History and development of CINDEX™

Frances S. Lennie

In the April 2004 issue of The Indexer, *Geraldine Beare interviewed Drusilla Calvert about the history and development of MACREX. Later that year I was asked by Maureen MacGlashan, as incoming Executive Editor of the journal, to write something similar about CINDEX™. Although it is not in interview format I hope I have matched the order, coverage, and spirit of that earlier interview.*

Background

The story of CINDEX™ begins in October 1984 with the confluence of two events: acquisition of a Digital Rainbow PC by my husband, Peter, and the arrival of the largest indexing project of my indexing career at that time.[1]

My initial thought had been to investigate and purchase software for use with our newly acquired computer. Up until this point I had been using indexing cards and a typist to prepare the final index typescript for the client. I have learnt since that many indexers were allowed to submit their sorted and edited cards to their clients; alas not with mine.

My initial inquiries through the American Society of Indexers (ASI) were promising. There were two programs[2] available, but on closer inspection I was not sure that they suited my work needs. MACREX did not surface in my inquiries at that time, and I believe was not available in the United States until we were well under way with what eventually developed into CINDEX. With the optimism of all programmers Peter decided that he could write a program that would do exactly what I needed. But first I had to define for him what makes an index work (the rules), and second, analyze my thought process as I indexed and the way in which I formed entries (the process). The former were already established in BS 3700—still, in my view, the most concise, elegant, and useful set of standards for book indexing—and *The Chicago Manual of Style* (13th. edn.) provided further authority on style and format.

Analyzing the manual indexing process for translation to the computer was interesting. While one needed to allow for existing habits one also had to recognize that slavishly following them was not always the most efficient use of the computer. From the outset I wanted to be able to see entries in alphabetic order as well as in the order I wrote them, as well as being able to isolate disparate elements of the index while keeping all records in a single document: luxuries unavailable when indexing with paper index cards. One element of the manual indexing process that was retained in the program is the 3" x 5" electronic card metaphor with which entries are added and edited in CINDEX.

The prototype was programmed in Dbase II and then ported to Dbase III. I do not remember now how many indexes I compiled with the prototype because every day seemed to bring change and new features. 'Just try this out,' seemed to be a constant refrain. I do recall, however, that every time I sat down at the machine to index I would invariably find Peter hovering behind me watching with great interest how I interacted with the program and asking 'Why did you do that?' or 'Why don't you do this?'

In our own ways we both persevered, even though I would bet that I probably threatened to return to my paper card system on more than one occasion, and eventually we thought we had achieved something reasonably useful. In early 1986 Peter completely rewrote the program in the C programming language.

Around the same time, two ASI members were starting to write about indexing software: Linda K. Fetters in her 'Electronic shoebox' column in *Key Words*, ASI's bi-monthly newsletter, and Charles Anderson, a frequent contributor to library journals. We sent out review copies of the newly named CINDEX software, Indexing Research was established to handle sales and support, and the rest, as they say, is history.

The DOS years

CINDEX for DOS was launched to the public in September 1986. I distinctly remember the excitement on receiving the very first order for the program, and am happy to report that our charter user is still indexing, but now with CINDEX for Windows. As with most early versions of programs, updates and upgrades followed in fairly rapid succession, either to correct bugs or to add features that suddenly become in demand once the product is exposed to a wider user base. When first released, CINDEX for DOS was limited to 65,534 entries in any one index document, more than enough for most indexing assignments. A need for greater capacity, especially in networked environments, led to the release in early 1991 of an Extended Edition of the program, allowing index documents to hold up to 4 million entries each and providing network capabilities.

Between its initial release in 1986 and the final release (version 6.1) in 1997, CINDEX for DOS underwent 17 updates or upgrades. In the years since the last release most of the DOS users have moved to the Windows platform, and support for the DOS product is no longer offered.

Moving to Macintosh

Early in the 1990s we purchased a Macintosh Classic machine and tentatively began to program a version of CINDEX, utilizing the very different viewing opportunities that the operating system allowed. Progress was slow and we

were not sure that there was, or would be, any sizeable market for it.³ As our appreciation of the Macintosh platform grew we decided to forge ahead and in November 1996 (ten years after the debut of CINDEX for DOS) CINDEX for Macintosh was launched. There has been considerable interest in this product and it now accounts for approximately 20 percent of sales. With the upcoming release of a new version of CINDEX for Macintosh that will run on OS X as a native application it is expected that this percentage will grow.⁴

Waiting for Windows

With the experience gained in programming for the Macintosh environment it was time to move to the Windows platform. In November 1997 CINDEX for Windows was released, to run on the Windows 95 operating system. It was, and still is, available in two editions: Standard and Publishers. There is no limitation on the size of index documents in either edition, while the Publishers' Edition provides additional features and administrative options for use in multi-user networked environments. Subsequent updates and one major upgrade have kept CINDEX current with all intervening Windows operating systems up through Windows XP. The program is remarkably stable, perhaps best exemplified by the fact that no update has been released since February 2002; this last release explicitly addressed some internal handling issues related to Windows XP.

CINDEX's user base

Individual users make up the majority of license holders, but over the years CINDEX has been adopted by increasing numbers of publishers, institutions, government agencies and corporations.

At some point in the early 1990s a Student version of CINDEX (first for DOS and now available for Windows and Macintosh) was released, and it has proved very popular. This version is full-featured except for spell-checking, which was introduced in 1991, and index files are limited to 500 records each. Initially provided for students of the USDA Basic Indexing course⁵ (although students do not have to prove evidence of being registered for any course), it has proved to be a useful motivator. Modestly priced, it allows beginning indexers to hone their computer and indexing skills, possibly doing data input for established indexers, prior to their first job which guarantees them income enough to cover the cost of the full program.

Over the years CINDEX users have continually provided ideas for new features. Informally, but optimistically, known as the 'Wish List,' suggestions for new features are continually reviewed. Sometimes a suggested feature already exists, albeit perhaps as a two-step rather than a one-step process, and the user is gently guided to the new discovery.

Support

Right from day one, supporting users of CINDEX was a key ingredient in its success: reliability and flexibility are the primary characteristics of any program's success! In the early days users often needed educating in the operation of DOS as well as CINDEX, often the first computer program they had ever used. Today, users have a greater familiarity and comfort with the Macintosh and Windows systems, and their queries tend to be about the 'best' way to achieve a desired outcome. Discussing alternative approaches with users is always informative, and I've personally had the pleasure of meeting many interesting indexers along the way.

As CINDEX reached indexers outside North America, local sales and support of the program were handled by agents in Britain and Australia,⁶ but as the Internet and email increasingly became part of everyday life, Indexing Research began to handle all overseas sales and support first from its Rochester, NY, office and now from its New York City location. Basic support is provided by FAQs on Indexing Research's website (www.indexres.com), and demonstration copies of the program can be freely downloaded along with PDFs of the *User's Guide*. Free updates to keep users current are also available for download. Indexing Research still provides telephone support during normal business hours, but most find it more convenient to make contact by email.

Since the mid-1990s Indexing Research has been converting electronic indexes⁷ to a format that can be used in CINDEX (or in MACREX and SKY), as well as providing a scanning service (or keyboarding depending on the format and quality of the material) for indexes that only exist on paper. The latter service is usually utilized by institutions wishing to pull together indexes to their past publications: the largest we have done to date have been for 75 years of indexes to a history journal as well as the same number of years for an enzymology journal (not combined, I hasten to add!).

In addition to providing answers to day-to-day inquiries, it is in everyone's best interests to have a highly knowledgeable group of users. Therefore, Indexing Research offers group workshops and tutorials, one-on-one sessions in its New York offices, and gives demonstrations at meetings of ASI and its chapters, as well as regularly attending indexing meetings overseas. The very first public demonstrations of CINDEX were in New York City in 1987 and 1988, although the home office was then located in Rochester, NY, some 340 miles to the north-west.

One-size-fits-all versus customization

Flexibility of use has always been a primary aim in CINDEX's design. It is important that people can adapt the program to match their needs and usage rather than vice versa. This also allows Indexing Research to provide sound support for a single product rather than many different iterations. On occasion, however, customization work of the Publishers' Edition has been undertaken for a few corporate clients, on the understanding that any work undertaken on their behalf would, after an agreed period of time, be incorporated in a future release. The most recent work of this type has been the development of an Application Programming Interface (API) which allows the client to integrate the

Publishers' Edition of CINDEX with other software applications.

At the same time that the Extended Edition of the DOS program was released, Indexing Research entered into a relationship with Leverage Technologies, Inc.,[8] a company specializing in programming for pre-press publishing operations. Leverage Technologies has expertise in multi-user networked environments, and provides keen insight on corporate marketplace needs. Leverage Technologies now exclusively markets and supports the Publishers' Edition of CINDEX for Windows to corporate users, as well as providing off-the-shelf and customized add-ons for individual users.

The next chapter

With publishers' eyes always on the bottom line, there is great interest in embedding index entries into the originating text in order to conduct indexing at an earlier stage of the publishing process, or for works that will be constantly updated and revised. With the advent of CINDEX version 1.5 in November 1999 (for both Windows and Macintosh), users are able to embed index entries into RTF (Rich Text Format) documents, and have the index subsequently generated and formatted (with appropriate page numbers) directly from the application in which the document resides.

With a plethora of page layout, design, and other publishing products being used in the marketplace it is hard to have any one indexing software satisfy all possible needs. There is always an undercurrent of murmurs about the 'right tools' for the job in hand, but this undoubtedly means indexers will have to acquire skills in several different applications rather than depend on any one product to meet diverse needs. The one constant, however, in all of this is the understanding and development by the indexer of essential indexing skills—and that does not necessarily come about courtesy of the computer.

Notes

1. Hazel Bell has also written about the beginnings of CINDEX in her 'Index makers of today' column in *The Indexer*, **19**(4), October 1995.
2. Foxon-Maddocks Associates' Index Preparation System (IPS) and Micro Indexing System (MIS) from Compugramma, Inc.
3. Two Macintosh indexing programs have appeared and subsequently disappeared on the scene: In>Sort for Macintosh from Kensa Software, and HyperIndex from André De Tienne.
4. At press time the new version for Macintosh OS X should have just been released.
5. The United States Department of Agriculture (USDA) runs many correspondence courses, originally targeted at people in the vast, isolated rural areas of the United States.
6. Geoffrey Jones and Gary Hall acted as agents for CINDEX at different times in the United Kingdom; Garry Cousins in Australia.
7. Initially we also offered a DOS program called CINVERT™, but did not update it when we moved CINDEX to the Windows platform. Users needing conversions generally found our conversion service more cost- and time-effective.
8. Leverage Technologies, Inc., Cleveland, Ohio, USA (www.LevTechInc.com).

Trained as a teacher, Frances Lennie began her indexing career in England in 1977, originally specializing in medical texts. In 1982 she relocated permanently to the United States, where she continues indexing to this day in a variety of disciplines and media, as well as overseeing the development and marketing of CINDEX™. She also teaches an indexing course through the School of Continuing and Professional Studies of New York University, speaks regularly at indexing meetings in the United States and overseas, conducts tutorials for CINDEX users, contributes articles for The Indexer *and* Key Words*, and currently serves as Immediate Past President of the American Society of Indexers (ASI). Since 1998 Frances and her husband have lived in the 'Village' in New York City. Email:* `flennie@indexres.com`

Dear Mary…

Q. I have written a memoir which will be published in September. I do not expect a huge audience, but there will certainly be a degree of interest shown in Scotland and by the sort of people who buy books in John Sandoe and Heywood Hill. My worry is that quite a few potential purchasers may just browse the index for their own name, read the references, then put it down again without bothering to buy it. I could dispense with an index but I myself resent a memoir without one, so how do I get round this, Mary?
Name and address withheld

A. Point out this pitfall to your publishers. No doubt they will be happy to supply the memoir shrinkwrapped in the manner of luxurious photographic tomes and ask booksellers to keep the seals intact.

From 'Your problems solved', Mary Killen, `Spectator.co.uk`

Erratum

A final paragraph was unfortunately omitted from Hazel K. Bell's article on Lemony Snicket *in* The Indexer, *24(2) (October 2004). With the sincere apologies of the editors, the concluding paragraph is reproduced below:*

All very amusing. But should indexers worry about this? *Lemony Snicket, The unauthorized autobiography* is a children's book. Is this the impression of indexes that we want children to get?