

Docear4Word: Reference Management for Microsoft Word based on BibTeX and the Citation Style Language (CSL)

Joeran Beel
Docear, Magdeburg
Germany

beel@docear.org

Stefan Langer
Docear, Magdeburg
Germany

langer@docear.org

Marcel Genzmehr
Docear, Magdeburg
Germany

genzmehr@docear.org

ABSTRACT

In this demo-paper we introduce Docear4Word. Docear4Word enables researchers to insert and format their references and bibliographies in Microsoft Word, based on BibTeX and the Citation Style Language (CSL). Docear4Word features over 1,700 citation styles (Harvard, IEEE, ACM, etc.), is published as open source tool on <http://docear.org>, and runs with Microsoft Word 2002 and later on Windows XP and later. Docear4Word is similar to the MS-Word add-ons that reference managers like Endnote, Zotero, or Citavi offer with the difference that it is being developed to work with the de-facto standard BibTeX and hence to work with almost any reference manager.

Categories and Subject Descriptors

H.4.1 [Information Systems Applications]: Office Automation – word processing, workflow management.

General Terms

Management, Documentation

Keywords

bibtex, citation style language, CSL, microsoft word, reference management, reference manager

1. INTRODUCTION

Reference management is probably the most tiring task for students and researchers. They have to re-type and format bibliographic information over and over, for each paper, assignment or thesis. This is particularly frustrating if they need to change citation styles in a document. This might become necessary, for instance, because a supervisor changes his mind on his favorite citation style, or a paper is submitted to another journal which requires a different citation style than the previous journal.

In the past decades many software tools evolved to facilitate this workflow. Commercial tools such as Endnote and Citavi enable researchers to maintain a database with all the bibliographic data of their references. These so called ‘reference managers’ usually offer add-ons for Microsoft Word allowing users to insert and format references and bibliographies in a convenient way. Also some open source tools offer such add-ons, for instance Zotero. However, all these tools use proprietary data formats. Accordingly, a Microsoft Word add-on from one of these tools (e.g. Endnote) works only with the corresponding data format of that tool.

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

JCDL’13, July 22–26, 2013, Indianapolis, Indiana, USA.
ACM 978-1-4503-2077-1/13/07.

There is one alternative to the proprietary formats, namely BibTeX. BibTeX was created by Oren Patashnik in 1988 [4] and is the de-facto standard format in reference management. There are many reference managers directly supporting BibTeX, for instance JabRef, BibDesk and our own reference manager Docear [1]. Even proprietary tools such as Endnote usually allow exporting their database to BibTeX. There is a Microsoft Word Add-On for BibTeX based databases named BibTeX4Word¹. However, BibTeX4Word requires the installation of additional tools and is difficult to setup and use. For instance, in the Blog MedicalNerds more than 250 comments were made on BibTeX4Word, mostly questioning about the usage – especially installing new citation styles is complicated [3].

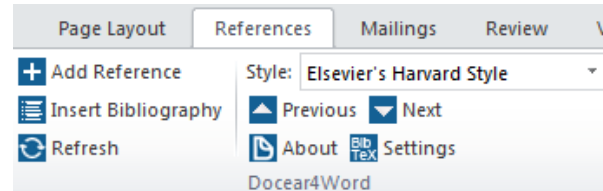


Fig. 1. Docear4Word ribbon in Microsoft Word 2010

We developed Docear4Word², a Microsoft Word add-on to insert and format references directly in MS Word based on BibTeX. Docear4Word is open source and runs with Microsoft Word 2002 and later on Windows XP and later. After the installation, Docear4Word is accessible in the ‘Reference’ ribbon if Microsoft Word 2007 or later is used (Fig. 1). In Word 2002 and 2003 a separate toolbar is installed. Docear4Word was primarily intended for users of our literature management tool Docear [1], but can be used with any BibTeX file from any reference manager. In contrast to BibTeX4Word, Docear4Word is more user-friendly and uses the citation style language (more details in the following section).

The remainder of this paper provides a detailed overview of Docear4Word.

2. DOCEAR4WORD

2.1 Maintaining a BibTeX database

BibTeX is a text-based format. Accordingly, a BibTeX file can be created and edited with any text editor. However, there are several tools offering a graphical user interface to create BibTeX files, for instance JabRef and our own reference manager Docear. Fig. 2 shows a screenshot of Docear. Docear provides a graphical user interface for specifying title, authors, and other bibliographic data of academic literature. Based on this data Docear automatically creates a BibTeX entry. Instead of Docear, or a text editor, any reference

¹ <http://www.ee.ic.ac.uk/hp/staff/dmb/perl/index.html>

² <http://www.docear.org/software/add-ons/docear4word/overview/>

management tool can be used that uses the BibTeX format or that may export its proprietary format to BibTeX.

2.2 Inserting references in Microsoft Word

Fig. 3 shows the dialog to search and insert references. The dialog allows selecting several references at once and specifying individual page numbers. Once, the references are selected and the “Add References” button is clicked, references are added in the document and formatted accordingly to the selected citation style (Fig. 5).

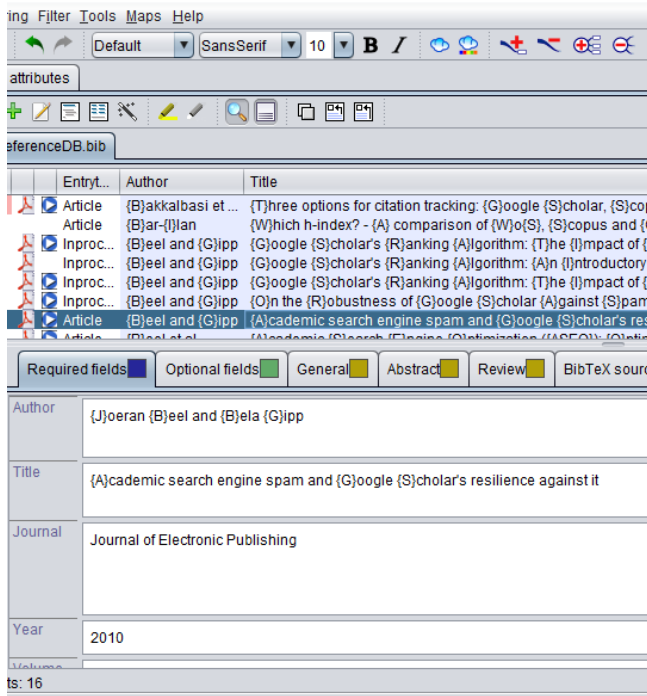


Fig. 2. Maintaining the BibTeX database with an external reference manager (e.g. Docear)

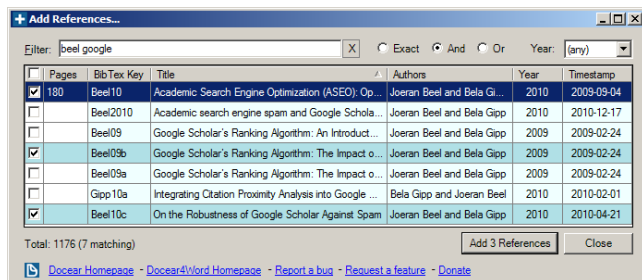


Fig. 3. Selecting and inserting a reference

2.3 Changing the Citation Style

Docear4Word uses the citation style language [5] and the citeproc-js citation processor [2] to format references. The citation style language supports more than 1,700 citation styles such as IEEE, Harvard, MLA and ACM in several variations. Docear4Word users can select a style in the style box (Fig. 4) and install new styles from the style repository. When a new style is selected all references are formatted accordingly.

2.4 Insert a Bibliography

Docear4Word automatically creates a bibliography based on the references in the body of the document (Fig. 5). The user can

choose where to insert the bibliography and the bibliography is automatically updated when new references are inserted.

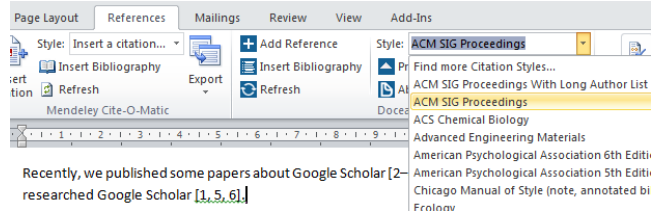


Fig. 4. Style chooser

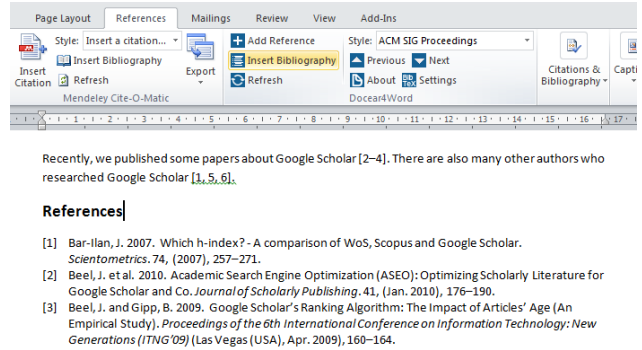


Fig. 5. Automatically created bibliography

3. OUTLOOK

Docear4Word was released as final and stable version 1.0 on <http://docear.org>. However, we will continue to improve Docear4Word. Among others, it is planned to offer a version for Microsoft Word on MacOS; implement support for footnotes; enable suppressing author and/or year in a reference; implement an installer for new citation styles; and allow using multiple BibTeX files at the same time. As Docear4Word is available as open source, we sincerely invite other researchers to join the development.

4. ACKNOWLEDGEMENTS

We are very grateful for the Citation Style Language and CiteProcJS by Bruce D’Arcus, Frank G. Bennett, Jr. Rintze M. Zelle, and many others. In addition, we are glad for all the support we received from Simon Hewitt.

5. REFERENCES

- [1] Beel, J., Gipp, B., Langer, S. and Genzmehr, M. 2011. Docear: An Academic Literature Suite for Searching, Organizing and Creating Academic Literature. *Proceedings of the 11th JCDL* (2011), 465–466.
- [2] Frank G. Bennett, J. 2011. The citeproc-js Citation Processor. <http://gsl-nagoya-u.net/http/pub/citeproc-doc.html>
- [3] Medicalnerds 2007. How to use JabRef (BibTeX) with Microsoft Word 2003. <http://www.medicalnerds.com/how-to-use-jabrefbibtex-with-microsoft-word-2003/>
- [4] Patashnik, O. 1988. BibTexing. <http://bibtexml.sourceforge.net/btxdoc.pdf>
- [5] Zelle, R.M. 2010. Citation Style Language 1.0. <http://citationstyles.org/2010/03/22/citation-style-language-1-0/>