

Closing The Gaps In The Software Citation Workflow. One @software{...} Citekey At A Time.

Katrin Leinweber (@gittaca)

34c3 - 2017-12-30

Me: kind of a “software librarian” at TIB(.eu)

- ▶ German National Library of Science and Technology, Hannover
- ▶ scientific software services, FAIR data principles, etc.
- ▶ Disclaimer: I’m here as an interested user. Not on behalf of any organisation or project mentioned herein.



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- ▶ some community infrastructures: Debian Science, rOpenSci, CRAN, swMATH.org, SoftwareHeritage.org, etc.

Solution examples for everyone else (#tuwat at the source)

1. Guides.GitHub.com/activities/citable-code + Zenodo.org + Git release = *Digital Object Identifier*...

Settings

Profile

Change password

Linked accounts

Applications

Shared links

GitHub

GitHub Repositories (updated a minute ago) Sync now ...

Get started

1 Flip the switch

Select the repository you want to preserve, and toggle the switch below to turn on automatic preservation of your software.

ON

2 Create a release

Go to GitHub and [create a release](#). Zenodo will automatically download a .zip-ball of each new release and register a DOI.

3 Get the badge

After your first release, a DOI badge that you can include in GitHub README will appear next to your repository below.

DOI 10.5281/zenodo.8475 (example)

Enabled Repositories

arfonsmith/My-Awesome-Science-Software

ON

... plus a free backup at CERN ;-)

[Upload](#)[Communities](#)

May 28, 2015

Software

Open Access

MWX-import: initial release

Katrin Leinweber

Basic functionality is present, see #-comments [in the .R file](#).

Available in

GitHub

Preview



MWX-import-v1.0.zip



katrinleinweber-MWX-import-e64fd58

- .gitattributes 378 Bytes
- .gitignore 791 Bytes
- 150415a-Chl-from-plate-150401aaa-Viaflo- [15-04-15 11-24].MWX 1.0 kB
- 150415a-Chl-from-plate-150401aab-manual- [15-04-15 12-49].MWX 1.0 kB
- 150415a-Chl-from-plate-150401aca-manual- [15-04-15 16-09].MWX 1.1 kB
- 150415a-Chl-from-plate-150401acb-Viaflo- [15-04-15 14-55].MWX 1.1 kB
- MWX-import.R 2.6 kB

Publication date:

May 28, 2015

DOI:

DOI [10.5281/zenodo.18105](https://doi.org/10.5281/zenodo.18105)

Related identifiers:

Supplement to:

<https://github.com/katrinleinweber/MWX-import/tree/v1.0>

License (for files):

[Other \(Open\)](#)

2. CITATION files

- ▶ like LICENSE, COPYING, INSTALL, etc.

```
@book{wickham_ggplot2_2009,  
  author = {Hadley Wickham},  
  title = {ggplot2: elegant graphics for data analysis},  
  ...},  
}
```

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- ▶ Make a wish!¹

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 - ▶ compatible with BibLaTeX, biber, Zotero, etc.
 - ▶ more examples: [GitHub.com/search?q=filename:CITATION](https://github.com/search?q=filename:CITATION)
(You need to be logged in to see the results.)

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3. upcoming: tool-agnostic codemeta.json² standard

- ▶ example from R community: native DESCRIPTION translated by “codemetaR” into:

```
{"@context": [  
  "http://purl.org/codemeta/2.0",  
  "http://schema.org"  
],  
"@id": "https://doi.org10.5281/zenodo.1048320",  
"@type": "SoftwareSourceCode",  
"identifier": "codemetar",  
"description": "... defines a 'JSON-LD' format for ...",  
"issueTracker": "https://github.com/ropensci/codemetar/is  
...}
```

²CodeMeta.GitHub.io

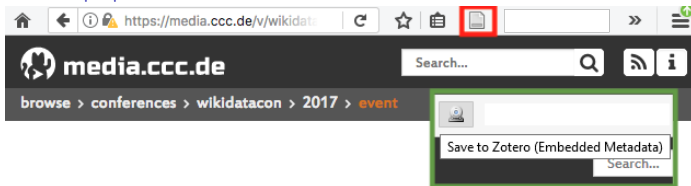
Offering metadata is necessary (but not sufficient!) for improving software citation workflows.

- ▶ in 2018, watch out for CiteAs.org and YAML-based Citation-File-Format.GitHub.io

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- ▶ downstream: contribute GitHub.com/Zotero/translators (.js to extract bibliographic info from websites)

#tuwat++ Zotero translator for media.ccc.de



The screenshot shows the media.ccc.de website. The browser's address bar displays the URL <https://media.ccc.de/v/wikidata>. The website header includes the media.ccc.de logo, a search bar, and navigation links. A breadcrumb trail reads: browse > conferences > wikidatacon > 2017 > event. A green box highlights a Zotero translator interface with a 'Save to Zotero (Embedded Metadata)' button and a search field.

WikiCite: Wikidata as a structured repository of bibliographic data

 **Dario Taraborelli**, **Lydia Pintscher** and **Daniel Mietchen**



DARIO TARABORELLI / C

00:00 | 52:33 | 1.00x

Thanks for your attention! Questions, comments, hints?
To *@gittaca* or *katrin.leinweber@tib.eu*, please! Thanks :-)



Further reading / watching

- ▶ Smith AM, Katz DS, Niemeyer KE, FORCE11 Software Citation Working Group. (2016) Software citation principles. PeerJ Computer Science 2:e86 doi.org/10.7717/peerj-cs.86
- ▶ Katherine Thornton & Finn Årup Nielsen: “Describing Software So We Can Cite Software”
media.ccc.de/v/wikidatacon2017-10013
- ▶ GitHub.com/FORCE11/FORCE11-SCIWG (Software Citation Implementation Working Group of the Future of Research Communication and E-Scholarship)