Where Does THAT Come From?
How Primo Uses and Displays Data from Alma

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What This Presentation Covers

A big picture overview of

• How Alma data gets into and is used by Primo
• How Alma and Primo work together with a focus on the Primo Front End
• How Alma data is used by the Primo Central Index (PCI)
What This Presentation Does Not Cover

• How to configure Primo Back Office (PBO)
• How to create Normalization Rules
• How to configure Alma

Each of the above could take an entire day (or more!)
Primo and Alma at the Orbis Cascade Alliance

• Both Alma and Primo are hosted
• Primo is at the installation level (configuration data can be shared with the whole installation/consortium)
  ▪ Each institution has an institution view
  ▪ The Alliance manages centralized publishing from Alma to Primo
• Each institution has their Alma instance
  ▪ Bibliographic records are managed in the Network Zone
What Alma Does

• Alma manages resources and publishes data to Primo
• Alma defines and manages services (e.g., is an item loanable, accessed online, or physically available?)
• End users access Alma’s data and services through Primo
“Big Picture” Overview of How Alma, Primo, and Primo Central Work Together

Alma API is used for Real Time Availability (RTA); RTA is turned on in PBO

Alma

View It or Get It delivery options displayed. Includes requests for holdings on PCI result.

Primo creates PNX records

Services page with link resolver results

Primo

Request for services (link resolver)

Patron

Search

External Resource, such as EBSCOhost or Web of Science

Primo considers PCI a remote resource

Primo Central Index

Primo search for articles

PCI search results incl. what library owns

Alma publishes e-holdings file to PCI 1x/week.

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PCI harvests file and processes it. File is available on Monday for Primo searching.
“Big Picture” Overview of How Alma Data is Used by Primo

Alma API is used for Real Time Availability (RTA); RTA is turned on in PBO

Alma

Primo search for physical items

Primo

RTA for physical items in both RTA and Get It tab

Alma publishes records to Primo; physical holdings;

Primo harvests records from Alma

If 856, Primo creates link

Get It delivery options displayed

Primo PNX record for each bibliographic record
How Alma Data Gets into Primo

• Alma creates a file of bibliographic records which it exports to Primo
  ▪ Added, changed, or deleted records
  ▪ “Publish bibliographic records to Primo” publishing profile in Alma
  ▪ For networks, the publishing is done from the network level and is called “Publish bibliographic records from Network Zone to Primo”
  ▪ Records can be suppressed from publishing to Primo

• Publishing can be scheduled every 6 hours or less frequently

• Availability of physical items is done via Real Time Availability (RTA)

• Primo Back Office is where you set up configuration for Alma as a data source
Alma as a Data Source (Publishing)

• Harvesting: records extracted from Alma
• Execute (or run) a “pipe”
  ▪ Pipe: the set of steps that an Alma record goes through in order to make it into a Primo Normalized XML (PNX) record and load into Primo
• Once records are loaded into Primo, they are indexed
• Configuration for processes is done in PBO
The PNX Record

• A standardized PNX record facilitates searching and display
• To display a PNX record, add &showPnx=true to the full results URL for an item:

• PNX Viewer in PBO; includes compare to source record function
• Primo Online Help explains the 13 PNX record sections
How Primo Uses Alma Data

• PNX records (created from Alma records) are used to create:
  ▪ Facets
  ▪ Brief Display and Full Display results
  ▪ Electronic Journals A to Z List
  ▪ Database Search A to Z List (NUI only)

• Primo requests additional data from Alma at time of user request
  ▪ Real Time Availability (RTA) for physical items
  ▪ Get It and View It delivery functions
Facets

• Data comes from Alma and is part of PNX record
• PNX record includes element set for facets:
  ▪ Language
  ▪ Creation date
  ▪ Topic
  ▪ Resource type
  ▪ Library
  ▪ Physical location
• Facet display configured in PBO
Facet Elements from PNX

Facets Display
Primo Front End

Facet Section – PNX Record
Bibliographic Data from PNX

Reference Entry
Environmental Racism
Downey, Davia Cox
Encyclopedia of Human Services and Diversity

Print Book
Environmental racism and classism
Anne C. Cunningham, editor / First edition / 2017

Print Book
Confronting environmental racism : voices from the grassroots

eBook
Toxic communities : environmental racism, industrial pollution, and residential mobility
Dorceta E. Taylor, author / 2014

Article / multiple sources exist. see all Geographies of race and ethnicity 1
Pulido, Laura
Progress in Human Geography, 2015, Vol 39(6), pp.809-817
(2002) Administrative responses to environmental racism ... environmental racism research Laura Pulido University of... in the environmental racism arena. 
# Bibliographic Data from PNX

## Item Details

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Environmental racism and classism</td>
</tr>
<tr>
<td>Author</td>
<td>Anne C. Cunningham, editor.</td>
</tr>
<tr>
<td>Subjects</td>
<td>Environmental justice -- Juvenile literature</td>
</tr>
<tr>
<td>Description</td>
<td>Building momentum for the Environmental Justice Movement! Renee Skelton and Vernice Miller -- Strategies to fight environmental injustice at home and abroad / Robert Bullard -- Flint's water crisis fills a pattern of environmental injustice / Lani Rose -- Religious voices play a critical role in environmental justice / Julia Watts Baber -- The food industry is complicit with environmental racism / Food Empowerment project -- Government response to environmental hazards in minority communities is too slow / Ryan Schwier and Peter Elliott -- Environmental racism is supported by the evidence / H. Spencer Benchle -- Economics cannot justify unequal environmental risks / Rachel Massey -- &quot;Environmental Justice&quot; obscures persistent racism / Bryan K. Bullock -- Environmental racism does not exist / David Friedman -- Environmental racism should be put in perspective / Kent Jeffries -- Corporations and governments place profits ahead of people / Anup Shah -- India has not done enough to protect the environment after Bhopal / Edward Broughton -- Environmentalism must bridge the racial divide / Brenton McKay -- &quot;Big Green&quot; NGOs placate liberal conscience, but do little good / Kat Stevens. Flint's water supply tainted with lead. Chicago's toxic donut. Louisiana's cancer alley. Corporate waste poisoning developing nations. These are all examples of environmental racism. Readers of this compelling anthology will be awakened to many examples of poor and minority communities that suffer physically, emotionally, and financially from living in a toxic environment. With no political clout and few available resources, these victims find themselves abandoned by the environmental movement and bullied by environmental policies. The burgeoning environmental justice movement argues that environmental protection is a basic right. After reading the informative viewpoints in this volume, students will come to their own conclusions. Bibliography. Detailed Table of Contents. Further Information Section. Index, Sidebars, Websites. Includes bibliographical references and index.</td>
</tr>
<tr>
<td>Publisher</td>
<td>New York, N.Y.: Greenhaven Publishing</td>
</tr>
<tr>
<td>Creation Date</td>
<td>2017</td>
</tr>
<tr>
<td>Edition</td>
<td>First edition</td>
</tr>
<tr>
<td>Format</td>
<td>156 pages; 24 cm.</td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>OCLC Number</td>
<td>956196164</td>
</tr>
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<td>Alma IZ record number</td>
<td>99900181148501843</td>
</tr>
<tr>
<td>Alma NZ record number</td>
<td>99323018620801461</td>
</tr>
<tr>
<td>Genre/form</td>
<td>Juvenile works</td>
</tr>
<tr>
<td>Related works and collections</td>
<td>Series: At issue. American politics.</td>
</tr>
</tbody>
</table>
856 Creates Link in PNX

856 field in MARC record

Publishes as a Links section of PNX record
Why Does It Display as Print, Electronic or Digital?

PNX Delivery categories (from INT or INST field in Alma record):

- P: physical -> Get It
- E: electronic
- D: digital View It
E-Journal A-Z List

- Created automatically from PNX records
- Out of the box: Only includes records with
  - resource type = Journal
  - delivery category = E
Database Search/A-Z (New UI)

<display>
<type>database</type>

3 Results

1. **Database**
   **Education in video**
   Online access

2. **Database**
   **The PBS video collection.**
   Online access

3. **Database**
   **Kanopy.**
   San Francisco, CA, USA ; Manly NSW, Australia : Kanopy 2008
   Online access
Data That Comes Directly from Alma

• Real Time Availability (RTA)
• Delivery - Get It and View It contents
• My Account – loans, requests, fines
Real Time Availability (RTA)

• Configured in Primo Back Office
• Primo uses an Alma API to retrieve RTA
• This allows Primo to check the status of physical items in real time every time results are loaded or refreshed
• Displayed in the brief record

RTA (Real Time Availability)
Real-Time Data from Alma
How a Consortium Uses RTA

Get It

REQUEST OPTIONS: Request EWU Item / Place Summit request (4-8 days) / Ask us for help / Report a Problem

EWU-Cheney Upper Level Book Stacks GE220.E59 2017
Hide Details
(1 copy, 1 available, 0 requests)

1 - 1 of 1 Records

<table>
<thead>
<tr>
<th>BARCODE</th>
<th>FORMAT</th>
<th>USE POLICY</th>
<th>DESCRIPTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>40428849</td>
<td>Book</td>
<td>90 Days</td>
<td></td>
<td>Available</td>
</tr>
</tbody>
</table>

Get it from other institutions

Clark College
Available

Portland Community College
Available

University of Idaho
Available

University of Washington
May be available

From PNX record

Availability is from Institution RTAs
Get It (physical)

• When a user clicks on a record in brief results, Primo sends an OpenURL request to Alma
• Alma sends information about the availability of physical items
• Get It often renamed by libraries (e.g., Find in Library)
Get It Frame

Print Book

When they call you a terrorist: a Black Lives Matter memoir

Checked out from JFK Library - Main Level New Books (E185.97.K43 A3 2018 ) ... >

Send to

Get It

REQUEST OPTIONS: Place Summit request (4-8 days) / Ask us for help / Report a Problem

EWU Cheney Main Level New Books E185.97.K43 A3 2018

(1 copy, 0 available, 0 requests)

1 - 1 of Records

<table>
<thead>
<tr>
<th>BARCODE</th>
<th>FORMAT</th>
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<th>DESCRIPTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>40555939</td>
<td>Book</td>
<td>90 Days</td>
<td></td>
<td>On loan until 05/14/2018 11:59 PM</td>
</tr>
</tbody>
</table>
View It (electronic)

• When a user clicks on the brief display record, Primo sends an OpenURL request to Alma Link Resolver
• Alma sends information about the availability of electronic and digital items
• View It can be renamed
• Order and Look & Feel of data determined in Alma through the ViewIt/GetIt Mashup.
View It Frame
My Account

• Displays the end users’ loans, requests, fines
• Information comes from Alma
• Uses the “OPAC via Primo” mechanism
• Option to allow the patron to pay fines online
  ▪ EWU uses the Bursar function instead
Loans

1. Tainted witness: why we doubt what women say
   Gilmore, Leigh,
   Due: 07/17/18, 20:00
   Return to: EWU-Cheney K3243 .G55 2017

2. Alice Munro's miraculous art: critical essays
   Lynch, Gerald,
   Due: 07/17/18, 20:00
   Return to: EWU-Cheney PR9199 .M8 Z572 2017

3. Spy of the first person / Sam Shepard.
   Shepard, Sam,
   Due: 07/17/18, 20:00
   Return to: EWU-Cheney PS3569.H394 S69 2017

Requests

1. The shape of water
   Toro, Guillermo del
   REQUEST. Request sent to partner
   Pick up: EWU-Cheney
General Electronic Services (GES)

• Links to other online resources, such as:
  ▪ Ask a Librarian webpage
  ▪ Resource Sharing request service
  ▪ Interlibrary Loan
  ▪ Report a Problem

• Configure in Alma

• View It and Get It services can share or have different GES’s
General Electronic Services – Get It

Print Book
Spy of the first person
Sam Shepard, 1943-2017, author / First edition / 2017

Checked out from JFK Library - Main Level New Books (PS3569.H394 S69 2017) ... >

Send to

Send to
RevWorks EasyBib EndNote Export BibTeX Export RIS Permalink Citation Print Email

Get It

REQUEST OPTIONS: Place Summit request (4-8 days) / Ask us for help / Report a Problem

EWU-Cheney Main Level New Books PS3569.H394 S69 2017

Hide Details

(1 copy, 0 available, 0 requests)

1 - 1 of 1 Records

<table>
<thead>
<tr>
<th>BARCODE</th>
<th>FORMAT</th>
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<th>STATUS</th>
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<td>Book</td>
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<td></td>
<td>On loan until 07/17/2018 08:00 PM</td>
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<tr>
<td>Page</td>
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</tr>
<tr>
<td>------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>General Electronic Services – View It</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Get it now:** ProQuest Central (New)  
  Available from 1998 until 2011

- **Can’t find it?**
  - Ask us for help
  - Request this article using Interlibrary Loan
  - Before requesting an ILL, click Find in a Library menu link to check for print holdings
  - Report a Problem -- URL required for trouble-shooting
  - Please copy this page's URL into the form's comment field
PCI = Remote Resource*

• PCI contains citation metadata for 100’s of millions articles, ebooks, videos, films, music recordings, conference proceedings, newspaper articles

• Resources are activated in the PCI for what’s available from the library’s indexing and abstracting databases (restricted), and for free access data sources

• More integrated with Primo than other remote resources
  ▪ Status indicators

• Other remote resources do not include status indicators
  ▪ Patrons do not know if the library has access to the item

*PCI=Primo Central Index, also referred to as Primo Central
Alma as a Source of Holdings Information for PCI

- Alma publishes its **electronic holdings** to a holdings file either Tuesday night or Wednesday morning.
- Primo Central imports the holdings file and uploads it in an “availability” process which creates status indicators which are stored in the Primo Central database.
- The old PCI availability file is hotswapped for the new one on Sunday.
- Updated availability status can be seen Monday morning.
Primo Search Returns Article Indexed in Primo Central Index

Citation data from PCI

Status Indicator from PCI, created from Alma holdings file sent to PCI
Alma Link Resolver and Primo

Alma link resolver (incorporates Knowledge Base)

- Request information on whether item is available
  - Results on availability of item; link to full text if available; applicable GES services

Primo

- Services page with link resolver results

Patron

Search

External Resource, such as EBSCOhost or Web of Science

Request for services (link resolver)
Alma’s Link Resolver

• Provides services for searches done in Primo or an external database (such as EBSCOhost or ProQuest)
• Primo is the interface between the user and the Alma link resolver
• The end user only sees the Services Page in Primo
The link resolver knowledge base (KB) is incorporated into Alma.

Maintenance is done when the electronic resource is updated in Alma:

- Activating a package or portfolio in Alma automatically adds it to the KB and makes the resource available to the link resolver.
- Deactivating a package or portfolio in Alma immediately removes it from the KB and it is no longer available through the link resolver.
External Database Search Returns Article Citation

11. MONTANA MODERNISM.


Subjects: NATIONAL Register of Historic Places; MODERN movement (Architecture); MONTANA state history – 20th century; SCHOOL building or DOMESTIC architecture – Montana; HISTORIC preservation

Link resolver button
Alma Services Page Process Flow

1. Request for services
2. Request for services
3. Response
4. Primo displays Service Page in user’s browser

User searches Source and requests services
Review - Big Picture Schematic

“Big Picture” Overview of How Alma, Primo, and Primo Central Work Together

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Primo Central Index

Primo considers PCI a remote resource

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Resources

• *Alma and Primo Interoperability, Part 1 & 2*. Available on Ex Libris Knowledge Center

• *Primo and Alma - The Synchronization of Alma with Primo and Primo Central*. PowerPoint presentation by Yoel Kortick, Ex Libris Knowledge Center

• *Primo Interoperability Guide*. Available on Ex Libris Knowledge Center

• Doris Munson. This presentation is based upon, and inspired by, the work of our colleague Doris Munson, Access Services Librarian, Eastern Washington University, and ELUNA 2018 Local Arrangements Co-Chair
Thank You!

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