

## **Can SFX Replace your Homegrown Periodicals Holding List?**

How the University of Wisconsin-La Crosse made the transition

Jenifer S. Holman

**ABSTRACT.** Ex Libris' SFX software is widely known for its context-sensitive linking capabilities, but it can also provide a searchable and browseable interface to a library's print and electronic journal holdings data. After five years of maintaining a homegrown web-based periodicals holding database, Murphy Library has licensed SFX software and migrated all periodicals holdings information from its locally managed database to SFX. This article outlines the process of switching to this new system and some of the benefits of moving to an SFX environment.

Keywords. SFX, journal management, union lists, case studies

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<http://www.informaworld.com/smpp/ftinterface~db=all~content=a902807397~fulltext=7132409>  
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Jenifer S. Holman, MILS, is Acquisitions Librarian at Murphy Library, University of Wisconsin-La Crosse, 1631 Pine St., La Crosse, WI 54601 (E-mail: [holman.jeni@uwlax.edu](mailto:holman.jeni@uwlax.edu)).

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## **Background/Introduction – Murphy Library**

The University of Wisconsin-La Crosse's Murphy Library is part of the University of Wisconsin System, which is comprised of 13 four-year campuses and 13 two-year campuses.<sup>1</sup> Murphy Library is also a member of the UW-System's active library consortium. Holding over 1200 periodical subscriptions, Murphy Library also licenses nearly two hundred bibliographic databases. The full text titles available through many of these aggregator databases account for another 15,000 constantly shifting journal titles. The need to provide accurate access to our journal titles has led us to search for new ways to manage access to all of our periodicals, regardless of format. Since 1999, the periodicals department staff has maintained an ASP-driven database that brought together print and electronic periodicals holdings data, as well as holdings data from La Crosse area libraries.

In 2003, a UW-System Electronic Resource Management Task Force was charged with selecting a federated searching/cross-linking software system for the campus libraries. After careful consideration and months of research, this task force chose Ex Libris' SFX and MetaLib. While we were excited about the context-sensitive linking that SFX would provide our users, we were most intrigued by the possibility that SFX's Citation Linker and A to Z features could replace our current periodicals database.

This paper chronicles our need for and creation of a homegrown periodicals database and how we are benefiting from our successful migration to an SFX Knowledge Base generated database.

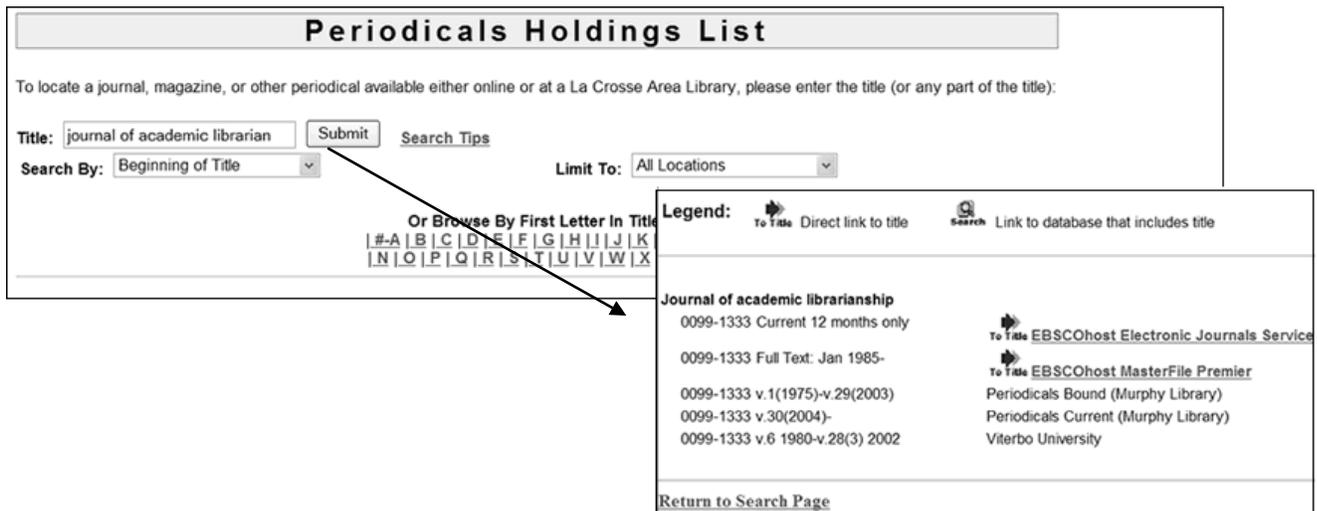
## **Providing Access to Periodicals**

In late 1999, Murphy Library users accessed the journal collection primarily through the online catalog (Endeavor's Voyager) and secondarily through a printed holdings list. Although the catalog served as the authority for holdings data, users preferred access to our print and microform journal holdings through bound volumes known simply as the "orange book." One reason for the orange book's great popularity was the added value it provided as a local union list of periodicals, containing the local journal holdings from two hospital libraries, three college libraries, and our local public library. Users also found it very convenient to quickly flip through the pages as they scanned citations from their bibliographic searches and view all the local holdings for a particular title at once. Several major problems, however, existed with this printed list: 1) it was updated, bound, and distributed only once a year; 2) a work-study student spent an entire summer of editing to manually check and update changes from our local libraries, and; 3) the beautifully bound list was nearly obsolete – especially with regard to electronic full text holdings - as soon as it was printed. In addition to maintenance problems, by the fall of 2000, library users had access to over 15,000 full text titles through our licensed databases and online subscriptions and we simply did not have the manpower to include these holdings in the orange book (or even in our catalog). This problem led to a search for an efficient way to provide access to this new wealth of journal information without adding thousands of records to our catalog.

Later that same year, after reading a pivotal article by Gary Roberts<sup>2</sup> about using a simple Microsoft Access database to create a searchable listing of periodicals holdings on the web, a small group comprised of the systems librarian, the periodicals librarian, and a student intern with programming skills began working on our own web-enabled database solution. Within a year we had a simple Microsoft Access database web running on our campus web server

utilizing Microsoft's Active Server Pages (ASP) scripting environment. Our periodicals holdings list database included not only the print holdings from local libraries, but full text electronic journal holdings from our aggregator databases as well. The interface featured simple keyword searching, browsing by title, an ISSN search, and the ability to limit searches by owning library or format (Figure 1).

**Figure 1: Murphy Library's Homegrown Periodicals Holdings List**



The success of our new database driven holdings list was evident, when on February 11, 2000, Murphy librarians voted unanimously in favor of no longer publishing the printed orange book and relying solely on the online periodicals holdings list. Although our users and the librarians found the periodicals holdings list easy to use and very convenient, the behind the scenes work spent maintaining and enhancing the search interface and keeping the data updated was substantial. Each month, we extracted data from our Voyager ILS and downloaded updated holdings information from our aggregator database vendors. While our database vendors maintain publicly available title lists that we were able to download each month, each vendor formats their holdings differently, requiring many hours of staff time manipulating the data into

the format required for our local database. Each summer, our local libraries sent us their holdings data updates which we also configured. The work involved in updating our local database gave us valuable experience in manipulating data and a greater sense of control over our holdings, but we quickly realized the shortcomings of our system, especially in terms of the time commitment needed to keep the database current.

As much of an advancement as the periodicals holding list was, users still performed a separate search to locate journal holdings within the periodical holdings list after completing their initial bibliographic search. One frustrating aspect of this design was that users frequently discovered, after all their searching, that the journal they needed was not available locally. Another design issue was limited title authority control; each library and vendor uses a slightly different title variation and we had no system in place to bring those variations under control. By 2004 both librarians and users sought a better solution to the problem of accessing journal holdings than our homegrown periodicals database offered.

### **Solution: SFX**

The UW-System task force could not have licensed SFX at a better time, as we were quickly outgrowing our simple periodicals holdings list database and in need of a more robust way to link users with content. Even before the ink dried on the contract with Ex Libris, librarians at Murphy Library began contemplating how SFX could replace our homegrown periodicals database and help reduce staff time involved in updating journal holdings. After our formal SFX training in March 2004 and a brief period of internal testing, we went live with SFX in May 2004 in order to test in a real-world environment. While enabling our databases to communicate with the SFX server and activating our licensed databases in the SFX

administrative module was a very straight forward process, we spent another month thinking how we could best utilize the powerful SFX environment to replace our periodicals holdings list database.

SFX offers two options for searching a library's subscribed/licensed titles in the SFX Knowledge Base. The first option is an A to Z list that is generated through the SFX administrative module (Figure 2). The A to Z list is completely customizable (administrators can specify which targets – groups of titles – to include) and integrates easily with a library's local web server. Although we have not customized our A to Z list yet, the default list contains all the information that we provided in our local database, and offers the benefit of complete title authority control.

**Figure 2: SFX Default A to Z List**

**Electronic Journal List**

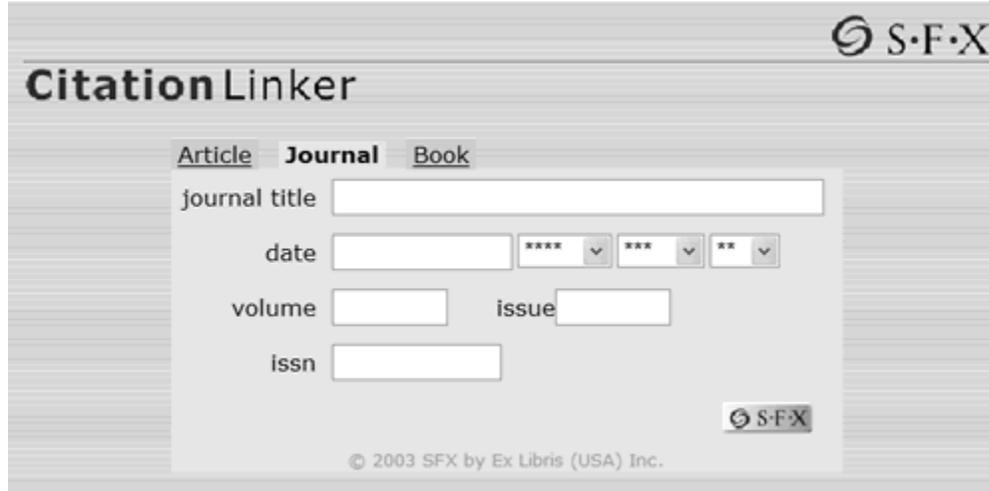
Jump to: [1](#) [2](#) [3](#) [4](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

[D & B reports 0746-6110](#)  
Via Proquest ABI/INFORM Global: Full Text  
Availability: from 1988 to 1994  


[D-Lib magazine 1082-9873](#)  
Via DOAJ Directory of Open Access Journals: Full Text  
Availability: from 1995  
Via Free E- Journals: Full Text  
Availability: from 1995 volume 1 issue 8  


The second option is called Citation Linker, which is a search interface for the SFX Knowledge Base (Figure 3).

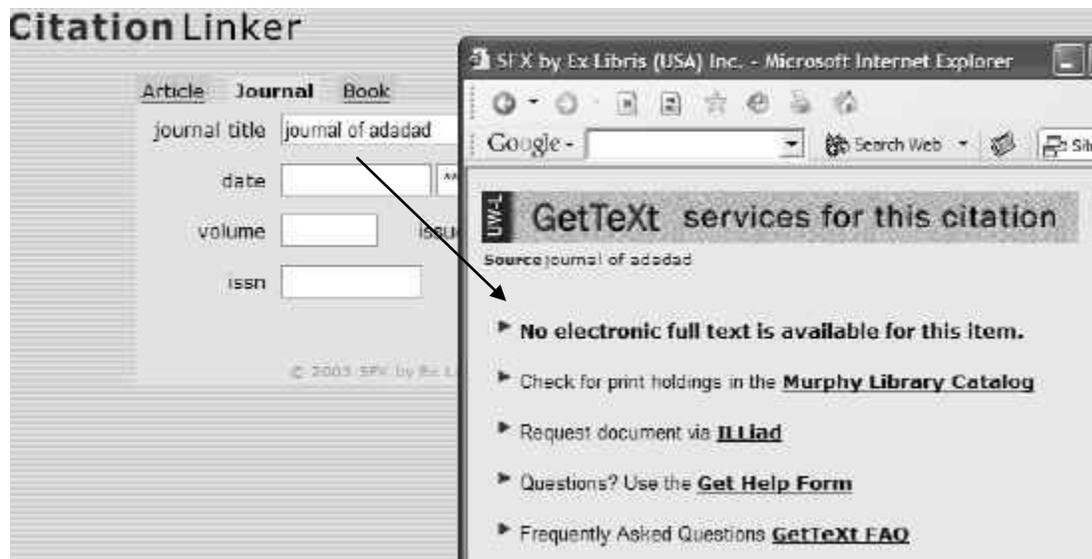
**Figure 3: SFX Citation Linker**



The screenshot shows the SFX Citation Linker search interface. At the top right is the SFX logo. The main heading is "Citation Linker". Below this are three tabs: "Article", "Journal", and "Book". The "Journal" tab is selected. The search form includes a "journal title" text box, a "date" field with three dropdown menus for year, month, and day, "volume" and "issue" text boxes, and an "issn" text box. At the bottom right is a search button with the SFX logo. At the bottom center is the copyright notice: "© 2003 SFX by Ex Libris (USA) Inc."

The SFX Citation Linker is a much more robust searching environment than our periodicals holdings list database as it allows users to search not only for a journal title or ISSN, but by article and issue level details as well. While the Citation Linker is ultimately a more advanced search interface than our local database, one important Citation Linker shortcoming we have found is the necessity of searching for an exact title. If users do not enter the exact journal title or happen to misspell a word, SFX will return a default list of services available for any title in the SFX database, even if it is not locally held and even if the title may have been available full text if it had been spelled right (Figure 4).

**Figure 4: Search Results from a Misspelled Title**



In a recent communication to its customers at the annual meeting of their user group<sup>3</sup>, Ex Libris has announced, however, that the next release of SFX (version 3) will include keyword searching (contains, begins with, and exact match) in the Citation Linker. Keyword searching would lead users to a list of titles alphabetically adjacent to their search, helping users to pinpoint spelling problems. Currently, by using the percentage character (%) as a truncation symbol, users can bring back the first ten titles (and only those first ten titles) in the SFX knowledge base that contain the search term, but the Citation Linker currently works best when users enter an exact title.

Once we had activated the holdings of our aggregator databases and electronic journal subscriptions, our electronic journals were searchable within the Citation Linker (as well as within all the databases that are OpenURL compliant). When the SFX global knowledge base is updated each month, we receive reports regarding any changes that vendors have made in their data. We selected the option to have these updates automatically applied to our aggregator databases, another important benefit of SFX that enables our staff to focus on other projects.

## **Migrating Print and Union List Holdings**

While configuring SFX to manage access to our electronic journal holdings was a simple process, migrating our print holdings and our union list holdings held additional challenges. The default SFX interaction with print holdings is through a Z39.50 search of a library's catalog. Although administrators can control many of the services that appear in the menu based on their availability, SFX cannot determine whether a library owns a local copy until users instruct the software to perform a Z39.50 search and display the results. If users then choose to search the catalog, a new window opens displaying the search results, which can frequently include nothing more than a short error message indicating "no items found." Since our local print/microform journal holdings had always been a part of our local database, we did not want our users to have to search our catalog separately for these holdings data.

Since the strength of SFX is its context-sensitive search results, we decided to download the print and microform holdings from our catalog and then upload these data into SFX. Once the holdings were loaded into the SFX Knowledge Base, users would only see the holdings in the SFX menu if they matched data from the specific citation for which they were searching. The biggest challenge we faced at this point was that SFX needs holdings data coded in PERL statements rather than MARC formatted summary holdings statements. David Walker at California State University at San Marcos presented us with an elegant solution to this problem of how to quickly convert our MARC holding statements into SFX PERL holding statements. Walker's web site<sup>4</sup> contains a wealth of practical advice for those new to SFX. Walker's "Local Print Collections" page includes several solutions for handling local holdings, and Walker's jholding script proved to be the right solution for Murphy Library. Written in Visual Basic, the

script takes data extracted from the catalog (ISSN and holdings data) and transforms them into SFX's PERL format.

Once data were successfully parsed through the jholdings program, they were uploaded to their appropriate target via the SFX DataLoader tool (Figure 4).

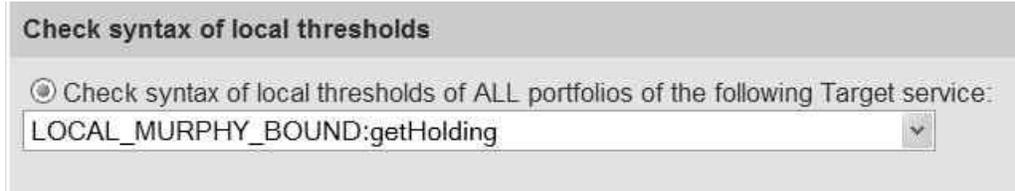
**Figure 5: SFX DataLoader**

The screenshot shows the SFX DataLoader interface. At the top, it says "Welcome to Dataloader". Below that, there is a text box for "Specify input file name" with the value "C:\Documents and Se" and a "Browse..." button. Next to it is a dropdown menu for "Select Target Service" with the value "LOCAL\_MURPHY\_BOUND:getHolding". Below this is a section titled "Select the name for each column in your input file:". It contains seven columns, each with a dropdown menu. Column 1 is labeled "ISSN", Column 2 is labeled "LOCAL THRESHOLD", and Column 3 is empty. Column 4 is empty, Column 5 is empty, and Column 6 is empty. Column 7 is empty. At the bottom left, there is a "Load Type" section with two checkboxes: "Create New" and "Update", both of which are checked. To the right of this is a "Key" section with four radio buttons: "ISSN" (selected), "ISBN", "Archive", and "LCCN". A "Submit" button is located at the bottom right.

After we had loaded and the data, our holdings displayed properly in the services menu.

Although running our holdings through the jholdings script seemed to be an easy process, we quickly discovered the importance of error checking. If there was an error in the PERL syntax of our holding statement, the holdings simply would not appear in the services menu. Once we realized the importance of proper syntax, we were able to utilize another SFX tool, the Threshold Tool (Figure 6) to quickly locate the malformed holdings statements.

**Figure 6: SFX Threshold Tool**



This tool checks syntax for the titles within a given target service and then creates a tab-delimited text file listing any errors. We were often able to correct multiple mistakes at once using a simple find and replace command, then re-send the cleaned up data file back to the SFX database through the DataLoader. SFX includes a strong error checking and handling system that has already proved invaluable in our initial interaction with the software. While David Walker's jholding program encountered some difficulties with our MARC holdings, the process helped us uncover some formatting issues with our holdings. The majority of our holdings were loaded successfully into SFX. Currently, SFX can only load titles that include an ISSN into the Knowledge Base. Ex Libris is developing a solution to this issue, but our titles without ISSN numbers cannot be loaded into the Knowledge Base at this time. Figure 7 illustrates how our local holdings display in the SFX services menu.

**Figure 7: SFX Service Menu**

**UW-L** **GetText services for this citation**

Source The American journal of nursing [0002-936X]

- ▶ **No electronic full text is available for this item.**
- ▶ Murphy Library Holdings: **Current issues are available in Murphy Library; check the Catalog for exact holdings**  
Availability: from 2004 volume 104
- ▶ Murphy Library holdings: **Microfilm is available in Murphy Library; check the Catalog for exact holdings**  
Availability: from 1900 volume 1 to 2003 volume 103
- ▶ Local Library Holdings: **Viterbo University Microfiche**  
Availability: from 1990 volume 90 issue 1 to 2002 volume 102
- ▶ Questions? Use the **Get Help Form**
- ▶ Frequently Asked Questions **GetText FAQ**

Users now see our holdings at a glance, and they have the option to click on the associated link to run a catalog search for that title and view the complete catalog record. We anticipate that our new periodicals database interface (Figure 8) will go live in fall 2004.

**Figure 8: Murphy Library’s SFX Generated Journal Locator**

**Journal Locator**

**Browse Journals by Title:**  
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

**Search Journals by Title:**  
 Type in as much of the journal title as you know; you may use % as a wildcard/truncation symbol.

**Journal Title:**  

If you would like to limit your results to particular years, volumes, or issues, please enter additional information in the fields below.

**ISSN:**  **Date:**

**Volume:**  **Issue:**

## Conclusion

Librarians at Murphy Library are very excited about moving to this new SFX-powered journal locator. Users will benefit from context-sensitive linking and only view holdings from other area libraries if Murphy Library cannot provide the item. When none of our area libraries holds a needed item, users can select a link to our interlibrary loan system (ILLiad) from the SFX menu and login to an interlibrary loan form that already includes information about their request filled in for them. Managing our journal locator via SFX will save staff time and will provide our users with a richer array of information at their point of need – both within the search results of their bibliographic searches and as a separately searchable database.

## NOTES

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