

Bibliography in \LaTeX

Hadi Safari



University of Tehran

ACM Student Chapter

\LaTeX Intro
Summer 1398

<https://hadisafari.ir/courses/latex>



Manual Bibliography

1 Manual Bibliography

2 Bib \TeX

3 Bib \LaTeX



Simple Bibliography

- manual bibliography can be created by
`\begin{thebibliography}{widestlabel}\end{thebibliography}`
- *widestlabel* should be a number with the same length as the number of items
- each item can be added by `\bibitem[label]{citekey}description`
- it's possible to refer to items by `\cite[text]{keylist}`
- you may need to use `\nocite{keylist}` or even `\nocite{*}` to add a hidden reference
- manual bibliography should be sorted manually
- you may want to use `\renewcommand\refname{title}` (article class) or `\renewcommand\bibname{title}` (report & book classes) to change bibliography title
- you may want to use `tocbibind` package or use `\phantomsection\addcontentsline{toc}{section}{References}` to add bibliography to table of contents



Simple Bibliography

Example

See `\cite[p1]{wikibooks18}`. Also, see `\cite{wikibooks18,alex17}`.
`\nocite{wikibooks18}`

```
\begin{thebibliography}{9}
  \bibitem{alex17} Alex. 2017. Assert and \texttt{static\_assert}. Retrieved
    from
    \url{https://www.learncpp.com/cpp-tutorial/7-12a-assert-and-static_assert/}.
  \bibitem{wikibooks18} Wikibooks. 2018. ``Unit Tests.'' In
    \textit{Wikibooks, The Free Textbook Project}. Retrieved from
    \url{https://en.wikibooks.org/wiki/Introduction_to_Software_Engineering/Testing/Unit_}.
\end{thebibliography}
```

See [2, p1]. Also, see [2, 1].

References

- [1] Alex. 2017. Assert and `static_assert`. Retrieved from https://www.learncpp.com/cpp-tutorial/7-12a-assert-and-static_assert/.
- [2] Wikibooks. 2018. "Unit Tests." In *Wikibooks, The Free Textbook Project*. Retrieved from https://en.wikibooks.org/wiki/Introduction_to_Software_Engineering/Testing/Unit_Tests.



BibTeX

1 Manual Bibliography

2 BibTeX

3 BibLaTeX



BibTeX

- BibTeX automatically create bibliography from a bibliographic database (.bib file) based on the citations inside document and a bibliographic style file (.bst file)
- there are some bibliographic style files available: *plain*, *alpha*, *unsrt*, *abbrv*, *acm*, *ieeetr*, etc.
- some journals provide their owns
- many reference manager programs, like *Mendeley*, *Endnote*, and *Zetoro*, and many websites provide facilities to export data as .bib files
- review auto-generated .bib files and make sure of correctness and consistency
- see https://en.wikibooks.org/wiki/LaTeX/Bibliography_Management



BibTeX

Creating Bibliography

- suppose you have got a `thesis.bib` bibliography database and want to use *acm* style
- at the end of document, where you want to place bibliography, add the following lines:

```
\bibliographystyle{acm}
\bibliography{thesis}
```

- use `\cite{keylist}` or `\nocite{keylist}` to refer to appropriate references whenever needed
- build the document:
 - build (L^AT_EX)
 - run BibTeX
 - build (L^AT_EX)
 - build (L^AT_EX)



.bib Files

- each entry of bibliography database is a key-value list of attributes, starting with @, entry type and a *key*, which is used to refer to that entry
- anything between entries is considered as comment
- each key-value entry is written as `key={value}`, or `key="value"`,
- BibTeX reformats many fields, so if you want to keep some text exactly same as how it is written, you should do it as `author={Mc{M}ahon}`,
- entry type can be BOOK, ARTICLE, MISC, INPROCEEDINGS, etc.
- attribute key can be author, journal, publisher, pages, chapter, volume, editor, year, etc.
- each specific entry type requires some attributes



.bib Files

Example: BOOK

```

@book{newman10,
  author = {Newman, Mark},
  title = {Networks: An Introduction},
  year = {2010},
  isbn = {0199206651, 9780199206650},
  publisher = {Oxford University Press, Inc.},
  address = {New York, NY, USA},
}

```



.bib Files

Example: ARTICLE

```

@article{alstott14,
  doi = {10.1371/journal.pone.0085777},
  year = 2014,
  month = {January},
  publisher = {Public Library of Science ({PLoS})},
  volume = {9},
  number = {1},
  pages = {e85777},
  author = {Jeff Alstott and Ed Bullmore and Dietmar Plenz},
  editor = {Fabio Rapallo},
  title = {powerlaw: A Python Package for Analysis of Heavy-Tailed
    Distributions},
  journal = {{PLoS} {ONE}}
}

```



NatBib

- `natbib` package provides facilities to use author-year-based reference style
- styles like *plainnat*, *asa*, and *chicago* need `natbib` package
- you should use `\citet{keylist}`, `\citep{keylist}`, `\citeauthor{keylist}`, and `\citeyear{keylist}` instead of `\cite{keylist}`



BibL^AT_EX

1 Manual Bibliography

2 BibT_EX





3 BibL^AT_EX



- Bib \LaTeX uses Bib \TeX , but it changes the way the bibliographic entries and citations are processed
- writing & customizing bibliography style is much easier in Bib \LaTeX
- we won't go further into Bib \LaTeX usage here...



References

-  Woerner, K., Benjamin M., and Henrik S. \LaTeX Lab. Department of Mechanical Engineering of MIT. 2017. Available Online at http://oceanai.mit.edu/k_w/latex_lab/.
-  Higginbottom, R. Introduction to Scientific Typesetting. 2012. Available Online at <http://www2.washjeff.edu/users/rhigginbottom/latex/main.html>.
-  Wikibooks contributors. \LaTeX . Wikibooks, The Free Textbook Project. Available Online at <https://en.wikibooks.org/wiki/LaTeX>.
-  Oetiker T, Partl H., and Hyna I. Not So Short Introduction to \LaTeX 2 ϵ . Available Online at <http://mirrors.ctan.org/info/lshort/english/lshort.pdf>.

