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## Sixth Annual AICPA Computer Conference - Second of Two Parts

Management Services Staff Report

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*Dangers of CPAs without EDP knowledge auditing client with computer records stressed; tax experiences recounted; ways of dealing with service centers outlined at San Francisco meeting —*

## **SIXTH ANNUAL AICPA COMPUTER CONFERENCE**

*A Management Adviser Staff Report*

**B**USINESS computers, which started out as high-powered book-keeping machines, are inevitably tending to become more or less like the process control computers that today are running entire manufacturing processes, Harold Weiss, director of The Automation Training Center, told the audience at the AICPA Sixth Annual Conference on Computers and Information Systems in San Francisco last year.

In his keynote address, Weiss said that the rising costs of clerical and accounting workers and the declining costs of individual computer calculations are propelling industry toward "computerized business systems that are considerably self-controlling, self-auditing, self-oper-

ating, self-diagnosing, and self-repairing, though not one hundred per cent."

In addition to its early task of relieving management of substantial administrative burdens, the computer today is increasingly making simple operating decisions, he said, citing the reordering of inventory items as an extremely common example.

"A more exotic recent illustration was an automated system of making markets in over-the-counter securities introduced by the brokerage firm of Paine, Webber, Jackson & Curtis," he continued. "The industry had always argued that the function of a trader demanded human judgments."

The prevalence of computers in companies, the improvements in smaller computers, and the widespread use of time sharing and computer utilities will make it next to impossible for the average accounting practitioner to "avoid getting heavily involved with computer-based accounting systems" in the future, Weiss said.

Computer hardware is undergoing significant changes, he said, with performance per dollar doubling every few years, but software is falling behind rapidly.

"We'll be dumping fourth generation hardware in the midst of second generation programmers and systems people, and manual auditors and top management!" he

warned. "We never fully utilized first or second generation computers, and I predict that many systems designs or even programs of that era will be grinding away on fourth generation computers."

The drop in the cost of on line mass storage of machine-produced data, its miniaturization, and the economic burden of creating hard copies are putting greater pressure on moves to restrict conventional audit trails, he said. Yet the data contain "potential gold mines of information lying unrecognized in already machine-stored data bases in most organizations." The challenge to systems people, auditors, and management is to get it extracted.

Software support, in spite of the fact that its development has lagged behind hardware development, is increasing by a factor of about ten in every computer generation, he continued. Over 3,000 software packages are now offered by private companies and more are arriving every day.

Too, data are entering many systems closer to the point where the transaction is initiated, more and more commonly via direct entry devices, he pointed out. Thus, the computer encompasses more of the system. All of this contributes to the brevity of some aspects of the visible audit trail and increases the significance of purifying input data since errors are increasingly difficult to detect, trace, and correct once they have entered the system.

All of this contributes to the increasingly hazardous nature of computing in the 1970s, he said.

"Increasingly ambitious systems developments are being undertaken—systems of great scope, complexity, and hazard," he continued. "There is substantial integration of financial and nonfinancial information in many of these systems. More and more we are dealing with real time systems, where the results of computation must keep up, in very brief time periods, with events that are taking place in the business. Without reliable computer and communication service, will some

of these organizations be able to continue functioning at all? Can we really run twenty programs 'simultaneously,' and should we even attempt to do so if one or more vital applications are involved? More realistically, can we really adequately control more than one major business application at a time? We are using more complex and sophisticated techniques in our computer-based accounting systems, including real time updating of direct access stored files, often from remote locations. We 'ain't seen nothing yet' in the way of conversion fiascoes until we see a large real time application blow up on us."

### *The "big payoffs"*

Another characteristic of the '70s, Weiss predicted, would be a move toward using the computer to "go after the big payoffs."

"We don't want what in too many cases effectively are million-dollar quill pens," he said. "My own philosophy has always been to use computers to make money rather than to save money . . . clerical savings are not the big-ticket items. We need to go to the fundamental problems of managing the business, its logistics and strategic planning aspects, like production management, marketing analyses, inventory management, and the like."

Turning to the audit implications of the changes he foresees, Weiss said that the emphasis throughout the Seventies must be on "preventive auditing." This will involve a heavier responsibility for the internal auditor, he said.

"Effective controls have to be designed into our systems, particularly the more complex and innovative ones, *before* the organization relies upon them," he said. "On complex new systems I predict that we shall find much more frequently that the internal audit function will have to formally approve systems designs in advance to help ensure that they are at least adequately controlled and can be audited."

In an on line-real time environ-

ment, the auditor also has to be on line-real time, Weiss said, quoting Harry L. Brown. "He must have inquiry and testing capabilities. He must be given a key to the data cupboard! He is going to be mobile; he is going to do more concurrent auditing; he is going to be trained to perform adequate evaluation of computer systems; and he is going to be a working member of the information team, both in planning and execution."

But he has serious questions about whether most auditors in an EDP environment today are complying with the Institute's general auditing standards and its field work standards, Weiss continued.

Extreme conservatism of auditors is apt to be a particularly pressing problem, he declared. It could lead to billions of dollars in cost to the U.S. economy over the next decade, he said.

"These pressures are leading to the much greater use of the computer for auditing purposes in the 1970s," he went on.

"I distinguish three types of computer use as an audit tool," he declared. "First, audit routines can be placed in production programs. . . . A second type of audit use of the computer is the simulated problem approach with two variations—off line and on line. . . . A third type is free-standing audit programs, whether specialized or generalized."

Much software is useful to auditors, the keynote speaker noted, even though comparatively few of them have yet used it. He mentioned commercially available packages, including flow charting and documentation routines, generators, file management systems, among those too often overlooked for their audit usefulness.

"The generalized computer audit systems are probably of most interest to you," he told the audience. "These permit the auditor to retrieve a wide variety of information from the files of the organization being audited and to perform other commonly utilized auditing procedures. Thus, audit software is proliferating rapidly and we are

already into the second generation of generalized computer audit programs. These have been developed by the larger public accounting firms and some of the private software companies. A word of caution is probably appropriate. There is danger that this software will be viewed as a panacea or as a total substitute for the auditor's required computer knowledge. Audit software is only one tool in the EDP auditor's arsenal."

Mr. Weiss said that he felt the future would bring more computer training for auditors, EDP audit specialists, less rapid turnover of both internal and external EDP auditors, a more concurrent and interim type of audit, and greater reliance of external auditors on internal ones.

He foresees roadblocks to progress as:

1. Lack of adequate computer knowledge in the audit function. "This is decidedly not amateur hour when you have highly computerized clients," he told the group.

2. The lack of resources applied to EDP auditing.

3. A "certain timidity, complacency, conservatism, or even laziness" which hampers auditing organizations in dealing with EDP.

4. Excessive secrecy in the audit profession which hampers the dissemination of successful techniques and experience. "This type of meeting should have ten times its attendance. The computer professionals communicate with each other strenuously, and auditors have to develop mechanisms for coping with this frantic technological pace."

5. A lack of sufficient audit research regarding EDP to develop tools, control standards, new techniques for auditing EDP, or even evaluations of existing systems.

6. Misconceptions of audit independence by internal auditors, which lead them to remain aloof from the struggle to develop well controlled computer applications.

"Excessive audit inertia and conservatism will be economically costly to our economy and will inevitably lead to loss of your present

scope to other groups who will fill existing vacuums," he warned the audience of CPAs.

Following Mr. Weiss' keynote talk. Noel Zakin and John Mullarkey, manager and assistant manager, respectively, of Computer Technical Services at the AICPA, described briefly some of the Institute's activities in the field. The remainder of the morning program on the opening day of the meeting was devoted to a speech by Lawrence A. Welke, president, International Computer Programs, Inc., on "Selection, Purchase, and Use of Proprietary Software Packages."

Software acquisition is much too casual in most companies, Welke said, with many concerns uncertain as to who had bought their software and on whose advice.

"We should think of software as a living product that's going to endure," he told the audience.

Why is it important that accountants know about it?

For one thing, it represents possible competition. "There are twenty-five products on the market today that can eliminate CPA write-up work altogether," Welke told the group. Accountants should know what they are and the relative merits of each, he continued.

There are more than 3,000 software packages on the market altogether, he pointed out. Each of them has some tax implications under the 1969 tax law for the company employing it.

"Accountants should know enough about the field to be expert advisers on program selection, called in with an attorney before program selection is made," he said.

"We, the computer users, are spinning our wheels today producing computer programs," he told the group. "More than a million a year are written. Obviously, they're not all equally valuable. But who's to judge the relative merits of each? The CPA is the only source of balanced judgment to many clients," he said.

He advised that customers avoid software vendors who insist on selling a particular system with a par-

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ticular machine. There's no reason the customer should have to do this. The seller should support and maintain his product. Software for a particular application is very much the same. The client may very well want to make changes in software; he should have every right to, but he must realize that to do so himself will probably invalidate the warranty on that product.

Software pricing is still done primarily by the "finch" method, he said. The salesman quotes a price. If the customer winces, the salesman goes on to tell him all that's included in the package. If the buyer is amenable, the salesman tells him all that's excluded.

The majority of software firms won't sell their product, he said; they prefer to lease it. This involves the CPA once again because it affects the client's tax liabilities. Different states handle software leases differently: New York taxes them as tangible properties, for instance; Indiana does not.

As a living product, software can very quickly die, Welke told the audience. A technical innovation or a better program can kill a package almost immediately.

### ***Essential steps***

He listed three essential steps in preparing either to lease or buy a software program.

"1. Find out what your own specific needs are. Determine what machine you have now and what machines you plan to acquire in the present and in the next three to five years. Don't let your EDP man do any more than gather the facts; he'll be far too biased to evaluate it.

"2. Pick your vendor. If it were a well structured market, that would be simple. Since it isn't, since you can't get a Dun and Bradstreet rating, rely on your CPA as your guide and guard. Even the vendor's experience is no safeguard since the majority of vendors are brand new.

"3. If the vendor doesn't make you completely happy, if you don't trust him completely, don't have

anything to do with him. There are enough people in the field so that you can find someone who comes much closer to your ideal."

When these criteria have been met and a vendor has been tentatively chosen, the buyer should insist on a written contract. Also, it would be good to get testimony from two users of the system who are very happy with it and from two users who are completely dissatisfied; and get a demonstration of the package in action, he advised.

At the conclusion of the opening morning session, Louis Kessler, president of the AICPA at that time, spoke at the luncheon session on "The Institute and the Accounting Profession's Opportunities in EDP—Now and Tomorrow." (See page 44.)

For the Monday afternoon session, the computer group split into two sections, one for those already involved in EDP, the other for those just contemplating such involvement.

Each of the two sessions was further divided into two panel groups, each of which discussed a given topic. The first of the parallel sessions for CPAs considering involvement in EDP was devoted to "The Local Practitioner's Approach to Harnessing EDP" and was moderated by Robert B. Nadel, CPA, Hertz, Herson & Company.

The first speaker, Fern M. Waddell of John Waddell & Co., described an experience her concern had had with a client in the garbage collection business—a prime example of a major billing problem for a number of small accounts. Her firm already had a 402 but soon found that it couldn't do the job of preparing the statement, so the firm experimented with a service bureau, and found that the service bureau did a very poor job. So John Waddell faced the prospect: The garbage collection client had a problem with its statements. The accountant couldn't help it from its own resources, and the service bureau had proved unreliable. The only solution the firm could

see was to take the plunge and order heavier equipment.

John Waddell & Co. ordered a 602 and learned to operate it through trial and error.

But they kept the client.

Roy K. Lindorf said that his firm had felt it needed computer capacity, but that IBM, when approached, told it its work load didn't justify buying its own equipment. IBM suggested cooperating with another firm in the same neighborhood that already had a 1401 machine that was available on a shared basis. The 1401 owner was enthusiastic, even offering to train the Lindorf people if Lindorf would only agree to a rental agreement afterwards. But the Lindorf experience indicated that the 1401 not only wasn't right for its firm but wasn't right for the original owner either. The other firm finally turned in its 1401 for a Honeywell 200, which worked out beautifully for it, but still didn't prove adequate to the Lindorf needs. The Lindorf group finally bought a 2000, which it found slow but adequate for its needs.

R. Michael Beatty, of Kennedy & Coe, said that his firm had gone through much the same evolution as Lindorf, an evolution made even more difficult for him because he had worked for Boeing Aircraft and so was used to a large computer installation. Kennedy & Coe finally bought a 1401, Mr. Beatty said, but its troubles were not over. Friction developed between the EDP staff and the accounting staff.

### ***CPA assigned responsibility***

Robert B. Nadel, the moderator, said that his indoctrination came through a client who was being dogged by a computer salesman and who insisted that his accountant take over the responsibility for selecting data processing equipment. Nadel eventually left his accounting firm and took a job with a computer manufacturer before returning to accounting.

But his experience showed, Nadel said, that without constant

study of the computer field, even in-company experience with an EDP manufacturer was quickly outdated.

In other words, of all the speakers on the program, each had more or less stumbled or been pushed into EDP experience by outside forces or interests.

But each, once acquainted with EDP, stayed with it, in one aspect or another. Beatty said that his firm's approach was to develop programs for its equipment that could then be marketed to clients. Miss Waddell on the other hand said her firm had no package at all except a general ledger package. All other programs are specially developed for individual clients at the client's request.

Mr. Lindorf said that his firm does payroll-labor-cost labor-output breakdown. It tries to avoid straight payroll work.

Nadel said that his firm's main thrust will be use of the computer in audit work, that no write-up work is done at all. "We don't want to do anything ourselves that can be done outside more cheaply," he said. "We use specialized service bureaus for such work; we find them much more reliable and economical than general service bureaus. We use time sharing equipment for internal firm processing and plan to use it for financial projections."

Each of the speakers on the panel had particular cautions about some phase of the EDP involvement. Lindorf warned the audience to make very sure any program they were about to embark on would be economically valid for their firms. "Don't give your supplier a dime until he's performed what he said he'll do," he warned. "Get every part of the agreement in writing and have your lawyer review the agreement carefully."

Miss Waddell stressed the importance of checking the equipment contract scrupulously too, particularly the support and maintenance agreements. She also reminded the audience to make very sure the top management of the

firm really wanted EDP involvement or it couldn't possibly work.

Mr. Beatty suggested that documentation be controlled through a rigid system, in which each form had to be completed before a subsequent step could be taken.

The concurrent session for those already involved in computer operations, moderated by Richard Cutting, Main, Lafrentz & Co., drew a much larger audience than the first. The first afternoon session in the larger group was devoted to using time sharing effectively, and the first speaker, William Rowe, of Haskins & Sells, said that most time sharing applications showed the main uses in order of frequency of use were:  
Mathematical  
Statistical  
Programing.

In the accounting area time sharing has been used effectively in cash receipts and disbursements, Rowe said. He added that his firm had also developed various other computer programs. However, he stated that in the main it was best to insist that the supplier furnish general purpose programs.

On time sharing in general, he pointed out that most experience had been that if an application could be found that would justify the cost of a terminal, other jobs and benefits would flow almost automatically from the installation.

Time sharing also has benefits in terms of educating the accounting staff, in preparing and testing general purpose programs for clients, and not least in terms of recruitment.

"It looks progressive to potential employees," he said.

He described one successful Medicare application where Haskins & Sells personnel had worked with time sharing analysts to develop a special package.

H. Peter Zack, of Peat, Marwick, Mitchell & Co., warned the audience against taking a manufacturer's packaged program as Gospel.

"Modify their programs for your purposes," he said. "Do this by talking to manufacturers' represent-

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atives and trying to get the principle behind their programs without necessarily adopting the programs themselves.”

Brock Kier, of Lybrand, Ross Bros. & Montgomery, describing his firm's time sharing arrangements, said that 38 Lybrand Ross offices at that time had terminals all connected to a central program library at headquarters in New York. All but two of the regional offices could reach the library at local phone rates, he said.

A similar arrangement could be made for smaller firms tied into a central library, he suggested, and a logical place for such a program library would be AICPA headquarters in New York.

Rowe pointed out that each firm must develop its own interface between the man on the audit job in the client's office and the computer library at a central point.

### ***Documentation emphasized***

The second Monday afternoon session for the larger group was devoted to “Documentation Standards.” The keynote was struck by the late Alan Mandelker, of Ernst & Ernst, the session moderator, who stressed the absolute importance of thorough documentation.

“Computer installations often get into trouble,” he pointed out. “That's when good documentation is vital. Poor documentation makes recovery difficult; quality documentation is essential.”

Documentation, he pointed out, is the only communication medium linking all parties to an EDP installation.

He listed the following as the minimum steps toward adequate documentation:

During the systems survey, standard forms should be used throughout, and they should show where input documents come from, what is done to them, and where the finished papers go. He showed sample survey forms on the screen while talking.

Activity models should be constructed for each activity area.

They should show what input is needed for the computer, what files are called on, and what controls should be imposed. Again Mr. Mandelker used slides to illustrate the activity model.

There should be a complete input description.

When a field name is used, there should be a complete description of the field.

System flow charting should be complete. This does not mean only the flow within the computer, Mandelker elaborated, but should show also where the information flow stems from before it gets to the computer and where control points occur. If the logic is complex, the flow chart should be supplemented with decision tables that show exactly how decisions were reached, he said.

Printed computer forms should be used to represent each output form. Again decision tables should be used to supplement complex logical routes.

In response to a question from the floor, Mr. Mandelker said he thought the N.C.R. ADS system was an excellent aid to systems planning and documentation, although it might be a little more complicated than is absolutely necessary.

John Harrison, of Main Lafrentz & Co., said there are three main reasons for thorough program documentation, for the programmer's use, for the client's use, and to support the attest function. Again using slides, he defined three conditions provided by the installation: the machine configuration, the programming systems to be used, and the materials; four by the analyst, the program specification, the run description, the card layout, and the tape and disk layout. Everything else for any program has to be provided by the programmer, he said.

He suggested that every programmer take as a minimum requirement for his job:

The certainty that he understands the program specifications for each given program,

The creation of a master flow chart for the program,

The approval of the flow chart by the analyst,

The drawing of a detailed flow chart of the program.

Standard forms and templates should be used in preparing the flow charts, he said, and standard editing checklists.

Lists of materials needed for test sessions should also be carefully prepared. These are particularly valuable for tests that are to be run away from the home base.

All testing materials should be kept as proof that a particular program was developed by a particular programmer.

If there are any program amendments they should be as carefully documented as the original material for the program.

The evening of the first day of the conference was given to informal orientation sessions for those CPAs just considering EDP activities and those already heavily engaged in them.

Tuesday morning opened with a discussion of “Computer Preparation of Income Tax Returns,” moderated by Terry Kimes, of Mize, Houser, Mehlinger & Kimes, Topeka. Mr. Kimes pointed out that one of the great advantages in using a computer in tax preparation work lay in recruiting, one of accounting's main challenges. “With a computer, the new recruit isn't faced with the prospect of doing months of eighth grade arithmetic,” he said.

Carmen Spinelli, of J. K. Lasser & Co., said that with the new complexities of the 1969 tax reform act, preparation of tax returns had become a great deal more difficult.

Early computer tax returns had required the accountant to send information to a processing center where the return was prepared and sent back. There was inevitably a great lag in turn-around time. J. K. Lasser was now experimenting with a time sharing system run from its own offices and a central computer in Boston.

Lasser uses a system of key words

on preprinted forms to complete returns. The operator enters the proper key word and the individual's tax information. The system features easily understood commands. For instance, if a key word has been used inadvertently, the word "cancel" and the key word repeated wipe out all material designated by that key word.

The system can also demand spelling out of anything that looks wrong. "Contributions" would be an obvious example. Once all questionable figures have been checked, it prints all information on blank paper, places a transparent overlay on the printed data, and mechanically reproduces the whole set as the tax return.

All the firm's tax files are also stored free of charge at the Boston computer center.

Joseph M. Moore, of Cherry, Bekaert & Holland, the next speaker, said his firm had become involved in computer preparation of tax returns as an aid to recruitment and also because it thought the machines could do a better job with returns than humans.

Feeling as they did that the entire return must be prepared by computer, Cherry, Bekaert & Holland entered into an arrangement with Elmer Fox & Co., of Wichita, Kansas, to use their Dynafax System. Dynafax is a computer system organized by CPAs in various parts of the country and run on the facilities of the local firms that are part of the organization.

Moore's firm, which has 13 offices, required each of them to prepare returns using the Dynafax system. It prepared 6,000 returns in its first year of operation and planned to do 10,000 in its second.

The Moore office key punched tax information from raw data furnished them by their clients. They felt a particular advantage for computers lay in the complications of the 1969 tax reform act. The Dynafax system, they said, covered all provisions of the new law which a human accountant would be all too apt to overlook.

Moore said his firm would never

go back to manual preparation of the income tax return, and reported that his firm didn't experience any savings the first time it used Dynafax but expected to the second time around.

### ***Why computer tax returns?***

The last speaker on the panel, Jack Martin, of Seymour Schneidman & Associates, said that his firm had developed an in-house computer system based on a 1040.

"Why computer tax returns?" he asked, "We've found it's too expensive to do it any other way. Why in-house? Three major advantages."

He listed them as cost, turn-around time, and the ability to pull changes immediately and schedule them for later return.

"If you already have a computer," he pointed out, "you can save about twenty per cent over the cost of using an outside center." Most in-house computers aren't used all of the time, he pointed out, so labor is the only cost factor in putting tax returns on them. The cost of key punching and collating tax forms is exactly the same as it is for an outside service.

In terms of turn-around time, an outside service bureau can take as long as two weeks to process a return, he said.

"In-house turn-around time is whatever you want to make it," he declared. By the proper scheduling of shifts almost anything is possible. By the same token, changes can be pulled almost immediately and scheduled for late returns if necessary. In-house turn-around time makes it possible to make the tax cutoff date much later than would be possible with an outside service.

In reply to questions from the audience, the speakers who had explained that they had not saved anything on their first experience with computer tax returns said that the greater volume of returns foreseen for the future would realize the returns they anticipated.

Another question as to the inroads of various large city banks of-

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fering computerized tax services (expanded this year to mail order houses and loan companies) brought this reply:

"The banks sold their kit and service to middle-income groups. They ran into trouble and their service was too expensive."

Moore made the point again that computer service represented no out-of-pocket expense to the firm that already had a data processing machine.

The second morning session on Tuesday dealt with "Auditing of Service Bureau Produced Records," a panel discussion moderated by Thomas Porter, professor of accounting at The University of Washington.

Professor Porter said that he was going to give the audience a preview of the report of the AICPA advisory committee on auditing EDP systems, which was in draft stage and scheduled to be published in 1971. In 1968, he said, the AICPA had published *Auditing and EDP*, which had first pointed out that the CPA may be involved with EDP service centers in a number of ways:

1. He may be involved in helping to select the service center which his client will use.
2. He may run one himself.
3. He may work on the systems to be used in the center.

In all these situations, he is concerned with the work and the accuracy of the work done by the center.

The first chapter in the new audit guide, Professor Porter said, discusses service centers and their organization. Chapter 2 discusses their distinguishing audit characteristics, as opposed to the client's own facilities, and the fact that a client's records may be kept there. The remaining chapters of the book would discuss the auditing approach and techniques used to evaluate service-center-produced records.

Launching into a general discussion of service centers, Professor Porter pointed out their fantastic growth rate and said that five dis-

tinctive type of service centers had emerged:

1. The center that is only involved in selling unused computer time, nothing else,
2. The center that sells standard computer packages,
3. The center that designs and processes custom-tailored packages for its customers,
4. The center serving as the hub for a time sharing service,
5. The computer facilities management concept.

### **Service center problems**

Service centers pose a particular problem because they are separated physically and legally from the client and the client's files, and records may be maintained there. But the client's auditor must have access to these files and records, he continued.

Robert Benjamin, Touche Ross & Co., said that the CPA in judging a service center must depend on his own experience and judgment, the published guides of the AICPA, his own firm's publications, and any material published by appropriate regulatory agencies.

Stanley Halper, S. D. Leidesdorf & Co., saying that service bureau applications range from the simplest to the most sophisticated, said that the auditor may not be able to check the statistical reports prepared by a service center yet the figures in those reports may be vital to his client.

Benjamin said that was one reason to check the reputation of the service bureau so carefully. The Institute's guide to auditing of an in-house computer could be considered as fully applicable to a service center, he said. For instance, the control points in a service bureau should be checked just as carefully as they would be for a client's own computer installation. Also, the auditor should be very sure that all contracts with the service bureau specify that he have access to all client records.

If an auditor doesn't have enough knowledge of computer installa-

tions to run a thorough check on the control points, he should seek the help of someone who is expert from his own management services staff, he continued.

What is the system supposed to accomplish? That should always be spelled out explicitly, Halper said. An independent third party should always be brought in to review arrangements between the service center and the client. But two responsibilities are paramount between the two parties: The service center should always be able to document each step in its processing; the client should always have documentation supporting all its input data in its own possession.

After you do have a knowledge of how the service bureau claims it is processing data, Professor Porter asked, how do you ensure that the center is really operating that way?

Audit routines should be built into the service center routines wherever possible, Halper said.

What if controls are found to be vague or nonexistent?, Porter asked. What should be done then?

Extend the audit scope, Benjamin replied. Run through all client records. Suggest control improvements to both the client and the center. If they prove uncooperative, deny an opinion.

Mr. Halper then brought up the question of what happens when a service center goes bankrupt, when all figures are locked in the "black box" without originating papers. "Is the CPA helpless?" he asked.

Benjamin advised that the auditor should audit "around the computer" or through it, depending on precisely what he needed. "If you have special requirements that only the computer can satisfy, use it by all means," he advised.

The discussion then delved into a more far-ranging question: the amount of advance planning that should precede any contract with a service center. Professor Porter pointed out that each service center will serve a number of clients and will give each of them basically the same program. Each of these clients in turn will have his own

auditor. But no service center will let each of these individual auditors in to review its procedures.

"This brings up the whole question of third-party review," said Porter.

Benjamin agreed that third-party review would be necessary even though it would be unpopular with CPAs.

"One auditor will have to be selected," he said. "But here is something an AICPA committee should consider: Should that auditor be selected by the service center, or by its clients acting as a unit?"

Halper didn't answer the question posed but simply said that the amount of knowledge required and effort involved would make it mandatory that the job of checking the service center itself be handled by one man.

Benjamin recounted an experience he had had with his firm. "We were once acting as a 'third party' since we were auditors of the first two firms that demanded it. But as time went on, other firms with other auditors demanded audit time at the service center, too. Finally, the service center complained, and asked that we serve as auditors for the whole group. We said we couldn't do that, but that we would make an agreement with the other CPA firms to serve as their representatives in checking the service center. Most agreed, although a few balked at this arrangement."

Jerome Farmer, from the audience, asked whether in a third-party situation of this type, the secondary accountant, the one brought in for the group, assumes legal liability.

Halper replied that the accountant acting as a "third party" vouches only for the accuracy of the system being used by the service center; he is not responsible for the accuracy of the data furnished by the other accountants' clients.

"He is responsible for the controls and the effectiveness of the controls," Halper said. "Review of the system and evaluation of data feeding into the system are two entirely separate entities. The third

party is responsible only for the first. The client's own accountant must still take full responsibility for the client's input data."

In response to a question from the floor as to what protection an accountant had if he had built testing techniques into service bureau techniques but service bureau personnel were manipulating the techniques for their own ends, Mr. Halper replied:

"At present, systems are so simple that the client is much more apt to try fraud than his service bureau."

The luncheon speaker Tuesday was Leonard Palmer, president of Computerminal, Inc., who spoke on the "Computer Service/Client Interface." Palmer, who suggested that CPAs like service centers make their living from rendering services, not surprisingly suggested that CPAs running service bureau jeopardize their independence.

"Computer installations should be called data reduction departments rather than data processing departments," he said. "Every department in a company processes data.

"Why?"

"By law, certain data must be processed for taxes on social security, for instance.

"For business smoothness. The production department needs to know the order level, for instance.

"For business planning.

"This is all part of a business sequence, and it's done by certain people in a certain sequence. It's a system, in other words," he said.

"A system for data processing must take precedence over all other aspects of a business, and must also meet generally accepted accounting principles," he asserted.

Most businesses need a CPA's unqualified opinion. So their systems must be designed to satisfy generally accepted accounting principles, he went on.

"The independence of the auditor is the key to 'generally accepted accounting principles,'" he declared.

The CPA's proper place in the data center is as an "interface" be-

### ***Five distinctive types of service center have emerged:***

- 1. The center that is only involved in selling unused computer time, nothing else,***
- 2. The center that sells standard computer packages,***
- 3. The center that designs and processes custom-tailored packages for its customers,***
- 4. The center serving as the hub for a time sharing service,***
- 5. The computer facilities management concept.***

tween the client and the center; the CPA can prevent the client from demanding the impossible. CPAs should get into the design phase of the system being evolved for the client, but not into actual production at the center, he continued.

The Tuesday afternoon and evening sessions were again given over to supplier presentations of software packages and services, and most of Wednesday morning was devoted to the outline of the Galion Iron Works Information System and the discussion of it that was covered in the March-April issue of *Management Adviser*.

***Our knowledge gap stems from lack of motivation, not lack of ability. Whatever we're doing now isn't taking. There are some things we definitely shouldn't do with our associates and top people. We shouldn't:***

***Preach,***

***Talk to them about making more profits,***

***Scare them to death by citing liability dangers,***

***Persuade clients to demand more computer knowledge.***

#### ***Lack of activity criticized***

The very last event of the conference was a talk, "You Have Ruined My Nice, Comfortable, Happy Life, and I Hate You All," by James Kobak, of J. K. Lasser & Co. The title may sound familiar; it is. Mr. Kobak used the same title for his concluding speech at the Fifth Annual Conference in Chicago, a year earlier. The talk this year was billed as Part II of the earlier talk and, while humorous in nature, made the same criticisms of CPA activity in the computer field that Mr. Kobak has made before.

"The amount of technical jargon per individual varies in inverse ratio to the individual's knowledge," Kobak said, referring to what he feels is a totally inadequate understanding of computers by accountants. "Nothing significant has happened among accountants for the past two years. That is true for our profession as a whole.

"Where are we really in the computer field?" he queried. "One man sitting at a console can still wreck an auditor's whole scheme of life—but most accountants don't know it. They're still arguing about 'around the computer' and 'through the computer' when we've barely scratched the field in the audit area. And that's a desperately critical area."

Many accountants still question the value of a computer; still others

are astonished to learn that EDP can be accomplished with time sharing and no heavy computer expense, he said.

Most accountants haven't invested much in computer equipment; what investment there has been has been small and isolated, he added.

#### ***Record abysmal***

Cooperation between accountants hasn't been organized as it should have been.

"We don't have a God-given right, but we do have a duty to become knowledgeable in the computer area," Kobak said. "How long are the people who need us going to wait for us?"

"Here's the most important thing that's happened in accounting, but how many top partners do you see here?" he demanded of the audience. "They must become involved just as top people in business must get involved if we're to have successful installations.

"Our knowledge gap stems from lack of motivation, not lack of ability. Whatever we're doing now isn't taking. There are some things we definitely shouldn't do with our associates and top people. We shouldn't:

***Preach,***

***Talk to them about making more profits,***

***Scare them to death by citing liability dangers,***

***Persuade clients to demand more computer knowledge."***

But there are some things that can and should be done, he advised. The approach to non-computer people should be positive; audit and tax staff should be involved, and time sharing terminals should be put on every auditor's and tax man's desk so he learns to use them and becomes part of the computer picture.

In summary, Kobak said, he had two messages he wanted to leave:

1. Don't use jargon.

2. The record of the accounting profession in computers has been abysmal. Change it.