

Accessibility and Reproducibility

Best Practices for Writing Reproducible Code // part 5

Let's think about the future...

Will this repository still be here in five years?

Will my account?

Will GitHub?

Archiving the project



Zenodo has a sandbox environment!

- Not the main data repository, but still functional.
- You will get an *actual* DOI, and your project will (probably?) not be deleted!
- Only do this following exercise if you are OK with your code staying online!
- You will not be able to do this with a private repository.


Zenodo and Github have a pipeline that makes your life easier! (*Check the full how-to [on GitHub](#).*)


Your turn:


- Go to: sandbox.zenodo.org, and log in with GitHub. (If you do not have GitHub, simply sign up for a zenodo account; some of the coming steps you will need to do manually...)
- GitHub will then ask permission to give Zenodo access; click "Authorize application".


Select your repository


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

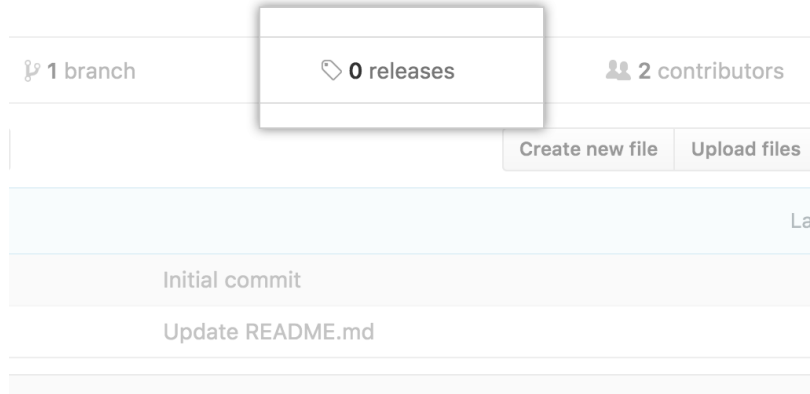
(example)

Enabled Repositories

 [arfonsmith/My-Awesome-Science-Software](#)

ON

Release your project!



... and follow the workflow!

(Unsure about version number? Wait a slide! :-))

Semantic versioning

A version has three numbers: MAJOR.MINOR.PATCH

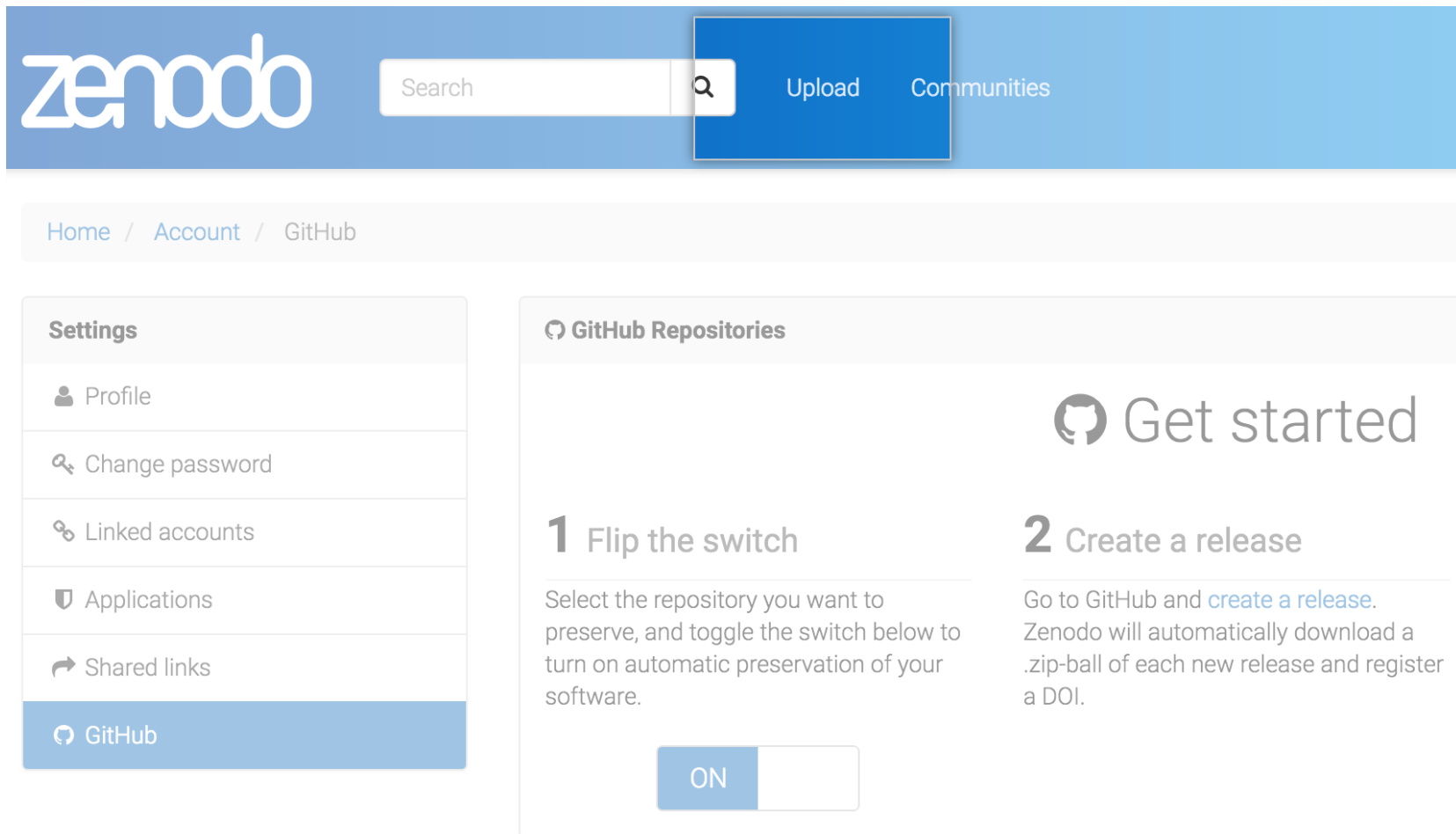
- MAJOR version denotes changes that alter the compatibility (i.e. someone using your functions may need to change their use for their code to still work),
- MINOR version adds functionality, but remains compatible
- PATCH version makes (compatible) bug fixes.

(If your bug fix changes compatibility, it is therefore a MAJOR version change!)

You can release today with v0.1.0

Check zenodo

Your code is now uploading to Zenodo: you can check it under the 'upload' tab:



The screenshot displays the Zenodo website interface. At the top, a blue navigation bar contains the Zenodo logo, a search bar, and links for 'Upload' and 'Communities'. The 'Upload' link is highlighted with a blue box. Below the navigation bar, a breadcrumb trail shows 'Home / Account / GitHub'. On the left, a 'Settings' sidebar lists options: Profile, Change password, Linked accounts, Applications, Shared links, and GitHub (which is selected and highlighted in blue). The main content area is titled 'GitHub Repositories' and features a 'Get started' section with two steps: 1. Flip the switch, which includes a toggle switch currently set to 'ON', and 2. Create a release, which includes instructions to go to GitHub and create a release, with Zenodo automatically downloading a .zip-ball of each new release and registering a DOI.

zenodo

Search

Upload

Communities

Home / Account / GitHub

Settings

- Profile
- Change password
- Linked accounts
- Applications
- Shared links
- GitHub**

GitHub Repositories

Get started

- 1 Flip the switch**

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Getting your DOI

- Add some final descriptions
- Click 'publish'
- Voilà!

✕ Discard changes

Save Publish

Edit upload

Instructions: (i) Upload minimum one file or fill-in required fields (marked with a red star). (ii) Press "Save" to save your upload for editing later. (iii) When ready, press "Publish" to finalize and make your upload public.

Filename (1 files)	Size	Checksum ⓘ
arfonsmith/My-Awesome-Science-Software	7 Kb	md5:b7b8760dad30e0a3d36496a3dc3f1d1d

Note: File addition, removal or modification are not allowed after an upload has been published. This is because a Digital Object Identifier (DOI) is registered with [DataCite](#) for each upload. If you made a mistake please [contact us](#).

Upload type

required

Publication

Poster

Presentation

Dataset

Image


Video/Audio

Software

Lesson

Basic information

required

 Digital Object Identifier

10.5281/zenodo.19630

Optional. Did your publisher already assign a DOI to your upload? If not, leave the field empty and we will register a new DOI for you. A DOI allows others to easily and unambiguously cite your upload.

Getting your DOI

Do you know your DOI?

As a final touch (only with real Zenodo!): you can take your DOI and place it as a badge at the top of your README.

```
[![DOI](https://zenodo.org/badge/doi/YOUR.DOI.svg)](http://dx.doi.org/YOUR.DOI)
```

This is not recommended with a Sandbox DOI, because sandbox projects are not permanent. The Sandbox DOI will not work like a normal one does!

Are you ready?

Let's exchange projects!

Please go to the second tab in the status chart tinyurl.com/repcochart, and fill out:

- your project name
- your project (github) URL
- your name
- the language in which the project was written

in the yellow columns.

NB this information will be deleted right after the course

Now, write your name in one of the blue columns behind a project you will reproduce.

We hope that everyone's repository will get a reproduction-attempt, so only add your name to the second column if there are no repos left (for you)!

As you reproduce, please give your colleague feedback!

Open an issue in your colleague's GitHub repository and copy/paste this [feedback template](#)