

Data DecisionsTM NEWS microcomputers



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UPDATING MATERIAL

May 1984

With this supplement of Data Decisions MICROCOMPUTERS a new feature is introduced—The Ratings Summary. Every month we will show the results, in rank order, of our software evaluations. This new monthly offering will show at a glance how each software package compares with other packages in its category based on our scoring methodology. The Ratings Summary is located behind the USER RATINGS 500 tab in Volume 1. Every month when new packages are evaluated the appropriate sections will be updated to reflect the changes.

In addition to this Newsletter, the May Updating Material includes the reports described below. Please see the Microcomputers volumes to refer to these reports.

Technology Reports • describe current technology being implemented in microcomputers or market-related studies about microcomputers:

- The report on **Data Transmission Alternatives: LAN or PBX?** provides an in-depth analysis of two alternative types of networking products that can serve the communications needs of microcomputers: LAN (Local Area Networks) and PBX (Private Branch Exchanges). The report discusses the characteristics and technology of each communication method and the implications involved in choosing one method over another.

Survey Reports • provide profiles at-a-glance by product type:

- The **Data Management** survey provides summary descriptions on over 50 data management packages for use in a corporate environment. The survey is presented in a dot chart format which indicates microcomputer systems and operating systems supported by the package, the type of database, features, and software interface provided by the package. The dot chart is followed by a survey which provides more detail about file limitations, price, support, and more.

- The **Graphics Software** survey provides summary descriptions on 60 graphics packages provided by 49 vendors for the corporate environment. The survey is presented in a dot chart format that indicates the microcomputer systems and operating systems supported and the types of business graphics and text graphics supported by the package. A survey, in narrative form, follows the dot chart. The survey provides more information about the printing, plotting, and viewing capabilities of the package, the text chart features, the business or numeric graphic features, and the price of the package.

Please Route To:

- The **IBM PC Compatibility** survey is a complementary survey to our Microcomputer Systems survey. The new survey focuses on 48 microcomputer systems that claim IBM PC compatibility. It is presented in dot chart format and indicates the degree of compatibility the system vendors claim, operating systems and microprocessors supported, memory range, disk capacity, bundled software, price, and more. For an in-depth analysis of IBM PC compatibility, please see the correspondingly titled technology report—filing sequence number 415.

- The **Expansion Boards** survey provides summary description on 166 expansion boards provided by 81 vendors. The survey is presented in a dot chart format that shows the microcomputer system and operating systems which support the board and also the specific function of each board. The dot chart is followed by a survey in narrative form that describes the warranty/service information, the features, and the price of the board.

Software Product Reports Featuring Hands-On Evaluation • provide detailed analysis of key software products which are tested in our labs. This month the following new reports on data management packages are added: DAY ONE Software **DAY ONE**, Goldata **GOLDATABase**, Microrim **R:base Series 4000**, Quic-N-Easi **Q-Pro 4**, and Alpha Software **Data Base II—THE INTEGRATOR**. The additions to our word processing coverage include: Samna Corporation **Samna Word II**, Rocky Mountain Software **New Word**, and Hayden Software **PIE Writer**. Spreadsheet coverage includes ITSoftware **CalcIT** and communications coverage includes Hayes Microcomputer Products **Smartcom II**. The addition to the graphics software is Innovative Software **Fast Graphs** and Sensible Software **Graphics Department**. The following other packages have also been evaluated: Metasoft Corporation **BENCHMARK Mail List** and **BENCHMARK Spelling Checker**, Dow Jones Software **Market Manager**,



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Comshare Target Software **TARGET Financial Modeler**, Reston Publishing Company **The Executive's Guide to the IBM PC**, and Conceptual Instruments Company **Desk Organizer**.

Microcomputer Systems Reports • provide detailed

analysis of key microcomputer systems. The following new reports are added to our service this month: TeleVideo Systems **16-bit Computer**, Franklin **ACE 1000 & 1200**, ACT **Apricot**, Sperry **Personal Computer**, GRiD **Compass & Tempest**, Convergent Technology **WorkSlate**, and Zenith Data Systems **Z-100 PC**.

■ THIS MONTH'S TEST RESULTS

□ Spreadsheet Software

Comshare Target Software Target Financial Modeling • Target Financial Modeling is a diversified and changeable program which can accommodate financial analysis models, general business analysis, and virtually any mathematical model you wish to design, define, and implement to run on a microcomputer.

Overall Package Quality Rating: 8.2.

ITS Software CalcIT • CalcIT supports a third axis that can be thought of as going into the video display. This allows the creation of spreadsheets with many pages, the most common use of the third axis being the representation of time. CalcIT also supports a powerful execution facility that allows the creation of complex applications with simple user interfaces.

Overall Package Quality Rating: 6.9.

□ Data Management Software

Alpha Software Data Base Manager II—The INTEGRATOR • It is a tremendous asset as long as the user comprehends the fact that the other powerful software packages like Lotus 1-2-3, WordStar, VisiCalc, and MailMerge must also be implemented, and that the user should possess a working knowledge of them.

Overall Package Quality Rating: 6.6.

BROCK Software KEYSTROKE Report Generator (Apple III Version) • KEYSTROKE Report Generator for the Apple III is designed to produce clear and accurate reports from data collected using KEYSTROKE Data Base. With the variety of options available, the user can produce reports designed to suit his own needs. Simple list reports can be easily generated using the Set Columns Menu, while more complex reports can be produced with a little more effort.

Overall Package Quality Rating: 6.1.

DAY ONE Software DAY ONE • The product will find considerable application in all areas where there is a need to provide users with the ability to quickly produce database-type systems without technical assistance. Elegant it is not, at least not without a disproportionate amount of effort. Functionality is what the product supplies.

Overall Package Quality Rating: 7.1.

Goldata Computer Services GOLDATABASE • It is not a sophisticated package which will answer all of the database requirements imposed by the complex corporate environment, but it will provide a vehicle for users without computer programming skills to design, create, and maintain a database file, especially a mailing list or other limited

application.

Overall Package Quality Rating: 5.1.

Microrim R:base Series 4000 • The product provides a tool to managers who have no desire to become programmers and are frustrated with the simplistic file managers which prevent them from obtaining the results they seek.

Overall Package Quality Rating: 6.1.

Quic-N-Easi Products Q-PRO 4, Version 2.11 • Q-PRO 4 provides the data processing professional with a fourth-generation system to design applications. It is not a particularly user-friendly package nor does it possess a large number of predefined procedures or formats. Consequently, it is not easy for a non-programmer to master. However, it is quite powerful in scope and implementation.

Overall Package Quality Rating: 6.0.

□ Word Processing Software

Hayden Software PIE Writer (IBM PC Version) • The PIE Writer formatting commands allow a fair amount of flexibility in the creation and printing of a document. PIE Writer does not offer any form of macro capability, which is a disappointment.

Overall Package Quality Rating: 5.2.

Metasoft Benchmark Mail List • Present users of other Benchmark products, such as the Benchmark Word Processor, may wish to consider the addition of Mail List. It is designed to work well with the other Benchmark products. Unfortunately, like other early Metasoft products, it is priced at the top of the product price range.

Overall Package Quality Rating: 7.7.

Metasoft Benchmark Spelling Checker • Fortunately, Benchmark has recently announced an entire repackaging of their product line, with many of the office products such as the Word Processor, Spelling Checker, and Mail List manager bundled into one package. This will at least provide Benchmark users with a minimum of the necessary functions. However, if the Spelling Checker is the same, a minimum is all they will receive.

Overall Package Quality Rating: 6.2.

Rocky Mountain Software New Word • New Word is a full-featured word processing package well designed for heavy word processing users. As described in this profile, it contains the strengths of WordStar, as well as the flexibility required for today's users.

Samna Word II • Some features of the product are outstanding in their balance between full functionality and ease of use. The header and footer features and mail merge capabilities are implemented in a way that makes their use by entry-level



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personnel much easier than average, and this can be a deciding factor where an application requires such features.

Overall Package Quality Rating: 5.7.

□ Communication Software

Hayes Microcomputer Products Smartcom II • Smartcom is an excellent communications program that is extremely easy to operate. Its most powerful features are dedicated to simplifying the user interface as much as possible. Its only drawback is its inability to deal properly with a graphics monitor without producing vast amounts of video interference.

Overall Package Quality Rating: 6.7.

□ Graphics Software

Innovative Software Fast Graphs • Fast Graphs is quite flexible as to types of monitors, printers, and plotters that may be used. Each of the functions is also based on parameters entered by the operator and allows for quite a bit of flexibility in the designing of the graphs.

Overall Package Quality Rating: 7.1.

Sensible Software GRAPHICS DEPARTMENT • GRAPHICS DEPARTMENT is a reasonably priced, very versatile graphics package with many sophisticated features. While many graphics packages have the capacity to either create charts from input data to generate free-form graphs, GRAPHICS DEPARTMENT has functions which allow both.

Overall Package Quality Rating: 6.7.

□ Portfolio Management Software

Dow Jones Market Manager • An investor with few stocks would have difficulty justifying the expense and aggravation of auto-updating. A large investor with many stocks or a professional with many portfolios might find the program more useful, except for the fact that it doesn't account for dividends or commissions. The package is too much for a small investor and not enough for a large one.

Overall Package Quality Rating: 6.9.

□ Time Management Software

Conceptual Instruments Desk Organizer • It can save a great deal of time for those types of people who find themselves constantly reaching for a phone book to look up someone's number and days later try to remember what was said and whether or not it is time to call back. An accurate log of conversations can be made with the notepad feature which can be accessed at the same time that a phone number is retrieved.

Overall Package Quality Rating: 6.9.

□ Training Software

Reston Publishing The Executive's Guide to the IBM PC • The only possible use for the product in a typical environment would be as an introduction to the concepts of how a computer works and why certain things need to be done the way they are. Is the product useful for learning BASIC programming? Perhaps. Would an executive want to use it? Probably not.

Overall Package Quality Rating: 5.9.

□ Microcomputer Systems

ACT (North America) Inc Apricot • ACT bills the Apricot as a fourth-generation system that is easy to use. The Apricot sports the latest technology with its 2-line Microscreen imbedded in the keyboard, with its use of 3.5-inch Microfloppy disk drives, with its MS-DOS shell for ease of use, with its transportability, and with its IBM PC ROM emulator for providing IBM software compatibility.

Convergent Technologies WorkSlate • The WorkSlate is one of a new breed of portable notebook computers which are designed to fit in a briefcase. It is similar in overall design to the Radio Shack Model 100, the Epson HX-20, and the NEC 8201. But unlike these products, the WorkSlate is targeted to a specific vertical market—that of the spreadsheet user. Convergent is aiming the WorkSlate at business professionals who are primarily involved with numerical analysis and with only an occasional need for word processing.

Franklin ACE 1000 & 1200 • The ACE 1000 and 1200 are designed to be durable business computers. With a capable 65-watt power supply, heavy duty power switch, and built-in fan, both micros can accommodate a full complement of expansion cards. Franklin documentation for either the ACE 1000 or 1200 is not complete. Franklin often refers a user to other publications that cover a particular topic in depth.

GRID Systems Compass & Tempest • At its over \$7,000 price tag, the Compass is so packed with features and capabilities that it is a bargain.

Sperry Personal Computer • Sperry Corporation, with the announcement of their new Personal Computer, has entered into what Sperry calls the new Sperry era. Here is a traditional mainframe company known for large-scale computing boxes entering a new market with a small desktop computer that is not compatible with their own Sperry 1100 mainframe, but is compatible with an IBM product. This is quite a difference for a company who, in the past, introduced products manufactured only by themselves, and who distributed their product exclusively through their own direct sales force.

TeleVideo Model TS 1603 • The future of the TS 1603 is in doubt, as well as the discontinued TS 1602. The demand for plain vanilla CP/M-86 or MS-DOS machines without IBM PC compatibility has been weak industry wide. Usually, machines in this category require a gimmick to set them apart. Portability or bundled best-selling software is a common strategy. The 1603 has neither of these features.

Zenith Data Systems Z-150 & Z-160 PC Series • Zenith has jumped onto the IBM-compatible bandwagon with the February 1984 introduction of the Z-150 desktop and Z-160 portable PC-compatible systems. Both systems are built around a 16-bit Intel 8088 microprocessor, and use as their standard operating systems MS-DOS 1.25 and MS-DOS 2.0. Both provide software and expansion-board compatibility with the IBM PC, thus allowing users to have access to the broad base of software and hardware expansion being developed for the IBM PC.

■ MAGAZINE ROUNDUP

Of the hundreds of articles appearing this past month, the following were selected as worthy of bringing to your



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attention. Each contains valuable information and is well written. Our editors believe these articles are the cream of the crop for the past month. Many other articles of special interest for specific purposes were also published. Omission of mention of these articles does not imply a low value judgement but rather an opinion of limited general interest.

- "Apple Computer Again Looks Like a Good Pick As Evidence Grows It Can Hold Market Share" is a heard-on-the-street analysis of Apple's financial position after the Macintosh introduction. Good article for investors or large companies faced with choices. Wall Street Journal, April 18, page 61.
- "Why The Big Corporate Battle Over Personal Computers?" is a thoughtful article written with managers in mind. Several short case histories are described. 6 pages. First in a series of two articles. Personal Computing, May, page 65.
- "Reflecting on Software Integration" is a short guide to purchasing integrated software for personal computers. Useful for consultants or accountants who have established the need for a particular type of system and who are ready to find the right vendor. Includes a list of vendors with names of packages, addresses, and required operating systems. 2 pages. Software News, April 1984, page 38.
- "The Heady World of IBM Suppliers" examines the dependence of several suppliers to IBM and IBM's dependence on suppliers. Several stories of successful and not-so-successful suppliers. Of general interest. 2 pages. New York Times, Sunday, April 22, Section 3.
- "Relational Data Bases That Take On The 'Big' Jobs" examines current offerings by several vendors. For those evaluating database packages or upgrading to a more sophisticated one, this article is a good starting point. 8 pages. Personal Computing, May, page 146.
- "New Silicon Compilers Ease Design of Computer Circuits" is a Technology report discussing why the future of automated circuit design may depend in part on the development of these methods. Good for those who need to know where this type of development is and what some of the leaders' attitudes are. Wall Street Journal, April 27, page 31.

■ SPOTLIGHT

APPLE IIC UNVEILED; THIRD-PARTY SUPPORT STRONG
Apple Computer, Inc; 20525 Mariani Avenue, Cupertino, CA 95014; 408-996-1010.

Apple's latest microcomputer, the IIC, was announced in San Francisco at the company's Apple II Forever Exposition. The event was exemplified by Apple's support of several vendors who have been refining their products for the new system and vice versa. Many of these companies simultaneously announced products for the IIC.

The Apple IIC basic unit includes a Motorola 65C02 microprocessor operating at 1.02 MHz, 128K bytes of RAM, 16K bytes of ROM, an 80-character upper- and lowercase display capability, two serial RS-232C ports, a video expansion port (for an included RF modulator, an RGB color monitor, or a flat-panel display), an external disk drive port, a video monitor port, an external disk drive port, a speaker with manual volume control, a headphone jack, a built-in

keyboard, and a built-in floppy diskette drive. All ports have connectors built into the back of the box. The unit measures 2.5 inches high x 12 inches wide x 11.5 inches long and weighs 7.5 pounds. The IIC's power supply is separate from the basic unit. A carrying case is optional.

The built-in diskette drive is a single-sided, 5.25-inch half-height unit with 140K-byte capacity. The formatted capacity depends on which operating system is used; the older Apple DOS Version 3.3 or the Apple Pro DOS operating system, which is bundled with the IIC. A second diskette drive is optional. It plugs into the disk drive port standard with the computer.

The IIC's keyboard is built into the basic unit. It includes all the keys found on Apple's IIe. The key sculpturing is similar to that found on printing electronic office calculators. It also has a switch allowing the user to switch from 80 columns to 40 columns, a Dvorak switch, a power indicator light, and a disk-in-use indicator light. A useful feature of the keyboard is the users' option to switch the key positioning to the Dvorak model. Software is available from one third-party vendor to train the user in the Dvorak method of typing.

A high-resolution monochrome graphics monitor is optional. It will display 80 characters on a line in upper- and lowercase. The case is styled in Apple's new "Snow White" theme, and a stand allows the user to tilt the monitor to his or her preference. Apple said flat-panel, 80-character x 24-line liquid-crystal display (LCD) will be available by the fourth quarter of 1984. The display will weigh less than 3 pounds and will use the computer's power supply in place of AC power.

Several hardware options were also introduced: a color printer that prints in four basic colors and in several mixtures of those colors (called the Scribe printer), a mouse, and a second power supply. Existing Apple modems, joysticks, hand controllers, printers, and plotters work with the IIC.

The Apple IIC basic unit is \$1,295, and it comes with a 90-day warranty. The monitor is \$199, the monitor stand is \$39, the external drive is \$329, the mouse is \$99, and the carrying case is \$39. The system will be distributed by Apple's existing dealer base and by selected major department stores.

Simultaneous announcements of new products were made by many vendors, most of whom have been marketing products for earlier Apple II computers. Several are listed below:

Advanced Logic Systems; Sunnyvale, CA • Word Handler, List Handler, and Spell Handler.

Applied Software Technology; Los Gatos, CA • VersaForm Business Form Database.

Arktronics; Ann Arbor, MI • Jane multifunction word processor/spreadsheet/list manager.

Broderbund; San Rafael, CA • BANK STREET WRITER.

CompuServe; Columbus, OH • VIDTEX log-on package for CompuServe service.

Dow Jones & Company, Inc; Princeton, NJ • Dow Jones Investor's Workshop portfolio management package.

Hayes Microcomputer Products; Norcross, GA • Smartcom I communications software for use with Hayes Smartmodems.



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Microsoft Corporation; Bellevue, WA • Multiplan spreadsheet package.

Prometheus Products Inc; Fremont, CA • VERSABOX interface giving the IIc parallel and serial ports, clock/calendar, up to 128K-byte buffer (connects to IIc's serial port).

Quark Incorporated; Denver CO • Word Juggler word processor, Terminus communications package, and Catalyst hard drive program selector.

Software Arts; Wellesley, MA • VisiCalc, VisiCalc Advanced Version, and TK!Solver equation solving program (yes, the vendor name is correct!).

Software Publishing Corporation; Mountain View, CA • pfs:File, pfs:Report, pfs:Graph, and pfs:Write.

ASHTON-TATE ANNOUNCES FRAMEWORK MULTIFUNCTION PACKAGE Ashton-Tate; 10150 West Jefferson Boulevard, Culver City, CA 90230; 213-204-5570.

Before the applause for Lotus Symphony (see February Spotlight) subsided, Ashton-Tate announced its Framework integrated package. The software package will feature word processing, spreadsheet, graphics, data management, forms processing, and outline generator functions. Both Framework and Symphony represent significant improvements in multifunction productivity software.

Symphony and Framework both may be operated by a wide range of users within fairly "standard" microcomputer environments, and neither package requires a mouse to operate. The initial version of Framework runs on an IBM PC with 256K bytes of RAM, two disk drives, an IBM Monochrome Display and Printer Adapter, and a monochrome monitor.

Ashton-Tate said Framework offers a "tight coupling" with the firm's dBase II database management program, and that Lotus 1-2-3 and ASCII files may be used. Windows (or "frames") are pulled down by the user with keyboard commands to access the different functions. A built-in high-level programming language may be used by more sophisticated users to control and enhance Framework's productivity functions, and to run PC-DOS programs executed from within a frame. As described by the vendor, it seems as if the programming language (called "Fred") is easier to use than the language provided in dBase II and will be learned more quickly by nonprogrammers.

The outline generator function can be thought of as Framework's file manager. On the screen, major file categories are broken down into subcategories much like chapter subheadings in a book's table of contents. The subcategories are actually titles for files which have been created by the user in other Framework functions such as word processing, graphics, spreadsheet, and data management. The files may be opened from within an outline window, and displayed and edited in another window on the screen of the computer. Several different functions may be open simultaneously, including text and graphics. Framework uses character graphics to display graphs and "frames," mandating only a monochrome adapter and monitor. Most other packages using windows or graphics now require a graphics board and a graphics monitor to be installed in the PC.

Ashton-Tate did not provide descriptions of Framework's

word processing, spreadsheet, and graphics features. The company did say the word processor is "full-featured" and that exploded pie charts are possible with the graphics function. It was also indicated that windows can be opened over top of previously opened windows, and that a full-screen view of any function is possible.

Framework will be available for the IBM PC on July 2, according to the vendor. Compatibility with other microcomputer systems was not mentioned in the initial announcement. The price will be \$695.

SOFTWARE PROGRAMS, HARDWARE, AND PC CLUSTER HARDWARE/SOFTWARE PRODUCTS ANNOUNCED BY IBM

International Business Machines (IBM) Corporation, Information Systems Group • National Accounts Division; 1133 Westchester Avenue, White Plains, NY 10604; 914-696-1900 • National Marketing Division; 4111 Northside Parkway, Atlanta, GA 30327; 404-238-2000.

New or revised software packages announced are the IBM DisplayWrite Series for the PC, Portable PC, XT, and PCjr; the Personal Computer DisplayComm Binary Synchronous Communications package for the PC series excluding the PCjr; the 5520/Personal Computer Attachment Program Version 3 for the PC series also excluding the PCjr; PC/Videotex for the PC, XT, and PCjr; PROFS Personal Computer Connection for the PC, XT, and 3270 PC; Interactive System Productivity Facilities for the PC; FORTRAN Compiler Version 2, Pascal Compiler Version 2, Sort Version 1, Print Screen Utility, Script/PC, PlannerCalc, Computers and Communications, PCWriter, and 17 vendor logo programs.

The DisplayWrite Series consists of DisplayWrite 1, DisplayWrite 2, and Legal Support for DisplayWrite 2. DisplayWrite 1 and 2 are menu-driven word processing programs and may merge certain PC-DOS test files in documents. Diskettes may be interchanged between DisplayWrite 1 and DisplayWrite 2. DisplayWrite 1 is a basic word processor for smaller documents, and operates on the PCjr, PC, Portable PC, and XT. The program requires 128K bytes of RAM. DisplayWrite 2 is intended for heavier-duty word processing and is capable of using the DisplayWrite Legal Support package, which provides spelling verification and automatic hyphenation for legal words. DisplayWrite 2 has its own dictionary and spelling program, column layout, four-function math for row or column operations, and a conversion utility to create RFTDCA-compatible documents. DisplayWrite 1 will be available in July for \$95, DisplayWrite 2 in April for \$299, and Legal Support in April for \$165.

Documents created by the DisplayWrite word processing software may be exchanged between the IBM PC Series and the IBM Displaywriter system. IBM Personal Computer DisplayComm Binary Synchronous Communications (BSC) is a software program to allow this exchange. It will transfer RFTDCA documents, PC-DOS ASCII text files, or card image text. The program also supports exchange between the IBM 6670 Information Distributor, the IBM 5520 Administrative System, and the IBM Office System 6. The price of Personal Computer DisplayComm BSC is \$375. The package requires an IBM BSC adapter and PC-DOS Version 2.1.

In conjunction with newly announced support for PC-Displaywriter communications, IBM has announced IBM 5520/Personal Computer Attachment Program Version 3, an



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enhancement to existing software allowing file exchange between the IBM 5520 Administrative System and the IBM 3270 PC, the XT/370, and the IBM Portable Personal. Required are an IBM PC/Display Station Emulation Adapter, an IBM twinaxial cable assembly and T-connector, a terminator (required if the computer is the last on a twinaxial line), or an IBM PC, XT, XT/370, Portable Computer, or 3270 PC. The PC or XT must have an IBM Monochrome or Color display and will run only on PC-DOS 2.1. The program will be available during the third quarter of 1984; users of Version 2 or Version 3 may upgrade for \$100 to \$220, respectively. The program plus the required hardware will be available for \$1,113 including the program, the Emulation Adapter, the T-connector, and the twinaxial cable assembly. Itemized, the prices are: \$384, \$600, \$85, and \$44.25, respectively. The terminator is \$37.75.

PC/Videotex will allow the IBM PC, PCjr, or XT to function as a Videotex terminal to tap Videotex host databases. Videotex allows information to be transmitted over phone lines via graphic "frames." Protocols supported will be those of NAPLPS and IBM Series/1 Videotex. The NAPLPS (North American Presentation Level Protocol Syntax) support will consist of: 320 pixels x 200 pixels; 42 characters per line, 20 lines; 16 colors for the PCjr or XT with a Plantronics COLORPLUS color graphics board; 16 simultaneous colors from a palette of 512 with a Micro Developed Systems REALCOLOR color graphics board. NAPLPS functions not supported will be character rotation, proportional spacing, line texturing, and incremental graphics. PC/Videotex requires 128K bytes of RAM, an asynchronous communications board, a 1200-baud modem, PC-DOS 2.0 or 2.1, and a color monitor. It will be available in October for \$250 on the PC or XT, and \$220 on the PCjr.

IBM's new PROFS Personal Computer Connection will allow users of PCs, XTs, or 3270 PCs to interact with IBM's PROFS (Professional Office System) VM system. The package will run on several PC or XT configurations or on a 3270 PC. Required software packages are PC-DOS 2.0 or 2.1, IBM Professional Office System Release 2 with PTF 01, the new EZ-VU/Runtime Facility, IBM PC 3278/79 Emulation Control Program, and IBM 3270-PC File Transfer installed on the VM host; the IBM 3270-PC Control Program and File Transfer Program (installed on the host) are for use with the IBM 3270-PC Model 2, 4, or 6. PROFS/PC will be available in June for \$200.

Two programmer's aids, called the Interactive System Productivity Facilities, will allow user-friendly screens to be developed which interact with IBM COBOL, FORTRAN, Interpretive BASIC, Compiled BASIC, Pascal, or IBM Macro Assembler programs. The programs are called the EZ-VU Runtime Facility and the EZ-VU Development Facility. Pricing is \$55 and \$130, respectively.

The enhanced versions (both Version 2) of FORTRAN and Pascal offer several improvements over the original releases, including the use of the 8087 Math Coprocessor. The IBM PC Sort Version 1 allows file, record, and address sorting, and supports BASIC, FORTRAN, COBOL, and Pascal data formats and file organizations. The Print Screen Utility Program allows the user to print screens on the IBM Color Printer (5182) from the IBM Color Display (5153). The

programs are \$350, \$350, \$175, and \$35, respectively.

Personal Computer Script is a word processor that has table of contents, indexing, footnoting, and automatic page numbering features, among others. PlannerCalc is an inexpensive spreadsheet program with split-screen capability and if-then-else conditional statements. Computers and Communications requires the Private Tutor program and is intended to teach introductory data communications terms and to show how networks operate. Script/PC is \$275, PlannerCalc is \$79.95, and Computers and Communications is \$35.

PCWriter is the third word processing package in the recent bundle of IBM-developed PC software announcements. The program is designed to look like the IBM 5520 Administrative System and the IBM Datamaster word processing program. Besides basic text editing features, PCWriter contains a dictionary of 120,000 words for spelling correction, and its output may be stored in the revisable form text document content architecture (RFTDCA) format. It is compatible with the IBM PC, XT, and IBM Portable PC. The price is \$199.

IBM also announced several Vendor Logo Programs. They are packages developed and sold by third-party vendors through normal channels which IBM repackages and also sells through authorized dealers and by IBM Product Centers. They are: Ashton-Tate Cdex Training for dBase II (\$69.95); Decision Resources Chart-Master (\$375); Dow Jones & Company Market Analyzer (\$349) and Market Manager (\$299); Graphic Communications Graphwriter (\$395), Graphwriter Combination Set (\$595) and Graphwriter Extension Set (\$395); Software Libraries Information Retrieval (\$395), Project Scheduler (\$285), and Purchase Order Tracking (\$695); MicroRim R:Base Series 4000 (\$495); Multisoft StretchCalc (\$99.95); SORCIM SuperCalc-3 (\$395); Eagle Software Tax Decisions (\$299); Innovative Software T.I.M. IV (\$395); and VisiCorp VisiLink (\$250).

IBM hardware announcements in April included a color monitor for the PCjr, a cable attachment to let PCs and XTs share an IBM 5218 letter-quality printer, and a cable attachment allowing PCs or XTs to exchange files with the IBM Displaywriter. In previous announcements, IBM introduced network hardware and software to interconnect the company's personal computers (see below).

The IBM Displaywriter/Personal Computer Attach Convenience Kit lets the IBM PC, Portable Computer, PCjr, or the XT connect to the IBM Displaywriter word processing system. "Revisable form text document content architecture" (RFTDCA) documents can be interchanged between PC Series computers using IBM's new Displaywrite 2 (see above) software and IBM Displaywriters. PC-DOS text files to be used on a Displaywriter are converted to its format for editing and printing. The Convenience Kit is \$495, a cable is \$295, IBM Wrap Plugs are \$75, and the Attach Program Diskettes are \$300.

The IBM PCjr Color Display (4863 Model 1) is a 13-inch, RGB monitor with a 40x25-character graphics mode and an 80x25-character text mode. The resolution is 320x200 lines. It displays 16 colors and has a speaker and an earphone connector. Controls are provided for brightness, contrast, and volume. The monitor is priced at \$429 and will be



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available in June.

The IBM 5218 Printer Attachment is a 19-foot cable which connects from one to four IBM PCs or XT's in any combination to one IBM 5218 Printwheel Printer Models A03 or A04. The IBM 5218 Printer Sharing device is an electronic card contained in its own cover and a 6-foot cable. A Printer Driver Program is available separately which operates under PC-DOS 1.1, 2.0, or 2.1. An IBM serial board is required in the PC; the IBM XT has this board built-in. The Printer Sharing Device is \$625, the Driver Program is \$175, and the Cable is \$45.

The hardware/software products to support IBM PC clusters include Cluster Adapter for PC, Portable PC, and PC/XT; Cluster Attachment for PCjr; Cluster Cable Kit; and IBM PC Cluster Program. The Cluster Adapter and Cluster Attachment for PCjr provide facilities to attach IBM PCs into a clustered, multiuser environment. The cluster cable kit option provides connection facilities for 2 IBM PCs. Three or more PCs (up to 64) can be interconnected using multiple cluster cable kits, a kit for each PC added. A clustered multiuser configuration consists of a main coaxial cable bus with cable drops to the cluster adapter or cluster attachment. Maximum length of the main 75-ohm coaxial cable is 3,200 feet; maximum cable drop length is 16 feet. The transmission rate is 375K bps. Baseband signaling and bus topology is used. Access to the cable is through a CSMA/CA (Collision avoidance) protocol.

The cable kit consists of the main coaxial cable bus, 2 cable drops, 2 BNC T-connectors, and 2 terminating plugs. The cable drops connect to either the IBM PC Cluster adapter or the PCjr Cluster Attachment. The main coaxial cable length is 32 feet and cable drop length is 9 feet.

The adapter requires a full-sized expansion slot in the IBM PC, Portable PC, PC/XT, or IBM PC Expansion Unit. The new BIOS module is required. The PCjr attachment cannot be installed with the PCjr diskette drive, internal modem, or parallel printer attachment. IBM intends, however, to provide this attachment for all PCjr models in the future.

The IBM PC Cluster is supported by the cluster programs, which provide file transfers, message send/receive, and message broadcast. Cluster programs also provide for a disk server implemented on a PC, Portable PC, or PC/XT with one public read-only volume for the cluster and one private read/write volume per computer in the cluster. The rest of the disk is assigned to the server station. PCjrs without diskette can be downloaded with DOS and an application program.

The Cluster Programs run under IBM PC-DOS 2.1. They may increase the amount of memory required for some programs. The memory required is 29K bytes on the IBM PC, Portable PC, or PC/XT, and 34K bytes on PCjr. The disk server station requires 136K bytes; a cluster with one or more PCjrs must include a disk server.

Purchase price is \$400 for PCjr Cluster Attachment, \$340 for PC Cluster Adapter, \$110 for Cluster Cable Kit, and \$30 for BIOS update kit (for older PCs without new BIOS). Maintenance is unavailable for the cluster cable kit.

One-time license fee is \$92 for one computer and \$400 for 5 computers.

Quantity discounts are available for both the hardware and software. Hardware discount is 5 percent for 3 to 10 units and 8 percent for 11 to 19 units. Software discount is 12 percent for 20 to 49 eligible licenses, 16 percent for 50 to 149 licenses, and 20 percent for 150 or more licenses. First shipments of both hardware and software are scheduled for second quarter of 1984.

■ ANNOUNCEMENTS & NEW PRODUCTS

□ Software

MULTIUSER ELECTRONIC MAIL SOFTWARE FROM ACTION TECHNOLOGIES AVAILABLE ON SEVERAL MICROS Action Technologies Inc; 1804 Broadway Street, San Francisco, CA 94109; 408-946-1400.

Action Technologies (formerly a division of Hermetnet, Inc) has announced the availability of ComNet-8 and ComNet-16 electronic mail software. It is capable of operating in several different microcomputer environments, including networked personal computers and multiuser microcomputers. ComNet was designed for organizations with personal computers or terminals on several employees' desks and with the need to improve written and spoken communications between those employees. Action Technologies announced its first product (ATOM—Automated Tools for Office Management) in November 1983 and was incorporated under the current name in March 1984.

The informal interpersonal communications system in most organizations works because conscientious employees make it work. Unfortunately, the manual system will never prevent an employee from visiting the water cooler or taking a cigarette break, hence missing phone calls or important visits from other employees. ComNet was designed to relieve the interoffice communications system from "telephone-tag" and other human inefficiencies. Messages are typed into an intelligent workstation or microcomputer and automatically delivered to a specified person. The package lets the originator trace his/her messages until they are answered. The status of each message is recorded as not yet read (by the addressee), read but not answered, answered, deleted, copied, or filed away. A filing system for messages may be designed to categorize messages using "keywords." Data and text files may be transferred between users.

Action Technologies said private-label agreements have been made with TeleVideo, Corvus, Eagle Computer, Alspa Computer, XCOMP, and Advanced Information Management (AIM) to market ComNet-8 and ComNet-16.

Separate microcomputer networks running under different operating systems may be "connected" via ComNet-8N or ComNet-16N internetworking communications packages. ComNet-8N and ComNet-16N will work with any TeleVideo personal computers and terminals which can be networked, according to the company.

ComNet-8 and ComNet-16 have a suggested retail price of \$395. ComNet-8N and ComNet-16N have a suggested retail price of \$495. The company said the products are currently available from OEMs, system integrators, manufacturers, distributors, and a direct sales force.

CORVUS UNWRAPS OMNINET EMULATION SOFTWARE FOR IBM XT Corvus Systems, Inc; 2100 Corvus Drive, San Jose, CA 95124; 408-559-7000.



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Corvus has announced a hardware/software package allowing an IBM XT to join an OmniNet network for \$795. Called OmniShare, the product includes emulation software, an interface, and a cable. The software allows IBM PCs and IBM XTs to share the fixed disk on which it is installed.

Fixed-disk space allocated to the host XT and space to be shared by the network are determined by the user. Additional mass storage is possible with the new OmniDrive fixed Winchester drives also introduced by Corvus. Spooling of files in a pipe area on the XT's 10M-byte fixed disk allows information to be printed or sent to another user.

The new OmniDrive fixed Winchesters have the OmniNet Disk Server built in. Previously it was purchased separately. Prices for the new products are \$795 for OmniShare, and \$1,995, \$2,495, \$3,195, and \$4,495 for 5.5M-byte (formatted), 11.1M-byte (formatted), 16.6M-byte (formatted), and 45.1M-byte (formatted) OmniDrives, respectively. Network software is required for the OmniDrive subsystems; it is available for \$395 for Apple computers and \$495 for others. The current Corvus fixed Winchester products will be available for a limited time.

ENHANCED CP/M AND 7 POPULAR PROGRAMS AVAILABLE FOR EPSON QX-10 Epson America; 3415 Kashiwa Street, Torrance, CA 90505; 213-539-9140.

A new version of the CP/M operating system has been introduced for the 8-bit QX-10 desktop microcomputer by Epson America. Version B-2.20 of CP/M accesses all the QX-10's memory and makes use of the system's basic English (HASC) function keys. Version B-2.20 also has a 111K-byte RAM disk capability. It will be available for a "nominal charge" to present QX-10 owners, and the company will continue to bundle the VALDOCS package with the QX-10 hardware.

Epson also said seven programs, including WordStar, SpellStar, MailMerge, Graphplan, Microplan, Friday!, and dBase II, are available for the QX-10s using the new B-release version of CP/M. According to Epson, the programs support the HASC keyboard. Pricing is \$495 for WordStar, \$250 for both SpellStar and MailMerge, \$295 for Graphplan, \$495 for Microplan, \$295 for Friday!, and \$700 for dBase II.

MATHEMATICA ANNOUNCES MICRO-MAINFRAME LINK FOR RAMIS II Mathematica Products Group, Inc; P.O. Box 2392, Princeton, NJ 08540; 609-799-2600.

Joining the ranks of so many other major DBMS manufacturers, Mathematica Products Group has announced the availability of RAMlink, a mainframe/micro link component for their RAMIS II database management system that works in conjunction with IBM PC and PC/XT microcomputers. The new product connects the relational DBMS on the mainframe with a number of personal computer software packages such as VisiCalc, Lotus 1-2-3, and KeepIT from MPG's ITSoftware series. Through the use of simple commands, the user can upload or download data between the mainframe and the micro. Data transfer from the mainframe is requested by adding a TRANSFER phrase to a standard TABLE request at the micro level. Similarly, RAMlink enables PC data to be used directly as transactions in a mainframe file maintenance request. RAMlink automatically reformats data into DIF format for those micro

programs requiring it, and reformats data into comma delimited and sequential fixed format for BASIC programs and word processing.

RAMlink provides users with access to VSAM, ISAM, and SAM files as well as RAMIS II, IMS/VIS, DOS/VIS DL/1, IDMS TOTAL, and ADABAS databases. With RAMlink, PCs have full-screen 3270-type terminal access to all capabilities of RAMIS II on the mainframe through a modem requiring no additional protocol conversion hardware. RAMlink also supports the IRMA board for 3270 emulation. Full-function key and mouse support are available to users with RAMlink. It also provides an automatic dialing feature, "hot key" transfer in and out of the main RAMlink menu, and full online HELP facilities. RAMlink is a fully integrated component of the RAMIS II system. The mainframe RAMlink component of RAMIS II is priced at \$4,500 to \$9,000, based on the performance level rating of the CPU. The RAMlink floppy diskette for the IBM PC or PC/XT is priced at \$185 per unit. Discounts for multiple diskettes are available at 10% for 5 to 9 diskettes, 15% for 10 to 24, 20% for 25 to 49, 25% for 50 to 99, 30% for 100 to 249, and 33% for more than 250 diskettes.

MICROPRO UNVEILS NEW SPELLER; WORDSTAR ON TANDY 2000 MicroPro International Corporation; 33 San Pablo Avenue, San Rafael, CA 94903; 415-499-1200.

MicroPro has filled what many users term a "gap" in their product line with a new spelling checker called CorrectStar. The new program may be substituted for SpellStar in 16-bit environments, giving the user a more comprehensive dictionary of words. MicroPro collaborated with Houghton Mifflin company in the development of the lexical algorithm used by CorrectStar.

CorrectStar will find misspellings and typographical errors, and will suggest correct alternate words. It draws from a 65,000-word database derived from Houghton Mifflin's **American Heritage Dictionary** database. MicroPro's SpellStar has drawn complaints from users that too many commonly used words are flagged as misspelled, only because the program's dictionary is too small (20,000 words) to catch them. CorrectStar not only has a larger dictionary, but it analyzes words based on language patterns and on phonetic and linguistic principles. It suggests a most likely replacement and will display more than one choice for a word. The program may be run directly from WordStar on 16-bit machines only, and requires 192K bytes of RAM. Formats are available for the IBM PC or XT, and should be available shortly for the Radio Shack Model 2000, the DEC Rainbow, and the TI Professional.

CorrectStar is priced at \$195.

In recent announcements, MicroPro also announced the availability of WordStar and the WordStar Professional Package on the Tandy/Radio Shack Model 2000. The Professional Package includes WordStar, WordStar Tutor, CorrectStar, MailMerge, and Star Index. MicroPro said the Tandy WordStar version is "one of the fastest implementations on any personal computer." The Model 2000's 12 function keys are supported and may be redefined by the user. The packages will be marketed by Tandy through Radio Shack stores and by dealers ordering through Tandy's Express Order Software program.



Data Decisions News

THREE MULTIUSER PACKAGES AVAILABLE FOR TANDY MODEL 16B

Tandy Corporation/Radio Shack; 1800 One Tandy, Center, Fort Worth, TX 76102; 817-390-3300.

Tandy/Radio Shack will be offering three additional multiuser software packages to run on the TRS-80 Model 16B under XENIX. Since January 1983, Tandy has been bundling XENIX with the 16B. The company claims that it has the largest number of installed UNIX-based operating systems. XENIX is Microsoft Corporation's version of AT&T's UNIX multiuser operating system. "We feel well equipped to compete in the UNIX multiuser segment of the microcomputer market. The Model 16B has been a strong part of our product line, and we see it growing in importance as overall demand for UNIX/XENIX operating systems also increases," said John Roach, Tandy's chairman of the board.

Two of the new products are Tandy developed. They are the Profile 16 multiuser database and the SCRIPTSIT word processor. The third is the Unify relational multiuser database, developed by the Unify Corporation. Reportedly, multiple simultaneous users of Unify may access a database with no performance slowdown. The packages are available in Radio Shack Computer Centers, Radio Shack Stores, and at "participating" Radio Shack dealers. Unify is \$750, and the others are \$499 each.

□ Hardware

TWO DOT-MATRIX PRINTERS ANNOUNCED BY CENTRONICS

Centronics Data Computer Corporation; 1 Wall Street, Hudson, NH 03051; 603-883-0111.

Centronics announced two dot-matrix printers for use with personal computers. Both printers have correspondence-quality printing capabilities, according to the manufacturer. The Model H80 is an 80-character printer, and the Model H136 is a 136-character wide carriage printer. They have been designated the Horizon Series.

Both printers handle single-sheet letterhead and include pica and elite fonts. They print 160 cps in draft mode and 27 cps in correspondence mode. The printers also feature overstrike, condensed, expanded, superscript, and subscript printing. Standard are adjustable tractor feeds, graphics in seven densities, italics, and resident international character sets.

The price for the H80 is \$699, and the H136 is \$899. The printers have a one-year OEM Parts Warranty. The H80 is available now, and the H136 will be available in June.

COMPUPRO 16-BIT MULTIUSER MICRO INTRODUCED

CompuPro; 3506 Breakwater Court, Hayward, CA 94545; 415-786-0909.

CompuPro introduced the System 816/F at the West Coast Computer Faire in San Francisco. The microcomputer is quoted by the company as "the fastest multiuser 16-bit system available." The system is based on an Intel 80286 microprocessor operating at 6 MHz, with an 80287 math coprocessor. It meets the IEEE-696 standard and runs either the CP/M-86 single-user operating system or the MP/M-86 multiuser operating system. The company did not state plans for additional software to be available for the computer.

The system includes a disk emulator, 512K bytes of battery backed-up RAM expandable to 16M bytes, 12 serial ports, one Centronics parallel printer port, one parallel port, a clock/calendar, interrupt controllers, interval timers, 1.2M-byte floppy drive storage, and 40M-byte fixed

Winchester storage.

The list price of the System 816/F is \$14,995. It will be available during the third quarter of 1984. The computer will be sold by 70 CompuPro Full-Service System Centers and by 1,500 dealers.

EPSON OFFERS 16-BIT PLUG-IN BOARD FOR MODEL QX-10

Epson America; 3415 Kashiwa Street, Torrance, CA 90505; 213-539-9140.

Epson will distribute a board developed by Titan Technologies which allows the 8-bit QX-10 CP/M-based computer to run the 16-bit MS-DOS operating system. Currently, the QX-10 is limited to CP/M-80 programs compatible with the system's disk drive format and Epson's proprietary VALDOCS office productivity software. The board expands the RAM of the QX-10 by 192K bytes and is called the QX-PC. The price of the QX-PC is \$795 and will be available from authorized Epson dealers.

TOUCH-SCREEN MONITOR UNVEILED BY MICROTUCH

MicroTouch Systems Inc; 400 West Cummings Park, Woburn, MA 01801; 617-935-0080.

The first touch-screen monitor available to the public from a third-party manufacturer was announced by MicroTouch Systems of the Route 128 technology belt in Massachusetts. The product is named the Point-1 Personal Computer Monitor. The monitor is advertised as compatible with most microcomputers equipped with an RS-232C asynchronous (serial) interface. The company did not specify with which computers, but the Point-1 is pictured in a brochure with an IBM PC.

The display is a 12-inch, green or amber anti-glare display which allows input to the computer via the touch of a finger. Presently, Hewlett-Packard is packaging a similar monitor with a personal microcomputer system; rumor has it that Digital Equipment will offer a touch screen, and the traveling public is being exposed to the concept at airports, amusement parks, and world fairs. Angled at 35 degrees, the display was designed for extensive finger-touch control.

An RS-232C serial interface communicates with the computer at 110 to 9600 baud. With a conversion speed of 100 points per second and resolution of 1024x1024 points, software can be developed to allow touch input anywhere on the screen. Hardware included is an R65F11 microprocessor and a FORTH interpreter in ROM (read-only memory). Software is provided for system developers to define and manage touch-sensitive zones, and to design interactive screen layouts. Pricing and distribution information was not available.

NEW LETTER-QUALITY PRINTER INTRODUCED BY SILVER REED

Silver Reed America, Inc; 19600 South Vermont Avenue, Torrance, CA 90502; 800-421-4191 or 800-252-7760 (in California).

Silver Reed has added the Model EXP 770 printer to its line of daisywheel technology printers. The EXP 770 emulates the Diablo 630 printer, which is frequently used as a model for compatibility tests. The printer features bidirectional printhead movement, a 2K-byte RAM buffer expandable to 48K bytes, boldface, superscript, and subscript. The manufacturer said the printer will print 36 cps. The price of the EXP 770 is \$1,295. Silver Reed did not indicate if a tractor feed is available or standard.



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SPERRY CORPORATION ANNOUNCES MAPPER 5 AND MAPPER 6 MICROCOMPUTER SYSTEMS Sperry Corporation, Computer Systems; P.O. Box 500, Blue Bell, PA 19424; 215-542-4213/2504.

On April 2, Sperry premiered two microcomputers that are part of the MAPPER Series. Both the MAPPER 5 and MAPPER 6 configurations consist of an 8-MHz, 16-bit (word) Motorola 68010 microprocessor with a discrete Virtual Memory Management Unit for virtual address translation. Each processor cabinet houses a 655K-byte floppy disk drive, an interface for attaching hard disk storage, an asynchronous port for the attachment of an optional 400-cps printer, 3 dual RS-232C synchronous communications ports to support Sperry's UTS 20, UTS 30, and UTS 60 display stations and the Sperry Personal Computer, and 3 RS-232C synchronous communications ports to handle the Sperry micro-to-micro and micro-to-Sperry or -IBM mainframe network communications. Minimum hard disk storage is 28.5M bytes and maximum storage is 57M bytes.

Both the Sperry MAPPER 5 and MAPPER 6 are based on the MAPPER software. The MAPPER software allows easy applications generation and is found on the larger MAPPER 10 System and on the large Sperry 1100 Systems. All versions of MAPPER support a multiuser environment with MAPPER 5 and MAPPER 6 allowing connectivity to other systems. MAPPER 5 Systems can be connected to other MAPPER 5 Systems through a "ring"-like structure or to a Sperry 1100 System for access to corporate information. The MAPPER 6 System can be connected to other MAPPER 6 Systems or to an IBM 370, 30XX, or 43XX host.

TANDY/RADIO SHACK INTRODUCES LOW-COST DOT-MATRIX PRINTER Tandy Corporation/Radio Shack; 1800 One Tandy Center, Fort Worth, TX 76102; 817-390-3300.

Tandy/Radio Shack has introduced the TRS-80 DMP-110 dot-matrix printer. It includes both parallel and Color Computer serial interfaces, allowing compatibility with any TRS-80 microcomputer, and feeds single-sheet or fanfold paper. Print speed is 25 cps in correspondence-quality mode and 50 cps in draft mode. The DMP-110 has pin-addressable graphics in 7- or 16-dot columns, and will print in italics, expanded, or half-high fonts. The printer will do underlining, superscript, and subscript. The price of the DMP-110 is \$399.95, and it is available at Radio Shack Computer Centers and at "participating" Radio Shack Stores and Dealers.

■ CALENDAR OF EVENTS

□ May 1984

May 20-24 - FUSE (FOCUS Users Group) • Orlando, FL **Contact** David Shapp; 212-517-3736 or Debby Molodofsky, Information Builders, Inc, 1250 Broadway, New York, NY 10001; 212-736-4433.

May 21-24 - Communication Networks Conference and Exposition • Washington, DC **Contact** Louise Myerow, Communication Networks, Box 880, Framingham, MA 01701; 800-225-4698 or 617-879-0700.

May 22-25 - COMDEX/Spring '84 • Atlanta, GA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

May 29-31 - Gulf Coast Computer & Office Exhibition • New Orleans, LA **Contact** Gulf Coast Computer & Office Show, 119 Avant Garde Circle, Kenner, LA 70062; 504-467-9949.

□ June 1984

Jun 4-7 - A/E Systems '84 • Baltimore, MD **Contact** Karen Gosselin, MRH Associates, P.O. Box 11318, Newington, CT 06111; 203-666-9487.

Jun 12-14 - Information Management Exposition & Conference for Software • Chicago, IL **Contact** Clapp & Poliak, 708 Third Avenue, New York, NY 10017; 212-370-1100.

Jun 14-17 - Los Angeles Byte Computer Show • Los Angeles, CA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

Jun 15-16 - Sybex Computer Pioneer Days • San Francisco, CA **Contact** Sybex Pioneer Days, 2344 6th Street, Berkeley, CA 94710; 415-848-8233.

Jun 19-21 - Computerized Office Equipment Expo (COEE) • Rosemont, IL **Contact** Janet Schafer, Cahners Exposition Group, Cahners Plaza, 1350 East Touhy Avenue, P.O. Box 5060, Des Plaines, IL 60018; 312-299-9311.

Jun 26-28 - PCExpo • New York, NY **Contact** PCExpo, 333 Sylvan Avenue, Englewood Cliffs, NJ 07632; 201-569-8542.

□ July 1984

Jul 9-12 - National Computer Conference • Las Vegas, NV **Contact** AFIPS, Marty Byrne, 1899 Preston White Drive, Reston, VA 22091; 703-620-8926.

□ September 1984

Sep 11-14 - UNIX Systems Expo/84 • Los Angeles, CA **Contact** Computer Faire, 181 Wells, Newton, MA 02159; 617-965-8350.

Sep 12-14 - SOFTWARE/Expos • Chicago, IL **Contact** Pemco, 2400 East Devon Avenue, Suite 205, Des Plaines, IL 60018; 312-200-3131 or 800-323-5155.

Sep 19-20 - Federal Computer Conference • Washington, DC **Contact** Federal Computer Conference, P.O. Box 368, Wayland, MA 01778; 617-358-5301.

Sep 19-20 - Personal Computer Userfest/NY • New York, NY **Contact** Northeast Expositions, 822 Boylston Street, Chestnut Hill, MA 02167; 617-739-2000.

□ October 1984

Oct 16-18 - UNIX Expo • New York, NY **Contact** National Expositions Company, Inc, 14 West 40th Street, New York, NY 10018; 212-391-9111.

• END

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NEWS

microcomputers

20 BRACE ROAD, CHERRY HILL, NJ 08034 • 609-429-7100 • MARCH/APRIL 1984 • VOL 1 • NO 2

UPDATING MATERIAL

March/April 1984

This is the March/April supplement of MICROCOMPUTERS. It is issued as a combined supplement to bring your MICROCOMPUTERS reference service to the current month. Subsequent supplements will appear on a monthly basis and will include one month's report coverage.

In addition to this Newsletter, the March/April Updating Material includes the reports described below. Please see the Microcomputers volumes to refer to these reports.

Technology Reports • describe current technology being implemented in microcomputers or market-related studies about microcomputers:

- The report on **How PCs Get To Market** provides a current review of distribution channels for microcomputers in a corporate environment. It focuses on direct and indirect channels of distribution for PCs, but also describes new marketing methods being employed, such as Merchandise Marts and Electronic Software Distribution.

Survey Reports • provide profiles at-a-glance by product type:

- The **Spreadsheet** survey provides summary descriptions on 46 spreadsheet programs marketed by 40 vendors for use in a corporate environment. The survey is presented in a dot chart format indicating system compatibility and 18 feature categories; it is followed by a brief summary in narrative form which describes product type, hardware/software required, command entry method, spreadsheet size, description of features, and price.
- The **Word Processor** survey provides summary description on 47 word processor packages from 45 vendors for use in a corporate environment. The survey is presented in a dot chart format indicating system compatibility and 19 feature categories; it is followed by a brief summary in narrative form which describes product type, hardware/software required, Help facilities, description of features, printers supported, and price.

Software Product Reports Featuring Hands-On Evaluation • provide detailed analysis of key software products which are tested in our labs:

- The **BROCK Software Keystroke** data management report is an in-depth analysis of this free-form, relational database management program.
- The **Broderbund Software Bank Street Writer** reports on this \$70 word processor program which includes report production and correspondence capabilities.
- The **Concentric Data Systems C.I.P.** report provides an

Please Route To:

analysis of this second generation DBMS and report writer package.

- The **DataViz OneShot** report analyzes in detail this data format converter. The package converts data in print/image format into file formats for use in popular spreadsheets and data management programs.

- The **Haba Systems III E-Z Pieces** report provides an analysis of this integrated spreadsheet, word processor, and data management package for the Apple III and III Plus.

- The **Harvard Software Project Manager** report analyzes this project planning and control package.

- The **IBM Personal Editor** report analyzes this \$60 text editor.

- The **Information Unlimited Software EasyWriter II** report provides a detailed analysis of this word processor package which includes facilities to generate form letters, labels, and mailing lists.

- The **Jupiter Island Colortext** report provides an analysis of this printer utility program.

- The **Microsoft Multi-Tool Budget** report provides an in-depth analysis of this cost-accounting system for the generation and monitoring of business operating budgets.

- The **Microsoft Multi-Tool Financial Statement** report provides a detailed analysis of this Multiplan template generator for the production of corporate financial statements and financial ratio analysis worksheets.

- The **Palantir Software Palantir Word Processor** report analyzes this descendent of the Magic Wand word processor.

- The **Pearlsoft Personal Pearl** report analyzes this database filing and reporting system which was developed for the non-DP person to enter data and produce reports for mailing lists, inventory control, etc.



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• The **ReadiWare Systems ReadTerm** report provides an analysis of this terminal emulation program.

• The **SORCIM SuperCalc-3** report analyzes this integrated spreadsheet, data management, and graphics package.

Microcomputer Systems Reports • provide detailed analysis of key microcomputer systems:

• The **Apple Lisa** report was updated to include the 3 new models in the new Lisa 2 Series: the Lisa 2, the Lisa 2/5, and the Lisa 2/10.

• The **IBM PC and PC/XT** report was updated to include the

new Portable PC and the expanded communication/mainframe attachment capabilities.

• The **IBM PCjr** report was updated and reissued as a separate report. It includes complete Analysis, Strengths, and Limitations sections and a discussion of the new cluster controller introduced by IBM.

• New reports are issued for the **Bytec-Hyperion**, the **Sharp PC-5000**, the **DEC Professional Series**, the **Zenith 100**, the **Fortune 32:16**, the **North Star Advantage and Horizon**, the **TeleVideo IBM PC Compatibles**, and the **TeleVideo 8-bit Systems**.

■ THIS MONTH'S TEST RESULTS

□ Spreadsheet Software

Haba Systems III E-Z Pieces • Besides being the only integrated software package that we know of on the Apple III, III E-Z Pieces is also a fine piece of software.

Overall Package Quality Rating: 7.4*

Microsoft Multi-Tool Budget • Though its slightly simplified approach to cost accounting may not be appropriate for large and complex business operations, it should be a worthwhile tool for small- and medium-sized businesses.

Overall Package Quality Rating: 6.6*

Microsoft Multi-Tool Financial Statement • It would be a welcome program if it would do some of the work in gathering, consolidating, and calculating the numbers that it needs to perform its function. For businesses that already have programs that do these operations, taking the last step in creating a financial statement is not that difficult.

Overall Package Quality Rating: 6.1*

SORCIM Corporation SuperCalc-3 • Though SuperCalc-3 performs some functions better and with more ease than the current leader in the spreadsheet arena (Lotus 1-2-3), it lacks just enough of the finer features of 1-2-3 to keep it from taking over the top spot.

Overall Package Quality Rating: 7.3*

□ Spreadsheet Utilities

DataViz OneShot • For instances where data is currently being re-keyed to get text into spreadsheet form, the product will find immediate and on-going use. With the new-found ability to easily utilize as much data as is available, it would be extremely difficult to take this product away from an existing user.

Overall Package Quality Rating: 7.3*

□ Data Management Software

BROCK KEYSTROKE Data Base • Along with the normal simple functions of a database system, KEYSTROKE has some very powerful options, such as the ability to merge with other Apple III programs and to cross-reference files.

Overall Package Quality Rating: 6.6*

Concentric Data Systems C.I.P. • In organizations where

technical support is difficult to obtain but where some degree of application independence exists, C.I.P. may be applicable where more complex products would not be.

Overall Package Quality Rating: 5.7*

Pearlsoft Personal Pearl • As long as the data does not have to be extensively processed once it is entered, Personal Pearl is a good, easy-to-use software package.

Overall Package Quality Rating: 7.0*

□ Word Processor Software

Broderbund Software Bank Street Writer • Bank Street Writer lacks many of the more sophisticated features of more expensive programs, but it was not really designed for professional use.

Overall Package Quality Rating: 5.6*

Information Unlimited Software EasyWriter II • Designed to be an easy-to-use, menu-driven program suitable for both experienced personnel and the relative novice. In its full-featured form, which includes a spelling check utility and a form letter utility, it offers good functionality.

Overall Package Quality Rating: 6.1*

Palantir Software Palantir • It currently contains most of the functionality which one expects to find in a good word processor and, in addition, has a "programming language" called Mailout, which provides the capability to alter the document as it is being printed.

Overall Package Quality Rating: 6.6*

□ Text Editor Software

IBM Corporation Personal Editor • For basic text entry and manipulation of up to 20 files in memory, Personal Editor is an excellent choice.

Overall Package Quality Rating: 7.0*

□ Communications Software

ReadiWare Systems ReadTerm • If you want to provide some level of in-house expertise to support this product, it will function well. If not, another choice might be advisable.

Overall Package Quality Rating: 5.3*

□ Project Planning Software

Harvard Software Project Manager • Project planning tasks are



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associated with nearly every type of organization. Some may be able to justify a computer system on such tasks, but even those which cannot (providing they have some other justification and therefore gain access to a system) will find the Harvard Project Manager a useful tool in scheduling.

Overall Package Quality Rating: 6.2*

□ Printer Utility Software

Jupiter Island Colortext • This is not a generalized product, one which all businesses will find immediate use for. Companies who own an IDS printer and who desire to use its advanced color test features for slides, etc., will find Colortext well worth the price.

Overall Package Quality Rating: 6.2*

□ Microcomputer Systems

Apple Lisa 2 • In addition to introducing its highly publicized Macintosh system, Apple also unveiled a new version of Lisa which replaces the initial system. The new Lisa 2, available in 3 configurations, comes bundled with less memory (512K bytes as opposed to the initial 1M bytes of memory); a 3.5-inch microdiskette which replaces the system's 5.25-inch drives and makes it disk-compatible with Macintosh; an upgraded operating system which is reported to be 2 to 3 times faster than the original system; and the capability of running Macintosh software.

Bytec-Hyperion • As compatible as the Hyperion is, it is still not the IBM PC. Software of interest should be tested for compatibility prior to purchase. Bytec-Hyperion does provide results of testing in the form of a compatibility list. It is advisable to refer to this list prior to acquiring the Hyperion or additional software.

Digital Professional 300 Series • The Professional has undergone a major overhaul since its introduction and now boasts a larger software base, enhanced standard features, and greater storage capacity. Software additions include an enhanced P/OS operating system, plus the availability of UNIX System 7, RT-11, and CP/M-80 operating systems, the Professional Tool Kit, and various applications packages. The system's base configuration now includes 512K bytes of memory and floating-point hardware while the disk storage capacity has been increased to 10M bytes.

Fortune Systems Fortune 32:16 • The operating system used (UNIX-based FOR:PRO) is much more sophisticated than those used on single-user systems. In many cases, retail dealers do not have the time nor the support staff to understand the system, and thus unknowledgeable first-time users might have a difficult time with the operation of the system.

IBM PC 1, PC/XT & Portable PC • The secret of the popularity of the PC is the way IBM approached the third-party market. By choosing an open architecture and by providing assists

for third parties to develop hardware as well as software, IBM allowed an unprecedented market development activity.

IBM PCjr • It would be unfair to compare the PCjr to its bigger brother—the IBM PC—since they are not meant for the same audience. The system makes an ideal home unit for those who have an IBM PC in the office, and sometimes need to work at home. It is also targeted at the educational market and might fit nicely in the business environment as a low-end communications terminal.

Sharp PC-5000 • The size, weight, and capabilities of the PC-5000 are all to be applauded. It's small enough to fit in a briefcase, weighs only 13 pounds with an integral printer, isn't excessively expensive, and provides sufficient computing power and major types of applications for professionals who are always on the go. The major tradeoff Sharp made to provide such a compact portable was in the display capabilities.

TeleVideo IBM PC Compatibles • The new Tele-PCs have the luxury of being introduced into a mature and prospering MS-DOS-/PC-DOS-compatible software base. Being highly compatible with the IBM PC, the immediate future of software availability is assured.

TeleVideo 8-bit Systems • TeleVideo has made it clear to its dealers, and it hopes to the public, that it intends to continue to support and develop its 8-bit line. It seems prudent to remind ourselves that, as has been true so many times in the past, only time will tell.

Zenith Data Systems Z-100 • The operating systems that are supported on the Z-100 are Z-DOS (Microsoft MS-DOS based), and CP/M. This allows for a huge quantity of software which is available for a user to choose from.

■ MAGAZINE ROUNDUP

Of the hundreds of articles appearing this past month, the following were selected as worthy of bringing to your attention. Each contains valuable information and is well written. Our editors believe these articles are the cream of the crop for the past month. Many other articles of special interest for specific purposes were also published. Omission of mention of these articles does not imply a low value judgment but rather an opinion of limited general interest.

• "The Key to Mainframe Communications" is an informative article discussing micro-to-mainframe software and hardware and the direction of the market. Several products are briefly discussed. Good snapshot of the current products available from some large vendors. 6 pages. InfoWorld, March 12, p. 24.

• "The Apple Macintosh Computer" is an in-depth discussion of the new computer system. This article is useful for technical and non-technical personnel. 19 pages. Byte, February, p. 30.

• "Review: Davong Hard Disk System" reports on the Davong fixed disk drive and Multi-OS. Good for current owners of Apple II series, Apple IIIs, and IBM PCs who are evaluating alternative fixed disks. 2 pages. InfoWorld, March 5, p. 54.

• "Battle of the Baby Blue Boxes" discusses the implications of the IBM 3270 PC and the XT/370 on the personal

"For a thorough evaluation of the product please refer to the full-length product report filed alphabetically by vendor name in the 800 section of Volume 2. For a description of the methodology used in the software evaluation please refer to the Software Evaluations report behind the Packages By Vendor (800) tab—Filing Sequence Number 805."



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computer and terminal marketplace. Analysis of IBM's strategy includes a look at competition within IBM's product line and some discussion of 3270-compatible third-party products. 3.5 pages. Datamation, February, p. 113.

- "A First Look at PC-IX" is a report of the writers' impressions of IBM's newly announced PC-IX, a version of AT&T UNIX System III. A useful but shallow evaluation of the operating system. 2.5 pages. InfoWorld, April 2, p. 39.

- "The IBM CS-9000 Lab Computer" is a discussion of a system now being repackaged and renamed the "System 9000 Series" (see Spotlight article in this newsletter). Useful for people investigating the system for lab use. 9 pages. Byte, February, p. 278.

- Seven Cover Stories on integrated micro software. Coverage includes an overview of the current offerings by major vendors, tables revealing current vendors of integrated workstations and integrated (multifunction) software, an analysis relating business user needs to future development efforts, and discussion of the levels of integration available in current products. 9 pages. Software News, February, p. 25.

- "Review: Visi On Applications Manager" evaluates VisiCorp's Applications Manager for the company's Visi On productivity packages. Performance, Documentation, Ease of Use, and Error Handling are the criteria for rating the system. Report is useful for current personal computer users investigating integrated spreadsheet, data management, word processing, and graphics software. 3 pages. InfoWorld, March 12, p. 45.

■ SPOTLIGHT

AT&T GETS FOOT IN DOOR WITH NEW SUPERMICRO: SYSTEM LINKING SMALLER MICROS ALSO ANNOUNCED
AT&T, General Office; 195 Broadway, New York, NY 10038; 212-393-9800.

AT&T will market a supermicrocomputer along with 5 minicomputers of varying sizes. The supermicro is named the 3B2/300 and is the smallest of the new 3B line. All the 3B systems run the AT&T UNIX Version V. Also announced was a system, called PC Interface, allowing personal computers to be interconnected and to share files stored by the 3B2/300.

The 3B2/300 comes into the micro market at the high-end performance level. It supports up to 18 users, runs UNIX Version V, and incorporates 32-bit architecture. Combined with AT&T PC Interface, the 3B2/300 may be linked to microcomputers running the MS-DOS operating system. This will allow personal computer users to download and upload files and to share printers and disk drives.

A basic AT&T 3B2/300 computer is priced at \$9,950 for a 256K-byte RAM system unit without terminals. Pricing was not announced for PC Interface.

IBM INTRODUCES A NEW VERSION OF ITS 68000-BASED SUPERMICRO International Business Machines (IBM) Corporation, Information Systems Group; 900 King Street, Rye Brook, NY 10573; 914-934-4000 • National Accounts Division; 1133 Westchester Avenue, White Plains, NY 10604; 914-696-1900 • National Marketing Division; 4111 Northside Parkway, Atlanta, GA 30327; 404-238-2000.

IBM has quietly announced its 9002 Desktop Computer based on the 32-/16-bit Motorola 68000 microprocessor. The 9002 Desktop is a new model of the System 9000 series,

formerly known as the IBM Instruments Computer. It was designed for engineering, scientific, and business use when the application calls for no more than four users. The 9002 runs the Microsoft XENIX operating system derived from AT&T UNIX Version 7. The 9002 is a more powerful microcomputer than the company's IBM PC/XT due to its 32-bit processing speed combined with its multiuser, multitasking capabilities. It was developed within the IBM Instruments Division, separately from the IBM division which developed the IBM PC.

The 9002 is based on the same internal architecture as the 9001 Bench-Top Computer. The 9002 takes less desktop space (288 square inches versus 401 square inches), does not have a printer as a standard feature, and integrates a function keypad with a typewriter-style detached keyboard. The 9002 is compatible with the 9001 in software and hardware.

Standard in the 9002 are a Motorola 68000 32-bit microcomputer with 16-bit data paths operating at 8 MHz, 128K bytes of RAM optionally expandable to 5.2M bytes in 256K-byte increments, 128K bytes of ROM, monochrome graphics, a parallel printer port, a keyboard with a function keypad, and a five-slot expansion feature. A CRT, diskette drives, and fixed disk drives are optional.

The optional CRT is a 12-inch, tilt-swivel, high-resolution (768x480 dots), green-on-black screen displaying 80 characters x 30 lines. Ten function keys are built into the screen along the bottom edge. An optional 5.25-inch diskette drive may be built into the CRT cabinet, vertically mounted to the right side.

The keyboard is a detached, 83-key typewriter-style keyboard with 10 programmable function keys and a 57-key membrane keypad above the top row of keys. The layout of the keyboard is identical to that on the PC series.

Optional disk drives include a 5.25-inch, 640K-byte (formatted) diskette drive (purchased with the optional CRT), a cabinet with single or dual 5.25-inch, 640K-byte (formatted) diskette drives, a cabinet with single or dual 8-inch, 985K-byte (formatted) diskette drives, and a cabinet with single or dual 10M-byte fixed disk drives. A maximum of four diskette drives or four fixed disk drives may be attached to the 9002. A controller is required for fixed disk use.

The XENIX operating system gives the 9000 its multiuser (up to four users), multitasking abilities. A fixed disk drive is required. Standard with XENIX are a full-screen editor, program development tools, and the "C" language compiler. FORTRAN, Pascal, and RM/COBOL compilers are also licensable for the 9000. The XENIX compiler is available through the Instruments Division only.

Pricing for the 9002 base unit is \$6,495. A 9002 with XENIX, one diskette drive, a 10M-byte fixed disk drive, and additional memory is \$15,960. FORTRAN and Pascal are \$595 for a one-time license, and RM/COBOL is \$1,250. Volume discounts are available on all the new products, which are due to be available in the second quarter.

ASHTON-TATE ANNOUNCES MULTIUSER VERSION OF DBASE II Ashton-Tate; 10150 West Jefferson Boulevard, Culver City, CA 90230; 213-204-5570.

Ashton-Tate has announced a multiuser version of its dBase



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II relational database management system for microcomputers.

This new version supports up to 4 users and allows them to share information, but only allows one user at a time to make changes. Currently, the database manager will run under Musys Corp's TurboDOS operating system and support 3 Com Corp's Etherseries local area network, which is based on Xerox Corp's Ethernet. The package will operate on IBM Personal Computers with fourth quarter scheduled availability for Apple Computer's Lisa II.

Price of the 4-user system is \$1,000, scheduled for availability on May 4, 1984.

ZENITH DATA SYSTEMS ENTERS IBM PC-COMPATIBLE AND TRANSPORTABLE MARKETS WITH Z-100 PC SERIES

Zenith Data Systems Corporation (ZDS); 1000 Milwaukee Avenue, Glenview, IL 60025; 312-391-8744.

Zenith Data Systems (ZDS) has introduced two IBM PC-compatible series of personal computers. The new 16-bit models are the Z-150 desktop series and the Z-160 transportable series. According to ZDS, all the new computers are hardware and software compatible with each other and the IBM's PC series of microcomputers.

Standard components in all the Z-100 PC series systems are an Intel 8088 microprocessor, 128K bytes of RAM expandable to 320K bytes on the motherboard, 2 RS-232C serial ports, a Centronics parallel port, 4 IBM-compatible card slots for expansion, and a detached keyboard. Color and monochrome CRTs are available optionally for the Z-150 desktops, and a 9-inch monochrome CRT is built into the Z-160 transportable. The desktop models may contain single or dual diskette drives, or a single diskette drive with a fixed disk. The transportable models may contain single or dual diskette drives.

Monitor resolution is 320x200 for color (or gray-level display on the transportables), and 640x200 for black and white (or black and amber on the transportables). Three 13-inch color and two 12-inch monochrome monitors are available from ZDS for the Z-150 desktop models. The transportables have a 9-inch built-in monitor and may be used with ZDS color monitors.

The keyboard is a detached IBM PC-style with 84 keys, including a numeric keypad, function keys, and LED status indicators. It folds up to cover the monitor on the Z-160 transportable. All models feature normal, smooth, or quick scrolling.

The Z-100 PC series all use a 5.25-inch, 360K-byte (formatted) dual-sided half-height diskette drive which is interchangeable among all models. The ZF-151-21 desktop model has a single 5.25-inch diskette drive built in. Model ZF-151-22 has two built-in diskette drives, and Model ZW-151-22 contains a single diskette drive and a 10.6M-byte (formatted) fixed disk drive. The Model ZFA-161-21 transportable contains a single diskette drive, and the Model ZFA-161-22 transportable contains two diskette drives.

The retail prices for the ZF-151-21, ZF-151-22, and ZW-151-22 are \$2,699, \$3,099, and \$4,799, respectively. The transportable ZFA-161-21 and ZFA-161-22 are \$2,799 and \$3,199, respectively. The desktop systems are available now, and the transportables will be available during the second

quarter. Distribution is through existing ZDS dealers, and direct sales to national accounts and Heathkit Centers.

■ ANNOUNCEMENTS & NEW PRODUCTS

□ Software

ALTERTEXT INTRODUCES UNIT TO TRANSLATE AND TRANSFER DATA BETWEEN INCOMPATIBLE MICROCOMPUTERS

Altertext, Inc.; 210 Lincoln Street, Boston, MA 02111; 617-426-0009.

Altertext introduced The Altertext Communicator protocol converter at the Office Automation Conference in Los Angeles. The unit can transfer data between several CP/M-based computers and between DECmate II, Phillips, NBI, and Wang word processors. The system also can function as a standalone CP/M-based microcomputer.

The Altertext Communicator is designed to be used by companies which use incompatible computers for data communications and word processing. It runs software programs developed by the company to be used with a proprietary operating system; it also runs the CP/M operating system.

Standard in the base system are a Zilog Z80 microprocessor, 64K bytes of RAM, a 9-inch CRT with an 80-character x 40-line display, a detachable keyboard, one 420K-byte 5.25-inch diskette drive, four parallel ports, three serial ports, a proprietary operating system, and a CP/M operating system. Optional are a second 5.25-inch diskette drive, a 12.5M-byte fixed disk drive, and software to read and convert diskettes.

Announced at the same time were: programs to read Altos, Digital Rainbow CP/M, Epson, Kaypro, Morrow MD3, Osborne, TeleVideo 802, and Xerox 820 diskettes; a program to read DECmate II diskettes; a program to read Phillips diskettes, and a program to convert disks between NBI and Wang word processors.

The base Altertext Communicator unit is \$7,500 and is sold through a direct sales force.

FORTE DATA SYSTEMS' NEW PRODUCTS LET IBM PC OR IBM XT TAP MAINFRAME DATA

Forte Data Systems, Inc.; 1500 Norman Avenue, Santa Clara, CA 95050; 408-980-1750.

Forte Data Systems introduced three software products allowing IBM PC-to-mainframe communications and emulation of an IBM color graphics terminal. The products require 3270-type emulation boards available from Forte.

The most significant new product is the FileNet Series of mainframe-resident packages which will download mainframe files to a 3270 network or upload PC-DOS files to a mainframe. Data can be made available to networked PCs. The packages are called CICS-FileNet, TSO-FileNet, and CMS-FileNet; they operate in the CICS, MVS/TSO, or VM/CMS environments, respectively.

The FileNet Series require an IBM PC or XT with either a Forte-PJ or Forte PC78-2 emulation board installed. The boards emulate IBM 3278 or 3279 terminals when linked to an IBM mainframe. Forte said the products are user installable, they support text and binary data transfer, and security is controlled by passwords.

"Forte-Call" is an IBM PC or XT-based mainframe-link software package. It requires the installation of a Forte 3270 emulation board. The software will allow the enhanced PC to



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access an IBM mainframe or to act as a host to a networked micro, a remote modem-connected micro, or a remote dumb terminal. The host PC within the network converts the mainframe data to ASCII characters and vice versa.

Forte-Graph is the company's third new product. It allows an IBM PC or XT to be "turned into" an IBM 3279 Model S3G color graphics terminal. A Forte-PJ 3278/79 emulation board and a Forte graphics option board are required. The graphics board plugs into the Forte-PJ board so only one expansion slot is lost. Forte-Graph is bundled with the two boards and the software. According to the company, files may be downloaded, stored, and manipulated with resolution equal to that of the IBM 3279 Model S3G terminal.

The prices for CICS-FileNet, TSO-FileNet, and CMS-FileNet are \$15,000 and \$1,000 for the latter two. They will be available on a site license basis. Forte-Call is \$295; Forte-Graph is \$2,590 including the \$1,195 Forte-PC board, the \$1,395 Forte-Graph board, and the software. All the new products will be available in April. Forte sells its products directly and through national distributors and large OEMs.

IBM ANNOUNCES THIRD PARTY DISTRIBUTION OF PACKAGES FROM SOFTWARE LIBRARIES INC, SOFTWARE ARTS, AND ASHTON-TATE International Business Machines (IBM) Corporation, Information Systems Group • National Accounts Division; 1133 Westchester Avenue, White Plains, NY 10604; 914-696-1900 • National Marketing Division; 4111 Northside Parkway, Atlanta, GA 30327; 404-238-2000.

Eleven vendor logo programs were announced for the IBM PC and XT. Seven of these are accounting modules from Software Libraries, Inc; 3 are productivity packages from Software Arts, Inc, and one is from Ashton-Tate. The accounting modules are: Accounts Payable, Accounts Receivable, Inventory Control and Bill of Materials, Payroll, Sales Order Entry and Sales Analysis, General Ledger, and a supervisory program called The Librarian. Generally, the modules as a whole are oriented to small wholesale distributors and range from \$595 to \$695. The Librarian is \$195. The packages from Software Arts are TK!Solver, Mechanical Engineering TK!SolverPak, and Financial Management TK!SolverPak. TK!Solver is a spreadsheet-like program which allows equation models to be created on the computer screen and saved for later use. The SolverPaks are models (or "templates") which have been pre-programmed. TK!Solver is \$299, and the SolverPaks are \$100 each. Ashton-Tate's Friday! is a dBase II-compatible data management program designed to be used by non-data processing personnel. Friday! is \$295. All 11 vendor logo programs were available in February.

LEADING EDGE INTRODUCES NUTSHELL INFORMATION MANAGER Leading Edge Products Inc; 225 Turnpike Street, Canton, MA 02021; 617-828-8150.

Leading Edge has recently introduced Nutshell, which is an information management package that enables personal computer users to store and retrieve data, browse through stored information, and exchange data with word processors, spreadsheets, and other programs.

Nutshell supports up to 60,000 fields per record, up to 60,000 reports per file, and several million records per file, which are obviously subject to user disk space limitations. Nutshell also provides security through layout design. It is designed to

receive input from an ASCII file and provide output to an ASCII file.

The Nutshell package includes a HELP facility which clearly defines the user's current options and aids the user in taking the next correct step.

Some of the major features of Nutshell include: the ability to prefix match where users need only the first few letters of a word to retrieve references to that word, and the ability to index and cross-index records automatically, where every word in a text field is automatically cross-indexed and a search on that word provides the user with every document, memo, letter, invoice, and report that contains that word.

Nutshell is designed for the Leading Edge, IBM PC, IBM XT, Compaq, and other compatibles with 256K bytes of memory. It is scheduled for availability in March 1984 for a retail price of \$395.

MCBA INTRODUCES TWO SETS OF MODULAR INTEGRATED BUSINESS APPLICATION PACKAGES—MICRO LEVEL I AND MICRO LEVEL II MCBA; 2441 Honolulu Avenue, Montrose, CA 91020; 818-957-2900.

MCBA has introduced two complete sets of modular, integrated business application packages which are called Micro Level I and Micro Level II.

Micro Level I includes MCBA's 16 accounting, distribution, and manufacturing packages which currently run on Altos 586 under XENIX and on Zilog System 8000 under Zilog System's UNIX-based operating system. This provides all of the capabilities of MCBA's accounting, distribution, and manufacturing packages to be available to micro users.

Micro Level II products are being developed to run under RM/COS on a variety of hardware. The package includes features such as user-definable general ledger account number structure and enhancements suggested by MCBA's large customer base. Initial products in the Micro Level II package include: Accounts Payable, Accounts Receivable, Bill of Material Processor, General Ledger, Inventory Management, Payroll, and Purchase Order and Receiving.

MAI ANNOUNCES ACCOUNTS RECEIVABLE, ACCOUNTS PAYABLE, INVENTORY, AND GENERAL LEDGER PACKAGES FOR IBM PC AND XT MAI/Basic Four Business Products Corporation, Division Management Assistance Inc; 601 San Pedro NE, Albuquerque, NM 87108; 505-266-5811.

MAI has jumped into the micro software market by offering its accounting packages on the IBM Personal Computer. The packages run with MAI Business Basic/Micro (BB/M) which was introduced for the PC at the same time. MAI had previously marketed versions of the packages running on the company's minicomputers.

Several software firms have begun vying for market share. The move by MAI marks a significant entry into the race. MAI has several more years of experience in accounting systems than most micro-only software companies.

MAI will offer General Ledger, Accounts Payable, Accounts Receivable, and Inventory in March, with Payroll, Order Entry, Purchase Orders, Sales Analysis, Financial Statements, Fixed Assets, and Report Writer to follow later in 1984. According to MAI, the modules can be integrated to eliminate manual posting to the general ledger, yet maintain auditability.



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The MAI integrated software was programmed in BB/M Level 4, so with the exception of enhancements, the program code is the same as that running on minicomputers. It runs on an IBM XT or PC with 128K bytes of RAM with PC-DOS. The source programs will be available to users wishing to customize their accounting applications. MAI will offer toll-free telephone support for end users and dealers. The prices per accounting function module range from \$395 to \$595.

REAL WORLD'S MULTIUSER ACCOUNTING TO RUN UNDER NOVELL INC'S NETWARE IBM PERSONAL COMPUTER NETWORK OPERATING SYSTEM Real World; Dover Road, Chichester, NH 03263; 603-798-5700.

Real World's multiuser accounting software is the first set of products to be certified for use with Novell's NetWare network operating system. NetWare enables a series of IBM Personal Computers to be configured in a multiuser environment. NetWare's multiuser capability is compatible with numerous local area networks including Novell's Starnet, Corvus System's OMNINET, and 3 Com's EtherLink, and is being readied for Proteon's ProNet and Nestar's Arcnet.

One of the major features of NetWare is a record and file locking enhancement to the runtime portion of the MS-DOS version of RM/COBOL. This enhancement interfaces with the network file server to allow single-user IBM Personal Computers to access the same files simultaneously without conflict.

The 7 Real World applications available to run under NetWare are: Accounts Receivable, Accounts Payable, General Ledger, Payroll, Order Entry/Billing, Inventory Control, and Sales Analysis.

All software products should be available immediately.

SOFTWARE ARTS ENHANCES ITS VISICALC SPREADSHEET PROGRAM Software Arts; 27 Mica Lane, Wellesley, MA 02181; 617-431-6500.

Software Arts, the creators of VisiCalc, have announced that they have enhanced their VisiCalc program for IBM PC and compatible users.

This enhanced version includes additional capabilities for: variable column widths, keystroke memory, an extensive HELP facility, and support for the Microsoft mouse.

Software Arts has terminated its marketing agreement with VisiCorp of San Jose, CA, and are now marketing VisiCalc themselves. The VisiCalc Advanced Version program disk and basic reference materials (with full license and warranty backing) will be available for \$99.95 for a limited time.

SOFTWARE INTERNATIONAL INTRODUCES SMART LINK MICRO-TO-MAINFRAME SOFTWARE FOR IBM PERSONAL COMPUTER Software International; 1 Tech Drive, Andover, MA 01810; 617-685-1400.

Software International has introduced Smart Link micro-to-mainframe software for the IBM PC. The software allows users to access financial data created by the company's mainframe General Ledger and Financial Reporting System, or by other mainframe general ledger software. Live data may be downloaded, manipulated with a spreadsheet program, and uploaded to the correct files. The program requires the IRMA board from Digital Communications Associates Inc to emulate an IBM 3270 terminal.

The software may be used with spreadsheet programs supporting Data Interchange Format (DIF) files. General ledger files may be overlaid anywhere on the spreadsheet as long as there is sufficient space. According to Software International, the uploading of files leaves a full audit trail.

For repetitive operations, Smart Link allows users to store commands in a library. The commonly used sets of commands may be executed with only a few keystrokes. The program allows the PC to stay online to the host when running PC programs. The user does not have to disconnect after downloading or uploading data from the mainframe.

Smart Link requires an IBM Personal Computer or IBM PC/XT with the IRMA board to emulate an IBM 3270 terminal. The program will be available during the second quarter for \$2,995 per computer. Quantity pricing will be available.

TECHLAND'S SHOEBOX TIME AND EXPENSE MANAGEMENT PROGRAM INTRODUCED FOR NEW IBM PERSONAL COMPUTER CLUSTER PROGRAM Techland Systems Inc; 25 Waterside Plaza, New York, NY 10010; 212-684-7788.

Techland Systems said their SHOEBOX 2 time and expense management program will be available in a multiuser version after IBM begins shipping the new Cluster Program. (See our Software Evaluation of Techland SHOEBOX and our IBM PC report.) Several users will be able to access common data, and the system will have an electronic mailbox capability.

The multiuser SHOEBOX will be available for "other cluster systems and local area networks (LANs)" according to Techland management. Pricing was not available at the time of the introduction.

Hardware

COLBY COMPUTER ANNOUNCES IBM PC-COMPATIBLE TRANSPORTABLE COMPUTER Colby Computer; 849 Independence Avenue, Mountain View, CA 94043; 415-968-1410.

Colby Computer announced the PC-3 transportable IBM PC-compatible computer. The firm has been selling conversion kits which allow the components to be removed from an IBM PC system unit and used with Colby's housing, chassis, and monitor. The PC-3 weighs 26 pounds and measures 8.5 x 16 x 16.5 inches (height x width x depth). According to Colby, the unit is small enough to slide under an airline seat.

Standard are a motherboard with 128K bytes of RAM (which is reported to be compatible with IBM's), a clock, a serial port, a parallel port, a fixed disk interface, a built-in monitor with graphics capability, 2 diskette drives, a keyboard, 3 long expansion slots, and one short slot.

The PC-3's built-in monitor has a 9-inch amber screen which will display 80 characters x 25 lines. The keyboard is a detached type with LED indicators for numerics and capitals. It includes the same keys as the IBM PC, plus separated arrow keys. The layout allows the keyboard and the system unit to be narrower. The keyboard folds up to cover the disk drives and screen for transportation. The unit's carrying handle also serves as a tilt stand for desktop use.

Two half-height, double-sided, double-density, 360K-byte (formatted) diskette drives are mounted vertically in the PC-3.



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The PC-3 will be sold by distributors, dealers, value-added resellers, and OEMs. The retail price of the unit is \$2,795.

DIGITAL ANNOUNCES PRODUCTS FOR PROFESSIONAL 350 AND RAINBOW MICROCOMPUTERS Digital Equipment Corporation; Maynard, MA 01754; 617-897-5111.

Digital Equipment Corporation announced communications equipment to link its personal computers together or to larger computers, a plotter, a touch-screen monitor for the Professional 350, and two telephone management software packages for the Professional 350. Digital also announced a computer-based sales service for the company's large customers.

Mini-Exchange is a desktop-sized communications device allowing up to eight personal computers and I/O devices to be linked together. It may be connected with a modem to a remote host computer or to another Mini-Exchange. File transfer is possible with asynchronous communications packages on the Professional 350, DECmate II, and Rainbow microcomputers. Mini-Exchange is available 30 days after receipt of order and is priced at \$895. Quantity pricing is available.

The new plotter is called the LVP16 and may be interfaced to Digital's Rainbow, DECmate, Professional 350, and VAX systems. It is a color plotter and works with standard paper or with transparencies. It may be shared by several computers with Digital's new Mini-Exchange device. The retail price is \$1,995.

The new DECtouch touch-screen monitor for the Pro 350 is a color graphics display which will accept input from a finger, joystick, mouse, or keyboard. Standard are a panel with two serial and two parallel connectors for connection of input devices simultaneously, and a built-in controller. The retail price is \$3,295. The DECtouch monitor will be available in March.

ProtoCall 350 and ProtoCall 1000 are Digital's new software packages which allow voice and data communication through the Telephone Management hardware option for the Pro 350. ProtoCall 350 stores phone numbers and will automatically place calls for the user. It also files telephone directory data. ProtoCall 1000 allows the user to build a more complex database than ProtoCall 350. It will store historical information on calls made and received. This information may be retrieved later. Digital said the package is useful for professionals who regularly use the telephone and must account for their time. ProtoCall 350 is \$195, and ProtoCall 1000 is \$395.

Digital has also made the Digital Electronic Store available to selected Fortune 500 companies and Digital Business Centers. Customers will have access to an online service 24 hours a day, seven days a week, which will allow customers to assist themselves with short product demonstrations, to select products, and to order products using a terminal and 300- or 1200-bps modems. Digital said software, educational products, and Referenced Service Products will be available initially.

HEWLETT-PACKARD ANNOUNCED AN INK-JET DOT-MATRIX PRINTER FOR THE HP 150 TOUCHSCREEN MICROCOMPUTER Hewlett-Packard Company (HP); Inquiries Manager, 1820 Embarcadero Road, Palo Alto, CA 94303; 800-FOR-PPPC.

HP has announced a personal printer called the ThinkJet. The printer may be used with the company's HP 150 touchscreen personal computer or with other microcomputers, according to HP. The printer is designed to be quiet (less than 50 decibels when printing) and competitively priced at \$495.

The printer's ink-jet mechanism allows it to perform quickly (150 cps), quietly, and efficiently when boldfacing and underlining. HP said the printer is not slowed when printing boldface characters and when underlining. The ink-jet cartridge combines an ink reservoir and a printhead into one disposable mechanism. It is reported by HP to last for 500 pages and may be replaced for less than \$10.

The ThinkJet will print on any single-sheet or tractor-feed paper. HP recommends ink-jet paper, which they say costs and weighs approximately the same as bond. It will print 192x96 or 96x96 dots per inch in graphics mode.

Available are Centronics parallel, HP-IB, and HP-IL (battery-powered) interfaces. The dimensions are 11.5 x 8.1 x 3.5 inches (width x depth x height), and the printer weighs 6 pounds.

The printer will be available in April and will be sold by authorized HP dealers and by HP's direct sales force. The retail price is \$495.

KAYPRO REDUCES KAYPRO 2 PRICE; ANNOUNCES SERVICE AGREEMENT WITH XEROX Kaypro Corporation; P.O. Box N, Del Mar, CA 92014; 619-481-4300.

Kaypro reduced the price of its low-end transportable, the Kaypro 2, to \$1,295. The price includes CP/M 2.2 operating system, MBASIC, SBASIC, Perfect Filer, Perfect Writer, WordStar, Perfect Speller, Perfect Calc, Profit Plan, and 13 game packages. The company manufactures several other transportable models. Also, a service agreement was reached with Xerox Americare to offer end-user hardware repair and maintenance for Kaypro computers.

MODULAR MICROS DROPS ZORBA TRANSPORTABLE COMPUTER LINE Modular Micros, Inc, Division of Modular Computer Systems (MODCOMP), Inc; 1650 West McNab Road, P.O. Box 6099, Fort Lauderdale, FL 33310; 305-974-1380.

Modular Micros has discontinued its Zorba line of transportable computers. The company had been experiencing reduced sales of the Zorba GC-200 transportable CP/M-based computer. The company also marketed the Zorba 2000/4 and the Zorba 2000/8 transportables.

NEW PRINTERS AND MONITORS FROM PANASONIC INDUSTRIAL COMPANY Panasonic Industrial Company; One Panasonic Way, Secaucus, NJ 07094; 201-348-7000.

Panasonic Industrial Company recently revealed a new daisywheel printer, three new dot-matrix printers, and three new computer monitors. These new products represent the company's determination to capture a larger share of the computer peripherals marketplace. While dot-matrix offerings revealed little more than a commitment to extend the dot-matrix line out from the low-end market, and the daisywheel printer appeared poised to take its share from the 20-cps daisywheel arena, the monitor offerings indicated more of P.I.C.'s commitment to the future of office automation. Specifically, the DT-M140 computer teletext display system provides a well-rounded integration of



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solutions to the needs of present and future offices. It allows compatibility with many computers and TTL and Linear RGB inputs. The teletext feature should become more important as office communications needs mature.

TANDY/RADIO SHACK BOLSTERS SOFTWARE LIBRARY WITH LOTUS 1-2-3 AND OFFERS OTHER NEW PRODUCTS "TO BOOT"

Radio Shack, Division of Tandy Corporation; 1300 One Tandy Center, Fort Worth, TX 76102; 817-390-3300.

Tandy Corporation signed an agreement recently with Lotus Development Corporation, makers of Lotus 1-2-3 integrated spreadsheet, graphics, and information management program. According to Tandy Corporation, the new software acquisition takes full advantage of the 2000's enhanced performance over the IBM PC. A Model 2000 with at least 256K bytes of RAM and monochrome or color graphics options are required. Lotus 1-2-3 is scheduled to be on store shelves by mid-1984 and retail for \$495. Also for the Model 2000, Tandy announced an April delivery date for SORCIM's SuperCalc-3, integrated spreadsheet, graphics, and database program. Tandy claims it to outperform its IBM PC counterpart significantly. SuperCalc-3 will retail for \$395 at Radio Shack Computer Centers and participating Radio Shack Stores.

For its lap-top Model 100, Tandy announced a three-part program called Investment Analysis. Fixed Income Security Evaluator (FISE), Commission Calculator (COMM), and Option Strategy Evaluator (OSE) comprise this new package which is available immediately and retails for \$70. A Model 100 with at least 16K bytes of RAM and a cassette tape recorder are required.

As an enhancement to storage and output capabilities of the Model 100, Tandy has announced a TRS-80 Disk/Video Interface. This three-in-one hardware package contains a video monitor or television set interface, a dual drive 5.25-inch floppy disk controller, and one bundled 184K-byte capacity disk drive. The video provides 25 lines by 40 characters on a standard television or an optional 80 columns on a video monitor but cannot do pixel graphics. The entire unit attaches to the Model 100's 40-pin expansion connector and automatically loads its subsystem boot-strap into the Model 100 on power-up. The Disk/Video interface requires at least 16K bytes of RAM and retails for \$799 with a second disk drive priced at \$240.

Following its introduction of the powerful Model 2000, Tandy has lowered prices on its Model 12 and 16B micros. The Model 12s now retail at \$2,799 and \$3,499 for single- and dual-disk models, respectively. This reflects \$400 and \$500 drops in prices. The 16B was reduced in price from \$4,999 to \$3,999 for the single-disk model, and from \$5,798 to \$4,699 for the dual-disk model. Additionally, a 128K-byte RAM upgrade for the Model 16B dropped \$200 in price down to \$399. Comparatively, a dual-disk, 128K-byte RAM Model 2000 is priced at only \$2,750.

XEROX ANNOUNCES TWO PROFESSIONAL WORKSTATIONS AND CUTS PRICE OF NETWORKED WORKSTATION

Xerox Corporation, Office Systems Division; 3333 Coyote Hill Road, Palo Alto, CA 94304; 213-536-9127.

From Palo Alto, California, Xerox announced two new lower-priced models of its electronic desktop Xerox 8010 Star information system. One model, a standalone workstation, can be upgraded to a remote workstation or a

network version and is priced at \$8,995. The remote version is priced at \$9,995, and the networked model has been reduced from \$15,055 to \$9,995.

The Xerox Star, first introduced in 1981, pioneered user-friendly innovations such as the mouse, symbolic icons, multiple display windows, and a super-high-resolution bit-mapped display. The newest models can interface with an Ethernet network through ordinary phone lines and a PBX. The remote Star uses a standard RS-232C interface on either leased or dial-up lines.

Xerox indicates that the new pricing takes effect immediately. Furthermore, it states that quantity discounts are available and that software is priced separately. Deliveries are supposed to begin in the third quarter of 1984, but order taking will begin in the second quarter.

Xerox introduced the 1770 color ink-jet printer and the 1730-336 character printer from its System Marketing Division. Both printers are intended for use with personal computers and other business computer systems. The 1770 ink-jet printer features switch-selectable uni- or bidirectional printing at 20 cps with up to seven colors. The 40-cps 1730-336 includes an IBM PC-compatible print wheel to reproduce all characters that can be displayed on the PC including the 128 characters of the PC's extended character set. The 1730-336 also has the capability to use plastic or metal print wheels for high-speed or letter-quality printing, respectively. Acoustic covers are also available. The 1770 color ink-jet printer is listed at \$1,250, and the 1730-336 letter-quality printer is \$2,595. Acoustic enclosures are priced from \$350. Xerox indicates that volume discounts are available.

■ CALENDAR OF EVENTS

□ April 1984

Apr 5-7 - COMDEX/Winter '84 • Los Angeles, CA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

Apr 16-18 - Videotex '84 • Chicago IL **Contact** Sally Summers, London Online, 2 Penn Plaza, Suite 1190, New York, NY 10121; 212-279-8890.

Apr 17-19 - Federal DP Expo Conference & Exposition • Washington, DC **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

□ May 1984

May 3-6 - Personal Computer Userfest/Chicago • Rosemont, IL **Contact** Northeast Expositions, 822 Boylston Street, Chestnut Hill, MA 02167; 617-739-2000.

May 12 - Louisiana World Exhibition • New Orleans, LA **Contact** Gulf Coast Computer & Office Show, 119 Avant Garde Circle, Kenner, LA 70062; 504-467-9949.

May 21-24 - Communication Networks Conference and Exposition • Washington, DC **Contact** Louise Myerow, Communication Networks, Box 880, Framingham, MA 01701; 800-225-4698 or 617-879-0700.

May 22-25 - COMDEX/Spring '84 • Atlanta, GA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

May 29-31 - Gulf Coast Computer & Office Exhibition • New Orleans, LA **Contact** Gulf Coast Computer & Office Show, 119 Avant Garde Circle, Kenner, LA 70062; 504-467-9949.



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Jun 4-7 - A/E Systems '84 • Baltimore, MD **Contact** Karen Gosselin, MRH Associates, P.O. Box 11318, Newington, CT 06111; 203-666-9487.

Jun 12-14 - Information Management Exposition & Conference for Software • Chicago, IL **Contact** Clapp & Poliak, 708 Third Avenue, New York, NY 10017; 212-370-1100.

Jun 19-21 - Computerized Office Equipment Expo (COEE) • Rosemont, IL **Contact** Janet Schafer, Cahners Exposition Group, Cahners Plaza, 1350 East Touhy Avenue, P.O. Box 5060, Des Plaines, IL 60018; 312-229-9311.

July 1984

Jul 9-12 - National Computer Conference • Las Vegas, NV

Contact AFIPS, Marty Byrne, 1899 Preston White Drive, Reston, VA 22091; 703-602-8926.

September 1984

Sep 12-14 - SOFTWARE/Expos • Chicago, IL **Contact** Pemco, 2400 East Devon Avenue, Suite 205, Des Plaines, IL 60018; 312-200-3131 or 800-323-5155.

Sep 19-20 - Federal Computer Conference • Washington, DC **Contact** Federal Computer Conference, P.O. Box 368, Wayland, MA 01778; 617-358-5301.

Sep 20-23 - Personal Computer Userfest/NY • New York, NY **Contact** Northeast Expositions, 826 Boylston Street, Chestnut Hill, MA 02167; 617-739-2000.

Data DecisionsTM NEWS microcomputers



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HIGHLIGHTS

Data Decisions is proud to present its new MICROCOMPUTERS product with this issue. In addition to this Newsletter, MICROCOMPUTERS includes Hands-On Evaluations of micro software packages tested in our own labs; in-depth, analytical product reports on major microcomputer systems; technology reports on important issues in the micro world; survey reports on micro systems, micro software, and peripherals; ratings of corporate attitudes about micros; a vendor directory of more than 1,800 micro vendors; User Case Studies conducted in a corporate environment, and MORE.

SPECIAL NOTE: You will see throughout MICROCOMPUTERS a keyboard with hands placed on it. This is used to draw your attention to the theme of our publication which is Hands-On Evaluation and Testing of key microcomputer software used in a corporate environment. Please refer to the section behind the Red tab at the front of each volume for a description of our Hands-On Evaluation procedures. For a complete description of the methodology used in our software evaluation please turn to the Software Evaluation report behind the 800 tab—Filing Sequence Number 805. Also please read the User's Guide behind the 300 tab which provides an excellent description of Data Decisions' MICROCOMPUTERS and an explanation of how to use it effectively.

Every month the Newsletter will include 4 major features: **This Month's Test Results**, **Magazine Roundup**, **Announcements**, and a **Calendar of Events**. **This Month's Test Results** will quote highlights of the key findings of our analysts in our Hands-On Evaluation of software, and in our analysis of micro systems. For a further, in-depth look at the particular evaluation the reader is referred to the full-length feature report in this month's supplement. The **Magazine Roundup** briefly summarizes the most important articles which appeared in major computer publications during this month. We include articles from Byte, InfoWorld, Micro Marketplace, PC Magazine, PC World, Software News, and the Wall Street Journal to name just a few of the nearly 100 publications that we track each month. If you are interested in reading more about the topic

Please Route To:

which is indicated, a reference including the page number and number of pages is given for the magazine or newspaper. **Announcements** includes Spotlight Articles about the late-breaking announcements of new products which will influence the micro-marketplace and an Announcements & New Products section which describes new product announcements about microcomputer systems, micro software, and peripherals. The **Calendar of Events** section highlights upcoming major microcomputer trade shows and conferences occurring within the next 4 to 6 months throughout the U.S. and Canada. Dates of the show are given together with a contact name, address, and telephone number. If you have comments or suggestions on how we can improve our service to you, please call us or turn to the User's Guide behind tab 300 for the USER COMMENTS/SUGGESTIONS form.

Usually, at this point in the Newsletter there appears a list of surveys, technology reports, and full length product reports that are added to the product in the current supplement. However, for the release of the product and for the next several monthly supplements we will not list the additions to the service. This decision was made because of the large volume of material that will be added in the next several months in order to deliver a mature product in a relatively short time frame.

■ THIS MONTH'S TEST RESULTS

Spreadsheet Software

Lotus Development Corporation Lotus 1-2-3 • 1-2-3 sets a new standard in user-friendliness. An extensive tutorial program leads a novice through the features of the package, and well designed command formats and HELP facilities make further reference to the excellent documentation unnecessary.

Overall Package Quality Rating: 6.4*

Context Management Systems MBA • Generally MBA succeeds in providing the basic functionality of spreadsheets, word processors, and graphics, but MBA does not offer as much power as the best dedicated programs which concentrate on the particular area.

Overall Package Quality Rating: 4.9*



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Data Management Software

Ashton-Tate dBase II • Users most likely to be satisfied with the features and capabilities of dBase II are corporations with data processing departments that are interested in using a package like this one to develop a custom application, and smaller companies lacking a programming staff and having a more central database distribution.

Overall Package Quality Rating: 6.6*

Software Publishing pts:File • While we do not believe that this product contains sufficient features to make it attractive in the large corporate environment, it may be that smaller corporations and businesses will find the program acceptable at the price.

Overall Package Quality Rating: 4.6*

Word Processor Software

Satellite Software WordPerfect • Some users will never be able to properly use WordPerfect without significant support, and some probably not even then. But those who can use it properly will find it capable of almost any task which can be imagined for a word processor.

Overall Package Quality Rating: 7.1*

Communication Software

Microstuf Crosstalk • There is no question that the flexibility of Crosstalk is rarely surpassed by other communications products.

Overall Package Quality Rating: 5.7*

Graphics Software

Peachtree Software Business Graphics System • There is considerable variety of specialized graph formats available to the business user, going far beyond the traditional bars, pies, and line.

Overall Package Quality Rating: 6.9*

Microcomputer Systems

Altos 8086-Based Systems • Low cost per user and system reliability are common traits of Altos System. The 586 and 986 are also fast machines. They contain a Z80 processor which is dedicated to I/O tasks and provide direct memory access for the hard disks. . . . For systems that are supposed to handle up to 9 users, these Altos products do not offer very much memory, unless the users are doing strictly data entry and transaction processing. Trying to spread 1M bytes of RAM over 9 users and XENIX will leave approximately 100K bytes per user, maybe even less.

Data General Desktop Generation • If any one word could describe the Desktop Generation it would have to be flexibility. These systems offer a multiuser capability, generous memory expandability, and on some models dual-processor capabili-

For a thorough evaluation of the product please refer to the full-length product report filed alphabetically by vendor name in the 800 section Volume 2. For a description of the methodology used in the software evaluation please refer to the Software Evaluation report behind the Packages By Vendor (800) tab—Filing Sequence Number 805.

ties, all at prices comparable to, or in some cases, lower than the competition. . . . Data General's statement that the Desktop Generation is compatible with the IBM PC needs clarification. In many cases, users could not take software running on the IBM PC and load it into the DG micros without going through a conversion process.

Hewlett-Packard HP 100 Series • In a move to attain a larger share of the burgeoning micro market, HP has decided to change from a vertical marketing strategy to one that is more in the mainstream business computer vein. The product it is planning to use to achieve this goal is its latest micro offering the HP 150. . . . Daisy chaining devices off the Series 100 HP-IB port can degrade system performance considerably. The obvious attraction to the HP 150 is its touchscreen capability. To assist users with this facility, HP has developed a shell for the operating system called P.A.M. This interface was designed to make standard MS-DOS functions easier to use. It also provides the applications programs with a common user interface.

IBM PCjr, PC1 & PC/XT • The secret of the popularity of the PC is the way IBM approached the third-party market. By providing assists for third parties to develop hardware as well as software, IBM allowed an unprecedented market development activity. . . . The addition of hard fixed disks to the PC creates a backup difficulty, since 26 to 28 floppy disks are needed to backup each of the disks. IBM supplies only cassette drives, whereas a disk of this nature really needs a streaming tape drive.

Tandy Corp/Radio Shack • Tandy has departed markedly from its usual line of TRS-80 microcomputers in its design of the Model 2000. It does not run TRSDOS, nor CP/M Plus. . . . Because of the ultra-high density diskette format Tandy selected, software and data files are not immediately interchangeable with other standard density MS-DOS formats.

MAGAZINE ROUNDUP

Of the hundreds of articles appearing this past month, the following were selected as worthy of bringing to your attention. Each contains valuable information and is well written. Our editors believe these articles are the cream of the crop for the past month. Many other articles of special interest for specific purposes were also published. Omission of mention of these articles does not imply a low value judgment but rather an opinion of limited general interest.

• "Apple Pins Macintosh Future on 'User Friendliness' of Lisa" is a Technology article on new technological developments incorporated into the Apple Macintosh and the Apple Lisa II series. States problems behind the original Lisa system and why Apple executives believe the Macintosh and Lisa II series will be more successful. Good article to read to understand Apple strategy. Wall Street Journal, Jan. 27, p. 33.

• "Using Natural-Language Systems on Personal Computers" discusses artificial intelligence using examples of use on personal computers. A good introductory level article worth reading. 7 pages. Byte, Jan., p. 226.

• "AT&T Sets Pact on Computers, Gear for Offices" is a discussion about talks between AT&T and Convergent Technologies Inc. Also looks at previous moves by AT&T into the



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office systems market. Provides some insight into AT&T strategies. Wall Street Journal, Jan. 5.

- "A Host of Hosts" is a review of six host and bulletin board communications software packages for the IBM PC. Hostcomm, Intellitem, MultiLink, PCS/2000, RBBS-PC, and Remote Access are given an overview and a technical evaluation. 9 pages. PC World, Feb., p. 132.
- 12 Cover Stories on dBase II data base management software. Extensive coverage of Ashton Tate's package, as well as other related material. Articles include dBase II instruction, examples of applications, review of 3rd-party dBase II programming aids and Ashton Tate's Friday package. Excellent introduction to and in-depth study of dBase II. 59 pages. PC, Feb. 7.
- "Removable Hard-disk Drives: A Workable Alternative" reviews Genie and Tecmar removable hard disk drives for the IBM PC. Discusses ease of installation, documentation, and a comparative performance evaluation. A good technical overview article. 6 pages. PC, Feb. 7, p. 233.
- "IBM to Offer Version of an AT&T System As Feature on Its Personal Computer Line" is a discussion of IBM's announcement to offer a version of the UNIX Operating System, and an analysis of reasons for UNIX's popularity. Wall Street Journal, Jan. 16, p. 8.
- "Transmitting Messages With MCI" is a discussion of MCI Telecommunications Corp.'s electronic mail services available to microcomputer users. Describes Instant Letter, Four-Hour Letter, Overnight Letter, and MCI Letter. 3 pages. PC, Feb. 21, p. 261.
- "NBI: A Taste of the Dedicated" is a review of NBI Word Processing for the IBM PC. Thorough evaluation of the features of this word processor. Good review to understand NBI word processing but no comparison is made to other similar products. 8 pages. PC, Feb. 7, p. 197.
- "Zenith Z-100" is a review of the Zenith Data Systems microcomputer. Includes discussion of available operating systems for the Z-100. Good article for those considering purchase of a Zenith system. 7 pages. Byte, Jan., p. 268.

■ SPOTLIGHT

APPLE COMPUTER ANNOUNCES EXPANDED "APPLE 32 SUPER-MICRO" FAMILY WITH THE LISA 2 SERIES AND MACINTOSH
Apple Computer Inc; 20525 Mariani Avenue; Cupertino, CA 95014; 408-996-1010.

Apple has announced the Lisa 2 series including three microcomputers and the Macintosh microcomputer. All the new systems are single-user multitasking computers based on a 32-bit architecture with 16-bit data paths. The three Lisa models are the Lisa 2, Lisa 2/5, and Lisa 2/10. The Lisa 2/5 and 2/10 have 5M-byte and 10M-byte hard disk drives, respectively. Other than mass storage, the three Lisa models are operationally the same. Macintosh programs will run on the Lisa 2 models when the Macintosh operating system becomes available for them in March 1984. The operating system will be bundled with the Lisa 2.

The Macintosh is based on the 32-/16-bit architecture of the Lisa, making it a true member of the Lisa "SuperMicro" family.

It incorporates a mouse with user interface software built into ROM; the resulting ease of use is intended to make the system easier to learn than conventional personal computers. The system housing requires a 10-inch x 10-inch area on a desk; a 9-inch CRT and one diskette drive are built into the housing.

Standard in the Macintosh housing are Motorola 68000 32/16 microprocessor operating at 7.8 MHz, 128K bytes of RAM, 64K bytes of ROM, 2 RS-232C/RS-422 ports, an external disk drive connector, a polyphonic sound/voice jack, bit-mapped graphics, a CRT, a diskette drive, and a battery-powered clock/calendar. The basic unit will be upgraded to 512K-byte RAM using a single memory board. The total weight including the system housing, keyboard, and mouse is 20 pounds, allowing the system to be transported in an optional shoulder bag.

The Macintosh CRT is a black-on-white, 512 x 342 pixel display capable of gray levels. The keyboard is detached and has 58 typewriter-style keys. A numeric keypad is available. The mouse has one button and uses optical sensors to track the movement of a rotating ball.

A single 3.5 inch, 400K-byte (formatted) single-sided diskette drive is built into the basic housing. An external 3.5 inch drive is available. The diskettes are small enough to be carried in a shirt pocket and are protected by a solid plastic case.

MacWrite word processor and MacPaint illustration graphics programs are available from Apple for the Macintosh. The following packages are scheduled for release in 1984: MacTerminal communications to provide emulation of the Digital VT100 and VT52 terminals, TTY; AppleLine bus provide emulation of IBM 3277 and 3278 terminals; and Macintosh Assembler/Debugger, Macintosh BASIC, MacProject project scheduling, LOGO language, and MacDraw graphics.

Also announced for the Macintosh were AppleLine, a communications unit with one serial connection to the Macintosh and a modem connection directly to the IBM cluster controller, a dot-matrix printer, 300-bps modem, 300-/1200-bps modem, and a security lock.

The retail price for Macintosh is \$2,495 including the system unit, mouse, and keyboard. MacWrite and MacPaint illustration graphics are included for an introductory period ending in May. The external diskette drive is \$495, and the numeric keypad is \$129.

The basic Lisa 2 systems include a 32-bit, 7.8-MHz Motorola 68000 microprocessor with 16-bit data paths, clock-calendar, built-in CRT, mass storage, 512K-byte RAM expandable to 1M bytes with optional add-in RAM, 16K bytes of ROM, bit-mapped graphics, keyboard, mouse, audio output, 2 RS-232C serial I/O ports, one parallel port (Lisa 2 only), and three expansion slots available to the user.

The CRT measures 12 inches diagonally with the high-resolution (364 lines x 720 dots) necessary to use the windowing functions of the operating system. The black-on-white display has 64 gray levels under software control and will display up to 40 lines of 132 characters each. The keyboard is a detached typewriter-style with a 10-key numeric keypad. The mouse is a mechanical ball-type with a single pointer button.



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A single 3.5 inch, 400K-byte microdisk drive is standard. The drive uses diskettes which are protected in a solid plastic casing and features automatic head loading and ejection under software control.

The same drive is also used in the Macintosh, allowing the use of the same 3.5 inch diskettes in the entire Supermicro family. The Lisa 2/5 has an external 5M-byte hard disk drive identical to that on the original Lisa; the Lisa 2/10 has an internal 10M-byte hard disk drive. Additional hard disk drives may be attached using an add-on parallel interface board in an open expansion slot.

All the office automation programs for the original Lisa are available now for the Lisa 2 series and are sold individually. These include Lisa Office System (the user-friendly operating system), Lisa Write word processing, Lisa Calc spreadsheet, Lisa Draw presentation graphics, Lisa Graph business graphics, Lisa Project project management, Lisa List database management, and Lisa Terminal terminal emulator. Pascal, BASIC-plus, and COBOL languages are available and are complemented by Quickport and Toolkit/32 programming aids. The Macintosh operating system for the Lisa 2 series will be available in March.

The Lisa 2 will be available in March at \$3495 and will include the basic system, keyboard, mouse, and the Macintosh operating system. The Lisa 2/5 is available now at \$4,495 and includes the basic system, keyboard, mouse and 5M-byte external hard disk drive. The Lisa 2/10 will be available in May at \$5,495 and includes a 10M-byte internal hard disk drive in place of the Lisa 2/5's external 5M-byte drive. The 512K bytes of RAM expansion will be available in March for \$1,495.

Owners of original Lisa computers will be able to upgrade their systems to the Lisa 2/5 or Lisa 2/10 Supermicro systems. Apple said the procedure will be performed by Lisa dealers in less than a half-hour. The changes will involve an exchange of the dual Lisa diskette drives for a single 3.5 inch drive, system board changes resulting in increased operating speed, outer casing replacement, exchange of the original Lisa diskettes for 3.5 inch Lisa 2-compatible diskettes, and installation of the original Lisa owner's 512K bytes of RAM in the new system, giving a total of one megabyte RAM. The upgrade to a Lisa 2/10 will also involve the installation of the 10M-byte internal hard disk. The Lisa 2/5 upgrade will be available beginning in March and will be free of charge until June 1, 1984; the fee will then be \$595. The Lisa 2/10 upgrade will be available in May for a fee of \$2,495.

The unbundled software pricing is \$295 for Lisa Office System, Lisa Write, Lisa Calc, Lisa Terminal, and Lisa Graph; \$395 for Lisa Project and Lisa Draw; \$195 for Lisa List and Macintosh Operating System.

IBM ANNOUNCES PORTABLE PERSONAL COMPUTER WITH PC AND XT COMPATIBILITY International Business Machines (IBM) Corporation, Information Systems Group • National Accounts Division; 1133 Westchester Avenue, White Plains, NY 10604; 914-696-1900 • National Marketing Division; 4111 Northside Parkway, Atlanta, GA 30327; 404-238-2000.

IBM has entered the transportable computer market with the Portable Personal Computer. The system is hardware- and software-compatible with the IBM PC and the IBM PC/XT. The Portable Personal Computer weighs approximately 30 pounds

and houses the CPU, CRT, and one diskette drive; the system has space for a second diskette drive.

The basic Portable Personal Computer includes an Intel 8088 microprocessor (identical to that used in the PCjr, PC and XT), built-in CRT, mass storage, 256K bytes of RAM expandable to 512K bytes, 40K bytes of ROM, color/graphics adapter, keyboard, a protective carrying case, and 5 slots available to the user. The system board is the same as that used in the IBM XT when expanded to 256K bytes of RAM.

The CRT has a 9-inch diagonal amber screen with graphics. The keyboard is detachable and has 83 keys, including a numeric keypad. The key layout is the same as the PC and XT models. The keyboard may be folded up to cover the monitor and diskette drive(s) when the system is transported.

A single 5.25-inch, 360K-byte half-height diskette drive is standard. Space and power are available for an optional second diskette drive. Mass storage may be expanded to 10M bytes using the IBM Expansion Unit Model 1. The Portable's diskette drives cannot be used in the PCjr, PC, or XT.

The basic Portable Personal Computer is \$2,795 and the second diskette drive is \$425. The system will be available in March. Sales will be through the IBM authorized dealer network, IBM Product Centers, IBM National Accounts Division, and the IBM National Marketing Division.

LOTUS ANNOUNCES SOFTWARE TO INTEGRATE SPREADSHEET, WORD PROCESSING, FILE MANAGEMENT, GRAPHICS, AND COMMUNICATIONS Lotus Development Corporation; 161 First Street, Cambridge, MA 02142; 617-492-7171.

Lotus has announced Symphony, an office productivity package integrating 5 commonly independent functions. Symphony will be available at mid-year, according to Lotus. The first versions will run on the IBM PC and XT computers.

According to Lotus, the entire package is loaded into random access memory (RAM), allowing true integration of different functions. This means the user does not need to switch diskettes when moving from spreadsheet to graphics, from spreadsheet to word processing and so on. The program requires 320K bytes of RAM and graphics hardware.

The four functions of the package are linked together, allowing transfer of information from one to another. Several windows may be displayed simultaneously, incorporating documents, data, terminal sessions, or graphs on the CRT.

The word processor function includes several features similar to a Wang word processor. In addition, data from the file management function may be merged with form letters for mailing lists. Multiple documents may be displayed on the CRT and data from spreadsheets and tables may be changed and automatically reflected in the documents.

The file management function allows a database to be created in either a spreadsheet format or a forms-oriented layout. Reports may be generated for printing on mailing labels and other forms requiring a specified layout on each form such as an invoice or customer statement. A database may contain over 8,000 records.

Terminal emulation is included for data communications with other computers. This function features auto dial-up and log-on, full user control of terminal characteristics, and point-to-



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point transfer of any file. It supports asynchronous communications.

At 8,192 rows x 256 columns, the spreadsheet function of Symphony is the largest spreadsheet running on a microcomputer. Text manipulation is reported to be very easy within a spreadsheet. Files developed with Lotus 1-2-3 may be used by Symphony. According to Lotus, the company is committed to making 1-2-3 upwardly compatible.

Symphony includes a graphics function for creation of eight graph types. Data from the spreadsheet or the file management functions is available without swapping a program diskette. Shaded and exploded pie charts may be created—an enhancement over the graphics program in 1-2-3.

Extensive HELP screens are available to the user at any time, and a tutorial disk is provided for first-time users. Present 1-2-3 owners wishing to upgrade will receive credit for the price of that package when they buy Symphony. The package will be offered in mid-year for \$695.

■ ANNOUNCEMENTS & NEW PRODUCTS

□ Software

IBM PC DOS V.2.1 ANNOUNCED AND AVAILABLE International Business Machines (IBM) Corporation, Information Systems Group • National Accounts Division; 1133 Westchester Avenue, White Plains, NY 10604; 914-696-1900 • National Marketing Division; 4111 Northside Parkway, Atlanta, GA 30327; 404-238-2000.

IBM has announced the availability of DOS 2.1, the operating system that supports all members of the IBM Personal Computer family, including the PCjr.

The new version which replaces DOS 2.0 has the same functions as the existing version and requires the same amount of storage, but is only operating system supported by IBM for the PCjr.

DOS V.2.1 is resident on two diskettes that also contain BASIC Interpreter extensions for Disk BASIC and Advanced BASIC, along with sample programs that demonstrate BASIC and hardware features. It will operate with a Personal Computer with a minimum of one diskette drive and 64K-byte memory. A minimum of 128K bytes is recommended for the PCjr, and for the PC or PC XT if a fixed disk is installed.

IBM Personal Computer DOS V.2.1 will be available in the first quarter of 1984 for a one-time charge of \$65.

IBM OFFERS UNIX-BASED OPERATING SYSTEM IBM announced a UNIX-based operating system for the PC and PC/XT. The system is a descendent from AT&T's UNIX System III. Called Personal Computer Interactive Executive (PC/IX), it was developed for IBM by INTERACTIVE Systems Corporation of Santa Monica, California.

PC/IX is a single-user, multitasking system. A user may operate an I/O peripheral such as a printer or a modem while running other unrelated tasks on the PC. This capability is especially useful when running programs requiring long reports or transmissions between computers. The user need not wait for a slow printer or modem to finish a task before going on to other programs.

PC/IX features password protection, giving the system administrator control of file access. Users are protected against

having their files used or changed without their knowledge. The administrator may prevent password changes, allow users to change passwords anytime, or force periodic password changes.

The system uses UNIX commands, which may be strung together for smoother operation. The "C" programming language, a full-screen editor, File Management Utilities, and programming aids are included with PC/IX. A Queueing System allows scheduling of I/O functions such as priority jobs and shortest-job-next.

PC/IX may reside with PC-DOS on a fixed disk drive. A utility is provided for file transfer between PC-DOS 2.0. The optional 8087 Math Co-processor is supported, possibly multiplying the speed of certain operations. The system requires an IBM PC/XT with 256K bytes of RAM or a PC with 256K bytes of RAM, a 10M-byte hard drive, and an IBM Asynchronous Communications Support Adapter. 512K bytes of RAM is recommended for the most efficient operation of PC/IX.

PC/IX will be available through the National Accounts Division and the National Marketing Division. The price is a one-time fee of \$900.

LOCAL DATA PROVIDES PC-TO-MAINFRAME FILE TRANSFER PROGRAM Local Data; 2701 Toledo Street, Suite 706, Torrance, CA 90503; 213-320-7126.

In a recent announcement, Local Data introduced FileLynx/3278, a software product that interfaces the IBM PC to an IBM mainframe computer to provide fully automatic file transfer and 3278 emulation at transmission speeds of up to 9600 baud. All IBM functions and cursor keys are supported, and when used with Local Data's line of protocol converters FileLynx/3278 makes any IBM PC or PC-compatible micro emulate an IBM 3278-2 terminal. FileLynx/3278 can even emulate the 4-color 3279 color monitors.

FileLynx/3278 allows users to automatically transfer an entire file to or from the IBM mainframe. The file transfer facility allows a variable number of lines per screen to be transferred, along with support for formatted screen applications. All FileLynx/3278 parameters are stored using an end-user-oriented configurator mode. Once these user-defined criteria are stored, FileLynx/3278 can operate without addressing interactive operations to determine such facts as baud rate, parity, etc. The product also provides auxiliary print support on the Local Data DataLynx/3274 which can be connected to the PC locally as a parallel printer and appears to the mainframe host as an IBM 3278 printer. Optionally, FileLynx/3278 can capture all printer output on disk for users without printers. FileLynx/3278 also supports several different auto-dial modems, including the Hayes Smartmodem 1200 series and the Racal-Vadic VA212. FileLynx/3278 works exclusively with Local Data protocol converters and requires a minimum of one serial card with 64K bytes of memory and any version of IBM's PC-DOS. The currently quoted price for FileLynx/3278 is \$200, and it is available immediately from the vendor.

MORROW ANNOUNCES COMMUNICATIONS PACKAGE FOR CP/M SYSTEMS Morrow Designs; 600 McCormick Street, San Leandro, CA 94577; 415-430-1970.

Morrow introduced the MorrowModem MM300, a package which consists of a 300-bps modem and ReachOut communication software from Applied Computer Techniques. The unit



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attaches to the serial printer RS-232C interface on the Morrow Micro Decision computer and can be used with other CP/M based systems. Standard features include menu-driven function selection, auto-dial, automatic sign-on procedures, logging mode, integral "help" facility, file compression, file transfer, and file encryption facilities. The MorrowModem MM300 retails for \$299, available immediately.

MICROPRO HAS RELEASED AN ENHANCED VERSION OF CALCSTAR FOR MS DOS, PC DOS, AND CP/M MICROCOMPUTERS MicroPro International Corporation; 33 San Pablo Avenue, San Rafael, CA 94903; 415-499-1200.

Micropro is now shipping its CalcStar spreadsheet, version 1.4, in MS-DOS, PC-DOS, and CP/M-86 formats. The new version has enhanced features and is designed to take advantage of 16-bit capabilities and expanded system memory. Color is employed with IBM PC systems equipped with a color CRT.

CalcStar 1.4 features a "form mode," allowing quick entry of repetitive data, merging of several CalcStar spreadsheets, password protection, and compatibility with other MicroPro programs. The price of CalcStar 1.4 is \$195. Current users may upgrade for \$60.

MICROSOFT ANNOUNCES BASIC AND FOUR APPLICATIONS PROGRAMS FOR APPLE MACINTOSH Microsoft Corporation; 10700 Northrup Way, Bellevue, WA 98004; 206-828-8080.

Microsoft has announced MicroSoft BASIC, Multiplan, WordChart, and WordFile for the Apple Macintosh 32-/16-bit computer, BASIC and Multiplan are immediately available with Chart following by the end of the first quarter 1984 and Word and File in the second quarter 1984.

The Microsoft BASIC language for the Macintosh is source code compatible with all standard versions of Microsoft BASIC running on other microcomputers. The Macintosh version uses the large direct addressing capability of the computer's MC68000 32-/16-bit microprocessor, including 14-digit math precision and string variables and expressions of up to 32,767 characters each. Up to three windows may be viewed concurrently—one to enter commands when in direct mode or while editing a program, one for viewing the program listing, and one for program output. Several of Microsoft's GW BASIC graphics capabilities are provided, as well as the ability to use the Macintosh fonts and Quickdraw routines contained in ROM.

MultiPlan for the Macintosh has all the features of other versions of this popular spreadsheet program along with several enhancements. The Macintosh "pull-down" menus are incorporated, as are the cut and paste operations facilitated by the use of the Macintosh mouse. Recalculation of spreadsheets is faster with the Macintosh version than with other versions of Multiplan.

Microsoft Chart for the Macintosh allows the user to create graphs and charts using data from Multiplan or File. Data may also be entered, edited, and formatted directly in windows on the Macintosh screen. The mouse can be used to select options and to move titles on the screen. Font options may be selected from the Macintosh ROM and placed on the chart or graph.

Microsoft Word word processing will support many Macintosh

functions, including on-screen proportional spacing, cut and paste, and display of text and graphics on the same screen. Merging data from other Microsoft Word documents and from Microsoft File Records will be possible.

Microsoft File is a filing system which will allow data entry and retrieval using screen file forms. File will transfer data to any program that can read and write text files. Standard user-modifiable file forms will be supplied with the package.

The price for Microsoft Multiplan, Word, and File for the Apple Macintosh is \$195 for each package. Microsoft Chart is \$125 and BASIC is \$150.

SPSS/PC NOW AVAILABLE FOR IBM PERSONAL COMPUTER USERS SPSS, Inc; 444 North Michigan Avenue, Chicago, IL 60611; 312-329-2400.

In a recent announcement, SPSS, Inc announced the availability of a new PC version of their popular SPSS statistical processing system. SPSS/PC provides users of the IBM PC personal computer running under MS-DOS to realize all the powerful information analysis and data management facilities that exist in the mainframe version of the product. SPSS/PC contains those statistical procedures most often applied to solve business and research problems, including univariate statistics, cross-tabulations, correlations, multiple regression, analysis of variance, nonparametric tests, factor analysis, LOG LINEAR, contour and scatter plot procedures, and many more. SPSS/PC also comes with an integrated report writing facility.

SPSS/PC is totally "user friendly," employing an interactive, command-oriented, terminal-based approach to problem solving. It even contains a HELP command procedure for the novice user. SPSS/PC provides flexible data transformation, such as the ability to sort cases, handle missing values, compute new variables, etc. Data can be entered in alpha-numeric, integer, or decimal format. The system supports a file capacity of up to 150 variables, and can handle an unlimited number of cases, based on the disk space available. SPSS/PC can create rectangular input and output files in ASCII format for easier editing, maintenance, and transfer. It requires a PC system with a minimum of 320K bytes of memory, a hard disk, and the 8086 co-processor. A single version of the product costs \$795 for the entire integrated package.

TELEVIDEO INTRODUCES MICRO-TO-MAINFRAME LINK FOR 3270 APPLICATIONS Televideo Systems, Inc; 1170 Morse Avenue, Sunnyvale, CA 94086; 408-745-7760.

There is good news for users of IBM 3270 Information Display Systems who want to incorporate TeleVideo Personal Computers into their networks. A new communications software package, called Tele3270, enables users on TeleVideo networks to access IBM 3270 applications and databases on IBM mainframes. This 3270 emulator program provides a microcomputer-to-mainframe link, giving the user local personal computing with access to mainframe data and software programs. Both clustered 3270 access and multiuser personal computing is thus available in a single package.

According to a company spokesman, Tele3270 provides CP/M-based personal computing, the ability to capture screen and print data to disk, and the ability to upload disk files if they were keyboard data. Also, 3270 access can be temporarily suspended in order to return to CP/M applications such as



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word processing and financial modeling, while still keeping active the 3270/host session. In addition, other TeleVideo software can be interfaced, including TeleFast, TelDBMS, and TelePlan.

Tele3270 runs on a TeleVideo PC Network that can support the TS 806/20 or TS 816/40; a TS 800A to emulate the IBM 3276 Control Unit; and TS 800A, 802, 803, and 1603 workstations and TeleVideo Personal Computer to emulate the IBM 3278 Display Unit. With the use of TeleVideo Remote Workstation Processor and TS 800R, workstations may also be remotely connected. The price of the software is geared to the number of personal computers in the network.

VISICORP VISI-ON APPLICATIONS MANAGER PRICE IS CUT

VisiCorp; 2895 Zanker Road, San Jose, CA 95134; 408-946-6000. VisiCorp has reduced the price of its VisiOn Applications Manager window environment software package from \$495 to \$95. Pricing of the company's VisiOn applications programs remains the same. The change may signify a growing trend by software publishers to bring operating system products to market at lower prices.

The VisiOn Applications Manager is a prerequisite to VisiOn Calc (\$395), VisiOn Graph (\$395), and VisiOn Word (\$375). An optical mouse is available from VisiCorp for \$250. All the VisiOn products are available separately.

COURT DENIES VISICORP RESTRAINING ORDER — SOFTWARE ARTS PLANS TO MARKET VISICALC PRODUCTS In the recent legal fight between VisiCorp of San Jose, California and Software Arts of Wellesly, Massachusetts a court denied VisiCorp a temporary restraining order preventing Software Arts from using the trademarks "Visi," "VisiCalc," and "VisiCalc Advanced Version." Software Arts' President, Dr. Julian E. Lange stated the company's plans to market the VisiCalc products. Software Arts has notified VisiCorp of the termination of a distribution agreement between the two firms.

VisiCorp originally sued Software Arts for breach of contract concerning new product development. Software Arts countersued, arguing that VisiCorp harmfully neglected to market the VisiCalc product line. VisiCalc was programmed by Software Arts and the original distribution agreement with VisiCorp signed in 1979. VisiCorp changed its name from Personal Software to VisiCorp in 1982.

Hardware

DAVONG SYSTEMS ANNOUNCED HARD DISK SYSTEMS FOR APPLE MACINTOSH

Davong Systems, Inc.; 217 Humboldt Court, Sunnyvale, CA 94086; 408-734-4900. Davong has announced its MacDisk hard disk drive systems for the Apple Macintosh. They will be available in the first quarter of 1984 in capacities ranging from 5M bytes to 32M bytes. A 28M byte streaming tape backup system and a local area network called MacLink are scheduled for introduction later in 1984.

The company currently offers hard disk systems for the IBM PC, IBM PC/XT, Apple IIe, and Apple III. Davong also developed MultiLink, a local area network available for the IBM PC and PC/XT.

DIGITAL INTRODUCES DECTALK, A HIGH-QUALITY VOICE SYNTHESIS UNIT

Digital Equipment Corporation; Maynard, MA 01754; 603-884-3575.

DECTalk is an unusually high-quality voice synthesizer based on the heuristics and voice track model developed by Dr. Dennis H. Klatt of the Massachusetts Institute of Technology.

DECTalk is implemented in a self-contained unit about the size of a modem. It converts standard ASCII text into human-quality speech. It can speak through its own speaker, an audio system, or any Touch-Tone telephone. It operates as an I/O device to a computer. It connects to most computers through a standard RS-232C connection. Input is from a Touch-Tone telephone keypad. The terminal and telephone line for answer and dial-out are under computer control. The voice output is to a built-in speaker, headphones, audio jack, or telephone. It has choice of voices, male/female/child, speaking rate of 120 to 350 words per minute, and control of pronunciation and intonation. It includes an auxiliary dictionary for the user to specify trade terms, acronyms, and special words. Purchase price of the DECTalk unit (DTC01-AA) is \$4,000. Availability for the U.S. and Canada is first quarter of 1984.

PERKIN-ELMER UNWRAPS 3200-COMPATIBLE MICRO

Perkin-Elmer, Data Systems Group; 2 Crescent Place, Oceanport, NJ 07757; 201-870-4768.

Perkin-Elmer has expanded its Series 7000 desktop computer line with the new 7350 Professional Computer, a multifunction workstation which can operate standalone, or as a "companion product," integrated with Perkin-Elmer's Series 3200 superminis. In addition to accessing 3200 systems in local and wide area networks, the 7350 can emulate IBM 3270 terminals for access to IBM systems over SNA or BSC connections.

The new system is available in three configurations, a single-user professional workstation, color graphics workstation and multifunction cluster controller console. Standard features on all three are: an M68000 processor, memory, CRT, detached keyboard, 15M-byte Winchester disk drive, and two double-density, double-sided diskette drives.

The single-user workstation includes the UniPlus operating system and 320K-byte memory in addition to the standard features. The color graphics workstation is the same as the single-user workstation, but features 448K-byte memory and a color graphics display with a palette of 27 colors, of which any 16 can be displayed simultaneously. The multifunction cluster control version of the 7350 Professional Computer is also the same as the single-user workstation, but with 1M-byte memory and the capability to attach up to three terminals which have access to most programming facilities and applications.

Available options for the 7350 include 256K-byte, 512K-byte, and 1M-byte memory add-ons, dual RS-232C ports, and IEEE-488 interface, 55-cps and 20-cps letter-quality printers.

A number of applications packages that will reportedly also run on the 3200 Series are available for the Professional Computer. They include Final Word and VisiWord word processing, Supercomp-Twenty electronic spreadsheet, and DI-3000 and Grafmaker Graphics software.

The Perkin-Elmer Model 7350 Professional Computer Single-User Workstation is priced at \$8,400, the Color Graphics Workstation is \$10,400, and the Multifunction Cluster Console is \$11,750.



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SANTA CLARA SYSTEMS INTRODUCES IBM-COMPATIBLE PERSONAL COMPUTER WITH BUILT-IN LOCAL AREA NETWORK SUPPORT Santa Clara Systems, Inc; 1860 Hartog Drive, San Jose, CA 95131; 408-287-4640.

SCS's latest products are PC terminal, an IBM PC-compatible personal computer and PCnet, a local area network scheme, all of which rely on the IBM product for service. PC terminal consists of a monitor, keyboard, 8088 microprocessor, both serial and parallel interfaces, 64K bytes of RAM (expandable to 256K), and 4 expansion slots for peripherals. A 5.25-inch diskette drive is optional. The PC terminal runs MS-DOS in addition to SCS's version, SCS-DOS. PC net, local area network scheme, allows the personal computers to pass data at speeds up to 1M bps.

The SCS approach is unusual in that its PC terminals can interact with the IBM PC and employ its peripherals (printers, diskette, and hard disks) to perform processing. In essence, the IBM PC acts as a server to the PC terminals. The advantage to this approach is that only one higher-cost IBM PC and its peripherals is required for up to 16 PC terminals. Thus the user can establish a very low cost local network of attached personal computers.

Each PC terminal, priced at only \$1,295, includes the integral PCnet interface. For those users that need local storage, a 5.25-inch diskette drive is available.

SPERRY UNVEILS PERSONAL COMPUTER Sperry Computer Systems; P.O. Box 500, Blue Bell, PA 19424; 215-542-4011.

Sperry Computer Systems has introduced a new 16-bit IBM-compatible microcomputer called the Sperry Personal Computer. Available in several models with either monochrome or color display and varying disk storage capacities, the new system features a switch-selectable 8088 processor which can operate at 4.77 MHz or 7.16 MHz. Also standard with each model is 128K-byte memory expandable to 640K bytes, an asynchronous RS-232C interface, monochrome or color display, keyboard disk or diskette storage, built-in speaker, time-of-day clock, seven free slots, and MS-DOS 1.25 or 2.0 operating system with GW BASIC programming language.

The expansion bus conforms to the IBM open architecture specifications and feature cards that plug into the expansion slots are available. A Centronics interface can be added along with memory in 128K-byte increments. One feature card allows the Sperry Personal Computer to act as a Sperry UNISCOPE editing terminal, and another permits it to operate as an IBM 3270 Bisync or SNA terminal. The system's memory organization, disk formats, graphics organization, and keyboard are also reportedly the same as the IBM Personal Computer and XT.

Double-sided, double-density 5.25-inch diskettes and/or a 10M-byte fixed disk are supported. The 12-inch green phosphor monochrome CRT displays 25 lines of 80 characters, and the 12-inch color graphics CRT displays 25 lines of 80 or 40 characters with a graphics capability of 640x400 pixels. Sixteen colors from a palette of 256 are available. The 84-key full-function keyboard has a separate numeric pad and is attached to the system unit by a six-foot cable.

Sperry offers a 100-cps dot-matrix graphics printer for its new personal computer and software packages such as Multiplan spreadsheet, WordStar word processing, dBASE II data man-

agement system, graphics utilities, and Peachtree business software are also available.

TELEVIDEO EXPANDS PERSONAL COMPUTER LINE WITH TWO NEW MICROS TeleVideo Systems, Inc; 1170 Morse Avenue, Sunnyvale, CA 94086; 408-745-7760.

TeleVideo has unveiled two new 16-bit personal computers—the TPC II and the Tele-XT.

The TPC II represents TeleVideo's second entry into the portable computer market, joining the 8-bit TPS I. It is available with 128K-byte RAM, 9-inch CRT, and dual diskette drives, each providing 360K-byte storage. The TPC II also features rear panel connectors for a color monitor and composite video.

The Tele-XT desktop system includes 256K-byte RAM, a 14-inch CRT, single 360K-byte diskette drive, and 10M-byte hard disk drive.

Both systems utilize the Intel 8088 CPU, IBM-compatible Tele-DOS operating system and Tele-BASIC programming language, RS-232C port, IBM-style DB-25S parallel printer port, IBM-compatible keyboard, and a graphics capability of 640x200 pixels. Both computers can be connected to the TeleVideo Personal Computer Network via an RS-422 port.

The TPC II is priced at \$2,995, and the Tele-XT is \$4,995. Both are available now.

WINTERHALTER INTRODUCES IBM TERMINAL EMULATION SYSTEM FOR APPLE MACINTOSH Winterhalter Incorporated; 3853 Research Park Drive, Ann Arbor, MI 48104; 313-662-2002.

Winterhalter has introduced the Datatalker II processor with IBM terminal emulation software for the Apple Macintosh microcomputer. The system allows access to IBM mainframes and communications networks. Terminals emulated are the IBM 3275 and 3276 interactive terminals, and the IBM 3780, 2780, 3741, 2968, and 2770 remote batch terminals.

The Datatalker II is 9 x 5 x 3 inches and plugs into the Macintosh's serial I/O port. The emulation software is supplied on two diskettes and is downloaded from the Macintosh to the Datatalker II. Winterhalter includes a 12-month warranty and provides a toll-free number for pre- and post-sales service and support. The price of Datatalker II is \$995.

■ CALENDAR OF EVENTS

☐ March 1984

Mar 12-15 - INTERFACE '84 • Las Vegas, NV **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

Mar 13-15 - MICRO/SET '84 • Detroit, MI **Contact** Ms. Sheila Osann, Conference Manager, Engineering Society of Detroit, 100 Farnsworth, Detroit, MI 48202; 313-832-5400.

Mar 19-21 - Personal Computers in Business — The Micro-Mainframe Connection • Los Angeles, CA **Contact** Registrar, National Institute for Management Research, P.O. Box 3727, Santa Monica, CA 90403; 213-450-0500.

☐ April 1984

Apr 5-7 - COMDEX/Winter '84 • Los Angeles, CA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

Apr 16-18 - Videotex '84 • Chicago, IL **Contact** Sally Summers, London Online, 2 Penn Plaza, Suite 1190, New York, NY 10121; 212-279-8890.



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Apr 17-19 - Federal DP Expo Conference & Exposition • Washington, DC **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

May 1984

May 3-6 - Personal Computer Userfest/Chicago • Rosemont, IL **Contact** Northeast Expositions, 822 Boylston Street, Chestnut Hill, MA 02167; 617-739-2000.

May 12 - Louisiana World Exhibition • New Orleans, LA **Contact** Gulf Coast Computer & Office Show, 119 Avant Garde Circle, Kenner, LA 70062; 504-467-9949.

May 21-24 - Communication Networks Conference and Exposition • Washington, DC **Contact** Louise Myerow, Communication Networks, Box 880, Framingham, MA 01701; 800-225-4698 or 617-879-0700.

May 22-25 - COMDEX/Spring '84 • Atlanta, GA **Contact** The Interface Group, 300 First Avenue, Needham, MA 02194; 617-449-6600.

May 29-31 - Gulf Coast Computer & Office Exhibition • New Orleans, LA **Contact** Gulf Coast Computer & Office Show, 119 Avant Garde Circle, Kenner, LA 70062; 504-467-9949.

June 1984

Jun 4-7 - A/E Systems '84 • Baltimore, MD **Contact** Karen Gosselin, MRH Associates, P.O. Box 11318, Newington, CT 06111; 203-666-9487

Jun 19-21 Computerized Office Equipment Expo (COEE) • Rosemont, IL **Contact** Janet Schafer, Cahners Exposition Group, Cahners Plaza, 1350 East Touhy Avenue, P.O. Box 5060, Des Plaines, IL 60018; 312-299-9311.

July 1984

Jul 9-12 - National Computer Conference • Las Vegas, NV **Contact** AFIPS, Marty Byrne, 1899 Preston White Drive, Reston, VA 22091; 703-620-8926.

September 1984

Sep 12-14 - SOFTWARE/Expos • Chicago, IL **Contact** Pemco, 2400 East Devon Avenue, Suite 205, Des Plaines, IL 60018; 312-200-3131 or 800-323-5155.

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