Research Data Management Organiser

Jochen Klar

Leibniz-Institut für Astrophysik Potsdam (AIP)

rdmorganiser.github.io
Project RDMO

• Funded by the German Research Foundation (DFG)
• November 2015 - April 2017
• Follow-up project planned

Team

Claudia Engelhardt (FHP) – Jochen Klar (AIP) – Martin Heger (FHP, Master student)
Harry Enke (AIP) – Heike Neuroth (FHP) – Jens Ludwig (DINI/nestor AG)
Project RDMO

We develop a tool to support the systematic planning, organisation and implementation of research data management throughout the course of a project. An additional feature will be the output of a data management plan in the form of a text document.
Project RDMO

FDMP-Werkzeug → DMP werkzeug → RDMO
Why RDMO?

Organizer instead of plan

- Organize the data management over the whole lifetime of a project and beyond
- Engage all stakeholders

Local instead of central

- Full customization of the content
  - disciplinary context
  - institutional environment
- Easily deployable for universities, institutes, infrastructures, collaborations ...
Software

- Wep application based on Python, Django, AngularJS and Pandoc
- Authentication with LDAP, Shibboleth, OAuth
- Demo instance available at https://rdmo.aip.de

Open Source

- Open-Source development from day one, Apache 2.0 License
- Code on GitHub at https://github.com/rdmorganiser/rdmo
- Documentation at http://rdmo.readthedocs.io
- Tests with Travis CI and Coveralls, Releases with GitHub, DOI with Zenodo
Concept and Community

- Update of the work done in the WissGrid context
- Structure of the questionnaire
  - Sequence and interdependence of questions, what to skip?
  - Templates for DMP output
  - Internationalization (English, German)
- User tests with
  - Solar physics group/GREGOR Telescope at AIP
  - TwinLife at DIW
- Workshops with various partner projects/institutions
- Exchange with GFBio, bwFDM, DMPRoadmap, (German-) DMP community
### My Projects

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ein neues Forschungsdatenmanagementprojekt</td>
<td>Owner</td>
<td>Dec. 9, 2016, 10:02 p.m.</td>
</tr>
<tr>
<td>Research Data Management Organiser (RDMO)</td>
<td>Owner</td>
<td>Nov. 16, 2016, 3:08 p.m.</td>
</tr>
</tbody>
</table>

### My Data

<table>
<thead>
<tr>
<th>Name</th>
<th>ORCID ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jochen Klar</td>
<td>0000-0002-5883-4273</td>
</tr>
</tbody>
</table>

### My Groups

### Options

Create new project
Questionnaire for project Research Data Management Organiser (RDMO)

General / Topic

What is the main research question of the project?


Please give some keywords describing the research question.

Please enter the keywords line by line. You can add keywords using the green button and remove them using the red cross (x).

- Forschungsdatenmanagement
- Datenmanagement
- Datenmanagementplan
- active DMP
- Werkzeug

Add keyword
Questionnaire for project Research Data Management Organiser (RDMO)

General / Topic

Which research field(s) does this project belong to?

The list of disciplines follows the subject classification of the DFG (German Research Foundation).

Please enter the disciplines line by line. You can add disciplines using the green button and remove them using the red cross (∓).

- Humanities and Social Sciences / Fine Arts, Music, Theatre and Media Studies
- Life Sciences / Basic Biological and Medical Research
- Natural Sciences / Astrophysics and Astronomy
- Humanities and Social Sciences / Economics
- Humanities and Social Sciences / Jurisprudence
- Life Sciences / Basic Biological and Medical Research
- Life Sciences / Plant Sciences
- Life Sciences / Zoology
- Life Sciences / Microbiology, Virology and Immunology
- Life Sciences / Medicine
- Life Sciences / Neurosciences
- Life Sciences / Agriculture, Forestry, Horticulture and Veterinary Medicine
- Natural Sciences / Molecular Chemistry
- Natural Sciences / Chemical Solid State and Surface Research
- Natural Sciences / Physical and Theoretical Chemistry
- Natural Sciences / Analytical Chemistry, Method Development (Chemistry)
- Natural Sciences / Biological Chemistry and Food Chemistry
- Natural Sciences / Polymer Research
- Natural Sciences / Condensed Matter Physics
- Natural Sciences / Optics, Quantum Optics and Physics of Atoms, Molecules and Stimors
Questionnaire for project Research Data Management Organiser (RDMO)

Technical classification / Data

Please fill in the form for each dataset. The different datasets will be referred to in following questions. You can add a new dataset using the green button. Once created, you can edit or delete datasets using the buttons in the top right corner.

What is the actual or expected size of the dataset?

- less than 1 GB
- 1 GB to 1 TB
- 1 TB to 100 TB
- more than 100 TB
- exact size: [blank]
- not yet defined

How much data is produced per year?

Optional. This is only of concern if the data production rate reaches TB scale.
Horizon 2020

1. Data Summary

What is the purpose of the data collection/generation and its relation to the objectives of the project?

Dataset Anforderungen_FDMP: Als Referenz bezüglich der Anforderungen der verschiedenen Stakeholder an das Tool, insbesondere solcher, die im FDMP-Projekt noch nicht oder nicht vollständig umgesetzt werden konnten.

Dataset Anforderungen_RDMD: Um die inhaltlichen und technischen Anforderungen der verschiedenen Stakeholder an das Tool zu dokumentieren, strukturieren und analysieren.

Dataset Sourcecode and Dokumentation: Entwicklung des RDMD

What types and formats of data will the project generate/collect?

Dataset Anforderungen_FDMP: docx und pdf XML, HTML text format for readme, protocols etc.

Dataset Anforderungen_RDMD: docx und pdf XML, HTML text format for readme, protocols etc.

Dataset Sourcecode and Dokumentation: text formats for readme, protocols, source code

Will you re-use any existing data and how?

Dataset Anforderungen_FDMP: Re-used

Dataset Anforderungen_RDMD: Created

Dataset Sourcecode and Dokumentation: Re-used

What is the origin of the data?


Dataset Anforderungen_RDMD: None

RDMO Architecture
Questions

RDMO

Section General rdm/general

Subsection Topic rdm/general/topic

Question set rdm/general/topic/research_question → project/research_question
What is the main research question of the project?

Question rdm/general/topic/research_question/title → project/research_question/title
Please give some keywords describing the research question.

Question rdm/general/topic/research_field → project/research_field/title
Which research field(s) does this project belong to?

Subsection Project schedule rdm/general/project-schedule

Question set rdm/general/project-schedule/schedule → project/schedule

Catalog

Filter

Options

Update catalog details
Delete catalog
Create new catalog
Create new section
Create new subsection
Create new question set
Create new question

Export

PDF
Rich Text Format
Open Office
Microsoft Office
HTML
Markdown
Comment
for Germany, the classification works, but we may consider also DDC as an option

Additional internal information about this question.

Subsection
rdmo/general/topic
The subsection this question belongs to.

Parent
---
The question set this question belongs to.

Attribute
project/research_field/title
The attribute this question belongs to.

Order
1
The position of this question in lists.

Widget type
Select drop-down
Type of widget for this question.

Text (en)
Which research field(s) does this project belong to?

Welcher Disziplin / welchen Disziplinen ist das Projekt zuzuordnen?

The English text for this question.

Help (en)
The list of disciplines follows the <a href="http://www.dfg.de/en/dfg_profiles/statutory_bodies/review_boards/subject_areas/index.jsp?target=_blank">subject classification of the DFG (German Research Foundation)</a>.


The English help text for this question.
Template

```html
<p>{{ values.project.research_question.keywords | join: ', ' }}</p>
</p>
</p>

% for dataset in values.project.dataset %

<i>Dataset {{ dataset.id }}: </i> {{ dataset.versioning_strategy }}

% endfor %

% for dataset in values.project.dataset %
</p>
</p>

<i>Dataset {{ dataset.id }}: </i>

% endfor %

% for dataset in values.project.dataset %
</p>
</p>

<i>Dataset {{ dataset.id }}: </i>

% endfor %

<h3>2.2. Making data openly accessible</h3>

Which data produced and/or used in the project will be made openly available as the default. If certain data sets cannot be shared (or need to be shared under restrictions), explain why.

The template for this view, written in Django template language.
Who will use RDMO

- Leibniz-Institute for Astrophysics (AIP)
- Göttingen eResearch Alliance (eRA)
- bwFDM-info
  - Karlsruhe Institute of Technology
  - University of Konstanz
  - Universität Stuttgart
- University of Duisburg-Essen
Who will use RDMO

- Leibniz-Institute for Astrophysics (AIP)
- Göttingen eResearch Alliance (eRA)
- bwFDM-info
  - Karlsruhe Institute of Technology
  - University of Konstanz
  - Universität Stuttgart
- University of Duisburg-Essen
- ...
Get involved!

- Website: rdmorganiser.github.io
- GitHub organization: github.com/rdmorganiser
- RDMO application: github.com/rdmorganiser/rdmo
- Generic questionnaire: github.com/rdmorganiser/rdmo-catalog
- Documentation: rdmo.readthedocs.io
- Demo: rdmo.aip.de
- Mailinglist: DMPW@LISTSERV.DFN.DE
- GitHub issues: github.com/rdmorganiser/rdmo/issues
RDMO aims

- to organize the data management over the whole lifetime of a project
- to involve all stakeholders involved in data management
- to use a structured interview to enter all information needed for a sustainable data management
- to provide various ways to retrieve and utilize the entered data
- to be highly customizable for local or field-specific requirements
- to be easily deployable within any institution
RDMO aims

- to organize the data management over the whole lifetime of a project
- to involve all stakeholders involved in data management
- to use a structured interview to enter all information needed for a sustainable data management
- to provide various ways to retrieve and utilize the entered data
- to be highly customizable for local or field-specific requirements
- to be easily deployable within any institution

- Slides: https://rdmorganiser.github.io/talks/egu2017
- Contact: jklar@aip.de, @jochenklar