Using BIBFRAME, Flask, and Fedora4 as a Catalog Pull Platform

What is a Catalog Pull Platform?

The Tutt Library Catalog Pull Platform:

modifies catalogs for libraries and other cultural heritage institutions
enables
builds
creates

The Catalog Pull Platform offers individual libraries a robust and responsive online catalog for accessing and managing their collections. A library, or other memory institutions, should be able to easily customize and integrate their collections with their various web properties, resource management, search-engine and social media. Instead of being dependent on a set of features, that is offered or "pushed" from the vendor, the features in the Catalog Pull Platform are directly "pulled" from the needs of various cohorts of patrons, staff, librarians, library administration, other organizations, and finally the web harvesting algorithms of commercial search engines.

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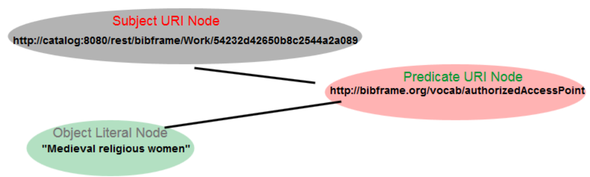
Bibliographic Theory

BIBFRAME and Linked Data

BIBFRAME is a new linked-data vocabulary sponsored by the Library of Congress to replace MARC21. Website and vocabulary available at http://bibframe.org/

Example of a BIBFRAME Triple



Technology

Fedora Commons Digital Repository

Version 4.0 Beta Released in June 2014 production version by the end of the year

- Batch Operations, External Search, External Triplestores
- New support for Namespaces, Workspaces, & Transactions
- RESTful HTTP API for CRUD operations on objects and properties
- Metadata stored as RDF Graphs (not XML files)

elasticsearch.

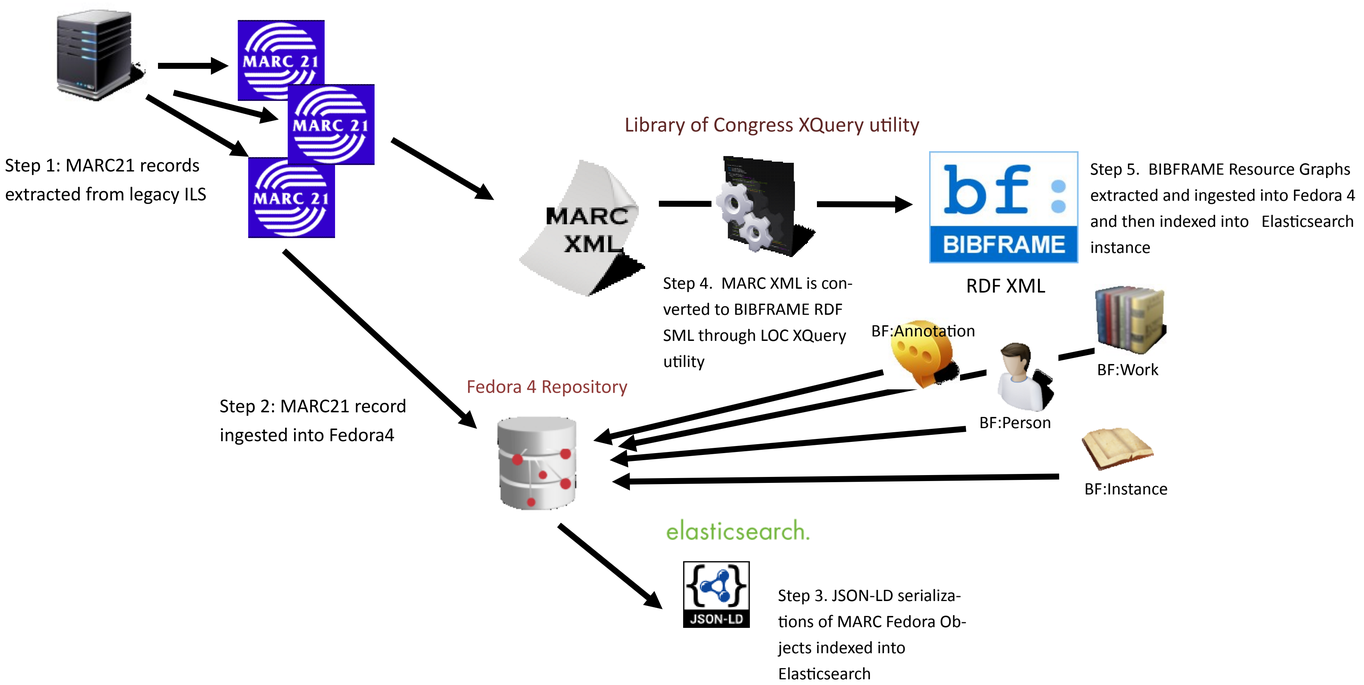
Fedora Objects, serialized as JSON-LD, are indexed into an Elasticsearch, a full-text search engine based on Lucene.

Flask and Fedora 4

Flask-FedoraCommons Extension

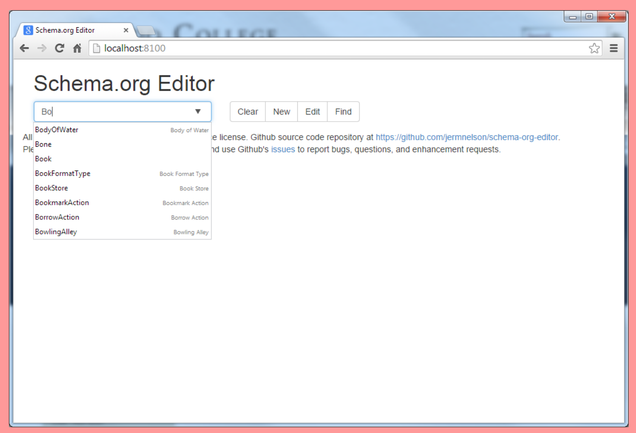
- Flask applications typically are small and lightweight
- Additional functionality is added through Flask Extensions
- Open source project started in 2013 for Fedora 3.7.x
- Updated to Fedora 4 using Python 3 in 2014
- Repository available at: https://github.com/jermnelson/flask-fedora-commons/

MARC-to-BIBFRAME into Fedora Workflow



Schema.org Web Editor

Another application of the Catalog Pull Platform is a simple, Flask-based Web editor for Schema.org RDF vocabulary that allows triples to be applied to any new or existing Fedora 4 objects,



https://github.com/jermnelson/schema-org-editor

http://intro2libsys.info/dlf-forum-2014-poster