Harvard Business School

0-387-147

ASHTON-TATE (B)

It was early 1986, and company mascot Ashton the parrot was squawking happily from his cage in the front lobby of Ashton-Tate's shiny new headquarters in Torrance, California. Stock prices had tripled in recent months to 19-3/4, fuelled by clear evidence of Ashton-Tate's commitment to becoming a larger, more stable supplier of computer software. Projections for the fiscal year ending January 31, 1986 showed revenues up 48% to almost $122 million and a 122% jump in net income to near $17 million. Hailed as the engineer of Ashton-Tate's transformation into a button-down operation with a long-term growth strategy, president/chief executive officer Edward Esber, Jr. offered his perspective on the company's evolution:

> Four stages characterize Ashton-Tate's growth from the business started in George Tate's garage to a multinational corporation with over 800 employees. The Garage era was followed by the Ruling Prince stage, when the founders brought in a manager they perceived to be professional. I joined the company at the beginning of the third stage: the Organized Business era. I believe that we are nearing the end of that era, and soon will enter the Growing Corporation stage. Our goal during that fourth stage will be to be a major player in the computer services and software business. Company leadership will be provided by the president and business managers of product-based divisions, and the culture must focus on teamwork and innovation.
>
> The important thing to realize is the speed at which all of this is being accomplished. Transition management is very difficult--and very important--as we go from stage to stage. My tenure has involved lots of backroom execution, a little bit of Mr. Outside to tell the Ashton-Tate story plus working on our mission all the while. The company is completely different than it was a year ago, and the move from the old warehouse to the new corporate headquarters symbolizes that change. We know where we want to go now, but still need the glue between the cracks. Our biggest challenge will be to live up to our new reputation and commitments.

This case was prepared by Associate for Case Development Shirley M. Spence, under the supervision of Professor Paul R. Lawrence, as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

Industry Update

During the spring and early summer of 1985, the computer industry witnessed one of the harshest downturns ever in its domestic markets. Among the explanations offered were: (1) the soft U.S. economy, which prompted cuts in data processing budgets, (2) the glut of available processing power after a three-year buying spree, and (3) questions about computer functionality (i.e., viable uses, networking technology, software standards). The personal computer market emerged healthier than most but not unscathed. While market value of worldwide hardware shipments rose 11% to $19 billion in 1985, the number of units sold actually declined by 9%. Microsoftware sales grew by one-third to $4 billion in 1985, and were expected to grow at least 20% annually through 1990. One critical growth factor would be the elimination of software bottlenecks via: (1) IBM's long-awaited announcement in October 1985 of its Token Ring Network, which would spur the development of limited area networking (LAN) versions of popular applications, and (2) the mid-1986 release of an enhanced MS-DOS operating system for IBM's next generation PC-AT model, which would permit the creation of still more sophisticated application software.

The trend toward industry consolidation continued apace in 1985. Increased financial requirements for success in the intensely competitive software business plus a lessening of venture capital enthusiasm effectively raised the barriers to entry and pushed many small companies with a good idea but inadequate resources and marketing muscle to seek alliances with larger companies who, in turn, saw mergers as a way to expand their product lines, enter new markets, and acquire leading edge "component" technology for incorporation into existing and future products. The trend was accelerated by standardization around fewer products by: (I) retailers, who faced serious profit pressures due to overbuilding during the PC Boom plus slowed market growth, (2) users, who were unlikely to switch brands after investing 20-40 hours to master their current program's commands, and (3) "corporate clients," who centralized buying decisions with their data processing managers.[1] Industry analysts predicted a one-third contraction in the total number of software companies by the end of the decade, with a two-tier structure of survivors consisting of several major companies selling the "central utility" (i.e., coordinated software programs in all major application areas) plus small firms serving specialized market niches.

The "Big Three," which collectively accounted for one-third of personal computer software sales in 1985, experienced mixed results: Lotus suffered a sales shortfall on its new Jazz product for the Apple Macintosh; Microsoft's launch of a new operating system add-on called

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[I]An important emerging market, corporate clients accounted for one-third of total personal computer software sales in 1985 and were voicing strong demands for: industrywide software standards to reduce the cost of training employees and to permit easy data exchange; high quality, high performance, easy-to-use products from suppliers with the financial stability to guarantee product upgrades plus ongoing service; and special pricing arrangements (i.e., site licensing or volume discounts).

Windows was delayed until November 1985; and Ashton-Tate continued to do well on the strength of its dBASE products. Observers noted that all three companies had moved form seat-of-the-pants management to more professional operating principles, and were searching for ways to reduce their reliance on a few strong products. Although expected to thrive in coming years due to their substantial leverage (i.e., financial strength, extensive brand name recognition, distribution access, large installed customer base and corporate presence, early access to technological advances), the Big Three would face significant challenges. Specifically: (1) they had to sell to existing as well as new users, (2) competition would intensify due to increasing product line overlap among microsoftware publishers plus growing interest on the part of IBM and other mainframe companies, (3) margins, which had remained relatively high and stable to date, faced both competitive pressure and the uncertain impact of corporate pricing and LAN products, and (4) cost controls had to be balanced against the ever present and costly need for product development.

Remolding Ashton-Tate

Late in 1984, Edward (Ed) Esber took charge of a company described as "a chaotic hip pocket enterprise" and "another one-product company that had failed to come up with an encore." One Ashton-Tate employee recalled: "It was obvious someone new was in charge. Publicly and internally, Ed let it be known that this was a new era, that things would be different." Esber's strategy for remolding Ashton-Tate would focus on three areas: image-building, product diversification, and "management 101."

Image Building

Esber quickly came to appreciate the challenge of maintaining a high company profile in a business that, on the one hand, was "the closest thing to Hollywood I've ever seen" and, on the other, was increasingly interested in "all the IBM-like things." Despite his preference for a low key style, Esber found a high visibility approach necessary because "people like the sex appeal of an entrepreneur." One of his first public appearances was at the Comdex trade show, where a new corporate theme was introduced with the help of an advertising agency commissioned to help revamp Ashton-Tate's image. MicroMarketworld (November 26, 1984) reported on the event as follows:

> Ashton-Tate announced it will try a more basic approach towards positioning its products...The slogan for the new positioning is: "We'll Put You in Control." The slogan reflects the attitude Ashton-Tate will take to all phases of its operation, Esber said...Through its own surveys, Ashton-Tate has found that corporate executives feel helpless when making a buying decision because of a lack of information, and even some computer retailers felt overwhelmed by all the software currently available..."We have to educate dealers before we can educate consumers," says Esber. The company also released updated versions of dBASE RunTime and IBM PC-AT versions of dBASE III.

Ashton-Tate also took on a new look via the redesign of its company logo, and the November 1985 move to plush new offices in an

upscale Los Angeles suburb. Visible proof of the company's success, the new headquarters also represented a new work environment for Ashton-Tate employees accustomed to the casual and close-knit atmosphere of the old one-story warehouse. Jeans were replaced by suits, and the organization physically separated into functional departments, each located in a different part of the three-story building.

Diversification

Well aware of the vulnerability of a one-product software company, Esber took a series of steps to both fortify Ashton-Tate's leadership position in database management and broaden the company's scope into new areas. Early in 1985, he announced his intention to follow in the footsteps of mainframe software companies that had built a steady stream of revenues from service offerings that complemented their products. That effort was launched via a five-city seminar tour to promote a new Corporate Emphasis Program, which featured a Corporate Advisory Board for user input on software needs plus a number of special services (e.g., on-site assistance with applications development from Ashton-Tate systems engineers based in ten field offices, training programs, telephone support). To further underscore Ashton-Tate's commitment to strong customer service, Esber formed a new consumer communications department. Robert Gafford, who was hired to head the new area, explained:

> It's expensive to give away free lifetime support, so the idea was to turn it into a revenue service. But if you're going to charge for it you'd better be good, so we set the corporate goal of being the leader in supporting products. The idea of creating a separate group for documentation, product testing and support, and of elevating the department head position to the VP level was unique in the microsoftware business. My group existed when I arrived but was scattered around the marketing, development and operations departments. Things were a shambles at first because we had no clear charter and there were no processes to help us do our job. We were seen as a barrier by developers, who previously could do their job with a minimum of stress. Harvey Jeane and I had a series of, very frank meetings about problems with each other's area, and agreed early on that we had to fix them or we'd both fail. We set up a process that is still evolving a year later but is getting people to work together and has helped us get telephone hold time--which is basically a matter of bodies manning phones versus calls coming in--down to just five minutes. Not only have we doubled technical staff, but we have averted calls via fewer software bugs, better documentation, and distribution of more technical information to customers through things like Tech Notes.

Esber also continued his predecessor's thrust into new application software categories. Ashton-Tate's presence in the multifunction segment, which had been accomplished by licensing Framework from the Forefront Corporation, was solidified in July 1985 when Esber exercised his option to buy all outstanding Forefront stock. The deal gave Ashton-Tate full product rights to Framework plus the services of the 21-person Forefront development team, which would

remain based in Sunnyvale, California but report to Harvey Jeane.[2] Next came the December 1985 acquisition of MultiMate Corporation, a Connecticut-based company that in just three years had built sales to $20 million with a best-selling word processing package and a marketing strategy focused on large corporate accounts. The purchase, which cost $22 million in cash, gave Ashton-Tate leading products in three major application categories.

Diversification activity extended even into Ashton-Tate's database franchise, which encompassed 750,000 registered dBASE software users. Three new initiatives were: (1) add-on products from the new business development group, including a Decision Maker series of $20 software packages,[3] (2) a networking version of dBASE III called dBASE III Plus, which was introduced in December 1985 at a retail price of $695 and was followed a month later by a $995 companion product designed to accommodate additional users, and (3) an easier-to-use (and cheaper) database management program, which was being developed in response to complaints about dBASE III's complexity and esoteric commands. In addition, Ashton-Tate's list of foreign titles was expanded to keep pace with continued overseas expansion (i.e., a new subsidiary in Austria plus a joint venture in Japan).

Management 101

Setting the stage for future growth involved injecting Ashton-Tate with massive doses of "management 101." Esber's efforts to speed the company's transition from entrepreneurial to professional management focused on: (1) instituting formal procedures in such areas as budgeting, product development, and planning, and (2) building the right organizational structure and environment for participatory management.

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[2]Ashton-Tate also had full rights to Framework II, a next generation product launched in October 1985. Framework II offered greater power and ease-of-use, and was retail priced at $695.

[3]Although this signaled a move into an area traditionally left to independent developers, Ashton-Tate was quick to declare its lack of interest in vertical markets and proved its continued support of third party efforts by launching a new VAR marketing program and a special Developer's Release version of dBASE III.

1. New Systems

Budgeting and cost control issues took on a new importance under Esber, as noted by long-time employee Ron Dennis:

> In the old days, the question was: "How can we do it?" and there was no thought to money. You were expected to take your best shot at putting together numbers, but everyone knew that things would probably change. Ed's more formal approach is to put together the programs, figure out the cost, then do it. It was the first time we'd been held to budgets, so there were lots of meetings with people arguing over who would be charged with what.

The decision to upgrade Ashton-Tate's management information system to large minicomputers also strengthened internal controls: "Last year, with $40 million in sales, we had 20 people in accounts receivables and no idea as to who owed what where. This year, with over $100 million of accounts, we have five people quietly working at terminals and a system we can grow into." In the manufacturing area, product cost savings were achieved via centralized purchasing and greater use of outside manufacturing sources. As early as the third quarter of fiscal 1986, improvements in gross margins had been realized.

Esber also took steps to ensure that new products would come to market on time, meet real consumer needs, and be of consistently high quality. Three new management committees were formed to supervise key areas of product activity: (1) the Product Planning Committee, which was responsible for screening new product ideas, making resource allocation decisions and monitoring the progress of selected candidates, (2) the Change Management Board, which reviewed suggestions for fundamental changes to current products, and (3) the Change Control Board, which catalogued and took action on reported bugs in existing software products. In addition, Roy Folk[4] was hired on a consulting basis to develop a cross-departmental product delivery process.

In May 1985, Folk issued a milestone flowchart showing the steps involved in translating a new product concept into a marketplace reality (see Exhibit 1). First, the idea was submitted to the Product Planning Committee (PPC). If approved, the concept was forwarded to the marketing department where a product manager prepared a Marketing Requirements Definition (MRD) that then was sent to a project manager counterpart in the development area for technical translation into a Product Development Definition (PDD). Next came a presentation to the PPC that, if successful, yielded project funding and an Approved Product Definition (APD). The APD provided the basis for detailed marketing and project plans, which were submitted to the PPC for final review and followed by the preparation of functional specifications showing how the final product would look to consumers. Marketing, development, documentation and test groups then proceeded with their respective tasks, meeting periodically for progress reviews.

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[4]Roy Folk, who held a master's degree in computer science and an MBA from the Massachusetts Institute of Technology, had worked with Esber at VisiCorp and subsequently founded and served as president/chief executive officer of Paladin Software Corporation.

Implementation of Folk's milestone flowchart, which began with Framework II, sparked interdepartmental wars and revealed some missing links in the process. Over the next several months, refinements were made in the overall process and detailed guidelines for functional activities (e.g., a 36-page document entitled "Ashton-Tate Product Test Process") were issued. Harvey Jeane reported that by early 1986, the process was largely accepted and "we were spitting things out more and more predictably." Wayne Ratliff, however, saw the new approach to development as part of a growing bureaucracy that threatened to kill Ashton-Tate's innovative spirit. A company insider explained:

> Folk gave marketing a big role in new product delivery, which pissed off developers. Ratliff would say: "If there are two or more marketers at a party, I won't go." Basically, Wayne didn't want to be part of a company with procedures; he never wrote things down and had MRD anathema. His attitude was that the company should give him the money and trust him to do it on time and right, which had some substance to it because he was the best. He felt mistreated and had a negative impact on morale at Glendale, where he was considered God. They even had buttons made up saying: "Wayne Who?"

Despite the acknowledged difficulty of defining a long-term strategy and identifying profitable new product points along the way in the fast-paced computer industry, Esber took a number of steps in that direction in 1985 by: (1) commissioning Roy Folk to do a companywide business plan in April, (2) naming Folk to the new position of executive vice president of marketing and strategic planning in August, and (3) implementing a formal strategic planning process during the fall. The task proved difficult, as reflected in press reports that Ashton-Tate was busy "thrashing out its core concept" and Roy Folk's inside view of planning efforts:

> As a consultant, I did a brilliant plan and an off-site session, but Ed and I had pushed too hard too fast. The real test of a strategy is whether it is something that everyone acknowledges and uses, that serves as the foundation for all activities. The answer for the 1985 strategy was: "No." For 1986 planning, we decided to make it a bottom-up process that would be guided by Ed and the VPs but involve analysis and ideas from all quarters. In October, we sent out a document detailing a three-phase planning process. At the end of phase one, we had a rough plan but when it was discussed with senior managers, we found out that they had been reading and nodding, but really weren't bought off on it. We realized we had a fundamental problem and concluded we needed some executive sessions. So, in December, we broke out of the process and began meeting fairly frequently to talk issues. We found some major differences of opinion. For example, I thought we should broaden in micros while Ron Posner wanted to move to minis and mainframes. The issue wasn't so much who was right or wrong as about very different assumptions about the market potential of various opportunities.

The strategic planning initiative was paralleled by efforts to formalize product planning via weekly meetings of the newly formed Product Planning Committee. Esber attributed two major 1985 accomplishments to his studied approach to new product activity: (1) dBASEIII Plus, which began as an in-depth study of the LAN market and yielded a 6-12 month lead on competitive database management products trying to address the multi-user needs of the corporate marketplace, and (2) entry into the word processing market, where careful planning of company expansion into a third application category led to the targeting of the highly fragmented word processing market, the decision to purchase rather than develop a leading product, and the acquisition of MultiMate.

The MultiMate acquisition was part of the process of building one of the most extensive research and development organizations in the industry. The emerging blueprint for that organization showed a corporate R&D function based at Torrance headquarters plus an expanding web of remote development centers, each with a director and a close-knit team of software engineers specializing in a particular technology. While the task of creating next generation products was performed independently by the different centers in 1985, Esber saw a need for a more coordinated approach to product planning. To that end, he hired William (Bill) Stow to set up and manage a cross-center project called Diamond. Stow described the project, wich was patterned after the approach used by mainframe software companies,[5] as follows:

> Diamond's long-term goal is to provide a family of products, all drawing on common data engine. The marketing rationale is to offer users a common interface and information-sharing capabilities across all our products. The technical rationale is to speed up future product development by identifying and modularizing existing components into software building blocks. Because the project will require technical sharing, a cross-center committee will identify key issues and divide up the work while I will head a new Torrance-based development center responsible for coordinating Diamond activity and pushing the evolution of our products. I'm seen as a threat by other centers because of the ongoing fear that development will be centralized, which is a source of discussion because the centers can be hard to manage. Not only will they throw marketers out the door, but it's hard to get them to work together.

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[5]In the microsoftware arena, observers noted that the approach had been tried by VisiCorp but had proven too slow in yielding sellable products.

2. New Structure and Style

A second thrust of Esber's organization development activity was to formalize Ashton-Tate's management structure and replace Cole's flamboyant one-man rule with a lower key participatory style. As shown in Exhibit 2, the company grew to include 666 employees divided into six functional areas by the end of 1985.[6] Jill Weissman-Tate, whose role as special assistant to the president primarily involved organizational matters, offered this description of Esber's efforts to turn functional vice presidents into an effective management team:

> One of Ed's main goals has been to develop our VPs, which means getting them to work as a team and take responsibility for their areas. Ed's management style is to delegate responsibility and authority down to people, and to let VPs determine their own objectives. Where David Cole was heavily involved in day-to-day operations, Ed sometimes doesn't even know how a decision came about. Ed doesn't wander the halls like George and David did and sometimes seems abrupt, but he cares about people a lot and those who venture out will find an open door.
>
> There's still some "cover your ass" behavior and fear owing to the perception--true or not--but you'll be fired for making a mistake. We're trying to change that perception at the senior level, with the hope that it then will trickle down through the ranks. For example, we sent out 200,000 copies of dBASE III Plus without networking capabilities, which was a stupid mistake but was caught quickly. Ed immediately called a meeting of functional heads. The first thing he said was: "How can we make this the least painful for our customers?" That led to the decision to confess, call the Wall Street Journal and recall the product. Next, Ed said: "What went wrong? How did it happen?" It turned out that two departments crossed at one point and had never determined who was responsible for sign-off. Everyone was saying, "I'm not accountable," and then there was talk of how to fix the system.

Esber saw a product management system as the vehicle for pushing decision-making down still further in the organization and ensuring each product a "champion" to move it through functional areas. The transition to a formal matrix was accomplished during 1985, though with some difficulty. Roy Folk explained:

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[6]The MultiMate acquisition, which was finalized in December 1985, would add over 200 employees in a number of functional areas.

> Cole's organization had no charters or job descriptions, so there were lots of turf battles and the system basically was fights with the strongest person winning. Ed had set the stage for product management but had no time to teach or enforce the idea of product managers as coordinators, monitors, leaders. The fear, even within the marketing department, was that product managers would be monsters and there was a lot of conflict. When Ed asked me to do a companywide product delivery process, I said: "The biggest problem is roles and responsibilities. Even though you want to delegate authority and talk it, it hasn't happened." So, the first thing I did as EVP was a roles and responsibility document for marketing, which was a way to make the product delivery flowchart explicit and actionable. The idea was to make it work in marketing, and then sell it to the other VPs. A sign that it is working is that fights now are over issues, not turf.

Clarification of roles and responsibilities were part of an effort to improve a situation described as follows by one human resources manager: "The company had mushroomed without an infrastructure. There were big departmental disparities in salary schedules, and favoritism because positions weren't advertised. Policies were either nonexistent or informal and not enforced." A new incentive system with a profit sharing plan and management stock options was followed by an MBO-style performance appraisal system[7] and preparation of the company's first policies and procedures manual. As a culture-building device, Esber prepared a videotaped welcome address on the theme of "Building Number One" for new employees, but subsequently decided not to use it because it seemed too impersonal. He noted: "I have never faced a harder task in my life than taking a culture and turning it 180°, which is what had to happen at Ashton-Tate. I've dismantled the old culture and now face the challenge of installing a new one. Right now we have a default culture."

"New"Ashton-Tate

Esber's strategic and organizational moves were credited with above expectation business results (see Exhibit 3 for financial details) and an upsurge of confidence in the "new" Ashton-Tate (see Exhibit 4 for stock price trends). Observers were optimistic about the company's long-term growth prospects but also noted a number of outstanding issues:

> The most serious challenge for Ashton-Tate will be doing everything it needs to do without making any major errors. Almost simultaneously, it needs to finish polishing up its management team and absorbing MultiMate, to finalize and begin implementing its office automation strategy (which includes major revisions in its current products plus big changes in its marketing, sales and distribution), and to find new products in the interim to finance its investment in the office automation strategy.[8]

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[7]First used in January 1986, the new performance appraisal system was criticized as poorly implemented (e.g., managers were instructed to rate the majority of their people as average) and was blamed for morale problems and increased turnover among employees.

Absorbing MultiMate

Company Profile

MultiMate Corporation was founded in 1982 by Wilt Jones, a talented programmer who created a Wang-like word processing product for the IBM PC. The company's reputation for leading edge technology was maintained via two enhancements of its original MultiMate Professional product plus the introduction of additional word processing programs ranging from low end products to a sophisticated LAN version scheduled for launch in January 1986. A marketing strategy targeted to U.S. corporate clients featured a direct sales force and site licensing agreements. In just three years, MultiMate revenues and net income had climbed to $20 million and $1.2 million respectively.

Leadership of MultiMate's 211-person organization was shared by founder Wilt Jones, who remained closely involved with research and development activities, and Richard LeFebvre, who had been recruited to manage day-to-day affairs. Employees, most of whom were located at company headquarters in Hartford, Connecticut, were organized into four functional groups: (1) sales, which consisted of a 60-person U.S. field force focused primarily on large corporate accounts plus a small staff responsible for foreign distributor sales, (2) finance and administration, whose 24-person staff included the controller, personnel administration, and facilities management, (3) operations, where responsibility for product testing, manufacturing, distribution, documentation, customer service, and technical support was divided among 78 people, and (4) research and development, which included a 49-person group based in Hartford plus a small team of software engineers sent to Ireland to work in seclusion on advanced products.

Acquisition Chronology

Ashton-Tate approached MultiMate with a merger/acquisition proposal early in 1985, and signed a formal letter of intent to purchase in July. The $22 million deal was finalized in December, representing the largest acquisition to date in the software industry. Analysts were enthusiastic about the move, anticipating a positive financial impact and greater stability for Ashton-Tate. The synergy between MultiMate's strong corporate presence in the U.S. and Ashton-Tate's broad domestic and foreign distribution capabilities was seen as a major growth opportunity, while consolidation of manufacturing and distribution operations was eyed as a potential source of cost savings and added profits. The mood at MultiMate late in 1985 was described as follows by one Ashton-Tate observer:

> MultiMate reminded me of Ashton-Tate in 1982. It was an exciting, vibrant and intense place with a strong family feeling. They had employee votes on all major issues, including the decision to be acquired. At MultiMate's Christmas party,

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[8]"Company Review: Ashton-Tate Inc.," PC Letter, (December 11, 1985), page 6.

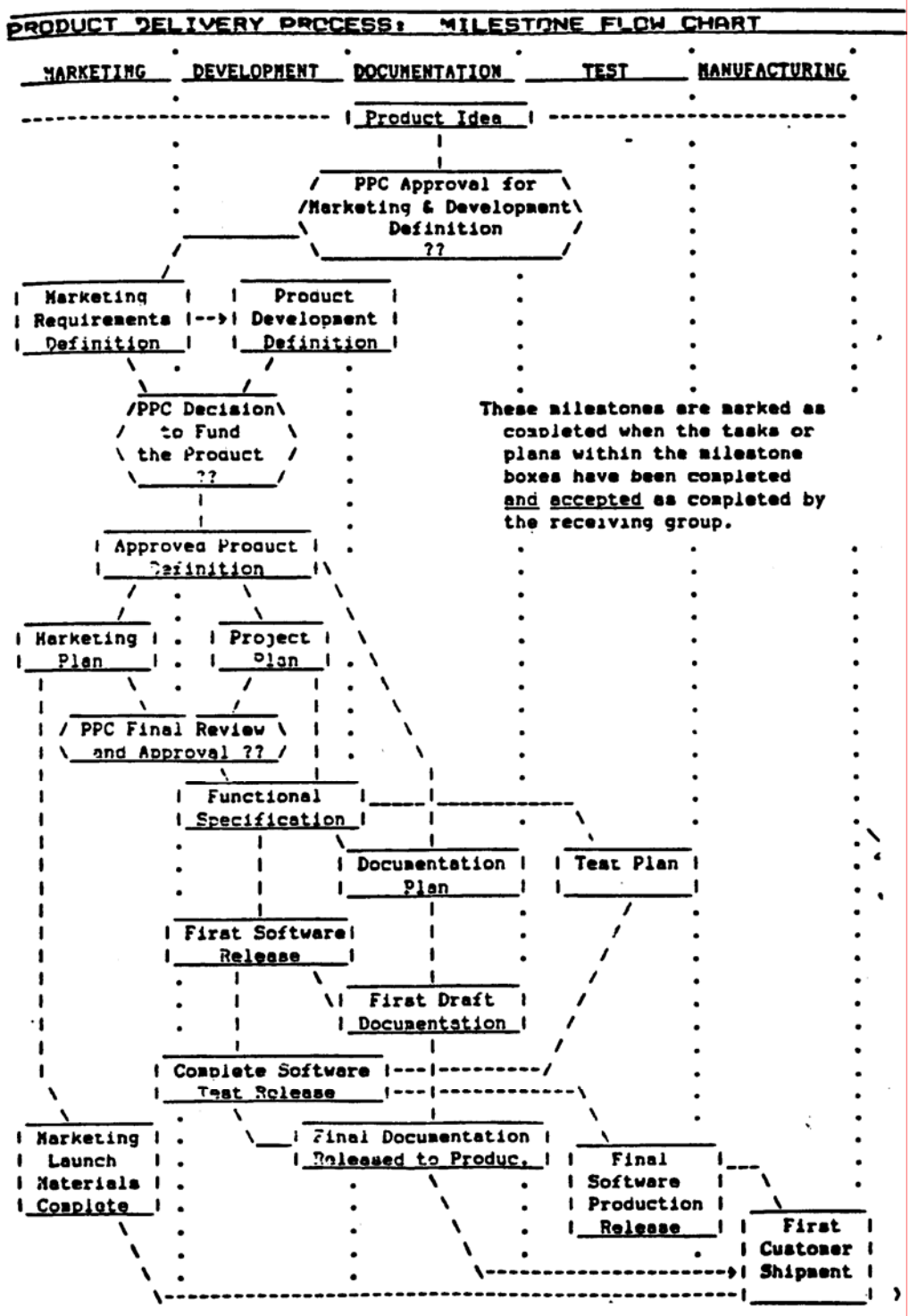
which was a big black tie affair, the company cheerleader got up and said: "This is a hell of a way to go out!" They knew it was the end of an era. Their start-up culture had slammed into the era of professional management.

Integration Planning

Prior to completion of the acquisition, there was little thought to integration planning and minimal contact between Ashton-Tate and MultiMate personnel. In December 1985, Ashton-Tate found itself barraged by questions from customers, analysts and employees. In January, Esber responded with a three-part announcement: (1) the MultiMate name would be retained, (2) corporate site licensing would be discontinued pending completion of Ashton-Tate plans for a volume discount program, and (3) the two companies' U.S. field forces would be merged effective immediately.

The task of developing detailed integration plans was delegated to Jill Weissman-Tate, Ron Dennis and Roy Folk. Dennis moved to Hartford as Ashton-Tate's on-site representative, and was followed by a steady stream of West Coast visitors charged with observing and evaluating MultiMate operations in their respective functional areas. _Esber knew that the board was concerned about reports that the Ashton-Tate committee was "fighting over integration plans," particularly given signs of growing morale problems among MultiMate employees worried about their fate. He wondered if he should intervene and, if so, how?

Exhibit 1
ASHTON-TATE (B)
Product Delivery Milestone Flowchart (May 1985)

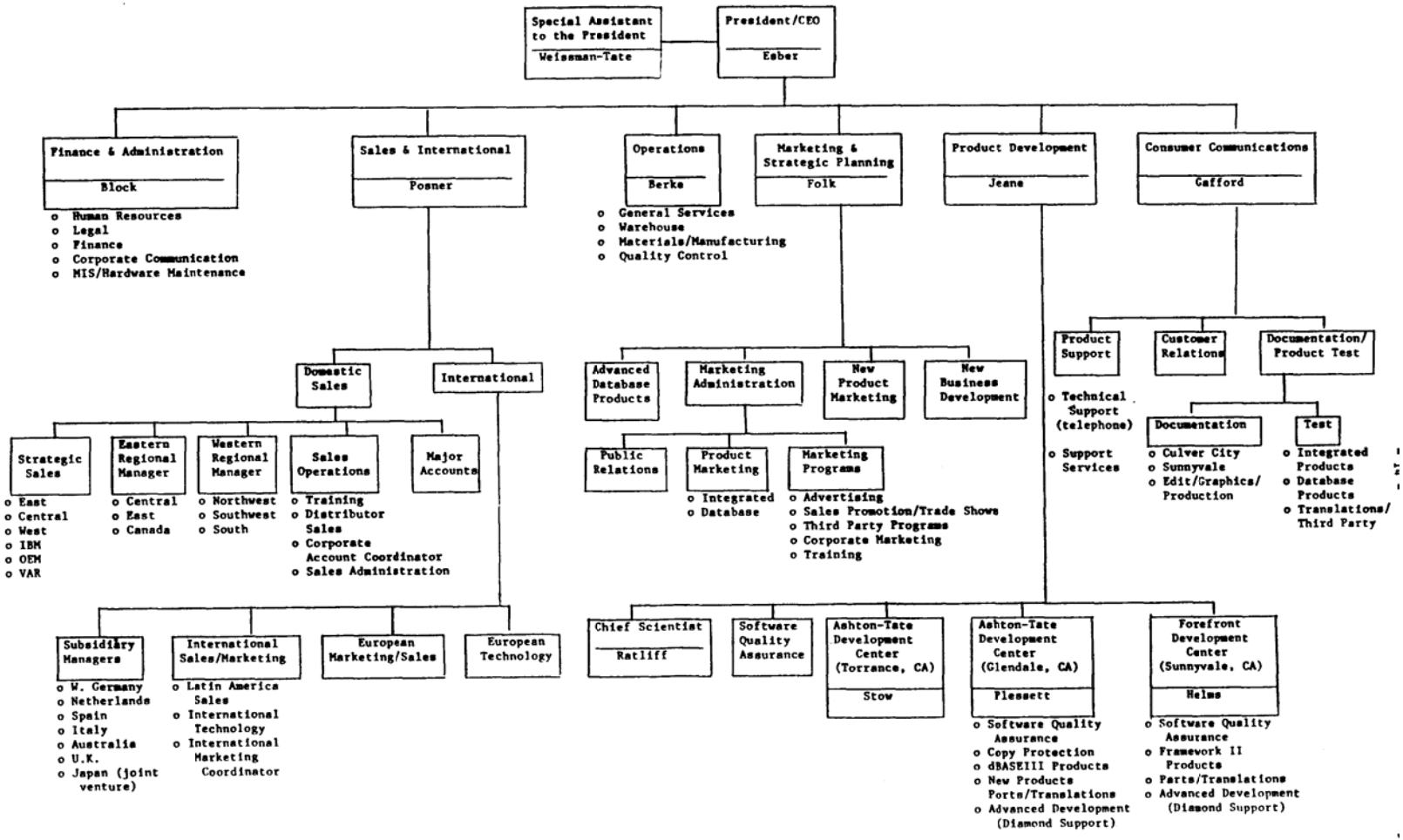


Source: Ashton-Tate

Exhibit 2

ASHTON-TATE (B)

Ashton-Tate Partial Organizational Chart (January 1986)



Note: Not including MultiMate personnel, Ashton-Tate had 666 full-time employees in January 1986. By department, there were: 180 in marketing, sales and support; 87 in administration and finance; 83 in product development; 173 in production; 127 in international operations and sales; 16 in book and periodical publishing.

Exhibit 3

ASHTON-TATE (B)

Ashton-Tate Results for Fiscal 1986 (Forecast)

1. Selected Financial Data
($ in thousands, except per share data)

Income Statement	Year Ended January 31,
Net revenues	$121,571
Operating costs and expenses:	
Product costs	19,269
Royalties	1,460
Selling, general and administrative	46,827
Advertising and promotion	12,821
Research and development	11,303
Total operating costs and expenses	91,680
Operating income (loss)	29,891
Interest income (expense), net	788
Income (loss) before provision (credit) for income taxes	30,679
Provision (credit) for income taxes	14,112
Net income (loss)	$ 16,567
Net income (loss) per share	$ 1.70
Weighted average shares outstanding	9,717

Balance Sheet	January 31,
Working capital (deficit)	$ 24,203
Total assets	88,398
Long-term capital lease and other obligations	5,389
Shareholders' equity (deficit)	53,528

2. Net Revenues by Product Line
(percentage of net revenues)

Product	Date of Initial Shipment	Year Ended January 31, 1986	1985	1984
dBASEII	January 1981	9%	30%	85%
dBASEIII	June 1984	53	46	--
dBASEIII Plus	December 1985	17	--	--
Framework	July 1984	7	18	--
Framework II	October 1985	6	--	--
MultiMate Advantage	July 1985	2	--	--
MultiMate 3.3 Series	June 1985	3	--	--
Other	Various	3	6	15
Total		100%	100%	100%

Note: Includes two months only of MultiMate results for fiscal 1986.

Source: Ashton-Tate.

Exhibit 4

ASHTON-TATE (B)

Ashton-Tate Stock Price Trends: January 1984-January 1986