“Linked-Data-Ready” Software For Libraries

XC transforms your data into FRBRized data

Without XC
- Start with your data
  - MARC
  - Digital Library
  - ILS

- Manual or semi-automated process
  - One-time copy in linked data formats

- End with static, linked-data descriptions of your records.

With XC
- Start with your data
  - MARC
  - Digital Library
  - ILS

- Fully automated process
  - When records change in source repositories, linked data is automatically updated.

- Example: Without FRBR: 
  - <ISBN-number> has_author "J K Rowling"

- Example: With FRBR: 
  - Work ID has_creator "J K Rowling"

- Example: FRBRized: 
  - Work ID has_language "English"

- Example: FRBRized: 
  - Expression ID is_parent_work "David Lindahl"

- Example: FRBRized: 

XC enables each part of the RDF triple

Example 1: RDF triple describing this poster

- Subject URI: FRBR group 1 work entry (XC-record)
- Predicate: has_creator
- Object: David Lindahl

Example 2: RDF triple describing a book

- Subject URI: FRBR group 2 entry
- Predicate: has_subject
- Object: Poets, American

XC vision to transition libraries to linked data

Download XC Software: www.eXtensibleCatalog.org

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XC transforms MARC to FRBR
- XC creates unique identifiers at each FRBR level.

Making FRBR from MARC

- FRBRization
- MARC/FRBR Mapping
- MARC/FRBR Naming
- MARC/FRBR Record ID

- Objects can be strings or things-with-a-URI:
  - Dublin Core terms (all)
  - RDA (subset of elements and role designators)
  - XC elements (newly-defined): MARC vocabularies, FRBR linking fields, etc.

Data elements from registered namespaces for DC terms, RDA roles and vocab, and XC

A persistent, globally unique identifier for each XC Schema record

Subject URI’s represent FRBR entities (XC schema records):

Predicate URI’s represent relationships defined in:

Objects can be strings or things-with-a-URI:

Overview Diagram: Combining new practices with automated tools

Detailed Diagram: XC Metadata Services Toolkit with added support for linked data

Combining new practices with automated tools:
- Harvest Management
- Persistent Storage
- System Sequencing
- Apache SOLR
- Triplestore
- RDF triples
- RDF/XML
- SPARQL Provider
- PURL services
- Rules
- Permissions
- Repositories
- Aggregates
- Django
- Python
- Database
- S3

Detailed Diagram: XC Metadata Services Toolkit with added support for linked data

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