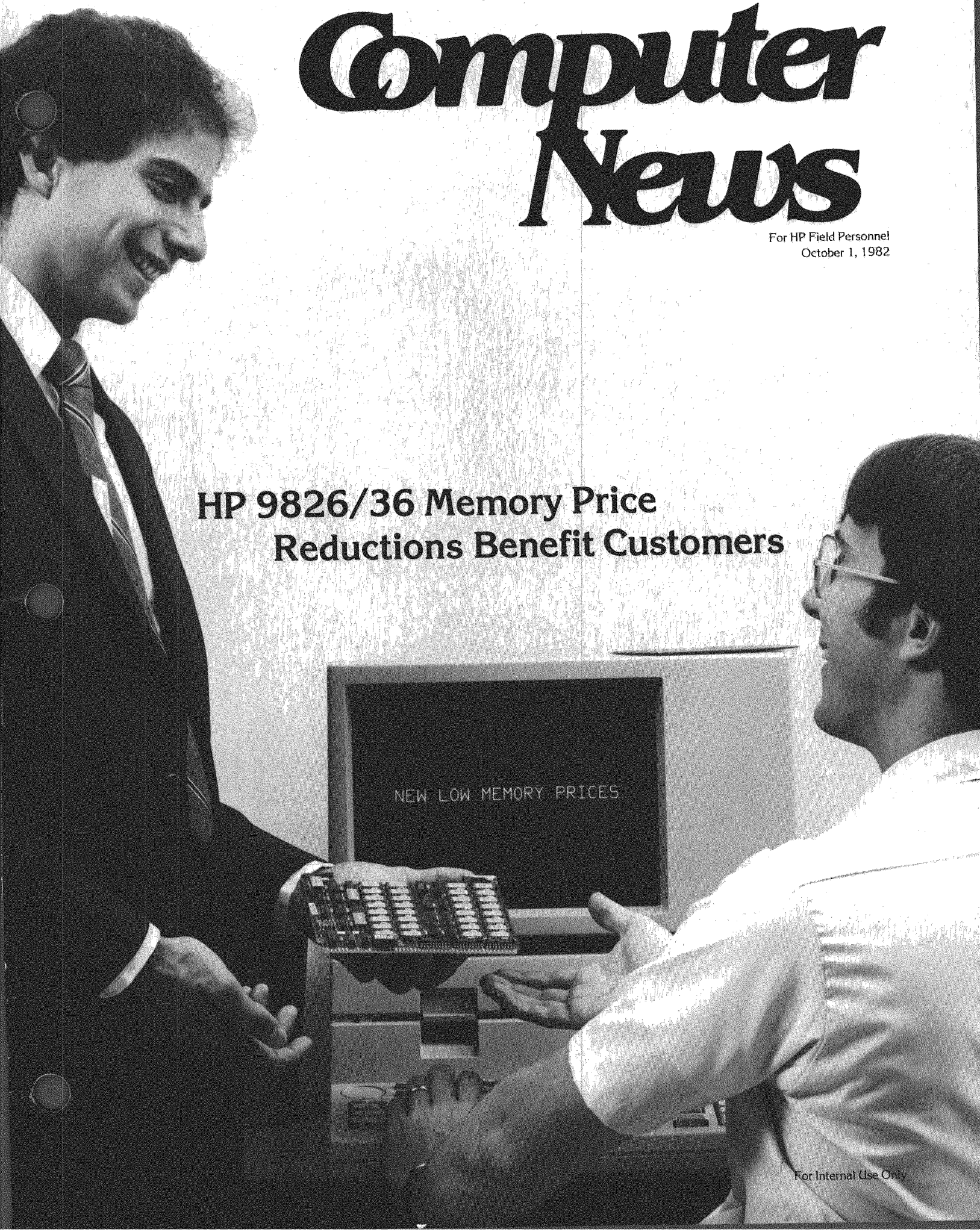
Computer News

For HP Field Personnel
October 1, 1982

HP 9826/36 Memory Price Reductions Benefit Customers



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Tracy Wester, Editorial Assistant
June Wedding, Circulation

CMG	Computer Marketing Group
CMG/3PP	Computer Marketing Group/ Third Party Program
CSD	Computer Support Division
CSE	Computer Support Europe
CSO	Computer Supplies Operation
SRO	Systems Re-Marketing Operation
TCG	Technical Computer Group
DSD	Data Systems Division
RVD	Roseville Division
YCD	Yokogawa Computer Division
DCD	Desktop Computer Division
BDD	Boeblingen Desktop Computer Division
CVD	Corvallis Division
PCD	Personal Computing Division
GTO	Grenoble Technical Systems Operation
BCG	Business Computer Group
BCG/AS	Business Computer Group/ Application Systems
CSY	Computer Systems Division
FSO	Financial Systems Operation
IND	Information Networks Division
MSO	Manufacturing Systems Operation
CSP	Commercial Systems Pinewood
BGD	Boeblingen General Systems Division
DTD	Data Terminals Division
GSD	General Systems Division
HPG	Grenoble Division
CPG	Computer Peripherals Group
BSE	Boise Division
COL	Colorado Springs Instrument Group
DMD	Disc Memory Division
GLD	Greeley Division
SDD	San Diego Division Instrument Group
VCD	Vancouver Division

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HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

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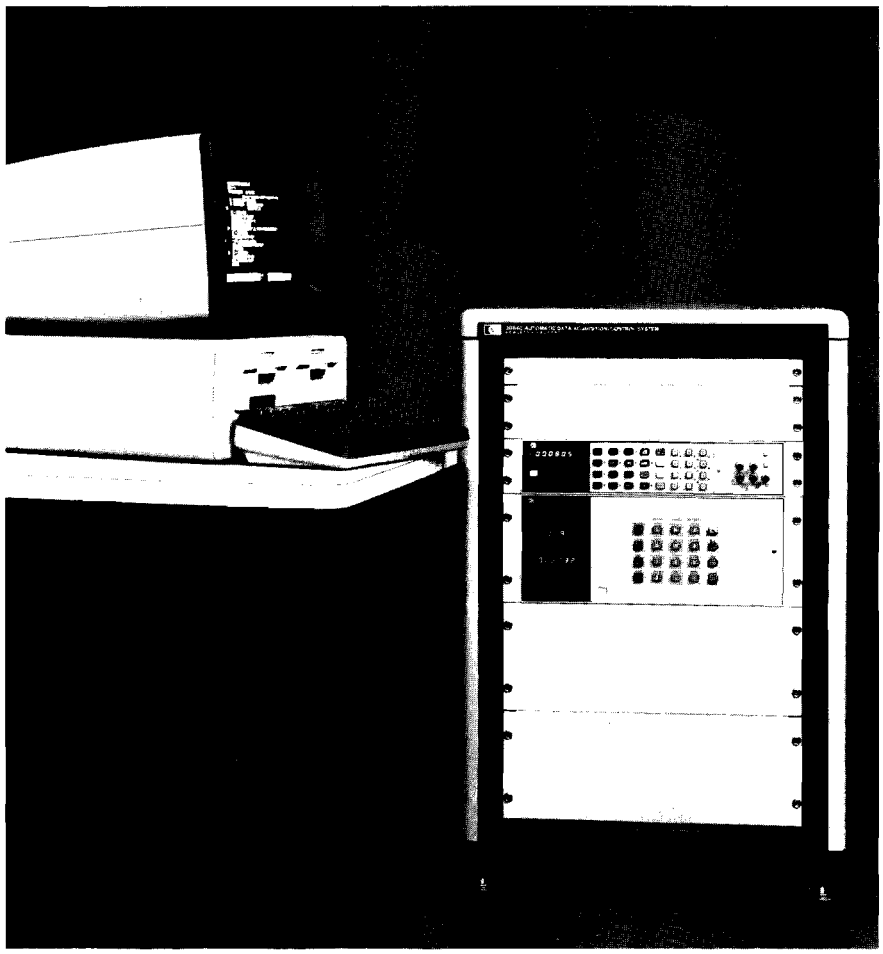
On the Cover:

The new, significant price reductions on HP 9826/36 Desktop Computer memories will save your customers money and put smiles on their faces! See related article on page 12.

CMG

HP 3054C Support For RTE-A.1, RTE-6, and CS-80 Discs

Bill Bush/Loveland Instrument Division



Loveland Instrument Division's HP 3054C Automatic Data Acquisition/Control System now supports the RTE-A.1 and RTE-6 operating systems. The software is also now available on the CS-80 tape cartridge compatible with the HP 7908/11/12 disc drives.

The 3054C System consists of a 3497A Data Acquisition/Control Unit, a 3456A Digital Voltmeter, and software to run on an HP 1000 L-, E/F-, or A-series computer. The system is very similar to the desktop computer based 3054A system.

With the addition of the new operating system support and new media, the 3054C software is compatible with the RTE-L, RTE-XL, RTE-A.1, RTE-IVB and RTE-6 operating systems. Because the software has been written to be compatible with all the above operating systems, *software supplied on any media will run on any of the operating systems.* The software is available as an option to the 3054C system or as a separate product called the 44454A.

3054C Software Ordering Options

Media Type	3054C Option	44454A Option
264X Mini-cartridges	851	020
5" Minifloppy	852	042
8" Floppy Disc	853	041
CS-80 Cartridge	854	022

CSD

RFI Affects HP 3000 Systems— *Computerworld* Article

Dick Warmington/CSD

The July 19 issue of *Computerworld* carried a front page article titled "New York Skyscrapers Hexing HP 3000's?" The article described a few HP customer installations in Manhattan where intermittent system failures had been traced to Radio Frequency Interference (RFI) by HP CEs. In the cases described, RFI measured was substantially higher than our specified limit of .5 volt/meter in the 14kHz to 1gHz frequency range.

This situation was brought to light by our position that a customer's site must meet HP's site specifications before the customer's system may be covered by a maintenance agreement.

The issues raised by the article involved:

- Skepticism by users that RFI was indeed the cause of the intermittent failures

- Doubt that the root of the problem was linked to the design of the hardware's ability to withstand the levels of RFI encountered
- The steps involved to correct an environment where RFI is excessive.

The following information addresses these points to assist you in responding to similar situations.

First, the reputation HP has established in providing the most reliable hardware available involves not only the design and manufacture of our hardware, but also the attention we give to ensure that our hardware is used in an environment that provides long-term, reliable operation. Such environmental factors as quality of power, temperature, humidity, air quality, protection against ESD (electrostatic discharge), as well as RFI, need to be controlled to ensure long-term reliability. We have invested heavily in test equipment and CE training in order that we may provide this valuable site survey service to our customers. The effort we have made over the past few years to help customers identify and resolve various environmental problems has reduced significantly the number of intermittent system failures that were previously experienced.

Second, in terms of our maintenance agreements, our goal has been to carefully define our services and price them in order to provide the best possible support at the lowest possible price. To achieve this goal, it is of fundamental importance that customer sites conform to our site specifications before a customer's system is covered by a service agreement.

Considering RFI specifically, there have been *very* few circumstances where RFI has been an adverse environmental factor. The major effect has been on disc drives. Excessive RFI can definitely cause disc drive faults. The HP 7920/7925 drive's maximum RFI rating is 0.5v/m from 14kHz to 16gHz. As mentioned, this tolerance level has been sufficient to meet all but a few environments without problem. However, RFI is becoming an increasing problem in large cities such as Manhattan. The new CS-80 drives have been designed and tested to meet a specification of 3v/m (at considerable expense in development time and equipment cost) to better meet this changing environment.

Regardless of the level of RFI tolerance of our systems, there will still be potential cases where a customer's environment exceeds this level. In cases where our local-site preparation specialist suspects RFI problems, he will arrange to perform measurements on the customer's site. (It should be noted that we will generally *not* make such measurements, as this is a very uncommon situation.) Where RFI exceeds site specifications, we will work with the customer to arrive at the least costly solution. This may involve relocation of the system within a building, or using metal screens over windows. There are many remedies that will work without requiring the complete shielding of a room.

Your local CE District Manager should be contacted when you need assistance in answering specific questions raised by your customers. We have established a strong, positive program to assure that our customers' systems operate reliably over the *long term*. Our CE organization is committed to meet this goal and, whenever necessary, to work with our customers to resolve such environmental problems as discussed here.

CSD Makes Selling Support Easier

Deborah Nelson/CSD

CSD has introduced several new and updated pieces of literature to aid you in selling support services. To provide consistency among these documents, a new support "lifecycle" format has been used. This approach describes HP's efforts to support your customers throughout the lifecycle of their computer system — from before the initial sale through the installation, implementation, and upgrade stages.

The new System Implementation and Support Planning Guide (P/N 5953-5231) uses this lifecycle approach to lead the customer, step-by-step, through the system planning and implementation process. The document contains a Systems Implementation and Support Plan, which can be used to record customer needs and identify how HP plans to implement the solution.

The Customer Training and Consulting Planning Guide (P/N 5953 - 5242) also follows a lifecycle approach to present a complete description of HP training and consulting services to your customers. A comprehensive table is arranged by system to recommend appropriate consulting services and training courses. Course descriptions include course objective, content, audience, price, and prerequisites.

The Workstation Planning Guide (P/N 5953-5226) introduces the support services provided for workstation products. Also included are the addresses and telephone numbers of HP Area and Country Sales and Service locations.

The updated Travel and Office Directory (P/N 5953-7167) describes HP's travel policy and provides informative world maps of Service Responsible Offices and their accom-

SRO

Out Deal Those Dealers

Hal Eubanks/SRO

The game is tough out there and when you are down to your last card, how do you out deal those dealers? Play your hand intelligently, then lay down your aces!

Since SRO's systems can compete with the ante asked by most dealers, now is the time to play those aces the dealers can not supply. Systems Remarketing products offer the same terms and conditions as new systems. Therefore, you can offer your customers installation, guaranteed 90-day warranty, site prep and site verification, upgrade credits, and functional units. And if that is not enough, here is your royal flush! All remarketed equipment supplied by SRO is completely factory tested and is at the current revision level.

Udaya Chandra of the Airport office, played his aces and won against a dealer. Udaya came within 11% of the dealer's price and won with a Series IIIR due to HP's terms and conditions.

SRO can help you play your cards, so give SRO Sales Development a call at 408-738-8858.

Remarketed Series 33R Beats IBM and Burroughs

Carol Robertson/SRO

Does it seem that your toughest competition lately has been IBM or Burroughs? Well, SRO has the answer for you. A Chicago manufacturing company recently saved approximately $10,000 by purchasing a Series 33R versus the quoted prices for the IBM Series/34 and the Burroughs B1905.

SR John Loessy from the Rolling Meadows office (Frank Manderschied's district) credits the sale due to the price differential as well as these important considerations:

- More initial growth potential for less dollars
- Proven reliability
- Ability to treat Remarketed equipment as new by offering 90-day warranty, ability to lease, and trade-in credits.

SRO can help you clinch those price sensitive deals. Give SRO Sales Development a call at 408-738-8858.

DSD

Future Plans for the M/E/F-Series

John Moss/DSD

With the outstanding growth of the A-Series family of products, we are often asked, "What is the future of the M/E/F-Series products?"

First of all, DSD is firmly committed to supplying any product as long as there is a reasonable market demand and we can get the parts to build it! And we promise to give one year's notice before we obsolete any product.

Second, the M/E/F family of products is a very healthy product line. M/E/F-Series sales have grown over the last year and we expect them to continue to grow.

Currently, more than 95% of M/E/F-Series computers are bought by Purchase Agreement customers, that is, volume customers. As you know, volume customers don't quickly change from one type of system to another; our experience with the 2100, when the 21MX was introduced, and with the M-Series, when the E-Series was introduced, prove that. Consequently, we are expecting the M/E/F-Series computers to have very long lives.

Specifically, we are committed to sell the E- and F-Series computers through 1986 at least, and the M-Series until 1984. As you will see in November, we are continuing to introduce significant new M/E/F capabilities and are keeping prices competitive!

In summary, you can assure your M/E/F-Series customers that HP is committed to providing them with the products they want. If you have any questions, call DSD or GTO Sales Development.

New Model 60 and 65 Systems

Jim Pinsky/DSD

On January 1, 1983, new HP 1000 Model 60 and 65 Systems meet US and European electro-magnetic interference (EMI, also known as RFI) regulations. They will also give the Models 60 and 65 an attractive new look, as they will use the same steel cabinets that the A-Series SPUs are housed in.

All the current E- and F-Series Systems (E/F CPUs will continue to be sold) will be taken off the CPL on July 1, 1983 and will not be shipped from DSD after September 30, 1983, due to US Federal regulations which prohibit non-complying products from being shipped after that date. This includes the 2176C/D, 2177C/D, 2178A/B and 2179A/B products. Note that DSD will not offer RTE-IVB based systems after July 1983.

The price of the new Models 60 and 65 is expected to be very similar, if not the same as, the current systems. There will also be a VALUE/65, with the same composition and in the same price range.

Only systems are affected by the Federal regulations; thus, M/E/F-Series board and box level products (considered components) will continue to be sold and shipped unchanged. However, customers who buy board and box level products will be required to comply with these regulations in their final system configurations. As this is not always a simple task, box customers may want to move to buying HP systems which do comply.

The new Models 60 and 65 (the 2178C and 2179C, respectively) will be offered in the 56-inch rack cabinet (29431F) only. The short cabinet will not be offered for sale.

By using the new steel cabinet, it will be possible to rack mount the 7908/11/12R CS-80 Disc Drives. However, as the present 7906/20/25 MAC discs do not meet EMI regulations, it is not clear that they will be shippable after September 1983. Contact DMD for the latest news on those products.

As the 264X family of terminals do not comply with EMI regulations, they will not be supported on the new systems. Instead, we will standardize on the 262X terminals for use as the system console.

ATS Customer Training

Joan Feeley/DSD

Those of you with ATS customers will be interested to know that two additional ATS classes have been scheduled for November 1 and November 7 at Data Systems Division. These classes are not listed in the July-December 1982 Computer Systems North American Training Schedule.

ATS User Programming (22972B) will be held November 1 followed by the ATS Advanced course on November 7. Students for the User Programming should have completed Session Monitor and have a knowledge of FORTRAN and/or BASIC. Prerequisites for the Advanced class are HP-IB, System Manager and the ATS User Programming (22972B) classes.

These courses may be ordered through the sales offices with normal HEART ordering procedures.

Call Data Systems Division, TELNET 1-257-2627 or 408-257-7000, ext. 2627 for additional information.

RFI Compliance — Phase Two

Jim Pinsky/DSD

As of October 1, 1983, all systems and related peripherals shipped in the US must meet FCC RFI (Radio Frequency Interference or EMI) standards. Currently, only Systems introduced after October 1, 1981 have to meet FCC RFI standards, so older equipment is presently exempt. That exemption ends on October 1, 1983.

As of October 1, 1983 HP 1000 Systems (i.e., the Models 60 and 65, product numbers 2178 and 2179) will comply.

Box-level Computers (2108, 2109, 2113 and 2117) are considered components and are not required to comply. Components are normally sold to OEMs who build them into systems, and it is the responsibility of the OEMs to ensure that their systems meet all applicable regulations. HP encourages customers to buy our Systems and avoid the effort and cost of making their own configuration pass the Federal regulations.

Electronic control applications in industrial plants are exempt from FCC standards, which is significant to DSD's Industrial Automation charter. The key to this exemption is that the computer system is in an inherently "noisy" environment.

The following are not exempt:

- Data acquisition applications
- Computation and software development systems.

In Europe there is no control application exemption, but in both the US and Europe test equipment (ATS) and medical equipment *is* exempt.

In the US, FCC standards apply, and in Europe, VDE standards apply. All systems sold which meet FCC standards also meet VDE standards. In the rest of the world, there are presently no standards.

There are no data communications FCC licensing requirements in the US. However, HP data comm products do meet all other applicable requirements.

Third-Party House Offers Solid-State Non-Rotating Discs for HP 1000

John Boyle/DSD

Ever had a sales situation which required a lot of ruggedized computer gear? If so, you probably realize that there are many obstacles to overcome in order to be successful. Thanks to a new product recently released by a hardware third party house, one of the barriers has been removed.

Imperial Technology, Inc. has announced two new solid-state, non-rotating storage systems called the MaxiRam/1000 and the MegaRam/1000 for use as 7906M emulation devices.

Since both storage systems are constructed from random-access, solid-state components, substantial benefits can be derived in the areas of reliability, serviceability, and throughput. In addition, the absence of any moving parts makes the Maxi-/Mega-Ram/1000 systems a practical solution for many harsh, industrial environments.

In cases where a customer requires a non-rotating mass storage device due to such harsh requirements (where even a Winchester-style disc is unsatisfactory), the Maxi-/Mega-Ram/1000 device can provide the necessary key to a successful HP installation. The Imperial Technology disc has already helped in just such an application at Bethlehem Steel. This major account is currently implementing a steel furnace automation installation including F-Series, XL-Series, 2250s, various peripherals, and the Imperial Technology MaxiRam/1000.

Although the Imperial Technology devices are not HP products and are not HP supportable, the DSD lab has verified the ability of the MaxiRam/1000 to emulate a 7906M in both RTE-IVB and RTE-6/VM environments. The only modification necessary was a one word disc driver patch for restoring a primary disc image from mag tape to the mass storage device with the VERIFY option. The need for this patch may be eliminated in future driver PCOs. Although no explicit performance tests have been performed by DSD to date, the operation of the following subsystems was confirmed:

- Edit
- FORTRAN Compiler
- Loader
- File Manager
- FC utility.

A noticeable speed improvement was present in disc intensive operations.

Although priced considerably higher than conventional disc devices, the Imperial Technology devices can potentially open new markets to the HP 1000. For more information, contact Imperial Technology, Inc., 831 So. Douglas Street, El Segundo, CA 90245, 213-679-9501.

New Revisions Complete Restructuring of HP 1000 Data Books

Ted Proske/DSD

The HP 1000 Data Books have been restructured to combine information for greater accessibility and usability. A new HP 1000 A/L-Series Hardware Data book, an A/L-Series Interfaces Data book, and a revised HP 1000 Software Data book, which contains all available DSD software products, have been sent to your office. Earlier this year, we consolidated E/F-Series computer systems and M/E/F-Series computers into an M/E/F-Series Hardware Data book and an M/E/F-Series Interfaces Data book. The new HP 1000 A/L-Series Hardware and Interfaces Data book and the revised HP 1000 Software Data book replace these items:

- HP 1000 A600/A700 Computational Products Data book (5953-2898)
- HP 1000 L-Series Hardware Data book (5953-4296)
- HP 1000 L-Series Hardware Data Supplement (5953-2875)
- HP 1000 Software Data book (5953-4282)
- HP 1000 Software Data Supplement (5953-2873)
- Graphics/1000-II Technical Information Package (5953-4275)
- HPSPICE Circuit Simulation Package data sheet (5953-2893).

The complete lineup of HP 1000 Data books is given in the following table:

I/O Architecture	Centralized Intelligence	Distributed Intelligence
Computer Series	M/E/F	A/L
Systems and Computers	Hardware Data (5953-2832)	Hardware Data (5953-2844)
Interfaces	Interfaces Data (5953-2833)	Interfaces Data (5953-2841)
Software	Software Data (5953-2839)	
Peripherals	Peripherals Selection Guide (5953-2891)	
Communications	Communications Data (5953-2896) Communications Supplement (5953-2825)	
Measurement & Control	2240A Data book (5953-4230) 2250A Data book (5953-4288)	

Slide Kit/HP 1000 Overview

Cindy Martinez/DSD

Every office should buy at least one of these: The HP 1000 Product Line Overview 35mm Slide Presentation: SA216.

This is a complete HP 1000 overview, designed for the first-time HP 1000 audience. It consists of 29 35mm slides and a complete script, and takes 60 to 90 minutes to present. The slides include the E, F, L, A600, and A700 computers, RTE-6/VM and RTE-A.1, IMAGE, DS, X.25, GRAPHICS/1000-II, ATS, HPIB, Signal/1000, DATACAP/1000, HPSPICE, peripherals, reliability, and support.

To order SA216 use a HEART override:
Sales Force: 02
Marketing Division: 22
Supplying Division: 2200
Product Line: 65
Attention: Cindy Martinez
Price: $35

DATACAP and the HP 1000 Processors

Debra Schneider/DSD

Let your customers' application and software requirements determine their hardware needs.

Any good computer system solution requires a full and accurate understanding of the customer's application because total software costs often exceed the cost of hardware. Regardless of the processor type, the analysis and qualification of customer applications are crucial to the successful definition and design of solutions. In other words, let the customer's application and HP software determine your customer's hardware requirements.

The following four steps define the phases required to successfully design customer systems.

Step 1—Understand the customer's application and "unique" solution; i.e., take into consideration software resources available, objectives and level of experience.

Step 2—Establish functional requirements (software application requirements) based on the full analysis completed in Step 1.

Step 3—Qualify the customer. Determine whether or not HP has the software to satisfy the requirements established in Step 2.

Step 4—Choose hardware that will accommodate the resulting condition arrived at in Step 3.

After determining whether or not DATACAP is a good software solution to the customer's application (Steps 1, 2 and 3), you are now ready to complete Step 4. In this step, remember that the only processors for DATACAP applications are the E- and F-Series computers. There are no plans to include the A-Series computers for use with DATACAP.

If DATACAP satisfies the customer's application, sell the E- and F-Series computers; if not, sell HP PLUS or Third Party software on the A-, E-, or F-Series computers.

DCD

HP 9826/36 Memory Prices Lowered!

John Abegg/DCD

Here's some exciting news for your HP 9826/36 customers: the 98256A memory card price has been reduced by nearly 50% to just $1060 US, including bundled freight. That is just 0.4 cents per byte! We are now the price leader for desktop computer memory.

The 9826 and 9836 prices will be changed as well. We will COMSYS the details of these changes to each sales office as soon as they have become available.

New HP 9888A Expands HP 9826/36 Memory and I/O

Ted Chen/DCD

The New HP 9888A Bus Expander increases the I/O and memory capabilities of the HP 9826A, 9836A, and future additions to DCD's personal technical computer line. The expander has 16 card slots; eight are for either I/O or memory cards, and the others are for memory cards only.

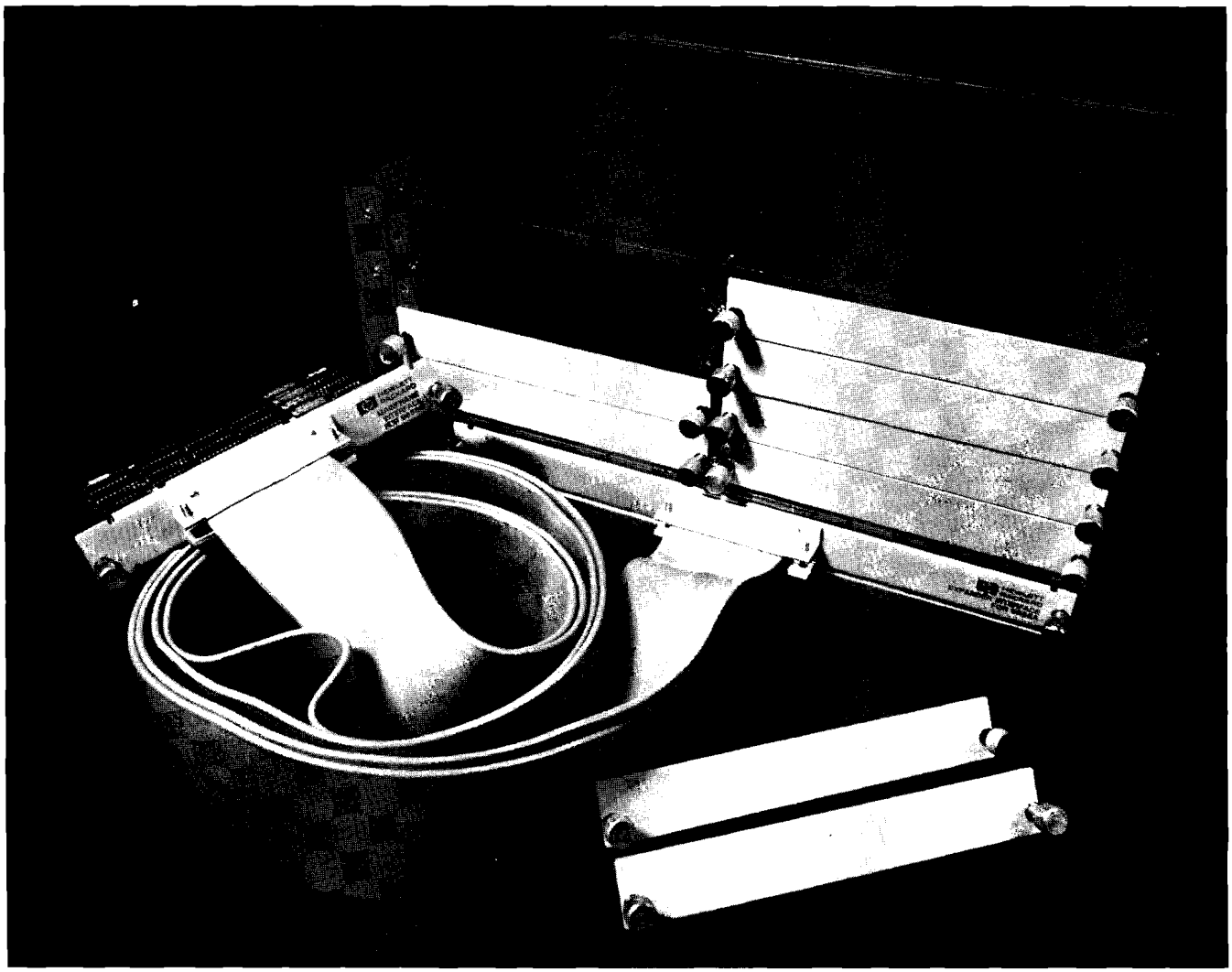
A system with a 9826/36 and expander can contain 11 I/O cards, as well as 3Mb of RAM (12 98256A RAM cards). But the capabilities don't stop there. Up to four expanders can be interfaced to a 9826/36, providing far more memory and I/O than any other personal computer on the market. A system with a 9826/36 and multiple expanders can extend the memory and I/O capability to the limit of the processor's address space — more than 7Mb of RAM (29 98256A RAM cards) *and* 24 I/O cards!

The 9888A can be mounted easily into an instrument rack, since it's housed in a full rack width, 7H System II type cabinet. The expander interfaces to the computer via a 5-foot (1.5 metre) cable and an I/O card, which takes up one I/O slot in the computer. The cable length permits placing the expander away from the computer, leaving the surrounding space uncluttered.

Expands 9826/36 applications

In computer-aided testing applications, 9826/36 customers can now interface to large measurement and control systems. The 9888A will accept more I/O cards for additional instruments and peripherals, and more memory to analyze all the test data quickly. In computer-aided engineering, customers will be able to have virtually as much memory as needed for computation involving large data structures.

The following cards are supported on the 9888A:
98254A 64Kb RAM
98256A 256Kb RAM
98622A GPIO Interface
98623A BCD Interface
98624A HP-IB Interface
98625A Disc Interface



98626A Serial Interface
98627A Color Video Interface
98628A Data Communications Interface
98629A Resource Management Interface

Cards that are not supported include the 98620A DMA Controller card and any ROM-based language system card. These cards must be plugged into the computer, not the 9888A.

The 9826/36 powerfail option is not supported on a 9826/36 with a 9888A. The expander automatically resets the computer at power-up, and would, therefore, erase computer memory contents when power is restored after a power outage.

Expander Performance

Reads and writes to memory cards plugged into the 9888A take 20 percent longer than accesses to memory stored in the computer. Also, I/O performance is slightly degraded. With I/O buffer memory and I/O cards plugged into the expander, I/O speed can be up to six percent slower in interrupt mode compared with when the cards are plugged into the computer. In burst DMA mode, I/O speed can be up to 25 percent slower.

Price and Availability

The 9888A Bus Expander is priced at $3100 US. A rack-mounting flange kit is available as Option 908 for $30 US to facilitate mounting into an instrument rack. Initial availability will be eight weeks ARO.

HP 9815A Memory Upgrade to be Discontinued

Ted Chen/DCD

The HP 98125A, which adds 3800 program steps to the HP 9815A, will be taken off the price list on November 1, 1982. The 9815A is already out of production.

Orders for the 98125A will be accepted through the end of November in the US, and through the end of January 1983 in all other countries. Shipments can occur up to six months after placing the order. Service support will be available until June 1990.

Please contact Ted Chen at DCD, ext. 2180, if you have any concerns.

HP 9815S Discontinuance Reminder

Ted Chen/DCD

This is to remind you that the HP 9815S is scheduled to come off the price list on November 1, 1982. The 9815S discontinuance plan was first announced to you in the March 15, 1982 *Computer News*.

HP 9815S interfaces will remain on the price list until November 1983. Service support, replacement parts, and consumables related to the 9815S will be available until March 1993.

Success Without Customer Visits?

Al Sperry/DCD

Although normal field selling means "Go out, visit the customer, and make the sale," there are some exceptions. An example is when the customer is a government entity with a very high-security classification. In this case, vendor salespersons cannot enter the customer facility, except when the vendor's representative goes there to see only the person requesting the visit. Then a security guard escorts the visitor.

Johnny Carson, SR in the Hanover, MD, sales office, proved that this situation can be overcome when he made the top ten salesperson list both in May and June. His June sales were for quantities of one and two each HP 9826s and 9836s to a number of individuals in different groups in his customer's facilities in the Baltimore area.

Johnny's success stems from being well organized, including communicating by telephone as well as maintaining and using an 800-person mailing list of this customer's people. The customer's two large facilities comprise many small groups, which Johnny treats essentially as individual customers. This is because high security usually means a low communications level among groups and individuals in the customer's organization.

Mailings go out to the entire list every month or so, or when an important change occurs. Extra mailings go out every two weeks to individuals on a selected sublist. This keeps the names of HP and its products fresh in the users' minds.

The situation is somewhat alleviated, because customer personnel are able to visit the HP sales office occasionally for demonstrations or other business, allowing more informal, personal visits.

Johnny's continuing success shows that it pays to be well organized, and that it's possible to sell by using all available communications media, even when you can't normally visit your customer.

HP 9845 — What a Memory!

Bill Szmyd/DCD

Do you have a customer thinking of upgrading an HP 9845S to a 9845T? Beginning October 1, the HP 98401A Upgrade Kit includes the 512Kb memory board instead of the 128Kb memory board. Your customer now gets 576Kb of read/write memory when upgrading his/her 9845S.

What does it cost? Even though we upgraded the memory, we managed to keep the old price; the kit still costs $9000 US.

If your customer wants to standardize on a 9845B Option 175, you need to add the 98046B Data Communications Interface card, the 09845-10180 Terminal Emulator software, and the following ROMs:

- Mass storage
- I/O
- Advanced programming
- Structured programming
- Basic data communications.

PCD

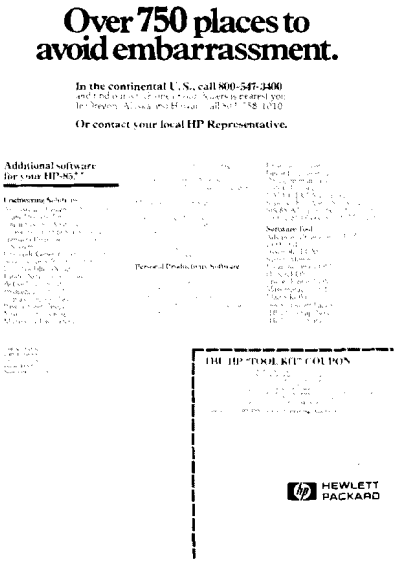
HP-85A Sales Promotion

Greg Erdmann/PCD

This is a reminder that the HP-85A Sales Promotion ends on October 31, 1982. This means that the Comment Card in the back of the HP-85A Owner's Manual, the coupon, and the sales order number must be sent to the attention of John Baker at the Personal Computer Division, and postmarked by October 31, 1982 to ensure that your customers receive free HP-85A "Tool Kits."

Encourage your customers to expedite their orders and collect some HP-85A quota credit before the end of the fiscal year.

Also, note that the promotion is for HP-85As only. Volume end user agreements will be honored, but OEM purchase agreements are excluded.



BCG

Pascal Promotions for Education

Lisa D'Alessandro/BCSC

In response to numerous requests from educational institutions, IND is interested in promoting Pascal/3000 for instructional use. We are willing to donate Pascal/3000 to schools and universities interested in using the software for teaching purposes. This offer applies to customers who currently have HP 3000 systems.

The procedure for getting Pascal/3000 donated involves sending a COMSYS or memo to Jutta Kernke (4700) with the following information:

- Name of the SR for the account
- Name of the SE
- Name of the school or university and the contact
- Address for the contact at the institution
- Sales office.

A letter from the contact at the given school must be written stating that the software will be used for instructional purposes and that customer will or has purchased support for the product. Support can be either SSS or CSS corresponding with what they currently have on the system.

Then you must submit an order for Pascal/3000 and an M60 discount that brings the balance to zero. Send a copy of the M60 and a copy of the letter from the customer directly to 19447 Pruneridge Ave., Cupertino, CA 95014, Attention Jutta Kernke. IND, in return, will mail a Pascal/3000 Reference Manual and a software certificate directly to the customer. If you have further questions on this, call your Business Computer Sales Center contact.

MSO

New Reference Manual for Materials Management/3000

Steve Baker/MSO

Do your customers ever have questions such as:

- What happens if I try to enter a negative number on the ISSUE ORDER screen?
- Can I enter 120% as the YIELD for a part?
- What data items are accessed when I receive a purchase order?

The answers to these and many more technical system questions are contained in the new System Reference Manual (SRM) for Materials Management. In the past, our customers had to rely upon contacting HP application specialists for answers to many of these data processing questions associated with using HP applications.

This new manual contains a transaction narrative for all on-line transactions in Materials Management/3000 except for Master Production Scheduling. In addition, it incluces an extensive glossary of data items that describes their use in more technical detail than the Materials Management/3000 User Manuals. It summarizes the data sets accessed and the critical fields in each transaction. This 600-page manual will be a great source of technical information to users of Materials Management/3000, particularly those who wish to interface it with other applications.

A complimentary copy of the System Reference Manual will be sent to all current customers who are signed up for Customer Support Service (HP 32260T) or Software Support Service (HP 32260S). This manual will be mailed to those customers by September 15, 1982, after initial copies have been distributed to HP application system engineers and SRs. The Product Number is 32265Z. The price is $280. If your customer does not receive his SRM by September 30, please contact MSO Sales Development.

HP Receives 500th Order for Manufacturing Applications from Lever Brothers

Steve Hoch/MSO

The 500th order for HP-developed manufacturing applications software has been received from Lever Brothers Company, Household Products Division!

Congratulations go out to Al Maggio, Jeff Wolfson, Len Lopenzina and the entire Paramus sales and SEO team for their outstanding effort in closing this important deal with Lever Brothers.

The order includes one Materials Management/3000 software package and one HP 3000 system to be installed at Lever Brothers headquarters in New York City, with four additional packages and computer systems to follow in Los Angeles, St. Louis, Baltimore and Hammond, IN. Each of the systems will address inventory control, bills of material, master scheduling and material requirements planning.

The order for this 500th system positions HP among the industry's leading suppliers of this type of software. Sales of MSO's manufacturing-software products have grown more than 100% per year since its beginning in 1978.

New Application Customer Information Bulletin

Beth Eikenbary/MSO

Communication with our customers has long been a concern of Hewlett-Packard. Sharing information — such as new product updates, customer successes, and unusual solutions to common problems can substantially contribute to customer satisfaction. A new document, the *Customer Information Bulletin*, has just been introduced which will provide this type of information on a regional basis to Materials Management/3000 and Production Management/3000 customers.

The first issue of the *Customer Information Bulletin* (or *CIB*) contains over 25 articles, including technical documentation on the new product updates, news about manuals and training courses, and the MPN-ASSIST Services.

Promote Customer Success

The *CIB* is intended to promote two-way communication. One section will be devoted to documenting successful customer installations. This section will give our customers an opportunity to communicate their own success with HP applications, thus helping other customers to also be successful. We expect our customers will contribute to future editions of the *CIB* by writing many of these articles.

HP-12C Will Be Awarded

The *CIB* has been sent to all North American Customers for MM/3000 or PM/3000 who are currently on either CSS or SSS support. On the last page of the *CIB* is a Bingo Card; customers who return the card will get a chance to win an HP-12C Calculator! Encourage your customers to get on support today and enter this contest. The information on the Bingo Card will be used in establishing a manufacturing systems customer data base. We will be collecting such data as system configurations, transaction volumes, manufacturing type, manufacturing process and volume, implementation status, and who to contact. Understanding an installed customer base is a valuable aid in developing new products — and is excellent sales information!

Future issues of the *CIB* will be timed with new releases of application products. If you want additional copies of the *Customer Information Bulletin* to give either to prospects or current customers, contact MSO Sales Development.

High Rating for HP Manufacturing Systems

Beth Eikenbary/MSO

Update to the "Landvatter Report"

The single most influential report evaluating manufacturing applications has just given HP's manufacturing systems a high rating. Manufacturing Software Systems, Inc., has just released its updated evaluation of HP's closed loop manufacturing applications, including Production Management/3000 as well as Materials Management/3000, and scored them as one of MSS's top-rated application products.

The MSS evaluation (commonly referred to as the "Landvatter Report" in deference to the organization's president and noted manufacturing guru, Darryl Landvatter) confirms the functional completeness of HP manufacturing systems and certifies that the proven tools of inventory and production planning and control are properly applied.

The MSS software evaluations are limited to *functional comparison* of the features of manufacturing software packages against the MSS standard system. These evaluations are provided, at a price, to help manufacturing companies evaluate the functional fit of alternative application packages. However, MSS makes no attempt to evaluate such important features as:

- Ability to customize the applications
- Quality of vendor support and consulting
- Ease of implementation
- Interactive operation versus batch operation
- Cost of ownership
- Success in using the applications.

Although the MSS evaluations are influential, and HP is rated highly, don't overlook these other critical factors in helping your customers choose an HP solution to their manufacturing problems.

MPN-ASSIST for Manufacturing Systems

Bob Bickerton/MSO

MPN-ASSIST consulting and training services are designed to help our customers successfully implement Hewlett-Packard's Manufacturer's Productivity Network (MPN) application software products. More specifically, these services better qualify MM/3000 and PM/3000 prospects, provide training and structured assistance throughout application system implementation, and increase the likelihood of the customer's successful and independent operation thereafter.

The ASSIST program represents HP's commitment to help our customers successfully implement HP's applications by building management commitment and by providing a standardized formal approach to each customers implementation project. It was developed jointly by the Computer Support Division, the Systems Engineering Organization, the Manufacturing Systems Operation, and the Computer Marketing Group. Fundamentally, it is designed to augment the customer's experience and expertise, *but not to replace it.*

These services are delivered by an experienced Applications Systems Engineer with extensive background and training in manufacturing applications. The four services available through MPN-ASSIST represent different stages in the decision/implementation process. Each is a prerequisite to the next with the customer always retaining control and authority over the implementation project, including the extent of HP's involvement.

The primary benefit of MPN-ASSIST is that it clearly and mutually establishes responsibilities for HP and the customer, and provides a proven process for being successful in implementing manufacturing applications.

A customer may engage HP MPN-ASSIST services for MM/3000 or PM/3000 by working through his HP Sales Rep. After discussions with an HP Application SR and an Application Systems Engineer, a price quotation for the first MPN-ASSIST service, Requirements Definition Consulting, is presented for customer approval. Price quotations for the other products will be presented separately after the initial service has been completed.

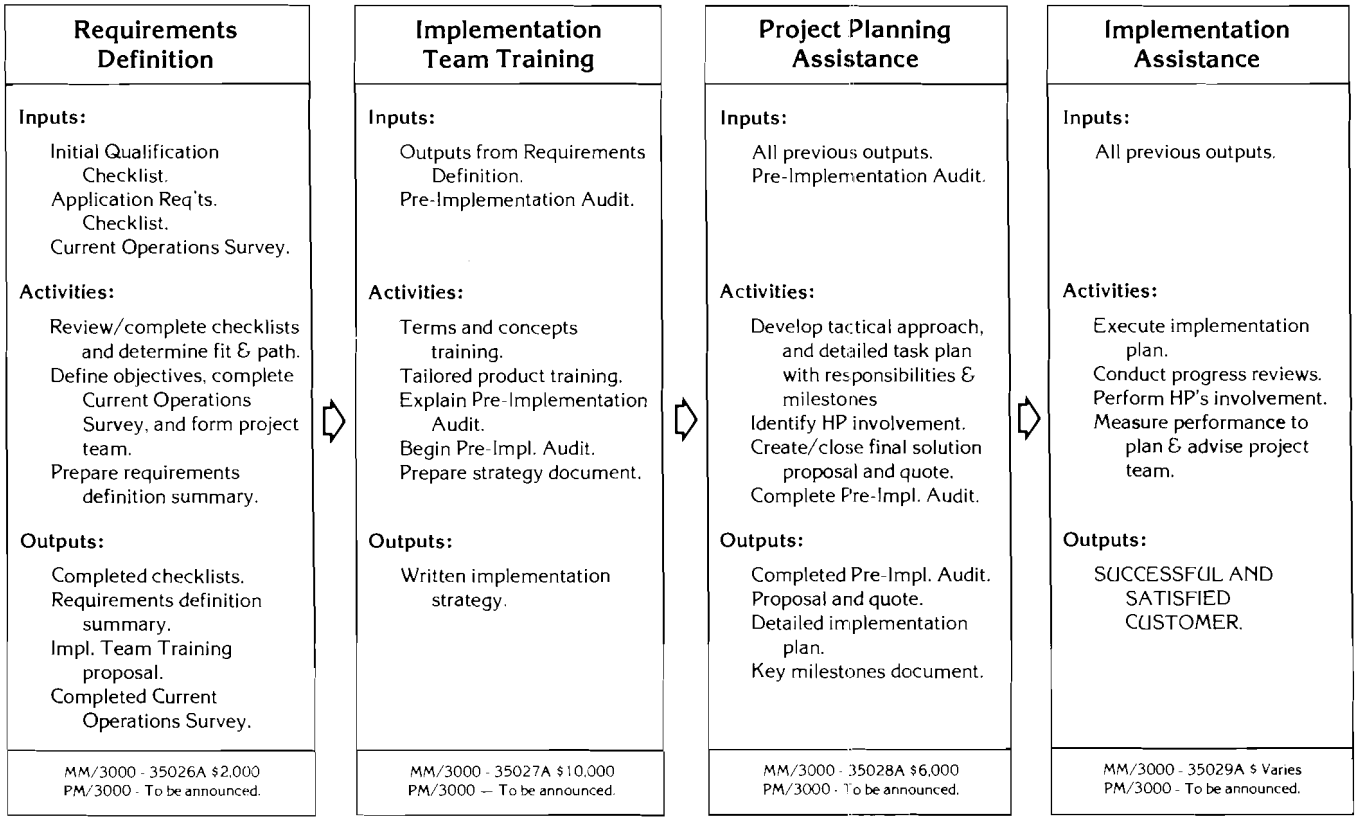
Selling MPN-ASSIST = Selling Success

Although it's true that MPN-ASSIST services and the application selling process may sometimes result in a longer sales cycle, it is also true that the logical, orderly framework MPN-ASSIST provides will often shorten that sales cycle. In all cases, however, it will result in a higher level of customer satisfaction and a higher

Product	Description and Key Features
35026A	Requirements Definition Consulting • Assistance in defining application objectives • Consultation on key implementation success factors • Written summary of defined requirements.
35027A	Implementation Team Training • Review of manufacturing terms and concepts • Preparatory advice and analysis of preimplementation audit • Hands-on training on the HP application software product • Development of implementation project overview and strategy.
35028A	Project Planning Assistance • Advice and guidance in developing a tactical plan • Results in a detailed schedule of tactical plans.
35029A	Project Implementation Assistance • Advice for customer's project manager • Consultation on methods and procedures • Assistance in identifying variances from plan and alternatives for corrective action • Consultation on HP application product customization • Assistance in development of user training

Computer Museum

MPN Assist Summary



Provided by HP

probability of future successful operation. Most importantly for you, the process helps target the right prospects early in the sales cycle, weeding out those that would most likely be problem accounts later. The MPN-ASSIST services maximize the likelihood of our customer's *independent* success — strengthening HP's competitive position in offering solutions!

MPN-ASSIST is already having a significant impact on HP's applications business in many areas of North America and is proving to be a competitive advantage in our sales effort to manufacturers. Make it part of your sales plan too!

CSP

HPMAIL Successfully Installed in UK Sales Office

Janice Cook/UK Sales HQ

HPMAIL has now been successfully installed in three Hewlett-Packard offices in the UK and a test base of users has been selected for the system. Our experiences in setting up our pilot group may help you when dealing with prospects' enquiries about HPMAIL.

Users selected for the pilot group come from a wide cross section and include members of the EDP department, members of the Regional Management Team (including Regional and Area Sales Managers from several disciplines) and their secretaries. In order to create the best possible test environment, we included people who would be communicating frequently with one another.

Our test users were first introduced to HPMAIL through a half day orientation session in which they were shown the scope of the system and were taught how to use some of the basic functions. At the end of this

session they were able to READ, SEND and FILE messages. Also in the first session users learned how to set up a password to prevent unwanted access to their messages and how to set up a designate to work on their behalf. These last topics were included because these people were being asked to use HPMAIL on their own terminals for all their mail immediately following on from the session, and so to them using HPMAIL ceased to be a test situation.

After one to two weeks we found that users were ready for a more intensive training session in order to help them make the most of the flexibility of the system and to cover such topics as creation of a package of related messages, reorganization of the filing cabinet, and how to have your mail forwarded to you if you are visiting another office. We think this second training session should last at least a day in order to allow time for plenty of practice of the areas covered. Initially we gave secretaries and managers different courses. But in retrospect we would give them the same course and follow up with additional training for the secretaries on topics such as how to attach HPSLATE files, use of graphics with HPMAIL, etc.

Throughout this time both telephone and personal support were made available to all users. As it was the first time that many of them had ever used a terminal, a high level of support was necessary to deal with hardware queries as well as those on HPMAIL. A key user contact in each location would be desirable.

At the time of our training, the HPMAIL Interactive Training Facility (ITF) was still under development. But, of course customers have the advantage that they receive this valuable on-line training as part of the HPMAIL product. We feel that the ITF would have complemented much of the training we gave. The ITF is also useful as a refresher course for anyone who had not been able to practice and consolidate their training.

We simplified access to the system by setting up a new log-on ID and account especially for HPMAIL users, which was the same on each machine. This also enabled us to keep a check on how the system was affecting disc and machine usage.

After comprehensive training and ongoing support, the use of HPMAIL really accelerated as people realized just how useful it was and how much time they could save.

As only a small percentage of the people in each office were registered on HPMAIL, a lot of use was made of the General Delivery function. This is the place in HPMAIL where messages are sent to someone who is not a registered HPMAIL user. Messages in General Delivery can be printed and distributed in the normal way. This means that a new user can use HPMAIL for all their outgoing messages immediately after their first training session.

In most instances a specific working relationship exists between each manager and his secretary and this can remain unchanged after the introduction of HPMAIL. This is because the security levels within the system are versatile enough to duplicate any existing level of privacy or power which a manager currently gives his secretary over his mail.

On its own, HPMAIL proved to be an effective tool and in conjunction with the greater word processing facilities provided with a product such as HPSLATE or HPWORD, then HPMAIL is most impressive.

The initial reaction to HPMAIL by our test users was extremely favorable, and you just try asking any of them not to use it any longer! We are now preparing ourselves for the onslaught of personnel who were not included in the initial test and who also want to become HPMAIL users.

DTD

Electronic Bulletin Board — A Great New Sales Support Aid

Mark Priestley/DTD

DTD is proud to announce a new sales and support tool for SRs. The Electronic Bulletin Board System (EBBS) is a 125 based software package which acts as a central source for posting and retrieving general information, messages, questions, and answers. The Electronic Bulletin Board will be on-line and available for you and your customer to use effective September 9, 1982.

You are probably wondering how the Electronic Bulletin Board is different from the non-electronic version hanging in your sales office. The main difference is this Electronic Bulletin Board is accessible to any SR with a terminal and a 300 baud modem by calling the on-line number 408-733-4650. It also has an easy to use editor for leaving messages, a capability to allow you to quickly scan messages for subjects of interest, and an update function to notify you that a message was left for you. The best part of all is that the Electronic Bulletin Board will be serviced by DTD Sales Development. If you have any questions on 125s, terminals, or data capture devices, just leave a message addressed to "Sales Development" on the Electronic Bulletin Board. We are planning on having responses to all questions within a day of when they were asked!

There are several reasons why SRs will want to use the Electronic Bulletin Board:

- It is flexible so SRs can take care of their DTD questions after 5:00 p.m. or right at 8:00 a.m. for SRs not in the Pacific time zone.
- It will be informative since we at DTD will make sure the most up-to-date materials are kept on the Electronic Bulletin Board.
- It is an example to customers of HP people using their own equipment in a productive way.
- It could be a tool to selling more HP 125s, terminals, and modems.

We have prepared a step-by-step Instruction Guide to using the Electronic Bulletin Board for all you innovative SRs. It is available from your DTD Sales Development contact or from your DM. A copy of the Guide was sent to all DM in the US and Canada in September. If you have any questions on the Electronic Bulletin Board, please call us at DTD.

HP 2700 Memory Options Unravelled

Pam Leitterman/DTD

The HP 2700 features three types of RAM (Random Access Memory) memory. These are Vector Memory, Application Memory, and Raster Memory. Since the HP 2700 models are, in part, distinguished from one another by the amount of memory each has, it is important to understand the function of each type of memory. It is also important to know how much memory each model has, and how much of each kind of memory can be added.

Vector Memory

A 64K Vector Memory card is standard in Models 50 and 60. The 64K has three basic uses and is typically apportioned as follows:

- Alpha Display 16K
- I/O Buffers 16K
- Vector Storage 32K

A 256K Vector Memory card is standard in Models 55 and 65. Since the alpha display and I/O buffer allocations are the same as for the other two models, a total of 224Kb is available for vector storage in Models 55 and 65. This is 192Kb of *additional* vector storage. A total of 1024Kb of Vector Memory may be addressed by any HP 2700 model.

Application Memory

Application memory ranges from 128K-256K. The minimum of 128K is required to run either AUTOPLOT/2700 or PAINTBRUSH/2700. When the minimum memory is used, segments of an application are swapped in and out of memory. When the maximum of 256K is used, the entire application will fit in RAM so no swapping is necessary, and the application will run faster. Also, the maximum configuration of RAM provides increase menu data storage for AUTOPLOT/2700. Models 60 and 65 include 128K of application memory. Application memory is not included as a standard part of Models 50 and 55.

Raster Memory

One set of four raster planes (128K) is required to provide the color raster display of the HP 2700. Models 55 and 65 also include a second set of four raster planes that are used to buffer vector redraws. Double Buffered Graphics Memory, as this second set of raster planes is called, is optionally available on Models 50 and 60. With Double Buffered Graphics Memory, an HP 2700 has a total of 256Kb of raster memory.

How to Order Additional Memory

Four vector memory options are available for the HP 2700 Model 50. Customers are asked to order one and only one of these options. Similarly, two applications memory options are available, but only one of these options may be selected by a Model 50 customer.

Additional vector memory application memory for all other models should be ordered as an accessory. Remember total vector memory cannot exceed 1024Kb and total application memory cannot exceed 256Kb.

HP 2700 Gets Six Functional Discount Units

Gene Lee/DTD

Did you know that if your customers order two HP 2700 Color Graphics Terminals they get a seven percent discount? Or that if they order three HP 2700s, it's a ten percent discount? Well, it's true! That's because the HP 2700 terminal qualifies for *six* functional units on the Computer Terminals Discount Schedule.

The HP 2700 offers great color graphics performance. And, in quantities of two or more the functional units really add up fast!

HP 2700 and Wide-Screen Projection

Gene Lee/DTD

A number of SRs have inquired about using the new HP 2700 color terminal with a wide-screen video TV projector. At the SIGGRAPH computer graphics show in Boston, an HP 2700 was hooked up to an Aquastar III N video projector and worked successfully. The connection was made over the terminal's RGB video Interface, Option 054.

For information on the Aquastar III N projector, contact Electronic Systems Products, Inc., at One Tico Road, Titusville, FL, 32780, or call 305-269-6680.

(Note: The combined configuration of the HP 2700 and Aquastar III N has not been RFI tested.)

HP 2647A Quick Delivery Opportunity

Ed Washington/DTD

If you have a customer who must have an HP 2647A and needs quick delivery, there are over 70 consignment units available in US sales offices throughout the country. Please check in your office and your region to find the nearest available unit. Remember, not only would this give a quick delivery, but more than likely your customer will receive a substantial discount.

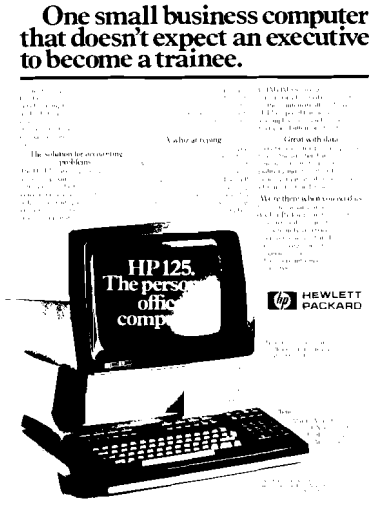
Current availability of the 2647A at DTD is in excess of 24 weeks. No cancellation charges will be billed for 2647A orders cancelled to take advantage of this tremendous opportunity.

By selling your 2647As you will make room to buy 2647Fs for demonstration purposes. Remember, 02 Sales Reps, the 2647F with a printer and/or plotter is an excellent Hewlett-Packard introduction to non-HP sales and equally good as an add-on to the existing customer base.

GSD

Small Business Advertising

Beth Spatz/GSD

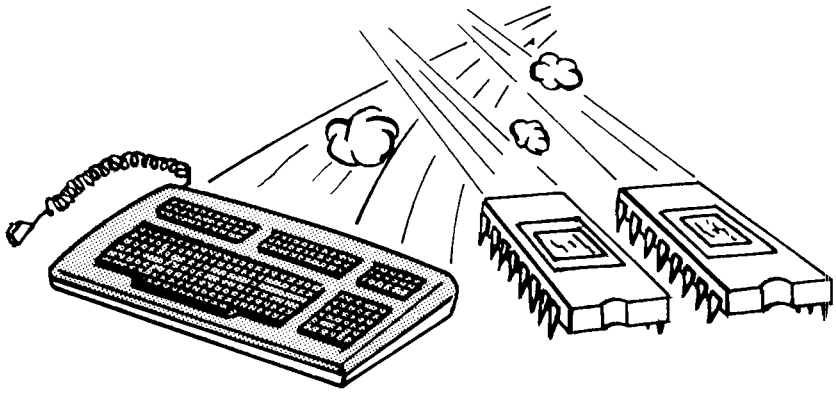


During the months of October and November, GSD will run an advertisement campaign focused toward small businesses. The ads will be in the October 1 and November 1 issues of *Nations Business, Venture, Inc.*, and *Journal of Accountancy*. They will also appear in the in-flight magazines during November.

HPG

Upgrade Kits for the HP 2621B Are Arriving

Jean-Charles Dubuis/HPG



As mentioned in the September 15 *Computer News*, any standard HP 2621B/2629L ordered from September 15, 1982 will be shipped with new firmware that provides the following exciting features (while preserving the old ones):

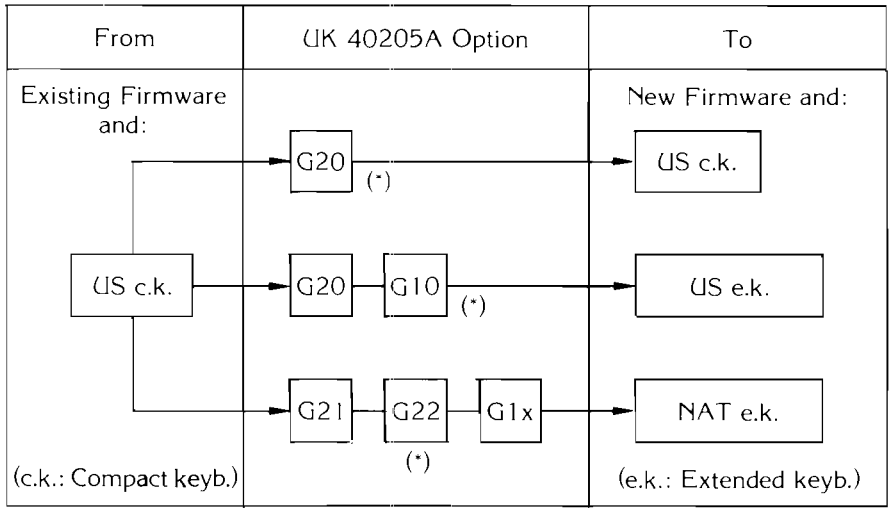
- Memory lock
- ID status (HP 2621B)
- Soft reset
- Keyboard enabling/disabling
- Configuration locking
- Remote strap configuring
- Line mode with/without start of text pointer
- Parity checking (Strap Z)
- Secondary status
- Soft configuration (menu) allowing the temporary change, from the keyboard, of the initial switches configuration.

This new firmware will support both the standard and the extended (Options 100 to 106 and 110) keyboard.

The following new firmware and extended keyboards will be orderable as upgrade kits:

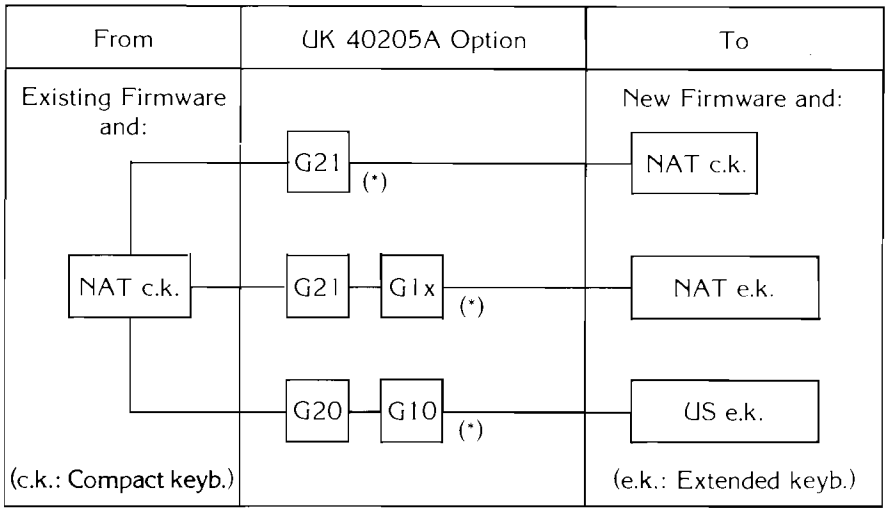
- An upgrade kit consisting of two ROMs — 40205A Option G20, a new USASCII character set firmware for $150*, and 40205A Option G21, a new national character set firmware for $150*. (*This price includes installation by a qualified HP Customer Engineer under the following conditions: a) The Customer Engineer will arrange to perform the Upgrade at his next P.M. or trouble call visit, and b) the terminal to be upgraded will be sent to the nearest HP Field Repair Center to have the upgrade kit installed. *Otherwise* the customer may have to pay an additional travel charge for an HP Customer Engineer to visit the customer's site.)
- An upgrade kit consisting of a national/USASII character ROM (this upgrade is only needed by customer switching from USASCII character set firmware to national

Figure 1



(*) Needs a Customer Engineer installation.

Figure 2



(*) Needs a Customer Engineer installation.

- 2) For 2621Bs with *new firmware and compact (standard) keyboard*, see Figure 3

Installation (1) or (2) should be no charge for the customer if performed during a P.M. or trouble call visit, if the unit is sent by the customer to an HP Field Repair Center.

IMPORTANT: ALL these upgrade kits are specials so they will be orderable by HEART override as of October 1, 1982 from Puerto Rico (for US and ICON) and from Grenoble (for Europe).

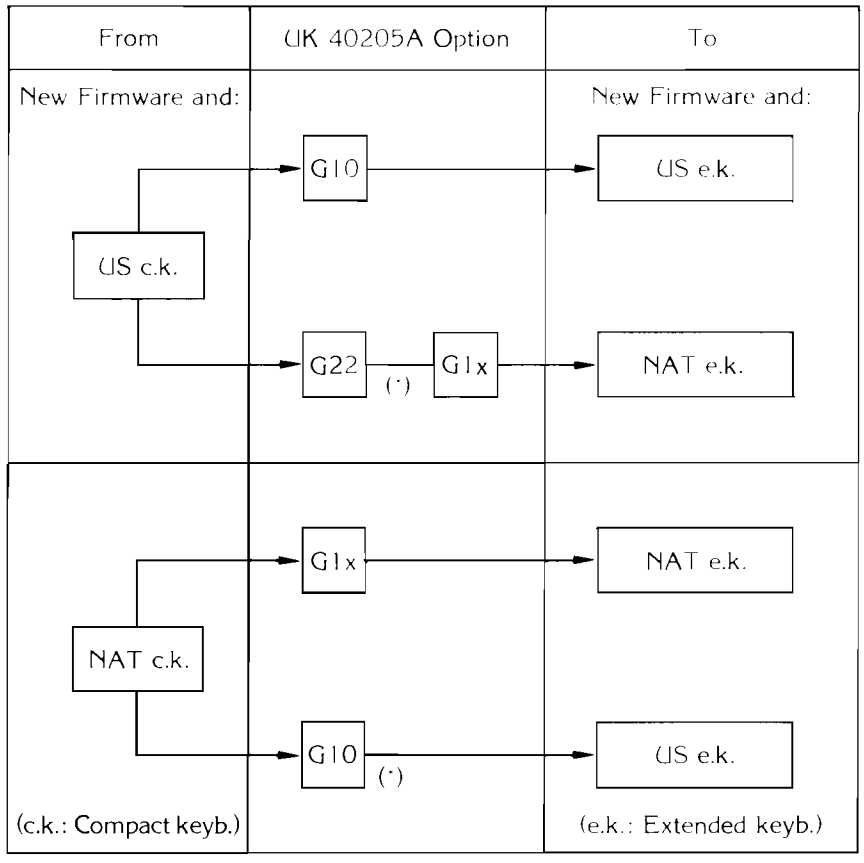
character set firmware) — 40205A Option G22 for $25.

- An upgrade kit consisting of a fully assembled extended keyboard — 40205A Option G10 USASCII extended keyboard for $250, 40205A Option G11 Finnish/Swedish extended keyboard for $250, 40205A Option G12 Danish/Norwegian extended keyboard for $250, 40205A Option G13 French extended keyboard for $250, 40205A Option G14 German extended keyboard for $250, 40205A Option G15 UK extended keyboard for $250, and 40205A Option G16 Spanish extended keyboard for $250.

These kits will provide the following capabilities:

- 1) For 2621Bs with *existing firmware and compact (standard) keyboard*, see Figures 1 and 2

Figure 3



(*) Needs a Customer Engineer installation.

Improved Bar Code Reading Performance

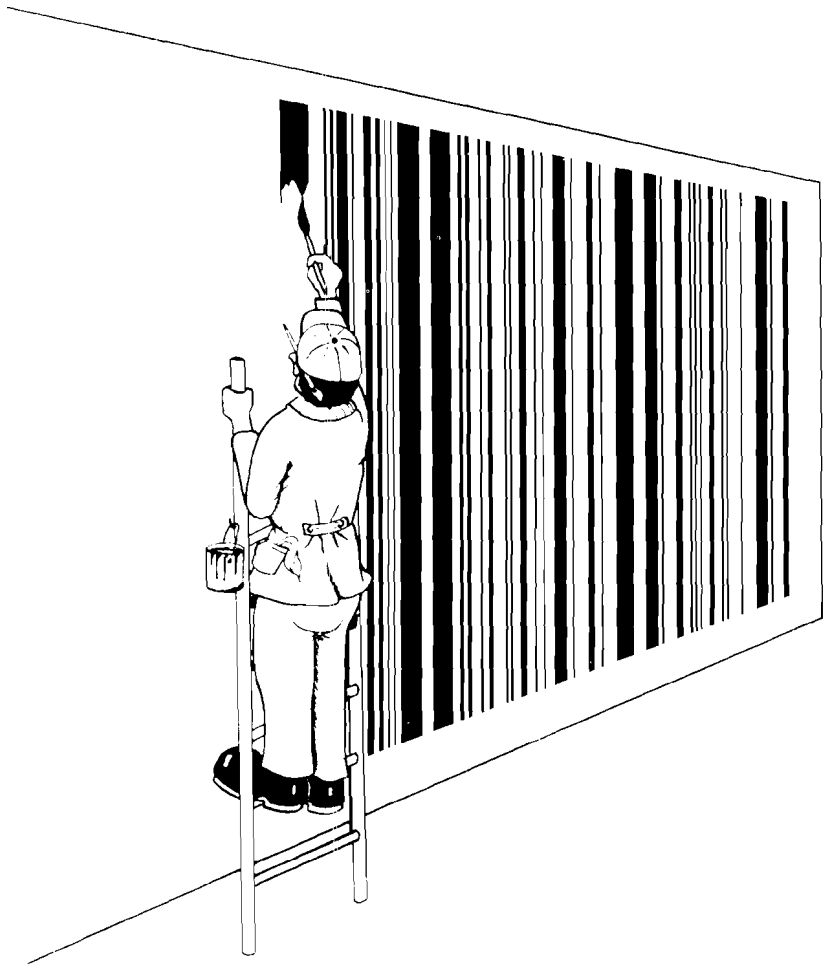
Claude Merger/HPG

We now have two years experience of bar codes under our belt. During this time we have learned a lot, as we are competing against well established bar code leaders (such as INTERMEC) which do all their business in this area.

This has caused our Lab to develop a new bar code algorithm which achieves the same reading performances as our best competitor. "There is a world of difference between the new and the old algorithm," comments one of our customers, who evaluated our improved bar code algorithm.

This new firmware is implemented on the 3075A and 3076A as of Septem ber 15, and will be included in our future bar code products.

In order to give you the opportunity to evaluate our bar code reading performances and help you to beat the competition, each demo unit will be upgraded during the next few weeks, and all customers who request it will receive the new firmware. Please let them know. If you have a special or an urgent request, please send me a telex so I can handle it.



BSE

HP's 2685 Can Beat the Xerox 8700!

Tom Old/BSE

Yes, it is true you can successfully sell against the Xerox 8700! The comparison chart shows that:

- The 2685 Print Station costs less to buy and maintain than the Xerox 8700. Although Xerox leases their products at very competitive rates, at volumes above 300,000 pages per month, HP's 60-month lease is a more cost-effective solution. Call Boise Product Sales for exact numbers.
- The 2685 is an expandable system. We are selling a full printing system which includes an HP 3000/40 that meets other needs of your customer, such as graphics and word processing. Xerox sells only a printer: HP sells a printing system.
- We have a machine that has proven it can produce up to 700,000 pages per month.
- We offer multiple paper sizes.
- We have 32 character sets per page vs. Xerox's 12 character sets per page.

Xerox will counter our product with:

- Their single sheet capabilities. You can counter with HP's smooth edge paper and the reliability of fanfold paper.
- Their ability to print on both sides of a sheet. You can remind the customer that HP has 2:1 and 4:1 print reduction which enables users to actually get the same amount of information on one sheet of paper as when using Xerox's duplexing and reduction capabilities.
- Their Xerox name. Counter this with the fact that we have a proven system printer with a lower support cost.

Next Issue: We'll show you how to win against the IBM 6670 II.

HP 2685 Print Station Vs. Xerox 8700

	HP 2685	Xerox 8700
Cost (List)	$163,000	$212,000
Maintenance per month at 400,000 pages per month	$1,791 (SMMC)	$3,028
Graphics option	$16,000-$32,000	$20,000-$40,000
Expandable components	Disc drive Tape drive Terminals HP 3000/40	Tape drive
Output per month using 8½" x 11" pages	700,000	400,000-700,000
Paper	Z-fold 3½"-17" long by 6½"-12" wide 16-24 pound*	Single sheet 8½" x 11" only 16-110 pound
Duplex	No	Yes
Print Reduction		
2:1	Yes	Yes
4:1	Yes	No
Maximum character sets per page	32	12
Vendor-supplied custom design service	Yes: Characters Logos Forms	Yes: Characters Logos
Interface to mainframe	MRJE RJE Mag tape	Direct channel Mag tape
Input scanner	No	Yes
Customer-designed forms	Multi-user, on-line	Single user, batch program
Customer-designed logos and character sets	On-line, multi-user	Not available

*Order application note 413-1 on using heavy paper on the laser printer (P/N 5953-7118) for more information

HP 2617A Printer Obsoleted This Month

Sallie Ewing/BSE

The HP 2617A drum printer is being obsoleted and will no longer appear on the CPL after October 31. Orders will not be accepted beyond that date, so if you have a customer with a special need for a drum printer, have him place his order this month.

The 2617A's direct replacement is the 2611A, a chain-train printer which is a 600-lpm version of the 2619A. The 2619A and 2611A are now the only OEM representation in Boise Division's printer line.

The 2611A lists for $1,870 less than the 2617A, and is also P/A discountable, where the 2617A was not. The five-year support life will not begin until the last unit is shipped, which is anticipated to be in the December/January timeframe.

Print Quality Should Be Seen and Not Heard

Larry Haley/BSE

If one printer has 180 dots per inch, and another printer has 300 dots per inch, which one has higher quality?

If you're thinking that the answer is the one with 300 dots per inch, think again. Although "dots per inch" is a rule of thumb indicator of print quality, it can be misleading. More dots per inch *doesn't necessarily* mean better print quality. Why? Because the technologies involved can be implemented in different ways. Let's look at some of the variables as they pertain to the HP 2680 Laser Printer, in particular.

Dot Shape

Several different dot shapes are used by the various laser printer manufacturers. These include round, oblong, and four-sided concave. The 2680A uses round dots, which enables the same character design to be used both vertically and horizontally, and requires less dots per inch.

Dot Size

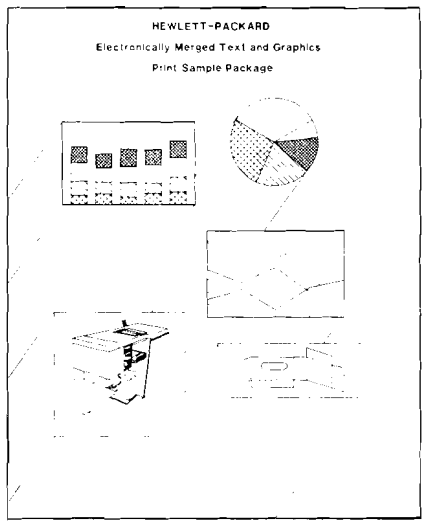
This can be driven by dot shape. For example, if four dots are placed in the shape of a square, the center will not be filled in (unless, of course, you have square dots). Therefore, dots must overlap enough so that no blank areas are left in the image unintentionally. Dot size and shape are important considerations in character design. The 2680A's round dots are overlapped so that a square of four dots leaves no blank space.

Dot Placement Accuracy

Character sets are designed to take maximum advantage of dot shape and size. The printer's ability to accurately place dots affects the printed character. This was an important design criteria for the 2680A.

There is no best size, shape or placement for dots, because there is much interplay between them. The 2680A was carefully designed to take advantage of dot shape, size and placement so that 180 dots per inch would provide the optimum quality. Really, one statement can be made about print quality: "Quality is in the eye of the beholder."

So why does one competitor tout their 300-dot-per-inch resolution? Because it sounds better. How do you counter the better claim? With print samples. Print quality should be seen and not heard!



Solid, crisp print quality such as this from the 2680A Laser Printer is the result of dot size, shape and placement, not necessarily the number of dots per inch. The real test of print quality is in seeing the actual output. This print sample may be ordered through Corporate Literature Distribution (P/N 5953-7115).

HP 2608S Cables, Graphics and Features on HP 1000s

Jim Skog/BSE

If your HP 1000 customers are interested in using the 2608S as their output device, here's some information you should know:

2608S is Supported Printer for the GRAPHICS/1000-II Package

For your HP 1000 M/E/F customers using the latest version of the GRAPHICS/1000-II software package, the 2608S is a supported

output device. The 2608S can print graphics, depending on the software, at three pages per minute (33 inches/minute). In graphics mode, the 2608S has a resolution of 70 x 72 dots per inch.

Maximum Cable Lengths

On both the HP 1000 M/E/F and A-Series systems, the maximum HP-IB cable length from the system to the 2608S is 15 meters (48 feet). (See HP-IB loading instructions in the 2608S Service Manual for details.) If your customer has need for longer cables (48 ft. to 1,000 ft.), contact Boise Product Sales.

Ordering Interface Cards for the HP 1000

The 2608S is an HP-IB system printer which uses the 12821A I/F card in the HP 1000 M/E/F or the 12009A I/F card in the HP 1000 A-Series. The 12821A card comes with a four-meter (12-foot) HP-IB cable and the 12009A card includes a two-meter cable (12009A Option 001 makes it a four-meter cable). The appropriate cards must be ordered from Roseville (it is not included with the printer subsystem), and each card should be dedicated to one 2608S.

2608S Features on the HP 1000

The 2608S offers several new advantages for HP 1000 users. Improved print quality is made possible by a high density print mode that slows the printer to 350 lpm and increases the number of dots in each character cell. Secondly, a lower maintenance price (2608S SMMC = $90 vs. 2608S SMMC = $109) reflects the improved reliability and serviceability of the 2608S.

Additionally, the 2608S is easier to operate. Improved paper loading, visual alignment for setting top-of-form, left margin adjustments, and a forms length button all contribute to ease of use.

With new graphics support, improved features and long cables, the 2608S is the real choice for your HP 1000 customers.

Printer Upgrade Program Correction

DeLona Lang Bell/BSE

Due to a typographical error, the September 1 issue of *Computer News* had an article entitled 'Two Months Left for HP 2608A Printer Upgrade'. The printer upgrade program is for the HP 2680A Laser Printer, as the article mentioned, not the 2608A. We are sorry for any confusion this may have caused you.

DMD

HP 7908/11/12 Tape Cartridge Warranty Replacement Availability

Linda Rodda/DMD

Computer Supplies Operation (CSO) is now set up to warranty replace single tape cartridges. Warranty is no longer dependent upon tape origin. Even defective tapes originally shipped with the disc/tape drives from DMD will be replaced by CSO upon request.

Please be aware that the tape drive problems are not usually isolated to the tape cartridge alone. If a customer experiences more than a small percentage of cartridge failures, it is imperative that the CEO be contacted. Short tapes are immediately available and long tapes are quoted at three-week availability. However, CSO has some long tapes to supply *critical* sites immediately. It will be necessary to notify CSO when the customer need is a high priority.

Correction for DMD Site Environmental Manual Part Number

Cathy Lyons/DMD

Please note this correction to the article, "Site Environmental Manual for CS/80 Disc Drives", found in the September 1, 1982 issue of *Computer News*. The part number for this manual is 5955-3456, not 5953-3456.

SDD

HP 9874A Digitizer to be Obsoleted

Bill Loeber/SDD

The HP 9874A is rapidly approaching the end of its useful life. Introduced in 1978, the 9874A has proven a valuable complement to desktop and other systems for a variety of specialized graphics applications.

The 9874A will be removed from the Corporate Price List on November 1, 1982. A direct replacement product will not be available from HP in the near future. The 9111A Graphics Tablet can provide some digitizing capability with its smaller platen area and less accurate stylus.

Computer Groups Price Changes Effective October 1, 1982

These prices, effective October 1, 1982, will appear on the Corporate Price List on that date, available in your office. Prices are US List unless otherwise noted. Orders at old prices will be honored at the factories for 30 days (or 60 days in the case of government quotes, see exception, III. GSA) after the effective date of an increase. All quotations, either verbal or written, shall be made at the new prices upon the effective date of the new price list. The customer should be notified that his order will be honored at the lower price if it is received within the 30-day grace period. Price decreases are effective immediately and in-house orders shipped 5 working days prior to the announced decrease date will be billed at the new lower price.

Note: Shaded area indicates price decrease.

Computer Support Division

Product No.	Description	Current Price	New Price
35030A	Power Conditioner	1,050	1,100

Computer Supplies Operation

Effective October 1, 1982 the following products US List Price includes a standard freight charge.

92161A, 92161B, 92161C, 92161D, 92161E, 92161M, 92161N, 92161P, 92161Q, 92161R, 92210A, 92210B, 92210H, 92210P, 92210N, 92210R, 92210S, 92171T, 92173P, 92170G, 92172A, 92172B, 92172C, 92172D, 92172E, 92173P, 92173R, 92173Y, 92156A, 92217C, 92217D, 92218B, 92219A, 92219B, 92219C, 92219D, 92220A, 92220B, 92220C, 31391C, 30062-60012, S061-2403, 13222-60001, 13222-60002, 13222-60005, 13222-60005, 13242-60002, 13242-60005, 92218D, 13242-60010, 13242-60011, 40242-60002, 40242-60003, 40242-60004, 02640-60043, 02640-60131, 5061-2409, 02640-60058, 02640-60059, 02640-60218, 92219F, 02640-60133, 02640-60134, 45500-15800, 45500-18800, 45532-18800, 88103A, 02647-13301, 92150R, 9330-0465, 12869A, 13394A

Systems Re-Marketing Operation

Product No.	Description	Current Price	New Price
30008BN	256Kb Mem Brd. Return Credit	−3,000	−2,500
30032BN	Series III ATC Return Credit	−1,000	−500
Opt. 001	Bell 103 Modem Return Credit	−300	−150
Opt. 002	Bell 202S Modem Return Credit	−300	−150
30078AN	128Kb Memory Return Credit	−1,200	−1,000
32412CR			
Opt. 970	7970E Re-Mkt 60Hz	9,880	11,880
Opt. 971	7970E Re-Mkt 50Hz	9,880	11,880
32430CR			
Opt. 970	7970E Re-Mkt 60Hz	9,880	11,880
Opt. 971	7970E Re-Mkt 50Hz	9,880	11,880
32435BR			
Opt. 870	7970E Re-Mkt 60Hz	9,400	11,400
Opt. 871	7970E Re-Mkt 50Hz	9,400	11,400

Price Changes

Data Systems Division

Effective October 1, 1982 the following products US List Price includes a standard freight charge.

12002A, 12002B, 12003A, 12103A, 12103B, 12103C, 12103D, 12104A, 12153A, 12156M, 2103L, 2103L (OPT. 012), 2103LK, 2103LK (OPT. 012), 2106AK, 2106AK (OPT. 012), 2107AK (OPT. 001), 2122A, 2122A (OPT. 012), 2122B, 2122B (OPT. 012), 2135B (OPT. 012), 2136B (OPT. 012), 2137A (OPT. 001), 2142A (OPT. 012), 2142B (OPT. 012), 2156A (OPT. 012), 2186A, 2186A (OPT. 012), 2196A, 2196A (OPT. 012), 2196B, 2196B (OPT. 012), 2186B, 2186B (OPT. 012), 2197B, 12666H, 12680B, 12681B, 12682B, 12683B, 12684B, 12685B, 12692B, 12699H, 12728D, 12728H, 12728K, 12739E, 12739G, 12746A, 12746H, 12747A, 12747AD, 12747H, 12747HD, 12749H, 12749HB, 12779A, 12779H, 12780A, 12780H, 12784A, 12784B, 12784C, 12784D, 12785A, 12785B, 12785C, 12785D, 12786A, 12786B, 12786C, 12786D, 12787A, 12787B, 12787C, 12787D, 12788A, 12788R, 12788BB, 12788C, 12788D, 12788E, 12788F, 12788G, 12788H, 12789A,B,C,D,E,F,G, H,J,K,L,M, 12903B, 12903C, 12991B, 13197A, 13306B, 2102B, 2101C, 2102E, 2102H, 2108B, 2108M, 2108 (OPT. 014), 2108M (OPT. 300), 2108MK, 2108MK (OPT. 014), 2109B, 2109E, 2109E (OPT. 12), 2109 (OPT. 300), 2109K, 2109K (OPT. 014), 2109K (OPT. 020), 2111F, 2111F (OPT. 014, 300), 2112B, 2112M, 2112 (OPT. 013, 014, 300), 2113E, 2113 (OPT. 012, 014, 300), 2117F, 2117F (OPT. 014, 301, 302), 2176C, 2176 (OPT 002, 014), 2176D, 2176D (OPT. 002, 014), 2177C, 2177C (OPT. 002, 014), 2177D, 2177D (OPT. 002, 014), 2178, 2178 (OPT. 002), 2178A, 2178A (OPT. 014), 2178B, 2178B (OPT. 014), 2179A, 2179A (OPT. 002, 014, 101, 102, 111, 112), 2179B, 2179B (OPT. 014, 101, 102, 111, 112), 29402C, 29402C (OPT. 050, 051), 29421A, 29429A, 29431F, 40010A, 40017B, 92852E, 92852M, 22958C, 22958C (OPT. 003, 010), 22972B, 22973B, 22975B, 22976B, 22977B, 22985B, 22985B (OPT. 001), 23985C.

Corporate Price List — October 1, 1982

Product No.	Description	Current Price	New Price
92070B	RTE-L Operating System	1,000	800
92071A	RTE-XL Operating System	1,500	1,200
Opt. 002	Upgrade Discount	−1,500	−1,200
92077A Opt. 600	RTE-A.1 Operating System	2,500	2,000
Opt. 700	RTE-A.1 Operating System	5,000	4,000
92084A	RTE-6/VM Operating System	9,000	7,200
Opt. 001	Upgrade Discount	−3,600	−2,800
Opt. 002	Upgrade Discount	−6,300	−5,040
92068A	RTE-IVB Operating System	5,250	4,200
Opt. 001	Upgrade Discount	−2,100	−1,680
93283A	Rack and Cable Service	3,500	4,000
Opt. 001	1 Bay Cabinet	2,100	2,500
Opt. 004	Signal Cables	105	125
Opt. 007	Second System Discount	−840	−2,500
93284A	Configure and System Test *Includes $1000 Freight	5,000	6,500
Opt. 006	Separate 1000 Shipment	5,250	6,500
Opt. 007	Second System Discount	−1,260	−4,500
Opt. 008	Source Inspection	3,150	3,500
93285A	Engrg Unit (Labor)	120	140
9411A	Switch Controller	4,200	6,950
9412A	Modular Switch	8,500	12,750
9413A	VHF Switch	2,100	3,000
9414A	Matrix Switch	6,000	12,000
9415A	Digital Test Unit (from LID)	19,000	24,500

Price Changes

Roseville Division

Product No.	Description	Current Price	New Price
24602A	Firmware Development Guide	2,500	1,000

Desktop Computer Division

Product No.	Description	Current Price	New Price
9826A Opt. 099	No Language Subsystem	7,950	7,550
9836A Opt. 099	No Language Subsystem	10,950	9,950
98256A	256Kb Memory Board	2,000	1,050
98261A Opt. 011	BASIC ROM Language	1,200	1,400
Opt. 014	HPL ROM Language	1,000	1,400
Opt. 711	BASIC RAM Language	1,200	350
Opt. 714	HPL RAM Language	1,000	350
Opt. 715	Pascal RAM Language	2,000	1,500
98261R Opt. 711	BASIC Right to Reproduce	600	275
Opt. 714	HPL Right to Reproduce	500	175
Opt. 715	Pascal Right to Reproduce	1,000	750
98620A	DMA Controller Card	425	450
98622A	16 Bit GPIO Interface	275	350
Opt. 001	Unterminated Cable	75	100
Opt. 002	9885M Cable Option	75	100
Opt. 003	6940A/B Cable Option	75	100
Opt. 004	9866A/B Cable Option	75	100
98623A	BCD Interface	275	380
Opt. 001	Unterminated Cable	75	105
98626A	Peripheral Serial Interface	275	375
98626A	Data Comm Interface	500	600
98777A	9845 Camera Attachment	1,050	1,300
98601A Opt. 655	ROM Based BASIC 2.0 Language Sys. with Utilities on 5-1/4" Flex. Disc Media for Internal Disc Drives (Formerly 98261A #011)	1,400	1,415
98604A Opt. 655	ROM-Based BASIC 2.0 Language System	1,400	1,415
98611A Opt. 655	RAM-Based BASIC 2.0 Language System Supplied on 5-1/4" Flexible Disc Media for Internal Disc Drives (Formerly 98261A)	350	355
98261A NO OPT	Right to Reproduce BASIC 2.0 Language System (Formerly 98261R #711)	275	275
98614A Opt. 655	RAM-Based HPL 2.0 Language Sys. Supplied on 5-1/4" Flexible Disc Media for Internal Disc Drives (Formerly 98261R #711)	350	355
98615E NO OPT	Right to Execute Pascal Language Sys. (Formerly 98261E #715)	250	250
98261R	Right to Reproduce Pascal Language System (Formerly 98261R #715)	750	755
98619A Opt. 655	Shared Resource Mgr. Operating Sys. Supplied on 5-1/4" Flexible Disc Media for Internal Disc Drives (Formerly 98261A $500)	2,000	2,220

HEWLETT
PACKARD

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