

# Computer News

For HP Field Personnel

August 15, 1981

***GSD announces the HP 125  
Business Assistant and ...***



For Internal Use Only



***the enhanced HP 250  
Office Computer Series***



# Computer News

Vol. 6, No. 19 August 15, 1981

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HP's newest business computers are the HP 125 Business Assistant and the enhanced HP 250 series. For articles, see pages 12-15. Also, the HP 250 is confi-

gured with the HP 7908 Disc/Tape Drive, an entirely new concept in peripheral storage. See page 20 for details.

## CMG

### Commercial NPT Is Coming!

By Norman Choy/CMG

The long awaited introduction of the HP 125 Business Assistant, the HP 250/30, the HP 2623G low-cost Graphics Terminal and the HP 2382A low-cost Principal's Terminal will be formally announced to the field starting August 24. Below is the North American new product train-

ing tour schedule. The European and the ICON tour schedules will start at the same time. Cees Slenters (HPSA) and Walt Reichert (ICON) will announce the dates. Make the NPT dates on your calendar and plan to attend one of the most exciting new product introductions of 1981.

#### North American NPT Schedule — Commercial August 24-September 11, '81

	Team #1	Team #2	Team #3
Aug. 24	Palo Alto	St. Paul	Manhattan
25	Santa Clara	Seminars in St. Paul	Paramus
26	Seminars in Santa Clara/San Francisco	Farmington Hills	Seminars in Manhattan/Paramus
27	Lawndale	Seminars in Farmington Hills	King of Prussia
28	Seminars in Lawndale	Rolling Meadows	Seminars in King of Prussia
29/30	WEEKEND		
31	Fullerton	Seminars in Rolling Meadows	Rockville
Sept. 1	Seminars in Fullerton	Cincinnati	Seminars in Rockville
2	Open	Seminars in Cincinnati	Rochester
3	Bellevue	Atlanta	Lexington
4	Seminars in Bellevue	Seminars in Atlanta	Seminars in Lexington
5, 6, 7	WEEKEND/HOLIDAY		
8	Englewood	Houston	Montreal
9	Seminars in Englewood	Seminars in Houston	Seminars in Montreal
10	Edmonton	Richardson	Toronto
11	Seminars in Edmonton	Seminars in Richardson	Seminars in Toronto

### Third Party News

#### Announcing The New Software OEM Credit Program

By Joe Rodgers/CMG

The new Software OEM Credit Program currently being implemented in the field underscores HP's commitment to developing financially strong and independent OEMs. At this time, the program is being established for Business Computer Software OEMs in the US and will be effective on August 1, '81. Plans are being developed to make the program available to Technical Computer Software OEMs at a later date. The best quick introduction to the program for both customers and HP SRs can be found in the brochure *Software OEM Credit Program Overview* (P/N 5953-2189), and for Sales Administration, we recommend the brochure *Software OEM Credit Program Administration Guide* (P/N 5953-2190).

#### New Third Party Approval Application Forms and Procedures (US Only)

By Joe Rodgers/CMG

New OEM application forms and procedures have just been developed and are effective immediately. All the forms required are in stock at literature distribution and are currently being distributed to field sales offices. The new procedure applies to both Technical and Business Computer OEMs who are either signing up for the first time, or are renewing their present contract. *The same form set is to be used for both Hardware and Software OEMs.* These new approval forms are required on all Business Computer OEMs effective August 1. Technical Computer OEM applications must contain the new approval forms after September 15.

Here is how the new procedure works:

**HP Computer Museum**  
**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**



The prospective Third Party candidate is presented either the Software Supplier Application or the OEM Application forms to execute and return. After completing the necessary OEM Evaluation Worksheets (for Business Computer OEMs only) and Approval Summary, the entire package is submitted to the Area Manager for approval. The result of the Area approval will be a decision for HP to consider the Third Party for one of three programs ...

- Software Development Agreement or
- Software Supplier or
- OEM Purchase Agreement

The new "CMG OEM Application Form" requests the applicant to supply a supporting business plan and a financial forecast. New Business Computer OEM applicants must supply this supporting data as requested. Existing Business Computer OEMs who renew their current contract prior to October 1, '81, however, will be allowed to renew under the new procedures without supplying business plans and financial forecasts. These supporting documents will be required, though, if the OEM wishes to apply for acceptance into the Software OEM Credit Program.

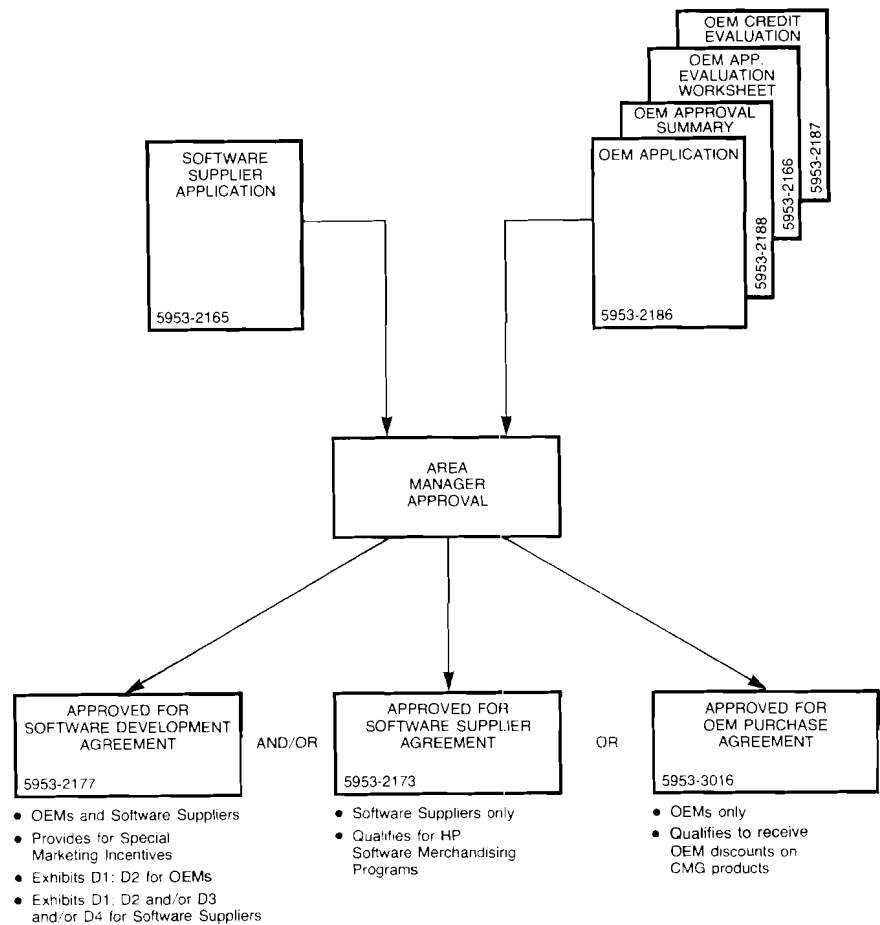
In summary, the procedure to be used with the new forms is as follows:

- For Software Suppliers
  - All candidates must complete the *S.S. Application* (P/N 5953-2165) (Additional Information section requested by HP to expedite approval but not mandatory).
- For Business/Commercial OEMs
  - All candidates must complete the *OEM Application* (P/N 5953-2186) (Additional Information section required by HP for approval).

- *OEM Application Evaluation Worksheet* (P/N 5953-2166), prepared by HP SR.
  - *Software OEM Credit Evaluation Worksheet* (P/N 5953-2187), prepared by HP Branch Credit Specialist.
  - *OEM Application Approval Summary* (P/N 5953-2188), prepared by HP SR.
- For Technical OEMs
- All candidates must complete the *OEM Application* (P/N 5953-2186) (Additional Information section requested by HP to expedite approval, but not mandatory).
  - *OEM Application Summary* (P/N 5953-2188), prepared by HP SR.

The new procedure allows HP to accurately profile both the marketing and financial posture of OEM applicants well in advance to help ensure a successful relationship.

## THIRD PARTY APPROVAL PROCESS



# Computer Marketing

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## CSD

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### SEO Travel Policy Update

By Cindy Hummel/CSD

HP has standardized its SEO Travel Policies. Having recognized the need to provide support consistent throughout our Support Responsible Offices (SROs), specific travel policies have been developed for HP's System Support Services.

#### SRO Descriptions

*Primary SRO:* A primary SEO office can supply all contractual services plus on-site consulting and on-site training.

*Secondary SRO:* Capable of providing only contractual services out to 100 miles. On-site consulting and training are normally provided from the nearest Primary SRO.

*Coverage Hours:* On-site and phone-in consulting services are offered during the basic hours of coverage, which for most countries are as follows: 8am to 5pm, Monday through Friday, excluding HP holidays.

*Travel Areas:* Maps showing all areas where HP provides on-site services can be found in the Corporate Service Travel Guide. In most instances, travel areas cover the entire country in which HP has established support.

*Travel Zones:* All HP SROs are surrounded by six defined travel zones, from which response times and travel uplifts are calculated. Support is now specified out to 300 miles, just as with the CEO.

*What are the Benefits?* It will now be easier to deliver standard services to all of our customers. Your job is now easier because you can let them know exactly what they can expect from HP in regards to our support capabilities. A detailed description of these travel policies is contained in a recently sent sales training memo.

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## CSO

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### CSO Welcomes New Marketing Team Members

By Fran Jeffries/CSO



CSO welcomes Karen Grimes and Cathy Shea to its Sales Development Team ...

*Karen Grimes* has recently joined the Sales Development Team at CSO. Karen replaces Linda Ness as Field Support Specialist for Neely Sales Region. (Linda will develop CSO's sales support program for Southern Sales Region in addition to pursuing special projects.)

A recent graduate of the University of North Carolina at Chapel Hill with a degree in Business Administration, Karen will provide a resource for the field and customers on supplies related issues.

*Cathy Shea*, a new Field Support Specialist for the Eastern Sales Region, will focus on increasing supplies sales in her region, and serving as liaison between CSO and Eastern customers/field personnel.

Cathy came to CSO from HP Labs where she has worked on a part-time basis since 1978, while completing her degree in Marketing from San Jose State University in California.

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## DSD

### New DSD System Designer's Guide

by Ted Proske/DSD

Several months of effort and assistance from factory and field people has resulted in the upgrading of the HP 1000 Computer Systems Configuration Guide into a new HP 1000 System Designer's Guide (SDG). This new loose-leaf guide, which technical SEs and SRs should soon receive, is intended to help you design and specify systems more easily for your customers. The combination of index tabs and information locator marks will help you find needed information quickly. The SDG has been designed to start helping you now, but later revisions are planned to add coverage of computers and board computers and a new compatibility matrix.

We will appreciate and try to be responsive to your suggestions for enhancements. We plan to revise the SDG every four months and to reissue a complete new guide every year. Because it is very costly we are providing the System Designer's Guide at no charge only to SEs, SRs, staff engineers, and their managers. However, the SDG, including updates for a year, will be available for field purchase by customers and non-technical field people as DSD sales aid SA-307 at the single-subscription price of \$20. Our initial printing leaves a few hundred available for SA-307 purchase. We will re-print an additional quantity if demand for extra copies exceeds our current stock.

### ATS/1000 Strategy White Paper

By Dawson Mabey & John Trudeau/DSD

Instrumentation applications now account for approximately 40% of HP's technical computer sales. HP's position as a world leader in instrumentation combined with its rapidly growing computer business gives us test and automation capabilities that no other company can claim. In the Industrial Automation marketplace, for example, the one area that HP already has considerable strength is in Computer-Aided Electronic Test. We understand our customer's problems, have the right products, and we're familiar with current issues and technology.

Furthermore, we offer three ways for the customer to acquire an HP electronic test system:

- Build-your-own HP-IB system
- Data-sheeted dedicated systems such as LID's HP 3060A and DTS-70.
- *HP-integrated systems: ATS/1000*

We have recently reviewed the ATS/1000 strategy and as a result, DSD is taking a number of steps to improve support of the ATS/1000 product line:

- Establish an R&D team to work on ATS/1000 hardware and software.
- Re-establish the Program Selling effort at DSD to maximize our opportunities in major programs.
- Establish a business team to focus on new directions and opportunities.

The specifics of these and other steps are detailed in the *ATS/1000 instrumentation Systems Strategy* which is available on request from DSD Product Marketing. To obtain a copy, contact John Trudeau at DSD, ext. 3500.

Excerpts from the strategy paper follow:

### ATS/1000 Product Strategy Overview

#### ATS Market

The typical ATS customer is primarily an aerospace or large commercial company that has a complex, high-unit-cost electronic product to test (e.g., communication systems).

ATS/1000 business level for '81 is expected to be approximately 20% of DSD's Cupertino facility business. The estimated overall market size is \$150-200M, excluding customer integrated HP-IB systems.

#### Products

DSD will continue to draw as many ATS/1000 system components from HP instrument divisions as possible. The HP 1000 will continue to be the system controller. R&D efforts will focus in:

- Maintaining ATS/1000 compatibility with the latest versions of DSD products such as RTE, languages, IMAGE, and Distributed Systems.
- Investigating new opportunities for ATS/1000 including pre-packaged systems, programming aids, system generation aids, etc.
- Leveraging our expertise in ATS into the Computer-Aided Test (CAT) segment of the Industrial Automation marketplace.
- Continuing to improve the performance of the 94XX switch products.

#### Marketing

The level of marketing activity on behalf of ATS/1000 is being increased. Some of the actions include:

- Re-establishment of the program sales activity
- Continuation of ATS/1000 sales training in the field
- Applications briefs detailing specific ATS/1000 systems; 12 briefs currently exist and more will follow



# Technical Computers

- New ATS/1000 product capabilities flyer (fourth Qtr. '81)
- ATS Video Tape featuring DSD's systems integration capabilities (available now; contact DSD Sales Development)
- Customer Slide presentation on HP ATE, including ATS/1000 system details (available now, order SA-306 from DSD)

## Competition

The following points summarize ATS/1000's competitive advantages.

- Off-the-shelf components and software are cost effective for the customer. They can take full advantage of a trained field support organization and software support services
- Tailored support plans with creative spares programs and maintenance options appeal to long-life-cycle buyers
- Compatibility with feature products like IMAGE, GRAPHICS, and DS/1000 without special considerations. No competitor can offer this capability
- Complete training and documentation are supplied with ATS/1000 systems.

## RVD

### HP 12792A and 12040A Cable Fabrication

By Glenn Talbott/RVD

We have received numerous requests for information on the feasibility of connecting individual RS-232-C devices to the HP 12792A/12040A Multiplexers at distances greater than 50 feet. Remember — the 12828A RS-232-C Multiplexer Panel may be extended up to 300 feet from the computer and the connectors for the extension cable are supplied with the panel.

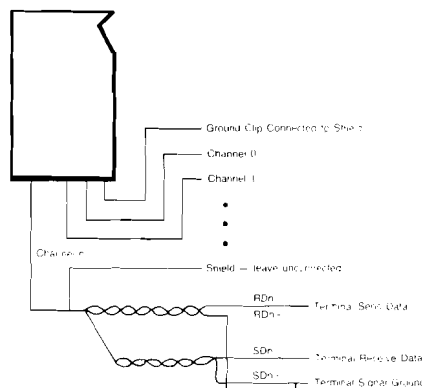
Simply order the 28 AWG cable (P/N 8120-3072) and fabricate a cable to extend the supplied cable.

This will provide clusters of terminals 300 feet from the computer, but terminal connections to the panel are still limited to 50 feet from the panel. If your customers want to connect their terminals in a 300-foot radius around the computer, they should use the following procedures:

Do not order the 12828A RS-232-C Multiplexer Panel for these applications. Carefully read the section of the 12792A Installation and Reference Manual (P/N 12792-90001) *Direct Connection to RS-232-C Device (Case 3)* on pages 4-11. Instead of using the recommended cable, use eight separate shielded cables containing two twisted pairs each. Connect all eight shields together and to ground only at the computer end. Be sure to connect the receive and send common lines (RDn+ and SDn+) together only at the terminal ends of the cables where they will be connected to the terminal signal grounds.

Connecting the eight separated cables into the supplied edge connector would be a wiring nightmare. The solution is to use a custom panel as described on page 4-16 to break out the twisted pairs from the hood connector cable to the eight individual cables.

### EDGE CONNECTOR AND HOOD



## HP 2250 Manuals and Video Tapes Available Now

By Duncan Campbell/RVD

Customers may order HP 2250 manuals now through Computer Supplies Operation (CSO) — the contact is Shirley Baird. These manuals can also be ordered on an internal order from the field. The following is a list with title and part number:

Title	P/N
<i>System Introduction</i>	02250-90011
<i>Installation Start-up</i>	02250-90012
<i>Hardware Reference</i>	02250-90001
<i>Programmers Manual</i>	25580-90001
<i>Diagnostic Verification</i>	25595-90001
<i>Automation Library</i>	25581-90001

The field can also order through Corporate three 2250 Video Tapes from the April 1 Teleconference NPT:

- 90363R — HP Industrial Automation Overview
- 90364R — 2250 Product Pitch by Brice Clark
- 90365R — Highlights of NPT with Bill Terry and Paul Ely.

## DCD

### HP 9845 Upgrade Kits

By Rick Scherer/DCD

Two new upgrade kits are available for your HP 9845B customers, allowing them to achieve all of the 9845B Model 200's performance enhancements and features.

The HP 984505A consists of the new bit-slice Language Processing Unit and the new high-performance monochromatic display. With this kit installed, your customer will achieve a three to six times performance improvement in computational and graphics programs. In addition, he/she may choose to take advantage of the many new features of the display, such as programmable softkeys, area fill with 17 shading levels, optional light pen, arcs and

# Technical Computers

circles, simultaneous alpha and graphics, and 9845C compatibility.

The HP 98404A is the Model 200's new display. It can be installed in any 9845B that has already been upgraded with the new bit-slice processor (98403A). The 98404A cannot be installed without the 98403A, because it requires more power than such a configuration can provide.

Below is a summary of the upgrade kits now available for the 9845B/C.

These kits may be installed at the customer site by HP service personnel. All replaced parts become the property of HP.

For more information, call me at DCD, ext. 3485. In Europe, contact Klemens Meier at BDD.

Product	Description	Limitations	US Price
98403A	Bit-slice Processor	none	\$ 7,000
98404A	Enhanced Display	with 98403A only	8,000
Opt. 775	Light Pen		1,575
98405A	Bit-slice Processor and enhanced display	9845B only	14,000
Opt. 775	Light Pen		1,575
98771A	Color Display	9845B only	19,500

## HP 9845B Shielding by OEM

By Rita Wigglesworth/DCD

As you know, HP computers are engineered for commercial and industrial environments. Many defense applications require special shielding to reduce electromagnetic radiation (EMI) to protect computer system security.

An engineering OEM in the Washington, DC area has plans to modify the HP 9845B with selected interfaces and peripherals, to produce a system with reduced EMI. If you have a customer who is looking for a third party to shield 9845s, please contact HP SR Bob Watson in Rockville, MD, (301) 258-2389, COMSYS 4430.

The same engineering center has done extensive testing on the HP 9915A. The test report is available to members of the US Department of Defense community on a need-to-know basis.

## HP 98034 Interface Anomaly

By Jeff Bork/DCD

Very large transfers of data using the HP 98034 HP-IB interface card may cause the bus to hang. While this problem has been minimized in Rev. E of the 98034A and the current 98034B, it is still possible for it to occur. While we are working to solve the problem, there are two ways of dealing with it:

- Reset the interface card periodically to further reduce the probability of hanging, or
- Use an HP 9826 or an HP 1000; these computers do not incur the problem.

If you have customers with systems experiencing this problem, please work through your CE/SE organizations. They have been informed of the proper procedures for handling these problems.

## Applications Stories Increase Sales


By Al Sperry/DCD MARCOM

As an SR, you have a seldom-used tool for enhancing HP's public image, overall sales and profits — this tool is the application story lead that you know DCD can use, but somehow it never gets to the action part of your priority list. We're asking you to change that!

Several of us at DCD Marcom are responsible for developing desktop computer application articles. In *Keyboard* magazine, these articles show our continuing customer support, and supply customers with added application ideas and programming techniques. Your customer gets a new issue every other month.

In outside publications such as *Electronic Design*, *Machine Design*, *Computer Decisions*, *Quality* and others, these stories with your customer's byline are highly credible statements about desktop computer applications that readers believe more than HP's high-quality advertisements costing hundreds of times as much! Your customer, as well as HP, gets more recognition, and this can increase your rapport and chances of added sales. By the end of this fiscal year, we will have placed at least 30 such articles, which bring in a number of letterhead inquiries from readers. Many articles can be used in both *Keyboard* and one or two outside publications.

Although we continually search for articles on the newer desktops used in supported market areas, other hardware and atypical applications are often acceptable. If the customer doesn't have the time to do the writing, we can gather the basic information, write the article and put the customer's byline on it, with his/her approval.

Your effort in this area is minimal — just send the contact information and describe the application, after discussing it with your customer. We'll do the rest. 

# Business Computers

## BCG

### ACCESS ... A Worthwhile Investment

By James D. Talley/BCG

### ACCESS is coming!



A Comprehensive Competitor Evaluation System

Hewlett-Packard Company  
Business Computer Marketing  
15427 Providence Avenue  
Cupertino, CA 95014

BCG SALES SITUATION REPORT

DATE: \_\_\_\_\_ ACCOUNT TYPE: \_\_\_\_\_

SALES REP: \_\_\_\_\_ OFFICE NUMBER: \_\_\_\_\_

OFFICE NUMBER: \_\_\_\_\_ ACCOUNT CODE: \_\_\_\_\_

ACCOUNT NAME: \_\_\_\_\_ CHECK ONE: \_\_\_\_\_

INDUSTRY: \_\_\_\_\_ APPLICATION: \_\_\_\_\_

INDUSTRY: \_\_\_\_\_ APPLICATION: \_\_\_\_\_

LIST COMPETING VENDORS: \_\_\_\_\_ INDICATE SYSTEM PROPOSED: \_\_\_\_\_ SELECTED VENDOR: \_\_\_\_\_

PLEASE CHECK MAJOR REASONS FOR WINNING OR LOSING:

PRICE: \_\_\_\_\_ SUPPORT: \_\_\_\_\_

MARKABILITY: \_\_\_\_\_ TRAINING: \_\_\_\_\_

HARDWARE CAPABILITY/DEPENDABILITY: \_\_\_\_\_ PERFORMANCE: \_\_\_\_\_

COMPETITOR CAPABILITY: \_\_\_\_\_ PERSONNEL: \_\_\_\_\_

APPLICATIONS SOFTWARE: \_\_\_\_\_

NAME OF SOFTWARE: \_\_\_\_\_

REMARKS, EXPLANATIONS, OR COMMENTS: \_\_\_\_\_

Issue 2 of the ACCESS (A Comprehensive Competitor Evaluation System) Quarterly Competitive Update will be mailed soon. Your feedback will significantly influence the contents, format and usefulness of the next issue. We'd like to hear from you.

Pictured above is a copy of the ACCESS "BCG Sales Situation Report." It takes less than five minutes to fill it out and mail it to Business Computer Marketing (BCM).

The benefits of recording a sales situation are:

- You will have a concise one-page summary of what took place in your sales situation.
- After your reports have been received and compiled by BCM, you will have a valuable source of information — the ACCESS Quarterly Update.

## BCG-AS

### TDP/3000 Applications

By David Townsend/CSP

The December '80 Datapro survey of Word Processing Systems has produced some interesting information on applications.

Datapro reported that only 22% of those surveyed found that automated letter writing was the user's primary application for word processing systems. The ten top Principal Applications, ranked according to the number of answers given were:

#### Principal Applications

1. Document Preparation
2. Documentation
3. Statistical/Scientific
4. Correspondence
5. Text Processing
6. File/Records Management
7. Forms
8. List Processing
9. Education/Training
10. Publishing/Phototypesetting

Datapro said "In general, we feel that the answers to these questions reflect a growing desire on the part of word processing users to be able to integrate functions on their systems, and to use a single WP device for various, diverse application."

We conducted our own survey of TDP/3000 users and the results we obtained are very similar:

TDP/3000 Customer Survey	Principal Application
Documentation, proposals manuals, contracts	28
Program development	15
General correspondence	8
Form letters/mass mailings	7

TDP/3000 is designed to handle long, complicated documents. The extensive and powerful set of TDP features enable many sophisticated and varied formatting requirements to be achieved by issuing a few commands. However a TDP user has to learn the commands to be truly effective with the product. We offer a two-day TDP/3000 training course which is given by the SEO at our training centers or on customer sites. The numbers for these courses are 36579A or 36579X. Many of our customers have already been successful in training inexperienced operators.

## CSY

### HP 3000 Rated No. 1 Among 23 Superminis and Mainframes

By Richard Edwards/CSY

The July issue of *Datamation* contains a report on a US survey of computer users designed by Data Decisions. The systems surveyed were all being used in a communications environment. A fairly large sample was used — approximately 50-75 valid responses were received for each of 23 computer systems. The computer systems were grouped into three classes — small, medium, and large systems — based on estimated performance.

Within each performance class, the systems were presented in descending order according to the average of the means for three ratings assigned by users for operations, applications, development, and training. (The operations rating itself is the average of the means of the ratings for four questions.)

Small Systems  
Class Average = 6.8

(Scale: 1 = low, 10 = high)

- 8.1 Hewlett-Packard HP 3000
- 7.2 IBM System 32/34/38
- 6.9 Burroughs B1800/B2800
- 6.6 Sperry (Univac 90/30-40)

# Business Computers

- 6.5 Honeywell Series 60 Level 62/64
- 6.0 IBM System 3/Model 15D and IBM System/370 115/125

*Medium Systems*  
Class Average = 6.2

- 7.0 Digital Equipment DECsystem 10
- 6.5 Burroughs B3800/B4800
- 6.0 IBM System/370 138/148 and IBM
- 5.9 NCR 8000
- 5.6 Sperry Univac 90/60-70-80

*Large Systems*  
Class Average = 6.3

- 6.9 Burroughs B6800/B7800
- 6.7 NAS (Itel)
- 6.5 Amdahl 470V
- 6.4 Honeywell Series 60 DPS and Sp
- 6.3 IBM 303X and IBM 4341
- 6.1 IBM System/370 158/168
- 6.0 Honeywell Series 60 Level 66/6

## 5.4 Control Data Cyber

Once again, the **HP 3000** has completely outrated its supermini as well as the mainframe competition.

The report also contains additional information on each of the computer systems surveyed. Users responded to the percentage of types of processing currently supported and planned in the future. On the HP 3000, about 95% are currently performing batch processing, 97% interactive processing, 85% data-base processing, 57% timesharing, 38% distributed processing, and 65% transaction processing which was defined as chained input, processing, and file update. Also noted was the average age of the 56 HP 3000 systems — 26 months installed. Among these users there was an average of 24 local terminals and 12 remote terminals. The users reported an average of 17 terminals operating simultaneously on the 3000 systems.

## New Options for Series 30 and 33 Upgrades Effective September 1

*By Louise Otto/CSY*

On September 1, when your customers upgrade from a Series 30 or 33 to a Series 44, the 2649E console and cable must be returned to HP. This means your customer will need to order a console for their Series 44 when they upgrade from a Series 30 and 33.

We will replace option 010 and 020 with options 011 and 021 for model numbers 30089A, 30091A, 30072A, and 30073A on the price list and increase the amount of return credit by \$1,675.

With the return of the 2649E console and cable, we will be able to offer more attractive pricing on the refurbished Series 30s and 33s. Without the console and cable, a new 2649E

and cable would have needed to be purchased; thus raising the cost of the refurbished systems.

## HP 3000 Series 44 Configuration Guide Correction

*By Phil Pompa/CSY*

The current Configuration Guide for the HP 3000 Series 44 is ambiguous for systems utilizing the Expansion Kit (P/N 30087A). The additional 15 I/O slots in the Expansion Kit provide eight slots which only support INPs and 2613/17/19A printer interfaces. However, if it is necessary to utilize these eight slots with INPs or printer interfaces, at least one optional non-dedicated GIC must be ordered. The Configuration Guide to be published in October will incorporate this correction. Please contact sales development if you need help in configuring a large Series 44 with these conditions.

Product	Description	Price	SMMC
30089A	Series 30 upgrade to Series 44 (60 Hz)	\$72,975	217
011	Return Credit for Series 30 SPU with 256Kb memory, without built-in flexible disc drive with 2649E console and cable (less ADCCs, GICs, and INPs)	-15,940	13
021	Return Credit for Series 30 SPU with 256 Kb memory, with built-in flexible disc drive, with 2649E console and cable (less ADCCs, GICs, and INPs)	-16,940	22
30091A	Series 30 upgrade to Series 44 (50 Hz). Same options as 30089A	72,975	217
30072A	Series 33 upgrade to Series 44 (60 Hz)	72,975	217
011	Return Credit for Series 33 SPU with 256Kb memory, without built-in flexible disc drive, with 2649E console and cable (less ADCCs, GICs, and INPs)	-20,315	26
021	Return Credit for Series 33 SPU with 256Kb memory, with built-in flexible disc drive, with 2649E console and cable (less ADCCs, GICs, and INPs)	-21,315	44
30073A	Series 33 upgrade to Series 44 (50 Hz). Same options as 30072A	72,975	217



# Business Computers

## GSD

### GSD Announces The HP 125

By Bill Swift/GSD



*HP 125 Computer System aims at department of large organizations, and at small businesses.*

On August 11, General Systems Division publicly announced HP's newest and smallest computer system for commercial applications, the HP 125. Priced under \$10,000 for a fully configured system, the HP 125 will be HP's lowest cost business computer system. We designed the HP 125 to address a wide range of commercial and problem solving applications within large companies.

Intended for use by non-programmers, the HP 125 applies computer power to the everyday management tasks of planning, analysis, and presenting ideas and information. Customers for the system include business professionals who depend on the timely generation of information to make good business decisions. The HP 125 is a personal office computer that provides a new level of control in accessing and generating information.

#### Product Hardware

The HP 125 combines all the features of a terminal and a powerful microcomputer system in a single desktop unit. The product design leverages the design work of the HP 262X terminal product line by using the existing 262X packaging, CRT, sweep assembly, power supplies, and keyboard. The only new assemblies are the processor board and the rear panel.

The HP 125 includes the feature set of the HP 2621 and adds the following terminal features:

- Extended keyboard
- 16K terminal memory
- Programmable softkeys
- RS-232-C serial printer port

Beginning with the processor board of the 2621, the terminal electronics on the processor board were modified to occupy about two-thirds of the available board space. The remaining space contains a second Z-80A microprocessor, 64K RAM, and an HP-IB interface. The rear panel was expanded to include four connectors:

- Keyboard
- Two RS-232-C datacomm ports
- HP-IB port

Besides connecting to a host CPU and an external serial printer, the HP 125 also connects through the HP-IB interface to a range of disc drives, printers, and plotters all manufactured by HP. The disc drives are the 82901M (0.5Mb) dual drive or the 9895A (2.4Mb) dual drive. The system supports the 7225B and 9872C plotters and the 2601A, 2631B, 2671A, 2673A, and 82905B printers. The 120 cps built-in thermal printer is available as an option.

#### Product Software

The HP 125 uses the CP/M (Control Program for Microprocessors) operating system. CP/M was developed in '76 by Digital Research to

run on the 8080 microprocessor and later for the Z-80A. With an estimated 250,000 users, CP/M is the most widely used operating system ever invented and the defacto standard operating system for microcomputers. The value of CP/M extends beyond the operating system itself. A large library of application software has been written to run with CP/M. By implementing CP/M on the HP 125 we take advantage of this existing software. Our evaluations have shown that the quality of this software is generally good. Also, the number of software packages is well over 1,000 and rapidly growing.

At introduction, the HP 125 will support Microsoft's BASIC interpreter as a high-level language.

Introduced with the HP 125 will be four application software products:

- VISICALC/125
- GRAPHICS/125
- WORD/125
- LINK/125

VISICALC is a unique and powerful product which now operates on Apple, Radio Shack TRS-80 Model I/II, Commodore PET, ATARI, and the HP 85. It allows a user to quickly and easily manipulate rows and columns of data on a CRT screen. The screen becomes an electronic worksheet where a number is a cell in the matrix. Mathematical relationships can be established between cells, rows, and columns (e.g. Row 4 = Row 1 + 0.5 \* Row 2). The real value of VISICALC is being able to ask "What if ..." questions and have the computer recalculate the entire matrix. For example, if the matrix contains monthly sales figures by product for the next 12 months, you can ask the question, "What happens to total sales if sales of Product A increases by 20%?" VISICALC will recalculate the sales of Product A and will re-total all rows and columns. This software product frees the user to spend his time analyzing results rather than generating them.

GRAPHICS/125, together with a plotter, will turn the HP 125 into a graphics workstation. GRAPHICS/125 will create multicolor bar charts, pie charts, and linear charts on either paper or acetate. SLIDE will produce text copy on both media. This product builds on the success of the graphics software used by the 2647A and the 9872C. Unskilled operators can produce high quality graphics in a matter of minutes.

WORD/125 turns the HP 125 into a full function word processor. Combined with the HP 2601A letter quality printer, the HP 125 can handle word processing tasks ranging from short memos to lengthy documents. In addition, WORD/125 can also create and maintain mailing lists and merge the mailing list with a form document to create individualized letters.

LINK/125 allows the HP 125 to transfer files to and from an HP 3000 mainframe. The ability to communicate with a host CPU is one capability that sets the HP 125 apart from the competition. The HP 125 will use a host CPU primarily for storage and retrieval of data. Manipulation of the data is done locally by the HP 125 and does not create an additional burden for the host mainframe.

## Market

Computer systems priced \$5-15K represent the fastest growing segment of the computer industry. Compounded annual growth between '80 and '84 is expected to be about 42%. Sales for '79 were about \$650M, and this total is estimated to reach almost \$4.0B in '84.

Within this market, the primary target customer for the HP 125 will be business professionals and small departments (six to ten people) within large firms. We estimate that there are about 15 million business professionals in the US alone, and market studies show that these customers will account for 50% of the sales

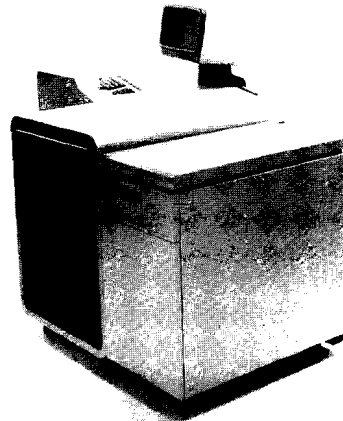
of microcomputers. With creativity, leverage, and new sales tactics, our direct sales force and worldwide service can be a major competitive advantage in this exploding market.

In addition, the HP 125's ability to communicate with a remote HP 3000 combined with word processing, VISICALC, and GRAPHICS should make the system a natural fit in our installed customer base. With the HP 125's standalone capabilities, it can also be sold into new accounts and should be an effective "door opener" into Fortune 1000 companies.

The training materials we mailed to you contain the full HP 125 story, and we hope you'll take the time to familiarize yourself with our newest computer system. The HP 125 is a very significant new product for HP, and GSD stands ready to fully support your sales efforts.

## The All New HP 250!

By John Whitesell/GSD



The HP 250 Office Computer System has just made a dramatic improvement in price/performance. Several new features have been added, increasing capabilities and strengthening the HP 250's position as an "easy to use" business computer. At the same time, a five-terminal HP 250 system is now 24% less expensive. The new HP 250 offers:

- Text processing and HP 2601 support

- Graphics plots
- The world's easiest system backup
- DS data comm to an HP 3000
- 25% lower prices for add-on memory
- System timer
- 33% more Winchester disc capacity standard

And since its application software is compatible with the earlier HP 250's, the system retains all the programming advantages of the original HP 250, including:

- Structured programming
- IMAGE and QUERY data base management
- FORMS
- REPORT WRITER
- Autostart and several other utilities

The new hardware components include a CPU the size of a two-drawer filing cabinet, a 16Mb sealed disc drive and high-speed tape cartridge backup device, and an improved CRT called the Personal Workstation, which features a non-glare keyboard and is about one half the price of the 2649D.

New system software offers support of up to 10 RS-232/V.24 ports with the following qualifications:

- Up to six Personal Workstations are supported
- If the INP board is used, then only five RS-232 ports are available

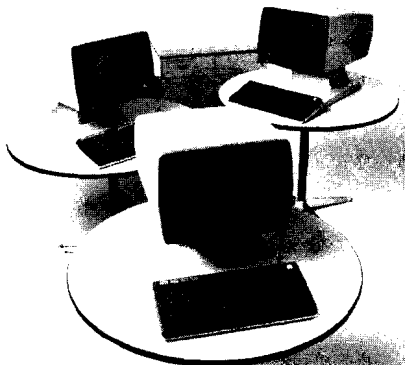
The system software also includes a set of graphics intrinsics (see accompanying article), 2601-support, 7220/21/25 support, and a system clock timer, as well as support of the new disc drive, tape cartridge, and workstation.

With the introduction of these new components, the HP 250 Office Computer product line now has two new members, the HP 250/30 and HP 250/35, as shown on page 14.

# Business Computers

The HP 250/30, code-named SAMSON, combines all of the new products for the greatest improvement in price/performance and physical compactness and flexibility.

The second new system, the HP 250/35, consists of the current, attractively-designed desk with integrated workstation, but with the new 16Mb disc drive and tape cartridge device in a separate enclosure, in place of the 12Mb drive and flexible disc drive. The HP 250/35 comes standard with the five-port asynchronous serial interface (ASI), which can be deleted for single-user configurations.



HP 250/30 Price/Performance Compact, Flexible



HP 250/35 Human Engineering Stylish Office Furniture

The US list prices of the standard configurations for the new HP 250s are as follows:

	HP 250/30	HP 250/35
CPU with five-port ASI	\$10,100	\$15,100
16Mb disc & tape cartridge	9,900	9,900
2622D Workstation	2,500	—
	\$22,500	\$25,000

Initial availability is 10 weeks in North America and ICON, 14 weeks in Europe.

Aimed at the branch offices of large companies, as well as OEMs selling to small business, the HP 250 is designed for multi-user transaction processing applications such as accounting, order entry, inventory control, analysis, and administrative reporting.

Please see the accompanying articles on new HP 250 application software packages TEXT/250, DSG/250, and DSN/DS.

For more information on the *all new* HP 250, please refer to the sales aid packet that has been mailed to all commercial SRs. The packet contains a Field Training Manual, Competitive Brief, General Information Manual, Product Flyer, Configuration Guide, and Application Software Data Sheets. If you have any questions, please be sure to give us a call, or ask us during New Product Training, which begins next week.

With significant improvements in operator convenience, system features, and price/performance, the new HP 250 *will win for you* in office oriented applications that require:

- Two to six workstations sharing 16-64Mb of local data.
- Convenient back-up.

- Quick solutions (with HP application software, HP 250 BUSINESS BASIC, IMAGE/QUERY DBMS, FORMS, REPORT WRITER, Auto Start, etc.).
- Data communication with a mainframe.
- Ease-of-use (with easy start-up, softkeys and prompting messages, and software that makes heavy use of these features).

## Text Processing Software for the HP 250

By Paul Storaasli/GSD

TEXT/250 is an interactive text processing system for the HP 250 Office Computer used to create, modify, and format documents such as contracts, proposals, correspondence, manuals, and reports. By using easy-to-understand commands, documents can be typed in, errors corrected, text rearranged, and final reports printed. Most of the commonly used commands are specified on HP 250 softkeys for push-button operation.

Both data processing and text processing applications can be handled with the same HP 250. TEXT/250 can be used from REMOTE/250s, Personal Workstations, and the integral workstation of the HP 250/35 desk-based Office Computer. As long as each user is working on a different document, up to six users can use TEXT/250 at the same time.

Related information is contained in the following:

- HP 250 Field Training Manual
- TEXT/250 Data Sheet (P/N 5953-3438)
- TEXT/250 Reference Manual (P/N 45160-90010)

## Graphics Application Software for the HP 250

By Paul Storaasli/GSD

HP 250 Decision Support Graphics (DSG/250) is an interactive application for the creation of charts and graphs using the HP 250 Office Computer and HP Graphics Plotters. A variety of chart types are supported — line charts, pie charts, bar charts, deviation charts and scattergrams. Charts can be drawn on paper or transparent media. DSG/250 makes full use of HP 250 Graphics Plotting Library features. A menu and softkey-driven format makes DSG/250 easy to learn and easy to use.

DSG/250 can be used from Personal Workstations, Remote/250s and/or the integral workstation of desk-based HP 250s, and is fully multi-user subject only to the availability of graphics plotters on the system.

Related information is contained in:

- HP 250 Field Training Manual
- DSG/250 Data Sheet (P/N 5953-3437)
- DSG/250 User's Manual (P/N 45150-90000)

## HP 250 Joins the Distributed Systems Network

By Kyle Hurlbut/GSD

A new data communication product has just been introduced by GSD. Now the HP 250 can be part of the Distributed Systems Network (DSN) of HP products, by using the new DSN/Distributed Systems. DSN/DS is an application program which allows the HP 250 to access an HP 3000 through a synchronous data link.

Several key features that make DS very useful in the HP 250/HP 3000 environment include:

- HP 3000 virtual terminal capabilities.

- Friendly interactive softkey commands.
- Back up or retrieval of HP 250 program files to an HP 3000.
- Bidirectional data file transfer between the HP 250 and HP 3000.
- Local HP 250 command execution.
- Auto dialing capabilities.
- High speed communication link (19,200 bits/sec).

All of these features combined make the HP 250 a powerful addition to Hewlett Packard's Distributed Systems Network.

With the introduction of DS, several additional changes to HP 250 data communication products have been implemented. INP/250 and RJE/250 have been unbundled to become DSN/INP (45122B) and DSN/RJE (45123A) respectively. An

INP will need to be installed on an HP 250 to run DS and both DS and RJE have a Right to Copy product (DSN/DS 45124R and DSN/RJE 45123R). The following table summarizes the changes to the HP 250 data communication product line.

Old		
Product	Model #	Price
INP/250		
+	45122A	\$3,000
RJE/250		
New		
Product	Model #	Price
DSN/INP	45122B	\$2,500
(RJE software not included)		
DSN/RJE	45123A	500
DSN/RJE	45123R	200
(Right to Copy software)		
DSN/DS	45124A	500
DSN/DS	45124R	200
(Right to Copy software)		

## HP 250 SEO Support Services

By Curt Gowan/GSD

Here's a handy table that we use to keep track of the various SEO support services available on the HP 250. It is included in our forthcoming Configuration Guide, but we thought it might be useful to you now.

Support Element	Customer Support Service			Software Subscription Service			
	First System	Central Support of Additional System	Additional Caller to PICS	First System	Right to Make One Copy	Manual Update Service	Software Notification Service
	T	V	P	S	W	Q	N
Account-Assigned SE	Yes	+					
On-Site SE Assistance	Yes	+					
Phone-In Consulting	Yes	+	Yes				
Software Problem Reporting	Yes	+		Yes	+		
Software Updates	Yes	*		Yes	*		
Manual Updates	Yes	*		Yes	*	Yes	
Communicator and SBB	Yes	*		Yes	*		Yes

\*Right to make and distribute one copy  
+ Support of additional site via central site

## Englewood Grows Small Systems Sales Force

By Hal Elgie/GSD

Thanks to the efforts of Phil Skraba, the HP 250 is a success in the Denver, Colorado area. Phil has been so successful, in fact, that management

decided to split his district and to bring in a second Small Systems Specialist.

GSD welcomes Marc Duame and congratulates Phil Skraba for his outstanding performance.

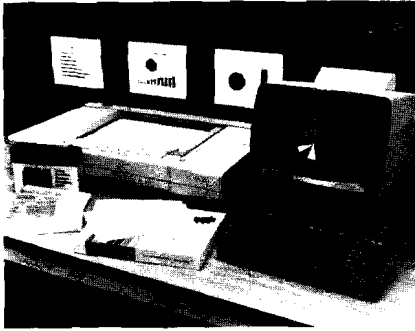


# Business Computers

## IND

### DSG/3000 Supports the HP 2623A Terminal

By Chris Kocher/IND



If you've been looking for some new sales opportunities, we've got the answer — low-cost graphics. The HP 2623A graphics terminal, priced at \$3,750, will reduce the cost of giving your HP 3000 customers the graphics features of DSG/3000. Now you can offer a complete graphics configuration by quoting the new 2623A graphics terminal, 7221C eight-pen plotter, DSG/3000, an overhead transparency kit and the DSG/3000 self-paced training kit.

An integrated thermal printer is also available as an option for \$1,210. Take advantage of this new terminal to re-emphasize the benefits of graphics to your customers.

*Note:* Version A.00.01 of DSG/3000 was released to the Field Software Coordinators on July 1. This release of DSG/3000 supports the 2623A and all of the eight-pen plotters.

### MTS Supports IBM 3270 Terminals

By Donna Merlino/IND

IND announces an extension to the existing DSN/MTS product. This enhancement allows the physical connection of bisync IBM 3270 information display systems to an HP 3000 computer system using a multipoint communication line. Those customers with installed IBM 3270s can use them in conjunction with an HP 3000 and HP terminals. This will increase your sales opportunities by allowing penetration into IBM shops considering a system conversion or upgrade.

The DSN/MTS supports the IBM 3270s in two modes of operation: Edited Mode (session/log-on) and Unedited Mode (application/data entry).

#### Edited Mode

Edited Mode is the default operation mode for 3270s. In this mode, the users are able to interactively access HP 3000 system resources from the 3270 terminal in a similar manner as from HP 264X and 262X multipoint terminals.

Edited Mode of the DSN/MTS supports the following items:

- Basic system utilities except any application or subsystems using V/3000
- Passwords may be entered without being displayed
- All 3270 keys and functions described in the 3270 Information Display System Manual except for the following keys with special definitions:
  - PA1 = System break
  - PA2 = Subsystem break
  - PF = Enter (any PF key)
- Screen sizes of 1920 characters only.

Edited Mode of DSN/MTS does not support the following items:

- Printers that are part of the 3270 configuration
- Magnetic slot and card readers attached to display stations
- The 3270 keys listed below:
  - System request
  - Test request
  - Cursor select
  - PA3
  - Selector pen detect
- V/3000 and any subsystems or applications that utilize V/3000
- Pass-thru using DSN/IMF

#### Unedited Mode

Unedited Mode provides the communications link only; the user's application is responsible for initiating data transfers and control operations through calls to the MPE file system intrinsics. Unedited Mode supports the following items.

- All 3270 device keys and functions, except test request and system request
- Any screen size supported by the IBM 3270 (480, 960, 1920, 2560 and 3440 character screens).

#### Configuration

Communication between the HP 3000 and 3270s uses the INP for hardwired and synchronous modem connections. Only bisync protocol is supported. Standard data transfer rates up to 9,600 bps are supported.

The connection is made through an IBM cluster controller. DSN/MTS will support up to ten devices attached to the controller. Any IBM 3270 device (terminal or printer) that can attach to a 3270 control unit can communicate with the HP 3000 using DSN/MTS. Those IBM 3270s supported are:



## Controllers

3271 Models 1, 2  
3274 Models 1C (BSC)  
3276 Models 1, 2, 3, 4

## Display Stations

3277 Models 1, 2  
3278 Models 1, 2, 3, 4

## Printers

3284 Models 1, 2  
3286 Models 1, 2  
3287 Models 1, 1C, 2, 2C  
3288 Model 2  
3289 Model 1, 2

Note: DSN/MTS will only support the IBM 3270s. It is the responsibility of the user to verify the compatibility with plug-compatibles. Also, 3270s and HP terminals cannot be placed on the same line.

## Ordering Information

Order 32193 A/R. The 3270 enhancement will be included with MTS software. This enhancement is expected to start shipment to software coordinators in September '81. For hardwired INP to IBM 3270 cluster controller configurations, the 30225A (P/N 30225-60005) Series III INP cable or 30225B (P/N 30225-60006) Series 3X and 44 INP cable is required. This cable has been modified for proper connection to the IBM cluster controllers. Customers must provide a cable for connecting the 3270 cluster controller to the INP cable and all cables required for connecting terminals and printers to the cluster controller.

Remote multidrop attachment is supported over synchronous modems only. For modem attachment, the standard INP synchronous modem cable 30221A for Series 3X and 44 or 30222A for Series III is required.

## How to Avoid the DSN/MRJE Blues

By Jitendra Singh/IND

The job management feature of DSN/MRJE provides the ability to maintain a log of transmitted jobs and route outputs automatically to selected devices. Unfortunately, selling this feature in unsupported environments has caused us much grief.

In order to avoid customer dissatisfaction, please refer to the following support information: the job management feature is fully supported in the following environments when they have *not* been modified:

Operating systems	Job entry software on host
DS/MFT	HASP
DS/MVT	HASP, ASP
DS/SVS	HASP
DS/MVS	JES2, JES3

DSN/MRJE will work in the following environments, but *the job management feature will not*:

Operating system	Job entry software on host
DS/VSI	JES/RES
VM	RSCS

DSN/MRJE is known to work with some non-IBM job entry software. However, the factory does not support connections to non-IBM software systems. When in doubt, please consult your data communications systems engineer for information on job management specifics.

## BGD

### European Sales of MM/3000 Rocket

By Wolfgang Bayer/BGD

June has been yet another record month for European MM/3000 sales, with nine orders placed at a value of \$210,000, over 200% of quota. This brings the year-to-date total (including June) to 42 orders, valued at \$856,000, again well over quota. Nearly all countries have done well, with 18 orders from the UK, 5 from Finland, and 8 from France, who deserve particular mention, having sold 5 in June alone.

With nearly all local language versions of MM/3000 available, and the release of the UK version of PM/3000 in sight, there is no reason why we should not maintain this high level of success, provided that we continue to pay attention to the points that made it possible:

- Monitoring the coming installations in order to forestall any problems.
- Close cooperation between sales and support to ensure the success of every installation.

Remember, satisfied customers mean reference customers, reference customers mean more software sales, and more software sales mean more hardware sales.



# Terminals

## DTD

### Selling The New HP 2382A

By Peter Moulds/DTD

The HP 2382A Office Display Terminal is a unique product. No other major display terminal manufacturer offers anything like it, and its design gives it a special appeal making it easy to sell to new and existing customers. This unique design is the result of customer requests DTD has observed for some time.

#### The HP 2382A's Contribution

DTD has received requests for a space-saving, low-cost, block mode display terminal. It would be used mostly by *casual* users, especially professionals and managers in office environments. The 2382A is DTD's answer to this need. It blends the powerful capabilities of the 2622A with simplicity and reduced size, making it ideal for data inquiry and office automation applications. Most data inquiry users need a terminal only occasionally during the day and for short periods of time. For these applications, the 2382A's small size, aesthetic styling, and low cost may be just what your customer needs.

#### When to Sell the 2382A

There are two sales situations where the 2382A should be considered:

- When the customer is looking for a terminal for casual use, perhaps a data inquiry application, where small size and low price are important. This is the target application for the 2382A and it should sell well in these environments.
- When the customer is looking for a block mode terminal and is very price sensitive. In this situation, the SR should be aware that the 2622A could also be a solution. An understanding of the differences between the 2382A and 2622A are important. Basically,

these terminals are functionally and programmatically equivalent. The following list describes the 2622A features that the 2382A doesn't have.

- No numeric keypad
- No optional integral printer
- No support of current loop or modem pod accessories
- No CMOS RAM and battery

A 2382A Field Training Manual (P/N 5955-6344) is in the mail to all US, Canada and ICON SEs, SRs and CEs. It should answer any additional questions you may have.

### HP Terminals #1

By Russ McBrien/DTD

In January '80, *Electronic Engineering Times*, a popular industry newspaper, began a series of preferred vendor surveys. Readers were encouraged to vote on the companies they *prefer* to do business with for various types of electronic equipment. They were asked to respond without regard to whom they were currently doing business. The only consideration was — "What company would you *rather* do business with." The results of these surveys are published in the June 22, '81 issue of *Electronic Engineering Times*.

Not surprisingly, HP scored very well in a number of categories. In terminals, however, HP was number one, with 42% more votes than the nearest competitor.

With so many customers out there who would prefer to do business with HP for terminals, our duty is clear. We must, in our customer's interest, provide them with the opportunity to fulfill their terminal needs.

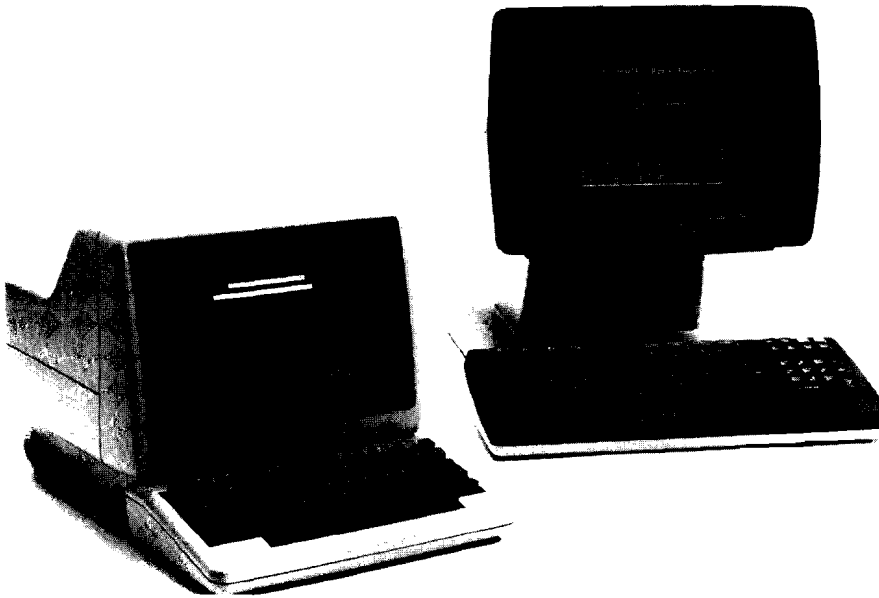
### HP 2623 vs HP 2648 Comparison

By Bill Mitchell/DTD

The HP 2623A, HP's low-cost graphics terminal solution, combines the basic features of a 2648A graphics terminal with a much smaller price tag. While most of the capability of the 2648A is present (and also some enhancements), differences do exist. The table below outlines the major differences in the products:

	2623A vs 2648A	
	2623A	2648A
Price	\$3,750	\$6,530
<i>Graphics Capability</i>		
Resolution	512 x 390 dots	720 x 360 dots
Integral Printer	(optional)	
Vector Writing Speed	4 MS	10 MS
Rubber Band Line		✓
Graphic Text	✓	✓
Rectangular Area Shading	✓	✓
Auto Plot		✓
Zoom/Pan		✓
Mass Storage		(optional)
Ex. Printer Support	✓	(optional)
<i>Alphanumeric Capability</i>		
Block Mode	✓	✓
Forms Mode	✓	✓
Soft Keys	✓	✓
Record Mode	✓	✓
National Character Sets	✓	
Editing	✓	✓

For additional details, see the HP 2623A Field Training Manual or call your sales development contact.



*HP's newest terminals: the HP 2382A and the HP 2623A.*

## **New DTD Course For Systems Engineers**

*By Gail Crowther/DTD & Pam Leitnerman/DTD*

Data Terminals Division is pleased to announce a new self-study course for systems engineers, SE70: Fundamentals of Terminals. SE70 is designed to be a self-instructional course on operating and configuring the 2626A and 2647A terminals, which are the high-end products of the 262X and 264X families, respectively. SE70 is now a pre-requisite to SE107: Introduction to Terminals.

Two factors contributed to the decision to develop SE70. These are the increasing number of terminal products manufactured by HP (both CRT and Data Capture products), and the increasing number of students enrolled (from 16 to 20). It has become necessary to establish some common level of knowledge for all students enrolled in SE107. By learning to operate and configure the 2626A and 2647A terminals, students will have a solid base from which to learn the other Data Terminal and Data Capture products.

Students enrolled in the August 24-28 session of SE107 will be the first to receive the SE70 workbook and accompanying manuals. The basic format of this equipment-independent course is directed readings from selected manuals and self-test questions. Optional labs are provided throughout the course for those students who have access to a 2626A and/or a 2647A.

Since SE70 is a pre-requisite to SE107, students enrolled in SE107 will be expected to demonstrate knowledge of the material presented in SE70 by answering written questions and by using the 2626A and 2647A to perform simple lab problems. Students will be permitted to use reference materials for both the written work and lab work. The content of SE107 has been modified to reflect the existence and use of this new self-study course.

If you have any questions about SE70 or any other systems engineering training developed at DTD, please give us a call. ☎



## BSE

### Boise Bullets

By Bob Granger/BSE

#### HP 2601A Remote Reset

When the RESET button on an HP 2601A daisywheel printer is activated, the printer resets to its power-up condition. Those conditions that are stored in non-volatile RAM are not affected by this reset command. To reset the content of the non-volatile RAM to default condition, a REMOTE RESET command must be issued by the operating system. This command consists of the following escape sequence:

ESC CR P

As the REMOTE RESET command also clears the 2.7K buffer, do not send this command in the middle of a data transmission unless necessary steps have been taken to prevent data loss.

#### HP 2608A Special Character Sets

If your HP 2608A customer needs a special character set for his/her application, chances are that it can easily be generated for their printer. The design process is made simple by using the Character Set Design Aid available from Boise Division (P/N 02608-90916). This aid includes worksheets, preprinted mark sense cards, data entry sheets and a detailed description of the design process. Call your sales development contact for more information.

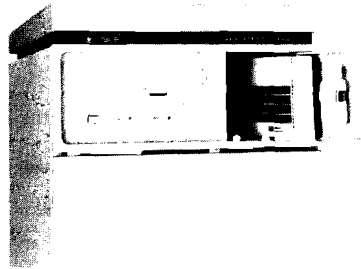
#### 2680 LPS Application Amplifier

The first 2680 LPS Application Amplifier is now available for your use. This amplifier describes how a west coast based insurance company plans to improve their information output by using the 2680 laser printer. This sales piece is now available through the HP Corporate Literature Depot (P/N 5953-7101).

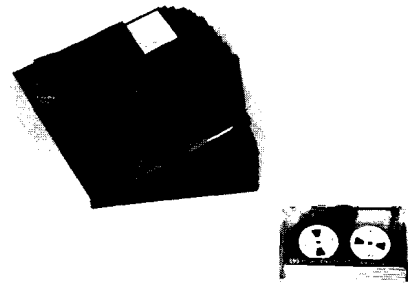
## DMD

### For the First Time ... One Product That Satisfies All Peripheral Storage Requirements!

By Keith Braunwalder/DMD



HP 7908 Front Panel. Left: Tape device with controls and indicators. Right: Convenient storage compartment for operator instruction and tape cleaning equipment.



Two back-up alternatives — 67Mb each. 1.2Mb Floppies ≈ \$300. 600 ft. Tape Cartridge = \$33.

DMD is excited to announce the arrival of the HP 7908 Disc/Tape Drive. The 7908 is Hewlett-Packard's lowest priced disc product, incorporating a 16Mb Winchester disc for mass storage and a 1/4-inch cartridge tape drive for personal I/O and back-up.

The disc and tape drives are managed by an intelligent microprocessor-based controller. This controller can manage disc-to-tape and tape-to-disc data transfers without host system intervention. Tradi-

tional selected file back-ups are also possible with system supplied software.

#### Product Description

The HP 7908 consists of three fundamental components:

- A Winchester technology disc drive (includes the intelligent controller)
- A streaming-mode cartridge tape drive
- A compact, modular packaging

Hewlett-Packard purchases the disc mechanism from International Memories, Inc. (IMI) and the tape unit from the 3M Company. The controller, firmware, diagnostic capabilities, enhancements to the servo system, electronics to integrate the two devices, and the packaging options are all contributions of Hewlett-Packard.

The 7908 offers significant performance improvements over the HP 7910, our previous entry-level disc. The disc utilizes three, 8-inch platters yielding 16Mb of formatted user storage. In addition, Winchester technology provides the 7908 with high reliability and enables it to operate in high particulate environments.

The 1/4-inch cartridge tape drive is the state-of-the-art for cartridge tape units. Hewlett-Packard is the first manufacturer to release a product with this tape device. The tape media used is the DC-600 type, capable of storing up to 67Mb on a single cartridge. This capacity leads the industry by a large margin! There are two versions of the tape cartridge: a 16Mb and a 67Mb version. These

high capacities are achieved by a unique 16-track recording format. The cartridges are sold in packs of five at US list price of \$125 and \$165, respectively. The solution is so economical, an entire disc can be backed-up on a single tape cartridge for as little as \$25 in media costs!

As mentioned earlier, the controller can manage data transfers from disc-to-tape (back-up) and tape-to-disc (restore) without CPU intervention. With a data transfer rate of 2Mb per minute, the entire contents of the disc can be backed-up in less than 10 minutes.

The final element of the 7908 is the innovative packaging which physically integrates the disc and tape drive into a single, compact unit. The disc and tape drives share the same controller and power supply; therefore, they can share the same cabinetry. This unique packaging concept reduces manufacturing costs which, in turn, reduces the price of the finished product. At the same time, the 7908 requires much less floor space (about 1/4) than individual storage products providing the same utilities. (i.e. Disc, mag tape, and floppy).

There are two packaging options available with the 7908; a stand-alone cabinet and a standard E.I.A. rackmount. The stand-alone cabinet was designed with aesthetics and convenience in mind and is ideally suited for office environments. The 7908 has ample sound proofing material resulting in very quiet operating sound levels (approx. 50dBA).

The 7908 presents an excellent opportunity for HP system users to save thousands of dollars when configuring their system with complete peripheral storage capabilities. This unique integrated storage product will prove to be invaluable in providing your customer with an inexpensive, compact, and attractive peripheral storage solution.

## Configuration and Ordering of the HP 7908

By Mark Minne/DMD

Now that you have read the article on the HP 7908 introduction, the next important topic is the ordering and configuration information. The configuration information is shown here in pictorial form for the two systems that, at present, support the HP 7908, the HP 250 and the HP 64000.

Please note that this disc drive is an HP-IB device and, as such, the maximum cable length is dependent

upon HP-IB rules and system specifications.

The ordering information in the table, tells you that your customer will receive a two meter HP-IB cable with each disc drive. This cable length is typically the maximum cable length supported by the system. More HP systems will support the 7908 in the near future.

The present schedule is:

HP 1000 Models L, E, F First Quarter FY'82

HP 9835%45 First Quarter FY'82

### 7908 ORDERING INFORMATION

PRODUCT & OPTIONS	DESCRIPTION	PRICE*	COMMENTS
7908P	16 Mb Fixed Winchester Disc Drive with an Integrated Tape Back-up Device	\$9,900	This product is End User and OEM "A" discountable.
Option 015	In a Stand-alone Cabinet Configuration	N/C	
Option 140	For 220V/50 Hz Disc Drive Operation	N/C	
	Deletes the Integrated Tape Back-up Device from the Disc Drive	-\$2,000	Credit given for removing the Tape Drive.
*Prices as of September 1981. Check the Corporate Price List for latest prices.			

# Peripherals

## Third Party Disc Drives — United Peripherals

By Greg Engelbreit/DMD

The United Peripherals Company has placed several ads concerning their UP 1696 disc drive in publications aimed at the EDP community.

This drive offers 480Mb of formatted storage capacity and is plug-compatible with the HP 3000 Series II and III. We thought it would be appropriate to supply you with some detailed information about this product and how it compares to HP's 7925 disc drive.

United Peripherals is a subsidiary of Microcomputer Systems Corporation (MSC). MSC was formed five years ago by a group of engineers formerly with Hewlett-Packard.

MSC's first product was a disc system which was plug-compatible with the HP 2100. They have since moved into the HP 3000 plug-compatible marketplace. United Peripherals was formed to sell discs to HP 3000 users.

MSC/UP has headquarters located in Sunnyvale, California. They have sales/service offices in San Francisco, Boston, New York, Minneapolis and Los Angeles. A majority of the sales appear to be in close proximity to these office locations. Although, we do know of a few isolated installations in remote locations.

The UP 1696 disc subsystem incorporates a disc controller manufactured by MSC and a disc drive acquired from Control Data Corporation (CDC). The CDC Model 9775 utilizes Winchester technology and provides 675Mb of unformatted storage. When used with the MSC controller, the UP 1696 can emulate four HP 7925 units, or 480Mb of formatted storage. A maximum of eight UP 1696 drives may be used with one HP 3000, providing up to 3.84 gigabytes of storage. For a typical application of 960Mb, the UP 1696 is \$73/Mb; the HP 7925 is

\$140/Mb. The BMMC for the UP 1696 is around \$260/month. On a per megabyte basis, the HP 7925 BMMC is the same.

UP services the CDC drives through training provided by CDC. The service contract appears to be similar to HP's. The limited number of service offices is probably the reason UP's restriction of sales to areas close to the sales/service centers.

Due to the lack of any HP-IB interface, the UP 1696 is presently plug-compatible only with HP 3000 Series II and III, which use the MPE-III operating system. UP disc drives are currently incompatible with any HP systems using the new MPE-IV

operating system. However, UP plans to introduce an HP-IB interface card in the July '81 timeframe to be compatible with the Series 44.

To compete with UP, we cannot overemphasize the importance of the *One Vendor* solution. Also, the reliability and serviceability of HP's products as a result of our high quality, are important selling points. These benefits sell systems; they can sell add-on discs as well!

Please refer to the chart for a comparison of significant features of both drives. If you encounter United Peripherals in a competitive situation, please contact your DMD sales development representative.

	UP 1696*	HP 7925
Capacity (Formatted)	480Mb	120Mb
Price: Master	\$39,500	\$22,050
Slave	30,500	17,850
Price Per Megabyte of 960Mb Configuration	\$73 (2 drives)	\$140 (8 drives)
BMMC: Master	\$260	\$83
Slave	225	54
Disc Type	Fixed Winchester	Removable Disc Pack Drive
Average Access Time	33.3ms	36.1ms
Data Transfer Rate	1209Kb/Sec	937.5Kb/Sec
Rotation Speed	3600rpm	2700rpm

\*Based on information from Dataquest — April, 1981

## GLD

### Choosing A Disc Drive For The HP 125 Business Assistant

By Renee Gehrig/GLD

The HP 125 Business Assistant can be configured with either an HP 82901M Dual 5-1/4" Flexible Disc Drive or an HP 9895A Dual 8" Flexible Disc Drive. Both mass storage devices read and write double sided, double density formats on HP-qualified discs.

Some of the differences between the two drives are outlined below:

Flexible Disc Drive	82901M 5-1/4" (dual master)	9895A 8" (dual master)
Total capacity per disc*	286Kb	1.18Mb
Cost per dual unit	\$2500	\$6830
Cost per byte	0.44¢	0.29¢
IBM 3740 format compatibility	No	Yes

\*Includes spare tracks. Actual user capacity may be less.

The most important difference between these two drives is *capacity*. When choosing the appropriate drive for your customer, look at the long-run capacity needed by that customer and choose accordingly.

The 82901M dual drive offers 540Kb of on-line storage. The 9895A dual drive offers 2.36Mb with optional dual and single add-ons (slaves) offering an extra 2.36 or 1.18Mb of storage, respectively.

It is appropriate to use the 82901M drives when a customer needs on-line capacity of 1Mb or less (two to four drives). For the customer who needs more than 1Mb of on-line capacity, the 9895A 8" drives will generally be a much better solution.

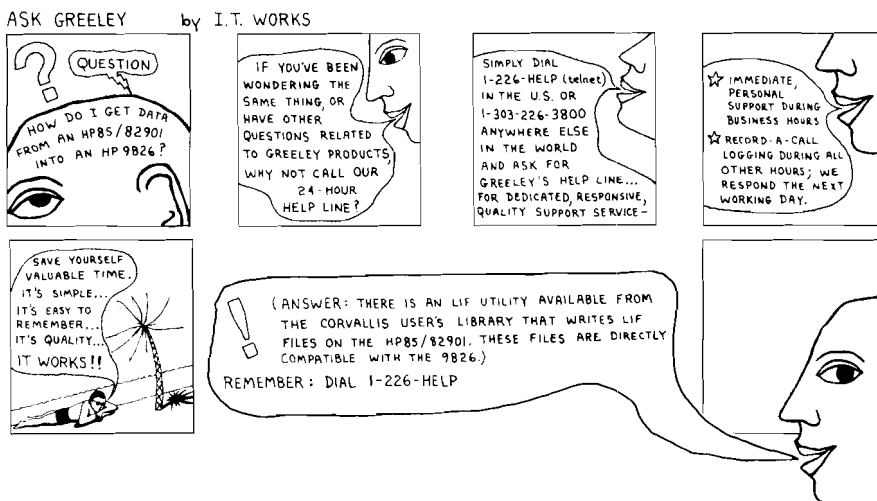
Drive	Size	Capacity Range	Configurations
82901M	5-1/4"	up to 1 Mb	2-4 drives
9895A	8"	up to 5Mb	2-4 drives

If your customer has trouble visualizing just how much information 1Mb represents, try to quantify it for him. One Mbyte is equal to approximately:

- 600 one-page business letters, or
- 1,000 mailing list names (with title, address & phone), or
- 1-1/2 editions of the *Wall Street Journal*, or
- 1/12 of *Webster's New Collegiate Dictionary* (8,000 defined words).

## Mass Memory Questions? Data Exchange Questions?

By Jack Huffman/GLD (art by Phil Cook)



## SDD

### HP 2623A and DSG/3000

By Peggy Wyman/SDD

Your customers wanted a low-cost, high-quality graphics terminal. Now the 2623A has arrived. Priced at about half the cost of a 2648, the 2623A features fast vector drawing plus all the 2640B-compatible alphanumeric. It is a block mode *view* compatible terminal that can be used in graphics applications that need a low-cost terminal without extensive local intelligence. The 2623A, teamed with DSG/3000 software and the new 8-pen 7221C, brings your customer a sophisticated, but easy-to-use, management graphics system that will help decision making and increase productivity.

### HP 2623A Has DSG/3000 Support at Introduction

DSG/3000 software was designed to be an easy-to-use but powerful tool for efficient decision making. It provides high quality line graphs, horizontal and vertical bar charts, pie charts, and scattergrams, while requiring little knowledge of the mechanics of producing graphics from the user. DSG/3000 features menu-driven *fill in the blanks* access especially designed for non-technical users. Data can come from any tabular file created on the 3000. Design flexibility is provided to the user since chart specifications and data are kept separate. Sensible defaults are built into DSG so that it always produces aesthetically pleasing graphs.



# Peripherals

## The New, Updated Peripherals Product Brochure Is Available Now

By Mary Zoeller/SDD



The *Look Into Hewlett-Packard Terminals and See How Much More Your Computer Can Do* brochure has been revised to include the many new products introduced during recent months by HP.

Hewlett-Packard's complete line of terminals and hardcopy peripheral devices is presented in this attractive new four-color, 16-page product guide brochure.

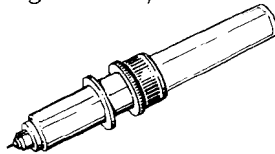
The products are grouped to include: alphanumeric, graphics and data capture terminals; alphanumeric and graphics printers; graphics plotters; and graphics input devices. Within these product categories, each individual product is described in detail, with important features and capabilities highlighted in summary bullets. This catalog-type presentation of the products provides an informative guide for your reference and to your customer's product selection.

To further assist in product qualification and selection, a comparative matrix of features appears below each product group. Users may also configure the terminal and appropriate hardcopy or input device which best matches their application needs by referring to a central hardcopy selection guide. More information may be requested by using the mail-in card provided in the brochure.

*Look Into Hewlett-Packard Terminals and See How Much More Your Computer Can Do* (P/N 5953-4098) is available through the Corporate Literature Center in Palo Alto. This new product guide will replace the existing guide (P/N 5953-4072).

## Bertha Drafting Pens With the HP 7225

By Lary Daniele/SDD



Recently we wrote that HP 7580 drafting pens can be used with the 7225 plotter. Although no pen pressure control is available on the 7225, drafting pens produce excellent quality lines on mylar and vellum with the 7225. However, some care should be exercised.

- Only drafting film or vellum or other hard surface material should be used with liquid ink pens. The surface of regular plotter paper is soft and will quickly clog up pen tips with paper debris.
- After each plot, the pen tip should be wiped off. This will remove the accumulated debris that tends to

accumulate around the tip. If not removed, the debris will cause a gradual widening of the line.

- If the pen has been sitting uncapped, ink flow may need to be started manually. Replace the pen in the plotter and run the program quickly after priming the pen.

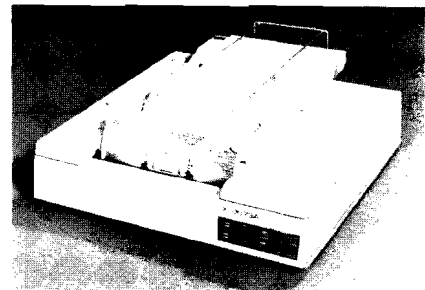
Part Numbers are as follows:

07580-60025	Drafting pen body assembly
9260-0579	Wide pen tip (.7mm)
9260-0588	Fine pen tip (.35mm)
9260-0596	Drafting ink
9282-0908	Cleaning Solution

## VCD

### Spotlight On The HP 2673A Intelligent Graphics Printer

By Web Augustine/VCD



Your response to the new 2670 Series Printers has been very enthusiastic. Keep up the good work! These printers have the performance and price to be sold with a wide range of HP products and systems.

I would like to focus on the HP 2673A Intelligent Graphics Printer and amplify some of the features that make this the top-of-the-line printer in the series.

The 2673A has faster graphics throughput because it suppresses leading as well as trailing blanks. Graphics can be easily positioned on a page through auto-centering or x-axis offset commands. Portions of an image can be isolated and printed through windowing commands. These features further enhance the 90 dots/inch raster graphics of the 2671G.

Additional alphanumeric character enhancements include expanded mode (5 cpi), triple pass printing for emphasis, and character framing. The 2673A features an HPL character set and six 7-bit ISO character sets in addition to the standard USASCII, Roman Extension, and Line Drawing.

Auto-page mode allows the user to specify top margin and page length for report formatting. The flat, Z-fold paper capability provides convenient, manageable output for any application.

The interactive, non-volatile memory stores printer features selected from the front panel and automatically recalls them at power-on. A user with special formatting or datacomm requirements can select these parameters once, and never have to worry again.

The 2673A also responds to secondary HP-IB commands for those applications that require this capability. An extensive self-test feature provides the ability to check all the major printer functions to verify proper operation.

Although the 2671A and 2671G printers are excellent for many applications, the enhanced features of the 2673A Intelligent Graphics Printer make it the ideal solution for those applications that require a low cost, yet sophisticated printer.

## No Cost Option on HP 2631B Makes Any National Character Set the Primary Language

By Al Grube/VCD

International customers can make national character sets the primary default language on the HP 2631B printer at no extra cost once any one of the character set options are ordered (options 001 through 007, \$150). By also specifying Option #019 (at no charge) the national character set becomes the primary default language and its high density version secondary.

Customers who desire their national language as the primary default character set, and USASCII as secondary, will not be able to accomplish this with any options currently available. Some evidence exists that there is a demand for such a setup, and it is easily accomplished by switch settings on the Printer Logic PCA. This is because any multilingual 2631B has all languages on character sets resident in the printer.

For example, a customer wanting French as primary and USASCII as secondary, should order any multilingual version, such as Options 003 and 019. Then a field representative can set switches SW1 and SW2 on the Printer Logic PCA to conform to user wishes. See the supplement to the *HP 2630 Family Reference Manual* for details on switch settings.

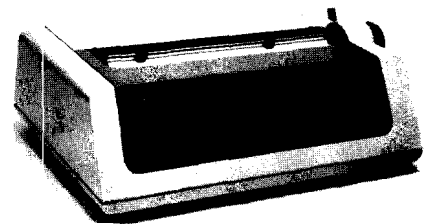
## Factory Data Printer Field Upgrade Kit, 26094G #200, Available for Sales Demos

By Al Grube/VCD

A kit to upgrade a 2631G Printer to a Factory Data Printer, capable of bar code and mark sense card printing, is available from Vancouver Division. In addition to necessary hardware, the kit (26094G #200) includes a demo tape, the Field Training Note for the 2631G #200, and a copy of the Bar Code and Mark Sense Printing Guide. Field Upgrade Kit 26094G #200 is priced at factory cost and is available only to Sales Offices for the purpose of demonstrating Factory Data Printer capabilities. It can no longer be ordered as P/N 02631-60625. Customers who desire to upgrade existing 2631G printers to bar code/mark sense use should be sold the hardware (don't forget the OCR ribbon) by individual part number. Contact Vancouver Division for details.

## HP 9871A Obsolescence on November 1, '81

By Gene Morel/VCD



The HP 9871A Printer is scheduled to be removed from the Corporate Price List on November 1, '81. Trade orders will no longer be accepted after this date. Please inform Vancouver Division of any specific ordering problems. (4)

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