

P.C. LETTER

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DISTRIBUTED DATABASES: **THE FUTURE OF DATABASE MANAGEMENT .**

WE DON'T EVEN KNOW WHETHER WE'RE SUPPOSE TO SELL THIS
STUFF TO THE SYSTEM MANAGER OR THE END USER.

In a few short weeks, the prospects for the world of managing data have been turned upside down. Ashton-Tate and Microsoft jointly announced their adoption of Sybase's software as SQL Server.-IBM made clear many hitherto vague details of the OS/2 Extended Edition Database Manager and of its own strategic interests in OS/2 Extended Edition. Ashton-Tate announced Dbase IV and its strategy for remaining an important influence in the database management arena. Oracle, which has been winning points and revenues at both IBM's and Ashton-Tate's expense for the past year, has suddenly turned unusually quiet.

Indeed, so much has happened in the past few weeks that it is difficult even to know which are the right questions to ask. Should we be worrying about how data is shared over a local network? Or is it more important to understand how whole organizations handle their production data? To what degree are existing standards going to influence the development of future standards? Will marketing of the front end or will the technical quality of the back end be more important in setting future standards?

I started out trying to write an overview of the entire database management category, including mainframe, minicomputer, and PC databases plus the effect of local area networking on distributed database management. I must have been smoking something funny, to think that it was possible to summarize such a broad area adequately. One of the major problems with trying to get an overview is that the development of database management systems and of accepted database standards have always developed piecemeal in a relatively slow progression. In other areas of personal computer software, standards have usually arisen out of one, rapid development — the arrival of 1-2-3, for instance, and therefore its tendency to avoid the BIOS for some video routines or the adoption of Sidekick and therefore its treatment of memory residency — because user's needs are generally similar and can be solved with one general approach to the problem. But database management is so central to the operation of whole companies and departments and so much a reflection of a company's or an industry's style or situation that users are often reluctant to change and are far more subject to the constraints placed on them by their systems managers.

So I backed down and decided instead to review Ashton-Tate's database strategy. (The false start is one of several reasons this issue is dated February 29 and not February 24, as scheduled. I'm suitably thankful for leap years.) Since Dbase still maintains some

60% share of the standalone database management business on PCs, this is an important subject. Either Ashton-Tate is going to understand correctly what the real issues are and figure out how to maintain its share of market as the market adopts new operating system and networking platforms or another company — the leading contenders are IBM, Oracle, and Lotus — will become the new king of PC DBMS.

ASHTON-TATE AND ORACLE ARE ABOUT TO COLLIDE.

In the recent past, Ashton-Tate's business and Oracle's business have been considered different, mostly noncompetitive businesses, primarily because the two company's core software ran on different classes of computers: Oracle on minicomputers; Ashton-Tate on PCs. The problem that both companies face is that the arrival of powerful multiprocessing platforms presents the possibility that their markets will merge, that distributed database management, transaction processing, and applications development will be managed on PCs connected in high-speed local area networks using powerful file servers for common tasks. A co-incidental development is that IBM has finally turned its attention to this same possibility by developing an integrated strategy for managing data from PCs to mainframes with the database arm communications manager extensions in OS/2 Extended Edition, a development that seems to get Wall Street analysts more jumpy than either Ashton-Tate or Oracle. If the markets do merge, the thinking goes, then just one of these companies is likely to end up the leader in database management. (Indeed, Lotus seems also to agree with this scenario and is preparing its own sally into the world of server-based distributed database management.)

ASHTON-TATE ISN'T A DEAD COMPANY JUST BECAUSE IBM DECIDED TO MAKE A PC DATA-BASE.

I have to admit that I'm leery of virtually every knee-jerk reaction expressed to date about this particular subject (as if you were surprised). Ashton-Tate is not necessarily a dead company because IBM has turned its large and powerful eyes on this market. Oracle is not necessarily the winner simply because it has "had SQL" longer than either of the others. Lotus shouldn't be written off because it has never done a database before. And, to tell you the truth, I'm still skeptical that Bill Gates' vision of server-based database management can actually be executed reliably in the rough-and-tumble world of personal computers. (How in the world do you maintain data integrity in an easy-to-use network where an average of at least one user per network is capable of hacking the server and playing games with the data?)

Beyond these factors, no one really knows exactly how users and organizations are going to want to acquire this stuff. In the SQL Server announcement, Ashton-Tate took responsibility for selling the server software at retail and Microsoft for selling it to OEMs. Will both channels of distribution work and complement each other or will just one channel be the right one? Will server software be viewed as system software (a la Microsoft and IBM) or as applications software (a la Ashton-Tate and Oracle)? Unfortunately, at this stage, it's easier to raise questions than answer them. But reviewing Ashton-Tate's basic database strategy helps in understanding the factors involved. And

the ultimate conclusion is that there are some really interesting issues and exciting capabilities inherent in the developments facing us.

DISTRIBUTED DATABASES

WHY ASHTON-TATE WILL STAY KING OF THE DATABASE SUDDENLY THE COMPANY IS LOOKING LIKE A STRONG COMPETITOR.

In the midst of all the theory and speculation that accompanied the arrival of SQL, OS/2, and IBM's PS/2 announcements during the past year, Ashton-Tate managed to remain relatively quiet. Then, in mid-January, it joined Microsoft in the announcement of SQL Server. And three weeks later the company announced Dbase IV and finally unwrapped its entire database strategy.

The bottom line on that strategy: suddenly, Ashton-Tate is showing new and unexpected competitive talents. It is smart enough to go for an open standard on the file server in conjunction with Microsoft rather than flail around on its own in unfamiliar territory, plus it seems finally to have focused its own development efforts on the very issues that will continue to make it king on the personal computer itself. (I must admit that I just can't bring myself to start calling the machine in front of me a workstation simply because it happens to be attached to a network. I started using these things because they are personal computers, not because they're great Mips Meters.)

DBASE IV: We've all gotten very accustomed to kicking Ashton-Tate around. So, when the company announces a new version of Dbase IV that not only addresses every major competitive challenge but also raises a few new issues, our instinct is automatic disbelief. Thus the common reaction to the Dbase IV announcement from the gurus at the New York affair was, "Well, I'll believe it when they ship it." (That event, by the way, is scheduled for July, the same month IBM has scheduled availability of the first release of OS/2 Extended Edition.)

DBASE IV RESPONDS TO EVERY EXISTING COMPETITIVE THREAT IN PC DATABASES.

It seems to me that the Ashton-Tate folks are chastened by their year-late, anti-climatic shipment of Dbase Mac and are aware that there's considerably more credibility and revenues riding on the timely shipment of Dbase IV. So, personally, I'm willing to believe that the July date is an achievable one. Sure the product has bugs and crashed during the announcement, but most everything seems to work, its performance is pretty good already, and the company still has about three months to squash bugs.

A lot of the carping about Ashton-Tate is simply sour grapes over the fact that the company has decided not to roll over and play dead. (Those sour grapes are probably justified by Ed Esber's seeming pleasure in taking on the rest of the world; see below). Dbase IV is exactly what the company needs to maintain its position as the leading standalone database management vendor and may well be, in conjunction with SQL Server, exactly what the company needs to give Oracle a rough time in its home turf of distributed database management.

Dbase IV's new user interface is nice but seems mostly a throw-away in advance of the graphical version of Dbase IV to come for Presentation Manager. More important, Dbase IV responds to the primary competitive threats from Rbase V (built-in applications generator), Paradox 2.0 (real, record-level multi-user networking features plus a basic QBE view for queries), Clipper et al (built-in compiler), and Foxbase (vastly improved indexing and compilation speeds). The addition of SQL commands that can be intermixed with the existing and new Dbase commands, the announcement of unlimited run-time license for an extra \$500, and complete upward compatibility are basically unexpected bonuses for both users and application developers.

SQL. SERVER: If Dbase IV takes care of the personal computer/workstation side of the problem, then the question is: Does sublicensing SQL Server from Sybase via Microsoft make strategic sense and does it compliment the client strategy? Some of the initial reactions to the SQL Server announcements essentially pictured Ashton-Tate as giving away its family jewels by admitting that it couldn't develop server-based database management software and that it had to go crawling to Microsoft to acquire such technology (which itself had admitted that it couldn't develop such software and, along with Apple, went crawling to Sybase to get it). Other reactions heralded both the strategic alliance and the Sybase software as the Second Coming of personal computing technology. I'm sure we all suspect that both points of view have an element of truth and that likewise both are totally wrong.

The fact is that this stuff is new territory for everybody involved. Sure, Oracle has managed to figure out how to hook a few computers from different vendors together into a single, on-line, distributed database management system. But it's done that by installing its own, proprietary software on every machine in the system. Sure, IBM has defined a humongous, far-reaching, global, universal Star Wars strategy called SAA, but it's barely even defined SAA, much less implemented it and IBM isn't really famous for its success in PC applications software. Sure, Ashton-Tate has been unable to introduce a truly hot new product besides Dbase and Framework, but it has managed to get some of the leading database talent to think that there is a good reason to waste part of their lives in the cultural wastelands of Torrance or Glendale, Calif. (Sorry, guys, but you'd never get me to move there, even for \$200,000 grand a year, a fancy title, and cheap stock.) And Microsoft has proven that it can write a few, good lines of operating system code, but it isn't particularly well-known for its rich development history in networking, database management, or system-level file management. Indeed, the only part of this whole transition that everybody seems to agree on is that Sybase has got a hot piece of software in its Dataserver product.

MICROSOFT SEEMS INCREDIBLY WILLING TO MAKE COMPROMISES IN ORDER TO GET OTHER COMPANIES INVOLVED. .

And that's just the vendors. What about the poor end losers and corporate buyers? Oracle wanted to quote me in a press release as saying that their 1-2-3 SQL add-in could probably teach more about SQL than anything else (since it's relatively easy to use). I declined the opportunity, but the point is that us folks that don't really know how you go about resolving multiuser query conflicts, updating multiple indices (or is it supposed to be indexes?) on different machines, providing relatively easy-to-implement file security,

and other black-magic stuff are a little worried about using software that's doing its own thing to our data, not to mention the possibility that we might all have to learn how to write SQL queries. (And you thought Wordstar was tough?)

It's more than likely that everybody involved is going to make some false starts in their attempts to successfully navigate the transition to a networked, real-time, multitasking, graphical, easy-to-use world. What I like in particular about Microsoft's approach to this new world is its incredible willingness to get together with other companies to define standards and approaches. Currently, Microsoft has long-term development agreements with IBM (operating system, user interface), Compaq (user interface, networking), 3Com (networking), and Ashton-Tate (database management), each of which was arrived at by Microsoft compromising on one or more of its own objectives. That's pretty neat, because it shows a fairly high level of maturity for an industry to use its collective resources to try to develop a decent set of standards for a new level of technical performance. (Of course, the folks at Oracle, Novell, Wordperfect, not to mention Apple, Sun, Tops, AT&T, Tandy, and the hundreds of other companies not blessed by Microsoft's attention are sitting around thinking that that Alsop fellow is a fair jerk. But that's a whole other issue.)

It is that partnership — hot server software distributed by the leading operating system company to OEMs, and by the leading database vendor to users and developers — that more than anything else seems to guarantee the success of SQL Server. IBM doesn't have any partners to rely on in getting the OS/2 Extensions adopted as standards, even if end users end up liking some of the pieces of that gigantic mix of software (more than 20 megabytes worth when fully developed). Oracle has what appears to be a fairly weak partnership with Novell. Sun might present a bit of a problem, since it is partnering off with anybody that moves, and Apple seems guaranteed its piece of the action, even if only because it's the only company paying more serious attention to the end loser than to the network server. But the fact is that SQL Server ultimately represents the cooperation of many of the best minds and coders in the business and that's a fairly powerful approach to managing that fearful transition that we face.

THE DATABASE STRATEGY: I admitted up front that I think Ashton-Tate's product strategy is basically sound. When all is said and done, I like it for one basic reason: it still seems to recognize the basic reason we all got excited about this personal computing stuff in the first place. The fact is that the reason Dbase became so popular in the first place, apart from its abilities in indexing multiple files or the qualities of its language for developing applications, was that it did all that powerful stuff on a personal computer that one person could manage and control all by himself.

Now that we're talking about workgroups and shared this and cooperative that and named pipes and (the shame of it!) multi-user applications, the role of the individual motivation of the end user needs to be watched very carefully. The end user single handedly saved Apple Computer and Tandy from the ash-heaps of computer history. The end user has given IBM bigger bruises in the home market, in its war with the clone-makers, and in its distribution policies, than any major computer vendor has ever given the company. I suspect that the end user might possibly disagree with Bill Gates, Ed Esber, Lee Reiswig (the guy in charge of OS/2 Extended Edition), Larry Ellison, Craig Burton, Bill Krause, and everybody else who has got a finger in the pie.

ASHTON-TATE SEEMS TO BE FOCUSING ON THE POOR END LOSER, WHICH IS USUALLY A GOOD IDEA.

Ashton-Tate seems to have decided that it is more important to invest its own development resources in making sure that the end user is best-served (by developing software that runs on the personal computer, rather than the theoretically invisible software that runs on servers or elsewhere). Purely from a logical standpoint, that makes sense: there will probably always be more standalone computers than net-worked ones, simply because every networked and un-networked personal computer can also be used as a standalone computer. So focusing on making a great database software on the client computer will probably have more impact ultimately than focusing on making great server software.

As such, Ashton-Tate is taking a fairly liberal attitude toward the development of other, non-Sybase server standards and intends to provide a basic, but less interesting level of support for OS/2 Extended Edition and other "alternatives" that develop. Since it is counting on the so-called "front end" or PC software for its strategic advantage and future revenue stream, it doesn't have much to lose by being nice guy to every back end vendor that comes along with a good story.

OPEN LETTER
**DEAR ASHTON-TATE: DUMP THE GENERAL PATTON
ROUTINE**

DO YOU REALLY WANT PC WEEK AND GANG WORKING HARDER TO FIND OUT
WHAT'S WRONG WITH ASHTON-TATE?

TO: Ed Esber FROM: Stewart Alsop
RE: The Dbase IV Announcement

Dear Ed:

As you know, I'm really impressed with what you've promised for Dbase IV. Finishing this product will demonstrate conclusively that Ashton Tate can develop a decent leading-edge program. But I couldn't quite believe my ears during the introduction of Dbase IV in New York. If my ears were working right, you uttered such phrases as "most revolutionary," "most fully featured," "highest-performance," "generational leap" and the ilk.

I'm not going to argue the truth or validity of such utterances. I am going to argue the inherent value of making such statements. You've acquired a reputation as the General Patton of the PC software industry with such statements as the "make my day" line at the SPA conference last fall (in reference to the Dbase Standards Commit-tee). For some reason, you seem to feel it's necessary to swagger in public. I don't think this is a good idea. Sure, it gets you and Ashton Tate press. But it's not the kind of press that you really want. The problem is that you are essentially challenging the press and the industry to find something wrong with what you're doing.

Let's take Dbase IV as an example. Most insiders that I've talked to about Dbase IV are impressed with the specifications of the product. Indeed, they are generally somewhat surprised that Ashton-Tate, the Rodney Dangerfield of software, could actually announce a product as competitive as Dbase IV. Instead of letting that positive impression grow on itself and spread around naturally, you are instead proclaiming yourself that the product is the hottest thing since sliced bread. Most people's initial reaction to such self-serving statements is disbelief. If the statements continue, the reaction turns into a genuine desire to prove those statements wrong. You end up with everybody working against you instead of with you.

SOME WOULD SAY, "I THINK HE DOTHS PROTEST TOO LOUDLY."

The worst aspect of the General Patton approach is that, if you're as good as you say you are, you shouldn't need to tell everybody so loudly. In other words, by proclaiming so loudly your hotness, you are indicating that you really believe exactly the opposite is true. In reality, Ashton-Tate is very clearly the number-one database company in PCs, even if Oracle's overall database revenues do seem to have caught up with Dbase's. Dbase IV is clearly a beyond-the-call-of-duty response to the market situation. Ashton-Tate is clearly being endorsed by some of the leading database experts in the

country (who have come to work at the company). Such an aggressive offensive position brings to mind that old saying: "I think he doth protest too loudly."

Don't get me wrong. You should sell the bejesus out of Dbase IV and the rest of your product line. You should keep the pressure up on your development groups so that your other products come up to the same speed as Dbase IV. You should do everything in your power to further Ashton-Tate's interests. What I'm trying to say is that the General Patton routine may not be helping. A little humility might be in order just about now, don't you think?