

# Guidelines for Collaboration

Zhiyang Ong \*

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## Abstract

This is a set of guidelines for conduct while collaborating on open source projects. It also includes guidelines for creating a shared `BIBTeX` database.

## Revision History

Revision history:

1. Version 1, October 2, 2014. Initial version of the guideline (for another project).
2. Version 1.1, December 23, 2014. Version ported for this boilerplate code project.
3. Version 2, October 20, 2014. Added guidelines for `Doxygen`-supported, `Javadoc`-based coding standard. This coding standard is also known as coding style, coding style guide, coding guideline, coding scheme, code convention, code documentation guideline, programming guideline, or programming style.

## 1 Guidelines for Conduct

Members of the open source software and/or hardware projects should follow the *Code of Conduct* of the Institute of Electrical and Electronics Engineers (IEEE) and the Association for Computing Machinery (ACM) [1, 5–7]. Also, actions of discrimination are not acceptable [8]. An additional guideline is “Dave Packard’s 11 simple rules” [2].

In addition, when there is a dispute about which technology, algorithm, design paradigm/style/pattern, process, or methodology to use, follow the “Code Wins Arguments” philosophy [10, 12]. Also, when considerable effort has been invested in an automated regression testing/verification infrastructure, do not be afraid to “move fast and break things” [3, 4].

## 2 Guidelines for Creating a Shared `BIBTeX` Database

Guidelines for creating `BIBTeX` entries and the `BIBTeX` database, which is used for writing the paper, are given as follows:

1. Each `BIBTeX` key should be unique:
  - (a) Check if your desired `BIBTeX` key already exists in the `BIBTeX` database.

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\*Email correspondence to: ✉ [ongz@acm.org](mailto:ongz@acm.org)

- (b) Use the following format for creating BIB<sub>T</sub>E<sub>X</sub> keys: [first] author’s last name, appended by the year of publication. E.g., my first conference paper would have the BIB<sub>T</sub>E<sub>X</sub> key Ong2014. If the year of publication is not known, use an approximate year, with XY for the last 2 digits in the year (e.g., 20XY). Alternatively, if you cannot determine if it was published this millennium or the previous millennium, use UNKNOWN. For example, use Smith20XY, or KleinbergUNKNOWN.
  - (c) Remove duplicate entries in the BIB<sub>T</sub>E<sub>X</sub> database. **WARNING! Before doing this, perform a union operation on the fields of the BIB<sub>T</sub>E<sub>X</sub> entries. For example, if a BIB<sub>T</sub>E<sub>X</sub> entry has information that the other BIB<sub>T</sub>E<sub>X</sub> entry does not have, and vice versa, merge the information to a BIB<sub>T</sub>E<sub>X</sub> entry.**
  - (d) **Rational: Duplicate BIB<sub>T</sub>E<sub>X</sub> entries will cause problems in typesetting.**
  - (e) Regarding hash collision of BIB<sub>T</sub>E<sub>X</sub> keys, such as multiple instances of Gratz2014, distinguish them by appending a letter to them. E.g., use Gratz2014a, Gratz2014b, Gratz2014c, and so on. If we run out of letters, append it with “a” followed by a number. The use of the letter “a” separates the year from the instance of BIB<sub>T</sub>E<sub>X</sub> key. That is, Gratz2014a1 tells me that it is the 28<sup>th</sup> instance of Gratz2014, as opposed to Gratz201428.
2. For terms that should be typeset as is, place them in between braces (i.e., curly brackets). That is, put curly braces around acronyms and mixed-case names.
    - (a) For example, terms in upper or mixed cases (upper and lower cases), such as names (e.g., McMullen) and acronyms (e.g., SIGDA), place them in between braces (i.e., {McMullen} and {SIGDA}). This prevents the titles (or another BIB<sub>T</sub>E<sub>X</sub> field) from changing the term into lower case, with exception for the first term/word. E.g., “ICCAD Update: A Report from SIGDA” may typeset into “ICCAD Update: A report from sigda”.
  3. For special symbols that are typeset with L<sup>A</sup>T<sub>E</sub>X in the `math` mode, such as  $\alpha$ , place them in between a pair of dollar signs (i.e.,  $\alpha$ ).
  4. For each BIB<sub>T</sub>E<sub>X</sub> entry, check if all required fields are complete. See pages 8 and 9 in §3.1 of [11] for a list of BIB<sub>T</sub>E<sub>X</sub> entry types; alternatively, refer to the *Wikipedia* entry for , or [9, §12.2.1, pp. 230–231]. In this/these list(s), the required fields are listed for each BIB<sub>T</sub>E<sub>X</sub> entry.
  5. For the `pages` field, ensure that all page ranges are indicated with double hyphens. E.g., “page = {11–34},”. This makes the page range looks more pretty.
  6. For the `pages` field, ensure that multiple pages and/or page ranges are separated by commas. E.g., “page = {11–34, 57, 88, 109–187},”.
  7. For books and journal articles that have an associated digital object identifier (DOI), ensure that the `doi` field is included in the BIB<sub>T</sub>E<sub>X</sub> entry with the DOI of the publication. This makes it easier for people to access the web page for the book or journal/conference paper.
  8. Stylistic validation of the references can be carried out as follows:
    - (a) Include all BIB<sub>T</sub>E<sub>X</sub> keys in one citation in your L<sup>A</sup>T<sub>E</sub>X document.
    - (b) Typeset the L<sup>A</sup>T<sub>E</sub>X document.
    - (c) Check that the font and style of the reference list is correct.
    - (d) If there are errors, correct the errors as appropriate.
    - (e) Finally, the BIB<sub>T</sub>E<sub>X</sub> database should be correct.
  9. Information that I would include when citing common sources of information, such as *Wikipedia*, using the Harvard Referencing Style:
    - (a) Wikipedia contributors, “TITLE\_OF\_THE\_ARTICLE,” in {it Wikipedia, The Free Encyclopedia: CATEGORY}, Wikimedia Foundation, San Francisco, CA, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.

- (b) Wikibooks contributors, “CHAPTER\_NAME,” in {\it TITLE\_OF\_THE\_BOOK}, Wikibooks: Open books for an open world, Wikimedia Foundation, San Francisco, CA, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.
  - (c) Wikibooks contributors, “TITLE\_OF\_THE\_BOOK,” Wikibooks: Open books for an open world, Wikimedia Foundation, San Francisco, CA, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.
  - (d) Wiktionary contributors, “TITLE,” Wiktionary, Wikimedia Foundation, San Francisco, CA, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.
  - (e) Dictionary.com, “WORD,” IAC, Oakland, CA, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.
  - (f) AUTHOR, “TITLE,” in {\it The New York Times: The Opinion Pages: Op-Ed Contributor}, The New York Times Company, New York, NY, MONTH DATE, YEAR. Available online at: \url{URL}; last accessed on August 26, 2014.
  - (g) When BIB<sub>T</sub>E<sub>X</sub> entries are created for the aforementioned sources of information, populate the appropriate fields so that each information in the aforementioned sources are included in the BIB<sub>T</sub>E<sub>X</sub> entries.
10. Refer to the file “bibtex-template.txt” for templates for selected BIB<sub>T</sub>E<sub>X</sub> entry types. The more information that you can put in, the easier you can protect yourself from accusations of plagiarism and to make it easier for people (including yourself) to find the reference again. This is especially true for web-based references/resources.

### 3 Recommended Fields for BIB<sub>T</sub>E<sub>X</sub> Entries

The recommended fields for BIB<sub>T</sub>E<sub>X</sub> entries are:

- 1. techreport:
  - (a) Address
  - (b) Author
  - (c) Howpublished
  - (d) Institution
  - (e) Keywords
  - (f) Month
  - (g) Number
  - (h) Title
  - (i) Url
  - (j) Year
- 2. proceedings:
  - (a) Address
  - (b) Doi
  - (c) Editor
  - (d) Keywords
  - (e) Month
  - (f) Organization
  - (g) Publisher
  - (h) Series
  - (i) Title
  - (j) Volume

(k) Year

3. manual:

- (a) Address
- (b) Author
- (c) Howpublished
- (d) Keywords
- (e) Month
- (f) Organization
- (g) Title
- (h) Url
- (i) Year

4. incollection:

- (a) Address
- (b) Author
- (c) Booktitle
- (d) Chapter
- (e) Doi
- (f) Edition
- (g) Howpublished
- (h) Keywords
- (i) Pages
- (j) Publisher
- (k) Series
- (l) Title
- (m) Url
- (n) Volume
- (o) Year

5. inproceedings:

- (a) Address
- (b) Author
- (c) Booktitle
- (d) Doi
- (e) Keywords
- (f) Month
- (g) Organization
- (h) Pages
- (i) Publisher
- (j) Series
- (k) Title
- (l) Volume
- (m) Year

6. article:

- (a) Address
- (b) Author
- (c) Doi

- (d) Journal
- (e) Keywords
- (f) Month
- (g) Number
- (h) Pages
- (i) Publisher
- (j) Title
- (k) Volume
- (l) Year

7. phdthesis (or mastersthesis):

- (a) Address
- (b) Author
- (c) Howpublished
- (d) Keywords
- (e) Month
- (f) Number
- (g) School
- (h) Title
- (i) Url
- (j) Year

8. misc:

- (a) Address
- (b) Author
- (c) Howpublished
- (d) Keywords
- (e) Month
- (f) Publisher or School
- (g) Title
- (h) Url
- (i) Year

9. book:

- (a) Address
- (b) Author
- (c) Doi
- (d) Edition
- (e) Keywords
- (f) Month
- (g) Pages
- (h) Publisher
- (i) Series
- (j) Title
- (k) Volume
- (l) Year

## 4 Coding Standard

This is a guideline for Doxygen-supported, Javadoc-based coding standard that shall be used for this boilerplate code project. This coding standard is also known as the coding style, coding style guide, coding guideline, coding scheme, code convention, code documentation guideline, programming guideline, or programming style. The documentation generator that shall be supported is: Doxygen. Since I am using Doxygen for generating documentation, I can use L<sup>A</sup>T<sub>E</sub>X to provide richer markup.

My indent style would be the 1TBS variant of the K&R style, which is an abbreviation of “The One True Brace Style”. It is also equivalent to the Kernel Normal Form style (or BSD KNF style).

For a suggested coding style for Python scripts, see <http://www.python.org/dev/peps/pep-0008/>. For a suggested coding style for Ruby scripts, see <http://www.caliban.org/ruby/rubyguide.shtml>.

GNU coding standards; see <http://www.gnu.org/prep/standards.html> and [http://en.wikipedia.org/wiki/GNU\\_Coding\\_Standards](http://en.wikipedia.org/wiki/GNU_Coding_Standards); also see [http://www.ronancrowley.com/Eclipse\\_GNU\\_Style.xml](http://www.ronancrowley.com/Eclipse_GNU_Style.xml) for “Eclipse Code Style Formatter for GNU Coding Standards” FMG Programming Guidelines (FPG); see <http://www-ti.informatik.uni-tuebingen.de/~fmg/guidelines.html> ... Also, see <http://www.boost.org/development/requirements.html> and <http://cm.bell-labs.com/cm/cs/tpop/Gnits> Standards: a collection of standards and recommendations for programming, maintaining, and distributing software; see <http://www.gnu.org/software/womb/gnits/> Mozilla Coding Style Guide; see [https://developer.mozilla.org/en/Mozilla\\_Coding\\_Style\\_Guide](https://developer.mozilla.org/en/Mozilla_Coding_Style_Guide) or <http://www.mozilla.org/hacking/mozilla-style-guide.html> Linux Kernel Coding Style (or Documentation/CodingStyle in the Linux Kernel source tree); see <http://lxr.linux.no/source/Documentation/CodingStyle> code documentation guidelines; see <http://www-ti.informatik.uni-tuebingen.de/~fmg/guidelines.html>

## 5 Additional Guidelines

Please kindly use the Markdown language for writing text documents. This is because Bitbucket will treat my text file as a file written in the Markdown syntax. That said, the raw file looks a lot better than the represented Markdown files. Their (Bitbucket) formatting for Markdown is messed up.

## References

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- [3] Benny Evangelista. Facebook’s hacker way – “move fast and break things”. Available online in *The San Francisco Chronicle: The SF Gate: Blogs at SFGate.com: The Technology Chronicles* at: <http://blog.sfgate.com/techchron/2012/02/01/facebooks-hacker-way-move-fast-and-break-things/>; October 9, 2014 was the last accessed date, February 1 2012.

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