Hydra at the Indiana University Bloomington Libraries

Avalon

http://www.avalonmediasystem.org/

IU is running the Hydra-based Avalon Media System in production to support online media course reserves as well as providing access to library and archival audio and video collections across the university. Avalon has been selected to provide access for the materials digitized through IU's $15M Media Digitization and Preservation Initiative. IU co-develops Avalon with Northwestern University, with the partnership of other institutions and support from the Institute of Museum and Library Services.

Paged Media Project

Purpose

To use Hydra to ingest and deliver paged media objects and to create a user experience that replicates turning through a paged object's member pages. Storing and delivering paged objects for various collections is currently done with variety of solutions that are not generalizable for reuse or are difficult to load and maintain. It's also a good use case for developers at Indiana University who are not working on Avalon to gain experience with Hydra and to experiment with collaborating with colleagues at IUB's sister campus, Indiana University - Purdue University Indianapolis.

Design
- Simple model where ordered page objects belong to a parent object representing a paged item
- Initial use cases are musical score and newspaper collections
- In Hydra on Fedora3, pages are related to paged objects through RELS-EXT
- In Hydra on Fedora4, object relationships could be represented as a parent/child hierarchy
- Currently investigating common page turning interfaces, such as IA Bookreader, and JavaScript image flippers and sliders, such as Swiper, Turn.js, etc.

Hydramata

In 2013 and 2014, Indiana University joined a team of institutions to develop Hydramata (originally Curate), a Hydra-based institutional repository platform. We were primarily interested in exploring Hydramata as a solution for data management, and possibly for eventually replacing our existing DSpace system. Although we are not currently actively developing Hydramata, we are still interested in staying up-to-date with its progress.

IU Digital Collections Search

http://webapp1.dlib.indiana.edu/dcs/

Provides a discovery interface for searching and browsing across selected digital collections created by the IU Libraries.
This is a pre-Hydra Blacklight interface with custom indexing services to extract metadata and identifiers from Fedora and then index them into Apache Solr for faceted search, browse, and retrieval. This application could be migrated to Hydra using the JMS listener in Hydra's solrizer to trigger Solr indexing from Fedora instead of our custom indexing service. The Blacklight interface could probably be moved nearly as-is into a Hydra head.

Xubmit (experimental)

Purpose

To migrate our aging Java-based XML workflow tool, Xubmit, to use Hydra on Fedora4 to provide access to XML documents managed in an external revision control repository.
Our current legacy system creates disconnect and synchronization problems between XML documents and digital objects in Fedora because they are in separate repositories. As an experiment using Fedora4 federation, we want to project directly over the document repository, provide document services via a Hydra head, and be able to relate nodes to other digital objects via properties.

Legacy system

- RCS repository for XML document workflow and version control
- Java web services provide direct management of document repository using Java RCS
- Users interact with repository services via a Struts web UI and custom Oxygen plugins
- Digital objects related to XML documents are stored in Fedora3 and linked via PURLs

Redesign with Hydra

- Switch to a Git repository for XML document workflow and version control
- Rails web services provide direct management of Git repository using Ruby/Git
- Provide a Fedora4 projection over the Git repository using Modeshape's Git connector
- Users interact with repository services via a Hydra head and custom Oxygen plugins
- Digital objects related to XML documents stored in Fedora4 and related through properties

Sufia 4 Experiments

We are currently exploring the use of Sufia 4 for two separate development projects. We feel that the user interface improvements and additional functionality that Sufia 4 offers may provide an easy to implement solution for one or both of these projects. Both of these projects are still in a very early stage of development.

Born-digital documents in finding aids

This project is exploring ways to archive and make available born-digital documents which are currently on a variety of hard drives, flash drives, floppy disks and other insecure media. Sufia 4 could potentially provide an easy way to catalog these files and make them available to a wide audience.

IU Center for Biological Research Collections

http://www.indiana.edu/~cbrc/
This project involves digitization of a variety of materials from three IU collections in the areas of paleontology, zooarchaeology, and the IU Herbarium. We are investigating the use of Sufia 4 for storing and retrieving the digital files (mostly images) and all the metadata for these collections.