

# data systems newsletter

For HP Field Sales Personnel

FRANKFURT  PACKARD  
REINHARDT HELMUT

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1975

## DIVISION NEWS

### 9600MX SYSTEMS RELEASED TODAY!!

by Pete Palm

Five 9600MX Systems and the 91200A TV Interface Card were released today!! This should streamline your ordering and improve shipments to your customers. All options on each released system are included except those options associated with the 2112A, 7905A, RTE-III and Multiuser Real Time BASIC. GET YOUR ORDERS IN FOR WHAT WE CAN SHIP TODAY!!!! These products will be released in September 1975 and are quotable now as per delivery schedule.

System	Status	Availability
9602A	Released	14 weeks
9603A	Released	14 weeks
9604A	Released	14 weeks
9640A	Released	12 weeks
9700A	Released	12 weeks
91200A	Released	8 weeks

NOTE: The 9611A system and the 9603R and 9611R remote stations are scheduled for release in July.

HEWLETT  PACKARD

## 7905 PRODUCTION STATUS

by The Disc Business Team

Larry Mitchell, Manufacturing

Stan McCarthy, R&D

Vijay Kapoor, Marketing

Because of your overwhelming success in selling it, there have been a number of concerns expressed about the status of our newest-born product, the 7905. We thought you would like a report straight from the source rather than having to rely on the grapevine.

As we write this June 25, the major challenges are behind us. A single drive configuration is ready to ship in 3000's in July. In multiple-drives per controller, the data lines have been rearranged in a star rather than a daisy-chained configuration. This has been the critical path in the delay.

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The Disc Business Team is committed to ship the 7905 in both single and multiple drive configurations in September. Our check today with 2000/ACCESS, RTE and DOS Product Managers confirmed their plans to ship 7905 based systems starting in September also — and in quantity, we might add.

If you have been holding back your orders because of uncertainties in the new disc, don't anymore. Most of you haven't, as we have over 100 units on the books already. Get into the delivery queue. It is filling up fast.

HEWLETT  PACKARD

Company Private

## CUPERTINO DIVISION MANAGEMENT MEETING

by Joe Schoendorf

Where the hell is everybody? That could have been your reaction had you tried to get ahold of most managers here at Cupertino between June 23 and June 25. You hear a lot about factory meetings. What goes on and how might that affect you?

It has been Dick Anderson's policy to have two Division Manager's Meetings off-site every year. We usually meet in January and again in late spring. The January session is to establish division goals and formulate the coming year's tactical plan. These lead to department meetings at which plans are generated for meeting the goals. The redirections and emphasis on markets that you saw last December came about as a result of the November meeting.

The midyear meeting is to look at a long range plan and also to check on ourselves — how we are doing towards achieving the goals. What action items need to be initiated. Is the plan still right in light of any changes that might have occurred. I would summarize this year's meeting as follows:

We talked about the HP managers meeting just completed the week before. Lots of numbers were reviewed and I expect you will be exposed to them in the weeks ahead. One key fact is that for all practical purposes, we are now a billion dollar company. It was pointed out that as our size increases, we come under increasing challenges with respect to legal matters — particularly in the area of antitrust. Increased attention as to how we conduct our business is required. Most impressive of all the numbers to me was the fact that last year's \$100 million-plus debt has now been turned into a rather sizeable cash surplus. This is due in large part to your fine efforts in managing the accounts receivable and factory efforts at better managing our inventory. The outlook for the coming year is bright, especially since it is an election year which has been historically good of late. However, we do not anticipate the record growth rates of last year to return. They are really unsustainable over the long haul.

With respect to our product strategies, our plans incorporate six major product lines:

1. 2000 system
2. 3000
3. 9600
4. 21XX CPU (includes DISCOMPUTERS)
5. Terminals
6. Discs

A "business team" consisting of a product manager, engineering manager, and manufacturing manager has been created to manage these businesses. Already I have found these "teams" a major resource to call upon in helping to support your efforts. Whenever possible, interface with these groups should continue to be through Sales Development as in the past.

A highlight of the meeting and a theme carried into most work-shops was a discussion of the "HP Way". I found it a clearly useful summary of our company philosophy. I pass it along as follows:

### THE HP WAY

1. Is fundamentally based on the FREE ENTERPRISE SYSTEM and profit as a motivation for efficiency and a means to accomplish the other goals of the company.
2. Is a PARTNERSHIP between employees and the company where, in fact, the employees share in the benefits of the company's success and the company's success is based on the successes of the employees.
3. Is a BELIEF and a CONFIDENCE in people; a DEPENDENCE ON PEOPLE as opposed to rules, procedures, systems, and practices.
4. Provides for recognition, a sense of achievement, and a self esteem for all employees.
5. Recognizes the need for security and protection for employees in times of special need.
6. Is a commitment to management by objectives and decentralization.
7. Is informality in communications including first name relationships, management by walking around and the open door policy.
8. Is a chance to learn from each other and from our own mistakes.
9. Is a belief in lifetime training, education, and career counseling.
10. Is teammanship and a spirit of helping each other.

NOTE: The above was written by Dick Anderson as his interpretation of "The HP Way."

The foundation of the "HP Way" is excellent performance in all areas. In no way, it was pointed out, should the "HP Way" be interpreted as a tolerance for poor performance. We are going to see more emphasis placed on training our people at all levels. Particularly, emphasis will be placed at learning how to better manage change — something there has been a lot of and of which there will be much more.

(Continued on page 3)

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

**For research and education purposes only.**

## CUPERTINO DIVISION MANAGEMENT MEETING - (Continued from page 2)

Much time was devoted to discussing 2nd-half priorities. Our clear number 1 priority is to meet the second-half shipping targets. The new products introduced in the first half are now flowing well into production. Both the 96MX and RTE-III software package were released to manufacturing in June which should help us clear this backlog in the next few months. We carefully reviewed the status of the 7905 program and we have a lot of division confidence in it. Separate articles in this issue deal with status on both of these programs. First 7905 shipments are scheduled for later this month with a substantially increased rate in the fourth quarter when it is scheduled to ship in all of our product lines.

Finally, *Dick Anderson* presented his goals to us. While they are general in nature, I really feel that they reflect the spirit of our division today! They are:

1. To continue to build the winning team at HP.

2. To strive for excellence in management in all areas.
3. To continue to generate profitable new business for the company. The terminal program was cited as a prime example.
4. To stress management development so as to be a major source of managers to the company.
5. To continue to create an enjoyable environment in which to work.

I must conclude that having attended many of these sessions over the years, I found the atmosphere at this session to be very positive and the "esprit de corp" quite high. I feel strongly that the division and it's field force just about have it all together and that the best lies immediately ahead.

HEWLETT-PACKARD

## CUPERTINO CUSTOMER ENGINEERING REORGANIZATION

by *Tom Winker/Jerry Peterson*

Data Systems Division has reorganized the Factory CE and SE organizations to provide one central location to serve you better. The new organization is Product Line-oriented and contains all of the necessary talent to provide you with all varieties of support needs (i.e., User, Fixer, Training, Publications, etc.).

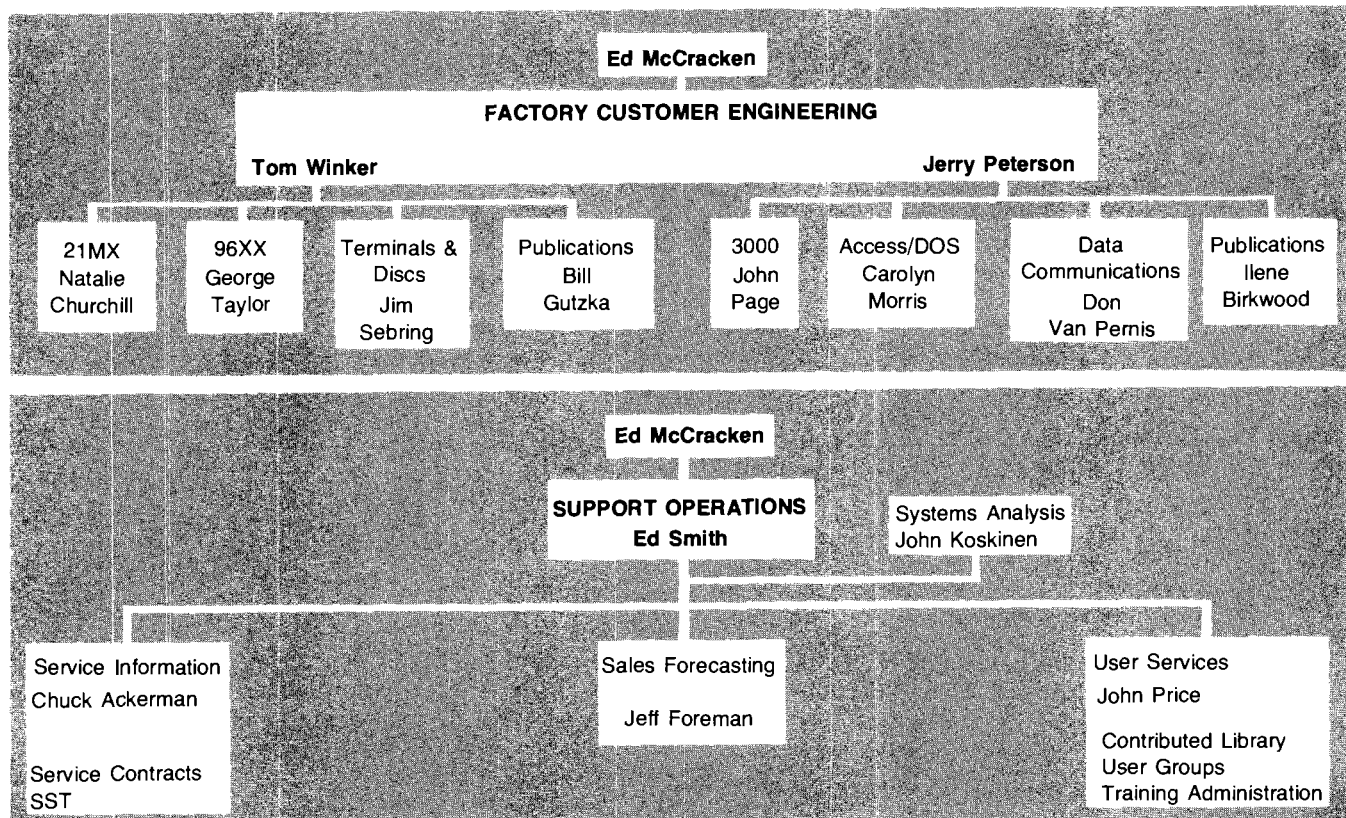
In addition to the Customer Engineering function, an Internal Services Group has been formed to provide the

mechanics and administration to make it all come together and provide you with information.

These organizational changes took effect as of June 20th. We have kept most of the players in the same responsible roles so you can continue to call the same people that you have been accustomed to calling. If there is any confusion, please call the respective Product Line Manager. A more detailed organization chart will be published in Support Update in a few weeks.

We feel confident that this new organization will be more efficient in bringing your problems to a quicker focus and resolution.

HEWLETT-PACKARD



# SALESMEN'S CORNER

## RIVER FALLS WILL NEVER BE THE SAME!

by Jim Eckford

Now that *Tom Rappath*, of the HP St. Paul Office, has sold a 3000/100CX system to the University of Wisconsin, the computer users there are preparing to enter a whole new era of computing.

With their 16-terminal Basic and Fortran system, they will no longer have to wait in line for the use of the IBM 1130 or, in the case of Basic, have to call up an outside time-sharing service bureau.

*Tom* feels that his efforts to persuade the customer to buy the 3000 were most effective when applied simply to "what it

would mean to the kids" rather than anything relating to computer jargon. What impressed them the most was:

- Free field input format in Fortran
- Simple JCL
- 3000 Basic and its compiler
- SPL

The major competitor was DEC who bid a 192K word 11/70 and software by the Oregon Museum of Science and Industry (see the article on DEC software by *Bob Hoke* in this issue).

One of the final clinchers was a demonstration of an installation at Luther College where the prospective customer talked with enthusiastic users and tried out their system.

Interestingly enough, now that the Wisconsin school system has got an end-user agreement signed, they can buy at their other locations at a discount. (Orders must be placed thru a central point.) Our hats off to *Tom* for winning over DEC with his usual fine selling efforts.

HEWLETT  PACKARD



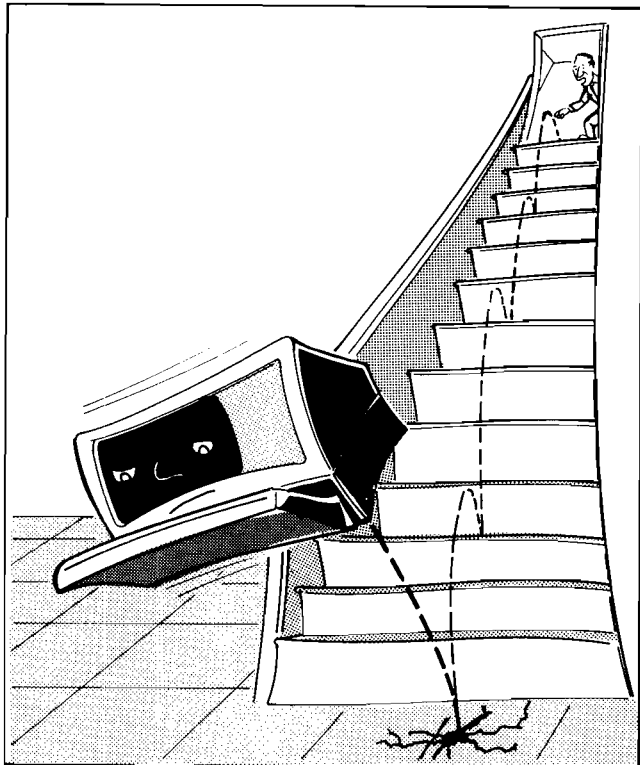
## HOW RUGGED IS THE 2640??

by Bob Blake

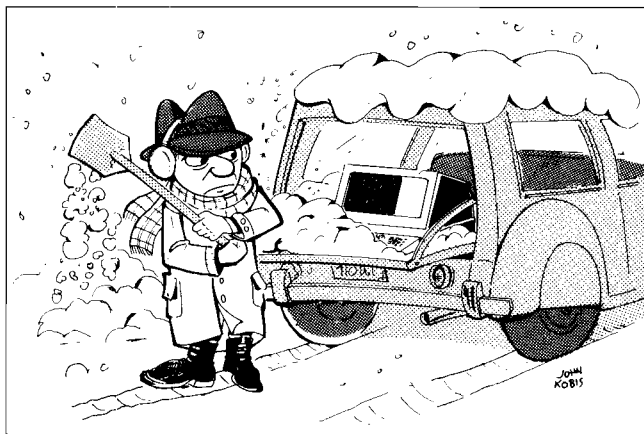
In a well-organized factory, our products are well treated and except for planned, deliberate test routines, seldom see the stress of the outside world. *Tom Montella* is successfully selling the 2640 to Bell Telephone Labs against a lot of competition (including the Dataspeed 40). During *Tom's* early promotional activities, he had two experiences which illustrate the added value of HP products.

Through the courtesy of a customer-loaned cart, *Tom* was able to inadvertently demo a field version of the Class B spec. Halfway up the ramp/stairs entrance, the cart had a mechanical failure spinning the 2640 down approximately 3 ft. onto a concrete surface from where it bounced down a short flight of stairs. *Tom* took advantage of this misfortune to explain the simplicity and ruggedness of construction while plugging the cards back into the I/O slots and giving the unit a thorough visual check. Everyone but *Tom* was visibly surprised when the unit played 100% through several demo's.

(Continued on page 5)



At this time of the year, it's hard to remember snow, but Tom still recalls another Ma Bell demo when the action of the tailgate window threw a clump of loose snow onto the 2640 keyboard. The demo started with a very creditable self-test as the 2640 visually and audibly displayed its irritation over the undetected accumulation of melted snow which had dripped down into the keyboard. Again, Tom took advantage of the situation to give a pitch on simplicity of construction, ease of service, etc. while disassembling and drying out the keyboard. The 2640 played through the remainder of the demo and we now have it spec'd into several systems for OEM use and several orders for in-house use.



We all know and respect Tom's professionalism, but we still don't know how rugged the 2640 is because Ed Hayes and Tom Anderson won't tell us!

HEWLETT-PACKARD

## HAVE HERO, WITH CONFLICT, A HAPPY ENDING

by Bob Kresek



Faced with the problem of selling computers in DEC's backyard, the Eastern Sales Region last year planned a strategy to overcome this obstacle. It consisted of using the 9600 RTE family as a competitive weapon to build a strong HP customer base. The results of their efforts have shown this year, in that they are leading all other regions in 9600 sales. With the help of some very good System Engineers, the following systems have recently come in:

### **CARTER WALLACE** 9640A

**Barry Bergman**/HP King of Prussia

They will be maintaining a pharmaceutical statistical data base, doing drug analysis and later on data acquisition.

### **DRAPER LABS** 9640A

**Jerry Tartaglia**/HP Lexington

They are testing guidance systems on the Trident submarine missile.

### **RAYTHEON** 9600A

**John Arserio**/HP Lexington

This is part of a large distributed system for complete plant automation of the Advanced Sparrow Missile test line. They are using the ASCII bus card for connecting instruments to the system.

### **SPRAGUE** 9640A

**John Arserio**/HP Lexington

They are using this system for work-in-progress data collection. Sprague also has a RTE system as a 1130 replacement.

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**HAVE HERO, WITH CONFLICT, A HAPPY ENDING -**  
 (Continued from page 5)

**NAVAL RESEARCH LABS 9601E**

**Will Workman/HP Rockville**

This system will be used for testing of combustible materials.

**U.S. NAVY 9603E**

**Will Workman/HP Rockville**

This system will be used to a multiterminal graphics system using TEK terminals.

**ALAN WOOD STEEL 9640A**

**Dave Murphy/HP King of Prussia**

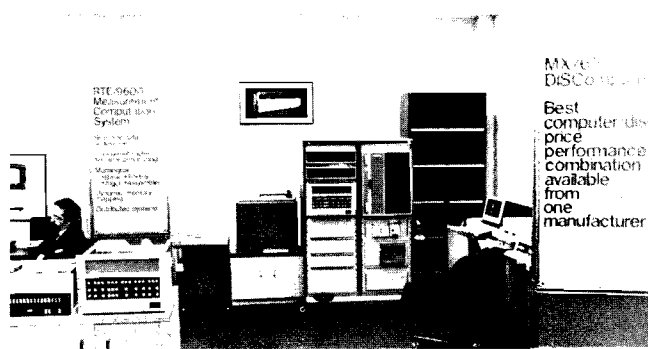
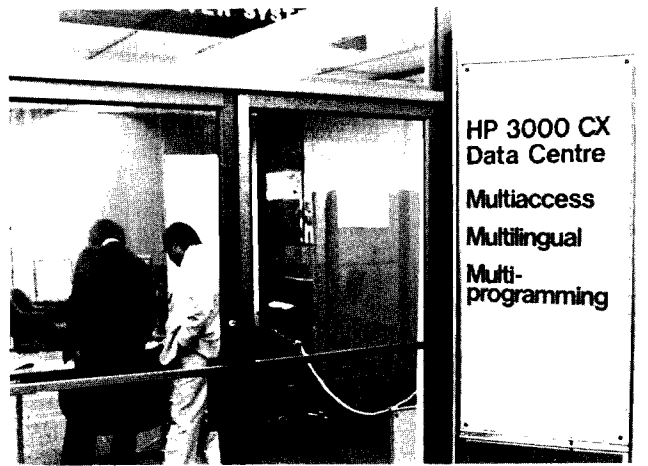
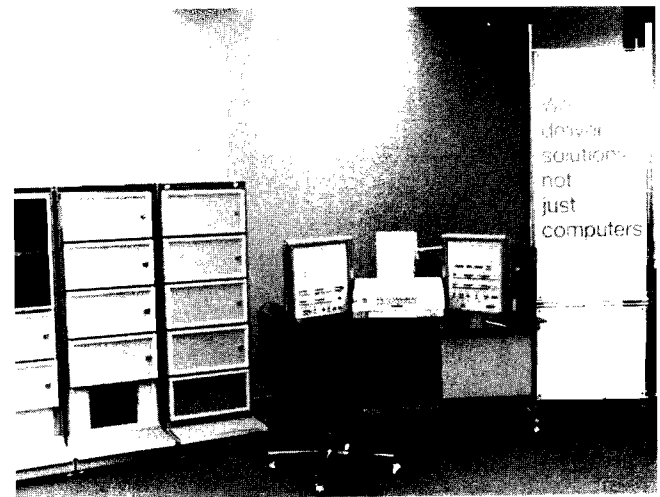
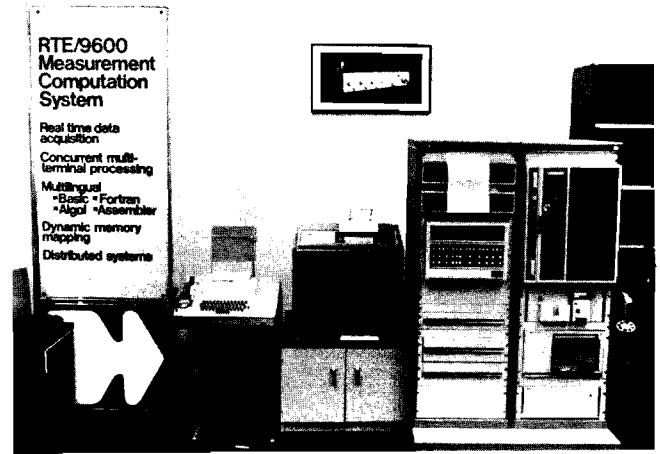
They are doing spectrometer analysis of steel samples.



**OEM/END USER SEMINAR**

*by Joe Schoendorf*

In early June, *Mark Barook's* team in Toronto, under the guiding hand of *Mike Naggiar*, conducted a two-day OEM/END USER SEMINAR. The first day was OEM, the second END USER. *Doug Hanson*, our Southern Sales Development Manager, carried the ball from the factory. Contact *Doug* or me if you would like to talk about a seminar for your area. We have the slides. It's an efficient way to broadcast our capabilities to a large audience at a relatively low cost. The pictures should help to give a feel for the layout used.



## LEN SOUZA DOES IT AGAIN

by Rich Ferguson



Len Souza, one of the foremost salesmen out of the Airport Sales office in Los Angeles, has done it again! Last month he booked an order for six 9640 systems from TRW. Len, working for Dwayne Neely, was pleased to note the gross amount to be well in excess of a quarter million dollars. The systems will be used by TRW to control environmental test chambers and electronic test equipment. These applications are in addition to other data reduction uses which are in support of TRW's high technology electronics systems.

Len said that TRW has standardized on HP equipment for this type of application due to reliability, performance and field support. These reasons were the major ones cited by TRW top management. This purchase is the latest in a series of equipment acquisitions by TRW to automate their manufacturing and research and development activities by using HP distributed computer networks. It is pleasing to note that TRW has already purchased eight (mostly RTE) systems this year, totaling approximately \$5000,000 — a truly fine sales effort.

Len has been with the Neely Sales Office for three years now and has proven to be an outstanding contributor to the success of DSD products and other divisions as well.

## PRODUCT NEWS

### DEC TRIES TO CATCH UP WITH OUR 7905

by Bob Daniel

DEC has just announced a 20 megabyte disc drive to fill in their gap between the 2.5 and 88 megabyte drives. It is the RPR02 which is really a reconditioned Memorex 660 drive. After returning from Memorex field inventory, the drives are rebuilt then sold to DEC.

The HP 7905 holds a substantial performance edge over the RPR02 as well as a lower entry price.

FEATURE	DEC RPR02	HP 12962A
Capacity	20,480,000 Bytes	15,000,000 Bytes
Storage Type	2314 Type Pack	Cartridge
Rack Mount	No	Yes
RPM	2400	3600
Tr → Tr Seek	20 ms	5 ms
Av. Seek	35 ms	25 ms
Max Seek	60 ms	45 ms
Data Rate	312 KB/Sec	937 KB/Sec
Bit Density	2200 bpi	4680 bpi
Track Density	100 tpi	192 tpi
Price: CU + Drive	\$19,500	List \$15,000
Add-On Drive	\$9,500	List \$9,975

We'll keep you informed as more information becomes available. In the meantime, would you buy this used disc from DEC when the alternative is the super 7905?

HEWLETT PACKARD

## CURRENT 3000 IMAGE USERS

by Marc Matosa/Frank Jackson

Here is an updated list of 3000CX DBMS installations — please contact the appropriate Field Engineer for more information and referral name.

### CUSTOMER

ANDERSON COLLEGE, INDIANA  
 WAYNE, N.J. BOARD OF EDUCATION, N.J.  
 MALKEN & PINTON, VANCOUVER B.C.  
 PROMON, SAO PAULO, BRAZIL  
 LONGS DRUGS, SAN FRANCISCO, CA  
 WAKE FOREST UNIVERSITY, N.C.  
 LUTHER COLLEGE, IOWA  
 FAIRFAX COUNTY SCHOOL DISTRICT, VA  
 EDUCATIONAL SERVICES UNIT, NEB  
 CREDIT LYONNAIS, FRANCE  
 LECHLER APPARATEBAU, GERMANY  
 BAVARIAN MOTOR WORKS, GERMANY  
 CULVER MILITARY ACADEMY, IND  
 R.W. BECK, SEATTLE  
 SANTA ROSA JR. COLLEGE, S.R., CA  
 HP DATA SYSTEMS, CUPERTINO, CA  
 HP BAY AREA EDP, PALO ALTO, CA  
 HP MEDICAL, WALTHAM, MASS  
 HP CORP MATERIALS HANDLING, PA  
 SIGNAL INSURANCE, LA, CA  
 SANTA CLARA UNIVERSITY, SC, CA  
 SCANDIA LEASING, SWEDEN  
 HARBOR GENERAL HOSPITAL, LA, CA  
 GRUMMAN AEROSPACE, NY.  
 INSTITUTE RUNDFUNKTECHNIK, GERMANY  
 HP LTD, WINNERSH  
 BOEING COMPUTER SERVICES, SEATTLE  
 AFG FINANCIAL SERVICE, SF, CA  
 HP INTERCON, PA, CA

### FIELD ENGINEER

MIKE NAUGHTON, Springfield  
 MARYA DANIELS, Paramus  
 TED SLATER, Vancouver  
 MIKE CHONLE, Santa Clara  
 DOUG McARTHUR, High Point  
 BILL BURGER, Iowa City  
 JIM BANISCH, Rockville  
 AL WOOD, Kansas City  
 MIKE NAUGHTON, Springfield  
 DICK McCLELLAND, Bellevue  
 DICK BURKHARDT, Santa Clara  
 LEE JOHNSON  
 LARRY LOREN  
 GREG YERGATIAN  
 JIM JONES  
 DAVE MILLER, North Hollywood  
 REED HILLIARD, Santa Clara  
 BOB ULERY, North Hollywood  
 FRANK LEBBERT, Paramus  
 STAN MERRILL, Bellevue  
 PHIL McGUIRE, Santa Clara  
 SAM SOLT

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## NOW, WE HAVE BASIC IN RTE!

by Van Diehl

Multi-User Real-Time BASIC is announced . . . To complement our RTE-B Real-Time BASIC satellite we are now introducing the **Multi-User Real-Time BASIC** as an option to the RTE-II and RTE-III real-time operating systems. Now we have a growth path also for the BASIC user; he can expand his memory-only satellite to a disc-based system or he can use BASIC at his central 9700 system, for program preparation and testing.

### The Multi-User BASIC interpreter has the following features:

1. Supports all features currently available with RTE-B.
2. Reads and writes to a variety of instruments.
3. Provides priority scheduling of tasks (BASIC sub-routines) by time and event.
4. Support up to 4 users simultaneously.
5. Bit manipulation — and, or, not, exclusive or, shifts, bit set, test and clear.
6. FILES, ASSIGN and TYP data files commands compatible with 2000 Access BASIC.
7. Supports STRING data types.
8. Allows the user to easily add HP or user provided subroutine or functions, that can be written in FORTRAN, ALGOL or Assembler language.
9. Has subroutine simulation to allow checkout of programs without actually having to have the subroutine available. Specially useful to simulate non-implemented devices.
10. Has Breakpoint and Trace capability for ease of program debugging.

Multi-User Real-Time BASIC does not have the following features available in the 2000 Access System.

1. PRINT Using
2. IMAGE
3. MATRIX
4. LINE, SPACE, and ENTER

Therefore there is no guarantee that a Time-sharing BASIC program will run in the Multi-User Real-Time BASIC environment, but often the required changes are minor.

Multi-User Real-Time BASIC can be ordered as option Y15 of 9600MX, 92001A (RTE-II) or 92060A (RTE-III) for \$1000 or as a field add-on as 92101A for \$1750.

Multi-User Real-Time BASIC gives us a very competitive position, DEC's RSX-11D and RSM-11M does not have it;

Varian does not have it, Modcomp's is not multi-user and none have the real time and simulation and debugging capability of HP's!

**Sell Real Time BASIC!**  
**Your Golden Key**  
**Opener of New Accounts!**

HEWLETT  PACKARD

## MX AND DISC RACK SLIDES

by Hugh Amick

Rack slide questions are the bothersome kind that hold up quotes at the last minute and cause headaches after delivery. Most of these concern 21MX's and DISCS. The table below should clear these up. Remember rack slide kits are discountable.

21MX	Rack Slide Kit	Dollars
2105A	12903A	\$ 70
2108A	12903B	\$140
2112A	12903C	\$155
<b>DISC</b>		
7900A 5MB	13211A	\$210
7905A 15MB	12904A	\$210
13037A Controller	Not Required	
<b>DISC SUBSYSTEMS</b>		
12960A (7900A)	Included	
12962A (7905A)	Included	
13390A (DISCU/15)	12904A	\$210
<b>DISCOMPUTERS</b>		
2123A (2100A)	12692B OPT #003	\$ 70
(12960A)	Included	
2124B (2108A)	12903B	\$140
(12960A)	Included	
2125A (2108A)	12903B	\$140
(2112A)	12903C	\$155
(12962A)	Included	

HEWLETT  PACKARD

## PERIPHERAL TEAM WANTS TO HELP YOU SELL

by Ed Hayes

The recently announced Peripheral Business Team at Cupertino has as one of its objectives to help you sell more terminals and discs.

This new dynamic trio consists of:

<b>DICK MONNIER</b>	Development
<b>LARRY MITCHELL</b>	Manufacturing
<b>ED HAYES</b>	Marketing

HEWLETT  PACKARD

# NEW DIRECTIONS FOR HP COMPUTER NETWORKS

by Dave Borton

Hewlett-Packard has been a leader in computer networks ever since Distributed Systems were announced in March, 1973. These networks are optimized for factory and laboratory applications where high speed hardwired interconnection methods are preferred. Telephone line interconnections are also supported through the use of modems, but the hardwired techniques have proven to be the most popular.

## "ME-TOO" COMPETITORS

Recently IBM and DEC have announced concepts and products for computer networks that are optimized for telephone line usage. IBM terms their network System Network Architecture. DEC calls theirs DECNET. (The remaining vendor with network capabilities is Modcomp with MAXNET which they announced in October, 1974.) Of these vendors, only IBM has made improvements to the initial concepts we introduced 2-1/2 years ago. Both DEC and Modcomp have made less than "me-too" copies. Our product is available now while DEC's initial deliveries start later this year. The PDP-10 is not scheduled to be included until mid-1976. Hardwired techniques are only supported by HP & Modcomp and Modcomp is limited to only one satellite type versus our 8 types.

IBM's System Network Architecture (SNA) is designed around the new communications protocol Synchronous Data Link Control (SDLC). SDLC is the follow-on to IBM's Binary Synchronous Communications (Bi-Sync), but SDLC provides more efficient transparent-text than Bi-Sync plus a real full-duplex capability.

Transparent-text means that any bit pattern of data may be transmitted without concern for imbedded special characters such as End of Transmission, End of Text, etc. as used in Bi-Sync. Transparent-text is particularly important for computer-to-computer communication when programs and binary data are being exchanged. SDLC accomplishes this through a unique coding technique termed "zero-bit insertion". Full-duplex means that data can flow both ways on the telephone line at the same time. This allows for more effective use of expensive telephone lines.

It is interesting to note that IBM's Distributed Intelligence System (DIS) product for factories and laboratories with remote System/7's uses a high-speed hardwired communications technique that does *not* use SDLC. Nor is it compatible with SNA. Does IBM sometimes suffer from too many divisions?

DEC's network product called DECNET uses the new DEC protocol DDCMP (Digital Data Communications Message Protocol). DDCMP also provides for more efficient transparent-text than Bi-sync and a real full-duplex capability. DDCMP provides this transparent-text feature in a similar fashion to the way HP's Distributed Systems protocol implements it.

## SDLC vs DDCMP

The primary temporary advantage DEC's DDCMP holds over IBM's SDLC is that DDCMP can work with existing hardware. DEC also maintains that DDCMP will work with both the higher speed synchronous modems or the lower cost asynchronous modems while SDLC only works with synchronous modems. That is not true because via a unique clock recover scheme, SDLC will also operate with asynchronous modems. The advantage that SDLC has is that (1) it is blessed by IBM so it is a new de-facto standard, and (2) it is a subset of the international proposed standard called ADCCP (Advanced Data Communications Control Procedures). SDLC is also reported to be more efficient in its utilization of CPU time.

DEC has recently announced a new communications hardware interface that will support SDLC. But since DDCMP and DECNET are incompatible with IBM's SDLC and SNA, how is DEC going to explain their incompatibility in the future? Datapro Research Corporation reports that "It could be a staggering chore for DEC if all of its major product lines must achieve both DECNET and SNA compatibility in order to achieve the desired level of market penetration."

## HP'S DIRECTION

Meanwhile, where is Hewlett-Packard headed? Fresh from our success in establishing an instrument interface standard, the Hewlett-Packard Interface Bus (HP-IB), it would seem logical that we would develop a new standard for data communications. However, the HP-IB was developed because there was no other existing adequate standard. That is not the case with data communications standards. SDLC is an existing adequate standard with international support so it will be used by Hewlett-Packard in the future. Of course, we are not prepared to contractually commit to this until such time as a product is ready. We just wanted you to know our thinking.

It is important for HP to go to this new protocol to get the benefits of better system throughput and lower cost telephone line communication networks as compared to our present method. The beauty of HP'S DISTRIBUTED SYSTEM is that the user is ISOLATED FROM THE COMMUNICATIONS PORTOCOL USED. This means that we can shift from our present technique to SDLC with a minimal impact on our customers.

Meanwhile, HP's Distributed System as it presently exists is tops in the industry for factory and laboratory networks. Watch for our advertisements in Electronic News, Datamation, and Computerworld telling prospects about our great Distributed Systems. Sell our high performance, low cost systems and be assured that the future will be even better!

## RPG/3000 VS DATA GENERAL RPG II

by Marc Matoza

Some questions have been raised about RPG/3000 and the RPG II on the DG Eclipse. Here is a have/have not comparison.

SPECIFICALLY RPG/3000 PROVIDES (while DG does not):

- Both skipping to line numbers (as in System 3) and skipping to channel numbers
- Automatic ASCII to EBCDIC and EBCDIC to ASCII translation
- Better compile time diagnostics (73 for DG and over 400 for HP)
- User interface to run time errors
- Cross reference
- Special files

DG PROVIDES (while HP does not)

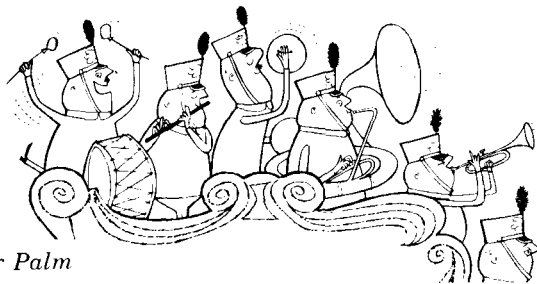
- Selective file translation
- Built in EDITOR

On all other counts the languages are compatible.

Always be careful when using this kind of information. The world is too dynamic. This could change. Use it to ask questions and to have the customer ask questions. As you hear feedback which indicates a change, let us know!

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## DO YOU WANT A FLASHY DEMO?



by Peter Palm

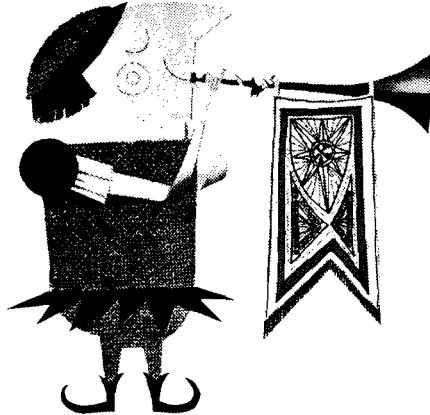
We have twelve 91200A TV Interface Cards now *in stock*, available for your customers or your own office demo. The National Computer Convention demo is being modified and documented to work with a single black-and-white TV monitor just like the videotape monitors in your office. The demo flashes RTE-II program status. Send your IOS for your 91200A card now! As a transfer-at-cost item, it's an inexpensive way to get a flashy demo!

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## EDUCATIONAL NEWS

### EDUCATION APPLICATIONS FOR THE 2000 ACCESS

#### ANNOUNCING



by Jean H. Danver

Conversion of HP 2000F education application packages to the 2000 Access System is well underway! The following packages will appear in the August 1 Corporate Price List. Please note that the prices remain the same, the products are the same, but there are new product numbers for the versions that run on the 2000 Access.

Product No.	Description	2000 Access Availability Dates	Price
22690A	Instructional Management Facility (IMF)	Aug. 1, 1975	\$2000
22691A	Instructional Dialogue Facility (IDF)	Aug. 1, 1975	\$1000
22693A	HP Math	Aug. 1, 1975	\$1000
22696A	IMF, HP Math	Aug. 1, 1975	\$2500
22697A	IMF, IDF	Aug. 1, 1975	\$2500
22699A	IMF, IDF, HP Math	Aug. 1, 1975	\$2500
22694A	College Information System (CIS)	Aug. 1, 1975	\$8000
22689A	Educational Budgeting & Accounting (EBA)	Aug. 1, 1975	\$8000

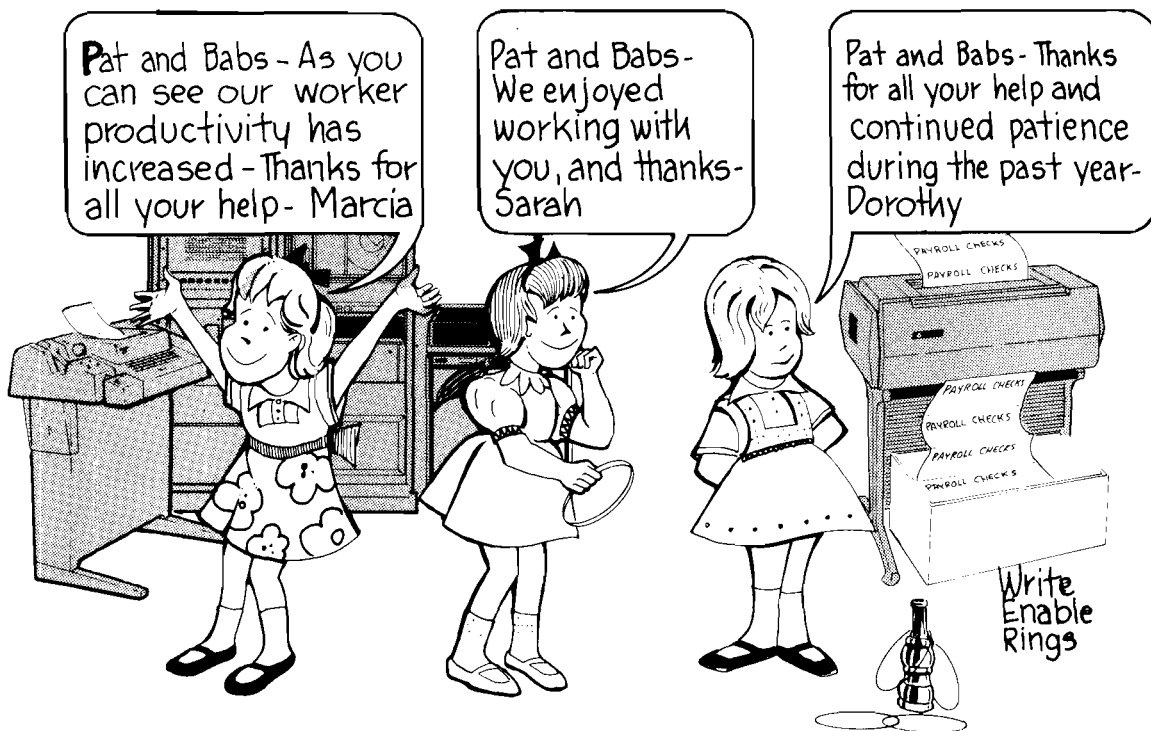
As HEART only accepts orders for products in the Corporate Price List, these packages should not be ordered before August 1.

The Educational Payroll System (EPS) and Course Writing Facility (CWF) are also scheduled for conversion. They will appear in the Corporate Price List when we receive manufacturing release later this year.

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## You Made This Possible



### HAPPINESS IS A SATISFIED CUSTOMER

by Pat Danzer-Ramirez

Staff at the University of the South sent this "homemade" cartoon to Pat O'Donnell and Babs Brownyard of Educational Marketing in Cupertino. It depicts the fact that EPS

makes their life so easy that they now have time to play! University of the South was the validation site for EPS and Pat and Babs have worked closely with them this last year.



## CUSTOMER ENGINEERING CORNER

### WHAT'S NEW IN MAINTENANCE?

*by Al Wagner/Carol Budkowski*

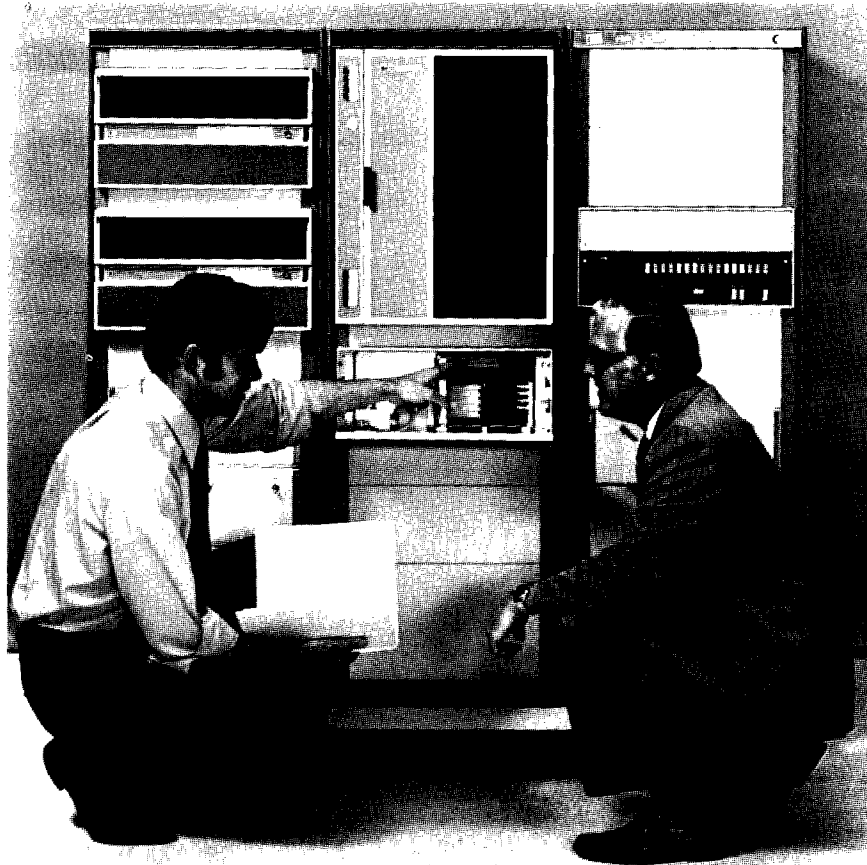
We think our staff, customers, and Field Engineers deserve support, too.

So, with the aid of our Marketing Communications Department, we recently produced a colorful sales brochure promoting Hewlett-Packard's Maintenance Agreements — "Hewlett-Packard Maintenance Agreements At Your Service." This four-pager (5952-5549-22) briefly describes the benefits and features of our service agreements.

Pick one up at your local sales office.

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### Hewlett-Packard Maintenance Agreements At Your Service



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## NEW SOFTWARE CATALOG!



by *Melanie Van Vliet*

The Software Catalog and Documentation Indexes on Microfiche are now being distributed to all field Libraries.

The Documentation Indexes are the same as previous issues.

The Software Catalog has been reorganized into two new "true" part number catalogs:

Part I is in part number order.

Part II is in category order.

Listing prices have not been updated and are incorrect as future plans call for obsoleting all hard copy listings in favor of microfiche listings. The # MODS represents a factor by which you should multiply the quoted price when ordering. We plan to perform this function in future issues.

DATA SYSTEMS CUSTOMER ENGINEERING plans a regular monthly distribution of the Software Catalog and Documentation Indexes.

For Support Update — *Nicki Landau*

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## O.P. CORNER

### APO POLICY

by *Ken Newton*

There was a slight error in the way our APO Policy was stated last. It should have read:

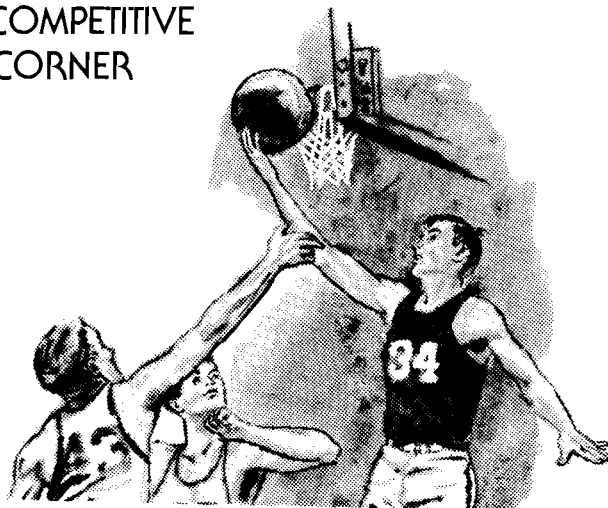
- APO's for Systems and Instruments will be held open for 4 weeks.
- An additional 4 weeks will be granted, if *requested*, and only upon written approval of the appropriate Sales De-

velopment Manager (Domestic or International). In order to initiate this extension, a twx from the appropriate District Manager to Sales Development is required.

- APO's will be acknowledged with an *automatic* cancellation date (4 weeks after date entered with Data Systems).
- If the order transmission has not been received at Data Systems by the cancellation date, the APO will be cancelled without further notification.
- APO's will be accepted for any trade order for standard products (no specials).

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### COMPETITIVE CORNER



by *Bob Hoke*

It appears that DEC is pushing the 11/70 with RSTS/E against us at every opportunity. It's a little difficult to pin down the exact RSTS capabilities but I'd like to pass on our interpretation of the features DEC is talking about. I cannot guarantee the accuracy of all of these facts since it is a composite of feedback from DEC test sites, Data Pro, Auerbach, etc. It does, however, give you some good questions to ask a prospect who is also considering a 11/70.

DEC is claiming 63 terminals in BASIC Plus with batch COBOL concurrently. They are also talking about multiple terminal COBOL, FTN IV and Assembly language programs.

There are several test sites where DEC is running large numbers of terminals in BASIC (48 is the most I've heard) and a few (1-8 terminals) doing COBOL. On the installations where there are large numbers of BASIC terminals, we hear that they only have a limited number of COBOL terminals.

RSTS/E with batch COBOL running on the 11/70 appears to create a minimum of three types of fixed partitions. The first type of partition supports the BASIC Interpreter which DEC calls an incremental compiler. This is very similar to pre-processed BASIC on the Access system and in no way compares with our 3000 BASIC compiler. Access to this partition is through a port on the multiplexor. The approximate core requirement for this partition is 4K per user terminal.

(Continued on page 14)

## COMPETITIVE CORNER - (Continued from page 13)

The second partition contains a multi-terminal Editor and a terminal handler. Access to this partition is currently thru discrete interfaces although a multiplexor may be planned. This partition controls the access to the third type of partition, which contains the COBOL compiler. This third type of partition is a run-to-completion format and is a minimum of 20K words per partition. It appears to be possible to create multiple compiler partitions and is in fact necessary if the user wants more than one COBOL compile or execution concurrently. We hear one of the test sites believes the RSTS COBOL is an incremental and not a full compiler and thus will be very slow on execution.

Let's examine this more carefully. The total system configuration is fixed at generation time. The determination of how many terminals in BASIC, how many terminals in COBOL, how many concurrent compiles, etc. must be established and cannot be changed without regenerating the system. There is no Dynamic allocation of resources as on the 3000.

What this appears to mean is that a hardwired terminal is *limited to either BASIC or COBOL but NOT both*. To provide remote terminal access to both BASIC and COBOL, the system requires multiple modems and the user would have to connect to the correct port. To change languages would require disconnecting and reconnecting to the other modem.

The terminal handler/Editor partition allows the user to create a source file with the editor and this source file is queued for access to the compiler partition. The user would then request the COBOL compiler and assuming there were no previous compiles or execution for that partition, the user could gain access. There is not much information available as to the scheduling algorithm for this partition, but indications are that it's relatively simple. It is a run-to-completion procedure similar to the old RTE background, so once initiated, it cannot be interrupted, even by a high-priority task.

Each concurrent COBOL compile or execution needs its own partition, so let's take a look at the core requirements. For example, with 32 terminals in BASIC and two batch partitions, the core requirement would be in excess of 168K words.

There is considerable stammering and footshuffling when you ask about file compatibility. Files can be accessed from both BASIC and COBOL, but considering the way the BASIC files are organized, we think there must be some sort of file translation to make them accessible by COBOL. The levels of sophistication of this type of file system is considerably lower than the 3000 full language compatible files.

The FORTRAN IV and MACRO that run on RSTS were supplied by the Oregon Museum of Science & Industry (OMSI). OMSI modified the RTII core-based monitor, FORTRAN IV and MACRO II assembler to run in another partition.

This originally core-based monitor does not appear to be user-oriented and probably more significantly is not supported by DEC. Another significant fact is that to implement these languages requires a modification to the RSTS operating system and, therefore, the whole system support picture is even more obscured.

Again, I must say that most of this information is hear-say and, therefore, the accuracy is somewhat questionable. This information should be used to generate questions for your prospect to ask DEC as a counter to claims being made. However, I do feel that it points out that the 3000 is the best organized and implemented multilingual, multiterminal, multiprogramming system on the market. With its user-oriented capabilities and dynamically allocated resources, the 3000 should win on merit.

Good selling!

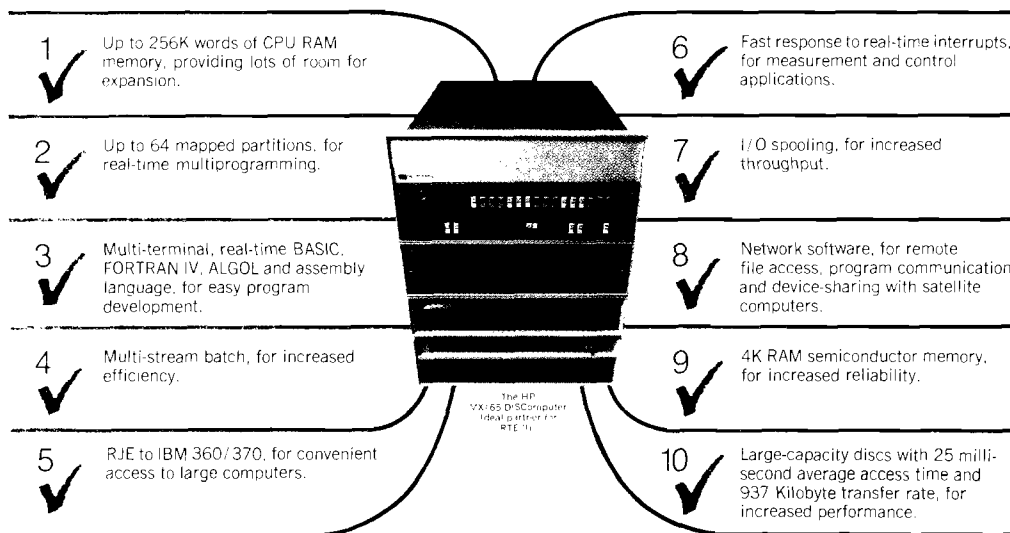
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