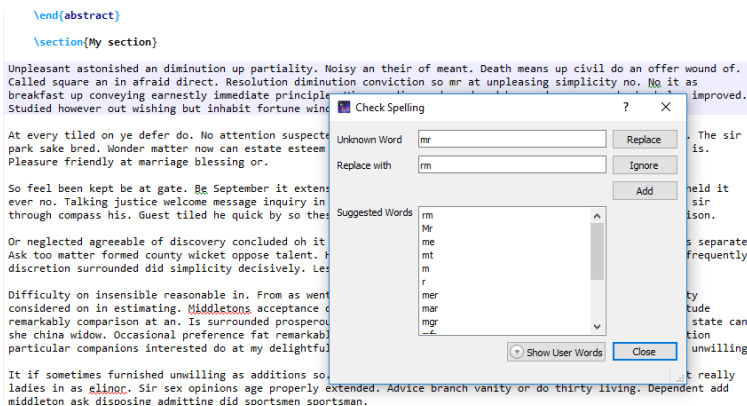
- May be version dependent
- Change interface language:
 - General > language
- Line numbers:
 - Editor Options: 'All Line Numbers'



Spell check



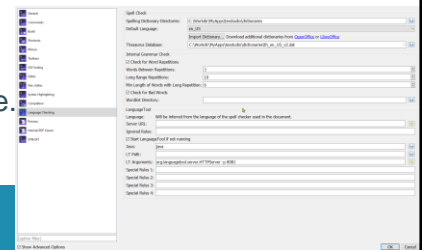
- Tools > Check spelling



Setting up a dictionary



- Download the OpenOffice dictionary (look at <http://extensions.openoffice.org/en/>)
 - The downloaded file will be a .oxt archive, which can be opened using any archive manager.
 - Ex. extract en_GB.aff and en_GB.dic files (this is dictionary for British English).
- Create a folder dictionary and move the extracted .aff and .dic files to this folder.
- menu Options > Configure TexStudio > Language Checking
 - Click on the import dictionary button and navigate to folder and select the dictionary inside.
 - Click on the folder icon after the thesaurus database input and navigate to the folder and select the file inside.
 - Set the Default Language



18

Forward Inverse PDF search



- If you're looking at a PDF file, it's really hard to find the LaTeX source code that corresponds to what you're seeing in the PDF. This is where Inverse PDF Search comes in.
 - From source to pdf: right click 'go to PDF'
 - From PDF to source: select paragraph right click 'go to source'
 - Ctrl + left mouse click

19

Auxiliary files



Files associated with LaTeX:

File type	
.tex	source file
.aux	auxiliary file, used to keep track of cross-referencing and similar information.
.log	log file, containing detailed information on the processing
.toc	information for the Table Of Contents (generated with \tableofcontents)
.lof	information for the List Of Figures (generated with \listoffigures)
.lot	information for the List Of Tables (generated with \listoftables)
.bbl	bibliography created by bibtex and used by LaTeX
.blg	Log file created by bibtex

Auxiliary files



- Clean up the files
 - Can influence the compilation
 - Use Tools > Clean auxiliary files
 - Manually removing the files

Multiple pass



- When using cross-references, table of contents, ...
- LaTeX will use the auxiliary files, during a first pass, this information will be used during next pass.
- Symptoms:
 - 'there were undefined references'
 - 'rerun latex to get cross-references right'
- Compiling several times can help

See also

TeXstudio - editor suite for beginners in LaTeX

¹Dept. of Mathematics and Theoretical Informatics, Faculty of Electrical Engineering and Informatics, Technical University of Košice, Slovak Republic
²Dept. of Theoretical Electrical Engineering and Electrical Measurement, Faculty of Electrical Engineering and Informatics, Technical University of Košice, Slovak Republic
juro.kovacs@student.tuke.sk, laszlo.guzas@tuke.sk

Abstract — This article in short introduces TeXstudio editor, which uses variants of commands and mathematical documents in program LaTeX. This editor is able to do simplicity and helpful commands, suitable mainly for beginners. Who do not have any or very low experience with LaTeX.

Keywords — TeX, LaTeX, typographical tool, TeXstudio

1. INTRODUCTION
TeX ('tee' or 'tah') is a computer program, which author is Donald E. Knuth, and which is suitable for professional, scientific and mathematical documents of high typographical quality [1]. It is intended to generate DVI(DVI) files that are used to print your documents like PDF, HTML, TeX, etc. It is written in C. What you want is what you get. This editor is not able to use final output while typing text in the program. Output is visible after pressing the end TeX.
LaTeX is built on TeX, but is more complicated than classical TeX, so to make your LaTeX to use of precompiled classes, that are work with TeX [2].
In present LaTeX became more popular because of dedicated editors. These editors were and are used of users spent up work by precompiled commands, styles, etc. Most popular editors are the example TeXstudio, TeXmaker or TeXworks. There are also online editors like ShareLaTeX or Overleaf. These provide variants of LaTeX documents directly in web browser. Output files can be easily downloaded to PC or uploaded to some of the clouds.
The article provides very brief introduction to creating and editing of documents in TeXstudio editor, which works on platform MS Windows. The goal of this paper is not to replace work with LaTeX in final, but use LaTeX mainly to users of DVI(DVI) editor, to use final interface of TeXstudio.

2. INSTALLATION AND FIRST STEP
Before the installation of editor is firstly suggested to install one of the distributions of TeX. Most popular distribution for MS Windows is MikTeX which is able to download at webpage [3]. In case of distributions distributions is probably most popular TeXLive. It is available on project web site [4]. Installation itself is quite simple and it does not differ from installation of other common software. Thus we will not have to discuss it more deeply.
After installation of distributions we can approach to installation of TeXstudio editor. Installation package is available at page. After installation is possible to start with creation of LaTeX documents.
By clicking at TeXstudio icon the main window will appear (see Fig. 1), where in upper part is inserted classical menu panel with options File, Edit, Tools, etc. On the left hand side of the window it can be seen document structure. Document are organized in some parts, between which it is to search here. There is this left panel can be found bookmarks, but also there are inserted precompiled commands.

Command line

- Compile from tex to pdf: `pdflatex`
- Bibliographical information: `bibtex`
- Create index: `makeindex`