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Give Me Barcodes, or Give Me Carpal Tunnel!

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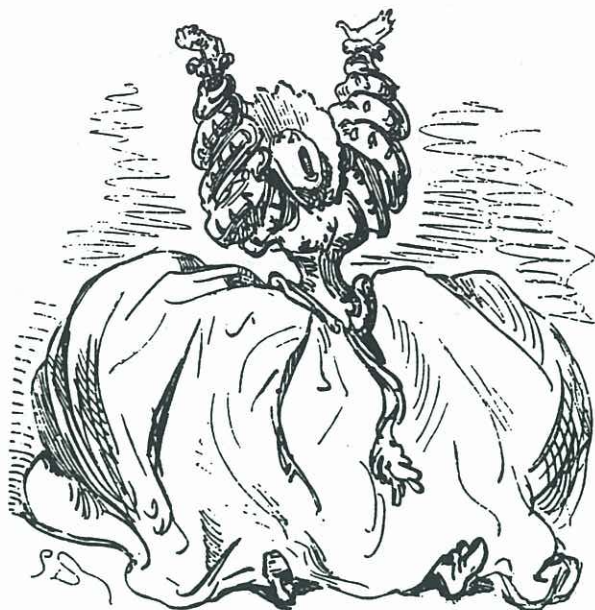
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John Archer has come to the Charleston Conference before but this is the first time that I really got to talk to him! Here he has written an expansion of the Innopac Users "lively lunch" at the 14th annual Charleston Conference. In the spirit of the conference, the intent of this article is to stimulate discussion. Technical processing in John's library is examined and is found to be lacking in its use of automatic data collection technology [barcodes]. Perhaps use of this technology would reduce keystroke errors in accessing records to nil and provide some relief from carpal tunnel syndrome? John presents five recommendations for systems vendors and urges everyone to examine their own systems. We know Katina's staff is looking forward to reading this! — JA & KS

I had wanted for some time to streamline the review/receiving process. After keying in the order number for a title to prepare the order for payment, one inserted "ownership streamers," that is a streamer indicating which branch library was purchasing the title. Then another streamer indicating the type of cataloging copy inserted, and so on. Finally, a codabar barcode is affixed to the book and the number scanned into the item record. The codabar barcode is the only place where barcode technology is used in technical processing and comes at the end of the acquisitions process. I wished that one could hit a button to produce a streamer that could get the relevant information from the bib, order, and item records. The wished for streamer would also automatically indicate the branch,

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by John Archer (UC, San Diego)

type of cataloging copy, etc. and could be folded neatly and inserted in the books. I admit part of my objection to the current state of affairs was aesthetic. The work was fussy and books looked like tossed salads with a barcoded expiration date stuck on them. I wanted to come up with examples and see if this was doable. If this was doable, I wanted to open a discussion with our systems vendor to add these features.

I finally settled on using our electronically transmitted approval shipments as a test since these were already in a Boolean file. I could download the information I needed and import it into a FoxPro database. Also, the number of books received per week (about 125)

was sufficient to perform a real test of any program and our procedures without being burdensome. I also decided to go one step further and add Code 39 barcodes for the order record number and the OCLC number. This would add panache and I could see no rational reason for rekeying the order number to pay for the item or for catalogers to rekey it to overlay the bib record with the final edited OCLC record to catalog the item. Obviously, there was also no reason for the catalogers to have to rekey the OCLC number to retrieve the record on OCLC.

The order numbers used on our system are alpha-numeric, that is numeric with a final mod eleven check digit which could be the Roman number "X," thus Code 39 was an appropriate symbology to use. Besides, I already had modified a

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DOC AQUIS

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Other news includes the award of a \$62,000 **College Library Technology and Cooperation** grant by the U.S. Department of Education to support the OCLC project, "Building a Catalog of Internet Resources." The project initiates a nationwide, coordinated effort among libraries and institutions of higher education to create, implement, latest and evaluate a searchable database of USMARC format bibliographic records, complete with electronic location and access information, for Internet-accessible materials.

Also, end users in 6 libraries in the Netherlands have begun an evaluation of a Z39.50 interface link to OCLC's **FirstSearch** service. The Z39.50 interface has been adapted by PICA (**Project for Integrated Catalogue Automation**), the **Dutch Centre for Library Automation**, in association with OCLC.

And more news about **FirstSearch** which tells us it is now offering immediate online access to the full-text of nearly 1 million serial articles. The full-text articles are linked to article citations in 6 FirstSearch databases and are accessible using the FirstSearch document delivery system. Users can view the text on a computer screen, send it to their Internet email address, or do both. The document can also be sent to a local printer.

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public domain FoxPro program that printed very readable Code 39 barcodes.

I took one afternoon to write the programs for the streamer and debug them. The next step was to field test the program in the real world with the next three approval shipments. As it turned out the program worked without a hitch.

I expected to increase accuracy and save time. I'm from the "More, faster, better, less effort" school. As measured by a stop watch, we would save 3.15 seconds per record by scanning a barcode plus an unknown but significant number of hours caused by keystroke error such as overlaying the wrong record. The bib payoff would be in quality. Work would be less "fussy" and one could concentrate on the important things.

We tried this for three weeks. It worked. At the end of this time, I asked the Receiving Unit for their evaluation and received a surprise. They liked it. It made receiving much easier. The main reason they liked it was the relief they felt from carpal tunnel. They thought this was the main reason for the experiment.

I had not expected this. In hindsight, I should have. Carpal tunnel syndrome is caused by repetitive stress. Anything that reduces the repetitions will reduce the discomfort, like the old vaudeville joke:

Patient: "Doctor, Doctor, it hurts when I do this!"

Doctor: "Then don't do that . . . use a barcode."

In the course of our experiment we saved 19.68 minutes in processing time. More importantly, we saved 3,375 keystrokes. I wrote a letter to our systems vendor describing our experience and we're now waiting to get on next year's enhancements list.

Meanwhile, I got to thinking about what could be done now to increase productivity and reduce carpal tunnel. I remembered

Another source for document delivery is **The UnCover Company**, which has announced exciting new developments, too. A new service called **UnCover S.O.S. (Single Order Source)** allows users to order articles from more than 16,000 periodical titles by the method of choice — fax, phone, electronic mail, or post. S.O.S. requires no pre-order verification and is not limited to any year. Confirmation of the order will be sent within 2 hours and delivery is via fax, within 24 hours of receipt of the order. The second stage of S.O.S., slated for spring of 1995, will enable customers to send UnCover all their requests and have them filled from a variety of sources.

UnCover also tells us that they will accept article orders from **Reveal** tables of contents by fax. Users need simply to print out the email message which contains the table of contents information, circle the article needed, and fax it to UnCover. Of note is the fact that **Reveal** has been awarded the **1994 ONLINE Magazine Product of the Year Award**. Congratulations, UnCover!

And one final item — Have you hear about **Knowledge One? Knowledge One Express Information Service** is a joint service of Pacific Knowledge Systems and a California academic library. This service, available as a menu option through UnCover, offers answers to reference questions. Charges for the service are \$6.95 and up, depending on the work done; quotations for service are provided free of charge. ☺

the item record barcodes and our Innopac manual which stated that "an overlay could be performed on any indexed field." I rechecked the manual, and I was correct. I found out after experimentation that the system vendor meant to state "an overlay can be performed on any indexed field in the bib record plus the order record number." Thus I concluded that our present system makes no use of proven automatic data collection technology in technical processing. I suspect this may generally be the case for all systems as technology has proliferated very rapidly. I believe this state of affairs to be an honest oversight just as I had failed to predict the all consequences of the experiment.

I thought about this at length and consulted my colleagues at this year's Charleston Conference. We are now lobbying for the appropriate use of barcode technology from our systems vendor to at least do the following:

1. Print a barcode for the purchase order number on the portion of the purchase order returned to the library. The rest of the bibliographic information on this portion may be truncated.
2. Add the option to produce a selection streamer as described above with the purchase order number and OCLC number barcoded.
3. In selecting fields to print from a Boolean search, have the option to print as a barcode the record number(s) and OCLC number at least.
4. In the "New Heading Report," print the item record barcode number as a barcode. (Either Codabar or Code 39 is acceptable.)
5. Enter into an ongoing discussion of appropriate uses of automatic data collection technology.

I urge everyone to examine their own systems to see where this technology can speed things up, be more accurate, and improve our health. ☺