

data systems newsletter

For HP Field Sales Personnel

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DIVISION NEWS

NEW PRODUCT MANAGER FOR OMR



Dave Hancock

by Ed Hayes

With the 1 June transfer of the 7260/61 series OMR reader to Cupertino, I am happy to announce the promotion of *Dave Hancock* to OMR Product Manager.

Dave came to HP after spending 9 years with IBM in Engineering and Sales. He spent 2 years with ISS in Marketing before joining the OEM effort at HP almost two years ago. I feel confident that *Dave's* strong technical and marketing experience will help ensure the continued growth and success of the 7260/61 product line.

We have a unique product in the OMR line. It locks out our competition and with its transfer, Data Systems Engineering will be integrating the readers into our future system offerings.

Look to *Dave* for support on volume deals and any OMR matter in which his product expertise can be of help.

All prices quoted in this Newsletter are domestic USA prices only.

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COMPUTER CARAVAN 1974 RESULTS

by Jerry Costanzo

The 1974 Computer Caravan was a smashing success. The ten-city tour attracted 30,670 qualified attendees plus 2795 additional exhibitors to bring the total to 33,700, up 16.3% from last year.

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COMPUTER CARAVAN 1974 RESULTS (Continued)

Within our 10-foot space HP Sales Engineers generated 744 leads. Of these leads 13.8% or 103 leads were considered "Hot". This is the largest amount of hot leads generated in any of the three years HP has exhibited at the Computer Caravan.

HP's Microprogramming Seminar attracted a phenomenal 1655 attendees of whom over 20% have sent inquiries for additional microprogramming manuals.

This year's cost per inquiry has significantly dropped from \$55/inquiry in 1973 to \$33.60/inquiry in 1974.

Listed below are some important Caravan Statistics:

1974 Computer Caravan

	Hot	Leads	Total	% Hot	Seminar Attendees
Washington	9	80	= 89	11.25%	72
Cincinnati	18	43	= 61	41.86%	141
Houston	8	45	= 53	17.77%	152
Anaheim	12	60	= 72	20.00%	180
San Francisco	18	77	= 95	23.37%	368
St. Louis	6	120	= 126	5.00%	146
Chicago	13	54	= 67	24.00%	146
Boston	9	48	= 57	18.75%	132
Charlotte	4	31	= 35	12.90%	141
New York	6	83	= 89	7.22%	177
Totals	103	641	744	13.80%	1655



The unique approach of a computer company exhibiting no hardware at a hardware oriented show proved to be effective for HP.

Many of you commented that the attendees who stopped were not the "button twisters" but high quality interested attendees.



It was your direct mailing of guest invitations, your seminar presentations, and overall support of the Caravan that made it a success.

Thanks for all your help. "Good Selling".

THE 21MX IS HERE!

by Ted Doyle

All 21MX schedules to date have been based solely on Mostek memory (X1). T.I. has now come through with a schedule for (X2) memory which would allow us to double production in September and October. There are several factors that result from this of which you should be aware:

1. By mid-October, we will be order limited on 21MX's! This is only 12 weeks from now! Pull out all stops and sign up volume accounts.
2. You can now sell both X1 and X2 memories for October deliveries.
3. Initial demo units have been shipped to the Field. Keep them moving from account to account.
4. The original production plan called for MTBF testing to be completed by July 19, with first quantity shipments to commence on that date. The latest production schedule shows September 20 as first quantity shipments. (Remember you were asked to pad the July 19 date.) With the bottleneck on memory availability broken, we can meet all commitments for shipments before October 31, with units to spare.

(Continued on page 3)

THE 21MX IS HERE (Continued)

5. Because of the current 12 week availability, we will obsolete the allocation plan on July 31. Firm orders for allocated units must all be received by the factory by that date.

More details are being sent to the Field via TWX, memos, and feature Data Systems NEWSLETTER articles. The message is the 21MX is here! Sell those volume accounts!

PRODUCT NEWS

MASS STORAGE COSTS ARE GOING DOWN

by Ken Blackford

The new 2000 Series Management and Scientific Systems now can be ordered with 19.6 million bytes of disc capacity for \$17,000. This option 213 provides three additional dual platter 7900 discs and the necessary cabinetry. Previously the only alternative for this amount of mass storage was the option 001 which provided a system with 23.5 million bytes using the I.S.S. 6 high pack for \$18,600.

Now you can save \$1,600 if you order option 213 with your new Scientific or Management Systems. The July 1 price list includes Option 213 at \$17,000.

COMPARISON OF DEC RSTS AND HP 2000 TS FOR DATA COMMUNICATIONS

by Jim Candlin

Digital Equipment has announced (June 26, 1974 COMPUTERWORLD and June 24, 1974 ELECTRONIC NEWS) a new communication software capability for its RSTS/E timesharing system. The RSTS-2780 package provides for communication between PDP 11/40 and 11/45 based RSTS/E systems and IBM 360/370 systems, with the DEC system simulating an IBM 2780 Remote Job Entry terminal.

This article will compare the capabilities provided in the DEC package with the HASP workstation capabilities projected for HP's Timeshared BASIC/2000, Level G (see "TSB/G JUNE PROGRESS REPORT" in July 1, 1974 issue of Data Systems Newsletter).

IBM RJE Support

On various models of the 360 and 370 product lines IBM offers several kinds of RJE terminal support software systems. Early 360's (mid 1960's) provided a system called OS/RJE which allowed hardwired (non-programmable) RJE terminals to communicate with the central system, with the central system console operator scheduling each job for execution as received. IBM offered RJE terminal systems to operate in this environment, which they called 2770's and

2780's. An IBM 2780 consists of a hardwired controller, one card reader, one line printer and one optional card punch.

Later in the 1960's IBM supported a new central system support package called HASP (Houston Automatic Spooling Program) which was developed in response to NASA requirements. HASP eliminated the need for the central system operator to individually schedule RJE jobs received, by providing spooling of the job input, priority execution, and output spooling.

The other major capability of HASP was support of remote computers functioning as RJE terminals. Any model of the 360/370 line can function as a RJE terminal to a 360/370 which is running HASP (the 360/20 was most frequently used because of low cost). In addition, IBM 1130's were also supported as a HASP workstation (RJE terminal). In recent years HASP has become the major central system RJE support that IBM offers for 360/370's under OS/360 or OS/VS. OS/RJE is no longer supported, and HASP is not supported for DOS/360 or DOS/VS. A later issue of this newsletter will discuss IBM DOS RJE support (principally DOS/POWER).

HASP supports two flavors of RJE terminals: 1) computers (360/20, 1130, etc.) functioning as a HASP workstation; 2) 2780 hardwired RJE terminals (or mini's programmed to simulate a 2780). An RJE user gets substantially different capabilities with a HASP workstation than with a 2780 (or 2780 simulator). These differences are crucial to the distinction between HP and DEC approaches to data communication with IBM systems in a *timesharing* environment.

2780's versus HASP Workstations (W/S)



The following compares the features and capabilities of these two different types of RJE terminals.

A. Number of each type of Device

HASP W/S: Multiple (up to seven each) independent card readers, line printers, and card punches can be attached to the HASP W/S and operate simultaneously (multiple job streams).

2780: One card reader, one line printer, and one card punch. Only one device can operate at a time (see Communications Line Utilization, C., below).

B. Console Usage:

HASP W/S: Console input and output for status inquiries and job control (hold output, print at central site, purge job, etc.) operates independently of the reader/print/punch operations. The RJE console operator has very flexible

(Continued on page 4)

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control of terminal operations and central site operations. (See IBM publication GC27-6993-0 "OS/VS2, HASP II, Version 4, Operator's Guide." Order from local IBM office.)

2780: IBM 2780's use switches, etc., for remote terminal operation. 2780 simulators use keyboard devices to simulate these switches. RJE console control is very limited. The terminal, at any point in time, is either set by the operator to read or print, or punch, or handle the console. So the operator must wait for the completion of the current operation to use the console. One exception for 2780's under HASP is provision for console input to come from the card reader *between* jobs being read as input. All console output to a 2780 is printed on the line printer (so operator must be careful not to spoil printed output).

C. Communications Line Utilization

HASP W/S: HASP workstations use "multileaving line protocol." Most RJE is done on half-duplex synchronous communications facilities (Bell 201, 208, 209). A message block (400 bytes typically) is sent from "A" to "B". After error checking (cyclic redundancy check (CRC)), "B" must acknowledge to "A" whether the message was good (acknowledge (ACK)) or bad (negative acknowledge (NAK)). To do this in a half duplex environment, the line must be "turned around" since transmission can only be in one direction at a time. The delay caused by turn around is significant in its effect on total throughput if only one character (ACK or NAK) is sent from "B" to "A", and then the line must be turned around again for "A" to send the next block to "B".

HASP Workstations compensate for line turn-around delay by acknowledging the receipt of good data by sending a block of data back (instead of just an ACK character). This "conversational acknowledgement" provided by multileaving not only improves line throughput but also allows for concurrent operation of printers, readers, and console I/O. For example: "A" reads and sends a 400 byte block of 80 char. card images (perhaps one card from each of 5 readers) to "B". If correctly received, "B" will send a block of print images (for more than one printer, perhaps) back to "A". Then "ALL" will acknowledge correct data by sending more card images to "B", etc.

2780: No multileaving. Line turn-around overhead is high, since only a ACK or NAK is sent in response to receipt of data. Also, only one type of device (reader or printer) can be operating at a time. Overhead may be up to 50% higher than with multileaving.

D. Data Compression

HASP W/S: If input or output data contains consecutive blanks or consecutive duplicate characters the workstation will "compress" them into 2 characters for duplicate characters (such as underlines on reports) or into one character for blanks (such as trailing blanks after a program statement on a card).

2780: Standard 2780's do not offer blank and duplicate character compression. IBM 3780's offer only blank compression.

E. Summary of HASP Workstation Features

- simultaneous input/output
- multiple devices of each type
- powerful console operator control capabilities
- multileaving protocol to reduce communications cost, provide faster turn-around time, and improve throughput
- data compression

2780 concepts are derived from hardwired controller technology while HASP workstations make use of the flexibility inherent in a programmable computer.

Impact on DEC and HP Timesharing

1. Synchronous data communications impose a heavy load on any computer due to the interrupt rate and processing required to maintain line control.
 - HP's two processor design distributes this load into a communications processor which will have specialized microcode instructions to lower this overhead.
 - DEC's RSTS/E will surely suffer degradation of system performance due to one processor design.
2. Sophisticated users (large corporations and major public institutions) recognize that the HASP workstation is a clearly superior RJE terminal to 2780 simulators.
3. Since the major use of remote communications to IBM from mini-TS systems will be for transfer of data

files between the systems (rather than remote job entry of programs), the "multiple concurrent job streams" (readers, printers, punches) inherent in a HASP W/S gives significantly better capabilities to the HP approach.

- HP's HASP Workstation will allow multiple concurrent users to submit jobs and transfer files from our system to IBM.
- DEC 2780 simulator can only allow one user to input or output jobs at a time.

2000 TIMESHARING SELLS – SELL 2000 TIMESHARING

NEW HP 3000 MODEL 100 200 OPTIONS

by Ron Grace

We now have four new options on the HP 3000 Model 100 and Model 200. These options allow us a significant degree of freedom in configuring systems. We can now delete the card reader from the system, or choose any of our line printers for these systems.

These options will be on the August 1, 1974, price list. We will accept orders now, but you must override the HEART system.

32400A (Model 100)

Opt. #009	Replace 30118A (Tally) with 30108A (CDC, 200 LPM)	+\$ 8,245
#010	Replace 30118A (Tally) with 30108A #001 (CDC, 200 LPM, 96 Char)	+ 10,820
#011	Replace 30118A (Tally) with 30109A (CDC, 600 LPM)	+ 26,000
#401	Delete 30106A Card Reader	- 6,200

32401A (Model 200)

Opt. #007	Replace 30108A (CDC, 200 LPM) with 30118A (Tally)	- 7,245
#008	Replace 30108A (CDC, 200 LPM) with 30118A #001 (Tally with extended character set)	- 6,745
#012	Replace 30108A (CDC, 200 LPM) with 30109A (CDC, 600 LPM)	+ 19,000
#101	Delete 30106A Card Reader	- 6,200

OMR CARD DESIGN BROCHURE

by Hugh Amick

A customer oriented brochure describing the flexibility of card formats will be sent to you and is available in quantity. The brochure (5952-2777) entitled, "A BETTER WAY TO HANDLE DATA PREPARATION AND ENTRY IS IN THE CARDS FOR YOU", contains data sheets on both optical mark readers as well as sample card formats with

descriptions from a wide variety of applications. This brochure will quickly illustrate to your customers the versatility of our OMR's and stress their competitive advantages.

CORRECTIONS TO JULY 1 ISSUE

by Editor

In the July 1 issue on pages 4 and 7, Option 213 (the addition of three 7900 discs), refers to a price of \$13,500. The correct price is \$17,000.

RECENT CLOSES

21MX ACHIEVES RAPID ACCEPTANCE

by Wayne Gartin

Over 10 OEM customers have already signed agreements to buy the new 21MX minicomputers. Announced in May, the features of both the M/10 and M/20 processors have already become the answer to difficult problems in many different industries.

Examples:

Exploration Logging, a corporation involved in the development of systems to monitor petroleum exploration believes that only the 21MX can consistently perform in the rugged environments in which they operate. The "brown-out proof" power system and reliable semiconductor memory prove invaluable to them. Thanks to Ron Marquart for closing this account.

Applied Research Labs signed for several units because they found that in their price sensitive application, the performance offered in the standard 21MX processors was unmatched. Also, they are using the microprogrammability of the computers to enhance the speed of the computerized chemical analysis. *John Tourkolias* did a fine job as the ARL Sales Engineer.

Canadian Marconi, engaged in TWX and Telex switching found that the standard instruction set and the index registers combined to form a powerful tool in their rapidly growing communications industry. They are going to be evaluating the 21MX for inclusion in some very large systems. Congratulations to *Mike Naggiar*.

Several other companies have decided that the modular construction and Vectored Priority Interrupt I/O unit allow maximum expandability while giving the fastest possible I/O processing.

Use the 21MX as your means to close new OEM's or volume end users and get your share of the Cash Cow. Do yourself a favor – sell the 21MX!

O. P. HINTS

JULY 1 PRICE LIST CHANGE

by Editor

The price for Option 213, adding 14.6 Megabytes of Mass Storage on our disc-based systems (19655A, 19657A, 19658A, 19660A, 19662A and 19663B) has been changed to \$17,000 effective July 1, 1974.

SOFTWARE LICENSE AGREEMENTS

by Chuck Silberstein

Since DSD no longer has a rental program, customers who want to use released DSD proprietary software should not be signing the "obsolete" Software Rental Agreement, but the current License Agreement form. If you have a requirement and need a form, contact Sales Development or myself.

Any previous forms with the terminology "rental" should be discarded.

SALES AIDS

DATA GENERAL COMPETITIVE INFO

by Wayne Gartin

Data General continues to keep the public well aware of their NOVA 2 prices, but they do a good job of keeping the limitations out of sight. Two examples to illustrate my point:

1. The NOVA 2/4 cannot be configured with floating point and 32K or core!
2. There is no I/O extender nor memory extender for the NOVA 2. Convince your customer he needs more than can be handled by the 2/4 and then DG has to go with the 2/10. If you have a system bigger than 10 slots, the NOVA 2 can not handle it.

Also, Data General's product line has been quite static since last August, with no major changes in their systems products or prices.

While HP has been introducing a new computer family (21MX), software (DOS-III, TOADS, IMAGE, etc.), CRT's (2615, 2616), and new systems (MX55, 2000F-200, etc.), Data General's activity has been:

1. Increase the price of 32K NOVA 2's by \$200 (to \$9100 (2/4), \$10,000 (2/10)).
2. Introduce an Interprocessor Bus for communication

between two computers for \$1900 plus \$300 for 15 feet of cable.

3. Add two new D-A subassemblies (interfaces), a four-channel for \$900 and a 16 channel for \$1200.
4. Make a few minor changes in their training courses, such as adding hardware courses for the NOVA 840 and their card readers.

DATA SYSTEMS COMPUTER LEADS

by Rich Ferguson

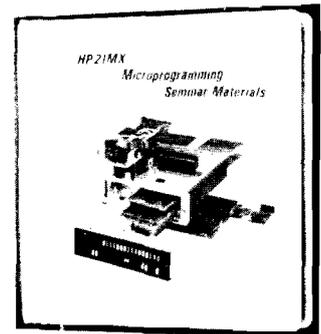
Recently Data Systems initiated a new system for the distribution of all computer leads. Basically it works like this. Each week, all leads, advertising and PR, are sorted by zip code and mailed to each sales office. Each envelope contains both EPG and DPG leads for systems 2000 and 3000. They are addressed to the attention of the EPG/DPG District Sales Manager. The envelope is stamped "Computer Leads".

All leads you do receive have already had literature sent by Corporate to the prospect.

In addition, each lead will be stamped with the type product that is involved. For example, you will be able to tell if the lead is for the 3000, M230 or M260, 2100 or 21MX and so on. This we hope will be a great sales aid to you.

We want this system to be responsive to your needs. If there are any problems or comments, please call your Sales Development contact.

MICROPROGRAMMING SEMINAR AVAILABLE



by Han Park

One of the best and least expensive ways to making existing or potential customers aware of user microprogrammable features and benefits of the HP 21MX and HP 2100 is to give microprogramming seminars. Microprogramming seminars given at Computer Caravan, NCC, and other locations have been very successful in making customers aware of the power of user microprogrammability which is built into the HP 21MX and HP 2100.

Last January we gave customer microprogramming seminars at five district offices in the Southern region. The results of these seminars was very helpful and significant to the field

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MICROPROGRAMMING SEMINAR AVAILABLE — (Continued)

salesman in signing new accounts as well as in generating a favorable new image of HP 2100 for existing and potential customers.

At five different cities in five days we gave a total of 8 seminars. The first three days we gave two sessions AM and PM each day. Each session lasted for about an hour and a half. The last two days we gave two sessions. Each session lasted for about five hours.

Approximately 160 customers attended the seminars. The response of the attendees was excellent. Most seminar attendees did not know about the benefits and features of user microprogrammable computers. By informing OEM and end-users of these unique features, we will be in a better position to lock out DEC, D.G., and other competitors.

The microprogramming seminar materials (overhead slides or 35mm slides) for HP 21MX are now available. The materials can be presented in an hour and a half or can be stretched to six hours according to the background of the audience. One set has been sent out to each regional Data Systems and EPG Manager.

Let us maximize one of the unique marketing tools of HP computers by giving microprogramming seminars either at customer sites or at HP offices now — we at Cupertino are anxious and willing to support your efforts in this area.

EDUCATIONAL NEWS

A FIRST!

by John Price

Hewlett-Packard's first customer for the new CAI software package, Course Writing Facility (CWF) is St. John's University of Collegeville, Minnesota. Our congratulations to Midwest Field Engineer, *Tom Rappath*.

St. John's is a liberal arts school with an exceptionally strong science program. According to *Professor James Peters*, Data Center Director, CWF was purchased to fulfill two objectives:

- To enable the school to readily acquire existing science courseware; and
- To provide the St. John's faculty with a sophisticated language with which to author their own CAI lessons.

St. John's has an extensive premedical program, while St. Benedict's College, three miles away in St. Joseph, Minnesota, has a strong prenursing program. The two schools participate in a cooperative venture in which students take courses on both campuses. The overall Health Sciences curriculum includes such courses as anatomy, biology,

chemistry, dietetics, pharmacology, etc. It is the availability of existing courseware written elsewhere in IBM Coursewriter III which has made CWF especially attractive to the school.

The other major purpose for acquiring CWF relates to the school's new thrust toward in-house CAI development. *Professor Peters* himself brings five years of experience in computer-based learning activities to the developmental efforts of the school's new Learning Resource Center. Seven professionals from the Center will assist the faculty in authoring CAI lessons.

Professor Peters notes that within nine days after installation, the 2000F ports had been fully subscribed. Based on the rapid build-up of demand, St. John's plans to purchase a second system.

MAKING TRACKS



by Pat Danzer

The Educational Sales Engineers had a good month in May. Listed below are the sales for this month. An asterisk before the customer's name indicates that this is a new account — and there are quite a few for May! Congratulations to all of the Sales Engineers.

CUSTOMER	FIELD ENGINEER	SYSTEM
*Ohio Dept. of Education	Jim Van Slambrook	2000F, Opt. 205 (IDF, IMF, Math Drill & Practice)
Metropolitan Dayton Educ. Coop Dayton, Ohio	Jim Van Slambrook	2000F, Opt. 205
*Monterey Peninsula Unified Sch. Dist. Monterey, California	Mike Chonle	2000E
*County of Santa Clara San Jose, California	Reed Hilliard	2000F, Opt. 200
*Governors' State University Park Forest South, Illinois	John Malone	2000E
*Westminster College Salt Lake City, Utah	Gary Cole	2000F, Opt. 200
*University of Wyoming Laramie, Wyoming	Stu Kagan	2121
*Tinius Olsen Technical Inst. Kongsberg, Norway	Jan Mobrenna	3000
Modesto Jr. College Modesto, California	Ron Marquart	2000E

CWF REFERENCE MANUAL

by John Price

The reference manual for the new CAI software Course Writing Facility (HP 24383A) is now available. Order manual part no. 24383-90001.

CWF is an emulation of the IBM program product Coursewriter III, Version 3. It operates in conjunction with the HP Instructional Management Facility and under the operating system Timeshared BASIC 2000/Level F.

3000 AND SMALL COLLEGES

by Gary Stump

The National College and University 1130 Users Group meeting has held this year at Furman University in Greenville S.C. The HP 3000, which was to be delivered to Wake Forest University, was re-routed slightly, and was used at this meeting in our booth.

The response to our attendance at this meeting was tremendous. The attendees for the most part had only heard of HP via "Computerworld" or "Datamation". This was their first opportunity to see and touch a "real HP computer". There were people asking questions or using a terminal from 9:00 AM to after midnight.

Another important attraction at this meeting was *Dr. Gary Anderson* from McMaster University in Hamilton Ontario. *Gary* presented his and McMaster's experience with their HP 3000, what they are doing, why and how they made their 1130 conversion, and what they are planning in the future. Both sessions were well attended and were quite interactive and informative. The TOADS products as well as several instructional products were presented at the sessions. TOADS was received extremely well by the attendees. Hewlett-Packard was definitely the hit of the entire show, and in addition we have several excellent leads to follow up.

Dennis McGinn and his Atlanta crew really extended their southern hospitality at this show. They organized, coordinated, set-up, and worked on the whole show. Their enthusiasm was unbelievable — and it made the entire operation the great success that it was. Thanks.

INTERNATIONAL NEWS

TOKYO TRADE SHOW

by Malcolm Kerr

YHP Data Systems Group participated recently in the JAPANESE BUSINESS SHOW held from May 22 - 27. This was YHP's first experience at showing and demonstrating the commercially oriented M260 Data Base Management System.

The show was a great success for our Japan colleagues as it resulted in many new, qualified, potential customers. One of the major attractions at our display were the very attractive hostesses who helped explain the products to visitors. The girls in normal life are secretaries for our Tokyo sales office.

The show was a great success in all respects.

**data
systems
newsletter**
For HP Field Sales Personnel



POTPOURRI

NEW TIMESHARING AND 21MX CAMPAIGNS

by Michele Klein

Be sure to see July issues of major computer publications for two ad campaigns promoting HP minicomputers.

New ads on 2000/E, 2000/F and 3000 Model 100 get the Timesharing campaign started. Aggressive headlines stress the cost-effectiveness of HP's systems and support our prominent position in the timesharing market.

The colorful 21MX ad is the first in a campaign to promote HP's new family of minicomputers to the OEM's.

The latest ads, all in the new family style, should generate large numbers of leads. (In order that leads have more meaning, the name of the product advertised will now be noted on all bingos.)

So, watch for the ads to appear and get ready for some phone calls.

Data Systems Ad Schedule

Publication	June		July		
Datamation	OEM		3000/100, 2000/F, 2000/E		
Computerworld		26* M260	10 3000/100	17 2000/F	24 2000/E
Computer Decisions	3000		2000/F, 3000/100		
Infosystems	M230		3000/100		
Modern Data			21MX		
Electronics	OEM	11		21MX	25
Computer Design	OEM		21MX		
Measurement News	21MX		21MX		
Physics Today	Curriculum				

*reader recall study

Address inquiries and comments to: Nancy Sanford - Editor
Sales Development - Building 40
HEWLETT-PACKARD DATA SYSTEMS
11000 Wolfe Road, Cupertino, California 95014 U.S.A.
John Kobis - Art Director