

A Brief Overview of BibT_EX

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BibTeX produces a beautiful references section.

BibTeX knows how to correctly format each entry type. BibTeX will put all the commas, periods, italics and so on in the correct places.

Finding Bib \TeX Entries

You can get Bib \TeX entries for many publications from various places (e.g., the citeseer web site).

Warning: Assume that a Bib \TeX entry that you get from `citeseer` or elsewhere is wrong. Always double-check the information in such an entry by looking up the information at another source and edit the Bib \TeX entry carefully yourself.

BibTeX entries for documents that you cite are put in a .bib file separate from your document.

A .bib file can be shared among many documents.

A document can use more than one .bib file.

Create one or more .bib files containing all your bibliographic entries marked up according to BibT_EX rules.

Example:

```
@article{DuMo2017,  
  author = "Stephane Durocher and Debajyoti Mondal",  
  title = "Drawing Planar Graphs with Reduced Height",  
  journal = "Journal of  
           Graph Algorithms and Applications",  
  volume = 21,  
  number = 4,  
  pages = {433--453},  
  year = 2017  
}
```

`DuMo2017` is the BibTeX item's name, which you create.

How to Refer to Your Bibliographic Entries

Refer to bibliographic items with `\cite{item_name}` in your text.

Example: To refer to the journal article in the previous example, you would type something similar to

Mantler and Cameron~`\cite{MaCa02}` show that ...

How to Include Your Bibliography in Your Document

Tell \LaTeX and Bib \TeX which .bib files to use and what bibliographic style to use:

```
\begin{document}  
...  
\bibliography{mylatexrefs}  
\bibliographystyle{plain}  
\end{document}
```

\LaTeX will put your references section wherever you put the `\bibliography` command in your document.

How to Include Your Bibliography in Your Document

Run \LaTeX , then BibTeX , then \LaTeX twice more on your \LaTeX source file:

```
latex file.tex  
bibtex file  
latex file.tex  
latex file.tex
```

If

```
@book{Lamp94,  
  author="Leslie Lamport",  
  title="\LaTeX{}: A document preparation system",  
  publisher="Addison-Wesley",  
  year=1994}
```

is an entry in `mylatexrefs.bib`, then refer to this entry in the text using `\cite{Lamp94}`.

The tilde (`~`) provides a non-breaking space in \LaTeX — two things joined by a tilde will not be separated by a line break or a page break.

To prevent the citation from being placed on a separate line from the author's name in the formatted document:

Tildes are useful, as Leslie Lamport
[1] says.

use a tilde:

Tildes are useful, as
Leslie Lamport`~\cite{Lam94}` says.

Examples: Other places where a tilde is useful:

`Section~\ref{sec1}`, `Figure~\ref{fig2}`,
`pages~12--13`

There is a BibTeX entry type for nearly every type of reference you might use.

Choose the most appropriate entry type for each reference.

```
@entryType{yourLabel,  
  field1 = "field1value",  
  field2 = {field2value},  
  ...  
}
```

Entry type: what type of document (book, article in a journal, article in a conference proceedings, Ph.D. thesis, technical report, ...)

Label: used in `\cite{yourLabel}` commands in your writing to refer to the document represented by this BibTeX entry.

Fields: used to give the author's name, title, year of publication and so on, for the document represented by this BibTeX entry.

An Entry for a Book

Example:

```
@book{HeSh2012,  
  author = "Maurice Herlihy and Nir Shavit",  
  title = "The Art of Multiprocessor Programming",  
  publisher = "Morgan Kaufmann",  
  year = 2012,  
}
```

Required fields: author, title, publisher, year, edition (if it is not the first edition)

Optional fields: volume (or number), series, address, month, note

An Article in a Journal

Example:

```
@article{EnIr2016,  
  author="Barrett Ens and Pourang Irani",  
  title="Spatial Analytic Interfaces: Spatial User  
        Interfaces for In-Situ Visual Analytics",  
  journal="IEEE Computer Graphics and Applications",  
  volume=37,  
  number=2,  
  year=2016,  
  pages={66--79},  
}
```

Required fields: author, title, journal, volume, number, page
numbers, year

Optional fields: month, note

There are three different sizes of dashes: - – —.

Each one is used for a different purpose.

Use dashes appropriately.

The Shortest Dash: A Single Dash

If you want to use **a hyphen in a compound word**, type a single dash.

Example: To get the word pell-mell, type `pell-mell`.

The Middle-Sized Dash (the En-dash): Two Dashes

If you want to use a **range**, type two dashes.

Example: In BibT_EX, always type a page range as `pages = {1--4}`.

Other examples of ranges: January–April, Monday–Friday, 3–5 inches tall, and so on.

The Longest Dash (the Em-dash): Three Dashes

If you want to use **a dash to set off an auxiliary phrase in the middle of a sentence**, type three dashes.

Example: You might type

```
The licorice candies are among my son's
favourites --- along with chocolate, jujubes
and most other candies --- and he doesn't have
to share them with me!
```

to get

*The licorice candies are among my son's favourites —
along with chocolate, jujubes and most other candies —
and he doesn't have to share them with me!*

```
@inproceedings{LeJiPa2017,  
  author = "Carson K. Leung and Fan Jiang  
           and Adam G.M. Pazdor",  
  title = "Bitwise parallel association rule mining  
          for web page recommendation",  
  booktitle = "WI '17: IEEE/WIC/ACM International  
              Conference on Web Intelligence",  
  pages={662--669},  
  year = 2017,  
}
```

Required fields: author, title, booktitle, pages, year

Optional fields: editor, volume (or number), series, address,
month, organization, publisher, note

An Article in a Conference Proceedings

Always give both the full name of a conference proceedings or a journal and the acronym (if there is an acronym).

Example: Use “ACM Symposium on Computational Geometry”, not just “SCG”.

If you do not know what the full name is, look it up. (I can often find the full name by searching for the acronym in google.)

There are two styles for giving both the full name and the acronym for a conference:

Acronym first: SCG'09: Proceedings of the Twenty-Fifth Annual Symposium on Computational Geometry.

Full name first: Proceedings of the Twenty-Fifth Annual Symposium on Computational Geometry (SCG'09).

You must pick one or the other and be consistent, that is, always use the same style for all conference articles.

Use `misc` for web sites. Include

- A useful title that tells the reader what information is found at the web site,
- Give the date on which you accessed the site, and
- Include the URL in the “howpublished” field.

Including URLs in L^AT_EX or BibT_EX

Use the `ur` package, which gives you the `\url` command to display the URL properly:

```
@misc{ourClass,  
  author="Helen Cameron",  
  title = "\LaTeX{} Class for Research Methodologies",  
  howpublished="\url{http://www.cs.umanitoba.ca/  
    ~hacamero/latex/index.html}",  
  year = "Accessed on October 5, 2018",  
}
```

To get the `url` package, put

```
\usepackage{url}
```

in the preamble of your L^AT_EX source.

Other Entry Types

There are lots of other entry types, including manual, phdthesis, booklet, inbook, incollection, mastersthesis, and unpublished.

Examples:

```
author = "Helen Cameron"
```

```
author = "Durocher, Stephane"
```

```
author = "van Rees, G. H. J. and Li, P. C."
```

For multiple authors, separate the authors with the word “and” (e.g., `author="Helen Cameron and Peter King"`).

Beware! Beware! Do not separate multiple authors' names with commas. Always use “and”.

If an author's last name consists of multiple parts that are all capitalized, you must put the last name first followed by a comma followed by the first name(s).

Example: If my last name were "Cam Eron", then BibTeX requires `author="Cam Eron, Helen"`.

Some people have “, Jr.” at the end of their last names, which must be handled as follows:

- if my name is “Helen Cameron, Jr.”,
- then BibT_EX requires `author="Cameron, Jr., Helen"`.

A Company Name as the Author

BibTeX entries normally appear in alphabetical order by first author's last name.

If you use a company name as the author's name, do so carefully. If you do not, the BibTeX entry will appear out of order or the company name will be messed up.

A Company Name as the Author

Example:

```
author="Noremac Communications, Inc.",
```

will not work. Bib \TeX will give you “Inc. Noremac Communications” in your references section.

Why? Bib \TeX does not know that you wrote a company name. It thinks that there’s a human with last name “Noremac Communications” and first name “Inc.”

Example:

```
author="Opera Software",
```

will also not work. BibT_EX will assume that “Software” is the author’s last name and sort the entries incorrectly.

A Company Name as the Author

In both cases, the problem seems to be fixed by surrounding the entire company name with extra braces:

```
author="{Noremac Communications, Inc.}",  
author="{Opera Software}",
```

If you need to use an accent in a BibTeX field (author, title, journal, and so on), surround the L^AT_EX command that produces the accented character with braces.

Example: “ç” is produced by the L^AT_EX command `\c{c}`. To use this command in a title field in a BibTeX entry, type

```
title = "Cameron, Mon Petit Gar{\c{c}}on"
```

L^AT_EX has lots of accents.

Use the appropriate accents.

Do not use math mode to produce accents in names or other words.

Capitalization in Article Titles

In article titles, BibTeX may change uppercase to lowercase as appropriate. BibTeX will leave the following words in uppercase: the first word of the article title and the first word after a colon (:). All other words will be switched to lowercase.

BibTeX does not know about proper names, however. For proper names and other words that must be capitalized in a title, enclose the capital letter or the whole word in braces.

Examples:

```
title="An Attic in {G}reece"
```

```
title="Know My {URL}?"
```

```
title="We Love {Linux}"
```

Do not enclose the entire article title in extra braces to force the whole title to be capitalized. BibTeX is expert at

bibliographies. Leave it to make appropriate decisions on its own.

Correct titles:

```
title="An Attic in {G}reece"
```

```
title={An Attic in {G}reece}
```

Incorrect titles:

```
title="{An Attic in Greece}"
```

```
title={{An Attic in Greece}}
```

Capitalization of Other Titles

BibTeX will not change the capitalization of book titles, journal titles, and conference proceedings titles. Always capitalize titles appropriately in your BibTeX entries.

Your References Section

Readers do look at your references section. Certainly, I examine references sections closely. Members of the Graduate Studies Committee also tend to look closely at your reference section.

A poorly done references section reflects badly on the rest of your document. How can a reader trust the rest of your document if your lack of care is obvious in your references section?

Choose the correct entry type for each document.

Use the fields properly.

Give as much information as you can, so that a reader can easily find the document referred to.

What Should You Do?

You should:

- **Use BibT_EX correctly.** Therefore, learn BibT_EX and use L^AT_EX guides as you work.
- **Fill in fields consistently.** For example, make sure that you give the full names of all authors and that their names are always in the same order (first name followed by last name).
- **Find as much information about each BibT_EX entry as possible.** Therefore, look up the full information about each entry. You may have to look in more than one place (author's web page, journal's web page, a citation web site and so on) to find the full information.
- Use a spell-checker.

What Should You Do?

Look at your own references section with a careful eye and do a good job of editing it.

- Especially, look at the your references section in the *formatted* document.
- Look for inconsistent style, missing information, missing “and” between authors’ names (resulting in messed up authors’ names), messed up sorted order, and so on.

When you cite some paper, make sure that you place the citation in a reasonable place. The reader must be able to understand the connection between the cited paper and the sentence where the reference to the paper appears.

Beside the author's name is the most effective way of telling the reader why you included the reference.

Example: Author [n] shows/describes/presents/designs (main point of the research).

A reference should otherwise be placed immediately after a word or phrase that describes the main points of the research described in the paper. Unfortunately, this placement does not always make clear the connection between the paper and the sentence containing the reference to the paper.

Do not just sprinkle references at the end of various sentences.

Using References: What You Should Do

Use citations to show your strength as a researcher and writer.

- **Cite a paper in a sentence that accurately describes the main point of the paper.**
- Write so that the reader can understand the connection between the cited paper and the sentence in which the citation appears.

Using References: Don't Do This!

If you use a citation . . .

- To support a common-sense or well-known idea, then **you look weak.**

Example: A (useless) citation for a common-sense idea:

We should develop platforms that allow multiple users working on one task to work in as natural a manner as possible, rather than imposing a less-productive mode of operation on the users [7].

Using References: Don't Do This!

If you use a citation . . .

- To discuss something other than the main focus of the paper, then **you look as though you did not understand the paper.**
Will the reader trust you?

Example: A citation for something other than the main point:
Convex hull algorithms may be used in robotics and in shape analysis [5].

Here, the cited paper talks about a particular convex hull algorithm that is a very efficient modification of another well-known convex hull algorithm.

Use Strong Verbs in Sentences with References

Strong verbs: Prove, design, develop, model, hypothesize, disprove, experiment on, categorize, investigate, identify, conclude, propose.

Medium strength verbs (could be used strongly or weakly): Show, suggest, describe, recommend, point out.

Weaker verbs: Mention, say, state.

Citing Using Authors' Names: One or Two Authors

If the paper has one author, use the author's last name when you cite the paper in your text.

Example: "Păun [2] defines P systems and ...".

If the paper has two authors, use both authors' last names.

Example: "Mantler and Cameron [1] prove ...".

Handling Authors' Names: Three or More Authors

If the paper has three or more authors, use the first author's last name followed by “et al.”.

“Et al.” is an abbreviation for the Latin phrase “et alii” meaning “and others”, so “Name et al.” means “Name and others.” Thus, “Name et al.” is a plural subject, and you must match it with the appropriate plural verbs.

Example: “Zhang et al. [3] design ...”.

Please take care to put the period only at the end of “et al.” — not “et. al.”, for example.

If you want multiple references in a row — for example, “Knuth [1,2,3] describes ...”. The references should appear within one set of square brackets:

- For example, Knuth [1,2,3], not Knuth [1][2][3].
- To achieve this effect in \LaTeX , use one `\cite{}` command for all of the references in the group.
- For example,
`Knuth~\cite{knu63a,knu63b,knu65} describes`

The reference numbers should be sorted in ascending order.

- For example, Knuth [1,2,3], not Knuth [3,1,2].
- Unfortunately, \LaTeX is not smart enough to do this sorting itself.
- You must look at the formatted document and then rearrange the labels in your `\cite{}` command to sort the numbers.