## ASHTON-TATE NEVVS

ASHTON-TATE CORPORATION ANNOUNCES FRAMEWORK III -MAJOR UPGRADE TO INTEGRATED DECISION-SUPPORT SOFTWARE
Network Version Includes New Electronic Mail Package

TORRANCE, Calif., May 24, 1988 -- Ashton-Tate Corp.

(NASDAQ:TATE) today announced Framework III, a new version of its integrated decision-support software for MS-DOS microcomputers. The successor to critically acclaimed Framework II which appeared in late 1985, Framework III includes electronic mail support as well as significant improvements in all of its six functional areas -- word and numeric processing, database management, business graphics, outlining and telecommunications.

The product is designed as a tightly linked set of tools which help managers and executives organize, analyze and communicate for faster, better decisions.

Slated for shipment before July 31, 1988, Framework III carries a suggested retail price of \$695 in the single-user version. The five-user network version is expected to ship before Oct. 31, 1988 and is priced at \$995.

(more)

ASHTON ·TATE 20101 Hamilton Avenue Torrance, California 90502-1319 (213) 538-7312 MAY 24 1988
Edward M. Esber, Jr.

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Major enhancements to Framework III include full-color support, mouse support, a thesaurus, networking, built-in electronic mail and a memory-management enchancement that allows stand-alone production applications to be run from within Framework III.

The announcement of Framework III was made at the company's annual stockholder's meeting at the Los Angeles Century Plaza in Century City. At the same time, Ashton-Tate announced the formation of a Decision Support Business Unit to compete with other companies in the category.

"Framework III represents the first step toward our global decision support strategy," said Luther J. Nussbaum, president of Ashton-Tate. "In the future, our Decision Support Business Unit will offer products in three segments -- low-end, multi-function, products, integrated products for managers and high-performance, analytical support tools."

Highlighting the improvements in Framework III is the addition of industry-standard electronic mail. Framework III's electronic mail uses the Standard Message Format of MHS developed by Action Technologies and Novell.

The Framework III LAN version includes integrated electronic mail while electronic mail is available as an option for the single-user version. Connected users can communicate instantly with Framework III workgroups, or users of compatible mail applications, from within Framework III. There is no need to purchase or learn separate mail programs.

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"Framework III is the first of many powerful MHS applications," said Craig Burton, senior vice-president, corporate development, Novell, Inc. of Provo, Utah. "Its integrated mail feature makes Framework III the ideal foundation for building productive workgroups. "MHS has the potential to become the industry standard store and forward technology because it is an open architecture that allows users to build inexpensive, expandable PC-based networks, while providing connectivity with existing mainframe-based systems."

Nussbaum said Roy E. Folk, executive vice president and general manager of the Software Products Division, would serve as the acting business unit manager for decision support products.

"Framework III expands on the 20-year-old promise
of decision-support software that was first made by academic
researchers at the Sloan Business School at MIT," Folk said.
"Another step toward the fulfillment of that vision, Framework
III helps identify problems, organize data and analyze
alternative actions, foster communications among decision makers
and is a complete ad hoc applications development environment."

Framework III supports the decision-making process in five major areas:

O Framework III helps decision makers organize data with its intuitive user interface, providing access to all functions and filetypes simultaneously. With its outliner, users can manipulate text and data from both Framework and other applications.

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O Framework III assists problem identification by providing data delivery through direct connections into dBASE, Lotus 1-2-3 and other data files. Multiple views of the data are possible through spreadsheets, graphs and database tables.

- O "What if" analytical tools include a powerful spreadsheet, improved database and an easy-to-use, high-resolution graphics processor.
- O Communications are fostered through an advanced word processor, the graphics module, telecommunications, and new electronic mail.
- O Framework III's built-in, high-level development language, FRED, provides a complete applications development environment.

"We originally positioned Framework as a cure-all or everything you'd ever need in one box. Our users told us that Framework was really decision-support software," Folk said. "In fact, in Europe, where Framework is an international standard, it has always been thought of as decision-support software. We now know that 'integrated software' is one type of decision-support software well suited for managers and decision makers."

Framework III brings the power of six functions together using "information windows" called frames. Each frame is built around a Framework III tool. Outline frames can hold several different types of frames including spreadsheet, word processing and graphics. Multiple frames can be built into an outline frame to generate compound documents.

Frames can be put away and kept ready for use in on-screen "trays", allowing users to easily switch between different tasks. Using a single user interface with consistent

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commands across functions, users are able to add to or create documents, spreadsheets, graphs, and database tables. They can also telecommunicate and send and receive electronic mail. The users can move freely among frames and applications using cursor keys or a mouse.

Framework III electronic mail is compatible with The Coordinator (v. 1.6) mail software sold by Novell and Action Technologies. Framework III's electronic mail will also be compatible with mail gateways such as MAILbridge Server/MHS, sold by SoftSwitch, a vendor of popular mini- and mainframe gateways, and gateways from Action Technologies.

The LAN version features file locking and printer sharing for easier workgroup data sharing and economic allocation of expensive laser and graphic printers.

Asynchronous connections include new Kermit and YMODEM protocols, which aid in easier connection to on-line services, and include seven updated terminal emulations, including new Minitel and Prestel, facilitating better links with host computers.

Word processor improvements include a complete range of text formatting, editing, and print features. Among them are multiple column capability for newspaper-style text layouts. Also included are super- and subscripts, strikethrough, footnotes, ruler line, variable tab stops, formatted headers and footers, and other features to create professional-quality documents.

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An integrated thesaurus has been added along with autohyphenation. Optional language disks allow the user to menu-select foreign languages for spelling checks, autohyphenation and thesaurus.

Improved analytical tools include the speadsheet and graphic functions. Along with at least a two-fold increase in raw add-multiply spreadsheet performance, regional recalculation is available to avoid recomputing entire spreadsheets when only a limited range of cells are affected by changes.

Framework users can continue to create linked spreadsheets which automatically update related frames and cells.

Graphics and spreadsheets also can be linked to make possible automatic graphics updating. For example, a recurring report, one that is made up of a compound Framework outline, might feature a graphic representation of a spreadsheet value. The graph can be automatically updated from the linked spreadsheet outside of the compound outline.

Graphics now include the ability to print full-page, highresolution graphs and charts on laser printers. Popular HP LaserJet and LaserJet Plus font cartridges are supported.

Outline enhancements include multi-line labeling, custom indentation, and custom outline numbering.

Seven user-specifiable data types now provide easier to use database tables. Compatible with dBASE III PLUS and dBASE IV

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datatypes, Framework III can directly read and write fully functional dBASE databases. A new record pointer makes report generation easier. Unlimited sort keys now allow multi-field sorting.

Framework III can import and export the datafiles generated by many popular production applications including MultiMate Advantage II, Lotus 1-2-3 Ver.2.01, WordPerfect, WordStar, and ASCII data files.

Framework was first introduced in 1984, and in late 1985,
Ashton-Tate introduced Framework II. Widely used throughout
Europe and Latin America, Framework is available in 10 languages.
More than 250,000 units of Framework have been sold worldwide.

The single-user version of Framework III carries a suggested retail price of \$695, the same as Framework II.

Framework III LAN, a complete system for up to five concurrent users, is priced at \$995. The single-user version of Framework III will be available through all Ashton-Tate authorized retailers by July 31, 1988. The LAN version will be available by October 31, 1988.

Upgrades to Framework III will be available to any registered Framework user for \$175. Registered Framework and Framework II users may upgrade to the Framework III LAN version for \$350. Framework III single-user registered users may upgrade to the LAN version for \$175.

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Users are entitled to Framework III 1.0 (single-user version) at no charge when Framework II is purchased or upgraded and registered between May 24, 1988 and the date of Framework III 1.0 shipment. Framework II registration and dated proof-of-purchase are required for the free Framework III 1.0 upgrade.

All upgrades are available direct from Ashton-Tate or from selected resellers.

Single-user Framework III requires an IBM PC or 100 percent campatible system, 640 kilobytes of RAM, dual 3-1/2" or 5-1/4" floppy disk drives or a hard disk and one 3-1/2" or 5-1/4" floppy disk drive. Also required is PC-DOS, versions 2.0 through 3.3 or MS-DOS 2.1 through 3.31.

Optional hardware support is provided for several popular mouse systems, Intel math co-processors, and popular graphics boards. Framework III supports memory boards which support the Lotus/Intel/Microsoft Expanded Memory Specification including LIM EMS 4.0, and AST EEMS. Fully Hayes compatible modems are supported.

Electronic mail for single-user Framework III requires MHS
Version 1.1P or 1.1N from Action Technologies or Novell, plus a
hard disk. Most graphics cards and more than 100 printers,
including many laser printers, are supported.

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Ashton-Tate Corporation is one of the largest developers and marketers of business applications software and the major supplier of relational database management software systems for microcomputers. The company markets microcomputer software in the following categories: database management, word processing, presentation graphics, desktop publishing and decision support.

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