

DOCUMENT RESUME

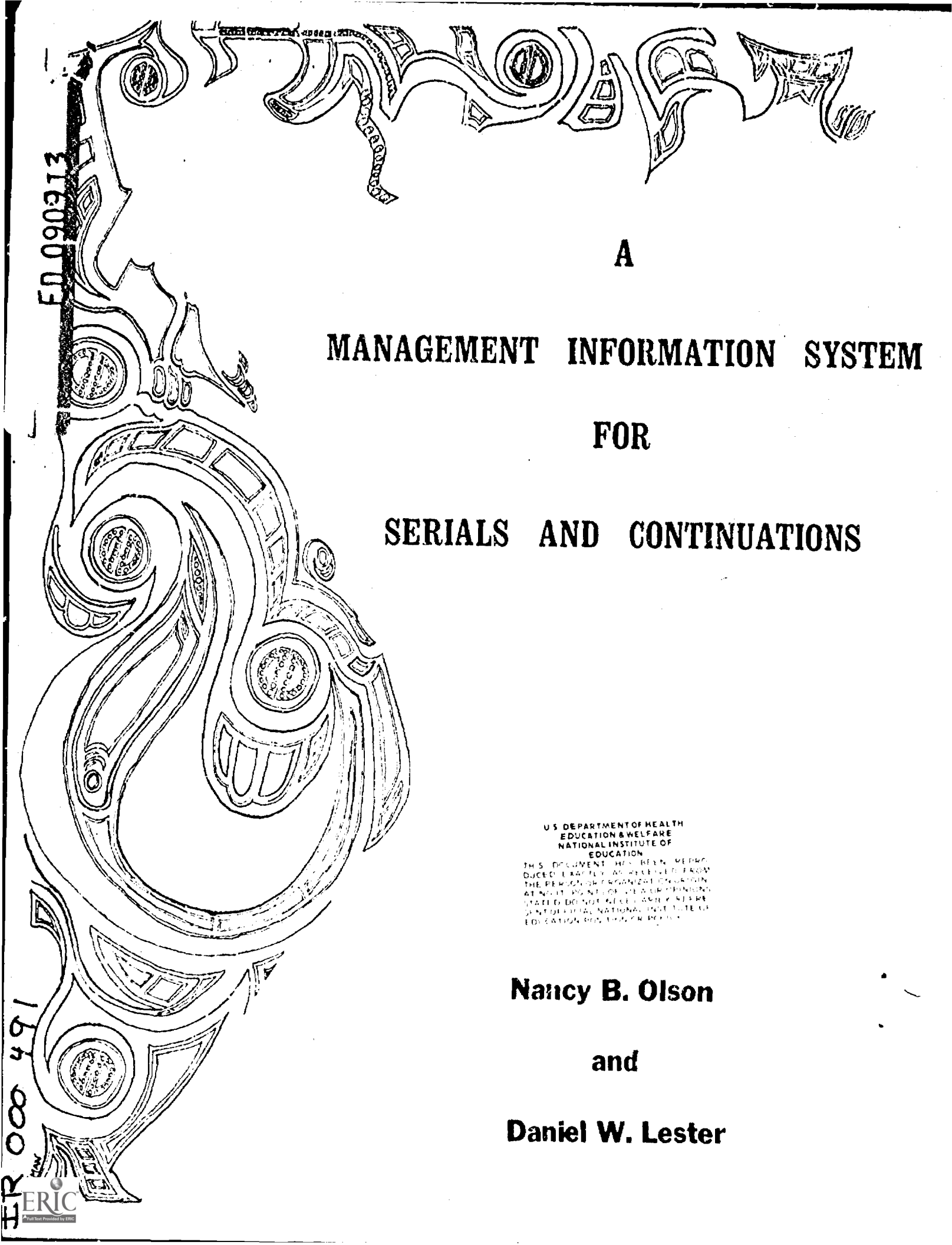
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ABSTRACT

Cutbacks in funding and personnel required the Mankato State College Library to gain more effective control over its serials collection. The task was to integrate the various data, some unrecorded, on standing orders and serials holdings and to produce for the library directors specialized lists of many types: all titles ordered from a specific vendor, titles to be dropped, and other lists to satisfy administrative needs. In the interest of speed, it was decided to use a computerized system. The record format for serials was expanded from a two-card-per-unit-record system to one that allowed for multiple-line main entries and titles, locations, holdings, internal notes, subscription details, and other fiscal and cataloging information. Records are constantly revised as new, or more complete, information comes in. Along with the production of administrative data, the system can quickly generate lists for public and faculty use and to meet special requests. Lack of outside programming support for the project proved to be an asset, rather than a liability, for having the same person doing the programming and bibliographic work reduced manual checking and handling of data. The appendix includes sample materials generated by the system. (SL)



ED 090913

A

MANAGEMENT INFORMATION SYSTEM

FOR

SERIALS AND CONTINUATIONS

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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and

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ER 000 491

How can a library handle a drastic budget cut when it has little idea what its annual obligation for standing orders, blanket orders, periodicals, serials, memberships, and other continuations really is? This is the problem we are facing in the Media System at Mankato State College.

THE PROBLEM

It happened because we experienced a decade of rapid growth in budget, materials, and numbers of students, faculty, and librarians. "In the old days", when one person handled ordering, receiving, and check-in of all materials, the standing orders were not recorded anywhere. The librarian knew what they were; he had ordered them and recognized them on receipt. There was always enough money to pay for them as they arrived.

Then he left.

As the system grew rapidly, supplemental legislative allocations to build the collection for accreditation by various agencies increased the materials budget to over \$600,000 per year. Little extra money was allocated for additional personnel to verify orders, receive materials, or process books. Additional funds would often be released near the end of a fiscal year and would have to be spent within days. To develop the collection rapidly, many items were placed on standing order or as other types of annual obligations. There wasn't time or staff to keep adequate records of these orders; and there was little urgency to do so as the money was always there to pay the bills. The need for better control of these items was long recognized and various people made attempts at improving the system, but other pressures were greater.

Then the tide turned.

Student enrollment dropped. Supplemental funds from all sources were reduced or eliminated. Staff cuts including professionals, clerks and students began. The Media System didn't know what it was obligated to pay each year.

THE SOLUTION

To assist in gaining control of standing orders and other types of annual obligations, the media system had available in the library a complete unit record system with which we had been producing a periodical list for two years; a remote job entry terminal to the college's Univac 1106; one librarian with several years experience in library automation and serials; and one librarian with a little experience in serials, automation, and one course in programming. We also had several lists and files of supposed standing orders and many people in the system who "knew" of specific standing orders, or a depository account or details of a membership.

Our task was to develop a system to gather all this information, to clean it up, and to come up with some totals as well as with accurate lists of the various types of orders. We were also asked by the Media System Directors to provide specialized lists of many types: all titles ordered from a specific vendor, titles to be dropped, materials to be ordered direct from the publishers each year, and other lists to satisfy administrative needs.

Our first decision was to use the computer to manipulate the data and produce updated lists in various formats containing all known information about each entry far faster than could be accomplished manually. Our next decision was to expand the basic record format we had developed for periodicals. Our major limitation was the unavailability of programming support from outside the Media System.

Our record format was expanded from a two-card-per-record unit record system to one that allows for multiple-line main entries and titles; locations, sub-locations, form of material, call number, and holdings for each of as many as nine subscriptions per title; cross-references; internal notes; public notes; annual price, number of subscriptions, vendor code, department code, serial type, publication status, receipt status, and other fiscal and cataloging information.

An eight digit serial identification number was assigned to each record to keep the entries in alphabetical order and to serve as the record number that was punched in each card. A three digit card type and continuation code was used, giving a theoretical maximum of 999 cards per record. The serial identification number appears with the record on every type of printed output for easier reference by those submitting corrections, and for use in future update programs. This type of record-building proved fortunate since we have been forced to continually add new types of internal notes. We have easily added codes and notes such as TO BE DROPPED, for instance, and produced a total list with these entries identified for the user, as well as selectively printed lists of only the entries with each type of note or code.

This past year we have coded and keypunched the records from each known standing order list and file; added call numbers and holdings from the card catalog and shelf list; checked the resulting list against the serials shelf list and added anything that might possibly be a standing order. In addition, we checked the total list against the past year's purchase orders, adding anything that was remembered to have been purchased on a continuing basis, as well as adding purchasing information for existing entries; and checked the list against Cumulative Book Index for prices and series information.

We are checking all incoming possible standing orders against the list, also. The lists are constantly being revised as entries are changed, new entries added, and dead, monographic or duplicate entries eliminated. Many people have been questioned concerning details of memberships, depository accounts, blanket order, and subscription plans. This information is added as gathered, usually in the form of internal notes with the name of the person or source. Meanwhile, academic departments have been evaluating sections of a list arranged by call number to decide which titles are to be dropped.

We are producing on a regular basis alphabetic lists by main entry containing all information concerning non-periodicals for use by the receiving, cataloging, and bibliography sections. For public reference use this data is combined with the periodicals data to provide a comprehensive serials list which contains those parts of each record needed for public use. We also provide lists arranged by classification number for use by bibliographers and reference librarians; as all serials are classified, this provides a temporary substitute for a subject list of serials. Specialized lists and exception reports, such as all entries for multiple subscriptions or items costing over \$50.00, are produced on demand. Edit lists are produced as needed.

We have not yet been able to predict all of the types of special reports that have been needed. As new budget crises develop, new types of lists are needed and will be produced. These special reports are always needed urgently. Our first experience of this type was a request for a list of all current periodicals in call number order to be duplicated and distributed to faculty for them to select subscriptions to be cancelled. This list was needed within two weeks of the request. At that time, our only indication

in the keypunched record of a current periodical was the presence in the holdings statement of a hyphen followed by a space, the traditional open-entry format. So we programmed to build records, search the holdings for this combination of characters, sort the selected records in call number order, and print a report.

There have been many experiences of this type. Our ability to meet them demonstrates, we think, the definite advantages of having librarians familiar with serials doing the systems design, the programming, the editing, and the report design, as well as keeping the whole operation moving as efficiently and rapidly as possible under the conditions.

This one example also illustrates another advantage of our system over a manual system; the ability to produce an extensive specialized list within a short period of time. In the above instance about 6650 records were checked by the computer to find the 3127 current titles; then the current titles were sorted by call number and printed. A report that would have taken weeks of clerical labor was produced in less than two hours. The program took about a week to write, but it has since become a basic program on which many others have been built. Still, the whole project was completed more accurately and in less time than would have been possible manually from the existing records.

The other point that should be stressed is our use of the computer to assist in cleaning up the data. We began with titles and call numbers and have added more data as information is received and revised, as prices are added, as main entries are corrected. The system is constantly expanding in types of data, in number of entries, and in types of output.

We have been quite concerned with the appearance, legibility, and conciseness of our output reports. We have several basic formats which are

varied as needed for specific reports. If a report is to be printed for distribution, we are also concerned with minimizing reproduction costs, if possible. We are always careful, however, to produce a readable, useful report; it makes little sense to save a few dollars on reproduction costs if the result is a poor product.

The system has grown from a two card unit record periodicals book catalog to one including documents, serials, standing orders, other continuations, and the periodicals holdings for four other colleges. The data base now includes over 11,000 titles of all types.

Lack of outside programming support has not been the liability we originally thought it would be; in fact, it has usually been an asset. All programming is done in ANSI COBOL and is basically modular. Having the same person collecting and editing the data and also writing the programs has been an advantage to us. Our operation is small enough to do this, as a full-time programmer couldn't be kept busy with our present level of automation. The person doing both the programming and the bibliographic work can spot idiosyncracies in the data that need to be considered in programming and knows the programming techniques that will reduce manual checking and handling of the data.

Although the development of our management information system is continuing now and will probably never cease, we feel that we have already begun to realize a return on our investments in planning and programming. The system has assisted in data collection and editing, provided new information and reports for library managers and library users, and provided techniques to eliminate duplicate effort and files throughout the Mankato State College System.

A P P E N D I X

Reports Produced

Serials Worksheet

Sample Pages

Continuing obligations -- public list

Continuing obligations -- internal list

Continuing obligations -- by class numbers with sub-totals

*Continuing obligations -- individual subscription price
greater than \$100*

REPORTS PRODUCED

on a regular basis or as needed.

For internal use (with part or all of public information plus details of purchase, retention, cancellation, etc., as available) in alphabetic order unless stated otherwise.

- Coding list

- Proof list -- periodicals

- Proof list -- continuing obligations

- Current periodicals

- Current periodicals; by class number

- Current periodicals; by class number with those to be canceled so marked and with appropriate sub-totals and summary

- Periodicals master file on card stock

- Edit lists: records without titles

- records without class numbers

- records without holdings

- class numbers improperly punched

- Continuing obligations (non-periodical serials plus memberships, depository accounts, service plans, blanket orders)

- Continuing obligations; by class number with probable and questionable obligations so marked and with appropriate sub-totals and summary

- Continuing obligations to be canceled with totals

- Questionable obligations with totals

- Probable obligations with totals

- Standing orders to which we have more than one subscription

- Continuing obligations with individual prices greater than \$100 per year

REPORTS PRODUCED

For public use; alphabetic order unless stated otherwise.

Periodicals; Mankato only

Periodicals; 5 colleges

Serials; Mankato only

Serials; 5 colleges

Periodicals; by class number

Valley Campus branch library holdings

Valley Campus; by class number

Planned for Spring and Summer, 1973

Current periodicals by vendor with relevant information and totals.

Current periodicals by department charged with relevant information and totals.

Continuing obligations by vendor with all information and totals.

Continuing obligations by department charged with all information and totals

Continuing obligations check-in forms.

Continuing obligations check-in weekly status reports.

MEMBER'S ADDRESS FOR SUBSCRIPTIONS

5	11	10	4	2	2
---	----	----	---	---	---

LOCATION A LOCATION WITHIN A TYPE OF MATERIAL CALL NUMBER

- PER
- LIBR
- PERIOD
- BOOK
- MAP
- ...

			3	1	2
--	--	--	---	---	---

HOLDINGS —CONTINUING TO RECEIVE (incomplete volumes) ; SEPERATE WITHIN A RUN

			3	2	1
--	--	--	---	---	---

ADDITIONAL LOCATION, CALL NUMBER

			3	2	2
--	--	--	---	---	---

HOLDINGS FOR ADDITIONAL LOCATION

			3	3	1
--	--	--	---	---	---

ADDITIONAL LOCATION, CALL NUMBER

			3	3	2
--	--	--	---	---	---

HOLDINGS FOR ADDITIONAL LOCATION
MAKE CROSS-REFERENCES FROM

			5	1	1
--	--	--	---	---	---

			5	2	1
--	--	--	---	---	---

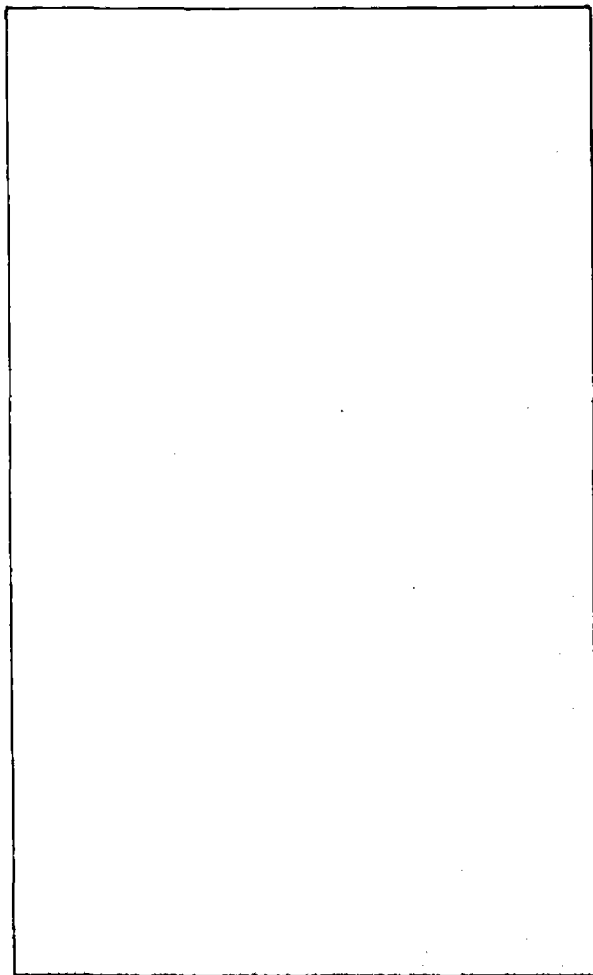
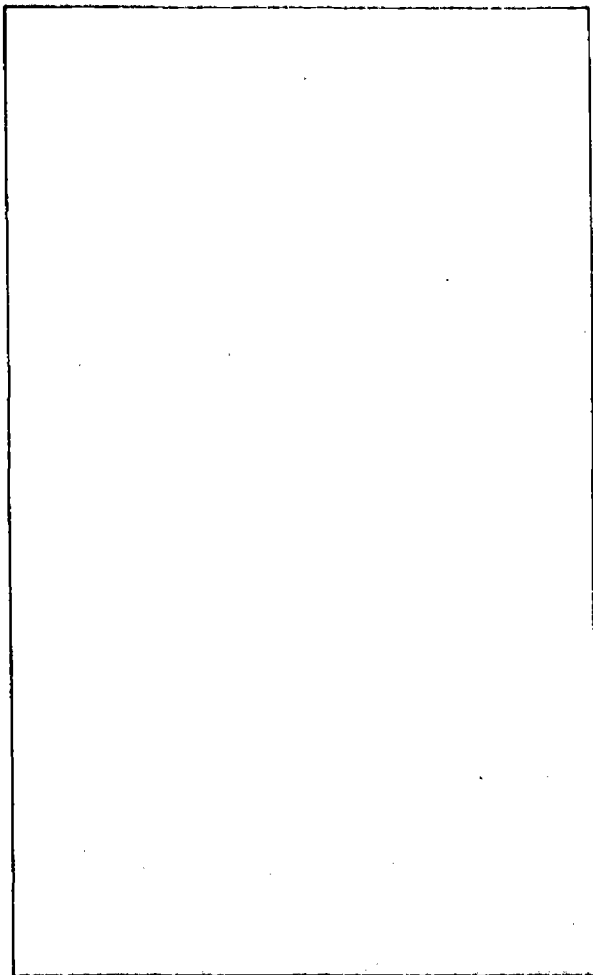
			5	3	1
--	--	--	---	---	---

XEROX

MAIN ENTRY, VERSO, IF NEEDED.

CONTINUE ON SECOND SHEET

IF MORE CARDS.



01723500
 ADVANCES IN BIOLOGICAL AND MEDICAL PHYSICS.
 MANKATO STATE COLLEGE
 2ND QH 505.A1A3
 V. 1-7; V. 9-

01723700
 ADVANCES IN BIOLOGY OF THE SKIN.
 MANKATO STATE COLLEGE
 2ND GP 88.5.A35
 V. 1, 1960-

01723850
 ADVANCES IN BIOMEDICAL ENGINEERING AND MEDICAL PHYSICS.
 MANKATO STATE COLLEGE
 2ND R 856.A3
 V. 2, 1969

01724000
 ADVANCES IN BOTANICAL RESEARCH.
 MANKATO STATE COLLEGE
 2ND GK 1.A353
 V. 1-

01724300
 ADVANCES IN CANCER RESEARCH.
 MANKATO STATE COLLEGE
 2ND RC 267.A45
 V. 10-11, 1967-68; V. 13, 1970

01724900
 ADVANCES IN CHEMICAL ENGINEERING.
 MANKATO STATE COLLEGE
 2ND TP 145.A4
 V. 8, 1970-

01725000
 ADVANCES IN CHEMICAL PHYSICS.
 MANKATO STATE COLLEGE
 2ND QD 453.A27
 V. 1-15; V. 17-18; V. 21-

01725500
 ADVANCES IN CHEMISTRY.
 MANKATO STATE COLLEGE
 2ND VARIES
 CATALOGED AS SEPARATES

01725700
 ADVANCES IN CHEMOTHERAPY.
 MANKATO STATE COLLEGE
 2ND 616.8918 AD95C
 V. 1, 1964; V. 2, 3

01726000
 ADVANCES IN CHILD DEVELOPMENT AND BEHAVIOR.
 MANKATO STATE COLLEGE
 2ND BF 721.A45
 V. 1-6

01726400
 ADVANCES IN COMMUNICATION SYSTEMS; SYSTEMS, THEORY AND APPLICATIONS.
 MANKATO STATE COLLEGE
 2ND 621.38 AD95C
 V. 1-3

01726500
 ADVANCES IN COMPARATIVE PHYSIOLOGY AND BIOCHEMISTRY.
 MANKATO STATE COLLEGE
 2ND GP 31.A28
 V. 1, 1962-

ADVANCES IN ATOMIC AND MOLECULAR PHYSICS.
MANKATO STATE COLLEGE

2ND V. 1- GC 173-A2543

IS A STANDING ORDER (FC)
THIS WAS PURCHASED IN 1973.

DATE OF LATEST INFORMATION 73 02 19
VENDOR CODE 01330 DEPARTMENT CODE 0156
NUMBER OF SUBSCRIPTIONS 01 PRICE PER SUBSCRIPTION \$18.01

7302195C12120133001 001801B0156012AA

ADVANCES IN BIOLOGICAL AND MEDICAL PHYSICS.
MANKATO STATE COLLEGE

2ND V. 1-71 V. 9- GH 505-A1A3

DATE OF LATEST INFORMATION 73 01 05
VENDOR CODE DEPARTMENT CODE
NUMBER OF SUBSCRIPTIONS PRICE PER SUBSCRIPTION \$17.50

730105

ADVANCES IN BIOLOGY OF THE SKIN.
MANKATO STATE COLLEGE

2ND V. 1, 1960- QP 88.5-A35

TO BE DROPPED
IS A STANDING ORDER (FC)
THIS WAS PURCHASED IN 1973.

DATE OF LATEST INFORMATION 73 02 19
VENDOR CODE 63700 DEPARTMENT CODE 0153
NUMBER OF SUBSCRIPTIONS 01 PRICE PER SUBSCRIPTION \$24.00

7302195C12126370001 002400 0153 2AA 60-010839

ADVANCES IN BIOMEDICAL ENGINEERING AND MEDICAL PHYSICS.
MANKATO STATE COLLEGE

2ND V. 2, 1969 R 856-A3

DATE OF LATEST INFORMATION 73 01 05
VENDOR CODE DEPARTMENT CODE
NUMBER OF SUBSCRIPTIONS PRICE PER SUBSCRIPTION \$20.00

730105

ADVANCES IN BOTANICAL RESEARCH.
MANKATO STATE COLLEGE

2ND V. 1- OK 1-A353

DATE OF LATEST INFORMATION 73 01 05
VENDOR CODE DEPARTMENT CODE
NUMBER OF SUBSCRIPTIONS PRICE PER SUBSCRIPTION \$12.00

730105

ADVANCES IN CANCER RESEARCH.
MANKATO STATE COLLEGE

2ND V. 10-11, 1967-68; V. 13, 1970 RC 267-A45

DATE OF LATEST INFORMATION 73 01 05
VENDOR CODE DEPARTMENT CODE
NUMBER OF SUBSCRIPTIONS PRICE PER SUBSCRIPTION \$24.00

730105

01723000111
01723000311
01723000312
01723000406
01723000407

01723000411

01723500111
01723500311
01723500312

01723500411

01723700111

01723700311
01723700312
01723700405
01723700406
01723700407

01723700411

01723850111

01723850311
01723850312

01723850411

01724000111

01724000311
01724000312

01724000411

01724300111

01724300311
01724300312

01724300411

CALL NUMBER

AS 2-M6

MAIN ENTRY

THE WORLD OF LEARNING.
1952; 1958/59-
IS A STANDING ORDER (ABEL)
THIS WAS PURCHASED IN 1972.

AS 25-183X

TWENTIETH CENTURY FUND.
ANNUAL REPORT.
1970

REF AS 32-A3

CARNEGIE INSTITUTION OF WASHINGTON.
YEARBOOK.
1940-41; 1944-46; 1961-62; 1966-67.
TO BE DROPPED

AS 36-C6

COLORADO. UNIVERSITY.
THE UNIVERSITY OF COLORADO STUDIES. SERIES A. GENERAL SERIES.
V. 21, NO. 4
WISCONSIN ACADEMY OF SCIENCE, ARTS AND LETTERS.
TRANSACTIONS.
V. 55, 56, 57; 59-
INCLUDED IN WISCONSIN ACADEMY MEMBERSHIP, WITH PERIODICAL
WISCONSIN ACADEMY REVIEW.
IS A STANDING ORDER (EM)

AS 36-W7

RENAISSANCE AND MODERN STUDIES.
ISRAEL. NATIONAL COUNCIL FOR RESEARCH AND DEVELOPMENT. CENTER OF
SCIENTIFIC AND TECHNOLOGICAL INFORMATION.
DIRECTORY. SCIENTIFIC AND TECHNICAL ASSOCIATIONS AND INSTITUTES
IN ISRAEL.
NO. 2.

AS 121-R4

ANNUAL REGISTER OF GRANT SUPPORT.
1969-

REF AS 591-A3

THE FOUNDATION DIRECTORY.
1960, 1964, 1967.
JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION.
REPORTS OF THE PRESIDENT AND OF THE TREASURER.
1961/62-1969/70

REF AS 911-A2A67

ANNUAL REGISTER OF GRANT SUPPORT.
1969-

REF AS 911-A2F65

THE FOUNDATION DIRECTORY.
1960, 1964, 1967.

REF AS 911-J6

JOHN SIMON GUGGENHEIM MEMORIAL FOUNDATION.
REPORTS OF THE PRESIDENT AND OF THE TREASURER.
1961/62-1969/70

* DROPPED/CANCELED
\$10.00

QUESTIONABLE OBLIGATIONS
\$62.00

Δ PROBABLE OBLIGATIONS
\$79.90

TOTAL

\$151.96

S I N DEPT VENDOR #

99075000 8330 00980 01

PRICE

\$33.15

TOTAL

\$33.15A

\$5.00E

\$5.00E

\$10.00

\$10.00*

5

\$0.00E

\$6.00

\$6.00A

\$12.00E

\$12.0JE

\$20.00E

\$20.00E

\$40.75

\$40.75A

\$15.00

\$15.00E

\$10.00E

\$10.00E

STANDING ORDERS -- OVER MIL.

HOLDINGS AND DATES ARE INCLUDED

A SUMMARY REF. IT WILL BE FOUND Y THE ON.

DATE 03/27/73

CALL NUMBER

MAIN ENTRY

S I N DEPT VENDOR # PRICE

REF	KF 6301-ASAX	A	AMERICAN MEN AND WOMEN OF SCIENCES: THE SOCIAL AND BEHAVIORAL SCIENCES. IS A STATING ORDER (BEL)	0063-20	9170	00000	01	\$142.00
REF	KF 13-664X 51-2-3	A	AMERICAN FEDERAL TAX REPORTS. SERIES 1: V. 1-52: PAGES 27, 1-1-1. IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972. AMERICAN LAW REPORTS. ALR 30, CASES AND ABSTRACTS. V. 1-1-1	0369-003	0211	00000	01	\$377.00
REF	AP 191-897	A	AMERICAN LIBRARY ASSOCIATION. MEMBERSHIP. INCLUDES VARY US PUBLICATIONS. THIS WAS PURCHASED IN 1972.	0071-30	7170	00760	01	\$076.00
REF	AP 1-844	A	AMERICAN MEN AND WOMEN OF SCIENCES: THE PHYSICAL AND BIOLOGICAL SCIENCES. 1927-4th ED. IS A STATING ORDER (C) THIS WAS PURCHASED IN 1973.	0700-000	9170	0710	01	\$191.00
REF	Z 791-217	A	APPLIED SCIENCE AND TECHNOLOGY INDEX. V. 51, 1-43- IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972. BIOLOGICAL & AGRICULTURAL INDEX. V. 6, 1931- INCOMPLETE. CURRENT SUBSCRIPTIONS WERE CANCELLED. IS A STATING ORDER (PURCHASE) THIS WAS PURCHASED IN 1972. THE BRITISH NATIONAL GEOGRAPHY. 1955/56. BUREAU OF NATIONAL AFFAIRS, WASHINGTON, D.C. COLLECTIVE BARGAINING NEGOTIATIONS AND CONTRACT. 2 VOLUME, LOOSE-LEAF. THIS WAS PURCHASED IN 1972. BUREAU OF NATIONAL AFFAIRS, WASHINGTON, D.C. TAX MANAGEMENT PORTFOLIO. NO. 1- THIS WAS PURCHASED IN 1972. BUREAU OF NATIONAL AFFAIRS, WASHINGTON, D.C. WHITE COLLAR REPORT. NO. 1, APR 3, 1970. BUREAU OF NATIONAL AFFAIRS, WASHINGTON, D.C. LAWYERS' MENTAL PORTFOLIO. V. 1, 1-1-1. IS A STATING ORDER (C) THIS WAS PURCHASED IN 1973. C.I. J. JOURNAL OF THE AMERICAN BAR ASSOCIATION AND OTHERS.	0752-000	9170	07360	71	\$200.00
REF	Z 2001-075	A	APPLIED SCIENCE AND TECHNOLOGY INDEX. V. 51, 1-43- IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972.	1394-000	9170	07360	01	\$076.00
REF	HJ 6500-000	A	APPLIED SCIENCE AND TECHNOLOGY INDEX. V. 51, 1-43- IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972.	1595-000	0211	15740	01	\$200.00
REF	HJ 3257-067	A	APPLIED SCIENCE AND TECHNOLOGY INDEX. V. 51, 1-43- IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972.	1921-000	0211	19210	01	\$377.00
REF	HJ 607-000	A	APPLIED SCIENCE AND TECHNOLOGY INDEX. V. 51, 1-43- IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972.	1921-50				\$11.00
REF	KF 3775-26193	A	AMERICAN FEDERAL TAX REPORTS. SERIES 1: V. 1-52: PAGES 27, 1-1-1. IS A STATING ORDER (C) THIS WAS PURCHASED IN 1972.	1927-67	0211	19740	01	\$377.00
REF	J 51-000	A	AMERICAN LIBRARY ASSOCIATION. MEMBERSHIP. INCLUDES VARY US PUBLICATIONS. THIS WAS PURCHASED IN 1972.	1650-000	0110	01100	01	\$011.00

