

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel



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HP Computer Museum
www.hpmuseum.net

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BOISE DIVISION NEWS

Division News

First 2631A Shipments are Underway

By: Ray Smeleki/Boise

On Friday, October 28th the first official shipments of 2631A's left Boise Division. We at Boise are extremely pleased with field reaction to this new product and appreciate your efforts in getting orders off to a great start.



Our Shipping team encircles the first HP 2631A shipping to a trade order customer. Kneeling: Mike Rutledge, Glen Kiser, Greg Miller; standing: Ed Geis, Ed Boehlke, Connie Davis, Tom Richter.

Initial shipments will be directed to fill demo equipment orders at major sales offices. Additionally some of you have been working with our Sales Development Team on special customer situations and we will also strive to meet those critical needs. Additionally we will ensure field service kits will be available to support the product.

At announcement on September 15th we anticipated a large number of orders and consequently listed availability at 12 weeks. Our initial order rate has been outstanding and even though we have an aggressive production plan we are seeing the availability of units stretch out. Also, as often occurs on a new product release, we are experiencing some short term parts availability problems. We expect to be over this situation soon and plan a consistent increase in shipment quantities.

Based on our sales forecast and production plan we are shooting for a 6-8 week availability on both 2631A's and 2635A's during the first half of Fiscal 1978.

Everyone at Boise Division is dedicated toward meeting this goal. I know there are going to be rough spots in the early months and encourage each of you to continue working with our Sales Development Team to maximize efforts during this phase. Again thanks for making the 2630 family introduction selling effort a tremendous success.

Product News

263X Reliability Testing

By: Steve Davis/Boise

Many of you have heard your Boise Division Sales Development contact refer to "RVT" when discussing the 2631A or the 2635A.

What is RVT? Is it a new television network? Or an oil additive for your car?

RVT stands for Reliability Verification Testing. It is a program of concentrated printing, which is designed to "beat the bugs" out of the 2631 and the 2635.



Since RVT began in late July, we have printed approximately 7.6 billion characters using 35 machines. Several units have already printed the equivalent of two years normal output. In addition, the terminals have consumed 250 ribbon cartridges and 900,00 sheets of paper.

Although RVT represents a large investment by Boise Division, we feel that it has been worth every penny!

RVT has enabled us to discover several areas where we can improve the reliability of the product. By making these changes at this time, we will be able to provide your customers with a proven, reliable product starting with the very first shipments.

The high performance features of the 2630 Family should attract a lot of customers for you in the short run, and RVT will insure that those customers stay with you (and HP) in the long run!

Order Processing

Power (Cord) to the People!!

By: Mike Harrigan/Boise

Recently, many customers outside of the United States have been receiving their HP 7970 magnetic tape drives with the wrong power cord for the particular power system in use in their countries. Hewlett-Packard provides these special power cords with no charge to the customer; however, the proper option must be specified:

- #900- Substitutes power cord for use with 230V in Great Britain, Cyprus, Nigeria, Rhodesia, Singapore, South Africa, and India.
- #901- Substitutes power cord for use with 230V in Australia and New Zealand.
- #902- Substitutes power cord for use with 230V in Europe and Middle East.

By initially ordering the mag tape drive with the proper cord option, you will save yourself and your customer time and money.



DATA SYSTEMS NEWS

Competition

DEC's Price Cuts

By: Steve Coit/DSD

With recently announced price cuts and some capacity problems under control, DEC is apparently back in the business of aggressive pricing. On October 17, DEC announced a series of price cuts on its PDP-11 systems, certain discs, and terminals. The information we have so far suggests that CPU and memory prices have not changed.

The chart below gives some representative data on the system price reductions:

System	Old Price	New Price
PDP 11/03, 32 KB MPS, dual floppy, LA36, RT-11*	\$ 12,200	\$ 10,000
PDP 11/04, 64KB MOS, RK05F/J (7.5 MB total), LA36, RT-11*	\$ 29,570	\$ 24,900
PDP 11/34, 64KB MOS, RK05F/J, LA36, RSX11-M*	\$ 36,410	\$ 28,900
PDP 11/34, 96KB MOS, dual RK06 (14MB each), LA36, RSX11-M*	\$ 52,380	\$ 44,700
PDP 11/60, 64KB MOS, RK05F/J, LA36, RSX11-M*	\$ 47,450	\$ 41,400
PDP 11/60, 128KB MOS, dual RK06, LA36, RSK11-M*	\$ 65,700	\$ 59,000
PDP 11/70, 256KB MOS, RP06 (176MB), TE16 magtape, LA36, RSX11-M*	\$147,630	\$130,000

*Note: On all systems, the customer has a choice of applicable operating systems. RT-11, RSX11-M, RSTS/E, MUMPS-11, and IAS are among those usually offered.

Disc and terminal prices were reduced as follows:

	Old Price	New Price
RK11J (2.5MB), RK05F (5.0MB)	\$ 16,600	\$ 15,000
RK611 (14MB with controller)	\$ 17,000	no change
RK06 (drive only)	\$ 10,450	no change
RJP06 (176MB with controller)	\$ 46,200	\$ 44,000
RP06 (drive only)	\$ 36,650	\$ 34,000
LA36 (C models)	\$ 2,470	\$ 2,100
VT52 AA-AJ	\$ 2,200	\$ 1,900
		or
		four for
		\$ 6,000

In addition, DEC introduced the RM03 67MB disc. The RM03 lists for \$21,000 with controller, and \$19,000 for the drive alone.

To show where system price reductions come from, let's look at the reduction on an 11 60 system with the RK05J removable disc and RK05F fixed head disc (7.5MB total):

Old Price:	\$ 47,450	
New Price:	41,400	
Net Reduction:	\$ 6,050	(13%)

The reduction is comprised of:

Former list price of RSX11-M:	\$ 2,750	(6%)
Disc price reductions:	\$ 1,600	(3%)
LA36 price reduction:	\$ 370	(1%)
"Packaging" discount (computed)	\$ 1,330	(3%)

Key points about this round of price reductions are first, that software is now bundled into PDP-11 systems, and second, that these reductions focus largely on packaged systems. Customers, both OEM and end-user, will continue to pay same prices for processors and memory that were in effect before October 17.

These reductions bring DEC systems closer to HP's 1000 in terms of price/performance, but HP still has an edge in memory price, memory speed and capacity, disc performance, terminal performance and data base software.

For example, compare the Model 30 against any one of DEC's systems.

- How fast is the memory in the system?
- How much does it cost to add that extra 64K?
- Is there any disc that offers the performance of the 7905? Or the 7920?
- What does the user have to buy to get 2645 terminal intelligence and cartridge storage?
- How about HP's new 2631 printer?
- Anything comparable to IMAGE available?

The Model 30 still offers the user superior value for his money.



HP-IB State of the Union

By: Neal Kuhn/DSD

The start of the new fiscal year is a time to reflect back on our sales accomplishments for the previous year and project our success for the new one. Last year HP-IB sales grew at a fantastic rate. We are now selling over one hundred HP-IB interface kits per month. HP-IB hardware and software were improved during the last year to solidify the product and make it easier to use.

Last year saw important application literature for HP 1000/HP-IB. Application Note AN 201-4, PERFORMANCE EVALUATION OF HP-IB UNDER AN RTE ENVIRONMENT, was well received. This year you will see more HP-IB application literature developed.

The most important effort, however, will be continued joint cooperation with the Instrument Group. Last year we opened communication channels with the instrument manufacturing divisions. This effort will be continued, and cross support training has begun.

Joint efforts between Computer and Instrument Groups will benefit everyone. There will be incremental sales of computers, extra HP instrumentation sold (our profit sharing benefitted), and the customer will have a stronger reason to turn to Hewlett-Packard for a one-vendor solution.

Communication is very important in supporting and increasing HP-IB growth. We are very interested to hear of both success stories, and any problems you might have. Feel encouraged to let us know.



3070 Utilities Make 3070 Programming Easy!

By: Mark Beswetherick/DSD

Features like prompting lights, special function keys, and the HP Grenoble link make the 3070A Data Entry Terminal easy to connect and use. Now the 3070A is also easy to program, thanks to the HP 3070A Terminal Utility Subroutines for RTE and HP-IB Devices. The 3070A Utilities, written by HP Grenoble, have just been added to DSD's Library of Contributed User Software (LOCUS). The routines provide simple function and subroutine calls that allow terminal operations such as:

- select normal or transparent mode
- turn prompting lights on and off
- enable special function keys as terminators
- recognize special function keys or service requests

In addition, the routines allow easy control of HP-IB operations. One of the key features of the 3070A is that up to 13

HP-IB devices may be connected to a 3070A terminal. The instrument cluster is then controlled by the computer via the serial link, at distances up to 2 Km. Before the advent of the 3070 utilities, such a cluster would be programmed with complicated system executive calls. Now, straightforward calls can accomplish the following tasks:

- clear the bus
- control the REN line
- address talkers and listeners
- pass/take control to or from other controllers
- recognize service requests from devices
- perform serial polls
- gain complete control of the bus, if desired

The result is that an entire instrument cluster connected to a 3070A can be easily programmed with the 3070A Utilities and simple READ/PRINT statements in BASIC or READ/WRITE statements in FORTRAN. Demos that show the simplicity and power of the 3070A Utilities are available. Contact me or *Alic Rahkmanoff* at Boise for more information. The 3070 Utilities greatly simplify 3070 programming and provide customers with one more good reason to buy 3070 terminals.

NOTE: Customers should be aware that a program that calls a 3070 Utility is locked into its partition while doing I/O to the 3070A terminal. If many terminal control programs are running concurrently, system performance can be adversely affected.

LOCUS Part Numbers and Prices: HP 3070A Terminal Utility Subroutines for RTE and HP-IB Devices.

22682-13376	(2644/2645 Cartridge Tape) ..	\$80
22682-10976	(800 BPI Mag Tape)	\$30
22682-11976	(1600 BPI Mag Tape)	\$30

SELL 3070'S and HP 1000'S!

DS/1000 Support Coordinator

By: Joe Diesel/DSD

With the advent of DS/1000 we have put forward an outstanding product which will make a real contribution to the solution of customers' problems. Along with the opportunities, however, it presents some new challenges of supporting the product in the field. These challenges are primarily caused by the expected wide geographic distribution of nodes in networks, and by the linking of HP/1000 systems with HP/3000 systems. In some cases, communicating nodes in a network will be in different cities, different sales regions, and different countries. Clearly, the successful installation, servicing, and updating of these networks will require an extraordinary degree of cooperation among HP personnel and customers.

As an aid to meeting this challenge, we have adopted the Configuration and Support Directory used by GSD for DS/3000, with a few modifications as appropriate. This directory, when properly filled out and distributed, will provide vital information to the factory, field, and customer about the characteristics of the network: the equipment installed, its location, the types of communication links, and so

forth. Most important of all, it will identify the key people at the customer's sites (System Managers, Network Manager) and at the HP offices (F.E., S.E., C.E.). One person at an appropriate HP field office will be designated the HP Support Coordinator. The Support Coordinator will be kept informed by the factory of coming software and firmware updates, and of any compatibility problems that might exist between updates of different revision codes. This information will be especially important when 1000-to-3000 problems exist, because of the different mechanisms used by DSD and GSD for distributing and installing software. The Support Coordinator will arrange with the customer's Network Manager the times for installation, service, and update work to be done by the appropriate HP personnel, and will make sure the HP people have the right software and firmware parts to install.

The responsibility of the Support Coordinator is a new one, but so is the product, and its great potential can be best realized if we do a first class job of supporting it in the field. The function of the Support Coordinator is an important step toward this objective.

Copies of the Configuration and Support Directory forms will be distributed to field offices in the near future.

HP OEM Customer Guide

By: Jim Anderson DSD

The *HP Guide to OEM Customers* is currently being updated. As an HP private document, this listing of the capabilities represented by our OEM customers has been helpful to our sales representatives in sales opportunities requiring an OEM solution.

The last edition of the OEM Newsletter contained a form to be filled out by the OEM for inclusion in the next edition of the Guide. Please encourage your OEM's to complete this

form or send in a one-page capability summary to *Jim Anderson*, OEM Market Development at Data Systems Division.

OEM's who are new, or have introduced new products within the past year and a half, or were previously omitted are the primary targets of this update.

This Guide has proven to be valuable in generating new business for you and your OEM's. Help us bring it up to date!

Oops, Sorry!

By: Ted Proske/DSD

In adding the 12936A Privileged Interrupt Fence card to the revised 21MX Hardware Data Book (5953-0860), we somehow wrote down the mistaken idea that the 12936A is usable as a privileged interrupt fence in RTE systems. THAT'S JUST NOT SO. The 12936A card is usable as a privileged interrupt fence only in DOS systems; please correct your reference copy of the 21MX data book on page 3-14 to flag this mistake so you don't get caught by it. This error will be corrected in the next revision of the 21MX data book.

If you catch any other goofs we may have missed in this or any other DSD literature piece, please tell us about it so our literature can be as foolproof as possible.

DS/1000 NPT Overhead Slides Available!

By: Bill Kaiser DSD

To help you sell DS/1000, you can now order the same slides used by *Bill Stevens* (DS/1000 project manager) on the New Product Tour.

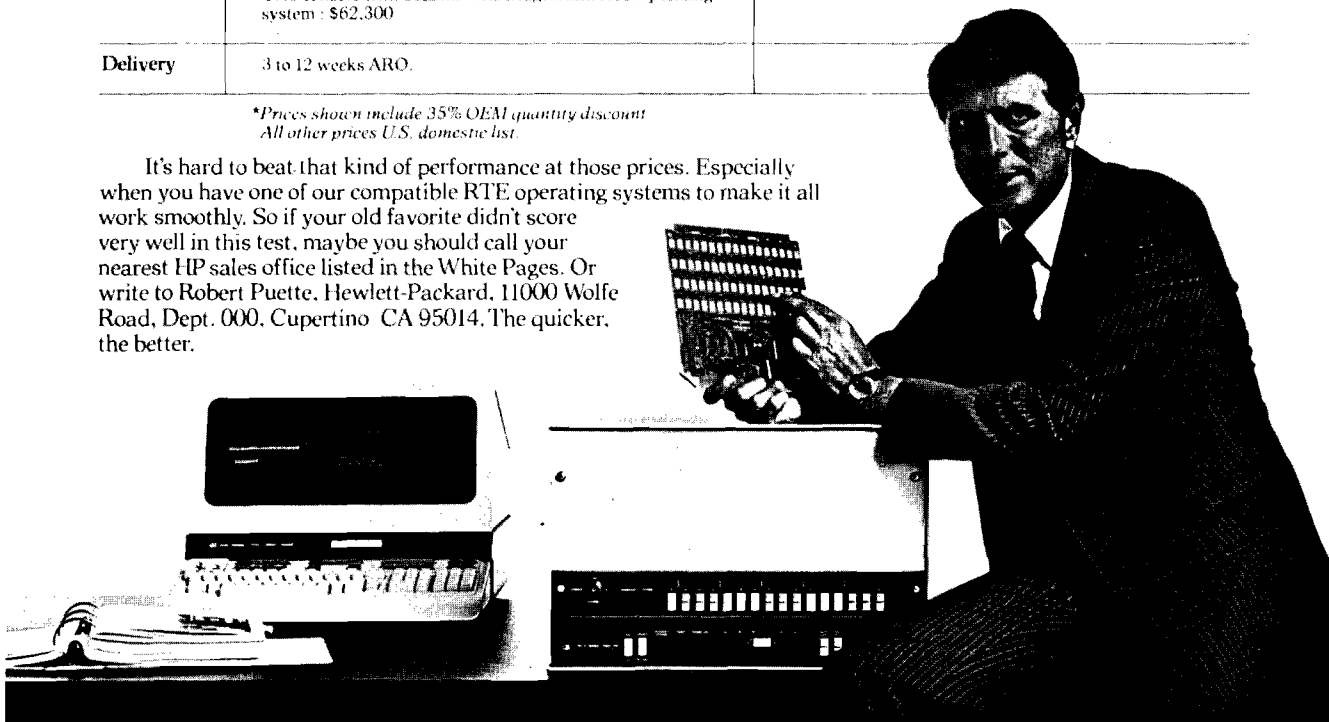
This set of 23 handsome overhead slides can be obtained at a cost of \$40 per set. Just fill out a short-form internal order form for "DS/1000 NPT Slide Subset (BS-10)" and include your location code and account number. You can send the internal orders to *Bob Sears* at DSD.

A quick memory test.

Feature	Our HP 1000 and 21MX Computers	Your old favorite
Memory	High density 128K byte modules use new 16K bit RAMs—just 5¢ per byte for 595 ns speed. Capacity to 1.8 million bytes with 22-bit Hamming fault control. Cache speed 350 ns MOS/RAMs available for all memory.	
CPU	Mapped memory addressing for large memories. Standard instruction set includes floating point, integer arithmetic and data communications. Fast FORTRAN processor optional. User microprogramming. Direct memory access rates up to 2M bytes/sec, microprogrammed burst rates to 11.4M bytes/sec. Standardized interfaces for parallel TTL, process I/O, RS232 and IEEE-488 (HP-IB).	
Reliability	Memory parity standard; fault control also available. Automatic microcoded diagnostics. High resistance to shock, vibration and temperature variations. Brown-out proof power supply. Battery backup.	
Cost	16K byte 595 ns memory : \$ 488* 128K byte 595 ns memory : \$4,160* 32K byte 350 ns memory : \$1,365* 21MX M-Series computer with 256K bytes of fault control memory : \$13,910* HP 1000 System with 21MX E-Series computer and 512K bytes of fault control memory, 15M bytes of disc storage, CRT console with dual mini-cartridges, and RTE operating system : \$62,300	
Delivery	3 to 12 weeks ARO.	

**Prices shown include 35% OEM quantity discount
All other prices U.S. domestic list.*

It's hard to beat that kind of performance at those prices. Especially when you have one of our compatible RTE operating systems to make it all work smoothly. So if your old favorite didn't score very well in this test, maybe you should call your nearest HP sales office listed in the White Pages. Or write to Robert Puette, Hewlett-Packard, 11000 Wolfe Road, Dept. 000, Cupertino CA 95014. The quicker, the better.



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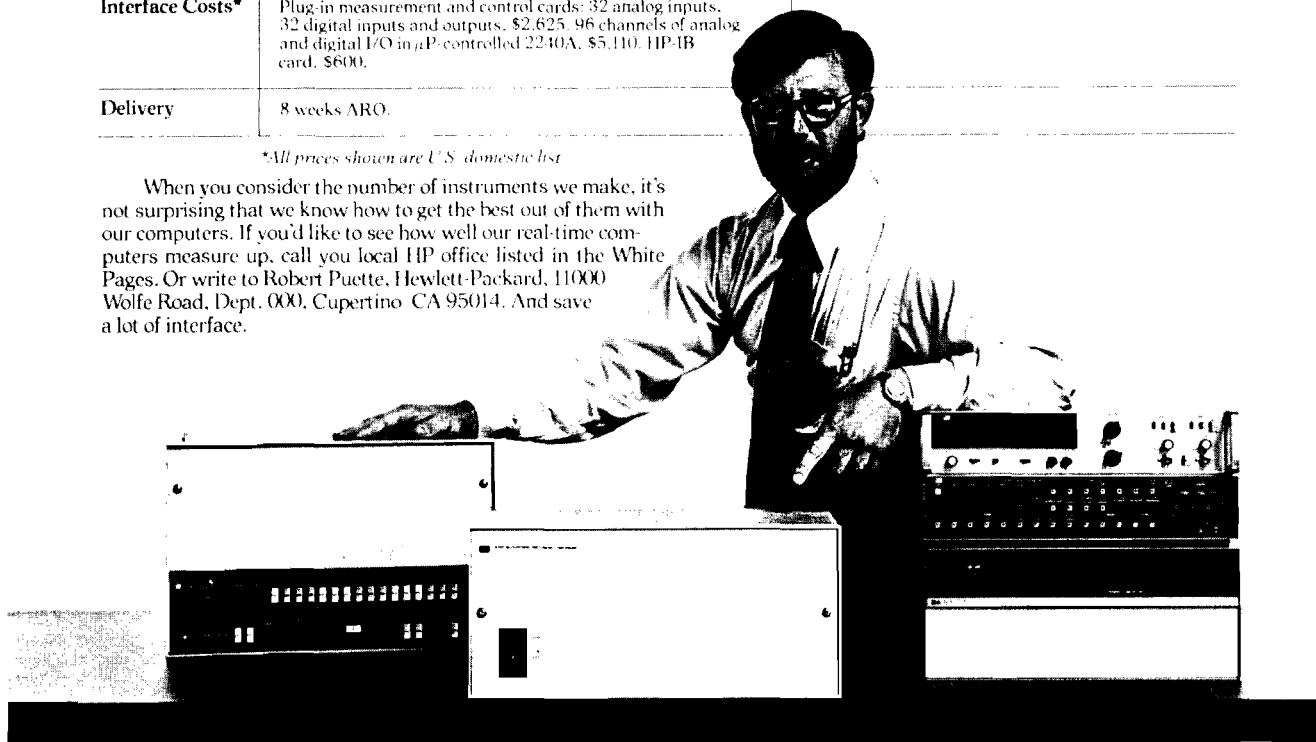
22702HPDS4

Instrumentation Interfacing: how does your real-time computer measure up?

Feature	Our HP 1000 and 21MX Computers	Your old favorite
Standard Interfaces (IEEE-488, ANSI MC 1. 1)	HP-Interface Bus (HP-IB) simplifies connections to over 200 bus-compatible instruments for stimulus, measurement and display, and reduces installation costs. High-level READ and WRITE calls in FORTRAN and BASIC simplify programming.	
Intelligent Analog and Digital Subsystem	HP's 2240A microprocessor-based analog and digital subsystem <i>off-loads CPU and simplifies programming.</i> Handles complete real-time tasks such as time-scheduled data acquisition, scan synchronization with external events, interrupt waits, waveform sample pacing, temperature drift corrections for high accuracy.	
Real Time Software	Compatible family of memory and disc-based Real Time Executive (RTE) operating systems. Interrupt handling at 100 μ s. Real-time BASIC, ISA FORTRAN with bit-manipulation and real-time extensions.	
Computer Costs*	HP 1000 Model 20 memory-based system from \$21,000 HP 1000 Model 30 disc-based system from \$31,500. (Both include 21MX E-series CPU, 64K bytes memory, 2645A CRT with dual mini-cartridges, RTL, software.)	
Interface Costs*	Plug-in measurement and control cards: 32 analog inputs, 32 digital inputs and outputs, \$2,625. 96 channels of analog and digital I/O in μ P-controlled 2240A, \$5,110. HP-IB card, \$600.	
Delivery	8 weeks ARO.	

**All prices shown are U.S. domestic list*

When you consider the number of instruments we make, it's not surprising that we know how to get the best out of them with our computers. If you'd like to see how well our real-time computers measure up, call you local HP office listed in the White Pages. Or write to Robert Puette, Hewlett-Packard, 11000 Wolfe Road, Dept. 000, Cupertino, CA 95014. And save a lot of interface.



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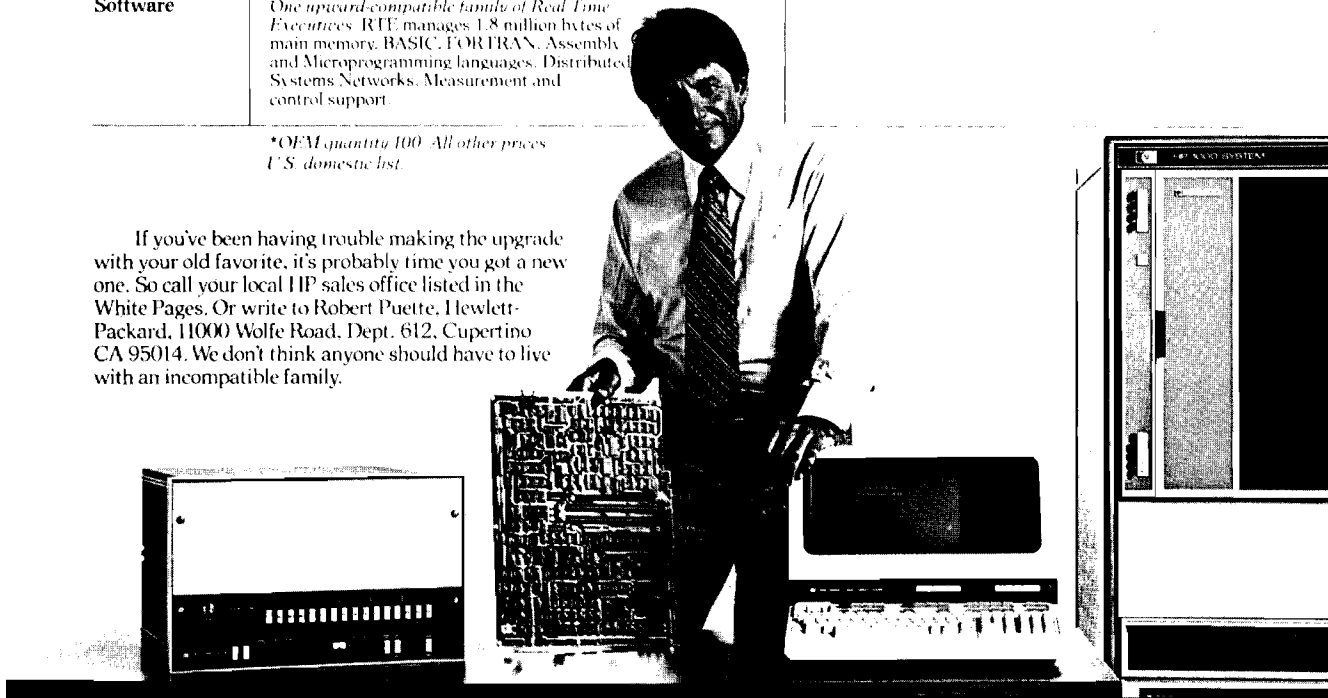
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Processor growth: can your small computer make the upgrade?

Product	Our HP 1000 and 21MX Computers	Your old favorite
Computers	<p>21MX computers, with memory capacity of 1.8 million bytes, speeds up to 350 ns, and user microprogramming. All have compatible architecture, instruction sets, I/O and memory.</p> <p><i>K-Series</i> computer on a board: \$974*</p> <p><i>M-Series</i> low-cost computer: \$2,698*</p> <p><i>E-Series</i> high-performance computer: \$3,803*</p> <p>Instructions 70-100% faster than M Series.</p>	
Systems	<p>HP 1000 includes 21MX-E computer, CRT console with soft keys and dual cartridges, RTE operating system. Fault control memory available to 1.8 million bytes. Easy to upgrade as your needs expand, with full selection of HP manufactured and supported peripherals.</p> <p><i>Model 20</i> 64K-byte memory-based systems: \$21,000. 500K byte flexible discs optional</p> <p><i>Model 30</i> 64K byte disc based system, 15M-byte disc storage: \$36,500. 5M and 50M byte discs available.</p> <p><i>Model 80</i> 128K-byte data base management system with 15M byte disc storage. HP developed IMAGE DBM software, mag tape and line printer: \$61,700. 50M byte discs available.</p>	
Software	<p><i>One upward-compatible family of Real Time Executives</i>. RTE manages 1.8 million bytes of main memory. BASIC, FORTRAN, Assembly and Microprogramming languages. Distributed Systems Networks. Measurement and control support.</p>	

*OEM quantity 100. All other prices U.S. domestic list.

If you've been having trouble making the upgrade with your old favorite, it's probably time you got a new one. So call your local HP sales office listed in the White Pages. Or write to Robert Puette, Hewlett-Packard, 11000 Wolfe Road, Dept. 612, Cupertino CA 95014. We don't think anyone should have to live with an incompatible family.



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DATA TERMINALS NEWS

DISCONTINUED

GSA Update

By: Bill Swift/DTD

If any of your customers include agencies of the federal government, you will no doubt be disappointed to learn that the DTD product line is no longer on GSA schedule. Prior to October 1, we were on Schedule 58, but the government decided that our products were too "smart" to be considered simply terminals. They informed us that our intelligence causes our products to be categorized as computers and included in Schedule 70. In negotiating a contract this summer, we could not reach agreement on the discount we are willing to give the government. As a result, the DTD products do not appear on Schedule 70. Negotiations are continuing, and we may still make it onto the January schedule.

Having the terminals on GSA contract will not be as important this year, since we are no longer in the Schedule 58 category. On Schedule 70, vendors must bid for each purchase. If chosen as low bidder, the government can buy from us, regardless of whether or not we have a GSA contract. If we do not have a contract, and the total purchase exceeds \$50K, GSA must approve the procurement. We expect this will be relatively automatic, but we don't have any experience with this process as yet. Purchases under \$50K don't require GSA approval.

So, take heart! While GSA is not making it any easier to sell DTD products to the government, we don't expect that this will slow our growing momentum.

2649 Graphics Options—Continued

By: Sarv Thakur/DTD

In the October 15 issue of the *Newsletter*, we listed a set of special options to the 2649A in order to come up with an OEM version of a standard 2648A. However, there was a minor omission in the list. Lower case Roman character set is a standard feature of the 2648A and should, therefore, be included in the 2649A as option 101 in order to provide

a standard 2648A. It costs \$100, raising the Graphics 2649A price to a total of \$5850. Please make sure you update your list to reflect this correction.

My apologies for the omission.

HP 2648 Support on Computer Systems

By: Tom Lee DTD

Many questions have been coming into Sales Development lately, asking what driver is used with the 2648A. Here's a table that will answer your questions:

	Using Compatibility Mode	User Written HP Graphics Software	Tape and Block Mode Transfers
1000	Must use DVR00	DVR05*,DVA05, DVR00	DVR05, DVA05
3000	TERM=9	TERM=10	TERM=10 or 11

The 2648A in compatibility mode will use the ENQ character as a screen address. Several of our terminal drivers (DVR05, DVA05, TERM= 10) use ENQ character as a handshake character. When using the 2648A with an HP or non-HP system, you cannot use ENQ protocol and compatibility mode at the same time.

Note: Terminal must have Option 30 and 13260B Extended Data Comm.

Block File Transfers With a Carriage Return Termination Soft Key Application Note #10/Rev. A

By: Carl Flock DTD

Some computer systems have large input buffers, relatively slow line turnaround, and need a carriage return as the termination character; (e.g. IBM/TSO). These features make it desirable to have long blocks of data sent to the CPU terminated by a single carriage return. The soft key definitions are:

GENERAL SYSTEMS NEWS

Product News

100th HP 3000 Ordered!

By: Bob Lewin/GSD-HPSA

Recently the 100th HP 3000 was ordered for the Scanebelux Sales Region. This successful sales region is headed by Jan Schapers and consists of seven countries: Belgium, The Netherlands, Denmark, Norway, Sweden, Luxemburg and Finland.

The 100th HP 3000 order was one of six transmitted during the end of August! From one country! Sweden!

The lucky order was:

Customer: Atlas Copco
 Sales Rep: Peter Almgren
 Syst. Eng.: Mats Jönsson

All countries contributed to this excellent sales record. I'm sure all of us extend our congratulations to each and every member of the CSG Sales force in the Scanebelux Sales Region for a job well done.

To mark this occasion, an appropriate memento will be presented to Peter and Mats by GSD on achieving the first 100th order.

It will be interesting to see who will receive the second 100th order award! Perhaps in 1978!!

What Does the HP 2026 Offer the "Small" Office?

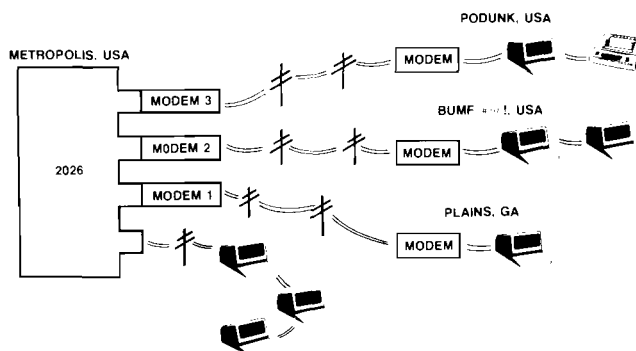
By: Terry Eastham GSD

As inexpensive as the 2026 system is, a customer may still have a few small, "two-man" offices that cannot afford a complete system. There are two possible solutions to this type of situation, both of which are based on the fact that the 2026 can support remote 2645 terminals via asynchronous modems.

The 2026 actually provides four interface channels for terminal support. Each of these channels (12966 cards) may be configured for hardwired operation (normally 9600 baud) or for asynchronous modem operation (typically 1200 baud). For example, it might be desirable to have one local multi-dropped line of terminals running at 9600 baud and at the same time support remote terminals on the three remaining interface channels via modems.

I. Do It With Remote "On-Line" Terminals

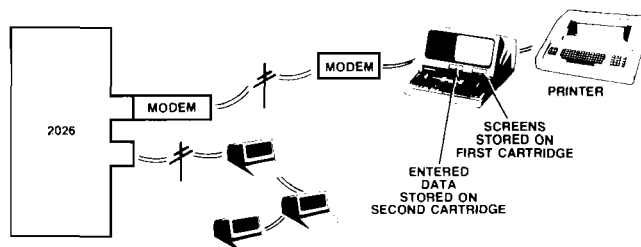
An asynchronous modem link using a dial-up or leased line can provide a remote terminal user with the same capabilities for data entry and file inquiry/update as any of the local hardwired terminals. Of course, the terminals will run slower, depending on the speed of the modems. Serial printers could also be placed at the remote locations. This solution is shown below.



II. Do It "Off-Line" with 2645 Cartridges

An alternative approach is to add dual tape cartridges to the remote 2645 terminals. Data entry screens can then be stored on one cartridge and used to enter the data onto the other cartridge. Periodically, a modem link would be established to the 2026 and the entered data read (and edited) into a file on the 2026. This is, in effect, a batch entry technique. The drawback of not getting 2026 editing power (no on-line access to data files) at entry time may well be offset by the cost savings of not being on-line all the time.

Again, remote printers could be employed at the remote sites, if desired. This solution is depicted below.



Note also that this is solution allows many more remote locations to be served by one 2026. A maximum of 16 terminals may be "active" (on-line) at any one time.

Unlocking the Secrets of the HP 2026

By: Dick Baumann/GSD



"But the 2026 isn't very flexible, is it?" Several times I've had discussions with HP people about the topic of "flexibility." Never lacking for answers, I usually come back with "compared to what?"

The 2026 doesn't have conventional commercial programming languages like COBOL, RPG, PL1 and the like, so it must be limited, right? So how can you do anything that's the least bit non-trivial? Take a close look at the "HP 2026 Edit Instruction Set." Some of those instructions look suspiciously like the instruction set of a real live programming language ADD, GOTO, MOVE, RETURN, etc. Modest souls that we are, we refer to these as "edit instructions." Obviously there's more there than a few instructions which edit data in the conventional use of the term "edit."

How do you use these instructions? With DEAL (Data Entry Applications Language), you specify the operations you want to perform on data entered by operators or data retrieved from local data files. There also just happen to be 16 flags which may be set and tested. This now opens up a lot of logical possibilities, since the "edit instructions" can be executed depending on these flag settings.

Some examples of using these capabilities might help. You could, for example:

1. Add and subtract fields, as you would do in keeping track of inventory counts. HP's FICS (Field Inventory Control System) is an entire inventory system written with DEAL.
2. Retrieve a record from a file, then use a field within that record as the key to access other files. HP's SODA (Sales Office Data Access) application does this extensively.
3. Read data from a 2645 data entry terminal, tape, disc, card reader or 2645 cartridge. Reformat the data by moving or rearranging fields, inserting literals, or deleting fields. Write the data to tape, disc, line printer, a local CRT printer, the console, or a 2645 cartridge.

The real power of DEAL is its very high level way of looking at "programming" for a data entry and data storage/retrieval/update environment. The edit instruction set does provide a great deal of flexibility, and the beauty of it all is that it's very easy to do. Check it out for yourself sometime.

HP 2026 Edit Instruction Set

VERIFICATION

ALPHA/BLANK
DATE CHECK
NUMERIC/BLANK
NON-BLANK
CHECK DIGIT
ALPHA/NUMERIC

DATA MOVE

RIGHT JUSTIFY
SAVE AREA STORE
SAVE AREA RETRIEVE
MOVE
LITERAL INSERT
DATA FORMATTING

MATHEMATICAL

ADD
SUBTRACT
MULTIPLY
DIVIDE
STORE BINARY NUMBER
SAVE VALUE INCREMENT
NUMERIC CONVERSION

TERMINAL FUNCTIONS

AUTOMATIC DISPLAY
ALPHA TERMINAL CODE STORE
NUMERIC TERMINAL CODE STORE
OPERATOR INPUT PREEMPT

COMPARISON

RANGE CHECK
TABLE LOOKUP
STRING COMPARE
NUMERIC COMPARE

FILE

BINARY SEARCH
SERIAL SEARCH
ELEMENT COMPARE
ELEMENT RETRIEVE
ELEMENT REPLACE
RECORD ADD
FILE RESET

INPUT/OUTPUT

READ
WRITE
I/O CONTROL
I/O STATUS

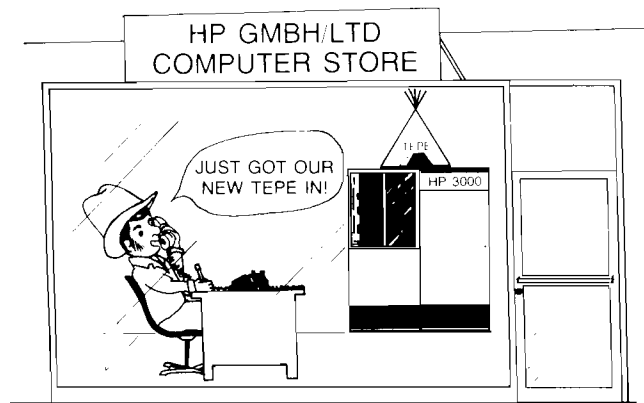
LOGICAL FLOW

STOP
GOTO
GOTO & LINK
RETURN



TEPE Europe (Boeblingen, Germany and Winnersh, U.K.)

By: Don Ringen/GSD-HPSA



Does your customer require a benchmark?

If so and you want to simulate terminals, Boeblingen has the answer! TEPE (TIME-SHARING EVENT PERFORMANCE Evaluator) system is now available at Boeblingen, Germany. During the early part of September all the necessary parts arrived to build an HP 2100MX-based TEPE system. The TEPE system will be able to simulate up to 32 terminals.

The use and scheduling of the TEPE system and HP 3000 can be scheduled through *Bodo Kleineidam*. Bodo will provide the hardware and the necessary C.E. support.

The system is available for all of Europe to use. *Your* trained S.E. will provide the necessary scripts and initial-ized files for the TEPE and the program and data files for the HP 3000.

The HP 3000 provided has the following configuration:

- Model 8-512 KB
- 2-HP 7920 Discs
- 1-HP 7905 Disc
- 2 tapes: 1-1600 cpi
- 1-800 cpi
- 1-300 LPM printer

In the three days we were there, two benchmarks were run:

1. *Alan Marriott* and *Roger Smith* from the U.K. ran a multiple terminal basic bench for a university.
2. *Kim Leeper* from Amsterdam did his initial debugging of scripts before going to the factory and running a 64-terminal BASIC benchmark.

Many thanks are extended to *Heinz Jurack* and *Ewald Mund* of Boeblingen for resolving all the hardware and software problems encountered.

If you have any further questions about TEPE Boeblingen, please contact myself or *Bodo Kleineidam*.

More good news. Winnersh, England will have the answer in November! TEPE system is awaiting a few parts from *DSD*. The TEPE system there will be able to simulate 16 terminals and will be available for all of Europe, for those smaller benchmarks.

The use and scheduling of the TEPE system and HP 3000 can be arranged through *Tony Hill*, S.E. Manager, U.K. *Tony* will provide necessary C.E. support for TEPE and the HP 3000.

The design, running, and analysis of the TEPE and HP 3000 data will be provided by *your* S.E.

The HP 3000 in Winnersh has the following configuration:

- Model 6-256 KB
- 1 HP 7920 Disc
- Tapes: 1-1600 Cpi
- 1-800 Cpi

DS/3000: The French Connection

By: Steve Feo/GSD-HPSA



The French are famous for their wine, their cheese and their HP 3000 distributed systems installations.

A large mail order company has successfully installed a network of four 3000's to handle their orders and shipping requirements.

System 1 is dedicated to on-line data entry with 50 HP 2640's. It handles 10,000 orders a day, prints invoices and shipping labels.

System 2 keeps a data base of any order problem (bad invoices, damaged shipment, date due, etc.)

System 3 takes care of all internal purchasing requirements and management.

System 4 handles all statistics for conventional management.

All four systems are connected in a distributed network under DS.3000. There was a lot of competition from DEC and IBM, but it just wasn't enough for our 3000 and "our man" in Orsay, *Daniel Roman*. Congratulations, *Daniel*.

Working with Third Parties . . . Effectively!

By: Gary Gubitz/GSD

Working with third parties (OEMs and software houses) is an excellent way to leverage your selling efforts. Many of you are now utilizing third parties in various sales situations. Most of the efforts so far have been field initiated, however. Our task at GSD is to help you utilize third parties more effectively, by being an information source on existing third parties and their applications.

In Sales Development we will develop an in-house catalog containing information on HP 3000 OEMs and software houses. This information, when available, will be indexed by application and region of support. Then, whenever you have a potential customer who needs more than HP supplied Hardware/Software, you can call your Sales Development representative for alternatives.

Why lose a sale just because you weren't aware that a third party was available, especially if that information is just a phone call away! When you are contacting a third party, remember to go through the HP Sales Representative who handles that third party.

We will be sending a letter to existing and new OEMs for information on their products. The more they send us, the more effective we can be to you. The materials we are requesting are contact name, applications, and product brochures. This should be sent to *April Kilpatrick* in GSD Sales Development.

A form for this information will be in the next *Computer Systems OEM Newsletter*. Now about signing your OEMs up for a free subscription. Just send their name and address to OEM Market Development at DSD.

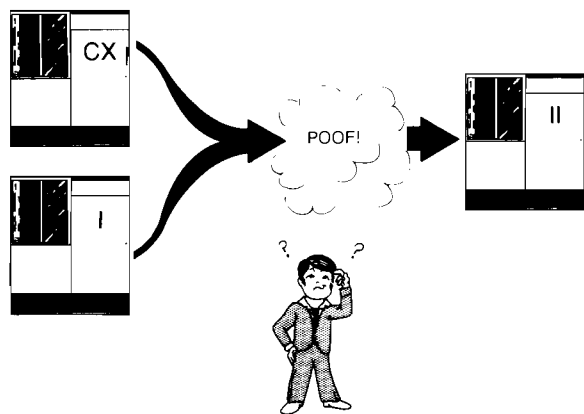
We also need information on your Software Houses. There are many that have super application packages or do excellent custom work and may benefit your customer. Take the time to encourage them to send this material to *April*.

Third Party leveraging works . . . let's make it work better!!!



Do I or Don't I Need Those #*\$#* Options?

By: Ross Hunt/GSD



With our attractive new upgrade prices in effect we are seeing a great deal of renewed interest on the part of our HP 3000 and HP 3000CX customers. Apparently there is some confusion about what options are necessary and what areas of the customer's systems will require conversion. This brief review should help you answer their questions.

Options on 30306A & 30409C Upgrades:

- 001- Additional 30310A power supply. Your HP 3000CX or pre-CX system does not require this option. They have sufficient power supplies to complete the upgrade. However, a Series I system, which is internally simpler than a CX or pre-CX does require this option when upgrading. +\$5,000
- 050- Delete isolation transformer. The Series II requires an Isolation Transformer. This option should be ordered only if the existing system already has a transformer that can be utilized or if a transformer with different characteristics than the one supplied with the upgrade, is required. -\$2,100
- 132- Upgrade Selector Channel. All HP 3000 Series I systems have a selector channel, but this is not true for all the HP 3000CX and pre-CX systems. A selector channel was not required for ISS Disc-only based systems. This option is necessary for all systems that previously contained a selector channel and it upgrades the existing channel to a Series II compatible channel (30030A to 30030B). This option is related to option 202, return credit for the two boards of the old 30030A selector channel returned to GSD. If your customer does not have a selector channel but now with the upgrade wants one (it is required for 7920/7905 type discs) he should order product number 30030B for \$3600. +\$3,000
- 150- Add 1 CX/Series II style cabinet. Prior to the introduction of the HP 3000CX, HP 3000 systems were shipped in different style 52" high cabinetry (affectionately known as the Pizza Ovens). Your pre-CX customer may want to replace his older style cabinet with the new 56" cabinet. This replacement would be for cosmetic reasons; the system is completely operational with older style cabinets (NOTE: There is no return credit for 52" high cabinets). Also a few customers may have a system with a 7900 disc drive mounted in Bay 2 of their system. These customers will also need to order an additional cabinet to mount this drive. +\$2,800

- 152- Upgrade Asynchronous Terminal Controller. This option is only applicable to HP 3000 systems originally shipped prior to December, 1974. It is a no-charge option and simply replaces an older obsolete ATC with the current version. No Charge
- 200*- Credit for return 128KB parts. Not all HP 3000CX and pre-CX systems were a full 128KB memory. This option should be ordered for your customers returning full memory systems of 128KB. Either this option or option 201 is required when ordering 30306A or 30409C upgrades. -\$10,000
- 201*- Credit for return of 96KB parts. A few pre-Series II systems and pre-Series I systems only have 96KB of main memory. This option should be ordered when upgrading these systems. -\$8,000
- 202*- Credit for return of Selector Channel parts. Each HP 3000 Selector Channel actually contains 4 PC boards (30030A & 30030B). When the old selector channel is upgraded, 2 boards are retained and two are returned for credit to GSD. -\$500

*All equipment being returned to GSD for credit should be shipped freight collect (not C.O.D.) via surface in North America to:

Hewlett-Packard
General Systems Division
5303 Stevens Creek Blvd.
Santa Clara, CA 95050

Packing materials for the return shipment are included with upgrade shipment.

Installation:

Installation is expected to take 30 man-hours (2 CE's for 2 days) during normal working hours and the cost of installation is included in the upgrade price.

The Basic Monthly Maintenance Charges for the system upgraded to a Model 6 or Model 8 will be the same as for an HP 3000 Series II Model 6 and Model 8, respectively.

The new equipment purchased in the upgrade carries the standard HP 90-day warranty. Therefore, the new CPU, memory multiplexer channel, power supplies, etc. will be in warranty for 90 days. Of course, the equipment which the customer owned prior to the upgrade (disc drives, tapes, printers, controllers, etc.) will not go back into warranty. The new equipment included in a 30306A upgrade would have a maintenance price of \$225/Mo. and the new equipment in the 30409C upgrade would have a maintenance cost of \$350/Mo., if they were priced separately. In order to give the customer the benefit of the 90 day warranty for the new gear, \$225/Mo. or \$350/Mo. should be subtracted from the BMMC for the upgrade system for the duration of warranty period.

Peripheral Support and Software Conversion

There are some peripheral devices which your customer may have on his existing CX or pre-CX system that are not supported on a Series II:

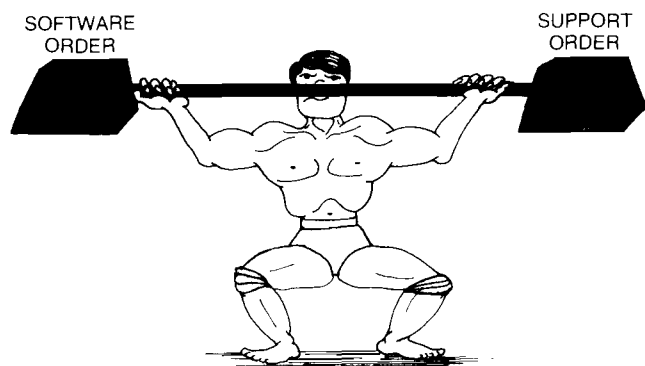
- IBM 2741
- HP 30107A Card Reader Subsystem (2950A Card Reader)
- HP 30112A Card Punch Subsystem (2890A Card Punch)
- HP 30103A-001 2 Mbyte fixed head swapping disc which does not contain enough storage capacity to work with a Series II. Customers with this device can continue to use it on their Series II as a data disc if they choose.

Series II software which is part of the upgrade includes MPE II and the Standard Series II fundamental operating software. Additionally, all language processors, libraries, utilities and data base management subsystems will be supplied if they were purchased for and are currently run on the existing HP 3000. All syntactical and operational aspects of the software have been carried over to the Series II. Most commercially-oriented and scientifically-oriented programs will run on the Series II without recoding. Programs utilizing FORTRAN double precision and BASIC long data types will require recompilation and in some instances recoding. This is due to the fact that extended precision on a CX, pre-CX or Series I is 48 bits and on the Series II is 64 bits.

Offering our customer base a compatible growth path throughout the HP 3000 line is one of Hewlett-Packard's unique strengths in the small computer industry and points out our true commitment to on-going support to our Hewlett-Packard customer.

Transmit a Balanced 3000 Software Order

By: Sherry Harvey/CSG



To review your NPT Tour and Sales Manual Training, remember that each 3000 software order requires two transmissions:

- Hardware Software Order
- Software Support Order

No order for software is valid without the corresponding support order.

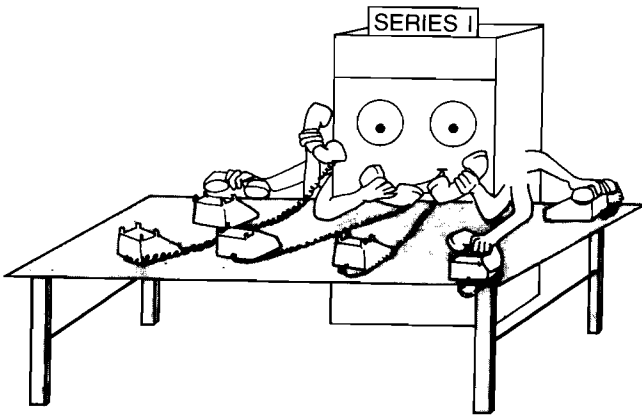
If the sale also involves signing a Software Purchase Agreement (all "Plan I" orders and any "Plan II" orders discounted under the new agreement require one), then neither order is valid without the new Software Purchase Agreement number.

For further details or review, check Section VI of your handy 3000 Software Support Services and Pricing Sales Manual.

Applications

Series I Positive Proven Performance

By: Jon Jacobson/GSD



It's often been said that we're our own best critics. This holds true for a former HP employee that has gone into business for himself and is using an HP 3000 Series I to support his efforts.

This ingenious HP graduate is currently providing a very unique order processing service. If you've ever seen those T.V. ads promoting special record sales, chances are the (800) number you are given for ordering is one of his work stations. Using DEC VT-52'S supported by an on-line COBOL application, the orders received by phone are entered into a database on the HP 3000 Series I. These orders are stripped off each day and the report sent to the advertiser.

Another service his firm provides is in dealer lookup. For example, in a large metropolitan area like Manhattan the order can be routed to the closest dealer within a 1000 yard radius.

Since this customer was starting a new business his main considerations were price/performance and upgradability. He also needed a system that would support COBOL for upward compatibility. Though he had considered the DEC 11/70, the HP 3000 Series I provided a price/performance ratio he couldn't pass up.

The Series I was installed over five months ago and is now supporting up to eight terminals simultaneously with up to 25,000 transactions per day. According to our Series I supporter, to this point they have no problems with response time.

Since the nature of the business requires the Series I to be processing 24 hours a day, system reliability becomes a major factor. In the five months he's been using the Series I, they have only had three system halts other than power failures and even those posed no problems for recovery.

The volume of this customer's business has grown 10 times its original size in the last 2 months and he's planning to upgrade to a Series II in December. The customer considers his purchase of the Series I a sound decision even though he's upgrading less than a year later! In his words "For what I needed I couldn't beat the price."

This testimonial represents a significant achievement to the Series I program. Thanks to the foresight and diligent efforts of Gary Cole, from the HP Salt Lake City Office, this customer bought the first Series I. Through Gary's confidence in the Series I we now have another satisfied HP customer and testimony to the reliability and performance of the HP 3000 Series I. If you'd like to know more about this application, please feel free to give us a call.

General News

YHP Shows 3000

By: Masaaki Tagami/YHP

This year's Data Show in Tokyo, one of the largest Computer shows in Japan, was a major success for YHP. For the first time we presented both computer systems and calculators as the YHP computational line.

The two most exciting demos were the YHP 3000 and the YHP 1000. Nobuaki Takahashi and Sotoji Watanabe demonstrated the 3000's wide range of capabilities by showing Terminal Oriented Data Processing and Distributed Systems. There were 8 terminals on the 3000 with both English and Katakana character sets, and attendees of the show were impressed at the ease of using the 3000.

Toshihiko Etoh did a wonderful job writing software for the YHP 1000. The 1000 was demonstrating measurement/control using HP-IB and IMAGE/QUERY.

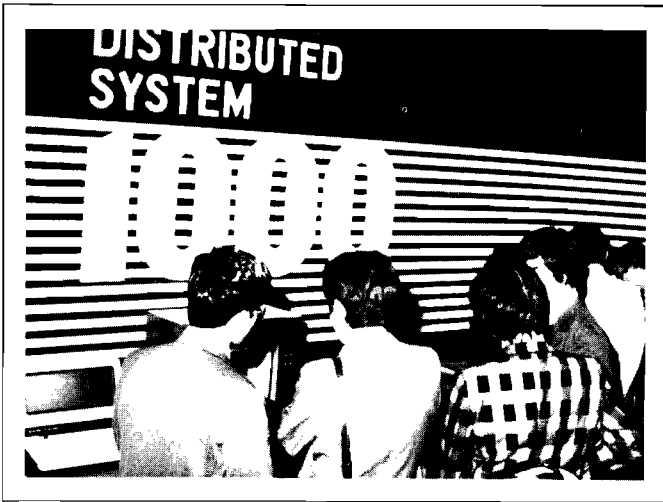
Because this was the first time YHP had appeared in this kind of show, we asked many of the 12,000+ people(!) who stopped by our booth if they had ever heard of YHP.

About half of them said that they had known YHP manufactured instruments and computers. However, some of the other replies were:

"I thought YHP was an insurance company" or "I thought IBM took over YHP". Oh, well, we can't win them all.

All in all, the show was beneficial to YHP, and it certainly will help to bring us into the public eye.

YHP
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Mari Takahashi (back) explained RTE III in front of YHP 1000 system. TV showed status of RTE III.



Kazuo Okada showed visitors how easy our terminal oriented 3000 system was.



3000 was first public appearance on a show. It was kept in a show-window because of poor air-conditioning.



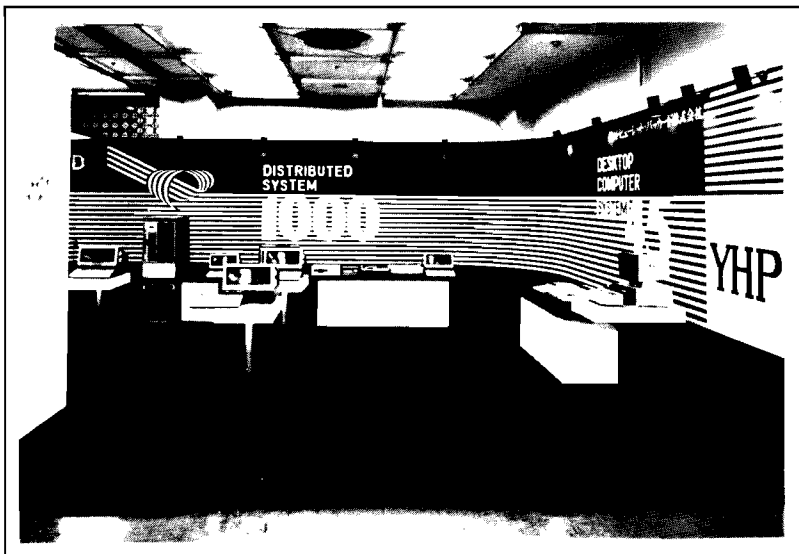
Yoshikazu Fujimoto, one of our SE's, explained how Katakana terminal was easy to inquire Japanese words.



Whole View of YHP Stand



HP 3000 Terminal - Oriented Systems



HP 1000 System with HP-IB and T.V. monitoring system.

HP GRENOBLE NEWS

Digital Systems

2649A Customer Training Course

By: Maurice Poizat HPG

WHEN

The next course will be held in Grenoble on the week starting December 12, 1977. It will be given in Grenoble every three months.

WHAT

The course will provide the students the fundamental knowledge required to develop and implement applications for the 2649A.

Course Content

- Review of 2645 architecture;
- Use of the 13255A Technical Information Package;
- The 13290A Development Terminal;
- Terminal Firmware;
- Hands-on programming experience.

Prerequisites

- Strong Background in digital electronics;
- 8080 programming experience;
- Familiarity with 2645 terminal.

ORDERING INFO

- 13294A: the course (*compulsory*) : 500 \$
- 13255A: the Technical Information Package (theory of operation and schematics of modules used in 264X terminals) — (*Recommended*) : 400 \$
- 13255A option 003: Firmware description and Listings (*Recommended*) : 100 \$
- 13256A Firmware Support Package Magtape (2645A source code plus microprocessor cross-assembler that will run on RTE) (*if required*) - 500 \$

There is no must for the students to come over to Grenoble with their 13255 TIP, except if they want to annotate them during the course. But it is recommended that they receive their own immediately after the course, so that they can start working on their application without wasting time.

It is recommended that they also order or bring blank cartridges 2645A-013 (90 \$) that they will take away with them at the end of the course.

Note: Those items are not yet on the Grenoble price list, but you must override your orders to Grenoble and HPG will deliver to the customers.

CLASS SIZE

The ideal class size is 10 people.

REGISTRATION

Send your Training Registration Request Form (22999-90008) to me, or to *Catherine Clay* - Grenoble. For further information, please call me.

Sales Aids

Did You Know?

By: Peter Stuart/HPG

We have an extensive range of literature available to help you sell Grenoble products particularly the HP 7260A Optical Mark Reader Terminal.

Why not do an inventory in your own office and check to see if you have everything?

**P.L. 69
Current Sales Literature List**

PRODUCT	HP PART NB	COMMENTS
Paper Tape Reader		
HP 12925A Subsystem	5952-4616	Data Sheet
Optical Mark Readers		
HP 7261A OMR for OEM's	5953-0111	Data Sheet
HP 12986A Subsystem (7261)	5952-2775	Data Sheet
HP 7260A OMR Terminal	5953-0110	Data Sheet
HP 7260A OMR on HP 3000	5953-0106	Data Sheet
HP 40201A OMR Service Kit	5953-0100	Data Sheet
AN 202-01		
HP 7260 with HP 3000	5952-9410	Application Note
AN 202-02		
HP 7260 with HP 1000	5952-9409	Application Note
AN 202-03		
OMR with non-HP CPU's	5952-9406	Application Note
HP 7260 with HP 2000	5952-0101	Application Note
HP 7260 with Educational BASIC	5953-0112	Application Note
Examples of marked cards	5952-2777	Application Data
Forms Design for HP OMR's	07260-90015	Application Manual (request from Division)
OMR Card Specifications	5952-5546	Better to use Application manual
OMR Card Layout Forms	5952-2773	One included in Application manual
HP 7260 with HP 3000	07260-90013	Software Manual (order from Division)
Data Capture Terminals		
On-Site Data Capture	5953-0104	Colour Brochure
HP 3070A	5953-0102	Data Sheet
HP 3071A	5953-0103	Data Sheet
*AN 201-5		
Distributed HP-IB	5953-0114	Application Note

*Brand-new in the process of being distributed.

We can also provide a Sales Information Manual on request from new sales engineers, and samples of OMR documents for use in demo's.

CS GROUP NEWS

SALES FINANCING
DIVISION

Division News

Point-of-Sale Lease Selling

By: Ron Bannerman SFD

1. On Every Sales Call . . . Use It

Don't get us wrong. Leasing is an *alternative* to cash selling. Its primary purpose is to help sell the customer who cannot, or does not choose to purchase outright. When all you have to offer is a cash/close, the customer may want to consider leasing. But, when you're able to offer an alternative — either a cash/close or a lease/close or a lease/close, right at the point-of-sale — you've set the stage for the closing decision. It will often be cash. But whatever it is, you're a winner. In addition, just as you can never tell a book by its cover, you can never tell for sure who the lease prospect may be.

2. At the Beginning of the Sales Call . . . Say It

Leasing can't do its job as a closing alternative unless you tell your customer about it.

- The road to no-sale is paved with hopeful assumptions. Assuming "he knows all about it" is one of them.

But telling your customer that your equipment "is available on lease" doesn't do a thing for him or for you. It's the *lease number* that works on him and for you.

There's a simple and easy way to say it the working way.

- *Substitute the lease number for the cash number, or use it as an alternative to the cash price.*

"Mr. Jones, this unit costs only \$210 a month under a 5 year lease." Or,

"Mr. Jones, this unit can be purchased for \$10,000 or rented for only \$210 a month under a 5 year lease."

That's all there is to it!

Plus it gets you some side benefits:

- Even if he's not interested in leasing, you've given him a number that most people relate to much more readily than the cash number.

3. During the Sales Call . . . Use It to Justify

The key to using leasing as a closing tool (for cash or on lease) is using the *small, meaningful lease number* to justify the cost of your equipment.

- Justifying cost means you've got to draw some pictures with numbers—numbers which compare equipment cost to equipment benefits.
- The lease number gives you an easy, convenient and very graphic number to draw with.

Of course, the particular picture you'll want to draw depends on the nature of your equipment. The lease number lends itself nicely to a variety of pictures.

For instance, (assuming a \$210 monthly lease number).

- If your equipment is directly income-producing, you can use it to draw a gross profit picture.

"Mr. Jones, at your present output of 420 widgets per month your equipment cost using our unit will be only 50¢ per widget. (\$210 divided by 420 = 50¢). And at your present pricing of \$5 per widget, your gross profit will be \$4.50 per widget."

- If it's not directly income-producing, or if you're selling against in-place equipment, you can use it to draw a cost savings picture.

"Mr. Jones, at your present output of 420 widgets per month your equipment cost using our unit will be only 50¢ per widget. That's one-half of your present cost which means that, even if your volume and pricing stay the same, the equipment will be paying for itself." (50¢ × 420 = \$210, the monthly rental).

You get the picture. All you have to do is pick the right one and draw it.

Yes, it's possible to get to the same place starting with the cash purchase price. But it's a much longer route and you're liable to lose him along the way. The lease number gives you a ready-made short-cut.

4. Seek Expert Advice

Have questions about leasing? Need someone to talk to your customer about solving his sales financing problem? Need someone to make a call with you? Contact your Regional Sales Finance Manager today!

Full Service/Short Term Lease Program

By: Ron Bannerman SFD

The following products are currently available under the full Service Short Term Lease Program:

264X and 263X terminals
98XX Calculator Products
7200 Series Plotters

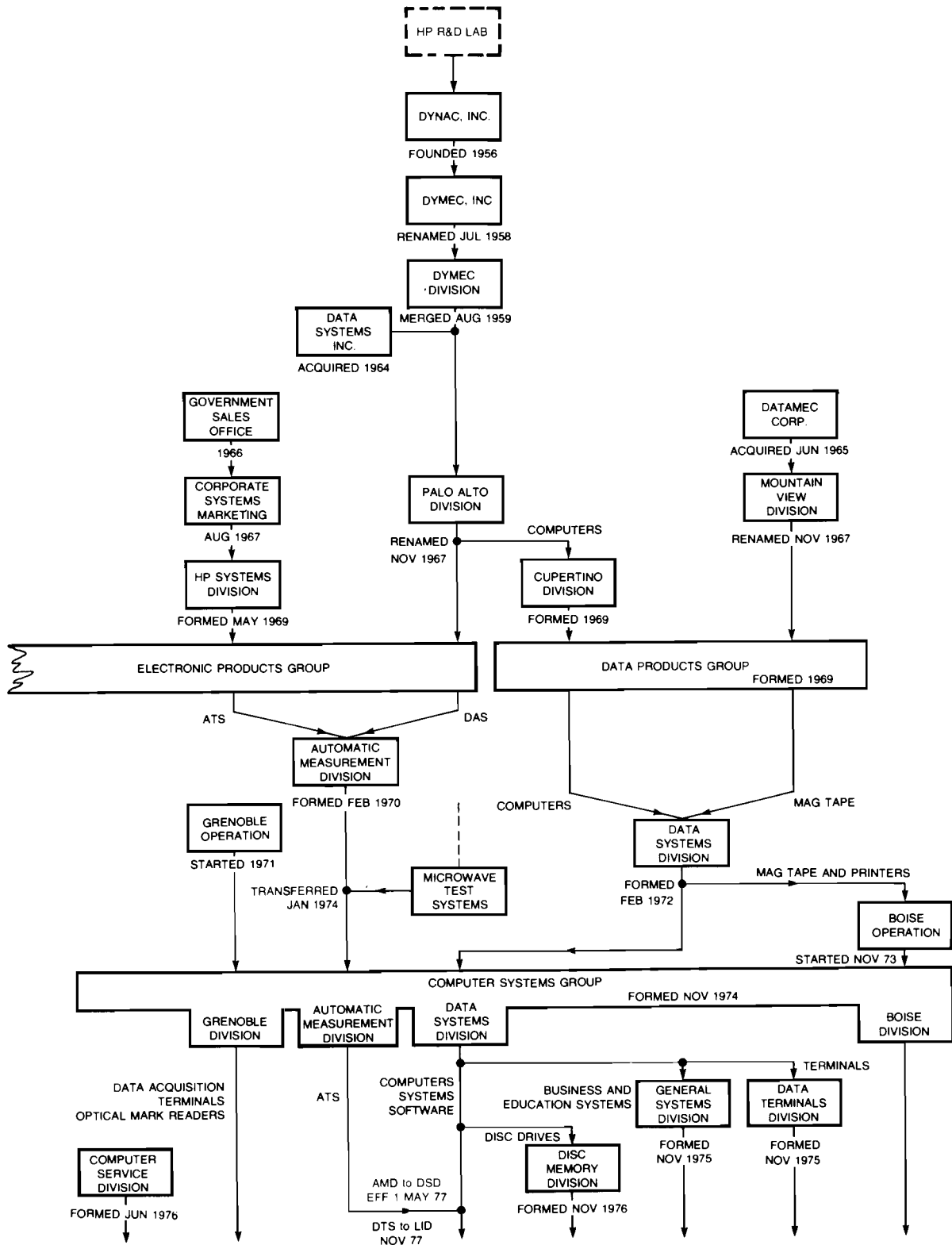
CSG News

How Did We Get Here from There?

By: Bob Lindsay/CSG

With the recent assimilation of AMD into DSD, an important chapter in the history of CSG has ended.

Perhaps you've wondered at times: "How did CSG get here from there?" Many of the answers can be found on the following flowchart which was prepared by Tony Rollis of DSD as part of a revised prestudy package for newly-hired CSG salespersons.



COMPUTER SYSTEMS NEWSLETTER

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