

COMPUTER SYSTEMS NEWSLETTER

For HP Field Personnel

REINHARDT, HELMUT
FRANKFURT
HPSA



HEWLETT  PACKARD

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BOISE DIVISION NEWS

Product News

2618A Obsolescence

By: Steve Richardson/Boise

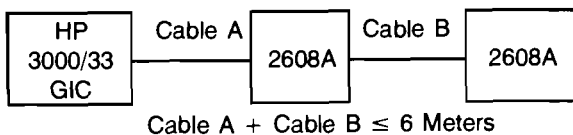
On September 1, 1979, the 2618A 1250 lpm printer will be obsoleted. Since we have introduced the 2619A 1000 lpm printer, the demand for the 2618A has fallen to a negligible level. We there feel that there will be little impact on our customer base due to the obsolescence.

If you have any need for a 2618A, please place your order on or before September 1, 1979 to insure that your customer can get this unit. If you have any questions with regard to the 2618A or the newly announced 2619A please contact your Boise Division Regional Sales Engineer.

HP 3000/33 to 2608A Cable Lengths

By: Steve Richardson/Boise

Boise Division provides a two meter cable with every 2608A Opt. 333 to connect to your HP 3000/33. This does not mean that you are limited to two meters, in fact, you can go up to six meters from the HP 3000/33 GIC if you have only one printer or a total of six meters from the GIC for two printers.



This means that you can purchase HP-IB extension cables to enable your customer to physically arrange his system as he needs it. The cables are available from GSD and can be purchased in the following lengths:

Product	Length	Price
31389A	1 meter	\$ 60
31389B	2 meter	\$ 65
31389C	4 meters	\$ 75

It is possible to purchase a four meter extension for your customers who have only one printer on their HP 3000/33.

When coupled with the two meter cable provided with the printer, this will allow them the maximum flexibility in locating their printer six meters from the GIC. For systems with two printers, you may order a two meter extension. This cable, along with the additional two meter cable provided with each 2608A, will allow the first printer to be located four meters from the GIC and the second printer two meters from the first.

To summarize, sometimes customers wish to locate their printer more than two meters from their HP 3000/33. These customers can be helped by HP-IB extension cables to allow one printer to be located six meters from the GIC or two printers to be located a total of six meters from the GIC.

2630 Family Sees Reliability Improvements

By: Steve Bolen/Boise

In October, 1977, Boise Division began shipping the first 2631/35 units to customer sites. Since that time, over 11,000 units have been shipped. This shipment and order rate, in itself, speaks highly of the 263X Family of products. While the 2630 Family has been very successful from an order and shipment view, there have been certain reliability issues which we've felt needed attention. The objective of this article is to update you on Boise Division's on-going commitment to 263X product reliability and the steps we have taken to fulfill this commitment.

Completed Actions

Over the last year, there has been an on-going effort divisionwide that has been directed toward improving the 2630 Family reliability. As a result, several items have been completed that have resulted in marked improvements in reliability. The following is a list of items that have been implemented in production units.

- **Encoder Redesign** — The encoder circuit has been redesigned. Infrared light emitting diodes have been added as light sources and a 100 hour burn-in period for light detecting phototransistors has been initiated. The goal is to improve the stability of the encoder circuit so that fewer adjustments are required over the life of the printer.

- **CTX Protection on Power Supply** — CTX's translate between the two voltage levels required by the 2630 Family's internal logic circuits. In the past CTX's have had one of the highest failure rates of any components in the 2630 Family. New circuitry has been added to the power supply board to ease the strain placed on the CTX's and thus decrease the probability of their failure.
- **Component Burn-In** — A majority of the 2630 Family electronic components are tested under Boise Divisions' "Component Reliability" program. The components are functionally tested and are then "burned-in" at 125°C for one week. This rigorous testing program weeds out any dead or weak components, thus reducing production costs and failure rates of installed units.
- **16 Hour Unit Burn-In** — At the end of the production process, each printer and printing terminal is run continuously for 16 hours in a further effort to weed out weak components. Included in this effort are two hours of operation at 58°C to accentuate any component weaknesses which might be present.

Results

The completed action items outlined above have resulted in considerable improvements in the MTBF (Mean Time Between Failure) for the 2630 Family. Recent data from field warranty reports has shown the MTBF increasing from 1000 hours in February, 1978 to approximately 3000 hours in November, 1978, (see figure) the latest month for which information is available. For the average 2630 Family user (2000 hours power on, printing 20%) this means that the frequency of failure has decreased from once every six months to once every 18 months!

Future Actions

Even though the reliability improvement program has already shown significant improvements in the 2630 Family reliability, further product changes are planned which should continue to improve the upward trend of the MTBF.

The following modifications will soon be implemented.

- **Print Head Drive Circuit Protection** — This circuit causes print head wires to impact the paper whenever a character must be printed. Circuit modifications which will be implemented by late summer, 1979, will prevent the head from overheating should certain critical components fail!
- **Improved Print Head Process** — Boise Division began manufacturing its own print heads in June, 1978. Since that time, an extended engineering effort has been aimed at improving print head production and reliability. New tooling techniques and tighter tolerances should also result in improved print quality.
- **Expanded Component Burn-In** — Boise recently invested \$300,000 in an LSI circuit tester. The tester is capable of functionally testing each of the LSI components used in the 2630 Family. Implementation of functional tests will take place over the next 12 months.

Current Programs

In addition to the items mentioned above, two major programs are currently underway, one to update firmware and another to harden the 2630 Family against electrostatic discharge.

• Update Firmware

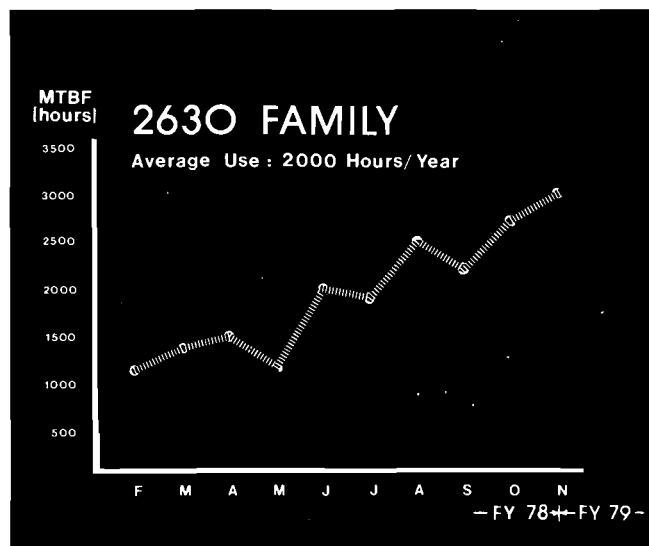
The new firmware will be implemented in the 2631A, 2635A and 2639A and will go into production late summer, 1979. This upgrade will solve several problems, such as occasional character deformation, dropped characters and other firmware-related problems. Efforts are currently underway to address the existing installed base. A notice has been distributed to the CE organization which outlines a plan to handle customers in their area that are currently experiencing firmware problems and cannot wait until late summer. CSD Cupertino is also working with us to ensure that prior to shipping production units, the Field Service inventory will have been updated with the new firmware.

• Electro-Static Discharge

Susceptibility to electrostatic discharge is a weakness of many electronic devices. This has been recognized as a major problem area for the 2630 Family and a significant amount of resources have been expended to make improvements.

Modifications to harden the 2630 Family against static discharges from external sources and suppressors for internally generated static are targeted to be in production by early fall.

Due to a concerted reliability enhancement effort, considerable improvement has already been noted in the 2630 Family. With implementation of the future modifications the MTBF will continue to improve. Boise Division is committed to reliability. With your help and support, we will continue to work to provide the most reliable and serviceable products possible.



DISC MEMORY NEWS

Division News

Sales Development's First Lady

By: Jon Bolt/DMD



Please join me in welcoming *Debbie Janzen* to DMD Sales Development Staff.

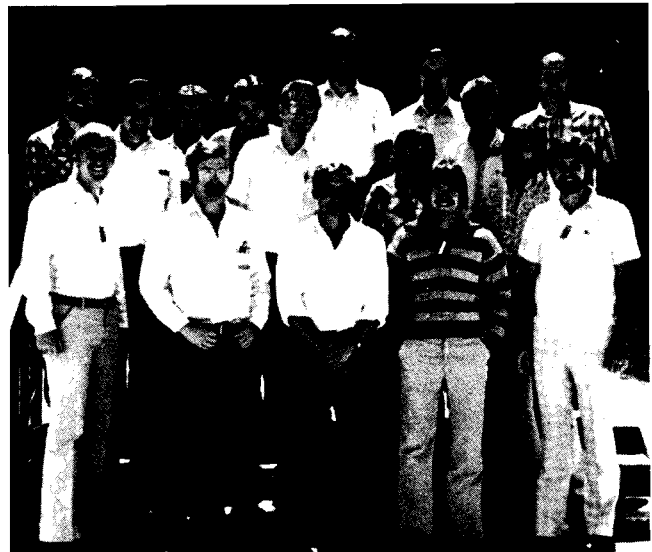
Debbie is involved in our division's Cooperative Education Program, and comes to us from the University of Idaho. A native of St. Maries, Idaho, (also in the northern region of our state), she has just completed her sophomore year in Computer Science. She will focus on programming support for the marketing department and will be with us through August.

Since her arrival some four weeks ago, *Debbie's* popularity has been growing steadily. This is not at all surprising considering that her hobbies include biking, hiking, cooking, guys, and playing the piano.

Recently, *Debbie* completed the toughest assignment required of a new-hire at DMD Sales Development: accompanying a group of crazed and travel weary neophytes to Mackay Bar Ranch for a wilderness weekend on the Salmon River. Upon her return, *Debbie* stated without hesitation that she was very impressed by the "professional conduct" exhibited by all who participated. Certainly this establishes her as an official sales developer at DMD.

VDE Team

By: Rich Bowles/DMD



Back: *Bob Follette, Steve Dexter, Dan Basler, Emory Christenson, Kent Anderson, Matt Simpson.*

Middle: *Doug Mellor, Stan Lindsay, Bill Blair, Dave Floyd, Gene Dion.*

Front: *Tom Steipp, Ernie Harper, Berry Dykema, Curtis Eames, Steve Germain.*

Unfortunately their photo didn't arrive in time to get into the last issue, but here they are in all their glory.

Contrary to popular belief, they have not developed VDE, but rather a disc "treatment plan" for it. (See *Tom Steipp's* article in the 4/15 issue of the *CS Newsletter*).

This should allow us to become one of the first disc drive suppliers to meet the strict RFI emissions standards in Germany. This is big news all over Europe where many countries will soon enact similar regulations.

Most of the world, including the U.S., will also adopt the German R.F.I emissions standards in the next five years. The tireless efforts of these individuals should put us "miles ahead of the competition" at that time.

Sales Aids

Revised Compatibility Matrix

By: Rich Bowles/DMD

Over the last few months we have made many minor, but far from insignificant changes to our disc drives. Numerous system modifications have also occurred recently that affect disc drive support on the various computer systems.

These changes as well as overall disc compatibility are highlighted below in quick-reference fashion. We want to get the "gotchas" before they get you.



DISC AND SYSTEM COMPATIBILITY AND CONFIGURATION GUIDE

	1000	3000/I	3000/II	3000/III	3000/III (single bay)	3000/33	300	250
7 9 0 6	13175B Disc I/F 13178C Multi-CPU Disc I/F	Not Supported	Not Supported	Not Supported	Not Supported	Opt. 102 (comes with system)	Opt. 102 31262A GIC	1-7906 H only
7 9 2 0	Same as 7906	30030A Selector Channel 30229A Disc Controller	30030B Selector Channel 30229A Disc Controller	30030C Selector Channel 30229A Disc Controller	30030C Selector Channel 30229B Disc I/F	Same as 7906	Same as 7906	Not Supported
7 9 2 5	Same as 7906	Same as 7920	Same as 7920	Same as 7920	Same as 7920	Same as 7906	Same as 7906	Not Supported

HP Computer Museum
www.hpmuseum.net

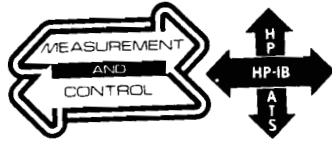
For research and education purposes only.

DATA SYSTEMS NEWS

Automated Measurement News

ATS Can Be Big Business for HP

By: Dave Cline



Automated Measurement News
AUTOMATIC TEST SYSTEMS & MEASUREMENT AND CONTROL PROCESSORS FROM DATA SYSTEMS DIVISION

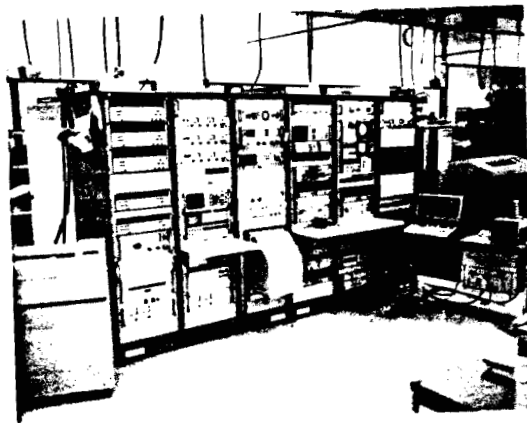
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ATS CAN BE BIG BUSINESS FOR HP

By Dave Kline



HP 9231 C ATS

Looking something like 1 each of the HP catalog, the first of 10 to 15 ATS's, called 9231 C's, has been configured by DSD as seen above and is now ready for shipment. At just under 1M\$ each this represents big business for HP!

The 9231 C's will be used by the US and NATO Air Forces for test and fault isolation of microwave modules from the F-16 fighter radar and electronic counter measures systems. The system can do general purpose stimulus and measurement of microwave power, frequency, network analysis, noise figure, and spectrum analysis, as well as many general purpose low frequency tests.

FOR HP INTERNAL USE ONLY

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Hewlett Packard was selected for this important order because of the excellent experience the US Air Force has had with previous HP microwave ATE. Having a satisfied customer really paid off!

So, there's attractive ATS business out there. Keep those ATS orders coming.

8542 B/C PARTS SALE

By Julie Crozier

Here's a chance to offer immediate delivery on some 8542 spare parts at below list price to your 8542 B & C user customers. Subject to prior sale we offer these parts, quantities, and prices:

		Qty	Cost
8414A-Opt. H26	Polar Display	1	\$2,300 ea.
8693B-Opt. H89	4-8 GHZ; Pin Mod	2	\$3,600 ea.
8694B-Opt. H89	8-12,4 GHZ; Pin Mod	2	\$3,900 ea.
8695A-Opt. H89	12.4-18 GHZ; Grid Mod	1	\$2,400 ea.
8743A-Opt. 026	Reflection Transmission	2	\$3,200 ea.

Units are new, not used. Availability is two weeks and warranty is 90 days. For orders please transmit override (over Heart) to me, Ext. 2335.

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TWO NEW HP 2240A PRODUCT ANNOUNCEMENTS!

By Dave Hannebrink

22915B 16 CHANNEL LOW LEVEL ANALOG INPUT CARD ANNOUNCED
FOR 0-5V AND 0-1.25V ANALOG INPUTS.

Users now have their choice of two sets of gains for low level analog inputs. In response to requests from customers needing 12 bit resolution of 0 to 5V and 0 to 1.25V analog signals commonly found in process related applications, we now offer the 22915B. The 22915A continues to be available. The price for each is \$1,250. Each has an option 001 (price: \$110) consisting of a cable and connector for self test and calibration. Only one option 001 is required per customer site. A summary of the two cards is shown below.

	<u>22915A</u>				
Analog Input Range	±20mV	±50mV	±100mV	±500mV	±10mV ¹²
Input Channel Gain	500	200	100	20	1
Resolution	10µV	25µV	50µV	.25mV	5mV
Accuracy (% F.S.)	±.5	±.3	±.2	±.06	±.06

	<u>22915B</u>				
Analog Input Range	±20mV	±50mV	±1.25V	±5V	±10V
Input Channel Gain	500	200	8	2	1
Resolution	10µV	25µV	.6mV	2.5mV	5mV
Accuracy (% F.S.)	±.5	±.3	±.006	±.006	±.06

2240A NOW AVAILABLE IN ROLL AROUND MINI RACK.

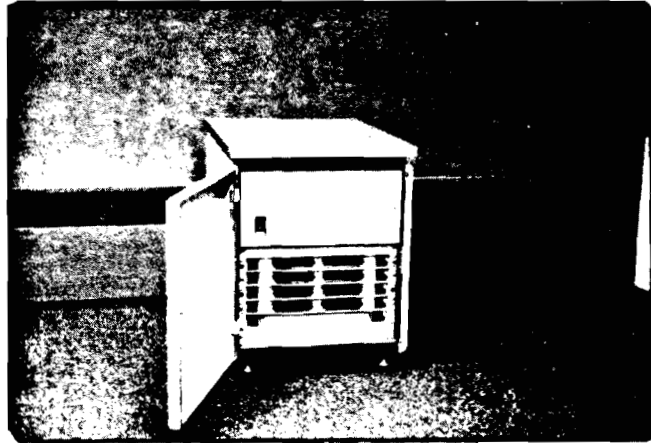
Shown Below is the new 2240A option 301. Option 301 can only be ordered with a 2240A and it does the following:

1. Racks 2240 in roll around mini rack with door.
2. Provides space for mounting of 4 screw termination and/or signal conditioning assemblies.
3. Provides 120 VAC power distribution and a 3 receptacle power strip for auxiliary power supplies required by the signal conditioning cards.

- 4 -

Price of option 301 is \$1,600. Prerequisite is a 2240A.

As you can see, it'll be an attractive package for lab or light manufacturing application. And with the recent remote HP-IB announcements it'll be a convenient package for small point count remote 2240A applications.



Product News

I/O Extender Opportunity of a Lifetime

By: Mark Fogerty/DSD

The last six (6) 12979A I/O extenders are now available from HP and on sale at DSD. Since these will soon become rare, I'm sure we will see hoarding of these by shrewd investors

who will buy them for a mere \$1000!!! (the asking price) and sell them into the demanding marketplace for incalculable profit.

Seriously, we would rather sell than scrap these I/O extenders. So please brush the cobwebs off of your A type computer customers and sell them all the 12979A's they will ever need before this product becomes nearly impossible to obtain. For ordering information call *Judy Coleman* at DSD x3367.

RTE-IVB Update/Upgrade Summary

By: John Koskinen/DSD

The following table summarizes the various means for RTE-IV customers to upgrade to RTE-IVB.

CUSTOMER HAS	ORDERS	GETS
2176A/B or 2177A/B 92067A + SUPPORT SERVICES 92067S OR 92067T	92068A OPT 002 PLUS MEDIA NET \$0 - 800 (DELETES EMA FIRMWARE)	RTE-IVB/ SESSION MONITOR RIGHT TO USE
2176A/B OR 2177A/B 92067A + NO SERVICES	92068A OPT 001 PLUS MEDIA NET \$3000 - 3800	RTE-IVB/ SESSION MONITOR RIGHT TO USE
92067A n * 92067B SUPPORT SERVICES 92067S OR 92067T	92068A OPT 002 PLUS MEDIA NET \$0 - 800 n * 92068R OPT 002 NET \$0 EACH (DELETES EMA FIRMWARE)	RTE-IVB/ SESSION MONITOR RIGHT TO USE RIGHT TO COPY n
92067A n * 92067R + NO SERVICES	92068A OPT 001 PLUS MEDIA NET \$3000 - 3800 n * 92068R OPT 001	RTE-IVB/ SESSION MONITOR RIGHT TO USE RIGHT TO COPY NET \$1200 EACH * n

Note that the customer's support services are *NOT* automatically converted. Consequently, the customer must also order support services for RTE-IVB (92068S or T) AND must instruct HP to cancel the existing services (92067S or T).

DATA TERMINALS NEWS

Division News

Sales Development Improves

By: Dave Goodreau/DTD

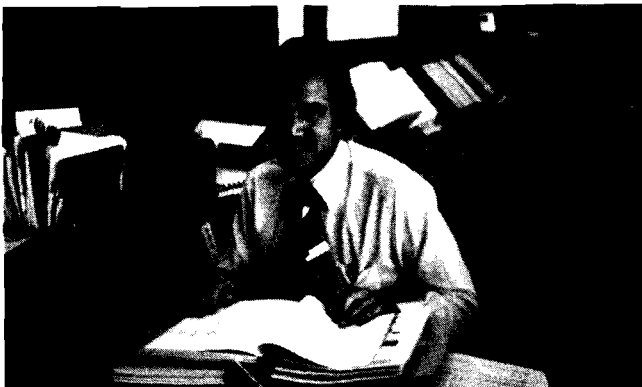


DTD is proud to have aboard a new secretary, *Brenda Greeley*. *Brenda* comes to us from the Industry Education Council of California where she worked on a project concerning the gap between education and industry. Because of this, she was able to see first hand how many engineering companies operate, and chose HP on this basis.

Brenda will be supporting the Eastern and Southern Sales Regions. Let's all welcome her on board.

Sales Development Grows

By: Rich Ferguson/DTD



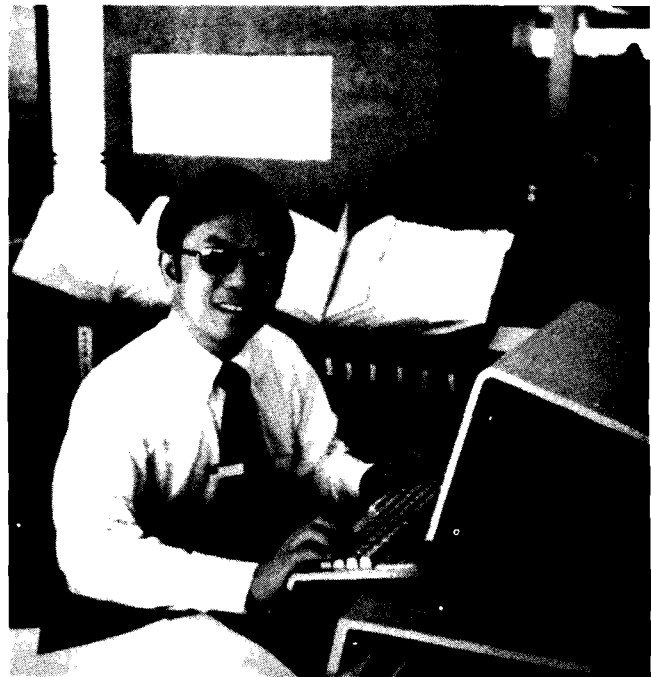
Let's all welcome *Peter Taylor* to DTD Sales Development. He joins us from a well-known government agency where he

did substantial work with microprocessor-based data acquisition systems.

Peter will be responsible for the Canadian Sales Region starting August 1. So, if you need the finest support in CSG, call *Peter* and say "Hi!" He's there to help.

Sales Development Recruits Another Winner!

By: Dave Goodreau/DTD



DTD is pleased to welcome *Norman Choy* into the Sales Development Department. *Norm* returns to the Computer Systems Division structure after a four year sojourn in ICON, where he handled both sales and market development activities.

He will be bringing thirteen years of Computer Systems experience (7 years at HP) into the group. His first assignment will be to support the western portion of the Southern Sales Region (Richardson, Houston, San Antonio, Tulsa, Kenner, etc.)

Put *Norm* to the test, give him a phone call!

Product News

NO PERIPHERAL SHARING ON 2648A!

By: Bob Lin/DTD



As mentioned in a previous article, "No Peripheral Sharing on 2648A Terminal" (CS Newsletter, Vol. 4, No. 5, Jan 8/79), it is not possible to connect multiple 2648A's in such a way as to share a single printer or printer/plotter.

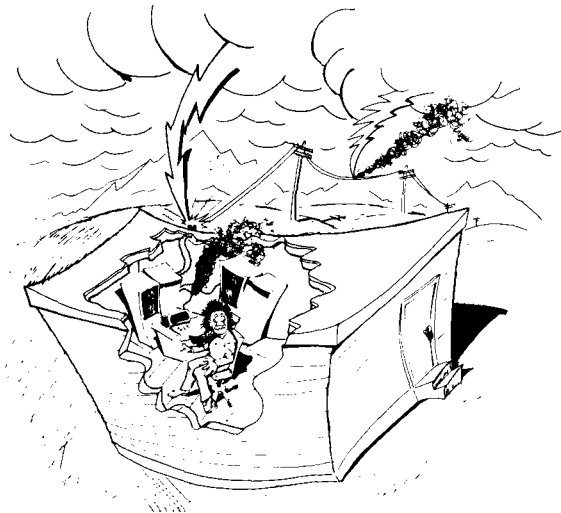
This is to remind you of this situation and briefly describe why it is so. The HP-IB driver in the 2648A is written in such a way that it does not give away its control to any other 2648A. Should you connect two or more 2648A's through HP-IB to share a single printer or plotter, all of the 2648A's will assume that they are the controller after power is turned on.

At this time all 2648A terminals will pull ATN signal lines active; they will force each other to stay in command mode and thus no further action (on their part) can be taken. The whole system will come to a standstill and will not work.

The above situation is due to the limitation on code space in the 2648A. And it was decided that the main code ROMs of the 2648A could not be changed to accommodate peripheral sharing. Note however, that shared peripherals is possible with a 2647A system.

Lightning Protection Anyone?

By: Terry Eastham/DTD



If your customer has a hardwired (non-modem) terminal application and is located in a storm-prone area, remember that the new "Y" and "Z" cables provide protection against lightning-induced transients. Better yet, these simplified cables cost less than the standard ones!

For 264X type terminals, consider the 13232Y:

13232Y — male RS-232 connector; 264X hood; 15 feet; \$70.00 U.S.

For 262X type terminals consider the 13222Y:

13222Y — male RS-232 connector; 50-pin connector; 5 meters; \$50.00 U.S.

"Z" versions of both of these cables are also available when female RS-232 connectors are required.

We do not expect these cables to protect the terminal (or you!) from direct lightning strikes. But you should see more up time and lower repair costs. By the way, our Lab has been unusually (perhaps understandably) reluctant to do intensive field testing of these cables!

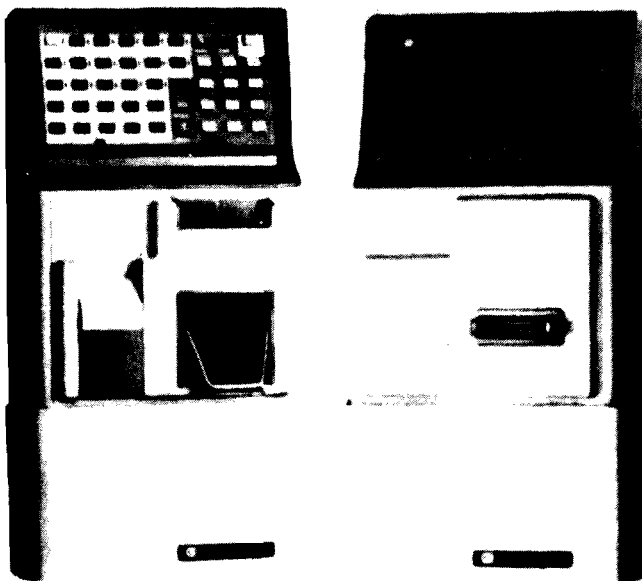
Using the Programmable Softkeys

By: Craig Clark/DTD

When using the programmable softkeys to send Esc sequences, be aware of the fact that all spaces left after an Esc sequence will also be sent when you execute the softkey. For example: The cursor addressing Esc sequence Esc & a 10c 10R will move the cursor to the 10th row & the 10th column. However, the sequence Esc & a 10c 10R (where is a blank space occurring when you use the space bar on the terminal) will move the cursor to the 10th row and the 13th column. In other words, the terminal will execute the Esc sequence and then move 3 spaces to the right. If you do not want this to occur then either be careful not to leave any spaces after your softkey sequences or if in doubt then move the cursor to the end of your softkey sequence and hit CNTL-CLEAR DISPLAY which will remove any spaces that may be there.

Great Escapes!

By: Guenter Kloepper/HPG



HP 3076A

HP 3077A



HP 3075A

Most of you probably remember from the NPT Tour in January/February, that the 3075/6/7A are escape-sequence programmable. Do you know that there is logic behind what appears on the surface to be a rather random, often artistic sequence of hieroglyphics?

As far as the Data Capture Terminals go, in fact, the sequence structures are so logical and simple that the true escape sequence freak will probably be bored. However, they have the advantage that simple mortals like you and I can understand and remember them.

[ξ]	(of course)
[-]	Addresses 3075 series terminals
[lower case letter]	Mnemonic of function or module selected
[1 or 0]	"ON" or "OFF"
[letter]	Specifics of function

Let's look at some examples:

- 1) Turn on the first prompting light (which happens to be located next to the "A" key on the alpha keyboard):

ξ -d1A

- └─ "A" light
- └─ 1 for "turn on"
- └─ d for "display"

- 2) Lock (deconfigure) the keyboard (hitting a key will sound a "beep" and nothing else happens):

ξ -c0K

- └─ K for "Keyboard"
- └─ O for "off"ESC
- └─ c for configuration sequence

- 3) Enable the printer and keyboard, and disable the multifunction reader:

ξ -c1p1k0R

- └─ reader
- └─ off
- └─ keyboard
- └─ on
- └─ printer
- └─ on
- └─ configuration sequence

- 4) Program the multifunction reader to read marked cards with clock marks after data:

ξ -r1A

- └─ clock after data
- └─ 1 for marks (default of "0" mode is for holes)
- └─ reader control sequence

One way to try out or demo the various sequences is to put the 3075/6/7 in self-test mode, and code the sequences on punched cards. The multifunction reader (MFR) will then not only read these control cards, but also the terminal will execute the sequences.

The more flexible approach is to use a single punched card which programs the MFR to read marked cards, and then just use a pencil to code up a series of marked cards with all further escape sequences. To simplify this procedure, we are having some marked cards prepared which will have all of the Hollerith codes pre-printed so you don't have to cross-reference a coding table.

Of course, if you have a 2640-type terminal with ASYNC DC I/F (02640-60086) or GP ASYNC I/F (02640-60143) standing around, you can make life a lot simpler by hooking the CRT terminal to your Data Capture Terminal and trying out all the control codes on the CRT. In fact, if the CRT happens to be a 2647A, you can make some really neat demos in BASIC. More on that in the next issue.

Sales Aids

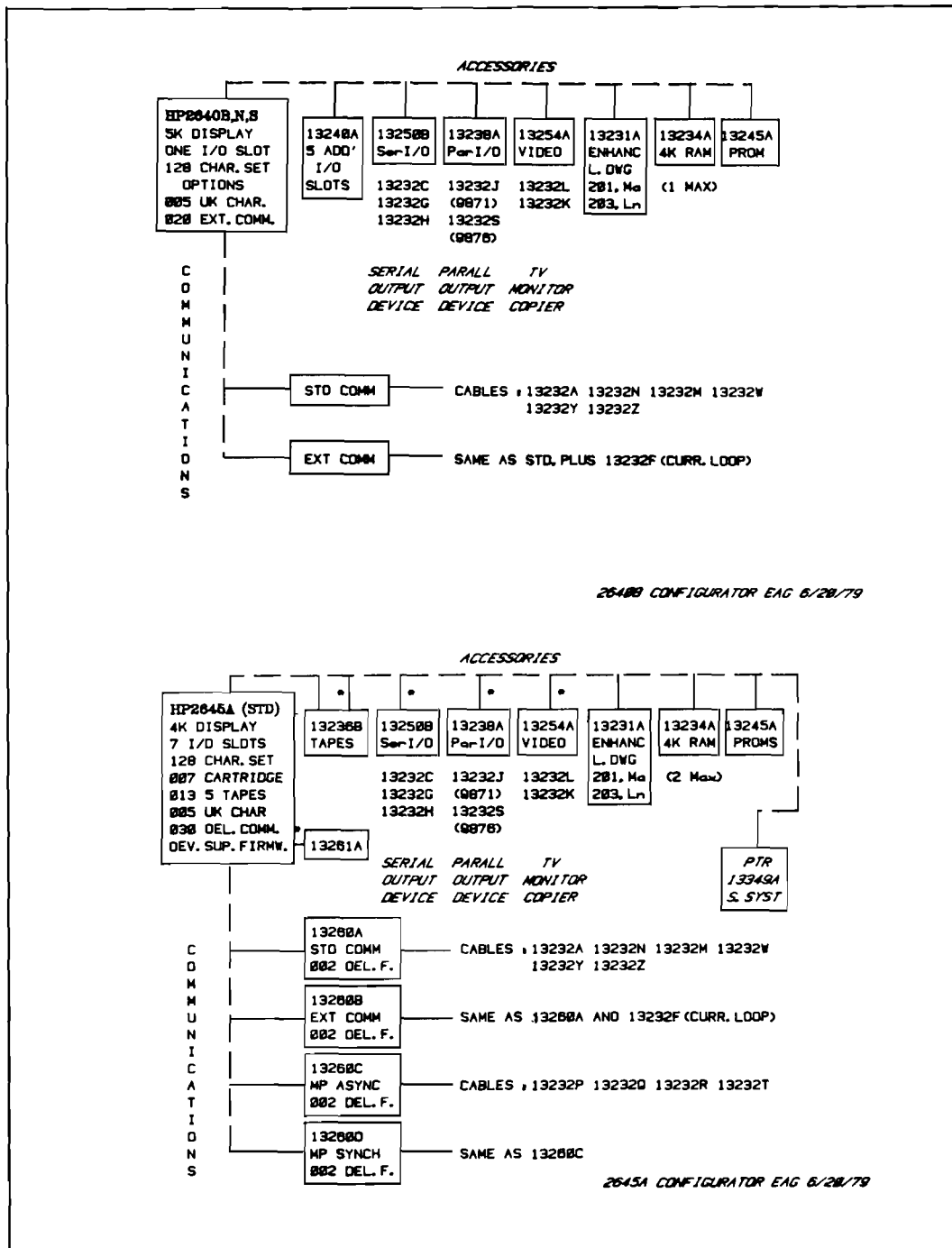
More on 264X Configuration

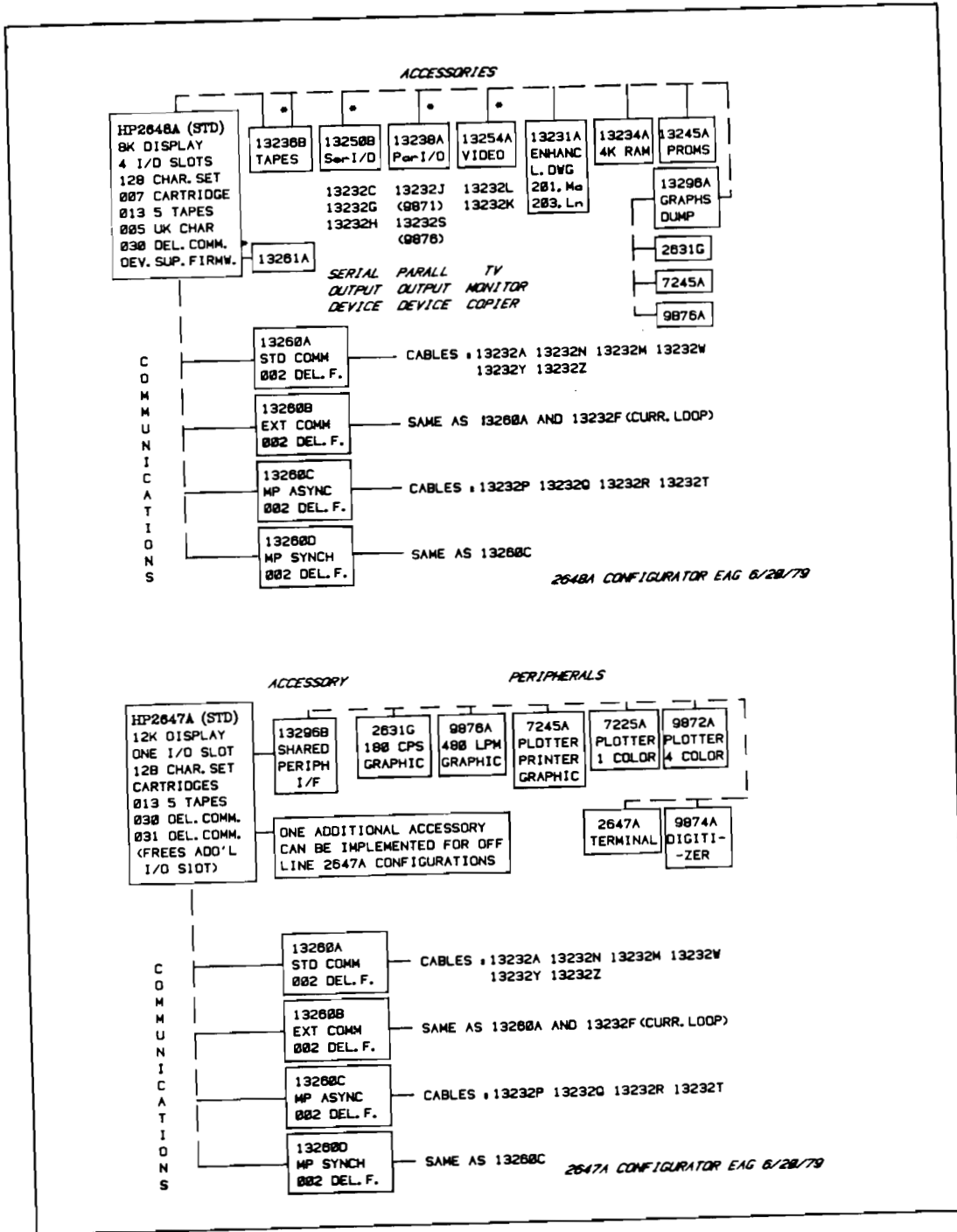
By: Eric Grandjean/DTD

The last edition of the CS Newsletter contained an article with a few typos (self made, mind you) on the slide sample showing a 2645A configuration.

To make-up for these terrible mistakes, here are not one, but four configurators for our most popular terminals. If you would like to have a copy, send a blank cartridge to your Sales Development Engineer at DTD or Grenoble, (or make your own as a Hands-On exercise).

GOOD SELLING!





To Our European Friends

By: Eric Grandjean/DTD

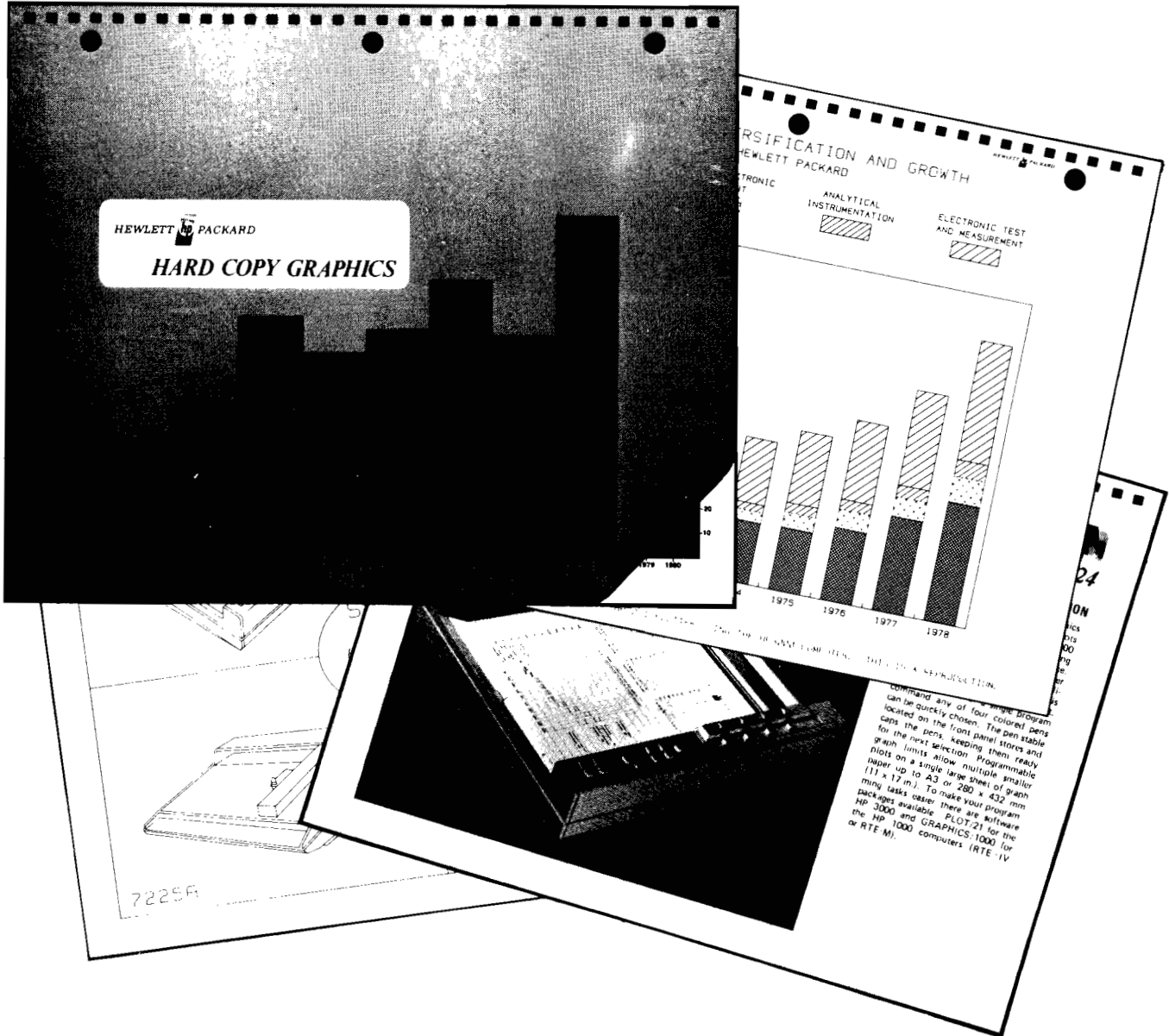


As you all know, HPSA's DTD Sales and Service primary support is DTD-Grenoble. Francis Marc and his group are completely dedicated to you.

Occasionally DTD USA comes up with *special offerings* such as briefs, applications, demo tapes, software revisions, etc. Please make a point to get your copies from Grenoble rather than from the USA. You will save in mailing costs and you will also be served faster. Try it, you'll like it. Thank you all for a super sales year.

And Now From San Diego Division

By: Eric Grandjean/DTD



A brand new publication which will surely help you "02" tigers. It's called "Hard Copy Graphics Sampler."

As the name implies, it contains samples of graphic hard copies. It would be a great thing to carry around in case your demo 2647-9872 system is not available when you make your call. Part number is 5953-4006D.

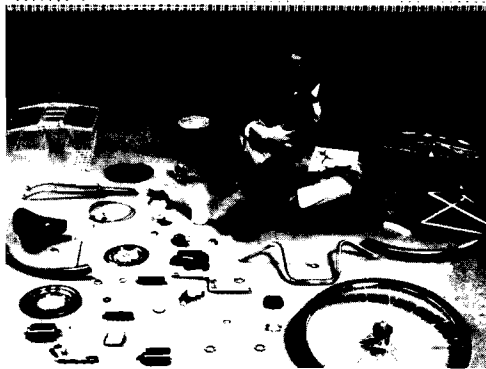
Thanks for selling terminals!

GENERAL SYSTEMS NEWS

Product News

The HP 250 and Manufacturing

By: Bill Sandras/GSD



Do **Small Manufacturers** Really Need Computerized Tools?

Money. Inventories seem to consume it with relish. Production inefficiencies squander it on nothing. Missed schedules watch unperturbed as dissatisfied customers take it elsewhere. These problems are certainly not uncommon to the smaller manufacturer.

The small manufacturer has all of the problems of the larger companies — but typically lacks the resources and clout necessary to handle the problems well. Only until recently has the price/performance of computers improved enough to make it feasible for the smaller manufacturer to consider automating the functions of materials control and product definition — the foundation areas for improved control and system growth.

Do **OEMs** Really Need Small-Business Manufacturing Packages From HP? Again it all boils down to money. Complex system's development consumes it with relish. Production inefficiencies result from system changes and inexperienced personnel. Missed schedules result in dissatisfied customer and poor cash flow. These problems are certainly not uncommon to OEMs developing manufacturing systems.

In fact, our contacts with numerous OEMs during the last 12 months have consistently indicated that most do not have the knowledge, staff or cash required to undertake such a development effort. All said they would buy a core package

from HP in the manufacturing area rather than develop one themselves.

So **What Do We Have For You To Sell** To OEMs that OEMs Can Sell To Small Manufacturers?

MFG/250!

MFG/250 runs on the HP 250, either a model with 32 Kbytes of user memory and two flexible disc drives, or one flex drive and one 7906.

For \$9,350 your OEM receives:

- Source Code
- Documentation
 - Implementation Guide
 - Operating Guide
 - Technical Documentation
- Unlimited right to copy and sell to end users
- 3.5 days of training
- 3.0 days of SE consulting.

Software and manual updates, with rights to duplicate, are also available for \$60/month.

To help both you and your OEM sell MFG/250 a number of sales aids are currently available.

P.N.	Aids	Order Info.
45180-90080	Reports Brochure (order multiples of 10)	CPC \$ 3.25 ea.
45180-30420	Demo (two floppies with restore)	FCD \$25.00
45180-30600	35mm Slide Presentation	FCD \$90.00
90737Z	Video Tape by <i>George Plossl</i> MFG control in small plant (HP internal sale only)	HPTV \$30.00
—	Video Tape MFG/250 Technical Overview	HPTV \$30.00

In August, a sales/training kit will be available that includes demos, slides, documentation, brochures and training materials: P.N. 45180-30100, \$225. Ladies and gentlemen, MFG/250 is ready to roll!

“START SELLING!”

HP 300 Power and Character Set Options

By: Curt Gowan/GSD

Here is a brief review of the HP300's power and character set options:

The standard HP 300 system includes:

- 120V, 60 Hz power;
- U.S. (NEMA 5-15) power cord;
- U.S. keyboard and character set

To change any (or all) of these parameters order options:

- Options 015 through 019 change the power configuration.
 - 015 220V, 50 Hz
 - 016 100V, 50 Hz
 - 017 240V, 50 Hz
 - 018 100V, 60 Hz
 - 019 220V, 60 Hz
- Options 900 through 906 substitute a different power cord:
 - 900 U.K. Power Cord (BS 1363)
 - 901 Australia/New Zealand Power Cord (AS C112)
 - 902 Europe (except U.K.) Power Cord (CEE 7-VII)
 - 906 Swiss Power Cord (SEV 1011)
- For languages, Product 31227A or Options 401 through 410 substitute different keycaps and character sets. Note: order only *one* of the following with the system.
 - 31227A Roman (European) Extension Character Set (for multi-lingual program development on a standard U.S. system).
 - 401 French Keycaps and Character Set
 - 402 German/Dutch Keycaps and Character Set
 - 404 British Keycaps and Character Set
 - 406 Swedish/Finnish Keycaps and Character Set
 - 407 Spanish Keycaps and Character Set
 - 410 Danish/Norwegian Keycaps and Character Set
- Several products are available to provide multiple character sets on one system. Up to three of these character sets may be ordered. You can order a maximum of two of these products if you order a language:
 - 31224A Add Mathematical Symbol Set to Integrated Display System
 - 31225A Add Line Drawing Set to Integrated Display System
 - 31226A Add Large Character Set to Integrated Display System

HP 300 — THE INTERNATIONAL SYSTEM

A New Capability for IMAGE/3000

By: Jutta Kernke/GSD

Watch for the 1918 Installation Tape! The long-talked-about MPE user logging and IMAGE/3000 logging/recovery software will be released this month.

The new IMAGE/3000 capability offers a logging and recovery system which is based on MPE-III user logging and is designed to restore databases to a consistent state, both logically and structurally.

The IMAGE/3000 logging facility provides the means to log database transactions to a logfile on tape or disc.

The logfile is a record of all modifications to items, including information about previous entries as well as the current state of the database. User text can be logged with a call statement in order to facilitate future access and interpretation of the logfiles; it may also be a very useful tool for auditing. The recovery system reads the logfile to re-execute transactions against a database back-up copy in the event of a failure.

The database administrator is responsible for enabling or disabling the logging and recovery processes, making logging a global functions controlled at the database level rather than at the individual user level.

New Tools for HP VIEW/3000

By: Jutta Kernke/GSD

To further simplify using HP VIEW/3000, two pocket guides were developed and are now available documentation. A particularly useful tool, and also very attractive in appearance, is the ENTRY Operator's Guide. It can be effectively used along with the data sheet as a handout in pre-sales situations.

If you don't already have a supply on hand, here is why you would want to order the pocket guides and how:

If you, or anyone working for you, uses the ENTRY program for on-line data entry then you will want copies of the ENTRY Operator's Quick Reference Guide (part number 32209-90003). This small (5-1/2 by 6-inch) spiral-bound guide summarizes in 14 pages all the rules for running ENTRY, collecting data to a HP VIEW/3000 batch file, browsing the collected data records, and making changes to this data. Every data entry operator should have a copy to take to the terminal for quick review of the ENTRY procedures. The price of this guide is \$2.50.

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

Changing Job Priorities at Run Time On the HP 300

By: Dave McClellan/GSD

The priority assigned to the main program task in an HP 300 program determines the priority at which that program will run. You can give the person operating the console the capability of running your programs at different priorities by including a short routine in each program. Before we examine that routine, let's have a short review of HP 300 priority scheduling.

The HP 300 task priority scheme allows the priority for a task to be specified from 1 to 255; the highest priority is 1, the lowest 255. Priorities 1 through 50 are reserved for system use, therefore, the highest priority available for a user task is 51, the lowest 255.

High priority jobs tend to preempt lower priority jobs for system resources. Generally, higher priorities (51-150) should be assigned to interactive jobs, such as those which

service terminals, and lower priorities (152-255) to compute-bound programs. The default priority (151) can then be used for program development and utilities without preempting more important jobs.

The above scheme can cause increased segment swapping and a decrease in system throughput but the response times for higher priority jobs will be significantly improved. Note, however, that it is possible for low priority jobs to receive little or no execution time if enough high priority jobs are executing concurrently.

When the following BASIC routine is included in an HP 300 program, the priority of that program can be changed from

the console by adding the USING keyword (followed by the priority that you want) to the RUN command. For example, if the command

RUN PAYINIT USING 150

were entered, the program PAYINIT would run at a higher priority than the system default priority (151). Note that any additional tasks created within the program can be created at whatever priority you choose. We are only discussing the main program task here.

Include the following BASIC routine in each program whose priority you want to be able to alter with the RUN command.

```

1000 $MAP, LABELS
1010 |
1020 | *****
1030 | * Example of operator-controlled program priority control. *
1040 | *
1050 | * RUN MYPROC                               ==> Default priority *
1060 | * RUN MYPROC USING (nnn)                 ==> Priority (nn) *
1070 | *                                         (50 < nn <=255) *
1080 | *****
1090 |
1100 |
1110 INTEGER Priority, Error
1120 DIM Parm'string$(6)
1130 |
1140 ICALL BGETPARMS( Parm'string$, ALEN(Parm'string$) )
1150 IF LEN(Parm'string$) = 0 THEN GOTO Default'priority
1160 |
1170 Priority = VAL( Parm'string$, Error )
1180 IF Error = 0 AND Priority > 50 AND Priority <= 255 THEN GOTO Alt
1190 |
1200 PRINT "** ERROR: Illegal priority requested **"
1210 STOP
1220 |
1230 Alt: ICALL TALTER( 0, PRIORITY:Priority)
1240 |
1250 |
1260 Default'priority:
1270 |
1280 |
1290 | Remainder of program . . .
1300 |
1310 END
    
```

The above routine performs the following functions:

1. Receives any run-time parameters entered with the RUN command (lines 1140 to 1170).
2. Checks for correct syntax and range of the priority entered (line 1180).
3. Alters the priority of the main program task (line 1230).

HP 300 Regulatory Approvals

By: Ron Morgan/Curt Gowan/GSD

Here is a brief summary of the HP 300's current regulatory approvals:

UL listed

- UL 114, Office Machines
- UL 478, Data Processing Equipment

CSA Certified

- CSA C22.2 No. 154, Data Processing Equipment

Designed for compliance to International recommendations:

- IEC 380, Office Machines
- IEC 435, Data Processing Equipment

FTZ RFI License (West Germany)

Work is continuing to achieve additional approvals; check with *Peter Rosenblatt/CSB*, or *Ron Morgan/GSD*, for current status if other regulatory approvals come up in a sales situation.

HP 300 — THE INTERNATIONAL OFFICE AUTOMATION SYSTEM

Comparing the Software Support Services

By: Curt Gowan/GSD



Here is a table that we HP 300 people have found to be helpful in understanding the new 250/300/1000/3000 software support services.

Item	HP 300 Software Support Services				Doc. Dist. Services	
	CSS (T)	Added PICS (T Opt 100)	Added System (T Opt 200)	Software Subscript. Service (S)	Manual Update Service (Q)	SW Notif. Service
Delivery of Software Updates	•			•		
Delivery of Firmware Updates	•		•	•		
Right to use Software and Firmware Updates			•			
Right to copy Software Updates			•			
Account-Responsible Systems Engineer	•		*			
Phone-In Consulting	•	•	*			
On-Site Software Service	•		*			
Reference Manual Updates	•			•	•	
Software Status Bulletins	•			•		•
Communicator	•			•		•

*Service Delivered through central site as part of central site CSS.

CSB News

HPGSUG is Meeting. What is it?

By: Mike Barlow/CSB

It's the *Hewlett-Packard General Systems Users' Group!* Their 8th International Meeting takes place in Lyon, France from the 3rd to the 7th of September, 1979.

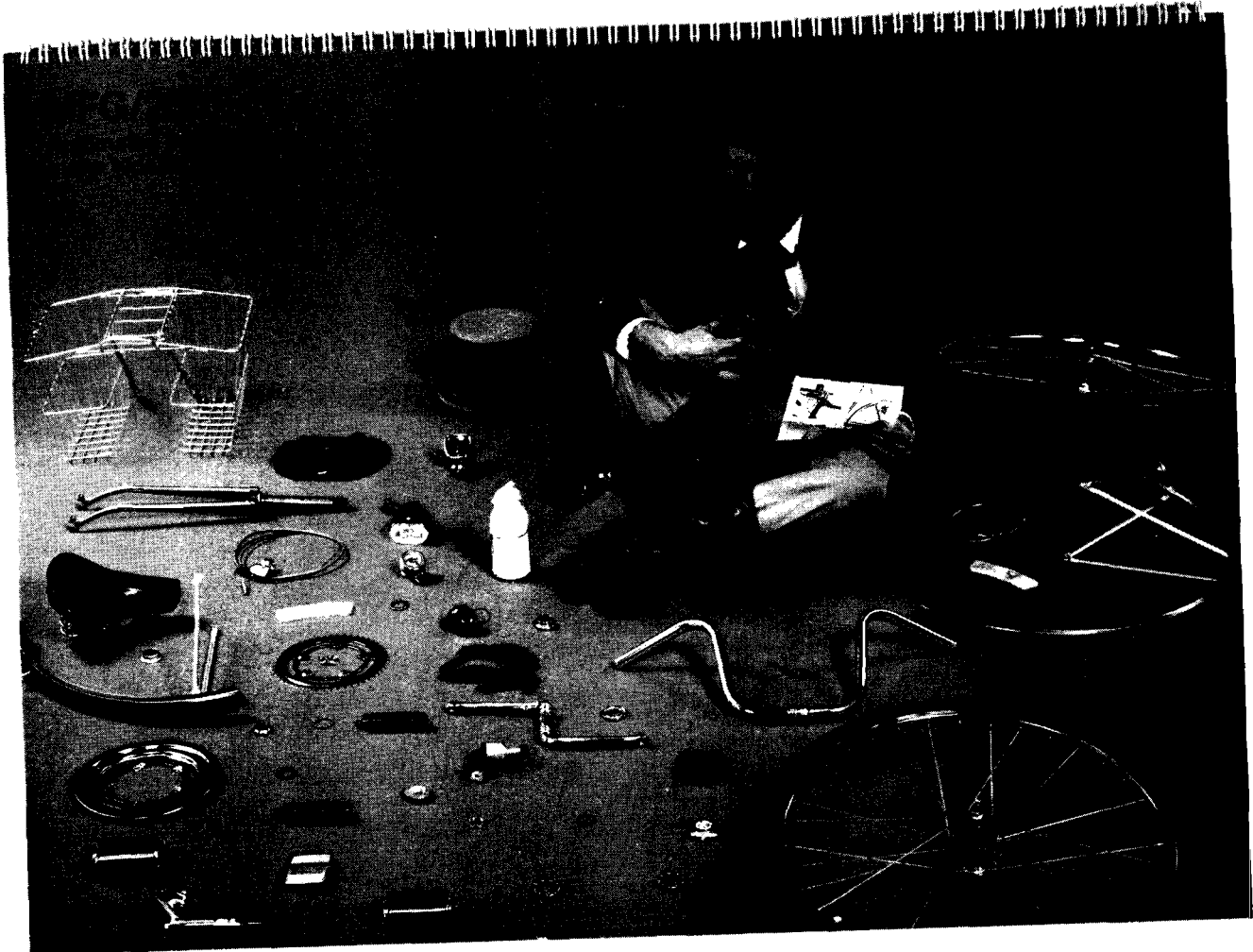
The Group has been recently expanded to include the HP 250 and HP 300 users in addition to HP 3000 Users. The detailed agenda is now being planned to include sessions of interest to all these groups. To be successful, it needs you to ensure your users go to the meeting. A brochure describing the meeting will have been sent Mid-June to all HP 3000 Users who are members of HPGSUG. We have also sent single copies to all Computer Systems DM's in U.S., Canada

and ICON (Europe was taken care of in a separate European Mailing). Hopefully other interested users will be made aware of this meeting; attendance is not restricted.

Registrations need to be made as soon as possible: a special reduced rate expires on July 15th, but registrations are accepted later. (In North America, i.e., U.S., Canada and Mexico), registrants may get the reduced rate until August 1, when registering through the Users' Group International Headquarters in Maryland, U.S.A.).

Apart from all HP 3000 OEM's and Users, we feel the meeting will appeal to HP 250 and HP 300 OEM's. HP personnel are welcome, but must also register. If you have any concerns/questions contact *Mike Barlow* at CSB (Boeblingen) or the North America contact *Don Crosby* at GSD (Cupertino).

GET YOUR CUSTOMERS ENROLLED NOW!



HP GRENOBLE NEWS

New Applications

High Throughput on RTE Using 7260's

By: Maurice Richez/HPG

In response to a request from the field for performance data, four 7260A OMR's were connected to an RTE-II system via 12866A interfaces. The applications program was controlling the OMR's to read 80-column cards, checking card data, outputting the cards to optional select hoppers when necessary and dumping data onto an 800 bpi -37.5 in/s mag tape drive.

The results below are expressed in number of cards per minute, versus the number of OMR's used and the data transmission speed.

Number of OMR's \ Baud Rate	Number of OMR's			
	1	2	3	4
600	38 cpm	76	111	137
1200	72	140	209	265
2400	128	250	373	478

At 2400 baud, for 40-column cards, the rate is only 50% more than 80-column cards, showing the relative impact of a series of command characters sent to the OMR for each reading and its subsequent response time (50mS).

In Image mode, i.e. reading 150 characters per card the rate was exactly 50% less than that for 80 columns, showing that system overhead has less influence in this case.

Running at 2400 baud, four OMR's processing 418 cards per minute, will run through 28, 680 cards an hour.

If you want to use 7260's on an HP 1000, don't forget to get a quote for a special driver.

3075 on COMSYS

By: Peter Stuart/HPG

Thanks to some excellent work by Rich Nielsen of HP Corporate, COMSYS is now able to support the 3075, 3076, 3077 terminals (Date Code 1919 or above).

Version 6B of COMSYS provides support including the capability of using DEAL to easily prepare programs.

If you would like to use COMSYS for setting up demos in your sales office, contact your local COMSYS operator.

As you can see, more and more systems are supporting the unique, friendly capabilities of our Data Capture Terminals.

Today we have the HP 1000, HP 3000 and COMSYS. Tomorrow?

Sales Aids

Terminal Demo Support

By: Peter Stuart/HPG

To make your life a little easier when taking our wall mounting terminals on customer visits we have developed a simple support which permits you to easily carry a 3075 or 3076 and set it up on a desk or bench.

If you would like one for FREE just complete the coupon below, cut it out and send it to your sales development DTD or GRENOBLE contact.

We plan a single production run so don't delay sending in your coupon. Closing date for the offer is 15 days after appearance of this article.

Your name
Sales Office
Instrument Type
(3075 or 3076)
Instrument Serial Number

Data Capture Terminal Configuration Worksheets

By: Serge Daoust/DTD

Want to make sure that the configuration you order is valid and that you don't forget to order any options? Want to make sure you order all the appropriate products to have the Data Capture Terminals work on the Data Link? No problem!!! Just complete the following configuration worksheets and order the appropriate specified products. It's that simple!

DATA LINK CONFIGURATION WORKSHEET

- | | | | |
|---|-------|---|------------|
| A) Number of data links, see note 1. | _____ | | |
| B) Number of 264X with 13260C Asynchronous Multipoint. | _____ | | |
| C) Add (A) to (B). | _____ | | |
| D) Number of spares 3074A. | _____ | | |
| E) Add (C) to (D). | _____ | X | 3074A |
| F) Number of 3075A/3076A/3077A. | _____ | | |
| G) Number of 3076A/3077A wired directly into the cradle, i.e. not using the data link connection boxes. | _____ | | |
| H) Subtract (G) from (F). | _____ | | |
| I) Add (C) to (H). | _____ | X | 92905A |
| J) Compute (I)/5 + 1. Round up to nearest integer. See note 2. | _____ | X | 92901A |
| K) Total number of meters of data link cable / 100. Round up to nearest integer. | _____ | | |
| L) Compute (K)/3. Round down to nearest integer. | _____ | X | 92902A/002 |
| M) Compute (K) - 3 * (L). | _____ | X | 92902A/001 |

Note 1 : Check the appropriate system configuration guide for the maximum number of data links supported on that system.

Note 2 : Five extra connection boxes have been included as a) spares and b) to connect lengths of data link cable together.

Additional connection boxes must be ordered when connection boxes are to be installed with no terminals connected to them. This provides flexibility in relocating the terminals whenever necessary.

DATA CAPTURE TERMINALS CONFIGURATION WORKSHEET

of 3075A with checked options _____
 # of 3075A with checked options _____
 # of 3075A with checked options _____
 # of 3075A with checked options _____
 # of 3075A with checked options _____
 # of 3075A with checked options _____

	001 - Replace MFR with Type V Reader	004 - A/N Keyboard	005 - A/N Display	007 - Multifunction Reader	008 - Type V Reader	009 - Printer	020 - Delete Cradle
X						X	X
X						X	X
X					X		X
X					X		X
X			X				X
X			X				X

(A) Total number of 3075A _____

of 3076A with checked options _____
 # of 3076A with checked options _____
 # of 3076A with checked options _____
 # of 3076A with checked options _____
 # of 3076A with checked options _____
 # of 3076A with checked options _____

X						X	
X						X	
X					X		
X					X		
X			X				
X			X				

(B) Total number of 3076A _____

(C) Total number of 3076A & opt.020 _____

of 3077A with checked options _____
 # of 3077A with checked options _____

	X		X	X	X		
	X		X	X	X		

(D) Total number of 3077A _____

(E) Total number of 3077A & opt.020 _____

Total number of terminals (A+B+D) _____

(F) Total number of option 020 (C+E) _____

(G) Total number of spare craddles _____

Add (F) to (G) _____ X 92904A

Number of installation sites _____ X option 030 of 3075A, 3076A, 3077A

"Capture Those Sales"

To obtain additional worksheets, please call the DTD Sales Development person responsible for your area.

3075, 3076, 3077 Change Colour

By: Peter Stuart/HPG

Even before introduction of our Data Capture Terminals we have been concerned that the paint finish we defined for the products was too easily soiled and difficult to subsequently clean.

Now after carefully studying the problem and making various trials with different paints, to get the same texture and colour shade on both the metal and plastic parts, we have an excellent solution.

Starting mid-July selected customers will receive terminals with the new paint finish and by the end of August all shipments will be made using the new finish.

At the same time we have decided to change the colour of all prompting lights to red. This decision is based on numerous requests we have had from users who find that the green LED's are not sufficiently visible in high ambient light conditions.

Since the current data sheet describes the LEDs with green prompting lights all new quotations for units should alert customers to this change. The next reprint of the data sheet will be changed appropriately.

If any of you consider these changes will create a particular problem for your customer, please contact sales development who will work with you to find a satisfactory solution.

Division News

Executive Manufacturing Seminars

By: Georges Retornaz/HPG

In the last two months, two seminars have been held in the Grenoble factory for top executives from Italian Industry.

The theme of these seminars was:
"Distributed Processing In A Manufacturing Environment."

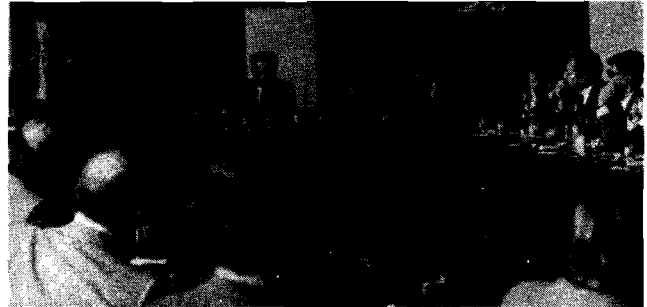
The well-known problem of qualifying the attendees was managed by HP Italy's A & SP department with the help of a local consultant.

We took the opportunity to invite a professor from the University of Grenoble who presented a session entitled:
"Distributed Data Processing Systems and Production Control Systems."

He explained the advantages of distributed systems compared with past solutions, and also the significant factors for management, costs and organizational aspects. This theme was further developed by *Cyril Yansouni*, our Grenoble Division Manager, who discussed specific applications in which HP uses our distributed processing capabilities in our own manufacturing environment. A detailed factory tour was organised with appropriate stops, where attendees could discuss with the different people responsible for using the systems.

During the first session, we received 17 attendees and for the second, 39 (representing 30 different companies).

Feedback from the participants was very quick; one week after the first session one of the attendees who had never before heard about HP came back to the HP Milano office to discuss his specific problem and was ready to buy!!!



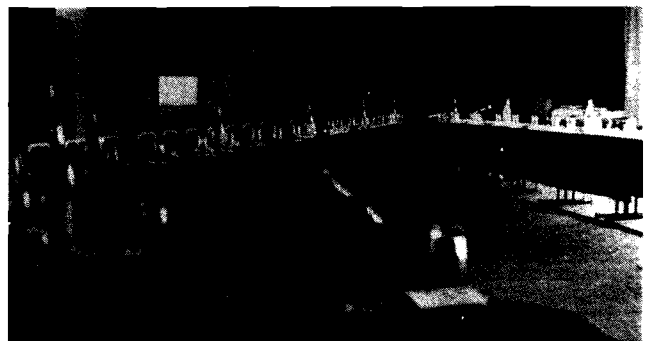
Franco Mariotti – European General Manager during his introduction and welcome pitch.

Right of him the three different speakers:

- *Mr. Leverone* – Italian HP customer, who told the attendees real facts of his own experience, installing and using an HP distributed system network.
- *Mr. Delobel* – University professor
- *Cyril Yansouni* – General Manager — Grenoble Division



Cyril Yansouni during his presentation of HP Grenoble as a typical HP division.



Logistic detail: to make these sessions even more professional, we used a simultaneous translation system (left rear of the picture): English to Italian, French to Italian, Italian to English, and Italian to Italian!!! . . .).

CS GROUP NEWS

CSG News

New Computer Support Division Charter Includes CEO and SEO Activities

By: Doug Chance/CSG

In an organizational change to consolidate hardware and software support for worldwide customers, the Computer Systems Group has now combined the Customer Engineering Operation (CEO) and the Systems Engineering Organization (SEO) under the same worldwide management.

The former Computer Service Division has now been renamed the Computer Support Division (CSD) and takes over responsibility from CSG for the Systems Engineering Organization established two years ago to market software consulting and training.

General manager for the Computer Support Division is *Bob Puette*, who served in the same role in the predecessor division. The newly-created position of CSD marketing manager will be filled by *Dick Warmington*, who has been Intercontinental Calculator Products regional marketing manager since 1975.

In the area of customer engineering, the Computer Support Division will have worldwide profit and loss responsibility for post-sales service. The division will thus define and price such CEO maintenance products as service engineering and post-sales service contracts. National CEO managers will continue to report directly to *Bob Puette*.

On the systems engineering side, *Jay Denny* will now devote his full-time attention to directing SEO activities worldwide, reporting directly to *Bob Puette*. Under the new organization, *Marc Hoff* has been named SEO Manager-North America to handle sales activities which *Jay Denny* had been managing along with his wider responsibility for SEO. *Bob Lewin* has been named to the new position of SEO Manager-Europe and will move to Geneva this summer. A counterpart position will be created in the Intercontinental Region.

The Computer Support Division will serve as a facility licensee for systems engineering to the Computer Systems

product divisions. Those divisions will thus have responsibility for product definition and pricing for such SEO products as training classes, pre-sale and post-sale, system consulting, and software support on a contractual basis.

No further integration of the SEO and CEO activities is planned at the area or regional level.

GSD Industry/Applications Class Graduates with Distinction

By: Bob Lindsay/CSG



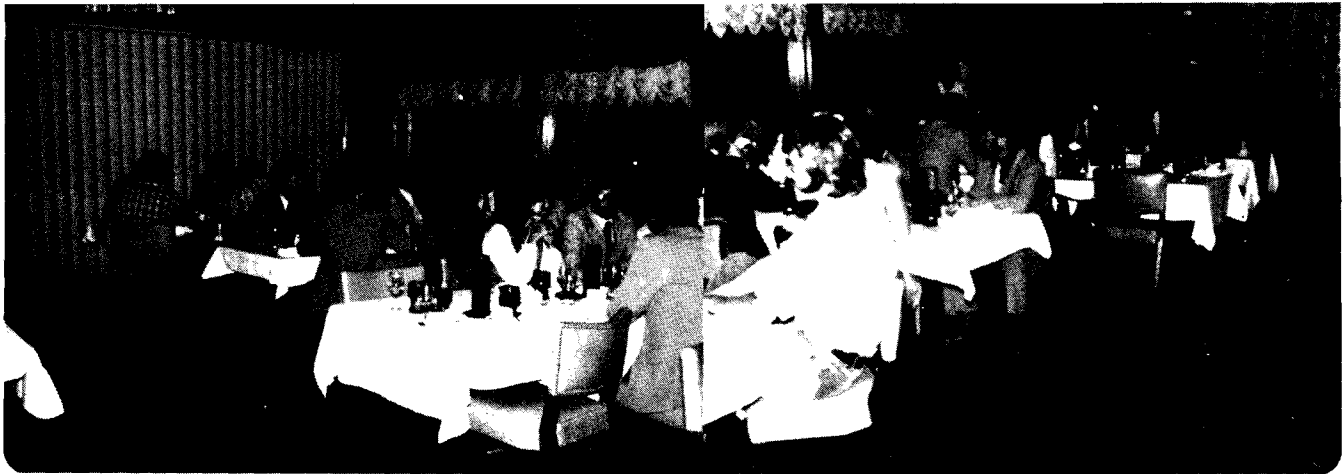
Pictured above is *Dick Anderson*, General Manager — Data Systems Division, addressing Industry/Applications Class 28 at their Graduation Dinner on June 13th. (As usual, Dick gave an excellent after-dinner presentation on the challenges that lie ahead for HP in the manufacturing marketplace.)

Every class of course achieves notoriety in its own special way. For I/A Class 28, special recognition went to three separate teams for their solutions to the *McDonut-Dewglass* case study: first prize went to the team of *Frank Hublou*, *Rich Rollins* and *Phil Levinson*; second prize went to the team of *Jim Mandeville*, *Ken Fairbanks* and *James Leath*; while an honorable mention went to the team of *Steve Olson*, *Claudia Turner* and *Romesh Daftary*.

As you can see from the following pictures, there was an excellent factory turnout to wish I/A Class 28 well and send them on their way.

WATCH OUT COMPETITION, HERE THEY COME!

Industry/Applications Course #28 — June 4-15, 1979



Attendee List

NSR

Rich Rollins/Sacramento
 Larry Jones/Santa Clara
 Claudia Turner/Santa Clara
 Ken Fairbanks/Fullerton

ESR

Romesh Daftary/Manhattan
 Peter Dragunas/Woodbury
 Joe Ciraulo/Woodbury
 Marty Lindenbaum/Woodbury
 Bill McElrath/Rockville
 Mark Kolansky/Paramus
 Tom Papson/Paramus

SSR

Jim Tucker/Richardson
 Bill Moore/Richardson

MSR

Dave Eggum/St. Paul
 Steve Olson/St. Louis
 Phil Levinson/St. Louis
 Bill Henehan/St. Louis
 Jill Mandeville/Rolling Meadows
 Harry Elston/Indianapolis
 Ed Taylor/Cleveland
 Jim Leath/Cleveland
 Tom Hart/Pittsburg

INFORMATION CHANGE NOTIFICATION

Please update my CSG Internal Distribution and Directory listing as follows:

Type of Change: Add Modify Delete

NAME: _____

EMPLOYEE NUMBER (5 digits): _____

OFFICE/DIVISION: _____

REGION/OFFICE NUMBER OR DIVISION

HOME TELEPHONE NUMBER (optional): _____

JOB TITLE: _____

PRODUCT SPECIALTIES (i.e.: 264X, 3000): _____

MANAGER'S NAME: _____

If you have changed jobs, location, or product specialty and have not updated the CSG Literature Distribution database, just fill out this card and mail to:

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 CSG Lit. Distribution
 c/o Carol McKay - 40
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 Cupertino, CA 95014



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

Bob Lindsay/CS Group - Editor

SUE BRAULT/BOISE — Editor
 OLEN MORAIN/CSD — Editor
 RICH BOWLES/DMD — Editor
 SANDY BETTENCOURT/DSD — Editor
 SYLVIA RAUMACHER/DTD — Editor
 REGINA FANELLI/GSD — Editor
 MURIEL JEAN/HPG — Editor

CHUCK ULFERS/BOISE — Technical Editor
 BOB PUETTE/CSD — Technical Editor
 BOB HOKE/DMD — Technical Editor
 JOE SCHOENDORF/DSD — Technical Editor
 CARL FLOCK/DTD — Technical Editor
 JERRY PETERSON/GSD — Technical Editor
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