GEAC and the Library, 1980-1988

by Hilary Richardson

It was towards the end of the 1970s that the technology was finally becoming available for an online library system capable of integrating both Cataloguing and Circulation functions. At Queen's, Margot McBurney, who had succeeded Donald Redmond as Chief Librarian in September 1977, decided that manual and automated systems should each be evaluated, and their comparative effectiveness measured. In May 1979, Gene Clevenger was hired as Assistant Librarian, Systems and Development. He had formerly held library positions in New Mexico, Colorado, Missouri and Maine, and had been a Systems Librarian at York University in Toronto. As it became clear that automation was the way to go, Gene's mandate was to advise on the selection and implementation of such a system, and to lead Queen's into the world of automated library systems in general.

Head of Circulation David Wang and recently appointed Head of Cataloguing Susan Denyer were briefed on the enormous changes that the new technology would bring to their units. Vendors CLSI, DOBIS, GEAC and LIBIS all came to Queen's in September 1979 to give demonstrations of their products. Later that year the GEAC system was selected. It was already in use at Princeton, Waterloo and Guelph universities.

In March 1980 the GEAC 8000 computer was installed in the Douglas Library Data Processing Office, Ground Floor South Wing (one floor down in those days, as the entry level was the First Floor). The so-called "minicomputer" and its disk drive were each about six feet tall and were nicknamed "Archie" and "Bunker." Marlyn Fairley joined the library staff in May 1980 as Programmer/Analyst, to assist in the implementation, development and maintenance of GEAC as an online circulation system. The Douglas Library's first automated circulation project in the 1970s had placed in every book pocket 3" x 7" white punched cards, already obsolete by 1980. But it had also converted abbreviated Shelf List records into a machine-readable format. Marlyn's first job was to load this database of truncated records into the GEAC computer. Using this database, barcodes were produced. Each barcode also had a call number printed on it.

An article in the Queen's Alumni Review, v. 54 no. 5 1980, p. 6, was entitled "Queen's Quest computerizes library":

GEAC 8000 is the space-age name of the new computerized cataloguing system which will be automating Queen's libraries over the next four years. GEAC also represents the single largest allocation from Queen's Quest 1978-83: *$1.2 million over five years. You may recall that one of* Quest*'s six goals was to purchase a library system that would upgrade circulation records to a fully machine-readable catalogue. GEAC will eventually unite Douglas and all 19 branches, giving online access to files and information now in 50 catalogues…. Book searches and check-outs will be easier….Each book checked out will have a barcode (similar to those on supermarket products) over which the librarian will run a light pen, thereby putting coded data in storage.*

But first the barcodes had to be placed in the books (in those days not on the front cover but the inside back cover, top right). Starting in May of 1980, Marlyn Fairley and Heather Woolnough spearheaded the efforts to insert barcodes (large size, stuck down with Mylar) in all the books in the Douglas Library. This project went so well that barcoding in the nine Science and Engineering libraries, plus Art, Music and Psychology, began in mid-July 1980. Many branch libraries were closed for the last two weeks of August, in order to facilitate the barcoding process. However, Circulation staff soon discovered that it was difficult to "wand" the large barcodes, which were replaced with smaller ones as the books circulated, or in subsequent projects. But even now some of the books in the Queen's Library System still have only the old-style (1980 version) barcodes.

Barcoding the books was only a small part of the preparation for the new system. It was also necessary to input electronically all the card catalogue records. On June 19, 1980 the Card Processing Section of Cataloguing was replaced by the Retrospective Conversion (RECON) Project. RECON work took place on the Ground Floor of the Douglas, on the west side of the Cataloguing Unit. It was a rather dark area, as the lights were turned down to avoid glare while working with GEAC's white text on a black background (variations a few years later were amber on black or green on black). In those early days the terminals had no UV protection. VDT health and safety issues arose, leading to the addition to the CUPE 1302 Collective Agreement, under "Health and Safety," of Article 27.02 (Video Display Terminals). This article provided for VDTs to be tested to measure dangerous emissions, and allowed, among other things, annual eye examinations and alternate duties for part of the day for employees whose major duties involved VDT use.

It is worth noting that, antiquated as it seems to us now, GEAC was in those days considered amazing and revolutionary, by staff and students alike, most of whom had little previous computer experience. But the system could be frustratingly slow, and staff doing the tedious job of converting old catalogue cards to GEAC format often had to wait a long time for GEAC to process each entry. And this new information did not appear in the records until the next day, because the jobs had to be run in batch after the online system had been shut down, either in the evening or early the following morning.

In 1985, RECON had just started in the Law Library, but was nearing completion in Health Sciences. Using CODOC, the Documents Library, then located in Mackintosh-Corry Hall, had built its own database, which was loaded into the GEAC computer with only minor changes. As for the RECON work done in Cataloguing for Douglas, the Education Library and the branches, this huge job was finally finished on April 30th 1985, with approximately 1,160,000 records on the file. The same year a Library Automation Progress Report estimated RECON expenses at a very cost-efficient $1.18 per record.

On May 1st 1985 a small luncheon took place in the Staff Lounge in Douglas Library, to celebrate the Project's completion. RECON Section staff members were the honoured guests, and were presented with corsages. Ruth Hughes had been the first coordinator of this section, followed by Jennifer Millan in late 1981. RECON editors at various times were Linda Anglin, Chris Lesarge, Susan Office, Bonnie Pero, Ainslie Thomson, and Karen Wilson. Of the 47 staff members who worked on RECON, Linda Anglin was the

only one who was with the Project from start to finish. The high turnover rate was partly because there was no guarantee that there would be work available for RECON staff at the end of the Project. As it turned out, former RECON staff members were gradually absorbed into other library positions, although the process took several years.

By 1985 a "new and improved" version of GEAC was available, called MRMS (MARC Record Management System). A machine conversion that summer put the RECON records into MARC format, thus allowing, among other things, inclusion of multiple volumes in a single record. The position of Computer Operator, which had been held by a succession of staff members since 1980, was filled on a more permanent basis by Karyn Klenke, who came to what was by then called the Systems Office in September 1985.

Most card catalogues were disposed of in the late 1980s, but in some branch libraries card catalogues and Kardexes (for marking in periodicals) were kept longer than that (rumour has it that to this day a card catalogue still lurks in Special Collections!). Two large card catalogues were retained in Douglas: the Shelf List in Cataloguing and the Old (pre-1973) Name/Title Catalogue on the Third Floor. These cards were finally recycled when the Douglas closed for renovations in 1995. The Card Catalogue had reigned at the Queen's Library for over a hundred years; its demise truly marked the end of an era.

By about 1987 GEAC's limitations were becoming more obvious. It worked reasonably well for Circulation, but was not as satisfactory regarding Cataloguing and the Acquisitions module, the GEAC version of which was added in about 1986. GEAC was a separate system from the University mainframe; it broke down from time to time, and was running out of room for storing data. It was accessed in Douglas and the branch and faculty libraries on terminals dedicated to GEAC alone, with small monitors that swivelled. There were never enough of these machines, and they were plagued by frequent malfunctions; as a result GEAC technicians had to be summoned on a regular basis to service the terminals. Multicopied GEAC "trouble report" forms were constantly being filled out (one copy for the contact person, one for GEAC, and copy number 3 for Carolyn Morrison in the Library Office).

The search for an alternative system resulted in the May 1988 conversion of the GEAC database to NOTIS, considered "state of the art" at the time. NOTIS operated on the Queen's mainframe computer, which meant that other programs on the mainframe were also available to users, including email and word processing. The dumb terminals (this time with larger monitors) used for NOTIS were replaced in 1995 by personal computers, which gave access also to the World Wide Web.

As NOTIS was not Windows-based, it could display only one record at a time. By the late 1990s, patrons familiar with Windows and the Internet found its OPAC interface "old-fashioned" and "hard to use." A more flexible system was required, one that could better accommodate expanding electronic resources. The migration to Endeavor's VOYAGER system took place in December 2000.

Thanks to Pat Hitchcock who suggested the topic of this article.