

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel

REINHARDT, HELMUT
FRANKFURT
HPSA

HEWLETT  PACKARD

Vol. 1, No. 6
Sep. 1, 1976

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- New Faces in AMD Sales Development
- New HP-IB Customer Videotape From DSD
- GRENOBLE Ships 1000th 7900 Disc Drive
- CSR Signs Combo With Northern Telecom for Seven 3000's

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AMD DIVISION NEWS

Division News

NEW FACES IN SALES DEVELOPMENT

By: *Larry Amsden/AMD*

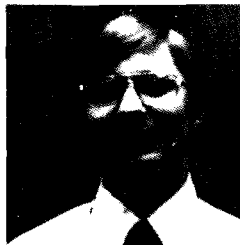
A new face in Sales Development is *Cindy Martinez*, Secretary. She recently transferred into Sales Development from Administrative Services at AMD where she was a switchboard operator. She has been with HP 1 year, and looks forward to the challenges ahead in her new assignment. WELCOME ABOARD, *CINDY!!*

Cindy Martinez



Neely's loss is AMD's gain — specifically, AMD Sales Development — *JIM SEVERS* will join us on September 1 as an Applications Engineer in *Paul Accampo's* group. *JIM* has most recently been an SE in the Phoenix office, has been with HP for 4 years, and brings to AMD a large amount of experience and knowledge to be used supporting the DTS-70. WELCOME, *JIM!!!*

Jim Severs



Larry Sanford

Also joining Sales Development this month is *Larry Sanford*. He brings to Sales many years experience supporting our product lines in the Product Support group at AMD, and looks forward to supporting MSR/CSR/ICON in his new capacity as Regional Sales Engineer. WELCOME, *LARRY!!!*

ARFTG USER GROUP MEETING

By: *Ron Carelli/AMD*

The ninth meeting of the Automatic RF Techniques Group will be held on September 9 and 10 at Sandia Laboratories in New Mexico. HP attendees from AMD Division will be *Larry Amsden*, *Ron Carelli*, and *Steve Stark*. If you have customers who are owners of 8540, 41, 42A/B, 8543A, or 8580A/B systems either in a stand-alone configuration or as a subsystem to a 9500 system, and are not currently members of this group, please have them suggest they contact the following people:

East Coast

Mr. Edward J. Stevens
RCA Corporation
Building 202-2 Cherry Hill
Camden, New Jersey 08101
Phone (609) 963-8000

West Coast

Mr. Allan S. Holley
Hughes Aircraft Company
P.O. Box 3310
Building 600/B130
Fullerton, California 92634
Phone (714) 871-3232 x3287

A summary of the group's meeting will be sent to all AMD FE's after the meeting.

Product News

CTEST

By: *Ron Carelli/AMD*

The 15 minute promotional cassette video tape with features and benefits of CTEST (option 300 on the 8580B) has been distributed to the following personnel in the sales regions:

Bob Myers — Fullerton, NSR
Maurice Cote — Lexington, ESR
Bill Yasdick — Skokie, MSR
Bob Funk — Richardson, SSR
Heiner Haupt — BBN, HPSA
Yuji Mineyama — YHP

Please contact them to make arrangements to use the tape as a review before going on a call or to arrange a loan for direct customer viewing.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

PRICE INCREASES-8500 LINE

By: Ron Carelli/AMD

As of September 1, 1976, the following changes will become effective on the 8580B system and on accessories for the 8542B system:

	OLD	NEW
<u>8580B</u> : Base System Remains		\$138,000
Option 080 (8-18 GHz pre-selector/preamp)	\$34,000	\$ 37,000
Option 094 (3450 DVM)	\$11,200	\$ 11,700
Option 306 (Double bay cabinet (115V) in place of single bay cabinet)	\$ 1,500	\$ 1,550
Option 308 (Additional single bay cabinet (115V))	\$ 2,200	\$ 2,250
<u>8542B</u> : Accessories		
<u>11610A</u>	\$ 650	\$ 850
<u>11641A</u>	\$ 1,050	\$ 1,400
<u>11642A</u>	\$ 1,100	\$ 1,450

CLEARANCE SALE

By: Ron Carelli/AMD

The following equipment is available from AMD on a *first come, first served* basis with no warranty on an-as is basis. All items will be checked to assure functional operation before shipment. Please contact *Ron Carelli* X2530 for any further details.

ITEM	PRICE	QUANTITY AVAILABLE
5327B, w/opts. 003, 004, H07	\$1461	1
6941A	770	2
6941A, w/opt. J20	818	4
62018E, w/opts. 011, 102	182	2
62024E, w/opt. 011	182	1
62415A	21	7
779D, w/opt. C09 (APC-7 plug all ports)	490	2
69370A	320	4
8478B, w/opt. H18 011	270	1
86632A	805	1
12895A, (DMA 2155)	927	3

PRICE INCREASES-9500 LINE

By: Ron Carelli/AMD

As of September 1, 1976, the following changes will become effective on the 9500 systems:

	OLD	NEW
<u>9500D</u> :		
Option 120	\$ 1,265	\$ 1,315
Option 121	\$ 2,358	\$ 2,485
Option 122	\$ 3,475	\$ 3,575
Option 123	\$ 5,430	\$ 5,580
<u>9510D</u> :		
Option 008	\$ 1,850	\$ 1,900
Option 009	\$ 3,350	\$ 3,450
Field Add-Ons		
<u>93307A</u>	\$ 3,600	\$ 3,650
<u>93308A</u>	\$ 3,600	\$ 3,650
<u>93309A</u>	\$ 5,400	\$ 5,500

9500B/9551D OBSOLESCENCE

By: Ron Carelli/AMD

We currently have initiated obsolescence proceedings on the 9551D and the 9500B (TOPS). This is due to the low volume of both products and the cost of keeping a product current. The 9551D will still be quoted on a special basis and the 9500B will be considered a standard special.

The 9551D will be removed from the CPL on September 1, 1976.

The 2767A as mentioned a few issues ago is also being dropped. This means 9510D option 085, and 095 will be dropped from the CPL and ordering information sheets effective September 1. On the 9500D, it means 008, and 009 will also be dropped.

The 2767A will be replaced by the 2617A. Price approval is in process. In the meantime, it is available on a special basis.

UPDATE FOR 8500/9500 DISTRIBUTED SYSTEM SATELLITES

By: Ron Carelli/AMD

Due to the release of the new distributed system products (91700, 91703, 91704, and 91705) by DSD it has been necessary for AMD to change the software on its satellites to be compatible with the new central software. The release of the software is moving toward completion and here is the

ordering information and schedule for updates of customers:

8500 SYSTEMS

8542B

93250A Opt. A26

Update to 91008 in field to be compatible with new central software.

8580B

93215A Opt. A17

Update to 91007A in field to be compatible with new central software.

93251A Opt.A18

Update to 91007A opt. 120 in field to be compatible with new central software.

The update kits for the above will be ordered by the CE's for the customer at \$0 and charge time and materials if the customer wants installation assistance.

Schedule: Acceptance of orders starting September 1.

Delivery: 3 weeks ARO

9500 SYSTEMS

9500B

93252A Opt. A91

Upgrade to 9500B (TOPTS) type systems that have options 170, 171, 172, or 173. Also is an update for 91707A (Field update of 9500B with Distributed System capability) with options 100, 101, or 001.

9500D/9510D

Upgrade to 9500D or 9510D (TODS) type systems that have options 170, 171, 172, or 173. Also is an update for 91708A (Field update of 9500D/9510D with Distributed System capability) with options 100, 101, or 001.

The 9500 kits will be ordered in the same manner as the 8500 kits and the same installation policy applies. In both cases the upgrade kits will be shipped directly to the customer.

Schedule: Acceptance of orders starting September 20th.

Delivery: 3 weeks ARO

FANTASTIC PRICE FOR 100 KHz — 500 MHz SYNTHESIZER

By: *Ron Carelli/AMD*

Due to the obsolescence of the 8543A, we now have three sets of 5105A/5110B which are available at a super price of \$15,500 per set. This price represents a 30% discount from the last retail price and is on a no warranty basis. The units are all new, never been used and will be sold on a first come, first served basis. Please contact *Ron Carelli* at extension 2530 for order information and technical details.



ARE
YOU
READY
TO
PLACE
AN
ORDER
NOW?

DATA SYSTEMS NEWS

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

MISSISSIPPI STATE UNIVERSITY ORDERS 9603A FOR CONTROLLED FUSION RESEARCH

By: *Carlos Avila/DSD*

Terry Pelfrey recently sold a 9603A system valued at \$70K to Mississippi State University in Starkville, Miss. The system will be installed in the Aerophysics Engineering Department, which has recently been awarded a \$500K Government grant to do magnetohydrodynamic (MHD) research. The long-term goal of MHD research is controlled fusion power – a clean source of electrical energy, compared to present day nuclear reactors.

The 9603A will be used to monitor and control an MHD simulator. The MHD simulator consists of an ultra high temperature furnace which is used to heat gases mixed with various chemicals to simulate an MHD environment. Various materials will be placed in the furnace to see how they react in this harsh environment. In addition to controlling the simulator, the 9603A will be used to analyze data to determine the performance of these test materials.

OEM CORNER

TEAMWORK TIPS THE SCALE

By: *Frank Jackson/DSD*

Congratulations to *Jerry Tartaglia*, FE Lexington, in gaining a new OEM customer, Foxboro Transonics, and to "The Team" for their help at the moment of need.

The decision time span was insufficient to allow the customer to visit DSD to appreciate HP quality first hand. *Stan McCarthy*, Data Systems QA Manager, engaged the customer in a lengthy phone discussion about quality and reliability; *John Lands*, FE Lexington, personally delivered a copy of Data Systems Environmental Evaluation and Qualification Testing Lab Manual, loaned by *John Arserio*, FE Lexington, who just happened to have one in his desk! *John Lands*, who took over for *Jerry* when he was incapacitated by illness, was able

to utilize one of his own HP customers as a reference, *Tom Gentry* of Microwave Associates.

A few days later we heard from *Jerry* that he was feeling better and that Foxboro Transonics had decided to sign an OEM agreement with HP. Congratulations to all who contributed to this fine HP Team Spirit and particularly to *Jerry* for such a successful finale to a two-year sales effort.

Product News

2402A DVM & SCANNER 1/2 PRICE CLOSEOUT SALE

By: *Bob Brannon/DSD*

There are only 10 each 2320A DVM/SCANNER Subsystems left. We are going to obsolete this product and all 2402A DVM related products by Oct. 31, 1976.

For this close-out sale the 2320A's price is being substantially reduced from \$33,175 to \$16,950. Plus, we are bundling in free of charge the options 001 and 002, auto-ranging and frequency measurement respectively.

MODEL #	DESCRIPTION	OLD PRICE	NEW PRICE
2320A	Data Acquisition Sub-system (2402/2911)	\$32,450	\$16,950
001	Auto-ranging	325	N/C
002	Frequency Measurement	400	N/C

All other options and 2402A related accessories remain the same.

These prices are not subject to any discount.

All orders must be placed directly with division 22, DSD Cupertino. We will accept only firm orders. No APO's or phone reservations. It will be a first come, first served sale based on the order date on the HEART order. *Hal Eubanks* at DSD O.P. will coordinate.

Remember: only 10 subsystems; sale ends Oct. 31, 1976, half price.

Deliveries will be 18 week ARO.

NEW HP-IB CUSTOMER VIDEOTAPE!

By: Peter Palm/DSD

The power and speed of the 21MX minicomputer coupled with the simplicity and ease of operation of the HP-IB has set a new standard for automated testing.

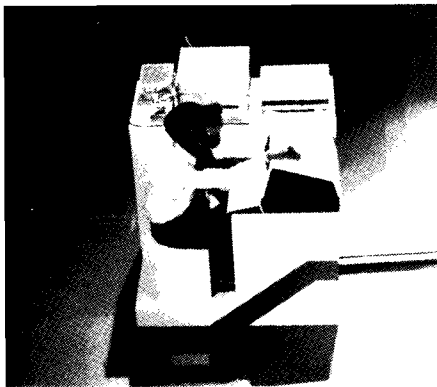
In this new videotape program you'll see how the system, with its multiple HP-IB clusters, allows testing to be carried out at several stations at once and new programs to be developed while others are still running. You'll see how multiple terminals allow you to enter data manually. The benefits of data base management, multiple languages, and HP's proven distributed systems software will also become apparent to you in this exciting video demonstration.

This videotape was also shown August 19, 1976 to 75 INSTRUMENT PRODUCT GROUP Regional Sales Managers, Area Sales Managers and Division Product Managers as part of a 1 hour presentation of the HP-IB Minicomputer by Dick Anderson and Pete Palm.

- 10 minutes running time
- COLOR

Order (90557) from:

HP Corporate Video Products
Bldg. 18
Page Mill Road
Palo Alto, CA 94306



HOW TO GET REAL-TIME BASIC DEVICE SUBROUTINES

By: Van Diehl/DSD

Do you know that RTE-B (2300B) and MRB-Multi-User Real-Time Basic (92101A) do I/O using the same RTE drivers, as Fortran and Assembler language programs?

However a device subroutine is required to interface the Basic code and the driver. The following devices have these routines included in Real Time Basic:

- HP 2313/91000 A/D subsystem
- HP 91063A Multiprogrammer
- HP 12970/12972 Mag Tape

The following subsystems have the device subroutines included in the hardware kit:

- HP 91200 TV I/F card
- HP 59310B HP-IB

The device subroutine listed below must be ordered by their part numbers:

INSTRUMENT	BASIC DEVICE SUBROUTINE	RTE DRIVER
HP 91065 Timer/Counter	09601-16010	DVR 40 29100-93001
HP 12604B DSI	09601-16011	DVR 40 29100-93001
HP 3480/3484 DMM	09601-16014	DVR 46 25117-60412
HP 12551, 12554, 12597, 12930, 12566	09601-16001	DVR 62 29009-60001
HP 12556 40-bit register	09601-16022	DVR 54 25117-60551
HP 6129C/6130C/6131C DVS	29100-16001	DVR 70 25117-60414
HP 2320 DVM/Scanner	09601-16012	DVR 76 20236-60001
HP 2323 DVM/Scanner	09601-16024	DVR 77 20235-60001

RTE-C ENHANCEMENTS - A CAVEAT

By: Van Diehl/DSD

As most of you know RTE-C is a subset of RTE-I and does not support some of the neat features of RTE-II/III such as CLASS I/O, multiple devices in the same EQT (equipment table) and dynamic mapping. Program development in RTE-C is done off-line using HP FORTRAN or Assembler using a simple I/O control package - SIO to control the paper tape and the terminal I/O.

We are developing a new package that will greatly enhance RTE-C, and that will be a full subset of RTE-II and RTE-III. Program development with this new package can be done off-line or on-line, and no separate SIO package will be required. All language translators will interface to this new package. Note that a minimum of 24K memory and a flexible disc drive (floppy) will be required for program development.

I am telling you all that because I heard of several customers who are contemplating the purchase of RTE-C and 2644's (even if presently unsupported) because they are assuming

that whenever the 2644 becomes a supported product they can develop programs using the 2644 cartridge as I/O units instead of paper tape. *This will not be the case!* Generally more memory and a flexible disc drive (floppy) will be required. Beware!

You should by no means be quoting this capability as it will not be ready until sometime in 1977.

SEPTEMBER 1 PRICE CHANGES

By: Dave Borton/DSD

A number of price changes will appear on your September 1 price list. Some of those changes are up and some are down. The changes occur in two areas: Magnetic Tapes and Cabinets.

9600 MAGNETIC TAPES

The price changes to 9600 mag tape options reflect Boise's changes for these same products.

The price changes are as follows:

9600 OPTION	DESCRIPTION	OLD PRICE U.S. \$	NEW PRICE U.S. \$
Q40	7 Track Master	\$14,250	\$15,950
Q41	7 Track Slave	8,750	7,625
Q45	9 Track 1600 bpi Slave	6,845	7,530

CABINETS

We have been able to lower the price of the single-bay 56 inch upright cabinet even lower! This is the second price reduction on the 29402B in the last two months! We can now offer two single bay cabinets for about the same price as a two bay 29404B cabinet. Therefore, the 29404B plus the three bay 29406B cabinets will be removed from the price list. Also, to cover cost changes, the 70 inch cabinets prices will be increased. The new cabinet prices now are:

CABINET	DESCRIPTION	OLD PRICE U.S. \$	NEW PRICE U.S. \$
29402B	56" Single Bay	\$1290	\$1150
-300	60 Hz Power Strip	90	60
29403B	70" Single Bay	1400	1500
29404B	56" Two Bay	2150	Not Available
29405B	70" Two Bay	2350	2600
29406B	56" Three Bay	3050	Not Available
29407B	70" Three Bay	3300	3700

2762A/B TERMINET INTERFACE CHANGE

By: Frank Jackson/DSD

Please note in your configuring guide that the interface for 2762A & B terminals to 2100/21MX series CPU has been changed to 12531D-OPT 003. This change is necessary as our supplier is now using a different connector on the terminal. 12531D-OPT 003 is capable of handling both old and new type terminal connectors. OPT 003 is no-charge option.

Sales Aids

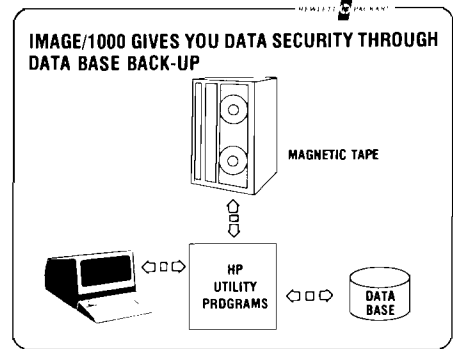
CUSTOMER SLIDE PRESENTATION ON IMAGE/1000 IS NOW AVAILABLE

By: Fred Gibbons/DSD

In response to many requests, a slide presentation on the features and benefits of IMAGE/1000 is now available. To give you a feel for what it contains here are a few key slides. There are thirty color overhead slides in all and they are available with script from *Larry Garner* in DSD's art department for \$46.50. To get your set send *Larry* an IOS with your name, office address, location code, and account number. More new IMAGE/1000 sales tools are on the way so keep watching the newsletter.

DATA BASE MANAGEMENT FUNDAMENTALS

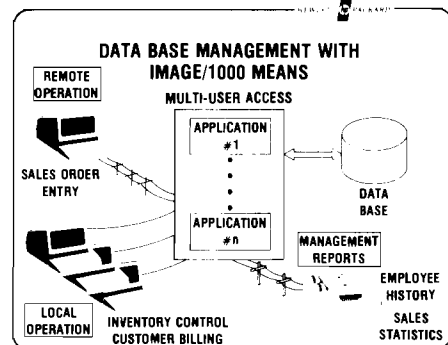
IMAGE/1000
VERSUS
TRADITIONAL FILE MANAGEMENT TECHNIQUES



IMAGE/1000 CAN BE VIEWED AS A HIGH LEVEL LANGUAGE THAT CAN

- REDUCE APPLICATION DEVELOPMENT TIME
- REDUCE PROGRAM MAINTENANCE
- REDUCE REDUNDANT DATA
- REDUCE THE NUMBER OF APPLICATION PROGRAMS WITH QUERY

BY REPLACING THE TRADITIONAL FILE MANAGER

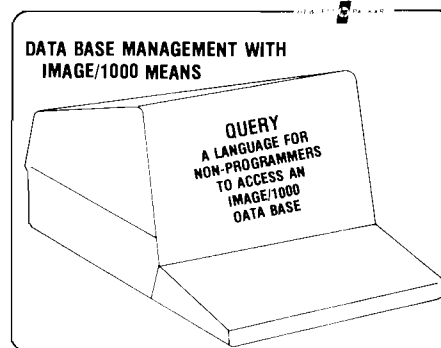
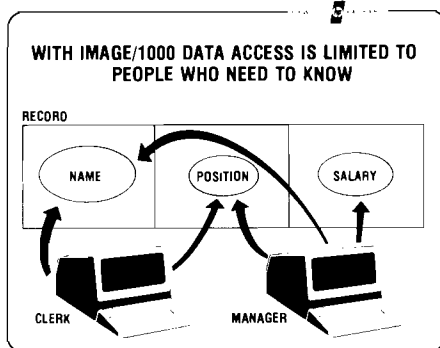


DATA BASE MANAGEMENT WITH IMAGE/1000 MEANS MORE POWERFUL ACCESS METHODS

TRADITIONAL FILE MANAGEMENT	IMAGE/1000
SERIAL DIRECT INDEXED SEQUENTIAL	SERIAL DIRECT DIRECT & SERIAL KEY VALUE CHAIN

DATA BASE MANAGEMENT WITH IMAGE/1000 MEANS

- ELIMINATION OF REDUNDANT DATA FOR REDUCED STORAGE REQUIREMENTS
- REDUCED PROGRAM MAINTENANCE
- MORE POWERFUL ACCESS METHODS FOR INCREASED SYSTEM THROUGHPUT
- AUTOMATIC SECURITY FOR PRIVATE DATA
- PROTECTION FOR YOUR DATA BASE THROUGH BACKUP
- MULTIUSER ACCESS



HP HOSPITALITY SUITE AT AIIE CONFERENCE

By: Bill Stevens/DSD

HP DSD hosted a hospitality suite at the Distributed Data Processing Conference presented by the American Institute of Industrial Engineers in San Francisco (August 2nd through 6th). HP was the only vendor with a suite and, in fact, HP was the star of the conference! A number of good sales leads were generated and these are now on their way out to you through DSD Sales Development.

Why bother with a conference? Over 170 people paid \$395 each to attend this conference. This was an influential group of people (e.g., the worldwide manager of EDP for Standard Oil Company of California). Further, due to some feelers sent out months in advance by DSD Marketing, *Ben Holmes* was asked to be the featured luncheon speaker on Tuesday; his speech, "Minicomputer Networks — Past, Present and Future", was very well received. In a Conference Presentation, *Jerry Herrmann*, the Systems Consultant, commented very favorably on RTE-III and the HP 3000. *John Gant* of the California Department of Water Resources, showed slides of and talked about HP Computers controlling the California Water Project in a distributed environment. By comparison, DEC and MODCOMP were left in the dust. Everyone at the conference knows that HP is the *leader* in Distributed Systems!

Putting on a hospitality suite requires the help and support of just about everyone in sight. Firstly, permission must be gained from the conference chairperson; professional societies are sensitive to commercialization of their conferences (as opposed to conventions such as WESCON). Discretion is the key. HP had a large sign outside the conference room and *each day*, while the conferees were at lunch, the invitation, reproduced below, was placed at each seat.

You are invited to visit the
Hewlett-Packard Hospitality Suite

Room 662, Jack Tar Hotel

Tues: 2:00 P.M. — 7:00 P.M.

Wed: 1:45 P.M. — 7:00 P.M.

Thur: 1:45 P.M. — 7:00 P.M.

to see:

- an HP 9700 Distributed System Satellite in action
- Video tapes of the 9700's use in HP calculator manufacturing

to discuss:

- Distributed Data Processing with Minicomputer Networks

HEWLETT  PACKARD

DATA SYSTEMS DIVISION

TIPS for your hospitality suite which may save you grief.

Action in the suite started picking up at 4:00 and when the last talk ended at 5:00 P.M., over 50 conferees arrived at once. Five HP'ers were very busy. The presence and support of FE's from Neely Santa Clara was crucial. Many thanks to *Dave Kalman*, *Ron Westergren*, *Skip Quain*, *Darrell Igel-mund* and *John Maydonovitch* for their skillful help in manning the suite. Marketing and Sales Development could not have done it alone. The bar was manned by HP at all times. Guests were asked to sign the register while their drinks were mixed. Cards permitting an area of interest to be checked off would have been very useful. The bar should be toward the far end of the room (drawing guests inward). Hors d'oeuvres should be targeted at the guests level of expectation. These were placed strategically around the room. A hospitality suite has to be done well or it shouldn't be done at all; further, it is the reports of first day's guests that bring people in second and third days. Unfortunately, hotel liquor and hors d'oeuvres are not bargains; the bite can be significantly reduced by bringing some of your own liquor, potato chips, peanuts, etc.

The purpose behind all of this is to generate increased sales of present and future HP Systems and to gather market information. This process is immensely facilitated by the presence of a *demo*, however simple. Setting up a demo is a lot of work, but it is worthwhile. Many people came up to the suite just to see the demo which is pictured below.



Bill Stevens (DSD) explains RTE-III/Distributed Systems to new user.

In the suite we had an RTE-C based satellite connected via modem to a 9700 Central System in Cupertino. It demonstrated Distributed Systems high level calls and file management using *Mike Manley's* NCC Program. The demo gives a suite credibility and a perfect chance to explain HP product superiority. A good demo has an explanatory sign above, is short, yet interactive with the customer, and demonstrates an important capability. However, if it is not simple, it may not be reliable in a hotel room environment of limited AC power, a telephone switchboard, and limited air conditioning.

HP Sales Brochures should be readily available. On average about 60% of the guests took one of each of the five brochures.

Finally, have a good supply of business cards at hand to initiate trades, pen and paper at hand and wide open ears. Have fun and Good Luck!

Competition

DEC REAL TIME SOFTWARE UPDATE-RT-11 and RSX-11M

By: Van Diehl/DSD

DEC is now selling mostly RT-11's and RSX-11's with PDP-11's systems. RT-11 is sold for smaller single-user applications and RSX-11M for multiuser applications. Originally RT-11 was developed for lab and RSX-11M for industrial application, but now their usage has been extended to most market areas that DEC sells to.

RT-11 is a system for single-user, real-time foreground and program development (or batch) in the background. 16K to 28K words of memory are supported. No memory protection for the two partitions. Foreground and background can only communicate through disc files or message passing facilities.

RT-11 is not a true multiprogramming system. Foreground and background run to completion and cannot be swapped out by other programs. There is no priority scheduling of programs. There is no I/O buffering, but I/O overlap is allowed.

RSX-11M is a system for Real time applications and program development 24K to 124K words of memory are supported. RSX-11M provides multiprogramming with priority scheduling. RSX-11M memory is divided in fixed partitions. *Tasks are built to execute out of a specific partition.* Two kinds of partitions are provided: system-controlled and user-controlled. User controlled partition can be divided in up to 7 sub-partitions. Tasks can be swapped out of partitions to allow higher priority tasks to execute in the partition, but they will have to swap back into the same partition.

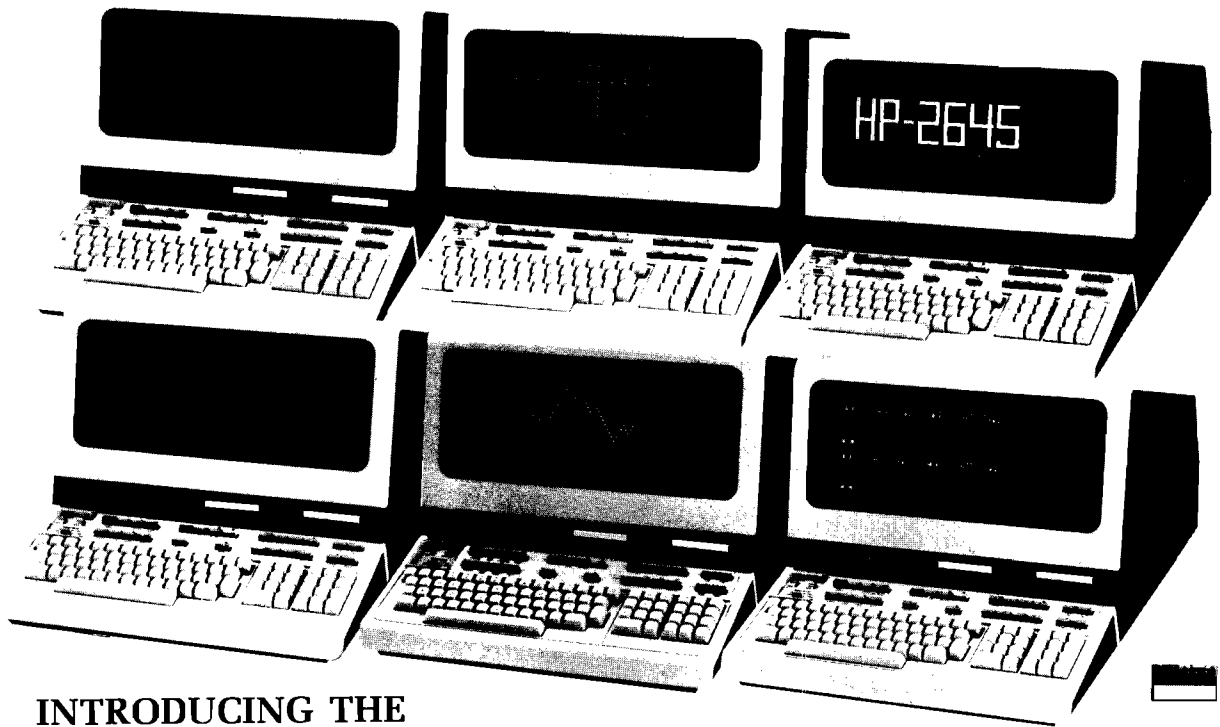
It seems that the maximum system buffer available for buffering is, at most 1 to 2K words. Therefore, the system will have limited buffering capabilities.

SUMMARY

	RTE-II	RTE-III	RSX-11M	RT-11
Memory Size (for concurrent foreground and background program development)	16-32	32-256	24-28	16-28
Memory Protection	one fence	each partition	each partition; mapped system only	N.A.
Memory Management	2 fixed partitions	Up to 64 fixed partitions	Fixed partitions and	2 fixed partitions
	Programs run in pre-assigned partition	Program can execute in smallest available partition	Dynamic relocation; program can only run in a preassigned partition	No scheduling
Swapping	Both FGD and BGD	Any partition	Any partition	N.A.
Priority Levels	32767	32767	250	2
Languages	Assembler, FORTRAN II/IV ALGOL, MURB	Assembler, FORTRAN II/IV ALGOL, MURB	MACRO, FORTRAN IV FORTRAN IV-Plus (COBOL on RSX-11D)	FOCAL, MU BASIC FORTRAN IV
Batch	Yes	Yes	No (only via indirect command files)	Yes
Spooling	Input & Output	Input & Output	Output only	N.A.
Spooling Priority Control	Yes	Yes	N.A.	N.A.
Multi-terminal	Yes	Yes	Yes	BASIC only
	RTE-II	RTE-III	RSX-11M	RT-11
Class I/O	Yes	Yes	N.A.	N.A.
Sysgen	Interactive	Interactive	Requires reassembly of exec. Partition assignment cumbersome	?
Buffered I/O	Yes	Yes	Output Only	N.A.
I/O Queuing	By Priority of Caller	By Priority of Caller	By Priority of Caller	One Queue
Transfer Files (Indirect Command) Files	Yes	Yes	Yes	N.A.

DATA TERMINALS NEWS

YOU WANT IT. YOU GOT IT!



INTRODUCING THE 2645A DISPLAY STATION

- **High Resolution Display**
 - Inverse video, half-bright, underline, blinking
 - Plug-in character sets
- **Forms Mode and Full Editing Capability**
 - Character/Block mode
 - Up to 12 kilobytes of display memory
 - Field checking
 - Auto Data Logging
- **9600 Baud, Choice of Communications Capability**
 - RS232C or 20mA DC current loop
 - Point-to-point, asynchronous
 - Asynchronous or synchronous (BISYNC) polling option with daisy-chained sharing of communications resources
- **Modular Architecture, Microprocessor Controlled**
- **Hard Copy Interface**
- **High Reliability, Serviceability**
 - Self-Test
- **User-Defined Soft Keys**
- **Fully Integrated Mass Storage (Optional)**
 - Dual Mini-Cartridges
 - Up to 110 kilobytes of storage each



2645A DISPLAY STATION ANNOUNCED

The 2645A is being introduced this month as the latest and most powerful addition to Hewlett-Packard's growing family of display terminals. As part of this introduction, the September issues of major trade publications will carry the following press release:

DATA COMMUNICATIONS FEATURES TAILOR NEW HP TERMINAL FOR LOCAL AND DISTRIBUTED COMPUTING NETWORKS

Flexibility in data communications with teletypewriter compatibility or multipoint polling and speeds up to 9600 baud, simplicity of operation through user-defined soft keys, up to 12 kilobytes of display memory and increased editing capability are the features of the Hewlett-Packard 2645A, the newest and most powerful of the HP 2640 Series data terminals.

The microprocessor-controlled CRT display station, designed for both local and distributed computing networks, can operate at selectable speeds up to 9600 baud and has the optional capability of asynchronous or synchronous (BISYNC) multipoint polling of up to 32 terminals on the same line. This makes the terminal compatible with a wide range of computer systems and results in cost savings by sharing modems, data lines and computer I/O channels. Additional options to increase data communications flexibility include 20 mA current loop, split input/output speed and custom baud rate.

USER/DEFINED SOFT KEYS

To simplify the use of the terminal keyboard and to adapt it to specialized applications, each of eight special-function keys can be set up to issue a user-defined string of 80 characters or several control sequences stored in the terminal. Instead of using several key sequences, users can program a single soft key to trigger such tasks as search for files, instruct the operator, or aid in forms construction for data entry.

Color-coded prefix keys provide full access to the 2645A's multiple data paths to allow information to be moved between any of the functional units of the display station—cartridges, display, keyboard, printer and data-communications interface.

2645A HAS ALL THE BENEFITS OF 2640A and 2644A

In addition to these features, the HP 2645A gives users all the benefits of the 2640A and 2644A terminals including off-line data preparation and editing capability, microprocessor-controlled memory allocation, built-in self test, both page and character-mode operation and a high resolution 5" by 10" display that represents a 24-line by 80-column format.

Optional fully integrated and highly reliable tape transports provide 220,000 bytes of mass data storage allowing the 2645A to batch information and to perform on a stand-alone basis many operations normally requiring connection to a computer. This reduces on-line time costs, cuts line charges in remote operations and greatly lessens demands on computer resources.

The new display station can have up to 12,000 bytes of multi-page display memory available to store lengthy forms, programs or text. Information can be retrieved by scrolling forward or backward a line or a page at a time.

ENHANCED EDITING CAPABILITY

To correct data before transmission or recording, the 2645A offers the user greatly enhanced editing capability with such new features as automatic data logging (when tape equipped), numeric/alpha field checking, movable margins, character wraparound and transmit-only fields. Character or line insert or delete editing and rapid cursor positioning speed error correction.

Up to four 128-character-sets — switchable on a character-by-character basis — may be used concurrently. Among them are a Roman set with displayable control codes for program debugging, a line-drawing set for forms drawing and limited graphic capability, a mathematics set with frequently used math symbols and Greek characters, and an accessory for user-defined characters.

A variety of hard-copy devices can be accommodated. Commands to print data can be initiated either locally or remotely from the computer.

PRICE AND DELIVERY

Base price for the Hewlett-Packard 2645A display station is \$3,500, when equipped with tape transports the price is \$5,100. (U.S. prices only). Volume and OEM discounts are available. Deliveries are scheduled to begin in September.



FEATURES OF THE 2645A DISPLAY STATION

HIGH RESOLUTION DISPLAY

The 2645A displays 1,920 characters in a 24 line by 80 column format on a 5 inch by 10 inch display. A 9×15 dot character cell allows large characters to be represented accurately. Wide character and line separation, inverse video, and optional plug-in character sets with underlining, half-bright, and blinking are features designed to increase clarity and ease sessions at the terminal.

FORMS MODE AND FULL EDITING CAPABILITY

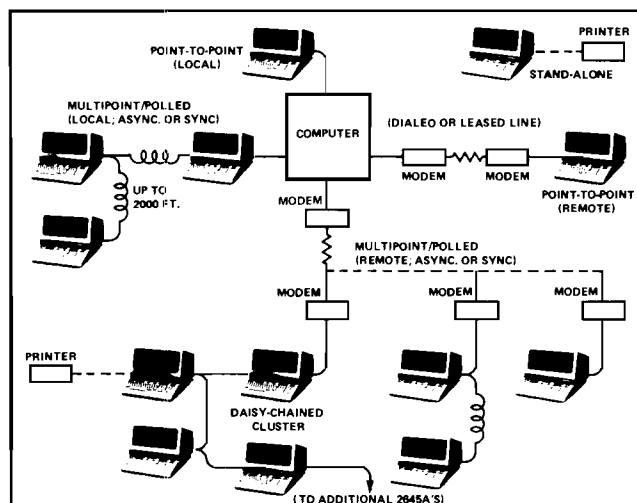
The 2645A transmits character-by-character as an interactive terminal or is capable of operating on a block at a time. Local editing allows the terminal user to verify and modify data before transmission to the computer. Standard features include character or line insert and delete, cursor sensing/positioning, *numeric/alpha field checking*, protected fields, *transmit-only fields*, tabulation, *movable margins*, *character wraparound*, *automatic data logging*, and positional display lock. Page select and scrolling can be used with up to 12 kilobytes of display memory for off-screen storage. Optional math, line drawing and user-defined character sets enhance display presentation.

9600 BAUD, CHOICE OF COMMUNICATIONS CAPABILITY

The standard 2645A is teletypewriter compatible (EIA RS232-C serial synchronous, ASCII, half or full duplex). It operates at speeds up to 9600 bits per second, and trans-

mits either character-by-character as a fully interactive terminal or operates on variable length blocks of information. Optional capabilities include 20mA current loop; and either *asynchronous or synchronous polling for multipoint communications networks*. Also, the 2645A can be used with a *wide selection of modems over dialed or leased lines*.

Polling offers the cost saving benefits of shared communications resources—modems, data lines and computer I/O channels; as well as *improved transmission error checking* and communications compatibility with a wide range of computer systems. The 2645A operates as a single unit or can be *daisy-chained to other 2645A's on a single communication line*. *Synchronous multipoint (Binary Synchronous Multipoint Communications, Bisync)* and asynchronous multipoint (patterned after Bisync) can optionally be used for polled communication networks.



MODULAR ARCHITECTURE, MICROPROCESSOR CONTROLLED

Microprocessor implementation and modular architecture produce a terminal with a wide range of capabilities; and, as needs grow, the potential for flexibility adding such features as integrated tape units, alternate communications protocols, additional display memory, printer interfaces and display enhancements.

HARD-COPY INTERFACE

A wide variety of hard-copy devices can be accommodated via an optional RS232C serial interface of HP printer compatible parallel interface. Commands to print data can be initiated either locally from the terminal keyboard or remotely from a computer.

HIGH RELIABILITY, SERVICEABILITY

Every element of the 2645A terminal has been engineered for high reliability and ease of service. The optional Mini Cartridge represents a significant reliability advance for low cost mass storage. The 2645A's Self-Test features give the user an instant diagnostic test that the terminal, including its data communications area, is operating properly.

- **Form Fitting:** The 2645's line drawing set can be used to create display forms that closely match printed forms resulting in fewer chances for operator-error.
- **Field checking:** Numeric-only and alpha-only field checks can be dynamically performed to find errors when they are made. Rapid cursor positioning and insert and delete editing speed error correction.
- **Display enhancements:** Specific fields can be brought to the user's attention by using any of the 16 possible combinations of inverse video, optional blinking, underline and half-bright to emphasize areas of the display.

And more:

- Character wraparound — when inserted text takes up more than 80 columns.
- Adjustable margins — for variable column width/multiple columns/split screen.
- Transmit-only fields — In addition to protected and unprotected fields, the transmit-only field cannot be written over but is transmitted.
- Memory lock — to freeze a number of lines at the top of the display.
- Tab/Back Tab — line independent tabulation from field to field.
- Automatic data logging — stores information as it leaves the display automatically on the optional tape cartridges or optional printer.
- Plug-in character sets: There is the capacity to use up to four 128-character sets concurrently — switchable on a character-by-character basis — the Roman set including displayable control codes for program debugging; the line drawing set for forms drawing and limited graphics capability; the math set with frequently used math symbols and Greek characters; large character set for distant viewing; or user defined character sets.

LARGE
CHARACTER
SET

NORMAL SIZE OF STANDARD
CHARACTER SET

Here's a character set you can read across the room. Each character is three times larger than our standard upper case Roman. Small segments, nine to be exact, make up each character.

Used to catch the attention of an operator, these unique characters were first used in medical applications on patient monitoring systems.

How do you order them? Two ways. First, when ordered with a 2640 family member, as option 203 to the 13231A Display Enhancement. Second, as a field upgrade under Part Number 1816-0947. How much? \$150.



From the people who put the *flash* in *flashy* comes the brand-new 2645 demo tape! It speaks your customer's language and demos his application.

Whether you want to demo text editing, data entry and field checking or give a general description of this great product it's all there and more. Just ship the demo, tape in the left slot, press the read key and pull out your order book!

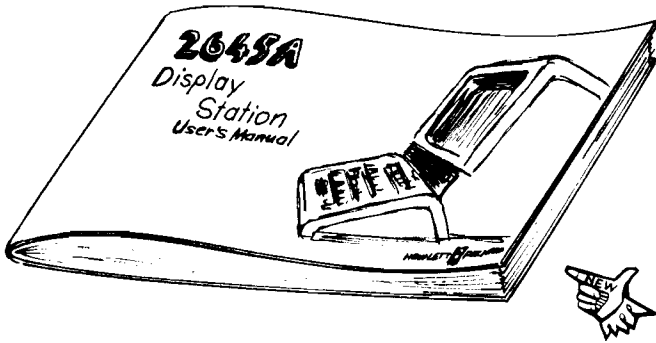


This tape, sent with each 2645 OPT 007, takes the new owner through a step-by-step procedure on how to use all the features of this new terminal. A *la* 2644 How-to-use-it, this tape is twice as comprehensive and will make the uninitiated an expert in about an hour.

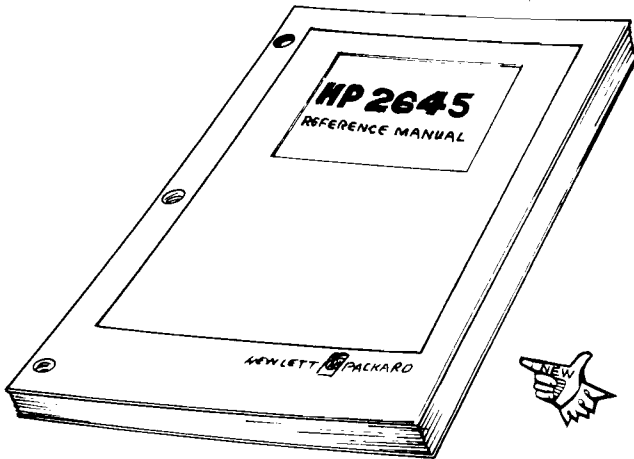
SELL
TERMINALS

2645 MANUALS

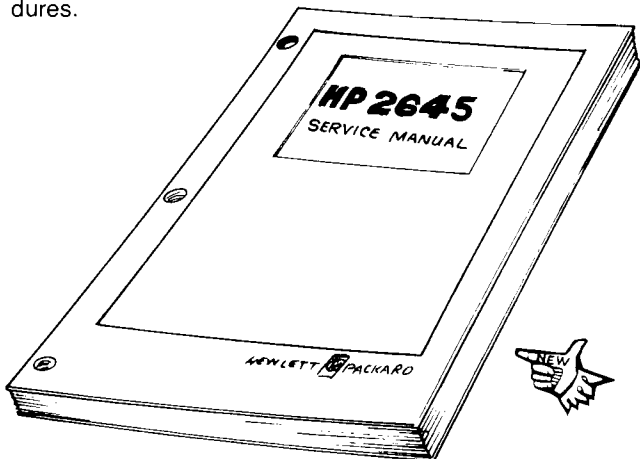
To meet the needs of both the systems programmer and operator, we now offer two separate manuals.



The 2645A Operator's Manual (02645-90001) provides a good introduction as well as instruction for controlling the terminal from the keyboard.

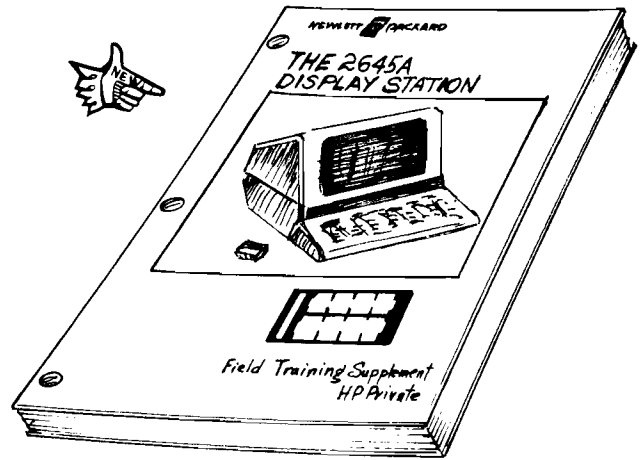


The 2645A Reference Manual (02645A-90005) is written for the programmer. It contains all the programmable features as well as a step-by-step installation and configuring procedures.

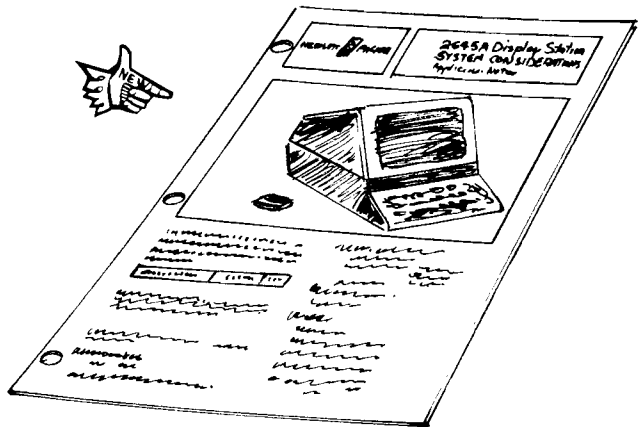


Here's the manual for you service wizards. It contains service and trouble-shooting information in case this new super product should ever fail. Heaven forbid!

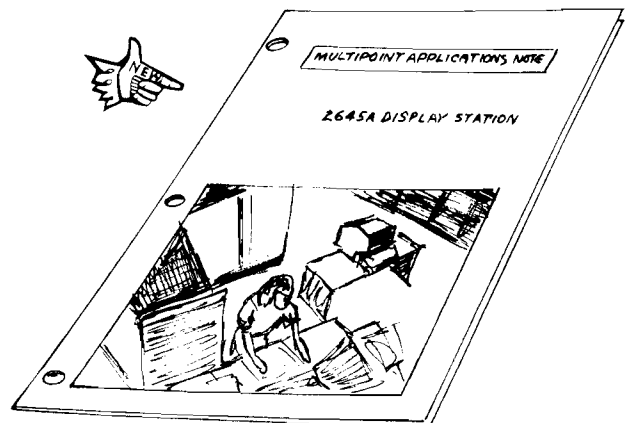
This manual (02645-90003) will not be shipped with the terminal, but can be ordered separately.



This manual answers all your questions on the 2645A; like "how much memory is left if I use soft keys?" It's all in there. The manual is intended as a supplement to your present 2640/44 Field Training Manual so don't throw away the oldie but goodie. These have been sent worldwide to our super sales force. Check your mailbox!



This application note will describe the compatibility considerations you and your customer will have to make for a successful hookup. Things like 2645 features that can be used without modifying software; how to use 2645 features with system considerations, cautions and solutions. (5952-9967) (42).



Here it is folks. The first in a series of application notes on IBM and the 2645. This gem gives you info on how to hook it, where to hook it, and what to say to a 260/370.

ORDERING INFORMATION

First shipment of the 2645A and its options/accessories will occur in early September. The 2645A is on the September 1 Corporate Price List — so sell the 2645A Display Station *now!*



PRODUCT NUMBER	DESCRIPTION	PRICE	MAINTENANCE CONTRACT	PRODUCT NUMBER	DESCRIPTION	PRICE	MAINTENANCE CONTRACT
2645A	DISPLAY STATION	\$ 3,500.00	\$22.00 monthly	13260B	EXTENDED ASYNCHRONOUS COMMUNICATIONS	+ 325.00	—
-001	128 CHAR SET - ROMAN	+ 100.00	—	13260C	ASYNCHRONOUS MULTIPOINT COMMUNICATIONS	+ 435.00	—
-007	INTEGRATED DUAL CARTRIDGE TAPE	1,600.00	+ 8.00	-001	ADD MONITOR MODE CAPABILITY	+ 50.00	—
-013	5 MINI CART.	+ 90.00	—	13260D	SYNCHRONOUS MULTIPOINT COMMUNICATIONS-BISYNC	+ 450.00	—
-015	50 HERTZ	N/C	—	-001	ADD MONITOR MODE CAPABILITY	+ 50.00	—
-030	DELETE STANDARD ASYNCH COMM	- 160.00	—	13261A	DEVICE SUPPORT FIRMWARE	+ 170.00	—
13231A	DISPLAY ENHANCEMENTS	+ 250.00	—	CABLES			
-201	64 CHAR MATH SET	+ 100.00	—	13232C	RS232C CABLE	+ 50.00	—
-202	64 CHAR LINE SET	+ 150.00	—	13232F	CURRENT LOOP	+ 60.00	—
-203	64 LARGE CHAR SET	+ 150.00	—	13232N	MODEM CABLE	+ 75.00	—
13234A	TERMINAL MEMORY MODULE (+ 4K)	+ 300.00	—	13232P	MODEM/MULTIPOINT CABLE	+ 115.00	—
13236B	INTEGRATED DUAL CARTRIDGE TAPE UPGRADE KIT	+ 1550.00	+ 8.00	13232Q	MULTIPOINT CABLE	+ 90.00	—
13238A	TERMINAL DUPLEX REGISTER	+ 100.00	—	13232R	MULTIPOINT EXTENSION CABLE	+ 75.00	—
13245A	PROM CHARACTER SET ACCESSORY	+ 200.00	—	13232T	POWER PROTECT MULTIPOINT CABLE	+ 185.00	—
13250A	SERIAL PRINTER INTERFACE	+ 200.00	—	13232U	MODEM BYPASS CABLE	+ 50.00	—
13254A	VIDEO INTERFACE	+ 150.00	—				
13260A	STANDARD ASYNCHRONOUS COMMUNICATIONS	+ 160.00	—				



GENERAL SYSTEMS NEWS

Product News

DUAL ISS CONTROLLER ON SERIES II

By: Tom Carney/GSD

The lab does not plan to investigate multiple ISS controllers for the following reasons:

Since MPE requires all discs to be ready, a down drive means a *down system*. Due to a combination of factors, this results in excess down time. When a drive fails, the system must be reloaded with one fewer drive or the drive must be repaired. A reload will take approximately thirty minutes per drive (depends on length of files, can be longer). A system with twelve drives will take six hours. In addition, when the down drive is repaired, another reload may be required to restore normal operation. Repairing the down drive is complicated by not having the customer system to help diagnose the problem.

If the customer chooses to have the drive repaired, the system will be down until the repair is completed. This may take minutes or days. In addition, during repair the data may be lost requiring a reload.

A single disc drive has a MTBF of about 2500 hr. For a multiple disc system the MTBF in total is $2500/n$, where n =number of drives. Thus a system with twelve drives will have a disc failure, on the average, every nine days.

- By the time testing could be completed and announced to the field, only a few months would remain before introduction of the 7920.
- ISS drives are in very short supply and assembling the required number now would be very disruptive on manufacturing.
- We make very little profit on additional drives.
- Preliminary testing on 7920s indicate there is little or no increase in performance by having two disc controllers.
- Adding a second controller to the system will add very little to system up time. The controller is approximately four times reliable as a single drive and thus the drive's MTBF sets the system MTBF.

The lab will investigate multiple 7920 controllers as part of the 7920 project with the following understanding.

- Initial release of the 7920 will not be delayed for this test.
- The 7920 does not solve the reliability problem. A spare drive could minimize the down time due to a failure. This will be investigated.
- Dual controllers will only be available on a Model 9.

CALCOMP PLOTTER SUCCESSFULLY SUPPORTED ON SERIES II

By: Ed North/GSD

The interface for the 500 and 700 Series CalComp Plotters has been successfully tested by the lab and will be supported on the Series II. This interface's product number (30126A) and price (\$1,350) will be the same for pre-CX and Series II systems.

The 600 Series interface is not yet supported on the Series II.

BAMP SOFTWARE REMOVED FROM CPL

By: Dan Jorgenson/GSD

The BAMP software package, product number 24387B, will be removed from the Corporate Price List effective September 1, 1976.

Sales \$ Successes \$

BUSINESS COMPUTER SERVICES 3000/II MODEL 7 ORDER

By: Lou Castagnola/ESR

Business Computer Services (BCS), a pick-up and deliver batch payroll service bureau in the Washington DC area, recently decided to add another dimension to its business by developing and selling a terminal accessed general financial system to small businesses (\$300 to \$1000 monthly cost for terminal and processing). BCS runs its COBOL payroll currently on a 360/40 and has six vehicles that service about 300 customers in the DC Metropolitan area with a small branch office serving Baltimore.

BCS was initially qualified by *Steve Harksen*, Rockville Staff Engineer (soon to be AE), when they contacted the Rockville Office. At a late evening meeting with the President of BCS and his System Development Manager, Super Staff, Super AE *John Harris* and *Lucky Lou* further qualified BCS and convinced them that the 3000 offered the best solution in their environment because of the business languages, DBM and excellent terminal features provided on the system. With the stage set, enter "3 Triple O Super" SE *Neil Kelly* with his grasp of the situation, the order was soon in the bag. *Neil* demonstrated the 3000 stressing the system's capabilities, ease of applications programming for terminal access, IMAGE and QUERY. BCS was very impressed by *Neil's* demonstration of the completeness of the 3000 Series II total systems approach.

The competition was pared down from DEC, DG, Control Data and Burroughs to only Varian and HP. Varian proved very strong with an excellent hardware offering, but unproven software. Varian was not able to provide a good COBOL offering (although their compiler is suppose to be developed to meet full ANSI specs with the ability to compile any size program). Also, programming to handle interactive terminals under PRONTO, Varian's business multi-terminal monitor, was poorly defined and involved a high degree of systems software. PRONTO appears to be transaction oriented like TCS under DOS III.

In the final analysis, the roughly \$40K difference in price between Varian and HP was overcome by a cost of ownership analysis written out by *Will Workman*, Rockville District Manager, during one of the final meetings with BCS and handed over for their evaluation. BCS then made their own cost analysis based on the facts laid out, i.e., risk involved with new vendor software, lost revenue accrued from longer development cycle, etc., and decided the HP 3000 was the way to go. The order was culminated when the President of BCS presented *Paul Ely* with his order at the Washington 3000 Introduction.

NORTHERN TELECOM SIGN\$ COMBO AGREEMENT FOR SEVEN (7) HP 3000'S

By: *Sherif Alaily & Mike Naggiar/CSR*



On behalf of *Sherif Alaily* and myself, I would like to extend our sincere thanks and appreciation to all you people at the factories, HP Labs, Group and Corporate who helped us close the Northern Telecom (formerly Northern Electric) account for a number of HP 3000's.

You are too numerous to mention by name, but all the same, thanks to you all. It would have been much tougher, if not impossible, without your help.

Division News

HOW GSD PERCEIVES ITS MANUFACTURING PROSPECTS

By: *Jean T. Kelley/GSD*

Jean will be writing a regular column in the Computer Systems Newsletter to help familiarize you with the concepts, terms, and working solutions of a typical discrete manufacturing company.

In November, 1975, GSD formed Manufacturing Marketing Effort headed up by *Andy Danver*. Just recently, I joined *Andy* in this effort, which affirms GSD's commitment to this marketplace. Our group's charter states simply that our purpose lies in helping the field penetrate the discrete manufacturers in the Fortune 500.

What is discrete manufacturing?

Discrete manufacturers make things in defineable stages. They are characterized by their common production methods-fabrication and assembly. The following major industries are representative of discrete manufacturers:

- Non-electrical machinery
- Electrical machinery
- Transportation Equipment
- Fabricated Metal Products
- Instruments

Discrete manufacturers share other common traits besides their production methods:

A wide product mix that requires the sharing of factory resources. Sharing resources (machinery, test equipment) causes problems in scheduling, prioritizing, rescheduling and control.

A complex product mix where the final independent assembly (the Series II, Model 9) is composed of many dependent assemblies (I/O boards, memory, common bays, cabling). A plan to meet customer shipment commitments requires complex scheduling.

Product costs are largely material.

All these discrete manufacturer characteristics are in contrast to continuous process manufacturers where thermo-chemical changes take place on a continuous basis. The continuous process segment consists of some of the following industries:

- | | |
|----------------------|----------------------------------|
| • Chemical/Petroleum | • Food |
| • Primary Metals | • Paper |
| • Textiles | • Cement, rubber & glass, mining |

Why does HP want to sell to discrete manufacturers? Since HP, itself, is a discrete manufacturer, we understand that marketplace best. And we can be successful sales consultants to these companies. We can test our ideas internally

and know if they work before approaching other customers like ourselves.

The next issue of the *Computer Systems Newsletter* will include a description of some problems facing discrete manufacturers, like ourselves.

3000's CONTINUE TO KO SYSTEM/3'S

By: Rich Edwards/GSD



Rich Edwards

Overshadowed by the phenomenal success of the Series II introduction is the System/3 Replacement Program. While the program has been on the back burner for the past few months, the results of the Fall/Winter System/3 Seminars are paying off *NOW* in sales:

	TARGET	ACTUAL
1st Half FY76	37	39
FY76	75	--
1974-Present	N.A.	45

A list of the customers follows this article. Please note that the second half target will be a little more difficult to hit since the first half results include Festo's order for 13 systems!!!! Let's work at exceeding the 6 sales per month needed to reach "quota".

As of this week, I am taking over product management responsibility for the program from *Bob Lewin*. Needless to say, I have quite a lot of catching up from where I left off with *Andy Danver* last summer in the planning stages. I'll appreciate any help/advice/inputs you can give me to make this program a continuing success. Let's not have another 1130 type of program: here today, gone tomorrow.

To bring you up-to-date, the following underway projects are at the top of GSD's priority list:

- **RSAM. GOOD NEWS!** RSAM will be available for both the CX and the Series II and will be supported by product support. The lab project is underway and has high priority. When HP's version of Indexed Sequential Access Method [this differs from RSAM] is released (early FY'77), RSAM will NO LONGER be supported on the Series II; all RSAM users on the Series II will convert to our new access method as RSAM support on the Series II is phased out. The factory plans to make this conversion as easy as possible. Support for RSAM will continue on all CX models. In a future article you will be informed of model numbers and pricing.
- **96 Column Card Reader/Punch.** By the time you read this, we should be ready to introduce Series II support of the Decision Data 96 card reader/punch. We will supply

interface and software, the customer will buy or lease the CRP unit and maintenance from Decision Data. Model numbers and prices will follows.

- **3000 support of 3741 Data Entry Stations (floppy discs).** This R&D project is in the investigation phase. Please send me your inputs.
- **RPG Composer.** Contributed and working on the CX. At the present, due to changed I/O routines in MPE not running on Series II. At present there are no plans for converting this to the Series II. Please send me word of any sales you may loose due to this.

In order to provide GSD with up-to-date and accurate information on the Systems/3, I have collected and organized quite a lot of current data on the System/3 models, peripherals, and software. Give me a call at extension 2761 when you can't find the answer. Of particular interest are two items which are quite brief but informative:

- IBM's marketing rep's "INDEX OF MACHINES" published in IBM's *Service to Consultants*, and
- Auerbach's NEW (Jan, 1976) Configurators, from the end of their 1/76 Systems/3 Report.

Call me if you need detailed configuration information.

Thanks to *Owen Bensen* for reading the fine print in the latest *DataPro* report on the System/3. You should be aware that the System/3 Model 15 has automatic correction of single bit memory errors as a standard feature.

The previous issue of *Computer Systems Newsletter* (Volume I, Number 5) featured an analysis of the 15D vis-a-vis the 3000 by *Chris Forester*. The net of the 15D announcement is that IBM is still trying (unsuccessfully) to deliver a true-on-line, multiprogramming, multilingual system like the 3000. While we have the product advantage, let's go get those sales! Let's all work together to keep up the momentum!!!!

REPORT FOR HP-3000 INSTALLED SYSTEMS IBM SYSTEM/3 REPLACEMENTS

NAME	CURRENT SALESMAN	HP SALES OFFICE	DATE SHIPPED
Anton Kaeser	P. Schulthoff	Hamburg	10/76
Chester Engineering	J. Van Slambrook	Pittsburgh	09/74
Chrysler Corporation	Ray Drost	Farmington	07/76
Chrysler Corporation	Ray Drost	Farmington	07/76
Fortuna	F. Shiller	Vienna	07/76
Golden West Mobile Homes	Arnold Anderson	Fullerton	05/76
Imagery (Midamerica Audio-Visi)	Gary Polcyn	Skokie	07/76
Schoffner Industries	D. McArthur	High Point	06/76
Signal Insurance Co.	Alan Foster	LA Airport	05/75
SLM Data Systems, Inc.	Al Wood	Kansas City	07/76
Starck Van Lines	J. Van Slambrook	Pittsburgh	12/75
Steffen, John and Associates	Denis Ferland	MD Heights	04/75
Systems and Methods, Inc.	Jack Clarke	Atlanta	05/76

Please send any corrections/additions to GSD, c/o Rich Edwards or Carol Budkowski.

HP 2000 SERIES CONTRIBUTED LIBRARY

By: *Brenda Mapp/GSD*

A new HP 2000 Series Contributed Library has been established and is obtainable by ordering product number 36600A for an 800 BPI Library and 36600A option 100 for a 1600 BPI Library, each is priced at \$200.00

36600A consists of the five volumes and addendum documentation for the 2000F Library, plus manual updates and one 2400 reel of magnetic tape. The manual updates accumulate all changes to the 2000F documentation which relate to the newest system in the 2000 time-sharing family. The magnetic tape contains all of the old software from the 2000F Contributed Library. Arranged in twelve separate accounts six (ZXXX's), and six (CXXX's). The Z accounts range from Z901 which corresponds to the software and documentation from Volume 1, to Z906 which corresponds to the software and documentation from the addendum. The programs which reside in the Z accounts have been tested, unrestricted, and will execute on the new computer system. The C accounts range from C901 which corresponds to software and documentation from Volume 1 to C906 which corresponds to software and documentation the addendum. These programs have also been tested but will not execute on the new computer system without modification. Presently the Contributed Software Center is not recoding the C account programs.

All of the Library programs are supplied on a single magnetic tape; programs are not individually orderable. The part number for the mag tape is 36600-10001 for 800 BPI and 36600-11001 for 1600 BPI, each is priced at \$125.00. You can order separate volumes of documentation by using the following part numbers (each volume is accompanied by its manual update).

Volume I (100) Data Handling
(200) Testing, Debugging and Programming Aids

Order Number: 36000-91001, \$10.00

Volume II (300) Math and Numerical Analyses
(400) Probability and Statistics
(500) Scientific and Engineering Applications

Order Number: 36000-91002, \$10.00

Volume III (600) Management Sciences and Operations
Research
(700) Business and Manufacturing Applications

Order Number: 36000-91003, \$10.00

Volume IV (800) Education

Order Number: 36000-91004, \$15.00

Volume V (900) Games

Order Number: 36000-91005, \$6.95

Addendum to Volumes I-IV

Order Number 36000-92001, \$15.00

Also, for those customer upgrading from a 2000F to the new system, manual update are separately available, by sending their request to:

**Software/Publications Distribution
Hewlett-Packard Company
5303 Stevens Creek Blvd.
Santa Clara, Calif. 95050**

Please give the name of the manual, its part number, and state that the update is required, not the complete manual. There is no charge for the manual updates.

For example, to order Volume 1 update, request:

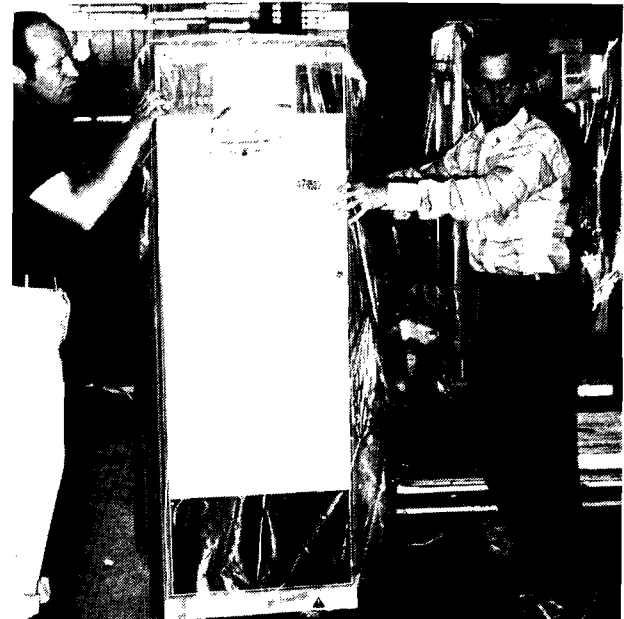
HP 2000 Series Contributed Library, Vol. I

**Part Number 36000-91001
Update Only**

In summary, 36600A (or 36600-option 100) is the only number you use when ordering the entire new 2000 Series contributed library. Extended documentation part numbers for particular programs are still valid numbers, i.e., the FINDIT Manual part number 36250-D00. Programs will no longer be separately offered on paper tape. The former paper tape part numbers are now obsolete.

HP GMBH INSTALLS SERIES II

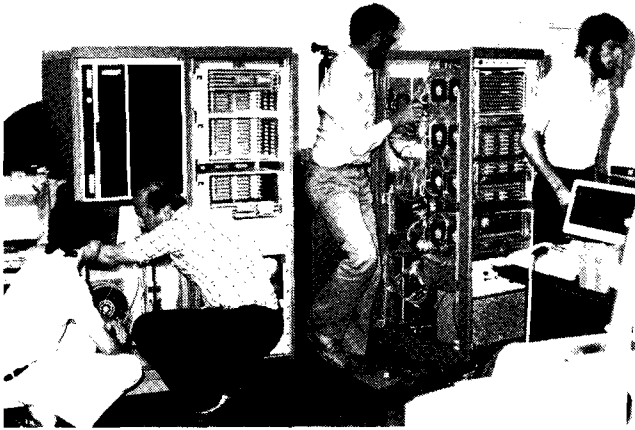
By: *Fritz Joern/BBN*



German Product Specialist Peter Frye handing over the 3000 System to Werner Gamm.

The HP GMBH facility of Boeblingen recently received their HP 3000 Series II. This multi-divisional HP facility with 1100 people and sales of 146 M\$ (including the German sales region) currently uses a 370/135 with 192 kbytes, 600 Mbyte disc storage, 4 1600 bpi mag tapes, 1 card reader and punch each and a 1100 lpm printer. A 370/138 with 512 k is on order. It is expected next summer and will save about 20 k\$ per year.

After the Comsys – HP's own data entry and communication system, based on 2100 series computers – and a 2000 time sharing system used for HP's "aquarius" product line statement generator and some finance accounting applications, the 3000 is the first big step towards distributed processing here. HP Grenoble, by the way, will get their 3000 in October.



Installation of the System by Uwe Jensen and a group of C.E. trainees.

In Boeblingen, part of a group of 12 analysts and programmers headed by *Werner Gamm* and *Manfred Prussner* will adapt and develop software on the 3000 like HP's materials planning and control system. This MPC package contains a purchase and inventory control system (PINCO), a materials requirements planning system (MRP), a materials record file handler (MRF) and a manufacturing activity planning system (MAPS).



HP 3000 Series II for internal use.



HP 3000 Series II with the COMSYS system to the left.

We feel that if this pilot installation is successful, an increasing number of manufacturing divisions within GMBH – some of them in different buildings – will use 3000's for their needs. High interest is shown also by the German computer sales force who expect proof and visibility of HP's arguments used towards prospective customers. We in GSD-Europe, located in GMBH Boeblingen too, have already established good mutual cooperation: While we can help them with specific training and know-how on the 3000's features, they give us "the commercial touch".

Last but not least, big brother is watching. When he heard about the 3000 order his on-site C.E. went "off-site" – without any ill effects to the 370 which is very reliable. His desk stood where the 3000 is now . . .



Big Brother 370/135 Watching the HP 3000 Series II.

2000 PRODUCT SUPPORT ORGANIZATION

By: Carolyn Morris/GSD

With the release of the "IB" revision of the 2000 operating system, and the addition of the new software subsystems such as EDITOR/2000 and SDE/2000, the 2000 Product Support Group at GSD has been strengthened with the addition of *Dan Jorgenson* and *Tom Aguirre*.

Dan Jorgenson is moving over from 2000 Product Management to head this group. *Dan* brings with him a wealth of product knowledge about 2000 systems from his previous assignment which makes him well qualified for this task.

Tom Aguirre transferred from our Advanced Products Division where he was involved with the support and program development of APD's extensive information management system on their 2000 Access System.

Dan has organized his group around the support of specific 2000 products:

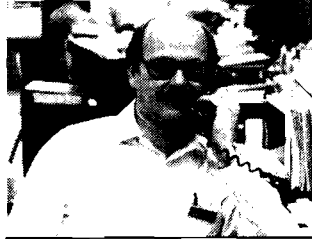
Anna Holland is primarily responsible for the support of present and future 2000 data communication subsystems (RJE, TSP/2000, etc.), BASIC language and data management facilities. She is also responsible for customer and SE training.

Scott Guthrie is primarily responsible for the support of the 2000 operating system including problems with the 2000/F and 2000/E operating systems. He's also responsible for 2000 Product Specialist training.

Tom Aguirre is primarily responsible for the support of the 2000 educational application products, EDITOR/2000,

FCOPY/2000, SDE/2000 and 2000 BASIC language facilities. He's also responsible for benchmark and system performance evaluation.

Please join me in welcoming our new people and wishing the best of luck in their new assignments.



Dan Jorgenson



Anna Holland



Scott Guthrie



Tom Aguirre

2000 SYSTEM SUPPORT ORGANIZATION

SYSTEM HOUSE SURVEY, ONE MORE TRY

By: Carol Budkowski/GSD

In Volume I, No. 6 of GSD's *Blue Line*, an attempt was made to gather information about systems houses. Specifically, we were looking for houses which produce commercial and manufacturing application software packages for both the HP 3000 and 2000 systems.

A second attempt was made in Volume I Issue #4 of the Computer Systems Newsletter. Unfortunately some bits fell into the bit bucket on the way from your Editor to the printing presses, and the crucial heading "Software Description" was omitted from the reply form. Let's try again!

SYSTEMS HOUSE SURVEY

Systems House Name _____

Name of Contact _____

Title _____

Address _____

City _____

State _____

Zip _____

Software Description: _____

Rental/Purchase Prices: _____

Please return to: **Carol Budkowski, GSD-Santa Clara, Bldg. 53U.**

WHO CONTROLS CUSTOMER ACKNOWLEDGEMENTS AND RE-ACKNOWLEDGEMENTS?

By: Jean T. Kelley/GSD

SALES REPS DO!!!

For each of you who have cursed the system because a customer was reacknowledged a slipped delivery date (unknownst to you), please review the Order Processing Worksheet described below. Sales representatives must notify Order Processing Coordinators as to exactly how you want your "Paper Control" set.

ORDER HANDLING

Paper Control

This code is used by the order originator to control the distribution of Shipping Orders, Acknowledgements and Invoices by the Heart System.

The codes have the meanings described below.

PC CODE	SHIPPING PAPERS BACK TO ORDER ORIGINATOR	ACKNOWLEDGEMENT GOES TO	INVOICE GOES TO
BLANK	NO	CUSTOMER	CUSTOMER
01	NO	CUSTOMER	SALES OFFICE
02	NO	NONE GENERATED	CUSTOMER
03	YES*	CUSTOMER	CUSTOMER
04	NO	SALES OFFICE	CUSTOMER
05	NO	NONE GENERATED	SALES OFFICE
06	NO	SALES OFFICE	SALES OFFICE
07	YES*	SALES OFFICE	SALES OFFICE
08	YES*	CUSTOMER	SALES OFFICE
09	YES*	SALES OFFICE	CUSTOMER
10	YES*	NONE GENERATED	CUSTOMER
11	YES*	NONE GENERATED	SALES OFFICE
\$	Used on change orders or suspense corrections to delete a code already entered. Left justified.		

*The shipping paper will only be sent if order originator is equal to supplier.

Remember: The PC code (and No Partial/Invoice Control code) can be changed even after shipment of any or all of the item/sub-items under its header.

ORDER NUMBER: 31 13 50 00
 PHONED IN BY: 5/30
 DATE: 5/30
 CUSTOMER ORDER NUMBER: 000 5119900 22
 GOVERNMENT CONTRACT NUMBER: 03833
 TAXABLE: YES NO
 CONF TO POB: YES NO
 CUST DWG: YES NO
 CREDIT: YES NO
 RESALE CERT: YES NO
 KANDEX: YES NO
 DD 250 CERTIFIED: YES NO
 UNSIGNED: YES NO
 S.O. ARA QUOTA ENG COMM: 31 13 50 00
 REG DATE: 21 JUN 5
 MFG DIV: 010
 SPECIAL CODES: 15
 P.C.: 02
 SHIP TO: RECEIVING OFFICER, BLDG. 143, NAVAL SUPPLY CENTER, NORFOLK, VA 23551
 INVOICE TO: THIS STOPS THE PRINTING OF AN ACKNOWLEDGEMENT
 SOLD TO: CHEATHAM ANNEX, WILLIAMSBURG, STORAGE AUTH.: #70F-NOR. FOR DLGN-39
 SUB-UNIT PRICE: 135.00

PROPER ENTRY OF PC CODE

HP GRENOBLE NEWS

Division News

DEMO SALE!

by: *Guenter Klopper/HPG*

HP Grenoble has a whole list of demo equipment for sale (including 2100's and 2640's) at bargain prices.

Check your availability schedule or drop a line to *Myriam Brasselet*.

NEOPHYTES GET HANDS-ON SEMINAR ON OPTICAL MARK READER

by: *Bernard Guidon/Boise*

Another successful Neophyte Seminar was held July 8 and 9 in Boise, and included training on Grenoble products, especially on Optical Mark Readers.



Bernard Guidon (back to picture) demonstrates the benefits of optical forms to (left to right) John Podkomorski, Skokie; Gary Thomas, Airport; Larry Iwema, St. Louis; and Gil Santavenere, Paramus.

After becoming acquainted to the wide line of products manufactured in Grenoble, the new HP folks were introduced to the optical reading market and to the 7260A and 7621A. The end of the 2 hour session was spent on how to demonstrate the 7260A serial Optical Mark Reader and hands-on experience on the product.

We were very happy to have you folks at the seminar, and can't wait to receive your orders.

Welcome to the OMR sales crowd!

THE 1000TH 7900 DISC DRIVE SHIPPED FROM GRENOBLE DIVISION

by: *Georges Retornaz/HPG*

HPG began manufacturing discs in August 1973, at steadily increasing production levels and the quality that has become legendary for the 7900.



Congratulations to *Marc Jourdan* and his crew; they really contribute to our growth and the HP presence in the European market.

WAITING FOR THE 2000th!!!

*SELL OMR's

CS GROUP NEWS

CSG PURCHASE AGREEMENT CUSTOMERS

by: *Ampy Soriano/CSG*

Below are additions to the current list of CSG purchase agreement customers we have on file.

CUSTOMER NAME	EFFECTIVE DATE	AGREEMENT TYPE				AGREEMENT NO.	SALES REGION				
		OEM	COMBO	VEU	TERM		NSR	ESR	SSR	MSR	HPCL
Advanced Control Systems	July 27/76	X				CS-180			X		
Applied Systems Technology	July 23/76	X				-178		X			
Business Computer Services	May 27/76	X				CS-126		X			
E.I. Dupont De Nemours & Co. Electromask, Inc.	July 7/76 July 15/76	X	X			CS-168 -183	X	X			
Fairchild Systems Technology	July 30/76	X				CS-188	X				
Hughes Aircraft	Aug. 12/76		X			CS-192	X				
IDEA (Information Dev. & Applications)	Aug. 2/76	X				CS-186		X			
ICS Control Systems, Inc.	July 28/76	X				-189		X			
Loonam Associates	July 22/76	X				CS-177				X	
Knight-Ridder Newspapers, Inc.	July 27/76			X		CS-181			X		
Knight-Ridder Newspapers, Inc.	July 27/76				X	-182			X		
Measorex Corporation	July 30/76		X*			CS-185	X				
Satellite Computing, Inc.	June 25/76	X				CS-187	X				
Systems Consultants, Inc.	Jan. 20/76	X				-038		X			
Technical Applications Lab	Feb. 11/76	X				CS-053			X		
Telesciences Computer Systems, Inc.	Aug. 11/76		X			-191		X			
University of Calif. Berkeley	July 1/76			X		CS-190	X				

*Multi-Release

GERMAN CUSTOMER TRAINING CENTER

by: *Fritz Joern/BBN*

Western Germany sells more HP computer systems than any other single country with the exception of course of the USA. And Germany is spoken by all Austrian and by the majority of our Swiss customers too. This situation demands customer training in German.

After early efforts dating back to 1969 in the Data Center Frankfurt, training became a factory job at GmbH Boeblingen in 1974. It was given for the general computer user — operating and programming BCS, DOS and RTE systems — but also on the special AMD products and the products de-

veloped in the Systems Operation for Europe. In 1975 we also gave 3000 customer courses, most of them in English.

Looking at the current year some 35 weeks of customer training are given at Boeblingen, plus some on-site courses and special seminars. All these courses are given in German, but the instructors are able to switch to English or French on demand (Greek too for that matter). We have two trainers: *Elisabeth Caloyannis* and *Wilhelm Paus*. The course material of the standard courses (ASSEMBLER, BCS, DOS) are in German. We try to get early copies of the English material and if necessary translate and adapt it while the first courses are given. The material for the other courses and the user manuals are always the American originals — some times a disappointing fact for our customers, but unavoidable for the



Training center Boeblingen - RTE/DOS/BCS Systems. Elisabeth Caloyannis in background.

time being as the translation, the printing, the updating, etc. would not justify the cost. As hardware we use three systems, two of them with discs which can be configured to a variety of operating systems and linked for the DS courses. The systems are installed adjoining to the training rooms in Boeblingen's building II, and the cafeteria is on the same floor. We try to keep the courses small (8-10 people) and intensive: the customers often stay until late in the evening doing exercises. Scheduling the courses is difficult as local holidays often shorten a week to four days or split the week. Also the vacation period in summer must be avoided. The schedule is published in the "Computer Course Schedule Europe" available from HP Grenoble and in the Communicator from where you will see that similar training is given in other European cities too. Inge Benz is doing the registration here and she knows whether there are open places for a given course (call 07031-667540). The courses are ordered showing the German sales force as supplier (code 8300).

Customer training is exciting: You learn more about people and computers than in any other way, it is needed for the success of our users and we work towards making it a even better service and last not least a profitable one.

NATIONAL ACCOUNT ACTIVITY

by: Jerry Klemushin/CSG

The Fortune 500 corporations are starting to make extensive use of the the new computer and terminal technology to improve their operations. And we want to be one of their major suppliers.

Several steps are being taken to focus a portion of our people, product, and planning resources on the major company marketplace.

First, the following corporations were selected as the initial targets for the CSG National Account Program:



SALES REGION	MAJOR COMPANY	HQ LOCATION (OR KEY LOCATION)
Canada	Northern Telecom	Montreal
East	Bell Systems General Electric Kodak Raytheon Xerox	New York Fairfield, Conn. Rochester, NY Lexington, Mass. Rochester, NY
South	GTE	Tampa, Florida
Mid-East	General Motors Proctor & Gamble Westinghouse	Detroit Cincinnati Pittsburgh
Mid-West	Motorola 3M	Chicago St. Paul
Neely North	Boeing Fairchild Camera	Seattle Mt. View
Neely South	Lockheed	Los Angeles

They are manufacturing companies where we have strengths to work from to increase our level of effectiveness. The positions of strength may be (1) an installed base of HP products, (2) a current situation where we are working together on a solution, and (3) similar manufacturing operation problems where we can relate. The list of companies is purposely small to allow us to understand and model the selling and marketing requirements. Sales regions and divisions have a few other companies in their list, but from a CSG standpoint, those referenced here are getting overall attention.

The second step being taken is the assignment of a sales representative and district manager to the headquarters location of each national account. They will be responsible for planning, coordinating, and communicating our sales efforts in the account. The people calling on divisions of these companies will have these additional resources supporting their efforts; i.e., overcoming some of the corporate staff obstacles.

The third step is a presentation to key management people in these corporations to increase their awareness of HP's strengths and capabilities in the computer arena. We want these management people to open a few opportunities for us in view of our product and company capabilities.

An important fourth step of our program is providing internal visibility to the technical and business requirements that become evident from the new interactions. Changes in organization, support, and thinking may be required to optimize the impact we can make in these corporations.

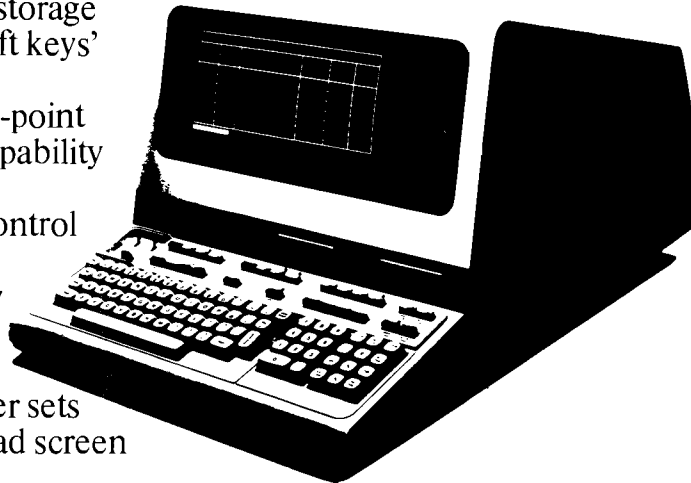
We all stand to gain from strengthening our business relationships with selected major companies. The sales force, the divisions, and the customers all win from this effort.

This is a snapshot of the program. If you are working with any of these companies and want more information, call me at Ext. 2867 in Cupertino.

Good Selling!!

When we sell you our new terminal we're selling you...

1. High-speed mass storage
2. User-definable 'soft keys'
3. Up to 9600 baud
4. Polling or point-to-point
5. Forms drawing capability
6. Modular design
7. Microprocessor control
8. Self-test key
9. Multi-page display memory
10. Field checking
11. Multiple character sets
12. Large, easy-to-read screen
13. Editing features
14. Asynchronous or synchronous (Bisync)
15. Adjustable margins
16. Inverse video, blinking, underline, half-bright
17. Detachable, multi-task keyboard
18. Line wraparound
19. Displayable control codes
20. Printer interface



21. Scrolling
22. Character or block mode
23. Pocket-sized data cartridges
24. Field protect features

Another advance in computer
technology from Hewlett-Packard



Sales and service from 172 offices in 65 countries.
Winnersh, Wokingham, Berks RG11 5AR Tel. Wokingham 784774

NEW HP 2645A DATA TERMINAL

To: Hewlett-Packard, Enquiry Dept.,
Winnersh, Wokingham, Berks. RG11 5AR
Please send me further details.

Name _____

Position _____

Organisation _____

Address _____

Postal Code _____ Tel: _____

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