
bibo

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Command line reference manager with a single source of truth: the `.bib` file. Inspired by [beets](#).

- Documentation: <https://bibo.readthedocs.io/en/latest>
- Source code: <https://github.com/Nagasaki45/bibo>
- PyPI releases: <https://pypi.org/project/bibo>
- License: [MIT](#)

CONTENT

1.1 Why bibo?

There are many reference managers out there, so why writing another one? bibo is different for a few reasons:

- Your `.bib` and other files (e.g. pdfs) are exactly where you want them.
- No need to export `.bib` files.
- Enjoy the power of the command line.
- Extensible with plugins.

1.2 Installation

1.2.1 Prerequisites

1. On linux, make sure to install `xclip`.
2. Optionally, define the `EDITOR` environment variable to an editor of your choice (this is usually already set on unix systems).
3. Optionally, for improved presentation, install `bibtex`.

1.2.2 pip installation

```
pip3 install bibo
```

On linux / mac you might need to prepend the above command with `sudo` for system wide installation, or, preferably, use the `--user` flag like this:

```
pip3 install --user bibo
```

For more information see the [official packages installation guide](#).

1.2.3 Auto-complete

To activate auto-complete, if you're using Bash add the following to your `.bashrc`

```
eval "$(_BIBO_COMPLETE=bash_source bibo)"
```

If you're on zsh add this to your `.zshrc`

```
eval "$(_BIBO_COMPLETE=zsh_source bibo)"
```

Now, while in the middle of a command, press <TAB> to auto-complete options, arguments, or keys from your `.bib` database.

1.3 Quick start guide

bibo is a command line application, so some familiarity with the command line is assumed. Make sure you followed the *installation* first. Now, let's dive in!

1.3.1 Setting up the database

When running bibo you should tell it where your `.bib` file is. It is commonly done by setting the `BIBO_DATABASE` environment variable. On unix, run the following (google for other OSs).

```
export BIBO_DATABASE=bibo_test.bib
```

Bibo will create the file when we start to add entries to it.

1.3.2 Adding entries

Now, copy the bibtex entry below to the clipboard:

```
@article{einstein1935can,
  title={Can quantum-mechanical description of physical reality be considered complete?},
  author={Einstein, Albert and Podolsky, Boris and Rosen, Nathan},
  journal={Physical review},
  volume={47},
  number={10},
  pages={777},
  year={1935},
  publisher={APS}
}
```

Let's add this entry to bibo's database.

```
bibo add
```

bibo will open your editor and paste the clipboard content to it. You are free to manually edit the raw entry. When ready, save and exit the editor.

We can also add entries by their [digital object identifier \(DOI\)](#).


```
bibo add --doi 10.1037/0033-295X.108.4.814
```

Again, save and exit.

1.3.3 Searching

```
bibo list Albert Einstein
```

will list all entries with the values 'Albert' and 'Einstein' in any field (or type / key). Try to search for the other entry we added by DOI, the one from Haidt.

1.3.4 Opening entries

Try running

```
bibo open haidt
```

It should open the browser and take you to the page where the DOI is pointing. Opening entries with a PDF file in their file field opens the PDF in your reader.

1.3.5 Where to go from here

We have only scratched the surface with the 3 most important commands of bibo: `add`, `list`, and `open`. You can discover the rest of the commands with

```
bibo --help
```

Each command also has a `--help` option. Don't be scared to use it.

1.4 Manual

1.4.1 bibo

Command line reference manager with a single source of truth: the `.bib` file. Inspired by beets.

```
bibo [OPTIONS] COMMAND [ARGS]...
```

Options

--version

Show the version and exit.

--database <database>

Required A path to a `.bib` file. Overrides the `BIBO_DATABASE` environment variable.

Environment variables

BIBO_DATABASE

Provide a default for `--database`

add

Add a new entry to the database.

Find a bib entry you would like to add. Copy it to the clipboard, and run the command. It will be opened in your editor for validation or manual editing. Upon saving, the entry is added to the database.

Don't forget to set the EDITOR environment variable for this command to work properly.

```
bibo add [OPTIONS]
```

Options

--file <file>

Path to file to link to this entry.

--destination <destination>

A folder to put the file in.

--no-copy

Add the specified file in its current location without copying.

--doi <doi>

Add entry by DOI.

edit

Edit an entry.

Use FIELD_VALUE to set fields as follows: `author=Einstein`, or `tags=interesting`. Leave the value empty to open in editor. Set the key or type in the same way.

Don't forget to set the EDITOR environment variable for this command to work properly.

```
bibo edit [OPTIONS] KEY [FIELD_VALUE]...
```

Options

--file <file>

Path to file to link to this entry.

--destination <destination>

A folder to put the file in.

--no-copy

Add the specified file in its current location without copying.

Arguments

KEY

Required argument

FIELD_VALUE

Optional argument(s)

list

List entries in the database.

A SEARCH_TERM matches an entry if it appears in the type, key, or any of the fields of the entry. If multiple search terms are provided an entry should match all of them. It is possible to match against a specific key, type, or field as follows: `author:einstein, year:2018` or `type:book`. Note that search terms are case insensitive.

```
bibo list [OPTIONS] [SEARCH_TERM] ...
```

Options

--raw

Format as raw .bib entries.

--bibstyle <bibstyle>

Bibtex bibliography style to use for citation formatting. For more information check https://www.overleaf.com/learn/latex/Bibtex_bibliography_styles.

--format <format>

Custom format pattern. Use \$ in front of a key, type, or field to create custom formatter. For example: `--format '$author ($year) - $title'`.

--verbose

Show verbose information.

Arguments

SEARCH_TERM

Optional argument(s)

open

Open an entry in the database if a `file`, `url`, or `doi` field exists (with precedence in this order).

A file will be open by the application defined by your system according to the file extension. For example, a PDF should be opened by a PDF reader and a folder should be opened by a file browser. URLs and DOIs should be opened in the web browser

A SEARCH_TERM matches an entry if it appears in the type, key, or any of the fields of the entry. If multiple search terms are provided an entry should match all of them. It is possible to match against a specific key, type, or field as follows: `author:einstein, year:2018` or `type:book`. Note that search terms are case insensitive.

This command fails if the number of entries that match the search is different than one.

```
bibo open [OPTIONS] [SEARCH_TERM] ...
```

Arguments

SEARCH_TERM

Optional argument(s)

remove

Remove an entry from the database or remove a field from an entry.

To remove an entry specify its key. To fields specify the key and list all fields for removal.

```
bibo remove [OPTIONS] KEY [FIELD] ...
```

Arguments

KEY

Required argument

FIELD

Optional argument(s)

1.5 Plugins

bibo is extensible with plugins. Here are some examples by the community:

- [bibo-todo](#): Plugin for bibo, mark entry as todo with optional note.
- [bibo-mark-read](#): A bibo plugin to mark that an entry was read.
- [bibo-check](#): A bibo plugin to check for mess in your files.

Send a pull request to add your bibo plugins to the list.

1.6 Contribution

1.6.1 Installing the development environment

Make sure the *prerequisites* are installed.

Then, preferably in a virtual environment, run

```
pip install -e .[dev]
```

1.6.2 Running tests

```
pytest
```

It automatically checks code formatting with [black](#). If code formatting errors are detected they can be manually fixed, or try running `black ..`

1.6.3 Generating the documentation

```
cd docs
make html
```

To view the documentation, in a separate terminal, run

```
cd _build/html
python -m http.server
```

Now open your browser and go to <http://localhost:8000>.

Cleaning the docs is handy. Use

```
make clean
```

1.6.4 Commits and pull requests

Contributions to bibo are highly welcome! Please include tests for whatever you're working on. Don't worry about code coverage too much. Before committing your changes make sure all tests pass.

Try to include the issue number in the commit message if relevant, as per [this tutorial](#). Use `#XXX` to reference the issue or `Fix #XXX` if issue fixed by the commit.

Pull requests should be based on the dev branch.

Feel free to add yourself to the CONTRIBUTORS file

1.6.5 Plugins development

Take a look at some of the existing [plugins](#). They use the [click-plugins](#) library, so check out its documentation. Note that internal APIs in bibo (and the packages that are installed with it, like `pybibs` and `click_constraints`) will probably change quite a lot until bibo gets a stable release.

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