

# Making software citation easi(er)

## The Citation File Format and its integrations

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Knowledge for Tomorrow



# Citation: We know how to do *this*

## Software citation principles

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## Software citation principles

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**ABSTRACT**

Software is a critical part of modern research and yet there is little support across the scholarly ecosystem for its acknowledgement and citation. Inspired by the activities of the FORCE11 working group focused on data citation, this document summarizes the recommendations of the FORCE11 Software Citation Working Group and its activities between June 2015 and April 2016. Based on a review of existing community practices, the goal of the working group was to produce a consolidated set of citation principles that may encourage broad adoption of a consistent policy for software citation across disciplines and venues. Our work is presented here as a set of software citation principles, a discussion of the motivations for developing the principles, reviews of existing community practice, and a discussion of the requirements these principles would place upon different stakeholders. Working examples and possible technical solutions for how these principles can be implemented will be discussed in a separate paper.

**Subjects** Digital Libraries, Software Engineering  
**Keywords** Software citation, Software credit, Attribution

**SOFTWARE CITATION PRINCIPLES**

The main contribution of this document are the software citation principles, written fairly concisely in this section and discussed further later in the document (see Discussion). In addition, we also motivate the creation of these principles (see Motivation), describe the process by which they were created (see Process of Creating Principles), summarize use cases related to software citation (see Use Cases), and review related work (see Related Work). We also lay out the work needed to lead to these software citation principles being applied (see Future Work).

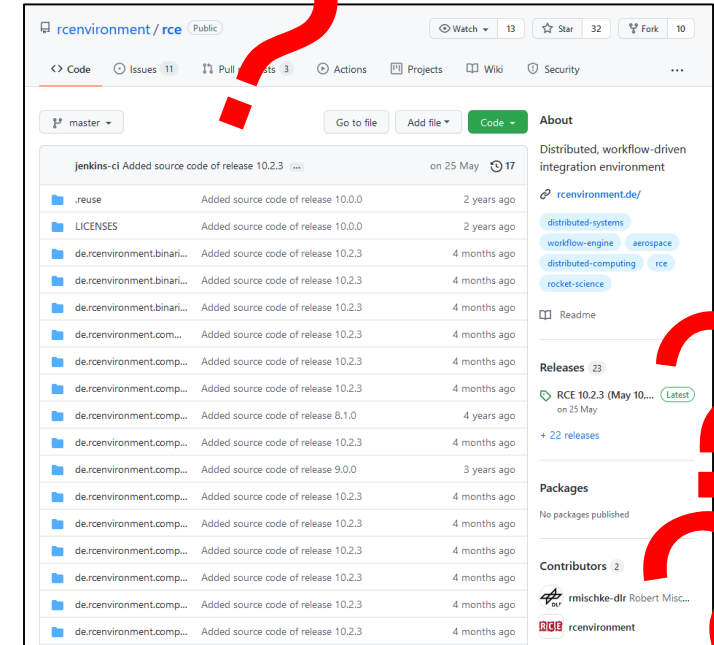
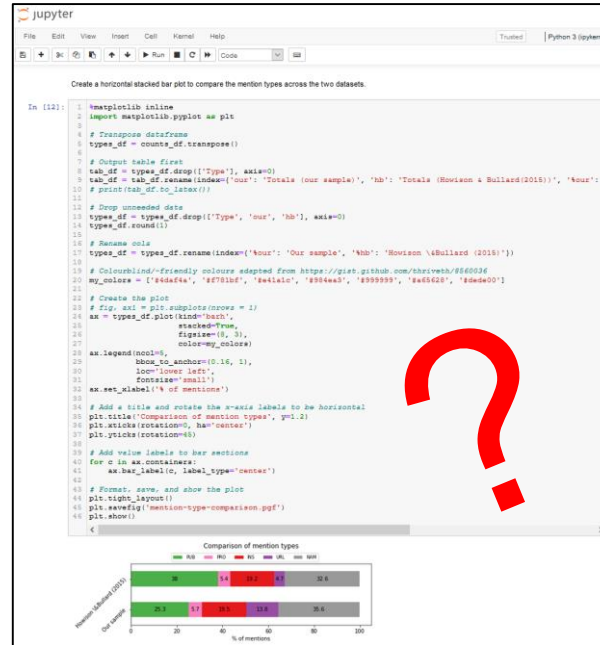
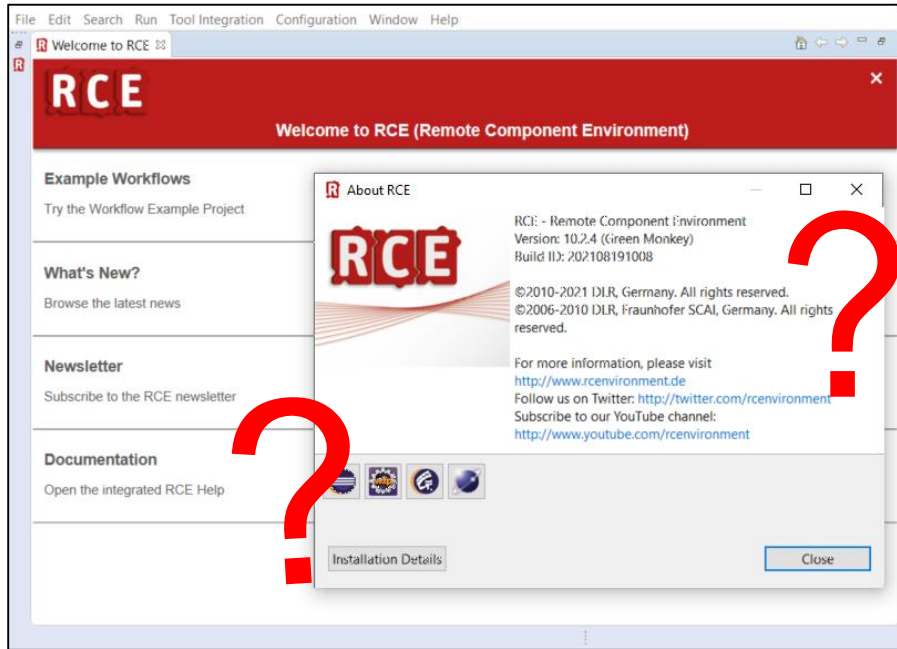
1. **Importance:** Software should be considered a legitimate and citable product of research. Software citations should be accorded the same importance in the scholarly record as citations of other research products, such as publications and data; they should be included in the metadata of the citing work, for example in the reference list of a journal article, and should not be omitted or separated. Software should be cited on the same basis as any other research product such as a paper or a book, that is, authors should cite the appropriate set of software products just as they cite the appropriate set of papers.

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# Problem: Citing software with complete and correct metadata



**METADATA:** Name? Authors? Version? Journal/publisher? Publishing date?



# The Citation File Format (CFF)

- **Community format** for providing software citation metadata in **CITATION.cff** (YAML)
- Focus on (advanced) citation use cases and **usability**
- **Actively developed**
- Integrated with
  - **GitHub**
  - **Zenodo**
  - **Zotero**

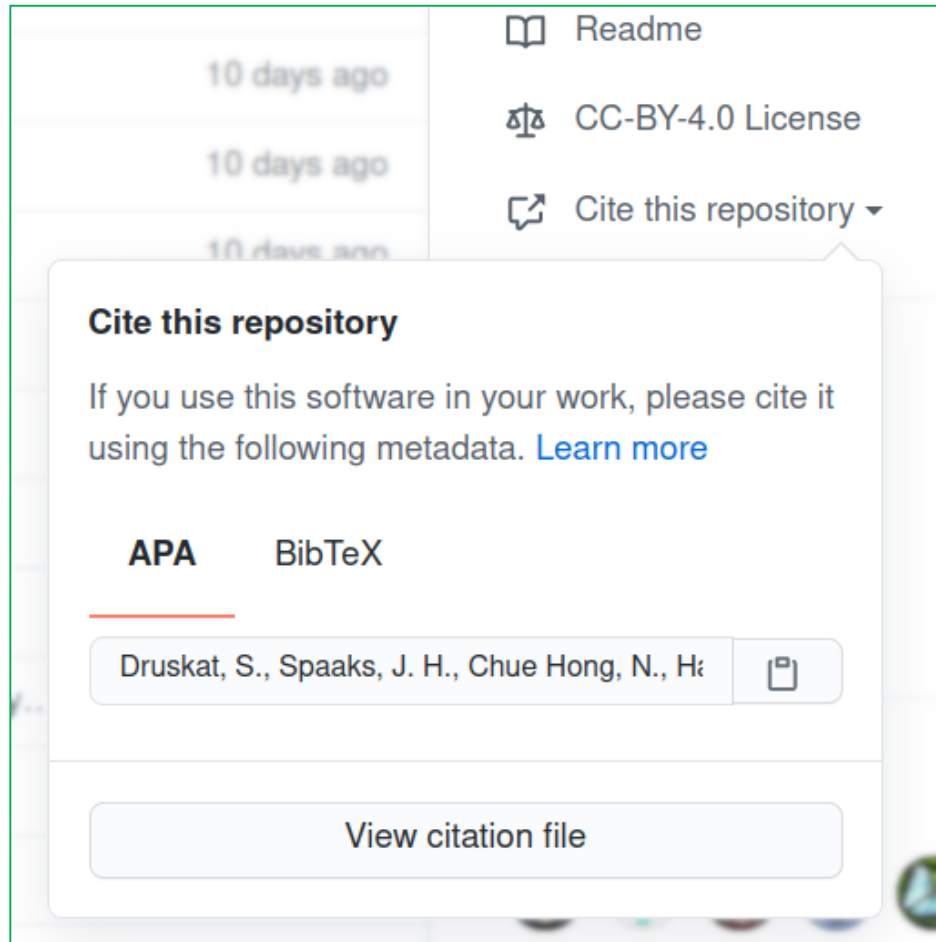


```
cff-version: 1.2.0
message: If you use this software, please cite it using these metadata.
title: My Research Software
abstract: This is my awesome research software. It does many things.
authors:
  - family-names: Druskat
    given-names: Stephan
    orcid: "https://orcid.org/0000-0003-4925-7248"
version: 0.11.2
date-released: "2021-07-18"
identifiers:
  - description: This is the collection of archived snapshots of all versions of My Research Software
    type: doi
    value: "10.5281/zenodo.123456"
  - description: This is the archived snapshot of version 0.11.2 of My Research Software
    type: doi
    value: "10.5281/zenodo.123457"
license: Apache-2.0
repository-code: "https://github.com/citation-file-format/my-research-software"
```

**METADATA:** In a **CITATION.cff** file in the source code repository



# Citation File Format in GitHub



10 days ago

10 days ago

10 days ago

Readme

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Cite this repository ▾

**Cite this repository**

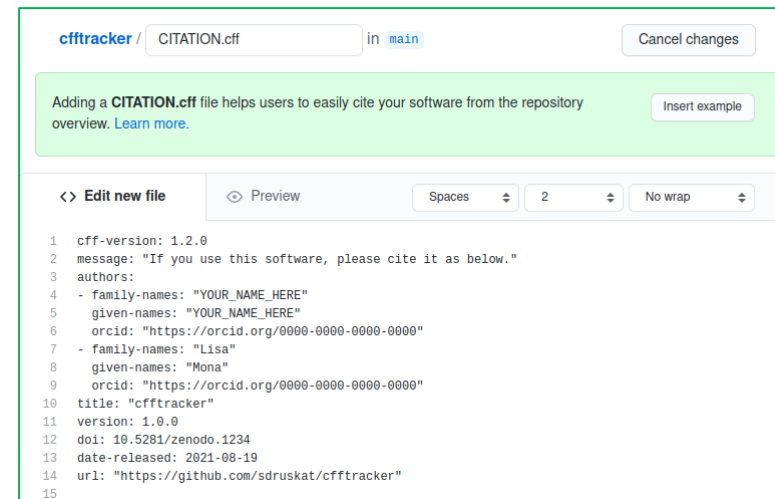
If you use this software in your work, please cite it using the following metadata. [Learn more](#)

**APA**   **BibTeX**

Druskat, S., Spaaks, J. H., Chue Hong, N., H...

View citation file

- Detect **CITATION.cff** files
- Render information (BibTeX, citation styles) based on currently viewed commit
- Link to CITATION.cff file
- Documentation and template



cfftracker / CITATION.cff in main Cancel changes

Adding a **CITATION.cff** file helps users to easily cite your software from the repository overview. [Learn more](#) Insert example

<> Edit new file Preview Spaces 2 No wrap

```
1 cff-version: 1.2.0
2 message: "If you use this software, please cite it as below."
3 authors:
4 - family-names: "YOUR_NAME_HERE"
5   given-names: "YOUR_NAME_HERE"
6   orcid: "https://orcid.org/0000-0000-0000-0000"
7 - family-names: "Lisa"
8   given-names: "Mona"
9   orcid: "https://orcid.org/0000-0000-0000-0000"
10 title: "cfftracker"
11 version: 1.0.0
12 doi: 10.5281/zenodo.1234
13 date-released: 2021-08-19
14 url: "https://github.com/sdruskat/cfftracker"
15
```

# Citation File Format integration in Zenodo

- Uses citation information in **CITATION.cff** via GitHub-Zenodo integration
- No conversion to **.zenodo.json** ...
  - ... unless user supplies advanced (e.g. contributors) information (coming in future CFF version)

GitHub Guides

Video Guides GitHub Help GitHub.com



## Making Your Code Citable

© 10 minute read



Zenodo  
@ZENODO\_ORG



We've just added support for CITATION.cff files in our GitHub integration.

Just push a CITATION.cff file in your repo and we'll use it when registering the DOI via the [@ZENODO\\_ORG @github integration guides.github.com/activities/cit...](#)

Enjoy! 🎉

2:14 PM · Jul 28, 2021



237



9



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# Citation File Format integration in Zotero

Info Notes Tags Related

Citation Key: **druskatHexatomic2021**

Item Type Software

Title Hexatomic

Programmer Druskat, Stephan

Programmer Krause, Thomas

(...) Abstract Hexatomic is an extensible software for deep multi-layer annotation of linguistic corpora

Series Title

Version 0.6.0-SNAPSHOT

Date 2021-03

System

Place

Company

Prog. Language Java

ISBN

Short Title

URL <https://github.com/hexatomic/hexatomic>

Rights Apache-2.0

Archive

Loc. in Archive

Library Catalog GitHub

Call Number

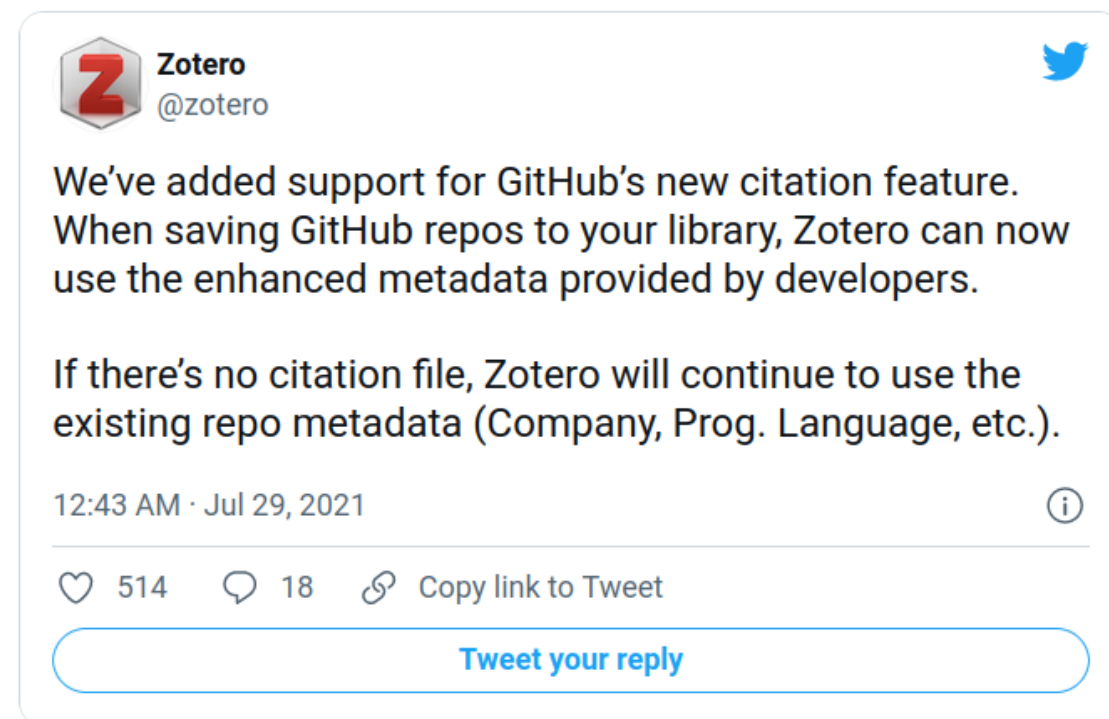
Accessed 8/19/2021, 3:00:24 PM


Extra original-date: 2018-08-27T09:58:58Z

Date Added 8/19/2021, 3:00:24 PM

Modified 8/19/2021, 3:00:24 PM

- Zotero connectors pick up the information in **CITATION.cff**



 **Zotero**  
@zotero

We've added support for GitHub's new citation feature. When saving GitHub repos to your library, Zotero can now use the enhanced metadata provided by developers.

If there's no citation file, Zotero will continue to use the existing repo metadata (Company, Prog. Language, etc.).


12:43 AM · Jul 29, 2021

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## Outlook

- More integrations coming: **JabRef**, perhaps **GitLab** ([#337368](#))
- “One giant leap for the Citation File Format, one small step for software citation.” 
  - (~300 files before GitHub integration, 2,500+ today)
- Open development continues
- Governance will be more formally established
- <https://citation-file-format.github.io>  
<https://github.com/citation-file-format/citation-file-format/>

