Open-Source ERM: a collaborative implementation

Summary for Strategy Session presentation at NASIG June 5, 2009

By Don Taylor and Frances Dodd (Simon Fraser University)

With James Murphy (University of Prince Edward Island)

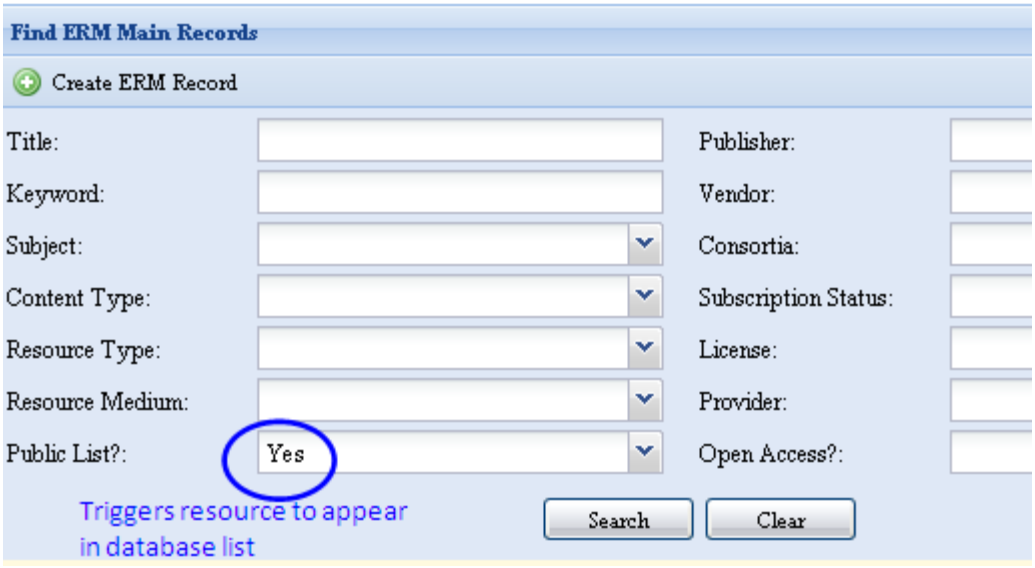
Our discussion centres on the development and implementation of an ERM system to extend the CUFTS: Open Source Serials Management component of the reSearcher Suite, an open source project of the Simon Fraser University Library (http://researcher.sfu.ca/cufts).

CUFTS is composed of:
Knowledge base: includes over 475 fulltext resources. Data is maintained collaboratively across institutions. For example, UPEI maintains some of the publisher title lists in the knowledge base.
Link resolver (Godot): Uses the knowledge base to resolve to fulltext. GODOT uses OpenURLs, Digital Object Identifiers (DOIs), or its own internal linking syntax, to provide article-level linking in all major indexing and abstract databases. Also reveals holdings in the catalogue. Works with ILL software and ILS to provide direct or mediated ILL requesting for patrons.
E-journals database: a serials database containing electronic holdings information based on the knowledge base. Can also integrate print and microform holdings.
Electronic Resources Management System: Open source ERM that was developed in collaboration with BC Electronic Library Network (ELN) libraries and is extendable and changeable due to its open source nature.

ERM DESIGN AND DESCRIPTION

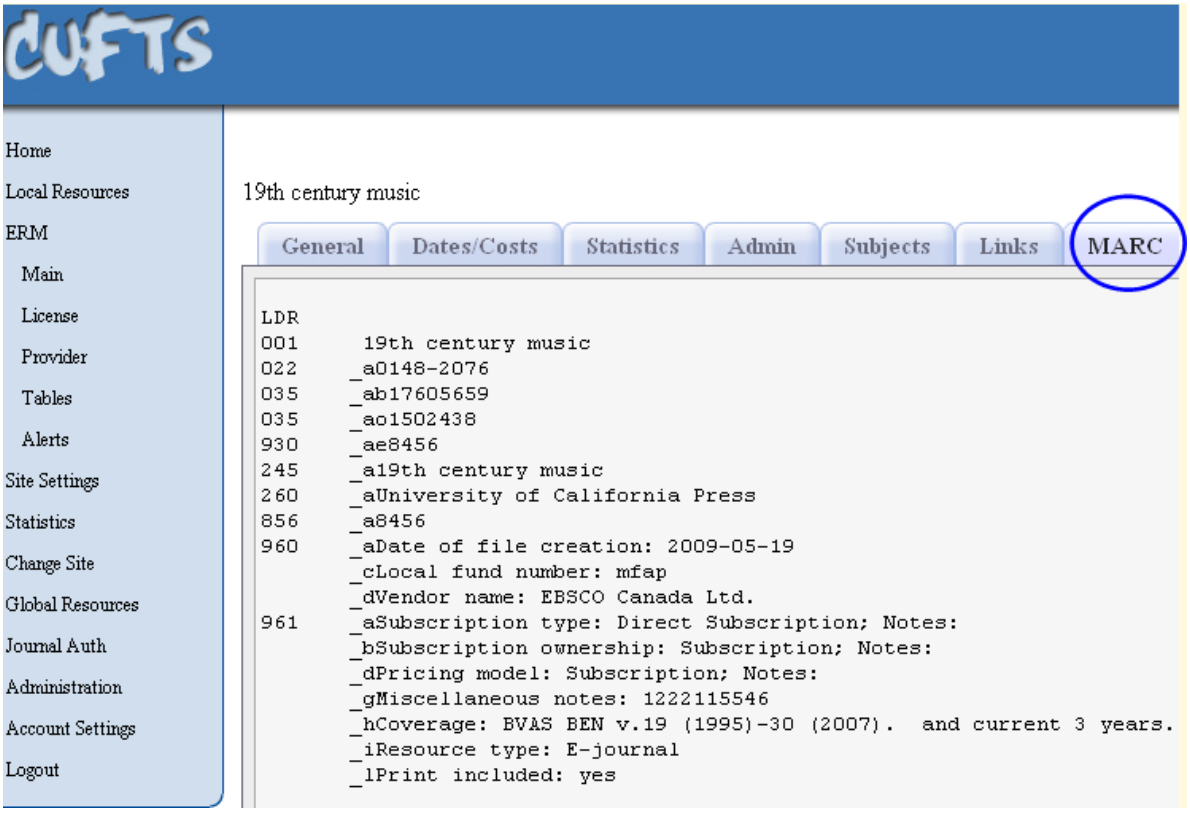
In effect, CUFTS relates to three public areas on SFU Library's home page (http://www.lib.sfu.ca/): the library's online public access catalogue (OPAC), the list of databases, and the list of journals.

Initial design of the ERM is directly drawn from documentation from the DLF Electronic Resource Management Initiative (ERMI). The ERM is composed of three main data sections: Main record, License record and Provider record. As well, certain Tables relating to field names and drop down menus are easily customizable.



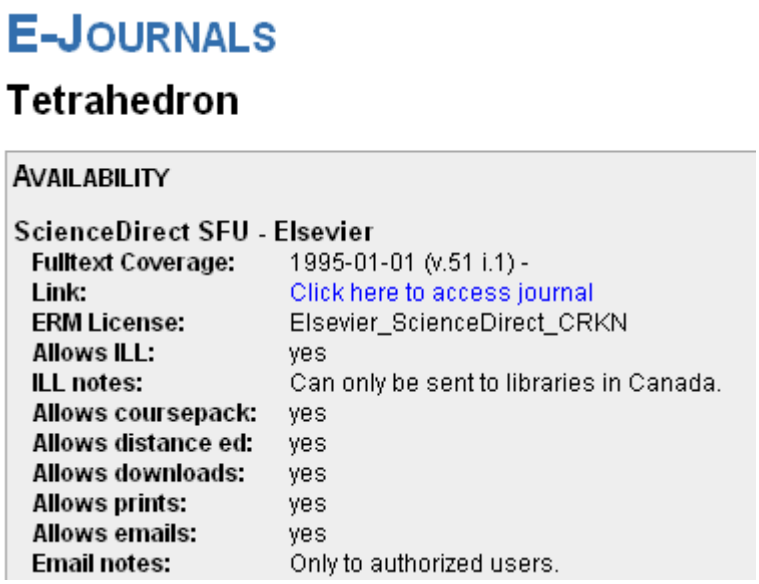
In the Main section, records for electronic resources can be searched for and created. Each record is composed of relevant fields, a subset of those suggested by the DLF ERMI, selected in collaboration with BC's ELN libraries. Fields are arranged in a tabbed display according to function: General (resource description and identification), Dates and Costs (subscription info), Administration (for librarians behind the scenes), Subjects (a standardized list from the Tables section), Links (to provider or license), and MARC Export.

The MARC Export tab in the CUFTS ERM shows data as mapped to MARC tags ready for export.



License data is integral to the ERM and is the initial reason why a need for an ERM was identified. E-journal licensing data is integrated into a staff view of the electronic journals database, primarily for the benefit of Loans staff and Interlibrary loans staff. The staff view is not a separate interface, but uses the public interface to the e-journals database – to see the licensing data staff must log in using their specific id and password.

Staff view of licensing data for the journal Tetrahedron:



ERM IMPLEMENTATION AT SFU

Implementing the ERM involved some setup and several steps. First, since all financial transactions occur in SFU's Millennium integrated library system (ILS), regular export of cost data from the ILS to the ERM is understood, necessitating a link between the two systems. This link was established as an indexed ERM number in a local MARC tag in the Millennium record, initially entered by transfer and manipulation. Next, the ERM was populated by a) going live with new orders, and b) data transfer of existing orders.

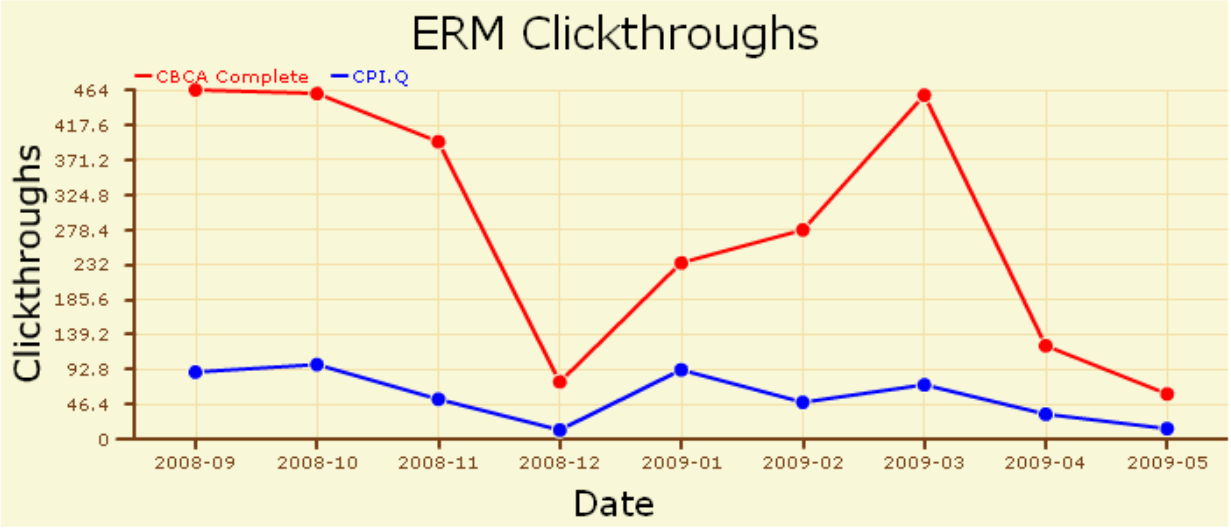
As the ERM went live, a new ordering procedure was adopted. Starting in October 2008, new orders were entered in the ERM and transferred electronically to the ILS for activation. The ordering process involves two departments: Collections and Processing. Where formerly, Collections staff filled out a printed form and walked it over to Processing before physically filing it away, they are now placing it directly in the ERM for electronic transfer and central reference. ERM orders are automatically transferred to Millennium weekly, thus eliminating the redundancy of dual entry. An automatic email notifies Processing staff to activate the order in the system and complete any financial transactions.

Data for existing orders was transferred from the ILS to the ERM by batch. This was accomplished in several stages following a master plan covering various order types, namely: stand-alone orders for electronic journals or packages, and databases. New records for journal titles and packages were automatically created from the exported Millennium MARC records, whereas cost data was added to existing ERM records for databases. Adding cost data would feature in ongoing regular ERM updates.

Adding data means matching on existing records, which depends on the presence of an ERM linking number in the exported Millennium record. Populating the more than 500 Millennium records for databases with their linking ERM numbers proved to be a mainly manual task. However, populating the link for some 1100 journal titles and packages could be accomplished in batches: 1) identify electronic resources in ILS, 2) export identified ILS numbers to ERM and create new records, 3) export ERM records with their numbers back to ILS, matching on the ILS number.

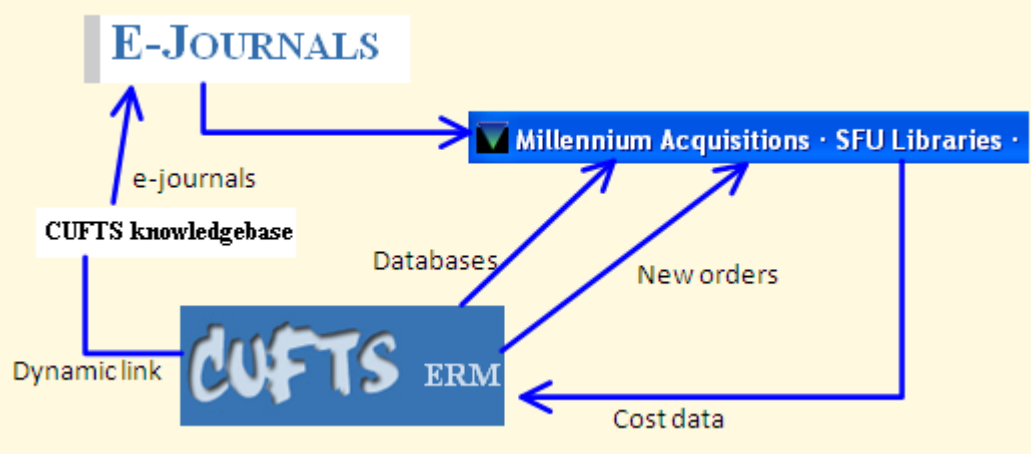
Once the link between records is established and the transfer is completed for all existing orders, the SFU ERM will provide a centralized reference for all electronic resources, in addition to statistical reports on resource usage and costs.

Statistical reports are also available. SUSHI implementation is currently underdevelopment which will allow usage and cost/use data to be generated for any resource for which both usage and financial data are available. This functionality has been beta tested, but is not yet live. Currently the ERM provides usage data for “click throughs” through the public interface for database access. This data can be presented in either tabular or graphical form and can be generated for multiple resources at once as can be seen in the example below.



A final element in SFU’s implementation has been to synchronize the public lists of databases and journals with the catalog. Regular automatic record transfers from these public lists now ensure that all titles are accessible in the library’s OPAC, thus enabling a single-search interface for all continuing resources and databases available at SFU.

The following graph depicts the flow of data across the various components of the CUFTS reSearcher Suite and the Millennium ILS.



ERM IMPLEMENTATION AT UPEI

At the University of Prince Edward Island (UPEI), implementation of the CUFTS reSearcher Suite including its new ERM has followed a slightly different course. At UPEI, open source technology is an institutional strategy: Moodle and Drupal are used extensively throughout the campus. Robertson Library at UPEI makes extensive use of open source in VRE's, digital repositories, and digitizing local histories. It is the first academic library in the world to use the open source Evergreen system as its ILS.

The choice to use the CUFTS reSearcher suite was based on its being open source. The technology offered a chance to participate in development at the same time as centralize the once paper-based record-keeping of electronic resources. Also, a synergistic effect was recognized between CUFTS and other library systems, e.g. for interlibrary loans and e-reserves.

CUFTS would also serve to manage print-based serials at UPEI, and therefore required a structural change. New fields were created: one to record internal notes, another to list the library's print holdings.

As for populating the ERM at UPEI, currently acquisitions are tracked on spreadsheets, and cost data is separately entered into the ERM. However, in future an electronic transfer of the spreadsheet data is envisioned, enabling a central reference in the ERM, and improving public displays thereby.

CHANGES IN WORKFLOWS

At UPEI, adopting the new system signaled an immediate change in workflows, as serials staff started working directly in CUFTS for checkin and ad-hoc claiming. Also, a new position was created for maintaining and training on CUFTS and the new ERM.

SFU identified both functional and attitudinal changes in the course of its implementation:

Functional changes at SFU

- serials maintenance is being reclaimed by Processing Area staff as ejournals records maintenance becomes routine and procedures are standardized

- due to print-cancellations and fewer binds, binding staff have time to take on an increasing role in maintaining the CUFTS knowledge-base (updating title-lists)

- as licensing information is centralized, staff can access it from anywhere across the library (inclusing interlibrary loans and reserves) and no longer need to maintain separate spread-sheets

Attitudinal changes at SFU

- ordering process: ERM orders negotiated and originated in Collections must be consulted by staff using the ILS to activate the order

- cataloguing: automatic notifications; records are dynamically linked and therefore automatically maintained in both systems

- cancellations, title-changes: currently manually maintained, intended automation.

FUTURE DIRECTIONS

CUFTS libraries collaborate to varying degrees in the following areas:

-sharing data across consortial institutions, e.g. licensing and contact records

-sharing maintenance of full-text resources in the CUFTS knowledge base

-sharing software design and development

-sharing best practices in implementation

---

reSearcher Suite at Simon Fraser University Library: http://researcher.sfu.ca/cufts

SFU Library's home page: http://www.lib.sfu.ca/

UPEI ejournals list page: http://library.upei.ca/journals

Other CUFTS libraries are listed here : http://researcher.sfu.ca/partners