COMPUTER-PRODUCED BOOK CATALOGUE
FOR
NEW BRUNSWICK PUBLIC LIBRARY SYSTEM

In November of 1975 the New Brunswick Library Service started the discussion to examine the concept of a computer-produced book catalogue, to replace the manual Union Catalogue and the manual production of complete sets of library cards for every book catalogued. In October, 1976, the production by computer of the first book catalogue became a reality.

This project was possible because of the structure of the New Brunswick Public Library system.

The New Brunswick Public Library system operates under the Province's Libraries Act, and under the authority of the Minister of Youth, Recreation and Cultural Resources. The New Brunswick Library Service is responsible for the administration of the Libraries Act. This Libraries Act divides the province among five regional systems. Each Region has an administrative headquarters to carry out the administrative tasks, and from which to distribute materials among the public libraries and one or more bookmobiles within their region boundaries. These regional systems are funded entirely by the Province. In New Brunswick, 99% of all public libraries operate inside the New Brunswick Library system.

New Brunswick Library Service already provides support services, e.g. centralized cataloguing and classification, to the Library Regions in New Brunswick.

The success of this program demands some adaptation and concession from the library regions. The basic concession was that the decision of the New Brunswick Library Service on cataloguing matters would be accepted by all the participating libraries.

During the preparatory period a coding manual was developed and distributed to head of library regions. A coding form was prepared according to data processing specifications. When the computer program and the complementary processing equipement and forms were ready, a starting date was set up. From that date on, new books only received by each region will appear in the computer-produced book catalogue.

The production of a computer-produced book catalogue showing all the holdings of the five regional libraries was rejected for the moment, because of time and cost involved. At the present time New Brunswick Library Service Union Catalogue contains approximately half a million titles. The data preparation is considered a major project by itself.

For each document to be entered there are six different records which all have the same general layout. Besides the standard information - author, title, imprint, subject and classification number - each document indicates type of documentation, i.e. one of two Language codes for each document and one of two readership level codes for each document; a reference number that must be unique for each document (Record Zero) and finally one of 6 location codes for each document. (Record 4)

Sample of Coding Form

90-1007

| 0 | 1 | 0 | E | / | A | | B | E | R | M | C | | | | | | | |

L / L   REF. NO.

AUTHOR

0	1	1	B	.		S	T	E	W	,	/	/	E	R	E
0	2	1													
0	3	1													

TITLE

0	1	2	M	y		C	O	U	N	T	R	Y	
0	2	2											
0	3	2											

IMPRINT

0	1	3	M	C	C	L	E	L	L	A	N	D	,		1	9	7	6	,		3	2	0	P
0	2	3	/	R	E	M	A	R	K	A	B	L	E		P	A	S	T	,
0	3	3													
0	4	3													
0	5	3													

LOCATION

| 0 | 1 | 4 | H | | | | | | | | | | | |

TRACING

0	1	5	/		C	A	N	A	D	A	-	-	H	I	S	T	O	R	Y
0	2	5	*		9	7	/	B	E	R
0	3	5									
0	4	5									
0	5	5									
0	6	5									
0	7	5									
0	8	5									
0	9	5									
1	0	5									

BC's   W
      B

BP's ____

To Library

No. Cat. Cards ____

Cat Card
No. ____

- 104 -

Input

Data printed on OCR forms are sent on a three weeks schedule.

Each document to be entered on the computer masterfile must be coded on coding forms prior to transfer on OCR form. Till this step everything is performed by New Brunswick Library Service staff. This input method was chosen from several others available because NBLS prefers to control the complete data preparation and have the original document returned for proof reading.

Sample of a OCR form

```
010E/ABERMC
011BERTON ,PIERRE
012MY COUNTRY
013MCCLELLAND, 1976, 320P
023'REMARKABLE PAST'
014H
0151. CANADA--HISTORY
025*  971/BER
```

Hardware

These OCR forms are then read by an IBM 3886 model 6 Optical Character Reader (OCR machine). The IBM selectric typewriters with typing element OCR A - FONT are needed to prepare the input document on OCR forms. This IBM 3886 is a stand alone reader with magnetic tape output. (EBCDIC format, 9 track, 1600 bytes per inch (1 bpi)). The model is off line. The data printed on the magnetic tape are then transferred to the New Brunswick Government Computer which operates a UNIVAC 1100.

Output

There are four different output reports produced by the computer: an edit updating list, a master file, a book catalogue and an author supplement. The computer print-out is all done on upper-case letters. In every report, the first entry is printed at the first indention and the succeeding lines at the second indention. For the book catalogue, the printing is done on a special paper using carbon paper. The second copy is used for reproduction. The reason for this is the lack of uniformity in the printed impression. All these four reports have date and paging printed at the top of each page.
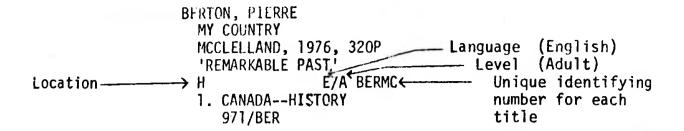
Edit Updating List

The first report is an "edit updating list" sorted by reference number. This report lists only the last documents or last "batch" of OCR forms submitted to the computer. The entries are printed exactly the same way the OCR machine had read the data, with errors from various sources. This report is intended for an internal use or checking document and is

used by the NBLS staff only. Provision had been made in the program to show every transaction done by the computer when it interfiles new input data. Specific codes like "no type 4 record", "invalid type 5 record", "bad reference number", etc. are printed to identify the errors in the input data. These printed indications facilitate the corrections.

Masterfile

The second report is a masterfile sorted by author of the complete data presently in the computer memory relating to this programme. This masterfile is produced every three weeks and is continuously cumulated. Each document entry contains complete information typed on the OCR form: language, level, reference number, location plus the standard information. This catalogue format is a 8½ x 14 inch paper stock using a four column presentation. For readability, the author entry is printed at the first indention and the suceeding lines at the second indention. All the printing is done at six lines per inch. The resulting volume is bound on the short edge.

Since the beginning of the programme on October 15, 1976 till March 4, 1977, 6629 titles were catalogued and classified. The master-file is up to 271 pages in the last printing. New Brunswick Library Service catalogues and classifies an average of 15,000 titles on a yearly basis. The alphabetization disregards the language of the printed document. Here is a sample of an entry in the masterfile.

```
                    BERTON, PIERRE
                    MY COUNTRY
                    MCCLELLAND, 1976, 320P ————— Language  (English)
                    'REMARKABLE PAST'————————— Level    (Adult)
Location ——————> H              E/A BERMC <————— Unique identifying
                    1. CANADA--HISTORY                  number for each
                    971/BER                             title
```

Book Catalogue

The frequency of printing the book catalogue is scheduled to appear every three weeks but for one region only, so 15 weeks is the maximum time allowed between a complete rotation for the five Library regions. This schedule was chosen because of the cost factor. In practice it works this way: every three weeks one region receives a complete cumulated book catalogue and the other four regions receive an author supplement list, eg., books catalogued and classified during the last three weeks period for individual regions. This book catalogue is also continuously cumulated.

The book catalogue is produced in four separate divisions: English adult, English juvenile, French adult and French juvenile. Each division has three sections; author, title and subject, and the alphabetization is done independently. The author list includes the complete cataloguing entry. The title list shows: title, author, and DDC number. The subject list gives: subject, author, title and DDC number.

The catalogue format is a 8½ x 11 inch paper stock using a two column presentation. Here is a sample of an entry as printed in each list.

Author entry

        BERTON, PIERRE
          MY COUNTRY
          MCCLELLAN, 1976, 320P
          'REMARKABLE PAST'
          1. CANADA--HISTORY
             971/BER

Title entry

        MY COUNTRY
          BERTON, PIERRE
          971/BER

Subject entry

        CANADA--HISTORY
          BERTON, PIERRE
          MY COUNTRY
          971/BER

The printing is done at six lines per inch and with an average of 56 lines per page. The resulting volume is bound on the long edge.

Author supplement

The fourth report is an "author supplement list" produced by location and listing only documents catalogued and classified during the last three week period. This list is not cumulative. Supplement means an addition to the Book Catalogue. Every three weeks four Library regions receive this "author supplement" while the other one has a cumulated Book Catalogue.

The "author supplement list" format is a 8½ x 14 inch paper stock using a four column presentation. The layout and the computer printing do not differ from the "masterfile".

Reproduction

In order to produce the required master copy for catalogue production the following alternatives were investigated: photocomposition, printer simulation, video, stencils, computer printout. The first four methods have no representatives in New Brunswick. For the standard of quality required and the significant cost difference among the alternatives it was decided to use computer printout to produce the master copy.

From the master copy NBLS staff reproduce on offset press the number of copies requested by each Library Region. These book catalogues are then bound according to Region specifications on a Gestetner velo bind 292, 101. Each region designs and provides their own book catalogue cover.

Cost

Since our programme is still under various changes, trying to establish costs could be an unfair indication of future costs and a futile exercise. Nevertheless, data processing charges for computer time and printing alone are predetermined costs with limited variations. The charges for the various hardware equipment are the following:

NAME	COST
OCR (Optical scanning)	$40/h
Computer use	$105/h
Printing	$0.025/ per page

For one production of the four reports, the total cost for these three data processing charges is still less than a hundred dollars.

Conclusion

New Brunswick Library Service is confident that this provincial network was the right step to do for the public library system. Libraries involved are used to the idea of "give and take".

The impact of a book catalogue in a regional library system is enormous. The smallest branch has immediate knowledge of the total collection of his region. The loans or circulation inside the region could be "busted up".

Our immediate priorities are: the improvement of this existing program, the standardization of some of the subject headings, the expansion of the "see reference", the inclusion in the program of the current periodicals collection, etc. As for long range priorities, well, many interesting projects are presently at the preliminary planning stage.

A. Hall
Librarian
New Brunswick Library Service