

EXPERIENCIA DE PAISES IV COUNTRY EXPERIENCES IV

Tax Audit of Companies Maintaining Computer Based Accounting Systems

*U.S. Treasury Department
Internal Revenue Service*

History of the Computer Audit Specialist (CAS)

During the early 1970s, the Internal Revenue Service (IRS) was encountering auditing problems in its Coordinated Examination Program (CEP) audits. The CEP consists of approximately 1,400 of the largest corporations in United States. These large entities were using computers for accounting and record keeping with formats that differed greatly from that of conventional manual systems. Audit trails were often nonexistent outside the computer systems. It was becoming increasingly clear that the new trends in information systems were interfering with traditional IRS auditing techniques and that changes needed to be made.

In 1971 the IRS decided it would be more efficient to train experienced IRS auditors in computer techniques than to try to impart audit experience and knowledge to computer professionals. At that time, the computer audit specialist (CAS) position was established and a comprehensive training course was subsequently developed.

The expanding body of automatic data processing (ADP) knowledge and expertise resulting from this training had benefits beyond those initially anticipated. The computer was soon viewed as a tool that could improve the quality and efficiency of audits rather than as an obstacle to be overcome. New areas where the computer could effectively aid audits were identified and each newly identified area in turn increased the demand for the services of the CAS. CAS involvement in large corporate audits has continued to grow as successes have led case managers to give the CAS time to perform additional and more sophisticated applications.

Today's CAS is virtually unchanged from the role defined at the inception of the program. They are Examination function's information specialist with regard to complex computerized accounting systems. Within the framework of these large accounting

systems, the CAS is also the recognized expert in the application of statistical sampling techniques. The CAS is involved in providing analyses of complex computerized accounting systems, determining and recommending the most effective method for providing audit data required by examiners, providing computer analyses of large volumes of data, independently designing applications using both standard and custom computer programs, and continually searching for creative and innovative ways to use computer assisted auditing techniques.

As corporate data processing systems have become more complex and sophisticated, the abilities of the CAS have grown accordingly. Today, although the basic role remains unchanged, the services that the CAS can provide are more comprehensive and useful than ever before.

Since the inception of the Computer Assisted Audit Program (CAAP), the number of CASs has grown dramatically. What started out as a handful of CASs has expanded to approximately 300 CASs and managers located in all seven regions nationwide. The CAS supports CEP and specialist auditors within these regions. Each year the IRS trains from 25 to 40 revenue agents in computer auditing techniques.

Record Retention

Internal Revenue Code Section 6001 and Treasury Regulation 1.6001-1 require in part, that every person liable for tax, keep records and make such records available for inspection by the IRS, so long as the contents may be material to the administration of any Internal Revenue law. Records include punched cards, magnetic tapes, disks, and other machine-sensible data media used for recording, consolidating and summarizing accounting transactions and records within a taxpayer's ADP system.

Revenue Ruling 71-20 was established to alleviate the taxpayer's burden of retaining all machine-

sensible records. When requested by the taxpayer, IRS examiners determine what records will have a bearing on future potential audits and require the taxpayer to maintain those records. All other records are unnecessary for tax examinations. The key element here is the IRS requires the retention of all records necessary to perform an adequate audit.

A record retention agreement is entered into between the IRS and the taxpayer after extensive discussion with the CAS, the revenue agent and appropriate specialists. If all the auditors feel that the records the taxpayer is creating through the computers are the type that are needed during an audit, they will be retained for subsequent audits. However, if the general consensus between auditors is that these records are not required for subsequent audits, the taxpayer will be informed that the records are not required to be retained for the IRS, but may be needed for other government agencies.

Since the IRS is performing an audit two to three years after the return has been filed, it is incumbent upon the IRS and the taxpayers to have the records retained for at least as long as the statute of limitations (3 years after filing plus extensions). It is a necessity to ensure that the retained records are maintained in a secure area so that they are readable when the audit process is started. The taxpayer is required to make periodic checks of these files to determine their availability. If for any reason the files are lost, destroyed, damaged or found to be incomplete or materially inaccurate, the taxpayer must report this to the District Director and recreate the files within a reasonable amount of time.

The IRS will work with taxpayers to secure record retention agreements that fit the needs of both the IRS and the taxpayer, but will continue requiring the retention of records the IRS feels are necessary for a complete and thorough audit of the tax return. The requirements of the record retention agreement are applicable to the machine-sensible records generated by a Controlled Foreign Corporation (CFC).

Failure to comply with the record retention agreement may result in assertion of civil or criminal penalties in accordance with Revenue Ruling 81-205.

The retention of files in machine-sensible format does not relieve the taxpayer of the responsibility of retaining hardcopy records.

The Audit Team

The audit of large corporate tax returns is a complex, time consuming task. This task is certainly

beyond the capabilities of any one person. The myriad code sections involved, the various special skills needed, such as engineering and international, and the sheer volume of data demand a coordinated approach. To meet this need, the IRS instituted a team audit concept for large corporate audits.

Each large case team is essentially structured in the same manner. The team consists of a case manager, team coordinator, revenue agents and specialists. The case manager is assigned the case and is responsible for all aspects of that case, from personnel assignments to tax decisions.

The team coordinator runs the day-to-day activities of the audit and as the name implies, coordinates activities between the core of tax auditors and the various specialists assigned to the case. He also coordinates the activities of any collateral audits. A typical large case may have numerous subsidiaries being audited in cities other than where the corporate headquarters is located. The team coordinator must oversee each audit and must combine the results of each audit into one consolidated report.

The revenue agents do the actual detailed auditing work. Each is assigned various tasks determined by the team coordinator and case manager, and each perform the same functions as any IRS examiner.

Specialists are also members of the team. Each large corporate audit requires the services of at least one and in many cases, all of the available specialists; appraisers, engineers, economists, international auditors and CASs all play an integral part in the large corporate audit process. The complexities of the tax law and the corporate structure make their contribution to the audit process indispensable. In each case, the team coordinator makes the assignments for the specialists and their findings are finalized with the case manager.

In the case of the need for computer audit applications, it is the preference of the IRS and in most instances the taxpayer to have the IRS utilize the taxpayer's in-house computer to perform the required applications. The files created by the taxpayer will run more efficiently on that system and eliminate the problems of compability with outside equipment. Use of in-house equipment also allows the taxpayers to maintain control of their tapes. If however, the taxpayer's facilities are not made available, the work can be done on IRS computers, other government computer facilities and local ADP service bureaus.

Although the CAS works primarily in support of the CEP audit, there are situations where non-CEP

taxpayers have a complex computerized accounting system and the services of a CAS are required. The CAS also assists other specialists during the audit, performing applications for international auditors, engineers, excise tax, and employment tax auditors to access specialist files and to generate specific analysis of tax return information.

Due to the large volume of data to be analyzed and the time restraints in conducting an audit, the CAS is usually involved in the audit 60-90 prior to the start of the actual audit process. Systems analysis and stratifications of selected accounts are performed with an extraction of specific items from those accounts. Sufficient information is printed on the report to provide the auditor with an audit trail to the source documents. During the course of the audit, the CAS will become the information specialist on the taxpayer's system and be involved throughout the audit for advise and the application of innovative computer programs. The use of statistical sampling techniques will be considered and used where deemed necessary.

Statistical sampling and record retention evaluations and reevaluations are also part of the CAS's activities. The CAS should constantly be searching for ways to better provide the information needed by the audit team. Innovative and imaginative computer applications enhance the quality of the audit and the IRS heartily supports this activity.

The IRS places no constraints on the number of applications a computer audit specialist performs in an audit. All decisions on the use of the CAS are made by the case manager and the team applications possible as the Internal Revenue Manual (IRM) states "only by the imagination of the examination team".

Statistical Sampling

The use of statistical techniques to verify the accuracy of taxpayer records is proving to be a cost-effective method for the IRS. Because of the audit coverage the techniques afford, it has been used to enhance the quality of an audit when time and/or resources have been limited. Generally, this limitation is present in the large case audit environment where the volume of transactions and accounting complexities necessitate the use of specialists. In this environment, the CAS assigned to the case becomes the principle user of the method.

The IRS' experience with statistical sampling has been very positive. One reason for this is that the IRS has imposed strict guidelines for the use of statistical sampling. First, only auditors trained in statistical

sampling techniques can use the method. Second, the method is restricted to those groups of transactions which have sufficient error potential to warrant audit, but the audit of all such items is prohibitive in terms of time and/or resources. This latter condition is imposed due to the recognition that although an allocation of resource's benefits are derived using statistical inference, the results are less than would be achieved by a complete audit.

Guidelines have been established to ensure an equitable and consistent treatment of the taxpayer when statistical sampling methods are employed. The IRM states in part "As a general rule, the proposed population adjustment will be determined such that 95 percent of the time, it will not be greater than the actual adjustment attainable by a 100 percent audit of the population. This applies regardless of whether the adjustment favors the government or the taxpayer". The IRM continues: "The above result will be attained by using the lower limit of the estimated population adjustment at the 95 percent confidence level".

These guidelines provide a statistical confidence that the taxpayer is sufficiently safeguarded against overstatements of proposed deficiencies and assures a defensible position for the IRS. In fact, the use of such guidelines will, in the long run, result in an understatement of the actual deficiency in 19 and 20 projections.

The use of statistical sampling techniques in auditing is not an IRS innovation. For some time, it has been an acceptable standard for public accounting firms to use sampling where it is expected to perform any and all of these applications in any audit.

Impact on Auditing

Prior to the introduction of the computer, the revenue agent with a strong accounting background, had little difficulty in gathering information for a tax audit or knowing where to find answers to questions as they arose during the audit. However, the number of computer installations within the United States has increased rapidly over the years. Surveys show that most of these machines are used to maintain accounting and related financial records; therefore, the work of the revenue agent has become much more complex. This trend has had a major impact on IRS audit objectives and training.

In order to determine from the greatly increased volume of books and records being generated by the computer, with its unconventional formats, which

records will best suit his/her needs, the revenue agent must understand the flow of accounting data and audit trails through an ADP system. The agent must be familiar with the special jargon that has developed in ADP to communicate with taxpayers concerning the computer system. Increased capabilities of computers have made possible more detailed recordkeeping. The auditor frequently finds accounting records organized or subdivided by months, by company divisions, by cost centers of company division, or by any combination of these. Instead of auditing one set of books, the auditors may find 12 sets, or 12 times the number of company cost centers. Thus, the time required to manually perform a quality audit becomes prohibitive.

A common practice among ADP users is to fragment an invoice over many accounts. Thus, one invoice may be distributed from a dozen to over a hundred departments or cost centers. Data manipulation capabilities of the computer make this practice feasible, but the fragmentation of amounts makes it extremely difficult to identify items of audit interest because of size when using conventional methods.

Since the records produced by these systems or any systems, whether it's a sample of a single entry bookkeeping system or a sophisticated computerized data base management system, may eventually be subject to IRS scrutiny; we cannot escape from direct contact with automated and computerized systems. These new trends in information systems have required significant changes in IRS audit techniques in the audit of large corporate taxpayers.

Computerized System Considerations

IRS has encountered a variety of specific problems in auditing computerized systems. The most serious problems are:

Volume: The volume of the records to be examined in an ADP system has expanded enormously over conventional manual systems because managerial information, such as budgetary estimates, nonfinancial data, and exception-type balances are included with traditional accounting data.

Format: The format of accounting records processed by ADP systems differs greatly from that of conventional manual systems. There is no standard format for accounting records among ADP users, and it is sometimes difficult for an auditor to determine how a particular printout fits into the taxpayer's overall systems.

Fragmentation: A common practice among ADP users is the distribution of an individual amount over many accounts. This technique makes it extremely difficult for an auditor to identify items that are of audit interest because of the volume of data.

Communications: Because of the complex hardware and programming techniques of computer operations, the auditor has difficulty in understanding how accounting data is processed. Also, he may not know the special jargon that has developed in the ADP field.

Recordkeeping: The various types of records maintained, recordkeeping methods, etc., are the real basis of ADP accounting systems and probably have the most impact on auditing ADP systems. Therefore, IRS has been concerned with record requirements within ADP systems.

Computer Audit Techniques

The volume and complexity of accounting records being produced by an ever-increasing number of ADP systems have made the use of special auditing techniques necessary. Basically, these techniques use a computer to rapidly perform manual functions that are time consuming and often boring.

The taxpayer's ADP records that will be processed with the computer-assisted audit techniques are essentially those the examiner has used in hard copy format in a manual audit. An IRS audit starts with the tax return. The auditor verifies, by sampling, the figures which have been used to determine the tax liability. This process usually involves the general ledger, accounts receivable, accounts payable, fixed assets, and similar types of accounting records. Amounts on the tax return are traced back through the accounting records to the source documents, while accounting techniques and classifications are continuously checked for compliance with tax laws. Transactions involving significant amounts are scrutinized more closely than smaller ones. This requires extracting significant items from the mass of detailed transactions which make up the account. These activities are often time-consuming for both the auditor and for taxpayer, whose accounting personnel frequently do much of this work.

Computer-assisted audits will not change this basic process. The computer techniques, however, will allow many operations now performed manually to be done by the computer and save hours in the audit.

For example, the manual audit could require the auditor to manually follow the flow of certain figures from the account being tested through various other records to a point at which the auditor would request supporting documentation for all transactions over a fixed limitation. Compare this to a computer-assisted audit which could provide the examiner a printout listing all amounts over a set limitation with the vendors names and voucher numbers. From a quick scan of this listing, the auditor can greatly reduce the number of invoices requested, saving both the taxpayer and the IRS valuable time because the auditor now has knowledge of the vendors and will eliminate at least the vouchers for payments to vendors that the auditor does not wish to test.

The IRS has an on-going program to use computer-assisted audit techniques whenever possible to analyze, data essential to an audit. These are used on-site at the taxpayer's computer facilities or on IRS equipment, and are achieved either through the use of computer programs prepared from a generalized package of programs or specifically written for the task. The programs permit an automated review of massive data files with the printout of only those items of possible audit interest and require only a small fraction of the time needed to do the same job manually. Where the printouts are not too voluminous, such as is often the case with a relatively

small taxpayer who has his records processed by an ADP service bureau; the best technique may still be a manual worksheet to reconcile 12 monthly printouts or spread data for analysis.

The following description and examples of computer assisted audit techniques are considered standard techniques and used during most audits. Information derived from these reports enable the CAS and revenue agent to go into other specific areas using innovative computer programs.

Account Stratification

This application breaks each account into different dollar levels (stratums) in order to display account activity by stratum. In addition to confirming account balances, the number of transactions and dollar values (debits and credits) are displayed for each stratum.

Primary Function: The accounts stratification is used primarily for selecting the accounts to be analyzed and for choosing the debit and credit dollar range criteria for each of the selected accounts. The computer audit specialist will use the criteria to print out the necessary information for the examiner to pull source documents.

STRATIFICATION OF THE GENERAL LEDGER FOR 1981

AMT RANGE EQUAL LESS	DEBITS		CREDITS		TOTALS		MONTHLY DOLLAR ACTIVITY
	RECORDS	DOLLARS	RECORDS	DOLLARS	RECORDS	DOLLARS	
ACCOUNT NO.	132						
0 500	79	11,675.14	99	8,662.84	178	3,012.30	J .00
500 1,000	9	6,508.71	1	538.05	10	5,970.66	F 6,701,132.08CR
1,000 2,000	11	15,693.40	3	3,734.61	14	11,958.79	M 177,958.09
2,000 3,000	7	16,777.28	1	2,147.20	8	14,630.08	A 1,968,370.08CR
3,000 4,000	4	12,750.15	1	3,364.00	5	9,385.15	M 681,215.25CR
4,000 5,000	3	12,035.10	0	.00	3	12,035.10	J 2,858,311.09
5,000 6,000	14	70,131.20	0	.00	14	70,131.20	J 1,408,187.44
6,000 7,000	10	60,494.79	3	20,775.50	13	39,719.29	A 1,827,758.07
7,000 8,000	1	7,962.51	5	37,174.95	6	29,212.44CR	S 4,725,995.29
8,000 9,000	0	.00	3	25,529.89	3	25,529.89CR	O 1,543,682.01
9,000 9,999	51	459,000.00	0	.00	51	459,000.00	N .00
9,999 OVER	43	27,899,852.75	55	22,107,012.14	98	5,792,840.61	D 3,172,767.27
TOTAL	232	28,572,881.03	171	22,208,939.18	403	6,363,941.85	6,363,941.85
ACCOUNT NO.	189						
0 500	11	3,470.46	1	87.50	12	3,382.96	J .00
500 1,000	0	.00	0	.00	0	.00	F 369.93
1,000 2,000	2	2,574.72	1	1,340.28	3	1,234.44	M 31,726.51
2,000 3,000	1	2,611.11	1	2,219.64	2	391.47	A 36,388.52
3,000 4,000	0	.00	1	3,708.33	1	3,708.33CR	M 1,688.18
4,000 5,000	0	.00	0	.00	0	.00	J 54,884.17CR
5,000 6,000	0	.00	0	.00	0	.00	J 15,439.76CR
6,000 7,000	0	.00	0	.00	0	.00	A 306.64
7,000 8,000	1	7,039.90	0	.00	1	7,039.90	S 11,331.64
8,000 9,000	0	.00	0	.00	0	.00	O 10,729.36CR
9,000 9,999	0	.00	1	9,541.66	1	9,541.66CR	N .00
9,999 OVER	10	350,299.69	8	328,547.91	18	21,751.78	D 19,781.43
TOTAL	25	365,995.88	13	345,445.32	38	20,550.56	20,550.56

SPLITH-INVOICE ANALYSIS FOR TAXABLE YEAR 1982

DATE 09/25/83

VENDOR NAME	VENDOR NUMBER	INVOICE NUMBER	INVOICE DATE	ACCOUNTS POSTED						TOTAL ACCTS	INVOICE TOTAL	
				ACCT	ACCT	ACCT	ACCT	ACCT	ACCT			
PINE TRAVEL AGENCY	1173985	6273	010582	3207	1762	1919	8368	8847	8593	7632	11	211,586.41
PETTY CASH	0038801	6664	012182	2783	6581	3412	1123	8880	7760	1037	9	84,115.29
OAK TIRE CO.	3953696	6932	021782	0237	2662	3893					3	82,317.74
CONSUMER POWER	1571585	8137	042282	6294	6329	6396	6280	1361			5	510,138.92
SPLIT-INVOICES SELECTED				709		\$ 1,131,911.47						
SPLIT-INVOICES NOT SELECTED				11,710		\$ 9,730,977.71						
INVOICES NOT SPLIT				24,265		\$25,829,432.15						
TOTAL INVOICES				36,684		\$36,692,321.33						

VENDOR ANALYSIS LISTING BY ACCOUNT OF VENDORS RECEIVING PAYMENTS OR REBATES EXCEEDING \$5,000

VENDOR NAME	VENDOR NO.	ACCT	DEBITS		CREDITS		TOTALS	
			RECORDS	AMOUNT	RECORDS	AMOUNT	RECORDS	AMOUNT
POPULAR REBUILDING	1111	611	30	7,797.88	0	.00	30	7,797.88
		711	25	7,114.45	1	495.18	26	6,619.27
TOTAL VENDOR			55	14,912.33	1	495.18	56	14,417.15
RETAMA TRUCKING	2345	605	109	198,204.77	23	6,677.93	132	191,526.84
		705	86	171,144.52	16	7,145.73	102	163,998.79
		805	92	182,996.20	36	11,900.32	128	171,095.88
		905	115	198,296.81	10	3,909.28	125	194,387.53
TOTAL VENDOR			402	750,642.30	85	29,633.26	487	721,009.04
HAWTHORN MFG	3354	431	82	63,104.55	0	.00	82	63,104.55
		467	59	58,833.15	7	7,970.07	66	50,863.08
		498	86	96,876.61	0	.00	86	96,876.61
TOTAL VENDOR			227	218,814.31	7	7,970.07	234	210,844.24
T.C. SAGE CO.	3367	619	79	26,947.93	6	1,575.50	85	25,372.43
		623	46	9,120.80	0	.00	46	9,120.80
		667	113	75,759.37	0	.00	113	75,759.37
		723	31	12,451.03	0	.00	31	12,451.03
		742	65	28,154.67	0	.00	65	28,154.67
TOTAL VENDOR			334	152,433.80	6	1,575.50	340	150,858.30

Vendor Summary

This application displays a listing of vendors together with a summary of the taxpayer's activity with each vendor. The summary provides the total number of transactions per vendor, net debit total, net credit total, and the net amount for each vendor.

Primary Function: The Vendor Summary is used primarily to get an overview of the taxpayer's operation and to select any suspicious vendors for further audit.

Comparative General Ledger

This application displays a listing which shows the account number or line number, the account name, the account balance for each of the years under examination, the difference in the account balance between each of the years, and the difference.

Primary Function: The Comparative General ledger application is used by the auditor to check for accounts which may have been added or deleted from year to year, check for large fluctuations in an account from year to year, and to make sure that all accounts are present.

THREE YEAR COMPARATIVE GENERAL LEDGER WITH DIFFERENCES

ACCOUNT NUMBER	ACCOUNT NAME	1980	1981	1982	(1981-1980)	(1982-1981)
4000	GROSS RECEIPTS	491,966,464.00	613,689,332.00	673,158,886.00	121,722,868.00	59,469,554.00
5000	CHANGE IN INVENT	14,516,309.00	8,708,355.00	12,583,465.00-	5,807,954.00-	21,291,820.00-
6000	MERCH BOUGHT MFG	225,020,525.00	308,761,734.00	321,510,171.00	83,741,209.00	12,748,437.00
7005	SALARIES AND WAGES	99,808,419.00	116,160,125.00	119,119,635.00	16,351,706.00	2,959,510.00
7010	COMPENSATION INS	8,838,770.00	9,673,582.00	10,599,870.00	834,812.00	926,288.00
7015	EMPLOYEES GROUP	.00	.00	.00	.00	.00
7020	LOST TIME	.00	.00	.00	.00	.00
7025	HEAT, LIGHT, POWER	10,810,033.00	12,247,809.00	13,292,522.00	1,437,776.00	1,044,713.00
7030	LUBRICANTS, CUTT	5,038,651.00	6,446,190.00	7,032,157.00	1,407,539.00	585,967.00
7035	ELECTRICAL SUPPL	.00	.00	.00	.00	.00
7040	SMALL TOOLS	5,524,571.00	6,524,369.00	7,372,906.00	999,798.00	848,537.00
7045	WELDING SUPPLIES	.00	.00	.00	.00	.00
7050	STATIONERY AND PRI	.00	.00	.00	.00	.00
7055	ENGINEERING SUPP	.00	.00	.00	.00	.00
7060	PACKING AND SHIPPI	1,498,639.00	1,997,957.00	1,982,005.00	499,318.00	15,952.00-
7065	FIRST AID SUPPLI	713,720.00	926,738.00	1,180,728.00	213,018.00	253,990.00
7070	GASOLINE, OIL &	.00	.00	.00	.00	.00
7075	MISCELLANEOUS SU	.00	.00	.00	.00	.00
7080	INSURANCE CLAIM	481,307.00	543,646.00	1,334,711.00	62,339.00	791,065.00
7085	AUTOMOBILE LICEN	.00	.00	.00	.00	.00
7090	ADVERTISING	.00	.00	.00	.00	.00
7095	TRAVEL EXPENSES	485,209.00	483,219.00	556,945.00	1,990.00-	73,726.00
7100	TELEPHONE AND TELE	1,032,276.00	1,168,170.00	1,197,010.00	135,894.00	28,840.00
7105	DATA PROCESSING	.00	.00	.00	.00	.00
7110	POSTAGE	.00	.00	.00	.00	.00
7115	LEGAL FEES	.00	.00	.00	.00	.00

Computer Applications in Fraud Cases

The CASs during the course of an audit, very rarely comes across evidence of taxpayers using their computer system for fraudulent activities. However, the computer is used quite extensively in criminal investigations. The creation of data bases of information collected during an investigation can be keypunched, sorted and manipulated on a computer to trace transfers of cash between banks and individuals and other transactions. The determination of an individual's net worth is another technique that can be done on a computer. It is very common that a check spread is performed on an individual or business account where fraud is anticipated. In some cases this involves analyzing 50 to 100 bank accounts. Other customized programs are used to analyze a variety of accounts where there is suspicion of evasive transactions.

Some examples of programs written by CASs for unique situations are:

A branch of the Controlled Foreign Corporation, located in a tax haven country leases equipment owned by the domestic parent. The equipment is then released to other branches or subsidiaries that do business in various foreign countries. The purpose of this application is to compare the equipment charge between the various entities to determine if earnings are being shifted to avoid foreign and/or U.S. taxes.

Agents obtained approximately 9,800 cancelled checks from various seafood brokerage houses in their area. Subject checks were payments for seafood delivered to brokerage houses by individual suppliers. These checks were made out to hundreds of different payees including names of individuals, names of corporations and names of boats. A file was created containing payor, payee, check number, check amount and date. Two extraction programs provided internal sorts (payor/payee and payee/payor) with prints to correspond with sorts. In this manner, all payments to a specific taxpayer were isolated and made available for audit.

A tax protestor had not filed tax returns covering a period of eight years. The best approach to this problem of determining the taxpayer's unreported income and source of that income was by summons of his known bank records for the period. Four different bank accounts containing most of the activity required detailed analysis

exceeding the agent's time constraints if done manually. It was determined that the check spread and bank deposit programs used in Criminal Investigation cases would be appropriate for this situation.

Another project involved an investigation over a six year period of a medical practitioner whose income was derived from a private practice and consulting fees from medical institutions and hospitals. The private practice was incorporated as a professional corporation, and the consultant fees were received from partnership entities in which the practitioner was a partner. The document secured from the taxpayers were keypunched onto tapes and used to analyze each record by annual periods (for matching to the taxpayer's individual return) and by fiscal periods (for matching to the corporate returns). Income was separated by carriers and patients for matching against the return and the information supplied by the carriers. Expenses were assigned a four-digit code, and each check was coded with a particular number.

A foreign company purchased all of the stock of a construction corporation from U.S. stockholders. The purchase price of all stock was in excess of \$76 million. A preliminary analysis of the transactions reported by the stockholders revealed that some of the stockholders were treating the gains as long-term capital gains and others were not reporting the sale. None of the stockholders tested had reported their gains as a short-term capital gain. The stock records were obtained and summarized by each stockholder as to which shares qualified for long-term versus those that qualified for short-term treatment. A program was then written to compute gross long-term gains and gross short-term gains from the sales of the stock by stockholder. The program also sorted output by taxpayer, district, and zip code. Each district with stockholders involved in this transaction was then furnished a copy of the output relating to their district. More than 20 districts were involved, which affected in excess of 750 shareholders.

Advantages of Computer Assisted Audits

The overall advantages of computer assisted audits are the tremendous time savings for both the taxpayer and the IRS. In addition, these techniques have in-

creased the quality and efficiency of tax examinations. Through these new techniques, the auditor can:

1. Select and print only needed data from a great mass of data.
 2. Pull together data from fragmented invoices by searching a file for all identical invoice numbers.
 3. Reformat records to conform with auditing convenience. For example, printouts can be generated in the same sequence
- which the taxpayer files source documents.
4. Investigate new audit areas which previously would not have been possible due to time considerations.
 5. Make more sophisticated analyses of data through use of the computer's unlimited ability to manipulate data. All types of spreadsheets, comparisons, and cross checking are possible. The expanding use of computer terminals provides ready computer assistance at almost any location.