

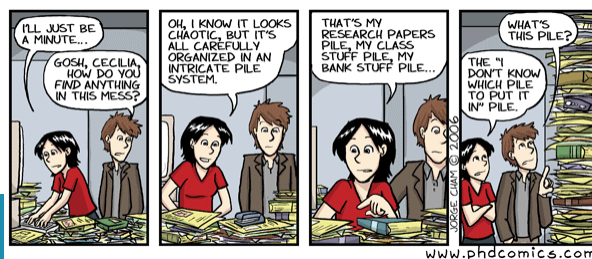
Introduction to LaTeX

bibliography

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Contents

- thebibliography
- BibTeX
- Some tools
- BibLaTeX



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Bibliography

- A bibliography is a list of the literature that has been used for the work.
- Requirements:
 - Correct: All the information (especially authors, title, and year) should be correct.
 - Complete: All the literature that is referred to (and only this literature) should appear in the bibliography
 - Uniform: All the information should be displayed in the same style.

Bibliography

- A bibliography can be:
 - included manually
 - Not really an option
 - embedded, using `thebibliography` environment
 - Simple method
 - Can be used for short reference lists, or when the formatting is very special
 - automatically generated from a database
 - Should be the way to go
- https://en.wikibooks.org/wiki/LaTeX/Bibliography_Management

Big picture

- Best practice: keep all of your references in a database.
- in LaTeX:
 - cite using a simple command (`\cite{key}`)
 - use a “key” linking what you want to cite with an entry in the database (.bib) file.
 - in the LaTeX document, indicate to include a bibliography and specify the style you want
 - All of the formatting and inserting the actual citation will be taken care of.

<https://jabranham.com/blog/2015/09/reference-management.html>

Big picture

- 3 bibliography management packages in LaTeX:
 - BibTeX (included in LaTeX by default),
 - natbib (a package based on BibTeX),
 - BibLaTeX.
- BibTeX and natbib (widely used, no longer developed)
- BibTeX is still the de-facto standard that most users know. Moreover, most academic publishers (that support LaTeX) do not support BibLaTeX
- BibLaTeX and biber (the future)
 - BibLaTeX provides a more flexible interface and a better language localization

Big picture

- <https://tex.stackexchange.com/questions/25701/bibtex-vs-biber-and-biblatex-vs-natbib>

what they are

who they are

what they do

LaTeX package

biblatex

natbib

Defines macros (e.g. `\cite`, `\printbibliography`) in your `.tex` document

processing program

biber

BibTeX

Bridge between your `.bib` and your `.tex` files

database file

other
(RIS, Endnote XML, Zotero RDFXML, ...)

features available for biber only
(e.g. utf8, crossref, 'urdate', 'inbook'...)

.bib

Stores all data about your references (author, year, etc.) in a structured way

database management system

generic software for reference management
(Zotero, Mendeley, Papers, ...)

.bib-specific DBMS

(Jabref, Referencer, ...)

Enables you to manage your database entries (i.e. to edit your `.bib`-file)

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thebibliography

Syntax

```
\begin{thebibliography}{widest_label}
\bibitem[label]{key} reference
...
\end{thebibliography}
```

- *widest_label*: should be as wide as the widest label. Will help LaTeX to align the references correctly.
- *label*: overrides the default label (a running number).
- *key*: reference key used in text.
- *reference*: author, title, etc. information (may include formatting).

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thebibliography

- `thebibliography` environment produces a bibliography or reference list.
 - In the article style, this reference list is labeled "References";
 - in the report style, it is labeled "Bibliography".
- similar to the `enumerate` environment, except that items are associated with a `\bibitem` command and can be cross-referenced with the `\cite{key}` command.
- *File: demo_thebibliography_1.tex*

thebibliography

- By default, the bibliography items are given consecutive numeric labels, set in square brackets. [1], [2], [3], [4].
- Also allowed
 - `\cite{Erdos01,Simpson}`
 - `\cite[pages~2--15]{Knuth92}`
- Explicit labels.
 - Use mnemonic labels instead of the default numeric labels.
 - label the items [Er01], [GKP89], [Kn92], and [Si03]. Label this explicitly in `bibitem`:
`\bibitem[Er01]{Erdos01} \bibitem[Si03]{Simpson}`
- *File: demo_thebibliography_2.tex*

Hands-on

- Use *handson_thebibliography_1*, compile it and check the output. Change the bibitem entries, such that a label is shown instead of a number

For more information about writing bibliographies see Goossens *et al.* [3].
For more information about writing bibliographies see Goossens *et al.* [3].
For more information about writing bibliographies see [2, 3].
For more information about writing bibliographies see Goossens *et al.* [3, Chapter 13].
Luckily, many text editors include the ability to switch end-of-line codes; some even do so automatically”[4]

References

- [1] “ \LaTeX : a document preparation system”, Leslie Lamport, 2nd edition (updated for $\text{\LaTeX}2\epsilon$), Addison-Wesley (1994).
- [2] “A Guide to $\text{\LaTeX}2\epsilon$: document preparation for beginners and advanced users”, Helmut Kopka and Patrick W. Daly, Addison-Wesley (1995).

Possible Workflow in Scientific Writing

- Collect / organize your references in Reference management software.
 - Zotero
 - Mendeley
 - Endnote
 - Etc.
- Reformat the database to Bibtex/BibLaTeX format.
- Use the database in LaTeX.

Working with a database: steps

- BibTeX/BibLaTeX translates bibliographic databases into a properly formatted citation list according to a pre-defined bibliographic style that you choose
- Inside LaTeX: required steps to set a bibliography using BibTeX/BibLaTeX:
 - Create a "BibTeX/BibLaTeX database" (.bib)
 - Choose a bibliography style
 - Load the database(s)
 - Process the paper through multiple runs of latex and BibTeX/BibLaTeX.

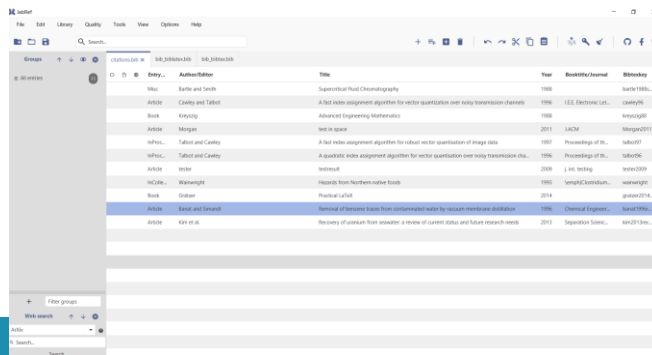
Working with a database

- DIY can be complex

[illegible]

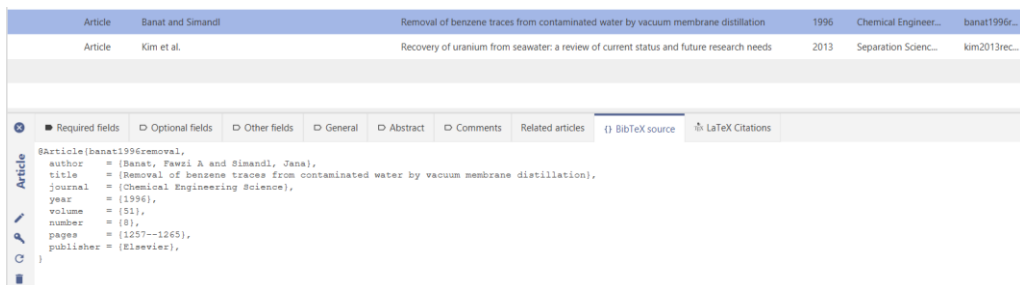
JabRef

- A bibliography reference manager. A GUI front end to manage BibTeX files.
- Cross-platform
- The native file format is BibTeX, the standard LaTeX bibliography format.



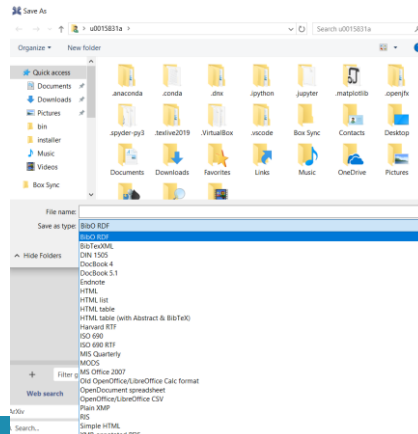
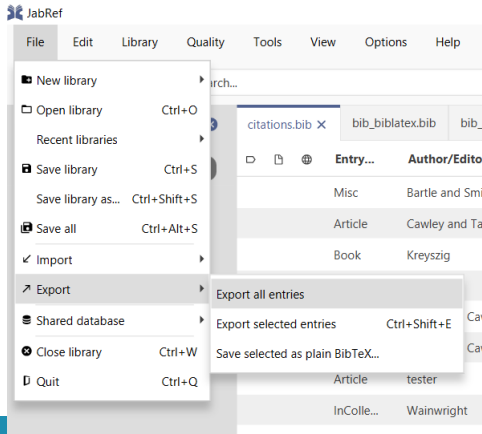
JabRef

- Paste the BibTeX code into the BibTeX source field
- Or edit the *.bib file



JabRef

- JabRef can export files that can be imported into EndNote.



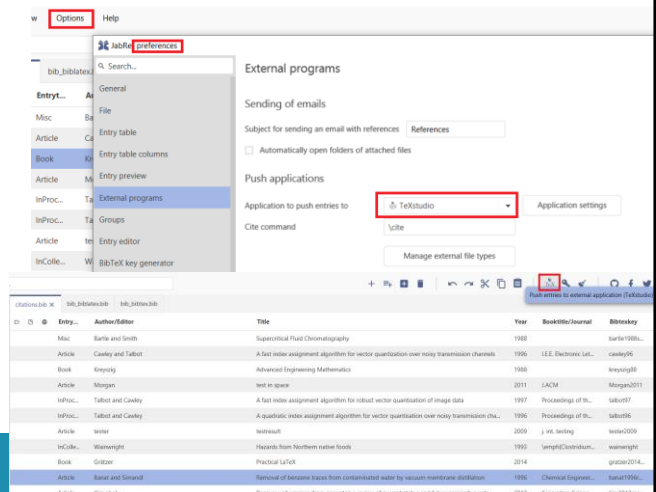
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TeXstudio & Jabref: Cite while you write

- Select in jabref the document **ctrl + k**
- Paste the citation with **ctrl + v**

- Push citation

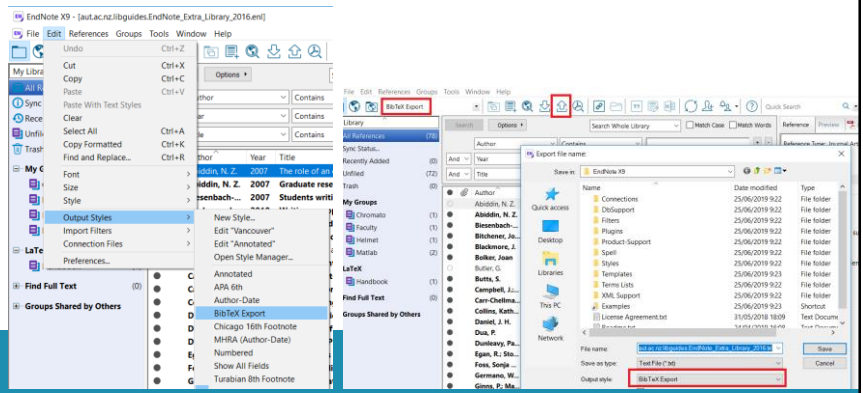


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EndNote & BibTeX

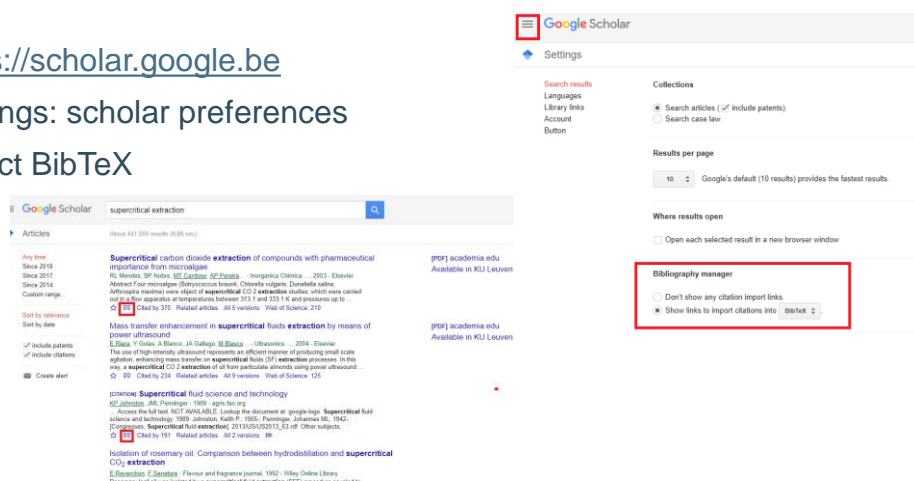
- Exporting from EndNote to BibTeX
- Select the output style (Edit > Output Styles > Output Styles Manager)
- Export
- Change the extension .txt to .bib



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BibTeX & Google Scholar

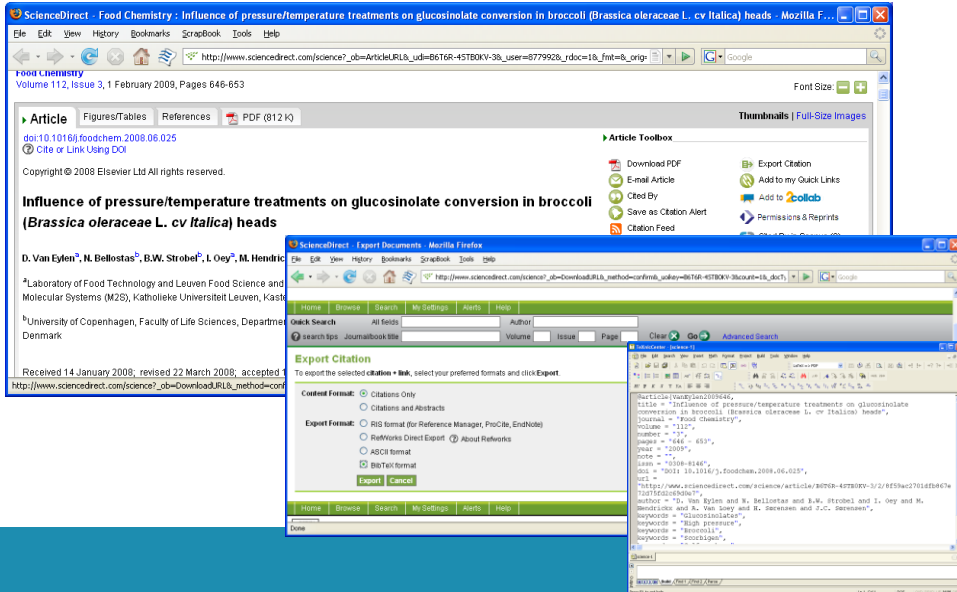
- <https://scholar.google.be>
- Settings: scholar preferences
- Select BibTeX



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BibTeX & E-sources



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Basic usage / commands

	BibTeX	BibLaTeX
Packages Needed	None	biblatex
In document command for citation	<code>\cite{bibID}</code>	<code>\cite{bibID}</code>
Specify bib files Specify the filename(s) in	<code>\bibliography</code> (different bibfiles separated with comma, no spaces)	<code>\addbibresource</code> (addbibresource for each bib file)
Bibliography styles	Use command (place in body): <code>\bibliographystyle{stylename}</code> Common Style names: abbr acm alpha apalike ieeetr plain siam unsrt	Optional Argument of <code>\usepackage</code> : <code>\usepackage[style=stylename,]{biblatex}</code> Common Style names: numeric alphabetic authority authoryear author-title verbose reading draft
Print bibliography command	<code>\bibliography{bibfilename}</code>	<code>\printbibliography</code>

<http://guides.nyu.edu/c.php?g=601858&p=4198226>

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What has BibTeX to offer?

- Have the bibliography in a separate file and reuse it with every LaTeX document.
No need to rewrite the bibliography every time.
- BibTeX only shows the resources which have been referenced using the `\cite` command, in addition to other resources which have not been explicitly referenced but have been enforced to display using the `\nocite` command.
- Entries are sorted (default by author)
- Entries are consistently formatted (provided the database is consistent)
- Graphical user interfaces exist for editing .bib (Bibliographic Information File) files (Jabref)

BibTeX

- BibTeX extracts references from one or more data files, formats them according to the given bibliography style and includes them into the document.
 - Different records are used for different publications
 - `@InProceedings {...}` `@Article {...}` `@Book {...}`
 - `@MastersThesis {...}` `@PhdThesis{...}` `@TechReport{...}`
 - Data is entered in a set of fields

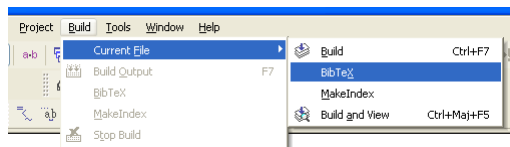
```
publication type {label,
  Key={key},
  Author={author list},
  Title={title},
  ...
}
```

BibTeX

- The reference section and individual references are created according to the given bibliography style.
 - `\bibliographystyle{citation style}` defines the style
 - `\bibliography{data files}` includes the references
- BibTeX automatically includes all cited references and includes them in the reference section.
 - Citations are included in the text using `\cite{label}`
 - Additional references can be included in the reference section using `\nocite{label}`

Creating output

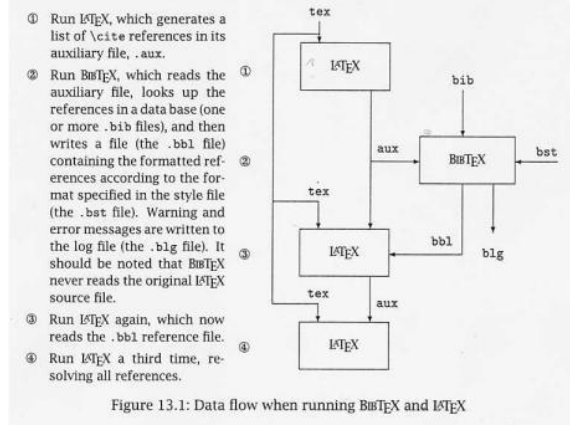
- To create references, run the sequence:
 - latex
 - bibtex
 - latex
 - latex



- *File: demo_bibtex_1.tex*
- *File: demo_bibtex_2.tex*

BibTeX cycle

- Goosens, Mittelbach, and Samarin (1994) *The LaTeX Companion*



BibTeX styles

- https://nl.sharelatex.com/learn/Bibtex_bibliography_styles
- `plain` Sorts entries alphabetically, with numeric labels.
- `abbrv` First names, month names, and journal names are abbreviated.
- `acm` Names are printed in small caps. alpha Alphanumeric labels, e.g., 'Knu66'.
- `apalike` No labels at all; instead, the year appears in parentheses after the author. Should be used in conjunction with `'apalike.tex'` (plain TeX) or `'apalike.sty'` (LaTeX), which also changes the citations in the text to be `'(author, year)'`.
- `ieeetr` Numeric labels, entries in citation order, IEEE abbreviations, article titles in quotes.
- `unsrt` Lists entries in citation order, i.e., unsorted.

Hands-on

- Use the file *handson_biblio_1*, compile and check the result.
- Change the style of the referencing.
- Add more text and references, use also the `\nocite` command

BibLaTeX

- The `biblatex` package is a reimplementation of LaTeX's bibliographic facilities.
- The formatting of the bibliography is governed by LaTeX commands instead of selecting a BibTeX style (`\bibliographystyle`).
- uses `biber` instead of BibTeX to process the bibliographic database and sort the entries.
 - Legacy BibTeX is also supported, but with a reduced feature set.
 - `biber` is the new parser for `.bib` files (replacement for BibTeX)

BibLaTeX

- Load the package biblatex
 - `\usepackage{biblatex}`
- Specify the bib file(s) with `\addbibresource`
(multiple lines when using multiple files)
- Insert a citation with `\cite`
- Insert the bibliography with `\printbibliography`

BibLaTeX

- different citation commands:
- `\cite` - the most basic one. Prints without any brackets except when using the alphabetic or numeric style,
- `\parencite` - prints citations in parentheses except when using the alphabetic or numeric style when it uses square brackets.
- `\footcite` - puts the citation in a footnote.

BibLaTeX

- Change the automation settings in your editor!
- *File: demo_biblatex_1.tex*

- <http://dag.at.ifi.uio.no/public/doc/biblatex-guide.pdf>
- <http://www.dickimaw-books.com/latex/thesis/html/biblatex.html>
- <https://guides.library.yale.edu/bibtex/biblatex-biber>
- <http://www.uakron.edu/dotAsset/2f7e00a5-3bb4-42b5-96c0-e16e0fb971d6.pdf>
- <https://3d.bk.tudelft.nl/hledoux/blog/fiddling-biblatex/>