

TO: All Employees
FROM: Luther Nussbaum
DATE: February 17, 1988
RE: dBASE IV Introduction



In one of the most important announcements in its history, Ashton-Tate is unveiling today dBASE IV at a major press conference in New York.

dBASE IV signals an unprecedented technological advance in database management software. It is the most full-featured, highest-performance database management system ever designed for a personal computer. The product will fortify Ashton-Tate's hold on the database market and significantly increase the number of dBASE users.

To further our ability to meet the growing demand for workgroup connectivity, we are announcing a LAN version of dBASE IV as well.

We are also reaffirming our commitment to the dBASE development community by introducing a dBASE Developer's Edition at today's meeting. It is the development community that has helped establish dBASE as the DBMS of choice for millions of users, thousands of applications and hundreds of add-on products. We look forward to better servicing their needs with a complete set of dBASE applications development, test and distribution tools.

I'd like to take this opportunity to once again thank everyone who has had a hand in bringing dBASE IV to this point, and those who will play integral roles in the coming months.

dBASE IV's excellence is a reflection of your commitment to this company. The Ashton-Tate team is unsurpassed, and it shows in this product.

The attached press release provides more details on today's announcement.

ASHTON-TATE NEWS

ASHTON-TATE INTRODUCES dBASE IV FOR MS-DOS AND OS/2 --
SUCCESSOR TO THE WORLD'S NO. 1 DATABASE MANAGEMENT SOFTWARE

Major New Technology Platform Yields Highest-Performance
Database Management System Ever Designed
for a Personal Computer

NEW YORK, Feb. 17, 1988 -- Ashton-Tate Corp., (NASDAQ: TATE) developer and marketer of the industry-standard dBASE family of microcomputer database management software, today announced dBASE IV. Designed for both OS/2- and MS-DOS-based personal computers, dBASE IV represents a technology tour-de-force over its predecessor dBASE III PLUS, the world's best-selling database management software.

Developed by Ashton-Tate, dBASE IV features major enhancements to the dBASE programming language, seamless integration of IBM SAA-compatible Structured Query Language (SQL) and a completely redesigned user interface -- including a new applications generator -- that makes program development and data management much simpler for non-programmers. dBASE IV

(more)

 ASHTON-TATE
20101 Hamilton Avenue
Torrance, California 90502-1319
(213) 538-7312

includes a built-in, automatic program compiler that is 10 times faster than dBASE III PLUS. New automatic record and field locking capabilities provide for easy networked multi-user operations.

At the same time, Ashton-Tate also announced the dBASE IV Developer's Edition, touted as the complete dBASE IV programming environment designed for use by applications developers and consultants.

"dBASE IV is the most fully featured, highest-performance database management system (DBMS) ever designed for a personal computer," said Edward M. Esber, Jr., chairman and chief executive officer of Torrance, California-based Ashton-Tate.

"dBASE IV is the key to our workstation and workgroup DBMS strategy," Esber said. "As the successor to dBASE III PLUS, dBASE IV elevates that standard well into the realm of OS/2 and minicomputer processing capabilities."

More than 2 million copies of dBASE have been sold since dBASE II first appeared in 1981. In 1987, dBASE III PLUS captured more than 60 percent of all PC DBMS sales.

"The leading-edge technology designed into dBASE IV makes it a generational leap over any other PC database system. Its 400,000 lines of code were written entirely by Ashton-Tate programmers," said Roy E. Folk, executive vice president and general manager of Ashton-Tate's Software Products Division.

"For the productivity user, dBASE IV sets new standards for ease of use, power and performance. The new interface allows

(more)

users to perform tasks, even generate whole applications, without writing any programs," Folk said. "The new dBASE IV Developer's Edition provides a complete development, test and distribution environment for single and multi-user applications. It even includes an applications module for royalty-free distribution of turn-key custom database application programs."

At the heart of dBASE IV's easy-to-use advanced technology is the addition of a Control Center that delivers the power of dBASE to non-programmers. The Control Center, which replaces the dBASE Assistant interface, enables users to perform data entry, query and report generation without writing programs. Users simply specify the files, forms and tasks using a "what-you-see-is-what-you-get" or WYSIWYG work surface. dBASE IV automatically handles all programming. For advanced users, dBASE IV still supports the familiar "dot prompt" command interface.

The Control Center consists of six on-screen graphic panels. Each panel provides menu-driven access to file management, database queries, forms creation, report generation, label design and a complete applications generator.

For novice users and experienced programmers alike, dBASE IV's new applications generator leverages valuable development time. Users merely define tasks and the files to use. The applications generator then ties them all together. Users can

(more)

also add pull-down and pop-up menus with the WYSIWYG menu editor. When finished, dBASE IV generates all the program source code. The "Quick Application" option gives novices a pre-defined application in minutes. For advanced developers, a template language is provided for sophisticated customization of complex applications. All source code produced is available for analysis and modification.

With the new forms manager, users visually lay out data entry forms with the Control Center's WYSIWYG work surface. The full-screen editor allows users to design and modify forms with advanced features such as pre- and post processing for powerful data entry validation and look-up capabilities. Later, forms are called up by name for interactive and program usage.

The new query design system contains tools which help users retrieve, organize, edit and display data. It features Query-By-Example or QBE, an easy-to-learn, interactive query system which automatically relates data from two or more databases. By citing data example, the user tells the QBE system what information to extract, but not how to extract it. QBE displays "logical views" of data that appear on screen as if two or more files had merged showing only the requested data. The physical files remain unchanged.

The new report writer also uses the WYSIWYG work surface. It incorporates a "band" concept allowing users to easily define sophisticated groupings of data and easily generate reports. These reports include simple columnar reports, complex

(more)

multi-file reports with rich page layout facilities and fonts, pre-printed form reports and mail-merge reports.

Ashton-Tate has integrated IBM's SAA-compatible Structured Query Language (SQL), a simple yet powerful English-like relational database sub-language, into the dBASE programming language to create dBASE/SQL. dBASE/SQL is the new programming language for dBASE IV and will be an application programming interface for the Ashton-Tate/Microsoft SQL/Server, the OS/2 workgroup database server software announced last month.

With the dBASE/SQL programming language, users can create, modify and query databases using SQL commands or traditional dBASE commands. Users can interactively execute dBASE/SQL commands at the dot prompt with the results displayed immediately after each command. With dBASE/SQL, users create dBASE IV programs that include SQL statements freely intermixed with dBASE statements.

dBASE IV features an automatic, built-in program compiler that increases execution speeds to more than 10 times faster than dBASE III PLUS. All "dot prompt" commands and dBASE IV applications are automatically compiled when first run.

Ashton-Tate made 245 enhancements to its dBASE Language and integrated SQL to create the new dBASE/SQL language. New language extensions permit easy-to-use memory variables, two-dimensional arrays, multi-child relational capabilities, data validation, multiple display windows, support for international dates, currencies and numeric formats and many new math, financial and statistical functions.

(more)

Networking capabilities are significantly enhanced by dBASE IV. Single-user dBASE III PLUS and dBASE IV programs will automatically run as multi-user programs without modification.

Other multi-user enhancements include:

- * automatic record and file locking when users attempt to access the same information simultaneously;
- * transaction processing with complete rollback and recovery to prevent data loss during a system failure or record lockout;
- * automatic screen refreshing which improves user concurrency by updating common screens every time another user of the same screen makes a change; and,
- * eight-layer password protection and data encryption.

All previous versions of dBASE III and III PLUS are fully upward compatible with dBASE IV. All data and program files supported by dBASE III PLUS can be used in dBASE IV without modification in either DOS or OS/2 environments.

Conversions of dBASE II data and programs are also easy with a file utility included with the dBASE IV.

dBASE IV carries a suggested retail price of \$795. The suggested price of dBASE IV Developer's Edition is \$1,295. Both products will be sold through more than 6,000 authorized Ashton-Tate retailers as well as the company's international and corporate sales groups.

dBASE IV and dBASE IV Developer's Edition will be available by July 31, 1988.

(more)

The regular upgrade price for any user of dBASE II, III or III PLUS is \$175. Users who purchase dBASE III PLUS between now and July 31, can upgrade to dBASE IV for the special price of \$30. This results in at least a \$70 savings over the price of dBASE IV when it ships. dBASE III PLUS will continue to be sold and supported by Ashton-Tate for customers with 512K floppy disk-based machines.

In single-user mode, dBASE IV requires an IBM PC, PC/XT, PC/AT, PC Convertible or all 100 percent compatible systems. It requires either OS/2 1.0 or PC/DOS version 2.X or higher. Network systems need PC-DOS 3.X or higher.

Minimum memory configuration to support dBASE IV is 640 Kb for dBASE IV under DOS. For OS/2 protected mode, users need a minimum of 2Mb total memory.

Minimum disk storage requirements are one 5 1/4-inch 360 Kb or one 3 1/2-inch floppy disk drive and one fixed drive.

dBASE IV supports IBM monographic or color graphics including CGA, EGA and VGA. Most 80 column printers including laser printers will operate with dBASE IV.

In network mode, all systems must have 640 Kb minimum memory plus one or more of the following network systems:

- * Novell Netware/286 Versions 2.01A;
- * 3COM 3+ Share Software Versions 1.01, 1.1 or 1.2;
- * IBM PC LAN Program Version 1.10, 1.2 or later including Token Ring (NETBIOS Version 1.0 or later);
- * AT&T StarLAN Ver. 1.0, 1.1 or 1.2;
- * Ungermann-Bass Net/One PC Version 15.2

(more)

Based in Torrance, Calif., Ashton-Tate markets best-selling microcomputer business applications software in six major categories: database management systems, with industry-standard dBASE III PLUS, dBASE IV PLUS LAN Pack, dBASE IV, dBASE IV Developer's Edition, dBASE IV LAN PACK, RapidFile and dBASE Mac; business graphics, with DRAW APPLAUSE, the MASTER GRAPHICS Series, and the Ashton-Tate Graphics Service; word processing, with MultiMate Advantage II and MultiMate Advantage II LAN; integrated software, with Framework II; spreadsheet, with Full Impact; and desktop publishing, with Byline. Ashton-Tate also markets a comprehensive line of service and support programs for individuals, corporations and government agencies.

#

R Ashton-Tate, dBASE, MultiMate and Framework are registered trademarks of Ashton-Tate Corporation.

tm dBASE III PLUS, dBASE III PLUS LAN PACK, dBASE IV, dBASE IV Developer's Edition, dBASE IV LAN Pack, RapidFile, dBASE Mac, MultiMate Advantage II, MultiMate Advantage II LAN, Framework II, FullWrite Professional, Full Impact, DRAW APPLAUSE, MASTER GRAPHICS, Ashton-Tate Graphics Service and Byline are trademarks of Ashton-Tate Corporation.