

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel

FRANKFURT

REINHARDT HELMUT



Vol. 1, No. 2
July 1, 1976

- **\$210K ORDER FROM CATERPILLAR FOR DSD**
- **BOISE INTRODUCES TERMINAL PRINTER SUBSYSTEM**
- **GSD SIMPLIFIES ORDERING CX TO SERIES II UPGRADES**
- **DSD SIMPLIFIES ORDERING 21MX MEMORY MODULES**
- **DTD'S SALES CONTEST ROARING SUCCESS**
- **CUSTOMER SERVICE KITS AVAILABLE FOR OMR'S FROM GRENOBLE**
- **AMD OFFERS BARGAINS ON DEMO UNITS**

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AMD DIVISION NEWS

\$
 \$
 \$ **DEMOS FOR SALE** \$
 \$ **Bargains..** \$
 \$
 \$ 9510D \$
 \$ 8580B \$
 \$ 8542B \$
 \$
 \$ **Call your RSE for low low prices and** \$
 \$ **configurations** \$
 \$
 \$

These changes on the memory prices reflect tracking with DSD pricing. The base change on the 8580B reflects the increased costs of building the system.

Price Increases 9500 Line

As of May 1, 1976, the following changes became effective on our 9500 systems;

	OLD	NEW
9510D: Base system	\$133,000	\$134,600
Option 001	34,800	35,200
Option 085 & 095	16,200	17,950
9500B Base System	53,500	55,000
9500D Base System	67,500	69,000
Option 012	5,290	6,500
Option 042	17,800	18,200
Option 044	21,600	22,000

Product News

8500/9500 ROUND UP

by: Ron Carelli/AMD

Price Increases 8500 Line

As of May 1, 1976, the following changes became effective on our 8542B and 8580B systems.

	OLD	NEW
8542B: Base system remains		\$176,000
Option 205 (24K core mini system)	\$ 2,200	\$ 2,500
Option 207 (32K core mini system)	\$ 4,400	\$ 5,000
8580B: Base system	\$134,000	\$138,000
Option 205 (24K core mini system)	\$ 2,200	\$ 2,500
Option 206 (32K core mini system)	\$ 4,400	\$ 5,000

CTEST

There are two new video tapes available for the "CTEST Package". The first is a two tape two hour set which is normally sent along with the product and is also a good training tape for SE's and product specialists. This set can be procured through Corporate by ordering 90287 and 90288. The cost is \$25 for each tape. The second tape is a 15 minute promotional tape with features and benefits of CTEST. It can be used as a review before going to a customer's facility for direct customer viewing. It can also be ordered through Corporate as 90517. The cost is \$25.

3450 DVM

The 3450A DVM on the 8542B and the 8580B presently appear on the Corporate Price List as options 090 and 094 respectively. Due to an I/O conflict with the TODS-II (Option 199 and 200) these options prices will only apply to a cassette based system. A note will appear in the August 1 price list to this effect. Systems which require a 3450 in addition to the disc will be quoted as a special. There will be an extra charge for configuration required over and above the standard cassette option price.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

DISTRIBUTED SYSTEMS

by: Ron Carelli/AMD

The new distributed system products (91700, 91703, 91704 and 91705) have been released by DSD. Currently these new revisions will not work with 8500 and 9500 satellites.

In order to alleviate this problem, AMD has started work to make our satellites compatible with the new DSD software. In the 8500 line, this means building a new executive with the new modules, updating libraries used with the executive, reconfiguration of the graphics editor and the MAP software (for the 8542B), and modification of the module which downloads large application programs. In the 9500 line, the task is more of a rewrite to reinstate the Program-to-Program Communication capability.

The timetable for the 8500 satellite work is completion by September 15, and for the 9500 satellite, October 2. A few weeks prior to this time we will publish ordering information which can be used to order the update kits which will be made available free to your customers who have RTE-II or RTE-I with standard upgrade products.

Keep Selling!!

8543A/9540D OBSOLESCENCE

by: Ron Carelli/AMD

We currently have initiated obsolescence proceedings on two products in the 8500/9500 line. These are the 8543A and 9540D. All 8543A activity should be shifted to the 8507 Network Analyzer offered by Santa Rosa Division. 9540D activity should be shifted to the HP 9510D system or to the new 8950 calculator based transceiver test system offered by Stanford Park Division.

As part of the 8543A obsolescence, we are scrapping much of our purchase parts and fabrication parts. We also have in our possession 3 sets of 5105A/5110B frequency synthesizers (DC-50MHz). We have given the field service and present owners of 8543A systems first crack at these instruments. Now, we are making them available to the world for sale. The price will be \$23,000 per set without warranty. The units will be functionally checked before shipment.

If you have any customers interested in these instruments, please give me a call to discuss details.

In addition, the 2767A is also being obsoleted (9500 Opt. 008) due to obsolescence by DSD. In order to make a final order, we need your inputs ASAP of customers who would like to order 2767 on a new system or as an update. The sooner you tell me, the better chance I have of possibly getting you one. The final run of 50 already is half committed.

Before our board tester works for you it had to work for Bill Harris.



Bill Harris, Production Manager for Hewlett-Packard Automatic Measurement Division specifies and purchases testing equipment.

"At Hewlett-Packard we make sure the products we develop meet our test needs before they go to work for you. So when our design engineers asked what performance I expected from an automatic board tester I told them."

"I depend on throughput!"

"The key to that is fast, accurate fault location. A good tester must be a fast trouble-shooter — that's how you get high throughput."

"It's got to be reliable!"

"It has to keep working in a production environment. Because I depend on it to produce good boards every day and to keep accurate testing records."

"A tester must be easy to use and maintain!"

"I need a tester that's designed with my operators in mind. It has to be easy to set up

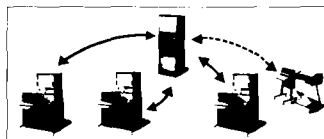
and simple to operate without complicated language problems. If it breaks down, it has to be easy to repair. I can't afford to have production lines down waiting for someone to find the trouble and fix it."

"A low cost of ownership is all important!"

"I'm concerned with ease of test setup as well as the purchase cost. Easy program changes, reduced expansion costs, low maintenance — all these things help cut my overhead expenses."

The new DTS-70 Can Work for You.

The Hewlett-Packard DTS-70 Digital Test System. Quick, accurate fault location. Advanced capability to handle large circuit boards up to 200 MSI IC's or 10,000 gate equivalents. It simulates faults without having a known good board and features concurrent test generation.



The new Hewlett-Packard DTS-70 Digital Test System.

It works for Bill Harris. See how it can work for you.

For more information on how the DTS-70 can satisfy your needs, contact your nearest Hewlett-Packard Sales Office or write.

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BOISE DIVISION NEWS

Product News

BOISE INTRODUCES THE 13349A TERMINAL PRINTER SUBSYSTEM

By: Steve Bolen/Boise

At NCC on June 7th, Boise Division introduced the 13349A for use with the 2640-series CRT terminals. Priced at \$3725, the standard 13349A consists of the 9871A option 122 printer, cable, and 13238A terminal duplex register. Adding the 13349A subsystem to a 2640-series terminal allows for single or multi-copy output of the terminals' display or cartridge tapes (2644A).

The 9871A option 122 character impact printer was developed especially for use with the 2640-series terminals. The 9871A ROM has been changed to eliminate escape sequence conflicts between the 264X and the 9871A*.

The printer operates at 30 cps and prints up to 132 columns. The 96 character interchangeable print wheel offers both upper and lower case. The print quality is typewriter perfect and is easily reproduced. This is valuable for text generation and editing in educational, scientific and financial applications.

Priced at \$275, the optional forms feed mechanism helps give clear multiple copies as well as continuous fan fold capabilities. In addition to the standard ASCII character set, a Cyrillic character set is available at no additional cost.

With the introduction of the 13349A, a complete line of terminal printer subsystems is available. The 13246A/B printer subsystems, introduced earlier this year, offer both upper and lower case capabilities using a quiet thermal print head.

Delivery of the 13349A is currently 13 weeks ARO.

* The new 9871A ROM requires a "plus" symbol to follow the printer escape character. With this "plus" sign, the 264X terminal will not react to any escape sequences being transmitted to the printer. In this way, all of the printer's capabilities can be utilized with no incompatibilities between printer and terminal.

FIRE SALE STILL ROARING

by: Nick Voigt/Boise

Only one more month to go for the Boise Old Product Sale. The response so far has been fantastic, and we're really moving the equipment.

There will be no extensions to this sale, so don't hold back any of your prospects. Call us now to get the latest sale information.

Also, be sure to send in your qualification cards to be eligible for prizes. If you need more cards give us a call.

Order Processing Corner

HOW TO ORDER THE 13349A

by: Steve Bolen/Boise

The following options are available for the 13349A:

- Option 001 Adds form feed mechanism + \$275
- Option 003 Adds Cyrillic print wheel N/C

The standard 13349A utilizes an ASCII print wheel with 96 characters. Standard accessories supplied are as follows:

- Ribbon cartridges (3 ea) 9282-0561
- Package of three print discs
 - Standard ASCII print disc 1530-1811
 - Option 003 Cyrillic print disc 1530-1895
- Operators manual 13349-90901
- Service manual 09871-90030
- Interface cable 13232J
- Interface 13238A

Installation is not included in the 13349A list price. The local HP service office should be notified if a customer wants the printer subsystem installed. A customer engineer will perform the installation and the customer will be billed for time and material.

If a customer wants both the 13349A and 2640/44 delivered at the same time, be sure to indicate "Coordinated Shipment" in the appropriate place on the sales order.

Division News

STEVE RICHARDSON JOINS BOISE SALES TEAM

by: John Whitesell/Boise

I am happy to announce that *Steve Richardson* is joining the Boise Sales Development team. He will be supporting our HPSA sales people for all Boise Division products.

Steve received his BSEE at MIT, worked for a year at the Naval Ordnance Lab in Washington, D.C., then returned to Harvard, where he recently received his MBA.

We are counting on *Steve* to be a strong contributor in helping you sell Boise peripherals.

Welcome aboard, *Steve*!



Steve Richardson

Training News

IDAHO RECOVERS FROM TETON FLOOD AND NEOPHYTE SALES SEMINAR

by: John Whitesell/Boise

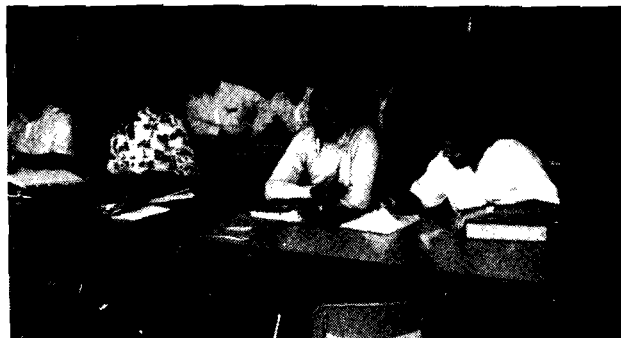
Boise recently welcomed a record-sized group of new (to HP) salespeople and systems engineers for a 2-day product training seminar.

Concentrating on magnetic tape drives, optical mark readers, line printers, and printing terminals, the sessions included detailed product training as well as discussions of customer benefits, and included indepth tours of our production lines.

On the social side, the seminar provided an excellent opportunity for the visitors to meet with several factory people in virtually all functional areas and learn more about our community.

We're looking forward to working closely with our new colleagues as they move to their respective sales offices, and helping them to sell Boise products.

Think Peripherals!



"When do we go back to Dino's?"



"So there really is a midjet back there that makes the reels spin."



THINK PERIPHERALS

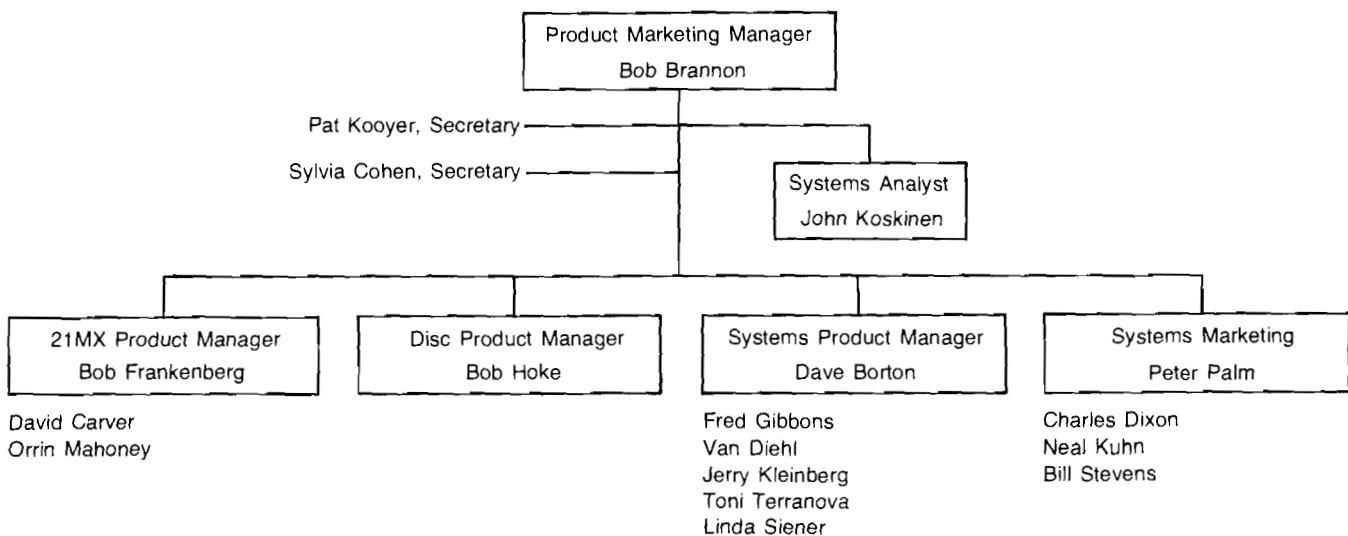
DATA SYSTEMS NEWS

Division News

PRODUCT MARKETING ORGANIZATION

by: Bob Brannon/DSD

DATA SYSTEMS PRODUCT MARKETING



Data Systems has some new faces and a new organization for Product Marketing. First, the new organization. *Peter Palm* will be heading up a program to put more focus and emphasis in marketing and merchandising DSD products with particular interest being paid to our systems marketing. As you probably know by now, *John Drakeford* has joined AMD as part of their product management team for measurement subsystems. The "product management" tasks that *John* and his previous group had for Product Line 08 are being distributed between *Dave Borton* and *Bob Frankenberg*. (All of the measurement related products will fall into *Dave's* product management group, e.g., 96xx, 2313, 6940, 91000A, etc.).

Bob Frankenberg has joined Product Marketing and will be the Product Manager for the 21MX CPU and related products. *Bob's* previous position as the 21MX Lab Section Manager makes him ideally suited for this task. *Bill Senske*, *Bob's*

predecessor, has joined DSD's Technical Marketing Group as the new Technical Marketing and Support Manager for 21MX products.

The Disc products will be managed by *Bob Hoke*, also new to Product Marketing. *Bob* comes to us from DSD's Sales Development. *Vijay Kapoor*, *Bob Hoke's* predecessor, will join Advanced Products Marketing.

Second, there are several new and talented people joining Product Management.

Neal Kuhn joined us in May. Background: Originally from Chicago, *Neal* received his BS (1971) in Computer Science and his MBA (1974) from Illinois Institute of Technology. *Neal* has had marketing, sales and engineering experience with Monroe Calculators and National Semiconductor's Point of Sales Systems Division.

Linda Siener will join us in July. Background: Raised in St. Louis, Linda received her B.S. (1976) in Applied Math and Computer Sciences at Washington University, St. Louis. She has had experience programming in PL/I, FORTRAN, COBOL, SNOBOL, PDP-11 Assembly Language, IBM ITF. Her most recent experience at Carter Carburetor used an IBM System for on-line testing carburetors.

Toni Terranova will join us in July. Background: Raised and schooled in Kentucky, Toni received her B.S. (1975) M. Engr. (1976) in Computer Sciences from the University of Louisville. Toni's work experience internships have included: DEC-Lab Real-Time Systems, programming FORTRAN and Assembly for psych experiments; IBM 370/165 COBOL programming for Kentucky's Department of Human Resources, plus lots more.

Bill Stevens will join us in July. Background: MBA (1971) Harvard, MSEE (1974) Stanford, BSEE (1971) Princeton. Bill has also had two years experience at HP's Microwave Division as a Production Engineer and Lab Engineer.

A new face to DSD, but not to HP/CSG, is Orrin Mahoney. Orrin's background includes two years at AMD as 9500 Product Manager and six year's in 8500 Microwave Systems in both Production and Engineering.

In the last few weeks we've made some significant new product announcements: 16K, HP-IB/RTE, IMAGE/1000, 21MX-K Series, and there's more coming. The challenge for the new organization and new people will be to continue doing an excellent job introducing new products and marketing the ones we now have, as aggressively as possible.

Product News

LINE PRINTER DRIVERS

by: Dave Borton/DSD

Don't forget to order the proper line printer drivers when you send in your system orders that include line printers. The drivers are available as no-cost options to the line printer subsystems. We often notice while reviewing system installation reports that the drivers are not ordered. This typically costs an extra trip by the CE as he has to go back to complete the installation.

Later this year, all drivers will be furnished with systems as well as with the unbundled operating systems. In the meantime, help your CE reduce installation costs by ordering drivers with the appropriate subsystems. The drivers to watch out for are:

- Option — 421 DOS Driver
- 422 RTE Driver
- 423 BCS Driver
- 424 SIO Drivers

SIMPLIFIED ORDERING FOR 21MX MEMORY

by: David Carver/DSD

Because Data Systems Product Line 65 list prices no longer include installation, there is no difference in field add-on and factory installed memory orders. This means we can reduce the number of different ways to order the same memory product! Memory should now be ordered under its *product* number, not under its *option* number. For example, a 16K module should be ordered under 13187A instead of 2102A-016 or 2124B-216.

Effective August 1, the price for a 12998A (8K module) will be reduced from \$1600 to \$1500, to reflect the fact that installation is unbundled. 12998A orders placed before August 2nd, for delivery on or after July 26, should override HEART to enter the \$1500 price. All 12998A's shipped prior to July 26th will be billed at \$1600.

We will retain option 016 on both DISComputers to enable you to specify a 16K module in the base configuration.

The following options will be deleted from the Corporate Price List on August 1:

2102A-004	2124B-208	2125A-208
2102A-008	2124B-216	2125A-216
2102A-016		

21MX memory for Product Line 65 should now be ordered under one of the following numbers:

		List Price
12994A	4K Memory Module	\$1000
12998A	8K Memory Module	1500
13187A	16K Memory Module	2100
2124B-016	Replace 8K module with one 16K module	600
2125A-016	Replace 8K module with one 16K module	600

Memory ordering procedures for systems (Product Line 08) will remain:

96XX, 9700-P11	Add One 8K Memory Module
96XX, 9700-P12	Add One 16K Memory Module

ROM LOADERS

by: LeRoy Nelson/DSD

The 21MX processor has sockets and addressing for four initial binary loaders. These are READ-ONLY Memory chips with the program to load into the top 64 locations of main memory.

The basic processor board has the paper tape loader as a standard. Optional loaders available today include ROM's for

Discs, Terminal and Mag tape. This includes two current products and two new products.

12992A - 7900 Disc	Disc Boot
12992B - 7905 Disc	Disc Boot
12992C - 2644 CRT	Binary
12992D - 7970B/E Mag. Tape	Binary

The two new loaders will appear on the 1 July price list and are orderable today. Price is **\$100**. As new input peripherals are developed, ROM loaders will be available specifically for each unit.

K-SERIES REPAIR — WHAT DO I DO AFTER THE WARRANTY?

by: *Orrin Mahoney/DSD*

As previously discussed in the K-SERIES special newsletter, K-SERIES warranty covers repair on a board-return basis only. To handle repairs after warranty a special service has been set up to repair K-Series Components and related equipment on a fixed price, board return basis. Defective boards should be shipped prepaid to Customer Service Repair Center in Mt. View, Ca. where they will be repaired, updated (unless specific instructions request maintaining the old revision level), and returned to the customer. The products listed below are currently available on this program.

	Product	Repair Price
2108K	Miniprocessor	\$150
12728C	Front Panel Assy	50
12728E	21MX Instruction ROM	50
12897A	Dual Channel Port Controller	100
12892A	Memory Protect	100
2102A	Memory Controller	100
12994A	4K Memory Module	100
12998A	8K Memory Module	100
13187A	16K Memory Module	100

Having this service should make the K-Series even more attractive to potential Components customers. Sell Components!

MTRS NOW IN GRENOBLE

by: *Dave Hancock/DSD*

With the recent change to ordering MTRS "by-the-pieces" (see last issue of DS Newsletter), it is now possible for Grenoble to supply the MTRS for European locations. Order the appropriate peripherals from the supplying divisions. Special "MTRS" content will be supplied with the appropriate devices (i.e., diagnostic tape with 12973). You still need 93723-025 for the required racking.

Existing orders will be supplied from Cupertino — all future HPSA orders should be placed on Grenoble for the DSD content.

Sale\$ \$ucce\$\$e\$\$

MEXICO — RTE UNDER GLASS

Dave Hancock/DSD

FAMA, SA, a machine tool manufacturer and glass manufacturer in Monterrey, Mexico, is installing a 9600 RTE-II system to automate an old but faithful mechanical control system. FAMA started out as a service organization to the glass industry and then evolved into a manufacturer and supplier of equipment for production of seamless glass containers.

According to HP FE *Gabino Perez*, FAMA is going into a planned four-stage project utilizing a 9640A + 6940 + 91000.

- Step 1: Emulate the mechanical process for seamless glass production in software.
- Step 2: Connect the RTE system for closed-loop production control of the manufacturing process.
- Step 3: Micro-program the entire process for control optimization and for program security.
- Step 4: Utilize the 21MX-K Series for integration into their end product which will be OEM'd throughout Latin America.

Aside from a good sale to FAMA, *Gabino* has established an excellent OEM account based upon the HP-RTE combination. How's that for "RTE under glass"?

DSD's HONOR ROLL (NORTH AMERICA)

by: *Bob Brannon/DSD*

Pat Tucciarone just nosed out *Dave Head* for the first half DSD orders but *Dave's* still coming on strong. *Pat* had a fantastic April. *John Tourkolias* was number one for April and moved into third place for the half.

DSD FACILITY — TRADE ORDERS OCT — APR YTD

Rank	PL08 Name	Region
1	R. Kotoski	NSR
2	J. Tourkolias	NSR
3	P. Tucciarone	ESR
4	A. Ipson	MWE
5	J. Mason	ESR
6	J. Pifko	NSR
7	B. Hitchcock	NSR
8	J. Sigismonti	NSR
9	E. Oakley	SSR
10	T. Pelfrey	SSR

Rank	PL65 Name	Region	Rank	ALL DSD Name	Region
1	D. Head	SSR	1	P. Tucciarone	ESR
2	P. Tucciarone	ESR	2	D. Head	SSR
3	J. Sigismonti	NSR	3	J. Tourkolias	ESR
4	J. Tourkolias	NSR	4	J. Sigismonti	NSR
5	J. Mason	ESR	5	J. Mason	ESR
6	K. Volet	ESR	6	K. Volet	ESR
7	L. Castagnola	ESR	7	L. Castagnola	ESR
8	J. Oliphant	SSR	8	J. Oliphant	SSR
9	R. Hilliard	NSR	9	R. Kotoski	NSR
10	J. Allen	NSR	10	J. Pifko	NSR

The region Top 10 count looks super good for Eastern and Neely with Southern holding honors in first place for PL65. Thanks go to *John Sundry, Bill Richion and Russ Stewart.*

TOP 10 POSITIONS

	PL08	PL65	DSD Total \$
Eastern	2	4	4
Neely	5	4	4
Southern	2	2	2
Midwest East	1	0	0
Midwest West	0	0	0
	10	10	10

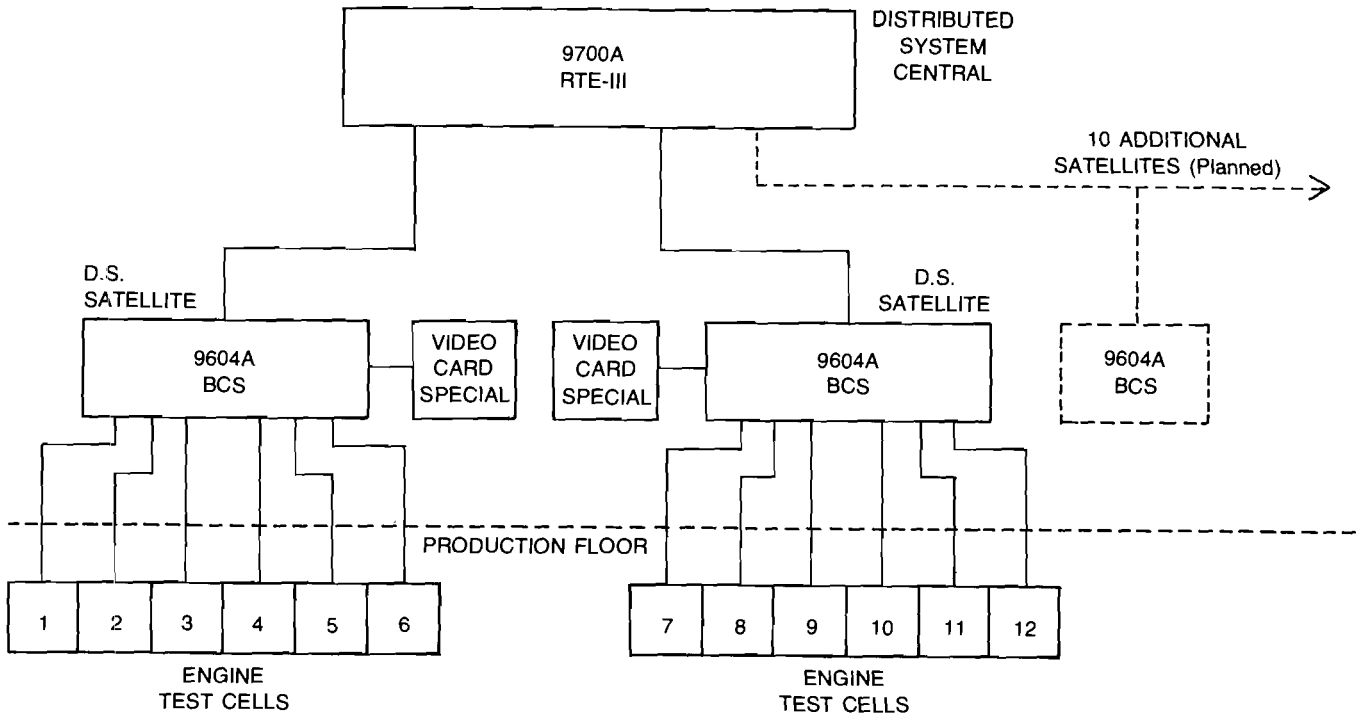
NEW DISTRIBUTED SYSTEM FOR CATERPILLAR

by: Hugh Amick/DSD

Gary Polcyn (F.E. — Skokie) recently carved out a \$270K Distributed System order from Caterpillar's Basic Engine Division for use in a new plant at their Mossville, Illinois site.

Caterpillar employs some 78,000 people worldwide with manufacturing operations in Illinois and Brazil. Sales of Caterpillar's heavy equipment and engines totaled almost \$5 billion in 1975.

Caterpillar's initial order consists of a 9700A Distributed Systems Central and two (2) 9604A satellites to be used to step diesel engines through prescribed test cycles to measure engine performance. Similar 2100A based systems are now in use controlling up to 20 test cells. Plans call for two (2) more 9604A satellites in late summer and a total of 12 satellites by 1980 to enable Caterpillar to simultaneously operate up to 72 test cells.

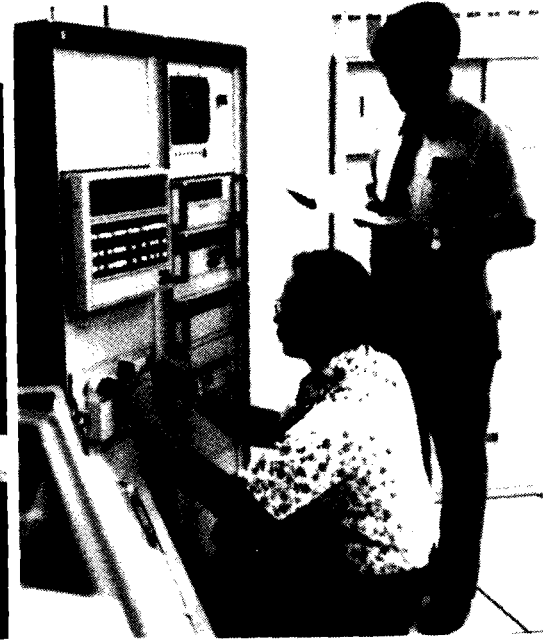


(Continued on page-10)

It's a long drive from Skokie to Mossville, but worth it for Gary. SUPER JOB!



Engines arriving from assembly line on air-supported pallets ready for movement into test cells (numbered on right).



One of four (4) Satellites used for test cell control.

OEM CORNER

OEM BUSINESS IS ON THE RISE

by: *Stu Kagan/DSD*

Our prime indicator of new OEM business (the signing of new contracts) is showing a marked increase in our OEM Activity. May brought us 23 new OEM contracts at which 15 of them were first timers with HP. These were:

Company	Field Engineer
Hydril Control System	Paul Lambert
Chanslor & Lyon	John Knopp
Trak Div. Trak Microwave Corp.	Ed Wilson
TRW — Colorado Elec	Keith Howey
Investment Counseling Service	Ed Oakley
American Permalite	Ed Oakley
Interactive Application	Ralph Godfrey
Marshall & Swift Pub.	Allen Foster
DuKane Corp.	Ron Tarkowski
Q.E.D. Systems	Mike Merrill
National Systems Labs	Ray Vanderhulst
Daconics Corporation	Dick Olson
CAMSCO	Dave Head
RCA Corporation	Gene Ackerman
Macrographics, Inc.	Joe Pifko
CENAC Corp.	Lou Castagnola
Lawyer's Computer Service	Alan Foster
COMPSAC Inc.	Harry Cole
Basic Manufacturing	Bill Hilliard
IECS	Stan Segal
NPD Research	Barry Charton
Motorola Israel	
McCue Associates	Dave Klamon

Hats off to the FE's that brought them in — they've got OEM blood in their veins.

Looking a bit beyond the signing of the agreement — let's make a comment on the actual releases against the contracts. They too are at a very high level and seem to be tracking nicely with the elevated number of new contracts. Don't stop now — get on the bandwagon and SELL OEM.

Sales Aids

HP CANADA IS TV HIT AT THE OIL SHOW

by: *John Streeter/DSD*

The Canadian oil industry puts on an all industry exposition every two years. The second week in June, the show was held in Calgary, and HP had a large instrument, calculator, and computer display booth.

The HP Canada effort to show DSD's products was outstanding. *Rick Schwartz*, CE — Vancouver, sent his RTE/disc-based system to Calgary. *Barry McDonald* and *Lorne Prevost*, CE's — Calgary, installed the system at the show. *Conway Reimer*, FE — Calgary, coordinated help from DSD, and withstood four full days of booth duty.

The show was quite successful. Conway discovered several new leads. HP's presence was also rewarding to some existing customers — HBOG, Shell, and Pan Canadian Oil — as they could show their colleagues equipment similar to their own.

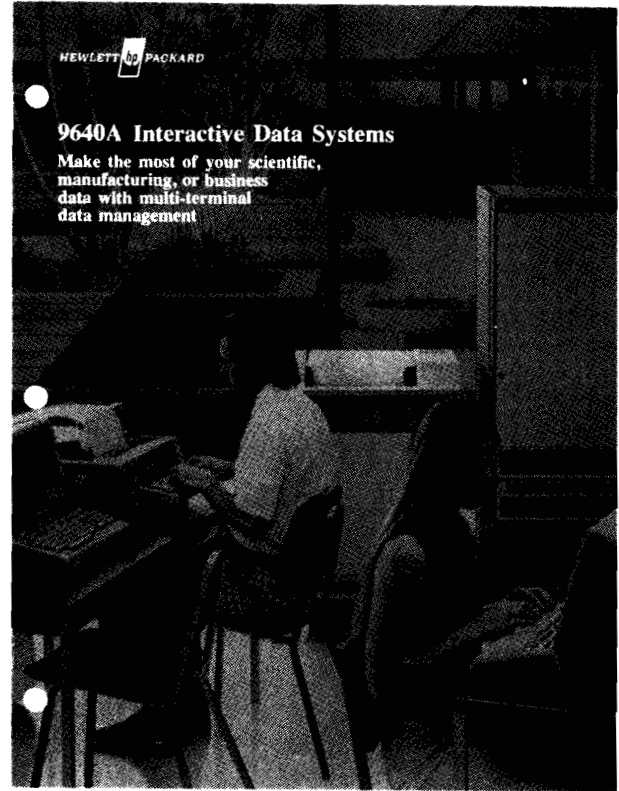
HP's booth demonstrated RTE-III, Multi-User BASIC, and the 91200B TV Interface. The 25" color TV was really an eye-catcher. DEC, whose booth was next door, was envious of our crowd appeal.

NEW 9640 BROCHURE

by: Dave Borton/DSD

A revised version of the 9640 Brochure has just arrived from the printer. It has been revised due to many of your requests for a more data management oriented brochure. Individual copies of the brochure are being distributed to field personnel through the HP MAILS so expect yours soon. Bulk distribution has already occurred so many offices may have supplies already.

New capabilities that are also covered in this brochure include IMAGE/1000, HP-IB, and 9571. We think you will like this modified brochure. Good Selling!



9640A Interactive Data Systems

Make the most of your scientific, manufacturing, or business data with multi-terminal data management

There's been a lot of talk about computer networks. Hewlett-Packard's speaks for itself.

Measurement and Control Satellite

- Special Purpose Communications
- Control Programs & Testing
- System Support & Asynchronous Data Transfer
- Asynchronous Remote Access to Primary Data
- 1.15 Kbps to 600" Hardware

Production Information Satellite

- User at Central Peripherals
- Program Development at Central
- Program Storage at Central
- Program Test Execution via Control
- RTE to Central
- RTE to IBM

Data Entry Satellite

- Global Programs to Program Communications
- Up to 19.2 Kbps via Serial Communications
- Line Diagnostic for Line Status

Network Central

- Special Purpose Peripherals
- Special Purpose Software
- Special Purpose Hardware
- Special Purpose Operating System
- Special Purpose Programming Language
- Special Purpose Program Development
- Special Purpose Program Execution
- Special Purpose Program Maintenance

Lab Computation Satellite

- Program Development
- System Development
- Special Purpose Peripherals
- Program Development
- Program Execution
- Hardware
- Remote File Access

HP computer networks are now working for more than 100 customers.

Customers have been using Hewlett-Packard networks since 1973. And as the customer base grows, so do the needs. HP has what you need — the software and the all-important network hardware to your requirements. Make us prove it. Write or call today.

See us at service from 172 offices in 85 countries

DATA TERMINALS NEWS

Division News

WHO'S WHO WITH DATA TERMINALS

by: Dick Byhre/DTD

Here is the Honor Roll for the last half of May and first half of June.

SALESPERSON	CUSTOMER	AMOUNT
Keith Howey	Martin Marietta	\$120K
Dick Burkhart	Bay Area Pollution and Sonoma Junior College	\$ 72K
Manuel Mendez	Com. Fed. de Electricidad Pan American Health	\$ 69K
Tony Gunn	Ministry of Ind. & Min.	\$ 65K
Josef Schwarzbauer	Festo Maschinenfabrik	\$ 46K
Gary Stump	Paktann	\$ 30K
Crane Hertz	ESB Exide	\$ 29K
Jerry Mason	Sikorsky Aircraft	\$ 29K
Jack Lazenga	Brown Publishers	\$ 28K
Bubber Smith	Martin Marietta	\$ 28K
John Malone	MSTI	\$ 26K
Dale Sutton	Energy R & D	\$ 26K
Tom Bills	Scoho Enterprises	\$ 26K
Bob Bolcik	Falconer	\$ 25K
Gabino Perez	Inst. Tecnologico	\$ 21K
Al Wood	Universal Motor Fuel	\$ 20K
Dick Olson	Vidar	\$ 19K
Saul Estrada	IPESA	\$ 19K
Jose Aspas	Fortuna	\$ 18K
Jack Oliphant	Pioneer Oil	\$ 15K

P.S. What is DTD's number one salesman, Dick Olson, doing 17th?

"MOUNTAIN OF PAPER"

by Rich Ferguson/DTD



Little did we know when we started this onesy-twosy sales contest just how successful it would be. The response is just unbelievable, to say the least. One question that keeps popping up is whether or not you need to send in one separate form for each sale. The answer is **No** — If you have two separate sales, go ahead and put them both on one form and they will be tallied separately, and you will be given full credit.

Because of the response to this contest, we have been tabulating its effect on the onesy-twosy quick delivery program and the results are astounding. Remember, you get an extra point if your customer doesn't need quick delivery.

Keep up the good work, and maybe one day we will be able to dig out Ed Hayes.

Sales \$ Successes \$

2640'S PREVENT UNIVERSAL MOTOR FUEL CRISIS

by: Carl Flock/DTD

Data entry, truck routes, payroll, accounting and general data base management will be accomplished starting with five 2640's by Universal Motor Fuel of Wichita, Kansas. Al Wood's super salesmanship convinced the Data Processing Manager to give up his IBM System 3 in favor of an HP 2640 system.



Al says, "HP was considered as the same type of company as IBM on this sale!" Terminals and the advantages they offer were key to the business. The interface problems with the System 3 will be simply solved by replacing IBM with the

famous 3000 Series II as the only terminal controller in the company.

Good job, Al. Keep the gas pumping in Wichita!

SNAPPING UP \$28K IN FLORIDA

by: Rich Ferguson/DTD



Bubber Smith of our Orlando, Florida, Sales Office recently sold seven 2644's to Martin-Marietta for \$28K. The terminals will be used as consoles on Martin's MICON automatic test equipment system.

The reason Martin chose the 2644 was to replace a Sykes cassette and Teletype. In fact, Martin canceled their order for the Sykes after seeing the 2644. Of course, the other reason was the super salesmanship of Bubber Smith. Bubber left the terminal with Martin for a week and it sold itself!

Let the terminal work for you!

TERMINAL TIGERS FIGHT POLLUTION

by: Rich Ferguson/DTD



Dick Burkhart from our Neely/Santa Clara Sales Office really cleaned up on the competition at the Bay Area Pollution District by selling six 2644's and six 2640's for \$53K that washed away a number of various competitor's terminals that were on rental.

Bay Area Pollution is a government agency responsible for monitoring air quality in the San Francisco Area. The terminals are used by engineers for such things as program development, different application programs for pollution studies and certain administrative functions. The things the customer liked best were the editing and storage features of the terminals. This is the most pleasant way to talk to a System 3000 terminal handler.

Not stopping there, Dick proceeded to land a 19K sale at Sonoma Junior College. Five additional 2640's were ordered for use on another HP 3000 because the customer liked the first few so well. How about that, folks!

Not much selling time needed to pick up this extra order. The terminals have a habit of selling themselves; let a few work for you.

Good work, Dick!

2644 MAKES 11/70 SING

by: Dick Byhrel/DTD



Manuel Mendez of our Mexico City Sales Office landed a \$49K order with the Comision Federal de Electricidad for eight 2644's connected to a DEC 11/70.

The application is data entry, monitoring and modifying power distribution throughout the major Mexican cities. Interfacing with the DEC 11/70 presented no problems for Manuel and his excellent support team in Mexico City.

Congratulations, Manuel, for a job well done!

AD PROGRAM FLIES ON SEL COMPUTER

by: Carl Flock/DTD

Jerry Mason followed up a "onesy-twosy" lead from a DTD advertisement and found a \$29K sale. Sikorsky Aircraft of Stratford, Connecticut, got interested in the 2644 from an HP advertisement and called Jerry. Jerry demonstrated the 2644 using the DTD Demo Tape, with dramatic results.

Sikorsky immediately liked the 2644 and purchased six 2644's for use on their SEL computer. Sikorsky is writing a driver for their computer system to make it compatible with the terminal. They will use the 2644 in EDIT MODE each day, to read helicopter flight test data from cartridge, edit it, and save it on a new cartridge.

Competition was ADDS terminals with floppy discs, but the 2644 offered much greater price performance for their application.

Thanks, Jerry, for the \$29K "onesy-twosy". Sorry, this sale won't count toward the First Annual "Onesy-Twosy" Contest, but then again, Jerry already has a good reward.



Jerry Mason

SELL TERMINALS

OEM'S IN GERMANY

by: Eric Grandjean/DTD

Congratulations, Josef Schwarzbauer, for selling terminals!

Festo Maschinenfabrik, a worldwide manufacturing company, based in Berkheim, Germany, has placed a \$46K order for nineteen terminals. This is the first phase of a 60 unit order. Festo is a new OEM for us in the field of industrial education, specializing in hydraulics and pneumatics.

Our 2640's will do order entry for stock control, planning, production control, statistics and management reporting jobs. The operating system will be HP's new 3000 Series II.

Flexibility, reliability, and forms handling capability of the 2640 family of terminals and a factory visit were determining factors in the choice by Festo. Initial deliveries have already started.

Jo said, "It was like cream on the pie."

New Applications

"BLOCK MOVES ON 2640 AND 2644"

by: Rich Ferguson/DTD



The age of easier local text editing is here! No longer do you have to say "NO" to the customer who asks, "Can I move whole paragraphs on the screen with your terminal?" You can now shout a resounding "YES!"

Because of our uniquely designed memory allocation technique, moving blocks of text is simple. How do you do this with a standard terminal? Let's use an example.

If you have 15 paragraphs of text stored in memory and want to insert paragraph 11 between paragraphs 6 and 7, do the following:

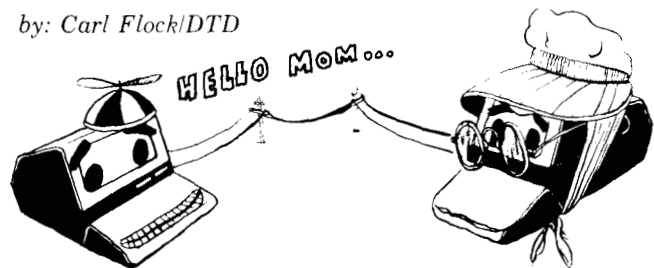
- 1) Position the first line of para 11 at the top of the screen using the roll up and/or down keys.
- 2) Position the cursor one line below the last line of para 11.
- 3) Turn on memory lock, freezing para 11.

- 4) Using roll up and/or down keys, position the top of para 7 (with appropriate spacing) at the bottom of para 11.
- 5) Now turn off memory lock — that's all there is to it! Subsequent rolling of the text will show the para 11 is indeed moved to between paragraphs 6 and 7.

Using this procedure, you can move any paragraph less than 23 lines long to any position within display memory. For paragraphs larger than 23 lines, simply segment them and move the segments using above procedure.

TERMINAL NETWORKS

by: Carl Flock/DTD



In some applications, it is helpful to have two terminals talk to each other over phone lines without the aid of a computer. Bell 103A modems or Acoustic Data Couplers can be used as long as one modem is in ANSWER mode and the other in normal ORIGINATE mode. Check your modem/coupler to be sure you can get ANSWER mode.

Additionally, if the "ANSWER" modem has auto-answer, then one can automatically leave data at the destination; just remember to send a "ESC f" to hang up the telephone after you're through.

Order Processing Comes

"NEED A CHANGE?"

by Dianne Nikkel/DTD

Additions made to existing orders with DTD cannot guarantee the acknowledged ship date of the original order.

Although we do our best to maintain the acknowledged ship date, many change orders are received at the last minute (while the unit is in either configuration, test, shipping, etc.) which often means starting anew. Additions to the order, whether they be small or big parts, are not always on hand and may need to be built.

If you know in advance that you are going to need to make a change to an order, it would help if you would notify your Regional Coordinator in advance, and, explain to the customer that his original ship date could be changed (check your current Heart open order status report for any new acknowledged ship date).

"WATCH YOUR CON-FIGURE-ATIONS!"

by: *Dianne Nikkel/DTD*



Help us to help you. Many of your orders are coming to the factory with very confusing configurations.

To help us get your shipments out on time, please specify (in the special instructions of the order) how your units are to be configured. This will also help you to understand our products better, and prevent you from ordering incorrectly.

If we can be of any assistance, please feel free to contact us.

Product News

PRINTERS WILL TRANSFER

by: *Dick Byhre/DTD*

Effective 1 August, the printer subsystems for the 2640 series terminals will return to Data Terminals Division. The printers that this move affects are the 13349A (9871A), 13246A (9866A) and the 13246B (9866B).

Until August 1st, Boise will be accepting orders for the subsystems and provide technical and administrative support. For product tests and evaluations that require several weeks to perform, DTD will be the supporting division.

The printer subsystems are winners and Boise has done an excellent job bringing these products to market. We ask that you bear with us during this transition period to ensure HP gets the best return on its investment.



GENERAL SYSTEMS NEWS

Product News

COBOL A OBSOLETE

by: Marc Matoza/GSD

COBOL A is now an obsolete product. Changes to the COBOL B compiler have reduced its compilation time to roughly equivalent COBOL A timings. Obsoleting COBOL A means:

- The 32213B subsystem will be shipped with one compiler.
- Options ordered on standard models will receive only COBOL B.
- No further product enhancements will be available on COBOL A.
- It will no longer be an officially supported product.

CALCOMP PLOTTER INTERFACE ON SERIES II

by: Dave Sanders/GSD

At the present time, the CalComp plotter interface (30126A) is not supported on the HP 3000 Series II. The Price/Performance/Configuration Guide is not totally clear on this issue, since this interface was included erroneously on the system block diagrams on pages 14-19. The 30126A data sheet is not included in the guide, however, and the CX-to-Series II upgrade data sheet (30409A) explicitly excludes the CalComp interface as a supported device.

We do have a project underway to add the 30126A interface to the Series II specifications, but at the present we can't make any commitment about how long this effort may take or whether it will be successful ultimately. We will let you know as soon as anything changes. Sorry for the confusion.

SECOND 2780/3780 Interface Board

by: Jean Toth Kelley/GSD

Many customers have requested a second interface board for the 2780/3780 Emulator Subsystem. GSD has repriced the second board (without the software) at **\$2,850**. Order 30130C, Opt. E01. *It's a special!*

OPTION 124 (SYSTEM CONSOLE)

by: Ed North/GSD

Option 124 which deletes the 2640A system console and adds the 2762A Terminet 300 will appear on the July 1 Corporate Price List. It is available on the Series II models 5, 7, and 9 for + **\$1770**. The monthly maintenance price for option 124 is + \$4.

SERIES II MAINTENANCE PRICES

by: John Page/GSD

Until the maintenance prices are put into the BMMC microfiche, the official Series II prices are those in the booklet called "Performance, Prices and Configurations" (5952-5588), pages 99-104.

A number of you ever-alert people have pointed out some errors in the booklet. Note the corrections listed below.

Part Number	Description	Correct BMMC
32415A - 602	Add COBOL Compiler	20
- 603	Add RPG Compiler	20
30133A	600 LPM Printer	154
30030B	Selector Channel	38
30129A	7905 Subsystem	126

The following is not an error, but a new option added since the Performance, Price, Configuration Guide was printed.

	Price	BMMC
32419A - 124 Replace 2640 console with terminet	+ 1770	+ 4

We apologize for these errors; most were due to incorrect transcription in our rush to get you all the sales documentation in time for the Series II announcement.

If you see anything else suspicious, let us know, but before you call check that the item in question is not a new version. In some cases (such as RJE) in going to a new version we have changed the maintenance price. For example:

30130B	RJE Subsystem for CX	8.00
30130C	RJE Subsystem for Series II	25.00

New Applications

2000 ACCESS-RJE LINK

by: Rudolf Beuerlein/BBN

Since May 1976, an HP 2000 System linked to a CDC has been performing beautifully at the Physikalisch-Technische Bundesanstalt in Berlin. The host computer is a CDC/6500 with intercom and scope 3.4.3 operating system. At present, the systems are linked over a 2400 baud dial-up line, but a 4800 baud line is under consideration.

Sale\$ Succe\$\$e\$

NORTH HOLLYWOOD CLOSES TWO ACADEMIC ADMIN ACCOUNTS

by: Jean Toth Kelley/GSD

Bob Ulery, Sales Representative, and Bruce Campbell, S.E., from North Hollywood, recently transmitted an order for a Series II for AFSA (Academic Financial Services Association). This 3000 will be used to process student loans, and will replace a 360/65 service bureau at \$6,700.00 per month. AFSA's requirement was a COBOL program which was benchmarked on the Series II to close the sale.

Bob also transmitted a 3000 order for Allan Hancock Community College. Hancock's 3000 will be used in printing the college's course offering booklet, registration programming, analyzation of decisions made by business students in the areas of marketing and management, scoring tests, and storing up-to-date information on every student. The College was using a System 3/15 for administration. However, after considering the addition of terminals and finding out how difficult it is to program on the System 3, they considered the 3000 as the alternative. It was DEL/3000 which finally closed the order. Congratulations, Bob!

KRESEK CLINCHES FIRST 3000

by: Jean Toth Kelley/GSD



Bob Kressek and Dave Sanford congratulate each other.

Bruce Campbell calls on account.

During the month of March, Bob Kressek/North Hollywood closed his first HP 3000 sale to Pacific Outdoor Advertising. Bob was new to the sales game and found his customer at the Fullerton Data Center open house. The open house attracted over 200 people due to a giveaway of hand-held calculators.

Bob first interested the prospective customer by stressing the terminal and data base capabilities of the system. Bruce Campbell, SE/North Hollywood, clinched the sale by demonstrating their accounting packages running on the HP 3000. Both Bob and Bruce have been in the field only 5 months. Congratulations to both!



Order Processing

CODING OF UPGRADES AND CPU TRADE-INS MADE EASY

by: Allan Imamoto/HP Corp.

Many of you are already aware that General Systems is offering a product to upgrade the HP 3000 and HP 3000CX to the new HP 3000 Series II, Model 9. The product number for this item is 30409A, which has a list price of \$75K. This product is in the June Corporate Price List. In addition, the division is offering a credit to a customer who elects to trade in his old HP 3000 CPU. This trade-in credit will be \$10K for 128K Byte CPU and \$8K for 96K Byte CPU. There are two methods for handling trade-ins.

With the first method, the trade-in credit would be coded as a miscellaneous charge code M62 exchange credit. The M62 should be coded on the same order as the upgrade and as a separate sub item. This means you will need to code the appropriate price, as a negative price, and 4700 as the supplying division for the M62.

Another way would be to code two separate orders. The first for the upgrade product (No. 30409A); the second for the exchange credit. The second order should be coded and transmitted at the same time as the trade-in CPU is turned in the Sales Office. With this alternative method, we probably would achieve better results in collecting the full \$75,000 on the new product.

GSD MANUAL UPDATES

by: Frank Coughlin/GSD

We have received complaints from customers that they cannot obtain updates to their manuals. The problem is that orders are being sent to CPC. There is no charge for manual updates and CPC does not process no charge items; therefore, they must be ordered directly from the manufacturing division.

To obtain manual updates from GSD, state the name of the manual, its part number, and state clearly that you require the update not the complete manual.

List the following:

Manual Name
Manual Part Number
Update Only
Your Name and Address

Send your request to:

Software/Publications Distribution (GSD)
Hewlett-Packard Company
5303 Stevens Creek Blvd.
Santa Clara, California 95050

To obtain manual update or change notices from other divisions, provide the same information except send the request to the appropriate manufacturing division's address. For example, a DSD change notice would be requested as follows:

Software/Publications Distribution (DSD)
Hewlett-Packard Company
11000 Wolfe Road
Cupertino, California 95014

Sales Aids

HP CLEARINGHOUSE CATALOG IN SECOND EDITION

by: Hal Peters/GSD

INTRODUCING THE HP CLEARINGHOUSE'S 2ND EDITION

A year ago, in June 1975, we published the first edition of the *HP Clearinghouse Catalog for applications of computers to education*. The catalog listed over 200 educational applications packages and in excess of 100 references. Evidently, we struck a responsive chord; nearly 500 copies of the catalog have been ordered over the past year.

In June 1976, the second edition of this catalog was published. New entries boost the total educational applications to well over 300. Included among the new entries are many major packages, especially in an area of strongly growing

interest among educators — computer-managed instruction. For example, the Cincinnati Instructional Management System (CIMS) provides all the required management and reporting functions for a complete individualized elementary reading and mathematics program. At \$5.00 per student per year, the CIMS approach is an attractive, cost-effective way for bringing instructional computing services into a school district. We confidently predict that this will be one of the most sought-after applications listed in the new catalog. Be on the alert for inquiries from prospective customers!

AN OUTSTANDING FORTRAN FOR THE 2000 ACCESS

Another entry that will attract lots of interest is ACOS, a monitor program that effectively replaces the standard TSB/Access monitor. All the functions of the standard monitor are available, plus numerous features such as optional automatic line number prompts, character editing on source lines, card reader control, and most importantly, access to languages other than BASIC. Presently, FORTRAN and Assembler are available and COBOL and ALGOL are planned. The FORTRAN, incidently, is not run-of-the-mill simulated FORTRAN, but a very efficient emulator that achieves good program execution speed by translation of all input FORTRAN source code into executable BASIC programs. Externally, it appears and performs like a good, efficient FORTRAN compiler.

THE COMPLETION TAKES NOTICE

The first edition of our catalog evidently attracted more than just the interest of HP users and prospects. DEC just announced "IDEAS, Index and Description of Educational Application Software". At first glance it's an attractive and impressive imitation of our Clearinghouse Catalog.

Although "IDEAS" is over twice as thick as our catalog, and costs over twice as much (\$10.00 vs \$4.00 for our second edition), there are less than half as many entries as in our first edition, and only a third as many entries as in our second edition. (They have lots of white space.) Upon close examination, the difference in number and quality of educational applications is really significant — and heavily in HP's favor.

The great majority of the entries in "IDEAS" are near duplicates of what we have listed in our catalog. On the other hand, there is much that we list that DEC cannot because it does not run on any of their systems. The broad range of Computer-Managed Instruction (CMI) applications mentioned earlier, for example, has not a single counterpart in their list. In the Computer-Assisted Instruction (CAI) area, they list 10 CAI packages and a minor-league CAI authoring language (DECAL). With one possible exception — a series of lessons on BASIC — none of these applications is major CAI curriculum material to compare with the literally dozens that we include in our list. And, of course, we offer two major CAI authoring languages.

As the comparison is carried further, through administrative and other types of educational applications, HP continues to outshine this particular competitor. So if "IDEAS" is invoked when you are up against DEC in a competitive bid situation, welcome the comparison!

HOW TO GET YOUR COPY

Every interested HP field sales representative is entitled to one free copy of the second edition of the HP Clearinghouse Catalog. To obtain your free copy (or additional copies at \$4.00 each) call or write *Em Storm* at General Systems Division, (408) 249-2070, extension 2905. The order number is 5955-1703.

HP 3000 SERIES II BINDERS

by: *Bob Hall/GSD*

During the Series II sales training tour, you were given introductory sales literature in our new 3-ring beige binders. We have had several requests to make these available for other purposes, and would like to find out if people in the field generally have a need for them to use at customer seminars, etc. These one-inch binders would cost you about \$2.00 each, depending on the quantity we order. If you would care to see these made available, please Telex or call me ASAP so we can determine whether or not there is enough demand to warrant printing more. By placing an order before July 15, we can get delivery by August 15.

FORECASTING PROBLEMS

by: *Chris Doerr/GSD*

Two recent actions taken by the authors of *Interactive Forecasting* have an effect on our use of the book and the SIBYL programs as sales tools.

1. The price for the software has been raised from \$125 to \$600. It is distributed by Applied Decision Systems (ADS) of Wellesley Hills, Massachusetts, and ADS seems to be reluctant to sell the BASIC version of the software (it is also available in FORTRAN).
2. A second edition of the book will be printed by Holden-Day in early fall. This will obsolete our edition of the book and further reduce the level of support available to HP BASIC users of the software.

These two factors probably negate much of the value of the package as a sales tool. However, Business School users who join our Business School User's Group will still find the package attractive. Members are eligible, through a clause in our original agreement with the authors, to purchase the software for \$95. The package is still an excellent selling application for this type of prospect.

USING IMAGE/3000 FOR PARTSLISTS IN PRODUCTION CONTROL

by: *Bodo Kleineidam/BBN*

A partslist is the central information to control the manufacturing of products.

It is created during the design of a product and is used till the last check-up and delivery into the store-house.

A partslist is the description of a product in detail. All components and raw materials, which are used to build the finished product are mentioned in terms of identification number (item number) and needed quantity.

In practical use you can find different types of partslists:

- The structured multilevel partslist shows the complete structure of a product. It consists of a number of components, each of these consist of a number of subgroups, these consist of single parts, which are made from raw material. Each step of production is represented in the partslist as a 'production level'. All levels together form the structure, which looks like a tree.

This type of partslist is used as an overview by the construction department and the production planning and preparation department for rough material and time considerations.

- The summarized partslist is a table of all components and parts of a product and their quantity, regardless on which level and when the different parts are used.

This partslist is used in the material planning department for manual material requirements calculation and the ordering of materials either in the factory or at other suppliers.

- The single level partslist is a part of a multilevel partslist and contains information about one production level.

It is used in the shop floor to show what materials, parts or components are necessary in this production step.

These three types of partslists show out of what different components, parts, and raw materials a product consists. They are called 'analytical partslists'.

The other three types of partslists possible show where and how often an item is used in the different components and finished products. These partslists are called 'where-used lists' or 'synthetical partslists' and are built up in the same way as the analytical ones.

To mechanize a number of administrative functions, which use data out of partslists, first the partslist information has to be stored in one or more files.

If this is done several application programs have to be written to

- maintain the partslist information (modify item values, add and delete records)
- retrieve and print the different types of partslists on paper

- perform functions like:
 - a. material requirements calculation (gross, net)
 - b. stock registration

Partslist information can be stored in different ways. It is possible to store it in simple sequential files. But for efficiency reasons this technique is restricted to environments with a rather low number of item masters at all and, what is more important, with only a few or no components and subassemblies, which are used in more than one product. These are indeed very special users. In all other cases this technique would cause a lot of data redundancy. The disadvantage of this redundancy is the inefficient use of the peripheral device space and the more important fact that the multiple maintenance of the multiple stored data items costs a lot of computer time.

Redundancy can be reduced if the partslist information is stored in a structured way on direct accessible disc files, the records of which are chained together following certain rules.

IMAGE/3000 is a tool to establish access to these disc files via logical keys and creates and maintains all the chain pointers which represent the logical structure of the partslists. IMAGE has to be seen as an advanced I/O - handler which supports several access methods and chaining techniques. It is a kind of a flexible partslist processor. It can be used in application programs, written in different programming languages.

To store partslist information using the IMAGE/3000 data base system, a schema has to be used as shown in Figure 1. The two types of records and chains, which are built up, can be explained using the following example.



SETS:
 NAME: MASTER-ITEM, MANUAL;
 ENTRY: ITEM-NUMBER (2),
 DESCRIPTION,
 STOCK-ON-HAND,
 STOCK-ON-ORDER,
 SALES-PRICE,
 PURCH-PRICE,
 LEAD-TIME,
 DISPOSITION-LEVEL-OLD,
 DISPOSITION-LEVEL-NEW,
 DISPOSITION-KIND

NAME: STRUCTURE, DETAIL;
 ENTRY: PARENT-ITEM-NR (MASTER-ITEM),
 COMPONENT-ITEM-NR (MASTER-ITEM),
 QUANTITY,
 VERSION-NR,
 INTRODUCTION-DATE,
 END-DATE

Figure 1.

Figure 2 shows the diagram of a simple partslist for a table and for a chair. This diagram shows that the table consists of four legs, of one top and of 12 screws. The top consists of one surface, of one base and of 36 screws. Each of the mentioned products, subassemblies or components has a unique identification number, the item-number. In IMAGE/3000 for each of these identification keys a record in a master data set (MASTER-ITEM) will be created using the key as access key. These records contain also data elements describing the item in more detail. (The disposition-level shows, if the item is a finished product (level = 0) or is used on a lower level (level-code > 0). This level-code is also used for an efficient materials requirements calculation.) Note that for the item 'screw' only one record is created (see Figure 3 upper part).

In Figure 2 the figures in brackets show how often a subassembly or a component is used in a partslist.

In IMAGE/3000 this information is stored in records of a detail data set, called 'STRUCTURE'. Each figure is stored in a separate record. Each record contains also the item number of the parent item into which the subassemblies or components are built in (PARENT-ITEM-NR).

All STRUCTURE records with the same value for PARENT-ITEM-NR. are members of a chain the anchor of which is a MASTER-ITEM record with the same value for ITEM-NUMBER. This chain is called 'analytical' (see Figure 3 vertical drawn chains).

Each STRUCTURE record contains also the item-number of the subassembly or component, which is used. (COMPONENT-ITEM-NR.)

All STRUCTURE records with the same value for the COMPONENT-ITEM-NR. are members of a second chain the anchor of which is a MASTER-ITEM record with the same value for ITEM-NUMBER. This chain is called 'synthetical' (see Figure 3 chain with dotted line). In Figure 3 only one of those chains is drawn starting at the MASTER-ITEM 'SCREW' with item-number 347. Note that a synthetical 'chain' with more than one member is only created if an item is used more than in one product.

For easier maintenance both chains are realized as forward and backward chains. They can be sorted, using any data element of the structure record as sort key.

With this database structure for storing partslist information each of the previous mentioned partslists can easily be retrieved and printed out.

Maintenance of partslists, that is modification of master-record and structure record information and adding and deleting of master records and partslist positions (structure-records) can easily be programmed on logical level for IMAGE takes care of the physical placement of the records, for the free place administration of the disc files and of the maintenance and updating of all chains.

Furthermore, different kinds of partslists may easily be realized.

The storing of partslists with a database system like IMAGE has a number of advantages for the user:

- All the partslist information is stored once at a central location — the data base.
- A number of users can access this information in batch mode as well as in on-line mode.

- All changes have to be made only once, the results are immediately available to all users.
- The database always reflects the latest state.
- All partslists are verified to be complete and correct.
- Fast on-line retrievals (and updates) can be done using the IMAGE/QUERY Language.

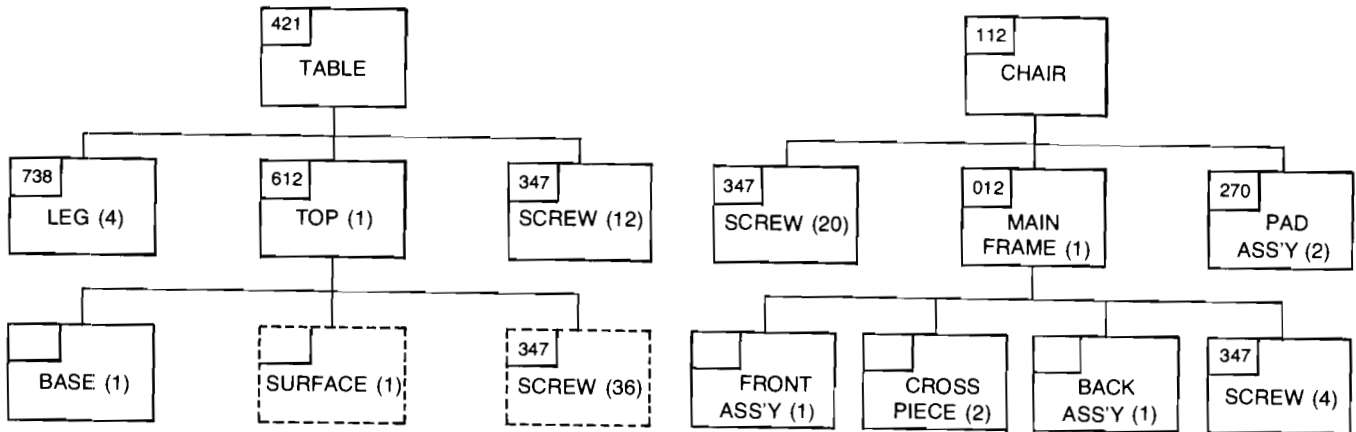


Figure 2.

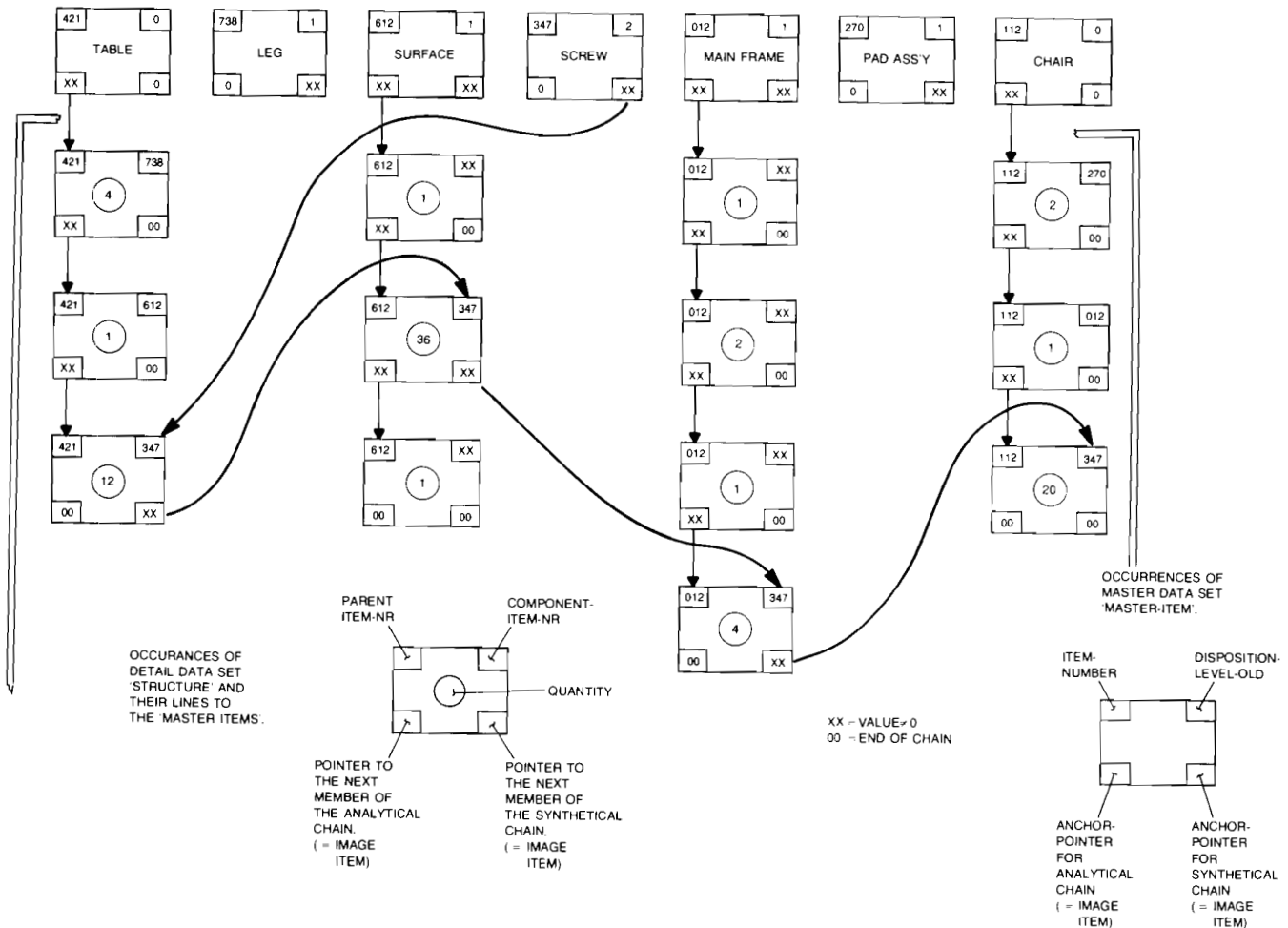


Figure 3.

HP GRENOBLE NEWS

Division News

EUROPEAN NPT A SMASHING SUCCESS!

by: Guenter Kloepper/HPG

Between June 1 and June 17, the European Field was exposed to the latest products from CSG.

Major topics were Series II from GSD and the 21MX K-Series plus the HP-IB and IMAGE/1000 from DSD. Joe Schoendorf and Fred Gibbons did an outstanding job of presenting the exciting new products from DSD. The reaction was enthusiastic at all the stops (Frankfurt, Stockholm, Paris, Amsterdam, Milan and London).

Sale\$ Succe\$\$e\$\$

THEY MADE IT HAPPEN (Even Before We Realized the Potential)

by: Peter Stuart/HPG

The HP sales team in Amsterdam are never slow to spot a good deal and some time back sold quantities of HP OMR's to work with four 2000F Timeshare systems. Each of these systems communicates through modems and the public telephone network to technical high schools.

Each school is equipped with a Mini RJE station composed of a 7260 OMR, a 2762A Terminet and a 7202A Plotter. They are used in a typical school application where program preparation is done off-line by students who mark cards; often at home.

In a future issue of the Newsletter we will tell you how to do this with the 2000 Access and *Marked Card Basic*.

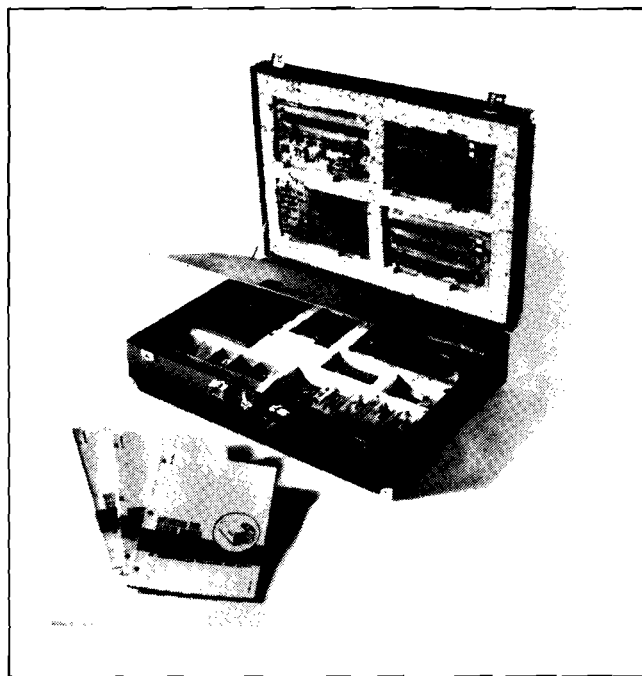
But do not wait. Sell OMR's now. If you need more information contact your friendly Sales Support team. They are waiting for your calls.

Sales Aids

OMR'S SELL IN VOLUME

by: Maurice Richez/HPG

But perhaps you know this already. In which case, you will be delighted to know that a Customer Service Kit for your OEM who wants to do his own thing is AVAILABLE.



Bulk distribution of a new data sheet (P/N 5953-0100) describing 40201A Customer Service is now being made. The kit consists of a basic set of modules common to all OMR's plus options to suit each particular model or feature your customer wishes to support. It is listed NOW in the Corporate Price List and may be quoted immediately. Another sales aid to help you sell OMR's in Volume.

SELL OMR'S

Order Processing

OP WORKS FOR YOU

by: Kathy Romani/HPG

We have sent copies of our "Order Processing Guide" to each Sales office and factory in Europe. Please, see that this guide is passed around in your OP and Computer Sales departments.

We receive a large amount of orders still with required shipdates, but no specific reason for these shipdates. If you have a requirement for delivery ASAP — please, mention it in the special remarks rather than giving us a required date — we may be able to ship rapidly. For all coordinated shipments, please don't forget to give us the division codes of the other divisions involved in your order.

We still have some demo material on sale at a reduced price, please refer to our announcement in the Availability schedule, page 28B, and call *Myriam Brasselet* in Grenoble to reserve material.

As a reminder, any requests to return shipped goods must be approved by the factory. Do not return material without our approval. The return of 4K memory stacks (12884A) is no longer possible, so please do not return any more of these memories to us, you will not receive credit.

We are adopting the same policy as DSD announced in their May Newsletter. You may order 12884A (in stock) for only \$600.

Happy Birthday U. S. of A.



COMPUTER SYSTEMS NEWSLETTER

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