Contribution ID: **36** Type: **Poster**

Towards Research-Object-Crate v1.2, with ro-crate-java

Tuesday 10 October 2023 14:30 (15 minutes)

Research Object Crate (RO-Crate) is an open, community driven data package specification to describe all kinds of file-based data, as well as entities outside the package. In order to do so, it uses the widespread JSON-format, representing Linked Data (JSON-LD), allowing to link to external information. This makes the format flexible and machine-readable. These packages are being referred to as (RO-)crates.

Similar to other formats, RO-Crates is based on files and folders and has a single metadata file to describe the whole package. Therefore, such packages are easy to share between different computer systems and software.

In order to create such crates, the RO-Crate community developed libraries written in different programming languages like Python, Ruby, JavaScript, and Java. With Describo, there is also a graphical user interface available.

We developed the ro-crate-java library, which allows creating, modifying and validating crates using the Java Programming Language. The focus of development was the ease of use: We aimed to make it intuitive and easy to create valid crates, without knowing the specification too well. Our implementation can be used for integration into repositories or other services or tools. The library was introduced in the HMC conference 2022 poster session. This follow-up poster will give a preview on a draft feature which is available in the RO-Crate 1.2-DRAFT specification and has been requested a lot: the ability to specify the conformance with multiple profiles within one crate.

Profiles are "a set of conventions, types and properties that one minimally can require and expect to be present in that subset of RO-Crates"(RO-Spec 1.1). They may be used to validate the crate against institutional constraints or to guarantee required information for further processing or visualization.
The new specification includes the possibility to create crates with multiple profiles being specified. As this is an often requested feature, this is now a supported feature since ro-crate-java v1.1.0. The library now makes a difference between stable and unstable features and will update the specification version accordingly.

This research has been supported by the Helmholtz Metadata Collaboration (HMC) Platform, the German National Research Data Infrastructure (NFDI) and the German Research Foundation (DFG).

Please assign your contribution to one of the following topics

Technological solutions for findable and machine-readable metadata

Please specify "other" (stakeholder)

In addition please add keywords.

linked data metadata files folders

Please assign yourself (presenting author) to one of the stakeholders.

Data professionals who provide and maintain data infrastructure

Primary author: PFEIL, Andreas (Karlsruhe Institute of Technology (KIT))

Presenter: PFEIL, Andreas (Karlsruhe Institute of Technology (KIT))

Session Classification: Poster session

Track Classification: Poster session