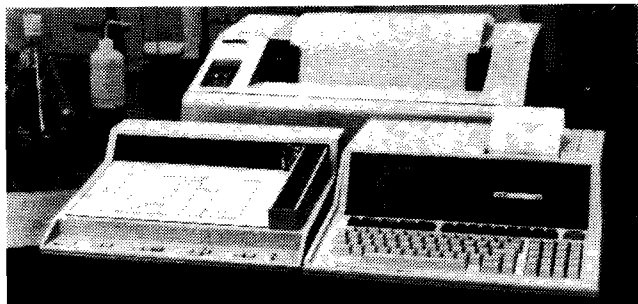


NEW PRODUCT I N F O R M A T I O N

EDITORIAL CONTACT: Ross H. Snyder
(415) 857-4101

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NEW INTERFACING ENHANCEMENT MAKE DATA-ACQUISITION AND CONTROL APPLICATIONS POSSIBLE FOR HP-85 DESKTOP COMPUTER



The HP-85's power is increased with the addition of a plotter and printer.

New interfacing options for Hewlett-Packard's HP-85A now make it possible to use this low-cost desktop computer as a controller in instrument systems. At the same time, other enhancements have been introduced which expand the HP-85's output and computation capabilities.

These increased capabilities are possible with the introduction of an HP-IB (HP's implementation of IEEE Standard 488-1978) interface module and three read-only memories (ROMs) for input/output, plotter/printer control, and matrix math. All of the enhancements can be easily added to the HP-85 by plugging them into ports in the computer.

An additional model, the HP-85F, has been introduced. The HP-85F, an HP-85A configured with several I/O enhancements, is especially suited for data acquisition and control applications.

With these new I/O capabilities, the HP-85 is expected to provide cost-effective solutions for engineering-design problems such as basic research, product design, materials engineering and production-test-automation problems such as incoming component inspections, parts sampling, production testing, failure analysis, record keeping.

I/O ROM

The new input/output ROM enriches the HP-85's BASIC language with straightforward I/O commands. Any I/O system requires program statements or subprograms, commonly called "I/O drivers," to pass data and commands among instruments and controllers. Often these drivers are complex, and are usually different for each device. With the HP-85 I/O ROM, these language enhancements are already provided, so the programmer needs to use only a few standard BASIC commands. Statements are provided to configure, control, pass data to and from, and check the status of devices in the I/O system.

The I/O ROM provides basic input and output capabilities including formatted, free-field, and binary ENTERS and OUTPUTS, with our without character conversions. String variable may be defined as I/O buffers, offering flexible interaction with slow and fast devices sharing the HP-IB. Data may be entered and output through the buffer in either interrupt or fast-handshake mode. Additional capabilities include programmable keyboard lockout, bit manipulation, number-base conversion, device time-out and I/O error detection.

HP-IB INTERFACE MODULE

The HP-IB module, when used with the I/O ROM, gives the HP-85 capability to control literally hundreds of instruments in many data-acquisition applications. The module uses an on-board processor to manage interface bus protocol and is believed to provide the most complete implementation of IEEE Standard 488 available in a desktop computer. The HP-85's HP-IB interface enables the computer to communicate with as many as 14 instruments per interface card and to achieve data transfer rates up to 25 kilobytes per second.

PLOTTER/PRINTER ROM

With the new plotter/printer ROM, the HP-85 user can add to the system such peripherals as an easy-to-use, high-throughput HP 2631B serial impact printer, and an HP 7225A graphics plotter. The plotter/printer ROM provides extensions to the BASIC-language graphics commands of the standard HP-85 operating system. These new capabilities, which are specific to printing and plotting applications, use the HP-IB; bus operations, however, are completely transparent to the user.

MATRIX MATH ROM

A third new ROM, for matrix math, provides a powerful set of statements for working with one- and two-dimensional arrays. The following operations are among those possible: perform matrix multiplication with two arrays, even if one is a vector; solve the matrix equation $AX=B$; perform an arithmetic operation between corresponding elements of two arrays; perform array and subarray copies. Two-dimensional arrays can be as large as 60 by 60 if the optional 16-kilobyte read/write memory module is in the HP-85.

HP-85F FOR OEMs/VEUs

The HP-85F includes the I/O ROM and the HP-IB interface module. This configuration also includes the ROM drawer to hold the I/O ROM. (The ROM drawer will hold as many as six ROMs, so the matrix math and plotter/printer ROMs could be inserted as well.) Although all the components of the HP-85F could be purchased separately, original equipment manufacturers (OEMs) and volume end users (VEUs) can receive the full configuration by ordering the HP-85F.

Price and Delivery

The standard HP-85A desktop computer is priced at \$3,250*, and the HP-85F lists at \$3,985*. Individually, the new I/O enhancements are priced as follows:

HP-IB	\$395*
I/O ROM	\$295*
Plotter/Printer ROM	\$145*
Matrix Math ROM	\$145*
ROM drawer	\$45*

*U.S. prices only

The HP-85 and all enhancements are available through selected retail computer stores, office equipment dealers, and the HP computer sales force. The HP-85F is available only through the HP computer sales force. Standard quantity discounts apply to HP computer sales force sales to OEMs and VEUs. First deliveries are expected June 1.