Achieving the Holy Grail of Electronic Resource Management with Automated Holdings Feeds

Antje Mays
Jody Stroh, OCLC
Jozef Paulik, Elsevier

Available at: https://works.bepress.com/antjemays/31/
Achieving the Holy Grail of Electronic Resource Management with Automated Holdings Feeds

Antje Mays
Winthrop University

Jody Stroh
OCLC

Jozef Paulik
Elsevier
Automated holdings feeds at Winthrop

Antje Mays
Professor / Acquisitions & Description Librarian
About Winthrop

• Founded 1886
• Rooted in Liberal Arts and Teacher Education
• Now over 100 programs:
  • Arts, Humanities, Sciences, Professional fields
• Comprehensive University, Master’s
• Over 6,000 students (5000 undergraduate / 1000 graduate)
Buildings on National Historic Register

Our academic Wetlands
Ida Jane Dacus Library

- Over 500,000 print volumes
- Over 270,000 ebooks
- Over 19,000 e-videos
- Over 450,000 e-journals
- Over 150 databases

- OCLC WMS July 2015+
- Holdings feeds: Fall 2015+
E-Resources Management at Winthrop

In the beginning...
• ebooks: MARC records from vendor for DDA titles
• Subscription content: holdings loads from 3rd party ERM

Shortcomings:
• Very time-consuming: weekly activity, plus data cleanup
• Gaps – holdings data did not cover all e-resources
Holdings Feeds at Winthrop

Timeline:
• OCLC WMS go-live July 1, 2015
• Departed from 3rd party MARC records and ERM holdings loads
• Switched to OCLC Knowledge Base (KB) as source of automated holdings feeds
• Instituted e-resource feeds over the course of year 2015/2016

Holdings feeds in a nutshell:
• Publishers -> aggregators -> vendors -> OCLC -> KB -> holdings feeds
• Institution-specific, set up between content providers, OCLC, and library
Holdings Feeds at Winthrop: Details

- **E-resource feeds cover the following:**
  - e-journals, ebooks, e-videos
  - paid subscriptions, DDA, perpetually owned, Open Access, Consortium e-resources

- **Set-up: contacted OCLC Support to activate**
  - provided content providers’ tokens and customer numbers

- **Each institution-specific KB collection shows details:**
  - Number and list of titles; history of updates; added, updated, deleted titles
  - Collection type & status (customizable, Open Access, discontinued, etc.)
  - Proxy wrapper / URL formula
Automated Holdings Feeds – Example 1: Ebooks

ebooks – DDA: customizable collection

<table>
<thead>
<tr>
<th>Collection</th>
<th>Provider</th>
<th>Account Number</th>
<th>Created</th>
<th>In My Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>ebrary Demand Driven Acquisitions</td>
<td>ebrary</td>
<td></td>
<td>11/13/2012, 9:30:14 AM</td>
<td></td>
</tr>
<tr>
<td>Customizable: Demand Driven Acquisitions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Weekly Updates**

**Action:** KB Data Update
**Provider:** ebrary
**Source:** CCLC, Online Computer Library Center
**Status:** Completed
**Started on:** 10/14/2016, 6:18:25 PM
**Last update:** 10/14/2016, 6:18:25 PM
**Summary:** Total Records Processed: 874,709, Total New Records: 8,699, Total Updated Records: 12,535, and Total Deleted Records: 1,956

**Action:** File uploaded into collection
**Provider:** ebrary
**Source:** ebrary
**Status:** Completed
**Started on:** 10/10/2016, 10:11:42 AM
**Last update:** 10/10/2016, 10:13:49 AM
**Summary:** Total Records Processed: 30297 Total Invalid Records: 0 Total Records Added: 0 Total Records Deleted: 510 Total Duplicate Records: 30229

[View Details kept for 90 days](#)
[Download Detailed Report](#)
## Feeds for ebooks - DDA: New Titles Added

<table>
<thead>
<tr>
<th>Record</th>
<th>Details</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>18th New York Infantry in the Civil War: A History and Roster, The</td>
<td><strong>Title</strong>: 18th New York Infantry in the Civil War: A History and Roster, The&lt;br&gt;<strong>ISBN</strong>: 9781476667164&lt;br&gt;<strong>Title ID</strong>: 26499903&lt;br&gt;<strong>Title URL</strong>: <a href="http://site.ebrary.com/id/11275932">http://site.ebrary.com/id/11275932</a></td>
<td>2016-06-30&lt;br&gt;<strong>Author</strong>: Conklin, Ryan A (Author)&lt;br&gt;<strong>Publisher</strong>: McFarland &amp; Company, Inc., Publishers&lt;br&gt;<strong>Linking Key</strong>: 11275932</td>
</tr>
<tr>
<td>23/7: Pelican Bay Prison and the Rise of Long-Term Solitary Confinement</td>
<td><strong>Title</strong>: 23/7: Pelican Bay Prison and the Rise of Long-Term Solitary Confinement&lt;br&gt;<strong>ISBN</strong>: 9780300211467&lt;br&gt;<strong>Title ID</strong>: 26496505&lt;br&gt;<strong>Title URL</strong>: <a href="http://site.ebrary.com/id/11272542">http://site.ebrary.com/id/11272542</a></td>
<td>2016-10-31&lt;br&gt;<strong>Author</strong>: Reiter, Keramei (Author)&lt;br&gt;<strong>Publisher</strong>: Yale University Press&lt;br&gt;<strong>Linking Key</strong>: 11272542</td>
</tr>
</tbody>
</table>
Automated Holdings Feeds – Example 2: ScienceDirect

ScienceDirect College - Social and Behavioral Sciences Journals Collection

Titles within the Collection: Searchable by title, material type, access conditions

<table>
<thead>
<tr>
<th>Title</th>
<th>Content Availability</th>
<th>Identifiers</th>
<th>In My Holdings</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident Analysis and Prevention</td>
<td>Full Text: From 1995-02 to present</td>
<td>OCN: 81261955 EISSN: 0001-4575</td>
<td>Deselect Title</td>
<td>Add to Order</td>
</tr>
<tr>
<td>Accounting Forum</td>
<td>Full Text: Volume 27, Issue 1</td>
<td>Website</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting, Organizations and Society</td>
<td>Full Text: From 2004-03 to present</td>
<td>OCN: 663408221 ISSN: 0155-9982</td>
<td>Deselect Title</td>
<td>Add to Order</td>
</tr>
<tr>
<td></td>
<td>Full Text: Volume 28, Issue 1</td>
<td>Website</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Full Text: From 1995-01 to present</td>
<td>OCN: 191718137 EISSN: 0361-3682</td>
<td>Deselect Title</td>
<td>Add to Order</td>
</tr>
<tr>
<td></td>
<td>Full Text: Volume 29, Issue 1</td>
<td>Website</td>
<td></td>
<td></td>
</tr>
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</table>

Winthrop University
### Science Direct College - Social and Behavioral Sciences Journals Collection

<table>
<thead>
<tr>
<th>Action</th>
<th>KB Data Update:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider</td>
<td>Elsevier</td>
</tr>
<tr>
<td>Source</td>
<td>OCLC. Online Computer Library Center</td>
</tr>
<tr>
<td>Status</td>
<td>Complete</td>
</tr>
<tr>
<td>Started on</td>
<td>10/19/2016, 1:48:02 AM</td>
</tr>
<tr>
<td>Last update</td>
<td>10/19/2016, 1:48:02 AM</td>
</tr>
<tr>
<td>Summary</td>
<td>Total Records Processed: 532, Total New Records: 1, Total Updated Records: 3, and Total Deleted Records: 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action</th>
<th>KB Data Update:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider</td>
<td>Elsevier</td>
</tr>
<tr>
<td>Source</td>
<td>OCLC. Online Computer Library Center</td>
</tr>
<tr>
<td>Status</td>
<td>Complete</td>
</tr>
<tr>
<td>Started on</td>
<td>10/11/2016, 11:23:50 PM</td>
</tr>
<tr>
<td>Last update</td>
<td>10/11/2016, 11:23:50 PM</td>
</tr>
<tr>
<td>Summary</td>
<td>Total Records Processed: 531, Total New Records: 0, Total Updated Records: 3, and Total Deleted Records: 0</td>
</tr>
</tbody>
</table>
## Science Direct: Updated Titles
(weekly update detail)

<table>
<thead>
<tr>
<th>Record</th>
<th>Details</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discrete Optimization</strong></td>
<td>OCN</td>
<td>[deleted]</td>
</tr>
<tr>
<td>Format: Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title ID: 19455689</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>55802674</td>
</tr>
<tr>
<td><strong>Historia Mathematica</strong></td>
<td>OCN</td>
<td>[deleted]</td>
</tr>
<tr>
<td>Format: Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title ID: 19455695</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>36983119</td>
</tr>
<tr>
<td><strong>International Journal of Approximate Reasoning</strong></td>
<td>OCN</td>
<td>[deleted]</td>
</tr>
<tr>
<td>Format: Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title ID: 19455699</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>645246884</td>
</tr>
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</table>
Science Direct: New Title(s) Added in Past Week

<table>
<thead>
<tr>
<th>Record</th>
<th>Details</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Geography</td>
<td>Political Geography</td>
<td></td>
</tr>
<tr>
<td>Format: Journal</td>
<td>Title URL: <a href="http://www.sciencedirect.com/science/journal/09626298">http://www.sciencedirect.com/science/journal/09626298</a></td>
<td></td>
</tr>
<tr>
<td>Title ID: 28637991</td>
<td>eISSN: 0962-6298</td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td>Full Text: From 2017-01 to present Volume 56</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Publisher: Pergamon</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Journal Linking Key: 09626298</td>
<td></td>
</tr>
</tbody>
</table>
New Title Added -> OPAC + Discovery -> Access

Searching, locating, and accessing the Science Direct Collection’s newly added journal *Political Geography*

1. **OPAC Search**

   ![Search Query](http://example.com/search?q=political+geography)

   **Political geography**

   **Held by:** Winthrop University

   ![Access Online](http://example.com/access)

   ![Access Full Text Online](http://example.com/full-text)

2. **Seamless Online Access**

   ![Journal Details](http://example.com/journal)

   **Political Geography**

   **Open Access articles**

   **Volumes 56 - 56 (2016 - 2017)**

   ![Articles](http://example.com/articles)

   ![Download PDF](http://example.com/download)

   ![Export](http://example.com/export)

   ![Open Access Articles](http://example.com/open-access)

   ![PDF](http://example.com/pdf)

   ![Abstract](http://example.com/abstract)

   This issue is In Progress but contains articles that are final and fully citable. For recently accepted articles, see Articles in Press.

   ![Spatial processes and policies of renewable energy transition: Land, zones and frictions in South Africa](http://example.com/article)

   ![Land, zones and frictions](http://example.com/land)

   ![Cheryl McEwan](http://example.com/author)

   ![In Progress](http://example.com/in-progress)

   ![January 2017](http://example.com/january)

   ![Articles 1 - 1](http://example.com/articles-1-1)
Immediate Benefits

- MARC Loads
- 3rd party ERM
Immediate Benefits

- Time Savings for Library Staff!

- MARC Loads
- 3rd party ERM
Long-Term Benefits

• Automated feeds reflect ever-changing e-resources
• Large & growing number of KB collections
  • Increased universe of e-resources and their holdings
• Collections are customizable to reflect institution’s specifics
• Continuous updates via holdings feeds
• Enhanced discoverability
• Rise in usage
  • -> better research outcomes
  • -> implications for purchasing decisions
• Holdings feeds + KB integration => better usage analysis
Some Challenges

• Reduced intensity of e-resource maintenance => Paradigm shift

• Set-up of feeds from each content source = considerable effort & time

• Content -> holdings feeds -> KB -> discoverability supply chain:
  • time lags vary across data sources
Implications for the Future

• Enhanced discoverability -> everyone benefits:
  • library users
  • Libraries and their parent institutions
  • Library services platform providers
  • Publishers
  • Content aggregators & vendors

• Worth the investment of time, effort, resources
• Worthy new standard -> the wave of the future!
Automated holdings feeds at OCLC

Jody Stroh
Product Manager, Metadata Services
Automatically manage metadata for electronic and print collections

- Register, manage, create and share electronic collections in the WorldCat knowledge base
- Automatically maintain WorldCat holdings and receive WorldCat MARC records with ongoing updates
- Ensure that bibliographic metadata for all materials, including access URLs, is continually updated in your discovery interface
- Manage demand-driven acquisitions (DDA) collections
The WorldCat knowledge base

Combines data about your library’s electronic resources to make your collections easier to find, share, manage and use.

Find
Easy access to e-resources in search results, Open URL link resolution, and A-Z journal list

Share
Quick and easy sharing of your electronic content

Manage
Manage budgeting, ordering and acquisition of electronic resources

Use
Rights management, usage statistics and link resolution of electronic materials
automatically maintain WorldCat holdings and deliver MARC records
Automate e-book and e-journal holdings management
How can libraries get started with direct holdings feeds?

Once libraries have a Collection Manager account, libraries can get started in two easy steps:

1. Visit http://oc.lc/autoload and contact us to request automatic loading
2. When the collection has been loaded, configure your settings

How can publishers get started?

Publishers interested in getting started should contact publishing@oclc.org to determine next steps.
“LOOK MA, NO HANDS!”
HOLDINGS INFORMATION, AUTOMATION & APIs

Presented By Jozef Paulik – j.paulik@elsevier.com
Date October 2016
“Look Ma, No Hands!”

- **ScienceDirect** was one of the first products to offer holdings reports
  - Manually generated – 2001
  - Automated (Journal Coverage Report) – 2002/3
  - Enhanced (Electronic Holdings Report) – 2004
  - Version 2.0 with new architecture -- 2014
- **Early growing pains**
  - Generate the report first
  - Return after 20-30 minutes to retrieve it
- **Flexible**
  - Granular
  - Multiple file formats supported (XML, CSV, etc)
  - Up-to-the-minute information
Version 2.0 (Today)

• Commitment to improvements and automation
  • Resources

• Support of standards and best practices
  • KBART
  • APIs

• New architecture
  • Performance – reports available at will
  • Scalability – cloud-based solutions
KBART

KBART Product and Package Reports
Download product and package reports in a format recommended by the KBART (Knowledge Bases and Related Tools) working group.

<table>
<thead>
<tr>
<th>Report Name [Report ID]</th>
<th>1-200 of 892 Reports</th>
<th>Page 1 of 5</th>
<th>Go</th>
<th>&lt; Previous</th>
<th>Next &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Titles</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - Agricultural and Biological Sciences (Legacy) [YAB]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - Agricultural and Biological Sciences 1995-2004 [BFJABS9504]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - Agricultural and Biological Sciences including Supplement 1 [YUF]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - All of Back Files EBS [ALLOFECKF]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - Allergology, Rheumatology and Immunology [YHI]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backfile Package - Anesthesiology, Pain Medicine, Emergency Medicine, Critical Care and Intensive Medicine [YHA]</td>
<td>Download</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
KBART

- KBART (Knowledge Bases And Related Tools)
  - Using KBART-Phase II recommendations

- KBART “Packages”
  - Does one size really fit all?
  - ScienceDirect has hundreds of packages!
  - Flexibility to modify subscriptions (one size doesn’t fit all)
Electronic Holdings Report

Electronic Holdings Reports
This is a new version of the Electronic Holdings Reports.
Click a link in the Available Reports area to download the Electronic Holdings Reports for your account.

Available Reports
These reports list your holdings information as of 25 March 2016:

Account: Elsevier - Demonstration Account (C00000593)

Select report format:

- **Comma Separated Value** (CSV)
  
  Download

- **KBART** (account report in Kbart-recommended format)
  
  Download

- **Microsoft Excel**
  
  Download

- **XML** (usable as input format in e.g. OPAC systems)
  
  Download
Electronic Holdings Report

• Creating a better way
  • Product-level vs account-level information

• Your own ‘package’
  • Consortium of one
  • Not generic

• Not what you PURCHASED, but what you can ACCESS!

• Detailed reports in XML, CSV, and Excel formats
  • Based on KBART recommendations, modified to allow greater granularity

• Account-level KBART reports
  • KBART format of content with full-text access
Beyond KBART - APIs and Automation

- Holdings reports available via APIs
- Integration partners welcome
  - OCLC
  - ExLibris
  - Google
  - …
- Shared benefits - publisher, third-party services, and the library
- Administration control
  - Controlled by the librarian
- Multiple use-cases
  - Automatic updates to your catalog
  - MARC automation
  - …
Beyond KBART - APIs and Automation

<table>
<thead>
<tr>
<th>Trusted Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic Holdings</strong></td>
</tr>
<tr>
<td><strong>[EHR] EXLIBRIS-SFX&amp;ALMA</strong></td>
</tr>
<tr>
<td>Institutional Token: [ ] Create Token</td>
</tr>
<tr>
<td>Begin Date: [ ] (Optional)</td>
</tr>
<tr>
<td><strong>[EHR] OCLC-WorldCat</strong></td>
</tr>
<tr>
<td>Institutional Token: [ ] Create Token</td>
</tr>
<tr>
<td>Begin Date: [ ] (Optional)</td>
</tr>
</tbody>
</table>
Beyond KBART

• Mixed-access content
  • Journal issue contains some open-access articles
  • Currently not adequately addressed by KBART

• “But what if I don’t have a knowledge-base yet?”

• Article-level holdings/entitlements
  • “Can I access full-text of this specific ARTICLE?”
  • Simple URL query
  • Immediate response (full-text access, open-access article, no full-text access)
  • AVAILABLE TODAY!
Beyond KBART – Article-Level Entitlements

https://api.elsevier.com/content/article/entitlement/doi/10.1016/S0120-5633(10)70223-0
?apiKey=fabricated2bbede4e6907cce646c50c59ca07&xml-decode=true&httpAccept=application/json&htmlRelLinks=true

https://api.elsevier.com/content/article/entitlement/doi/10.1016/S0120-5633(10)70223-0
?apiKey=fabricated2bbede4e6907cce646c50c59ca07&xml-decode=true&httpAccept=application/json&htmlRelLinks=true
Beyond KBART – Article-Level Entitlements

... "dc:identifier": "http://dx.doi.org/10.1016/S0120-5633(10)70223-0",
"prism:doi": "10.1016/S0120-5633(10)70223-0",
...
"entitled": "open_access",
"message": "Requestor is entitled to the requested resource",
"link": {
...

dev.elsevier.com

- APIs deliver optimized view of data or metadata
- Specialized for the task
- Many available by default
- Easy self-registration

We have redesigned our API Key signup flow and updated the click-through agreements.

Get started today!
Elsevier's API program allows you to integrate content and data from Elsevier products into your own website and applications. Learn more...

1. Look at use cases
2. Get API Key
3. Start coding

Use cases and Examples

- Academic Research
- Federated Search
- IR/CRIS/VIVO
- ScienceDirect Journal Info
- ScienceDirect Article Info
- Engineering Village
- Cited by In Scopus
- Journal Metrics
- Text Mining
- Commercial Use
- CORS Examples
Example: Embed book cover image with link to ScienceDirect

• Sample HTML fragment on your website:
  
  ```html
  ```

• How it appears on your site:

  ![Book Cover Image](http://api.elsevier.com/content/nonserial/title/isbn/9780123942951?view=coverimage&httpAccept=image/gif&apiKey=FABRICATED00000000000000)

(Also available for journal covers.)
Example: Embed Scopus Cited-by count

• Sample HTML fragment on your website:
  
  `<object height="50" data="http://api.elsevier.com/content/abstract/citation-count?doi=10.1016/S0014-5793(01)03313-0&httpAccept=text/html&apiKey=FABRICATED000000000000"></object>`

• How it appears on your site:

  Cited 45 times in Scopus

Custom design example from Nature.com:

<table>
<thead>
<tr>
<th>Total citations</th>
<th>Web of Science</th>
<th>CrossRef</th>
<th>Scopus</th>
</tr>
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<tbody>
<tr>
<td>111</td>
<td>309</td>
<td>280</td>
<td></td>
</tr>
</tbody>
</table>
Questions?

Antje Mays
Winthrop University

Jody Stroh
OCLC

Jozef Paulik
Elsevier