Making Collection Management Decisions with Data

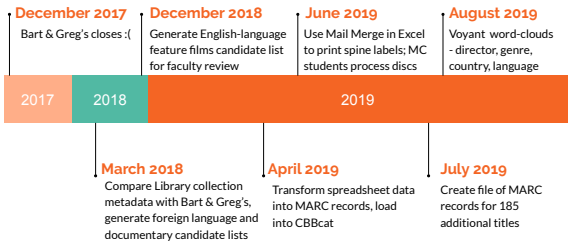
A Library Project Overview by Karl Fattig
presented at
Innovative Users Group 2020 - Minneapolis

Doing more with delimited (meta)data

When *Bart & Greg's DVD Explosion* store closed shop in December of 2017, the Library was asked to consider acquiring part or all of the store's collection of DVD and BluRay titles. In order to make a data-driven decision, the College Librarian tasked me with comparing our own Library video collection with that of *Bart & Greg's*.

Bowdoin

Bart & Greg's Explosion Project Milestones



Project Participants

- Marjorie (College Librarian)
- Joan (Collections Librarian)
- Bart (Bowdoin Annex)
- Karl (Sytems)
- Kat (Associate Librarian - TS)
- Erin (Associate Librarian - PS)
- Carmen (Media Librarian)
- Elizabeth (Media Supervisor)
- Media Commons students
- Mary (Catalog Librarian)
- Rachel (AV Cataloger)
- Film Studies faculty
- Annex Team

It Takes a Village...

The first project goal is to create lists of potential **ACQUISITION CANDIDATES** that would complement Bowdoin's own video collections

Tip

CBBcat records generally have one title field. Records in Bart & Greg's database have two (Explosion title and IMDB title). Upon examination The IMDB title more often matches CBBcat's title.

1. Compare

Select a tool to compare Library catalog metadata with Bart & Greg's

- **Library catalog metadata**
  Export delimited text file from MARC records in library services platform (Innovative Interfaces Sierra)
- **Bart & Greg's metadata**
  Copied from MS Access tables into MS Excel spreadsheet.
- **Problems**
  No common numeric identifier shared in both data sets; inconsistent title data

Which of the 26,000 *Bart & Greg's* titles are unique, not held in Bowdoin Library's 7,600-title video collections?

Tip

Since the Library and Explosion metadata share no common numeric identifiers (ISBN, ISSN, IMDB-ID) we'll have to use **natural language processing** to compare title data.

Tool - OpenRefine

- Already used by electronic resources librarians to create knowledge bases across the scholarly publications supply chain (GOKb - Global Open Knowledgebase)
- Open-source
- Was Google Refine, Freebase Gridworks
- Transformation expressions using GREL (General Refine Expression Language) sort of like Excel formulae

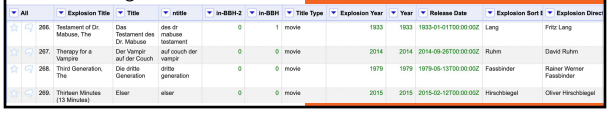
Tip

Not a web-hosted service, but locally installed, creates a server on your workstation, run via **web browser interface.**

We use **OpenRefine** to compare the title fields in Bowdoin's metadata set

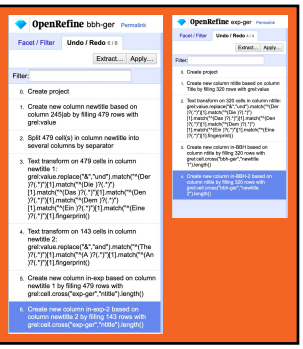
All	TITLE	245jab	newtitle 1	in-exp	newtitle 2	in-exp-2	newtitle 3	008 Date One	COUNTRY	LANG	REC
8.	Das testament des Dr. Mabuse = Testament of Dr. Mabuse / Nero-Film AG : a joint venture between Janus Films and Home Vision Cinema : producer, Fritz Lang writers, Fritz Lang, Thea von Harbou ; directed by Fritz Lang	Das testament des Dr. Mabuse =Testament of Dr. Mabuse /	des dr mabuse testament	1	dr mabuse of testament	0		2004	xxu	ger	b137168

with the IMDB title field in Bart & Greg's metadata set



All	Explosion Title	Title	ntitle	in-BBH-2	in-BBH	Title Type	Explosion Year	Year	Release Date	Explosion Sort T	Explosion Direct
266.	Testament of Dr. Mabuse, The	Das Testament des Dr. Mabuse	des dr mabuse testament	0	1	movie	1933	1933	1933-01-01T00:00:00Z	Lang	Fritz Lang
267.	Therapy for a Vampire	Der Vampir auf der Couch	auf couch der vampir	0	0	movie	2014	2014	2014-09-26T00:00:00Z	Ruhm	David Ruhm
268.	Third Generation, The	Die dritte Generation	dritte generation	0	0	movie	1979	1979	1979-05-13T00:00:00Z	Fassbinder	Rainer Werner Fassbinder
269.	Thirteen Minutes (13 Minutes)	Elser	elser	0	0	movie	2015	2015	2015-02-12T00:00:00Z	Hirschbiegel	Oliver Hirschbiegel

Before performing the comparison we use a stack of **GREL commands** to normalise the title data in each metadata set; this is called a transform, and it creates a new data element, a quasi linguistic fingerprint, which will serve as the comparison point.



The title comparison command stack populates a new column with a **numeric value** representing the number of matching lines/rows

- Click 'OK'. This will populate a new column with a number representing the number of matching lines found in ListB
  - If the "ListB Comparison" column contains a zero (0) then no match has been found
  - If the "ListB Comparison" column contains a one (1) then a single match has been found
  - If the "ListB Comparison" column contains a two (2) then two matches have been found
  - etc.
- Facet on the new 'ListB Comparison' column to find those lines in ListA that do not appear in ListB (a zero in the column)
- To identify journals that are in ListB but not in ListA, the same process is carried out starting with the 'title.identifier.issn' column in the 'ListB' project

We can then perform a **text facet** on the data in the comparison column

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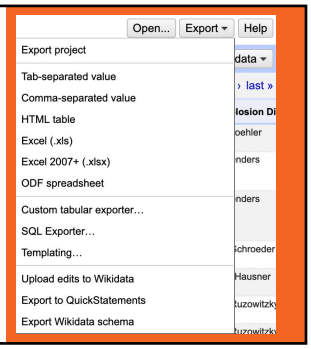
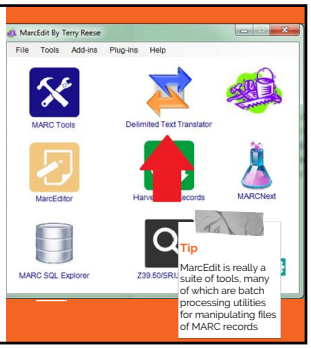
Once faceted to the value zero, we can **export** the relevant metadata for our non-matching titles, which are the acquisitions candidates for review by library collection managers



With the numeric data we can create a **chart** to visualize the collection management scenario, and present the data to administration

The second project goal is to transform the spreadsheet data into **MARC RECORDS** that can be batch-loaded into CBBcat



2. Create MARC

Once collection management decisions have been made, we end up with a spreadsheet with metadata for the titles we will be adding to the library. Now we can use this metadata to create *brief* MARC records for CBBcat - n.b. these are not full catalog records - **for that we'd need Rachel for at least a year**

- **Tab-delimited data**
  Tab (control character 9) is not present in the actual metadata content
- **MARC specifications**
  Stakeholders - video cataloger, catalog librarian, collections librarian, technical services manager, College librarian.

How long would it take one full-time cataloger to create records for the 6,000 titles selected for acquisition?

Tip

On average it takes a cataloger 2.5 hours to create a full-featured catalog record for a **DVD.**

375 days

Tip

Another option would be **outsourcing** the project to a library cataloging vendor. But this would be costly.

How much would it cost to outsource the project to a third-party vendor?

Tip

Depending on degree of difficulty, language, availability of "copy" cataloging, per title charges range from $17-$60.

$190,000 - with shelf ready option

LANGUAGE FAMILIES AND GROUPS	UNEDITED COPY	FULL EDITING COPY	ORIGINAL CATALOGING	AV/MEDIA SURCHARGE
English	$5	$15	$23	$5
African: Niger-Congo and various other African languages	9	30	50	10
Afro-Asiatic: Arabic, Hebrew, Amharic, Tigrinya	7	25	45	5
Altaic: Mongolian, Turkish, Ottoman Turkish, Turkic	7	25	45	5
Austronesian: Tagalog, Malaysian (Malay), Indonesian, Hawaiian	7	25	45	5
Baltic: Latvian, Lithuanian	7	25	45	5
Basque	7	22	34	5
Celtic: Welsh, Scots, Irish Gaelic, Breton	7	25	45	5
Chinese (Mandarin, Cantonese), Japanese, Korean	7	22	34	5
Dravidian: Tamil, Telugu, Malayalam	9	30	50	10
Finno-Ugric: Estonian, Finnish, Hungarian	7	25	45	5
Greek, Albanian, Armenian, Caucasian, Georgian	7	25	45	5
Indic: Bengali, Gujarati, Hindi, Marathi, Punjabi, Sanskrit, Urdu	7	25	45	5
Indo-Iranian: Nepalese, Oriya, Persian (Farsi)	7	25	45	5
Mayan languages	7	25	45	5
Romance: French, Italian, Portuguese, Romanian, Spanish (and Blindex headings), Catalan, Galician, Provençal, Latin	7	22	34	5
Scandinavian: Danish, Swedish, Norwegian, Icelandic, Faroese	7	22	34	5
Sino-Tibetan: Burmese, Tibetan	9	30	50	10
Slavic: Belarusian, Bosnian, Bulgarian, Church Slavic, Croatian, Czech, Macedonian, Polish, Russian, Serbian, Serbo-Croatian, Slovak, Slovenian, Ukrainian	7	22	34	5
Tai-Kadai: Thai	7	25	45	5
Vietnamese	7	25	45	5
Western Germanic: Dutch, German	7	22	34	5
Yiddish, Ladino	7	25	45	5

How can we transform the spreadsheet metadata into brief MARC records?

Tip

The actual transformation takes less than 10 seconds. Data preparation and clean-up required a couple of days of my attention.

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Tool - MarcEdit

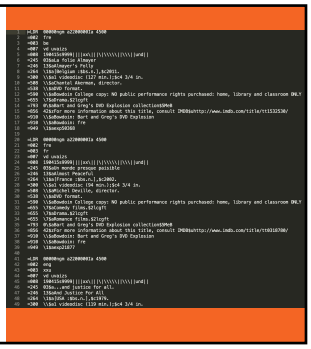
- Freeware
- Developed in 1999 by Terry Reese (Oregon State Univ.)
- Supports use of XSLT to map metadata from one schema to another
- Leverages grep for sophisticated/nuanced discovery
- Allows for human-readable MARC record editing

Tip

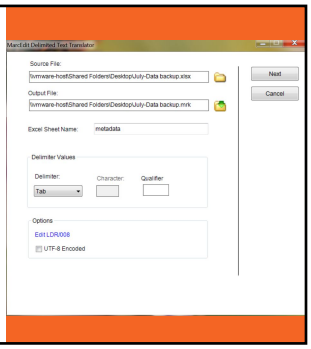
We already use **MarcEdit** to edit records, perform database maintenance, and enhance catalog records.

This is what a file of **MARC records** looks like to our library services platform (Sierra) - note the tags and indicators are at the beginning of the record, with the delimited field data following.

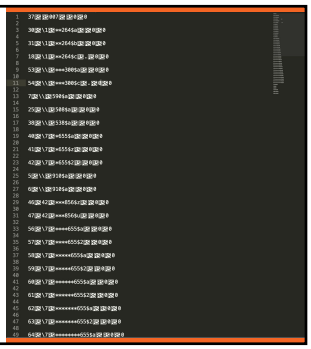
This is what a file of **MARC records** looks like to the human eye in MarcEdit's Marc Editor.



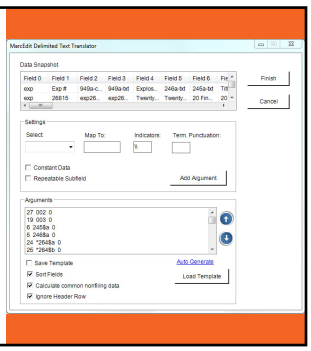
We will use MarcEdit's **delimited text translator** to reconfigure the spreadsheet data into a file of MARC records.



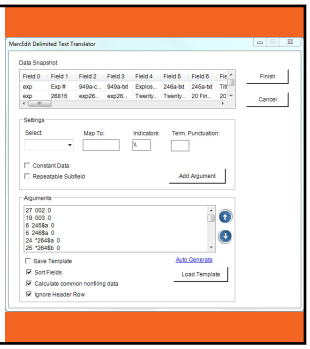
The delimited text translator employs a **template file** to map the appropriate columnar data into the correct MARC field/subfield.



MarcEdit's delimited text translator **shows a preview** of the spreadsheet data; subfields can be joined to create MARC fields

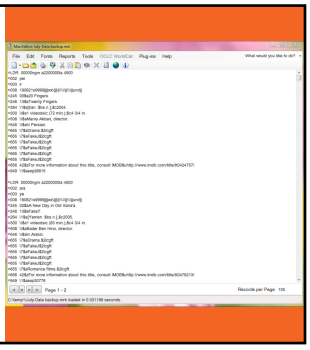


MarcEdit's delimited text translator claims to be able to **calculate non-filing indicators (skip characters),** this feature works for English-language articles only, and I was unable to get a customized non-filing indicator matrix to work.

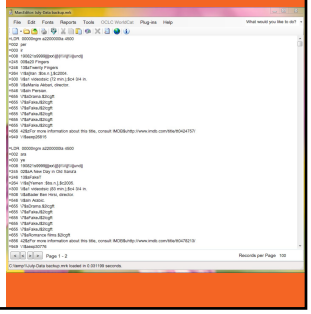


My solution was to sort the master list by title and **create individual sheets** based on the non-filing indicator values

MarcEdit's delimited text translator **creates an editable file** of MARC records; some data cleanup is required in the Marc Editor

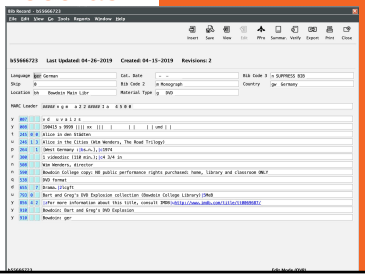


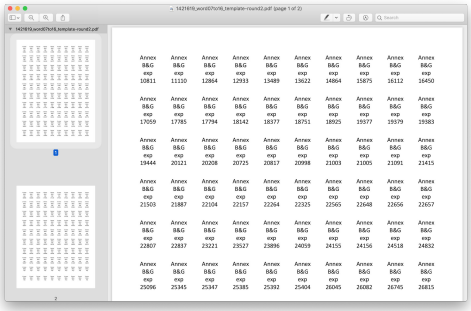
In April, I used spreadsheet data to **create all the MARC fields in the records;** in July (for a smaller set of additional titles we added), I used spreadsheet data only to create unique MARC fields, and used MarcEdit to add common fields (538, 590, 910, etc.) globally.

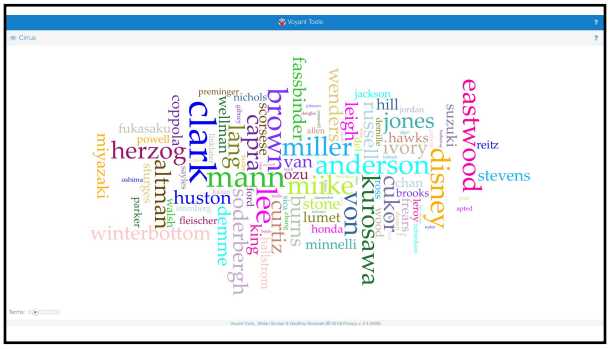


In order to load the records into CBBcat, I created a **custom load profile for Sierra Data Exchange -** the load profile instructs the system how to index and display MARC fields

It took about 7 minutes **to load the records** into CBBcat







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presentation available at:
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