COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel

REINHARDT, HELMUT
FRANKFURT
HPSA

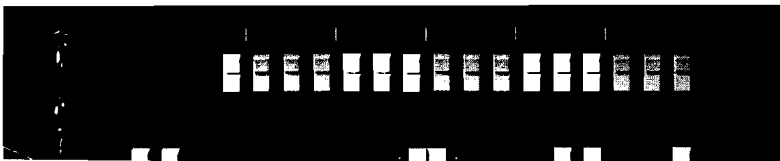HEWLETT **hp** PACKARD

Vol. 4, No. 16
July 1, 1979

DSD Announces. . .

HP 1000 SYSTEM

HP 1000 Systems	**DATACAP/1000**
RTE-IVB	**IMAGE/1000**
VIS	**GRAPHICS/1000**

In This Issue...

BOISE DIVISION NEWS

Product News

Price Increases on Printer Products
By: Gary Atkins/Boise

Effective July 1, Boise Division will raise prices on two members of the 263X Family of serial printers and on two of our line printers, the 2608A and 2613A. These price increases are due to inflationary material cost pressures associated with these electro-mechanical devices.

The 2631A and 2635A will be increased $200 each to $3350 and $3650 respectively. The 2608A line printer will be raised to $9,900 with the 2613A line printer increasing to $11,600. We do not believe these price increases will place us in an adverse competitive situation.

Certain option prices have also changed. The extended serial interface for the 2631A, #052, has decreased from $615 to $415. The kit version of this interface, the 26095A #052 has also decreased $200 to $415. Options 041 and 051 for the 2639A have each increased in cost from –$485 to –$285.

The 7970 tape products will not show any price increases. This long established product continues to show improved economics of scale with material cost increases offset by labor savings. With competitor price increases, this device is becoming an even better OEM device.

How to Tear Paper From a 2608A
By: Mary McNally/Boise

Several customers have voiced a concern that when a page is torn from the 2608A, the first line on the next page is compressed vertically. This has come to be known as "first line crunch," and is not a problem with the 2608A, but rather with the way that page is being torn away from it. When the tractors are idle, the pins can actually be moved a fractional distance in the vertical direction. This mechanical looseness is common to these types of tractors, and allows the paper in the tractors to be advanced a very small distance vertically. Therefore, when a page is being torn away from the printer, the force which is pulling up on this page also pulls up on the page in the tractors. If this is being done while the printer is operating, the first dot rows will be printed lower than they

normally would. Then, when the top page is removed, the tension is relieved, and the page in the tractors slides back to the idle position. The resulting print appears to be compressed vertically. This entire situation can be easily avoided by merely pressing down one edge of the page against the top of the printer when tearing it away. In this way, no upward force is exerted on the page in the tractors. This approach is simple, requires no extra time or effort, and eliminates the "first line crunch."

263X Accessories Are Available Now!!!
By: Steve Davis/Boise

During the last few months, Boise Division has introduced two new accessories which will significantly increase your customer's satisfaction with the 263X Family. The 26093A paper catcher is designed to be used when the printer or printing terminal is on a desk or tabletop. The 26090A sound cover is designed for any configuration of the 2631A, 2635A, 2631G, or 2639A.
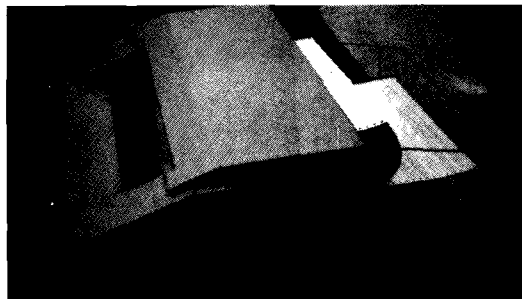
Both the 2609A (list price $100) and the 26093A (list price $50) can be ordered with new units or be easily installed by the user on existing units.

Hard Copy Graphics . . . and now Zoom!!
By: Mary McNally/Boise

With the enhanced graphics features of the 2647A, it is now possible to print hard copy graphics on the 2631G in both regular and zoom modes. So customers can now load graphics memory, zoom in to the desired area, and print the image on the 2631G in the same way they normally dump graphics.

The following figures show the full screen copy and the selected zoomed portion. Please don't forget that this feature is available only with the 2647A!

MULTIPLE AUTOMATIC PLOTTING

ZOOM
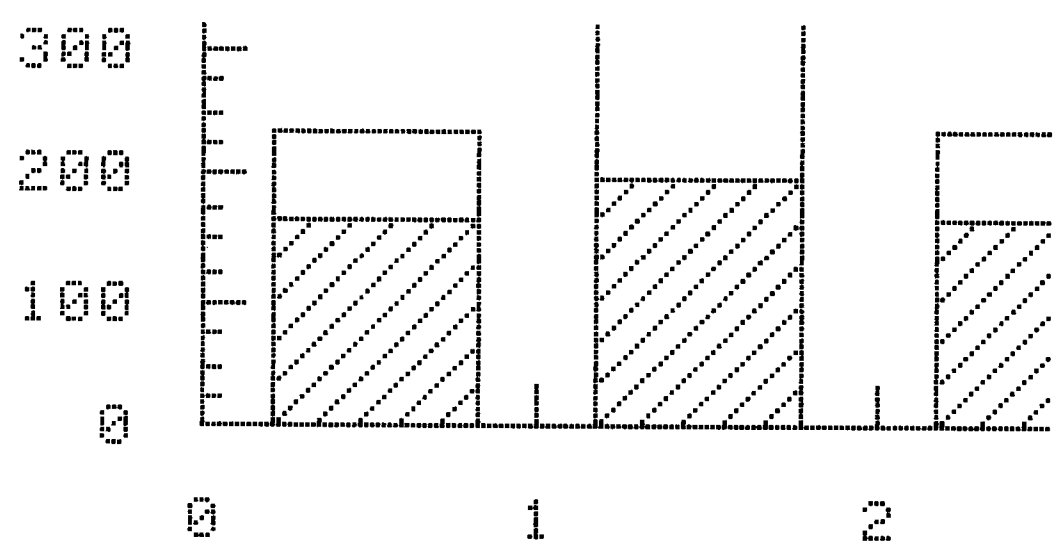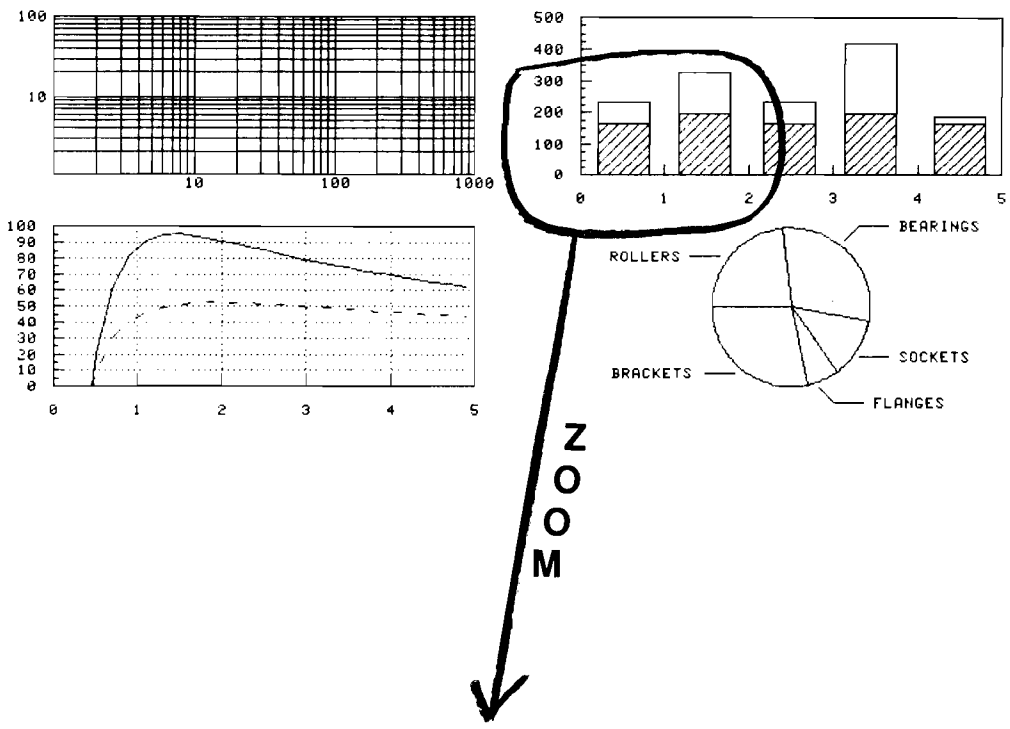
Division News

New Organization for Boise Sales Development
By: Chuck Ulfers/Boise

Boise Division's Sales are currently running about 150% of last year. This increase has brought about the need for several changes in the Sales Development Group.

Effective June 1 we divided the Sales Development Group into three parts.

John Klonick — Sales Development West   Neely/Southern.

Sales Development West, which will be headed by *John Klonick*, will include the Neely and Southern Sales Regions. *John* was previously representative for the Eastern and Southern Sales Regions. *Jim Brusseau, Beatrice Lee*, and *Dave Melin* will be working for *John* and will continue their same regional assignments. *John* will also take on responsibility for Boise Division's training effort.

Thad Webster — Sales Development East Eastern/Midwest/Canada.

Thad Webster has been promoted to Regional Sales Development Manager responsible for the Canadian, Eastern and Midwestern regions. *Thad* will also continue to be responsible for Boise Division's Advertising and Sales Promotion. *Mary McNally* will be working for *Thad* covering the Eastern Region and *Thad* will continue to cover the Midwest and Canadian regions.

Robert McCaleb — Sales Development International.

Robert McCaleb will be taking on responsibility for the International Sales Regions. He will be covering both HPSA and ICON.

We believe that these changes will broaden Boise Division Sales Development capabilities, and make it possible for use to respond more effectively to your sales needs.

Chuck Ulfers
SALES DEVELOPMENT MANAGER
— *Lil Blankinship*
Secretary

John Klonick SALES DEVELOPMENT WEST (Neely and Southern)	*Robert McCaleb* INTERNATIONAL SALES DEVELOPMENT (ICON and HPSA)	*Thad Webster* SALES DEVELOPMENT EAST (Midwest, Eastern and Canada)

SALES DEVELOPMENT	TRAINING	SALES DEVELOPMENT	ADV & SALES PROMOTION
- *Jim Brusseau* - *Dave Melin* - *Beatrice Lee* - TBH	- TBH	- *Mary McNally* - *Tom Mills* - TBH	- *Sue Brault* - *Mauri Lewis*

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Sales Aids

New Terminals Brochure —
Order Some Today!!
By: Sue Brault/Boise
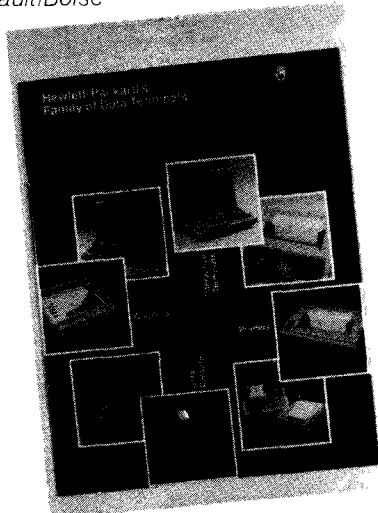
Just a reminder, the "*Hewlett-Packard Family of Data Terminals Product Guide*" has been coordinated and published by Boise Division for your sales use. Orders seem to be slow getting started for the brochure so be sure to remind your literature coordinator to order this useful sales brochure from the Corporate Literature Distribution Center, Palo Alto [P/N 5452-9447 (1/79)].

Included in the brochure are the following HP products:

Interactive Terminals

2621A/2621P
2635A Printing Terminal
2639A Printing Terminal
2640B Display Terminal
2641A APL Display Station
2645A Display Station
2649A Microprogrammable Terminal

Printers

2631A Printer
9871A Impact Printer
9876A Thermal Graphics Printer

Data Capture

307X Family of Data Capture Terminals
7260A Optical Mark Reader

Graphics Terminals

2631G Graphics Printer
2647A Intelligent Graphics Terminal
2648A Graphics Terminal
7225A Graphics Plotter
7245A Plotter/Printer
9872A and 7221A Multicolor Graphics Plotters
9874 Digitizer

Systems

HP 250/300/3000 Series 33/3000 Series III/HP 1000

FOR INTERNAL USE ONLY

DISC MEMORY NEWS

Division News

VDE Team
By: Rich Bowles/DMD

Introducing our VDE team;

> **Photo Not Available At press Time**

Contrary to popular belief, they have not developed VDE, but rather a disc "treatment plan" for it. (See *Tom Steipp's* article in the 4/15 issue of the *CS Newsletter*).

This should allow us to become one of the first disc drive suppliers to meet the strict RFI emissions standards in Germany. This is big news all over Europe where many countries will soon enact similar regulations.

Most of the world, including the U.S., will also adopt the German R.F.I. emissions standards in the next five years. The tireless efforts of these individuals should put us "miles ahead of the competition" at that time.

Product News

7925 Supported on HP 1000's
By: Kevin Megenis/DMD

Has your HP 1000 System Customer had a Big Mac attack lately?
Are you in a pickle?
Lettuce help you with our 7925 (120 Mb) Disc Drive which is now supported on the enhanced HP 1000 models 40 and 45.

The 7925 is DMD's newest and largest member of the Multi-Access Controller (MAC) Family. Since its introduction in June '78, this drive has provided commercial users with the convenience of a large pack-type drive. Now the technical users can enjoy the same benefits of storing from 20 to 960 megabytes of formatted data.

HP is one of the few disc manufacturers that provides a solution to such a wide range of mass storage requirements. HP 1000 customers have the option to choose between a cartridge or pack type drive with small (20 Mbytes, 7906), medium (50 Mbytes, 7920), or large (120 Mbytes, 7925) capacity. Various configurations allow up to eight CPU's per drive. In a large distributed network a configuration of up to eight 7925's can support many CPU's.

The 7925 represents a significant advancement in high-capacity mass storage devices manufactured by HP. The 120 Mbytes of user storage is available in a compact, removable disc pack which consists of five data and two protective discs (upper and lower). The 7925 is housed in the same stylish enclosure as the 7920, suitable for the demanding data center or more general surroundings where low noise, aesthetics, and large mass storage requirements are paramount.

Now that the HP 1000 has entered the upper realm of mass storage (> 400 Mbytes), you may encounter competition from large Winchester technology drives that have fixed media. Against fixed drives the advantages of removability are media portability, interchangeability, and off-line storage.

On a cost-per-megabyte basis the 7925 is HP's most attractive offer and very competitively priced.

Consult your HP 1000 Family Sales Training Manual and your DMD Product Reference Guide for additional features and benefits.

Ordering Information:

On the HP 1000 Model 40 and 45 order Opt. 034 for the 7925 System Disc.

If you are adding the 7925 to an existing system, order it directly from DMD. But, *don't forget* to add the controller upgrade kit (Opt. 250, $500.00) if the previous drive and controller were ordered before September 9, 1978.

Your 7925 order coordinate is *Elane Aldrich* (X2692). She is ready for your orders.

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Sales Aids

Evaluating Disc Competition: Part III
By: Kevin Magenis/DMD

In the last issue we discussed disc pricing and compared our disc drive offerings to our biggest competitors DEC and DG. Taking it a step further, in this issue, we will discuss drive features and compare DEC and DG's offerings through a cost of ownership analyses.

A) Drive Features

Cartridge Type Drives

Capacity — HP quotes formatted capacity in contrast to many of our competitors who choose to quote unformatted capacities. Formatted capacities are reduced from unformatted by about 20%. When quoting storage capacities, be sure to compare apples to apples.

Fixed and Removable Media — The major benefit of having both fixed and removable media in a drive is off-line storage and backup capabilities all in one device. Duplication and archival storage of critical information is made easy by allowing copying from a fixed platter to the removable platter. Be aware that competitors will talk of cartridge type drives that do not have a fixed platter. A fixed and re-movable media drive is a very cost-effective solution for the cost conscious or small system user.

Even Storage Distribution — System or data backup between a fixed and removable platter is done smoothly when the platters are of the same capacity. If they are not, backup can require many cartridge interchanges, stops and starts, and can be very inconvenient and time consuming to the user.

Interchangeability — On properly maintained HP disc drives, a data cartridge or pack from one drive can be placed and operated in any other drive anywhere in the world.

Start-Up Time — A short start-up time (sub-60 seconds) will enhance ease of system operation considerably, particularly in a cartridge swapping environment (e.g., back up, multi-user). Here valuable operator time can also be saved.

Front Loading vs. Top Loading — Front loading drives are easily rack mounted where top loading drives are not. This is a key feature when space constraints are a factor.

Performance — Superlative performance is an integral design goal at DMD. We know of no cartridge drives that will even match the speed of the 7906, much less exceed its performance.

Reliability (BMMC) — HP disc drives exhibit failure rates well below the industry average. The 7920 for example, is expected to fail less than once a year.

Service organizations of almost all companies wish to make a profit on service. The less reliable a drive, the higher the BMMC has to be in order to turn a profit. Compare HP's BMMC to our competition's. You will find us two to three times lower than almost all of our competition.

Environmental Tolerance — HP drives have been designed for superior performance over wide environmental ranges. Our drives are currently used in aircraft, ships, trains, and buses, found in chemical plants, lumber mills, steel mills, and many other atypical disc environments. HP has brought new standards to the term disc environment. One good example can be worth a thousand words.

Power Requirements — HP disc drives require only standard office environment power. Take a look at our competitors. Many require three-phase transformer windings in Delta or Wye configuraitons. This impacts a computer system's ease of installation. Most office environments are not prewired in this fashion and it may require additional expense by the customer to do so. Also, three-phase power is an indication of high power consumption. In some cases, during system power-up components must be fired up individually to prevent impairing the supplying power system.

Power Fail Protect
The Power Fail Protect circuitry automatically retracts the heads should power be interrupted for any reason. Power Fail Protect monitors power line voltage. Should the voltage drop below a minimum value, the spindle motor, acting as a generator, charges up a capacitor-based circuit with enough power to retract the heads. This feature eliminates power failure-related head crashes and further system down time.

Fault Detection
Internal fault conditions are diagnosed and displayed on LED indicators by fault detection firmware. This feature minimizes downtime through more efficient serviceability.

Pack Type Drives

The following features are common to both pack-type and cartridge-type drives. Refer to the cartridge-type drive features section for explanation.

> Capacity
> Interchangeability
> Performance
> Reliability
> Environmental Tolerance
> Power Requirement
> Power Fail Protect
> Start Up Time
> Fault Detection

Drives Per Controller
All drive manufacturers have limits on the number of drives their controller can access. A small number of drives per controller (say three or less), will place limitations on maximum storage capacity in critical commercial environments. With a large number of drives per controller (HP allows eight) this is not the case and the customer has the convenience of incremental growth.

Removability
Not all disc drives have removable media. You may encounter competition from large Winchester technology drives that have fixed media. Against fixed drives, the advantages of removability are media portability, interchangeability, and off-line storage.

B) Life Cycle Costing (LCC) Comparisons: HP vs. DEC and DG

LCC looks at disc drive purchases as an investment by evaluating cummulative effects of tangible and intangible costs through the discounted cash flow method. Figure 1 shows the cash in-flows and cash out-flows used in the LCC analysis.

Cash outflows will typically be confined to direct costs and periodic expenses associated with purchase and operation. Revenues generated by a mass storage alternative are defined to be cash inflows. Using a five year life time, two-thirds of the first cost is eligible for a 10% investment tax credit. For depreciation we used Double-Declining Balance assuming that a firm's objective would be to maximize the return on the investment, and that they would choose the depreciation method that generates the greatest savings early in the disc product life. Salvage value was assumed to be 10% of the purchase price.

Figures 2, 3 and 4 compare the 7906 (20 Mbyte), 7920 (50 Mbytes) and 7925 (120 Mbytes), respectively, with their counterparts at DEC and DG. Interpretation of the graphs is done by simply choosing the right disc capacity for your solution (horizontal axis) and multiplying it by the corresponding dollars per megabyte on the vertical axis. This tells you the five year after-tax cost of ownership of your mass storage solution. In almost all cases, this number is considerably less than the initial purchase price (for purchase price comparisons see the June 15th issue of the CS Newsletter).

If you would like more information on the LCC analysis, let me know.

. . . The next issue will discuss mass storage system (controller) features and a look at Prime and Univac purchase pricing and cost of ownership.

9

TRUE COST OF OWNERSHIP INVOLVES:

CASH IN

CASH OUT

TAX CREDIT

DEPRECIATION

SALVAGE

BMMC

FIRST COST

LIFE CYCLE MAC FAMILY COSTING

HEWLETT [hp] PACKARD

DISC MEMORY DIVISION

FIGURE 1

HP 7906 VS. DEC AND DG

5 YEAR AFTER TAX COST OF OWNERSHIP ANALYSIS
(non-discounted)

DG 6070

HP-7906(MB/SR)   DEC_RK07

TOTAL DISC CAPACITY (MEGABYTES)

DOLLARS PER MEGABYTE

4/1/79

HEWLETT [hp] PACKARD

DISC MEMORY DIVISION

FIGURE 2

HP 7920 VS. DEC AND DG

5 YEAR AFTER TAX COST OF OWNERSHIP ANALYSIS
(non-discounted)
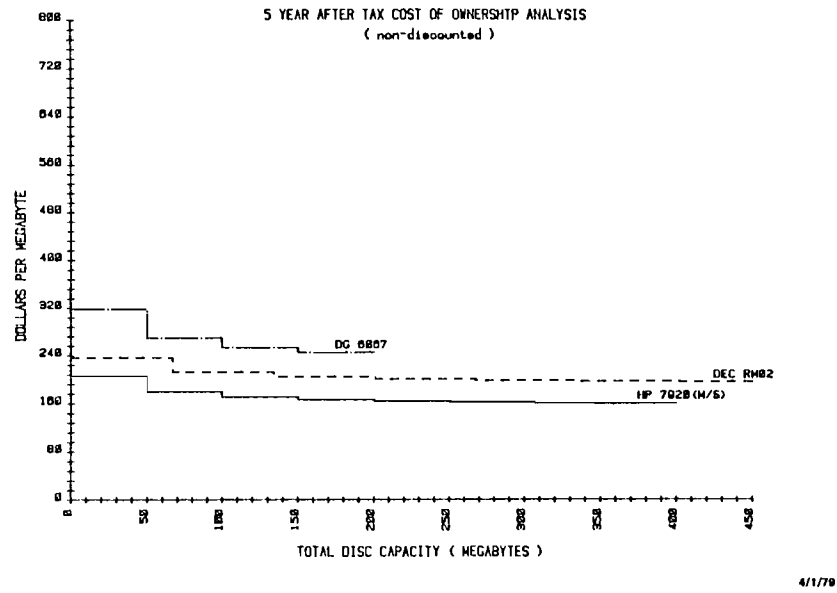
FIGURE 3

HEWLETT *hp* PACKARD

DISC MEMORY DIVISION

HP 7925 VS. DEC AND DG

5 YEAR AFTER TAX COST OF OWNERSHIP ANALYSIS
(non-discounted)
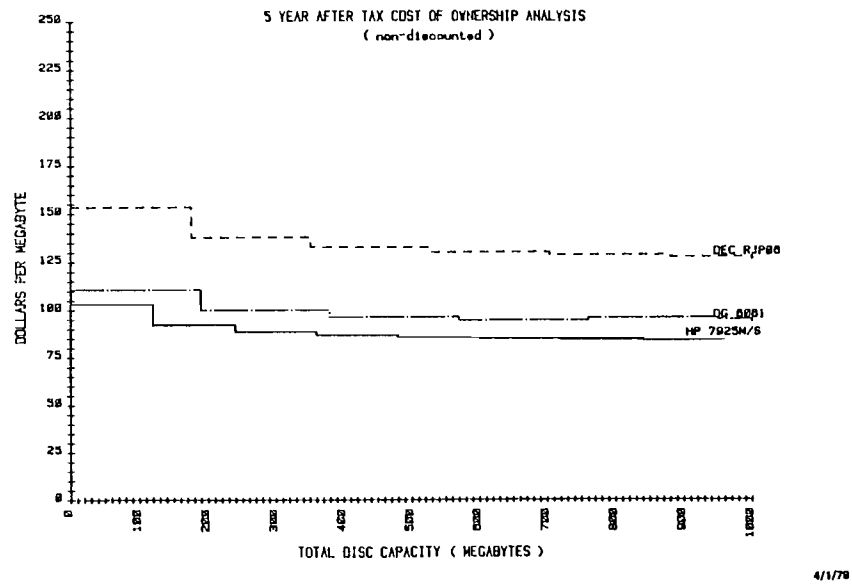
FIGURE 4

HEWLETT *hp* PACKARD

DISC MEMORY DIVISION

DATA SYSTEMS NEWS

Product News

The Tide Has Changed
By: Roger Ueltzen/DSD

The June NPT Tour from DSD represents the first step in achieving a "QUANTUM LEAP" in our technical computer program.

HP's fundamental strategy is a two-pronged approach to the computer market place — Technical and Commercial.

In competing with IBM we will stress our superior technical computer offerings and as a way to win business from them (this is not to say that we won't compete and win in commercial-only opportunities, but it does suggest that in selling to major accounts with a wide variety of technical and commercial applications our clear area of superiority lies in our HP 1000 technical product offerings).

In competing with DEC our area of superiority lies in our commercial product offerings. Again this does not suggest that we cannot compete with DEC in the technical area and win our fair share, but one should recognize our superior commercial offerings versus DEC and capitalize on them.

We have achieved a quantum leap in recognition as a supplier of commercial computers over the past 18 months.

Our goal for the next 18 months is to achieve the same recognition quantum leap on our technical offerings.

The ultimate goal is to have strong market recognition of our two areas of strength (and our two-pronged attack) and the benefits thereof of selecting HP as their computer supplier.

Over the next 12 to 18 months we are going to introduce *many* new technical products which will improve our competitive position by an order of magnitude.

In addition, we are going to increase the amount of dollars we are investing in advertising/promoting our HP 1000 technical computer offerings by an order of magnitude over this same time period (i.e., in the second half of FY'79 we have increased our domestic HP 1000 ad placement plans from placing 18 ads to 80 ads).

The bottom line is that the time has come to increase our efforts in our technical computer offerings in order to implement our two-pronged strategy.

As I said before, DSD will be introducing a significant amount of new products over the next 12 to 18 months. You should expect to see a DSD NPT Tour every 4 months over this time period. Good selling!

THE QUANTUM LEAP IS HERE!

HP 1000 Systems Update
By: George Taylor/DSD

The highly successful HP 1000 Systems have been enhanced to further expand their capability to handle computation, instrumentation and operations management applications while simplifying the programmer's accessibility to the power of a real time/multi-programming system. These enhancements are due to new software and hardware additions as well as changes to the support services program. New Model 40 and 45 systems have been developed which include these enhancements.

The new Model 40 stems from system product numbers 2176C and 2176D while the new Model 45 stems from product numbers 2177C and 2177D. The C designates the upright cabinet while the D designates the desk configuration.

RTE-IVB software is standard on the new Model 40 and 45. The RTE-IVB software has added significantly to system interactive capabilities by providing log-on/log-off access, time-slicing of compute bound programs and extensive security features, including four different security levels with protection between users and their files at each level. This new interactive capability is provided at no loss of real-time power because programs are time-sliced at their priority level. The user now logs on the system with disc files allocated on a protocol user/group basis. Session CPU and connect time are automatically logged and updated for accounting purposes. To assist new users, the Primary System includes session monitor capabilities with softkey access to the system manager account, as well as a sample user account. Information for the first-time system user of the new Model 40 and 45 is contained in the new *Getting Started With Your HP 1000 Models 40 and 45 Manual.*

File Manager enhancements provide double integer addressing required to fully access the new 120 Mbyte 7925 disc drive. Option 034 on the new Model 40 and 45 systems replaces the 7906 disc drive with a 7925. A 7925 compatible Grandfather and primary disc pack are also included. By using eight 7925 discs, a total of 960 Mbytes can be made available to the system user. Option 034 requires the ordering of a second disc drive or mag tape unit for backup purposes.

Hardware enhancements have further increased the already powerful computational capability of the Model 45. Vector Instruction Set (VIS) firmware loaded on a Firmware Expansion Module (FEM) is included in the base system. The VIS significantly reduces the time required for calculations used in Matrix and Vector Algebra so pervasive in scientific and industrial uses of computers. Additionally, the use of the FEM board provides greater firmware expansion capability plus simplifying installation of firmware updates. (Note that the FEM board takes one I/O slot). Another computational enhancement is the increased execution speed of the F-Series Scientific Instruction Set hardware which performs SINE, COSINE as well as eight other transcendental functions at high speeds. The new Scientific Instruction set extends precision to 64 bits (17 decimal places) and increases speed by 30 per cent. Double precision integer (32 bits) and the polynomial instruction now included with the F-Series processor provide an extremely powerful computational capability.

To further increase the flexibility of HP 1000 Systems, a new replace system console option is now available on Models 45, 40, 25 and 20. This new option designated as 018 deletes the standard system console along with its interface and cable. Acceptable substitutes are the 2621A/P, 2645A, 2648A and 2635A. This option is intended for the OEM and Volume End Users. Customers selecting this option must understand the support implications of using other than a 2645A or 2648A as the system console. The customer must commit to having available, when required, either a 2645A or 2648A with appropriate options along with a 12966A interface card and cable.

Support services have been modified to provide more flexibility for the systems offering. The major effect of these modifications on systems has been the unbundling of CSS during the 90 day warranty period. Your customers can now choose the level of service most appropriate for their systems. When 12 months of CSS or SSS are purchased with a system, the first 90 days are provided free. That's 15 months of coverage for the price of 12!

To implement the new unbundled software support concept, the new Models 40 and 45 do not include Customer Support Service (CSS). Ninety days of CSS will continue to be provided on all other HP 1000 Systems ordered prior to August 1 in order to honor existing orders and quotes made in June. Effective August 1, CSS will be unbundled from 2174A/B and 2175A/B systems. Ninety days of CSS will continue to be provided on the older HP 1000 Systems until it is no longer required.

Now compatible with HP 1000 Systems are new modems from South Queensferry Division and a new character printer from Desktop Computer Division. The new HP37210T and HP37220T synchronous modems can be used with HP 1000 Systems when using DS/1000, RJE/1000 and multipoint. When using Multidrop configurations with more than two modems, you should recommend using the 37210T 4800 bps modems. You can now offer a complete HP solution up to the phone lines. Complex computer/modem/phone line problems can be readily isolated by use of built-in loop back testing capabilities. The new 9876A 80 character-per-line printer has been interfaced with HP 1000 Systems with the 59310B HP-IB interface card. This fast, inexpensive hard copy printer is a replacement for the 12996A printer subsystem.

The Model 40 and 45 systems, based on the products 2176A/B and 2177A/B, will continue to be available on the Corporate Price List for customers wanting to continue to buy these products. RTE-IVA will continue to be provided as their standard operating system software. It is anticipated that sales volume of these older systems will decrease to allow their discontinuance on January 1, 1980.

It is anticipated that some customers may want to change existing orders from A or B to equivalent C or D systems. It is important to remember that in the event a customer issues a change order causing a delivery delay or cancels a system order less than sixty days prior to scheduled shipment, the customer will be subject to a five percent charge based on the list price of the affected system.

To minimize the need for changing orders, the 2176A/B and 2177A/B Models 40 and 45 will continue to include 90 days of bundled CSS. As a result of being on CSS for RTE-IVA, these system customers qualify for the Option 002 upgrade to RTE-IVB product. As a result, these system customers can have RTE-IVB software for the price of a disc pack. If the customer orders the mag tape media, the upgrade nets out at zero dollars.

The new Model 40 is priced at $37,000 while the Model 45 is priced at $43,500. The Model 20 and 25 systems remain unchanged at $22,000 and $27,500 respectively.

The new Model 40 is in a good position to compete with DEC's 11/34 systems and Data General's S/130 system. You will be in an outstanding position, however, when you go against DEC and Data General offerings which compete with the new Model 45. The key to success here is to make certain your customer is making a valid comparison of the computational capabilities of the Model 45 and the competitive offering. Encourage the purchase of more memory and multiple 7920 or 7925 disc drives to gain a significant price advantage over the competition. With this approach, you should win every time when competing with a Data General S/230 or S/250. When faced with DEC, you should be able to favorably compete with systems from their 11/34's through the 11/70. Load up a Model 45 with memory

and disc drives to be equivalently priced with an 11/70 to show your customers how much more they will be getting for their money.

HP 1000 Systems continue to be priced less than the sum of their component parts. They are easier to configure, order, install and use. Additionally, they have the benefit of the coordinated shipment program and have more Hewlett-Packard content.

Sell HP 1000 Systems, the key to success!

RTE-IVB With Session Monitor Extends RTE-IV to True Multiple-User, General Purpose Applications Areas

By: David Carver/DSD

The new RTE-IVB operating system, featuring session monitor software, is being introduced on the June/July New Product Training Tour, and is available in component form and as part of the HP 1000 Model 40 and 45 systems on July 1st.

The key contribution of RTE-IVB is to provide the resource allocation, protection, time slicing, system accounting, and user log-on/log-off functions so essential to multiple-purpose, multiple-user applications. RTE-IVB also dramatically extends the disc memory capacity of HP 1000 systems to 960 million bytes, thus supporting the 7925 disc and the new larger capacity of IMAGE/1000.

Friendly Systems for Multiple Users

With RTE-IVB, we are now in a position to claim that the HP 1000 is a *friendly, approachable* system. As you have seen (or will see) on the New Product tour, features such as log-on access to the system, file protection between users, the HELLO file, session spooling of output, and especially program development really back up this claim. This improved friendliness capability will allow you to do a much better job of penetrating new accounts..

A point of caution: RTE systems (like all multi-purpose computer systems) still require a well-trained system manager to get good value from the system, manage software updates, etc. But now with a good systems manager, a truly friendly system can be configured for use by casual users or by users with no computer expertise.

Multi-Purpose Systems

We can also make another very strong, new claim for the HP 1000: That it is not limited to dedicated applications only, but is truly a multi-purpose, large capacity, real-time system. RTE-IVB provides controlled, coordinated access to a system with up to *two million bytes* of main memory and up to *nine hundred sixty million bytes* of on-line disc storage — that's plenty of horsepower for applications needing multiple terminals doing different jobs at each, e.g., program editing/compilation, database access, distributed system activity.

RTE-IVB can still, however, do an excellent job at dedicated applications. The session monitor portion of RTE is an option and does not have to be utilized unless the user wishes to do so.

Availability

RTE-IVB is available now. See the accompanying article by *John Koskinen* for customer upgrades.

RTE-IV CSS Customers Get RTE-IVB Upgrade Training Free!

By: Phil Ebersole/DSD

Customers with CSS (Customer Support Service) contracts for RTE-IV who choose to upgrade to RTE-IVB will be given 2 days of free upgrade training on the new RTE-IVB/Session Monitor Operating System. Once your CSS customer places the order for the RTE-IVB upgrade, arrangements for the free training can be made with the local SEO. Note, however, that this course will not be available until late August or early September.

Vector Instruction Set: High-Performance Matrix Processing Capability

By: Dave Carver/DSD

Matrix algebra, or vector algebra, or linear algebra, is a way of performing arithmetic operations on arrays of numbers (vectors or matrices). This mathematical tool is used to some extent in almost every scientific or engineering discipline: Operations Research, Linear Programming, Scientific Problem Solving, Image Processing, Process Optimization, 3-D Graphics, electrical and mechanical design, and simulation. The Vector Instruction Set (VIS) is a set of routines, accessible from FORTRAN or Assembler, that performs matrix algebra operations.

GRAPHICS/1000 Support 2608A Line Printer Improved

By: Mike Scott/DSD

You may recall the article written in the April 1st issue of the *CS Newsletter* introducing support of the 2608A Line Printer with GRAPHICS/1000. The July 1, 1979 (1926) software release of the 92840A Graphics Plotting Software has been further enhanced to support text output primitives. The 1913 revision of the 92840A software only supported straight-line output primitives. The other limitations discussed in the April 1st article still exist. These limitations are:·

1. the 2608A device subroutine is supported only on RTE-IV or RTE-IVB,

2. BASIC cannot be used with the 2608A device subroutine, and

3. a special graphics driver (DVZ12) is included with the 92840A and must be generated into the system.

The fact that both straight-line and text output primitives are supported means that a complete graph can be created. The higher level data display subroutines (AXES, LGRID, etc.) are also supported. The text output primitives are limited to a cell aspect ratio (width/height) of .7. The character cell size is limited to a minimum of 2.5 mm. Additionally, characters can only be drawn vertically with no slant.

Another factor to keep in mind if your customer wants to use the 2608A and GRAPHICS/1000 is speed. The 92840A graphics device subroutine for the 2608A performs several functions including:

1. The conversion of the vectors emitted by 92840A Graphics Plotting Software programs into raster form and storing of this raster information onto a temporary disc file.

2. The simulation of hardware-generated text through the use of a special graphics driver. The driver intercepts the text data and converts it to raster form. This graphics driver is DVZ12 and must be included at system generation time.

3. The printing of the temporary raster file to the 2608A when a picture is desired.

The disadvantage of this scheme is that a simple graph requires two minutes or more to create the temporary disc file before the raster image is output to the 2608A. A more complex graphical picture can require several minutes before it is output to the 2608A. Potential 2608A customers that will use GRAPHICS/1000 should be aware of this speed consideration.

GRAPHICS/1000
Support of Raster Printers
By: Mike Scott/DSD

DSD has received numerous inquiries on our plans for GRAPHICS/1000 support of the 2631G Printer and 9876A Line Printer. The 2631G can be used only with the 2647A or 2648A Graphics Terminals. The 9876A is now supported on the HP 1000 as a line printer and also on the 2647A or 2648A Graphics Terminals. There are no plans in 1979 to support either the 2631G or 9876A with the GRAPHICS/1000 software. Don't forget that both the 7245A Plotter/Printer and 2608A Line Printer are supported today with GRAPHICS/1000.

The HP 1000 Hardware History Library And The HP 1000 Hardware Notification Subscription Service
By: Chuck Morgan/DSD

These two new products appear in the latest printing of DSD's Hardware Data Book (5/79) under the heading "Environmental Specifications and Product Support Information". These products are scheduled to appear on the July 1st Corporate Price List so get those orders in now!

HP 1000 Hardware History Library (92851A)

The 92851A HP Hardware History Library is intended for OEMs and other users who desire in-depth information on HP 1000 Computer hardware and engineering changes to that hardware. The 92851A product includes:

- Engineering Reference Documentation, which contains the theory of operation, timing information, and schematics of many of the HP 1000 Computer products.

- The HP 1000 Hardware and Manual Index Log, which provides a current index to all hardware manuals. It also includes engineering change descriptions and documentation for many of the HP 1000 hardware products and their respective update and enhancement histories. This coverage is further supplemented by instructions on how to perform the actual modifications.

- The current Service Notes Fiche, which contains historical information on important product changes and status regarding warranty behind each change.

HP 1000 Hardware Notification Subscription Service (92851Q)

The 92851Q HP 1000 Hardware Notification Subscription Service provides updates to the 92851A Hardware History Library that reflect HP 1000 hardware changes as they are released by Hewlett-Packard. These updates include:

- Updates to the HP 1000 Hardware and Manual Index Log and the Engineering Reference Documentation as required to reflect hardware changes.

- The latest printed Service Notes to provide users with the most up-to-date information available.

- The latest Service Notes Fiche when it is issued (every 6 months); this fiche will incorporate all previously issued printed Service Notes.

Important: The 4 previous Engineering and Reference Documentation Packages (ERD's) that were offered by Data Systems are now combined into one total package. The Hardware History Library (HHL) includes this new ERD package as described above, however the ERD is still orderable as a separate part number 92851-90001. This is the only part, included in the HHL, that can be ordered as a separate part item. That is, the "LOG" and "FICHE" cannot be ordered as separate items and can be obtained only when ordering the HHL. The ERD's that have been deleted from the parts list are:

1. 02108-90017 M-Series ERD
2. 02108-90027 MK-Series ERD
3. 02109-90007 E-Series ERD
4. 12728-90001 EK-Series ERD

RTE-IVB Upgrades

By: John Koskinen/DSD

Now that RTE has big system, multi-user capability it is even more important that we properly support the customer and try to develop a long lasting, profitable partnership. Our update/upgrade policy is oriented to doing that by providing an easy means for customers to stay current on active software according to their own business needs. We recognize that many valued customers do not need to stay current on software every three months. Many OEM's, for example, will upgrade their own products (include new features and also update HP supplied software) perhaps only every 12–18 months.

In this light, we have provided two update/upgrade options for RTE-IVB. Option 001 is the usual upgrade option available for customers not on support services where software is more than three months out of date. Please note that as soon as the software is out of date by more than three months, the customer is placed in the same upgrade category as those upgrading from RTE-II, RTE-M, and RTE-III. Option 001 will generally provide a 40% discount off list price, and is available for both the "A" and "R" products.

Option 002 is the software update option for customers staying current on software support services. As long as these customers keep their software current and up-to-date, our policy will be to provide an easy path to enhanced versions of the current product offering. Option 002 will be available indefinitely for "A" and "R" products, so the customer can choose when to update his software.

Therefore, the RTE-IVB Session Monitor upgrade policy is very simple: the customer is either on services or not. The following table shows a summary of the conditions a customer must meet to get RTE-IVB and to update/upgrade user-assembled systems as well.

RTE-IVB Update/Upgrade Summary

Customer Has	Customer Orders	Customer Gets
2176A/B or 2177A/B 92067A + SUPPORT SERVICES	92068A OPT 002 PLUS MEDIA NET $0 — 800 (DELETES EMA FIRMWARE)	• RTE-IVB/ SESSION MONITOR RIGHT-TO-USE • SERVICE CONVERTED
2176A/B or 2177A/B 92067A + NO SERVICES	92068A OPT 001 PLUS MEDIA NET $3000 — 3800	• RTE-IVB/ SESSION MONITOR RIGHT-TO-USE
92067A n*92067R + SUPPORT SERVICES 92067S or 92067T	92068A OPT 002 PLUS MEDIA NET $0 — 800 n*92068R OPT 002 NET $0 EACH (DELETES EMA FIRMWARE)	• RTE-IVB/ SESSION MONITOR RIGHT-TO-USE • RIGHT-TO-COPY * * n n
92067A n*92067R + NO SERVICES	92068A OPT 001 PLUS MEDIA NET $3000 —$3800 n*92068R OPT 001 NET $1200 EACH	• RTE-IVB/ SESSION MONITOR RIGHT-TO-USE • RIGHT-TO-COPY * * n n

HP Unveils Fiber Optic HP-IB Link

By: Dave Hannebrink/DSD

The following is a reprint of the 12050A Fiber Optic HP-IB Link proforma press release. The latest (and important) cable ordering information follows.

Hewlett-Packard introduced today a new remote instrumentation interface. The 12050A Fiber Optic HP-IB Link permits HP-IB devices to be located up to 100 metres from any HP-IB computer (HP 1000 Computer or HP 9800 Series Desktop Computers). A dual channel fiber optic cable is used for data transfer between the distant sites. The fiber optic transmission medium offers the utmost in electro-magnetic noise immunity and isolation, making the link ideal for use in environmentally demanding industrial applications. The high speed serialized data transfer rate over the link, 20 Kbytes/sec, is made possible by fiber optic transmitter/receiver technology developed internally by HP. Use of the 12050A requries no special programming methods, i.e., HP-IB devices communicate remotely over the link just as they would in a local operation. The transmitter/receiver technology also permits the computer to detect a remote interrupt within 100 microseconds, making the link ideal for real-time applications.

"Users often want to locate computers in one area of their facility and instrumentation in another," commented Roger Ueltzen, Data Systems Division Marketing Manager. "For instance, a single computer may be needed to control multiple production test stands, monitor various aspects of a continuous process, or automate several areas of a large laboratory. In these cases, it's physically impossible to locate the computer near each application. In other applications, particularly those found in manufacturing operations, the environment may not be suitable for continuous operation of a large computer system that may include several peripheral devices. Often times this environment is electrically noise, making reliable data transmission a challenge. Sometimes, it is corrosive or explosive, making it inherently unsuitable for both computer and computer operator."

"Our customers demand a remote instrumentation interface that is computer oriented; as such, it must provide a high speed, real-time communications path between the remote instrumentation and the computer. With the higher performance of HP's computers and the growing list of intelligent HP-IB instrumentation, high speed over the link is mandatory to maximize system throughput. Also, from discussions with many large industrial computer users and judging from the widespread trade journal publicity, we've seen a great potential to utilize HP's fiber optic technology in providing a computer-oriented instrumentation interface that offers the benefits of excellent noise immunity and reliability."

"With fiber optics, data is transmitted optically and spurious electromagnetic disturbances have no effect on data traveling down the link. Hence, the cable can be run with confidence in the presence of large rotating machinery, transformers, switch gear, virtually any equipment likely to be found in an industrial environment. The fiber optic cable is highly corrosive resistant and since it carries no electrical energy can safely be run in explosive environments."

"The 12050A Fiber Optic HP-IB Link provides a nice technological synergism, one that joins our HP-IB instrumentation expertise with the exciting field of fiber optics. The product will be a significant contribution to computer-based instrumentation applications," Ueltzen concluded.

One 12050A unit is required at each end of the link. Each one converts the electrical signals of the bit parallel HP-IB protocol to a serialized data stream that is transmitted optically; it also performs the reverse function on optical data being received. Data rates of up to 20 Kbytes/second can be achieved, regardless of distance, for cable lengths up to 100 metres. Special dedicated circuitry allows the computer to detect a remote interrupt (service request) within 100 microseconds of its occurrence. As an additional layer of data integrity, an on-board silicon-on-saphire (SOS) microprocessor detects transmitted errors using a checksum technique and, if necessary, retransmission is performed without computer intervention. The microprocessor also performs a built-in self test for the 12050A both a power-up and at user program request.

The price of each 12050A unit is $1950; two units are needed per system. Dual channel fiber optic cable can be ordered in several lengths; the price, in connectorized lengths of 100 metres, is $8.50 per metre. All prices are U.S. list and discounts are available.

ORDERING INFORMATION

HP 12050A Fiber Optic HP-IB Link Unit
$1,950 Each
(Two Required Per System)

Fiber Optic Cable (Ordered From OED)

Simplex (Require 2/System Price)			Duplex** (Require 1/System Price)		
10m	39201A	$125	39201B	$275	
26m	39202A	190	39202B	400	
50m	39203A	270	39203B	600	
75m	39204A	340	39204B	750	
100m	39205A	400	39205B	850	

**Approximate price as of this time.

Only one cable length may be used between 12050A's.

A final word: Four color brochures and data sheets are being distributed in bulk and will be available by the August 1 CPL of the Fiber Optic HP-IB products.

HP 1000 System Price Changes

By: George Taylor/DSD

The price of the 12960A disc subsystem has been increased to $10,000 effective July 1.

To account for this price increase, the Model 30 2170A system, as well as option 030 to the Model 40 2176A, have been changed. Price adjustments have also been made to selected cabinet hardware components due to increased material cost. These new price changes are contained in the following table:

Product Number	Description	Old Price	New Price
2170A	Model 30 System	$31,500	$33,000
2176A-Option 030	Substitute 7900 Disc	– 4,610	– 3,610
12676B	Fixed Shelf	280	320
12903A	Rack Slide Kit	70	85
12903B	Rack Slide Kit	150	200
12903C	Rack Slide Kit	150	200

Presenting the New IMAGE/1000 DBMS!!!!

By: Dennis Haar/DSD

You can say good-bye to those database limitations of the past, because the new IMAGE/1000 is now a reality. The new IMAGE/1000 offers a wide range of capabilities that enhance our ability to address applications that require a powerful Database Management System. A few examples of these capabilities are given in this excerpt from the press release regarding the new IMAGE/1000:

REMOTE DATA BASE ACCESS — "Perhaps the single most important enhancement is that Remote Data Base Access is now easy for networks of HP 1000 Computer Systems that use Distributed Systems/1000 (DS/1000) software and firmware. This further demonstrates our commitment to distributed processing and HP's Distributed Systems Network philosophy," according to Roger Ueltzen, Marketing Manager of Hewlett-Packard's Data System Division . . . In a user-written application program, data base access to a remote DS/1000 node is easily accomplished by simply specifying the node number in the DBOPN (data base open) call. QUERY, a facility included with IMAGE/1000 that enables the non-programmer to easily retrieve, alter, and report information using English-like commands, can be executed at a remote DS/1000 node to access data stored in an IMAGE/1000 data base.

LARGER DATA BASE CAPACITY — "Another key enhancement was to substantially increase data base capacity," said Ueltzen. The data base size is now limited only by the total available storage, presently a maximum of 960 Mbytes. A data base can contain up to 50 data sets (files). Data sets can be as large as the disc volume upon which it resides — presently a maximum of 120 Mbytes. Data entries (records) within each data set may be up to 4,096 bytes long. Also significant is the fact that there may be up to 16 search keys for each data set, thus allowing for fast data access.

Along with the Remote Database Access and the database size increases, a variety of other enhancements have also been made to IMAGE/1000:

- Maximum ASCII character string length increased from 126 to 255 characters.
- The same data item name can be used in different data sets.
- QUERY access is available in batch, as well as interactive mode.
- Real numbers are fully reported in QUERY reports.
- QUERY reports can contain up to 10 lines of output per data entry instead of 1.
- Multiple databases can now be opened to an application program.
- All database modifications are immediately posted to the disc (rather than temporarily held in a memory buffer) for greater database integrity.

The list doesn't stop here, but I suggest that you see the new IMAGE/1000 Sales Training Manual for the complete set of IMAGE/1000 enhancements.

The new 92069A IMAGE/1000 is a different product from the old 92063A IMAGE/1000, and it sells for $3000 (U.S. list price). Moreover, the 92069A IMAGE/1000 is Type I software, and thus, there is a 92069R product which gives the customer the right to make one copy of the 92069A software for an additional HP 1000 computer system. The 92069R product sells for $1200, and it does require the previous purchase of the 92069A IMAGE/1000 at full list price (less discounts).

960
DATA BASE UP TO 200 MBYTES

DATA SET

4096
510 BYTES

DATA ENTRY

....

DATA ITEM
CHARACTER STRING

255
126 CHARACTERS

16
8 KEYS

32K DATA ENTRIES
UP TO DISC VOLUME SIZE
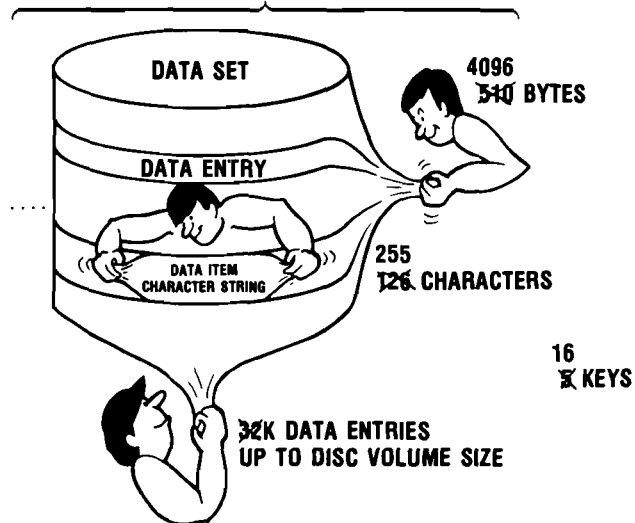
Customers wishing to upgrade from the old 92063A IMAGE/1000 to the new IMAGE/1000 can do so by purchasing the 92069A product with Option 001 at a net price of $1500. The 92069A product with Option 001 does require a previous purchase of the old 92063A IMAGE/1000, and it does not give a customer the right to purchase the 92069R product. (All of the above pricing follows the software guidelines set forth in the new Support Service Field Training Manual).

The old IMAGE/1000 (92063A) and the new IMAGE/1000 (92069A/R) are incompatible. The two main reasons for this incompatibility are: 1) double-word integer addressing is used to allow for more than 32K data entries/data set, and 2) the ten IMAGE/1000 subroutines used for host language access have been modified to have the same calling sequence as the IMAGE/3000 subroutines.

Even with the upgrade discount, the decision as to whether an upgrade should be made must be carefully thought out. A reprogramming effort is required to upgrade old IMAGE/1000 application programs — more than just changing the order of the subroutine parameters is required for many of the subroutines. Therefore, customers should only upgrade to the new IMAGE/1000 under the following conditions:

1. Capabilities that exist only in the new IMAGE/1000 are required either today or sometime in the future.

2. It is understood that reprogramming of existing application programs must be done if these programs are to access the new 92069A data base.

The old IMAGE/1000 (92063A) becomes a mature software product on July 1, 1979. It will be on the Corporate Price List for 12 months (until July, 1980), after which obsolescence and the five year support life will take place. Software bugs will be fixed during the mature period although there will be no enhancements. The old IMAGE/1000 (92063A) will be supported on RTE-IVB so customers are not forced to simultaneously upgrade the operating system and IMAGE/1000. An old 92063A IMAGE/1000 data base and a new 92069A IMAGE/1000 database can both reside on a RTE-IVB based system (see Reference Manual Appendix for details).

Additional points to remember if your customer upgrades:

1. Software support services for 92063A IMAGE/1000 (92063S/T) will not be automatically changed to 92069A services (29069S/T) if an upgrade is ordered. A change order must be placed to cancel 92063S/T services and order 92069S/T services if this is what the customer wants.

2. A customer who has previously purchased 92063A IMAGE/1000 and has made several copies for additional systems has two ways of upgrading all his systems: a) Purchase the 92069A at full price (less discounts) plus a 92069R for every additional system that is to be upgraded, or b) Purchase 92069A with Option 001 for each of the systems to be upgraded. The second alternative is actually cheaper up until ten or more systems need to be upgraded. Don't forget that the new IMAGE/1000 (92069A) cannot be copied free of charge like the old IMAGE/1000 (92063A)!

The new IMAGE/1000 gives us even a bigger advantage over our competitors in the area of Database Management Systems. Its new capabilities will allow you to leverage HP 1000 system sales in applications we could not previously address. Have fun selling the new IMAGE/1000 Database Management System!

DATACAP/1000 Is Ready to Go!
By: Linda Siener/DSD

We've enhanced DATACAP/1000 to include support of a new family of data capture terminals, the new IMAGE/1000 and RTE-IVB.

Here's an excerpt from our press release:

Installation of a real-time data capture system is made easy and fast with Hewlett-Packard's DATACAP/1000 software package.

A completely operational real-time data capture system tailored to the user's application can be installed without programming by using Hewlett-Packard's data capture software package, DATACAP/1000. DATACAP/1000 operates on HP 1000 Computer Systems, managed by the new Real-Time Executive Operating System, RTE-IVB. DATACAP/1000 provides the facilities to design and execute transaction specifications which capture and validate data at its source using HP's new 3075A, 3076A, and 3077A data capture terminals. The ability to retrieve, update and validate data in a data base is provided if the user chooses to also use Hewlett-Packard's IMAGE/1000, Data Base Management software.

DATACAP/1000 provides the capability to easily create specifications for data entry transactions through a simple interactive process on a display terminal. Transaction specifications include entry sequence, method (i.e., keyboard or card/badge readers), validation and storage. Data storage can be selected to be on a disc file, an IMAGE/1000 data base, magnetic tape, or a combination of these techniques. Transaction logging can also be selected to provide an audit trail. DATACAP/1000 also provides documentation for each transaction specification to further aid in providing ease of support and maintenance. A flexible terminal management capability is also provided to control the data capture terminals distributed throughout your plant. Ease of modification and flexibility to adjust to changing needs is an important feature of DATACAP/1000 and an HP 1000 Data Capture System.

PRICING/DELIVERY — DATACAP/1000 is $3,000.00 and each additional copy is available at $1,200.00.

The 3075A, 3076A, and 3077A Data Capture Terminals are priced between $2,090 and $4,230 depending on the selected options.

Several sales aid are also available for your customers:

Color Brochure — 5953-4224
Datasheet — 5953-4206

2 Application Notes

Quality Assurance Early Warning System — 5953-3097
Factory Data Collection — 5953-3088Z

Remember, talking about data collection is an excellent way to initially get your foot in the customer's door. If a data capture system is what they really need, remember DATACAP/1000 attacks the total cost of system ownership head-on — it reduces the total implementation and program maintenance costs!

SELL DATACAP/1000 AND THOSE HP 1000's!

New Software Support Features, Services, and Prices Announced For HP 1000 Systems
By: Phil Ebersole/DSD

DSD's Software Support Services are better than ever! Effective July 1, 1979, the following improvements are being made to our support program:

New Features: We've improved our services by adopting a policy of providing *major enhancements* to customers on software services, as well as making *firmware updates* a part of our software support program.

New Services: We've added new services aimed directly at improving our support package for programmers and customers with multiple systems.

New Prices: We've restructured our CSS prices to more accurately reflect where our costs are being incurred, and we've also *significantly reduced support costs* for customers with multiple systems.

Here are the details:

Software Services Now Include Major Enhancements!

By now you've probably heard that customers on support services for RTE-IV will be given an opportunity to upgrade to the new RTE-IVB operating system free of charge, except for media. What you may not have heard is that this is just the *first* example of DSD's new policy of automatically providing support services customers with the latest software version of each product covered, even if that version is introduced as a new product!

This new feature makes DSD's software support services *the cost-effective way* for your customers to keep their software current. To see why, consider the diagram below. Shown here is the cost to upgrade to RTE-IVB for a customer with HP's top of the line service, CSS (Customer Support Service), versus a non-service customer:

Clearly, it is far less expensive to pay the low monthly support fee and receive both quarterly updates (bug fixes, minor enhancements) and major enhancements, (such as RTE-IVB), than it is to pay the one-time upgrade fee to obtain each major enhancement when it is released. And this doesn't even consider the extensive SE services provided as part of CSS!

But you're probably wondering where we draw the line between an enhancement and a totally new product. The following guidelines have been established, and your customers expectations should be set accordingly:

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SOFTWARE SERVICES INCLUDE ENHANCEMENTS WHEN:

- **NEW VERSION REPLACES OLD**
  (I.E. OLD SOFTWARE BECOMES MATURE)

AND
- **NEW VERSION RUNS ON CURRENT HARDWARE**

AND
- **OLD SOFTWARE WAS TYPE I**
- **(I.E., CUSTOMER HAS PAID FOR ALL COPIES OF OLD SOFTWARE)**

The intent here is that if we introduce a new version of a Type I software product, and that version runs on the *same* computer models as its predecessor, then we will provide our service customers with an opportunity to upgrade to the new version at no charge, except for media. This ensures that your customers' investment in HP software will be protected!

However, as a consequence of providing major enhancements to support services customers, *the 'R' product* (right to copy software) *no longer includes the right to copy software support services updates*. That is, purchase of CSS or SSS grants the right to use the software updates on *one* system only. In order to copy updates, customers must purchase one of the low cost multiple system support products described later in this article.

Customers without support services on a software product must repurchase the product with an upgrade discount option (option 001) in order to obtain the latest version. This applies to both the first copy of the software ('A' product) and all additional copies of the software ('R' product). The following diagram summarizes these update path policies and points out once again the benefits of covering all copies of software with support services.

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SOFTWARE UPDATE PATH
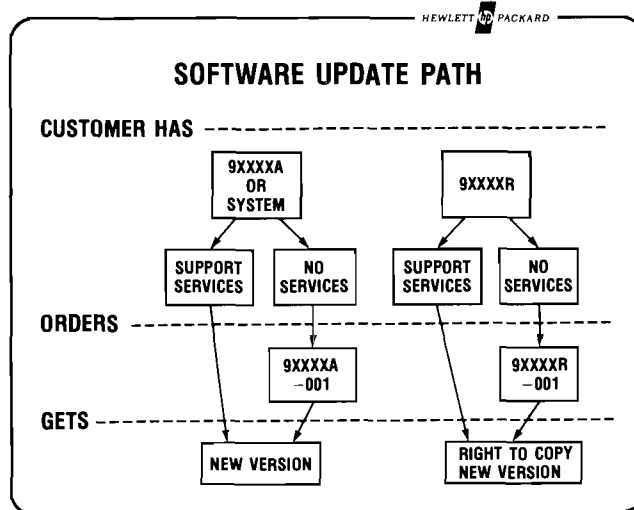
Software Services Now Include Firmware Updates!

Software support services for software-firmware products such as DS/1000 and RTE-IVB now automatically include firmware updates. In addition, we've set up new software subscription services for all of the firmware-only products such as the new Vector Instruction Set, the F-series firmware, etc. This provides a simple, economical means for your customers to obtain firmware updates.

Installation of firmware updates is the customer's responsibility. The new Firmware Expansion Module that plugs into the back of the computer (similar to an I/O card) will *greatly* simplify this installation. You should recommend purchase of it to all of your customers. However, customers without this card and/or without sufficient expertise to install firmware can still contract with the local CE to perform installation. A standard fee has been established for this purpose.

New Services for Programmers

HP's two software support services — Customer Support Service (CSS) and Software Subscription Service (SSS) — are aimed at supporting the customer's System Manager by providing all the tools necessary to maintain and update an HP 1000 system. However, there has been a strong demand to provide services for *additional programmers*, and so, effective July 1, 1979, DSD will be introducing two new services aimed directly at supporting these additional users of HP 1000 systems.

- Manual Update Service

- Additional Phone-In Consulting Service Callers

These services, together with the existing Software Notification Service (Communicator/1000, Software Status Bulletin, and Software Update Notice) provide all the tools that these additional programmers need to use HP 1000 systems effectively.

New HP 1000 Manual Update Service

The new HP 1000 Manual Update Service is a must for programmers who want to keep their own sets of documentation up-to-date. This service eliminates the

hassle involved in obtaining manual changes by *automatically* delivering the latest manual updates to the programmer as they are released by HP.

The HP 1000 Manual Update Service is available on a per-product basis, with the low monthly fees running from $2/month for Microprogramming manual updates to $13/month for RTE-IVB manual updates. And this service is easy to find in the price list. Just replace the suffix 'A' in the software product number (e.g. 92068A) with the suffix 'Q' and you have the product number for the Manual Update Service for that product, (e.g. 92068Q).

### Additional Phone-In Consulting Service Callers

One of the major features of HP's Customer Support Service (CSS) is the ability for the customer's Systems Manager to call HP's Phone-In Consulting Service for rapid resolution of questions regarding HP software. Now CSS customers can add *additional* authorized callers to the PICS line for an additional monthly fee. This allows programmers working on highly independent projects to call HP directly, rather than going through the System Manager.

And it's easy to order! An additional caller can be added simply by purchasing either HP product number 92068P (for an RTE-IVB system) or 92064P (for an RTE-M system). The price for either product is $100/month.

Low Cost Software Support for Multiple Systems

Customers with multiple HP 1000 systems can now realize significant support cost savings when they agree to support all systems under one Systems Manager. Under this arrangement (shown below), the customer purchases a full CSS for the first system (at $250/month for RTE-IVB, for example) and a reduced price multiple system support product for each additional system (at $50/month for RTE-IVB, for example). The additional system support product provides only those items necessary to support the additional system.This includes:

- Right-to-copy and use updates on the additional system
- An extra set of firmware updates
- Extension of CSS coverage to additional systems through the central Systems Manager

Centralized Support of Multipoint Systems
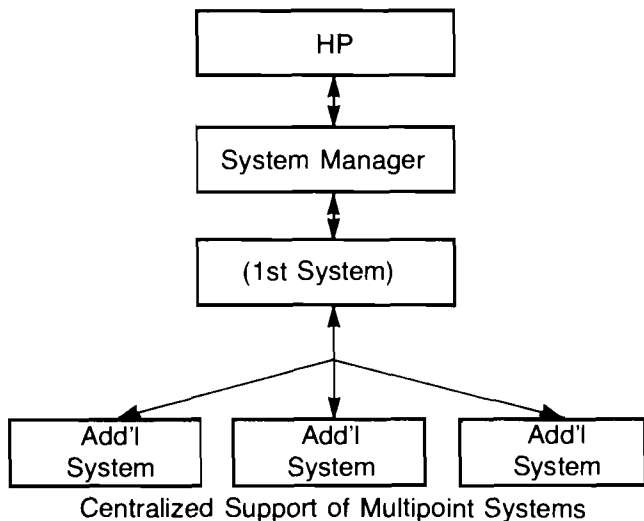
With this new service, you'll find it easy to tailor an attractive support package for those major accounts with multiple HP 1000's. A similar extension product granting the right to copy SSS updates is also available.

The CSS extension product is identified by a 'V' suffix (e.g. 92068V); the SSS extension product is identified by a 'W' suffix (e.g. 92068W).

New CSS Prices

A year's experience has shown that our support services prices need some adjustment to reflect the true costs of providing support. In general, operating system support prices are going up and subsystem prices down, *with the total charge for a typical configuration remaining approximately the same*. The following is a sample of the old and new prices.

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RESTRUCTURED CSS PRICES

	OLD	NEW
RTE-IV	$175	$250/280*
IMAGE	125	40
DS	125	100
	$425/MO.	$390/420/MO.*

● TYPICAL CONFIGURATION REMAINS UNCHANGED

*Lower Price = Mag Tape Updates, Higher Price = Cassette Updates

Prices Reduced for Multiple System Support

You've just read about HP's new multiple system support products that provide the System Manager at the central location with all the tools necessary to support additional systems. We've priced these new multiple system support products as low as possible to make it easy to sell support to those major accounts. To see just how low the new prices are, consider the following table, which compares the price of the old CSS option 200 (multiple system support product) with the new multiple system support products being introduced this summer.

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PRICES REDUCED

FOR MULTIPLE SYSTEM SUPPORT UNDER CSS

	OLD CSS OPTION 200 PRICE	NEW 9xxxxV PRICE
RTE-IV	$110	$50
DS/1000	85	55
IMAGE	85	10
	$280/MO. PER ADDL SYSTEM	$115/MO. PER ADDL SYSTEM

HP's Software Support Program — A Summary

HP's software support services program is the most comprehensive package available in the industry today. Let's take a minute to summarize our entire program:

SOFTWARE SUPPORT SERVICES

Customer Support Service: This is HP's top-of-the-line service product. Our strategy is to sell it to everyone, and *most especially new users and OEM's.* CSS features include:

- Account Responsible Systems Engineer
- Phone-In Consulting Service (PICS)
- On-Site Systems Engineering Assistance
- Software Problem Reporting
- Software/Firmware/Manual Updates
- Right to use Updates on one System
- Software Notification Service

In addition, CSS can be extended to additional systems under one Systems Manager at a reduced rate, or to add additional authorized Phone-in Consulting Service callers.

Software Subscription Service: This alternative service should only be sold to the very few, highly experienced HP users who do not feel that they need all of the SE services provided by CSS. SSS features include:

- Software/Firmware/Manual Updates
- Right to Use Updates on one system
- Software Notification Service
- Software Problem Reporting by Mail

SSS does not include:

- Account Responsible SE
- Phone-In Consulting Service
- On-site Systems Engineering Assistance

and therefore you should be *sure* that your customer understands in advance that no SE services are included in the product. These services are therefore available only on a time and materials basis for SSS customers.

DOCUMENTATION DISTRIBUTION SERVICES

Manual Update Service: This service provides the recipient with automatic delivery of manual updates as they are released by HP.

Software Notification Service: This service provides the recipient with the following documents on a yearly bases:

- Communicator/1000 — 6/year
- Software Status Bulletin — 24/year
- Software Update Notice — 4/year

For More Information

Further details on DSD's software support program can be found in the following documents:

- The new group-wide CSG Software Services Sales Training Manual
- The new group-wide CSG Software Services Data Sheet
- The Software Support Services section of the new HP 1000 Active Software Data Book.

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CUSTOMER SUPPORT SERVICE
• HP'S HIGHEST LEVEL OF SOFTWARE SUPPORT
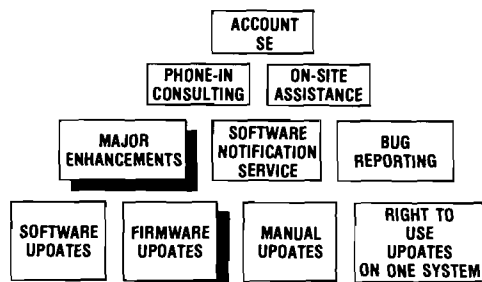
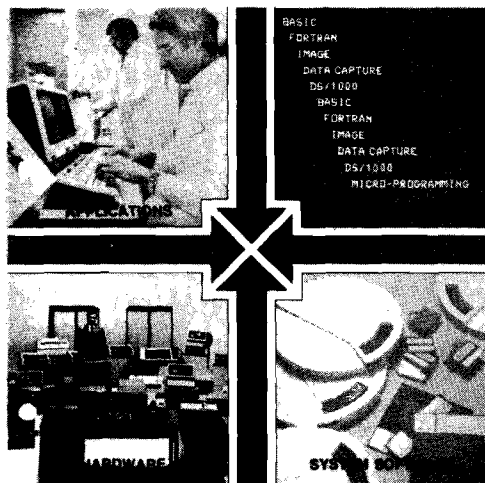SHADED BOXES REPRESENT *NEW* FEATURES!

VIS Sales Aids Available Now
By: David Carver/DSD

HP 1000 Computer Systems   HEWLETT PACKARD
VIS
High performance matrix processing for computation intensive applications.
Application Brief 402-1

The Vector Instruction Set is an extremely powerful capability, but it also requires a slightly different programming approach. Most matrix manipulations are handled with FORTRAN Do Loops; VIS requires a relatively straightforward substitution of a subroutine CALL for the Do Loop.

To help you sell this capability, there are two sales aids available. Application Brief 402-1 (picutred above) goes into some detail explaining what VIS is good for and how it is used; several real-life examples are presented. The application brief is suitable for acquainting the prospect with the concept.

The VIS User's Manual, part number 12824-90001, can also be effectively used as a sales aid. It contains detailed information on VIS, EMS considerations, and has speed and performance information. Plenty of examples are used throughout. The manual is a very good tutorial for VIS, and can be effectively used to convince your prospect of the power of the machine with VIS.

GOOD SELLING!

Sales Aids

HP-IB is Much More Than IEEE-488 Compatibility

By: Holly Cole/DSD

July will introduce the new AN 401 series application notes. This series of over 20 notes is aimed at helping a computer user get up and running with a new instrument the first day. AN 401-1 is an overview and tells how to use the rest of the notes which describe, in a "cook book" fashion, how to use specific HP-IB instruments. The notes cover everything from information needed by the new instrument user to some dazzling high-performance software listings.

And speaking of performance, the notes give performance graphs for the first time. They show how many readings per second can be taken and how much of the computers time was utilized.

AN 401-1 tells how to send commands and take readings from an instrument just like the desktop computers. Simply use
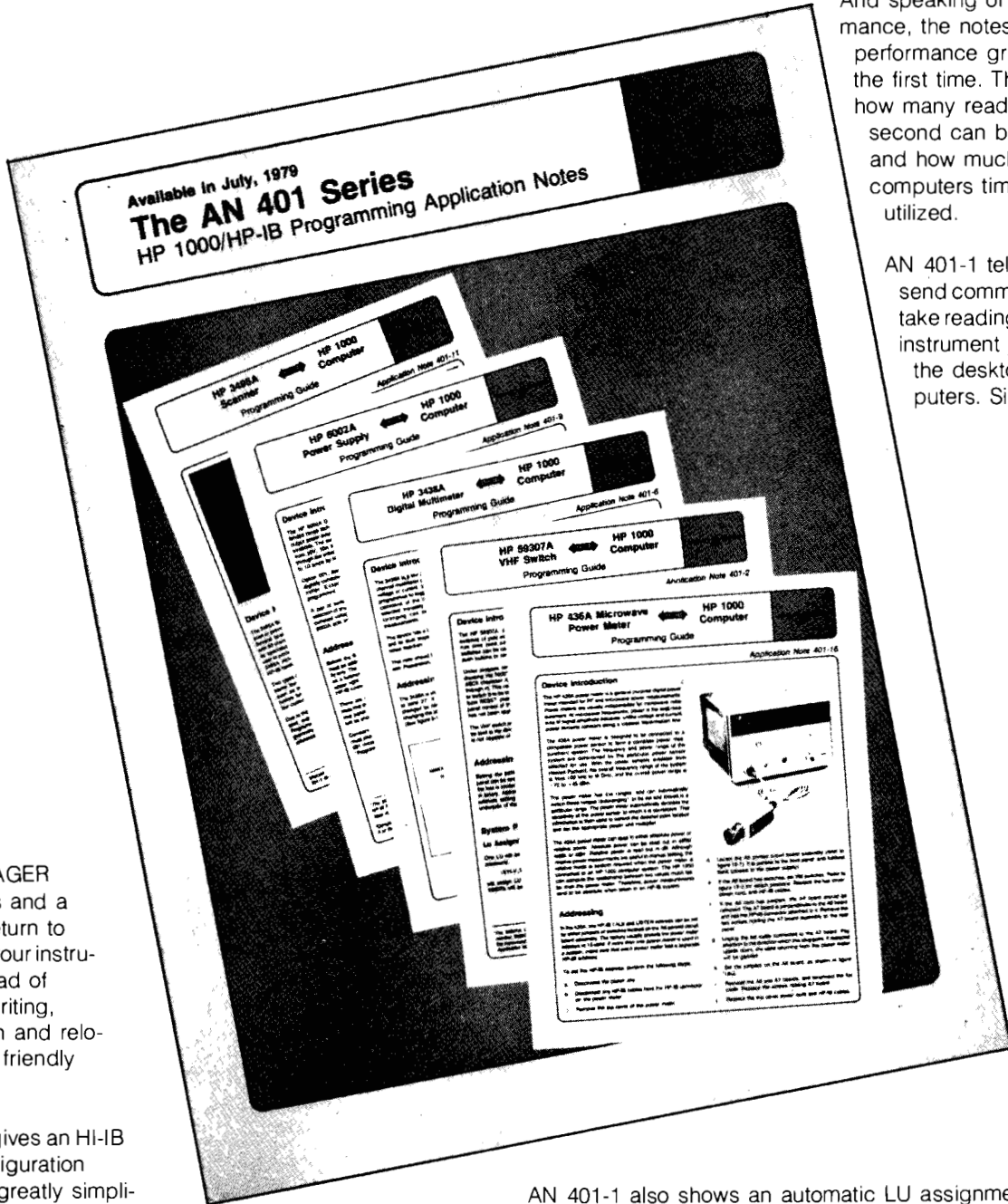
FILE MANAGER commands and a carriage return to check out your instrument instead of program writing, compilation and relocation. It's friendly and quick.

AN 401-1 gives an HI-IB status/configuration utility that greatly simplifies operation when multiple devices are on the bus.

AN 401-1 also shows an automatic LU assignment utility. If you don't know what the address of your device is set to, don't worry. Just plug-in the HP-IB cable and run the utility. The HP 1000 will figure out the address and assign an LU number and EQT for you. What could be more friendly?

If you have not yet received the above pictured index of instruments covered, let us know.

24

Another Award Winning Ad
By: Tom Freed/DSD

Following on the heels of the award winning ad, "Introducing the HP 1000 Model 45," your ad, "Why buy a Computer from a Stranger, when you can buy one from HP" has won a readership award. On May 21st, the Division received an award from *Industry Week Magazine* as the Number One Ad in the January 22nd issue. The award was presented at a private luncheon sponsored by *Industry Week Magazine* in San Francisco.

Order Your Slides Now!!
By: Chris Carney/DSD

AAAAAaaaaaaHHHHHHHaaaaaaaaa. . . Once again from the DSD Marketing Department Sssuuuuuuuppperrr-Dddduuuuuppperrr Slide Kits to help you, your charming personality and your expertise to sell HP 1000's. . . Pluuuuussss. . . (are you ready for this?????) a souvenir coffee mug to help your Customer Manufacturing Managers remember (and toast YOU with a slug of coffee) you and your seminar. . . .

Order through HEART, Atten: *Chris Carney,* DSD Marcom (Supplying Division 22, Product Line 65, Sales Force 02, and it's a HEART Override).

BS-18 Customer Presentation Kit $250/Kit
The entire HP 1000 Product line can be viewed through these 425 slides beginning with HP 1000 Processors, HP 1000 Systems, RTE Operating Systems, IMAGE/1000, DATACAP/1000, GRAPHICS/1000, Distributed Systems, Terminal Communications, Measurement and Control, HP-IB Interface, Automatic Test Systems, and The Manufacturers'

Computer Company. Just in case you are at a loss for words, these magnificent slides are accompanied by a script.

BS-19 Customer Manufacturing Management Seminar Kit $50/Kit

This set entitled, "The Computer — A Management Tool for the Factory Floor" contains approximately 85 slides and is a product-concept seminar designed for field presentation to Manufacturing Managers who are not well-founded in Manufacturing Management Information Systems and who are not familiar with HP 1000's in manufacturing applications. Key product concepts covered are Source Data Collection (307X, DATACAP/1000), Measurement & Control Processors (2240A), Data Storage and Retrieval (IMAGE/1000, QUERY), Inter-System Communication (DS/1000) and information presentation (GRAPHICS/1000).

The purpose of this seminar is to present an integrated set of hardware/software tools available today that can provide manufacturing management timely and accurate decision-support information. The BS-19 is suitable for an audience needing more product detail by the addition of product slides.

Aaaaaaannnnnd, a Customer Management Seminar Premium. . .

The BS-22 Customer Coffee Mug $2.25/Min Qty 25
A 10 ounce plastic "Thermo-Serve" Coffee Mug with a custom insert of artwork selected from the Management Seminar. One side is an illustration and the inscription "Firefighting or Managing — The difference is good information" and on the other side is the inscription, "Hewlett-Packard, The Manufacturer's Computer Company" with the HP Logo. (Limited supply available).

Division News

HP Model 10 Contest Update
By: Orrin Mahoney/DSD

As promised last month, there have been some significant shifts in the standings in the Model 10 Challenge. While *Sol Asbagh* continues to consolidate his lead, *Jay Friedman* moved all the way from seventh to second place and *Jerry Bereda* hit the chart for the first time in third place. Four Sales Representatives are tied for eighth place with 4 points each. They are *Fritz Rombach,* Germany; *Ralph Kretzchmar,* Canada; *Jack Clauson,* Eastern; and *Moritaka Satoh,* Japan. Don't forget the contest ends July 31. Keep selling those Model 45's.

HP 1000 Model 10 CHALLENGE

No. of Model 45's	Sales Rep./Region
	S. Asbagh/NSR
	J. Friedman/ESR
	J. Bereda/MSR-E
	J. McGregor/NSR
	W. Staves/NSR
	A. Brogi/HPSA
	J. Kollataj/HPRSA

DATA TERMINALS NEWS

Division News

HP Spring Management Seminar Series and Equipment Exhibit — A Success!

By: Martin Gonzalez/DTD, Bruce Woolpert/SDD, Jim Anderson/DSD

WELCOME!

HEWLETT-PACKARD

Spring Management Seminar Series

The HP Spring Management Seminar Series and Equipment Exhibit concluded its 25 day tour in the last week of April, 1979. We are pleased to announce the success of the show and present highlights of the show.

First, allow us to briefly describe the show:

- The show was launched on March 8, 1979 and ended April 25, 1979.

- The following cities were visited:

Detroit	Atlanta	New York/New Jersey	Denver	Santa Clara	Los Angeles
Chicago	Houston	Washington D.C.	San Francisco	Seattle	Orange County
Dallas	Philadelphia	Baltimore	Oakland	Boston	Richland, WA

- The topics of the Seminars were:

  Computers in Manufacturing
  Business Graphics
  Computation

- Equipment from DTD, SDD, Boise, Grenoble, and DSD was exhibited.

Manual Rivas/SDD, fielding questions about HP's graphics offering.

Scott Guthrie demonstrates the 2648A raster dump capability on the 2631G printer.

Len Souza welcoming attendees to the *Computers in Manufacturing* Seminar.

Based on feedback from the field sales force and on the statistics acquired and analyzed, the show was truly a success! The objectives of having the show early in the year to positively affect sales; of having HP Divisions and the field sales force working together to present HP as a total solution company; and of increasing our customer base by introducing our customers to HP, were not only met but greatly exceeded.

Here are the highlights:

- ATTENDANCE
  - A total of 2,694 prospects attended, 70% were *new* to HP.
  - 60% of the attendees were managers, 30.5% General Managers, VP's or higher.
  - 86% of those planning to attend, did attend.
  - Average daily attendance was 112.
  - Average attendance per site was 150.

- SEMINARS
  - Computers in Manufacturing: A total of 1,510 attended.
  - Business Graphics: A total of 1,658 attended.
  - Computation: A total of 1,045 attended.
  - 97% of attendees felt that the seminars were conducted in a professional way.
  - 89% said they would recommend the seminars to other managers in their organization.

- COMMENTS FROM NEW HP PROSPECTS ABOUT THE SEMINARS AND EQUIPMENT SHOW:

  We asked attendees, "What do you feel was the main benefit for you?" Typical answers are:
  - "It provided an insight into the cost/benefits to be realized through computerized process control."
  - "Exposure to HP as being able to help me in manufacturing/production problem solving."
  - "The examples were good thought stimulators for potential applications at our facility."

- "Awareness of technical advances in new graphics systems. A light year ahead of anything I had expected."
- "Exposure to fresh ideas for application of computers in business. Liked both Computers and Manufacturing and Business Graphics Seminars."
- "It showed how "real" companies make use of the HP 1000."
- "Information on what is latest state-of-the-art in computers, terminals, graphics, and other equipment available for more efficient running of business/industry."
- "An understanding of HP products that are available and possible uses in our production areas."
- "The inclusion of graphic capabilities within our business."
- "Good coverage of a wide range of applications."
- "Learning how computers can enable managers of manufacturing companies to be more effective."

Kirk Hansen was kept busy all day demoing the 2647A and four-color 9872A plotter. Overhead slides were a real hit!

Manuel Rivas/SDD, discusses graphics with an HP 3000 OEM.

The highlights for us were the close working relationships that we developed with a number of people in the field. We cannot begin to express our appreciation for their efforts. Many thanks to:

CITY	
Detroit	*Barry Pehoski, Linda Auen, Patti Frederick*
Chicago	*John Malone, Dee Dee Clemen, Jill Mandeville*
Dallas	*Roger Jones, Juanita Frolik*
Atlanta	*Alan Blackwood, Charlotte Gray, Ernie Bailey*
Houston	*Gary Kirwin, Ed Kurtzer*
Philadelphia	*Gene Ackerman, Gary Stump, Gary Belonzi*
New York/New Jersey	*Walt Benedetto, Joe Mangano, Mark Kolansky*
Washington D.C.	*Lou Castagnola, Todd Palmer*
Baltimore	*Harvey Flatt, Michael Oberlin*
Denver	*Ron Johnson, Jon Johnson*
San Francisco, Oakland, Santa Clara	*Bill Hilliard, Bill Siebert*
Seattle	*Stan Merrell, Rocky McGee*
Boston	*John Arserio, Bill Roberts*
Los Angeles	*Len Souza, Kirk Hansen*
Orange County	*Joe Sigismonti, Jay Lukash*
Richmond, WA	*Roger LeBold*

By working together, we presented ourselves as a vendor who can offer a broad range of products to our customers. And as a result of this show, close to 2,700 customers now realize how much HP has to offer.

Sell the **"total solution."** Sell HP's broad range of products!

GOOD SELLING!

Order Processing Department Organization Changes
By: Larry Curfman/DTD

This is to announce that Larry Roth is leaving his position as OP Manager to go and continue the challenge of shipping terminals. His attack in the future will be as the Purchasing Manager for DTD. With his help in improving material delivery there is no doubt that our terminal deliveries will be improved.

In turn, I, Larry Curfman, will be the new Order Processing Manager. This gives me the opportunity to give you the most current organization for the Order Processing Department. Most of the phone numbers you have been calling should remain unchanged. We have added a few new people, so please check the chart for your contacts.

Larry Curfman
ORDER PROCESSING MANAGER
x2866

Kathy Dull O.P. Supervisor x2277	Verdell Van Bergen O.P. Supervisor x2849	Tom Carrico O.P. Supervisor	Jessica Swanson Scheduler 2621A/P 2640B/C	Joan Loveless Scheduler 2641A 2645A/R	Peter Blaettler Systems Administrator x2977
Jeanne Myhren Data Entry x2271	Leatha Dixon NSR x2339	Marlene Montero ESR 4411, 4412, 4415, 4430, 4432 x3435	2648A 2649A/B/C/D/G/I Accessories x2970	2647A Loans Returns x2724	
Irene Alcaraz Data Entry Cindy Galuszka Data Entry x2808	Kathy Richards NSR x2206 Shirley Mitchell NSR	TBH ESR 44XX (except 4411, 4412, 4415, 4430, 4432) x2218			
Gwen Turner Factories x2043	Marta Kiss HPSA x2096	Gnesa Steele MSR (WEST) x3593			
Gary Traynor PL69/FAC x2945	Cora Doctolero CSR Ruth Rodriguez ICON/HPSA x2808	Paula Shanahan MSR (EAST) Margaret Bailes SSR 31XX x2823			

Sales Aids

Announcing the HP 2640 Series Terminal ROM Application Brief!
By: Larry Bricker/DTD

The HP 2640 Series Terminal ROM Application Brief is now available! This application brief has been prepared to help you understand the role of DTD's ROMs. It gives information on most DTD terminal instruction and character ROMs. Also included are pictures of the PCAs that hold these ROMs as well as an historial record of ROM revisions. Space has been provided so you can keep your ROM Application up-to-date as new firmware changes take place.

To order: Use Part # 5953-2027.

For your interest: The graphic design on the cover (illustration) was generated using a 2647A and 9872A Plotter.

We hope this aids greatly in your sales/service situations.

HEWLETT PACKARD

HP 2640 SERIES TERMINAL
ROM APPLICATION BRIEF
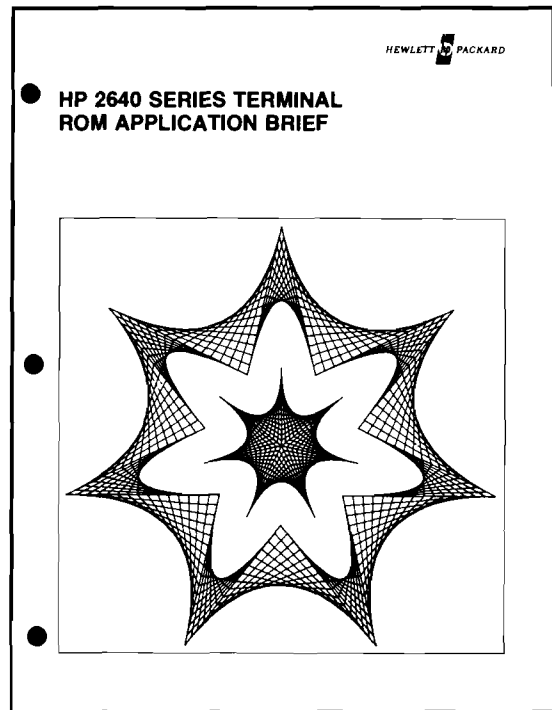
BINGO!

By: Terry Eastham/DTD

B	I	N	G	O
$	$	$	$	$
$	$	$	$	$
$	$	$	$	$
$	$	$	$	$
$	$	$	$	$

DTD sends sales literature to potential customers who request it, generally in response to advertisements and mailer cards placed in magazines and newspapers. So that you can close the sale, we send out COMGRAM's (or BINGOGRAM'S) via the COMSYS network with the names, addresses and areas of interest for each potential customer.

An average of 300 BINGOGRAMS are distributed each week according to a database of District Managers and zip code ranges. If you are not receiving your BINGOGRAMS from DTD, check with your DM — perhaps our database needs updating.

GOOD SELLING!!!

Product News

What a Tricky Softkey!

By: Eric Grandjean/DTD

Softkey note # . . .

You all know how to chain softkeys. Right? No!? . . . Not Yet? OK. Sale Rep's may have an excuse but SE's and CE's should all know how to do it. Let's review:

2648A - 2647A: ESC & f ⟨key #⟩ E

i.e.: If you want to execute softkey #2 following something you have in softkey #1, you terminate your softkey # with ESC & f 2E. Simple.

2645A: In the 2645A, things are not so simple, because particular sequence shown above is not available. As advised ages ago, the work-around solution for the 2645A is the following:

ESC & c 177417a36ndd1ØD (! !)

where "n" is the number of the softkey minus one.

i.e.: To execute f3

ESC & c 177417a362dd1ØD

Thanks to *Paul Litwack* of Ottawa, (who had a small problem with a 2645A softkey application), we discovered that any characters, controls, etc. following the chaining escape sequence above will also be executed by that particular softkey *before* chaining occurs! Great!

Example:

f2: E$_c$&c177417a362dd10D12345

f3: 67890
Press f2

Display: 1234567890

That's what I would call a flexible softkey (or is it tricky?). Unfortunately this "feature" does not exist on the 2648-2647A.

GOOD LUCK!

Dynamic Commands Control the 2647A

By: Carl Flock/DTD

The 2647A can be easily commanded from a computer system to use the graphics features in a dynamic way. One of the concerns of downloading commands to the terminal is knowing when the terminal has completed the commands — Lines 160 and 180 below show how to solve this problem.

The following program is written in HP 3000 BASIC:

```
100 PRINT '27",cbasic"
110 PRINT "scr "
120 PRINT "10 plotr\gclr"
130 PRINT "20 locate(50,150,25,75)"
140 PRINT "30 scale(-10,10,-10,10)"
150 PRINT "40 lgrid(1,1,0,0,2,2)"
160 PRINT "50 x=putdcm(chr$(13))\if x<>1 then 50"
170 PRINT "run"
180 LINPUT A$
190 PRINT "exit"
```

Short Haul Modems

By: Rich Ferguson/DTD

Our sincere thanks to *John Helms*, Neely Sales, for the following information on short haul modems.
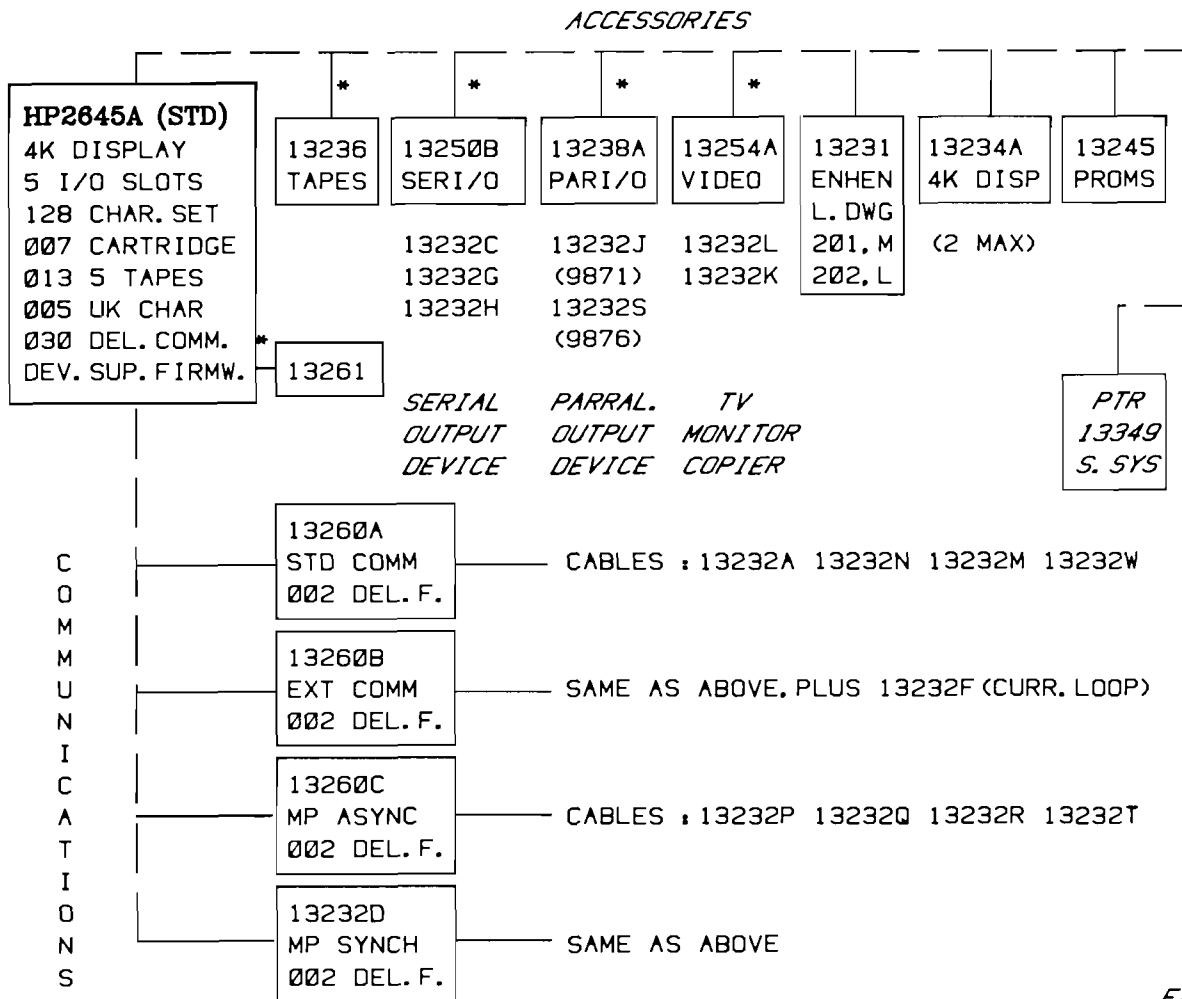
Yes, they do exist. They can be obtained from the BO-SHERREL Company. The performance is 600 baud over 10 miles or 9600 baud over 2 miles. Operation is asynchronous — full duplex and they cost about $150 each.

If you are selling a system and terminal with these requirements, this could be the answer. Keep in mind though, that these devices haven't been tested by and are not supported by HP.

"SLIDE" Helps Making Configurations

By: Eric Grandjean/DTD

The 2645A configuration below was developed with the help of the 2647A multiplot "SLIDE" routine. The original is in color of course, and the data is stored on a cartridge for posterity. If you have more than 50 vectors to draw, which is the case here, you can create a second slide file with just the additional vectors on it (no text).

ACCESSORIES

```
┌──────────────────┐   ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐
│ HP2645A (STD)    │   │ *    │ │ *    │ │ *    │ │ *    │ │      │ │      │ │      │
│ 4K DISPLAY       │   │13236 │ │13250B│ │13238A│ │13254A│ │13231 │ │13234A│ │13245 │
│ 5 I/O SLOTS      │   │TAPES │ │SERI/O│ │PARI/O│ │VIDEO │ │ENHEN │ │4K DISP│ │PROMS │
│ 128 CHAR. SET    │   └──────┘ └──────┘ └──────┘ └──────┘ │L.DWG │ │      │ │      │
│ 007 CARTRIDGE    │            13232C   13232J   13232L   │201,M │ │(2 MAX)│
│ 013 5 TAPES      │            13232G   (9871)   13232K   │202,L │
│ 005 UK CHAR      │            13232H   13232S
│ 030 DEL.COMM.    │─┐                   (9876)
│ DEV.SUP.FIRMW.   │ │ ┌──────┐
└──────────────────┘ └─│13261 │      SERIAL   PARRAL.   TV                  ┌──────┐
                       └──────┘      OUTPUT   OUTPUT   MONITOR              │ PTR  │
                                     DEVICE   DEVICE   COPIER               │13349 │
                                                                           │S.SYS │
                                                                           └──────┘
```

```
C                ┌──────────────┐
O    ┌───────────│13260A        │
M    │           │STD COMM      │──────── CABLES :13232A 13232N 13232M 13232W
M    │           │002 DEL.F.    │
U    │           └──────────────┘
N    │           ┌──────────────┐
I    ├───────────│13260B        │
C    │           │EXT COMM      │──────── SAME AS ABOVE.PLUS 13232F (CURR.LOOP)
A    │           │002 DEL.F.    │
T    │           └──────────────┘
I    │           ┌──────────────┐
O    ├───────────│13260C        │
N    │           │MP ASYNC      │──────── CABLES :13232P 13232Q 13232R 13232T
S    │           │002 DEL.F.    │
     │           └──────────────┘
     │           ┌──────────────┐
     └───────────│13232D        │
                 │MP SYNCH      │──────── SAME AS ABOVE
                 │002 DEL.F.    │
                 └──────────────┘
```

EAG 6/6/79

To do it the easy way, follow the steps below:
1. Create and layout all the text part of your slide.
2. Draw up to 50 vectors (frames, links, etc.).
3. Record on right tape (slide form gets cleared).
4. Back space file on right tape and copy that file back in menu.
5. Clear vector part of menu (bottom part).
6. "Multiplot" it (you get only the text).
7. Add missing vectors to your slide.
8. When completed, clear unnecessary text part of menu.
9. Record on right tape.

Now you have two files which you can multiplot successively on the same slide.

Et Voila!

A configuration such as this one might be a nice "trail" to leave behind after a customer demo!

GOOD SELLING!

Product News

HP 300 Terminal Modem Support

By: Curt Gowan/GSD

The HP 300 now supports terminals via modems. Here are the details from the new HP 300 Price/Configuration Guide (being distributed during the NPT Tours).

✿ Modem Support

The HP 300 ADCC supports the following Bell modems on full-duplex lines with defined options and straps:

Data Set	Baud Rate	Modes	
		Originate	Answer
Bell 113C	300 Baud	x	
Bell 113D	300 Baud		x
Bell 103J	300 Baud	x	x
Bell 212A	300/1200 Baud *	x	x

* Dual-speed: 212A is compatible with the above 300 Baud modems when in low-speed mode.

Select RS-232 Cables
If you are ordering any terminals

a. for each 264x terminal connecting directly to an ADCC
  ___13232W RS-232 Cable 5 m*
b. for each 2621x terminal connecting directly to an ADCC
  ___13222W RS-232 Cable 5 m*
c. for each 264x terminal connecting to a modem
  ___13232M Modem Cable 5 m
d. for each 2621x terminal connecting to a modem
  ___13222M Modem Cable 5 m
e. for each modem connected to an ADCC (total length of an RS-232 connection should not exceed 15 m)
  ___ 31391A 5 m RS-232 Extension Cable
  ___ 31391B 10 m
  ___ 31391C 15 m
f. to extend the distance of an RS-232 connection, RS-232 Extension Cables can be ordered. The total length of an RS-232 connection should not exceed 15 m.
  ___ 31391A 5 m RS-232 Extension Cable
  ___ 31391B 10 m

Directly-connected and modem-connected terminals may be mixed on one ADCC.

* **Note:** Terminal connection to other HP systems may require a different cable.
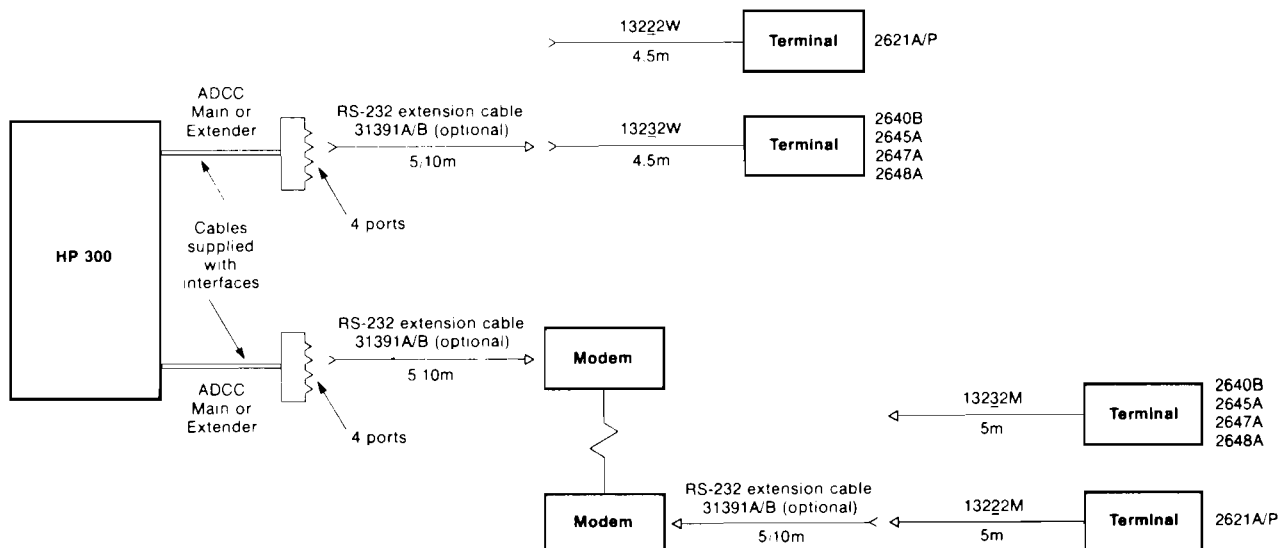
HP 300 Mass Storage
By: Curt Gowan/GSD

HP 300 now supports four additional disc drives, instead of two.

Here's a handy table of disc configurations supported on the HP 300. Note the new 79XX disc option numbers for HP 300: Option 102 rather than Option 100. (This table is in the upcoming Price/Configuration Guide.)

HP 300 Model A includes an integrated 12 MB system disc; the HP 300 Model B includes a 20MB HP 7906M system disc. By adding 79XX Disc Drives, capacity may be added to either system to a maximum of 492 MB for the HP 300 Model A and 380 MB for the HP 300 Model B.

7906M 20 MB Master Drive
7906S 20 MB Add-On Drive
The 10 MB Cartridge is removable for off-line backup only.

7920M/7925M 50/120 MB Master Drive
7920S/7925S 50/120 MB Add-On Drive
Both models have top-loading disc packs which are removable for backup or private volume use.

Backup:
- 12 MByte disc (Model A) to flexible discs
- 7906 to two 7906 disc cartridges
- 7920 to disc pack on second 7920
- 7925 to disc pack on second 7925

Supported disc configurations:

Total Capacity		Added Discs		
HP 300 Model A	HP 300 Model B	7906x* (20 MB)	7920x* (50 MB)	7925x* (120 MB)
12	20			
32	40	1		
52	60	2		
72	80	3		
92	—	4		
112	120		2	
132	140	1	2	
152	—	2	2	
162	170		3	
182	—	1	3	
212	—		4	
252	260			2
272	280	1		2
292	—	2		2
352	—		2	2
372	380			3
392	—	1		3
492	—			4

* On Model A, one of the discs must be the master unit (7906M, 7920M, or 7925M); the remaining discs are slave units (79xxS).
On Model B, all are slave units (7906S, 7920S, 7925S) since a 7906M is included in the standard system.

___ 7906M-102 20 MB Master Drive
___ 7906S   20 MB Add-On Drive

___ 7920M-102 50 MB Master Drive
___ 7920S   50 MB Add-On Drive

___ 7925M-102 120 MB Master Drive
___ 7925S   120 MB Add-On Drive

HP 300 Character Set Ordering Error
By: Curt Gowan/GSD

The most common HP 300 ordering error is to buy a keyboard-and character-set system option (Options 401-410) in addition to a 31227A Roman Extension set. The Extension Set is for multi-lingual program development on a standard U.S. system. Order a system option or an Extension Set *but not both*.

This will be clarified in the new HP 300 Price/Configuration Guide.

HP 300 — THE INTERNATIONAL SYSTEM

By: Steve Wilk/GSD

CHECK YOUR KNOWLEDGE
DID YOU KNOW . . .

1. The HP 300 HELP facility is an indexed on-line reference manual that contains general information of system operation and commands. You can use HELP to LOOK UP A COMMAND or answer a question simply by typing a question instead of an HP 300 command.

2. When an application or command is interrupted with the ATTENTION key, it continues to execute so long as it does not attempt to use the IDS for input or output. (That is, the ATTENTION key only takes away IDS "ownership," it does not automatically suspend execution.)

3. MULTITASKING on the HP 300 allows a single HP 300 program to be comprised of many independent processing "tasks," *each performing its own function* within the program and EXECUTING IN PARALLEL WITH THE OTHERS.

4. Input/Output intensive applications can use Amigo/300's NOWAIT I/O feature to overlap I/O and processing for increased performance. NOWAIT I/O techniques are especially useful for multiterminal applications, where many terminals can be serviced by a single task, using minimal memory resources.

5. HP 300 LANGUAGE SUBSYSTEMS incorporate all the software development tools needed to develop and maintain HP 300 application programs.

6. The Integrated Display System plays a central role in almost every aspect of system operation. It serves as a SYSTEM CONSOLE, a PROGRAM DEVELOPMENT STATION, a DATA ENTRY WORKSTATION, and a CONTROL STATION IN A TURNKEY APPLICATION.

7. DATA BASE INQUIRY facility (DBI) is used to access an IMAGE database without an application program. Using it, you can:
   - Display information about the database structure
   - Add, delete, modify entries from a dataset
   - Display the values of data items in selected data entries
   - Print Database Inquiry responses on the printer

8. Programs written in BUSINESS BASIC/300 can be interactively debugged during test execution using the SYMBOLIC DEBUG facility. Capabilities include variable examination, variable modification, setting break points and tracing program flow.

9. As of June 1st, 160 HP 300 units have been shipped and several hundred orders have been received since product introduction.

10. The HP 300 was designed for a twenty year life span.

Scorecard — 10 You are a fountain of knowledge and we love you!
7–9 you are doing fine
4–6 keep reading the HP 300 GIM
5 and below take our HP 300 Factory Course!

HP 300 SE Contributed Programs Library Now Available

By: Ann McCown/GSD

The HP 300 Contributed Programs Library is now available on the SE Programs Library Subscription Service. Those of you who have already subscribed may have received it by the time you read this. It is a three volume set of flexible discs plus documentation.

The first volume contains Dave McClellan's Demo Monitor Facility, which allows you to formulate customized demos for customer visits, trade shows, or whatever. Demos can include simulation of the use of the IDS in application situations, displaying frames automatically or from menus, and running programs from menus. All this can be accomplished without programming. A User's Guide accompanies the Demo Monitor Facility.

The second volume contains the set of standard demo programs currently used on the system — BISDEMO, HPLOT, REPORT, INQUIRY1 and TRUCKS and their supporting files. Documentation is also included for these.

The third volume contains a variety of contributed programs. These include Pete Almeroth's 3000-300 File transfer programs, the IBM flexible disc transfer program, the conversion program for RPG/II, a file recovery utility, and several other programs. Also included is the Document Control demo submitted by Dave Fullerton and John Trudeau that won the HP 300 SE Programming Contest. Documentation for these programs are either in sequential files on the flexible disc or included as comments in the source code of the programs.

For those of you who are not on the subscription service and would like to be, you can subscribe by sending a COMGRAM to Ralph Sierra at Computer Systems Group Software Distribution Center (location 5006) in Cupertino. Please specify your location code and account number for billing.

New Software and Support Services on HP 3000 Effective August 1

By: Fred Gibbons/GSD

On August 1, the HP 3000 joins the HP 1000, HP 250, and HP 300 in offering HP customers a common (Computer Systems Group) set of software purchase and support policies. These new software policies have many benefits for you and your cusotmers:
- One-time charge for software right-to-use
- Several choices for software support and documentation
- Attractive savings for multiple systems
- You don't have to do ANYTHING for installed customers who do not want to convert!

Also, on August 1 we are bundling into the base HP 3000 systems (both the Series 33 and Series III) data entry and data management software: HP VIEW/3000, KSAM/3000 DBMS/3000 (IMAGE/3000 + QUERY/3000) plus the facility to execute programs compiled under MPE III (except those in APL\3000) -with no change in price of the systems. A base system will thus be able to run transaction processing applications without additional software purchases; all of the "tools" will be included in the new Fundamental Operating Software. This new FOS will help further establish the HP 3000 as a leader in "transaction processing systems for business and industry."

The following articles outline these new policies. For full details on the new software pricing and support policies, refer to the CSG Field Training Manual.

Further details on how these policies impact the HP 3000 product line will be found in the update to your HP 3000 Field Sales Notebook being distributed on the North American and European NPT Tours and mailed to all ICON sales offices.

If you have any quesitons after reading this newsletter plus the Field Training Manuals and attending an NPT Tour session don't hesitate to contact your GSD 3000 Sales Development Engineer. We're all located now in GSD's new building (47) in Cupertino with a new phone number: (408) 725-8111.

GOOD SELLING!!

Expanded Base HP 3000 Systems

By: Rich Edwards/GSD

GSD is taking another step forward with the HP 3000 family by expanding the base system to include IMAGE/ QUERY, VIEW, KSAM, and a language run-time library (for executing applications without compilers) as standard features. Now, when you purchase a base HP 3000, you will receive a computer that can be used as-is for transaction processing applications. Additional software is only needed for program development or data communications.

The new base system will contain the following items:

- System Hardware (same as before)
- MPE III Operating System
- EDIT
- FCOPY
- SORT/MERGE
- DBMS/3000 (IMAGE and QUERY)
- KSAM/3000
- HP VIEW/3000
- Run-Time Library (for COBOL, BASIC, RPG, FORTRAN, and SPL—APL not included)

Even with the bundling of all of these products (value of $6000), the base system price has not changed. This is an effective net reduction of 5% in the price of a Series III and over 9% for the Series 33 system.

There are a few specific changes with this new base configuration that you should pay particular attention to.

- Both the DBMS AND KSAM data management and HP VIEW/3000 data entry subsystems are now part of the standard system software. Your customer will automatically receive them when they purchase a new HP 3000 base system.
- The SPL compiler is no longer part of the base system; it is now a separate language product with its own product number (32100A). Order it as you would any other language.
- No Data Communications products are included in the bundling. The should still be ordered as separate products.
- A Language Run-Time Library has been created and added to the base system to allow customers to execute all of their existing application programs (except those in APL) on a base HP 3000 system without having to purchase any additional software subsystems.

Among the advantages resulting from these changes are:

- Ordering and configuring systems is easier because the base system now contains a number of the most popular software products.
- It maintains consistency among HP's family of business computers.
- It focuses the HP 3000 toward the general purpose EDP and transaction processing marketplace.

There are a number of benefits resulting from these changes that you can key on in a sales situation.

- The base system is immediately usable for transaction processing applications; no additional software need be ordered except for program development or data communications.
- The bundling of these products has resulted in a lower net system price—the customer now gets more for the same amount of money.
- No compilers need be purchased to run pre-written application programs as a result of the new Run-Time Library.
- OEM's and VEU's will especially like the new Language Run-Time Library, for their application programs will be able to run on any configuration new HP 3000, even a base system.

The combination of all of these benefits and changes should be a system that is easier for you to sell. The net effect is WIN/WIN: the customer wins by getting more for his money and HP wins by more sales. These changes will establish HP as a leader in supplying complete online transaction processing systems to customers.

HP 3000 Software Purchasing Made Easy
By: Gwen Miller/GSD

Come August 1, 1979, ordering software on the HP 3000 system will be:

- STRAIGHTFORWARD, with no complicated software support requirements.
- UNCOMPLICATED, with no more contracts to sign.
- LESS EXPENSIVE, with generous multiple order discounts.
- EASY TO ORDER and even easier to SELL!

There are two major changes that have been made to implement these new features:

- Software support will no longer be tied to the purchase of a software product. Each software product will be available for a single initial price. This one-time fee grants the customer the right to use that software product on one system for an unlimited time period. The customer is then free to order the level of software support that he desires (see the Support Service Section of this update for more details).

- Each software product will be offered with both an "A" (A referring to A, B, C, or E suffixes) and an "R" suffix. When a customer purchases his first copy of any of these products, he orders the "A" product. This provides him with one copy of the product's software (and firmware, if appropriate), delivery of the software, a single copy of the associated product reference manual, and the right-to-use the software on one system with no time limit. If the customer decides to buy an additional copy of the software for another system, he now orders the "R" product. This provides the customer with the right-to-copy the "A" product, for one additional system, the right-to-use for an unlimited time on that system, and a single copy of the appropriate manuals (and firmware if appropriate), all at reduced cost. This lower "R" product price applies to all additional copies purchased by the customer (after the first "A" product) of each individual software product. In addition, the CSG Purchase Agreement discounts apply to both the "A" and "R" products.

The products covered by these changes are as follows (note the new Pre-Series II product numbers):

Program Development	"A" Product		"R" Product	
SPL/3000	32100A	$2000	32100R	$ 800
FORTRAN/3000	32102B	1500	32102R	600
RPG/3000	32104A	1500	32104R	600
APL\3000	32105A	5000	32105R	2000
BASIC/3000	32111A	1500	32111R	600
COBOL/3000	32213C	1500	32213R	600
Data Communications				
DS/3000	32190A	$3000	32190R	$1200
RJE/3000	30130E	750	30130R	300
MRJE/3000	32192A	2000	32192R	800
MTS/3000	32193A	1000	32193R	400
Miscellaneous				
Scientific Library	32205B	$ 300	32205R	$ 120
SIS/3000	32900A	3000	32900R	1200
CIS/3000	32902A	5000	32902R	2000
Manufacturing Systems				
EDC/3000	32380A	$5000	32380R	$2000
IOS/3000	32384A	5000	32384R	2000
MRP/3000	32388A	5000	32388R	2000
SPC/3000	32392A	3500	32392R	1400

Program Development	"A" Product		"R" Product	
Pre-Series II				
DBMS	30095A	$3000	30095R	$1200
COBOL	30096A	1500	30096R	600
RJE	30097A	750	30097R	300
BASIC	30098A	1500	30098R	600
FORTRAN	30099B	1500	30099R	600
RPG	30100A	1500	30100R	600
INDEX	32207A	750	32207R	300

Note: New Product numbers!

The OEM and VEU hardware discounts (up to 28%) provided by Computer Systems Group purchase agreements are also applicable to both the "A" and the "R" products.

The benefits of this new policy will result in a win situation for both you and your customers:

- Software products can now be purchased by paying a single initial fee. You no longer have to get your customers to sign a software purchase agreement.

- These changes represent a net lower software purchase price to customers because support costs are no longer tied to software prices.

- OEM's and customers with multiple systems can now get a substantial discount on multiple software purchases, making it easier to sell multiple systems and to secure OEM contracts.

- The complicated purchase agreements and confusing discount schedules have been replaced by a simple, straightforward, and CSG standardized process.

What these changes mean to you is no more mandatory software contracts, single figure software purchase prices, and substantially lower multiple copy costs. With these changes, HP is setting a new standard for software pricing and ease of ordering in the industry!

Installation

If the customer does not wish to install the "R" software on the additional system, installation may be purchased from Hewlett-Packard on a time and materials basis.

Price/Configuration Guide

The new HP 3000 Price/Configuration Guide (effective August 1, 1979) is in preparation now and will be distributed prior to August 1. The updates to the HP 3000 Field Sales Notebook currently in distribution contain photocopies of the new software and support services section.

New: Programmer's Manual Set for HP 3000
By: Rich Edwards/GSD

A special manual set has been defined for the HP 3000 which includes those FOS manuals that are most commonly needed in multiple quantities. This Programmer Manual set, 30093A, costs $90, and consists of: service, product number 30093Q, costs $16 per month. It includes:

MPE Pocket Guide	MPE Intrinsics	MPE Commands
Error Messages	Compiler Library	Using Files
EDIT/3000	SORT/3000	FCOPY
Debug	Segmenter	

Corresponding to this new manual set is a Manual Update Service (MUS) product, 30093Q, which costs $16 per month (12 months minimum).

Conversion of Customers with HP 3000 Systems on Order
By: Gwen Miller/GSD

Our plan for backlog conversion will not cause any customer to request either delay or expediting of shipment in order to get a "better deal"!

To do this, backlog customers will receive software under the new plan. Specifically, every backlog customer shipping after July 1 will receive IMAGE, QUERY (DBMS/3000), HP VIEW, KSAM, and SPL for FREE. If the customer chooses to install and use these products, he must purchase support for them. On the other hand, if any customer chooses not to use any of the products, they will not be installed and the customer can purchase support only for those products he intends to use. Because of the early introduction of this plan, backlog will be any system shipped between July 1 and August 1 and any system on order as of August 1. Remember this special deal only applies to orders prior to August 1. After that date, IMAGE, QUERY, HP VIEW, and KSAM are free but SPL is not; and only 32400T/S support is available.

There is only one thing you *must* do with your backlog orders, whether the customer is converting or not. You must cancel option 002 orders for software and systems for every Plan II customer.

HOW TO CONVERT A BACKLOG CUSTOMER

FIRST, you and your customer should decide which support options will make each site successful.

SECOND, sign the Software Purchase Agreement Addendum and the Support Services Agreement.

THIRD, cancel the old support orders and order the new services desired. Remember, there is no requirement to buy support for DBMS/3000, HP VIEW, and KSAM if the customer is not going to use them.

FOURTH, cancel orders for DBMS/3000, HP VIEW, and KSAM and option 002 (prepaid plan) for all systems and software.

FIFTH, check to see if your customer has previously purchased any of the software products currently on order. If so, cancel and retransmit those products with "R" numbers to save money!

THAT'S ALL!!

QUESTIONS? ANSWERS!

Q: Does my customer have to convert?

A: NO!
If they have ordered DBMS/3000, HP VIEW, or KSAM, you should transmit a cancellation for those products, but their support orders (22823A's with appropriate options) will stand. Also remember to cancel all option 002's on order for software products and systems.

Q: Why should my customer convert?

A: POSSIBLE $$$$ SAVINGS!
The same reasons apply to backlog customers as for installed customers: the availability of lower cost support service options and the lower cost of additional copies of software. In fact, if they have an additional system on order, get out there and convert them and use the less expensive "R" products— you'll be a hero! EVERY customer purchasing the old Plan II software support will save with the new plan!

Q. Should I cancel (or stop transmitting) orders for HP VIEW, DBMS/3000, and KSAM?

A: YES!
Customers in the backlog as of July 1 and all new customers after Aug. 1 receive these products as part of FOS. There is no need to order them. If you don't get to it on time, we will issue a credit/rebill so that your customer won't lose. (Remember, this is true for system orders only—not add-on software.)

Q: Does my customer have to order SPL?

A: NO, NOT UNTIL AUGUST 1!
All systems in the backlog receive SPL, so there is no need to transmit an order for SPL. Orders received after 8/1/79, however, must order SPL if they desire to receive it.

Q: What do I do if my customer doesn't want to convert?

A: BE SURE THE ADVANTAGES OF THE NEW PLAN ARE UNDERSTOOD. If your customer still doesn't want to convert, just cancel orders for DBMS/3000, HP VIEW, and KSAM that are on order with a system. That's all there is to it!

Q: How about some examples?

A: See your update to the HP 3000 Field Sales Notebook.

Converting Installed HP 3000 Customers to the New Software Support Policies

By: Gwen Miller/GSD

Customers with current contracts are NOT REQUIRED TO DO ANYTHING. Their old support agreements and software support orders do not have to be changed! These customers will be converted to the new support numbering scheme at their next contract renewal.

However, many of your installed customers will WANT to take advantage of the additional support service options now available. These support services can only be ordered AFTER August 1, so leave existing support products on order until that time. We have defined a conversion procedure that will allow them to do so. Basically, it will allow your customers to apply the new support services to their existing complement of software.

➤ The redefinition of FOS will not affect these customers as the conversion procedure DOES NOT require them to acquire IMAGE, HP VIEW, or KSAM or to purchase support for them.

Any customer without a current Software Purchase Agreement or with software which is "owned" (charter customers from 8/77 and Plan II customers who purchased before 8/78) may simply order the new support services they desire after signing the new Support Services Agreement. All others wishing to convert must in addition sign a contract addendum which is reproduced in the update to the HP 3000 Field Sales Notebook. This addendum will:

● eliminate the existing software discount Schedule A and replace it with the "A" and "R" products being subject to hardware discounts

● eliminate the existing discount Schedule A for "central/remote" CSS and allow "T", "V", and "S" products to be ordered instead

As you will see later in this discussion, these terms will not cost any customer any additional money, and in fact will result in substantial savings to most.

HOW TO CONVERT AN EXISTING CUSTOMER

FIRST, read and understand the support options now available. These are described in the CSG Field Training Manual.

SECOND, figure out what support services your customer needs to make him successful.

➤ If the customer is just as well off staying with the existing contract, you're all done!

THIRD, have your customer sign the contract addendum to modify Exhibit S of their software purchase agreement (if one is in force), and then sign the new Support Services Agreement.

FOURTH, use the chart in the update to your HP 3000 Field Sales Notebook on page 3-20 to convert your customer's 22823A products into the new support products.

Note that all "T" prices are the same as existing 22823A option prices; for example:

	Old Plan		New Plan	
Old FOS Incl SPL	22823A	$125	22823T	$125
IMAGE/QUERY	+ 22823A-008	$125	+ 32235T	$125
HP VIEW	+ 22823A-020	$ 75	+ 32209T	$ 75
KSAM	+ 22823A-010	$ 25	+ 32208T	$ 25
TOTAL:		$350		$350

➤ If your customer lacks one of the Data Management products (IMAGE, HP VIEW, or KSAM), convert to 22823T for FOS and the appropriate "T" products (or V or S) for whatever Data Management software he DOES have. This is the ONLY reason you should ever order 22823T, 32235T, 32208T, or 32209T—they are NOT for new customers!

If your customer already has all the Data Management software and also wants support for SPL, it is easier for you to order the new FOS support (32400T) and SPL support (32100T):

FOS	22823T	$125	equals	32400T	$300
SPL	(part of 22823T)			32100T	$ 50
IMAGE/QUERY	32235T	$125		(part of 32400T)	
HP VIEW	32209T	$ 75		(part of 32400T)	
KSAM	32208T	$ 25		(part of 32400T)	
TOTAL:		$350			$350

FIFTH, use the rules for "V"s described in the Group manual and configure the appropriate "T", "V", and "S" support services.

SIXTH, cancel their existing support after August 1 and credit them for value not yet "shipped" and order the new support.

THAT'S ALL THERE IS!!!

Training News

Customer Training Boom
By: Babs Brownyard/GSD

Customer Training is hot and getting hotter! The expansion of GSD's products and markets has created an enormous demand for customer training. GSD's users range from extremely sophisticated OEMs and staffs of large accounts, to neophyte end-users and first-time installations. They all need training at some point — different levels, different products, different applications, different environments, but the same need.

In response to this surge in volume and scope, a task force is currently addressing a number of aspects of content and form of customer training. The fundamental goal is to improve the quality of customer training to the point that it becomes a positive force in the decision to buy from HP.

Clearly such a dynamic product deserves a forum of its own. Look for news about training trends, new courses, revisions, etc., in this column. News from the field is eagerly solicited!

HP VIEW/3000 Training On Its Way!
By: Babs Brownyard/GSD

The customer training course for HP VIEW/3000 (Course 22830A) is now completed and ready for field instruction. The course has been lengthened to four days from the originally planned two days. It will appear on the August 1 Corporate Price List as a *4-Day Course;* until then the CPL shows the course as two days. The extension was the result of alpha testing, beta testing, and much invaluable input from the field.

The first two days of the class require no programming, and would be appropriate for an end-user screen designer, as well as a programmer. The second half is directed at programmers. VIEW/3000 Customer Training is offered as a single course but lends itself to a modular offering at local option.

One last note — the format of the materials is the prototype for future courses from BSP. It also conforms to new graphic guidelines for GSD training. If you love it, let us know; if you have ideas or suggestions for improving it, let us know, too.
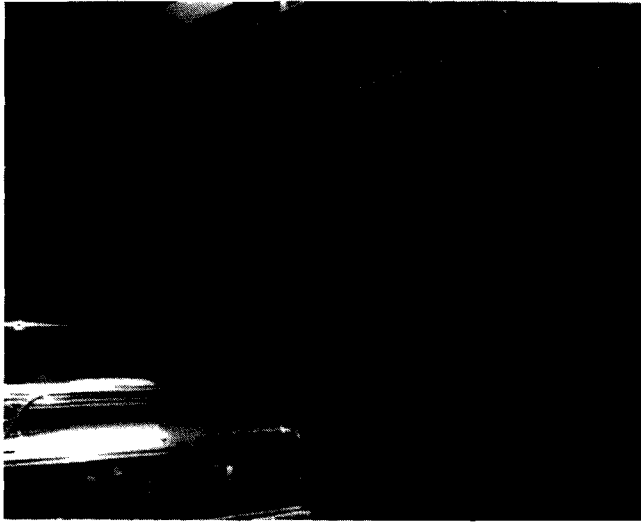
General News

HP 300 Advertising in Motion
By: Pat Wilcox/GSD

The personalized California license plates "HP 300" tell the story. So committed is *Bill Seaver*, President of Global Computer Systems in Southern California, that his car is a continuing mobile advertisement for his favorite product.

Bill, a former Microdata dealer, is busy developing a super manufacturing package for the HP 300. Written in BUSINESS BASIC, the application uses advanced data management techniques to make the computer friendly and easy to use. Both data entry procedures and output reports are controlled by dictionary entries which describe the data but which are separate from the data. These dictionary entries may be easily entered and changed by non-programmers in the company to alter data processing results. Dictionaries are a key features in providing a flexible manufacturing system able to grow as the company grows and as people expand their use of the computer.

The speedy program development process on the HP 300 leaves *Bill* lots of time for waiting in California gas lines!

HP 300 Programming Contest Winners
By: Walter Utz/GSD

HP 300 User Services recently held a programming contest for HP 300 Field SE's. The contest afforded an opportunity for the Field SE's to show their programming skills in a moment of mental dexterity.

The winning entry was submitted by *Dave Fullerton* and *John Trudeau*, an FE-SE team from the Neely, Santa Clara Office. *Dave* and *John* combined business with pleasure to produce DOC (Document Control) for an HP 300 customer.

The program, written in BASIC combines windows and softkeys with the powerful HP 300 database subsystem (IMAGE/300), to demonstrate documentation reporting and control. The document control functions are:

* Enter document information into the data base,
* Assign copies of documents to authorized custodians,
* Produce reports on documents and their custodians.

The winning entry was selected on the basis of originality in using features of the integrated display system. The program is available as part of the HP 300 SE contributed library.

HP 300 Paper Presented at NCC
By: Carson Kan and Curt Gowan/GSD

An invited paper, "Serviceability Features of the HP 300 Small Business Computer" by *Curtis R. Gowan* was given at the 1979 National Computer Conference in New York. *Carson Kan*, HP 300 Lab Project Manager for diagnostics and system integration, presented the paper.

The paper first describes the HP 300 in a short overview. The system's serviceability features are broken into three groups: fault containment features, monitoring tools, and stimulus-response tools. Each specific feature is described in detail sufficient to show its role in reaching the overall goal — low cost of ownership for a small commercial system.

Reprints, for use with your bits-and-bytes OEM prospects, will be available soon.

SELL HP 300 Serviceability

Point-Of-Sale on the HP 3000
By: Jeff Hartman/GSD

An OEM in the Washington D.C. area has developed a Point-of-Sale (POS) system driven by an HP 3000 computer with special POS terminals, communications equipment, and software. This system is in operation at a large retailer in Washington. With the HP 3000, the OEM offers a communications front-end which connects to local controllers in multiple stores which can each handle up to 32 POS terminals. Each terminal includes a small CRT, strip-printer, and cash drawer in an integrated package. Up to 200 POS terminals are supported with automatic line error-detection and correcting communications.

In addition to special retail sales related features such as sales totals, gross margins, exception reports, cash-balancing breakdowns for terminals, and perpetual inventory, the user gets the full power of the general purpose Hewlett-Packard computer.

For more information, contact *Regina Fanelli*, on the HP 3000 Sales Development team.

CSB News

System HP 250:
## A Winner for Good Industrial Design
By: Maurizio Gasperi/CSB
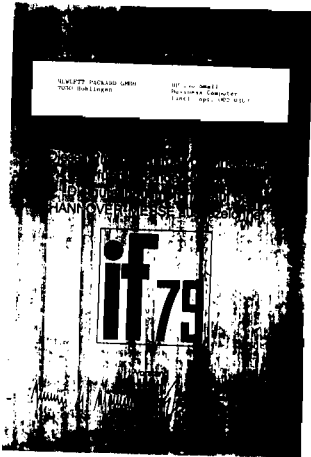
A long time before the HP 250 was designed, a team from the Fort Collins Division made extensive ergonomical studies on computer terminals for commercial applications.

The results of the first studies showed:

— That the source document, along with the keyboard and display, is an important part for data entry/enquiry processes. This emphasizes the need for an ample work surface within arms reach.

— That most keyboards of the terminals were too complex. This lead to the design of a simple keyboard containing the typewriting keys, the numeric key pad and very few system keys.

— That ample leg room is needed for a comfortable work place.

The next step for the design approach was to proceed to a simulator test. During this time the design team of the HP 250 found that an individual positioning of the CRT was an important requested feature.

Aesthetics also were considered, in the hope of creating an ergonomically correct design that would be welcomed into the office.
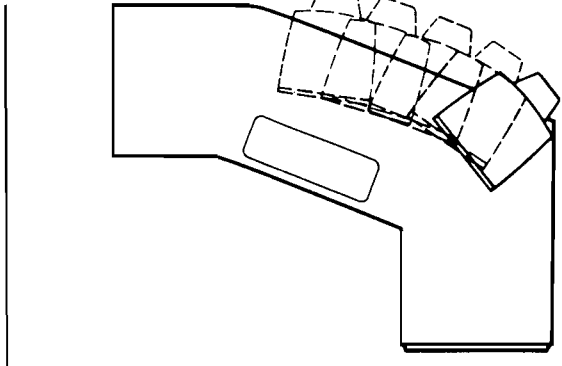
All these considerations along with some other design objectives, i.e. good serviceability, reliability etc., lead to the HP 250 design.

The sales of the HP 250 during the last months showed that the HP 250 design was very well accepted. And finally the HP 250, including the HP 2613A printer on the 26098A printer stand, received an award from "Gute Industrieform", an international jury for the good industrial design. This *award is shown above.*
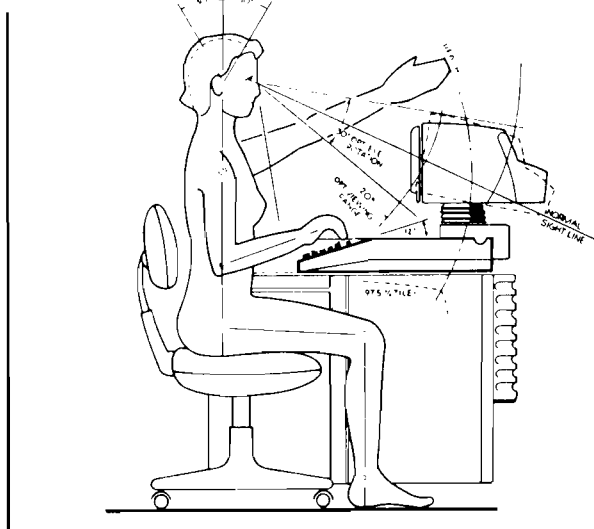
We want to thank the group of *Barry Mathis* at Fort Collins for their excellent work and the sales force 02, who helped us to make the HP 250 a successful product.

HP GRENOBLE NEWS

Product News

Wrong Part Number for Thermal Printer Paper
By: Marc Nodier/GRE

In both the Field Training Manual and the Data Sheet for the 3075A, 3076A and 3077A Data Capture Terminals, a wrong part number was given for the Option 009 (Thermal Printer) paper. The correct part number should be:

82045A — A box of six rolls of thermal paper — Price $6.00

2748B, 7260A Price Increases
By: Peter Stuart/HPG

We are sorry to advise you that the July 1st price list shows increased prices for the Paper Tape Reader and Optical Mark Reader.

Both these products were designed some years ago and use increasingly expensive components and construction techniques.

As usual you have one month grace to accept orders at the old prices although all new quotations should be issued at the new prices.

Options and discount structures remain unchanged.

In summary:

	Current Factory Base Price	New Factory Base Price	Date of Last Price Increase
2748B Paper Tape Reader	$3000	$3500	JAN 1978
12925A Paper Tape Subsystem	3450	3950	JAN 1978
7260A Optical Mark Reader	4000	5000	JAN 1977

USA import duties should be added for USA prices.

3070B Price Increase
By: Peter Stuart/HPG

As you should know it is our intention to phase out the 3070B when we have remote HP-IB capability compatible with the 3075 family of Data Capture Terminals.

In the meantime, due to the introduction of the new family, sales of the 3070B have dropped to a low level and we have been forced to increase the price to reach normal profit levels.

The new price shown below will be effective July 1st.*

	Current Factory Base Price	New Factory Base Price
3070B	$3000	$3500

Options and discount structures remain unchanged.

*USA import duties should be added for USA prices.
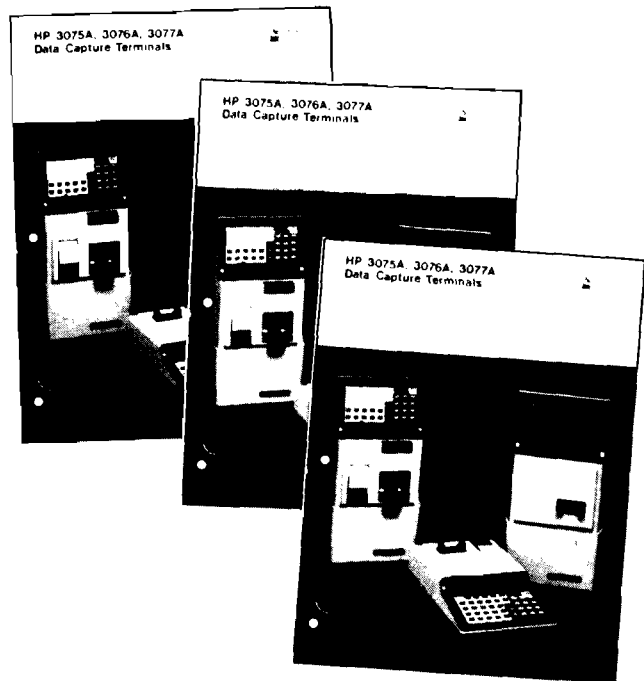
CS GROUP NEWS

Computer Supplies News

And the Best News is . . .

Prices on the 7920 Disc Pack Have Been Reduced!
By: Fran Jeffries/CSO

Here's great news for your present and future customers with 7920-series disc drives.

As of July 1st, the single unit price for a 13394A Disc Pack was slashed from $600 down to $525. And volume customers buying 20 or more packs at one time will now enjoy a low, low price of $450 per pack!

Here are the details:

Quantities	Were	Are Now
1 to 5	$600	$525
6 to 19	$560	$485
20 plus	$510	$450

Disc Memory Division has done an outstanding job of reducing production costs on these packs — and the DMD/CSO team is pleased to pass these savings on to your customers.

At these low prices, there's just no reason why your customers can't afford to use high-quality HP disc packs on their high-performance HP 7920 disc drives. Be sure they get the word!

The best news is . . . CSO has the 13394A (as well as other HP computer supply items) *in stock now*, ready for immediate shipment.