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HPSA

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel

HEWLETT  PACKARD**Vol. 4, No. 15**
June 15, 1979

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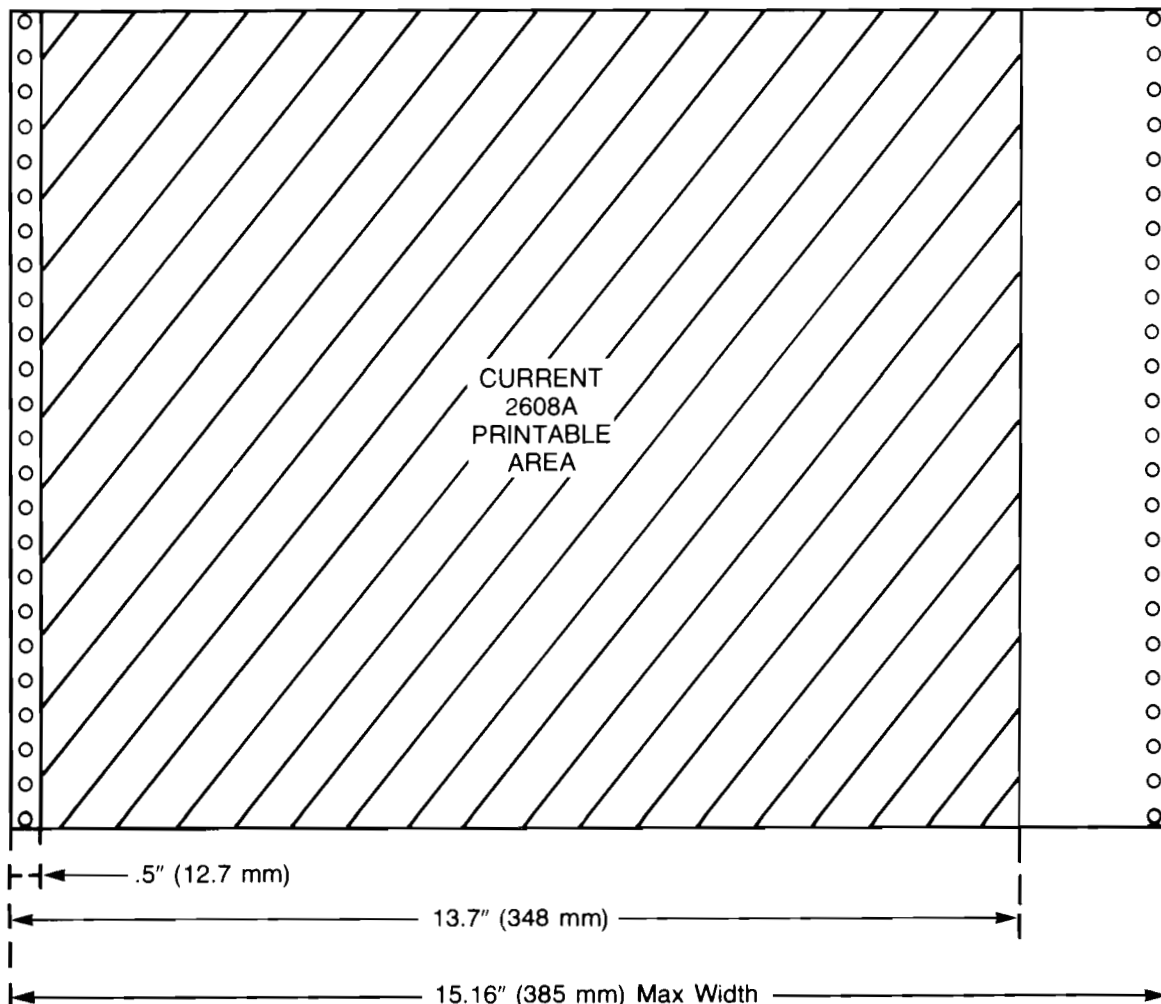
BOISE DIVISION NEWS

Product News

2608A Forms Width and Left Margin Specifications

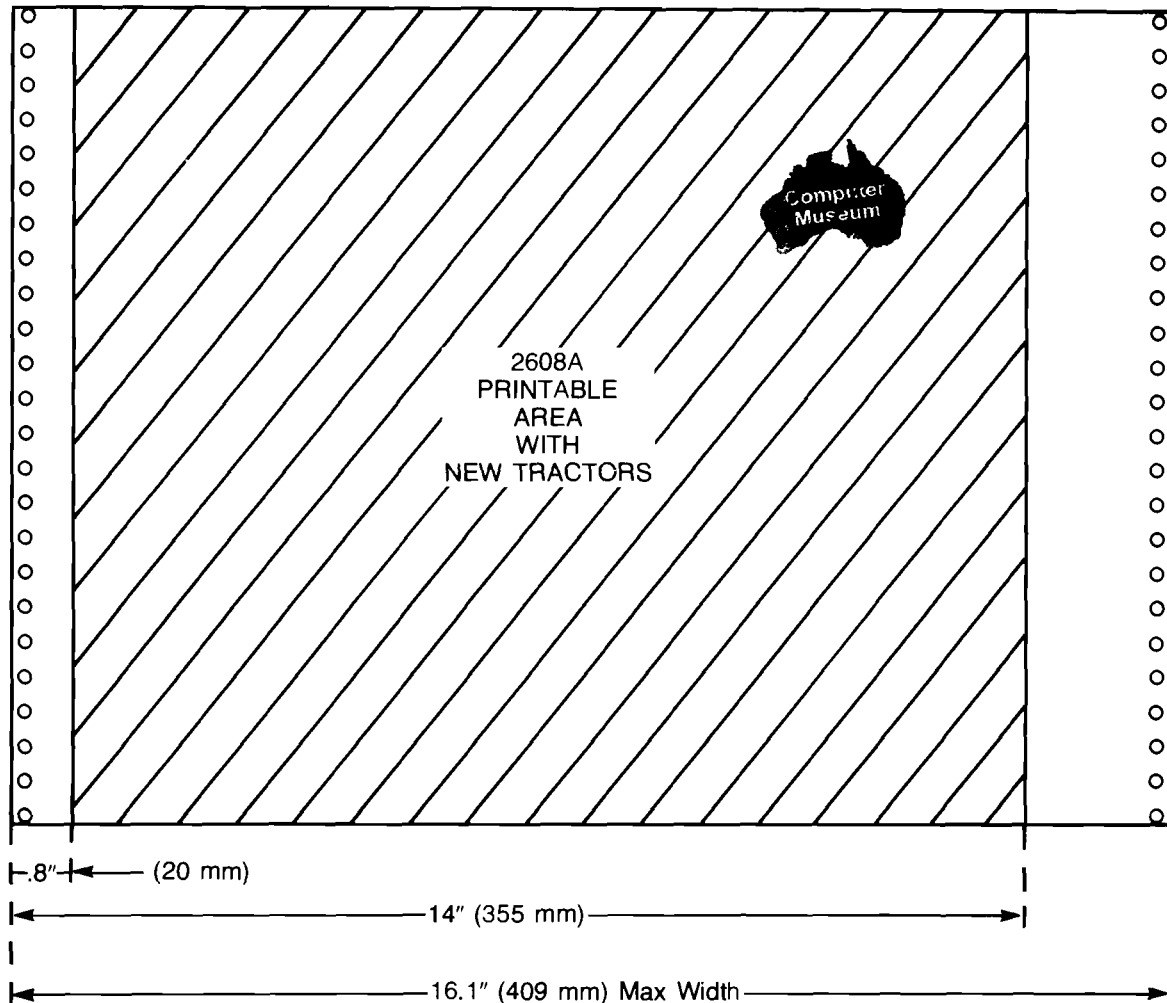
By: Steve Richardson/Boise

The 2608A is a highly reliable, versatile printer which can meet many of the needs of the users in many applications. However, it is not the universal printer that can do everything for everyone. This is especially true with regard to the size of forms which can be printed on the 2608A.



Simply stated, the 2608A can print starting .5" from the left edge of the paper and ending 13.7" from the left edge of the paper. If you need to print outside of this area, there are two possible alternatives that should be explored:

1. New tractors and,
2. An alternative printing solution.



Boise Division is aware of the problems which have arisen from the above restrictions. In many cases, the customer would like a little more than .5" of left margin while still being able to print 132 columns. For this reason, we have had new tractors designed and tested to allow this. The culmination of these design efforts have been a newly designed tractor which will allow .8" of left margin and will allow printing up to 14" from the left edge of the paper. These tractors will be put into production as soon as we can procure large quantities (6 to 8 weeks from now). This means that orders placed today will automatically be shipped with new tractors. We will also make these tractors available free of charge from Boise Division for customers who need upgrades in the field.

There are cases when a customer needs even more left margin than .8" allowed by the new tractors, yet does not need to print the last column more than 14" from the left side of the paper; therefore, the customer actually does not need 132 columns. In this case, the programmable left margin feature of the 2608A can be used to start the first column anywhere from .8" to 2.3" from the left edge of the paper. The 2608A automatically shifts the data to the right, thus moving the first column and truncating the rightmost columns. This truncation will not effect applications which do not need to print beyond the 14" limit from the left edge of the paper.

For forms which require the ability to print farther than 14" from the left edge of the form, there are several alternative solutions. HP has several printers which can handle this need, the 2631A, 180 cps printer; the 2631A, 300 lpm printer; and 2617A, 600 lpm printer and the 2619A, 1000 lpm printer. These printers may be able to better satisfy the needs of the application. Quite often a multiple printer solution with a 2631A and a 2608A can provide a cost effective solution which will allow all required special forms to be printed, with the added benefits of increased throughput, greater flexibility in output and printer backup to keep the user going if one printer should require repair.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

Easy Forms Alignment on the 2608A

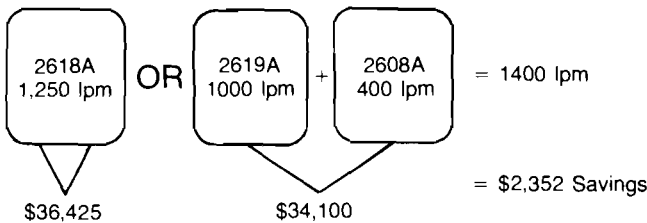
By: Robert McCaleb/Boise

Anyone who might have questioned the forms alignment procedure described in the 2608A Field training manual take note!

The alignment guide supplied on each printer should be lined up on the bottom of the first print position line. This will ensure that forms of any length can be easily and accurately aligned.

2619A Plus 2608A: A Good Team for Your HP 3000/III

By: Steve Richardson/Boise



Now that the 2619A is available, we feel that most customers requiring high printing throughput have a cost effective solution. However, there may be customers who require more throughput than the 2619A. Instead of selling these customers a 2618A, we recommend you think about a 2619A plus a 2608A.

There are many advantages of this over the 2618A. First, it costs less money. The 2619A plus 2608A costs only \$30,250 stand-alone or \$34,100 including all cables, interfaces, etc. This saves your customer money compared to the 2618A at \$34,500 stand-alone and \$36,425 interfaced. Fully interfaced, this saves the customer \$2,325. In addition, both the 2608A and 2619A are purchase agreement discountable. This means an even greater savings for our customer.

Another advantage of the 2619A/2608A combination is higher throughput compared to the 2618A. Combined, these printers offer 1400 lpm vs 1250 lpm. This is a 12% increase in raw performance. Although long jobs will take a little more time, the short jobs are not bottlenecked by long jobs; therefore, overall improvement in time to get user output is significantly decreased.

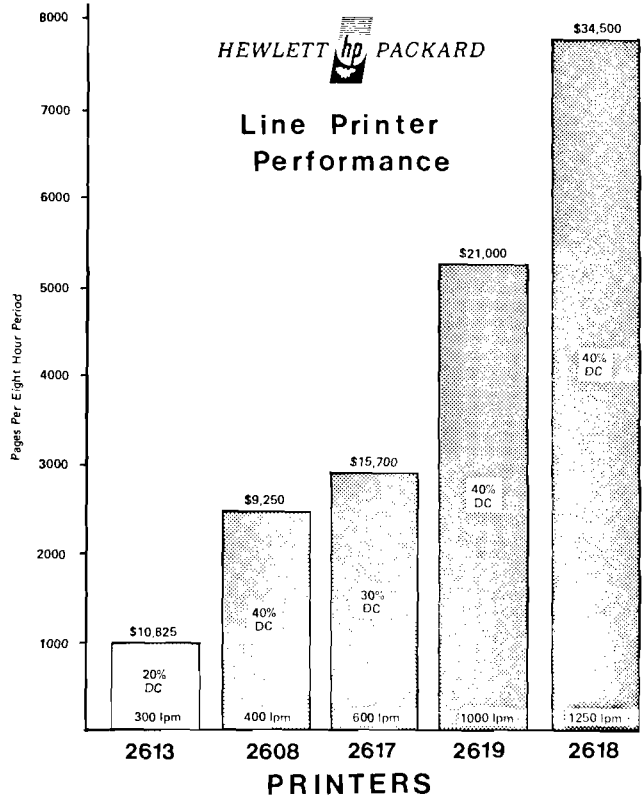
A third advantage of this multiple printer solution is backup. If one printer is down, the critical jobs can still be printed.

With all these advantages and a lower cost too, the 2619A plus 2608A make a powerful team to help you sell systems!

Why is the 2619A Discountable?

By: Thad Webster/Boise

Boise Division has put together a good printer package with the new 2619A line printer. Performance: 1000/lpm with excellent forms handling capabilities and good horizontal type printing for clear print quality. Price: very competitive at \$21,650 (interfaced to the HP 3000/II, III) and even more competitive when purchased on Schedule A1 with an HP 3000 system.



The marketing objective of the 2619A is to fill a gap in the Boise line printer family specifically related to HP 3000 users.

The primary Boise Marketing objective is to provide you with peripherals that will help you sell complete HP Systems. For the high volume, commercial user the 2619A, discounted with his HP 3000 System, is an offer he cannot refuse.

We cannot afford the heavy "Demo Development" discount offered by GSD on the first HP 3000 System for OEM customers. The current 2619A pricing structure is tailored specifically for Schedule A1.

We are not trying to merely resell the Data Printer line printer either, therefore we have not put the 2619A on Schedule A4. The intent is to give you the printer you need to sell a complete HP 3000 System.

As we expected, you and your customers have been very interested in the 2619A line printer. We are still very interested in your sales situations where your customer decides to buy a non-HP printer with an HP system. Give us a call to talk about it.

Special Length Printer Cables

By: Mary McNally/Boise

The Sales Development staff has been receiving an increasing number of requests for special length cables over the past few weeks. As a result, we have found ourselves repeating the same ordering information and pricing to several individuals. Since it is to both our advantages that you have direct access to this information, we have decided to provide you with all the details that you will need to quote special cables, via the following matrix and notes.

The matrix is organized by printer and HP system. To order a special length cable, merely locate the printer involved, and the system on which it will be running. There are three ways to order the cable:

- (1) With a new printer (entire subsystem)
- (2) With a new printer interface
- (3) As a cable only

The matrix lists each of these configurations, the associated ordering information, and the pricing scheme. Please pay attention to the following:

- Always specify the length of the cable when describing the appropriate option.
- When ordering an entire subsystem, the system option is included in the HXX special. For instance, the 2608A Option H72 includes system Option 210.
- These cables are for the differential interface only, and this ordering information does *not* apply to the 2608A HP-IB cable.
- The 2608A uses an Amphenol connector, whereas the other line printers use Winchester connectors. For this reason the printers are not interchangeable on the same cable.

Regarding the maximum length of the cables on an HP 3000:



Printer	Max Length	Comments
2608A	1000 ft	—
2613/2617A	1500 ft	For cables longer than 1000 ft, Option E04 must be ordered also. This option causes line terminations to be performed on printer PCA's.
2619A	1500 ft	—
2631A	1000 ft	There has been some difficulty with longer cables on the 2631A due to the parallel interface. A new interface has been designed and will appear in series 1917 and up. These new interfaces should be introduced by July.

*NOTE: On all printers on the HP 3000 with special length cables, it is necessary to stipulate that power to the printer may not be turned off or the cable disconnected at the printer end. Otherwise, the computer will receive continuous interrupts.

Regarding the maximum length of cables on the HP 1000:

Printer	Max Length	Comments
2608A	1000 ft	—
2613A/2617A	1500 ft	Over 500 ft, the 12845B requires W1 jumper to be placed in #2 position. If not, DMA will fail and diagnostic DMA test will fail. Additionally, over 1000 ft, Option E04 must be specified. This causes line terminations to be performed on printer PCA's.
2631A	1000 ft	

Hopefully, this information will help you in the future when quoting special length cables. If you have any questions, please don't hesitate to call your Regional Sales Engineer in Boise.

Printer	21 MX Subsystem				3000 Subsystem			
	Configuration	How To Order		Cable Price	Configuration	How To Order		Cable Price
		Product	Qty			Product	Qty	
2608A Max Length is 1000 ft	Entire Subsystem	2608A	1	\$750 plus \$3.00 per ft over 25 ft	Entire Subsystem	2608A	1	\$750 plus \$3.00 per ft over 50 feet
		H72 "xxx ft"	1			H73 "xxx ft"	1	
	Interface and Cable	26099A H72 "xxx ft"	1 1	\$100 plus \$3.00 per ft over 25 feet	Interface and Cable	N/A		N/A
	Cable Only	26006A H72 "xxx ft"	1 1	\$100 plus \$3.00 per ft over 25 feet	Cable Only	26006A H73 "xxx ft"	1 1	\$300 plus \$3.00 per ft over 50 feet
2613A Max Length is 1500 ft (Order E04 after 1000 ft on 3000 Syst) E04 = \$125	Entire Subsystem	2613A	1	\$750 plus \$2.50 per ft over 25 feet	Entire Subsystem	2613A	1	\$750 plus \$2.50 per ft over 50 feet
		H62 "xxx ft"	1			H63 "xxx ft"	1	
	Interface and Cable	12845B H62 "xxx ft"	1 1	\$100 plus \$2.50 per ft over 25 feet	Interface and Cable	N/A		N/A
Cable Only	26006A H62 "xxx ft"	1 1	\$100 plus \$2.50 per ft over 25 feet	Cable Only	26006A H63 "xxx ft"	1 1	\$300 plus \$2.50 per ft over 50 feet	
2617A Max Length is 1500 ft (Order E04 after 1000 ft on 3000 Syst)	Entire Subsystem	2617A	1	\$750 plus \$2.50 per ft over 25 feet	Entire Subsystem	2617A	1	\$750 plus \$2.50 per ft over 50 feet
		H62 "xxx ft"	1			H63 "xxx ft"	1	
	Interface and Cable	12845B H62 "xxx ft"	1 1	\$100 plus \$2.50 per ft over 25 feet	Interface and Cable	N/A		N/A
Cable Only	26006A H62 "xxx ft"	1 1	\$100 plus \$2.50 per ft over 25 feet	Cable Only	26006A H63 "xxx ft"	1 1	\$300 plus \$250 per ft over 50 feet	
2619A Max Length is 1500 ft	Entire Subsystem				Entire Subsystem	2619A	1	\$750 plus \$2.50 per ft over 50 feet
						H63 "xxx ft"	1	
					Interface and Cable	N/A		N/A
					Cable Only	26006A H63 "xxx ft"	1 1	\$300 plus \$2.50 per ft over 50 feet
2631A Max Length 1500 ft	Entire Subsystem	2631A	1	\$750 plus \$2.50 per foot over 25 ft	Entire Subsystem	2631A	1	\$650 plus \$2.50 per ft over 50 feet
		H62 "xxx ft"	1			H63 "xxx ft"	1	
	I/F and Cable	12845B H62 "xxx ft"	1 1	\$100 plus \$2.50 per ft over 25 ft	Interface and Cable	N/A		N/A
Cable Only	26006A H62 "xxx ft"		\$100 plus \$2.50 per ft over 25 ft	Cable Only	26006A H63 "xxx ft"	1 1	\$300 plus \$2.50 per ft over 50 feet	

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THE HEWLETT PACKARD 2608A PRINTER

DATE 7-17-78		HEWLETT-PACKARD COMPANY		ORDER #241802176	
SOLD TO ABC LIMITED		SHIP TO ABC LIMITED 123 E. 34 ST. NEW-TOWN, MONTANA			
CUSTOMER ORDER NUMBER	CUSTOMER NO.	H.P. PURCH NO.	H.P. QUOTE NO.		
2073007451	175	CE471	SC30781		
REQUIRE DATE	RATING	MP% DISC	S.D. DISC	TERMS	
9-14-78		078	047	NET 30	
SPECIAL INSTRUCTIONS AIR BEET					
ITEM	PRICE	QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
01	2630	5	2600 L/F	3150	15750
02	280	3	1000 L/F	105	315
03	210	2	1000 L/F	650	1300
COMMENTS					
SHIP DATE	METHOD	CARRIER	FREIGHT C.O.D.	BOX	NUMB

Form and data can be printed on the HP 2608A using the various character sets available including the line drawing set

THE FOLLOWING IS A LISTING EXAMPLE FROM THE HP 2608A:

XYZ COMPANY			
CASH FLOW STATEMENT	FINDS	FIVE MONTHS	Budget
		Actual	
Cash Balance Beginning of Period	\$ 200,000	\$ 270,000	\$ 190,000
Funds Provided:			
Net	198,000	198,000	---
Depreciation	62,000	---	---
Valuation Reserves	---	---	325,000
Decreases	10,000	---	---
Accounts Receivable	27,000	---	---
Inventories	---	---	---
Fixed Assets	---	---	162,000
Other Assets	243,000	---	---
Increases	315,000	---	947,000
Accounts Payable	\$ 138,000	---	\$ 1,457,000
Tax Accruals	\$ 740,000	---	---
Other Liabilities	---	---	---
Total Funds Provided	---	---	390,000
Total Funds Available	\$ 710,000	---	205,000
Funds Expended:			
Increases	195,000	---	3,000
Accounts Receivable	---	---	---
Inventories	---	---	---
Fixed Assets	---	---	---
Other Assets	233,000	---	---
Decreases	---	---	16,000
Accounts Payable	---	---	---
Tax Accruals	---	---	---
Other Liabilities	---	---	---
Dividend Payments	---	---	614,000
Profit-Sharing and Bonus Payments	---	---	643,000
Tax Payments	\$ 128,000	---	---
Total Funds Expended	\$ 620,000	---	270,000
Net Funds Available	\$ 20,000	---	540,000
Financing:			
Borrowings	---	---	---
Repayments	---	---	---
Cash Balance End of Period	\$ 608,000	---	\$ 573,000

New Applications

The 2608A — Now a Remote Line Printer

By: Gary Sherwood/Boise

The new Boise Division Applications group is proud to announce its first application technique. This application is for using the HP 2608A in a remote environment.

Would you like to have the capability of a line printer remoted from your system over 1500 feet without front-ending it with a HP 1000? Would you like access to all the features of the 2608A except graphics on the HP 3000? THEN READ ON!!

I have recently investigated controlling the HP 2608A secondary commands via the shared peripheral interface of a HP 2647A and 2648A. With these CRT's connected to either an HP 1000 or an HP 3000, using the appropriate escape sequences, the secondaries can be controlled from the system. Better yet, the codes can be written into

standalone programs that can be run at the system to provide the desired feature.

For Example:

DBLHI can be a program that when run would put the 2608A into the mode to print double high characters. STDHI would put it back into standard high characters. LFTMG prompts the user to input the desired left margin on the 2608A. These programs, and others the user might want to implement, could be run via softkeys on the CRT's making it child's-play to set the 2608A into the desired mode of operation. Using the same techniques in these programs the other secondary functions of the 2608A can be accessed, i.e., alternate character sets, printer clear, etc.

Since the above is an application programming technique, and not a product, it is available to your customers free of charge. Those of you in the field interested may receive a document explaining the technique, and containing examples in Fortran IV for the HP 1000, and in SPL for the HP 3000. Contact your Boise Division Regional Sales Development Engineer for your free copy.

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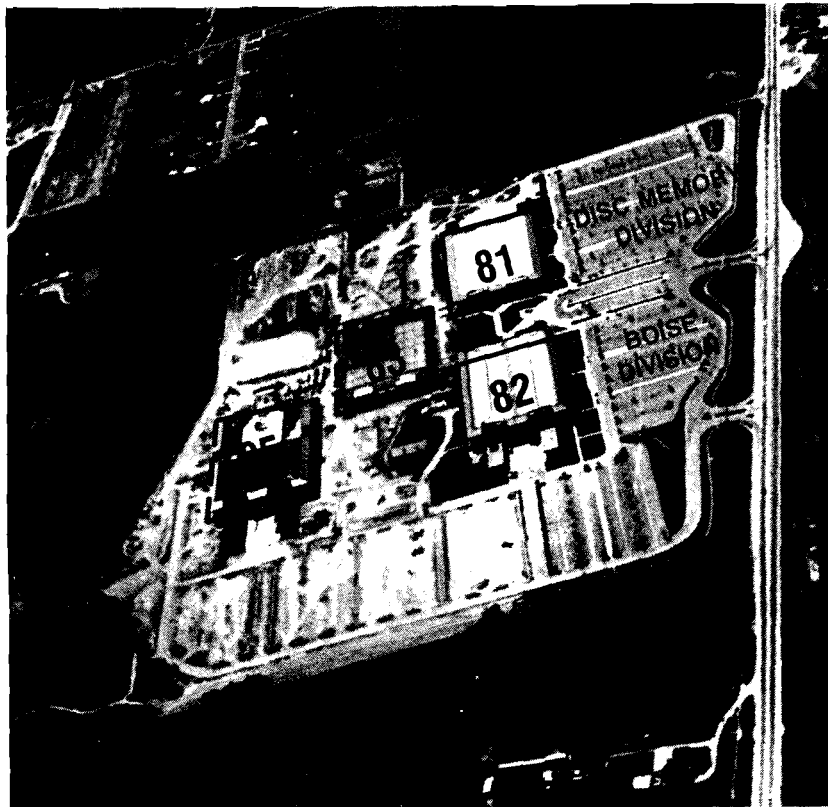
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DISC MEMORY NEWS

Division News

The Boise Site is Growing!

By: Rich Bowles/DMD



Just in case you haven't heard, building is a big deal in Boise. Little time was wasted after completing DMD's Building 82 before construction was started on Building 85 in October '78 and Building 83 in February '79.

At this rate we should finish 100 such buildings by 1985 (just kidding). Actually, 10 buildings are planned on the site. Specific uses are still tentative, but you can bet that we haven't forgotten the field sales and support organizations or our customers.

Special attention is being given to larger conference rooms and auditoriums and, finally, we will have some demo rooms. This should make it easier for both Boise and DMD to handle the every-growing Neophyte Training program, and make seminars held on our site by regional sales groups, RSMs, DMs, etc. more than just another meeting.

This atmosphere should be equally appealing for customer visits when closing that "really big deal" or customer training.

Last but not least, more facilities mean more room to manufacture and ship more products, and of course, more people on board to support your efforts!

Sales Aids

Evaluating Disc Competition: Part I

By: Kevin Magenis/DMD

Editor's Note:

Two errors inadvertently crept into "Evaluating Disc Competition — Part I" printed on page 5 of the Volume 4, Number 14, June 1, 1979 issue.

The last two lines of the second paragraph should have read:

"Therefore, the need to justify mass storage costs to your customer may also be growing. One way to justify mass storage costs is to convince the customer that HP disc expenses are in line with the rest of the industry by demonstrating exactly what HP discs offer per dollar vs. competition."

The third line of the second last paragraph should have shown "3370" instead of "370," as follows: "With the introduction of the 3370 (IBM's new thin film head disc) IBM greatly impacted its Plug Compatible Competition."

Evaluating Disc Competition: Part II

By: Kevin Magenis/DMD

The last issue began the first of a series of articles describing pricing and features that effect disc drive competitiveness in the mini-computer marketplace. The first article discussed several reasons for looking at disc competition so extensively. Two major points were made. First, with disc drives accounting for nearly 40% of the overall purchase price of a minicomputer system, the need to justify mass storage expense is increasing. Comparing our offerings to the competition helps show our expenses are very competitive with the rest of the industry and in many cases, have notable advantages.

Second, with large dollar amounts spent on disc drives and with IBM's recent 3370 (571 Mbyte disc) announcement, which declared war on PCM's, we can expect more competition in the future. Learning to deal with the competition now will give us all an edge in the future.

A) Pricing

Evaluating disc pricing should involve more than just the initial purchase price. It includes BMMC's, installation price, and operational expenses, which effect the overall cost of ownership.

Purchase Price

Initial purchase price of HP disc drive on a cost per megabyte basis is very competitive. While not the lowest in the industry, the move to in-house disc manufacturing has enabled us to offer discs that are at least as competitively priced as the most attractive system vendor.

BMMC

BMMC's contribute to the overall Cost Of Ownership of the product. Large BMMC differences can accumulate over time, especially when compounded by placing multiple drives per system. You will find HP has in most cases the lowest BMMC's in the disc market by 2-3 times.

Installation Price

HP includes professional installation in the purchase of the disc drive. No hidden costs are incurred in buying HP drives which is not always the case with our competitors' pricing.

Operational Expense

Operational expenses include such things as power consumption, operator expense, media, etc. Replacing or buying additional media in quantities can assemble a considerable cost. Media pricing might also be considered when looking at the total system cost.

Life Cycle Costing (LCC) is a concept that is useful in evaluating cost of ownership. Over a useful product lifetime (five years) BMMC's, purchase price, installation prices, and operating expenses have a significant impact on the Cost of Ownership (COO) of a disc drive. LCC looks at disc drive purchases as an investment relating a return on that investment. In areas where competitors beat HP on purchase price, in many cases our low BMMC's more than recover this initial deficit as can be seen through a Life Cycle Costing analysis. This is a good point to relate to the purchase or finance departments of prospective customers. Financial analysis is being emphasized more and more by our competition (e.g., IBM). More on life cycle costing in the next issue.

B) HP Disc Pricing and Features vs. DEC and DG

The following charts and graphs contain information on the most competitive disc drives Data General and Digital Equipment Corporation have to offer at this time. They show purchase price and drive feature comparisons as well as a performance factor. The performance factor compares competitors average access time (average seek time plus average latency time) with Hewlett-Packard's (HP's is normalized at 100).

DIGITAL EQUIPMENT CORPORATION

Second largest manufacturer of disc cartridge drives.

Larger drives are OEM'ed from CDC, ISS, and Memorex.

1977 Disc Sales: \$154,700,000 (5th largest)

Market Place: End User, OEM

DRIVES

MODEL	RK07	RM02*	RJP06 †	RL01
Type	Removable cartridge	Removable pack	Removable pack	Removable cartridge
Capacity	28	67	176	5.2
Master	\$14,500	\$23,000	\$44,000	\$5,100
Slave	\$10,500	\$18,000	\$34,000	\$3,800
BMMC	\$145/\$115	\$170/\$140	\$220/\$190	\$58/\$50
Performance Factor (average access time)	63	72	88	41

* OEM from Control Data (9762).

† OEM

4/1/79

HEWLETT  PACKARD

DISC MEMORY DIVISION

DATA GENERAL

Has introduced drives in all current technology areas.

1977 Disc Sales: \$58,300,000 (7th largest)

Market Place: End User, OEM

DRIVES

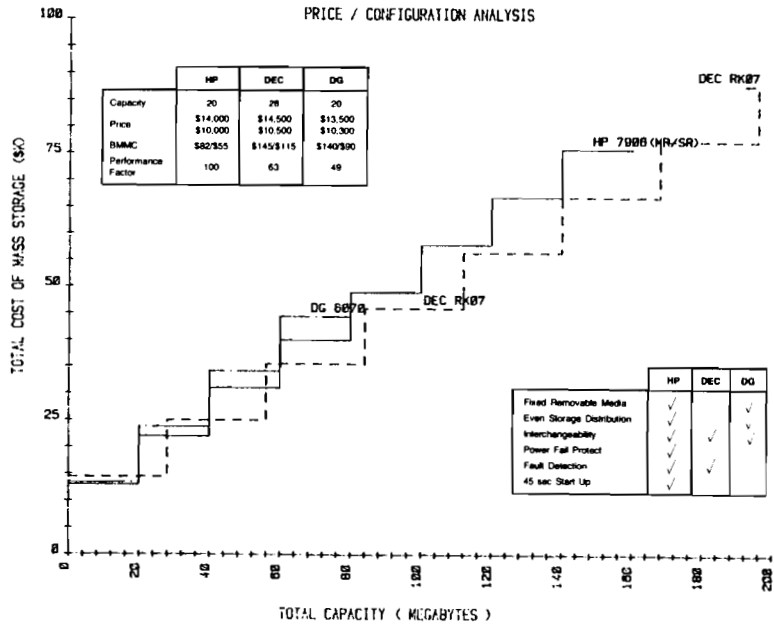
MODEL	6070	6060	6061	6067
Type	Removable cartridge	Removable pack	Removable pack	Removable pack
Capacity	20	96	192	50
Master	\$13,500	\$25,800	\$31,000	\$21,800
Slave	\$10,300	\$20,800	\$26,000	\$14,500
BMMC	\$140/\$90	\$220/\$160	\$220/\$160	\$190/\$140
Performance Factor	49	69	80	69

4/1/79

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DISC MEMORY DIVISION

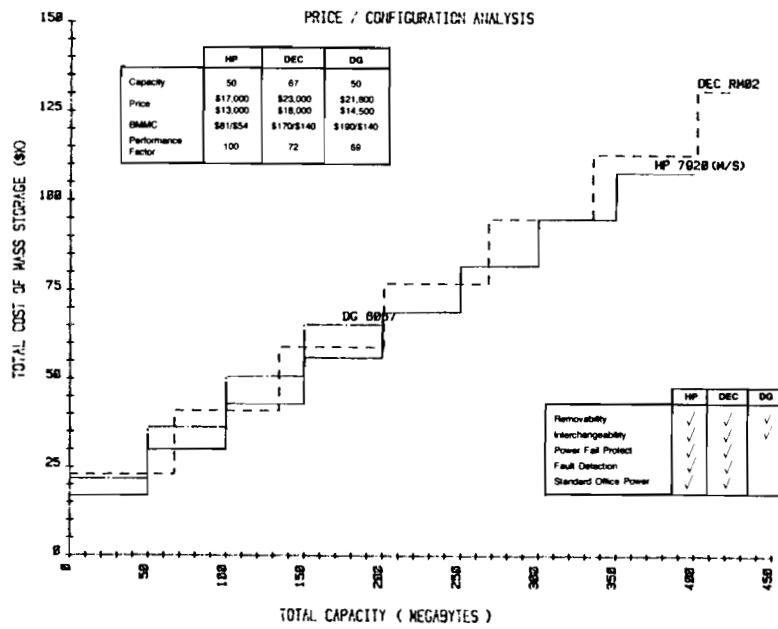
HP 7906 VS. DEC AND DG



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HEWLETT PACKARD
DISC MEMORY DIVISION

HP 7920 VS. DEC AND DG

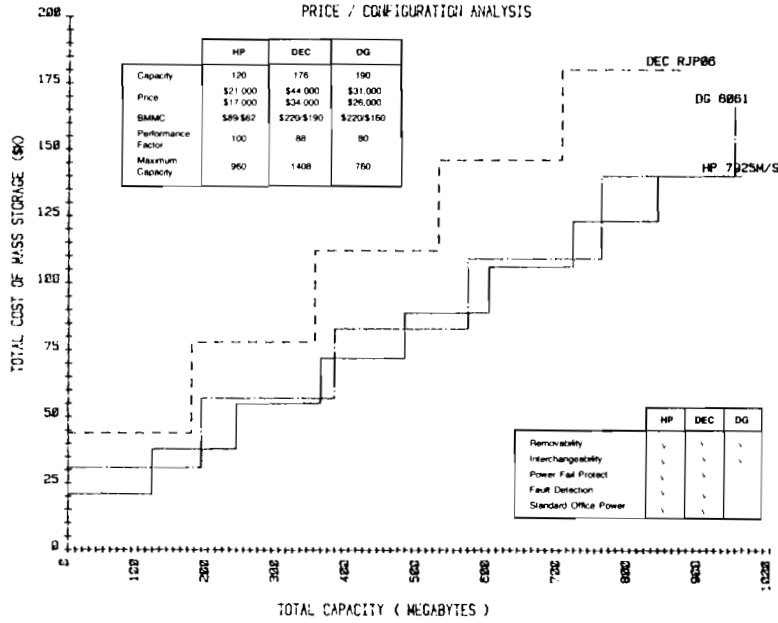


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HEWLETT PACKARD
DISC MEMORY DIVISION

HP 7925 VS. DEC AND DG

PRICE / CONFIGURATION ANALYSIS



4/1/79

HEWLETT  PACKARD
DISC MEMORY DIVISION

As you can see, HP is competitive with DEC and DG in initial purchase price . . . in the next issue we will discuss disc drive features (shown on the graphs) and compare the cost of ownership with HP drives vs. DEC and DG (here, our competitive position increases significantly).

DATA SYSTEMS NEWS

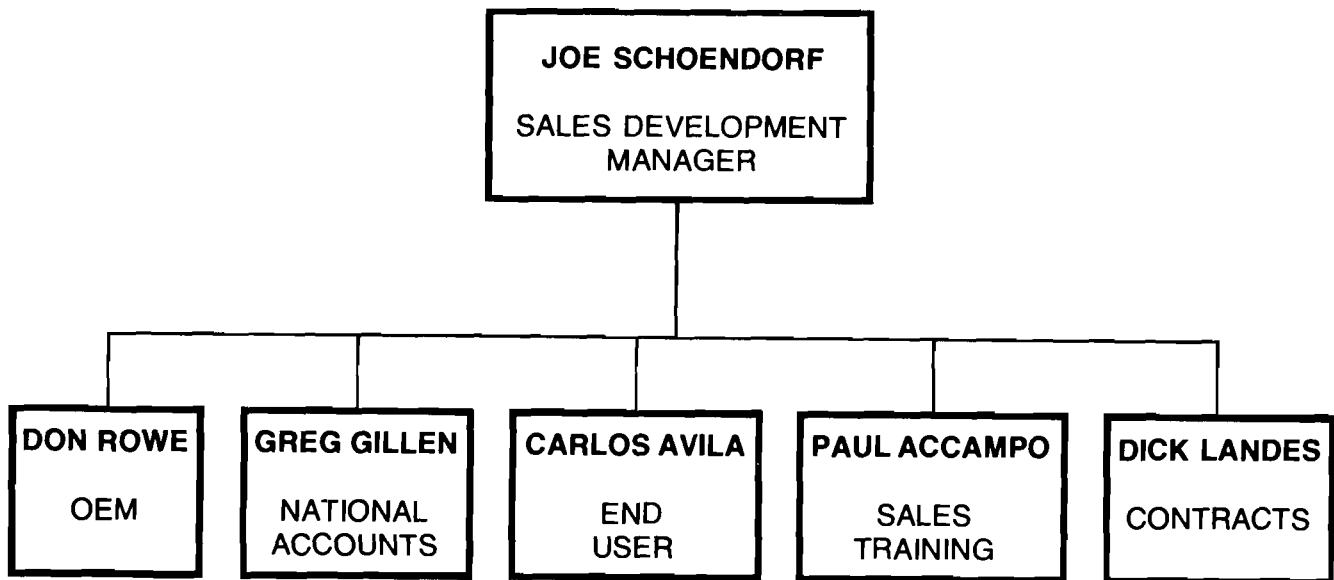
Division News

New Sales Development Organization

By: Joe Schoendorf/DSD

We have modified our Sales Development organization to better serve you in the second half.

The new organization is:



The detailed organization chart is given on page 18.

Overall, the objectives of the new organization are to:

1. Provide a single focus for a very aggressive OEM sales development program. This is DSD's number 1 objective in FY 79-80. As a commitment Don Rowe will have a separate off-line marketing program directed by Jim Anderson. Our OEM program is described below.
2. Provide a **real** focus on National Accounts. Finally, a major division commitment to this program. We will organize by account not geographically for this group only. Take GT&E, for example. Any field engineer with a

GT&E support or development opportunity in any region has only to contact one person — *Bob Blake*. Bob will know GT&E — how they think, how they do business. Sensitivity to response will be high. This group will be staffed with the most senior personnel available. This should eliminate your having to "sell the factory" every time you call. We will know what to do and how to get it done — quickly!

3. Recognize the importance of end-users who are not National Accounts to our success. Approximately 38% of DSD business came from pure end-users who were neither National Accounts or OEM's.

4. Increase the number of managers available to help you get things done. The addition of *Carlos Avila* to the on-line group as a manager will add another key individual. Travel requirements and customer visits (increasing every week) have made myself, *Rowe* and *Gillen* not as available as we all might like. This addition should help.
5. Keep DSD Sales Training Number 1. The votes say we've done a good job. A separate organization with some new blood will "keep on truckin."
6. Continue to find ways to make contracts a sales tool and not a hinderance.
7. Develop and implement an "executive seminar" program on CAD/CAM.

OEM Sales Development

- DEVELOP AND ENSURE THE INTEGRITY OF DSD'S OEM PROGRAM
- BY MID 1980 ESTABLISH DSD'S IMAGE AS A MAJOR OEM SUPPLIER

Although our OEM business is good (48% of DSD business) and the OEM sales dollars are growing, many of you have noted that our customer base is not growing like it should. You have also said that DSD does not have an "image" as an OEM supplier. We will change this. Starting Now!

Specifically, effective immediately, we have merged all of our on-line and off-line OEM sales development functions into one group to ensure close coordination. One result will be the development of a highly visible merchandising program to help you sell. The on-line group will continue to provide top quality daily support/development activities. The off-line group has been building a base of data and knowledge about the OEM marketplace and will now move into a variety of merchandising activities like seminars, development of sales tools, identification of target customers, literature, advertising, etc. This activity will obviously take time, so we have selected a few specific areas to concentrate on for the rest of 1979.

OEM On-Line

- Win every qualified OEM opportunity
- Once we have won — keep them happy
- Develop one new major OEM per area

These are good goals for the on-line group and we will continue to emphasize them for the rest of FY '79. On-line will use the resources of off-line to help meet the goal of finding a major OEM per area.

OEM Off-Line

- Development a coordinated, modularized seminar program. Run a major OEM seminar program starting in October.
- Develop a detailed list of OEM's in specific market areas of high opportunity that fit our business strategy (like automated materials handling, process control, CAD, etc.)
- Develop and begin to implement a long term OEM merchandising plan.

There is no question about the need for a good modular field seminar program as one tool to help you find new OEMs and to tell them about what HP can offer. We will start this with a module on doing business with HP as a supplier to the technical OEM. We also feel that if this is done properly, other sales aids like one-to-one presentation material will fall out as a subset.

There is more to new OEM development than sending you bingo cards. We have already asked many of our end-users which OEMs supply them with equipment. We will soon start to get this information to you along with information about the company and why they might want to listen to you. This should help rifle shoot our efforts at certain target OEMs.

There is much more to be done on a long term basis, so OEM Off-line will be developing a long term OEM merchandising plan to include all aspects of our OEM sales efforts (literature, advertising, reference lists, OEM guide, prospecting aids, presentation material, training, third party s/w, technical documentation, etc.). This will be coordinated with the HPSA program being implemented out of HP Grenoble.

We think this new organization is a real opportunity to think and sell OEM. We hope you do too.

Major Account Sales Development Plan

In response to the CSG goal of moving from customer satisfaction to customer loyalty, DSD has formed a Major Account Group in Sales Development. This group will bring under one focus all Divisional interface involved with, the pre-sales efforts with the CSG Major Account List. In addition to the normal efforts of Sales Support and Sales Development, this group will concentrate on developing an ongoing Divisional **awareness** of the technical system opportunities with these companies. Both End-User, as well as OEM Sales Development, will be handled by the Major Account Group so the technical sales force indeed has "one stop shopping" for all business facets of the Major Account.

As an adjunct to the Major Account Program, this group will also be responsible for the Program Sales efforts of DSD's products to the Army, Navy and Air Force, both thru primes (mostly Major Accounts), as well as directly to the End-User.

The following are the basic objectives and goals of the DSD Major Account Group:

1. For each major account, generate and maintain an "account notebook" which covers the following elements:
 - documentation of the organization structure of the account with special emphasis on field or factory visit contacts and their responsibilities
 - identification of all technical computer usage within the account with particular attention paid to ongoing applications
 - documentation of quarterly sales statistics
 - description of new business opportunities as they occur and tracking of the results
 - documentation of the results of field and factory visits

The main purpose of this notebook is to **maintain** Divisional awareness of the sales activities of the Major Account in the face of rapidly changing Division personnel. When personnel changes do occur, a concise record of account activities will help bring key people up and running quickly.

2. As a shared goal with the technical systems sales force, strive to achieve in each Major Account a sales growth which at least equals the overall Division growth. For those Major Accounts which have not purchased an HP 1000 attempt to book at least one system by the end of FY '79.
3. As a short term goal, promote with the field account representative DATACAP/1000 as an entry into new areas of the Major Account.
4. With the account representative, conduct yearly (or more frequent) technical systems account reviews where under a controlled environment we make the Major Account aware of our future product/applications plans. In this way, the Major Account can plan future technical system activities, as well as provide highly visible feedback to the Division regarding our plans.
5. Develop an "executive seminar" for engineering and manufacturing managers on the use of the HP 1000 in CAD/CAM applications. The breadboard of this seminar will be completed by June with first customer presentations starting in July.

End-User Development

- Provide professional factory support for our end-user business
- Grow selected end-user customers in national accounts
- Develop young talent into professional sales development engineers

Major account sales will insure that DSD focuses adequate attention on our 40 best customers. But that still leaves 460 customers/prospects in the FORTUNE 500 that currently represents 25% of our business. From this base will come our **future** major accounts. During the first half of 1979, Area Sales Managers were asked to identify one new potential major account for DSD End-User business — by definition a manufacturer. Our first goal will be to work with the field to close an HP 1000 order from these identified prospects.

With the explosive growth of the computer industry, the factory, as well as the field, must more and more depend on new college graduates in order to sustain our growth through the 1980's. This year our college recruiting program has brought some very bright talented people into Sales Development. A major goal of the End-User sales will be to focus the required management attention to grow this young talent into professional Sales Development Engineers in the shortest time possible.

Within six to nine months, our college graduates should have:

1. Completed all product training
2. Attained the technical competence to provide first level sales support to the field on all DSD products

3. Attained "expert" competence in at least one major DSD product
4. Developed the poise, confidence, and presentation skills to host a professional factory visit, as well as make customer calls during field trips
5. Gained sufficient knowledge on how the "factory" operates in order to know where to go to solve specific problems



Sales Training — Manager, Paul Accampo

During the first half of FY '79, training went well and we plan to continue the same emphasis for second half. For your review, our plans are:

- UPGRADE CSG OVERVIEW AND DSD PRODUCT TRAINING COURSES
- DEVELOP CASE STUDIES FOR THE INDUSTRY/APPLICATION COURSE
- DEVELOP ADVANCED TRAINING COURSES FOR FIELD AND FACTORY MARKETING PERSONNEL
- DEVELOP DSD DEMO CENTER

Our CSG Overview and DSD Product Training Courses are currently well received. They require continuous monitoring of student opinions, training of new speakers, and improvement of weak presentations. The Overview course objectives have been changed to deliver high-level presentation on DSD products and strategy on a level which can be understood by the Commercial people in the class.

The technical portion of the Industry/Applications course currently consists of tours of factory applications and lectures. The format will be changed to extend concepts learned in the Group-sponsored first week. At least three cases will be developed around instrumentation, computation, and operations management applications. Each will involve a lecture on concepts, presentation of a specific problem, a system configuration solution, a financial analysis of proposed solution, a tour or demo of an actual installation, and a group discussion of a user. Cases will be completed by October 1979.

Presently, senior SRs are attending the Industry/Applications course and the Division-sponsored Regional Management meetings each Fall. In the second half, the need for additional programs will be reviewed.

Phil Way is our Demo System Manager. Under supervision of the Training Manager, *Phil* will:

1. Manage hardware and software, rotate equipment on loan and incorporate new products
2. Assist new hires in becoming familiar with equipment
3. Be able to present any demo upon request, and teach other SDEs to do so
4. Develop new, permanent MACS, ATS, Computation, Graphics and Operations Management demos which show how our products help automate manufacturing and process environments

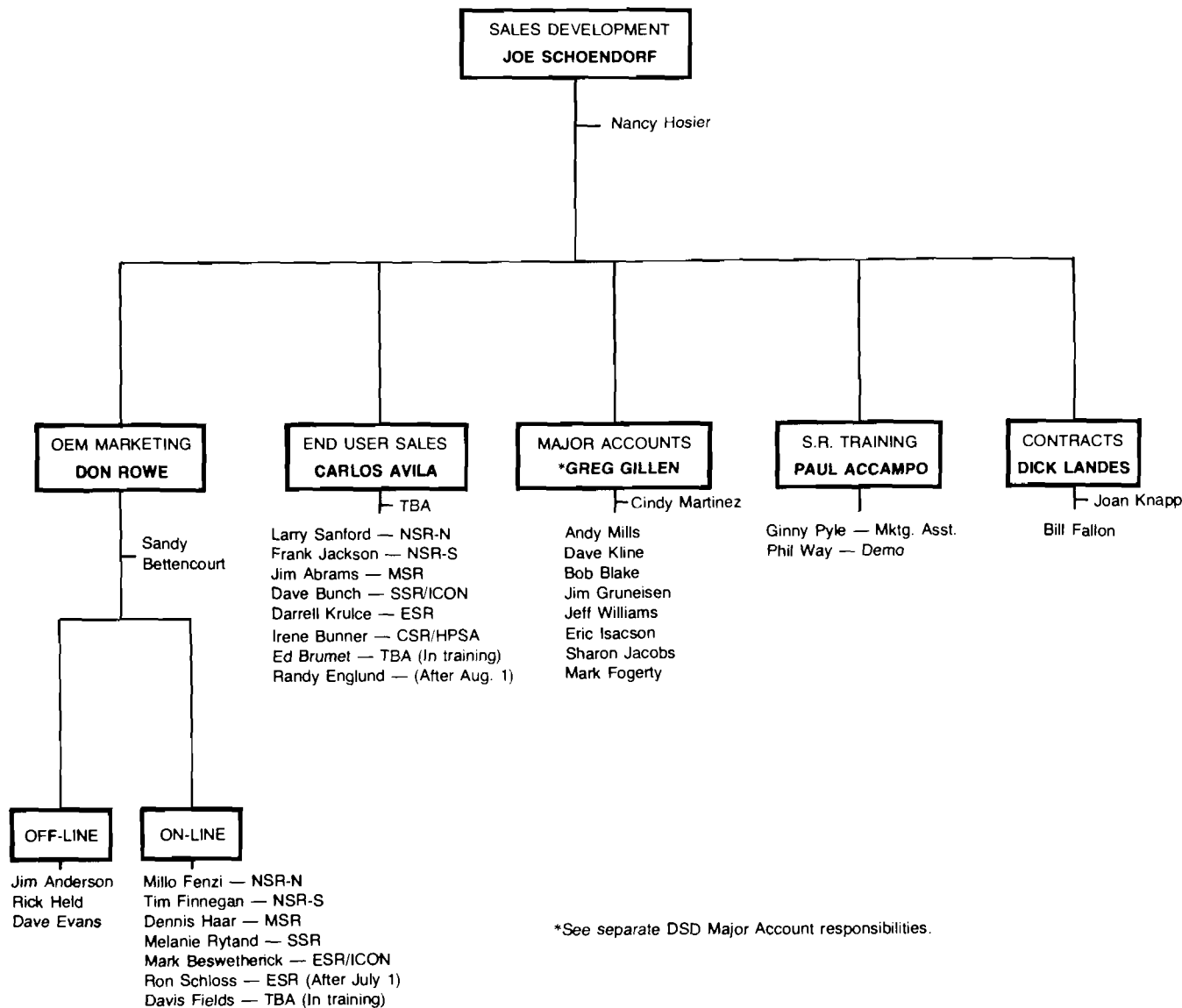
Contracts — Manager, Dick Landes

- Propose a shorter version of the purchase agreement for DSD products
- Improve and simplify methods of placing and processing ATS orders
- Help increase our GSA business with the government

The Computer Systems Purchase Agreement has grown in complexity and size to the point where it is difficult for many DSD customers and Field Engineers to use. We intend to work with Computer Systems Group to simplify and shorten those portions of the Agreement that apply to Data Systems products. Our objective is to simplify the format, content and discount structure for DSD End-User and OEM customers.

DSD sells less to the Government than our competitors. We intend to increase our participation in this market by increasing the size of our GSA offering, by keeping our offering current, distributing updates within 30 days of GSA approval of contract changes and by assisting the field with responses to most questions within one working day. Where special non-catalog work is required, we will provide price justification using HP 93285A Engineering Units instead of DD 633 cost type information sometimes provided in the past.

HP ATS orders often require factory assistance with discount information, terms and conditions, order transmittal and quota credit questions. We will publish explanatory articles on each of these subjects in the CSG Newsletter during the year and will work toward simplifying the current procedures.



DSD Major Account Responsibilities

<i>Andy Mills</i>	<i>Dave Kline</i>	<i>Bob Blake</i>
Army	General Dynamics	AT&T
Navy	ITT	GTE
Air Force	Boeing	Northern Telecom
	U.S. Steel	
<i>Jim Gruneisen</i>	<i>Jeff Williams</i>	<i>Eric Isacson</i>
Goodyear	General Electric	Ford
Procter & Gamble	Westinghouse	General Motors
ESL (& TRW)	Kodak	Rockwell
Dupont	Raytheon	3M
Martin-Marietta	General Mills	McDonnell Douglas
Exxon	Austin Corporation	Reliance
General Tire	Union Camp	Monsanto
Shell Oil		
<i>Sharon Jacobs</i>	<i>Mark Fogerty</i>	
Merck	Hughes	
Grumman	Lockheed	
Union Carbide	Levi Strauss	
RCA	Varian	
Transamerica	McMillan Bloedel	
Beckman		
SOHIO		
Schering		

Factory Support

By: *Melanie Fox-Ryland/DSD*

Since there are a lot of new people in the field (and since we've had a few changes ourselves!), we thought it might be appropriate at this time to review DSD's support organizations and their attendant responsibilities.

There are currently four on-line factory support groups. A brief description of each group is given below.

ORDER PROCESSING (*Hal Eubanks, Mgr.*) — This group is organized by geographical regions and is responsible for managing orders received from the sales offices. If you are an HP 1000 Sales Representative and have questions regarding change orders, APO's, returns, items missing in shipment, or delivery/shipment schedules, you should contact the appropriate order processing person for your region.

ON-LINE HARDWARE SUPPORT (*Dick Lovelien, Acting Mgr.*) — If a hardware problem arises that cannot be handled locally, the local HP Customer Engineer should contact one of the engineers in this support group. It is important that the local CE always be involved in any hardware problems that come to the attention of the Sales Rep.

ON-LINE SOFTWARE SUPPORT (*Ron Eckhardt, Mgr.*) — Systems Engineers should contact the on-line software group if they need information that is not available locally. Software bugs and work-arounds should be reported (by the

SE) to this group. Again, it is very important that the Sales Representative notify the SE if his/her customer encounters software problems of any kind.

SALES DEVELOPMENT (*Joe Schoendorf, Mgr.*) — We have just recently re-organized our group to be able to provide better support for the field. We think you'll like the new arrangement. It was originally described in the Data Systems Tactical Marketing Plan Update distributed to all DM's before May 1. There is a separate article describing the new organization.

Please do not hesitate to call us at any time. We can help you with customer visits to the factory, configuration questions, quotes for special products, customer seminars, etc. And we always like to hear how you're doing — call us and tell us about new business, sales, and any other interesting information that you may have.

Hope we have given you a better idea of how each of the factory support groups are organized and what each of their responsibilities are. Please note that these support groups are organized to support HP field personnel *only*. As a general rule, customers should not initiate *any* calls to the factory. In almost all cases, problems and questions can be handled through the local office. You know your customers and their problems better than we do. It is important that you stay informed and that a customer does not bypass the local organization.

If you have a special situation that you feel requires a customer to be on the phone with you, there are two important guidelines to follow *at all times*. *Always* notify your factory support person *first*, without the customer on the line. And secondly, if we determine that the problem can best be handled by talking to the customer directly, the local HP person should *always* be on the line with us.

The reasons for these guidelines are relatively straightforward. We need time to understand the problem and to get the answers, and we want you to know what your customers are asking and what information they are getting.

Thanks for your help, and we hope you like our new organization.

HERE'S TO SUCCESSFUL SALES AND SUPPORT!!**OEM Customer Seminars in Europe Are Going Well**

By: *Georges Retornaz/HPG*

As part of our active programs for FY '79, we scheduled a busy OEM seminar agenda for Europe.

Why OEM Seminars?

We found that seminars are the most efficient way to reach new potential customers and to increase field productivity. Indeed in many sales situations we can save time because the prospect who has been to a technical overview seminar is the prospect who does not need a dedicated half-day presentation by a Systems Engineer and an SR.

That same half-day which used to be spent talking to the prospect can now be spent discussing his application and taking the sales situation beyond the presentation stage.

Finally the two main objectives of these OEM seminars are 1) Finding and 2) Qualifying new technical OEM customers.

Among the 18 sessions scheduled up to July 1st, 12 sessions will be held in May:

ITALY	Milano	May 8th
	Torino	May 9th
	Roma	May 15th
FRANCE	Paris	May 10th
	Lyon	End of May
BELGIUM	Brussels	2 sessions
	• in French	May 22nd
	• in Flemish	May 29th
SCANDINAVIA	2 sessions	
	Stockholm	May 21st
	Copenhagen	May 31st
U.K.	3 sessions	
	Birmingham	May 23rd
	Manchester	May 30th
	Winnersh	May 31st
SPAIN	Madrid	July 4-5

As first implementation, we issue a complete and detailed binder: "OEM SEMINAR KIT" covering seven main topics:

1. Why OEM Seminars?
2. Success requirements
3. Invitation package
4. Text for slide set
5. Demonstration package
6. HP 1000 Technical Library
7. Checklist

and as Appendix: 1. slide set (35 mm)
2. demo programs (2645 cassettes)

Every country has received one kit and so Sales Managers can easily forecast dates and locations for several sessions as demand requires.

For the invitation package, Grenoble DSD marketing also offered support for translating and printing.

So far, the program is a real success, five sessions have already been held:

- 3 in Germany — 37 customers from 24 companies,
- 1 in Austria — 33 customers from 20 companies,
- 1 in Switzerland — 20 customers from 15 companies.

A lot of those attendees have already asked an HP Salesman to visit them to discuss in detail their specific applications. Reading the OEM SEMINAR KIT, you will see that, although our marketing group is providing a lot of assistance, contribution of the field persons is a MUST.

While reporting the above information to you, I would like to take the opportunity to express my deep gratitude to all CSG field persons who have really worked hard (2 months implementation time only) to make this series of "OEM-Customer" seminars successful.

We will continue such activities and continue to help you be successful.

SELL TO OEM's.



New Product Announcements from DEC

By: Al Liu/DSD

The PDP 11/23 recently announced by DEC runs under RT-11 operating system for single user development and under RSX-11M and RSX-11S (an execute-only version of RSX-11M) for multi-user development. The newest operating system RSX-11M--plus announced last April (but unavailable until this summer) will not run on the PDP 11/23 because it was designed specifically for the PDP 11/70 processor.

During the first month in my new position at DSD product marketing, I have the chance of "looking over the fence" at our competitors and have observed a possible difference of product introduction strategy between then and HP. Whereas HP announces its new products only when it is sure of timely deliveries, DEC in its two most recent announcements (ref. Julie Cates' report on the PDP 11/23) seems to leapfrog its deliveries by about six months. This is worthy of considerations by any customer.

New LSI 11 Processor

By: Julie Cates/DSD

Have you heard about DEC's new LSI 11 processor? DEC has announced a second generation LSI 11 processor, the 11/23, which is said to offer 90% of the performance of the PDP 11/34 and can execute their multi-user operating system, RSX-11M.

The 11/23 gains performance over its predecessor, the 11/2, through several processor enhancements. The CPU chip set was redesigned to execute instructions twice as fast as the 11/2. The 11/23 supports up to 256 Kbytes of memory through a new memory management chip. In addition, the optional floating point chip set includes double precision as well as single precision floating point operations. A minimal computer configuration which includes processor, 224 Kbytes of memory, floating point firmware, and two serial interfaces consists of five 5 by 9-inch boards and sells for \$6590 (quantity 1).

Sound impressive? It does look good, and DEC is accepting orders for 11/23s. However, DEC is quoting a month delivery for customer evaluation units. The 11/23 will not even be in

full production until 1980. As DEC explains it, the 11/23 is still one development cycle away from production. So far, DEC has announced only board or box computers — no system configurations will be announced before this fall.

So, sell your customers on the HP 1000 product line. It is available today and is a complete offering of boards and boxes and systems. Most importantly, though, HP 1000s offer field-proven performance.

Product News

Remember: No Purchase Agreement Discount for 9611R

By: *Dave Hannebrink/DSD*

Please note that the 9611R and related products were deleted from Exhibit A-1 (Products Subject to Discount — HP Computer and Computer Systems) last year. The June 1 CPL will reflect these changes. Outstanding quotes for 9611R's with discounts, of course, will be honored.

Products affected are:

9611R and All Options
 91110A thru 91113A
 91203A thru 91213A and All Related Options
 91220A thru 91226A/B and All Related Options

New LOCUS Program Ordering Policy

By: *Elisabeth Caloyannis/DSD*

The following define the way LOCUS programs are orderable starting June 1, 1979.

- the orders have to be directed to the sales offices,
- the sales offices forward the orders to DSD (not to CSD as it is done today)
- the orders are accepted only if they come through HEART (direct mail is not available anymore).

This procedure simplifies LOCUS program ordering.

New Applications

OEM Develops Automated Document Production System

By: *Carlos Avila/DSD*

One of our major HP 1000 OEM's in Southern California has developed an automated document production system for industrial documentation such as reference manuals, maintenance documents, and design specifications.

HOW DOES THIS SYSTEM DIFFER FROM A WORD PROCESSING SYSTEM?

Automated document production systems and word processing systems have some similar features but are designed for different applications. Both systems typically have powerful editors which allow operators to easily add, change, or transpose text, move or delete sentences/paragraphs, and provide automatic hyphenation and justification. But that's about where the similarity ends.

Word processing systems are typically low cost, single-user systems which are used to generate relatively simple documents such as letters and memos. Automated document production systems have the added capability to automatically generate table of contents, list figures and tables, provide automatic footnotes and allocate space for artwork such as schematics, and diagrams.

These systems also tend to be multi-user, allowing operators working at different terminals to work on different documents, or different parts of the same document. Also, these systems directly interface to a high quality printer and/or photo typesetter.

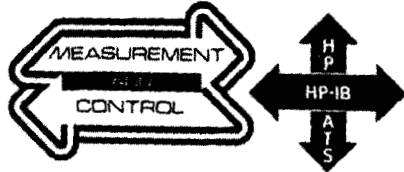
Markets

Word processing systems typically cost between \$10-50K, and are easily cost justifiable by relatively small businesses. On the other hand automated document production systems cost in the \$200-300K range and are only cost justifiable by large companies whose products require industrial documentation.

Check your manufacturing accounts to see how they prepare their documentation. You just might find a new opportunity.

For more information on this application contact *Carlos Avila* at DSD.

Automated Measurement News



Automated Measurement News

AUTOMATIC TEST SYSTEMS & MEASUREMENT AND CONTROL PROCESSORS FROM DATA SYSTEMS DIVISION

VOL 2

MAY 1979

NO 6

ATS STILL GOING STRONG

By: Dave Kline

We continue to hear rumors that the HP ATS product line was/is/or will be dead. This is certainly not true. Instead we continue to provide integrated computerized test systems briskly.

We've just been notified HP ATS has been selected as the standard tester for a major national company which intends to buy 10, \$300 K each systems in the next few years. The competition included 10 other producers, among the largest in the industry, so winning proves you can compete with your ATS offering.

So, HP ATS is still a viable product to offer where the customer needs computer power for his automatic test controller. Keep the faith.

HP 94164A PROGRAMMABLE DRIVER/COMPARATOR CARD OBSOLESCENCE

By: Dawson Mabey

The HP 94164A Programmable Driver/Comparator Card is being obsoleted by Loveland Division effective immediately. Future requirements for this capability in HP ATS systems should specify the HP 94151A card which is the standard programmable card for the HP 9571A Digital Test System from Loveland (LID).

The HP 94164A was originally designed for use in the HP 9415A DTU which is only available as part of an HP ATS system (including the HP 9580A system). Since the current HP 94151A card provides approximately equal or better performance at lower cost, (currently \$1100 vs \$1800 for the 94164A) it makes no sense to continue to offer both products. HP will provide the normal period of replacement parts and repair services for the HP 94164A card.

It is important that your customers be aware that the 94151A cannot be used as a direct replacement for the 94164A in existing systems without changing their software if the software is older than Rev. 1830 TESTAID/FASTRACE from Loveland. Those customers who plan to expand the number of test pins in their 9415A DTU can do so with the 94151A card without effect on their existing test programs.

FOR HP INTERNAL USE ONLY

-2-

8500 SYSTEM OBSOLESCENCE UPDATE

By: Dawson Mabey

Because of a number of recent requests for updates to 8500 systems, we feel it is appropriate to review the status of these products.

The 8500 systems (8542B/C Automatic Network Analyzer and 8580B/C Automatic Spectrum Analyzer) and related products were obsoleted effective 1 November 1978. This was announced in the September 15, 1978 issues of "Automated Measurement News" and the "CSG Newsletter". Prior to this, all customers had been notified of our intent, including a letter to the users group (ARFTG). Subsequently, the software used in these systems was donated to the users group without restriction of its use.

As a result, DSD can no longer accept orders for systems or updates, including requests for spare instruments. The only exception is the TODS-III up-grade which will be discussed in more detail below. We will of course continue to support existing systems with replacement parts and repair services for the normal five year period after obsolescence.

The TODS-III Test Oriented Disc System (91012B and 91013B) for 8542B and 8580B systems have not been obsoleted. It is DSD's intent to continue to offer TODS-III up-grades at least until the end of FY'79. The TODS-III up-grade kits are described in the Ordering Information dated 3/78 (P/N 5952-1499). This up-grade replaces the cassette hardware and software in 8542B/1499%. This up-grade replaces the cassette hardware and software in 8542B/8580B systems with the HP 7900A Disc and the TODS-III operating system.

As part of the TODS-III up-grade, DSD will configure the software to include those standard options (as listed on TODS-III Ordering Information) that already exists in the customer's system. Any unlisted options in the existing system will require a special factory quote to be included. DSD cannot add new options to these systems.

The prerequisites necessary for the TODS-III up-grade are listed on the Ordering Information. These basically include 32K memory and interactive graphics (called a "maxi-system"). If your customer does not have these already, a factory quote is required to update the system to the minimum configuration. This update (from "mini" to maxi") is available only to customers purchasing TODS-III also.

We hope this helps clarify the status of these systems. Your DSD Sales Development contact will be happy to answer any questions you have.

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NEW POLICY ON HP ATS SHIPMENT DATE ACKNOWLEDGEMENTS

By: Donna Combie & Eric Isacson

HP ATS orders and order transmittals have been plagued with an exceptionally large number of discrepancies, apparently due to their size and complexity. These have delayed the ordering of instruments and other components needed to begin system integration. In addition they have delayed shipping completed systems to customers.

In order to help alleviate order error problems, we have assigned two order co-ordinators to work on HP ATS orders exclusively. A big part of their job is to identify discrepancies and ask you in the field to transmit corrections. But we can't do the whole job ourselves! In several cases it has taken nearly six months to get the order transmitted correctly. We are, therefore, implementing some additional procedures.

First, all HP ATS orders should be marked "Check CPR" on the HEART transmittal. This means that a copy of the complete contract or Purchase Order, including specifications and Statement of Work should be mailed to DSD Contracts at the same time the order is transmitted via HEART.

Second, within 5 days after receipt of the order at DSD there will be a "Contract Performance Requirements" (CPR) meeting of the project engineer assigned, the sales development engineer, the order co-ordinator, and other involved personnel. The purpose of the meeting will be to make sure everyone understands precisely how the system is to be built and to identify any corrections needed in the order. The sales representative in the field will then be asked to furnish any needed information and to initiate any required change orders.

Third, in order to provide a realistic incentive to get the order transmittal corrected ATS manufacturing will neither be able to acknowledge a ship date nor begin production on HP ATS orders until all factory requested change orders are transmitted correctly and received by DSD.

We ask your co-operation with these procedures. By getting the order transmittal corrected early and by getting the contract to DSD we can make sure none of us gets any surprises. Furthermore your customer will be happier because delivery will be faster and the system will be configured the way he wants it.

-4-

DSD SALES DEVELOPMENT ORGANIZATION CHANGES AFFECTING AUTOMATIC MEASUREMENT

By: Dave Kline

There have been several changes in the DSD sales organization servicing you Field and System engineers. To give greater attention to building a long term base of major customers, the Computer Systems Group has identified 40 corporations with which to establish a loyal customer/supplier partnership. These companies will be supported at DSD by eight Sales Development Engineers (SDE), each assigned to the specific accounts shown below. All DSD business involving these major accounts, both OEM and End User will be handled by these major account SDE's. Your requests involving any of the 40 companies listed should be directed to the DSD Major Account Sales Development Engineer listed in the organization article elsewhere in this issue.

A new team is at your service, and we think it will help you sell more.

DATA TERMINALS NEWS

Division News

Sales Development Skyrockets to Dazzling Heights

By: Rich Ferguson/DTD



DTD is proud to announce its newest support person, *Peter Moulds*. Peter comes to DTD with a list of credentials a mile long, not the least of which includes substantial 8080 microprocessor experience and an Electrical Engineering degree from a prominent university.

Peter's first assignment will be to support Northern Neely. Let's all welcome him on board.

Terminals Refresher Course

By: Christian Graff/HPG

A Terminals Refresher Course for Senior SR's and SE's can now be given at your request in your own office by Sales Development Engineers from our Grenoble team. The purpose of the course is to refresh memories on DTD, Boise and Grenoble products and its contents can be tailored according to the specific needs of a given sales office: the office will have only to provide a room, the appropriate terminal demo units and . . . the audience!! The package has already been run on an experimental basis in the Copenhagen office and covered the following topics:

- Data Communication recap, handshaking, block transfers . . .
- Multipoint protocol
- 264X alphanumeric terminals
- 2621A/P low cost terminals
- 2649A OEM program
- 2648A/2647A graphics terminals
- 263X printers from Boise
- 307X data capture terminals from Grenoble

Heavy emphasis is put on:

- key features to remember for selling the products
- tools to efficiently demonstrate the products (demo tapes, off-line manipulation)
- ordering information (new options or accessories)
- interfacing capabilities and system support
- labs and hands-on practice.

If you want to boost terminal sales in your region give me a call and we will fly over to give you a similar 2-3 days seminar.

European Terminal Specialists Meet Again!

By: Richard Franklin/HPG

Amsterdam was hit by snow and fifteen terminal specialists in May.

A crowd of enthusiastic over-quota salesmen is hard to tie down but we managed to hold their attention for two days, with the help of *Tom Anderson* and *Gary Atkins*, *Mike Sprovigro* from the Boise lab, *Myron Hunt* representing San Diego in Europe, *Jon Faraday* from DCD Peripherals Marketing and *Maurice Poizat* and yours truly from Grenoble.

Much good news was given to our specialists by the Marketing personnel and the specialists themselves returned in kind with a mountain of feedback for the divisions.

Many thanks to *Ben Jonkers, Han Langeveld* and *Marion Mobrom* for hosting us and organizing the successful night life!



Mike Sprovigro (Boise lab) illustrating Boise's approach to the competition.



Tom Anderson and *Han* (900 K\$ YTD) *Langeveld* (Amsterdam) comparing notes on CRT's and Dutch sandwiches.



Phil Royce (UK) and *Myron Hunt* comparing notes on plotters and Dutch beer.



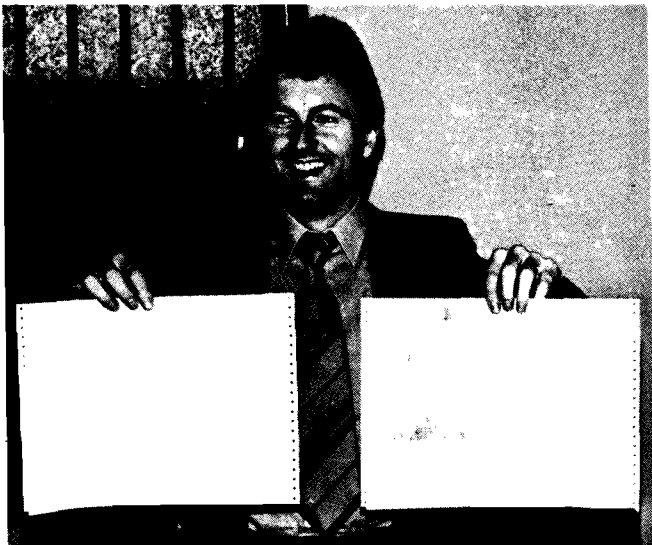
Robert Lambert (Paris) demonstrating a terminal specialist cart with the aid of *Jean-Louis Hermoye* (Brussels).



David Padani (Zurich), *Fritz Schuemeyer* (Frankfurt) and *Rainer Hamper* (Boeblingen) feeling the impact of Amsterdam night life.



Gary ("do it with dots") Atkins impressing Mike Alexander (UK) and Cornelia Soederquist (Sweden) with the new Boise time and attendance station.



Nick Rossiter (Manchester) showing how to turn on a customer to Raster Data Format, with "Demo B."

Not shown in the photos were Robert Boissier (France), Les Bunce (UK), Paul Bardenhauer (Germany), Jacques Gotheil (Geneva), Andre Lambert (Brussels).

Sales Aids

New Publications — "HP 2540 Series Terminal ROM Application Brief"

By: Craig Clark/DTD

Our Product Support group has just published a very handy book on ROMS used in the 264X line of terminals, including a description of the control memory boards they fit on. The price is right too — Free! Just order part #5953-2027. This is must reading for anyone interested in terminal firmware — SR's, CE's, and SE's.

Graphics Concepts

By: Tim Haney/DTD

The Problem

Computer graphics is a new way of examining, handling and communicating data. In essence, it is a new way of looking at information.

The advent of computers has facilitated the high-speed output of data. The cost of computing continues to decrease every year, and with it the cost of generating data.

Data is cheap, but that doesn't mean that information is cheap. This is an important distinction. Data does not become information until it is capable of being understood and used.

The tremendous output of high-speed computers has outstripped the modern manager's ability to extract, examine, and use the data being generated to aid in day-to-day decision making.

For example, there are laser line printers now capable of outputting 13K+ lines/minute. Even this doesn't come close to a computer's ability to generate the data. A manager needs more than Evelyn Wood to try to keep pace. Heaping print-outs on a manager's desk doesn't help him solve problems; it only adds work. We've seen a rapid revolution in the ability to generate data, but management's ability to use the data is evolving at a far slower rate.

The Solution

The problem becomes how to turn data into usable information. The solution is computer graphics. In a world of increasing data, graphics will become the key to survival.

Most of the information we receive comes to us visually in the form of pictures. Whether it be photos, movies, TV, etc. or simply your observation of the world around you, you are accustomed to receiving pictorial input.

By way of example, imagine driving your car to work today. You respond to numerical input such as speed, fuel level, etc., but most of your time is spent analyzing the traffic situations you see through your windshield. An on-board computer in your car could provide you with more accurate and timely information. However, if we tried to use this information to drive the car, I doubt if any of us would be here right now. We depend on rapid analysis of pictorial input, and your presence here attests to your success in using this form of input.

Computer graphics is the answer. You've all heard that a picture is worth a thousand words, but in the computer era, a picture is worth a thousand pages. It's the medium that becomes all-important in converting data to information. Remember that no matter how many computer runs or reports are available, they have no value unless they can communicate to and be used by decision makers. Far from being a management frill or a gimmicky aid to decision making, computer graphics makes it possible for managers to attain an interpretation and understanding of data that might otherwise be impossible to achieve.

DEC VT 100 Evaluation

By: Wendi Brubaker/DTD

DEC, as you probably know, recently introduced the VT 100. Since it does make some contribution in the general terminal marketplace, I am sure you would like some insight into the product so that you can effectively compete against it with the HP 2621A and HP 2640B.

The VT 100 is a character-mode terminal, in which DEC has incorporated some new operator-oriented features. The areas they are pushing include character, screen and keyboard attributes.

Let's look at the VT 100 character sets. The standard terminal provides 96 displayable characters. These are formed using a 7 x 9 character matrix within a 10 x 10 dot cell. This is an improvement over previous DEC terminals but still does not rival HP's 9 x 15 cell with 1/2 dot shifting capability. What this means is that the VT 100 diagonals will be less clear and the vertical scan lines will be further apart. The vertical spacing becomes very noticeable when the optional display enhancement, inverse video, is used. Other optional enhancements for the VT 100 include bold, blinking, underline and any combination of those. As you know, the 2621 only supports underline. If your customer needs the extra enhancements the 2640 with the display enhancement board is the answer.

The VT 100 offers several character sets in addition to the standard sets. Double height and double width single-height characters can be specified on a line-by-line basis. For example, to make a line of double height characters line 1 would need an ESC #3 to specify it as the top half and line 2 would need an ESC #4 to indicate that it was to be the bottom half of the double-height character. These character sets are useful for attention-getting and error messages. The same effect can be achieved using the 2640B with the large character set. An advantage of the HP set is that it can be intermixed with normal characters on the same line.

DEC also advertises "pictorial capability." This consists of 16 line drawing characters which are available with the "Special Graphics" set. This optional set also includes about six control characters, additional math relational symbols and a few miscellaneous characters. These special symbols are accessed by going into set-up mode, which is similar to our config mode, and selecting graphics mode. This will cause the lower case ASCII set to be translated to this alternate character set. The VT 100 only can display 96 different characters at one time. It doesn't support a "display function" mode so program development and debugging could be a problem.

The 15 line drawing characters can be used to create a basic form or dashed graph. The forms drawing is of limited use since the VT 100 is a character mode terminal. The dashed graph can be used to represent values within two scan lines of each other. The 2621 falls short of offering graphics capability but the 2640B with the line drawing set can represent a basic vertical bar chart. If you are in doubt take a look at the line drawing symbols for: z, x, c and g.

The second area that needs to be evaluated is the VT 100 screen attributes. DEC is the first to offer smooth scrolling. This feature slowly brings new lines of data onto the screen one scan line at a time. This allows the user to read the data as it comes from the computer. The smooth scrolling is a nice feature but it slows the communication rate down to about 300 baud. The VT 100 needs to offer readable scrolling since at this time it can only handle one screen of memory. The HP 2621 and 2640 offer at least 2 pages of memory standard.

Another screen attribute is the 132-column mode. In this mode the characters are shrunk down so that all 132 columns fit on the screen at one time. As you know, the 2640 and 2621 cannot display 132 column lines. This could be a problem with formatted or column data. However, when the data is a program listing the information can be displayed on our CRT since it will automatically add a carriage return after the 80th character.

The VT 100 screen can be divided logically into horizontal areas. It looks very much like memory lock on the top and/or the bottom of the screen. Data can be scrolled into the middle section of the display without disturbing the top and bottom background data. The 2640 of course does support memory lock which becomes a more powerful tool with the off-screen storage. Even though DEC offers scrolling, no information is stored off of the screen. Because of this, repositioning data through the use of memory lock, scrolling, and memory lock off is not available to the VT 100 user.

The VT 100 supports many selectable features in non-volatile RAM. These include auto repeat, X-on/X-off, auto click, cursor-block or underline tabs, auto-line feed, speeds and more. These can be changed temporarily or permanently by going into their set-up mode. This, at first pass, sounds very friendly but the catch is the user must specify many of the desired conditions by ones and zeroes in four nibbles. The 2621 configuration mode is much more friendly.

Let's take a quick look at the new DEC keyboard. It is a sculptured typewriter-like keyboard which is detachable. The keyboard includes four cursor control keys, a numeric pad, four function keys, and four program controlled LEDs. The numeric pad can selectively become 14 more function keys. The HP 2621 and 2640 have much more in the way of cursor and memory control; we need it with off-screen storage. The HP 2621 and 2640 do have eight function keys and we don't have to sacrifice our numeric pad. The LEDs on the VT 100 are a novel idea but they do not have any method for labeling.

The VT 100 is a nice terminal but the 2621 has some crucial features that will tilt the scale in its favor. These include two pages of memory, cursor positioning, displayable control codes, local editing, line mode modify mode, and integral printer and more. The price is also a help since it is \$450 cheaper.

There are some applications that will require an HP 2640B to solve the customer's needs. Even with its higher price it remains competitive by offering more features.

Comparison Summary

Features	HP 2645	HP 2640	HP 2621	DEC VT 100
1. Multiple Pages of Memory	X	X	X	
2. Local Editing	X	X	X	
3. Format Mode	X	X		
4. Block Mode	X	X	Line	
5. 1/2 Duplex	X	X		
6. Current Loop	X	X		X
7. Printer Support	X	X	X	
8. Cartridge Tapes	X			
9. 9 x 15 Dot Character Cell	X	X		
10. Large Character Set Double wide/Height	X	X		X
11. Form drawing & Limited Graphics	X	X		X
12. Scrolling	X	X	X	X
13. Smooth scrolling				X
14. 132 Column Line				X
15. Memory Lock	X	X		X
16. Non-Volatile RAM			X	X
17. Function Keys	8 soft	8	8	4 or 18
18. Programmed LEDS				X
19. Price	\$3500	\$2600	\$1450	\$1900

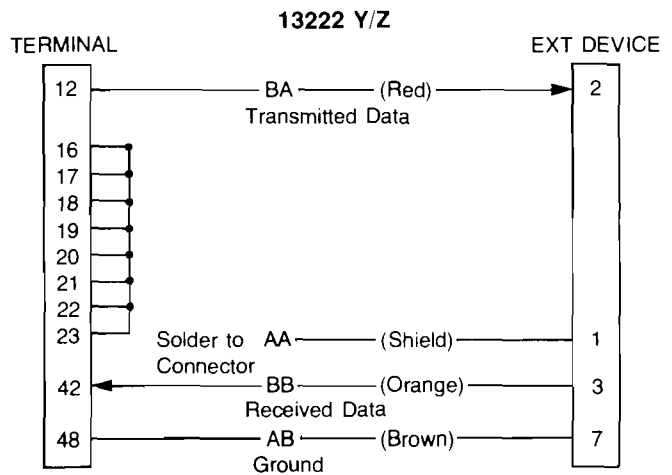
Making Your Own 2621 Cable

By: Wendi Brubaker/DTD

We have had quite a few requests for the parts to fabricate a 2621 cable. They are now available!

Item	Part Number
RS-232 Connector	5061-2405
50 Pin Connector	5061-2412
Cable — shielded 16-wire 26 AWG (13222 N/M)	8120-2398
Cable — shielded 3-wire 22 AWG (13222 Y/Z)	8120-2849
Cable — shielded 12-wire 26 AWG (13222 C)	8120-1950

The 2621 service manual provides wiring information on page 2-10. The 13222 Y/Z cables are not covered, but they are very straightforward. The three wires come out on pin 2, 3, and 7.



Do you remember when the 13222 Y/Z are useful? They are lightning protect cables for hardwired hook-ups. The 13222 Y male RS-232 cable also works fine with the 3000/ATC for hardwired applications.

2647A Changes Its Character

By: Rich Ferguson/DTD

The following program demonstrates the ease of which you can adapt a 2647A Intelligent Graphics Terminal to a host of unique circumstances. In this particular case, a customer required the 2647A to transmit a Tape Record upon receiving a DC3 character instead of the normal DC1.

(No folks, the DC3 in question here is not the predecessor to the DC10 either: they're too heavy.)

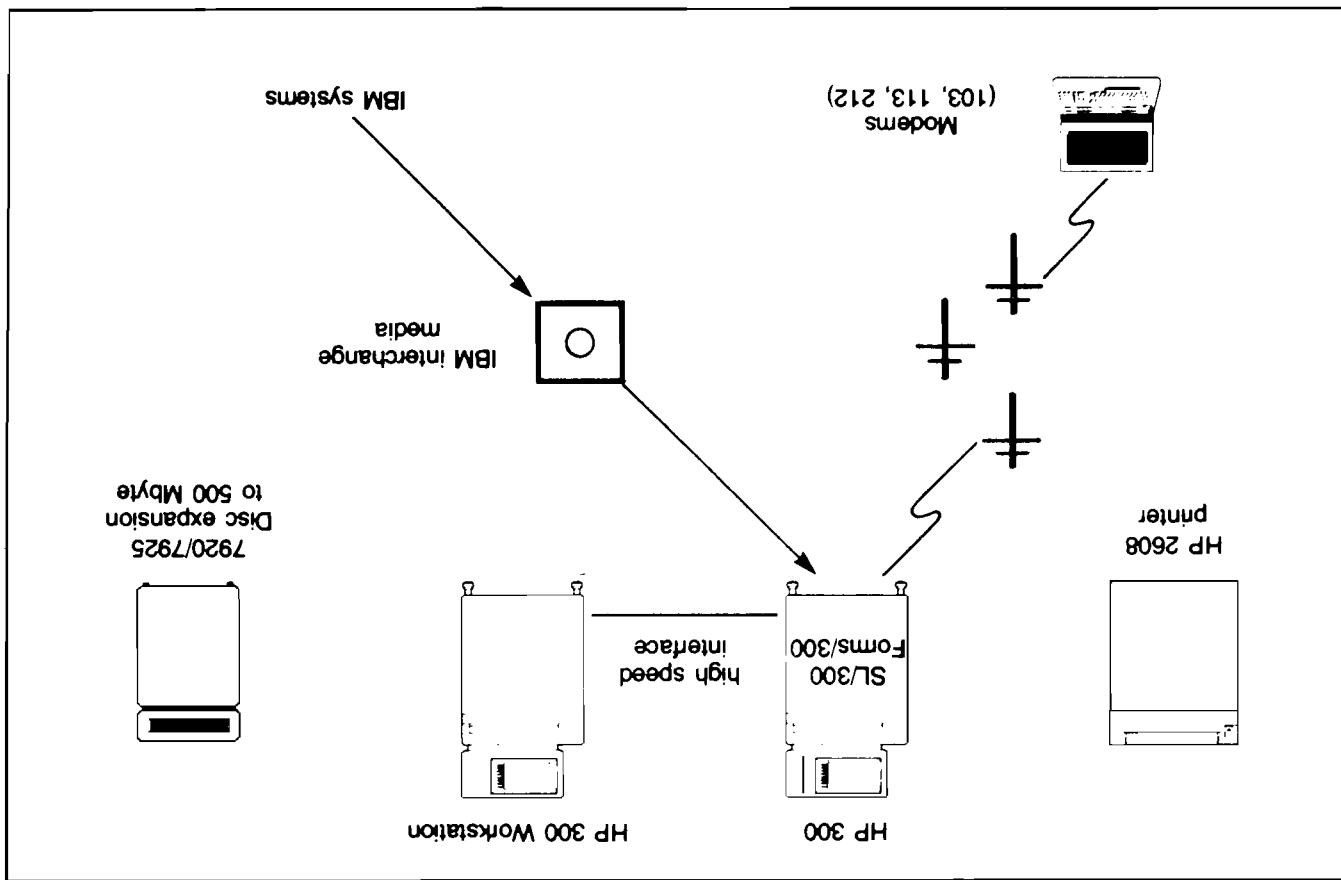
So the solution is to get a small BASIC program that looks for DC3's and then transmits the next record from tape. We have a look and see how easy it is.

```

10 REM          *****
20 REM          * THIS IS A SIMPLE PROGRAM TO DEMONSTRATE A METHOD TO *
30 REM          * RECIEVE AN X-OFF CHARACTER AND TRANSMIT A TAPE RECORD *
40 REM          * TO THE COMPUTER. *
50 REM          *****
60 REM
70 REM
80 REM
90 REM
100 LET Esc$=CHR$(27)          !ASSIGNS X-OFF CHARACTER TO ESC$
110 ASSIGN "L" TO #1          !ASSIGNS LEFT TAPE TO FILE #1
120 DIM A$(255)              !DIMENSIONS A$ TO 255 CHARACTERS
130 ON KEY #156 GOTO 320      !ACTIVATES IF READ KEY IS PRSSED
140 SLEEP                    !BASIC DORMANT UNTIL READ PRESSED
150 REM
160 REM
170 REM.....THIS ROUTINE LOOKS FOR THE X-OFF FROM THE DATA COMM
180 REM.....IF THE READ KEY HAS BEEN PRESSED.....
190 REM
200 REM
210 GETDCM ON \B$=""
220 IF GETDCM(B$)=1 THEN GOTO 230 ELSE 220
230 PRINT B$;\ IF F=1 THEN GOTO 240 ELSE 220
240 IF B$="^" THEN GOTO 280 ELSE 220
250 REM
260 REM
270 REM
280 REM.....THIS ROUTINE READS ONE RECORD INTO A$.....
290 REM
300 REM
310 REM
320 ON END #1 GOTO 520        !BRANCHES AT END OF FILE MARK
330 LET F=1                  !SET FLAG THAT READ KEY HAS BEEN PRESSED
340 LINPUT #1;A$            !READS ONE RECORD FROM LEFT TAPE
350 REM
360 REM
370 REM.....OUTPUTS THE A$ RECORD TO THE DATA COMM.....
380 REM
390 REM
400 PRINT Esc$&"&k1R"        !PUT TERMINAL IN REMOTE MODE
410 ASSIGN "DA" TO #2        !ASSIGN DATA COMM TO FILE #2
420 PRINT #2;A$              !OUTPUT A$ TO THE DATA COMM
430 ASSIGN * TO #2           !DEASSIGNS DATA COMM TO FILE #2
440 PRINT Esc$&"&k0R"        !PUTS TERMINAL IN LOCAL MODE
450 GOTO 210
460 REM
470 REM
480 REM.....ROUTINE TO PRINT MESSAGE TO SCREEN AND BRANCH
490 REM
500 REM
510 REM
520 F=0                      !RESETS READ KEY FLAG
530 PRINT "END OF TAPE FILE" !PRINTS MESSAGE TO SCREEN
540 PRINT Esc$&"&k1R"        !PUTS TERMINAL INTO REMOTE MODE
550 GOTO 140

```


Figure 5. New Capabilities for the Business OEM



During the past six months we introduced the first major set of products of the HP 300 product line of computer systems. We completed full manufacturing release of the first HP 300 and shipped well over 100 systems to early customers and demo sites. From the initial start-up of this major new product line just a few months ago, we are able today to make volume customer shipments of the new HP 300 Computer System.

By: Bob Bowden/GSD

HP 300: What's New

Product News

GENERAL SYSTEMS NEWS

The coming year is going to be an exciting one for the HP 300! There are a number of significant capabilities now being introduced which will enhance the HP 300:

- *System Language/300* — An advanced, high-level, block-structured language that offers assembly-language efficiency and control. It will allow the software specialist to most closely tailor application systems. This is the same language used by HP in developing all of the software for the HP 300 (operating system, language subsystems, data base management, etc.).
- *Forms/300* — Allowing increased programmer productivity, Forms/300 is a built-in facility for easily creating full display, interactive forms for display terminal applications.

An expanded set of peripherals, which begin to unleash the inherent capabilities that have been designed into the HP 300, have also been added.

- *HP 300 Workstation and Upgrade* — Identical in appearance to the HP 300 itself, the workstation offers full IDS capabilities for program development from multiple stations and for application uses that can benefit from the unique IDS features (windowing, softkeys, scrolling, attention key, etc.). As application needs expand, each workstation can be upgraded on-site into a full HP 300 Computer System.
- *HP 2608 Printer* — Initial support for this 400 line per minute, matrix printer has been added.
- *Asynchronous Modems* — The first set of HP 300 communications capabilities has been added for support of remote display terminals. Bell 103J, 113C and 113D modems for speeds to 300 baud and Bell 212A modems for speeds to 1200 baud can be used.
- *Disc Expansion to 490 Megabytes* — The initial constraint on total disc capacity has been relaxed to now allow a variety of combinations of Hewlett-Packard discs to be used to supply to to 490 megabytes of total storage capacity.
- *IBM Interchange Media* — Through the addition of a media conversion utility, the capability of the HP 300's built-in flexible disc drive has been enhanced, making possible the reading of data and industry-standard RPG II source code systems having IBM 3741 compatible diskette media.

Additional information on these new capabilities is contained in the new HP 300 Field Training Binder.

IBM Interchange Media for HP 300

By: Bob Bowden/GSD

Through the addition of media conversion utility, the capability of the HP 300's built-in flexible disc drive has been enhanced, making possible the reading of data and RPG II source code from systems having IBM 3741 compatible diskette media (standard Interchange Format: 128 byte sectors; single-sided, single-density media). This Media Conversion Utility along with a new program conversion utility considerably simplify the process of converting RPG II programs and data to run on the HP 300.

The conversion utilities are designed to be used by the SE in helping prospects and customers in their conversion efforts and in initially verifying that conversion is feasible:

- The Media Conversion Utility uses a softkey driven environment to work with IBM 3741 compatible diskettes to list the files on the diskettes, perform EBCDIC to ASCII conversion when needed, and copy sequential program and data files into HP 300 files.
- The RPG Conversion Utility automatically converts the majority of the differences between RPG programs and HP 300 RPG II programs, overall simplifying what otherwise would be a very time consuming part of the conversion process.

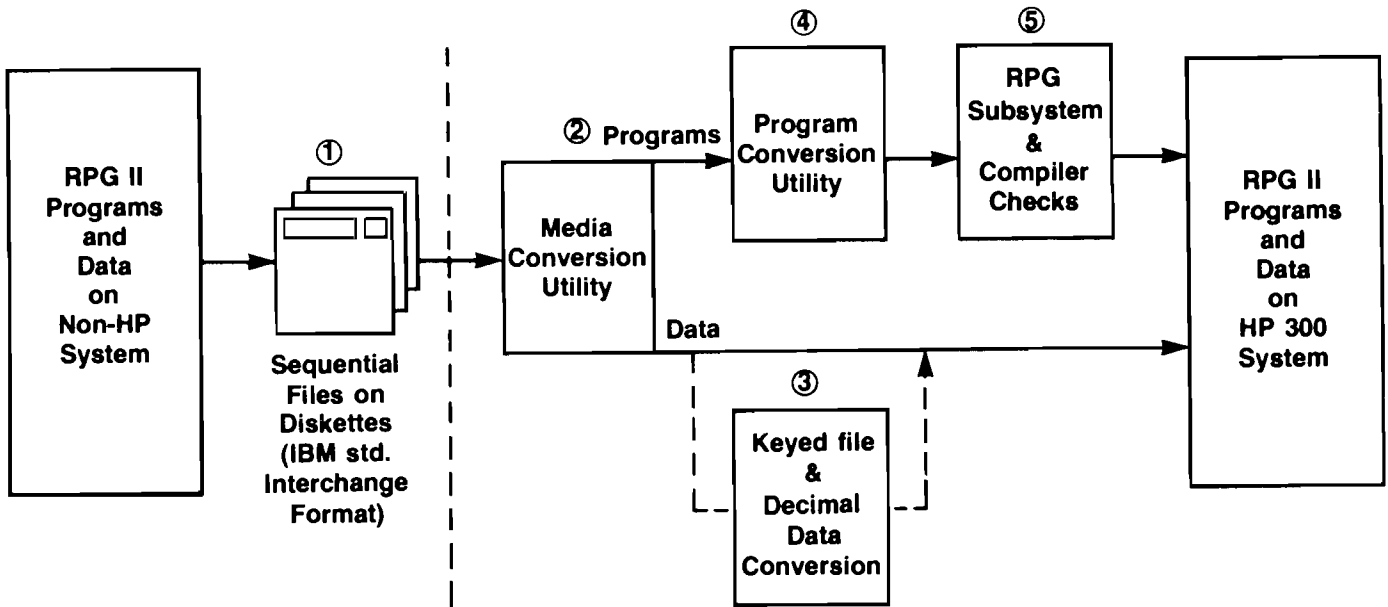
Both of these utilities are part of the SE Contributed Library and are documented by two SE notes: IBM 3741 to HP 300 Data Conversion; and RPG II Sources Conversion.

How it works (as indicated by the diagram on the next page):

1. Any files that are not on sequential files (i.e. ISAM files) are first converted on the non-HP system to sequential files. A simple user-written RPG II program would normally fulfill this step, if needed.
2. The IBM 3741 compatible diskette is read by the HP 300 using the Media Conversion Utility. EBCDIC to ASCII conversion (except for packed decimal data) can also automatically be performed by the utility.
3. If needed, data can now be restructured into KSAM files (or remain sequential), and EBCDIC files containing packed decimal data can be converted to ASCII. A user-written RPG II program would normally perform this step.
4. For programs, the RPG Conversion Utility is run to convert the majority of differences between RPG on other systems and HP 300 RPG II. An HP 300 workspace is created and the RPG II program file is copied into it (COPY command).
5. The RPG II program can then be easily tested and debugged using the standard RPG II language subsystem to provide automatic syntax and compile time checking and interactive editing — a real advantage of the HP 300!

Caution! Since tolerances on IBM 3741 compatible media are not fully specified by vendors and do vary, we can't guarantee that IBM 3741 media can be read by the HP 300 in every case — no other vendor can make that guarantee, either. However, in the test sites we have used (typical of System/32, System/34 and System/3 Model 10 environments) we have had excellent success in reading the IBM 3741 format.

RPG II CODE AND DATA CONVERSION: STEP-BY-STEP



Concentrate on OEM's who specialize in System/32, System/34 and System/3 (Models 10 and under) and their conversion!!



HP 300 Workstation and Upgrade

By: Bob Bowden/GSD

What looks like an HP 300, acts like an HP 300 (full IDS capabilities), but is about one-third the price (even less with the demo development discount)!?

The HP 300 Workstation!

The Workstation can be added directly to an existing HP 300 for multiple-station program development and applications that benefit from the advanced IDS features (windowing, softkeys, scrolling with direct file attachment, attention key, etc.) Also the Workstation can be upgraded on-site into a full running, independent HP 300 Computer System (total cost, fully installed within \$500 of the HP 300 itself).

The HP 300 Workstation allows us to increase our emphasis on the IDS concept today as we move toward lower cost IDS capabilities in the future. It also allows software specialists to more effectively use the value-added potential of the IDS, and the potential for creating applications that are unique from their competitors.

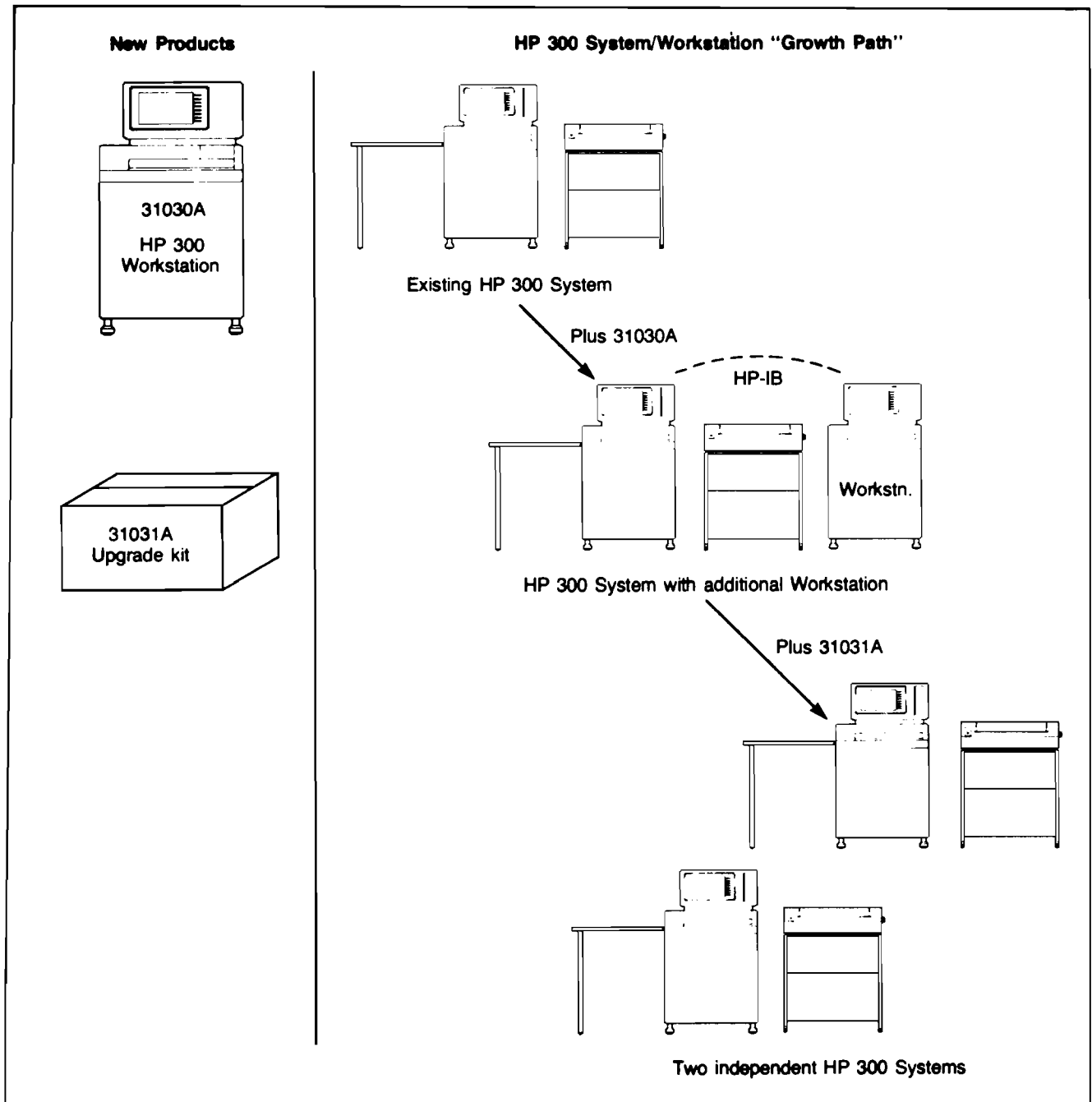


Figure 4. HP 300 Workstation and Upgrade Kit — Product Definition

Our objectives with the HP 300 Workstation and Upgrade Kit are:

1. In a program development environment (e.g. OEM shop or EDP shop in a large company):
 - Bring the program development capability of the IDS (and resulting programmer efficiency) to more than one programmer at a time.
 - Provide a cost-effective software development configuration (where each Workstation user has full access to an HP 300 system, but at about one-third the cost).
 - Offer a lower-cost "lead-in": to a multiple-HP 300 programming environment (through an on-site full upgrade).
2. In an application environment (daily processing by the End-User):
 - Offer a lower-cost "lead-in" to a multiple-HP 300 installation (e.g. a new application adds a Workstation to an existing HP 300, later the application grows into a fully-fledged stand-alone system).
 - Lay the groundwork for the HP 300's future distributed system concepts (as applications gradually move to multiple sites with communications).

The HP 300 Workstation and Upgrade will be on the June 1 Corporate Price List and have first delivery in the fall:

31030A	HP 300 Workstation:	Price	BMMC
	<p>Provides an additional Integrated Display System for the HP 300 Computer System, allowing programmers to simultaneously debug their programs, sharing the processing power of a single HP 300 processor. The Workstation is packaged in an identical enclosure to the HP 300 system, and includes the same power supply. Through this packaging, the Workstation can be field upgraded into a full HP 300 system with an upgrade kit (31031A) that includes a processor, memory, discs, etc.</p> <p>The same European keyboard and character set, power, and cord options that supply to the HP 300 are also available for the Workstations.</p>	\$12,500	\$30
31031A	<p>Upgrade Kit for HP 300 Workstation.</p> <p>This is a field-installable kit that converts an HP 300 Workstation (HP 31030A) into a complete minimum HP 300 Computer System. The kit includes a processor, 256K bytes of memory, general I/O channel, 7902 flexible disc drive, and 7910 Winchester disc drive-all for installation into the HP 300 workstation. (Installation included in this price.)</p>	\$23,000	—

Configuration Requirements. Initially, a maximum of two Workstations can be added to an HP 300. Support of Workstations requires an HP 300 with a minimum of 20M bytes of disc capacity; and a minimum of three optional memory modules (650Kb, system total) for support of one Workstation, or four optional memory modules (778Kb system total for support of two Workstations).

Performance Considerations. The HP 300 Workstation is designed to allow IDS capabilities to be used concurrently by multiple users. No increase in total system throughput should be assumed.

Note: For performance reasons, application programs should not be run at the same time as program development from Workstations. Running of more than one program compilation or other system resource-consuming operation concurrently from Workstations can significantly decrease response times and total system throughput.

HP 2608 Printer

Our 2608 line printer support will be announced June — limited to fundamental print and space capabilities initially, but with more capability to follow later.

HP 300 Expanded Peripherals Press Release*By: Bob Bowden/GSD*

This press release summarizing our introduction of major new peripheral enhancements for the HP 300 will appear in major computer industry and business publications for mid-June.



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

PUBLIC RELATIONS DEPARTMENT • 1501 Page Mill Road, Palo Alto, California 94304, Phone 415-856-1501

Expanded Peripheral Range Enhances HP 300 Product Line

Palo Alto, California, June 15 — Hewlett-Packard today announced a major expansion in the range of peripheral products offered for its HP 300 line of business computer systems. Included in the announcement was the HP 300 Workstation, a display station providing the advanced features for program development and application uses previously only possible on the HP 300 itself. Also announced were support for the HP 2608 line printer, an increase in total disc capacity to 490 million characters, a capability for reading IBM 3741 media, and remote terminal communications using a range of asynchronous modems.

"With these new additions, we have begun to unleash the capabilities inherent in the design of HP 300," said David Crockett, general manager of the HP 300 Program. "We will continue to enhance HP 300 as a business system focusing on the distributed, departmental needs of business. While offering greater growth and configuration flexibility, we are further developing our product's unique areas of contribution for use by third parties and other software specialists in creating the office information systems of the future.

The HP 300 Workstation, is a unique addition to the set of peripherals supported by the HP 300 product line. Identical in appearance to a full HP 300 Computer System, the Workstation is actually a highly capable display terminal that can be attached to HP 300 and offers the complete range of advanced features normally available only at the HP 300's IDS (Integrated Display System). These features benefit both program development and the running of applications by providing a uniquely simple and interactive interface for using the computer's resources. For example, eight "softkeys" at the right of the display allow labelled push-button selection of major application or programming functions. The display can be split into multiple "windows" to view and operate on different parts of a program or different application function simultaneously. Through the use of virtual memory, extremely large files of information can be "scrolled" horizontally or vertically across the display for viewing or for editing directly from the Workstation's keyboard. Also an "attention key" allows the user to shift to other activities without disturbing on-going applications or program development.

An HP 300 Workstation Upgrade was also announced, which will allow Workstations to be converted on-site into full HP 300 Computer Systems. This permits added configuration flexibility and reduced start-up costs for those wishing to eventually expand to multiple computer systems.

In addition to the HP 300 Workstation, Hewlett-Packard now offers a choice of microprocessor controlled, high-resolution matrix printers for use with HP 300. Both the 400 line per minute HP 2608 line printer and the HP 2631 serial printer with speeds up to 180 characters per second are available.

A wide selection of Hewlett-Packard discs are now available for use with HP 300. In addition to a built-in 12 million character disc, the high performance HP 7906, HP 7920, and HP 7925 discs (having storage capacities of 20, 50 and 120 million characters, respectively) can be used in a variety of combinations for up to 490 million characters of total disc storage capacity.

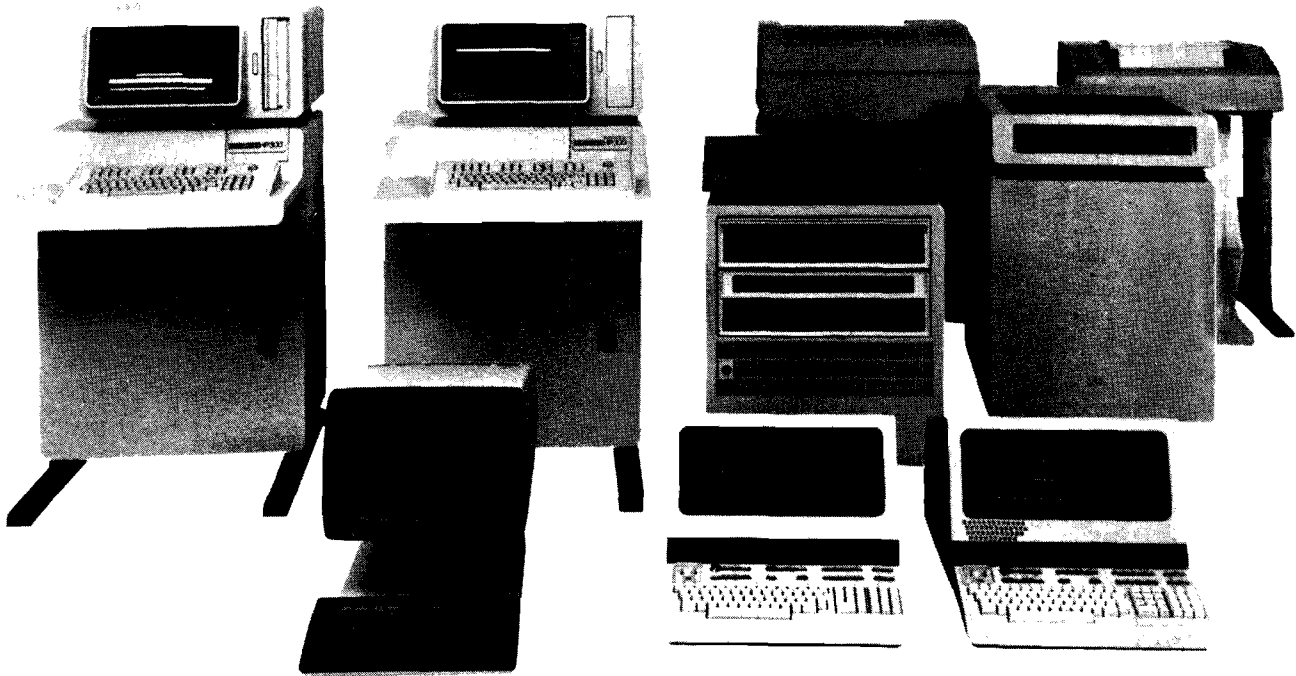
Through the addition of a media conversion utility, the capability of the HP 300's built-in flexible disc drive has been enhanced. This enhancement makes possible the reading of data and industry standard RPG II programs from systems having IBM 3741 compatible diskette media.

Additionally, with the support of communications via asynchronous modems, display terminals can now be used at remote sites, as well as locally, with HP 300. Modems that can be used are the Bell 103J, 113C and 113D with speeds up to 300 baud, and the Bell 212A up to 1200 baud.

The HP 300 Computer System, itself is a virtual memory system allowing both multiprogramming and multitasking. It is designed for use directly in an office environment. It takes little more space than a computer terminal, is quiet, and has no special electrical or air conditioning requirements. Its \$35,000 price includes the Integrated Display System (IDS), 256 thousand characters of main memory, a one million character flexible disc drive, and a 12 million character fixed disc. HP Business Basic, RPG II, System Language/300 (a recently introduced advanced programming language), and Image/300 database management can be added. The system can also be expanded to one million characters of error-correcting main memory within the basic enclosure, up to 16 local and remote display terminals, 490 million characters of external disc memory, two printers, and dual HP 300 Workstations.

The price for the HP 300 Workstation and on-site Upgrade are \$12,500 and \$23,000 respectively. In addition to normal display terminals, initially two Workstations can be added to the HP 300 via high speed interfaces. The HP 2608 line printer for use with the HP 300 is priced at \$10,465 and the HP 2631 serial printer at \$3440, and individual disc prices range from \$10,000 to \$17,000.

Quantity and third-party discounts are available for the HP 300 Computer System and related products.



System Language/300 Press Release

By: Bob Bowden/GSD

This press release summarizing our introduction of System Language/300 will appear in major computer industry and business publications:

**NEW PRODUCT
I N F O R M A T I O N**

PUBLIC RELATIONS DEPARTMENT • 1501 Page Mill Road, Palo Alto, California 94304, Phone 415-856-1501

Efficient New Language for HP 300 Computer Systems

A new, advanced language now enhances the usefulness of Hewlett-Packard's recently announced HP 300 Computer System for dedicated business application. The language, called System Language/300 is a block structured, high-level language that gives programming control and efficiency normally possible only through assembly language programming. System Language/300 was designed for use by third-party program suppliers, such as OEMs, and other programming specialists.

"We think that software specialists will find System Language/300 particularly appealing for tailoring application systems," said Dr. E. David Crockett, general manager of the HP 300 Program. "More and more, computers are being located where the information originates in organizations, so they can be used directly by the people who need them. The HP 300 has been designed especially for these distributed applications. With System Language/300, software specialists will finely tailor the HP 300 to match such needs more closely.

"The fact that the entire HP 300 operating system, language subsystems, file and database management, were themselves coded in System Language/300 is a strong testimony to System Language/300's power and efficiency. Even the System Language/300 compiler itself was written in System Language/300," Crockett explained. "Our technical contribution with System Language/300 is in giving the more experienced software designer many of the capabilities to fine-tune software that traditionally would have required assembly language coding. Specifically, where other languages lack constructs to accomplish a given operation, bit-level data access for example, or when the constructs they do have are inefficient, System Language/300 provides the solution."

Through System Language/300, the application designer can directly and efficiently exploit the architectural advantages of the HP 300. Virtual memory, with respect to both code and data, removes many barriers to the creation of large applications. With multitasking in a multiprogramming environment, as well as excellent communication and synchronization facilities among tasks and programs, many dedicated operations can be running and controlled simultaneously. An extensive file system, full range of data types, and data management facilities further enhance the power of System Language/300 in tailoring applications. A built-in symbolic debug facility also adds to programmer productivity.

Further Technical Detail on Hewlett-Packard's System Language/300 and A Brief Introduction to the HP 300

Despite the fact that System Language/300 is a high level language, programs written in System Language/300 translate into extremely efficient code on HP 300's because the language and machine features are designed to fit one another. Thus, System Language/300 simultaneously provides the advantages of high-level programming for faster, less costly program development, and also the potential for performance optimization.

System Language/300's assortment of features provides many capabilities normally found only in such other block-structured languages as Pascal, PL/1, or Algol. System Language/300 allows programs to be implemented using structured programming concepts, important in controlling large programming projects. Five other advanced features include 1) dynamic array allocation for efficient use of run-time resources, 2) high-level statements with unlimited nesting, 3) macro capability, 4) procedures that are both recursive and reentrant, and 5) powerful data manipulation expressions for greater flexibility in meeting implementation requirements.

Furthermore, the HP 300's Integrated Display System (IDS) provides an extraordinarily simple and interactive program development environment. Program editing can be performed by typing directly to the area of the IDS screen that is to be changed. The screen can be split into multiple windows to view and operate on different parts of a program simultaneously. Eight softkeys at the right of the screen select operating system and programming functions. With an ATTENTION key, the programmer can shift to other activities without disturbing on-going program development.

System Language/300

By: Bob Bowden/GSD

System Language/300 as presented in our press release (also contained in this issue) is a major enhancement to the HP 300 in that it gives the third-party and other programming specialists the ability to most closely fine-tune and tailor their software to the specific needs of their applications. In the hands of the knowledgeable user, SL/300 gives the potential for more fully utilizing the inherent capabilities of the HP 300's advanced architecture, for greater performance optimization, and for higher programmer productivity than available from other languages. It can also be used in combination with Business BASIC/300 in optimizing application systems design.

Features	Advantages/Benefits
1. Structured programming constructs. Language features such as IF-THEN-ELSE, FOR, CASE, REPEAT-WHILE-DO and procedure calls are available.	Program structuring can be more apparent, easier to follow and more straight-forward, resulting in faster more reliable program development-especially on large projects involving more than one programmer. Programs can be easier to maintain.
2. Communications with routines developed in other HP 300 Languages. Intrinsic created in SL/300 can be called from BASIC. Routines written in other languages can call SL/300 routines.	Performance optimization for the frequently used parts of an application. Flexibility to use the HP 300's advanced architecture in ways not available with other languages.
3. Dynamic array allocation. Arrays can grow and shrink automatically during program execution, a direct benefit of virtual memory.	Efficient use of run-time resources. For programs whose data storage needs vary with inputted information, only the storage that is actually required is used.
4. Eight data types: bit, byte, logical, integer, double integer, real and long floating-point, and packed decimal.	Greater flexibility in choosing the data representation that is easiest and most efficient to use for the application.
5. Powerful data manipulation expressions: MOVE, SCAN and mixed data type conversion.	Greater control over data and its use.
6. Record data structure, a "template" for easily defining structures of composite data items. Allows symbolic references to data, rather than pointers, base addresses and offsets.	Faster program development, allowing more focus on the algorithm than on the implementation detail.
7. Procedures are both recursive and reentrant, allowing code to be concurrently shared by multiple users.	Faster execution times and lower disc capacity and main memory requirements for multi-user operations, and easier program development.
8. Parameterized macros and INCLUDE facility. Macros can be used for often repeated and likely-to change source code routines, and an INCLUDE facility permits common routines to be defined once and copied into other programs as needed.	Added efficiency in program development.
9. Free-form source format. Statements may be freely indented and may span multiple lines.	Programs are easier to understand, easier to debug.
10. Full use of IDS — features (softkeys, windows, scrolling, etc.) for program development and built-in symbolic Debug for correction of run-time errors.	Faster, easier program development and debugging.
11. System intrinsic for input/output, trap handling, math library, etc.	Added efficiency in program development through the use of the same system intrinsic used by the operating software itself.
12. Control over machine dependent features: bit-level manipulation; testing of machine indicators, data and code segmentation.	Assemble-language-like flexibility and control, yet the programming ease of high-level language.

Comparison to SPL/3000. Of all advanced, structured languages, System Language/300 is most similar to the HP 3000's SPL. (In fact, the internal development name for System Language/300 was SPL II.) System Language/300 is the language used by our lab in developing all of the software of the HP 300: operating system, language subsystems, database management, etc. Like other structured languages (SPL, Pascal, PL/1, Algol), System Language/300 allows programs to be implemented using structured programming concepts, important to efficiently controlling large programming projects.

The primary distinctions between System Language/300 and its "predecessor," SPL/3000, is that SL/300 can be used with little knowledge of the underlying machine architecture and instructions. For example, there is nothing in SL/300 that necessarily implies a stack-oriented architecture (no need for "Top-of-Stack"-like instructions, for example), allowing greater machine-independence in SL/300 coding. System Language/300 has an expanded set of data types including Decimal and the Bit data type allowing even greater control over the functions of the HP 300, without having to resort to assembly instructions. The record construct for efficiently handling mixed data types, the ability to initialize arrays and sets of data, and dynamic array allocation are all new features of System Language/300.

Qualifiers. System Language/300 is not for everyone! In most program development environments, Business BASIC/300 and RPG II/300 should be more than sufficient in filling the programming language needs. System Language/300 is applicable in environments where there is high level of programming expertise, and the need to fine-tune application software that goes well beyond the capabilities of the other languages available on the HP 300.

So, in qualifying prospects for System Language/300, please keep in mind:

- System Language/300 is for the computer professional — a high level of programming and system expertise are essential.
- System Language/300 is not for development of new operating software (not for creating I/O drivers, modifying the operating system or language compilers, etc.) — it is an applications development language that can be used by itself or in combination with other languages for tailoring application software.
- Although it is possible to access all machine instructions through System Language/300's ASSEMBLE and privileged modes, these capabilities are designed for use by our SE's, not for customer use. Since results obtained through use of these capabilities may change with different software releases and hardware/firmware upgrades, use of these capabilities are not covered under software or hardware service contracts. (This is the same policy that exists for use of SPL on the HP 3000.)

Give Your "Preview" the Heave-Ho

By: Marcia Schorer/GSD

*There was a young man from Poughkeepsie
With "new system" delight he grew tipsy
He grabbed the wrong book
Errored after one look
And wished he had used more wit. See!*

In case you haven't heard, HP 300 "Preview" Manuals should be junked. You may burn them, bury them, or recycle the paper. What you should *not do* is use them with the A.01.01 system.

Well, you say, "What do I use with the A.01.01 (manufacturing release) system?"

Answer: USE MANUALS AND GUIDES THAT DO NOT SAY "PREVIEW" ON THEIR COVERS.

Everyone on the HP 300 software distribution list received a box of manuals along with the flexible discs containing the software release. A second box, containing the remainder of the manuals, arrived several weeks later. Some manuals (those in the small format) are typeset and printed in final form, while others are still in manuscript form; together they describe the software release A.01.01.

Finally, the A.01.01 Communicator, distributed with the system software, explains changes from the previous system to the manufacturing release system (includes documentation changes).

HP 300 Service Handbook Released

By: Curt Gowan/GSD

"The HP 300 documentation is excellent . . ."

"Best I have seen at any course for a new product."

"Excellent manuals and workbooks, best of any class I've taken . . ."

And that's what they said about the Preview edition!

Concurrent with Manufacturing Release of the HP 300, the HP 300 Service Handbook is now released and available. A set has been shipped to each of the 100 or so current subscribers replacing the Preview copies used in the HP 300 CE course.

The Handbook now comprises almost 100 sections of over 2300 pages in 5 volumes. (Naturally, every word is golden.) Three of the binders are down-sized (5×8 in.) for use on-site, one normal-size binder is for reference reading in class and at the office, and the remaining volume is a B-size (11×17 in.) binder for assembly drawings. The handbook set is organized as follows:

- Part I Summaries
- Part II Diagnostic Tools (2 vols.)
- Part III Tutorials
- Part IV Basic Diagrams

This set is now available on our subscription service via SEO Software Distribution Center.

The Handbook is a living document — we not only add new sections but correct existing ones via subscription service. When you see a "bug" in the book, grab an AmigoGram, fill it out, and drop it in the mail.

Our thanks to you HP 300 CEs and Specialists for your extra effort in giving us advice, criticism, and encouragement. We're proud of you — we think that you'll be proud of the Handbook.

\$160 HP 300 BMMC

By: Curt Gowan/GSD

All those HP 300 serviceability features lead to one all-important equation:

$$\frac{\$160 / \text{month} \times 12}{\$35,000} = 5.5\% \text{ annual mainframe maintenance}$$

SELL HP 300 SERVICEABILITY

Discounts for HP Modems

By: Tom Black/GSD

I would like to clarify the situation with regard to the discount structure for the range of HP modems which we announced recently.

HP modems, Model numbers 37210T and 37220T, qualify for end user discounts on Schedule A1. Notice that they do not qualify for the OEM or component OEM schedules. This will be shown on the next issue of the Computer Products Purchase Agreement, although the discounts can be given now.

The restriction to the end user schedule is because the modems themselves are produced under an OEM Agreement, and we don't want to offer high discount levels.

Series III Ordering Reminder

By: Gwen Miller/GSD

When ordering the New Series III (32435A), remember that a mag tape controller *IS* included in the base system! The system description in the new April Price and Configuration Guide has been corrected to list the controller as standard. Only order a 30215A mag tape controller to support the fifth through eighth tape drives. Hope this clarifies the situation — remember, your GSD Sales Development contact will be happy to help with configuration questions.

Competition

Understanding IBM

By: John Chisholm/GSD

Part 3. Selling Against the IBM 4300

The 4300 Series is IBM's new low-cost replacement for the low-to-medium range of the System/370 line of mainframes. In the past, the HP 3000 has not directly competed with IBM mainframes, due to their higher price tags and batch orientation. However, the new 4331 — the smaller of the two 4300 models — brings the price of a mainframe well within the range of the HP 3000. Can we compete against the 4300, and the 4331 in particular? Yes! — and in this article we'll see how. First, however, let's take a closer look at the 4300 Series itself.

4331 and 4341

The 4300 Series consists of the 4331 (performance roughly that of the IBM 370/148 and 370/158.) In a user/terminal-oriented environment, the performance of the HP 3000 Series III is comparable to that of the 4331. Performance of the 4341, really in a larger class than the HP 3000, is about three times that of the 4331.

The base price of the 4331 CPU is \$65,000, but the CPU by itself is not a usable system. The minimal hardware price for a usable system (with console, disc, and printer) is about (hardware only), whereas comparable HP 3000 Series III hardware is around \$130,000 (see the IBM 4300 REPORT prepared by *Fred Gibbons* for pricing details.) Base price of the larger 4341 CPU is \$245,000.

Like the 370's, the 4300's are 32-bit machines. 4331 memory sizes are 512Kb and 1Mb; memory sizes of the 4341 are 2Mb and 4Mb. Memory for both 4300's is a very low \$15,000 per megabyte. Disc capacity of up to 9 Gigabytes on the 4331 and up to 18 Gigabytes on the 4341 are supported. Either system may use any of three operating systems: DOS/VSE (an extended version of the old DOS/VS), OS/VS1, and/or VM/370. (Virtual Machine/370 — may be used stand-alone, or with either DOS/VSE, OS/VS1, or both running under it.) Languages provided are COBOL, FORTRAN, BASIC, RPG, APL, PL/1, and ASSEMBLER. Much the same system software — such as CICS (Customer Information Control System, a communications monitor) or

DL/1 (Data Library/1, a database management system) — that is used on 370's running DOS/VS and OS/VS1 is available on the 4300. Initial availability of the 4331 is second quarter '79 and fourth quarter '79 for the 4341.

HP 3000 Series III vs. 4300 at a Glance

	HP Series III	IBM 4300
CPU word size	16 bit	32 bit
Memory Chip size	16K bit	64K bit
Max Memory	2 Mb	1 Mb (4331) 4 Mb (4341)
Disc Capacity	960 Mb	9000 Mb (4331) 18000 Mb (4341)

Strengths and Weaknesses of the 4300

The key strengths of the 4300 are the high price/performance of its hardware, the purported compatibility of its software with the 370 line, and the fact, that it is compatible with SNA (System Network Architecture — IBM's networking scheme) and can communicate with 370's, 303X's, 8100's, or 4300's in an SNA network.

The true extent to which programs developed for 370's running DOS/VS will be compatible with 4300's running DOS/VSE is not clear. According to an April 30, 1979 article in *Computerworld*, source program maintenance packages, sorts, report writers and disc space and tape file maintenance packages developed with DOS/VS will have to be modified for DOS/VSE. Thus, compatibility with the 370 Series may not be such a strength of the 4300 after all.

The key weaknesses of the 4300 are its batch-oriented operating systems, its lack of friendliness relative to the HP 3000, and its high software pricing. DOS/VSE and OS/VS1 are both essentially batch operating systems, with communication monitors such as CICS and ICCF (Interactive Computing and Control Facility) to make them appear interactive. MPE, on the other hand, is inherently interactive, and does not require such communication monitors. If the customer's requirements are primarily batch and only occasionally on-line, then the 4300 may be a solution. However, if the customer needs a truly on-line system for efficiently processing transactions, the HP 3000 is the answer.

Because of the rock-bottom price of 4331 CPU's, the overall cost of the system is deceptively low. The fact is that software on the 4300's will in many cases cost more than the hardware over the system's useful life. (See the front-page of *Computerworld*, April 30, 1979.) Further, IBM has indicated that software costs will even go higher, as more features are taken out of the "SCP" (System Control Program — IBM's lingo for operating system) and made separate fee-carrying products. HP's approach is not to "nickel and dime" the customer for an entanglement of specific program products. If the total cost of ownership or usage — including software — is considered, the HP 3000 Series III measures up even more favorably against the 4331. (See cartoon next page.)

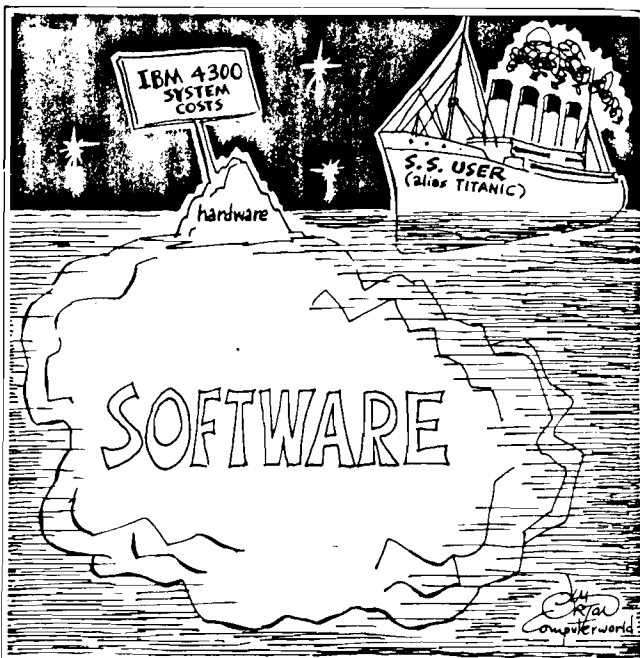
HP 3000 Selling Points Against 4300

	HP 3000	IBM 4300
OPERATING SYSTEM	MPE is inherently transaction processing oriented (interactive)	DOS/VSE is simply an extension of an old, essentially batch operating system; same for OS/VS1
On-line HELP facility	YES	NO
Number of Log-on password security levels	3	1
Same commands for batch and on-line?	YES	NO
Device Independence (Programs can have their I/O devices changed without recompilation)	YES	NO
Code shareable among multiple users?	YES	NO
DISCS		
Discs Removable? (Private Volumes)	YES	NO (except floppy) for 4331 (YES for 4341)
SOFTWARE PRICING	Software with support is typically less than half the cost of comparable 4300 software with support	Software with support expected to average 100% of cost of hardware for "basic" 4331, and 200% of hardware for "sophisticated" 4331 (source: <i>Computerworld</i> , 5/30/79)
PERFORMANCE SPECIFICATION	Published Performance Brochure	None Generally Available
DELIVERY	14 weeks	Even though initial deliveries are mid-'79 for the 4331 and 4Q'79 for the 4341, deliveries for most customers in the 4300 order are 12-15 months.



This article is intended only as a brief introduction to the 4300. If you are in a selling situation against the 4300, be sure to see the IBM 4300 REPORT by *Fred Gibbons* that has been sent to all district managers. This report contains much more detailed information about the 4300 and how best to sell against it.

Next Issue: IBM's SNA — What is it?



From *Computerworld*, May 14, 1979. Reprinted by permission of Jim Orton.

General Information

HP 300 SE Level I Class Graduates With Honors

By: Grant Shaw/GSD

Following two weeks of intensive study and many hours of hands-on experience, seven field SE's successfully completed the SE Level I training course on May 25th. A lot of the honors went to the HP 300 computer system in the form of comments made by several of the SE's at the conclusion of the course. The following comment, appearing on one of the course evaluation forms was typical:

"I know now that the 300 is a hell of a machine. I only wish the field were able to take this course. They have no idea of the capabilities of this computer."

If you "have no idea of the capabilities" of the HP 300, just ask one of the SE's who completed this course. Those in attendance were *Jose Luis Bravo* (Mexico); *Bob Cassam* (Kalamazoo); *Nester Dyhdalo* (Rolling Meadows); *Patricia Kenady* (Phoenix); *Dudley Mcbride* (St. Paul); *Richard Repach* (Rochester); and *Randy Tan* (Singapore).

Systems Language/300 Customer Training Course

By: Mary Griffin/GSD

To accompany the announcement of System Language/300 a preview 3-day customer training class on SL/300 programming is planned for August 6, 7, and 8 at General Systems Division, 19447 Pruneridge Ave., Cupertino, California.

Customers who have ordered SL/300 and who have (or will have) completed the HP 300 Systems Programming class may enroll in the SL/300 class.

To register for this preview class, submit a HEART order with the following information:

Product description	SL/300 Programming
Product number	31364A
Required date	August 6, 1979
Product line	62
Price	\$300
Sales force	02
Marketing division	47
Sup. division	4762
Special instructions	ATTN: John Holden
Name of attendee:	_____

The class will be limited to 10 students (2 per system).

HP's Uses of Computers Described

By: Steve Zalewski/GSD

There is an in-depth (8 page) article on HP's 110 node distributed network in April's *Datamation* magazine. Emphasis is on our manufacturing use of distributed systems and data bases, the integrated use of a large host (Amdahl) with HP 3000's, and our electronic mail system: COMSYS. The article goes into the challenges and problems of going distributed and our implementation plan. This article could be useful in answering customer questions on how HP uses HP 3000's and on how to implement distributed processing. You can't miss the article — it's the one with the pinball wizard on the first page.

HP 3000 Program Marketing Changes

By: Regina Fanelli/GSD

As you may have heard, *Jerry Peterson* has accepted a new position as Marketing Manager for the HP 250 Program. Replacing *Jerry* as 3000 Sales Development Manager is *John Celii*, currently GSD's Market Development Manager and former GSD Controller since the division was formed. In the latter assignment, *John* has been responsible for coordinating cross product line marketing activities for business computers, including product sales training, field seminars, customer relations, third party and major account programs. In his new job, *John* will report to *Bob Bond*, 3000 Program Marketing Manager. *John's* replacement in Market Development will be named by *Bill Krause* at a later date. In the meantime, *Bill Krause* will be acting Market Development Manager.

There have been several new people added to 3000 Sales Development and *John* will be sending out a memo introducing his new group to you as soon as all the assignments have been completed.

CS GROUP NEWS

CSG News

Roy Toth Joins the Group Major Accounts Team

By: Jerry Klemushin/CSG



Roy Toth has transferred from Detroit, where he was DM for the General Motors account to Group as Major Accounts Sales Manager. We are pleased to have Roy join us and know he will be a strong asset to our team. He will report to me.

Roy is a BSEE graduate from the University of Detroit and has an MSEE from the University of California at Irvine. Roy joined HP ten years ago in sales development at DSD. He transferred to the South Queensferry Division in Scotland for a one-year assignment; then worked in DSD product management until December of 1974. Roy then joined the Midwest-East Sales Region as a Sales Rep assigned to specific accounts. With Roy's creative selling and management of General Motors — first in technical areas, then in business applicaitons — the General Motors account grew to the status of a separate district.

With Roy on board in North America, Jack Griffin in Europe, and Bill Lukenbill assigned to ICON, we are in our strongest position to achieve our Corporate objective of focusing on major industrial accounts.

CSG MAJOR ACCOUNT MANAGEMENT

NORTH AMERICA (Cupertino)	EUROPE (Geneva)	ICON (Palo Alto)
Jerry Klemushin (x2510) Roy Toth (x2546)	Jack Griffin	Bill Lukenbill (x4807)

For North America, we have divided the 42 CSG accounts by industry as shown below. Other companies that you determine need Group attention will be handled on a request basis.

Roy Toth:

Automobile/Tire

Ford
General Motors
General Tire
Goodyear

Electrical

Beckman
General Electric
RCA
Reliance Electric
Varian
Westinghouse

Office Products

3M
Kodak

Other

Austin
General Mills
Levi Strauss
Transamerica

Jerry Klemushin:

Aircraft/Aerospace

- Boeing
- General Dynamics
- Grumman
- Hughes
- Lockheed
- Martin-Marietta
- McDonnell Douglas
- Raytheon
- Rockwell
- TRW

Chemical/Process

- Du Pont
- Merck
- McMillan Bloedel
- Monsanto
- Procter & Gamble
- Schering
- Union Camp
- Union Carbide
- U.S. Steel

Communications

- Bell System
- GTE
- ITT
- Northern Telecom

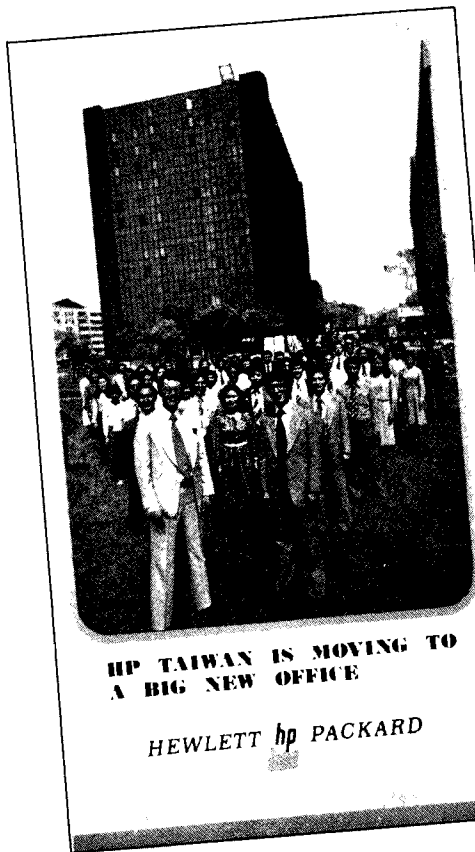
Oil

- Exxon
- Shell Oil
- Std Oil of Ohio

The Group Major Account Team has five major responsibilities:

- To increase our success in the CSG accounts. Work with the major account SRs and DMs to plan for sales growth in technical and business areas of their accounts. Help them execute their sales plans.
- To assist the field in establishing new accounts.
- To achieve customer satisfaction in our major accounts by helping the field to plan, coordinate, and execute support of worldwide installations.
- To set up communications links between the team members on the accounts.
- To be the focus for Major Account visits where Group and Corporate management need to be involved.

Please join me in wishing Roy success in his new job, and be sure to take advantage of this additional resource to help you be successful.

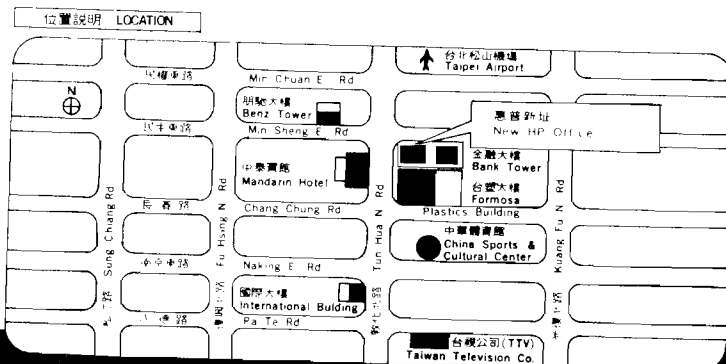


*Hewlett-Packard Taiwan
announces its move to a new office
on the fifth floor of
The Bank Tower
205 Tun Hua North Road
Taipei
on May 7th, 1979*

良好的工作環境，才能產生
高度的工作效率與服務熱忱
爲了提供您更完善的服務——
我們決定於民國68年5月7日遷移新址
並增設“技術服務中心”
(Technology Support Center)
以提供各界最佳技術協助與售後服務。
新址：台北市敦化北路105五號金融大樓五樓
電話：電話：754-0101-15線

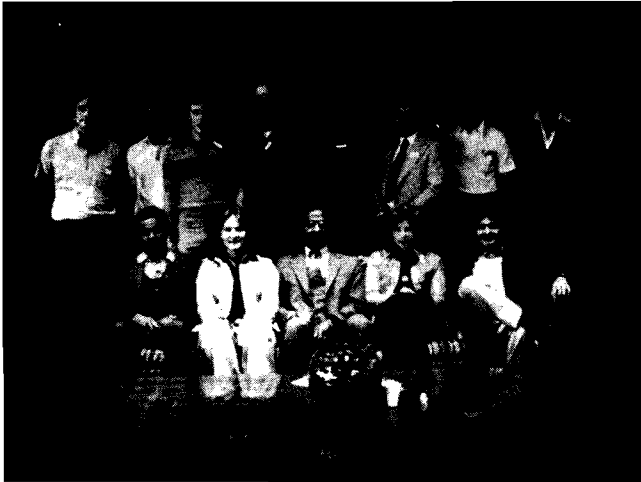
惠普公司

敬啓



CSG I/A Class 27 Graduates With Honors

By: Bob Lindsay/CSG



Standing: (left-to-right) *Paul Accampo/DSD, Mike Vasileff/St. Louis Al Walker/Farmington, Eric Isacson/DSD, Edi Seidel/Vienna, Jacques Morel/Montreal, Roger Stettergren/Bellevue, Steve Sydow/Richardson*. Sitting: *Gatewood Beecher/Richmond, Jeanne Carroll/Bellevue, Larry Canion/Atlanta, Joanna Mathieson/Richardson, Doug Stewart/Greensboro*.

Pictured above in the front lobby of Data Systems Division is the latest class to graduate from the CSG Industry/Applications course.

Week one of their two-week course included the usual three modules: Financial Considerations in Selling; insights into the manufacturing industry; case studies including the famous *Philby* case. (It was here that *Joanna Mathieson* presented an outstanding analysis of the financial woes of *Philby*). Week two was devoted to our commercial product offerings for the manufacturing industry; including MRP, IOS and EDC presentations, plant tours and hands-on experience with MFG/3000.

Lively interaction characterized their Graduation Dinner on May 21st when *Matt Schmutz* (HP 3000 Program Manager) gave the after dinner speech. (It was midnight before the smoke cleared and the last of the graduates left).

WATCH OUT COMPETITION, HERE THEY COME!

Computer Supplies News

Who Is This ?



And What Is She Doing?

By: Carl Anderson/CSO

Introducing *Fran Jeffries*, newest member of the Computer Supplies Operation (CSO) team, as of June 1st. *Fran* will be working in *Carl Anderson's* CSO marketing area, and is specifically responsible for Sales Support and Development.

This is another way of saying that *Fran* will be reminding you (as in this photo) that most HP Computer Supply items are *in stock* (literally stacked to the ceiling) and ready for immediate shipment to your customers.

Fran has a degree in Business Administration and comes to us with 3 years of HP experience working for the Data Systems Division. You'll be hearing more from *Fran*, and seeing her at various seminars and user group meetings — as she begins to help us spread the word that HP really has a solid computer supply program for your customers.

Corporate Training & Management Development

NEW VIDEOTAPE INFORMATION

New Videotapes from Corporate Training

By: *Chuck Ernst/Corp.*

Title: "MBO... AN OVERVIEW" (Color)
 Audience: HP Managers and Supervisors (For Internal Use Only)
 Purpose: To give the audience a better understanding of MBO and Tactical Planning as a part of the HP way of management.

Content: Management by Objective (MBO) is a way of life at Hewlett-Packard. The concept is as old as the company itself. The larger HP becomes, however, the more difficult it is to ensure that all managers understand and use this management philosophy in their individual work groups. This videotape is to provide managers a clearer understanding of HP's concept of MBO. Five HP managers discuss the key features of MBO and address important issues pertaining to this management philosophy.

Time: 23 minutes
 Part Number: 90784Z
 Date Released: May 1979

How To Order: Transmit a HEART (COCHISE) 12 order to Video Products, Product Line 95, Division 0700, Palo Alto. This program is not for sale to customers.

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Please update my CSG Internal Distribution and Directory listing as follows:

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COMPUTER SYSTEMS NEWSLETTER

HEWLETT-PACKARD COMPUTER SYSTEMS GROUP

11000 Wolfe Road; Cupertino, California 95014 USA

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