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Bit By Bit

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Bit by Bit

by Roy Heinz (Washington Research Library Consortium)
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Communicating voucher information to the accounting department from automated library systems

This is the second of a two-part article. Part I (ATG Feb. 1991) presented some general considerations about the value of the automation process, the time and effort saved and the improved accuracy achieved by eliminating redundant data entry. Part II will present the rudiments of how your library's acquisitions and systems staff can put this process into production.

The university's accounts payable department will probably be most comfortable (at least at first) with vouchers transmitted on tapes. Diskettes or transmission over the network are also possible, or you may be in an environment where the same mainframe is running both the library and accounts payable software, but tapes are a good way to begin. It is also a good idea to provide printed vouchers as a backup, for auditing purposes and as a "security blanket" for those who have to take responsibility for the large monetary expenditures involved in the book acquisitions process. Nobody needs to look at the paper but it is comforting (and perhaps legally mandatory) to know a paper audit trail is available.

The following instructions are specific to the library software designed by NOTIS Systems Inc., but any library automation software which can bring together the pieces of information needed should be able to produce a tape for accounts payable.

The data needed for each transaction is fairly concise and can usually fit into a small string we may visualize in the 80-column card format. Programs in accounts payable's software package should be able to read 80-byte records from the library's tape and translate these into payments to vendors. These short records would consist of the following data elements:

Vendor ID Number

This is the identification number used by

accounts payable to keep track of the organizations to which they write checks. They will have one number for B/NA and another for Midwest if your order books from these vendors. The acquisitions department will need to obtain (and maintain) an up-to-date ID list from accounts payable and insert this number into the vendor record. The best place to insert the number is in the vendor name field after the company's name. Use an asterisk before the number starts to help the extract program identify where this data begins. A sample would be:

NAME:

Faxon Company

*0003817238

ADDRESS:

15 Southwest Park
Westwood MA 02090

Invoice Number

This is the number generated by the vendor which identifies their invoice. It is usually a field in the invoice record.

Invoice Date

This is normally the date the invoice was sent to you by the vendor.

Invoice Amount

This is the total dollar amount for this invoice. It will usually be a positive amount but may be a credit (a negative amount) if you have overpaid the vendor.

Library Account Number

This is the library account ID which accounts payable will debit or credit. It may always be the same library fund number or may be extracted from the voucher (it is the OFFICIAL ID in a NOTIS fund record).

Transaction Date

Today's date (the computer system date).

Each of these data elements would be present in specific columns of each 80-byte record. A final "card" would specify the total number of preceding records and a "hash total" (a total of all dollar amounts added together, ignoring whether they were debits or credits) used by

the accounting software as a check on the integrity of the data that it has just read.

It turns out that all of this information is available when the NOTIS voucher printing program (LD200) is run. The tape extract program is run on this print file and extracts the pieces of information needed by accounts payable.

Tape Extract Program

This short program should probably be written in REXX or PL/I, but other languages will do as well. It parses through the print file line by line extracting the needed data using label constants like Page 1, the asterisk, IN-VOICENO:, TOTAL, etc. As the program processes the print file it writes an 80-byte record for each voucher that has the accounts payable ID number (the one after the asterisk) and does not write a record for vouchers of vendors that will be handled manually. It also keeps track of the hash total and writes this final record to the output file.

If your NOTIS system is running under IBM's MVS or VSE operating systems, you may wish to run LD200 once with its output to a sequential file instead of to a print file (without executing the final step which reformat the voucher file) and a second time to produce the voucher printout. If MVS or VSE is a "guest" of the VM operating system you may wish to spool the file to VM for extracting and printing.

The library will probably need to adjust the frequency of voucher production to match accounts payable's payment cycle. Someone on each end will need to be responsible for seeing that the tape is produced, delivered, processed, and recycled. There should also be persons responsible for answering questions and resolving the problems that will inevitably arise. A "dry run" where a tape is processed and dummy checks are printed and then carefully verified is a good way to locate any bugs and provide solace to the fearful.

The editors invite readers interested in the topic to send in their questions, comments and experiences. ✉