Manual for the PubCit package

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Abstract

This user manual presents the PubCit package which enable the user to create various kinds of publication lists where citations to entries of the publication list may also be displayed.

1 Motivation

Nowadays, scientometry receives more and more significance at reviewing research proposals and applications[1]. One accepted measure of scientific merit of a researcher is the number of independent citation to his/her work. Therefore when applying for a grant or for an award it is a usual requirement to submit a citation list next to publication list.

As I am a committed LaTeX user, when I had to make such lists I searched the Internet for available BibTeX style file, but I found nothing. Therefore, when I decided to make such a bst (bibliography style) file, first I turned to the well-known BibTeX expert the author of [3], Nicolas Markey, for help. He offered me to make the most important basic of the bst file, what he finished within a few weeks (citedby.bst). I made some useful modification on it and created its supplementing citation.bst that includes some new field for citations. This manual is written to help anyone who intend to store his/her publication and citation list in BibTeX format and needs an easy-to-use list generation tool.

2 The features of the PubCit package

The package enables the user to create the following kinds of "publication–citation" list. The various sort of lists can be controlled with optional parameters of citedby.sty.

- Normal publication list styled with standard unsrt (or arbitrary other) bib-style.
- Normal publication list as above but number of citation is indicated as (#Refs = n) at the end of each entry, if $n > 0$.
- Publication list with citations: at the end of each entry an embedded numbered list displays the citations styled with standard unsrt bib-style.
- Publication list with citations and context: as above, but the context of the citation is also displayed; those information can be given by means of special bib-fields.

The package is customized to create publication lists in two languages. The default language is obviously English, and the alternative language is Hungarian. However, it is very easy to change the alternative language to an arbitrary other one.

[1] It is not a goal of the paper to judge the grounds of this system. Just an anecdote to this remark: I heard an estimation that 50% of the once lived scientists are our contemporaries. Probably this immense grow necessitates the existence of scientometry.

3 What's included in the PubCit package?

The package tested and works on Linux and Windows platform as well. A script file is provided for each platform. The following files are in the package.

- pubcit.bat – the runnable file for Windows,
- `Makefile` – the runnable file for Linux,
- citedby.sty – LaTeX style file of the package,
- citedby.bst – BibTeX style file of publications,
- citation.bst – BibTeX style file of citations,
- sample.tex – a sample TeX-file,
- sample.pub.bib – a sample BibTeX-file for publications,
- sample.cit.bib – a sample TeX-file for citations,
- pubcitmanual.pdf – this file.

4 How to run?

4.1 Windows

The package assumes that LaTeX, BibTeX and PDFLaTeX is installed on the machine, e.g. the MikTeX package[2].

The runnable for Windows is pubcit.bat. It has a compulsory and an optional argument. The first argument is the compulsory one, the name of the TeX-file. The second optional argument specifies the input format. If nothing is given then `pdflatex` is called and a PDF file is created. Alternatively one can give `dvi` as second argument and then `latex` is called and a DVI file is created.

4.2 Linux

The Makefile for created originally by Nicolas Markey. Currently it creates only PDF output, but it is very easy to modify it to get DVI output.

5 Optional arguments

The citedby.sty has several arguments that governs the style of publication list.

- `forceunsrt` – by enabling this option one can get a standard publication list styled with `unsrt` bib-style. I added this to be able to create a normal publication list from the same source with just setting an option. The default setting of the option is disabled.
- `nocitation` – as above but the `unsrt`-based citation.bst is called to style the publication list. As a consequence the citations are still missing but the number of citations is indicated at the end of each entry (if any). Also other additional fields are present, such as isbn, issn, url (not implemented yet). The default setting of the option is disabled.
- `nocontext` – by this option one can display the citations, but suppress the context-related field of citations. The default setting of the option is disabled.
- `citationfontsize=fontsize` – the valid values of `fontsize` are `normal`, `small` or `footnotesize`. This option determines the fontsize of citation text. The default is `footnotesize`.
- `contextfonttype=typeface` – the valid values of `typeface` are `normal`, `slshape` or `textit`. This option determines the typeface of context in citations. The default is `slshape`.

[2] `http://http://www.miktex.org/`

- `magyar` – by enabling this option the user can get Hungarian captions and notations in the publication list. Note that just a few things changes, namely, the title of the publication list, the text of `context`, the introductory text ("cited by") before each citation list belonging to a publication list entry. The default setting of the option is disabled.
- `nopub` – by enabling this option the title of the publication list changes to "Other works". This is in order to create a list of other works that are not considered to be publications (e.g. seminars, abstracts, etc.).

6 Creating the publication list

6.1 The main file

The main file of the publication list should include the following lines:

```
\usepackage[<Options>]{citedby}
```

where *Options* is a comma-separated list of the options given in Section 5. I recommend the use of splitbib.sty by Nicolas Markey; it allows to sort publications to categories and sub-categories (e.g. by publication type and year).

The following self-explaining parameters should be given in the preamble

```
1  \renewcommand{\authorfirstname}{First}
2  \renewcommand{\authorlastname}{Last}
3  \renewcommand{\citationbib}{mycit.bib}
```

At the end of the main file (see also sample.tex) the following lines can be found.

```
1  \nocite{*}
2  \ifforceunsrt
3  \bibliographystyle{unsrt}
4  \else \ifnocitation
5  \bibliographystyle{citation}
6  \else
7  \bibliographystyle{citedby}
8  \fi \fi
9  \bibliography{pub}
```

The first line ensures that all the entry from the publication file will be in the publication list without citing them in the main file explicitly. The third line invokes the `unsrt` bib-style when `forceunsrt` option is enabled. The 9th line specifies the name of the bib-file of the publications.

One can also display the total number of citations with the `\thetotalcitation` command.

6.2 The `bib` files

For a detailed work on BibTEXing see [3]. The bibliography entries for publications and citations should be stored in separate files. From now on we call them pub.bib and cit.bib.

At the pub.bib file the new optional `citedby` field available at each type of entries, which allows the user to specify papers which cites an entry. The citations have to be given separated by `and`s. That is the line

```
citedby = "work1 and work2 and work3",
```

tells BibTEX that the actual entry has three citations. The citations has to be given in the cit.bib file. The result will be an embedded list after the entry. The elements of the list are labelled with the number of the original entry and within that numbered from 1. The result will be such as below.

References

[1] C. J. van Rijsbergen. *Information Retrieval*. Butterworths, London, 2nd edition, 1979.

Cited by:

[1.1] R. E. Schapire, Y. Singer, and A. Singhal. Boosting and Rocchio applied to text filtering. In *Proc. of SIGIR-98, 21st ACM International Conference on Research and Development in Information Retrieval*, pages 215–223, Melbourne, Australia, 1998.

[1.2] F. Sebastiani. Machine learning in automated text categorization. *ACM Computing Surveys*, 34(1):1–47, March 2002.

[1.3] H. Schütze, D. A. Hull, and J. O. Pedersen. A comparison of classifiers and document representations for the routing problem. In *Proc. of SIGIR-95, 18th ACM Int. Conf. on Research and Development in Information Retrieval*, pages 229–237, Seattle, WA, 1995.

If not other information has to be displayed about citing works than that is all. However, there are some other useful possibilities to enrich the information about the citation.

There are 4 new fields in citation.bst that enables the user to add context information about the citation, i.e. in what context and where the given work is cited[3]. The fields are the followings:

1. `contexttype`: this is how the referred work is cited, e.g. in the paper or only in the reference list. It is an optional field. The default value is specified in citedby.sty by the variable `\defaultcontexttype` and it depends on the actual language. It is set to "*Context*" for English and "*Szövegkörnyezet*" for Hungarian. One has to specify this field only when these default values needs to be overwritten.

2. `contextpage`: the page or pages where the referred work is cited. This is also an optional field.

3. `context`: This field specifies in what context the referred paper is cited. The typeface of this text can be specified by the option `contextfonttype=typeface`, see Section 5.

4. `addtocontext`: This field can be used to add some remark on the citation. This text will be typeset with typeface normal.

Here is an example for the usage of these fields:

```
@INPROCEEDINGS{Schapire98,
 author =" R. E. Schapire and  Y. Singer and A. Singhal",
 year = 1998,
 title = "Boosting and {R}occhio applied to text filtering",
 booktitle = "Proc. of SIGIR-98, 21st ACM International
 Conference on Research and Development in Information Retrieval",
 address = "Melbourne, Australia",
 pages = "215--223",
 contextpage = "216--217",
 context = "van  Rijsbergen's E and F measures: These single valued measures
 depend upon the relative importance a user assigns to recall and precision
 (see [29], pp. 168--176)\ldots",
 addtocontext ="Whatever is needed to be added",
}
```

The result will be:

[3]This is sometimes required at citation lists.

References

[1] C. J. van Rijsbergen. *Information Retrieval*. Butterworths, London, 2nd edition, 1979.

Cited by:

[1.1] R. E. Schapire, Y. Singer, and A. Singhal. Boosting and Rocchio applied to text filtering. In *Proc. of SIGIR-98, 21st ACM International Conference on Research and Development in Information Retrieval*, pages 215–223, Melbourne, Australia, 1998. Context (pp. 216–217): *„van Rijsbergen's E and F measures: These single valued measures depend upon the relative importance a user assigns to recall and precision (see [29], pp. 168–176)...”*. Whatever is needed to be added.

[1.2] F. Sebastiani. Machine learning in automated text categorization. *ACM Computing Surveys*, 34(1):1–47, March 2002.

[1.3] H. Schütze, D. A. Hull, and J. O. Pedersen. A comparison of classifiers and document representations for the routing problem. In *Proc. of SIGIR-95, 18th ACM Int. Conf. on Research and Development in Information Retrieval*, pages 229–237, Seattle, WA, 1995.

Here are two things to be sorted out yet: a general one and a particular one.

Remark 1 *I have not decided yet whether I would go for creating templates for each languages from* citation.bst*, or I go for the nicer solution and make it work together wiuth the multi-language* babelbib *package [1, 2].*

Remark 2 *If a paper is cited several times in another one, then the ideal way to specify this would be several contextpage, context pairs. I did not make it yet, but I have an ugly but functioning solution for it: put into the* `context` *field all those pairs except the first* `contextpage` *data, and use* `{\rm...}` *to ensure the correct typeface where applicable within the* `context` *field.*

7 What to modify for another language

Just briefly: take the following files citedby.sty and citation.bst. In the former check for the occurrence of `\if@hun` and make the necessary modification. In the later seek for the new field name (`context`, etc.) and modify appropriately the language dependent strings in functions using them.

8 Future works

I am planning to make the following modification to the package:

- customizing options: it would be better to allow the user to specify `citationfontsize` and `contextfonttype` as arbitrary TEX-commands not just those ones that are explicitly defined in the citedby.sty files.
- I would like to incorporate the package into the babelbib package [1, 2], or vice versa, in order to make it easier to use other languages.
- It would be more elegant if no “hacking” would be required when the context of a reference occurs at different location in the reference works (see also remark at the end of example 2 in Section 6.2).
- I would like to insert the `isbn`, `issn`, and `url` fields from the babelbib package [1, 2].

Any help in this work is appreciated.

References

[1] Harald Harders. The babelbib package. `http://www.ctan.org/tex-archive/biblio/bibtex/contrib/babelbib/`.

[2] Harald Harders. Multilingual bibliographies: Using and extending the babelbib package. *TUGboat*, 23, 2002. http://www.tug.org/TUGboat/Articles/tb23-3-4/tb75harders.pdf.

[3] Nicolas Markey. The splitbib package, February 2005. `tug.ctan.org/tex-archive/info/bibtex/tamethebeast/ttb_en.pdf`.