Crossrefware documentation*

Boris Veytsman†

April 23, 2017

Contents

1 Introduction

These scripts can be used to submit files to Crossref, check and add doi numbers, MathSciNet numbers and ZbMath numbers to papers, and to convert 'bbl' files to 'bib' files.

I am grateful to Josko Plazonic from Princeton Math Dept whose (unpublished) Python script was an inspiration for this suite.

The script `ltx2crossrefxml` is used to extract the information from a LaTeX file and generate an XML file suitable for submission to Crossref (the organization that keeps DOI numbering system).

Several scripts, `bibdoiadd`, `bibmradd` and `bibmradd` take a `bib` file, and add to each entry a DOI, MR or ZBL number correspondingly, if they can find this entry in the corresponding database.

Script `bbl2bib` tries to reconstruct a `bib` file from the corresponding `thebibliography` environment. One can argue that this operation is akin

---

†borisv@lk.net, boris@varphi.com

to reconstructing a cow from the steak. The way the script does it is searching for the entry in the MR database, and creating the corresponding BibTeX fields.

Below are manual pages for these scripts.

2 ltx2crossrefxml.pl

A tool for creation of XML files for submitting to crossref.

SYNOPSIS

ltx2crossrefxml [**-c** *config_file*] [**-o** *output*] *latex_file latex_file ...*

OPTIONS

-c *config_file*

> Configuration file. If this file is absent, some defaults are used. See below for its format.

-o *output*

> Output file. If this option is not used, the XML is output to stdout.

DESCRIPTION

The script takes a number of latex files and produces an XML file ready for submission to Crossref. Each file must be previously processed by LaTeX with the newest `resphilosophica` package: the package creates the file `.rti` wtih the information about the bibliography.

The processing of reference list is at present rather limited: only so called unstructured references are produced.

CONFIGURATION FILE FORMAT

The configuration file is mostly self-explanatory: it has comments (starting with #) and assginments in the form

```
$field = value ;
```

EXAMPLES

```
ltx2crossrefxml.pl ../paper1/paper1.tex ../paper2/paper2.tex -o result.xml
```

```
ltx2crossrefxml.pl -c myconfig.cnf paper.tex -o paper.xml
```

AUTHOR

Boris Veytsman

COPYRIGHT AND LICENSE

3   bibdoiadd.pl

Add DOI numbers to papers in a given bib file

SYNOPSIS

bibdoiadd [**-c** *config_file*] [**-e** 1|0] [**-f**] [**-o** *output*] *bib_file*

OPTIONS

-c *config_file*

> Configuration file. If this file is absent, some defaults are used. See below for its format.

-e

> If 1 (default), add empty doi if a doi cannot be found. This prevents repeated searches for the same entries if you add new entries to the file. Calling `-e 0` suppresses this behavior.

-f

> Force checking doi number even if one is present

-o *output*

> Output file. If this option is not used, the name for the output file is formed by adding `_doi` to the input file

DESCRIPTION

The script reads a BibTeX file. It checks whether the entries have DOIs. If now, tries to contact http://www.crossref.org to get the corresponding DOI. The result is a BibTeX file with the fields `doi=...` added.

The name of the output file is either set by the **-o** option or is derived by adding the suffix `_doi` to the output file.

There are two options for making queries with Crossref: free account and paid membership. In the first case you still must register with Crossref and are limited to a small number of queries, see the agreement at `http://www.crossref.org/01company/free_services_agreement.html`. In the second case you have a username and password, and can use them for automatic queries. I am not sure whether the use of this script is allowed for the free account holders. Anyway if you try to add DOI to a large number of entries, you should register as a paid member.

CONFIGURATION FILE

The configuration file is mostly self-explanatory: it has comments (starting with #) and assginments in the form

```
$field = value ;
```

The important parameters are $mode ('free' or 'paid'), $email (for free users) and $username & $password for paid members.

EXAMPLES

```
bibdoiadd -c bibdoiadd.cfg -o - citations.bib > result.bib
bibdoiadd -c bibdoiadd.cfg -o result.bib citations.bib
```

AUTHOR

Boris Veytsman

COPYRIGHT AND LICENSE

Copyright (C) 2014-2017 Boris Veytsman

This is free software. You may redistribute copies of it under the terms of the GNU General Public License http://www.gnu.org/licenses/gpl.html. There is NO WARRANTY, to the extent permitted by law.

4 bibzbladd.pl

Add Zbl numbers to papers in a given bib file

SYNOPSIS

bibzbladd [-d] [**-f**] [**-e** 1|0] [**-o** *output*] *bib_file*

OPTIONS

-d

>   Debug mode

-e

>   If 1 (default), add an empty zblnumber if a zbl cannot be found. This
>   prevents repeated searches for the same entries if you add new entries
>   to the file. Calling -e 0 suppresses this behavior.

-f

>   Force searching for Zbl numbers even if the entry already has one.

-o *output*

>   Output file. If this option is not used, the name for the output file is
>   formed by adding _zbl to the input file

DESCRIPTION

The script reads a BibTeX file. It checks whether the entries have Zbls. If not,
tries to contact internet to get the numbers. The result is a BibTeX file with
the fields zblnumber=... added.

   The name of the output file is either set by the **-o** option or is derived by
adding the suffix _zbl to the output file.

AUTHOR

Boris Veytsman

COPYRIGHT AND LICENSE

Copyright (C) 2014-2017 Boris Veytsman
   This is free software. You may redistribute copies of it under the terms of
the GNU General Public License http://www.gnu.org/licenses/gpl.html. There
is NO WARRANTY, to the extent permitted by law.

5 bibmradd.pl

Add MR numbers to papers in a given bib file

SYNOPSIS

bibmradd [-d] [**-f**] [**-e** 1|0] [**-o** *output*] *bib_file*

OPTIONS

-d

> Debug mode

-e

> If 1 (default), add an empty mrnumber if a mr cannot be found. This prevents repeated searches for the same entries if you add new entries to the file. Calling `-e 0` suppresses this behavior.

-f

> Force searching for MR numbers even if the entry already has one.

-o *output*

> Output file. If this option is not used, the name for the output file is formed by adding `_mr` to the input file

DESCRIPTION

The script reads a BibTeX file. It checks whether the entries have mrnumberss. If not, tries to contact internet to get the numbers. The result is a BibTeX file with the fields `mrnumber=...` added.

The name of the output file is either set by the **-o** option or is derived by adding the suffix `_mr` to the output file.

AUTHOR

Boris Veytsman

COPYRIGHT AND LICENSE

6   bbl2bib.pl

Convert thebibliography environment to a bib file

SYNOPSIS

bbl2bib.pl [**-o** *output*] *file*

OPTIONS

-o *output*

> Output file. If this option is not used, the name for the output file is formed by changing the extension to `.bib`

DESCRIPTION

The script tries to reconstruct a `bib` file from the corresponding `thebibliography` environment. One can argue that this operation is akin to reconstructing a cow from the steak. The way the script does it is searching for the entry in the MR database, and creating the corresponding BibTeX fields.

   The script reads a TeX or Bbl file and extracts from it the `thebibliography` environment. For each bibitem it creates a plain text bibliography entry, and then tries to match it in the database. =head1 INPUT FILE

   We assume some structure of the input file:

1. The bibliography is contained between the lines

       \begin{thebibliography}...

   and

       \end{thebibliography}

2. Each bibliography item starts from the line

       \bibitem[...]{....}

EXAMPLES

```
bbl2bib  -o - file.tex > result.bib
bbl2bib  -o result.bib file.bbl
bbl2bib  file.tex
```

AUTHOR

Boris Veytsman

COPYRIGHT AND LICENSE

Index