REINHARDT, HELMUT
FRANKFURT
IPSA

COMPUTER SYSTEMS NEWSLETTER

For HP Field Personnel

GSD Announces . . .
Materials Management/3000

Materials Management/3000

- Rough Cut Resource Planning
- Master Production Scheduling
- Parts and Bills of Material
- Purchase Order Tracking
- Routings and Workcenters
- Material Requirements Planning
- Standard Product Costing
- Work Order Control
- Inventory Balance Management
- Material Issues and Receipts
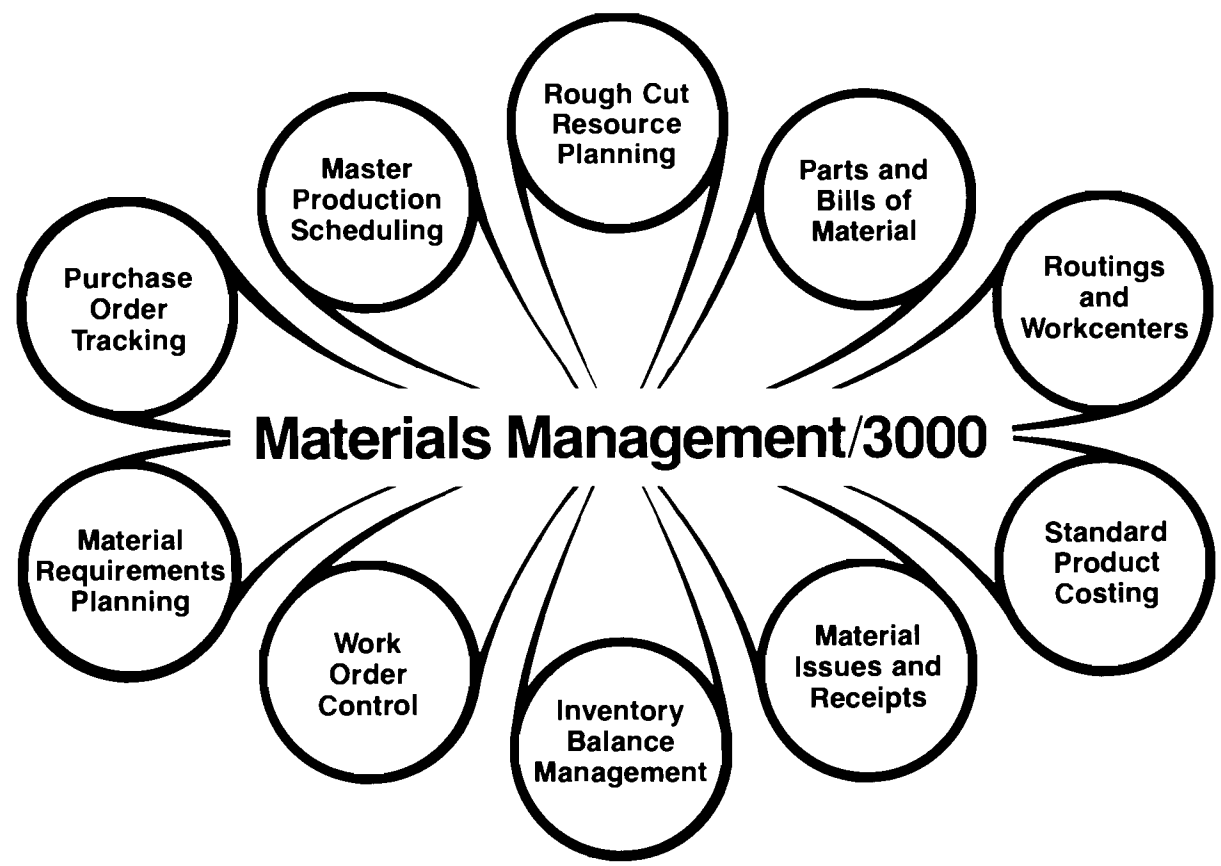
Plus
HP 3000 Datapro
Winner Again . . . p. 32

In This Issue...

BOISE DIVISION NEWS

Product News

Correction to "Price Increases" CS Newsletter Dec. 15, 1979

By: Gary Atkins/Boise

There was an error in my article about price increases in the Dec. 15, 1979 issue of the *CS Newsletter*. The product number for the 263X ribbon 3-pack is 92155A not 92153A!

We apologize for any confusion this error may have caused.

New 200 lpm Printers for $3,995

By: Dave Melin/Boise

- 2607A
- 200 line per minute dot matrix printer
- $3,600 off list price (due to excess inventory)
- Standards available
- All units immediately available.

Contact your regional Sales Development Engineer for information.

Boise Products Not Supported on 12050A Fiber Optic, HP-IB Link

By: Dave Gerhart/Boise

HP recently announced a fiber optic link (HP #12050A) that advertises an HP-IB link up to 100 meters.

We know that a new device immediately sets minds running and grinding for applications. You need to be aware that this optic link is *not* supported on any Boise Division products (tape, terminals, or printers) on HP CPU's. The reasons are:

1. The fiber optic link *does not* support the parallel poll.
2. It does support SR1 which allows for a serial poll if the SRQ is strapped on. The 2631A, 2631G and 2608A can be strapped (SRQ) to utilize a serial poll. The 7970E tape does not support SRQ. HP 300, 3000/30 and 33 system software *does not* support SRQ. As a result, this link cannot be supported on these systems in any configuration.
3. The HP 1000 does not support printers, terminals or tapes via HP-IB. There is no software to drive the printers in this manner.
4. The 2635A/39A terminals are not supported on HP-IB.

So remember, no Boise Division product is presently supported on the 12050A fiber optic, HP-IB link.

Computer Museum

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

COMPUTER SUPPORT NEWS

Division News

Introducing the HPSA SEO
By: Bob Lewin/HPSA

The HPSA Sales Region consists of Europe, the Middle East, and parts of Africa. The missions of the HPSA SEO group are to support the sales effort of the HPSA CMG team and ensure customer satisfaction with HP's computational products in this widespread part of the world.

HPSA SEO currently has about 245 members and finished a good 1979 by achieving 155% of their target revenue and 198% of their profit target.

The challenges of FY 1980 are to meet aggressive revenue and profit targets and to ensure all European customers receive a level of satisfaction independent of country boundaries and "second to none".

```
                    HPSA SEO MGR
                      Bob Lewin
                       Geneva

                                    SECRETARY
                                   Martine Hugh

GERMANY      UNITED        FRANCE        ITALY        HOLLAND       R.O.E.*
SEO MGR      KINGDOM       SEO MGR       SEO MGR      SEO MGR       SEO MGR
Klaus-Dieter SEO MGR       Henri         Gianni       Bob Van       Steve
Klein        Larry         Demonceaux    Di Carlo     Randeraat     Feo
Frankfurt    Lorren        Orsay         Milano       Amsterdam     Geneva
             Winnersh
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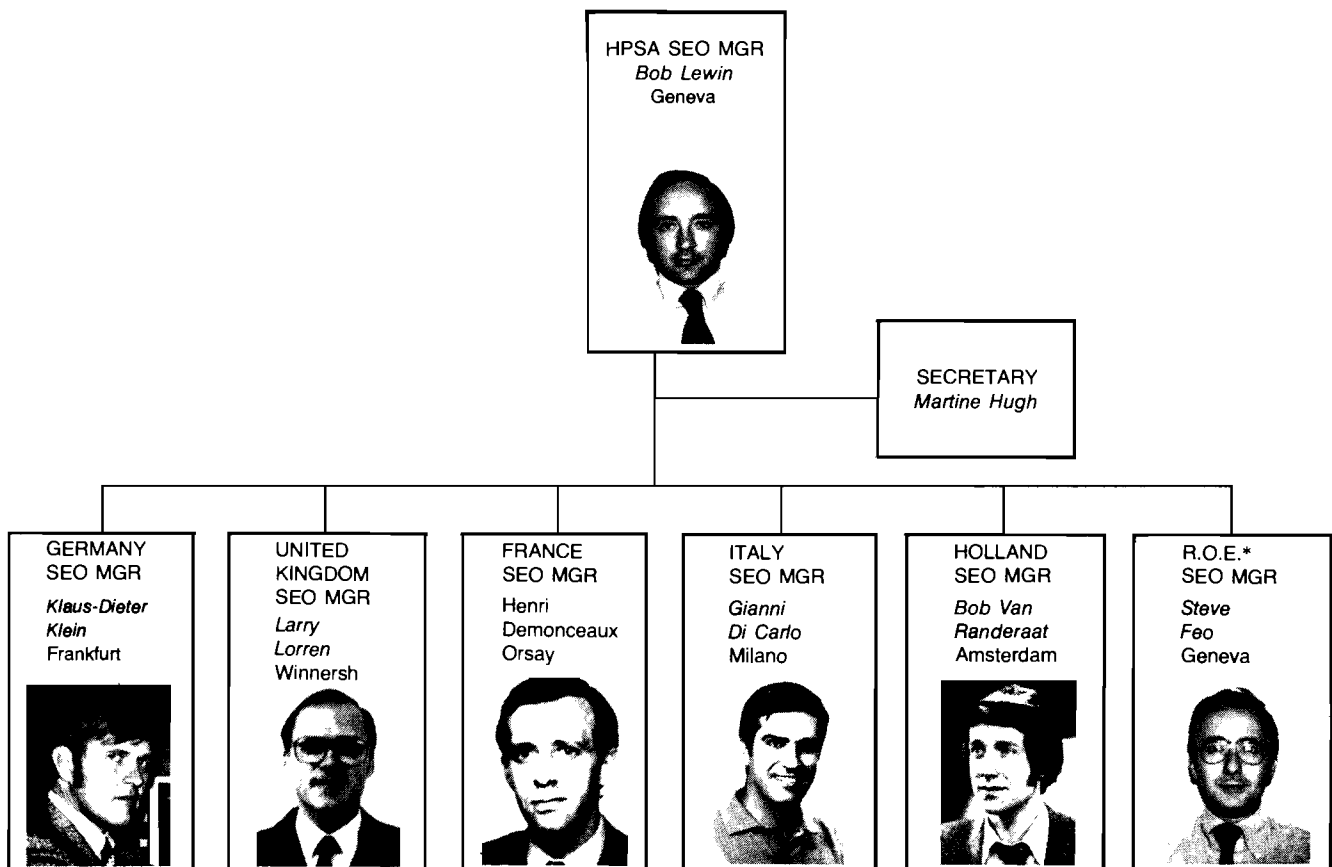
*Includes Switzerland, Belgium, Spain, Sweden, Finland, Norway, Denmark, Austria, Middle East, and Eastern Europe.

Let me introduce the team:

Klaus-Dieter Klein, Frankfurt,
has been with HP for 8 years. For the last four he was a senior SE on the HP 3000 system. Besides recently being appointed the SEO manager for Germany, his wife and he enjoyed the arrival of their first child.

Larry Lorren, Winnersh,
a veteran of 11 years with HP, was formerly the HP Corporate EDP Manager. In 1975, he joined GSD and was the project manager for MFG/3000. He joined the UK SEO team in September, 1979.

Henri Demonceaux, Orsay,
has been with HP for 9 years, working as a Systems Engineer and Salesperson. Coming from a 21XX product background, he has developed an SEO that continuously exceeds expectations.

Gianni Di Carlo, Milano,
an employee of 10 years, began as a software trainer in the UK. With a 21XX product background he has developed an SEO with one of the highest profit performances.

Bob Van Randeraat, Amsterdam,
has been with HP for more than 6 years, beginning as an SE for DSD products. His talents extended to the commercial line where he was voted: "The best GSD SE in the HPSA Region" in 1978.

Steve Feo, HPSA Geneva,
a veteran of almost 8 years, began as an SE in Paramus before moving to Geneva as a Product Support Engineer for GSD. Steve's territory includes many countries and cultures but he has managed all successfully.

Bob Lewin, HPSA Geneva,
joined HP about 10 years ago as Facility Information Systems Manager for the Components Group. From 1975, he was part of GSD and the HP 3000 effort.

Sales Aids

Support Services Brochure Available
By: Ron Murdock/CSD

By the time this newsletter reaches you, copies of the new CSD "Reliable Support" brochure should be available from your sales librarian. Bulk distribution to each sales office is now underway, in addition to individual copies going out via "Mails".

The new brochure, "Reliable Hardware, Reliable Software, Reliable Support", keynotes the Systems Services available to our customers. It is designed to help sell these services "up front" as an integral part of an HP Computer System. In addition to outlining the range of support services available, it emphasises HP's commitment to effective, on-going support for our products and our customers.

Copies of the English-language version will be distributed worldwide. In addition, translations in French, German and Spanish are scheduled for distribution early in March.

Reliable Hardware Reliable Software

Reliable Support ON LINE

[hp] HEWLETT PACKARD

DESKTOP COMPUTER DIVISION NEWS

Product News

Impact of the HP-85
By: Bert Desmond/DCD

I want to share with you the 1980 plans for the HP-85 — an amazing product!

Seven years ago, we introduced the first HP BASIC language desktop computer, the 9830, at $6,000. A system with printer, plotter and memory cost about $14,000. The HP-85 makes a more powerful system available at about one fourth the cost. Contrasted to today's double-digit *inflation*, the HP-85 represents double-digit *deflation*. We are excited about the HP-85, not only because it is an excellent product, but because it will be a major tool in increasing the productivity of our selling effort.

Market information indicates that the HP-85 will be very successful in establishing new sales records. Although Radio Shack's TRS80 sells at about 10,000 units a month, APPLE at about 5,000 and PET at about 3,000, none of these manufacturers has successfully penetrated the industrial markets. Major manufacturing customers are waiting for a personal computer for industry, and indications are that the HP-85 more than meets their needs.

Another pointer toward the HP-85's success was our experience in introducing it to key OEMs three months before its general introduction. This was to allow the OEMs to prepare their business plans in advance. Their response exceeded our expectations — in 25 out of 28 cases, the OEMs made a commitment to the HP-85.

Typical OEMs came to the presentation with a wish list describing an ideal product. They also had a collection of alternative solutions, such as a combination of CRTs, microcomputers, keyboards and floppy disks from many manufacturers. At the end of the presentation, they checked off about 95% of their wish lists and threw away their folders of alternative solutions!

The final prediction of the HP-85's success has been your response to it during the product tour. Your enthusiasm was impressive. The HP-85 is going to be an outstanding product for HP.

A frequently-asked question relates to the impact of the HP-85 on current products. Won't it decrease sales of the HP 9815, the 9825, the 9835 or the 9845? We predict it will not. In fact, the HP-85 and the merchandising effort behind it should increase the sales of *all* products. With the HP-85, you should be able to sell more technical computers than ever before. In the burgeoning desktop computer market, a major problem is increasing the awareness of potential customers in the target market of scientists and engineers. They are not familiar with the capabilities of HP's desktop and technical computers. By increasing their awareness, you should be able to sell many more machines.

The HP-85 should create a tremendous amount of interest from scientists and engineers. HP-85 seminars will allow them to learn about the product, see it perform and get hands-on experience. You can present the HP-85 to large numbers of people at introductory seminars. These seminars could include the well-accepted presentation, "Desktop Computer Applications in Industry", which concludes with the comment that more people are realizing the value of putting computer power where the problems are. Present the HP-85, HP's Personal Computer for Industry, as part of this trend. Follow this with a product fair with all of our technical computers, from the HP-85 to the HP 1000.

Presenting the HP-85 in this way will permit you to show more people the capabilities and range of products from HP and gain incremental customers. This should assure your selling more of the current products than ever before.

To summarize, the HP-85 may be one of Hewlett-Packard's most successful products. Get on the bandwagon early; put one on every engineer's bench in your major accounts. Use it to spread the word of HP's excellent price/performance ratio, and leverage those sales by selling up to more powerful systems.

9825 Keyboard Enhancement
By: Larry Inman/DCD

As of January, the HP 9825A/S is being shipped with a new, enhanced keyboard. The new keyboard is typewriter-like, and greatly improves the appearance of the 9825 as a "powerful" desktop computer. In addition, we are confident that the new keyboard will be much more reliable than the original version for most applications.

There are a few important points to note regarding the new keyboard and the 9825:

- A letter will be included with 9825s for the first 2-3 months of shipments to introduce the new keyboard.
- There will be no further shipments of 9825s with the old keyboard. Exceptions will be considered on a very limited basis.
- Service will replace defective keyboards under warranty with the new keyboard, and will strongly recommend that those out of warranty repair with the new keyboard. The price of the new and old keyboards for service purposes will be the same — $400.
- Upgrade kits will be available for machines with operable keyboards, but due to an initial limited availability on upgrade kits, service should receive top priority. This applies to demo units also.
- Special function key overlays for 9825 software packs will be modified to fit the new keyboard. The terminal emulator overlay will be changed in approx. two months. In the interim, the customer will be given a cross-reference card along with a postcard to send in for a new overlay when they become available.

If you have any questions at all, please contact us at the factory.

9845B Forms Utility Caveat
By: Larry Dassow/DCD

We have advertised that the Forms Utility Pack 09845-10170 will work on a 9845B with minimum memory (56 Kbytes), but *it will not*. The lab is looking at the problem and will try to trim the program so it will work in 56 Kbytes. In the meantime, do not sell this pack to a customer with a 56 Kbyte 9845B. If you have a customer who already has a 56 Kbyte 9845B and the Forms Utility pack, please call *Larry Dassow* in Ft. Collins (303) 226-3800, ext. 3315.

Consumables News
By: Jack Huffman/DCD

Thermal Paper Quantities

In the new DCD Consumables Catalogue, P/N 5953-1085 (40), Oct. '79, the quantities listed for some papers are incorrect. The catalogue describes the quantities for P/Ns 9281-0401, 9270-0565, 9270-0566, 9270-0568, 9270-0569, 9270-0649, 9270-0650, 9270-0651 and 9270-0652 as one box of six rolls. If you order quantity "1" however, you will only get one roll. If you order quantity "6" you will get six rolls. Also, on p. 11 of the New (10/79) catalogue, P/N 9279-0664 should be 9270-0664. Please make the necessary updates to your catalogues.

New Thermal Papers

Now for the good news, we have new black thermal paper for the 9815, 9825, and 9835, and also new high-contrast thermal paper for the 9845 as well as unperforated black thermal paper for the 9845. Here are the new part numbers and descriptions.

9270-0664 Black Print Thermal Paper for 9815, 9825 and 9835.

9270-0649 High-Contrast, Black Print, English, Perforated Thermal Paper for 9845.

9270-0650 High-Contrast, Blue Print, English, Continuous Thermal Paper for 9845.

9270-0651 High-Contrast, Black Print, Metric, Perforated Thermal Paper for 9845.

9270-0652 High-Contrast, Blue Print, Metric, Continous Thermal Paper for 9845.

9270-0661 High-Contrast, Black Print, English, Continuous Thermal Paper for 9845.

9270-0662 High-Contrast, Black Print, Metric, Continuous Thermal Paper for 9845.

New Face

And more good news. *John Hettrick* has joined the PL98 Sales Development team and will be handling all of our consumables activities. *John's* ability and years of HP experience will be valuable in his new position — a vital job for HP and an important business for PL98.

Equipment Exchange
By: Al Sperry/DCD

Several items of desktop computer equipment are either available for sale or trade by customers, or are wanted. All prices are negotiable. Note that Opt. 888 is an internal identification for used equipment available from customers, and does not indicate a physical or electrical option. Contact me or *Chris Stumbough* at DCD for further information on the following:

For Sale: 9815A Opt. 888

9820A Opts. 001, 888; 11221A Opt. 888; 11222A Opt. 888

9821A Opt. 888

9830A Opt. 888, 16K, Strings and APR II ROMs; 98032A Opts. 030, 888 cable for 9845

9830A Opt. 888; 9885 Opt. 888; 9871A Opt. 888

9831A Opt. 888

9835A Opt. 888

Wanted: 9866A/B

Trade: 9869A Opts. 025, 888; will trade for 9885M

Stolen: 9815A Serial 1529A-00743

Sales Aids

HP 85A Promotional Literature
By: Evan James/DCD

Following is a list of the 85A Promotional Literature pieces and corresponding part numbers.

Literature Piece	Part Number
85A Brochure	5953-1080
85A Data Sheet	5953-1078
85A Graphics Supplement	5953-1079
85A Flyers with:	
DCD address	5953-1086
CVD address	5953-1940 (D)
No address	5953-1940
85A Price Sheet US	5953-1097
85A Price Sheet ICON	5953-1098
Software Summaries:	
General Statistics	5953-1074
Linear Programming	5953-1075
Circuit Analysis	5953-1076
BASIC Training	5953-1077
Waveform Analysis	5953-4508
Financial Decisions	5953-1088
Math	5953-1089
Text Editing	5953-4507
Statistical Analysis	5953-4509

Correction to "Interfacing Concepts" CS Newsletter, Dec. 15, '79
By: Jim Fentress/DCD

One line, including a part number, was omitted from this article on "Interfacing Concepts" manuals on p.9 of the Dec. 15 CS Newsletter. The sentence beginning on line 4 should read: "BASIC Language Interfacing Concepts" (P/N 09835-90600) is written for the BASIC language HP 9835A/B and HP 9845A/B desktop computers.

This information should save you a phone call when you want to order the manual.

HP-85 Videotape
By: Greg Garlow/DCD

The HP-85 Videotape entitled "HP-85: The Analytical Probe", is now available from Corporate Video Products. See CS Newsletter Jan. 14, '80 p.56 for ordering information.

In This Issue ... Cont.

DISC MEMORY NEWS

Product News

Does Your Customer Support His Own Disc Drives?
By: Tom Steipp/DMD

If the answer is *yes*, you need to know what is in the table below to prepare your customer for the new HP 7906H, 7920H, and 7925H disc drives, from DMD. The key is to know exactly what combination of disc products your customer plans on supporting.

7906A or B

Service Kit	Supports	Price
19903A	7906 MAC Spares Only	$4,300
–035	Adds ICD Spares	1,850
–036	7906H Spares Only	1,600
19904A	7906 MAC Tool Kit	5,300
–035	Adds 79XXH Tools (H Versions need MAC Tool Kit)	250
13359C	7906 Servo Reformatter Kit	2,700

7920A/7925A or B *(These kits do not support the controller or the "A" versions)*

Service Kit	Supports	Price
19905A	7920/25B MAC Spares	$ 8,700
–020	Deletes 7925 Spares	–2,200
–025	Deletes 7920 Spares	–2,100
–035	Adds 79XXH Spares	1,900
–036	7920/25H Spares Only	1,600
19906A	7920/25B MAC Tool Kit	5,200
–020	Deletes 7925 Tools	–500
–025	Deletes 7920 Tools	–500
–035	Adds 79XXH Tools (H Versions need MAC Tools)	+300
13398A	Alignment Pack for 7920	1,400
13357A	Alignment Pack for 7925	1,750

13037B/C Controller

Service Kit	Supports	Price
19907A	13037C Controller	$ 3,100
–042	Adds 21XX (13175B) I/F Spares	1,000
–045	Adds HP-IB I/F (12745A) Spares	1,000

In summary, the 19903A and 19904A Customer Service Kits (CSK) support both 7906A and 7906B disc drives; 19905A/19906A CSKs support 7920A and 7925A/B disc drives; 19907A CSKs support 13037B/C Controllers.

For customers desiring to support *both* 7920A and 7920B disc drives you should order the 19905A/19906A from DMD *and* the following:

Part	Part No.
Switch, Rocker	3101-2122
Assy-I/O Sector	07920-60001
Assy-Control	07920-60002
Assy-Preamp	07920-60006
Assy-Mother	07920-60008
Assy-Pack Detect	07920-60052
Assy-CBL Control	07920-60059
Assy-PMR	07920-60080
Oper and Serv Mnl	07920-90001

The above parts are available from CPC.

Support of the 7906H, 7920H and 7925H is accomplished by ordering the appropriate option (depending on your desire to support "79XXM and 79XXH" or "79XXH only") to any Customer Service Kit.

Example: To support a 7920H only (no MAC drives), you need to order the following:

  19905A Opt 020, Opt 036; 19906A Opt 020, Opt 035; 13398A.

Announcing the New H-Series Disc Drive Family
By: Kevin Magenis/DMD

The new H-Series Disc Drives offer . . .

● Lower Cost
● Greater Reliability and Serviceability
● Interface Flexibility
● High Performance

. . . to HP *Single Disc* Systems

DMD is very proud to introduce significant enhancements to the Multi-Access Controller (MAC) Disc Drive Family. These

improvements are reflected in our new "H"-Series Disc Drives which widen the range of mass storage solutions previously offered by HP disc products.

The H-Series Disc Drives combine the high performance of the MAC Controller with a new intelligent controller, all within the confines of a single cabinet. The result is a new integrated controller which allows DMD to price each H-Series Disc Drive at $3,000 *less* than a similarly configured MAC Family Disc Drive (79XX Opt. 102). These lower cost disc drives are intended to equip you with more appealing mass storage solutions for the single-disc user. The single-disc user is primarily a cost-conscious customer. He/she typically uses a small HP system for dedicated applications and requires less than 250Mb of storage. The H-Series Drives are an obvious solution for this situation.

With its sophisticated microprocessor-based design, the MAC Family Controller offers extensive configuration flexibility; up to eight drives and eight CPUs can be supported on one controller. This capability has been a very desirable feature for HP's medium to large computer systems. However, there are characteristics of the MAC Family Controller that impose extra costs without additional benefits to the small, single-disc system user. Consequently, the H-Series Integrated Controller combines some favorable features of the MAC Family Controller and some new, additional features to be incorporated onto two PC boards residing in the disc drive card cage.

Common Features

- Programmable Recovery of Marginal Data
- Auto Track Sparing/Switching
- Cylinder or Surface Mode
- Database Protection
- HP-IB
- Error Detection

Differences

- Error Correction

  The H- Series Controller does not have error correction. When an error is detected, successive retries are performed and clean up virtually all data errors without lowering our error rate specifications. Therefore, it was a feature without benefit.

- Multi-CPU

  This feature is not supported on the H-Series

- Transfer Rate

  The H-Series Integrated Controller does not have full sector buffering (only 24 bytes). Consequently, it has a minimum burst rate of 881 Kbytes/second. The MAC Controller with an HP-IB interface has full sector buffering and can transfer data from 0-937.5 Kbytes/sec. The nominal transfer rate for both drives is approx. 740 Kbytes/sec.

An additional benefit of the H-Series Disc Drives is system interface flexibility over a wide range of HP systems. This advantage is provided by an HP-IB PHI chip in the integrated controller and by a simple connection with an HP-IB cable, (hence, the term H-Series).

Serviceability of the H-Series Drives surpasses that of any previous HP disc drive. Major improvements are the result of sophisticated self-test diagnostic routines in the controller firmware. Self-test provides both an effective integrity check of the controller subsystems and a comprehensive servicing aid to assist in troubleshooting. In addition, self-test uses a feature called loop-back which sends a message into the I/O structure of the HP-IB interface and retrieves it to examine the I/O before giving approval for data transfer. Self-test may be initiated automatically at power-on, manually, or under software control.

In addition to providing the user with the up-to-date status of essential disc drive functions, total system uptime is dramatically increased by significantly shortening the repair process in the event of a component failure. Results of self-test are displayed as various patterns on a set of LED's on the back panel of the H-Series Drive or passed to the host system for display. The service-trained personnel can diagnose malfunctions *immediately* and with the new location of the controller, make repairs more easily than previously possible.

DMD expects to see an improvement in the reliability of the H-Series over their MAC Family counterparts. The H-Series Integrated Controller reduces the number of system interconnects and components that should significantly reduce overall failure in the controller. This results in a lower BMMC to further reduce the H-Series cost of ownership.

The H-Series Discs offer greater reliability and serviceability at no sacrifice in performance (same great performance as the MAC Family). The now standardized HP-IB protocol utilized by the H-Series offers a wide range of interface capability with a wide range of HP systems. The bottom line is that the H-Series Drives offer a lower price over previous HP solutions due to innovative design changes in the controller.

The H-Series include the:

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7906H   20MB
7920H   50MB
7925H  120MB
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Data sheets will be distributed soon. The H-Series Drives are presently supported on the 1000 M/E/F systems and on the HP 250 system (7906H only). Look in future newsletters for a comparison of the H-Series Drives with DEC and DG products.

Training News

Tidbits on DMD Customer Training
By: Linda Perkins/DMD

This is to familiarize you with the procedures necessary to ensure that the customer's enrollment is completed as efficiently as possible. (Please refer to Computer Systems

Group Policies/Procedures Section No. IV 4, February 14, 1977).

DMD's training calendar for FY '80 will offer courses on the 7906 and 13037 during April, July and October. In addition, courses on the 7925 will be conducted during July and October.

When enrolling a customer in a Customer Training course at DMD, please follow these procedures:

1. A "Training Registration Request" should be filled out and sent to DMD's Training Registrar — *Linda Perkins.* Please note that all courses have prerequisites that must be met by all enrolling students.

2. Because class sizes are limited to six students each, the enrollment roster will be filled on a First In, First Out basis, which is based on the receipt date of the HEART Order through DMD's Order Processing.

3. A confirmation TWX will then be sent to the SR with all the necessary information for enrolling customers, (i.e., class time, location and accommodations reserved). Please ensure that the customer either gets a copy of the TWX or a letter from you.

4. For any further information on courses, dates, costs, etc., contact your Sales Development person or DMD's Training Registrar (Ext. 2256).
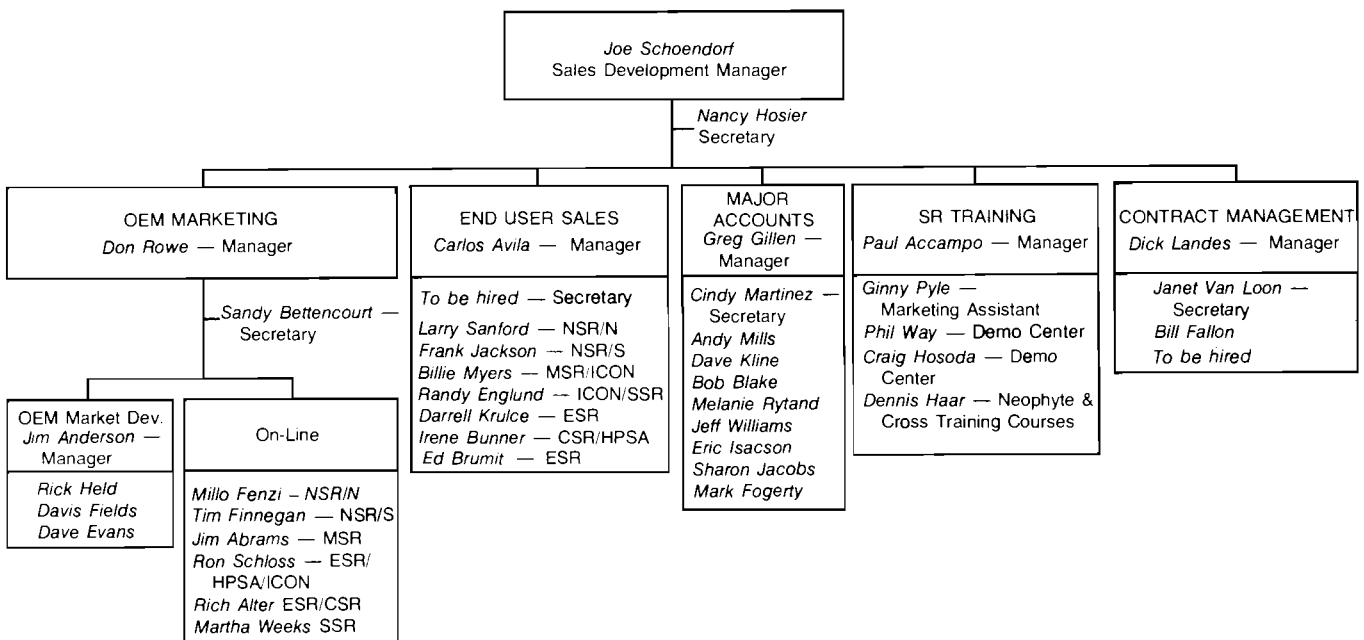
DATA SYSTEMS NEWS

Division News

Sales Organization Change
By: Joe Schoendorf/DSD

With the greatly increased training opportunities facing DSD this year, it was mandatory to add strength in this area.
I am happy to be able to draw on the strong capabilities of *Dennis Haar* in this area. *Dennis* will report to *Paul Accampo* and assume responsibility for the DSD Neophyte and Cross Training courses. *Paul* will assume responsibility for the development of a new IA course, which will be critical to our success in manufacturing accounts in the '80s. *Paul* will also be responsible for the overall training program and the management of the Demo Center.

To replace *Dennis Haar* in the Mid West, we have an extremely capable person in *Jim Abrams*, who will assume responsibility for the Mid West Sales Region for OEM Sales Development. *Jim* is well known for having supported you in *Carlos Avila's* End User Group. Another very capable person, *Billie Myers*, will assume responsibility for End User Sales in the Mid West, in addition to her present responsibility for ICON. *Billie* joined DSD last summer after receiving her BS degree in Mechanical Engineering from the University of Virginia.

These changes are effective immediately. We look forward to the continued opportunity to work with you in our all-time record smashing year at DSD.

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                          Joe Schoendorf
                      Sales Development Manager
                                │
                                ├── Nancy Hosier
                                │   Secretary
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OEM MARKETING Don Rowe — Manager	END USER SALES Carlos Avila — Manager	MAJOR ACCOUNTS Greg Gillen — Manager	SR TRAINING Paul Accampo — Manager	CONTRACT MANAGEMENT Dick Landes — Manager
Sandy Bettencourt — Secretary	To be hired — Secretary Larry Sanford — NSR/N Frank Jackson — NSR/S Billie Myers — MSR/ICON Randy Englund — ICON/SSR Darrell Krulce — ESR Irene Bunner — CSR/HPSA Ed Brumit — ESR	Cindy Martinez — Secretary Andy Mills Dave Kline Bob Blake Melanie Rytand Jeff Williams Eric Isacson Sharon Jacobs Mark Fogerty	Ginny Pyle — Marketing Assistant Phil Way — Demo Center Craig Hosoda — Demo Center Dennis Haar — Neophyte & Cross Training Courses	Janet Van Loon — Secretary Bill Fallon To be hired

OEM Market Dev. Jim Anderson — Manager	On-Line
Rick Held Davis Fields Dave Evans	Millo Fenzi — NSR/N Tim Finnegan — NSR/S Jim Abrams — MSR Ron Schloss — ESR/HPSA/ICON Rich Alter ESR/CSR Martha Weeks SSR

Product News

Announcing a New Graphics Peripheral for HP 1000 Computer Systems
By: Dawson Mabey/DSD
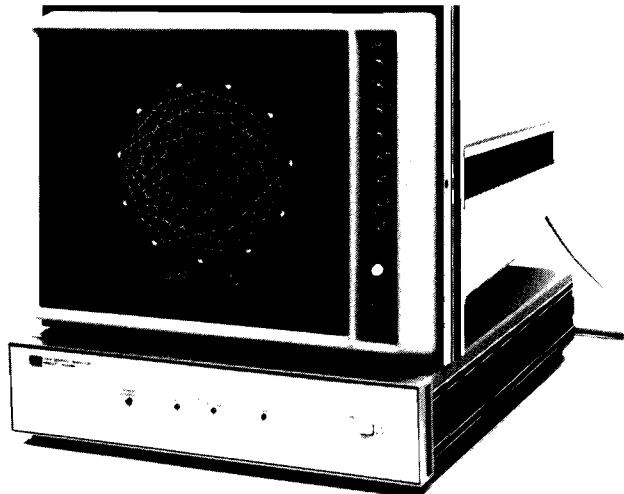
The HP 1350S Graphics Display System is a high resolution, "large display" graphics display system from Colorado Springs Division that provides an extremely versatile, cost effective solution to a wide spectrum of customer needs. General features include;

- High resolution — 1022 × 1023
- Bright, crisp line vectors and characters (text)
- Fast display updating
- Large screen sizes (14" to 21" diagonal)
- Lower power requirements
- HP-IB interface

The 1350S System consists of a 1311B 14" CRT display and the 1350A Graphics Translator. The 1350A decodes ASCII instructions and data from the computer and stores them in an internal memory. The contents of memory are converted to X, Y, and Z analog voltages to drive the display. Continuous refreshing of the display removes the load on the computer.

In system applications, the 1350A Graphics Translator provides a significant advantage with its ability to drive up to four CRT displays, each with different information. The internal memory can be divided into 32 independent files, each separately specified in size, and separately addressable and erasable. Each file can also be directed to blink. All of the above features are now supported on HP 1000 Computer Systems via the HP 59310B HP-IB interface with *user-written* software.

1350S with HP 92840A Graphics Plotting Software (GPS)

For the customer who does not require the "real time" features but wants to take advantage of the high resolution, "large display" features, the 1350S is also supported by

HP 92840A Graphics Plotting Software (GPS). GPS is a device independent, plotting-oriented package that provides software tools required for user-written graphics applications programs. When used with the 1350S, GPS provides both vector generation and alphanumeric text generation (4 character sizes, 0°/90° label directions). The multiple file features, file blinking, and multiple display features are not supported by 92840A GPS.

DSD supports only those HP 1350A Graphics Translators which contain the HP-IB device interface card with a model number of 52101-66505. HP 1350A Graphics Translators with a serial number prefix greater than or equal to 2006A already contain this interface card.

Applications

The 1350S Display System should appeal to virtually all HP 1000 customers that need high resolution, large screen, or real time graphics displays. Its two main selling points, low cost and application flexibility, have been successfully used in a wide spectrum of applications. Some typical applications are shown below, separated into those which are normally real time in nature (requiring user-written software) and those that can utilize GPS.

1350S Graphics Display System Applications

| Real Time	GPS
Structural/architectual design	Analytical chemistry scans
Computer-aided design	Spectrum analysis
Interactive Graphics	Fire Control (Military)
Animation	Instrumentation
Signal analysis	Production testing & calibration
Radar/Sonar	Process control
Flight simulation	
Space vehicle simulation & design	

Ordering Information

The 1350S Graphics Display System is multicoded on the Corporate Price List for sale by PT02 for 92840A GPS applications, and PT01 for non-GPS HP 1000 applications and standalone use. For all HP 1000 applications the 1350S appears on the CSG Purchase Agreement (Exhibits A1, A3, and A4). For coordinated shipments, and to assure proper quota credit and commission, be sure to include Product Support Option 952 for all PT02 sales, or Option 951 for PT01 sales.

HP 1350S Graphics Display System Includes 1350A, 1311B 14" Display	$ 8,900
Option 510 — HP 1310A 19" Display instead of 1311B	$<300>
Option 517 — HP 1317A 17" Display instead of 1311B	$<650>
Option 521 — HP 1321A 21" Display instead of 1311B	$<750>
Option 952 — Product Support (PT02 only)	N/C
Option 951 — Product Support (PT01 only)	N/C

Refer to the technical data sheets for other hardware options that may be desired. Note only the HP-IB version of the 1350S is supported on HP 1000 Systems using the HP 59310B interface. Opt. 001 RS-232C interface is not supported. Rack mounting of Opts. 510 & 517 with the HP 1000 is also not supported due to UL regulations.

Sales Literature
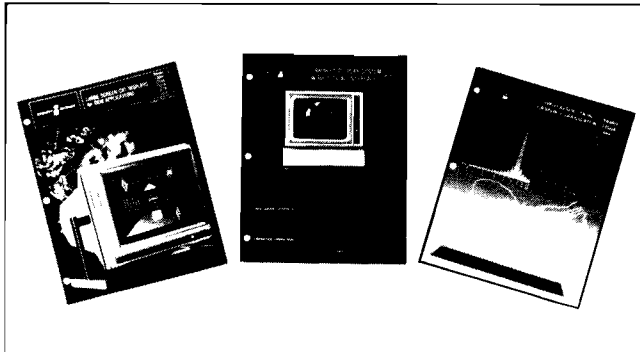
The 1350S will be added to the next revision of DSD literature during the first half of FY '80. This includes the following DSD literature:

- HP 1000 Systems Configuration Guide
- HP 1000 Peripherals Data Book
- HP 92840A Graphics Plotting Software Data Sheet

The following Colorado Springs Division literature is currently available:

- HP 1350S Graphics Display System   5953-3843
- HP 1350A Graphics Translator   5953-3822
- Large Screen CRT Displays (1310B,   5953-3842
  1311A, 1317A, 1321A)

Sales training aids soon to be available from Colorado Springs Division include a Field Training Manual, Videotape, and Demonstration Software (HP 1000).

HP 92840A GPS is a versatile software package that makes the HP 1000 Computer System more useful to many customers. The addition of the 1350S Graphics Display System as a supported device should further enhance the HP 1000 in many graphics applications.

HP 2647A Graphics Terminal Supported on HP 1000

By: Dawson Mabey/DSD

The HP 2647A Graphics Terminal is now supported as a system console on HP 1000 Computer Systems. Using DVR05, the 2647A is treated as a logical 2648A. Note the 2647A is supported in the above mode only. Remote connection to the HP 1000 via data set is not supported. The 2647A is also now supported as a logical 2648A by HP 92840A Graphics Plotting Software.

The 2647A will be added to future DSD literature, and is included in the new HP 1000 "Configuration and Site Preparation Guide Supplement" 5953-4242(D) dated 1/80.

New Direct Ordering Procedures: Examples, Questions & Answers

By: Steve Pomeroy/DSD

The following examples show how to order a system under the new direct ordering scheme. Note that most configurations use the integrated controller discs because of the price advantage in single-drive applications.

Example 1: A standard HP 1000/Model 45 System — the system processing unit in an upright cabinet, a 19.6 Mbyte rack-mounted cartridge disc, and an HP 2648A Graphics Terminal as system console:

2177C	HP 1000/Model 45 System	$46,000
-019	Delete disc, interface & system console	-22,490
2648A	Graphics Terminal	5,950
007	Cartridge Tape Unit	1,600
-013	5 Cartridge Tapes	90
-032	Extended Asynchronous Communications Card	150
7906HR	19.6 Mbyte Disc	12,000
12821A	ICD Interface	700
	TOTAL	$44,000

Note: Code as a coordinated shipment on one section of an order (except Europe and YHP).

Example 2: An HP Model 40 Computer System in a desk cabinet with the 19.6 Mbyte disc mounted in a standalone 56" cabinet. Use an HP 2648A as a system console and add GRAPHICS/1000 software:

2176D	HP 1000/Model 40 Computer System	$38,000
-002	Standalone Cabinet	2,650
019	Delete disc, interface, & system console	-21,040
2648A	Graphics Terminal	5,950
007	Minicartridge Tape Unit	1,600
-013	5 Tape Cartridges	90
-032	Extended Asynchronous Communications Interface	150
7906HR	19.6 Mbyte Disc	12,000
12821A	ICD Interface	700
92840A	Graphics Plotting Software	600
-020	Software on Minicartridges	0
	TOTAL	$40,600

Note: 1. Option 002 on the 2176D and 2177D System Processing Units require that a rack-mount disc be ordered for the system. Otherwise the customer receives an empty 29402B cabinet for $250 less than the list price. If a customer wants an empty standalone cabinet and doesn't qualify to order Option 002 (because he isn't ordering a rack-mount disc), he may order a standalone 29402B cabinet with Options 200 and 051. If he wants to put another disc in one, he'll also require the 40017B cabinet stabilizer.

2. Code as a coordinated shipment on one section of an order (except Europe and YHP).

Example 3: An HP 1000/Model 45 System Processing Unit in an upright cabinet with an HP 2648A as system console and two 120 Mbyte discs. Add a 1600 bpi mag tape which will be mounted in a second cabinet bay. Also include an HP 2621A terminal and an HP 2608A line printer for hard copy. This system will ultimately have more terminals for program development and data entry.

2177C	HP 1000/Model 45 System	$46,000
-002	Additional Cabinet	1,850
-019	Delete disc, interface, & system console	-22,490
7920M	120 Mbyte Master Disc Drive	21,000
7920S	120 Mbyte Slave Disc Drive	17,000
13175B	MAC Disc Interface	700
2648A	Graphics Terminal	5,950
-007	Cartridge Tape Unit	1,600
-013	5 Tape Cartridges	90
-032	Extended Asychronous Communications Card	150
2621A	Interactive Terminal	1,450
12966A	Buffered Asynchronous Communications Interface	600
-005	Substitutes Cable for 2621	0
7970E	1600 bpi Mag Tape	8,885
-236	HP 1000 Subsystem Package	2,015
2608A	Line Printer	9,900
-210	HP 1000 Subsystem Package	650
	TOTAL	$95,350

Note: 1. The MAC interface has been used instead of the ICD interface. With two drives, and the possibility that more may be added, the MAC configuration is more cost effective.

2. One 12966A interface was ordered to go with the 2621A. This is because one 12966A (with cable) is included in the System Processing Unit to be used with the system console. DSD will always assume that a member of the HP 264X family will be used as the system console and supply the cable to match. If only 2621-type terminals are listed on the system order, a cable to match the 2621 terminal will be supplied.

3. The customer wishes to have more than two consoles on the system but must place additional units on a separate sales order because only two consoles qualify to be shipped coordinated with a system at system availablilty.

Questions and Answers

Q. Won't delivery of the peripherals be a problem? Disc and terminal availabilities are out many weeks past system availability.

A. No. DMD and DTD have allocated a block of their production to systems use. They will meet systems availability (currently 10 weeks) when a terminal or disc is included on the *same order section and coded as a coordinated shipment.* DTD will ship up to two terminals (the system console and one other), and DMD will ship any amount of discs on systems orders.

Q. How will the customer get the right cable for his terminal and the software on the right type of disc?

A. When the order is processed at the factory, the order control people will consult the coordinated shipment report to find out which disc and terminal the customers have ordered. They will then issue the cable and software to match the customer's purchase. This is why it is important that the order be coded as a coordinated shipment.

Q. Why is Option 002 on the 2176D and 2177D now $2,650 when it used to be $1,650?

A. Option 002 in essence says, "take the disc out of the minirack and put it into a 56" cabinet". A standalone 29402B cabinet normally lists for $2,950, but if the customer wants to put a disc in it, we'll sell it for $2,650 as Option 002. The "old" Option 002 was an added cost of only $1,650 because in moving the disc from the minirack to the 56" cabinet, the customer received the trade-in value of the minirack to offset the higher cost of the larger cabinet. (This difference is still reflected in the fact that the 2176/7D Option 019 is $1,000 greater than the 2176/7C Option 019.)

Q. What's the difference between the "H" discs and the "M" discs?

A. The H discs use a protocol which is based on the HP-IB. They also have a controller which is integrated into each disc drive (hence the name integrated controller discs, or ICD's). The M discs are really of two types—a master and a slave. Each system must have one master, which contains the controller and can control up to seven slaves. The H configuration, on the other hand, is limited at two drives per interface. The M controller also contains some additional error-correcting logic not included in the H disc controller. Since the interfaces for both types of discs (the 13175B and the 12821A) cost the same ($700), it is important to notice the cost of the disc drives themselves. A 7906 MR costs $14,000 while a 7906HR costs $12,000. If you are buying only one disc, it is less expensive to go with the H discs. But for multiple-disc systems, the advantage shifts because the 7906SR, the slave, costs only $10,000. A two-disc system would cost the same, $24,000, whether implemented as two H discs, or as one master and one slave. Systems with more than two discs must use the master-slave configuration.

Q. What happens if I don't order Option 019?

A. Your order won't be accepted at the factory.

Q. What about ATS and specials?

A. These are two exceptions to the rule. Because of the instrument content, ATS requires factory integration and test, as do specials. Orders for systems without Option 019 will be accepted only in these cases and only with prior factory clearance.

Q. If the disc and terminal haven't been integrated and tested at the factory, how can I be sure they'll work together in the field?

A. Factory configuration and testing now takes only three hours, considerably less than a few years ago. In addition, warranty costs have been declining. This adds up to the fact that the quality and consistency of systems components has increased to the point where factory integration is no longer necessary. Our own statistics show that DMD and DTD have excellent quality assurance and that their products are fully operable when they are shipped. No fine tuning except for the normal adjustments which must be made after shipment are necessary to insure operation.

Q. Why do I have to order the disc interface when I don't have to order the interface for the system console?

A. All system consoles use the same interface, the 12966A. The H discs and the M discs each use a different interface which is supplied by a different division.

Q. What other changes to the CPL have there been?

A. Options 033 and 034 have been removed. Option 018 will continue on the CPL because ATS configurations (which do not take Option 019) may elect to substitute the system console.

HP 1000 Systems Support New H Discs
By: Steve Pomeroy/DSD

DSD has recently begun taking orders for systems which use the new integrated controller discs, or H discs. The new discs interface to the HP 1000 Systems through the 12821A Integrated Controller Disc Interface, which allows up to two discs per interface. (Note: The new HP 1000 Systems Configuration Guide Supplement erroneously states that each 12821A will support four drives.)

Why H discs? In a single-disc system, the H disc is $2000 less expensive than the M disc, a definite plus for many systems customers. If 20 Mbytes is not enough storage, the 7920H and 7925H are also now available and fully supported under RTE-IVB.

It is now possible to order HP 1000 Systems with H discs because of the new direct ordering program. Utilizing Option 019, you delete the standard disc, disc interface, and system console (Option 019 is mandatory on all disc-based

systems), and then order a 7906H (7920H or 7925H) and a 12821A disc interface as separate line items. Complete the order with a console and you now have a complete system at a price that is $2000 less than before.

94XX Switch Prices Increases
By: Dawson Mabey/DSD

Because of increased material and labor costs, we find it necessary to raise prices on some of the ATS switch products. These new prices will be effective with the January 1980 Corporate Price List.

Product	New Price
9411A Switch Controller	$ 3,300
9412A Modular Switch	7,000
94120A Scanner Card	1,000
94120B GP Card	900
94120C Reed Card	800
94120D Driver/Storate Card	700
94120E Distribution Card	900
9413A VHF Switch	1,500
9414A Matrix Switch	5,000
94124A Manual Controller	2,500
94136A MUX Card	1,600
94137A MUX Card	1,600
9415A DTU	14,000
93285A Engineering Unit	110

Special Products Price Increase
By: Darrell Krulce/DSD

As of Jan. 1, '80, the price for the HP 93285A engineering unit has increased from $100 to $110. This translates to an increase in the price of all special products produced by DSD's special engineering group. All SRs that quote any special products should note this price increase.

Sales Aids

F-Series Diagnostics
By: Gary Trujillo/DSD

Did you know that the M/E-Series Fast FORTRAN Processor Diagnostic (absolute binary nos. 12977-16004 and 12977-16005) is not compatible with F-Series computers serial prefix 1920 or later, or if the 12823F Firmware Upgrade Kit has been installed? Tests for the F-Series Fast FORTRAN Processor and Double Integer Instructions have been added to the F-Series FPP/SIS/FFP Diagnostic, date code 1926.

To help keep your customers informed about changes in HP 1000 diagnostics, tell them about the 24396F HP 1000 Diagnostic Subscription Service. This service provides quarterly distribution of update information and revised diagnostic routines (such as above mentioned).

Applications

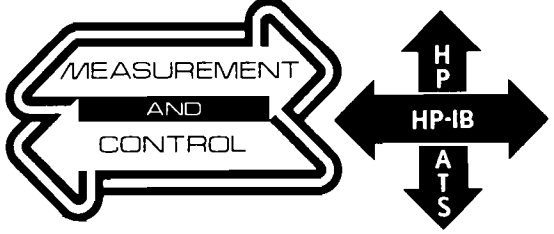### HP 1000 Finishes Marine Corps Marathon with Flying Colors
By: Gary McCarney/ESR

On Sunday, Nov. 4, '79, the US Marine Corps held its fourth annual marathon which began at the Iwo Jima Memorial near Washington, D.C. Some 8,500 people registered for this 26-mile race.

This registration was completely handled by an IMAGE/1000 database using one of HP's 1000 Computer Systems. On the day of the marathon, the 1000 Computer System was in a mobile van located at the finish line. As each runner crossed the finish line, the time of the crossing was recorded by the HP 1000. The Marines would then type in the runner's number which would result in time, position, and name of the runner being printed on a line printer. Frequently during the six-hour race, the newspapers would need various reports which were produced by the same HP 1000 accessing the information, stored in the IMAGE database. When the race finished, the standings for the first 1,700 people crossing the finish line were printed by the HP 1000 and posted for the runners' information. Last year at the same time, without HP's help, this information was available for only the first 100 runners. The Marine Corps personnel were very happy with the results this year using HP's computer system and they look forward to having HP's help again next year.

This success story was made possible through the concentrated efforts of an HP team from the Rockville/Baltimore offices: SEs *Bob Sauers, Andy Suchoski, Brad Closs* and *Jack Farley;* and CEs *Jim Handy* and *Mike Abramson.* This team put in many long days and weekends to ensure HP's success at this marathon. The SEs completely developed the application program using HP IMAGE/1000 Database Management System. The CEs were involved from the beginning to ensure the computer functioned properly. And during the race the team worked together to smooth out any problems that arose.

When the race was over, the team was exhausted. They too had completed a race to have the necessary hardware and software properly working. A great effort! Congratulations to each of you.

## Automated Measurement News

AUTOTESTCON 1979
By: Dave Kline/DSD

Over 600 ATE buyers, sellers and consultants gathered in Minneapolis September 19, 20, and 21 to be updated on automatic test developments in the annual military oriented IEEE-sponsored symposium called AUTOTESTCON.

DSD was represented by an exhibit and hospitality suite, hosted by DSD and local field personnel. The HP exhibit included an HP 1000 with a database of automatic test results borrowed from the Army. On inquiry from a visitor, we could retrieve the data using IMAGE/1000 line display on a CRT or 4-color plot using GRAPHICS/1000.
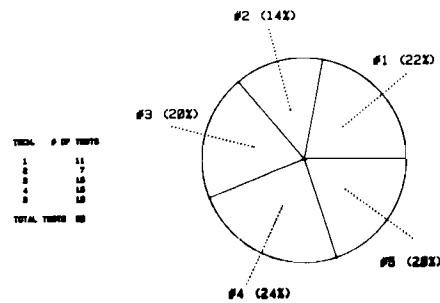
GRAPHICS/1000 — Typical Plots

TESTER UTILIZATION for July, 1979

ACCEPTED UNITS   REJECTED UNITS
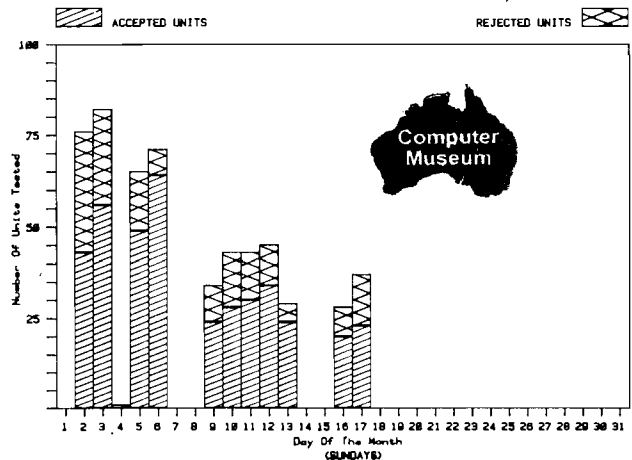
RT-524 INCOMING INSPECTION
Technician Productivity - July, 1979

The HP message about database management and graphics was appropriate for this seminar. ATE is here, accepted, and doing better and lower cost testing. The user should now be considering taking another step — getting maximum value out of the results of his/her testing, such as failure feedback for product improvement. Also demonstrated was the new HP-IB optical link to long distance interface-free bus control.

Several industry trends were evident at the conference. One trend is that any ATE supplier, particularly to the military and the airlines, is being required to have ATLAS program language. Most ATE suppliers such as Gen Rad, Honeywell, GD, Bendix, AAI, etc., have ATLAS. (DSD also has a good ATLAS offering.)

Another clear trend is that new ATE hardware designs will use what is called "fourth generation architecture". Fourth generation hardware uses smart instruments to off-load the central CPU. HP has been actively designing many instruments with this philosophy for years, and incorporates it into their ATS offering.

Another trend which persists is "third generation hardware". Third generation refers to replacing the discrete instruments in a tester with an arbitrary function generator and measurement module which theoretically can stimulate and measure all signals required from DC to high frequencies. HP has studied this approach and has decided it is generally not cost effective for us for various reasons. We believe our ATS will still compete with the third generation on price, reliability, and service for most applications.

The ATS symposium helped keep HP ATS known and update our market knowledge. Your customers can be assured ATS is still a good choice for automatic computer controller testing.

HP ATS Saves Time and Money for Missile Electronic Test
*By: Dave Kline/DSD*
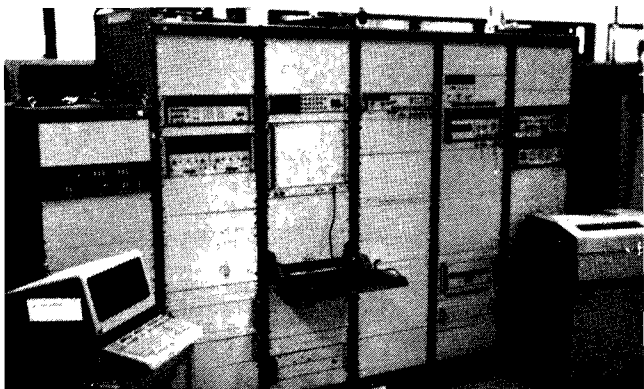
DSD just shipped this ATS-C35 to Raytheon for general purpose missile card, module, and box test. Raytheon bought the C35 from DSD, rather than try to build their own because they felt it was far less expensive to buy integration from us on standard ATS items. The buy saved them valuable time to get operational. Raytheon has the know-how and experience to build up its own tester readily, so it is encouraging to learn ATS offers solid value to it.

There are a couple of other interesting comments on the C35. First, Raytheon selected the matrix switch to save the cost of building many different adapters. In this application, Raytheon has small runs of many different types of items. Second, Raytheon allowed much blank panel space to leave room to integrate items not standard with ATS. The ATS offering allows the customer to expand his/her system easily.

Raytheon has had good experience with HP computers, instruments, and systems and this certainly influenced this buy. Giving lasting value paid off.

Don't overlook opportunities to use ATS to help save your customer's time and money.

ATS-C35 Block Diagram
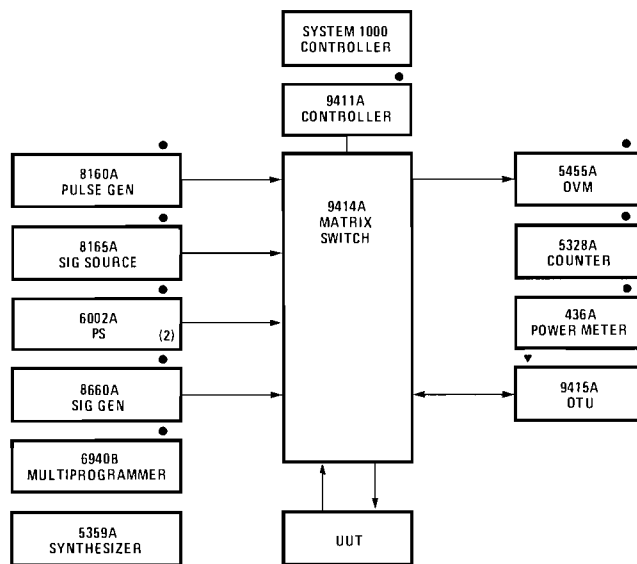
- HPIB CONTROLLED
- ▼ COMPUTER CONTROLLED

New HP ATS System Information Manual Simplifies Searching
By: Chris Goodnight/DSD

Effective July, '79, a reformatted and updated HP ATS System Information Manual (SIM) has been introduced, and is now being supplied with all HP ATS systems. The System Information Manual is the first manual in the ATS System Binder Set that defines the system and contains all system level documentation. It has been redesigned to simplify information searching.

The two main changes are an "Information Map" and section tabs. The information map is a comprehensive alphabetical index stating, item by item, which manual contains the subject. This will speed up searching and make it less frustrating. The 15 section tabs divide the manual for easy access.

The new System Information Manual will better tie together the DSD ATS Manual set and reduce your customer's efforts.
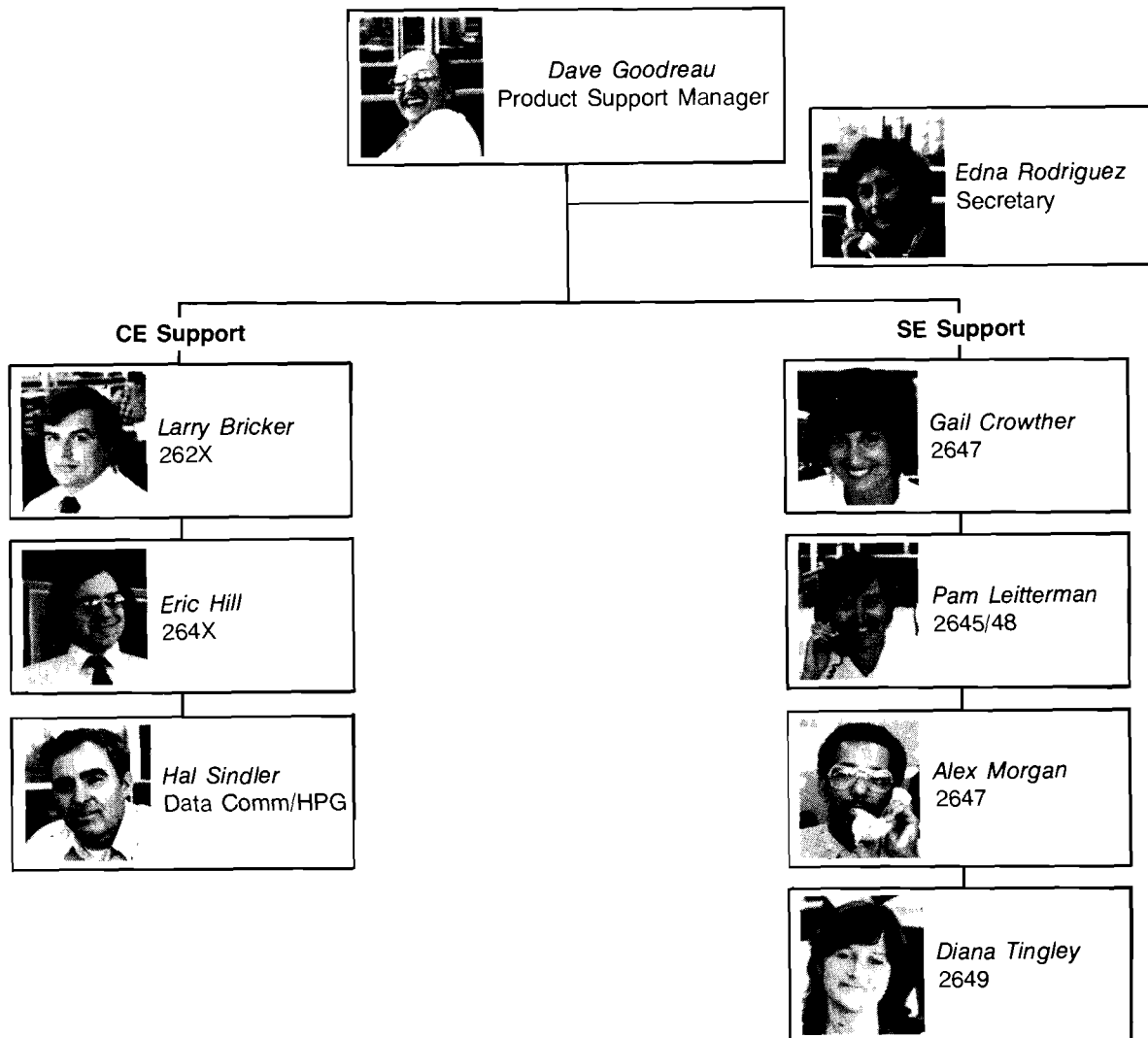
DATA TERMINALS NEWS

Division News

Product Support, Your Resource When You Need Us!

By: Gail Crowther/DTD

The Product Support Group at DTD has doubled in size in the past six months. Our objective is to ensure customer satisfaction by providing post-sales on-line support, training and support services to the field organization and customer.

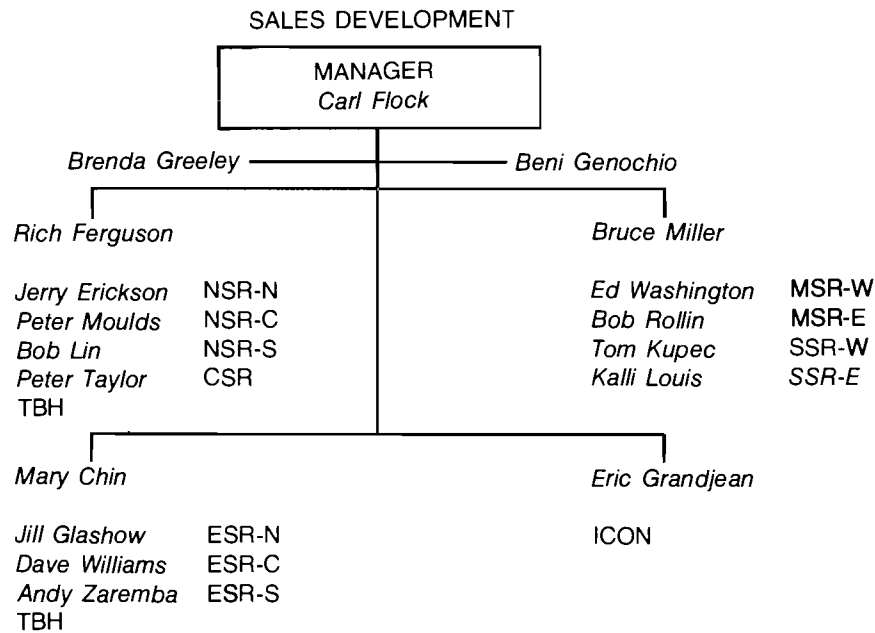This organization chart will help you find the appropriate person to call.

Dave Goodreau
Product Support Manager

Edna Rodriguez
Secretary

CE Support

Larry Bricker
262X

Eric Hill
264X

Hal Sindler
Data Comm/HPG

SE Support

Gail Crowther
2647

Pam Leitterman
2645/48

Alex Morgan
2647

Diana Tingley
2649

Sales Development Organization

By: Bruce Miller/DTD

To reflect a few recent changes in DTD Sales Development, we present the latest organization chart (guaranteed for accuracy through January, 1980!)

Congratulations to Mary Chin and Eric Grandjean, both of whom were recently promoted to Regional Managers.

SALES DEVELOPMENT

MANAGER
Carl Flock

Brenda Greeley ———————————————— Beni Genochio

Rich Ferguson

Jerry Erickson	NSR-N
Peter Moulds	NSR-C
Bob Lin	NSR-S
Peter Taylor	CSR
TBH	

Bruce Miller

Ed Washington	MSR-W
Bob Rollin	MSR-E
Tom Kupec	SSR-W
Kalli Louis	SSR-E

Mary Chin

Jill Glashow	ESR-N
Dave Williams	ESR-C
Andy Zaremba	ESR-S
TBH	

Eric Grandjean

ICON

New CSG Discount Schedule

By: Eric Grandjean/DTD

A new exhibit (A-3) is now in effect (since Jan. 1, '80). End user discounts are listed below.

A-3 Terminal Products Discount Percentage Schedule

Quantity	Discount
1-4	0%
5-7	4
8-14	7
15-24	10
25-34	13
35-49	15
50-74	17
75-99	19
100-149	20
150-299	22
300-599	23
600-999	24
1000-up	25

*NOTE: In addition to the above discounts, products on this exhibit which are preceded by an asterisk will receive an additional 10% Component OEM discount when purchased by an OEM customer.

In addition, DTD gives an 8% discount for quantities of 5 to 14 for a single order of (mixed) terminals! OEMs get an additional 10% discount based on this A-3 schedule for all terminals whose model number ends with 9. Exceptions: 2649D and 2649E remote consoles.

Cables and accessories are discountable at the same rate. The new discount schedule is slightly lower for the large quantities, starting at quantity 150.

Factory Support Grows in the Midwest

By: Bruce Miller/DTD

We are pleased to introduce the newest addition to our ever-expanding Sales Development Group at DTD, Bob Rollin, as the factor contact for the Mid West-East Sales Region.

Bob should feel right at home as he grew up in the Detroit area and received his bachelors and masters degrees in electrical engineering from the University of Michigan. More recently, Bob has been involved in design work at Cushman Electronics and at Stanford Telecommunications where he helped develop test equipment for a satellite navigation system.

So, those of you in the Mid West-East, give Bob a call and check out his expertise. He's on extension 4543 and just waiting to help out with your terminal questions.

Product News

Intelligent Alphanumeric Terminal Data Sheet
By: Eric Grandjean/DTD
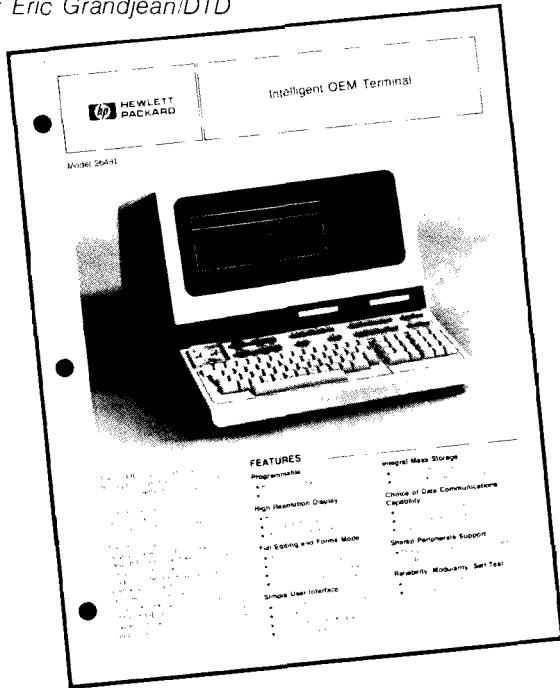
The HP 2649I introduced rather quietly a few months ago, is now backed up by a brand new data sheet. This machine is also fully OEM discountable! The base price of $US7,750 gives the user integrated dual cartridge tapes, 75 lines of display memory, 128 Roman character set display enhancements, 8 user-defined soft keys and up to 25 Kbytes of workspace for the Basic Interpreter provided on cartridge.

Two option slots are available to interface many accessories. The powerful shared peripheral interface allows the user to share HP-IB type peripherals. The 2649I is supported by a complete range of communication options. Please order the new 5953-2034 2649I data sheet now.

New 2640B Data Sheet
By: Eric Grandjean/DTD

A new updated 2640B/N/S Data Sheet is now in stock. The publication number is 5953-2079, dated 12/79. Please purge all old supplies of any earlier editions with that order number.

As you are aware, the price of the 2640B/N/S has increased to $3,250. We have maintained the original price as long as we could (more than 4 years) but the cost of production has finally caught up with our (your) minimum profit margin.

The 2640B is still very advanced technically, and has been a winner for HP with more than 20,000 units installed around the world. With your help, we will be selling many more yet in 1980.

Give Your Terminal a Face-Lift!
By: Larry Bricker/DTD
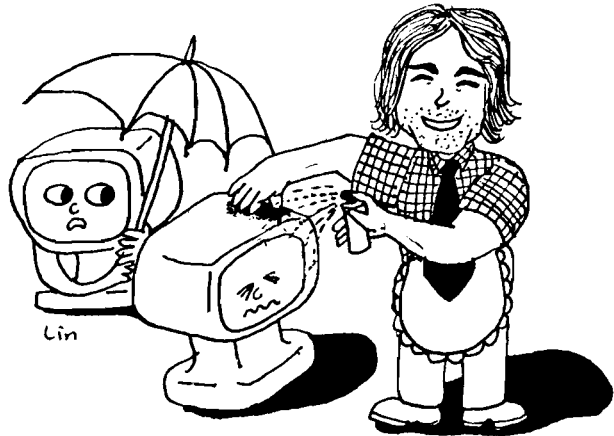
Does your terminal have a scratch or mar on its plastic surface? If it does, touch-up paint is available from CPC in 8oz. spray cans. As you know, our terminals changed colors about a year ago. So be sure what color your terminal is before ordering paint.

Old Color	Shade	Part Number
Olive Gray	Dark	6010-0814
Mint Gray	Light	6010-0813

New Color	Shade	Part Number
Cocoa Brown	Dark	6010-0694
Pearl Gray	Light	6010-0695

For small scratches — spray paint on a piece of cardboard, then use a cotton swab to apply the paint to the scratch.

Caution: Do not spray CRT, Key Caps, CTU Buttons, etc.

Cables In a Hurry!
By: Terry Eastham/DTD

The Computer Supplies Operation can now ship a variety of cables to you within 24 hours, "guaranteed"! The price is the same as when you order from DTD but the intent is different. The CSO service has been added to solve "after-sale" problem situations such as when your customer forgets to order a cable or perhaps orders the wrong one. CSO cables are not meant to replace "original" cable orders which should continue to be placed with the terminal order as in the past.

The cables offered by CSO are listed in the new Computer Supplies Catalog. Toll free, direct phone ordering is possible for US customers by dialing (800) 538-8787 (California: (408) 738-4133). If you have questions about what cable is needed for a particular application, consult your "DTD Cabling Manual" or call your DTD Sales Development contact first!

Upgrading Terminals: It Ain't in the (P.C.) Cards, Folks!

By: Jerry Erickson/DTD

Almost as if they're a seasonal phenomena, questions on how to reconfigure or "upgrade" a given terminal to the next higher level product seem to come in groups about every three months. In an effort to "batch process" these questions, and to set the record straight, there is only one terminal that is field upgradable and still supported by HP. That terminal is the 2640A which can be converted to a 2640B/S/N by ordering the conversion kit (93983A Opt. 001 which converts A to B; 93983A Opt. 002 which converts A to S; or 93983A Opt. 003 which converts A to N).

HP has found it impractical and uneconomical for either the company or the customer to entertain thoughts of converting 2645's into 2648's, or 2648's into 2647's. To accomplish this would entail changing the power supplies, the memories (both ROM and RAM), the keyboard, possibly the interface and much more. The cost of all these parts would make it uneconomical to try to convert one product into another, and even if it was completed, the resulting configuration is not HP supported. It's not just a matter of swapping P.C. cards to make the change!

So, save yourself and your customer a lot of headaches. If they want the higher capabilities of a higher level terminal, it's wiser and less expensive in both the long and the short run to buy the higher level terminal.

(P.S. Availability is getting better too. Once they do order, they're likely to get their new terminal sooner than they would have before! So, let's get those orders and keep on selling Data Terminals!)
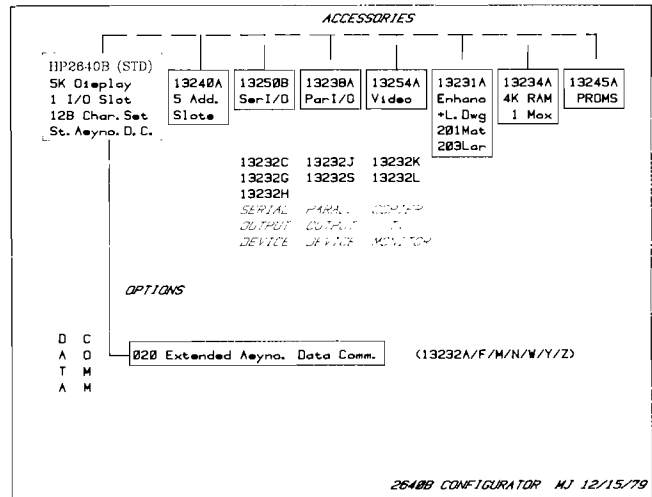
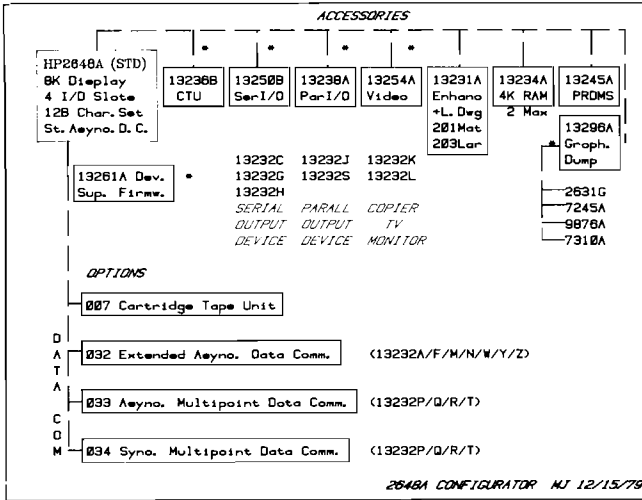## 264X Configurations Updated

By: Michel Jourdan/HPG

Following the steps explained in the *CS Newsletter* (July 1, '79) by *E. Grandjean,* 264X family configurations have been updated. These new configurations mainly include data communication options, such as:

Option 032 for Extended Asynchronous Data
            Communication PCA

Option 033 for Asynchronous Multi-point Data
            Communication PCA

Option 034 for Synchronous Multi-point Data
            Communication PCA

A new product, the 7310A printer, which can be connected to a 2647A or 2648A, is included as well.

All this data is stored on a cartridge tape and you can get it by sending me a blank tape.

2640B CONFIGURATOR MJ 12/15/79

2645A CONFIGURATOR MJ 12/15/79

2647A CONFIGURATOR MJ 12/15/79

```
                          ACCESSORIES
    ┌───────┬─────┬─────┬─────┬─────┬──────┬──────┬──────┐
  HP2648A (STD)  │13236B│13250B│13238A│13254A│13231A │13234A│13245A│
  8K Display     │ CTU  │Ser-I/O│Par-I/O│Video│Enhano │4K RAM│PROMS │
  4 I/0 Slots    │      │      │      │     │+L.Dwg │2 Max │      │
  12B Char. Set  │      │      │      │     │201Mat │      ├──────┤
  St. Asyno. D.C.│      │      │      │     │203Lar │      │13296A│
                                                         Graph.
            13232C  13232J  13232K                        Dump
  13261A Dev. 13232G  13232S  13232L
  Sup. Firmw. 13232H                                    2631G
                                                        7245A
                SERIAL  PARALL  COPIER                  9876A
  OPTIONS       OUTPUT  OUTPUT  TV                      7310A
                DEVICE  DEVICE  MONITOR
  007 Cartridge Tape Unit

D
A  032 Extended Asyno. Data Comm.    (13232A/F/M/N/W/Y/Z)
T
A
   033 Asyno. Multipoint Data Comm.  (13232P/Q/R/T)
C
O
M  034 Syno. Multipoint Data Comm.   (13232P/Q/R/T)

                        2648A CONFIGURATOR  NJ 12/15/79
```

Sales Aids

HP 2647A — Special Commands to Plotters
By: Scott Guthrie/NSR

Occasionally, there is a need to send commands, that do not have an AGL equivalent, to a plotter.

Some commands that fit this category include:

The "VS" instruction to selecting the pen velocity.

The "VN" instruction to restore normal pen speed.

The "CS", "CA", "SS", "SA" and "UC" instructions used for selecting the plotter's alternate character sets.

And, a host of others.

Here are two examples of how to pass these commands to a plotter:

1. The first assumes that the variable Pa is the plotter address:

```
110 A$ = "HP-IB#" & VAL$ (Pa)
120 ASSIGN A$ to #1
130 PRINT #1; "VS10"
```

Note that file #1 is assigned to the plotter address in 110 and 120, so all further commands can be issued as in line 130.

2. Although not as elegant as the first example, this next one does not leave a file # assigned to the plotter:

```
180 PRINT CHR$ (27); ",cTELL TERMINAL #5"; CHR$
(34); "VS20"; CHR$ (34)
```

Notes: The "CHR$ (27)" is equivalent to printing "E_c". The "CHR$ (34)" is equivalent to printing a double quote. (It must be done this way because there is no other way to print a double quote mark using the HP 2647 BASIC interpreter).

HP 2647: How To Set Size for Automatic Programs
By: Alex Morgan/DTD and Scott Guthrie/NSR

I'm sure that everyone fully understands how command files in the HP 2647 work and where they are useful, but there seems to be some confusion on how to incorporate a "set size" command into a command file.

In many cases, command files are executed from a display memory window, or the terminal control information is stored in soft keys. The problem encountered when using "set size" in these environments is that the "set size" action clears the display memory and the soft keys and, therefore, erases the commands that would follow the "set size".

The trick is to use a media that is not altered by a "set size" command, i.e. tapes!

The following example uses two files to accomplish an automatic program load and execute. The actual test is in the large type and comments are in small type.

Also, ⟨esc⟩ designates the escape character and ⟨cr⟩ designates a carriage return.

```
          --- beginning of the first file ---

  <esc>,cEXIT A<cr>       EXIT BASIC IF CURRENTLY IN BASIC

  <esc>,cDI W#2<cr>       GO TO WINDOW #2 FOR THIS DEMONSTRATION

  <esc>,cCLO W#5<cr>      TURN OFF ERROR MESSAGE WINDOW IF LEFT ON

  <esc>&f1k1a13L<esc>,cEXECUTE L<cr>

              SET UP SOFTKEY TO LATER BE PRESSED
              EITHER AUTOMATICALLY OR BY THE USER.

  <esc>W<esc>X<esc>m<esc>h<esc>J<esc>&a10CWelcome To The Demo Tape

              (esc)W followed by (esc)X is an easy way to reset the margins
              (esc)m = Turn Off Memory Lock (if on).
              then Home-Up, Clear Display, Move Cursor, and Print Heading

    This Tape Shows How to Set Up a Command File for Automatic 'SET SIZE',

    LOAD and EXECUTE.   Note that BASIC MUST be Loaded.

  <esc>&f1E
              Automatic pressing of the f1 key  (Leave out for manual)
          --- end of the first file ---


          --- BEGINNING OF SECOND FILE ---

  BASIC     ENTER BASIC

  REMOVE USER

  REMOVE STDX

  SET SIZE=16000    THIS WILL CLEAR THE SOFTKEYS AND THE DISPLAY

  PRINT "   NOW LOADING THE PROGRAM"     EXECUTE DIRECT PRINT
                                          STATEMENTS FOR DISPLAY
  PRINT "          Please Wait."

  GET "L"       COMMAND TO LOAD PROGRAM

                AND THE PROGRAM GOES HERE!

  10 COMMAND "SUSPEND COMMAND FILE"
  20 REM THIS IS THE FIRST REAL LINE OF THE PROGRAM.
  25 PRINT CHR$(27);"h";CHR$(27);"J";
  30 FOR I=1 TO 10
  40 PRINT "THIS LINE IS RETURNED BY THE PROGRAM WHILE RUNNING.",I
  50 NEXT I
  60 REM THIS IS THE LAST REAL LINE OF THE PROGRAM.
  70 COMMAND "RESUME COMMAND FILE"
  80 END

  RUN           COMMAND TO BEGIN EXECUTION OF THE PROGRAM.

  PRINT "PROGRAM FINISHED"    ANOTHER DIRECT PRINT STATEMENT.

  EXIT          RETURN TO NORMAL TERMINAL OPERATION.

          --- end of second file ---
```

Multiple Unattended Pie Charts

By: Peter Taylor/DTD

San Diego Division's introduction of the S version, automatic paper advance plotters can make multiplot even easier to use.

With the following change to the Pie Chart Program all one needs to do is enter a number into the new "No. of Copies" field of the pie chart menu. (When the plotter field specifies the address of a 9872S, a single stroke of the multiplot key will generate multiple copies).

To make this pie chart program change, copy these program statements to a tape file. Then load the pie chart program of the REC C-1945-42 Basic Multiplot tape. Break from the pie chart program and incorporate the Basic statements on tape by using the merge command. Clear workspace #2, the old pie chart menu, and you are ready to run.

Look for Bar Chart and Linear Chart changes in upcoming issues.

```
9123  PRINT CMND$&"DI W#1"&X2$;\MENU=0\ON KEY #135 GOTO 9454
9124  IF VAL(PLT$)=0 THEN 9126
9125  ASSIGN "H#"&VAL$(PL) TO #1\PRINT #1;"EC;"\PRINT #1;"AF;"\NEXT COPY
9126  SLEEP
9165  PRINT "NO.OF COPIES ";X$;"    ";Y$
9253  PRINT MOVCS(20,13)\NCOPY=VAL(DSPIN$(-3,Ii))
9254  FOR COPY=1 TO NCOPY
9255  PRINT CMND$&"DI W#2"&X2$;\PRINT X1$&"W";\ ON KEY #135 GOTO 9118\ GOTO 9181
```

GENERAL SYSTEMS NEWS

Introducing . . .

Materials Management/3000
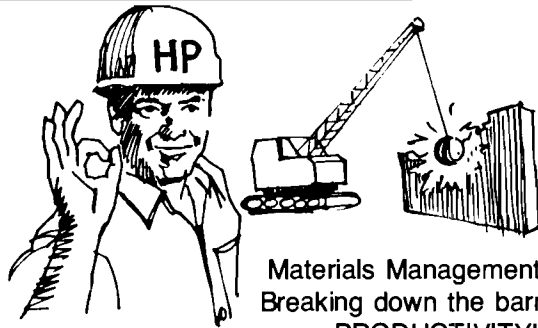
Materials Management/3000
Breaking down the barriers to
PRODUCTIVITY!!

About Materials Management/3000
By: David Sohm/GSD

Materials Management/3000 is a new manufacturing application product which replaces MFG/3000. All features offered by MFG/3000 to help discrete manufacturing companies manage their materials planning and control functions are available with Materials Management/3000. With MFG/3000 your customers could:

- Maintain bills of material

- Maintain current information about parts

- Maintain current inventory and order information

- Run Material Requirements Planning

- Calculate standard costs for each part or component in inventory

They can now do all that with Materials Management/3000; and MUCH MUCH MORE!!! We've made major advances on three fronts:

1. NEW approach in manufacturing application software TECHNOLOGY

   Two major breakthroughs in Technology enable your customers to:
   - Take advantage of new customizing features
   - Take advantage of new automated operator interface features

2. NEW functional MODULES

   New functional modules enable your customers to:
   - Perform Master Production Scheduling
   - Perform Rough Cut Resource Planning

3. NEW ENHANCEMENTS to MFG/3000 capabilities

   New enhancements increase materials planning and control capabilities so your customers can:
   - Take advantage of an all new approach to terminal interaction using HP's Data Entry and Forms Management System (V/3000)
   - Update — on-line — all part, bill, and workcenter information
   - Utilize multiple stock locations
   - Peg to part number
   - Accomplish unplanned issues
   - Automatically allocate work orders on-line
   - Specify start and stop dates/work order numbers on engineering changes.

Materials Management/3000: Much MORE than MFG/3000!!!

HP's new solution for Materials Planning and Control will provide the flexibility needed to satisfy a much larger variety of potential customers and also increases the breadth of the solution over MFG/3000. In addition to offering all the above mentioned features, this product also:

- Enables customers to make significant unique enhancements to their system WITHOUT PROGRAMMING and without jeopardizing our support
- Insulates the system users from the operating system
- Increases system security features
- Updates all database items on-line
- Uses function key driven screens
- Minimizes the amount of user training required.
- Improves supportability through its modular design
- Supports MTS/3000

Materials Management/3000 will not only help you get more orders today with the most comprehensive Materials Planning and Control system in the marketplace, but it also introduces an application software technology that will establish a leadership position for HP.

Flexible!!

Materials Management/3000 has greatly expanded the amount of customization that can be performed to an application, and it *doesn't require any* programming to do it! Customers can now tailor almost everything that appears on menu, data entry, and data retrieval screens. Reports can be modified, as well as the heart of the whole system, the Database.

Think about it, your customers can have all of the outstanding functional features of Materials Management/3000 presented to them in the format they find most beneficial to their business. In addition, if they change their mind about the user interface or the database, they can change them again, and again, and . . .

Modules!!

In addition to all of the functions of the current modules of MFG/3000:

- Engineering Data Control/3000
- Inventory and Order Status/3000
- Material Requirements Planning/3000
- Standard Product Costing/3000

Materials Management/3000 includes two new functional modules:

- Master Production Scheduling
- Rough Cut Resource Planning

These two new modules are extremely powerful planning tools to aid manufacturing management in answering the critical questions of "how much?" and "when?". Your customers can enter sales forecasts and review the cumulative effects over their production planning horizon. "What If" simulation and Rough Cut Resource Planning will enable your customers to view the effect of planning changes on their proposed master schedule. Consequently, the costly situation of scheduling more units than can feasibly be produced can be avoided.

Features!!

Based on input from you and our customers, Materials Management/3000 contains many functional enhancements over MFG/3000. The most important are:

- Multiple inventory storage locations
- On-line updating of all part, bill, routing, and work-center information
- Start/stop logic for engineering changes
- Easier unplanned material issues
- On-line allocation of work orders
- MRP pegging to part number as well as to order number
- Use of HP's Data Entry and Forms Management System (V/3000)
- Availability of MTS/3000

These changes represent many of the most frequently requested enhancements. With these enhancements, Materials Management/3000 will help increase the productivity of your customer's manufacturing operations.

Friendly!!

New screen technology, using function keys and HP's Data Entry and Forms Management System, makes this system even easier to use than MFG/3000. Your customers should find it very easy to use this powerful system to deal with the challenges of managing inventories. They don't have to know anything about the operating system or computer languages to be able to use Materials Management/3000 to help them do their jobs more effectively.

Security!!

Unauthorized access to the database is a major concern of manufacturers using on-line applications. Materials Management/3000 provides the capability for your customer's System Administrator to establish controlled access to the application as well as to activities that end-users can perform. The enhanced security features are far and above others offered in the industry and should keep even the most conscientious auditors happy.

Support!!

As well as developing an enhanced materials control product, we have invested much of our development effort to make Materials Management/3000 a product that will reduce your customer's maintenance efforts. Your customers will recognize the significance of our easy-to-use customizing features which enable them to make local modifications without tying up their EDP staff, or losing valuable vendor support. Less resources required by customers for maintenance leads to increased productivity of their existing resources.

Join the Manufacturing Systems team and help lead HP to SUCCESS in the 80's!

Materials Management/3000 — A New Technology!

By: Mike Kalashian/GSD

Two major breakthroughs in manufacturing application technology have been introduced with Materials Management/3000. Read on for the details.

Customization

Our experience has taught us that most companies want the SUPPORTABILITY, RELIABILITY, and MAINTAINABILITY that standard (object code) products provide, but have special, unique requirements in the way they use a manufacturing system. The Customizing capabilities of Materials Management/3000 provide your customers the FLEXIBILITY to tailor the application to their unique specifications, while retaining the object code standardization for which Hewlett-Packard will provide full software support.

A key contribution of Materials Management/3000 is the capability for your customers to modify menu, data entry and retrieval screens, hard-copy reports, and the IMAGE/3000 database without the need for any programmers. Utilization of the ad-hoc reporting of QUERY/3000 and the edit specifications of the HP Data Entry and Forms Management

System gives your customers an extremely comprehensive set of user customizing features which do not require them to perform any programming! In short, Materials Management/3000 offers much of the FLEXIBILITY of source code while still providing the SUPPORTABILITY, RELIABILITY, and MAINTAINABILITY of object code.

Using the NEW customizing features, your customers will be able to:

- Add new items to the predefined database and be assured that there is a mechanism for entering the data, updating the database, and reporting/retrieving the new items
- Delete non-critical items from the data base
- Modify the length of items on the data base
- Modify data editing specifications
- Define data and device security
- Add entirely new screens
- Rearrange the format of existing screens
- Modify the sequence available to a particular user
- Define arithmetic operations to be performed on new fields or existing fields
- Define system-wide parameters such as the number of days for Days of Supply order policy

You're probably saying "I don't believe it" or "How did you do that?" and that is what your customers may say too. The answer to how we accomplished this breakthrough in software application TECHNOLOGY is addressed in the new Materials Management/3000 Sales Financing Manual. Read it for the details.

Automated Operator Interface

The second major breakthrough in software application technology is a new automated operator interface. A significant part of most companies' in-house computer operating expenses are involved with the highly trained personnel necessary to operate a computer system.

Materials Management/3000 is designed with an automated operator interface that will enable your customers to reduce the amount of training and expertise required to operate the system on a day-to-day basis. The user/operator is virtually insulated from the typical tasks and interactions necessary with most other systems. No other product on the market has this capability!

Unlike other systems that require computer operators to stream commands each time they want to run a job, the new automated operator interface enables your customers to schedule a job once and then forget about it. Materials Management/3000 will automatically schedule and run their jobs.

With the new automated operator interface your customers can also exercise more control over system security. Materials Management/3000 enables your customers to schedule the use of each terminal. The System Administrator can control who uses the application and when it can be used.

Materials Management/3000 also automates your customer's tape and/or disc volume management. When a volume is needed, the message screen will indicate which volume is required. Materials Management/3000 simplifies the mounting of these serial volumes and eliminates such tasks as the console reply.

System back-up and recovery is also automated with Materials Management/3000. No longer will your customers have to manually recover their jobs in the event of a system failure.

These two GIANT technology contributions should place HP in a significant leadership position within the Manufacturing Applications marketplace. They are unique — take advantage of them!

Sell HP's new Technology!!

How to Order Materials Management/3000

By: Rich Stearns/GSD

One Product, Ten Modules

Unlike MFG/3000 which was sold as several related products (EDC, IOS, etc.), Materials Management/3000 will be sold as a single product. The advantages of this strategy are that the product is easier to sell, install, and support.

For your reference, the following table lists the relationship of the Materials Management/3000 modules to those of MFG/3000:

- Master Production Scheduling — New Module
- Rough Cut Resource Planning — New Module
- Parts and Bills of Material ⎤
- Routings and Workcenters ⎦ — Replaces EDC/3000
- Material Issues and Receipts ⎤
- Inventory Balance Management ⎦ — Replaces IOS/3000
- Work Order Control ⎦
- Purchase Order Tracking
- Material Requirements Planning — Replaces MRP/3000
- Standard Product Costing — Replaces SPC/3000

To Order

Materials Management/3000 is available as a standard, object-code product (a code-modifiable version is not available for sale). It is sold as a single product rather than as a series of individual functional modules (as was done with MFG/3000). All standard CSG software purchase contracts apply.

Each standard product should be ordered complete with the appropriate support, training and consulting products. Order the standard product and manuals from GSD:

Number	Description	Price
	Standard Product	
32260A	Right to Use Materials Management/3000. Includes one complete manual set.	$25,000
32260R	Right to Copy One Materials Management/3000. Includes one complete manual set.	5,000
	Manuals	
32263A	Extra manual set. Includes 11 manuals and is in addition to those delivered with the standard product.	110

Support, training and consulting products are provided by the local SEO. They should be ordered with a T1 order type and overridden to indicate the correct supplying entity. Support services and policies available for Materials Management/3000 are the same as those available for any other software product.

Number	Description	Price
	Support	
32260T	CSS for 32260A/R.	$320/mo
32260V	Multiple-site CSS for 32260A/R	120/mo
32260S	SSS for 32260A/R	120/mo
32260Q	MUS for 32260A/R	20/mo

Number	Description	Price
	Customer Training	
32261A	System Administrator I at HP Technical Center. Includes manual sets for each student.	$ 750/ student
32261X	32261A at customer site	$6,500
32262A	System Administrator II at HP Technical Center	$ 750/ student
32262X	32262A at customer site	$6,500
	Consulting	
22075A	One day of Industry Specialist Consulting. Two special consulting products are recommended. 1. Implementation Consulting (6 days) • 2 days of planning and milestone setting • 4 days of monitoring project programs 2. Customization Consulting (2 days) • data base • security • screens • reports Order as multiples of 22705A	$ 500/ day

Sell Manufacturing Applications!!

How to Upgrade Current MFG/3000 Customers to Materials Management/3000
By: Mike Kalashian/GSD

The major goal in establishing the conversion policy for current MFG/3000 customers is:

CUSTOMER SATISFACTION!!!

The policy has been developed to meet the following specific objectives:

- Protect current customers' investment in HP applications
- Provide current customers an upgrade path that offers them at least "what they already have" at little, or no cost
- Convert all MFG/3000 object code customers and as many MFG/3000 code-modifiable customers as possible by 1/1/81

Of course, your customers will have a choice. They can: DO NOTHING, i.e. continue with MFG/3000, or take advantage of the attractive upgrade plan to Materials Management/ 3000.

Although your customers fall into two separate categories (those that have installed MFG/3000 and those that have ordered but not installed MFG/3000), our conversion strategy was designed to give both of them the best deal possible.

Upgrade Policy

All customers who have purchased at least the three basic MFG/3000 modules (EDC, IOS, and MRP), will receive the right to use ALL of Materials Management/3000 FREE. Remember, they not only get significantly more than MFG/3000 with the additional modules (Master Production Scheduling, Rough Cut Resource Planning, and, in effect, Standard Product Costing), but also all the features of Customization and the Automated Operator Interface — A $25K product for $15K! (at list price).

Who Qualifies?

The rules for this policy are:

- Customer must have ordered, or have a valid quote for, at least one MFG/3000 module by 2/1/80. (There is still an opportunity for you to close any "fence sitters" with this good deal).

- Customer must have ordered all three modules before ordering the upgrade product. (No time limit on this.)

- Shipment of the upgrade product will constitute shipment of the ordered MFG/3000 modules for billing purposes.

In Addition

- All customers who have taken MFG/3000 training courses will receive the right to send one person to both weeks of Materials Management/3000 training FREE. (Value = $1,500).

- An upgrade CSS product has been defined to provide simultaneous support for both MFG/3000 and Materials Management/3000 for installed customers during their conversion. Only customers who leave MFG/3000 implemented are entitled to purchase this support product and will receive three days of Industry Specialist Consulting time FREE to aid them in their conversion. (Value = $1,500).

Upgrade Products

Number	Description	Price
SPECIAL (Contact Factory)	MFG/3000 — Materials Management/3000 Upgrade Product Includes: • Right to Use Materials Management/3000 Software • User Manuals • Upgrade Kit (if required)	No Charge
32264T	CSS for both MFG/3000 and Materials Management/3000 (minimum initial order 2 months—monthly thereafter).	$510/mo

Special Notes

We will be writing a letter to each of your MFG/3000 customers to explain to them how our upgrade strategy applies to them. Copies of this letter are available for "under-the-wire" orders.

For those of you who have customers with multiple sites, the same deal applies to them. Don't let our extremely aggressive price on the new "R" product fool them into thinking they paid $6K (list price for MFG/3000 "R" products) for a $5K product (32260R). They will get training ($1.5K) and consulting (1.5K) free and hence a net savings of $2K. Remember, they must purchase the full CSS upgrade product at each site they want to get the three FREE days of SE time. If they haven't actually installed the MFG/3000 "R" products, they may be better off canceling them and ordering 32260R (remember the qualifiers for free training and free SE time).

These special upgrade products are orderable from GSD as of Feb. 1, '80. Contact *Dick Knudtsen* to order this special.

Don't let your MFG/3000 customers miss this good deal!!

GSD Clarifies Support Position on Two Disc Series 30,33 Systems
By: Rich Edwards/GSD
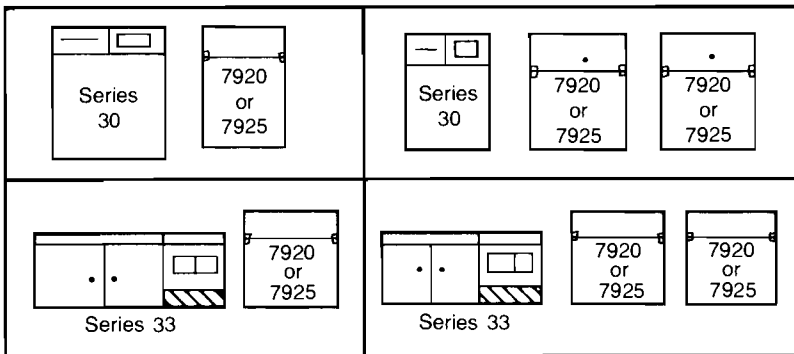
These Configurations . . .
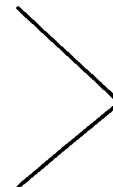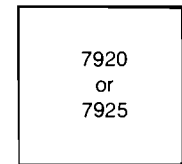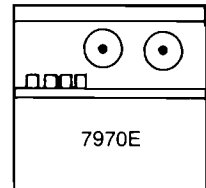
Require

. . . A Backup Device

In the Feb. 1, '80 edition of the HP 3000 Price/Configuration Guide (available in a few weeks), the following note has been added to all Series 30 and 33 configuration pages:

> *Hewlett-Packard requires that an HP 3000 (Series 30 or 33) system with more than 20Mb disc storage be configured with a dedicated serial storage device (magnetic tape drive or a serial disc [7906S, 7920S, or 7925S]) for backup.*

This clarification is necessary because of the limitations in using SADUTIL (a supported HP 3000 Utility) for disc-to-disc backup in a two-disc configuration, limitations which have not been understood thoroughly. Briefly, SADUTIL will copy one disc to another (when MPE is not running) with the COPY command. An operational limitation is that SADUTIL requires all disc packs to have defective tracks reassigned (not deleted); if SADUTIL encounters a deleted track (on either the FROM or TO disc) it aborts. There is also no protection for the user in specifying the FROM and TO devices; if he/she errs, his/her good data is overwritten. Thus, SADUTIL is suited for use by sophisticated customers who understand these limitations.

While it is possible to use SADUTIL for backup of a two-disc system, in order to ensure the highest level of customer satisfaction with the HP 3000 Series 30 and 33, GSD requires the use of a serial storage device for backup. This doesn't rule out two or three disc systems without magnetic tape; it means that one of the discs must be a dedicated serial disc (private domain) used for backup.

Note that the single 7906M (20 Mb) cartridge disc configuration is viable without an additional device for backup. In this configuration the user has the choice of using flexible discs and/or disc cartridges for backup.

Self Test On HP Modems
By: Tom Black/GSD

One of the really attractive features of the HP modem is the comprehensive remote test capability. Formally described as remote command, it's really a combination of a loop back and a remote test facility. The feature, which is standard on the 9600 baud 37220T and optional on the 4800 baud 37210T, allows the line and the remote modem to be tested from the local computer site. It is obviously much easier to have one person test the modem and the line than to have two people, with one at each end of the link. It's also a lot cheaper for HP and the customer!

The remote test feature is particularly useful for multi-drop networks using MTS/3000. In this situation several 37210T modems are involved, and some networks have as many as 10 modems on the same line. (Notice that the 37220T is not supported in this configuration). The remote test can individually select up to 15 modems, testing the selected modem and the section of line to the modem. Because network testing is significantly simplified with the remote test option, it is strongly recommended for multi-drop networks.

One point about remote test. It only operates on four wire leased telephone lines, since it uses a loop-back to complete the test. It does not work on dial up lines because two wire circuits can't form a loop back! Orders will not be accepted which show data access arrangement (37210T Op. 003) and remote command (37210T Op. 005) as this implies dial-up and remote test — an invalid combination.

More on the Intelligent Network Processor
By: Tom Black/GSD

The 30010A and 30020A Intelligent Network Processor (INP) offers many new features for datacom users on the HP 3000. One of the major features is the provision of a wide variety of interfaces. These are:

Interface	Connection
RS232-C	Synchronous Modem
V.35	High Speed Modem
Hardwired to INP	INP to INP
Hardwired to SSLC	INP to SSLC

All of these interfaces are provided as standard! But remember, the correct interface cable *must* be ordered separately from the INP. The cable ordering is fully documented in the HP 3000 Price Configuration Guide, and there are several diagrams to make ordering as simple as possible.

Division News

"Penetrating the Big-8"
By: John Kohler/GSD
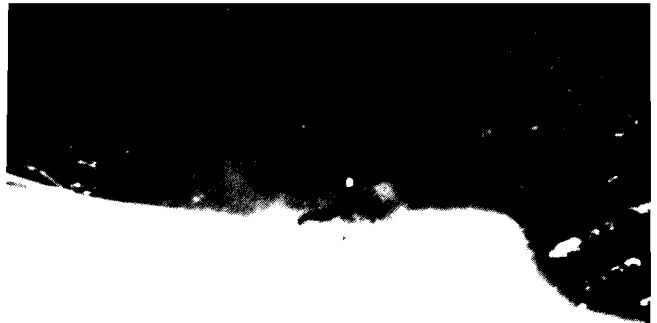
Now that I have your attention . . .

In the Dec. 1st *CS Newsletter,* I was introduced as having joined the GSD Third Party Program. Since I will be managing the "consultant's program", a solicitation for information was made. The response was less than overwhelming and it's now time to get serious.

I have written to all District Managers and our field sales team will be responding through that medium. However,

those of you not in sales but with experience/expertise with large management consultant firms, I'd like the benefit of your knowledge. I'm looking for hard material (copies of articles, memos, letters), war stories, comments on where to focus, what to avoid, etc.

I want to tie your experience into one collective package. With your help, we can make this program fly. Please take time out to gather your information and thoughts and send them to:

John Kohler (Location Code 4540)
General Systems Division
19447 Pruneridge Ave.
Cupertino, Ca. 95014
(408) 725-8111, Extension 4052

*Use COMSYS if you are overseas.

Thanks for your help!

Upgrading Systems Advertisement
By: Dave Butt/GSD

Upgradability of systems has long been a key selling pitch for HP. The advertisement below has been mailed to customers with Pre-Series II Systems.

Growth - The key to your future

HP 3000s. The easy way to plan for your future   hp HEWLETT PACKARD

Competitive Information

HP 3000 Users Rate It Number 1 — Again
By: Rich Edwards/GSD
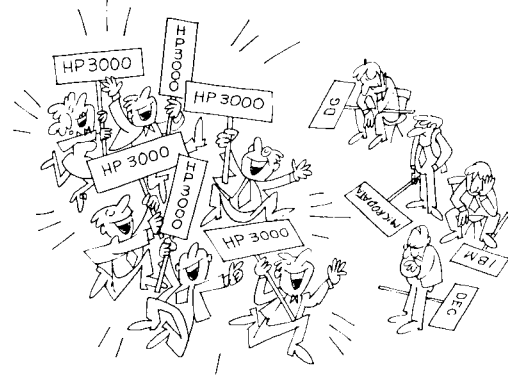
The HP 3000 outshines its competitors — again! In 1976, IMAGE/3000 was the first database management system ever elected to the *Datapro Software Honor Roll;* it won that honor again in 1978. In 1977, the HP 3000 won the highest rating in a Datapro User Rating Survey (among systems with six or more responses). Last year the HP 3000 users surveyed had the highest overall satisfaction in a study by an independent research institute. Now, the HP 3000 garners another first place.

In a 1979 survey of over 60,000 minicomputer users conducted by Dataquest, Inc. in conjunction with *Mini-Micro Systems,* 52 HP 3000 users rated the HP 3000 higher in overall satisfaction than customers of any other major general purpose minicomputer supplier mentioned in the survey.

According to Dataquest, respondents were asked to indicate their principal minicomputer supplier and rate the supplier according to 14 factors considered important in supplier selection. Hewlett-Packard as a company scored 1.58 (1 = excellent, 2 = average, 3 = poor) to place second behind Prime Computer's 1.46 rating by End Users. The HP 3000 ratings, accounting for 52 out of the 388 HP respondents, came out on top, however, with a 1.448 rating. The individual categories with scores were:

Category	Score
Compatibility	1.38
Operating System	1.27
High Level Languages	1.35
CPU	1.31
Peripherals	1.47
Price	1.59
Delivery	1.53
Reputation	1.06
Software Support	1.57
Reliability	1.35
Maintenance	1.61
Application Software	2.06
Understand Applications	1.92
Sales Organization	1.63
Overall Weighted	1.448

Key to rating scale: 1 = Excellent, 2 = Average, 3 = Poor

The following table summarizes all of the supplier rankings in the survey:

1979 General Purpose Minicomputer Supplier Ratings

End Users

Supplier	Number Of Respondents	Average Rating	Rank
HP 3000	52	1.448	*
Prime	65	1.46	1
Hewlett-Packard (all systems)	388	1.58	2
IBM	354	1.61	3
Texas Instruments	60	1.66	4
Digital Equipment	1,479	1.66	5
Control Data	21	1.67	6
Microdata	44	1.73	7
Data General	359	1.74	8
Systems Engineering	17	1.76	9
Harris	54	1.86	10
Honeywell	68	1.78	11
Modcomp	38	1.80	12
Computer Automation	29	1.80	13
Perkin-Elmer	88	1.82	14
Sperry Univac	57	1.85	15
General Automation	59	1.86	16
TOTAL	3,180		

Key to rating scale: * The Best, 1 = Excellent, 2 = Average, 3 = Poor

IBM Delays System/38 but Schedules 1st Delivery

By: Rich Edwards/GSD

On Dec. 18, '79, more than one year after the System/38 introduction, IBM GSD announced a revised date for first shipments: July 1980. The system was originally targeted to ship in August 1979, but was delayed "to permit additional integration and testing of advanced programming elements."

IBM further stated that "more than 180 System/38's have been installed throughout IBM for employee education, application development and customer demonstrations. Customer education is scheduled to begin in February 1980."

At the same time, IBM announced it was increasing each of the two System/38 models by 1/2 megabyte of main storage. The Model 3 with a previous maximum memory capacity of 1024Kb will be available in 1280Kb and 1536Kb sizes. The Model 5, formerly a 1536Kb maximum, will support 1792Kb and 2048Kb. The newer model sizes are scheduled to ship in July 1980, too.

Buried within the technical announcement was the following: "The 5381 System Unit Model 3 control storage capacity is increased to 8K words (from 4K words). The control storage increase is standard (no additional price) on all 5381 Model 3's." This means IBM doubled the Model 3 microcode to help improve performance.

Another hard to find fact was the disclosure that IBM now supports the 3411 or 3410 magnetic tape drives on the System/38; for over a year the System's only backup was the diskette magazine drive (slow and very low capacity). Specifically, IBM states: "The System/38 Control Program Facility (CPF) is enhanced to support the 3411/10 Magnetic Tape Unit for backup of user libraries [in addition to the diskette magazine drive] . . . note that backup of the system library and related objects is supported for the diskette magazine only."

What's the bottom line? With today's HP 3000 you've got an on-line, database management oriented business system which supports up to six languages and a wide variety of data communications subsystems which is available for delivery within 4-10 weeks. Top rated by customers worldwide, including over 300 former IBM users who found the conversion straightforward. Sell the HP 3000 to those customers waiting for IBM to invent and deliver a 3000-like system. Sell a winner today!

A Comparison of the HP 250 and DEC's Latest Product Offering

By: Jim Carlson/GSD

DEC introduced two new Datasystems products in November which are in the HP 250 price range. These are the Datasystem 333 and 335.

The comparison of these two products with the HP 250 is shown in the table below.

	Datasystem 333	Datasystem 335	HP 250
Price (with printer)	$21,850	$29,500	$25,600[1], $35,100[2]
Main Memory	128K	128K	128K system, 32K user
expandable to	256K	256K	160K system, 288K user
Number of terminals	4	4	6
Disc	2 × 500 Kbytes (RX02)	2 × 5 Mbytes (RX01)	2 × 1 Mbyte 2 × 10 Mbytes (7906)
Printer	180 cps	180 cps	180 cps

	Datasystem 333	Datasystem 335	HP 250
System software	CTS-300 O.S. DIBOL-11 ISAM DECform	CTS-300 O.S. DIBOL-11 ISAM DECform	BASIC/250 IMAGE/250 FORMS/250 REPORT WRITER/250 QUERY/250
Growth (Disc)	up to 4 500 Kbyte floppys 2 × 5 Mbyte disc	up to 20 Mbyte (4 × 5 Mbyte)	up to 3 × 1 Mbyte floppy up to 40 Mbyte disc (2 × 7906)
Communications	Sync. 2780/3780	Sync. 2780/3780	Async. to HP 3000

Essentially, the 333 and 335 are upgrades of the Datasystem 323 and 325 products with a new CPU, the PDP-11/23. The other two machines use the PDP-11/03 processor, which was benchmarked along with the HP 250 by RDC (see the Dec. 15 *CS Newsletter* article on HP 250 performance tests).

DEC claims the PDP 11/23 has 2½ times the performance of the PDP 11/03. If we use this assumption, then the CPU performance relative to the HP 250 looks like:

	HP 250	DEC 11/03		DEC 11/23
Number of Seconds to Complete Test	22.3	1:20.3	÷ 2.5	32.1

CPU intensive test from benchmark.[3]

DEC's strength relative to the HP 250 is price. There is nothing new in this product offering that competes with the key product strengths of the HP 250 to OEM's . . . Systems software, Applications software, and End-User interface.

However, if only price and number of disc drives, terminals supported, printer speed, etc., are compared, the DEC product can look like a better buy. The key is to get the prospect to look further than the specs on paper. To win with the HP 250, get the user to sit down at the console and get "hands on." Have him (or her) experience the simplicity of operation and human engineering. For the OEM, building a small database — loading it with data — and using QUERY to produce a report is the best way to show the value-added of the HP 250. Don't let a prospect make a decision based on insufficient data — the HP 250 can sell itself.

Good Selling!

[1] Price includes 45120A Async board to allow support for up to 5 additional terminals.

[2] Price includes 45120A Async board and 7906H Disc.

[3] Benchmark cited is the CPU intensive test from the Real Decision Corporation test . . . both HP 250 and PDP 11/03 were tested.

CSB News

Introducing CSB Sales Development
By: Geoff Kirk/CSB

Commercial Systems Boeblingen (CSB) is GSD for Europe. We support the HP 250, HP 300 and HP 3000 Systems as well as application software. With Product Management, Sales Development, SE Support, CE Support and Marcom located here in Germany our objective is to provide fast, accurate answers and support to the European field organization.

In the next few issues of the *CS Newsletter*, we will introduce the people in CSB Marketing. In this issue we begin with Sales Development.

CSB Sales Development's FY '80 objectives are:

1. To complete the establishment of CSB Sales Development as a fully capable factory sales support group.

2. To help the field to exceed their sales objectives by taking a leadership role in helping them to focus their activities on high pay-back Major Account, OEM and Seminar sales.

3. To assure high levels of customer satisfaction by carefully monitoring customer support, coordinated shipment and multiple systems sales situations.

Beyond the challenge of supporting all of GSD's products, the Sales Development Group at CSB must operate in a multinational environment with all that that entails: more than 10 languages, 15 principal countries, different cultures and regulations.

To effectively support this effort we have built a strong, international team.

Mike Barlow joined HP in 1974 and helped set up a commercial sales force for desktop computers in the UK. He moved to CSB in Feb. '79 bringing with him a strong knowledge of the HP 250 and HP 300. His primary regional responsibility is the UK. *Mike* speaks French and English and is learning German.

Bob Crum joined HP in 1976 in the SE support organization at GSD. He held a variety of technical support positions at GSD, then went to England in 1978 on temporary assignment as a field SE. A specialist on the HP 3000, *Bob* came to CSB in June 1979. He has primary support responsibility for Holland, Denmark, Norway, Sweden and Finland. *Bob* speaks "American" and passable German.
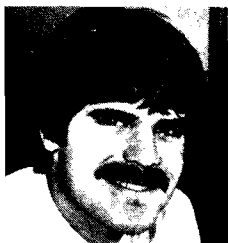
Victor Canivell joined HP Spain in Feb. '79 as a field marketing representative. He has an MBA and PhD in Physics. *Victor* assisted SRs by planning seminars and open houses, then, in Aug. '79, he moved to CSB. He has primary support responsibility for Spain and Italy. *Victor* is fluent in Spanish, English, French and German, and is learning Italian.

Luc Dussart, with a Masters of Science degree, joined HP France in 1976 as a field engineer for business computer systems. Last year, he had responsibility for several local marketing activities and successfully localized manuals, slide presentations and brochures for French-speaking countries. *Luc* joined CSB in Nov. '79. He has primary support responsibility for France, Belgium and the French-speaking part of Switzerland. He speaks French, English and is "rebuilding" German from his school days.
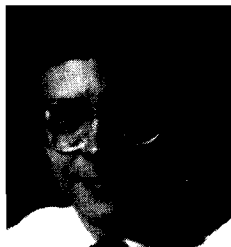
Gisela Wray, the group's secretary, joined HP GmbH in 1974 in purchasing and order processing for Parts Center Europe. She was with Boeblingen Calculator Division (BCD) as secretary for the customer assurance group, before joining CSB in Nov. '79. She is also responsible for administering our customer visit program. *Gisela* speaks German and English.

Dave Iuppa's background selling commercial systems with IBM and in management of a small manufacturing company, led him to HP in 1977. He worked first in product management on the HP 300 and, with its introduction, moved into sales development for Neely Sales Region. In Apr. '79, he joined CSB as Sales Development Management with support responsibility for selected accounts and the Mediterranean area. He also has interim support responsibility for Germany, Austria and German-speaking Switzerland. He speaks "American" and a little German.

European sales force, please note your support person. He is your contact at CSB.

We look forward to working with you to make FY'80 another "Year for Europe".

HP 3000/33's Roll Off the Production Line at CSB
By: Manfred Sailer/CSB

The integration section at CSB full of series 33's undergoing final test before being shipped.

FY '79 has been a tremendous year for commercial sales in Europe. For manufacturing this means a big challenge, but one that we like.

CSB began production of the HP 3000 Series 33 in May '79, shipping the first system at the end of that month. And despite a worldwide shortage of parts we have been able to decrease the availability of the Series 33 from 24 weeks to 12 weeks.

CSB is supplying the whole of the European market with Series 33's. And in November, we began manufacturing the Series 30.

The CSB 3000 production team wishes you a successful FY '80. We are ready for your orders and would like to prove again that we can cope with your outstanding order performance.

The HP 250 in FY '79: A Real Success in Europe!

By: Maurizio Gasperi/CSB

FY '79 was a great year for the HP 250: our active HP 250 OEM base grew from 28 to 118 OEMs and customer trade orders increased by 186% compared to FY '78, thus achieving 151% of the FY '79 quota.

FY '79 Order Breakdown — Europe
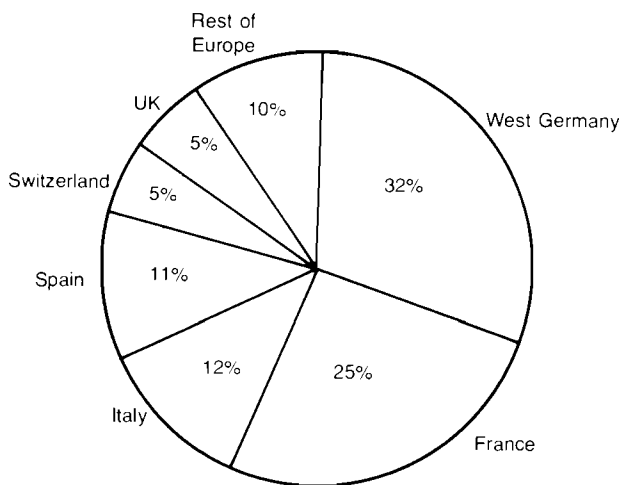
Visibility in the Market

In addition to press advertising, exhibitions and open houses played a major role in getting the HP 250 known in the small business computer market. Throughout Europe, the HP 250 was presented at 20 exhibitions and about 30 open houses.

Award

In April '79, the HP 250 received the important German award for good industrial design (see *CS Newsletter* July 1, '79; p. 42).

Major Product Milestones in FY '79

No other small business computer of the size of the HP 250 could offer a complete Database Management System, including the powerful, easy-to-use QUERY program for non-programmed database inquiry and data manipulation. Through the introduction of enhancements, we even improved our technological leadership. Here are just the most important ones:

- Applications software, German Payroll LGA/250, General Accounting FBH/250, Manufacturing MFG/250.
- REMOTE 250 to turn the single-user HP 250 into a time-sharing, multi-user computer system.
- Locking databases at the record level. An important feature for multi-user computer systems.
- New structured programming statements to write and debug programs more easily.
- Price reductions
  * the basic HP 250 system price was lowered by $US2,000
  * a 7906-based HP 250 system price was lowered by $US4,400

HP 250 in FY '80

In FY '80:

- Our marketing group will be able to give you the best support you've ever had.
- We will introduce important enhancements to the HP 250.
- We want to begin to attack the Major Accounts Market with the HP 250. By the end of FY '80 a considerable amount of the HP 250 customer trade orders should come from this market segment.

Thanks to everyone associated with the HP 250 for a tremendous FY '79. Let's also make FY '80 the year of the small business computer: the HP 250.

Stop Press: Greece has processed its first HP 250 demo order which will open the Mediterranean market to the HP 250 in FY '80.

HP GRENOBLE NEWS

Division News

Already 10,000 264X Terminals "Made in France"
By: Francis Marc/HPG
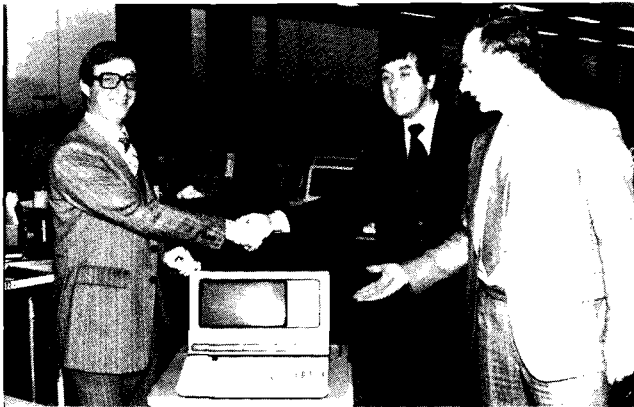
L to R: *Barry Prescott* (HP Manchester) shakes hands with *Mr G Alan* and *Mr G Simpson* (British Leyland).

December 10th was a busy day for your factory Marketing. We hosted the European Marketing Council headed by *Heiner Blaesser*, a delegation of 5 Austrian journalists and DTD Management: *Bob Watson, Ed Olander, Ed Hayes*.

It was an appropriate time to celebrate the 10,000th terminal produced in Grenoble. The unit was officially delivered to one of our key European customers, British Leyland, represented by *Mr. G. Simpson*, Finance Director of Leyland vehicles, and *Mr G. Alan*, Systems Manager.

They expressed their satisfaction with the high quality and performance of their HP equipment and were particularly impressed during their visit by the professionalism of our production line and by our EDP operation using Data Capture terminals.

Grenoble is presently producing the HP 2640, 2645, 2648 2649 and will very soon deliver the entire 264X range.

Terminal Product Support in Europe
By: Maurice Poizat/HPG

A dedicated team of people at Grenoble provides support and assistance to SRs and those in our CE and SE organizations, for all questions regarding terminals or terminal applications (262X, 264X, 263X and 307X).

Their activity includes:

● *On-line support:* answering your telephone calls and COMSYS' as accurately and as fast as possible.

● *Off-line support:* anticipating your needs or questions so that we can communicate with and provide information to the SEO and the CEO *through our dedicated Terminals SEs and Terminals TSEs in every European Country.*

● Providing proper and adequate training to these specialists so that we ensure:
  1. Terminals SEs teach customers User Courses, consult customers for terminal-based applications, and support locally the SR and SE in pre- and post-sales situations.
  2. Terminal TSE's train CEs on terminal maintenance and provide them with a high level of local terminal support.

Terminal Product Support Group

Maurice Poizat

Jean-Louis Chapuis

Jacques Biard

TBH

TBH

(COMSYS 6300; Tel. (76) 25·81·41 FRANCE)

Don't hesitate to contact us, we will be delighted to know you, your questions, your problems and your needs.

Used Equipment Available

By: Georges Ouin/HPG

Four HP 6941B's, Opt. 888 are available at $500 each. Contact me for further information.

Terminal SE Courses in Grenoble

By: Jean-Louis Chapuis/HPG

L to R: *Pino Zollo,* Milano, *Benoit Gibert,* Grenoble Sales Dev., *Jean-Luc Herrouin* Paris-Orsay.

The first Terminal SE courses in Grenoble were held in November (teachers were *Jacques Biard, Jean-Louis Chapuis* and *Benoit Gilbert*).

A "melting pot" of European participants attended the SE Level I and SE Level II courses: Austria, France, Germany, Italy, Norway, Switzerland and the UK all sent people. Some spent three weeks attending the courses.

A reminder: the SE Level I Training Course is designed to be taken after completing the Computer Group/Overview. The SE Level II has two prerequisites: completion of SE Level I, or equivalent experience and familiarization with terminal User's and Reference Manuals. For more information on these two courses contact us.

The next SE Level I (5 days) begins February 18th, the next SE Level II begins February 25th. And don't let the size of the classroom influence your decision to come to SE Level II, we have a new big room!

Customer Seminars: Searching for a Way to Increase Sales Efficiency

By: Dieter Schmidtke/HPG

Lead generation, customer information and enlarging a customer base are important objectives for customer seminars.

On the other hand, the sales effectiveness of SRs, which is of interest not only to a Sales Manager but even more so to the SR himself, (commission!), is becoming increasingly important to our business as low-priced computer technology and today's inflation rates call for volume sales, higher sales quotas, etc.

Customer seminars, however, may be the right way to increase sales efficiency. With this in mind, the idea of a "seminar week for customers" was born in the Data Systems Grenoble Sales Development department. Seminar layouts, agendas, timing charts, logistics, etc. were quickly prepared and introduced to *Werner Kanthak,* DSM of HP Düsseldorf (Germany), who recently visited our Grenoble factory.

Enthused, *Werner* called a meeting of his sales team upon his return to Düsseldorf, and after discussion and minor modifications to the original plan, it was agreed to conduct a "seminar week" late in October, 1979.

Thanks to the organizational talents of *Wolfgang Mohnes,* the staff of the computer sales team at Düsseldorf, and *Wilhelm Graffman, Bernd Winnemoeller and Manfred Kessel,* the SRs who took the role of speakers, six seminars were conducted from October 15–19. They included:

- Computer and peripherals for OEMs.

- Open House (product information and show)

- HP Computer Systems (manufacturing tools)

- HP: Partner in Business (for managers)

As many as 196 (88%) of the 222 participating prospects/customers expressed their great satisfaction with the seminars (only 9% had not been totally satisfied). Asked which of the subjects created most interest, participants answered:

- Distributed systems 33%

- Process-control 40%

- Databases 40%

- Factory data collection (DATACAP) 50%

- Graphics 51%

Based on the number of satisfied and motivated participants, I think the "seminar week" at Düsseldorf was a . . . wait.

One of the objectives Grenoble and Düsseldorf agreed on was to do an efficiency analysis five months after the seminars. I'll be happy to keep you informed.

SELLING HP 1000's IS FUN!

CS GROUP NEWS

Contract Information

Revised Purchase Agreement
By: Gene Opine/CMG

As many of you know, a large portion of HP Computer Sales are to customers with active purchase agreements.

The combining of the Computer Systems sales force and the Desktop Computer sales force provided an opportunity to evaluate and standardize the method of discounting our products and the procedures for administering the purchase agreements.

Furthermore, inquiries came from the field sales force requesting that we combine our entire Computer Product line on one exhibit to both simplify the agreement and provide customers the added incentive to purchase both Desktop Computers and the rest of our Computer Product line.

Effective February 1, 1980, a revised Computer Products Purchase Agreement will be in effect. This agreement will feature:

1. Combined Product List containing both Computer Products and Desktop Computer Products
2. Addition of new products from San Diego and Colorado Springs
3. Discounts based on revised functional unit values
4. Reduced number of Purchase Agreement Exhibits

Features/Benefits

Features	Advantages	Benefits
*Combined Products on one Exhibit	*Simplicity of Contract *Customer can leverage purchases	*Easy to understand contract *Greater discounts to customer
*Addition of Desktop Computers and Peripherals	*HP offers a complete line of Computer Products for sale *"Single Source Solution"	*Can meet more customer needs *One vendor approach
*Re-evaluation of functional units	*Consistency for product leverage	*Consistency of discounting
*Updated Price Clause	*Terms and Conditions clarified	*Set customer expectations prior to sale
*Conversion Plans for existing customers	*Customer can add new products to existing agreement	*Winter rules apply if the customer chooses to convert (Best Discount)
	*HP Sales Tool	*To present new products to existing customers
	*Standardized HP Administrative Procedures	*All customers treated equally

Conversion of Existing Purchase Agreement Customers

HP will honor all existing Computer Products and Desktop Computer Products Agreements until such Agreements expire. A customer may elect to change or upgrade any existing agreement given the following situation:

1. Customer with Computer Products Agreement
   - VEU and VEU/OEM customers will automatically be issued amendments to include new products and add Desktop Computer Products. (OEM Purchases under VEU/OEM require Prior Product Line approval to Purchase as OEM)
   - OEM only customer will be issued amendment only if approved by Area Manager as OEM for Desktop Computer Products.

2. Customer with Desktop Computer Products Agreements
   - effective January 1, 1980, customers will be given the option to add Capricorn (HP 85A) to existing agreement.

3. Customers with combined Computer Products and Desktop Computer Products on the same agreement
   - Customers will be issued amendments to include a new A-1 (R2-80) Exhibit which includes Desktop Computer Products.
   - Winter Rules will apply for products now contained on both A-1 and A-2 exhibits. The customer will receive the higher discount (between A-1 exhibit and A-2 exhibit). Purchase of product now listed on both exhibits will earn functional units toward the customer's commitment on both exhibits.
   - HP will adjust the order backlog for Desktop Computers February 1, 1980 to reflect most favorable customer discount. Any products shipped five days prior to February 1 will also be entitled to the most favorable discount to customers in this category.

4. Customers with two separate agreements
   - Customers will be issued amendments to include new products.
   - Desktop Computer Products agreement may be extended to the expiration date of the Computer Products Agreement. The new agreement will include all the Computer Products.

Adding New Product Exhibits to Existing Agreement

1. Customers with B-1 or B-3 Price Clause
   - Can add new A-1 Product Exhibit at any time using established procedures.

2. Customers with B-2 Price Clause
   - A one-time option will be given to add the A-1 (R2/80) Product exhibit without the requirement to meet the first milestone. A formal amendment is required to waive this milestone requirement.

Changes to the Purchase Agreement Exhibits

The primary changes involve product additions to the Product Lists and policy changes to the Price Clause Exhibits. The price clause changes were made to clarify the qualifying of OEM customers by expanding the "OEM Certification Clause"

These are the changes by Exhibit:

Exhibit	Changes
A-1	• Add Desktop Computer Products (9815/9825/9835/9845/97S) (Desktop Computer Products have revised functional unit values) • Add Capricorn HP 85A • Unpublished schedule for high quantity purchases is no longer available
A-2	• Add Capricorn HP 85A to existing Agreements • Delete Exhibit for all future Agreements after Feb. 1, '80
A-3	• Revised maximum allowable discount of 25% (when 1000 or more units are purchased) • Unpublished schedule for high quantity purchases is no longer available

Exhibit	Changes
A-4	• Addition of New Products from Colorado Springs and San Diego

Product Number	Description	Functional Unit Value
11479A	Thermal Graphic Printer	0.25
1310A	Graphic Display 19"	0.50
1311A	Graphic Display 14"	0.50
1317A	Graphic Display 17"	0.50
1321A	Graphic Display 21"	0.50
1350A	Graphic Translator	0.25
1350S	Graphic Display System	0.50
7220A	Graphic Plotter	0.50
7220S	Graphic Plotter	0.50
7221B	Graphic Plotter	0.50
7221S	Graphic Plotter	0.50
7240A	Graphic Plotter/Printer	0.50
7310A	Graphic Plotter	0.50
9875A	Cartridge Tape Unit	0.25
9876A	Thermal Graphics Printer	0.25
9885M	Flexible Disc Memory (Master)	0.25
9885S	Flexible Disc Memory (Slave)	0.25

• Unpublished schedule for high quantity purchases is no longer available

B-1 }
B-2 }
B-3 }

• Revised "Commitment Matrix" to delete A-2 Exhibit and consolidate all Desktop Computers into one Product Category

Buyer's Estimated Quantities

EX. A-1 Consisting of the following Product Categories:	End-User	OEM	Total Quantity or Functional Units
1000 Series Computers			
1000 Series Systems			
250 Series Systems			
300 Series Systems			
2000 Series Systems			
3000 Series Systems			
Desktop Computers			
EX. A-1. Total Functional Units		‡	
EX. A-3. Terminal Products		‡	
EX. A4. Peripheral Products		‡	

‡Denotes quantities or functional units referenced as "specified herein" in paragraph 1.c. below.

• Revised "OEM Certification" which further clarifies the relationship between HP and the OEM.

2. OEM CERTIFICATION

   a. Buyer Hereby Certifies that the Equipment and Software Purchased Hereunder for OEM Purposes are to be Incorporated in a System Consisting of a Substantial Amount of Other Hardware and/or Software which Buyer Manufactures or Develops, and which Buyer Sells or Leases to Third Parties (Other than Corporate Parent, Division, Subsidiaries or Subsidiaries of Corporate Parent) in the Regular Course of Business.

   b. OEM Discounts Granted Hereunder Will Be Subject to Forfeiture If Buyer Fails to Comply with Paragraph A. of this Certification.

   c. Buyer Further Certifies that it is an Independent Contractor, not an Agent or Legal Representative of HP. Any Representations Made or Agreements Executed by Buyer are Buyer's Sole Responsibility.

   d. Buyer will be Granted Discounts on HP Equipment Purchased Hereunder. It has No Claim Against HP for Compensation or Commission Arising from Any Purchase by Buyer's End-Users, or Prospective End Users, of HP Equipment.

Exhibit	Changes
B-1 ⎫ B-2 ⎬ B-3 ⎭	• Add "OEM Estimated Quantities". The addition of this statement to the Price Clause specifically states which product category(s) the OEM may purchase under this Agreement. If the OEM desires to add a Product Category. The customer must apply as an OEM for the new category. 3. OEM ESTIMATED QUANTITIES FOR A-1 PRODUCTS CATEGORIES. OEM discounts are only available for the Exhibit A-1 product categories for which an estimated quantity is specified.

Summary

This revised Purchase Agreement allows the customer to leverage Purchases of HP Computer Products to gain the maximum discount. This is an added incentive to purchase all our products regardless of whether the customer is an OEM or a Volume End User. With the combining of the computer products on a common agreement, and the addition of new products, HP can better meet the customer's computer requirements.

San Diego Division

New Logo for SDD
By: Scott McClendon/SDD

After 10 years of representation by a fun-loving conquistador, San Diego Division has modernized its HP internal sales literature logo. Our nickname is still the *Surf & Turf Division*. Note that the new logo is more graphics oriented reflecting our rapid growth (thanks to all of you) in the many facets of computer graphics. Even if you can't be here in person this year, you can enjoy our sun and hospitality via the new logo.

Think and sell graphics!

The Graphics Edge!
By: Al MacIlroy/SDD

You have the Graphics Edge! And San Diego Division is proud to be a major part of that Edge. Yes, you do have strong competitors . . . but you have the computational power to meet the competition and the added benefits of graphics. In your next sales call, try using the Graphics Edge . . . the HP 9872B for multicolor, the HP 9872S for unattended multiple copy multicolor . . . the HP 7310A for HP 2645, 2647, and 2648 terminal hardcopy output . . . the HP 7225A or HP 9872B for text slides and business graphs from HP 2647 multiplot . . . the HP 9845B Graphics Presentation Software on the HP 9872B . . . Graphics/1000 with multicolor output . . . and the HP 7245B for long-axis with graphics, fast annotation and printing.

With the Graphics Edge, you can use multicolor overhead transparencies for your presentations to potential customers. After your presentation, leave your overhead transparencies with your customer to use in discussions with others in his/her organization.

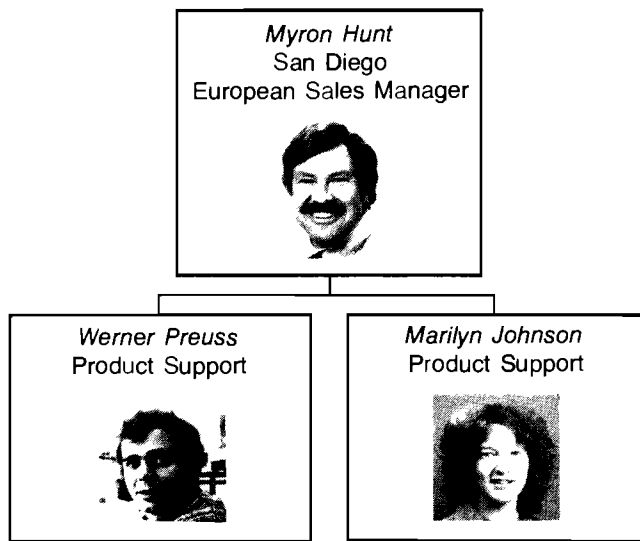Use the Graphics Edge to close *your* next deal. Others have!

*Do you have a graphics question? Or just want to tell us a story? Call your San Diego Support Team: *Bill, Chuck, Greg E, Kat, Ron, Tom, Vern,* or me. Call your European-based (BID) Support Team: *Marilyn, Myron,* or *Werner.* The SDD plotters and sales support are behind you with the Graphics Edge!

Support Plus — Europe
By: Al MacIlroy/SDD

The PLUS for San Diego in Europe is our Sales Support Group located at BID. Their primary objective is to support San Diego products for *you*, the European Sales Force. They are there to support you. Send a comsys to 1201 or call them at 49-7031-6671.

Sales Support Organization — European

Myron Hunt
San Diego
European Sales Manager

Werner Preuss
Product Support

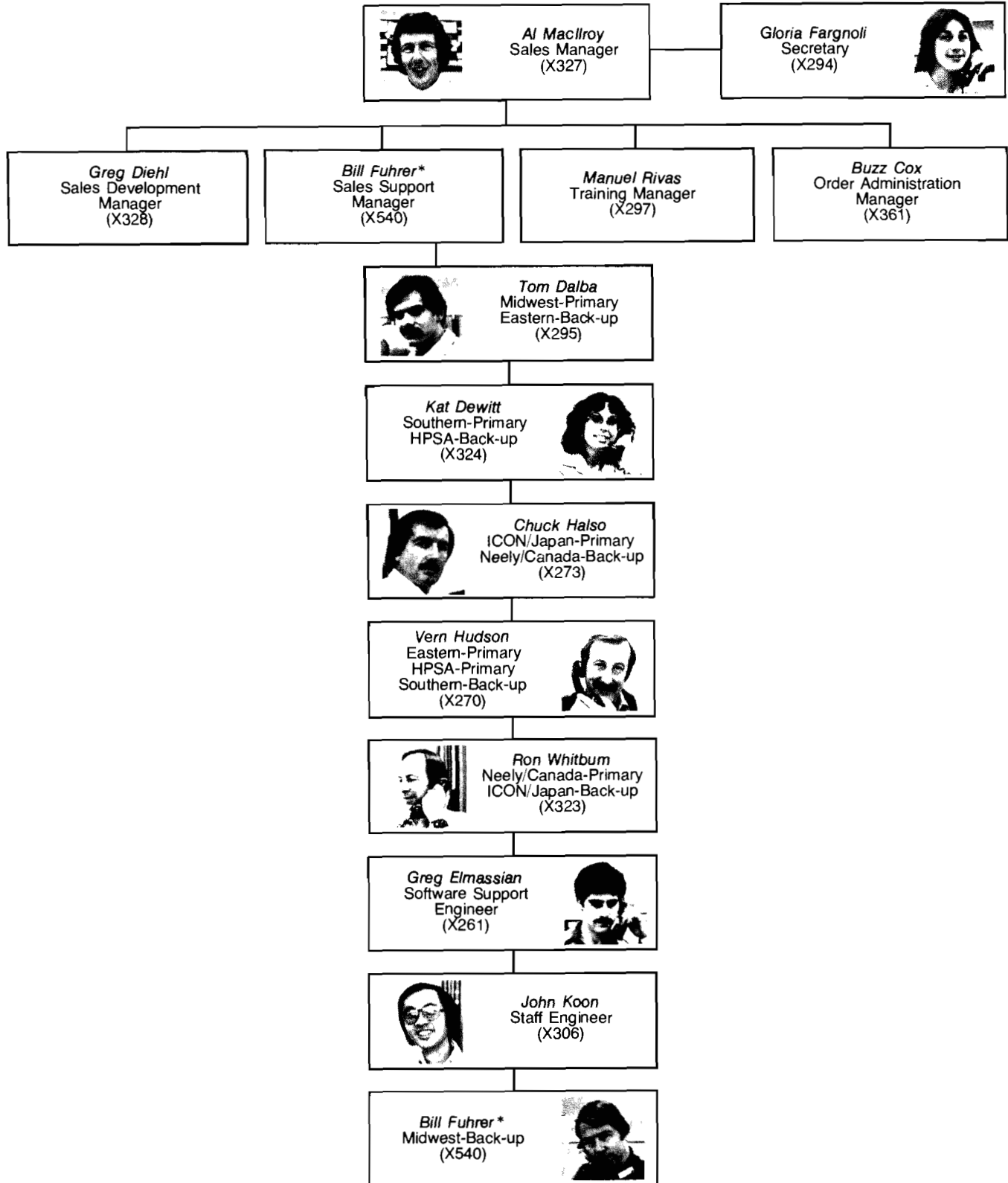Marilyn Johnson
Product Support

Support Plus

By: Al MacIlroy/SDD

In the next issues, I will be introducing the Sales Group that supports the Graphic Edge from San Diego Division. This month, it's *your* Sales Support Group. Their primary objective is to support you on SDD products. Each of you has a primary person to call at SDD when you have a question, PLUS, the "friendly ear" of your back-up is also always ready to help. We are here to support you. Call us at 714-487-4100 or send a COMSYS to 1100.

Sales Support Organization

Al MacIlroy
Sales Manager
(X327)

Gloria Fargnoli
Secretary
(X294)

Greg Diehl
Sales Development
Manager
(X328)

Bill Fuhrer*
Sales Support
Manager
(X540)

Manuel Rivas
Training Manager
(X297)

Buzz Cox
Order Administration
Manager
(X361)

Tom Dalba
Midwest-Primary
Eastern-Back-up
(X295)

Kat Dewitt
Southern-Primary
HPSA-Back-up
(X324)

Chuck Halso
ICON/Japan-Primary
Neely/Canada-Back-up
(X273)

Vern Hudson
Eastern-Primary
HPSA-Primary
Southern-Back-up
(X270)

Ron Whitbum
Neely/Canada-Primary
ICON/Japan-Back-up
(X323)

Greg Elmassian
Software Support
Engineer
(X261)

John Koon
Staff Engineer
(X306)

Bill Fuhrer*
Midwest-Back-up
(X540)

Product News

The $5 Million "Little Effort" Opportunity
By: Tom Tremble/SDD

What have you had to recommend to your customers who wanted hardcopy *forms* output from their HP terminals? The only hardcopy product that could produce forms from our terminals came from HP competitors — Tektronix, Versatec, and Houston Instruments. In addition to the lost sales opportunity, it's disconcerting to be unable to offer your customer complete HP capability — terminal and printer. But, HP just hasn't had a printer that could produce forms output from our terminals . . . up until now!

With the introduction of the HP 7310A Graphics Printer, that's no longer the case. It's the $5 million dollar "little effort" opportunity that you can't afford to pass up. The 7310A offers forms from HP terminals and forms over the RS-232-C/V.24 interface from a computer. The 7310A is the only HP printer that can do this. Before the 7310A was introduced nearly 100 customers *per month* purchased competitive hardcopy units to go with their HP 2640-series terminals, and now the 7310A can do a better job for them at a comparable or lower price.

The 7310A has been optimized for forms printing. A programmable paper cutter and page stacker capability provides forms of any length from 2-20 inches — neatly stacked on top of the unit for easy pickup. Paper is automatically loaded by just dropping in a roll of high contrast blue or black thermal paper and pushing a single button. Inverse video fields are copied just as they appear on the terminal screen and blinking data is printed in a special bold font to draw attention to this information. The 7310A does all this — copies what you see on the screen in the way you'd expect the hardcopy to look (including enhancements) and cuts and stacks the output.

The 7310A offers a big PLUS over the competitors in that they use a video interface which simply copies the screen image and can't serve as a printer. Our big plus is *high speed* printing. Printing speeds vary from 200-500 lpm depending on line length. Output quality is excellent. The 7310A even offers a proportionally spaced character set for enhanced quality and easy readability.

Forms and printing is only part of the 7310A's story. It copies graphics from the HP 2647A or HP 2648A graphics terminals in 47 seconds — faster than any other HP printer — and because it has 720 dots in the horizontal direction, you get the entire picture, not just part of it.

So here's the key to bringing that $5 million in printer business home to HP — SELL THE 7310A!

HP 7310A Sample Forms

MANUFACTURING SYSTEMS PROJECT SCHEDULE

Sales Aids

Sending Control Characters Through the Command Window on the HP 2647A
By: Greg Elmassian/SDD

Sometimes it is necessary to add extra labels to graphs created by Multiplot on the HP 2647A terminal. The plotter's (9872A/B/S, 7245A/B, 7225A/17601A) label command, LB, must be terminated by an E_x (Control C). Since you cannot send control characters through the command window, this command must be executed outside the command window. To send

LB THIS IS A SAMPLE HEADING E_x

to a plotter, type

TE TE #5 "LB THIS IS A SAMPLE HEADING E_x"

and press control command. The label will appear lower-left justified at the current pen location on the plotter using the currently held pen. There can be no other characters on the line in the display (such as :, *, >) and to type the E_x you must first turn on display functions on the terminal. For repetitive operations, type into the display (not into the command window)

TE TE #5 "LB THIS IS A SAMPLE HEADING E_x"

Then put this into a softkey (such as f1). Press command softkeys. When you press f1, the command will be executed. TE TE #5 is the terminal's abbreviation for TELL TERMINAL #5. The 5 indicates the address of the plotter. Other HP-GL commands can be sent using the "TELL" command directly.

HP 7240A/7245B Data Sheet Introduces New SDD Plotter/Printers
By: Tony Guggenheimer/SDD
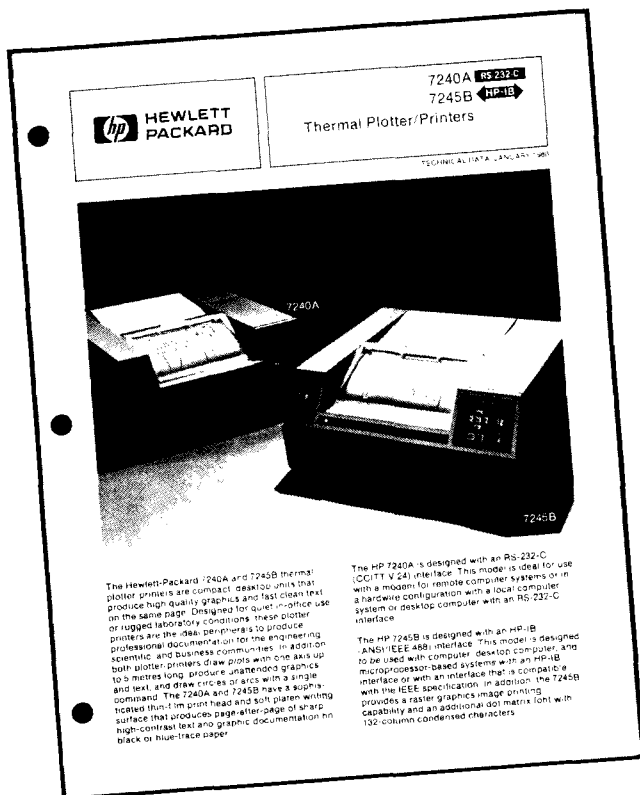
San Diego Division complements the introduction of the new HP 7240A and HP 7245B plotter/printers with a 10-page, 2-color data sheet. Containing 12 graphics, clear photographs of the controls, and terse promotional text, this data sheet can serve as a basic demonstration of these two new and highly useful units.

The blue and black colors of the data sheet not only provide sharp duotone photographs but illustrate the graphic advantages of the high-contrast blue and black trace thermal paper available for the 7240A and 7245B.

The data sheet illustrates and promotes the four major 7240A/7245B features. Hardware features, complete with photos of the front panel controls, are displayed and explained on a double-page fold-out. There is also a listing of the main commands with explanations, a specifications page, and a fast feature review.

A mailing of this 7240A/7245B data sheet has been made to field managers and field engineers of sales forces 01 through 05. Additional copies are available from the Corporate Literature Center; Order P/N 5953-4049D (Domestic) and 5953-4049 (Foreign).
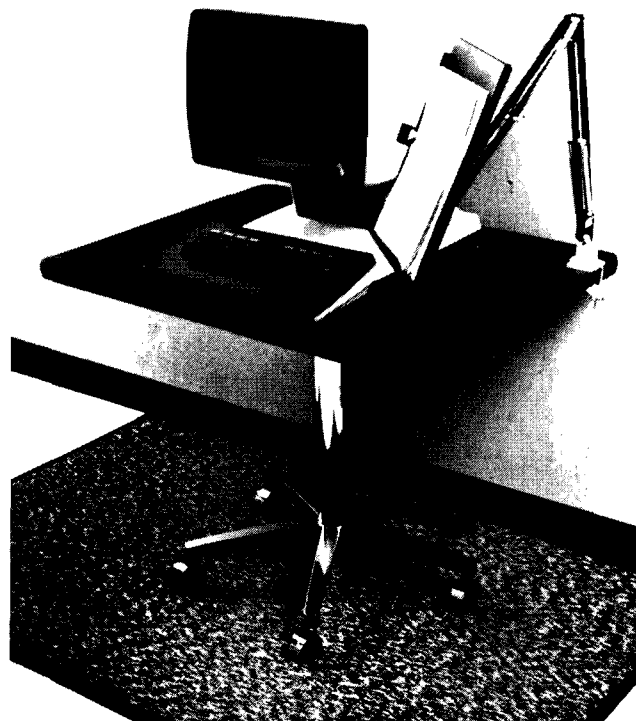

New!! Tables in Stock! 92170A
By: Will Carleton/CSO

Can you believe it! A solution to one of your customers' crying needs . . . "Where do I put it?" Look at this beauty.

Handsome — Rugged — Useful — Good $ Value

- 5-legged, chrome base, with casters
- Chrome pedestal
- 26" × 34" walnut grained top, can readily accommodate a 2621P (15 × 26); a 9845B (17 × 18); or even a 7221S/9872S (34 × 18)
- $230 FOB Sunnyvale — completely assembled (Only $207 each in quantities of three or more)

They're in STOCK and ready to ship TODAY! — Order 92170A

Other new supplies items pictured:

- Fully adjustable copyholder — $49 (product number 92171A). It's extremely handy and the price drops to $44 in quantities of three or more.
- Anti-Static Mat — we're offering two heavy duty and two standard, carpet-type mats (in two attractive colors).

All are fully described in our new Computer Supplies Catalog available soon.

HP-IB Cables . . . Easy Ordering, Fast Delivery
By: Will Carleton/CSO

HP has invested a great deal in our total HP-IB strategy. It integrates our instruments and computers to maximize their impact and usefulness. Now that our customers are sold on the concept and using it, why don't we make it as easy as possible?? There's nothing worse than being all ready to go and then whoops! No cable! Computer Supplies has the answer:

Toll-free Direct to Distribution Center. We ship within 24 hours, GUARANTEED!

Have your customers try it — they'll like the service.

(800) 538-8787 Toll-free
In California (408) 738-4133 Collect

HP-IB Cables	(Equivalent)	Order
1 metre	(10631A)	31389A
2 metre	(10631B)	31389B
4 metre	(10631C)	31389C

About the Newsletter . . .

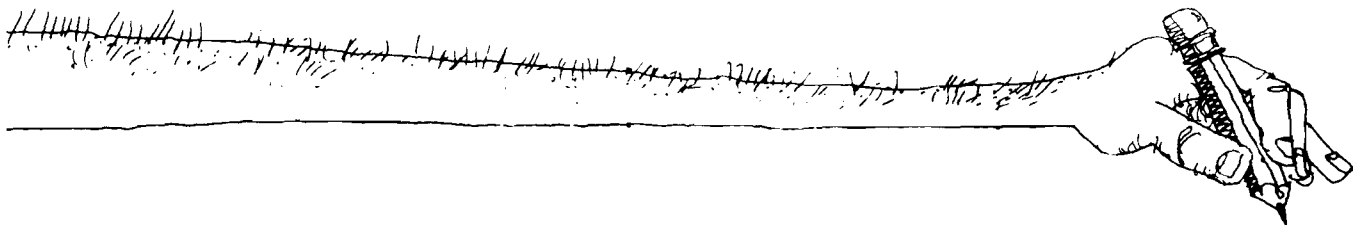## New Editor of the CS Newsletter
By: Andy Danver/CMG

Kerin Henderson receives the official CS Newsletter editing crayon from Bob Lindsay.

As of this issue, the CS Newsletter has a new editor — Kerin Henderson. A former newspaper reporter and Publicity Co-ordinator for IBM Australia, Kerin recently joined CMG Marcom to work on various public relations activities.

Former editor, Bob Lindsay, who has edited the CS Newsletter for the past three and a half years, is now concentrating his energies on developing the soon-to-be implemented Manufacturing Systems Applications training program.

Give us your views on the CS Newsletter. Respond to the following questionnaire.

ANNOUNCING
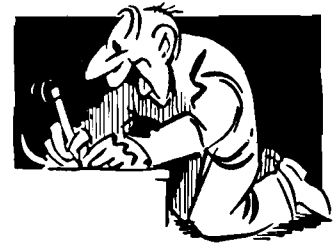
CS Newsletter Annual Readership Survey

Return to: Kerin Henderson
Computer Marketing Group
19320 Pruneridge Avenue
Cupertino, California 95014 USA

Basically, the major objective of the CS *Newsletter* is to help the Computer Groups' sales force sell and service HP products.

It's *your* Newsletter. How effectively is it doing the job? Each year we'd like your ideas on how to improve the Newsletter. Help us help you!

Name (Optional) _____

Job Function (SR, SE, CE etc.) _____

Products you sell _____

Division/Office _____

A. Readership

1. How frequently should the Newsletter be published?

Monthly ☐
Twice monthly ☐
Other. Specify _____

2. How often do you read the Newsletter?

1 out of 4 ☐
2 out of 4 ☐
3 out of 4 ☐
4 out of 4 ☐

3. How thoroughly do you read the Newsletter?

Skim ☐
Specific division/s ☐
The whole thing ☐

4. How would you rate it in terms of its interest?

Very interesting ☐
Sometimes interesting ☐
Uninteresting ☐

   a. What would make it more interesting to you?

_____

_____

B. Layout

1. How easy is it for you to find the articles which apply to your job?

Easy ☐
Fairly easy ☐
Difficult ☐

   a. What changes could be made to make it easier for you to use the Newsletter? _____

_____

_____

2. How would you like to see the Newsletter organized?

By Division (the present organization) ☐

By Product Group (Technical Computers, Business,
Computers, Terminals, Peripherals) ☐

By Topic (New Product Announcements, Product Information,
Competitive Information, Sales Aids etc.) ☐

Other. Specify _____

C. Content

1. What topics do you find to be the most consistently useful?

_____
_____
_____

2. What topics/material do you feel to be inappropriate to be included in the Newsletter?

_____
_____

3. Where would you prefer to see detailed product descriptions and product
implementation guidelines?

In this Newsletter ☐

In a special Newsletter supplement ☐

a. If a supplement makes sense, how often should it appear? _____

D. Summary

1. How effective is the current Newsletter in meeting your requirements for Computer Groups' news?

Not effective ☐

Occasionally effective ☐

Generally effective ☐

Very effective ☐

2. What other improvements, if any, would you like to see to the Newsletter?

_____
_____
_____
_____