The Medical Sciences Library of the University of California, Irvine acquired an on-line serials control system quickly and at low cost by entering into a consortium with the University of California, Los Angeles Biomedical Library, whose on-line serials system has been in existence and operating successfully for four years. The conversion was funded by the National Library of Medicine grant and was carried out mainly by the existing serials staff. The conversion from a manual to an on-line system caused numerous problems, and though the system is an enormous improvement, there are still minor difficulties. (Author/EMH)
ON-LINE SERIALS CONTROL IN A CONSORTIUM SETTING

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Introduction

The Medical Sciences Library of the University of California, Irvine was able to acquire an on-line serials control system quickly and at a low cost by entering into a consortium arrangement with the UCLA biomedical Library, whose on-line serials control system has been in existence and operating successfully for four years. In addition, the journal collection of a teaching hospital of the UC Irvine Medical School has been added to the Irvine on-line data base in a holdings list format. The three libraries who comprise this consortium at present have in common a computer, computer programs and a systems programmer.

This consortium was made possible by a National Library of Medicine grant which was funded in October of 1973. A demonstration of the on-line system in 1977 suggested the possibility of utilizing it for the serials control of the Irvine Medical Sciences Library, since there was no comparable system available then or in the foreseeable future from the University of California system.

With the grant, it was wished to demonstrate the feasibility of implementing a system designed for a large research library in a much smaller one, to demonstrate that the implementation could be done quickly and at a low cost, that the normal operating costs of the implemented system would be low, and that there would be benefits from having the
system. Of particular interest would be the modifications needed to meet the unique needs of another and much smaller library.

Environment and Logistics

The UC Irvine Medical Sciences Library is a medium-sized medical library containing 82,000 volumes and currently receiving 1000 journal titles. It primarily serves the UC Irvine campus and Orange County with emphasis on the UC Irvine Medical School, and is the source library for Orange County within the Regional Medical Library area II.

The Serials Department is responsible for acquisitions, processing, binding, exchange and the maintenance of serials records. The staff required for the manual serials control before and the on-line control after the implementation has remained the same, one professional librarian and 1.5 support staff.

Under its consortium arrangement the Medical Sciences Library utilizes a Delta Data Model 5000 CRT terminal to access its on-line data base stored fifty miles from the Irvine campus in the UCLA Health Sciences Computer Facility. The University of California intercampus telephone, or tie line, is used to transmit data. Programming maintenance is purchased at the rate of one-half hour per day from the UCLA Biomedical Library, and a UCLA Biomedical Library employee is hired for one-half hour per day to submit program decks to the computer and to deliver printouts to an area of the library where they are picked up along with other library materials and delivered to the Irvine campus by the daily intracampus shuttle bus.

Description of the On-line System

Some of the positive features of this consortium are:

1. An extremely well-designed on-line serials control system that has
been operating successfully for four years.

It can be briefly described as having check-in, claims, reference, and fiscal modules. The data base that is now maintained on-line for the control of serials can be modified freely and thus kept current at all times. There is on-line access through title, subject, serial identification number, search codes, and ISSN.\(^2\)

2. A very supportive serials staff at UCLA Biomedical Library. After a brief orientation at UCLA, further questions and problems were, and still are, resolved satisfactorily by telephone.

3. Having Jim Payollat as the systems programmer for the consortium. In addition to having designed the on-line system, he has always had time to explain it clearly and in detail to anyone who might have a question.

Some of the less positive features of the consortium at present are:

1. Transmitting data via telephone lines.
One of the nine tie lines between UC Irvine and UCLA, for which there is no direct charge to the user library, is used to transmit data since one of the goals of the grant was to keep implementational and operational costs as low as possible. By this method data is transmitted through the UC Irvine Centrex telephone system, from lines of one telephone company to another, through another Centrex at UCLA before it reaches the computer; in contrast, the UCLA Biomedical Library CRT terminals are hard-wired to access the computer located in the same building as the library. The CRT terminal operator at UC Irvine needs a sixth sense to determine whether transmission problems are from (a) a faulty tie line connection, in which case it is easiest to sign off and re-enter through another line, (b) the CRT terminal, or (c) the
computer itself. Some alternate forms of transmitting data that are being investigated are a manual data access arrangement, a direct dedicated line, a direct line, and a Valcom modem. The desired form of transmission would be by microwave as has been requested to by a nearby community college after unsatisfactory experiences with telephone lines. Since only between two and three hours of transmission are needed daily for the control of system at present, and since one of the goals of the grant was to keep costs at a minimum, the staff is working around the transmission problems at present, although difficulties may arise when the system is expa...

2. The CRT

The Delta B. used to transmit data is superior in operating qualities to other terminals that have been used by the serials department; however, there is no backup terminal available since the grant included only one. Another terminal is not justified at present in view of the small amount of daily use; in retrospect, another terminal should have been rented for at least part of the implementation period since the one terminal was in use at times from 5 a.m. to 8 p.m. while working around computer access problems.

It was exchanged for a terminal and cassette set from UCLA Biomedical Library for part of the implementation; this was a great aid since data could be stored on the cassette and transmitted during periods when the computer could more easily be accessed. Future plans for expanding the system to include a fiscal module, interlibrary loans and the journal collections of other libraries will necessitate the addition of another terminal.
3. The computer.

The Health Sciences Computer Facility IBM Model 91 used for the system is NIH-funded, and heavily used. There is no predictable pattern of hours for optimal use, although the lunch hour often is an excellent time to transmit data, and transmission time is slower in general from 10:00 a.m. to 2:00 p.m. Unplanned difficulties were experienced from the computer during the early part of the implementation of the system when extensive software revisions planned to be completed in a few days made accessing the computer almost impossible for what eventually became an entire month.

The staffing for the implementation - and, of course, for the implemented system - is most important. There can be the most impressive smoothly-operating on-line serials control system available, and the most elaborate methodology for the implementation, but this still doesn't make the actual conversion from numerous files and records to the completed on-line data base. The conversion for the journal collection of a library of approximately 2,000 currently received titles can be done quickly and with a small staff if the proper level of skills can be obtained from the staff and if there is at least one project-oriented staff member whose only assignment is the conversion.

Even though much of the data accumulated by the UCLA Biomedical Library could be appropriated for use in the Irvine Library database, there still was a great deal of unique data to accumulate and record on worksheets for the conversion. Two of the difficulties:
encountered were (1) getting the journal holdings recorded accurately despite a pieced-together collection with many unbound issues, and (2) getting from proofread worksheets to error-free entries in the data base. Based on the experiences of this implementation and on-going operational system, desirable skills for support staff are typing and spelling ability, cataloging ability, flexibility and patience, machine-orientation, and, perhaps most important, concern for maintaining the integrity of the data base since all parts of it can be modified freely as desired, and little proofreading is done.

A few of the factors to be considered with implementing an on-line serials control system based on the experiences of this particular implementation from manual to on-line form of serials control are:

1. Have a definite understanding about job reclassification of the support staff before the conversion is begun. Expectations of immediate rewards from associating with the on-line system can result in discontent if not realized.

2. Fears of job displacement from the conversion should be considered. Remarks such as "When you automate, you can eliminate half of the staff", although probably well-meaned, affected all associated with the conversion. As a result of this particular conversion, the same quantity of staff, although the positions have been upgraded, is being used while the system itself has been expanded to eventually include a fiscal module, interlibrary loans, and the journal collections of at least two other libraries.

3. All data for each entry should be added at one time while building the data base since it takes time and staff to re-enter on-line, unless,
of course, expenses are not a consideration. It is exceedingly
difficult to envision all the future needs of the library after
the conversion; for example, UCN, call numbers, publishers, and
additional subject headings would have been helpful additions for
the system during the conversion. Also, the bibliographic or
bibliographic information should have been checked against that of the
UCNP of the Medical Library Center of New York when preparing the
worksheets rather than later when preparing for the publication of
a book form of holdings list since it was then discovered that
many titles no longer being currently received by the library had
ceased publication or had experienced title changes.

4. The implementation should be planned for around the first of
the year, or at least the check-in module should be used for the
full year of the implementation, so that the bindery pickup lists can
be utilized for the implementation year. It is planned, in the future,
to modify and use existing title entries in the data base to add
titles for other libraries if the title is a duplicate one. This
will require a skilled CRT terminal operator, but should eliminate
many of the problems encountered in building a new data base.

Some average operational statistics for the system the first six
months after the conversion are contained in Table 1.

The on-line system has been very favorably received by the library
users and staff. The Public Services staff consider the printouts re-
ceived three times each week at present as extended "portable hardexes",
and are especially enthused with having detailed information and dates
on materials claimed or sent to the bindery. The ability to modify the
data base at will and add any information that might be useful to the
staff and patrons in various note fields has also proved to be most helpful.

The serials support staff is most impressed with the ability to search the entire database in four hours for materials needing to be claimed and to have letters generated. This is in comparison to the several days needed to search the kardex files manually.

The check-in and claims modules of the system have been adopted as used by the UCLA Biomedical Library without any modifications; the bindery module has required some modifications since the location and retention period of current display unbound journals differ from the practices of the UCLA Biomedical Library.

As is evident, the on-line serials control system of the UC Irvine Medical Sciences Library is well established, and the consortium arrangement has proven a successful concept. The average of 2 1/2 hours of computer time needed daily for the system allows the staff to work around any problems presented by the tie line, CRT terminal and computer, although there is not as yet the desired smoothness in processing the serials materials.

Operating costs for the on-line system compare favorably with those of the former automated holdings list, and, of course, there are numerous advantages and benefits to having instant access to a database that can be modified at will.
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<tr>
<td><strong>Computer costs</strong></td>
<td><strong>$420.00</strong></td>
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<td>(including terminal</td>
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<td>connect charges of</td>
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<td>$120.00)</td>
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<tr>
<td><strong>Journal issues checked in:</strong></td>
<td><strong>1186</strong> (varied from 1077 to 1319)</td>
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<tr>
<td><strong>Check-in module:</strong></td>
<td>37 hours</td>
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<tr>
<td><strong>Bindery module:</strong></td>
<td>8 hours</td>
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<tr>
<td><strong>Claims module:</strong></td>
<td>5 hours</td>
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<tr>
<td><strong>Cataloging:</strong></td>
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<tr>
<td><strong>Demonstration:</strong></td>
<td>1 hour</td>
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<tr>
<td><strong>Computer use, total:</strong></td>
<td>59 hours</td>
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Table 1: Average monthly operational statistics for on-line serials control system from January through June, 1975. 1900 journal titles are currently received; data transmission was at 300 baud. Cataloging hours include time needed to maintain the journal collection of the teaching hospital's medical library which at present is in a holdings list format in the data base, and contains 600 currently-received titles.
Based on a paper delivered by Joyce Loepprich at the Medical Library Association Annual Conference in Cleveland, Ohio, 5 June 1975.

On-Line Serials Control in a Large Biomedical Library: Part I) Description of the System
Journal of the American Society for Information Science 23(5); 310-322 (1972)

On-Line Serials Control in a Large Biomedical Library: Part II) Evaluation of Retrieval Features

On-Line Serials Control in a Large Biomedical Library: Part III) Comparison of On-Line and Batch Operations and Cost Analysis

"Evolution of a Processing System in a Large Biomedical Library,"
Darling, Louise and Fayollat, James, Bulletin of the Medical Library Association, in press.

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Abstract

The Medical Sciences Library of the University of California, Irvine acquired an on-line serials control system quickly and at low cost by entering into a consortium with the UCLA Biomedical Library, whose on-line serials system has been in existence and operating successfully for four years. The conversion was funded by a National Library of Medicine grant and was carried out mainly by the existing serials staff.

Some of the difficulties encountered in the conversion from a manual to an on-line form of serials control are recounted. Included are the positive attributes as well as some of the less favorable mechanisms of the Irvine system at present, along with future plans for the system.