AGENDA

• Collaboration Updates
• Update: Linked Data in Alma
• DEMO: BIBFRAME Support in Alma
• Update: Linked Data in Primo
• Q & A
Collaboration Updates
• In order to streamline communication between Ex Libris and the user community, we will gradually be phasing out the Collaboration Program in favor of the SIWG

• The SIWG will continue to work to advance Linked Data concerns, communicating with the community, sharing Linked Data news and activity, and providing feedback on the Ex Libris road map
Ex Libris 2016-7 Linked Data Collaboration Program

28 Discussions  32 Files  1 Text document  Events  Add the first:  To-do list

Latest project updates

12:37pm  Tamar F. commented on BIBFRAME in Alma November release
12:24am  Amanda X. commented on BIBFRAME in Alma November release
Nov 27  Kirk H. commented on BIBFRAME in Alma November release

See all updates

Discussions

Tamar F.  BIBFRAME in Alma November release - @Kirk Regarding the bf.hasSeries, I am not sure I understand. The converter takes the $O$ content (in the above case, LC

Laura A.  Continued 2017 Linked Date Collaboration - Tamir, Thank you for trying this! Laura

Kirk H.  Handling multi-lingual scripts in BIBFRAME - Thanks for the example, earlier in the summer we created issue #33 for the converter - see https://github.com/lcnetdev/marc2bibframe2/issues/33 if

Jackie S.  2017 - Vocabularies to include - for enrichment... - Hi Laura, The PCC Task Group on URIs in MARC <https://www.loc.gov/ebs/pcc/bibframe/TaskGroups/URI-TaskGroup.html> will be releasing the

Jackie S.  Primo Dedup as a model for BibFrame "Work..." - Many may have read Karen Coyle’s post on definition of a "Work." If not, here is her post: http://kcoyle.blogspot.com/2017/07/the-work.html

23 more discussions
BIBFRAME Collaboration

• As part of the work leading up to the release of the initial BIBFRAME support in Alma, Ex Libris has been collaborating with Harvard University and the Library of Congress

• The LC MARC21 to BIBFRAME 2 converter has been integrated into Alma, and Harvard has provided initial feedback on the implementation of these features

• Now that the BIBFRAME features have been released for general availability, additional feedback is welcome via the Basecamp
Update: Linked Data in Alma
Updated Documentation
Enrichment
JSON-LD
RDA/RDF
BIBFRAME
Roadmap
**Updated Documentation**

[https://developers.exlibrisgroup.com/alma/integrations/linked_data](https://developers.exlibrisgroup.com/alma/integrations/linked_data)

**Linked Data**

The bibliographic metadata found in Alma contains a rich set of information and objects that can be represented in [linked data](https://developers.exlibrisgroup.com/alma/integrations/linked_data).

The Alma linked open data provides access to the institution's bibliographic information using [Linked Data Principles](https://developers.exlibrisgroup.com/alma/integrations/linked_data) and made available in several places, including the Alma UI and APIs.

The general workflow for exposing linked open data is described in the following diagram:

![Linked Data Workflow Diagram](https://developers.exlibrisgroup.com/alma/integrations/linked_data)

- **MARC record** → **Enrich with URIs** → **Translate to LD format** → **LD record**

Following is detailed description of each step:

**Enrichment**

The bibliographic information is enriched with URIs in the public domain. These URIs are a key piece of information that might be used in order to retrieve new information from related entities. In a Linked Data context, ideally one would simply follow the links and crawl from one data description to another.
Enrichment

• Alma can enrich bibliographic records with links to well known URIs, including:
  • Language
  • Identifiers
  • Authors and subjects – according to the relevant authorities:
    • Library of Congress
    • GND (from the German Gemeinsame Normdatei)
    • MESH
    • Virtual International Authority File (VIAF®)
  • Links to local Authorities
• Enrichment is performed for all linked data features, such as publishing, APIs, and viewing in Alma

https://developers.exlibrisgroup.com/alma/integrations/linked_data
Exposure of Enriched Records in Alma

Bibliographic records in Alma are enriched before the following processes:

<table>
<thead>
<tr>
<th></th>
<th>API</th>
<th>Publishing</th>
<th>View in Alma</th>
</tr>
</thead>
<tbody>
<tr>
<td>JSON/LD</td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>RDA/RDF</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>BIBFRAME</td>
<td>✔</td>
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</tbody>
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RDA/RDF APIs

• Alma supports the following API’s:
  • Retrieval of a *manifestation* in RDA/RDF format
  • Retrieval of a *work* in RDA/RDF format

• Manifestation level is parallel to the Alma bibliographic record level. The API returns:
  • *Work* fields with work URI
  • Links to all manifestations that are related to that work.
  • *Expression* fields
  • *Manifestation* fields
  • *Item* barcodes

[Sample record]
• Work - Alma groups multiple BIB records into a single Work record. Grouping logic is based on the same logic used for discovery:
  • Normalized uniform title
  • Permutations of author + title

• The API returns:
  • Work fields with work URI
  • Links to all manifestations that are related to that work
Publishing

• Enriched URIs in $$0 can be published in MARC

• In addition, Alma supports the publishing of RDA/RDF and BIBFRAME as output formats
Publishing in BIBFRAME

- Publishing target option in the publishing profile
- Linked data enrichment
- Uses Library of Congress MARC-2-BIBFRAME2 Converter
- Same methodology will be used for BIBFRAME display and APIs
BIBFRAME API

• GET instance
  • The API returns 2 levels of the information: Work and instance. Each level has its own URI.

  Sample record

• GET work
  • The API returns Work related fields. In order to know the work id, you should call the GET instance API first and retrieve the related Work ID.

  Sample record

• Published URIs resolve to these APIs
DEMO: Alma Support for BIBFRAME
Short Term Roadmap

• Support for representing MARC bibliographic records in BIBFRAME 2.0 format
  • Publish MARC bibliographic records in BIBFRAME format
  • View a MARC record as a BIBFRAME record
  • Expose MARC bibliographic records as BIBFRAME via API
• Support publishing to linked data consumer applications in RDA/RDF format
• Incremental enhancements to the existing APIs (e.g. JSON-LD changes)
Mid Term Roadmap

• Libraries will be able to use MD editor to catalog LD URIs
  • In MD editor, type field content and click alt+F3 to display a list of vocabulary resources that are supported for this field.
  • Choose a vocabulary resource – e.g. Geonames
Long Term Roadmap

• Support for native cataloging in BIBFRAME starting with a proof of concept version.

• Import records into the Alma catalog using BIBFRAME
Update: Linked Data in Primo
Seamlessly enrich the user interface with linked open data from external sources related to the records discovered.

Expose library records in common schemas to be consumed by external LD sources and indexed by Internet search engines.
End User Function Enablement

- Discuss use-cases for patron functionality
- Load URIs to PNX
- Expose basic use-case of Linked Data functionality in New Primo UI
- Allow the community to explore and expose additional functionality using the Open Discovery Framework

https://github.com/ExLibrisGroup/primo-explore-linked-data-demo
• Expose library records in structured data markup on web pages, such as schema.org
Next Steps

• Get involved with the Linked Data Special Interest Working Group
THANK YOU

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