Contribution ID: **74** Type: **Workshop or Hackathon**

Automating your FAIR software publications with HERMES –a hands-on workshop

Thursday, March 7, 2024 9:00 AM (1h 30m)

RSEs are required to publish reproducible software to satisfy the FAIR for Research Software Principles. To save RSEs the arduous labor of manual publication of each version, they can use the tools developed in the HERMES project. HERMES (HElmholtz Rich MEtadata Software Publication) is an open source project funded by the Helmholtz Metadata Collaboration. The HERMES tools help users automate the publication of their software projects and versions together with rich metadata. They can automatically harvest and process quality metadata, and submit them to tool-based curation, approval and reporting processes. Software versions can be deposited on publication repositories that provide PIDs (e.g. DOIs).

In this hands-on workshop, we briefly present and demonstrate HERMES before guiding RSE participants through setting up the HERMES publication workflow for their own software projects. We also cater for participants who want to deploy HERMES for their own infrastructure.

The workflow follows a push-based model and runs in continuous integration (CI) infrastructures such as GitHub Actions or GitLab CI. This gives users more control over the publication workflow compared to pull-based workflows (e.g. the Zenodo-GitHub integration). It also makes them less dependent on third-party services. Rich descriptive metadata is the key element to useful software publications. The workflow harvests existing metadata from source code repos and connected platforms. Structured metadata could for example come from a Citation File Format file or a CodeMeta file. Unstructured data could be everywhere, especially in the code or the README file. HERMES processes, collates and optionally presents the gathered data for curation to keep a human in the loop. In curation, output can be controlled and errors reduced. After approval, HERMES prepares the metadata and software artifacts for automatic submission to FAIR publication repositories.

In the course of the workshop, RSEs are enabled to employ HERMES for their own projects through following a live coding session on an example project. We will address any problems that arise along the way and help participants solve them. Finally, we will discuss potential improvements of the HERMES workflow based on the hands-on experience participants made.

The workshop should last about 90 min. The target audience is everyone who deals with research software. Researchers, developers, curators and supervisors are welcome as well as everyone interested. No specific expertise or previous experience is needed. We work with GitHub or GitLab, and use their continuous integration tools, so some previous experience with these platforms may be helpful.

Slot length

other(help with comment)

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