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Market
Analysis and
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Services
(MAPS)

U.S. Information Services Cross-Industry Markets, 1987-1992

Accounting Sector

INPUT®

1280 Villa Street, Mountain View, CA 94041 (415) 961-3300

DECEMBER 1987

U.S. INFORMATION SERVICES CROSS-INDUSTRY MARKETS, 1987-1992

ACCOUNTING SECTOR

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U.S. Information Services Cross-Industry Markets, 1987-1992—Accounting

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Issues, Trends, and Events

Issues, Trends, and Events

A

Introduction

The accounting function is broad, and includes the following specific functions:

- Accounts payable.
- Accounts receivable.
- Billing/Invoicing.
- Costing.
- Fixed assets.
- General ledger.
- Integrated accounting.
- Payroll.
- Other.

Related applications that integrate with accounting modules include:

- Order entry.
- International accounting (currency conversion, value-added taxation, and consolidation).
- Sales lead tracking.
- Purchasing.
- Financial modeling.
- Accounting tailored for specific industries.
- Sales analysis.
- Management reporting.

Financial modeling and sales analysis are discussed in the section on Planning and Analysis. Sales lead tracking, order entry, and sales management reports are covered in the section "Other Cross Industry Sector." Payroll is discussed in the Human Resources cross-industry sector.

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Accounting expenditures represent the sixth largest of 25 major market segments tracked by INPUT. In 1987, end users spent nearly $2.8 billion for cross-industry accounting software and services.

B

"GLAPPAR"

"GLAPPAR" is an accounting shorthand reference for General Ledger, Accounts Payable, Payroll, and Accounts Receivable, the four core accounting applications. Accounting software has traditionally been sold as individual modules for two reasons. First, individual modules can be priced at levels within the approval range of local managers. Accounting software modules for personal computers generally have a maximum price of $400, consistent with the signature authority of local managers. Minicomputer and mainframe computer accounting modules are generally priced within the purchase limit for the division manager. Second, the purchase decision becomes one of buying three or four modules versus one expensive, complicated program. Customers can try one or two modules before committing to the purchase of a new accounting program.

Key trends in "GLAPPAR" accounting software include:

- An evolution from batch to on-line transaction-based software containing "what if" capabilities for budget projections and compliance with government agency reporting requirements.
- The continuing transition from individual modules with multiple-keystroke entries to integrated modules where information is updated in all relevant modules with a single keystroke.
- A general movement from financial-accounting-oriented software to software that not only satisfies financial accounting needs, but also management accounting and management reporting needs.
- More flexibility in accounting software, allowing the developer to tailor portions of the product to meet customer requirements.
- More personal-computer-based accounting software, especially versions operating on networks of PCs.
- A movement from VSAM-based to DBMS-based files permitting better security and layering of data.

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C

Other Accounting Applications

The increase in international business for U.S. companies has increased the need for accounting software to support multinational operations.

The use of fourth generation languages to assemble management reports from data scattered across the system and physically located in separate data bases is an outgrowth of the trend toward integrated corporate information.

D

Events

In 1986, the U.S. Congress and the President approved a major revision to the tax code for individuals and businesses. Software for depreciation, investment tax credit computation, and multinational accounting required modification.

E

Products

New accounting software differs significantly from previous-generation products. The latest accounting products are able to accommodate more files (especially valuable for holding many invoices or accounts receivable), are designed for on-line use, and can easily generate custom reports for management. This new "generation" of products fully utilizes the expanded main memory capacity of the host computer system. Organizations with single-user-based accounting are asking for network versions of accounting software.

As part of a symbiotic relationship, full-featured accounting software helps sell more hardware.

Support for more transactions per second for mainframe/minicomputer software represents another trend in accounting software product features.

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Market Forecasts

II

Market Forecasts

A

Introduction

User expenditures for accounting cross-industry applications will grow 7% annually through 1992, increasing from $2.7 billion to $3.9 billion in 1992. For details, please refer to Exhibits II-1 and II-2.

- Mainframe/minicomputer accounting software will enjoy a relatively high growth of 10% annually from $995 million in 1987 to $1.6 billion in 1992.
- Microcomputer-based accounting will grow fastest, at 15% annually, from $339 million in 1987 to $692 million in 1992.
- Turnkey systems will grow relatively slowly from $414 million in 1987 to $514 million in 1992, an annual growth rate of only 4%. For the "accounting cross-industry" application, turnkey systems refer to the value of the accounting portion of the total price of an industry-specific or application-specific turnkey system.

B

Processing/Network Services

With the plethora of computer-based accounting software, one would not expect much of a market for accounting-oriented remote/batch computing services. In fact, remote/batch computing service-based accounting is a $1.0-billion-a-year business. Why is this so?

- Large national and regional accounting firms offer on-line or batch accounting services for customers as a "lock-in" to that firm's accounting and auditing services.
- Industry associations offer members discounted accounting services at a fee over the basic membership charge.
- Wholesalers are offering accounting services to retailers to maintain a business relationship. Most often, these services are provided to retail-

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EXHIBIT II-1

ACCOUNTING SECTOR FORECAST
CROSS-INDUSTRY INFORMATION SERVICES, 1987-1992

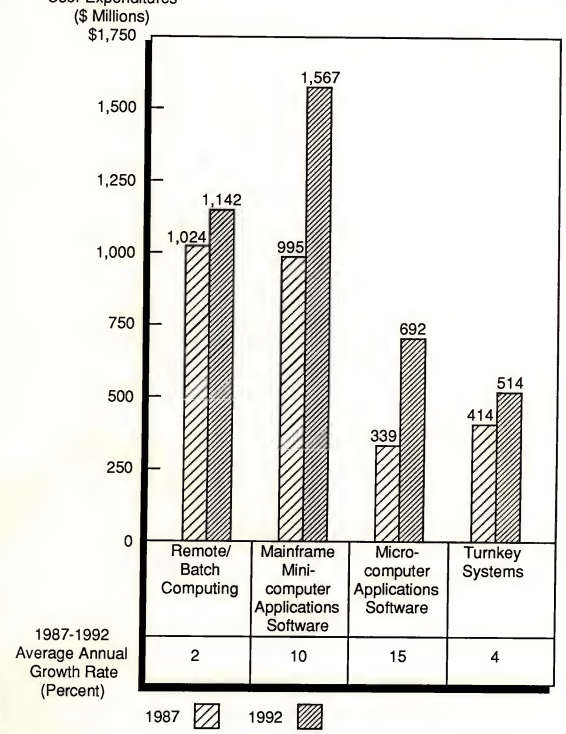

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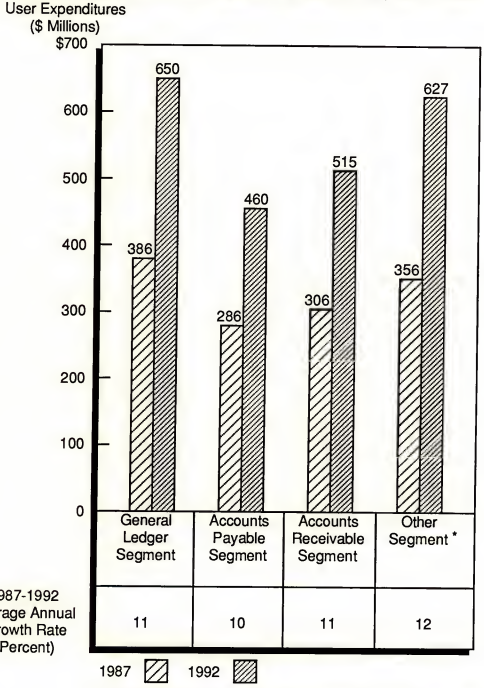
EXHIBIT II-2

APPLICATION SOFTWARE
ACCOUNTING SECTOR FORECAST
CROSS-INDUSTRY INFORMATION SERVICES, 1987-1992



*Billing, job costing, fixed asset management, management reporting, inventory.

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ers in service businesses that are not heavily computerized, such as florists, gasoline service stations, automobile repair shops, shoe repair shops, and barbershops.

- Industry associations' accounting may be performed through an on-line accounting service to reduce the need for a full in-house computer staff.

Key suppliers of accounting processing services include GEISCO, ADP, IBM, McAuto, and Dun & Bradstreet.

C

Software Products

The two fastest growing accounting-based information services, microcomputer software and mainframe/minicomputer software, will grow over the next five years at 15% and 10% annually, respectively.

Many industries are concurrently upgrading to hardware with more main memory and increased disk storage capacity and to "next generation" software. Batch-based accounting software is slowly converting to on-line software. The retail and wholesale distribution industry, some public utilities, hospitals of all sizes, banking and finance, state and local governments, process and discrete manufacturing, higher education institutions, insurance, and the highly competitive transportation industry are leading the conversion of accounting software.

Customers buy accounting software for one or more of the following reasons:

- To produce reports with management information.
- To reduce errors now found with a manual approach.
- To solve specific problems such as processing invoices or needing an up-to-date inventory position.

Microcomputer-based accounting software is catching on in small businesses. Interestingly, INPUT has identified two separate "camps" for accounting software—one favors easy-to-use software while the other prefers full-featured software with extensive report generation capability. Due to the need for more specific information in a preferred format, about 45% of the easy-to-use software group will convert to the more feature-oriented software within two to three years.

Software vendors must select which channel(s) to use for distributing their products; often, the right choice will "make" the product, while the wrong choice will lead to bankruptcy. Besides direct sales, vendors can sell through CPAs or alternative channels such as trade associations. Trade associations are the number-one accounting and application software distribution channel for funeral homes and dental practices.

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D

Turnkey Systems

User expenditures for the accounting portion of industry-specific turnkey systems will grow at 4% annually from $414 million in 1987 to $514 million in 1992.

Value-Added Resellers (VARs) integrate one manufacturer's hardware with an operating system and application software, then sell the package to a particular vertical market. Training and follow-on customer support are important components of the sale. Since sales by VARs to vertical markets have increased slowly but steadily, it follows that the accounting portion of these sales would rise. Target industries for turnkey systems include: process and discrete manufacturing, state and local governments, medical, and banking and finance.

However, accounting revenues are representing a smaller portion of a total industry-specific turnkey application. Smart VARs are adding value (and, hence, can justify charging a higher price) through tailored application software. For the past five years, value-added microcomputer resellers have used a stable accounting product, "Solomon III," as the foundation for their application-specific software.

E

General Ledger

General ledger (GL) software provides an organization with the capability to generate a balance sheet and income statement, do journal processing, and maintain the budget.

Since GL is the foundation for accounting software, the demand for GL software drives purchases of other accounting software packages.

The $386 million market in 1987 for general ledger software is divided such that 79% is for mainframe/minicomputer software and 21% for microcomputer-based GL software.

Large for-profit organizations are using funds accounting to better reflect the cash position of the organization at any given time.

F

Accounts Payable

Accounts payable (AP) software provides for voucher processing, cash disbursements (including preparation of checks), controls, and analysis.

The $286 million accounts payable software market in 1987 is split 84% for mainframe/minicomputer software and 16% for microcomputer software.

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G

Accounts Receivable

Accounts receivable (AR) software tracks vendors invoices, warehouse receipt information, and purchase orders, then matches all three prior to payment.

While all organizations may not want to scrupulously pay their bills, they certainly want to track what monies are owed to them. As a result, accounts receivable software sales slightly exceed those of AP software.

The $306 million accounts receivable software market in 1987 is divided 81% for mainframes/minicomputers and 29% for microcomputers.

H

Other Accounting Software

Other accounting software includes:

- Fixed-asset management.
- International accounting.
- Foreign currency monitoring.
- Order entry.
- Job costing.
- Management reporting.
- Inventory management.

In 1987, the other accounting software segment represented $356 million and will grow 12% annually through 1992 to $627 million, representing the fastest growing segment within the accounting software sector.

Since improvements in fixed-asset management and inventory control have good paybacks, these software categories will spur the demand for other accounting software. In addition, changes in international accounting will create demand for this category of software.

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Competitive Developments

III

Competitive Developments

A Introduction

The accounting software market can be characterized by the following statements (see Exhibit III-1 and III-2):

- The mainframe software segment contains a small number of large vendors and less than one dozen medium-size vendors. Sales leaders in this segment include MSA, McCormack & Dodge, Computer Associates International, Cullinet, and Data Design Associates.
- The minicomputer software segment is dominated by a few medium-size vendors; segment sales leaders include American Software, ROSSDATA, and Global Software.
- The microcomputer software segment includes fewer than six large firms and nearly one hundred small firms. Computer Associates International (through its San Jose, CA-based subsidiary, formerly called Sorcim), Open Systems, Inc. (now a subsidiary of San Jose-based Convergent, Inc.), Concord Management Systems, and MCBA are the leaders in microcomputer accounting sales.

B Vendor Profiles

1. Management Science America (MSA) (3445 Peachtree Road, N.E., Atlanta, GA 30326-1276)

a. Products/Services

MSA, founded in 1963, develops, markets, and supports a range of application software packages for use on medium- to large-scale mainframes. Applications include logistics, finance, and human resources.

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EXHIBIT III-1

VENDOR: SOFTWARE PLATFORM ANALYSIS

HARDWARE CATEGORY	LEADING ACCOUNTING SOFTWARE VENDORS
IBM Mainframe	MSA (Atlanta, GA); McCormack & Dodge (Natick, MA); CAI/UCCEL (Westbury, NY); Data Design Associates (Sunnyvale, CA)
IBM Minicomputer (53X, 434X)	American Management Systems (Arlington, VA); System Software Associates (Chicago, IL); Global Software (Raleigh, NC); Eastern Systems Management (Lancaster, PA)
IBM Microcomputer	TLB Inc. (Malvern, PA); Open Systems Inc. (Minneapolis, MN); Computer Associates (Sorcim; San Jose, CA); MCBA (Glendale, CA); CYMA/McGraw Hill
DEC Minicomputer	MCBA (Glendale, CA); Ross Data (Palo Alto, CA); Alpine Data Systems; Collier-Jackson (Tampa, FL); Computer Associates International (McLean, VA)
Apple Microcomputer	Peachtree Software (Atlanta, GA); State-of-the-Art Inc. (Costa Mesa, CA); Focus Software Corporation (Bloomington, MN); Great Plains Software (Fargo, ND)

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EXHIBIT III-2

VENDOR: SOFTWARE REVENUE ANALYSIS

VENDOR	$ (Millions)	
	MAINFRAME/ MINI SOFTWARE	MICRO SOFTWARE
MSA	95.0	-
McCormack & Dodge	40.0	-
Global Software	34.5	-
Computer Associates	27.5	6.5
Cullinet Software	16.2	-
Open Systems	-	12.0
Data Design Associates	10.8	-
MCBA	9.3	3.2
Ross Data Corporation	6.0	-
CYMA/McGraw Hill	-	5.5
Concord Management Systems	-	4.0
Total	239.3	31.2

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b. Markets Served

MSA serves cross-industry markets with its accounting, logistics, and financial software and serves health care providers, higher education institutions, state and local governments, distributors, and insurance firms with industry-specific software.

c. Company Strategy

- Further penetrate vertical markets through acquisition of vendors with high market share.
- Increase the functionality of existing software through expert-systems enhancements.
- Continue to write software for a wide array of hardware platforms.
- Increase its non-U.S. business.
- Increase the revenue derived from software support/software maintenance agreements.

d. Recent Activities

MSA acquired the following products or companies to increase its presence in targeted vertical markets:

- Licensed the Marketing/Clinical/Financial Information System developed by Rush- Presbyterian-St. Luke's Medical Center in Chicago, IL.

- Acquired Comserv Corporation (Minneapolis, MN) from Control Data Corporation for the Company's MRP II software products.

- Acquired Information Associates (Rochester, NY), which develops and markets software to the higher education market.

- Acquired RTS Limited (Dublin, Ireland) for its manufacturing and financial software for the IBM System/36 and System/38 minicomputers.

2. McCormack & Dodge Corporation (Subsidiary of The Dun & Bradstreet Corporation, New York) (1225 Worchester Road, Natick, MA 01760)

a. Products/Services

Key products and services include such financial software as general ledger, accounts payable, and accounts receivable.

McCormack & Dodge (M&D) software runs on IBM mainframes, IBM System/3X minicomputers, Hewlett-Packard 3000 minicomputers, and Digital Equipment Corporation VAX minicomputers.

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b. Markets Served

M&D's accounting and financial software is a cross-industry product; its manufacturing software is targeted to the discrete and process manufacturing markets.

c. Company Strategy

- Complete development of an on-line DEC-to-IBM interface for accounting software products, thus confirming M&D's commitment to DEC VAX and IBM mainframe system environments.
- Maintain its commitment to offer materiel management software that complies fully with Department of Defense contract requirements.
- Offer financial and manufacturing software linked to more relational data base management software products.

d. Recent Activities

In 4Q 1987, company management expended considerable effort to dispel the notion that M&D was for sale, following Dun & Bradstreet's sale of its Nomad software subsidiary.

M&D also advised users of its software for Hewlett-Packard minicomputers of its decision to sell this line to another company. No buyer has been found.

M&D will develop a DEC VAX version of its successful Millennium: SDT development Environment software, now running on IBM mainframes.

3. Computer Associates International, Inc. (711 Stewart Avenue; Garden City, NY 11530-4787)

a. Products/Services

Computer Associates International (CAI) markets more than one hundred software products developed for IBM mainframe operating systems, graphics products for use in business and scientific applications, and microcomputer software for project and resource management, spreadsheet, word processing, data base management, and accounting applications.

Accounting-related products include:

- Masterpiece, financial software for IBM mainframes, DEC VAX minicomputers, Wang VS minicomputers, Hewlett-Packard 3000, and

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Unisys (Sperry) mainframes. These products were acquired in 1986 through the purchase of General Electric Company's Software International Corporation subsidiary.

- EasyBusiness financial accounting software for microcomputers. This product line was obtained as a result of the acquisition of Sorcim (San Jose, CA) and the subsequent merger with Information Unlimited Software (IUS, San Jose, CA) in May 1984.

b. Markets Served

CAI's accounting and financial software serves a variety of markets. The company's literature indicates that more than 80% of Fortune 500 companies use unspecified CAI software.

c. Company Strategy

- Growth through acquisition.
- Offer more data center management products.
- Trim the number of non-data-center/non-system-software product lines or hardware platforms supported.

d. Recent Activities

Acquisitions play a major role in CAI's growth. Key mergers/acquisitions over the past few years include:

- Merged with UCCEL Corporation (Dallas, TX) in August, 1987.
- Acquired L & L Software (McLean, VA), a supplier of job costing accounting software for government contractors and selected commercial environments in May, 1987.
- Acquired BPI Systems, Inc. (Austin, TX) in April, 1987.
- Acquired Software International Corporation (Andover, MA) from General Electric Company in December, 1986.
- Acquired Integrated Software Systems Corporation (ISSCO, San Diego, CA) also in December, 1986.
- Acquired Sorcim Corporation (San Jose, CA) in May, 1984.

CAI made the following recent product announcements:

- Added accounts payable and accounts receivable to the existing general ledger software for the IBM System/38 under its Masterpiece product label.

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- Announced a DEC VAX version of its Masterpiece general ledger accounting software at the Annual Users Group meeting in March, 1987.

4. Cullinet Software, Inc.
(400 Blue Hill Drive, Westwood, MA 02090)

a. Products/Services

Cullinet Software offers a wide array of products, which include: Data base management, information center management, and integrated application software for manufacturing, finance, banking, and human resources.

Within the accounting area, the Cullinet Financial System offers on-line accounting and financial reporting capabilities.

b. Markets Served

Since accounting is a cross-industry application, Cullinet sells its Financial System to a variety of markets.

c. Company Strategy

- Continue penetrating the banking and finance vertical market.
- Develop specific applications based on its relational database product.
- Develop software to link mainframes, minicomputers, and microcomputers through an integrated product architecture.
- Develop software for the DEC VAX departmental minicomputer.

d. Recent Activities

Cullinet acquired a number of companies in the past three years:

- In 1984, it acquired Bob White Computing & Software (BWCS, Chicago, IL) for BWCS' application software for the banking industry.

- In 1984, Cullinet acquired the rights to market InSci IDMS-based payroll/personnel software and acquired outright IDMS-based personnel/payroll/accounts receivable packages.

- In June, 1986, Cullinet acquired an on-line international general ledger system, designed for use by multinational corporations, from an undisclosed software developer.

- In August, 1986, Cullinet purchased Computer Solutions, Inc. (Grand Rapids, MI), which specializes in software and consulting to repetitive manufacturing industries.

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- The company acquired, in March, 1987, a fixed-asset management system from Computer Associates International.

5. Open Systems, Inc. (Subsidiary of Convergent, Inc., San Jose, CA)
(6477 City West Parkway, Minneapolis, MN 55344)

a. Products/Services

Open Systems, Inc. (OSI) develops, markets, and supports a full range of accounting and financial software, including: Inventory, sales order processing, purchase order processing, ledger, payroll, and fixed-asset management.

OSI software runs on IBM PCs and compatibles and Apple Macintosh microcomputers.

b. Markets Served

As a cross-industry application, accounting software is sold into all vertical markets.

c. Company Strategy

- Concentrate on IBM and Apple Macintosh versions of software.
- Develop and continually upgrade network versions.
- Strengthen distribution arrangements through direct deals with large retail chains such as Businessland or ComputerLand.

d. Recent Activities

OSI, previously owned by UCCEL Corporation (Dallas, TX) was sold to Convergent, Inc. (San Jose, CA) in late 1986.

6. CYMA/McGraw-Hill
(1221 Avenue of the Americas, New York, NY 10020)

a. Products/Services

CYMA/McGraw Hill develops, markets, and supports accounting software for small businesses.

The company's software runs on a variety of microcomputers under the CP/M, MP/M, MS-DOS or XENIX operating systems.

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b. Markets Served

While the company's cross-industry products serve many markets, its primary targets are doctors, lawyers, construction, and public accounting.

c. Company Strategy

- Develop network versions of accounting software.
- Increase market presence through more distribution agreements.

7. Data Design Associates
(1279 Oakmead Parkway, Sunnyvale, CA 94086)

a. Products/Services

Data Design Associates' (DDA) only products are software for fixed-asset accounting, accounts payable, accounts receivable, general ledger, purchase control, and capital project management.

DDA's products run mainly in batch mode on mainframes and large minicomputers made by IBM, Unisys (Burroughs and Univac), Hewlett-Packard, Honeywell, DEC, Data General, NCR, Prime, and Wang. On-line options are available for IBM and Hewlett-Packard hardware.

b. Markets Served

Data Design's products are cross-industry applications targeted to large, multilocation organizations, primarily in the manufacturing, banking and finance, retail distribution, and transportation industries.

c. Company Strategy

- Increase non-U.S. market presence.
- Maintain strategy of delivering bug-free, high-quality software.
- Develop more, then merge the now-limited microcomputer-based accounting software with mainframe-oriented products.

8. ROSSDATA Corporation
(1860 Embarcadero Road, Palo Alto, CA 94303)

a. Products/Services

ROSSDATA, through its Ross Systems Inc. subsidiary, developed and supports MAPS (Management Accounting and Planning Software), which runs on Digital Equipment Corporation VAX minicomputers.

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b. Markets Served

As a developer and marketer of cross-industry application software, ROSSDATA serves all markets.

c. Company Strategy

ROSSDATA's corporate goal is to become the number-one supplier of accounting software for the DEC VAX superminicomputer. To do so will require more international sales and continued product enhancement, all guided by increased attention to marketing issues.

d. Recent Activities

ROSSDATA Corporation was formed in November, 1986 through a merger of Ross Systems, Inc. (Palo Alto, CA) and Virtual Microsystems (Berkeley, CA), a supplier of network products for the DEC VAX operating environment.

9. Global Software, Inc. (Subsidiary of the Hathaway Corporation)
(1009 Spring Forest Road, Raleigh, NC 27609)

a. Products/Services

Global Software offers a full line of accounting and financial reporting software for IBM 43XX and 30XX mainframe computers and IBM System/3X minicomputers.

b. Markets Served

Global's customers come from all industries; however, a major share come from manufacturing, healthcare, distribution, utilities, and transportation markets.

c. Company Strategy

The company wishes to incorporate advanced product features such as micro-mainframe links, network support, and fourth-generation reporting capabilities, while improving documentation and customer support.

d. Recent Activities

Global Software purchased the commercial application software division of UCCEL Corporation (Dallas, TX) in mid-1986.

Product enhancements include: Tax Planning & Compliance System, on-line report generator, an upgraded version of its cost control system, an

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on-line credit and accounts receivable management software package acquired through the UCCEL acquisition, a new fixed-asset system, and purchase order and accounts payable systems.

10. MCBA, Inc. (425 West Broadway Avenue, Glendale, CA 91204)

a. Products/Services

MCBA, Inc., established in 1974, originally developed and marketed accounting software for minicomputers. The company now markets general ledger, accounts payable, accounts receivable, inventory management, job costing, labor performance, MRP, payroll, purchase order and receiving, sales history, shop floor control, and standard product costing software for microcomputers running PC-DOS, MS-DOS, UNIX (including System V), XENIX, or RM/COS (Ryan McFarland) operating systems. MCBA software also runs on the following minicomputers: AT&T 3B, Hewlett-Packard 3000, DEC PDP or VAX, Wang VS, or Texas Instruments 990 or TI Business Systems.

b. Markets Served

MCBA provides accounting, distribution, and manufacturing application software primarily for microcomputers and, to a lesser extent, for minicomputers.

c. Company Strategy

- Continue to market microcomputer accounting software through its 1,500-member distribution network.
- Develop accounting software for more hardware platforms.
- Do direct sales of its full-line accounting and manufacturing software for DEC VAX minicomputer.
- Increase education and training for its products in order to remain competitive.

d. Recent Activities

MCBA announced a shop floor control module for the DEC VAX. The module is targeted at companies with sales in the $5 million to $50 million range.

In the spring of 1987, Honeywell Bull and UNISYS agreed to market MCBA software for their systems.

MCBA announced its accounting and distribution software for the AT&T 3B family of computers in November, 1986.

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In June, 1986, MCBA released MRP software written in RM/COBOL under the XENIX operating system for the IBM PC/AT and compatibles.

C

Mergers, Acquisitions, Divestitures

The largest firms have actively pursued the merger/acquisition route to growth. MSA acquired the following products or companies to increase its presence in targeted vertical markets:

- Licensed the Marketing/Clinical/Financial Information System developed by Rush-Presbyterian-St. Luke's Medical Center in Chicago, IL.
- Acquired Comserv Corporation (Minneapolis, MN) from Control Data Corporation.
- Acquired Information Associates (Rochester, NY).
- Acquired RTS Limited (Dublin, Ireland).

Acquisitions play a major role in Computer Associates International (CAI) growth. Key mergers/acquisitions over the past few years include:

- Merged with UCCEL Corporation (Dallas, TX).
- Acquired L & L Software (McLean, VA).
- BPI Systems, Inc. (Austin, TX).
- Software International Corporation (Andover, MA) from General Electric Company.
- Integrated Software Systems Corporation (ISSCO, San Diego, CA).
- Sorcim Corporation (San Jose, CA).

Cullinet acquired a number of companies in the past three years:

- In 1984, it acquired Bob White Computing & Software (BWCS, Chicago, IL).
- In 1984, Cullinet acquired the rights to market InSci IDMS-based payroll/personnel software and acquired outright IDMS-based personnel/payroll/accounts receivable packages.
- In August, 1986, Cullinet purchased Computer Solutions, Inc. (Grand Rapids, MI)
- The company acquired a fixed-asset management system from Computer Associates International.

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D

Firms Entering/ Exiting the Market

In June, 1983, ASK Computer Systems purchased Software Dimensions (Folsom, CA), a developer of accounting software for IBM, Apple, and CP/M-based microcomputers. Software Dimensions was renamed ASK Micro Inc., which was closed in June, 1984.

Merger and acquisition activity has increased and has changed the names of the players; however, no major firms have entered or exited the accounting software market.

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New Opportunities

New Opportunities

INPUT identifies the following opportunities in cross-industry accounting application software:

- Vendors should offer accounting software versions that run on networks of microcomputers.
- More management report generation capabilities, including graphics-based reporting of desired exceptions.
- Linkages of microcomputer-based accounting packages with those running on minicomputers or mainframes.
- Equally important is the ability for DEC VAX minicomputers to share accounting and financial information with IBM mainframes and microcomputers, since these computers will coexist in more user sites.

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Appendix: Accounting Market Forecast Data Base

AC-A

Appendix: Accounting Market Forecast Data Base

EXHIBIT A-1

ACCOUNTING USER EXPENDITURE FORECAST BY DELIVERY MODE, 1986-1992

SEGMENTATION BY DELIVERY MODE	1986 ($M)	1986-1987 Growth (%)	1987 ($M)	1988 ($M)	1989 ($M)	1990 ($M)	1991 ($M)	1992 ($M)	AAGR 1987-1992 (%)
Remote Computing/ Batch	988	4	1,024	1,048	1,086	1,105	1,132	1,142	2
Application Software									
Mainframe/Mini	883	13	995	1,121	1,248	1,360	1,470	1,567	10
Micro	281	21	339	412	493	576	641	692	15
Total Application Software	1,164	15	1,334	1,533	1,741	1,936	2,111	2,259	11
Turnkey Systems	394	5	414	433	459	485	495	514	4
Cross-Industry Total	2,546	9	2,772	3,014	3,286	3,526	3,738	3,915	7

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