Outline

- The Federal Science Repository Service
- Technical Infrastructure
  - Agency Repository Architecture
  - Object Models
- Implementations
  - The National Technical Reports Library
  - The NOAA Repository
  - Department of Commerce
  - Department of Defense
- Future Plans
Federal Science Repository Service (FSRS)

- NTIS Joint Venture (JV) with Information International Associates (IIa) [http://www.ntis.gov/fsrs/index.aspx](http://www.ntis.gov/fsrs/index.aspx)

Help multiple agencies develop repositories that:
- Are durable against technology changes, yet flexible
- Support preservation and long-term access
- Are based on standards
- Promote interoperability
- Support open government initiatives
- Promote further use of an agency’s content
- Can be tailored to an agency’s needs
FSRS Technical Infrastructure Components

- Underlying infrastructure of Fedora, Solr, and PHP
- Distributed-model architecture
- Multiple repositories
- Storage and preservation of objects/datastreams
- Core metadata mapped to different schemas
- Robust interface with advanced search, faceting, and full-text and media display
- Security and access control
Federal Science Repository Service

Fedora 3.42/SOLR framework:

UI Components

REST Web Services

Ingest and Retrieve:
By collection or by object

Security:
Can be a bolt on or can be embedded

NTIS hosted repository

NTRL repository

Agency repository

Agency-hosted repository

Administration

Defined Agency tasks
Object Model for Technical Reports

Collection(s) → Member of → Object (Document) → Has Model → TechReport Content Model

Object Properties
- Rels-ext
- Dublin Core
- STAR XML
- MARC XML
- xsl
- OCR Text
- Full Text

Has Datastreams → Has Disseminator
- MODS (3.4)
- OAI-PMH
- Link to NOAA

Federal Science Repository Service
Object Model for Geospatial Data

- Collection(s)
- Object
  - [GIS file(s) – Zip Archive]
  - Has Model
  - Has Datastreams
  - Persistent ID (PID)
  - Object Properties
  - Thumbnail
  - Image
  - Rels-ext
  - Dublin Core
  - MODS

- Content Model
  - Has Disseminator
  - Sdef
  - Sdep

Federal Science Repository Service
The National Technical Reports Library

- NTRL FSRS Version (April 2012)
  - Currently serves 2.5 million records
- Focus on federally funded technical reports
- Rich metadata
- Metadata ingested from existing NTIS system
- Access control via existing NTIS subscription system
- Full text access to >650,000 docs in existing NTIS distribution system
The NOAA Repository

Transitioning from Deepwater Horizon Repository

- MARC from library system mapped to Core FSRS fields
- > 8,000 metadata records; ~ half of the objects are managed internally and other half external
- Different search fields and filters
- Different fields shown in results
- Storage of full text and media for ~ 60% of the resources; rest are outside links.
- Original MARC XML also available.
- Java Messaging Service and GSearch for easy deployment of updates to Solr
- Multiple media.
- Most recently added journal articles based on Web of Science.
Implementations Under Development

- Two Islandora implementations for programs in Departments of Commerce and Defense
- Input System to support metadata entry in two languages and uploading of documents
- Focus on access control via Fedora Security Layer and connected to LDAP server
- Support for topical collections
- Adding GIS objects
- Linking related objects – versions, parts, replacements, translations, alternate formats, other related objects
- Multi-lingual end-user interface
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