

Metadata Management in Islandora

Presenters: David Wilcox (discoverygarden inc.), Kirsta Stapelfeldt (University of Prince Edward Island)

Abstract

A digital object does not have any meaning to a human being unless the content is described with descriptive, structural and technical (or administrative) metadata. The costs of producing maintaining and transforming metadata have been prohibitive, and cataloguing traditionally often required substantial time spent in repetitive tasks of duplication, which increased the risk of introducing errors. Programmatic, XML-based metadata and XML-metadata tools have promised those maintaining digital databases and datastores of metadata better ways of creating, updating, managing, and transforming metadata.

Islandora aims to simplify the process of creating, updating, and indexing XML-based metadata for storage in a Fedora repository. The proposed presentation will provide an update on metadata-related tools in Islandora, particularly in Islandora 7 (compatible with Drupal 7). In this most recent version, descriptive metadata forms based on any XML schema can be created and edited using the Form Builder; technical metadata can automatically extracted from objects on ingest using FITS; and administrative metadata emerging from ingest processes using microservices can be written to Fedora's native "AUDIT" datastream. Islandora builds on the value and features of core Fedora, including the ability to version datastreams, and review versions in the interface.

Form Builder

The Form Builder is a robust application that can be accessed directly through the Islandora interface. Using a GUI, users can import an existing metadata form or create one from scratch. The Islandora 7 version of the module ports the functionality available in Islandora 6, including cloning, saving, editing, and uploading forms. Forms are associated with content models and become available for a user ingesting content into the repository. The form builder also allows forms to be pre-populated with content, minimizing the need to duplicate data entry and reducing the potential for human error.

File Information Tool Set (FITS)

The File Information Tool Set (FITS) software is hosted by google code, and was created by the Harvard University Library. The various tools that comprise FITS help identify, validate, and extract technical metadata from a variety of files. Islandora 7 & 6 FITS integration began with a substantial contribution from programmer Nick Ruest. The module permits any content model in Islandora to produce a Datastream containing technical metadata.

New Directions for Relationship Metadata

Islandora manages and uses RDF metadata for a number of systems tasks, which vary from including declaring page sequence for paged content to creating new relationships between repository objects (via integration with form builder). This presentation will provide a high-level tour toward the way that Islandora both leverages and makes it easier to work with RDF.

Batch Metadata Updating

Conducting batch updates of metadata records via the interface remains on Islandora's Roadmap. Progress made toward this goal will be discussed, as well as ways of building command-line scripts that will allow multiple repository objects to be updated. Strengths and weaknesses of this approach will be discussed.

Indexing and Display

Islandora's Solr client allows for targeted searching and display of metadata in the repository. This presentation will also include an overview of the indexing process, and provide examples of how Solr is being leveraged in the Islandora framework to support reporting functions and other administrative-type functions in data repositories. The administrative interface for the Solr client in Islandora 7 will also briefly be discussed to provide the audience with a sense of the options and flexibility of the Islandora approach.