

REINHARDT, HELMUT
FRANKFURT
HPSA

COMPUTER SYSTEMS NEWSLETTER

For HP Field Sales Personnel



Vol. 3, No. 9
March 15, 1978

In This Issue...

BOISE NEWS

Division News

New Neely — South Regional
Sales Contact J. Whitesell/Boise [2]

Product News

2630 Family Reliability L. Andrews/Boise [2]
Seven Track Controller
Obsolescence M. Harrigan/Boise [2]

DSD NEWS

Division News

Special OEM Accounts at DSD B. Burger/DSD [3]

Product News

Special Quotes — New Format D. Mabey/DSD [3]

Sales Aids

Final Microwave Training Schedule
For Customers P. Ebersole/DSD [4]
Program Sales — How They Can Help
You Sell D. Kline/DSD [4]
Slide Kits S. Cohen/DSD [4]

DTD NEWS

Sales Aids

"When We Say Rugged . . ." J. Nethery/MSRW [5]
2649A Presentation Tape M. Poizat/HPG [5]
Advanced Application Note #2 S. Daoust/DTD [5]
Advanced Application Note #3 S. Daoust/DTD [6]
Advanced Application Note #4 S. Daoust/DTD [7]

Service News

Clarification of the Smoking
MUX Problem J. Elliott/DTD [9]

GSD NEWS

Product News

Hardcopy Console for HP 3000 C. Cheng/GSD [10]
2000 System Obsolescence Notice T. Eastham/GSD [10]
For Batch Data Communications . . .
HP 2026 is Fast D. Baumann/GSD [12]
MRJE/3000 Spec Correction R. Scott/GSD [12]

Sales Aids

A Guide to Using Software
Supplies Effectively G. Gubitz/GSD [12]
Responses to This Week's Most Frequently Asked
Questions Called into Sales
Development C. Morris/GSD [13]
Sales Tips — From the Field
to the Field G. Stump/GSD [14]

Competition

Dataquest Promotes DS/3000 R. Edwards/GSD [14]

General News

First Quarter Sales Performance C. Morris/GSD [15]

HPG NEWS

Product News

Connect Your 3071A
To a 21XX Computer M. Richez/HPG [16]
Manual Part Number Changes M. Tupper/HPG [16]

Division News

A New Face in Product Marketing P. Stuart/HPG [17]
2649A Customer Training Course
Prerequisites M. Poizat/HPG [17]
Grande Premiere! G. Ouin/HPG [17]

Sales Aids

Selling to Manufacturing
Accounts A. Rakhmanoff/Boise [20]
How to Find HPG R. Franklin/HPG [21]

CSG NEWS

Corporate Sales Financing

Preliminary Customer Qualification . . . R. Bannerman/CSF [23]

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BOISE DIVISION NEWS

Division News

New Neely-South Regional Sales Contact

By: John Whitesell Boise



I'm pleased to announce that *Gary Sherwood* is joining our Sales Development team.

Gary comes to us from the Neely Sales Region, where he was a Systems Engineer in the Santa Clara Sales Office. Previously he was in project engineering, training, and product marketing at AMD. *Gary* will be supporting Neely-South for all Boise Division products, and will be helping *Steve Richardson* with Neely-North and HPSA.

Please join me in welcoming *Gary* to the Boise Division Sales Development team.

Product News

2630 Family Reliability

By: Larry Andrews Boise

The latest version (1-78) of the 2631A and 2635A data sheets contain a "Reliability" paragraph (replaces old "duty cycle" paragraph) which specifies the results of our reliability verification program. These results are stated in terms of mean number of characters between failures (MCBF). This article is an attempt to explain the number's relationship to MTBF (mean time between failures).

MCBF is the average number of characters printed between failures. If this number is assumed to remain constant under all conditions, the following relationship is true:

$$\text{MTBF (days)} = \frac{\text{MCBF}}{\text{\# of characters printed per day}}$$

The essence of this relationship is that MTBF (how often the product breaks) is inversely proportional to usage.

The MCBF of the 2630 family is 250 million characters. Service contract prices are based on the assumption of one failure per year. To achieve an MTBF of one year, the usage of the printer should be 250 million characters per year. Since there are about 250 work days per year, the recommended usage of the 2630 family is one million characters per day, which results in 300 to 500 pages of output at average densities.

Seven Track Controller Obsolescence

By: Mike Harrigan Boise

Boise Division is planning a phased obsolescence of the 13182A seven track magnetic tape drive controller/interface (interfaces the seven track mag tape to 21MX based computer systems). This will effectively obsolete the 12971A seven track mag tape subsystem.

The reasons for obsolescence are twofold. Very few of the seven track subsystems are currently being sold (less than 20 per year), and the profit is very low since it is purchased from an outside vendor. More importantly, however, our vendor has recently been purchased by a larger company and will no longer be able to supply this interface to HP.

Boise Division has purchased and will stock enough units to continue sales for approximately one year. When these units are gone, the product will be formally obsoleted. Boise will retain enough spares to properly support the product for five years following obsolescence.

Boise Division feels that this advance notice of obsolescence will give our customers time to purchase units that may be necessary in the future and/or plan to alter their plans and products in accordance with our obsolescence schedule. There will be reminders of this obsolescence in this *Newsletter* and a final warning when the last few units are left.

Please contact *Mike Harrigan* at Boise Division if you have any questions or comments regarding this obsolescence procedure.

DATA SYSTEMS NEWS

Division News

Special OEM Accounts at DSD

By: Bill Burger/DSD

As most of you are aware, we have a Major Account Program in the Computer Systems Group (under Jerry Klemushin) and at DSD under Joe Schoendorf's direction. Customers in this program typically meet the following qualifications:

- Potential for multiple sales of \$½M-1M per year.
- Long term relationship likely.
- \$300-500 million Corporation.
- Selected by Field and Factory.



This program allows us to focus the necessary attention, both factory and field, to be successful with these major accounts.

There is another category of accounts at DSD that you may not be aware of, however. I would like to call these SPECIAL OEM ACCOUNTS. These are prospective accounts that are not in the DSD Major Account Program but that do represent a significant new business opportunity. Accounts in this group are selected by the Sales Representative and his Regional Sales Engineer. They need not necessarily meet the qualifications listed above for Major Accounts but they do need to be a good business opportunity for HP.

If you have a good prospective DSD OEM account let us know. Your OEM Sales Development Team wants to help. We will work to give you and your account the visibility with DSD management that is often so important in closing new business. We will apply DSD resources to assist your selling efforts. Our objective is to work closely together — to put together a team effort — factory and field — that can aggressively and creatively sell your account on doing business with HP.

We can arrange HP manager and technical personnel visits to your account as well as factory visits to DSD. We will provide advice and guidance in general and assistance on RFQ responses. We can also help get that "Something Extra or Special" such as special hardware or software or that special packaging which is sometimes required to close a sale.

In short, OEM Sales Development wants to do everything possible to help. So, call and try us out.

Remember, it pays to sell OEM.

Product News

Special Quotes — New Format

By: Dawson Mabey/DSD

In the future, quotations for all DSD specials from the Special Handling Group will utilize standard units of labor to cover the special engineering required. This standard labor unit is the HP 93285A Engineering Unit at \$100 each. An example follows:

Old Way:	HP 93589A Special	Price = \$24,500
	Option 001	Price = \$16,500
New Way:	HP 93589A Special	Price = \$2,500 plus 220 each 93285A EU
	Option 001	Price = \$500 plus 160 ea 93285A EU

The use of 93285A Engineering Units will not change the price or content, and merely represents a new method of quoting and ordering specials.

Sales Aids

Final Microwave Training Schedule For Customers

By: Phil Ebersole/DSD

The list below summarizes the Microwave Training that will be given at DSD during the remainder of 1978. Due to the limited number of classes, enrollment in each class will be limited to two persons from each company with a microwave system. Beyond this, enrollment is on a first-come, first-served basis. Please accompany each enrollment with a customer purchase order number and an HP sales order number. Reservations can be made by calling Pam Navarro, extension 2815, at DSD.

Since no additional training will be offered at DSD, you should begin to work with your customers to develop an internal on-going training program. Remember that the microwave products covered by this training are scheduled to be obsoleted on October 31, 1978.

All of the following courses will be given at DSD:

Course #	Title	Dates
92720A	ASA (8580)	5/15 - 5/19
92722A	TODS-III	5/22 - 5/26
92728A	8580 Maintenance* †	6/5 - 6/16
92727A	8542 Maintenance* †	6/12 - 6/23
92720A	ASA (8580)*	8/21 - 8/25
92722A	TODS-III*	8/28 - 9/1

*This is the last time this course will be taught.

†Customers will have priority in this class. HP Customer Engineers who wish to enroll will be put on a wait list until two weeks before the course. If any slots are available at that time, they will be allocated to the CE's.

Slide Kits

By: Sylvia Cohen-DSD

There are three slide kits now available from the Marketing Communications group at Data Systems Division. They are listed below:

Kit. No.	Issue/Rev. Date	Media	Transfer Cost	Title Description
BS-9	2/78	35 mm	\$80.00	HP 1000 Seminar (165 Slides)
BS-10	11/77	Overheads	\$40.00	DS/1000 Pitch
BS-11	2/78	35 mm	\$10.00	DS/1000 (19 Slides)
BS-12	Now being worked on; will supersede kit No. BS-9 after the April NPT Tours.			

Please order these Kits through the HEART System, attention Sylvia Cohen, Bldg. 42U, Data Systems Division, Cupertino. There is a 2 week turn-around time from the time I get your order. Because these kits are constantly being revised, the turn-around time may be longer. I will let you know if that is the case with a TWX after I receive your order.

Program Sales — How They Can Help You Sell

By: Dave Kline/DSD

Does your customer sometimes seem illogical, or hard to convince when you are pursuing a government funded sale? This is not unusual, for several good reasons:

1. Large government buys generally involve multiple, dispersed influence points, which often make it difficult to understand the true sales situation. You're in the dark.
2. The government often buys for different reasons than commercial customers.
3. The government often uses a language of its own.
4. Your prime contractor may have different motivations of his own, not necessarily the same as his customer's, the government.

When you uncover government funded business such as this, don't overlook the help you can get from your program sales group: Andy Mills and Dave Kline. We can often sketch in enough background to help you better aim your presentation. Sometimes we can favorably influence distant decision points beyond your reach. On occasion, the only way you can win is by mounting a sales effort directly with the government. Such efforts have often been effective in the past.

To bag that big program may require a better overview than you can get locally. Like a blind man trying to describe an elephant, it is often good to get another vantage point.

When there is large government funding available to you, keep in mind this resource that you can use for perspective and contacts: Program Sales.

DATA TERMINALS NEWS

Sales Aids

“When We Say Rugged . . . ”

By: John F. Nethery/MSRW



This photograph demonstrates the ruggedness of our terminals. The photo was taken at Caterpillar Tractor Company's new engine plant in Mossville, Illinois. Although construction of the plant is not yet complete, diesel engines are being built and tested there using an HP Distributed System. Six 2640B terminals and 9871A Printers are being used to display and print engine test results, and are located on the production floor. The wall shown behind the terminal is part of the engine test enclosure which rises about 20 feet above the floor. During construction, a section of angle-iron fell that distance and struck the terminal cover. Much to everyone's surprise, the terminal continued to function normally with no other damage than that to the cover.

Great product! When we say "rugged", we mean just that!

2649A Presentation Tape

By: Maurice Poizat/HPG

We have something helpful to selling 2649's: a 2649A Presentation Tape.

On this tape, which can be run on any 2645A-007 you will find a summary of the 2649A features, advantages and benefits. Appended to that there are some examples of application programs which will show your customers how powerful a 2649A can be.

- Line scanning to modify characters.
- Conversion Octal-Decimal-Hexadecimal
- Form manipulation example with:
 - Copying in a field the content of the same field of the previous line.
 - Right justifying a message in any field.
 - Adding fields.

To run this program you just need to plug an extra 4K RAM board in your 2645A-007 demo unit. This memory board must have jumpers 32K and 4K (in starting address 24K).

If you want a copy of this tape, just send a blank cartridge to either *Eric Grandjean/DTD* or *Maurice Poizat/HPG* and you will get it back by return mail.

SELL 2649A's SUCCESSFULLY!

Advanced Application Note #2 (Advanced Application Note #1 Revisited)

By: Serge Daoust/DTD

The procedure outlined in the Advanced Application Note #1 (*CS Newsletter*, Vol. 3, No. 7, pp. 16-18) to assemble and debug programs using the 13290B should have read as follows:

- Step 1. Locate a 264XX (or a 13290B) with cassette tape.
- Step 2. Type in your program (source code) and edit your source code if necessary.
- Step 3. Copy your source code onto a cartridge.
- Step 4. Record an end-of-file mark on the left tape.
- Step 5. Rewind the left tape.
- Step 6. Locate a 13290B terminal if you haven't done so already.
- Step 7. Insert the "assembler/debugger" cartridge in the left drive and load the software in the terminal. This is done by pressing the READ key. Wait for the menu to be completely displayed. Press the f2 key. When you get a ">" prompt, type in L and press the return key.
- Step 8. The assembler program is now being loaded in the terminal.

Step 9. When you get a ">" prompt, remove the "assembler debugger" cartridge and insert your source code cartridge in the left drive and a spare unprotected cartridge in the right drive (this cartridge will eventually contain the object code).

Step 10. It should be noted that the assembler program always writes the object code as the last file on the right cartridge. The assembler does this by searching for the end of valid data mark on the right cartridge, backspacing to the end of the previous file mark and recording the new data starting at that point.

Therefore, when using a new tape or when you want the assembler to write the object code as the first file on the cartridge, the following procedure should be followed:

1. Rewind the right tape.
2. Record an end-of-file mark on the right tape.
3. Rewind the right tape.

Failure to record an end of valid data mark at the beginning of a new tape may cause the assembler to search forward on the tape until it reaches the end of tape mark.

Step 11. You are now ready to assemble your program. By giving an appropriate set of commands (specifically IN return AS return IN return PR Y return AS return), the source code will be assembled and the object code will be copied to the right cartridge. A listing of both the source and object code will be copied to the printer if you have specified "PR Y return" in the above set of commands. Otherwise, the source and object code will be sent to the display.

Step 12. Rewind both cartridges.

Step 13. Remove both cartridges.

Step 14. Insert the object code cartridge in the left drive.

Step 15. Type the following commands: DB return L return. Your program is now loaded in the terminal.

The remaining portion of the Advanced Application Note #1 remains unchanged.

Advanced Application Note #3 Regarding Advanced Application Note #1

By: Serge Daoust/DTD

At the end of the first Advanced Application Note, (CS Newsletter, Vol. 3, No. 7, pp. 16-18), I mentioned that you couldn't dump in loader format (this is the octal base format in which programs can be loaded on a standard 2645A) the program just loaded in the 13290B assembler debugger terminal.

The reason for this is that the object code generated by the assembler is recorded on the right cartridge in 128 bytes record format. If a record has less than 128 bytes of valid data, it will be padded to the right with null characters so as to form a 128-byte record.

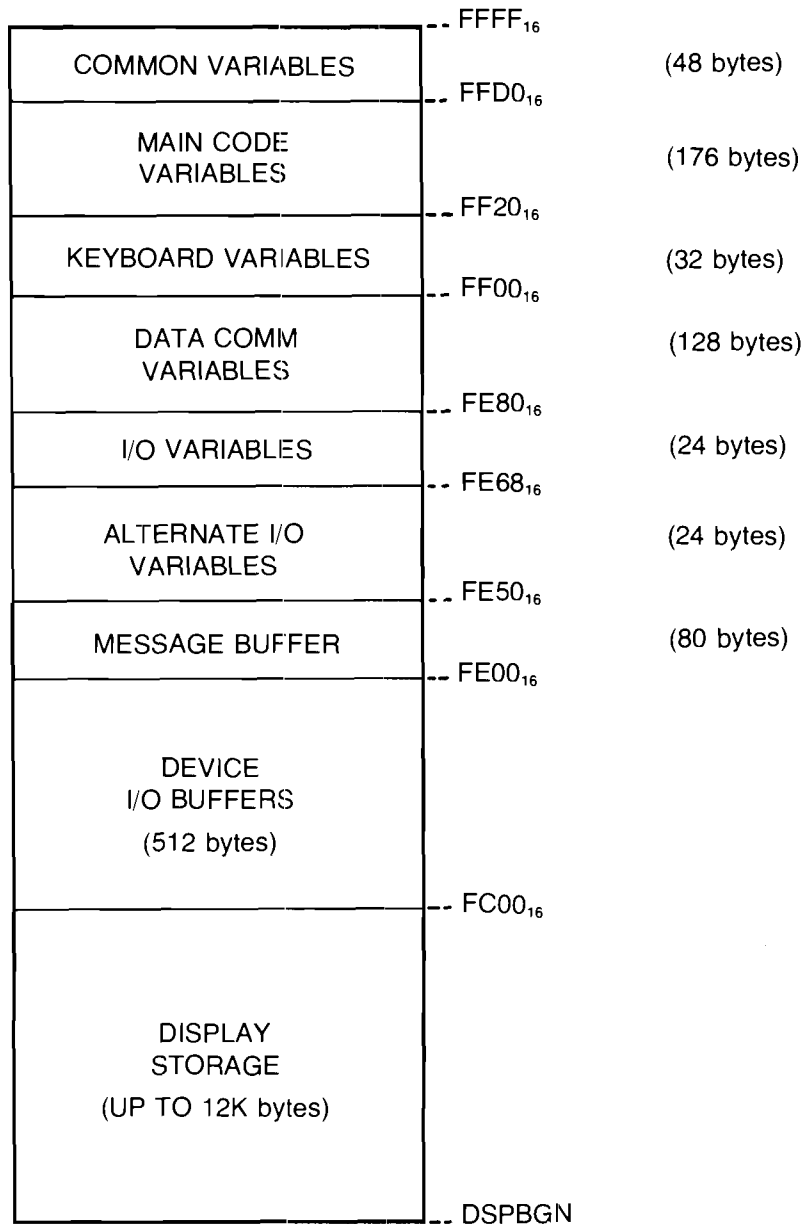
When you load the object code in the terminal, starting at hexadecimal memory location FE00, you overwrite the "message buffer area (80 bytes)", the "alternate I/O variables area (24 bytes)" and the "I/O variables area (24 bytes)". See the display memory allocation map below.

Since the "I/O variables area" contains the variable controlling the I/O (except for the keyboard and the datacomm), tape I/O operations are no longer possible on the terminal.

You can circumvent this problem by using the following procedure (this replaces steps 14 and 15 of the Advanced Application Note #2 in this issue of the *Newsletter*).

1. Insert the object code cartridge in the left drive.
2. Type the following command: DB return.
3. Use the Load [start addr] form of the load command, i.e. L 6040H. This loads the object code at 24K, the location of the alternate I/O.
4. Since loading the object code at that address does not destroy any variables, you can now dump your program in loader format by using the Save Loader command, i.e. SL [startaddr endaddr]. For this program type in "SL 6040H 6080H". The data is written at the end of the left cartridge. The data can be written as the first file on the left cartridge by following the procedure outlined in Step 10 in the previous article.
5. Position the left cartridge at the beginning of the file containing the program in loader format.
6. Return the terminal to the 2645A mode by pressing the f2 key.
7. Home the cursor and clear the display.
8. Turn on display functions.
9. Copy the contents of the next file on the left cartridge to the display.
10. Modify the loading address of the program, i.e. change the 4th to the 9th digit inclusive, from 060100 to 177000.
11. Delete all trailing 000d's.
12. Replace the last lower case "d" by an upper case "D", so that the last 2 bytes of the program will be "225d004D".
13. Position the left cartridge where you want the program recorded (in loader format).
14. Turn off display functions.
15. Home the cursor.
16. Copy the contents of the display to the left cartridge.
17. The program can now be loaded on a standard 2645A.

To execute the program, refer to the Advanced Application Note #1.



DISPLAY MEMORY ALLOCATION MAP

Advanced Application Note #4: Hard Reset Made Harder Through Hard Work

By: Serge Daoust/DTD

As we have seen in Advanced Application Note #1, it is possible to execute user-defined application in display memory. However, pressing the reset key twice within a halfsecond period (i.e. hard reset) will cause the display memory to be cleared and thus your program.

Therefore, it would be nice to disable the hard reset function on the terminal. Since there is no jumper that permits us to disable the hard reset function, a small program must be written.

This program (see program listing at the end of the article) reduces the time permitted to press the reset key for the second time from 500 milliseconds (0.5 second) to a few milliseconds (see note 1). Hence, if you are fast enough or if you keep hitting the reset key repetitively, you will cause a hard reset to occur. Otherwise, under normal operation, pressing the reset key will always cause a soft reset to occur.

When using the normal terminal executive, you load this program at hexadecimal memory location F002. You then load your user program at hexadecimal memory location F038. Don't forget to include in your user program the necessary instructions to return to the main code (i.e. LXI H,26BH and PUSH H will take care of the initial return statement; your program must also end with a RETurn statement since this program is being CALLED by SCNVEC - more on SCNVEC in a later issue). Program execution must start at hexadecimal memory location F002 (i.e. **4&f1k1a11L4&c170002aE**). See Advanced Application Note #1.

If you have written your own executive, you should append this program at the beginning of your user application program. Execution of your executive must begin with this program.

In any event, this program should run whenever you are executing a user program in display memory.

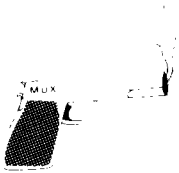
Note 1: The operation of the interrupt service routine makes it impossible to completely disable the hard reset function on a standard 2645A. More on interrupts at a later date.

ITEM	LOC	OBJECT CODE	SOURCE STATEMENTS	PAGE	1
1	F002	0 0 0	ORG 0F002H		
2	03	.	LDIEN EQU 0C3H		
3	FFF8	.	LDIPLG EQU 0FFF8H		
4	495	.	ESLEN EQU 495H		
5	8380	.	TGBCO EQU 8380H		
6	FF0C	.	TGLED EQU 0FF0CH		
7	FF0B	.	LEDSAY EQU 0FF0BH		
8	4	.	RSTOFF EQU 4H		
9	2	.	RSTON EQU 2H		
10	FF00	.	RSTINH EQU 0FF00H		
11	FF54	.	SCNINH EQU 0FF54H		
12	9168	.	SCNVEC EQU 9168H		
13	FB	.	SOFTTR EQU 0FBH		
14	F002	.			
15	F002	.	REIEN EQU *		*****
16	F002	.			THIS PROGRAM MAKES THE HARD
17	F002	.			RESET HARDWARE INITIATE.
18	F002	.			YOUR RESET KEY MUST BE
19	F002	.			ADDRESSSED TO THE WITHIN A
20	F002	.			KEY MULTISOUNDS TO ACTIVATE
21	F002	.			THE HARD RESET FUNCTION.
22	F002	.			IF YOU WANT TO ESCAPE
23	F005	0E	DVI	00000000	IF YOU WANT TO CALL THE
24	F007	32	SHI	00000000	PROGRAM EVER, THE SCNVEC
25	F00A	21	SHI	00000000	KEY SHOULD HAVE THE DATA
26	F00D	02	SHI	00000000	00000000
27	F010	.	SHI	00000000	00000000
28	F010	0E	RVI	00000000	IF YOU WANT TO CALL THE
29	F010	32	SHI	00000000	PROGRAM EVER, THE SCNVEC
30	F015	0F	ARI	00000000	IF YOU WANT TO CALL THE
31	F016	02	SHI	00000000	PROGRAM EVER, THE SCNVEC
32	F019	0A	ARI	00000000	IF YOU WANT TO CALL THE
33	F01C	E8	ARI	00000000	IF YOU WANT TO CALL THE
34	F01E	02	SHI	00000000	PROGRAM EVER, THE SCNVEC
35	F021	0A	ARI	00000000	IF YOU WANT TO CALL THE
36	F024	FE	ARI	00000000	IF YOU WANT TO CALL THE
37	F026	0A	ARI	00000000	IF YOU WANT TO CALL THE
38	F029	0F	ARI	00000000	IF YOU WANT TO CALL THE
39	F02B	02	SHI	00000000	PROGRAM EVER, THE SCNVEC
40	F02D	0A	ARI	00000000	IF YOU WANT TO CALL THE
41	F030	02	SHI	00000000	PROGRAM EVER, THE SCNVEC
42	F033	.			IF YOU WANT TO CALL THE
43	F033	.			PROGRAM EVER, THE SCNVEC
44	F033	.			IF YOU WANT TO CALL THE
45	F033	.			PROGRAM EVER, THE SCNVEC
46	F033	.			IF YOU WANT TO CALL THE
47	F033	.			PROGRAM EVER, THE SCNVEC
48	F033	.			IF YOU WANT TO CALL THE
49	F033	.			PROGRAM EVER, THE SCNVEC
50	F033	.			IF YOU WANT TO CALL THE
51	F033	.			PROGRAM EVER, THE SCNVEC
52	F033	.			IF YOU WANT TO CALL THE
53	F033	.			PROGRAM EVER, THE SCNVEC
54	F033	.			IF YOU WANT TO CALL THE
55	F033	.			PROGRAM EVER, THE SCNVEC

Service News

Clarification of the Smoking MUX Problem

By: Jim Elliott, DTD



In the manual for the 12920B MUX, part number 12920-90007, Fig. 2-4 shows pin 17 having a (-12) volts on it. Since the 2640 series terminals are RS232C compatible, using standard EIA connector, pin 17 at the EIA connector expects DD, Receiver Signal Element Timing to be there when the *synchronous* environment is assumed. However, the 12920B assumes an *asynchronous* environment and expects pin 17 to be unused. Therefore if one has a cable in an asynchronous environment that connects pin 17 of the MUX to a non-RS232 signal at the other end you may get to call your friendly Customer Engineer.

In fact, Data Terminals Division allows salespeople/customers to pick the proper interface at the terminal and the proper cable in order to get the chance to call their CE. Since the terminals are so reliable you probably don't get to see him/her that often. So for those who want to know of the proper combination that will generate a CE call, here it is:

1. Purchase a 13250B or 13260B interface card for your terminal; (Pin 17 at MUX can then be connected to P13 at the terminals' interface which has +5 volts on it.)

2. Purchase a 13232N cable for the connection.
3. Use parts in (1) and (2) above to make the connection to your HP 1000 or 3000 and Voila! — call your CE.

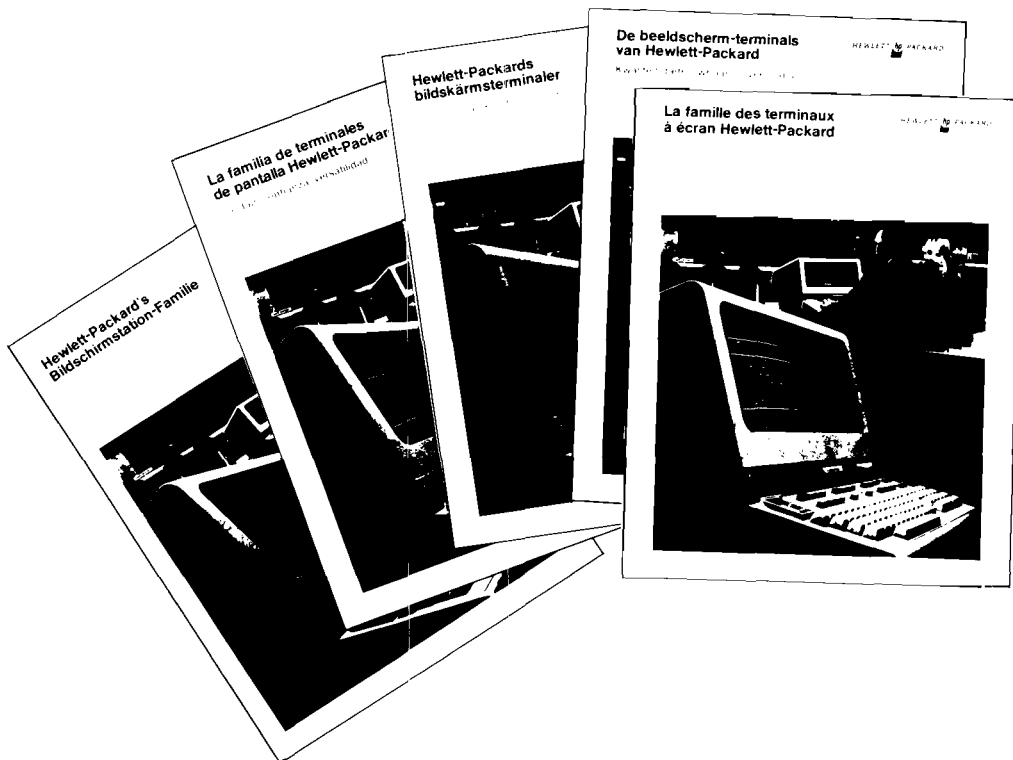
To avoid this situation try the following:

1. Always use a 13232A cable with an HP 1000 or 3000 with *any* asynchronous datacomm card.
- OR
2. Always use a 13250A or 13260A interface card with the 13232N cable.
- OR
3. Try to use the standard asynchronous datacomm card supplied with the terminal whenever possible. This way you can use either the 13232A or 13232N cable since pin 13 at the interface is not connected.

A WORD OF CAUTION!

For all you astute sales and service people in Europe who want to "kill two birds with one stone" by purchasing the 13232M cable for use both on your modems and your HP 1000 and 3000 installations be aware that the good ole pin 17-to-pin 13 combination is available. Connection to the MUX panel will also get you a well-deserved CE call.

I would like to thank *Rich Ferguson* of DTD for his article in the February 1st issue of the *Computer Systems Newsletter* and *Fred Stone* of the Orlando office for information on a problem noticed by our CEs on these particular calls.



GENERAL SYSTEMS NEWS

Product News

Hardcopy Console for HP 3000

By: Chosen Cheng GSD

I know you are all interested in using the 2635A terminal from Boise as a system console on the HP 3000. Here is the latest information regarding the phase-out of the 2762 Terminet and the phase-in of the 2635A.

Currently our inventory of Terminets has been depleted and they are no longer available for customer orders. The 2635A is not yet fully supported on the HP 3000. So there will be a transition period of several months in which it will be necessary to work closely with customers interested in a hardcopy console. Some questions that may arise are:

Q. Can we order Terminets as hardcopy consoles?

A. No. As of April 1, 1978, we will remove from the price list the 2762 Terminet console option (-124) from Series I and Series II systems.

Q. What should I sell in place of the 2762?

A. We recommend that in the short term you sell your customer on using a 264X CRT as the system console. Order a 2635A from Boise when it is formally supported and switch the console and terminal in the field.

Q. When will the 2635A be formally supported?

A. Formal support will be in mid-calendar year 1978, concurrent with the next revision of MPE.

Q. Are there other alternatives?

A. Yes. If an immediate hardcopy console is necessary for a system sale, contact GSD Order Processing. A limited number of used 2762 Terminets are available on a consult-factory basis.

Q. What would happen if I tried to use a 2635A as a system console today, prior to formal support?

A. We don't recommend using the 2635A today as a system console for the following reasons:

- during initialization the first character of each line is an extra garbage character
- backspace occurs on the same line causing overprinting of characters
- operating is limited to 1200 baud

These items will be corrected by mid-calendar year 1978. They are minor problems for many users, however, we feel that in general, installing a product with bugs such as these is not consistent with our goal of maximizing customer satisfaction.

Contact GSD Order Processing or Sales Development for help with specific customer situations. We can work with you to provide the solution that makes the most sense for your customer.

2000 System Obsolescence Notice

By: Terry Eastham GSD

General Systems Division has decided to discontinue sale of its HP 2000 Computer System product line beginning June 1, 1978. After this date, HP 2000 orders will be accepted on a "specials" basis only.

The following letter is included in an "HP 2000 Discontinuance Field Training Manual" which is being sent to each CSG District Sales Manager. In brief, this field training manual presents GSD's strategy for removing the HP 2000 System Product Line from the Corporate Price List and providing hardware and software support for a minimum of five years.

Please notify your 2000 customers of this plan as soon as possible. Feel free to contact the GSD 2000 Support Group for more information or assistance in responding to problems arising out of the discontinuance of sales of the HP 2000 Computer System Product Line. Please note that the 2000 product line does *not* include the HP 2026 Data Entry/Data Communication System!

HEWLETT-PACKARD
 GENERAL SYSTEMS, 5300 Stevens Creek Blvd., Santa Clara, California 95050. Telephone 408 249-7020, TWX 910-338-0215

March 1, 1978

Dear Customer:

Over the last ten years, Hewlett-Packard has sold approximately 600 HP 2000 systems which have been installed around the world. These systems represent customers who have recently purchased the HP 2000 as well as customers who acquired the very first HP 2000 computers in 1968 -- customers like yourself, who have used their HP 2000 computers for a wide range of applications. The major environments have been educational, order processing, manufacturing planning and control, service bureaus, banking, government and medical. The Hewlett-Packard Company is pleased to have been a part of this exciting growth in so many sectors of our society.

Advances in technology have enabled Hewlett-Packard to produce other computer products which have made substantial contributions to a similar large cross section of the Business, Industrial, Governmental, and Educational communities. As a result of examining the rigorous technological requirements of the future and the general maturity of the HP 2000, the Hewlett-Packard Company has made the decision to discontinue sales of the HP 2000 computer system product line, beginning June 1, 1978.

In general, HP 2000 systems will be supported for a minimum of 5 years from the date of last manufacture for each system level. Depending upon a customer's needs and support availability, limited hardware support may be extended beyond this 5-year period. The following dates indicate the remaining support life for each system level.

System (Level)	Discontinued	End of Support
2000 (19700B)	June 1978	June 1983
2000 F	February 1976	February 1981
2000 E	November 1974	November 1979
2000 C	November 1973	November 1978

We wish to stress that Hewlett-Packard's support policy is unrelated to the discontinuance of the product line. We will continue to actively provide service for our installed HP 2000 customer base. Due to the expected stability of the software, the traditional monthly software maintenance charge will be discontinued. Software fixes and revised software tapes will be provided on a separately orderable basis, as available and when appropriate. You may look forward to on-going professional support from Hewlett-Packard for your HP 2000.



- 2 -

This decision does not affect the usefulness of your HP 2000. The HP 2000 should provide substantial service for many years to come. We have many customers who are presently utilizing Hewlett-Packard's earliest versions of the HP 2000A and find that their requirements are still being satisfied today.

Please feel free to contact your local HP representative, who is interested in assisting you and other HP 2000 customers in answering any questions as to how this decision will affect your current and future computing needs. All of us at Hewlett-Packard appreciate the trust you have placed in Hewlett-Packard by your investment in the HP 2000 computer system. We look forward to working with you and continuing our excellent relationship.

Sincerely,
 HEWLETT-PACKARD COMPANY

 Edward R. McCracken
 General Manager

ERM:js

For Batch Data Communications . . . HP 2026 is Fast!

By: Dick Baumann/GSD

In a network where the application requires batch data communications at minimum cost, remote 2026 systems communicating to a central 2026 should come into your mind immediately.

How fast is fast, and what makes the 2026 superior in this environment? "Up to 9600 bits per second" is what we quote . . . nothing overly exciting there. Lots of systems can make that statement. But we say we can get *twice* the modem rate (in throughput) across the communications line. With the 4800 bps (600 characters per second) modems that we use regularly in our own COMSYS network, we get the equivalent of 1200 character per second throughput. We often get much *more* than that. When using dial-up transmission where you pay by the minute, maximum throughput means minimum costs . . . that's why we made a special point to be as efficient as possible with 2026 to 2026 communications.

Two factors contribute to the remarkable throughput advantages the 2026 has over its competition in data communications:

1. *Reverse Channel* Protocol (sometimes known as "continuous ARQ" protocol). This means that data goes down the line without any line turnaround delays at the end of each block of transmitted data (as is usually the case in normal binary synchronous communications). We get 4800 bps throughput out of a 4800 bps modem, not something less. All our error signaling is done on a "narrow-band" reverse channel, which doesn't affect the data being "blasted" down the main channel. In normal bi-synch communications, there's about a 250 millisecond delay (much longer on satellite links) between data blocks to take care of this error signaling. That can amount to a lot of time if there's a significant amount of data to be sent. So . . . the reverse channel protocol accounts for getting 100% throughput out of our modem. What about the rest?
2. *Data Compression* accounts for the rest of the throughput increase. The HP 2026 software compresses any string of blanks to 2 characters, numeric strings compress 2 to 1 (plus 2 extra characters), and alpha strings compress 3 to 2 (plus 2 extra characters). Additionally, redundant data from one record to the next (beginning in position 1) is compressed to 2 characters. HP's experience has been that we get 2 to 1 compression over all of our job-mix, with 3 to 1 compression frequent. Obviously, this is highly dependent on the job-mix. We've kept a lot of statistics on our results though, and our applications are typical of how others would use the system.

In the last issue of the *Newsletter* I explained the 2026's speed in inquiry applications. Data communications is still another "speedy" area. (I forgot to mention that the software to handle all this is a standard 2026 utility program . . . nothing for the customer to write. It handles all codes and record formats too!)

MRJE/3000 Spec Correction

By: Richard Scott GSD

A printing error in the February 15 issue of the *CS Newsletter* entitled "MRJE 3000 — Multileaving Debuts on the Series II" dropped the letter "2" off the word "JES". It should read "JES2". MRJE 3000 (32192A) works with either HASP II (versions 3.1 or 4.00) or JES2.

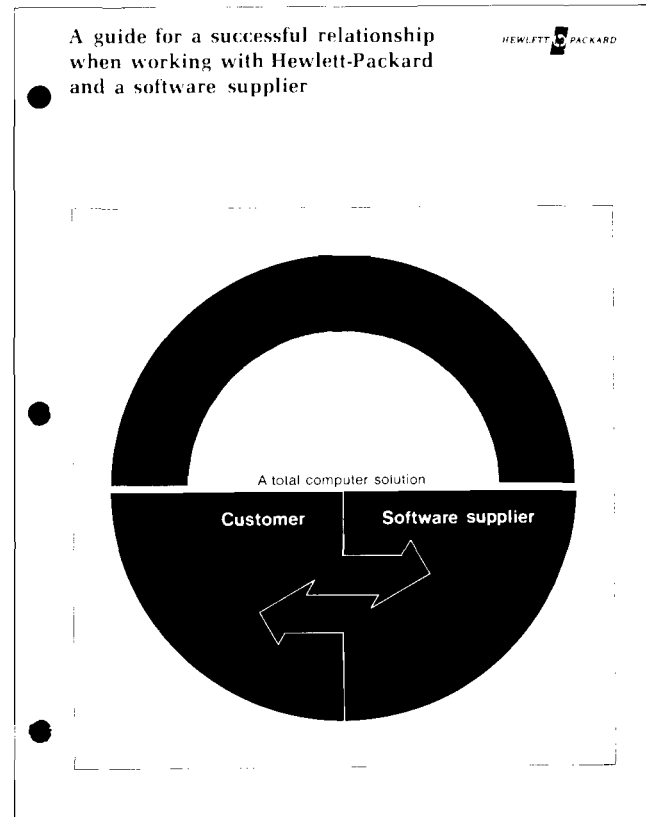


A Guide to Using Software Suppliers Effectively

By: Gary Gubitza GSD

Software Suppliers are contributing to a significant number of HP 3000 system sales. This has resulted from a high degree of field involvement coupled with an understanding of how to work with Software Suppliers on an HP-Software Supplier-End User relationship. You may be interested in knowing that the percent of the total number of HP 3000 systems sold through Software Suppliers (specifically OEMs) increased dramatically in 1977.

Recently GSD spent time in the field researching what is involved in this three party relationship and we have documented our findings in a new brochure entitled "A Guide to A Successful Relationship" [Part No. 5953-3000 (22)].



Features of the Brochure

1. The brochure discusses how customers benefit from using Software Suppliers.
2. The brochure has a list of guidelines that HP Software Suppliers follow when working in a three-way relationship.
3. The brochure describes the roles and responsibilities of HP, Software Suppliers and End-Users.

Benefits

- This builds the End-User's confidence in working with a Software Supplier. It documents HP's commitment to a three party relationship.
- This provides customers a checklist of expectations helping them ensure a successful computer solution.
- We want a three-way relationship to work. This is more easily accomplished if everyone understands up front what each will provide.

In the next few *CS Newsletter* issues, I will explore this HP-Software Supplier-End User relationship in depth with ideas that will help you find and use Software Suppliers. Today's article will summarize our field data on "Who Software Suppliers Are and Why They are Gaining Importance." Two subsequent articles will cover "Finding New Quality Software Suppliers and Then Selling Them On HP" and "Methods and Tools Available for Working with New and Existing Software Suppliers."

To help in understanding who Software Suppliers are and why they are gaining importance, let's categorize them into two types based on how they interact with HP 3000 Computer Systems. These two classes exist because of the different business strategies of each:

1. OEMs/System Suppliers purchase and resell HP 3000s and their primary added value is application software.
2. Software Houses supply software products and services similar to those provided by OEMs/System Suppliers. However, a Software House does not buy and resell HP 3000 hardware.

In a sales situation where your customer requires a "total" solution, either type of Software Supplier may be the answer. In general, HP is indifferent to which is used. Some customers, however, may wish to deal directly with HP, others may wish to deal with an OEM. The net result is the same — a successful computer solution.

Overall, we find two basic reasons why End-Users want to work with Software Suppliers: They can save time and money.

Hardware price/performance of small business systems has advanced rapidly, making the benefits of in-house computerization available to smaller and smaller businesses. Smaller businesses tend to lack in-house DP experience and/or DP staffs. Thus, the choice is available of hiring the appropriate systems personnel or filling this void by working with a Software Supplier. Software Suppliers can bring a high degree of specialized expertise to the customer's application and offer the benefit of providing a solution faster and at less cost than many customers could achieve by developing in-house capabilities.

Second, experience within the business world has made it increasingly clear that the end result of an accounting system, for example, is virtually the same for every business. Procedures differ, of course, but the need to have a unique system is disappearing. Thus, the idea of specially designing and programming an accounting system is becoming impracticable. Especially today when Software Suppliers can offer both the economies of standard packages and the ability to customize it to the users' needs.

So, for many customer's needs, working with a Software Supplier may be the solution. When it is, an HP 3000 should be the computer system responsible for a successful solution!

Next Article: A closer look at finding new Software Suppliers and selling them on the HP 3000.

Responses to This Week's Most Frequently Asked Questions Called into Sales Development . . .

By: Carolyn Morris/GSD

- Q. Is the Isolation Transformer included in the Model 6 and 8? How can I get the Isolation Transformer delivered before the rest of the system?**
- A.** Yes, the Isolation Transformer is included in the Standard Model 6 and 8. If early delivery of the Isolation Transformer is required, it must be separated from the coordinated shipment of the system. Delete the isolation transformer from the system by ordering option 050 at \$2100 and ordering the 60 Hz transformer as a line item — product #30320A at \$2100 (OEM discount is applicable) on a separate section of the order. Include a specific required/delivery date for the transformer in "Special Instructions."
- Q. Can a model 5 or 7 be upgraded to a big 6?**
- A.** No, the only way for Model 5 and 7 customers to expand beyond 256 Kbytes is to upgrade to a Model 8 with the 30408A option.
- Q. How is the initial software cost and the monthly maintenance fee discounted when an end-user buys more than one system?**
- A.** The initial software fee for all unbundled software is discounted when a customer buys more than one HP 3000. See the Computer Systems Software Purchase Agreement for the discount schedule. The monthly maintenance fee is discounted only if the customer has one single contact point for multiple installations. The BMMC at each of the multiple sites is discounted according to the same discount schedule as the initial fee. See the Software Support Services Sales Manual pages 2-16 and 2-17 for examples.

**Sales Tips —
From the Field to the Field**

By: Gary Stump, GSD

In our day-to-day process of working with HP sales people, we frequently discover individual sales techniques that are really working for a particular sales person. This article in the *Newsletter* will appear regularly in an attempt to share successful strategies with other successful sales people. Therefore, if you have any successful sales procedures, please let me know so I can include them in this column.

From *Don Thompson* — NSR Bellevue, Washington

Don schedules two days of each month to call on his existing installed customers. He tries to keep these customer calls on the same day of each month. (For example, the Monday and Tuesday of the last week of each month.) He limits each customer call to one hour maximum.

One of the advantages of this procedure for the sales person is that his time can be optimally scheduled, i.e., he can make more calls on these two days because each customer call is limited to one hour. In addition, because the customer knows when the sales person is coming, he can prepare all of his month's problems for the sales person to address. Mind you, not all problems are solved in this meeting — but all can be addressed.

There are benefits for your customer as well:

First, your customer knows that the HP sales person cares even after the sale and that they will see each other every month.

By scheduling, your customer has a planned, organized method of communicating his concerns and problems.

In addition, because of this pre-planned meeting each month, many customers will wait until that meeting instead

of calling you every time some problem occurs. In return, this should save you some phone time and unplanned problem solving time during the month and allow you to make more sales calls and get richer.

And finally, this procedure will help all of us meet our objective of computer customer satisfaction our number one objective for FY'78.

This is just one idea that has proved to be successful for one of our guys. Maybe you'll want to try it too.

GOOD LUCK AND GOOD SELLING!



Dataquest Promotes DS/3000

By: Rich Edwards, GSD

In a review titled: "1977 Was Banner Year for U.S. Minicomputer Suppliers", the January 25, 1978 issue of the *Dataquest Research Newsletter* stated that one of the highlights of 1977 that seemed most important to the firm was:

ANNOUNCEMENT OF HP's DS 3000 NETWORK SOFTWARE PACKAGES. IN OUR OPINION, THIS SYSTEM REPRESENTS THE STATE-OF-THE-ART IN MINICOMPUTER NETWORK DESIGN.

The *Newsletter* also reported on preliminary market estimates of U.S. minicomputer suppliers. Hewlett-Packard has the second highest share of revenue.



General News



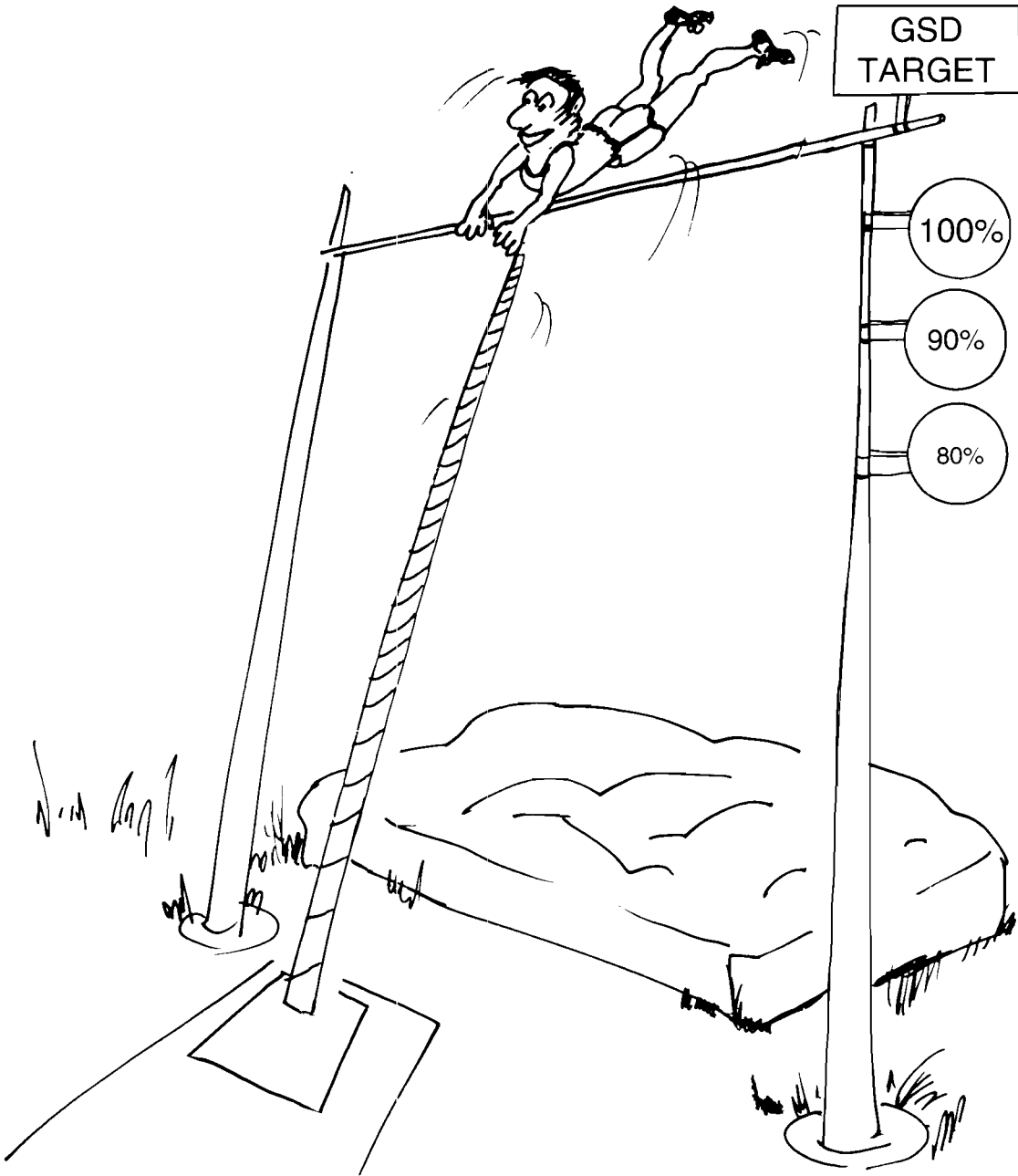
First Quarter Sales Performance . . .

By: Carolyn Morris/GSD

We all probably felt that the targets for the first quarter were somewhat high considering the holidays, winter, and the apparent lack of buying during this period. Well, true to form, our super sales force managed to overcome all of these obstacles to meet our GSD target for first quarter.

Field people fully realize the effort required to meet target month-after-month. GSD would like to let you know that we appreciate all of your hard work!!!

THANK YOU!



HP GRENOBLE NEWS

Product News

Connect Your 3071A to a 21XX Computer

By: Maurice Richez HPG



All you need to have is:

A 3071A terminal:

Switches 1-2-3-4 in instrument should be in the OPEN position. This corresponds to operation at 300 baud, with no parity. Switch 5 will be closed if you wish to control the modem lines (CF, CC, CB).

Switch 5 will be open if you wish to ignore the above control lines.

A 12531D interface:

The 12531-60025 high speed terminal will provide the hardware to interface the 3071A and the computer.

Make sure that a 307.2 KHz crystal is installed.

Jumpers: W1 in A Internal clock
 W7 in B 1 stop bit
 W3 in 300 baud

Interconnecting cable: 12531-60026

Driver:

DVR00 provides the necessary software to use the 3071A on RTE systems.

Note 1:

At power on, the "READY" light on the terminal is off. This tells the operator that she/he is not allowed to use the keyboard. Using the keyboard with this configuration will result in a "buzz" to prompt the operator.

The octal code corresponding to the key that has been depressed will be sent, however.

Note 2:

INPUT MODE

Sending octal code 36 (RS) to the 3071A will turn on the "READY" light.

The keyboard is configured. The operator is then allowed to enter data.

OUTPUT MODE

The 3071A will accept data whether it is configured or not. A good practice is to deconfigure the keyboard when outputting data.

This is done by sending octal code 37 (US).

Manual Part Number Changes

By: Mike Tupper HPG

Recently, we have reprinted three service manuals.

Due to the large quantity of manual changes, the reprints were given new numbers as noted below:

09869-90003	Replaces	09869-90002
02748-90041	Replaces	02748-90032
07260-90016	Replaces	07260-90001

Division News

A New Face in Product Marketing

By: Peter Stuart:HPG



John already hard at work.

At the beginning of February we welcomed *John Willett* as a new member of our product marketing group. He joins us as a Senior Technical Writer, responsible for the complete range of promotional and service literature for product line 69 (Grenoble products). *John* is English but has spent the last four years with HP Boeblingen writing promotional and service literature for the Instruments division. He is married, and has two small children whom he hopes will soon be trilingual. One of *John's* first objectives is to get to know as many of you as possible and establish good communications links. This article is just the first step.

2649A Customer Training Course Prerequisites

By: Maurice Poizat:HPG

The last 2649A training course (13294A) given in Grenoble from January 30 to February 3rd, 1978, was undoubtedly very successful. Yet it could be even more successful if the two following points were observed:

- The 8080A instruction set should be known. It does not require years of experience in programming the 8080, but students are advised to have a look at the most common 8080 instructions. Tell them before they come to the course!!
- Students should have seen, at least one day in their life a terminal of the 264X family. Give them an opportunity to play with one of our wonderful terminals! I am sure they will enjoy it, and they will benefit more from the course.

THE NEXT COURSE IN GRENOBLE WILL START MAY 8TH.

AND NOW

WE'LL USE THE 13290B! FANTASTIC, ISN'T IT?

Grande Premiere!

By: Georges Quin:HPG

Recently, the Orsay Instrument Sales Force organized a week of one day HP-IB seminars for French customers. The total number of people who attended was over 150, averaging 30 to 35 per day.

Fundamentals of HP-IB were explained during the morning while the afternoon was devoted to the current range of HP-IB controllers offered by Hewlett-Packard. Calculator Sales Force described their 9800 Series of desk top computers and Grenoble presented the HP 1000 System family.



Patrick Hagens (right in these two views) is the HP-IB specialist for the Instrument Sales Group in Orsay. *Patrick* organized the seminar and in both views, he is demonstrating local control of HP-IB clusters, using an HP 9825A Desktop Computer.





Henri Ajenstat (seated), from Grenoble Sales Development, is demonstrating the efficiency of the RTE Operating System.

The theoretical session concluded with a presentation of the 3070A as an HP-IB terminal for remote control of distributed HP-IB devices. The last slide (over) showed one HP solution for interconnection of HP-IB clusters and HP-IB desk-top controllers to a central HP 1000 system.

The main advantages of this solution were emphasized as follows:

- one vendor;
- simplicity of connection (what could be simpler than the HP-IB link?);
- independence of each cluster;
- data concentration on the central HP 1000 data base;
- real time updated data immediately available for management;
- availability of this central data base to every user as required;
- availability of high performance, high price computer peripherals (magnetic tape, line printer, etc) to every user.

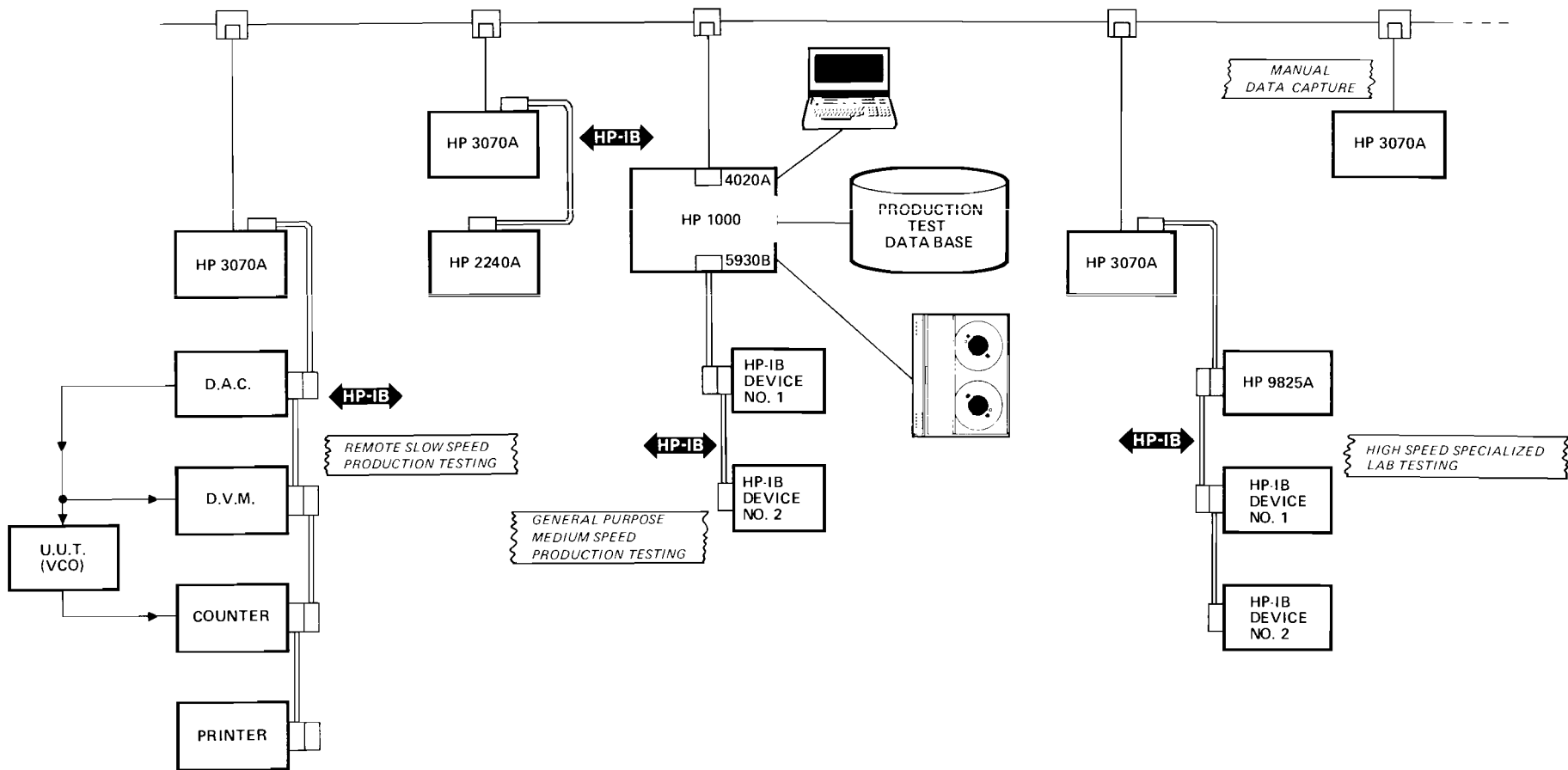
A series of demonstrations then followed to consolidate the day's presentations. A lot of valuable computer business is expected to result from the seminars and congratulations to the Instrument Sales Force for making it happen.



Georges Quin (bottom view) from Grenoble Product Marketing is showing two remote HP-IB clusters connected to an RTE operating system via an HP 3070A. In the top view the clusters are controlled locally by an HP 9825A which has received a "Take Control" from the computer; in the bottom view they are controlled directly by the RTE system.

HP-IB FACTORY DATA COLLECTION

HP-IB LINK 10 → 200 HP-IB TRANSFERS/TERMINAL/SECOND



Sales Aids

Selling To Manufacturing Accounts

By: Alic Rakhmanoff Boise

You have probably noticed that many manufacturing customers are very reluctant to get rid of their card-oriented applications. In fact, most of them consider it the most reliable and economical way of recording data for specific applications like stock control, production tracking, inventory control, part requests, etc.

That is why many customers are implementing new applications with pencil marked cards combined with computer printing (turn-around document application). Several Hewlett-Packard divisions, including San Diego, Boise, Waltham, DMD, Ft. Collins, Andover and CPD have been using this system for several months (one year in Boise and Waltham). Marked cards, printed on HP line printers with an HP 3000 Series II, are read by a 7260A Optical Mark Reader connected to the HP 3000. These marked cards are used for pull decks, stock control and cyclic inventory control.

Production lines need parts from the stockroom for work-orders issued on the HP 3000. A program in the HP 3000 generates a printed continuous fan-fold form. Information like part number, order number, location to deliver parts, quantity, units of measure, part description, color code, higher level assembly part number and date are printed for each work-order. All this information is useful to the person who will do the pull and deliver the parts to the production line. It is also useful for the people on the production line. Also, a reference number is printed with black marks (OMR characters). This unique number associates the work-order number and the part reference in the HP 3000 IMAGE data base.

PART NUMBER	ORDER NO	DEL TO LOC	PULLED BY	QUANTITY PULLED	CHECK DIGIT
17970-61010	46236902	4A108150	0 0	0 0 0 0 0 0	0
			1 1	1 1 1 1 1 1	1
			2 2	2 2 2 2 2 2	2
			3 3	3 3 3 3 3 3	3
			4 4	4 4 4 4 4 4	4
			5 5	5 5 5 5 5 5	5
			6 6	6 6 6 6 6 6	6
			7 7	7 7 7 7 7 7	7
			8 8	8 8 8 8 8 8	8
			9 9	9 9 9 9 9 9	9

17970-61010	46236902	4A108150	REG 57.5
PART NO	ORDER NO	DEL TO LOC	DESCRIPTION
17970-67100	770818	C-01	22 4X
WHERE USED	PULL DATE	STORE LOC	CTRL
COLOR CODE	MACH ID	CUT CODE	ASSEMBY SEG NO
<input checked="" type="checkbox"/> CHECK HERE IF PULL IS COMPLETE			
QUANTITY DELIVERED _____			
46236902	46236902	4A108150	
ORDER NO	ORDER QTY	DEL TO LOC	

After being printed, the continuous form is separated into 11½ inch cards by a bursting machine. Each card has two parts: a standard tab card 7¾ inches long and a tear-off part. One card represents one work order to pull a specific number of parts from the stock.

The person in charge of the stock takes each card and according to the printed instructions, pulls the required quantity of the needed part. He marks with a pencil his personal code (two digits), the quantity pulled (which can be less than the required quantity) and a check digit (which is marked on each box containing the parts).

Then he separates the tear-off from the card and delivers the parts with this tear-off which is used as a hardcopy document. The card is then read by an HP 7260A Optical Mark Reader connected to the HP 3000. If the card has been incorrectly marked (wrong check digit or invalid quantity) the card is rejected in the select hopper of the 7260A. Immediately the operator can check his pull, and by carefully erasing the card, correct the marked data.

The 7260A reads the marked data and also the printed data (OMR characters). The printed data enables the computer to retrieve the work order from the database and to update the stock, generate back orders if necessary and even to print order forms or invoices.

Continuous fan-fold forms must be correctly aligned on the HP 2613-17-18A printer (using alignment boxes). A good quality ribbon must be used (mylar ribbon is not necessary) in order to print a dark black mark for the OMR character.

HP printers with free option 002 003 having the OMR (or "slug") character give a good black mark for this character. Otherwise overprinting is recommended. Many HP divisions overprint three times using "left bracket, I, right bracket" characters with excellent results.

Cards mismarked by operators are usually less than 5 per thousand.

The same forms are used also to do the cyclic physical inventory of the stock.

If you want your customer to visit an HP division using this application, give me a call and I will manage a visit for you.

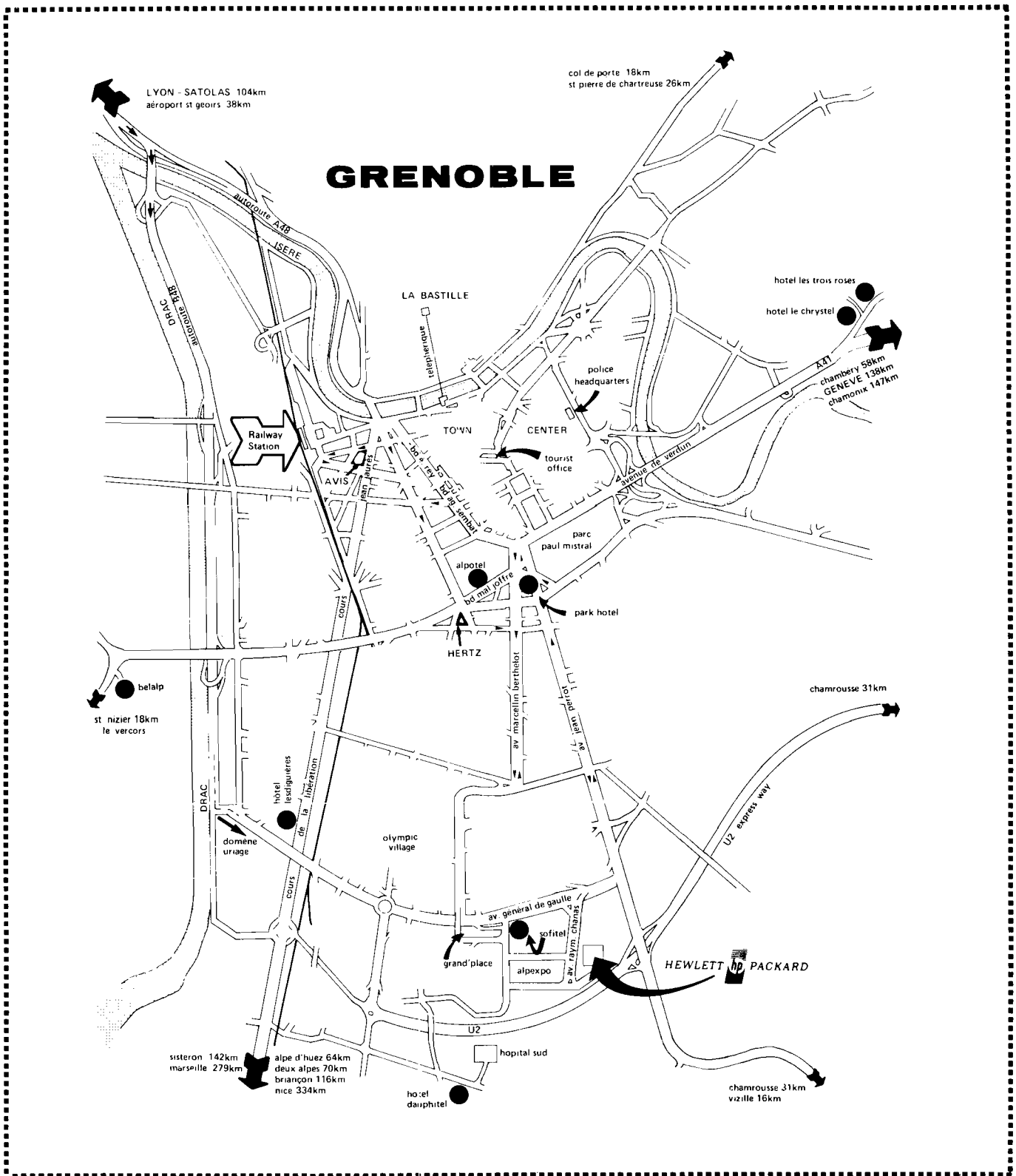
HP Optical Mark Readers and Printers are perfect products that can provide leverage for you in penetrating those card-oriented manufacturing accounts.

How To Find HPG

By: Richard Franklin/HPG

Ever wished that you could make a trip to Grenoble?

Here's a map and some travel information to make planning your trip even easier!



YOUR WAY TO GRENOBLE

Grenoble Airport

Our nearest airport is at St Etienne de Saint Geoirs, situated some 38 kilometers (24 miles) from Grenoble. Each flight is met by a coach which will take you as far as Grenoble railway station. The cost is FF11 for a single trip. Then take a taxi to HP. Alternatively, hire a car from the airport. Cost of a one-way rental car is about FF80 for a Renault 5, and from FF110 for something larger, (Refer to the section "travelling by road" for directions). The main disadvantage with Grenoble airport is that it is only connected to Paris/Orly.

Lyon Airport

Satolas international airport is situated on the Lyon motorway, some 70 kilometers (44 miles) from Grenoble. Satolas has three daily connections with Paris Charles de Gaulle and direct flights to London, Amsterdam, Brussels, Frankfurt, Zurich, Madrid, Algiers, Tunis, Cairo, etc . . . There is no convenient bus from Satolas to Grenoble. Cost of a one-way rental car is in the range FF120 to FF200. One has also to pay a toll on the motorway to Grenoble (FF18 one-way). This can be avoided by taking the road that runs nearly parallel to the motorway.

Geneva Airport

Though furthest from Grenoble, Geneva has more frequent connections to the rest of Europe. Once in Geneva you can either, hire a care (FF180 to FF300) and drive via Annecy and Chambéry - the distance is about 150 kilometers (94 miles) - or take it easy and travel by train (FF50 first class). Either way the journey will take you about two hours.

TRAVELLING BY ROAD

For those of you arriving by car, Hewlett-Packard lies on the south-eastern outskirts of Grenoble, in the area of Eybens. Travelling from Lyon, the highway divides into two some 7 kilometers before entering the city. Keep to the left-hand side and follow the sign GRENOBLE TOUTES DIRECTIONS. Keep on the highway and watch for the sign URIAGE/DOMENE. Follow that direction and keep straight on towards Alpexpo/Alpes Congrès. You will pass a large shopping center and the hotel "Sofitel". Then take the next right towards Alpexpo and Hewlett-Packard is located on your left-hand side. Travelling from Geneva, a motorway begins some 20 kilometers before Grenoble. The one-way price is FF7.50. When driving into Grenoble follow the signs to Alpexpo. The map on the reverse side shows, in more detail, the location of the plant.

WHERE TO STAY IN GRENOBLE

To ensure a trouble-free visit always try to notify us well in advance of your arrival so that we can take care of hotel arrangements. We will be pleased to make hotel reservations for you and your customers. Some of the more popular hotels include:

- **PLM/ALPOTEL.**
12, Bd Maréchal Joffre - Tél. /76/ 87.88.41
Located downtown, this hotel charges FF 110 for a single room and FF 148 for a double. Both prices include breakfast.
- **HOTEL BELALP.**
Rond-Point de l'Etoile - Tél. /76/ 96.10.27
Situated below the "Vercors" the price of this hotel is FF 57 for a single room plus a charge for breakfast.
- **HOTEL CHRYSTEL.**
Studios will be available in 1978.
- **HOTEL DAUPHITEL.**
Avenue de Grugliasco - Tél. /76/ 23.24.72
Some two kilometers from Hewlett-Packard, in a less built-up area, this hotel offers HP single rooms at FF81 and a double room for FF 95. Both prices include breakfast.
- **HOTEL LESDIGUIERES.**
122, rue de la Libération - Tél. /76/ 96.55.36
Located on the main highway to the South, Lesdiguieres functions as a training school for the hotel trade. Single rooms are priced between FF 95 and FF 112 with double rooms costing between FF112 and FF168. Breakfast is included.
- **HOTEL SOFITEL - BOREL.**
1, av. d'Innsbruck - Tél /76/ 09.54.27
This hotel is next to a large shopping center and within walking distance of Hewlett-Packard, however it is a good 10 minutes drive from down town. It grants HP special prices of FF105 for a single room with breakfast. This price is reduced to FF85 if your stay is for 5 days or more
- **HOTEL SOFITEL - PARK HOTEL.**
Place Paul Mistral - Tél. /76/ 87.29.11
Downtown, but sound proof, this hotel gives HP a reduction so that a single room with breakfast costs between FF120 and FF160, and a double room between FF170 and FF215.
- **HOTEL TROIS ROSES.**
32, av. du Gresivaudan - Tél. /76/ 90.09.34
Located in the suburb of Meylan, at the end of the motorway from Geneva. The prices for HP are between FF83 and FF103 for a single room and FF92 to FF114 for a double room.

SOME USEFUL ADDRESSES

(see map for location)

- **TOURIST OFFICE:**
14, rue de la République - 8.30 - 19.00 daily
- **AVIS car hire:**
22, cours Jean Jaurès - Tél. /76/ 54.52.72
- **HERTZ car hire:**
89, rue Mallifaud - Tél. /76/ 87.62.61
- **HOPITAL SUD:**
Echirolles - Tél. /76/ 09.80.50
- **POLICE HEADQUARTERS:**
Bd Maréchal Leclerc - Tél. /76/ 25.81.23

CS GROUP NEWS

CORPORATE SALES FINANCING

Preliminary Customer Qualification

By: Ron Bannerman/CSF

As all of you know your HP Sales Financing organization is both flexible and responsive. Sales Financing programs are available to meet almost all customer financing problems — from the undercapitalized Service Bureau to the government agency. The *HP Sales Financing Programs Package* with its colored inserts is a handy sales tool to use, but which plans apply? Below is a simplified reference chart to help you determine which plans you want to present.

HEWLETT-PACKARD IS READY WITH A SALES FINANCING PROGRAM TO FIT YOUR NEEDS. WE FIND THAT MANY OF OUR CUSTOMERS CHOOSE HEWLETT-PACKARD FINANCING ARRANGEMENTS

- WHEN THEY DESIRE TO CONSERVE WORKING CAPITAL
- WHEN THEY NEED 100% FINANCING
- WHEN THEY NEED EXTENDED TERMS AT LOW MONTHLY RATES
- WHEN THEY ARE UNDER CAPITAL BUDGET CONSTRAINTS
- WHEN THEY DESIRE OBSOLESCECE PROTECTION
- WHEN THEY NEED TO KEEP BOOKKEEPING SIMPLE
- WHEN THEY NEED A HEDGE AGAINST INFLATION

IF YOU WANT TO ACQUIRE HEWLETT-PACKARD PRODUCTS AT REASONABLE RATES, WE PROVIDE THREE BASIC TYPES OF EQUIPMENT FINANCING ARRANGEMENTS

- CONDITIONAL SALE
- FINANCE LEASE
- TRUE LEASE

THE HEWLETT-PACKARD SALES FINANCING PROGRAMS AVAILABLE TO YOU ARE EXPLAINED ON THE CARDS AT RIGHT. FOR FURTHER INFORMATION CONTACT YOUR SALESPERSON OR THE NEAREST HEWLETT-PACKARD REGIONAL SALES FINANCE OFFICE LISTED BELOW.

<p>West 3928 Lankershim Boulevard North Hollywood, CA 91604 2131 877 1282</p>	<p>East 41 Chuck Clerks Road Rockville, MD 20850 (301) 948 6370</p>
<p>South P.O. Box 105005 Atlanta, GA 30348 404 434 4000</p>	<p>Midwest 5701 Tollview Drive Rolling Meadows, IL 60008 (312) 255 9800</p>

PRIME GOVERNMENT LEASE PLAN

WHO: State and Local Government Agencies

PRODUCTS: All HP Products

WARRANTY: Financed equipment is warranted the same as equipment purchased under any other terms. It is not the standard HP equipment warranty as it is not changed in any way by the financing arrangement.

SUMMARY:

- Low Monthly Rates
- Terms of 12 to 60 Months

PAYMENTS: (Values expressed as a % of equipment list price.)

Term in Months	Monthly				
	12	24	36	48	60
12	4.780	4.603	3.915	2.524	2.312

Don't you should know about INVESTMENT TAX CREDIT (ITC)

WHAT IS IT? The Investment Tax Credit (ITC) is a credit against federal income taxes which is offered by law or purchase new equipment.

HOW IT WORKS: If a customer leases or buys equipment, the amount of ITC available is determined by the length of time over which the equipment is depreciated (the "useful life").

USEFUL LIFE	AMOUNT OF ITC IN PERCENTAGE OF EQUIPMENT PRICE
Less than 3 years	0
3 to 5 years	3.33%
5 to 7 years	6.67%
More than 7 years	10.00%

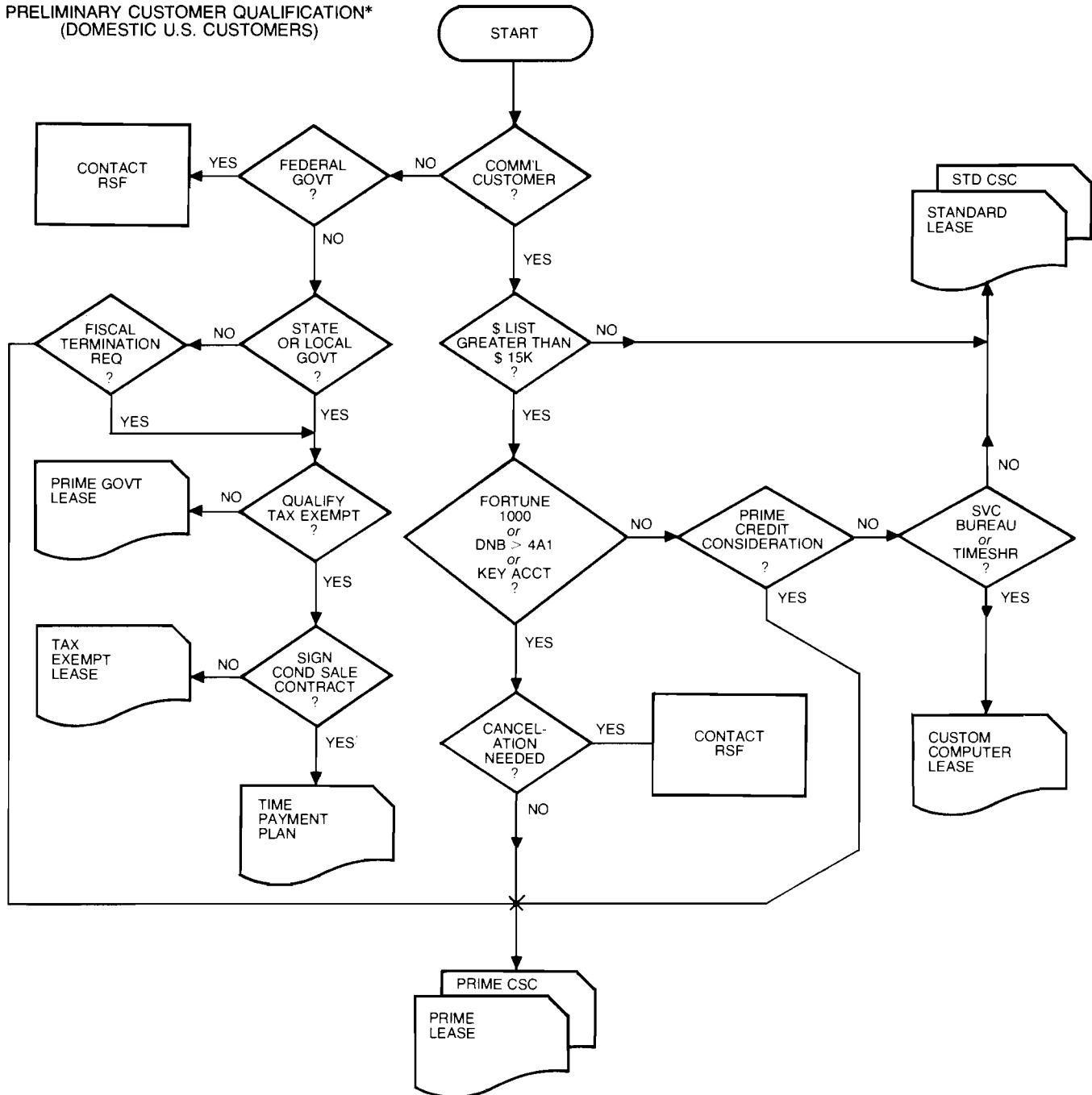
WHO IS ELIGIBLE? Since ITC is a credit against federal income taxes, only those customers subject to federal income taxes are eligible. If a customer is not currently profitable and has no taxes to pay, the ITC can be carried forward over the next 5 years. This therefore includes charitable, voluntary institutions, state and local governments, and agencies of the federal government staff.

HOW DOES A CUSTOMER GET IT? If a customer purchases the equipment or enters into a lease purchase agreement for capital purposes, he may take the appropriate ITC based on his useful life. Under certain lease agreements, certain lease agreements may also have the option to take ITC based on the useful life of the equipment.

FOR EXAMPLE: A customer who purchases an \$10,000 HP product with a useful life of 5.7 years, there is an ITC of 6.67% or generally \$6,670 available to the customer.

HEWLETT-PACKARD

PRELIMINARY CUSTOMER QUALIFICATION*
(DOMESTIC U.S. CUSTOMERS)



*NOTE: This chart should serve only as a guideline. The "right" Sales Financing plan(s) will be a function of the Customer's financing problem and creditworthiness — neither of which can be quantified. Your Sales Finance Staff will assist you in finding the best solution(s).

<h1 style="margin: 0;">COMPUTER SYSTEMS NEWSLETTER</h1>	<p>HEWLETT-PACKARD COMPUTER SYSTEMS GROUP 11000 Wolfe Road; Cupertino, California 95014 USA</p> <p>Bob Lindsay/CS Group - Editor</p>											
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