

## IBM (Information Systems Division, Entry Systems Business) Press Release, August 12, 1981

### PERSONAL COMPUTER ANNOUNCED BY IBM

NEW YORK, August 12 -- IBM Corporation today announced its smallest, lowest-priced computer system -- the IBM Personal Computer.

Designed for business, school and home, the easy-to-use system sells for as little as \$1,565. It offers many advanced features and, with optional software, may use hundreds of popular application programs.

The IBM Personal Computer will be sold through participating ComputerLand dealers and Sears, Roebuck and Co.'s new business machine stores beginning this fall. It will also be sold through IBM Product Centers and a special sales unit in the company's Data Processing Division.

"This is the computer for just about everyone who has ever wanted a personal system at the office, on the university campus or at home," said C. B. Rogers, Jr., IBM vice president and group executive, General Business Group. "We believe its performance, reliability and ease of use make it the most advanced, affordable personal computer in the marketplace."

IBM has designed its Personal Computer for the first-time or advanced user, whether a businessperson in need of accounting help or a student preparing a term paper.

An enhanced version of the popular Microsoft BASIC programming language and easily understood operation manuals are included with every system. They make it possible to begin using the computer within hours and to develop personalized programs quite easily.

Among the new system's highlights are:

- o Features: Available with the system are an 83-key adjustable keyboard, up to 262,144 characters of user memory (16,384 standard), a printer that can print in two directions at 80 characters per second, self-testing capabilities that automatically check the system components and a high-speed, 16-bit microprocessor.
- o Performance: Operating at speeds measured in millionths of a second, the IBM Personal Computer can generate and display charts, graphs, text and numerical information. Business applications -- including accounts receivable and word processing -- can be run on the same system with applications covering personal finance and home entertainment.
- o Service: The IBM Personal Computer will be serviced by IBM and by a nationwide network of authorized IBM Personal Computer dealers designed to provide the high standards of service associated with all IBM products.

- o Color/Graphics: The capabilities provide users with a text system capable of displaying 256 characters in any of 16 foreground and 8 background colors. It is also capable of displaying graphics in four colors.
- o Compact Size: The main processor or system unit -- about the size of a portable typewriter -- contains expandable memory and a built-in speaker for audio and music applications.
- o Expandability: A starter system consisting of a keyboard and system unit can be connected to a home television set with a frequency modulator. It can then be expanded to a system with its own display, printer and auxiliary storage cassettes or diskettes. The computer can be used with color or black-and-white television sets. Information from centralized data banks such as Dow Jones News/Retrieval Service\* and THE SOURCE\* can be accessed and displayed.

The system's keyboard comes with a six-foot, coiled cable for flexibility. It can be used in the lap or positioned across a desk top without moving the computer itself. The 83 keys make it easy to write and edit text, enter data ranging from stock analysis to cooking recipes, figure business accounts, or play video games.

The optional IBM display and printer are attachable units. The display has an anti-glare screen, green phosphor characters for reading comfort and controls for brightness and contrast. Automatic flashing and underlining can be used to call attention to especially important information on the screen.

The printer provides 12 type styles. Both printer and system unit can run self-diagnostic checks so users can verify that components are functioning properly.

### Software for Business and Home

“We intend the IBM Personal Computer to be the most useful system of its kind,” Mr. Rogers said. “Besides making it easy to set up and operate, we are offering a program library that we expect will grow with the creativity of the Personal Computer users.”

Mr. Rogers said IBM has established a new Personal Computer Software Publishing Department for the system. It will publish programs written by IBM employees working on their own time and those accepted from independent software companies and outside authors.

Program packages available for the IBM Personal Computer cover popular business and home applications. For example, EasyWriter\* will store letters, manuscripts and other text for editing or rapid reproduction on the printer. Businesses can use General Ledger, Accounts Payable and Accounts Receivable by Peachtree Software, Inc. to generate balance sheets, track accounts and automatically print checks.

VisiCalc\* is available for applications ranging from financial analysis to budget planning. Microsoft Adventure brings players into a fantasy world of caves and treasures.

## Advanced Operating Systems

IBM, in conjunction with Microsoft, Inc., has adapted an advanced disk operating system to support IBM Personal Computer programs and software development. It has also contracted with Digital Research, Inc. and SofTech Microsystems, Inc. to adapt the popular CP/M-86\* and UCSD p-System\* to the Personal Computer. These two systems should provide users with the opportunity to transfer hundreds of widely used applications to the IBM Personal Computer with minimal modifications.

The IBM Personal Computer can be tailored to fit the user's needs. A basic system with color graphics for home use attached to an audio tape cassette player and a television set would sell for approximately \$1,565, in IBM Product Centers, while a more typical system for home or school with color graphics, a memory of 64,000 bytes, a single diskette drive and the IBM Disk Operating System would be priced at \$2,665. An expanded system for business with two diskette drives, an IBM display and a printer would cost \$4,425.

The IBM Personal Computer was developed at the Information Systems Division's Boca Raton, FL, facility and first deliveries will be scheduled for October.

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### \*Trademarks:

THE SOURCE - Source Telecomputing Corp.  
Dow Jones News/Retrieval Service - Dow Jones and Company, Inc.  
EasyWriter - Information Unlimited Software, Inc.  
VisiCalc - Personal Software, Inc.  
CP/M-86 - Digital Research, Inc.  
UCSD p-System - Regents of the University of California

## IBM PERSONAL COMPUTER FACT SHEET

### System Unit

Size:       Width -- 20", Depth --16", Height -- 5.5"

Weight:     Without diskette drive -- 21 lbs.  
              With one drive -- 25 lbs.  
              With two drives -- 28 lbs.

Electrical:       120 V. AC

Cycle Time:     Main storage -- 410 nanoseconds  
                  Access -- 250 nanoseconds

Memory:        40K built-in read only memory (ROM)

16K to 256K user memory

Standard:

Keyboard for data and text entry  
Cassette player jack for cassette attachment  
Five expansion slots for additional memory and display, printer, communications and game adaptors  
Built-in speaker for musical programming  
Power-on automatic self-test of system components  
BASIC language interpreter, 16K memory

### Keyboard

Size: Width -- 20", Depth -- 8", Height -- 2"

Weight: 6 lbs.

Keys: 83 full-function for data and text entry: includes 10 for numeric entry and cursor control and 10 special function for scrolling, editing, etc. Easy access to 256 characters (ASCII and Special)

Keyboard: Adjustable typing angle  
Detached from system unit and connected by six-foot cable for flexibility  
All keys automatically repeat

### Matrix Printer

Size: Width -- 16", Depth -- 15", Height -- 4"

Weight: 12.5 lbs.

Features:

80 characters-per-second printing  
Continuous feed, multi-part paper  
Self-diagnostic checks to assure proper operation  
12 type styles to suit various printing needs  
Page spacing and column skip for word processing  
Bi-directional printing for increased speed  
40, 66, 80 or 132 characters-per-line formats  
Out-of-paper alarm  
Replaceable ribbon cartridge and print head

### Monochrome Display

Size: Width -- 15", Depth -- 14", Height -- 11"

Weight: 17 lbs.

Display Functions:

25 lines of 80 characters on 11½" screen  
Underlining, high intensity blinking characters and reverse image for highlighting information  
Non-display for security data  
Upper and lower case display for word processing  
Brightness and contrast controls for reading comfort

Diskette Drive

Number of diskettes: Up to two 5¼" diskette drives  
Storage capacity: 160 kilobytes per diskette

Other Options

Communications: Asynchronous communication line with data bases, other computers, laboratory instruments or other products using a standard RS-232C asynchronous adaptor

Games: Permits user-supplied joy sticks and paddles to be connected to the system

Note: All weights and measurements are approximate

SOFTWARE

System Software

BASIC Interpreter -- Based on the popular Microsoft Basic and offered in three versions -- cassette, diskette and advanced.

The cassette level is included in the read-only memory of every system and provides input/output instructions needed to enter and retrieve data. It also supports use of the keyboard, display, light pen and printer and provides a full complement of editing and mathematical functions.

The diskette and advanced levels are optional. The diskette extension supports the use of diskettes, while adding date, time of day and communications capabilities to the system. The advanced extension enhances the display graphics to include features such as point, circle and get/put display, while increasing light pen and joy stick support for design work and home entertainment.

Disk Operating System (DOS) -- DOS supports one or more diskette drives, allowing the user to write or read from the system's removable diskettes, display a directory and rename, erase, display or copy files.

Pascal Compiler -- This language compiler allows separate compilations of program elements for maximum system performance. In addition, it supports several programming features for advanced programming work.

CP/M-86\* and UCSD p-System\* -- IBM has contracted with Digital Research, Inc. and SofTech Microsystems, Inc. to make CP/M-86 and the UCSD p-System available for the IBM Personal

Computer. We expect their availability will provide the opportunity for many current applications to be transferred to the IBM Personal Computer with minimal modifications.

### Application Software

VisiCalc\* is a problem-solving program package for financial or mathematical forecasting and computations. All data is arranged into a grid of up to 63 columns and 254 rows and interrelated so that users may create "what if" situations that will show the effect of one changed element on the remainder of the data. VisiCalc has vertical or horizontal scrolling, easy cursor movement and the ability to vary formats.

General Ledger by Peachtree Software, Inc. keeps detailed records of financial transactions and generates a balance sheet and income statement, providing timely information on a company's financial status. It has "menu" instructions for its programs, password security, departmental income statements, and the ability to compare prior-year budgets.

Accounts Receivable by Peachtree Software, Inc. is a complete invoicing and monthly statement generating package that tracks current and old accounts. A complete record is maintained for each customer and the current status of each customer account is instantly available. A complete set of "prompts" allows inexperienced operators to make full use of the system with minimal instruction.

Accounts Payable by Peachtree Software, Inc. keeps track of current and old accounts, incorporating programs to maintain a complete record for each vendor and determines vouchers to pay by due date. It also will automatically print payment checks and maintain a check register.

EasyWriter\* is a versatile, easy-to-use application that lets users process words and text quickly. EasyWriter functions are highlighted and prompted from menus listing all needed commands. Texts are maintained on diskette files which can be saved, retrieved, deleted, printed, revised, linked and appended. The simple text entry and text editor are combined with the flexibility of formatting to allow users with varied skill levels, from hobbyist to typist, to be productive quickly.

Microsoft Adventure provides the IBM Personal Computer with a role-playing fantasy game. The game setting is a vast network of caves beneath the earth and the land outside. The fantasy world contains 130 rooms or nodes, 15 treasures, 40 useful objects and 12 problems to solve. The program allows players to store the status of two games on a diskette. It will provide useful hints, instructions and feedback on a player's progress.

Communications software allows users to access external data like Dow Jones News/Retrieval\* and THE SOURCE\* for information and to communicate with other computers. To enhance this communication capability with larger systems, IBM also said it intends to provide a full subset of 3270 emulation capabilities.

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IBM TO PUBLISH USER-GENERATED  
PROGRAMS FOR PERSONAL COMPUTER

NEW YORK, August 12 -- Computer program authors who write applications for the IBM Personal Computer may have them considered for publication by the company's new Personal Computer Software Publishing Department.

IBM employees and external authors -- from professional programmers to hobbyists -- can submit programs for consideration.

The new department was formed to ensure that IBM Personal Computer users will have a continually expanding library of quality applications. It will complement software marketed by independent software firms and will provide an opportunity for authors to have their programs published by IBM.

Software submission information packets provide additional information and submission instructions and are needed by authors before they submit programs to IBM. Packets will be available for outside authors about September 30 and can be obtained by writing IBM Personal Computer Software Submissions, Dept. 765, Armonk, New York 10504.

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