Alma Integrations Plugin

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Background

- Developed at University of Denver
- Part of effort to integrate description work across archival systems (collection database, discovery, digital repository)
- [https://github.com/duspeccoll/alma_integrations](https://github.com/duspeccoll/alma_integrations)
Alma Data Model

- **Resources**
  - Bibliographic (MARC)
  - Holdings (MARC)
- **Locations**
- **Containers**
  - Items (JSON)
Alma API

https://developers.exlibrisgroup.com/alma/apis/bibs
How the plugin works

- Get your Alma API URL and key
  - config/config.rb
- Assign a collection’s Alma MMS ID to a User Defined String field
  - frontend/controllers/alma_integrations_controller.rb
- Call on a data model API method in the staff interface
The Plugin

https://[ArchivesSpace]/plugins/alma_integrations
BIB integrations

For the selected collection:

- Get ArchivesSpace MARC record
- If MMS ID is present, search for MARC record in Alma
- Incorporate data from Alma into ArchivesSpace MARC record
  - 008/0-5 (date on file)
- Allow user to push new or revised ArchivesSpace MARC record to Alma
BIB integrations

BIBs for U138 University of Denver Commencement Records

Found in ArchivesSpace: /repositories/2/resources/788
Found in Alma: 991025056249702766

MARC Record

```
<record>
  <leader>00000npca2200000 u 4500</leader>
  <controlfield tag="001">991025056249702766</controlfield>
  <controlfield tag="008">180300118012017xx eng d</controlfield>
  <datafield ind1=" " ind2=" " tag="040">
    <subfield code="a">DVPP</subfield>
    <subfield code="b">und</subfield>
    <subfield code="c">DVPP</subfield>
    <subfield code="e">dac</subfield>
  </datafield>
  <datafield ind1=" " ind2=" " tag="041">
    <subfield code="a">eng</subfield>
  </datafield>
  <datafield ind1=" " ind2=" " tag="049">
    <subfield code="a">DVPP</subfield>
  </datafield>
  <datafield ind1=" " ind2=" " tag="099">
    <subfield code="a">MS U138</subfield>
  </datafield>
</record>
```
BIB integrations

What the plugin does not do

- Bring bibliographic metadata in from Alma
  - requires metadata mapping
Holdings integrations

- Searches for existing holdings associated with the collection
- Allows a user to quickly create new holdings records
- Uses `config/config.rb` to determine building and holdings codes

---

```ruby
## holdings codes should be encoded as a list of lists
## where [0] is a building code (for 852$b) and [1] is
## a location code (for 852$c)

AppConfig[:alma_holdings] = [['h', 'hscol'], ['p', 'pscol'], ['p', 'psfol'], ['p', 'psovz'], ['p', 'psmap']]
```
Holdings integrations

Holdings for U138 University of Denver Commencement Records

Displaying 1 record(s):

<table>
<thead>
<tr>
<th>Holdings ID</th>
<th>Location Code</th>
<th>Location Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>22748959130002766</td>
<td>hscol</td>
<td>Hampden Spec Coll</td>
</tr>
</tbody>
</table>

Add New Holdings

Location: *
- Special Collections AAC Closed Stacks (pscol)
- Special Collections Follies (psfol)
- Special Collections Oversize (psovz)
- Special Collections Map Cases (psmap)

Add
def build_holding(code, id):
    controlfield_string = Time.now.strftime('%Y%m%d')
    controlfield_string += "2u^^^^8^^^^4001uueng0000000"

    # populate 852$b from alma_holdings config
    building = AppConfig[:alma_holdings].select{|a| a[1] == code}.first[0]

    # Nokogiri won't put 'standalone' in the header so you have to do it yourself
    doc = Nokogiri::XML("<?xml version="1.0" encoding="UTF-8" standalone="yes"?>")

    builder = Nokogiri::XML::Builder.with(doc) do |xml|
        xml.holding {
            xml.record {
                xml.leader "^^^^nx^^^^a22^^^^ln^4500"
                xml.controlfield(:tag => '008') {
                    xml.text controlfield_string
                }
                xml.datafield(:ind1 => '0', :tag => '852') {
                    xml.subfield(:code => 'b') {
                        xml.text building
                    }
                    xml.subfield(:code => 'c') {
                        xml.text code
                    }
                    xml.subfield(:code => 'h') {
                        xml.text "MS #{id}"
                    }
                }
            }
        }
    end

    builder.to_xml
end
Item/Container integrations

- Searches for items associated with the collection
- Where able, pairs ArchivesSpace Top Container metadata with Alma item-level metadata (based on barcodes)
  - Allows for metadata remediation
### Item/Container integrations

#### Items for U138 University of Denver Commencement Records

<table>
<thead>
<tr>
<th>Item PID</th>
<th>Barcode</th>
<th>Description</th>
<th>Location</th>
<th>Alma Profile</th>
<th>ArchivesSpace Profile</th>
<th>Top Container URI</th>
</tr>
</thead>
<tbody>
<tr>
<td>231074409840002766</td>
<td>U186023289500</td>
<td>Box 10</td>
<td>hscoll</td>
<td>In half letter document box</td>
<td>Half letter document box</td>
<td>/repositories/2/top_containers/14250</td>
</tr>
<tr>
<td>231041476060002766</td>
<td>U186023296900</td>
<td>Box 9</td>
<td>hscoll</td>
<td>NOTE(ITEM): In half letter document box</td>
<td></td>
<td></td>
</tr>
<tr>
<td>234748951200002766</td>
<td>U186021617940</td>
<td>Box 8</td>
<td>hscoll</td>
<td>NOTE(ITEM): In letter document box</td>
<td>Letter document box</td>
<td>/repositories/2/top_containers/9345</td>
</tr>
<tr>
<td>234748951100002766</td>
<td>U186023294820</td>
<td>Box 1</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9338</td>
</tr>
<tr>
<td>234748951000002766</td>
<td>U186018606090</td>
<td>Box 2</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9339</td>
</tr>
<tr>
<td>234748959000002766</td>
<td>U186018606100</td>
<td>Box 3</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9340</td>
</tr>
<tr>
<td>234748959080002766</td>
<td>U186018606110</td>
<td>Box 4</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9341</td>
</tr>
<tr>
<td>234748959070002766</td>
<td>U186018606120</td>
<td>Box 5</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9342</td>
</tr>
<tr>
<td>234748959060002766</td>
<td>U186018606130</td>
<td>Box 6</td>
<td>hscoll</td>
<td>NOTE(ITEM): In record box</td>
<td>Standard record box</td>
<td>/repositories/2/top_containers/9343</td>
</tr>
<tr>
<td>234748959050002766</td>
<td>U186018629020</td>
<td>Container 7</td>
<td>hscoll</td>
<td>NOTE(ITEM): Microfoam wrapped object: 15 x 11 inches</td>
<td>Wrapped object, 15 x 11 x 1 inches</td>
<td>/repositories/2/top_containers/9344</td>
</tr>
</tbody>
</table>
Item/Container integrations

What the plugin does not do

■ Search-only: does not bring in metadata from Alma, or push metadata out from ArchivesSpace

■ Integrate with Alma’s Circulation APIs
  - *Users cannot request a box or place it on Work Order directly from ArchivesSpace*
User Community

- Test and use the plugin
- [Submit issues](#) to the repository
- Contribute code and submit pull requests
Acknowledgments

- Special Collections and Archives, Digital Collections Services, and Library Technology Services, University of Denver
- Hadewijch Dekker and Matthieu Uittenbogaard, University of Amsterdam
Thanks!

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https://github.com/duspeccoll/alma_integrations
Alma and ArchivesSpace

An integrated workflow
Who I am

(I’m not a developer or programmer)

- Manage group of archivists
- Create description
- Co-chair of working group that manages multi-repo instance of AS at Harvard
- Previous co-chair of TS-DACS, currently advisory member
Goals

- A system of record that can serialize data, minimizing double data entry and maintenance
- Standards based data-mapping that is configurable for local variety
- Specific but general
My Local Conditions and Constraints

Accessioning as processing

ArchivesSpace at Harvard Library

Houghton and Alma
A common scenario...
Curator negotiating

“Mary Kujawski, Curator of Education, UM Museum of Art; HS567.”
Archivist creating an accession record
Feature

Create new Alma record(s) based on data in ArchivesSpace accession record
Feature

Put bibliographic ID (MMS ID) into the ArchivesSpace accession record
New Fields

Bibliographic Record MMS ID

Resource Record Identifier

Accession Record Identifier

Accession Record Identifier

Accession Record Identifier
Archivist processing -->

http://id.lib.harvard.edu/images/olvwork309727/catalog
Feature

Update Alma records with data from ArchivesSpace resource record
Curator discovering

https://dl.library.ucla.edu/islandora/object/edu.ucla.library.specialCollections.latimes%3A3990

Curator Lonnie Bunch III holds picture of stunt flier Bessie Coleman.... featured in "Black Wings: The American Black in Aviation."
Feature

Spawn accession record as archival object in resource record
Feature

Add a new field to Alma from description in an accession record in ArchivesSpace
Archivist hurrying

-->
Feature

Update Alma records when corresponding resource records are edited and saved
Extra time ------>

http://id.lib.harvard.edu/images/olvwork432234/catalog
Next Steps

Comment on the specification

Let me know if you want to join a team to further develop specification (particularly around top container/item records, functional requirements, and data mapping)

adrien_hilton@harvard.edu

Thanks!
TAC Integrations Sub-team

- Tracks current integrations
- Creates resources that assist members of the ArchivesSpace community with their integration work
- Liaises between those developing integrations, the ArchivesSpace Program Team and the ArchivesSpace community
- Actively engages with ArchivesSpace community members by answering questions and leading discussions on emails, listservs, and other forms of communication
- Conducted an ArchivesSpace Integrations Survey in 2019
ArchivesSpace Integrations Survey - Alma

- 30 out of 87 respondents want ArchivesSpace and Alma integration

- Bi-directional data transfer
  - Creating Alma records from ArchivesSpace resources
  - Creating ArchivesSpace resources from Alma records
  - Updates “reflected in the appropriate system”

- Instance records from ArchivesSpace attached to Alma records to allow for access to digital objects and requesting of containers

- Many would like for integration to require minimal clean up or editing of records in either system

- Some would like for a configurable data map in ArchivesSpace to support implementation in different institutional contexts
Resources & Contact

Integrations resources:
https://archivesspace.atlassian.net/wiki/spaces/ADC/pages/17137746/Integrations

Have an integration that isn’t listed? Let us know!
https://docs.google.com/forms/d/15Nrlix43o78N03ZiTmqWL71_W4YcBiB8w9GPITVP1QU/viewform

Want to talk to us about an integration? Reach out!
as_tac_integrations@lyralists.lyrasis.org
Thank you!

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