An OAI-PMH Endpoint for Fedora 6.x

CLARIN Centre Meeting 2022

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Fedora News

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- In Leipzig: **Fedora 6.1.1** currently used in production.
- **Fedora 6.2.0** release soon.
- Arran Griffith replaced David Wilcox as program manager at Lyrasis.
- One of the project's core contributors, Peter Winckles, left in April.

OAI-PMH

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- Essential for interfacing with the **CLARIN** world.
- Still not officially supported in Fedora 6.
- Some verbal reception from Lyrasis in the past, but nothing concrete yet.

OAI-PMH Implementation for Fedora 6

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- **Therefore:** custom implementation, by Nathanael Philipp.
- Based on his Django OAI-PMH app [1] (licensed under GNU GPL-3.0).
- Mostly extending the app's import to interface with the Fedora 6 REST-API.

[1] https://github.com/jnphilipp/django_oai_pmh

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Implementation Details

- **Django** application, with **Nginx** on top.
- **Dockerized**, quick setup and reset with *docker-compose.*
- Uses a **PostgreSQL** database in production mode per default (configurable).

Implementation Details

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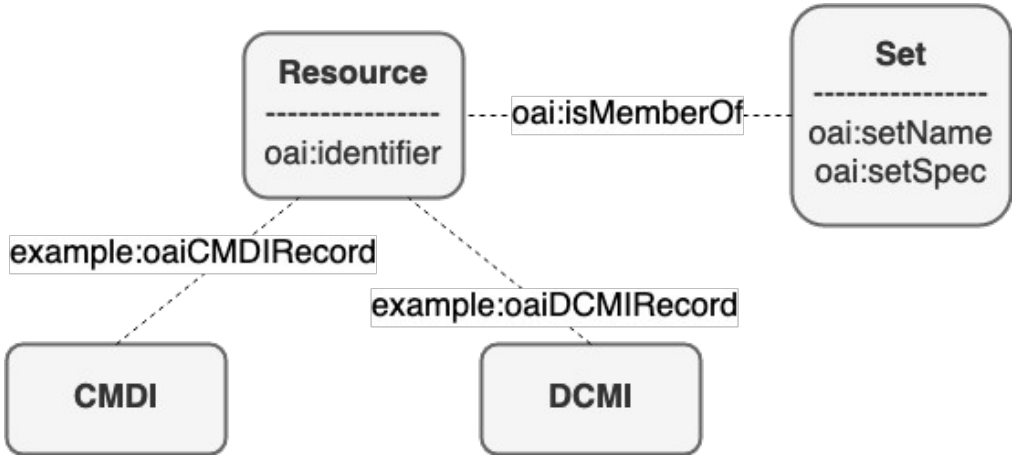
- Harvester starts at root, recursively checks all resources for relevant predicates:
  - *oai:identifier*
  - *oai:memberOf*
  - ***example:oaiCMDIRecord***
  - ***example:oaiDCMIRecord***
  - *oai:setName*
  - *oai:setSpec*



- Configurable predicates for the metadata records, e.g.
  - *„cmdi“: „http://example.org/vocabulary#oaiCMDIRecord“*

Implementation Details II

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- Supports **CMDI** and **DCMI** by default, but extensibility for additional formats should be very straightforward.
- *oai:identifier* in our case: relative path in the Fedora repo (includes PID variant).
- New implementation allows for designating parent resource containers as "sets" via set predicates (was less elegant in Fedora 3).
- Harvesting process not optimized yet (depth-first traversal of all resources).
  → Future work

Summary

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- No concrete action on official OAI-PMH support by Lyrasis so far.
- Leipzig implemented its own solution.
- Based on Django, already in use.
- Will look into optimization in the future.

Thank you for listening!