

The SISAC Barcode and the Periodicals Analysis Database

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SUMMARY. This workshop described the development of two serials management databases at Wichita State University (WSU) in Kansas. The databases facilitate periodical labeling, checkin, and use data collection. Usage information is loaded into another database which serves collection development needs. Nancy Deyoe, Principal Cataloger at WSU, described the labeling and checkin processing and workflow features. Kathy Payne, previously Science Librarian at WSU and currently Head of Reference at Weber State University, described the development and use of the collection development program. Both presenters demonstrated the use of the two databases. [Article copies available for a fee from *The Haworth Document Delivery Service*: 1-800-342-9678. E-mail address: getinfo@haworth.com]

PROJECT DEVELOPMENT

Prior to 1991, Wichita State University (WSU) used handwritten LC and SuDocs call number labels for loose periodical issues. Writing and

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[Haworth co-indexing entry note: "The SISAC Barcode and the Periodicals Analysis Database." Park, Amey L. Co-published simultaneously in *The Serials Librarian* (The Haworth Press, Inc.) Vol. 31, No. 1/2, 1997, pp. 295-299; and: *Pioneering New Serials Frontiers: From Petroglyphs to Cyberserials* (ed: Christine Christiansen and Cecilia Leathem) The Haworth Press, Inc., 1997, pp. 295-299. Single or multiple copies of this article are available for a fee from The Haworth Document Delivery Service [1-800-342-9678, 9:00 a.m. - 5:00 p.m. (EST). E-mail address: getinfo@haworth.com].

attaching the label and completing NOTIS checkin took 1.25 minutes per piece. In addition, collecting intermittent use information for periodical cancellation projects was labor-intensive and represented only a snapshot view of journal usage.

In 1991, Jasper Schad, Director of the WSU library, directed John Williams, Periodicals Supervisor and the technical expert for this project, to improve journal labeling and to develop a system that would collect journal use information. The resulting test of the production of smart barcode labels for loose issues proved so successful for labeling, checkin, and collection of use data that the entire collection was eventually bar-coded according to SISAC specifications.

WORKFLOW FOR LABEL CREATION AND NOTIS UPDATING

When a piece is received at WSU Libraries, a student examines it, finds the ISSN, and searches it in the barcode database, which uses Worthington Data Solution's LabelRIGHT barcode software. The ISSN is used as the link between the SISAC barcode and the receipt screen in NOTIS. If the ISSN cannot easily be found on the piece, the title is searched in NOTIS and the ISSN found there is used. Records that lack ISSN have been given pseudo-ISSN. Publisher-produced SISAC barcodes located on some journal issues are not used because the data on them is not always correct and the barcode is not found on all journals.

A template record is retrieved from the barcode database. One template exists for each of the 4,000 LC-classified and 400 SuDocs-classified serials received by the library.

The student updates the template to reflect the piece in hand, which requires possibly changing a three-digit chronology code and a four-digit enumeration code, as well as changing the template to reflect the piece's actual chronology and enumeration. Students are able to memorize most of these codes.

A barcode is then printed using dot matrix printers on acid-free paper stock with archival adhesive. Above the barcode is a human-readable location and call number (including enumeration and chronology) which facilitates shelving. The barcode is followed by a line of numbers which interprets the barcode and contains the eight-digit ISSN, a 900-series number designating a chronology descriptor, the piece's actual chronology, a four-digit code designating the enumeration, and the piece's actual enumeration. The journal title also appears on the label.

Updating the template and producing the barcode takes 10-20 seconds for an LC-type label, with a SuDocs-type label requiring slightly more time.

The barcode is affixed to the front cover of the piece. No standard location is used; the only goal is never to cover the publisher-supplied enumeration, chronology, table of contents, or other valuable information.

Switching to NOTIS, the barcode is scanned. The NOTIS LSER serial module record is retrieved and updated following ANSI level-4 standards for holdings, requiring three keystrokes and 10 seconds.

STAFF AND FINANCIAL SAVINGS

An original investment of \$1,000 was required for the barcoding equipment and software. This cost has paid for itself in staff and time savings. Although building the initial template database for the 4,400 serials involved staff commitment and time, fewer staff are now needed for serials checkin and labeling. Since this project was implemented in 1991, the staff required for all serials checkin and labeling work has been reduced by 1.25 FTE, in spite of the unit's adding to their workload the responsibility for all receipt, cataloging, and processing of government documents. Serials checkin and labeling currently requires .75 student FTE for the handling of approximately 150 daily issues.

PROBLEMS AND ERROR RATE

Government Document periodicals, which are processed two times each week, have proven to be difficult to work with. Most lack ISSN and it can be difficult to find the correct title in the barcode database. In addition, documents require more time to process because they were initially loaded into a separate processing unit.

Few errors occur through the use of the barcode software. Errors resulting from barcode creation are caught by NOTIS when it is updated. Every three months, approximately one error is detected during subsequent use data collection scanning.

COLLECTION AND USE OF DATA

Use data can be analyzed to the issue level as well as collected for both in-house and external circulation. Portable scanners called Tricoders are used several times each day to collect internal and external use data.

Bound periodicals are not barcoded. Instead, a notebook containing a

barcode for each title, arranged by call number, is used. The barcode in the notebook is scanned to allow for the collection of use data for bound volumes. Scanning requires 5-7 minutes for each loaded truck.

The Tricoders can store over 7,500 scans. Continuous use data collected by them is uploaded to a collection development database once each month, allowing the monitoring of data across several years.

PERIODICALS ANALYSIS DATABASE (PAD) DEVELOPMENT AND USE

Kathy Payne described the use of PAD. It was created to store collection analysis information and was evolutionary in nature, beginning with a Quattro Pro spreadsheet which was eventually replaced by Paradox, a more flexible and sophisticated database.

PAD is used to support cancellation decisions and requests for additional funds for serial expenditures and to demonstrate that the library is making responsible serials funding decisions. The library has received additional monies because of data generated from PAD. The database also provides information to collection development librarians, facilitates the assignment of journal titles to subject bibliographers, and has been found to be particularly helpful as an orientation tool for new librarians, allowing them to become quickly familiar with the titles for which they are responsible.

DATA ELEMENTS IN PAD

Data elements in PAD include the ISSN or pseudo-ISSN, previous ISSN, title, whether the title is classified by the LC or SuDocs classification scheme, the call number itself, location, subscription number, publisher's name, frequency, ISI impact factor, whether or not the title is indexed, peer reviewed or refereed, whether the title is foreign or domestic, librarian assignment, department assignment, target audience, fund code, current issue use data, bound volume use data, summation of use, baseline (1985) cost, current cost, current issue cost/use, current issue and bound volume cost/use, a code for core/curricular/research use, and a code for primary usage by undergraduate students, graduate students, or faculty.

Most information in PAD can be automatically updated including changes to the ISI impact factor, information about other Kansas libraries that hold the title, and expenditures. Variables which require manual updating include names of librarians to whom the title is assigned, as well as code changes.

REPORTS GENERATED FROM PAD

Many statistics can be gathered by PAD and many reports can be generated and printed from it. Use and administrative reports provide information about the cost, original cost, annual use, and cost/use of a journal or group of journals (both current and bound volumes) by LC class number, subject department, or librarian assignment since 1985 (the year WSU began using NOTIS).

Collection management reports provide journal information including title, call number, cost, cost/use, ISI impact factor, and other people to contact before the journal is canceled for each title assigned to a particular librarian. They also list subjects assigned to each librarian as well as a comprehensive subject report which provides a listing of journal titles by LC call numbers and a code for each librarian to which the title is assigned.

The use of QBE (Query By Example) reports to search PAD tables for desired data elements allows for the creation of customized reports.

FUTURE DEVELOPMENTS

In the future, the library will be networked, making PAD more accessible to collection development librarians. Other future developments include creating a database for government documents and seeking a federal grant for further enhancement of PAD, such as the importation of ILL use data and use data collected from online databases.

An article describing this project tentatively entitled, "The Development and Implementation of the Periodicals Analysis Database," and written by Kathy Payne, John Williams, and Dr. Mohammed Dadashzadeh will be published in an upcoming issue of *Serials Review*.

The two workshops were attended by approximately 88 NASIG attendees. The audience was attentive and impressed with the work and time savings. Questions from the audience concerned details of working with the two databases. One participant noted that WSU appears to have developed a system that provides features which an automated vendor could have provided, an observation that was agreed upon by the presenters.