REINHARDT, HELMUT
FRANKFURT
HPSA

DMD Announces the LATEST ADDITION to the H-Series Family!

WEATHER TODAY

The Daily Dispatch
Boise, Idaho

NEWS OF THE WORLD

7910
WINCHESTER DISC DRIVE

BOISE, ID.
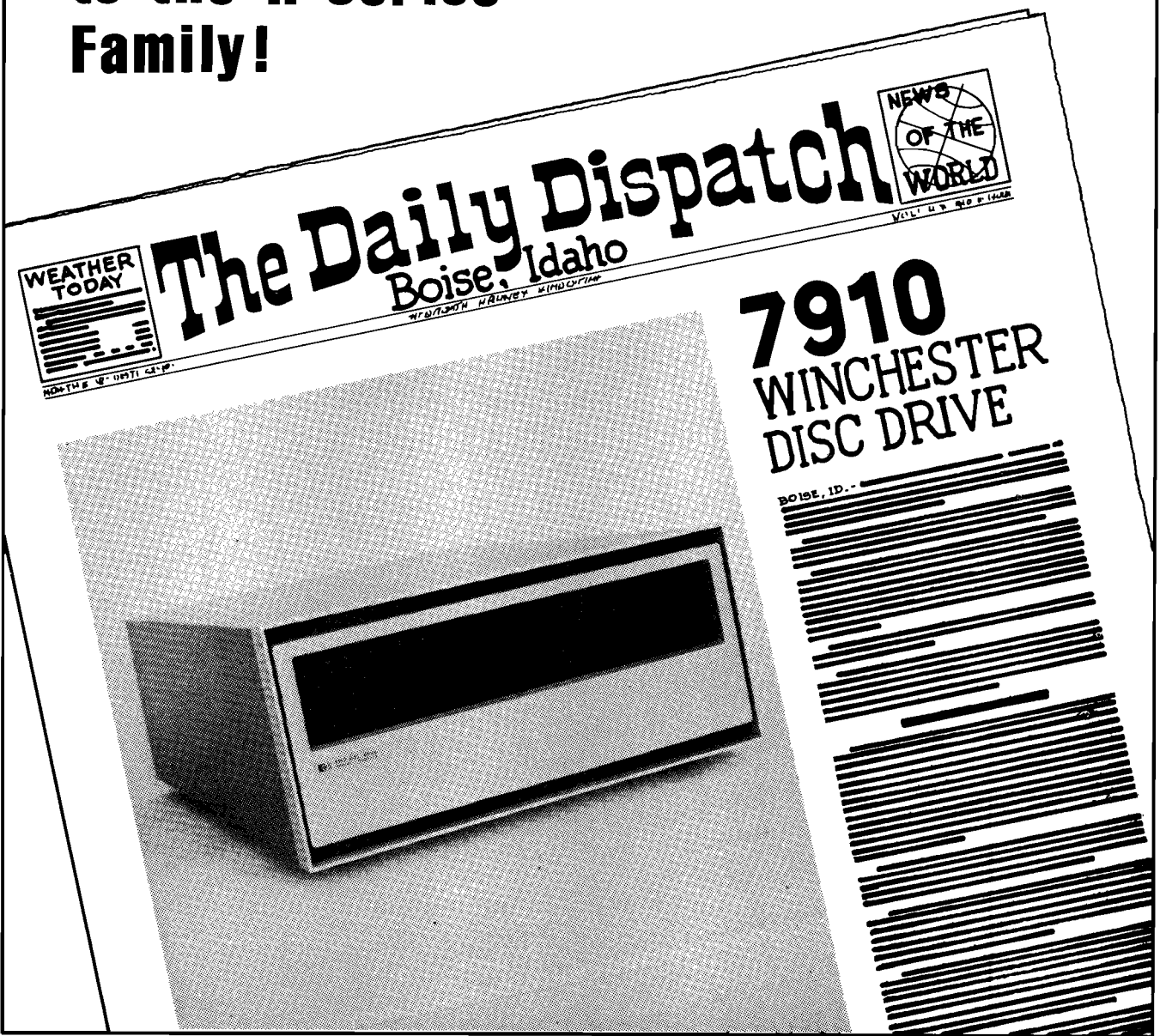
New 7910 Disc Drive .... Page 10

In This Issue...

BOISE DIVISION NEWS

Division News

Boise Sales Development Organization
By: Robert McCaleb/Boise

The new Boise Division Field Communication Guide is on its way, detailing all the recent developments within the Marketing Department. We have assembled a remarkably strong worldwide support team which is organized as shown below.

Domestic US support is handled from the Boise Division site. European support is divided by product lines, with the Grenoble Division Sales Development team doing an excellent job with the 2630 family. Line printers and magnetic tape drives are the responsibility of *Chuck Ulfers* in Boeblingen.

Sales Development

Chuck Ulfers Boeblingen	*Robert McCaleb* Reg. S.D. Manager	Grenoble Sales Dev.	*Thad Webster* Reg. S.D. Manager
European	*Sylvia Cohen* Secretary	European	*Lil Blankinship* Secretary
Support for		Support	*Sue Brault* MARCOM
Tape Drives	*Tom Mills* ESR	for the	*David Melin* NSR
and Line	*Dave Gerhart* East (HPSA Backup)	2630 Family	*Larry Haley* NSR
Printers		of printers	
	Ed Pavlinik ICON/Canada	and terminals	*Jim Skog* MSR
			Dick Wilhelm SSR

Product News

Correction to 500 Ft Maximum for 2619A Cable, CS *Newsletter,* Feb 15, '80

By: Jim Skog/Boise

In case you were misled by an error in the Feb. 15, '80 CS *Newsletter,* the standard cable length for the 2619A on the HP 3000 is 50 feet. If your customer desires a cable longer than 50 feet, it is a special cable and must be quoted through your Boise Division Sales Development contact. The maximum cable length currently available for the 2619A is 500 feet.

HP Computer Museum
www.hpmuseum.net

COMPUTER SUPPORT NEWS

Division News

CSD's 1980 Tactical Plan Focuses on Quality
By: Bob Puette/CSD

January is a key month in the MBO process at HP. All the General Managers from the manufacturing divisions and sales regions meet for two days in Monterey to review the past year's results and to highlight tactical objectives for the next year.

This year's meeting focused on the opportunities that face us in the decade of the 80's. Continued, strong growth should be in store for the electronics industry as a whole and we may see this as the largest industry in the world by the end of the decade. HP's growth will continue to increase our leadership position in this marketplace for all disciplines, with almost all divisions adding computational features and capability to their products. It is important that we keep a clear focus on the markets which we feel offer us the highest return on investment. This will put additional challenges on our company to coordinate product strategies with the ever expanding number of divisions, but, as *John Young* pointed out, "Just think how many firms wish they had our challenges to face."

The General Managers' meeting was followed by our Computer Groups' Management Meeting which was attended by the division and functional managers from the computer products divisions and sales regions. We really worked on developing our 1980 Tactical Plan here with several workshops. I was very pleased to see that *Quality* came out as our number one objective. This has been a personal concern of mine and an area in which I think we need to do a better job if we are to have a preeminent position in the computer industry.

In order to get a clear picture of CSD's tactical objectives in 1980, we had a division management meeting to refine our Corporate and Group objectives and decide how we can make these happen in our operation. Over half the managers attending this session were from CSD's field operations.

At the meeting . . .

Quality again was one of the three major items of attention. The Computer Group goal is to cut our overall annualized failure rate on all of our products *in half* by the end of the year and we agreed to do more than our share in our manufacturing and field operations to make this happen. This will take a special effort to achieve, but will clearly pay off with increased customer satisfaction.

We also agreed to two other major technical objectives for CSD in 1980 and I will discuss each of these separately in future issues. In the meantime, we will be distributing our 1980 CSD Tactical Plan to all CSD supervisors in the factory, as well as in the field, to use as a basis for developing each department's plan for this year.

This process really provides for everyone in HP to participate in putting together a set of objectives to meet each year and is a major element in MBO.

DESKTOP COMPUTER DIVISION NEWS

Division News

Contract Sales Development Regional Assignments
By: Frank Ryan/DCD

DCD's Contract Sales Development Group has recently been restructured to better serve your contract-based customers and to give you a regional contact. The people in this group are responsible for setting up customer visits to DCD, and are your prime contact at the division for support of new or existing OEMs. Let us know how we can help you.

Sam Flores
- Neely
- ICON
- Europe*

*Visits only; BDD is primary support for Europe.

Norb Gotner
- Canada
- Eastern

Ken McCrady
- Midwest
- Southern

Product News

HP 9835/9845 Application Software Data Cartridge Problem
By: Pete Appel/DCD

We have discovered a potential problem with some 3M data cartridges that have been used for application software for the HP 9835 and 9845. The 3M cartridge can be identified by the nonanodized (not black) backplate.

The potential defect is that some units will spool off the end of the tape. We have discontinued shipping any of these units.

If you have any 3M cartridges in your possession, we recommend that you copy them onto a non-3M cartridge. We would appreciate your handling customer requirements locally.

Used Equipment Exchange
By: Al Sperry/DCD

Here are the current items of HP desktop computer equipment for sale or wanted by customers. Opt. 888 is an internal code, and does not physically affect the equipment.

For Sale: 9862A, Opts. 030, 888; 11271B Plotter Control ROM, Opt. 888

Wanted: 9810, 9820 or 9830 with printer, plotter, tape cassete (for engineering application).

For further information, please call Chris Stumbough or me at DCD, (303) 226-3800.

Sales Aids

New Application Software Catalog
By: Manley Siler/DCD

Imagine 240 application software packs containing more than 10 Mbytes of code, and growing! That's what the first issue of DCD's new Software Catalog contains.

This catalog is the comprehensive reference source for BASIC language software available for DCD products. The software contained in the catalog comes from three different sources, including HP, third-party for sale, and BASIC Users' Club Exchange. The HP software, supported by HP, is the kind you are familiar with. The third-party software is offered for sale by qualified third parties, and supported by them. The BASIC Users' Club Exchange software is contributed, unsupported software.

The catalog describes 87 HP software packs, including the extensive and successful statistics library, with details on how to request more information. Soon to be added are programs such as 3D Graphics Utilities and Microprocessor Development packs.

The second and newest source of software is third parties who have developed and who would like to sell BASIC language software for DCD products. This is a software source that we expect to grow dramatically. Eleven third-party suppliers are now signed up on this program; four of their programs will be included in the initial Software Catalog issue. Information on other software suppliers will be mailed as it becomes available. Also, negotiations are progressing with 14 more third-party suppliers.

Included in the third-party catalog section are programs such as Finite Element Analysis and a FORTRAN-to-BASIC Translator. Your customers will be able to purchase this software directly from the suppliers. A complete description of the software, as well as a listing of available support services, is included in the catalog.

The third software source is the BASIC Users' Club (BUC). In the past this software was handled on an exchange basis only; a customer had to contribute a program to the club to get this software. Now the programs may be purchased from the club through the Software Catalog for a $25 recording fee, using order forms included in the catalog. There is now a selection of 149 programs.

You can order your copy of this new sales tool through the Software Distribution Center (SDC). The part number is 11141-10102; the price is $25. The catalog and quarterly updates are available to customers for $25 per year. A brochure (including order forms) describing the service is available through HP literature distribution channels. Additionally, the approx. 1400 existing US and ICON BASIC Users' Club members will receive a complimentary copy of the new catalog.

For people who have developed technical software for DCD products and would like to market programs through the Software Catalog, a brochure is available describing the program. A kit containing this brochure and detailed information on the software supplier program is being mailed to you. Please call John Oster, 303-226-3800 Ext. 2680, if you have questions.

Watch your mail for more information on the program during the next few weeks. Meanwhile, get your order in to SDC to receive the Software Catalog and immediate updates on software as they become available.

Training News

How DCD Training Helps You Support Your Customers
By: Stanwood Lehman/DCD

Customer training for desktop computers has grown rapidly in the last three years. This training provides your customers with professional, high-quality instruction which reduces the number of less technical questions the SE must support, and provides incremental sales to the SR.

Desktop computer training is provided in several ways. A self-paced training package is shipped with every HP 9825, 9835 and 9845. This package consists of a tape cartridge and a workbook designed to rapidly familiarize your customer with his new computer. In conjunction with the manuals supplied with each system, your customer should find this basic level of training adequate to enable him to efficiently use his system.

For customers requiring more formal schooling in the use of their new desktop computer, over 600 regularly scheduled classes will be held worldwide in FY'80. The six customer classes presently available are designed to provide your customer with fundamental tools to more quickly, easily and efficiently use his new desktop.

These courses are:

Name	Number	Price	Days
HP 9825 Operating & Programming	09825-30010	$625	5
HP 9825 I/O Program	09825-30030	500	4
HP Desktop BASIC Program	09845-30001	500	4
HP 9845 Operating & Programming	09845-30010	625	5
HP 9835 Operating & Programming	09835-30010	625	5
HP 9835 Assembly Language	09835-30020	625	5

(See the following article for additional information on the 9825 courses.)

More detail on all courses is in the "Series 9800 Desktop Computer Operating and Programming Courses" brochure, P/N 5953-1071, revised August, 1979. A schedule of classes is in the North American Customer Training Schedule beginning with Spring, 1980. For registration, contact the SE in your local sales office. For courses held at DCD, contact *Juanita Rose*, Registrar, (303) 226-3800.

We appreciate your continued support in selling training and, in turn, letting training help increase your sales.

HP 9825 I/O Programming Customer Course
By: Bill Boehm & Rich Andelfinger/DCD

What is the HP 9825? The fastest desktop computer on the market today? Industry's premiere HP-IB controller? A friendly desktop computer with unparalleled I/O performance and versatility? The answer to all these questions is Yes! With the new 9825 I/O Programming Course you can show customers that ease-of-use and high-performance I/O meet in the 9825.

The customer courses in 9825 I/O and 9825 Operating and Programming are excellent sales tools for developing new 9825 VEUs and OEMs. Such potential major accounts have applications demanding versatile interfacing and short software development time, but these prospects are not aware of the 9825's ability to provide an excellent solution to their needs. The 9825 I/O Programming Course can make them aware and reinforce the point that DCD provides *solutions* — not just computers.

The 9825 I/O Course can also help overcome support demands in developing a new major account with a dependent I/O application. When a customer can learn firsthand how to take full advantage of the 9825's powerful and versatile I/O he/she gets up to speed quickly, and your time is not tied up in training efforts.

The 9825 I/O Programming course covers input/output operations and HPL. Designed for the experienced 9825 user, this course gives detailed operating information on the 98032A (16-bit parallel), 98034A (HP-IB) and 98036A (RS-232C) interface cards, as well as General and Extended I/O ROM and Systems Programming ROM commands. After completing the course, students should feel comfortable with almost any I/O operations they might encounter with the 9825.

The course, priced at $500, takes four days and can be ordered as P/N 09825-30030. The field and factory presentations schedule is:

Feb. 19-22	DCD/Ft. Collins
Mar. 10-13	Bellevue
Mar. 10-13	Albuquerque
Mar. 11-14	Airport (L.A.)
Apr. 8-11	Fullerton
Apr. 21-24	Santa Clara
Apr. 28-May 2	Englewood

Apr. 29-May 2	DCD/Ft. Collins
May 12-15	Rockville
June 9-12	Albuquerque
June 9-12	Santa Clara
June 17-20	San Diego
July 15-18	Airport (L.A.)
July 29-Aug. 1	DCD/Ft. Collins
July 29-Aug. 1	Airport (L.A.)
Aug. 11-14	Bellevue
Aug. 25-28	Paramus
Aug. 25-28	Englewood
Aug. 25-28	Santa Clara
Sep. 15-18	Rockville
Sep. 23-26	DCD/Ft. Collins
Oct. 14-17	Airport (L.A.)

Colorado Peripherals News

New Prices and Volume Discounts for Supplies
By: John Hettrick/DCD

Did you know we offer a volume discount on the 98200A Data Cartridge? We also offer some new pricing and volume discounts on some of our Thermal Paper. The following new prices are listed on HP price lists (effective Feb. 1) and the SODA System.

	Item	Qty.	Price
*98200A	Data Cartridge	1 Box	$90.00
	(one box of 5)	2-4	81.00
		5-19	72.00
		20-99	63.00
		100+	54.00
9270-0479	Blue Thermal	1 Box	$25.00
	Paper for 9815,	2-4	22.50
	9825, and 9835A	5-19	20.00
	(one box of 6 rolls)	20-99	17.50
		100+	15.00
9270-0664	Black Thermal	1 Box	$25.00
	Paper for 9815,	2-4	22.50
	9825 and 9835A	5-19	20.00
	(one box of 6 rolls)	20-99	17.50
		100+	15.00
9281-0401	Blue Thermal	1 Box	$15.00
	Paper for 9810,	2-4	13.50
	9820, and 9821A	5-19	12.00
	(one box of 6 rolls)	20-99	10.50
		100+	9.00
9270-0801	Black Thermal	1 Box	$45.00
	Paper for 9120A	3-7	40.50
	(one box of 3 rolls)	8-15	36.00
		16+	30.00

*Data Cartridge price and discount schedule was effective Sept. 1, '79.

9885 Flexible Disc Direct Mail Promotion
By: Al Herder/DCD

> ## The time and trust you're investing in your HP 9825 can earn you a much better return ...
> **HEWLETT PACKARD**

> ## ... Meet the think bank —
> ## the HP 9885 Flexible Disc Drive
>
> The decisions you make rest heavily on your 9825's performance. You can significantly increase that performance and draw rapid, more complete analysis of data through the 9885's 500.000 byte random access storage.

In an effort to reach the more than 12,000 HP 9825 Desktop Computer customers that do not have 9885 Flexible Discs, the Colorado Peripherals sales development group has produced and sent to each Technical Sales District Manager a direct mail promotional piece. This mailer is designed to be used by SRs to reach their 9825 customers with a minimum of effort. It has a place for the SRs business card and folds up and does not require an envelope to be sent through the mail.

This promotion takes a positive, benefits-oriented approach to show the 9825 owner how the 9885 Flexible Disc can increase the throughput of his/her 9825. Therefore, it must be sent directly to the 9825 end user to be of maximum value. The time you spend getting this mailer to your 9825 customers should provide a maximum return for your efforts.

Ask your District Manager today for the 9885 Direct Mail Promotion. For extra copies, contact either *Jack Huffman* (Neely and Midwest regions) or *Al Herder* (Eastern, Southern and Canadian regions) at 303-226-3800.

BDD News
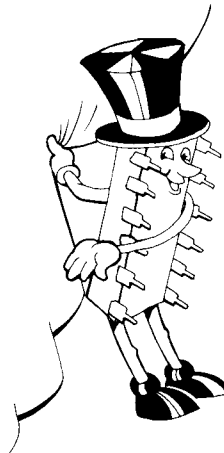
9835/9845 Microprocessor Development Software Pack
By: Bob Ward & Ed Hop/BDD

On Feb. 1, '80, a new software pack was added to the comprehensive library available for the System 35 and the System 45. This was the first product to be released from the BDD Software R&D Group. The development cycle, which included extensive QA testing, covered 18 months.

The new pack provides System 35 and System 45 Desktop Computers with an inexpensive and efficient method of writing microprocessor source code. The pack supports four of the most popular microprocessors; Intel 8080 and 8085, Motorola 6800 and Zilog Z80. The instruction set was designed to be syntax-compatible with assembler programs commonly used with the four defined microprocessor types.

The software pack is divided into four modules:

Initialize
This module leads the user through a routine to specify parameters such as printer select code, paper width and which storage unit will be used to store the source code. The user has to specify these parameters only once.

Editor
User convenience is emphasized even more in this module. Basically, the 'editor' enables the user to write, modify or correct the source code in the language of the chosen microprocessor type. The user will quickly understand the editor module because it operates in a similar manner to the mainframe editor. It features a cursor which moves to any part of the screen. Virtual memory capability enables the editor to access source lines stored outside the desktop computer memory (i.e., on external mass storage devices) in a user-transparent fashion.

Assembler
This module translates the user-written source code into an absolute machine language object code. Assembler incorporates conditional assembly and macros. An assembly listing composed of the source code and associated object code can be output on a printer, either built-in or external.
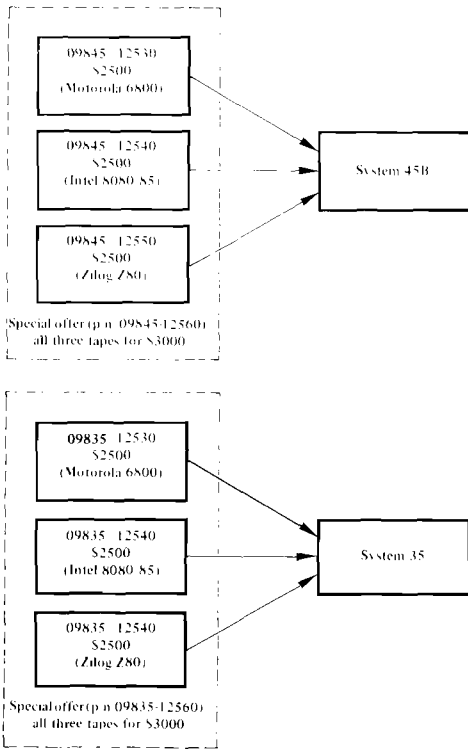
Console
All debugging is done within a microprocessor system which has to be supplied by the user. The physical connection can be supplied by an HP RS-232-C interface, and the communication between the desktop computer and the microprocessor system is handled by the 'console' module.

The Market

The microprocessor development software pack is intended for people who either own a desktop computer or are just about to buy one. A prospective customer will be attracted by the friendly features of the pack and the low incremental price above the cost of the desktop system.

The pack is not a microprocessor development system such as the recently introduced HP 64000 or those systems sold by Motorola, Intel, Zilog, etc. Consequently, our pack will not be in direct competition with them.

Part Numbers and Pricing

```
┌─────────────────────────────┐
│  ┌──────────────┐           │
│  │ 09845-12530  │           │
│  │   $2500      │           │
│  │ (Motorola 6800)│         │
│  └──────────────┘           │
│  ┌──────────────┐    ┌──────────┐
│  │ 09845-12540  │───▶│ System 45B│
│  │   $2500      │    └──────────┘
│  │ (Intel 8080/85)│         │
│  └──────────────┘           │
│  ┌──────────────┐           │
│  │ 09845-12550  │           │
│  │   $2500      │           │
│  │ (Zilog Z80)  │           │
│  └──────────────┘           │
│ Special offer (p n 09845-12560) │
│ all three tapes for $3000   │
└─────────────────────────────┘
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┌─────────────────────────────┐
│  ┌──────────────┐           │
│  │ 09835-12530  │           │
│  │   $2500      │           │
│  │ (Motorola 6800)│         │
│  └──────────────┘           │
│  ┌──────────────┐    ┌──────────┐
│  │ 09835-12540  │───▶│ System 35 │
│  │   $2500      │    └──────────┘
│  │ (Intel 8080/85)│         │
│  └──────────────┘           │
│  ┌──────────────┐           │
│  │ 09835-12540  │           │
│  │   $2500      │           │
│  │ (Zilog Z80)  │           │
│  └──────────────┘           │
│ Special offer (p n 09835-12560) │
│ all three tapes for $3000   │
└─────────────────────────────┘
```

The microprocessor development software pack is sold on tape cartridges. There are six different cartridges and eight part numbers relating to the mainframe and micro-processors used. Part numbers and prices are:

Mainframe	Microprocessor	Part No.	Price
9845	6800	09845-12530	$2500
9845	8080/8085	09845-12540	2500
9845	Z80	09845-12550	2500
9845	All of above	09845-12560	3000
9835	6800	09835-12530	2500
9835	8080/8085	09835-12540	2500
9835	Z80	09835-12550	2500
9835	All of above	09835-12560	3000

For $2500, the customer gets the prerecorded tape of his choice for a particular microprocesor, together with a software manual and special function key overlay. If your customer is working with two or more of the defined microprocessor types, $3000 provides all three tapes for the appropriate mainframe. This special offer includes one software manual and one special function key overlay.

Delivery is available from either BDD or DCD.

Literature and Promotion

The market, microprocessor terminology and the competition are detailed in a combined field training manual/application summary. This document will be distributed to SRs as soon as it is assigned a part number.

A promotional piece in the form of a software summary, P/N 5953-0790, is now available. This piece, in English only, will provide prospects with enough information to make a purchase decision.

To promote the software pack on a wider scale, two press releases with photographs are being distributed to the technical press.
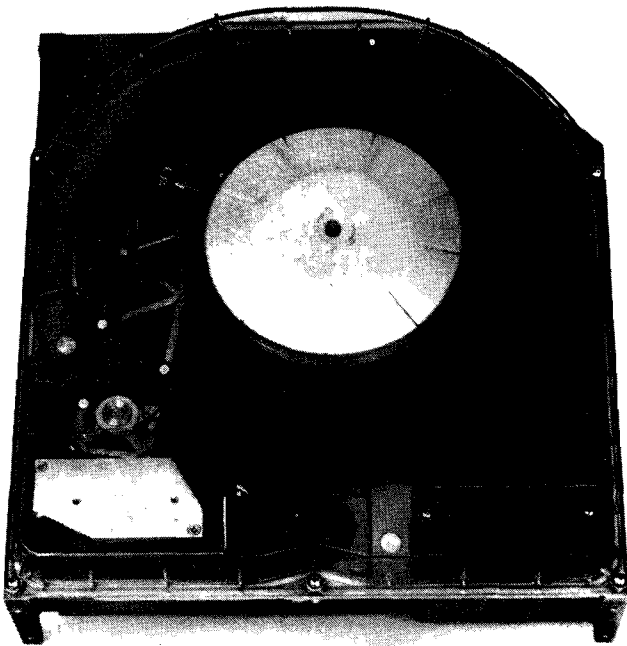
Computer Museum

DISC MEMORY NEWS

Product News

Announcing . . .
The 7910 Winchester Disc Drive

By: John Bolt/DMD

Introduced concurrent with the HP 1000L system was Hewlett-Packard's latest disc product, the 7910. The 7910 is a fixed disc design that offers a lower cost mass storage solution for users requiring modest storage capacities. Aside from low cost, major design emphasis was also placed on reliability and serviceability. The result is a drive that offers an overall cost of ownership among the lowest in the entire disc drive industry.

The 7910 provides 12 megabytes of formatted storage engineered into a compact package offered in both rackmount and table-top versions. The 7910 is a complete stand-alone disc drive including an HP-IB controller/interface, power supply, and HP-IB interface cable. Installation involves a simple connection of a single cable to the host system. The rackmount version, sold with the HP 1000L, has a list price of $7,950 and is discountable.

The 7910 is the first HP disc drive utilizing "Winchester" head/media technology. Winchester read/write heads are characterized by their low mass and light head loading, placing virtually no "weight" on the head as it "flies" over the surface of the disc media. Because a Winchester disc platter also has a thin film of lubricant deposited on its surfaces, limited head/media contact can occur during drive operation without damaging heads or media. Head crashes are virtually eliminated, thereby significantly enhancing reliability of the 7910.

Mechanical simplicity of the 7910 also contributes to high reliability and lower costs. Because the Winchester heads in the 7910 are capable of "taking-off" and "landing" on the disc surface during drive spin-up and power-down, the mechanical apparatus required to load and unload the heads to or from the disc surface is eliminated. The 7910 also uses a fixed media design that eliminates the structural and manufacturing complexity required to accommodate removable media.

The 7910 heads and media are contained within a sealed module, preventing accidental damage to critical drive components. The module is assembled and sealed in an ultra-clean room environment. This approach effectively

isolates the head/media system from external contaminants, increasing the environmental tolerance of the 7910 over removable media drive designs. Use of fixed media also eliminates the possibility of equipment failure due to improper removal/insertion of removable media or introduction of contaminants into the media chamber. The rotary actuator used to position the read/write heads (similar to the "tone-arm" of a phonograph) permits simplified assembly and a light, compact design.
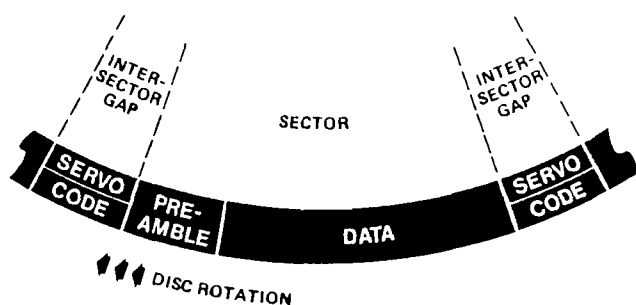
The 7910 is a medium performance disc drive providing an 80 millisecond average access time. The drive's average seek time is 70ms, and its 3000 RPM rotation rate delivers an average rotational latency of 10ms. The burst data transfer rate of the 7910 is 526.5 Kbytes/sec.

Major contributions to serviceability result from the use of a servoing technique employing "embedded" servo code and a comprehensive self-test diagnostic program built into the controller.

All servo information required for head positioning is recorded in the intersector gaps prior to each data sector. "Embedding" servo code within data surfaces in this fashion allows both sides of the single disc platter to be used for data storage. Total available storage space is increased over conventional designs that must dedicate one entire surface for servo information.

The 7910 servo system uses the same heads that read and write data, to read servo information as well. Coarse servo information within the gaps is read during seeks, detecting track crossings. Once on track, the head samples fine-servo information during the short interval it "flies" over an intersector gap, then quickly positions itself precisely over track center before the upcoming data sector appears. Because the 7910 has 32 data sectors on each track, the drive samples and adjusts its head position 32 times in each revolution of the disc. This servoing system allows the data heads to actually align themselves, eliminating the need for field head alignment and periodic preventive maintenance, thereby significantly reducing maintenance costs.

For easier serviceability, the self-test program may be initiated in any of three ways: self-test is automatically executed whenever power is applied, the host system can initiate self-test at any time during operation, or a switch on the controller board takes the drive off-line and executes self-test.

For failure diagnosis, self-test results may be displayed in two modes. An L.E.D. readout located on the controller board indicates the self-test routine status. Service personnel can interpret read out patterns by referring to the 7910 Service Manual. Self-test results may also be reported to the host system, on command, for display. Improved serviceability afforded by the self-test feature is a major contribuiton to reduced maintenance costs.

Serviceability L.E.D. and Switch

HP-IB

HP-IB Controller with Internal Self-Test Diagnostic

Serviceability of the 7910 is further enhanced by its modular design which contains only four replaceable assemblies. The drive package is also designed to provide quick access to each assembly in the event replacement is required.
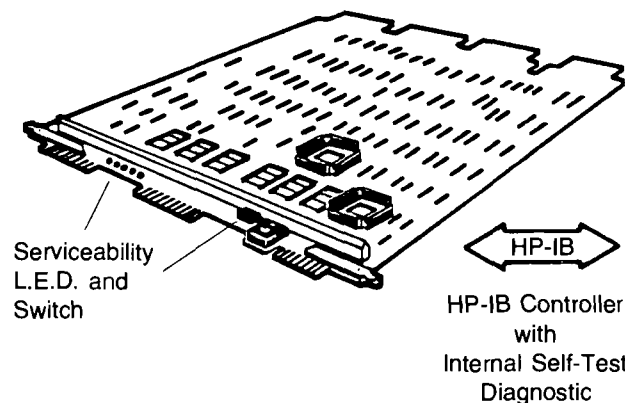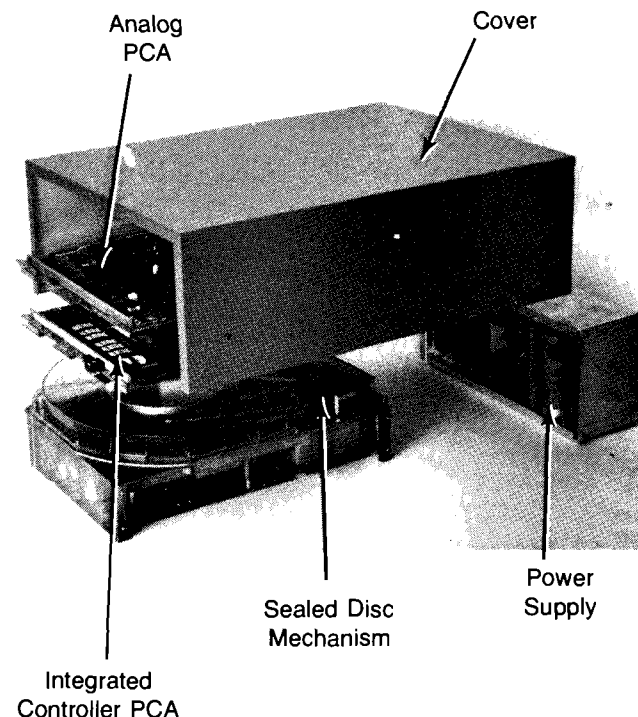
EMBEDDED SERVO CODE

Resident in controller firmware is an extensive diagnostic program capable of verifying drive operation and isolating malfunctions to the replaceable assembly level. The entire diagnostic includes more than 50 individual routines which test all drive electronics.

Analog PCA

Cover

Power Supply

Sealed Disc Mechanism

Integrated Controller PCA

Modular 7910 Packaging

Cost of ownership of the 7910 is among the lowest in the disc drive industry, as evidenced by its low entry level price and a Basic Monthly Maintenance Charge (BMMC) of only $20.

Reliable operation, without the need for periodic preventive maintenance, contributes to these low maintenance charges. Costly user down-time is also kept to a minimum. In the event of a malfunction, the drive's own self-test diagnostic may be used to quickly isolate the failing assembly. Modular 7910 packaging allows easy access to all assemblies for fast replacement. Further expense is saved in minimizing spare parts inventories because the 7910 has only four replaceable assemblies. Obviously, the 7910 is ideal for the cost-conscious user demanding reliable, low maintenance operation.

7910 Ordering and System Support
By: Steve Davis/DMD

This chart summarizes ordering informaton for the 7910:

When you order / You receive	7910H (table-top)	7910HR (rack-mount)
Disc Drive, HP-IB Controller, and Power Supply	Yes	Yes
2m (79 in.) HP-IB Cable	Yes	Yes
External Dress Cover	Yes	No
Rack-mount Hardware	No	Yes
Available Options: 015 (230V/50 Hz Operation)	Yes	Yes

The 7910 is currently supported on the HP 1000L and the HP 300; support on the HP 250 is scheduled for the near future. Please refer to the appropriate system configuration guide for additional information.

7910 Markets and Competition
By: Steve Davis/DMD

DMD is proud to announce the 7910H, a new entry level product for the H-Series Disc Drive line. The two major target markets for the 7910 are HP Technical Computer Systems (HP 1000L) and small HP Commercial Systems (HP 250/300).

For both these markets, the 7910 provides the lowest cost mass storage solution available from HP. The technical and commercial system users will greatly appreciate that the 7910 is priced almost $5000 less than HP's previous entry level solution, the 7906H.

With the addition of the 7910 to the H-Series product line, HP now offers competitive disc drives over a wide range of storage capacities, 10 to 120 megabytes. Figures 1 through 4 illustrate how the H-Series disc drives compare with the major competition from a price/capacity standpoint. Figure 5

compares the transaction time required to access and transfer a 4K block of data, while Figure 6 provides overall specifications and pricing information.
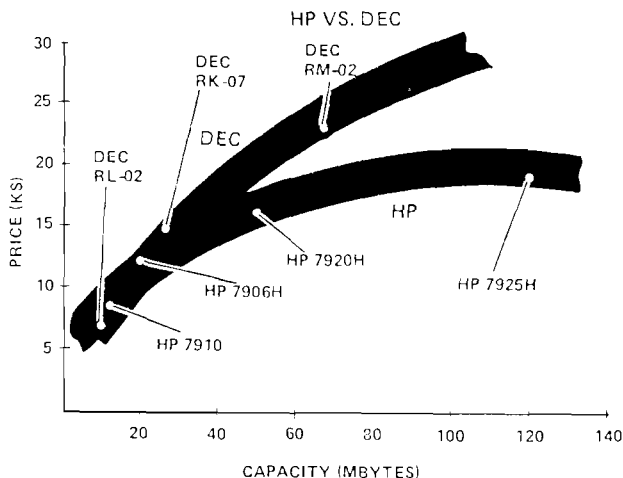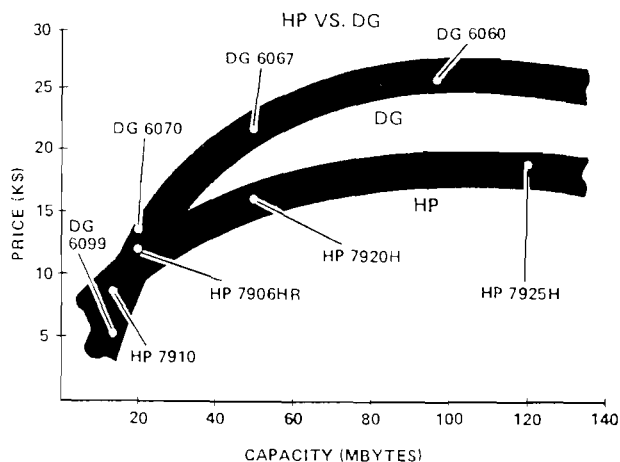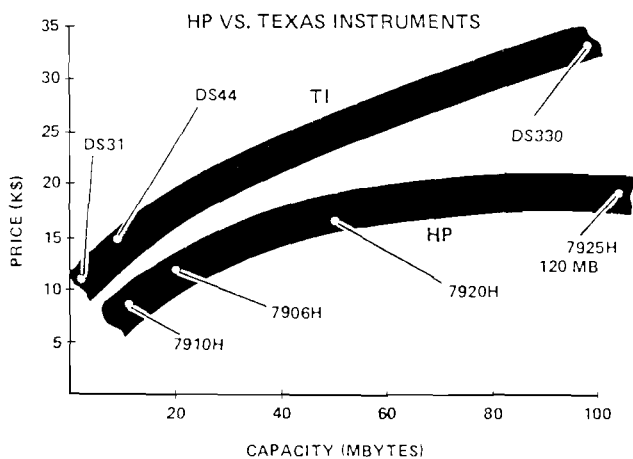

Figure 1

Figure 2

Figure 3

H-SERIES COMPETITION

HP VS. WANG
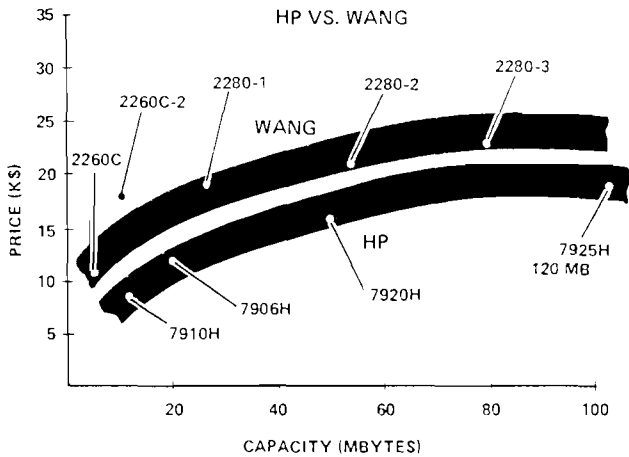
Figure 4

AND PERFORMANCE...

H-SERIES COMPETITION — PERFORMANCE
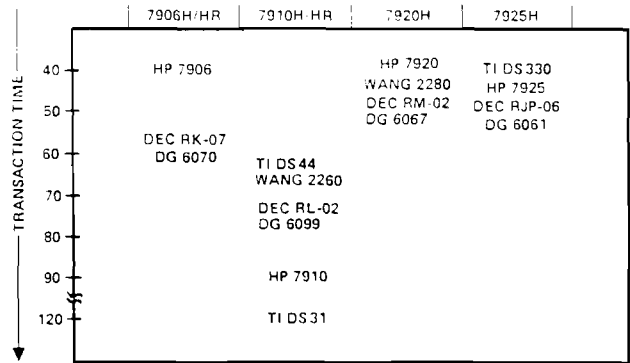
Figure 5

MANUFACTURER DATA			PERFORMANCE DATA				PRICING		
MARKETED BY	MODEL	FORMATTED STORAGE	AVERAGE SEEK	AVERAGE LATENCY	AVERAGE ACCESS	DATA TRANSFER RATE (KB/SEC)	1ST DRIVE AND CONTROLLER	LIFE CYCLE COSTING	BMMC
DEC	RL02	10.5	55	12.5	67.5	512	$ 6,900	S 6,232	S108
	RK07	28	38	12.5	50.5	538	$14,500	S11,508	S145
	RM02	67	30	12.5	42.5	809	$23,000	S17,092	S170
	RJP04	88	30	8.3	38.3	806	S36,750	S26,310	S220
	RJP06	176	30	8.3	38.3	806	$44,000	S30,659	S220
DG	6099	12.5	60	10.1	70.1	910.6	S 5,100	S 3,932	S 41
	6070	20	38	12.5	50.5	625	S13,500	S10,812	S140
	6067	50	35	8.3	43.3	806	S21,800	S16,760	S190
	6060	95	35	8.3	43.3	806	S25,800	S19,741	S220
	6061	190	35	8.3	43.3	806	S31,000	S22,840	S220
HP	7906HR	19.6	25	8.3	33.3	937.5	S12,000	S 8,594	S 72
	7906H	19.6	25	8.3	33.3	937.5	S13,000	S 9,252	S 75
	7910HR	12	70	10.0	90.0	525	S 7,950	S 5,157*	S 20*
	7910H	12	70	10.0	90.0	525	S 8,350	S 5,397*	S 20*
	7920H	50	25	8.3	33.3	937.5	S16,000	S11,013	S 73
	7925H	120	25	11.1	36.1	937.5	S19,000	S12,658	S 65
IBM	3310A 01	64	27	9.6	36.6	1030	$13,600	S 9,234	S55.50
TEXAS INSTRUMENTS 960 - 980B System 16 - 128K RAM	DS44	9.1	38	12.5	50.5	312	$14,800	S11,591	S140
	DS31	2.3	70	20.0	90.0	195	$10,800	S 8,707	S115
	DS330	100	27	8.3	35.3	806	S33,600	S25,583	S280
WANG 2200 System 16 - 256K RAM	2260C	5	38	12.5	50.5	312	$11,000	S 8,537	S100
	2260C-2	10	38	12.5	50.5	312	$18,000	S13,899	S160
	2280-1	27	30	8.33	38.3	1200	$19,000	S14,886	S180
	2280-2	54	30	8.33	38.3	1200	$21,000	S16,474	S200
	2280-3	80	30	8.33	38.3	1200	$23,000	S18,061	S220

Estimated March 1980.

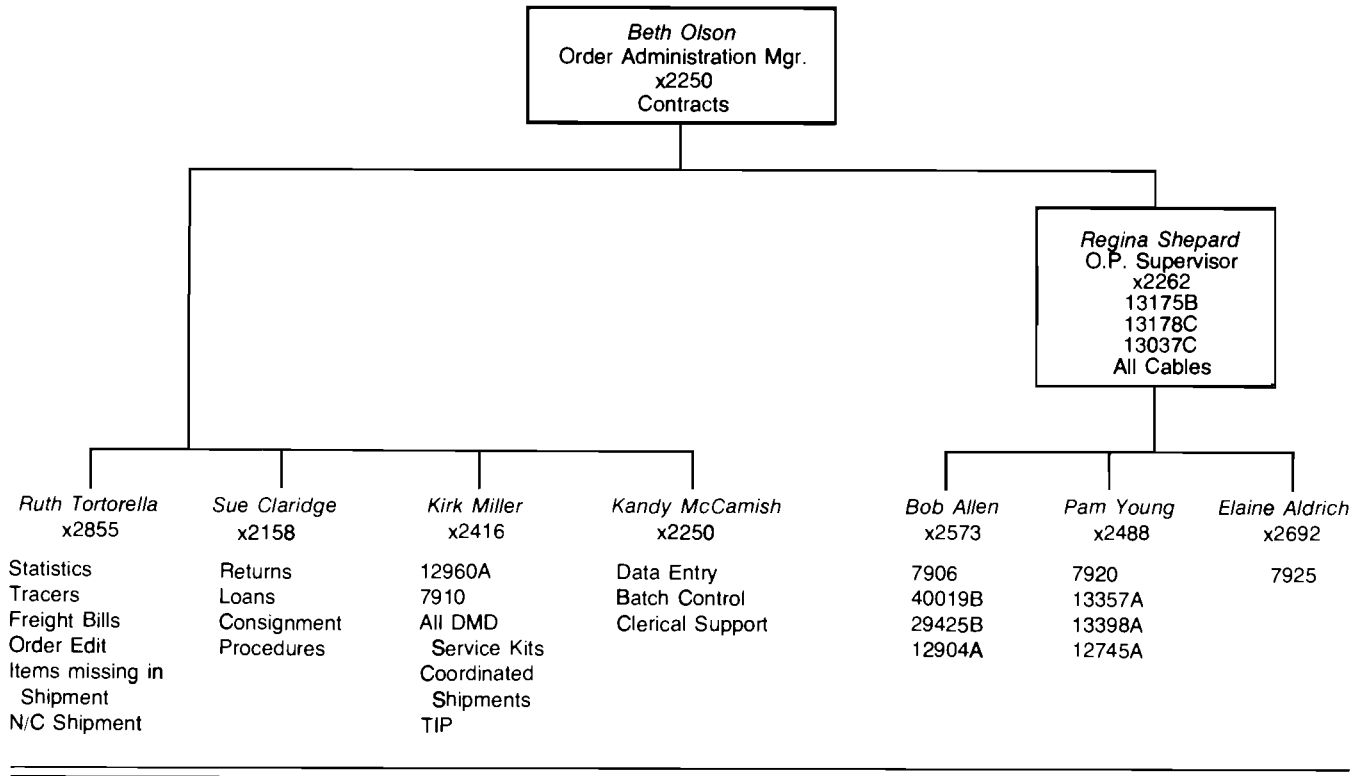Figure 6

Order Processing

Order Processing Organization Changes
By: Beth Olson/DMD

Order Administration begins '80 with some organization changes and new faces.

Structured around product responsibility and administrative functions, DMD Order Processing works as a team with Manufacturing personnel. In this way, customer's needs and requirements are brought to all who take part in this important contribution to customer satisfaction.

DMD (4800) 208/376-6000

```
                    Beth Olson
              Order Administration Mgr.
                      x2250
                    Contracts

                                        Regina Shepard
                                        O.P. Supervisor
                                            x2262
                                           13175B
                                           13178C
                                           13037C
                                          All Cables
```

Ruth Tortorella x2855	Sue Claridge x2158	Kirk Miller x2416	Kandy McCamish x2250	Bob Allen x2573	Pam Young x2488	Elaine Aldrich x2692
Statistics	Returns	12960A	Data Entry	7906	7920	7925
Tracers	Loans	7910	Batch Control	40019B	13357A	
Freight Bills	Consignment	All DMD	Clerical Support	29425B	13398A	
Order Edit	Procedures	Service Kits		12904A	12745A	
Items missing in Shipment		Coordinated Shipments				
N/C Shipment		TIP				

DATA SYSTEMS NEWS

Product News

Computer Museum

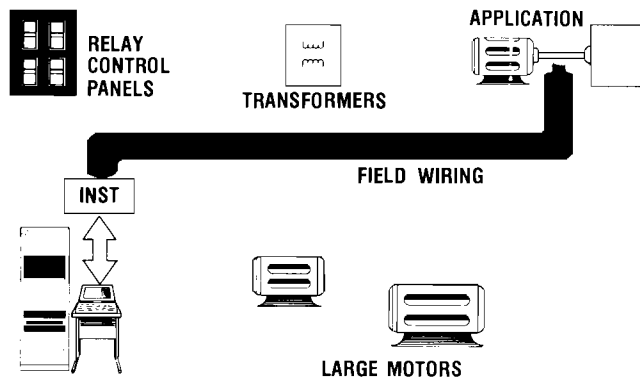# HP 12050A Fiber Optic HP-IB Link Update

By: Dave Hannebrink/DSD

It's been seven successful months since the introduction of the HP Fiber Optic 12050A. We wanted to update all of you (especially the new additions to the 02 Sales Force) on what's been happening in the area of high performance remote HP-IB interfacing.
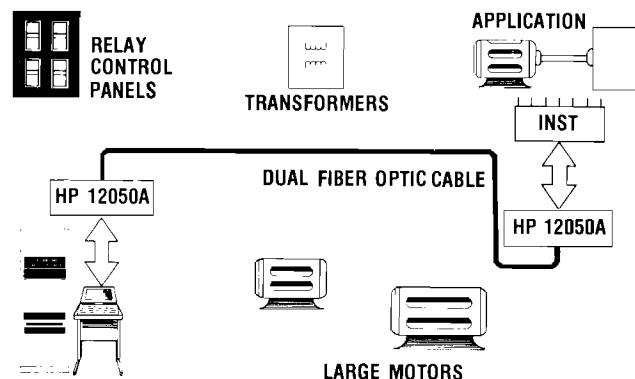
Remember that the 12050A gives the customer:

- High speed real time data transmission to 20 Kbytes/sec.
- Reliable noise immune, optical data transmission.
- Reduced installation costs by minimizing field wiring from application to instrument.
- Standard HP-IB programming of remote devices using HP 1000 or HP 9800.

WHY REMOTE INSTRUMENTATION?

RELAY CONTROL PANELS

TRANSFORMERS

APPLICATION

FIELD WIRING

INST

LARGE MOTORS

First HP 12050A's Leverage Big Computer Sales

Early orders for HP 12050A's indicate that there's been a lot of remote HP-IB activity in large key accounts. For instance:

- A large photographic company decided that 12050A's are what they need to remote 2240's in a metrology (the science of making measurements) lab. High speed remote data acquisition is linked to a large disc based HP 1000 in the central engineering laboratory.

- Both the US and Canadian concerns of a major oil company will be controlling 2240's remotely in noisy industrial labs. The applications are for engine testing with a lot of follow-on business.

TO REDUCE COSTS AND MAINTAIN DATA INTEGRITY!

RELAY CONTROL PANELS

TRANSFORMERS

APPLICATION

INST

HP 12050A

DUAL FIBER OPTIC CABLE

HP 12050A

LARGE MOTORS

- Belts, from small fan belts to large industrial drive belts are tested for strength, durability, and structural properties by a Western rubber company. Multiple test stands, each with a 2240, are under control by a single HP 1000 F-Series via 12050A pairs.

- Another rubber manufacturing company has automated a process control application. The 12050A's keep the computer out of the electrically noisly process area. A 2240 is used at the process site for interfacing to the application.

- A Government research agency is using a large HP 1000 to control experiments in an RF screen room. By keeping

the computer and its peripherals electrically isolated from the test area, higher integrity measurements can be made. There's no way that RF generated by the computer can interfere with the tests.

- Within HP's own SOS facility, a pair of 12050A's will permit a 2240 to control a metal deposition system locally while the HP 1000 is kept out of the very clean application area. This means that personnel can use the computer without having the inconvenience of putting on clean room clothing — gowns, caps, and shoe coverings.
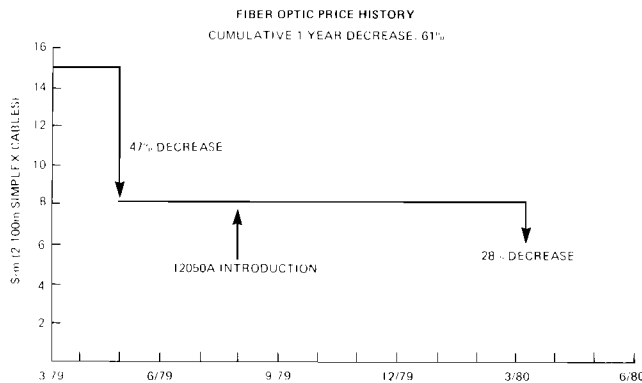
The list of possibilities continues to grow. Put the 12050A Fiber Optic HP-IB Link to work for your customers!

Fiber Optic Cable Prices Slashed 12–30%!

At the introduction of the HP 12050A, we mentioned that fiber optic cable prices were dropping rapidly. This trend reflects the fiber optic learning curve and the increasing acceptance and usage of this exciting technology. Effective March 1, the price of Simplex Cable is being reduced by 12-30% depending on the length of cable ordered. Shown below are the new Simplex Cable prices. All products shown come complete with assembled connectors. Remember that two Simplex Cable products are required per pair of 12050A Fiber Optic HP-IB Links.

Simplex Cable Product

(each Link needs two)	Length	Old Price	New Price	Change
39201A	10m	$125	$110	-12%
39202A	25m	190	140	-20%
39203A	50m	270	190	-30%
39204A	75m	340	240	-29%
39205A	100m	400	290	-28%

The trend is illustrated below. Shown is the price per meter of two 39205A needed for a 100m HP-IB extension. (Prior to the introduction of the 12050A, cable was sold with Optoelectronics Division's component parts.)

FIBER OPTIC PRICE HISTORY
CUMULATIVE 1 YEAR DECREASE: 61%

47% DECREASE

12050A INTRODUCTION

28% DECREASE

Also worth noting, (per the *Wall Street Journal*) the price of raw copper — the main ingredient of wire cable — *rose by 53%* in this time!

HP 12050A Fiber Optic HP-IB, clearly the (light) wave of the future.

Fiber Optic HP-IB Link Quantity Shipments

Over 100 1250A's were built and shipped in February!

Thanks for your patience in awaiting the first quantity shipments of the HP 12050A Fiber Optic HP-IB Link. During February we shipped more than 100 HP 12050A's. We're pleased to announce that availability for the product is now six weeks. (We're running the manufacturing photo for the benefit of you skeptics.)

HP Journal Features HP 12050A
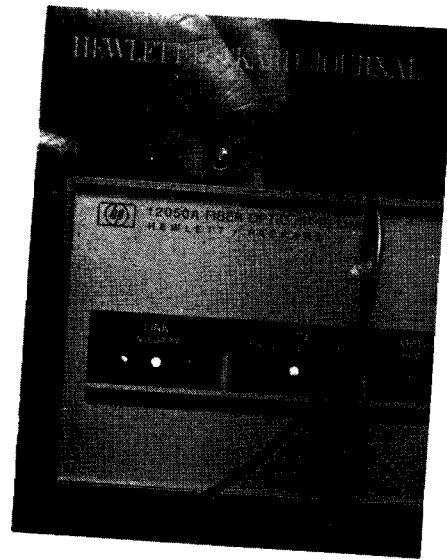
A reminder: the Dec. '79 *Hewlett-Packard Journal* cover story featured the HP 12050A. The technical article, written by DSD's *Bob Grady,* describes the history of the 12050A, the link's operation and application ideas. An insert submitted by the designers of the optical transmitter/ receiver explains the basic theory of operation of the modules. All told, the *Journal* offers a look at the practical application of an exciting technology. It makes an excellent sales piece. Reprints are available through the Literature Depot.

HP 12996A Printer Subsystem to be Obsoleted

By: Steve Pomeroy/DSD

Current plans call for DSD to obsolete the HP 12996A Printer Subsystem in the Fall of '80. The subsystem, which consists of 9866B thermal printer and an interface to the HP 1000, was introduced in Jan. '75. It will remain on the CPL through Sept. '80.

Note that the 9866B which is manufactured by DCD will still be available, but not packaged as the 12996A subsystem. HP offers three other thermal graphics printers which are supported by RTE-IVB on the HP 1000. They are the 9876A from DCD and the 7310A and 7245B from San Diego Division. Each of these offers enhanced capability and all are HP-IB compatible. See the following article for more about these devices.

If the obsolescence of the 12996A presents any problems, please call me at DSD.

Three Thermal Graphics Printers Offered on HP 1000 Systems

By: Steve Pomeroy/DSD

Three thermal printing devices are currently available as peripherals on HP 1000 Computer Systems. The HP 9876A from DCD and the HP 7310A from San Diego can be used as low-cost, low-noise line printers. They are particularly useful when incorporated into a workstation with one or more terminals. The HP 7245A is a plotter which incorporates extensive graphics capabilities. Along with vector, arc, and character drawing, the 7245A can print dot matrix characters in three sizes for higher speed printing.

The 9876A, 7310A, and 7245B can be used as accessories with HP 264X terminals. With the proper interface, these terminals can dump graphic and text data directly from the screen of the terminal.

This table highlights the features and performance of the three products. See the product data sheets for more detailed information:

Product	Resolution (printable area)	Character Size (cell size)	Printing Speed	Display Enhancements	Paper Type (cost per 8½ x 11in. sheet)	Interface Driver (cost)	List Price	Comments (data sheet part no.)
7310A Graphics Printer	100 dots/inch (7.2in. across)	7x9 (9x15) 80 char/line (up to 96 char/line with proportional spacing)	200-500 lines/minute	Standard: Reverse print, Underlining Bold face type, ASCII char. set plus European language symbols. Optional: Katakana, APL, Math symbols, line drawing symbols.	roll length = 246 ft. (black 4.8¢) (blue 4.1¢)	HP-IB 59310B ($675) DVR37	$4750	Raster graphics, auto-wraparound, variable length pages, paper cutter and page stacker. (5953-4048D)
9876A Thermal Graphics Printer	77 dots/inch (7.28in. across)	5x7 80 char/line	Up to 480 lines/minute	Standard: Underline, over-line, oversize characters, nine software select-able character sets.	Perforated fan fold. 330 sheets/pkg. (black 6.1¢) (blue 4.5¢)	HP-IB 59310B ($675) DVR37	$3950	Raster graphics, user created symbols, self-test. (5953-1025)
7245B Thermal Plotter/ Printer	Motor resolution in graphics mode=.0006in. (7.4in. across)	5x7 132 char/line 7x9 (std) 80 char/line 14x9 44 char/line	57 char/sec (dot matrix) 38 char/sec (dot matrix) 19 char/sec (dot matrix) drawing speed: 14.3 inch/sec max.	Includes drawn as well as dot matrix char. sets. Both have European language symbols.	Roll (with or without page perforations) Length = 200 ft. Uses sprocket-feed paper. (black 5¢) (blue 5¢)	HP-IB 59310B ($675) DVR37	$5200	Vector graphics supported by GRAPHICS/1000, extensive graphics capabilities. Plots up to 5 meters in length. (5952-2880D) (5953-4049)

HP 1000 L-Series Price List Amendment
By: Ted Proske/DSD

Somehow, in removing the HP 1000 Model 9 Computer System from the HP 1000 L-Series Products Price List (5953-4229), we overlooked an HP 1000 Model 10 description that referenced the HP 1000 Model 9 description. The descriptions for the HP 1000 Model 10 Systems should read:

a. HP 2146A* System Processing Unit. Provides 12013A Battery Backup Card, 64 Kbyte Memory Card, CPU Card, 12009A HP-IB Interface Card, and 12005A Asynchronous Serial (terminal) Interface Card in 16-slot card cage, which is housed in a 62-inch cabinet along with single flexible disc, power supply, and power distribution module. The RTE-L operating system and the L-Series Diagnostic Package are also included.

b. HP 2146B* System Processing Unit. Similar to the 2146A, but housed in a 36-inch cabinet.

Questions on HP 1000 International Users Group?
By: Gary Lim/DSD

The momentum of the HP 1000 International Users Group is building! However, with the increased interest comes an increased number of questions. Most of these questions involve phone calls to the Vice-President of the group, who happens to be located in Norwood, Massachusetts, (the group's mailing address). Unfortunately, phone calls in general cannot be returned because the Vice-President handles Users Group business on his own time, as do all of the other Executive Board members.

The method of communication which the Board suggests is written inquiries only. Mail them to:

HP 1000 International Users Group
P.O. Box 1000
Norwood, Massachusetts 02062

Hence, if any of your customers call you to ask about the fate of their membership application, please ask them *not* to call the Executive Board, but to write to the above address.

First HP 1000 International Users Group Conference
By: Gary Lim/DSD

The HP 1000 International Users Group is currently planning its first annual conference to be held in San Jose Aug. 25-27, '80. The Group recently drafted the call-for-papers, which I am distributing (hopefully) to all of you reading this. Keep your eyes open for a one-page flyer bearing the letterhead of the HP 1000 International Users Group. Abstracts and summaries are due by April 1. Encourage your customers to attend the conference to present some of their neat ideas and applications!

Sales Aids

New HP 1000 Office Decor Kit
By: Jan Weldon/DSD

In response to numerous requests for pictures to decorate sales offices and demo rooms, Marcom has put together a package of 8 artistic color transparencies that you can use to make wall pictures and posters. These are the same beautiful, professional-quality photos that you've seen and admired on the covers of DSD product brochures. The kit covers L-Series, PASCAL, IMAGE, GRAPHICS, DATACAP, and RTE.

The new office decor package, BS-28, contains eight 4x5 color transparencies from which you can reproduce enlarged photographs in any size. Price: $45. (Order through HEART the same way you have ordered other BS packages.)

RTE-IVB Quick Reference Guide
By: Helen Fuller/DSD

The RTE-IVB Quick Reference Guide is available and it has a new style — a small flexible looseleaf binder. The new RTE-IVB Guide contains succinct explanations of terminal commands, programmatic calls, error codes, tables, and more! It is easily handled, transported, and is indexed with tabs for super quick reference.

Make this an important addition to your RTE-IVB manual set by ordering both the RTE-IVB text insert (P/N 92068-90003) and the Quick Reference Guide Binder (P/N 02177-90007) today.

Customer Support Services (CSS) Sales Continue to Grow!
By: Gary Lim/DSD

The sales of Customer Support Services (CSS) for RTE-IVB look very strong for the first quarter of the 1980 fiscal year. For RTE-IVB CSS (92068T), almost 1700 months have been sold since Nov. 1. This represents some $420,000 in revenue. That figure, coupled with $140,000 in sales of RTE-IVB SSS (92068S), makes for a healthy $560,000 quarter for RTE-IVB's two prime support products. So continue selling CSS!

Training News

Long-Awaited FORTRAN Course Arrives!

By: Jim Williams/DSD

Development of an audio/visual course for classroom use or independent study is now complete.

The course consists of a student workbook, an instructor's guide, six color videocassettes, and overhead slides. The six videocassettes and supplemental materials are divided into 10 modules. This allows the training manager to structure the course as either a first course in FORTRAN programming, or as a refresher for selective review of particular subject areas by previously experienced programmers.

The ten videotaped modules present two field SEs *(Harvey Bernard* and *Carl Reynolds)* teaching FORTRAN programming as implemented on the HP 1000 Computer System with the RTE-IVB Operating System. The SEs utilize theatrical and instructional techniques to maintain the keen interest of the student while imparting the concepts of the FORTRAN language.

The classroom version, designed for three days, may be ordered by submitting a HEART I2 order, using ID code 35 or 42, to Data systems Division 2200 for product number 22959B. Product price information will appear on the April Corporate Price List. We will announce availability of the independent study version for sale to our customers soon.

Remember that this course is a pre-requisite for the RTE-IVB/Session Monitor User's Course for students without prior FORTRAN experience.

DATA TERMINALS NEWS

Division News

Product News

Neely Southern Support Addition
By: Rich Ferguson/DTD

We are proud to welcome *Sean Kelly* to Neely Sales Region support (Southern area). A graduate of Annapolis, with a Mathematics/Engineering degree, *Sean* comes to us directly from the US Marines.

Super Service Manual!
By: Peter Moulds/DTD

DTD recently introduced the "264X Composite Service Manual". This manual integrates the service information for the HP 2640, 2645, 2647 and 2648 terminals into one binder. It contains more complete and up-to-date information on installation, strapping, maintenance, trouble shooting, etc. than the older service manuals.

The list price for the Composite Service Manual is $35 (remember, it's 4 manuals in one!). However, for internal HP use, field personnel may order at a bargain price of only $14.58! Hurry and order your's (P/N 02640-90170) from Computer Service Organization.

How to Connect HP 264X Terminals to HP 2631A/G Printers
By: Kalli Louis/DTD

If you ever wondered how to connect the HP 264X Series Terminals to the HP 2631A/G printers — look no further. Listed below are the different 264X — 2631A/G configurations. Any limitations the configurations may have are noted.

Options

264X (A) 13250B or 13260B	13232G (D,E)	2631A 40/41

264X 13238A (A)	13232J	2631A 044 --- 240*

2647/48(C) 13296A (B)	HP-IB CABLE	2631G
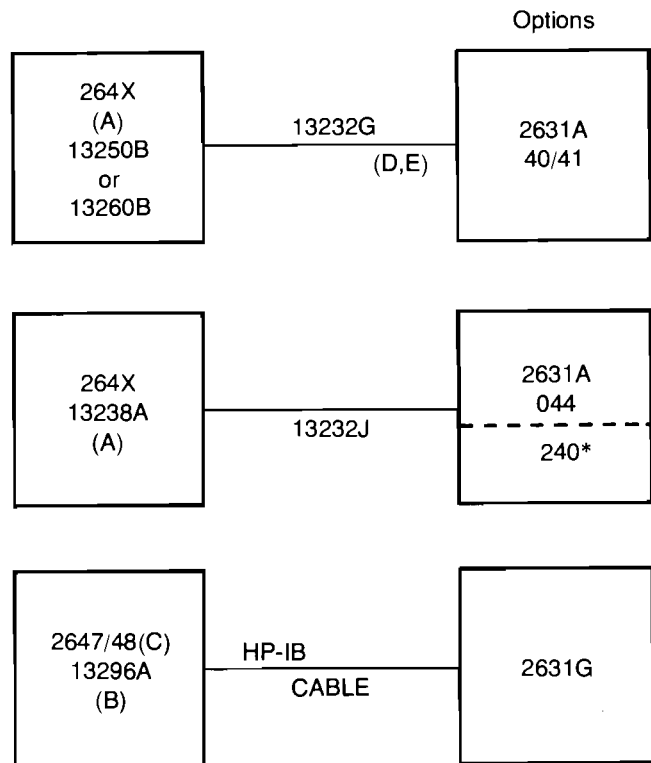
*Option 240 includes the 13232J cable and the 13238A 8-Bit Duplex Register Card.

(A) 2640A/B can only dump display memory, (80 columns max.). No escape sequences can be sent to the printer.

(B) Accessory 13296A includes the Shared Peripheral Interface card, the HP-IB Interface Adapter, and a 2 meter HP-IB cable.

(C) If the 2648A does *not* have Cartridge Tape Units, order 13261A with option 003 (Device Support Firmware). The 2647/48 can only copy alphanumeric memory (below cursor) or full graphics memory to the 2631G. It cannot copy both simultaneously. The 2647/48 cannot copy escape sequences directly from the display; however, ASCII data, including escape sequences, may be passed through the CRT to printer without being placed into CRT memory.

(D) The 264X serial interface inserts Nulls after Esc sequences. Prior to Serial Prefix 1841, 263X printers do not trap NULLS, therefore the printer/terminal control functions are not usable. Subsequent 041 units trap NULLS. On the 2647/48 terminals, there is a jumper for zero NULLS in order to work with the 263X printers.

(E) The 264X serial interface does not provide an ENQ/ACK handshake with the printer. Therefore, you are limited to a 600 baud transmission rate. (1200 baud may work.)

Which 264X Cabinet Part Do I Need?

By: Maurice Poizat/HPG

A change in color of a mechanical part for the HP 264X cabinet has caused some confusion recently when plastic parts have been replaced on terminals at customer sites.

The confusion has arisen because of the existence of two part nos. for the same part because of differing colors. The color change occurred more than a year ago.

Here are the part nos. of the parts concerned:

	Column 1 Previous color	Column 2 Current color
Display Top	02640-40002 02640-40025*	02640-40031 02640-40036*
Display Side (right)	02640-40022 02640-40026*	02640-40033 02640-40037*
Display Side (left)	02640-40023 02640-40027*	02640-40034 02640-40038*
Mainframe shell	02640-40001 02640-40028*	02640-40035 02640-40039*
Rear door	02640-20019	02640-20020
Keyboard top	02640-40008	02640-40030
Keyboard bottom	02640-40007	02640-40029
	Grey tone	Brown tone

*Used in Europe (with RFI option 017)

Column 1 items are normally obsolete parts. When ordered, they have to be specially made and therefore, may show a very high price on the microfiche, or the annotation "Quote from Factory". Column 2 items are currently in use and are therefore made in large quantities and are less expensive.

Before ordering any of these parts as a replacement, make sure the color you choose fits the terminal you are repairing.

If it is a warranty repair, a Column 2 P/N is the one you should select because no terminals of the previous color have been shipped during the last 6 months or more. Make sure CEs are aware of this.

RS-232C: The Current Standard

By: Andy Zaremba/DTD

With many new people in the HP field organization (and the factory!), it may be useful to review the current standard which exists for interfacing data communications equipment (DTE). This standard of the Electronics Industry Association (EIA), is termed RS-232C for Recommended Standard 232 Revision C. RS-232 specifies the functional and electrical characteristics of the interface between DCE and DTE. As such, it spells out the electrical requirements of the transmitter and receiver circuitry including:

- open circuit voltage and short circuit levels for the driver
- driver slew rates
- driver and receiver output and input impedances

The standard defines 25 lines which comprise the interface. In particular, four are for data transmission, two grounds, 11 for control, three for timing, two for data set testing, and three unassigned pins. The particular lines, their two letter designation, and pin assignments are listed in a variety of locations, including such HP publications as Guidebook to Data Communications, Data Terminals Cabling Manual, and numerous others.

This information becomes important in connecting terminals, and other peripherals, because, in general, "RS-232C devices" do not have all of the 25 lines available at the interface. It is important, therefore, to make sure that the control lines required by a particular device are present. For example, the 13232N cable which connects the majority of 264X terminals to computer systems has only 15 of the 25 lines. Or consider the case of connecting a non-HP printer to a 264X terminal via the 13250B printer interface — here not all lines and control signals are available either. In general, there is no problem in interfacing such devices, but be aware of potential diffculties.

Another consideration is that interface compatibility does not guarantee communications or protocol compatibility. This means that two devices may share the same RS-232C interface standard and be able to exchange data, but that the data had different meanings to the two devices. For example, control characters DC_1/DC_2 used for hand-shaking on HP systems is implemented in a different manner as a DC_1/DC_3 by DEC.

RS-232C has existed for a number of years and has been very successful in easing the difficulty in interfacing DCE and DTE of different manufacturers. Because of its age and the increased performance demands upon all phases of data communications, new standards are evolving to meet these requirements. In particular, RS-232C shows deficiencies in several areas.

1. distance limitations of 50 ft.

2. speed limitations of 20K bits/sec.

3. relatively high susceptibility to noise and crosstalk

4. not signal level compatible with present TTL IC technology

Distance and speed restrictions are clear while noise and signal compatibility require more discussion.

RS-232C employs a single ended or unbalanced driver so that the voltage level generated by the driver and sensed by the receiver are referenced to a single ground. This unbalanced approach is simple and inexpensive to implement but does give rise to crosstalk and noise problems. Crosstalk is essentially adjacent channel interference, and noise susceptibility is the ability of unwanted signals, created from a variety of sources, to be impressed onto the lines. Both of these unwanted features are characteristic, to a certain degree, of unbalanced drivers. The voltage levels of the RS-232C standard requires drivers to produce mark levels of −5 to −25 volts (5 to 25 for spaces) and receivers to interpret signals <3 volts as a mark (>3 for a space), providing a 2 volt noise margin. Unfortunately, these are levels which are considerably higher than existing integrated circuit voltage logic levels, hence special interfacing is required.

Because of these limitations, new standards are being implemented to improve performance. These new interface standards will be covered in a future CS Newsletter.

Sales Aids

HP 2621P — A Winner!
By: Wendi Brubaker/DTD

The HP 2621P has been a great success. The integral printer is in an excellent competitive position, so the sales figures come as no surprise. Are you taking advantage of this easy sales situation?

Not only is the 2621P very cost competitive, it is also unique. An integral printer is not available in any other terminal. This quick and quiet thermal printer is the perfect solution for a walk away copy. This capability has been extremely well received in applications of database inquiry such as inventory quantities, real estate listings, part lists and prices.

The combination of a CRT screen and a printer provides the speed of a CRT with the convenience of hardcopy. Copy just what you need!

The data logging feature is another winner! This allows all data that comes from the CPU to be logged to the printer. This can be enabled and disabled programmatically, allowing you to use the logging only when you need it.

Logging can be done on many different computers due to extensive handshaking which is supported by the 2621.

The 2621's are doing great. Get on the bandwagon today!

HP 2647A Ad Campaign
By: Gene Lee/DTD

DTD has just begun an ad campaign in *Business Week* to spur sales of the HP 2647 (you may have seen the first insertion in the Feb. 18, issue, p. 163). From all indications, the ad campaign looks like a winner! And the next few months should be an ideal time to sell 2647's. Remember, this sales order includes a 9872 plotter or a 2631G printer as well. Now that's a good sized order for very little time spent!

Not bad for the first day.

Early responses to the ad indicate it should succeed beyond our best expectations. One SR called DTD within three days of seeing the ad to say he had already closed one sale from the ad and had six more hot appointments! Other SRs have reported five or six firm appointments. Here at DTD, coupon responses from the ad are breaking record levels.

There's a lot of interest out there for a graphics workstation. We will be running the ad in *Business Week* several more times through the spring. It's going to be prime time to sell 2647's!

GENERAL SYSTEMS NEWS

Division News

HP 3000 Program Sales Awards
By: John Celii/GSD

January Honor Roll

North America only — ICON and Europe to follow.

HP 3000 PROGRAM
HONOR ROLL
JANUARY, 1980

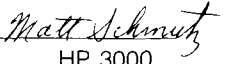| NAME	OFFICE
Julie Anthony	Airport
Dave Bunch	Huntsville
John Chua	Edmonton
Wayne Churchman	Richardson
Keith Clark	Rochester
Denny Courrier	Vancouver
Marya Daniels	Fullerton
Bill Davis	Santa Clara
Martin Decre	Baltimore
Hector Deleon	Houston
Russ Edwards	Kansas City
Les Flammer	Santa Clara
Joe Kail	Dayton
James Lupo	Fullerton
Dennis McDonnell	Santa Clara
Mike O'Reilly	Santa Clara
Louis Pizzigonti	Manhattan
Dick Raymond	Richardson
Dave Sedivy	Rolling Meadows
Lou Stover	Englewood
Glen Surbey	Rockville

CONGRATULATIONS!!!

January Outstanding SR of the Month

HP 3000 PROGRAM
OUTSTANDING SALES
REP OF THE MONTH
JANUARY, 1980

This is to acknowledge that *Russ Edwards*, Kansas City Office achieved the highest HP 3000 Order Performance for the month of January, 1980
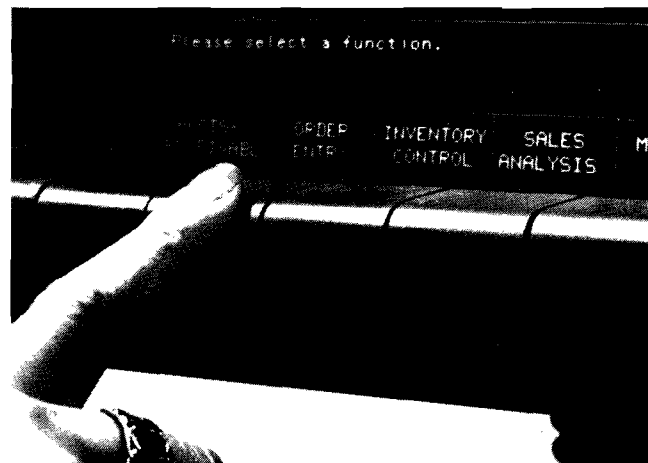
Congratulations from the entire HP 3000 Program!

John Celii
HP 3000
Sales Manager

Matt Schmutz
HP 3000
Program Manager

Product News

OM/250 Released
By: John Whitesell/GSD

After completing internal QA and customer testing, OM/250 is now released for shipment to OEMs and large-volume end-users.

OM/250 consists of four highly integrated application software modules:

- Inventory Control
- Order Entry
- Accounts Receivable
- Sales Analysis

Together these modules form a comprehensive, flexible, easy-to-operate order management application package on the HP 250.

Designed to provide reduced costs, improved customer service, and better financial controls for Small Manufacturers and Hardgoods Distributors, OM/250 should be particularly appealing to firms wishing to quickly install and support turnkey, single-terminal order management systems for these target end-users.

The end-users typically have annual sales of up to $10 million, where the number of order transactions rarely exceed 30/day, where one-terminal-at-a-time operation for Order Management is satisfactory, and where the customer's database requirements are well within the capacities of OM/250. These end-user accounts are the types of businesses that generally receive purchase orders, generate invoices, keep FGI items stored in bins, and are not concerned about perishables.

The following chart highlights some key contributions of each of the four application modules.

Application Module	Product Feature	Customer Benefit
Inventory Control	Choice of LIFO, FIFO, or weighted-average valuation	OEM can easily customize to match any end-user's requirements
	Cycle Counting	Great flexibility to schedule counting of inventory for any part as needed.
Order Entry	Flexible Pricing	System can automatically handle special cost mark-ups, single item discounting, etc.
	Backorder filling by Order Age or Profitability or Manual Override	Highly flexible to handle a variety of situations.
Accounts Receivable	Truth-In-Lending compliance	Minimizes special-case manual bookkeeping to meet government regulations.
	Variable ageing periods	User can easily adapt his A/R ageing reports to changing trends.
Sales Analysis	Sales and Profitability reports	Excellent management reports on product lines, customers and sales-people, to run the business better.
	Up to Five Year Histories	Valuable information on product lines, customers, and salesforce, to identify long-term trends.

During New Product Training in March, you'll receive an OM/250 Field Training Manual that provides a more detailed description of the product's features and benefits.

Priced at only $10,000 for the modifiable source code, manual set, and utilities, OM/250 also can be copied by the OEM to put on other HP 250 systems at no additional charge.

OM/250 is based on the powerful IMAGE/250 database manager and contains eleven databases. Provided with OM/250 is a well-documented Applications Customizer that permits the OEM to easily alter the capacities of these databases to match the needs of each of his end-users.

Customer support for OM/250 includes a one-week training class ($750/student, next class begins April 21), on-site consulting at standard daily SE rates, and Software Subscription Service (SSS), in addition to source code, utilities, and technical and user documentation. Since modifiable source code is furnished, it is not practical for HP to provide full (CSS) support on OM/250. We are relying on quality OEMs to provide this support.

To help you sell OM/250 more easily, you will receive several sales aids this month, including a new Reports Brochure, a 35mm slide set entitled "OM/250 . . . for Improved Profits," a demo kit, four-page flyer, field training manual, performance sheet, and a newly revised HP 250 price/configuration guide. How's that for help?!

For applications where OM/250 is to be used in its entirety, it should be sold only on 7906-based or the new 7910-based HP 250s.

First customer shipments will commence in late March; standard availability is two weeks ARO. Press releases should begin appearing in the trade press in early April.

Remember, for OEMs who want to help small manufacturers and hardgoods distributors significantly improve their profits, SELL OM/250!

HP 250 Intelligent Network Processor (INP/250)
By: Paul Storaasli/GSD

The HP 250 Intelligent Network Processor, INP/250, makes "the best of both worlds" available to your customer. The compact and powerful HP 250 can link to a mainframe computer. This provides local database and processing capability wherever it is needed, and a tie to a large central system when necessary. HP 250 Data Communication opens up new opportunities for you for successful sales efforts with the HP 250 and later on, the HP 3000.

Our objective is to help you understand INP/250, to whom you should sell it, and how to sell it.

Description

INP/250 is a microprocessor-based synchronous communications interface, with specific system software for emulating various communication terminals, initially the IBM

2780/3780. The INP/250 hardware is installed in the HP 250, and connected to a modem. The INP/250 software, RJE/250, resides as part of the configured operating system. When RJE/250 is invoked by the HP 250 user, the appropriate message-control code is down-loaded to the INP's random access memory, and a menu of functions is presented to the operator on the CRT display. User commands originate from softkeys, the keyboard or a disc file. Once a task has been initiated, the user can switch to another activity, while INP/250 continues to function in the background.

Contribution

INP/250 supports a wide range of transmission networks and speeds, and programmable message-control protocol provides future growth paths. The intelligence of INP/250 off-loads much of the work usually required of the central processor, freeing it for other activities. Auto-answer and auto-dialer capabilities make it easy to receive or to initiate a data communications telephone call and support unattended operation. INP/250 detects and retransmits data which has been garbled by environmental factors like electrical storms or poor-quality telephone lines.

Customer

Initially, the primary customer focus for INP/250 is the service bureau whose clients are small, single-site users with requirements for local data and job preparation and access to a larger computer for remote job entry. Examples of such clients would include engineering and consulting firms, government offices and small businesses using service bureau software packages. The service bureau now can offer the HP 250 to address a client's desire to upgrade to a full, in-house computer installation.

A second type of customer is a decentralized operation with dispursed offices, departments or plants and a central regional or headquarters office with a large mainframe computer. This customer has processing, record keeping or data retrieval requirements at each local site and also needs to exchange information between these local activities and the central computer via remote job entry facilities.

Note that RJE/250 is not a 2780/3780 replacement in all situations. The HP 250 does not offer a card reader or a card punch, and the software does not provide multi-leaving RJE (MRJE).

Ordering

Product Number	Description	Price
45122A	Intelligent Network Processor for HP 250, INP/250	$3,000
45115A	Cable, INP/250 to modem or auto-dialer	225
45116A	Cable, INP/250 direct connect to HP 3000	225
45122T	Customer Support Service for INP/250	$35/mo.

These products will be on the Corporate Price List April 1, '80. Availability to be announced.

Competition

Many manufacturers offer IBM 2780/3780 emulation. RJE/250 is not a 2780/3780 replacement for card-based applications, or for applications requiring multi-leaving RJE capability. With these points in mind, the competition can be generalized into two categories: multi-purpose computers and batch terminals.

The multi-purpose category includes products from IBM, DG, DEC, Wang and Univac. While it is difficult to compare apples-to-apples when discussing data communication interfaces, the key factors and parameters to focus on are:

Factor	INP/250 Capability
maximum speed	19,200 bits per second
protocols supported	2780/3780
microprocessor based, and if so, can code be downloaded	yes
	yes
auto-answer	yes
auto-calling	yes
number of channels	1

The batch terminal category includes even more competitive products. Key factors are, in addition to those above:

Factor	HP 250 Capability
Data entry capability	yes
Full and half duplex	yes
Video operator interface	yes
MRJE	no

In general, the INP/250 provides a superior price-performance relationship for single-channel data communication solutions requiring a hardware and software package.

The INP/250 Field Training Manual contains more detail on each of the summary sections covered here plus specific information on modems which are compatible.

7910 Disc Available in HP 250
By: Scott Oki/GSD

BSP has added another play to its offensive strategy. To provide a more competitive system, the 7910 12.1 Megabyte Disc will be available installed in an HP 250 system by ordering a 45012A. It will be on the April price list at $7950 with BMMC at $28. Initially, only an integrated disc will be announced for the HP 250. An option to add the 45012A on existing HP 250's will follow in a few months.

Backing up the 7910 will be handled by a utility which allows a user to back up daily, weekly, and/or selectively (by file) everything except databases. Databases will be backed up using DBSTORE and DBRESTORE. In addition, customers can opt to back up using flexible diskettes, a 7906 cartridge or a combination of the two.

The 7910 offers the HP 250 customer a good selection of mass storage solutions as the following table illustrates.

HP 250 Without Printer

2.4 MBytes	2-Flexible discs	$20K
12.1 MBytes	7910	$25K
19.6 MBytes	7906	$30K

Write Capability for HP 250
By: Scott Oki/GSD

As many of you know, the ALIEN DROM in the HP 250 operating system currently supports the read capability of IBM 3741 formatted diskettes and HP standard interchange format discs. Now, we are providing users with the write capability . . . a tremendous enhancement. And because of this increased capability, we are re-naming the ALIEN DROM to the MEDIA DROM.

So what does the MEDIA DROM do for your customers? Let's take a look at a few examples. It continues to be apparent that the IBM 3741 has appeal to users with limited volume data entry requirements . . . a la IBM System/3 and 32. Large IBM users (service bureaus) with existing 374X configurations are seeking broader-ranged data entry alternatives. Enter the HP 250 and the MEDIA capability. We all know there are many service bureaus using IBM hardware. It is logical that these large scale users will migrate to more versatile data entry devices rather than increase their 374X installations. Bottom line? Through the MEDIA DROM, you can now transport media between the HP 250 and the service bureau. And, at the same time, the HP 250 provides a much broader solution for the end user site.

That's the WRITE capability. How about the READ capability? The READ example ties in beautifully with the IBM System/3 to HP 3000 conversions. In System/3 installations the IBM 3741 is found quite commonly as a data entry station. And, as can be expected, users have archives of IBM 3741 formatted diskettes. So it becomes most desirable to be able to use that data and process it on the HP 3000. The HP 250 provides that capability. The 3741 formatted diskette can be read by the HP 250 and then transmitted either asynchronously via LK3000 or synchronously via RJE/250 to an HP 3000.

HP 250 Multi-user Price Reduction
By: Scott Oki/GSD

Multi-user pricing has decreased. With the new 128K memory board for the HP 250, customers can take advantage of the pricing scheme when ordering a multi-user system.

The 128K memory board can be purchased as:

- an add-on memory board for $2500

  or

- an option to replace the standard 32K board at $1600.

In addition, the HP 250 product numbering has changed. Instead of having an option number for memory installed with the system and an accessory number for memory boards (at two separate prices), we have decided to go with one accessory number for both cases and option numbers only in the delete/replace situation.

So, as of April 1, memory for the HP 250 will look like this:

#	Description	Price	BMMC
Opt. 002	Replace standard 32K with 64K	$1050	$ 5
Opt. 004	Replace standard 32K with 128K	1600	15
45001A	32K Board	1250	5
45003A	64K Board	1900	10
45004A	128K Board	2500	20

Back to the multi-user price reduction. By ordering an HP 250 with option 004, your customer has enough memory to support the main system plus two remote consoles. And the savings to your customer over the old memory pricing is $1350. Here's how:

Std system memory plus:		Std system memory plus:	
Opt. 002	$1050	Opt. 004	$1600
45003A	$1900		
	$2950		

Users Rate MFG/3000 'Excellent Plus'
By: Mike Kalashian/GSD

Datapro's 1979 User Ratings of Proprietary Software included an evaluation of manufacturing application software products, including MFG/3000. Although the number of users rating the product was limited (2 respondents), it is noteworthy that MFG/3000 was the only manufacturing application to receive the highest rating, Excellent Plus, in all categories including Overall Satisfaction.

This annual survey is the same survey used to award IMAGE/3000 a position on the Datapro Software Honor Roll.

The ratings are the result of extensive questionnaires received from nearly 6000 users. (See the *CS Newsletter,* Feb. 15, '80 for other HP results).

The following table highlights these key points:

1. End user oriented issues (ease of use, documentation, training, etc.) are the primary criteria by which application packages are evaluated.

2. Other hardware vendors as a group tend to get lower grades on training, documentation and support than they do on their software. These are three key areas where MFG/3000 makes a contribution.

3. MFG/3000 did extremely well, especially considering that 1979 was the package's first full year of availability.

4. The quality of competition is very high.

In most cases the number of respondents precludes any real statistical significance; but the trend is certainly clear: HP is establishing a leadership position in the manufacturing software marketplace.

In addition to this extremely favorable reaction, our new manufacturing application product — Materials

Management/3000 — has already been recognized by you and our customers as being even better than MFG/3000, its predecessor, in those categories rated by Datapro. You can use these results to help focus your customers on HP's end-user orientation in manufacturing applications.

1979 Datapro User Ratings
Manufacturing Application Software

| Vendor (Application Package)	Overall Satisfaction	Throughput Efficiency	Ease of Installation	Ease of Use	Documentation	Vendor Support	Training	# of Responses
HP (MFG/3000)	E⁺	E⁺	E⁺	E⁺	E⁺	E⁺	E⁺	2
ASK (MANMAN)	E	E	E⁺	E	E	E⁺	E	8
Boeing (PMS)	E	E⁺	E⁺	E	F	E⁺	P	2
Burroughs (PCS-11)	E	E	E	E	E	G	G	14
COMSERV (AMAPS)	E	G	E	E	E	E	E	5
Farwest (AMAPS)	E	E	E	E	F	E⁺	E	2
Honeywell (IMS)	E	E	E	E	G	G	G	24
IBM (COPICS)	E	E	E	E	G	E	E	5
IBM (S/34 MAPICS)	E	E	E	E	E	E	E	42
Martin Marietta (MMAS)	E	E	E	E	G	E	E	4
Sperry Univac (UNIS)	E	E	E	E	G	G	E	21

Scale

P = Poor   F = Fair   G = Good   E = Excellent   E⁺ = Excellent Plus

Introducing ...
Interactive Mainframe Link/3000 on the Series II/III (3270 Emulator Software) in North America & Europe
By: John Chisholm/GSD

Interactive Mainframe Link/3000 for the HP 3000 Series II/III
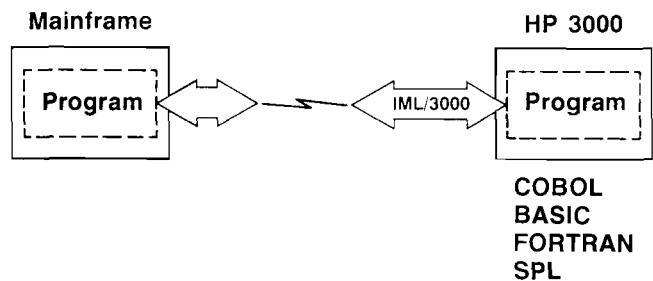

IBM Mainframe

IML/3000
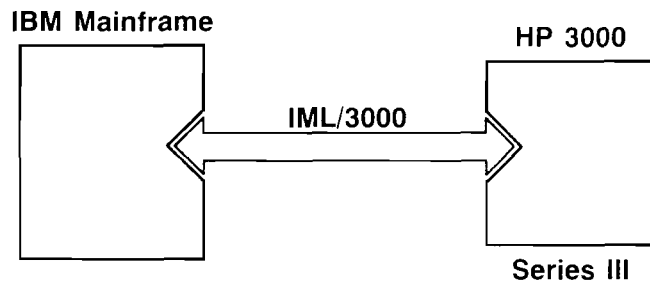
HP 3000

Series III

DDP Solutions that complement the Mainframe

Interactive Mainframe Link/3000 (IML/3000) is *the* software product which will let you sell HP 3000 Series III's into Fortune 1000 accounts which are already using IBM equipment. These accounts typically have IBM 360, 370 or 303X mainframes — or other mainframes using IBM software, such as Amdahl or Itel. Accounts like these want to implement data communications networks that include the mainframes they already have. They're looking for comprehensive DDP solutions that *complement* their existing mainframe equipment. And they need a way to make a smooth transition from centralized to distributed processing. IML/3000 makes all this possible — *and more!!*

IML/3000: What it Does!

IML/3000 software, also known as the "3270 Emulator", allows HP 3000 programs to use high level program statements ("intrinsics") to exchange data interactively with application programs on the host mainframe. This is called IML/3000 Programmatic Access and Update. By using IML/3000 intrinsics in HP 3000 programs together with V/3000 or IMAGE/3000 intrinsics, you can create very advanced DDP applications. For example, an IML/3000 application can allow users at HP terminals to access or update data on both the HP 3000 and the host mainframe — so the users don't even have to know where the data is coming from or going to!

IML PROGRAMMATIC ACCESS AND UPDATE

Mainframe

Program

IML/3000

HP 3000

Program

COBOL
BASIC
FORTRAN
SPL

In addition to Programmatic Access and Update is IML/3000's Inquiry and Development Facility (IDF). IDF allows most block-mode HP 264X terminals on the HP 3000 to appear, with a few differences, like IBM 3270 terminals attached to the mainframe. No HP 3000 programming is required to use IDF! A few simple keystrokes let you switch back and forth between remote mainframe activity and local HP 3000 activity. IDF is not a substitute for a dedicated cluster of IBM 3270 terminals, but it's a convenient way to directly access mainframe application programs on an occasional or casual basis.

The HP 3000 with IML: A Complement to the Mainframe!

With IML/3000, your customer's new on-line applications can be brought up on the HP 3000, rather than the mainframe, and yet still have access to mainframe data. This lets your customer make a gradual transition from centralized to distributed processing. It can also mean better mainframe performance for other activity. The HP 3000 with IML/3000 helps make the mainframe more productive!

Competition: We Look Good!

IML/3000's Programmatic Access and Update is believed to be the most comprehensive capability of its kind on any vendor's non-mainframe computer! What sets IML/3000 apart among 3270 emulator software is its unique set of 14 high-level intrinsics. There's no need for HP 3000 applications programmers to do low-level "bits and bytes" coding — that's handled automatically by the IML intrinsics! Maximizing programmer productivity in this way means real economic savings to customers!

IML/3000 uses the INP — For Better Performance!

IML/3000 makes the most aggressive use of the Intelligent Network Procesor of any data comm product yet! Much of the 3270 data stream processing actually takes place on the INP! This overhead is off-loaded from the HP 3000 CPU to the INP — meaning better performance for local processing on the HP 3000 as well as for IML/3000 activity!

IML Training/Consulting Package — Key Success Factor!

You've asked us to package that training and consulting that offers customers exactly what they need to get up to speed with IML/3000. Here it is!! The IML/3000 Training/Consulting Package consists of four days total training and consulting to help your customer begin bringing up IML applications as quickly as possible. Since IML/3000 requires a leased line, training is conducted on the customer's own site in his own mainframe environment, after IML installation. SEs conducting the IML Training/Consulting Package will be supplied with specific material to cover three of the four days of the package. Sell the IML/3000 Training/Consulting Package with every customer's initial copy of IML/3000!

Make your customer a success!
Sell the IML/3000
Training/Consulting
Package!

IML/3000 Sales Aids — Reference Sheet and Videotape!

Give your technical customers a copy of the IML/3000 Reference Sheet. If they are less technical, show them the IML/3000 Videotape — a professional, 15-minute management-oriented sales tool which explains how IML/3000 can benefit his/her EDP operation. It's a sure way to impress a mainframe customer that HP understands and can address the needs of his/her current operation!

An Interview With Mr. I.M. Link
By: John Chisholm/GSD

(Ed. Note: Mr. I.M. Link (Interactive Mainframe Link) granted this exclusive interview to discuss IML/3000 on the Series II/III.)

Ed.: Mr. IML, how are you different from RJE/3000 and MRJE/3000, which also provide communication between the HP 3000 and IBM mainframes?

Mr. IML: Well, RJE and MRJE provide *batch* communication, whereas I provide *interactive* communication. Batch is used when you don't need an immediate response from the host, say for example, a payroll application. RJE/3000 or MRJE/3000 can be used in this case. However, if you have a customer on the phone and need to give him an order status immediately, you need to get the information from the mainframe in a matter of seconds. I can be used in this case.

Ed: DS/3000, RJE/3000, and MRJE/3000 can all use dial-up lines as well as leased lines. Why do you require a leased line?

Mr. IML: That requirement is due to IBM, not me! IBM requires that bisync IBM 3271, 3274, and 3276 control units must use leased lines. Since I emulate any one of those devices, I have to follow suit.

Ed: Mr. IML, what do you do best?

Mr. IML: I let the HP 3000 be used as a distributed processing system in a mainframe communication network. I work best in an environment that adheres to the 80/20 Rule: 80% of the data used should be local to the HP 3000. However, for the 20% of the time that you need to get to data stored on the mainframe, IML/3000 gives you that capability.

Ed: Mr. IML, why do you say that you are not a substitute for a dedicated 3270 cluster control unit?

Mr. IML: A cluster of 3270 terminals is dedicated to communicating with the host: 100% of the processing takes place on the remote host system. This is centralized processing, with essentially no distributed processing power at the 3270 site. If that's what you want to do, buy a real 3270 cluster of terminals: it's cheaper than an HP 3000! But if what you really want to do is *true* distributed processing, with local data management and local transaction processing, with the ability to access mainframe data as needed, the HP 3000 with IML/3000 is your best bet!

Ed: Mr. IML, thank you very much.

DISTRIBUTED PROCESSING CENTRALIZED PROCESSING
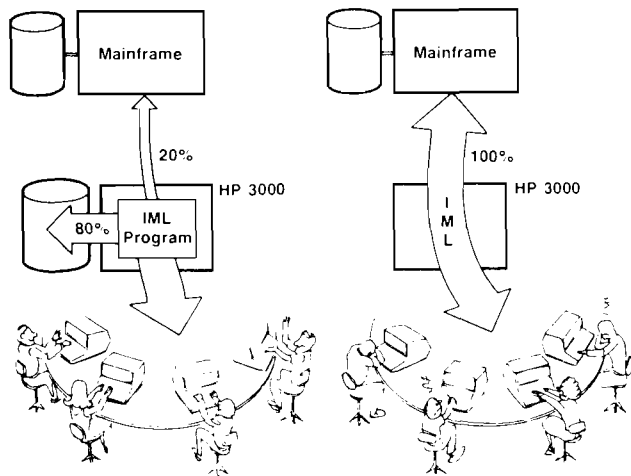
IML/3000: Ordering and Availability

By: John Celii & John Chisholm/GSD

IML/3000 is a product of special importance to major accounts. As such, ensuring maximum customer satisfaction with IML/3000 is particularly important. This satisfaction depends on IML/3000's compatibility with the customer's host system, the customer being properly trained in the use of IML, a well-defined plan in place for supporting IML, and properly set customer expectations about IML's availability.

With your help, we have developed a Customer Success Plan for qualification, ordering, installation, and support of IML/3000. There are three steps to this plan: 1. pre-sale qualification, 2. customer training/consulting, and 3. support.

Step 1. Pre-Sales Qualification

Your customer's host operating environment must be qualified to ensure that IML is compatible with it. Use the IML Compatibility Checklist in the IML Field Training Manual for this purpose. For example, a requirement for compatibility with IML/3000 is that the customer's host use standard versions of IBM's BTAM (Basic Telecommunications Access Method) or TCAM (TeleCommunications Access Method) software.

Step 2. Sell them on the Training/Consulting Package!

The IML/3000 Training/Consulting Package consists of that combination of training and consulting required to get your customer developing IML applications as quickly as possible. This package of four days total training and consulting should be sold with *every* customer's initial installation of IML/3000 software.

Step 3. Pre-Sales Installation and Support Planning Checklist . . . for your SE

Your IML-trained SE uses the Pre-Sales Installation and Support Planning Checklist to ensure that proper planning for the support of the IML account has taken place. This checklist verifies that the customer's application makes sense for IML, that an IML-trained SE has been designated for the account, and that the customer training/consulting package will be ordered. This checklist is signed by your Area Manager and sent to *Ray Johnson,* Marketing Support Manager, 47L, at GSD.

Then . . . Place the Order!

After these three steps have been taken, place the order for IML/3000! The IML Field Training Manual shows you how! Here's a brief summary:

Product No.	Product	Price
32229A	Right-to-Use IML/3000	$3500
32229R	Right-to-Copy IML/3000	1400
32229T	Comprehensive Software Support	125/mo
32240X	IML/3000 Training/Consulting Package (4 days on-site)	3800

See the IML/3000 Field Training Manual for details.

Availability . . . Initially Controlled

We have made a number of commitments to major accounts to provide IML/3000 software to them as early as possible. IML/3000 will be installed in these major accounts beginning in April. Because of the backlog of these commitments, availability of IML/3000 to other accounts will be on a "consult factory" basis. Installations of IML/3000 will be prioritized by Regional/Area Managers working with *John Celii* at GSD *(Joe Dietzgen* at CSB for Europe.) With new systems, IML/3000 should be ordered under a separate order number unless absolutely required for system shipment.

We believe that this Customer Success Plan — with emphasis on compatibility, customer training, supportability, and meeting our commitments — will result in maximum customer satisfaction with IML/3000!

The HP 3000 with IML/3000:
DDP Solutions that Complement the Mainframe

Training News

New Sales Product Training for Manufacturing
By: Dave Viale/GSD

The Manufacturing Systems Program Marketing team has introduced a new two-week manufacturing training series for SRs and SEs. This sales training class is divided into two modules.

The first, entitled Manufacturing Systems Applications, was developed in conjunction with the Computer Group Training Department and Data Systems Division. This course focuses on understanding the nature of the manufacturing industry. Topics include: Key Manufacturing Flows, Manufacturing Functions, and Manufacturing Decision Makers. Among the major concepts covered are: Engineering Documentation Control, Master Production Scheduling, Material Requirements Planning, Inventory Management and Control, Purchase Order Control, and Shop Floor Control. In the Key Decision Makers module, emphasis is placed on responsibilities, how these individuals are measured and what their major concerns are.

The second module, Materials Management/3000 Sales Product Training, focuses on understanding the capabilities of HP's interactive applications products for manufacturers available from the Manufacturing Systems Program. The course content includes: Master Production Scheduling, Rough Cut Resource Planning, Parts and Bills of Materials, Routings and Workcenters, Material Issues and Receipts, Inventory Balance Management, Work Order Control, Purchase Order Tracking, Material Requirements Planning and Standard Product Costing. Hands-on lab experience reinforces the features and benefits of each application, while

at the same time crystalizing the participants' understanding of the new state-of-the-art customizing capabilities and automated operator interface. The Customer Service section of the course reviews available customer training, documentation, and the role of the Industry Specialist.

This course should result in the development of an excellent general knowledge of the manufacturing industry, such that when combined with specific product knowledge and sales skills, it will enable the SR and SE to successfully sell our product to companies in the manufacturing industry.

If you would like to enroll in the class, contact *Roxanne Hetzel* at CMG Training (408) 996-9383 X392.


Sales Aids

HP Manufacturing Systems Reference Accounts
By: Beth Eikenbary/GSD

A Manufacturing Systems Reference Database has been inaugurated as a sales tool for identifying manufacturing reference accounts. Although computerized manufacturing applications are proven concepts, for many they are untried procedures. The Manufacturing Reference Database provides ready access to companies utilizing HP manufacturing applications. References can be determined quickly and easily.

Finding the correct reference account goes beyond identifying an HP user in a certain geographic area. To provide a proper view of Materials Management/3000 or MFG/3000 in operation, references need to be correlated along industry lines; size of the manufacturing operation as well as implementation phase are also important. The data maintained specifically in the Manufacturing Reference Database was designed to aid in identifying appropriate customer references. The Manufacturing Systems Sales Development team can also provide additional assistance in finding the best HP manufacturing application reference account available.

CS GROUP NEWS
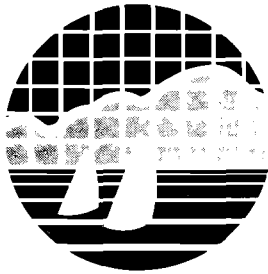
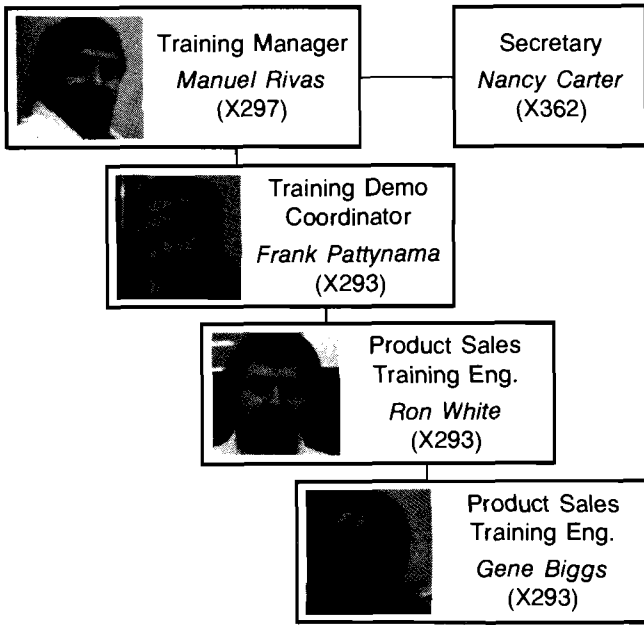## San Diego Division

Division News

Support Plus: Training

By: Al MacIlroy/SDD

For you who have recently attended a Neophyte training session, the SDD Training Group is not new. This group is responsible for SR and SE training for SDD graphics products. Last year, they gave 43 training sessions, and this year they'll give more than 90.

Training welcomes your input on how they can better serve the SR and SE with regard to your SDD graphics products training. Outstanding training support for you is our business; give us a call at (714) 487-4100 or send a COMSYS to 1100.

Training Group Organization

Training Manager *Manuel Rivas* (X297)	Secretary *Nancy Carter* (X362)

Training Demo Coordinator *Frank Pattynama* (X293)

Product Sales Training Eng. *Ron White* (X293)

Product Sales Training Eng. *Gene Biggs* (X293)

Sales Aids

New Manual Supports 7245B Plotter/Printer

By: Joel Kastner/SDD

San Diego Division's support of the new HP 7245B plotter/printer includes the all-new HP 7245B Operating and Programming Manual. This manual's treatment of HP-GL instructions and printer escape code commands is completely computer-independent, serving the needs of HP and non-HP computer owners equally well.

A companion HP 7245B plotter/printer reference card is also available for quick reference to all HP 7245B HP-GL instructions, escape code commands, default conditions, and error messages.

Copies of the Operating and Programming Manual, HP P/N 07245-90010, and Reference Card, HP P/N 07245-90013, can be ordered from the Corporate Parts Center.

Computer Supplies Operation News

Supplies Message Reaches Out to HP Terminal Users

By: Fran Jeffries/CSO

The purpose of CSO's newest promotional piece is to remind terminal users of HP's computer supplies capability as they receive a new HP terminal.

This latest in a series of "piggy back" cards (so called because they ride along inside or on top of peripheral products) features information about HP computer supplies, offering the supplies catalog via mail in reply card. The back of the card carries information on HP's 98200A, mini data cartridge.

This piece is the most recent in a series of promotional messages, presently included also on or in all disc drives, printers and tape units. Message cards for other peripheral products are planned for the near future.

Corporate Training & Management Development

NEW VIDEOTAPE
I N F O R M A T I O N

New Videotapes From Corporate Training
By: Chuck Ernst/Corp.

Title: HP 1350S Graphics Display System

Audience: HP Field Sales Engineers (Computer and Instrument) HP Computer Graphics Customers

Purpose: To demonstrate actual or simulated applications for 1350S graphics.

Content: This videotape examines the advantages of the 1350S Graphics System for general graphics. It features high speed and high resolution to permit the visualization of complex data for statistics, engineering design, medicine, numerical control and production test. The 1350S offers cost effective solutions to a wide spectrum of demanding applications.

Time: 7 mins.

Part No.   90947Z

Date Released: Jan. 1980

How To Order: Transmit a HEART (COCHISE) I-2 order to Video Products, Palo Alto: Supplying Division 0700, Product Line 95, Sales Force 09, Marketing Division 07. Order number 09047Z for a videocassette.