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## Converting MARC to RDF

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# Converting MARC to RDF

LODLAM Toronto Lightning Talk

May 13, 2016

F. Tim Knight



**OSGOODE**

OSGOODE HALL LAW SCHOOL  
YORK UNIVERSITY

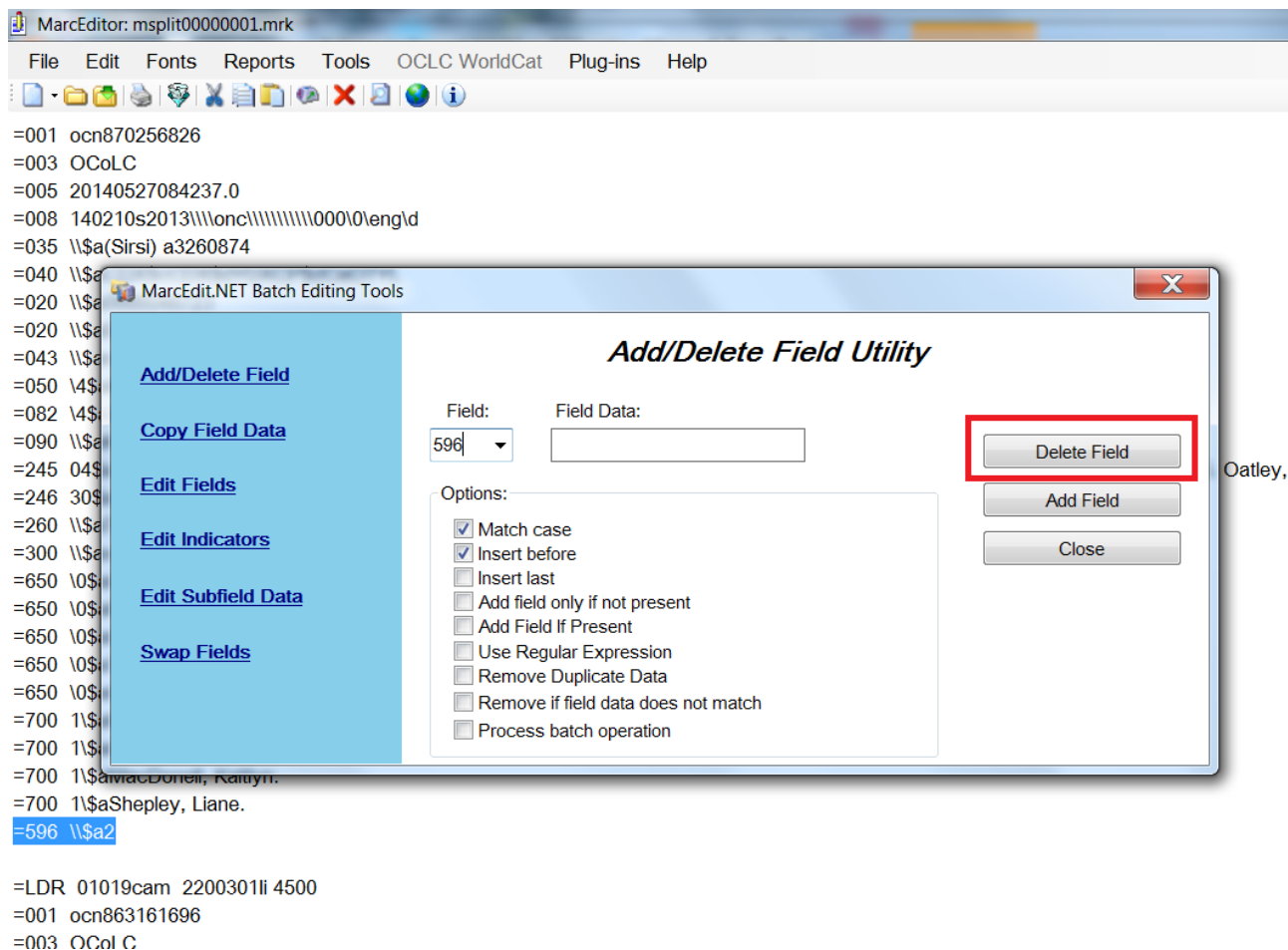
# Step 1 – Extract MARC Records

The image shows two overlapping windows from the SirsiDynix Symphony Workflows application. The top window is titled 'Schedule New Reports : Schedule LAWEXTRACT\_TEMP'. It has a menu bar with 'File', 'Edit', 'Wizards', 'Modules', 'Preference', 'Tools', 'Window', and 'Help'. Below the menu bar is a ribbon with tabs for 'Acquisitions', 'Cataloging', 'Circulation', 'Configuration', 'Reports', 'Selection', 'Serial Control', and 'Utility'. The 'Reports' tab is active, showing sub-tabs for 'Basic', 'Search String', 'Item IDs', 'Shadow', 'Item Selection', 'Call Number Selection', and 'Title Selection'. The 'Basic' sub-tab is selected, and the following fields are filled: 'Report name: Extract MARC Records', 'Description: Extracts list of catalogue records for export', and 'Title: Bibliographic Records for Export'.

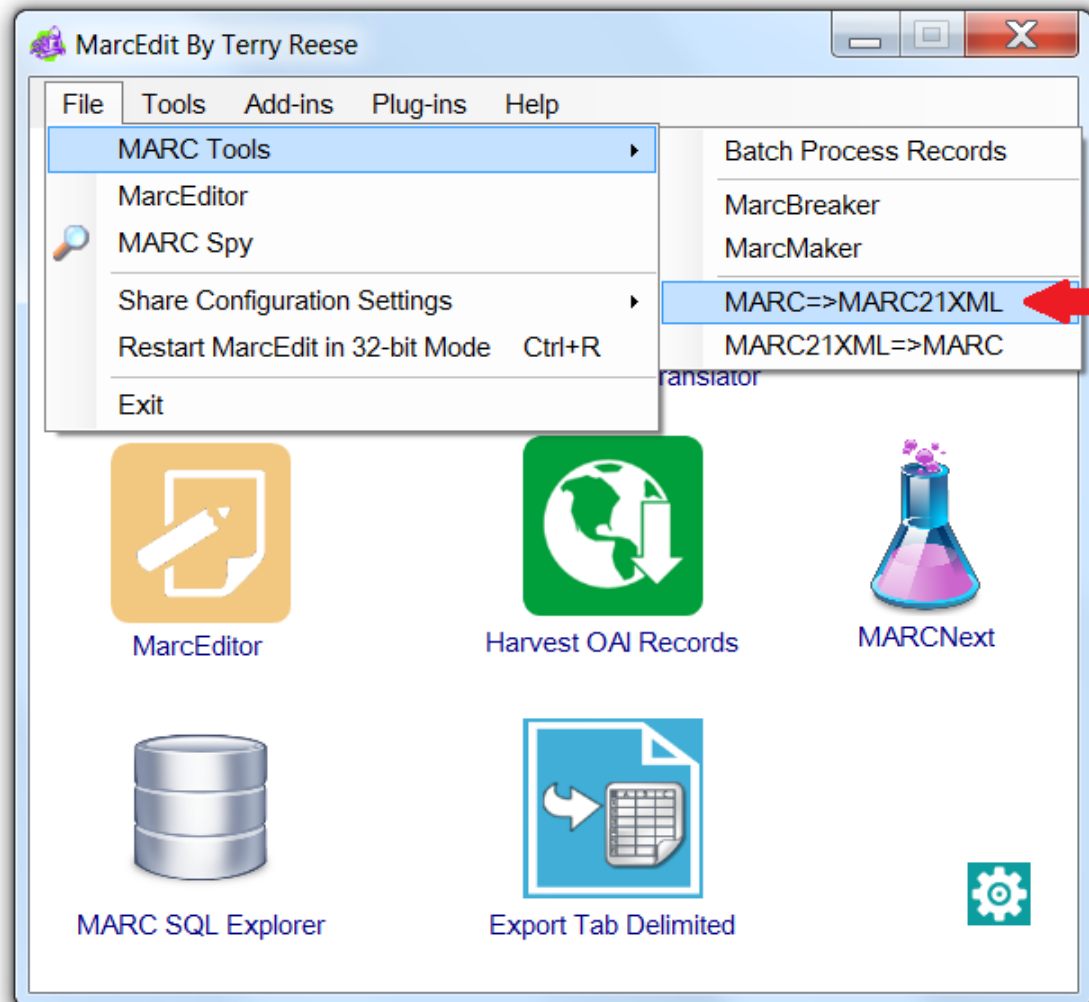
The bottom window is titled 'MARC Export'. It also has a menu bar with 'File', 'Edit', 'Wizards', 'Modules', 'Preference', 'Tools', 'Window', and 'Help'. Below the menu bar is a ribbon with tabs for 'Acquisitions', 'Cataloging', 'Circulation', 'Configuration', 'Reports', 'Selection', 'Serial Control', and 'Utility'. The 'Reports' tab is active, showing sub-tabs for 'Export' and 'Preview'. The 'Export' sub-tab is selected. The following information is displayed: 'Records selected on: Tue May 10 02:23:53', 'Record count: 396', 'Save exported records:  On server  On client', 'File name on server: [empty]', and 'File name on client: \\tknight\Desktop\someMARCrecords.mrc'. Below this information is a table listing the exported MARC files.

Name	Date modified	Type	Size
msplit00000000.mrc	11/23/2015 3:20 PM	MARC Files	20 KB
msplit00000001.mrc	11/23/2015 3:20 PM	MARC Files	13 KB
msplit00000002.mrc	11/23/2015 3:20 PM	MARC Files	27 KB
msplit00000003.mrc	11/23/2015 3:20 PM	MARC Files	28 KB
msplit00000004.mrc	11/23/2015 3:20 PM	MARC Files	29 KB
msplit00000004-linked.mrc	12/11/2015 11:30 ...	MARC Files	31 KB
msplit00000005.mrc	11/23/2015 3:20 PM	MARC Files	21 KB
msplit00000006.mrc	11/23/2015 3:20 PM	MARC Files	21 KB
msplit00000007.mrc	11/23/2015 3:20 PM	MARC Files	21 KB
msplit00000008.mrc	11/23/2015 3:20 PM	MARC Files	16 KB
msplit00000009.mrc	11/23/2015 3:20 PM	MARC Files	22 KB

# Step 2 – Clean/Remove Unwanted Local Tags



# Step 3 – Convert to MarcXML



# Step 3 – MARCXML file

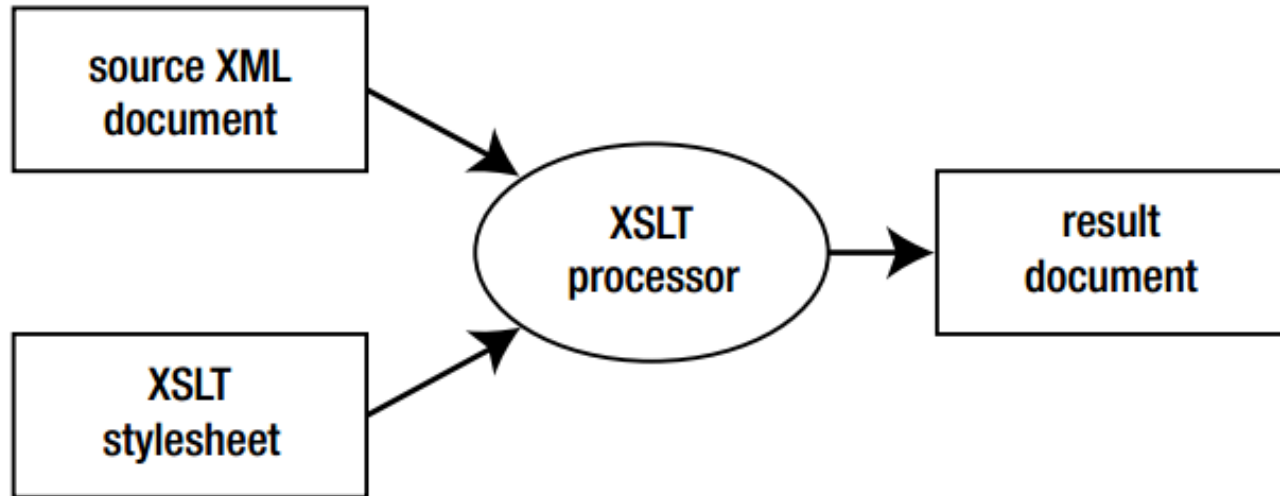
```
1 <?xml version="1.0" encoding="UTF-8" ?><marc:collection xmlns:marc="http://www.loc.gov/MARC21/slim" xmlns:xsi="
http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.loc.gov/MARC21/slim
http://www.loc.gov/standards/marcxml/schema/MARC21slim.xsd">
2 <marc:record><marc:leader>00893cai a2200241 4500</marc:leader>
3 <marc:controlfield tag="001">ocm02738113</marc:controlfield>
4 <marc:datafield tag="016" ind1=" " ind2=" "><marc:subfield code="a"> 890943257
</marc:subfield></marc:datafield><marc:controlfield tag="008">890828m19899999onck b 1 0eng c
</marc:controlfield><marc:datafield tag="020" ind1=" " ind2=" "><marc:subfield code="a">0459328816
</marc:subfield></marc:datafield><marc:datafield tag="035" ind1=" " ind2=" "><marc:subfield code="a">(Sirsi) a3260470
</marc:subfield></marc:datafield><marc:datafield tag="040" ind1=" " ind2=" "><marc:subfield code="a">MWU
</marc:subfield><marc:subfield code="b">eng</marc:subfield><marc:subfield code="d">UML</marc:subfield><marc:subfield
code="d">CaOTYL</marc:subfield></marc:datafield><marc:datafield tag="043" ind1=" " ind2=" "><marc:subfield code="a">
n-cn-on</marc:subfield></marc:datafield><marc:datafield tag="050" ind1="0" ind2="4"><marc:subfield code="a">KF581
</marc:subfield><marc:subfield code="b">.L64 1989</marc:subfield></marc:datafield><marc:datafield tag="090" ind1=" "
ind2=" "><marc:subfield code="a">KF 581 L6452</marc:subfield><marc:subfield code="b">LA
</marc:subfield></marc:datafield><marc:datafield tag="100" ind1="1" ind2=" "><marc:subfield code="a">Loeb, Audrey M.,
</marc:subfield><marc:subfield code="d">1948-</marc:subfield></marc:datafield><marc:datafield tag="245" ind1="1" ind2=
"0"><marc:subfield code="a">Condominium law and administration /</marc:subfield><marc:subfield code="c">by Audrey M.
Loeb.</marc:subfield></marc:datafield><marc:datafield tag="250" ind1=" " ind2=" "><marc:subfield code="a">2nd ed.
</marc:subfield></marc:datafield><marc:datafield tag="300" ind1=" " ind2=" "><marc:subfield code="a">3 v.
(loose-leaf) :</marc:subfield><marc:subfield code="b">forms ;</marc:subfield><marc:subfield code="c">26 cm.
</marc:subfield></marc:datafield><marc:datafield tag="500" ind1=" " ind2=" "><marc:subfield code="a">First ed. (1981)
published under title: Condominium : the law and administration in Ontario.
</marc:subfield></marc:datafield><marc:datafield tag="504" ind1=" " ind2=" "><marc:subfield code="a">Includes
bibliographical references and index.</marc:subfield></marc:datafield><marc:datafield tag="650" ind1=" " ind2="0"
><marc:subfield code="a">Condominiums</marc:subfield><marc:subfield code="x">Law and legislation
</marc:subfield><marc:subfield code="z">Ontario.</marc:subfield></marc:datafield><marc:datafield tag="650" ind1=" "
ind2="0"><marc:subfield code="a">Condominiums</marc:subfield><marc:subfield code="x">Law and legislation
</marc:subfield><marc:subfield code="z">Canada.</marc:subfield></marc:datafield><marc:datafield tag="700" ind1="1"
ind2="0"><marc:subfield code="a">Loeb, Audrey M.,</marc:subfield><marc:subfield code="d">1948-
</marc:subfield><marc:subfield code="t">Condominium : the law and administration in Ontario
```



# Step 4 – Retrieve LC XSLT Style Sheets

- Grab the XSLT stylesheets from Library of Congress  
<http://www.loc.gov/standards/marcxml/xslt/>
- You'll need **MARC21slim2RDFDC.xsl** which also requires **MARC21slimUtils.xls**
  - <http://www.loc.gov/standards/marcxml/xslt/MARC21slim2RDFDC.xsl>
  - <http://www.loc.gov/standards/marcxml/xslt/MARC21slimUtils.xls>

# Step 5 – Process Using XSLT Style Sheets



**Figure 2-1.** *Using an XSLT processor*





# Step 5 – Process Using XSLT Style Sheets

## Linux Commands

- `xsltproc MARC21slim2RDFDC.xsl testXML.xml  
| cat > test.rdf`

or

- `xsltproc MARC21slim2RDFDC.xsl testXML.xml  
-o test.rdf`



# Step 5 – Process Using XSLT Style Sheets

Saxon-HE <http://saxon.sourceforge.net/>

## Windows Command

- `java net.sf.saxon.Transform -o:test.rdf testXML.xml MARC21slim2RDFDC.xsl`

# RDF in Dublin Core

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <rdf:Description xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
3   xmlns:dc="http://purl.org/dc/elements/1.1/">
4   <dc:title>Condominium law and administration /</dc:title>
5   <dc:creator>Loeb, Audrey M.,1948-</dc:creator>
6   <dc:creator>Loeb, Audrey M.,1948-Condominium : the law and administration in Ontario</dc:creator>
7   <dc:type>text</dc:type>
8   <dc:language>eng</dc:language>
9   <dc:description>First ed. (1981) published under title: Condominium : the law and administration in Ontario.
10  </dc:description>
11  <dc:description>Includes bibliographical references and index.</dc:description>
12  <dc:subject>Condominiums</dc:subject>
13  <dc:subject>Condominiums</dc:subject>
14  <dc:identifier>URN:ISBN:0459328816</dc:identifier>
15 </rdf:Description>
16 <rdf:Description xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
17   xmlns:dc="http://purl.org/dc/elements/1.1/">
18   <dc:title>Charter justice in canadian criminal law /</dc:title>
19   <dc:creator>Stuart, Don,1943-author</dc:creator>
20   <dc:type>text</dc:type>
21   <dc:language>eng</dc:language>
22   <dc:description>Previous edition: Fifth (2010).</dc:description>
23   <dc:description>Includes bibliographical references and index.</dc:description>
24   <dc:description>Basic principles -- Section 7: right to life, liberty and security of person and guarantee of
principles of fundamental justice -- Section 8: right to be secure against unreasonable search or seizure --
Section 9: arbitrary detention or imprisonment -- Section 10: rights on arrest or detention -- Section 11: rights
of persons charged with an offence -- Section 12: protection against cruel and unusual treatment or punishment --
Section 13: right of witness not to have incriminating evidence used in subsequent proceedings -- Section 14:
right to an interpreter -- Section 15: equality rights -- Section 24: Charter remedies.</dc:description>
   <dc:subject>Canada.</dc:subject>
```



Thanks!

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