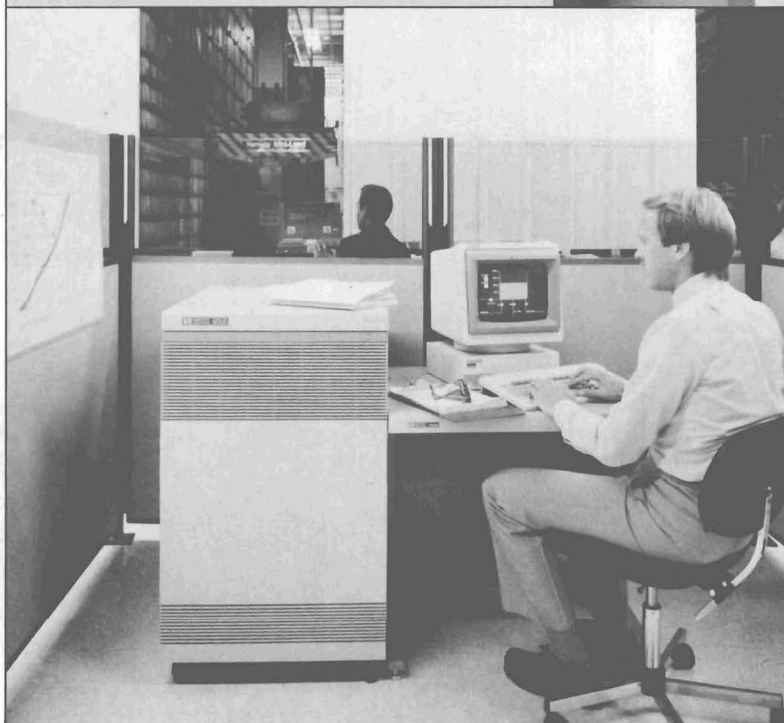# Information Systems &
Manufacturing News

Information for HP sales reps selling MIS, **office** automation, and manufacturing solutions ▫ June 1, 1986

The HP 9000
Series 800

A new foundation for engineering design and manufacturing solutions

- Model 840
  HP-UX with real-time capabilities
- Quality software
- Ease of migration

**HEWLETT
PACKARD**

Information Systems & Manufacturing News

Vol. 11, No. 15

Formerly *Computer News*

On the Cover

HP recently announced the newest addition to the HP 1000 and HP 9000 product lines — the HP 9000 Series 800 Model 840. The Series 800, which implements HP Precision Architecture running HP-UX, provides a new foundation for HP engineering design and manufacturing system solutions. See the special "Technical Spectrum Program" section for the story beginning on page 28.
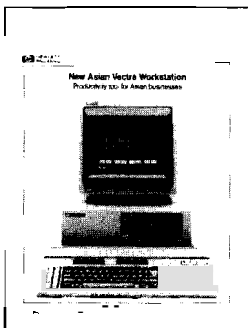
On the Back Cover

The Asian Vectra Workstation offers all the powerful features of the IBM PC AT-compatible HP Vectra PC in a workstation that runs business software in four Asian languages as well as English for domestic and international Asian businesses. The photo on the back cover shows traditional Chinese word-processing software in use on the workstation. See story on page 24.

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
    Application Support Division
    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
HPPR   Puerto Rico Operation
PCD   Portable Computer Division
BPC   Brazil Operation
X C O   Handheld Computer & Calculator Operation
GPCD   Grenoble Personal Computer Division
POD   Personal Office Computer Division
  Microcomputadoras HP
PCS   Singapore Operation
PCDO   Personal Computer Distribution Operation
Peripherals Group (PG)
GLD   Greeley Division
CPB   Computer Peripherals Bristol Division
GTO   Greeley Tape Operation
DMD   Disc Memory Division
BO   Boise Division
VCD   Vancouver Division
iCO   Ink-Jet Components Operation
SDD   San Diego Division
BPO   Barcelona Peripherals Operation
Information Networks Group (ING)
CND   Colorado Networks Division
GND   Grenoble Networks Division
RND   Roseville Network Division
IND   Information Networks Division
Information Technology Group (ITG)
FID   Fort Collins IC Division
IHO   Information Hardware Operation
ISO   Information Software Operation
EKJ   Ettzy Systems Operation
Integrated Circuit Group (ICG)
CID   Cupertino IC Division
NID   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
LID   Loveland Instrument Division
PAO   Panacom Automation Operation
MTD   Manufacturing Test Division
LMSO   Lyon Manufacturing Systems Operation
Analytical Group
A   Avondale Division
SID   Scientific Instruments Division
WAD   Waldbronn Division
HFG   HP Genenchem
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)
SPD   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
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 Lal
Design Systems Group (DSG)
  TECHNICAL SYSTEMS
FSD   Fort Collins Systems Division
TWO   Technical Workstation Operation
SSO   Systems Software Operation
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
LSID   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

New Products is a monthly feature that presents brief descriptions of significant new products announced in Information Systems & Manufacturing News (IS&M News) and Measurement & Design Systems News (M&DS News).

The HP **9000** Series **800** Model **840,** the first HP-UX computer based on HP Precision Architecture, extends the HP 1000 and HP 9000 product lines to provide a new foundation for engineering design, manufacturing, and general purpose computation markets. (P/N 9741A; $113,000) *See June 1 IS&M News.*

HP Printed Circuit Design System is a new full-function CAD system with numerous automatic and inter-active tools for digital, analog, and mixed technologies. Because of its open architecture, electronic communi-cation links with other CAE/CAD/CAM systems, and centralized database, it is ideal for design teams with large amounts of design data to pass back and forth with other functional areas of their company. (P/N 74400A; approx. $50,000 to $82,000 for a complete system) *See June 1 IS&M News.*

The Ada programming language for the HP 9000 Series 200 and 300 workstations is the first of a series of Ada products from HP, which will make it possible for HP to provide US Department of Defense contractors as well as commercial customers with a single-vendor Ada solu-tion including hardware, software, service, and support. (P/N 97054A, $3,125 single user; P/N 97055A, $4,275 multiuser) *See May 15 IS&M News.*

HP **VMEbus** Interface allows HP 9000 Series 200 and 300 technical workstations to link with the industry-standard architecture of the VMEbus (IEEE P1014) — this provides high I/O performance and greater modu-larity for customers in the scientific, industrial, and mili-tary markets by letting them combine VME products with HP computers. (P/N 98646A, $1,200) *See June 1 IS&M News.*

The HP **64000-UX** Microprocessor Development Environment includes the HP 9000 Series 320 technical computer through Hosted Development Software and a new set of Language Systems. Using a new HP 64855A RS-232 product for transferring files between the compu-ter and the HP 64000 stations provides the customer with a lower cost environment for microprocessor soft-ware development. ($1,800 for HP 64855A, $4,500 for each Pascal Cross-Language System, $4,500 for each C Cross-Language System, and $1,000 for each Assembler1 Linker System) *See June M&DS News.*

The HP Enhanced Graphics Display System, which consists of the HP Enhanced Graphics Adapter and the HP Enhanced Graphics Display, provides an excellent solution for HP Vectra PC users who need high-quality color display systems for decision support and analysis, presentation graphics, CAD/CAM, and other graphics-intensive design applications. (Adapter: P/N 45983A, $695; Display: P/N 35743, $845) *See May 15 IS&M News.*

The Asian Vectra Workstation offers all the powerful advantages of the IBM PC AT-compatible HP Vectra PC in a workstation that runs word-processing, graphics, database management, spreadsheet, and datacommuni-cations software in a choice of four Asian languages — Japanese, Korean, traditional Chinese, or simplified Chinese — as well as English to fill the needs of domestic and international Asian businesses. *See June 1 IS&M News.*

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GENERAL

Assigned Executive Program sales contest update

Bill Richion/US Field Operations

This is the third article in a series reporting on the progress of the Assigned Executive Program sales contest, which is running throughout F Y86.

At the end of five furlongs it is Native Dancer (Dean Morton) by a head. Native Dancer with continued strong performance by Raytheon and an improvement from RCA surged into the lead past the faltering Man'O War (Doug Spreng). Man'O War is still running strong with good performance from Eli Lilly and Federal Mogul, but has been unable to maintain the blustering pace that he set at the end of four furlongs. It is way too early to count him out, as I am sure he will be getting a strong second wind and challenge for the lead.

Secretariat (John Doyle) moved from the middle of the pack into third place with a surge in performance from State Farm and continued good performance from Dupont. This great horse is going to have to be reckoned with, but even though he is running strong, he has been unable to shake Seattle Slew (Dick Anderson), who is hot on his heels with continued good performance from GTE and TRW.

Next month we will be at the half way point in our race so stay tuned to see if the jockeys go to their whips and for the answer to the question: "Has Citation gone lame?"

Here's a List of the horse names assigned to each executive in our race:

Executive	Horse	Executive	Horse
John Young	Spend A Buck	Al Oliverio	Nashua
Dean Morton	Native Dancer	Doug Chance	Bold Ruler
Bill Terry	Coaltown	Bill Parzybok	Seabiscuit
John Doyle	Secretariat	Lew Platt	Silky Sullivan
Dick Alberding	Whirlaway	Dick Anderson	Seattle Slew
Jim Arthur	Citation	Doug Spreng	Man'O War

ASSIGNED EXECUTIVE CONTEST — **Mar.**

Executive — Account	12	11	10	9	8	7	6	5	4	3	2	1	Total Points
Young — AT&T, GEN L MOT, P&G													TEAMSCORE 47
Morton — GEN L ELEC, RCA, RAYTHEON													TEAM SCORE 142
Terry — GEN L DYN, ROCKWELL, GRUMMAN													TEAM SCORE –188
Doyle — DUPONT, STATE FARM													TEAM SCORE 73
Alberding — IBM, I.T., SHELL													EM ... –96
Arthur — E-SYSTEMS, AMP, PEPSI													TEAMSCORE –313
Oliverio — FORD, TEXAS INSTR, EXXON													TEAM SCORE 6
Chance — NO TELEC, WESTINGHO., KODAK													TEAM SCORE –129
Parzybok — LOCKHEED, UNITED TECH, HUGHES													TEAM SCORE –157
Platt — BOEING, McDONNEL, MONSANTO													TEAM SCORE –114
Anderson. — GTE, MOTOROLA, TRW													TEAM SCORE 56
Spreng — ELI LILLY, KNIGHT-RI., FED MOGUL													TEAM SCORE 137

SDC needs help to improve software replication quality

Roger Johnson/SDC

The Software Distribution Center (SDC) realizes that one of the most frustrating occurrences happens when software media is mounted and an "error" or "read fail" is encountered. If this has happened to you or your customer please assist us in collecting the valuable information that will, in turn, help you. *Note:* Before acting on the following request, orders for your customer's replacement material should be made first, as you would normally.

SDC is about to embark on projects focusing on the replication of software media and resulting in improved pro-

cesses and quality. If you experience a replicated software problem with an item SDC has shipped, such as (1) a file missing from a software product, (2) a parity error, or (3) unreadable software, return it to: Software Distribution Center, Attn: Returns Coordinator, 3150 Central Expressway, Santa Clara, CA 95051. Please help SDC establish the trends with regard to the nature and frequency of specific media problems by returning any faulty media to SDC for analysis.

Included with the return of media, enclose a short description of the problem; the customer or company name; the HP field support person's name and HP address, including office number. This information will be used to identify the returned media and report back the analysis findings as soon as possible after the receipt of the return. Thank you for your cooperation.

MAJOR ACCOUNTS PROGRAM

Corporate Sales Center organization
Dick Knudtsen/Major Accounts Marketing/COR

Corporate Sales Center update

When we formed the Corporate Sales Center in January, we anticipated a period of "breaking in" as the new team assumed responsibility for providing a first-class, responsive Customer Visit Center in Cupertino, California. With several months experience we have now refined the organization to provide additional managerial attention as well as region/area assignments to better accommodate increasing customer visit requirements.

Corporate Sales Center manager

I'm pleased that Apurva Chandra has taken over as manager of the Corporate Sales Center. Apurva brings 14 years of sales, marketing, and sales management experience to the job of ensuring that each customer visit to Cupertino is successfully handled as a critical sales call.

Sales region/area contacts for customer visits

We're also taking this opportunity to establish sales region/area accountability within the Corporate Sales Center so that each of you have an assigned individual to contact regarding customer visits from your sales territory. The organization chart below should be helpful in identifying your specific contact.

Janet Beyers, Lyndell Lewis, and Gary Sharon will continue their responsibilities in managing the customer visit process, and will report directly to Apurva.

Customer visit guidelines

We appreciate the effort that the majority of you have devoted to following the new Customer Visit Guidelines and to completing and submitting the Customer Visit Worksheet with five weeks advance notice. At the current March/April level, we're hosting approximately 70 to 80 customer visit days a month, so that advance planning has been essential to ensuring successful "factory sales calls" that achieve gains in our business relationships, resolve issues, and help close orders.

You'll be hearing more directly from Apurva and I know you'll appreciate the strong commitment of his team to running the customer visit process as an important competitive advantage for you in selling to your accounts.

Corporate Sales Center 408-725-8111 TELNET 1-125-XXXX		
Contact	**Region/Area**	**Ext.**
Apurva Chandra, Manager		4230
Janet Beyers, Region manager		2512
Brad Fortier	Neely LA/Southwest	4084
Betsy Thomas	Neely Northwest/Rocky Mountain	2171
Susan Zieminski	Southern	2275
Pamela Findlay	Northern Europe	3665
Lyndell Lewis, Region manager		2976
Myra Peterson	Midwest West/East	4082
Mary Ellen Kassotakis	Midwest Central/Great Lakes	4814
Kevin Wallace	France/Australia	3829
Carlos Torreblanca	Italy/Southern Europe/Latin America	3566
Gay Sharon, Manager		4458
Don Williams	Eastern New York/ New Jersey	3095
Jane Kornfeld	Eastern Valley Forge/ New England	4477
Craig Rockhold	Eastern Rockville	3052
Craig Rockhold	Far East	3052
A.J. O'Brien	Germany/Canada	4109
Peggy Christiansen	United Kingdom	2322
Makoto Takahashi	Japan	3762

Sales & Customer News

System Integrator Network starting up

Dana Chamberlain/MSG

The System Integrator Steering Committee is trying to build a network of all HP people who have any experience working with systems integrators. This network will be used to disseminate information about the evolving system integrator channel and to gather inputs on program features needed for the channel.

If you have worked with a systems integrator in the past or are likely to work with one in the future, please contact Dana Chamberlain at 408-257-7000, ext. 3689, or HPDesk HP2200/60.

The information needed is:
    Name
    Sales Office
    Telephone
    Position
    Systems Integrators with whom you have worked.

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.*

Singapore school decides on HP's Personal Productivity Center

Harry Uy/ISTM

A polytechnic school in Singapore has chosen $400,000 worth of HP's Personal Productivity Center (PPC) solutions for its office automation application.

Ten vendors competed for this business through a bid process. The competitors were narrowed down to HP, IBM, Fujitsu, and a local company providing IBM-compatible products. We proposed an HP 3000 Series 48, 87 Vectra workstations, HPDesk, HPAccess, AdvanceWrite, Executive MemoMaker, HPMessage, and AdvanceLink 2392. IBM proposed a 4341 with PROFS, and IBM PC XTs and PC ATs as workstations. Fujitsu bid the same workstations as IBM along with an IBM 4341-compatible. The local company proposed their ALR 286 PCs (a locally produced IBM PC AT-compatible computer), and SUN fileservers instead of a minicomputer.

Although IBM was rated by the customer as having a good technical solution, they lost because of price, and

because they were considered to be an over-configured solution.

Fujitsu came close to getting the deal with five percent lower prices than HP, but lacked HP's synergistic offering of products, support, and an overall solution. HP's single-vendor support solution for minicomputer, workstations, and network also shifted the contest in our favor.

The local company had a very attractive price but could not compete with HP's support track record, which the customer had already experienced by automating their library with an HP *3000* Series *48.* The customer was also more comfortable choosing HP because they felt we could more successfully implement and support a large installation.

The following are other key reasons this customer decided to choose HP:

- We sold this customer on our tight PC-minicomputer integration: We proved in demonstrations that HPAccess and HPMessage (in conjunction with HPDesk-Manager) are winners in friendly, transparent user access to information from PC workstations.

- We got into the account early and established a relationship with the customer. We had a strategic success, one and a half years ago, winning this customer's bid for a library automation system. We knew at that time the customer would go on to computerize their administrative functions, and we realized we had the opportunity to establish a foothold in future projects. To get the PPC deal, testimonials were given by librarians on HP's products and support services. These testimonials attested to HP's reputation for "total customer satisfaction," and ensured us an advantage when the office automation system was required.

- Our PPC strategy was basically in accord with the customer's strategic goals. The customer was especially impressed with the HP Vectra PC alternative to the IBM PC AT, and our support of the IBM PC, PC XT, and PC AT as PPC workstations made this customer feel that they were not locked into a single vendor.

- The account team of sales reps, systems engineers, and customer engineers were persistent with this customer. HP could always be relied upon to follow-up with the customer — especially getting back to the customer with information in a timely manner. We proved by our presales activities that HP would furnish the best post-sales support. In addition, the time we

spent selling the customer on our solutions prevented them from aggressively pursuing the competitors' solutions.

- We sold to top managers in the customer's organization.

If you wish additional information on this account, please contact HP sales rep Heng Chew Wong or District Manager Siak Chan Chen in Singapore via HPDesk *7500100.*

Navistar chooses HP Integral PC to automate sales force
Bill Hodges/CWO

In March of *1985,* Sales Rep Ray Cebold, of HP Chicago, Illinois, uncovered a project at Navistar's (then International Harvester) headquarters that had an objective to replace the portable computers that their field salesmen were using. Navistar had moved into sales force automation (SFA) very early by buying their salesmen Otrona Attache transportable computers in *1982.* Navistar's software system, called FOCUS, provides prospective large cargo truck purchasers with a sophisticated cost-of-ownership model as well as an additional fuel-economy-analysis model. FOCUS also makes use of graphics to position loads for weight distribution analysis.

One software module for Navistar's FOCUS system called TCAPE II was running on a DEC VAX *111780* and had to be downloaded via datacommunications to the Otrona Attaches. Because of the Integral PC's powerful UNIX™ operating system and large memory capacity (up to *2.5* Mbytes of *RAM* in a standalone system), Navistar was able to port the DEC VAX *111780* software (about *900* Kbytes of code) to the Integral PC using ABSOFT Corporation's FORTRAN *77.* The HP Fort Wayne, Indiana, sales office under the leadership of Sales Rep Steve Sutter helped to make the software development project successful and in a very timely manner. Navistar was able to cut the cost of datacommunication time to the DEC VAX *111780* virtually to zero since all of the TCAPE II

Sales & Customer News

program was able to run at the customer site on a transportable Integral PC.

Because Navistar had virtually no business with HP before, proving that the HP Integral PC could meet the technical requirements was only the lirst step in getting the sale. With the help of Systems Engineer Jamie Holzkamp, Ray Cebold was able to work his way through the MIS department of Navistar making presentations and educating people until a purchase decision was made. The initial order totaled $475,000 after discount and included 90 Integral PCs, 90 1-Mbyte memory cards, 89 serial interface cards, and software packages.

The key factors to help HP obtain the business were:

- Getting involved early, well before the RFP went out.
- Taking time to truly understand Navistar's computer performance needs.
- Technical capability of the Integral PC regarding memory size, computation processing speed, and graphics processing. The IPC was able to outperform the competition (i.e., the Compaq 286 transportable and the AT&T Unix PC desktop) during Navistar's extensive vendor evaluation period.
- Integral PC's integrated system with built-in HP ThinkJet printer.
- Selling the flexibility of the UNIX operating system regarding development and portability.
- Teamwork with Corvallis Workstation Operation (Corvallis, Oregon); Application Engineering Operation (AEO); and HP Chicago, Illinois, Naperville, Illinois, and Fort Wayne, Indiana, sales offices.

Ray Cebold states that any prospective sales force seeking to automate by doing memory-intensive sophisticated modeling or simulation in front of their customers is a very good prospect for the powerful Integral PC.

UNZX is a trademark of AT&T Bell Laboratories.

Shell Oil selects HP Integral PC for lab automation
Bill Hodges/CWO

Shell Development Company (Shell Oil), Houston, Texas, has selected the HP Integral PC as the recommended personal computer for its companywide laboratory automation requirements. The HP Integral PC won lirst place over the IBM PC/AT, DEC, and various other competitors. A lab/data acquisition steering committee made up of Shell's Bellaire and Westhollow Analytical Research Centers made the selection after an extensive evaluation period.

Sales Rep Fred Graves, HP Houston, Texas, states that the HP Integral PC currently is used for two different applications. In the first application, the Integral PC is being used with an HP 3497A (HP-IB) data acquisition instrument to monitor three different flame ionization defector ovens. The data is collected and saved on a disc then uploaded to an IBM 370 mainframe computer via an Integral PC 82919A serial interface using KERMIT, a public domain UNIX™ file transfer software package. HP-UX Tech BASIC is used for the custom data collection program, and the operator interface is written 90 percent in HP-UX Tech BASIC and 10 percent in HP-UX "C". The HP-UX Tech BASIC HPGL graphics are also extensively used along with the Integral PC's built-in ThinkJet printer for on-line report generation.

In Shell's second application, the Integral PC is used with an HP 3421A (HP-IB) instrument to collect data from a reflectant measuring microscope which monitors the amount of reflectance in certain types of minerals. Again, HP-UX Tech BASIC and HP-UX "C" were used in the custom programs along with KERMIT for sending collected data to an IBM 370 mainframe. HPGL graphics were also used.

Although Shell Development Company uses IBM PC/ATs in some laboratory applications, Fred Graves commented that they also use the Integral PC to accomplish the "serious" computing needed by its research centers.

UNZX is a trademark of AT&T Bell Laboratories.

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 Organizations.*

HP 3000 Series 42 promotion to start June 1

Barbara Melson/OSD

With the introduction of the HP Series 42 package, you can now sell more effectively against DEC in the mid-range computer marketplace, specifically competing against the Digital MicroVax II.

This promotion, which starts June 1 and runs through October 31, can save your Series 42 customers up to $19,000 on a typical system.

This promotion will focus on increasing 1986 computer sales through the value-added reseller and major account channels by competitively pricing a total Series 42 system. Now, the price becomes a competitive weapon, and coupled with our stronger data base solution, we have a winning position. The package is structured similar to the current Series 37 promotion. *Please note: The 100 percent quota and commission also applies to the Series 42. An* addendum to the Field Training Manual will be coming out as an extension of the Series 37 VAR program.

The core package will consist of a Series 42 SPU, 7914CT disc/tape, one ADCC terminal controller (4 ports), and an HP 2392A console. Optional products may also be ordered at a discount and substituted for core package items. Discounts will be taken as M05s and standard shipment requirements apply.

A new tape subsystem is also available and can be ordered with this package. The HP 35401A ¼-inch cartridge autochanger tape features unattended backup supporting 504 Mbytes of disc, which customers will find simple and cost effective. The price is $7,000 with no discount. This tape subsystem may be used in place of the 7974A tape in the Series 42 package.

Ordering Note: When placing an order with your customer, make sure they do not end up with two tape subsystems. Remember, the 7914CT includes a 132 Mbyte disc and a 9144A cartridge tape drive. The 7914ST includes a 132 Mbyte disc and a 7974A 1600 bpi tape drive.

Series 42 Package

All of the following products must be ordered up to the quantity specified to be eligible for the promotional discount. All items should be ordered under the same order/section and are for coordinated delivery.

Qty.	P/N	Description	Discount	US list price
1	32542B	HP 3000 Series 42 SPU with 1 Mbyte memory (60Hz). Must order ADCC separately.	$(9,350)	$39,800
1	7914CT	132 Mbyte disc with 9144A cartridge tape drive, both mounted in 922118 mobile mini-rack cab'met.	(3,980)	17,350
1	Opt. 140	delete CT	(3,000)	13,850
1	30018A	ADCC main data communication port (4 ports)	(530)	2,250
1	2392A	system console	(300)	1,375
1	Opt. 3xx	terminal cable		85

The following products may be ordered and receive discounts if they are entered on the same section of the order, and are for coordinated delivery (CD).

Qty.	P/N	Description	Discount	US list price
1	7933H or	404 Mbyte fixed media disc drive. 1m HP-IB cable included	$(1,540) *Substitutes for 7914CT*	$25,700
1	7935H	404 Mbyte removable media disc drive.	(1,700) *Substitutes for 7914CT*	28,300
1	7974A	1600 bpi magnetic tape subsystem w/HP-IB interface.	(3,000) *Substitutes for 7914CT when ordered with 793X disc*	14,000
1	7914ST	Mass storage subsystem consisting of 7914 disc drive and 7974A ½" mag tape	(6,170) *Substitutes for 7914CT*	27,500
1	30273A	ATP direct connect expansion package (12 ports)	(1,760)	7,510
1	2392A	Maximum of 5 additional terminals.	(300)	1,375
1	Opt. 3xx	Maximum of 5 terminal cables.		85
1	32452B Opt. 501 or	Additional 1 Mbyte memory.	(1,500)	7,000
2	Opt. 501	Additional 2 Mbyte memory.	(3,000)	14,000

Series 42 typical configuration

Description		Qty.	US list	Discount	Net
SPU Series 42 #32542B		1	$39,800	$ (9,350)	$30,450
Opt. 501		1	7,000	(1,645)	5,3551
30018A	ADCC main	1	2,250	(530)	1,720
30273A	ATP	1	7,510	(1,760)	5,750
7933H	Disc	1	25,700	(1,540)	24,160
7974A	Tape	1	14,000	(3,000)	11,000
2392A	Terminal	6	8,250	(1,800)	6,450
Opt. 3xx	Terminal cables	6	510	0	510
	Totals		$105,020	$(19,625)	$85,395

With this new promotional package, you now have the tools to be successful in the mid-range HP 3000 market. If you have further questions, contact the Sales Response Center.

HP Portable Promotion for HP dealers

Patrick Forbes/PCD

The HP Portable Promotion started last month and will continue until August 31, 1986. During this promotion, all HP Authorized PC Dealers can purchase the HP 110 Portable computer for only $995 US list and all direct accounts can purchase the Portable for only $1,195 US list. There are no minimum quantities to buy in order to qualify for this special pricing. These prices are "net" to either the dealer or direct account and therefore no normal trade discounts are applicable.

There is a limited quantity of HP Portables available at this special low price so it is a first-come, first-served promotion. If all the inventory is sold off before the end date of August 31, that's it. So hurry and place those orders today.

Complete ordering instructions and a description of the special promotion have been distributed by Corporate Marketing in the May Order Processing Field Document.

HP 9133H and HP Touchscreen II personal computer team up
Kim Willis/GLD

Effective May 1, 1986, Greeley Division and Personal Office Computer Division are teaming up to offer the HP Touchscreen II personal computer and the HP 9133H 20-Mbyte Winchester hard disc bundle. This worldwide promotion will reduce the price of the HP 9133H by $275 when ordered with the HP Touchscreen II personal computer.

The purpose of this promotion is to keep HP competitive within the IBM PC market and position the HP Touchscreen II personal computer as HP's "lower-priced PC." In addition, HP hopes to competitively position the 20-Mbyte Touchscreen II configuration in Europe.

Optimized for the single user, the HP 20-Mbyte Winchester will provide our Touchscreen II customers an additional 4,900 pages of data storage. The HP 9133H will allow our customers to easily utilize such everyday applications as word processing, business graphics, and spreadsheets.

For further information please contact Maggie Smith at Greeley Division, 303-350-4371.

The promotional price is retroactive to April 15, 1986.

[hp]

GENERAL

Advanced Terminal Processor for the Series 37

Philippe Rogiers/GND Marketing

The ATP37/M (PIN 40290A) is the new Advanced Terminal Processor I/O interface that allows you to make asynchronous point-to-point workstation connections to the HP 3000 Series 37 or 37XE.

Functionality

The ATP37/M consists of three versions:

P/N	Description	US list price
40290A	ATP37/M (you must select one option)	$2,700
Opt. 103	RS-232 3-pin version. Provides 1 RS-232 25-pin modem port plus 7 RS-232 3-pin direct-connect ports.	0
Opt. 125	RS-232 25-pin version. Provides 4 RS-232 25-pin modem ports plus 4 RS-232 25-pin direct-connect ports.	0
Opt. 105	RS-422 5-pin version. Provides 1 RS-232 25-pin modem port plus 7 RS-422 5-pin direct-connect ports.	0

Please note the meaning of the terms "modem port" and "direct-connect port" in the ATP37/M product description:

- A "modem port" provides the direct-connect signals (transmit, receive, and ground) and the necessary signals to control a modem: i.e. a "modem port" can be used to connect a local workstation or to connect a remote workstation via a modem.

- A "direct-connect port" provides only the direct-connect signals (transmit, receive, and ground): i.e. a "direct-connect port" can only be used to connect a local workstation.

Our recommendation for choosing between the three ATP37/M versions is the following:

- If your customer wants to connect local workstations, which are close to the system, and/or remote worksta-

tions, which have to be connected via modems, sell the *RS-232 25-pin version (Option 125).*

You can connect up to a maximum of eight local workstations or up to a maximum of four remote workstations via modems, in which case only four local workstations can be connected.

The same cable can be used for connecting a local workstation to an RS-232 25-pin modem or a direct-connect port.

- Sell the *RS-232 3-pin version (Option 103)* only if your customer wants to connect local workstations to the system using the same 3-pin cables used with the old ATP37 (PIN 30460A), which is now obsolete as a stand-alone product.

- If your customer wants to connect local workstations that are far away from the system (up to 1,000 meters) and/or wants maximum noise immunity, sell the *RS-422 5-pin version (Option 105).* Note that the one RS-232 25-pin modem port on this version allows for remote support via modem.

System support

On the new Series 37 (PIN 32459A) and Series 37XE (P/N 32450C) SPUs, the ATP37/M (PIN 40290A) is supported while the old ATP37 (P/N 30460A) is not.

On the old Series 37 (P/N 32449A) and Series 37XE (PIN 32450B) SPUs the ATP37/M (PIN 40290A) is supported as an add-on stand-alone product.

The old Series 37 (PIN 32449A) SPU will continue to have the old ATP37 (P/N 30460A) included with the SPU until obsolescence of this system.

The old Series 37 bundle (PIN 32449L) will continue to have the old Series 37 (PIN 32449A) and thus the old ATP37 (PIN 30460A) included until obsolescence of this bundle.

Documentation

Please note that the ATP37/M (PIN 40290A) is called ATPN in part of the system configuration documentation.

In order to get detailed information on the ATP37/M, please order the ATP37/M datasheet (PIN 5953-5974) in the Literature Distribution Center in Palo Alto, California.

HP 3000 support announced for the new HP 35401A tape drive

Kevin *Greenleaves*/*CPB*

In April, Computer Peripherals Bristol (CPB) introduced the HP 35401A ¼-inch cartridge autochanger tape drive, offering 536 Mbytes of capacity in a removable magazine of eight cartridges. The HP 35401A is suitable for the office environment and provides unattended backup for low-end and mid-range computer systems.

Operating system release

Support for the HP 35401A is now available on a patch tape in conjunction with MPE VIE U-MIT. This tape has a number of enhancements to the basic driver that improve the unattended backup, which is offered with the HP 3000. This patch tape needs to be installed by a support engineer.

HP 3000 computer systems support 536 Mbytes of unattended backup using the HP 35401A tape drive. The sequential mode of operation is supported, allowing cartridges to be loaded in order one through eight. Alternatively cartridges may be loaded in any order using manual override through the front panel.

Support for Series 37 cabinet

We are also pleased to announce support of the HP 35401A in the HP 3000 Series 37 cabinet. This allows you to sell a visually attractive package, combining the tape drive and CPU into one cabinet, and perhaps having a second cabinet for the disc storage. For safety and stability reasons, the HP 35401A must be installed in the top of the cabinet.

HP 3000 Series 39, 40, and 44 deleted from CPL

Barbara *Melson*/*OSD*

The Series 39, 40 and 44 will be deleted from the Corporate Price List since sales have declined after introducing new and improved systems. As of July 1, 1986, these systems will no longer appear on the Corporate Price List and Office Systems Division will no longer accept orders for these products after July 1. However, the Series 40 and 44 will continue to be available from the Finance and Remarketing Division (FRD). Product numbers affected are P/N 32514B, 32445A, and 32440B. The end of support life will not be started until FRD obsoletes their versions of the products.

Also in this issue

COMMERCIAL EDP

HP 3000 Series 930 migration success

Kathy *Weiler*/*CSY*

You may have been wondering — is HP 3000 migration from the MPE V-based systems to the new MPE XL-based Series 930 really as easy as we've been told? You bet it is. In an effort to keep the field informed about progress with Series 930 migration programs, interviews have been conducted with the first Fast Start Early Access participants and Series 930 alpha test divisions. What are their experiences? Just read on.

● One Fast Start participant's 16,000 line COBOL payroll application was migrated and run first in Compatibility Mode and then recompiled into Native Mode on the Series 930 without any changes.

● Another Fast Start participant's payroll application, this one 194,000 lines of COBOL code, was migrated to Compatibility Mode and all of its major functions were

tested in under one hour. All that was required were two commands — RESTORE and RUN.

- What about applications written in FORTRAN 77? One 750,000 line program and its TurboIMAGE database were migrated with no changes to Compatibility Mode and eight customer-supplied test scripts were successfully run. Work is currently under way to move the application to Native Mode while accessing the Compatibility Mode TurboIMAGE database.

- A corporate systems alpha test site migrated several large cost-accounting and general-accounting COBOL programs to the Series 930 in both Compatibility Mode and Native Mode. Compatibility Mode required no changes; Native Mode required only one: realignment of one parameter to place it on a word boundary. This particular application included VPLUS calls.

- In their first day at Information Technology Group's (ITG) Software Evaluation and Migration Center (SEMC), one Fast Start participant ran two of three SPL applications in Compatibility Mode with no changes required. The third application, however, had problems when attempting to execute some Privilege Mode instructions.

- A supplier of statistical software products, after making three minor changes, recompiled a 300,000 line FORTRAN 77 program into Native Mode and it ran flawlessly.

- Yet another Fast Start participant migrated all of their financial software programs and, aside from a programming error discovered in their own code, the programs ran perfectly in Compatibility Mode.

- One of the alpha test sites brought in a 41,000 line COBOL and SPL Fixed-Asset Subsystem, restored and data and program files onto the 930, typed RUN — and it worked. The application included VPLUS and IMAGE calls and a large sequential file consisting of 7,000-byte records.

- One third party, prior to arriving at the SEMC, simply mailed their object code to their migration engineer. He restored the files onto the Series 930 and the software worked perfectly.

What are people's reactions to the migration process, the SEMC and the Series 930? Just read the following quotes from developers currently working at the SEMC.

About Compatibility Mode and Native Mode:

"I'm very impressed with it. It far exceeded my expectations."

"For most people it should be a fairly smooth process. They should steer away from privileged mode instructions in SPL, however."

"Compatibility Mode is exceptional!"

"I was amazed that it (our software) worked, really. Knowing what we do in our code, I expected it not to work. HP didn't take any shortcuts, which they easily could have, in developing Compatibility Mode."

"I can see that Native Mode is going to be good when I have finished with my migration project."

"We've tested all of our Native Mode batch processes and they work."

"The first half of our migration went really smoothly. We've hit a stumbling block today, but that's what alpha test is all about. To find problems before our customers do."

About HP, the SEMC and the Migration process:

"Everything I've seen so far has been great — it's really been done 'right' by HP."

"We're surprised that the migration is going better than we hoped."

"Everythmg has gone surprisingly smoothly."

"Working at the Migration Center has been a very good experience! Actually, I'm most impressed with the fact that it even exists. I never heard of DEC or IBM doing something like this."

"There seems to be a real commitment within HP to their third parties and OEMs."

"Our Migration Engineer has been great — we wouldn't be nearly as far along with our migration without him."

"The way HP has managed the migration process has saved us a month in alpha testing by spending two weeks in the SEMC."

"Our Engineer is getting a lot of help from the labs, and there has been excellent response through on-line support and the lab."

"Our marketing manager used to work for IBM and he warned us that the migration wouldn't be as easy as HP says. But he was wrong!"

The overwhelming consensus? Compatibility Mode is solid — even better than expected by participants. And the Native Mode system is making good progress — its reliability is steadily increasing with each update. Our value-added software suppliers and alpha test sites are making excellent progress in ITG's SEMC, and we look forward to the first phase of beta test in Los Angeles, California later this year. The beta testing of twenty systems throughout the United States will help ensure that the Series 930 is ready for customer production. Keep watching here in *Information Systems & Manufacturing News* for future progress reports.

Information Systems

Fast Start keeps on growing
Kathy Weiler/CSY

The Fast Start Early Access Program for value-added software suppliers' migration to the HP 3000 Series 930 is in full swing and Information Technology Group's (ITG) Software Evaluation and Migration Center (SEMC) is now bustling with activity.

To date, twenty-five of our high-leverage, high-profile HP 3000 value-added software suppliers have contracted with Computer Systems Division (CSY) to migrate their tools and applications software at the SEMC:

Adager	Jurgovan and Blair, Inc.
ASK Computer Systems	Operations Control Systems
Boeing Computer Services	Performance Software
BSA (formally Brooksmith	Group
and Associates, Inc.)	Productive Software
Cognos Corp.	Systems, Inc.
Collier-Jackson, Inc.	Protos Software
Computing Capabilities	Robelle Consulting, Ltd.
Corp.	Satellite Computing, Inc.
Computer Resources, Inc.	Smith, Dennis and Gaylord
Comserv Corporation	Statistical Software Group
Data Systems for Industry	Summit Information
Dynamic Information	Systems
Systems, Inc.	Tymlabs Corporation
Financial Data Planning	VESOFT
Info-Centre, Ltd.	

Now you can tell your accounts with which value-added software suppliers we are working. We believe you will find in this list most of the critical suppliers your customers need to ensure a smooth transition to their own Series 930. Watch here for a few future additions to the list of accounts.

Please remember these Fast Start participants are operating under confidential disclosure agreements and may *not* discuss the details of the Early Access Program, the migration process, or the Series 930 system with customers or with the press. Due to resource restrictions, we cannot accept additional Fast Start Early Access participants at this time. If you have concerns about a value-added software supplier who is not on the list, see "Fast Start Early Information Program helps value-added businesses migrate to HP Precision Architecture" for information about the Fast Start Early Information Program.

For even more information on the Fast Start Early Information and Early Access programs, refer to the March 1 issue of *Information Systems & Manufacturing News* and to the Fast Start chapter and Q & A sections of the *Migration Sales Guide* in the *System Reference Guide*. They will help clarify the significant differences between the two aspects of the Fast Start Program: Early Access (migration planning assistance and Series 930 usage at the SEMC) and Early Information (receipt of beta-quality documentation prior to manufacturing release of the Series 930).

Fast Start Early Information Program helps value-added businesses migrate to HP Precision Architecture
Stan Tims/CSY
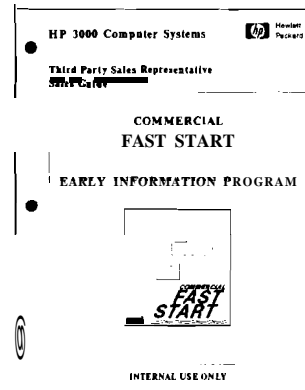
The Fast Start Early Information Program, which was announced in February, is ready to accept nominations. The program maintains the objective of providing pre-release, beta-quality technical documentation to software suppliers (SS) and value-added resellers (VAR) whose products are supported on the high-end of the HP 3000, and have a "need to know" technical information about our Precision Architecture. By receiving early mformation, these value-added businesses may begin their migration planning process so that their software will be ready on the HP 3000 Series 930 as soon after manufacturing release (MR) as possible.

Aside from the commitment this program shows to our important value-added businesses, the Fast Start Early Information Program creates additional benefits. Your end-user customers who use value-added business software, either applications or tools, can have confidence that their software will be available when they need it. This, in turn, allows you to sell more Series 930 systems to these end users.

HP value-added channel sales reps (VACSRs) will nominate SSs and VARs for participation. In April, worldwide VACSRs were sent the *Fast Start Early Information*

Sales Guide, which includes all necessary information to nominate value-added businesses. VACSRs use the following process:

1) Determine which SS/VAR(s) have a "need to know" and may qualify for the program.

2) Complete a functionality survey for each nominated account.

3) Have the account team (SR, SE, DSM and DAEM) and the AAEM authorize the nomination by completing an approval form.

4) Submit the nomination survey and form to one of the following people, based on the sales region:

Contact	Sales region
Gina Ferrari, ISG Value-Added	
Marketing	United States
Rudi Schmickl, BGD Product Marketing	Europe
Shamik Mehta, Intercon Marketing	Intercon

(If you are a VACSR and have not yet received a copy of the Fast Start Early Information Sales Guide, please contact the appropriate person listed above.)

These people will then prioritize and work with Computer Systems Division (CSY) to select the value-added businesses who will participate in the program. After the selected participants sign confidential disclosure agreements, HP will send them the pre-release documentation in the Series 930 beta timeframe.

Note that HP will enroll only as many value-added businesses as our financial and human resources allow. As such, participants will be prioritized and enrolled on a phased basis, with the first value-added businesses to be enrolled beginning in July 1986.

If you have questions regarding the Fast Start Early Information Program, please contact one of the VACSRs in your office. If appropriate, the VACSR will contact one of the people listed above.

Series 70 releases in April
Pamela Emery/CSY

The HP 3000 Series 70 was released to manufacturing for production on April 25. Shipments of Series 70 systems began April 29 and full shipments of systems and field upgrades began May 1.

Orders to date are strong and customer acceptance is very high. Beta testing on the Series 70 has been very

successful. The performance improvement of 20 to 35 percent has been met or exceeded in all cases. See the April issue of *Performance News Notes* for detailed information on some of the benchmarks that have been done to date. All have been successes for HP and our customers.

As advertised, the Series 68 Rollover Program ended on April 30. Orders should now be taken for Series 70s rather than Series 68s with field upgrades. The first shipments of Series 70 field upgrades will be of the orders placed under the Series 68 Rollover Program.

The Series 70 provides an easy and extremely cost-effective growth path for your customers.

Manufacturing release of Series 70 field upgrades for three-IMB Series 64A and 68A delayed
Pamela Emery/CSY

Manufacturing release of the Series 70 *does not cover field upgrades for Series 64A and 68As with three IMBs.* Alpha testing of the Series 70 revealed a problem for "A" systems with three IMBs. Extensive testing has shown that the capacity of the $-5.2V$ power supplies used in the "A" systems is exceeded in situations where the systems have three IMBs *and* the new Series 70 cache boards. Work on a solution to upgrade those power supplies on three IMB systems has begun.

All orders for Series 64A and Series 68A field upgrades are being reviewed to identify customers which have three IMBs. If you have a customer in this situation you should inform them that Series 70 field upgrades for three IMB "A" systems will not be available until fall 1986. The ship date on current orders for these field upgrades will be changed to "To Be Acknowledged."

Every effort will be made to provide a solution for three IMB "A" systems as quickly as possible. Watch for additional articles in *Information Systems & Manufacturing News* on availability of the solution. Contact your sales development representative if you have questions on the alternatives available for three IMB "A customers interested in the Series 70.

Information Systems

OFFICE SYSTEMS

More good news from analysts and press on the HP PPC

Virginia Bennett/IS&N Marcom

Your office prospects will come away with the full impact of the progress HP continues to make in the office automation (OA) marketplace with the compact "Good News" flyer now stocked in your literature center.

We've taken testimonials and excerpts from customers and press, including *Fortune; DATAMATION; IDC;* Peter Mondavi, Jr., of Charles Krug Winery; Gil Johnson of NOR-CHEM; and the Los Angeles Times Syndicate.

They rate HP highly as a model for other companies, responsible for productivity increases in businesses. ranked above IBM for product innovativeness and quality, committed to customer satisfaction, etc.

For more copies of the "Good News" flyer, order P/N 5954-7434D (US and Canada), or P/N 5954-7434F (Europe and Intercon countries).

The flyer can be used for prospecting, for seminars, and in direct-mail activities. With a strong visual format and selected powerful quotes, the flyer should serve to leave an impression of extremely favorable praise from credible industry watchers and analysts.

Introducing the HP Vectra terminal/personal computer
Pervez Qureshi/POD

The HP Vectra PC when combined with AdvanceLink 2392 is a multifunction workstation featuring both HP 2392 block-mode terminal capabilities and powerful PC capabilities. This combination lets your customers run HP 3000 applications written for block-mode terminals, e.g. data entry, data inquiry, program-development applications such as internally developed VPLUS/3000-based applications, and HP DeskManager. Additionally, PC data files can be downloaded and uploaded to an HP 3000 for distribution to others.

AdvanceLink 2392 not only features terminal emulation and file transfer but also allows you to automate your repetitive data communications and gain transparent access to an HP 3000 from the PAM menu. So, for example, you could write a command file to phone and log on to a remote HP 3000 computer in the middle of the night, transfer files from a PC, start a program on the remote HP 3000 computer to process the data, transfer result files back down, log off, and hang up. What's more, you can initiate this sequence of steps by typing a single command that can be run directly from PAM.

What about graphics emulation?

Some of you have asked about 2623 graphics emulation, horizontal scrolling, and forms cache capabilities, i.e. those features available with the Reflection Series product. Please be aware that these features and others are being investigated; however, in the intermediate term AdvanceLink 2392 is the only HP solution. So when in competition with other emulation products, remember that AdvanceLink 2392 is the only product that is fully compatible with the Advancenet architecture, thus allowing you to use your PC as a terminal and transfer files over the HP OfficeShare LAN, without setting up point-to-point connections.

Easy ordering

The HP Vectra PC can be ordered in many configurations. Listed below is the minimum and least expensive configuration that may be used as a "starter" system at

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the beginning of the sale. Remember, many customers may prefer dual floppy, hard disc, or color monitor configurations.

Component	Description	P/N	US list price
CPU	Model 25 (256 Kbytes, 60 Kbyte floppy)	72425A	$3,099
Video subsystem	Monochrome monitor	35731A	325
	Multimode adapter	45961A	325
Communications	Serial/parallel card	24540A	150
Cable	9-pin to 25-pin RS-232 cable	24542M	55
Terminal emulation	AdvanceLink 2392	68333F	295
Total price			$4,249

For more information call your sales center contact.

Also in this issue

VERTICAL MARKETS

Direct-mail campaign targeted for banking executives

Lois *Milo/IS&N Marcom*

Information Systems and Networks Marcom is developing a direct-mail campaign targeted at executive vice presidents and senior vice presidents within banking institutions with assets of $100 million or more. The objectives of this campaign are to (1) raise awareness among decision makers that HP has business computing solutions for banking institutions to help them increase productivity and reduce costs and (2) provide the sales force with inquiries that result in FY86 sales revenue.

The direct-mail package includes a four-color letter1 brochure, envelope, and business reply card. The call to action: return the card for more information. The letter/ brochure emphasizes the benefits of the HP Personal Productivity Center (PPC) as a comprehensive office information solution developed for banks. Because information can be accessed through our proven networlung capabilities, sharing information is easy at the individual, department, and corporate levels. It also describes the specific benefits PPC has to offer and value-added-channel (third-party) software solutions developed by industry experts to provide banks with applications for commercial lending, trust, personnel, mortgage lending, investment management, and accounts payable.

The direct-mail campaign was mailed the week of May 19. If you have any questions regarding this campaign or HPS banking solutions, please call Tom Burt at 408-865-6400.

□ Personal Computers

HP personal computer sales strongest ever
Bill Murphy/PCG

In the month of April, Personal Computer Group (PCG) has had a number of important successes in our personal computer program. Thanks to your efforts, we turned in the highest unit sales ever for our desktop PCs from Personal Office Computer Division (POD). This performance surpassed our old record by a substantial unit margin. Quite an accomplishment to be very proud of.

Bentley College purchased hundreds of HP Vectra PCs for student labs and faculty. This was in addition to a large-quantity purchase of the Portable Plus. We won against IBM again.

In the month of April the Portable Plus turned in its single highest order month ever. What is most significant is that this has happened in the same month that IBM announced the Convertible. Not only that, in three separate large deals where the IBM Convertible was involved, we won *every one* of them.

We think that one of the reasons The Portable was so strong was because people were holding off buying until they had a chance to evaluate the Convertible. Now that they have, the verdict is in and HP wins.

In the deal with Bentley College the HP Portable Plus is now part of the curriculum for incoming freshmen. In another deal at Westinghouse, they bought many Portables for automating their industrial service organization. Lastly, a large European insurance company purchased the Portable Plus to automate their agents for making quotes.

Each of the above deals was worth more than $1 million and two out of the three were from the SSPN quadrant.

Sell PCs and win a personalized HP 18C Business Consultant calculator
Rich Ferguson/PCG

Personal Computer Group (PCG) is pleased to announce an exciting worldwide sales program for the second half of FY86. If you sell 25 or more personal computers from May 1 to October 31 we will send you a free personalized HP 18C Business Consultant calculator. The HP 18C is the newest and best calculator product to be introduced from HP. It retails for $175 and has an amazing list of features to make business calculating easier — just what the busy successful sales rep needs.

To make it even easier to win, the 25 PCs can be any combination of HP personal computers — HP Vectra, Vectra Office, Touchscreen, or Portable Plus. Not only that, the lead referral program also counts toward your total. As long as the total of PC sales and lead referrals add up to 25 or more, you win.

The fun doesn't stop there. For district managers, we also have a great program. If any sales district sells 100 or more PCs, the DM also wins a free personalized Business Consultant calculator compliments of PCG.

We will publish the winners on a monthly basis in *Information Systems & Manufacturing News* and will be sending out the free Business Consultants each month just as soon as we get the monthly totals. No waiting until the end of the year to get your awards. PCG will deliver them to you just as soon as you win.

Any sales force 12, 15, 03, or 04 sales rep selling to any channel of distribution worldwide is eligible for this program. We've made it easy to win, and we want lots of winners, too.

PORTABLE

Announcing EPROM/ROM modules for the HP Integral PC

Bill *Hodges/C*WO

The Corvallis Workstation Operation (CWO) proudly announces three EPROM/ROM products for the HP Integral PC. The first product is the 82968A EPROM/ROM board which provides 4 sockets for EPROMs, PROMs (one time programmables), or masked ROMs. The board fits on top of the Integral PC's System V operating system ROM package and can accept up to 256 Kbytes of EPROM, PROM, or masked ROM.
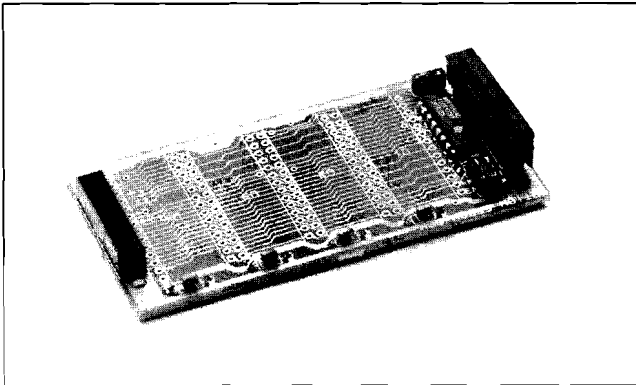
The *82968A* EPROMIROM Board.

The second product is the 82971A EPROM/ROM Module which provides 16 sockets for EPROMs, PROMs, or masked ROMs. The module plugs into one of the two slots of the Integral PC or into one of the slots of the 82904A Integral PC Bus Expander. Up to 1 Mbyte of EPROMIPROM or 2 Mbytes of masked ROM can be placed on the module.
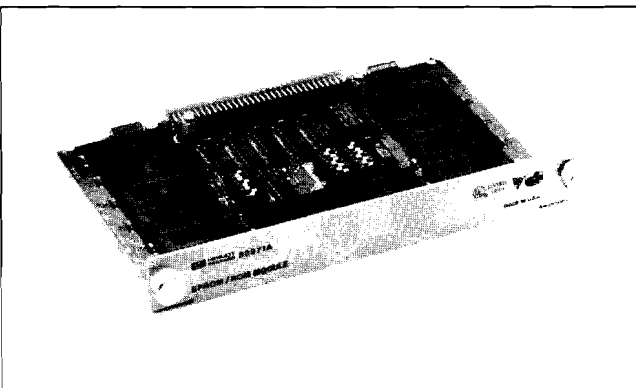
The *82971A* EPROMIROM Module.

The third product is the 82970A EPROMIROM Software Development Tools. These tools provide easy-to-use utilities for moving custom software from an IPC over an 82919A Serial Interface to an EPROM burner (i.e., Data I/O Model 29B). The tools allow you to take nearly any software application your customers are currently running on the Integral PC (HP-UX TECH BASIC, "C", FORTRAN 77. or Pascal) and burn the program into EPROM or PROM. Masked ROMs can also be developed from burned-in EPROMs. Programs can be designed to execute directly out of EPROM, PROM or ROM. As an alternative programs can also be loaded into RAM for execution. Data files and HP-UX scripts can also be placed in ROM.

HP-UX TECH BASIC programs placed in EPROM, PROM, or ROM will work exactly as if they were stored on disc, except for the advantage of very fast loading that the EPROMIROM modules provide. EPROM, PROM, or ROM executable code decreases the need for system RAM and starts more quickly. Programs can autostart directly from PAM for use in unattended computer control applications.

The 82968A, 82971A, and 82970A EPROMIROM products are ideally suited for OEM or major account customers who would like to customize the Integral PC for their specific application. The EPROM, PROM, or ROM software provides a high level of software code security, integrity, and reliability as well as a faster access time as compared to a disc.

Ordering information

P/N	Description	List price	CPL
82968A	EPROM/ROM Board	$ 95	June 1
82971A	EPROM/ROM Module	295	June 1
82970A	EPROM/ROM Software Development Tools	195	June 1

Personal Computers

DESKTOP

HP Asian Vectra Workstation — the first dual-mode computer
JimLong/APCO

For Asian countries only

HP has entered the $2 billion Asian language PC market with the introduction of the exciting, new Asian Vectra Workstation.

The Asian Vectra Workstation is the first dual-mode computer on the market, and runs IBM PCIAT-compatible software off the shelf in addition to Asian applications on the same system.
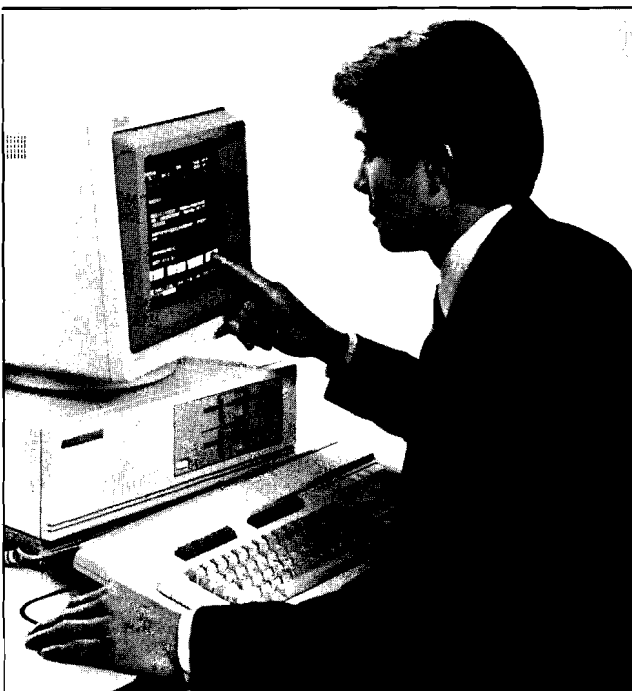
The Asian Vectra Workstation offers much more than the IBM PCIAT and the IBM 555015560. (The IBM 555015560 are Asian language PCs manufactured by Matsushita of Japan and marketed by IBM in Asian countries.) It begins with PCIAT-compatibility, and the US Vectra has the advantage of being faster, smaller, and lighter than the PCIAT. It is easier to use, has a better keypad, better graphics, and looks more attractive. Most importantly, the Asian Vectra Workstation is dual-mode.

Dual-mode

As the dual-mode computer on the market, the Asian Vectra Workstation can run both PCIAT-compatible English monochrome software off the shelf and Asian language applications in Japanese, Korean, traditional Chinese, and simplified Chinese. This means that your customer does not have to settle for a personal computer that runs either PCIAT-compatible software or Asian language applications.

As the dual-mode computer on the market, the Asian Vectra Workstation can run both PCIAT-compatible English monochrome software off the shelf and Asian language applications in Japanese, Korean, traditional Chinese, and simplified Chinese. This means that your customer does not have to settle for a personal computer that runs either PCIAT-compatible software or Asian language application.

With the Asian Vectra workstation, your customer can take advantage of a wide range of industry standards:

- PCIAT-compatible applications — off the shelf
- Asian MS-DOS applications
- Hardware and accessory cards
- Networking and communications solutions in HP, IBM, and DEC environments.

Performance

The Asian Vectra Workstation and the IBM PCIAT are both based on the powerful Intel 80286 microprocessor. The IBM PCIAT, normally running at 6 MHz clock rate, is typically two to three times faster than the IBM PC and IBM 5550. The Asian Vectra Workstation operates 30 percent faster at a speedy 8 MHz. (The IBM 5560 is also based on 8 MHz Intel 80286 microprocessor.)

Application solutions

The Asian Vectra Workstation uses the same Vectra system processing unit (SPU) as the US Vectra PC. It can run off-the-shelf PCIAT-compatible English applications such as Lotus@1-2-3®, MultiMate™, R:BASE™ 5000, and others. For English applications, the product operates in the same way as the US Vectra PC, and can support the same accessory cards (except color) and peripherals.

Because of its dual-mode capability, the Asian Vectra Workstation can support Asian language applications such as Japanese, Korean, traditional Chinese, and simplified Chinese. The "Big 5" Asian applications are being made available on the Asian Vectra Workstation in the four Asian languages. These "Big 5" Asian applications are:

- Spreadsheet: HP Asian Executive Spreadsheet
- Word Processing: HP Asian Executive MemoMaker
- Data Communications: HP Asian AdvanceLink 2392
- Language: Asian Lattice C Compiler
- Database: Asian R:BASE 5000

Asian Personal Computer Operation (APCO) is conducting an aggressive independent software vendor program in the Asian countries to port many other Asian ISV solutions to the Asian Vectra Workstation. These applications will include: spreadsheet, word processing, inventory control, accounting, purchasing, point-of-sales, and trading.

With the Asian Vectra Workstation, HP intends to expand its position in the direct, dealer, and value-added channels, and our overall share of the Asian language personal computer market. Over the next few years, you can expect to see the Asian Vectra Workstation integrated into our Asian office, technical and manufacturing businesses. The commitment is strong.

With the Asian Vectra Workstation and its system components you have the products today to aggressively attack the Asian language PC market. And you have the commitment for tomorrow of continued support and enhancements, providing the lasting value that is the cornerstone of Hewlett-Packard.

Lotus and 1-2-3 are US registered trademarks of Lotus Development Corp.
R:BASE is a US trademark of Microrim, Inc.
MultiMate is a US trademark of MultiMate International.

Ordering an Asian Vectra Workstation

Jim Long/APCO

For Asian countries only

The Asian Vectra Workstation is a system that can be tailored to meet the needs of each individual customer. A wide variety of peripherals, accessories, and software is available to customize a configuration for each customer's application. You can choose from these listed below:

Begin with a Vectra SPU:

- Vectra Model 25 SPU including 256 Kbyte RAM and one 360 Kbyte internal 5%-inch disc drive (HP 45925A)

- Vectra Model 35 SPU including 256 Kbyte RAM and one 1.2 Mbyte internal 5%-inch disc drive (HP 45935A)
- Vectra Model 45 SPU including 640 Kbyte RAM and one 1.2 Mbyte internal 5%-inch disc drive (HP 45945A)

Order an Asian countly PC Kit:

- Asian Vectra PC Kit with English/Asian keyboard, and Asian documentation (HP 79334A*).

Order US and Asian countly operating system:

- US Vectra Disc Operating System with MS-DOS 3.1, PAM and documentation (HP 45951A).
- Asian Vectra MS-DOS Operating System with Asian DOS, Asian PAM, and Asian language documentation (HP 79351A*).

Order dual-mode monitor and video adapterlkit:

- 12-inch dual-mode monochrome monitor (HP 35731H)
- Multimode Video Adapter (HP 45981A)
- Asian Vectra Video Kit (HP 79375A*).

Asian language software:

- Asian Executive MemoMaker (HP 68330W*)
- Asian Executive Spreadsheet (HP 68332W*)
- Asian AdvanceLink 2392 (HP 68333W*)
- Asian Lattice C Compiler**
- Asian R:BASE™ 5000**

For more information

The Asian Vectra Workstation Configuration Guide has been designed to provide you with the in-depth information you may need to select the appropriate components when configuring custom Asian Vectra systems. It is a valuable reference guide for both you and your customers and can be ordered by contacting Jenny Chiang of Asian Personal Computer Operation (APCO) Marketing Programs at HPDesk HPD400/01 in Taipei, Taiwan.

*Must specify country version: Japanese, Korean, traditional Chinese, or simplified Chinese.

**Will be available in summer of 1986. Must also specify country version.

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

Personal Computers

Sales aids for Asian Vectra Workstation
Jim Long/APCO

With the introduction of the HP Asian Vectra Workstation and other products and services, you'll need complete information for your customers. The following is a listing of the sales aids, with descriptions and part numbers.

Material for your customers.

Sales aid	Description	P/N
Product Information		
Asian Vectra Workstation Data Sheet	Brief overview of the product, including technical specification.	5952-6936A (US) 5952-6936C (China) 5952-6936J (Japan) 5952-6936K (Korea) 5952-6936T (Taiwan)
Asian Vectra Workstation Business Brochure	An 8-page color product-specific management brochure. It does not contain technical specifications, and is great for the economic buyer.	5952-6938A (US) 5952-6938C (China) 5952-6938J (Japan) 5952-6938K (Korea) 5952-6938T (Taiwan)
Asian Vectra Workstation Flyer	This is known as a "tire-kicker" brochure. It does not contain technical information, and is great for introduction.	5952-6939A (US) 5952-6939C (China) 5952-6939J (Japan) 5952-6939K (Korea) 5952-6939T (Taiwan)
Asian Executive MemoMaker Data Sheet	Brief overview of the product.	5952-6941A (US) 5952-6941C (China) 5952-6941J (Japan) 5952-6941K (Korea) 5942-6941T (Taiwan)
Asian Executive Spreadsheet Data Sheet	Brief overview of the product.	5952-6942A (US) 5952-6942C (China) 5952-6942J (Japan) 5952-6942K (Korea) 5952-6942T (Taiwan)
Asian AdvanceLink 2392 Data Sheet	Brief overview of the product.	5952-6943A (US) 5952-6943C (China) 5952-6943J (Japan) 5952-6943K (Korea) 5952-6943T (Taiwan)
General Information		
Asian Vectra Workstation Configuration Guide	A guide to configuring Asian Vectra for several sales situations.	Please contact Jenny Chiang/APCO* Marketing Programs at HPD400/01

Material for you — internal use only

Sales aid	Description	P/N
Product Information		
Asian Vectra Workstation Direct Sales Guide	The sales guide covers product features, including hardware, software, and communications, how to sell and support it, technical specifications, and questions/answers.	Please contact Jenny Chiang/APCO* Marketing Programs at HPD400/01
Asian Vectra Workstation Slide Presentation	A script and 35mm color slide show for group presentations.	Please contact Jenny Chiang/APCO* Marketing Programs at HPD400/01
Asian Vectra Workstation Poster	A full-color, eye-catching poster for use at point of sale.	5952-6937A

*Asian Personal Computer Operation

Lotus products for the HP Touchscreen and Vectra personal computers
Kathryn MacMurray/PSD

As many of you know, HP's Personal Software Division (PSD) has an agreement with Lotus® Development Corporation to manufacture (Touchscreen PC only), market, distribute, and support Lotus products for the HP Touchscreen and Vectra PCs. The following matrix displays which Lotus products are currently available for these personal computers.

Lotus Products	Touchscreen PC	Vectra PC
1-2-3® Release 1A	A	N
1-2-3 Release 2.0	A - Fall, 1986	A
Symphony® Release 1.0	N	N
Symphony Release 1.1	A	A

Notes: A = Available now (unless otherwise noted).
N = Not available.

As shown above, the two Lotus products for the Touchscreen PC family (150A, 150B, and 150C) are 1-2-3 Release 1A and Symphony 1.1. These products are alike because they have a common user interface (i.e. menu-driven commands), and very similar spreadsheet,

graphics, and file management capabilities. In addition, files created within 1-2-3 can be used with Symphony, and vice-versa. Although Symphony will automatically read 1-2-3 Release 1A files (.WKS), files created within Symphony (.WK1) must be translated through the Translate Utility to be used with 1-2-3 Release 1A.

Symphony has a number of advantages over 1-2-3 Release 1A:

- **A** larger spreadsheet (8,092 by 256 vs. 2,048 by 256)
- An easy to use and learn word processor
- Communications capabilities with named settings sheets
- Improved graphics (shaded and exploding pie, etc.)
- Forms-oriented data base management
- Intel 8087 and Expanded Memory Specification support
- "Learn" mode for recording macro sequences
- Many additional macro and function capabilities
- Advanced Memory Management for more efficient memory usage
- Extensive HP peripheral support (LaserJet Plus, Colorpro, 2603A, etc.)
- Direct access to MS-DOS with built-in DOS add-in.

In the past, Symphony has been characterized as a product that is difficult to learn and use. Although Symphony is more powerful than 1-2-3, it does not necessarily follow that-symphony is too complicated to learn how to use effectively. Included standard with the product is a modular, on-line tutorial to help your customers learn Symphony's features one at a time. For example, if a customer only needs a spreadsheet and a word processor, they can choose to view only those tutorial lessons. And if your customer already has knowledge of 1-2-3, the Symphony spreadsheet will require a minimal amount of learning time.

Symphony for the Touchscreen uses HP's Touch feature, which makes it even easier to learn to use. The soft keys that appear on the screen are context-sensitive, so that your customers can easily determine the available options, and then touch the appropriate soft key for execution of the task. As a comparison, the IBM PC version of Symphony requires that you refer to a three-colored function key template for the available options. Symphony's Touch also allows customers to make a choice from the menu command lines, or to "zoom" a particular window to fill the screen.

Release 2.0 of 1-2-3 is currently available for the Vectra PC, and will be available for the Touchscreen PC in fall, 1986. This new release of 1-2-3 and Symphony Release 1.1 have essentially the same spreadsheet, graphics, and

data base management capabilities. The exceptions are that 1-2-3's spreadsheet includes a data regression feature, and Symphony allows you to create forms for entering names and/or data into a data base. Although Symphony is $200 more than 1-2-3 ($695 vs. $495), this product incorporates two useful functions not found in 1-2-3: word processing and data communications.

For more information about Lotus products for these HP personal computers, refer to the following data sheets:

Data Sheet	P/N
Symphony For The Touchscreen PC	5954-2561D
1-2-3 For The Vectra PC	5954-2572
Symphony For The Vectra PC	5954-2573

Lotus, 1-2-3, and Symphony are US registered trademarks of Lotus Development Corp.

HP 9800 Desktop Computer Exchange Library obsoleted

Willi McDowell-Hogg/DMK

Due to low order volume, software listed in the HP Series 9800 Exchange Library Software Index (P/N 5957-4317) will be obsoleted. Final orders should be placed with Direct Marketing Division by June 30.

Also in this issue

HARDWARE

HP 9000 Model 840 — a new foundation for engineering design and manufacturing markets

Carl *Flock/ITG*

HP Precision Architecture — implemented in the new HP 9000 Series Model 840 — is the new foundation for meeting the computing requirements of our engineering design and manufacturing markets. Our target customer is a manufacturing company that is rapidly evolving to the integration of design and manufacturing environments. Depending upon customer size and automation philosophy, the customer's environment can be modeled as follows:
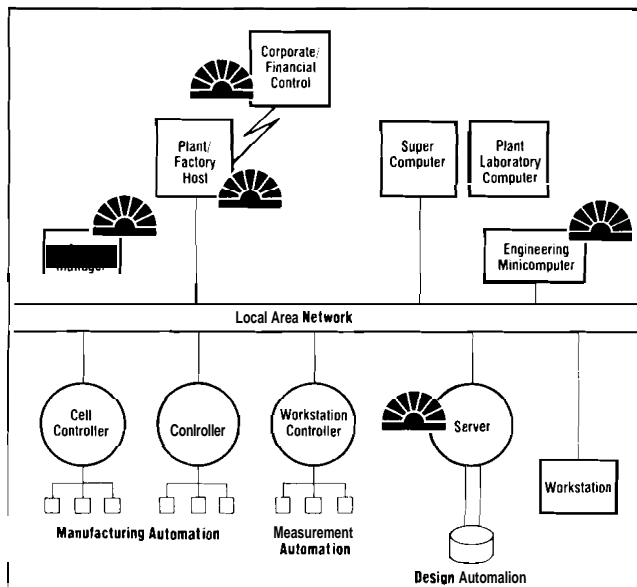
HP Precision Architecture will contribute significantly to our ability to help customers integrate design and manufacturing. The HP 3000 Series 930 provides the new foundation for financial control and plant host computing. Extending this concept, the new HP 9000 Model 840 provides the new foundation for engineering minicomputers, area managers, and servers for networked clusters of workstations.

Thus, HP Precision Architecture extends our HP 1000, 3000, and 9000 families into computationally intensive areas not previously served by the foundation products. With careful attention to networking, database, language, and graphics standards, an industry standard operating system (HP-UX), a superior commercial operating system (MPE XL) and good porting/migration tools, HP Precision Architecture integrates smoothly with all HP 1000, 3000 and 9000 computers.
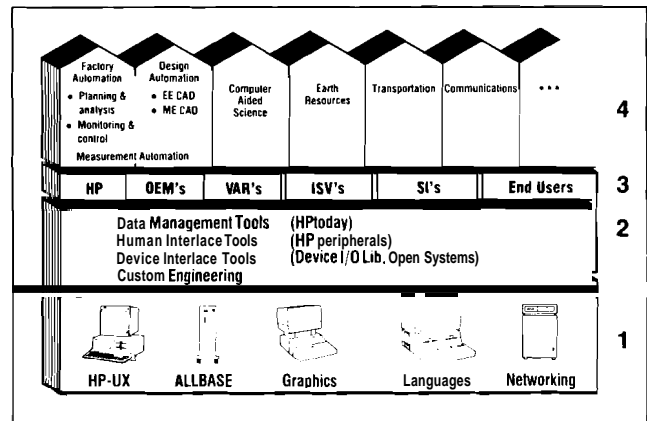
The new foundation — level 1

HP's strategy is to offer customers a complete, consistent, advanced computing foundation to deliver application solutions with the industry's best price/performance and life cycle cost contributions. Along with the HP 9000 Model 840 comes commitment to support key industry standards including:

• HP-UX, superset of AT&T System V Interface Definition (Issue 1).

• HP Starbase Graphics Library, consistent with ANSI VD-CGI.

• C, FORTRAN 77, Pascal.

• HP AdvanceNet with industry standard ARPA-Berkeley.

• HP ALLBASE, consistent with IBM SQL and IMAGE.

These elements, taken together, represent the basic hardware and software level of a two-level foundation, which solution creators utilize for applications development and delivery.

The foundation — level 2

The second level is less industry-standard oriented and provides HP unique value-added hardware and software but not specific application solutions. This level contains data and human and device interface tools. Examples are artificial intelligence (AI) and technical office automation products which are already available on HP workstations and will soon be announced for the Model 840.

Solution Creators — level 3

Upon the foundation the solution creators such as HP divisions, OEMs, VARs, ISVs, systems integrators, and end-users must build a value-added layer of hardware and software that addresses specific vertical applications.

Applications — level 4

Ultimately the success of the foundation is paced by the adoption and commitment of solution creators who make a broad range of applications available to the final end user.

We have an excellent foundation for our customers today. This total array of products can facilitate a fully integrated environment. Our customers can feel comfortable that HP Precision Architecture integrates smoothly with existing HP products to form a solid, complete new foundation that offers a certain and predictable growth path for the future.

Introducing the HP 9000 Series 800 Model 840

Stephanie Acker, Jeff Byrne, and Val Jermoluk/ITG

HP proudly introduces the newest addition to the HP 1000 and HP 9000 product lines: the HP 9000 Series 800 Model 840. The Model 840 is the first HP 9000 family member to implement the much talked about HP Precision Architecture. Running under the HP-UX operating system, the Model 840 more than doubles the CPU performance available with the HP 9000 Model 550 or HP 1000 A900 systems.

The strategic decision to implement a single, standard 32-bit architecture across all Hewlett-Packard's multiuser systems is a key element for the consolidation of Data Systems Division's (DSD) and Fort Collins Systems Division's (FSD) product lines and strategies over time. The computer-integrated manufacturing (CIM) marketplace, traditionally addressed by the HP 1000 systems family, and the scientific and engineering marketplaces, now addressed primarily by the HP 9000 product line, *will now share a single new systems family.* This systems family has been designed and developed under the guiding principles of a combined strategy, which brings together our CIM and scientific/engineering strategies into a single, consistent framework. *Six key points form the basis for this integrated strategy:*

1) **Architecture foundation.** The HP Precision Architecture provides the foundation upon which CIM, engineering, and scientific solutions, as well as integrated information management applications, will be built in

the future. This single, scalable architecture will be the basis for a rapidly expanding and long-lived family of systems, providing your customers with the range of solutions and lasting value that they expect from HP.

2) *Compatibility/portability.* The HP-UX operating system provides a smooth, compatible growth path from current HP-UX systems. PORT/HP-UX aids HP 1000 customers in porting their current application code from RTE, building a strong link between E, F, and **A** Series, and the Series 800. Current peripherals, as well as languages, database, graphics, and networking subsystems, will also be upward compatible to the new HP 9000 Series 800 systems. The smooth upward growth path to the new systems protects your customers' current investments in HP hardware and software.

3) *Leading price/performance.* The HP Precision Architecture will offer processors that are superior in price/performance to competitive systems. The first processor, the TTL-based Model 840, will be supplemented with even higher performing systems, implemented in HP's proprietary NMOS and ECL technologies at the high end, and in CMOS at the low end. The reduced complexity design of the HP Precision Architecture results in significantly lower manufacturing costs, which means that we can continue to offer customers higher-performing systems at prices that beat the competition.

4) **Commitment to industry standards.** HP's commitment to industry standards on the Series 800 is yet another component of our commitment to give your customers lasting value. The industry standards to which the Series 800 conforms, including the System V UNIX™ operating system, SQL database, 802.3 networking, and ANSI CGNDI graphics, help to enhance our compatibility with other vendors' systems, opening the door to new sales opportunities.

5) **Real-time UNIX operating system.** HP-UX is a superset of AT&T's System V Interface Definition (Issue 1), and also includes key real-time capabilities required by CIM customers and solution creators. Key real-time features include priority-based preemptive scheduling, memory locking, and system asynchronous I/O. HP-UX offers real-time performance unmatched by standard UNIX operating systems.

6) **Open systems.** Our focus on solution creators for the Series 800, and our commitment to solution creators in our long-term strategy, require the support of open

Technical Spectrum Program

systems which enable solution creators to tailor the HP Precision Architecture to their requirements.

Model 840 positioning

These six strategic points coupled with the high performance of the Series 800 make it appropriate for a number of markets. Many applications and environments can benefit from a large, multiuser system with high computational power.

The Series 800 is a great solution for customers interested in a general-purpose, high-performance, UNIX computer for use in computation and software development. HP is now in a position to satisfy the need of these customers for a broad range of compatible systems. Example areas include the telecommunications industry, the defenselaerospace companies, and the government.

The Model 840 offers opportunities to CIM customers in the areas of supervisory control and area control applications. As such, it is an excellent fit as Area Manager in the CIM hierarchy.

In the engineering marketplace, there is a need to speed the development and execution of computation-intensive applications by off-loading them from workstations. The Model 840 can fulfill this requirement as a workstation server in three ways: Computational Node, File Server, and Peripheral or Network Server.

In addition, the Model 840 provides an excellent environment for solution creators. With the HP-UX operating system, the Series 800 can offer an industry-standard development machine. The real-time and computational features give value-added resellers the opportunity to tailor applications in markets where these attributes are required.

The Model 840 SPU and subsystems highlights

Together, the actual products and components of the Model 840 meet the design guidelines and positioning statements outlined above. These products are briefly highlighted below; for further details see the HP 9000 *Series 800 Systems Reference Guide* (SRG).

The Model 840 is a 4.5 MIPS, TTL implementation of HP Precision Architecture. The Model 840 provides a floating-point coprocessor, 8 Mbytes of ECC memory expandable to 24 Mbytes, battery backup, support of up to 60 concurrent users, 32-bit word size and 125 nanosecond cycle time.

HP-UX is the operating system offered on the Model 840 and is a superset of AT&T's System V Interface Definition (Issue 1). One of the most significant enhancements that HP offers is real-time capabilities. Together, these

key features form a winning combination that is unprecedented in the marketplace.

The Model 840's database management system, ALLBASENP-UX, is unique in that it can provide either a relational interface (HPSQL) or a network interface (HPIMAGE). The relational interface is based on SQL, IBM's Structured Query Language, which is a de facto industry standard.

Networking on the Model 840 is consistent with the HP AdvanceNet strategy and includes NFT over an 802.3 LAN to the HP 9000 Series 300 and 500 and HP 1000 A-Series, RFA between the Series 800 and Series 3001500, and IPC between Series 800s only. ARPA Berkeley networking services will be available at first shipments.

The programming languages supported on the Model 840 are HP C, FORTRAN 77, HP Pascal, and Assembler. All compilers offer optimization and symbolic debug capability.

The premier graphics library for HP-UX is Starbase, an implementation of the ANSI CG-VDI specifications. Starbase provides a 2-D and 3-D library. Additionally, DGLI AGP is also available to provide smooth migration for current HP 1000 customers. Graphics terminals and plotters will be supported at first release.

The Model 840 opens new opportunities

The Model 840 can help you meet quota in FY86 if you are willing to invest some time learning the specifics of the product. As you learn and review the features, make sure you clearly understand the markets to which the Model 840 is targeted for success. Then, armed with the specifics, review your potential customers and determine which ones you will first approach with a Model 840 sale in mind. Remember, there are dozens of new opportunities waiting for you.

UNIX is a trademark of AT&T Bell Laboratories.

The HP 9000 Model 840 — the HP alternative

Dan Vivoli/DSD

The HP 9000 Model 840 is the first HP-UX computer based on HP Precision Architecture. For the first time, commercial and technical machines are based on the same foundation. The HP 9000 Model 840 is being marketed by both the Design Systems Group (DSG) and Manufacturing Systems Group (MSG) and is positioned to address the engineering design, manufacturing, and general purpose computation markets. The reduced complexity and flexibility of HP Precision Architecture give the Model 840 outstanding price/performance, low cost of ownership, environmental tolerance, and provide lasting value for HP customers.
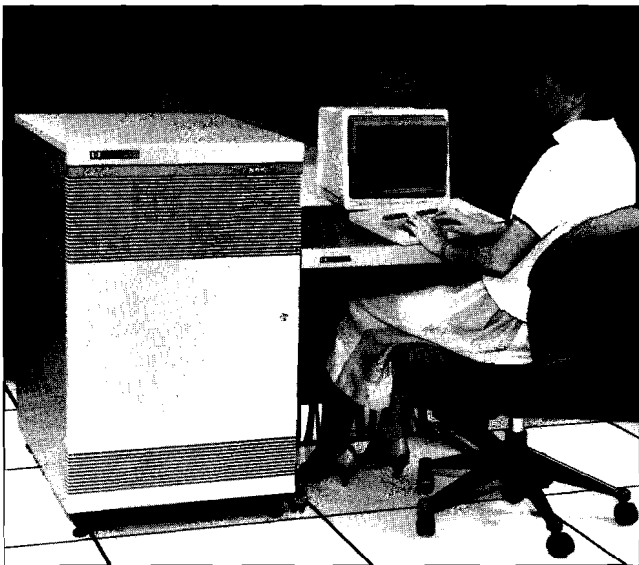
The new HP 9000 Series 800 Model 840 is HP's first in a line of computers that extend the high end of the existing HP 9000 and HP 1000 systems.

Model 840 system processing unit

At the heart of the Model 840 is a five-board CPU consisting of a Register File, Execution Unit, Instruction Unit, Translation Lookaside Buffer, and 128-Kbyte Cache. The CPU is implemented in high-speed Shottky TTL logic. The Model 840 has 140 hardwired instructions (no microcode) and uses a three-stage pipeline to effectively execute all but eight instructions in a single 125-nanosecond clock cycle.

The Execution Unit and the Instruction Unit operate in parallel (while the current instruction is being fetched the previous instruction is being executed) for efficient use of processor resources. The cache is split into a 64-Kbyte Instruction Cache and 64-Kbyte Data Cache. The Instruction Cache supplies instructions to the Instruction Unit while the Data Cache supplies data to the Register File and Execution Unit. Splitting the cache allows parallel operation and essentially doubles the cache bandwidth and increases overall performance.

The Model 840 comes standard with 8 Mbytes of Error Correcting (ECC) Memory expandable to 24 Mbytes in 8-Mbyte increments. Battery Backup is standard with the Model 840. Up to 24 Mbytes of main memory is supported such that if AC power is lost and restored within 15 minutes, HP-UX is automatically restarted and processing resumed without data loss.

A floating-point coprocessor comes standard with the Model 840 for single and double-precision floating-point operations. The floating-point coprocessor operates in parallel with the CPU and significantly improves performance for applications with floating-point calculations.

A powerful, hierarchical I/O system

The Model 840 incorporates a two-tier I/O system. A high-speed 32-bit Central System Bus (CTB) communicates with the CPU at sustained rates up to 20 Mbytes per second. The Channel I/O bus (CIO) is connected to CTB through a CIO Adapter. CIO is the same 16-bit I/O bus implemented on the HP 9000 Series 500 products and supports interfaces to peripherals and data communication links. The CIO bus has a throughput of up to 5 Mbytes per second. This hierarchical design provides an efficient, high-performance I/O system and improves expandability.

In addition, the I/O system is memory mapped. Devices are referenced with the same mechanisms used in accessing memory locations. Therefore, device access and protection is simple, and drivers can be written in high level languages.

HP Precision Architecture — a foundation for lasting value

HP Precision Architecture forms the foundation for the Model 840. Although HP Precision Architecture is based on reduced-instruction-set-computer (RISC) concepts, it goes beyond RISC to provide lasting value to HP customers.

The reduced complexity of HP Precision Architecture results in significant price/performance advantages. The simplified instruction set is implemented with hardwired logic so there is no need to spend multiple clock cycles decoding microcoded instructions. In addition, the instructions are of the same length and format which allows simpler decoding logic and eases pipelining. Calculations only access data through high speed general purpose registers; only loads and stores access memory.

Technical Spectrum Program

The following table illustrates the Model 840's reduced complexity relative to other popular minicomputers.

	HP 9000/840	VAX 8600	DG MV10000SX	PRIME 9925
Number of Instructions	140	304	256	>500
Control Store?	No	Yes	Yes	Yes
Instruction Length (bits)	32	16-456	16-80	
Technology	TTL	ECL	TTL/ECL	ECL
Execution Model	reg-reg	reg-reg reg-mem mem-mem	reg-reg reg-mem mem-mem	reg-reg reg-mem mem-mem
Virtual Address Space	48-bits	32-bits	32-bits	29-bits

Table 1: The HP 9000 Model 840 versus other popular minicomputers

As a result of HP Precision Architecture's reduced complexity, the Model 840 is smaller, lighter, consumes less power, generates less heat, and is more environmentally tolerant than comparable systems of greater complexity. A comparison with the VAX 8600 provides an excellent illustration.

	HP 9000/840	DEC VAX 8600
Operating Temperature	0-55 C 32-131 F	15-32 C 59-90 F
Operating Relative Humidity (non-condensing)	5-95%	20-80%
Operating Altitude	15,000 ft	8,000 ft
Size	.58 cubic m	2.08 cubic m
Weight	352 lb	1725 lb
Maximum Power Consumption	1350 W	6500 W
Maximum Heat Dissipation	4610 BTU/hr	22,000 BTU/hr

Table 2: The Precision Architecture advantage

The Model 840 also incorporates 48-bit virtual addressing, providing 65,536 4-Gigabyte spaces. Most 32-bit systems provide a total of 4 Gigabytes of virtual address space. Applications on the Model 840 have room to grow with customer needs.

The first in a new generation

The HP 9000 Model 840 barely taps the potential of HP Precision Architecture. This will allow HP to build more powerful as well as lower-cost systems allowing customers to leverage their software investments for many years to come. The bottom line is "lasting value."

Ordering information

P/N	Description	US list price
97414	HP 9000 Model 840 System	$113,500
	Hardware: Model 840 SPU, Floating Point Coprocessor, 8 Mbytes Main Memory, Channel Adapter, Access Port Card, 1 HP-IB, 1 6-Channel Multiplexer, Cabinet	
	Software: HP-UX 16 User License, C, XDB, Assembler, DIL, Real Time Package, PORT/HP-UX	
	Other: Installation and Manuals	
19749A	Cable Management System	$900
	Organizes cables and junction panels for up to 66 terminals and provides a table for the system console.	

HP 9000 Series 800 I/O interfaces
David Kuntz/RND

The HP 9000 Series 800 uses I/O interfaces based on the Channel I/O architecture. These interfaces allow for the connection to HP-IB peripherals, serial RS-232 devices, and general-purpose parallel I/O applications.

The 27110B HP-IB interface and the 27140A asynchronous 6-channel multiplexer are the same products used with the HP 9000 Series 500 today. The 27114A parallel asynchronous FIFO interface is a new product being supported on only the HP 9000 Series 800 computer systems.

The 27110B supports connection of up to 14 HP-IB devices to HP 9000 Series 800 systems. HP-IB devices

include discs, printers, plotters, magnetic tape devices, graphics digitizers, and an extensive list of instruments.

The 27140A provides six asynchronous RS-232-C ports with full duplex modem control capability. A wide range of configurable transmission modes and formats supports direct or remote connection of CRT terminals, printers, plotters, and other asynchronous serial RS-232-C devices.

Option 800 is new to both the 27110B and the 27140A. It provides the cable necessary to meet the level B Electromagnetic Interference (EMI) specifications. This option must be specified when either product is specified for use in the Series 800.

The 27114A parallel asynchronous FIFO interface is a brand new high-speed buffered parallel interface. It is designed to provide multipurpose 16-bit parallel communication using either differential signaling logic or TTL (positive true or ground true) signaling logic. Use of the Device I/O Library (DIL) makes programmed use of the 27114A much easier.

P/N	Description	US list price
27110B	HP-IB interface	$1,010
Opt. 0B0	Delete documentation	(20)
Opt. 800	Provides cable for use with Series 800	0
27140A	Asynchronous 6-channel multiplexer interface	2,400
Opt. 0B0	Delete documentation	(20)
Opt. 001	Adds a 10 meter extension cable	350
Opt. 019	Adds a 19″ rack mounting bracket kit	40
Opt. 800	Provides cable for use with Series 800	0
27114A	Parallel asynchronous FIFO interface	1,600
Opt. 0B0	Delete documentation	(20)
Opt. 002	Adds loopback test hood	30
Opt. 003	Substitutes single-ended (TTL) cable for standard differential cable	0

The HP 9000 Series 800 operating system: HP-UX

Chris Bego/ITG

HP-UX, Hewlett-Packard's implementation of the UNIX™ operating system, arms you with all the door openers of an industry standard because it is fully compatible with the popular industry leader, AT&T's System V. Additionally, HP-UX extends beyond traditional UNIX operating systems to provide your customers with state-of-the-art performance enhancements and powerful capabilities in the areas of real-time, Native Language Support, and instrument control.

HP-UX offers all of the benefits of standardization

Many customers value the benefits of a standard UNIX operating system. These include a range of hardware running the UNIX operating system, the security of their software development investment, the ability to communicate in a multivendor network, low program development costs through increased efficiency, easy access to existing applications, etc.

By supersetting AT&T's System V Interface Definition (Issue 1) HP-UX assures applications portability from similarly compliant systems. In addition, HP-UX incorporates all of the hardware independent features from AT&T's UNIX System V, as well as enhancements developed at U.C. Berkeley and HP.
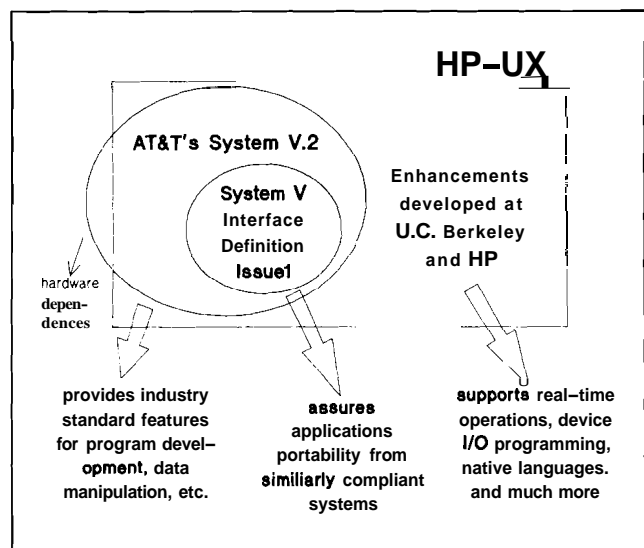
continued on next page

Technical Spectrum Program

Comprehensive, state-of-the-art functionality

HP-UX on the Model 840 leads the industry in its ability to handle your customers' complex problems with the following innovative features:

- Real-time features and performance enhancements for fast, deterministic response to real-time events. See the articles on real-time capabilities and performance for more information.

- Native Language Support (NLS) providing tools for an application designer to "localize" or tailor an application for use in 16 different languages. HP's NLS tools are desired by customers worlung in local language environments and by value-added channels (third parties) creating products for the international market. HP is the only vendor supplying a single set of tools that handle multiple languages — our competitors offer only "single-language" solutions. NLS provides you with a clear selling advantage in the international marketplace.

- Device I/O Library for flexible, simple interfacing to HP-IB devices such as instruments used for data acquisition and process control.

- Serviceability and system administration enhancements maximizing reliability and ease of use.

- Efficient program development with the C language and a host of powerful utilities such as the HP Symbolic Debugger/HP-UX (which works with programs written in C, FORTRAN, and Pascal). An Assembler is also available.

- Support for a complete offering of subsystems: FORTRAN 77 and Pascal, 2-D and 3-D Graphics with Starbase and DGL/AGP, the ALLBASE database, automated program development via HPtoday, and networking products connecting the Model 840 to HP and non-HP systems. (See the following articles for more information.)

Continuity and coexistence with today's products

The Model 840 is a member of the HP 9000 family, all of which run HP-UX. This drastically reduces the effort required by your customers to move applications between them. Experience to date has shown that porting applications from the Series 200, 300, or 500 to the Series 800 is simple and usually requires only recompilation and relinking of programs. (Changes may need to be made when nonstandard features of the language or operating system, or other hardware-dependent features, have been used.)

To assist customers migrating applications from HP 1000 systems running RTE-6/VM or RTE-A, a PORT/HP-UX package is bundled in. See the article in this issue on PORT/HP-UX for more information.

Your competitive edge

Not only does HP-UX provide highly competitive functionality, but you can ensure your customer's long term satisfaction through other attributes. One is the full commitment by Hewlett-Packard to HP-UX as the primary operating system for the HP 9000 family. Not all vendors back their UNIX systems as completely nor do they offer the range of compatible products we do.

Hewlett-Packard's tradition of offering high-quality products continues with HP-UX. Our worldwide service and training organizations are unmatched. And you don't need to be told about the excellence of our sales and support forces.

HP-UX product structure

HP-UX is included with the Model 840 system (P/N 9741A). It features the C compiler, HP Symbolic Debugger/HP-UX, and also includes the Real T i e package, Device I/O Library, PORT/HP-UX, and Assembler. All other subsystems (such as Pascal or ALLBASE) are offered as separate products.

The Model 840 system (P/N 9741A) includes HP-UX with a 1-16 user license. Two products are offered for customers who require a larger user license:

P/N	Product name	US list price
92453A	HP-UX Version B.1, 1-32 user, for the Series 800	$10,000
Opt. 0A0	upgrade from 16-user HP-UX	− 5,000
92454A	HP-UX Version B.1, 1-64 user, for the Series 800	15,000
Opt. 0A1	upgrade from 16-user HP-UX	− 5,000
Opt. 0A2	upgrade from 32-user HP-UX	− 10,000

HP-UX sales aids and reference material

Be sure to study the HP-UX section in the *Systems Reference Guide* to fully understand how to sell HP-UX. For your prospective customers, there is a new HP-UX brochure aimed at middle- to high-level management and an excellent new data sheet. Use these materials to ensure that all of our prospective customers understand the exciting advantages of HP-UX on the Model 840.

UNIX is a trademark of AT&T Bell Laboratories.

Real-time and HP-UX: the best of both worlds

Dave Stevens/DSD

The introduction of the HP 9000 Model 840 will bring together for the first time the real-time performance enjoyed by users of RTE on the HP 1000 with the portability and powerful development tools of HP-UX on the HP 9000. Previous attempts in the industry to provide real-time capabilities with a UNIX™ operating system have fallen short of the needs of critical real-time applications. HP's real-time extensions to HP-UX will provide fast, deterministic real-time response comparable to that of the Model A900, establishing HP-UX as a leader in UNIX™ operating system real-time performance.

Tuned for real-time response

Traditional UNIX systems such as System V or BSD 4.2 have not been able to provide reliable real-time response because operating system services do not relinquish the CPU until the service is complete. The resulting delay, called process dispatch latency, is unpredictable and can be lengthy — over a second in some instances. To overcome this problem inherent to traditional UNIX operating systems, HP has allowed the HP-UX kernel to be preempted. With kernel preemption, the system will give up the CPU if a higher priority process is waiting to execute. This feature has allowed the tuning of HP-UX to reduce process dispatch latency, in most cases, by a factor of 5 to 50 over traditional UNIX systems.

Extended real-time functionality

The HP-UX real-time capabilities are very complete and go far beyond kernel preemption. Without compromising the System V Interface Definition Issue 1 (SVID) standards, HP-UX has added extensive real-time functionality. Significant real-time capabilities are provided in the following areas:

- HP-UX program scheduling provides non-degrading priority-based scheduling, time-based scheduling, as well as the traditional UNIX time-shared scheduling.
- Key real-time I/O features include driver asynchronous I/O, synchronous I/O multiplexing, unbuffered I/O and the Device I/O Library (DIL).
- HP-UX resource management features allow memory locking, device and file locking, disc space preallocation, and shared memory.
- The McKusick fast-file system speeds file system throughput.

- HP-UX allows hierarchical (layered) or monolithic (one-piece) user-written drivers.

With industry standards yet undefined for real-time UNIX, HP will be a major force in establishing those standards and is committed to tracking them as they evolve.

Performance

The real-time performance of HP-UX on the Model 840 compares favorably with RTE-A on the Model A900 based on several independent measures of disc I/O as well as real-time services and scheduling. Details of these measurements can be found in the Model 840 Performance Brief (P/N 5953-8783).

An unbeatable combination

HP has made significant strides in providing fully functional real-time capabilities within an industry-standard implementation of UNIX. For the first time, we are able to offer the powerful development capabilities of HP-UX to real-time customers who were previously locked out by their real-time requirements.

UNIX is a trademark of AT&T Bell Laboratories.

HP 9000 Series 800 languages

Niraj Swarup/ITG

Three optimizing compilers, HP FORTRAN 77/HP-UX, HP C/HP-UX, and HP Pascal/HP-UX, along with an Assembler, will be offered on the first release of the HP 9000 Series 800 systems. The HP C compiler and Assembler will be bundled with the HP-UX operating system, while the HP FORTRAN and HP Pascal compilers may be purchased separately. The new optimizing compilers will allow your customer to take full advantage of the higher performance of HP Precision Architecture. All languages (excluding Assembler) allow access to the ALLBASE database management system, and provide HP-UX Symbolic Debugger support. The combination of optimizing compilers, ALLBASE, and symbolic debug capability, will provide an integrated environment for program development.

The compilers offer a high degree of compatibility with languages on the HP 1000, HP 3000, and other HP 9000 systems. To assist in areas where the compatibility is not

complete, migration aids will be provided; these are discussed in the article on language migration.

At a later date, compilers for Ada, a new technical BASIC, and Common LISP will be provided for use on HP 9000 Series 800 systems.

A summary of the first release HP 9000 Model 840 languages and their prices is given below. These products are on the June 1, 1986, Corporate Price List.

P/N	Product	US list price
92430	HP FORTRAN 77/HP-UX	$7,000
92431	HP Pascal/HP-UX	7,000
Bundled	HP CMP-UX	N/C
Bundled	Assembler/HP-UX	N/C

ALLBASE/HP-UX: database for the HP 9000 Series 800

Pat Adamiak/CSY

Unique dual interface
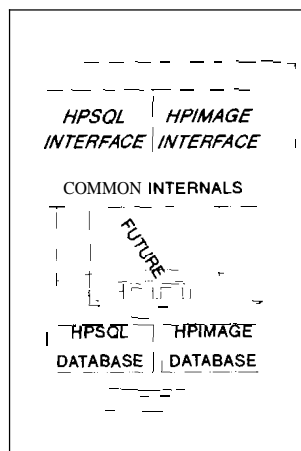
In a single product, ALLBASE database management system (DBMS) provides both a network model (IMAGE) interface as well as an industry standard, SQL compatible, relational interface. By offering both interfaces, your customers can choose the access method which best fits their particular needs. They can create relational databases using the HPSQL interface or IMAGE databases using the HPIMAGE interface. Your customer can now realize the benefits of both data models without first having to justify and purchase two separate DBMS.

Full DBMS functionality via either interface

Regardless of which interface your customers choose to use for a particular application, they get the full functionality indicative of a quality DBMS: programmatic access; interactive access via a query facility; concurrent access using transaction based automatic locking; rollback capability to back out erroneous data modifications or to recover from a soft system crash; rollforward capability

to recover from data destruction due to media failure; comprehensive security checks; functionality to allow fast access to frequently accessed data; and more.

Full-function relational DBMS with HPSQL

The HPSQL interface of ALLBASE is a true relational system that is compatible with the de facto industry standard Structured Query Language (SQL). The high-level approach of the HPSQL relational language makes application programs both easier to write and to maintain, boosting programmer productivity and reducing application maintenance backlogs.

There has been a lot of discussion recently in the press about what constitutes a relational DBMS. Dr. E.F. Codd, the originator of the relational data model, has labeled several mainframe based DBMS as "born again relational" because they offer limited relational functionality patched onto existing network model DBMS. This will be a doubt in some of your customers' minds when they hear that ALLBASE offers both a network and a relational data model interface. ALLBASE is *not* a "born again relational" DBMS. The common internals shared by both interfaces are *not* simply a reworked version of IMAGE — they were designed from the ground up to support both the relational and network (IMAGE) data models. This results in HPSQL stacking up as well as any other DBMS (IBM's DB2 and SQL/DS, INGRES, ORACLE, etc.) against Dr. Codd's rigorous list of criteria for qualifying as a relational DBMS.

The IMAGE tradition continues

HPIMAGE offers functionality beyond that of IMAGE/1000, including support of multiple (greater than two) data set levels and a new query facility. The substantial investment IMAGE11000 customers have made in applications is protected by sophisticated migration software which allows customers to move existing IMAGE11000 applications to the Series 800 with little modification. (See *"Good news for IMAGE/1000 users interested in the Model 840"* on page 41.)

A member of a growing family spanning both technical and commercial systems

ALLBASE/HP-UX is not the only member of the ALLBASE family planned for the HP 9000. A full-function, relational DBMS featuring the HPSQL interface of ALLBASE will be introduced for the HP 9000 Series 300 in late calendar-year 1986. This will provide your customers with common, 100 percent compatible, relational DBMS on a broad range of HP 9000 platforms running HP-UX.

Many customers require the ability to easily manage information in a mixed environment of both commercial and technical systems. To meet this need, ALLBASE is also offered on the 900 Series of HP 3000s and a relational DBMS featuring the HPSQL interface of

ALLBASE is avadable on the MPE V based HP 3000s. Availability of this broad, compatible, SQL-based DBMS family will provide your customers with the benefits of reduced training and increased flexibility.

Future HPSQL access to HPIMAGE databases

The sophisticated ALLBASE internals form the foundation necessary to allow a future release of ALLBASE to provide another key contribution — the access of HPIMAGE databases through both the HPSQL and HPIMAGE interfaces. More detail on this revolutionary feature will be provided when it is formally introduced in 1987.

Ordering information

The initial copy of ALLBASEMP-UX is $25,000 US list. The right to copy ALLBASEIHP-UX costs $17,500 US list for each additional copy.

As an incentive for customers to discover the benefits realizable from using the HPtoday application development environment in conjunction with ALLBASE, a bundle of ALLBASEMP-UX and the HPtoday Developer Pack is also available. This bundle (P/N 92442A) is priced at $40,000 US list — 20 percent less than purchasing these already competitively priced products separately.

HPtoday now on the HP 9000 Model 840

Ian *Gaunt/ASO*

Introduced earlier this year on the HP 9000 Series 200, 300, and 500, this high-productivity application-development environment is now available on the Model 840. HPtoday on the HP 9000 Series 800 Model 840 provides all of the functionality available in the versions running on the Series 200 through 500. In addition, it has been integrated with ALLBASEMP-UX so that HPtoday applications can be written which access HPSQL-created databases.

User-friendly interface a hallmark

A hallmark of applications developed using HPtoday is the friendly user interface comprised of menus and data screens. Development of these on-line applications is a straightforward process for the programmer using HPtoday's report painter to define required reports; its screen painter to define menus and data input and output screens; and its high-level logic language to tie the screens, menus, and reports into a cohesive application.

Easily integrated with other applications

Programmers can use HPtoday along with existing applications based in high-level languages. Programs written in languages such as FORTRAN, C, or Pascal can be incorporated into HPtoday-developed applications simply by being called and executed as external modules. This capability allows computationally intensive or real-time portions of applications to be written in C, for example, while still realizing the benefits of the menus, data screens, and reports of HPtoday.

An integrated solution on the Model 840

HPtoday on the Model 840 has been integrated with ALLBASENP-UX so that HPtoday applications can be written which access HPSQL created databases. This enables your customers to multiply the benefits of the two products by taking advantage of HPtoday to quickly develop easy to use applications while at the same time having the integrity of the data used by these applications protected by the comprehensive database management functionality of ALLBASE. It also allows data in HPSQL databases to be shared by both HPtoday applications and other applications on the system, without the problems caused by redundant data.

Develop applications across the entire HP 9000 family

HPtoday offers software developers outstanding freedom across the entire HP 9000 family. For example, an application developed using HPtoday on the Series 200, 300, or 500 can be ported without changes to the Model 840 where it will continue to use the same multikey, indexed file system. This indexed file system, ISAM, is distinct from the HP-UX file system and is included in all versions of HPtoday. It allows programmers to improve performance of HPtoday applications by specifying indexes on frequently used data items.

Ordering information

To provide your customers with flexibility, they can choose between purchasing everything required to develop and run HPtoday applications (HPtoday Developer Pack) or buying only a run-time version to deploy HPtoday developed applications on other systems (HPtoday Kun-Time Environment). The initial copy of the HPtoday Developer Pack (P/N 92440A) is $25,000 US list. Copies of the HPtoday Run-Time Environment (P/N 92441A) each cost $3,000 US list.

As an incentive for customers to discover the benefits realizable from using HPtoday in conjunction with ALLBASE, a bundle of ALLBASEIHP-UX and the HPtoday Developer Pack is also available. This bundle (P/N 92442A) is priced at $40,000 US list — 20 percent less than purchasing these already competitively priced products separately.

Technical Spectrum Program

Starbase graphics library on the HP 9000 Series 800

Debra *Kalin/FSD*

The Starbase graphics library is a low-level two-dimensional (2-D) and three-dimensional (3-D) graphics library for HP-UX. Starbase is based on the American National Standards Institute's (ANSI) evolving Computer Graphics Virtual Device Interface (CG-VDI) standard and HP standards. Starbase was designed with the objective of high performance.

Starbase on the HP 9000 Series 800 Model 840 is 100 percent compatible with the current implementations of Starbase on the HP 9000 Series 300 and 500 computers and will support specific HP graphics terminals and plotters. A graphics application written on a Model 840 can be ported to run without change on the Series 300 or 500; or, vice versa, a Series 300/500 application can be ported to run without changes on the Model 840, as long as the required peripherals are supported. The Series 300 or 500 interactive workstations can be used to generate graphics output, which can be saved in a file for later plotting. This file could then be spooled to a large printer using the Model 840 as a peripheral server.

Standards and compatibility

Starbase is based on the evolving CG-VDI ANSI standard. The greatest advantage of CG-VDI is its potential for industry-wide compatibility under many operating systems on different size computers. This compatibility allows programs to be easily ported. There is "programmer portability" as well; the use of familiar standards reduces learning cycles for programmers.

DGLIAGP

Although the Starbase graphics library should be the graphics library of choice for new customers, the Device-Independent Graphics Library (DGL) and the Advanced Graphics Programming Language (AGP) are also offered on the HP 9000 Model 840. DGL/AGP applications can be run using a DGL-to-Starbase handler, which is part of the Starbase graphics library. This allows for porting of existing code and support of new peripherals, while maintaining DGLIAGP functionality. DGLIAGP users can therefore migrate future development to Starbase, while continuing to run their existing DGLIAGP applications.

Previously, DGL included device drivers to talk to the variety of devices directly, as well as through the Starbase handler. DGLIAGP as offered on the Model 840 only uses the DGL-to-Starbase handler, which is part of

Starbase. For this reason, Starbase is bundled with DGL/AGP on the Model 840.

P/N	Product name	US list price
92436A	Starbase/HP-UX Graphics Library	$4,000
Opt. AAO	Software on ¼" Cartridge Tape	NIC
Opt. AA1	Software on ½" 1600BPI Tape	NIC
92437A	DGL/AGP/HP-UX Graphics Library Includes 92436A Starbase/HP-UX	5,750
Opt. AAO	Software on ¼" Cartridge Tape	NIC
Opt. AA1	Software on ½" 1600BPI Tape	N/C

The Minx Information System offers UNIX MRP and more

Andy *Meyer/MSG*

Migrating to the HP 9000 Model 840 was easy for Minx Software, Inc., of Los Altos, California. They had only to recompile and run their Minx software — a process that took less than one day.

The Minx Information System offers a family of financial and manufacturing application products using a UNIX™ operating system. This family is designed to maximize the productivity of discrete manufacturing companies by helping management optimize inventory investment, reduce operating expenses, and ultimately increase customer satisfaction. Each application is designed to be easy to use and can be completely operational within hours of installation.

Each interactive module performs a key function needed to run an effective manufacturing facility including shop floor control, MRP, inventory control, master scheduling, and cost accounting.

Since its software runs on both the HP 9000 Series 300 and the Model 840, Minx can now offer a compatible range of solutions for small to large manufacturers. Value-added pricing (dependent on the number of users) starts at $25,000 for a four-user system.

Minx also offers a comprehensive set of courses designed to educate both management and users in the effective utilization of the software. For more information on the Minx software package, contact the Manufacturing Systems Group Value-Added Channels group at **408-257-7000.**

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"What if...
you had a comprehensive guide to Office Sales Tools?

HEWL...

The HP Pe...
Producti...
An offic...
investme...

HEWLETT-P...

We've built th...
of office autom...
things every co...

HP VECT...

SOLUTIONS

SOLUTIO

QUARTE

MARCH 1986

Office
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HEWLETT
PACKARD

COLOR
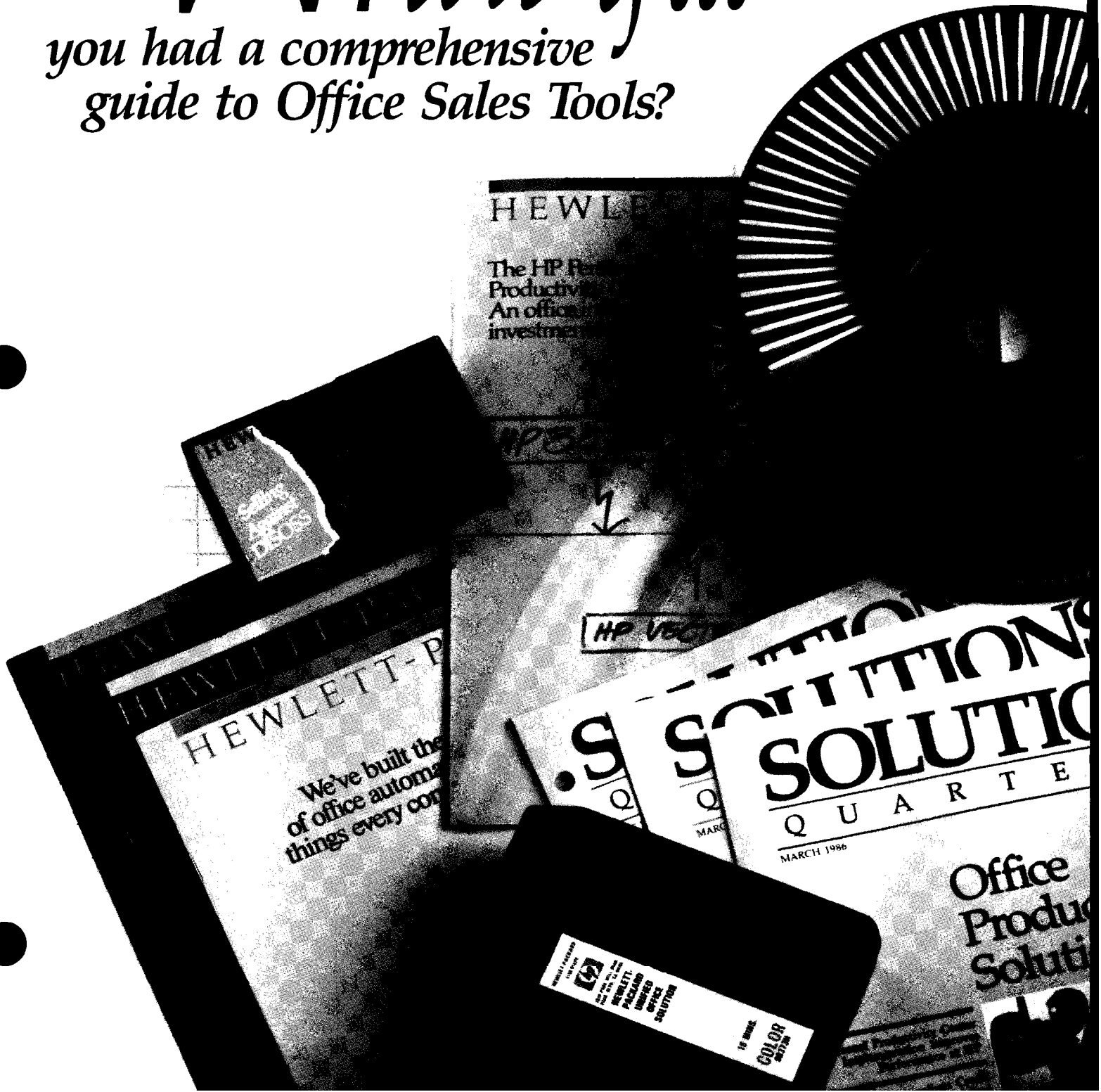
☑ Sales Information

Vectra Office Sales Guide. A guide to selling Vectra Office — a customized word processing solution which features a pre-configured Vectra PC, Advance-Write word processing software and a choice of LaserJet or daisywheel printers. Competitive analysis is included.
Publication Number: 5954-2534D

AdvanceWrite Sales Guide. A guide to selling all three levels of this word processing software for the Vectra PC.
Publication Number: 5957-4617

IBM Office Products Primer. An overview of IBM's product offerings for office. Positions benefits of PPC against IBM's office solution.
Publication Number: 5957-8310

Personal Productivity Center and the IBM PC Sales Guide. Shows how IBM PCs can be integrated into HP's Personal Productivity Center (PPC). Stresses how PPC makes IBM PCs more productive and valuable to customers. Tips for selling into an IBM environment.
Publication Number: 5957-4612

The Personal Productivity Center and IBM's PROFS Sales Guide. Describes how PPC can link to IBM's PROFS, thereby protecting the customer's investment in IBM, while providing a superior office solution.
Publication Number: 5957-4613

Selling Against DISOSS Audio Cassette Tape. Dialogue between an HP SR and a customer about IBM's DISOSS. All the questions IBM customers might have of HP about DISOSS come up during the course of this taped conversation. A script accompanies the audio cassette tape.
Publication Number: 5954-6749
Order from MailMark, Rhonda Rick, COMSYS 3900.

Selling Against DISOSS Script. Accompanies the Selling Against DISOSS Audio Cassette Tape.
Publication Number: 5954-6749

The Personal Productivity Center Competitive Guide. Positions HP against IBM, DEC and Wang office solutions. Highlights each competitor's strengths and weaknesses so that you can effectively position PPC to your customers.
Publication Number: 5954-0469
To order a photocopy of this out-of-print guide, call Sue Mills, (408) 865-6442.

☑ Sales Aids

Office Solutions Videotape. This videotape, entitled, "Hewlett-Packard's Unified Office Solution," shows how HP's PPC solves customers' business problems and improves their productivity and profitability. This eight and a half minute videotape shows HP's answer to office users' needs.
Intended Use: Prospective office customers.
Publication Number: 90373H + (Z=Umatic; V=VHS; B=Beta) Letter Corresponding to Desired Format
Order from fhe Corporate Parts Center via HEART.

HPAssist Videotape. A brief overview of the benefits of HPAssist. Under 10 minutes.
Publication Number: 90957RZ

HP OfficeShare Network Videotape. Provides you with a clear mechanism for presenting the benefits of PC Local Area Networks (LANs) and OfficeShare to customers. Seven minutes long.
Publication Number: 90531H + (Specify Z; V; B)
Order from HEART or COCHISE. The supplying division is Corporate Parts Center (CPC).

Personal Productivity Center — A Demonstration Videotape. Demonstrates how PPC products are used in a small work group environment. Features the integration of both HP Touchscreen II and IBM PCs in an office network with an HP 3000 Series 37 business computer. Under 10 minutes.

Intended Use: Business computer prospective customers. Enables you to give an overview of PPC products without setting up a user demonstration.
Publication Number: 90426H + (Specify Z, V, B)
Order from CPC via HEART

Personal Productivity Center Demonstration Kit. Designed to help you pull together integrated demonstrations involving a number of software and hardware products. This kit will greatly reduce the amount of time you spend on setting up the high quality solution demonstrations necessary to close sales. Modular format.
Intended Use: For customers unfamiliar with HP's office offering; new or current IBM PC or HP PC users.
Publication Number: 5061-8404
Order through HEART to receive the demo kit from SDC. Your contact at SDC is Renee Mendez, (408) 496-5624.

Demonstration Pack for HP Word. Includes sample printouts, demonstration files and illustrated card sets that enable the audience to understand all the product features of HP Word.
Intended Use: To show customers that HP has the wordprocessing software they need.
Publication Number: 32120-90109
You may order through Nigel Upton, HP Desk 1600100 or COMSYS 1600. Please include your location code, name and shipping address.

AdvanceWrite Demonstration Pack. Contains demo discs, along with accompanying documents and instructions. The pack does not contain the AdvanceWrite product, but does include a new automatic demonstration disc.
Intended Use: Exhibitions, customer presentations on the dealer's premises.
Publication Number: 27506-60100
Order through the HEART or COCHISE systems. Product Line 85, Marketing Division 1600, Supplying Division 1600, Sales Force 15.

HP PPC Integration with IBM's DCA Demonstration Pack. Included in this kit are slides, presentation material and demonstration scripts for: HP DeskManager, HP MessageII and HPConvert/DCA. This combination of products allows the integration of the IBM/PC with HP's PPC.
To order, send an HPDesk message to Malcom Gruber, HP 1600/02.

PPC Presentation Kit. This new kit will be available at the end of July. Slides and script are provided for two presentations: "Managing Change," a formal lead-generation seminar and a flexible one-hour presentation of PPC tailored to your customers' needs.
Intended Use: For prospective PPC customers.
Publication Number: PPC-13000
To place an advance order, call Helene Cranstoun, Telnet 1-125-7617 or send her an HPDesk message.

✅ *Sales Literature*

Office Systems Brochure. Overview of HP's approach to office systems. Emphasizes the "integrated information management" strategy and benefits of HP's total solutions approach.
Intended Use: Companion piece to the Personal Productivity Center brochure. For use during the initial phases of the sales cycle with prospective customers. Distinguishes HP as the best choice for your customers' office systems needs.
Publication Number: 5954-0495D

Personal Productivity Center Brochure. The PPC brochure provides a management overview of the capabilities and benefits of PPC. The benefits stressed are: PC integration, data access, scalability and software investment protection. Positions HP as the best integrated solution in a multi-vendor environment.
Intended Use: Especially suitable to providing a management overview of PPC's capabilities and strengths.
Publication Number: 5954-0492

Vectra Office Brochure. Provides an overview of Vectra Office — Vectra PC, AdvanceWrite word-processing software and the LaserJet or daisywheel printers. Positions Vectra Office as the workstation of choice for users who need the power of a dedicated word processor, along with the flexibility of a personal computer.
Intended Use: To provide overview of benefits of Vectra Office as compared to dedicated word processors and general-purpose personal computers. Geared to managers, OA committees and wordprocessing supervisors.
Publication Number: 5954-2531D

HP Access Brochure. Stresses the benefits of the easy access to data on both PC and HP 3000 databases that HP Access allows users. Focuses on the added benefit of being able to access data in one window and integrate that data onto a Lotus 1-2-3® spreadsheet without re-entering the data.
Intended Use: To show MIS and functional managers the benefits of easy data access.
Publication Number: 5954-6585D

Executive Series Flyer. Targeted to managers and professionals who use IBM PCs or Vectra PCs. Describes the software most managers would need — Executive MemoMaker, Executive Card Manager, Executive Spreadsheet, Spelling Check and AdvanceLink. Emphasis on solutions.
Intended Use: For new or existing customers who use Vectra, Touchscreen or IBM PCs.
Publication Number: 5954-2579D

The ExecuDesk System Flyer. An introduction to ExecuDesk System which integrates HP Touchscreen PC applications, allowing easy switching and data sharing among different applications — for example, word-processing, spreadsheets and graphics.
Intended Use: For new or existing HP Touchscreen customers.
Publication Number: 5954-2463D

Graphics Gallery Software Solutions Flyer. A broad overview of integrated graphics solutions from HP. Fold-out flyer with multi-color examples of graphics applications. Pie charts, bar charts, line graphs, flow charts and integrated illustrations are depicted.
Intended Use: For current or prospective HP Touchscreen customers.
Publication Number: 5954-2404D

HP OfficeShare Network Major Account Flyer. A brief overview of HP's OfficeShare Network, targeted to Fortune 1000 companies. Shows how HP OfficeShare can link together PC users to allow them to share resources.
Intended Use: Generate interest in HP OfficeShare among Fortune 1000 companies.
Publication Number: 5953-9574

HP OfficeShare Network Small Business Flyer. An overview of HP's OfficeShare Network geared to owners of small businesses.
Intended Use: Explains the benefits of HP's office systems for the specific needs of small business owners.
Publication Number: 5953-9575

AdvanceWrite Flyer. A synopsis of the features and benefits of AdvanceWrite software, emphasizing ease-of-use and powerful word processing capability. All three levels of AdvanceWrite are touched upon.
Intended use: Prospective HP Vectra PC customers.
Publication Number: 5953-8285

"What if..."Flyer. "At Hewlett-Packard, we're always asking 'What if...?' and that makes us the company to turn to to solve your office information problems." Provides focused overview of PPC.
Intended Use: Created as a response piece to our "What if..." print ads. Ideal as a direct mail piece and as a seminar hand-out.
Publication Number: 5954-2580D

"Building Office Productivity with Proven Hewlett-Packard Products," PPC Product Information Guide. This guide includes information on hardware, software and support products available for the HP Personal Productivity Center (PPC). Contains both easy-to-read narrative and technical information in data sheet format.
Intended Use: To provide detailed product information on PPC to MIS department end users.
Publication Number: 5954-0413

SOLUTIONS QUARTERLY "Office Productivity Solutions" This quarterly publication shows how the Personal Productivity Center can be implemented to solve real business problems. HP customers describe how they use PPC. The customer benefits of PPC are featured.
Vol. 1 No. 2, June 1985
Publication Number: 5954-0491
Boeing/Aerospace
Loctilite/Mfg.
Ass'td. Milk Prod./Milk
NPS/Mfg.
Vol. 1 No. 3, October 1985
Publication Number: 5954-6747
NPD/Market Research
Cadwalader, Wikersham & Taft/
Oldest Law Firm in U.S.
MacMillan Bloedel, Inc./Mfg.
Beverly Hills/Government
Vol. 2, No. 1, March 1986
Publication Number: 5954-7424
Hewlett-Packard tells its own success story about how HP implemented Personal Productivity Center (PPC) across divisions, states and countries.

IJP Good News Office Flyer. Highlights positive response of industry analysts and the press to HP's presence in the office marketplace.
Intended Use: New and prospective office customers.
Publication Number: 5954-7434D

The Office Systems Cycle. Selling HP office systems is made easier with this guide to developing systems solutions to problems encountered in today's office. This book describes the history of office systems, the design and management of information systems and the successful implementation of systems solutions to everyday problems that occur in the office environment. A needs assessment module, a cost benefit analysis and an evaluation methodology are included in this extensive study of the office systems cycle.
Intended Use: To educate prospects on the benefits of and justification for office systems purchase and implementation. May be mailed to OA decision-makers at your major accounts; can be given as a fulfillment to a direct mail piece; or can be given away at customer seminars.
Publication Number: 5954-0487

"The Office Profile," Consultants' Guide to HP's PPC. A high-quality binder designed to inform the consulting community of HP's commitment and product offering in the office.
Intended Use: To provide background information and to influence key industry consultants; major accounts.
To order, call Helene Cranstoun, Telnet 1-125-7616 or send her an HPDesk message.

Office Systems Success Stories. A slide set of office systems success stories for use in customer presentations.

To get a free copy, send an HP Desk message to "SUCCESS STORIES," HP 1600102. Need an acknowledgment level of five. In return, HPDesk will send you 12 HPDraw figures for you to plot, along with an HP Word script.
Consultants' Report. Results of corporate focus group research for InfoCorp. Report lists the critical ingredients for success in office automation.
For a reprint of the report, please contact Paula Santos, HPDesk 5050/07, (408) 865-6455.

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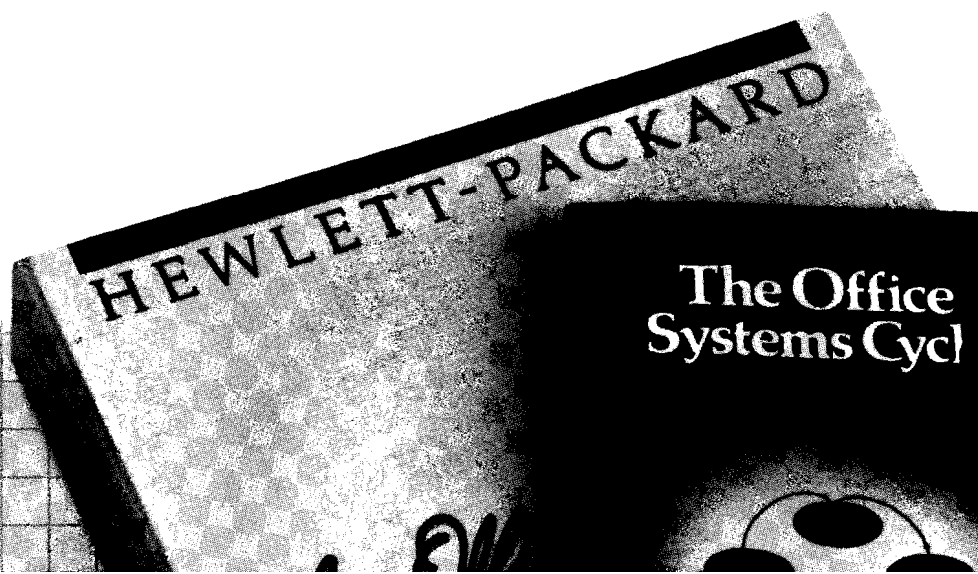
Logisticon — material handling for the HP 9000 Model 840

Andy Meyer/MSG

As material handling and storage costs rise, more and more companies will be looking for flexible material management solutions — solutions like the Logisticon DISPATCHER™ System, one of the first applications available on the new HP 9000 Model 840.

The Logisticon DISPATCHER M3000 is an operation-control system designed to optimize material flow throughout manufacturing and assembly operations. Linked to a corporate-level planning, scheduling, or MRP-II system, the DISPATCHER System allocates resources, directs task execution, and provides the feedback essential to effective operations management. The M3000 facilitates control of material flow through interfaces to handling devices such as automatic storage and retrieval systems, conveyors, carousels, and AGVs. Even fork-lift trucks can be tied into the system through the use of Logisticon's own radio data terminals. Management and production personnel have immediate access to time-critical information via the many report capabilities of the system.

Resulting from over 10 years of experience in material handling and real-time control, the DISPATCHER M3000 features up-to-the-transaction inventory management, prioritized activity control, work-in-process control, automatic stock dispatching, and complete management reports.

Capitalizing on the tremendous power of the Model 840, Logisticon has successfully expanded its product offering which starts with the HP 9000 Series 300 and Series 500. The range of systems allows them to meet the needs of small, medium, and large manufacturers, while providing a growth path for future expansion.

Relying on the excellent portability found in most UNIX operating system applications, Logisticon was able to migrate their code in a matter of weeks, not months. Demand for larger, more extensive systems prompted the move to the Model 840 resulting in over twice the performance of the Series 500-based M3000.

Logisticon was founded in 1974 by experts in real-time information systems and material handling. The M3000 complements another of their products — the D3000 system for warehouses and distribution centers, also running on the HP 9000 family. To find out more about the Logisticon DISPATCHER System, contact the Manufacturing Systems Group Value-Added Channels group at 408-257-7000.

UNIX is a trademark of AT&T Bell laboratories.

Migration plans for HP 1000 and 9000 systems

Joseph Rothman/ITG

In our continuing effort to ensure that our customers never buy dead-end solutions, extensive migration tools are being provided to aid the porting process from current HP 1000 and HP 9000 systems to the HP 9000 Series 800 Model 840.

HP 9000 migration: practically no effort required

The HP 9000 Series 800 provides HP-UX, which complies with AT&T's SVID Issue 1. As a result of offering similar operating systems, exceptional compatibility exists between the Model 840 and other HP-UX systems. In most cases only recompilation and relinking are required to migrate applications. In the extreme case where nonstandard commands exist, compiler directives will resolve most of the incompatibilities.

HP 1000 migration: smooth and easy

The major migration package for the HP 1000 RTE system is PORTMP-UX. It consists of a series of tools to migrate applications from the RTE-6/VM and RTE-A operating system to the Model 840.

Compatibility between the HP 1000 and Series 800 is very high as a result of the use of industry-standard languages on both systems. For more information on language migration, see "Language migration to the HP 9000 Series 800."

Migration Analysis Utilities (MAU) are provided with the operating software. This includes a MAU manual (P/N 92077-90051), which comes along with the operating system software. This utility will automatically indicate required software recoding areas. For more details see "PORTMP-UX — migrating from HP 1000 RTE to HP 9000 Model 840 MP-UX."

In addition, the Software Evaluation and Migration Center (SEMC) has been formed to centralize migration knowledge, tools, and technology. This along with the Fast Start program will aid our key customers to migrate their HP 1000 and HP 9000 applications.

Technical Spectrum Program

The following is a summary of key migration tools. (See "Good news for IMAGE/1000 users interested in the HP 9000 Model 840" for more information on IMAGE.)

Migrate from	Application utilizing	Migration effort	Tools or aids
HP 9000 Series 200/ 3001500 HP-UX	High-level languages (FORTRAN, Pascal, C)	Minimal	AT&T SVID & standard languages
	Assembly code	Extensive	None
	Starbase	Minimal	AT&T SVID
	Device I/O Library	Minimal	AT&T SVID
	AGL/DGL	Minimal	AT&T SVID
HP 1000 RTE-6/VM RTE-A	High-level languages (FORTRAN, Pascal, C)	Minimal to minor	PORT/HP-UX, standard languages, conversion doc./utilities
	Assembly code	Extensive	None
	RTE	Minor	MAU-emulation
	IMAGE/1000	Minor	MAU & translation tools
	AGP/DGL graphics	Minor	MAU
	Networking	Minor	MAU

Language migration to the HP 9000 Series 800

Joseph Rothman/ITG

HP provides for the most part industry standard languages for our systems. Compatibility between the same language on different systems is usually quite high. With some rare exceptions, moving current HP 9000 applications written in FORTRAN, Pascal, or C only requires recompilation and relinking with its language equivalent on the HP 9000 Series 800.

Assembly code written for the HP 9000 Series 2001300 will need to be rewritten in a high-level language.

Compatibility between HP 1000 and the HP 9000 Series 800 is very high as a result of the use of industry-standard languages on both systems. Specifically, FORTRAN, Pascal, and C migration documentation will be available with the purchase of these products for the Series 800. A translation utility will also be supplied with HP FORTRAN 77.

As with Assembly code written on the Series 2001 3001500, Assembly code written on the HP 1000 will have to be rewritten in a high level language.

The following table summarizes the language migration aids available for applications written in their HP 1000 equivalent.

Language	Conversion/migration aid provided	Conversion/migration manual P/N
FORTRAN	Utility (FTNCVT) and manual.	92430-90003
Pascal	Compiler flags incompatibilities and manuals.	92431-90004
C	Being determined, differences expected to be minor.	TBD

A BASIC product will not be available at first shipments of the Model 840; however, a technical BASIC product will be offered at a later date. This product is currently in the definition phase. Once detined, the need for migration guides and/or aids will be assessed.

PORT/HP-UX — migrating from HP 1000 RTE to HP 9000 Model 840 HP-UX

Rick *Joshi/ITG*

Coexistence with the next-generation family and providing a smooth growth path to the next-generation family are central to HP's migration strategy. A clear migration path from the RTE operating system, languages, and subsystems will allow customers to migrate applications as their needs expand and as next-generation processors that meet their needs and functionality requirements become available. PORT/HP-UX implements this migration strategy by providing a powerful set of tools and utilities that enable customers to easily port their applications from the HP 1000 RTE-6/VM and RTE-A to the HP 9000 Series 800. PORT/HP-UX software is included with HP-UX on the Model 840 system. PORT/

HP-UX is designed to maximize performance in the new operating environment and minimize the migration effort.

Some of the specific tools and utilities in PORTMP-UX are:

- *Programming for Portability* — The ease with which software is ported from one architecture to another depends on the emphasis placed on portability during the design of the application. Programming for Portability documentation is a set of documented guidelines for ensuring portability from RTE-6/VM and RTE-A applications to the Model 840.
- *Migration Analysis Utility* — The Migration Analysis Utility (MAU) is a utility that scans code for HP 1000 dependencies. It generates a report pointing out the lines that contain non-emulated RTE calls. The MAU can be used to estimate and plan the migration effort.
- *RTE System Library Emulation* — Over 80 percent of RTE System Library calls are emulated in HP-UX and account for approximately 98 percent of users calls to system library routines.
- *RTE EXEC Emulation* — Over 95 percent of the RTE EXEC calls are emulated under PORTIHP-UX, including calls for the I/O operations, to terminate or suspend programs, to load program segments into memory, to schedule other programs, to perform class I/O and to time schedule programs.
- *RTE File System Emulation* — PORTIHP-UX contains an emulated RTE file system that includes both the FMGR and CI file systems. Over 85 percent of the RTE file system calls are emulated under PORTMP-UX.

PORTMP-UX therefore exemplifies HP's commitment to migration. It benefits your customers and helps you sell even more HP 1000 A-Series as well as Model 840 systems.

Good news for IMAGE11000 users interested in the HP 9000 Model 840

Pat Adamiak/CSY

The success of IMAGE on the HP 1000 is indicated by the installed base of over 7,000 systems. The substantial investment IMAGE11000 customers have made in applications is protected by sophisticated migration software that allows customers to move existing

IMAGE/1000-I and IMAGE/1000-II applications to the HPIMAGE interface of ALLBASE/HP-UX on the HP 9000 Series 800 Model 840 with little modification. This is accomplished through migration software that maps, at run-time, the IMAGE11000 calls from the application into the appropriate HPIMAGE calls. The low overhead software that performs this mapping function is called the IMAGE11000 Translator.

The first step in migrating an IMAGE11000 application is to use the Migration Analysis Utility (described in "PORTMP-UX — migrating from HP 1000 RTE to HP 9000 Model 840 HP-UX") to identify any Translator incompatibilities or any RTE dependencies not emulated by PORTMP-UX. Due to the high degree of coverage provided by the IMAGE11000 Translator, few applications will require source code changes to become Translator compatible. Once any required source code changes have been made, the application can be compiled on the Model 840.

The second step is to create an HPIMAGE schema for the database to be migrated. This is a simple process that is done the same way as an IMAGE user would do for any new database. To make it even easier for IMAGE/1000-II users, another migration aid, DBDECODE, is provided which will generate the appropriate HPIMAGE schema from the root file of the existing IMAGE/1000-II database. Once the HPIMAGE schema has been generated, the user creates the database.

The third step is to migrate the data from the existing IMAGE11000 database to the new HPIMAGE database. This is as simple as performing an IMAGE11000 unload and load is today. A migration aid, DBMUN, unloads the IMAGE11000 database into the appropriate format to be loaded into the HPIMAGE database using the standard HPIMAGE load utility.

The final step is for your customer to enjoy the benefits of increased performance on the Model 840 and marvel at how little disruption in their operations was required to migrate.

The IMAGE11000 Translator, DBMUN and DBDECODE are all included as part of the ALLBASEMP-UX product.

Technical Spectrum Program

Introducing NS and LAN/9000 Series 800 networking software and hardware
Silvana Medina/IND

HP Network Services and Local Area Network Link products for the HP 9000 Series 800 (NS and LAN/9000 Series 800) provide high-performance, user-friendly networking capabilities between HP 9000 Series 800 computers, between Series 800 and HP 1000 A-Series computers, and between Series 800 and HP 9000 Series 200, 300, and 500 computers.

HP 9000 Series 800

HP 9000 Series 800

IEEE 802.3

HP 1000 A-SERIES

HP 9000 Series 200, 300, 500
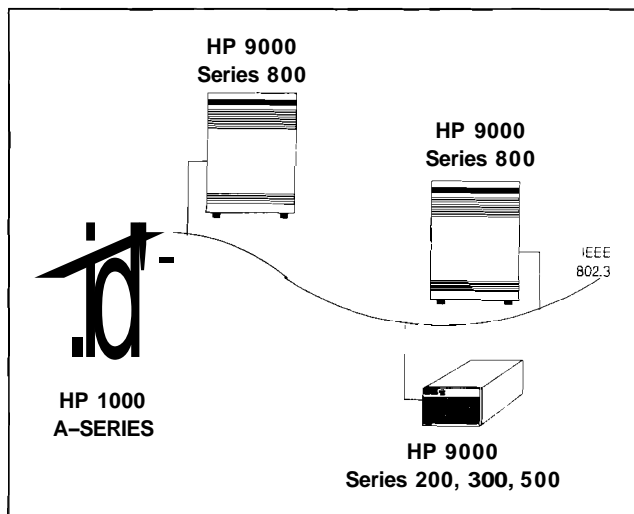
Where to sell NS and LAN/9000 Series 800

At first release of NS and LAN/9000 Series 800, HP recommends these products for customers who need a local area network because they:

- Need to share resources between a cluster of HP 9000 Series 200, 300, and 500 workstations and a Series 800 acting as a file server.
- Want a computational engine for program development using a UNIX operating environment.
- Need to connect an HP 9000 Series 800 plant controller to HP 1000 A-Series factory floor systems for file transfers.

- Want to programmatically establish peer-to-peer communications and provide data exchange between processes running on different HP 9000 Series 800 nodes in a local area network.

Also, by first shipments of the Model 840, HP will be introducing an ARPA and Berkeley Network Services product for the HP 9000 Series 800. The ARPA/Berkeley services product requires the LAN/9000 Series 800 Lmk. ARPA/BSD 4.2 and NS can run together on the same Series 800.

Sell the ARPA/BSD 4.2 product with the LAN/9000 Series 800 Link to customers who:

- Need to coexist in an existing network of non-HP computers (DEC, Sun, Apollo).
- Need a UNIX workstation server in a local area network configuration that provides ARPA/BSD 4.2 data communications capabilities.
- Need a computational UNIX engine for program development and need this processor to tie into an ARPA network — US Department of Defense customers are a good target.

NS/9000 Series 800 key features

- Supports two network services over the high-speed, 10-Mbps IEEE 802.3 Local Area Network Link (LAN/9000 Series 800 Link): Network Fie Transfer and Remote File Access (between HP-UX systems only).
- Easy, reliable, and cost-effective access to other Series 800s, HP 9000 Series 200, 300, and 500, and HP 1000 A-Series systems.
- Resource sharing between users in an HP-UX operating environment. Engineers can share discs and printers between Series 800s and other HP 9000 HP-UX systems.

LAN/9000 Series 800 Link key features

- A complete link connection to the local area network coaxial cable, which includes transport software and microprocessor-driven interface controller that minimizes the overhead associated with communications line handling.
- A key feature is that the LAN/9000 Series 800 Link supports the IEEE 802.3 and Ethernet communication protocol for the NS/9000 Series 800 product. For the

upcoming ARPA/BSD 4.2 networking product, the LAN19000 Series 800 Link will only support the Ethernet communication protocol.

- Camer-Sense Multiple Access with Collision Detection (CSMA/CD) protocol controls network access without centralized control. All nodes have equal access.

- Direct connectivity to all other Series 800, HP 1000 A-Series, and HP 9000 Series 200, 300, and 500 systems connected to the same coaxial cable. The specific networking offerings depend on the Network Services product.

- Integrated node management software provides on-line network configuration and logging.

- Network transport software is based on defacto industry standard Defense Advanced Research Projects Agency (DARPA) protocols, corresponding to the transport and network layer functions from the OSI Reference model.

- Network Interprocess Communication (NetIPC) software provides customers the capability to programmatically establish communication between processes running on different HP 9000 Series 800 computers.

Note: *Initial field literature (Sections 5.8 and 7.2 of the HP 9000 Series 800 System Reference Guide and the NS and LAN/9000 Series 800 datasheets) mentioned that NetIPC between Series 800 systems would not be available until six to twelve months after first product availability. However, HP has accelerated the NetIPC product introduction date and will offer NetIPC as part of the initial LAN/9000 Link product offering to meet the June 1 Corporate Price List.*

NS and LAN product updates

Please make sure to note the additional NS and LAN19000 Series 800 product features and the documentation structure below. These product changes supersede information printed in the networking sections of the *HP 9000 Series 800 System Reference Guide,* Sections 5.8 and 7.2, and information printed in the initial NS and LAN19000 Series 800 datasheets.

- NetIPC (Network Interprocess Communication) between HP 9000 Series 800 computers is a fully supported LAN19000 Series 800 Link product feature at first release — June 1 Corporate Price List.

- A key feature is that the LAN19000 Series 800 Link supports the IEEE 802.3 and Ethernet communication protocol for the NS/9000 Series 800 product. For the upcoming ARPAJBSD 4.2 networking product, the

LAN19000 Series 800 Link will only support the Ethernet communication protocol.

- The following documentation will be shipped to customers who order the LAN19000 Series 800 Link product: *NS/9000 Series 800 User/Programmer Reference Manual* (P/N 98195-90001); *NS/9000 Series 800 Node Manager Reference Manual* (PIN 98195-90002); and *Local Area Network Interface Controller (LANIC) Reference Manual* (PIN 98194-90001). The first two manuals were originally stated to be structured with the NS/9000 Series 800 product.

Ordering information

NS and LAN19000 prices for the Series 800:

P/N	Product description	US list prices	
		A-Copy	*R-Copy*
98195A/R	Network Services for the HP 9000 Series 800 (**Requires P M 98194A**)	$ 4,000	$ 2,800
Software media option			
Opt. **AA1**	Replaces ¼" Linus tape media with 1600 bpi, 9 track tape media.		
98194A	LAN Link for the HP 9000 Series 800 (Requires 98195A/R)	6,000	
Software media option			
Opt. **AA1**	Replaces ¼" Linus tape media with 1600 bpi 9 track tape media.		
Hardware options			
Opt. 740	Replaces ThinMAU Assembly with ThickMAU and AUI Cable Assembly.	500	
Opt. 811	Deletes IEE 802.3 Card Connector Cable.	− 50	
Opt. 841	Deletes ThinMAU, Coaxial Cable Adaptor and T-hector.	− 300	
Opt. 842	Deletes IEEE 802.3 CIO LANIC (Printed Circuit Assembly).	− 2,000	

Announcing ARPA/Berkeley networking for HP 9000 Series 800 Model 840

Joe *Bonner/CND*

HP announced plans to support the ARPA (Advanced Research Projects Agency) and Berkeley 4.2 UNIX™ operating system networking services on the HP 9000 Series 800 Model 840. This product will be orderable by September 1. Shipments are planned to begin in conjunction with the first release of the Model 840 by the end of 1986.

ARPA and Berkeley network services running over Ethernet local area networks have emerged as a de facto networking standard in the engineering and design automation markets.

The ARPA/Berkeley product for the Series 800 will offer similar capabilities to the newly introduced NS-ARPA Services 1300 for the HP 9000 Series 300. See "Multivendor TCP/IP on the HP 9000 Series 300" on page 67 for a description of NS-ARPA Services/300.

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CUSTOMER INFORMATION

Solution Creators program to speed up application development

Bob *Shimp/DSD*

It takes time for new computer architectures to be accepted by the market. For minicomputers, a ramp-up period of two years has been common. Recognizing this trend, Data Systems Division (DSD) and Fort Collins Systems Division (FSD) have put together the Solution Creators Program which will speed up this cycle and give you a way to close volume purchases sooner.

Who is a Solution Creator? It's a customer that designs an application using our computers and then replicates it many times either internally or as an external product. Examples are OEMs, VARs, system integrators, major accounts' in-house corporate engineering groups, and ISVs. The exciting thing about Solution Creators is that

after they purchase the initial system for development purposes, the follow-on duplicate systems are quick, easy sales.

The Solution Creator Program is designed to help your customers by:

- increasing access to HP resources needed for migration/development work;
- getting customers' applications into the market as fast as possible;
- moving applications onto excellent price/performance systems;
- laying the foundation for increased cooperative relationships with HP in future product developments.

There are five ways we can help these customers today: (1) early information, (2) advanced access, (3) open system tools, (4) custom engineering, and (5) financial incentives.

Early information

Do you have an account doing significant HP business or an account with large potential and having a need to know more about our future products? If so, they may qualify for detailed technical information about HP Precision Architecture and HP-UX. This information can help your account begin the planning and budgeting process well before actual development work must be started. In addition this information will help your local Customer Engineering Operation (CEO) and Application Engineering Operation (AEO) support people gain familiarity with the products sooner and enable them to provide support more quickly.

Advance access

Solution Creators may qualify for advanced access to prototype equipment to accelerate the migration of their applications. This program, known as Fast Start, will be available from Manufacturing Systems Group (MSG) and Design Systems Group (DSG). Qualified customers will be invited to work with us to move current applications from their HP 1000s, HP 9000s, or systems from other vendors.

Should your customer participate? Simply consider whether they match the following criteria: existing large computer purchaser; develops products for resale or for duplication internally; has a clear, specific project or product to be migrated; has a marketing plan for rapid ramp-up to high volume shipments. If you feel one of your accounts is qualified, call your Sales Development contact.

Open system tools

HP has invested a great deal to provide the base tools your customers need to do application development. This

includes C, Pascal, and FORTRAN language optimizing compilers, a symbolic debugger, and HPtoday — a fourth-generation-plus language for transaction processing applications.

In addition, a number of tools are planned to help your customers enhance or customize the HP-UX operating system. Products we are investigating include HP-UX source code and driver writing tools. Our goal is to offer the open systems functionality of current products and more.

Custom engineering

Many Solution Creators need special hardware or software tools to complete their application. The DSD Custom Engineering group is prepared to help you with custom products for HP Precision Architecture systems. A number of requests have been received already. In addition, if you have CAE-specific needs, FSD is ready to respond.

Financial incentives

Most importantly we are making it financially attractive for your account to do development and migration of their applications on Precision Architecture machines. Qualified customers can get a 40 percent discount on the purchase of a demo-development machine.

The Solution Creators Program has only begun to unfold. Over the coming year, additional products and services will be provided to our customers to help them develop applications faster and more economically. Additional questions? Just give your DSG and MSG Sales Development contacts a call.

What the Software Evaluation and Migration Center can do

Chris *Lamoureux/SEMC*

The Software Evaluation and Migration Center (SEMC), located in Cupertino, California, is a facility to allow some of our key customers early access to HP Precision Architecture systems to begin migrating their application software and, at the same time, be an early test-site for executing, testing, and fine-tuning documentation, software, migration procedures and methods prior to release. Located near the Spectrum Program R&D lab, it provides for a field/customer/lab environment that will facilitate refinement of the software migration process

while providing the facilities and expertise necessary to assist our customers.

So, what does this mean for you and your customers? It means a smooth, tested migration path from their current HP 1000s, HP 9000s and other UNIX™ systems. It means key software being migrated to the HP Precision Architecture Family and ready for first shipments. And, because of the early customer exposure our systems are getting, it means increased confidence in the quality and usability of the Precision Architecture products. If you'd like to learn more about the SEMC or if you have a customer that you feel might qualify for early access at the SEMC, contact your sales development engineer at the Design Systems Group and Manufacturing Systems Group sales centers.

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HP 9000 Model 840 Performance Brief — tangible evidence for customers

Bob *Fillhouer/ITG*
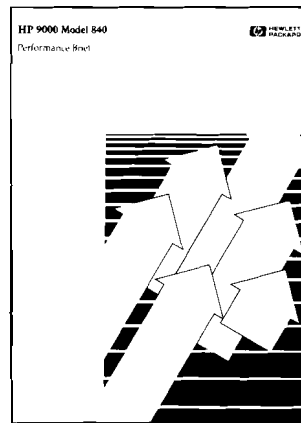
How fast is the HP 9000 Model 840? With a copy of the *HP 9000 Model 840 Performance* Brief; your customers will be able to answer this question for themselves. The brief is a tool for you to provide your customers with a first look at the actual benchmark results obtained by the Model 840. The measurements presented are contrasted against the HP 1000 A900 and HP 9000 Model 550, where applicable, to provide a relative feel for the performance level of the Model 840.

The brief demonstrates the Model 840's strong performance by providing data from three areas: CPU Performance Benchmarks; UNIX™ operating system benchmarks (Aim Benchmark Suite II™); and Real-time performance measures.

The primary message conveyed by the brief positions the Model 840 as an extension to the existing HP 1000 and HP 9000 families by offering a high-end UNIX system at a very impressive price/performance ratio. The following

statements are also made and are backed by supporting data found in the body of the brief.

a   Raw CPU power rated at 4.5 MIPS.

● CPU benchmarks demonstrate the Model 840's throughput at better than two times the performance of the HP 1000 A900 and HP 9000 Model 550.

● Whetstone double precision performance (B1D) measures approximately two million Whetstone instructions per second.

● The Aim Suite II benchmark results provide further evidence that the Model 840 is a high performance UNIX operating system system.

a   The typical real-time performance of the Model 840 is equivalent to the A900.

This set of measurements will give your customers an initial understanding of the Model 840's performance characteristics. In addition, a performance supplement "for internal use only" is being prepared to help and will be distributed to SEs to help answer any further customer questions regarding the Model 840 performance.

Future editions of the brief are planned and will update the results presently contained, plus provide further performance information for subsystems (i.e., database, networking, languages, etc.) and selected applications, as performance tuning continues.

The brief has been mailed out to field members and full bulk distribution has been made to all sales offices. Additional copies are available through the Literature Distribution Center (LDC). The publication number is 5953-8783, print date: 6/86.

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Aim Benchmark is a US trademark of Aim Technology.

CUSTOMER SUPPORT

HP 9000 Series 800 Model 840 Contractual Support

Martha *Bowden/PRSD*

Contractual Support for the HP 9000 Series 800 Model 840 puts you at a competitive advantage with both Digital Equipment Corporation (DEC) and Data General (DG).

Both hardware and software support for the Model 840 are covered by our standard services: Standard System

Maintenance and Basic System Maintenance for the hardware; and AMS, RCS, and SMS for the software. And these services have been aggressively priced to match HP's aggressive pricing on the Model 840.

Because of the high reliability of the new HP Precision Architecture technology, the hardware support cost is very low: SMMC is $355/month for the SPU, and BMMC is only $294/month. These prices are less than half the dollar prices for equivalent services on the VAX 8600 and 785 and the DG MV10000 and MV20000-1; and they are also very competitive on a percent-of-list-price basis.

For AMS and RCS level of support of software on an average configuration, HP again is less than the competition on a dollar basis. AMS level of support for the operating system is: $595/month for 16 users; $640/month for 32 users; and $670/month for 64 users, which is consistently less than DEC and competitive with DG. Overall, the product maintenance (both hardware and software) prices on a dollar basis place HP as the lowest-priced support vendor and one of the lowest on a percentage of list price basis. And this is an advantage you can use to sell the Series 840. See the support section of the Series 840 Sales Reference Guide for more details.

SALES INFORMATION

Sales training for technical Spectrum program products

Joseph *Rothman/ITG*

Most of you are, no doubt, excited about the technical Spectrum program introduction and are eager to educate yourselves and your customers. Let's review the highlights of the sales training programs and materials available to you. In general, you can expect the same type and style of training activities as seen for the commercial Spectrum program introduction. In addition to all the general information already available on the Spectrum program and HP Precision Architecture (which was distributed during the general Spectrum program introduction), you should watch out for the following specific training material and events:

● The HP *9000* Series 800 System Reference Guide and Workbook

● The HP 9000 Series 800 introduction teleconference

● The success tour — "A Foundation for Success"

● The sales skills training class — "Selling the HP Series 800"

By now, many of you should have received your copy of the HP *9000 Series 800 System Reference Guide* and have seen the HP 9000 Series 800 introduction teleconference.

The System Reference Guide

It is critical that you review the HP *9000 Series 800 System Reference Guide* (SRG). It thoroughly explains the product and touches on some key marketing and selling issues. In the SRG you'll find a workbook for the *System Reference Guide,* system product information, competitive information, configuration and ordering guide, data sheets, and sales aids.

The workbook in the SRG should be used first. By using the workbook, you will find that in a very short period of time you will pick up the key facts you need to know about the HP 9000 Series 800 Model 840 and how to relate these facts to your customers. In addition, you will know where to find information in the SRG in a quick and productive manner.

Be sure to keep the SRG as a reference and consult it whenever you have questions about the product. The SRG binder itself was designed to store all your other introduction training materials and all future mailings. It is important that you review the SRG and complete the SRG workbook prior to your next training phase — the success tour.

The success tour

The success tour, entitled "A Foundation for Success," will begin in early June. This is a one day class where factory and field people will visit every regional sales office to present you with additional product training and to review marketing strategies.

The sales skills training class

As a follow on, a two-day sales skills training class, "Selling the HP Series 800," will begin in mid-June. This course will stress tactical selling. Activities will include case studies, breakout sessions on competition, discussion of major issues, and a review of the sales process. You might want to review your strategic selling course, especially the buyer type section, prior to coming to the class.

If you're interested in attending these classes and haven't yet been notified, contact your district manager or marketing development manager. Remember, customer sales aids are also available for you and your customers' use.

Spectrum program training phase III: "A Foundation for Success"
Dan Vivoli/DSD

1986 has been an exciting year. The introduction of HP Precision Architecture and the HP 9000 Series 800 Model 840 provides a new foundation for you and your customers. You have received (and read) your *System Reference Guide* (SRG); you've seen the introduction; the next step is new product training.

A Foundation for Success

"A Foundation for Success" is a concentrated one-day seminar that will arm you with the Model 840 product information you need to begin identifying and solving customer problems. It will also give you the background (or foundation) you need for the "Selling the Series 800" sales skills course, phase IV of HP Precision Architecture HP-UX training. "Selling the Series 800" will follow shortly after "A Foundation for Success." Topics to be covered are: HP 9000 1840 hardware, HP-UX, system software, application software and the Solution Creators Program, competition/positioning, workstation update, and much more.

When and where is it?

The Foundation for Success new product training starts promptly at 8:30 a.m. and finishes with cocktails at 6:00 p.m. and will be in your area according to the following schedule:

Date	Eastern	Midwest	Sales Region Neely	Southern	Canada
June 2	—	St. Paul	Bellevue	Atlanta	Toronto
June 3	—	Chicago	—	—	—
June 4	—	Novi	Brisbane	Raleigh	Montreal
June 5	—	—	—		
June 6	Lexington	—	Palo Alto	—	—
June 9	Rockville	Cleveland	Lawndale	—	—
June 10	Valley Forge	—	—	—	—
June 11	Paramus	—	—	Dallas	Edmonton
June 12	White Plains	—	Fullerton	—	—
June 13	—	—	Englewood	Houston	—

Prerequisites

There are two prerequisites for attending "A Foundation for Success." First, use the self-paced training workbook to go through your SRG. Using the workbook as a guide makes reading the SRG efficient and fun. The second prerequisite is to be hungry for more information about our new foundation.

Technical Spectrum Program

New sales literature for the HP 9000 Model 840

Jeanne M. Hall/DSD

The following new sales literature was designed to help you sell the HP 9000 Series 800 Model 840 to your customers. You can choose literature ranging from high-level product brochures and primers to technical databooks to help you in all stages of the sales cycle.

Brochures and flyers

HP Precision Architecture Folder. Overviews the major benefits of Precision Architecture. Intended use is to hold a mix of sales and technical literature tailored to meet the information needs of your customer.

HP 9000 Model 840 Computer System Brochure. Overviews the key features and benefits of the Model 840. Intended for upper management of customers who have the technical expertise to develop solutions with the Model 840.

HP-UX Operating System Brochure. Overviews the key features and benefits of HP-UX on the HP 9000 family. Intended for technical upper management and other more technically oriented customers. To be used as a response piece to press or ad generated customer inquiries.

Building Futures in HP 1000s Flyer. Discusses the coexistence of the new Model 840 with the existing HP 1000s. Intended for management of our current and future HP 1000 customers.

Primers

HP Precision Architecture — A New Perspective. Presents a high-level discussion of HP's new RISC-based architecture and the technological changes that have made RISC the obvious choice for new systems. Intended to give customers an introduction of HP's new architecture.

Relational Technology — A Productivity Solution. A primer on relational database management systems. Provides a high-level discussion of the relational structure and its advantages. It is applicable to ALLBASE and will give your customers a solid foundation in the principles and advantages of relational technology.

Data books

Series 800 Hardware Technical Data Book. Contains bound data sheets on HP Precision Architecture, Model 840 Computer System, HP-IB Interface, Six-Channel Multiplexer, and Parallel Asynchronous FIFO Interface.

Series 800 Software and Communications Technical Data Book. Contains bound data sheets on HP-UX Operating System, PORT/HP-UX Application Migration, databases, tools, languages, and graphics including ALLBASE, Starbase, and HPtoday. Also included is a set of data sheets providing technical specifications on the AdvanceNet products for the HP 9000 Series 800.

Sales literature summary

Literature	P/N/ordering information
*Brochures**	Literature Distribution Center (LDC)
HP Precision Architecture Folder	5953-8785
HP 9000 Model 840 Computer System Brochure	5953-8784
HP-UX Operating System Brochure	5954-7060
Building Futures in HP 1000s Flyer	5958-9506
*Primers:***	Corporate Parts Center (CPC)
HP Precision Architecture	5954-6677
Relational Technology	5954-6676
*Data Books:***	Literature Distribution Center (LDC)
Series 800 Hardware Technical Data Book	5953-8771
Series 800 Software and Communications Technical Data Book	5953-8778

*Available July 1
**Currently available

GENERAL

Latest "It Works" ad promotes HP's CIM offering for electronics industry

Bojana Fazarinc/MSG

This June watch for the newest of three Manufacturing Systems Group advertisements promoting HP's manufacturing offering to the automotive, process, and electronics/aerospace industries.
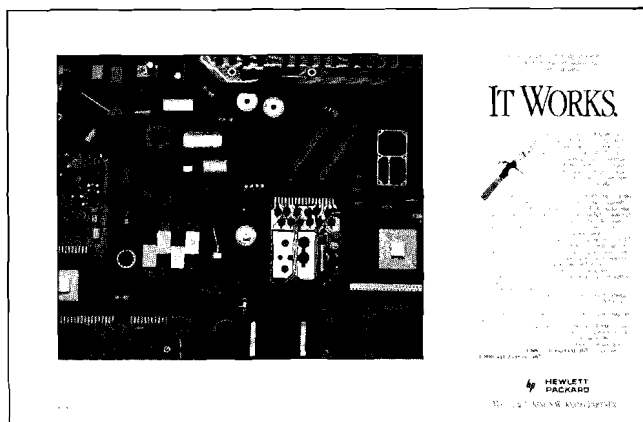
The latest ad in the series features electronics parts used in manufacturing anything from PC boards to satellites and provides customer success examples that testify our products and approach work.

Directed to top decision makers on CIM purchases, the ad campaign will continue to appear in the *Wall Street Journal, Business Week, Industry Week, Manufacturing Systems* and *Electronic Business* through September. Two more product-related ads will follow in the third quarter.

Limited reprints are available by writing to Sharon Burnet, MSG, Cupertino, Bldg. 40R.

HP will be at Advanced Manufacturing Systems Show

Marie Dalton/MSG

Hewlett-Packard will participate in the Advanced Manufacturing Systems Show at McCormick Place in Chicago, Illinois, Tuesday through Thursday, June 24-26, 1986. HP's booth is number 4008.

The Manufacturing Systems Group (MSG) will show a full spectrum of manufacturing software from value-added channels and our own divisions.

For more mformation, contact your local MSG market development manager or call Marie Dalton at 408-257-7000, ext. 3677.

The System Integrator channel

Dana Chamberlain/MSG

A systems integrator (SI) is one who procures equipment on a customized or contractual basis for system design, system/software development, integration, installation, testing, and maintenance. Other terms used to refer to SIs include systems houses, turnkey suppliers, automation specialists, special equipment manufacturers, design-and-build companies, and consultants.

The primary added value an SI provides is an understanding of the process the end user wants to automate. This is an expertise HP cannot provide in the majority of industries. This knowledge allows the SI to combine multiple vendors' products to meet the specific needs of the customer. The SI takes the user's requirements and creates a design that integrates the technology needed to achieve the required functionality.

The scope of work an SI will perform ranges from combining off-the-shelf hardware and software into a system to designing unique hardware and software. Each new automated application is unique even if it primarily uses off-the-shelf components.

Reason for the channel

Organizations are increasingly aware that they must integrate if they are going to achieve a more efficient automated environment. Automated environments are

Manufacturing Systems

important in all of HP's business segments. End users are increasingly turning to SIs for solutions. The significant markets for systems integrators are manufacturing, CAD/CAM, medical, and distribution. The other significant market for SIs is the government sector.

Market

International Data Corporation (IDC) estimated the market for systems integrator services to be in the $4 billion to $6 billion range in 1983. This is projected to grow to a $20 billion market by 1989. Over 58 percent of the revenue earned by SIs in 1983 came from contracts with the federal, state, or local government.

Services

The types of services an SI provides fall into three categories: (1) Program Managers — construction management, subcontract management; (2) Services — consulting; and (3) Custom Systems — contract programming, integrated hardware and software. Most of HP's current OEMs in the manufacturing marketplace could be defined as systems integrators. The manufacturing environment is so varied that every solution a manufacturing automation vendor provides is highly customized.

Advantages of using an SI

A custom solution provided by an SI provides the following advantages:

- Customization offers programs that function according to the user's specifications.

- Customization is needed in situations where an appropriate packaged (off-the-shelf) solution does not exist.

- Customization can provide users with the latest in technological advances.

- The resulting solution is owned by the end user.

- The customization is accomplished in an efficient manner.

- SIs provide experienced objectivity; they provide a systems approach to a variety of equipment and services with which a user's organization is not yet familiar.

- Dealing with a product vendor such as HP ties the user to a particular brand and it is difficult to find a product

vendor that is willing to integrate a competitor's product into a system.

- The user needs/wants to deal with only one company rather than an array of corporations.

- An SI provides efficient coordmation of multiple vendors.

- The SI is the first contact for maintenance support and diagnoses the problem; this avoids the finger-pointing problem that often occurs in multivendor installations.

Systems integrators approach the problems of users with a broader view than most companies can provide internally because they are a step back from the situation giving them a wider, more comprehensive look. In the end, the SI must produce the answers, collecting information from as many sources as necessary, and stand behind the decision — they see the "big picture." It is entirely the SI's job to meet schedules and requirements even if their vendors do not. They are responsible for the delivery of the system. They must carefully monitor the development process, identify risks, and contain those risks.

Status of the channel

The SI program is in the process of being defined. A steering council is in place whose mission is to address the issues surrounding the SI channel and make recommendations for solutions. The goal is to have a program approved by the end of the fiscal year.

What to do with an opportunity

In the meantime, if you have a manufacturing opportunity that may require the services of a systems integrator, please contact the Manufacturing Systems Group (MSG) Value Added Channels group. This group can put you in touch with a systems integrator who has expertise in the area.

MANUFACTURING APPLICATIONS

New course structure and training for MM II

Pamela Hinz/MPD

As part of the recent HP Manufacturing Management II (MM II) software release, Manufacturing Productivity Division (MPD) has made substantial improvements to Materials Management (MM), Production Management (PM), System Operation, and Advanced Custornization customer training courses. We have adopted many customer suggestions received from field systems engineers and the response centers as well as through our STARS system. Your customers will appreciate the new look of our training materials and the significant revisions to the courses that enhance usability and clarity.

Sell to new and current customers

Encourage your customers to send key users and new employees to these improved training courses even if their implementation is well under way. Students learn the fundamentals of using their application in a concentrated week of study that reduces support requirements and redundant individual training. You also need to order new instructor's kits for your training center and personal use so that your customers can benefit from these improvements now.

New format

With the MM II release, our training courses have a new appearance. All courses are delivered in three-ring binders with four-color covers and spines. Inside, customers will find color-coordinated tabbed pages, tables of contents, and indexes to assist them in using the materials for reference.

Text and illustrations also have a new look. Students now receive brief written explanations in addition to the transparency copies. These allow students to concentrate on the lecture and to take supplementary notes, knowing that basic information is already provided in their student guide.

New structure for HP Materials Management course — This course is structured to organize information according to manufacturing functions of each MM module. It is now a four-day course covering all features of MM via lectures interspersed with case studies for hands-on experience. The course units are as follows:

Foundation Modules — 2½ days. This is an introduction to MM II and a detailed description of the Parts & Bills, Routings & Workcenters, PO Tracking, Work Orders & Allocations, Issues & Receipts, and Inventory Balance Management modules. This part of the course was reorganized with new slides and text to simplify explanations of these vital functions.

- *Self-Paced Overviews* — ½ day. Three HP Materials Management modules now have self-paced courses that are packaged with the software: Factory Order Entry, Materials Requirement Planning (MRP), and Standard Product Costing. In the lecture course, we provide a brief overview of how to use the self-paced courses and highlight some sigmficant features of each module. Students and other customer personnel can then use the self-paced courses at their convenience.

- *Master Production Scheduling* — 1 day. This part of the course has been completely rewritten to emphasize the Fast Cycle method of using MPS. The case study has been reworked and explanations throughout are simplified.

HP Materials Management with Lot Control course — This module of the HP Materials Management application is now covered in a separate five-day version of the HP Materials Management Course. Materials for the first four days of the course are the same as for the standard course, with Lot Control presented on the fifth day.

New HP Production Management course format — This is a four-day course; the final half day covers Capacity Requirements Planning and Input/Output Analysis. The training materials have been updated and reformatted to be consistent with the new training format standards.

Changes to System Operation course — This course is now one and a half days. It has been expanded from one day to include the Terminal Interface Process (TIP). Also expanded are the discussions of security, backup, and recovery. Course materials have been further improved

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by moving to the new MM II training format described earlier in this article.

System Customization course — This course, although unchanged, has new course and kit numbers to keep it in parallel with the updated System Operation course described above and in preparation for a revision now in development. Note that the new course and kit numbers are currently tied to the existing part numbers for the unchanged guides and tapes.

Advanced Customization course — This is a half-day course taught at customer sites and available to customers who have purchased Advanced Customization. The course was updated to match the new training format and to include minor modifications to content.

How to order

Order the training course materials from the Software Distribution Center (SDC) via HEART with the following override information since these materials are available on demand only: Sales Force: 09; Product Line: 59; Marketing Division: 50; Supply Division: 5006. Include a "Please Advise" on TAC price for the materials. Also, SDC will not accept any discounts such as "Mfg. Discount".

Course: 34014A   Using HP Materials Management (HP Site), 4 days
Course: 34014X   Using HP Materials Management (Customer Site), 4 days

- *Instructor's Course Kit: 34014-60001*
  Includes Instructor's Guides, Transparencies, DB Tape, and Draw Tapes for the entire four-day course — Foundation Modules, Self-paced Overviews, and MPS

  Note: If you plan to teach Lot Control, *do not* order this kit. Instead, order the kit for the MM with Lot Control course to receive all of the same materials plus Lot Control.

- *Stuknt's Course Kit: 34014-60002*
  Includes Student's Guides for the entire 4-day course.

  Note: If customer has purchased Lot Control, order the Lot Control Student kit instead.

Course: 34015A   Using HP Materials Management with Lot Control (HP Site), 5 days
Course: 34015X   Using HP Materials Management with Lot Control (Customer Site), 5 days

- *Instructor's Course Kit: 34015-60001*
  Includes Instructor's Guides, Transparencies, DB Tape, and Draw Tapes for the entire five-day course — Foundation Modules, Self-paced Overviews, MPS, and Lot Control

- *Student's Course Kit: 34015-60002*
  Includes Student's Guides for the entire five-day course.

Course 34016A   Using HP Production Management (HP Site), 4 days
Course: 34016X   Using HP Production Management (Customer Site), 4 days

- *Instructor's Course Kit: 34016-60001*
  Includes Instuctor's Guides, Transparencies, DB Tape, and Draw Tapes for the entire four-day course including CRP

- *Student's Course Kit: 34016-60002*
  Includes Student's Guides for the entire four-day course.

Course: 32396A   System Operation (HP Site), 1½ days
Course: 32396X   System Operation (Customer Site), 1½ days

- *Instructor's Kit: 32396-60001*
  Includes Instructor's Guide, Transparencies, DB Tape, and Draw Tape for the course

- *Student's Course Kit: 32396-60002*
  Includes Student's Guide and User Manual for the course.

Course: 35060X   Advanced Customization (Customer Site), ½ day

- *Instructor's Kits: 32267-60001*
  Includes Instructor's Guide, Transparencies, and DB Tape for the course.

- *Student's Course Kit: 32267-60002*
  Includes Student's Guide for the course.

If you need additional information, contact SDC.

HP Maintenance Management Equipment Catalog training is here
Pamela Hinz/MPD

With the recent addition of the Equipment Catalog to HP Maintenance Management, the customer training courses were enhanced as follows:

- A new section was added that describes Equipment Catalog features such as adding and modifying equipment information and setting up equipment families.

- The Work Order section was substantially modified to include features of Preventive Maintenance associated with the Equipment Catalog such as date, usage, and range-driven PM.
- Many slides were modified and new slides and text were added throughout the courses to increase the clarity of feature explanations.

You should encourage your customers to send key users and new employees to these updated courses even if their HP Maintenance Management implementation is well under way. This HP training concentrates on the employee's learning period and reduces the need for redundant individual training by System Administrators. Note that you need to order new instructor's kits for your training center and personal use as well so that your customers can benefit from these updates.

Course length modified

To accommodate the additional Equipment Catalog information, the length of the two HP Maintenance Management courses has been modified. The Using Equipment Catalog, Parts Catalog, and Work Orders course is now 3½ days long while the Using Inventory and PO Traclung course is 1½ days. Please note this change, particularly if your customers plan to send employees only to the first course — they will need to be at the training site until at least noon on the fourth day. Note however, that the overall course length of one week has not changed.

New format

The HP Maintenance Management courses are now delivered in three-ring binders with four-color cover and inside tabs to assist students in using the materials for quick reference. The training includes a table of contents and an index as well. These improvements enhance the course usability while the new materials cover all of the essential details of the product.

In addition, students now receive a set of manuals as part of the training course. The manuals are integrated intb the training course as the primary reference for the case study. They can then become a valuable reference when students return to their companies.

Part number changes and how to order

Order the training course materials from Software Distribution Center (SDC) via HEART with the following ovemde information since these materials are available on demand only: Sales Force: 09; Product Line: 59; Marketing Division: 50; Supply Division: 5006. Include a "Please Advise" on TAC price for the materials. Also, SDC will not accept any discounts such as "Mfg. Discount." The HP Maintenance Management course part

numbers have changed, paralleling the product part number change as follows:

32154C   Using Equipment Catalog, Parts Catalog, and Work Orders (HP Site), 3½ days
32154X   Using Equipment Catalog, Parts Catalog, and Work Orders (Customer Site), 3½ days

- *Instructor's Kit: 32154-60005*
  Includes Instructor's Guide and Printed Transparencies for the course

  Note: We recommend that you order this version of the Instructor's Kit for high quality slides at lower cost than plotting them yourself for the course

- *Instructor's Kit: 32154-60004*
  Includes Instructor's Guide and Draw Tape of Transparencies for the course

  Note: Order this kit to customize transparencies for pitches or special customer presentations

- *Student Kit: 32154-60008*
  Includes Student's Guide, Tutorial Manual, and Reference Manual

321540   Using Inventory Control and PO Tracking (HP Site), 1½ days
32154Y   Using Inventory Control and PO Tracking (Customer Site), 1½ days

- *Instructor's Kit: 32154-60007*
  Includes Instructor's Guide and Printed Transparencies for the course

  Note: We recommend that you order this version of the Instructor's Kit for high quality slides at lower cost than plotting them yourself for the course

- *Instructor's Kit: 32154-60006*
  Includes Instructor's Guide and Draw Tape of Transparencies for the course

  Note: Order this kit to customize transparencies for pitches or special customer presentations

- *Student Kit: 32154-60009*
  Includes Student's Guide, Tutorial Manual, and Reference Manual

If you need additional information, contact SDC (Software Distribution Center).

Manufacturing Systems

FACTORY AUTOMATION

Momentum builds for Micro 1000 bundles

George A. *Billman/DSD*

Early orders for sales are showing the attractiveness of the Micro 1000 bundles, the MICRO 16 PLUS, and the MICRO 29 PLUS.

Since the HP 2456A and 2559A products went on the Corporate Price List April 1, 1986, HP has booked over one quarter million dollars in orders.

Sales success with the MICRO 29 PLUS

The HP 2459A bundle, based on a Micro 29 A900 system, is proving useful to your colleagues. For example:

- The configurations available and the potential $14,000 discount from list can improve your position against DEC's MicroVAXII.
- The HP 2459A ordered as a dedicated development system can complement an order for target HP 1000 systems.
- The network products available with the HP 2459A, NS/1000, and LAN/1000, suit it to applications in network supervision or control.

Refer to the A-Series Systems Product Reference Guide, distributed in April 1986, for details on the MICRO 29 PLUS. The field training manual for the MICRO 29 PLUS, included in the reference guide, provides competitive analysis and performance benchmarks for DEC's MicroVAXII.

VC+ free in MICRO 29 PLUS

A copy of VC+ software (HP 92078A), the RTE-A virtual code system software, is now a part of the core product set in the new MICRO 29 PLUS product, at no increase in price.

Savings to your customer are increased by $5,000, the price of an additional copy of VC+. This enhancement to the MICRO 29 PLUS boosts total potential savings to over $14,000.

VC+ software extends RTE-A to support a variety of useful features, such as support of NS/1000, large program handling based on code and data separation, and improved environment for multiuser operations.

230-volt power options for discs

Options for 230-volt power have been added to the HP 2459A product structure for the 55-Mbyte and 132-Mbyte disc drives.

- Option 115 provides 230-volt power for the 55-Mbyte disc, the HP 7945A. The disc is available as Option 001.
- Option 215 provides 230-volt power for the 132-Mbyte disc, the HP 7914CT. The disc is available as Option 002.

Sales success with the MICRO 16 PLUS

The HP 2456A product bundle is running up impressive sales in its first month. The HP 2456A has been at the core of a single order for nine systems and has provided over $100,000 in sales to HP.

The HP 2456A can save you 50 percent on an HP-IB, MUX card, and 1 Mbyte of ECC memory. Also, it uses Data Systems Division's (DSD) new Micro 16 packaging that delivers a lot greater operating reliability and lower cost for your customers.

In configuring the MICRO 16 PLUS, note that DSD has repriced the 1- and 2-Mbyte ECC cards by 40 percent, to give your customer a way to minimize slots used for memory at a more attractive price.

Rack-mounting kit available

A new rack-mounting kit is available for the Micro 16 computer. Order HP 12905A for $375 US list ($350 factory base price) for a 19-inch EIA rack-mount adaptor.

HP 1000 memory price changes

George A. *Billman/DSD*

As of June 1, 1986, Data Systems Division (DSD) has revised the pricing of several of its memory products for the HP 1000 A600 and A700 computers. These price changes reflect DSD's improved cost basis and are made to maintain our price position versus competing vendors.

P/N	Capacity	Old price	New price	Decrease
12102B	512-Kbyte Controller	$ 2,925	$ 2,425	17%
12103E	2 x 1-Mbyte Multipack	8,500	6,500	23%
12103F	4 × 1-Mbyte Multipack	12,000	16,000	25%

HP 7974 loader ROM for E/F-Series

George *Billman/DSD*

In order to provide new E/F-Series purchasers with necessary magnetic tape support, Data Systems Division (DSD) has produced a loader ROM to support the HP 7974A 1600 cpi tape product.

P/N	Description	US list price
12992L	7974A loader ROM	$105

To implement support of the HP 7974A loader ROM, your customer must also have a lirmware expansion module (P/N 12791A) with three free ROM slots.

NS/1000 Release 2 available July 1

Chrysa *Caulfield/IND*

Beginning July 1, NS/1000 Release 2 will be sent to all field offices that are supporting NS/1000 Release 1 installations. Release 2 provides support for HDLC links configured as routers or gateways. A gateway is a new type of connection for the HP 1000 based on the HDLC interface card. A gateway allows users to connect several networks together into a supernet or "catenet." A typical network using both routers and gateways is shown below. Please note that X.25 is not supported at this release. X.25 support will be announced in the short-term future.
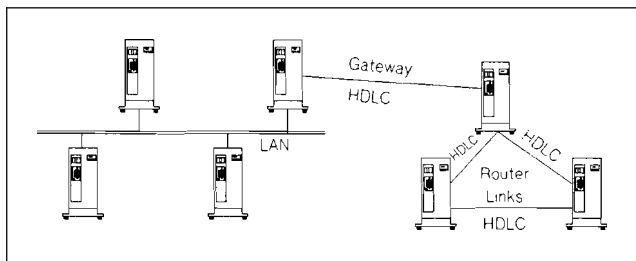
Remember, Network Configuration Checkout is still required before ordering any NS or LAN products.

NS/1000 and RTE-A compatibility

Chrysa *Caulfield/IND*

Please note that not all versions of NS/1000 are compatible with all versions of RTE-A. The following table shows NS/1000 and RTE-A supported combinations

		RTE Version	
		A.85	4.0
NS/1000	Release 1	Supported	Not supported
	Release 2	Not supported	Supported

This means that:

- Customers who update RTE to 4.0 must update NS to Release 2.
- Customers who update NS to Release 2 must update RTE to 4.0.
- NS and RTE must be updated simultaneously.

Since NS Release 2 is not part of a standard PCO, NS/1000 customers will not receive the NS/1000 Release 2 update as part of their normal subscription service. Network Marketing Center (NMC) Online Support will send Release 2 update tapes to the field offices that are supporting NS/1000 Release 1 customers. The tapes will be sent to the systems engineer who submitted the Network Configuration Checklist Services (NCCS) application. The systems engineer will then deliver the tape to the customer for installation.

Customers who purchase NS will receive a letter from Information Networks Division (IND) to inform them of these software dependencies. If you have any questions, please contact NMC Online Support at 408-725-8111.

Manufacturing Systems

RJE/1000-II now supports POWER

Blake *White/IND*

HP 1000s may now transfer files to IBM systems with DOSNSE POWER via Remote Job Entry-I1 (RJE/1000-II). RJE/1000-II emulates bisynchronous 278013780 communications for the HP 1000. POWER is the IBM 370 mainframe spooler under the DOS operating system and is popular in Europe. RJE supports POWER under DOS/VSE, a mainstream IBM product, but not the older DOSNS.

HP Vectra PC rack-mount shelf kit

JimKinney/DMK

The HP Vectra SPU can now be rack mounted in any standard EIA rack cabinet with the new 35199A rack-mount shelf. It has been specifically designed to fit the Vectra footprint and allow for easy rack mounting. The kit consists of a base which attaches to the bottom of the Vectra SPU and two side panels that attach to the base and provide rack mount ears for securing in standard EIA rack cabinets.
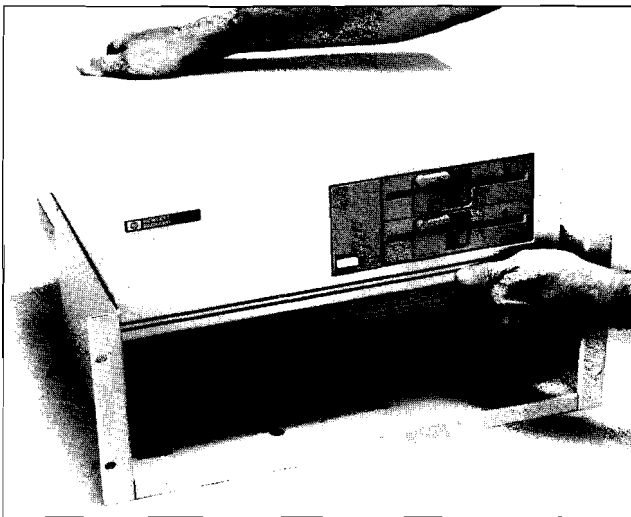
A rail kit is required to complete the installation. For HP EIA racks, the 12679B rail kit is needed. For non-HP racks, a standard rail kit from the rack manufacturer will be needed.

P/N	Description	Quantity	Factory base price (each)	US list price (each)
35199A	HP Vectra PC rack mount shelf	(1-9 units)	$76	$79
		(10-24)	69	72
		(25-49)	65	68
		(50-99)	61	61
12679B	Rail kit		59	60

Customers can order this rack-mount shelf through their local HP sales office. It is also available in the US by calling Direct Marketing Division's direct phone ordering service, 800-523-2121. For other rack-mount hardware and instrument accessories, see the Instruments Direct Catalog (P/N 5954-0193D).

hp

Introducing HP Printed Circuit Design System

Jay Brown/FEO
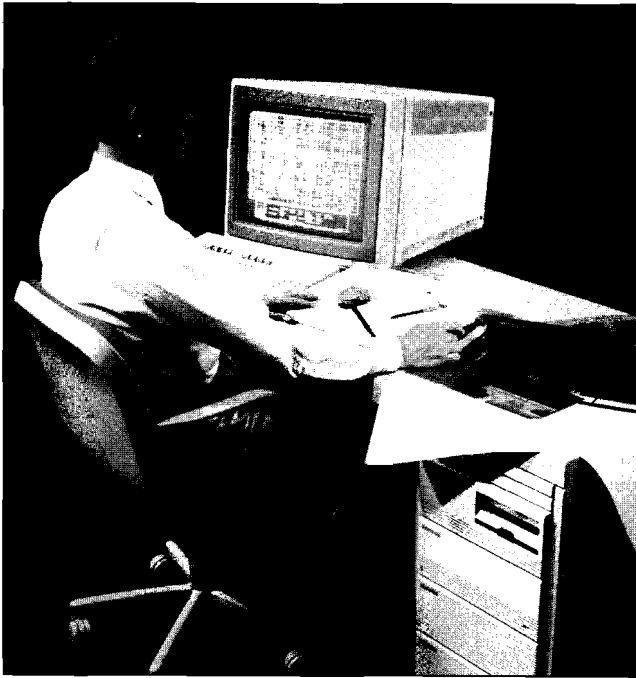
HP Printed Circuit Design System can create highly manufacturable boards that perform precisely as the electrical engineer intended.

The Fort Collins Engineering Operation (FEO) is proud to introduce HP Printed Circuit Design System (HP PCDS) on the June 1 Corporate Price List.

Printed Circuit Design Station is the companion product to the HP Electronic Design System (formerly the HP Logic Design System) from the Logic Design Operation and Lake Stevens Instrument Division. These two products are functionally integrated, with connection list, back annotation and engineering change order transfer capability. Also, the libraries of the two systems are totally synchronized, ensuring your customer's electronic design from the Electronic Design System can be physically realized by the Printed Circuit Design System.

Other systems that can be used to input logic designs into HP PCDS include HP EGS's Schematic Drawing Personality, and other vendors' systems that support EDIF 110. Connection lists can also be manually entered.

The space here does not permit a full discussion of all the features in the Printed Circuit Design System. Automatic

gate assignment, placement, placement improvement, trace routing, and production of manufacturing outputs are just some of the major automated tools provided by the system.

It contains numerous other tools, both interactive and automatic, for the design of digital, analog, and mixed digital/analog technologies. The system supports both through-hole and surface-mounted packaging technologies, and has a collection of automated tools for thick-film hybrid design.

The system provides an extensive set of tools to manufacture printed circuit boards, including Gerber Photoplotter output, Excellon and Trudrill Numerical-controlled Drill output, a complete set of production reports, and a link to the HP 3065 board test system.

The introduction activities for HP PCDS were designed to help the field get a fast start, and many of them were executed before the product was on the price list. Training of EE CAD specialists to both sell and support the system began in late April. Information about HP Printed Circuit Design System, along with the rest of the Design-Center products, was presented to 20 editors of industry publications in mid-March. Look for a lot of HP press beginning June 2.

Another early introduction activity has been FEO's Prime Account Development program. We were anticipating (and received) hundreds of telephone calls from the field about HP PCD sales situations, particularly those situations where customers were first interested in HP Logic Design System. This demand forced us to concentrate on a handful of accounts that could provide us the most leverage in terms of reference site potential.

We have already visited about 20 customers worldwide. Some were given just an overview of the product, others complete details. We are now in the process of hosting the accounts that are still in the funnel, and are hoping to close some deals during these early, typically lean, months. Look for information on these reference sites in later issues of *Information Systems & Manufacturing News* and *Measurement & Design Systems News.*

You may know FEO from our successful HP EGS, HP's entry-level EE CAD system. The over 1,500 installations of HP EGS outside HP have given FEO experience in the EE CAD marketplace. We are taking full advantage of that experience in our development of training and support of this new full-function PCB CAD system.

Design Systems

HP Printer Circuit Design System configuration and pricing

Bill *Arrington/FEO*

The Printed Circuit Design System takes advantage of HP's broad range of computer and peripheral offerings. Full design systems can be configured from under $60,000, including hardware and software.

The software is segmented into logical modules so each workstation on a Local Area Network (LAN) does not have to be a complete software package. For example, a system can have several stations dedicated to just design, while another station is dedicated to just automatic routing, parts generation, or peripheral spooling.

Printed Circuit Design System software modules

P/N	Description	US list price
74400A	Complete software (includes 74401A, 74402A, and 74403A), Option 022*	$30,000
74400R	Complete software, Right to Copy, Option 022	24,000
74401A	Design Module Software, Option 022	10,500
74401R	Right to Copy, Design Module Software, Option 022	8,400
74402A	Autorouter Module, Option 022	13,500
74402R	Right to Copy, Autorouter Module, Option 022	10,800
74403A	Library Module and Parts Library, Option 022	6,000
74403R	Right to Copy, Library Module and Parts Library, Option 022	4,800

*Software on ¼-inch tape *cartridge.*

In addition, here are the recommended hardware and software configurations:

A low-cost system consisting of a 320U (98561C), keyboard, medium-resolution monitor, ID module, A-size tablet wlpuck, HP-UX, 88 Mbytes of disc storage, tape drive, taboret and Printed Circuit Design System Software lists for under $60,000.

The recommended system consisting of a 320C (98583B), A-size tablet wlpuck, taboret, 132 Mbytes of disc storage, and Printed Circuit Design System Software lists for under $70,000.

The high-speed graphics system consisting of a 320CX, A-size tablet wlpuck, taboret, 132 Mbytes of disc storage, and Printed Circuit Design System Software lists for under $80,000.

The recommended autorouter system consisting of a 320ML, 3 Mbytes of additional memory, DMA, HP-IB disc interface, taboret, and Printed Circuit Design System Autorouter Software lists for under $38,000.

With the exception of the low-cost svstem. HP Printed Circuit Design System comes with the necessary hardware and software to run on a LAN. HP Printed Circuit Design System was designed to take advantage of this feature, and the networkmg possibilities are almost limitless.

The modular structure can greatly reduce the price per seat. For example, a networked system with two high-speed graphics stations, two low-cost graphics stations, and an autorouter station would cost less than $60,000 per seat — less per seat than one low-cost system.

See the HP Printed Circuit Design System Configuration Guides for more information.

Sales promotion tools for HP Printed Circuit Design System

Kathryn Babcock/FEO

Just published sales promotion literature is available to help you sell FEO's newest printed circuit board computer-aided-design product: the HP Printed Circuit Design System (HP PCDS).

- The HP Printed Circuit Design System sales brochure (P/N 5954-7052). A full-color, eight-page brochure describing the features and benefits of this full-function CAD system.

- The HP Printed Circuit Design System Technical Specifications (P/N 5954-7053). A one-color 45-page data sheet detailing system capabilities and technical specifications.

- The HP Printed Circuit Design System Pricing Information (P/N 5954-7059). A one-color pricing sheet for the system, its modules, HP-ASSIST, training, and support services.

These pieces of literature, together with the HP PCDS Field Training Manual, the HP PCDS Configuration Guide, two FEO training videos, and a 10-minute HP PCDS sales promotion videotape offer you a variety of materials to help your customers appreciate the power of the turnkey Printed Circuit Design System.

The May Momentum mailing will carry copies of the brochure and the pricing mformation sheet. To order the HP PCDS Field Training Manual, which includes one copy each of the HP PCDS Configuration Guide, sales brochure, technical specifications, and pricing mformation sheet, send your request through HPDesk to FEO Sales/HP4006/00 or call FEO Sales at TELNET 1-229-4333.

Please note that we will not do a full bulk distribution of the HP PCDS sales brochure, so you may wish to place orders for this sales tool from the Corporate Literature Distribution Center as soon as possible.

You can obtain the two FEO training videos by contacting your EE Focus Group manager. After June 15, the sales promotion video will be orderable through the HEART System.

Watch for further announcements of printed circuit board CAD sales tools to help you in your sales efforts.

Field training for HP Printed Circuit Design System

Jerry Watkins/FEO

The training cumculum for HP's Printed Circuit Design System has been finalized. The classroom portion of the field training consists of two courses.

SE338 Printed Circuit Design System Application Sales Training

This course reviews the fundamentals of the printed circuit design process, the current market and competitive situation, and details of the Printed Circuit Design System. Students will be able to demonstrate the product to an economic buyer via a canned demo and will be able to understand where PCDS is an appropriate product fit.

This one week course is designed for both systems engineers (SE) and field engineers (FE). Ideally, SEs and FEs who work together would attend this course together.

There are two pre-study modules that serve as prerequisites to this course. The first, entitled "The Evolution of the Printed Circuit Board," consists of a 45-minute videotape and an associated reference manual. A copy of the videotape was mailed in late February to the district manager associated with each CAEE Focus Group or Special Interest Group in the US, and was mailed in bulk to the European Marketing Center for distribution in Europe. The associated reference manual will be mailed to students as they register.

The second pre-study module, entitled "Competition in Printed Circuit Board Design," also consists of a videotape and an associated manual. These were distributed in April in the same manner as the first module.

SE339 Printed Circuit Design System Product Technical Training

This course reviews printed circuit design application, teaches the use of PCDS for PC board design, and describes the installation and maintenance of the product in a PCB design environment. Upon completion, students will be able to design a PCB from schematic to manufacturing outputs; build parts and maintain the parts library; thoroughly demonstrate the product; teach the customer class; install and maintain the system; and deliver HP-ASSIST.

This two week course has the following prerequisites: completion of PCDS Application Sales Training (including pre-study); introduction to HP-UX; HP-UX System Administrator Training; and experience with schematic capture on the Electronic Design Station (formerly Logic Design Station).

Registration for these courses is handled through Application Support Division (ASD) using the procedure already in place for SE training. Those wishing to attend should have their managers send an HPDesk message or COMSYS to Vanessa Smith (HP5000/40) with the student's name, employee number, and the name and date of the course in which to be enrolled. A confirmation will be sent by ASD if there are open seats in the particular class.

enrolled. A confirmation will be sent by ASD if there are open seats in the particular class.

Schedule of classes

Course		Location	Dates
SE338	PCDS Application Sales Training	EMC-Boeblingen	June 2-6
SE338	PCDS Application Sales Training	EMC-Boeblingen	June 9-13
SE339	PCDS Product Technical Training	EMC-Boebhgen	June 16-27

Note: Registration for these classes will be handled by Helga Rupp in Geneva, Switzerland.

Course		Location	Dates
SE338	PCDS Application Sales Training	Ft. Collins	July 7-11
SE338	PCDS Application Sales Training	Ft. C o h s	July 21-25
SE339	PCDS Product Technical Training	Ft. Collins	July 28-Aug. 8
SE338	PCDS Application Sales Training	Ft. C o h s	Sept. 8-12
SE338	PCDS Application Sales Training	Ft. C o h s	Sept. 15-19
SE339	PCDS Product Technical Training	Ft. C o h s	Sept. 22-Oct. 3

Engineering productivity assistance for HP Printed Circuit Design System: HP PCDS-ASSIST

Frederik *Vermeulen/ASD*

Pre-sales

An HP EE-ASSIST workbook has been designed for your use throughout the pre-sales process and the implementation of the HP DesignCenter EE-CAD Software. The tools presented and the techniques described should serve as useful guides regardless of the size of the account or the industry served.

The material is organized sequentially, beginning with pre-sales qualification tools, followed by the process of Project Implementation Assistance (PIA). The PIA may be replaced by Implementation Assistance with Local Area Networking (LAN PIA), depending on whether it is a single or a multiple workstation implementation.

You will receive a copy of this workbook when you participate in one of the HP-ASSIST classes or DSG EE-

CAD software classes. You may also order it directly from ASD.

The pre-sales handbook is an integrated tool kit which consists of sales tools such as DesignCenter EE-CAD product presentations, Business and Application Fit Analysis evaluation and questionnaires, quick competition/feature matrix, tools for cost justification analysis, and much more. In short, we gathered all the standard pre-sales activities and made the right tool for you to use in your daily job.

Post-sales

HP PCDS-ASSIST (Project Implementation Assistance) is ordered by the customer to ensure a smooth transition to using HP PCDS. Productivity is the key to ASSIST and will significantly reduce the time for successful implementation. Close interaction between the customer and the ASSIST team is critical throughout the ASSIST cycle. HP-PCDS ASSIST is divided into three parts: Plan, Execute, and Analyze.

● Planning phase — The process to effectively plan for installation and implementation of an automated EE CAD system. This phase includes the following distinct steps:

    -Implementation overview
    -Define major activitieslresources
    -Pilot project definition

● Execute phase — This phase actually implements the planning activities above. Each project is unique in its characteristics and will be executed as appropriate.

    -Installation of hardware and software
    -Training (one seat in HP classroom)
    -Checkpoints to determine the implementation
     success

● Analyze phase — This phase reviews the previous phases and determines areas of concern. Problems should be identified early in the implementation, and therefore, analysis is really used throughout the whole process.

HP PCDS-ASSIST pricing (effective July 1) is as follows:

P/N	Description	US list price
74400A + 60A	HP PCDS-ASSIST (single workstation)	$14,400
74400A + 60B	HP PCDS-ASSIST with Local Area Networking	15,600
74400A + 652	Option to add service unit	1,000

HP EGS previous customer discount for HP PCDS

Glynn *Sisson/FEO*

We are offering to existing HP EGS customers the opportunity to purchase the new HP Printed Circuit Design System (HP PCDS) software at a discount. These customers qualify for the 74400R Right-to-Copy product normally reserved for second and subsequent copies of HP PCDS. This results in a 20 percent savings or $6,000 (US) when buying the first copy of HP PCDS. This discount should help the field with the existing 1,500 HP EGS customers outside HP and provide some early successes.

Since the Right-to-Copy product does not include the magnetic media, FEs should contact FEO SALES by telephone (TELNET 229-4333) or HPDesk (FEO SALES/HP4006/00) to get a copy of the media. We will verify the customer's name from our list of qualified customers. Qualification is based on having purchased 98305A prior to June 1, 1986. Customers are entitled to purchase one 74400R for each copy of 98305A.

Introducing Modular HP EGS

Lee *Reep/FEO*

In a continuing response to market demand, on June 1 Fort Collins Engineering Operation (FEO) introduced a new member to our HP Engineering Graphics System (HP EGS) family — Modular HP EGS. Modular HP EGS is HP's entry-level EE CAD system for complete product design.

Modular HP EGS will emphasize EE physical design — or printed circuit board layout. FEO is not new to this business, having introduced EGS/45, HP's first product for PCB layout, in 1982. This product evolved into HP EGS, a general purpose CAD tool including ME CAD as well as EE CAD. With HP products now available specifically for ME design, FEO will focus on EE physical design. With over 3,500 HP EGS installations with a majority used for PCB layout, FEO is committed to this market and our loyal customer base.

Modular HP EGS was developed in response to field and customer requests for an "unbundled", or modular, version of HP EGS. HP EGS consists of several modules — a general drawing module. an EE module and an ME module. Since many custdmers do not need every

module, Modular HP EGS can offer a substantial price reduction over HP EGS. Modular HP EGS will allow your customers to purchase just the modules they require.

Modular *HP* EGS is *HP's entry-level* EE *CAD* system for complete product design.

Modular HP EGS consists of a general drawing core, with optional modules available for schematic capture and PCB layout. The core product includes the graphics editor, Engineering Graphics Module (called General Drawing in HP EGS), material lister, connection lister and full documentation.

The Schematic Capture Module adds schematic drawing capability, including an EDIF (Electronic Design Interchange Format) link for netlist output. The PCB Layout Module adds capabilities to create a board blank, layout components, generate a rats nest, generate a connection list and perform a connection list comparison to the schematic netlist.

Links to manufacturing are available through a separate product (98310A) for output to photoplotters and N/C drill machines. HP EGS also offers a link to the HP 3065 board test system.

Custornization is still integral to the product, a feature many users find extremely useful and powerful. Users can modify screen and tablet menus, write macro routines and develop their own modules or personalities for custom applications. In addition, HP TechWriter can be

Design Systems

used for technical documentation, allowing the merging of text and graphics.

Drawings can be transferred between Modular HP EGS and ME Series 10, giving customers the ability to choose the right entry-level tool for the job: Modular HP EGS for PCB layout and ME Series 10 for mechanical design. However, simple assembly drawings can still be done with the general drawing capability of Modular HP EGS — a truly complete product for entry-level EE CAD.

Pricing information (US list)

Detailed pricing and configuration information for the HP EGS family will be sent to the field via Momentum. A new HP EGS product family brochure and data sheet will also be included. The pricing information is too detailed to outline here. The following table shows the structure and pricing for Modular HP EGS:

P/N	Description	US list price "A"	"R"
74305A/R	Modular HP EGS core	$6,000	$4,800
	Schematic Capture option	1,000	800
	PCB Layout option	1,000	800
74306A	Add-on Modules for HP EGS	0	
	Schematic Capture option	2,000	
	PCB Layout option	2,000	
	ME option	2,000	

HP EGS (P/N 98305A/R) will continue to be offered for those customers who need or want the entire EGS product.

For more information please contact FEO at 303-229-4333, or TELNET 226-4333 or via HPDesk at FEO SALES/HP4006/00.

HP VMEbus Interface available now

Mikael *Wipperfeld/BCD*
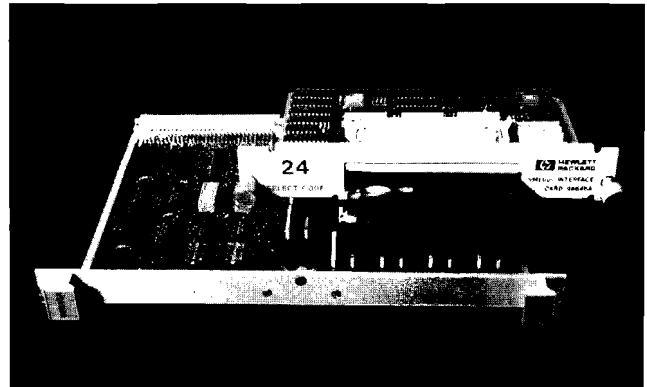
As of June 1, 1986, a VMEbus interface to link HP 9000 Series 200 and 300 technical workstations with the industry-standard architecture of the VMEbus (IEEE P1014) is available from Boeblingen Computer Division (BCD).

The combination of VME products with HP computers delivers high I/O performance and greater modularity for customers in the scientific, industrial, and military markets. The interface can be used in applications ranging from test/measurement automation, data analysis, and image processing to factory automation, process control, and robotics.

The VMEbus interface reflects HP's commitment to supporting industry standards in the technical marketplace. It provides HP customers with access to the diverse "single-purpose functionality" inherent in VME card-level products offered by over 150 VME vendors. It makes the integration of HP Series 200 or 300 supported HP-IB systems and peripherals with VME systems possible. Current VME users can now benefit from the full functionality and user friendly environment of an HP computer as well as the wide range of high precision and quality HP instruments. Integration in either case would come from the customer and/or an external system integrator.

The VMEbus interface is a combination of hardware and driver software. The hardware, HP 98646A, consists of two cards connected by two shielded flat cables. The DIO card fits into the backplane of the Series 200 or 300. The VME master module can be used with any double-height Eurocard VME rack. Data transfer between the HP computer and the VMEbus system as well as interrupt handling are controlled by the software drivers (HP 98358A/R), available for all supported operating systems: BASIC, Pascal, and HP-UX with its real-time extensions.

The interface enables data transfer from the VMEbus to the Series 200 or 300 (or vice versa) and handles interrupt requests from the VMEbus. 8- and 16-bit data transfer paths as well as a 24-bit addressing path are utilized by the interface. The data transfer speed between the systems is in excess of 1 Mbyte/second.

The VMEbus (IEEE P1014) is an asynchronous, non-multiplexed M680xx-based bus architecture which supports multiprocessor 8-, 16-, and 32-bit applications. Its features include up to 20 Mbyte/second data transfer speeds on the bus, high speed block transfers, and priority interrupt levels. The mechanical features of the VME conform to the relevant IEC Eurocard specifications.

Product pricing (factory base price)

	Hardware	BASIC/Pascal driver	HP-UX driver
98358A			
98358R			

For more information on the new VMEbus interface, the following pieces of sales literature are available: Technical Data Sheet, P/N 5953-4388; Technical Application Note, P/N 5953-4389; and a flyer, P/N 5953-4390. Several of these pieces (including a Field Training Manual) will be included in a binder for the Technical Computing Environment Event in June. This will be sent to all technical sales reps. For additional Field Training Manuals please contact Christiane Diebler at BCD in Boeblingen, West Germany.

Introducing the HP 9000 Model 560 and guaranteed upgrade
Pete Lord/FSD

On the June 1 Corporate Price List we are introducing the newest product in the HP 9000 family, the Model 560 (9060AM). The 560 can best be described as a fully-loaded 550 with three CPUs, 8 Mbytes of RAM, a single I/O processor (IOP), HP-IB, hi-speed HP-IB interface, and a 6-channel MUX. Bundled software products include a 16-user HP-UX license, FORTRAN, C, Pascal, and graphics libraries. The Model 560 will be targeted primarily at customers who want a supermicro for 6 to 32 terminal-based users for software development. In some vertical markets, it will have a position beyond the multi terminal supermicro configuration. For example, in ME design, when coupled with up to three 98700H display stations, it will serve as a multi-seat engineering workstation. In microprocessor development, it will serve as a computer server. At $44,950 (US list), the Model 560 is offered at a significant price reduction.

As part of our commitment to protecting our customers' investment in HP 9000 computers, we are offering an upgrade from the Model 560 to the Series 800 Model 840 HP Precision Architecture computer. This will allow your customer to purchase the Model 560 today, and economically grow into an HP Precision Architecture computer as their needs grow.

Any customer who purchases a Model 560 will have until June 1, 1988 to trade it in towards the purchase of a Series 800 Model 840. The customer will receive a credit of 50 percent of the 560's list price. At the current 560 list price, the credit would be $22,475. Normal purchase agreement discounts will apply which makes the effective credit much higher than 50%.

Design Systems

Price reduction on Series 500 CPU and RAM bundles

Pete *Lord/FSD*

In addition to the single-board CPU price reduction, we have a very important announcement for those of you who sell the Series 500 in large quantities to VEUs and OEMs. The price of the 25 CPU bundle (97043P) will be reduced by 30 percent, from $100,000 to $70,000. This package will provide CPUs in quantity at $2,800 each. In addition, the price of the bundle which consists of 50 1-Mbyte RAM cards (97046P) will be reduced by 33 percent, from $150,000 to $100,000, or $2,000 per Mbyte.

IBM PC AT software compatibility co-processor for HP 9000 Series 300

Kathy *Kimball/FSD*

The HP Series 300 DOS Co-processor System provides IBM PC AT MS-DOS software compatibility for the HP 9000 Series 300. The system is composed of an 80286 co-processor DIO card (with socket for 80287) and associated emulation software. The complete system requires the HP-UX 5.1 Application Execution Environment, approximately 2 Mbytes RAM, and works with either the Model 310 or 320 processor. In order to provide compatibility with 'off-the-shelf PC-AT software, the HP 9127A 5%-inch, 360-Kbyte double-sided, double-density disc drive is available. The system provides compatibility with literally thousands of readily available MS-DOS software applications.

The co-processor system uses many system resources shared between HP-UX and MS-DOS (memory, displays, keyboard, peripherals, file system, etc.) and provides true HP-UX/MS-DOS integration. Many unique features are provided such as: operation of MS-DOS as a task in the multitasking windowing HP-UX environment, ASCII file transfer capability between HP-UX, MS-DOS, and the BASIC or Pascal operating systems, multiple PC-supported display adapter emulation (MDA, CGA, and Hercules) with greatly improved alpha fonts, and software emulation of the Lotus/Intel/Microsoft (LIM) Expanded Memory Specification (EMS).

Look for more information in your Momentum mailing.

Presentation/demopack for HPtoday available

Ian *Gaunt/ASO*

How would you like to impress your customers by showing them a simple, but complete application developed from scratch, in less than one hour?

The HPtoday Demonstration Pack has been designed to help you successfully demonstrate the productivity of HPtoday. Your customers' programmers will be particularly pleased to see at first hand, the power and ease of use of the HPtoday Screen Painter and HPtoday Report Writer.

The demonstration also highlights the new methods of developing any application in HPtoday. For example, you don't have to tell the system how and what to do, only what to do, because HPtoday does the rest. And that means you don't have to think of the next line of code as you build an application — HPtoday gives you complete flexibility in where you go and what you do, because it provides all the code you need. It's just what your ISVs and VARs, Major and Government Accounts have been waiting for.

In about one-eighth of the time it would take to develop using conventional languages such as Cobol, the demonstration application is built, tested and demonstrated. The application-is completed with all logic, data entry screen, menu screen, and reports. There are no hidden tricks, or sleight of hand to hide dummy files, or difficult processes, because the total application is built from clean files in about 45 minutes depending on how much conversation you want to have with an interested customer — and when it's over, it is a simple three minute exercise to restore the files for the next presentation.

And if you are not very confident about pushing the right buttons at the right time, a copy of the complete demonstration application can be called up and evaluated with your customer.

In order to make your life a little easier, a thorough, blow-by-blow, presentation script, complete with the "sizzle" for your customers is included. Included in the demonstration pack is the demonstration software, and a complete set of documentation to demonstrate the rapid and easy prototyping facilities for your hottest prospects.

The demonstration version of HPtoday, the very latest in HP's computer-assisted programming systems for transaction based and information management applications, is

available for the HP 9000 Series 300 and 500. To order your copy, consult the HPtoday Field Training Guide in your office, or order direct by sending an HPDesk message to HPtoday/9061/AS.

APPLICATION

to record incoming telephone bills and prepare
a voucher to authorise payment

The Bill

INTERNATIONAL TELEPHONE SERVICES	Telephone Number 11-224	
TO: The Manager Pivot Enterprises 20 Walsh Street Frankston	Details	Amount
	Metered Calls	23.00
	Rent	25.00
	Less Refund	4.00
	Total Due	44.00

(The Application

HPtoday

REPORT

FILE

The Method

1. Dictionary definitions
2. File creation
3. Screen development
4. Logic building
5. Report generation
6. Testing

HPtoday: slides and script kit available

Ian *Gaunt/ASO*

Now there's a new and very professional way for you to tell your customers about HPtoday — its flexibility, its productivity in application development, its ease of use, and its exceptional prototyping capabilities. You don't have to dream up what you are going to say about the product, nor do you have to spend hours creating profes-

sional and meaningful slides to introduce HPtoday to your customers and prospects.

All you need is a copy of the HPtoday Presentation Script, and your slides. Whether you want to use a set of overhead transparencies or a set of 35mm slides, or both, there's a professional script to accompany each which gives you all the details you need to introduce the product to your prospects.

And your script (for each) is much more than just a script. It's set out in three major sections, together with a brief guide as to how to use the script.

The first section is a general overview of HPtoday — how it came about and what it's all about. You'll learn a little about how HPtoday stands up to its competition, and the value of HPtoday to developers and end-users alike. So if you missed the teleconference or the NPTs, this is a way to find out about this exciting computer-assisted programming system.

The second section of the complete HPtoday Slide Presentation Pack is the recommended detailed script to accompany each slide in the set. The script is printed in presentation style, double spaced to enable you to make changes easily to suit your style and content, depending on your audience.

And if your audience is more sales oriented than customer oriented, there's a subset of extra slides with a matching script to help you get the HPtoday story across. There's even a feature/benefits section that sales and support persons could use in their prospect mailing, proposals and surveys.

The third section is summary of the main presentation script. It's designed to give you the headlines, and you can fill in the rest to suit your style and the type of audience you have.

For a professional 15-20 minute introduction of HPtoday, you may find the HPtoday Presentation Script for Overhead and 35mm Slides is just what you need. Use your overheads with an overhead projector, or as a talking point, face-to-face with your customer.

As listed in the HPtoday Field Training Manual, you have a choice of diagraph source *code* for overhead transparencies at no charge, or your office can purchase high quality full color slides, or full color quality 35mm slides. All are supplied with the comprehensive HPtoday Presentation Script.

How do you get it? Just follow the instructions in the HPtoday Field Training Guide, or send a desk message

Design Systems

to: HPtoday/HP9061/AS. If you prefer, phone your order direct to Australian Software Operation (ASO) (International) +61 3 879 1999.

Description	US list price
97008-80005 **HIGH QUALITY,** overhead slides	
97008-80004 35mm speaker support slides	$ 50

In addition to the HPtoday Slide Presentation Kit, there is a comprehensive range of professionally designed and packaged sales aids and presentation materials which support HPtoday. These are detailed in the CPL and the HPtoday Field Training Guide. The range includes: a full-color product brochure emphasizing features and benefits for prospects; an eight-page technical data sheet detailing features and how the product is used; the General Information Manual which illustrates the feature-set of HPtoday by describing the entire development process for a typical application, and which is also used for both evaluation of the product and as an introduction to developer self-paced training. In addition, there is the HPtoday Executive Giveaway which is designed to provide a constant reminder of HP on your customer's desk; overhead transparencies and 35mm slides as described above, and a choice of two superb videos (in all popular formats). Also available is the comprehensive HPtoday Demonstration Pack, which contains a full developer version, including all manuals, a demo application and suggested script.

FCC certification for HP 9000 computers
George Gray/FSD

Starting in the last week of April 1986, Fort Collins Systems Division (FSD) will ship the following products with FCC Class A Certification instead of FCC Class B Certification: HP 9816, HP 9817, HP 9826, HP 9836A, HP 98561, and HP 98568A.

The documentation shipped with these products may contain information incorrectly stating these products meet FCC Class B requirements. The label affixed to these products correctly describes them as conforming to FCC Class A Certification requirements. Product sales literature and documentation will be updated to reflect the correct FCC certification. In addition, a letter will be shipped with affected products advising customers that the product's documentation may contain erroneous FCC certification statements.

Correction

In the May 15 issue of *Information Systems & Manufacturing News,* the article on page 23 entitled "ROM-based BASIC performance" erroneously notes that the new ROM BASIC runs with a BASIC compiler from IBM — the compiler is actually from IEM. The corrected sentence should read: "Please note that ROM BASIC does not work with the BASIC compiler available through Infotek, although it does run with the BASIC compiler offered by *IEM.* We apologize for the typographical error.

NETWORKS

Multivendor communications on HP 9000 workstations

Rita *Wigglesworth/CND*

Have you lost sales at accounts where DEC, SUN, or IBM are firmly entrenched? Did you lose because of limited networking on the HP 9000? If so, you will be delighted with four new products from Colorado Networks Division (CND) for multivendor networking. HP has just announced:

- ARPA and Berkeley 4.2 networking services using the de facto standard TCPIIP on Series 300 HP-UX, providing communication with DEC VAX/VMS, DEC VAX/UN*X, SUN, HP Vectra PC, IBM PC AT, and many others.
- HP's Network File Transfer service for DEC VAX/VMS computers, "NS for the VAX," allowing DEC computers to integrate into HP's AdvanceNet and HP computers into DEC's DECnet.
- IBM Remote Job Entry emulation on Series 200. 300, and 500 HP-UX computers providing communication to IBM mainframes.
- Network Systems[B] Corporation's HYPERchannel® on Series 500 HP-UX, providing de facto standard, high-performance communications to high-speed computers from IBM, Control Data Corporation, DEC, Honeywell, Sperry, and many more.

These new products demonstrate HP's commitment to provide multivendor communication through established industry standards. Please take a few minutes to read the introductory articles on these products and look for the new HP 9000 networking technical data book and sales training manual in your mail.

Network Systems and HYPERchannel are US registered trademarks of Network Systems Corporation.

Multivendor TCP/IP on the HP 9000 Series 300

Joe *Bonner/CND*

Now HP 9000 Series 300 HP-UX computers can communicate with DEC, Sun, the IBM PC AT, and many other computers using Transmission Control Protocol/Internet Protocol (TCPIIP). Actually, TCPIIP is just a small part of what your customer wants. The product includes networking services defined by the Advanced Research Projects Agency (ARPA) and the Berkeley UNIX™ 4.2 system. ARPA/Berkeley networking on an Ethernet Local Area Network (LAN) is now a de facto standard for UNIX workstations, and is prevalent on non-UNIX computer systems as well.

The ARPA/Berkeley capabilities are bundled with the current Network Services (NS). In addition, NS has been enhanced providing communication from HP 9000 systems to HP 3000 and DEC VAX VMS systems.

ARPA/Berkeley significantly enhances multivendor communications because customers can easily integrate Series 300 HP-UX computers into their current computing environment using ARPA/Berkeley. At the same time, customers can take advantage of HP's wide selection of computers for the design automation, manufacturing, and office automation markets using NS. NS-ARPA Services1300demonstrates HP's dual commitment to integrated solutions and multivendor networking as part of the HP AdvanceNet corporate strategy for communications.

Multivendor networking

ARPA, Berkeley, and NS services are targeted for three diierent environments. ARPA services are for networking between computers from different vendors running different operating systems on Ethernet. For example, Series 300 HP-UX running ARPA networking services can communicate with DEC VAX VMS running Wollongong's WINNX ARPA software and with the IBM PC AT and HP Vectra PC running Network Research Corporation's FUSION ARPA software. Also, the ARPA services and underlying protocols adhere to the military

standards and RFC specifications allowing the Series 300 to communicate with computers on ARPANET and the Defense Data Network through ARPA gateways.

Berkeley services are for networking between computers from different vendors running UNIX on Ethernet. Prior to first shipments, Colorado Networks Division (CNO) plans to certify Berkeley services running on the Series 300 with DEC VAX BSD 4.2 and SUN UNIX. Testing for Apollo is planned for later.

NS services are for networking between HP 1000, 3000, and 9000 and DEC VAX/VMS computers on IEEE 802.3 networks.

Today, the 9000-to-3000 and 9000-to-VAX connections are supported. The 3000-to-VAX, 1000-to-VAX, 3000-to-1000 and 9000-to-1000 connections will be supported later this year.
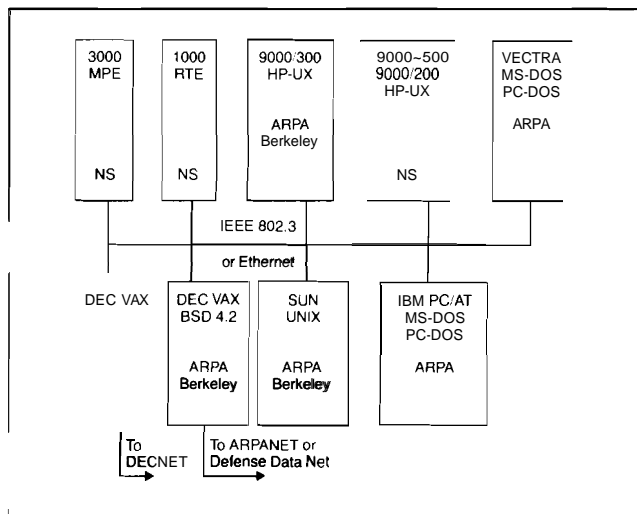
Series 300 in a multivendor environment

The networking services that are available for each computer are specified in each box. Computers on the network must have like services to communicate.

Features and benefits

NS-ARPA is a full-featured product that provides all the basic services necessary to support LAN users. The

major features are:

Service	Feature
Terminal access (virtual terminal)	Interactive execution of programs residing on remote computers with the full capabilities of a direct ASCII terminal connection.
File transfer	High speed file transfer to/from ARPA, Berkeley, DEC VAX, and HP 900013000 computers.
Distributed file system	Access to all files on HP-UX systems on LAN with the standard UNIX commands and system calls allowing for file server applications.
Remote program execution	Remote program and UNIX shell execution for automated processing and computational server applications.
Integrated mail facility	Enhancement of the UNIX mail facility with support for LANs and ARPA-based networks.
Berkeley UNIX sockets	Standard interface compatible across UNIX systems allowing for quick porting of UNIX applications.

The ARPA, Berkeley and NS services are described in more detail in the June edition of HP 9000 Networking Technical Data. The capabilities are summarized in the chart below.

Summary of NS-ARPA Services1300 capabilities

Capability	ARPA	Berkeley 4.2	HP NS
File Transfer	file transfer protocol (FTP)	remote copy (rcp)	network file transfer (NFT)
Terminal Access (Virtual Terminal)	TELNET	remote login (rlogin)	—
Electronic Mail	simple mail transfer protocol (SMTP)	sendmail (uses SMTP)	—
Remote Command Execution	—	remote shell (remsh)	—
Interprocess Communication	—	sockets	—
Remote File Access	—	—	remote file access (RFA)
Link Level Access	—		(ink level access (LLA)

The ARPA, Berkeley and NS capabilities can be put in the context of the Open Systems Interconnection (OSI) reference model defined by the International Standards Organization (ISO) as follows.

7 Application	ARPA: FTP, TELNET Berkeley: rcp, rlogin, remsh NS: NFT, RFA
6 Presentation	
5 Session	Berkeley sockets interface
4 Transport	ARPA/Berkeley: TCP or UDP (User Datagram or Protocol)
3 Network	ARPA/Berkeley: IP
2 Data Link	NS: Link Level Access interface to Data Link layer. Ethernet or IEEE 802.3
1 Physical	

NS-ARPA Services/300 and the ISO Model

Configuration and ordering

NS-ARPA Services1300 runs on Series 300 HP-UX 5.1 computers and requires an additional 256 Kbytes of RAM. All capabilities can run on the Application Execution Environment alone except the ARPA/Berkeley integrated mail service. To run sendmail with the Application Execution Environment, the Programming Environment is also required.

The Network Configuration Checkout process must be completed before NS-ARPA Services1300 can be ordered. An order must include the Approved Configuration Number (ACN). For more information, please refer to the article on the NCC service.

Your customer orders NS-ARPA Services1300 under P/N 50952B. Two media options are available, Opt. 022 for ¼-inch tape and Opt. 045 for 3%-inch disc. US list price is $995. First shipments are planned for Q4 FY86.

Details regarding upgrades to NS-ARPA Services/300 for existing customers and the inclusion of NS-ARPA Services1300 in the recently introduced Series 300 system bundles were not final at press time. Watch for information on this topic in the next issue of Information Systems & Manufacturing News.

The ARPA services FTP and TELNET for the HP Vectra PC are available from Network Research Corporation, 2380 North Rose Avenue, Oxnard, CA 93030; telephone 805-485-2700. Simply order their FUSION FNS-PC-TCP software for MS-DOS systems. Also order the HP 27210A interface card.

UNIX is a trademark *of AT&T* Bell Laboratories.

LAN obsolescence plans for HP 9000
Joe *Bonner/CND*

The 50953A and 50953R Network Services (NS)/9000 Series 500 products for single-user versions of HP-UX will no longer be available on the Corporate Price List starting June 1, 1986. This is due to nonexistent sales of this version of the product. Customers wishing to order NS/9000 for single-user Series 500 HP-UX systems must order the 50954A/R NS/9000 Series 500 products which operate with all versions of HP-UX.

The new 50952B NS-ARPA Services1300 product will replace both the 50951A NS-9000 Series 300 (single-user) and 50952A NS/9000 Series 300 (multiuser) when the 50952B product begins shipments. Shipments of the new 50952B product are planned for September 1986, and the product will operate with all versions of HP-UX. Customers on SMS support services for the 50951A or 50952A NS/9000 products will be upgraded to the 50952B NS-ARPA Services1300 product.

Announcing HP Network Service for the DEC VAX
Andy *Drol/CND*

HP Network Service (NS) for DEC VAX provides user friendly high-speed file transfers between DEC VAX/VMS and HP 9000 HP-UX computers. Transfer rates exceed 25 Kbytes/sec. To communicate with an HP 9000, NS versions 5.15 and 5.05 must reside on the Series 300 and 500 systems respectively. Future releases of NS for the VAX will allow VAXs to communicate with the HP 1000 and HP 3000 over an IEEE 802.3 local area network. NS for the VAX resides on the Corporate Price List today and shipments should begin mid-July.

Two popular hardware UNIBUS interface controllers support the NS for the VAX software. These two controllers, the DEC DEUNA and Micom-Interlan NI1010A, are widely available from each manufacturer. Check the NS for the VAX Sales Training Manual for detailed hardware configuration information.

Both ASCII and binary files are transferable. Record-level manipulation allows the transfer of fixed, stream,

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and variable length formats between both machines. NS for the VAX makes it possible to initiate file transfers from HP AdvanceNet nodes to or from remote DECnet nodes.

Before ordering NS for the VAX, you must submit a Network Configuration Checkout (NCC) questionnaire found in the sales training manual. To place an order, include the Approved Configuration Number (ACN) from the NCC and model option for the correspondmg VAX processor you wish to run on. Currently HP supports NS for the VAX on the 111750, 780, and 8600. More VAX models will get certified depending on future testing. Don't let non-support of a VAX UNIBUS system stop you from submitting an NCC questionnaire. The NCC will give you the latest information on the viability of the configuration and support of that VAX model.

| P/N | Description | US list price | |
		A	R
50950			
Opt. 300	Low-end VAXs 11/750, 780	$5,000	$3,500
Opt. 400	High-end VAXs 8600	7,000	4,900

Network Configuration Checkout Service for NS for the DEC VAX and NS-ARPA Services/9000

Andy *Drol/CND*

To assure successful installation and operation of HP's AdvanceNet local area networking products the Network Marketing Center's (NMC) Network Configuration Checkout (NCC) Service will approve all NS for the VAX and NS-ARPA Services19000 product sales. This process sets the expectations properly for everyone involved.

Prior to ordering NS for the VAX or NS-ARPA Services19000 an account system engineer or data communications specialist should answer an NCC questionnaire. The NCC questionnaires are found in Appendix D of the new HP 9000 NetworkingSales Training Manual (distributed in the May Momentum mailing), or obtainable from the NMC. After completion, mail the questionnaire to the address on the questionnaire.

A representative from the NMC will review the questionnaire, making sure these products meet your customer's

networking needs. If the reviewers accept the proposed configuration, they will return an Approved Configuration Number (ACN) to include in the special instructions of the order. On the other hand, if they foresee any potential problems, the account systems engineer will get assistance from the NMC to develop an alternative or trial solution. The NCC process should take five to ten working days from the time the questionnaire amves.

New HP-to-IBM communications software for HP 9000 Series 200, 300, and 500

Darrel McGinnes/CND

A new revision of the RJE Emulator for HP 9000s is now available. This RJE Emulator allows HP 9000 Series 200, 300, and 500 computers to communicate with an IBM mainframe, an HP 1000, an HP 3000 and to other computer systems which accurately emulate an IBM RJE host.

This revision offers significant implementation and performance improvements when compared to the previous RJE Emulator. It runs under the latest revisions of the HP-UX operating system (5.0 for Series 500, and 5.1 for Series 200 and 300).

The RJE Emulator makes it possible for an HP 9000 HP-UX user to send jobs to an IBM mainframe; to access and update data bases on the IBM mainframe; and to use the mainframe as a peripheral server, a disk server, and as a gateway to an IBM communications network.

No charge upgrade kits are available for all customers of the previous RJE Emulators (P/Ns 97077A/M/R, 97087A/M/R, 98797A/M/R, and 98798A/M/R). Customers who have ordered P/Ns 97077A + SOO, 97087A + SOO, 97097A + SOO, 97098A + SOO, 97077A +WOO, 97087A + WOO, 97097A + WOO, or 97098A +WOO (i. e. the Software Materials Subscriptions service) will automatically get a copy of the new emulator software and a set of EPROMs (one for Series 200, two for Series 500) from the Software Distribution Center (SDC). Customers sho have purchased the software since it went on production hold last year, and have signed a release form, will be sent an upgrade kit by Colorado Networks Division (CND). Other purchasers of the old emulator software can get the upgrade kit by having their HP sales rep send

a written request, before December 1, 1986, to Hewlett-Packard Company, Colorado Networks Division, 3404 East Harmony Road, Fort Collins, CO 80525; Attention: Darrel McGinnes.

Please include the following information with the request:

- HP 9000 computer Series (200 or 500) on which the RJE Emulator will be used.
- The name of the person to whom the upgrade kit should be addressed.
- The company name.
- The shipping address.
- If known, the name of the computer, operating system, and job-entry subsystem that the RJE Emulator will be used to communicate with.

The product numbers for the upgrade kits are as follows: PIN 50966A #UPG for the Series 200 and PIN 50968A #UPG for the Series 500.

HP 9000 Series 500 now interfaces to HYPERchannel

Mark *Willoughby/CND*

The HP 9000 Series 500 has joined the long list of systems that interface to HYPERchannel®. It is an established de facto standard for high-speed communications. HYPERchannel is a proprietary 50 Mbit/second LAN from Minneapolis-based Network Systems Corporation (NSC).

Effective on or about August 1, NSC will offer an interface from the Series 500's HP-IB port to the HYPERchannel LAN using the Network Executive (NETEX) protocol. In the future, NSC intends to port the HYPERchannel connection to the Series 300.

NSC will sell and support the HYPERchannel connection, including HP-UX driver, NETEX software and all hardware. When you receive an order for an HP 9000 workstation that requires a HYPERchannel connection, advise your customer to contact their NSC representative for an HP 9000-UX HP-OIB Intelligent Processor Interface (IPI). Two choices are available, the NSC IPI 285 and IPI 385 cards. The IPI 285 has 64 Kbyte RAM buffers and has about half the throughput of the IPI 385, which features 256 Kbyte RAM buffers. The HP 9000 does not require a special configuration.

If you wish to have further technical or sales training for HYPERchannel, contact your nearest NSC sales office.

There are 60 worldwide, all listed on an NSC brochure that was distributed in the May Momentum mailing. NSC has agreed that their field sales force will form a partnership with their HP counterparts where appropriate. Remember, NSC also supports HYPERchannel interfaces for many of our competitors. Be sensitive to their position.

The HYPERchannel environment is sophisticated, well-funded and competitive. Look for the largest concentrations of computers in a territory and you will likely find one of the 600 HYPERchannels installed worldwide. The applications run the gamut from business technical to scientific, but they all require high performance and connectivity.

HYPERchannel is a US registered trademark of Network Systems Corporation.

Selling SNA HP-to-IBM products

Steve *Seminario/IND*

There are HP to IBM sales situations where SNA is an absolute requirement just as there are those where bisync is the protocol used. To meet the SNA requirements we offer SNA NRJE and SNA IMF, and in the bisync realm we have MRJE, IMF, and RJE. None of this, however, addresses the situation where either protocol is acceptable. In those situations, SNA is the choice that benefits the customer and HP the most.

Superior SNA products

With the recent enhancements to SNA NRJE, it now has all the most popular features of MRJE, most notably Job Management and Output Management. These features have been implemented in SNA NRJE in a fashion which offers MRJE customers an easy transition to the SNA product. Just a couple changed lines convert old MRJE job streams to SNA NRJE.

In addition, SNA NRJE supports some features not supported on MRJE, such as Reverse NRJE and the ability to run simultaneously over one SNA Link with SNA IMF. In the interactive arena, SNA IMF and bisync IMF are functionally equivalent.

SNA and the future

HP-to-IBM connectivity is one area where we have to follow IBM's lead. IBM has made it clear that SNA is its strategic direction and that bisync networking will not be

encouraged. All IBM's new networking efforts are built upon the SNA layers.

Our focus in the HP-to-IBM area of Information Networks Division (IND) is to build our SNA product line while enhancing our existing SNA products. By choosing SNA over bisync, the customer places himself in a better position for the future. From HP's point of view that move also increases the installed SNA base into which we can sell new and future SNA based products such as our DISOSS connection.

HP 2685 laser print station

It is clearly in no one's best interest to try to sell one of our SNA products where it can not be used. It is very important, however, not to miss opportunities to sell our SNA products where it is appropriate. The HP 2685 laser print station is a good example.

When the HP 2685 is sold as a print station for an IBM host, the datacom software required for this connection must be ordered as a separate product. Traditionally, MRJE has been sold to meet this HP-to-IBM communication requirement. With the new functionality of SNA NRJE, however, there is now a better choice. In situations where the host environment can accommodate either bisync or SNA, SNA NRJE is the product we should sell with the HP 2685.

For HP-to-IBM connectivity, SNA is and will be the base on which superior products will exist. We would like to see our customers encouraged in that direction whenever possible.

New HP AdvanceNet Overview Presentation

Arie Scope/NMC

The HP AdvanceNet Overview Presentation was improved and updated to include HP's Networking Solutions available in 1986. The presentation is aimed at managers who influence key buying decisions for information networks in your accounts and potential customers.

HP AdvanceNet
Comprehensive Solutions

Information Management Commun...

Today and Tomorrow
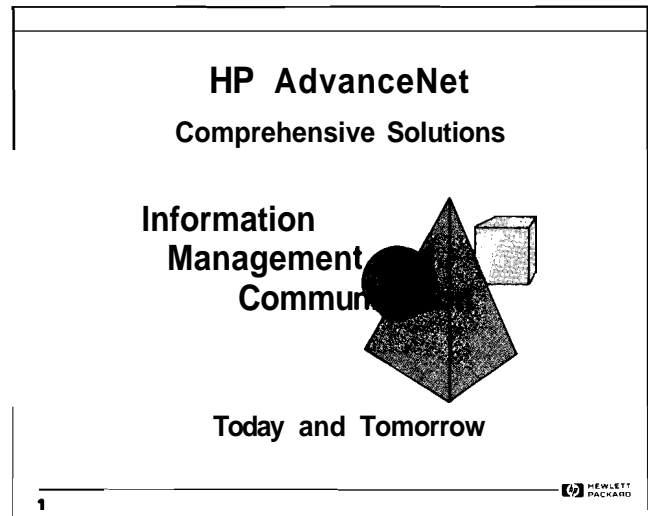
The presentation explains the HP AdvanceNet OSI-based architecture, our networking solutions for the individual environments of office/business, engineering design and manufacturing operations, and for integration of these environments.

The presentation can be ordered in overhead transparencies or 35mm slides (with great colors). A script is also available including handouts for your audience.

You can use this presentation as part of an "HP Solutions" seminar or as part of a networking seminar. The following will provide you with ordering information for this presentation and other pieces that can be presented in such a seminar.

Ordering information

Send a mail message to Rhonda Rick in Corvallis, Oregon, providing shipping address, name of piece, P/N, requested quantity, plus account and location code.

P/N	Description	TAC
5954-6734	HP AdvanceNet Solution video	$ 50
5954-7439	HP AdvanceNet Overview script	10
5954-7439s	HP AdvanceNet Overview 35 mm slides	32
5954-7439T	HP AdvanceNet Overview transparencies	125
5954-6735	Wide Area Networking	25
5954-6736	HP to IBM Connections	25

MASS STORAGE

Lower cost 5¼-inch flexible drive for IBM data exchange

Barbara Bennett-BrownlGLD

On June 1, the new 360-Kbyte 5%-inch flexible disc drive (HP 9127A) will be available for customers needing a 5¼-inch data exchange solution. The HP 9127A is a direct replacement for the HP 9125S 5%-inch flexible disc drive.

The HP 9127A reads, writes, and initializes in IBM DOS format for data exchange between HP computers and IBM's 5¼-inch systems. It also reads, writes, and initializes in LIF format for easy data exchange between the HP microfloppy and flexible disc drive systems.

A new chip in the HP 9127A allows it to read copy-protected software on HP 9000 Series 300 systems with the new HP Series 300 DOS coprocesser card. This configuration provides data and software compatibility for HP Series 300 and IBM 5%-inch systems opening up a new world of office automation software for Series 300 users.

The HP 9127A is also supported within the Series 200 and HP Touchscreen and Touchscreen II personal computer families for data exchange with IBM. (It will not be possible to upgrade an HP 9125S to an HP 9127A.)

Please encourage your customers to convert their orders to the HP 9127A to save $200. If you have any questions concerning this new product, contact your sales center.

P/N	Description	Factory base price	US list price
HP 9127A	5¼-inch flexible disc drive	$980	$995

Direct mail piece urges HP 7978A tape drive upgrade

Sandy *Hansen/GLD*

On June 1, a mailer will be sent to HP 7978A installed base customers in the US informing them about the performance improvements possible when they upgrade their HP 7978A to an HP 7978B. We won't include major accounts in this first mailing so that the account teams can customize their own customer mailings.

The mailer advises customers to contact their sales reps to order the upgrade kit, or to send back a response card to receive a report on the performance they can expect with the HP 7978B.

Additional copies of the mailer are available. If you would like to send copies to your customers, please HPDesk your request to Joyce Grenz/HP5800/01.

Networks & Peripherals

PRINTERS

PLOTTERS

Letter Gothic soft fonts for HP LaserJet PLUS and 500 PLUS printers
Larry Haley/BOI

A new family of HP LaserJet PLUS and LaserJet 500 PLUS printer soft fonts based on the Letter Gothic style are now available.

Features:

● Letter Gothic in 9½-, 12-, and 14-point sizes.

● Presentation in 14-, 16-, 18-, 24-, and 30-point sizes.

● Math in 9½- and 12-point sizes.

● HP and IBM line draw in 9½-, 12-, 14-, 16-, and 18-point sizes.

● Portrait and landscape orientations.

Many symbol sets are supported including Roman 8, Roman Extension, USASCII, Math, HP and IBM line draw, and Legal.

This new family of fonts has all of the fonts contained on the "E", "N", and "R" font cartridges. Indicate P/N 33411DA for the HP Touchscreen personal computer and P/N 33412DA for the HP Vectra PC and IBM PC; both versions have a US list price of $200.

If you are interested in detailed information about HP LaserJet printer soft fonts and font cartridges, you can order the *LaserJet* Printer Family Font Catalog through the normal distribution channels. The part number is 5954-2277.

Sales aids to help you sell the HP 7090
Nancy *Ritzenthaler/SDD*

This is the first in a series of articles designed to help you sell the HP 7090 measurement plotting solution. This month, let's look at the selling tools San Diego Division (SDD) has available. Next month, we'll talk about some great ways to boost your average sales per selling hour by using these selling tools.
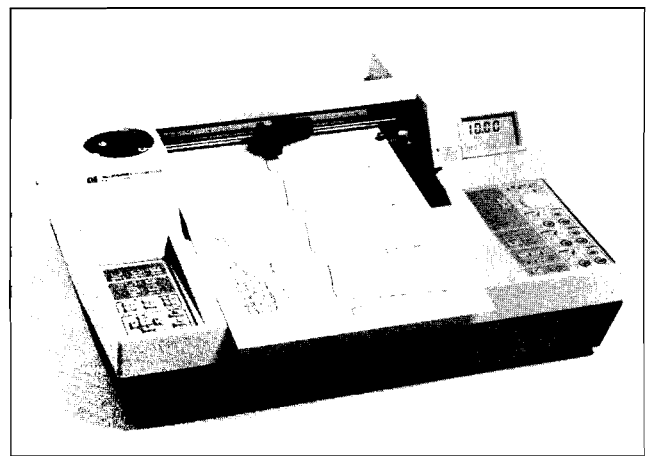
Active selling tools

● The switch demo. A recent field survey indicates that over 90 percent of HP 7090 demos result in sale. Check your field training manual for instructions and contact your consignment coordinator for a demo unit.

● HP 7090 slide show. This 35mm slide show is great for customer presentations; it covers features, benefits, and applications for the HP 7090. It's available at no charge by contacting Frances Alley at San Diego Division via HPDesk at HP1100/05.

- *HP 7090 video.* This nine-minute video is good for customer training and can even be used when a demo is too time consuming. It's available through corporate TV via HEART. Request P/N 90310H and specify ¾-inch, VHS, or Beta format.

Sales and technical literature

Description	P/N (Order from LDC)
Color Flyer. Use this one-page flyer for a direct mail to your existing customers. Contains a great testimonial from EE *Times Magazine.*	5953-9756
11 X 17 inch sample plot.	5953-9753
HP 7090 Data Sheet.	5953-9728
HP 17090 Software Data Sheet (Series 200 only).	5953-9737
Application Note: HP 7090 Measurement Plotting System Data Streaming	5953-9775

Training information for you

- **HP 7090 Sales Guide** (Contact your SDD RSE)
- **HP 7090 Training Brief** (Contact your SDD RSE)

Let your customers know about the HP 7090's great value for capturing and plotting low frequency signals. These selling tools can send you on your way to being an HP 7090 achiever.

HP plotters pierce the Iron Curtain
Wade Mears/SDD

At the end of last year, MicroElectronics, a large East German firm, made the first volume purchase of plotters by an East European country (125 HP 7475s and 25 HP 7585s). According to Vienna, Austria, Sales Rep Ludwig Stuchlik, who spent six months negotiating this deal, his strategy is to get new plotter users familiar with the industry-standard HP 7475. Then, once they are more sophisticated graphics users, upgrade them to the high-performance HP 7550. He expects this to happen with MicroElectronics in the near future. In addition, he expects that many bureaucratic barriers will fall, now that HP has its foot in the door. Ludwig anticipates this will result in further sales in East Germany, Poland, the USSR, and other East European countries.

The HP 7475 won out over an Austrian plotter, the Goerz/BBC "Servogor," because of its higher-quality resolution and the customer training provided by HP. The East Germans preferred the HP 7585 over CalComp because of HP's higher reliability.

The key to the deal, according to Ludwig, "was overcoming MicroElectronics' misconception that HP plotters run only on HP computer systems." The plotters will run on the East German computer "Robotron." At future seminars and customer visits, in order to facilitate sales to East European customers, Ludwig plans to emphasize HP compatibility not only with HP computer systems, but also with East European computers such as Robotron, Mera, and Videoton.

Congratulations to Ludwig Stuchlik, HP Vienna, for being the next recipient of a free San Diego Division (SDD) flight/gym bag. SDD 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 side.

HEWLETT PACKARD

New Asian Vectra Workstation
Productivity tool for Asian businesses