

New HP LaserJet 500 PLUS printer
See story on page 19

Information Systems & Manufacturing News

Information for HP sales reps selling MIS, office automation, and manufacturing solutions □ April 1, 1986

The Portable Plus *enhanced*



- High-contrast LCD display
- Up to 1.28 Mbytes of memory

Information Systems & Manufacturing News

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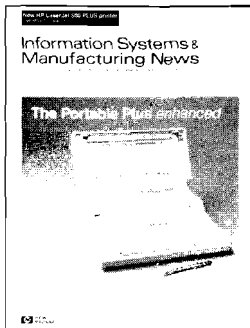
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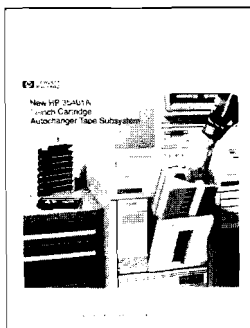
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On the Cover

The enhanced Portable PLUS offers a high-contrast LCD display that provides significantly greater contrast and more than twice the viewing angle of the previous models. In addition, internal memory has been increased to either 256 Kbytes or 512 Kbytes, which means the new Portable PLUS can be configured to an incredible 1.28 Mbytes. See story on page 24.



On the Back Cover

HP now offers unattended backup on 1/4-inch cartridge tape with the HP 35401A autochanger tape subsystem — a new high-capacity tape drive from Computer Peripherals Bristol. See story on page 43.

MARKETING & INTERNATIONAL SECTOR

US Field Operations
Europe/Africa Operations
Intercontinental Operations

FMO Worldwide Major Accounts Program
DMK Federal Marketing Operation
CVCM Direct Marketing Division
Value-Added Channel Management
Customer Support
ASD Application Support Division
PRSD Product Support Division
FRD Finance and Remarketing Division
Corporate Marketing Communications

INFORMATION SYSTEMS & NETWORKS SECTOR

Information Systems Group (ISG)

CSY Computer Systems Division
OSP OFFICE SYSTEMS PROGRAM
OSD Office Systems Division
OPD Office Productivity Division
PSD Personal Software Division
BGD Böblingen General Systems Division
GCO Guadalajara Computer Operation

Personal Computer Group (PCG)

RTD Roseville Terminals Division
HPRR Puerto Rico Operation
PCD Portable Computer Division
BFC Brazil Operation
HCCO Handheld Computer & Calculator Operation
GPCD Grenoble Personal Computer Division
PCD Personal Office Computer Division
Microcomputadoras HP
Singapore Operation
Personal Computer Distribution Operation

Peripherals Group (PG)

GLD Greeley Division
CPB Computer Peripherals Bristol Division
GTO Greeley Tape Operation
DMD Disc Memory Division
BOI Boise Division
VCD Vancouver Division
ICO Ink-Jet Components Operation
SDO San Diego Division
BPO Barcelona Peripherals Operation

Information Networks Group (ING)

CNO Colorado Networks Operation
GND Grenoble Networks Division
RND Roseville Networks Division
IND Information Networks Division

Information Technology Group (ITG)

FID Fort Collins IC Division
IHO Information Hardware Operation
ISO Information Software Operation
ESO Entry Systems Operation

Integrated Circuit Group (ICG)

CID Cupertino IC Division
NID Northwest IC Division
SIC Singapore IC Operation
ICD Integrated Circuits Division

MANUFACTURING, MEDICAL & ANALYTICAL SYSTEMS SECTOR

Manufacturing Systems Group (MSG)

DSD Data Systems Division
AMSO Advanced Manufacturing Systems Operation
MPD Manufacturing Productivity Division
LID Loveland Instrument Division
PAO Panacom Automation Operation
MTD Manufacturing Test Division
LMSO Lyon Manufacturing Systems Operation

Analytical Group

AVD Avondale Division
SID Scientific Instruments Division
WAD Waldbrom Division
HPC HP Geneschem

Medical Group (MED)

AND Andover Division
BMD Böblingen Medical Division
MCM McMinnville Division
WAL Waltham Division
MSC Medical Supplies Center

Corporate Manufacturing

PRCD Printed Circuit Division

COMPONENTS, MEASUREMENT & DESIGN SECTOR

Microwave and Communications Group (MCG)

SFD Stanford Park Division
NMMD Network Measurements Division
SAD Signal Analysis Division
SPX Spokane Division
CTD Colorado Telecom Division
QTD Queensferry Telecom Division
MWTD Microwave Technology Division
QMO Queensferry Microwave Operation

Electronic Instruments Group (EIG)

NJD New Jersey Division
SCD Santa Clara Division
BID Böblingen Instrument Division
YID YHP Instrument Division
YCO YHP Computer Operation
COL Colorado Springs Division
ISL Instrument Systems Labs

Design Systems Group (DSG)

WORKSTATION/TECHNICAL COMPUTING
FSD Fort Collins Systems Division
CWO Corvallis Workstation Operation
BCD Böblingen Computer Division

ELECTRICAL ENGINEERING

LSD Logic Systems Division
LDO Logic Design Operation
FEO Fort Collins Engineering Operation
SLCO Salt Lake City Operation

MECHANICAL ENGINEERING

LSD Lake Stevens Instrument Division
BEO Böblingen Engineering Operation
TSC Technical Software Center

Components Group

MSD Microwave Semiconductor Division
OED Optoelectronics Division
OCD Optical Communication Division
SAO Southeast Asia Operation

Corporate Engineering

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

"What if...

we had an Office Seminar Program that generated REAL leads?"

This Seminar Program Does

HP's new Office Systems seminars offer you more than just presentation materials. The seminar program, entitled "Managing Change," will generate highly qualified leads. Prospective customers will attend pilot seminars offered in April in six cities throughout the United States. The leads generated from those participants attending the seminars should top your list of

prospects for Personal Productivity Center product orders in FY '86.

The pilot seminar program, a series of six seminars, represents the final step in a long development cycle before delivering a complete Sales Seminar Kit to each of your local sales offices. This kit will provide you with all the necessary tools to successfully run your own version of the "Managing Change" seminar.



This inquiry is from the following ISG program:

Advertising Direct Mail Trade Show

Other **"MANAGING CHANGE"**

Please add your comments:

**EXCELLENT SEMINAR!
OPENED THE DOOR TO
TWO NEW ACCOUNTS -
CLOSED ORDERS ON BOTH!**

ISG has sent the literature requested.

We're trying to generate qualified inquiries for you. Are these inquiries good ones?

Detach the inquiry, make your comments, and return this card.

Name and address of inquiry:

Target: The Office

The attendees at these seminars are highly qualified leads who include Data Processing/Management Information Systems (DP/MIS) professional managers, company owners and general managers responsible for information systems planning and implementation.

The seminars will look at managing change from a global perspective. The keynote speakers will specifically address how change has come about in today's offices and factories. By analyzing various organizations and their successful or unsuccessful management of change, the speakers will set the stage for customers looking to Hewlett-Packard for all their office systems needs.

In the seminars, the speakers will take a look at the history and development of office automation. The speakers will show why Hewlett-Packard is the supplier of choice based on its financial credibility, long-term viability as a business computer solutions company, product track record, IBM compatibility and networking capabilities.

Tailored for You

The Seminar Sales Kits will be distributed to all the sales offices in June. These kits will give you a complete set of sales tools so that you can tailor your presentations to a large seminar audience or to a single customer audience in a one-to-one sales situation.

This Seminar Sales Kit is Different

We'll be giving you more than just overhead slides. We'll be providing you with a complete seminar presentation kit that you can customize to your Office Systems sales pitch. In addition to presentation slides, this Seminar Sales Kit will provide:

Audio Cassette Training Tape

This tape offers you tips on how to maximize your effectiveness in delivering an Office Systems Seminar presentation.

Road Map

This Road Map gives you a structure and guidelines for using the sales kit. It reviews various scenarios and suggests what, when and how to use specific elements of the kit.

Videotape

This videotape is about 20 minutes long and reviews at least four case studies showing companies confronted with the need to change and their trials and tribulations as they attempt to implement office systems at their sites.

Direct Marketing Blueprint

Direct Mail Copy, Telemarketing Script and Ad Copy and "How to Use" Tips

You Know What Works with Your Customers

You know your customers. Some will come to an OA seminar and place an order that day. Some will come to an OA seminar and collect literature on your products and want a follow-up sales call in two weeks. Some don't want to come to any seminars whatsoever, but would like you to come to their company and give them an individual presentation. And, we've planned for all of these alternatives.

Follow HP's Lead

You're a key player in the success of HP's position in the Office Systems marketplace. We'll send you highly qualified leads in April. And, we'll give you all the tools you need with the Seminar Sales Kit in June to get PPC orders in FY '86. That's why when we ask the question, "What if . . . we had an Office Seminar Program that generated REAL leads?" we feel confident in responding, "This Seminar Program Does!"

Seminar Schedule

North Hollywood
Dallas
San Antonio
Chicago
New York City
Baltimore

Tuesday April 8th
Thursday April 10th
Friday April 11th
Tuesday April 15th
Thursday April 18th
Friday



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GENERAL

Assigned Executive Program sales contest

Bill Richion/US Field Operations

As you know, 12 of our leading executives participate as members of our Assigned Executive Program. Each member of this august group is responsible for three accounts that are very significant to Hewlett-Packard. One of the executives proposed that we have a sales contest for this group in order to promote a little friendly competition, have some fun, and stimulate sales at these accounts for FY86. This was quickly and enthusiastically endorsed by all of the other participants including the field sales managers who are responsible for these accounts. Consequently, there will be 48 participants in this contest with 12 teams of 4 members each. The contest will run until the end of the fiscal year, October 31, 1986, and will be retroactive to November 1, 1985. It will be positioned as a horse race. The six teams with the most points will be the winners and, of course, the ones with the least points will be the losers.

The number of points that are scored will involve two factors: growth and quota achievement. For growth we will use a simple percentage of growth rate of 1986 over 1985. For quota we will use the quota percentage achieved minus 100 for each account. The team total then will be the sum of these six factors. For example, let's assume that one of the executives three accounts sales performances are 90, 105, and 110 percent of quota with growth rates of 10, 15, and 20 percent respectively. Adding up the quota figures gives a score of 5 and the growth rate gives a score of 45 for a grand total of 50. We will publish the positions of the horse race on a monthly basis so that we can all have the pleasure of tracking this contest.

Of course each contest should have a pay off. The pay off in this contest will be that the six winning teams will be served dinner by the six losing teams. In addition, the losing teams will be responsible for the evening's entertainment: skits, singing, and so on. We do not want the losers to go hungry, so we will feed them before the festivities begin. Naturally, they will dine on turkey sandwiches.

The participants in the contest are as follows:

Executive	Account	Field Manager
J. Young	AT&T	J. Dicso
	GM	A. Criss
	P&G	F. Bay
D. Morton	GE	M. Cohn
	RCA	T. Papson
	Raytheon	D. Bogues
B. Terry	General Dynamics	S. Odeh
	Rockwell	R. Baker
	Grumman	N. Buonamico
J. Doyle	DuPont	D. Brennan
	State Farm	S. Wieber
	3M	T. Obinger
D. Alberding	IBM	J. Zorn
	*ITT	J. Ciraulo/ J.J. Neale (Brussels Team Leader)
	*Shell	J. Friedman/ M. Delaney (UK Team Leader)
J. Arthur	E-Systems	B. Smith
	AMP	M. Ellinger
	Pepsi	M. Kolansky
A. Oliverio	Ford	J. Ditulio
	Texas Instruments	J. Cooper
	Exxon	J. Neukom
D. Chance	*Northern Telecom	L. Nicholson/ L. Kwicinski (Canada Team Leader)
	Westinghouse	K. Roller
	Lockheed	S. Kagan
B. Parzybok	United Tech	E. McKenney
	Hughes	B. Hitchcock
	Boeing	P. McNiff
L. Platt	McDonnell-Douglas	D. Gerberding
	Monsanto	J. Johnson
	GTE	J. McLellan
D. Anderson	Motorola	P. Eder
	TRW	C. Fullman
	Eli-Lilly	K. Obenchain
D. Spreng	Knight-Ridder	R. Martinez
	Federal Mogul	D. Broa

**Non US headquartered accounts*

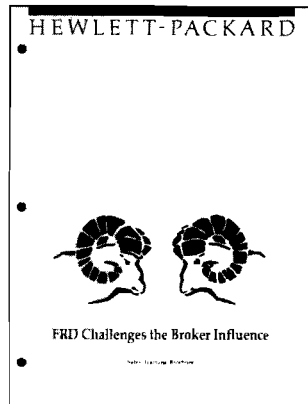
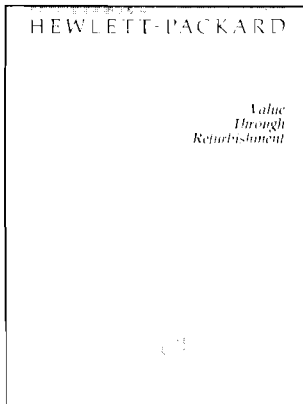
We will think up some appropriate name for the teams in the horse race. Stay tuned for the exciting results of this gala event.

New brochures to help you sell remarketed products

Bill Brennan/FRD

For North America only

Finance and Remarketing Division (FRD) has shipped two new brochures to each sales office, *FRD Challenges The Broker Influence* and *Value Through Refurbishment*.



FRD Challenges is a sales training brochure that includes FRD's Four Point Strategy for competing against used equipment dealers. The information will help you position HP factory refurbished equipment against brokers' used products.

Value Through Refurbishment is a customer brochure with information about the refurbishment process at HP and the key points customers should know about the HP remarketed program. This is targeted to any customer who has ever considered purchasing a lower-cost-alternative computing solution. Additional copies of this brochure can be ordered from the Literature Distribution Center as P/N 5954-6805.

For more information on remarketed products, call your FRD Market Development contact.

Investment Tax Credit and remarketed equipment

Ilene Zusi/FRD

For North America only

Questions have once again arisen regarding the availability of Investment Tax Credit (ITC) on remarketed equipment. The following is a restatement of the ITC guidelines for remarketed equipment:

- A limited form of Investment Tax Credit is available to customers who purchase reconditioned or remarketed equipment. The total dollar amount of all refurbished equipment eligible for ITC in any one tax year is \$125,000 per taxpayer.
- ITC is not available on remarketed equipment that is leased or rented.
- Since equipment financed on an installment sales contract is actually purchased by the customer, ITC is applicable.

For ITC purposes, equipment may be considered "new" if (1) title has never passed from HP and if (2) HP has never capitalized the equipment, i.e. the equipment has always been treated by HP as inventory and not as a capital asset.

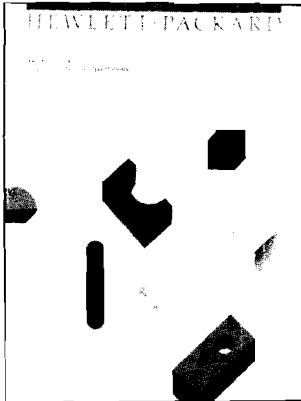
Be careful with respect to equipment that was originally sold or leased to a customer and is subsequently returned to HP because of credit or customer satisfaction problems. If such equipment is taken into demo consignment, it is considered as used because either title passed to the customer or it was capitalized by HP. Remember, once a piece of equipment has been sold or capitalized, it may never be considered new again for ITC purposes.

Please contact your Sales Finance Representative should you have any further questions.

VALUE-ADDED CHANNELS

Versatile presentation portfolio aids in recruiting value-added businesses

E. Mark Jones/CVCM



A versatile, new recruitment portfolio now allows you to tailor materials to match your presentation for potential value-added businesses. The portfolio, with its inside pocket, can be organized with any of the accompanying program inserts as well as appropriate product, service, or contract information.

The accompanying inserts currently available cover

programs offered for our OEM, VAR, PC OEM, software-supplier, and systems-integrator channels. Additional inserts for consultant, distributor, and dealer programs will be available in the coming months.

Now you have a consistent set of presentation materials covering the broad range of value-added businesses that are becoming so important to HP's success.

When ordering copies of the portfolio from the Literature Distribution Center you must order at least one of the available inserts with each copy of the portfolio.

Ordering information

Item	P/N	Description
Portfolio	5954-6343	HP's Programs for Value-Added Businesses
Program Inserts	5954-6344	The Logical Choice for Value Added Resellers
	5954-6345	The Logical Choice for OEMs
	5954-6346	HP's program for Personal Computer OEMs
	5954-6347	Better business opportunities for System Integrators
	5954-6348	The HP PLUS program for ISVs

Join the Consultant Network now

Patrick Apfel/CVCM

The majority of the Fortune 1000 industrial and service companies hire consultants (Big Eight accounting firms, management consulting firms or independents) to help them plan or implement their DP/MIS strategies. These consultants often recommend vendors that have a local contact they can rely on during Request For Proposal situations (RFPs). Therefore, having a solid relationship with consultants can often sway a big deal in your favor.

Joining the Consultant Network can help you establish relationships with consultants in several ways. First, we will provide you with the names of other people in the field or in the product groups who work closely with consultants. This will allow you to then use those HP contacts as door openers to new consultants, and as a way to leverage existing consulting events. Secondly, you will be updated on the upcoming components of the HP Consultants Program such as magazines, brochures and training kits.

So, if you want to be more effective with consultants join the Consultant Network now and send us your name, position, sales office, phone number, and the list of consulting firms you work with, attention: Julie Whalen, Consultants Program, Mail Stop 20BN, Hewlett-Packard, 3000 Hanover St., Palo Alto, CA 94304; Telephone 415-857-7949.

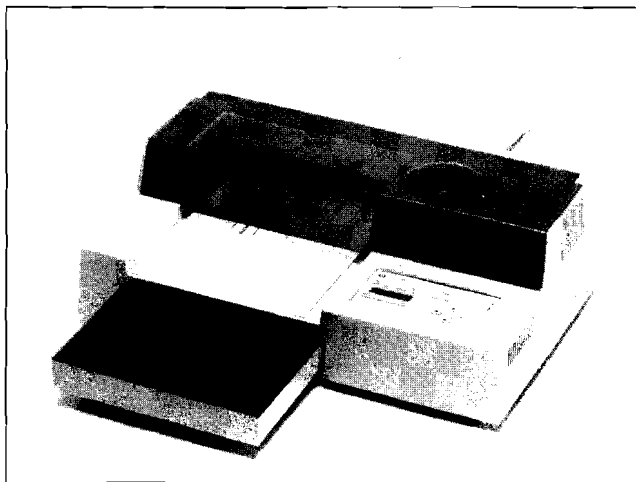
SALES SUCCESSES

Sales Successes *reports on successful sales strategies and HP solution installations.* Information Systems & Manufacturing News *welcomes contributions for this column from the field and divisions alike.* Articles should be brief, informative, and contain the following information: (1) A description of the customer and the problem, (2) the competition's answer to the problem, (3) HP's solution and why the customer chose HP, and (4) who to call for more information about the sale. Also welcome would be some information about the amount of the sale and the solution's implementation date.

HP 7550A opens the door at Smithco Engineering

Stuart Schaffer/SDD

Last year, Smithco Engineering in Tulsa, Oklahoma, purchased an HP 7550A as a CAD output device for its Data General minicomputer. As a result of this initial purchase, within six months Smithco decided to replace their entire Data General system with HP equipment. The company purchased over \$150,000 in computer products leveraged from the original plotter success.



HP 7550A was well received at Smithco Engineering.

Smithco Engineering designs and manufactures heat exchangers. In May of 1985, they were writing FORTRAN programs which graphically depicted the designs of their products and were plotting these on a

Houston Instruments D-size plotter. Jim Harris, Southern sales region technical computer sales rep, learned Smithco was experiencing problems with their Houston Instruments plotter and was looking for a more reliable, automatic sheet-feed plotter to replace it. Although the HP 7550A would only plot up to B-size designs, the customer was very impressed with its speed. Within a single afternoon, Jim and a local systems engineer were able to integrate the HP 7550A into Smithco's system.

Within two months after the HP 7550A purchase, Smithco replaced their custom-designed software with an HP EGS system. Within four months they replaced their entire Data General system with an HP 9000 Series 500 computer, two 404-Mbyte disc drives, and 16 terminals. In summary, the company purchased over \$150,000 in computer equipment within six months of Jim's initial sales call. As Jim told us, "The only reason we were initially considered was the outstanding performance they experienced with your HP 7550A plotter . . . thanks for the great products!"

Congratulations to Jim Harris, Tulsa technical computer sales rep, for being the next recipient of a free San Diego Division (SDD) flight/gym bag. San Diego Division continues to look for customer success stories for our plotters. If your story is chosen for publication in *Information Systems & Manufacturing News* or *Measurement & Design Systems News*, we'll send you a flight/gym bag with the HP logo on one side and the SDD logo on the other.

CUSTOMER SUPPORT

AEO consulting product structure improvements

Mickey Friedman/ASD

Improvements have been made to the product structure for Application Engineering Organization (AEO) consulting effective April 1, 1986. Here is a summary of the changes:

- All consulting will be sold by the hour; the daily rate has been eliminated (US only). Europe and Intercon will continue to have the daily rate.
- There is only one product number for each of the three designated levels of consulting available (PSR, SE, and consulting or specialist). This replaces the 60 different numbers that could previously have been ordered.

- There is now a consistent rate throughout the world for after hours consulting. For off-hours work during the week, there is a 40 percent premium added to the normal hourly rate. On weekends and holidays, the uplift is 75 percent.
- Travel charges are now an official option to the main products on the Corporate Price List; customers will see the travel charges as part of the consulting quote.

The benefits

- Simplification of T&M consulting product structure.
- Easy ordering procedures.
- No more confusion about what a day of consulting is.
- Consistent after-hours T&M charges.

The specifics

You now only need to remember three numbers. These are the numbers you will use 95 percent of the time. The remaining product numbers listed below for T&M are used in the Project Center and for any off-hours consulting offered. The three numbers are:

P/N	Description	US list price
51413A	Associate SE Assistance	\$ 80/hour
51414A	SE Assistance	100/hour
51415A	Specialist/Consultant Assistance	125/hour

Off-hours consulting on weekdays carries an additional 40 percent uplift. Weekend and holiday work carries a 75 percent uplift. Here is a summary of all the applicable product numbers and their prices.

Field District (ID 44)	Regular hours	After hours weekday	Weekends or holidays
Associate SE	P/N 51413A \$ 80/hr.	P/N 51419A \$112/hr.	P/N 51422A \$140/hr.
SE	P/N 51414A \$100/hr.	P/N 51420A \$140/hr.	P/N 51423A \$175/hr.
Specialist	P/N 51415A \$125/hr.	P/N 51421A \$170/hr.	P/N 51424A \$219/hr.

Project Center (ID 46)	Regular hours	After hours weekday	Weekends or holidays
Associate SE	P/N 35135G \$ 80/hr.	P/N 35135H \$112/hr.	P/N 35135K \$140/hr.
SE	P/N 35135C \$100/hr.	P/N 35135I \$140/hr.	P/N 35135L \$175/hr.
Specialist	P/N 35135D \$125/hr.	P/N 35135J \$170/hr.	P/N 35135M \$219/hr.

In Europe and Intercon only, the following daily rates apply:

P/N	Description	US list price
51416A	Associate SE Daily Rate	\$ 675
51417A	SE Daily Rate	825
51418A	Specialist Daily Rate	1,000

Travel charges

All T&M Consulting now has travel listed as a mandatory option to the product number on the Corporate Price List. Hence, the customer will be charged for the number of hours the SE worked and for travel depending on the zone they are in.

Option	Description	Charge	Distance (miles)
101	Zone 1 Travel	\$120	0 - 25
102	Zone 2 Travel	210	25 - 50
103	Zone 3 Travel	280	50 - 100
104	Zone 4 Travel	440	100 - 200
105	Beyond Zone 4	Quote	over 200

Note that travel charges are consistent with the published CEO rate and were increased February 1, 1986.

Example: An SE goes to the customer's site 25 miles from the office and delivers six hours of consulting.

6 Units of 51414A	@ \$100
1 Unit of 51414A Opt. 102	@ \$225 (50 miles roundtrip - zone 2)
Total	\$825

The improvements being made are a positive move to simplify and add consistency to the AEO T&M Consulting program. The results will be equal treatment for all customers and a business that will be easier to manage effectively by the AEO.

Self-paced service training series now available

Wei Huang/PRSD

There are now 48 self-paced service training guides and videos available to HP customers who are interested in self-maintenance. The self-paced training packages provide detailed service information and/or techniques on subjects ranging from the HP Vectra PC to the HP ThinkJet printer to computer printer fundamentals.

Each self-paced training package can be purchased via the local HP sales office or directly from the Corporate Parts

Center in Mountain View, California. The price is \$300 per service package and \$350 per video package.

Service package

P/N	Description	P/N	Description
12025A + 49A-0	12025A I/O extender	7550A + 49A-00	HP 7550 plotter
2225D + 49B-00	HP 2225 ThinkJet	7945A + 49A-00	HP 794X disc drive
2392A + 49A-00	HP 2392 terminal	82902M + 49A-0	HP 82901/02 disc drive
2393A + 49A-00	HP 2393A computer	82904A + 49A-0	HP 82904A bus extender
2603A + 49A-00	HP 2603 printer	82905A + 49A-0	HP 82905 printer
2620A + 49A-00	HP 2627A terminal	82906A + 49A-0	HP 82906 printer
2648A + 49A-00	HP 264X terminal	85B + 49A-0000	HP 85A/B computer
2932A + 49A-00	HP 293X printer	86B + 49A-0000	HP 86A/B computer
45500A + 49A-0	HP 125 computer	9020A + 49A-00	HP 9020A computer
45600A + 49A-0	HP 120 computer	9114A + 49A-00	HP 9114A disc drive
45610A + 49A-0	HP 150 computer	9121D + 49A-00	HP 9121S/D disc drive
45610B + 49A-0	HP 150 I computer	9134A + 49A-00	HP 9133/34 disc drive
45641A + 49A-0	HP 150 emulator	9144A + 49A-00	HP 9144A disc drive
45644A + 49A-0	EtherLink	9153A + 49A-00	HP 9153A/54A disc drive
45710A + 49A-0	HP 110 computer	9154A + 49A-00	HP 9154A disc drive
45711A + 49B-0	HP 110 computer	9807A + 49C-00	HP 9807 computer
45849A + 49A-0	HP 150 II computer	9816A + 49A-00	HP 9816A computer
7225A + 49A-00	HP 7225 plotter	9836C + 49A-00	HP 9826/36 computer
72425A + 49A-0	HP 72425 computer	9872A + 49A-00	HP 9872 plotter
7440A + 49A-00	HP 7440A plotter	9888A + 49A-00	HP 9888A I/O extender
7470A + 49A-00	HP 7470A plotter	9915A + 49A-00	HP 9915A computer
7475A + 49A-00	HP 7475 plotter		

Video package

P/N	Description	Standard	Format
99072HV + 49A-	Disc mass storage prestudy	NTSC	VHS
99072HW + 49A-	Disc mass storage prestudy	NTSC	Beta
99072HZ + 49A-	Disc mass storage prestudy	NTSC	Umatic
99072HC + 49A-	Disc mass storage prestudy	PAL	VHS
99072HV + 49A-	Disc mass storage prestudy	NTSC	VHS
99073HV + 49A-	Computer printer prestudy	NTSC	VHS
99073HW + 49A-	Computer printer prestudy	NTSC	Beta
99073HZ + 49A-	Computer printer prestudy	NTSC	Umatic
99074HA + 49A-	Mag tape unit prestudy	NTSC	VHS
99074HB + 49A-	Mag tape unit prestudy	NTSC	Beta
99074HD + 49A-	Mag tape unit prestudy	NTSC	Umatic
99074HD + 49A-	Mag tape unit prestudy	NTSC	Umatic

SPECIAL OFFERS

Promotion programs and special offers announced in Information Systems & Manufacturing News may not be valid outside of the US. Before promotions are valid in other countries, they must be announced by the Country Marketing Organization.

IBM/Compaq trade-in update: new option in dealer channel

Terri Brown/POD

In response to field and customer requests, an option for dealers has been added to the existing trade-in promotion (see the Special Offers section of the February 1 and March 1, 1986, issues of *Information Systems & Manufacturing News* for original promotion details). Dealers now have the option of selling an HP Vectra PC with one HP disc drive, instead of two, while still meeting the minimum Vectra PC configuration requirement. HP's rebate on the IBM/Compaq personal computers returned under this option will be decreased by \$150. Thus, the rebate for a dual floppy personal computer will be \$550 and \$850 for a hard-disc personal computer.

In order to utilize this option, dealers must provide their Vectra PC customers with the new rebate form. The new form was sent to SF12 and our dealers in the March 17 issue of *In Touch Update*. If you or your dealer need additional forms, they can be ordered from the Literature Distribution Center as P/N 5954-7211D.

The procedure for the dealer and the customer is identical under either option. The dealer provides the appropriate rebate form to the customer at the time of the Vectra PC purchase. The customer then fills out the form and returns it to Finance & Remarketing Division (FRD) with proof of purchase (copy of the invoice) and the used IBM/Compaq personal computer. After FRD receives the used personal computer and verifies that it meets all stated requirements, a rebate check is issued directly to the customer.

This option is in addition to the original promotion and will run concurrently until June 30, 1986. Other than the

changes mentioned above, all other conditions and requirements remain the same. Please be aware that in either case, the HP Hard Disc Controller (P/N 454815A) is a required component of the Vectra PC when a hard disc is the second disc purchased.

For more information or specific account questions, call the Sales Response Center or your FRD Market Development contact.

“Engineer’s Delight”: a Megabytes Plus solution for technical systems

Mike Gordon/DMD

Have you ever had a customer who is tired of waiting for his engineering computing system to finish? Wished they had more storage just after buying their system but couldn't afford an additional disc drive? Complained about how long it takes to get data in and out of their system by using a tape drive? Has worked for a long time on their project only to find their data destroyed by someone else on the system? No more with the new “Engineer’s Delight” package from Disc Memory Division (DMD) and Computer Peripherals Bristol (CPB).

The Engineer’s Delight mass-storage solution should be ideal for most mid-range engineering workstation systems in the CAD/CAE/CIM marketplace. This package includes the HP 7914CT (a 132-Mbyte disc drive with an integrated HP 9144A tape cartridge) and an HP 7907A 41-Mbyte fixed/removable disc drive. This package will make any mid-range customer excited. This offer reduces the mass-storage solution cost by \$7,000.

Some of the key features of this package are:

- You get two high-performance disc drives to make your system run faster. The HP 7914 makes a great high-performance system disc, and an HP 7907A with its removable cartridge adds greatly to the system functionality, plus adding more performance by having two discs on a system.
- The HP 7907A and its removable cartridge allows your customers to load and unload 20-Mbytes of data on their system in less than two minutes.
 - Secure information by locking up the 20-Mbyte cartridge.
 - Unlimited system storage in 20-Mbyte blocks.
 - Extra storage capacity for less than \$10/Mbyte when adding additional disc cartridges.
 - No waiting on tape loads and unloads.
- Quarter-inch tape cartridge for distribution and inexpensive tape backups.

The Engineer’s Delight mass storage solution was featured during February and March on Lake Stevens Division’s new mechanical engineering Series 90 modal analysis system, using the HP 9000 Series 300 computer and their HP 3565S signal processing system.

This program is a worldwide promotion which is being offered from March 1 through August 31, 1986. Ordering instructions were included in the March 1 mailing of the Megabytes Plus promotional package.

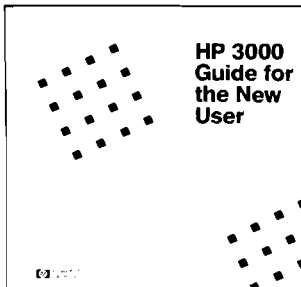
If you have any questions, please call DMD Sales Support at 208-323-DISC or 208-323-3472.



GENERAL

A handbook for novice users of MPE

Andrew Emery/ITG



When HP introduced the HP 3000 Series 37, it raised a problem: if you only spend small bucks for a computer, you resent spending big bucks to send folks to class to learn to use it. No one had written an MPE manual that was simple, unthreatening, interactive, and helpful

to real beginners — the kind of people who might just buy a Series 37. There was no documentation for this new market.

HP 3000 Guide for the New User was meant to be such a book: MPE for beginners. This well-illustrated book leads a novice through a first hands-on session on an HP 3000 computer terminal. It describes system hardware, then shows the user things like the accounts, the keyboard, word processing, system messages, files and their use, sorting, copying, and other supplied software *except* programming languages. Interactive all the way, it helps assure learning for a non-technical audience.

It features the absence of computer jargon, a self-paced format, the use of "keycaps" so the user will know what to type, an extensive and non-jargony index, and a "skeleton key" — a generic logon so novices can do their learning and practicing off in a special teaching account out of harm's way.

The book is available from the Software Distribution Center as P/N 32033-90009. It obsoletes the book called *Using Files* (P/N 30000-90102), but doesn't simply replace it. Physically, it's about the same size as *Using Files*: 8½ x 9 inches in a horizontal format, wire-bound, and runs about 200 pages. It's US list price is under \$5 (internal) and under \$15 (external).

There will also soon be a companion volume: *HP 3000 Guide for the New System Operator*.

HP 3000 Series 37 support for a complete solution

Amy Ting/PRSD

HP recognizes that end-users of value-added resellers have special support needs and therefore offers effective, aggressively priced solutions to meet those needs. With HP support, HP 3000 Series 37 customers receive the maximum benefit from their system before, during, and after system implementation. This helps to reduce your post-sales burden and leads to satisfied customers that generate repeat sales.

Start-up support services

Because many Series 37 customers are not experienced computer users, HP offers start-up training and consulting services to guarantee a successful system implementation.

Managing Your System Implementation. Beginning in May, HP will offer a *free* one day workshop for new US Series 37/42 customers. "Managing Your System Implementation" will provide information about planning the preparation, installation, implementation, and ongoing support of a new Series 37/42. The workshop is designed to be completed prior to system delivery or six weeks thereafter. Topics covered will include facility equipment, materials and staffing needed to run the computer, as well as activities to enhance system productivity during implementation and operation. This workshop is an excellent way to lower your customers' apprehensions about managing their Series 37 and to set their expectations about how HP support services can increase system productivity.

Hardware and Software Installation. Included with the Series 37 bundle are site prep, system installation, and instructions on daily care and proper usage of the system. This service includes installation of the hardware and the operating system. Installation assistance may be scheduled between 8 a.m. and 5 p.m. Monday through Friday excluding holidays.

System Administration Training. This is a four-day course that teaches customers how to manage the day-to-day operation of an HP 3000. This course was developed specifically to meet the needs of Series 37 customers with little or no data processing background and with other job responsibilities in addition to managing the HP 3000. It is the most effective training available for Series 37 customers managing systems in a run-only operating environment that does not require load balancing. "System Administration Training" is the minimum



prerequisite for receiving Response Center Support or Account Management Support.

Implementation Consulting. An HP systems engineer can provide personalized assistance to help Series 37 customers during system implementation. Customers may wish to purchase such assistance to help prepare for system installation, to set up initial procedures to run their system, or for problem prevention or resolution. Consulting services are available on a time and materials basis from 8 a.m. to 5 p.m. Monday through Friday, excluding holidays.

On-going support services

HP's hardware and software support has consistently received top industry ratings, and Series 37 customers will want to take advantage of these services to maximize their long-term system availability.

Hardware Maintenance Services. Hardware system maintenance services provide a range of response times and coverage options to meet entry-level customers' needs. For cost-conscious customers, the Basic System Maintenance Service is the correct support solution when support needs can be met by next day response and weekday coverage from 8 a.m. to 5 p.m. Faster response times and longer coverage hours are available at a higher price through the Standard Systems Maintenance Service. Under both services, customers receive an account-assigned customer engineer, scheduled preventive maintenance, quick resolution of unscheduled repairs (including travel, parts, and labor), and remote support for customers with a qualified modem. Remote support ensures that, when appropriate, a Response Center engineer will call the customer within 30 minutes to determine the cause of a hardware problem and if the problem can be solved without going on-site.

Software Support Services. HP's software support program allows entry-level customers to choose from four levels of support coverage. Experience has shown that RCS generally provides the best support fit for Series 37 customers in a run-only environment with turnkey applications. AMS is the preferred solution for customers with a complex environment.

Response Center Support. RCS features telephone assistance and remote support through the Response Center for quick problem resolution, usage assistance, and software problem reporting. Remote support allows Response Center specialists to run tests, diagnose functional problems, and install necessary patches remotely. This service is available to Series 37 customers that purchase RCS for one year at the time of system purchase or prior to installation. RCS customers also receive all of the benefits of HP software enhancements, manual updates and the *Software Status Bulletin* and *HP Communicator*.

Account Management Support. AMS is the preferred support solution for customers doing development work or those with a complex environment. AMS features personalized, on-site support through an account-assigned systems engineer that takes a proactive approach to support. Specific services include support management reviews, software release planning sessions, HPTrend system performance analysis, and on-site problem resolution when required. AMS customers also have full access to the Response Center and to changes and improvements in HP software and documentation.

Software Materials Subscription. SMS allows customers to keep current on the latest software enhancements and documentation updates through the mail and is an integral part of Account Management and Response Center Support for system software. Although not recommended for Series 37 customers, SMS can be purchased as a stand-alone support package for system software. Customers selecting this option should understand that if any on-site support is required, it must be purchased on a time and material basis.

Ordering information

The table below summarizes the support product numbers and prices for HP's Series 37 support services.

Support P/N	Support service	US list price
<i>Start Up Services</i>		
51411A	Managing Your System Implementation (2 students/system)	Free
51404A	Systems Administration Training	\$640
51414A	Implementation Consulting (T&M)	100/hr.
<i>Contractual Hardware Support</i>		
32459A, 7945A, 9144A, 2392A, 40290A	Standard Monthly Maintenance Contract	117/mo.
	Basic Monthly Maintenance Contract	94/mo.
<i>Contractual Software Support</i>		
	Account Management Support	
32449A + T51	1600 bpi mag tape	285/mo.
32449A + T22	tape cartridge	285/mo.
	Response Center Support	
32449A + H51	1600 bpi mag tape	130/mo.
32449A + H22	tape cartridge	130/mo.
	Software Materials Subscription	
32449A + S51	1600 bpi mag tape	80/mo.
32449A + S22	tape cartridge	80/mo.

continued on next page

Where to go for more information

For more details on these support services, refer to *Multiply Your Selling Efforts With VARs: Sales Training Manual* (3/86). For further assistance in identifying the right support solution for Series 37 customers, contact your region sales development specialist at 408-725-8111.

HP 3000-to-IBM product line price changes

Raphael Carty/IND

Effective on the April 1, 1986, Corporate Price List, the prices of most HP 3000-to-IBM products will be increased slightly to reflect rising costs of product development and testing. The products affected will include the following: SNA IMF, SNA Link, IMF, MRJE, RJE, and BSC Link. Due to the 30-day grace period, the new prices will become effective on May 1, 1986.

The price changes are detailed below:

P/N	HP-IBM network service product	Series 37				Series 39 thru 70			
		Old		New		Old		New	
		"A"	"R"	"A"	"R"	"A"	"R"	"A"	"R"
30247	SNA IMF	\$2,800	\$1,960	\$3,200	\$2,250	\$7,000	\$4,900	\$8,050	\$5,640
30250	IMF	2,800	1,960	3,200	2,250	7,000	4,900	8,050	5,640
30249	MRJE	1,700	1,190	1,950	1,360	4,400	3,080	5,050	3,530
30248	RJE	1,000	700	1,150	800	2,600	1,820	2,950	2,060

The price of an upgrade from a Series 37 option to a Series 39 thru 70 option is equal to the difference between the two option prices. For example, the upgrade of SNA IMF (A copy) is priced at \$4,850 = \$8,050 - \$3,200.

P/N	HP-IBM network link product	Series 37		Series 39 thru 70		Series III	
		Old	New	Old	New	Old	New
30246	SNA Link						
	Modem option	\$4,535	\$5,200	\$7,560	\$8,650	---	---
	V.35 option	4,535	5,200	7,560	8,650	---	---
	No hardware	1,815	2,050	3,325	3,800	---	---
30251	BSC Link						
	Modem option	3,025	3,450	5,040	5,750	5,445	6,250
	X.21 option	---	---	5,040	5,750	5,445	6,250
	Autocall option	3,025	3,450	5,040	5,750	---	---
	V.35 option	3,025	3,450	5,040	5,750	5,445	6,250
	No hardware	305	350	805	900	805	900

Correction

In the March 1 issue of *Information Systems & Manufacturing News* the article entitled "U-MIT is released, and more MIT news" (page 11) incorrectly states in the first sentence that MPE V/E U-MIT is the latest version of MPE for the HP 3000 Series 68. MPE V/E U-MIT is the latest version of MPE for all HP 3000 systems.

Also in this issue

New tape drive offers unattended backup for mid-range systems

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COMMERCIAL EDP

HP 3000 Series 930 return credit program

Que Foor/FRD

In conjunction with the HP 3000 Series 930 Special Return Program, Finance and Remarketing Division (FRD) offers return credits for I/O expansion products and memory products for customers upgrading to the HP 3000 Series 930. The table below lists return credit additions to the Corporate Price List.

P/N	Description	Return credit
34299AN	Return credit for 48 ATP ports (includes an SIB) from a new Series 70 (no upgrades of box swaps) for a 48-port Distributed Terminal Controller (DTC) on a Series 930	\$15,000
30273AN*	Return credit for Direct Connect Expansion Pack	2,500
30274AN*	Return credit for Modem Expansion Package	2,900
30145AN**	Return credit for ATP Direct Connect Port Controller	1,650
30155AN***	Return credit for ATP Modem Port Controller	2,050
30144AN	Return credit for ATP System Interface Board	800
30464AN	Return credit for Expansion Bay and I/O Adapter	6,000
30143AN	Return credit for Series 6X, 70 I/O Adapter Module	2,000
30165AN	Return credit for 4-Mbyte memory module for Series 64, 68, and 70	12,000
30173AN	Return credit for 2-Mbyte memory module for Series 42XP, 58	4,000
30079AN	Return credit for General I/O Channel	400

* Must include one ATP and one SIB.
 ** Credit also applicable with 30155A or 30244A purchase.
 *** Credit also applicable with a 30244A purchase.

Notes:

- More than one ATP and memory credits may be ordered.
- Eligibility requirements for the Special ATP Return Credit program may be found in the HP AdvanceNet Networking Sales Guide (P/N 5954-6339).
- Return credits for Series 930 orders are issued to customers upon return of the hardware to FRD.

- Return credits are purchase agreement discountable. Please call your FRD Market Development contact with any questions.

Price changes to System Solution and HP 3000 Series 48R

Que Foor/FRD

In alignment with the new HP 3000 Series 58 and Series 70 pricing structure, Finance and Remarketing Division has reduced the price of the remarketed Series 48R to \$52,500, a 30 percent savings over the price of the new Series 48 of \$75,000. The remarketed Series 48R can be targeted toward the customer who does not initially need the power of the Series 58 but requires more terminal connectivity than the Series 42 offers.

Also, System Solution with the Series 48R CPU is reduced by \$5,000. The table below includes additions to the December 1985 announcement of System Solution (see "FRD announces the System Solution package" on page 11 of the December 15 issue of *Computer News*).

P/N	Description	US list price	Factory base price
34201AR (for US)		\$70,000	
32451AR (for Intercon)			\$68,155
	Series 48R (2 Mbytes and 2 GICs) HP 7925MR with HP-IB HP 7925SR HP 7970ER with HP-IB 30018AR (qty. 1) 2624BR with cable (qty. 4)		
Opt. 001	Replaces HP 7970ER with HP 7974AR	5,000	5,000
Opt. 002	Replaces HP 7925SR with HP 7933HR	20,000	19,725

Remember that when you face tough competition or deal with price sensitive customers, selling remarketing hardware with HP value-added channel software solutions can win the deal.

Terminal change for HP 2680A and 26804B printers

Chris Privo/Boise Division

Effective April 1, 1986, the HP 2628A terminal in the HP 2680A Option 500 and HP 26804B Option 094 is being replaced with the HP 2393A terminal. Bundled with the HP 2393A is a five-meter (16-foot) RS-232 HP 3000 connecting cable.

Options 500 and 094 are used to create forms and environments for printing on the HP 2680A. You and your customer can justify laser printing because these electronic forms replace many of the preprinted forms used on impact printers.

The HP 2680A laser printer connects to HP 3000 systems and the HP 26804B print station is connected via datacom lines to a host mainframe (such as an IBM or Univac). With the HP 26804B, the customer can offload printing from the mainframe and print the output where it is needed. The advantages to customers are reduced data processing printing costs and more timely output.

If you have questions about these products or the new terminal, contact Mary Miller or Monica Warne at the Systems Marketing Center, 408-257-8907.

OFFICE SYSTEMS

Corporate site license benefits for your customers

Marc Burch/PSD

The Corporate Software Site License Program for Personal Computers will now allow you to compete aggressively in selling office solutions to your customers. You should be able to leverage software sales into Hewlett-Packard's Personal Productivity Center office strategy.

When talking to customers, sell the following benefits of the program:

- Software standardization to minimize support and training costs.
- Cost savings from economies of scale.
- Customer reproduces a specific number of site licensed products.
- Ability to control software distribution.
- Immediate software availability.
- End users on the same software version.

- Documentation unbundled.
- Serialized colored labels with customer name.
- Forestalls the threat of illegal copying.

Sell your customers on standardization of software on the HP Touchscreen, HP Vectra, and IBM personal computers. Don't miss the sales opportunity to sell the Corporate Site License Software into your accounts that have a large installed base of IBM personal computers.

Price breaks

Following is an example of how to calculate the total percentage price breaks for the "Q" products. See the Corporate Price List for the pricing on the "S" products and "T" products.

Example of software price breaks:

US list price	\$100
Site price break	-15%
New site list price on Corporate Price List	\$85
Customer purchase agreement applied	-33%
Price to Customer	\$57
Total percentage off US list	43 %

The "Q" (customer-produced discs) and "S" (HP-produced discs) products are on the purchase agreement contracts and the "T" products (documentation) are *not* on the purchase agreement contracts.

For additional information refer to the March 1 *Information Systems & Manufacturing News*; a sales guide field insert on this program will be in the April 15 issue.

Print Central site licensing introduced

Quentin Steele/OSD

Print Central has joined the ranks of HP proprietary products available under The Corporate Site License Program (for program details, see "Announcing a corporate site license program for HP personal-computer software" in the March 1, 1986, issue of *Information Systems & Manufacturing News*).

Effective April 1, customers who buy at least 50 copies of either Print Central/Touchscreen or Print Central for the HP Vectra and IBM PC/XT/AT personal computers are eligible for price breaks ranging from 15 to 75 percent

when combined with A1/A9 customer purchase agreements.

Using Print Central, your customers can print personal-computer-application output to high-quality HP 3000 system printers, including the HP LaserJet, the HP 2680, and the HP 293X family printers. The new pricing makes this capability even more attractive to major accounts and helps you establish Hewlett-Packard as their vendor of choice for office automation. The site license program demonstrates Hewlett-Packard's continued commitment to the Personal Productivity Center, providing cost-effective, integrated PC solutions.

Order information

Product name	P/N for Touchscreen	P/N for Vectra
Print Central (customer reproduces software on discs)	32590Q	32591Q
Print Central (HP provides all master discs)	32590S	32591S
Print Central Documentation (quantity of five)	32590T	32591T

Complete information regarding all of the products sold under this program will be in a Sales Guide inserted in the center of the April 15 issue of *Information Systems & Manufacturing News*. For further information on Print Central, contact Quentin Steele or Randy Hujar at HPD500/D5 or 916-786-8000.

HP Graphics Curator/3000 conversion considerations

Paula Diehl/PSD

HP Graphics Curator/3000 is a quick-and-easy file-conversion application to perform conversions between HP 3000 figure files and Graphics Gallery picture files. It enables you to convert graphic images between the Gallery format, used by HP's personal-computer-based applications (Drawing Gallery, Charting Gallery), and the Figure format, used by HP 3000-based applications (HPDraw, DSG/3000, HPEasyChart, HPMMap). HP Graphics Curator/3000 provides an easy-to-use VPLUS user interface, and direct access from AdvanceLink command files or MPE User-Defined Commands (UDCs). For more product details, see the insert in the March 15 issue of *Information Systems & Manufacturing News*.

The design of HP Graphics Curator/3000 allows HP applications to read uploaded Gallery files or downloaded

figure files with little or no modifications. Listed below are some helpful hints your customers will find useful when using HP Graphics Curator/3000.

Figure to Gallery considerations

- *Number of figures* — HP 3000 graphics products allow more than one figure per figure file, whereas each Gallery picture file can contain only one picture.
- *Character outlines* — Some HP 3000 fonts allow a different pen to be used to outline a character than is used for the character fill. They also allow for characters to be drawn with an "outline only." Gallery files will only use the fill pen for both the fill and the outline of a character. Solid-fill characters will be used for text which was "outline only" in the figure file.
- *Fonts* — There are more fonts available for use in figure files than in picture files. The best substitution will be made (fully documented in the manual).
- *Italics* — Italicized text in HPDraw figures will be replaced by "un-italicized" text in the same font when converted.
- *Text direction* — Text in figure files can be written in any direction. Gallery files only allow text to be written at 0, 90, and 270 degrees. The best substitution will be made in the GAL file.
- *Line styles* — Drawing Gallery only uses seven line styles, while figure may have up to eight. Thus, line style 6 (dashed line) in a figure is displayed as line style 3 (dot-dashed line) in Drawing Gallery.
- *HPMap borders* — If you suppress borders in an HPMap figure and convert it into a picture, Drawing Gallery will display the picture with borders. However, when you print or plot the picture, the borders will be suppressed as they were in HPMap.
- *Many-sided polygons* — A polygon (in a figure) with more than 104 sides is split into two polygons when converted into a picture. However, the two polygons still appear as one.

Gallery to Figure considerations

- *Markers* — The Gallery marker composed of a square with a cross inscribed in it will be substituted by a circle with a cross inscribed in it when converted to a figure.
- *Thick lines* — Gallery files allow variable line widths. Figure files do not have this feature. Thin lines will be substituted.

Even with these considerations, HP Graphics Curator/3000 is the only solution for your customers who want to do graphics creation on the workstation but also want to take advantage of the HP 3000 benefits.

continued on next page

Target markets

Sell HP Graphics Curator/3000 to your customers currently using HP 3000 Graphics products. This enables them to begin migrating graphics to the workstation — a better solution for screen-intensive applications. CPU resources are then offloaded.

The Office Graphics Bundle, which includes HP Graphics Curator/3000 and five copies of the Gallery Collection, is the perfect solution for customers who haven't yet been introduced to the highly successful Graphics Gallery products but would like to offload graphics creation to the workstation. Purchase of the Office Graphics Bundle is a 15 percent discount of the total product value. See details below.

Ordering information

HP Graphics Curator/3000 (P/N HP36926A/R) is available on the T Delta-4 MIT. The A product is \$2,500 (Option 320) with Option 310 for \$1,500 and Option 315 for \$1,000. The R product is available for \$1,800 (Option 310 is \$1,000 and Option 320 is \$800).

Important customer discount

HP Graphics Curator/3000 is also available with the Office Graphics Bundle (P/N 36929A/R), a new product also on the March 1 Corporate Price List. The A product sells for \$4,500, or \$3,200 for the R product. The bundle contains one copy of the HP Graphics Curator/3000 and five copies of The Gallery Collection — a 15 percent discount of the total product value.

HP Graphics Curator/3000 sales documents available

Paula Dieli/PSD

The March 15 issue of *Information Systems & Manufacturing News* contained the HP Graphics Curator/3000 Sales Guide. HP Graphics Curator/3000 is a quick and easy application that performs conversions between HP 3000 figure files and Graphics Gallery picture files.

HP Graphics Curator/3000 combines the benefits of the friendly and powerful HP microcomputers with the flexibility of the HP 3000 departmental computer. For example, HP Graphics Curator/3000 will enable a Graphics Gallery user to use a picture on the HP 3000 for use with HPDraw, TDP or HPWord. Or, an HP 3000 user can use

a figure on the Touchscreen PC in Drawing Gallery or in an Executive MemoMaker document.

The sales guide contains useful information such as: Competition, Where to Sell, How to Demo, and includes a section of commonly asked questions and answers.

Data sheet available

The HP Graphics Curator/3000 data sheet has been sent to all commercial sales reps and all commercial systems engineers. Extra copies were sent to all area librarians. Additional copies of the data sheet can be ordered from the Literature Distribution Center using P/N 5954-7453.

SE self-study training

Training for field support has been sent to all systems engineers signed up on the HPDraw MUS. Additional copies can be ordered by placing a non-discountable I-2 HEART order with SDC referencing the following information: P/N 36926-90002; HP Graphics Curator/3000; P/L 59; PRICE = PLEASEADV; S/F = 09; MK = 50; SUP = 5006.

Customer documentation

HP Graphics Curator/3000 using guides have been sent to all systems engineers signed up on the HPDraw MUS and additional copies can be ordered through Direct Marketing Division (DMK) using P/N 36926-90001 for "Using HP Graphics Curator/3000."

Ordering information

HP Graphics Curator/3000, P/N 36926A, is \$1,000 for use on HP 3000 Series 37 computers and \$2,500 for use on all other HP 3000s. It is available on the T Delta 4 MIT.

Important customer discount

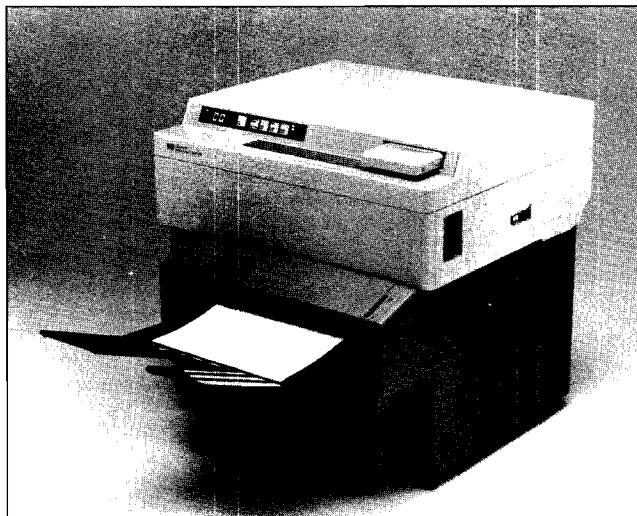
HP Graphics Curator/3000 can also be purchased as the "Office Graphics Bundle" for \$4,500 (P/N 36929A) which includes HP Graphics Curator/3000 and five copies of The Gallery Collection for the Touchscreen PC (45478A). For the right to copy, the bundle is available for \$3,200 (P/N 36929R). The price of the bundle is a 15 percent discount of the total product value. The bundle is ideal for those customers who want to transfer their graphics creation to the workstation thereby freeing up HP 3000 CPU resources.

Introducing the HP LaserJet 500 PLUS printer

Linda Lewis/BOI

For the US and Canada only

On March 24, Boise Division introduced the HP LaserJet 500 PLUS printer — the newest member of the HP LaserJet family of personal office printers. At introduction, the HP LaserJet 500 PLUS will only be available in the US and Canada.



This new printer has the same capabilities as the HP LaserJet PLUS with the addition of increased paper-handling flexibility.

New features

- Two paper input trays (holds 250 sheets of paper each).
- One output tray (holds 250 sheets of paper).
- Correct order output (face down).
- Job offset (job separation between documents).

As the name implies, the LaserJet 500 PLUS has a paper handling capacity of 500 sheets (two input trays hold 250 sheets of paper each). Paper trays can be selected from the front control panel or from within the document. For example, if "Auto" is selected from the front control panel, the printer will automatically switch from one paper tray to another when the paper is out and can run continuously as long as paper is alternately replaced in the upper and lower trays.

One important feature is the ability to select the stacking order of your printed copy in either correct (face down) or reverse (face up like the HP LaserJet or HP LaserJet

PLUS printers) order via a toggle switch in the front of printer.

The job offset feature is ideal in multi-user environments because the user(s) can physically separate different jobs. This feature can be performed only when correct order output is used and can be accessed only from your document. Job offsetting should not be confused with collation which will separate and arrange multiple copies of the same job.

HP LaserJet family compatibility

The HP LaserJet 500 PLUS printer is 100 percent compatible with the HP LaserJet and HP LaserJet PLUS printers. Any software that runs on the HP LaserJet or HP LaserJet PLUS printers will run on the HP LaserJet 500 PLUS printer.

All HP LaserJet and HP LaserJet PLUS font cartridges, soft fonts and EP toner cartridges will work with the HP LaserJet 500 PLUS printer. The major difference is that the HP LaserJet 500 PLUS uses larger paper trays.

HP LaserJet 500 PLUS printer ordering information

The HP LaserJet 500 PLUS has a US list price of \$4,995 and is immediately available for shipment in the US and Canada only. Two paper input trays (letter size) and one paper output tray are included in the price.

Product	Description	US list price
2686D	115V LaserJet 500 PLUS	\$4,995
92287B	LaserJet 500 PLUS Letter paper tray	72
92287C	LaserJet 500 PLUS Legal paper tray	72
92287D	LaserJet 500 PLUS A4 paper tray	72
92287E	LaserJet 500 PLUS B5 paper tray	72

HP LaserJet printer family supporting literature

P/N	Literature	Order limit
5954-2291	LaserJet Family #10 Flyer	25
5954-2292	LaserJet Family Brochure	25
5954-2293	LaserJet Family Sales Guide	25
5954-2294	LaserJet Product Sheet	25
5954-2295	LaserJet PLUS Product Sheet	25
5954-2296	LaserJet 500 PLUS Product Sheet	25
5954-2287	LaserJet Family Ordering Checklist and Price Guide	25
5954-2300	LaserJet Family Data Sheet	25

There is no charge for literature and all pieces can be ordered through your normal distribution channels.

Supplies for the new HP LaserJet 500 PLUS printer

Debbie Little/DMK

Paper cassette trays for the new LaserJet 500 PLUS are now available through Direct Marketing Division (DMK). We offer four different sizes to accommodate most printing applications. The LaserJet 500 PLUS holds two paper cassette trays of 250 sheets each.

P/N	Paper cassette tray size	US list price	
92287B	Letter size 8½" X 11"	1-2 trays	\$72.00 each
		3-9 trays	61.50 each
		10+ trays	54.00 each
92287C	Legal size 8½" X 14"	same as above	
92287D	Metric A4 size 210mm X 297mm	same as above	
92287E	Metric B5 size 182mm X 257mm	same as above	

In addition, DMK also carries supplies for the LaserJet/LaserJet PLUS printers, that work with the LaserJet 500 PLUS printer, including: 22 font cartridges, black and brown toner cartridges, overhead transparency film, and labels. All these products are featured in DMK's Computer Users Catalog Personal Computer Users Catalog. For fast service, customers should call DMK's Direct Order phone numbers listed in the back of *Information Systems & Manufacturing News*.

HP LaserJet printer toll-free assistance line changed to new toll number

Walt Sledzieski/BOI

Over the past year and a half, Boise Division has offered a toll-free LaserJet printer customer assistance service. The LaserJet Assist group provides high-level post sales support to LaserJet family end users.

If you have tried to contact our toll-free number lately, you have probably received a constant busy signal. We are aware of this situation and are moving to correct it.

On March 3 we replaced our toll-free assistance line with the new toll number, 208-323-2551. Our decision to replace it comes at a time when several other changes are being made to insure the continued success of our operation. While it will appear that we are taking a major

service away from the customer, we feel that it will enable us to provide better overall support. Making this change will do the following:

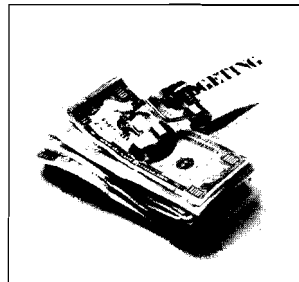
- Encourage users to seek answers to their questions through existing documentation. Our call data has shown that many of the answers provided can be located in existing literature (manuals, font catalogs, etc.).
- Enable us to hire additional staff to support the escalating number of customer questions.
- Encourage users to seek assistance from other available channels. For example, customers can contact their dealers for assistance. Dealers have a dedicated HP support group to contact if they are unsure of the answer.
- Enable us to supplement the direct customer support function with an electronic voice-mail system. This will provide the customer with rapid access to commonly asked questions and other electronic tools that will help answer their questions.

The information we provide will continue to be free of charge. The LaserJet printer is a very successful product and demands a high level of post sales support. We are committed to our current and future customers and feel that these changes will help us to better serve them.

FINANCIAL APPLICATIONS

Introducing HP Financial Budgeting

Glenn Matsuda/MPD



The Boeblingen General Systems Division (BGD) is pleased to announce the manufacturing release of HP Financial Budgeting (HP FB), the newest application in our family of financial-management systems. HP FB is an interactive system that can provide

your customers with all the information they need to manage their business. It has been specifically designed to meet the needs of a company that would like a sophisticated tool for planning and controlling the financial per-

formance of departments, production lines, sales regions, or any other organizational level.

HP Financial Budgeting provides solutions for the following areas:

- Creating comprehensive budget plans in worksheet format.
- Consolidating budget plans for higher level reviews.
- Monitoring financial performance with budget to actual and variance reporting.
- Analyzing the financial impact of different business scenarios with "what if" capabilities.
- Interfacing with HP General Ledger and other accounting environments.

Ordering information

P/N	Description	US list price
35350A	HP Financial Budgeting	\$20,000

Sales aids

In conjunction with the manufacturing release of HP FB we are kicking off a sales campaign with the distribution of the HP FB Introduction Pack. This comprehensive package of sales aids is designed to assist anyone giving a presentation on HP FB. This material can be used to give a very detailed demonstration or a basic overview. It consists of a field training manual, a slide pitch and script, a system demo tape which highlights the major features and capabilities of HP FB, and an instruction guide for creating the demo and slide pitch.

These items along with the Product Evaluation Guide (PEG) will be available in all sales offices. Additional copies of the PEG (P/N 5953-6618) can be obtained from the Literature Distribution Center. Additional copies of the other sales aids can be obtained from Manufacturing Productivity Division and BGD.

Budgeting under the gun: beta testing HP Financial Budgeting

Steve Calderwood/MPD

What do you do when your back is against the wall? That's the question that our beta test site, a half-billion dollar US subsidiary of a UK company, asked in October 1985. They had two months in which to prepare their 1986 budgets for five divisions plus US headquarters. The problem was in their current budgeting system and something well known to large corporations: reorganizations. They were currently using an inflexible software

application on an IBM system and just implementing the reorganizations would consume most of the two-month timeframe, not to mention the follow-on budgeting process.

So, they decided to look at their alternatives. They were in the process of replacing their old accounting system with HP Financial Accounting and heard of a new product coming out of Boeblingen General Systems Division (BGD) called HP Financial Budgeting (HP FB). After analyzing the package and visiting one of the HP divisions using the software, they decided that they had a better chance of implementing HP FB in the two months than trying to make do with the existing system.

They hired a system administrator and a consultant to perform the implementation and with the help of some temporaries for data entry, they finished the budgeting cycle and produced their first consolidated profit and loss statement on December 20, in time to send it to the UK parent. But, as anyone in HP knows, your first budget is never accepted.

At 10:00 a.m., on Friday, the division controllers were told what changes needed to be made and by 5:00 p.m. they had all been input, the files sent to corporate, the consolidation run completed, and a new profit-and-loss statement generated, thus saving a lot of people from working on the weekend. Furthermore, they now have the process down to three hours.

How does the customer feel about HP FB? According to the system administrator, "I looked around at the INTEREX Conference in Washington, D.C., and I couldn't find anything comparable. Now, I wouldn't trade it for anything."

For more information on HP's latest financial product, HP Financial Budgeting, or information on its beta sites, contact Steve Calderwood, Financial Program Manager, or Glenn Matsuda, FMS Product Manager at 408-559-7300.

DISTRIBUTION SYSTEMS

HP sells distribution software to distribution resources company

Bill Stidham/OSD

After several months of intense effort in reviewing several value-added-channel (third-party) proposals, Hewlett-Packard has entered into an agreement with Distribution Resources Company (DRC) to take over the

ownership, marketing, and some of the support activities for Information Resources Operation (IRO) software products — HP SFD, HP OM and HP INVISION. The principals of DRC are IRO managers, who are leaving HP to establish this new company. Joe Peters, IRO marketing manager, will serve as president and chairman of the board of DRC. Joe is a former HP SFD user and has served as chairman of the SIGSFD User Group. Don Kirkpatrick, former IRO R&D manager and IR founder, will be vice president of R&D. They will employ several of the current IRO staff members which will assure our customers of continuity of product knowledge and industry expertise. The specifics of the agreement include the following:

- HP agrees to sell to DRC those HP software products, documentation, and related materials named HP SFD, HP OM, and HP INVISION. DRC will assume responsibility for licensing the software products to customers. DRC agrees to license these same products back to HP so HP is able to discharge our support commitments to our installed customers. HP will have access to the software, related updates, fixes, upgrades, documentation, and associated materials necessary to fulfill its support obligations.
- HP will remove the products from its price list March 1, 1986. Subsequently, all customers will purchase the products from DRC.
- HP will receive a royalty on each copy of the software sold by DRC over the next five years. This is a unique arrangement and provides added incentive for HP sales reps to point prospects in the direction of DRC.
- As of March 1, 1986, DRC will become a national VAR. To provide a smooth sales transition, until November 1, 1986, the end-user sales discounted hardware sold to DRC, with DRC's value-added-channel representative receiving an additional 50 percent for all new system sales. All current SFD customers will have the opportunity to choose to purchase add-on hardware or system upgrades from either HP or DRC. If the customer elects to purchase add-ons and upgrades from DRC, the end-user sales representative will receive 100 percent quota and commission for the discounted value of all hardware sold. Beginning November 1, 1986, quota and commission will work as for any VAR. DRC has agreed to act as a software supplier with our major accounts where appropriate.
- DRC will honor any existing purchase agreements to the extent that the customer will receive at least the same discount percentage on future software purchases for the duration of their existing agreement.
- HP will continue Response Center Support and related software distribution responsibilities for the software through the A.07.XX releases of HP SFD and HP OM and through the A.03.XX release of HP INVISION for five years after the date selected as the date for commencement of the obsolescence of the A.07.00 and A.03.00 versions of the software products. However, HP has no plans to obsolete these products in the near future. HP and DRC will cooperate to develop a plan for Response Center Support of logical extensions to the A.07 and A.03 software products.
- Initially, HP will continue to offer AMS on-site services. During the first year of the agreement HP and DRC will develop a Transition plan so that DRC will assume sole responsibility for AMS on-site services no later than May 1, 1987. The transition plan is presently being drafted and will be coordinated with Product Support Division, Application Support Division, response centers, and the field offices prior to finalization. HP reserves the right to offer support contracts for HP 3000 volume end-users.
- HP and DRC have developed a plan for the transfer of key employees from HP to DRC.
- HP has one seat on DRC's board of directors.
- HP has a warrant for a ten percent equity position in DRC.

Having selected DRC as a value-added-channel with expertise in these specific products and with HP continuing to play a significant role in that organization and in the support of these distribution products, we believe that the IRO customers can look forward to on-going product stability and future enhancements.

The Office Systems Division (OSD) has the on-going HP "factory support" responsibility for these products. HP has chosen to subcontract the many elements of "factory support" to DRC. Additionally, Bill Stidham has been identified as the full-time project manager to insure that the transition goes smoothly and that the necessary working relationships between HP and DRC develop in the appropriate manner. Bill will be reporting directly to Dave Sanders, OSD general manager, in his new capacity and will be the key contact for SFD issues after March 1, 1986. Bill is now located at the IRO offices in Englewood, Colorado, and will be relocating to Roseville, California, in April.

VERTICAL MARKETS

Hewlett-Packard spotlighted at New York Legal Tech conference

Susan Diehl/ISG



The annual New York Legal Tech conference was held February 24-26, 1986, and attracted over 400 managing partners and administrators of law firms mainly from the eastern regions. The conference focused on issues surrounding the automation of law offices and addressed topics such as technological trends, automation objectives and solutions, and the various uses of computers in law offices. In addition to the workshops, 133 vendors had booths exhibiting their products.

Hewlett-Packard has been an increasing force in the legal marketplace because of the strength of our two legal value-added channels (formerly called third parties), CompuTrac and Harris & Paulson, both of which had booths at the show. The advent of the HP Vectra PC and AdvanceWrite word-processing software has been instrumental in solidifying our commitment to this market. Because of the paper-intensive nature of the legal industry, office automation is the mainstream area on which most automation decisions rest. With the HP Vectra PC, HP LaserJet printer, and our value-added-channel solutions, we now offer a highly competitive total solution for the legal market.

This competitive edge became evident in the panel discussion on automation strategies in large law firms. One member of the panel was Dave Robertson, a partner with Cadwalader, Wickersham & Taft, one of New York's largest and most prestigious law firms. Dave was responsible for evaluating and selecting the office-automation solution for the firm. He chose Hewlett-Packard over numerous other vendors, and his endorsement of our products gave much credibility to our place in the legal market. Also spotlighted at the show was the HP Portable computer. A 15-minute demonstration was given on its features and functionality for a law firm.



PORTABLE

Introducing the enhanced HP Portable PLUS

Jim Martin/PCD



The Portable PLUS is now enhanced with a high-contrast LCD display and an increased internal-memory capacity of up to 1.28 megabytes.

The HP Portable PLUS just got better. Until now, the primary objection to portable computers has been the difficult-to-read displays. No longer. The Portable PLUS now has an enhanced "next-generation" liquid-crystal display, offering significantly greater contrast and over twice the viewing angle. And this greater readability comes at no sacrifice to existing battery life, size, or ruggedness of the products. Like the old display, it operates by changing the intensity of reflected light, but unlike the old display, it also changes the color of the light. Instead of dark grey letters on a light grey background, you get dark blue letters on a yellow-green background. Because the human eye is far more sensitive to yellow-green than to blue, the perceived contrast is far greater.

In addition, the internal memory has been increased from 128 Kbytes to either 256 Kbytes or 512 Kbytes. This means that with one additional fully loaded drawer of memory the Portable PLUS can now be configured with 896 Kbytes of memory, or with two full memory drawers, an incredible 1.28 megabytes of memory is possible. All existing accessories, software, and peripherals are compatible with the enhanced product. For current Portable PLUS users, an upgrade program is now available from the factory to take advantage of either of these new enhancements.

The Portable PLUS has proven itself to be the most convenient to use and the most durable portable computer available. The enhanced display and increased memory

capacity now make the Portable PLUS an even more convenient and powerful product. And to back up the claim of durability, effective April 1, the warranty is being increased from 90 days to one year.

All in all, the enhanced Portable PLUS is a product you should see for yourself.

The new Portable PLUS fits sales force automation needs

Terry Tallis/PCD

Do you have accounts who have large sales forces and are in an environment where the savings of a dollar connected with the sales effort has considerable positive leverage throughout the business? Does the company want to upgrade the effectiveness of their sales force? With its increased memory and usefulness, the new Portable PLUS becomes a key to unlocking the potential of the sales force automation (SFA) marketplace.

Companies with sales forces have an opportunity to improve their productivity using SFA systems. The companies that are the most active in 1986/87 are the non-durable goods manufacturers with large sales forces that are selling products such as consumer goods, household products, chemicals, apparel, or pharmaceuticals, to large customer bases of retailers or professionals such as doctors or engineers. In these industries, the sales rep is constantly optimizing schedules, preparing call presentations, filling out call reports, calling the factory for status on orders or inventory levels, and taking copious notes on shelf space and competitive activities. These sales reps are ripe for a faster, easier, and more professional way of doing business.

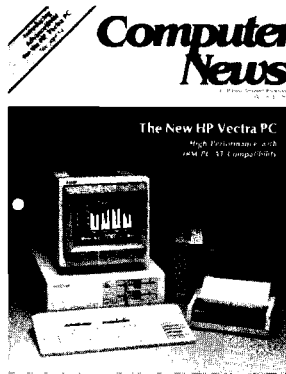
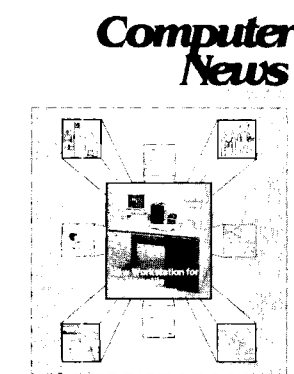
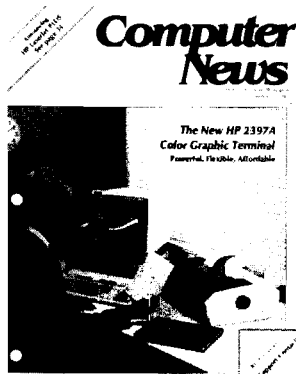
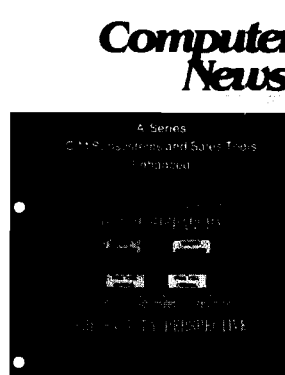
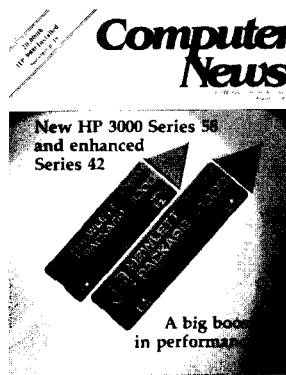
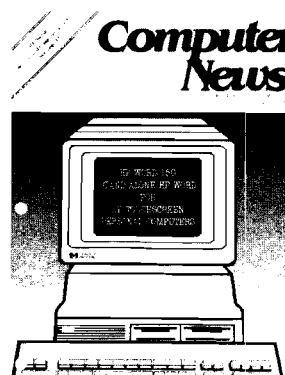
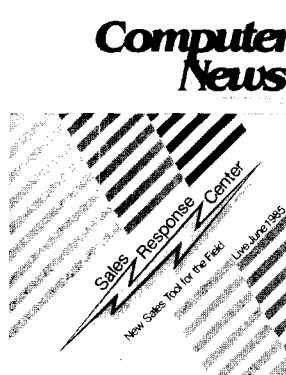
These companies typically reside in a market where they are engaged in intense competition such as breakfast cereals, household chemicals, apparel, and so on. They recognize that a relatively small cost reduction goes a long way to improving the profit picture. Increased business often comes from stealing market share. Increased profits come from incremental volume and reducing costs, particularly in administrative areas. When sales reps are making an average of 10-12 calls per day, the ability to make an additional call a day is a significant increase and in most cases is worth the value of the SFA system. A \$4,000 investment per sales rep will give a payback in four to seven months. As of January, we had six projects implemented, 13 in pilot phase and another 19 under development. Fifty other companies in these markets were evaluating SFA systems using the HP Portable PLUS. The market is ripe for SFA applications.

Computer News

For HP Field Personnel

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Issues 13-24



Computer News

Index to Vol. 10, Issue 13-24

Editor

Roman Kichorowsky

Assistant Editor

Darleen Brettes

Computer News is published biweekly for Hewlett-Packard field personnel to help you sell HP computers, computer-related products, and computer-based systems by *organizing, summarizing, and highlighting* marketing information about new and existing system solutions.

Introduction

Darleen Brettes/Corporate Marcom

This index includes all articles that appeared in *Computer News* from May 1, 1985 to October 15, 1985.

The articles in this index are listed in two ways — by market-focused categories, as in the Table of Contents, and by product, as in the Product Index.

MARKETING & INTERNATIONAL SECTOR

US Field Operations
Europe/Africa Operations
Intercontinental Operations
Worldwide Major Accounts Program
FMO Federal Marketing Operation
DMK Direct Marketing Division
CVCM Value-Added Channel Management
Customer Support
ASD Application Support Division
PRSD Product Support Division
FRD Finance and Remarketing Division
Corporate Marketing Communications

INFORMATION SYSTEMS & NETWORKS SECTOR

Information Systems Group (ISG)
CSY Computer Systems Division
OSP OFFICE SYSTEMS PROGRAM
OSD Office Systems Division
OPD Office Productivity Division
PSD Personal Software Division
BCD Böblingen General Systems Division
GCCO Guadalajara Computer Operation
Personal Computer Group (PCG)
RTD Roseville Terminals Division
HPRR Puerto Rico Operation
PCD Portable Computer Division
BPC Brazil Operation
HCCO Handheld Computer & Calculator Operation
GPCD Grenoble Personal Computer Division
POD Personal Office Computer Division
Microcomputers HP
PCS Singapore Operation
PCDO Personal Computer Distribution Operation
Peripherals Group (PG)
GDD Greeley Division
CTB Computer Peripherals Bristol Division
GTO Greeley Tape Operation
DMD Disc Memory Division
BOI Boise Division
VCD Vancouver Division
ICJ Ink-Jet Components Operation
SDU San Diego Division
BPO Barcelona Peripherals Operation

Information Networks Group (ING)

CNG Colorado Networks Operation
GND Grenoble Networks Division
RND Roseville Networks Division
IND Information Networks Division

Information Technology Group (ITG)

FID Fort Collins IC Division
IHO Information Hardware Operation
ISO Information Software Operation
ESO Entry Systems Operation

Integrated Circuit Group (ICG)

CID Cupertino IC Division
ND Northwest IC Division
SIO Singapore IC Operation
ICD Integrated Circuits Division

MANUFACTURING, MEDICAL & ANALYTICAL SYSTEMS SECTOR

Manufacturing Systems Group (MSG)

DSD Data Systems Division
AMSO Advanced Manufacturing Systems Operation
MPD Manufacturing Productivity Division
LIC Loveland Instrument Division
PARC Parcson Automation Operation
MTD Manufacturing Test Division
LMSO Lyon Manufacturing Systems Operation

Analytical Group

AVD Avondale Division
SD Scientific Instruments Division
WAD Waltham Division
HFG HP Geneschem

Medical Group (MED)

AND Andover Division
BMD Böblingen Medical Division
MCM McMinnville Division
WAL Waltham Division
MSC Medical Supplies Center

Corporate Manufacturing

PRCD Printed Circuit Division

COMPONENTS, MEASUREMENT & DESIGN SECTOR

Microwave and Communications Group (MCG)

SFD Stanford Park Division
NMD Network Measurements Division
SAD Signal Analysis Division
SPK Spokane Division
CTD Colorado Telecom Division
QTD Queensferry Telecom Division
MWTD Microwave Technology Division
QWCO Queensferry Microwave Operation

Electronic Instruments Group (EIG)

NJD New Jersey Division
SCD Santa Clara Division
BID Böblingen Instrument Division
YID YHP Instrument Division
YCO YHP Computer Operation
COL Colorado Springs Division
SL Instrument Systems Labs

Design Systems Group (DSG)

WORKSTATION/TECHNICAL COMPUTING
FSD Fort Collins Systems Division
CWO Corvallis Workstation Operation
BCD Böblingen Computer Division
ELECTRICAL ENGINEERING
LSD Logic Systems Division
LDO Logic Design Operation
FEO Fort Collins Engineering Operation
SLCC Salt Lake City Operation
MECHANICAL ENGINEERING
LSD Lake Stevens Instrument Division
BEO Böblingen Engineering Operation
TSC Technical Software Center

Components Group

MSD Microwave Semiconductor Division
OED Optoelectronics Division
OCD Optical Communication Division
SAO Southeast Asia Operation

Corporate Engineering

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The "new" Corporate Marketing at Hewlett-Packard	May 1	3	New HP 1000 A-Series VAR/OEM recruitment ad	July 1	7	Are your customers eligible for additional Response Center callers?	May 1	9	Spectrum program update	June 15	3	Announcing the 1985 Commercial Software Supplier Conference	July 15	6	Reminder about DCS Program legal documents	May 1	10	Spectrum program update no. 2	July 15	3	TRIAD third party database alive and well	July 15	7	Updated DCS classroom training schedule	May 1	10	Warranty and contract limitations of service policy guidelines	May 1	11	HP Grenoble offers maintenance training	May 15	11	Support Product Numbers explained	May 15	11	How to figure usage into LaserJet printer support	May 15	12	Three new Response Center tools	June 1	11	Self-paced Mentored Training update	June 1	11	Video-enhanced peripheral prestudy kits available	June 1	12	Technical calculator support to the rescue	June 1	12	Customer Hardware Support Training Group moves	June 1	13	Instrument/computer software distribution merge	June 1	13	New customer training for Multimate and Microsoft Word	June 15	9	Support Link II modem provided with HP 3000 Series 37 software support	July 1	7	Have your customers switched to the new software support services?	July 15	8	Self-Paced Mentored Training Schedule for 1985	July 15	9	HP Tele-Support renamed "HP Remote Support"	July 15	9	Training program for customers' special needs	Aug 1	8	Important change in HP-ASSIST program	Aug 1	8	Assured International Support program	Aug 1	9	Hardware support price changes effective August 1	Aug 1	10	August 1 computer support price changes	Aug 1	11	New support services for workstation products	Aug 1	12	IMAGE/1000-II customer course revised	Aug 1	12	Use the new users group field training manual to increase sales	Aug 1	12	New Interex membership brochures	Aug 1	13	FRD helps customers with disaster recovery	Aug 15	8	Predictive Support enhances HP 3000 support	Sept 1	7	HP-ASSIST commission policy	Sept 1	8	FCOPY/3000 CAI training for HP customers and internal use	Sept 1	8	SINOPEC visits customer training	Sept 1	8	Dealer Cooperative Support Program training going strong	Sept 15	5	Using HP-ASSIST Additional Service Units wisely	Oct 1	8	Procedures for special support	Oct 1	8	ASD restructures computer course pricing	Oct 1	9	Customer support — the HP sales advantage	Oct 15	7	New software support selling tool available	Oct 15	7	New Response Center videotape	Oct 15	8	Two new personal computer support selling tools	Oct 15	8

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PC software support can now be added to HP 1000 and HP 9000 contracts	Oct 15	9	INFORMATION SYSTEMS			New Rapid/3000 customer training courses	May 15	20	
Worldwide Country Support Matrix distributed	Oct 15	9		<i>General</i>	May 1	25	HP TurboIMAGE/3000 articles appearing in The Chronicle	May 15	21
Kepner-Tregoe problem solving training for your customers	Oct 15	9		HP 7914CT supported on HP 3000	May 1	25	HP Copycat/3000 poster available	May 15	21
System Support Inc. visits HP customer training	Oct 15	10		HP 9144 and 7945A supported across HP 3000 line	May 15	19	Introducing Silhouette/3000	June 1	16
HP products on the Cooperative Support Program	Oct 15	10		HP 260 introduction a success	May 15	19	Silhouette/3000 can help you make quota	June 1	17
<i>Special Offers</i>				110 and 150 baud removed from ATP	May 15	19	HP and Carolian Systems cooperate to bring Silhouette/3000 to your customer	June 1	18
Leverage 3000 upgrade program	May 1	11		Ordering the Advanced Terminal Processor on HP 3000 computers	June 1	15	New course on designing and optimizing HP 3000 applications	June 1	18
HP 2563A printer upgrade program	May 1	11		Memory credit reductions	June 1	15	Supporting the Touchscreen II system console on installed HP 3000 Series 64/68 systems	June 15	10
Special discount for HP 293X printers	May 1	12		HP 260 cabling corrections	June 1	15	New HP 3000 Series 58 and enhanced Series 42	Aug 1	20
Free Printer Pack with HP ThinkJet printer	May 1	13		1985 HP 3000 MIT availabilities	July 1	10	Why the new HP 3000 Series 58 is so fast	Aug 1	20
Leverage 3000 upgrade program update	May 15	13		HP 3000 media products restructured	July 1	10	How to get HP 3000 Series 58 power to your customers	Aug 1	21
Update to FRD's "Six-Pac" special	May 15	13		HP-IB extender support expanded	July 1	11	Announcing HP 3000 Series 42XP and Series 58 support	Aug 1	22
Remarketed HP 1000 E/F-Series sales promotion	June 1	14		Aggressive HP 3000 Series 37 software pricing	July 1	12	Price changes for HP 3000 Series 39	Aug 1	23
New Icebreaker Plus promotion	June 15	10		New prices for HP 300 to HP 3000 upgrades	July 1	12	HP 3000 hardware organization video available	Aug 1	23
Non-HP terminals included in HP 264X Trade-In Program	June 15	10		Price reduction on remarketed HP 3000 Series III, 30, and 33 accessories	July 1	13	Introducing the HP 3000 Series 68C	Aug 15	16
Remarketed peripherals sales promotion	June 15	11		HP 3000 Series 40/44/64 orders to end October 1	July 15	10	New add-on memory for the HP 3000 Series 68	Aug 15	17
Reconditioned workstation equipment promotional discounts	July 1	8		20,000 HP 3000s installed	Aug 1	19	HP 3000 return credits will be changing on November 1	Aug 15	18
More time for eligible HP 3000 customers to obtain the MPE V/E firmware at no charge	July 1	9		Entry-Level Series 37 now easier to order	Oct 1	12	Return credit for HP 3000 Series 64/68 memory	Aug 15	19
Software savings for HP Touchscreen users	Aug 1	13		Disc caching with money-back guarantee for Series 37XE	Oct 1	12	HP Business BASIC: new standard for commercial BASIC users	Aug 15	19
Micro/26 promotion begins August 1	Aug 1	15		Terminal ports on the Series 37 improved Oct 1	12		HP Business BASIC: conversion issues for commercial BASIC users	Aug 15	20
MEGABYTES PLUS: The Great Half Off Sale	Aug 1	15		Transform/3000 promotional videotape available	Oct 1	13	HP Copycat/3000 versus Tymlabs' Backpack	Aug 15	20
MEGABYTES PLUS: disc drive trade-in program	Aug 1	15		Transform/3000 flyer offers free videotape to IBM/System/34 users	Oct 1	13	HP Model success stories	Sep 15	9
HP 1000 Model 29 XP limited-time discount	Aug 1	16		Free DS/3000 to NS/3000 upgrade ends soon	Oct 1	13	GCO new supplier for HP 3000 Series 58	Sep 15	10
All-new HP 7976A-to-7978A trade-in program	Aug 1	17		More modem ports for the HP 3000 Series 37 with the ATP37/M	Oct 15	14	HP 3000 software delivery for North American and Intercon	Sep 15	11
MEGABYTES PLUS: expanded upgrade program for HP 3000 disc drives	Aug 1	18		ATP37 price reduction	Oct 15	14	HP 3000 software delivery for Europe	Sep 15	12
HP 2640 display terminal trade-in program	Aug 1	18	New customer training course for low-end HP 3000 customers	Oct 15	15	Discontinued HP 3000 systems offer sales opportunities	Oct 15	16	
Announcing the Momentum sales program	Aug 15	13	New sales aids on HP 3000 private volumes	Oct 15	15	<i>Office Systems</i>			
Maintenance Magic promotion offers bundled maintenance management solution	Aug 15	13	<i>Small Business Computing</i>			New Personal Productivity Center release	May 1	29	
Discounted HP 3000 Series 37 software from MPD and APD	Aug 15	14	HP 250 application software obsolescence	Jul 15	10	Introducing HP Access and HP Access Central	May 1	30	
MEGABYTES PLUS: "Movin' on Up" promotion	Aug 15	14	Obsolting the HP 250 SPU	Jul 15	10	Announcing Print Central products	May 1	31	
FRD's reconditioned workstation program update	Aug 15	15	HP 260 poster available	Aug 1	19	Introducing HP Word/150	May 1	31	
HP 264X trade-in program available in Europe	Sep 1	11	The entry-level HP 260 offers more mass storage for less	Aug 15	16	New enhanced PPC system bundles and software packs	May 1	32	
The Megabyte Express program expanded	Sep 1	11	Financing available for HP 260 hardware	Aug 15	16	Old PPC bundles obsolete	May 1	33	
A-Series promotions gain momentum	Sep 1	11	Announcing the Fast Track/260 Program	Sep 1	12	"PPC Inputs" will answer your questions	May 1	33	
Article	Sep 15	6	PCDO distributes the HP 260	Sep 1	12	Selling HP Word processing	May 1	34	
Article	Oct 1	10	New workstation for the HP 260	Sep 15	8	HP Slate now works with HP 2392A terminal	May 1	35	
HP-41 Advantage Pac promotion is big success	Oct 15	12	Obsolting the HP 45262D workstation	Sep 15	8	Remote printers for HP 3000	May 1	35	
MEGABYTES PLUS: "Movin' on Up" trade-in program extended	Oct 15	12	The HP 260 provides a variety of solutions	Sep 15	8	Seminar Kit for Personal Productivity Center	May 15	21	
HP 7908 end-of-production sale	Oct 15	12	New HP 260 sales literature	Sep 15	9	Videotape of PPC demo now available	May 15	22	
Trade up to HP 9153A and 9133H disc drives	Oct 15	13	Software support for the HP 250 and HP 260	Oct 15	16	An update on HP Telex II	May 15	22	
			<i>Commercial EDP</i>			ATPs preferred connection for personal computers	May 15	23	
			Pricing for the HP 3000 Performance Analysis and Capacity Planning products	May 1	26	<i>Solutions Quarterly</i> now available	May 15	23	
			HP FORTRAN 77/3000 released	May 1	27	Using the HP 7550 in a local area network	May 15	24	
			Choosing prospects for the HP 2689A is easy	May 1	28	HP LaserJet printer support on HP Word V	June 1	19	
			HP 2689A customer data needed	May 1	28				
			HP Rapid/3000 update—for now and the future	May 15	19				
			New enhancements to Rapid/3000	May 15	20				

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HP 2687A price reduction	June 1	19	Announcing LAN for the HP 3000 Series 37	Oct 1	18	PERSONAL COMPUTERS			
HP and Santa Barbara Laboratories to co-market Centerpoint 1000 workstation	June 1	20	Print Central for the HP Vectra PC and IBM PC/XT/AT	Oct 1	19		General		
success stories needed	June 1	20	PPC Professional Pack/Touchscreen now includes Executive Card Manager	Oct 1	19		ISV program for personal computers	Sep 15	17
HP Word/150 is here	June 15	12	Demo tips help you sell HP Map/3000	Oct 1	20		Portable		
HP AdvanceNet presentation slides and script available	June 15	12	The HP LaserJet PLUS printer and electronic forms	Oct 1	20		The HP Integral PC now on the A-50 contract	May 15	18
Correction to the PPC Field Training Manual	June 15	12	Consultants spotlight HP OFFICE-ASSIST	Oct 1	21		New 1M byte memory module for HP Integral PC	June 1	27
HP Touchscreen II personal computer supported as new HP 3000 Series 68 console	July 1	13	Application software for the HP OfficeShare Network	Oct 15	16		Bus expander now available for HP Integral PC	June 1	27
Announcing HP Map/3000	July 1	14					Modem for HP Integral PC now available	June 1	28
New version of HP Message for ExecuDesk Customers	July 1	15	Financial Applications				HP Portable: 1985 Personal Computer of the year	June 15	14
New office solutions video presentations	July 1	16	Using reference sites for HP financials	May 1	36		The Portable performs time management	June 15	14
Effect of system volume pricing on PPC bundles	July 1	16	New Financial Management Systems poster available	July 15	13		Introducing The Portable PLUS	July 1	21
Updated Personal Productivity Center flyer	July 1	17	Introducing HP Financial Budgeting	July 15	13		Strong communications offering for The Portable PLUS	July 1	22
New opportunity selling HP office products	July 1	17	Special offer on HP financial software	July 15	14		ROM software for The Portable PLUS	July 1	22
HP Word and HP LaserJet printer font cartridges	July 15	11	New Financial Management Systems literature portfolio	Aug 1	24		Existing disc-based software broadens offering for The Portable PLUS	July 1	23
HP on 24 percent of office systems vendor lists	July 15	12	New Financial Management Systems campaign	Aug 1	24		FORTRAN for The Portable PLUS	July 1	24
Consultants report on HP office systems	July 15	12	Customer accolades for new version of HP Financial Accounting	Sep 1	14		Customization for The Portable PLUS	July 1	25
<i>Solutions Quarterly</i> No. 2 on its way	July 15	12	New ad for the financial services marketplace	Oct 1	21		International versions of HP Integral PC Bus Expander now available	July 1	25
Executive Card Manager and HP Access	Aug 1	23					Portable PLUS training material available	Aug 1	26
Updated PPC Product Information Guide	Aug 1	23	Distribution Systems				HP Integral PC delete option available	Aug 1	26
Latest version of HP Draw features new figures	Aug 15	21	New HP INVISION brochure available	May 1	36		The Custom Solutions Program for the HP Portable PLUS	Sep 1	16
HP Map/3000 sales documents available	Aug 15	21	New sales training class for HP Distribution Management products	June 1	20		Bulletin board for HP Portable PLUS software developers	Sep 1	16
PPC Seminar Kit update	Aug 15	22	IRO customer training schedule	June 1	21		New HP-IB interface card for the HP Integral PC	Sep 1	17
HP 2602 offers HP-IB printing solution for the office	Aug 15	22	Updated Product Evaluation Guide now available	June 15	13	Demo disc for the Portable PLUS	Sep 15	17	
HP LaserJet printer competition	Aug 15	23	Direct mail program to distributors under way	June 15	13	HP makes grants of The Portable to university, medical programs	Sep 15	17	
<i>Targeting the Office</i> materials now available	Aug 15	24	Introducing HP SFD I: easy to sell and implement	July 1	18	The HP-41 Advantage Pac: the most powerful HP-41 function set	Oct 15	21	
Colorful HP Map/3000 samples help you sell	Sep 1	13	New manual set complements HP SFD I	July 1	19	HP-71 and HP-75 now GSA approved	Oct 15	21	
New PPC competitive guide now available	Sep 1	13	Price list changes for HP Distribution Management products	July 1	19	New book explains the HP Portable	Oct 15	21	
Positioning HP Access for your customer	Sep 15	12	HP INVISION price reduction	July 1	20				
Shared versus non-shared printing: selling Print Central	Sep 15	14	New pricing for Distribution Management products' rights-to-copy	July 15	14	Desktop			
Office automation success story presentation	Sep 15	15	Other CPL changes for Distribution Management products	July 15	15	New extended mass storage ROM for Series 80 personal computers	May 1	14	
Personal computer users in 3000 accounts can now receive contractual software support	Sep 15	15	Distribution products ad campaign	Aug 1	25	The Touchscreen II personal computer family	May 1	14	
HP LaserJet and LaserJet PLUS printers supported on HP 3000	Sep 15	15	Transferring data between HP SFD and Lotus® 1-2-3®	Sep 1	14	Sales aids for the Touchscreen II personal computer	May 1	16	
HP LaserJet printer family target markets	Sep 15	16	New Distribution Management sales literature	Sep 15	16	Touchscreen II upgrade available	May 1	17	
AdvanceWrite word processing for the HP Vectra PC	Oct 1	14	HP 3000 Series 58 and 42XP may improve performance for many HP SFD users	Oct 15	18	HP Touchscreen personal computer trade-in program	May 1	17	
Introducing HP OfficeShare Network for HP Vectra, Touchscreen, and IBM personal computers	Oct 1	15	New HP INVISION overhead slide presentation	Oct 15	19	Direct mail program for Touchscreen II personal computer with IBM Terminal Emulation	May 1	18	
New customer training course for HP OfficeShare Network	Oct 1	17	HP SFD I data sheet and HP SFD feature comparison now available	Oct 15	19	HP Touch accessory available for Touchscreen II personal computer	May 1	18	
The OfficeShare Network connection to the HP 3000	Oct 1	17	Updated HP Distribution Solutions brochure available	Oct 15	20	Introducing EtherStart/150	May 1	19	
New HP 3000 link to HP OfficeShare Network now on CPL	Oct 1	18	The Wholesales Top 100 includes SFD/3000 users	Oct 15	20	New personal data storage solutions for HP Touchscreen II personal computer	May 1	19	
						EtherSeries/150 configuration	May 1	20	
			Vertical Markets			PFS: File and Report and Context MBA disc-replacement program explained	May 1	20	
			<i>Vertical Markets Newsletter</i> —a new sales tool	May 15	24	ThinkJet and LaserJet printers now compatible with Macintosh	May 1	21	
			HP 1000 A900 firmware update to fix SQRT problem	May 15	25	New ThinkJet printer now offers RS-232-C interface	May 1	22	
			Speech Output Module to be obsolete	June 1	21	New font cartridges for LaserJet printer	May 1	22	
			Speech Output Module obsolescence reminder	Sep 15	16				

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Leverage your LaserJet printer successes	May 15	14	Executive Card Manager strengthens HP's image as a leading business software provider	Aug 1	29	Executive Card Manager and ECM: Templates for the Vectra PC	Oct 1	35
Inkjet paper grows in availability	May 15	14	CONDOR 3 free update program ends October 1	Aug 1	29	Executive Spreadsheet provides power for management decision making	Oct 1	35
Cable linking HP ThinkJet printer to IBM PC available	May 15	14	HP Touchscreen personal computer software savings	Aug 15	25	Introducing AdvanceLink 2392 for HP Vectra PC and IBM PC/XT/AT	Oct 1	36
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Security modem prevents unauthorized access to computers	May 15	16	HP LaserJet printer screen-dump utility for the IBM PC available	Aug 15	26	New HP-HIL/384 Kbyte RAM accessory board for HP 150/ Touchscreen personal computers	Oct 1	38
New security kits help prevent theft	May 15	17	Dust cover and carrying case for the Touchscreen II personal computer available	Aug 15	27	Introducing Symphony for the HP Touchscreen personal computer	Oct 1	38
HP Touchscreen II personal computer training materials now available	June 1	22	Series 80 installed base informed of new extended mass storage ROM	Sep 1	17	HP 150 Touchscreen II one-year warranty	Oct 1	39
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HP Touchscreen II Upgrade Kits ordering information	June 1	23	Tape backup for HP Touchscreen personal computers	Sep 1	18	HP's strategic business relationships with ISV's	Oct 1	41
AutoCAD available for HP Touchscreen MAX personal computers	June 1	23	Introducing Painter for the HP Touchscreen personal computer	Sep 1	19	HP ThinkJet printer now has one year warranty	Oct 1	41
Context MBA/150 to be obsolete	June 1	24	Presentation graphics seminar available	Sep 1	20	Centronics ThinkJet printer marketplace expands	Oct 1	41
Bestselling games for HP personal computers	June 1	24	EtherLink hardware and software now two separate products	Sep 1	20	High-capacity 5 1/4-inch media available	Oct 1	42
New HP LaserJet printer font cartridge	June 1	25	Supplement to HP 150 Technical Reference Manual available	Sep 1	20	One year floppy disc warranty	Oct 1	42
New sheet feeder triples capacity of HP LaserJet printer	June 1	25	New HP ThinkJet printer accessory kit available	Sep 1	21	HP Vectra PC receives highest IBM PC AT compatibility rating	Oct 15	22
The HP LaserJet printer's first year	June 1	26	HP data storage solutions for IBM PCs	Sep 1	21	More industry-standard products tested on the HP Vectra PC	Oct 15	22
Cables connect HP ThinkJet printer to Apple computers	June 1	26	HP 82905B printer obsolete	Sep 1	21	New keyboard park for the HP Vectra PC	Oct 15	22
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Graphics Gallery and Executive MemoMaker compatible with HP 150/ Touchscreen personal computers	June 15	15	Executive Card Manager supports the mouse	Sep 15	19	HP FastTrak for personal software product support training	Oct 15	23
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Lotus™ 1-2-3™ media replacement procedure	June 15	19	Tailor a perfect fit with the new HP Vectra PC	Oct 1	22			
8087 Co-processor Accessory increases performance	July 1	26	HP Vectra PC proven compatible with IBM PC AT	Oct 1	23			
HP software receives rave reviews	July 1	26	Wide range of data storage devices for Vectra PC	Oct 1	23			
CONDOR® for the HP Touchscreen personal computer to be discontinued	July 1	26	Numeric co-processor increases Vectra PC's performance	Oct 1	24			
HP data-storage solutions for IBM PCs	July 1	27	Selling the Vectra PC's video advantages	Oct 1	24			
HP 82906A: superior to the HP 82905B printer	July 1	27	New Vectra PC high resolution monitors	Oct 1	25			
New bar code and OCR A font cartridge for HP LaserJet printer	July 1	28	Ordering a Vectra PC System	Oct 1	25			
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Replacement HP LaserJet printer supplies available	July 1	29	Vectra PC introductory ad campaign	Oct 1	27			
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MANUFACTURING SYSTEMS

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ME solutions on the HP 98700H Graphics Display Station	May 1	47	New HP 1000 ordering guide with additional configuration aids	Jun 15	20	TK! Solver book now available	May 15	27
HP-HIL input devices for the HP 98700H Graphics System	May 1	47	Correction to HP 1000 System Designer's Guide	Jul 1	31	VisiCalc for HP 9000 Series 200 obsolescence	May 15	27
HP Draft's new links open the door to other CAD systems	May 1	48	HP 1000 Ordering Guide correction	Jul 1	31	New HP 9000 Series 500 application briefs	May 15	28
TOM Software applications no longer available for HP-UX	May 1	48	New low cost A-Series Synchronous Multiplexer	Jul 15	17	Memory price changes for HP 9000 Series 200	May 15	28
HP 1000 A900 firmware update to fix SQRT problem	May 15	25	Micro 26 value packs add memory	Jul 15	18	Dust gasket available for HP 9000 Model 236A	May 15	28
			Ordering guide correction	Jul 15	18	New emulators for HP 64000 Development System	Jun 1	31
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HP announces four new digital board test systems	Sep 1	22	New features of QDM/1000 August release	Aug 15	30	New version of HP 9000 Series 500 HP-IB Interface released	Jun 1	33
Third party compensation program	Sep 15	22	PCIF releases handlers for new brands of programmable controllers	Aug 15	31	HP 9000 Series 500 Configuration Guide now available	Jun 1	33
Manufacturing telecourse set for October 8	Sep 15	22	Skeleton device handler for Graphics 1000-II version 2.0	Aug 15	31	Obsolescence of HP 9000 Model 530 and 540	Jun 1	34
Manufacturing telecourse to kick off Manufacturing '86	Oct 1	43	Application note shows how PMC/1000 can use programmable controllers as front ends	Aug 15	32	HP EGS users groups forming	Jun 1	34
Manufacturing 86 coming soon to your area headquarters	Oct 15	25	HP 1000 system designers guide subscription service	Aug 15	32	New Design Systems Group brochure	Jun 1	35
			Micro 29 supports wide variety of devices	Aug 15	32	Graphics Digitizer service and training manual now available	Jun 1	35
Manufacturing Applications			Only one 12979C+001 I/O Extender per SPU	Aug 15	32	Improved HP-UX Technical BASIC for HP Integral PC	Jun 15	21
HP 3000/GrowthPower brochure now available	Jun 1	29	New features for PMC/1000 Series A900 memory card price reduction	Aug 15	32	New special HP 9915 upgrade kit	Jun 15	21
HP Maintenance Management success	Jun 1	29	QDM/1000 sales aids	Sep 1	24	New HP 9836 option available	Jun 15	21
HP MM-ASSIST and PM-ASSIST: new and improved	Aug 1	30	HP 9000 Series 300 HP 2392A/VT100 terminal emulator	Sep 1	26	HP 9000 Model 550 sales aids	Jul 1	32
Manufacturing reference database now available	Aug 15	28	New data storage for engineering workstations	Sep 1	26	New HP 9000 Model 550 engineering design system video available	Jul 1	32
New HP-JIT release gives significant competitive advantage	Aug 15	28	PSI Firmware Development Package lacks terminal support	Sep 1	25	Sales aids available for ME/CAE products	Jul 1	32
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HP Just-in-Time video products fill market need for education	Sep 1	24	Cable option for HP 1000 terminal interface to be obsoleted	Sep 15	26	New FSD documentation numbering	Jul 1	33
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HP MM-ASSIST and PM-ASSIST: new and improved	Aug 1 30	Graphics Digitizer service and training manual now available	Jun 1 35	Big changes in HP 9000 Series 500	Sep 15 28
New HP 7510 color film recorder for presentation graphics	Aug 1 38	New Design Systems Group brochure	Jun 1 35	New special keyboard for HP 9000 Series 200	Sep 15 28
Newest line printers support older HP systems	Aug 1 41	Data acquisition product training	Jun 1 37	Over 1,500 applications for RM/COBOL on HP 9000 Series 200/500	Sep 15 29
HP 3000 Series 37 plays in European Basketball Championship	Aug 15 7	New special HP 9915 upgrade kit	Jun 15 21	New HP 9000 Series 300 videotapes	Sep 15 29
HP Transform/3000 wins \$1.2 million deal	Aug 15 9	New HP 9836 option available	Jun 15 21	Software packs formerly supported by FEO move to HP Plus	Sep 15 29
Remarketed HP 3000 Series 44R Icebreaker and Transform/3000 replaces IBM System/34	Aug 15 9	HP 9000 Model 550 sales aids	Jul 1 32	FEO support policy for BASIC application software	Sep 15 30
Selling HP solutions turns personal computer into PPC account	Aug 15 10	New HP 9000 Model 550 engineering design system video available	Jul 1 32	FEO BASIC language software going out of production	Sep 15 30
Announcing the Momentum sales program	Aug 15 13	Sales aids available for ME/CAE products	Jul 1 32	HP EGS customer training course offered	Sep 15 31
Maintenance Magic promotion offers bundled maintenance management solution	Aug 15 13	Delete-manuals option for BASIC and Pascal	Jul 1 33	DARAD-200 data acquisition and display system for HP 9000 Series 200	Sep 15 33
Discounted HP 3000 Series 37 software from MPD and APD	Aug 15 14	New FSD documentation numbering	Jul 1 33	HP 9000 Series 200/300 information for OEMs and independent hardware vendors	Oct 1 48
Introducing the HP 3000 Series 68C	Aug 15 16	New HP 9000 Series 200 communications tool for unattended measurement	Jul 1 34	Demo software for the 98700H/HP 9000 Model 550	Oct 1 48
New add-on memory for the HP 3000 Series 68	Aug 15 17	More dates set for Data Acquisition Product Fundamentals class	Jul 1 35	HP 97060A/T graphic subsystem prices reduced October 1	Oct 1 48
HP 3000 return credits will be changing on November 1	Aug 15 18	Analytical Multi-Instrument Workstation introduced	Jul 1 36	PC software support can now be added to HP 1000 and HP 9000 contracts	Oct 15 9
Return credit for HP 3000 Series 64/68 memory	Aug 15 19	Introducing the HP 9000 Series 300 HP 9000 Series 300 compatibility mode software available	Jul 15 19	HP-UX Running Start — 100 applications for HP-UX 5.1	Oct 15 29
HP 9000		HP BASIC 4.0 compatibility	Jul 15 21	CSUB upgrades now available from FSD	Oct 15 29
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HP-UX 50 now available for HP 9000 Series 500	May 1 46	HP 9000 Series 200 and Series 300 added to IEEE 802.3 LAN	Jul 15 22	Operating system support services reminder	Oct 15 29
ME solutions on the HP 98700H Graphics Display Station	May 1 47	HP 9000 Series 300 lowers HP EGS system cost	Jul 15 23		
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HP Draft's new links open the door to other CAD Systems	May 1 48	SRM installation videotape now available	Jul 15 25	New high-performance, low-cost data acquisition system for the Integral PC	May 1 49
TOM Software applications no longer available for HP-UX	May 1 48	LAN link for HP 9000 Series 500	Jul 15 25	The HP Integral PC now on the A-50 contract	May 15 18
HP Draft capabilities improve productivity and design for large equipment manufacturer	May 15 7	Existing drawings find a home with HP EGS	Jul 15 24	HP Integral PC adds new dimension to biotechnology lab	May 15 38
HP Draft pre- and post-processor optimizes design and drafting applications	May 15 26	Powerful TECAP software reduces semiconductor design time	Jul 15 26	New 1M byte memory module for HP Integral PC	Jun 1 27
New HPL-to-BASIC translator now available	May 15 27	Hardware support price changes effective August 1	Aug 1 10	Bus expander now available for HP Integral PC	Jun 1 27
HP-UX applications support international keyboards	May 15 27	August 1 computer support price changes	Aug 1 11	Modem for HP Integral PC now available	Jun 1 28
TK!Solver book now available	May 15 27	New 6-channel modem multiplexer for HP 9000 Series 500	Aug 1 36	HP Integral PC used as transportable test system for large utility company	Jun 15 8
VisiCalc for HP 9000 Series 200 obsolescence	May 15 27	Running Start: 106 software packs for HP 9000 Series 300	Aug 15 33	Improved HP-UX Technical BASIC for HP Integral PC	Jun 15 21
New HP 9000 Series 500 application briefs	May 15 28	HP 9000 Series 300 hardware documentation	Aug 15 33	HP Integral PC sales leveraged with third-party software	Jun 15 22
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**HEWLETT
PACKARD**

Please send undelivered *Computer News* copies to COMPUTER NEWS, 20BV, 3000 Hanover Street, Palo Alto, CA 94304

No one SFA solution is the same. Each must be customized to meet the needs of the sales force, the home or branch office systems, and the management information needed from the system. SFA solutions may include call reporting, electronic mail, customer databases, territory management reports, call scheduling, inventory checks, order processing, shelf-space reporting, expense reporting, proposal generation, presentation material, lead generation, and so on. There are four potential sources of solutions.

1) HP Sales and Service Productivity Networks (SSPN) Development Systems. The preferred HP SFA solution, based on the HP 3000, builds upon HP's office products strategy and leverages off HP Personal Productivity Center products including HPDesk and HPIMAGE. Office Systems Division (OSD) is working on solutions in this area and is expected to have products in the first half of FY87. For other accounts, the customer can use:

2) HP APC developed software

3) software purchased from value-added channels (formerly called third parties) (i.e. STI or Envoy), or

4) internally developed software where the customer customizes personal productivity products, using datacom products to tie into existing systems or developing applications from scratch.

Against the competition, HP has an advantage because we are willing to work with these companies to provide a workable solution set.

The enhanced Portable PLUS provides you with new winning tools for this important market. One, the new Portable PLUS contains a screen that is second to none in the truly portable environment. This screen provides a 200 percent improvement over the original LCD in the Portable PLUS in contrast and viewing angle. The new screen is clear and bright enough to use in presentation situations. If you lost a sale to an electroluminescent display (like Grid) last year, try again as you will see that the screen is no longer an issue. Secondly, expanded memory becomes the major benefit for this market with 512 Kbytes standard and the ability to expand up to 1.28 megabytes. If sales reps, for example, are using Executive Card Manager as the application to keep track of all their customers, they have the ability to carry an incredible amount of data with them on the road without lugging and loading discs. The ability to add ROM-based or EPROM-based applications and yet maintain high memory capacity enhances HP's ability to win the sale.

The new Portable PLUS is a winning combination playing to HP strengths in the relatively untapped but highly leveraged SFA market.

Need more information? Call Russ McBrien at the IS&N Sales Center at TELNET 1-559-5573 or 408-559-5573.

Customizing the Portable PLUS

Randy W. Salo/PCD

There are many ways in which the Portable PLUS can be customized to fit your customers' individual needs. The first, and simplest, method is configuration. There are numerous options available for the Portable PLUS, including memory, software, modems, and peripherals.

A second area of customization is custom software applications. These may consist of specific vertical software application packages purchased from a value-added-channel (formerly third party) software vendor or created by your customer using any of the many different programming languages available for the Portable PLUS. These software packages may be either disc or ROM based. If your customers would like to create their own custom ROM software packages, numerous possibilities exist. First, customers can contact an Independent Custom Consultant who has been trained on the Portable PLUS or they can create custom ROM software themselves, using utilities that are readily available.

One of the most powerful and easiest ways to further customize the Portable PLUS is to personalize its behavior. This can be done quite easily by creating special P.A.M. entries. These are the inverse video boxes displayed by P.A.M. to show which applications have been installed. The inverse video boxes presented by P.A.M. have been affectionately named "blobs."

These blobs aren't only for specifying which applications are available, they can also be used to conveniently perform common operations, such as backing-up your RAM disc or automatically bringing in a MemoMaker template for an interoffice memo. These are only two examples of what can be done with P.A.M. blobs. When you combine a P.A.M. entry with a batch file, the possibilities become practically unlimited. Some examples of this include automatically bringing in a variety of Lotus® 1-2-3® templates or performing some extended file-management functions.

An application note has been created to further discuss and provide examples of what can be done using P.A.M. blobs. It specifically highlights the use of templates and overlays with the more commonly used software applications. This application note is currently available and can be obtained by contacting Rhonda Rick at the Portable Computer Division and requesting the application note, "Personalizing the Portable PLUS" (literature P/N 5954-7197).

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MultiMate on the Portable PLUS

Mike Steed/PCD

MultiMate® is now available on the Portable PLUS as a ROM-based application. MultiMate is a page-oriented word processor based on the Wang word processor. Its editing and formatting features are very powerful, although the keyboard commands take a while to learn.

The Portable PLUS version of MultiMate is *not related to the HP Touchscreen personal computer version*, but rather is based directly on the IBM PC version. While it lacks the softkey menus of the Touchscreen version, it can more easily share files with an IBM PC because the IBM character set is used. The features are not exactly comparable to any particular IBM version; it shares some of the features of the current version (MultiMate Advantage) and some of the features of the previous version (3.30).

MultiMate on the Portable PLUS executes directly from ROM. This allows it to run in 152 Kbytes of memory, instead of 256 Kbytes or 384 Kbytes on the IBM PC or HP Touchscreen personal computer respectively. This also makes the program start almost instantly, and with your document on edisc, page changes are equally fast.

MultiMate sells for \$495 US list; order P/N 45554K Option 400.

MultiMate® is a registered trademark of Multimate International Corporation.

Executive Card Manager for the Portable PLUS

Janet Dobbs/PCD

Now available in ROM for the Portable PLUS is HP's most popular information-management program. Executive Card Manager works like a rotary card file, storing up to 64,000 cards per cardfile. You can design your own card format (with up to 255 lines of information per card) or choose one from over 20 available when you purchase Executive Card Manager: Templates (P/N 45441L).

This software product is the same Executive Card Manager product that runs on the HP Vectra PC and the HP Touchscreen personal computer. File-management capabilities include sorting, searching, telephone dialing (requires modem), report writing, file merging, and form-letter generation.

Executive Card Manager sells for \$295 US list; order P/N 45555K Option 400.

HP EGA for the HP Vectra PC update

POD Product Marketing

Many of you have expressed an urgent need for an HP EGA solution for the HP Vectra PC. Unfortunately, we have encountered numerous difficulties in supplying the EGA product announced at the Vectra NPT. These problems have arisen because of the original design and difficulties with vendors and have resulted in multiple schedule delays. Therefore, we are planning a new EGA product (different from the one announced at the Vectra NPT) that will give your customers an HP EGA solution in the shortest possible time.

The new EGA schedule calls for placement on the June 1 Corporate Price List and volume product shipment. However, every attempt will be made to pull this schedule forward. The HP EGA solution consists of an EGA video card and new color monitor. Note: the EGA card will *not* work with the current ("Rodan", HP 35741A) color monitor, nor will the new monitor have a touch-screen bezel option.

We are investigating how to address those customers who purchased the current color monitor (HP 35741A) with the expectation that it would be supported on the HP EGA video card. Details of this program will be announced later.

Until the HP EGA solution appears, we refer customers with immediate EGA needs to the many value-added-channel (third-party) products which are available. In addition to the IBM components, we have tested and verified as compatible two EGA accessory cards:

- VEGA from Video-7
 - EGA-Plus from Quadra
- and two EGA monitors:
- Color 722 from Amdek
 - HX-12E from Princeton

While we certainly regret the delay in bringing the HP EGA solution to you, we are sure your customers will feel it has been worth the wait.

Have customers contact HP for value-added-channel Vectra PC software

Marilyn Ruell/PSD

In the summary chart of the article entitled "New software makes HP LaserJet PLUS printer forms design easy and fast" (on page 12 of the February 15 issue of *Information Systems & Manufacturing News*), the author lists several value-added-channel (formerly third-party) software suppliers and their products for the HP Vectra PC. The chart also gives the suppliers' telephone numbers so that they can be contacted directly. MicroPro International and Lotus Development Corporation were two vendors that were listed in this article.

If your customers are interested in either of these packages, encourage them to contact HP directly. HP has entered into strategic partnerships with both Lotus and MicroPro as well as Microrim, Inc., and Multimate International. These four leading independent software vendors offer top ISV software for the HP Vectra PC and IBM PC AT compatibles that are tailored to meet the needs of our direct customers. Each product is fully supported by HP's comprehensive support network and qualifies for all major account and commercial discounts.

Value-added-channel software solutions for the HP Vectra PC offered by HP include:

Solution	P/N	US list price
1-2-3® from Lotus®	68340F	\$495
Symphony® from Lotus®	68339F	695
R:BASE™ 5000	68336F	700
R:BASE™ 5000 Program Interface	68337F	395
WordStar®	68345F	350
WordStar® Professional	68346F	495
WordStar® 2000	68341F	495
WordStar® 2000 PLUS	68342F	595
MultiMate™	68338F	495
MultiMate™ Advantage	68343F	595

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R:BASE™ is a US trademark of Microrim, Inc.

Wordstar® is a registered US trademark of MicroPro International.

MultiMate™ is a US trademark of MultiMate International, a subsidiary of Ashton-Tate Corp.

Lotus 1-2-3 Release 2.0 for the HP Touchscreen personal computer

Kathryn MacMurray/PSD

Many Hewlett-Packard customers have made requests for the new and enhanced version of 1-2-3® from Lotus® Development Corporation, for the HP Touchscreen personal computer family. As part of HP's continuing support for the Touchscreen personal computer, we are pleased to announce that HP will make this popular Lotus product available in late summer, 1986. At this time, HP will also announce how current users of 1-2-3 for the Touchscreen personal computer can upgrade to the new release of 1-2-3.

This latest release of 1-2-3, Release 2.0, was recently rated by InfoCorp as one of the "clear choices" for success in 1986. Release 2.0 has all the features and benefits of the original 1-2-3 product, including the familiar menu-driven commands, yet offers many new enhancements over 1-2-3 Release 1A. One of the most important improvements, unique to the Touchscreen personal computer version, is the incorporation of a "Touch" interface. Users with the HP Touchscreen accessory will be able to make menu, file-name, and soft-key selections simply by touching the appropriate part of the screen.

Other important enhancements to 1-2-3 Release 2.0 are: a larger spreadsheet size, with 8,192 rows and 256 columns; an improved memory management system that allows for bigger, more complex spreadsheets; support of the Lotus/Intel/Microsoft Expanded Memory Specification, for access of up to four megabytes of random access memory (RAM); Intel 8087 co-processor support, enabling 1-2-3 to perform mathematical calculations more rapidly; 40 powerful new macro capabilities that can make tedious tasks easier; 39 new @ functions, including date and time format and string functions; data regression, for computing a line from a series of data points; a tutorial book that lets you practice using 1-2-3 at your own pace; a menu-driven install procedure with an extensive library of peripheral and other drivers, including all new HP peripherals; the ability to execute DOS commands without exiting 1-2-3; improved graphics features, such as the exploding pie chart and background and fill pattern options; database enhancements, including editing of records during queries and user-controlled alpha or numeric sorts; and context-sensitive help screens, so that only relevant information is presented on the screen.

For customers who already own 1-2-3 Release 1A or Symphony® (Release 1.0 or 1.1), 1-2-3 Release 2.0 will automatically read files created within these products. In

addition, by using the Translate utility included with 1-2-3, Release 2.0 can read and write Jazz®, dBASE™ II, and DIF files. This utility also allows you to convert Release 2.0 (.WK1) files into Release 1A (.WKS) files. 1-2-3 Release 2.0 for the Touchscreen personal computer will require a minimum of 384 Kbytes of RAM.

Lotus®, 1-2-3®, Symphony®, and Jazz® are US registered trademarks of Lotus Development Corporation.

dBASE™ is a US trademark of Ashton-Tate.

Also in this issue

IBM/Compaq trade-in update: new option in dealer channel

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R:BASE 4000 to R:BASE 5000 upgrade now available for HP Touchscreen personal computer

Randy Kahle/PSD

An upgrade from R:BASE™ 4000 to R:BASE 5000 is now available for HP Touchscreen personal computer users (P/N 45563-63002) for \$245 US list.

The upgrade is available by direct mail orders only and no discounts are available. Customers who wish to upgrade should send their order, prepayment and the master discs from R:BASE 4000 to:

Direct Marketing Division
Hewlett-Packard
P.O. Box 60008
Sunnyvale, CA 94088

ATTN: Software Administrator

Internal customers wanting to order the kit should place their order with their purchasing department over HEART (I2). Return the original HP disc(s) via:

Interoffice mail: Software Administrator/Internal Orders
Building 78/5

US Mail: Direct Marketing Division
Hewlett-Packard
P.O. Box 60008
Sunnyvale, CA 94088

ATTN: S/W Administrator -
Internal Order

Reference the HEART order number on the package when returning the disc(s).

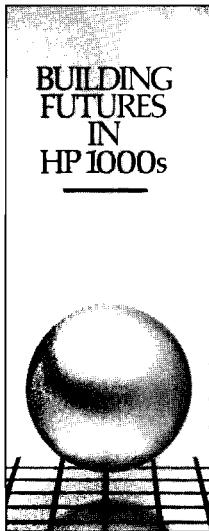
Customers wanting information regarding upgrade kits should call 800-538-8787. California customers call 408-738-4133. Internal customers should call the DMK Employee HOT Line, 408-720-2428.

R:BASE™ is a US trademark of Microrim, Inc.

FACTORY AUTOMATION

New flyer explains migration to new HP 1000 systems

Dan Vivoli/DSD



Do you have customers who are concerned about migration from their current HP 1000s to future HP Precision Architecture computers? Or are they worried that their HP 1000s will have no place after HP Precision Architecture machines are readily available? Then give them a copy of the new *Building Futures in HP 1000s* flyer.

This four-fold flyer concentrates on HP's commitment to coexistence and migration between HP 1000/RTE and HP Precision Architecture/HP-UX. The HP 1000, HP-UX, HP Precision Architecture, and the Migration Path are described at a high level. The piece is targeted at

middle- to upper-level managers of installed-base and potential customers. It is a perfect way to complement February's Spectrum program announcement and is HP's first direct communication to HP 1000 customers positioning our next generation of computing products with current real-time systems.

Building Futures in HP 1000s was included in the announcement packet you should have recently received. It complements the HP 1000 presentation and script that were also included. You can obtain more copies of the flyer by ordering P/N 5958-9507 from the Literature Distribution Center.

Correction on how to order Spectrum program primers

Carl Stolle/DSD

You have probably already received copies of the primers entitled *HP Precision Architecture* (P/N 5954-6677) and *Relational Technology* (P/N 5954-6676). Your literature coordinator will be able to order the primers from the Corporate Parts Center. Customers will also be able to place orders for the primers simply by calling Direct Marketing Division. These primers are *not* available from the Literature Distribution Center as was stated in the

article entitled "HP announces the first technical systems using HP Precision Architecture" in the March 1 issue of *Information Systems & Manufacturing News*.

MICRO 29 PLUS — the new low-end A900 computer

George Billman/DSD

The MICRO 29 PLUS is designed as a new, entry-level product for the high-performance HP A900 computer. It answers your request for lower ECC memory, A-Series I/O card, and mass storage product pricing; strengthens your ability to penetrate existing accounts and sell into new applications, especially end users involved in factory automation; and provides an attractive core product with which you can successfully leverage sales of other HP products, notably PCIF, QDM, and NS/1000.

Summary of product structure

The MICRO 29 PLUS is a new product that combines a Micro 29 A900 computer with a flexible selection of popular HP system components.

The components selected for the MICRO 29 PLUS product are the most popular for A-Series customers. Also included are several of HP's new products — the new 3-Mbyte ECC memory card, the new 40-Mbyte disc from Greeley Division, and the new NS/1000 and LAN/1000 networking products.

The MICRO 29 PLUS product offers a complete core product set that includes a Micro 29 system, additional 768-Kbyte ECC memory, 8-channel MUX, ¼-inch 65-Mbyte tape, RTE-A operating system, HP-IB interface, and a 40-Mbyte disc drive.

The core product set is available for \$33,550 (US list) representing a 15 percent savings of \$5,680 from full list for its individual components.

The MICRO 29 PLUS product bundle is designed to be flexible to conveniently accommodate a wide variety of customer requirements. Several options enable the core product set to be augmented by:

- Substituting a larger disc drive, i.e. 55 Mbytes or 132 Mbytes.
- Substituting a single, 3-Mbyte ECC card.
- Adding either direct or modem connect HDLC DS/1000 cards.
- Adding both the LAN/1000 card and the NS/1000 service (R-Copy).

continued on next page

Manufacturing Systems

Additional savings are available on each of these options. Moreover, these options let you expand your customers' savings on the MICRO 29 PLUS to over \$9,000.

Ordering information

The MICRO 29 PLUS is ordered as P/N 2459A, for which options may be selected.

P/N	Description	US list price
2459A	2489A Micro 29 System with RTE (92077A) and HP-IB (12009A) with: - Additional 768-Kbytes ECC memory - 40-Mbyte disc (9134L) - 8-Channel MUX (12040C) - ¼" 65-Mbyte tape (9144A)	\$33,550
Opt. 001	Delete 40Mb, Add 55Mb (7945A)	1,650
Opt. 002	Delete 40Mb, Add 132Mb (7914CT#140)	7,400
Opt. 003	Delete 1.5Mb ECC, Add 3Mb ECC (12221A)	6,000
Opt. 004	DS card (12007B modem)	1,800
Opt. 005	DS card (12044A direct)	2,040
Opt. 015	230V power option	0

Ordering notes: Coordinated delivery only; no substitutions; NS/1000 requires prior A-Copy; may choose Option 001 or 002, not both; may choose Option 004 or 005, not both; no options on Micro 29 system; 8-week availability; site preparation and installation included; no partial returns.

Additional information

The MICRO 29 PLUS Field Training Manual contains a guide to target applications and a competitive comparison with MicroVAXII.

HP Micro 16 — new entry-level A-Series computer

Joan Starke/DSD

The new HP Micro 16 provides the solution for your customers that require real-time capabilities in a smaller package at a 20 percent savings over the popular A-Series Micro 26.

The Micro 16 is the new entry-level product for the A-Series family. Designed in response to your customers' request for a low-cost "micro" computer, the Micro 16 comes with a new smaller, more rugged package and is more reliable than any other A-Series product.

OEMs and other value-added channels

The Micro 16 is priced a full 20 to 30 percent lower than the Micro 26. These savings will allow your OEMs and value-added-channel (third-party) accounts to generate new business in price-sensitive applications. By reselling or repricing their software and utilizing the Micro 16's

hardware, they can achieve a solution with all the power of an A-Series at a *much lower price*. If your value-added-channel account has a low-end configuration but does not have price-sensitive accounts, they can simply pocket the savings.

Let's compare the pricing for the Micro 16 and Micro 26 using a "typical" low-end configuration. (Configuration used: CPU, MUX, disc controller, 40-Mbyte disc, and terminal.)

	Micro 16	Micro 26
US list price	\$11,300	\$13,600
With average discount	8,400	10,400
	(20% savings)	

The Micro 16 is also an excellent program development machine for your remote customer sites or those accounts with one or two users.

Factory automation

The ruggedization of the Micro 16 allows your customers to take their systems out of the computer room and onto the factory floor. The Industrialized IBM PC AT does not meet the impressive specifications of the Micro 16.

	Micro 16	IBM 7531
Temperature	0° - 60°C	0° - 49°C
Altitude	15,000 feet	7,000 feet
AC input	86 - 140 VAC	104 - 127 VAC
Humidity	5% to 95%	8% to 80%
Shock	1.5g	0.5g

On average, the Micro 16 has 97 percent better specifications.

Because the Micro 16 has been designed as a rugged, reliable system, the Micro 16 is the perfect solution for the factory floor. The Micro 16 can connect to factory floor devices via over 34 types of HP-supported interface and add-on cards. Paired with PCIF, the Micro 16 acts as the perfect entry-level workcell controller.

The Micro 16's open system, real-time capabilities, and small size make it an excellent fit as a data-communications gateway. The Micro 16 supports 802.3, DS/1000, X.25, MRJE, RJE, and Data Link protocols. The low cost and compatibility with higher performance A700 and A900 computers make the Micro 16 a perfect fit for the process-control industry, too.

Competition on the factory floor for the Micro 16 will come from the industrialized IBM PC AT. Unlike the PC AT, the Micro 16's operating system was specifically

designed for real-time applications. In addition, the Micro 16 provides your customer with a clear upgrade path to the entire A-Series family.

The Micro 16 is priced 25 percent higher than the IBM 7531 when compared on a single purchase. However, this premium drops to 10 percent when maximum volume discounts are applied to the Micro 16.

	Micro 16	IBM 7531
US list price	\$11,100	\$8,800
With maximum discount	6,800	6,200
	(10% difference)	

The Micro 16 will fit into the smallest places and budgets. The Micro 16 is completely compatible with the entire A-Series family and will leverage HP and value-added-channel solutions for the factory floor. The Micro 16 will provide you with a reliable, compact and cost-effective solution for all of your customers' real-time applications at 20 percent less than the Micro 26.

The Micro 16 is available today and has an eight-week availability. Check your *Micro 16 Field Training Manual* for more information on where to sell the Micro 16, competitive analysis, and ordering information.

New ECC memory pricing for A600+ and A700 computers

George Billman/DSD

To complement the introduction of the Micro 16 products, the HP 2426E, 2426F, and 2456A, the prices for the 1-Mbyte and 2-Mbyte error correcting circuitry (ECC) memory boards are being reduced, effective April 1, 1986.

P/N	Capacity	Old	New	% Change
12111B	1 Mbyte	\$ 7,000	\$4,500	(36%)
12111C	2 Mbytes	13,000	8,000	(38%)

These two high-capacity boards will help your customers minimize the number of I/O slots used in the Micro 16 computers, making them available for the many interface cards supported on the Micro 16.

Also, all members of the A600+ and A700 computer families can use these two memory boards (A600+ and A700 computers must be equipped with a 12110A or 12110B ECC memory controller).

PCIF/1000 now supports General Electric Series 6 PLC

Mike Nissim/DSD

Starting on April 1, 1986, you will be able to connect HP 1000 A-Series computers to General Electric Series 6 Programmable Logic Controllers (PLCs) using the brand new PCIF/1000 handler, P/N 94206A/R. This new handler offers peer-to-peer networking with Series 6 PLCs (PLCs may generate unsolicited messages to the A-Series) according to GE's CCM2 standard. The handler also supports GE's new "GENIUS" PLC I/O interfaces when these are hooked up to a Series 6 PLC.

To establish a link with Series 6 PLCs, customers will need to purchase both the new Series 6 Handler (P/N 94206A/R) and PCIF/1000 (P/N 94200B/R) software. The handler uses a downloadable MUX (P/N 12041B) to communicate with the PLC, offloading the CPU from error checking and low-level protocol handling.

The GE handler is orderable as of April 1 with the following options:

P/N	Description	US list price
94206A	GE Series 6 handler	
Opt. 600	For A600 CPUs	\$1,500
Opt. 700	For A700 CPUs	2,000
Opt. 890	For A900 CPUs	3,000
Opt. 022	On CS-80 tape media	N/C
Opt. 044	On microfloppy media	N/C
Opt. 051	On 1600 BPI tape media	N/C
94206R	Right to copy the GE Series 6 handler	
Opt. 600	For A600 CPUs	750
Opt. 700	For A700 CPUs	1,000
Opt. 890	For A900 CPUs	1,500
94206Z	Documentation on the GE Series 6 Handler	20

In a survey conducted by the Yankee Group, connectivity to other vendors' equipment was among the most important factors that influenced the selection of a CIM vendor. PCIF now supports more than 75 percent of the PLCs available in the US, and 50 percent of the worldwide market.

This new handler represents our continuing effort to enhance the A-Series connectivity in the CIM marketplace. More handlers are in the works to bring HP to a position of leadership in this arena.

GIS/1000 demo systems and performance information

Julie Dunlap/DSD

GIS/1000 is a real-time process graphics package for the HP 1000 A-Series computer family that was first introduced in December 1985. GIS/1000 works with PMC/1000 to display real-time process variables in full, easy-to-create, graphics format. Currently GIS/1000 is available on the Corporate Price List, P/N 92122A. If you want a demo copy for your office, it should be ordered through the HEART ordering system at the current transfer cost (approx. \$64).

What is new for GIS/1000? Well, as of April 1, 1986, a general performance specification note will be available. This will include GIS/1000 performance data as well as miscellaneous useful information, like how to demo the software without a 19-inch monitor and other tid-bits. To receive this information, please contact Don Taylor, AMOS Product Support, HPDesk 2200/40, telephone 408-257-7000, ext. 4354; or Julie Dunlap, DSD Product Marketing, HPDesk 2200/01, telephone 408-257-7000, ext. 3378.

Datapair/1000 software provides high availability

David Bayer/DSD

As you know, a key selling feature of the A-Series is its incredible reliability, which is measured in years. Of course, processor reliability is only part of the answer. Discs are a key part of a computer system, and they are typically more prone to failure than processors. Datapair/1000 (P/N 92050A/R) software reduces the likelihood of data loss due to disc failure.

Datapair/1000 allows disc volumes for RTE-A systems to be configured in mirrored pairs for data protection and high availability. These paired volumes are configured on separate disc drives, each connected via its own HP-IB interface for maximum protection against disc failure. For these selected volumes all data and programs sent to one disc drive are automatically copied onto the other drive.

Datapair features

- Data and programs sent to one disc drive are automatically copied onto the other drive. Thus, if one disc fails, data and programs are still available to the system from the other disc.

- In the case of a system recovery, Datapair/1000 pairing relationships are restored without operator intervention.
- Support for all CS/80 and SS/80 discs using standard disc device drivers.
- Restoration of data onto a repaired disc can take place while applications are running
- Completely transparent to the user's application software (only requires a new system generation to install).
- Includes data-verification utilities.

These features of Datapair/1000 will improve availability of the HP 1000 computer system; improve data integrity for database applications; protect customers against data loss; provide much of the benefits gained from installing "fault-tolerant" system at half of the competition's price; and make the product easy for customers to install.

Where to sell Datapair

Datapair is useful for applications where the value of data or the cost of system downtime is high. Typical customer applications might be in manufacturing, on-line transaction processing systems, and telecommunications. Manufacturing customers, for example, may need to keep production information (inventory, CNC instructions) available; or may have to scrap production runs when batch data is lost (pharmaceuticals, automobile supplies, etc.).

The cost of losing the use of a manufacturing system when data is unavailable is high. Manufacturing customers have indicated the cost of lost production due to downtime ranges from \$100 to \$2,000 per hour.

Configuration requirements

To install Datapair/1000 on an A-Series system, the customer must add: Datapair/1000 software (P/N 92050A/R), an additional disc drive (CS-80 or SS-80 family), and an additional disc-interface card. Consult the Datapair/1000 data sheet, P/N 5953-8768.

Pricing and availability

The factory base price for Datapair/1000 92050A/R is:

Option	(Processor)	A-Copy	R-Copy
600	(A600)	\$3,500	\$1,750
700	(A700)	5,000	2,500
890	(A900)	6,500	3,250

Consult the field training manual for Datapair/1000, included in your "A-Series Systems Product Reference Guide" which was mailed in March 1986.

For customers whose data has high value, Datapair/1000 is a cost-effective method of providing increased uptimes and improved data integrity. Because Datapair/1000

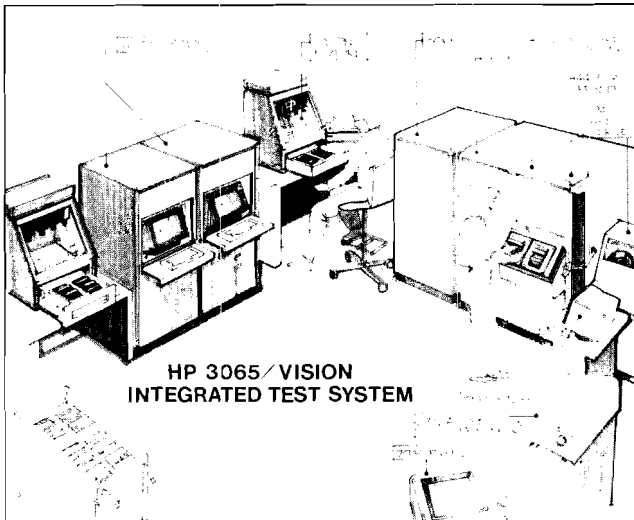
requires no changes to customers' applications, it provides high-availability systems to your customer without complex programming normally associated with fault-tolerant systems.

Response to Datapair/1000 by beta-test site customers has been enthusiastic. Multiple customers with discrete, batch, and process control applications have expressed a keen interest in Datapair. With Datapair/1000 and the A-Series you have a winning sales combination.

HP 3065 and HP 1000 meet vision-based test system

Dilip Modi and Jim Warner/AMSO

Advanced Manufacturing Systems Operation (AMSO) has successfully installed two vision-based test systems and is currently working on the third installation for a major automobile manufacturer. The customer is building vacuum fluorescent display boards used in the dashboards of the top-of-the-line 1986 cars. The boards display information such as fuel level, mph, engine temperature, date, time, etc. The HP 3065, an HP 1000-based board test system along with a value-added-channel (third-party) vision system test these displays.



Testing these displays presents an interesting problem: the entire display board, including ICs and other components, must be tested prior to shipment to the auto assembly plant. Testing eliminates rework at the auto assembly line which is significantly more costly than at

the subassembly level. The difficult part of the test is verifying the visual information displayed on the VF tube. Earlier, an assembly line worker used to look at each display to see that all segments and annunciators are on. As you can imagine, there used to be many overlooked defects.

The solution that HP has provided to the customer uses a standard HP 3065 board test system for component and functional test along with a value-added-channel vision system for visual test. The test process begins like any other digital board test. The HP 3065 performs opens, shorts, component and functional tests. Good boards from the HP 3065 go to the vision system where the VF tube is scanned by an array of solid-state cameras. Software within the vision system compares the scanned information with a model stored in memory and flags any problems. The vision system verifies correct segment, brightness, background/foreground contrasts, and absence of ghosting. Displays are judged on a pass/fail basis with data reporting following each test. A database is thus created and includes quantities of good and bad displays, plus reasons for failure on each affected display.

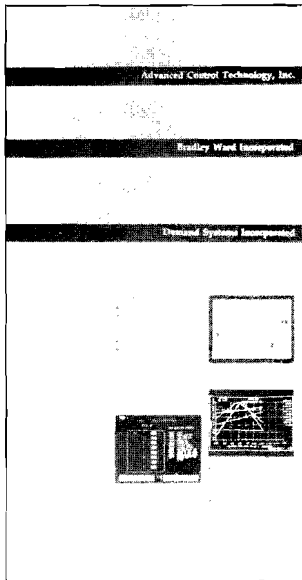
Boards are tracked via bar-coded serial numbers. Both the HP 3065 and the vision system have bar code readers which enter the serial number prior to testing. When the vision system has completed a test, failure information is downloaded to the HP 3065 via an RS-232 link. The failure data from the vision system is merged with the failure data in the HP 3065, according to serial number, and is stored in a database for later analysis. The Q-STATS software package on the HP 3065 performs statistical analysis on both the HP 3065 data and vision system data. Three vision-based test systems are tied to a single HP 3065.

Vision systems are rapidly being integrated into manufacturing and test areas to automate tasks previously limited to manual inspection. Vision systems help relieve operators of the fatigue and eye strain associated with inspection on high-volume assembly lines. This system allows the customer to understand their manufacturing process, and reduce defects and worker fatigue.

The key to the success of this project was the comprehensive project integration and program management service provided by AMSO in delivering a turnkey solution to the customer. If you need additional information on this success story, or have a similar sales opportunity, contact Dilip Modi at 408-257-7000.

New data sheets for process-control value-added channels

Rick Batty/MSG



Three new data sheets are available for the "Solutions for Process Industries" folder. They include Advanced Control Technology (ACT), Bradley Ward, Inc., and Demand Systems, Inc. With offices in Albany, Oregon, and Akron, Ohio, ACT is a systems integrator that provides turnkey services including engineering studies, customized application software and installation and startup. ACT has installed more than 800 control and information systems in the forest products, aircraft, metals, petro-chemical, food and beverage,

mining, coal, and discrete parts manufacturing industries. Their client list includes Boeing, Procter & Gamble, Weyerhaeuser, Miller Brewing, SOHIO, Timken Steel, Crown Zellerbach, CONOCO, Shell, and AMOCO.

Bradley Ward, Inc., specializes in programmable logic controller (PLC)-based process software for the HP 1000 minicomputer. Their products range from turnkey solutions to subroutine library tools. Their PMIS 1000 (Process Monitoring and Information System) is a turnkey solution specifically designed for the RTE operating system. General Foods has purchased several copies of this package. Other clients include RCA, Norton Chemicals, Georgia Pacific, McKee Baking, Teledyne, Dundee Cement, Gainesville Regional Utilities, General Electric, Goodyear, Gould, Lockheed, 3M, Northern Telecom, R.J. Reynolds, and Westinghouse.

Demand Systems, Inc. is a total solution supplier/systems integrator who provides design expertise, software and services for factory automation, data acquisition, and process control systems. Their DDACS-1000 system is a data-acquisition-and-control system which runs on the HP 1000. Industries where they have worked include petroleum, paint, metals, power plant, food, glass, aerospace, and semiconductors.

For further information on these value-added-channels, please call their HP sales reps as follows: ACT — Jim Grace, Wilsonville, Oregon, 503-682-8110; Bradley Ward, Inc. — Lance Brady, Atlanta, Georgia,

404-448-1894; Demand Systems Inc. — Irwin Sherry, Thousand Oaks, California, 805-373-7095. The data sheets are available from the Literature Distribution Center by ordering:

P/N	Title
5954-6761	Advanced Control Technology
5954-6762	Bradley Ward Inc.
5954-6763	Demand Systems Inc.

The brochure is designed for you to leave with customers to demonstrate HP's capability for process applications.

HP 1000 software support: RTE-IVB mag tape media support

Jim Burkett/PRSD

Product Support Division (PRSD) will consolidate the magnetic tape media suffixes for the RTE-IVB Operating System. Effective April 1, 1986, redundant magnetic tape media support suffixes will be removed from the Corporate Price List.

All 800 bpi mag tape media support suffixes will use "50" as the media designator. Use of media designators "52", "54", "56" and "58" will be discontinued because they also had provided 800 bpi mag tape media.

Similarly, 1600 bpi mag tape media support suffixes will use "51" as the media designator. "53", "55", "57", and "59" will be discontinued.

Existing RTE-IVB support contracts with a redundant mag tape media designator should be rolled over to a "50" or "51" at renewal. Customers will continue to receive appropriate mag tape updates during the roll-over phase.

HP 1000 software support: obsolete RTE operating system support

Jim Burkett/PRSD

Effective April 1, 1986, software support services for three obsolete HP 1000 RTE operating systems will be removed from the Corporate Price List. Each operating system passed their end-of-support date. Future soft-

ware and documentation updates are not planned because the software is frozen.

HP will no longer offer contractual support for these operating systems. Each customer situation should be closely reviewed at the local level. Customers may continue to receive telephone or on-site assistance on a time-and-material basis.

Obsolete RTE operating system support

P/N	Description	End-of-support date
92001A	RTE-II	January 1984
92060A	RTE-III	January 1984
92067A	RTE-IVA	January 1986

Introducing HP 3065 Response Center Support

Jim Burkett/PRSD

Beginning May 1, 1986, Hewlett-Packard's North American Response Center Network will provide telephone assistance for HP 3065 board test systems. Response Center Support (RCS) replaces Software Information Service (SIS) and centralizes the delivery of HP 3065 telephone assistance. HP 3065 Response Center Support also provides software and documentation updates.

Response Center Support will keep board test users and programmers at the highest level of productivity. The Response Center will answer questions and resolve problems about HP 3065 software or system usage. On-line tools, Manufacturing Test Division (MTD) factory resources, and problem duplication are used to verify software problems and provide workaround assistance. Special HP 3065 remote diagnostic tools may also isolate problems quickly. Unanswered questions will automatically involve the Customer Escalation Center team.

50 percent price reduction

HP 3065 Response Center Support costs less than half the price of SIS. The monthly support price has been reduced from \$400 to \$190. Separate Response Center Support services are available for each HP 3065 controller.

Multiple-system support

Customers with multiple HP 3065 board test systems can receive Response Center Support. Additional System Coverage (ASC) provides extended Response Center assistance at a reduced price. Customers may select between two material support alternatives: (1) right-to-copy software and documentation, or (2) receive update materials directly from HP.

HP 3065 Response Center Support Services

P/N	Description	US list price
3065C + H22	HP 3065C RCS	\$190/mo.
3065CL + H22	HP 3065CL RCS	190/mo.
3065CX + H22	HP 3065CX RCS	190/mo.
3065C + V00	HP 3065C ASC (right-to-copy)	55/mo.
3065CL + V00	HP 3065CL ASC (right-to-copy)	55/mo.
3065CX + V00	HP 3065CX ASC (right-to-copy)	55/mo.
3065C + V22	HP 3065C ASC (with material)	40/mo.
3065CL + V22	HP 3065CL ASC (with material)	40/mo.
3065CX + V22	HP 3065CX ASC (with material)	40/mo.

HP 3065 RCS implementation and TIPS transition

Jim Burkett/PRSD

As the Response Center gears up to support HP 3065 board test systems, the local TIPS centers will wind down. A 60-day transition period is planned to transfer TIPS calls to the Response Center.

Beginning May 1, 1986, the North American Response Centers will accept HP 3065 software support calls. Support customers will have access to specially trained system experts borrowed from Manufacturing Test Division (MTD). Local HP 3065 systems engineers and field engineers will receive fewer software usage questions and will have more time available for revenue-generating activities.

North American TIPS Centers will route software support phone calls to the Response Center during May and June. The transition should be complete by July 1. The TIPS Centers will use a script to explain the new procedures to HP 3065 customers. Customers will then be expected to call the Response Center instead of the TIPS Center.

During the initial RCS implementation, customers may experience a temporary increase in the normal call-back response. Both Response Centers will be accepting calls, but only the Santa Clara Response Center will have the dedicated resources for HP 3065 support. The maximum call-back response should not exceed four hours. The Santa Clara Response Center will be staffed to provide support from 8 a.m. to 5 p.m. Pacific Standard Time.

Additional system support for HP 3065 systems

Jim Burkett/PRSD

Now there are two ways to provide support for multiple HP 3065 board test system configurations: (1) additional system with right-to-copy, and (2) additional system with HP delivered material. Both Response Center Support (RCS) and Software Materials Subscription (SMS) can be extended to additional HP 3065 systems.

Additional system with right-to-copy

The right-to-copy alternative should only be selected when each HP 3065 has the same controller. Software and documentation updates can be copied only from matching HP 3065 controllers. For example, if your customer has two HP 3065CX systems, then the right-to-copy alternative may be selected. Conversely, if your customer has one HP 3065CX, and one HP 3065C, then the right-to-copy alternative cannot be selected.

When ordering the right-to-copy alternative, use the +V00 suffix to extend Response Center Support. Or, use the +W00 suffix to extend Software Materials Subscription.

Example: RCS for two HP 3065CX controllers

Central System:	
HP 3065CX RCS	3065CX + H22
Additional System:	
HP 3065CX ASC with right-to-copy	3065CX + V00

Additional system with HP-delivered material

The "with material" alternative is for customers with multiple, but different HP 3065 controllers. Customers may also select the "with material" alternative, instead of the right-to-copy alternative, for the convenience and quality of HP delivered software and documentation updates.

First, the customer identifies the most powerful controller as the central system. Then, each additional controller is supported using the "with material" alternative.

Ordering additional system with material support requires using pairs of support suffixes. Use +V00 and +V22 to extend Response Center Support. Use +W00 and +W22 to extend Software Materials Subscription. Contact your local contracts administrator for more details.

Example: RCS for one HP 3065CX and one HP 3065C

Central System:	
HP 3065CX RCS	3065CX + H22
Additional Systems:	
HP 3065C ASC with right-to-copy ...	3065C + V00
HP 3065C ASC with material	3065C + V22

NS/3065 software support

Jim Burkett/PRSD

NS/3065 software can be supported in HP 3065 board test networks. NS/3065 software and documentation updates and NS/3065 telephone assistance are ordered as separate line items with the controller support contract.

Material support

Software Materials Subscription (SMS) provides one copy of NS/3065 software and documentation updates. Use the +S00 suffix for SMS support.

NS/3065 software can also be successfully copied by your customers. Therefore, Extended SMS, a right-to-copy service for software and manual updates, is available. Extended SMS support will provide the right-to-copy material updates delivered to the central system. Use the +W00 suffix for extended SMS support.

Telephone assistance

A new DataCom Software Category has been created to provide telephone assistance for NS/3065 and other HP 3065 networking software. RCS support of the HP 3065 controller is a prerequisite for DataCom Category support.

NS/3065 SMS or Ext SMS must be ordered with the DataCom Category support to provide the necessary material updates.

Example: NS/3065 Response Center Support

Central System: (3 items)	
HP 3065 RCS	3065C + H22
DataCom-C/HP 3065 Category	99087R + C00
NS/3065 SMS	44670A + S00
Additional Systems: (4 items)	
HP 3065 ASC with material	3065C + V00
	3065C + V22
Extended DataCom-C/	
HP 3065 Category	99087R + V00
NS/3065 SMS	44670A + W00

Example: NS/3065 Software Material Subscription

Central System: (2 items)	
HP 3065 SMS	3065C + S22
NS/3065 SMS	44670A + S00
Additional Systems: (2 items)	
HP 3065 Ext SMS right-to-copy	3065C + W00
NS/3065 SMS	44670A + W00

60 percent price reductions on HP 3065 SNS and MUS

Jim Burkett/PRSD

Effective April 1, 1986, the monthly service charges for Manufacturing Test Division's (MTD) HP 3065 Software Notification Service and Manual Update Service will be reduced by 60 percent.

Product Support Division (PRSD) will lower the monthly price of the HP 3065 SNS from \$55 to \$20. The monthly price of HP 3065 MUS will be lowered from \$40 to \$15. Both price reductions are due to improved delivery and production efficiencies.

Current subscribers to HP 3065 SNS or MUS are entitled to the price reductions as of April 1. Contact your local contract administrator for more details.

P/N	Description	US list price	
		Old price	New price
3065C + N00	HP 3065 SNS	\$55/mo.	\$20/mo.
3065CL + N00	HP 3065CL SNS	55/mo.	20/mo.
3065CX + N00	HP 3065CX SNS	55/mo.	20/mo.
3065C + Q00	HP 3065C MUS	40/mo.	15/mo.
3065CL + Q00	HP 3065CL MUS	40/mo.	15/mo.
3065CX + Q00	HP 3065CX MUS	40/mo.	15/mo.

New HP 3065 user documentation MUS

Jim Burkett/PRSD

Now HP 3065 customers can purchase contractual updates to their additional sets of user documentation. Three new Manual Update Services (MUS) have been defined for (1) Additional HP 3065C User Documentation (2) Additional HP 3065CL/CX User Documentation (3) Additional HP 3065 Quick Reference Guide.

Each of the new MUS services are intended to complement an existing HP 3065 software support contract. When your HP 3065 customers need more than one copy of manual updates, first sell an HP 3065 RCS or SMS contact and then include additional MUS services as needed.

P/N	Description	US list price
44630A + Q00	Additional HP 3065C User MUS	\$15/mo.
44630B + Q00	Additional HP 3065CL/CX User MUS	15/mo.
44630Q + Q00	Additional HP 3065 Quick Reference MUS	5/mo.



New high-speed HP-IB interface for HP 9000 Series 200/300

Karen Dudley/RND

The 98625B high-speed HP-IB interface for HP 9000 Series 200/300 systems is now on the Corporate Price List and has a US list price of \$650. The 98625B is completely backwards compatible with the 98625A; and, therefore, the 98625A will be removed from the Corporate Price List in May 1986. The new version offers improved performance and reliability.

The 98625B high-speed HP-IB interface is intended primarily for connection to hard disc drives or other high-speed HP-IB devices. A switch-selectable mode does allow connection of standard-speed HP-IB devices, but in most cases the 98624A or the built-in HP-IB will provide a more cost-effective connection for standard-speed devices.

The 98625B offers a mode for word-wide (16-bit) DMA transfers. Word mode allows data to be transferred in bursts at a rate of 2 Mbytes/second. The average transfer rate will be equal to the transfer rate of the attached device. To achieve the maximum transfer rate, the 98625B utilizes DMA and requires the 98620A DMA controller card.

Ordering information

P/N	Description	US list price
98625B	High-speed HP-IB interface	\$650
98625-66502	PC assembly	
98625-90001	Installation manual	

Compatible cables available from Direct Marketing Division are 10833A (1.0 meter), 10833B (2.0 meter), 10833C (4.0 meter), and 10833D (0.5 meter).

HP 9884A tape punch to be obsolete July 1, 1986

Wolfgang Monauni/DSG/EMC

The 9884A has been a very long-lived product but now due to newer technology, 9884A sales are falling off. It has now reached the point where it is impractical and unprofitable for us to continue a product line devoted to the 9884A. So we are going to obsolete the HP 9884A on July 1, 1986.

Orders will be accepted until September 30, with the exception of European orders which will be accepted only until August 31. No shipments will be allowed worldwide after November 15.

Technical Support will be available for 10 years after the tape punch discontinuance.

If you have any customers who wish to place an order for the HP 9884A, please inform us as soon as possible.

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MAXS now supports HP 3852A with HP 1000 A-Series

Scott Sampl/LID

MAXS is a modular and flexible data acquisition and control system supporting many different signal-measuring front ends with the HP 1000 computer from C&L Systems, a listed software supplier. C&L Systems has recently announced support of HP's newest data acquisition front end, the HP 3852A. In addition to the HP 3852A, it supports the HP 6940B, HP 6942A, HP 3497A, and the HP 2250 system.

Features

Major features of the MAXS system include support of redundant hardware configurations from signal source to computer; memory resident process tables, backed-up on demand and timed basis; users can have various startup, shutdown, transfer operations to/from computer; historical data compression and trending via several methods; event and alarm logging and reporting; MAXS enables on-line addition, updating, and deletion of manually entered, measured and calculated variables as well as loops; continuous, DDC, supervisory, cascade, and adaptive control schemes; and compressed data and event log file to IMAGE database interface.

Markets and applications

Additional packages allow the expansion of MAXS into full automatic control of pilot processes. PGRAF lets users construct process flow diagrams and other graphic screens. The color graphics editor helps users build the screen while MAXS dynamically refreshes the screens in real time.

A programmable controller emulator marries PLC ladder logic to MAXS. Standard ladder logic diagrams are used on the screen to build batch process sequencing. MAXS then executes the logic to control both continuous and batch operations using the front-end hardware.

Six additional packages, called the Q-Family, can be added. These center around database transaction processing needs. The modules can be added separately or in combination and provide such things as screen access of an IMAGE database, a report generator, a text formatter, an extended terminal handler, a file-sorting program, and a forms-designing-and-editing package.

Modularized version available

MINS is a modularized version of MAXS. It was recently created for customers who do not need all of the capabilities of MAXS. It is supported on the HP 3497A and HP 3842A and is broken into the following pieces:

- Data Acquisition Subsystem, which is the basic building block. It has the forms, menus, softkeys and on-line help screens to assist in system operation. It also includes the HP 3497A and HP 3852A interfaces, a help processor, input and alarm processors, real-time trends, and a user library.
- Historian can compress and store data and events in circular files. Log reports and time expanded graphical displays are provided.
- Calculation and Control Loop Processor lets users enter FORTRAN-like equations and PID loops. The module supports startup initialization, direct digital control, supervisory, cascade, and adaptive schemes.
- Database Interface is a source program which stores processed data into an IMAGE database, files or transmits the data to another computer.
- Configuration resizes the standard system to provide for custom applications.
- Lab Acquisition allows users to tie in analytical laboratory instruments and time correlate the data with standard data.

Price and support

MAXS is priced at \$12,000 for the first copy. Multiple copy discounts are available. MINS modules are priced from \$1,000 to \$5,000. A wide range of support services are available, worldwide, and include phone-in consulting, on-site consulting, mail-in support, remote dial-in, and program modification.

For more information, see the *HP Technical Systems Software Solutions Catalog* or contact C&L Systems directly: C&L Systems, 1250 E. Ridgewood Avenue, Ridgewood, NJ 07450; 201-427-5890. The contacts are Don LaRobardiere and Bob Combs.

Using a PID algorithm inside the HP 3852A

Conrad Proft/LID

Application Note 290-2 (P/N 5953-6921) shows how the HP 3497A is used to control industrial wastewater treatment using an HP-85 computer. The overall process is described in the first nine pages with the actual algorithms such as a PI, Totalized Setpoint, Sequencer, and Output Timers illustrated in the Appendix.

Of particular interest is the implementation of the proportional-integral-differential (PID) algorithm as illustrated here in Figure A. This analog equivalent diagram is converted to HP-85 BASIC in Figures B and C. The

Test & Measurement

parameters used in this code are mostly matrix form (arrays) so that the same 12 lines can control multiple loops. The system implemented at the Loveland Instrument Division (LID) allocates matrices to allow up to 10 PID loops.

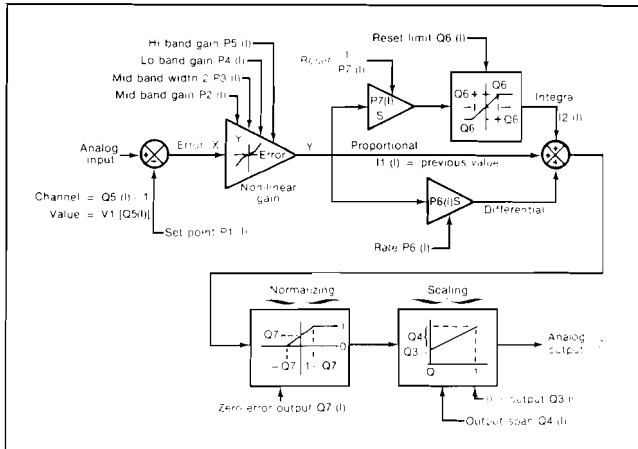


Figure A

```

100 FOR I = 1 TO N6
105 X = V1 (Q5(I)) - P1(I)
110 IF X > - P3(I) THEN 120
115 Y = (X + P3(I)) * P4(I) - P3(I) * P2(I) @ GOTO 135
120 IF X < P3(I) THEN 130
125 Y = (X - P3(I)) * P5(I) + P3(I) * P2(I) @ GOTO 135
130 Y = X * P2(I)
135 I2(I) = MAX(MIN(I2(I) + P7(I) * Y, Q6(I)), - Q6(I))
140 I7 = MAX(MIN(Y + I2(I) + (Y - I1(I)) * P6(I) + Q7(I), 1) 0) @
I1(I) = Y
145 I7 = I7 * Q4(I) + Q3(I)
150 OUTPUT 709; "A0"; Q1(I); ", "; Q2(I); ", "; INT(I7)
155 NEXT I
    
```

Figure B

- I1(I): Previous value of the proportional part of the I'th PID functions.
- I2(I): Integral part of the I'th PID function.
- I7: Output of the PID. Scaled from 0 to 1 in line 140, and scaled to the output device in line 145.
- N6: Number of PID's. A constant.
- P1(I) Value of the I'th PID's set point. A constant.
- P2(I): Mid-band gain. A constant.
- P3(I): Half of the mid-band width. A constant.
- P4(I): Low-band gain. A constant.
- P5(I): High-band gain. A constant.
- P6(I): Constant of differentiation for the I'th PID. A constant.
- P7(I): Integration constant for the I'th PID. A constant.
- Q1(I): 3497A slot # of the analog output controlled by the I'th PID. A constant.
- Q2(I): 3497A channel # of the analog output controlled by the I'th PID. A constant.
- Q3(I): 0% output value of the analog output channel controlled by the I'th PID. A constant.
- Q4(I): Output span (100% value - 0% value) of the analog output channel controlled by the I'th PID. A constant.
- Q5(I): One plus the channel number of the I'th PID's input. A constant.
- Q6(I): Integral limit for I'th PID. A constant.
- Q7(I): Zero error output for the I'th PID. A constant.
- V1(Q5(I)): Value of the I'th PID's input.
- X: Error between analog input and the set point constant.
- Y: Proportional part of PID function.

Figure C

The BASIC used inside the HP 3852A can easily implement this PID control algorithm and execute it much faster and more efficiently than the previous instrument configuration. In addition, the HP 3852A has an internal system clock for precise time spacing of input measurements and output control signals.

The method of handling more than one PID loop per scan sequence is very convenient for HP 3852A digital-analog converter (DAC). The DAC has a minimum requirement settling time to give its output sufficient time to reach the programmed voltage or current value. If many channels

can be programmed rapidly at one time, the time needed to wait for the outputs to settle can be used to read new input values and calculate new output values.

The settling time of the HP 44727A/B/C four-channel DAC output is 75 mSec. This would be the minimum time allowed before another scan of PID loops can be completed. This scan time can also be preset to any larger time interval. If N number of PID loops is scanned and processed every $T + 75$ mSec., the overall loop per second rate will be dependent upon the value of N and T. For example, if six loops can be processed every 75 mSec., the overall loop rate is 80 loops/second. If eight loops can be processed every 100 mSec., the rate is also 80 loops/second.

Since the 75 mSec. settling time and the PID algorithm execution time are relatively constant, the overall loop per second time is dependent upon the scanning rate of the voltmeter. Scanning rates are dependent upon which voltmeter is used (HP 44701A integrating DVM or HP 44702A/B high-speed DVM) and also dependent upon the resolution of the voltmeter reading.

I have implemented the PID algorithm from Application Note 290-2 in HP 3852A BASIC and have an execution time that supports the previous calculations. The example configures the HP 3852A and its accessories as follows:

The results showed eight loops being scanned every 81 mSec. for an overall loop rate of 98 loops/second.

If you would like a copy of my programming example, please phone or telex me at 303-667-5000, COMSYS 0900/MK.

Goodbye to the HP 2250

Bill Wareham/LID

After a long and interesting career, the HP 2250 has about exhausted its product life. Therefore, Loveland Instrument Division (LID) has set the last order date for all HP 2250 family products as July 31, 1987. We are giving 16 months advance notice so that existing HP 2250 customers will have enough time to plan for the product's obsolescence. The HP 2250 will have a support life of 10 years.

The HP 2250 is a large product that is often built into complex systems so now is the time to start helping your customers plan for discontinuance. If you anticipate any major difficulties or considerations, please contact me or your regional systems engineer (RSE) at LID and we will be happy to work out a specific plan for notifying your customer. We want to make this as easy and pleasant for everyone as possible.

This discontinuance might be an opportunity to talk with your customer about the HP 3852S data acquisition and control system. Contact your RSE for a copy of the HP 2250/HP 3852 comparison chart. This paper gives a detailed feature-by-feature comparison of these two products. It will answer most questions about whether or not an HP 3852A will replace an HP 2250 in a given application.



NETWORKS

NS/1000 supported under PCO A.85

Doug McLean/

The NS/1000 sales literature dated January 2, 1986, states that NS/1000 is only supported under RTE-A PCO 4.0. As PCO 4.0 will not be available until later this spring, Release 1 of NS/1000 will be supported under RTE-A PCO A.85. (Release 1 includes support of local-area network configurations.) Releases 2 and 3 of NS/1000 will be supported only under PCO 4.0. If you have any questions relating to NS/1000 and the version of RTE-A required for support, please contact the Network Sales Center.

HP 2334A multimax configuration guide available soon

Patrick Favre/GND

The complete HP 2334A multimax configuration guide will be available from Direct Marketing Division (DMK) in April 1986 and can be ordered under P/N 02334-90011. This guide will be delivered with every HP 2334A.

The configuration guide will cover the types of configurations with plenty of examples which have been fully tested by Grenoble Networks Operation (GND). The configuration types are:

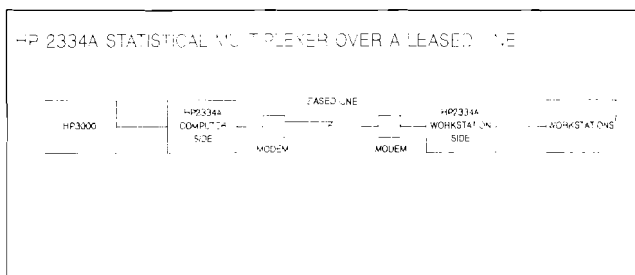


Figure 1

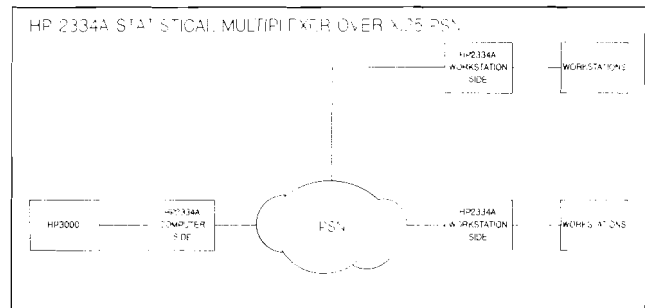


Figure 2

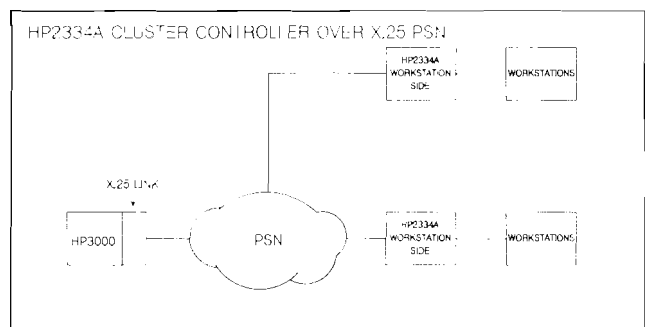


Figure 3

This configuration guide provides a working example for all major applications and configurations. Any comments or feedback on this guide or any other topics regarding the HP 2334A are welcome.

HP 27140A price increase

David Kuntz/

Effective April 1, 1986, the price of the HP 27140A six-channel asynchronous multiplexer will increase from \$2,000 to \$2,400. The price of all the options will remain unchanged.

Also in this issue

HP 3000-to-IBM product line price changes

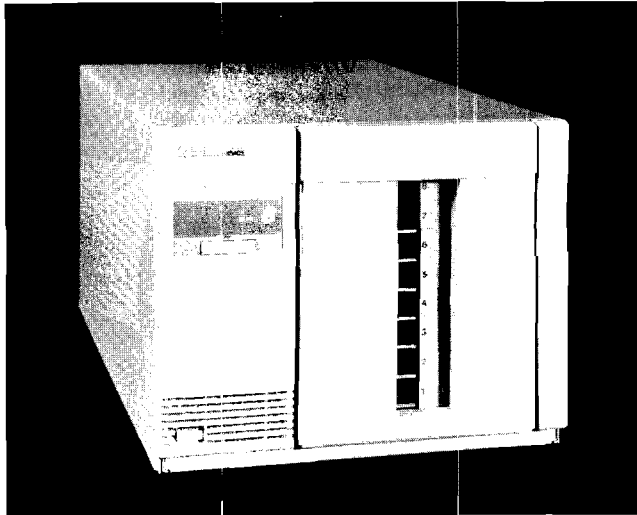
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MASS STORAGE

New tape drive offers unattended backup for mid-range systems

Kevin Greenleaves/CPB

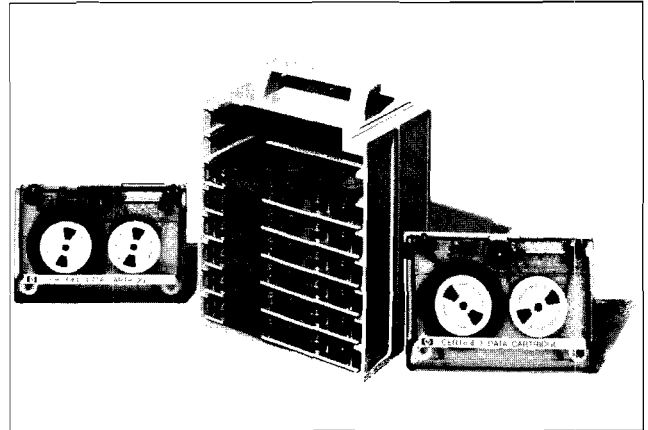
The HP 35401A 1/4-inch cartridge autochanger tape subsystem from Computer Peripherals Bristol (CPB) is ideally suited to unattended backup. It combines an auto-changer mechanism with the key components of the HP 9144A tape drive to automate cartridge loading and unloading, thereby offering up to 536 Mbytes of storage.



The HP 35401A 1/4-inch cartridge autochanger tape subsystem offers unattended backup for mid-range systems.

Benefits

- **Cost-effective backup** — Unattended backup eliminates manual loading and unloading of tapes and can be a great money saver. The HP 35401A will perform unattended backup, allowing system backup to be performed without an operator. With its 536-Mbyte capacity, the HP 35401A satisfies present needs and allows for future growth. It is also fully media compatible with the HP 9144A and HP's range of integrated cartridge tape/disc drives, thereby protecting past investments.
- **Designed for the office** — The HP 35401A has been designed specifically for the office: it is small, easy to use, and quiet. It may be used standalone or integrated with a system into the Design Plus cabinet. Furthermore, because it is so easy to use, the HP 35401A is customer installable.



The eight cartridge tapes in the convenient HP 92192C cartridge magazine used with the HP 35401A can be accessed sequentially or selectively.

- **Application flexibility** — With eight cartridge tapes that can be accessed sequentially or selectively (see note 1), the HP 35401A is suited to a wide range of applications, such as software duplication. In addition, data can be structured to suit the user in the removable cartridge magazine.

Positioning

The HP 35401A is positioned between the HP 9144A cartridge tape drive and the HP 7974A reel-to-reel tape drive. It is priced at \$7,000 US list and \$6,700 factory base price.

The HP 9144A is HP's lowest-cost tape drive suitable for small systems. In contrast, the HP 7974A offers higher performance and industry-standard data formats. In general, the HP 35401A should be sold when the HP 9144A is considered too limited or the HP 7974A too expensive.

Markets

Key prospects for the HP 35401A fall into three categories:

- Low-end to mid-range commercial system users (HP 3000 Series 37/42/48). The HP 35401A will allow them to perform unattended backup and thereby save money.
- Mid-range to high-end technical system users (HP 9000 Series 300/500). They will purchase the HP 35401A because they want the benefits of unattended backup or because they want the high capacity and flexibility that the HP 35401A offers.

continued on next page

- Customers who have outgrown their present ¼-inch cartridge tape drive and want a more capable backup solution. The HP 35401A tape drive offers them the benefits of unattended backup, while retaining compatibility with their existing cartridge tape library.

System support

The HP 35401A is currently supported on a wide range of HP 3000 and HP 9000 systems.

System	Operating system	Sequential	Selective	Comments
HP 3000	MPE V/E U-MIT	X		
HP 9000 Series 200	BASIC 4.0 Pascal 3.1 HP-UX 5.1		X	See Note 2 See Note 2 See Notes 2,3
HP 9000 Series 300	BASIC 4.0 Pascal 3.1 HP-UX 5.1		X	See Note 2 See Note 2 See Notes 2,3
HP 9000 Series 500	HP-UX 5.0			See Note 2

Note 1: The HP 35401A offers two modes of operation, Sequential and Selective. Support of these two modes varies with operating systems, so please check to see that the mode your customer wants to use is supported.

Note 2: Multiple cartridge use with this operating system in Sequential mode requires some operator intervention to sequence the cartridges.

Note 3: Selective mode operation with this operating system allows cartridges to be loaded in any order (e.g. 1 thru 8; 1,2,4,7,3,6,5,8; etc.).

Computer Peripherals Bristol (C600) will be the supplying division for the HP 35401A tape drive.

HP 7978A deleted from CPL on April 1

Sandy Hansen/GLD

Just a reminder that the HP 7978A ½-inch tape drive will be removed from the Corporate Price List on April 1, 1986. Normally, tape service support continues for 10 years after a product's discontinuance. However, in the case of the HP 7978A, we will extend the service life for the lifetime of its replacement, the HP 7978B.

The performance-enhanced HP 7978B, introduced November 1985, offers the same 6250/1600 cpi densities and high-speed backup performance as the HP 7978A. At the same time, HP 7978B customers get better perfor-

mance during start/stop applications, when the system is busy, or in shared-interface configurations — situations when HP 7978A performance did not always meet customer needs.

For your HP 7978A customers wishing to upgrade their drive to the high-performance HP 7978B, there is a field upgrade kit (HP 88702A) available for \$2,400 (US list).

Also in this issue

“Engineer’s Delight”: a Megabytes Plus solution for technical systems

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PLOTTERS

Proper field procedures for damaged freight

John Manley/SDD

Whether San Diego Division (SDD) or the customer should file a claim with a freight carrier is determined by the free on board (FOB) point of shipment. With the exception of some specially negotiated contracts, all shipments are considered FOB destination. This means that HP will file the claim and absorb any losses. The degree of loss we suffer is partially determined by what takes place in the field. We can only file a claim under the following conditions:

- 1) The customer notes on the freight bill or delivery receipt the physical condition of the merchandise at the time of delivery (e.g., two corners crushed; carton wet).
- 2) Concealed damage (not noted upon delivery) must be reported to the carrier within 15 days of delivery. The packaging should be saved, preferably with the merchandise still partially packaged. Not reporting damage within 15 days of delivery releases the carrier from all liability.
- 3) An inspection report from the carrier is obtained. The customer should obtain this or the sales rep can, if he/she prefers.
- 4) The customer and/or sales rep forwards the inspection report and the delivery receipt noting the damage to the traffic department at SDD.



Claims can't be filed for packaging. In the event reshipping is necessary, new packaging must be obtained by the customer.

Photographs showing damage to the shipment are strongly recommended. Do not put the merchandise back into transit, even to a sales office, until an inspection report has been obtained.

The key to a successful freight claim is legitimate proof of carrier negligence. Please contact John Manley at SDD via HPDesk if you have any questions.

less than 4 percent rise over the cost of the total printer with HP-IB interface. For the HP 2671G, the increase represents an approximate 6 percent increase. Even with these small price increases, customers will still recognize the excellent value that these printers provide for their investment from Hewlett-Packard.

Also in this issue

HP 7550A opens the door at Smithco Engineering

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PRINTERS

HP 293X HP-IB and 2671G printer price increases

Laird Clow/VCD

Effective April 1, 1986, the prices of the HP-IB interface for the HP 2932A and 2934A printers (plus the interface upgrade kits) and the price of the HP 2671G thermal graphics printer will be increased to reflect increasing factory costs:

Printer/ Option	Description	Old price	New price
HP 2932A Opt. 046	Replaces standard RS-232 interface with HP-IB interface	\$ 50	\$ 150
HP 2934A Opt. 046	Replaces standard RS-232 interface with HP-IB interface	50	150
HP 29085A Opt. 046	HP-IB interface upgrade kit	50	150
HP 29086A Opt. 046	HP-IB interface upgrade kit	50	150
HP 2671G	80-column thermal graphics printer	1,595 (FBP) 1,640 (US list)	1,695 (FBP) 1,740 (US list)

We regret the necessity of these price increases. For the HP 2932A and 2934A printers, the increased represent a

New price for HP 9876A thermal printer

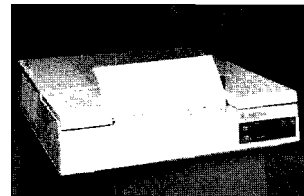
Barbara Bennett-Brown/GLD

Effective April 1, 1986, the new price for the HP 9876A thermal printer will be \$9,500 factory base price and \$9,580 US list. This product is slated for discontinuance on August 1, 1986.

Please contact Al Herder, Greeley Division, 303-350-4378 for further information.

Obsolescence of HP 2671A printer announced

Laird Clow/VCD



HP 2671A thermal printer

Effective June 1, 1986, the HP 2671A thermal printer from Vancouver Division (VCD) will be removed from the Corporate Price List, along with all of its options. This product is the 80-column, 120 cps, text-only thermal printer introduced in July 1981. The HP 2671A served the needs well for customers who wanted quiet, quality-text printing for technical workstation printing applications. However, a steadily declining order rate, as well as the availability of superior printer technologies, such as those found in the HP ThinkJet printer and other personal printers, have forced the obsolescence of this product. As a replacement product, we recommend the HP 2671G graphics printer, or the HP 2673A intelligent thermal printer, which have all of the capabilities of the HP 2671A, plus additional features such as graphics and added character sets. For customers who don't require thermal printing, the HP ThinkJet printer may be the perfect solution, at a much lower cost.

Last order date for the HP 2671A will be June 30, 1986. Support life for parts and service will be at least five years from date of last customer shipment.

Also in this issue

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Introducing the HP LaserJet 500 PLUS printer	18
HP LaserJet printer toll-free assistance line changed to new toll number	20
Supplies for the new HP LaserJet 500 PLUS printer	20

Last chance to order HP 2627A color graphics terminal

S. Sundaresh/HPPR

A number of sales reps have expressed a need to continue ordering HP 2627As (removed from the Corporate Price List on March 1, 1986). While current demand does not justify retaining the product on the Corporate Price List, HP Puerto Rico (HPPR), in the interest of customer satisfaction, is prepared to produce up to 100 additional units.

Orders for these 100 units will be accepted on a first-come-first-served basis. All orders are non-cancellable and have to be scheduled for delivery by October 31, 1986. Contact the factory for availability information. A HEART override is required to place these orders: PL67, SF15, MKT. DIV. D3, SUP DIV 5600, US list price \$5,975. The HP 2627A will carry a five-year support life.

TERMINALS

HP 2624B terminal to be discontinued October 1, 1986

S. Sundaresh/HPPR

With the introduction of the HP 2394A data entry terminal in July 1985, demand for the HP 2624B display terminal has fallen off sharply. The HP 2624B display terminal will be removed from the Corporate Price List on October 1, 1986. No orders will be accepted beyond October 31, 1986. The HP 2624B will carry a ten-year support life.

The HP 2394A does not provide multipoint support. However, customers buying HP 2624Bs because they need multipoint should be encouraged to use HP 2394As with HP 2333A cluster controllers (see *Computer News*, July 15, 1985, page 29).

Finance & Remarketing Division (FRD) will offer refurbished HP 2624Bs. For availability and ordering information, please contact Rhonda Willens at FRD, 408-720-4165.

DMK direct order phone numbers

DMK Fast Phones — the easy, direct way for you to order supplies, accessories, media, furniture, and software from Direct Marketing Division.

Location	Telephone number
Australia	(03) 895-2645 (03) 895-2615 (03) 895-2815 (03) 895-2861
Austria	(0222) 2500-615 (0222) 2500-616
Belgium/Luxembourg	(02) 762 32 00
Canada	
Toronto Local	416-671-8383
Ontario	1-800-387-3417
Quebec	1-800-387-3417
British Columbia	112-800-387-3154
Other Provinces	1-800-387-3154
Denmark	(02) 816640, ext. 258
Finland	(90) 887 2361
France	(1) 69 28 32 64 (1) 69 28 83 39
Greece	(01) 6726090
Italy	(02) 9236 9702
Middle East	
Athens	(01) 6828811
Norway	(02) 171180
South Africa	
Johannesburg	(011) 8025111
Cape Town	(021) 537954
Spain	(91) 6374013 (91) 6370011
Sweden	(08) 7502400 (08) 7502027 (08) 7502204
Switzerland	(057) 31 22 53 (057) 31 22 54 (057) 31 22 59
The Netherlands	(020) 547 6606
United Kingdom	(0734) 697201
United States	800-538-8787
Alaska, California, and Hawaii	408-738-4133
West Germany	(0130) 3322



REINHARDT, HELMUT
BAD HOMBURG - GERMANY HDQTRS
HPGR 8300



New HP 35401A 1/4-inch Cartridge Autochanger Tape Subsystem

