

For HP Field Personnel

Automated PC Board Layout —
One application of the 1351A Graphics Generator

For Internal Use Only

Computer News

Vol. 6, No. 16 July 1, 1981

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On the Cover

HP 1351 Graphics Systems provide solutions to any high-speed, high resolution graphics applications. The system is HP 9825-based, but can use an HP 9826 (as shown). See pages 19-20 for more details.

HP Computer Museum www.hpmuseum.net

For research and education purposes only.

Computer Marketing

CMG

Customers in the News

By Lee Bonds/CMG

Feature stories appeared on the customers below during second quarter, as part of the CMG application story program with our public relations agency. You can use these stories as an effective sales tool right from the magazine or ask us how to order reprints in larger quantities. Show your customers how to get publicity in these kinds of key industry and trade magazines.

Call Bob Ingols or me (408) 996-9800 ext. 2275 or 2285 with your ideas for stories

Customer/HP Compute	er SR	Magazine	Date
Virco/HP 3000	John Conroy	Computerworld	4/81
Canadian Govt. Supply Admin/3000	David Chamberlain	Modern Purchasing Informatique Quebec	3/81 4/81
Grand Rapids Police/3000	Barry Pehoski	Community Ad-Visor Data Processing Digest	1/81 4/81
Suburban Coastal Corp/3000	Len Lopenzina	Communications News Mortgage Banker	4/81 4/81
Totco/3000	Bill Shafer	Communications News	5/81
Perry Controls Group/ HP 1000	Mike Kreuser	Technical Survey Instrument & Control Systems	2/81 3/81
Nordskog Industries Inc/3000	Stu Yellen	Modern Materials Handling	2/81
ADCD Electronics/ Materials Management	Ed Saverese	Modern Materials Handling	4/81
3000		Manufacturing Engineering	5/81
Media General/3000	Wayne Diehl	Editor & Publisher	3/81
Portland Willamette/ 3000	Don Becker	Nat'l Wood Stove & Fireplace Journal	4/81
Quinnipiac College/ 3000	Larry Mucelli	The Connecticut Business Journal	1/81
		Computerworld	3/81
Physics International/ 3000	Bob Johnson	Design News	12/80
SelecTV/3000	Doug Ford	Data Management	3/81
Fairfield Manufacturing/ HP 9845	Roger Biery	Computer Decisions American Machinist	2/81 5/81
RIDES/HP 300	Margaret Jones	S.F. Sunday Examiner & Chronicle	4/81
Truax Oil/3000	Bob Kearns	Computerworld	4/81
Luke & Luke Realty/ 300	Gary Lee	Houston Chronicle	1/81
Edward Don Company/3000	Steve Jamison	Communications News	6/81

Third Party News

Final Release of "Financial Management And Planning For The OEM Enterprise"

By Art Monk/CMG



Distribution has just begun for the manual "Financial Management And Planning For The OEM Enterprise." An alpha-test version of the manual and the OEM Financial Forecasting software that goes with it was first released during the Third Party Sales Conference last February. Since that time, the manual has been organized into final form for external use. The software has not been modified, so all copies that were given out at that time are still valid today.

The manual presents the subject of business planning and financial forecasting as it specifically applies to the OEM business. Examples in the manual are linked to a computer-based financial model which runs on the HP 3000 and helps OEMs forecast sales, cash flow and profits. Six chapters, along with a number of pre-printed inserts from various sources, are included in this single volume. The chapter topics are:

- Some Perspectives On Financial Management
- The Financial Structure of an OEM Business
- Business and Financial Planning
- Financing the OEM Enterprise
- Managing the OEM Enterprise
- Model-Based Forecasting

Computer Marketing

Initially, the manual will be distributed at no charge to all RSMs, ACMs, and Third Party Sales Reps. Each TPSR will also receive sufficient copies to provide one for each OEM he/she supports.

The financial forecasting software has already been distributed to SC/OEM Reps and TPSRs. OEMs should request their copy directly from their supporting HP sales representative who can arrange to have it copied in the local sales office. The OEM should supply one 600 foot magnetic tape for this purpose. As discussed in the manual, the software is released in both source and object code form and is not supported by HP in any way.

The overall objective behind the manual and forecasting software is to provide two things:

- a common understanding within HP as to how OEMs function and the unique aspects of their business operations
- a comprehensive tool for HP OEMs to use in better managing the financial aspects of their business

When used as a sales tool, this manual/software combination provides new OEM prospects with direct evidence that HP has a strong commitment to OEMs who focus on growth and business success.

Existing OEMs will receive their copies at no charge through their sales representative. New OEMs will be able to order the manual under P/N 5955-9821 at a cost of \$50 from Computer Supplies Operation. For HP internal use, the manual can be ordered from Software Distribution Center under the same part number at a cost of \$30.

Financial Management and the Third Party

By Jim Banisch/Baltimore

At last we have a valuable sales tool to analyze and assist in the financial management of OEMs. I'm talking about the manual "Financial Management And Planning For The OEM Enterprise" which was handed out by CMG during our Third Party Sales Conference in February. More specifically, the financial modeling system provided with the manual has been very helpful in getting OEMs to take a serious look at financial planning.

In Baltimore, we've been using this system with OEMs for the last several months, either on their computer or on the HP 3000 in our office. The model is used to analyze the HP OEM activities of large organizations or the entire business of smaller HP OEMs. In large organizations, I have used the model to assist project managers in presenting their proposals for starting up HP OEM related activities. The decision makers are amazed to see such well thought-out business plans and documented profit forecasts. With smaller companies, the top managers and I analyze the company's entire business picture and forecast future financial scenarios on a "what if' basis.

When we started, we only expected to achieve the main benefit of forcing the OEM to better manager his/her business and thus become a "better customer." This benefit has been achieved in several instances, yet other applications and benefits have also become apparent. In any size organization, the following fact surfaces: when the tools and plans of "the manual" are used to develop the proposal, approval and/or funding for the project are relatively easy to obtain. Small organizations find financial institutions responsive and project managers find their decision makers favorably impressed.

The system has been very well received by OEMs in the Baltimore area. In fact, one OEM has decided to integrate the forecasting system into his general ledger product as an additional feature! This will allow his clients to perform real-time analyses of financial performance vs. forecasts. This is probably the highest form of approval for any tool we could provide to our OEM customers.

CSD

New Support Structure for Manufacturing Applications

By Judy Hayner/CSD

As of July 1, '81, a new software product called Production Management/ 3000 will be on the CPL. This is the second member of a "family" of manufacturing applications (the first being Materials Management/3000). In conjunction with this introduction, we have restructured the support services for these products to reflect the overlap in SE time if a customer buys both MM/3000 and PM/3000 at the same site to be supported under the same system manager and system administrator.

The change in support involves both a repricing and a restructuring of CSS. Effective July 1, full CSS for either MM or PM individually will be priced at \$350/month and is made up of two product numbers, the Manufacturing Applications Base CSS (32265T) priced at \$220/ month, and the Functional CSS for MM/3000 (32260T) or for PM/3000 (32270T) priced at \$130/month each. The base CSS must be purchased as a prerequisite to the functional CSS for the first manufacturing application that the customer buys. If the second manufacturing application from the family is purchased, to be used at the same site under the same System Manager and System Administrator,

the customer only needs to purchase the additional functional CSS. A second base CSS is not required.

The other support services for MM/3000 and PM/3000 (SSS, Extended SSS for an additional system, and MUS) are not affected by the restructuring and should be sold in the normal manner.

If possible, please try to convert your existing MM/3000 customers to this new support structure as soon as possible, regardless of whether they are purchasing PM/3000. The target date to have all these customers converted is Feb. 1, '82. All area managers should be receiving a more detailed memo explaining this change.

Support at Your Fingertips — CSD Training Manual Now Available

By Chris Kryzan/CSD

Are questions about support making your head spin? An end to this confusion has now arrived with the introduction of the Computer Systems Support Services Sales Training Manual. HP's Computer Support products and descriptions of their marketplace can be found in this one "easy-to-read" document.

Support is an HP strength that is important to stress in every sale. As the forward to the manual says:

"When customers select computer products in the 1980's, they will know that they are buying not only hardware and software, but also support. As more and more vendors supply advanced hardware and software, your customer's purchase decision will become increasingly heavily weighted towards support considerations. Our objective at the Computer Support Division is to provide the best support in the computer industry."

The training manual is currently being distributed on a worldwide basis to all field marketing and factory sales support personnel.

Travel Guide Update

By Kathy Humphrey/CSD

An update to the Customer Service Travel Guide is currently being distributed to all Travel Guide subscribers. The package includes map updates for several offices and an updated guide index which defines support capabilities for all Service Responsible Offices (SROs) in the computer, medical, analytical, and measurement groups.

Also included are maps and support capabilities for the following eight new service offices which have been added to the Computer Group:

Besancon, France
Buffalo, New York
Graz, Austria
Moncton, New Brunswick, Canada
Nantes, France
Pretoria, South Africa
Quebec City, Quebec, Canada
Santa Barbara, Califomia

If you are not currently a subscriber to the Customer Service Travel Guide and would like to purchase one, it can be purchased from Division 5006 via a Heart I2 order. The supplying and marketing division is 50, (P/N 5955-6063). The price is \$25 which includes the guide and a one-year subscription service.

First Availability for HP 35030A

By Cindy Politica/CSD

If your customer's system is performing poorly due to transient noise, recommend a fast solution — the HP 35030A Power Line Conditioner. The availability schedule for the HP 35030A has been changed to facilitate faster action on many customer power problems. A limited quantity of line conditioners are currently in stock and a reasonable quantity available in one week.

The HP 35030A is compatible with the HP 250, HP 300, HP 3000 Series 30 and HP 1000/L-Series.

CSO

Special US Cabinet Offer

By Dan Brumm/CSO

Your US customers can protect their valuable media and documentation and save 15% on Storage/Security Cabinets by making a toll-free phone call before August 15.

Computer Supplies Operation is offering HP customers a limited-time 15% saving on our Storage/Security Cabinets to familiarize them with our newly expanded product offering and introduce them to the extra convenience of ordering HP Computer Supplies direct from our distribution center. A specially designed promotional flyer is being sent to HP customers on our special mailing list. The offer is also available to any customer who places a "Direct Phone Order" for these cabinets with CSO before August 15, '81 (800-538-8787 toll-free; in California (408) 738-4133).

HP's storage cabinets are specifically designed to meet your customer's media, supplies and documentation storage needs. All of the following cabinets have locks, provide timesaving organization, and are color compatible with HP computer equipment.

HP P/N	Type of Cabinet	Regular US Price	Phone Order Discount Price
92172 A	Workstation/ Security Cabinet	\$830	\$705.50
921 72B	Universal Security Cabinet	\$995	\$845.75
92172C	Printout/ Documenta- tion Cabinet	\$640	\$544.00
92172D	Magnetic Tape Security Cabinet	\$690	\$586.50

For additional product information, consult pages 30-32 of the Computer Supplies Catalog. Hurry, offer ends August 15!

Technical Computers



DS/1000-IV on the XL is Here!

Bu Jeff Williams/DSD

Now the full power of DS/1000-IV can be extended to L-Series nodes running RTE-XL! All orders placed after July 1, '81, will be shipped with hardware and software that is fully compatible to run DS/1000-IV with RTE-XL.

So for new customers — or customers who have been waiting for this new support - get those orders in and give your customer the advantage of tieing his/her application together with DS/1000-IV now.

How about "old" customers who want to upgrade? Here is what happened and what they need:

Changes were made to DS/1000-IV (91750A) to enable RTE-XL compatibility.

Finally, the L-Series Virtual Control Panel (VCP) ROM's were changed to allow downloads (over a DS line) of greater than 32Kw, facilitating remote downloading and DS forced cold loads (FCL) to L-Series nodes running RTE-XL.

The revisions necessary to enable DS/1000-IV operation on RTE-XL are shown below for upgrading:

Replacement subroutines for Dynamic Mapping instructions were added to RTE-L (\$MXLB) to add entry points enabling compatible operation of DS/1000-IV and RTE-L and RTE-XL. Also, subroutines to access system routines were included.

> The PDP-11/24 is DEC's newest addition to the PDP family of minicomputers. From information we have been able to gather, it appears that DEC has taken the LSI-11/23 CPU chip set and designed a UNIBUS-compatible computer around it. The computer is designed on a DEC standard hex-module and includes CPU, ASCII console interface, two filtered serial lines, linefrequency clock, power fail/autorestart, and a diagnostic bootstrap

PDP-11/24

By Gary Law/DSD

CPU Performance

The 11/24 is roughly the same performance as the 11/23, about 1.2 times the L-Series or 1/2 the E-Series. Addition of the UNIBUS interface does improve I/O performance slightly, giving the 11/24 an I/O bandwidth of 1.7Mb/s. It does not appear that DEC is offering the CACHE memory or Floating Point Processor options at first release, although the possibility of these as follow-on projects is not unreasonable.

loader. They have chosen to position the 11/24 as their mid-range entrylevel box and systems offering.

RTE-IVE effectively replaces RTE-M.

systems to be inactivated on May 1,

Original plans called for RTE-M, BASIC/1000M, and Model 20 and 25

'81. For the same reasoning de-

vated until September 1, '81.

scribed above, these products are

still on the CPL and will not be inacti-

RTE-IVE shipments commenced in

April. We have now shipped over 50

copies. An RTE-IVE based system is

low-cost computing power to a DS

network. Can your customers take

welcome their RTE-IVE orders.

DEC Introduces the

advantage of such power? If so, we'll

an ideal way to add powerful yet

Item	Rev. Code	1st Shipments to CSS/SSS Customers
91750A (DS/1000-M)	2126	Aug., '81
92071A (RTE-XL)	2126	Aug., '81
Updated VCP ROMs	12001-	3,
r	80006/7	
1) New L CPU	Incl. in	Mid-July, '81
purchases:	12001C	•
2) VCP ROM Upgrade	12014A	Mid-July, '81
Kit: (On CPL		
July 1, '81 - Price: \$100)		
For previous RTE-XL Custo	mers, not on Sup	port Services.
3) 92071S/T/V/W/Z	2126	Aug. '81

PCO Update for RTE-XL Customers on Support Services.

Time Limit Extended on RTE-IVE Upgrade Discount

By Mark Beswetherick/DSD

When we announced the RTE-IVE execute-only, memory-based operating system (92068E) we indicated the Option 002 (\$900 upgrade discount from an RTE-M on CSS/SSS) would only be available

through the CPL, May '81. We are told that some customers did not purchase RTE-IVE immediately because of the delay between introduction and first shipments. We are, therefore, extending the life of Option 002. It will be on the CPL through August, '81, and DSD will accept orders through September

Memory

DEC did take the opportunity to correct the 11/34 memory limitations in the 11/24 by expanding possible memory size from 256Kb to 1Mb. To expand beyond 256Kb requires the addition of a physical address extension facility to the processor.

Price

Much like the 11/34, the 11/24 is not very competitive on a price basis. In most applications, the E-Series is a much better price performer.

Boxes

Dones	
PDP-11/24 with 128Kb in a 5-1/4" box 2109E with 128Kb 2103L with 128Kb	\$11,000 \$11,010 \$ 6,250
PDP-11/24 with 256Kb in a 5-1/4" box 2109E with 256Kb 2103L with 256Kb	\$13,000 \$12,810 \$ 8,250
Packaged Systems	
PDP-11/24 with 128Kb, 1Mb flex disc, RT-11, and printing terminal	\$19,800
Model 20	
E-Series CPU with 128Kb, 1Mb flex disc, RTE-IVE, and 2621P terminal	\$26,580
Model 9	
E-Series CPU with 128Kb, 1Mb flex disc, RTE-XL, and 2621P terminal	\$21,285
PDP-11/23 with 256Kb, RSX-11M, 20Mb hard disc, display terminal	\$35,000
Model 40	
E-Series with 256Kb, RTE-IVB, 20Mb hard disc, display terminal	\$35,690
Model 10	
L-Series with 256Kb, RTE-XL, 20Mb	

hard disc, display

terminal

\$32,930

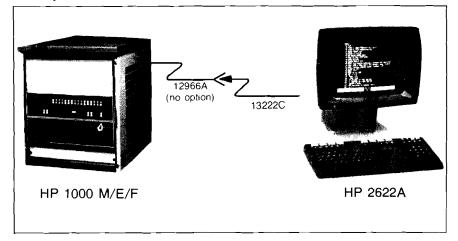
Put an HP 2622A on your HP 1000 Without Cable Mods

By Steve Pomeroy/DSD

Here's a cabling scheme that allows you to hook up your M/E/F to an HP 2622A without any cable modifications. Use the standard 12966A cable (12966A, no option) and a 13222C cable to connect the terminal to the system. You must use DVA05 and initialize the baud rate before you can access the terminal.

The 2622A is not supported as a system console because it does not supply the terminal clock to the 12966, as currently required.

If a customer orders the 262X cable option for the 12966A (opt. 005), he is responsible for rewiring the cable to select a fixed baud rate or a system-programmable baud rate. Consult the 12966A Service and Installation Manual for the details.



The HELLO Card

By Mark DeSimone/DSD

One of the features which makes the Model 5 the friendliest HP 1000 system is the HELLO program, which is supplied with every Model 5 primary set of minifloppies. But how does the first-time user run the HELLO program once the system is delivered? You can now order, as a sales aid, the HELLO card. This card will briefly describe all the steps involved in turning on the system and running the HELLO program, as well as explain some of the commands which can be used with HELLO. You can order this via Heart Override, Div. 2200 SA-306 at a cost of \$40 for 25 cards.

New ATS/1000 Videotape

By Dawson Mabey/DSD

A brand new videotape on ATS/1000 Automatic Test Systems is now available! This 10 minute tape is entitled "ATS/1000 Computeraided Test Systems" and covers the following:

- A look at the large number of systems being integrated at DSD for varying customers and applications.
- An overview of the integration process and what is involved in building and documenting a large instrumentation system.
- A brief summary of other types of test systems available from HP such as the 8950B and 3060A.

Technical Computers

We feel this videotape will provide you with a good overview of ATS/1000 systems and the unique customer applications they are used for. While originally intended as a simple video memo to the field to show you what's happening in ATS, the result is high enough quality to show on a selected basis to interest customers.

One copy has been provided to the following people in your region:

- MSR Bob Sudkamp (Farmington Hills)
- ESR John Sundry (Rockville)
- SSR Russ Stewart (Atlanta)
- NSR Dennis McGinn (No Hollywood)
- EUR Jean Pierre Baudouin (Grenoble)

Please contact them if you'd like to view this tape. We also have a few loaner copies at DSD for emergencies. If you must have your own copy, send a blank cartridge (1" Sony) to your DSD Sales Development contact and we'll dupe it for you. At this time, there are no plans to add it to the HP Corporate Library.

We believe this tape will serve as a useful tool to help you understand and sell ATS/1000 systems.

Quoting ATS/1000 Made Easier

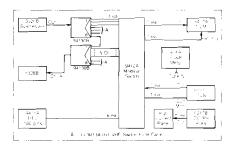
By Dave Kline/DSD

Some SRs have voiced frustration with the ATS Quoting Procedure due to the difficulty and time consumption of the process. As a result, we've reviewed our procedures to attempt to make them as painless as possible. Here's a summary of the new simplified procedure:

1. The 01 and 02 SR selects appropriate instruments and switches, and computer configuration, and fills in the standard items listed in the Configuration Guide (a new guide of 5/81 is now available).

- All non-listed needs are submitted to your DSD RSE for quotation.
- 3. The Configuration Guide is completed as much as possible.

This is where some relaxation is permitted. We don't expect a rack layout, provided the customer will accept ours, nor a switch configuration, if sufficient details are included in the cabling diagram. Instead, just provide a diagram like this:



Example Cabling Diagram

Please include all instrument ports to be cabled, such as trigger, guard, Channel B, etc., to eliminate delay.

- Send the completed configuration diagram to your DSD RSE.
- 5. DSD will review the configuration information within a week (if the information is complete), assign a system number, and return an approved copy to you for quotation. As an additional simplification to improve service. John Brown of DSD will answer instrument-related questions directly. All we ask is that the 01 SR try to answer the question first and the DSD RSE be advised. The 02 SRs are responsible for the computers and switches, and their questions can be handled through their normal RSE contact.

As a final aid, we have a new publication, "ATS/1000 Frequently Asked Questions," which might explain many areas of customer concern. You may request a copy from your DSD RSE.

GTO

European HP 1000 User Group Meeting

By Jean-Pierre Baudouin/GTO

The First European HP 1000 User Group meeting took place in Noordwijkerhout (The Netherlands) on April 7-8 and was a smashing success.

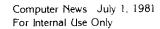
During the two days of technical presentations, 258 users representing 16 countries attended. As an added benefit for the users, this conference was used as an opportunity by HP to introduce four major new technical products. We are now looking forward to the next European meeting.

DATACAP Seminar in Finland

By Claire Hunt/GTO



Forty-two manufacturing manages and EDP managers participated in the "HP Aviation Company" demo and spent over an hour assembling model aeroplanes with the help of a computer, at the DATACAP seminar in Finland. The Datacapture terminals were linked up to an HP 1000 and were running under the control of DATACAP/1000. (The demo is available as a product from Grenoble, 40200A-S13. for \$30.) The rest of the day was spent discussing HP hardware, software, and some Datacapture applications currently running in our divisions.



DCD

DCD Reorganization

By Pat Welch/DCD

Effective mid-May, the missions of the Desktop Computer Division operations were refocused to better define and clarify our goals. The primary reason for this consolidation was to allow the division to present a unified front to the field and gain a more responsive marketing department for our R&D teams. We will continue our efforts to give the field the level of support that helps you sell effectively.

A portion of the former PL96 is now the Engineering Systems Organization, with Fred Wenninger continuing as operations manager and Pete Hamilton as marketing manager. Fred Bode has accepted a position with the Colorado Springs Division as marketing manager of its Displays Operation.

All existing DCD products and activities have been consolidated into a single functional management team.

The chart shows the new DCD marketing organization, including the supervisors/managers who have been named.

The regional support group, managed by Frank Ryan, will service all current DCD products, since we are no longer aligned on a product-line basis. This will minimize the number of contacts you have to make to get answers to your support questions.

DCD Regional Support contacts are:

NSK:	Larry Inman
	Sam Flores
MSR:	Eric Sall
	Kerry Pike
ESR:	Ritta Wigglesworth
SSR:	Don Porter
ICON/CSR:	Dennis Vetter
	Sirio Sconzo
OEM:	Sirio Sconzo

We now find ourselves in one of the larger marketing organizations within HP, and in order to make a large operation work, communication is a must. As we gain experience with the new organization, we will welcome your feedback about our effectiveness in helping your sales efforts.

DS-45/35 ROM Capability

By Don Corson & Terry Anna/DCD

Here is some additional information you will need in selling the DS-45 and DS-35 data communications software, described in the June 1 Computer News.

DS-45/35 was written for and tested with current revisions of the HP 9845 and 9835 systems and option ROMs. Earlier revisions *may* be compatible, or they may cause various types of problems. Listed below are ROMs that must be current revisions:

Desktop	ROM(s)
9845C	Must have the enhanced graphics ROM, 98780-65501 Rev B, and the TOPS PPU ROMs 1818-1591/92 Rev B.
9845B/C	Must have KBD PPU ROMs 1818-0832/36 Rev C and the I/O ROM 09845-65519 Rev B.
9845B/C	If using a hard disc, must have the System PPU ROMs 1818-0833/37 Rev D.
9835A	Must have the I/O ROMs 1818-2816, 1818-2826, 1818-2834 and 1818- 2864, all Rev B.

Selling to customers with old revision ROMs

Until November 1, '81, the factory will pay for required upgrades; after that, the customer must pay. Your CE has an Inter-Office Service Memo (IOSM) for DS-45/35 that lists tested ROM revisions. Your CE can also provide you with a ROM test program that will list the revisions of all ROMs in a 9845B or a 9835A/B.

The CE should install any 9845 system ROMs that need updating. Any option ROMs may be updated by you, your customer, or your CE, as you deem appropriate. After the update charges have been determined, the CE should contact DCD for warranty billing authorization.

DCD Marketing Marketing Manager Pat Welch G. DeGroot Technical **Product** Sales Marcom Technical Development Marketing Support **Application** D. Procter Program J. Boose M. Siler R. Waage **Publications** C. McAfee SE Support **Product** Sales Support/ D. Blackwood Management Mktg. **Major Account** M. Bacco J. Churchill F. Ryan Literature CAT **Bug Tracking** Distribution Mainframes B. Miller A. MacDonald M. Forman M. Ross Feature R&D Audio/Visual Products J. Eastman P. Guerrero P. Appe **Documentation** S. Forbes

Technical Computers

Software Transportability: A Reality

By Mike Forman/DCD

The new HP 9826 Computer System offers multiple languages: BASIC, HPL and Pascal. One key contribution of this strategy is to protect the software investment of more than 27,000 HP 9825 customers, while allowing a transition to more modern languages, such as Pascal and DCD-enhanced BASIC.

A graphic example of the degree of transportability presented by HPL is the experience at the Network Measurement Division, Santa Rosa. According to Karl Kachigan, Product Marketing Engineer for the HP 8409 Automatic Network Analyzer, his people transferred an HPL program of about 1,000 lines to the 9826 in an afternoon, including enhancements for graphics and the internal mass storage!

The HP 8409 uses several HP-IB "glue boxes" to automate a previously manual network analyzer system. At each frequency of interest, four magnitude and phase measurements are made, and results are corrected using a 12-term vector error model. Since each number requires eight bytes, and each frequency has 28 numbers associated with it, the HP 9825 uses 224 bytes of memory per date point. The 9825's memory can be used up very quickly. In a typical application, the tape cartridge is used to store data temporarily to stay within the RAM limitations.

Transferring the program to the 9826 produced an immediate speed improvement due to the flexible disc drive's speed. Redimensioning the data arrays to take advantage of the larger memory improved speed even more.

The Network Measurement Division plans to introduce an 8409 version using the 9826 with HPL as a controller.

Many of your customers will appreciate the 9826's enhanced capability, and the easy software transportability should greatly simplify their task in converting to the new controller.

BDD

The HP 9826 and 9845B/Model 200 European Office Tour

By Bob Moore/BDD

On May 3, BDD concluded a hectic month of preparation for the two-week European office tour for the HP 9826 and 9845B/Model 200. Three concurrent teams with a total of 13 members, 18 HP 9826s, seven 9845B/Model 200s, six instruments, three 2671Gs and 24 boxes of handout material, implemented an "old-style" desktop NPT with a full day of presentations.

Naturally, the teams encountered many unusual experiences while attempting to carry that much equipment to so many different places.

Here are some examples:

 In Evry, France, the 12 office tour attendees were stuck for a half

- hour in the elevator during lunch time — fortunately, they had an extra bottle of wine.
- The truck ran out of gas between Boeblingen and Duesseldorf.
- The excess baggage charge from Vienna to Brussels was equivalent to the cost of three first class tickets — but the Kourees didn't get any free drinks!
- On Walter Wolfs and Francesco Minozzi's trip from Germany to Milan, Italy, Walter found out that the truck full of equipment he was driving was not allowed in Switzerland on Sundays. Early Monday morning, as Walter came to the Swiss/Italian border, the customs people decided that the papers weren't in order, and padlocked the equipment inside the truck. When Walter and Francesco arrived at the Milan sales office four hours later, they were confronted by pickets in front of the sales office: HP Italy was on strike!

If the enthusiasm and excitement generated during this office tour is reflected in orders, we can surely expect a good second half for technical computers in Europe.

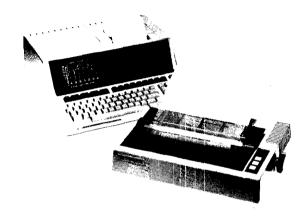


Every resource was utilized to get equipment into the field.

CVD

A Series-80, Low Cost Impact Printer

By Curt Adams/CVD



The HP 82905A printer fits in well with Series 80 Personal Computers in many ways. It uses the HP-IB interface - just add it to the bus. Measuring only 4.2 inches high by 14.7 inches wide by 12 inches long, it really conserves desk space. Its price is in line with the rest of the Series 80 system, only \$945 for 110 volt systems. Add \$50 for other power options. And it is serviced by the same HP repair centers that handle the rest of the Series 80 product line. Not that it's likely to require service. It incorporates innovative design concepts such as a disposable print head. After printing 50- to 100million characters, snap it out and throw it away. You can replace it in just a minute with one hand.

Here are some other features. The HP 82905A printer prints 80-characters per second and speeds the throughput rate by printing bidirectionally and by performing a logical seeking function to minimize the travel distance between print positions.

While it is referred to as an 80-column printer, you can squeeze 132 characters across an 8-1/2 inch page using a compressed type style.

In fact, you can select densities of 5, 8.25, 10, or 16.5 characters per inch. Multiple type fonts means you can print bold characters too!

Because it's an impact printer, you can print multi-part forms — an original and two copies. A tractor drive adjusts from four to ten inches to accommodate forms and mailing labels. The printer also has a form-feed capability.

The 9x9 dot matrix print head prints sharp characters with true descenders, that is, the tails of letters like "g" and "p" extending below the line. The HP 82905A printer also permits programmable line spacing, so you can print subscripts, superscripts, and special labels.

This printer also does raster graphics with either 72x60 or 72x120 dots per inch. It's possible, then, to dump graphics from the CRT to the printer for hard copy output.

HP-85A Orders Have Doubled

By Pat Fobes/CVD

Within the last year orders by Sales Force 02 for the HP-85F have doubled! Corvallis Division has been

overwhelmed by the tremendous growth of SF02 sales of the entire Series 80 product line.

A portion of this increase can be attributed to OEMs completing work on their development system and placing quantity orders on production units. The primary applications of the HP-85F continue to be in the medical, analytical, and coordinate measuring fields, with continuing expansion into the major account districts.

In order to manage this growth, the OEM Sales Development group has also doubled. Grace Lamerdin is the new OEM/VEU market development specialist. (Grace transferred from the Sales Support group where she supported the Eastern Sales Region.) Norb Gotner, OEM sales development manager, and Grace are working hard to develop new programs and strategies to keep the SF02 order rate strong.

Your primary contacts in Sales Support at the Corvallis Division are:

Pat Fobes — Sales Support Manager Dick Thompson — Neely, ext. 2575 Jim Balsom — Southern & ICON, ext. 3110

Floyd Berry — Midwest & Canada (Until August 1), ext. 2214

Warran Catchpole — Eastern, ext. 3115

Duane Stevens — Midwest & Canada (Beginning August 1), ext. 3325

Deanne Stockwell — Sales Support Clerk

Gayle Lichtenthaler — Sales Support Secretary

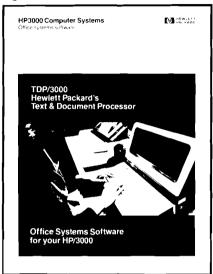
The hard work of SF02 has played a major role in the tremendous success of the Series 80 product line. Thanks again for all your efforts. 12

Business Computers



TDP/3000: Sales Brochure

By Shirish Hardikar/CSP



Many of you have requested sales literature to help you present TDP/3000 more effectively to your customers. In response, we have produced the brochure shown above.

The brochure focuses on TDP/3000 major applications, emphasizes its use with HP terminals and the HP 2601 letter-quality printer, and outlines TDP/3000 features, giving all the ingredients for *improved office* productivity for your customers.

These TDP/3000 brochures are now being distributed in bulk to all sales offices and, in addition, you should get your own copy soon. If you have any more ideas for how we can help you increase TDP/3000 sales contact either me (Comsys 8060) or Carol Agne (Comsys 6600).

TDP/3000: Customer Training Course

By Shirish Hardikar/CSP

A two-day training course for TDP/3000 is now available. The course is designed for students with

no computer knowledge and aims to provide the student with the basic knowledge and confidence to use TDP/3000 for day-to-day work.

The course product numbers are 36579A (HP site) and 36579X (customer site). Other supplies are listed below:

P/N 36579-60001	Instructor's Kit (\$225)
P/N 36579-91001	Instructor's
	Guide
P/N 36579-92001	Overhead
	Slides
P/N 36579-60002	Student's Kit
	(\$85)
P/N 36579-93001	Student's
	Workbook
P/N 36578-90001	TDP/3000
	Reference
	Manual
P/N 36578-90002	Using
	TDP/3000
P/N 36578-90003	TDP/300 Quick
	Reference
	Guide

TDP/3000 At Orlando

By David Townsend/CSP

Commercial Systems Pinewood took the opportunity provided by the recent HP 3000 International Users Group Meeting at Orlando in Florida to present and sell TDP/3000.

Carol Agne, CSP support engineer in Cupertino, provided demonstrations of TDP over the three days that the exhibitors show was open. As we had just released version A.01.00 with some major enhancements to TDP (See Computer News — April 15), with demonstration was of particular interest to existing users. We also made a formal presentation at one of the sessions to approximately forty HP 3000 users who wanted to know more about TDP.

The meeting was also a good opportunity to get feedback from TDP users, SEs, and SRs. Everyone who knows and understands TDP/3000 and the current applications likes the product. For long, complicated

documents (such as manuals, reports, etc) that are likely to require revision, there is no text processing package (either screen editing or command driven) that I know of with an equivalent set of features. The strongest critical observation was from an existing HP 3000 user who "because we didn't push TDP, we almost spent \$30,000 with Wang when TDP was a better solution!"

CSY

New Prime System Announcements

By Dave Butt/CSY

On April 14, Prime announced a new, high end system, the 850, and restructured the rest of its product line. The Prime 850 has what Prime refers to as multiple instruction stream processing technology, that is, two different data streams can be processed simultaneously. The end result is a claimed 65% to 90% throughput performance increase over the Prime 750, the previous high end. The restructuring of the product line included the discontinuing of two products, and the upgrading of three others. Together, these changes have some important implications for the HP 3000 product line.

New System — The Prime 850

The Prime 850, although introduced as a different technology machine, appears to be nothing more than a dual processor version of their Prime 750. The Prime 850s CPU consists of two "Instruction Stream Units" and a "Stream Synchronization Unit." Close examination of the "Instruction Stream Unit" finds that it is exactly the same as the 750s CPU with an instruction execution unit, in-

struction preprocessor, and 16Kb cache memory. Coordination between the two caches is probably achieved by the "Stream Synchronization Unit." The 850 supports from 2Mb to 8Mb of main memory and is the first Prime system to use 1Mb, 64K RAM, memory boards. The characterization of the rest of the 850 and 750 are essentially the same, the exception being the number of direct connect terminals that can be attached. The Prime 850 is scheduled for delivery in July.

Restructured Product Line

At the same time, Prime announced a restructuring of its product line. It dropped two of its products, the 450 and 650; and enhanced the 150, 250, and 550. The 750 remained virtually the same. By this action,

Prime has streamlined its product line and removed the previous inconsistencies.

The Prime 450 was initially designed to be an OEM machine and was sold in quantities of five or more. Unrelated to the other products in the same family, and holding a tenuous price point in the product line, Prime has superceded it with the upgraded 150-II. The Prime 650 was based on the same architecture as the 550, with the only difference being a floating point hardware assist. Again, this price/performance point has been superceded by an updated member of the family, this time the 550-II.

In fact, the 550-II is the exact same machine as the old 650. And since the 150 and 250 were only scaled

down 550's to begin with, (the 150 is the OEM version of the 250), we can see that Prime is basically only producing two machines, the 550-II and the 750. The other products, the 150-II, 250-II, and 850 are just modified versions of these two machines.

Two changes were also made in the area of direct connect terminals and simultaneous processes. The previous maximums were 16 for the 150 and 250, and 63 for the 550 and 750. Now all systems can have up to 128 simultaneous active processes. The number of direct connect terminals has been enhanced as well: 32 for the 150-II and 250-II; 64 for the 550-II; 96 for the 750; and 128 for the 850.

Implications for the HP 3000

This restructuring now matches the Prime products almost exactly one to one against each of the HP 3000 products. The 150-II/250-II lines up with the Series 30 and the 550-II with the Series 44. The 750, with the same performance as the IBM 4341-G1, and the 850, with the same performance as the IBM 4341-G2, are not matched today by an HP computer. With the same performance characteristics as the HP 3000, and the same focus and marketing strategy, the Prime systems will become an increasingly important competitor. The table opposite compares the newly announced products and the HP 3000 equivalent.

Prime	2		HP	3000	
250-II 512Kb, 8 ports. 32Mb	\$65,500	Series 512Kl 20Mb	30 o, 8 ports,	\$46,	5 8 0
550-II 1Mb, console	\$105.000	Series 1Mb,	44 2651 consc	\$79,! ole	584
750 2Mb, console	\$180.000				
850 2Mb, console	\$2 9 5,000				
	Prime	e Series 50 Su	ımmary		
		150-11/250-11	550-11	750	850
Min Memory Max Memory Cache Memory I/O Bandwidth Preprocessor Floating Point, D	Decimal	512Kb 1Mb 2Kb 2.5 Mb No No	512Kb 4Mb 8Kb 2.5 Mb No Yes	1 Mb 8 Mb 16 Kb 8 Mb Yes Yes	2Mb 8Mb 2*16Kb 8Mb Yes Yes
and Character Hardware Asynchronous Co Synchronous Co	omm Lines	8-32 0-2	16-64 0-8	16-96 0-8	16-128 0-8
Attributes comm 32 bit archited 128 simultane 512Mb virtual 32Mb max. us 32 bit arithme floating point is	ture ous active pr address spac er private pro tic	ocesses ce per user	s:		

Business Computers

GSD

GSD Summer Saver

By David Garcia/GSD Effective June 8, '81

New savings on single and multiuser configurations of the HP 250.

Two Configurations

- Single-user HP 7910 based system with 64K (Opt 002) \$24,150 — Save: \$1,105.
- Multi-user HP 7910 based system with 96K (Opt 004) — \$26,355 — Save: \$1,680.

Eligibility

- System configuration must include memory options X02 (single user) or X04 (multi-user).
- Both HP 7910 based and HP 7906 based systems are eligible.
- Applies to all orders with 10-week delivery or less.
- Can be applied to all systems shipped since June 8; submit a credit and rebill to get your discount.
- Submit change order for systems in the backlog scheduled for shipment after June 8.
- This offer applies to both OEMs and end users.

Fast Delivery

Order in June and we'll ship in July. Order in July and we'll ship in August.

How to Order

 Transmit qualifying orders as shown in the examples below:

Example 1 — Single User HP 250:

•	•
HP 4525XA	\$17,850
Opt 012	6,300
Opt X02	<u>n/c</u>
	\$24.150

Save 5%!

Example 2 — Multi User HP 250

HP 4525XA	\$17,850
Opt 012	6,300
Opt X04	n/c
HP 45120A	<u>2,20</u> 5
	\$26 355

Save 7%!

- Specify "Summer Saver" in comment field and request 10week delivery or less.
- For orders currently in house, reconfigure and re-transmit order to receive the savings.
- Please Note: This price reduction is in addition to OEM or VEU purchase agreement discount your customer already receives.

Close those outstanding orders now with the new lower priced HP 250!

Good News for HP 250 OEMS: 10% Additional Discounts for All Systems!

By Mary Etta Port/GSD

One June 1, HP 250 OEMs effectively received an extra 10% discount on HP 250s. The change recognizes the fact that new HP 250 OEMs may not reach the 25 functional units per year because of lead time required for software and market development.

The B-4 price clause which has been used with the A-6 contract was obsoleted effective June 1, and your existing B-4 agreements can be amended to a B-3 clause. HP will then credit your customer the earned retroactive credits. Current OEMs were given 30 days (until July 1) to make a decision to change to the new agreements and could apply orders in our delivery backlog to either agreement.

As in the B-4 agreement, there will still be the 1% holdback until the customer reaches the estimated quantity initially agreed upon. See your local Contracts Administrator for procedures and other details.

Top HP 250 Chargers

By Mary Etta Port/GSD



Congratulations to both Mike O'Reily of Neely Palo Alto and Danny Simenauer of Rockville, who were our two most productive specialists in the month of May. Mike's OEM, PB Industries, ordered three systems as did Danny's OEM, OPUS Corporation in Maryland. We like to see these three-systems-per-month order rates from OEMs!

The Eastern Sales Region should also be given a hand for almost doubling their April HP 250 order level to seven systems! — Keep up the trend! Only ICON, with eight systems, produced more orders than ESR in May.

New Management Brochure for the HP 250

By Jim Carlson/GSD

I'm pleased to announce that a complete re-design and turnover of the HP 250 Sales Literature is well underway.

The first piece is a new Mangement Brochure now available (P/N 5953-3436). This brochure was derived from and is similar to the old (P/N 5953-3400) Management Brochure, "Simplify Running Your Business Without Complicating Your Life." I have asked Corporate Literature Distribution to send a few of the new brochures to each office. Please

order these as you need them from the Literature Distribution Center.

Other current or new literature:

- Applications Software Price/ Configuration Guide (P/N 5953-3425D) with a new look and new pricing.
- MFG Brochure (P/N 5953-6501E) is a short MFG software brochure which was printed in Europe.
- FIN Flyer (P/N 5953-3426) is a direct mail piece for FIN/250; also can be used as a general HP 250 flyer.
- INP Data Sheet (P/N 5953-3422) is a data sheet on the HP 250 INP and RJE/250.

Order the following from CSO (call toll free):

MFG Reports	45180-90080
Brochure	
OM Reports	45190-90080
Brochure	
FIN Reports	45200-90080
Brochure	

These come in packages of 10 and are sold by CSO so OEMs can purchase and use to sell HP software.

A new HP 250 Product Flyer, HP 250 General Information Manual and HP 250 Configuration Guide and Price Sheet will be coming soon.

The following are out of print but existing quantities in the field can be used until supplies run out

	1 1
P/N	Name
5953-3400	Management Brochure
5953-3401	Product Flyer
5953-3408	General Information
	Manual
5953-3416	
5953-3417	
	REMOTE/250 Flyer
5953-3427	Configuration Guide

New Sales Development Manager for GSD

By Jim Carlson/GSD

Former HP 250 Product Marketing Manager Jim Carlson (that's me), is now sales development manager for GSD, replacing Jerry Klemushin (who is now the worldwide major account manager at CMG).

Over the next few months we will be adding some more new people to GSD Sales Development and organizing to provide effective and enthusiastic support. Our first goal is to have one support person per region.

So far, here's who we are and what we do:

Marc Peterson	— Midwest
Hal Elgie	— Neely
Sam Boot	 Supervisor for
	Southern,
	Neely, and
	Midwest
David Garcia	- ICON
Mary Etta Port	— Eastern

Mary Etta Port — Eastern
Jim Carlson — Manager and
Acting Supervisor for ICON,
Canada, and

Eastern.
Andrea Witt — Group Secretary.

Backup will be provided by any and all members of the team for all other members, until specific backups can be named. Call and let me know how it's going and what we can do to help.

ISD

Decision Support Graphics/3000 Supports the Eight Pen Plotters

By Chris Kocher/ISD

ISD has completed a new version of DSG/3000 that will support more features of HP's graphics devices. Specifically, DSG will now let you select from among eight colors when using these San Diego plotters: 7221C/T, 9872C/T 7220C/T and 7580A.

The HP 7580A also makes it possible to produce DSG/3000 charts on D size paper that can be used for creating flip charts. The default size on the 7580A will fill an entire page, although you can also place multiple charts on a single piece of paper. Make sure you mention these features when selling DSG/3000.

The new version of DSG/3000 will be made available to all Field Software Coordinators in July. Remember, DSG/3000 is an easy add-on sale for someone who already has an HP 3000 and at 2-1/2% commission; you can make over \$150 for selling a copy to one of your existing customers.

Do yourself and your customers a favor, move them away from lengthy time consuming tabular reports and encourage them to use graphics to convey their important management information.

DTD

HP 2622A — It's A Winner!

By Sean Kelly/DTD

Thanks to great field support, the HP 2622A is off to a fantastic start! It has quickly established itself as a high performance, yet low priced data entry terminal.

Fully supported on V/3000 software, the 2622A is a contender for block mode or character made applications.

Current availability is 2*10.

```
** PLOCK MODE TPANSMISSION **
 26.22
                             ** FULL DISPLAY ENHANCEMENTS **
                                                                                                                                                                                                                                          2622
                                   ** USER DIFINABLE SOFTKEYS **
 2622
                                                       ** V/3000 COMPATIBLE **
2622 ** V/3000 COMPATIBLE **
2622 ** OPTIONAL INTECRAL PRINTER **
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Important Note on HP 2622A Terminal & V/3000

By Tom Anderson/DTD

There have been some questions about the suitability of the HP 2622's memory for V/3000 applications. Part of this confusion is due to the 264X memory allocation scheme. A standard HP 2645 with 4K of memory can display about one page of 80 character data. This is substantially reduced if this data includes the video enhancements and protective fields required for forms. Consequently, most V/3000 applications require 8K of memory on the 2645. With 8K of memory, a 2645 can display almost three pages of memory without forms, but more typically less than two pages of memory when softkeys and forms are used. The 2622 has two pages of displayable memory independent of any other

considerations. In other words, data communications, buffers, softkeys, and display enhancements do not take away from the two pages of memory used by the 2622. This means that most V/3000 applications will have more than enough memory when using the 2622.

Top CRT Terminal Nears Retirement

By Carl Flock/DTD

"Hewlett Packard Co.'s 2640 ranked highest among CRT terminals ..." (Computerworld, June 1, '81, Page one).

Now that the HP 2640 has attained the status of world champion, DTD announces that the 2640 will retire on August 1, '81 from active terminal competition. The next few weeks are your customers' last chance to purchase the champion at the winner's price! (In other words, the HP 2640 will be obsoleted August 1, '81 after almost seven years of sales.)

Of course the HP 2640B is succeeded by equally fantastic products—the HP 2622A, 2624A and 2626A to name a few.

HP 264X Price Changes

By Ed Washington/DTD

Effective July 1, the following HP 264X standard products price will increase by \$280. The tape option price (#007) for these same products will decrease by \$280. The effect of this is to raise prices for non-tape users, but not for tape users.

Non-tape 264X customers are encouraged to switch to an appropriate 262X series product.

Again, for tape version customers, there is effectively no price change.

The price changes are as follows:

	Former	July 1
Product	Price	Price
2641A	\$4935	\$5215
#007	\$1680	\$1400
2645A	\$3675	\$3955
#007	\$1680	\$1400
2645N	\$3940	\$4220
#007	\$1680	\$1400
2645R	\$4750	\$5030
#007	\$1680	\$1400
2645S	\$3940	\$4220
#007	\$1680	\$1400
2648A	\$6250	\$6530
#007	\$1680	\$1400
2649A	\$2260	\$2540
#007	\$1500	\$1220
2649B	\$3860	\$4160
#007	\$1680	\$1400
2649C	\$6460	\$6740
#007	\$1680	\$1400

Business Graphics Slides

By Andy Tasnady/DTD

Studies show that business graphics is one of the fastest areas of sales growth! To aid you in developing this market, a business graphics presentation is now available. Developed at DTD, it consists of 35mm slides with an accompanying storyboard script. This presentation was shown at all of the Productivity '81 Shows and has been used in various graphics seminars. The presentation, entitled "Business Graphics For The Decision Maker," is geared toward business managers. The presentation covers:

- Why use Business Graphics?
- How to get started with Business Graphics?
- HP Business Graphics solutions Ordering Information

This exciting presentation is now orderable through Corporate Video Products via a Heart 12 override.

P/N 90426RS - 35mm Slides; P/N 90426RE - Storyboard Script; Sales Force - 09; Product Line - 95; Marketing Division - 0700; Supplying Division - 07; Price - \$50.

HPG

The HP 3078A ... A Versatile Interfacing Box!

By Marc Pointeau/HPG

On June 1, '81, we introduced the HP 3078A. This product can be used for connecting at distances of the host computer, peripherals like production machines, test equipments and user defined workstation.

We will describe how the 3078's versatility can help solve an unusual interfacing situation.

The Application Issue

At the factory, to demonstrate the 3078A, we bought a Sartorius weightscale. This scale is equipped with a non-standard BCD output. The digits are coded on four wires, in negative logic, CMOS electrical level. Unfortunately, the digits are provided

to the outside world (the 3078A) one after each other, in a serial way. The digits are delivered together with a strobe of negative logic.

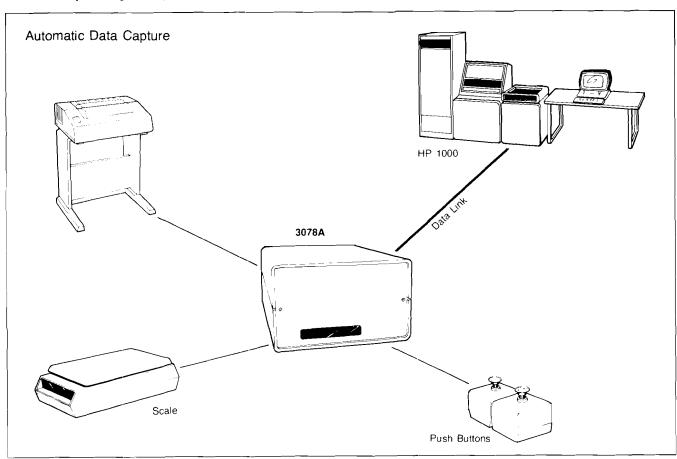
The Solution with the 3078A

We didn't use the standard BCD parallel input interface, but the 8-bit parallel I/O card. By hand wiring, we transformed the BCD digits into ASCII corresponding characters and connected the wires to the interface card. This has been the only hardware work. The other part of the job was to send two commands to the interface: the first one for configuring the handshake, the second one for telling the interface to read the six digits coming out of the sale. The material we used was:

- one Sartorius scale model 3805F with BCD "standard" output
- one 40282A 8-bit parallel I/O card
- one push button for triggering the measure on the scale

A complete application brief will be published on this subject. For adding to the current product interface range, your customer will be able to order the Logic and Event Sense Interface and its Signal Conditioning Modules by the beginning of August. For more technical details, you can refer to the HP 3078A Data Sheet (P/N 5953-0145) and the HP 3078A's Field Training Manual.

The prices of the 40285A interface card and its Signal Conditioning Modules will be sent to the sales organization by the end of July.



BSE

HP 2601A Supported by 2648A

By Steve Simpson/BSE

The HP 2601A is now supported as an attached printer for the HP 2648A! As with the other supported 264X terminal configurations, the 13250B interface and 13232G cable (both ordered separately from DTD), are used for connection to the 2601A. The data transmission rate is 300 baud with no handshake capability.

Quite a few requests from the field for 2601A support on the 2648A have been received. This new configuration can provide an intelligent letter quality printing capability for another group of HP customers!

Low Cost Stand for Printer Available

By Ormond Rankin/BSE



A new open stand has been developed for the HP 2608A Line Printer (see photo) as a cost saving option (\$300) for your customers. To order, specify the delete Option 112 to substitute the new open stand for the standard enclosed stand.

When this option is specified with the base unit (no subsystem option), for example, the net cost to the customer is \$10,100 (before discounts), rather than \$10,400. If your customer's order has already been placed and conversion to the new stand is desired, printer availability is contingent upon availability of the new stand and may affect your delivery schedule.

The new stand has been designed with low noise in mind and is therefore able to meet the same sound specifications associated with the enclosed stand (72 dBa standard, 68 dBa with sound cover). In addition, the new stand allows easy access to the paper loading area while still allowing the box of forms to ride with the printer when it is moved. Please contact your Boise sales development engineer if any questions arise.

HP 2601A Local Language Support

By Steve Simpson/BSE

The HP 2601A was designed to support five local languages: English, French, German, Norwegian/ Danish, and Swedish/Finnish. The character sequences of each of these languages vary; however, the 2601A contains five selectable tables in firmware. These tables provide International Standards Organization (ISO) standard character sequences (when used with a local language print wheel) for each of the languages. Additionally, these tables specify the hammer energy and ribbon advance used with each character. This approach provides local language capability without utilization of an overstrike scheme. Overstriking to generate the desired characters reduces both effective print speed and print quality.

The key word here is selectable. For character sequence and hammer energy to be correct, the proper language table must be selected either by command or by switch settings.

The easiest method is to issue an escape sequence to the printer which then selects the desired language. For example, to select German, install a German print wheel in the HP 2601A and issue the following sequence:

ESC SYN ENQ

That's all there is to it! The language selection is stored in non-volatile Random Access Memory (RAM) in the printer. This selection remains in effect even if the printer is turned off. The selection can easily be changed later by use of another escape sequence.

For some languages, no internal table is available. One must be selected that is as close as possible to the desired one. For example, the 2601A does not have a Spanish table, but the French character sequence and hammer energy table match in most cases. To select Spanish, the French table (issue ESC SYN EOT) is used with a Spanish print wheel in the 2601A.

For those characters that don't have a match in the character table, a program mode may be entered which gives the user total access to print wheel character selection, hammer energy, and ribbon advance.

The bottom line is: the 2601A supports five languages but the desired language must be selected. Thus, if you have a customer that appears to be having character sequence problems with a local language, the first thing to verify is whether or not the language has been properly selected.

A more detailed discussion of the local language capability of the 2601A is provided in Section 6 of the "2601A Installation and Reference Manual" and in Section 10 of the "Sales Reference Manual — HP 2601A Daisywheel Printer."

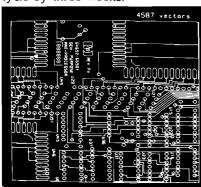
COL

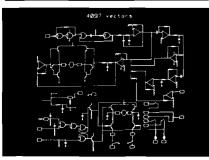
An Efficient PC Board Layout System

By Jim Abrams/COL

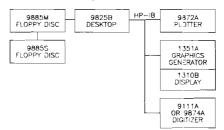
A number of printed circuit board layout workstations like the one pictured have been implemented within HP to increase productivity within the design areas. The systems are HP 9825B or 9825T based, requiring 64 Kb of memory. An HP 1351S System is used for the display, with input supplied by either the 9111A tablet or 9874 Digitizer. Hardcopy output devices are either the HP 9872A or HP 7580A Plotters.

Studies performed by the designers have shown that a system of this type allows the rapid data capture of a design through a digitizer; the efficient editing of that design with a large screen interactive graphics station offers the greatest throughput per dollar of capital investment. Savings on the order of two weeks per new design are being realized, along with a 75 percent reduction in rework time. The goal of the system is to reduce the new board layout cycle by three weeks.





DIGITIZING/EDITING STATION



PLOTTING STATION



The operation of the system is simple and straightforward. The rough design is initially entered into the system using the 9874A Digitizer. The design can then be edited using the 9111A Tablet to either add text or modify component and trace placement. All the while, the information being manipulated is stored in a design file on floppy disc. Check plots or final plots can be obtained locally on the 9872A, or moved to the plotting station where a 7580A is used to generate large plots.

An Interactive Graphics Workstation

By Joe Hunter/COL



Combine the HP 9111A-050 Graphics Tablet (formerly the 9111T), an X-Y Display and a plotter, and the user has the basic peripheral components for a friendly and economical workstation. The tablet and 1351A Graphics Generator via HP-IB can communicate directly without intervening computer control for cursor location, line or rectangle drawing. In cursor control alone, the 9111A-050 substantially

relieves processor overhead to improve system throughput. In the 9111A-050/1351S combination, digitized points are scaled to the 1351's resolution, eliminating software conversion of the X-Y coordinates. Existing graphics peripheral users, desktop or minicomputer based, are prime prospects for the 9111A-050's fast, friendly input.

Drawing on the tablet is like having an entire drafting table at your disposal. Straight lines, circles, arcs, rectangles, reproducible figures, aligned 90 degree angles and geometric shapes can all be positioned with simple stylus strokes on the scratch-resistant, ceramic surface.

By having a plotter within the system, these users can quickly increase their productivity.

Electrical Engineers: Drawing and editing circuit designs, layout of printed circuit boards.

Mechanical Engineers: Engineering drawing and drafting, computeraided design.

Facilities Engineers: Plant floor or piping layouts.

Drafting Departments: Computeraided drafting.

Artists: Drawings and graphical layouts.

Process Control Engineers: Customizable control panels and visual readouts.

The 9111A-050 can be used as a customized keyboard or control panel. Through it, the user can enter data or control an entire system with keyless strokes. By pointing the stylus to any of the 16 softkeys, cursoring a softkey of the display, or following the instructions outlined on a template, friendly operator control is a reality. There is no need to polish "hunt-and-peck" skills. All that is required is a simple point and press.

There are several competitive companies marketing tablets. The dominant suppliers are Talos and Summagraphics. They use a

Peripherals

magnetic pick-up technology as opposed to HP's unique electrostatic technology. Magnetic technology can erase tapes and discs accidently placed on the platen, can alter X-Y data with a simple rotation of the cursor, and can cause static build-up which affects performance.

For the customer who needs interactive graphics and requires a friendly interface, the 9111A-050/1351S System provides a single vendor solution as a practical workstation.

DMD

Environmental Testing — Part V Corrosives

By Michael Rusnack/DMD

A discussion of contaminants appeared in Part III of this series (Computer News, May 1, '81). The article covered only the affect and specifications associated with particulates or hard contaminants. This article will deal with the other type of contaminant, corrosives. After extensive research, both independently sponsored by HP and jointly with other organizations similar to ours, there now exists sufficient data to make some preliminary statements about the levels of corrosives that will affect our products (i.e. printed circuit assemblies, media, etc). It has been determined that the level of susceptibility to corrosion for PCA's is much lower than levels considered dangerous to humans. Most Threshold Limit Values (TLV), or maximum levels for humans, are measured in parts per million (PPM). It has been determined that the point where PCAs beging to fail is in the parts per billion (PPB) range.

Corrosion is a complex form of material deterioration and is generally defined as the destruction of materials by chemical and/or electrochemical reaction within its environment.

Some effects of corrosion in electronic equipment are the destruction of magnetic surfaces on discs and tapes, deterioration of plastics used in the equipment, and general degradation of coatings on PCAs. Many common problems can be avoided by isolating the equipment from contaminant-producing machinery. Examples of this type are office copiers, milling machines, and equipment that produces corrosive vapors or particulates. In areas where the atmosphere contains large amounts of various corrosive contaminants, more drastic measures must be taken to ensure that the environment is suitable for the operation (and storage) of electronic equipment.

Corrosive environments, like those found in steel, acid, and paper manufacturing industries, require special attention when installing a computer system. These environments usually require special filtration of the air which is used to cool the equipment. Corrosives generally cannot be filtered out by normal filtration methods, and the techniques that must be used are complex and costly. In these cases, the equipment must be enclosed in a highly controlled environment.

Although the term "environment" as used here refers only to atmospheric contaminants, there is a strong link between corrosion rates and temperature and humidity conditions. Many corrosion processes (film thickness, build-up, etc.) accelerate rapidly at high temperatures and humidities. The following are typical corrosive contaminants:

- Total Hydrocarbons Hydrocarbon vapors are known to be corrosive to precious metal contacts used in computer equipment.
- Sulfur Dioxide Sulfur is generally considered to be the most corrosive of the common contaminant gases. In combination with water, it forms sulfuric acid

- mist, an active and rapidly corrosive compound.
- Oxides of Nitrogen Oxides of nitrogen cause nitrate-stress cracking in electrical contacts and the absorbed gases react to form nitric acid on component surfaces.
- Total Oxidants The presence of oxidizing gases in the atmosphere, particularly ozone, is known to be potentially harmful to any organic material.
- Hydrogen Sulfide Hydrogen sulfide is a rapid corrosive agent, particularly harmful to copper and silver.
- Ammonia In sufficient concentrations, ammonia has been found to cause cracking of stressed brass, decrease insulation resistance and increase the loss factor in certain insulators.
- Halogens Halogens are five chemical elements which form salts by direct union with metals. The five halogens are: fluorine, bromine, chlorine, iodine and astatine. Halogens react strongly with metals and hydrogens to form halides (salts). Halogens (and their compounds) are widely used in medicine, photographic films, sanitation processes, disinfectants, insecticides, some textile processes, paints, bleaches and plastics.

Listed in the table below are some typical corrosives and the associated recommended limits that electronic equipment may be operated (or stored) within.

Sulfur Dioxide (S02)	100 ppb
Ozone (03)	50 ppb
Hydrogen Sulfide (H2S)	3 ppb
Nitrogen Dioxide (N02)	75 ppb
Chlorine (C12)	1 ppb
Hydrochloric Acid (HC1)	2 ppb

"Media Statement"

By Greg Engelbreit/DMD

Some months ago DMD amended the language to HP's "media statement" for the purpose of clarifying our policy to the field. Our catalogs and brochures have been updated to reflect the new language as follows:

"Any damage sustained to the heads or media, or any consequential damage resulting from the use of non-HP media or improperly cleaned media is excluded from warranty or service contract coverage but will be repaired subject to HP's standard time and material changes. Use of non-HP media, however, does not affect warranty or service contract coverage of other components of the drive not associated with the head-media interface."

In order to reduce the chances of misinterpretation, we would like to elaborate on four salient points contained in the statement:

- Damage caused by non-HP media will not be subject to warranty or service contract coverage.
- Damage caused by improperly cleaned HP media is treated the same as stated above. Why? Because HP does not approve or endorse the cleaning of any HP disc media by anyone. There are simply too many variables that must be controlled during the cleaning procedure, and improper cleaning can result in anything from minor loss in performance to a major head crash.
- In either of the above instances, resultant damage can be repaired by HP outside of warranty or service contract coverage. The customary time and materials charges will be levied.
- Finally, it is important to remember that those components of a disc drive not associated with the head-media interface will remain under the warranty or service contract umbrella.

We all know the critical role media plays in the mass storage business, and we're also aware of HP's commitment to product reliability. Perhaps the easiest way to compromise reliability (and performance as well) in a disc drive is to tamper with those shiny brown platters that spin so fast and yet appear to be standing still. For this reason, HP takes a strong stance with media; this media statement summary clarifies our policy.

GLD

HP 9885M Option Change

By John Hettrick/GLD

Effective July 1, '81, the Option 025 for the HP 9885M Flexible Disc Drive will be reconfigured and repriced to be consistent with other options offered on our flexible disc products.

Changes

- Delete Mass Storage ROM (98217A) from Option 025.
 Customers should order either 98217A or 98228A Mass Storage ROM as a separate item.
- 2. Option 025 will include the interface cable (98032A, Opt. 085) for the 9825 Desktop Computer.
- 3. Price for Option 025 changes to \$500. This price now includes:
 - above interface cable but no ROM.
 - requires 98217A or 98228A Mass Storage ROM to be ordered separately for the 9825. The ROM manual and bootstrap cartridge or disc is included with the ROM.

Orders places after July 1 for the 9885 Option 025 will ship with the interface cable only, priced at \$500.

Special Exception for GSA

GSA orders, placed on the current contract for the 9885M Opt. 025, will be processed at the \$500 price and will include the 98217A ROM when

shipped. This special exception terminates along with the current contract on September 30.

9885M with 9825T

To order a 9885M for use with a 9825T and a 98228A ROM, order a 9885M and a 98032A Option 085 interface. Do not order a 9885M Option 025.

SDD

Ordering Plotters with the HP 9825A

By Cheryl Rudolph/SDD

With the introduction of the HP 9826A from DCD, graphics will become an even more important sales feature on low-cost desktop computers. In addition to the 9826A's impressive computational and I/O speed, large memory, and powerful language, it features as standard a CRT graphics display and graphics support for HP-GL plotters.

This "built-in" graphics capability will undoubtedly make it attractive for customers to include graphics output in instrument control and other applications. To facilitate ordering plotters with the 9826A, SDD has established ordering Option 026 with each of our HP-IB plotters and graphics input devices. This will provide statistical information to help us in identifying high usage plotters on the 9826A. We then plan to develop Programming Guides (where warranted) to help the customer interface and operate plotters and input devices with the 9826A.

The following devices now have ordering Option 026 included on the Corporate price list as of July 1:

7225B/17601A Graphics Plotter 7245B Plotter/Printer 9872C 8-Pen Graphics Plotter 9872T 8-Pen Graphics Plotter 7580A Drafting Plotter 9111A Graphics Tablet 9874A Digitizer

Peripherals

Currently, the 7225 and 9872 plotters have been tested and are officially supported by the 9826A. The 7245B Plotter/Printer and 7580A Drafting Plotter are compatible with the graphics language, and the 9111A Graphics Tablet and 9874A digitizer can be utilized using HP-GL programming. Full support for the 7580A is planned for later this year.

VCD

HP 267X Field Response Is Great

Bu Gary Peck/VCD

On June 1, VCD introduced three new thermal printers (2671A, 2671G, and 2673A) ranging in price from \$1095 to \$1895 and offering capabilities from alpha/numeric output to alpha/numeric plus sophisticated raster graphics copy.

The field response is exciting and the consignment orders are encouraging. If you are one of the procrastinators, we encourage you to get that consignment order placed ASAP.

Each consignment order ships with demo tapes for the 2647/48 and the HP 85. Also the demo disc shipped with the consignment HP 9826A from DCD contains a file specifically to demonstrate the feature set of the HP 2671G or 2673A.

HP 2631G Option 200 Bar Code Documentation

By Bill Becker/VCD

With the recent introduction of the Factory Data Printer (HP 2631G Option 200), two supporting documents are available. The first is the Field Training Note (P/N 5953-6259) ordered from VCD. This note covers target customers, the data capture markets and technology, competition, and the demo kit for the Factory Data Printer. The second is

the Bar Code and Mark Sense Printing Guide (P/N 02631-90194) ordered from CSO. This guide provides an introduction to bar codes and explains the escape sequences required in order to generate them.

HP 263X Multi-Lingual Capabilities

By Bill Becker/VCD

Described below are the multilingual capabilities of the HP 2631G, 2631B, and 2635B.

- HP 2631G The 2631G can support up to four character set ROMs. The standard 2631G has only USASCII.
- HP 2631B The 2631B comes standard with USASCII only; however, when any other character set is ordered, all character sets including line draw, math, Roman Extension, etc. are included. Therefore, for an extra \$150 your customer can get every character set available on the 2631B.
- HP 2635B The 2635B now comes standard with the USASCII keyboard and every possible character set. Optional keyboards can be ordered for \$100.

If your sales office does not already have these manuals, please order them from either VCD or CSO.

External Printers for the HP 2621A

By Bill Becker/VCD

Option K05 on the HP 2621A gives the terminal the capability to interface with an 8 bit TTL printer. Two such printer are available from VCD. These include the HP 2631B Option 044 and the HP 2671A Option 044. You must also order the 93981D cable from DTD.

Computer Products Purchase Agreements

By Bill Becker/VCD

This list provides which contract exhibits VCD products appear on. For specific information on discounts, see the appropriate exhibit.

EXHIBITS

	A-1	A-5	A-6	A-/	A-43
9871A	Χ	Χ			
2631G	Χ	Χ	Χ	Χ	X*
2631B	Χ	Χ	Χ	Χ	X*
2635B	Χ	Χ			
2671A	X	X	F	Χ	X*
2671G	Х	X	F	Χ	X*
2673A	Χ	Χ	F	Χ	X*
2675A	Х	Х			

X = Current on Exhibit

F = Will be added to Exhibit in future

* = Asterisked item that qualifies for OEM "A" Schedule

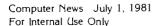
HP 9871A Conversions

By Bill Becker/VCD

Interfaces for the HP 9871A can be changed in the field. Below is a summary of what part numbers should be ordered when updating a 9871A interface.

	#1	#2	#3	#4	#5
From:	Standard	Standard	Option 240	HP-IB	HP-IB
To:	HP-IB	Option 240	Standard	Standard	Option 240
Order:	09871-80001	98011-80000	1818-2625	09871-31001	09871-31001
		02640-60031	7120-5844		98011-80000
		02640-60116	1530-0697		02640-60031
					02640-60116

bρ



Price Changes

220

8,350

280

9,200



Computer Groups Price Changes Effective July 1, '81

These prices, effective July 1, '81, will appear on the Corporate Price List on that date, available in your office. Prices are US List unless otherwise noted. Orders at old prices will be honored at the factories for 30 days (or 60 days in the case of government quotes, see exception, Ill. GSA) after the effective date of an increase. All quotations, either verbal or written, shall be made at the new prices upon the effective date of the new price list. The customer should be notified that his order will be honored at the lower price if it is received within the 30-day grace period. Price decreases are effective immediately and in-house orders shipped 5 working days prior to the announced decrease date will be billed at the new lower price.

Note: Shaded area indicates price decrease.

Product No.	Description	Current Price	New Price
Boise Divi	•		
2608A Opt. 110 Opt. 251 Opt. 330 Opt. 333 Opt. 344 Opt. 835 Opt. 845	Printer Options	210 290 895 895 895 525 525	240 600 1,000 1,000 1,000 600 600
26004A	Snd DVR/Access Kit	210	240
7970E Opt. 421 Computer	Mag Tape Option Support Division	10,575	11,300
32260Q	MUS/Matls Mgmt/3000	20	15
32260T	CSS/Matls Mgmt/3000	320	130
32260DT	CSS/Grmn Matls Mgmt/3000	320	130
32260FT	CSS/Fr Matls Mgmt/3000	320	130
32260NT	CSS/Nor Matls Mgmt/3000	320	130
32260ST	CSS/Swd Matls Mgmt/3000	320	130
32260UT	CSS/Bri Matls Mgmt/3000	320	130
32260XT	CSS/Fin Matls Mgmt/3000	320	130
32260ZT	CSS/ltl Matls Mgmt/3000	320	130

19904A Opt. 035	Tools for 7906	265	300
40019B Opt. 001	Prefilter Assy 7905/6 Prefilter Retro Kit Opt.	150 53	185 70
7906H	20 MB HP-IB Drive	14,000	15,000
7906HR	20 MB HP-IB Dr Rck Mnt	13,000	14,000
7906M Opt. 102	20 MB Master Drive 12745 HP-IB Adptr Kit	16,000 1,050	17,000 1,175
7906MR Opt. 102	20 MB Master/Rck Mnt 12745 HP-IB Adptr Kit	15,000 1,050	16,000 1,175
7906S	20 MB Slave	12,000	13,000
7906SR	20 MB Slave/Rck Mnt	11,000	12,000
7910H	12 MB Winchester Drive	8,770	9,500

12 MB Winchester/Rck Mnt

Disc Memory Division

7910HR

2649B

2649C

32263A

Opt. 007

OEM Terminal

Opt. 007 Dual Cartridge Tapes

Manufacturing Systems Operation

Manuals Set

Dual Cartridge Tapes

OEM Graphics Terminal

12904A 30" Rack Mount/7906

12745 HP-IB Adptr Kit	1,050	1,175
12745 HP-IB Adptr Kit	1,050	1,175
ninals Division		
Apl Display Station	4,935	5,215
Dual Cartridge Tapes	1,6 8 0	1,400
Display Station	3,675	3,955
Dual Cartridge Tapes	1,6 8 0	1,400
Nor/Danish Dis Sta	3,940	4,220
Dual Cartridge Tapes	1,680	1,400
Arabic Terminal	4,750	5,030
Dual Cartridge Tapes	1,6 8 0	1,400
Swedish Terminal	3,940	4,220
Dual Cartridge Tapes	1,680	1,400
Graphics Terminal	6,250	6,530
Dual Cartridge Tapes	1,6 8 0	1,400
OEM Terminal	2,260	2,540
Dual Cartridge Tapes	1,500	1,220
	12745 HP-IB Adptr Kit ninals Division Apl Display Station Dual Cartridge Tapes Display Station Dual Cartridge Tapes Nor/Danish Dis Sta Dual Cartridge Tapes Arabic Terminal Dual Cartridge Tapes Swedish Terminal Dual Cartridge Tapes Graphics Terminal Dual Cartridge Tapes Graphics Terminal Dual Cartridge Tapes OEM Terminal	12745 HP-IB Adptr Kit 1,050 ninals Division Apl Display Station 4,935 Dual Cartridge Tapes 1,680 Display Station 3,675 Dual Cartridge Tapes 1,680 Nor/Danish Dis Sta 3,940 Dual Cartridge Tapes 1,680 Arabic Terminal 4,750 Dual Cartridge Tapes 1,680 Swedish Terminal 3,940 Dual Cartridge Tapes 1,680 Graphics Terminal 6,250 Graphics Terminal 6,250 Dual Cartridge Tapes 1,680 OEM Terminal 2,260

4,140

1,400

6,740 1,400

165

3,860

1,680

6.460

1,680

110

Dave Sanders

Bob Kresek

Bill Shellooe

Olen Morain

Fran Jeffries

Carl Anderson

Orrin Mahoney

Carol Quinton

Blandine Genin

Duncan Campbell

Yoshie Hashima

Chris Stumbough

Philip Dowding

Carmen West

Curt Adams

Eli Zabor

Dick Knudtsen

Steve Zalewski

Roselie Tobes

Rich Edwards

Bev Murphy

Sheri Costa

Jim Carlson

Louise Hart

Terry Eastham

Linda Crozier

Thad Webster

Cathy Salinas

Rosemary Kramer

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Computer Support Div.(CSD) Cupertino, California

Computer Supplies Operation (CSO) Sunnyvale, California

Technical Computers

Technical Computer Group (TCG)

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Tokyo, Japan

Desktop Computer Div. (DCD) Fort Collins, Colorado

Boeblingen Desktop Computer Div. (BDD)

Boeblingen, West Germany

Corvallis Div. (CVD) (Personal Computer Products) Corvallis, Oregon

Grenoble Technical Systems Operation (GTO)

Grenoble, France

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Computer Systems Div. (CSY) Cupertino, California

Information Systems Div. (ISD)

Cupertino, California

General Systems Div. (GSD)

Cupertino, California

Boeblingen General Systems Div. (BGD)

Boeblingen, West Germany

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Boise, Idaho Colorado Springs Div. (COL) (instrument Group)

Colorado Springs, Colorado

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Fort Collins, Colorado

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