

Metadata Quality Analysis

Tools & Scripts to Check Your Data

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ShareFest 2015, Nashville Tennessee

Slides & Examples

<http://bit.ly/MetadataQA>

Introduction

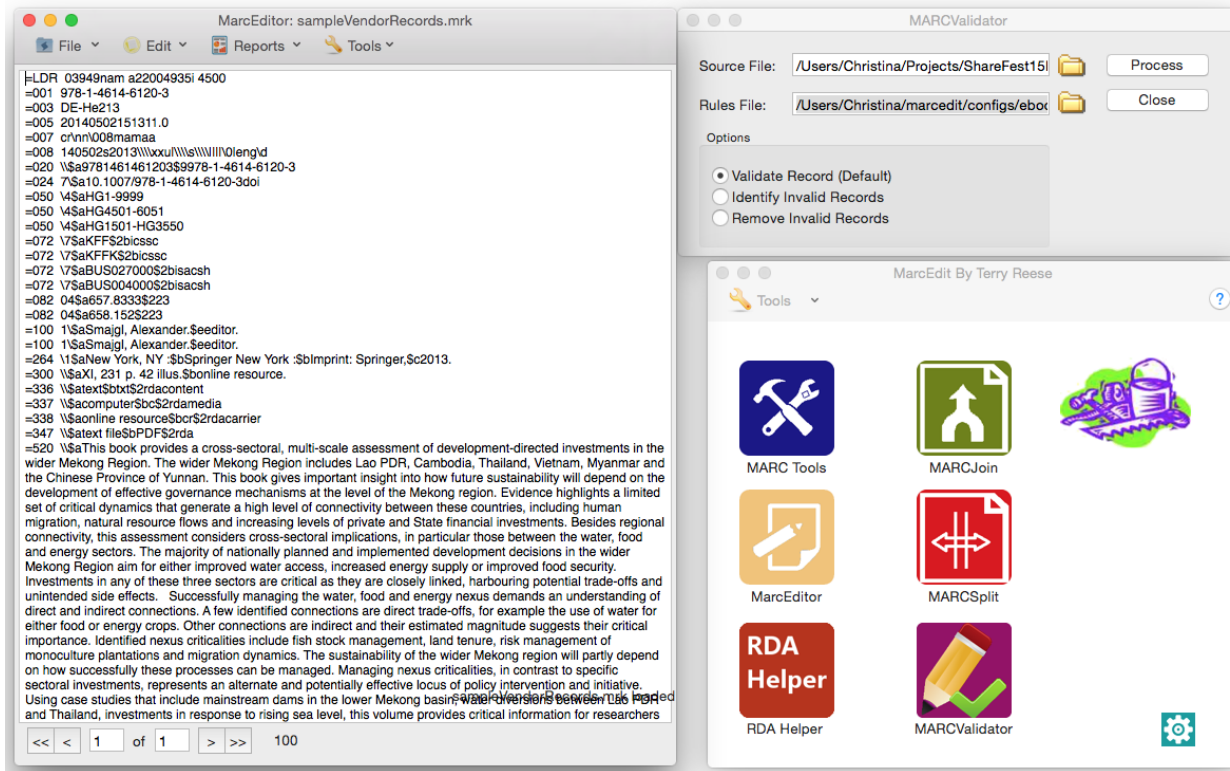
- Need for metadata QC review tools
- Use cases => Examples
- GUIs to Scripting
- Working with:
 - MARC, XML, Json
 - DC, MODS, DPLA MAP v.4
 - RDA, AACR2, DACS

Method 1: MarcEdit

MarcEdit = Freely available (but not open source) tool for working with MARC records.

<http://marcedit.reeset.net/>

MarcEdit Screenshot



MarcEdit

- Easy to learn
- Work with .mrc, .mrk, or MARC/XML
- Standard conversions
- Validates MARC, RDA Helper
- Generates reports
- Performance issues for bigger (>50k) sets
- Not always/easily customizable

MarcEdit Reports at UTK

Review Vendor Supplied, Legacy Records:

- Field Usage, Item Type Reports
- Generating CSV files
- MARC Validation Report

MarcEdit Reports at UTK

Field Usage Report

examples >

MARCEdit >

FieldandTypeReports.md

Field	Subfield	In Records	Total
650		46416	156927
	\$v		19946
	\$d		16
	\$0		1338
	\$c		2
	\$a		156926
	\$2		1415
	\$l		2
	\$z		41253
	\$y		5781
	\$x		34059
651		11221	17323
	\$v		2159
	\$0		330
	\$a		17323
	\$2		337
	\$6		9
	\$z		487
	\$y		4773
	\$x		12665
653		310	509
	\$a		529
655		33586	80463

MarcEdit Reports at UTK

Item Type Report

Material Type Report Results

Visual Materials: 50876

10 meter & 30 meter coverage of 48 conterminous states: 1

2007, 2008, 2009: 1

Area size: 3837 sq. miles, coverage of Nashville, Memphis, Knoxville & Chattanooga, color 1 foot resolution, Tennessee State-Plane NAD83 MrSID format: 1

Bildtonträger: 1

Chart: 5

Direct Electronic: 12

DVD: 6

Electronic: 10643

Electronic resource: 752

Elektronische Ressource: 1

Filmstrip: 9

Flash card: 3

Graphic: 3

Kit: 22

examples > MARCedit > FieldandTypeReports.md

MarcEdit Reports at UTK

Generated CSV files

examples >

MARCEdit >

GenerateCSVreports.md

001	007\$00	245\$a	245\$h	336	337	338	500	538
991262280102311	v	Equine laryngostomy and ventriculectomy, and emergency tracheostomy.	[videorecording] /					U-matic.
994938970102311	v	Day for night	[videorecording] /				"English language version."; Original screenplay by François Truffaut.	
994403500102311	v	Alexander spots	[videorecording] /					U-matic.
994478180102311	v	Elvis in the fifties	[videorecording]					
993287420102311	g	[Kefauver miscellany.	[videorecording]				Reproduction from motion picture.;A compilation of various motion picture shorts.	DVD
992088700102311	v	The shirt off your back	[videorecording].				U Standard.; Originally broadcast as television program by WGBH.;Title on container: Inside Europe; the shirt off our backs.	

MarcEdit Reports at UTK

MARC Validation Report

```
Record #: 1
001 (if defined): 978-1-4614-6120-3
245 (if defined): The Water-Food-Energy Nexus in the Mekong Region$h[electronic resource] :
$bAssessing Development Strategies Considering Cross-Sectoral and Transboundary Impacts /$cedited
by Alexander Smaig, John Ward.
Errors:
  One 245 field must be present in a MARC21 record.
  245: Has been marked as a non-repeating field.

Record #: 16
001 (if defined): 978-3-642-41704-7
245 (if defined): Microfinance 3.0$h[electronic resource] ;$bReconciling Sustainability with Social
Outreach and Responsible Delivery /$cedited by Doris KÄtlin.
Errors:
  506-ind1: Invalid data (0) Indicator should be undefined.
```

examples > MARCedit > MARCvalidation.md

Method 2: OpenRefine

OpenRefine = Freely available, open source tool for working with all kinds of data.

<http://openrefine.org/>

OpenRefine Screenshot

LODRefine

SPC

Permalink

Facet / Filter

Undo / Redo

1319

1482 rows

Extensions: DBpedia Crowdsourcing Named-entity recognition Freebase Utilities RDF

Show as: rows records

Show: 5 10 25 50 rows

« first < previous 1 - 10 next > last »

Using facets and filters

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?

Watch these screencasts

All	Identifier	Identifier 2	subject_name 1	subject_name 2	subject_name 3	subject_name 4
☆	1.	spc_3726	0012_000106_000497	University of Tennessee, Knoxville http://id.loc.gov/authorities/names/n80003889		
☆	2.	spc_3970	0012_000067_000314_0001			

OpenRefine

- Helpful Graphical User Interface for understanding data
- Works with many types of data (better with flatter)
- Faceting, Clustering, GREL, Reconciliation
- Exports a number of formats/encodings
- Performance issues for bigger (>150k) sets

OpenRefine Reports at UTK, DLTN

Review non-MARC Metadata for Mapping,
Normalization, Enhancement:

- Facet & Cluster Fields
- Target, Export Geographic Terms
- Review Fields Used

OpenRefine Reports at UTK, DLTN

Facet & Cluster Fields

examples >

OpenRefine >

SortFacetFilters.md

LODRefine sample Permalink

Facet / Filter Undo / Redo 74

Refresh Reset All Remove All

subject

Knoxville

☐ case sensitive ☐ regular expression

subject change

115 choices Sort by: name count Cluster

Knoxville Paper Co. 1

Knoxville, Tenn.--History 2

Knoxville(Tenn.)--History. 1

Lemon balm--Tennessee--Knoxville--History--20th century Photographs 1

Lotus--Tennessee--Knoxville--History--20th century Photographs 1

Methodists--Tennessee--Knoxville 1

Mountain laurel--Tennessee--Knoxville--History--20th century Photographs 1

Orphanages--Tennessee--Knoxville 1

Photographs--Tennessee--Knoxville--History--20th century Photographs 2

Plants, Ornamental--Tennessee--Knoxville--History--20th century Photographs 73

Plants, Ornamental--Tennessee--Knoxville--History--20th century Photographs. 1

Presbyterians--Tennessee--Knoxville 2

Published 1919, University of Tennessee, Knoxville, Knoxville, TN 37996 2

1580 matching rows (3767 total)

Show as: rows records Show: 5 10 25 50 rows

All	identifier	subject	identifier2
1.	spc_3726	University of Tennessee, Knoxville	0012_000106_000497
2.		University of Tennessee, Knoxville Pictorial works	
3.	spc_3970	Knoxville (Tenn.)--Buildings, Structures, Etc.--Pictorial Works	0012_000067_000314_0001

OpenRefine Reports at UTK, DLTN

Target Geographic Terms

examples >

OpenRefine >

SortFacetFilters.md

LODRefine sample Permalink

Facet / Filter Undo / Redo 76

Refresh Reset All Remove All

subject

Tenn

☐ case sensitive ☐ regular expression

subject change

146 choices Sort by: name count Cluster

- African Americans--Knoxville (Tenn.) 1
- African Americans--Tennessee 1
- Alabama--Boundaries--Tennessee 1
- Alluvial streams--Great Smoky Mountains (N.C. and Tenn.)--History--20th century Photographs 1
- Azaleas--Tennessee--Knoxville--History--20th century Photographs 2
- Bijou Theatre, Knoxville, Tennessee 2
- BLOUNT COUNTY (TENN.) - PICTORIAL WORKS 1
- Blount County (Tenn.)--Pictorial works 1
- Bluff City (Tenn.)--Pictorial works 1
- Charities--Tennessee--Knoxville. 1
- Chattanooga (Tenn.)--Pictorial works 1
- Chickamauga and Chattanooga National Military Park (Ga. and Tenn.) 1
- Chilhowee Lake (Tenn.) 7
- Christmas decorations--Tennessee--Knoxville--History--20th century Photographs 2
- Christmas trees--Tennessee--Knoxville--History--20th century Photographs 1

1971 matching rows (3767 total)

Show as: rows records Show: 5 10 25 50 rows

		identifier	subject	identifier2	url
☆		1. spc_3726	University of Tennessee, Knoxville	0012_000106_000497	http://kiva.lib.utk
☆		2.	University of Tennessee, Knoxville Pictorial works		
☆		3. spc_3970	Knoxville (Tenn.)--Buildings, Structures, Etc.--Pictorial Works	0012_000067_000314_0001	http://kiva.lib.utk

OpenRefine Reports at UTK, DLTN

Export Geographic Terms

identifier	subject	identifier2	url	item type	internet media type	date_created
spc_3726	University of Tennessee, Knoxville	0012_000106_000497	http://kiva.lib.utk.edu/spc/items/show/3726	still image	image/jpeg	03/08/15
	University of Tennessee, Knoxville Pictorial works					
spc_3970	Knoxville (Tenn.)--Buildings, Structures, Etc.--Pictorial Works	0012_000067_000314_0001	http://kiva.lib.utk.edu/spc/items/show/3970	still image	image/jpeg	1916 - 1922
	Knoxville (Tenn.)--Industries					
spc_3856	Tennessee--Pictorial works.	0012_000067_000200_0001	http://kiva.lib.utk.edu/spc/items/show/3856	still image	image/jpeg	1955
	Blount County (Tenn.)--Pictorial works					
spc_3644	University of Tennessee, Knoxville	0012_000106_000415	http://kiva.lib.utk.edu/spc/items/show/3644	still image	image/jpeg	1941
	University of Tennessee, Knoxville Pictorial works					
	Knoxville (Tenn.)--Buildings, Structures, Etc.--Pictorial Works					
	Knox County (Tenn.)--Industries					

examples > OpenRefine > SortFacetFilters.md

Method 3: Python

Python = a popular, high-level programming language used for a variety of purposes.

PyMARC is a Python library helpful for working with MARC data.

python wiki: <https://wiki.python.org/moin/>

pymarc: <https://github.com/edsu/pymarc>

Python Scripting

- Highly customizable for special projects' data
- Works with all types of data through use of libraries
- Runs through larger datasets more quickly
- Requires programming knowledge
- Requires often building scripts locally

Standing on Shoulders of Giants...

Python OAI parsing scripts from Mark
Phillips at the University of North Texas

http://github.com/vphill/metadata_breakers

<https://github.com/vphill/pyoaiharvester>

Python Reports at UTK, DLTN

- UNT-based OAI scripts
- DPLA Json objects review

Python Reports at UTK, DLTN

OAI-DC script excerpt

```
def main():
    stats_aggregate = {
        "record_count": 0,
        "field_info": {}
    }
    element_stats_aggregate = {}

    parser = ArgumentParser(usage='% (prog)s [options] data_filename.xml')
    parser.add_argument("-e", "--element", dest="element",
                        help="element to print to screen")
    parser.add_argument("-i", "--id", action="store_true", dest="id",
                        default=False, help="prepend meta_id to line")
    parser.add_argument("-s", "--stats", action="store_true", dest="stats",
                        default=False, help="only print stats for repository")
    parser.add_argument("-p", "--present", action="store_true", dest="present",
                        default=False, help="print if there is value of defined element in record")
    parser.add_argument("-d", "--dump", action="store_true", dest="dump",
                        default=False, help="Dump all record data to a tab delimited format")
    parser.add_argument("datafile", help="put the datafile you want analyzed here")

    args = parser.parse_args()
```

github.com/cmh2166/metadataQA

Python Reports at UTK, DLTN

OAI-DC script report

{http://purl.org/dc/elements/1.1/}contributor:	=====	6528/8101	80%
{http://purl.org/dc/elements/1.1/}coverage:	=====	4730/8101	58%
{http://purl.org/dc/elements/1.1/}creator:	=====	2162/8101	26%
{http://purl.org/dc/elements/1.1/}date:	=====	6517/8101	80%
{http://purl.org/dc/elements/1.1/}description:	=====	6272/8101	77%
{http://purl.org/dc/elements/1.1/}format:	=====	7721/8101	95%
{http://purl.org/dc/elements/1.1/}identifier:	=====	8095/8101	99%
{http://purl.org/dc/elements/1.1/}identifier.thumbnail:	=====	8086/8101	99%
{http://purl.org/dc/elements/1.1/}language:	=====	6543/8101	80%
{http://purl.org/dc/elements/1.1/}publisher:	=====	2628/8101	32%
{http://purl.org/dc/elements/1.1/}relation:	=====	7666/8101	94%
{http://purl.org/dc/elements/1.1/}rights:	=====	8055/8101	99%
{http://purl.org/dc/elements/1.1/}source:	=====	2107/8101	26%
{http://purl.org/dc/elements/1.1/}subject:	=====	7522/8101	92%
{http://purl.org/dc/elements/1.1/}title:	=====	8095/8101	99%
{http://purl.org/dc/elements/1.1/}type:	=====	8004/8101	98%
{http://www.modstest.org/}test:		1/8101	0%

dc_completeness 82.896762
collection_completeness 77.714943
www_completeness 76.746698
dpla_completeness 99.761346
average_completeness 84.279937

github.com/cmh2166/metadataQA

OAI-MODS script report

mods:abstract:	=====	152698/155164	98%
mods:accessCondition:	=====	155134/155164	99%
mods:extension/{http://purl.org/dc/terms/}available:	=====	116045/155164	74%
mods:genre:	=====	139213/155164	89%
mods:identifier:	=====	150219/155164	96%
mods:language/mods:languageTerm:	=====	127452/155164	82%
mods:location/mods:holdingExternal/mods:holding/mods:physicalAddress/mods:text:		2090/155164	1%
mods:location/mods:holdingSimple/mods:copyInformation/mods:shelfLocator:		569/155164	0%
mods:location/mods:physicalLocation:		279/155164	0%
mods:location/mods:physicalLocation:	=====	143166/155164	92%
mods:location/mods:publisher:		342/155164	0%
mods:location/mods:shelfLocator:		3581/155164	2%
mods:location/mods:url:	=====	155155/155164	99%
mods:name/mods:namePart:	===	23037/155164	14%
mods:name/mods:role/mods:roleTerm:	===	23031/155164	14%
mods:note:	=	8054/155164	5%
mods:originInfo/mods:dateCreated:	=====	146675/155164	94%
mods:originInfo/mods:place:		3307/155164	2%
mods:originInfo/mods:publisher:	=====	120399/155164	77%
mods:part/mods:detail/mods:number:		219/155164	0%
mods:physicalDescription/mods:digitalOrigin:		3094/155164	1%
mods:physicalDescription/mods:extent:	===	22235/155164	14%
mods:physicalDescription/mods:form:	=====	144448/155164	93%
mods:physicalDescription/mods:internetMediaType:	=====	140894/155164	90%
mods:physicalDescription/mods:note:		3243/155164	2%
mods:recordInfo/mods:languageOfCataloging/mods:languageTerm:	=====	155164/155164	100%
mods:recordInfo/mods:recordChangeDate:	=====	155164/155164	100%
mods:recordInfo/mods:recordContentSource:	=====	155164/155164	100%
mods:recordInfo/mods:recordCreationDate:		2090/155164	1%
mods:recordInfo/mods:recordIdentifier:		2154/155164	1%
mods:recordInfo/mods:recordOrigin:	=====	155164/155164	100%
mods:relatedItem/mods:abstract:	===	29360/155164	18%
mods:relatedItem/mods:identifier:		1267/155164	0%
mods:relatedItem/mods:location/mods:url:	=====	155154/155164	99%
mods:relatedItem/mods:part/mods:detail/mods:number:		1/155164	0%
mods:relatedItem/mods:titleInfo/mods:title:	=====	155154/155164	99%
mods:subject/mods:cartographics/mods:coordinates:	=====	127769/155164	82%
mods:subject/mods:geographic:	=====	137056/155164	88%
mods:subject/mods:name:		712/155164	0%
mods:subject/mods:name/mods:namePart:		3118/155164	2%
mods:subject/mods:temporal:	=====	129068/155164	83%
mods:subject/mods:titleInfo/mods:title:	=====	114968/155164	74%
mods:subject/mods:topic:	=====	34577/155164	22%
mods:subject/mods:topical:		29/155164	0%
mods:titleInfo/mods:nonSort:		88/155164	0%
mods:titleInfo/mods:title:	=====	155163/155164	99%
mods:typeOfResource:	=====	152159/155164	98%

Python Reports at UTK, DLTN

OAI script field report

```
brighid ~ T metadataQA python oaidc_analysis.py test/output.xml -e format | sort | uniq -c
```

```
82 1 digital image
 2 1 digital image; 1 artifact
 2 1 digital image; 1 beehive
 1 1 digital image; 1 black and white photograph
 4 1 digital image; 1 building
 2 1 digital image; 1 cartoon
 1 1 digital image; 1 cartoon with caption; 15 x 15 inches
 1 1 digital image; 1 cartoon; 5.25 x 10 inches
 2 1 digital image; 1 cartoon; 6.5 x 10 inches
 1 1 digital image; 1 cartoon; 6.75 x 10.75 inches
 1 1 digital image; 1 cartoon; 6.75 x 8.5 inches
 1 1 digital image; 1 cartoon; 7 x 10.5 inches
 1 1 digital image; 1 cartoon; 7 x 11 inches
 1 1 digital image; 1 cartoon; 7 x 11.5 inches
 1 1 digital image; 1 cartoon; 7 x 12 inches
 1 1 digital image; 1 cartoon; 7.25 x 10 inches
 1 1 digital image; 1 cartoon; 8.25 x 12 inches
 1 1 digital image; 1 cartoon; 8.5 x 10.75 inches
 1 1 digital image; 1 cartoon; 8.5 x 11 inches
 1 1 digital image; 1 cartoon; 8.75 x 10.25 inches
 2 1 digital image; 1 certificate
 1 1 digital image; 1 cloth piece
 1 1 digital image; 1 color photograph
 1 1 digital image; 1 desk
 1 1 digital image; 1 diagram
```

github.com/cmh2166/metadataQA

Python Reports at UTK, DLTN

OAIMODS script XPath report

```
-----  
brighid ~ T metadataQA python oaimods_analysis.py test/DLTNphase1.mods.xml -x 'mods:originInfo/mods:dateCreated[@encoding="edtf"]' | uniq  
1877  
uuuu  
1877/1878  
1876  
1843  
uuuu  
1855  
1915  
1930  
1869  
1910  
1938  
1888  
uuuu  
1876  
1923  
1911  
1913  
1874  
1892  
1910  
1881  
1882  
uuuu  
1861  
uuuu  
1886  
1837/1838  
1840-01  
1897  
1879  
-----
```

github.com/cmh2166/metadataQA

Python Reports at UTK, DLTN

DPLA Json objects script excerpt

```
def get_elements(self):
    out = []
    try:
        record = objectpath.Tree(self.elem)
        response = record.execute(self.args.element)
        if response != None:
            if isinstance(response, list):
                for item in response:
                    if isinstance(item, list):
                        for item2 in item:
                            if isinstance(item2, list):
                                for item3 in item2:
                                    out.append((' '.join(item3)).encode("utf-8").strip())
                            elif isinstance(item2, dict):
                                for key3, value3 in item2.iteritems():
                                    out.append((' '.join(value3)).encode("utf-8").strip())
                            else:
                                out.append(item2.encode("utf-8").strip())
                    elif isinstance(item, dict):
                        for key, value in item.iteritems():
                            if isinstance(value, list):
                                for item2 in value:
                                    if isinstance(item2, list):
                                        for item3 in item2:
                                            out.append((' '.join(item3)).encode("utf-8").strip())
                                    elif isinstance(item2, dict):
                                        for key3, value3 in item2.iteritems():
                                            out.append((' '.join(value3)).encode("utf-8").strip())
                                    else:
                                        out.append(item2.encode("utf-8").strip())
```

Python Reports at UTK, DLTN

DPLA Json objects report excerpt

```
brighid ~ % cd ~/metadataQA & python dpla_analysis.py test/dplaafter2020.json -e '$.dataProvider' | sort | uniq -c
1 Anaheim Public Library
5 Archives Center - NMAH
1 Arizona State Library, Archives and Public Records
7 Banning Library District
2 Bead Museum
1 Boston Public Library
14 Brigham Young University - Harold B. Lee Library
1 Bryn Mawr College
1 Cochise County (AZ) Clerk of the Superior Court
27 Colby College
2778 Cooper Hewitt, Smithsonian Design Museum
708 Cornell University
12 Dallas Museum of Art
20 Deer Valley Rock Art Center
1 Dorot Jewish Division. The New York Public Library
4 East Carolina University
261 Freer Gallery of Art and Arthur M. Sackler Gallery
2 Georgia State University. Libraries. Special Collections
1 HathiTrust
12 Historic Huguenot Street
1 Hobart and William Smith Colleges. Warren Hunting Smith Library
12 Idaho Commission for Libraries
2 Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
3 Indiana Memory
30 Indianapolis Museum of Art
341 Irma and Paul Milstein Division of United States History, Local History and Genealogy. The New York Public Library
1 Johnson C. Smith University
34 Linda Hall Library
1 Los Angeles Public Library
```

github.com/cmh2166/metadataQA

Method 4: Catmandu

Catmandu = data toolkit (command line client
and Perl modules) developed as part of the
LibreCat project

<http://librecat.org/Catmandu/>

Catmandu Perl Scripts

- Highly customizable
- Works with all types of data
- Can be part of ETL process with many different data stores, engines, platforms, etc.
- Works well with larger datasets (>100k records)
- Requires some programming knowledge
- Installing Perl, Catmandu & dependencies can be tricky

Catmandu Reports at UTK

- Saved fix routines
- MARC value reports for big sets (when MARCedit has trouble)

Catmandu Reports at UTK

*MARC URI
Fix
routine
excerpt*

```
marc_map("001", recordIdentifier)

marc_map("020a", isbn.$append)
join_field(isbn, " | ")
split_field(isbn, " | ")

marc_map("245ab", title, join: " ")

# Subject Identifiers?
if marc_match('6**0', "\w+")
  set_field("subjectRecon", "exists")
else
  set_field("subjectRecon", "does not exist")
end

# Name Identifiers?
if marc_match('1**0', '\w+')
  set_field("nameRecon", "exists")
else
  set_field("nameRecon", "does not exist")
end

# Primary Name
marc_map('100abcdegq024', 'primaryName.$append', join: " ")
sort_field('primaryName', -uniq=>1)
```

Catmandu Reports at UTK

MARC URI
- Fix
routine
YAML
report

```
---
_id: '994790850102311'
addlCorpName:
- Walker & Associates (Memphis, Tenn)
addlName:
- Butcher, Jacob Franklin, 1936-
nameRecon: does not exist
recordIdentifier: '994790850102311'
subjectName:
- Butcher, Jacob Franklin, | 1936-
subjectRecon: does not exist
subjectTopical:
- Advertising,
- Political--Tennessee
title: Jake Butcher for governor
...
---
_id: '991856830102311'
addlCorpName:
- American Animal Hospital Association.
- Pitman-Moore, Inc.
- Tuskegee Institute. School of Veterinary Medicine. Dept. of Radiology
addlName:
- Carey, JoAnne.
nameRecon: does not exist
primaryName:
- Hall, Ellis.
recordIdentifier: '991856830102311'
subjectRecon: does not exist
subjectTopical:
- Veterinary
```

examples > Catmandu > MARCcreconReport.yaml

Catmandu Reports at UTK

MARC General CSV Report, Fix routine Excerpt

```
37 | add_field('type','mixed materials')
38 | end
39 | if marc_match("LDR/6","r")
40 |   add_field('type','three-dimensional artifact or naturally occurring object')
41 | end
42 | if marc_match("LDR/6","t")
43 |   add_field('type','manuscript language material')
44 | end
45 |
46 | marc_map('020az',isbn.$append, join:' | ')
47 | join_field('isbn', ' | ')
48 |
49 | marc_map("035a",sysNumbers.$append, join:' | ')
50 | join_field('sysNumbers', ' | ')
51 |
52 | marc_map('100', 'author')
53 |
54 | marc_map('110', 'corpAuthor')
55 |
56 | marc_map('245ab','title', join:" ")
```

examples > Catmandu > MARCgeneralReport.fix

Catmandu Reports at UTK, DLTN

Fix routine for MARC Report

_id	publisher	statementOfResp	sysNumbers	title	type
994790850102311	Walker & Associates,	by Walker & Associates.	(TU)000479085UTK01 504822 (OCoLC)09379175	Jake Butcher for governor	projected medium
991856830102311	Tuskegee Institute, School of Veterinary Medicine, Dept. of Radiology	Ellis Hall, JoAnne Carey.	(TU)000185683UTK01 202056 (OCoLC)07266005	The use of air as a contrast medium in small animal radiology	projected medium
991262280102311	College of Veterinary Medicine, University of Tennessee,	by Dennis Geiser.	(TU)000126228UTK01 139387 (OCoLC)06969820	Equine laryngostomy and ventriculectomy, and emergency tracheostomy.	projected medium
994938970102311	Warner Home Video,	released by Warner Brothers.	(TU)000493897UTK01 520081 (OCoLC)09452899	Day for night	projected medium
994403500102311	Bailey, Deardourff & Associates?,	Bailey, Deardourff & Associates.	(TU)000440350UTK01 464891 (OCoLC)09208626	Alexander spots	projected medium
994478180102311	King of Video,		(TU)000447818UTK01 472632 (OCoLC)08812014	Elvis in the fifties	projected medium
993287420102311	s.n.,		(TU)000328742UTK01 350430 (OCoLC)08192209	[Kefauver miscellany.	projected medium

examples > Catmandu > MARCgeneralReport.csv

Links & Thank you

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