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Sixth Annual AICPA Computer Conference

Management Services Staff Report

First of two parts—

A description of an operating management information system and an analysis of some of the auditing problems such a system would pose were featured in the closing days of the —

SIXTH ANNUAL AICPA
COMPUTER CONFERENCE

A Management Adviser Staff Report

A DETAILED description of an operating management information system, which has been so often described as an abstract ideal, climaxed the Sixth Annual AICPA Conference on Computers and Information Systems, held in San Francisco last year.

The system outlined, in effect at the Galion Iron Works, Galion, Ohio, was described as "Accounting Output Via a Data Base" by the speaker, Wendell P. Sayer, systems manager at Galion.

According to Mr. Sayer, Galion, a small company manufacturing rollers and graders, has approximately 900 employees. Galion ap-proached its data handling problems with the theory that a "super-clerk" handling all data and knowing all information concerning the company would be ideal but was no longer practicable. But since it is no longer practicable, Galion felt a good substitute would be a computer which could retain in its memory banks all the information such an individual clerk ideally would retain.

It has designed such a system, which allows each person working for the company to withdraw from those memory banks the particular information he needs.

"We made mistakes before we arrived at this concept," Mr. Sayer said. "We used the wrong personnel to produce too many reports, too much paper, to start with. In paperwork studies, it pays to forget what you're doing now and start all over again. An analogy would be digging a ditch. If you're digging a very small ditch, you'd need a certain number of workers and a certain number of tools, shovels and picks. But if you had to dig a much bigger ditch all of a sudden, it wouldn't necessarily be best to figure how many more workers and how many more shovels you'd need; it would pay you to get a steam shovel. That's

A CPA from Grand Rapids outlined an MIS in use in his concern. There the MIS is based on "personnel" files, with all relevant data keyed to the person in the organization who works on or for the entity represented by these data. Thus, there are no client files as such . . .

basically what we've done. We've replaced a lot of people carrying out clerical functions with the equivalent of the steam shovel, a single computer operating as a single super-clerk.

"Think about the essential paperwork in your system," he told the audience. "There's a lot of fairly simple basic detail; we make it complicated by adapting the same basic facts to the needs of different departments in the company.

"Using our B3500 computer, we've been able to carry forward all information from our preceding records to serve all necessary company purposes."

Galion, he said, has four basic master files:

"Personnel, under which all employee information is filed by number.

"Material, under which all the materials we use are filed by part number.

"Purchasing, under which all our vendors are filed by vendor number.

"Sales, under which all our sales are recorded under distributor number."

All of these files are available at all times to anyone concerned, he pointed out. Any given transaction can be checked by going to every record it affects, since all the records have to be incorporated into one or more of these four computer files.

"Our people can go into the computer file and get any information they want instead of going through various operating departments," he pointed out.

"Under the Galion system, there is neither an accounts payable nor an accounts receivable file," he said. "You have a purchase order file and a sales order file, and they're both continuously updated. That's all you need," he declared.

In developing such a system, Mr. Sayer's advice was simply to assign the best possible people from various key areas to organize the program concerning their areas in the best way possible.

The session immediately following the Galion talk, which was devoted to "Audit Approaches to Such a System," generally praised the concept underlining the Galion plan.

John O'Donnell, of Lybrand, Ross Bros. & Montgomery, observed that it would be necessary to gain a good understanding of the flow of data, the master files, and the control points before deciding upon audit approaches. He pointed to two forms of control which may be unique: The first was the system of "linkage" between documents within a systems cycle, which appeared to be a substitute for user department control; and the second was the comprehensive input edit which would substitute for conventional key verification.

He noted that many of the source documents which could be used for audit testing were in the form of console printouts. He mentioned the potential to use computer audit programs to foot the transaction file, to compare data on transaction files with data on master files, and to scan the files to select items for tests.

Joseph Wasserman, president of Computer Audit Systems, Inc., who was on the panel discussing auditing possibilities for a system like Galion's, said: "As systems become increasingly complex, computer time for audit purposes becomes a premium item. To cope with this situation the auditor will have to be more imaginative and creative in his audit approach."

For instance, the test deck approach becomes less practical in the Galion system; therefore, the auditor can establish a mini-company or product line. This facility can be defined as a system in which it is possible to pass fictitious test transactions through the processing routines of an EDP system simultaneously with live data without adversely affecting the live files or outputs. In essence, the mini-company concept is a small subsystem of the regular system since the auditor's test media are processed simultaneously with live

media, files, master records, etc. A separate set of system outputs includes all statistics and reports. This not only ensures that test material does not interfere with any live outputs but also facilitates the auditor's analysis of the outputs, since they pertain solely to the test transactions.

Stanley Halper, of S. D. Leidesdorf & Co., the third panelist discussing the auditing problems that would be faced in auditing a system such as Galion's, said that the Ohio company was to be congratulated for developing a system that "deals with management needs rather than designing a system to fit the computer."

He would have to make a detailed study of the file handling techniques, summary techniques, and dump techniques in use at Galion before he could assess the auditability of the system, however, he said. He would also have to have a detailed transaction tape from the system to be compared to the original documents entering the system before satisfying himself as to its validity, he said.

In answer to a question from the floor, he said that in a system like Galion's, the audit trail could be used to furnish any desired historical record, while the current files would supply necessary status reports.

Following the Wednesday morning session, those in attendance broke up into small groups of eight to ten apiece to discuss various subjects of general EDP interest. The three subjects that drew the greatest number of participants were management information systems, computer preparation of income tax returns, and the whole area of minicomputers.

This correspondent, seated at one of the tables discussing management information systems, heard one CPA from Grand Rapids, Michigan, outline a management information system in use in his firm. There the MIS is based on "personnel" files, with all relevant data keyed to the person in the or-

ganization who works on or for the entity represented by these data. Thus, there are no client files as such; client information is considered and recorded as a component of the "people files" of the CPA staff.

"There is a one-to-one relationship between staff member and clients, the type of work done, the billable hours, etc.," the Grand Rapids CPA said.

Although his office's system is not handled on a computer, the system itself is so simple that a computer program could be devised incorporating the same principle of organization, he said. The people files are so organized that sorting is almost unnecessary.

After the CPA from Michigan had outlined the system in use in his firm, other registrants at the table discussed briefly the types of management information systems they had in use in their firms. One mentioned that his concern's MIS was almost vital to the scheduling of work and the setting of deadlines for job completion. Another mentioned that his firm used two client files, one containing fixed information for each client, the other variable information.

General comments included the remark that a management information system implies a use of a data base that is capable of responding to any manager's query.

"If he can't get the answer he needs, it's not a good system," the speaker continued.

Another registrant noted that a data base must be complete in the sense that the answer to any given question will identify the location of answers to any other related questions.

The question was raised whether the typical general ledger does not incorporate the type of information management needs, but there was general agreement that, although in this sense management generally does have the data base it requires, the means of ready access to any particular piece of information are not readily available.

Besides, a good data base should be useful for forecasting future

developments, another participant suggested.

In this regard, one of those present said that a good management information system maintained by a computer should schedule a manager's time, so that when he has completed one task it tells him what to do next.

There was objection from others in the group that this would be giving the computer too much responsibility and authority in the company, and someone suggested that the computer's role was rather to tell the management when things were going smoothly and what was the next problem to be faced.

There was some discussion of the difficulties of getting information into the computer, of making sure the information so entered is correct and that it's coded correctly, but one of those participating pointed out one example from his experience that, he said, a computer-based information system would have caught immediately. Instead, under a conventional manual system, the error passed by supervision for a long period of time, he said.

He described a company of his acquaintance in which an employee had arbitrarily created a fake warehouse for which rental was paid each month. The employee, through an accomplice, cashed the rent checks for the non-existent Warehouse No. 4 for a period of several months before the company realized that no one had ever authorized Warehouse No. 4, that nothing was stored in it, that its location was unknown, that, in fact, it didn't exist.

"That was extreme," the CPA pointed out, "but it would have been caught immediately by a total management information system like that described for Galion."

The Seventh Annual AICPA Conference on Computers will be held this year at the Boston Marriott Motor Hotel, May 24-26. Persons interested in attending should write Noel Zakin, AICPA, 666 Fifth Avenue, New York 10019.