

Exploring Linked Data

Deploying Identifier in a MARC Environment

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Coordinator Resource Description

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Internationalization of HTTP URI

IRI: <http://räksmörgås.josefsson.org>, <http://納豆.w3.mag.keio.ac.jp>

URI: <http://xn--rksmrgrs-5wao1o.josefsson.org>, <http://xn--99zt52a.w3.mag.keio.ac.jp>



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IRIs... IRIs... IRIs

Object can be a IRI

Predicate is always a
IRI

Subject is usually a
IRI

Object can also be a
literal
(string)



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IDENTIFIER in RDF Environment

- Data Exposure, Exchange and Linking
- Persistent, Universal, and Unambiguous
- Resolvable, Reliable, Global Links
- Share Ontologies

BIBFRAME Impact

- Build a vision of the contributions from metadata to the information sphere
- Learn to facilitate data conversion which turned into data production
- Learn to optimize the present with an eye to the future
- Share desire to continue learning and experimenting
- Work to integrate RDF linking concepts into existing legacy MARC data

Identifier in MARC Environment?

- Which areas of BIBFRAME can be mirrored in MARC?
- What changes in workflow may broaden & deepen staff's overall linked data knowledge and skills?
- Is embedding an identifier in a MARC field or subfield the right segue to linked data:
 - Will others consider this a data enhancement?
 - Is this goal overly ambitious and untimely?
 - Will the change in workflow too burdensome?
 - Will the outcome be satisfactory?

MARC Guidelines

\$0 - Authority record control number or standard number

Subfield \$0 contains the system control number of the related authority record, or a standard identifier such as an International Standard Name Identifier (ISNI). The control number or identifier is preceded by the appropriate MARC Organization code (for a related authority record) or the Standard Identifier source code (for a standard identifier scheme), enclosed in parentheses. See [MARC Code List for Organizations](#) for a listing of organization codes and [Standard Identifier Source Codes](#) for code systems for standard identifiers. Subfield \$0 is repeatable for different control numbers or identifiers.

100 1#SaBach, Johann Sebastian.\$4aut\$0(DE-101c)310008891

100 1#SaTrollope, Anthony,\$d1815-1882.\$0(isni)0000000121358464



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OCLC Instructions

‡0 Authority record control number Subfield ‡0 (zero) contains the system control number of the related authority record or a standard identifier such as an International Standard Name Identifier (ISNI). The control number or identifier is preceded by the appropriate MARC Organization code (for a related authority record) or the Standard Identifier source code (for a standard identifier scheme), enclosed in parentheses. See *MARC Code List for Organizations* (<http://www.loc.gov/marc/organizations/orgshome.html>) for a listing of organization codes and *Standard Identifier Source Codes* (<http://www.loc.gov/standards/sourcelist/standard-identifier.html>) for code systems for standard identifiers. Subfield ‡0 is repeatable for different control numbers or identifiers.

Do not input subfield ‡0 in master records, instead use the control headings function. Local authority identifiers may be entered in subfield ‡0 locally, but should not be added to master records in WorldCat.

<http://www.oclc.org/bibformats/en/1xx/100.html>



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Usage of \$0 in Connexion

100 1#\$aBach, Johann Sebastian.\$4aut\$0(DE-101c)310008891

100 1#\$aTrollope, Anthony,\$d1815-1882.\$0(isni)0000000121358464



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Testing: \$0 Syntax in GW Voyager

001 3792771
005 20130822135633.0
008 910418s1991 nyu 000 1 eng
010 __ |a 91052940
035 __ |a (OCoLC)ocm15525100
040 __ |a DLC |c DLC |d DGW
019 __ |a 29774405
020 __ |a 0679405429
050 00 |a PR4034 |b .P7 1991
082 00 |a 823/.7 |2 20
049 __ |a DGWW
100 1_ |a Austen, Jane, |d 1775-1817. |0 <http://id.loc.gov/authorities/names/n79032879> |0 (DLC)n79032879 |0 <http://viaf.org/viaf/102333412> |0 (viaf)102333412
245 10 |a Pride and prejudice / |c Jane Austen ; with an introduction by Peter Conrad.
260 __ |a New York : |b Knopf : |b Distributed by Random House, |c c1991.
300 __ |a xxxix, 368 p. ; |c 22 cm.
490 0_ |a Everyman's library ; |v 1
651 _0 |a England |v Fiction.
650 _0 |a Young women |z England |v Fiction. |0 <http://id.loc.gov/authorities/subjects/sh2008124372> |0 (DLC)sh2008124372
650 _0 |a Courtship |v Fiction. |0 <http://id.loc.gov/authorities/subjects/sh2008100298>
650 _0 |a Sisters |v Fiction. |0 <http://id.loc.gov/authorities/subjects/sh2008111400>
650 _0 |a Domestic fiction, English. |0 <http://id.loc.gov/authorities/subjects/sh86004355>
655 7 |a Love stories. |2 ccsfd



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HTTP IRI

- Reduce backend maintenance
- Decentralize data hubs (distributed)
- Eliminate data ambiguity
- Increase user experience
- Encourage serendipitous discovery

WRLC 2015 Initiatives ...

Develop and implement a plan that will successfully transition our bibliographic records to a new library services platform

Tentative Database Cleanup Schedule:

1. Reclamation cleanup will take place for each institution

MarcEdit To the Rescue!

Aug
23
2014

MarcEdit's Research Toolkit – MARCNext

BibFrame, MarcEdit

MarcEdit By Terry Reese

File Tools Add-ins Plug-ins Help

MARC Tools

Delimited Text Translator

MarcEditor

RDA Helper

MARCNext

Z39.50/SRU Client

Build Linked Records

The Linked Data Tool has been designed to loop through a set of MARC records and resolve access points in the 1xx, 6xx, and 7xx data elements to their linked data end-points.

Source File:

Save File:

ID Services

☒ U.S. Library of Congress (id.loc.gov)

☐ AutoDetect Subject ID

☐ OCLC VIAF

LC (NACO)

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Source File:

Save File:

ID Services

☒ U.S. Library of Congress (id.loc.gov)

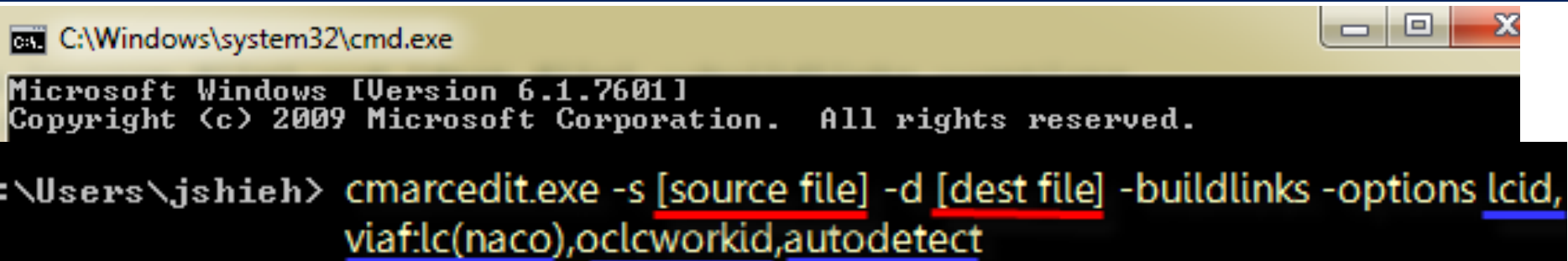
☒ AutoDetect Subject ID

☐ OCLC VIAF

All VIAF

☒ Embed OCLC Work ID

MarcEdit Command Line



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\system32\cmd.exe'. The window content displays the Microsoft Windows version and copyright information. The command prompt shows the user 'jshieh' at the 'C:\Users\' directory. The command entered is 'cmarcedit.exe -s [source file] -d [dest file] -buildlinks -options lcid, viaf:lc(naco),oclcworkid,autodetect'. The placeholders '[source file]' and '[dest file]' are underlined in red, and the options 'lcid', 'viaf:lc(naco)', 'oclcworkid', and 'autodetect' are underlined in blue.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\jshieh> cmarcedit.exe -s [source file] -d [dest file] -buildlinks -options lcid,
viaf:lc(naco),oclcworkid,autodetect
```



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MARC | System | History

☐ Suppress from OPAC

Leader 00726cam a2200253 4500

006

005: 20130227135627.0

007

008 690520 s 1969 nyu ab _ _ b _ l 0 0 1 0 0 _ eng _ _

Version before
07/26/2015

	Tag	I1	I2	Subfield Data
	010			‡a 66018084
→	035			‡a (OCoLC)00000062
	035			‡9 BAQ4125GW
	040			‡a DLC ‡c DLC ‡d m.c. ‡d DGW
	049			‡a DGWW
	050	0		‡a GN803 ‡b .S82
	082			‡a 936
	100	1	0	‡a Stern, Philip Van Doren, ‡d 1900-
	245	1	0	‡a Prehistoric Europe, from stone age man to the early Greeks.
	250			‡a [1st ed.]
	260	0		‡a New York, ‡b Norton ‡c [1969]
	300			‡a 383 p. ‡b illus., maps. ‡c 24 cm.
	504			‡a Bibliography: p. 351-365.
	650	0		‡a Stone age ‡z Europe.
	651	0		‡a Europe ‡x Antiquities.
	966			‡l STACKS ‡s GN 803 .S82 ‡b 32882003100032



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Seize the moment ...

035			1a (OCoLC)62 1z (OCoLC)827541670
043			1a e-----
050	0	0	1a GN803 1b .S82
082	0	0	1a 936
049			1a DGWW
100	1		1a Stern, Philip Van Doren, 1d 1900-1984. 10 http://id.loc.gov/authorities/names/n50022528 10 http://viaf.org/viaf/110391610
245	1	0	1a Prehistoric Europe, from stone age man to the early Greeks.
250			1a [1st ed.].
264		1	1a New York, 1b Norton 1c [1969]
300			1a 383 pages 1b illustrations, maps 1c 24 cm
336			1a text 1b txt 12 rdacontent
337			1a unmediated 1b n 12 rdamedia



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As of July 26,2015

650	0	‡a Prehistoric peoples ‡z Europe. ‡0 http://id.loc.gov/authorities/subjects/sh2008109926
651	0	‡a Europe ‡x Antiquities. ‡0 http://id.loc.gov/authorities/subjects/sh85045632
650	0	‡a Stone age ‡z Europe. ‡0 http://id.loc.gov/authorities/subjects/sh2010114785
650	7	‡a Antiquities. ‡2 fast ‡0 http://id.worldcat.org/fast/00810745
650	7	‡a Prehistoric peoples. ‡2 fast ‡0 http://id.worldcat.org/fast/01075242
650	7	‡a Stone age. ‡2 fast ‡0 http://id.worldcat.org/fast/01133823
651	7	‡a Europe. ‡2 fast ‡0 http://id.worldcat.org/fast/01245064
776	0	8 / ‡i Online version: ‡a Stern, Philip Van Doren, 1900-1984. ‡t Prehistoric Europe, from stone age man to the early Greeks. ‡b [1st ed.]. ‡d New York, Norton [1969] ‡w (OCoLC)581278481
787		‡n OCLC Work Id ‡o http://worldcat.org/entity/work/id/146194414

HTTP IRI in \$0

100 field_\$0	110 field_\$0	111 field_\$0	130 field_\$0	240 field_\$0	600 field_\$0	610 field_\$0	611 field_\$0	630 field_\$0	650 field_\$0	651 field_\$0	655 field_\$0
678110	23682	4361	5270	0	155153	51501	33811	24311	837503	404146	354283
700 field_\$0	710 field_\$0	711 field_\$0	730 field_\$0	787 field_\$n OCLC wkld_\$o URI	830 field_\$0	Total Count: 3,868,367					
351318	113848	2440	5601	958368	40						

Result from Reclamation
3,842,440

Looking toward to...

- Worry Less on:
 - Keeping up local data maintenance
 - Completeness of data descriptions
 - Crosswalks among vocabularies
- Focus More on:
 - Ontologies, vocabularies and the communities they serve
 - Linked data ecosystem
 - Metadata outside Library communities
 - Technology that works effectively with data (**all data not just library data**)

Growing Prominence of Identifier

Charge for PCC Task Group on URIs in MARC

Last updated September 1, 2015

The PCC is committed through its strategic plan to lead the transition to optimize library data for the web. Providing URIs in MARC records will greatly facilitate the reuse of MARC data as linked data and opens the way for catalogers to work with entity registries and controlled vocabularies from the larger metadata community. The time is right for PCC to develop a strategy that supports these objectives, outlined in the [PCC Strategic Directions, 2015-2017](#).



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ILS Vendors Take Notices of Identifier



SirsiDynix®

BLUEcloud Visibility: The Future of Library Data

Want to take advantage of linked data in your library?
Find out what BLUEcloud Visibility can do for you.

From: **Shlomo Sanders** <Shlomo.Sanders@exlibrisgroup.com>

Date: Mon, Oct 19, 2015 at 7:33 AM

Subject: Open Invitation for Linked Data Collaboration

Open Invitation for Linked Data Collaboration

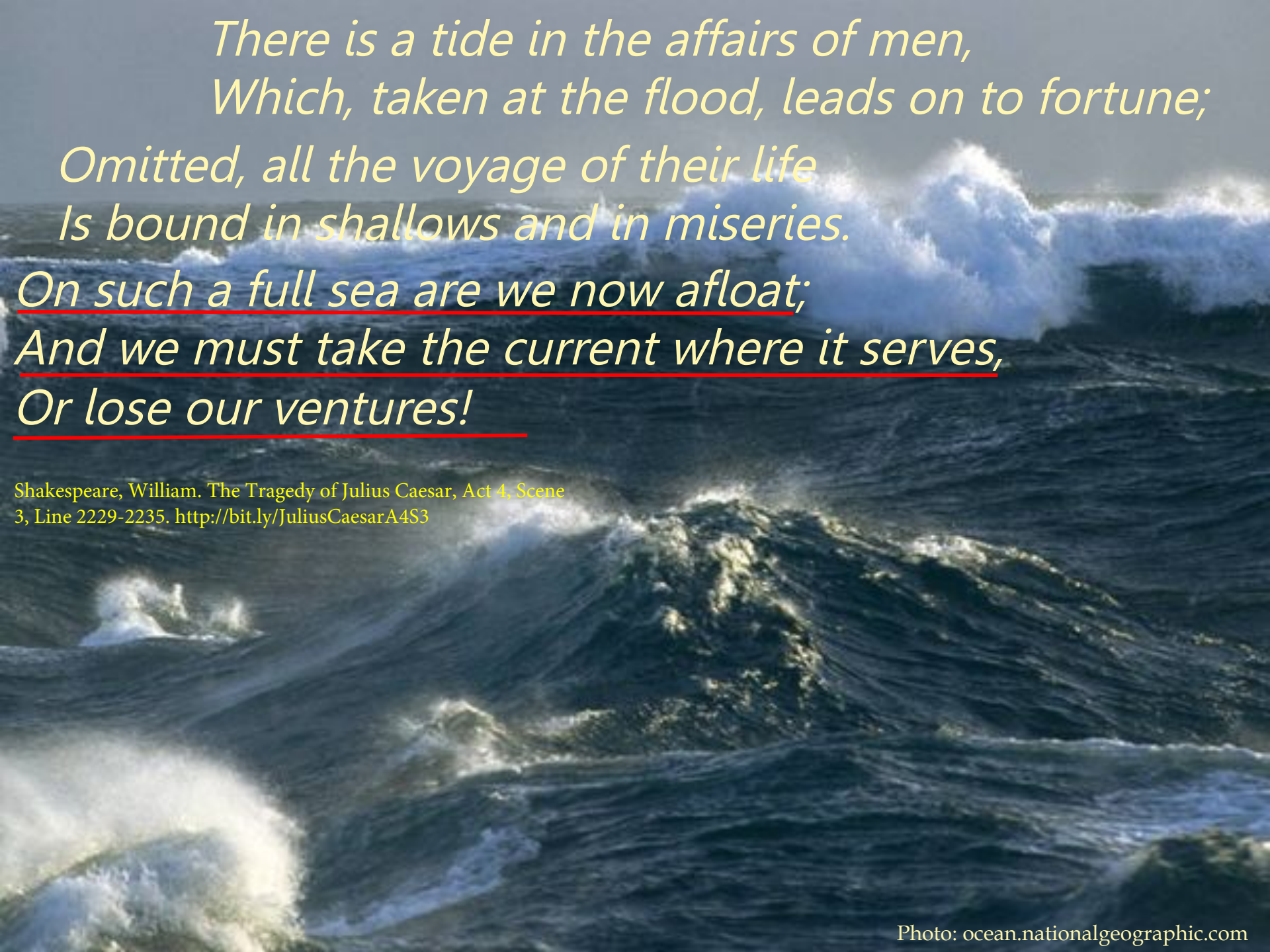
Ex Libris believes that customers will benefit from an evolutionary path towards use of Linked Data (LD) and BIBFRAME. This path translates to incremental addition of features to products in areas where benefit is expected even in early stages of implementation. In the past year Ex Libris has added Linked Data access (URIs) to BIB records in Alma and discovery records (PNX) in Primo.

Ex Libris is calling for **Alma and/or Primo** customers to come forward and partner with us to collaborate in 2016 on Linked Data (LD) functionality in our products.



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*There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are we now afloat;
And we must take the current where it serves,
Or lose our ventures!*

Shakespeare, William. The Tragedy of Julius Caesar, Act 4, Scene 3, Line 2229-2235. <http://bit.ly/JuliusCaesarA4S3>

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