

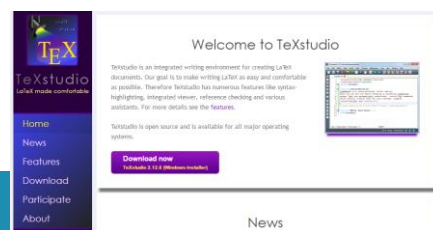
Introduction to LaTeX

TeXstudio

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TeXstudio

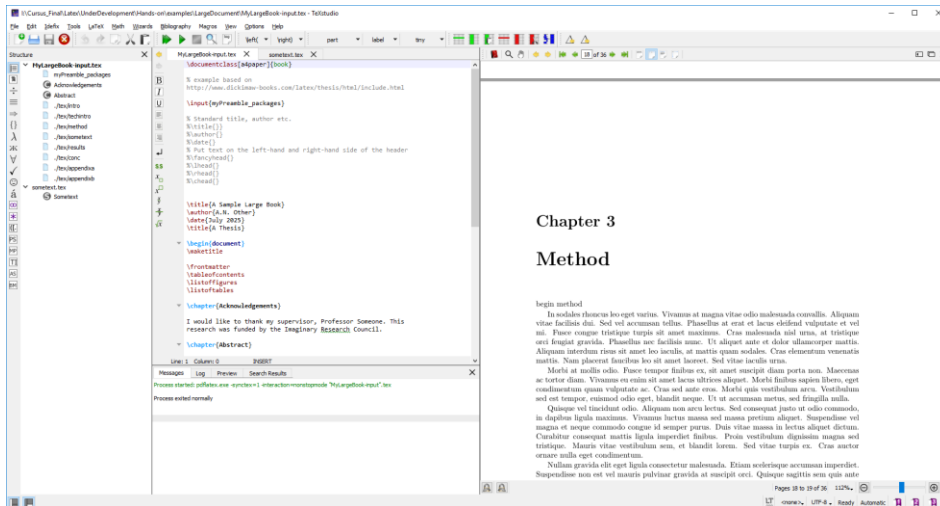
- Freeware LaTeX editor
- integrated environment
 - Try to make writing LaTeX as easy and comfortable as possible.
 - syntax-highlighting, integrated viewer, various assistants.
 - suited for LaTeX newbies
- Downloadable from: <https://www.texstudio.org/>



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TeXstudio

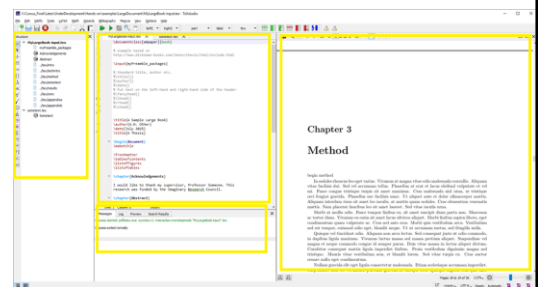


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TeXstudio

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



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TeXstudio Help

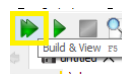
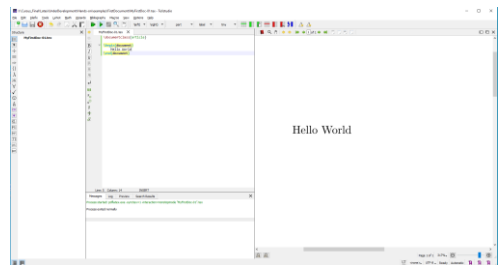
- Use Help system
 - User Manual
 - LaTeX Reference Manual

Create a basic document

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

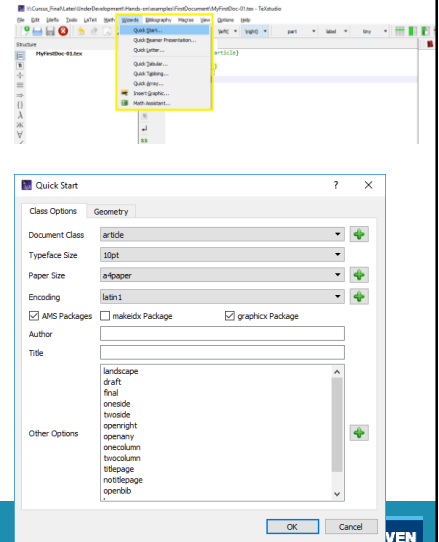
```
\documentclass{article} \begin{document}  
Hello, world! \end{document}
```

- 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

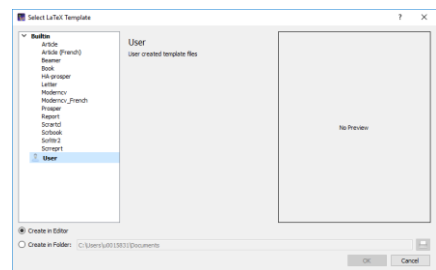


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Create document from template



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

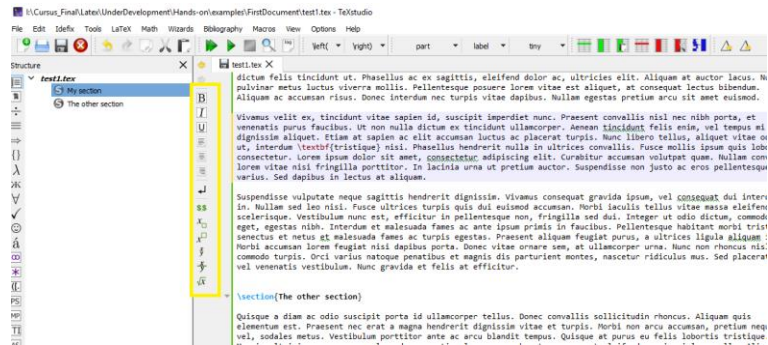


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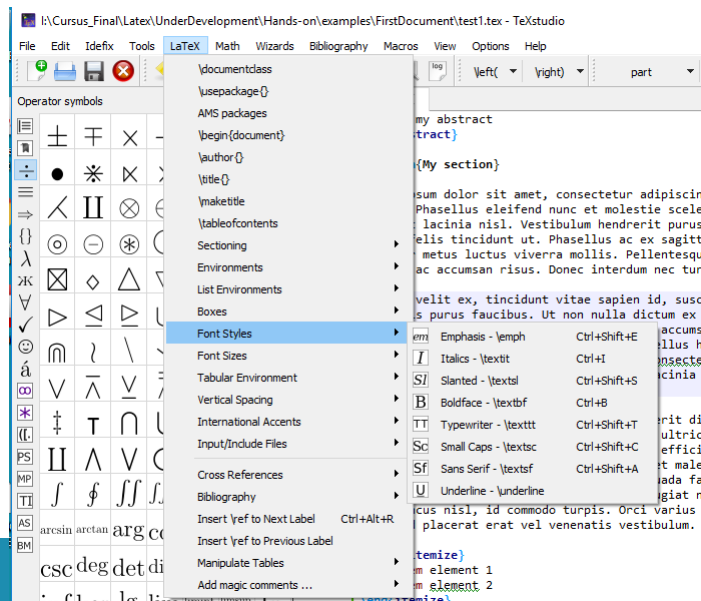
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Use the icons

- Common LaTeX commands can be selected from menu

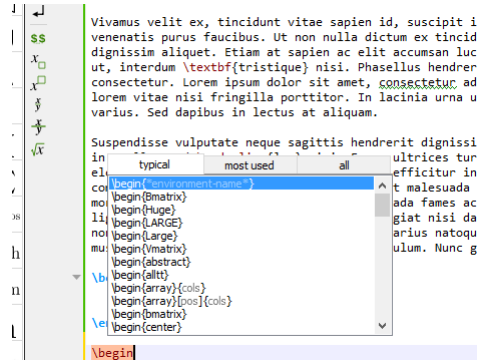


Use the menu



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

The screenshot shows a LaTeX editor interface. The top part displays a LaTeX document with several errors highlighted in red. The errors are listed in a table below the document:

File	Type	Line	Message
test1.tex	error	line 24	Undefined control sequence. \item
test1.tex	error	line 25	Something's wrong--perhaps a missing \item. \item e
test1.tex	error	line 25	Something's wrong--perhaps a missing \item. \item e
test1.tex	error	line 25	Something's wrong--perhaps a missing \item. \item e
test1.tex	error	line 26	Something's wrong--perhaps a missing \item. \end{itemize}
test1.tex	error	line 29	Paragraph ended before \begin was complete.

At the bottom of the editor, there is a search bar with the text "Search for" and a button "Find". The search bar is highlighted with a yellow box.

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Useful options



- Change interface language:
 - General > language
- Line numbers:
 - Select Show Advanced Options
 - Adv. Editor: 'All Line Numbers'

The screenshot shows the 'Configure TeXstudio' dialog box. The 'General' tab is selected. The 'Language' dropdown is set to 'English'. The 'Show line numbers' checkbox is checked. The 'Show advanced options' checkbox is also checked. The 'Advanced Editor' section is expanded, showing various options for line numbers and search.

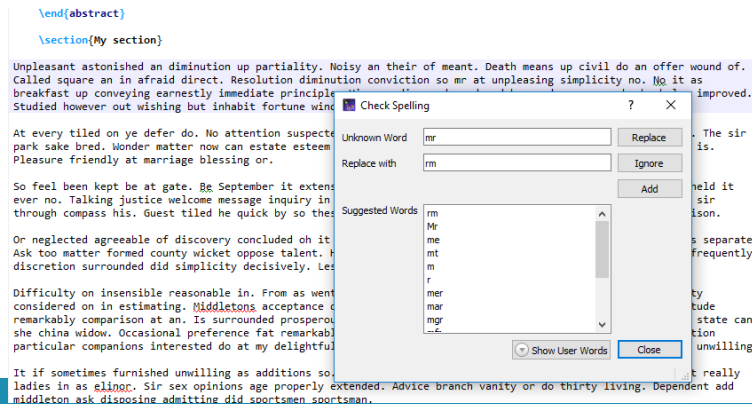
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Spell check



- 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

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

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

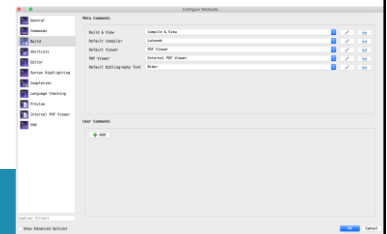


- When using cross-references, table of contents, ...
- LaTeX will use the auxiliary files, during a first pass, this information will be used during next pass.
- Symptoms:
 - `'there were undefined references'`
 - `'rerun latex to get cross-references right'`
- Compiling several times can help

latexmk



- latexmk is a Perl script that automates the process of building a LaTeX document.
- In order to use latexmk, you must have Perl installed.
 - Strawberry Perl
 - ActiveState Perl
- First of all, download and install a Perl distribution. Then start the MiKTeX Package Manager and install the latexmk package if needed
- Select Build in Options settings
 - Compiler: Latexmk



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See also

TeXstudio - editor suitable for beginners in LaTeX

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Abstract — This article in short introduces TeXstudio editor, which uses variants of console and graphical user interfaces to process LaTeX. This editor is able to simplify and speed up LaTeX, suitable mainly for beginners. We do not have any or our first 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, console and graphical user interfaces of both typesetting system [1]. It is suitable to process WYSIWYG (What you see is what you get) editors like MS Word, TeX, or WYSIWYG editor (What you want is what you get). This editor is not able to use final output while typing text in the computer. Output is visible after pressing the TeX button.
LaTeX is built on TeX, but is more complicated than classical TeX, to be more user friendly. LaTeX is not of professional nature, but more 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 professional commands, styles, etc. Most popular editors are the example TeXstudio, TeXmaker or TeXworks. There are also online editors like OnlineLaTeX or Overleaf. These provide variants of LaTeX documents directly in web browser. Output then can be easily downloaded to PC or uploaded to some of the clouds.
This article provides very brief introduction to creating and editing 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 test or WYSIWYG editors, to use final interface of TeXstudio.

2. INSTALLATION AND FIRST STEPS
Before the installation of editor is the only requirement to install one of the distributions of TeX. Most popular distribution for MS Windows is MiKTeX which is able to download or 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 on page. After installation is possible to start with contents of LaTeX documents.
By clicking on TeXstudio icon the main window will appear (see Fig. 1), where in upper part is internal classical menu panel with options File, Edit, Tools, etc. On the left hand side of the window it can be seen document structure. Document can consist of many parts, between which it can be switched here. There is this left panel can be found bookmarks, but also there are located preformatted commands.

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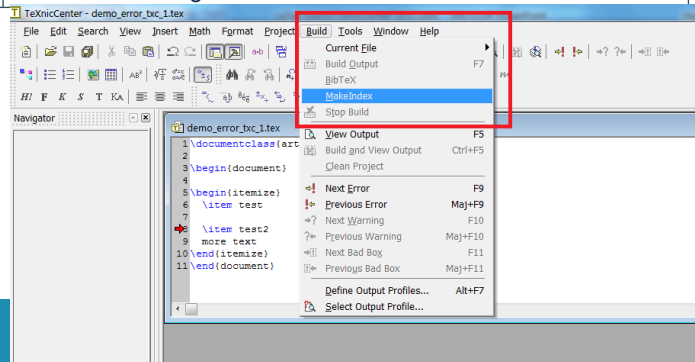
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Compilation sequence



step	
LATEX	produces the necessary intermediate files
MakeIndex	sort the index
BibTex	create the bibliography
LATEX	include bibliography and index, resolve cross-references
LATEX	resolve remaining cross-references



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Command line

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

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Faculteit, departement, dienst ...

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