

Software Citation

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- **Why** make software citable!?
- The **Citation File Format**
- Generating and validating **CITATION.cff** files
- Automatically archiving releases of your software using **GitHub** and **Zenodo**

Why make software citable?

- Software is a **scientific product**, and should be **recognized** as such
 - Lowering the bar for humans to do so
 - Enabling machines to recognize software metadata
- **Credit** where credit is due: an important part of scientific integrity
- Remove the need for an accompanying journal publication

(hello 21st century!)

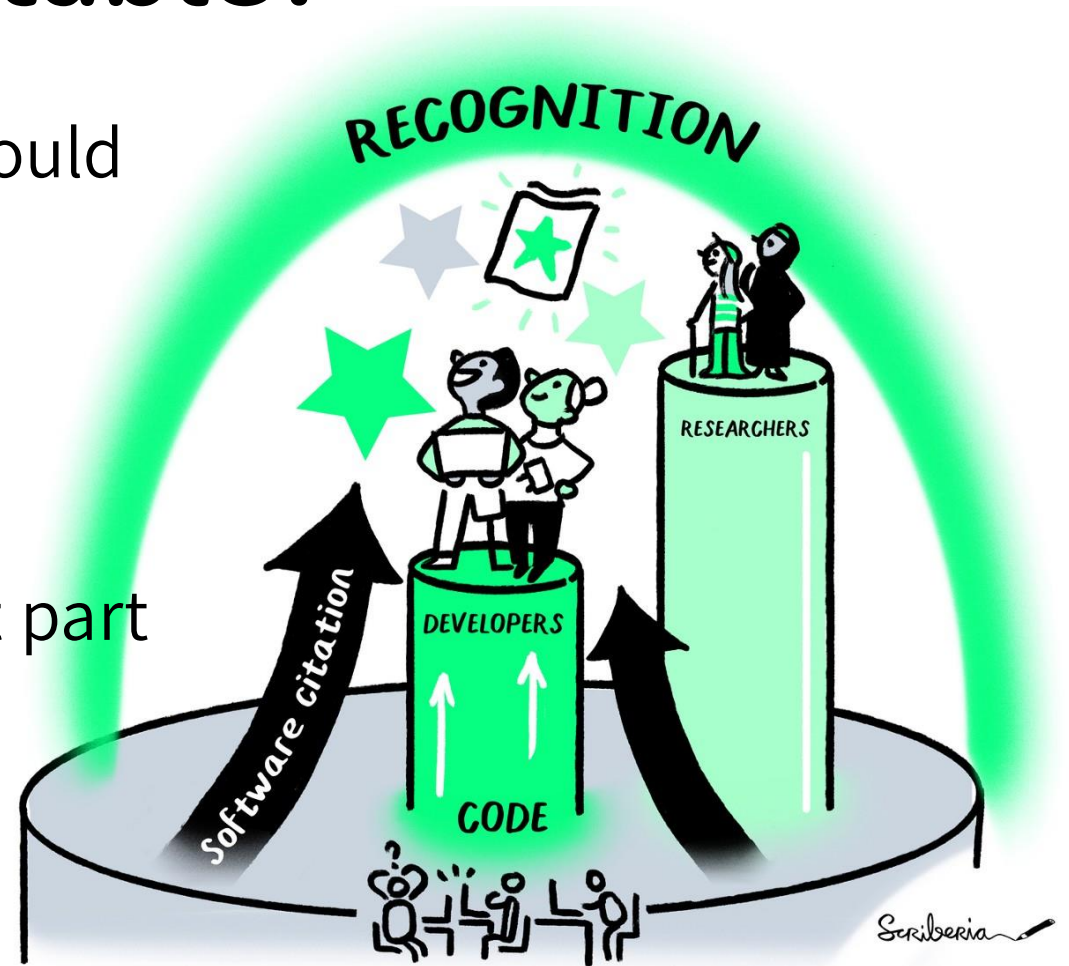


Image by Scriberia for The Turing Way (CC-BY)

What more can we achieve?

- Improving software **findability**
 - No confusion about the precise software used...
 - ...or its version!
- Increasing scientific **reproducibility**
 - Retrieve specific software versions in archived format



Where to start?

How to cite,
what?
Metadata?

The image shows a screenshot of a GitHub repository page for the project 'phenology/cgc'. The repository is a clustering tool for geospatial applications. The page displays the repository's structure, including folders like '.github/workflows', 'cgc', 'docs', 'examples', and 'tests', and files like '.gitignore', '.zenodo.json', 'CHANGELOG.rst', 'CITATION.cff', 'CODE_OF_CONDUCT...', 'CONTRIBUTING.rst', and 'LICENSE'. A pull request #26 is visible, merged on 18 Sep 2020. The repository has 5 stars and 1 fork. The 'About' section describes the tool and provides links to 'cgc.readthedocs.io', a 'Readme', and the 'Apache-2.0 License'. The 'Releases' section shows version 'v0.2.1' as the latest release on 18 Sep 2020. The 'Contributors' section shows 5 contributors. The 'Languages' section shows 'Python 100.0%'. A 'README.rst' file is highlighted in the foreground.

Enabling research software citation



1

Provide citation
information in a
standardized format



2

Archive software snapshots
with persistent identifiers
(e.g. DOI – Digital Object
Identifier)



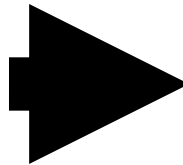
Citation File Format

```
1 # YAML 1.2
2 ---
3 cff-version: "1.1.0"
4 message: "If you use this software, please cite it using these metadata."
5 title: "My OSF research software"
6 abstract: "Here I can provide a long description of my tool"
7 authors:
8   -
9     affiliation: "Netherlands eScience Center"
10    family-names: Nattino
11    given-names: Francesco
12    orcid: "https://orcid.org/0000-0003-3286-0139"
13    date-released: 2020-02-11
14    version: "0.1.0"
15 keywords:
16   - "Open Science"
17   - Citation
18 license: "Apache-2.0"
19 repository-code: "https://github.com/fnattino/OSF-enable-citation"
20 ...
```

.cff

Persistent identifiers

- Archive snapshots of research software for reproducibility
- Version-specific persistent identifiers (e.g. DOI)
- Automatic archiving upon release (**Zenodo**)



Citing software



Share

Cite as

Verhoeven, Stefan, Drost, Niels, Weel, Berend, Smeets, Stef, Kalverla, Peter, Alidoost, Fakhreh, Vreede, Barbara, Hut, Rolf, Aerts, Jerom, van Werkhoven, Ben, & van de Giesen, Nick. (2022). eWaterCycle Python package (1.3.0). Zenodo. <https://doi.org/10.5281/zenodo.6472252>

Start typing a citation style...

Export

[BibTeX](#) [CSL](#) [DataCite](#) [Dublin Core](#) [DCAT](#)
[JSON](#) [JSON-LD](#) [GeoJSON](#) [MARCXML](#)
[Mendeley](#)



Go to file

Code

About

ago 175 commits

3 months ago

21 days ago

21 days ago

Python package for run models

[Readme](#)

[View license](#)

[Code of conduct](#)

[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**

Verhoeven, S., Drost, N., Weel, B., Smeets,



View citation file

Ready?

- Log in to GitHub
 - Choose a repository you want to work with
- OR**
- Make a new repository

NB! A GitHub repository is optional for step 1, but you will need it for step 2.



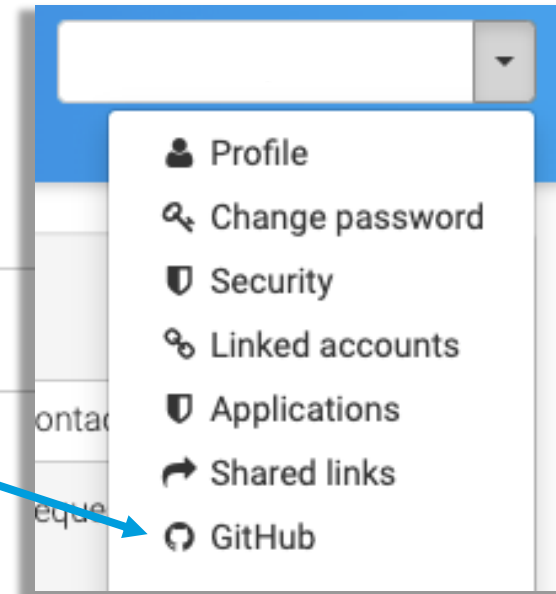
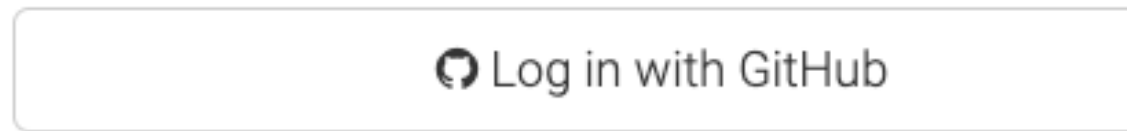
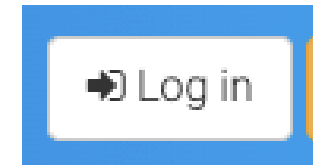
Generating your CITATION.cff

1. Go to: **bit.ly/cffinit**
2. Press **CREATE** and follow the steps
3. Download your CITATION.cff

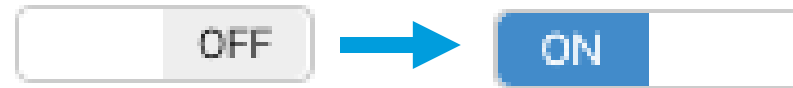
(**Zenodo is forever.** For today's purposes we'll be playing in the sandbox.
For actual projects, go to **zenodo.org**.)



sandbox.zenodo.org



Find your project, then flip the switch:



Go to GitHub, and create a new release:

Releases

No releases published

[Create a new release](#)



Find these tutorials:

1

Initialize a CITATION.cff at:

<https://citation-file-format.github.io/cff-initializer-javascript>

OFF

2

Guide for archiving GitHub repository with Zenodo:

<https://guides.github.com/activities/citable-code/>



Let's stay in touch

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