DOBIS APPLICATION TRANSFER

JANUARY 1983

University of Puerto Rico
Mayaguez Campus
Library
Mayaguez, Puerto Rico

University of Puerto Rico
Mayagüez Campus
Library
Mayagüez, Puerto Rico-00708

Director's Office

TEL. (809) 832-4040, X 2108, 2151
TELEX: 385-44-71

INTRODUCTION

For the past three years, the Mayaguez Campus of the University of Puerto Rico has been evaluating several alternatives for automating our library's four primary functions of acquisitions, cataloging, bibliographic search and circulation. In the interest of acquainting our readers with the highlights of that period, a brief chronology of events follows.

The starting point occurred during the period of February 24 through 27, 1980. At that time the Assistant Dean of Studies, Rafael Pirazzi and the Director of Management Information Systems, H.D.A. Cabassa, accompanied by our IBM Marketing Representative, Joaquín R. Fuertes, attended the Education Executive Conference at Hilton Head, South Carolina. It was while attending one of the elective sessions that they were first exposed to DOBIS/LEUVEN, an IBM software package designed by librarians for automating the four library functions previously mentioned.

As a result of the positive reaction to the trip report's section on DOBIS/LEUVEN shown by our Librarian, Dr. Luisa Vigo, by the Dean of Studies, Dr. Eneida Rivero and by the Director of Planning and Development for the Central Administration, Dr. Juan H. Sánchez Lassise, IBM presented a 1/2 day seminar on DOBIS/LEUVEN on April 22, at their offices at Banco de San Juan Tower in Hato Rey. The seminar given by Mr. Bob Alexander was very well received by the attendees which included representatives from most of the University of Puerto Rico's different campuses including, the Regional Colleges.

The next step was a trip to the United States by Dr. Vigo and Cabassa to visit several installations who had a library automation package that runs on DEC equipment. This was done upon the request of Dr. Sánchez Lassise to explore alternatives to DOBIS/LEUVEN.

This was followed by a second trip during July 16-18 to Centennial College in Toronto, and to the Library of Canada in Ottawa by Dr. Vigo, H.D.A. Cabassa and J.R. Fuertes. This trip provided us with the opportunity of talking to two users of DOBIS/LEUVEN, thus gaining valuable first brand knowledge of the system.

As a result of this second trip, a proposal for the establishment of a University-wide network for Library Automation using DOBIS/LEUVEN was put together in September and sent to the chancellor for approval. Prof. Salvador Alemañy signed off on the proposal and sent it to the University President, Dr. Ismael Almodovar, for approval and funding.

Dr. Almodovar forwarded the proposal on January 23, 1981 to the Director of Academic Affairs, Dr. Luis A. Sojo, and to the Director of Planning and Development, Dr. Nestor Márquez Díaz, for evaluation and comments. He believed the proposal to be very interesting for improving library services and felt it addressed the deficiencies pointed out by the Middle States Association pertaining to all libraries in the system.

In the meantime, IBM presented a second seminar on DOBIS/LEUVEN on January 28. This seminar given by Mrs. Helene Kerr was addressed to the Department of Education which had shown interest in joining the University's network. It was attended by H.D.A. Cabassa.

On February 5, Dr. Márquez Díaz sent a letter to Prof. Alemañy requesting additional information on the DOBIS/LEUVEN proposal. In his letter, he echoed the President's feelings as to the potential benefits to be derived from this

project and as to the Mayaguez Campus' initiative and leadership in this area.

This request is answered on March 11, by Chancellor Alemañy, thanking the Presidency for its endorsement of the project and including a full report by H.D.A. Cabassa containing the additional information.

After an in depth study of two months, Dr. Márquez Díaz, on May 11 sends another letter to Prof. Alemañy, which includes a memo by a Consultant to the President, Alejandro R. Singer. In his memo, Singer personally endorses the project, but believes that due to other priorities pertaining to the University's Information System, the DOBIS/LEUVEN proposal should be set aside until the 1982-83 fiscal year.

Starting in September of 1981 the School of Engineering, here on campus, has been evaluating the acquisition of a stand alone computer. Because one of the alternatives was an IBM 4341, which will support DOBIS/LEUVEN, we contacted the Dean of Engineering, José Toledo Morell, to see if in the event of IBM winning the bid, our library could use the IBM computer for familiarizing our personnel with the DOBIS/LEUVEN package.

Even though this was well received by the dean, it entailed certain fund disbursement by us to obtain additional hardware resources for running DOBIS/LEUVEN as well as for the program itself. These requirements were further explored after April 1982 when the Computer Selection Committee recommended the acquisition of an IBM 4341.

In the October, November 1982 timeframe, Dr. Vigo, Prof. Iraida Oliver de Padovani, H.D.A. Cabassa and J.R. Fuertes held several meetings to finalize the hardware and software requirements and update the September 1980 proposal. The result was an 18-24 month installation plan which showed disbursements spread out over the period and which is over $200,000 less expensive than the original proposal. This study forms the basis for a petition for funds by the

chancellor starting with the 1983-84 fiscal year.

This brings us to the ATT study of January 18-28 where we have joined hands with IBM in determining what is required for installing DOBIS/LEUVEN in our library and how is it to be done. The product of this study is the report that follows which includes a recommendation by the committee, unanimously endorsed by the professional library staff, to the effect that steps be taken to install a pilot project for DOBIS/LEUVEN in May of this year.

University of Puerto Rico
Mayagüez Campus
Library
Mayagüez, Puerto Rico-00708

Director's Office

TEL. (809) 833-8048, X 2108, 2151
TELEX: 385-44-71

Personnel of the Mayaguez Campus Library of the University of Puerto Rico were recipients of the Application Transfer Team Program of IBM.

The participants in the ATT Program were:

Dr. Luisa Vigo Cepeda	-	Library Director
Eng. William G. Baugh	-	IBM Application Specialist
Eng. Joaquín Fuertes	-	Local IBM Representative
Mr. Stephen Faunce	-	IBM Account Systems Engineer
Prof. Margarita M. Sánchez	-	Public Services Coordinator
Prof. Iraida O. Padovani	-	Technical Processing Coordinator President Library Automation Committee
Prof. Grace Quiñones Seda	-	Special Collections Adjunct to the Library Coordinator
Prof. H.D.A. Cabassa	-	Mayaguez Campus Computer Specialist
Miss. Irma Ramírez	-	Head Acquisitions Department
Prof. Ada C. Ramgolam	-	Computerized Information Services Librarian and Assistant to the Head Cataloging Department
Mrs. Carmen A. Rodríguez	-	Assistant to the Head Circulation Department

A brief day by day record of the sessions and the decisions made follows.

JANUARY 18, 1983 - Planning

At the first meeting, Mr. Baugh spoke briefly on the goals and objectives of the Application Transfer Team. The schedule for the two-week session was outlined as follows:

First Week

Tuesday	-	Environment/Questions
Wednesday	-	Networking/Hardware/Conversion
Thursday	-	Tailor/Review and Performance
Friday	-	Policy Discussion/Questions

Second Week

Monday	-	Prototype Review
Tuesday	-	Borrower Cards
Wednesday	-	Systems/Timetable
Thursday	-	Clean-up
Friday	-	Executive Presentation

Engineer Fuertes gave a brief background history of the efforts made to establish the system, followed by an explanation of what has been done and what we are trying to accomplish.

After this presentation, the members of the group asked questions concerning the actual operation and capabilities of the DOBIS System.

The group expressed several concerns to be discussed in depth later in the week:

1) How to track books through the system?

2) Should the current division of collections be maintained?

3) How to convert?

Participants acquainted Mr. Baugh with the overall organization and operation of the Main Library and its Special Collections. In order to maintain the current division of collections, it was decided to treat these as branches. An organization chart and Data Summary Sheet of the General Library were provided (see Appendix A).

The following questions were considered:

1) To whom do we give the authority to look and see?

2) How many students?

3) How many students are users?

4) How many people do we serve?

5) How many titles and volumes are acquired yearly?

6) Are we going to have Local Files?

7) How many?

Three options were subjected in order to put the catalog into the system:

1) Manual System Conversion

2) By a MARC history tape from LC, put into the system and modified records to match our collections.

3) Stop manual system, catalog all new and convert present holdings as used.

JANUARY 19, 1983

The morning session started with a slide presentation of the DOBIS/LEUVEN System. Guidance in the configuration of hardware requirements followed this presentation. The following numbers are based on projected Library statistics:

Direct Access Storage Devices (DASD) Calculations

1-	Titles: Copies 1:2	=	125,000 x 1,000 Bytes/Title		
			Disk Storage	=	125,000,000 Bytes
2-	Borrowers	=	10,000 x 350	=	3,500,000 Bytes
3-	Vendors	=	500 x 280	=	140,000 Bytes
4-	Funds	=	60 x 150	=	9,000 Bytes
5-	Circulation	=	300 x 50	=	15,000 Bytes
6-	Orders	=	1,000 x 230	=	230,000 Bytes
7-	Invoices	=	500 x 50	=	25,000 Bytes
					128,919,000 Bytes

Circulation Transactions

Check-out/minute	=	1/min.
Check-in/minute	=	1/min.
Place holds	=	.05/min.
Misc. Transactions	=	1/min.
		3.05/min.

Searching Transactions

2 terms x 3/min.	=	6-8/min.
7 terms x 3/min.	=	21-25/min.

Cataloging

Direct	=	40 x .05	=	1.9
Derived	=	20 x .06	=	1.2
Copy	=	7 x .0035	=	.02
				3.12

420 min./day x 5 x 40 = 84,000 min.

Derived	Original	Copy
5,000 yr.	4,000 yr.	300 yr.

Circulation	=	3.05
Searching	=	6
Cataloging	=	3.12
Total Transactions		12.17/min.

Conversion

The group conversion statement follows:

It is the recommendation of this group that MARC format tapes be acquired to establish a base of machine readable catalog records for the DOBIS/LIBVEN Library System.

A specific plan will be developed for conversion of the remaining holdings by phases.

JANUARY 20, 1983 - Morning Session

At the request of the Library Director, the warranty clause of IBM/370, Dortmund and Leuven Library System was explained to the group. (See Appendix B)

Features that users would like to have in the system, such as Boolean Logic and the generation of statistics were discussed. Modules could be written by the Mayaguez Computer Specialist to satisfy this concern.

Mr. Baugh said that modifications on request could be made to the base program by the user. He also suggested contacting the DOBIS Users Group at Albuquerque, New México for further information concerning modifications made by present users of the system. An international users group also exists, with headquarters in Leuven, Belgium.

The second topic discussed in this session was the tailoring of the system.

Determining:

1) Local Files - No

2) Library Names - Main General
Puerto Rico
Marine Sciences
Reserve
Energy and Environment
Reference
Business Adm.
Govt. Docts.
Agricultural Sciences
Acquisitions
Nursing
Cataloging
Engineering
Rare Book
Agricultural Experimental Station
Puerto Rico Rare Books
Periodicals
Music Room
Stern
Audio Visual
Storage

3) Loan Policy

Type	Book	Reserve	Periodicals Documents Music No Loan
Fac.	D30	O Ø	N
U. Grad.	D15	N	N
Grad.	D30	N	N
Admin.	D30	N	N
Inter. Lib.	D30	N	N
Special	D15	N	N

Afternoon Session - Cataloging

In the afternoon, aspects of cataloging were discussed. DOBIS modifies the subfield codes of the Publisher Field in order to use Publisher Name as an access into the file.

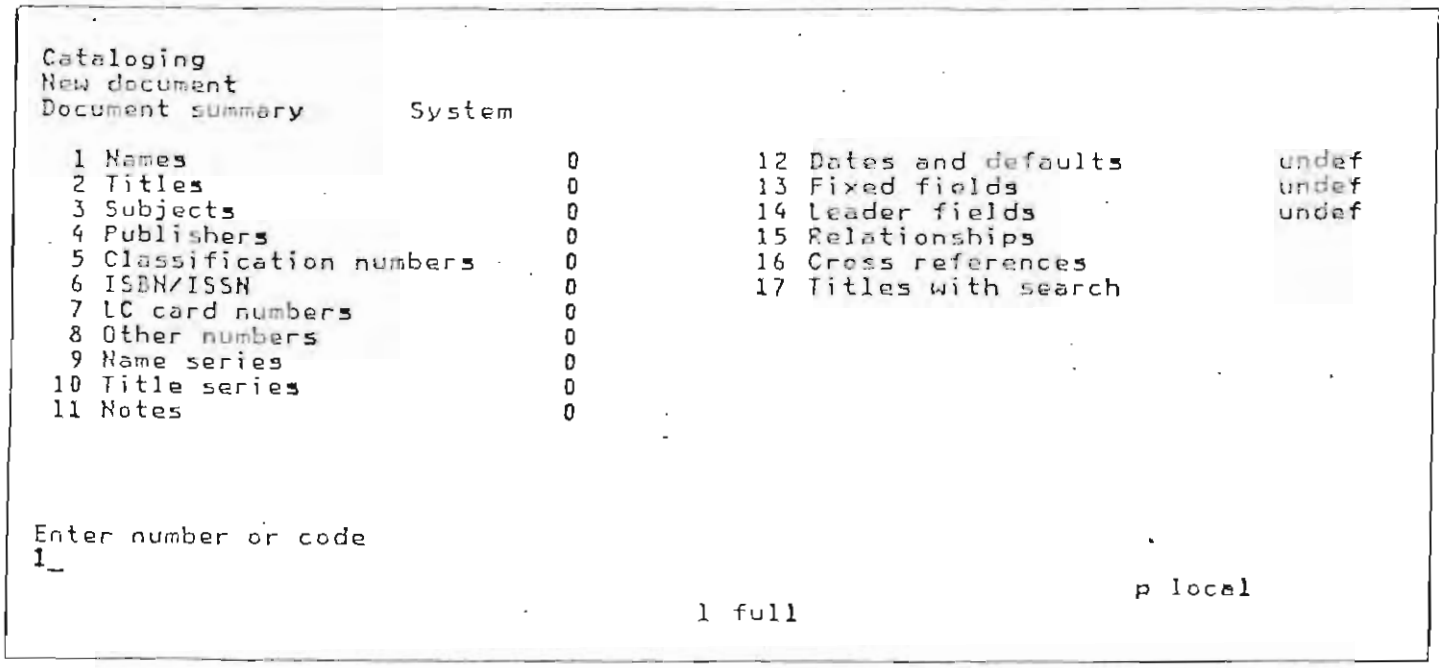
LC	DD
a = Place	a = Publisher ← Because of the file that is prepared for Pub.
b = Publisher	b = Place
c = Date	c = Date

30% of the cataloging in the General Library is original cataloging. AACR2 are followed. 70% is derived cataloging from LC. This percent might go up.

It is recommended that for entering the data we do the following:

1. Use the available data from MARC tapes.
2. Select records according to present holdings.
3. Add catalog records for those not on MARC tapes.

In cataloging a new document, the following bibliographic information lines must be entered:



JANUARY 21, 1983 - Morning Session

A Special Meeting of Application Specialist, Systems Engineer and Mayaguez Campus Computer Specialist was held to discuss how to tailor the system to our needs. See Appendix C for a list of these requirements.

Afternoon Session: Policy

Circulation

Registration - Student ID Card (validated)

Print - Name - Student Number - (9 digits)

Faculty ID Card
Name - Social Security Number - (9 digits)

Fields - Name (No. assigned by the system - Bar Code 10 spaces maximum)
Address
Borrower Type
Major
Year

A Bar Code label is to be placed on ID Card. Before making this recommendation we have to check with the University Administration in order to determine which kind of cards they are going to use. Work in conjunction to make the final decision.

Mr. Baugh recommended discussing with the Computer Center the possibility of providing us with the information they have concerning registration.

The following question was asked:

Do you get a list of all students on Campus when the semester starts?

It is suggested that the list of registered students at the beginning of the semester be put into a tape. The following conclusion was made:

We require a list of Faculty and Staff, and a list of registered students every semester.

The representative of the Circulation Department was concerned about the handling of statistics by the D/L program. Mr. Baugh explained that the system does not provide for statistics, but a program can be added by the Mayaguez Campus Computer Specialist using data captured by the program that gives the screen support for D/L.

Overdue notices

It was decided that overdue notices should be on three part paper: debtor, library and Finance Office.

Borrowers' list

To make a borrowers' list:

1. Obtain tape list of Faculty and Staff.
2. Each semester obtain a tape list of students.
3. Load borrowers' file from these tapes.

Debtors list may be printed on request.

Acquisitions

Funds

It is important to identify the funds to buy:

Monographs

Serials

Fund 1		Fund 2	Fund 3
_____	How much?	_____	_____
_____		_____	_____

Prepare a list of the departments under each fund.

Vendors

Name
Mailing Address

Shipping Address

Totals

Phone Number
Order Form - multiple (You change to single when you have just one)
Payment Type
Currency
Acquisitions Type
Claim Category - decide when you want to send a claim

In the vendor file we want to add the account number assigned to the library. We want to maintain track of subscription periods and make renewals automatically.

For Phase I, we will be using the Computer Center's printer for overdue notices and orders.

Interlibrary loan payment procedures can be handled with the system. The operational procedures to accomplish it must be established by the Department.

Periodicals can be catalogued, but the check-in is not provided for in the system. It can show the holdings. This item will be considered apart to design a particular module.

Mr. Baugh explained that the Demo System which comes with D/L, has a small database of about 10 or 12 records and is used for practice purposes. For installing DOBIS/LEUVEN on-line and batch:

- Use Demo files supplied with system.
- Familiarize staff with DOBIS/LEUVEN functions.
- Catalog several monographs and serials.
- Design alterations to screen, if necessary.
- Install alterations, new stop lists, etc.
- Delete Demo files and initialize work files.
- Load work files from LC tape.
- Load student and faculty data from DP records.

Circulation

Books - Labeling Option

1. Close Library

   Add labels to books

   Post the number to bibliographic record

Preprint Bar Code Labels Sets of (2)

2. Circulated Books

   Add labels at Circulation

   Post number to bibliographic record when item is returned.

3. Catalog new or recatalog book

   Add labels as part of physical preparation of work.

A combination of options #2 and #3 is recommended for labeling books. Each copy has its own Dobis number.

Should the timetable be modified to speed up the initial acquisition of disks from two (2) to four (4)? This would allow us to store more bibliographic records on-line during conversion.

Afternoon Session

Timetable for Implementation of the Pilot Project

Target	Task
May 2	1. Install System with Demo Base.
May 2-May 16	2. Practice with Demo Data. Decide on changes to formats and screens.
May 16-June 10	3. Train Staff for bibliographic input. Continue practice with Demo Data. Delete Demo Files.
June 13-on-	4. Start data conversion to operational Data Base
Aug 1	5. Start building borrower files for Faculty.
Aug 8	6. Train Staff for circulation.
Jan 15	7. Train Non-Prof Staff.
Jan 22	8. Build Borrower File Students - Non-permanent Faculty
Jan	9. On-Line

Benefits of the System

1. Economy of time for user services - faster and more accurate.
   - Catalog search
   - Circulation
   - Acquisitions
   - Cataloging
2. Larger Base of Patrons may be serviced.
3. Better use of library personnel.

4. Better Collection Development.

5. Better control of acquisitions and circulation.

6. Improve interlibrary loan service and strengthen interlibrary cooperation.

7. Provide a Base for Inter-University Library System for Puerto Rico.

8. Provide a research tool for the professors, which may help to attract better qualified staff.

9. Enhance the University's image as a progressive institution.

JANUARY 25, 1983 - Morning Session

Meeting of Mr. Baugh, Prof. Cabassa, Prof. Sánchez and Prof. Quiñones to review the progress of the study and the status of the document to be presented to the Campus Administration.

Afternoon session was cancelled because of the meeting of the Academic Senate in the Library's Conference Room.

JANUARY 26, 1983 - Morning Session

1. Repetition of the slide presentation of D/L at the request of Prof. Cabassa.

2. The Library Director met with the representatives of the library at the ATT to discuss their opinions about the D/L system.

3. Members of the Library's professional staff, available at 11:20 a.m., were invited to attend a slide presentation of the D/L system in order to familiarize them with it. The following persons were present:

Nuncia Bonini
Ana E. Cuebas
Tomasita M. Hernández
Ileana D. Martínez
Ronaldo Martínez
José Luis Ortiz
Miguel A. Ortiz Guerra

In the question and answer session that followed the presentation, certain doubts regarding the program's capabilities and characteristics were addressed and cleared up to the attendees satisfaction.

At that point the group was queried as to their personal feelings regarding the possible installation of a D/L Pilot Project to start in May of 1983 at the General Library of the Mayaguez Campus. While several persons expressed doubts, reservations, and even certain fears regarding the system's implementation, due to lack of experience with computers after airing them, they unanimously agreed that they were ready and willing to meet the challenge.

Afternoon Session

1. The Executive Presentation was discussed.

2. The desired additional features were reviewed and discussed. Modifications can be made in order to adapt the system to our specific needs. These modifications should be done by the Mayaguez Campus Computer Specialist.

3. A final recommendation of the ATT group was made:

   The recommendation is to establish the D/L system as a pilot project at the General Library of the University of Puerto Rico, Mayaguez Campus.

JANUARY 27, 1983

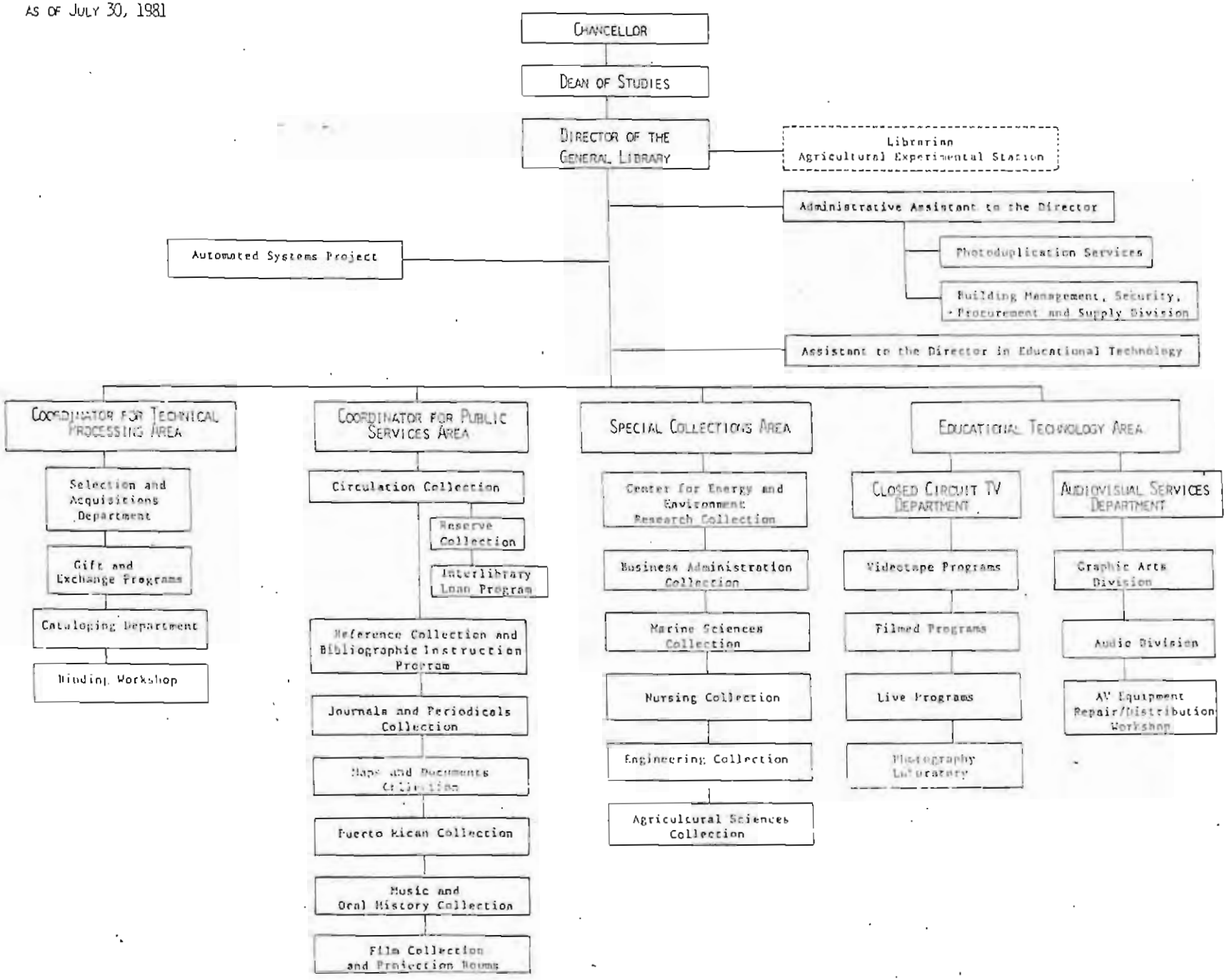
The group edited the final report and prepared the executive presentation.

APPENDIX A

General Library Organization Chart

General Library Data Summary Sheet

Organization Chart
As of July 30, 1981



APPENDIX B

LEM System/370

Dortmund and Leuven Library Systems

IBM

System/370
303X Processors
4300 Processors

DOS/VSE
OS/VS

Online Realtime Searching,
Acquisitions, Cataloging,
and Circulation

Card and Microform
Catalogs

Report Writer

Installed
User Programs

University of
Dortmund

University of
Leuven

Dortmund and Leuven Library Systems

Dortmund Library System
5787-DAA Release 1.2 (OS/VS)
5787-DAB (DOS/VSE)

Leuven Library System - Online
5787-FAJ Release 1.2 (OS/VS)
5787-FAK (DOS/VSE)

Leuven Library System - Batch
5787-FAH (OS/VS)
5787-FAL (DOS/VSE)

The Dortmund Library System (Dortmunder Bibliothekssystem, DOBIS), developed by the University of Dortmund in Germany, and the Leuven Library System (Leuvens Integraal Bibliotheek System, LEUVEN), developed by the University of Leuven in Belgium, together form an online, easy-to-use library management system.

DOBIS/LEUVEN includes cataloging, searching, acquisitions, and circulation, as well as the production of catalog cards, computer output on microform (COM) catalogs, and the listings and notices required for circulation and acquisitions. The system is designed to be used in university, public, special, and government libraries.

Online cataloging
Catalog records are entered and changed online and in realtime. Individual libraries and their branches as well as library networks are supported. Catalog records are MARC (MAchine-Readable Cataloging) compatible for monographs and serials.

Online searching
Online searches of an up-to-date catalog with eight indexes are made with a simple one-question/one-answer dialog. Keyword author and title indexes and an online shelf list provide better access to library holdings. Access to circulation and acquisition records is provided by borrower, vendor, and library fund, as well as by bibliographic access points.

Online circulation
Documents are charged out and checked in online with a bar-code scanner attached to a display station. Individual loan, overdue, and fine policies help tailor the circulation procedures to the needs of each library in the network. Borrower registration, the placement of holds, renewals, and most other circulation activities are also handled online.

Online acquisitions
Orders are entered and documents and invoices are received online. A separate policy for each library in the network regulates the timing of claims for overdue orders. Other online functions include paying invoices, credit and debit notes, interlibrary loans, financial control, and subscription renewals.

Online public access
A simplified search function that features one-key logon and explanatory screens is provided for library patrons.

Report writer
The format and contents of documents and listing are specified online for each library in the network. The batch report writer sorts, formats, and prints these documents according to the online specifications. This facility gives the network libraries freedom to design and change forms whenever necessary.

Catalog production
General programs for the printing of catalog cards and accessions lists and the production of bookform and COM catalogs make bibliographic information available offline. Parameters control the layout, number of copies, and other formatting options, which may vary from one library or department to another.

System highlights and features
- Realtime additions to and updates in the data base are made by all online transactions.
- All information is readily accessible online.

Cataloging
- Cataloging is MARC-compatible for monographs and serials.
- Bibliographic records are indexed by name, title, subject, classification number, publisher, ISBN/ISSN, LC card number, and other numbers.
- Local holdings files in the library network are indexed by call number. Local catalogs are optional for each library in the network.
- Full authority file facilities, integrated into the cataloging procedures, improve searching effectiveness and cataloging quality.
- Catalog maintenance functions provide powerful facilities for adapting the catalog to changing circumstances.

Searching
- All catalogs as well as circulation and acquisition files are searched online.
- Author and title catalogs are keyword indexed.
- Truncated search terms minimize keying and increase retrieval effectiveness.
- Network holdings may be searched quickly and easily.

Circulation
- Circulation status is indexed by borrower name and number, call number, and bibliographic indexes.
- Borrower, copy, and circulation files are held separately for each library in the network.
- Each library has separate loan, overdue, and fine policies to allow complete independence of the network libraries.
- Circulation information is entered quickly

and accurately with the optical bar-code scanner.
- Borrower validity is checked each time a document is charged out.
- Dates due, overdues, and fines are calculated automatically and consistently.
- Holds are placed on all copies of a title.
- Replacement bar-code labels can be printed immediately.
- Trapping facility for borrowers is available.

Acquisitions
- Acquisition status is indexed by vendor, library fund, order, and document number, as well as by all bibliographic indexes.
- Orders, especially for added copies, are entered rapidly.
- Overdue orders are claimed automatically.
- Interlibrary loans are fully supported.
- Financial and statistical information about vendors and funds updated automatically and available online.

Report writer
- Individual online specification for each library in the network controls the format and contents of each report.
- Batch printing operations include sorting, repetition factors, editing, totaling, conditional printing, bar-code labels, and vertical fields.

Catalog production
- Generalized programs print catalog cards and accessions lists.
- Batch programs produce book-form and COM catalogs for part or all of the network and include:
  - Main entry catalog
  - Classification (UDC) catalog
  - Title catalog
  - Thesis catalog
  - Periodical catalog.
- International Standard Bibliographic Description punctuation and layout are provided for all output but can be modified easily.
- Further COM catalogs can easily be added.
- Many selection possibilities for records to be printed are available.
- Very large character set includes diacriticals and special characters.

User interface
- Conversational procedures make the system self-teaching:
  - Consistent display organization.
  - Each screen is self-explanatory and includes instructions and all possible answers for that screen.
  - Brightness levels distinguish input and errors from output.
  - Chains of commands speed processing for the expert user.
  - Guided procedures reduce training.
  - Special explanatory screens guide Library patrons in using the system.
- Display terminal is a librarian's tool, not an online keypunch:
  - File updates are made immediately, not overnight.
  - Default values for each library fill in fields automatically.
  - Choice from menus removes requirement to memorize codes, tags, and indicators.
  - Online input checking improves quality.

Security
- *System security:*
  - Logon requires correct name form and password.
  - Passwords are encoded and cannot be read.
  - The user can change his own password.
  - Multiple user-authorization levels control access to subfunctions.
  - Library patrons are allowed to search online in the catalog without logging on, but they are prevented from making changes or looking at sensitive information such as library accounts.
- *File security:*
  - All data base updates are logged.
  - System errors are recovered automatically.
  - Damaged files can be reconstructed.

Dialog languages
- Multiple online dialog languages can be used simultaneously.
- Reports are in English, but translation to other languages is easy.
- Instruction and programming aids are included for adding dialog languages.

Special features
- Standardized machine-readable interface greatly simplifies input and output of MARC tapes.
- PL/I macros are available for the development of online library applications, thus simplifying additions and changes to the system.

Objectives and potential benefits
- Increase the productivity of library staff by providing an easy-to-use, easy-to-learn tool.
- Reduce cataloging time significantly by eliminating duplicated work, integrating authority files into the procedures, and providing defaults for commonly used fields.
- Reduce time required for circulation and acquisition procedures by eliminating manual filing and typing, by speeding up entry of relevant information, and by making up-to-date status information available for all documents.
- Provide necessary printed information available for non-teleprocessing users inside and outside the network.

Specified operating environment

Machine requirements

- An IBM System/370 Model 135 or larger, an IBM 303X processor, or an IBM 4300 processor.
- Sufficient direct access storage (DASD) for the catalog, the circulation and acquisition files, and the programs.
- One IBM 3270 Information Display System. The display station must have a screen with 24 lines of 80 characters, a dual case keyboard, and preferably dual case display (any such device supported by CICS/VS can be used).
- An IBM 5926-B03 Optical Scanner is optional equipment for each 3270 display station.
- For printing bar-coded labels for circulation, several devices may be used: a typewriter terminal equipped with a special IBM SELECTRIC® element, an IBM 3289 Line Printer equipped with an RPQ bar-code print belt, or an IBM 1403 or 3203 Line Printer equipped with an IBM 1416 RPQ Print Train for printing bar-codes.
- A high speed printer for catalogs and listings. A special print chain is used to meet a library requirement for the A.L.A. character set.
- A nine-track tape unit (recording density 1600 or 6250 bpi) is required for the installation of the system and maintenance of the files.

Main storage requirements depend upon the number of active terminals, the tasks being executed concurrently, and the response time desired. The minimum virtual storage required for DOS/VSE is 1300K for a full-function one-library system for CICS/DOS/VS, VSAM, and the application programs. The minimum virtual storage required for OS/VS is 512K bytes for CICS/OS/VS and the application programs.

Main storage requirements for batch programs vary. All batch utility programs for the online system run in 250K or less. In general, batch utility programs are not run at the same time as the online system. Programs for catalog cards and accessions lists run in 320K of virtual storage or less, all COM catalog programs in 640K of virtual storage or less, and the report writer in 576K or less. These programs can be run at the same time as the online system.

DASD storage requirements vary with the size of the library, the completeness of the catalog record and holdings files, the completeness of the borrower, vendor, and library fund files, the number of documents on order and in circulation at one time, and the amount of cataloging, circulation, and acquisition activity. Sufficient disk or tape capacity for sorting and intermediate files should be available.

Programming requirements for OS/VS

DOBIS and Leuven-Online were tested under CICS/OS/VS Version 1 Release 5 (Program Number 5740-XX1). The programs have also been tested under Version 1 Release 4 of CICS/OS/VS.

Most programs were written in PL/I and compiled with Version 1 Release 3 of the PL/I Optimizing Compiler (Program Number 5734-PL3). A few online programs were written in assembler and compiled with the OS/VS Assembler.

LEUVEN-Batch is supported by OS/VS1 Release 6, OS/VS2 Release 1.7 (SVS), OS/VS2 Release 3.7 (MVS), and subsequent releases until otherwise identified. The utilities, the linkage editor, and the sequential access method are required components. VSAM is required if COM catalogs are to be produced.

DOBIS is a prerequisite for LEUVEN-Online and LEUVEN-Batch. LEUVEN-Online is a prerequisite for the report writer functions of LEUVEN-Batch.

The IBM Program Product OS/VS Sort/Merge, Program Number 5740-SM1, Release 3.1 or subsequent releases is required.

Programming requirements for DOS/VSE

The online programs were designed and tested under CICS/DOS/VS, Program Number 5746-XX3, Version 1 Release 5. VSAM is required.

Most programs were written in PL/I and compiled with Version 1 Release 5 of the PL/I Optimizing Compiler, Program Number 5736-PL3. A few online programs were written in assembler and compiled with the DOS/VSE Assembler.

LEUVEN-Batch is supported by DOS/VSE Release 2, and subsequent releases until otherwise identified. The utilities, the linkage editor, and the sequential access method are required components.

VSE/POWER, Program Number 5746-XE3, Release 2 is required if a line printer cannot be dedicated to the partition in which the LEUVEN-Batch program is run. DOBIS is a prerequisite for LEUVEN-Online and LEUVEN-Batch. LEUVEN-Online is a prerequisite for the report writer functions of LEUVEN-Batch.

Subsequent versions or releases of the IBM program offerings given above may affect the functioning of these IUP's.

The IBM Program Product DOS/VS Sort/Merge, Program Number 5746-SM2 Release 3, is required.

Sample problem

Sample problems instructing the user what to enter at the terminal to test all major functions are included in the *Dortmund and Leuven Library Systems Program Description and Operations Guide, SH20-2053.* A sample problem telling the

user how to test various types of output formats is included in the *Leuven Library System-Batch Program Description and Operations Manual, SH20-2654*.

Installation tasks for DOBIS and LEUVEN-Online

1. Read the appropriate sections of the *Dortmund and Leuven Library Systems Program Description and Operations Guide, SH20-2653*.
2. Make the required additions to the CICS/VS control tables.
3. For OS/VS, copy and catalog the load library and other data sets from the distribution tapes. For DOS/VSE, restore the private core image, relocatable, and source statement libraries from the distribution tape.
4. Install the test files from the distribution tapes.
5. Modify and catalog the JCL procedures supplied with the system for batch operations and CICS/VS execution.
6. Start CICS, initialize DOBIS/LEUVEN, and execute the sample problems for DOBIS and for LEUVEN-Online.
7. Test batch utility programs for the unloading and reorganization of files.
8. Tailor the code tables to define network structure and to meet the requirements of the network libraries.
9. Initialize production files.
10. If desired, write conversion programs to load existing machine-readable data into the system.

Installation tasks for LEUVEN-Batch

1. Read the appropriate sections of the *Leuven Library System-Batch Program Description and Operations Manual, SH20-2654*.
2. For OS/VS, copy and catalog the load library and other data sets from the distribution tapes. For DOS/VSE, restore the private core image, relocatable, and source statement libraries from the distribution tape.
3. Install the test files from the distribution tape.
4. Modify and catalog the JCL procedures supplied with the system.
5. Execute the sample problems.
6. If desired, modify the language-dependent text in the output reports and recompile the programs concerned.
7. Link-edit the programs with the local code tables ECTADDR and TAGADDR.
8. Check that the online specifications of the diacriticals are the same as those used by the batch programs.
9. Enter online print specifications for the reports and listings to be used in the production system.
10. Build the master files for the COM catalogs.

Modifications

A section in the *Dortmund and Leuven Library Systems Program Description and Operations Guide* explains in detail how catalog records can be tailored to meet individual library requirements, how a library network can be structured, how the dialog language can be translated, how circulation and acquisition procedures and policies can be tailored to the needs of individual libraries, and what changes should be made to code tables.

The standardized record exchange format and the programs supporting it are also described.

A section in the *Leuven Library System-Batch Program Description and Operations Manual* explains in detail how default card formats and COM catalog output can be tailored to the needs of individual users. A chapter of the *Leuven Library System-Batch Systems Guide* provides many hints on how the existing catalogs and reports can be extended to meet the needs of individual libraries.

Education

Seminars and workshops in support of the program are conducted on the basis of sufficient demand on dates and at locations best suited to the needs of IBM's customers. Customers should advise their IBM representative of educational requirements for this program.

Program services

Central Service will be provided until the dates indicated below:

Program Number	*Name*	*End Date*
5787-DAA	Dortmund	
5787-DAB	Library System	February 11, 1984
5787-FAJ	Leuven Library	
5787-FAK	System-Online	February 11, 1984
5787-FAH	Leuven Library	
5787-FAL	System-Batch	February 11, 1984

Enter "**" and this date under the Central Service column of the Supplement to Agreement for IBM Licensed Programs.

Documentation concerning errors in programs 5787-DAA, 5787-FAJ and 5787-FAH may be submitted to:

IBM Corporation
Branch Office 040
1609 Shoal Creek Blvd.
Austin, TX 78701
Attn: Mr. D. Cox
Telephone 512-473-8000

Documentation concerning errors in programs 5787-DAB, 5787-FAK, and 5787-FAL may be submitted to:

IBM Corporation
Branch Office 214
916 Bernadette Drive
Columbia, MO 65201
Attn: Mr. W. Baugh
Telephone 314-445-8523

During this period only, IBM, through the program author(s), will, without additional charge, send corrections to the customer reporting the problem and/or will issue, through the Program Information Department (PID), corrected code or notice of availability of corrected code. However, IBM does not guarantee service results or represent or warrant that all errors will be corrected. Any on-site program service or assistance will be provided at a charge.

Ordering information

These Installed User Programs and their associated documentation are scheduled for availability beginning February 12, 1982.

Contact your local IBM branch office to order this program.

Basic material for the Dortmund Library System (5787-DAA and 5787-DAB)

Unlicensed documentation

One copy each of the *Dortmund and Leuven Library Systems Librarian's Guide, SH20-2655,* and the *Dortmund and Leuven Library Systems Program Description and Operations Guide, SH20-2653.*

Licensed documentation

One copy of the *Dortmund Library System Systems Guide, LY20-9068.*

Licensed machine-readable material

One copy of the machine-readable material including source files, program load modules, test files, and sample procedures. When ordering this material, select one of the following Specify Numbers:

Specify Number	*Track/ Density*	*Description*	*User/Volume Requirement*
OS/VS			
9029	9/1600	Magnetic tape	None
9031	9/6250	Magnetic tape	None
DOS/VS			
9129	9/1600	Magnetic tape	None
9131	9/6250	Magnetic tape	None

Basic material for the Leuven Library System-Online (5787-FAJ and 5787-FAK)

Unlicensed documentation

One copy each of the *Dortmund and Leuven Library Systems Librarian's Guide, SH20-2655,* and the *Dortmund and Leuven Library Systems Program Description and Operations Guide, SH20-2653.*

Licensed documentation

One copy of the Leuven Library System-Online Systems Guide, LY20-9069.

Licensed machine-readable material

One copy of the machine-readable material including source files, program load modules, test files, and sample procedures. When ordering this material, select one of the following Specify Numbers:

Specify Number	*Track/ Density*	*Description*	*User/Volume Requirement*
OS/VS			
9029	9/1600	Magnetic tape	None
9031	9/6250	Magnetic tape	None
DOS/VS			
9129	9/1600	Magnetic tape	None
9131	9/6250	Magnetic tape	None

Basic material for the Leuven Library System-Batch (5787-FAH and 5787-FAL)

Unlicensed documentation

One copy of the *Leuven Library System-Batch Program Description and Operations Manual, SH20-2654.*

Licensed documentation

One copy of the *Leuven Library System-Batch Systems Guide, LY20-9070.*

Licensed machine-readable material

One copy of the machine-readable material including source files, program load modules, test files, and sample procedures. When ordering this material, select one of the following Specify Numbers:

Specify Number	*Track/ Density*	*Description*	*User/Volume Requirement*
OS/VS			
9029	9/1600	Magnetic tape	None
9031	9/6250	Magnetic tape	None
DOS/VS			
9129	9/1600	Magnetic tape	None
9131	9/6520	Magnetic tape	None

Charges

Monthly charges for the Installed User Program are waived after the payment of 24 consecutive monthly charges.

The Designated Machine Type is a System/370, a 303X processor, or a 4300 processor.

For OS/VS:

Type	*Program Number/AAS*	*Monthly Charge*
5787	DAA (Dortmund Library System)	$925.00
5787	FAJ (Leuven Library System-Online)	$575.00
5787	FAH (Leuven Library System-Batch)	$575.00

For DOS/VSE:

Type	Program Number/AAS	Monthly Charge
5787	DAB (Dortmund Library System)	$715.00
5787	FAK (Leuven Library System-Online)	$405.00
5787	FAL (Leuven Library System-Batch)	$365.00

Installation license does not apply.
Education allowance applies.

Charges shown above are provided for information and are subject to change in accordance with the terms of the *Agreement for IBM Licensed Programs (Z120-2800)*.

Charges for additional copies of documentation for the Dortmund Library System (5787-DAA and 5787-DAB)
Unlicensed documentation
Dortmund and Leuven Library Systems Librarian's Guide. Order from Mechanicsburg.

Order Number	Selling Price/Copy
SH20-2655	11.00

Dortmund and Leuven Library Systems Program Description and Operations Guide. Order from Mechanicsburg.

Order Number	Selling Price/Copy
SH20-2653	10.50

Licensed documentation
Dortmund Library System Systems Guide. For the customer, who must already be a licensee of the program, order by Feature Number from PID. For IBM internal use, request by Order Number from Mechanicsburg.

Order Number	Feature Number	Selling Price/Copy
LY20-9068	8762	11.00
LY20-9068	8171	11.00

General documentation
Dortmund and Leuven Library Systems Availability Notice. Order from Mechanicsburg, no charge to customers.

Order Number
G320-6662

Charges for additional copies of documentation for the Leuven Library System-Online (5787-FAJ and 5787-FAK)
Unlicensed documentation
Dortmund and Leuven Library Systems Librarian's Guide. Order from Mechanicsburg.

Order Number	Selling Price/Copy
SH20-2655	11.00

Dortmund and Leuven Library Systems Program Description and Operations Guide. Order from Mechanicsburg.

Order Number	Selling Price/Copy
SH20-2653	10.50

Licensed documentation
Leuven Library System-Online Systems Guide. For the customer, who must already be a licensee of the program, order by Feature Number from PID. For IBM internal use, request for Order Number from Mechanicsburg.

Order Number	Feature Number	Selling Price/Copy
LY20-9069	8763	6.60
LY20-9069	8173	6.60

General documentation
Dortmund and Leuven Library Systems Availability Notice. Order from Mechanicsburg, no charge to customers.

Order Number
G320-6662

Charges for additional copies of documentation for the Leuven Library System-Batch (5787-FAH and 5787-FAL)
Unlicensed documentation
Leuven Library System-Batch Program Description and Operations Manual. Order from Mechanicsburg.

Order Number	Selling Price/Copy
SH20-2654	12.00

Licensed documentation
Leuven Library System-Batch Systems Guide. For the customer, who must already be a licensee of the program, order by Feature Number from PID. For IBM internal use, request by Order Number from Mechanicsburg.

Order Number	Feature Number	Selling Price/Copy
LY20-9070	8764	5.60
LY20-9070	8172	5.60

General documentation
Dortmund and Leuven Library Systems Availability Notice. Order from Mechanicsburg, no charge to customers.

Order Number
G320-6662

In World Trade countries, local prices and schedules are available from IBM WTC branch offices.

Testing period

The test period for this program is one month.

This Installed User Program is distributed on an as-is basis, without warranty either express or implied. While each offering has been reviewed by IBM for its transferability and maintainability, no assurance of successful installation can be given.

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available outside the United States.

IBM

International Business Machines Corporation
Department 65Y
2235 W. Carpenter Freeway East, Irving, Texas 75062

Program Numbers 5787-DAA, 5787-DAB, 5787-FAJ, 5787-FAK, 5787-FAH, 5787-FAL
Available February 12, 1982
G320-6602 Printed in U.S.A.

APPENDIX C

TAILORING THE SYSTEM

TAILORING THE SYSTEM

1. 2 to 4 byte code for each Lib (character)

Main Library	L01
Experimental Station	L02

2. 2-Byte Code for each Library (binary)

Main Library	00 01
Experimental Station	00 02

3. Place codes in EC0400 (DBS-Local-Library)

   Use code table EC0400

4. Create a Location Code Table (EC0440)

   change the names on EC0440

5. Create a material type Code Table (EC0470)

   change the example on EC0470

6. Build the system Default Tables EC0190 EC0180

   - Do not change -

7. Choose the characters to be used for diacriticals

   - Do not change -

8. Allocate & initialize for

   Main Library

   Experimental Station

   AFSH L01 ⟩ Shelf list
   AFSH L02 ⟩

   DFCO L01 ⟩ Copy file
   DFCO L02 ⟩

9. Local Bibliographic Files

   Not Used

10. Local Access Point Files

    Not Used

11. Permute Queues

    Not Used

12. Allocate and initialize Circulation files

DFCR L01	Circulation
DFCR L02	
DFBO L01	Borrower Numbers
DFBO L02	
DFIN L01	Fines/Invoices
DFIN L02	
AFBO L01	Borrower Names
AFBO L02	

13. Allocate and initialize Acquisition files

DFOR L01	Order File
DFOR L02	
AFVE L01	Vendor File
AFVE L02	
AFFU L01	Funds
AFFU L02	

14. Tailoring Bibliographic Records

    Do not change

15. Code Tables

    Follow examples of Douglas County.

16. Fixed & Leader Fields

    Do not change

17. Format of Diacritical Table

Modify entry characters for ñ ñ

18. Stopword Table

Review and use stopword tables as necessary

19. Subject Permutation

Must be added to system

Refer to Chapter 2 - PDOM Page 13

A list of the DOUBIS/LEUVEN Jobs is attached

LIST OF DOBIS/LEUVEN JOBS

DOBIS startup deck
Allocate Private Libraries (DOBIS)
Allocate Private Libraries (LEUVEN)
Define VSAM catalog
Import Demo Files (DOBIS)
Print VSAM file contents
Import Demo Files (LEUVEN)
Delete Demo Files
Rename and delete Local Library Files (DOBIS)
Rename and delete Local Library Files (LEUVEN)
Generate Consolidated Code Table (Library Access)
Generate Map EC105
Generate Map EC106
Generate Map EC117
Generate Map EC0390
Generate Map EC0400
Generate Map EC0440
Generate Map EC0470
Generate Map EC1000
Generate Map EC1010
Generate Map EC1230
Catalog PROCS in Procedure Library
Generate Code Table EC0170
Generate Code Table EC0180
Generate Code Table EC0190
Generate Code Table EC0390
Generate Code Table EC0400
Generate Code Table EC0440
Generate Code Table EC0470
Generate Code Table EC1000
Generate Code Table EC1010
Generate Code Table EC1230
Generate Consolidated Code Table (Public Access)
Compile DBSUINDX
Loading Names Stopwords to tape
Loading Titles Stopwords to tape
Reload Names Stopwords from tape
Reload Titles Stopwords from tape
Allocate space for all VSAM files
Delete unwanted Local Files
Unload Local Borrower File
Reorganize Borrower File
Allocate space for Borrower File
Changing Diacritical Table (Part 1) - SSERV
Changing Diacritical Table (Part 2) - Load to Source Lib.
Changing Diacritical Table (Part 3) - Compile DBSXTND
Changing Diacritical Table (Part 4) - Compile DBSCA02
Changing Diacritical Table (Part 5) - Rename
Initialize Borrower File
Change bar-code length - Compile DBSC105
Change bar-code length - Compile DBSC106
Change bar-code length - Compile DBSC111
Change bar-code length - Compile DBSC118
Format Journal Files
Allocate Work Files
Define Transient Data
Display all CICS Tables provided with system
File Control Table assembly