

# COMPUTER SYSTEMS NEWSLETTER

*For HP Field Sales Personnel*

FRANKFURT

REINHARDT HELMUT

HEWLETT  PACKARD

Vol. 1, No.3  
July 15, 1976

- New SERIES II System Options from GSD
- DSD Announces Disc Trade-In Program
- CITIBANK of New York Orders 200 Terminals from DTD
- European RTE Applications Database at Grenoble

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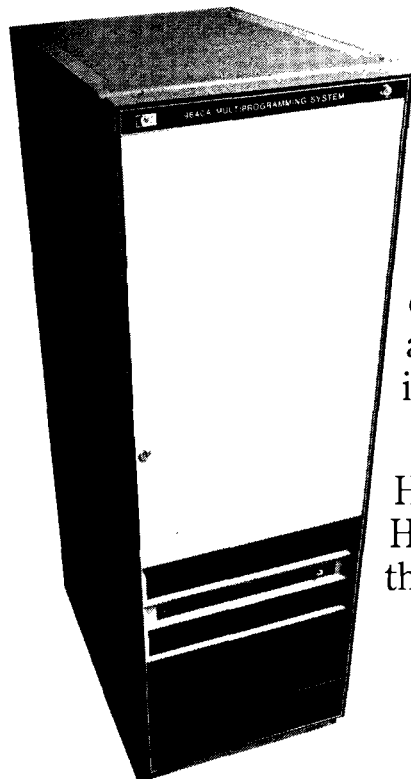
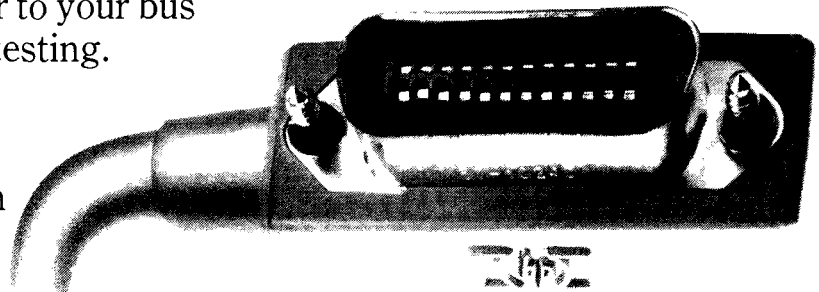
HP OMR's Show the Way ..... G. Ouin/HPG [23]

# Announcing Hewlett-Packard's Real-Time HP-IB Minicomputer. Your powerful connection to easier automated testing.

The Real-Time HP-IB Minicomputer is the best thing to happen to automated testing since the Hewlett-Packard Interface Bus (HP-IB\*), which brought order and simplicity to the world of programmable instruments. Now you can apply the power of an HP 21MX minicomputer to your bus for do-it-yourself automated testing.



With an HP-IB/21MX Minicomputer your multi-programming system can run multiple instrument clusters concurrently. And your system also can be generating new programs in Real-Time BASIC, FORTRAN IV or HP Assembler; organizing and analyzing data; and producing timely management reports. All at the same time.



21MX minicomputers can even be easily linked together to form plant-wide networks. And upwards to a central HP 3000 or IBM 360/370.

Real-Time HP-IB Minicomputers. They give you the simplicity of HP-IB interfacing, and the minicomputer power to gain real management control of your automated testing. Prices, with disc and bus interface included, start at about \$33,000 in the U.S.

For more on what Hewlett-Packard's Real-Time HP-IB Minicomputers can do for you, call your nearest HP field sales office. There are 172 of them around the world.

\*Hewlett-Packard's implementation of IEEE Standard 488-1975. "Digital Interface for Programmable Instrumentation."

HEWLETT  PACKARD

Sales and Service from 172 offices in 65 countries.

\*507 Page Mill Road, Palo Alto, California 94304

# DATA SYSTEMS NEWS

## DISC TRADE-IN PROGRAM ANNOUNCED

## HP-IB-RTE TOP LEAD- GETTER

## CIERVA — A NEW OEM • Race Track Tote Boards

## NEW JERSEY COLLEGE OF MEDICINE — TWO RTE-II

## SHELL REQUESTS HP FROM HONEYWELL

## Division News

### IT'S "TRADE-IN" TIME!

by: *Bob Hoke/DSD*

First the 16K memory boards, then HP-IB, then IMAGE and K-Series. Now Data Systems is offering a once-in-a-lifetime opportunity for your existing 7900A disc customers. Until October 31, 1976 DSD will offer \$4,000 trade in credit on the 12960A (7900) disc subsystem toward the purchase of a 12962A/B subsystem. This allows your customer to:

1) Triple their storage, 2) Increase their system through-put, 3) Increase their system flexibility and 4) save money.

In addition, this allows you to: 1) get incremental sales from your existing customer base, 2) get your customer aligned with HP current line of products to maximize your future upgrade potential.

We will be making this offer through a direct-mail campaign designed to reach as many of the existing 12960A customers as possible. We are going to need your help to reach those not reached by mail campaign. Copies of the letter and a Sales-Information bulletin are being sent to you. This will

contain all of the "gotcha" info such as cabinet requirements, etc. Sorry, but this must be limited to U.S. and CANADA ONLY. NOTE: NO other discount; i.e. OEM, VEU or GSA is applicable.

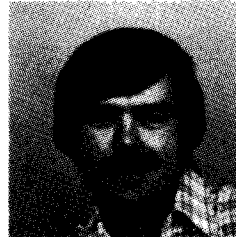
This can be an excellent image builder for HP and money maker for you.

**Good luck and good selling.**

## \$ale\$ \$ucce\$\$e\$

## HONEYWELL MARINE SYSTEMS SELLS RTE-III's TO SHELL OIL

by: *Dave Hendrix/DSD*



*Dick McClelland*

Honeywell Marine Systems in Seattle has purchased two OEM RTE-III Systems to sell to the Shell Oil Co. in Houston.

Honeywell will build an acoustic sensory monitoring system that will be placed on an off-shore oil drilling platform to control the construction positioning of the enormous drill towers that are

placed on the bottom of the ocean.

The drill towers are so large that they have to be sectionalized in order to transport them to their destination. As you can visualize, the accurate positioning of these sections in a very precise manner must be difficult. These main drill towers are the focal point for a multiple number of slant oil wells. Trying to position an enormous section of tower from a barge to a stable location on the ocean floor and keep it in precise position to the floating platform can be quite a feat.

Honeywell's RTE-III System will use acoustical measurement instruments and sonar to control this positioning. The acoustical measurement instruments are RS232 compatible and will use the 12531D Opt. 001 as the interface to their RTE. The information passed from the acoustic measurements to the RTE-III System will be converted into a graphic display relating the barge position, platform position and the ocean floor/drill tower position with respect to each other. How is that for an out-of-doors job?

*Dick McClelland*, HP Bellevue, had some interesting comments on why HP received this \$100K order. Honeywell Marine's original bid included a system oriented around their own computer. Shell turned it down. Honeywell's second bid included the DEC 11/34. Shell turned it down. SHELL SPECIFICALLY SAID THEY WANTED HP equipment because previous experience with HP RELIABILITY and SERVICE were crucial points.

*Dick* also said that our lucrative OEM agreement played a role in the success of the sale. See, OEM's work on water too!! Congratulations *Dick*, another job well done.

## ON-LINE ALLEY CATS!!!

by: *Frank Jackson/DSD*



*Marya Daniels*, FE/Paramus, has sold and installed systems into some interesting applications. *Marya's* first system sale at the New Jersey College of Medicine and Dentistry is presently being used to check the effects of various drugs on muscle spindles. The Department of Pharmacology is conducting this

research by applying a dynamic mechanical stretch to the leg muscle of a drugged cat. The resulting nerve impulses from the on-line cat create an interrupt to the RTE-B system and the results are plotted as instantaneous frequency of nerve impulses versus time.

*Marya* has a second system (RTE II) installed in the Department of Physiology, at New Jersey College of Medicine and Dentistry and a third has been requisitioned by the Department of Surgery for applications in the area of shock phenomena and vascular physiology. Congratulations, *Marya*, on such excellent account coverage.

At Columbia University *Marya* has another interesting application at the Lamont-Doherty Geological Observatory. A 21MX and two 9-track mag tapes provide real time salinity computations and produce plots of temperature and salinity versus ocean depth aboard the Argentine research vessel, *Islos Orcades*.

Thank you *Marya* for sharing with us these new applications. These accounts are excellent references but please check with *Marya* before calling the customers.



## CASTAGNOLA STRIKES AGAIN

by: *Bob Blake/DSD*

*Lou* continued this year's successful OEM push by signing CENAC, an affiliate of a Spanish based company, CIERVA Electrooptical Corp. CENAC gave *Lou* an order for \$118K for equipment to be installed at Pompano Park Harness Track late this year.

CENAC manufactures and installs automated tote boards which compute and display real time odds for each entry and displays winners, payoff data, etc. The system includes on line, dual 2125A's (for redundancy) with an additional 2125A for backup. This account has a bright forecast through an option for five more installations.

The ingenious HP sales force has found a no risk way to make money at the races. Congratulations, *Lou*.

## OLSON GETS FIRST K-SERIES ORDER

by: *Bill Burger/DSD*

Daconics has ordered and received their first K-Series computer. They will be using this unit for re-engineering a lower cost text editing system, rather than their present one that utilizes a 21MX CPU. They are also evaluating the K-Series for other future lower performance, low cost text editing systems.

Daconics asked to keep the K-Series unit that *Dick Anderson/GM*, *Bob Frankenberg/21MX Product Manger*, and *Dick Olson/FE* brought with them when they introduced the K-Series to Daconics. One reason the K-Series is so attractive to them is that they already have 84 — 21MX's in the first month of their contract.

Other companies that have ordered K-Series computers to date include Geometric Data and Measurix.

Congrats, guys, on getting the K-Series ball rolling.

## Product News

### K-SERIES DOCUMENTATION — ORDERING TIPS

by: *Orrin Mahoney/DSD*

The engineering documentation for K-Series Components is available in two different forms. The 12728D K-Series Documentation package is designed for those people implementing or seriously considering implementing new systems designs using the 2108K.

This product contains all the engineering documentation, above and beyond the standard 21MX operating and programming manuals, necessary to implement the 2108K in a system or product. It also contains a one year update service to assure our customers that the right person in his facility receives timely information about any changes in the 2108K miniprocessor or its accessories. To make sure that the right person receives the documentation updates, their name and mailing address *must* appear in the special instructions section of the order. The order will not be processed without this information.

For those potential K-Series customers "just shopping", the engineering manual is available as a part without the update service. The part number is 02108-90027 and the list price is \$40.00. Incidentally, all internal orders should be transmitted as part numbers not product numbers. When ordering for

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**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

internal use also add the 02108-90028 update sheets for the updates to that latest revision manual.

Notice that the K-Series Documentation Package is designed to supplement the standard 21MX Documentation. The following 21MX manuals are also valuable for those people not familiar with 21MX programming or microprogramming.

Manual	Part No.	List Price
21MX Reference Manual	02108-90002	\$5.00
21MX Operators Manual	02108-90004	\$5.00
21MX Microprogramming Manual	02108-90008	\$5.00

## HP-IB SOFTWARE OPTIONS

by: *Orrin Mahoney/DSD*

Don't forget to order the proper driver with your 59310B HP-IB Kit. Included in the price of the Interface Kit is the customer's choice of *one* of the following software options for the 59310B.

**Option 422:** Real-Time Operating System Software and Manual Package, consisting of:

1. Non-SRQ RTE Driver DVR37, binary tape (59310-16002).
2. SRQ RTE Driver DVR37, binary tape (59310-16003).
3. RTE Utility Library, binary tape (59310-16004).
4. RTE Driver DVR37, Programming and Operating Manual (59310-90063).

**Option 423:** Basic Control System Software and Manual Package, consisting of:

1. Non-DMA BCS Driver D.37A, binary tape (59310-60020).
2. DMA BCS Driver D.37B, binary tape (59310-60021).
3. BCS Utility Library, binary tape (59310-60050).
4. BCS Driver D.37A/B Program Procedure Manual (59310-90022).

## 21MX WARRANTY STICKERS HELP CONTROL COSTS

by: *Bob Frankenberg/DSD*

You may have noticed lately the 21MX boards are sporting silver-gray stickers. This sticker was designed to help out in those situations where it's questionable as to when warranty really started on a board. This question has come up frequently in installations where a customer swaps boards, changes configurations, or does his own maintenance. Since warranty has been keyed to the mainframes installation date we've often encountered problems when a customer puts an old board in a new processor which subsequently fails, then warranty repair is requested. In most cases this has been unintentional, but in some cases customers have done this intentionally. The warranty sticker is intended to remove any questions about installation date when this situation occurs.

The sticker itself is non-conductive, permanent (very difficult to remove), and stamped with the month after the date of shipment. To determine if an assembly is still in warranty

simply add 2 months to the sticker date and determine if the resulting date is prior to the present month. If it is, the assembly is out of warranty. For example, if the sticker's date is May 76 then adding 2 months results in July 1976. If the date of failure is July 14, then the failure is covered by warranty, if it's Aug. 2 then it's out of warranty. Needless to say mutilation or alteration of the sticker voids warranty.

You'll find these stickers on the following assemblies:

Front Panel Assembly	5060-8343
CPU Assembly	5060-8352
8K Memory Module Assembly	5060-8359
16K Memory Module Assembly	5061-1332
Memory Controller	5060-8360
ROM Assembly	5060-8400
Power Supply	2108-60023
DCPC Assembly	12897-60001

## COMPARISON OF HP-IB AND DEC'S UNIBUS

by: *Hugh Amick/DSD*



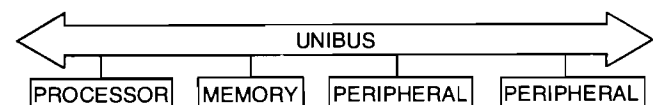
### WHY A COMPARISON?

As we travel around making HP-IB presentations, we are often asked—"How is HP-IB different from UNIBUS?" A quick and flippant answer would be; "UNIBUS is not an IEEE standard and isn't licensed by 200 companies."

However; comparisons are often useful in selling by clarifying expanded features in a product not available in another and by relating unfamiliar features of a product to known features of another. Therefore, although DEC's UNIBUS and HP-IB are not functionally competitive at this time, a comparison is useful.

### WHAT IS UNIBUS?

UNIBUS is DEC's high speed computer interfacing technique used to connect their processors, memory, and all peripherals.



With UNIBUS, the CPU and memory act as separate devices on the bus just as any peripheral. Information is passed between any two devices in a Master/Slave arrangement. The CPU, through a combination hardware and software priority arbitration structure, determines which devices have control of the UNIBUS at any time. Each device has one or more address registers which UNIBUS treats as it does memory registers since memory appears as just another device on UNIBUS.

UNIBUS physically consists of 56 lines to which devices connect through an interface card plugged into a "System Unit" much like 4 slots in an HP I/O Extender. UNIBUS contains 16 bidirectional data lines, separate addressing and control lines, priority arbitration lines to handle the dynamic Master/Slave relationships, and lines to facilitate power fail operations.

### WHY HP-IB?

HP-IB has the momentum of the industry behind it and its future as an interfacing technique in front of it. It's intelligent,

less low cost system to a large complex system with a choice of calculator or computer as controller.

**DO YOURSELF AND YOUR CUSTOMER A FAVOR! INTRODUCE HIM TO HP-IB TODAY!**

**How Do They Compare?**

	HP-IB	UNIBUS	COMMENTS
Design Center	Laboratory or Light industrial Instrument Communication	High Speed Memory/Peripheral Interface (CPU Oriented)	HP-IB designed for instrument/peripheral interface not specifically for memory/peripheral interface
Established Standards	IEEE 488 ANSI MC 101	DEC Only Standard Interface	HP-IB has industry backing over 100 devices announced from many vendors
<u>Mechanical</u> Interconnecting Link	External Cable	Backplane & Interface Card	HP-IB lower cost & simpler. Piggyback vs. card/slot.
Signal Lines Data Control	8 8	34 (18 Address, 16 Data) 22	HP-IB lower cost & simpler interface
Data Transfer	Bit Parallel Byte Serial Bi-Directional Asynchronous	Bit Parallel Word Serial Bi-Directional Asynchronous	
Connectors	Piggyback 24 Pin	"Flip-Chip" PC Boards	UNIBUS PC boards are generally more costly than HP's "Designed In" interfaces in instruments
Distances	20 Meters can be "Stretched" 1000 Meters w/Additional Hardware	50 Ft (15.24 Meters) can be Stretched 50 Ft. by Adding bus extender "system unit"	UNIBUS extension more expensive. No Modem extension like HP-IB 59403A.
<u>Electrical</u>			
Max. Speed	1 Mbyte/Sec	2.5 m Words/Sec	1 Mbyte fast enough for practically all HP instruments & peripherals (7905 = 980 mbyte)
Voltage	TTL	TTL (Reverse Polarity)	
Max. # Devices	15	20	Both have ability to expand HP-IB w/multiple 59310B cards in CPU. UNIBUS w/additional "system units"
Power	In Device	In "System Unit", +5V Termination on Bus	HP-IB carries absolutely <i>no power</i> . UNIBUS starter set must include PDP-11 power supply.
<u>Functional</u>			
Timing	3 Wire Handshake	12 Wire Handshake	Our 3 wire handshake simple enough & clever enough to be patented and the key to acceptance by standards committees
Service Requests	1 Line w/Polling	5 Lines w/Address	Serial or parallel polling gives user flexibility as to processing interrupts
Error Handling	Parity bit available	2 parity bits	
Operate Without Controller	Yes	No	HP-IB simple enough to not require CPU lowest cost solution.
Multiple Listeners	Yes	No	Key! Useful when logging or displaying data on more than one device. Increases data "bandwidth".
Data Codes	ASCII/Binary	Word Binary	HP-IB has standard command protocols for devices. ASCII bytes are the most used format for minicomputers.

## HP-IB/21MX MINICOMPUTER MAKES A CONNECTION!

by: *Pete Palm/DSD*

This HP-IB 21MX Minicomputer article in the recent Measurement/Computation News advertisements is "far and away leading in responses" among the twenty seven (27) HP products advertised, according to *Iona Smith*, Editor of HP Measurement/Computations News. More importantly, of responses received, the HP-IB minicomputer article is leading by far in the "please contact me" category.

The six page HP Measurement/Computation News ad appeared in the May 27, 1976 issue of Electronics and the June 7, 1976 issue of Electronics Design. In addition, the six pages of articles were mailed to 120,000 people on the HP Measurement/Computation News mail list in the U.S.A. and HP Intercon. Copy and artwork have been sent to HP in Italy, Germany, Japan and England so they can create their own ad versions and mail to another 65,000 prospects.

The "hot prospects" from the "please contact me" category are now being forwarded to your district manager.

## New Interface for Real-Time HP-IB Minicomputer simplifies do-it-yourself assembly of automatic test and measurement systems



Now, system designers can connect HP-IB instruments, like the DVM, scanner, numeric display, thermal printer, timing generator, counter, and digital-analog converter shown above, to the powerful control, data processing, and storage capabilities of Hewlett-Packard Real-Time Minicomputers.

Automatic test and measurement systems using bus-connected instruments can now utilize the full power and flexibility of Hewlett-Packard's Real-Time Minicomputers with the addition of the new HP 59310B Hewlett-Packard Interface Bus (HP-IB) I/O Kit and real-time software Option 422.

The HP 59310B interface can serve up to 14 HP-IB instruments connected via standard bus cables. The Real-Time Minicomputer supports several HP 59310B interfaces at the same time for control of multiple instrument clusters for performing different functions or for optimizing throughput.

Over 35 different HP instruments currently mate with this IEEE Standard 488-1975 Digital Interface for programmable instrumentation. As a corporation, Hewlett-Packard is committed to steady growth in HP-IB capabilities.

With the Real-Time Minicomputer, initial setup requires only connection of instruments to the bus, setting of instrument talk/listen addresses, system generation, and programming. Programs in FORTRAN, HP Real-Time BASIC, or HP Assembly language can be developed on the Real-Time HP-IB Minicomputer at the same time it is controlling HP-IB instrument clusters.

Price for a 9640A Real-Time Minicomputer with HP 59310B HP-IB interface, RTE-II or RTE-III, and system console: \$34,950 to \$44,350, depending on choice of operating system and disc.

Price for HP 59310B HP-IB I/O Kit with real-time Option 422: \$1000.



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## BELL TELEPHONE LABS VISIT DSD

by: *Bob Blake/DSD*

*Pat Tucciarone* and *Tom Montella* from the Paramus Communications Sales District hosted a visiting group of management/development people from Bell Telephone Labs at DSD on June 22, 23. This group included:

*Hugh Kelly*, Director Transmission Group  
*Tony Cuihweg*, Supervisor, SCOTTS/TASC Design Group

*Paul Prozeller*, Member Technical Staff  
*Tim Chase*, Member Technical Staff

The Transmission Group defines and develops minicomputer based solutions to Telco problems. Components for development systems are purchased End-User and fully documented solutions are released to Western Electric as



acronym systems (CAROT II, SCOTS, TASC, CTMS, TCAS, DUIT, L-5, etc.). In our terminology, these are all BTL modified RTE II systems utilizing a Discomputer (2123A, 2124A or 2125A depending upon when developed) with a varying mix of HP peripherals and Western Electric equipment. Western Electric purchases the HP portion of these systems under an OEM agreement for resale to the 23 AT&T operating companies plus AT&T Long Lines.

A highlight of the visit was an overhead slide presentation by *Tony Cuilweg* on the use of minicomputers in the telephone industry with an unmistakable trend towards networking major vendor's systems — DEC, IBM & HP. The engineering and management meetings which followed contributed towards making this a most successful visit. This was made clear by *Hugh Kelly's* suggestion that we make this visit an annual one.

We are putting together a plan to conduct "Account Reviews" at Cupertino for all major accounts on a regular basis. Watch for it!

## Competition

### KNOW YOUR COMPETITION

by: *Jim Eckford/DSD*

Remember the notice we ran in a previous Newsletter (May 1, 1976) announcing the special HP discount on Datapro Minicomputer reports and phone service? Well, we are already receiving reports from the field praising the value of these reports and making special mention of the results people have been getting from the telephone service. Datapro has a special staff assigned to their telephone inquiry service whose job it is to answer questions about your competition. If they do not know enough to answer your

question well, they call the product managers at the competitive company and get the skinny. As we hear it, everyone has been quite impressed by the level of knowledge these people possess and the quick turnaround they give to return calls.

If you think this service sounds useful enough to have in your office, then use the card we mailed all the DMs or call Datapro and tell them you are from HP. Just one good strategic tidbit about a competitor should pay for the \$125 subscription fee in spades (Regular price is \$390). Here's Datapro's address and phone number:

**Datapro Research Corporation**  
1805 Underwood Boulevard  
Delran, New Jersey 08075  
(609) 764-0100

### DEC COMPETITIVE NOTE

by: *Dave Borton/DSD*

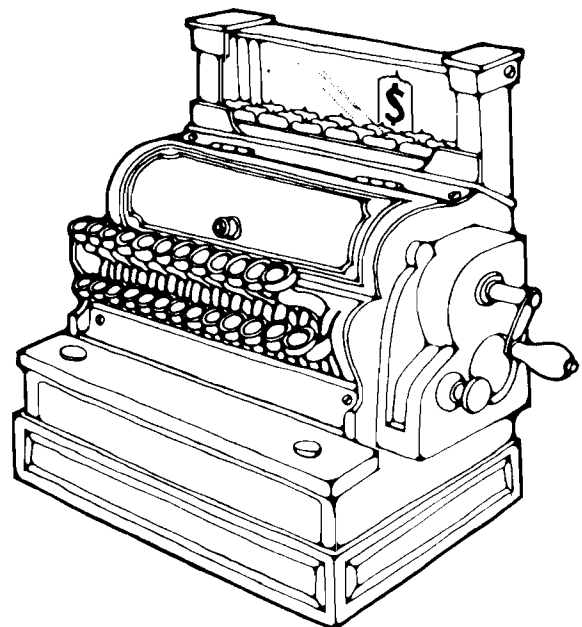
A recent input from *Mike Young* in Honolulu indicates that DEC is bidding future enhancements to RSX 11M operating system. This time we understand they bid COBOL 74 deliverable in March 77, HASP Workstation, and Multi-User BASIC. Our best strategy in this situation is to strongly encourage the prospect to request a full demo.

Also, we understand that DEC sometimes bids other suppliers software (they have not announced their own HASP Workstation package on RSX 11M) or bids multiple operating systems. Bidding 3rd party software creates potential support problems. Of course, the multiple operating systems running on the same machine DO NOT RUN concurrently.

If you hear of other new competitive developments, don't hesitate to contact the factory. We will pass along the information.

**Make this year an  
Outstanding Year...**

**Ring up  
those  
OEM Sales!**



# DATA TERMINALS NEWS

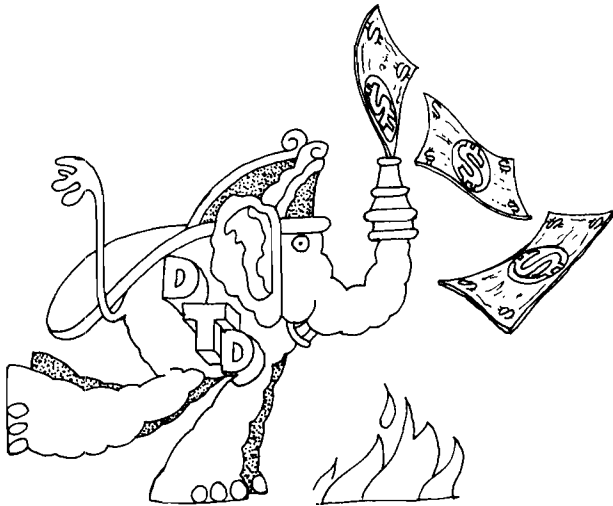
**\$ale\$ \$ucce\$\$e\$**

## FIRST HALF HONOR ROLL

RANK	NAME	REGION	K\$
1	DICK OLSON	NEELY	\$596K
2	FRANK COLE	USSR	\$235K
3	FELIX BALMAZ	EASTERN	\$222K
4	MICHEL GAREL	FRANCE	\$194K
5	JACK LAZENGA	MIDWEST/WEST	\$154K
6	RUDI ALMASCHI	GERMANY	\$137K
7	JOHN MALONE	MIDWEST/WEST	\$129K
8	FRANCOISE MONS	FRANCE	\$126K
9	ANGE COLUCCI	EASTERN	\$119K
10	JOSE ASPAS	SPAIN	\$117K

## ONESY TWOSY'S GOING FAST!

by: Dick Byhre/DTT



Only 32 working days left 'til the final orders are tallied in the Onesy Twosy Contest. Get those orders in while you still have time. Looks like we're going to have to hire extra staff just to count the entries!

## CITIBANK SIGNS FOR 200

by: Dick Byhre/DTT



Sherry Hoff of our Paramus sales office signed CITIBANK OF NEW YORK for 200 terminals having a potential 3 year purchase of over 1500 units. That's \$4.8 million bucks!

This was Sherry's first big deal and what a deal it was! By following up a DTD Bingo lead generated by a fabulous HP ad, Sherry discovered CITIBANK'S need and the rest is history.

The terminals will be used on IBM systems as well as other large mainframes.

## CONGRATULATIONS, SHERRY!

## DIAMOND JACK AND THE HONEYWELL 6040

by: Carl Flock/DTT



Jack Lazenga has found the Honeywell 6040 works perfectly with HP 2640's and has just landed a \$26K sale because of it. SCOHO is an OEM doing work for Kroblin Transportation who needs remote terminals on their 6040. Initially, SCOHO recommended Data Speed 40's be used, but it turned out this presented an unexpected problem . . . telephone company service is not as consistent on a nationwide basis as one might expect. At this point, Jack entered with the 2640. SCOHO said, "This is the best screen we have ever seen!" Jack easily sold Kroblin and transmitted an order for ten 2640's.

Oh, yes, what about the Honeywell 6040? Jack had no experience on the 6040, but he had confidence in his ability. Armed with a 2640, he gave it a try and interfaced the 2640 to the Communication Adaptor via modem and the terminal worked without a hitch.

As a footnote, Kroblin has decided that they can replace their TWX terminals and use a network of 2640's to send messages as discussed in my newsletter article as of 1 July 1976.

SCOHO looks like the 3rd "terminal sink" that Jack has found this quarter. Fantastic work! Our hats are off to a great salesman.

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## BLUEBIRD OF HAPPINESS

by: Rich Ferguson/DTD

Ken Ferguson from the Houston sales office landed a \$234K terminal deal with Kelly Air Force Base. The 48 terminals, purchased under GSA, will be used in a classified Air Force Communications System.

The features that closed this deal were reliability, serviceability, and better overall performance than the other terminals tested.

Ken, we really appreciate your landing this big one for us. Keep up the good work!



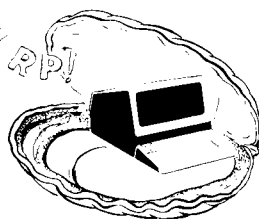
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## PEARL OF THE SEA

by: Eric Grandjean/DTD

Aad Van Den Kieboom from our Amstelveen office recently received an order for seven 2640's worth \$28K with Shell Oil Company of Holland. The data entry terminals will be used for oil and chemical process monitoring. The process control system centered around a CDC 1700 will eventually have eight 2640A's and one 2644A, all hard-wired in current loop mode. The system will also include a large video monitor driven by our new 13254A video interface card.

HP's terminals were favored over Delta Data and CDC's own terminals, following a demo by Aad. The reasons given for the choice of 2640's and 44's were their clean and rugged mechanical design, reliability, up-to-date technology, with line drawing set and video output capability. Last, but not least, the reputation of Hewlett-Packard quality products and service won Shell over.



Aad fully expects add-on business with Shell to implement similar systems elsewhere in the World.

Congratulations, Aad, for a job well done!

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## HERE WE GO AGAIN

by: Rich Ferguson/DTD

Another chapter in the never-ending saga of success . . .

Dick Olson from our Neely/Santa Clara sales office recently closed an order for \$20K with Vidar Corporation (six 2640's). The terminals will be used as consoles on a microprocessor-based system that keeps track of phone calls on a Vidar supplied telegraph switching network. Such things as message units, destination and source of calls are kept track of on this system.

Vidar bought the 2640's instead of Teletypes because of the 2640's forms capability.

Keep up the good work, Dick!



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## TERMINALS FOR IRAQ

by: Eric Grandjean/DTD

The Ministry of Industry and Minerals placed its first order for 21 terminals (\$65K) following negotiations for a total order which will amount to more than \$200K.

The terminals involved are implementing an Arabic character set developed by Iraq's National Computer Center (NCC). In addition, these terminals will be capable of operating in "normal" as well as in Arabic mode, meaning that the writing and cursor movements will be from right to left, with the Arabic cursor home position located in the upper right corner of the screen. Quite an interesting application and a clear demonstration of the capabilities of HP terminals.

Congratulations to Tony Gunn for this big DTD order and the combined efforts from a lot of HP people around the World.



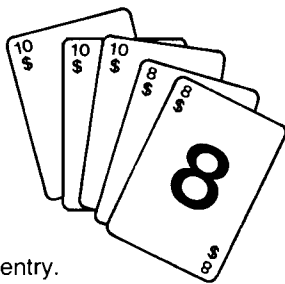
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# Data Terminals Delivers

## TENS ARE BETTER THAN EIGHTS

by: Carl Flock/DTT

Ange Colucci expands Becton Dickinson & Company's order to ten terminals, before the first eight have a chance to ship! The \$47K in terminals will help the Consumer Products Division of this surgical supply manufacturer do information retrieval and data entry.



Ange sold the 2644's with tape just in case the unthinkable should happen and the system would go down. (By the way, the system he sold was a Series II, so we don't expect the tapes will ever have to be used for their primary purpose.)

The customer was pleasantly surprised by the new DTD volume agreement which allowed them to sign for ten terminals at an 11% discount. Since they expect to order additional terminals over the next year, it was just the ticket.

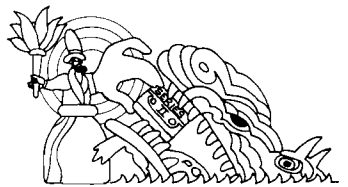
Ange and all of Ralph Mele's team deserve a cheer for their effort on selling 2640/44. Everyone should take this example — upgrade your sale before delivery!

### SELL MORE TERMINALS!

## 2640 SAVES SERIES II SALE

by: Rich Ferguson/DTT

It appears that Don Thomson from our Vancouver sales office will single-handedly meet or exceed the entire Canadian terminal quota for 1976.



SNATCHING VICTORY FROM THE JAWS OF DEFEAT . . .

His recent conquest was selling twelve 2640's to British Columbia Hydro and Power Commission. The application is data entry for accounts payable. Don's demonstration of the forms capability was one of the major reasons the 2640 was so well accepted.

One of the more interesting facets of this sale was that Don also sold a Series II terminal controller, with the only justification for purchase being the terminals. Don said, "because of the terminals, I got the 3000 Series II order." How about them apples!

### TERMINALS CLOSE BIGGER DEALS!

# Product News

## CASE OF THE MISSING JUMPER

by: Ed Churka/DTT

Nine of our production cables — 13232F (Current Loop) were missing one jumper wire between pin A and pin 1. This jumper enables the current loop function of the 13250A General Purpose Interface Module in 2644A terminals and is required whenever this cable is used. The cable part number is 02640-60097.



## WE MADE A MISTAKE!

by: Dick Byhre/DTT



YIKES! Mistakes in the 2640/44 Printer Application brief?

You probably thought we put those mistakes in to see if you guys were reading this stuff. Well, er . . . Here are the corrections:

Page 3 (Add to "NOTE")

Some versions of the 9871A (i.e., non-13349A subsystem) are incompatible with non-upgraded 2740A.

Page 7 (Add to "HOODED CONNECTOR")

P.N. #5061-1340

Page 9 (Add)

Darkened switch means closed position.

Page 15 (Change in "CENTRONICS Column")

30 CPS to 120 CPS  
13232G to 13232H

Computer  
Museum

# SELL TERMINALS

# THE HP 2644A MINI DATASTATION.

## A NEW KIND OF TERMINAL.

Say goodbye to cumbersome, costly, complex approaches to increasing throughput at your work stations. The Mini DataStation combines powerful interactive editing capabilities with dual cartridge, integrated local mass storage—all in one compact, economical, easy-to-use unit.

## EDIT AND ENTER DATA OFF-LINE.

Delete. Insert. Emphasize. Format. At the touch of a key. Watch computer-connect charges drop. And watch the happy faces of your operators as they discover the fatigue-fighting readability of our unique, crisp characters (HP uses a 9 x 15 dot matrix cell) on our non-glare display.

## 110,000 BYTES TO THE CARTRIDGE.

Yet small enough to slip into a shirt pocket, with assured interchangeability and extraordinarily high reliability.

## ACCURATE DATA ENTRY SIMPLIFIED.

Now operators can "get it right" before it's transmitted. High-resolution characters and a choice of additional plug-in character sets eliminate makeshift symbols. There's even one for "forms drawing." Design new forms when-



ever you need them. Store your company's frequently used forms for instant display.

## "FAIL-SAFE" ON LINE OPERATION.

With the Mini DataStation, computer down-time no longer means work down-time.

## POP-OUT, POP-IN FEATURES.

Internal modules are easily accessible. Add options, replace cards without tools, without sending it back to the factory. A self-test key is standard.

## CALL TODAY.

Or write today. There's an HP field office near you. Make your own comparison. Inside or outside, you won't find another terminal that comes close at anywhere near the price.



HEWLETT  PACKARD

Sales and service from 172 offices in 65 countries.

42602

# GENERAL SYSTEMS NEWS

## Product News

### NEW SERIES II OPTIONS

by: Don Barkley/GSD

You people really know how to sell!!! The orders for the new 3000 Series II Model 7 and 9 have been coming in here faster than we can keep up with them. In fact we are way above our forecast, and this is causing the delivery on these models to move out to 20 weeks now and could possibly get longer. This is a situation nobody wants.

To attack the short-term problem, we've added some new options to all the models to get around our shortage of ISS discs (the only limiting factor). Our goal with these options is to get orders for systems that require only one ISS disc to be shipped with the system, with any additional discs the customer needs being shipped later (within 90 days). If we can get orders for Model 7's and 9's with these new options, we can deliver those systems in 10-12 weeks.

Here are the new system options:

32417A — Opt. 149	—\$16,000
Delete one ISS disc	—\$131 Monthly Maintenance
32419A — Opt. 149	—\$16,000
Delete one ISS disc	—\$131 Monthly Maintenance

With both models this option cannot be ordered with Opt. 146 (two additional ISS's) unless the order also has Opt. 144. In addition, it is not discountable and is not on the GSA schedule.

If your customer really wants a standard Model 7 or 9, but wants quick delivery, he would order the following as an example:

32417A — Model 7	\$150,000
Opt. 149	—\$16,000
Opt. 144	+\$16,000
	+\$131 Monthly Maintenance

We would ship a Model 7 with one ISS and bill the customer \$134,000. Within 90 days we would ship Opt. 144 (the other ISS) and bill him \$16,000.

GSD would like to see all orders for Model 7's and 9's come in this way for the next few months. It will help you and your customer, and it will help us and HP's profit. In the long term (beyond 3 months) we have drastically increased our orders with ISS and they will begin increased shipments in Sept/Oct.

To help stimulate sales of Model 5's, which we can ship very quickly, and in large volume, we have come up with a new model which we call the "Little 7". It has the same hardware and software as a Model 7 (except the 103 Modem Control Board, which is still a separate option), but has two each 7905's in place of the two ISS's. This makes an ideal system for the account that doesn't have massive data bases now, but wants the improved disc performance offered by the 7905. He will also have a good growth path in the future as his data base need grows.

The new model is:

32415 — Model 5	\$110,000
Opt. 700 includes	+\$18,500
	+196 Monthly Maintenance
192KB Main Memory	
Additional 15 MB Disc Storage	
IMAGE/QUERY	
COBOL	
RPG	
Opt. 701 expands	+\$5,400
	+\$21 Monthly Maintenance
Main Memory from 192KB to 256KB requires Opt. 700	

These options are discountable on our OEM and VEU schedules.

One other new option that is available on all systems that you should know about is Option 124. This replaces the 2640 CRT system console with the 2762A hard copy unit for +\$1,770. The incremental dollar is equal to the difference in list price of the two units. If your customer wants a hard copy console, he should order this option as opposed to a line item order for 2762A.

These options are all orderable immediately from GSD via a Heart override. All these options will be officially listed on the Aug. 1 Corporate Price List. The Console Option (124) is also on the July CPL.

Your help in sending us orders for Model 7's and 9's with the new Option 149 will be greatly appreciated.

## ISOLATION TRANSFORMERS — WHAT AND WHY

by: Ed Ahrens/GSD

The Hewlett-Packard 3000 Series II computer systems require isolation transformers for proper operation. The following discussion covers the commonly asked questions.

Q: What are isolation transformers; what do they do?

A: *Isolation transformers are a means of providing passive protection from electrical noise commonly encountered on standard power lines. They are simply special purpose transformers designed to minimize electrical noise.*

Q: What types of noise can the transformers minimize or eliminate?

A: *Electrical noise on power lines typically appears in three forms:*

- a. *Common mode noise – this is noise which appears on both sides of a power line and on ground. This type of noise is often generated by startup of heavy equipment (air conditioner, heaters etc.) on the same power lines.*
- b. *Transverse mode noise – this noise appears between the power lines. This could be generated by common mode noise passing through a normal (non-isolating) transformer, or possibly through stray control signals from clock systems controlled through pulses placed on the power line.*
- c. *Electromagnetic noise – produced by any form of transformer whether isolation or not. This is the least serious type of noise, and is commonly not a factor in computer systems.*

Q: Will the isolation transformer clean up my power?

A: *No, an isolation transformer provides only passive isolation. It will not provide any form of power conditioning, beyond removing the electrical noise from the power.*

Q: Can I order the transformer from HP?

A: *The recommended Topaz isolation transformers are currently only available from Topaz Electronics, however, we are investigating other means of providing them to customers.*

Q: How well do Topaz transformers isolate?

A: *The published specifications for the Topaz transformers we recommend are:*

- a. *common mode noise attenuation >140 db*
- b. *interwinding capacitance of .001 pf*

Q: How much will isolation transformers cost?

A: *The current prices for Topaz isolation transformers are:*

- a. *5 kva single phase 50/60 Hz 120/240V .... \$630*
- b. *10 kva single phase 50 Hz 240V ..... \$1130*
- c. *7.5 kva 3 phase 60 Hz 120/208V Wye .... \$1370*
- d. *15.0 kva 3 phase 60 Hz 120/208V Wye ... \$2040*
- e. *30.0 kva 3 phase 60 Hz 120/208V Wye .. \$5810\**

\*Special order from Topaz-two 15.0 kva are much cheaper

DO NOT QUOTE THESE PRICES! PLEASE CONTACT TOPAZ ELECTRONICS, SAN DIEGO, CALIF. FOR CURRENT PRICE INFORMATION.

## Division News

### PRE-SERIES II UPGRADES

by: Bob Lewin/GSD

In the last issue of the Computer System Newsletter an article appeared which detailed why the pre-Series II upgrade (#30409A) represents an excellent value to our existing customers. To further assist you, the following commonly asked questions and answers concerning upgrades are provided.

Q: What about the customer who *doesn't* take the credit and intends to 'build-up' another system in the field?

A: *The customer is not required to return the old equipment for credit. However, as you know, the field is not equipped to do system integration. No training or documentation has been developed to allow our CE's to perform this service. GSD does not intend to supply any manpower or equipment to perform field integrations. Also the interface cards and I/O devices of his pre-Series II are used on his Series II. Therefore, these would have to be purchased separately. Hence consideration of this idea should definitely be discouraged.*

Q: Who pays for the packaging and freight charges incurred sending the replaced equipment back to the factory?

A: GSD

### Options

Q: Option 132 (selector channel), why does it cost \$3000 when a new selector cost \$3600?

A: *If the customer currently has a selector channel, it must be upgraded using option 132. The upgrade consist of replacing two of the PC boards in the selector channel. These two boards are the most expensive boards representing over 80% of the total cost of the channel. That is why the \$3000 price of this option.*

*The two replaced boards are to be returned to the factory when the upgrade credit is taken.*

Q: Can an upgraded customer expand his system to 512KB without a second upgrade?

A: Yes. To add additional memory at order time, simply indicate the appropriate option number. The reason the cost of memory from 256KB to 320KB is higher than normal 64KB incremental price is the fact that it includes the price of a Memory Control Unit (MCU), additional fault control circuitry, and power supplies necessary for expansion to 512KB.

### Buying Another System

Q: What about the customer who decides to purchase a Series II in addition to his pre-Series II?

A: Fine! Some customers may find an advantage to having both pre-Series II and a Series II. The following points should be considered however:

1. Further enhancements to the operating system are likely to be included only in MPE-II.
2. Any new product announcements may be tested only with the Series II.

Q: What is the cost in moving some of the peripherals from the pre-Series II to the Series II?

A: Time and material. To obtain an estimate, check with your local CE.

### Conversion Course

Q: Is the HP 3000CX to Series II Conversion Course (#22818A) recommended for everyone considering an upgrade?

A: Yes. It is to the customer's benefit, since he will be better informed about any of the differences that exist between pre-Series II and Series II computers. This course would be a necessity for those customers extensively using SPL, BASIC, or FORTRAN because of differences in the pre-Series II versions.

Q: Does this course provide the means for customers to start converting any of their software prior to delivery of the hardware?

A: Yes. Manuals and software are supplied to the customer.

### Isolation Transformer

Q: Why does the customer require isolation transformer(s)?

A: Our studies have shown that these transformers insure that the power coming to his Series II is 'clean'. That is, unwanted spikes will not cause interruptions of the system. Even if the power were clean at installation, conditions could change later.

Q: What are the specifications for these transformers?

A: Since these can vary with the configuration, consult the 'Site Preparation Manual'.

### Maintenance

Q: How do we calculate the maintenance charges for the upgraded system?

A: The basic maintenance charge is that indicated for the Model 9 less the monthly charge of any software or memory the upgrade customer elects not to purchase. For example, if a customer upgrades to 256KB and he doesn't have FORTRAN, BASIC, or DEL his maintenance charge would be:

Model 9 .....	\$926.00
less 64KB memory	
(256KB instead of 320KB) .....	-21.00
FORTRAN .....	-10.00
BASIC (interpreter) .....	-10.00
BASIC (compiler) .....	-10.00
DEL .....	-25.00
Maintenance Charge .....	\$850.00

Of course the maintenance charges for the peripheral devices would remain the same.

This same approach is calculating the maintenance charges is done for the Model 5/7 to Model 9 upgrade (#30408).

### Upgrade Policy

Q: How long do we intend to offer the upgrade product?

A: It is GSD's intent to offer this product as long as we have pre-Series II HP 3000's in the field which may be potential candidates for an upgrade. The price could change, but the product will remain.

## SALES DEVELOPMENT CHANGES

by: Don Barkley/GSD

Growth, change, opportunity . . . that's what is happening in Sales Development. Because of your tremendous sales efforts, we are growing here to keep up with your needs.

The North American troops are organized into two teams. The first is managed by *Ralph Manies* and handles ESR, SSR, and MSRE. On that team, a new name has been added — *Bob Huffstetter*. Bob has been with HP for a number of years as a tech writer and more recently working with the lab to help implement CIS at the University of Santa Clara test site.

The second team handles NSR, CSR, and MSR and is headed by *Larry Hartge*. An addition to this team is *Barry Klaas*. Barry has been working with the International sales force; I felt it was time to broaden his background in the domestic arena.

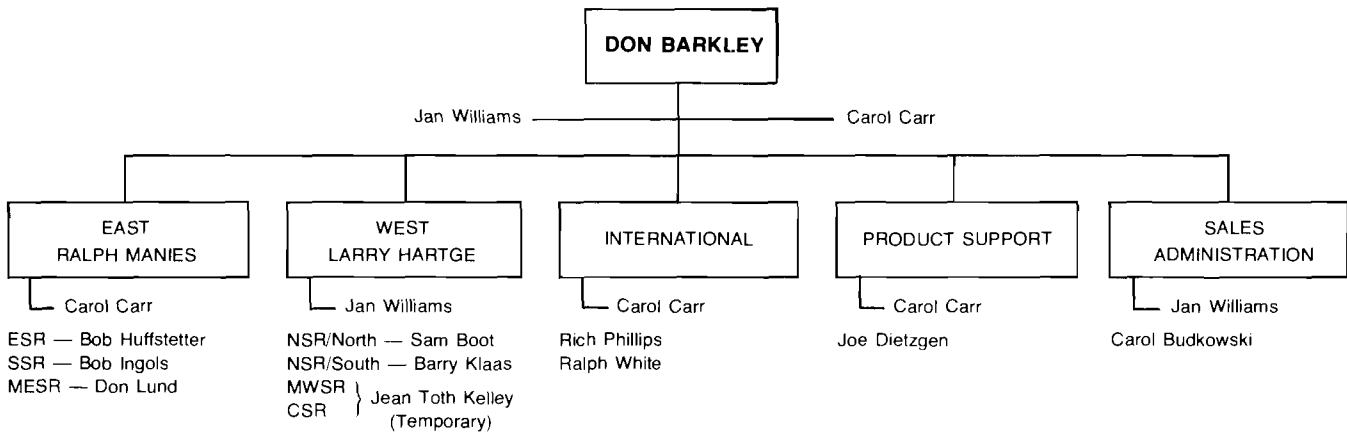
A new name in Sales Development is *Ralph White*, who joins us from Manufacturing via Boeblingen. *Ralph* has been supporting the Makro program here at the factory; and prior to that, he was working for *Fritz Joern* in Europe supporting the commercial area. *Ralph* and *Rich Phillips* will provide our International support.

(cont. on next page)



With this new organization, we will try and keep up with your fine sales efforts. Thanks again for all those orders.

**GENERAL SYSTEMS DIVISION  
SALES DEVELOPMENT**



**EDUCATION MARKETING ORGANIZATION**

by: Bill Krause/GSD

For the past few months *Jean Danver*, in addition to her Educational Marketing activities, has been acting as APL Product Manager. The APL project has now reached the point where it requires the full-time attention of a product manager. *Jean Danver* has expressed a desire to assume this important new product responsibility effective July 15, 1976, and further benefit her longer term career goals.

This creates an opportunity for *Gary Stump* of Southern Sales Region to join our GSD marketing team as Education Marketing Manager. In addition to his recent field sales assignment, *Gary's* experience at Hewlett-Packard includes a previous assignment in the factory as the Community and Small College Market Manager. *Gary* will be joining us on August 1st.



*Jean Danver gives Gary Stump some reading material to prepare for his new job as Education Marketing Manager.*

We are fortunate to have people of this caliber to assume these challenging new assignments. Please join me in wishing both *Jean Danver* and *Gary Stump* continued success in their new jobs.

**Order Processing Combo**

**AMENDMENTS TO COMPUTER PURCHASE AGREEMENTS**

by: Carol Budkowski/GSD

Our OEM, Combo, and End-User contracts are now being revised to include the HP 3000 Series II. Bulk quantities will be sent to you in late August. To help you in the meantime, Series II contract addendums have been distributed to Regional Contact Administrators for your use. If you have any problems, contact me or *Joe Rodgers*.

**Sales Aids**

**WHY DATA BASE?**

by: Shirley Henry/MSRE

The following material was prepared by *Shirley Henry*, S.E. in Cleveland, for presentation to a major Midwest-East corporation. It is such an excellent discussion of the data base concept that we thought all field personnel should have it for reference . . . . Editor.

The data base concept is another step in the evolution of more meaningful and more efficient data processing. It can be compared to the development of English-like programming languages and comprehensive operating systems in its potential impact in the area of expanded utilization of computing power by the system end-user. Integrated data management can rightfully be regarded as another example of technology which allows computer system software to assume control of functions which have traditionally been the responsibility of application analysts and programmers.

The primary benefit derived from the application of Data Base Technology is time savings. These savings are typically manifested in the following areas:

- **File Consolidation**

Most information processing systems that serve more than one application area contain duplicate data. For example, a vendor's name may appear in an Inventory File, an Accounts Payable File and in a file used for the production of names and address labels.

If the data stored in these three files were the same, we would simply be wasting file space. However, the data probably varies from file to file, resulting in inconsistent program output. Redundant information severely dilutes any system's capacity to deal with large amounts of data.

File consolidation into a data base eliminates most data redundancy. Through the use of pointers, logically related items of information are chained together, even if they are physically separated. In the example of vendor names and addresses, only one set of data would be stored. Through the use of logical associations, the data could be used by any program needing it. Since there is only one record to retrieve and modify, the work required for data maintenance is greatly reduced. Finally all reports drawn from that item of information are consistent.

- **Program File Independence**

Conventional file structures tend to be rigid and inflexible. The nature of conventional file management systems require that the logic of application programs be intricately interwoven with file design. When it becomes necessary to alter the structure of a file, a program must be written to change the file, and programs which access the file must be changed to reflect the file change.

Change is the rule rather than the exception in data processing. A large percentage of total time and manpower is spent reprogramming.

Data base management systems allow the data structure to be totally independent of the application program. The relationships between data items are defined independently of the application system. Changes in the data base need only be incorporated into those programs which require the manipulation of the changed data. User programs need only view that portion of the data base description that pertains to the particular programs processing requirements. Since all references to the base are resolved at execution time, there is no need to recompile programs unaffected by changes to the data base description.

- **Versatility**

Conventional file organization techniques allow limited access to the data they contain. Most structures allow single key access with additional relational access available only through the implementation of extensive application level programming support.

Data base management systems allow data to be accessed from multiple keys and through the use of a variety of access methods.

- **Rapid Retrieval**

Conventional file organization frequently requires the use of multiple file extracts, sorts and report programs to produce meaningful output data across file boundaries. One-time information requests frequently require weeks to implement, during which time the usefulness of the requested data may have eroded considerably.

Data base management systems, through the use of user-interactive query capabilities, allow instant interrogation of the data base by individuals with access capability to the system.

- **Data Security**

Conventional file management systems contain extremely limited data security provisions. Access to computer readable data could only be denied to individuals with system access by providing physical protection for the media upon which the file was stored — for example, the use of a data vault for storage of sensitive data stored on magnetic tape or disc. If file security is provided as a system feature by the operating system, it is implemented on a file level.

Data base management systems allow for the implementation of security on the data element level. Since the DBMS software is responsible for tracking the location of each data element defined in the data base and is the means by which individual data elements are located and retrieved, it becomes possible to implement a security sieve which can restrict access to data on the element level.

The implementation of security at the item level allows sensitive data to be stored on-line under the control of the data base management system with minimal regard for additional security provisions. Access to specific items of data is controlled by the Data Base designer. Security provisions can limit the accessibility of data stored on the system to the extent of limiting even programmer/operator access to extremely sensitive information.

During the implementation cycle associated with a new application system, Data Base Management Systems can be expected to generate time-savings in the following ways:

- **Program Development**

The data base structure can be defined and built without the use of special purpose application level programming. Since control of the linkage portion of the data base is under system software control, the programmer need not concern himself with testing the structure — he can concentrate on the functional programming task at hand. The general purpose query capability of the system can be used to build test data as well as to interrogate the results of program and system tests. This feature eliminates the requirement that file-related programs be completed before meaningful functional programs be written. It is no longer necessary to hold up functional program testing until file build/file maintenance programs are completed. In this manner, more of a given system can be tested in parallel.

A specific benefit in the Cobol environment is in the area of program coding time. The programmer need only define FD entries for those files which exist outside the control of the DBMS. Typically, such files will be concerned with original entry into the processing cycle (data entry files) and with report files. All data under the control of the DBMS is implicitly defined in every program which accesses the data base. The programmer need not code the data division entries associated with anything except the detail data he is using during a given program.

The time-savings generated in correct data definition the first time the program is coded, as well as in the correct description of the physical location of the data to be processed, will reap significant benefits in program test.

- **Program Maintenance**

Throughout the life of the system, processing requirements will evolve as the usefulness of the data is explored. As file organization concepts change with the needs of the application user, the

data can be restructured with little regard for the impact on existing programs. Changes to the structure of an existing data base will affect only those programs which will process the changed data — no other programs in the system need be recompiled to reflect the new data base structure.

The evolution of the data base will not be limited by the need to balance the cost of changing an *existing* system against the benefits to be derived from the new structure. It will not be necessary to do a "where-used" evaluation on a data item carried in multiple files to assess the impact on existing systems of a data change to support a new requirement.

Finally, the accessibility of data need not be limited by the design decisions made during initial system design. The structure of a data base can evolve with the needs of the application user. The application designer no longer has to be so concerned with attempting to anticipate the needs of the user across the full life of the system.

• **Special Information Needs**

The requirement for one-time information in a format that has never been requested before is no longer the bane of data processing users. The user with a special data requirement can get to any subset of information on the data base, frequently without the intervention of a programmer.

Volatile analytical data requirements can be filled in a minimal amount of time by the people who need the data. The time savings in programming overhead and report specification generation can be enormous.

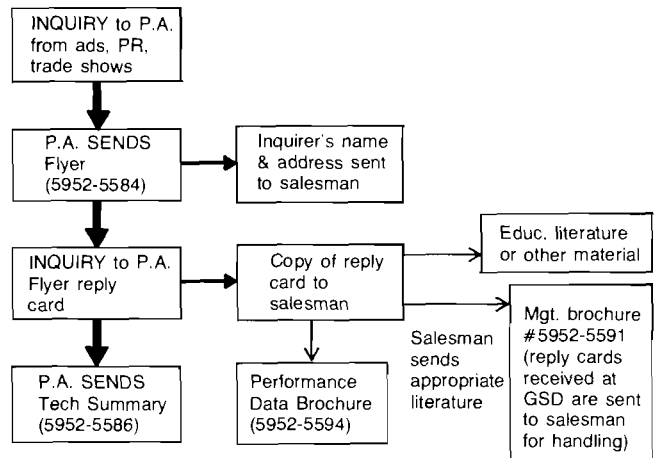
In summary, effective use of Data Base Management Systems can remove a large portion of the overhead associated with integrated system design from the shoulders of application analysts and programmers. It affords the opportunity to channel system design talents into functional rather than structurally-supportive design tasks. It allows us to assign yet another programming support operation to the computer.

**SERIES II LITERATURE — HOW WE USE IT**

by: Paul Myhre/GSD

As you have probably heard, we've consumed a tremendous amount of literature (about 150,000 pieces) during the highly successful introduction of the HP 3000 Series II. That's great, especially if we use the literature effectively.

The chart below diagrams how inquiries resulting from our advertising and publicity efforts are handled. Please note that after the Inquiry Dept. in Palo Alto sends the Technical Summary (5952-5586) in response to an intro flyer (5952-5584) reply card, any further follow-up is at the discretion of the Sales Representative.



Inquiries from *Computer Advances* are sent the intro flyer, Technical Summary, or Performance Data brochure (5952-5594), as required, and the inquirer's name is sent to the appropriate salesman.

**Competition**

**COMPETITIVE INFORMATION GATHERING**

by: Bob Ingols/GSD

To fill the critical need for a complete competitive analysis for the HP 3000 Series II, *Chris Forester* in Product Management will devote full time this summer to gathering and com-



*Chris Forester*

puting data. We want to make this a powerful document you can use to counteract and beat competitors in tight sales situations.

But to make it fully effective, we need help from the field. *Chris* will be contacting the people we know have useful information, based on recent experiences. However, if you have inputs, don't wait! Call or write *Chris* or Sales Development and give them the information now.

**New Applications**

**A COMPUTER-BASED DEMONSTRATION OF COMPUTER-BASED PRODUCTS**

by: Hal Peters/GSD

Did you know that an on-line demonstration of educational software applications products is available on the 2000 Access?

You can try it out on a 2000 Access system at GSD in Santa

Clara. Dial (408) 296-7543 and sign on to account Y197 as follows:

HEL-Y197, DEMO[ , terminal type]

The system HELLO program chains directly to the demo and the rest should be self explanatory. (At many points in the demonstration, additional help can be summoned by typing “//HINT”.) To exit from the demo, just keep typing “//STOP” until the program responds with “DONE”. At that point you can sign off with “BYE”. We recommend using an upper-case terminal. If you use an HP 2640 or 2644, push the

CAPS LOCK key down.

If you have problems with the demo or suggestions for extensions or improvements, contact *Don Lund* (X2787) or *Hal Peters* (X2797) at GSD.

If you would like a copy of the demo on mag tape for loading on your own 2000 Access system, send your request to the HP Clearinghouse at GSD. Please include a blank mag tape (600-foot reel or larger) with your request.

## CURRENT STATUS OF INSTRUCTIONAL PRODUCTS



by: *Hal Peters/GSD*

The tables below summarize the current status of all HP-supported instructional products. All information refers to 2000F and/or 2000 Access versions of the products. None of the products are supported on the 3000. Please note that the 2000F versions of all these products are slated for obsolescence as of 1 November 1976.

For HP 3000 customers interested in running any of these instructional products, Education Marketing will provide a 2000 tape that the customer can convert to 3000 format. All that is required is a signed license agreement, a fee of \$1.00, and an agreement that ownership of all converted software shall revert to HP. As noted in the May issue of the HP Educational Users Newsletter, one current 3000 customer, the University of Wisconsin — River Falls, has already made considerable progress toward such a 2000-to-3000 conversion of these products.

### INSTRUCTIONAL PRODUCTS

PRODUCT	DESCRIPTION	REQUIRED	MARKETS	PRICE	UPGRADE ① PRICE	MATERIALS
IMF 20308A (2000F) ④ 22690A (Access)	Instructional Management Facility Management system for presenting CAI, recording student progress, providing reports, etc.	2000F or 2000 Access	All	\$2000	\$110	Data Sheet Proctor's Manual System Manager's Manual Overhead Slides On-Line Demo
MATH 20310A (2000F) 22693A (Access)	HP Math Drill & Practice Computer-Assisted Drill & Practice in Basic Arithmetic skills.	2000F or 2000 Access & IMF	Mainly Elem/Sec	\$1000	\$185	Data Sheet/Apl. Brief Teachers Manual Proctors Manual Curriculum Guide Overhead Slides On-Line Demo
IDF 20309A (2000F) 22691A (Access)	Instructional Dialogue Facility Conversational CAI Authoring System; requires no knowledge of programming	2000F or 2000 Access & IMF	All	\$1000	\$115	Data Sheet Reference Manual Proctors Manual Course Developers Manual Overhead Slides On-Line Demo
CWF 24383A (2000F) 22692A (Access)	Course Writing Facility CAI Authoring System for advanced authors, and for running converted CWIII (IBM) courses.	2000F or 2000 Access & IMF	Mainly for experienced CAI users CAI users (All levels)	\$2500	\$110	Data Sheet Reference Manual Overhead Slides On-Line Demo
Conversion Service 24383B	Courseware Conversion Service Service for converting coursewriter III, V.3 (IBM) courses to CWF format	Contact ② Education Marketing	See above	\$255 mini- mum (con- tact Edu- cationMktg)	- ②	Customer Checklist Data Sheet
Graphics 20311A (2000F)	Timeshared Graphics For Tektronix Terminals Basic Language subroutines for performing graphics functions on Tektronix terminals.	2000F ③	All (including Education Mktg.)	\$500	- ③	Data Sheet Reference Manual On-Line Demo

## INSTRUCTIONAL PRODUCTS

### Combination Package Prices

PRODUCT	DESCRIPTION	REQUIRED	PRICE	① UPGRADE PRICE
IMF, IDF 20004A (2000F) ④ 22697A (Access)	Instructional Management System for CAI, and CAI Authoring system.	2000F or 2000 Access	\$2500	\$140
IMF, CWF 20004B (2000F) 22695A (Access)	Instructional Management System for CAI, and CAI Authoring system that emulates IBM CWIII.	2000F or 2000 Access	\$3000	\$135
IMF, MATH 20004C (2000F) 22696A (Access)	Instructional Management System for CAI, and Math Drill & Practice package.	2000F or 2000 Access	\$2500	\$205
IMF, IDF, MATH 22699A (Access)	(See individual product descriptions in table above.)	2000 Access	\$3000	\$230
IMF, IDF, CWF 22698A (Access)	(See individual product descriptions in table above.)	2000 Access	\$3500	\$170
IMF, IDF, CWF, GRAPHICS 20004D (2000F)	(See individual product descriptions in table above.)	2000F	\$4000	—
IMF, IDF, MATH, GRAPHICS 20004E (2000F)	(See individual product descriptions in table above.)	2000F	\$3000	—

- ① For a 2000F→2000 Access upgrade, customer orders 2000 Access version of product at the discounted upgrade price (which roughly equals the price of a set of manuals for product, but includes installation as well). Order must reference TWX from Education Marketing authorizing discount.
- ② To convert IBM Coursewriter III courses to 2000 Access, customer orders 24383B, and receives a course file on 2000F tape. This may be loaded via 2000 Access convert module.
- ③ Graphics package for Tektronix terminals is not offered as a 2000 Access product, but upon request, Education Marketing will supply a converted 2000F version of software (*un* supported) which has been found workable by at least one customer to date.
- ④ All the 2000F educational products are slated for obsolescence as of 1 November 1976.

**up,  
up, and  
Awa-a-y**



**...with  
SERIES II  
sales!**

# HP GRENOBLE NEWS

## \$ale\$ \$ucce\$\$e\$

### GARY COLE OPTICAL MARK READER "CHAMPION OF THE MONTH"

by: Bernard Guidon/Boise

Gary Cole (Salt Lake City) has been declared "Champion of the month" for Optical Mark Readers. Gary has just got signed a new combo purchase agreement with med lab for 50 7260A's. The 7260A's are integral part of med lab turnkey medical system and used in their lab records and analyses process. Gary's success was the result of a combination of his outstanding sales performance and the fact that HP has no competitor who can offer the astonishing features of the 7260A.



Gary Cole

Gary's year long success with OMR's has now added up to a whopping \$200,000!!

**SELLING OMR'S: THAT IS A GOOD BUSINESS.**

## Division News

### GRENOBLE DIVISION HOSTS NEOPHYTE SEMINAR . . . IN BOISE

by: Bernard Guidon/Boise

Integrated with the Boise presentation, Grenoble Division actively participated in the two day Neophyte Seminar held June 10 and 11 in Boise. More than 3 hours were spent with 10 FE's and 10 SE's on the Optical Mark Readers and on an overall presentation of HPG Division.

Interactive sessions and hands-on experience on the 7260A Optical Mark Reader shed light on the unique features of the products and their respective market places.

After two strenuous days of work, there were many relaxing social activities over the weekend.

The Neophyte Seminar in Boise provided an exciting opportunity to learn about products in an exceptional environment!!



Jerry Marstall (left) and Rich D'Angelo (Lexington) relax during a break, while Bernard Guidon (Boise) at the blackboard clears up a point with Darrell Igelmund (Santa Clara).

## New Applications

### TURNAROUND DOCUMENTS INCREASE ATTRACTIVENESS OF 3000

by: Bernard Guidon/Boise

The Fairfax County Public School in Maryland is using a 7260A Optical Mark Reader to improve efficiency and capacity of their computerized inventory control and receiving system.

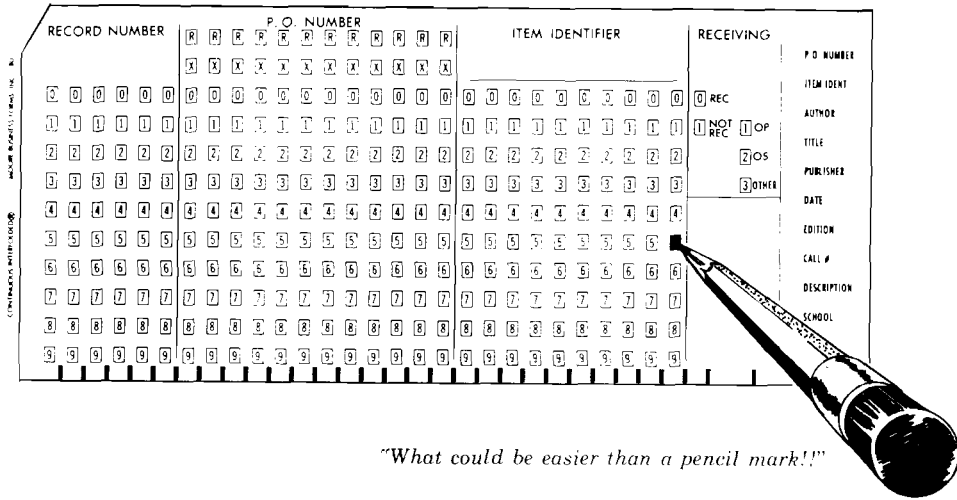
The Library Information Management System is based on an HP 3000 Computer, printing onto a continuous stock of cards purchasing information for the library's books. Such information includes readable characters for visual purposes, as well as data intended for the 7260A Optical Mark Reader. Once printed on the HP 2610 line printer, cards are forwarded to the receiving department. There, a single pencil mark is entered to indicate whether goods have been received. Then,

cards are read back by the 7260A to update the 3000 Data Base.

It must be mentioned that a standard 7260A is used in this application, the only modification necessary having been to convert the 2610 line printer to an 8-lines-per-inch spacing.

Optical forms as turnaround documents have significantly increased the attractiveness of the 3000, and represent powerful data collection and data entry means for the 3000 data base management.

**SELL OPTICAL FORMS AS TURNAROUND DOCUMENTS!!**



"What could be easier than a pencil mark!!"

## APPLICATION NOTE FOR 7260A OPTICAL MARK READERS ON 3000 SYSTEMS

by: Bernard Guidon/Boise

Looking to increase your business with the 3000?: THINK ABOUT HP OPTICAL MARK READERS!

We just published an Application Note, HP P/N 5952-9410 (A.N. 202-02), which presents the great advantages of using optical forms for data collection on the 3000.

This attractive, 3-color application describes how a network of low cost RJE stations, consisting of 7260A, 2640A and 9866A has solved a complex, statewide data collection problem.

Although the application explains the use of 7260A's in an educational environment, most of your customers have similar data collection problems. Whenever you call on a 3000 prospect, increase your chances by offering a data collection problem solver: The 7260A.

The Application Note has been published to help you sell both systems and peripherals. Bulk distribution has been made to world-wide sales offices and a personal copy has been forwarded to you. It is a great selling tool for the 3000.

**THINK OMR TO INCREASE YOUR CHANCES OF SELLING SYSTEMS.**

Optical Mark Readers  
Provide Low Cost  
Data Entry Into An  
HP3000 Computer System.

Applications in  
Business, Education,  
Engineering, and  
Government



# SELL OMR'S

## TOOTH BRUSHES FOR CATS?

by: *Alic Rakhmanoff/HPG*

Does HP have in Europe a customer using a 9600 system to manufacture tooth-brushes for cats? A new prospect may ask you that question one day — who knows? You can find the answer by consulting the *European 9600 reference list* sent to all RSM's and DSM's in Europe.

This list, referencing more than 240 systems, can be used either to give references to a prospect in the same market area or to prospect a new market area by looking at references in other countries.

All data is stored in a data base which enables us to sort it by various criteria. If you need a specific sort, telex Grenoble and I will send it to you.

For example, you can have a listing containing only 9603 references with RTE II in Italy.

If there is anyone outside Europe who would like a copy of the reference list, let me know.

For more information or to fix up a customer visit, contact the local F.E., don't try to contact the customer directly.

The next release will include references from Eastern European countries and any other new references that you send to me.

Don't rediscover the world, use references, they make the RTE even easier to win **\$\$\$!**

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## SELL THEM NOW!

by: *Peter Stuart/HPG*

Remember, if you mention the HP 7260 next time you sell an Access System, you may get back an extra \$50,000 order for OMR's.

YES, HP OMR's work with the HP 3000 too.

Note: this type of transmission error does not crash the system.



16 HP 7260's set up for testing with the 2000 Access System.

## SELL HP OMR'S WITH THE 2000 ACCESS — THEY WORK

by: *Peter Stuart/HPG*

In response to several questions from the field, we set up a test to see how well the 2000 Access System can support a number of HP 7260 Terminal Oriented Optical Mark Readers. The test we chose as most meaningful was to have an independent program for each terminal port, each reading marked cards and writing the contents to a disc file. Each card read was immediately written to the file before another card was "picked".

### SUCCESS

We found the 2000 Access System could easily support 14 OMR's at a 600 Baud rate and with an overall average transfer rate of 48 characters/sec per terminal.

As expected, at higher speeds we encountered transmission errors (see Note), due to our putting too high an input load on the system. These problems were only encountered when we exceeded an overall rate of about 960 characters/sec. We therefore recommend you to use the following guidelines for applications where several OMR's are to be used intensively:

BAUD RATE	2400	1200	600	300
Max. no. of OMR's	3	6	14	*28
Measured throughput from each OMR to disc — char./sec	135	76	48	24
Total aver. no. of char./sec. from all OMR's	405	456	672	672
Max. input rate at any one instant	720	720	840	840

\*Based on actual performance with 16 OMR's.

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## Product News

### HP OMR'S SHOW THE WAY

by: *Georges Ouin/HPG*

Did you know that the HP 7260 OMR is probably the only OMR in the world to have FERNMELDETECHNISCHES ZENTRALAMT\* approval?

If you are dealing with a multinational prospect for OMR's who may have business in Germany, don't forget to mention this fact. It may give you that extra "lock out" spec.

A simple special option (G45) is all that is necessary to meet German requirements. (Sorry, no field updates).

\*FTZ is the German Telephone Authority.



# 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

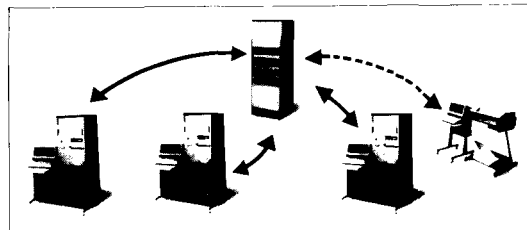
and simple to operate without complicated language problems. If it breaks down, it has to be easy to repair. I can't afford to have production lines down waiting for someone to find the trouble and fix it."

**"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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