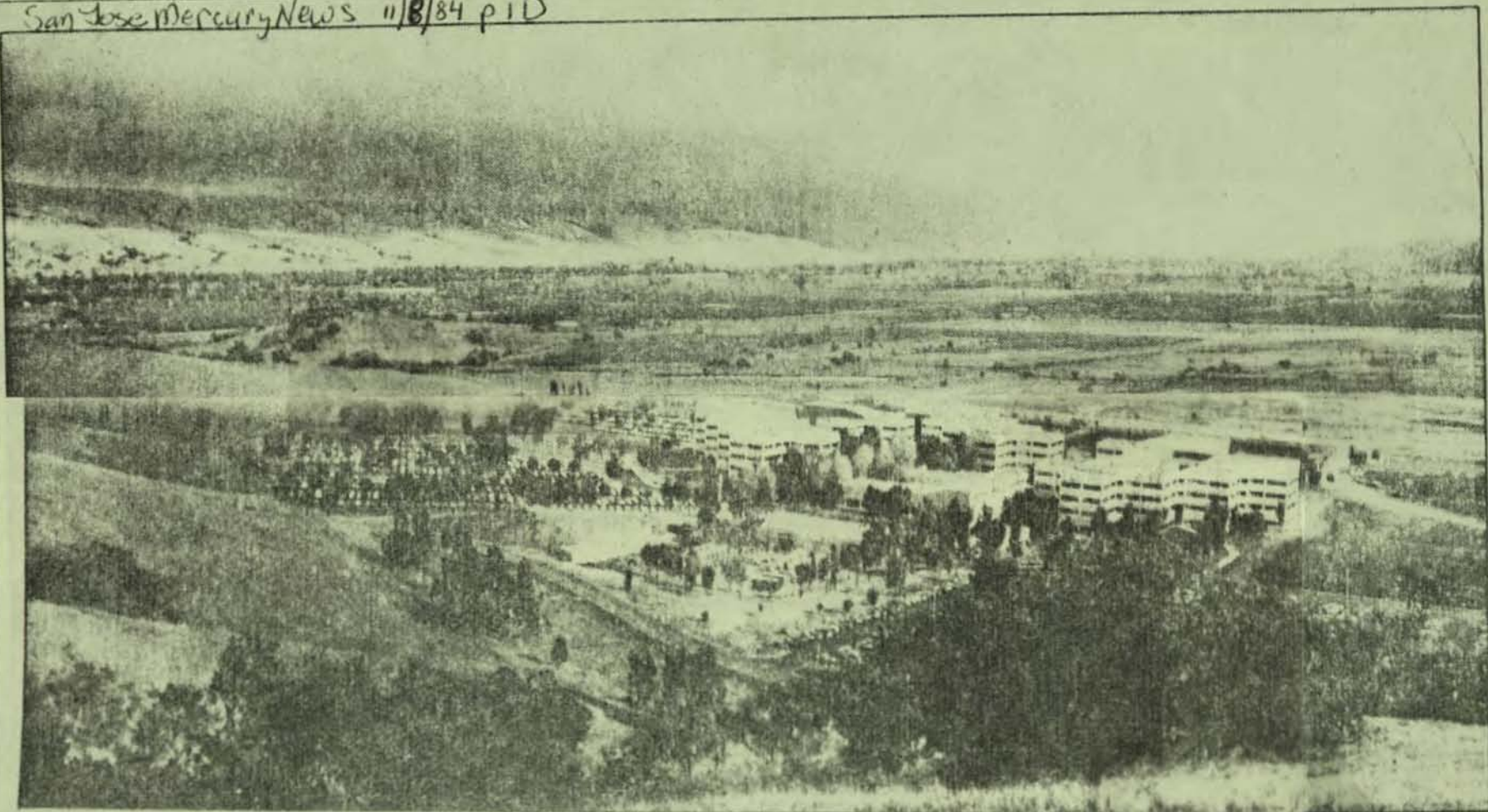


San Jose Mercury News 11/8/84 p1D



Mike Tkachell — Mercury News

Few hurdles remain before IBM gets some new neighbors — including Tandem Computers — in Coyote Valley

Down in Coyote Valley

Last big hurdle to development is financial

By Chris Kraul
Business Writer

The squabbling between developers and environmentalists is over. The general plan has been amended. And city zoning changes later this month giving the green light to industrial development of North Coyote Valley seem a foregone conclusion.

But one hurdle remains before construction of up to 13 million square feet can begin in South San Jose's future high-technology hub: how to finance \$220 million in new roads, sewers and flood control needed to extend San Jose city services to 1,200 acres of farmland.

Coyote Valley landowners, who will shoulder virtually the entire cost of bringing these improvements to Coyote Valley, are complaining that the \$182,000-per-acre assessment estimated by the city is excessive.

Not only is the assessment twice what developers of industrially zoned land in other parts of San Jose are paying, but the \$4.18-per-square-foot assessment would exceed the current market price of the land itself. One North Coyote Valley parcel was recently purchased by the Koll Co. for a reported \$2.72 per square foot.

The city will finance the infrastructure of the so-called North Coyote Valley Campus Industrial Area by issuing municipal bonds. The \$220 million

More Commercial Real Estate, Pages 3D, 4D and 5D

figure is arrived at by multiplying the \$182,080-per-acre assessment by the approximately 1,200 acres in the assessment district. The landowners then pay, over a period of time, a pro-rata share of the principal and interest on the bonds according to the percentage of the 1,200 acres they own.

The projected assessment is high enough to cause Verbatim Corp. of Sunnyvale to have second thoughts about building the 400,000-square-foot Coyote Valley manufacturing and research facility it had planned, said treasurer Rick Brownstein. Sunnyvale-based Verbatim has an option to buy a 30-acre site owned by Sobrato Development Cos.

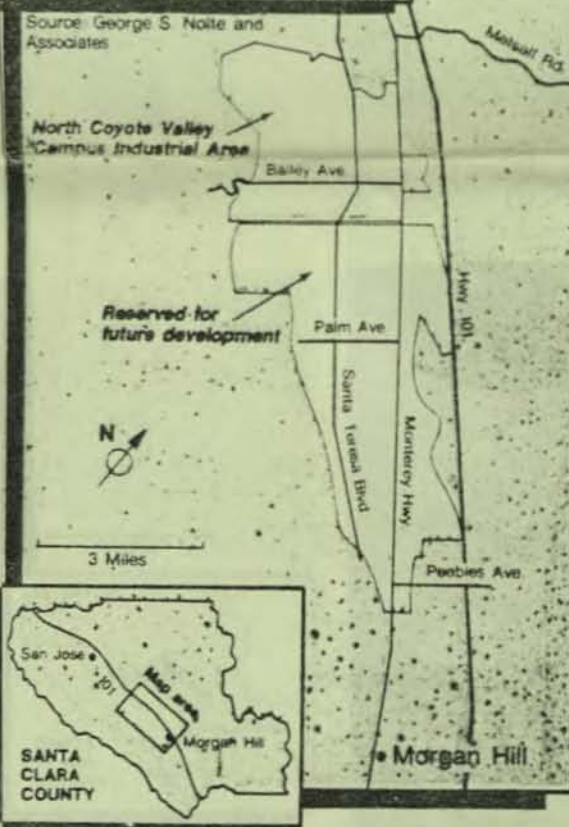
"It is very preliminary to say what, if anything, we will put there" before knowing the assessment fees Verbatim would have to pay, Brownstein said.

Developer John Sobrato said Verbatim is now mulling building manufacturing facilities on a more cost-effective site in Newark.

Going ahead with plans to build is Cupertino-based Tandem Computers Inc., which plans to break ground in spring 1985 on three buildings totaling up to 500,000 square feet of research,

Continued on Page 3D

COYOTE VALLEY ZONES OF DEVELOPMENT



Commercial Real Estate

Assessments could derail some plans for Coyote Valley

Continued from Page 1D

manufacturing and office space.

But Tandem and other Coyote Valley landowners, including Koll, complain that the high assessments mean they will be paying for improvements that will benefit businesses and landowners outside the initial assessment district.

San Jose Public Works Director Kent Dewell defends the proposed assessment, saying it is appropriate in view of the high-quality, industrial campus ambience the developers have committed to producing.

City's priorities elsewhere

Moreover, Dewell says all the developers in the area entered their projects knowing that the city's development and funding priorities lay elsewhere, principally in the downtown area. That meant limited, if any, financing help would be forthcoming from the city, Dewell said.

Observers also said that the high-technology companies' apparent second thoughts about Coyote may be as much a result of market conditions and strategies as the higher-than-projected improvement costs. Verbatim, a manufacturer of flexible disks used for computer memory storage, recently laid off 175 employees after reporting a \$10.7 million operating loss for the quarter ended Sept. 28.

Apple taking its time

Apple Computer Inc. of Cupertino, which is taking longer than expected to submit its development plans for 125 acres of the 700 acres it owns in Coyote Valley, is spending millions of dollars

to expand its international sales and marketing network this year. That may limit the capital Apple has available to develop the huge new headquarters, research and development center it has announced for the Coyote Valley.

"We really won't be able to talk about our plant for several months yet," said Apple vice president and corporate counsel Al Eisenstat, adding that Apple does not plan on moving to Coyote

"There's nothing comparable to it in terms of amenities."

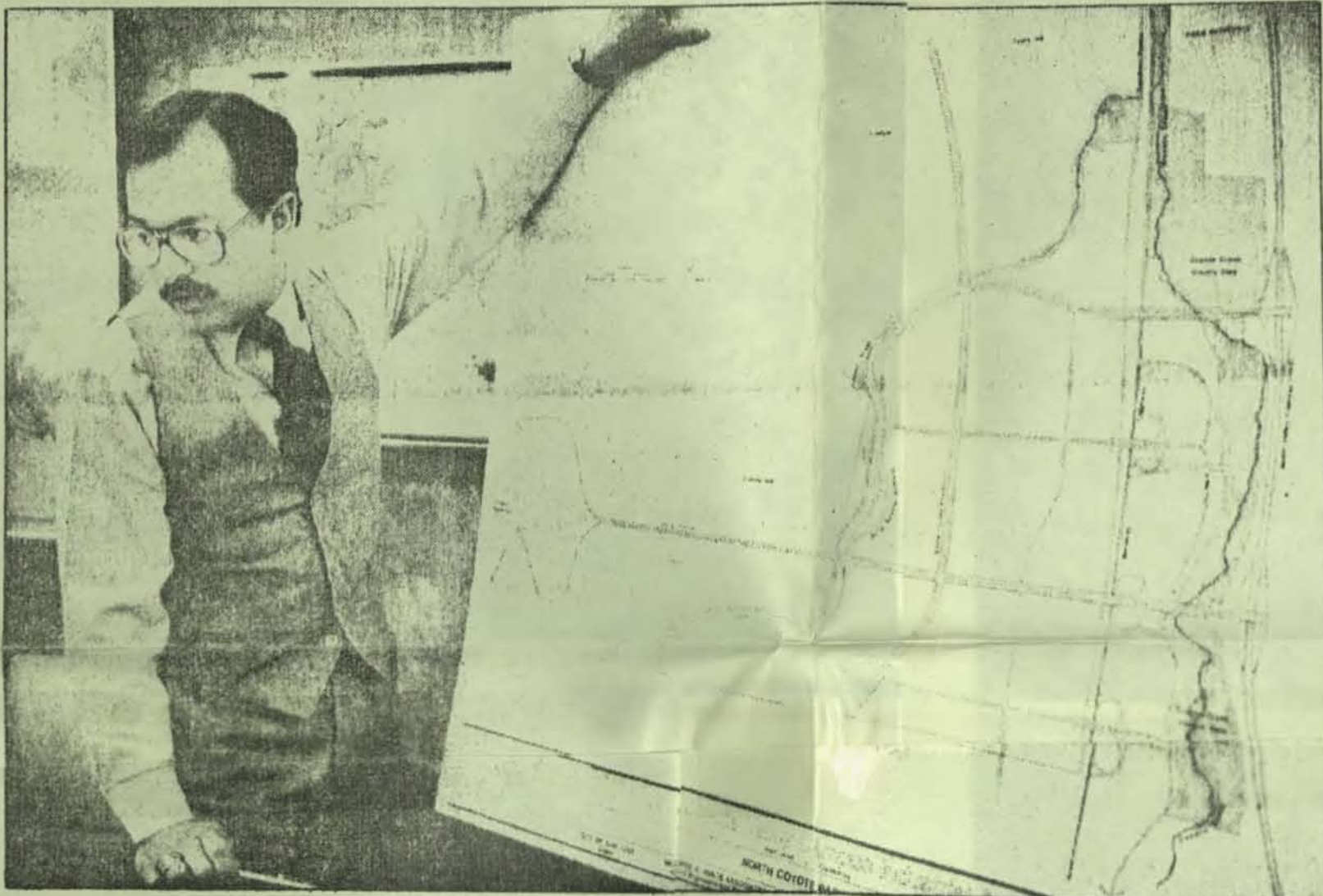
— Gary Schoennauer, San Jose planning director

before early 1987. He said the computer manufacturer has not yet decided which group will be quartered there.

Boosters remain bullish

Even with the high assessment costs, Coyote Valley boosters such as Chop Keenan of Menlo Park-based Keenan Land Co. maintain that improved North Coyote Valley land costs of between \$8 and \$10 per square foot (in current dollars) make the area competitive with other Silicon Valley industrial zones. Keenan brokered Apple's two Coyote Valley land purchases.

Prices for improved research



San Jose Planning Director Gary Schoennauer shows a map of the North Coyote Valley area

Mike Tkachell — Mercury News

and development land in other parts of the valley range from \$12 to \$20 per square foot, according to Chip Macdonald, a land specialist with CPS commercial real estate brokerage in Sunnyvale.

But cost is not Coyote Valley's principal marketing advantage, say its advocates. The area's strongest selling point is the opportunity it gives employers to buy large lots in a corporate campus environment. Also touted is its reverse commute and proximity to affordable housing in South San Jose.

Campus sites at a premium

A mayoral task force last year found that corporate campus sites are at a premium in San Jose and that the city in the future would lose employers seeking to consolidate operations here unless places like Coyote Valley were opened up for development.

The task force's findings played a significant role in the city council's approval last year of a general plan amendment that changed North Coyote from agricultural to urban development designation. The amendment had been fought for several years by environmental and homeowner groups.

By limiting minimum lot sizes in the North Coyote Valley Campus Industrial Area to 25 acres and the average to 50 acres, the city has planned Coyote Valley

for companies that want to place as many as 2,000 employees on a typical site.

Limits speculation

According to San Jose Planning Director Gary Schoennauer, the large lot size will also work to limit speculative land buying by investors. That should keep land prices down and make purchases more affordable to big employers, he said.

"We really won't be able to talk about our plant for several months yet."

— Al Eisenstat, Apple vice president

Steve Speno, vice president of Koll's San Jose division, which owns 673 acres in Coyote Valley, said the North Coyote area is designed to be the "premier research and industrial center in California."

Schoennauer concurred: "There's nothing comparable to it in terms of amenities."

The amenities include a three-mile-long North Coyote Parkway that will serve traffic and recreational functions in addition to flood control for Fisher Creek. Developers have also agreed to dedicate 35 percent of all developable acreage to landscaping.

Buildings can be no closer than 50 feet from roadsides.

40 employees per acre

Employee density will be limited to no more than 40 per acre. Schoennauer said that restriction will ensure that the business park will be home principally to research, development and administrative employees. Ultimately, the new industrial zone could be home to as many as

the 5,000-acre zone between South San Jose and Morgan Hill. The central Coyote Valley area is being eyed by planners as the site of up to 9,000 residential units and the southern third as permanent open space.

Development of the central portion of Coyote can occur only after several trigger conditions come about, including the extension of Highway 85 to Highway 101 north of Metcalf Road, now forthcoming due to the passage of Proposition A. In addition, 50 percent of the maximum jobs supportable in North Coyote Valley must be in place before development of the southerly parts of the valley may proceed, Schoennauer said.

The major landholders in the assessment district are Apple with 700 acres, Koll with 673 acres, Sobrato with 270 acres and Tandem with 100 acres. In addition to what it has taken title to, Tandem has an option to purchase 100 acres of Koll's holdings.

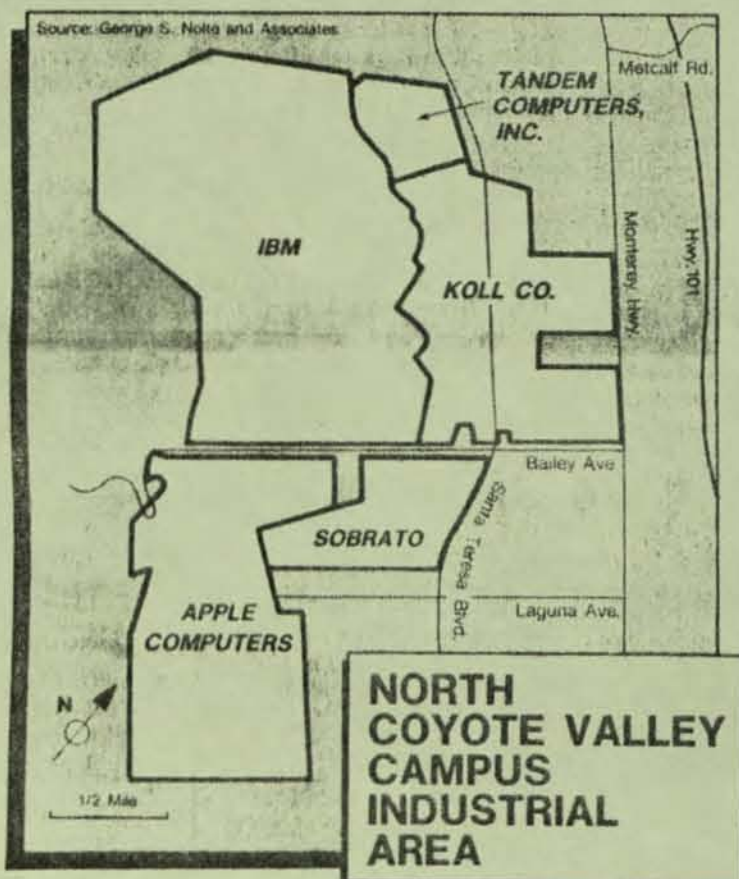
The first high-technology company in Coyote Valley was IBM, which purchased 1,165 acres in the mid-1970s. IBM has already developed 80 acres of its holdings and has committed 965 acres to permanent open space. The remaining 120 acres of IBM's property are developable and will be subject to some degree of new assessment, Dewell said. IBM has 2,000 employees in Coyote Valley.

50,000 employees.

The \$21 million Fisher Creek flood control project and the area's new road system are the two major reasons given by Dewell for the high assessment bill. The road system is to include two new Highway 101 interchanges at Bailey Avenue and where the new North Coyote Valley Parkway intersects a mile to the north. Four interchanges at Old Monterey Road are also planned in the assessment district.

Residential area eyed

North Coyote Valley is the first phase of urbanization planned for



Mercury News

LEVEL 1 - 3 OF 7 STORIES

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NOVEMBER 3, 1984

SECTION: Business, finance and science; WORLD BUSINESS; Pg. 71 (U.S. Edition Pg. 79)

LENGTH: 667 words

HEADLINE: Tandem;
Facing both challenges

BODY:

Every fledgling company sooner or later needs to fly. If it happens to be a computer company, an additional hazard -- a head-on clash with IBM -- often accompanies the usual management traumas. Tandem Computers, a Silicon Valley company that makes fault-tolerant computers for transaction processing, has faced both problems for the past two years.

Transaction-processing computers handle a large volume of simple business transactions, usually coming in from far-flung terminals: eg, automated teller machines, airline-reservation systems, electronic mail. Transaction processing is a big and fast-growing business; by one estimate, the worldwide market was worth \$11 billion in 1983, and will more than double by 1986.

Users of these systems want them to run continuously. That is not easy to guarantee: all computers fail occasionally, and the system is normally "down" for a while until faults are put right. Tandem's innovation, through a combination of modular processes and special software, was to make it almost impossible for the system as a whole to fail.

Its fault-tolerant systems brought the company early success: sales rose nearly eightfold in the five years to end-September, 1983, when they reached \$418m. Net income kept pace only until 1981. Since then, operating margins have been squeezed (see chart). After the announcement of its indifferent third-quarter results to end-June, Tandem's share price hit \$13, against its high of \$40.

Mr James Treybig, Tandem's president, puts most of the blame on a lack of applications software, something the company is trying to correct by signing up many more independent software houses to write applications. He also acknowledges past weaknesses in the company's sales force. Half of its sales team joined Tandem only in the past year.

Mr Treybig has also brought in Mr Larry McGraw from IBM to head the company's marketing services and hired Mr Regis McKenna, the dean of Silicon Valley publicists, to take over its publicity. Some outsiders suspect that the sales and marketing organisation, richly staffed with four vice-presidents, could use some consolidation.

Tandem's management needed tightening, and costs needed cutting. The company is now hiring fewer staff, and has apparently cancelled a pet development project for a small computer system (R&D spending was almost 10% of sales). Mr Treybig now expects the company's operating margins to return to the 16-18% of happier days.

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Even if Tandem manages the internal transition from small firm to big, it faces a difficult market. Few doubt the technological quality of its products, especially the top-of-the-line TXP machine introduced a year ago. But the TXP, which accounts for 60-70% of Tandem's sales, brings the company into increasingly direct competition with IBM's mainframe computers for the kind of customers -- eg, banks -- that IBM hates to lose.

Mr Treybig denies that selling against IBM is getting harder; he says it was tougher before, when Tandem was less well-established. Still, there is some evidence that Tandem may be shifting from its apparent intention a couple of years ago to put its all into big-systems competition with IBM.

Tandem has just said it has cut the price of its older NonStop II computer from \$200,000 to about \$120,000. (The TXP is normally sold in a package that costs about \$1m.) The company is due to announce a personal-computer workstation called Dynamite this month; and is expected to come out with a low-cost version of the TXP by the end of the year.

Margins are thinner on cheaper models, competitors more numerous. Mr Treybig reckons there are about 50 start-up companies at the bottom of the market. But they are tiny next to Tandem: the biggest, Stratus Computers, had sales of only \$20m in 1983. Tandem would no doubt appreciate a secure base to return to if the assault on the IBM Himalayas proves even tougher than it looks.

GRAPHIC: Graph, Fault-intolerant margins, Source: Paine Webber

Shows Hospital System

scribed through Tracts word processing, medical terminology glossary and automatic data fill-in function for patient and physician demographics.

White said by the product has an "abbreviation library" that will improve productivity because users need to type in "only a portion of words or phrases" needed for a report.

MEDICINE

The record analysis function, White said, improves the monitoring and updating of medical records by using a system to catalog missing information. "The reason this function is included is to improve the turn-around time in getting back complete records in an emergency," he said.

Record Pinpointed

White said the record-tracking function allows personnel to keep track "of where the record is at any point in time within the institution."

Through the product's abstract production and coding function, correctly formatted bills—ones acceptable by third-party reimbursement agencies—are made, he said.

Honeywell said its standard automation software can be ac-

cessed from any Tracts terminals and includes word/document processing, records processing and calendar and calculator facilities.

Tracts, the firm said, has data processing capabilities, including database management systems, higher-level language support and time and attendance software.

Data communications packages can support the exchange of data between the Honeywell computer and the hospital's admission, discharge and transfer computer, the billing computer and the statistical system, Honeywell said.

The hardware for Tracts is Honeywell's DPS 6 line of minicomputers, operating under General Comprehensive Supervisor (GCOS) 6 MOD 400 software. "Applications run on all of the line, starting at the DPS 620 all the way through the DPS 695," he said.

White said the "bottom price" for Tracts is about \$60,000, with the cost going as high as about \$130,000, depending on configuration.

Honeywell said the price for a typical configuration for a 250-bed hospital, including DPS 6/45 minicomputer, four workstations, a printer, one megabyte of memory and two 20-Mbyte disks, is \$62,000.



Honeywell's Tracts medical records system

Class Action Suit Hits Tandem

SAN JOSE, Calif.—Tandem Computers Inc. faces a class action lawsuit charging the company with defrauding investors and overstating earnings and revenue in 1982.

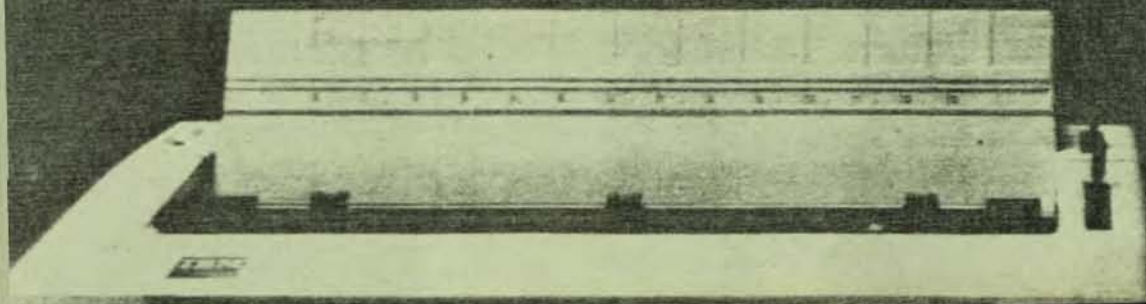
The suit was filed in U.S. District Court here by shareholder Howard Wool on behalf of those individuals who purchased Tandem stock between April 28, 1982, and Dec. 8 of that same year.

Allegations in the suit closely follow charges brought by the Securities and Exchange Commission (SEC) against Tandem on Oct. 2. That suit also concerned Tandem's restatement of 1982 earnings and revenues. The company settled the suit by consent decree without admitting or denying the charges.

The suit charges that shareholders who purchased Tandem stock before the revenue and earnings were restated paid "artificially inflated" prices.

MIS WEEK 11/7/84 P10

IBM proudly presents and-new, letter-quality printer personal computers.



LEVEL 1 - 8 OF 10 STORIES

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Computerworld

November 5, 1984

SECTION: NEWS; Pg. 10

LENGTH: 872 words

HEADLINE: Banks follow divergent paths on road to home banking

BYLINE: By Edward Warner, CW Staff

BODY:

As bank after bank scrambles to offer home banking services, their data centers are faced with twin challenges: communicating data from mainframes to customers' personal computers and handling the increase in transactions.

To cope, three banks that introduced home banking services this year have each chosen different paths. New York's Manufacturers Hanover Trust Co. bought new minicomputers and communications software. Penn Security Bank and Trust of Scranton, Pa., bought no new processors and developed its communications software in-house. And Shawmut Corp., operator of a group of Massachusetts banks, chose to offer its Arrive home banking service via Compuserve Corp.'s Compuserve network, thus avoiding the need for either new computers or a communications link to customers.

New York's Manufacturers Hanover Trust offers the latest of the three new home banking systems, Excel Personal Financial Management. The service has the potential to be one of the largest in a city of thousands of personal computer users, according to James L. Bauer, vice-president and director of home information services. That was one reason, he said, why the bank chose to buy four ~~Tandem Computer~~, Inc. TXP minicomputers and communications and bill payment software from Applied Communications, Inc. (ACI) of Omaha.

Another reason, added Carl Morales, senior vice-president for retail banking systems at Manufacturers Hanover Trust, is that "philosophically, when we have a business need for a new service, we prefer to go to the marketplace." Those products are then used as a base or springboard for in-house enhancement, he said.

Of the four minis, Morales noted, two will be used for development and maintenance of the ACI software. That software permits communications to the other two new minis, the machines that provide the on-line portion of the Excel service. The software also performs the service's bill payment functions.

Penn Security Bank and Trust, a much smaller bank, decided, however, that its existing processors were sufficient to handle the communications and transaction load and chose to have one of its programmers spend a year writing the system's communications and applications software. Bank President Otto Robinson said Penn Security went that route because it liked "the great productivity" of the IBM System/38, the bank's mainframe, and it also wanted to keep the project's cost down.

LEXIS NEXIS LEXIS NEXIS

© 1984 Computerworld, November 5, 1984

In the end, he said, Penn Security's People Server home banking system cost the bank about as much as one automatic teller machine.

An additional reason why Penn Security developed its home banking system in-house, Robinson noted, is because the bank wanted a system tailored to its own needs and able to offer out-of-the-ordinary services. In addition to the standard features of most home banking services -- such things as account balance inquiry and intrabank funds transfers -- the 125 customers of People Server also get access to screens of free classified advertisements and an electronic bulletin board of community events.

People Server and Excel also differ in the role they place on their system's minicomputers. People Server, which came on-line in April, uses two IBM Series/1 minis as intermediaries, converting protocol between the customer's home computer or terminal and the bank's System/38, where actual account inquiries and transactions take place.

Manufacturers Hanover Trust, however, places most of the on-line features of Excel, except bill paying, directly on a pair of its four Tandem minis. A 9,600 bit/sec concentrator, or base-24 videotex controller, is used to speed communications from the Tandem TXPs to customers. The bank's four NCR Corp. Criterion 8500 series mainframes execute Excel's customer account debiting in batch mode.

The big difference between Shawmut's Arrive home banking system, which premiered in August, and other recent arrivals in the home banking arena is its reliance on an existing computer communications network, CompuServe, based in Columbus, Ohio. Though hundreds of miles separate the CompuServe mainframes from Shawmut's Boston headquarters, Janet Pruitt, vice-president for electronic banking products at Shawmut Bank of Boston, argued that Arrive and other home banking systems are essentially similar. "The only difference is [that] we transmit our data to Columbus," she said.

Pruitt said Shawmut uses one of the CompuServe mainframes to store its data base of Arrive customer account records in the same way that most banks use a separate in-house computer as the basis for their home banking systems. Each day, the account balances of Arrive customers are transmitted to the CompuServe computers, and at the end of each banking day, the transactions of Arrive users are uploaded to the Shawmut mainframes for balancing accounts, she explained.

Arrive customers access their accounts via their personal computers by dialing the same local telephone number as other CompuServe users. Like other CompuServe users, they pay for their connect time.

Customers of Penn Security's People Server home banking system, however, pay nothing for the service unless they use it for more than a set number of hours each month.

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...as chairman of the troubled computer manufacturer.

Gary Kappenman, co-founder of Eagle and current board member, will take over the presidency of Eagle upon the completion of the company's move south. Kappenman currently resides in Southern California.

According to Mickwee, the administrative, marketing and sales

marketplace. Instead, the company plans to concentrate on the OEM and "value-added resellers" marketplace, according to Weikel.

Weikel said Eagle plans to attack the "high-end professional vertical marketplace" with its new line of products it plans to introduce in approximately six months. He would not say if that line of products would be IBM-compatible.

resumed shipping product, but the damage had been done.

Eagle announced reported losses of \$9.8 million for that quarter, which included losses from the IBM suit and write-downs the company took on its outdated 8-bit product line.

Another problem facing the company is a delay it has been experienc-

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Tandem Settles SEC Lawsuit

CUPERTINO - Tandem Computers Inc. wasted little time in settling the lawsuit brought against it by the Securities and Exchange Commission last month.

On the same day the SEC filed suit in federal court charging three Tandem executives with fraud and securities violations, the company announced it had agreed to the SEC's terms for settlement.

Tandem spokeswoman Pat Becker said the computer manufacturer took the action to avoid the time and expense of a court battle.

Under the settlement, Tandem is enjoined from violating federal securities law, and ordered to undergo annual audits for the next three years.

Tandem officials agreed to the settlement without denying or admitting the suit's allegations.

The SEC had sought no fines against the three executives named in the suit: President James G. Treybig; Chief Operating Officer Robert C. Marshall; and former Controller Henry V. Morgan.

Claudia Belcher, the SEC lawyer who headed a two-year investigation of Tandem, said the government is satisfied with the settlement and will not seek further legal action against Tandem or its top executives.

In its complaint, the SEC claimed that Tandem was counting unconfirmed and undelivered orders as sales during the 1982 fiscal year.

Such procedures inflated the company's revenues and profits in 1982 financial statements, and were in violation of Tandem's policies and accepted business practices, Belcher said.

By failing to devise and maintain an adequate system of internal controls, Tandem also violated securities law, the suit

claimed.

Belcher said the questionable practices were limited to fiscal 1982.

The SEC began an unpublished investigation of Tandem in October 1982, but Belcher declined to say what first prompted the SEC to look at Tandem's accounting procedures.

Two months after the start of the investigation, Tandem made its first public disclosure of the problem. The company revised its previously-announced sales and revenues for that year. Revenues were lowered, from \$335.9 million to \$312.1 million, a reduction of \$23.7 million.

On the day following the announcement, the price of Tandem stock fell \$5.75.

Spokeswoman Becker said that Tandem restated its sales and revenues after the company's outside accounting firm, Arthur Andersen & Co., discovered the revenue recognition problems.

"Tandem has been growing at a very frantic pace, and the internal controls just didn't keep track with that," she explained.

But the SEC also claimed — but never proved in court — that Tandem executives had been "knowingly false and misleading" in reporting the company's revenues.

Belcher said the suit included a fraud count against Tandem because government attorneys were convinced that Tandem executives either knew about the misstated revenues, or were extremely reckless about the company's accounting practices.

In its complaint, the SEC contended that in October 1982, Arthur Andersen & Co. found transactions that were improperly recorded, and recommended to Tandem executives that the company adjust its fourth-quarter revenues downward by about \$18

million.

After some discussions with Arthur Andersen, Tandem announced revenues that eliminated only \$2 million of the questionable orders.

But by late December, Tandem filed papers with the SEC admitting that the company's fourth-quarter revenues had indeed been overstated by about \$13.4 million.

Skip Bushee, executive vice president of Infocorp, the Cupertino-based market research firm, said that Tandem's revenue recognition problems are similar to those experienced by many rapidly-growing, Silicon Valley companies.

"Almost every computer company I know has gone through the same thing," he said. "As a company grows, it has to develop new structures and practices to deal with that growth." Bushee said Tandem executives made "an honest mistake" by failing to quickly catch the company's accounting problems. Nonetheless, Bushee said he maintains his faith in the company's management.

"Frankly I think it (Tandem) is one of the best managed companies in the Valley, if not the country."

"They found the problem and corrected it two years ago," he said. "Forcing them to sign an agreement saying they won't let it happen again doesn't make much sense."

Bushee concluded, "The SEC is making an issue of this...so less of this kind of thing will happen with other companies."

Belcher declined to comment on why her superiors decided to file suit against Tandem.

But she added the SEC was prepared to prove all its allegations in court, if that had become necessary.

CORPORATE TIMES NOVEMBER 1984

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Corporate Times
Nov 1984 p3

database management system with a Macintosh shell on top for direct queries. By linking the cluster processors, as many as 1,500 Macintoshes can be supported. Pricing has not been set.—D. Bright

TECH FILES: A QUICK LOOK AT INDUSTRY DEVELOPMENTS

SOFTWARE FILES: IBM Corp. has endorsed graphics standards-based software with the latest introductions of graphic display boards and professional graphics series software for the Personal Computer. The graphics encompass the Graphical Kernel System (GKS), Virtual Device Interface (VDI) and Virtual Device Metafile (VDM), all of which are being considered by ANSI standards committees.—C. Warren

Communications Solutions Inc., San Jose, Calif., has adapted its Access/SNA software to work with systems running UNIX. The product enables UNIX users to access IBM mainframes through IBM's Systems Network Architecture protocols. Access/SNA can be used with UNIX System III, System V and XENIX operating systems. Licensing fees range from \$75,000 to \$100,000.—M. Stenzler-Centonze

Peachtree Software, Atlanta, Ga., is joining the software companies now providing programs on Sony Corp.'s 3½-inch floppy diskette. Peachtree's PeachText 5000 office productivity series, Back to Basics accounting, and Calendar Management programs are available for the recently announced Data General/One portable computer, which incorporates either one or two Sony drives.—M. Stenzler-Centonze

MINI FILES: Burroughs Corp. has introduced its first UNIX product: the XE-550 minicomputer, which is built around Convergent Technologies Inc.'s MC68010-based MegaFrame. The XE-550 simultaneously runs a version of Burroughs' proprietary BTOS operating system as well as Convergent's CENTIX implementation of UNIX System V. CENTIX includes Berkeley 4.2 enhancements such as virtual memory support. System prices begin at \$43,000.—D. Bright

Also joining in the increasing support for UNIX, **Stratus Computer Inc.**, Marlboro, Mass., has added System V capabilities to its fault tolerant computer systems. The operating system shares a common kernel with Stratus' proprietary VOS operating system. VOS already incorporates UNIX functions, a feature that helped Stratus merge the two operating systems, Stratus officials say. Most competitors, such as Auragen Systems Corp. and Sequoia Systems Inc. offer UNIX on their fault-tolerant systems, although market leader **Tandem Computers Inc.** does not. Yet another company developing a UNIX-based fault-tolerant system is startup EnMasse Computer Corp., Acton, Mass.—D. Bright

RANDOM DISK FILES: CPT Corp., Minneapolis, Minn., should introduce a high-capacity 3½-inch flexible drive early in the first quarter of 1985. The drive, obtained

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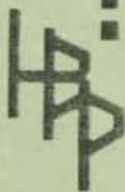


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in electronics and automobiles, don't they?" said Nishii.

Aware that their personal computers are not yet equal to their American counterparts, Japanese companies have had greater results with such computer equipment as memory chips, display screens, printers, magnetic disk storage devices and semiconductors. Although they have made tremendous inroads in the U.S. supplying such equipment, they realize that it is much less profitable than selling personal computers.

So shortcomings and all, Japanese

Treybig Receives Management Award

CUPERTINO - James G. Treybig, president of Tandem Computers, Inc., was one of four October recipients of *Industry Week* Magazine's eighth annual "Excellence in Management" Awards.

According to the magazine, Treybig was cited because of his "outstanding efforts in implementing and maintaining sound employee relations."

Lad Kuzela, a spokesman for *Industry Week*, said that the four categories in which the magazine makes its excellence awards are: positive employee relations philosophy, improving understanding between business and government, promoting the private enterprise system, and providing public service to the community.

"We probably had between 30 and 50 names submitted for this year's awards," Kuzela said. "Once we have all the names, we review the candidates and what they've done in the light of our four categories."

According to *Industry Week*, Treybig has shown leadership in making life and working conditions better for his employees. His company has done this through a stock option policy for each employee; a six-week sabbatical leave vacation every four years for each employee; and a variety of communications programs designed to facilitate the sharing of ideas and exchange of information.

"The key to success is to involve every employee in the company," Treybig said. "You've got to stay close to your employees and make them feel they're important — that the company cares."

CORPORATE TIMES NOVEMBER 1984

month that it will begin marketing personal computers in land, Oregon next spring, whose products are exported its Los Angeles-based U.S. diary, Epson America Inc. first personal computers to in 1982. This was a year before sold them in their own

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LEVEL 1 - 2 OF 7 STORIES

Proprietary to the United Press International 1984

November 7, 1984, Wednesday, BC cycle

SECTION: Financial

LENGTH: 166 words

DATELINE: CUPERTINO, Calif.

KEYWORD: Earn-Tandem

BODY:

Tandem Computers Inc. Wednesday reported a 27.3 percent revenue increase for fiscal year 1984.

The computer systems manufacturer reported revenues of \$532,620,000, compared to \$418,282,000 for fiscal year 1983.

Net income, before a non-recurring adjustment, was \$33,208,000, or 80 cents per share, compared with a net income of \$30,805,000, or 76 cents per share, for fiscal 1983.

Total fiscal 1984 net income, including a \$9.7 million non-recurring tax adjustment, was \$42,908,000, or \$1.04 per share.

For the fourth quarter ended Sept. 30, Tandem revenues advanced 29.9 percent to \$153,090,000, compared to \$117,850,000 in the same quarter of fiscal 1983.

Net income in the fourth quarter, before the non-recurring tax adjustment, grew 35.8 percent to \$11,930,000, or 29 cents per share, compared with \$8,787,000, or 21 cents per share in the same period last year.

Total net income for the quarter, including the \$9.7 million tax adjustment, was \$21,630,000, or 53 cents per share.

LEVEL 1 - 1 OF 3 STORIES

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November 7, 1984, Wednesday

DISTRIBUTION: Business Editors

LENGTH: 976 words

HEADLINE: TANDEM; Financial results

DATELINE: CUPERTINO, Calif.

BODY:

Tandem Computers Inc. (OTC:TNDM) Wednesday announced operating results for the 1984 fiscal year and the fourth fiscal quarter ended Sept. 30. The California-based manufacturer of NonStop systems reported that revenues for the year increased 27.3 percent to \$532,620,000 from \$418,282,000 in fiscal 1983. The company's net income before a non-recurring adjustment was \$33,208,000, or 80 cents per share, compared with net income of \$30,805,000, or 76 cents per share, posted in fiscal 1983. Total fiscal 1984 net income, including a \$9.7 million non-recurring reversal of previously accumulated deferred income taxes on the undistributed earnings of the company's Domestic International Sales Corporation (DISC) subsidiary, was \$42,908,000, or \$1.04 per share. For the fourth fiscal quarter ended Sept. 30, revenues advanced 29.9 percent to \$153,090,000, vs. \$117,850,000 in the same quarter of fiscal 1983. In the fourth fiscal quarter of 1984, net income before the non-recurring DISC adjustment grew 35.8 percent to \$11,930,000, or 29 cents per share, compared with \$8,787,000, or 21 cents per share, in the year-earlier period. In the fourth fiscal quarter of 1984, total net income, including the one-time DISC benefit of \$9.7 million, or 24 cents per share, was \$21,630,000, or 53 cents per share. James G. Treybig, Tandem president and chief executive officer, commented, "The major contributor to revenue in fiscal 1984 was our new NonStop TXP system. The high-end NonStop TXP was introduced early in the fiscal year and grew to account for nearly three-quarters of the units shipped in the final quarter of the year. The TXP system has earned a very positive reputation with our customers, and we expect it to continue to play a major role in fiscal 1985." "During the fourth quarter," Treybig stated further, "we implemented some new programs designed to enhance our competitive position across our product line. As a result of these programs and the fact that we held our level of employment flat during the quarter (while increasing the sales force 9 percent), we increased our operating margin on a sequential basis. This result is a first step in our continuing emphasis on improving profitability." Treybig continued, "Other key programs for 1985 include a focus on establishing business partnerships under the Tandem Alliance Program. We made good progress in 1984, adding a substantial number of important software house partners. We also have an active schedule planned for new product introductions. Leading off our introductions this year was DYNAMITE, Tandem's integrated workstation, which was announced in October." Tandem Computers Inc., one of the Fortune 500 largest U.S. industrial corporations, manufactures NonStop computer systems and networks for the on-line transaction processing market. In addition to over 80 U.S. sales, service and manufacturing facilities, Tandem has manufacturing operations in Germany and maintains a network of subsidiaries and distributors located in the major commercial centers throughout Canada, Europe, Latin America, the Middle East, Asia and the Pacific. Tandem Computers Inc. is headquartered at 19333 Vallico Parkway, Cupertino,

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Calif., 95014. Telephone is 408/725-6000.

Tandem Computer Inc.
Financial Highlights
(in 000s, except per share data)
(unaudited)

	Three Months Ended		12 Months Ended	
	9/30/84	9/30/83	9/30/84	9/30/83
Revenue				
Product	\$129,850	\$101,513	\$448,611	\$360,133
Service and other	23,240	16,337	84,009	58,149
Total revenue	153,090	117,850	532,620	418,282
Costs and expenses				
Cost of revenue	63,341	47,780	218,810	168,708
Product development	15,298	10,405	52,514	39,168
Marketing, general and admin.	56,576	45,581	210,195	160,635
Total costs and expenses	135,215	103,766	481,519	368,511
Operating income	17,875	14,084	51,101	49,771
Interest income, net	1,722	616	5,183	730
Income before income taxes	19,597	14,700	56,284	50,501
Provision for income taxes				
Current period	(7,667)	(5,913)	(23,076)	(19,696)
Benefit of DISC Tax reversal	9,700	--	9,700	--
Total provision for income taxes	2,033	(5,913)	(13,376)	(19,696)
Net income	\$21,630	\$ 8,787	\$42,908	\$30,805
Earnings per share	53 cents	21 cents	\$1.04	76 cents
Weighted average shares outstanding	40,923	41,129	41,399	40,784

CONTACT: Tandem Computers Inc., Cupertino
Cacey Tangney, 408/725-7555 or
Pat Becker, 408/725-6035

LEVEL 1 - 1 OF 7 STORIES

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November 8, 1984, Thursday, Late City Final Edition

SECTION: Section D; Page 10, Column 5; Financial Desk

LENGTH: 74 words

HEADLINE: TANDEM COMPUTER INC reports earnings for Qtr to Sept 30

BODY:

	** COMPANY REPORTS **	
	TANDEM COMPUTER INC (OTC)	
Qtr to Sept 30	1984	1983
Revenue	153,090,000	117,850,000
Net inc	621,630,000	8,787,000
Share earns	.53	.21
Yr rev	532,620,000	418,282,000
Net inc	642,908,000	30,805,000
Share earns	1.04	.76

b-Includes a nonrecurring benefit of \$9,700,000 related to new laws applicable to domestic international sales corporations.

TYPE: Statistics

SUBJECT: COMPANY REPORTS

Earnings

Tandem gains

Tandem Computers Inc. of Cupertino, which makes fault-tolerant mainframe computers, announced an increase in sales and earnings for both the fourth quarter and the 1984 fiscal year.

For the quarter ended Sept. 30, the company had a net income before a non-recurring adjustment of \$11.9 million, or 29 cents a share, up 35.8 percent, compared with \$8.7 million, or 21 cents a share, a year ago.

Sales for the quarter were up almost 30 percent to \$153 million compared with \$117.8 million for the same period last year.

The earnings were in line with estimations from analyst John C. Levinson of Goldman, Sachs & Co.

Two trends — that Tandem's employee count is down slightly for the quarter and that the company has added 30 salesmen — support his expectation of "continued 25 percent plus revenue growth and, more importantly, that margins will rebound materially in the next couple of quarters," Levinson said.

For the year, the company's net income before a non-recurring adjustment was \$33.2 million, or 80 cents a share, compared with net income of \$30.8 million, or 76 cents a share, for fiscal 1983.

Total fiscal 1984 net income, including a \$9.7 million non-recurring reversal of previously accumulated deferred income taxes on undistributed earnings of a company subsidiary, was \$42.9 million, or \$1.04 a share.

For the year, the firm had reve-

nues of \$532.6 million, up 27 percent from \$418.2 million for the previous year.

Skip Bouche of InfoCorp, a Cupertino market analyst firm, said he "feels strongly that Tandem has been reawakened" and that the company is "more competitive and more aggressive" than it had been in the past.

Coherent profits up

Coherent Inc. of Palo Alto reported a big jump in fourth-quarter profits and a more modest gain in sales.

Income from operations during the quarter ended Sept. 29 was \$2.1 million, up 55 percent from \$1.4 million during last year's comparable period.

Coherent also reported a \$2.5 million gain, equivalent to 31 cents a share, on an income tax adjustment that resulted from passage of the Tax Reform Act of 1984.

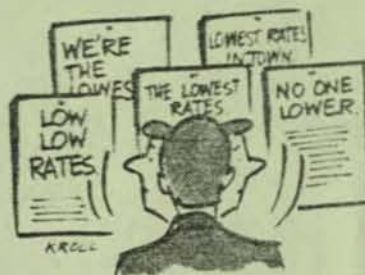
That left the company with a fourth-quarter profit of \$4.6 million, up 238 percent from \$1.4 million during last year's fourth quarter.

On a per-share basis and adjusted for a 3-or-2 stock split in September, profits were 57 cents, a 217 percent increase from 18 cents in 1983.

Sales were \$31 million, up 17 percent from \$26.4 million for the same period last year.

Coherent makes laser systems for industrial, medical and scientific purposes.

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11/8/84 pB3

Earnings

Tandem Computers Inc.

Tandem Computers Inc., reported its profit increased 39 percent to \$42.9 million (\$1.04 a share) for the year ended Sept. 30, compared with \$30.8 million (76 cents a share) last year. Sales increased 27 percent to \$532.6 million, compared with \$418.3 million a year ago. Fourth-quarter profit increased 146 percent to \$21.6 million (53 cents a share), compared with \$8.8 million last year. Fourth-quarter sales increased 30 percent to \$153.1 million, compared with \$117.9 million in the like period last year. The 1984 profit a \$9.7 boost from a change in tax laws this year. Tandem produces large Stop computer systems and networks.

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Computer World

11/12/84 p89

TANDEM COMPUTERS, INC.
Snax/HLS

Tandem Computers, Inc. has announced a high-level application interface for the company's IBM Systems Network Architecture Access Method (Snax) software that is said to reduce significantly the time required for users to develop application programs in the SNA environment.

According to a spokesman, the Snax/High-Level Support (Snax/HLS) software allows applications programs to be written without regard for the complexities of underlying SNA communications protocols.

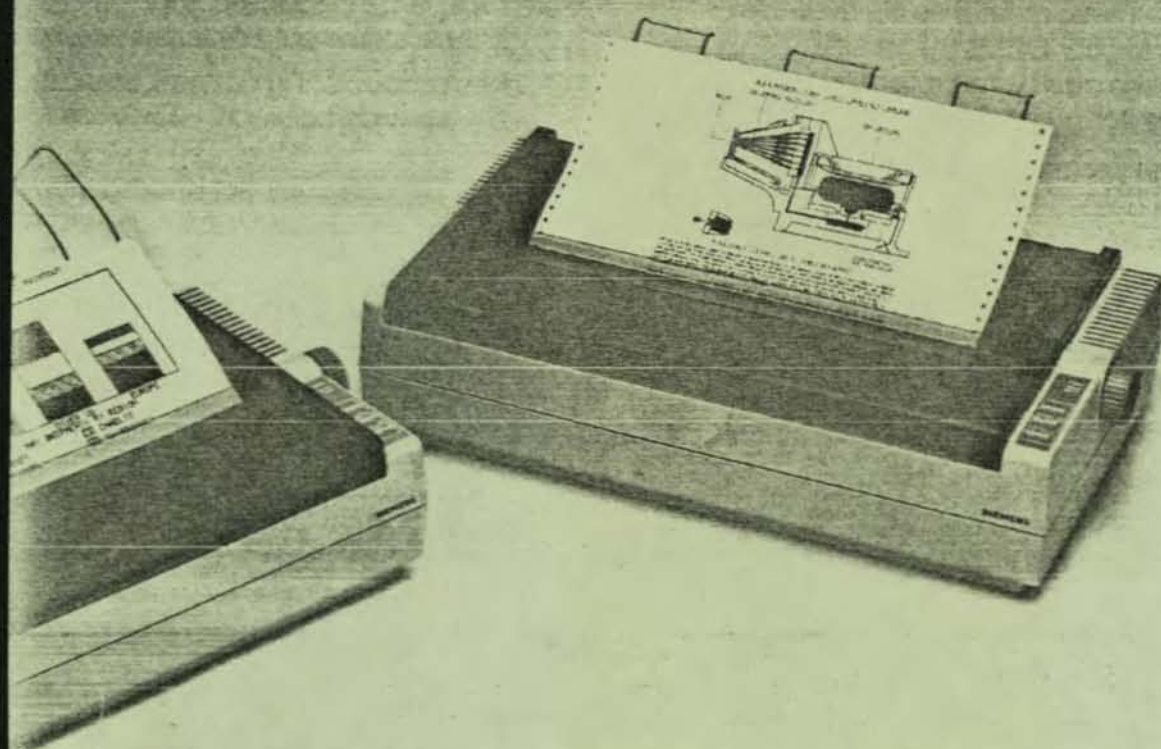
The software is said to provide a comprehensive application interface for users of Tandem's Pathway transaction processing software and for non-Pathway systems. Snax/HLS provides the ability to communicate with a wide range of SNA intelligent controllers, such as the IBM 3600 and 4700 financial subsystems and IBM 3560 retail subsystems and IBM CICS and IMS software products, according to the vendor.

Snax/HLS is available for use on Tandem's Nonstop II and Nonstop TXP systems for a monthly usage fee of \$250 per processor.

The software requires Snax software, which has a license fee of \$2,750 per processor.

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RAM and 32k bytes of ROM.
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Pricing for the HX-40 is
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and discounts are available.

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model and an optional "item"
keyboard with 58 keys, of
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up to a 15-character string.

Four disk drives can be
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McIntyre. The company offers
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Tandem Posts Fiscal Gains

CUPERTINO, CALIF. —
Tandem Computers Inc. last
week reported a 27.3 per-
cent revenue increase for fis-
cal 1984, ended Sept. 30, to
\$532,620,000 from \$418,282,000
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Net income for 1984 was
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Fourth-quarter revenue
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\$117,850,000 in the same quar-
ter a year ago. Net income
in the fourth quarter was
\$11,930,000, or 29 cents per
share, compared with fourth-
quarter figures of \$8,787,000,
or 21 cents per share, in 1983.

In a prepared statement,
Tandem president James Trey-
big attributed the profits to
the company's high-end Non-
Stop TXP system, introduced
last year, which he said ac-
counted for three-fourths of all
Tandem systems shipped in
the final 1984 quarter.

Computer Systems
News 11/12/84 p8

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to manu- Winches- technol- g equip- g, some

parts inventory, and technical expertise, said Brand.

Eighteen IMI engineers will become part of CMI's engineering department under CMI engineering vice-president Jeff Hakeman. They will continue to work out of a 6300-square-foot Cupertino, Calif., facility that CMI will sublease from Onyx + IMI, according to Brand.

IMI's manufacturing facilities were not part of CMI's purchase, Brand noted. CMI will produce the new half-height drives here and in Singapore, as it does the rest of its product line, he said. CMI's volume production is done in Singapore.

Brand said CMI probably will replace its 10- and 20-Mbyte half-height drives with the former IMI models, which provide the same formatted capacities. IMI's products are further along in development, with early units already shipped to prospects for evalu-

curities laws of the state of California and federal laws, and therefore, no filing with the Securities and Exchange Commission was necessary.

For a public offering, the financing is uncharacteristically non-liquid. There is no underwriter—Osborne will be handling the sale—and there is no after-market at present, although Anthofer believes one will develop. The company also is not sure whether any brokerage firm will make a market in these shares and if they will be listed

members that have been "fanatical supporters of the company throughout the bankruptcy [proceeding]," Anthofer said.

Admittedly, the securities would have to be earmarked to those interested parties since they would have limited appeal to typical stock investors that look for liquidity.

The company expects the sale to take several months. The capital raised will be used for new product development and working capital.

ation and volume production due to start during the first quarter of next year.

CMI's half-height products were in the final design phases at the time of the IMI acquisition and have not yet been delivered, Brand said.

While CMI's half-height disk drive design is limited to the 10- and 20-Mbyte capacities that already have been demonstrated, IMI's design is expandable to 40 Mbytes, Brand said. IMI's head positioning system is its principle advantage, he said.

Although Brand expects the IMI purchase to improve CMI's market position, he said CMI was not looking for a boost from outside before Onyx + IMI put its disk drive division on the selling block. "We saw that it presented an opportunity," Brand said.

Onyx + IMI in September said it would sell off IMI or cease operations by year-end after IBM decided not to renew an OEM contract for 10-Mbyte

drives because IMI could not meet IBM's price demands. Onyx + IMI executives concluded that price pressure would drive the division into the red in 1985.

Still up for sale are IMI's 5.25-inch full-height technology and a 68,000-square-foot White City, Ore., factory that reportedly has capacity to produce 30,000 disk drives per month. Onyx + IMI said the division will continue to ship the full-height 5.25-inch products into 1985 to fill existing orders.

IMI last May notified customers that it would cease to supply 8-inch Winchester disk drives at year-end and in June stopped accepting orders.

A \$10 million after-tax reserve that Onyx + IMI established to cover the IMI divestiture did not anticipate the sale of the half-height operation and will be reduced as a result, Onyx + IMI said. A positive effect on cash flow is projected.

ouncement appears as a matter of record only.

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Tandem Computers Holder Files Class-Action Lawsuit

SAN JOSE, CALIF. — A Tandem Computers Inc. shareholder has filed a class-action lawsuit in U.S. District Court here, charging the company with defrauding investors by overstating its fiscal 1982 revenue and earnings.

The suit "contains allegations that are substantially similar" to those previously made by the Securities and Exchange Commission, Tandem said in a statement. The SEC suit was settled on Oct. 2 when Tandem, without admitting or denying the allegations, agreed to the entry of a judgment enjoining it from violations of federal securities laws as well as agreeing to undergo special auditing procedures.

Howard Wool, a Pennsylvania shareholder, filed the suit on behalf of all those who purchased Tandem stock between April 28, 1982, and Dec. 8, 1982. Tandem had been forced to restate its revenue for fiscal 1982, ended Sept. 30, when it was discovered that the company was counting revenue on orders that were not final.

The restatement downgraded 1982 revenue to \$312.1 million from \$335.8 million. When the announcement was made on Dec. 8, 1982, "the market price of Tandem's common stock fell \$5.75 [or about 20 percent] from the previous day's close," the suit charges, adding that stockholders had paid "artificially inflated prices."

The suit asks for unspecified damages, Tandem said, adding that the company "believes the allegations are without merit [and] plans to vigorously defend the action."

Fault-Tolerant Mkt. Proves New Battlefield

Continued From Page 11
month (EN, Oct. 24) "addresses the market for very high volume transaction processing. This emerging market requires the ability to process hundreds of transactions per minute in new applications such as integrated retail banking networks, home information services, video text, and on-line factory automation."

As Tandem positions itself to compete for business that has traditionally gone to makers of large processors, firms such as Digital Equipment, Perkin-

Elmer, and Hewlett-Packard have come into Tandem's traditional market, but offering various levels of fault tolerance for applications where full nonstop computing is not always an imperative. Sometimes referred to as redundant, high-availability, or fail-safe systems, vendors see applications for such machines in the technical as well as office automation markets.

"Fault tolerance is a feature, the value of which varies according to the application. The key is that users want their systems to

be more reliable. Fault tolerance is just a degree," noted Grant S. Bushee, who follows the market for InfoCorp, a Cupertino, Calif.-based research firm. Mr. Bushee estimated that the market for systems with fault-tolerant capabilities in 1983 was \$400 million, with Tandem holding almost the entire market. In 1983, the field will grow to \$515 million, reaching \$1.2 billion by 1987.

It is clear from several approaches that many firms want some flavor of fault tolerance. At the chip level, Intel Corp.'s

almost 3-year-old IAPX 432, which has not found widespread acceptance, had hoped to capitalize on the growing trend toward fault tolerance by designing several features into silicon.

Trilogy is said to be designing in redundant features for its large processors at the chip level. IBM offers various schemes for its 308X processors as well as its Series/1 and new 8150 computers. Hewlett-Packard has targeted industrial automation and process control environments with its Systemsafe/1000, which pairs

two HP 1000 Models 80 or 85 systems with one acting as a hot standby. DEC extended its redundant clustering capability to its VAX machines.

Meanwhile, Computer Consoles expects in the first quarter to begin marketing a fault-tolerant system for the office automation market based on the machine it currently sells to telephone companies. And, Perkin-Elmer hopes its scheme will lead to more government and bank business.

Boost to Sales

Many of those firms, however, view fault tolerance as a feature that will boost sales in their traditional markets. They concede the true non-stop market to Tandem and other start-ups. "We will sell in a situation which requires high availability as opposed to true 100 per cent uptime. (Tandem Systems) are made for constant computing. It is not one of our best areas," acknowledges Perkin-Elmer's Mr. Lombardo. DEC's VAX product manager, Dave Chanoux, added "If we compete in a true non-stop environment, then we probably won't be successful."

Mr. Chanoux said DEC at first did not believe there was a market for fault-tolerant systems. "We ignored that feature of computing. We thought of fault-tolerant or high-availability systems as a non-commercial product for the military or as a special application for the health field, such as a life-support system."

The VAXcluster scheme, unveiled initially for DEC's DECsystem 20 computer last fall (EN, Nov. 28, 1982), has been cited by president Kenneth E. Olsen as the firm's response to calls for redundant processing (EN, March 7, 1983). The firm said the VAXclustering scheme is designed to give the firm new leverage in the financial services, telecommunications, and office automation markets.

To help fend off the growing list of competitors, Tandem unveiled a new high-end line and adjusted the price/performance of its two low-end lines.

Same Programs

Tandem's TXP, which had been in development for 2½ years under the codename Castle (EN, Sept. 5), uses the same architecture and operating systems as the 16-bit NonStop II and runs the same application programs. The TXP uses VLSI advanced Schottky technology and programmable array logic circuits to upgrade addressing from 18 bits to 32 bits, and to improve virtual memory space and cycle times. While Tandem claims over-all system performance on the NonStop TXP is about 1.4 times that of the NonStop II, the TXP CPU continues to operate under a 16-bit format, with two processors operating in parallel.

Although Tandem highlights the TXP as a 32-bit machine, the firm is reported to be developing a full 32-bit system internally code-named Rainbow. That system, however, is believed to be at least 2 years from production and is not expected to be fully compatible with Tandem's current Guardian operating system.

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November 19, 1984

see page 4

TECHVIEWS

FROM:

Martin B. C. Simpson

SUBJECT:

Is European Technology Foundering - or Are There
Signs of Renewed Potential?

We have recently returned from visits with the top management of more than twenty leading technology companies in Europe. Some of these are European in their origins and culture, such as Ericsson, Nixdorf, Olivetti and Philips. Others are American companies, although closely involved with European business activities for up to a century in some cases. A number of the companies are household names, such as IBM, Burroughs and NCR, with billions of dollars in revenues each year. We also interviewed several smaller companies, American, Israeli and European, that are growing at annual rates of 25-50%, with excellent profit prospects, in our analysis, and relatively modest price/earnings ratios. Companies falling into this category include Norsk Data and Scanvest Ring, two rapidly growing Norwegian firms, and Scitex, based in Israel.

In this brief review we touch upon some of the highlights and trends that we believe will be important for investors during the next twelve months. Our detailed comments and analyses will soon be published in a more comprehensive report.

Macroeconomic and Political Trends

European economic activity is in a recovery mode, fueled by the recent surge in U.S. growth and further aided by the strength of the American dollar. This has caused a number of European economies to improve from the low point in 1982, with certain technology companies enhancing their relative position through local manufacturing. Overall, we believe Europe's real economic growth is running at 2-3%, and that this is likely to be sustained in 1985. As usual, the countries have different factors affecting them:

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3. Deflationary tendencies may cause the prices of commodities (gold, oil, etc.) to give further ground, with "real" interest rates declining in the U.S. and a substantial upward revision in price/earnings multiples for well managed technology equities whose growth prospects are maintained. We are struck by the bargains that appear to exist among the technology stocks that we follow on both sides of the Atlantic. Many of the equity prices of technology companies have been beaten down by fears following the well-publicized over-expansion of the venture capital field in recent years, combined with the demise of a number of highly visible corporations that, in our view, had been heading for disaster for some time. This is therefore an excellent time to be adding to positions in selected technology equities, in spite of (or perhaps because of) the widespread public pessimism that now is apparent relating to the outlook. In our opinion, many smaller technology companies are selling at only 20% to 30% of their true value at present. If we are correct in this appraisal, more venturesome investors are apt to see selected technology stocks double or even quadruple in value over the next two to three years.

In Table 1 below we review the current stock prices for favored U.S. technology companies that we believe may provide above average capital appreciation over the years ahead:

Table 1

Company	Symbol	Earnings Per Share					Price/Earnings Ratio				Long-Term Trend In Est. EPS Growth
		Recent Price	1983	1984E	1985E	1986E	1983	1984E	1985E	1986E	Rate
Burroughs	BGH	\$53 1/2	\$4.60	5.50	6.70	7.60	11.6	9.7	8.0	7.0	11%
Data General	DGN	53 1/4	0.97	2.60A	4.30	5.65	54.9	20.5	12.4	9.4	18%
Digital Equip.	DEC	101 1/4	5.00	5.73A	8.25	10.65	20.3	17.7	12.3	9.5	20%
IBM	IBM	120	9.04	10.70	12.30	14.10	13.3	11.2	9.8	8.5	15%
NCR	NCR	25 5/8	2.64	2.95	3.25	3.65	9.7	8.7	7.9	7.0	11%
Tandem Computers	TNDM	17 1/8	0.76	0.81	1.25	1.60	22.5	21.1	14.3	10.7	25%
Ungermann Bass	UNGR	14	0.10	0.35	0.60	1.00	140.0	40.0	23.3	14.0	40%
Wang Labs	WANB	27 1/4	1.16	1.52A	1.90	2.50	23.5	17.9	14.3	10.9	30%

A - Actual

E - Estimates of Martin Simpson & Company, Inc.

Reviewing Table 1, we believe that substantial capital appreciation potential exists for patient portfolio managers who invest in the equities presented. We are especially enthusiastic about companies such as IBM, Digital Equipment, Tandem Computers, Ungermann Bass and Wang Labs, in view of the above-average long-term growth prospects and the market positions achieved in industry areas that are likely to grow at rates well in excess of GNP. We do not buy the argument that the technology arena is now so fraught with competition that few companies deserve a premium multiple. In our analysis, the advent of the microprocessor will lead to dramatic growth for at least the next decade. Well managed participants in the computer, minicomputer, office automation and telecommunications fields should be able to take advantage of this technological revolution in a highly profitable way. While new technologies can hardly be characterized as "risk free", we believe the present environment of gloom and uncertainty has resulted in a minimal price/earnings premium for top quality growth equities. The investment opportunity is therefore significant, in our analysis.

In Table 2 we review the current stock prices and growth prospects for a number of indigenous technology companies in Europe, converted to U.S. dollars at current rates.

LEVEL 1 - 9 OF 9 STORIES

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~~The Magazine of Bank Administration~~

November, 1984

SECTION: SYSTEMS AND EQUIPMENT; Pg. 75

LENGTH: 125 words

HEADLINE: ~~Tandem Computers Introduces Letter Quality Printer~~

BODY:

Tandem Computers Incorporated has enhanced the firm's peripheral line with the addition of a letter quality printer. The new printer, the model 5530, will provide a letter quality printing capability for use in the Tandem on-line transaction processing environment. The 5530 is a 55-character per-second daisy wheel printer; features include multinational character sets, programmable line spacing and automatic paper feed for unattended printing. The 5530 can be connected to Tandem systems via asynchronous controllers. Diagnostic features of the 5530 include self-test and self-check at power up, and parity checking for high data integrity. The model 5530 letter quality printer is compatible with Tandem NonStop II and NonStop TXP systems.

GRAPHIC: Picture, no caption

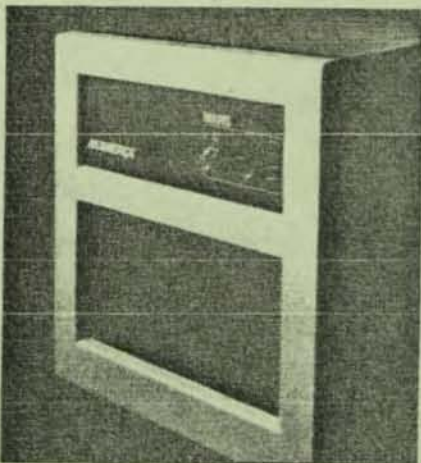
Mini-Micro World

CORPORATE AND FINANCIAL

tion set architecture—the 32-bit, 90X, UNIX superminicomputer—has received \$11 million in new financing. The funds come from a \$6 million, private stock placement and a \$5 million line of credit extended by the Bank of America.

Wet ink

Under a two-year, \$20 million private label agreement, Wyse Technology, San Jose, Calif., will provide Altos Computer Systems with customized, low-cost terminals....**Delphax Systems**, Westwood, Mass., has secured an \$8 million OEM contract with Hamilton GmbH for Delphax's S6000 60-page-per-minute, non-impact printer. Under the three-year agreement, Hamilton will sell the ion deposition printer in West Germany and the Netherlands under the



Numerix Corp.'s MARS 432 array processor will be sold with Digicon Geophysical Corp.'s seismic data processing equipment.

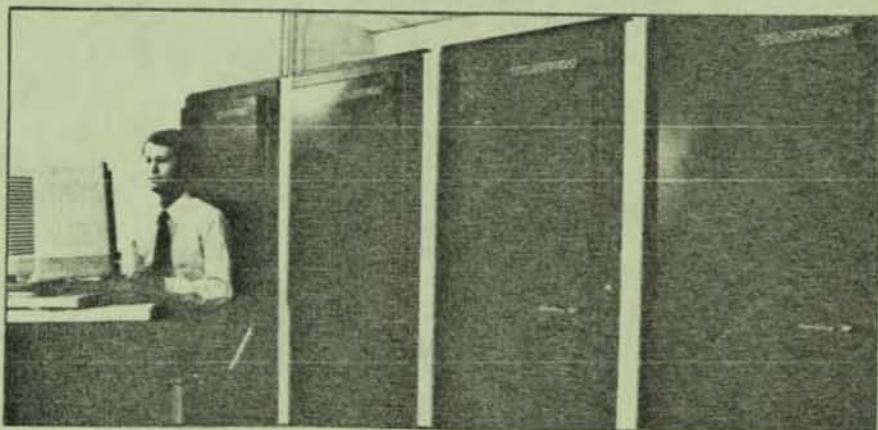
Hamilton label....**Numerix Corp.**, Newton, Mass., will deliver \$3.5 million worth of its MARS 432 array processors to Digicon Geophysical Corp. The Mars 432 will form part of Digicon's DISCO seismic data-processing system used for oil and gas exploration....**Pathway Design Inc.**, Wellesley, Mass., plans to supply Visual Technology Inc. with software gateways for microcom-

puter-to-IBM-mainframe communication. The three-year deal is for \$1 million worth of gateways....**Rodime Plc.**, the Scottish company that supplies 3¼-inch Winchester disk drives for the Compaq Plus portable computer, has signed a \$5.5 million contract with Convergent Technologies. Rodime's 20M-byte 5¼-inch Winchester will be used in Convergent's MiniFrame computer system....**Sun Microsystems Inc.**, Mountainview, Calif., has won the bidding for a \$15 million contract to supply VIA Systems Inc., with workstations for VIA's WorkSystem graphics and design nodes. Under another contract, the Sun workstations will be distributed in Australia by the Lionel Singer Group's new company, Sun Computer Australia....**Tandon Corp.**, Chatsworth, Calif., has begun shipping disk drives and subsystems to Atari Inc. as part of an agreement potentially worth \$130.5 million.

The deliveries are scheduled to continue through the first half of 1985.

Quarterly reports

Compaq Computer Corp.'s growth rate has slowed. Compaq, which is currently the leading vendor of IBM PC-compatible computers, recorded sales of \$65.9 million in the second quarter of 1984 and \$62.9 million in the first quarter. The Houston company's 1983 second-quarter sales were \$18.1 million. Unit shipments for the second quarter of this year totaled 33,000, compared to 27,500 in the first quarter. Net income in the second quarter of 1984 reached \$892,000, or a gain of 3 cents per share, compared with a loss of \$1.2 million, or 33 cents per share, in the same period a year earlier. Compaq's new Deskpro desktop computer has not yet had an impact on sales and earnings, since Deskpro shipments began late in the second quarter.



Tandem Computers Inc., with fault tolerant computer systems like the NonStop TXP, remains the leader in its field.

Despite increased competition, **Tandem Computers Inc.** remains the king of the fault tolerant computer market. For its third quarter, ended June 30, the Cupertino, Calif., manufacturer of NonStop computer systems reported that revenues advanced 29 percent, to \$142 million, compared to \$110 mil-

lion in the same quarter a year earlier. Net income also increased—to \$9.3 million, or 23 cents per share, from \$8.4 million, or 21 cents.

Year-to-date revenues reached \$379.5 million, as opposed to \$300.4 million for the preceding year. Net income, however, declined to \$21.3 million from \$22 million.

Breakpoints

from Toshiba Corp., should offer as much as 6M bytes of unformatted data storage by using vertical recording methods.—C. Warren

Archive Corp., Costa Mesa, Calif., and **Convergent Technologies Inc.**, Santa Clara, Calif., reportedly have inked a three-year, \$40 million pact, under which Archive will supply the supermicrocomputer manufacturer with 45M-byte, 1/4-inch Scorpion streaming tape drives. Although neither company would comment on the agreement, industry observers say the deal gives Archive and the quarter-inch streaming tape drive market a much-needed boost.—C. Warren

Indicative of the vogue of 3 1/2-inch disk formats, **Cambrian Consultants Inc.**, Calabasas, Calif., has both 10M-byte and 21M-byte models. Both units are compatible with the Seagate ST506/412 and the Rodime 350 interfaces. The company is looking for shared licensing on a non-exclusive basis.—C. Warren

Startup company **Lancore Technologies Inc.**, Westlake Village, Calif., is readying its first product for introduction at the COMDEX show in Las Vegas, November 14 to 18: a 5 1/4-inch, intelligent disk drive subsystem with an average access time of 30 msec. The drive, priced at \$5,995, features tape backup, an Intel Corp. 80186 processor, 128K bytes of dynamic RAM, an SCSI interface and an optional internal modem. It performs caching and allows concurrent multiuser access and simultaneous operation of both the disk and the tape drives.—D. Bright

MICRO FILES: **Tandem Computers Inc.** has developed what it calls the Dynamite workstation to supply corporate customers with MS-DOS compatibility. The modular workstation operates in three modes: Tandem terminal emulation, IBM Corp. 3270 terminal emulation and as an MS-DOS workstation. Users can extract files from Tandem's Encompass database management software running on its fault-tolerant computers, and have Dynamite's software format the files for integration with popular personal computer software such as Lotus Development Corp.'s 1-2-3. Prices start at \$2,995. Tandem stresses that it is not entering the personal computer retail market.—D. Bright

Sydis Inc., San Jose, Calif., plans to ship in December and February a number of enhancements to its VoiceStation office information system. Scheduled for December are multiple file servers, Wang-compatible word processing software, a GKS graphics library, and directory enhancements. February additions are said to comprise production shipments of Sydis' integrated voice/data workstation, a communications server subsystem, data communications software, networking software, business graphics and support for Hewlett-Packard Co.'s LaserJet printer and six-pen plotter.—T. Moran

PRINTER FILES: **Fujitsu America Inc.** is implementing a new retail channel strategy. As a start, its Peripheral Products division, San Jose, Calif. has begun to move its DotMax 9 and DotMax 24 wire impact printers through Fujitsu's own

LEVEL 1 - 1 OF 5 STORIES

Copyright © 1984 The New York Times Company;
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November 20, 1984, Tuesday, Late City Final Edition

SECTION: Section D; Page 2, Column 5; Financial Desk

LENGTH: 138 words

HEADLINE: EXECUTIVES

BODY:

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Amerivest Group, a financial services concern, has named Joseph A. Pallone a senior vice president, and president of Perico Leasing, a subsidiary.

*

Data General Corp., Westboro, Mass., a supplier of computer systems, has named Larry H. Holswade vice president and general manager of the newly formed Federals Systems division.

*

General Instrument Corp. has elected George E. Safiol a senior vice president.

*

RKO Century Warner Theaters Inc. has named Morris Englander executive vice president-development.

*

Shoe-Town Inc., Totowa, N.J., has named Ronald Badke vice president, treasurer and chief financial officer.

*

Tandem Computers Inc., Cupertino, Calif., has elected Jeanne D. Wohlers vice president and controller and Richard A. Lamb treasurer.

SUBJECT: Terms not available

were that Chemical Bank would receive "super priority" as a creditor, giving it less precedence than secured creditors but more than unsecured creditors.

STC reported it has about \$695 million in liabilities and \$1.1 billion in assets, of which only \$15.7 million is secured debt. Chemical Bank had not previously loaned STC any money.

Richard Hastings, vice president and analyst with Merrill Lynch Pierce Fenner & Smith Inc., New York, said he was surprised that Chemical Bank extended the credit to STC. "I'm a little confused by it," Hastings admitted.

Details of the agreement must still be approved by STC's current creditors, something which is not assured.

"If the \$150 million line of credit is approved," it will not be a solution "to the very complex problems STC has," Hastings said. The money will help STC cover its operating losses and provide cash for operations during this period, but the firm must still come up with a reorganization plan, he said.

Hastings said STC will have to reveal such a plan quickly, to reassure potential customers that it will continue to be a viable company. Among current users, there is also concern. "A large multinational company which uses STC's printers, drives and tapes recently called to ask us our opinion of STC's future," Hastings said.

"I really don't feel that they (STC) will be able to come out of this," Hastings said. STC will either be taken over in whole or in part by another company, most likely a Japanese company, he said. By process of elimination, Hastings said Hitachi Ltd. was the most likely candidate to take over STC.

"The reason why STC will probably be taken over is because it does not have a core operation which is now successful and will continue to grow and be profitable in the future," Hastings said.

According to Hastings, STC's tape operation is large and the firm's most lucrative operation, but it's not going to grow significantly in the future. The printer business is also profitable, but only has about \$100 million in annual revenues, much of it from sales of a laser printer it purchases from another company.

STC's disk drive operations are having a difficult time keeping pace with IBM's price cuts and new product introductions, Hastings said. The firm's efforts to develop an optical disk storage system, touted as the basis for the company's future, have experienced delays. STC itself says it does not expect to begin commercial shipments until late next year, Hastings said.

In addition to the resignation of Naim Aweida, STC announced the following management changes: Howard Derby, previously vice president of field engineering, has been named vice president of field operations; Zoltan Herger, executive vice president and co-founder of STC, has been put in charge of the company's optical disk business unit, and Sewell (Bud) Sleek, who was vice president of the tape division, has been named acting head of engineering and manufacturing operations.

Tandem Alters Fiscal Report

CUPERTINO, Calif.—Tandem Computers Inc. reported net income of \$33.2 million, or 80 cents per share, for the 1984 fiscal year ended Sept. 30.

But the manufacturer of NonStop computer systems said total fiscal 1984 net income was \$42.9 million, or \$1.04 per share, when a "non-recurring adjustment" of \$9.7 million is figured in.

The adjustment was a reversal of previously accumulated deferred income taxes on the undistributed earnings of Tandem's Domestic International Sales Corp. (DISC) subsidiary.

Tandem posted net income of \$30.8 million, or 76 cents per

share, in fiscal 1983.

Revenues for 1984 were \$532.62 million, compared with \$418.28 million last year.

Fourth quarter net income was \$11.93 million, or 29 cents per share. That compares with \$8.78 million, or 21 cents per share, in the like quarter a year ago.

Total net income for the fourth quarter, when the one-time DISC adjustment is factored in, was \$21.63 million, or 53 cents per share.

Fourth quarter revenues were \$153.09 million versus \$117.85 million posted in the same quarter of fiscal 1983.

—Jul Cortino

been calling for this for years."

"But the question is whether they will be able to get book value for it. It's not a good organization," Podrasky said.

Commercial Credit, acquired by CDC in 1968 to finance the corporation's burgeoning computer operations, includes a network of 503 consumer banking and lending offices nationwide, plus insurance and leasing businesses. It contributed \$30 million to Control Data's 1983 earnings of \$162 million.

Analyst Harry Edelson of Edelson Technologies commented that credit, at this time, "is not exactly a booming business."

Several Factors Involved

Whether Control Data will in fact sell Commercial Credit depends on a number of factors, according to corporate spokesman Richard Reid. Besides price, another major consideration will be "the commitment of the buyer to continuing to serve Control Data's customer base," Reid said.

No discussions with potential buyers have been held yet, but "we intend to begin these discussions very shortly," he said.

If a sale is completed, the proceeds will be used to "refocus the direction of Control Data in the direction of applications of

micro electronics and technology," Reid said. Funds will also be used to "substantially increase our effort to 'take' and severe undervaluing of the stock."

One indicator Reid said he will be watching is how well CDC changes it has undergone—including both the sale of Commercial Credit and the corporation's move out of the plus business in September. The quality of CDC plans to improve the year.

CDC's Strong Points

"Those products or they're in trouble," Edelson commented.

Edelson commented that despite the tough time has encountered during the year, it still has strong points.

"Control Data has technology and a wide of participation in systems," the analyst said. "They're also heavy

Harris Switching Products

By KIT FRIEDEN

MELBOURNE, Fla.—Citing tough competition and higher production costs, Harris Corp. said last week it is phasing out U.S. production of its terminals that are compatible with the International Business Machines Corp. 3270, and will rely on suppliers in the Far East.

"The truth of the matter is when you get into these volumes, you have to source offshore to keep good product costs," a Harris spokesman said.

In addition, the company said it is streamlining its operations in Dallas. Both that reorganization and the production shutdown will mean a loss of 130 to 150 jobs nationwide, although some of those employees will be reassigned to other Harris jobs wherever possible, the spokesman added.

He said the company has not named its offshore producers yet, but noted that Harris Corp. has an office in Taiwan which keeps abreast of activities in that region.

Harris' interactive IBM 3270-compatible terminals, such as the 9200 and 9116 series, have been produced in Nashua, N.H. The company said new products following that line will now come from overseas. That will result in a loss of 20 to 30 jobs in Nashua.

Meanwhile, production of Harris' distributed data processing systems, the Mind series and the

11/14/84

LEVEL 1 - 3 OF 5 STORIES

Copyright © 1984 The Washington Post

November 17, 1984, Saturday, Final Edition

SECTION: Real Estate; Virginia; E2

LENGTH: 697 words

HEADLINE: \$25 Million Complex Is Planned for Reston

BYLINE: By Marcia McAllister, Special to the Washington Post

KEYWORD: RESTON

BODY:

Centennial Development Corp. this week announced plans for a \$25 million office complex overlooking the Dulles airport road corridor in Reston.

The complex, which will contain two buildings, is expected to encompass 250,000 square feet of office space. To be known as The Summit at Reston, the project will be located between Sunrise Valley Drive and the airport road corridor.

When completed, the project will bring the total square footage owned and managed by Centennial in the Sunrise Valley area "to just about a million square feet," according to Alan J. Fink, Centennial's project development manager. The total includes buildings currently under construction in what is known as Sunrise Technology Park, and an existing building currently occupied by Tandem Computers. The Tandem building was built specifically for use by that computer company.

Centennial has hired the internationally known firm, The Architects Collaborative (TAC), to design the project. John Sheehy will be the principal architect in charge of TAC's design team.

In an interview this week at Centennial Development's new headquarters near Tysons Corner, Sheehy said he has spent "two or three months working out what would be the best use of the 400,000-square-foot site."

"We looked at the site in reference to the context of the rest of Reston . . .," he said. He pointed to the site across the Dulles road where there is what he called "a visual connection" with Reston's new Town Center development, which is expected to include an estimated 800,000 square feet of office space and several hotels.

"We also looked at the relationship of the site to the highway," Sheehy continued. He said the importance of quality development on the site is emphasized by its proximity to Washington-Dulles International Airport. Fairfax County's comprehensive land use plan has tight height and architectural standards for construction on sites along the corridor.

The two Summit buildings will be built close to the road, and "by keeping the buildings close together, we were able to have 24 percent open space," Sheehy said. "The standard in Reston is 15 percent."

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As Sheehy maneuvered styrofoam models of the two buildings across a site plan of the project during a recent interview, he pointed out that the two buildings will be basically "boat-shaped. Terracing of the floors, starting at the fourth floor, will help break down the visual mass of the building.

"We wanted to get away from the development box" that dominates the landscape of much of Northern Virginia's developed areas, the architect explained.

"The two buildings are set at 90-degree angles to provide views from up and down the Dulles corridor," Sheehy said. They will be connected by an atrium that was not in the original plans; but once the models were finished, Centennial officials decided they should be connected.

Centennial's Fink pointed to a national trend of connecting buildings within a complex by walkways or atriums.

The site is already zoned to accommodate the development.

Fink said his company is getting ready to file final site plans and technical studies with the Fairfax Department of Environmental Management for approval. That process is expected to take about six months.

He predicted that construction would start on the first of the two buildings in June, with occupancy planned by January 1987. Construction will begin on the second building in June 1987, Fink said.

Pete Scamardo, president of Centennial Development, said, "We are very proud of our decision and we are confident that the work of The Architects Collaborative will ensure our bringing landmark buildings to Reston."

The TAC group was founded 40 years ago by Walter Gropius, the creator of the Bauhaus.

TAC will design the site, plan the buildings and provide the landscape plan. The Annandale architectural firm of Beery, Rio & Associates will produce working drawings in collaboration with TAC.

Sheehy, TAC's chief of The Summit project, was the architect for Copley Place, a \$350 million mixed-use development in Boston and is currently involved in major office park development in San Francisco, Houston and Pittsburgh.

LEVEL 1 - 2 OF 5 STORIES

Copyright © 1984 Business Wire Inc.;
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November 19, 1984, Monday

DISTRIBUTION: Business Editors

LENGTH: 177 words

HEADLINE: TANDEM; Announces new management posts

DATELINE: CUPERTINO, Calif.

BODY:

Tandem Computers Inc. (OTC:TNDM) Monday announced the election of Jeanne D. Wohlers to the post of vice president and controller and the appointment of Richard A. Lamb to the position of treasurer. Wohlers, 39, joined Tandem in May 1978 and formerly held the position of vice president of finance and treasurer. With her election to vice president and controller, she assumes responsibility for accounting and reporting, operations planning and control and the company's asset management program. Lamb, 36 joined Tandem in December 1980 as the firm's assistant treasurer, reporting to Wohlers. With his appointment to treasurer he assumes the responsibility for all corporate treasury functions. Wohlers and Lamb will report to David J. Rynne, vice president and chief financial officer. Tandem Computer Inc., a Fortune 500 company, manufactures computer systems and networks for the on-line transaction processing market.

CONTACT: Tandem Computers Inc., Cupertino
Pat Becker, 408/725-6035

LEVEL 1 - 1 OF 4 STORIES

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Computerworld

November 19, 1984

SECTION: COMPUTER INDUSTRY; Pg. 82

LENGTH: 166 words

HEADLINE: Tandem doubles revenue with help from tax break

DATELINE: CUPERTINO, Calif.

BODY:

Tandem Computers, Inc. recently reported that its fourth-quarter profits more than doubled to \$21.6 million, or 53 cents per share, from \$8.7 million, or 21 cents per share, a year earlier.

The company's profits were boosted by a one-time gain of \$9.7 million, or 24 cents per share, resulting from a change in the tax law governing overseas operations.

Revenue for the quarter ended Sept. 30 increased 30% to \$153 million, compared with \$117.8 million during the same period one year earlier.

For fiscal year 1984, Tandem's revenue rose 27% to \$532.6 million from \$418.2 million during fiscal 1983. Profits for the year, including the \$9.7 million tax benefit, were \$42.9 million, or \$1.04 cents per share, compared with \$30.8 million, or 76 cents per share, the previous year.

James G. Treybig, president and chief executive officer, said sale of the company's high-end Nonstop TXP computer system, which was introduced last year, was the major contributing factor to revenue growth.

Tandem Computers Inc. founder did it his way

Founded by James Treybig a decade ago, Tandem Computers Inc. in Cupertino was one of Silicon Valley's earlier successes. Competing in the market for large computers, Tandem's growth has been strong, although the company recently has had some challenges. Treybig still guides Tandem with a philosophy little changed from his earlier years.

By Gay Morris
Times Tribune staff

If you saw James Treybig in the corridors of Tandem Computers, you'd think he was just another employee. Which is the way he wants it.

Treybig, president and chief executive officer of Tandem, makes no effort to cut an imposing figure. The philosophy he developed at Tandem stresses open communication among all levels of workers. This means, in part, minimizing the subtle reminders of rank that keep people at the bottom from talking to those at the top. It is also why everyone in the company is called by his or her first name, including Jimmy himself, and why there are informal parties every Friday afternoon in every Tandem office and plant worldwide.

On the other hand, all the egalitarianism in the world can't hide the fact that Treybig isn't quite like the others at Tandem. Along with three colleagues, Treybig founded the Cupertino-based company 10 years ago and formed it into the power it is today, now running at \$500 million in annualized sales. In April, Tandem made the Fortune 500 list, despite problems during the last two years that have slowed its growth. The company's success has been attained with its "fail-safe" computers, designed with backups to avoid failures.

Years before Tandem existed, though, Treybig was dreaming dreams and making plans for where he wanted his life to go and what he wanted to accomplish.

Sitting in a conference room at Tandem, Treybig answered questions about himself and his relationship to the company. His manner was thoughtful and almost self-effacing, his speech softened by a Texas accent.

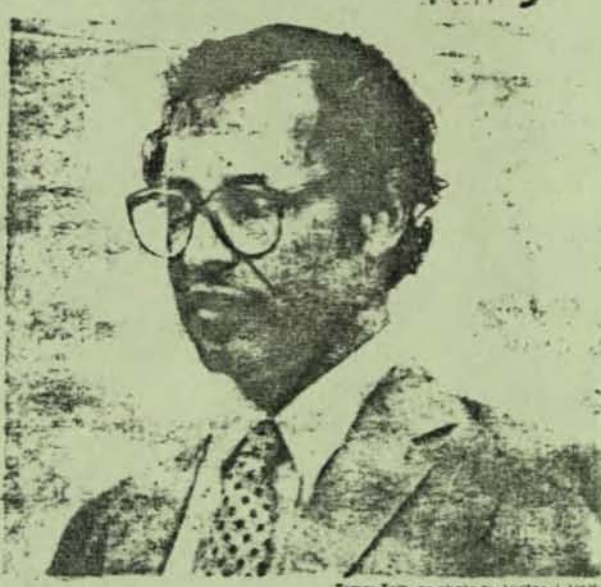
Born in 1940, Treybig grew up in Houston in a family that had what he calls a "classical mid-American value system."

He entered Rice University in Houston, intending to become an engineer. But in his sophomore

year, a friend who was business manager of the school newspaper hired him as his accounting manager. Treybig made \$100 and his friend made \$10,000. With that business lesson under his belt, Treybig became manager of the yearbook as a junior and hired his own accounting manager. This time the profit was his and he was on his way to a business career.

After Rice, and a stint as a salesman with Texas Instruments, he entered the Graduate School of Business Administration at Stanford University. Then it was five years at Hewlett-Packard Co. — where he was set on the path toward Tandem. The man who hired Treybig at H-P was Thomas Perkins, who later left to help found the well-known venture capital firm of Kleiner, Perkins, Caufield & Byers in San Francisco. Treybig was invited to join Kleiner, Perkins and formulate a plan for a company. Two years later, Treybig founded Tandem with three colleagues from H-P. Tandem shipped its first computer in 1976 and became profitable in 1977.

From the beginning, Treybig not only wanted to develop a successful company, he wanted to create an atmosphere where people would be both happy and unusually productive. Among the benefits the company offers employees are substantial leaves, stock options for all



Times Tribune photo by Victor J. Voth

James Treybig's steadfast belief in the benefits of eliminating barriers of rank between employees has paid off for him in the form of a stable, positive work force at Tandem Computers Inc.

and flexible working hours, as well as such amenities as a swimming pool, volleyball courts and an exercise course.

But Tandem goes far beyond ma-

terial benefits, embracing an entire ideology that Treybig once was quoted as saying resembles a religion. He's no longer willing to go that far.

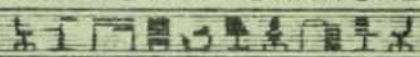
"It's not that it's like a religion," he explained. "It's a frame work, a way of defining what you're trying to do. What we do is state emphatically that we don't mistreat people. If you don't say that, it's not clear. Lots of companies share that philosophy — our philosophy just does it in much more detail."

The detail is necessary for several reasons. For one thing, a high growth company needs creative people, and Treybig feels creative people work best with as much independence as possible. But, he said, if you want people to be self-managing, you also have to give them more than the usual amount of information, or face chaos.

From 1978 to 1981, Tandem's revenues doubled every year. In 1982, however, the young company was dealt a series of blows that included a worldwide economic recession and its first major product competition. Worst of all, at the end of the year, Tandem had to revise its sales figures for fiscal 1982 from \$336 million to \$312 million because it had booked certain goods as shipped that actually were not shipped until the following quarter. The company was charged with fraud by the Securities and Exchange Commission and settled immediately. Since then, Tandem has taken a number of steps to make sure the same thing doesn't happen again, including strengthening management and tightening controls on inventory.

Treybig blames rapid growth for much of the inventory problem (although analysts claim the company was always weak on inventory controls). For years, Tandem's training programs had tried to anticipate potential problems. With typical optimism, Treybig calls

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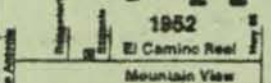
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TANDEM

Not doing it critical. Managers hear problems all day. Sometimes you're criticized and you begin to think, 'Why do I care?' But the company has 5,000 employees and you're hearing negative things from three people in one day.

"So it's important to get out and talk to people who are happy because everyone needs to feel what ever they're fighting for is worth while."

As Tandem nears its 10th birthday, it's clear the company has changed greatly since its founding. Has its president changed as well?

"I don't think my enthusiasm has changed much or my drive," he said, "but I'm more at peace with the world."

Although it may not seem so to hear him talk, Treybig said he has a life outside Tandem.

"I don't work any harder than any one else at Tandem," he said. "I know I work a lot less than I did at 30, and I've always taken vacations." He is divorced, and the father of three children, the oldest one in college. In his free time, he jogs, tinkers with ham radios and travels to remote places such as Greenland and Easter Island.

Continued from Page 18
problems "challenges."

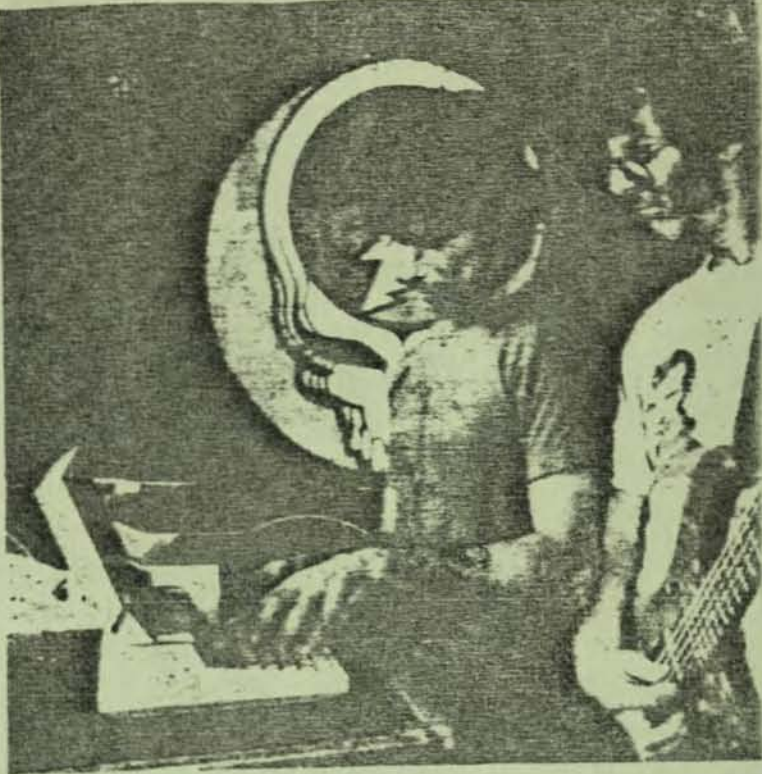
By the time of the 1982 fiasco, company officials had already identified inventory control as such a "challenge." But they didn't have the right answers, Treybig said. But, he added, Tandem is doing a good job now, and, despite the adversity, has continued to grow about 65 percent in the last two years.

Speculation has it that as Tandem becomes bigger, its management style will have to alter because a larger size won't permit the same informality. Treybig doesn't agree.

"It's just an ongoing battle to be sure every manager cares about people, and if every manager cares, you're never going to lose it," he said. Structure doesn't have to change, either, he feels, as long as communication is good.

But growth has its problems, Treybig has found.

"As you get bigger," Treybig said, "you tend to hear only the negative, so you have to be careful



Bits 'n bytes

Mickey Hart (left) and Phil Lesh of the Grateful Dead work on Hewlett-Packard Co. personal computer that helps them control band members to communicate with touring.

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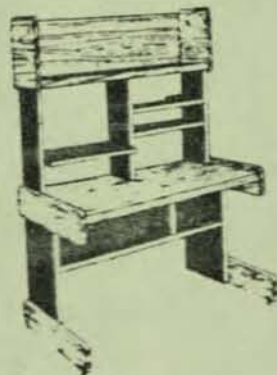
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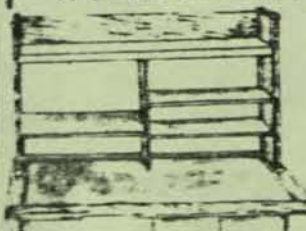


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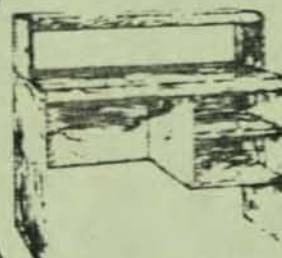
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November 13, 1984, Tuesday

DISTRIBUTION: Business Editors

LENGTH: 198 words

HEADLINE: TANDEM-COMPUTERS; Settles litigation with On-Line Software
International Inc.

DATELINE: CUPERTINO, Calif.

BODY:

Tandem Computers Inc. (OTC:TNDM) and On-Line Software International Inc. (OTC:OSII) announced Tuesday they have settled their litigation involving the "GUARDIAN" trademark used for computer software products. Tandem, a California-based manufacturer of computer systems, asserted that On-Line Software's use of the term "GUARDIAN" infringed Tandem's trademark rights. In accordance with the settlement, the New Jersey lawsuit will be dismissed as well as a related administrative proceeding in the United States Patent and Trademark Office. Under terms of the agreement, On-Line Software has agreed to abandon its federal trademark application and not to oppose Tandem's application seeking federal trademark registration of the trademark "GUARDIAN." Tandem Computers Inc., a Fortune 500 company, manufactures computer systems and networks for the commercial on-line transaction processing marketplace. On-Line Software International Inc. provides software products and services to users of large and medium scale IBM plug-compatible computers.

CONTACT: Tandem Computers Inc., Cupertino
Pat Becker, 408/725-6035

LEVEL 1 - 6 OF 7 STORIES

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November 12, 1984

SECTION: NEWS; News Briefs; Pg. 22

LENGTH: 93 words

HEADLINE: New IBM PC-compatible workstations

BYLINE: Carol Ranalli

BODY:

Tandem Computers of Cupertino, California, has introduced the Dynamite, a stand-alone, multifunction personal computer workstation for its minicomputer line. The Dynamite runs MS-DOS software and includes a 360K floppy disk drive with 256K of random-access memory. The Dynamite sells for \$2,995. An optional hard disk is available.

Tandem has also introduced two new software products that translate data stored on the company's fault-tolerant minicomputer systems into formats that can be used by personal computer software packages that use MS-DOS.