

Z  
678.9  
.A4  
U6  
1969

A UNIFIED SYSTEM OF LIBRARY SERVICES

Wilfred L. West  
Stephen P. Burch  
Joseph W. McCurdy

Iowa  
029.7  
W52p  
Suppl.

A UNIFIED SYSTEM OF LIBRARY SERVICES

A

RESEARCH PROPOSAL

FOR

IOWA STATE TRAVELING LIBRARY

BY

PRAIRIE HILLS LIBRARY SYSTEM

WRITTEN AND PREPARED BY

WILFRED L. WEST

STEPHEN P. BURCH

JOSEPH W. MCCURDY

AUGUST, 1969

129 NORTH COURT AT CENTRAL PARK

OTTUMWA, IOWA 52501

IOWA STATE TRAVELING LIBRARY  
DES MOINES, IOWA

## INTRODUCTION

Often not thoroughly considered in the implementation of ideas is the essential item of planning. Government, especially, should spend adequate time to ensure that the tax dollars being spent are utilized in the most efficient and effective manner.

In many areas, research is necessary as there exists no recorded knowledge that exactly covers the situation.

In addition, a large number of projects are never effectively evaluated after they are once underway or completed. And even more frequently, information concerning the projects run is not distributed.

Thus, this proposal will attempt to cover all of the aforementioned items.

## PROJECT NEED

There is no need to elaborate here on the "Information Explosion", or on the inability of libraries to keep up with it. However, some items need to be stated or in some cases restated.

The Iowa Code, Chapter 378, outlines a role for the State Library that has been interpreted as meaning that the State of Iowa has an obligation to provide

C-55-70

information for its citizens. Copies of this law are generally available and can be found in the Iowa Library Quarterly, April 1, 1964; Vol. 19, Number 12.

The Iowa State Traveling Library in its attempt to carry out its responsibilities, has set up a state plan for library development: Iowa Library Quarterly, January, 1968; Vol. 20, Number 11.

Iowa State Traveling Library has now, in addition to the above, adopted a policy of library automation: "A Phased Approach to Library Automation".

This was done after several years of study, consultation, and evaluation of present methods in Iowa libraries. The inadequate methods of libraries is a nationwide concern, as is the fact that present means of obtaining information for citizens simply do not meet their needs.

In addition, there is a growing need to serve our "cooperate public" of business and industry. Finally, Governments need for information, quick and reliable, can be partially met by more rapid and responsive methods.

Involved in "indequate methods" is the failure to produce the needed information, or failure to do so within a reasonable time limit. There are many resources in the state that are not being utilized because they are inaccessible by present means. In other cases a good collection is known, but only slow communications are available.

It would also seem practical, from both an operations viewpoint, and the better utilization of funds, to provide a method whereby responsibility in the purchase of material can be shared. If each library knows what each other has, or is adding to its collection, it can then prevent unnecessary duplication. This does not mean to end duplication, indeed many items are not available in sufficient quantity now; but this would provide for sharing collection development--especially under the reference center concept developed by Iowa State Traveling Library.

It's also expected that a essential economy would accur from released staff time. If a number of routine clerical tasks could be performed by data processing, then other important business could be given its fair share of time, and things not now being done could begin.

## GOALS

Goals of this project are:

1. To prove operations feasibility of a unified system of library automation.
2. To prove the essential economy of a unified system of library automation.
3. To produce information as required by law.
4. To prove rapid retrieval of bibliographic information.

5. To prove increased state-wide availability and accessibility to information.
6. To provide a workable program of shared responsibilities in the acquisition of materials.

#### METHOD OF PROJECT

A search of the literature available in the area of automated unified library systems reveals that only partial systems have been tried.

In 1966 the Prairie Hills Library System produced, in cooperation with the Iowa Technical Training Center, "Cooperative Automation Studies". This proved that a unified system approach was possible from a machine-programming stand-point.

After two more years of study, "A Phased Approach to Library Automation" was produced. This study was then approved by the Iowa State Traveling Library, its consultants, the Iowa State Comptroller, Iowa State Data-Processing Director, Iowa State Communication Director, and others.

In addition, the Iowa State Planning Board, and the Iowa State Department of Public Instruction are planning to coordinate certain of their projects when they are ready for funding later on.

## PROJECT BASIS

"A Phased Approach to Library Automation" was based upon the assumption that each regional library area would continue to provide cataloging services from its center, therefore the multipurpose IBM 1050 system was selected for the first phase.

Since the presentation of "A Phased Approach to Library Automation" the Iowa State Traveling Library has centralized cataloging-xeroxing card services, which obviates the necessity of the IBM 1050's. Several other changes then occurred.

These changes from "A Phased Approach to Library Automation" follow in the next section.

First phase procedures, outlined below, will enable the regional center to handle a small amount of original cataloging, as the largest percentage of catalog cards will be produced in Mason City.

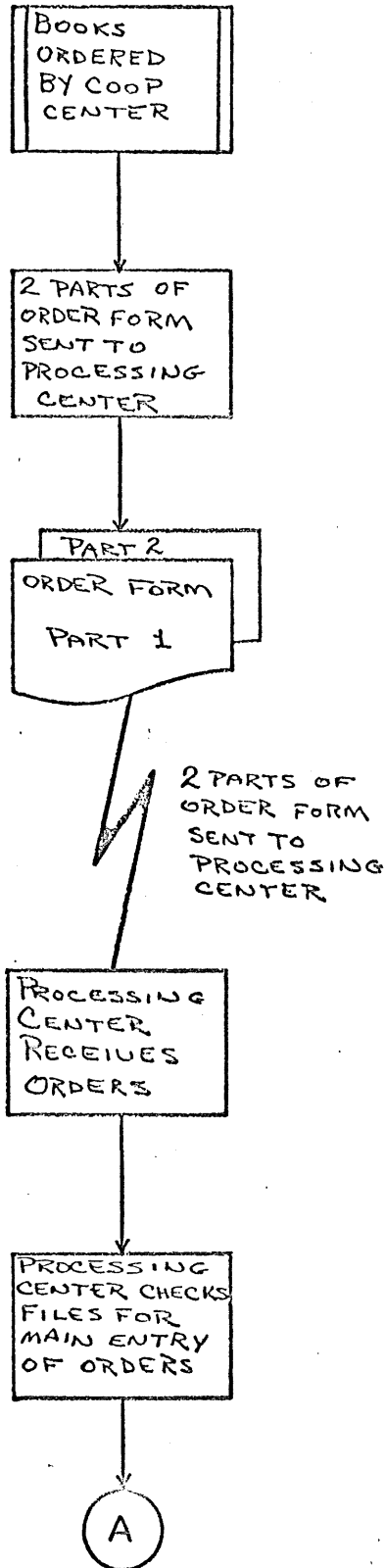
Mason City is to begin centralized xeroxing September 1, 1969 as a temporary measure until the automation project is operational.

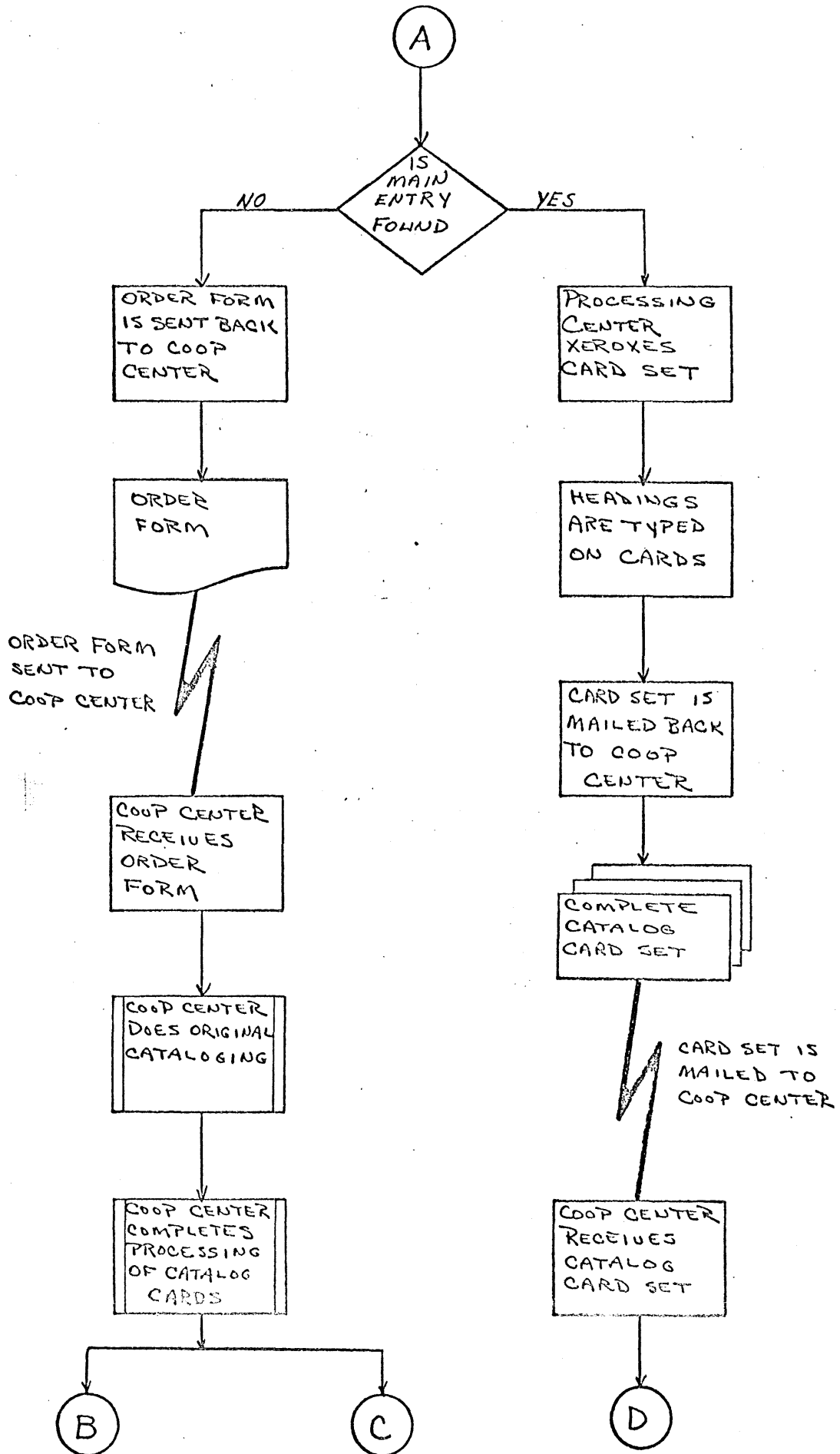
If records are founded for books previously cataloged, or on proof slips, Mason City will produce the catalog card sets. Cooperatives will do original cataloging for the remainder and send main entry cards to Mason City. Cooperatives will also do their own labels and book cards.

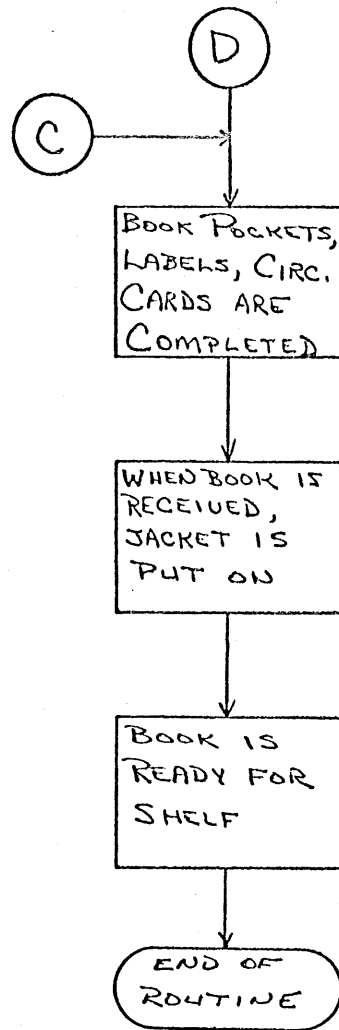
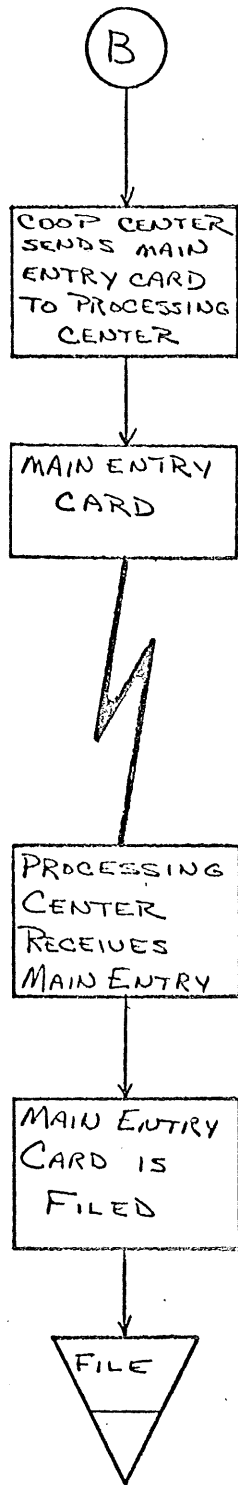
To build the State-wide Union Catalog, all new or xeroxed catalog information will be sent to central for conversion to machine readable form.

The flow chart on the next page shows the changes in operation from the "Phased Approach to Library Automation".









Phases two through eight will incorporate the change from the IBM 1050 System to the Teletype System. The Teletype System is scheduled for immediate implementation when the network is completed or before October 1, 1969, following a workshop for staff members involved.

Therefore the pilot phases will begin with Phase Three. As the Prairie Hills Library System has been the major mover, the Ottumwa Headquarters will be the project site. The state's library automation staff is currently headquartered there, as well as the library data-processing administration.

#### EVALUATION

Evaluation processes will be an integral part of the project. Before final writing, this project plan has been reviewed by the governmental bodies and individuals mentioned earlier, and approved with changes incorporated herein.

Continuous evaluation will be performed by three methods: first, by the administration of Iowa State Traveling Library, by report and personal observation and professional judgement;

Second, by a panel of state consultants who will regularly review the project production, by personal observation, professional judgement, and "feed-back" from the libraries served;

Third, by continuous contact with the State Data-Processing Director and his staff of experienced experts in Data-Processing techniques.

Standard data-processing time and evaluation reports will be used as officially adopted by the State of Iowa, as well as special statistical forms and formula under development for this project. Samples and examples of these special evaluation forms are in the appendix.

Final evaluation, after one full year of operation, will be by all of the above groups and individuals, the Library Data-Processing staff and administration, the libraries affected by the project, as well as possible participation by librarians not included in the project, federal library officials, outside Library Consultants, and the Iowa State Comptroller. The evaluation process shall include both production and goal achievement evaluation as well as other items.

A final printed report will then be submitted to the concerned governmental departments and individuals, and distributed.

#### BUDGET

Budget for this project follows on the next several pages, and includes a Automation Budget Summary as well as detailed budgetary sheets. Also included is an organizational chart.

AUTOMATION BUDGET SUMMARY

| LOCAL              | 12 MONTHS        |
|--------------------|------------------|
| Teletype Operators | \$ 63,000        |
| Teletype Terminals | 27,132           |
| TOTAL              | <u>\$ 90,132</u> |
| STATE              |                  |
| Automation Staff   | \$186,400        |
| Expenses & Rent    | 40,000           |
| Line Charges       | 25,200           |
| TOTAL              | <u>\$251,600</u> |
| FEDERAL            |                  |
| IBM 360-40         | \$267,372        |
| Supplies           | 40,000           |
| Other Equipment    | 23,824           |
| TOTAL              | <u>\$331,196</u> |
| GRAND TOTAL        | \$672,928        |

IBM 360-40

| Machine            | Model or Feature | Qty. | Description of Equipment       | Dollars per month |
|--------------------|------------------|------|--------------------------------|-------------------|
| 2040               | H                | 1    | Central Processor              | \$ 10,505         |
|                    |                  |      | 262,144 bytes core storage     |                   |
|                    | 3237             | 1    | Decimal arithmetic             | 118               |
|                    | 6980             | 1    | Selector channel               | 360               |
|                    | 1052             | 1    | Adapter                        | 232               |
| 2821               | 1                | 1    | Control Unit                   | 11,000            |
|                    | 3615             | 1    | Adapter for Printer            | 77                |
|                    | 8637             | 1    | Adapter UCS                    | 5                 |
| 2540               | 1                | 1    | Card Reader/Punch              | 680               |
| 1403               | N1               | 1    | Printer "1100 LPM"             | 900               |
|                    | 4740             |      | Interchange Cartridge          | 75                |
|                    | 8640             |      | Universal Character Set        | 10                |
| 1416               | 1                | 2    | Cartridge \$100@               | 200               |
| 2822               | 1                | 1    | Control Unit                   | 216               |
| 2611               | 1                | 1    | Paper Tape Reader              | 144               |
| 2803               | 1                |      | Tape Control, 800 BPI          | 670               |
| 2401               | 1                | 4    | Tape Drive \$345@              | 1,380             |
| 2841               |                  |      | Disc Control                   | 540               |
| 8100               |                  |      | Two Channel Switch             | 103               |
| 2321               | 8079             | 1    | Attachment                     | 180               |
| 2311               |                  | 2    | Disc Drive \$590@              | 1,180             |
|                    |                  |      | 7½million bytes each           |                   |
| 2321               | 1                |      | Data cell                      | 2,285             |
|                    |                  |      | 400 million bytes              |                   |
| 1052               |                  |      | Console                        | 65                |
| 2701               | 1                | 1    | Communications Control         | 206               |
|                    | 7912             | 1    | Telegram Adapter II            | 77                |
|                    | 1302             | 1    | Auto Call 1302                 | 36                |
| 2848               | 22               | 1    | Display Control                | 800               |
|                    | 3369             | 1    | Adapter                        | 120               |
|                    | 5340             | 1    | Non-Destructive Cursor         | 10                |
|                    | 5341             | 1    | Non-Destructive Cursor Adapter | 5                 |
| 2260               | 02               | 2    | Video Display \$31@            | 62                |
|                    | 4760             | 2    | Alpha-Meric Keyboard \$20@     | 40                |
| TOTAL MONTHLY RENT |                  |      |                                | \$ 22,281         |

| OTHER EQUIPMENT                   | 12 MONTH RENT  |
|-----------------------------------|----------------|
| 2 Key Punch Machines              | \$ 2,040       |
| 2 Magnetic Tape Encoders          | 4,440          |
| 3 NDC Circulation Terminals       | 8,676          |
| 1 NDC Controller with Tape Backup | 7,468          |
| 1 ASR Teletype Model 33           | 1,200          |
| TOTAL                             | <hr/> \$23,824 |



SUPPLIES

ESTIMATED \$40,000 PER YEAR

Supplies Include:

Punched cards  
Printer paper  
Paper tape  
Magnetic tape  
Disk packs  
Data cells  
Card stock  
Label stock  
Pre-printed forms  
Coding forms  
Printer and card layouts  
Charge cards  
Desks  
Chairs  
Lights  
Card files  
Tape files  
Supply cabinets  
File cabinets  
Telephones

BELL TELEPHONE:

Line Charges - Estimated \$ 2,100 per month  
Estimated \$25,200 24 months

12 MONTH BUDGET FOR LIBRARY AUTOMATION

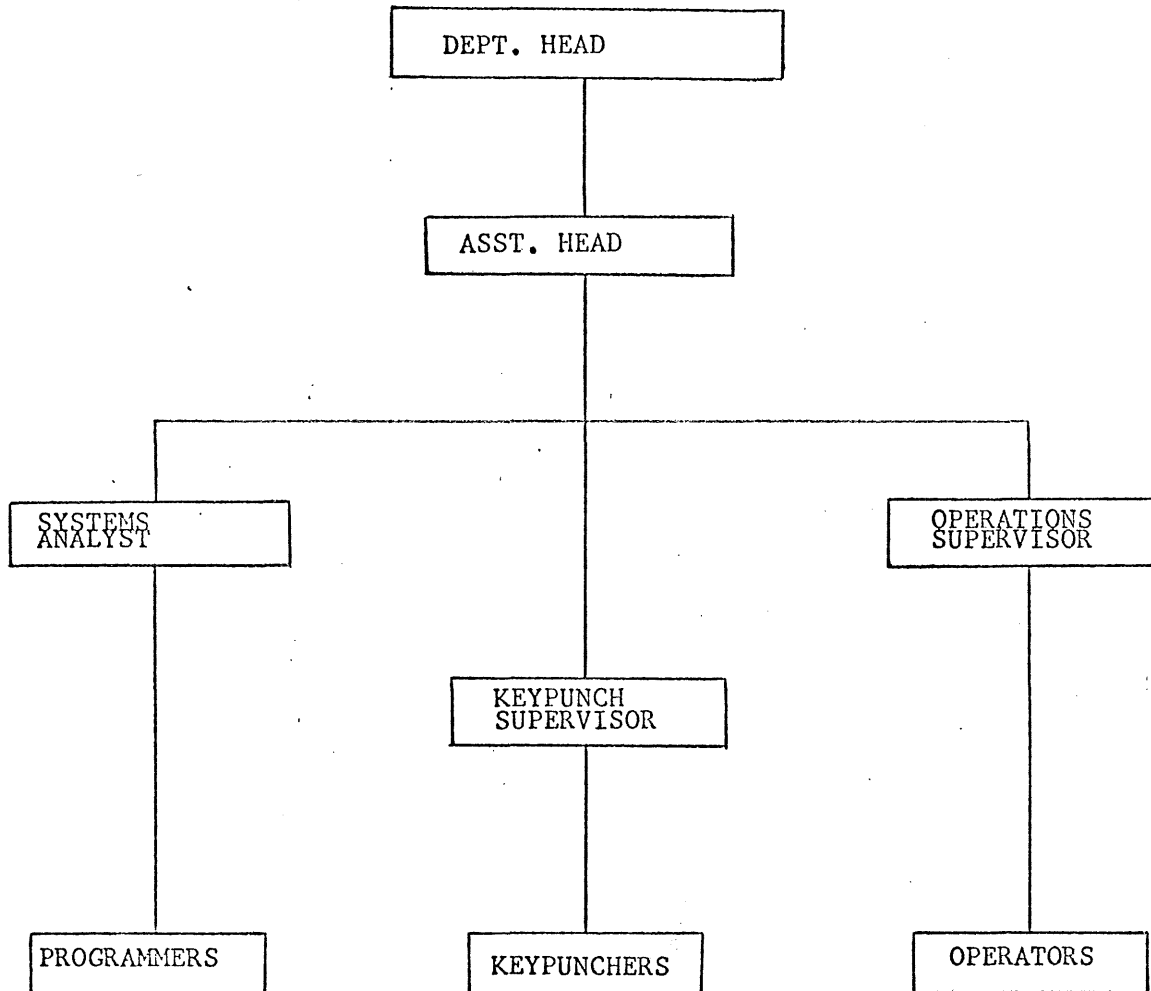
STAFF

|                           |           |
|---------------------------|-----------|
| (1) Department Head       | \$ 16,000 |
| (1) Assistant Head        | 14,000    |
| (2) Systems Analysts      | 24,000    |
| (4) Programmers           | 28,800    |
| (1) Operations Supervisor | 10,000    |
| (6) Computer Operators    | 36,000    |
| (2) Teletype Operators    | 8,400     |
| (8) Key punch Operators   | 38,400    |
| (1) Secretary             | 5,400     |
| Part-time Help            | 5,400     |
| TOTAL                     | \$186,400 |

PERSONNEL EXPENSES AND RENT

Includes traveling, program testing  
program education, rent, electricity,  
heat, air-conditioning, computer  
flooring, and other miscellaneous  
expenses. \$ 40,000

AUTOMATION STAFF ORGANIZATION CHART



GENERAL

How many libraries have joined your cooperative since automation started?

\_\_\_\_\_

Has service of patron increased?

\_\_\_yes\_\_\_no

Why or Why not? Comments.

Will you stay in the automation program?

\_\_\_yes\_\_\_no

Why or Why not? Comments.

How much staff is released from technical processing, hours per staff per day?

\_\_\_\_\_

What are they doing instead of technical processing?

GENERAL

How many patrons are using library services  
now? \_\_\_\_\_

Has automation of library service been  
publicized to your patrons? \_\_\_\_\_yes \_\_\_\_\_no

Do the patrons know what library automa-  
tion will do for them as a user of the  
library? \_\_\_\_\_yes \_\_\_\_\_no

If no above, are you going to advertise  
the automation service of the library,  
and what it does for the patron? \_\_\_\_\_yes \_\_\_\_\_no

Why or Why not? Comments.

Does the Reference Network of Teletype  
help your library in reference questions? \_\_\_\_\_yes \_\_\_\_\_no

Why or Why not? Comments.

INTERLIBRARY LOAN REQUEST

|  | BEFORE | AFTER |
|--|--------|-------|
| Number of books wanted on Interlibrary Loan Request?         | _____  | _____ |
| Number of books received?                                    | _____  | _____ |
| Time to locate a book or reference?                          | _____  | _____ |
| Hours of work involved in locating a book or reference?      | _____  | _____ |
| Average time to find and receive book or reference material? | _____  | _____ |
| The average cost of finding book or reference material?      | _____  | _____ |

BOOK ORDERING

|   | BEFORE | AFTER |
|---|--------|-------|
| Number of books ordered?/   | _____  | _____ |
| % of discount?  | _____  | _____ |
| Length of time to receive books?                                      | _____  | _____ |
| Length of time to receive financial<br>report of books?               | _____  | _____ |
| Is fund accounting up-to-date?  | _____  | _____ |
| Number of book funds?   | _____  | _____ |
| Amount of time required of bookkeeper<br>to keep funds in up-to-date? | _____  | _____ |
| Number of libraries that accounts<br>are kept for?                    | _____  | _____ |



CATALOGING QUESTIONNAIRE

|  | BEFORE   | AFTER   |
|--|----------|---------|
| How many books are originally cataloged?                                 | _____    | _____   |
| How much staff time is needed for originally cataloging? Professional    | _____    | _____   |
| Non-Professional   | _____    | _____   |
| How much time to process a book completely?                              | _____    | _____   |
| What is the time lag between receiving a book and putting book on shelf? | _____    | _____   |
| How up-to-date are your financial reports? (days behind)                 | _____    | _____   |
| Do you like the catalog cards central sends to you?                      | _____yes | _____no |
| Why or Why not? Comments.  |          |         |

|  |          |         |
|--|----------|---------|
| Do you like the use of stickers for book cards, pockets, and spine labels? | _____yes | _____no |
| Why or Why not? Comments.  |          |         |

ROTATIONS

Has automation of rotation reduced  
staff time at rotation?

\_\_\_\_\_yes \_\_\_\_\_no

If reduced, how much staff time?

\_\_\_\_\_hours

Has it made rotation faster?

\_\_\_\_\_yes \_\_\_\_\_no

If faster, how much faster?

\_\_\_\_\_hours

Do you want rotation to be kept  
automated?

\_\_\_\_\_yes \_\_\_\_\_no

Why or Why not? Comments.

CIRCULATION QUESTIONNAIRE

|  | BEFORE     | AFTER         |
|--|------------|---------------|
| Time of writing overdue notices?   | _____      | _____         |
| Patrons response of overdue notices  |            |               |
| After One?   | _____      | _____         |
| After Two?   | _____      | _____         |
| Number of pick-up of books or<br>appropriate action?                                     | _____      | _____         |
| Checking of patrons with overdue<br>books already out when checking out<br>another book? | _____ Like | _____ Dislike |
| Has circulation increased?   | _____ yes  | _____ no      |
| What is the circulation of your library?   | _____      | _____         |
| How much staff is needed for circula-<br>tion?   | _____      | _____         |

STATE LIBRARY OF IOWA



3 1723 02117 0485

2256  
MADE IN U.S.A.