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Client's computer -- Your audit assistant!

Ruben Rosen

Two men from Sun Life Assurance Company (left) G. H. Roberts, Univac Librarian, and (right) S. W. B. Ashmole, Chief Clerk – Investment Accounting Department, discuss requisitions for client's tape files from Univac Library for audit purposes with Ruben Rosen (center).

The Client's Computer— Your Audit Assistant!

BY RUBEN ROSEN, B, COM., C.A., supervisor—auditing electronically produced records, MONTREAL

Here is a new twist – using the computer to audit its own electronically produced records, as is done to test the investment transactions of the Sun Life Assurance Company of Canada in its Montreal Head Office.

The problem which confronted us when the client acquired its Remington Univac II Data Automation System was to revise our audit procedures in relation to the resulting changes in their accounting system.

DEPARTMENT

Our work was carried out in connection with the audit of the investment accounting department whose main function is to record and account for all investments in securities as well as the revenue therefrom.

ACCOUNTING SYSTEM

All purchases and sales of investments are authorized by the investment committee and recorded in their minutes.

Purchases

A pre-numbered authorization to purchase (with all the details pertaining to the securities, i.e. description, cost, number of shares or par value, accounts to be debited and credited, etc.) is prepared. The order to purchase is given verbally by the client's trader to the security dealer, and upon confirmation of the purchase the cheque is prepared, and is paid to the dealer when the security is delivered.

The authorization is given a serial number and becomes the source document (journal entry). All the information is transferred from it to magnetic tape by means of a special typewriter. This machine is similar to an ordinary office typewriter except that the typing is done on magnetic tape as well as on hard copy. The latter is used as a visual record of the information on the tape.

The magnetic tape of journal entries contains all the entries for the month and when processed by the computer up-dates the master tape-file of investments as well as the subsidiary ledger tape-file.

Printing of the latter tape produces the subsidiary ledger of invest-

Standing at the high-speed printer and discussing the layout of the review list are Messrs. Rosen and Ashmole, with E. G. Floud (right) Audit Supervisor, Touche, Ross, Bailey & Smart — Montreal, Canada.

ments. The printing is done on a high-speed printer which operates at the rate of six hundred lines per minute.

The investment accounting department year-to-date general ledger is produced by the computer by up-dating the previous month's ledger with the data contained in the current month's journal entry tape-file.

Sales

A pre-numbered sales authorization is prepared. It contains the same details as the one for purchases except that the credit entry to the investment account (the book value), and the profit and loss on sale are left out. These are calculated by the computer at the time of processing from information contained in the master tape-file.

The remaining procedures are similar to those mentioned above for "purchases."

For purposes of this study we will ignore the accounting treatment of the income from investments as the computer facilities are not utilized in our audit of this account.

INTERNAL AUDIT

The internal audit department approve all cheques prior to payment. They also check a few months' transactions in detail. In

R. B. Taylor, Sun Life Computer Operator (seated) and Messrs. Floud, Rosen and Ashmole review exceptions thrown out by our computer audit programmes during the de-bugging stage.

addition they perform a continuous audit on the movement of securities into and out of the vault.

EXTERNAL AUDIT

Preliminary work

Prior to revising our own audit procedures for this department we found it necessary to carry out certain preliminary work in order to familiarize ourselves with the new system. This involved a complete analysis of the accounting system with special emphasis on built-in controls and audit trails. From this we found that no major changes had taken place. The new system was basically the same as the previous one except that most records were now being produced electronically. An evaluation was also made of the work done by the internal audit department.

Based on our findings we proceeded with the preparation of our audit programme for the investment accounting department. Using the previous programme as a guide we drafted a revised programme taking into account the changes in the client's accounting system. When this was completed additional studies were undertaken to determine the feasibility of using the Univac II computer in carrying out the audit. The results proved favourable and we undertook the

planning of computer audit programmes.

These programmes were designed and prepared by us and are constantly under our control. The programmes are on magnetic tapes which are kept in a locked storage cabinet to which we alone have access. During the time that our audit is being performed by the computer, the programme tapes are brought by us to the computer centre and kept under our continuous surveillance. At the completion of the audit we return them to the storage cabinet.

Audit

By means of these audit programmes the computer reviews the journal entry tape and tests each entry for approximately fifteen conditions. This is accomplished by mounting the tape of journal entries on the computer tape unit. Under the direction of our programmed instructions, the information on this tape is read into the memory of the computer where the testing is carried out.

The fifteen conditions are built right into the programme and, of course, are not known by the client. They relate to the value of the transaction, type of transaction, amount of profit or loss on sale, and the nature of securities purchased or sold (bonds, common stocks, preferred stocks).

If any of these specified conditions is met, certain information from the journal entry is printed-out by the computer on a review list. This specific information is actually written on magnetic tape by the computer and by means of the high-speed printer the data contained on the tape is printed-out on the review list. This print-out forms the basis of our manual audit of the client's purchases and sales transactions. As the review list is completely confidential a copy of it has not been included in this article.

The manual audit procedures include checking to committee minutes, brokers' buying and selling advices, and the general ledger. The latter is subsequently reviewed to satisfy ourselves that every transaction originated from a journal entry.

In addition, our computer programmes select some journal entries at random and these also appear on the review list.

All other journal entries are accepted without further checking.

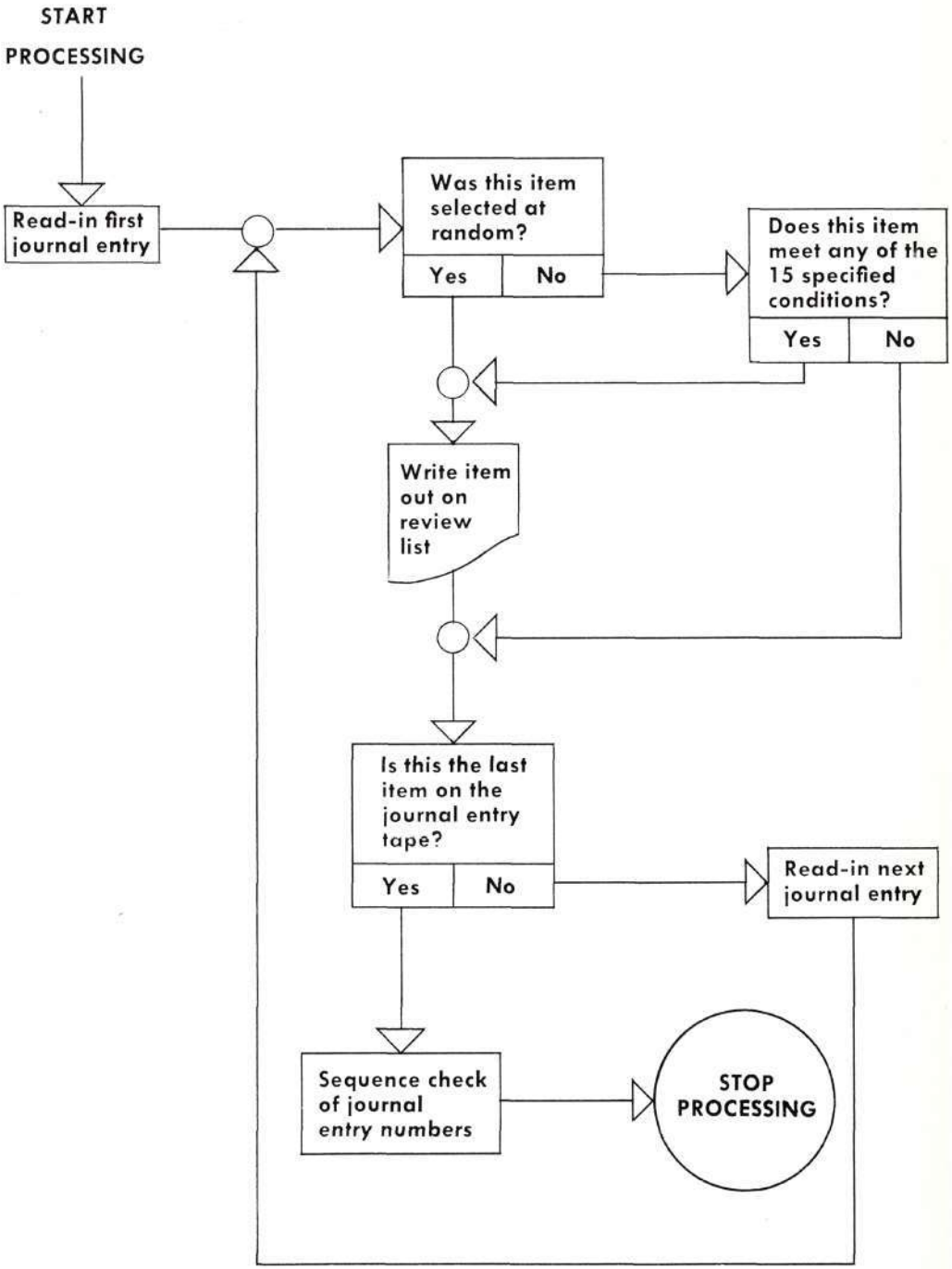
Finally, again under the direction of our programmed instructions, the computer performs a sequence check of the journal entry serial numbers to ascertain that we have reviewed all the entries for the year.

(*Text continued on page 26*)

FLOW CHART OF COMPUTER AUDIT PROGRAMMES

INVESTMENT ACCOUNTING DEPARTMENT

SUN LIFE ASSURANCE COMPANY OF CANADA



Computer takes 15 minutes a month

The computer time involved in the entire audit operation of this department is approximately fifteen minutes per month.

We have found that the resulting saving in audit time enables us to allocate more time to the other departments and thus provide a much better service to the client.

In addition to the investment accounting department we are presently using the computer in our audit of the policy administration department and in the near future we will be revising our audit programmes of the mortgage accounting and group accounting departments. At the same time the feasibility of using the computer as an audit assistant in these two departments will be examined.

Editor's Note: This article covers only interim work. The year-end work such as inspection of securities and valuation will be covered in a later article.

About the author . . .

MONTREAL-BORN Ruben Rosen took his Bachelor of Commerce degree from McGill University, Montreal in 1957 and then joined Touche, Ross, Bailey & Smart. He qualified as a Chartered Accountant in 1959 and is now Montreal Office Supervisor – Auditing Electronically Produced Records, having devoted the past two years to extensive research and study in this field.

This is worth reading . . .

"Seven Deadly Dangers in EDP" by L. R. Fiock, Jr., *Harvard Business Review*, May-June 1962, pp. 88-96.

Mr. Fiock is an industrial engineer with General Dynamics. He shows remarkable perception in analysing the EDP problem.

The point of the article is not to delay or discourage EDP developments. Rather, the author specifies very clearly some of the pitfalls, and raises profound questions about the approach to installations.

– Robert M. Trueblood