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On the Cover

The HP 2624A, a new, advanced format mode terminal designed for efficient data entry, program development and data retrieval applications. Article begins on page 14.

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- Announcing the HP 2642A Jeff Cox /DTD

 A new, sophisticated display station to enhance user performance in a range of interactive terminal applications.
- New HP Graphics Extravaganza Rosemary Kramer/Greeley
 This sound-on-slide presentation covers the complete spectrum of HP technical computer graphics products.

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Computer Marketing



CMG

Computer Groups in Trade Show Blitz

By Rudann Clark/CMG & Elias Zabor/BCMG

Business Computer Group will demonstrate its products in four major US trade shows during October and November '80.

This program will result from the efforts of the Computer Marketing Group and the field sales force. CMG will purchase exhibit space, develop booths and graphic panels, ship and assemble the booth(s), while the Region(s) will provide equipment and personnel to integrate and demonstrate the products.

Show particulars are presented here so that you may encourage your customers and prospects to attend. This presence reinforces the Campaign '80 effort by increasing your opportunity to close FY'80 on a high note and begin the new year with the momentum of added customer interest.

INFO '80, New York, October 6-9.

Information Management Show. HP equipment on show: HP 250, 300, 3000, 9845C, HP-85, and graphics peripherals and software.

Field coordination: ESR — Ange Colucci (Manhattan), Greg Ruff (Paramus).

APICS, Los Angeles, October 14-16.

American Production and Inventory Control Society. HP equipment on show: HP 3000 with MM/3000, HP 250 with MFG/250, HP 1000 with DATACAP/1000.

Field coordination: NSR — John Mack (Los Angeles Airport), Barry Mycorn (West Valley).

INFO/MFG, Chicago, November 18-20.

Focus on manufacturing management. HP equipment on show: HP 3000 with MM/3000, HP 250 with MFG/250, HP 300, HP 1000 with DATACAP/1000.

Field coordination: MSR — Phil Conway (Rolling Meadows).

COMDEX '80, Las Vegas, November 19-21.

National Conference and Exposition for Independent Sales Organizations. HP equipment on show: HP 250, 300, 3000, HP-85.

The importance of OEMs cannot be overemphasized — and we're coming here to shown OEMs that they can be successful with Hewlett-Packard. A meeting with Jon Black and his staff (Business Computer Group Distribution Marketing) and HP OEMs (by invitation) will take place on Tuesday, November 18, 3:30-5:00p.m. at the Las Vegas Hilton, with a reception following.

If you have recently signed up an OEM, please call in the name to James Cobb or John Kohler (408) 725-8111 to issue an invitation.

There will be a full day of business presentations on November 18. The master of Data Base Management, Orly Larson, will give a presentation on IMAGE, oriented for software development, on November 20.

Field coordination: NSR — Terry Ohlrich (Fullerton), Terry Schaffer (Brookhollow).

Extensive resources are being committed to this effort because we're confident that upcoming business activity will present excellent opportunities. Take advantage of these trade shows — they bring the market to you, and you control the setting, as if you had the prospect in your demo center for a visit.

CMG is also supporting the field sales effort in fourth quarter with booth backwall and show services at two other regionally organized shows. Financing for this support will come from the Accelerate '80 budget.

FCC, Washington D.C., September 23-24.

Federal Computer Conference

Pittsburgh Productivity '80, September 30 — October 1.

Publicize Your Good Customers

Bv Lee Bonds/CMG

Put your best customers in Computerworld, Modern Office Procedures, Production Engineering, Pollution Engineering, or any of more than 1,000 other business and trade magazines. Call in an application story lead to CMG Public Relations (408) 996-9383 ext. 285 or 275 and we'll work with your customer to develop and place a feature story on his/her use of HP computers — for free. All it takes is a phone call to P.R. and a few hours of your customer's time.

This quarter, HP's public relations agency, Paul Purdom and Company, wrote and placed stories on 24 HP customers. Most stories appeared in both computer magazines and in trade magazines. Customers featured included Rockwell International, Gulf Oil, Atlanta Wire, the Grand Rapids Police Department, Bose Corporation, Wilmington Fibre, and Zachry Construction.

SR's responsible for bringing their customers into the limelight include:

Don Brennan - King of Prussia John Conroy — Airport Phil Endliss — Airport Sandy Effron — Manhattan Ken Ferguson — Richardson Randy Foster — Tulsa Jim Friet — Bellevue Don Gollahon — Tulsa Tom Gulczynski — San Antonio Randy Harabin — Airport Woodrow Jones — Houston Ralph Kotoski — Albuquerque Dave Leicht - Ft. Lauderdale Paul McFarlane — Kansas City Stan Nelson — Salt Lake City Barry Pehoski — Farmington Hills Ron Tarkowski — Rolling Meadows Don Thomson — Bellevue

Help keep HP's best customers in the news — call Lee Bonds or Bob Ingols in CMG PR.





CSD

STREP Program Expanded

By Mike Torgersen/CSD

The standard repair program, which defines a fixed standard repair price (STREP) instead of an uncertain time and material (T&M) charge for per incident service, is being expanded to cover more computer group products.

As of October 1, in addition to terminals, the HP-85 and its peripherals, STREP will be defined for desktop computers and their associated peripherals. Essentially the same high volume, low-cost products that are eligible for an On-Site Product or Field Repair Center Maintenance Agreement are now eligible for STREP repairs.

HP's maintenance agreement services are still the most cost effective alternative for our customers. In situations where the customer chooses to pay for service on a per incident basis however, STREPs offer many advantages over T&M service for the benefit of our customers:

- A Known Cost STREP is a fixed amount that can be quoted upfront. Surface freight is included for work performed at an FRC. A zone travel charge, also fixed, can be added to the STREP for on-site service.
- An Assured Fix Like a maintenance agreement, a STREP charge assures that the repair of a particular failure incident will be accomplished. T&M service does not offer this assurance.
- Faster Service The response time or FRC turnaround time is the same for STREP and T&M service, but the ability to quote a known fixed amount will alleviate unnecessary administrative delays.

• Lower Cost — STREP units are priced to take into account the efficiencies associated with the repair of these low-cost high volume products. Over time, STREP service will prove less expensive than T&M to the average customer.

HP also benefits from this expanded program. It will greatly reduce the admin. burden associated with quoting T&M service. Our field repair centers will be better able to meet turnaround objectives. This expansion of the STREP program eliminates the need to have a separate labor rate for desktop computer products. Effective November 1, the current PT06 labor rate of \$75 per hour will be eliminated and the current PT02 labor rate of \$90 per hour will be used for non STREP T&M services.

Remember, agreements offer all the benefits of the STREP program and more, but in those rare instances where you are unable to sell your customer on the benefits of a Field Repair Center or On-Site Product Maintenance Agreement you now can offer your desktop customer completely defined STREP support in lieu of the uncertainty associated with Time and Materials.

CSO

Marketing Change

Dan Brumm has joined Computer Supplies Operation's Product Marketing team. Responsible for the marketing



and trade distribution of all HP computer manuals stocked and distributed by CSO, Dan's first major project is to get a "by subject" manuals index suitable for customer distribution in print by early December.



New Supplies Catalog By Jim Kinney/CSO

- New data storage cabinets
- HP's 85 most popular computer reference manuals
- Programming aids: COBOL II/ 3000 Self-Paced Learning Kit & Programming in PASCAL
- New flexible disc media

These are some of the new listings in HP's Autumn 1980 Computer Supplies Catalog — along with traditional supplies and convenience items like magnetic media, thermal paper, printer ribbons, plotter pens, cables, static control mats, terminal table, etc.

Use this new catalog to complement front end selling of peripherals, desktop and larger computer systems. CEs and SEs, as well as SRs, will want to distribute this useful, 40-page supplies reference to their customers. They'll appreciate the complete and authoritative information, and the toll-free phone ordering convenience (US only). And, it helps answer supplies questions so you don't have to!

All domestic US sales offices have received bulk supplies of the priced version (5953-2450 D), while international locations have/will receive the non-priced version (5953-2450). Call us with your comments on the catalog or any questions about our services. We're at 1330 Kifer Road, Sunnyvale, CA. 94086 phone (408) 738-8858 or COMSYS 2268.

Technical Computers



DSD

Software Equivalents Added to Vector Instruction Set

By Mark Beswetherick/DSD

The Vector Instruction Set (VIS) is a collection of firmware routines for the HP 1000 F-Series computer that provides extremely fast vector and matrix operations. VIS is ideally suited for matrix-intensive applications such as 3-D graphics, linear programming, and signal processing. Many of you have requested that we provide software versions of the VIS routines for use on M-Series and E-Series computers. I am pleased to report that, as of October 1, VIS now includes software equivalents.

This provides several benefits to VIS users:

- Programs which make calls to VIS may be developed and debugged on M, E, or F-Series computers. Formerly, program development involving VIS was limited to F-Series only. This feature is especially useful in network environments where programs for the network are developed on a central M-Series or E-Series system.
- Programs which make calls to VIS may be executed on M, E, or F-Series computers. Again, this is useful in network environments where it is desirable to have one version of a program that will execute on different types of computers in the network.
- In the unlikely event of a VIS ROM failure on an F-Series, programs can be reloaded with the software equivalents for backup.

Customers who already have VIS will receive the software equivalents in the 2026 updates for RTE-IVB, if the customer is on services for RTE-IVB. Those customers not on RTE-IVB services can obtain the software equivalents by buying Opts. 001 and 002 to VIS. (See ordering information.) Note that VIS software equivalents are Type II software. This means that customers can copy the software at no addi-

tional charge to other systems once they have purchased one copy of VIS software.

VIS support, previously included in RTE-IVB services, is now available as

separate support products. The products are priced such that customers who are currently on VIS Firmware Subscription Service (12824S) will actually pay the same or less for VIS support.

Ordering information:

12824A	Vector Instruction Set — Includes VIS Firmware for F-Series computers and VIS software equivalents for M/E-Series computers	\$ 1,500
-001	Upgrade option from prior purchase of VIS (Prerequisite: 12824A Opt. 002 on same order)	- 200
-002	Delete VIS Firmware	-1,000
12824S Opt 002	VIS F/W and S/W Subscription Service. Deletes F/W updates: provides S/W and manual updates only.	15/mo – 5/mo
12824T Opt 002	VIS Customer Support Service. Includes 12824S. Deletes F/W updates; provides S/W and manual updates only.	20/mo – 5/mo
12824V	Customer Support Service for an additional VIS. Provides one set of VIS F/W.	15/mo
Opt 002	Deletes F/W updates; provides S/W and manual updates only.	−5/mo [{]
12824W	Additional set of VIS F/W updates.	10/mo

92083A RTE Profile Monitor

By Mark Beswetherick/DSD

As of October 1, you have a new product to sell: the 92083A RTE Profile Monitor (RPM). What is it? A software package that helps HP 1000 users increase the execution speed of programs that run in RTE-IV and RTE-IVB, environments. If this capability sounds familiar to you, you are right.

Today, RPM and the RTE Microprogramming Package (92061A) make up ACCEL/1000 (92082A). We have unbundled ACCEL/1000 to create RPM as a new product by itself. 92082A will be removed from the January 1, '81 CPL. 92061A will continue to be available indefinitely.

We unbundled ACCEL/1000 because its product structure seemed to imply that use of RPM must be coupled with user-written microcode in order to achieve program speedup. Not true! User microcode is one way, but is not suited for all users. There are other ways to speed program execution, as we shall see. Unbundling ACCEL/1000 should end the confusion and, more importantly, allow you to sell RPM to a wider range of customers.

A quick review of RPM's function: Most programs spend 80-90% of their execution time in less than 5% of the code. Once the crucial code area is identified, it is generally a straightforward matter to speed up the code. The difficult part is finding the crucial area in the first place. RPM makes this task a simple one. RPM samples and analyzes program activity as the program executes, then prints a detailed profile of program activity. Different output formats are available to provide the most useful information for the particular program. RPM is so precise that activity can be measured ? down to the machine instruction level.



Once RPM has pinpointed the crucial areas of the program code, execution time can be shortened in several ways:

- Reprogramming in the original program language
- Reprogramming in Assembly language (typically results in three to four times speed improvement over a high level language)
- Reprogramming in microcode (typically results in three to five times speed improvement over Assembly language)

Substantial speedup can often be achieved by reprogramming in the original program language without resorting to use of a lower level language. Many techniques can be used: for example, restructuring the most commonly executed program loops, or modifying program algorithms. The RPM User's Manual (P/N 92082-90001) has a section that describes a wide variety of program optimization techniques for different kinds of program bottlenecks.

A case in point: the DSD lab ran RPM on the RTE-IVB relocating loader (LOADR). It was found that a large percentage of the total program execution time was being spent in two small program loops. The loops were restructured and a few additional minor changes were made. The net result: LOADR now runs 61% faster! (And not a word of microcode was written). The DSD lab now uses RPM extensively to check program efficiency.

There is an industry trend for computer users to want faster and more efficient products. The worth of a program or software package is often judged mainly by its speed of execution. The RTE Profile Monitor can make the difference between an average program and a superior one. HP 1000 OEMs and software houses especially should not be without this valuable tool! In fact, we think that no program development system is complete without RPM.

Ordering information:

-001	Upgrade option from prior purchase of 92083A or 92082A	-800
001	92002A	-
-002	Discount for concurrent purchase of 92061A RTE Microprogramming Package	-500
-020	RPM software on minicartridges	30
-050	RPM software on 800 bpi mag tape	No charge
-051	RPM software on 1600 bpi mag tape	No charge
92083R	Right to copy RPM software	800
-001	Upgrade option from prior purchase of 92083R or 92082R	- 320

First HP 1000 International Users Group Conference

By Gary Lim/DSD

The first-ever HP 1000 International Users Group Conference was held in San Jose August 25-27. The attendance of 400 was a direct measure of the conference's success. By the end of the conference, the HP 1000 International Users Group had a total membership of over 1,100. This is extremely exciting, since the Group has been in operation for only about one year. Your customers are beginning to realize the benefits of active participation in the group.)

The conference consisted of presentations of about 25 papers, mostly by customers, and a series of HP-delivered seminars on topics such as the HP 1000 L-Series, DS/1000-IV, PASCAL/1000, FTN 4X. There was also an exhibit hall in which DSD had a 40 foot booth with an HP 1000 and an L-Series machine with various demo's. Colorado Springs Division and Computer Support Division/Computer Supplies Operation also rented booth space. Additionally, there were about eight other vendors, most peripherals, exhibiting.

Special events included a luncheon at which DSD General Manager, Dick Anderson, was the keynote speaker the discussed "Trends in the computer industry and how the Users Groups play a major role."); a reception at Cupertino, for more than 100 users, at which DSD Marketing and Lab were present: and a banquet at which Dr. James Blinn from Jet Propulsion Laboratories spoke on computer graphics and its role in simulations of planetary flybys.

Users' reaction to the conference was very favorable. The papers and the HP technical seminars were considered interesting and useful, and the users (10% were from overseas) left San Jose satisfied that the three days were worth the trip.

Conference proceedings will be available soon. See *Computer News* for details.

Technical Computers



By Joe Hess/DSD

Can an HP 1000 be successful in a communications application?

Jerry Sears of the Eastern Sales Region had an account that was building terminal emulators and protocol converters using PDP-11s and chip microcomputers — not the typical HP 1000 market. The customer had experienced considerable delivery problems on both and was tired of making the hardware investment required to make the parts play together. Through Jerry, their engineers installed the L-Series as a deliverable, low-cost, high throughput processor on the majority of their systems packages.

Why do they like the L-Series?

Jerry's account found that the actual speed of DMA transactions on an L-Series was appreciably higher for the L-Series than more expensive DEC machines, even after software overhead was included. With some custom software work on the L-Series they feel they can eliminate all hardware design work on their systems and appreciably lower system cost. Finally, Jerry's account felt that HP supported them with timely replies to customer inquiries and a strong commitment to meet delivery obligations.

The Application

The Manhattan account's main product is a low-cost computer system that makes different models of computers talk to each other. The first L-Series processors ordered are now being used to link up financial data base systems which are implemented on different types of main frames and minicomputers. In this application an L-Series can make a Beehive terminal look like a 3470 workstation to an IBM 4300 Series and a X.25 node to a Telenet service (among others). Future plans for the L-Series include a terminal concentrator which allows multiple low-cost terminals to connect to an "L" and then look like a Tandem peripheral to the financial mainframe. Other possible uses include using L's connected to E-Series via DS to emulate IBM 3270 and 2780 protocols. Overall, the customer likes the L-Series because it can be adapted to handle telex protocols.

How do they do it?

The customer uses the basic L-Series DS card (the 12007) which has just been released as his interface in non-standard HP protocol work. They have written custom firmware for the card which allows it to electrically simulate other machine's I/O protocols.

Roseville

12880A Terminal Interface Obsolescence

By Bob Lane/DSD-Roseville

The 12880A is scheduled for obsole-scence from November 1, '80. Although small quantities are scheduled for production between now and January 1, '81, it is recommended that all would-be 12880A orders be submitted as 12531D Option 001 or Option 004 orders. Please note: the 12531D uses the same driver as the 12880A; has less power consumption; has current loop and data set capability in addition to EIA/CCITT capability; and finally, costs less.

If you have a customer requiring the 12880A, you may quote it through October 31, '80, and DSD-Roseville will accept orders through November 30, '80.

DCD

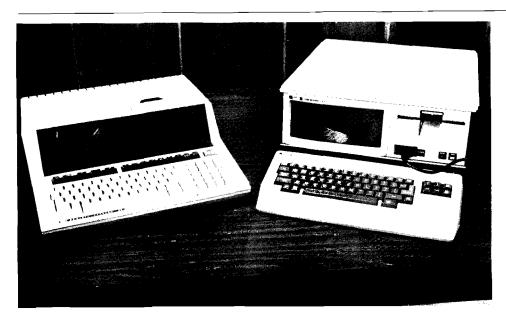
DCD Specials

By Pete Hamilton/DCD

Interest in desktop computer specials has grown during the last year probably due to the availability of specials engineering at DSD, as well as the economic recession and the resulting difficulty in closing orders.

DCD recently reviewed the manufacturing strategy relative to specials, and it is not our intent to form a specials engineering group. The issues are complex but, in general, it was felt that our historical growth of 30-40% has strained our manufacturing group and resultant capacity. Additionally, specials engineering activities, to be successful, take highly qualified engineering people with extensive experience which could be better directed at developing new products.

This is the bad news. The good news is that DCD is committed to a high response to customers' needs which, in some cases, necessitates special cables, or, for a large OEM, perhaps more extensive modifications. We will review these requests and consider them as part of the manufacturing process. If DCD's products have the right feature sets and performance for the target market, the requirement for specials should be minimized. If you have a significant opportunity which could be closed more effectively with some special for the desktop computer, give us a call.



HP-85 and Fluke 1720A

Fluke 1720A Evaluation Surprises

By Larry Inman/DCD

During past weeks, a group at DCD has been evaluating the Fluke 1720A Instrument Controller we've recently received. The preliminary results of this evaluation have been distributed to both SF01 and technical SF02, and I'd like to reiterate one interesting point of the evaluation thus far.

The surprising aspect of the evaluation is the product within the DCD product line that the 1720A is competing with. Early information had pointed to the HP 9825; after all, the 1720A was similarly priced, and Fluke had even written an HPL to Fluke BASIC conversion manual. But the surprise came when we com-

pared the 1720A's speed with that of other HP desktop computers. In this respect, the 1720A really becomes competition for the HP-85 and not the 9825. Also, many of the 1720's other features compare more closely with those of the HP-85 rather than the 9825.

The distinct price advantage HP has over the 1720A, coupled with our years of desktop computer experience and strength, should make it easier to compete with the 1720A. Still, the 1720A is a good entry vehicle for Fluke into the controller market-place, and it will definitely provide some new competition for HP in this area.

America's Cup Contender Relies on 9825

By Ed Bride/DCD

"Fastest Boat, Simplest Micro Win Cup Trials," the headline in the September 8, '80 Computerworld (page 7) read. The article went on to say that, after a series of elimination races, the 12-meter yacht, Freedom, and its onboard Hewlett-Packard 9825 microcomputer, beat the two other American contenders, Clipper and Courageous.

Clipper's navigation system relied on a Data General MP/100 microprocessor onboard and a DG 4/X minicomputer located on shore. The seagoing micro was linked to nearly every marine instrument on the yacht.

Courageous used a DEC LSI-II microprocessor onboard and a DEC VT-103 terminal on shore.

Freedom, the yacht chosen to defend the America's Cup this year, depends on an HP 9825 desktop computer to recommend course changes that can make it fly faster in the wind. Electronic sensors and radio signals are used to determine distance, speed and position. The 9825A serves as an electronic mate that takes data from the sensors, along with position data supplied by the navigator, and recommends the most efficient course (i.e., the shortest distance) to the next turning mark or the finish line.

And because it keeps track of wind speed, current and course, the desktop computer allows the sailors to decide the most efficient time for maneuvers such as tacking.

Halsey Herreshoff, Freedom's navigator, calls the 9825 his "constant adviser," to which he may go as often as 100 times during the average two- to five-mile race. The computer shows information via Rochester Instrument Company's liquid crystal displays located on the port and starboard side.

Technical Computers

Herreshoff predicts that one day "all serious contenders (for the America's Cup) will use computers, because they allow us to do more work in a given time with more preciseness."

The programs for the 9825 were written by Pete Lawson, who wrote some programs for the America's Cup defense in 1977 when he saw that "the computers they were putting on Twelves had about 60 percent reliability."

"This time," Lawson says, "I decided to use off-the-shelf hardware" rather than spend a lot of time "soldering wires."

He looked at computers made by several manufacturers, and then decided on the HP 9825. He says the support he would receive from a manufacturer was a deciding factor.

"The biggest complaint I have against the 9825," the sailor says, "is that the damn thing isn't waterproof."

98771A Upgrade Kit Options

By Ron Mora/DCD

Two no-charge options have been added to the 98771A (9845B to 9845C) Upgrade Kit. They are:

Opt. 771 European Character Set Opt. 772 Katakana Character Set

BDD

The Power of the 98046B Interface

By Helmut Schaefer/BDD

Besides its synchronous capabilities, the 98046B interface, together with the BASIC data comm ROMs (98317A and 98417A), offers powerful features that make the 98046B a real choice even for special asynchronous drivers. Here are just a few of these features:

Greatly enhanced throughput

 Made possible by the use of 32-character data registers (as compared to 1-character registers of the 98036A) and user-definable input buffers (up to about 29 Kbytes). These can be filled even while the desktop computer is doing other work.

Line control tools

- Three BASIC-controlled driver circuits that can be routed to almost any RS-232/V24 signal pin
- ROM-implemented handshakes for communication
 - —with modems: Half/full duplex, timeout before connection, lost carrier timeout
 - —with hosts: Enq/Ack, DC1/DC2, prompting
- Automatic answering of an incoming call (e.g., unattended connect and receive)

Error detection tools

- Interrupt on transmission error
- Automatic error count (quality supervision)

Other features

 Line activity tracing. Shows on the screen or printer what actually happened on the line, without extra monitor devices.

- User-defined spacing of transmitted characters for slow, unbuffered devices.
- Full programmability of the 98046B with self-explanatory DC ROM commands (no internal switches, no I/O ROM).

For readers of the DCD publication, *Technical Exchange*, watch for the issue that shows how a simple driver for the 98046B is used to transfer files from a 2645A Tape Drive to a 9845B tape.

European Literature Distribution

By Mike Tupper/BDD

We have changed the BDD literature distribution system in order to speed delivery to the European field offices. Future literature orders to Edeltraud Hammer will only be accepted if requested by your office literature coordinator. If you are uncertain as to who this is (some small offices order through larger offices), ask your country Marcom manager, or Edeltraud, at BDD Marcom. Your coordinator receives a monthly update of all pieces in stock, including the quantity on hand, plus a listing of all new and obsolete pieces. Requests for literature are now made on a oncea-week basis. Hence, your planning is an important factor to ensure that the pieces you are going to need are available.

Business Computers

BCG

★Take Advantage of Bundled HP 250/3000 Offer!

By Jerry Klemushin/GSD

The HP 250 provides an excellent branch office account system, distributed workstation, or remote printer off the HP 3000. Since the announcement of the bundled system, Sales Development has received many inquiries on how major accounts can utilize the HP 250. The answer to most of these is that the HP 250 can communicate with HP 3000 in two ways: either with Link/3000 or with RJE/250 using the INP Board. Ads in *The Wall Street Journal* and *Computerworld* have referenced our special Campaign '80 offer. Ensure your prospects and 3000 customers take advantage of it.

CSD

HP 3000 October 1 Price Increase Alert!

By Kathy Weiler & Larry Turner/CSD

The October 1 Corporate Price List includes price changes for the HP 3000 Series 33 SPU and several HP 3000 software products. The changes are:

Product Number	Description	Old Price	New Price
Series 33			
32412B	HP 3000 Series 33 System Processor Unit (60 Hz)	\$37,275	\$41,900
32413B	HP 3000 Series 33 System Processor Unit (50 Hz)	37,275	41,900
Compilers			
32233A	COBOL II/3000 Compiler	3,000	3,600
32233R	"Right to copy" 32233A	1,200	1,440
32104A	RPG/3000 Compiler	1,500	1,800
32104R	"Right to copy" 32104A	600	720
32102B	FORTRAN/3000 Compiler	1,500	1,800
32102R	"Right to copy" 32102B	600	720
32111A	BASIC/3000 Compiler	1,500	1,800
32111R	"Right to copy" 32111A	600	720
32105A	APL/3000 Compiler	5,000	6,000
32105R	"Right to copy" 32105A	2,000	2,400
32100A	SPL/3000 Compiler	2,000	2,400
32100R	"Right to copy" 32100A	800	960
Communications			
32190A	DS/3000	3,000	3,600
32190R	"Right to copy" 32190A	1,200	1,440
30130E	RJE/3000	750	900
30130R	"Right to copy" 30130E	300	360
32192A	MRJE/3000	2,000	2,400
32192R	"Right to copy" 32192A	800	960
32229A	IML/3000	3,500	4,200
32229R	"Right to copy" 32229A	1,400	1,680
32193A	MTS/3000	1,000	1,200
32193R	"Right to copy" 32193A	400	480
Miscellaneous			
32205B	Scientific Library	300	360
32205R	"Right to copy" 32205B	120	150
32206R	"Right to copy" DEL	200	240

The standard HP 30-day grace period will apply for orders placed after October 1. Campaign '80 pricing will continue through October 31; therefore, placing a FY '80 order for a Series III or Series 30 with COBOL now represents an even greater savings when compared with the November '80 prices.

IML/3000 Supported with CICS and VTAM

By Jitendra Singh/CSD

IML/3000 is now supported with CICS (Customer Information Control System) and VTAM (Virtual Telecommunication Access Method). These are widely used IBM software subsystems and open up many new opportunities for the sale of IML/3000.

IML/3000 continues to be supported (has been tested) in the following environments:

Hosts: IBM 360, 370, 3031, 3032 and 3033, Itel AS Series, and Amdahl 470 series.

Host Software: CICS, IMS, TSO, BTAM, TCAM and VTAM

Front End Processors: 3704, 3705 and COMTEN

Many other host systems, access methods, TP monitors, Front End Processors may also work with IML/3000 but have not yet been tested. If you find yourself in such a situation i.e. you feel a customer needs IML/3000 but has an environment that is not supported, contact your local Data Communications Specialist or GSD support. It may be reasonable to try and test IML/3000 in this new environment.

IML/3000 has been tested but does not currently work with VM/CMS.

To assist you in qualifying accounts, or get help on IML related problems, every area has an IML trained SE. A partial list of IML trained Data Communications specialists is provided here for your reference. This is only a partial list, so if no-one from your area appears on this list please contact your SE area manager for assistance. Persons whose names appear on this list are also authorized to sign the IML/3000 check list.

Business Computers

Ewald Marie Mund Karl-Heinz Weiss Ann Baxter Dan O'Bryant Tom Benedict Bill Costigan Jean Marc Berney Rob Peters William Beumier Markku Nikko Ursula Bozanski Neal Elgersma Dave Martin Ron Helms Steve Van Pelt Jeff Fisher Peter Frve Randy Wheeler Al Citragno Robert Dumas Iming Chen Per Erik Stokke Bernadette Reiter Jerry Crawford Paul Kuehne Ted Rypma Chris Manavopolous Mike Baker Roy Dalpra Bernd Dennerlein Sharon Meltzer Mike Hawkins Paul Primmer Heinz Jurack Pete Hansen

Zurich Boeblingen Los Angeles Kansas City Rockville Rochester Geneva Amsterdam Brussels Helsinki Farmington Farmington St. Paul St. Louis Cupertino Los Angeles Frankfurt Rockville Neely Santa Clara Farmington Taiwan Oslo Englewood King of Prussia King of Prussia Toronto Montreal Rockville Winnersh Boeblingen Manhattan Rolling Meadows Atlanta Boeblingen

GSD

More on HP Modems

By Ron Fountain/GSD

The HP 37210T and 37220T modems, 37230A short haul modem, and 30037A asynchronous repeater are now available to customers on the terminal discount schedule under the category "Compatible Items".

Fullerton

In addition, HP modems have been approved for use in the following countries:

USA — 37210T/37220T FCC approved. No approval required for 37230A short haul modem. FCC registration number for use of 37210T on dial-up lines is ABA-979-67889-DM-E. No registration number required for 37220T or 37230A.

Canada — 37210T/37220T CSA approved. HP 37210T approved for dial-up use only, and only when fitted with modified Option 003 (contact SQD for availability). HP 37220T approved for lease lines only (Option 001 mandatory).

Germany — 37210T/37220T approved for lease lines (Option 001 required). HP 37210T approved with no transmission less than 4800 bits per second. German PTT maintains a monopoly on Short Haul Modems.

Italy — 37210T/37220T approved for lease lines only. Dial-up approval applied for.

Holland — 37210T/37220T/37230A approved. Option 001 required for lease lines. Option 002 required for dial-up lines.

UK — 37210T/37220T/37230A approved. Option 001 or 007 required for 37210T on lease lines. Option 002 or 007 required for the 37210T on dial-up lines. Option 001 required for 37220T.

Switzerland — 37210T/37220T approved for lease lines with Option 001 required.

Ireland — 37210T/37220T approved for lease lines only.

Short haul modem approval varies from country to country. Some countries (USA) require no approval for use with telephone company phone lines. Some countries (Holland) do require approval. Generally, approval is not necessary for use with privately installed lines. In countries other than the USA, contact the local PTTs for information on requirements for short haul modems.

Remember, selling HP modems has several advantages. It offers our customers a single vendor solution to their data communication requirements; the diagnostic capabilities of the modems allow for improved support and network reliability; and finally, sales of HP modems mean increased revenue to HP and increased commission to you.

New HP 2631B Features with HP 250

By Paul Storaasli/GSD

The HP 2631B printer provides several new features which were not available with the A version. Most of these are supported on the HP 250. However, the following new features are not supported on the HP 250 because they involve return of information from the printer or special HP-IB secondaries:

- Automatic parity selection
- Request horizontal format status
- Request ID
- Request latching mode
- Request VFC mode status
- Request strap status

Remember, when ordering a 2631 serial printer to interface to an HP 250 system (not the 2649D Remote Console), be sure to order the 2631B-250. Option 250 to the 2631A doesn't exist any more!

Since DTD estimates it will be late December before the 2649D Remote Console will interface to the 2631B, be sure to order the 2631A-046 to connect directly to the 2649D, if your customer needs to connect the printer to the 2649D within that time frame. Otherwise we suggest you order the 2631B-250 for this application as well.

Common Questions on Converting RPG II to HP 300 (Part 4)

By Tim Haney/GSD

IBM S/3 to HP 300

- Q: One other potential marketplace is IBM S/3s. Although they have been isolated primarily by the HP 3000 as a conversion market, there has been some interest by OEMs in converting S/3s RPG II to the HP 300. Just what are the potential conversion problems, if any, that one would encounter?
- A: S/3 Model 10 would be a very easy conversion, because they don't have a lot of extensions to RPG II that are terminal related. It's a batch processing machine so the only problems involve conversion of files and running job streams. That's on the Models 6 thru 12. On larger models, we might be faced with programs using CCP.

Q: Just what is CCP?

- A: CCP is "Communications Control Program" which controls concurrent execution of several application programs within a single partition. This is similar to our multi-tasking. We can simulate this through Menu Mode and multi-programming.
- Q: Are programs executed in batch using a type of job control language on S/3s?
- A: Yes, they have what they call OCL, Operator Control Language. OCL requires that you specify the name of the program, the disc that it resides on, the files, and the location of files related to the programs. The HP 300 File Management handles all of this for you, totally transparent to the user! OCL likewise has file equates much like we do. We also have similar capabilities using HP 300's Macro Command.

Q: What are U-switches?

A: We call them User Switches or External Indicators. On the HP 300, up to 16 binary switches can be manipulated from either RPG or command macro which allow you to communicate between programs and macro.

HP 3000 to HP 300

- Q: Concerning compatibility within the HP family, are the 300 and 3000 RPG II compatible?
- A: Yes! With very minor changes, RPG II/3000 can run on the 300; but it would be a little more difficult to change RPG II/300 to the 3000.

We incorporated additional operation codes that make the conversion to the 3000 more difficult. Basically, we're approximately 99% compatible with the S/32 and S/34. The operation codes compatible with S/32 and S/34 are good reasons why the 300 is a better fit as an HP solution to the S/32 upgrade.

Q: Are RPG programs streamed on the 300?

A: The Command Procedure Facility allows you to build command procedures. Its kind of the best of streaming combined with user defined operations and is one of several new facilities which have been added to the RPG Engine.

To summarize, converting RPG II to the HP 300 is an excellent opportunity to get an OEM up and running on the HP 300 with a minimum amount of time and effort. The conversion is simple and straightforward for IBM S/32, S/34, and S/3 Model 10 . . . but not as practical for S/3 Model 15.

By converting RPG software, we immediately provide the OEM a "ready to sell" package and also assure HP of a successful installation requiring a minimum of continued support. The market is ripe and we're ready to go!

This is the final article in our series on RPG systems. We hope the series has been informative. Please call if you have any questions.

HP 300 Financial Application

By Caren Kelman/GSD

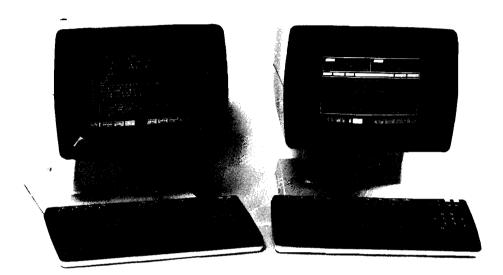
A savings and loan association in Beverly Hills has recently purchased an HP 300. Software development has begun on a financial package for loan portfolio management at savings and loan associations. Once completed, this association will market the package on the HP 300. The vice president in charge of corporate planning, stated that (other than service bureaus), there was no system available to savings and loan associations that addressed this need.

Why was the HP 300 selected? The vice president said that he felt the HP 300 was easy to use, easy to install, reliable, and, he especially liked the "forms" package and the DBMS. He literally sold himself on the HP 300 by working on it with the local SE.

With the help of your creative selling, the HP 300 is finding success in many new markets.

Terminals

DTD



Introducing the HP 2624A

By Wendi Brubaker/DTD

Data Terminals proudly announces the HP 2624A. Designed for efficient data entry, program development and data retrieval applications, the 2624A offers capabilities between the HP 2621 character mode terminal and the HP 2626A advanced display station. The newest member of the 2620 family features:

- Advanced Format Mode
- Screen-Labeled Softkeys
- Multiple Pages of Memory
- Display Enhancements
- Line Drawing Set
- Auxiliary Serial Port

Advanced Format Mode

Designed to meet data entry requirements, the 2624A introduces local data checking to format mode. In addition to protected, unprotected, and transmit only fields, both character and field edits are supported.

Local data verification increases user efficiency and reduces system overhead. Friendly error messages help the data entry clerk correct errors quickly without interaction with the computer. For system-detected

errors, the read/modified data and screen message window features improve response time.

Screen-Labeled Softkeys

Eight user-definable softkeys allow customization of the keyboard. With a single key stroke, local or remote functions can be performed by a programmed sequence of up to 80 characters per key.

Memory

The terminal memory can store up to four pages of 80-character lines. Additional memory to double the capacity is optional. Reduced interaction with the system increases user efficiency.

Integral Forms — Copy Printer
Like all of the members of the
262X family of terminals, the
2624A offers a built-in thermal
printer as an option. Text can be
copied from the screen, logged to the
printer, or transferred directly from
the computer to the printer. The
integral printer provides quick screen
copy which includes the line drawing
set, and the optional math and large
character sets.

The forms-copy printer has compressed-print, expanded-print; and, in the report mode, it prepares the text to either US or European A4 page size.

Data Communications

The 2624A display terminal operates on block, line, line-modify, and character modes. Its comprehensive point-to-point data communications capability includes full-duplex and half-duplex asynchronous operation. The 2624A is escape sequence compatible with the HP 2645A terminal and supports a number of industry handshakes. The HP 2624A supports RS-232C connections to both a computer and printer. An optional 20 mA current loop interface is also available.

Literature

Data sheet (5953-2048), Field Training Manual (5955-5682), User's Manual (02624-90001), Reference Manual (02624-90002), and Service Manual (02624-90003) are available.

Ordering Information

The 2624A is on the October Corporate Price List. Availability is eight weeks.

2624A	Display Terminal. Advanced format mode editing, 2-4 pages of display memory, 8 labeled softkeys, 5 display enhancements and a serial printer port.	\$2,750
-001 to -006	National Keyboards	100
-050	Integral forms copy thermal printer, 120 cps using 8½" wide paper.	1,150
-160	Additional 2½-5 pages of display memory.	200
-201	Math and Large Character Sets	100
13222/ 13242	Cables	



Announcing The HP 2642ABy Jeff Cax/DTD

The HP 2642A is a sophisticated display station which provides a substantial off-line capability. In addition to being compatible with the powerful HP 2645A terminal, the 2642A adds flexible mini disc support, enhanced text editing and simplified forms design. These features provide local capabilities which enhance user performance in a wide range of interactive terminal applications such as text editing, data entry and program development.

Flexible Mini Disc

- 270 Kbytes of Storage
- Interactive File System
- Optional Second Drive

Text Preparation

- Word Wraparound
- Search/Replace
- Paragraph Copy
- Delete Word, Sentence or Paragraph
- Justification
- Adjustable Margins

Simplified Forms Design

Controlled by Screen Labeled Keys

Auto Dial

• Using HP 13265A 300 Baud Modem

Simple User Interface

- English-like Terminal Commands
- Eight User-Defined Softkeys
- User-Defined Screen Labels



Hardcopy Interface (optional)

- Standard RS-232C
- HP 8-Bit Duplex
- HP Shared Peripheral

The standard 2642A costs \$6,750. This includes one Flexible Mini Disc Drive, Text Preparation Module, Simplified Forms Design plus Display Enhancements with Line Drawing, Math and Large Character Sets. Availability is eight weeks. If you need orders expedited in October/November timeframe, contact DTD Sales Development.

2642A Options	Display Station	\$6,750
005	UK Character Set	0
015	50Hz, 230V	0
016	50Hz, 115V	0
032	Extended Data	150
	Communications	
033	Asynchronous Multipoin	t 250
034	Synchronous	275
	Multipoint	
070	Integrated Dual	-500
	Cartridge Tapes (replaces	
	flexible mini disc)	
072	Second Flexible Mini	1,000
	Disc Drive	
096	Shared Peripheral	600
	Interface	

Field Training Manuals (5955-5683) and Data Sheets (5953-2049) are being shipped to the field. Users, Reference and Quick Reference Manuals can be ordered through CPC. (P/Ns 02642-90001, 90002 and 90003.) DTD Sales Development has developed a Demo Disc highlighting the major 2642A features. We'll be glad to send you one.

New 264X Options

By Jeff Cox/DTD

2645A

To make configuring terminal orders easier, DTD has added several options to the HP 2645A, 2647A and 2648A and their 2649 counterparts, the 2649B, 2649C and 2649G respectively. We've transformed popular accessories into product options, thereby making the ordering and manufacturing processes much easier. The new options are:

~U T UA	
(2649B)	
003	Display Enhancements
	(13231A)
004	Display Enhancements with
	Math & Large Character
	Sets (13231A opt. 201, 203)
008	8K Display Memory (13234A)
009	12K Display Memory
	(2 13234A)
054	Video Output Interface
	(13254A)
061	Device support firmware
	(13261A)
2647A	
(2649G)	
003	Display Enhancements
	(13231A)
004	Display Enhancements with
	Math & Large Character
	Sets (13231A opt. 201, 203)
054	Video Output Interface
	(13254A)
096	Shared Peripheral Interface
	(13296A)
2648A	
(2649C)	
003	Display Enhancements (13231A)
004	Display Enhancements with
	Math & Large Character
	Sets (13231A opt. 201, 203)
054	Video Output Interface
	(13254A)
096	Shared Peripheral Interface

In the future, terminal accessories will not be installed at the factory. However, options will be installed, so please start ordering your terminals with these options.

(13296A)

Peripherals

Boise

2645 = 2631B as Remote Workstation

By Jim Skog/Boise

Do your HP 3000 customers have problems getting timely information to their outlying offices? A telephone company using a series III was not satisfied with the US Mail's service in getting reports and checks to its 14 remote offices. The personnel in the outlying offices were not sophisticated users, but the HP 2645 terminal with an HP 2631B slaved printer required little instruction.

This remote workstation accessed the 3000 through a 212A modem, full duplex at 1200 baud. Reports to the offices were created into sequential disc files which were copied out to the 2645 and printed on the 2631B, complete with 132 character wide carriage control. These timely reports, especially accounts receivable, coupled with the ability to print the company's four-part check forms, had a very favorable impact on cash flows. Using the 2645 to access and update data base information improved the quality of service the company offers its customers.

The 2631B can be slaved off any 264X terminal, or the 2621A with special option K05. When ordering your 2631B to slave off a 264X terminal, specify option 240. Option 240 includes an 8-bit TTL interface in the printer, cable 13232J and the 23238A interface board for the 264X terminal. The 264X terminal must have device support firmware to handle a slaved printer.

The 264X terminal and 2631B slaved printer is a handy remote workstation in many applications. This combination is easy to use and the printer provides hard copy capable of printing up to six part forms. The 2631B has vertical forms control, perforation skip capability, can print eight different print pitches and has an optional high density character set (option 20 for USASCII). Contact

Research Service Bureau Relies on 2608A

By Dave Melin/Boise

Among the most demanding environments a line printer can be placed in is that of a service bureau. Since timely response to a customer is essential to be competitive, a reliable printer is a must. The research service bureau of a pacific northwest university is one such installation.

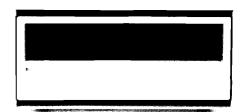
Dubbed as the "Public Health Computer" this HP 3000/III system is used by the health sciences to aid in such things as biostatistical research. Epidemics, and cancer research are two areas that rely heavily on statistical models — the basis for biostatistical research. The output for all this is an HP 2608A 400 line per minute dot matrix printer.

For a while, this customer experienced paper jam problems with the 2608A (as with neighboring DEC system's Printronix printer), but after shifting to heavier 20lb bond paper the problem disappeared. Reliability? The 2608A has been down once in its 15-month life, and then for minor adjustments.

What kind of printing requirement does this customer have? The 2608A is printing two shifts a day. Data base information during the day (enough output to justify a burster and operator), and labels at night. And for special job listings the APL character set is used.

The 2608A provides this service bureau with the quality print, versatility, and high reliability required for their self-sufficient, competitive business.

DMD



★7910 Supported on HP 98356

By Keith Braunwalder/DMD

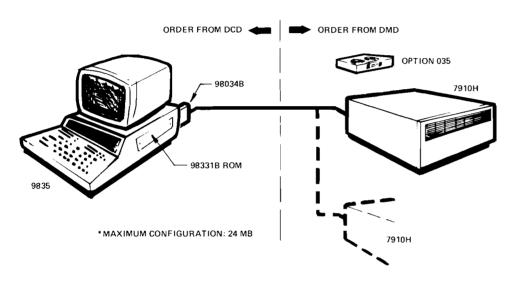
You asked for it, you got it! The 7910H is now available for HP 9835 desktop computer users in an HP-IB configuration.

The 7910H is DMD's lowest cost offering for mass storage solutions. It offers 12 Mbytes of formatted capacity and Winchester technology. The mechanical simplicity inherent in this fixed disc design, assures the utmost in reliability and serviceability. (For a more detailed description of Winchester technology and the 7910's features and benefits, see Computer Systems Newsletter March 15, '80 (Vol. 5, No. 9). But, the major contribution of the 7910H configuration lies in its low price.

Until now, the entry level mass storage solution for the 9835 was a configuration consisting of the 7906M for \$16,000, the 98041A (Greyhound) at \$2,550, and the 98331B ROM for \$500, as presented in the adjacent table, bringing this solution cost to \$19,050. The new configuration utilizes the 7910H Opt. 035 for \$8,450, 98331B ROM for \$500 and the lower cost 98034A/B interface (HP-IB) for \$400, bringing the new solution cost to \$9,350 — a total savings of \$9,700!

This new mass storage solution makes the 9835 more appealing for applications requiring modest mass storage capacities. In addition, the 7910A configuration should be very attractive to existing 9835 owners with floppy-based systems, utilizing the floppies for back-up and I/O.

"H" SERIES DISC DRIVE CONFIGURATION ON 9835



Ordering Information

Option 035 of the 7910H must be ordered for configuration on a 9835. Option 035 consists of hard disc utility programs supplied on a tape cartridge. For a better explanation of option 035, refer to the article in a previous issue by Greg Funk of DCD. As of Sept. 1, the 7910H, opt 035, is available by overriding HEART. On Nov. 1, it will be on the Corporate Price List and Availability Schedule. Order your 7910H, opt. 035, from DMD.

The 7910H Data Sheet No. is 5953-3613. The 98331B and 98034A can be ordered from DCD. Prices include all cables and hardware.

9835 Mass Storage

Previous Entry Level Solution		New Entry Solution fo	
7906M	\$16,000	7910H	\$8,350
98041A	2,550	98034A/B	400
98331B	500	98331B	500
		opt. 035	100
	\$19,050		\$9,350

Greeley

New HP Graphics Extravaganza

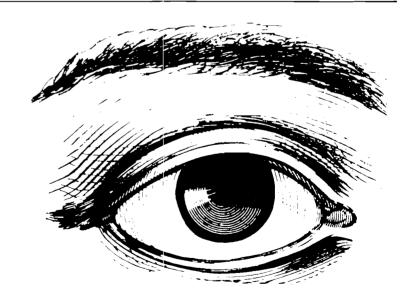
By Rosemary Kramer/Greeley

The HP " '81 All Star Graphics Show", a power-packed, four projector, sound-on-slide presentation on HP's graphic capabilities, is ready to stimulate sales throughout the world.

This 40-minute presentation brings together the complete spectrum of HP technical computer graphics products from eight divisions into one total, comprehensive and entertaining presentation.

Over 600 high-impact slides, along with special audio-visual effects, drive home the message of computer graphics power. Composed of four sections, the show is a learning cruise that takes the audience on a complete tour of the world of graphics.

The first section establishes the value of graphics — just how graphics can tap man's creativity for faster, better, more innovative results.



Next, the show educates. "Understanding Graphics Systems" is the theme, and the elements that make up a system — computers, input, output, memory and language — and their functions are covered in an entertaining, yet effective, animated sequence.

Peripherals

Other products, as well as HP's, are addressed to present a realistic, generic view of graphic capabilities. Among them, storage tube displays and drum plotters.

The benefits of computer graphics power are further reinforced as the show takes the audience on-site for a close-up view of 12 customer applications. The customers explain how graphics capabilities benefit their particular applications.

The wrap-up should leave the audience in agreement that Hewlett-Packard has the largest array of technical computer graphics products available.

This HP graphics extravaganza is ready now. Use it during this slow economic period to show how computer graphics benefits can replace rose-colored glasses with real solutions to stalemated profits.

Book now! This "Traveling HP Graphics Road Show", hosted by Greeley Division, will make a one-time circuit tour of all regions. Call Jack Huffman, (303) 226-3800, ext. 3770, to arrange for a premiere showing in your area. Aim for a packed house — up to 200 people from major accounts. The audio system of this show is designed to reach that number of people comfortably.

A capsuled subset of the "'81 All Star Graphics Show" in two-projector, sound-on-slide form, is also available for individual field engineers for audiences up to 50. Override HEART and order as product number — 81 ALLSTAR SHOW — for your office today. English versions are available now for approximately \$300. Foreign translations are underway and will be available in first quarter FY'81.

Order information: Product Number 81 All Star Show, Product Line 98, Marketer 40, Supplier 4098, Cost "please advise". Order type 12.

SDD

Price Changes Announced

By Bruce Woolpert/SDD

Increasing material and labor costs have necessitated price increases on a number of San Diego Division products. These price changes will appear on the October 1 Corporate Price List.

	Old Price	New Price
7220A Graphics Plotter	\$5,000	\$5,300
7220S Graphics	6,750	7.000
Plotter 7221B Graphics	5,000	5,300
Plotter 7221S Graphics	6,750	7,000
Plotter 7225A Graphics	2,050	2,200
Plotter* 9872B Graphics	5,000	5.300
Plotter	,	-,
9872S Graphics Plotter	6,750	7.000

^{*}Personality module prices are unchanged.

HP 1000 Systems Now Support Remote Printing!

By Tom Tremble/SDD

The 7310A is now supported on HP 1000 computer systems in several new ways: as an HP-IB device, as a remote serial printer using DSD's new 12792A/12828A Asynchronous Multiplexer Subsystem, and as a peripheral printer to the 264X and 262X terminals. All three ways offer your customer access to the full capabilities of the 7310A.

HP-IB installations require that the system include the 59310B HP-IB interface and associated driver, DVR-37. Standard HP-IB cable length restrictions apply, i.e., two meters per device connected. For longer cable needs, the 12050A or new 37203A HP-IB links may be used. In either case, a standard 7310A printer is required.

The 12792/12828A Asynchronous Serial multi-plexer offers extended cable lengths for up to eight terminals and/or printers. This configuration offers the advantage of high speeds — a maximum of 19,200 baud — at distances of up to 350 feet. A 7310 connected to one of the eight available channels is accessed through its own EQT/LU number assignment. Support as a line printer with carriage control for top-of-form, single, double, and triple spacing is provided through the DDV-12 device driver.

For remote installations with direct connector to the multiplexer subsystem, **order:**

12792A	Asynchronous Multiplexer Sub- system Software Driver included on mini cartridges. Require RTE-IVB or RTE-MIII operating system.	\$2,000
28328A	RS-232C Accessory panel	600
7310A	Printer Opt 011 line draw character set recommended	5,250 150
	Opt. 050 Serial Interface	50
30062B	MODEM Cable (25')	65

The 7310A may also be installed as a serial printer peripheral to any 2645A, 2648A or 2626A terminal. For the 264X terminals, use the 13250B general purpose asynchronous serial interface configured for a printer interface and a 13232G printer cable. For the 2626A terminal, use the 13242G cable connected to port 2 on the terminal. Support is provided on HP 1000 system models 40 and 45 operating under RTE-IVB as a subchannel four external printer. The printer should be operated at 9600 baud using hardwired handshake (set via rear panel switch.)

Order:

For 264X Terminals:	
13250B G.P. Asynchronous	\$275
Interface	
13231G Printer cable	65
For 2626A Terminal: (Port 2	only)
13242G Cable (15 ft.)	65
7310 Printer	5,250
Opt. 011 line drawing	150
character set	
Opt. 050 RS-232C interface	50

The 7310A — HP's most versatile printer for high speed remote printing needs.

Application Corner

By Tom Dalba/SDD

An interesting testimony of HP computation and graphics power comes from the University of Louisville. Their Medical Research Department is using a 2647A, a 9874A, and a 7310A to do morphometric (measurement of external form) analysis for cancer research.

By categorizing cancer cells according to shape, they can determine if metastasis is likely. Metastatis occurs when cells from a tumor, say in the eye, diffuse into the blood stream and spread to other parts of the body. This, of course, means that the cancer will spread.

The test process starts when a cell sample is placed under a special microcode and the image is projected onto the digitizer. The periphery of the cell is then digitized and the information is processed by the 2647A. Records of parameters such as circumference and cross-sectional area are stored for comparison analysis.

The 7310A is used mainly as a printing device for program listing and statistical reports. The speed and clarity of the 7310A text printing were the prime considerations for their choice.

This, combined with the proportional character set, gives them the "report quality" they desired. The automatic cutting and stacking features and the overall flexibility of the 7310A (graphics, forms) also made this device irresistable to their application.

All of this, combined with the first class support of John Burich and Steve Brueckner, HP Louisville, makes the University of Louisville, Kentucky, "another happy customer".

Thermal Plotter/Printer Used in Cancer Treatment

By Bill Loeber/SDD

The Thermal Plotter/Printer is making a unique contribution in an emerging cancer treatment method called hyperthermia, or fever therapy. Hyperthermia is based on the technique of heating either a tumor or a whole body to a temperature that normal cells can withstand, but cancerous cells cannot. One particular promising area of this research is in the use of radio frequency radiation to very accurately control the tissue heating process. A Salt Lake City company, BSD Corporation, has developed a system for use in this type of cancer research, the BSD-1000 Hyperthermic Research Instrument, of which the plotter/printer is a key element.

The BSD-1000 combines a micro-processor-controlled radio frequency system with CRT displays and hard-copy printout of experimental parameters and results. Since the product's introduction about 1-1/2 years ago, BSD has been OEMing the first model thermal plotter/printer, the 7245A, as the hardcopy printout device. According to the company's director of engineering, the HP plotter/printer was selected for two principle reasons:

 Combined plotting and printing on the same page — Documentation on the system includes a graph of variables, a chronological listing of events occurring in the experiment and operator comments. This is precisely the type of application for which the 7245 was designed. The HP plotter/printer also represented a cost savings over a separate plotter and printer.

Bidirectional paper movement —
 The 7245's ability to advance and retract paper (up to five meters of 16.4 feet) is very important to the BSD-1000 system. With this feature (a unique trait of the 7245 model), previously recorded plots and data can be recalled and updated as the experiment proceeds.

BSD reports complete satisfaction with the 7245A (even down to the color scheme!) and is looking forward to writing the new enhanced HP 7245B into their system for even sharper, clearer output.

HP-85/HP 7245B Solution

By Cindi Lund/SDD

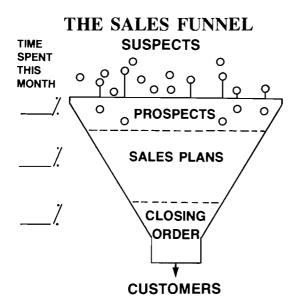
Yes, you can provide a single solution to your HP-85 customer's plotting and printing needs with one dual purpose device . . . the HP 7245B.

As a plotter, the 7245B and the powerful HP-85 Plotter/Printer ROM combine to create graphs up to three full pages in length. Additional 7245B graphics features such as dot matrix characters and symbol mode plotting can be accessed by single HP-GL commands providing your customer with fast, clearly annotated graphics.

As a printer, the 7245B offers your customer 80 standard column or 132 compressed column output. Text, tabulations, and program listings can be quickly and easily produced.

So remember, when your HP-85 customer needs a single plotting and printing solution, sell the 7245B!

Backtalk



Keeping the Top of the Funnel Full Prospecting is hard work, but with practice, it can be both fun and very rewarding. A new 22 minute sales training videotape shows how.

The video, "Keeping the top of the funnel full" is a discussion of why and how to keep a steady flow of well-qualified prospects entering the "funnel", a sales territory concept in which suspects are moved through stages to become prospects, and finally, customers. That this video is available today is largely the result of one man's efforts and enthusiasm — Don Thomson.

Don, a DM in Bellevue (Washington), wrote the script and the accompanying Leaders Guide and Student's Handbook, worked with Corporate Training to produce the video, and then appeared in it with Corporate Training's Dan Scheel. Don explained, "What we need in the field is a set of sales training modules that DMs can use to coach their people on aspects of the selling process. This video is just a start."

According to Don, many new SRs (and even some experienced ones) make some common mistakes in time and territory management. Two of these are:

Spending too much time on the first suspect (unqualified prospect).

The new SR finds "a real hot one" on his/her first sales call, then spends an undue amount of time qualifying this company as a prospect. The danger here is that if the SR loses the "real hot one", he/she may not have any other prospects to move onto and may lose his/her momentum.

Consistent use of the Sales Funnel, an ideal originated by Bob Miller, (whose strategic selling classes have been used extensively by HP) and modified by HP DMs, can help keep SRs on track, ensuring they spend an appropriate amount of time on each facet of the selling process.

Not calling high enough on the first sales call.

Although the new SR may feel more comfortable talking with a company's MIS or EDP manager, he/she should be calling on the president/ economic buyer, who really makes the decision on purchasing a computer. The danger here is that it is usually very difficult to reach the economic buyer once you've already started calling on the EDP manager (who wants anyone to go over his/her head?). It's also the economic buyer who can share with you the information you need about the company's major concerns, whereas the EDP manager may view giving you this information as a threat.

Along with these common mistakes SRs make, the video addresses techniques for finding prospects; establishing a prospect data base; and the five stages of the prospecting process — obtaining the interview, preparing the call, qualifying face-to-face, handling the fit, and reviewing the call.

Says Don, "In their first three months, new SRs should spend most of their time getting suspects into the top of the funnel i.e. qualifying them as prospects. After 6-9 months, the SR should have a balanced program: 10-15 companies in the top of the funnel, 6-10 in the middle of the funnel and 1-3 in the bottom. It may have taken 60-100 calls to come up with these figures."

By having each SR keep a monthly record of the percentage of his/her time spent on companies in each area of the funnel, the DM can more quickly recognize potential problem areas and help the SR achieve a balanced program.

To order the videotape: transmit a HEART (COCHISE) I2 order to Video Products, Palo Alto: Supplying Division 0700, Product Line 95, Sales Force 09, Marketing Division 07. Order 90261RZ for a videocassette. Leader's Guide (P/N 5955-4743) and Student's Handbook (P/N 5955-4742). The videotape is currently being translated into Japanese, German, French and Spanish.



Local Newspaper Advertising **Pays Off**

By Margaret Cato-Smith/HP Hong Kong and Serge Daoust/GSD

A FLYer to

Prospects

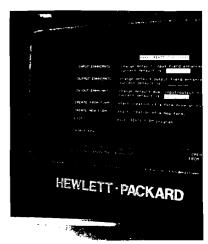
TRAP

By Serge

Daoust/GSD



HEWLETT PACKARD Presents: A beautiful blend of simplicity and power—HP 250



While touring the Far East introducing the HP 250, Scott Oki and Serge Daoust conducted three customer seminars in Hong Kong and Taiwan.

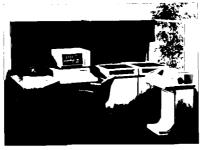
Besides the traditional direct mail invitation campaign, both sales offices advertised the seminars in the local newspapers and it paid off. More than 210 people attended these seminars. The presentations and following HP 250 demos generated considerable interest among potential OEM's and end-users on both the hardware and the HP 250 application software. Not only did it generate interest — it also generated orders!

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Hewlett-Packard 300 Computer System



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- **Data Base** Management
- On-line Programming Environment

١	les.	\Box	No	

metropolitan Toronto (Canada) recently software houses. OEM's and end-users. Matt really wanted to catch the attention of his prospects when they opened the envelope. The gigantic 2ft. x 3 ft. flyer sure did that!



Matt Rukkel, the HP 300 Third Party SR for conducted a direct mail program to recruit RPG

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