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1979

## NAARS, National Automated Accounting Research System

American Institute of Certified Public Accountants (AICPA)

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APR 5 1979

# NAARS

## NATIONAL AUTOMATED ACCOUNTING RESEARCH SYSTEM



AMERICAN INSTITUTE OF CPAs  
1211 Avenue of the Americas  
New York, New York 10036

**NAARS**

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1211 Avenue of the Americas  
New York, New York 10036



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## What's NAARS?

*by Hortense Goodman  
Manager  
Information Retrieval Department*

Computer systems have come of age in accounting research, via NAARS, a computerized information retrieval system. NAARS is an acronym for National Automated Accounting Research System.

Through the computer it is now possible to research the financial statements, footnotes, and auditors' reports from the published annual reports to shareholders of over 7,000 companies. Customized terminals in major cities throughout the continental United States can be used to access the data base, which is on a computer in the Dayton, Ohio, offices of Mead Data Central, Inc. (MDC).

Using a typewriter keyboard linked to MDC's headquarters, a researcher addresses questions directly to the computer, which searches the full text of all programmed documents, and — in seconds — retrieves the requested information.

The researcher then can

broaden or narrow the line of inquiry to extract precisely the information being sought. The data is reproduced on a video terminal (television screen) and, if desired, reproduced on a high-speed printer.

NAARS was developed through the joint efforts of an AICPA committee and Mead Data Central, Inc. After a pilot program period that ran from November 1972 to October 1973, during which the committee members tested the system with a limited data base of annual reports, prospectuses, and accounting policy statements; NAARS went operational with a data base that included thousands of annual reports for listed and over-the-counter companies, supplemented by a literature file containing such material as APB Opinions and Accounting Research Bulletins together with related interpretations, Accounting and Auditing Standards, SEC

Regulation S-X Accounting Series Releases, FASB Statements and Interpretations, and selected material from the Accounting Standards Executive Committee and from the Cost Accounting Standards Board.

AICPA members, corporate executives, researchers and others need not have their own terminals to take advantage of the Institute's NAARS; inquiries can be directed to the AICPA staff for research, with a printout supplied on a fee basis. This service, designed primarily for the firm or executive with only an occasional need for this type of search, supplements the existing subscriber programs.

The Institute itself has made extensive use of NAARS in the production of its series of Financial Report Surveys.

The eighteenth report was released in January. A list of the Financial Report Surveys as of January 1979 can be found elsewhere in this brochure.





FINANCIAL REPORT SURVEYS PRODUCED THROUGH USE OF NAARS:

1. Illustrations of Accounting Policy Disclosure (1972)  
A survey of applications of APB Opinion No. 22
2. Illustrations of Reporting Accounting Changes (1974)  
A survey of reporting under APB Opinion No. 20
3. Illustrations of Reporting the Results of Operations (1974)  
A survey of application of APB Opinion No. 30
4. Illustrations of Interperiod Tax Allocation (1974)  
A survey of applications of APB Opinion Nos. 11, 23,  
24, 25 and SEC Release No. 149
5. Illustrations of the Statement of Changes in Financial Position (1974)  
A survey of reporting under APB Opinion No. 19
6. Illustrations of the Summary of Operations and Related Management  
Discussion and Analysis (1975)  
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Securities Exchange Act of 1934 in annual reports to shareholders
7. Illustrations of Departures from the Auditor's Standard Report (1975)  
A survey of the application of Statement on Auditing Standards No. 2
8. Illustrations of the Disclosure of Related Party Transactions (1975)
9. Illustrations of the Disclosure of Subsequent Events (1976)  
A survey of the application of Section 560 of Statement on  
Auditing Standards No. 1
10. Illustrations of Accounting for Contingencies (1976)  
A survey of the application of FASB Statements Nos. 5 & 11
11. Illustrations of the Disclosure of Pro Forma Calculations (1977)  
A survey of the application of certain sections of APB Opinion  
Nos. 15, 16 and 20 and SAS No. 1
12. Illustrations of Accounting for Marketable Equity Securities (1977)  
A survey of the application of FASB Statement No. 12
13. Illustrations of the Disclosure of Unaudited Financial Information in  
Audited Financial Statements (1977)
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# A BREAKTHROUGH IN DISCLOSURE RETRIEVAL

## How the National Automated Accounting Research System aids CPAs in research.

by Andrew P. Gale

Organizations such as the American Institute of CPAs, the Financial Accounting Standards Board, the Securities and Exchange Commission and the courts continually issue statements, standards, guidelines, bulletins, releases and decisions on various aspects of business activities. These pronouncements result in changes in the extent of corporate disclosure and in the format and content of financial statements, whose principal aim is to inform people making investment decisions. Because accounting is more of an art than a science, there are diverse views on how and what information describing business activities can best inform the investing public. All accountants, from the large international firms to individual practitioners, must be certain that their clients' filings are in accordance with the latest authoritative pronouncements and within the guidelines of precedent when particular treatments are not specified. Even local practitioners with nonpublicly held clients need to be aware of the latest disclosure trends because, at present, generally accepted accounting principles apply to all enterprises regardless of size or nature of ownership.<sup>1</sup>

Therefore, accounting research is important to large and small accounting firms to enable them to cope with the evolving rules, the vast amount of disclosure precedents and their clients' and the public's interests.

One of the least publicized activities of an accounting firm is its research function, which plays a supportive role in the account-

ing, auditing, disclosure and opinion-issuing process. Research frequently is necessary to determine how certain transactions and events are being accounted for, classified and disclosed in financial reporting; how compliance with authoritative pronouncements is being disclosed in annual reports; or what authoritative literature could apply to specific transactions or accounting concepts. Also, information is often sought on the policies followed within certain industries and the preferability or general acceptance of accounting methods used for particular transactions.

It is little wonder, then, that accounting firms have recently invested heavily in upgrading and automating their research capabilities. Many firms now use a recently developed digital computer system known as NAARS, an acronym for National Automated Accounting Research System.

NAARS, developed by the AICPA in conjunction with Mead Data Central, Inc., consists of several IBM 370/155 computers located in Dayton, Ohio, with remote console terminals that communicate with the computer via telephone lines from subscribers' offices throughout the U.S. NAARS can be used to select and display on a television screen at a subscriber's console disclosures from its data bank of accounting materials, which are stored electronically in the computer memory, and can also print them out as desired. By formulating a search strategy according to prescribed rules, a researcher can

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<sup>1</sup> Charles Chazen and Benjamin Benson, "Fitting GAAP to Smaller Businesses," *JofA*, Feb. 78, p.46. See also "Auditing Interpretation—Applicability of [Statement on Auditing Standards] no. 21 to Nonpublic Companies," *JofA*, May 78, p.101.

search the data bank rapidly and accurately for disclosures that are relative to his area of interest.

### **The Need for an Accounting Research System**

NAARS was created when it was determined that new advances in computer technology could be applied by accounting firms to their conventional methods of storing and retrieving accounting information.

Traditionally, an accountant trying to find out how a financial transaction is being reported in corporate annual reports searches his library for reference materials or talks with other accountants to see if they have been confronted with similar problems. To determine if precedents exist, the accountant may refer to a variety of indexes and have staff accountants search through stacks of corporate annual reports for relevant information. Most nonautomated retrieval systems are based on the familiar subject-heading classification method in which information is categorized by the subjects deemed appropriate by the indexer. Depending on the degree of refinement of these headings, the alertness of the indexer in recognizing and properly classifying the information and the ingenuity of the researcher in determining the heading pertinent to the information he is seeking, the results obtained could be incomplete or even incorrect. Much time can be wasted in checking information that turns out to be irrelevant because of misleading, ambiguous or incomplete subject headings. The recent "information explosion" has resulted in a huge body of data, in accounting as well as in other fields such as law, which has made it necessary for researchers to find a more efficient means of retrieval.

It became apparent that the digital computer, with its vast memory for the storage of data and its accurate and rapid data processing capabilities, could be programmed to conduct accounting research more quickly, comprehensively and with less cost than the traditional manual methods.

NAARS overcomes problems inherent in the subject-heading method of storage and retrieval because retrieval is based on the actual words in the documents, which the researcher selects, based on his knowledge of the subject. NAARS is called a "full text"

system because all meaningful words and their locations in its data base are recorded in a concordance maintained by the computer. When a search is performed, the computer examines this concordance to find the location of words to satisfy the search logic.

### **How NAARS Works**

A NAARS console is installed in the office of each NAARS subscriber; it consists of a keyboard resembling a typewriter but with several special keys; a television screen or video tube; a high-speed printer; and a special data telephone to link the console to the computer.

To perform a search, the researcher dials the NAARS number on the data telephone and, once in contact with the computer, uses the console keys to type the search in the prescribed format. The screen displays the search terms, as they are being typed, which the researcher then transmits to the computer.

The data bank is searched automatically, and usually within a few seconds a message

**"The function of NAARS is to process a request by searching its data files as instructed."**

on the screen displays the number of documents satisfying the search. These documents can be displayed in any of several modes by using special keys. The display could include (1) the full text of the document, (2) a particular segment of the document or (3) merely the search words surrounded by a small amount of text to put the key word(s) in context. If, on viewing the results, the researcher is dissatisfied, he may modify the request (called the search strategy) or start anew. Alternatively, a list of companies whose disclosures are in accord with the search logic can be retrieved, and their disclosures examined in the firm's library on microfiche or in hard copy. Obviously, the use of the computer to locate and display documents speeds up the research process tremendously.

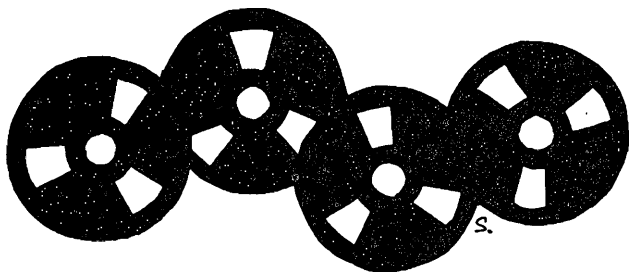
The function of NAARS is to process a request by searching its data files as instructed. The researcher formulates the search strategy according to certain rules, which are flexible. If the search strategy is inadequately developed but technically correct, NAARS will process the request routinely but the search results may be incom-

plete, contain irrelevant materials or be misleading. Formulating a search strategy efficiently to obtain all, and only, the relevant disclosures is the NAARS researcher's chief challenge and requires some basic accounting knowledge, a familiarity with the rules for structuring the search, hands-on experience with the system and careful analysis before operating the console.

#### The Data Bank

The NAARS data bank currently contains financial statements, including footnotes and auditors' reports, from approximately 7,000 annual reports with fiscal years ending in 1976, 1977 and 1978. Included are approximately 4,000 companies, mostly those traded on the New York and American stock exchanges, of the nearly 10,000 that file reports with the SEC. All years may be searched together or the search may be limited to a particular year or portion thereof. The data base also contains a file of 500 examples of the "management's discussion and analysis of the summary of operations" sections from annual reports with balance sheet dates between November 30, 1974, and January 31, 1975.

An extensive accounting literature file of the full texts of updated authoritative and semiauthoritative pronouncements is included. This file contains AICPA materials, including accounting research bulletins, Accounting Principles Board opinions, statements and interpretations, statements on auditing standards, auditing interpretations,



industry accounting and audit guides, accounting standards executive committee statements of position and technical practice aids; SEC materials, including regulation S-X, accounting series releases and staff accounting bulletins; FASB statements and interpretations; Cost Accounting Standards Board statements; and International Accounting Standards Committee pronounce-

ments. A file of superseded documents is also available, which may be searched separately or together with the current literature.

All annual reports in the file have been divided into sections, or segments, to narrow a search to a specific area of the document. Examples of segments include B/S for the entire balance sheet, I/S for the entire income statement, REPR for the auditors' report, CURA for current assets and EQUITY for stockholders' equity.

The AICPA has also incorporated broad subject headings into footnotes and auditors' reports to categorize the nature of the disclosures. These headings (called descriptors) are used if the researcher wishes to restrict a search to a preindexed topic. Examples of descriptors include DISCOP for discontinued operations, SUBEV for subsequent events and FORX for foreign exchange disclosures.

#### Searches and Applications

In formulating a search strategy, the researcher must be familiar with the multiple capabilities of the system, which can retrieve the following:

- Financial statements or footnotes containing a particular word or phrase, or a word within a specified number of words of another word, or those containing one word or phrase but not another.
- Specified segments of annual reports, such as current assets, extraordinary items, accounting policies notes or auditors' reports.
- Footnotes on a preindexed topic, such as discontinued operations or pension plans.
- Companies in a certain industry, as classified by the Standard Industrial Classification code, which is a separately stored segment of each annual report.
- Companies with a specific *Fortune* standing, which is another stored segment.
- Companies with total assets, net worth, total sales or net income of a certain amount or within a designated range.
- Companies audited by a particular firm.

Combinations of the above are practicable, which gives NAARS versatility in addition to speed.

The accounting researcher, using NAARS and other research tools, can obtain information like the following:

- Illustrative examples of financial statements and footnotes that reflect compliance with a pronouncement of an authoritative or semiauthoritative accounting body, such as the AICPA, the FASB, the SEC, the CASB or the APB. This enables the accountant to see how companies other than his client are

complying with the pronouncement. Such information is a guide to the preferred manner of presentation.

Current practices in disclosing items not specifically prescribed by existing authoritative pronouncements. Because not all items affecting a company's financial statements are prescribed by authoritative pronouncements, there may be a choice among alternatives in accounting for certain events. It is to the accountant's advantage to survey such disclosures to help him decide on the method of accounting he can recommend to his client.

The extent of support for one accounting method over others. This can arise when accounting for an event is not covered by an authoritative or semiauthoritative pronouncement and the client strongly favors a certain presentation. The accountant might be reluctant to agree to this approach without checking other companies' disclosures. The accountant's credibility could be held in question if he insisted that a client follow one accounting method only to discover that a number of companies in similar circumstances use the approach favored by the client.

A survey of accounting methods peculiar to an industry. Certain industries have transactions or are governed by considerations or statutes that make their disclosures different from those of other industries. The accountant is better qualified to serve his client after he surveys principles and methods peculiar to the industry in which the reporting entity operates.

Auditors' opinions that are qualified, adverse or disclaimers of opinions or that express reliance on another auditor for a portion of the financial statements. NAARS can be used to retrieve such opinions to serve as guidelines to help the accountant determine the borderline cases, which may include considerations of materiality, to enable him to decide when a qualified opinion or disclaimer may be necessary. Knowing the extent of an accountant's reliance on another auditor for portions of assets, net income or subsidiaries can help establish the scope of an engagement.

Accounting literature on a particular subject to ascertain that all pertinent pronouncements are being considered for decision-making purposes. An accountant must be informed of all authoritative and semiauthoritative pronouncements on a subject in order to advise his client properly. However, because the number of standards and regulations is constantly increasing and because of

the difficulties inherent in manual indexing systems, an important pronouncement, or perhaps an exception to the rule, can easily be overlooked. This oversight may result in misleading or incorrect disclosures.

Disclosures of transactions, presentations and events for use as illustrations in a CPA firm's staff audit and SEC manuals.

Mention of a certain event or firm policy regarding a certain issue in an accounting firm's private internal releases or in the firm's manuals to develop applicable background information to relate to a current situation.

NAARS has been applied to the following topics, based on requests from various offices of a major international CPA firm:

Accounting policy followed by manufacturers for design costs (deferral or expensing).

Disclosures of pending government investigations.

Examples of double-dated auditors' opinions.

Literature on independence and ethics standards of accountants.

Literature with the term "legal obligation."

Examples of a change in the estimated salvage value of a fixed asset.

Examples of consolidation policies for subsidiaries that are less than 100 percent owned.

Annual report footnotes disclosing compliance with FASB Statement no. 13, *Accounting for Leases*, or Statement no. 14, *Financial Reporting for Segments of a Business Enterprise*.

Companies with foreign currency exchange gains or losses, with net worth over \$100 million and net income over \$10 million.

Annual report footnotes presenting quarterly data (unaudited) for unequal quarters, such as 12 weeks and 16 weeks.

Companies that have repurchased their stock from employees.

Corporations that are limited partners in partnerships.

Companies with unfunded pension liabilities shown on the balance sheet.

Companies with subsidiaries in the Netherlands Antilles or in Puerto Rico.

Examples where the audited financial statements of an insurance company conform to statutory requirements.

Authoritative literature using the term "senior management" or the term "top management."

- Disclosures by construction and manufacturing companies of the capitalization of interest.
- Disclosures by publishing companies of deferred, prepaid or unearned subscription income.
- Examples of companies adopting the Lifo method for valuing inventories.

The preceding examples illustrate the kinds of information that NAARS can retrieve, but there is virtually an unlimited spectrum of applications of computer-assisted research. Although there are alternative research tools, NAARS has many advantages in terms of speed, versatility, cost and convenience.

#### **Costs**

The cost of using NAARS consists of two basic elements, research time and search time. From the time the user identification is transmitted until the power is turned off, there is a connect time hourly charge of \$117. In addition, the time the computer is processing the request is search time, charged at \$195 per hour. The average search uses only about a minute of search time. Accounting firms typically bill their clients for the NAARS time and for the time of the researcher in preparing, executing and reporting results of NAARS research.

#### **Users**

At present, NAARS subscribers include the eight largest accounting firms plus six smaller firms, the AICPA, the FASB, the SEC,

schools of business at four universities and several financial and industrial organizations. AICPA members, corporate executives, researchers and others need not have their own terminals to take advantage of NAARS; inquiries can be directed to the AICPA staff for research, with a printout supplied on a fee basis. This service, designed primarily for the firm or executive with only an occasional need for this type of search, supplements the existing subscriber programs. Any organization or individual making use of disclosures in corporate annual reports for statistical studies of accounting methods, treatments or trends of financial disclosures, the extent or preferred wordings of disclosures on a certain subject, or application or wordings of authoritative or semiauthoritative accounting pronouncements is a potential user. These could include securities and economic analysts, stock exchanges, broker-dealers, federal agencies and individual practicing accountants, and possibly individual investors and prospective employees of publicly held firms.

#### **Summary**

While accounting research will never become totally automated, because of the need for accounting researchers to interpret research requests, formulate searches and evaluate results, the investment in computer research facilities will pay handsomely in more complete and accurate results, more timely solutions to problems and reduced research costs. ■





# NAARS and LEXIS: Research Tools

**This article describes, along with examples, computerized information retrieval systems available for helping solve accounting, auditing and tax problems for professional accountants in all size practices.**

Accounting professionals have long recognized the need for a practical and efficient computerized information system to search and retrieve relevant information from the enormous volume of materials available to the profession today. The development of a practical full-text system has now made it possible for accounting professionals in all size firms to efficiently utilize advanced computer technology as a research tool to help solve accounting, auditing and tax problems.

The full-text system enables the user to search the entire, natural text of a set of documents stored in the computer by use of words or phrases which he would expect to appear in the relevant material. In response to the request, the computer rapidly collects a list of those documents which satisfy the search request, i.e., those which contain in their text the words or phrases submitted for search.

Customized computer terminals are used to access the data base, which is on a computer in the Dayton, Ohio, offices of Mead Data Central, Inc. (MDC). The legal research service (known by its trade name of LEXIS) incorporates several libraries which may be of particular use to the tax professional. In addition, some accounting professionals subscribe to the Accounting Information library (also known as NAARS for National Automated Accounting Research System).

The LEXIS system was originally developed by MDC in cooperation with the Ohio Bar Association for research in Ohio law and related court decisions. The system has since been significantly expanded to include ten state as well as federal libraries (including a federal tax library) and an information library containing abstracts of articles from nearly 350 magazines and newspapers. A complete listing of the libraries available to LEXIS subscribers is shown in Table 1.

NAARS was developed through

the joint efforts of the AICPA Information Retrieval Committee and MDC. After a pilot program period from November 1972 to October 1973, during which committee members tested the system with a limited data base, NAARS became operational in November 1973 with a data base that was built up to include financial statements, notes and auditors' reports from the published annual reports of approximately 4,000 companies. The data base is continually updated as more current reports become available and will continue to include reports from the two to three most recent years. The NAARS data base also includes a "literature" file, including the full text of *Accounting Principles*, Volume 1 (codified APB and FASB pronouncements), *Statements on Auditing Standards*, *Regulation S-X*, *SEC Accounting Series Releases*, *FASB Statements of Financial Accounting Standards*, *FASB Interpretations*, *CASB Cost Accounting Standards* and various other SEC and AICPA pronouncements. A complete listing of the files contained in the NAARS library is shown in Table 2.

## Search Strategy

LEXIS and NAARS permit a full-text search of the desired data file or specified segments of it within seconds on a word identification basis. The search may be made in single words, numbers, phrases, one word or phrase within a specified proximity of another word or phrase, or several words or phrases appearing in the same segment of the document. It is also possible to exclude documents that contain specified words. Usually this is done to reduce or pinpoint the responses.

A search, therefore, starts with at least a tentative judgment concerning what words or phrases might be used to describe the transaction or situation that is being researched. Within seconds

**TABLE 1**  
Libraries Available on LEXIS (as of May 1977) \*

Name	Library	Name	Library
GF	General Federal	AS	All States (Cases Only)
TX	Federal Tax	CA	California
SC	Federal Securities	DE	Delaware Corporation Law
TR	Federal Trade Regulation	FL	Florida
PL	Federal Patent	IL	Illinois
AB	American Bar Association	KS	Kansas
AI	Accounting Information (NAARS)	KY	Kentucky
IF	ABI/Inform (Management Abstracts)	MA	Massachusetts
		MO	Missouri
		NY	New York
		OH	Ohio
		PA	Pennsylvania
		TE	Texas

**TABLE 2**  
Files Available in NAARS Library (as of May 1977)

Name	File
LIT	—Literature File
AC	—Accounting Principles, Volume 1 (as of 11/75)
AU	—Statements of Auditing Standards (as of 1/77)
AUI	—AICPA Auditing Interpretations (as of 2/77)
ACTG	—Accounting Guides (as of 7/73)
AUDG	—Audit Guides (as of 12/76)
SX	—Regulation S-X (as of ASR 203)
ASR	—Accounting Series Releases (through Number 211)
FASBS	—FASB Statements (through Number 14)
FASBI	—FASB Interpretations (through Number 18)
ASEC	—SEC Position Papers (through 76-3)
CASB	—CASB Cost Accounting Standards (through Number 415)
SAB	—SEC Staff Accounting Bulletins (through Number 14)
IAS	—International Accounting Standards (through Number 5)
TIS	—AICPA Technical Information Service (through Number 13)
SLIT	—Superseded Literature (as of 3/77)
ALLLIT	—Combined LIT & SLIT Files
AR-74	—Annual Reports, 1974
AR-75	—Annual Reports, 1975
AR-76	—Annual Reports, 1976
AR	—Combined AR-76, AR-75 & AR-74 Files
MGTDIS	—Management Discussion and Analysis
INDEX	—Accountants Index (1/1/74 through 12/31/75)

after the "search terms" are addressed to the computer, it responds in terms of how many documents meet the search criteria. The researcher has the option, at this point, of modifying the search terms to expand or narrow the number of potentially relevant documents; or of browsing through the contextual portions of those documents in which the search words appear (Key Word in Context—KWIC), or the full text, or any other designated segment. If satisfied with the relevance of the population, the researcher may ask for a listing of the documents and thereafter continue his detailed study with the hard copy of the documents available in his own library. It

is also possible to direct the computer to prepare a print-out of the relevant material on a high-speed printer in Dayton. Such print-outs are mailed to the terminal location the next business day.

All communication with the computer is through use of a typewriter-style keyboard for addressing the computer and a video screen for receiving responses. A printer alongside the terminal may be used to print out a copy, whenever desired, of whatever appears on the screen. The full-text system with interactive operation enables the researcher to engage in a direct, continuous and responsive dialogue in his own language with the full text. The researcher is in complete

charge of his search. Thus, he may browse through a few of the responses to a search, then modify the search terms, browse again on the basis of the modified search, then reject the modification and pursue an alternative modification, etc. The researcher can also change the form in which the retrieved material is displayed at any time.

### Accounting Research Applications

The Accounting Information library (NAARS) includes, as noted earlier, the financial statements, related notes and auditors' reports from the published annual reports to shareholders for approximately 4,000 companies. The companies in the data base consist primarily of companies listed on the New York or American Stock Exchanges and companies on the Federal Reserve Board list of over-the-counter companies whose stocks qualify for purchase on margin. Reports currently available for research cover 1975 and 1976 (and early 1977) fiscal years. Earlier data bases may be made available for research by special arrangements.

NAARS is particularly valuable to the practicing CPA in:

- Locating examples of how companies have accounted for a certain type of transaction or how they have disclosed certain matters.
- Responding to a client who resists a suggestion by stating: "Show me someone else who does that."

- Assisting clients in selecting among alternative presentations of specific matters.

- Locating authoritative pronouncements of the AICPA, FASB, SEC and CASB on any subject.

In searching the NAARS data base, it is possible to search the full text of all the financial statements and related notes and auditors' reports in the library. When desired, the user may limit the search to: (1) years ending within a specified time span; (2) companies listed on a specified exchange; (3) companies in specified industries (by SIC codes); (4) specified segments of the report (auditors' reports, income statements, accounting policies notes, etc.); or (5) any combi-

nation thereof. Thus, the population searched can be as limited or as broad as the user wishes.

The selection of search terms is probably more of an art in searching accounting information than is the case when searching legal libraries. The judges who write court decisions and the attorneys who prepare regulations or interpretations are likely to use the exact terminology of the statutes; accountants do not find themselves similarly constrained when developing the wording of the financial statements and notes. Nonetheless, the system is so flexible, and the user may modify the search terms used after seeing the results of the first tentative selection of search terms (and the computer works so fast), that it is generally possible to develop search terms that locate sufficient relevant examples with a minimum number of irrelevant ones.

After identifying the relevant reports through the selection of appropriate search terms, the user has numerous alternatives for obtaining hard copy of the reports for further study or discussion with clients. Where the number of examples are few, one may elect to print out selected portions or the full text of the relevant examples on the printer attached to the terminal. Where this would be time consuming and therefore costly in terms of computer usage charges, the computer may be instructed to provide print-outs from the high-speed line printer in Dayton, to be mailed to the user the next business day. Or, the user may print out on the terminal's printer a list of the names of the companies with relevant reports and then look up the reports in his or her own office library. If the accountant's library is not extensive, access to hard copy reports may be obtained from the securities industry or from microfiche files in the regional offices of the SEC.

### Examples of NAARS Searches

A few examples of how searches have been made may illustrate the flexibility of the system.

Suppose a client is interested in finding examples of how other companies disclosed decisions to discontinue segments of their operations and the fact that they expect

to realize or had realized a gain on disposition of the property. The search instructions to the computer might be phrased as follows: I/S (DISCONTINUED) AND FTNT (DISCOP W/SEG (GAIN W/5 DISPOS!))

This tells the computer to look for reports where the income statement contains the word "discontinued" and a footnote dealing with discontinued operations (DISCOP) includes the word "gain" within five words of some form of the word "dispose" (such as "disposed" or "disposition"). Within seconds the user is advised that 47 out of 3,717 reports for 1975 fiscal years meet the search criteria stated. The operator may then quickly look at excerpts from each of the 47 reports in turn, using the Key-Word-in-Context (KWIC) strategy referred to earlier. When satisfied that most of the examples are relevant, the accountant would decide on the method of obtaining printed copy most suitable among the alternatives available.

Another search illustrates a successful one with the simplest of search terms. The accountant was interested in examples of disclosure of accounting used for stock appreciation rights issued to employees. In this case, the search terms FTNT (STOCK APPRECIATION) were sufficient.

A search for disclosure by steel companies of how they accounted for furnace repairs might be worded as: SIC (331) AND FTNT (FURNACE). (SIC, of course, stands for Standard Industrial Classification.)

A search for auditors' reports that were qualified because of uncertainty concerning the outcome of litigation or claims might be phrased: REPRT(SUBJECT TO W/SEG LITIGATION OR LAWSUIT OR CLAIMS).

The following are presented to further illustrate some of the kinds of situations in which the computer is useful in locating relevant examples:

- Accounting methods applied to preoperating costs;
- Accounting treatment of settlement of litigation;
- Auditors' reports qualified because of uncertainty involving a contingent asset;
- Disclosures of expenditures for pollution control facilities;

- Presentation of the write-off of goodwill;
- Disclosures of sensitive or illegal payments;
- Disclosures of changes in estimated useful lives of plant and equipment.

Searches of the "literature" file are useful in locating all authoritative pronouncements with relation to a given subject. Thus, for example, it is possible to search all audit guides for references to "deferred taxes" or all accounting series releases for reference to "interest" in proximity to some form of the word "capitalize."

Other data bases on the computer that are of interest to accountants and auditors relate to federal securities law and federal trade regulations. The federal securities law data base includes the statutes administered by the SEC, final and proposed rules and regulations thereunder, selected SEC interpretations released, published no-action letters and court cases. The federal trade regulation file includes Supreme Court cases from April 1938, Circuit Court cases from January 1959, District Court cases from January 1970 and FTC orders from January 1970. All these data bases may be searched using the same type of logic that is used to search the accounting information and LEXIS libraries.

### Tax Research Applications

The federal tax and various state libraries are of primary importance to the tax practitioner. The federal tax library contains tax cases from the Supreme Court (beginning in 1913); Circuit Courts of Appeal (beginning in 1945); District Courts (beginning in 1960); Court of Claims (beginning in 1942); Tax Court (beginning in 1942); Board of Tax Appeals (from 1924 to 1942); and Tax Court Memoranda (beginning in 1942). These case files may be searched separately or all at once as a single file. The federal tax library also includes (1) Cumulative Bulletin file containing revenue rulings, revenue procedures and miscellaneous Treasury announcements and releases; (2) Legislative History file containing public laws, revenue bills, conference reports,

House reports and Senate reports; (3) Internal Revenue Code file containing code sections and annotations included in the current official compilation of Title 26 of the United States Code; (4) Regulations file containing the current final and temporary regulations; (5) Proposed Regulations file containing all current proposed regulations; and (6) Private Rulings file containing all private rulings released by the IRS beginning on March 14, 1977.

Tax materials are especially suited to computerized full-text research since tax sources are characterized by built-in descriptors (for example, code section numbers) and by a highly stylized vocabulary. Courts and tax practitioners alike use terms with specific meanings (for example, net operating loss, accumulated earnings and original issue discount). In addition, full-text research by computer allows the researcher to perceive the interrelationships between various tax concepts more readily than do categorically limited, manual research techniques.

While performing tax research using LEXIS, it is possible to search the full text of documents contained in the file being searched or limit the search to a specified segment of the documents. For example, in searching one of the case files in the federal tax library, the researcher may desire to locate the cases where a particular judge wrote the opinion of the court. It is possible to limit the search to the "opinion" segment of the cases and locate the desired cases by using the judge's name as the search request.

LEXIS can be utilized most effectively by the tax practitioner after performing some manual research using the conventional tax services. The manual research technique will generally provide the researcher with some background into the nature of the problem and will result in some idea of what words or phrases may be contained in the initial search request to yield a favorable response. After the search request is transmitted to the computer, the researcher may modify the initial search request depending on the quantity and content of responses received. LEXIS is particu-

larly valuable to the tax practitioner in the following situations:

- The manual research has indicated that there are a great many documents dealing with the subject involved and the researcher desires to narrow the scope of research to documents that deal more closely with the particular situation.

- The manual research has resulted in no documents which are on point. The researcher may utilize LEXIS to verify manual conclusions or the LEXIS research may yield documents which are on point but were categorized in another area in the conventional research services. This technique may also result in bringing up documents in another area of tax law where an analogy can be developed to the situation at hand.

- The researcher may desire to compile a list of documents which contain certain characteristics. For example, LEXIS could be utilized to compile a list of Tax Court cases after 1960 which deal with the amortization of intangible assets.

After identifying the relevant documents desired, a researcher has the same alternatives for obtaining the hard copy as discussed in the NAARS section of this article. That is, he may obtain the source documents from his own library or from a library available to him (such as his state society library), he may utilize the printer attached to the terminal or he may instruct the computer to provide a print-out from the high-speed line printer in Dayton.

### Example of LEXIS Search

An example of how LEXIS can be utilized to help perform tax research will demonstrate the value of the system to the tax practitioner.

A client in the printing business acquired the assets of another printing business in a taxable transaction. A significant amount of the acquired assets consisted of "standing pages." (Standing pages are original typesettings for initial printing jobs that may be reused for other jobs if only a few changes are necessary.) The practical lives of the standing pages ranged from three months to ten years, but

could not be determined with certainty until they actually wore out or became obsolete. The client desired to assign a useful life to the standing pages and to amortize the cost over the shortest period possible. Manual research did not result in any cases that were on point. Therefore, LEXIS was utilized as a further step in the research process.

The first search request entered into the system was STANDING PAGE. Within seconds, LEXIS indicated that there were no cases or IRS releases containing this term. This verified the initial manual research that was performed. LEXIS was then utilized to determine if there were any documents that dealt with similar assets such as dies, patterns, engravings or designs. The following search request was used to search the CASES file in the federal tax library: DIE OR PATTERN OR ENGRAV! OR DESIGN w/25 PRINT!

LEXIS advised that there were 171 cases which satisfied this search request. Since the number of documents involved was large, the researcher decided to restrict the search by adding the following additional requirements: AND DEPRECIAT! OR AMORTIZ!.

In response to this second level of the search request, the computer examined the 171 cases resulting from the first level and determined which cases also contained the words depreciation or amortization or the various derivatives thereof. LEXIS advised that there were 80 cases that satisfied the search request through level two.

The researcher can continue to modify the search request by adding new pertinent levels as demonstrated above, thereby decreasing the number of documents which satisfy the search request. In this regard, the researcher should be cautious since the scope of the search may be narrowed so as to eliminate some potentially relevant cases. Alternatively, the researcher can begin reviewing the cases by using the Key-Word-in-Context (KWIC) strategy. This review would reveal the cases which may be "on point" and may give the researcher some additional ideas of how he may modify or reformulate his

search request to obtain other relevant documents. The researcher can also change files within the federal tax library and continue his search (for example, in the cumulative bulletins file).

The state libraries can be searched using the same basic logic utilized to do research in the federal tax library. The state libraries generally contain the text of statutes and cases pertaining to all areas of state law, including state tax law. The state libraries are useful to the tax practitioner for the same reasons as the federal tax library; in addition, the "all states" library allows the researcher to perform a comparative study of the way certain transactions are treated in various states. Since state income taxation is becoming increasingly important in structuring business transactions, these state libraries will become more valuable to the tax practitioner in the future. It is anticipated that the number of state libraries available on LEXIS

will be expanded to meet the increasing demand for such service.

### **How to Utilize NAARS and LEXIS**

The LEXIS system is marketed commercially by Mead Data Central, Inc. of New York City. Several accounting firms, state societies and associations have subscribed to LEXIS and may have the system available to their members. Recently, Mead Data Central instituted a new program under which several firms could utilize a single LEXIS terminal in a centralized location on a time-sharing basis. Anyone desiring more information on the LEXIS system and the various alternatives available should contact a Mead Data Central representative in the area.

Anyone having the need for information from financial statements or auditors' reports in published reports to shareholders should consider whether NAARS

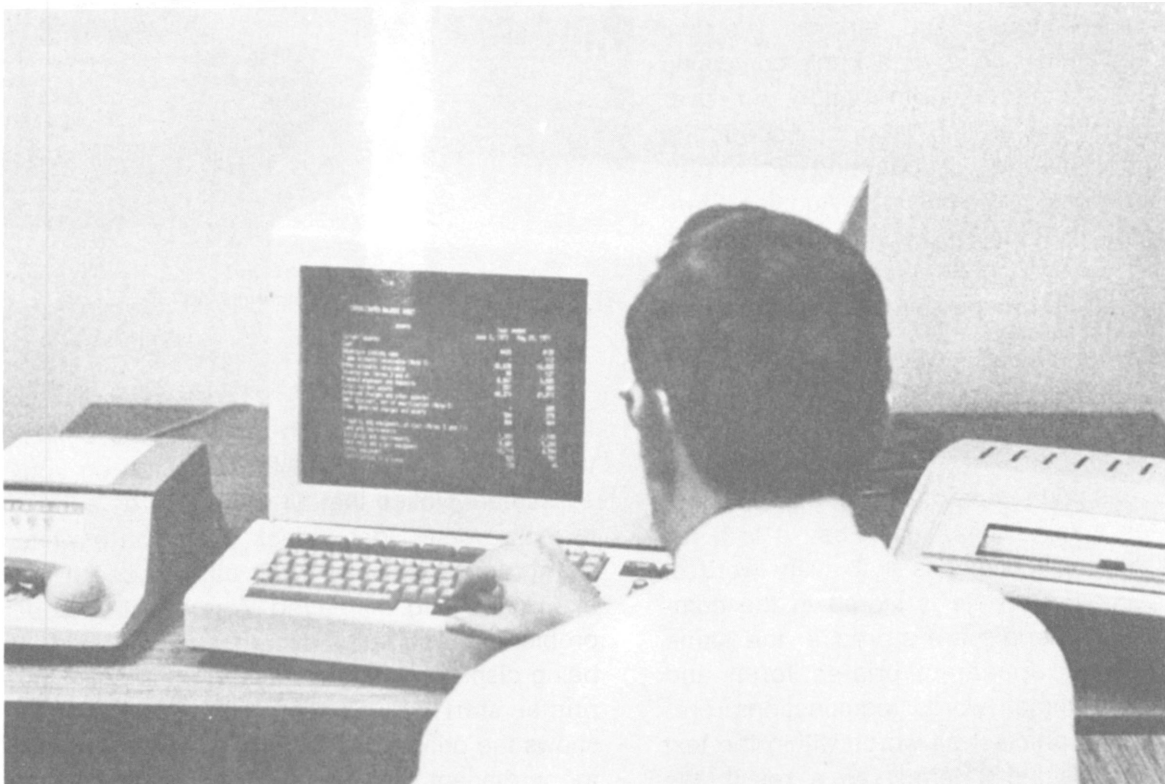
might be the most efficient way to obtain the information. Since the AICPA Information Retrieval Committee has done extensive work in developing the NAARS library, AICPA members who do not subscribe may still utilize the NAARS library on a per hour basis by contacting Hortense Goodman, Manager, Information Retrieval, of the AICPA in New York. To best serve your needs, she will want to know whether you are interested in all examples that are available that are relevant (which could be 50 or 500) or only a limited number of examples. She may also be interested in your ideas of what key words or phrases might be used to describe the subject of the research particularly where unique terminology may be involved. The more specific you can be concerning what you are looking for and what use you plan to make of the information, the better the chance that NAARS can meet your needs quickly and inexpensively. Ω



# NAARS

## NATIONAL AUTOMATED ACCOUNTING RESEARCH SYSTEM

### A COMPUTERIZED RESEARCH SERVICE FOR THE FINANCIAL COMMUNITY



*Figure 1. The NAARS System*

In the conduct of the accountant's work it is often necessary for him to research current trends in financial reporting. He is oftentimes interested in various statement presentations, their form, terminology and the accounting policy in use as reflected in the financial statements. This brochure describes a new approach to accounting research that enables the user to conduct his research quicker and more completely than the traditional manual methods currently being used.

## INTRODUCTION

The American Institute of Certified Public Accountants, in conjunction with Mead Data Central Inc., a wholly owned subsidiary of the Mead Corporation, has developed a computer-assisted accounting retrieval system called the National Automated Accounting Research System (NAARS). This system operates through Mead Data Central's research service which employs a full text, interactive approach to information storage and retrieval. The user has direct access to a data bank containing complete accounting information on over 6,000 corporate annual reports, Accounting Research Bulletins, Accounting Principles Board Opinions, Statements on Auditing Standards and all future pronouncements of the Financial Accounting Standards Board. A test data bank of 50 prospectuses is also available.

## DESCRIPTION OF THE SYSTEM

### Characteristics

NAARS has four characteristics that make it unique as a retrieval system. First, it is a *full text system*, which means that every word of every document on file is stored in the computer. The materials are stored in the same order as they appear in printed form, and except for common words (conjunctions, prepositions and articles) all words within the text are treated as index terms. As a result, the document itself is retrieved based upon the words that comprise it, and when it is retrieved, the full text of the document is displayed. For example, you may request the computer to search every footnote in the annual report file for the phrase "STOCK OPTION." By entering this phrase in the system, the computer will search its files and will tell you how many documents actually contain the phrase "STOCK OPTION." If you so desire, the computer will display, one at a time, every footnote

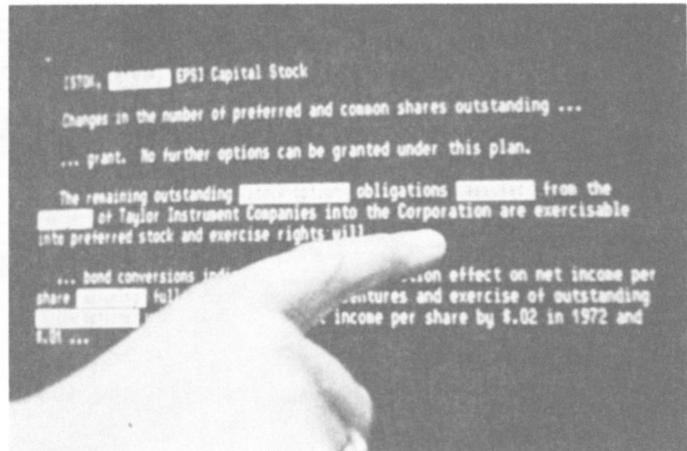


Figure 2. A typical display

that contains your search terms. Figure 2 illustrates a typical display of information on your TV screen. Notice that all the keywords appear in the reverse video (black letters on a white background) making it very easy to see if the example being displayed is relevant to your problem. If you want a hard copy of what is being displayed, all you have to do is press the printer start key on your terminal. Figure 3 shows the printer copying the same information for permanent storage.

NAARS is also a *real time system* that enables you to access the computer over telephone lines from your office. Using a television type terminal, you can communicate directly with the computer without the intervention of another person.

The third characteristic of NAARS is its *interactive mode of operation*. You can actually carry on a dialogue with the computer during



the search process. You can easily broaden or narrow your search based on the count of items retrieved and samples of items displayed on your terminal.

The fourth characteristic of NAARS is that it permits *multiple-term coordinate search capabilities* which allow you to coordinate search capabilities or create strings of words or phrases based on your judgment concerning what documents you want to see and how you want to search. This capability, combined with the interactive feature, enables you to conduct your searches in somewhat the same manner as you searched under traditional means.

For example, perhaps the search for "STOCK OPTION" footnotes was too broad. The data files might contain thousands of notes on this subject. You could narrow your search by adding additional terms to your search. If your particular problem involves the method of disclosing that the surviving company in a merger assumed the stock options outstanding of the merged company, you might add the terms "ASSUME" and "MERGER" which may help you limit the number of responses to a smaller group that more precisely relates to your specific problem.

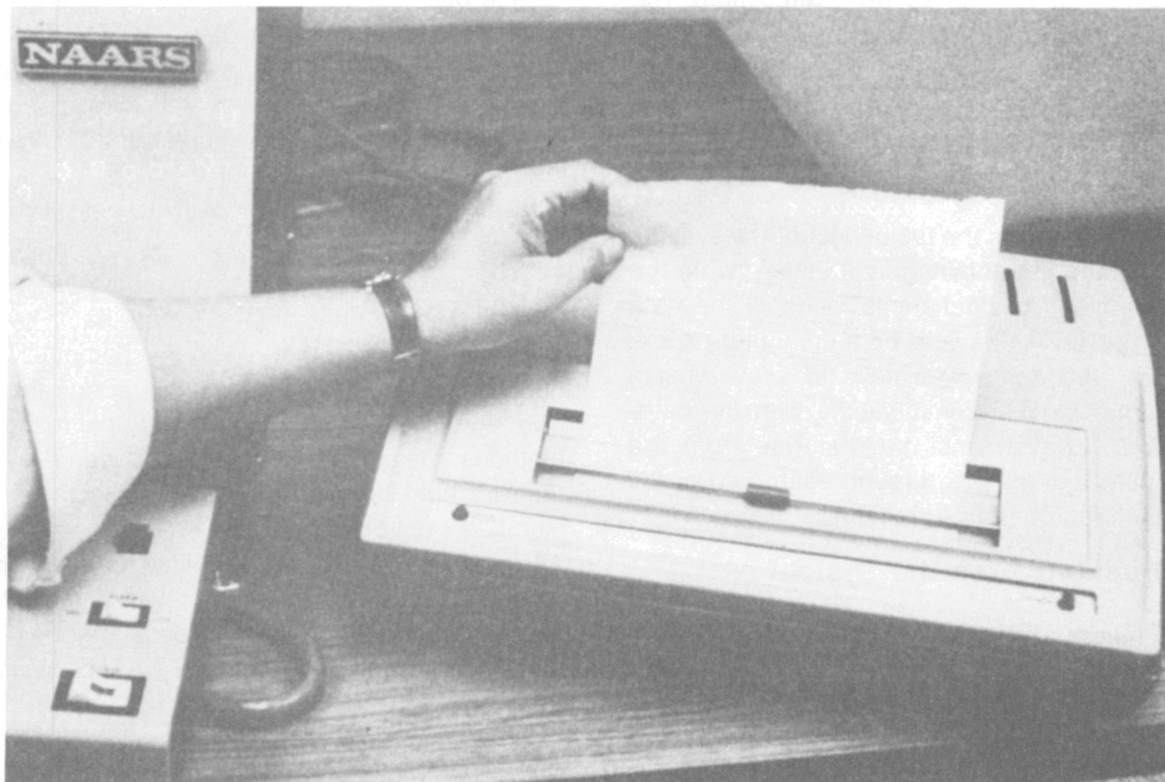


Figure 3. The Printer

On the other hand, the system might reply that it contains no footnotes that satisfy your request. In that case, you may want to relax your specifications a bit and only ask the computer to search for "STOCK OPTIONS" and "MERGER." The ability to interact with the computer in searching for relevant examples represents the single most powerful aspect of NAARS.

### **Control of the System**

You exercise complete control of the system through three pieces of equipment as shown on Figure 1. The data phone on the left is the telephone link between your terminal and the computer center in Dayton, Ohio. The high-speed terminal consists of a cathode-ray tube where all responses from the computer are displayed, and the keyboard which has been specially designed for automated research. The terminal has been especially designed to simplify the interface between you and the computer. A hard copy printer is attached which allows you to make a paper copy of anything on the TV screen.

In order to receive the full benefit of the system, you should be thoroughly familiar with the various types of documents found in the data files. You do not have to be a computer expert, in fact, you don't even have to know what a computer is. You communicate with the computer in English and the dialogue from the computer guides you through each step of the research and retrieval problems.

### **Instructions from the System**

The messages from the system to you have also been designed to simplify the interface between you and the system. They are all

composed in English and at each point in the use of the system where more than one response from you is acceptable, the system informs you of the choices available by displaying a list of the options on your terminal screen.

If for some reason you need further search assistance, you may use the special HELP key on the terminal keyboard and the system will display an extensive explanation of the previously displayed message. There are over 40 HELP messages in the current system.

A comprehensive user manual is given to each user which explains in detail how the system operates. A user card, which is a condensed version of the user manual, is also provided. A training session lasting a day and a half with two follow-up sessions is provided each user. Experience to date indicates that most people can learn the mechanics of operating the system in a few days and that they can conduct relatively complex searches in two weeks time.

The National Automated Accounting Research System (NAARS) has demonstrated that in over 90% of the cases, the use of the computer to conduct research is faster, more comprehensive, and less costly than the traditional manual methods. Demonstrations of the research system are held daily at the American Institute of Certified Public Accountants in New York City. All interested persons are invited to see how this computer system can be of help to them no matter what their interests or needs may be. To obtain further information about NAARS please contact:

**Information Retrieval Department  
American Institute of CPAs  
1211 Avenue of the Americas  
New York, New York 10036**

**Phone (212) 575-6393**

NATIONAL AUTOMATED ACCOUNTING RESEARCH SYSTEM  
ACCOUNTING LIBRARY

AS OF  
January 1, 1979

## ACCOUNTING LIBRARY

### ACTIVE FILES

#### Annual Report Files

##### 1976/7 File

The file consists of 4,145 annual reports to shareholders of corporations whose stock is traded on the New York and American Stock Exchanges and Over-The-Counter whose balance sheet date falls between July 31, 1976 and June 30, 1977. Only the financial statements, footnotes and auditor's opinion of the annual reports are in the file.

##### 1977/8 File

The file consists of 4,347 annual reports to shareholders of corporations whose stock is traded on the New York and American Stock Exchanges and Over-The-Counter whose balance sheet date falls between July 31, 1977 and June 30, 1978. Only the financial statements, footnotes and auditor's opinion of the annual reports are in the file.

##### 1978/9 File

The file will consist of approximately 4,800 annual reports to shareholders of corporations whose stock is traded on the New York and American Stock Exchanges and Over-The-Counter whose balance sheet date falls between July 31, 1978 and June 30, 1979. Only the financial statements, footnotes and auditor's opinion of the annual reports are in the file.

#### Management Discussion and Analysis File

The file consists of management discussion and analysis of the summary of operations extracted from 500 annual reports to shareholders. The selection covers a wide variety of industries.

#### Proxy File

The file consists of selected elements of proxy statements of Fortune companies.

#### Accounting Literature File

The Accounting Literature File consists of the following documents:

##### APB Accounting Principles

Full text of all Terminology Bulletins; Accounting Research Bulletins; APB Opinions (updated for changes); Statements and Interpretations.

Statement on Auditing Standards

Full text of Statement on Auditing Standards (SAS-1, SAS-2, SAS-3, etc.), updated for changes, and all Auditing Interpretations issued by the AICPA.

Statement on Standards for Accounting and Review Services

Full text of Statements in connection with unaudited financial statements or other unaudited financial information of a nonpublic entity.

Industry Audit Guides

Full text of all the Institute's audit guides, updated for changes.

Industry Accounting Guides

Full text of all the Institute's accounting guides, updated for changes.

SEC Material

Full text of Regulation S-X, all Accounting Series Releases (ASR), and Staff Accounting Bulletins.

FASB Material

Full text of all FASB Statements, Interpretations, Responses to Requests for Action and Concepts.

ASEC Material

Full text of Accounting Standards Executive Committee Position Papers.

CASB Material

Full text of selected Cost Accounting Standards Board Statements.

International Accounting Standards Committee Pronouncements

Full text of all International Accounting Standards.

International Federation of Accountants Committee Pronouncements

Full text of all International Auditing Practice Committee Statements.

Technical Information Service

Full text of the Institute's technical practice aids.

ARCHIVE FILES

1972 Annual Report File	3,353 annual reports
1973 Annual Report File	3,617 annual reports
1974 Annual Report File	3,150 annual reports
1975 Annual Report File	3,717 annual reports
1971 Prospectus File	50 (test file)

OTHER AVAILABLE SERVICES

EFFECTIVE DATE JANUARY 1, 1979

## OTHER AVAILABLE SERVICES

### I. LEXIS

Subscribers to the LEXIS/National Automated Accounting Research System can also subscribe to the LEXIS service which utilizes the same terminal. This service contains state and Federal law as well as specialized libraries in Federal Tax, Federal Securities, Federal Trade Regulation and Federal Patent, Trademark and Copyright law, which may be of interest to other departments including your General Counsel. Mead Data Central (MDC) is continually adding new libraries, as well as expanding existing ones. Two examples of the contents of specialized libraries are listed below.

#### A. Federal Tax Library

- The Internal Revenue Code current version.
- Final, Temporary and Proposed Regulations, current version.
- The Cumulative Bulletin beginning in 1954, Rulings under the 1954 Code, Rulings under the 1939 Code, Administrative, procedural and miscellaneous matters, Commissioner's Acquiescences and Non-Acquiescences; Finding List tables; announcements; technical and and other releases.
- IRS Private Rulings Released to Public beginning March, 1977.
- Legislative History, Public laws, House, Senate and Conference Reports for 1954 Act and amendments thereof (1954-present).
- Case Law
  - Tax cases decided in the Supreme Court in 1913.
  - Tax cases decided in the Courts of Appeals beginning in 1945.
  - Tax cases decided in the District Courts beginning in 1960.
  - Tax cases decided in the Courts of Claims beginning in 1942.
  - Cases decided in the Tax Court beginning in 1942.
  - Cases decided by the Board of Tax Appeals beginning in 1924.
  - Tax Court Memoranda beginning in 1942.



B. Securities Library

- "No-action" letters made available in the public files of the SEC beginning in 1971.
- Statutes - Relevant sections of Title 15 of the U.S. Code.
- SEC rules - Final and proposed SEC rules and Regulations.
- Federal Reserve Board Regulations - Current Final and Proposed Regulations X, G, T and U.
- Legislative History - House, Senate and Conference Reports relating to the Securities Act of 1933 and the Securities Exchange Act of 1934 and amendments thereto.
- Case Law.
  - United States Supreme Court beginning in 1933.
  - Circuit Courts of Appeals beginning in 1933.
  - District Courts beginning in 1933, selected SEC administrative decisions beginning in 1933.

II. THE NEW YORK TIMES INFORMATION BANK

Using the same terminal, subscribers can also subscribe to the New York Times Information Bank. This service offers a data base consisting of abstracts of news and editorial matter (and occasional advertising matter, if deemed of research value) published in the New York Times and selected material from approximately 70 other publications. Each abstract is accompanied by one or more index terms characterizing its content and serving as access points, and by all necessary bibliographic elements.

The Information Bank also contains a daily News Summary based on the final edition of The New York Times.

III. COMPANY FILING INDEX LIBRARY

The Company Filing Index, a weekly update of corporate filings, is available to subscribers as an additional library. This new library is made available through Disclosure, Inc. It contains, for approximately 12,000 publicly held corporations, a listing of the filings each corporation makes with the Securities and Exchange Commission, dating back to 1977 (10-K's, 10-Q's, 8-K's, 12-K's, 10-C's, 7-Q's, proxy statements, registration statements, prospectuses, annual reports to shareholders, N1R's & N1Q's). The Company Filing Index Library is available only to LEXIS subscribers.

IV. PRIVATE LIBRARY

MDC will personally design for you a private library which can be used for lengthy litigation, for corporate minutes, for internal memoranda, etc. Computer assistance in the form of a private library, can bring tremendous qualitative improvements to the process of finding and organizing in-house documents.

For further information regarding LEXIS, the New York Times Information Bank, the Company Filing Index or a private library contact:

Mead Data Central, Inc.  
200 Park Avenue  
New York, New York 10017  
(212) 883-8560

NATIONAL AUTOMATED ACCOUNTING RESEARCH SYSTEM

USER COST

Effective Date

January 1, 1979

NATIONAL AUTOMATED ACCOUNTING RESEARCH SYSTEM  
USER COSTS

The AICPA and Mead Data Central (MDC) make available to all members of the AICPA and others a unique accounting research service that will enable a person to gain access to a very large data bank of annual reports and accounting literature. This service is ideally suited for finding examples of statement presentations, footnotes, and auditor's opinions in use as reflected in the annual reports. There are three ways in which this service is being offered.

I. FULL SUBSCRIBER

A full subscriber would have a terminal in its own office.

A. Use Charges

1. Peak Hours:

Monday through Friday  
8:00 a.m. - 7:30 p.m.  
(Eastern, Central, Mountain  
and Pacific Time)

\$ 77/hour research time\*<sup>1</sup>  
\$195/hour surcharge for search time\*<sup>2</sup>  
\$ 40/hour surcharge for library access\*

2. Off-Peak Hours:

Monday through Friday  
7:30 p.m. - 2:00 a.m. (Eastern Time)  
7:00 a.m. - 8:00 a.m. (Central Time)  
7:30 p.m. - 1:00 a.m. (Central Time)  
6:00 a.m. - 8:00 a.m. (Mountain Time)  
7:30 p.m. - 12 midnight (Mountain Time)  
5:00 a.m. - 8:00 a.m. (Pacific Time)  
7:30 p.m. - 11:00 p.m. (Pacific Time)

Saturday and Sunday

10:00 a.m. - 10:00 p.m. (Eastern Time)  
9:00 a.m. - 9:00 p.m. (Central Time)  
8:00 a.m. - 8:00 p.m. (Mountain Time)  
7:00 a.m. - 7:00 p.m. (Pacific Time)

\$ 48/hour research time\*<sup>1</sup>  
\$195/hour surcharge for search time\*<sup>2</sup>  
\$ 40/hour surcharge for library access\*

3. Minimum Use Obligation

- a. No minimum use obligation.

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\*All time is measured to the nearest second. (Use charges less the \$40 surcharge and 10% royalty paid to the AICPA, will be applied against any LEXIS minimum use commitment if applicable.)

- 1) "Research Time" is the total time a researcher is in contact with MDC's central computer.
- 2) "Search Time" is the small portion of Research Time from the transmission of the search request to the central computer until a response appears on the research terminal.

B. Equipment and Access Charges

Monthly Subscription Charge \$ 50.00

Monthly Equipment Charge  
Each terminal \$175.00

Monthly Library Access Charge  
For access to all LEXIS/NAARS Libraries  
Initial terminal, each city \$350.00  
Each additional terminal, same office - 0 -  
Each additional terminal, same city \$262.50  
Each additional terminal, new city \$350.00

For access to NAARS Library only, or  
Private Libraries, or  
Litigation Support  
Initial terminal, each city \$250.00  
Each additional terminal, same office - 0 -  
Each additional terminal, same city \$187.50  
Each additional terminal, new city \$250.00

C. One time installation charges

Initial terminal \$350.00  
Each additional terminal \$250.00

D. Instruction charges

1. For the first 18 individuals \$125.00 per person  
Maximum charge for 18 or  
more individuals \$2,250.00

2. This charge covers (a) the basic instruction of all individuals selected by subscriber to receive instruction in the department in which the service is to be used, and (b) a review seminar one to two months later. In addition, each individual trained will receive at no additional cost a comprehensive set of written instructional and reference materials covering all aspects of the use of the service. All accountants and librarians (other than temporary employees) who complete the basic MDC training program within the time limits set forth below are entitled to two free hours of use to perfect their skills. Other individuals (e.g., para-professionals) will be trained, but will not be entitled to any free time.

3. In order to be eligible for free time:

- a. Individuals in the department in which the service is to be used when the terminal is installed must be trained within thirty days of installation.
- b. Individuals joining the department in which the service is to be used who join after the date of installation must be trained within thirty days of joining.

The first hour must be used within fourteen days of the date on which the basic training course is completed, and the second free hour must be used within sixty days of the date at a single session under the supervision of an MDC representative. Users must signify their use at the beginning of each such "free" research session. Credit for such use will be reflected against Subscriber's total use charges in a given month.

4. MDC will train all individuals in the Subscriber's offices selected by the Subscriber to be trained. Training will be performed either at the MDC training centers or at the Subscriber's office where a research terminal is located. The training of such personnel at MDC training centers is at no additional charge beyond the one-time training charge. To provide training at the Subscriber's office where a research terminal is located, MDC will charge the Subscriber, in addition to the one-time training charge, any out-of-pocket expenses (i.e., lodging, meals and travel) incurred by MDC personnel. MDC will provide an instructor for a minimum of four individuals; for less than four individuals the subscriber will, at his own expense, send these people to the nearest MDC training site.

E. Instruction and Reference Materials

Written materials will be provided at no cost to each individual instructed.

F. Printing Charge

1. On-line at the terminal  
no additional charge.
2. Off-line (remote printing)  
Off-line print charges will be 1¢ a line for the first 5,000 lines requested for printing by each user during a single day, 3/4¢ a line for the next 5,000 lines and 1/2¢ a line for printing in excess of 10,000 lines, plus a \$5 handling charge.

G. Service and Maintenance

At MDC's expense.

H. Procedures

Notify the Information Retrieval Department of the AICPA that you would like a terminal. It takes from 30 to 60 days to install a terminal.

II. ASSOCIATE SUBSCRIBER

An associate subscriber will be trained in the mechanics of operating the terminal and in the various methods available to research the data bank. The associate subscriber will research its own problems using the AICPA terminal.

A. Cost

1. One-time Cost

Instruction (for 2 persons) \$250.00  
Additional persons trained at \$125 each

2. Recurring Cost

Hourly charge (measured to nearest second) \$150.00  
This includes all computer and communication cost.

3. Printing Charge

- a. On-line at the terminal  
no additional charge.
- b. Off-line (remote printing)  
Off-line print charges will be 1¢  
a line plus a \$5 handling charge.

4. Minimum Charge

There will be a minimum charge of 2 hours per month measured over a 12-month period for each associate subscriber. (24 hours per year minimum use).

B. Procedure

To become an associate subscriber, notify the Information Retrieval Department of the AICPA. An instruction session will be arranged. To guarantee availability of the terminal, at least one day advance notice must be given the Information Retrieval Department. Every effort will be made to accommodate associate subscribers but the AICPA will have first priority in using the terminal. The AICPA terminal will be available from 9:00 a.m. to 5:00 p.m. (Eastern Time) Monday through Friday.



### III. INDIVIDUAL INQUIRY

For those who do not desire to have a terminal in their office or who do not desire to share the AICPA terminal, the Institute will allow access to the NAARS system on an individual inquiry basis.

#### A. Cost

##### 1. Recurring Cost

Hourly charge (measured to the nearest second) \$200

##### 2. Printing Charge

- a. On-line at the terminal  
no additional charge.
- b. Off-line (remote printing)  
Off-line print charges will be 1¢ a  
line plus a \$5 handling charge.  
(48-72 hour turnaround estimated).

##### 3. Minimum Charge

A minimum charge of 15 minutes will be required for each inquiry. Since an individual question can be searched quite rapidly, it is recommended that several questions be submitted with your inquiry so that full use can be made of the fifteen-minute minimum charge.

#### B. Procedure

All individual inquiries will be channeled through the NAARS service department. Two methods of handling individual inquiries are available.

- 1. An inquiry can be brought to the AICPA and discussed with a researcher by calling in advance for an appointment. The researcher will discuss the problem and determine the best search strategy to use. If there is an answer in the data bank the inquirer will receive a hard copy containing his answer.
- 2. An inquiry can be mailed to the AICPA and a researcher will be assigned to each inquiry and will be responsible for searching the system for relevant answers. The turnaround time is usually less than 48 hours.

For further information, please call or write:

INFORMATION RETRIEVAL DEPARTMENT  
AMERICAN INSTITUTE OF CPAs  
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UNIVERSITY SUBSCRIBERS

USER COST

Revised

January 1, 1979

UNIVERSITY SUBSCRIBERS  
USER COST

CHARGES

<u>SCHEDULE A</u>	<u>FIRST TERMINAL</u>	<u>ADDITIONAL TERMINALS</u>
Terminal & Communications Charges	\$500/month	\$375/month/terminal
Use Charges	\$1,100/month	\$412.50/month/terminal
One-Time Charges:		
Installation	\$350	\$100/terminal
Instruction (2 individuals)	\$450	
Instructional Aid-Simulator	\$500	

Instruction (2 individuals)

At subscriber's option MDC will instruct all of subscriber's faculty members for a one time charge of \$1,000, i.e., \$550 in addition to the standard \$450 instruction charge.

Instruction materials	Primers -	\$1.25 each
	Deskbooks -	\$5.50 each
	Quick Reference Cards -	.25 each

Printing Charge

- a. On-line at the terminal  
no additional charge.
- b. Off-line (remote printing)  
Off-line print charges will be 1¢ a line for the first 5,000 lines requested for printing by each user during a single day, 3/4¢ a line for the next 5,000 lines and 1/2¢ a line for printing in excess of 10,000 lines, plus a \$5 handling charge. A single handling charge applies to all off-line prints ordered on any one day by any one individual for delivery to any one location.

Hours Available

Unlimited use during normal LEXIS operating hours, except that no use is permitted between 2:00 p.m. and 5:00 p.m. (Eastern Time), Monday through Friday.

<u>SCHEDULE B</u>	<u>FIRST TERMINAL</u>	<u>ADDITIONAL TERMINALS</u>
Terminal & Communications Charges	\$500/month	Same as Schedule A
Use Charges	\$550/month	\$275/month/terminal
One-Time Charges	Same as Schedule A	
Printing Charges	Same as Schedule A	
Instruction Charges	Same as Schedule A	
Instructional Materials	Same as Schedule A	
<u>Hours Available</u>	Unlimited use during the hours of 5:00 p.m. to 2:00 a.m. (Eastern Time), Monday to Friday, and 10:00 a.m. to 10:00 p.m. (Eastern Time), Saturday and Sunday.	

Duration of Contract/Special Charges for 9-Month Subscription

A school may subscribe for 9 or 12 months under either Schedule A or B. In the event a school subscribes for 9 months, it will, in addition to the above, pay \$280/month for the terminal and data set for the three months they are not in use. Should the Service be used during these three months, the school will pay \$77/hour for research time, a surcharge of \$195/hour for search time, \$40/hour as an AICPA surcharge, plus \$10/hour for communications charges.

Combination of Schedule A and B

A school may subscribe to its first terminal under Schedule A and additional terminals under Schedule B. A school subscribing under this combination of Schedule A and B may not have more than one terminal active between the hours of 8:00 a.m. and 2:00 p.m. (Eastern Time), Monday through Friday. A school may not subscribe to the first terminal under Schedule B and additional terminals as second or subsequent terminals under Schedule A.

SPECIAL CHARGES FOR SCHOOLS WITH MEMBERSHIP IN EDUCOM

(For schools located in cities from which the MDC computer may be dialed with a local phone call).

<u>SCHEDULE C</u>	<u>FIRST TERMINAL</u>	<u>ADDITIONAL TERMINALS</u>
Terminal	\$220/month	\$220/month/terminal
Communications Charge	\$40/month	\$40/month/terminal

This charge is applicable at all times during the term of this agreement, including any portion of the term during which the EDUCOM communications network is used by Subscriber; Subscriber must use the EDUCOM network once it is available.

Use Charges for Subscribing EDUCOM Planning Council Members:	\$440/month	\$220/month/terminal
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One-Time Charges: Installation	\$350	\$250/terminal
Instruction (2 individuals)	\$450	

At Subscriber's option, MDC will train all of Subscriber's faculty members for a one-time charge of \$1,000; i.e., \$550 in addition to the standard \$450 training charge.

Instructional Aid Simulator <sup>1</sup>	\$550
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Printing Charge

- a. On-line at the terminal  
no additional charge.
- b. Off line (remote printing)  
Off line print charges will be 1¢ a line for the first 5,000 lines requested for printing by each user during a single day, 3/4¢ a line for the next 5,000 lines, and 1/2¢ a line for printing in excess of 10,000 lines, plus a \$5 handling charge. A single handling charge applies to all off-line prints ordered on any day by any one individual for delivery to any one location.

<u>Instructional Materials</u>	<u>For Students</u>	<u>For Faculty</u>
Primers	No Charge	No Charge
Deskbooks <sup>2</sup>	\$5.50 each	No Charge
Quick Reference Cards	No Charge	No Charge
Videotapes <sup>3</sup>	No Charge	No Charge

HOURS AVAILABLE

Monday - Friday	8:00 a.m. - 2:00 p.m. (Eastern Time)
Monday - Friday	5:00 p.m. - 2:00 a.m. (Eastern Time)
Saturday and Sunday	10:00 a.m. - 10:00 p.m. (Eastern Time)

During the hours of 2:00 p.m. to 5:00 p.m., Monday through Friday, the Service may be used in emergency situations.

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- 1 MDC will, at no charge, provide all required tapes and flip charts.
  - 2 MDC will, at no charge, provide ten copies of the deskbooks for use in the library.
  - 3 Five separate modules consisting of 94 minutes of demonstration, explanation and discussion in the use of the Service.

### Libraries Available to Universities

The libraries available to universities under either Plan A or B are as follows:

- Accounting materials
- Accounting materials and Libraries set forth under OTHER AVAILABLE SERVICES

Each library contains many files of unique information. A complete list of all the files in the libraries can be obtained by writing to Mead Data Central, Inc., 200 Park Avenue, New York, New York 10017.

### Service and Maintenance

From time to time, the terminal and the printer may break down. MDC will cover all costs incurred for the MDC-authorized repair of these units, within the first thirty days after they are installed in the subscriber's office. After this initial thirty-day period, the subscriber will be responsible for all charges for transportation, meals and lodging incurred by a serviceman called to service their equipment. MDC will be responsible for parts and labor.

### Use of the System

The use of the system will be for the sole benefit of the students and academic staff of the university. The university will warrant that the system will only be used for educational purposes, i.e., for active research by the faculty or as an integral part of a course that will require the use of the system by the students officially registered in the course.

### University Considered One subscriber

All departments of a university may be considered as one subscriber provided they are located in the same metropolitan area.



PUBLIC TERMINALS

USER COSTS

## PUBLIC TERMINALS

Profit-seeking entities as well as not-for-profit organizations may become public terminal sponsors. The sponsor may install any number of terminals but they must all be in the sponsor's offices. Each sponsor must designate a terminal operator to assist non-MDC-instructed users.

### I. USE CHARGES

<u>Monthly Subscription Charges for each user-entity</u>	.\$ 50.00
<u>Monthly Equipment and Library Access Charges</u> With 112 character per second printer	\$525.00
<u>Hourly Use Charges</u>	
Research Time (Peak Hours)	\$112.00
Research Time (Off-Peak Hours)	\$ 48.00
Surcharge for Search Time	\$195.00
AICPA Library access charge	\$ 40.00
<u>One-Time Installation Charge</u>	\$350.00

### II. INSTRUCTION CHARGES

The sponsor will pay MDC \$2,250 for instruction of the sponsor's supervising accountant, terminal operators and, in the case of not-for-profit organizations, instructors. All supervisors, terminal operators, and instructors must be instructed and certified by MDC. If users are instructed by MDC, the sponsor will pay MDC its standard instruction charges for such instruction of each user-entity (\$125 per individual in the entity, up to a maximum of \$2,250) or, if such instruction is limited to seminar sessions, the sponsor will pay MDC's then-current charge for such seminars. Standard instruction will be performed by MDC only at MDC instruction centers; seminars, however, will be provided by MDC at locations selected by the sponsor.

III. FREE TIME

Users who have attended MDC's standard instruction program will each receive one hour of (unsupervised) free post-instruction time to be used within 30 days after completion of the user's instruction; no other free use will be granted by MDC.

IV. PROMOTIONAL MATERIALS

The sponsor will provide all promotional and advertising material at its own expense, to be approved by MDC. At the sponsor's request (and cost), MDC will provide such material.

V. DEPOSIT

Profit-seeking Entity

The sponsor must provide MDC with a \$10,000 deposit. MDC will maintain all deposits in an interest-bearing account.

Not-for-Profit Organizations

The sponsor must provide MDC with a \$5,000 deposit if fewer than 350 people are eligible to use the sponsor's public terminal and \$10,000 if 350 or more people are eligible.

VI. CANCELLATION

The sponsor may cancel a public terminal upon three months written notice.

VII. DEFINITIONS

For definitions of "Research Time," "Search Time," "Peak Hours," "Off-Peak Hours," "off-line print charges," and the like, see the NAARS user cost section.



MEAD DATA CENTRAL, INC.  
SHARED SUBSCRIPTION POLICY  
EFFECTIVE JANUARY 1, 1979

## SHARED SUBSCRIPTION

MDC will permit any number of organizations (i.e., accounting firms) to share a subscription if the aggregate number of accountants is fewer than thirty. For purposes of determining the number of accountants, each sharing firm consists of all offices of the firm, without regard to location. MDC will install a single research terminal at a location to be designated by subscriber. Subscriber will pay the charges set forth in the NAARS user cost section plus a monthly subscription fee of \$50 for the second and each subsequent sharing entity (i.e. entity being a sole practitioner or a firm). The maximum training charge will be \$2,250, however, for the subscriber with fewer than 18 accountants the training charge will be \$125 for each accountant.

In the event that a new subscriber joins in sharing a subscription to the service:

- a) thirty days written notice of "intent to join" must be given
- b) agreement will be regarded as beginning anew in all respects for a minimum three month term.

For definitions of "Research time," "Search time," "Peak hours," "Off-Peak hours," "off-line print charges," and the like, see the NAARS user cost section.

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