NISO
Next Generation Discovery

Mike Teets
VP Global Engineering, OCLC

NISO Discovery Tools Forum 2008
• What tools and why
• Worldcat xISBN, xISSN, xID
• Worldcat Identities
• Worldcat API
• Worldcat Registry
• Worldcat OpenURL Gateway
• Worldcat Developers Network
Polyjuice Potion in the Book World

11 versions in WorldCat

46 versions in WorldCat

75 versions in WorldCat

75 versions in WorldCat

80 versions in WorldCat

95 versions in WorldCat

105 versions in WorldCat
Polyjuice Potion in the Book World

105 ISBNs:

32 English (US and UK)
9 Spanish
3 Russian, German, Finnish, Latin
2 Chinese, Czech, French, Korean, Norwegian, Persian, Polish, Portuguese, Romanian, Turkish, Welsh,
1 Afrikaans, Albanian, Armenian, Basque, Bengali, Georgian, Galician, Gaelic, Ancient Greek, Greek, Gujarati, Hindi, Hungarian, Icelandic, Italian, Japanese, Latvian, Lithuanian, Malayalam, Sherpa, Slovenian, Swedish, Thai, Ukranian, Urdu

16 Audio
59 Book
21 Paperback

There are at least 50 more ISBNs for this that are not yet in Worldcat!
ISBNs identify things for sale in bookstores...

...Like this authentic Harry Potter Bust

1593967578

Year 5 Harry Potter Bust
Manufacturer: Diamond Comics

About This Item

Harry Potter and the Order of the Phoenix is set to be released in 2007, and this bust is based off of original scan data from the film. Harry is holding the Prophecy Orb and his signature wand. Harry stands 6 1/4" tall. Comes with a hand-numbered Certificate of Authenticity.
Library patrons just want the Book!

Problem: patrons don't want to see 11 records for one work
The xISBN service is a *machine-to-machine* service.

xISBN supplies ISBNs and other information associated with an individual intellectual *work* in WorldCat.

Submit an ISBN to this service, and it returns a list of related ISBNs and selected metadata.

Example request URL:
And now for something completely different...

Serials

Actually, not entirely different. So, that’s why we built...

\texttt{xISSN}

Find title history, info and all versions of a serial.
Like xISBN, xISSN is a *machine-to-machine* service.

- xISSN supplies information about title history, title info, and related versions (print/electronic, predecessor/successor, etc.)

- Submit an ISSN to this service, and it returns a list of related ISSNs and selected metadata.

NEW!
- But we’ve also made a Title History graphing feature specially for *humans* to look at…
History of 0888-5885

- Print ISSN
- Online ISSN
- CD-ROM ISSN
- Microform ISSN

- Preceding ISSN
- Requested ISSN
- Succeeding ISSN

- Industrial and engineering chemistry process design and development
  - 0019-7882

- I & EC product research and development
  - 0536-1079

- Industrial & engineering chemistry fundamentals
  - 0196-4313
  - 1541-4833

- Industrial & engineering chemistry product research and development
  - 0196-4321
  - 1541-4841

- Product R & D
  - 0091-1968

- Industrial & engineering chemistry research
  - 0888-5885
  - 1520-5045
To come: WorldCat xIdentifier Services

xOCLCnum service on the drawing board

WorkID service?

What would YOU like to see?
http://xisbn.worldcat.org/

- Mailing list
- Support
- Documentation

- Contact us:
  Tim McCormick: mccormit@ocl.org
Current Releases

• Feb 2007 OCLC Research release
• December 2007 Worldcat.org link from Details:Authors
• Phase 2 planning underway now

• Beta Interface available at http://oralabs.oclc.org/identities
Core Features

- Overview
- Publication Timeline (about author, by author, etc.)
- Audience Level
  - http://www.oclc.org/research/projects/audience
- Related Identities
- Fast Subject clouds of author publications
  - http://www.oclc.org/research/projects/fast
Matches for *jackson, michael*

1. Jackson, Michael published: 1862-2003 (Patents)
2. Jackson, Michael 1958- (Rock musicians--United States)
4. Jackson, Michael 1940- (Anthropologists--New Zealand)
5. Jackson, Michael C. 1951-
7. Jackson, M. A.
8. Jackson, Michael 1934-
9. Jackson, Michael H. (Michael Hume) 1959-
10. Jackson, Michael P. 1964-
11. Jackson, Michael J. B. (Michael John Brierley) 1943-
12. Jackson, Michael 1962-
Jackson, Michael 1942-2007

**Overview**

**Works:** 83 works in 192 publications in 9 languages and 5,008 library holdings

**Classifications:** tp577, 841.23

**Publication Timeline**

<table>
<thead>
<tr>
<th>Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications about Michael Jackson</td>
</tr>
<tr>
<td>Publications by Michael Jackson</td>
</tr>
<tr>
<td>Publications by Michael Jackson, published posthumously.</td>
</tr>
</tbody>
</table>

1970 — 2010
Audience Level

- Kids
- General
- Special

Audience level: 0.44 (from 0.30 for Whiskey... to 0.50 for The English...)

Related Identities

- Discovery Channel (Firm)
- Smyth, Frank
- American Express Company
- Channel Four (Great Britain)
- Glass, Leonie
- Tones, John
- Hawkshead Productions
- Duncan, Fiona
- Discovery Channel
- Discovery Program Enterprises

Useful Links

- Library of Congress Authority File (English)
- Deutsche Nationallbibliothek Authority File (German)

Associated Subjects

- Alcoholic beverages
- Ale
- Bars (Drinking establishments)
- Bartending
- Beer
- Beer industry
- Belgium
- Bombardment of London (England : 1944)
- Breweries
- Brewing
- Brewing industry
- California
- California--San Francisco
- Cocktails
Worldcat API

OCLC GRID
WorldCat API Invitation Only Release

What is it?

A set of Web Services that

- Access WorldCat records and holdings
- Enables mashups with WorldCat

A Web Service is a software component

- Defined via a machine readable description
- Capable of being accessed via standard network protocols.
WorldCat API Invitation Only Release
What is it?

- WorldCat Search - Return Citations - Return Holding info
  - Request Protocols: OpenSearch & SRU
  - Response Formats: RSS, Atom (OS); Marc XML, DC (SRU)
  - Return holdings based on geographic context
- This release starting February
- Determine next steps based on experience
WorldCat Search Web Service

Use this Web service to search the WorldCat database of library materials.

The WorldCat Search Web Service provides access to the WorldCat database from clients that can send RESTful URI queries with either the OpenSearch or SRU protocols and can accept RSS, Atom, MARC XML or Dublin Core responses.

Service Highlights

- Searches descriptions of books, video, music in more in the WorldCat database
- Searches can be sent in OpenSearch or SRU CQL syntax
- OpenSearch responses are available in RSS or Atom format, and SRU responses are available in MARC XML or Dublin Core
- Library Holdings information (institution name, location, and more) is also available

Resources

- WorldCat Search Web Service URI Evaluator
- SRU Explain response for the WorldCat Search Web Service
- OpenSearch service description document
- OpenSearch protocol overview
- SRU Protocol overview
- SRU CQL syntax details
## WorldCat API Web Services Evaluator - Example `light` client

### WorldCat Search Web Service

Use this form to test requests sent to and responses received from the WorldCat Search Web Service.

<table>
<thead>
<tr>
<th>Request Protocol</th>
<th>Response Format</th>
<th>Search Terms</th>
<th>Starting Position</th>
<th># of Records to Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenSearch</td>
<td>Atom</td>
<td>civil war</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>SRU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Build the Request**

http://wapi-dev.oclc.org/webservices/catalog/search/worldcat/opensearch?q=civil%20war&format=atom&start=1&count=5

The response from the link shown above will be returned with the content-type "application/atom+xml", and your browser may prompt you for an application with which to view the file. Any text editor will do, though an XML-aware application is better.
Atom is assumed if no format is specified.

http://wcapi.oclc.org/catalog/search/worldcat/opens
earch?q=civil%20war

And here the RSS 2.0 format is requested.

http://wcapi.oclc.org/catalog/search/worldcat/opens
earch?q=civil%20war&format=rss
<?xml version="1.0" encoding="iso-8859-1" standalone="no" ?>


<title>OCLC Worldcat Search: civil war</title>

<link href="http://wapi-dev.oclc.org/webservices/catalog/search/worldcat/opensearch?q=civil+war&start=1&count=5&format=atom" />
<description>Search results for civil war at http://wapi-dev.oclc.org/webservices/catalog</description>

<opensearch:totalResults>322066</opensearch:totalResults>
<opensearch:startIndex>1</opensearch:startIndex>
<opensearch:itemsPerPage>5</opensearch:itemsPerPage>
<opensearch:Query role="request" searchTerms="civil war" startPage="1"/>

</feed>
OpenSearch & Atom continued - some of the links

<link rel="self" href="http://wcapi.oclc.org/webservices/catalog/search/worldcat/opensearch?q=civil+war&start=1&count=5&format=atom" type="application/atom+xml" />

<link rel="next" href="http://wcapi.oclc.org/webservices/catalog/search/worldcat/opensearch?q=civil+war&start=6&count=5&format=atom" type="application/atom+xml" />

<link rel="last" href="http://wcapi.oclc.org/webservices/catalog/search/worldcat/opensearch?q=civil+war&start=68&count=5&format=atom" type="application/atom+xml" />
<entry>
<title>Lincoln: a photobiography / Russell Freedman.</title>
<link href="http://worldcat.org/oclc/15053078" />
<id>15053078</id>
<updated>2007-07-29T08:41:16Z</updated>
<summary>Photographs and text trace the life of the Civil War President.</summary>
</entry>
SRU XML MARC search “civil war” and retrieve full MARC record

A SRU request in XML Marc format


And a search for the top record of this result only

http://wcapi.oclc.org/webservices/catalog/content/15053078
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<record>
  <leader>99999cam a2200001 a 4500cam a</leader>
  <controlfield tag="001">15053078</controlfield>
  <controlfield tag="008">861218s1987 nyua j b 001 0beng</controlfield>
  <datafield tag="020" ind1="" ind2="">
    <subfield code="a">0899193803</subfield>
  </datafield>
  <datafield tag="042" ind1="" ind2="">
    <subfield code="a">lcac</subfield>
  </datafield>
  <datafield tag="050" ind1="0" ind2="0">
    <subfield code="a">E457.905</subfield>
    <subfield code="b">F73 1987</subfield>
  </datafield>
  <datafield tag="082" ind1="0" ind2="0">
    <subfield code="a">973.7/092/4</subfield>
    <subfield code="a">B</subfield>
    <subfield code="a">92</subfield>
    <subfield code="2">19</subfield>
  </datafield>
  <datafield tag="100" ind1="1" ind2="">
    <subfield code="a">Freedman, Russell.</subfield>
  </datafield>
  <datafield tag="245" ind1="1" ind2="0">
    <subfield code="a">Lincoln</subfield>
    <subfield code="b">a photobiography</subfield>
    <subfield code="c">Russell Freedman.</subfield>
  </datafield>
</record>
<record>
  <leader>9995</leader>
  <controlfield tag="005"/>  
  <datafield tag="245" ind1="1" ind2="0">
    <subfield code="a">Lincoln : a photobiography</subfield>
    <subfield code="c">Russell Freedman</subfield>
  </datafield>
  <datafield tag="260" ind1="" ind2="">
    <subfield code="a">New York, N.Y. : Clarion Books</subfield>
    <subfield code="c">c1987</subfield>
  </datafield>
  <datafield tag="300" ind1="" ind2="">
    <subfield code="a">150 p. : ill. ; 24 cm.</subfield>
  </datafield>
  <datafield tag="520" ind1="" ind2="">
    <subfield code="a">Photographs and text trace the life of the Civil War President</subfield>
  </datafield>
  <datafield tag="505" ind1="0" ind2="">
    <subfield code="a">The mysterious Mr. Lincoln -- A backwoods boy -- Law and politics -- Half slave and half free -- Emancipation -- This dreadful war -- Who is dead in the White House? -- A Lincoln sampler -- In Lincoln's footsteps</subfield>
  </datafield>
</record>
Result of a record in XML MARC

<datafield tag="245" ind1="1" ind2="0">
  <subfield code="a">Lincoln : a photobiography</subfield>
  <subfield code="c">Russell Freedman</subfield>
</datafield>

<datafield tag="600" ind1="1" ind2="0">
  <subfield code="a">Lincoln, Abraham</subfield>
  <subfield code="d">1809-1865</subfield>
  <subfield code="v">Juvenile literature</subfield>
</datafield>

<datafield tag="650" ind1="1" ind2="0">
  <subfield code="a">Presidents</subfield>
  <subfield code="z">United States</subfield>
  <subfield code="v">Biography</subfield>
  <subfield code="v">Juvenile literature</subfield>
</datafield>

<datafield tag="710" ind1="2" ind2=""/>
  <subfield code="a">Alfred Whital Stern Collection of Lincolniana (Library of Congress)</subfield>
</datafield>

<datafield tag="856" ind1="4" ind2="2">
  <subfield code="u">http://www.loc.gov/catdir/description/hm021/86033379.html</subfield>
</datafield>
Worldcat Registry

OCLC GRID
WorldCat Registry
worldcat.org/registry/institutions

- A global directory of libraries, their locations, contacts, and the services they provide - 93,000 entries to date
- Free for all libraries to maintain and share with partners
- Pre-populated with data we already have, augmented by libraries and partners
- Centralized data essential for delivering content and services more efficiently on the Web
Profile Summary

Chapel Hill Public Library

Profile Summary

Institution Name: Chapel Hill Public Library
Also Called:
Institution Type: Public Library

Street Address:
100 LIBRARY DRIVE
CHAPEL HILL, North Carolina 27514-3712
United States

Business Address:
100 LIBRARY DRIVE
CHAPEL HILL, North Carolina 27514-3649
United States

Phone: (919) 968-2777
Fax:
E-mail Address:
Home Page: WWW.CHAPELHILLPUBLICLIBRARY.ORG
Information Page:

Services:
IP Addresses: http://24.199.159.222/
OpenURL Resolvers
Virtual Reference

Name and Location

Identifiers

Relationships:
Branches
Affiliations

Services:

Administrative Information

Contacts

Last updated on 2007-02-13
Worldcat OpenURL Gateway

OCLC GRID
Gateway will redirect OpenURLs to registered resolvers based on the requester’s IP address.

You have access to more than one resolver that may have the full text article.
Thank You

Questions?