

PERSPECTIVES



BY SCOTT MACE

Defending the Dbase Turf

*Delays, Bugs, and the Competition Hound
Ashton-Tate*

It is the winter of 1990, and despite its sunny Torrance, California, locale, Ashton-Tate knows the wolf is at its door. After shipment delays and bugs in its cash cow product, the

company that two years ago commanded 65 percent of the PC database market is estimated to hold just under 50 percent today, and the slide may continue.

Yet Ashton-Tate remains on top of the database heap, and friend and foe alike acknowledge the company has a chance to redeem itself. But if it should stumble now, there may not be a next time.

THE BEGINNING OF TROUBLES. Ashton-Tate's decline began with what is becoming a well-worn story in the industry: failure to upgrade a market-leading product. Dbase III Plus went for almost three years before being upgraded, while competitors' products were upgraded as often as twice in that time.

The trouble worsened with Dbase IV1.0, as topsy-turvy a product as the PC industry has ever seen. When released in October 1988, technical reviews lauded it as a breakthrough, opening up much of Dbase's power to nonprogrammers. By the spring of 1989, the press and prominent Dbase programmers had condemned it for several uniquely troubling bugs. Sales plummeted until even Edward M. Esber Jr., chairman, president, and chief executive officer of Ashton-Tate, had to admit in August that Dbase IV had been released prematurely.

Many customers appear ready to explore the alternatives to Dbase IV. For a speedier database that is mostly compatible with the Dbase standard, developers have begun turning to Fox Software's recently released FoxPro. Those willing to break with the Dbase standard have looked to Borland's Paradox, which has posted impressive gains; Dataease Corp.'s Dataease; and Microrim's Rbase. These companies all report picking up more disenchanted Dbase users than ever, with sales growing despite an overall flat database market.

The company that held down the database corner of the PC software oligarchy has also disappointed developers who are trying to move to the client/ server architecture. Indeed, the company was the first to throw its hat into the SQL arena when it announced its January 1988 agreement with Sybase and Micro-soft to marry Dbase IV with the Sybase Structured Query Language engine and OS/2 and OS/2 LAN Manager.

Dbase IV's troubles have made that marriage impossible for now, and last month Ashton-Tate announced that it was abandoning its claim to be the exclusive remarketer of Sybase SQL Server. Ironically, it is spreadsheet publisher Lotus Development Corp. that appears closest to providing a true client/server solution through the Datalens technology. That link between front-end applications and SQL databases is expected to open up Lotus 1-2-3, Release 3.0 and future Lotus products to SQL databases and mainframes in early 1990.

Despite these troubles, Dbase IV has become another corporate standard. The reasons are many. Dbase III Plus sales continued to be strong, despite the fact that the \$30 upgrade period to IV has elapsed. Only in the last month have Dbase IV sales reached Dbase III Plus levels. Among Dbase stalwarts, an abiding belief in Dbase IV's merits, bugs aside, has persisted. Ashton-Tate sales representatives report that Ashton-Tate and major distributors, such as Egghead, have been successful in switching customers who wrote purchase orders for III Plus to take IV instead, allowing the distributor to increase sales.

STILL WAITING. After acknowledging the bugs in Dbase IV, Esber said that the next release, Version 1.1, would solve the problems as well as bring full SQL Server support. Since that announcement, Dbase IV 1.1 has led two lives. At first, it was the almost overlooked upgrade to provide SQL Server support, and was initially set for a June release. Later, it became clear that Dbase IV 1.1 was the jewel in Ashton-Tate's crown — the fix to the bugs, some additional needed features, plus the completion of its client/server strategy. About the same time, the release date was moved to Ashton-Tate's September developer's conference.

But in August, Esber split the jewel in two: a non-SQL Server version is to be released first, followed by Dbase IV 1.1 with full SQL Server support, called Version 1.1 Server Edition. Because of all the bugs in 1.0, the non-SQL version has taken on tremendous importance. And this time, Esber would not commit to any ship dates.

Ashton-Tate has bought customers' patience by promising that Dbase IV 1.1 Standard Edition will be "a quality product," in Esber's words:

"Ashton-Tate has only two choices at this point," said Pat Adams, president of DB Unlimited, a Brooklyn, New York, database consulting firm to American Express and other Fortune 500 clients. "Ship the product before it's ready — which means quick-term gains and also means probably within a year the company would be close to out of business — or hold in there and do the beta the right way. At this point it seems committed and scared enough to not ship the product until it's ready."

Dbase IV 1.1 Server Edition's longer gestation has in turn affected SQL Server for OS/2, which has been adrift with only a series of minor or high-end front ends since its release in April 1989. Just as they set their sights on Dbase, competitors have targeted SQL Server as well.

Meanwhile, the stream of bad news seems unending. Recently, Word Perfect Corp.'s quarterly revenues exceeded Ashton-Tate's, demoting one of the industry's stalwarts to a No. 4 ranking among PC software companies.

"From February 1 to October 1 of this year [1989], we actually sold to our customers \$50 million more than we were able to report as revenue," Esber said. "The important thing is Ashton-Tate's sales rate to customers every quarter is in excess of \$70 million."

Still, with 1989's sales expected to come in around \$300 million, and two quarters of losses, Ashton-Tate is a long way from the industry-leading Microsoft, which is expected to break \$1 billion in sales this year. -

EGG ON THE FACE. While Dbase IV has been stalled, Ashton-Tate has been beset by other embarrassments as well. In May, Esber disclosed to shareholders that Microsoft — Ashton-Tate's partner in development of SQL Server — could not sell a database that natively executes SQL under terms of their mutual agreement. Later that same week, Esber retracted that statement to reporters, confusing the nature of the deal between Ashton-Tate and Microsoft.

More recently, when Ashton-Tate announced in December that it was selling its interest in Sybase, its press release said the stock had been sold to Lotus Development Corp. But Lotus officials said they had not conducted any such transaction with Ashton-Tate.

Esber admits that executives have spent too much time on long-term planning — neglecting the short term. "I think what Ashton-Tate can be accused of [is looking] three to five years out and announcing things three to five years out and not delivering to the customers the things that they needed in the short term," Esber said.

Even members of the Dbase Language Advisory Board, or Dlab, are frustrated with how Esber has handled some of the criticism about Dbase IV. While agreeing that releasing a stable Dbase IV should be the company's top priority, Dlab members like Tony Lima, president of Pacific System Design Workshop, in San Carlos, California, believe that Ashton-Tate needs to defend the product more effectively. "I know a lot of people who are using it," Lima said. In addition, books on Dbase IV are in popular bookstores, courses are teaching the program, and applications are being developed around Dbase IV, he said.

REORGANIZE, STREAMLINE, CUT. As Ashton-Tate's troubles with Dbase IV and the sales channel have emerged, the company has taken a series of steps to stem the tide of red ink and regain its vitality. Over most of 1989, Ashton-Tate tried to consolidate the operations of several of its acquired divisions, including Multimate, the Mac development team, and a Northern California development group. In August, the company took more dramatic action, laying off about 250 of its 1,700 workers.

Financial analysts applauded the decision to trim the workforce, but many question whether the company cut only the fat or some muscle and sinew as well.

"By and large, this company will have to live with the head count it has now," Esber said. "There are a few areas which we will increase head counts. One area is customer support."

The staff reductions have not been limited to the rank and file. In July, president Luther Nussbaum resigned, following former vice president Roy Folk out the door by one year.

In addition, many talented programmers and executives have left Ashton-Tate rather than ride out the storm. "There continues to be a lot of bashing," said one former manager.

Since Nussbaum's resignation, Esber has taken more responsibility for running the company than ever before. While he bristles at criticism that he offers only marketing expertise (he has two technical degrees), Esber admits that for the long-term, a new database division head must be hired. Sources close to the company said the search has gone on actively since July with no success.

Esber also suggests that he may eventually promote someone from within the company. But that person will only get that promotion if Dbase IV, Release 1.1 succeeds; it is too late to bring new management in on that project, so the company must make do with its present development team, analysts said.

When Esber took over the database division, he tried to shake up the system, which aggravated product woes. "My style is to empower people to make decisions, instead of having them fearful that they're not going to give me the right answer or [that] they better not make a decision because if they're wrong they're in trouble," he said.

"It's not okay to make mistakes, because Ed will call you on it. But you also feel like it's not going to cost you his feeling about you," said Ron Dennis, who manages developer services for Ashton-Tate. Dennis, Ashton-Tate's third employee, said the days

when everyone in the company from the president to the shipping dock felt pressure to ship a product, finished or not, are behind them,

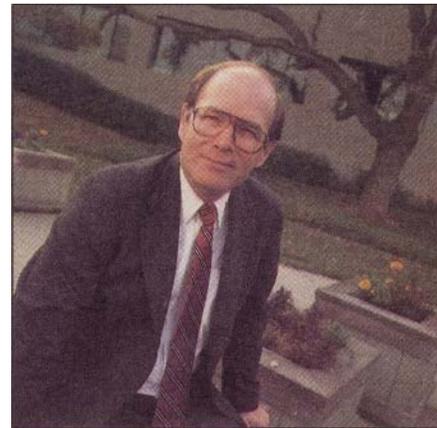
Still, rumors persist that some forces are trying to have the board remove Esber.

Most analysts believe the board will let Esber try to turn the company around before intervening.

Bill Lyons' Task: Incremental Moves to Consistency

In 1988, it seemed that every PC software company wanted one thing: an IBM executive to help it grow into a big company.

First there was Microsoft's recruitment of Mike Maples. Then in May, Lotus hired Frank King. In October, Ashton-Tate recruited Bill Lyons, a 19-year IBM veteran who had a hand in introducing and marketing all of Big Blue's PCs. Although he brought big-company experience to Ashton-Tate, Lyons is not part of the company's headquarters staff. Instead, he is in charge of the Northern California applications division, which accounts for some 25 to 30 percent of Ashton-Tate's business — all the products not named Dbase.



Former IBM executive Bill Lyons

To the former IBMer, it is a small business, earning between \$75 and \$100 million annually in sales.

Lyons first responsibility was to consolidate the Mac group (acquired when Ashton-Tate bought Ann Arbor Softworks), the Multimate group, and the Forethought Development group (what remained of the acquisition of Framework) into one cohesive business unit.

A year — and a major earthquake — later, Lyons has upgraded all the products, many of which have gone without a major revision in well over two years. Last month, the division began shipping Multimate 4.0, a long-overdue upgrade that matches many of the features in market leaders Microsoft Word and Word Perfect.

The pragmatic, soft-spoken Lyons sees his job as developing applications that can both ride Dbase sales and provide a foot in corporate doors for new accounts. Rather than explore the “feature-set fringe,” Lyon wants his company's products to simply boost office workers' productivity — even if that means supporting competitors' formats. “What people really need is to recognize the environment they are in,” he said. “I need to be able to communicate with you if you use Xywrite.”

Lyons' challenge in upgrading his company's products is that all were the result of acquisitions. In addition, Ashton-Tate officials have spoken openly about their goal of developing a cross-platform consistency with links among applications, a goal that is confounded by the various heritages of the products.

The solution, Lyons believes, is incremental enhancements that bring applications closer together over time. For example, when programmers decided to add E-Mail to Multimate, they looked to other Ashton-Tate applications and found that Framework already supported MHS. Adding MHS support to Multimate made sense. "Now we are at the point where we can look at these issues as a division. If there is something in someone else's code, we can use it," he said.

Lyons plans to transplant the graphics experience of the Macintosh team to the Multimate, Framework, and Applause teams to convert those PC applications into Windows, OS/2, and Next Step programs. But don't expect any overnight changes in the user interface or graphical support of any of these packages: Lyons sees this as a slow, evolutionary process that maintains support for the established user base.

But Lyons may not have time to move in such an incremental fashion. Analysts said that Ashton-Tate needs to establish itself early in one of the key market segments to avoid playing second-fiddle to Microsoft, Word Perfect, and Lotus.

"As Word Perfect, Microsoft, and Lotus move their top products in [the Windows and OS/2] areas, it will be hard to knock them out," said David Bayer, a PC software analyst with Montgomery Securities in San Francisco. "The clock has started ticking."

Key to getting those products out will be to have a top-notch development team, said Jeff Tarter, editor of the Softletter. "The real issues are development related," he said. Unlike Lotus, Ashton-Tate has never had a strong development focus, he added. Plus, many of the original application developers have left the company.

Lyons responds that he can keep customers by providing predictable if not always exciting upgrades.

"Customers don't want to be embarrassed; they want their investment to be protected. If you are coming out with regular releases, even if they skip a release because a particular feature is missing, they will stay [with the product] because the cost of change is large."

—*Rachel Parker*

MAKE MY DAY. Industrywide, Ashton-Tate took the most criticism in late 1988 and early 1989 for its copyright infringement suit against Fox Software. In the controversial look and feel suit, Ashton-Tate claims that Fox stole the appearance structure, and sequence of Dbase III Plus, as well as Dbase for the Mac. Trying to establish law, Ashton-Tate also asserts: that its copyrights to Dbase extend all the way to the Dbase language, a theory that bucks years of legal tradition regarding computer languages.

The year-old suit has not won Ashton-Tate any friends in the computer industry. The claim to the Dbase language has offended many programmers and industry long-timers who believe that all code — but especially languages — should be freely available to other programmers. Many other observers believe that Esber is wasting valuable time pursuing these claims — time that could better be spent finishing Dbase IV.

"Ashton-Tate needs to lose face in order to save it, and it's a matter of whose head's going to roll," said Mike Masterson, president of the Silicon Valley Dbase Language Group, in San Jose, California. "Drastic measures are needed. The best thing would be to drop the lawsuit and fire Ed at the same time."

Despite such personal attacks, Esber stands firm on the lawsuit. "There's only two ways to change this," he said. "One is to drop the lawsuit, which I will not do, and the second one is to win the lawsuit. We will go forward as an industry depending on the outcome here."

Esber also said he is willing to license the Dbase language to other vendors, so that users can have multiple sources of the technology. But, until the Dbase language issue is settled in court — or Dbase IV becomes highly successful in the marketplace — few publishers are likely to take Esber up on his offer.

FINE-TUNE THE TECHNICAL DIRECTION. With the financial and management reorganization has come some rethinking of Ashton-Tate's technical strategy. In the last six months, the company has set a high priority on high-quality beta-testing and changed some of the basic decisions that shaped Dbase IV.

The most significant change, perhaps, is the new sense of realism that has filtered through the product plans. Gone is the attempt to make Dbase IV 1.1 all things to all people. By splitting the program into two, the company hopes to serve multiple constituencies with multiple products.

Ashton-Tate also now acknowledges that it promised more than it could deliver in 640K. "We all have learned things," Esber said. "We have all tried to do things that perhaps had we thought better about it up front, [we] would have realized that we were trying to achieve, well, maybe not the impossible, but more than the possible."

The company has also adopted a more cooperative or open approach to other companies' servers, recognizing that it needs to support more than its own server.

"One of the missed points that has occurred in the past year or so is [that] Ashton-Tate will support the leading servers in the marketplace," Esber said. Already announced are intentions to support IBM's OS/2 Extended Edition and DEC's Rdb. Now Esber is willing to add Oracle to the list. "Our customers are asking that the Dbase applications development environment access data in popular minicomputer, mainframe databases, and certainly Oracle has a popular position on the minicomputer."

For its own server, the recent announcements that it sold its stake in Sybase and is giving up sole remarketing rights to SQL Server suggest that Ashton-Tate is shifting its emphasis to the Interbase server architecture, which allows for a more open server strategy than SQL Server. (When Ashton-Tate acquired Interbase in mid-1988, it said that the seeming conflict between the two strategies would become clear over time.) Details are sparse, but Esber is dropping clues about a new server strategy, one that emphasizes "decision support" services rather than high- and low-transaction applications that require pure speed.

THE COST. All this shuffling of strategies and personnel have cost Ashton-Tate time. In some sense the company is back where it was two years ago, when it began spending a lot of time tuning the Sybase engine to perform well with Dbase applications, noted Richard Finkelstein, president of Performance Computing, a Chicago company specializing in SQL database consulting.

Meanwhile, Ashton-Tate has no choice but to continue promoting SQL Server. To sell any server at all, the company must build a client/server sales force. Lotus is already

forging ahead with one and can sell a strategic product, Notes, while Ashton-Tate's product ties to Interbase remain nonexistent.

The reorganization has also left several products in limbo. Dbase Direct, a series of file transfer utilities for connecting to minis and mainframes, was due to be expanded late this year but is still in certification with no fixed release date, according to a spokesman.

The compiler for Dbase IV is the subject of dispute and rumors within the industry. Esber says the compiler is very important for the developer community, and it is a high priority for the company. Knowledgeable sources, including inventor Wayne Ratliff, who sold Dbase to Ashton-Tate, say the company has tried and failed twice to produce a Dbase compiler.

Unix and VMS versions of Dbase, also announced last year, are slowly nearing completion. "That's where the bright spot is," said Russel Freeland, president of Synergy Corp., a consulting and programming firm. But Fox already has a Unix product, and Recital Corp. has made a splash with its VMS Dbase compatible. Unless Ashton-Tate wins its lawsuit, competition will be waiting.

Also lingering is an Ashton-Tate cross-application language, and the whole Ashton-Tate push to provide Macintosh applications as well as word processing, spreadsheet, and other applications on the PC (see sidebar, Page 44). It is "highly likely" that a desktop publishing product, Byline 2, will not be shipped, Esber said; blame falls on August layoffs that swept aside many small projects.

TWO IMAGES. From a marketing stand-point, Esber is trying to cast Ashton-Tate as both market leader and underdog. "The biggest opportunity for market share is to take big chunks off the leader," which Ashton-Tate still holds, Esber said.

While competitors attempt to downgrade Dbase to a programming language tied to an inferior database engine, or eventually other engines, Esber continues to defend Dbase as an appropriate front end and back end for PC users.

After Dbase IV's woes began, Esber also launched what developers called a very effective campaign to visit corporate managers and convince them of Dbase IV's worth. "Ashton-Tate is pushing really hard with the large corporations," said DB Unlimited's Adams.

As might be expected, those visits highlighted Dbase IV's strengths and downplayed its faults, leaving developers having to explain to corporate clients their reasons for not supporting the program, Adams added.

"We will certainly point out the strengths of our products vs. our competitors' products," Esber said.

Esber also noted that Dbase IV 1.1 is not the first nor likely the last product to have a difficult birth as an SQL Server front end. "We all underestimated what it took to connect personal computers to SQL engines over networks, and in a 640K limited world," he said.

DEVELOPER ISSUES. Ashton-Tate has held onto its corporate market share in part because its previous products have been standards, making it tough to dislodge. But developers are less wedded to such standards, and marketing Dbase IV to disenchanted developers will be a lot tougher than keeping corporate buyers happy.

A constant danger is that those developers who have stuck with Ashton-Tate until now could lose patience at any time.

"They may be being too meticulous now to make up for last time," Freeland said. "I just wish they'd get a fix out to the people who went ahead and bought Dbase IV. They 'should ship some work-in-progress version or something." Esber's hands may be tied, though, due to his pledge to ship only when it's ready.

While Esber agreed that developers "have an inordinate amount of influence on the nondevelopers," he hasn't been able to craft a strategy for keeping developers satisfied.

In fact, resistance to SQL Server and its announced-but-unavailable front ends may be growing among developers. "I have two clients that tried out SQL Server and were extremely dissatisfied with it," Adams said. "The front ends for it aren't there, so you have to write everything in C for it." Adams also complained about the high price of entry into SQL Server.

SHORT-TERM OPPORTUNITIES. Assuming Dbase IV is repaired, opportunities may still abound for Ashton-Tate for the next year or two. As Esber pointed out, due to general confusion about standards, and due to Dbase IV's woes, major corporations "are doing a complete rethink of their corporate computing platforms."

No longer is Ashton-Tate the only company facing customer resistance. After a couple of years of major delays and bugs troubling vendors, software buyers have become cynical about the quality of the products being offered. "All this stuff is really full of bugs and highly untrustworthy," Finkelstein said.

Assuming it is kept happy, the 16-member Dlab group may also be an untapped marketing resource for Ashton-Tate, helping to sway public opinion in favor of Dbase IV.

But Ashton-Tate does risk over-evangelizing the program. "It's very easy to be seduced when a company is constantly paying attention to you and flying you to California and wining and dining you," Adams said. "It does tend to make some people feel warmer and fuzzier" toward the company.

In addition, demand for database technology may pick up. If Ashton-Tate is there with the right products, all may be forgiven. The PC industry has a short memory. Plus, if Dbase IV 1.1 were to ship today, it would be aided by an army of available consultants, programmers, books, classes, magazines, and name recognition that any of its competitors would love to have.

THE LONG TERM. In the long term, Ashton-Tate has an opportunity to do in the MIS department what Dbase did for individuals in the early 1980s, breaking through data-processing bottlenecks at the mainframe. In addition, the announced plans for Dbase IV 1.1 have many developers hopeful that Ashton-Tate can regain its grip as a standard.

"I am optimistic," Freeland said. "Their long-range research and development looks extremely good, and Dbase IV 1.1 looks pretty damn good."

Still, Ashton-Tate faces the same ugly picture it did two years ago: Companies larger and smaller than itself are trying to take away its business entirely, including IBM, Oracle, Borland, Microrim, Nantucket, Fox, Wordtech, Lotus, Microsoft, Informix, Ingres, Gupta, Novell, Sybase, and Revelation. Only the prospect of open systems, of

products working together, can give Esber solace — a radical change for a company that has up to now stuck by a fairly closed strategy.

Perhaps most troubling for Ashton-Tate is that all of these companies are well along in grappling with the major problems that Ashton-Tate will have to tackle once it finishes Dbase IV 1.1. Tough problems of data concurrency and consistency, distributed computing, multitasking and multiprocessing support, not to mention graphical user interfaces, CASE technology, and object-oriented programming, have yet to be addressed by Dbase technology.

With so many issues facing the company, a successful release of Dbase IV 1.1 may help Ashton-Tate keep the wolf from the door, only to find that a bear is still lurking in the woods.

Dbase IV: The Good, the Bad, and the Ugly

Although Dbase IV has received many poor marks due to bugs, the program has a number of good features. Among them are:

- The Control Center interface.** Simplifies the design of database applications, forms, labels, and reports for non-programmers.
- Query-by-example facility.** Automatically generates query code and doesn't require the user to go to other files or perform additional procedures to get a query written and evaluated.
- Multiple index capabilities.** Can manage up to 49 indexes for each data file.
- Flexible template language.** Allows developers to customize the way reports, forms, and other processes (and related code) are produced.
- ***Automatic code generation.** Allows a user to design forms, reports, labels, queries, and applications and automatically generates editable code.
- Broad import and export capabilities.** Dbase IV can import and export files to most business applications.



Dbase IV 1.0 has many bugs, or "anomalies" as Ashton-Tate describes them. This list contains some of the worst, which the company claims will be resolved by Dbase IV 1.1.

- Memory problems.** When too many parts of Dbase IV are loaded into memory, a number of unpredictable and unreproducible bugs result.
- File header.** Use of Dbase IV memo fields makes Dbase IV .DBF files unreadable by Dbase III Plus and clones.
- Control-Break.** Control-Break locks the system.
- Rollback.** Rollback in transaction can delete log files.



- Temporary files. Temporary files often are not deleted, filling up a hard disk.
 - File handles.** Repeated "use again" queries can eventually force users to exit the program after 99 files are opened.
 - ***Append routines.** Append routines performed on two or more workstations simultaneously will cause index corruption in .MDX index files.
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