



Leibniz-Institut für
Astrophysik Potsdam

RDMO

Research data management organizer

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RDMO

A tool for the structured planning, implementation, and administration of research data management.

Additionally, it will have the feature of creating a textual data management plan for a proposal.



Team

- Claudia Engelhardt (FHP)
- Jochen Klar (AIP)
- Harry Enke (AIP)
- Heike Neuroth (FHP)
- Jens Ludwig (DINI/nestor AG)

Funding

Deutsche Forschungsgemeinschaft

Project duration

November 2015 – April 2017

Data management plans

A data management plan or DMP is a formal document that outlines how you will handle your data both during your research, and after the project is completed.

- Optimization of data management from the earliest stages of new project, during its lifetime, and beyond.
- Guidelines for the different stakeholders on how to handle the data acquired/used in the project.
- Planning of data publications and long-term preservation.
- Increase of quality and efficiency of scientific work.
- Beneficial to the researcher, the institution, and the funder.

– Wikipedia: https://en.wikipedia.org/wiki/Data_management_plan

Data management plans

- Required by various funders in USA and UK
- Part of the Open data research Pilot in Horizon 2020
- Mentioned in DFG Guidelines on the Handling of Research Data
- Several Tools:
 - DMPonline
 - DMPTool
 - Clarin-D
 - Uni Bielefeld
- Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020
ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
- Guidelines on Data Management in Horizon 2020
ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf
- DFG Guidelines on the Handling of Research Data
http://www.dfg.de/en/research_funding/proposal_review_decision/applicants/submitting_proposal/research_data/index.html

Motivation

- Today, DMP are seen:
 - as a requirement to be fulfilled in the application process
 - as static documents, to be finalized before the project starts
 - as a communication between the project administration and the funder
- Existing tools focus on:
 - discover and edit the DMP templates of the different funders
 - produce textual plans to be filed and forgotten
- Existing tools are centralized web applications:
 - Transfer of potentially sensitive information
 - Limited customization by institutes or universities
 - Limited customization for particular disciplines and fields
 - Not re-deployable without investing considerable effort

Design goals

- Collaborative editing and maintenance of all necessary information for a sustainable data management of a research project
- Access and specific views for all relevant stakeholders
- Output of a textual data management plan
- Input via a structured interview
 - Skipping redundant questions, different levels of complexity
 - Fine grained input, accessible widgets, sensible feedback
- Full customization of the content
 - Institutional context
 - Research field
- Easily deployable for universities, institutes, etc.

Development

- Web based application using Python Django and AngularJS
- Open-Source (Apache 2, <https://github.com/rdmorganiser>)

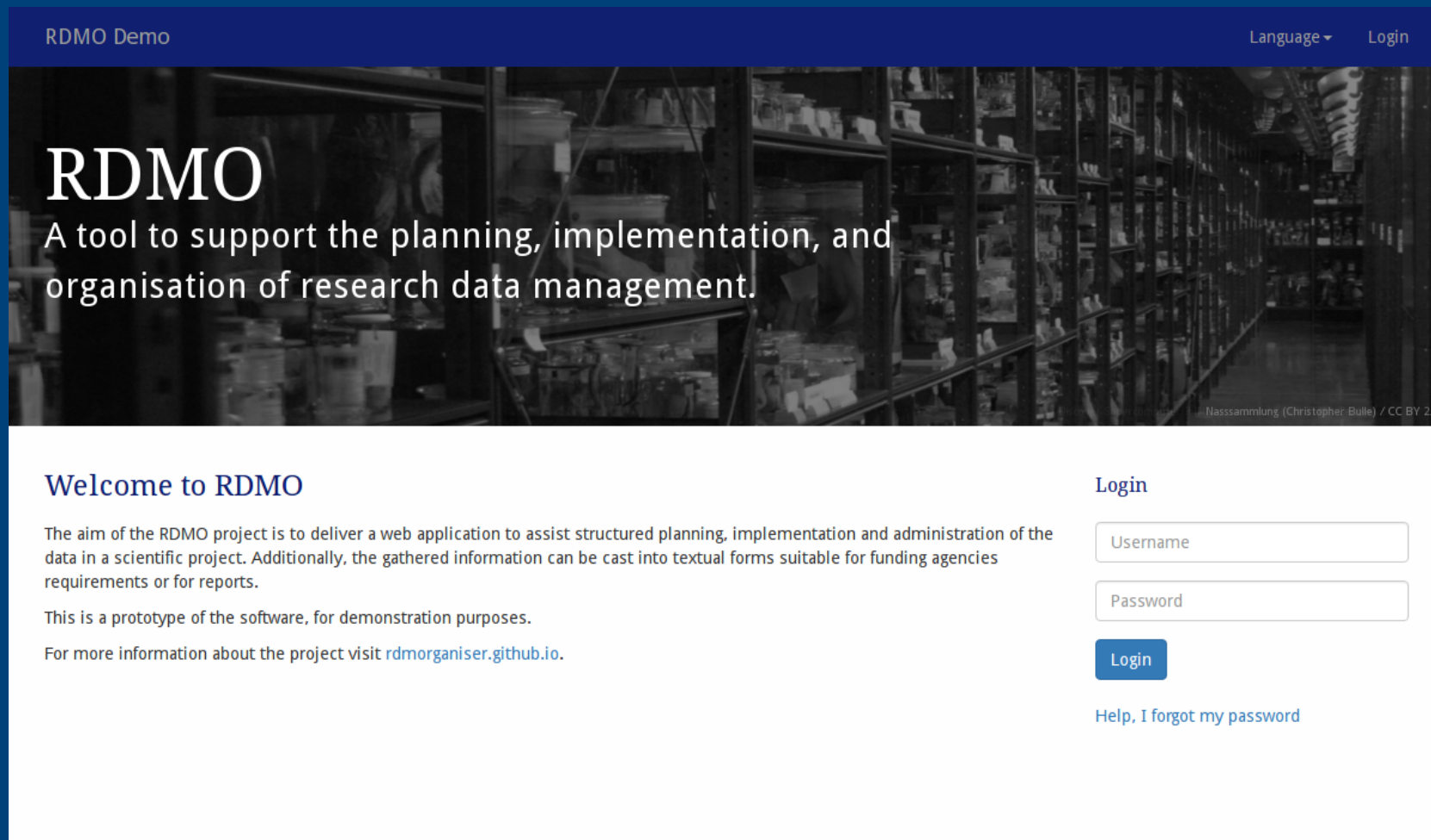
Challenges

- White-label solution to allow for customized look and feel
- Integration into existing infrastructure (e.g. authentication)
- Interoperability (other instances, other software)
- Preservation of the DMPs
- Providing APIs to work with the DMPs
- Using external APIs from repositories and other infrastructures

Conceptual design and Community

- Update of the work done in the WissGrid context
 - Checklist for research data management
 - Field specific content for astronomy and social sciences
- Structure of the questionnaire
 - Sequence of questions, what to skip?
 - Options for select fields
 - Internationalization (English, German)
- User tests with:
 - GREGOR Fabry-Pérot Interferometer (Astronomy)
 - TWINLIFE (Psychology, Social Sciences)
- Workshops with various partner projects/institutions
 - WissGrid checklist: rdmorganiser.github.io/docs/Leitfaden_Data-Management-WissGrid.pdf

Tour



The screenshot shows the RDMO Demo web application. At the top, there is a dark blue header with "RDMO Demo" on the left and "Language" and "Login" on the right. Below the header is a large image of a library or archive with the text "RDMO A tool to support the planning, implementation, and organisation of research data management." overlaid. Below the image is a white content area with a "Welcome to RDMO" section, a "Login" section with input fields for "Username" and "Password", and a "Login" button. A link "Help, I forgot my password" is also present.

RDMO Demo Language Login

RDMO

A tool to support the planning, implementation, and organisation of research data management.

Masssammlung (Christopher Bulle) / CC BY 2.0

Welcome to RDMO

The aim of the RDMO project is to deliver a web application to assist structured planning, implementation and administration of the data in a scientific project. Additionally, the gathered information can be cast into textual forms suitable for funding agencies requirements or for reports.

This is a prototype of the software, for demonstration purposes.

For more information about the project visit rdmorganiser.github.io.

Login

Username

Password



Login

[Help, I forgot my password](#)

Tour

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My Projects

Name	Owner	Created	
RDMO	Jochen Klar	June 27, 2016, 1:44 p.m.	 

My Data

Name
Jochen Klar
ORCID_ID
orcid.org/0000-0002-5883-4273

My Groups

Options

[Create new project](#)

Tour

RDMO Demo Management Admin Language Jochen Klar

Questionnaire for project *RDMO*

General / Topic

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

The list of disciplines correlates to 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 (×).

Natural Sciences / Astrophysics and Astronomy ×

--- Please select --- ×

--- Please select --- ×

Add discipline

Back Skip Save input Save input and proceed

Progress

Progress bar

Navigation

Please note that using the navigation will discard any unused input.

[skip to previous page](#)
[skip to next page](#)

[Back to project overview](#)

Overview

General

- Topic
 - What is the main research quest...
 - Which research field(s) does this...
- Project schedule
- Project partners
- Funding
- Other requirements
- Content classification
- Technical classification

Tour

RDMO Demo

Management ▾

Admin

Language ▾

Jochen Klar ▾

1. Data Summary

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

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

Will you re-use any existing data and how?

What is the origin of the data?

What is the expected size of the data?

To whom might it be useful ('data utility')?

Options

PDF

Rich Text Format

Open Office

Microsoft Office

HTML

Markdown

mediawiki

LaTeX

[Back to project overview](#)

2. FAIR data

2.1 Making data findable, including provisions for metadata

Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)?

What naming conventions do you follow?

Will search keywords be provided that optimize possibilities for re-use?

Do you provide clear version numbers?

What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

2.2. Making data openly accessible

Which data produced and/or used in the project will be made openly available as the default? If certain data sets cannot

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Questions

RDMO

Section General

Subsection Topic

Question set `project.research_question`

What is the main research question of the project? `project.research_question.title`

Please give some keywords describing the research question. `project.research_question.keywords`

Question

Which research field(s) does this project belong to? `project.research_field.title`

Subsection Project schedule

Question set `project.schedule`

When does the project start? `project.schedule.project_start`

Catalog

RDMO

Filter

Options

- Update catalog details
- Delete catalog
- Create new catalog
- Create new section
- Create new subsection
- Create new questionset
- Create new question

Export

- PDF
- Rich Text Format
- Open Office
- Microsoft Office
- HTML

Summary

- DMPwerkzeug aims
 - to cover the data management over the whole duration 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
- A *usable* prototype should be available end of this year.
- Get involved:
 - DMPW@LISTSERV.DFN.DE
 - rdmorganiser.github.io
 - github.com/rdmorganiser



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Thank you!

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rdmorganiser.github.io

forschungsdaten.org

www.aip.de