

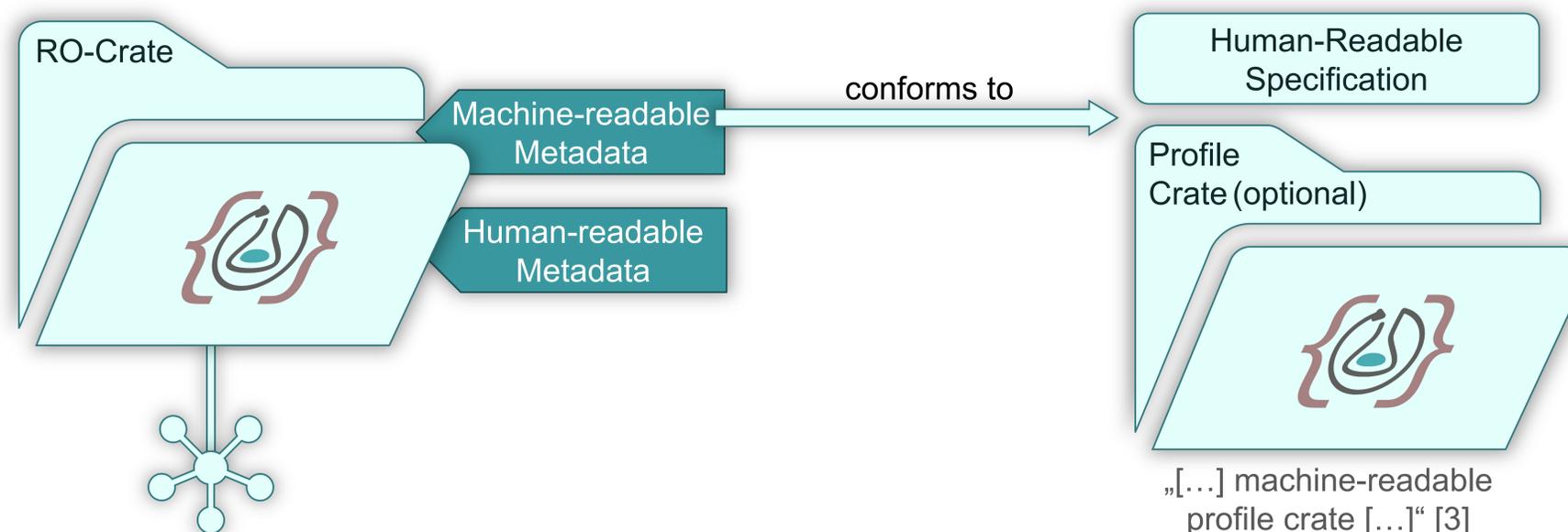
# Towards Research Object Crates 1.2, with ro-crate-java

## Set your own constraints to Research Object Crates

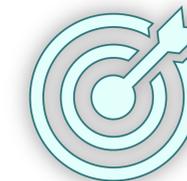
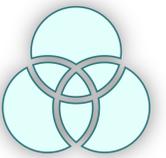
Andreas Pfeil

**Research Object Crate** (RO-Crate) [1] is an open, community-driven **data package specification** to describe all kinds of file-based data, as well as entities outside the package, using JSON-LD. This makes the RO-crates **flexible and machine-readable**. Several libraries exist to support the creation of crates. We are developing **ro-crate-java** in order to allow integration into Java (and Java-compatible) applications. It aims to **guide the user** into making **valid, well-described** crates.

**Profiles** allow adding further **constraints** to the content of the crate. The **draft** for the new version 1.2 [2] allows specifying **multiple profiles per crate**. This is now supported in our Java library, **ro-crate-java**, starting from version 1.1.0. With this draft, we see further potential for our existing validation functionality based on JSON-Schema, as well as new guiding functionality for creating profiles.



„[...] profile: a set of conventions, types and properties that one minimally can require and expect to be present [...]“ [3]



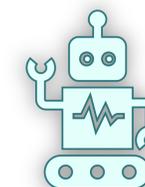
„[...] classifier to indicate the crate’s purpose, expectations and focus [...]“ [3]

„[...] Profiles can be considered a duck typing mechanism [...]“ [3]



„[...] consistent creation [...]“ [3]

„[...] reliable programmatic consumption [...]“ [3]



„[...] machine-readability, for instance for validation [...]“ [3]

[1] <https://www.researchobject.org/ro-crate/1.1/>

[2] <https://www.researchobject.org/ro-crate/1.2-DRAFT/> (last visited: 2023-09-19)

[3] <https://www.researchobject.org/ro-crate/1.2-DRAFT/profiles.html> (last visited: 2023-09-19)

Take a look documentation and code of ro-crate-java!



<https://kit-data-manager.github.io/webpage/ro-crate-java/>