

# Secondary Publication



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## InvenioRDM at the University of Bamberg

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University of Bamberg



# InvenioRDM at the University of Bamberg

Michael Groh & Christina Zeller

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# Uni Bamberg and InvenioRDM

## University of Bamberg

- humanities, cultural studies, social sciences, economics, applied computer science
- ~800 researchers
- ~11000 students

## Research Data Repository (“FD-Repo”)

- general non specific purpose repo
- <https://fd-repo.uni-bamberg.de>
- live since November 2022
- 38 datasets 16GB (28. May 2024)





39 result(s) found

Sort by Newest

Versions

View all versions

March 4, 2024 (Memory\_version1) Dataset Open

**Masterdatei der im Wortbildungs-Memory verwendeten Lexeme**

Birzer, Sandra; Steinbach, Andrea

Dieser Datensatz begleitet die beiden Publikationen Birzer, Sandra und Andrea Steinbach. 2023a. Spielerisch Sprachbewusstheit entwickeln – ein Memory-Spiel zu Wortbildungsverfahren. Slavische Sprachen unterrichten, 1. S. 117-128. DOI: 10.20377/slavun-9 Birzer, Sandra und Andrea Steinbach. 2023b. Spielerisch Sprachbewusstheit entwickeln – ein Me...

Uploaded on March 20, 2024

Access status

Open 37

Metadata-only 2

Resource types

Dataset 9

Other 9

Sound 7

Text 5

Video 3

Collection 2

Image 2

Model 1

Software 1

December 15, 2023 (1.0.0) Other Open

**Längsschnitt-Befragung von Studierenden im Projekt WegE (Wintersemester 2018/19 & 2019/20, Sommersemester 2019 & 2020; LS)**

Paetsch, Jennifer; Mann, Daniel; Drechsel, Barbara

Längsschnitt-Befragung von Lehramtsstudierenden im Projekt "Wegweisende Lehrer:innenbildung (WegE)" vom Wintersemester 2018/19 bis zum Sommersemester 2020 (4 konsekutive Messzeitpunkte), N=96 Das Projekt WegE wird unter den Förderkennzeichen 01JA1615 und 01JA1915 im Rahmen der gemeinsamen 'Qualitätsoffensive Lehrerbildung' von Bund und Ländern ...

Uploaded on December 20, 2023

December 15, 2023 (1.0.0) Other Open

**Befragung der Lehramtsstudierenden nach dem EWS-Staatsexamen im Projekt WegE (Wintersemester 2016/17 & 2017/18, Sommersemester 2017 & 2018; AK)**

Paetsch, Jennifer; Mann, Daniel; Drechsel, Barbara

Befragung von Lehramtsstudierenden im Projekt "Wegweisende Lehrer:innenbildung (WegE)" im Wintersemester 2016/17 & 2017/18 und Sommersemester 2017 & 2018 (4 konsekutive Messzeitpunkte aggregiert), N=177 Das Projekt WegE wird unter den Förderkennzeichen 01JA1615 und 01JA1915 im Rahmen der gemeinsamen 'Qualitätsoffensive Lehrerbildung' von Bund ...

Uploaded on December 16, 2023

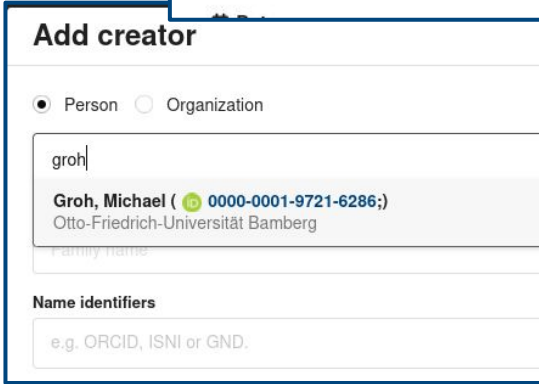
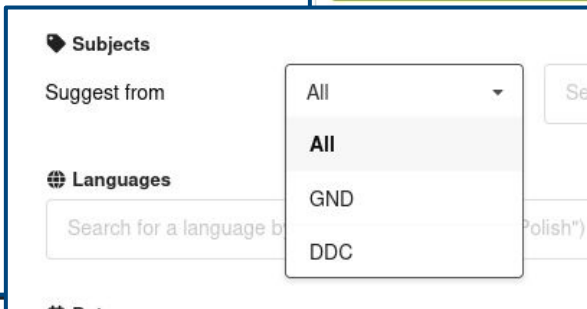
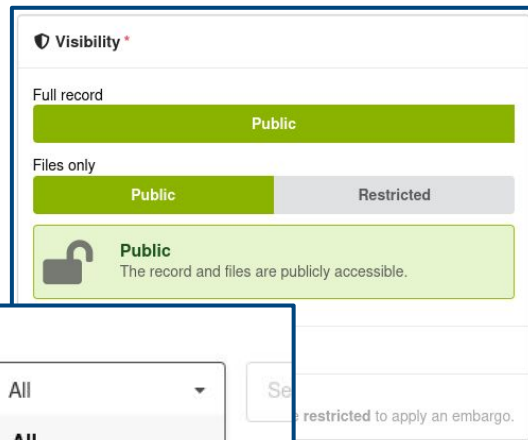
Help

Search guide

December 15, 2023 (1.0.0) Other Open

# Non Vanilla Features

- custom theming (colors and button enhancements)
- invenio-saml connection to our university identity provider
- GND & DDC vocabularies for subjects
- ORCID vocabulary for contributors



# Deployments and Concepts



The diagram illustrates three deployment environments, each shown as a browser window with a list of activities and a corresponding logo at the bottom.

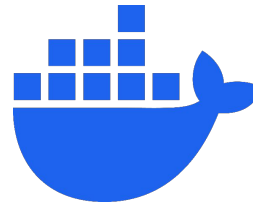
- Development** (development.internal):
  - current codebase upstream
  - internal usage
  - code customising
  - debugging
  - Logo: University of Bamberg FD-Repo with a magnifying glass over the word "FEATURE".
- Sandbox** (sandbox.internal):
  - stable releases
  - internal usage
  - feature testing
  - sandbox for researchers
  - Logo: University of Bamberg FD-Repo with the word "SANDBOX" in large, stylized letters.
- Production** (https://fd-repo.uni-bamberg.de/):
  - production releases
  - public usage
  - Logo: University of Bamberg FD-Repo.

## Our Setup

- all services on a single virtual machine in our vmware cluster
  - 4 CPU cores
  - 16GB memory
  - 2TB storage
- host system debian stable
- docker with docker compose
- gitlab
- gitlab ci
  - container image building
  - deployment
  - credentials management



# GitLab



# docker®




# debian







# vmware®

by **Broadcom**

# yes you can use docker compose in production

# Deployment Pipeline for Production

Name	Last update
..	
 docker-compose.yml	9 months ago

Name	Last commit	Last update
 docker/rdm	docker: add CSRF_S...	9 months ago
 .gitlab-ci.yml	fixed whomi	5 months ago
 2023-11-27_nt...	ntp fixed	6 months ago
 README.md	Readme: add Notfall...	1 year ago
 setup.md	docu: add bookworm...	9 months ago
 README.md		

Pipeline Needs Jobs 14 Tests 0

**deploy**

- down
- up

**debug\_stuff**

- docker-logs
- print-env-and-versions
- whoami

**container\_magic**

- cache-restart
- db-restart
- frontend-restart
- mq-restart
- search-restart
- web-api-restart
- web-ui-restart
- worker-restart

Pipeline Needs Jobs 27 Tests 0

**build\_n\_tag**

- inveniordm-branches
- nginx

**deploy**

- down
- up

**dockerbranch**

- docker-container-remove-branch
- docker-container-stop-branch
- docker-volume-remove-branch
- docker-volume-remove-static

**content**

- init-db
- voc-names-dev
- voc-names-prod

**debug\_stuff**

- docker-logs
- print-env-and-versions
- whoami

**container\_magic**

- cache-restart
- db-restart
- frontend-restart
- mq-restart
- search-restart
- web-api-restart
- web-ui-restart
- worker-restart

**dangerzone**

- docker-container-remove-all
- docker-container-stop-all
- docker-system-prune-all-forsichtig
- docker-volume-remove-all

Name	Last update
app_data	7 months ago
assets	1 year ago
docker	9 months ago
static	1 year ago
templates	1 year ago
uniba-docs	4 months ago
uniba-scripts	1 year ago
.dockerignore	3 years ago
.gitignore	2 years ago
.gitlab-ci.yml	3 months ago
.invenio	1 year ago
Dockerfile	3 weeks ago
Pipfile	1 year ago
Pipfile.lock	1 year ago
README.md	1 year ago
invenio.cfg	1 year ago

## Build and Deployment Pipeline for our Test System

# Deployments and Concepts



The diagram illustrates three deployment environments, each shown as a browser window with a list of activities and a corresponding logo below it.

- Development** (development.internal):
  - current codebase upstream
  - internal usage
  - code customising
  - debugging
  - Logo: University of Bamberg FD-Repo with a magnifying glass over the word "FEATURE".
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  - production releases
  - public usage
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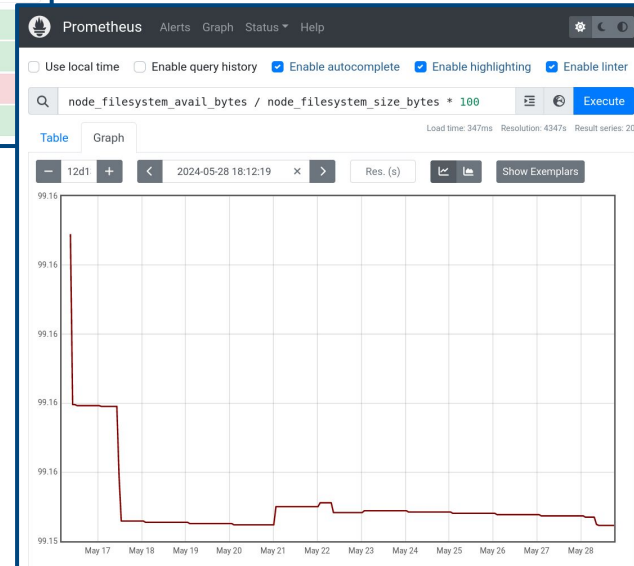
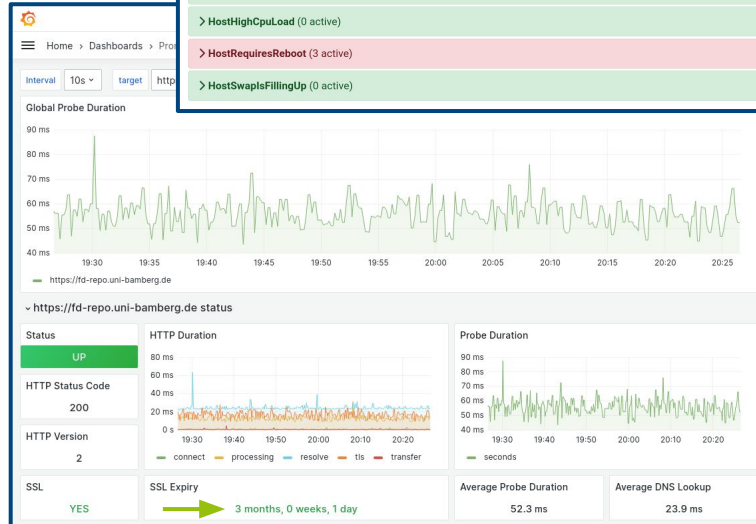
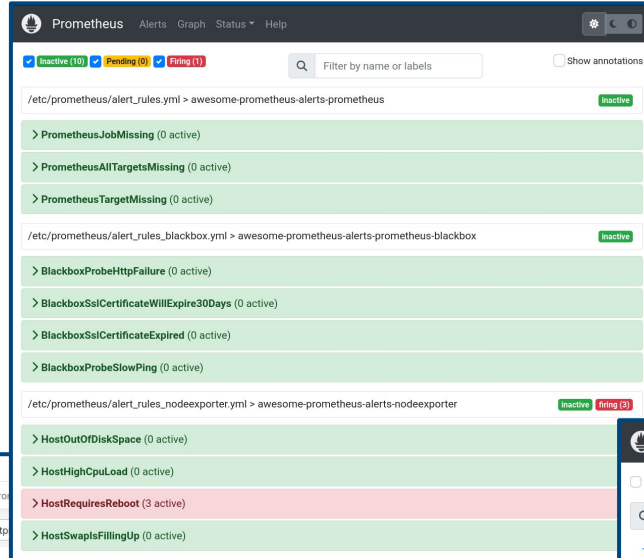
# How we Know it is Alive

## prometheus

- node exporter
- blackbox exporter
- nginx exporter

## notifications

- rocket chat
- email



## How we Keep it Alive

- local backups with btrfs snapshots
- central VMware backups
- we actually tested and documented restoring a backup ;)
- apply security updates
- only migrate to stable releases (next to v12)
- only include customisations, features and extensions if really needed

```
root@cmdb-k634-dackel:/srv/docker/volumes/rdm/wichtig# snapper -c rdmwichtig list
```

#	Type	Pre #	Date	User	Cleanup	Description
0	single			root		current
585	single		Mi 15 Mai 2024 03:17:06 CEST	root	timeline	from cronjob inventordm_dump_db
586	single		Do 16 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
587	single		Fr 17 Mai 2024 03:17:02 CEST	root	timeline	from cronjob inventordm_dump_db
588	single		Sa 18 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
589	single		So 19 Mai 2024 03:17:02 CEST	root	timeline	from cronjob inventordm_dump_db
590	single		Mo 20 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
591	single		Di 21 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
592	single		Mi 22 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
593	single		Do 23 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
594	single		Fr 24 Mai 2024 03:17:02 CEST	root	timeline	from cronjob inventordm_dump_db
595	single		Sa 25 Mai 2024 03:17:02 CEST	root	timeline	from cronjob inventordm_dump_db
596	single		So 26 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db
597	single		Mo 27 Mai 2024 03:17:02 CEST	root	timeline	from cronjob inventordm_dump_db
598	single		Di 28 Mai 2024 03:17:03 CEST	root	timeline	from cronjob inventordm_dump_db



# Why This Specific Setup?

- fits the Bamberg ecosystem and knowledge
- invenioRDM provides docker-compose.yaml to build upon
- other universities have similar setups and we have stolen all their good ideas (TU Wien ❤️ & TU Graz ❤️)

The top part of the screenshot shows a GitHub repository page for 'inveniosoftware / cookiecutter-invenio-rdm'. Below the repository header is a table listing files and their commit information:

Name	Last commit
..	
app_data	vocabulary
assets	overridable
docker	Revert "doc
site	site: create
static	Robots: add
templates	templates:
translations	global: add translations folder 2 years ago
.dockerignore	docker: copy templ
.gitignore	.gitignore: ignore ce
Dockerfile	docker: change base
Pipfile	pipfile: remove DB f
README.md	site: update contain
docker-compose.full.yml	celery: add missing
docker-compose.yml	search: add opense
docker-services.yml	config: add commu
invenio.cfg	config: enable user

This screenshot shows a search results page from TU Wien. The search bar contains 'Search 175 records...'. Below the search bar, it indicates '175 result(s) found'. A list of results is shown, with the top result being 'RAAV - Results of the Multi Criteria Decision Analysis (MCDA)' by Fian, Tabea; Dianin, Alberto; Hauger, Georg. The page includes navigation links for 'HOME', 'COMMUNITIES', and 'MY DASHBOARD'.

This screenshot shows a search results page from TU Graz. The search bar contains 'Search records...'. Below the search bar, it indicates '14.588 result(s) found'. A list of results is shown, with the top result being 'Integrated analysis of GNSS-derived water vapor in the WegenerNet Feldbach Region' by Larissa von Römer, BSCintegrierte Analyse des GNSS-abgeleiteten Wasserdampfes in der WegenerNet FeldbachregionTUGRAZonline. The page includes navigation links for 'Home', 'Communities', and 'Dashboard'.



## Questions?

- [fdm.its@uni-bamberg.de](mailto:fdm.its@uni-bamberg.de)
- InvenioRDM Discord