

# Repository for machine-actionable DMPs

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- DMPs are static documents usually in the form of PDFs
- MaDMPs in JSON format allow automatic processing
- Official RDA recommendation
- We have developed a novel prototype of a maDMP repository

# Challenges

- MaDMPs contain nested objects and arrays
- Storing maDMPs in a database can be inflexible and inefficient
- Tools should provide both a user-friendly interface and full flexibility

# Main Features

- Submitting maDMPs as JSON
- Hiding fields for other users on submission
- Automated assignment of (Datacite) DOIs
- Powerful search
  - field-wise search
  - combined search
  - full-text search

# Submitting maDMPs

Mapledocs

login

search

Submit maDMPs

upload

Choose File | dmp-without-a-join | Choose .json file for upload

clear selection | validate against schema | upload

Hide fields

Specify a list of fields to hide from other users. Enter any valid jsonpath expression excluding the implicit prefix \$.dmp.  
For example modified.contributor.xlsx.project[\*].description  
Add fields to hide

Preview

\* dmp

title: "DMP without a DOI"

description: "DMP describing more than one dataset"

created: "2018-07-23T10:10:23.0"

modified: "2019-02-22T15:10:56.0"

\* project

\* contact

idbox: "381ksa@bda-research.org"

name: "Thomas Miksa"

\* contact\_id

identifier: "https://orcid.org/0009-0000-0000-0000"

type: "orcid"

language: "eng"

ethical\_issues\_avst: "no"

\* dataset

Mapledocs

validation successful against current schema

search

Submit maDMPs

upload

Choose File | maDMP\_C\_analysis.json | Choose .json file for upload

clear selection | validate against schema | upload

Hide fields

Specify a list of fields to hide from other users. Enter any valid jsonpath expression excluding the implicit prefix \$.dmp.  
For example modified.contributor.xlsx.project[\*].description  
Add fields to hide

Preview

\* dmp

title: "COVID-19 Gold Price Analysis"

description: "The current global finance crisis not only has a huge impact on health systems around the world, but also on the economic situation. Gold is traditionally known to be a go-to asset in times of crisis and uncertainty and its price therefore usually increases when stock indices collapse. However, the Austrian newspaper *Der Standard* recently published an article (<https://derstandard.at/15870767>) claiming that current market activity during the finance crisis contradicts this theory. They also state that the gold price will stabilize again in the medium term as this also happened on other occasions. This experiment aims at a data-driven approach to make verifications of these assumptions easier. The development of the number of finance cases and deaths in each country over time is compared to the corresponding gold prices. Since we have not yet overcome the current situation, validating assumptions about medium-term consequences on the gold price cannot be made now, but might be with future data."

language: "eng"

created: "2020-04-08T10:43:00Z"

modified: "2020-04-08T10:32:00Z"

\* dmp\_id

identifier: "https://doi.org/10.5281/zenodo.3742227"

type: "doi"

\* contact

# Hiding fields with JSONpath expressions

## Hide fields

Specify a list of fields to hide from other users. Enter any valid jsonpath expression excluding the implicit prefix '\$.dmp.'

For example: modified, contributor.mbox, project[\*].description

modified ✕

contact.mbox ✕

dataset[0].distribution.byte\_size ✕

dataset[\*].distribution[\*].description ✕

Add fields to hide

Preview

```
▼ dmp:
  title: "DMP with hidden fields"
  description: "DMP describing more than one dataset"
  created: "2018-07-23T10:10:23.6"
  modified: "2019-02-22T15:10:56.9"
  ▼ project:
    ▼ contact:
      mbox: "TMiksa@sba-research.org"
      name: "Tomasz Miksa"
      ▼ contact_id:
        identifier: "https://orcid.org/0000-0000-0000-0000"
        type: "orcid"
    language: "eng"
    ethical_issues_exist: "no"
```

title

description

created

modified

project

# Searching for maDMPs: full text

The image displays two side-by-side screenshots of the Mapleduca search interface, illustrating the results of a full-text search for 'maDMPs'.

**Left Screenshot:** The search term is 'data'. The results list includes:

- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Hypertree Decompositions for Query Optimization in Postgres  
Identifier: 10.5281/zenodo.3758547  
Author: Alexander Selzer
- World Development Indicators Visualization DMP  
Identifier: <https://doi.org/10.5281/zenodo.3757932>  
Author: Eladith Arafat
- World Development Indicators Visualization DMP  
Identifier: <https://doi.org/10.5281/zenodo.3757932>  
Author: Eladith Arafat

**Right Screenshot:** The search term is 'data analyst'. The results list includes:

- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Life Expectancy Analysis and Prediction  
Identifier: <https://doi.org/10.5281/zenodo.3778717>  
Author: Marlon James
- Calculation of nice („sunny“) days based on small privately owned solar thermal collector systems  
Identifier: <https://doi.org/10.5281/zenodo.3758943>  
Author: Roland Wulmer
- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Corona data analysis tool mDMP  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benati
- Analysis of multilayer perceptron on hypothyroid dataset using Weka DMP  
Identifier: <https://doi.org/10.5281/zenodo.3757963>  
Author: Marlon Resende

# Searching for maDMPs: specific fields

Mapledocs [login](#)

search **Search maDMPs**

upload

Full-Text Search Combine Search Conditions Search specific JSON fields

Items per page: 10 1 - 3 of 3

**Corona data analysis tool mDMP**  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benoit

**Corona data analysis tool mDMP**  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benoit

**Corona data analysis tool mDMP**  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benoit

Mapledocs [login](#)

search **Search maDMPs**

upload

Full-Text Search Combine Search Conditions Search specific JSON fields

Items per page: 10 1 - 4 of 4

**COVID-19 Gold Price Analysis**  
Identifier: 10.5281/zenodo.3742227  
Author: Ludwig Rautscher

**Corona data analysis tool mDMP**  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benoit

**COVID-19 Gold Price Analysis**  
Identifier: 10.5281/zenodo.3742227  
Author: Ludwig Rautscher

**Corona data analysis tool mDMP**  
Identifier: 10.5281/zenodo.3746776  
Author: Lucas Benoit

**COVID-19 Gold Price Analysis**  
Identifier: 10.5281/zenodo.3742227  
Author: Ludwig Rautscher

**Life Expectancy Analysis and Prediction**  
Identifier: 10.5281/zenodo.3778717  
Author: Marcos Jansz



# Searching for maDMPs: combined conditions

Mapledocs [login](#)

search **Search maDMPs**

upload

Full-Text Search Combine Search Conditions Search specific JSON fields

Ethical issues ☐ no ☐ yes ☐ any

Embargo ☐ no ☐ yes ☐ any

Creation Date From  To

Modification Date From  To

Contact Person

Dataset

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**COVID-19 Gold Price Analysis**  
Identifier: <https://doi.org/10.5281/zenodo.3742227>  
Author: Ludwig Barthelemy

Mapledocs [login](#)

search **Search maDMPs**

upload

Full-Text Search Combine Search Conditions Search specific JSON fields

Ethical issues

Embargo

Creation Date

Modification Date

Contact Person

Contact name  Contact email  Contact identifier  Identifier type

Dataset

Dataset identifier  Dataset ID Type  Distribution Host Title  Metadata Standard Id  Metadata Standard Id To

Items per page: 10 1 - 1 of 1

**Hypertree Decompositions for Query Optimization in Postgres**  
Identifier: 18.5281/zenodo.3739547  
Author: Alexander Behler

- Finding similar maDMPs
- Efficiently searching large amounts of maDMPs
- Publishing maDMPs with some fields hidden to the public

- Github repository:  
`https://github.com/lucasberent/mapleDocs`
- Web page: `https://lucasberent.github.io/mapleDocs/`