Publishing Linked Data using Open Refine & BibFrame



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Publishing Linked Data using Open Refine



- Install the following two tools needed for publishing LOD
 - 1. Open Refine
 - <u>http://openrefine.org</u>
 - JAVA based
 - Offers data modification via Web interface
 - 2. RDF Refine
 - <u>http://refine.deri.ie/</u>
 - Add more functions to Open Refine

Download Open Refine

- JRE(Java Runtime Environment) Required
 - Visit this site and install JRE (<u>http://java.com/</u>)
- Download OpenRefine from this site
 - <u>http://openrefine.org</u>

Download OpenRefine

The most recent stable version of OpenRefine is Google Refine 2.5. The next release, OpenRefine 2.6, will carry the new branding.

- For Windows, Download, unzip, and double-click on *google-refine.exe*. If you're having issues with the above, try double-clicking on *refine.bat* instead.
- For Mac, Download, open, drag icon into the Applications folder and double click on it.
- For Linux, Download, extract, then type ./refine to start.

Install Refine

• If you unzip 'Open Refine' file to C:\ directory, you will see the following screen shot

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RDF Refine Downloading

'RDF Refine' download site screen shot



Make sure "extensions" folder exists in your Google Refine workspace

Download the extension

- Extract the downloaded zip file to the "extensions" folder
 - Restart Google Refine

2012-07-27: version 0.8.0 released

Support for reconciling using Apache Stanbol is added. This feature has been initially implemented for LMF and partially funded by the Republic of Austria within the COMET project Salzburg NewMediaLab.

2012-01-18: version 0.7.5 released

Publishing Linked Data – Open Refine RDF Refine

Unzip 'RDF Refine' file inside 'extensions' folder of 'Google Refine'
 Ex) When it is installed at C:\google-refine-2.5-r2407\webapp\extension)

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Launching Open Refine

• Recommend to use Google Chrome when you use Open Refine tool.



Launching Open Refine

• To start, just execute 'google-refine.exe' file.

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- Your may need to type this IP address <u>http://127.0.0.1:3333/</u> when you closed your browser.
 - <u>http://127.0.0.1</u> Your local ip address (same for everyone)

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An Example: Converting IMDB Top Movie List into Linked Data

- <u>http://www.imdb.com</u>
- Click Top 250







Find Movies, TV shows, Celebri

 Find Movies, TV shows, Celebrities and more...
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 Movies TV News Showtimes Community IMDbPro

IMDb Charts: IMDb Top 250

IMDb Charts

Main index IMDb Top 250 IMDb Bottom 100

Box Office

Visit BoxOfficeMojo.com

Genre

Action Adventure Animation Biography Comedy Crime Documentary Drama Family Fantasy Film-Noir History Horror Music Musical Mystery Romance Sci-Fi Short Sport

Top 250 movies as voted by our users

For this top 250, only votes from regular voters are considered. Track which films you've seen from the Top 250 right here!



Take the IMDb Top 250 and Top 100 Quiz.

Rank	Rating	Title	Votes
1.	9.2	The Shawshank Redemption (1994)	970,186
2.	9.2	Daeboo (1972)	690,284
3.	9.0	The Godfather: Part II (1974)	445,904
4.	8.9	Pulp Fiction (1994)	754,736
5.	8.9	Il buono, il brutto, il cattivo. (1966)	294,158
6.	8.9	The Dark Knight (2008)	943,714
7.	8.9	12 Angry Men (1957)	238,542
8.	8.9	Schindler's List (1993)	497,256
9.	8.8	The Lord of the Rings: The Return of the King (2003)	692,535
10.	8.8	Fight Club (1999)	738,280
11.	8.8	Star Wars: Episode V - The Empire Strikes Back (1980)	475,169
12.	8.8	The Lord of the Rings: The Fellowship of the Ring (2001)	717,162
13.	8.8	One Flew Over the Cuckoo's Nest (1975)	405,390
14.	8.7	Inception (2010)	758,773
15.	8.7	Goodfellas (1990)	422,836

Converting IMDB Top-Ranked Movies into Linked Data

• Copy the top-ranked 30 movies including column headings & save it as an excel file.

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4	3	9	The Godfather:	er: P	Part II (1974)	445	5,904			
5	4	8.9	Pulp Fiction (19	199	94)	754	4,736	1		
6	5	8.9	Il buono, il bru	rutt	to, il cattivo. (1966)	294	4,158			
7	6	8.9	The Dark Knig	ght	t (2008)	943	3,714			
8	7	8.9	12 Angry Men	n (1	<u>1957)</u>	238	3,542	2		
9	8	8.9	Schindler's List	st (1	<u>1993)</u>	497	7,256	5		
10	9	8.8	The Lord of th	he	Rings: The Return of the King (2003)	692	2,535			
11	10	8.8	Fight Club (199	999)	<u>)</u>	738	3,280			
12	11	8.8	Star Wars: Epis	iso	de V - The Empire Strikes Back (1980)	475	5,169			
13	12	8.8	The Lord of th	he	Rings: The Fellowship of the Ring (2001)	717	7,162			
14	13	8.8	One Flew Over	er ti	the Cuckoo's Nest (1975)	405	5,390			
15	14	8.7	Inception (2010	10)		758	3,773			
16	15	8.7	Goodfellas (199	990	<u>))</u>	422	2,836	5		
17	16	8.7	Star Wars (197	77)	<u>)</u>	532	2,573			
18	17	8.7	Shichinin no sa	san	nurai (1954)	149	9,719			
19	18	8.7	Forrest Gump) (19	994)	638	3,645	5		
20	19	8.7	The Matrix (19	999	<u>ə)</u>	699	9,718			
21	20	8.7	The Lord of th	he	Rings: The Two Towers (2002)	621	1,708			
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Converting IMDB Top Movie into Linked Data

• Open the saved excel file (top-ranked 30 movies) using 'Open Refine'

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Help About								

Converting IMDB Top Movie into Linked Data

• Cleaning data using Open Refine options

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Converting IMDB Top Movie into Linked Data

• Further cleaning work using Open Refine

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	23		19.	19	8.7	The Matrix (1999)	699718	
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Converting IMDB Top Movie into Linked Data

• Data Processing (GREL: <u>https://github.com/OpenRefine/OpenRefine/wiki</u>

•	AII		💌 Rank	💌 Rating	Title				Votes				
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Convert IMDB Top Movie into Linked Data

• Setting up DBpedia SPARQL Endpoint as a Reconciliation Service

		Open Export - Help
		Extensions: Freebase - RDF -
οvc	vs	Edit RDF Skeleton
	💌 Year 💌 Vote	Reset RDF Skeleton
x	Based on SPARQL endpoint	Add reconciliation service
	Based on RDF file	34
	Based on a Sindice site search	4
3	Based on a Apache Stanbol EntityHub	8

Convert IMDB Top Movie into Linked Data

- Setting up to use DBpedia SPARQL Endpoint
- Please specify the following:
 - VRL: <u>http://dbpedia.org/sparql</u>
 - > Type: Virtuoso
 - > Label properties:
 - rdfs:label

Name:	DBpedia			
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Convert IMDB Top Movie into Linked Data

• Asking to list possible Reconciling Services available

Show: 5 10 25 50 rows											
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8.7	The Matrix		1999	699718							
8.7	The Lord of the Rings: Th	e Two Towers	2002	621708							

Convert IMDB Top Movie into Linked Data

• Pick a service for 'Title' Reconciling



Freebase Query-based Reconciliation		
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Convert IMDB Top Movie into Linked Data

• Trying to find a right data source within DBpedia.

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Convert IMDB Top Movie into Linked Data

• Choosing a data source for Title Reconciling (dbo.film is chosen in this example)

Freebase Query-based Reconciliation		Reconcile each cell to an entity of one of these types:	,
Sindice Freebase Reconciliation Service DBpedia	×	 owl:Thing http://www.w3.org/2002/07/owl#Thing dbo:Work http://dbpedia.org/ontology/Work schema:CreativeWork http://schema.org/CreativeWork dbo:Film http://dbpedia.org/ontology/Film schema:Movie http://schema.org/Movie umbelrc:Movie_CW http://umbel.org/umbel/rc/Movie_CW yago:Movie106613686 http://dbpedia.org/class/yago/Movie106613686 yago:English-languAgeFilms http://dbpedia.org/class/yago/Movie106613686 	
Add Standard Service	Add Na	 Reconcile against type: Reconcile against no particular type Auto-match candidates with high confidence Start Reconcil 	ling

Convert IMDB Top Movie into Linked Data

• The result of 'Title' Reconciling with dbo.film

19 matching rows (20 total) Extensions:									RDF 🔻
Sho	Show as: rows records Show: 5 10 25 50 rows « first < pr								t⇒ last »
	AII		💌 Rank	Rating	Title	Year	Votes		
	9	1.	1	9.2	The Shawshank Redemption Choose new match	1994	970186		<u>^</u>
숬	5	2.	2	9.2	Daeboo	1972	690284		
	5	3.	3	9	The Godfather Part II Choose new match	1974	445904		11111
숬	5	4.	4	8.9	Pulp Fiction Choose new match	1994	754736		
	7	5.	5	8.9	Il buono, il brutto, il cattivo Choose new match	1966	294158		
숬	5	6.	6	8.9	The Dark Knight Choose new match	2008	943714		
	7	7.	7	8.9	12 Angry Men 12 Angry Men (1997 film) (0.542) 12 Angry Men (1957 film) (0.542) 12 Angry Men (película de 1957) (0.419) Create new topic Search for match	1957	238542		н
숬	5	8.	8	8.9	Schindler's List Choose new match	1993	497256		
	7	9.	9	8.8	The Lord of the Rings: The Return of the King Choose new match	2003	692535		
닸	5	10.	10	8.8	Fight Club Choose new match	1999	738280		
	5	11.	11	8.8	Star Wars: Episode V - The Empire Strikes Back Star Wars: Episode V: The Empire Strikes Back (0.936) Star Wars Episode V: The Empire Strikes Back (0.915) Star Wars Episode V: The Empire Strikes Back (0.915) Search for match	1980	475169		

Convert IMDB Top Movie into Linked Data

• Making a decision on suggestions by Reconciling service

19	19 matching rows (20 total)							Freebase 🔻	RDF 🕶
She	ow as	s: ro	ows record	is Sho	w: 5 10 25 50 rows	« fi	rst « previo	us 1 - 19 nex	t > last »
	AII		Rank	Rating	Title	Year	Votes		
		1.	1	9.2	The Shawshank Redemption Choose new match	1994	970186		
な	5	2.	2	9.2	Daeboo new Choose new match	1972	690284		
		З.	3	9	The Godfather Part II Choose new match	1974	445904		
☆	5	4.	4	8.9	Pulp Fiction Choose new match	1994	754736		
		5.	5	8.9	Il buono, il brutto, il cattivo Choose new match	1966	294158		
☆	5	6.	6	8.9	The Dark Knight Choose new match	2008	943714		
		7.	7	8.9	12 Angry Men (1957 film) Choose new match	1957	238542		
슔	5	8.	8	8.9	Schindler's List Choose new match	1993	497256		
		9.	9	8.8	The Lord of the Rings: The Return of the King Choose new match	2003	692535		
☆	5	10.	10	8.8	Fight Club Choose new match	1999	738280		
		11.	11	8.8	Star Wars: Episode V: The Empire Strikes Back Choose new match	1980	475169		
☆	5	12.	12	8.8	The Lord of the Rings: The Fellowship of the Ring Choose new match	2001	717162		
		13.	13	8.8	One Flew Over the Cuckoo's Nest (film) Choose new match	1975	405390		
☆	5	14.	14	8.7	Inception Choose new match	2010	758773		
		15.	15	8.7	Goodfellas Choose new match	1990	422836		
☆	5	17.	17	8.7	Shichinin no samurai new Choose new match	1954	149719		
		18.	18	8.7	Forrest Gump Choose new match	1994	638645		
않	5	19.	19	8.7	The Matrix Choose new match	1999	699718		
		20.	20	8.7	The Lord of the Rings: The Two Towers	2002	621708		

Convert IMDB Top Movie into Linked Data

• Defining RDF Skeleton

	Open.	Export -	Help			
E:	xtensions:	Freebase 🔻	RDF 🔻			
Edit RDF	Skeleton					
Reset RDF Skeleton						
Add recor	nciliation ser	vice	•			
1994	970186					
1972	690284					
1974	445904					
1994	754736					

Convert IMDB Top Movie into Linked Data

• Defining RDF Skeleton (i.e., specifying Subject, Predicate, Object)

RDF Schema Alignment

Base URI: http://localhost:3333/ edit

The RDF schema alignment skeleton below specifies how the RDF data that will get generated from your grid-shaped data. The cells in each record of your data will get placed into nodes within the skeleton. Configure the skeleton by specifying which column to substitute into which node.

RDF Skeleton	RDF P	review				
Available Prefixes:	ſ	dfs foaf owl xsd rdt	🕂 🛨 add prefix 🌳 mai	nage prefixes		
(row index) UF add rdf.type	રા 🖂	<pre>× >-property?→</pre> × >-property?→ × >-property?→	 Rank cell Rating cell Title cell 			
		× ≫-property?→	Year cell			
		× »-property?-→	─ Votes cell			
		add property				
Add another root no	de					S
OK Cancel						

Convert IMDB Top Movie into Linked Data

Modifying Base URI for RDF SPO

Base URI: http://localhost:3333/ edit		ocalhost:3333/ edit	http://localhost:3333/	
	RDF Skeleton	RDF Preview	Apply Cancel	

Convert IMDB Top Movie into Linked Data

• Adding a new prefix for the desired namespace

- schema alignment skeleton below specifies how the RDF data that will get generated from your grid-shaped data. The cells in each record of your data nto nodes within the skeleton. Configure the skeleton by specifying which column to substitute into which node.

JRI: http://sample.com/ edit

Skeleton	RDF Pr	eview				
ble Prefixes:	ro	dfs foaf owl xsd rdf	New P	refix		
r w index) U novie Id rdf:type	RI 🖂	 × >-property?→ × >-property?→ 	prefix: URI: (s	dcterms http://purl.org/dc/terms/ uggested by prefix.cc)		
		add property	ОК	Cancel	Advanced	

Convert IMDB Top Movie into Linked Data

• Specifying a property for RDF Skeleton

Base URI: http://sample.com/ edit

RDF Skeleton	RDF Preview
Available Prefixes:	rdfs foaf owl xsd rdf dc dcterms 🕂 add prefix 🌣 manage prefixes
(row index) UF Control (row i	RI ⇒ → dc:title → Search for property: dc:title × >-property? → □ Year cell × >-property? → □ Votes cell
	add property

Convert IMDB Top Movie into Linked Data

Adding owl:sameAs property to connect to Dbpedia)

Base URI: http://sa	ample.co	m/ edit		
RDF Skeleton	RDF P	review		
Available Prefixes:	г	dfs foaf owl xsd r	df dc dcterms 🕂 add prefix	🕸 manage prefixes
(row index) UI x:movie add rdf:type	રા 🗆	 × >-dc:title→ × >-dcterms:crea × >-property?→ 	Title cell	neAs
		add property	Select an item from the list: owl:sameAs Your item not in the list? Add it (Shift+Enter)	http://www.w3.org/2002/07

Convert IMDB Top Movie into Linked Data

• Preparing for GREL expression

RDF Schema Alignment The RDF schema alignment skelet placed into nodes within the skelet Base URI: http://sample.com/ et	on below specifies how the RDF data that w RDF Node	vill get generated from your grid-shaped data. The cells in each record of your data wil	ll get
RDF Skeleton RDF Preview Available Prefixes: rdfs (row index) URI X X:movie X add rdf:type X ad add	Use content from cell (row index) Rank Rating Title Year Votes Constant Value (Immediate Constant Value	The cell's content is used as a URI as a URI as text as language-tagged text as integer number as non-integer number as date (YYYY-MM-DD) as dateTime (YYYY-MM-DD HH:MM:SS) as boolean as custom datatype (specify type URI) as a blank node Use custom expression cel I, recon, match, id preview/edit	
Add another root node OK Cancel		S	Save

Convert IMDB Top Movie into Linked Data

• Specifying GREL expression to combine imdb data with Dbpedia and to publish them in RDF format

RDF Schema Alignr	nent		
The RDF schema align placed into nodes withi	Preview URI values		rd of your data will get
Base URI: http://sam	Expression	Language Google Refine Expression Language (GREL) 💌	
Available Prefixes:	cell.recon.match.id	No syntax error.	
x:movie	Preview History Starred Help		
	row value	cell.recon.match.id	
	1. The Shawshank Redemption	http://dbpedia.org/resource/The_Shawshank_Rederr $_{\blacksquare}$	
	2. Daeboo	Error: Cannot retrieve field from null	
	3. The Godfather: Part II	http://dbpedia.org/resource/The_Godfather_Part_II	
	4. Pulp Fiction	http://dbpedia.org/resource/Pulp_Fiction	
	rd of your data will get Preview URI values Expression Language Cell.recon.match.id Preview History Starred Help row value cell.recon.match.id 1 The Shawshank Redemption http://dbpedia.org/resource/The_Shawshank_Reder 2 Daeboo Eror: Cannot retrieve field from null 3 The Godfather: Part II 4 Pulp Fiction 5 Il buono, il brutto, il cattivo. 6 The Dark Knight bttp://dbpedia.org/resource/The_Dark_Knight_(film) Concel		
	6. The Dark Knight	http://dbpedia.org/resource/The_Dark_Knight_(film)	
	7 40 4 14		
	OK Cancel		
Add another root node			Save

Convert IMDB Top Movie into Linked Data

• The converted result is shown in RDF format

The RDF schema placed into nodes	ment skeleton below specifies how the RDF data that will get generated from your grid-shaped data. The cells in each record of n the skeleton. Configure the skeleton by specifying which column to substitute into which node.	your data will
Base URI: http://	ple.com/ edit	
RDF Skeleton	DF Preview	
This is a sample	Te representation of (up-to) the first 10 rows	
0prefix dc: <ht 0prefix rdfs: < 0prefix foaf: < 0prefix xsd: <h 0prefix owl: <h 0prefix rdf: <h 0prefix dcterms</h </h </h </ht 	/purl.org/dc/elements/1.1/> . ://www.w3.org/2000/01/rdf-schema#> . ://xmlns.com/foaf/0.1/> . //www.w3.org/2001/XMLSchema#> . //www.w3.org/2002/07/owl#> . //www.w3.org/1999/02/22-rdf-syntax-ns#> . ttp://purl.org/dc/terms/> .	
<http: sample.<br="">dc:titl dcterms owl:sam</http:>	D> a <http: movie="" sample.com=""> ; he Shawshank Redemption " ; ated "1994" ; "http://dbpedia.org/resource/The_Shawshank_Redemption" .</http:>	
<http: sample.<br="">dc:titl dcterms</http:>	1> a <http: movie="" sample.com=""> ; aeboo " ; ated "1972" .</http:>	
<http: sample.<br="">dc:titl dcterms owl:sam</http:>	2> a <http: movie="" sample.com=""> ; he Godfather: Part II " ; ated "1974" ; "http://dbpedia.org/resource/The_Godfather_Part_II" .</http:>	
<http: sample.<br="">dc:titl dcterms owl:sam</http:>	3> a <http: movie="" sample.com=""> ; ulp Fiction " ; ated "1994" ; "http://dbpedia.org/resource/Pulp_Fiction" .</http:>	
<http: sample.<="" td=""><td>4> a <http: movie="" sample.com=""> ;</http:></td><td></td></http:>	4> a <http: movie="" sample.com=""> ;</http:>	

Convert IMDB Top Movie into Linked Data

• You can export this data into two RDF formats

	Open Export -	Help	
	Export project	RDF 🔻	
50 rows	Tab-separated value Comma-separated value HTML table	> last »	
nk Redemption atch	Excel ODF spreadsheet		
atch · Part II atch	Triple loader MQLWrite		
atch to, il cattivo	Custom tabular exporter Templating		
atch ht atch	RDF as RDF/XML RDF as Turtle		
(1957 film) atch	1837 230342		
t atch	1993 497256		
e Rings: The Return of the King	2003 692535		

2013 DCMI-AsiaPac Workshop on RDA, DC and Linked Data

Publishing Linked Data using BibFrame



Publishing Linked Data – BibFrame

Introduction

- The Bibliographic Framework Initiative (BibFrame) is an undertaking by the Library of Congress and the community to better accommodate future needs of the library community
- A major focus of the initiative is to determine a transition path for the MARC 21 exchange format to more Web based, Linked Data standards.
- We recommend to use the terminal based application. A small test can be done using Web application(up to 2MB).
 - Terminal based application (Windows CMD, OSX/Linux Terminal)
 - 2. Web application (<u>http://bibframe.org/tools/</u>)

System Requirements

- You need to install the following programs:
 - JRE(Java Runtime Environment) Required
 - <u>http://java.com/</u>
 - SAXON(The XSLT and Xquery Processor) Required
 - Download Saxon-HE (open source version)
 - <u>http://sourceforge.net/projects/saxon/files</u>

Saxon XS The Saxon XSLT an Brought to you by: mhka	SLT and XC ad XQuery processor y	Query	Processo d by Saxonica	ſ
Summary Files Reviews	Support Wiki Ma	ailing Lists	Hosted Apps 🔻 Code	Tickets
ooking for the latest version? D lome Name ≑	ownload SaxonHE9-5-1 Modified \$	-1J.zip (3.0 M Size \$	B) Downloads \$:
ooking for the latest version? D lome Name \$ Saxon-HE	Modified + 2013-04-19	-1J.zip (3.0 M Size \$	B) Downloads \$;
ooking for the latest version? D lome Name • Saxon-HE Saxon-B	Modified + 2013-04-19 2009-10-29	-1J.zip (3.0 M Size +	B) Downloads \$	

- 'Firefox(or Safari)' Web Browser if you do not have it
 - <u>http://www.mozilla.org/en-US/firefox/new/</u>

Publishing Linked Data - BIBFRAME Downloading MARC2BIBFRAME

- Visit the following site to download MARC2BIBFRAME
 - Github URL: <u>https://github.com/lcnetdev/marc2bibframe</u>

GitHub	This repository 👻	Search or type a command	⑦ Explore Feat	ures Enterprise Blog	Sign up Sign in
Icnetdev	/ marc2bibf	rame			★ Star 24 § ² Fork 8
🕞 165 co	mmits	ိုး 1 branch	◎ 0 releases	🛱 3 contributors	<> Code
្ពា 🕻 branch:	master - mar	rc2bibframe / 관			① Issues 7
fix lastedit in nest	ted2flat, start movin	ng standard stuff to utils xqy			Pull Requests 0
ntra00 authore	ed 2 days ago			latest commit 3efbc6elc5	Pulse
html	Moved xquery fi	iles up a level.		2 months ago	L Crophe
modules	fix lastedit in ne	sted2flat, start moving standa	ard stuff to utils xqy	2 days ago	
xbin	Look up topics a	and temporal concepts at ID,	not just names.	2 months ago	& Network
.gitignore	Ignore data.jsor	n file.		7 months ago	HTTPS clone URL
README	A number of cha	anges to the boiler, change se	ection.	2 months ago	https://github.com,
					You can clone with HTTPS, Subversion, and other methods.
					Clone in Desktop
YOUGDV ut	ility to conve	ert MARC/XML Bibliogr	aphic records to BIBFRA	ME resources.	Download ZIP

Publishing Linked Data - BIBFRAME Installing MARC2BIBFRAME

 Unzip downloaded 'Saxon.zip', 'Bibframe.zip files to a Hard Drive (ex. C:\)

🚱 🕞 🛛 🕹 🕹	Local [Dis > • • Search Local Disk (C:)		Q			
Organize - 🞇 Open Burn New folder							
☆ Favorites	^	Name	Date modified	Туре			
		📙 PerfLogs	7/14/2009 AM 11:37	File folder			
		📕 Windows_Mail	8/3/2013 PM 6:23	File folder			
		👢 Users	8/3/2013 PM 6:24	File folder			
🚝 Librarias		🐌 Windows	8/3/2013 PM 7:24	File folder			
	≡	🐌 Program Files	8/3/2013 PM 8:58	File folder			
		▶ marc2bibframe-master Bibframe	8/3/2013 PM 9:08	File folder			
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		Windows_Mail	2/14/2011 AM 12:15	Windows C			
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💐 Computer を Local Disk (C:)							
🛫 Downloads on 'p	ost 👻 🗸	ш		4			
2 items s	electec	Date modified: 8/3/2013 PM 9:08					

Publishing Linked Data - BIBFRAME Installing MARC2BIBFRAME

00

• Copy 'saxon*.jar' files to xbin subfolder of 'marc2bibframe'

					and the second second
	🚱 🕞 🖡 « marc2bibfram.	• xbin • • Search xbin			م
	Organize • Include in	library • Share with • Burn	New folder		
	☆ Favorites	Name		Date modified	Туре
	Desktop	ml.xqy		8/3/2013 PM 9:08	XQY File
		saxon.xqy		8/3/2013 PM 9:08	XQY File
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	 Libraries Documents Music Pictures Instruction 				
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Organize • Include in library • Share with	h - Burn New folder	· · · · · · · · · · · · · · · · · · ·			
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💻 Desktop 🛛 📓 saxon9he		8/3/2013 PM 9:08 JAR File			•
Downloads		8/3/2013 PM 9:08 JAR File			
	· ·				

Preparing MARC xml file

• Copy any 'MARCXML' file to 'marc2bibframe>xbin' folder. The current BibFrame seems to support 'MARCXML' only.

🔄 marcxml_data - Notepad 🗢 🖾 🔀
File Edit Format View Help
xml version="1.0" encoding="UTF-8"? <collection 001"="" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemalocation="http://www.loc.gov/MARC21/slim http://w
<record></td></tr><tr><td><leader>01024cam 22002891a 4500</leader>
<controlfield tag=">6075042 <controlfield tag="008">20100105164403.0</controlfield> <controlfield tag="008">09122982001 ir 000 p takod</controlfield></collection>
<datafield ind1=" " ind2=" " tag="035"> <subfield code="a">(0CoLC)ocn495363092</subfield> </datafield>
<datafield ind2=" " ind]=" " tag="040"> <subfield code="a">UIU</subfield> <subfield code="c">UIU</subfield> <subfield code="d">UIU</subfield></datafield>
 <datafield ind1=" " ind2=" " tag="020"> <subfield code="a">964731700X</subfield></datafield>
<pre> MARC XML </pre>
<datafield ind1=" " ind2=" " tag="041"> <subfield code="a">tgk</subfield> <subfield code="h">per</subfield></datafield>
 <datafield ind1=" " ind2=" " tag="049"> <subfield code="a">UIUU</subfield> </datafield>
<pre></pre> <datafield ind1="0" ind2=" " tag="100"> </datafield>
 <datafield ind1="1" ind2="0" tag="240"> <subfield code="a">Masnavi.</subfield> <subfield code="1">Tajik</subfield></datafield>
 <datafield ind1="1" ind2="0" tag="245"> <subfield code="a">Masnavii ma·navåi /</subfield> <subfield code="c">Mavlono Jaloluddin Muçhammadi Balkhåi ; bar asosi matni R. Nikolson va muqobila bo nuskhaçhoi digar ;</subfield></datafield>
 <datafield ind1=" " ind2=" " tag="260"> <subfield code="a">Techron :</subfield> <subfield code="b">Nashri Zamon,</subfield></datafield>
<pre>subfield code="c">>2001.</pre>

Preparing MARC xml file

• Copy MARC XML file to 'marc2bibframe>xbin' folder

🚱 🕞 📕 « marc2bibfram.	→ xbin → 4 Search xbin		Q
Organize 🔹 📴 Open	• Burn New folder		•
★ Favorites	Name	Date modified	Туре
Desktop	🖹 marcxml_data 🔶 MARC XMI	7/31/2013 PM 7:11	XML Docur
	ml.xqy	8/3/2013 PM 9:08	XQY File
	saxon.xqy	8/3/2013 PM 9:08	XQY File
🖰 Libraries	zorba.xqy	8/3/2013 PM 9:08	XQY File
Documents	🛎 saxon9-unpack	8/3/2013 PM 9:08	JAR File
🕹 Music	📓 saxon9he	8/3/2013 PM 9:08	JAR File
S Pictures			
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🛫 Downloads on 'pst 🔻	•		۱.
marcxml_data XML Documen	Date modified: 7/31/2013 PM 7:11 Date create t Size: 86.8 KB	ed: 8/3/2013 PM 10:37	

Publishing Linked Data - BIBFRAME Running MARC2BIBFRAME

- To publish 'MARCXML' into LD, do the following:
 - 1. Initiate Open Command Prompt (All Programs>Accessories)
 - 2. Move to xbin folder (cd c:\marc2bibframe\xbin)
 - 3. Run marc2bibframe command with parameters
 - Command Syntax

java -cp /path/to/saxon9he.jar net.sf.saxon.Query saxon.xqy marcxmluri=/path/to/marcxml baseuri=[] serialization=[rdfxml/rdfxmlraw/ntriples/json/exhibitJSON] > outputfile_name

- Command Syntax Explained
 - Command: java -cp /path/to/saxon9he.jar net.sf.saxon.Query saxon.xqy
 - Parameters
 - marcxmluri: Path to MARCXML file.
 - **baseuri**: Base URI for generated resources
 - serialization: Output file format [rdfxml (default), json, exhibitJSON...]

MARC to BibFrame: Command Examples

• Example 1 (RDF format)

java –cp saxon9he.jar net.sf.saxon.Query saxon.xqy marcxmluri=illinois_marc.xml baseuri=http://ld.skku.edu serialization=rdfxml > illinois.rdf

• Example 2 (exhibitJSON format)

java -cp saxon9he.jar net.sf.saxon.Query saxon.xqy !method=text marcxmluri=illinois_marc.xml baseuri=http://ld.skku.edu serialization=exhibitJSON > illinois.json

Running MARC2BIBFRAME

• ex1) Converting MARCXML to RDFXML

Administrator: C:\Windows\system32\cmd.exe		×
C:₩marc2bibframe-master₩xbin>java -cp saxon9he.jar net.sf.saxon. marcxmluri=marcxml_data.xml baseuri=http://lis.skku.edu/ seriali data.rdf	Query saxon. zation=rdfxm	xqy ▲ 1 > =

• ex2) Converting MARCXML to JSON

Administrator: C:\Windows\system32\cmd.exe	- 0	×
C:₩marc2bibframe-master₩xbin>java -cp saxon9he.jar net.sf.saxon. !method=text marcxmluri=marcxml_data.xml baseuri=http://lis.skku ion=exhibitJSON > data.json	Query saxon.; .edu/ serial:	kqy Izat =

Viewing converted files in a Web Browser

- To view the published LD file using a web browser, do the following:
 - 1. Rename exhibitJSON file name to 'data.json'
 - Copy 'data.json' to 'marc2bibframe\html\data' folder
 - 3. Run 'marc2bibframe\html\exhibit.html' in Firefox Web browser

Viewing converted files in Web Browser

							×
ARC21 BID Records as BIDFRAME R A	thtml		- Google	ρ	l 🍝		
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IARC21 BID Recor	as as BIBERA	AME Resources					
Search	33 Work						
		sorted by: labels: then by • I grouped as so	orted				
						8	
Creators	Adelstein, Jake	. Tokyo vice : an American reporter on the	police beat in J	apan (1)			
20 (missing this field)							
1 Adelstein, Jake.	1. Tokyo vice :	an American reporter on the police beat in Ja	apan				
1 Caine, Alex.	Creator(s)	Adelstein, Jake.					
1 De Groot, Jerome, 1975-	Summary	From the only American journalist ever to have been admitted to the	he insular Tokyo Metropoli	tan Police pre	s club:	а	
1 Green, Andrew.		unique, firsthand, revelatory look at Japanese culture from the uno	derbelly up. For twelve yea	irs of eighty-ho	ur		
Subjects		the riveting, often humorous tale of his journey from an inexperience	ced cub reporter to a darir	orruption. Here	e, ne teil e journal	is list	
15 (missing this field)		with a Yakuza price on his head. With its visceral descriptions of c	rime in Japan and an exp	loration of the	world of		
1 Abramovic, Marina		description.	scination, and an education	nFrom publi	sner		
1 Adelstein, Jake.	Subject(s)	Adelstein, Jake.					
1 Adult education and state		CrimeJapan					
1 Agee, James, 1909-1955. 🗸		Crime and the press-Japan Reporters and reportingJapan					
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	Instance(s)	Tokyo vice : an American reporter on the police	beat in Japan				
		Edition 1st ed.	Holdings				
		Extent x, 335 p.;					
•							
	Advancing the	three-minute walk-through : mastering refl	lective practice (1)			