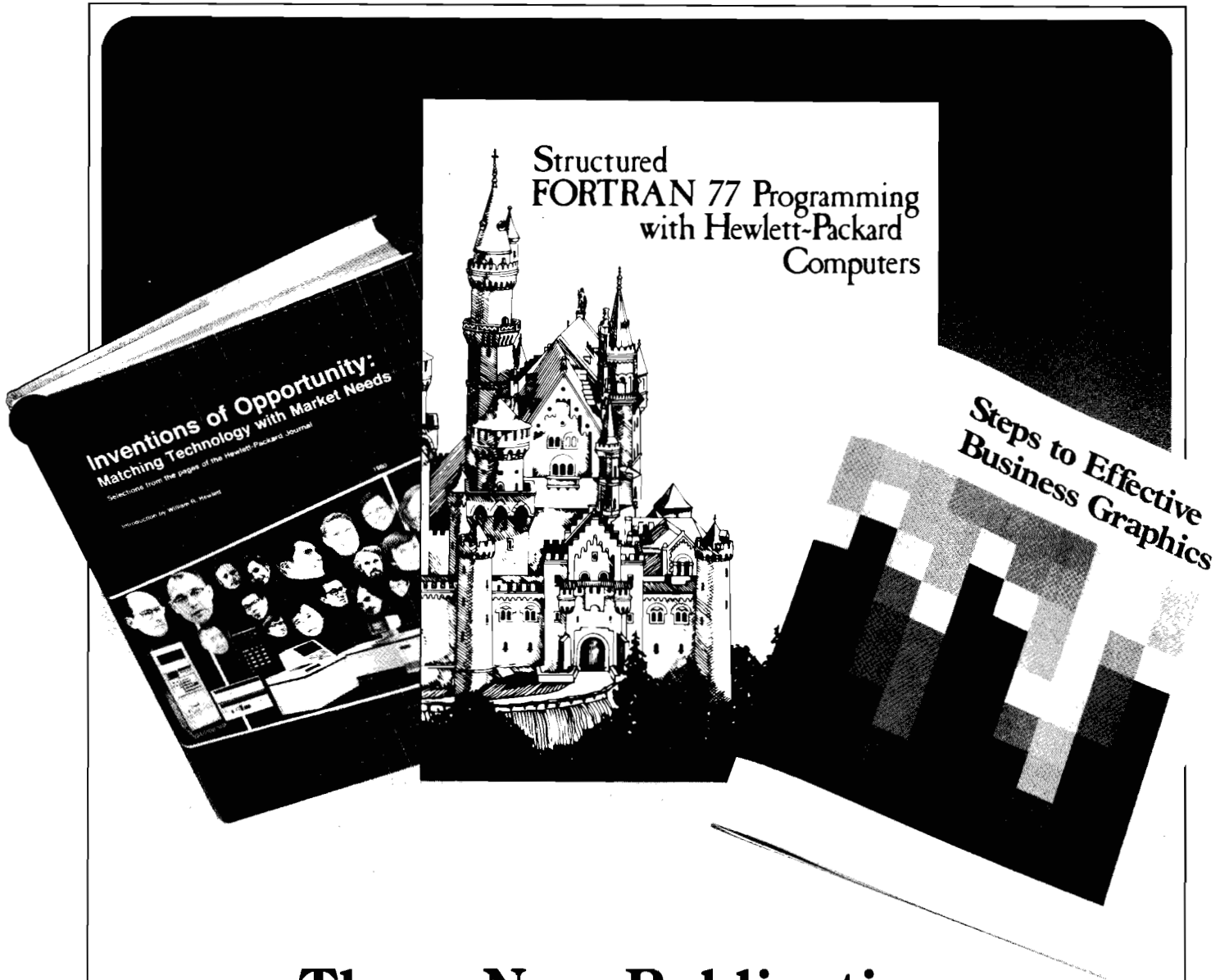


COMPUTER FOCUS

Computer News for HP OEMs and Independent Software Vendors

January 1984



**Three New Publications
for You and Your Customers**

 **HEWLETT
PACKARD**

International

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On the Cover:

Three new publications on Hewlett-Packard are now available for you and your customers. The books provide insight into HP's history and technology, and tips on structured FORTRAN 77 programming and effective business graphics with HP computers. See articles on pages 6, 9, and 19.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.



Sales Incentives That Work: Sparking That Inner Drive

In an environment as competitive as the software industry — where “garage entrepreneurs” start new companies every day, sales volume can spell the difference between success and bankruptcy. Hence, the question arises: How can a firm effectively motivate the individuals entrusted with the all-important sales function? It befalls the sales manager to ponder how hard his employees are willing to work for an Ames Pole Tree Trimmer, an Apple computer, an all-expenses-paid trip to Hawaii — or just plain, old-fashioned *cash*. Armed with hundreds of such options as incentives, the decision-making process is difficult indeed. The following tips, gleaned from discussions with star sales motivators, shed some light on how a firm can choose the right incentives for its sales force.

Who Says “Greed” Is a Dirty Word?

Salespeople are motivated mainly by *money* and the commission is their mainstay, according to all who participated in the survey. Offering a competitive compensation program is crucial to attracting and keeping talented people. “You have to keep earnings high enough that the salesperson cannot think about trying to better them someplace else,” says Dick Wolfe, senior vice president of sales at Altamonte Springs-based Florida Software Services, Inc.

The most popular method of doling out dollars involves a required minimum amount of sales (quota) for which a base pay is awarded, followed by an accelerated commission scale whereby the more one sells, the higher the percentage of commission he receives. Les Hammond, sales representative for Systematics, Inc., of Little Rock, Arkansas, relates that earning twice as much commission for sales made above quota provides twice as much incentive. That extra bonus is very good, he commends, because it pushes one to get past imposing plateaus. Of course, required quotas serve as incentives in themselves, since those who do not meet them may be fired.

Timing Is Important

Don Quinn, sales manager for Chicago-based American Management Systems, Inc., advises offering not one, but several bonus levels within an annual timeframe. An unchanging level of commission, he says, encourages salespeople to postpone closing deals near the end of a fiscal year in order to guarantee that the new year will begin with flying colors. Also, because one year-end sale could put a salesperson in a higher tax bracket, he suggests offering flexibility in terms of the timing of payment — delaying the commission until the new year if the salesperson so requests.

Group Efforts

The majority argue that pooling — setting aside some portion of each individual’s earnings to be redistributed periodically at a manager’s discretion — is generally less effective than incentives based strictly on individual performance. However, this method does aid in some ways. It promotes teamwork; it provides incentive for sales support personnel who do not receive any commissions; and — somewhat controversially — it recognizes that it can take as much effort to sell \$150,000 in software as \$250,000, and reduces the differential between the rewards for the two sales levels.

Sharing the Wealth

“The most successful incentive we’ve used is participation in our profit-sharing plan,” says Neal Pollen, vice president of sales and marketing for Duquesne Systems Inc., Pittsburgh, Pennsylvania. His company is in the process of instituting an incentive stock option as well. Most companies prohibit salespeople from participating in these types of programs, but when the salesperson is a stockholder, he may increase sales to make his own shares more valuable.

Trips, Trinkets, and Other Goods

There is little consensus about the effectiveness of “prize” programs. While some salespeople say they’d rather have the money to spend as they please, many managers report significant increases as a result of such programs. Bob Griffice, national sales manager for Dallas-based Hogan Systems, Inc., believes prizes are effective because the memories of a trip or the presence of an object serve as constant reminders of one’s accomplishments, whereas cash spent is gone forever. On the other hand, Wayne Ferrentino, senior vice president at New York-based Erisco, Inc., doubts that clock radios, TV sets, and the like can serve as an incentive to sell because most people already have them. He suggests that recognition as a “winner” is what really spurs salespeople.

According to a survey of 175 firms published by *Incentive Magazine*, travel incentives are most appropriate for long-term campaigns with an average length of 27 weeks, compared to merchandise campaigns which last an average of 17 weeks. Earning a trip is apparently tougher, as evidenced by the fact that only 22 percent of those attempting to win trips succeeded while 43 percent earned merchandise. In the travel category, Florida, Hawaii, and Mexico

were rated as most-oft chosen locations. In terms of merchandise, home, and family items were chosen by 59 percent as opposed to personal items (38 percent) and business-related items (21 percent).

Family Affairs

Stephen Kendrick, sales consultant for Erisco, Inc., Atlanta, Georgia, advises getting salespeople's family members in on the act. "You'd be amazed to see how motivated a spouse can become when he or she learns that the couple can win a trip to Hawaii." Travel is a reward routinely used by Hogan Systems, whose national sales manager, Bob Griffice, agrees with Kendrick. "The most important thing is that it provides incentive for the spouses. It's a reward for the sacrifices they make," he says.

Wilkes-Barre, Pennsylvania-based Eberhard Faber Inc., manufacturer of products for graphics communications, builds its programs on items that appeal to homemakers and their families, sending promotional mailings to salespeople's homes. The results are positive: The company anticipated giving away \$100,000 worth of furs in a contest denoted "Mink Spectacular" but was pleasantly surprised when two and a half times that many were earned.

Ego Boosters

Salespeople are motivated by an occasional pat on the back. "From a peace-of-mind standpoint, it's good to know you're at the top of the heap," says American Management Systems' Quinn. Achievements should be communicated to top management through internal memos and newsletters.

Finally, it's important to realize that while the above techniques may significantly help the sales manager, an understanding of the needs of each individual salesperson should be top priority. As Joe Girard, cited in the *Guinness Book of World Records* as "The World's Greatest Salesman," summarizes, "The most important kind of motivation that anyone can have is internal self-motivation. That's the kind of motivation and enthusiasm that can only come from knowing what he wants out of life and how his work will help him to achieve it." An ability to help salespeople find what they want out of life through effective selling is one of the most priceless qualities a sales manager can develop.

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hp

New Cross-Licensing Columns

Are you considering cross-licensing your software products to expand your business? Are you looking for packages that are available for cross-licensing?

If you are an OEM or HP software supplier with a current contract and interested in cross-licensing, you won't want to miss the new cross-licensing columns beginning in the March issue of *Computer Focus*.

HP realizes that cross-licensing is important to our software suppliers and OEMs. We have developed this new section to assist you in exchanging information on this topic with fellow HP Third Parties.

If *you have* a software package available for cross-licensing, please describe the package in a four-line abstract and include the information asked for below. The format should be as follows:

Industry: _____
Abstract: _____

Company Name: _____
Address: _____
City: _____ **Country/State:** _____
Zip/Postal Code: _____
Phone Number: _____
Contact Person: _____
Type of Distributor Wanted: _____

Geographic Coverage: _____

If you are *looking for* a package to cross-license, please send us the following information:

Type of Package Needed: _____
Industry Application: _____
Needed by (Company Name): _____
Address: _____
City: _____ **Country/State:** _____
Zip/Postal Code: _____
Geographic Coverage: _____
Contact Person: _____
Phone Number: _____

We're looking forward to your participation, so please send in your abstracts for the March issue by **January 23** and **February 22** for the April issue.

They should be mailed to:

Hewlett-Packard Company
 Third Party Marketing
 Attn: Lynn Gardner
 19447 Pruneridge Avenue
 Cupertino, CA 95014
 USA

Application Note Program on Target for January 15

Just a reminder to send in your Third Party Application Note form which was included with the announcement of this new program in last month's issue of *Computer Focus*. Send your form to your HP sales rep and please let your rep know if you need additional forms.

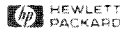
This program gives you the opportunity to distribute information about your product directly to the HP sales force. If you return your form by **January 15** you will be able to participate in our first selection procedure. It just might make a difference in your 1984 sales.

Correction

This program is not available currently in Europe, unless a package also is distributed in North America. If your company is located in Europe and you have a distributor in North America, please work through your HP sales rep to have your form sent directly to Third Party Headquarters in the US.

HP THIRD PARTY

APPLICATION NOTE



Instructions

1. This form is to be filled out by the Third Party and submitted to the HP sales representative who provided the form. It is not to be filled out by the HP sales representative.

2. The form should be filled out in ink or indelible marker. It should be filled out in a legible, readable, and concise manner. It should be filled out in a clear, concise, and readable manner. It should be filled out in a clear, concise, and readable manner.

3. In order to participate in the selection process you must return this form to your HP sales representative. It must be signed and dated for consideration.

4. The form should be returned to the HP sales representative who provided the form. It should be returned to the HP sales representative who provided the form. It should be returned to the HP sales representative who provided the form.

For HP Use Only:

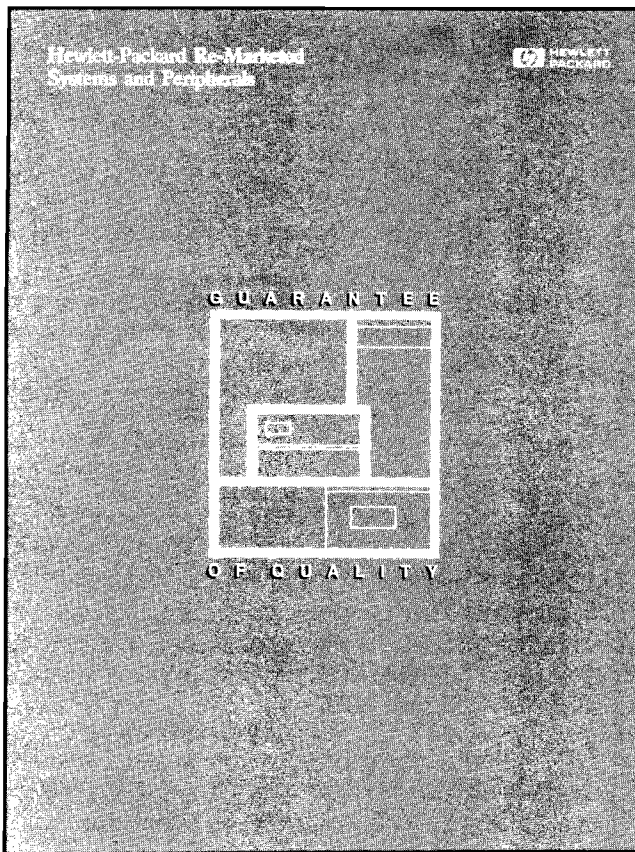
Date: _____

HP Contact (Please print name and sign initials): _____

Location: _____ Phone: _____

Re-Marketed Products Brochure Now Available

With the continued success of re-marketed products, Systems Re-Marketing Operation announces a new source of information for HP's re-marketed solutions. The new brochure entitled *Hewlett-Packard Re-Marketed Systems and Peripherals* (P/N 5954-0224) is available through your HP sales rep.



Hewlett-Packard Journal Book Now Available

Now available from HP is *Inventions of Opportunity: Matching Technology with Market Needs*, a 364-page book that covers 33 years of engineering at HP through articles reprinted from the *Hewlett-Packard Journal*. The book chronicles HP's technological milestones, recounting principal product developments and providing insights into the company atmosphere that motivated HP inventors.

Highlighting the book is commentary by William R. Hewlett, HP cofounder and vice chairman of the board of directors. In introductory remarks and chapter prefaces, Hewlett sets the scene for the market-driven technology developments detailed in the book's 31 reprinted articles.

Selected by a panel of 20 senior HP engineers, the featured articles were chosen for their description of products that contributed to the state of the art in electronics technology at the time of development.

In the early days, when the company had a modest program for research and development, HP engineers followed what they called "engineering of opportunity." This approach sought to match a market need with a technology that would produce an appropriate and commercially successful product.

Hewlett provides glimpses into the growing organization that continued to produce technological innovations through more than two decades, leading to the formation in 1966 of the centralized Hewlett-Packard Laboratories.

Among the articles are those on the first high-speed frequency counter, the HP-35 Calculator that replaced the slide rule in engineers' pockets, the beginnings of computer-controlled instrumentation systems, and many others. The introduction comments on each article, providing insights into the dynamics of innovation and showing how a need, a technology, and creative people come together to produce a successful invention.

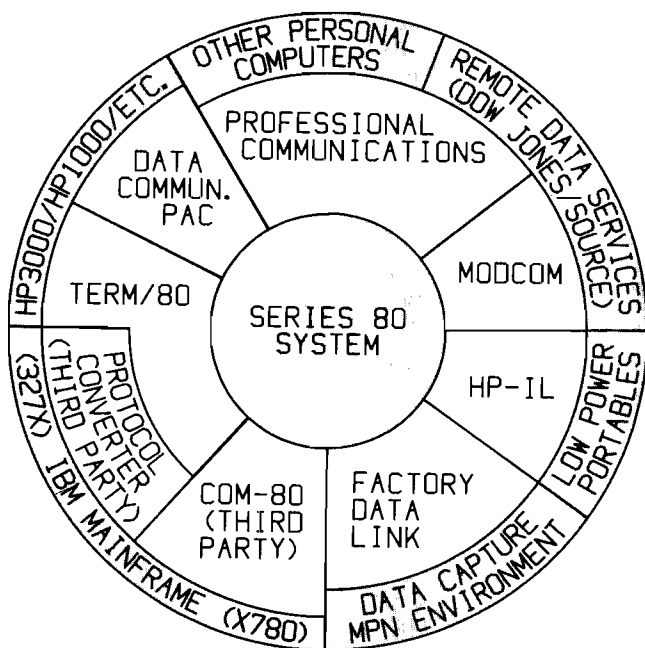
Cloth-bound, with dust cover, *Inventions of Opportunity: Matching Technology with Market Needs* is available exclusively from HP. The HP part number is 92233B.

The easiest way to order *Inventions of Opportunity* is to call Computer Supplies Operation at one of the special numbers listed on page 19. Of course, customer orders may also be placed through your local HP sales office.



HP Series 80 Data Communications: A Complete Offering

With the addition of Professional Communications, HP Series 80 now offers an exceptionally broad and complete set of communications solutions. Let's look at the whole offering in perspective.



As shown above, the communications products can be envisioned as bridging the gap between HP Series 80 and the outside world. Depending on the outside device to be communicated with, one or more of the following communications products is best suited to the job:

Product	
Data Communications Pac (software only)	<ul style="list-style-type: none"> • RS-232 connection only, either hard-wired to the mainframe or via external modem. • Highly configurable for compatibility with HP 1000 or non-HP computers. • Speeds up to 9600 baud. • Full file transfer capability. • More of a "tool" than a solution.

<p>TERM/80 Terminal Emulation Software (available with or without the required Auxiliary Processor Module)</p>	<ul style="list-style-type: none"> • RS-232 connection only, either hard-wired to the mainframe or via external modem. • Accurately emulates an HP 2622A terminal for connection to an HP 3000 or other HP 2622A compatible computer. • Can be used with a protocol converter to emulate an IBM 3270 terminal and connect to an IBM mainframe. • Speeds up to 9600 baud. • HP-86/87 only, not HP-85. • Like an HP 2622A terminal, external printers and file transfer are not supported.
<p>COM-80 (third party product, includes interface and software)</p>	<ul style="list-style-type: none"> • Interface plugs into one expansion slot, same shape as the HP Series 80 Modem. • Three serial ports as follows: one asynchronous printer output port, two input/output ports which can be configured as either asynchronous ASCII or bisynchronous EBCDIC ports. • Software to emulate IBM 2780/3780 RJE terminals. • Speeds up to 9600 baud. • Contact CDS, Dallas, Texas, 214-380-0671.
<p>Factory Data Link and HP-IL</p>	<ul style="list-style-type: none"> • Hardware only for customers who will write their own software. • Easy to program with the same I/O ROM commands used for other interfaces.
<p>HP Series 80 Modem (300 baud modem with MODCOM software included)</p>	<ul style="list-style-type: none"> • Plugs into one expansion slot, modular plug connection to phone line, 300 baud maximum speed. • MODCOM software supports automatic dial and log-on. • Good configurability for compatibility with non-standard systems such as Western Union's EasyLink. • Limited file transfer capability.

Personal Computers

<p>Professional Communications (software only)</p>	<ul style="list-style-type: none">• Software for telecommunications via HP Series 80 Modem or RS-232 and external auto-dial/auto-answer modem.• Speed 300 baud, or 1200 baud with compatible external modem.• Ideal for sending messages to other personal computers because of integrated text editing and file management, and because of unattended operation capability.• Bulletin board mode allows any personal computer to call in and send or read messages
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Contact your HP sales rep for more information.





HP 12040B MUX Performance Note Now Available

The performance note for the HP 12040B 8-Channel Multiplexer is now complete. This note was written in response to numerous requests for performance and application information, and it should help you decide how to apply the MUX in a given situation.

Since its introduction more than two years ago, the MUX has become a valuable part of the HP 1000 product line. The chief contribution has come in the area of increased terminal connectivity at a reduced cost. When used interactively, terminals have never had a performance problem with the MUX. However, for non-terminal applications, this has not always been the case. Because of its versatility, the MUX can be interfaced to a myriad of asynchronous devices. In this environment, the simplistic rule — 8 ports at 9,600 baud — is just that. The *8 ports at 9,600 baud* rule is appropriate for terminals but actual performance of the MUX is 6 ports at 9600 baud of simultaneous input/output.

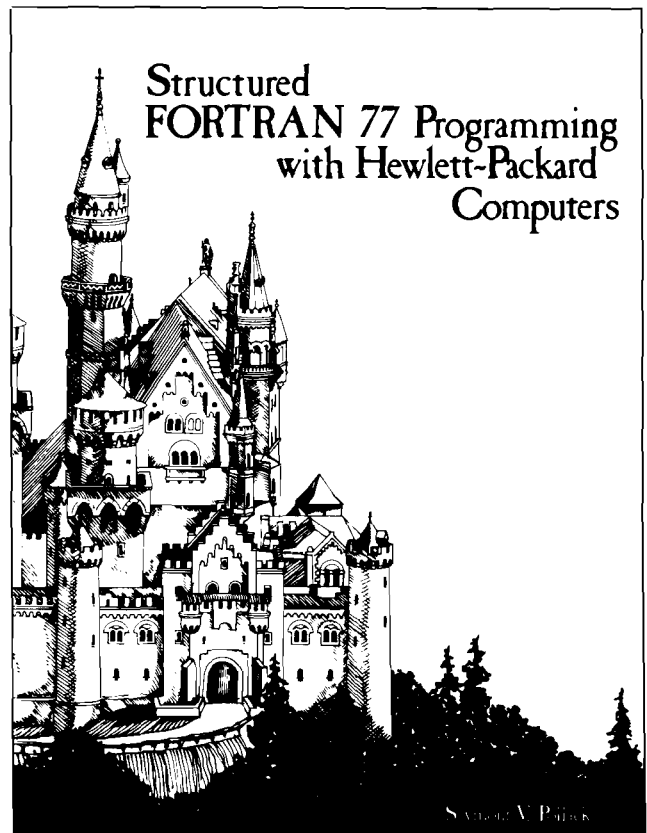
The performance note can help you decide what is appropriate for your application, what will yield the best results. The note (P/N 12040-90021) is now a standard part of the HP 12040B product. In addition, it is available through the Computer Supplies Operation.

New Book on Using FORTRAN 77 with HP Computers

Now available is a new textbook called *Structured FORTRAN 77 Programming with Hewlett-Packard Computers*, by Professor Seymour Pollack, Department of Computer Science, Washington University in St. Louis.

Professor Pollack emphasizes the important interrelation between FORTRAN 77 and *structured programming*. FORTRAN 77 language features are carefully illustrated through the use of numerous well-structured examples. In this way the characteristics of the language and principles and techniques of structured programming reinforce one another. The author's top-down approach provides the student with a proven methodology for effective design and implementation of programs.

The book is an attractive text for users of HP FORTRAN 77 regardless of the extent of their previous FORTRAN background. For readers with programming background in any other high-level language, the book is an orderly presentation of HP FORTRAN 77, emphasizing effective design and implementation through the use of good, clear, logical structure.



The HP FORTRAN 77 compiler fully implements the American National Standards Institute X3.9-1978 standards (ANSI 77) for FORTRAN. It has many extensions to provide a more structured approach to program development and more flexibility in computing for scientific applications. As part of its extensions, HP FORTRAN fully implements the MIL-STD-1753 Military Standard FORTRAN.

You can order this comprehensive tutorial from Computer Supplies Operation; its part number is 92836-90005. For more information, contact your HP sales rep.



Two Versions of MPE V To Be Available

The operating system strategy announced with the introduction of the new HP 3000 Series 42, 48, and 68 systems is being modified. We have concluded that it is in the best interests of our customers to offer an additional version of the MPE operating system. This new version will provide an alternative to customers with smaller systems who would otherwise pay a performance penalty for the increased table capacity.

MPE V will now be released with and without the MPE table expansions. MPE V/P provides support for disc caching without expanded systems tables. MPE V/E supports both disc caching and table expansions. MPE V/P is available now and MPE V/E is targeted for availability soon.

HP 3000 Support for New 300 Line-Per-Minute Printer

Support is now available for the new HP 2563A Series 300 Line Printer on the HP 3000. The HP 2563A uses an improved dot placement accuracy to increase the print quality of its 5x7 dot matrix cell. The printer, which is designed to accommodate a wide range of applications, operates at 300 lpm in standard mode and 150 lpm in high density mode. It incorporates the best features of the HP 2608S, which it replaces, and has added printing capabilities, including bar code and compressed formats.

The standard interface in the HP 2563A Series 300 Line Printer is HP-IB. To increase the flexibility of system printers, HP is currently investigating support of the HP-IB Extender. The HP-IB extenders will increase the acceptable distance of the HP 2563A to a maximum of 500 meters from the system.

Support

HP has tested and fully supports this new printer via HP-IB on the following HP 3000 systems:

System	Number of Printers
30/33	2
4X	4
6X	4

Unlike the HP 2608S, the HP 2563A is a low-speed device. It does not require a dedicated General I/O Channel (GIC) and has no restrictions on sharing a GIC with other devices. The printer is shipped with one electrical device load, but may be configured for a range of one to seven device loads. Its internal cabling requirement is one meter.

The RS-232 interface and DSN/Multipoint interface may be used for connecting the HP 2563A as a remote workstation printer. Please see "New Printers Supported as Remote Spooled Devices" in this issue of *Computer Focus* for datacomm configuration support.

Availability

The HP 2563A may be ordered immediately and has four to six weeks availability. The printer is supported on the Q Delta 1 MIT and all MITs following Q Delta 1.

The exceptional price/performance of this printer sets a new standard for computer system printers, which should make it an attractive solution for HP 3000 customers.

New Printers Supported as Remote Spooled Devices

Remote spooled printing on the HP 3000 will be expanded to include the new HP printers. These printers will be supported in both point-to-point configurations and as devices on an MTS network. The new HP 293X family of 200 cps printers and the HP 2563A 300 lpm printer will provide lower cost solutions with better print quality for customers who want hardcopy output at locations remote from the host computer system.

DSN/ATP will support these new printers as spooled devices on HP 3000 Series 64 and 68, remotely or directly connected, and on Series 48, directly connected only. The HP 293X family of printers can be connected to a local or remote ATP. The HP 2563A printer must be connected via a direct connect port. It cannot, in other words, be connected via modems using ATPs.

DSN/ADCC will support these new printers as spooled devices on HP 3000 Series 39, 40, 42, 44, and 48. Also on the ADCC, the HP 293X family of printers can be remotely or directly connected. The HP 2563A printer must be connected via a direct connect port and is not supported remotely over point-to-point modem connections.

There may be performance degradation when HP 2563As are simultaneously working over ATPs or ADCCs. Specific performance data will be released when it becomes available. Also, be aware that these new printers are not supported as spooled devices over the DSN/ATC.

DSN/MTS will support these new printers as spooled devices on current HP 3000 computer systems (Series 39, 40, 42, 44, 48, 64, 68) running MPE V. The HP 293X family of character printers can be connected to a local or remote MTS link via either an HP 2333A MTS cluster controller or the second port of an HP 2624B terminal on an MTS link. Additionally, the HP 2933A and the HP 2934A can be attached directly to an MTS or Datalink line by ordering the appropriate multipoint Option (033, 034, or 039).

Similarly, the HP 2635A 300 lpm printer can be connected to either a cluster controller or an MTS link. To connect it to an HP 2333A, order the RS-232 Option 049 with the printer. Don't configure the HP 2635A on the second port of an HP 2624B, however. This is not a supported configuration because the printer would overwhelm the terminal. By ordering the HP 2563A with the MTS Option 505, the printer can be connected to an MTS link using the appropriate multipoint or Datalink pod.

As with any printer connected to an MTS link, there are several considerations to keep in mind.

Limit the number of printers per MTS line to four, with a maximum of 16 printers per system. The aggregate baud rate of the printers should not exceed the baud rate of the MTS line they use. And the performance of printers on an MTS line is dependent upon the speed of that line, the printer's priority, the traffic pattern, and the processor load.

The following table summarizes supported configurations of remote spooled printers on HP 3000 computer systems. For more information on these new products, refer to their data sheets or contact your HP sales rep.

Remote Spooled Printer Support Matrix

PRINTER	ATC	ADCC	ATP RS-232	ATP RS-422	MTS DIRECT	MTS 2333A	MTS 2624B	MPE RELEASES	HP3000 SYS
2601A 2602A						X	X	MPE-V*	B
2631B		X ^C	X ^C			X	X	MPE-V*	B
	X	X	X					MPE-IV MPE-VR	A
2932A		X ^C	X ^C	X		X	X	MPE-V*	B
2933A 2934A		X ^C	X ^C	X	X	X	X	MPE-V*	B
2608S					X			MPE-IV MPE-V MPE-VR	A & B
2563A		LOCAL ^D ONLY	LOCAL ^D ONLY		X	X		MPE-V*	B

* NOT MPE-VR

- A. Series III, 30, 33
- B. Series 39, 40, 42, 44, 48, 64, 68
- C. The new 8 bit functionality available on local connections only
- D. Use of this printer on this interface may affect system performance.
Performance data will be released when available.

Firmware Bug Discovered in Some HP 7470A Plotters

The HP 7470A Option 001 plotter with serial prefix HP 2308A has a firmware bug when the plotter is interfaced to the HP 3000 in eavesdrop mode with HPDraw, HPEasyChart, or DSG/3000 software packages. Symptoms include missing or erroneous vectors on a plot and a flashing light on the plotter. The bug is most obvious when labeling with software-generated characters. This bug is unique to the HP 7470 plotter and does not apply to the new HP 7475 plotter.

To fix the bug, HP has set up an HP 3000/7470 retrofit kit (P/N 07470-60100). The kit is an extended warranty repair. The affected plotter should have the EPROM installed by the nearest field repair center. HP will accept charges for one hour of labor plus parts. No travel charges will be accepted.

For all incoming orders, the HP 7470A is not supported on the HP 3000 unless Option 300 is specified. Option 300 will be shipped with a special board — one with a “fixed” EPROM in place of the ROM.

HP's Bar Code Solution for the Shop Floor

With HP's newest printers and data capture devices, HP Production Management/3000 (PM) is HP's first complete bar code application solution.

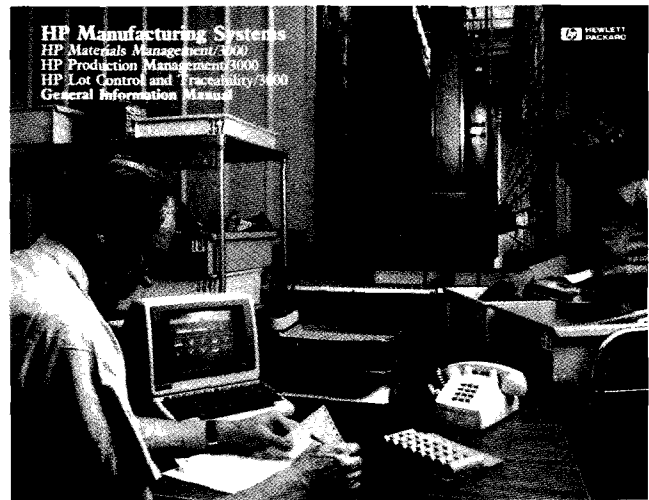
HP Production Management/3000, an integrated, customizable application, provides discrete manufacturers with shop floor tracking, production scheduling, and capacity planning capabilities. Now these features are made easier to use with the addition of bar code support. Not only is direct labor productivity increased by ease of data entry, but the quality of the data is improved because bar codes require no keystrokes.

Bar code data input devices that can be configured with HP Production Management/3000 include:

- HP 92911A wand reader, which attaches to any HP 262X terminal (block-mode required for PM).
- HP 39801A wand reader which can be configured to any RS-232 terminal (HP 2382A and HP 264X terminals).
- HP 3081A industrial data capture terminal, which can be configured with either a wand or a slot reader. This low-cost, online display terminal can execute any of PM's data collection transactions.
- HP 3092A rugged, industrial full-screen display terminal which can also be configured with either a wand or slot reader.

HP Production Management/3000 now also prints bar codes. Work order routings can be generated with bar codes on either the new HP 2563A system printer or the new HP 2934A remote dot-matrix printer. (Note that this feature requires a patch to PM A.02.)

New HP Manufacturing Systems Manual Available



A new General Information Manual is now available for HP Manufacturing Systems. This 86-page booklet provides an excellent feature-specific introduction to HP's Operational Planning and Control Software, including HP Materials Management/3000, HP Production Management/3000 and HP Lot Control and Traceability/3000.

HP Manufacturing Systems: General Information Manual (P/N 5953-7549) can be ordered from your HP sales rep. (This manual obsoletes P/N 5953-0639.)



New Ergonomic Keyboard for HP Series 200

For Europe Only

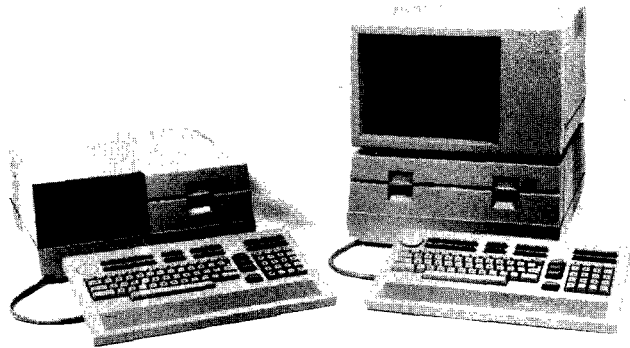
A new version of the detached keyboard for the HP 9000 Model 226/Model 236 products was recently made available.

The integrated palm-rest will allow you to sell to those customers where ergonomic design is a must.

This special is for Europe only and therefore will not appear on the HP price list.

It can be ordered as Option G3 with HP 9000 Model 226/Model 236 systems. The supplier code is B600.

This new keyboard will replace the Option G2 detached keyboard. Local language versions are also available. Please specify the language required on your order. Contact your HP sales rep for additional ordering information.



HP 9000 Series 200 Networking Capabilities Increased Again

Two more networking products are now available for the HP Series 200 computers. These new products, plus the HP 3270 Display Station Emulator announced in 1983, enhance your networking possibilities.

HP 2622 Block/Forms Mode Terminal Emulation

The new HP 9000 Series 200 HP 2622A Terminal Emulator emulates the HP 2622A Terminal's block and forms mode features, as well as its line and character mode. It also provides bidirectional file transfer, screen dump to a printer and Print All On. The emulator does not support HP 2622P operations. The emulator has been fully tested with the HP 3000, particularly with HPMail, HPSlate, and VIEW/3000 applications.

Although the HP 2622A Terminal Emulator is capable of character and line mode operation, the current Series 200 Terminal Emulator (P/N 09800-10X80) will not be discontinued. There are two reasons for this: first, the HP 2622A Terminal Emulator will not operate on the HP 9000 Model 226 computer because of its nonstandard CRT size; and second, you may not need the block/forms mode capability of the HP 2622A Terminal Emulator.

SRM Enhancements

SRM 2.0 provides many new enhancements, including better performance, plotter spooling, new console commands, and support of new peripherals, plus controller operation on the HP 9920.

The HP 98619A SRM Operating System (OS) was revised effective December 1, 1983, to SRM 2.0 software. If you are on support services you will automatically receive the new software.

Warning: If you own an HP 9000 Model 226 Option 500 you will need to purchase an additional HP 98256A RAM Card to use the SRM 2.0 software.

If you have SRM 1.0 and are not on support services you are eligible to buy the SRM 2.0 OS at a discount.

In addition, an HP 9920-based SRM system is now available as HP 9920 Option 500. We will continue to offer the HP 9000 Model 226 Option 500 SRM system. However, we recommend that you purchase the HP 9920 Option 500 because of its better price/performance and expandability.

New Networking Capability Added to HP Series 200

IBM 3270 Display Station Emulation

This product features an IBM 3270 plug-compatible coax interface to an IBM cluster controller. It comprises two pieces: the HP 98695A 3270 Coax Interface and the HP 98795A Display Station Emulator. For a usable solution, the customer should order both.

The HP 98695A is a smart interface card that connects the HP Series 200 computer to an IBM 3270 controller via a Type A coax cable. The card handles all transactions with the IBM 3274 or IBM 3276 controller, buffers all data, and can appear to the controller as either an IBM 3278 or IBM 3279 display station.

The HP 98795A is a software standalone emulator package that manages the keyboard and CRT of an HP Series 200 computer so that it behaves like an IBM 3278 or IBM 3279 display station to the user. It also features file transfer capability. An HP 98695A interface is required to run the HP 98795A software.

The HP 98795A emulator will only function properly in HP Series 200 computers that have Display Enhancements — currently the HP 9000 Model 216 and Model 236. Because of its nonstandard CRT size, the HP 98695A will not operate in the HP 9000 Model 226.

HP 9845C Discontinued

The HP 9845C color computer has shown a decline in sales for the past several months and an increase in manufacturing costs. The HP 9836C color computer and the HP 9020A 32-bit color workstation have become increasingly more popular, and have effectively replaced the HP 9845C. Consequently, we will discontinue the HP 9845C color computer in April 1984. The following schedule has been established:

Removal from	
Corporate Price List	April, 1984
Last US Order Date	May 31, 1984
Last International	
Order Accepted	July 31, 1984
End of Ten-Year	
Support Life	April, 1994

We will continue to supply interfaces, ROMs, and similar accessories that are common to the HP 9845B and HP 9845C beyond April 1985. Accessories that are unique to the HP 9845C, however, such as the HP 98776A red/green/blue output and the HP 98777A camera attachment, will be discontinued in April, 1985.

Upgrade kits to convert the HP 9845B to support color will be discontinued in the same time frame as the HP 9845C. These kits include the HP 98404A, HP 98405A, and HP 98771A.



Context MBA™ Training Has Arrived

The Context MBA™ customer training course is here. What's this course all about?

The Context MBA™ course is an intensive, interactive two days that brings managers and other users up-to-speed on the HP 9000 Model 216 and teaches them the specifics of the Context MBA™ integrated software. The format of the class is a first for HP. The initial 1½ days are self-paced. Students work in pairs on a personal computer while the instructor provides individual assistance. The last half day is a team competition business simulation, tying together all the integrated software they've learned about.

Positioning

Position the course for both sharp managers who have little experience with computers and engineers who are interested in business applications. The course primarily stresses the Context MBA™ software packages, so the main criterion for taking the course is wanting to attain a working knowledge of the Context MBA™ integrated software in an intensive two days.

Course Details

Length: 2 days

Prerequisites: None

Content:

DAY 1

Introduction to Personal Computing
MBA's Electronic Spreadsheet
MBA's Graphics Capabilities

DAY 2

MBA's Word-Processing Capabilities
Electronic Communication (optional)
Keeping Things Running
Management Decision-Making Simulation

The course is only available on the HP 9000 Model 216 at this time. Contact your HP sales office for more information.

Ordering Materials

You may order all material for the course from HP. You should order one instructor kit:

- **Instructor Kit** 35127-60001
Contents: Set of simulation discs, set of budget discs, WRKSHO disc, admin disc, instructor notes, simulation memos, transparency set.

You should order one of the following for each student:

- **Student Workbook** 35127-90001
- **Blank Disc** 35127-11001

In addition to ordering the entire instructor kit, you can order individual components separately.

All materials can be ordered immediately.

Scheduling Classes

Plan now for classes on Context MBA™. The potential demand for this class, from a large installed base of customers who are not using their Context MBA™ software and from new sales, is great. You should start scheduling classes now. Remember, you will need to have one HP 9000 Model 216 for every two students.

To aid you in attracting students, we have created the Context MBA™ course brochure (P/N 5953-8830). These are available in all North American sales offices. Contact your local sales rep for more information.

Context MBA™ is a trademark of Context Management, Inc.

The HP Series 9800 Exchange Library Catalog

Don't let the name change from Series 9800 to Series 200 fool you — the Series 9800 Exchange Library is a source of inexpensive, useful applications software and utilities for HP 9000 Series 200 users.

The September, 1983 issue of the *Series 9800 Exchange Library Catalog* is now available from Computer Supplies Operation (CSO). It is packaged in a two-volume set which includes:

- Technical Systems Software Solutions
- Series 9800 Exchange Library Software

Contact your HP sales rep for pricing and ordering information.



3½" Microfloppy Questions? We've Got More Answers

Here we go with Part 2 of the *most often asked questions about our 3½" microfloppy*.

Question: The 3½" size seems very small. Can it hold enough data to be useful?

Answer: At 270Kb of formatted capacity, our microfloppy has the same capacity as our 5¼" double-sided, double-density minifloppy. Yes, it is smaller but it offers the same capacity.

Q: Is there potential for higher capacities on the 3½" unit?

A: Yes. The current HP products employ only one side of the media. Sony has announced a double-sided version of this disc drive. Also, potential exists for higher-density bit packing on each side. Industry expectations are for the microfloppy to reach 1.2Mb formatted capacity within a year.

Q: With all this capacity on such a small disc, has the error rate been a problem due to the high densities involved?

A: No, the error rate has not been a problem. In fact, our experience in the past nine months has shown us that the microfloppy system is more reliable than the 5¼" system. This reliability is reflected in an audit test we are running in our production area.

Q: There are four different standards being proposed for the microfloppy by the ANSI X3B8 Technical Subcommittee. Is one proposal emerging as the leader?

A: The 3½" format is leading in the marketplace. Far more 3½" units have been shipped to customers than the other sub-four-inch formats. Most of the 3½" drives have been used in products from HP. In addition, some 23 computer, computer-peripheral, and media manufacturers endorsed the 3½" format. This group, which includes Verbatim, Shugart, Apple™ and Atari, is known as the Microfloppy Industry Committee.

Look for more microfloppy questions and answers in the February issue of *Computer Focus*.

HP 9885 and HP 913XA/B Obsolescence

As of January 1 HP obsoleted the HP 9133A/B, HP 9134A/B, and HP 9135A Winchester products. The products that replace these are our new small-footprint 5 and 15Mb Winchesters — the HP 9133V, HP 9133XV, and HP 9134XV. Because we are experiencing parts problems on the A and B Winchesters, you should begin ordering only the new HP 9133V/XV and HP 9134XV Winchester *now*.

The new 15Mb Winchesters are only supported by the HP 150 and Series 200 at this time. We do have a 10Mb solution for HP Series 80, HP 120, HP 125, and HP 1000 Series A users. This is available as an Option 010 on both the HP 9133XV and HP 9134XV. Option 010 jumpers the 15 Mb drive down to the 10Mb for those that cannot support the 15Mb. The Option 010 is available at the same price as the HP 9133XV and HP 9134XV.

On February 1, we will also be obsoleting the HP 9885 8" flexible disc drive, both master and slave versions.

HP 7974A — Separate Tapes for Different Operating Modes?

Since the successful launch of the HP 7974A, the new, midrange ½" tape drive, we have frequently been asked if both start-stop and streaming tapes are needed. Is there a difference in the way data is recorded on tape in the start-stop and streaming modes? The answer is an emphatic *no!*

Formats are ANSI Standard

The operating mode has nothing to do with the way tapes are recorded. Using the HP 7974A, tapes are written using either ANSI standard 1600 Phase Encoded cpi or 800 Non-Return to Zero Inverted cpi formats.

One of the primary features of tape usage is interchange capability between systems. That capability remains unaltered. Any 1600 tape may be read by any 1600 tape drive, regardless of whether that drive reads or writes in start-stop and/or streaming modes.

So, worry no more about ANSI compatibility or separate tapes for separate operating modes. The HP 7974A continues as the solution to your system requirements for backup, data interchange, and tape processing applications.

New HP 9895A Options and New Supplying Division

The HP 9895A has a new simplified option structure. It is available with these options:

Option	Description
001	50 Hz Power Option
010	Single Drive w/ manual for HP 3000 hook-up and use

Every deleted option will be available under its regular part number from other HP sources. Also, the old Option 035 and 045 (disc utilities for the HP 9835 and HP 9845) will be included with *every* HP 9895A ordered and will continue to be free of charge. If you already have an HP 9895A and want the HP 9835 or HP 9845 disc utilities you may order them from your HP sales rep.

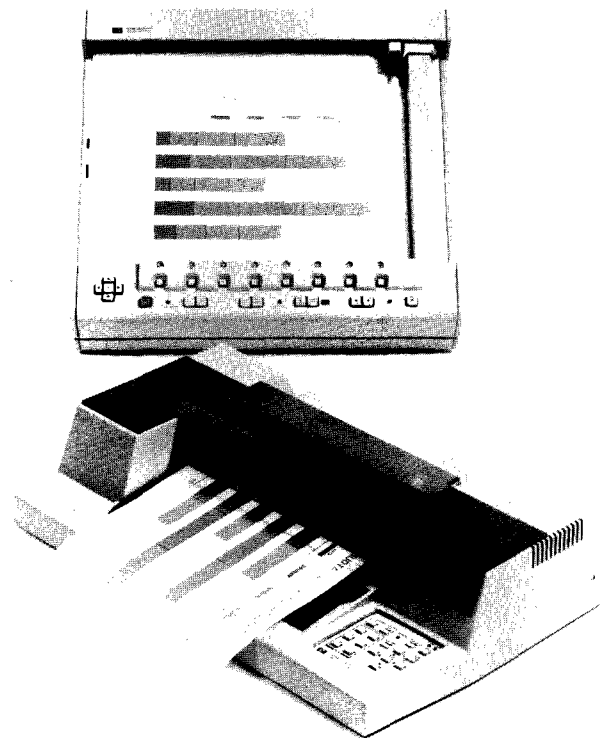
Option	Description	P/N
002	Rack Mount	09895-88022
035	HP 9835 Disc Utilities	09835-15220
045	HP 9845 Disc Utilities	09845-10090
068	8" Double-Sided Media (2 boxes)	92195A
135	HP 9835 IBM Data Exchange Utility Software	09835-15230
145	HP 9845 IBM Data Exchange Utility Software	09845-10740
185	HP8X IBM Data Exchange Utility Software	88095A
333	2m HP-IB Cable for HP 3000	10833B

How the HP 7475A Compares with the HP 7220C and HP 9872C

Have you told your customers who need B-size drawings about the HP 7475A? Through engineering innovations, we've built a product that dramatically improves the industry price/performance standard for A3/B-size graphic plotters. Here are six reasons why customers should buy the new HP 7475A instead of the HP 7220C or HP 9872C.

- **Price** — The HP 7475A is about one-third the price of the older models.
- **Performance** — The following table compares the HP 7475A with the HP 7220C and HP 9872C plotters.
- **Reliability** — Simple design is one reason for the HP 7475A's higher reliability.
- **Intelligence** — HP-GL area-fill instruction reduces host computer I/O overhead.

	HP 7475A	HP 7220/9872C
Media Sizes	A4/A, A3/B (210 x 297 mm/8.5 x 11 in., 297 x 420 mm/11 x 17 in.)	Up to A3/B (297 x 420 mm/11 x 17 in.)
Pens	6 pens in a carousel	8 pens in separate stalls
Pen type	Fiber tip	Fiber tip, drafting
Media	Paper, transparency film	Paper, transparency film, drafting media
Resolution	0.025 mm (0.001 in.)	0.025 mm (0.001 in.)
Repeatability		
With a given pen	0.1 mm (0.004 in.)	0.1 mm (0.004 in.)
From pen to pen	0.2 mm (0.008 in.)	0.2 mm (0.008 in.)
Pen velocity		
Pen down, maximum	38.1 cm/s (15 ips)	36 cm/s (14 ips)
Pen up, maximum	50.8 cm/s (20 ips)	36 cm/s (14 ips)
Acceleration	2 g	0.5 g
Character sets	19	5
Power consumption	35 W maximum	180 W maximum
Size (H x W x D)	127 x 568 x 367 mm (5 x 22.4 x 14.5 in.)	189 x 497 x 477 mm (7.4 x 19.5 x 18.7 in.)
Weight (Net)	7 kg (16 lb.)	18 kg (39 lb.)
Price (US list)	\$1895	\$5860



Price and performance are the keys to choosing between the new HP 7475A and the older HP 7220C/9872C plotters.

HP PLOT/21 and C Model Flatbed Plotters Now Obsolete

Last year HP announced the obsolescence of the HP 7220C, HP 7221C, and HP 9872C flatbed plotters, along with HP PLOT/21 (Model 72021C).

As orders for the C model flatbeds continue to decline, we thank you for converting to the new HP 7475A. "How the HP 7475A Compares with the HP 7220C and HP 9872C," in this issue of *Computer Focus*, should help you convert any remaining holdouts.

Please contact your HP sales rep if any problems arise.

New Cable for IBM Computer and HP Plotter

HP has redesigned the HP 17255A cable that interconnects the HP 7470A and HP 7475A plotters to IBM and IBM-compatible computers.

There are two things you need to know about the new cable, designated HP 17255B. The *B* cable supports more third party software than the *A* cable, including Lotus 1-2-3 and BPS Business Graphics, and it is plug-compatible with the *A* cable.

The new *B* cable requires only minor changes to the *A* cable. Diagrammatically, it looks like this:

IBM COMPUTER (F)		HP PLOTTER (M)
1	----- GROUND	----- 1
2	----- TD/RD	----- 3
3	----- RD/TD	----- 2
7	----- SIGNAL GROUND	----- 7
5	----- CTS/DTR	----- 20
6	-----] NC	

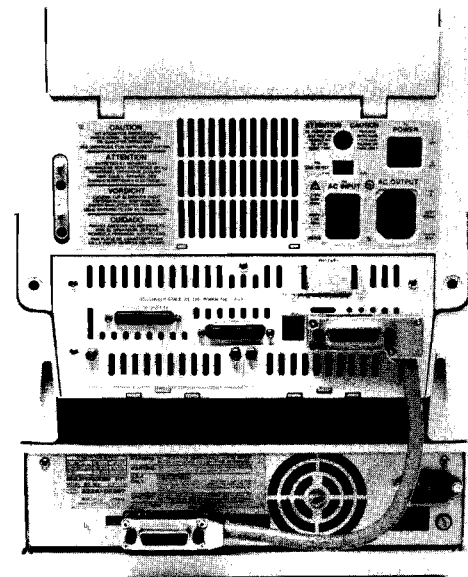
Although the *A* cable is now obsolete, orders will *not* automatically be changed to the HP 17255B. Please cancel your 17255A orders and reorder the HP 17255B.

Handy New HP-IB Cable

You may have noticed a convenient new HP-IB cable being shipped with HP 120 and HP 150 computers and thought that it would be useful in other systems needing short HP-IB cables.

The cable's unique, right-angle connector design reduces stress on the individual wires and its short length (0.3 m) reduces the possibility of communications errors. Physically and electrically it is identical to the HP 10833-series.

It is now available from Computer Supplies Operation. Order P/N 92220R.



The HP 2687 and Your Computer

The HP 2687 laser printer is a valuable addition to any system. It can be integrated into most systems quite easily. The following describes how to connect the HP 2687 to your computer and what you can expect.

RS-232 Interface

The HP 2687 is equipped with an RS-232 interface. RS-232 defines an industry-standard electrical interface that specifies voltage levels, connector types, pin numbers in the connector, number of wires, etc. The speed of the RS-232 interface can be adjusted by changing a jumper in the controller to six different rates ranging from 300 baud to 9600 baud.

Printer Control Codes

In addition, data flowing to the HP 2687 is controlled by the X-on/X-off protocol. When the printer is turned on and ready to print, it transmits an X-on signal to the CPU, indicating it is ready to receive data.

The data must conform to the US ASCII standard, in which there are 10 control codes listed below (these codes direct specified operations in the printer).

- BS — backspace
- LF — line feed
- FF — form feed
- CR — carriage return
- SO — shift out
- SI — shift in
- DC1 — X-on
- DC3 — X-off
- ESC — escape
- SP — space

The US ASCII standard is common to many different CPUs with one notable exception — IBM, which uses EBCDIC. (However, the IBM PC uses the ASCII standard.)

The ASCII control codes will access the base set of features in the HP 2687 such as line feed and form feed. However, the HP 2687 has a set of advanced features that can only be accessed by escape sequences. These features are second, third, and fourth fonts, underlining, half line feed, number of copies, line spacing, and portrait or landscape mode. The escape sequences that control these features must be programmed into the application program. The program then imbeds them into the print file where they direct the printer to operate in a mode similar to a daisywheel printer. These escape sequences are HP-standard only; if they are not the same as those you use, the program needs to be modified.

Support

When the HP 2687 is connected to your computer (or non-supported HP CPU) we will support the printer on a regular maintenance contract. It is your responsibility to make sure the connections are correct and print files are in the proper format.

HP 2687 Operator's Manual

In the back of the *HP 2687 Operator's Manual*, you can find an exact list of control codes and escape sequences along with the RS-232 pin number assignments for cabling. If you are interested in ordering the manual, which describes the complete operation of the printer, the part number is 26087-90901. For further information regarding the hardware specifications, contact your HP sales rep.

New Book Tells How to Design Effective Graphics

Have you noticed over the last few years how computer graphics have changed the way business people communicate? Today, every meeting and every report offers opportunities for using computer graphics output on 35mm slides, overhead transparencies, flipcharts, or standard-size paper.

People have discovered how powerful graphics can be for analyzing data, improving recall, and shortening meetings. But this graphics power is elusive. Poorly designed graphics can confuse, mislead, and distract an audience, or simply overwhelm their senses.

Fortunately, you don't need an art degree to create good business graphics — just read HP's new booklet, *Steps to Effective Business Graphics*. The 54-page, color booklet leads you through seven simple steps for designing charts using typical business graphics software. In less than an hour, you can learn how to choose the correct type of chart, use color effectively, and combine the principles of good design to enhance each chart.

Graphics programmers need this booklet, too. They can use it as a guide for deciding what features to offer in a business graphics package.

You can order the booklet through HP's direct phone ordering service, or through your HP sales office. Ask for part number (11)5957-6979.

HP DIRECT ORDER

HP's direct ordering service is the fast and easy way to order *Steps to Effective Business Graphics*.

Location	Telephone Number
United States	800-538-8787
California	408-738-4133
United Kingdom	0734-792868
	0734-792959
France	(6) 928 32 64
Belgium/Luxembourg	(02) 762 32 00
Switzerland	(057) 31 22 54
	(057) 31 22 59
Canada	(416) 678 94 30
West Germany	07031-142829
	07031-223133
The Netherlands	020-470639
South Africa	802-5111
	53-7954
	28-4178



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