



# Introduction to the Recommended Metadata Element Set

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# Ambition for the Metadata Element Set

- Starting point for developing new domain standards
- Tool for analysing existing metadata schemes
- 'Rosetta Stone' for interconverting between arbitrary standards

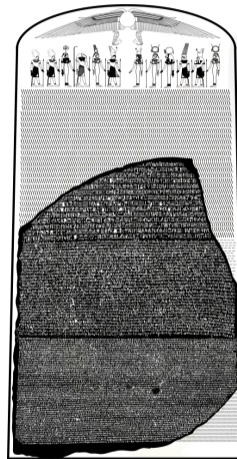


Image: A. Parrot, under CC BY-SA 4.0 CC BY SA



# The Metadata Standards Catalog

Metadata Standards Catalog Search Sign in

## EngMeta

EngMeta is an XML-based formal definition of information necessary to find, understand, reproduce and reuse data from engineering disciplines. The schema was defined together with engineers from aerodynamics and thermodynamics and lies a focus on computational engineering, but is general enough to cover other engineering disciplines.

EngMeta defines metadata-fields for the description of the components of the observed system (object of research), the observed variables, the spatial and temporal resolution of the observation and the steps taken in the research process to generate, process, analyse and visualize the data. It is based on existing standards like DataCite, PREMIS, CodeMeta and ExptML and is implemented as two metadata blocks for repositories based on the open-source repository platform Dataverse.

Used in Engineering

## Documentation

Visit website

## Identifiers

Internal MSC ID mscm100

Metadata record

conforms

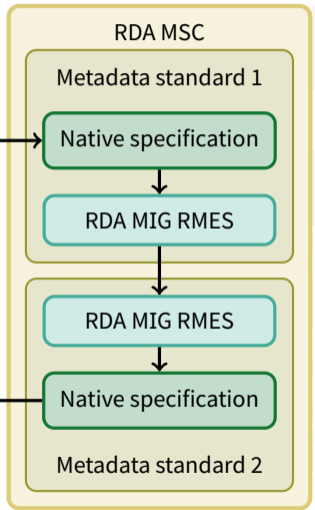
Conversion requires

- matching
- mapping

Metadata record

conforming

<https://rdamsc.bath.ac.uk/>





## Work towards metadata packages

1. Data in Context Interest Group led collection of **metadata use cases**
2. Metadata Interest Group **analysed elements** used
  - Analysis spreadsheet and explanatory slides:  
<https://rd-alliance.org/use-case-analysis.html>
3. Metadata Element Set debated at RDA Plenary meetings
4. Now in the process of 'unpacking' the elements



# Recommended Metadata Element Set

## Dataset

Unique identifier

Description

Keywords

Spatial coordinates

Temporal coordinates

Location

Medium/format

Availability

Schema

Quality

Provenance

Originator

Project

Related publications

Related software

Citations

Facility

Equipment



# Element set priorities

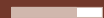
Survey with n = 37

(ordered by mean; median only differs where shown)

- |                       |                          |                              |
|-----------------------|--------------------------|------------------------------|
| 1.  Unique identifier | 7.  Temporal coordinates | 13.  Schema                  |
| 2.  Description       | 8.  Spatial coordinates  | 14.  Citations               |
| 3.  Location          | 9.  Medium/format        | 15.  Related publications    |
| 4.  Originator        | 10.  Provenance (2↓)     | 16.  Facility/equipment (2↑) |
| 5.  Keywords          | 11.  Quality             | 17.  Related software        |
| 6.  Availability      | 12.  Project             |                              |

**Gaps to consider**

Repository name (data publisher)	→	Originator
Title (main, alternative, abbreviated)	→	Description
Methodology, Sampling procedure	→	Description





## Priorities for today

Based on Schembera, B. and Iglezakis, D. (2020), 'EngMeta: Metadata for Computational Engineering', *International Journal of Metadata, Semantics and Ontologies*, 14 (1). doi: [10.1504/IJMSO.2020.107792](https://doi.org/10.1504/IJMSO.2020.107792):

1.  Schema
2.  Provenance
3.  Description
4.  Temporal coordinates
5.  Spatial coordinates
6.  Related software
7.  Medium/format
8.  Keywords
9.  Originator
10.  Related publications
11.  Availability
12.  Facility/equipment
13.  Project
14.  Unique identifier



Thank you for your attention

Metadata Interest Group: <https://www.rd-alliance.org/groups/metadata-ig.html>

Recommended Metadata Element Set: <http://bit.ly/2nDH5Lr>