

# COMPUTER SYSTEMS NEWSLETTER

*For HP Field Sales Personnel*

REINHARDT, HELMUT  
FRANKFURT  
HPSA

HEWLETT  PACKARD

Vol. 4, No. 12  
May 1, 1979

## SPECIAL ISSUE . . . HP 300 Begins General Customer Shipments

- New FORMS Capability!
  - Interview with *Ed McCracken*
  - 100th HP-300 Shipment!



# In This Issue...

## BOISE NEWS

### Product News

- New Line Printer for HP 3000  
 Computer Systems ..... T. Webster [ 3 ]  
 New 2619A Printer Literature ..... R. McCaleb/Boise [ 3 ]  
 2619 Line Printer is Discountable! ..... J. Brusseau/Boise [ 4 ]

### Division News

- Introducing Wayne Eskridge As New  
 Boise Division Support Engineer ..... T. Moore/Boise [ 4 ]  
 New Marcom Support ..... T. Webster/Boise [ 4 ]  
 New 2630 Family Sound  
 Abatement Cover ..... T. Webster/Boise [ 4 ]

### Sales Aids

- Can You Exchange a 2631A  
 For a 2631G? ..... J. Biard/HPG [ 5 ]  
 New Terminals Brochure is  
 Hot Off the Press ..... S. Brault/Boise [ 5 ]

## CSD NEWS

- Welcome CE's ..... B. Puette/CSD [ 6 ]

## DMD NEWS

### Sales Aids

- Disc Drives & System Sales —  
 Part V — Reliability ..... J. Bolt/DMD [ 7 ]  
 NASA Testimonial ..... R. Bowles/DMD [ 9 ]  
 Disc Memory Division Success  
 Stories ..... R. Bowles/DMD [ 9 ]

## DSD News

### Order Processing

- Notice of Returns ..... E. MacWilliamson [ 10 ]

### Sales Aids

- HP 2240A Sales Can Mean  
 Big Bucks ..... D. Hannebrink/DSD [ 10 ]

## DTD News

### Division News

- DTD Sales Development Gets  
 Even Better ..... R. Ferguson/DTD [ 11 ]

### Sales Aids

- New Data Comm Options ..... T. Haney/DTD [ 11 ]  
 Simple BASIC Program Converts  
 2647 Graphics Keyboard to Numeric ..... M. Willner/DTD [ 12 ]  
 A Great New 2647A Data Sheet ..... E. Grandjean/DTD [ 12 ]

### Product News

- The Track Record-Breaker  
 Records ..... E. Grandjean/DTD [ 12 ]  
 Overlay This Overlay ..... E. Grandjean/DTD [ 13 ]

### Service News

- Understanding the 2647A ROM  
 Error Message ..... G. Crowther/DTD [ 13 ]  
 Advanced CE/SE Course on  
 Data Terminals  
 Products ..... G. Crowther & H. Sindler/DTD [ 13 ]

## GSD News

### HP 300 Special Issue

- HP 300 Achieves Manufacturing  
 Release ..... B. Bowden/GSD [ 14 ]  
 Program Manager's Perspective ..... D. Crockett/GSD [ 14 ]

## New Forms/300 Capability for

- Multiterminal Applications ..... B. Bowden/GSD [ 15 ]  
 An Interview with Ed McCracken on the  
 HP 300 ..... J. Whitesell/GSD [ 16 ]  
 100th HP 300 Shipped ..... V. Kapoor/GSD [ 17 ]  
 HP 300 — Computer System for  
 European Markets ..... P. Rosenblatt/CSB [ 18 ]  
 Just Developed — An HP 300 OEM and  
 End-User Data Base ..... S. Wilk/GSD [ 18 ]  
 Using HP 300 Manuals in the  
 Selling Process ..... W. Utz/GSD [ 22 ]  
 HP 300 for an OEM ..... B. Lewin/GSD [ 23 ]  
 HP 300 SE Support Goes On-Line ..... W. Utz/GSD [ 23 ]  
 HP 300 SE Training — An Update ..... W. Utz/GSD [ 23 ]  
 Demonstrating the HP 300 ..... C. Sauer/GSD [ 26 ]  
 Computer Advances Update ..... C. Scheifele/CSG [ 26 ]  
 HP 300 File Reliability and  
 Recover ..... A. McCown [ 27 ]  
 HP 300 Marketing:  
 "We're on the MOVE" ..... M. Snodgrass/GSD [ 27 ]

## Product News

- DS/3000 Security is a  
 Big Selling Plus ..... S. Zalewski/GSD [ 27 ]  
 Word Processing on the  
 HP 3000? ..... R. Edwards/GSD [ 28 ]  
 Announcing A New Chain Line Printer  
 On The HP 3000 Series II/III ..... P. Sinclair/GSD [ 29 ]  
 VIEW/3000 ..... J. Kernke & J. Martin/GSD [ 29 ]  
 SORT/MERGE Performance  
 Tuning ..... J. Kennedy/GSD [ 30 ]

## Sales Aids

- HP 3000 Overview Slide Presentation —  
 Revisited ..... G. Miller/GSD [ 31 ]  
 New Edition of HP 3000 GIM in  
 Worldwide Distribution ..... R. Edwards/GSD [ 32 ]  
 Ordering HP 250 Sales Literature  
 for OEMs ..... J. Geer/GSD [ 32 ]  
 HP 250 Customer-Course  
 Materials ..... G. Snowden/GSD [ 32 ]  
 Two HP 3000 Systems Using DS/3000 Improve  
 Market Researchers' Productivity ..... R. Edwards/GSD [ 33 ]

## General News

- Series 33 Launched in NYC in  
 Computer Expo '79 ..... R. Edwards/GSD [ 34 ]  
 HP 250 Reorganization ..... R. James/GSD [ 35 ]  
 The SE Support Function in FCD ..... S. Solt/GSD [ 35 ]  
 First European DSM  
 Meeting Held ..... A. Nonnenberg/CSB [ 36 ]

## HPG News

### Division News

- Technical Support: Another Expert  
 Ready to Help ..... F. Marc/HPG [ 38 ]  
 English Journalists on an HPG  
 Factory Visit ..... P. Stuart/HPG [ 38 ]

### Product News

- Display Or No Display on a  
 Standard 3077A? ..... M. Nodier/HPG [ 39 ]

### Sales Aids

- 3075, 3076, 3077/264X  
 Compatibility ..... M. Richez/HPG [ 39 ]

## CSG NEWS

### CSG News

- CSG Overview Expands ..... J. Ryden/CSG [ 40 ]

# BOISE DIVISION NEWS

## Product News

### New Line Printer for HP 3000 Computer Systems

By: Thad Webster/Boise

Now a 1000-line-per-minute chain-technology line printer is available on Hewlett-Packard 3000 Series II and Series III Computer Systems. Chain technology in the HP 2619A Line Printer assures clear, clean printing and excellence of horizontal registration, while two sets of paper feed tractors tense the paper over the print area to prevent ghosting and smudging. Up to 6-part forms are cleanly printed, even on the last copy. Operating rate is enhanced with a paper slew speed of 40 inches per second; a paper puller at the paper path exit assures smooth, no-jam performance at top speeds. Should a jam ever occur, printing will stop within two lines.

Forms may be as narrow as 89 mm (3.5 inches) or as wide as 495 mm (19.5 inches). The dual tractors, above and below the print area, move easily at the touch of a switch, even during operation, for easy adjustment of paper position. A paper-tape 12-channel Vertical Forms Unit (VFU) makes it possible to rapidly interchange many special forms of the 2619A. The user may select printing at six or eight lines per inch. The U.S. ASCII 64-character set is standard. Interface is HP differential line drive.

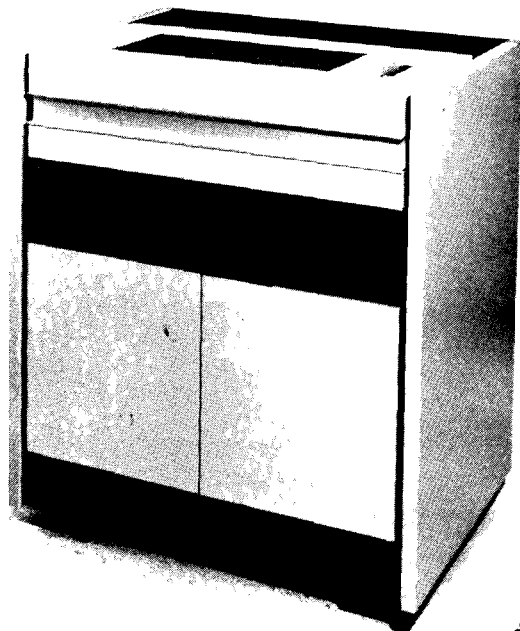
#### Ease of Use, Simplicity of Maintenance

Print mechanism of the 2619A opens out of the way, for ease of loading paper. The paper supply is out of sight in the cabinet, which closes securely for quietness. Ribbon change is easy; a ribbon deskew mechanism keeps it straight and extends its life. A built-in vacuum system continuously cleans the print chain and can be used by the operator to remove paper dust. Self-test makes it easy and fast to determine when any fault requires a service call.

#### Price and Delivery

Produced for Hewlett-Packard by Data Printer Corporation, Malden, Massachusetts, the HP 2619A Line Printer is priced

in the U.S. at \$21,000 without controller or I/O cable. Current delivery estimates are 12 weeks. Discounts are available on CSG Purchase Agreement, Schedule A1.



Computer  
Museum

### New 2619A Printer Literature

By: Robert McCaleb/Boise

We have distributed the following information to most District Managers:

- HP 2619A PRESS RELEASE
- HP 2619A DATA SHEET (5952-9448)
- HP 2619A SALES REFERENCE MANUAL
- HP 2619A PRINT SAMPLES

There will not be 2619A printers in consignment for customer demos or print sample generation. Boise Sales Development will attempt to provide these "sales services":

1. Call us for limited numbers of print samples.
2. We are in the process of making a short video tape, suitable for customer showing, sales training, or whatever. We will let you know when it's available.

Product Management is updating the *Guide To Hardcopy Printers* brochure that does an excellent job selling the Family of System Printers (5952-9413). This brochure even helps the customer determine which printer (or printers) best fit his printing requirements by charting relative output volumes of the HP printer family.

---

### 2619 Line Printer is Discountable!

By: Jim Brusseau/Boise

The announcement of the 2619 1000 LPM full-font printer has added a number of strong selling features to your system peripheral capabilities. One of the more significant features is that the new chain-type printer is now discountable on the A1 schedule. This means that 2619's purchased with computer systems can be priced with the system level discount. Notice that it is *not* asterisked, and is therefore not component discountable.

Having the 2619 on the A1 discount schedule now gives you the capability of further enhancing the strong price-performance of your new 1000 LPM chain-type printer from Boise.

---

## Division News

### Introducing Wayne Eskridge As New Boise Division Support Engineer

By Tom Moore/Boise



Since *Wayne* joined HP from a local engineering firm, he has been working with *Dave Gerhart* on support of the 263X Family of printers and terminals. *Wayne* will now be taking over full support of those products and *Dave* will begin planning support activities for a future Boise Product. *Wayne* received his BSEE degree from the University of Idaho in 1965. He brings a broad background of experience in electronic design and business management to HP.

### New Marcom Support

By: Thad Webster/Boise



We welcome to Boise Division Sales Development *Sue Brault* (as in San Andreas *FAULT*). We have needed some one like *Sue* for some time due to the heavy demand for sales promotional activities, audio-visual presentations, trade show coordination, etc. etc.

*Sue's* background is ideal for her assignment. First, she's a Boise native and loves to snow ski. She graduated from Boise State University in 1977 with a B.A. in communications. Before coming to HP she worked on the "Idaho Heritage" magazine and worked for a local news station. She has been at HP for nearly two years. She came to Sales Development from our Personnel Department where she worked on internal publications.

Call *Sue* or myself for your MARCOM ideas.

---

### New 2630 Family Sound Abatement Cover

by: Thad Webster/Boise



The long-awaited sound abatement cover for the 2630 Family is now on the Corporate Price List. Look for product number 26090A. Cost is \$100. This is an accessory that is always ordered by its product number (not an option to another product).

The cover is easily installed on existing or new printers. Two clips hold the cover in place on top of the printer where the paper exits the housing.

Availability will be within 6 weeks.

## Sales Aids

### Can You Exchange a 2631A for a 2631G?

By: Jacques Biard/HPG

One of the most popular questions on Boise terminals is:

"Is it possible to address as an LU a 2631G attached to a 2648A connected to an HP 1000 system using 12966A and DVR 05?" (Read this question a second time and then continue.)

Well, the answer is NO. The reason is that although the 2631A and 2631G are very similar, they use different drivers in the terminal and thus have different peripheral numbers (4 for the 2631A and 5 for the 2631G); DVR 05 can only access peripheral 4. A work-around may be to use the RECORD or EDIT mode of the terminal, if an interactive session with the CRT is not required at the same time.

### New Terminals Brochure is Hot Off the Press

By: Sue Brault/Boise

"Hewlett-Packard's Family of Data Terminals Product Guide", co-ordinated and published by Boise Division, is now available. This 12 page, full-color brochure features HP as having the most compatible line of data terminals and includes Graphics, Data Capture, Printers and Interactive Terminals. Taking a combined character of a product brochure and catalogue, the publication features the following HP products:

### Interactive Terminals

2621A/2621P  
2635A Printing Terminal  
2639A Printing Terminal  
2640B Display Terminal  
2641A APL Display Station  
2645 Display Station  
2649A Microprogrammable Terminal

### Printers

2631A Printer  
9871A Impact Printer  
9876A Thermal Graphics Printer

### Data Capture

307X Family of Data Capture Terminals  
7260A Optical Mark Reader

### Graphics Terminals

2631G Graphics Printer  
2647A Intelligent Graphics Terminal  
2648A Graphics Terminal  
7225A Graphics Plotter  
7245A Plotter/Printer  
9872A and 7221A Multicolor Graphics Plotters  
9874A Digitizer

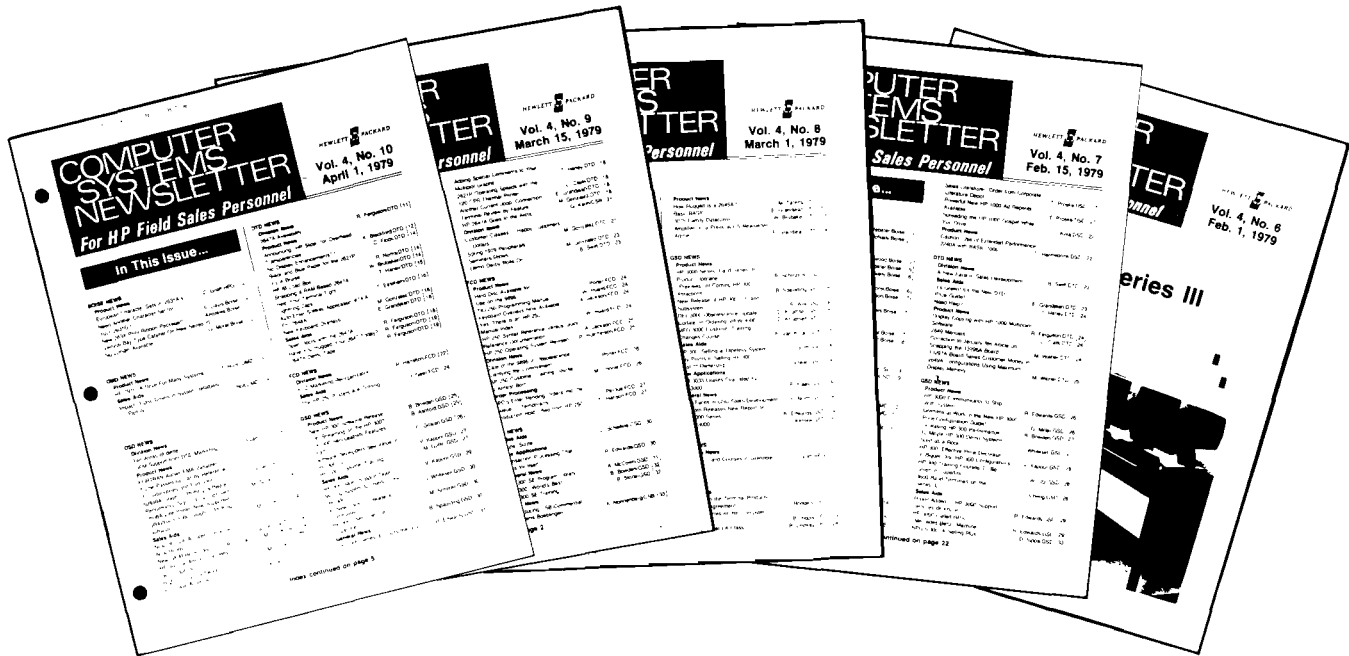
### Systems

HP 250/300/3000 Series 33/3000 Series III

Inserted in the brochure is a customer response card designed for specific customer application requests. This new terminal brochure is a terrific sales tool that encompasses all the data terminals and their applications offered by Hewlett-Packard. This new publication can be ordered by part number 5952-9447.

# COMPUTER SERVICE NEWS

Welcome CE's  
By: Bob Puette/CSD



Starting with this issue, we've added all CE's around the world to the distribution of the CS Newsletter. I believe this will provide more overall Marketing and Sales information from all product divisions to our CE Organization, as well as, let us at CSD provide more information on our Marketing program for maintenance services to all field personnel.

We will be increasing our Marketing efforts at CSD significantly this year and have named two key individuals within the Marketing team already.

Olen Morain moved into the position of Sales Manager for CSD effective April 16th. Olen received his BSEE from the University of Washington before joining HP and has been with HP for 14 years starting as a Sales Representative for Neely. He then developed the Neely Data Center and managed it from 1970 to 1973. The 1973 Olen became the Neely Customer Engineering Manager where he was until 1977 when he joined CSD to help formulate some of the basic service products we have today.

In his new assignment Olen will be responsible for all contact with our CSG field sales force regarding our worldwide service capabilities, handling major account service programs and visits to Cupertino, and developing sales aids to promote our service program worldwide.

Mike Torgersen assumes the responsibilities of Product Marketing Manager for CSD effective April 1. Mike received his BSME from the University of Illinois and MBA from the University of Chicago before joining HP six years ago. Mike initially joined APD in Production Control. There he set up and ran the Central Repair Organization for pocket calculators before joining CSD as the Exchange Product Manager which he has been managing until now.

In his new assignment, Mike will be responsible for defining our service products, BMMC and board exchange pricing, and developing a merchandising program for our CSG support capabilities.

All of you can look forward to seeing more in the CSD section of your Newsletter.

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

**For research and education purposes only.**

# DISC MEMORY NEWS

## Sales Aids

### Disc Drives & System Sales — Part V — Reliability

By: Jon Bolt/DMD

Product reliability and durability are the key benefits we've achieved through vertical integration and implementation of specialized manufacturing processes. The levels of disc reliability we have attained can be identified in three ways: the BMMC's of our products, through warranty reports, and through customer references and testimony.

#### BMMC's and Reliability

BMMC's (Basic Monthly Maintenance Charge) are actually a quantified measure of product reliability. A BMMC is set once the actual cost to service and maintain the product is determined by the manufacturer. Generally, a less reliable design will be more expensive to maintain, incurring a higher BMMC. BMMC's for HP 7906, 7920, and 7925 drives are about the lowest in the industry compared to drives of comparable capacities. In fact, the 7920S at \$54/month and the 7925S at \$62/month have service charges one half to one third that of most other comparable drives. Even at these low BMMC's, CSD can still meet profit targets! Aside from being a good measure of reliability, these low BMMC's make HP drives less expensive and easier to own.

#### Warranty Reports, Failure Rates, and MTBF's

Warranty reports issued by DMD's Product Assurance department provide a second source of information for measuring product reliability. These reports tabulate field failures occurring on all products that are within their 90-day warranty period. Because DMD's Product Assurance department pays for all these warranty repairs, warranty failure statistics are very complete. These reports constitute the only valid statistical measurements of product reliability available. These reports cannot be used to determine legitimate MTBF's (Mean Time Between Failures) for our products because true MTBF figures must be derived from long-term failure history of a product — not from early life

data alone. These reports currently show that each of our MC family drives have roughly the same failure rates — about 25% of all drives fail during the three month warranty period. Is this good? You bet it is!!

If we could verify that this failure rate was, in fact, the long term failure rate the product exhibits once mature, we could use the classical reliability formula to determine an MTBF. We assume our drives are powered up for approximately 18 hours per day in the typical customer environment. The calculation for this hypothetical product works out to an MTBF of about 5650 hours as shown in the following figure. We could further use this same tool, now knowing this MTBF, to predict how this product might behave after having been operating in the field for a period of time. After one year, over 31% of the products would have experienced no failures whatsoever. After two full years of operation, 10% of our drives would still be failure-free. This level of reliability performance is exceptional compared to any computer component — electro-mechanical or otherwise. Essentially, these numbers agree with testimony we receive periodically from the field, indicating that HP drives fail about once per year.

Unfortunately, warranty statistics are *not* sufficient for calculating a legitimate MTBF value. Calculating MTBF's requires long term failure history of the product. MTBF figures apply only when the product failure rate is constant with time. Products typically exhibit a constant failure rate, month-to-month only after having matured through long-term field operation. We know our products are shipped in that early portion of their life when the failure rate is decreasing. During early life, as residual imperfections in components are discovered (through failure) and repaired, product reliability improves, resulting in a decreasing failure rate. This early period of product life is known as the "infant mortality period". Factory burn-in and drive run-in procedures are designed to find most of these imperfections, resulting in fewest possible early failures; however, products still exhibit higher failure rates in early life (warranty) as compared to mature products. Because warranty reports do not provide long-term product failure information that would allow us to determine accurate mature product failure rates, we cannot determine realistic MTBF data from these reports. However, we know, in fact, that mature product failure rate is lower than that occurring during warranty; consequently, actual product reliability is better than that implied by three-month warranty figures.



Our lack of MTBF data should really represent little handicap. MTBF figures can be easily misinterpreted. MTBF figures, when valid, apply only to a statistical sample of products. There is enough variation, product-to-product, that most customers may never see their drive(s) perform anything like the calculated MTBF implies. The unit the customer receives may not fail at all in several years; however, it may fail once or even twice during the warranty period. In other words, MTBF numbers are not fail indicators of *individual* product performance. Use of these numbers invites the opportunity for customer dissatisfaction with respect to expected product performance if the customer is now aware of their true significance. DMD will not quote MTBF figures because of the legal liabilities we might incur as a result of insufficient data or foundation for these figures. We can, however, provide the latest warranty failure rate information if data of a statistical nature is needed. In general, we are confident in saying that on the average, HP drives fail about once per year.

**Customer References**

Perhaps the most convincing method of relating product reliability to potential customers is by citing the experiences of existing customers. Here are two examples:

**General Dynamics Electronics: — San Diego, Calif.**

GDE now uses our 7906 disc drives as part of an avionics test set built for the F-16 fighter. This test apparatus is supplied to the Navy for use aboard aircraft carriers. Prior to configuring the final test systems, each drive to be incorporated into these systems is run-in for 660 hours of continuous operation with heads loaded and performing diagnostic passes. In the first run, 32 drives were run-in for a total of 21,120 hours. Only two failures occurred!

**NASA Goddard Space Flight Center:  
— Greenbelt, Maryland**

On July 26, 1972, Nasa engineers performed an in-flight test of an HP 7900A disc drive and 2100 computing system to determine the suitability of the system for airborne research. The 7900A was mounted in a rack that was bolted to the frame of the C-141 aircraft. The rack itself was designed to withstand the torques resulting from tight turns; however, no shock mounts were used anywhere in the system. The drive ran diagnostic passes continually from take-off through landing for a test duration of two hours. Test conditions included:

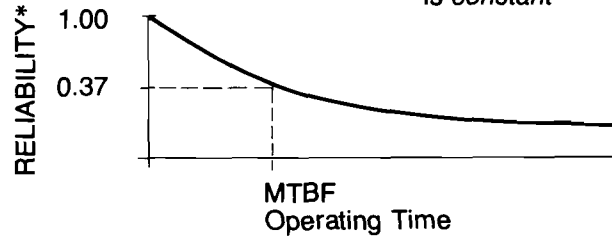
- Repeated Power failure
- Air pressure equal to 10,000 ft. altitude
- Gyrotorques from rapid "rolling" of mount
- Sustained stress at 2.4 g's
- "Weightlessness" (0.0 g acceleration)
- Shock = 3-inch free drop
- Vibrations resulting from turbofan engines
- Shake tests resulting from rapid extension of flaps and spoilers at maximum safe speed.

These conditions were applied through rapid ascents, rapid descents, 45° rolls, landing, take-offs and normal flight. During the entire test period, the drive operated without a single error. This test showed that disc-based systems definitely can be used during normal flight conditions.

**Tools For Evaluating Product Reliability**

**Classical Reliability Curve**

Reliability =  $R = e^{-t/MTBF}$   
When Failure Rate is constant



\*Fraction of Product Population *not yet failed*

MTBF Calculation in a hypothetical case:

Suppose failure rate is known to be constant at 25% in three months field time. Assume 18 hours/day operating time.

3 months = 90 × 18 hours = 1620 hours = t  
R = 100%-failures = 75% = .75

Applying classical reliability formula:

$R = e^{-t/MTBF}$   
 $\ln R = -t/MTBF$   
 $MTBF = (-t/\ln R) = 5625 \text{ hours}$

Anticipated Product Reliability Performed based on MTBF of 5625 hours (assuming constant failure rate)-

After 1 year of operation:

1 year = 360 × 18 hours = 6480 hours  
 $R_1 = e^{-6480/5625} = .315$   
= 31.6% unfailed after 1 year

After 2 years of operation:

2 years = 720 × 18 hours = 12960 hours  
 $R_2 = e^{-12960/5625} = .100$   
= 10% unfailed after 2 years!

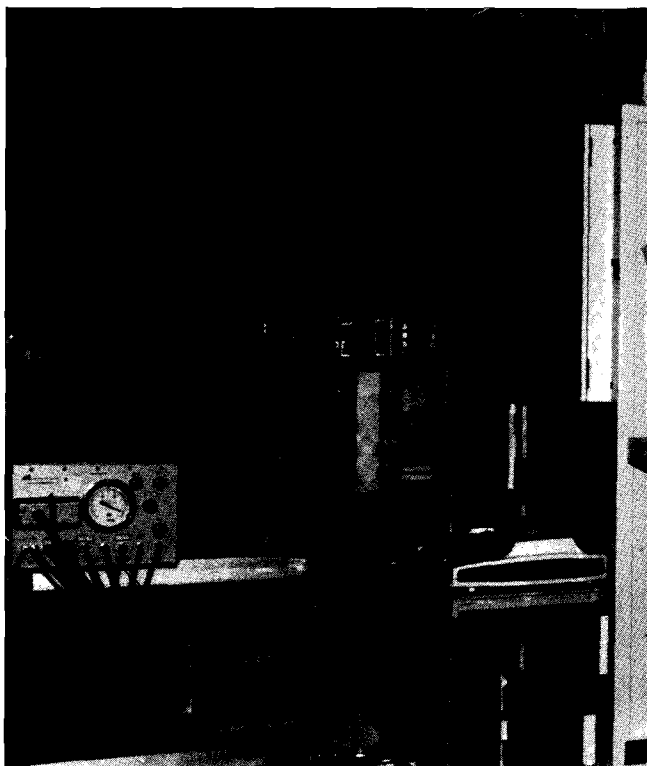
## NASA Testimonial

By: Rich Bowles/DMD



NASA is using a Hewlett-Packard 7905 disc drive (predecessor of the 7906) in a C-54 airplane as part of their laser physics research. The state-of-the-art Airborne Oceanographic Lidar (AOL) system uses a scanning pulsed laser to map geographic contours, most frequently over the Atlantic and Carribean oceans. It works basically like a conventional radar but is much more accurate. In operation, the plane is usually at about 500 ft. altitude which subjects it and its precious cargo to extreme turbulence and corrosive ocean spray. It flies long distances in near-perfect straight lines while rolled 15 degrees from horizontal.

The C-54 is an older plane, and is not pressurized or very well sealed in general, so no air conditioning is possible. Pilots report that a cabin temperature of 95°F and humidity of 90% is normal.



Can you find the 7905?

During the two years the 7905 has been operational, it has performed flawlessly. Not a single problem. Conservative estimates by the personnel at Wallops Island Virginia figure that the drive operates at least 8-10 hours a day, five days per week and often on weekends, too. It is important to note that no special shock mounting was used on the drive.

Recently, however, while returning through the dreaded Bermuda Triangle, an area famous for it's strange and catastrophic incidents, the 7905 was mortified. During a treacherous thunderstorm (typhoon), the plane dove quickly down to almost sea level from 5000 ft. in a vain attempt to fly under mother nature's blight. Hours later, the ground crew found the drive still running although soaked with water. It was, "like a dishwasher, but worse," in the instrument bay. Apparently the water had condensed out of the air when the temperature changed quickly during the diving maneuver. Severe rust had already set in on most of the ferrous parts in the drive.

Frank Hoge and Tom Harmon of NASA have only praise for the performance of the 7905. As a matter of fact, the drive is scheduled to be up and flying, newly rebuilt and undaunted by the harsh environment, by the time this is printed.

Many thanks go to Ron Cornett, Sales Representative, and Glen McNay, Customer Engineer, in the Richmond office for their invaluable assistance in compiling this report.

---

## Disc Memory Division Success Stories

By: Rich Bowles/DMD

Jon Bolt points out in his article on reliability in this issue that one way to depict the endurance of our drives is to draw upon customer experience.

Beginning with this issue, DMD will report any interesting or unusual applications that come to our attention. Some already being researched include a sawmill, a steel plant, and an Army tank test vehicle. I am sure there are many others, so I want to ask for your help in referring any leads and information to your Sales Development contact (Jon, Kevin, or myself).

We will thoroughly research the most newsworthy stories and disseminate the final report to all the field sales force through the CS Newsletter. In time, this should provide you with a library of accurate and reliable "success stories" that you can use as a sales tool or a customer reference.

# DATA SYSTEMS NEWS

## Order Processing

### Notice of Returns

By: Emily MacWilliamson

Due to the increase in the number of products that are being returned to DSD for credit without prior division approval, it's important to remind you of the procedure for returning products:

1. The Return Coordinator should always be contacted for approval within 30 days of shipment from the factory. After your return has been approved, the product must be returned within 30 days. If the product is not received in 30 days the sales office will be reminded of the open notice of return via a TWX. The notice of return will automatically be extended for an additional 30 days. If the products are not returned within 60 days, the return approval will be cancelled and the sales office will be asked to take the product into their own consignment. Always reference the Sales Order number, customer name, and the reason for return on the packing list to insure that the return will be processed.
2. Any products that are returned to the factory without prior approval will be returned to the sales office.

If these procedures are followed by everyone your returns will be processed more efficiently when they are received at DSD and you will be aiding in managing our inventory better.

**Thank you for your help!**

## Sales Aids

### HP 2240A Sales Can Mean Big Bucks

By: Dave Hannebrink/DSD

It's well known how the HP 2240A Measurement and Control Processor can leverage big HP 1000 sales. However, did you know that the dollar value of the 2240A content alone can be significant? In March the average 2240A order included \$9600 of mainframes, measurement cards, and signal conditioning accessories!

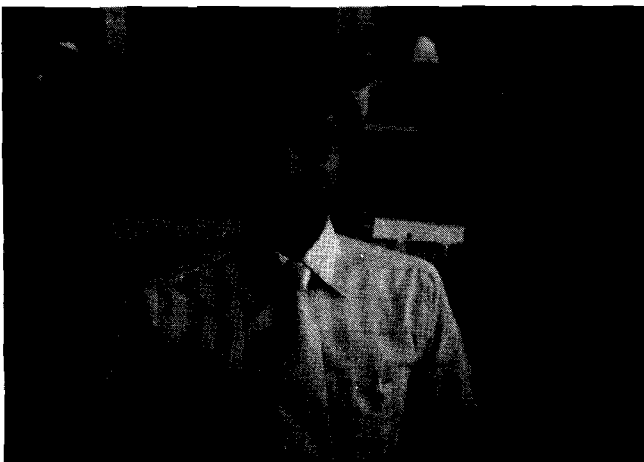
We're really seeing our share of large HP 1000-based 2240A applications, many of which are going into manufacturing areas. And for these sales, the dollars do add up in a hurry.

Make the intelligent choice — *invest* your time in the 2240A!

# DATA TERMINALS NEWS

## Division News

**DTD Sales Development Gets Even Better**  
 By: Rich Ferguson/DTD



I am very pleased to announce that *Bob Lin* has joined DTD Sales Development. He comes to us from HP Labs, and he will be supporting the Midwest-East area. (*Martin Gonzalez* will continue to support the Midwest-West area.)

*Bob* holds both a BSEE and Masters in Electrical-Engineering. Not stopping there, he is also pursuing his MBA. We are certainly lucky to have *Bob* join us and when you get a chance, call and say "hi."

## Sales Aids

**New Data Comm Options**  
 By: Tim Haney/DTD

In an effort to simplify the ordering and production processes, we are creating three new options which will appear on the May 1 Price List. Options 032, 033, 034 will combine option 030 (delete standard communications) with either 13260B, C, or D respectively.

Therefore, if alternate communications are selected, standard communications will automatically be deleted.

For all 264X products currently offering Option 030, the new options are defined as follows:

Option	Description
032	Same as Opt. 030 13260B Extended Asynchronous Communications
033	Same as Op. 030 13260C Asynchronous Multipoint Communications (including Monitor Mode)
034	Same as Opt. 030 13260D Synchronous Multipoint Communications (including Monitor Mode)

Note that Options 033 and 034 include Monitor Mode. If customers are concerned about security over the multipoint lines and do not want Monitor Mode, one of two actions should be taken: (1) order terminals using the current procedure of Option 030 and 13260C or D without Monitor Mode; or (2) order the standard chip from Customer Parts Center (1818-0584) to replace the Monitor Mode chip (1818-0583).

NOTE: These options are not only easier to order but they are also less expensive.

On May 1 CPL, 2645A, K, N, R, S, 2641A, 2647A, 2648A will have these new options:

- 032 Substitute GP Async for standard Dacom \$150
- 033 Substitute Async Multipoint (with Mon.Mode) \$250
- 034 Substitute Sync Multipoint (with Mon. Mode) \$275

The 2649B,C will have these options on the June 1 price list. This is the first step in our product simplification plans. Option 030 will remain on the CPL for a transition period. These options offer a lower price compared to the Option 13260 approach. Note that Monitor Mode is always standard with -033 and -034.

## Simple BASIC Program Converts 2647 Graphics Keypad to Numeric

By: Mark Willner/DTD

The following basic program is a great example of the flexibility of 2647. Using it in a customer demo will convey how easy it is to re-define any key on the keyboard.

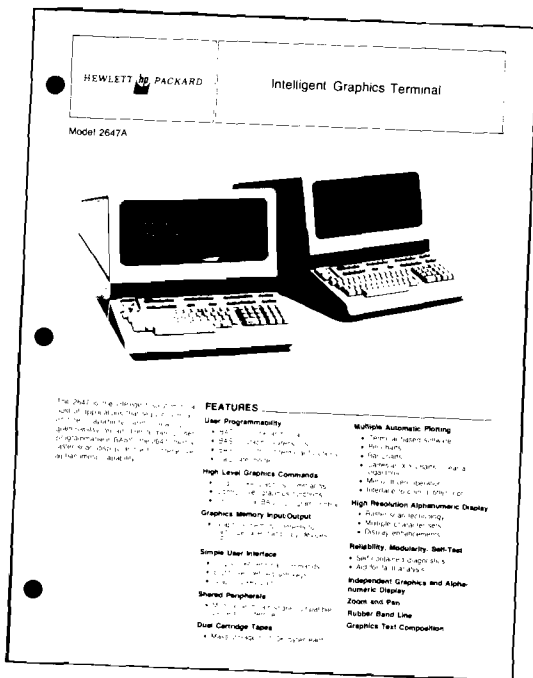
```

10 REM THIS PROGRAM CONVERTS THE GRAPHICS KEYPAD TO A NUMERIC
20 REM KEYPAD. ORIGINAL FUNCIONS ARE DISABLED.
30 REM
40 DATA 95,55,87,56,79,57,7,52,15,53,23,54,6,49,14,50,22,51,86,48,78,46
80 FOR I=1 TO 11
90 READ X,Y
100 KEYCODE (0,X,Y)
120 NEXT I
130 END
    
```

**SELL SHARED PERIPHERAL CONFIGURATIONS!**

## A Great New 2647A Data Sheet

By: Eric Grandjean/DTD



A great new two-color 2647A Data Sheet is now in stock, but wait until you hear this one!

We goofed on the part number. The number should have been 5953-2004. Instead, the number printed on the back-side is 5953-2021 which is the same as the 2621A/P Data Sheet. What to do?

To simplify everyone's life, just order #5953-2004 (5953-2021) 2/79 2647A Data Sheet. In this way our warehouse won't hit the roof when they see this mis-match on your orders.

Sorry for that. We have too many of those data sheets to scrap them. Hope you can live with that situation for a while.

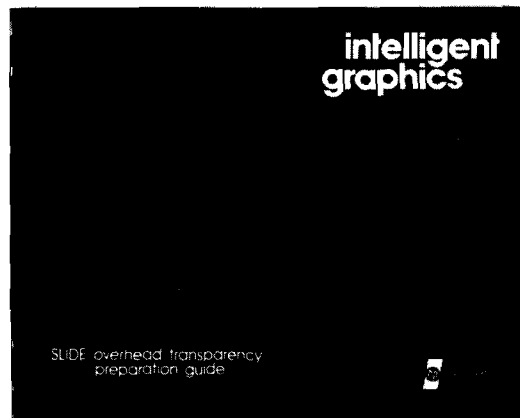
**GOOD SELLING!**

## Product News

### The Track Record-Breaker Records

By: Eric Grandjean/DTD

The 2647A has broken many records since its announcement. Like all purebred racing terminals it took a little time to tune to its racing condition and now everything is coming together rather fast and orders are pouring in. We will have the final manuals in April, and right now we are happy to announce the 2647A racy slide overhead transparency preparation guide (a users manual) to match the unbeatable BASIC/Multiplot/AGL.



The format of the slide overhead transparency preparation guide is 7" x 8½" and the part number is 02647-90008. I suggest that you order your own copy now. As you know multiplot now also includes the slide maker program. It's dynamite.

Your customers will get it automatically, with all 2647A's shipped after April 2nd 1979.

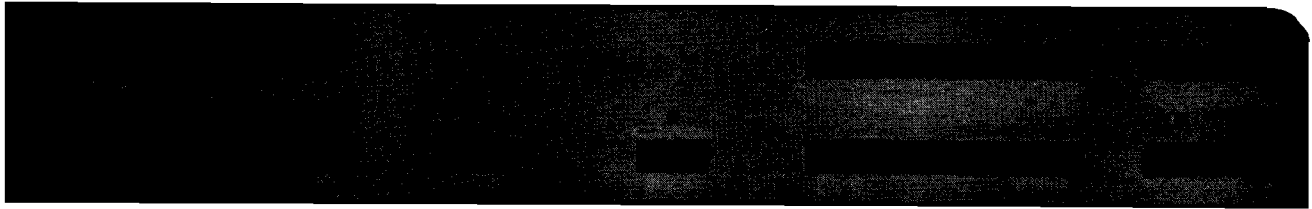
For automatic PIE — BAR — LINEAR — LOG — SEMI-LOG — or overhead slide generation — you can do it all. Before you are even ready to connect to a computer!

The 2647A is worth more than its price.

**SELL INTELLIGENT GRAPHIC TERMINALS!**

**Overlay This Overlay***By: Eric Grandjean/DTD*

A small error accidentally crept into the article about keyboard overlays in the April 1st issue of the *CS Newsletter*. The overlay 5000-8083 on page 18 really should look like this:



I suggest that you simply paste a copy of the above overlay on top of the April 1 issue picture and you have it made. I guess that you just can't fool April first!

**Service News****Understanding the 2647A ROM Error Message***By: Gail Crowther/DTD*

In the preliminary manuals that were sent out on the 2647A, the 2647A ROM error message was not clearly defined. The message looks like this:

"BS" 

CLOSED
OPEN

 ROM ERROR XX

Let's take the message and divide it into two parts. The second half of the message you should recognize as being the ROM Error Message from the other 264X terminals.

e.g.: ROM ERROR 10

As you know, this is telling you to change the ROM on the Control Memory Board that is in socket address 10. (All sockets are labeled on the board next to the sockets).

Now let's look at the first half of the message:

ie: "BS" 

CLOSED
OPEN

The BS is referring to the third switch on the Control Memory Board (02640-60221). This switch is set differently for each Control Memory Board.

By being either closed or open the "BS" switch sets a unique pseudo-address bit in the Mode Latch of the processor. Therefore the message:

"BS" OPEN ROM ERROR 16

tells you to take the Control Memory Board with the BS switch (#3) open and replace the ROM in address slot 16.

If replacing the ROM doesn't get rid of the error, try replacing the Control Memory Board itself. The message could be indicating a bad socket.

**Advanced CE/SE Course on Data Terminals Products***By: Gail Crowther & Hal Sindler/DTD*

Product Support at Data Terminals has recently combined our CE and SE classes into a single course for both CE's and SE's. It is a 400-Level course being offered on Data Terminal products June 11 through June 15 and September 10 through September 14.

All requests to register for this course must be directed to Cindy Harris, CSG Training, (408) 996-9383 ext. 335.

The objectives of this course are to raise the Customer Engineers' and System Engineers' capabilities to the highest technical level on Data Terminal products; to enable the CE and SE to solve Point-to-Point and Multipoint system problems utilizing a 1640A Data Analyzer; and to connect HP terminals to other computer systems and peripherals.

Course content includes one day on terminal strapping, one day on the development terminal (13290B) and Debugger Assembler, two days on data communications and the 1640A Data Analyzer, and one day on new products (the 2647A, 2621A/P, the 3075A, 3076A and 3077A).

If you are interested in attending this course, consult your DCEM or DSEM for more details as they will be receiving a full outline sometime during the beginning of May.

Call early to be sure you are registered in the next class!

# GENERAL SYSTEMS NEWS

## HP300 Special Issue

### HP 300 Achieves Manufacturing Release

By: Bob Bowden/GSD

The HP 300 Program recently passed a significant milestone by achieving Manufacturing Release (MR). MR is an important point in the early life of a new product in that it represents the formal passing from the Lab to Manufacturing of primary responsibility for the developed product.

With MR, the normal early qualifications on accepting orders and shipments can be removed, allowing volume customer shipments to begin. We are now at that point in the HP 300 Program. In fact, HP 300 is already off to a solid start with over 100 systems at demo sites and in the hands of early customers.

As a result of Manufacturing Release, a new set of software corresponding to the released system will be distributed shortly for updating all HP 300 systems (A.01.01). This software fulfills the complete set of capabilities described in the HP 300 Price/Configuration Guide. This includes the addition of complete large disc support for up to 260 Megabytes of storage and the ability to use a second serial printer on the System.

### Forms/300 Now Available

In addition to solidifying capabilities that were previously announced the latest software release now includes a significant brand new capability — Forms/300, (described here in a separate article). This provides a multi-terminal, full-screen forms capability for greater programmer flexibility and productivity.

In addition, major improvements have been made in many areas over the February software version of the system. A new issue of the HP 300 Communicator (April 1979), reflecting these improvements and technically characterizing the state of the system, is available from HP 300 User Services and is being distributed along with the updates to the operating system.

This Manufacturing Release of the HP 300 represents a firm base on which to build as we introduce the new capabilities in the coming months that will eventually lead to the HP 300 becoming a complete line of business computer systems.

### Program Manager's Perspective

By: Dave Crockett/GSD

Now that the HP 300 has reached a major milestone of having been fully and formally released to manufacturing for volume shipment, I would like to reflect on the original design goals of this significant new product, as well as take a peek at the future.

One of our primary goals was to build a "friendly" system. The definition in 1974 consisted of the following characteristics:

- Integrated Program Development and Execution
- Transaction Processing
- Technology for Capability Contribution
- Provide for System Growth

By 1975, marketing and manufacturing representation was added to the project to help refine the product for manufacturability and serviceability. The characteristics previously outlined are beginning to take shape as we see the product today and in forms not yet revealed.

### Integrated Program Development and Execution

The Integrated Display System (IDS) with softkeys, windowing, split screen and menu selection became an integral part of the system software and user interface. The language monitor was added to view the system via the chosen user language. The commands were simplified and the number of operational steps was reduced, with abbreviations accepted and spelling correction added. System programmers began to depend on these features as well as the built-in debug aids. It was the view of the team that it was important to break from the HP 3000 architecture to produce a true virtual memory system having both code and data segmentation including system services for future performance tuning. Also the addition of the workspace to keep track of files, file equates, symbol tables and parameters did much to help the program development environment.

**Transaction Processing**

We wanted the HP 300 to ultimately become the best transaction processing system ever. Performance tuning must still be done, but the fundamental ground work is now in place. The system has built-in multitasking so multiple terminals can share code and data providing inter-task communication, synchronization, queueing and priority services, and sharing of resources. Multiprogramming provides concurrent program development with multiple applications. The single access method for all files simplifies programming and increases flexibility. RPG II provides on-line syntax checking and coding forms. BASIC provides access to system services and commercial features.

**Technology for Capability Contribution**

The SOS technology met our expectations in providing low power, high speed, high density, circuit flexibility, easy logic design and reliability. It is unlikely that any other technology would have made the compact package with full systems capability possible.

Of great importance is the fact that the current 3-chip CPU, 3 separate 16-bit microprocessors and I/O interface are merely first steps. The impact to AMIGO over the years will be truly significant. The asynchronous memory system with single bit correction, double bit error detection and error logging is designed to easily facilitate future memory advances in terms of speed and density. The sealed fixed disc from DMD provides a reliable system disc needed for the integrated design.

**Provide for System Growth**

This is perhaps the most important characteristic in starting a new product line. It is planned to provide customer growth along two dimensions. First is the traditional method of building multiple models with different performance characteristics. Second is the addition of one or more processors to divide the applications(s) along functional lines with network interconnections. These capabilities have not yet been announced to the world. What has been announced is the ease of growth via ease of installation, configuration with self-tests and diagnostic/verification programs.

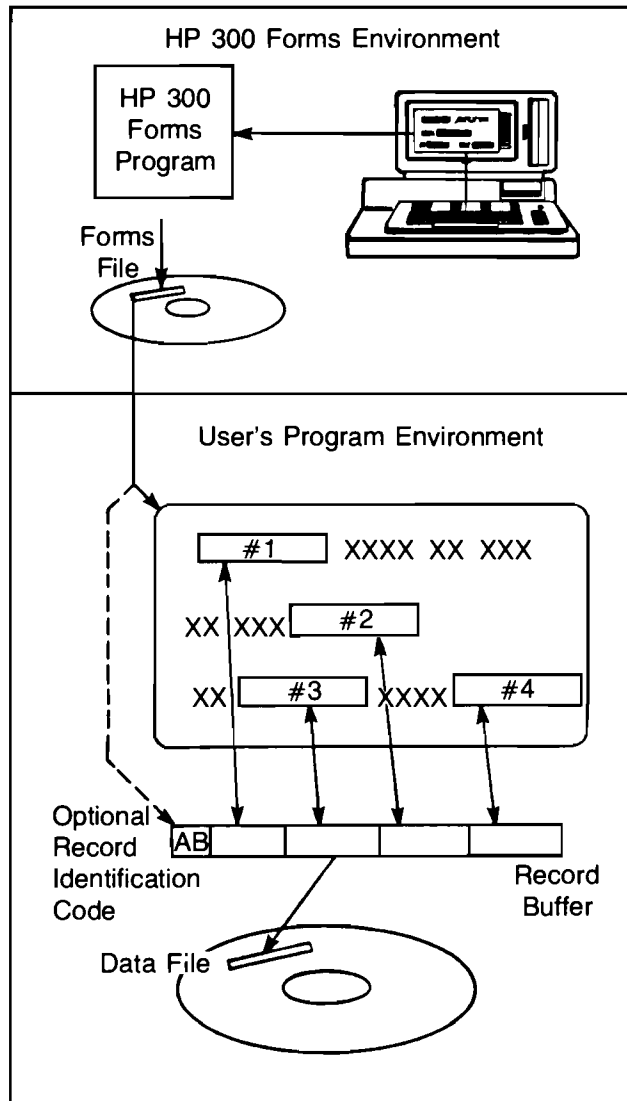
**Where Are We Today?**

HP 300 is at the beginning of a new product line. In getting to know the system, one can see the computer of the future. (Our competitors are already starting to target their programs against HP 300.) We are off to a solid start. Production, service and training and support are in place. These organizations are already professional and responsive to field needs. The system has reached a previously unmatched level of reliability for being this early in the product life cycle, and each release improves upon the previous one.

As a business team, we feel that we have the most significant product ever produced, and we look forward to working with the field and customers to apply it to solving customers' problems and giving lasting value and customer satisfaction.

**New Forms/300 Capability for Multiterminal Applications**

*By: Bob Bowden/GSD*



A new capability for creating displayed forms for multiterminal applications has been added to the HP 300. It is called Forms/300 and is included free as part of the standard HP 300 software. Forms/300 is aimed at improving programmer productivity by providing an efficient and easy to use way of creating and modifying multiterminal forms, as well as a simple interface for RPG programming.

With Forms/300, forms are created and modified on the IDS taking full advantage of labelled softkeys and the interactive editing features available. The complete range of display enhancements, unprotected fields, and field attributes (such as numeric-only fields, number of characters, and position in the I/O buffer created) can be used in setting fields for the inputting and outputting of data. Also, multiple full-display forms can be created as part of a forms file for use with one or more application programs.

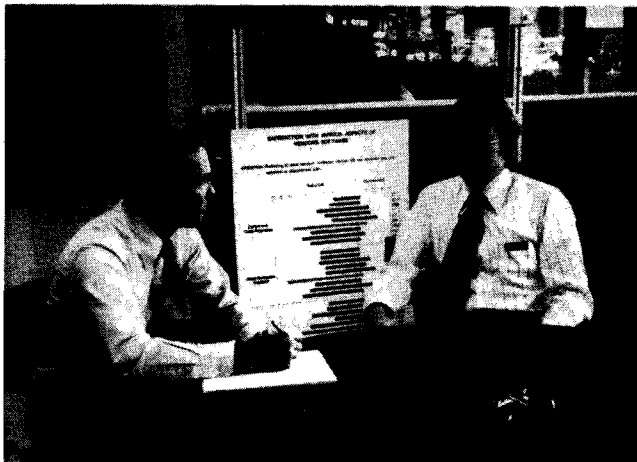


Once forms have been created on the IDS, they can be used directly by RPG II programs and via intrinsic calls in BASIC programs, to run on multiple application terminals, as well as the IDS if desired. RPG II's standard file, input and output specifications types provide an easy interface to using Forms/300 created files.

Try it yourself! Just type "RUN FORMS" on an HP 300 and begin to create your own display forms for multiterminal applications. A new reference manual, Forms/300 (31445-90002) has also been added to the HP 300's standard manual set.

## An Interview with Ed McCracken on the HP 300

By: John Whitesell/IGSD



John Whitesell

Ed McCracken

Q. Ed, how do you feel about the HP 300 today?

A. I think the significant thing to realize about the HP 300 is that it's a long-term product. It's taken us five years and millions of dollars of hardware, software and technology investments to get the HP 300 to where it is today. Obviously what you see today is just the tip of the iceberg in terms of what the product will be. I believe that an operating system of the significance of the AMIGO Operating System should have a useful life of about 20 years, so right now we're three months into a 20 year life. The software that we have on the machine two or three years from now will be much more complete than the software we have today. So the real question is how do we choose the markets and customers and users and applications developers which can make use of the HP 300 today and benefit from the fact that it has this long-term future.

Q. Now that we are commencing general shipments of HP 300s to customers, and are about to announce the first of a series of major product enhancements, what new opportunities do you see for the HP 300?

A. I believe that the opportunities for the HP 300 are far beyond what we could imagine in terms of being able to list specific types of customers or specific types of customers or specific types of applications. Over a period of years the HP 300 could be a billion-dollar product for Hewlett-Packard. Our job as

marketeers now is to figure out how to get it started, how to provide the match between what the designed and what customers are really using out there today. As I remember, it took us about 5 years to go through the process on the HP 3000, between the time that we first started marketing the HP 3000 and the time that we really found out how to sell the product. That happened in late 1975 and early 1976 when we started applying the formula for selling the HP 3000 to horizontal accounts. My objective on the HP 300 is for us to learn the formula for selling the HP 300 to its first customers within one year. Right now we're 3 months into that year, and I'd like for us to be able to find a formula that will be successful in launching the HP 300 toward that billion dollar sales mark within a year or so.

Q. What is your view of the HP 300 marketing and sales effort?

A. I don't think we've really started yet. So far we've just introduced the product. Our objective with our marketing program in the first half of this fiscal year and the last half of last year was to make a quantum level improvement in how customers perceived Hewlett-Packard as a business system supplier. We put together a product introduction program with the HP 250, the HP 300 and the HP 3000, and an advertising program that I think has accomplished that objective. We have seen a quantum level of change in how customers perceive Hewlett-Packard. We are now known as a business computer company and perhaps as one of the most successful business computer companies in the world. So that was our objective and we accomplished it.

Our objective in the second half will gradually turn more toward finding the formula for our new products. Part of that will be done by our marketing team at the factory and part of that will be done by our sales teams and S.E. teams in the field. I think the challenge is to learn what the HP 300 is and creatively develop some ideas to predict the customers that will buy it. Now that the operating system has become as solid as it is today and we can ship systems, it is extremely important that a major part of our marketing program be to get a lot of HP 300s in the hands of our own people, our S.E.s and sales people as well as potential customers in demonstration or application development environments. We have a production capacity to build a significant number of HP 300s, and we have enough confidence in the product that we're willing to ship a relatively large number of demonstration units. One of the things that it'll take to make the HP 300 successful during this one year period of time, to learn the formula, is for a lot of people to have experience developing applications on the HP 300. One of the differences between the HP 300 and other machines on the market is its human interface, the ability for a decision maker to interact with an applications program that has been developed. We know this is a fundamental contribution of the product, but we aren't entirely sure how it's going to be used, and I don't think we'll know how it's going to be used all that much until literally hundreds of people have developed applications programs using the features of the multiple windows and softkeys and the other features of the interactive display station.

Q. Over the next several years, how do you see the HP 300 co-existing with the HP 3000?

A. The HP 3000 is obviously a very successful product, due in large part to the efforts of our field sales activity and field support activities. It's making us the fastest growing business computer company of any significant size in the market right now, and we're finding more and more customers every day that react favorably to its capabilities as a general purpose on-line database management system for distributed data processing applications. We're winning a lot of competitive sales situations that we weren't winning even six months ago. Our product has allowed us to respond very aggressively in the field to the IBM introductions and quite successfully as indicated by our sales rate in the most recent months. Now the HP 3000 fits the model of how progressive people use computers today with the key words being on-line distributed processing and database management.

I think the HP 300 may turn out to be a very different way of using computers. The human interface is much more advanced than any I've seen in a small business machine, and I think the customers that gravitate to the HP 300 will be drawn in large part by that human interface. Of course, there are two types of people that will interact with the HP 300. One is the applications designer and the other is the applications user. The ease of use features will appeal in a lot of ways to the final user. But also the sophistication of a very powerful operating system will appeal to the applications designer, and the human interface will allow an OEM to design a final applications product for which there is no competition because his application will look totally different from that done on other machines. You can't design business applications software on any other machine and have the result be as exciting to the customer as it is on the HP 300. I think that's one of the unique contributions of the HP 300.

Q. Do you foresee any major marketing changes for the HP 300 compared with the HP 3000?

A. I think there are two types of customers that the HP 300 will appeal to that the HP 3000 perhaps has been oversized for, or perhaps isn't as well suited. One is the small business OEM. The OEM that would like to buy machines and sell them in some volume to small businesses. We think that's going to be a significant market for the HP 300. And it hasn't been that significant of a market for the HP 3000 in the past. The HP 3000 OEM has generally been much more oriented toward custom software and a joint marketing effort than this new type of business OEM we're finding with the HP 300.

I think the other type of user that the HP 300 will appeal to is the very sophisticated applications designer, the computer scientist, the person to whom the architectural features of the HP 300 have a strong appeal. Most of our HP 3000 marketing has been oriented toward the EDP professional. I believe that a significant percentage of the first HP 300 applications developers will be more on the computer science side than the EDP side.

Q. Would you please comment on the long-term future for GSD.

A. Well it's difficult to predict the future, but I think that one way you tend to do that is to look at the past, and I guess I'm really pleased with our progress in the last year, in fact in the last three years, since we really started our effort to get into the business computer market. Our first quarter results were above all of my expectations. Our growth rate I'm sure is the highest in the industry of any company with a significant volume. And I believe that we haven't started yet to see the impact of our new products. It's interesting to see that most of our sales growth has been due to the HP 3000 Series III; our HP 3000 Series 33 sales, our HP 300 sales and HP 250 sales will contribute much more in the future. Our new products, now that we're starting to ship them in volume, will take off. Our factory people are going to have a major challenge to keep up with the field in terms of shipments, to keep our availability down to what customers expect of us. The response of the business customer to HP's entry into the business computer market has been extremely favorable. I think a lot of that relates to the fact that the business customer would like to deal with a high quality company with conservative financial practices, who has a major, long-term commitment to the marketplace. And the market definitely relates to the kind of quality that HP builds into the product and the kind of support that Hewlett-Packard can give, I think uniquely among the companies that build small computers. In short, we're in an ideal position to respond to the challenges of the business systems marketplace.

## 100th HP 300 Shipped

By: Vijay Kapoor/GSD



From Left to Right: Dan Loreda - Shipping, George Kiyohara - Run Book Scheduling, Nancy Justice - Order Processing, John Holden - Order Administration Manager, Steve Wehr - Shipping, Ken Kormanak - Manufacturing Services Manager, Megan Landry - Order Processing, Ron Lewis - Shipping.  
Not Pictured: Dean Hancock - Shipping Supervisor, David Calimpong - Shipping.

In late March, the 100th HP 300 system was shipped. Approximately 80 of these first 100 systems are currently in HP sales offices as demo units, or being used by various HP support, training, and service organizations. The rest have been delivered to early customers around the world.

Now that almost all of the current requirements for demo units have been satisfied and we have completed manufacturing release of the product, we plan to start shipping to customers in much higher volume immediately. Our current backlog of orders forces us to quote an availability of 18 weeks, but where special needs arise, please call your HP 300 sales development contact.

## HP 300 — Computer System for European Markets

By: Peter Rosenblatt/C SB

In six months of marketing the HP 300 in Europe the system has been very successful. What are the reasons for this success? I would like to analyze four areas which I believe explain very well why the HP 300 is the computer system for European markets:

### 1. The Product

Customers have accepted the integrated display system (IDS) as a truly new concept of operator-machine interaction. The ability to partition the display screen into multiple independent windows spawns the creation of highly interactive and heretofore impossible information system applications.

The new approach to software development using user-oriented interactive language subsystems is gratefully acknowledged by the professional programmer. Finally, here is a way to develop compiled-code software without the disadvantages to test it out.

Also, the HP 300 has been designed with the European market in mind. Local keyboards and character sets, the ability to generate all European characters from all keyboards, multilingual safety labels are the external signs of this. The fact that the HP 300 has been designed to meet all European safety requirements and conforms to tough radio frequency interference standards — an accomplishment duly attested by little inconspicuous stickers on the back of the machine — gives European customers the assurance that here is a product designed in recognition of local regulations.

Further, customers see real advantages in the ease with which an HP 300 can be configured, reconfigured, expanded or moved around — a computer which can be treated like a calculator.

### 2. The Marketing Strategy

For Europe, the HP 300 is a computer with the right price in a market which is still dominated by overgrown magnetic ledger card computers that cost about as much. The HP 300 offers a real alternative here giving computer users a growth path which they know will not be limited by the ability of the computer to grow with them.

The European market for small business computers is rapidly expanding. Many business calculator users are now making the transition to a real computer and find the HP 300 the most promising choice. The European commercial sales force, having been very successful in selling calculators for commercial applications now find the HP 300 to be an excellent follow-on product for the markets they have been successful in. In almost all cases a commercial software supplier is involved.

The concept of departmental computers is not new to the European Market. One of our competitors has promoted the idea of 'putting the computer where the work arises' for years. So the HP 300 fits a well-established need for companies who want to decentralize their information processing and who have a central staff to develop applications for distributed computer installations.

### 3. European Representation

Not only has the HP 300 been built with the European Market in mind, it also had a European Marketing Representative in the Factory for a year prior to its introduction. Localized sales literature, European Field Engineer, Systems Engineer and Customer Engineer training and active sales support from the newly-founded Commercial Systems Boeblingen Organization have increased the visibility of European HP 300 marketing and are likely to have contributed to a favorable European selling environment for the HP 300.

### 4. The HP Name

HP has very good reputation in Europe. A frequent comment on the HP 300 is "if HP invests so much in a major new product it must be good". Many HP 300 sales are based on this assumption, and it is our challenge to prove it correct.

## Just Developed — An HP 300 OEM and End-User Data Base

By: Steve Wilk/GSD

We are currently implementing for the USA and Canada, an HP 300 OEM and End-user Customer Data Base using, of course IMAGE/300. Shown on the next page are the input coding sheets that we fill out at the time of an HP 300 sales. Notice the amount of detail that is available about the OEM and End-User customers.

HP 300 OEM Information

HP 300 End-User Information

Name											
Company					SYSTEM MANAGER (contact)						
Division (optional)					TITLE						
ADDRESS											
PHONE											
CITY											
HP REGION AND OFFICE											
STATE											
SALES REPRESENTATIVE											
ZIP		WORLD COUNTRY CODE		TYPE		CAN BE USED AS A REFERENCE SOURCE (YES)?					
		E.G. USA/CAN		THOSE IN KEY							
HP 300 Order Information											
Company Name					OEM COMPANY NAME OR "NONE?"						
COMPETITION			MARKET AREA		APPLICATION CODE						
E.G. IBM 5/34 / DEC 300 / B20											
ORDER NUMBER		ORDER DATE		SHIP DATE		DISC%		TOTAL ORDER COST		QTY. ORDERED	MODEL NO.
		M/Y/HP/CC		M/Y/HP/CC							3103 A
NON-SUPPORTED DEVICES	NO. OF PRINTERS		NO. OF TERMINALS		MEMORY SIZE		ENTER NO. OF PRINTE VOLUME				
	2631 2608				K		7906 7920 7925 7976				
SOFTWARE (YES)?											
BASIC		RPG II		SPL II		FORTRAN		COBOL		IMAGE	REPORT WRITER

The Master List of OEM's will contain all HP 300 OEM's willing to develop applications for HP 300 End-Users. The list will include:

- All OEM's with signed purchase agreements for HP 300.
- Software houses w/o signed agreements willing to do application programming for potential HP 300 End-Users.
- HP 300 Consultants and Service Bureaus.

By having this data base available for the sales force, the HP 300 Sales Development person can provide you a wealth of knowledge for your prospective OEM and/or End-User. Here are a few examples of the types of data that could be extracted using Data Base Inquiry/300, a subset of QUERY/3000:

- List of Sales Representatives that won in a tight competitive situation. By talking to the Sales Representative, OEM, or End-User one could possibly pick up pointers for one's own related situation.
- List of Customer References with successful HP 300 installations having a similar business and software application.
- List of all HP 300 OEM Software Applications.
- List of End-Users by Market Area.
- Etc.

As you can see, by the type of data we are collecting on the coding sheets, and the samples listed above, the benefits of this data base are virtually unlimited. The data base is currently being loaded by it has probably enough information in it today to provide you a valuable reference tool.

**TRY IT! YOU'LL LIKE IT!!**





## Using HP 300 Manuals in the Selling Process

By: *Walter Utz/GSD*

The HP 300 publications include a complete set of User Manuals and Application System Analysis Guides. The publications are produced in an 8½" × 11" format for a timely introduction, and they are printed in the final 7½" × 8½" format when formal technical approval is received.

The User Manuals are intended for the support for RPG or BASIC programs in all normal programming activities. The manuals can be used as a selling tool for end users, or for OEM's and application programming groups who want to gain an end user perspective.

The Applications System Analysis guides supply complete information about all user callable services, and how to use them effectively. Experienced applications programmers will rely on these guides to perform multiterminal applications, elaborate visual displays, etc. The guides provide a mechanism for the SE's knowledge to be presented to the applications programmer in written form, and they are intended to reduce the level of field SE involvement in customer support. A set of manuals is furnished with every HP 300. The guides are ordered as required. THE BEST NEWS IS THAT THE COMPLETE SET IS AVAILABLE TODAY. Here is a brief description (including the part number) of the HP 300 manuals and guides:

- **IMAGE/300 Reference Manual 31424-90001**  
To describe the operation and functions of IMAGE database management on the HP 300. The manual explains the concept of a database, the creation, use, and maintenance of a database, and database access through IMAGE/300 callable procedures.
- **HP 300 Typist Reference Manual 31000-90010**  
To assist the user of the HP 300 text editing subsystem which supports writing, editing, and printing reports and letters. The Typist Manual explains the console and keyboard, text composition, manipulation, formatting, and printing.
- **HP 300 Sort/Merge Reference Manual 31000-90033**  
To describe the set of procedures that will sort a set of files or merge a set of sorted files. Techniques used to call Sort/Merge from languages are explained.
- **HP 300 System Reference Manual 31000-90009**  
To provide the user with a complete reference to the syntax of all system commands, file backup and restore information, and file equation as applied to peripheral devices. This manual also contains other system information required in normal system operations.
- **HP 300 Console Operations Manual 31000-90025**  
To explain the features of the HP 300 console, and to initiate the user in getting started on the system. The manual includes an explanation of the console operation, examples of all commands, and a glossary of technical terms.
- **HP 300 Error Messages Manual 31000-90003**  
To include a complete list of all error messages which the user can encounter, and a suggested course of action.
- **Forms/300 Reference Manual 31445-90002**  
To describe a stand alone program that allows data entry and retrieval via custom tailored forms displayed on a terminal or console. The forms can be used with RPG or BASIC programming languages.
- **HP 300 Architecture Guide 31000-90004**  
To present a simplified introduction to the internals of the HP 300 Computer System. The manual is organized so as to follow the general flow of work through the system, from job initiation to job termination. The explanation maps the operating system to the hardware and peripherals.
- **HP 300 Multiterminal Applications Guide 31000-90005**  
To show the user how to write BASIC programs to implement multiterminal applications in an efficient, logical manner. The advantages of interactive programming over traditional match methods are explained. The system services required for multiterminal support are covered in detail, and numerous programming examples are included. Performance optimization techniques are explained for various terminal configurations.
- **HP 300 Program and Library Operations Guide 31000-90035**  
To explain the structure and interactions of the HP 300 Libraries, and to show the user how to manually invoke the compilation, preparation, and linking features for advanced program development. Detailed explanations of MAP listings are included.
- **HP 3000 System Services Guide 31000-90034**  
To serve as a programming reference which contains all of the system services calls. There is an explanation of the calling mechanisms, and the programmer's responsibility regarding numerical conversions. The system services calls, and their parameters, are explained in detail.
- **HP 300 Display System Application Guide 31000-90008**  
To explain the programming required to operate the Interactive Display Station. The user is shown how to write BASIC programs to create and use windows, how to employ terminating and non-terminating softkeys, and how to attach scrolling files. Numerous features are explained in detail.
- **HP 300 File and Peripheral Access Guide 31000-90037**  
To explain the functions of file management in the performance of data access, storage conventions, and file equations. The various file organizations and access methods are detailed, and the user is given performance information related to the selection of the optimum access method for different applications.
- **HP 300 Owner's Manual 31000-90001**  
To assist the owner in site preparation, installation, system build and configuration, the operation of system peripherals, and other system options.
- **RPG II/300 Reference Manual 31445-90001**  
To explain this business/commercial language that allows users to generate sophisticated reports with minimum effort. Our compatibility with the industry standard is shown, and our interactive source entry is explained as a major technological contribution.

- **Business BASIC/300 Reference Manual 31442-90001**  
To explain this widely accepted programming language in the context of commercial applications. Additional capabilities such as subprogramming are explained.

## HP 300 for an OEM

By: *Bob Lewin/GSD*

There are two specific ways an OEM can win in today's highly crowded and competitive marketplace 1) develop a product that attracts customers and generates sales and 2) lower the costs in developing and maintaining the products.

During extensive contacts with commercial OEM's in the last 6 months, I am convinced that the HP 300 offers a winning formula to achieve these goals.

### Sales Potential of HP 300

The various features of the HP 300 — the IDS, softkeys, windowing, and scrolling provide the means to develop software products/applications which are eye-catching and effective in attracting the interest of potential customers. The physical appearance of the HP 300 is attractive and would enhance the environment of any customer's operation.

### Lowering Cost

The largest cost items for OEM's are those associated with developing and maintaining their software. The HP 300's multiprogramming, multi-management capabilities provide the opportunity to lower costs. In addition, the 'language subsystem' concept of the HP 300 gives the OEM's programmers direct and natural access to their programs to also reduce the writing and debugging time.

The HP 300 and the OEM — a profitable combination for a growing future!



## HP 300 SE Support Goes On-Line

By: *Walter Utz/GSD*

HP 300 Factory SE Support has expanded their coverage by adding an answering service and a radio paging system. The service operates in the following manner: when a field SE calls the hot line number during normal business hours (8 a.m. to 5 p.m., Cupertino time), the call will be taken by an HP 300 SE.

If the call comes in at any other time (including weekends), the call will be taken by an answering service that will page an SE via an electronic beeper. The SE then calls the answering service, receives your number, and calls you within a few minutes. There are two SE's equipped with beepers at all times; if the primary SE does not respond within five minutes, the answering service pages the secondary unit.

The only action required by the field SE is to stay on the hot line. The answering service will answer, but you must let the phone ring for more rings than you usually would. We are excited about this expanded service and invite your comments. Our goal is to provide total HP 300 SE support for all of your needs.

## HP 300 SE Training — An Update

By *Walter Utz/GSD*

In response to field SE comments, we have re-structured the HP 300 SE training course to meet field requirements. The entire SE training program for the HP 300 requires six weeks which is now divided into three modules (two weeks/module).

### HP 300 SE Training Phase I (two weeks)

This module gives the SE a technical knowledge of the functional capabilities and usage of the HP 300 system. The SE will be able to assist in system installation, customer on-site training, demos, benchmarks, and seminars. The training program for the HP 300 SE Phase I consists of five parts, as listed:

- Corporate Neophyte Training
- CSG Overview
- SE Overview Training
- Remedial training in BASIC, RPG II, and IMAGE (if required)
- HP 300 SE Training — Phase I (two weeks)

### HP 300 SE Training Phase II (two weeks)

This module completes the minimum requirements for an HP 300 SE. Upon completion of this module, the SE will be prepared to verify and report subsystem problems, assist an HP 300 System Specialist or Performance Specialist in isolating problems and providing workarounds, conduct customer training classes, run benchmarks, and advise customers in their applications programming

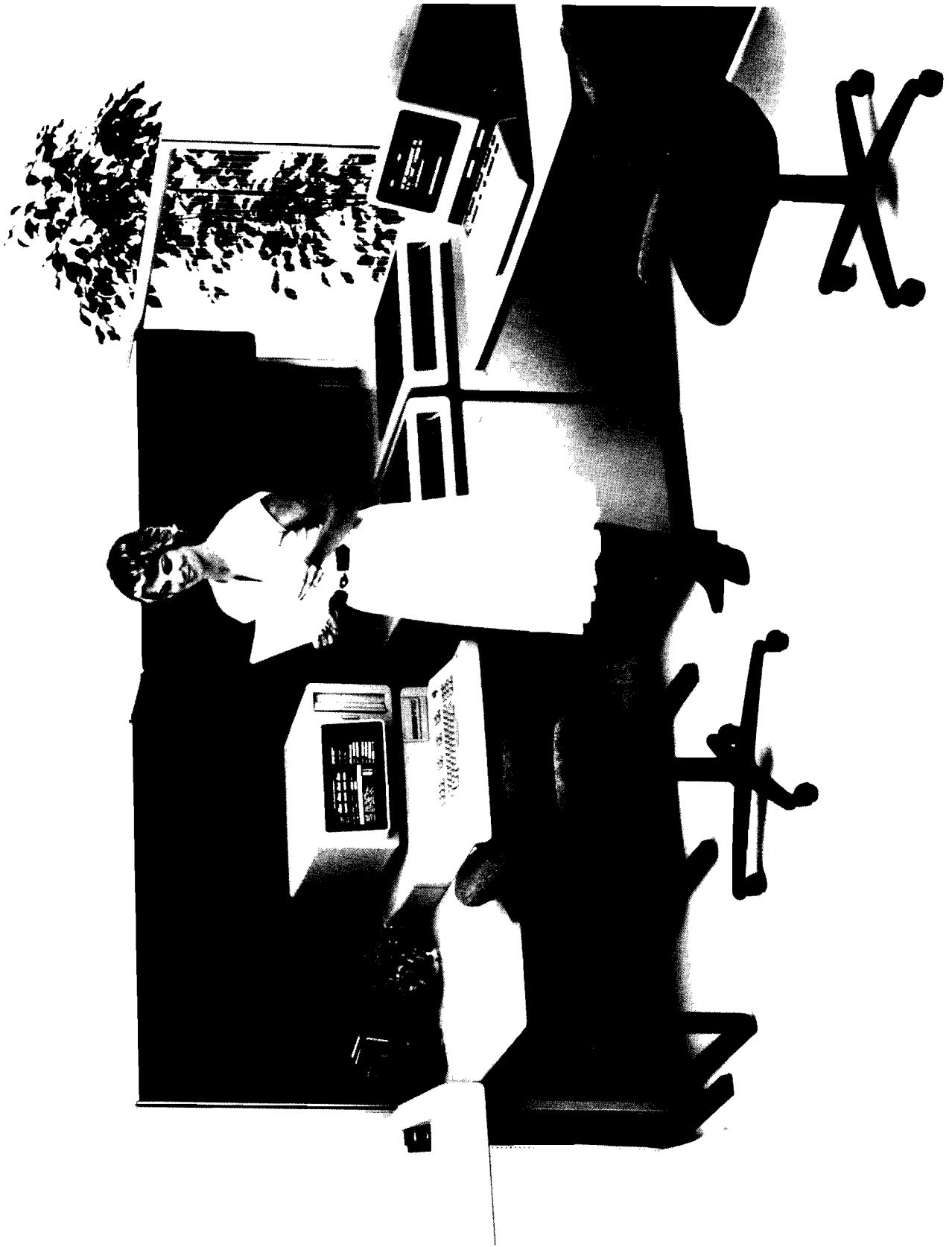
#### Prerequisites:

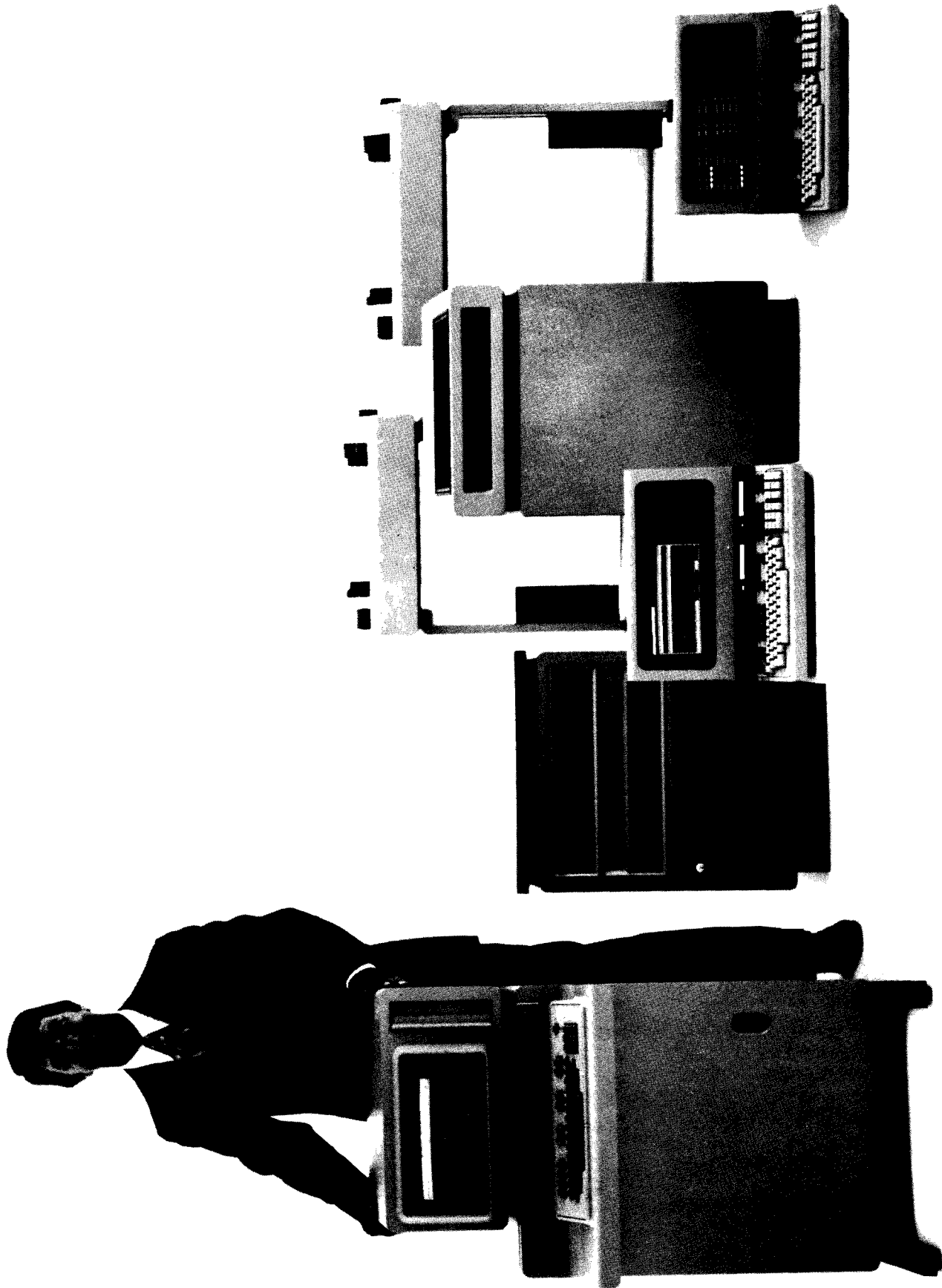
- Completion of SE Phase I Training
- One to three months of product experience
- Familiarity with a high level block structured language such as SPL/3000, ALGOL, or PASCAL

### HP 300 SE Training Phase III (two weeks)

This module is a seminar on performance measurement, optimization, and advanced trouble shooting techniques. It is intended for SE's who will be supporting PIC's centers.







Registration must be approved by the HP 300 User Services Group (*Dave McClellan*).

#### Prerequisites:

- Completion of SE Phase II Training
- Recommendation of SE supervisor and HP 300 factory support group.

The following starting dates are valid for the remainder of the year:

SE I — May 14, 1979  
September 10, 1979

SE II — June 4, 1979  
July 9, 1979  
October 29, 1979

SE III — June 18, 1979  
November 12, 1979

## Demonstrating the HP 300

By: *Chris Sauer/GSD*

A demonstration of the HP 300 computer system has the potential of really catching the eye of our customers. A 20-minute demo can show off the unique eye-catching features of the IDS while providing a backdrop for a more technical discussion of the system's contributions. Let's consider one approach to a demo.

The first thing one notices about the HP 300 is its size. Here we have a complete computer system not much larger than a stand-alone terminal. Yet encompassed within the box is a state-of-the-art SOS CPU, up to 1 megabyte of main memory, a 12 megabyte Winchester disc drive, a floppy disc drive, and a system console with keyboard.

The next step in the demo might be to turn the system on. It should be pointed out that this single step start-up also includes a complete system self-test. While this is taking place, the discussion of the physical unit can continue. One of the key features of the system is that it requires no special environment. It needs no false flooring, air conditioning or power requirements beyond the standard 110V outlet. The HP 300 has thus greatly reduced the environmental expense of owning and operating a computer system. It has also eliminated the expense of an operator.

The CPU has passed self-test and the operating system has been loaded when a request for the date appears on the console. Enter the date, identify to the DEMO domain and run HPLLOT on a 2647 or 2648 terminal if you have one. This demo program written by *Dave Fullerton* of the Neely Santa Clara Sales office continually downloads graphics patterns to the application terminal. Press the attention key to regain control of the IDS and run TRUCKS. This demo program visibly demonstrates the features of the IDS including dynamic labeling of softkeys, windowing, and horizontal and vertical scrolling within individual windows. Show the customer how the master schedule in this application can be horizontally scrolled such that 160 characters can be displayed in a much narrower window. Start up several

applications terminals to demonstrate the multi-terminal capability of the system. Now is a good time to discuss the HP 300's powerful multiprogramming and multitasking capabilities. Exit TRUCKS and cancel HPLLOT.

Another demo program is RPGINPUT which demonstrates the RPG multiterminal capabilities of the HP 300. BISDEMO is a business application demo program for accounting functions such as accounts receivable and credit information. Included within BISDEMO is the demo program REPORT which allows a non-computer-professional to easily and quickly construct a customized status report.

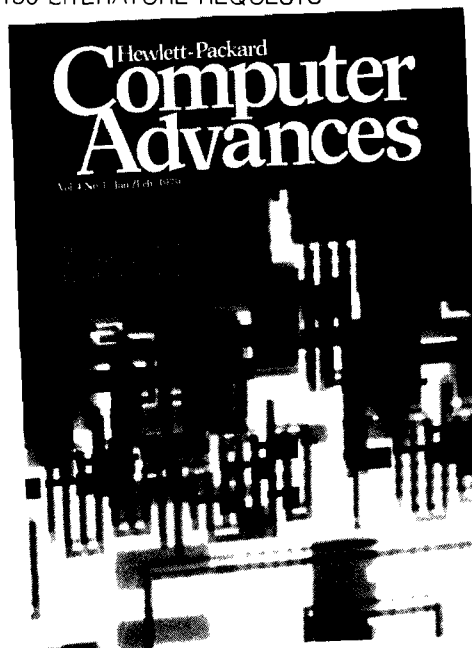
The above named demo programs each demonstrate capabilities of the system given a particular application. Another tool in demonstrating the HP 300 is the BASIC Language Monitor. Enter the BASIC environment and key in a simple program. Make a syntax error to show the on-line syntax checking. Type TEST into the command window (no carriage return) and press the HELP softkey. You are now within HELP, the on-line reference manual. Read the text for using the TEST key. Now press the HOW TO USE HELP softkey. EXIT from HELP. Show how easily a non-programmer or novice programmer could take his/her program through the multiple steps to execution simply by pressing the TEST key.

Go through these suggested demo tools and you will find that the design considerations of friendliness, power, and flexibility are all key features which can easily be stressed and demonstrated on the HP 300.

## Computer Advances Update

By: *Carol Scheifele/CSG*

72 REQUESTS FOR AN IMMEDIATE FIELD CONTACT  
— 150 LITERATURE REQUESTS



As you can see from the above headline, reader response to the HP 300 article in the January/February issue of Computer Advances was overwhelming. In fact, this article has produced more hot leads than any article in the three year

history of Computer Advances. I decided that such appealing material should have continuing coverage. So, the cover of the July issue will feature the HP 300. The first two pages will discuss HP's commitment to "friendlier systems" and the rest of the issue will feature examples of such products, including the HP 300. It should be an exciting ad. Watch for it and take advantage of the HP 300 leads I send you via your DM.

**HP 300 File Reliability and Recovery**

*By: Ann McGown/GSD*

AMIGO/300 provides seven file structures, each of which offers its own mix of access capabilities and data organizations. A user can choose the file structure most appropriate to his application in terms of performance and optimum resource usage. Removed from the user is much of the burden of structuring data for optimum performance.

But how reliable can such a file system be? Very reliable, it turns out, thanks to the fact that all the disc file structures use a common data block organization. Regardless of the internal data structure of the file (that is, whether it is organized sequentially, by relative record number, or by indexed or hashed keys), data blocks are manipulated by the same file management routines. This simplifies file management's job, and has reduced to a very small window the times files are vulnerable to errors.

Reliability is fine until you experience one of those rare failures. Right? Well, for those of you whose customers always seem to be the unlucky ones that have problems, recovery is possible.

In the event that a file is marked as having a suspected integrity error (for example, if you physically remove a flexible disc from the 7902 drive while a file is open for access), there is a contributed program which can be run to recover the file.

When the SE Program Library is released along with the MR version of the system software, the program, FRECOVER, will be a part of it. FRECOVER will recover and relink the blocks of a user file, and, in almost all cases, can restore the file to good health. The only case presently not recoverable is when the data records themselves within a block are bad. This can result in one data block in a file being lost. The recovery of files within workspaces (for example, BASIC, RPG II, or Typist) is automatic after a system failure.

Both the inherent reliability of the File Management System plus the availability of file recovery procedures should allow you to assure your customers that file reliability need not be an area of concern on the HP 300. More information about the HP 300 files can be found in the HP 300 File and Peripheral Access Guide, Part Number 31000-90037.

**HP 300 Marketing: "We're on the MOVE"**

*By: Maria Snodgrass/GSD*

With the construction of the new buildings finally completed, General Systems is beginning the move into its new home. The moving is expected to be completed by the end of May. HP 300 Marketing is scheduled to make the "MOVE" in late April to Building 47U. Our new address is:

19447 Pruneridge Avenue  
Cupertino, California 95014  
(408) 725-8111

Although there are new telephone extensions for Marketing (listed below), the SE On-Line Support and the Service Engineering Hotline phone numbers WILL NOT change.

**HP 300 Marketing**

Manager	3700/3710
Sales/Market Development	3731/3716
Neely Region	3733
Midwest	3734
Eastern	3730
Southern	3735
User Services	3712/3713
SE Support	3711
Training	3710
Publications	3704
Product Management	3732/3716
Applications Management	3736/3716
HP 300 Graphics	3727/3701



**Product News**

**DS/3000 Security is a Big Selling Plus**

*By: Steve Zalewski/GSD*

Because of changes in government regulations such as the Foreign Corrupt Practices Act of 1977, and the future trend as evidenced by SEC proposals and AICPA's (American Institute of Certified Public Accountants) Cohen Committee Report, corporate officers will have increased responsibility in insuring that adequate steps have been taken protecting internal information. Protection against unauthorized access includes both individuals within as well as outside the company. This issue is gaining increased attention by auditors.

DS/3000's security is unsurpassed in the minicomputer industry and can be a key selling point to the increasingly security conscious corporate officer. Unlike some computer vendors, security was a prime consideration beginning with initial design and not a later add-on. DS/3000 is closely integrated with MPE; none of the methods of system security built into MPE are bypassed by DS/3000. Furthermore additional levels of security are provided by DS/3000 such as the need for remote system log-on and the system handshaking during the inter-connecting of a DS dial-up connection. Below is a list of some of the security methods of

the HP 3000 and DS/3000 to guard against unauthorized system has been incorporated and layered to allow a system manager to choose the security level appropriate to his/her needs.

**Network Security**

*Local System Access*

Need account and user passwords  
Need communications software capability assigned to the user.  
Unsuccessful logons are displayed on the system console.

*Data Link Access*

Need telephone number of the remote system.  
Need compatible modems.  
Logical ID of the remote system must be in the local 3000's system table.  
Logical ID of the local system must be in the remote 3000's system table.  
Need remote system to be in master/slave or slave mode.  
Need modem in remote system to be on auto answer.

*Remote System Access*

Need valid remote account, user, and group name.  
Need valid remote account and user passwords.  
The user must have the assigned capabilities to achieve requested actions (e.g., purge file capability, private volumes). Unsuccessful logons are displayed at the remote system console.

*Data Access*

*Files*

Need lockword.  
Restrictions to group, account member or creator only is possible.

*Data Base*

Need password for access to an item(up to 15 passwords/database allowing different subsets of items to be read/written).

*Private Volumes*

Need user capability.  
Need file-database access as above.

All minicomputer distributed network offerings claim to have security; but none of them can match the breadth of security options available with the HP 3000 and DS/3000.

**GOOD SELLING!**

**Word Processing on the HP 3000?**

By: Rich Edwards/GSD

**As featured in the 4-color brochures**

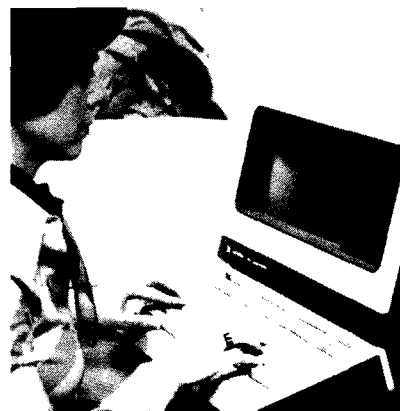
**HP 3000 Computer Systems**

Transaction processing systems  
for business and industry

An Introduction for Managers

**Marketing department:** A secretary prepares a 35 page report at a terminal using the system's editing and formatting capabilities. Productivity rises because retyping drafts is eliminated and page headings and numbers are inserted automatically.

**RESULTS:** A first-class report is produced in less time. And it can be easily modified in the future.



Marketing

GALLEY. EDIT2. HP 3000. What do these have to do with word processing? Plenty! Galley is a contributed program in the HP General Systems Users' Group HP 3000 library which is used in conjunction with the HP 3000 Editor, EDIT/3000. In a two

step process, the Editor is first used for entering raw text and content editing. The user adds Galley "commands" to the text for formatting and then runs Galley to process the text for output.

A more recent and, most users agree, easier-to-use program is the contributed EDIT2 program. Also in the Users' Group HP 3000 contributed library, EDIT2 is a single program used stand-alone (without EDIT/3000) for word processing. Under EDIT2 a user can enter raw text, perform content editing (more extensive than with EDIT/3000), format the text for review and generate the final text output for production.

A good description of EDIT2 is found in the "reference manual" available from the Users' Group with the software:

"EDIT2 is interactive text processing program that permits you to edit and format text from a terminal. Lines, strings, and words of text can be added, deleted, replaced, changed, stored, retrieved, justified, copied, and moved at your command.

EDIT2 can be used to prepare and manipulate text such as contracts, proposals, correspondence, technical manuals, reports, and other documentation requiring multiple drafts.

All the capabilities necessary for efficient editing of text through a modern on-line computer system are made available to users of an HP 3000 Computer System through EDIT2/3000. It makes full use of the multiterminal, mass storage, and high speed input/output capabilities of the HP 3000 Computer System to reduce the time it takes to produce a final version of a document. Multiple versions of a document can be stored and instantly retrieved for further revision or printing of additional copies."

EDIT2 is extensively used within not only GSD, but other HP divisions as well. Many HP 3000 customers are using EDIT2 to improve productivity in report and documentation preparation.

What about using the HP 3000 in a dedicated word processing application? The following HP 3000 applicaiton was described in the January 1979 issue of "Word Processing World."

"*Bill Dickson*, manager of Corporate and Subsidiary Systems for Union Oil Co.'s Corporate Information Services in Los Angeles, has aspirations which are similar to [those described at GE earlier in the article]. His WP system is built around a dedicated mid-sized computer. It handles everything from brief memos and legal documents, to the lengthy technical manuals. The system has already expanded from the original site in the company's development and test center, and additional terminals are being installed in other departments and divisions.

All of the terminals connect to the Hewlett-Packard 3000 computer, which is the CPU of the system, via teleprocessing, using the company's private nationwide telecommunications network where appropriate.

What kinds of system expansion are in *Bill's* plans? 'We want to interconnect the systems being installed at Union Oil refineries in Chicago, San Francisco, and at other locations in this area,' he explains. This will allow the CPU to be used for message communications as well as for remote job processing on the IBM system/370 computer which we have here at headquarters."

The application uses a proprietary word processing program written at Union Oil.

So the next time you have a long proposal to get typed, have your secretary look into EDIT2 and use the HP 3000 as one of *your* tools in the sales process. And don't overlook your prospects' applications calling for word processing when you're discussing the HP 3000.

## Announcing A New Chain Line Printer On The HP 3000 Series II/III

By: *Pete Sinclair/GSD*

As of April 15, GSD will support the new 2619A 1000 lpm Chain Printer from the Boise Division on Series II/III Systems (see accompanying article under Boise News). This new peripheral gives the Series II/III an added dimension of price/performance competitiveness in line printers. At \$21,000; with 1000 lpm capability and the advantages of chain technology, the 2619A should prove to be nothing but a winner on the Series II/III. So sell HP systems with HP peripherals — now including the 2619A — a winning combination for the customer and HP!

**GOOD SELLING!**

## VIEW/3000

By: *Jutta Kernke & Joan Martin/GSD*

VIEW/3000 is a very exciting and easy to use applications tool. To further simplify its use, two pocket guides were developed and are now available. One guide is for the programmer or forms designer, the other is for the data entry operator who uses the ENTRY program.

If you use VIEW/3000 in an applications program or design forms with VIEW/3000, the Programmer/Designer's Pocket Guide (part number 32209-90002) is indispensable. This fold-out card, which fits in a pocket, contains the complete syntax for the FORMSPEC, REFSPEC, and REFORMAT programs and also for the VIEW/3000 procedures that interface with COBOL, BASIC, FORTRAN, SPL, and RPG programs. The price of this guide is \$1.00.

If you, or anyone working for you, uses the ENTRY program for on-line data entry then you will want copies of the entry Operator's Quick Reference Guide (part number 32209-90003). This small (5-1/2 by 6-inch) spiral-bound guide summarizes in 14 pages all the rules for running

ENTRY, collecting data to a VIEW/3000 batch file, browsing the collected data records, and making changes to this data. Every data entry operator should have a copy to take to the terminal for quick review of the ENTRY procedures. The price of this guide is \$2.50.

## **SORT/MERGE Performance Tuning**

*By: Jim Kennedy/GSD*

Improving the performance of SORT/3000 and MERGE/3000 can be of great benefit to both you and your customer. Gathering and analyzing the right data will allow you to better characterize and tune the performance of SORT, MERGE and the applications which use them. The type of data needed is shown below:

### **HP 3000 Daily System Load**

Number of applications: Batch \_\_\_\_\_ On-line \_\_\_\_\_ Total \_\_\_\_\_ Number of MERGE Jobs: \_\_\_\_\_  
 Number of SORTs: Programmatic \_\_\_\_\_ Standalone \_\_\_\_\_ Total \_\_\_\_\_  
 Frequency of Use: Per shift \_\_\_\_\_ Total \_\_\_\_\_  
 Number of Terminals: \_\_\_\_\_

### **SORT/Merge Applications and File Characteristics**

Key Types: \_\_\_\_\_  
 Key Size: \_\_\_\_\_  
 Number of Keys: \_\_\_\_\_  
 Record Types: \_\_\_\_\_  
 Record Sizes: \_\_\_\_\_  
 File Sizes: \_\_\_\_\_  
 Number of Files: \_\_\_\_\_  
 Amount of Disc Storage Required: \_\_\_\_\_  
 Job Time: CPU \_\_\_\_\_ Elapsed \_\_\_\_\_  
 Response Time: Best Case \_\_\_\_\_ Worst Case \_\_\_\_\_ Average \_\_\_\_\_

### **Previous Competitive Benchmarks**

Required specifications?  
 Competitive products used?  
 HP 3000 products used?  
 Performance measurements?

The use of this data will allow you to effectively tune your customer's HP 3000 system. In general, your analysis of this data will reveal that design tradeoffs must be made with system resource constraints and/or utilization as indicated below:

### **Common SORT-MERGE/3000 Performance Tradeoffs**

- (a) Number of keys used vs. number of job steps
- (b) I/O device mix vs. system load
- (c) Record and file size vs. disc storage available
- (d) Block size on record length vs. main memory required (buffer storage)
- (e) Distribution of workspaces vs. number of disc drives used

These and many other tradeoffs must be made in tuning your customer's HP 3000 system.


**GOOD LUCK AND HAPPY TUNING!**

# Sales Aids

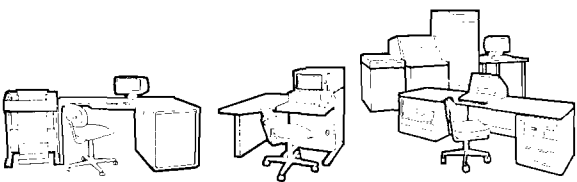
## HP 3000 Overview Slide Presentation — Revisited

By: Gwen Miller/GSD

It's *finally* on its way — the HP 3000 overview slide presentation! We made a few changes to the first version after "field testing" it in a few places and getting some excellent suggestions for its improvement. We wanted to be sure to provide you with the best slide presentation we could, and with your help I think that has been done! A few slides are reproduced here so you can see for yourself.

HEWLETT  PACKARD


### THE HEWLETT-PACKARD BUSINESS COMPUTER FAMILY



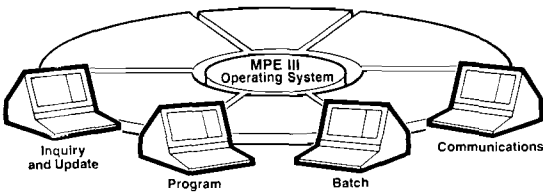
HP 250

HP 300


HP 3000 Series III  
HP 3000 Series 33

HEWLETT  PACKARD


### ONLINE ACCESS TO THE TOTAL SYSTEM



← All simultaneously →

HEWLETT  PACKARD

### THE HP 3000 PRODUCT LINE




**A common operating system lets you choose the right system based on price and performance — not software capabilities**

Both overhead and 35mm formats will be sent to each office, along with a script for the 30 slides. Ten sets of overheads without words will go to HPSA for local language insertion. If you want additional sets, send an Internal Order to GSD Manuals Distribution for the following part numbers:

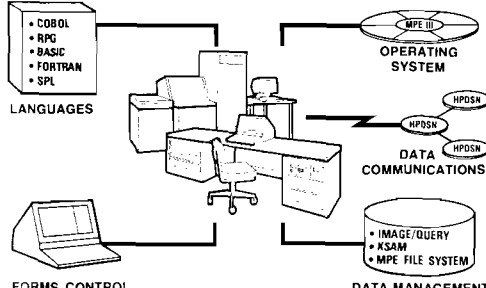
35 mm kit —	30000-60007
Overhead kit —	30000-60008
Graphics only overhead kit —	30000-60012


Thank you for your patience — and

### GOOD SELLING!!

HEWLETT  PACKARD


### HIGH-LEVEL TOOLS FOR TRANSACTION PROCESSING





HEWLETT  PACKARD

### HOW IS THE HP 3000 DESIGNED FOR TRANSACTION PROCESSING?

- Online access is integral to the system
- High-level tools maximize productivity
  - Extensive capabilities
  - Easy to use
- Data is processed where transactions occur
- Systems differ only in price and performance — not software

HEWLETT  PACKARD

### DISTRIBUTE DATA PROCESSING TO WHERE TRANSACTIONS OCCUR

WAREHOUSE

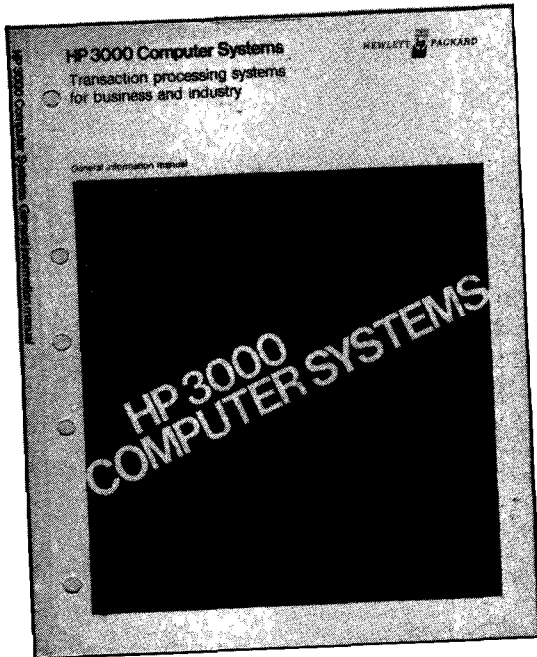
ACCOUNTING

**HP 3000's INDIVIDUALLY — OR IN NETWORKS**



## New Edition of HP 3000 GIM in Worldwide Distribution

By: Rich Edwards/GSD



What now includes HP VIEW/3000, the HP 3000 Series III (model 32435A), HP 2621A A/P terminals and the new Grenoble 3075A, 3076A, and 3077A data capture terminals? Why the new HP 3000 Computer Systems GIM (General Information Manual), of course! Published in February 1979, part number 30000-90008 is available free as literature number 5953-0560. Note that this latest edition looks identical to the Fall 1978 edition but can be differentiated by the new sales literature number and the 2/79 date on the back cover.

If you haven't used the GIM yet as a piece of sales literature, join the hundreds of sales representatives who find this the perfect document for the technical prospect needing detailed information on the HP 3000 systems. The manual describes the general capabilities and features of the HP 3000 Series 33, Series II, and Series III computer systems. Detailed specifications of the individual hardware and software product offered with the system are also presented.

- Section I, the system overview, is a thorough discussion of the system architecture, operating system, processing environments, and data communications capabilities.
- Section II, the reference sheets, contains the specifications of the MPE operating system, individual languages, utility programs, data entry, database management and data communications subsystems, and the hardware peripherals.
- The appendices outline the various operating system and machine level commands and intrinsics, and expand on the hardware features of the computer systems.

The GIM will convince your prospects that HP 3000s are THE "transaction processing systems for business and industry."

## Ordering HP 250 Sales Literature for OEMs

By: Jim Geer/GSD

In support of our OEM Marketing thrust, we make HP 250 sales literature available to OEMs for use in their sales efforts. There are two ways this happens. (1) The sales organization can supply it free by ordering the desired quantity from Corporate Literature Distribution in Palo Alto, Or, (2) A HEART Order for the literature can be placed to FCD, in which case the OEM pays for the literature.

The decision on when to give the literature to OEMs and when to charge rests with the field organization. However, we suggest the following guidelines:

- FREE — when the literature is being used to support the OEM's normal, on-going sales effort.
- Purchased — when the literature is intended for direct mail campaigns or other special sales efforts requiring large quantities of literature.

The HP 250 product brochure and the HP 250 flyer can be purchased by approved OEMs at cost. The brochures and flyers come prepackaged in bundles of 50 and are priced as such. A *package* of product brochures (internal HP publication number 5953-3400) carries the part number 45250-30030. A *package* of flyers (internal HP publication number 5953-3401) carries part number 45250-30020.

For your OEMs to purchase these HP 250 sales aids, you place a HEART Order to FCD for the quantity desired:

- |                    |                         |  |         |
|--------------------|-------------------------|--|---------|
| • Product Brochure |                         |  |         |
| (Pkg. of 50)       | Part Number 45250-30030 |  | \$30.00 |
| • Flyer            |                         |  |         |
| (Pkg. of 50)       | Part Number 45250-30020 |  | \$10.00 |

This is an inexpensive way for your OEMs to get quantities of high-quality sales literature for use in their own lead generation programs. They save both time and dollars over developing their own.

Hopefully this program will abet your relationship with OEMs and, of course, improve HP 250 sales.

## HP 250 Customer-Course Materials

By: Gretchen Snowden/GSD

The materials which constitute the HP 250 Customer Course are here. The two products are the INSTRUCTOR'S KIT (45103-30500) and the CUSTOMER KIT (45104-30100). The components of these kits are:

- INSTRUCTOR'S KIT (45103-30500)  
Narrative and binder, original slides, solutions disc
- CUSTOMER KIT (45104-30100)  
Prestudy Workbook, copy of slides and binder, documentation kit

Only one INSTRUCTOR'S KIT is necessary per office, since the materials are all reusable. We'd recommend ordering the kit as soon as possible if you anticipate presenting the course in the near future. The INSTRUCTOR'S KIT will prove

**Applications Software — Stacy Plemmons**

- OM/250                      *Don Porter (x2050)*  
                                     *Gretchen Snowden (x2625)*  
                                     *Dennis Vetter (x2028)*  
                                     *Wendy Huard (x2182)*
- MFG/250                     *Stacy Plemmons (x2040)*  
                                     TBH
- 9896 FICS                    *Denise Kittinger (x2615)*  
                                     *Shelley Meiklejohn (x2615)*

**Two HP 3000 Systems Using DS/3000 Improve Market Researchers' Productivity***By: Rich Edwards/GSD*

Fourteen hours a day, seven days a week, a consumer researching firm uses banks of on-line terminals and ordinary telephone lines to put its finger on the pulses of people throughout the U.S.

The company is one of the country's largest consumer researching firms and offers its customers instant sampling results of telephone interviews. It can offer clients status checks at the end of business days or change interviewing techniques in midstream by increasing the number of people interviewed, dropping an unnecessary question or rewording a phrase.

They have had a Hewlett-Packard 3000 Series II computer for a little longer than 18 months. In November, they purchased a higher performance version of the HP 3000 family, the Series III. This purchase freed the Series II to process information collected during the phone interviews, leaving the Series III to perform other applications such as job estimating, sampling, statistical analysis, work-in-progress and accounting systems.

"We had to find a computer that was versatile, one that could handle whatever we gave it and be consistently reliable. Further, we had to have absolute control because of the rough demands our clients make," the vice-president of research and development, said.

The system is first put to use during a meeting at which a company account executive and a prospective client work out a study design pattern for a consumer sample.

A decision is made about the number of types of questions to be asked — whether men or women should be surveyed, whether questions should be multiple choice or single response — and the size and kind of sample needed. Once the parameters are decided on, a cost estimate is worked out using a computerized estimating model.

A secretary enters the data via a terminal into the Series III, which then comes up with a detailed estimate. This is taken to the client who can increase or reduce the scope of his survey and have a new overall estimate within minutes.

Once a decision to proceed with a telephone survey is reached, the in-house-generated Fortran sampling system — with its database of 75 million telephone numbers — is

queried. The sampling system database works in conjunction with a county database, and together they give the location of potential interview respondents by telephone number and geographic location.

Telephone numbers to be called are displayed on one of 16 terminals. The interviewer reads them off and dials the number.

Once the respondent is on the line, the terminal displays the first question. The answer is keyed in, the information stored on disk memory and the next question displayed.

Should the answer to a question make the next question in the series unnecessary, a skip pattern is initiated and the computer automatically goes to the next question pertinent to the answer given by the respondent.

In this process, done laboriously by hand before, there is no room for human error. The answers are stored immediately, require no editing and are available on demand, greatly increasing the speed and flexibility of the process. The client can see the intermediate results of his sampling whenever he chooses. The results are dialed up on terminals at the company's nine branch offices.

In the manual method of interviewing, the respondent's answers were recorded on a paper questionnaire which was edited to make sure the skip patterns were done correctly. The answers were then put through a standard key punch operation and the data card went through a computerized clarification system to check for consistency and for proper operation of the punching system.

The data was stored on punch card, and the system was costly and time-consuming. The present system saves 30% of the money spent and the time used for the WATS line interviews.

The two computers are linked by the HP distributed systems software, DS-3000, which allows program data to be moved back and forth by keying in one or two commands. The software package provides complete network communication services and interaction between computers so that programs, files, processing and peripheral devices can be shared in a network.

Currently the company is doing program development on the Series II. It expects to upgrade the II to a III in the second quarter of this year.

The V.P. pointed out the decision was made to go to an in-house computer when time-sharing costs shot way up and business increased. All makers of small business computers were considered and the list was painstakingly narrowed down to three potential vendors.

The company currently has five HP 7900 series disks — three 7920's and two 7925's — which provide 390 Mbytes of memory and two Model 7970 tape drives which run at 800 — and 1,600 bit/in. The disks are used primarily for the database and the tapes for backup.

Contact *Regina Fanelli* in GSD Sales Development for further information on this application.

helpful when preparing for your course, since it contains recommendations and guidelines, describes logistics and lists needed materials.

A CUSTOMER KIT, on the other hand, must be ordered for each student in each course. They must be ordered well in advance since the Prestudy Workbook is included in the kit. The prestudy packet should then be mailed to each attendee no later than three weeks before the course starts. Below is a suggested time line to aid you in your planning:

Week 1 /	Week 2 /	Week 3 /	Week 4 /	Week 5 /	Week 6 /	Week 7
Order Customer Kits and Discs.			Send Pre-study Packet to Students.		Collect consumables. Prepare room with tables and equipment. Prepare Student Discs and generate RW Report.	COURSE

The customer course materials should ship to you within a week of the date ordered, since we're stocking large quantities. Also, be aware that the course requires two initialized discs per student so verify that you have an adequate supply.

To order these materials merely place a I2 order through the HEART System. You must OVERRIDE THE SYSTEM, since these parts are not on the Corporate Parts List, and enter the following information:

Part #	Desc. (16 Char.)	Prod. Line	Mkt. Div.	Supply Div.
45103-30500	Instructor's Kit	10	37	3700
45104-30100	Customer Kit	10	37	3700

The approximate transfer price is \$450.00 for the INSTRUCTOR'S KIT and \$70.00 for the CUSTOMER KIT. The price on these items is \$1000.00 and \$175.00 respectively.

The course materials are printed in a fashion similar to our manuals and packaged in attractive binders. They should prove to be effective teaching aids.

## General News

### Series 33 Launched in NYC in Computer Expo '79

By: Rich Edwards/GSD

Hewlett-Packard's 3000 Series 33 exhibit was one of the stars of the show in the NYC Coliseum March 13, 14, and 15. Over 9000 computer buyers, businessman and OEM's attended the first three day stop of the 1979 Computer Caravan, also named "Computer Expo '79." As the pictures below illustrate, there was a lot of interest in the combination of the HP 3000 Series 33, MFG/3000 and business graphics. Since NYC, the Expo has been to Chicago, St. Paul, San Francisco and Los Angeles, The remaining cities and dates are:

Houston, Albert Thomas Convention Center, May 8, 9, 10  
 Charlott, Civic Center, May 15, 16, 17  
 Pittsburg, Merchandizing Mart, May 22, 23, 24  
 Boston, Hines Auditorium, May 29, 30, 31.

This is a really dumb question. I hope DG answers it!



Marc Hoff, SE Manager in Paramus, NJ, represented HP in the Distributed Processing EDP Trends Briefing Session.

This HP booth is so big I can't get it all in my rangefinder.

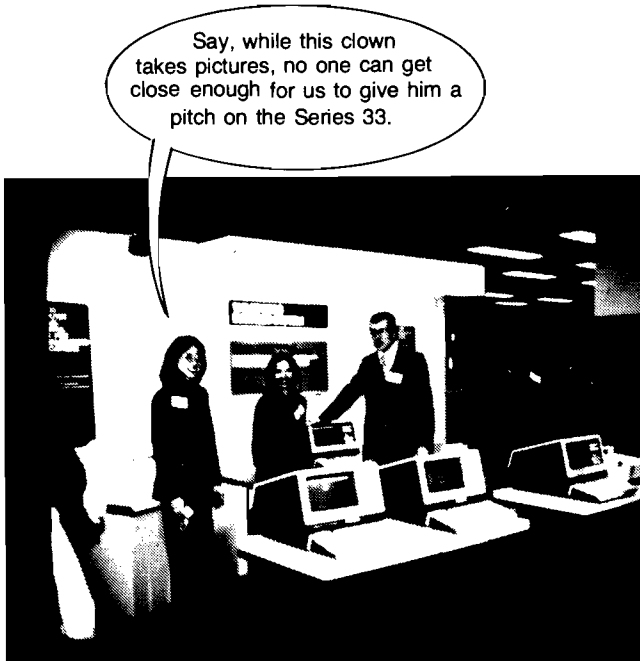
And this is only the business computer side; there's just as much on the other side.



HP 250, HP 300 and HP 3000/33 greet NYC Expo visitors on their way in.



The Series 33 drew a big crowd.



Paramus & Manhattan developed a lot of good sales leads.

## HP 250 Reorganization

By: Rex James/GSD

As you know, for some time we have been working on an organizational structure for the HP 250. As of now, the HP 250 program at Fort Collins will operate as part of GSD. I will be Program Manager responsible to Ed McCracken for the worldwide, HP 250 Product Line.

Being part of the GSD organization is especially significant because of the importance of the HP 250 as a key business computer product. It may become one of the most important business computers in HP over the next two years, both because of position in the market place and the volume potential there.

The objective of the program will be to make the HP 250 System a success in HP and the market place. This requires meeting CSG targeted profits while establishing HP as a recognized supplier of computers for small businesses and departments of larger manufacturing organizations.

The functional managers working with me in the HP 250 program are *Billy Miracle*, Production; *Pete Hamilton*, Marketing; and *Russ Sparks*, Engineering. Other functional areas will be serviced on a representative basis from the DCD organization here in Fort Collins.

The HP 250 program in Fort Collins will now begin to shift responsibility to Cupertino. First we will establish a Marketing presence by having an HP 250 "Champion" located in Cupertino. Then over the next year, we will move a portion of our Product Marketing activities West. The support and manufacturing will stay in Fort Collins for the life of the product.

*Pete Hamilton* will have *Jim Carlson* responsible for Product Marketing which includes HP 250 Product Management and Sales Development. *Bill Cummings'* responsibility will be Technical Marketing which includes SE-Software Support, CE-Hardware Support and Technical Documentation. The Marcom activities will continue under *Jim Geer* and the Marketing Services under *Judy Perdue*.

Product Development will, at a minimum, complete the enhancements now planned for the HP 250. They will also have the responsibility of working with DTD and CSB on the next generation product. With this relationship to DTD and CSB, the HP 250 program R&D needs to plan for and effectively continue enhancements sufficient to insure a smooth transition to the next generation product in the market place.

This R&D Group along with the Marketing and Manufacturing people make for a very impressive team. With direction from *Ed* and other in GSD, it should assure the success of the HP 250. I'm looking forward to working with all these people and the success we can have.

## The SE Support Function in FCD

By: Sam Solt/GSD

The SE Software Support function within FCD Marketing has been reorganized to clarify and enhance support responsibilities. A greatly expanded, well-qualified staff is now in place. They are ready to answer your questions about HP 250 systems software and FCD-supplied applications software. The FCD phone number is (303) 226-3800; individual responsibilities are as follows:

### System Software — Don Porter

- Operating System      *Gretchen Snowden* (x2625)  
   *Don Porter* (x2050)
- REMOTE/250 &  
  Data Comm              *Dennis Vetter* (x2028)  
   *Wendy Huard* (x2182)

## First European DSM Meeting Held

By: Alan Nonnenberg/CSB

During the week of 12 March 1979, CSB and Grenoble hosted the first European DSM meeting. In Boeblingen, *Ed McCracken* and *Bill Krause* presented a GSD overview and a marketing strategy update. The new commercial systems European marketing, manufacturing, and R&D plans were covered by CSB management followed by product updates by the product managers.

The DSM's participated in workshops on Horizontal Commercial Selling, Business OEM's, and People Recruiting and Development with the help of *Bob Stringer*, *Dennis McGinn*, and *Ralph Godfrey*. Demos of CSB-developed application software were held in the new manufacturing area.

At the dinner Thursday evening our visitors received personalized gifts thanking them for their participation. (See the accompanying pictures for an idea of the festivities).

The DSM's were pleased to see the first results of our new Commercial Systems Marketing investment in Europe and review the new field marketing support plans.

We are pleased to report a 153% quota performance in Europe for Commercial Systems during the first four months. We look forward to a continued successful year.



Arrival at Boeblingen train station left to right: *Jack Griffin*, *Klaus-Dieter Laidig*, *Tom Cochran*, *Alan Nonnenberg*, *Gianni De Carlo*, *Karl Ryngebrandt*.



*Ed McCracken* addressing European DSM's.



Software demo in new manufacturing area.



Ed McCracken receiving early delivery of 1980 MIT tapes.



Senior Management accepts the new field service kit.  
Left to right: Jack Griffin, Doug Chance, Bob Puette, Klaus-Dieter Laidig.



Coronation of Czar Georges II Rezwiakoff (center)  
by Alan Nonnenberg (left).  
(Note special map of Europe II).



Jim Arthur as the proud father of his newly-designed small business terminal.



Alex Sozonoff giving his all to his new assignment.

# HP GRENOBLE NEWS

## Division News

### Technical Support: Another Expert Ready to Help

By: Francis Marc/HPG



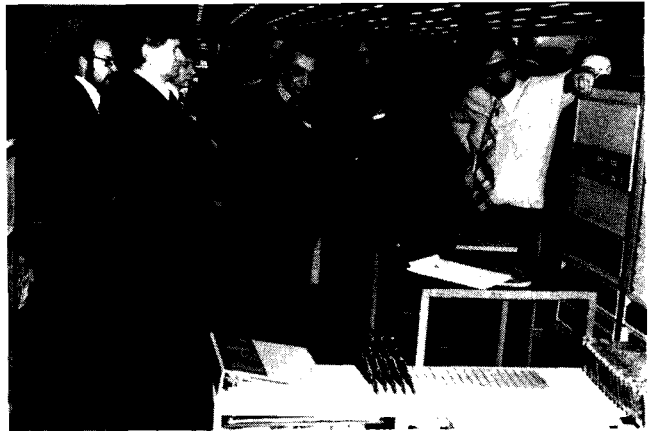
*Benoit Gibert* just joined our Marketing Team to support the European CE organization as a top-level expert for BOISE terminals and printers.

His face should be already familiar to some, as he was previously one of the best teachers of the Grenoble Service Division.

Along with *Jacques Biard* (who is your contact for CRT terminals), *Benoit* will be in charge of on-line support, problem simulation, new printer introductions and in-depth specialized training for Customer Engineers; plus any specific actions you or your customers may need.

### English Journalists on an HPG Factory Visit

By: Peter Stuart/HPG



Last month was very busy in Grenoble. Not only have we been pushing to complete the first customer shipments of our new Data Capture Terminals, but we have also been coping with the flood of prospects who wanted to see the terminals in production.

One day was particularly exciting when seven journalists from leading UK publications such as "The Engineer," "Automation," "Material Handling News," etc. . . came to see our new Data Capture Terminals in action.

Although the official reason for the visit was to introduce the new products to the UK press, we also took the opportunity to show them how Hewlett-Packard itself uses the HP 3000 and HP 1000 in manufacturing.

Of particular interest was the role of our technical computers, since it seems journalists are less familiar with such systems than the more conventional administrative types of data processing systems.

In the photo above you see them receiving an absolutely stunning (some would say numbing) pitch on our DTS-70 Board Test System.

The visit went smoothly thanks to the prior organization of *David Rolfe* (responsible for UK press relations), *Derek Smorthit* and *Tony Andrew*.

Based on the reaction of the journalists we anticipate good press coverage and perhaps even more importantly, they now have a better idea of what/who is Hewlett-Packard. Anyone else want to repeat the exercise?

## Product News

### Display Or No Display on a Standard 3077A?

By: Marc Nodier/HPG

There seems to be some confusion in the air. Please note that the standard 3077A includes:

- Type V badge reader
- 4-digit clock display
- 2 prompting lights (1 green, 1 red)
- HP 92904 wall mounting cradle

but **NO NUMERIC DISPLAY**

The only display which can be mounted in a 3077A is an optional "alphanumeric" 24-character display.

## Sales Aids

### 3075, 3076, 3077/264X Compatibility

By: Maurice Richez/HPG

By now you all know about the hardware interfacing compatibility between the 3075, 3076, 3077 Data Capture terminals.

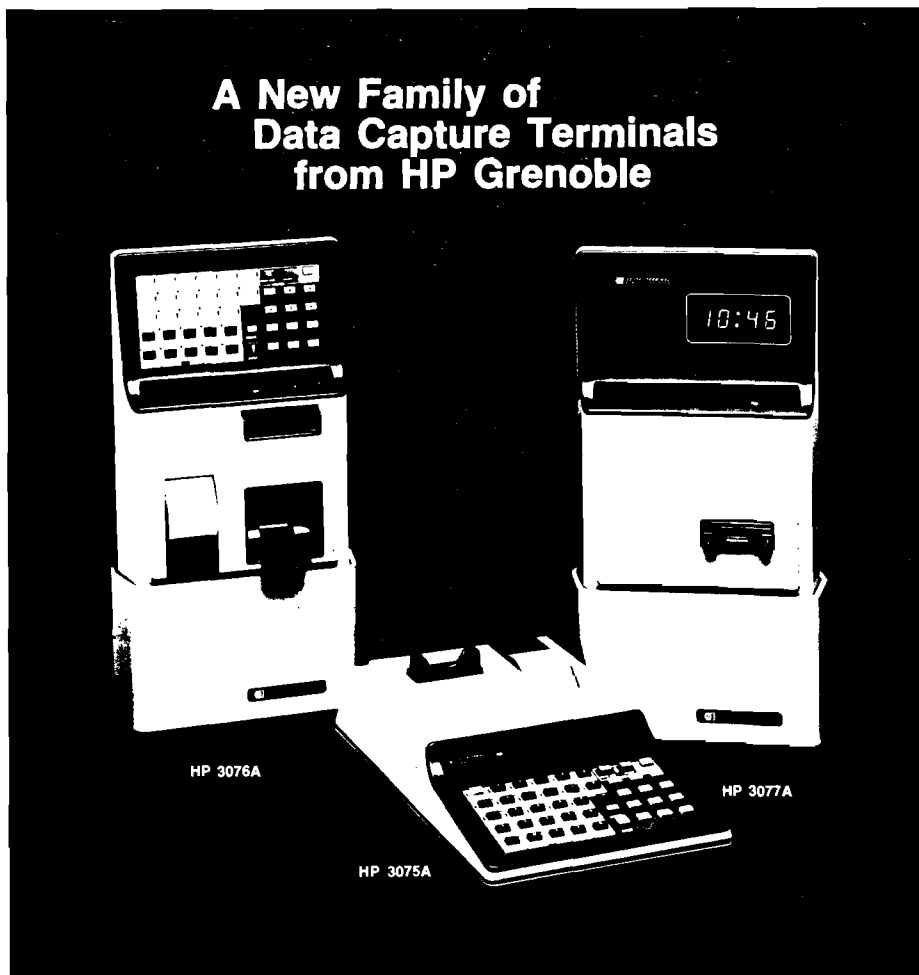
This is indeed **TRUE** for the **data communications cables**. This is **NOT TRUE** for the data communications **test connectors**.

For data communications tests:

**NEVER use test connector 02645-60002 or 02645-60004 with 3075, 3076, 3077 terminals.** You will damage the Data Link control circuitry.

**USE instead the Point-to-Point test connector 03075-60026 or the Multipoint (daisy chain) test connector 03075-60027 with 3075, 3076, 3077 terminals.**

These test connectors are delivered with Option 030 Installation and Programming kit (03075-67801).



## A New Family of Data Capture Terminals from HP Grenoble

HP 3076A

HP 3075A

HP 3077A



# CS GROUP NEWS

## CSG News

### CSG Overview Expands

By: Jody Ryden/CSG



Who is this man and why is he addressing all these people?

Sixty-four — count 'em! — 64 new-hires were in Cupertino recently to hear *Paul Ely* discuss our Business and Marketing Strategy as part of the CSG Overview Program. Why such a big class? It was primarily due to the addition of 24 Customer Engineers who are now attending Corporate

Neophyte and the first day of CSG Overview as part of their eleven weeks of training. In the three days of presentations CE's are learning about the history, objectives, and marketing strategies of the company and of the Computer Systems Group. As the member of the sales team spending the most time with the customer, this is valuable background for CE's to have.



Jody Ryden introduces Paul Ely to the CSG Overview Class.

The newly-hired Sales Rep's and Systems Engineers now attend a three-week Overview Course which begins with two days at Corporate Neophyte and concludes with three days at the divisions in Idaho (Disc Memory and Boise Division).

# COMPUTER SYSTEMS NEWSLETTER

**HEWLETT-PACKARD COMPUTER SYSTEMS GROUP**  
11000 Wolfe Road; Cupertino, California 95014 USA

**Bob Lindsay/CS Group - Editor**

SUE BRAULT/BOISE — Editor  
OLEN MORAIN/CSD — Editor  
BARBARA SHAPEL/DMD — Editor  
SANDY BETTENCOURT/DSD — Editor  
SYLVIA RAUMAKER/DTD — Editor  
REGINA FANELLI/GSD — Editor  
MURIEL JEAN/HPG — Editor

CHUCK ULFERS/BOISE — Technical Editor  
BOB PUETTE/CSD — Technical Editor  
BOB HOKE/DMD — Technical Editor  
JOE SCHOENDORF/DSD — Technical Editor  
STEVE STARK/DTD — Technical Editor  
JERRY PETERSON/GSD — Technical Editor  
PIERRE ARDICHVILI/HPG — Technical Editor