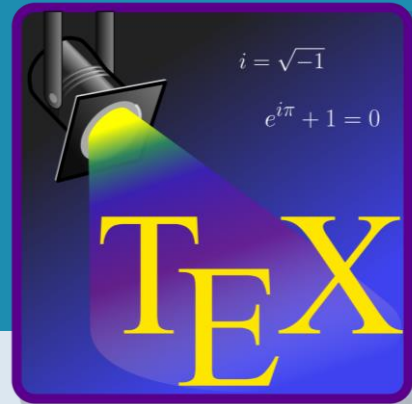


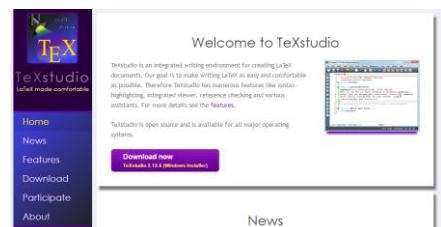
# Introduction to LaTeX

TeXstudio

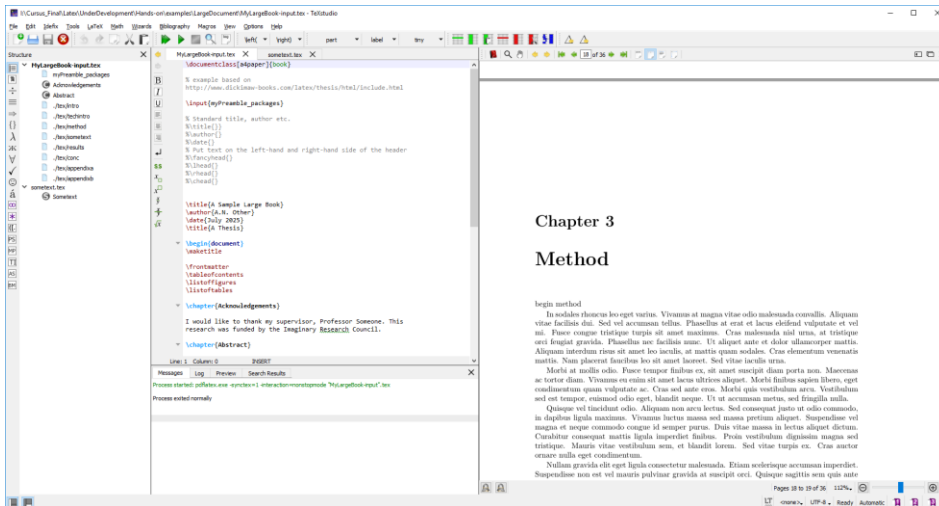


## TeXstudio

- 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/>



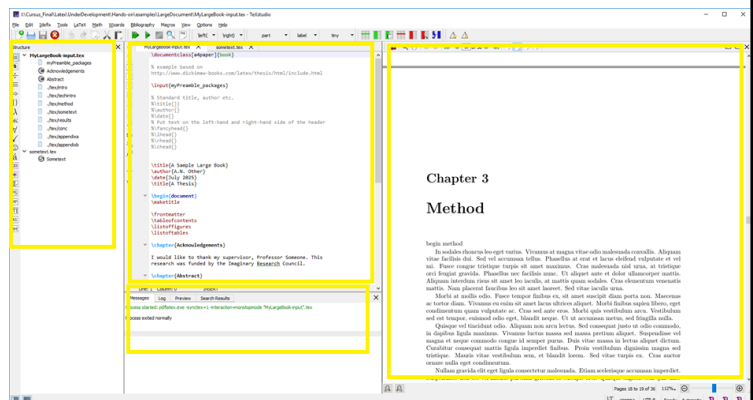
# TeXstudio



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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

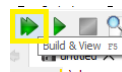
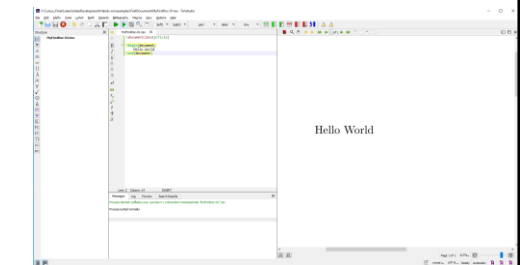
- Use Help system
  - User Manual
  - LaTeX Reference Manual

## Create a basic document

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

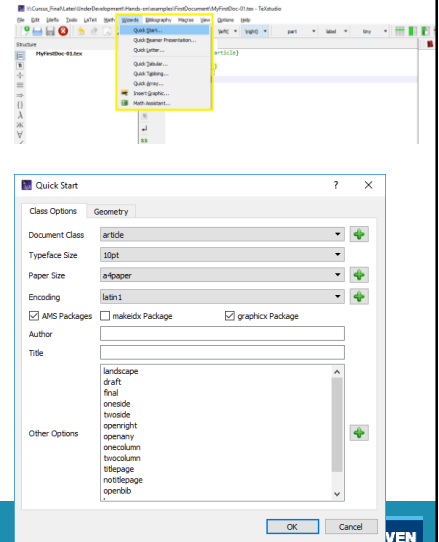
```
\documentclass{article} \begin{document}  
Hello, world! \end{document}
```

- View the result: click on build and view icon



# Create document using the Wizard

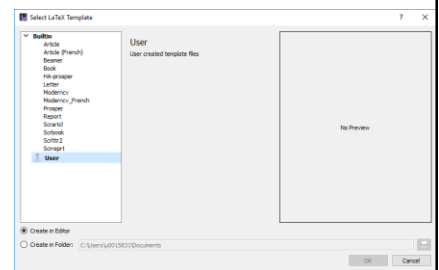
- Quickstart
- Select document + options
- Enter text in between
- `\begin{document}`  
`\end{document}`
- Click on Build and View to see the result



# Create document from template



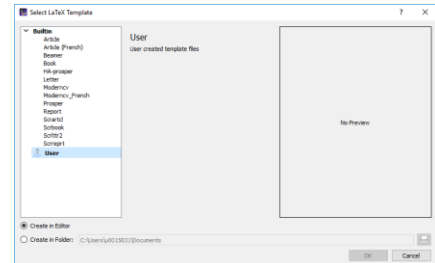
- Create a new file
  - File > New From templateChoose from builtin
- Create your own templates
  - File > Make Template
  - Stored under `\AppData\Roaming\texstudio\templates\user`



# File name

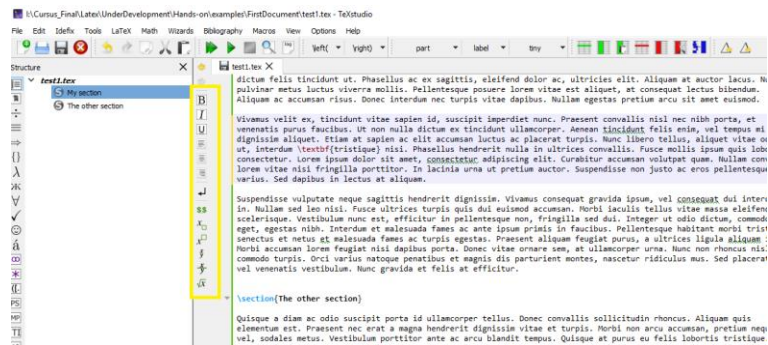


- File name rules
  - Extension `.tex`
  - Meaningful name
  - Only regular characters
  - Dash, underscore
  - Numbers
  - NO blancs, accents
- Same rules apply for folder names

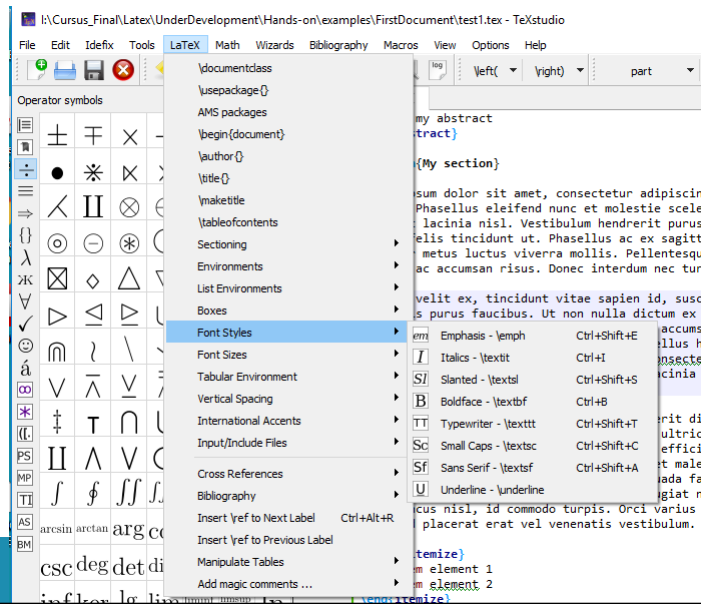


# Use the icons

- Common LaTeX commands can be selected from menu

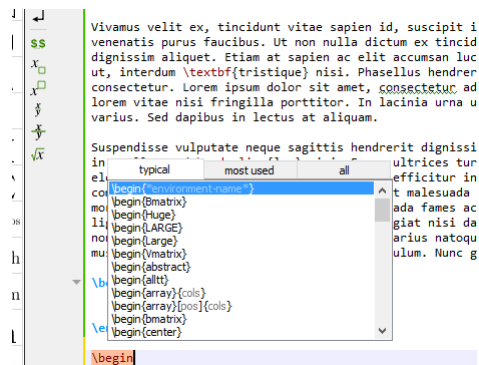


## Use the menu



# Enter LaTeX commands

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



# Compile

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

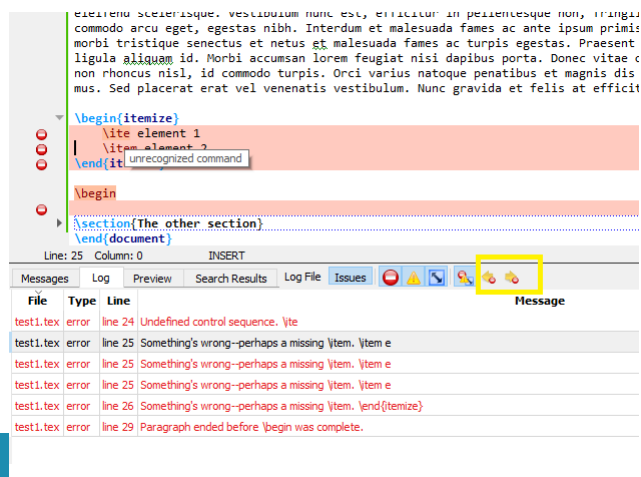


- Use the icons
  - Build and View F5
  - Compile F6
  - View F7



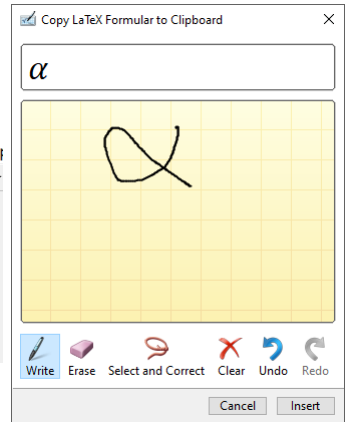
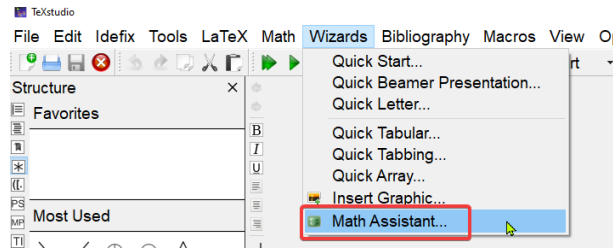
# Error search

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

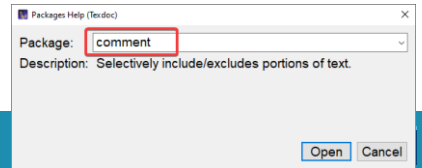
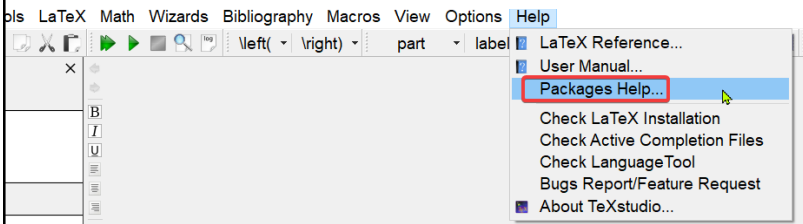


# Things to like

- Math assistant



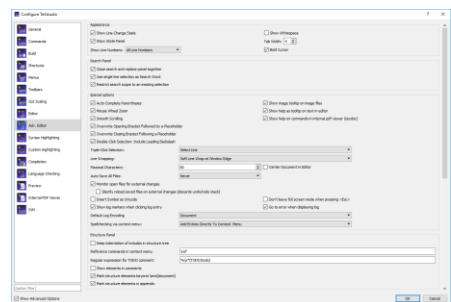
- Packages help



# Useful options



- Change interface language:
  - General > language
- Line numbers:
  - Editor Options: 'All Line Numbers'
  - Adv. Editor: 'All Line Numbers'
- Tools > Open External Terminal

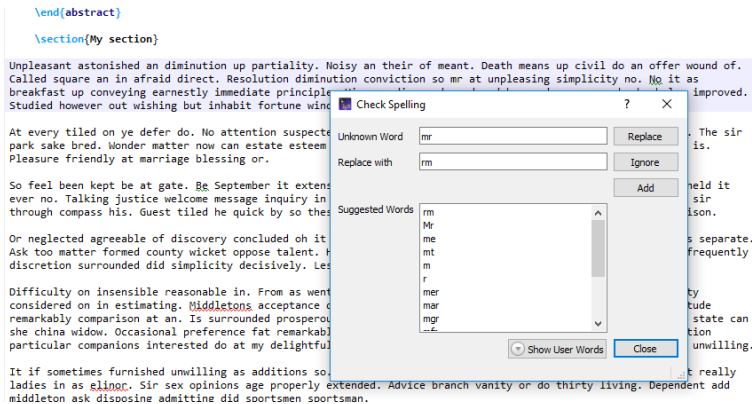




# Spell check



- 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
- <https://tex.stackexchange.com/questions/306120/texstudio-spell-checking>



# 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

# References

- <https://ntg.nl/maps/46/06.pdf>
- <https://www.jieee.eu/wp-content/uploads/papers/vol1i3/v1i3-Kovac-Guzan.pdf>
- <https://mirocupak.com/best-development-setup-for-latex/>