The Metadata Viewer: A Template-Driven, Flexible Approach to Improve Dataset Discoverability

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High quality, well structured, interpretable metadata is central to **FAIR**ness **(Findable, Accessible, Interoperable, Reusable)** thus for timely evaluation of datasets. Yet metadata is often exposed in raw formats, slow to interpret and lack consistent use of community standards

CEDAR
https://metadatacenter.org

Driven by **CEDAR** templates

- ✔ Encode **community standards**
- ✔ Changes reflected **automatically**
- ✔ **No extra coding** needed
- ✔ Specify:
  - ✔ Metadata structure
  - ✔ Constraints
  - ✔ Value sets
  - ✔ Ontology bindings

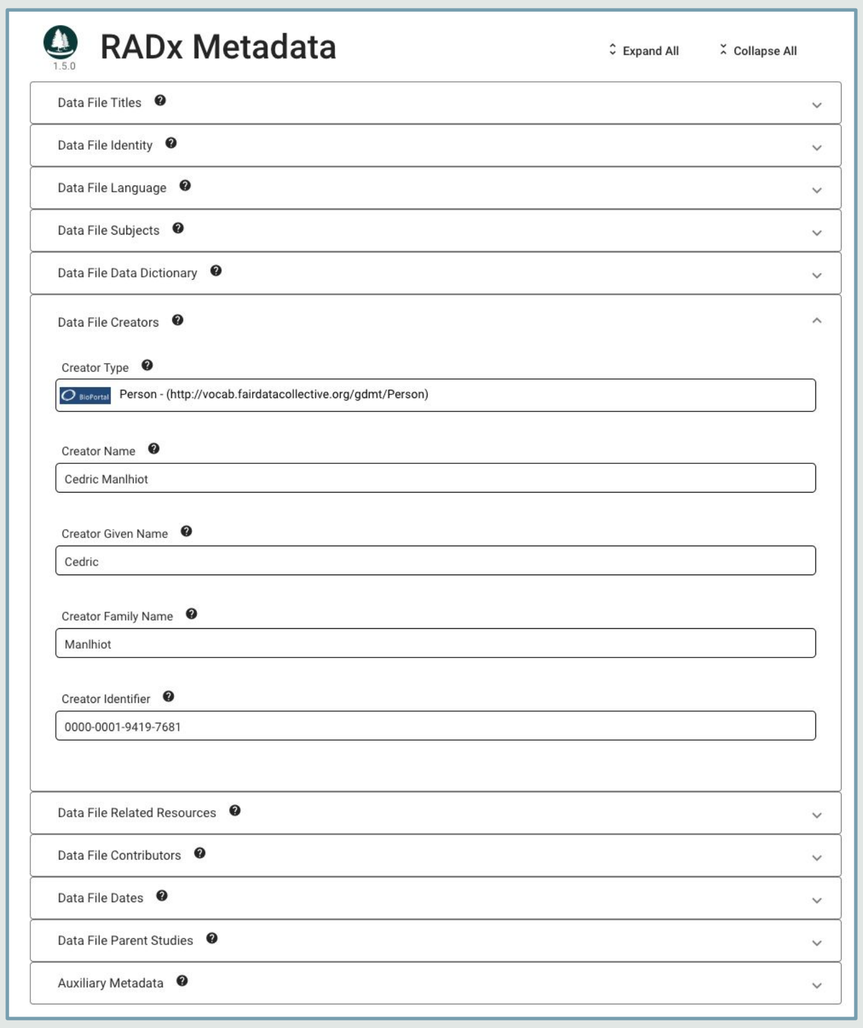
Distributed with **NPM** for ease of installation and version management

SCAN ME

Metadata Viewer

Add to your system **effortlessly**

```
<cedar-embeddable-editor
  [config]="conf"
  [templateObject]="template"
  [instanceObject]="instance"
></cedar-embeddable-editor>
```



- Implemented as a reusable **web component**
- Easily **configurable** by passing a config object to the component
- **Accessibility-Compliant:** Adheres to accessibility standards like WCAG
- **Co-located Metadata:** Metadata can securely reside alongside your data by being easily embedded into your existing system

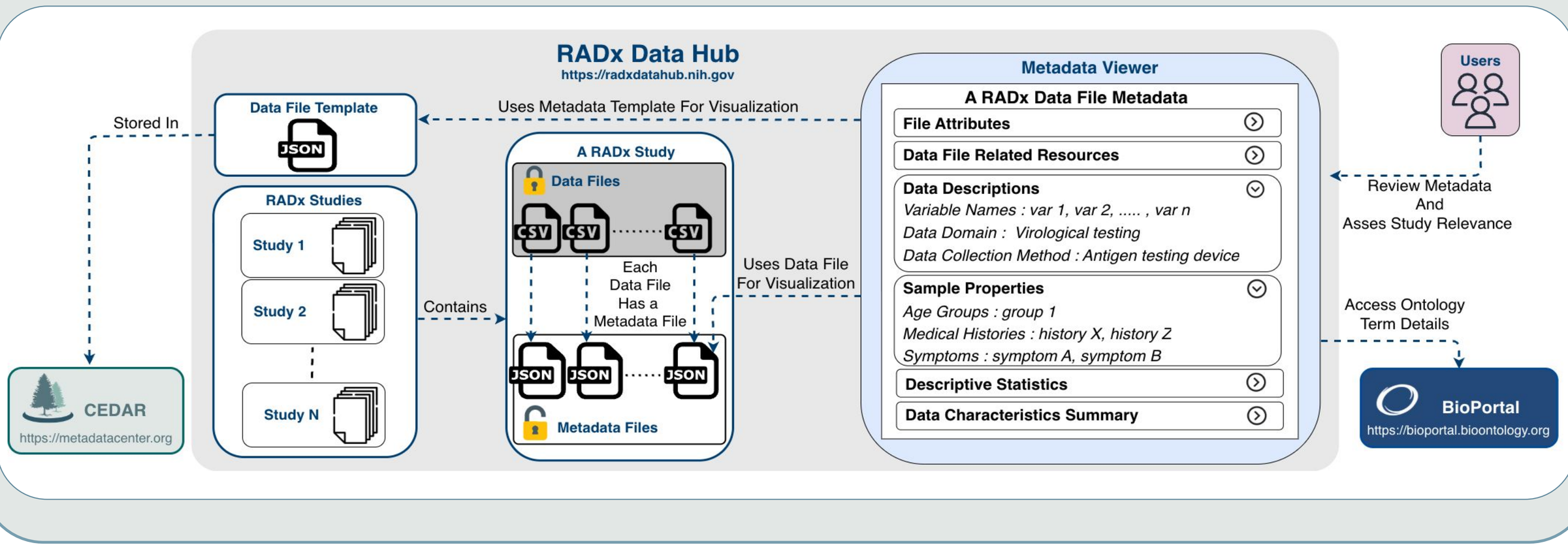
BioPortal
https://bioportal.bioontology.org

Linked **ontology terms** ensure field values conform to controlled vocabularies and ontologies, promoting **semantic consistency**

Fields can be linked to **external authorities** to enrich interpretation and improve alignment with standards

- ORCID
- ROR
- PubMed
- PFAS — PER- AND POLY-FLUOROALKYL SUBSTANCES
- Research Resource IDentification

Metadata Viewer in Action at RADx Data Hub



References

1. Musen MA, et al. The center for expanded data annotation and retrieval. JAMIA. 2015 Jun 25;22(6):1148–52
2. Martínez-Romero, Marcos, et al. "A Cloud-Based Platform for Harmonized COVID-19 Data: Design and Implementation of the Rapid Acceleration of Diagnostics (RADx) Data Hub." JMIR Public Health and Surveillance 11.1 (2025): e72677.
3. Vendetti, Jennifer, et al. "BioPortal: an open community resource for sharing, searching, and utilizing biomedical ontologies." Nucleic Acids Research (2025): gkaf402.

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