

# Crossrefware documentation\*

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I am grateful to Josko Plazonic from Princeton Math Dept whose (unpublished) Python script was an inspiration for this suite.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

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Script `bb12bib` 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 Bib $\TeX$  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` with 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 assignments 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

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### 3 bibdoiadd.pl

Add DOI numbers to papers in a given bib file

#### SYNOPSIS

`bibdoiadd [-c config_file] [-C 1|0] [-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.

**-C** 1|0

Whether to canonize names in the output (1) or not (0). By default, 1.

**-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 not, it 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](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 assignments 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
```

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## 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.

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## 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 mrnumbers. 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.

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## 6 **biburl2doi.pl**

Convert URLs pointing to doi.org to DOIs

### **SYNOPSIS**

`biburl2doi [-D] [-o output] bib_file`

### **OPTIONS**

**-D**

Do not delete URLs converted to DOIs

**-o *output***

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

### **DESCRIPTION**

The script recognizes URL fields of the kind `http://dx.doi.org` and their variants and converts them to DOI fields.

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## 7 bbl2bib.pl

Convert thebibliography environment to a bib file

### SYNOPSIS

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

### OPTIONS

**[-d]**

Send debugging output to stdout

**-o *output***

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

**-u**

Do not clean URL fields.

Normally bbl2bib recognizes URL fields of the kind `http://dx.doi.org` and their variants and converts them to DOI fields (see also `biburl2doi(1)` script). The switch **-u** suppresses this cleanup.

### 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.

### 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

```
bb12bib -o - file.tex > result.bib  
bb12bib -o result.bib file.bbl  
bb12bib file.tex
```

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Boris Veytsman

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