Introducing
Vectra 3000
and Vectra Office

HEWLETT PACKARD

HP Computer Museum
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On the cover
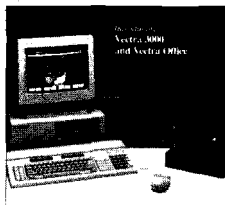
HP has introduced the Vectra Office and Vectra 3000. These products are key components of HP's Personal Productivity Center strategy. Both new products are pre-assembled for convenient installation and easy to order. See articles beginning on page 9.

How to get your name added to the distribution for *HP Channels*

If you work for a company that is a value-added business for Hewlett-Packard and want to receive your own copy of **HP Channels,** call Hewlett-Packard and have your sales rep send your name to Tracy Wester.

HP sales reps only: To add new US and Canadian accounts to the distribution for **HP Channels,** please send me the following information (on HPDesk 0000153 or to the address listed at the end of this section): company name, address, phone number, contract number, contacts' nameltitle, HP sales rep name and employee number. For accounts outside of the US or Canada, contact Tracy Wester to get the name of the person that handles the distribution of **HP Channels** in your country.

Please address editorial correspondence to:

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The CIM Process

Dana Chamberlain, Systems Integrator Channel Support Manager

What is CIM?

There are a number of models available today that attempt to define computer-integrated manufacturing (CIM). In fact, CIM can mean just about anything that the user wants it to mean. Some manufacturers view CIM as integrated information systems, some as automated mechanization, and some as islands of automation. In truth, CIM is not a product.

Hewlett-Packard encourages manufacturers to think of CIM as a process. It is adopting the strategy of deciding what their business is, making manufacturing a strategic advantage in that business, and then evolving to the actual implementation of automation projects. Even people who do adopt manufacturing as a strategic advantage have an extremely different view of what it takes to give them a competitive edge in that function. Some manufacturers believe that the lowest cost is the most important thing, some believe that the highest quality is the most important thing. Installing a CIM strategy depends on what the manufacturer is trying to optimize.

Manufacturers are beginning to understand that manufacturing is a strategic issue; it's something they've got to plan. Buying the actual equipment is probably the easiest part of the whole process.

CIM does not have to be an A through Z proposition. Manufacturers do not have to have an empty building to do it. They do not have to tear everything out and start over. It can be an additive process. The manufacturer should have a plan and implement it over time in those areas that are the most important to him. Islands of automation are not bad things; they are a reasonable way to get started.
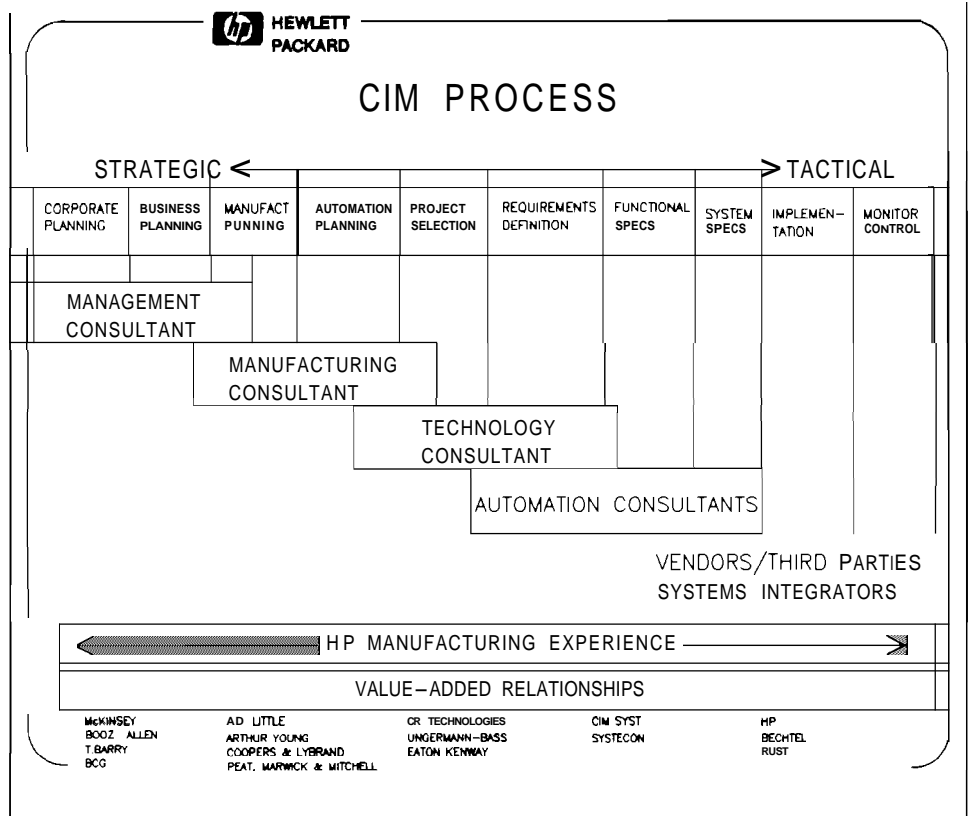
If the manufacturer's goal is to have a completely integrated company, there are a number of steps necessary to achieve that goal. Integration can, however, be achieved one step at a time provided there is an overall plan to ensure it will all play together when it is complete. Each project can build on past projects and take advantage of the newest technology and functionalities. Justifying new projects becomes easier as the success of previous projects becomes visible.

How does a company develop a strategic plan? The chart above is one model of the process. A short description of the steps in this model follows.

Corporate plan. All corporations need a corporate plan that describes the business in which the company is par-ticipating. It includes such items as corporate objectives, financial obligations, and intermediate and long-term plans.

Business plan. The business plan defines the mission of each business unit. This strategic plan must take into account the capabilities of the organization implementing the plan. The plan would include the product offering, target market, distribution channels, pricing objectives, and competitive strategy for each business unit. It would also include prioritized business objectives.

Manufacturing plan. Manufacturing is a strategic area for business success. The manufacturing plan outlines the goals that will make manufacturing a strategic advantage and the priorities

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HP Channels

for attaining these goals. Things that might be included in the plan are a definition of what is to be manufactured versus what is to be contracted or purchased from other vendors. It will outline the future directions for the manufacturing facilities, the amount of money to be invested in manufacturing, and the goals for each manufacturing entity (i.e. quality improvements, productivity improvements, cost reductions).

Automation plan. From the manufacturing plan opportunities for automation may be identified. The automation plan determines the scope, cost, resource requirements, and benefits of automating an area or entity. Specific projects are defined, evaluated, and prioritized. Some considerations at this point are the impact of the project on the overall business and manufacturing objectives, the risk involved, and justification. Justification must include the project's role in the long-term strategic plan as well as the short-term ROI. This plan should include an integrated system architecture. Specific projects should address integration that is achievable today, but an overall system architecture will allow the manufacturer to take advantage of new technologies as more projects are implemented.

Project selection. Once a number of projects *are* identified, one or more are selected for implementation. From this point the process becomes more tactical than strategic. What pieces do you want to do first, what are your priorities, what does the first project have to accomplish, how are you going to measure it?

Requirements definition. The requirements definition outlines the scope of the project to be undertaken and the benefits expected from the project.

Functional specs. The functional specs define what information is to be processed **and/or** what action needs to be performed.

System specs. Out of the functional specifications, the manufacturing equipment, computer hardware, and software products are identified.

Implementation. The implementation plan identifies responsibilities and checkpoints.

Monitor/control. Once implemented, success is measured. Is the system meeting its objectives?

There are a number of specialists that can assist the manufacturer through this process. Although HP has been through this process for our internal manufacturing, and we know a fair amount about electronics, we do not know a great deal about other processes and industries. We can tell manufacturers what our experiences have been and the benefits we achieved. We depend on our value-added business partners, however, to assist us in providing a total solution to manufacturers. A number of "CIM" deliverers together can deliver CIM; any one vendor alone cannot.

Our strategy is to team with select value-added business partners to provide total solutions to manufacturers. Hewlett-Packard hardware and software products will no longer solely drive a sale. The hardware and software must be part of a total company plan. Our main added value is to provide generic and functional products that address the needs uncovered during the CIM process. Generic products are products you can use over and over again throughout the information system like a historian or report writer. Functional products *are* specific application products that would fit across a number of companies or a number of different industries, like an MRP system or quality management system.

Customer Support

SELF-PACED LEARNING SERIES UPDATE

There are now 55 self-paced service training guides and video packages available to HP users who are interested in self support. With subjects ranging from the HP Vectra PC, HP ThinkJet printer, and HP LaserJet printer, to computer printer fundamentals, the self-paced training packages provide detailed service information and/or techniques for respective equipment.

Each self-paced training package can be purchased via your local HP sales office or directly from the Corporate Parts Center in Mountain View, California.

To order, please provide your HP sales rep with the corresponding product number.

See article on following page for list of video prestudy packages.

Service package

Product No.	Description	Product No.	Description
85B + 49A-0000	HP-85A/B Computer	7475A + 49A-00	HP 7475A Plotter
86B + 49A-0000	HP-86A/B Computer	7550A + 49A-00	HP 7550A Plotter
45710A + 49A-0	HP 110 Portable Computer	7570A + 49A-00	HP 7570A Plotter
45711B + 49A-0	HP 110+ Portable PLUS Computer	7945A + 49A-00	HP 794X Disc Drives
45600A + 49A-0	HP 120 Computer	9020A + 49A-00	HP 9020A Computer
45500A + 49A-0	HP 125 Computer	9114A + 49A-00	HP 9114A Disc Drive
45610A + 49A-0	HP 150A/Touchscreen PC	9121D + 49A-00	HP 9121S/D Disc Drives
45610B + 49B-0	HP 150B/Touchscreen PC	9134A + 49A-00	HP 9133134 Disc Drives
45849A + 49A-0	HP 150C/Touchscreen II PC	9144A + 49A-00	HP 9144A Disc Drives
45641A + 49A-0	HP 150 Emulator	9154A + 49A-00	HP 9153154 Disc Drives
45644A + 49A-0	Etherlink	9807A + 49A-00	HP 9807A Integral PC
2225D + 49A-00	HP 2225A ThinkJet Printer	9816A + 49A-00	HP 9816A Computer
2227A + 49A-00	HP 2227A QuietJet Printer	9836C + 49A-00	HP 9826136 Computer
2392A + 49A-00	HP 2392A Terminal	9872A + 49A-00	HP 9872A Plotter
2393A + 49A-00	HP 2393A Terminal	9888A + 49A-00	HP 9888A I/O Extender
2602A + 49A-00	HP 2602A Printer	9915A + 49A-00	HP 9915A Computer
2603A + 49A-00	HP 2603A Printer	12025A + 49A-0	HP 12025A I/O Extender
2627A + 49A-00	HP 262XA Terminals	72425A + 49A-0	HP 72425A Computer
2648A + 49A-00	HP 264X Terminals	82902M + 49A-0	HP 82901102 Disc Drives
2932A + 49A-00	HP 293X Printers	82904A + 49A-0	HP 82904A Bus Extender
7225A + 49A-00	HP 7225A Plotter	82905B + 49A-0	HP 82905A Printer
7440A + 49A-00	HP 7440A ColorPro Plotter	82906A + 49A-0	HP 82906A Printer
7470A + 49A-00	HP 7470A Plotter		

CUSTOMER SMT AT ROCKVILLE AND DALLAS TRAINING CENTERS

Due to increasing user demand for the Self-paced Mentored Training (SMT) courses on PCs and PC peripherals, HP's Customer Service Training (CST) is making available additional SMT classes at the HP Rockville Training Center for the weeks starting September 29, November 3, December 15, and January 19, 1987. SMT will also be available at the Dallas Training Center for the weeks starting September 29, November 10, and January 19, 1987.

These classes will supplement the regular SMT courses at the CST Mountain View headquarters scheduled for the weeks starting September 22, October 27, November 3, November 17, December 15, and January 26, 1987.

CST Mountain View will support course registration and program information for Rockville and Dallas sites. Please contact Kathy Martin or Wei Huang at 415-960-5300/5295 for more information.

VIDEO PRESTUDY FOR SERVICE TRAINING

Three video-enhanced service training prestudies are available. Appearing in VHS, Beta, and Umatic formats, these NTSC and PAL prestudies provide service technicians with the fundamentals of a disc mass storage unit, computer printer, and magnetic tape drive. Each package contains a set of videotapes and associated workbook with final exam.

The workbook for each subject has been written to suit an audience with little or no technical background and the videotapes deliver excellent colored illustration on hard-to-envision electromagnetics.

The video prestudies are available now from HP's Corporate Parts Center.

Product No.	Description	Standard	Format
99072HV + 49A	Disc Mass Storage	NTSC	VHS
99072HW + 49A	Disc Mass Storage	NTSC	Beta
99072HZ + 49A	Disc Mass Storage	NTSC	Umatic
99072HC + 49A	Disc Mass Storage	PAL	VHS
99073HV + 49A	Computer Printer	NTSC	VHS
99073HW + 49A	Computer Printer	NTSC	Beta
99073HZ + 49A	Computer Printer	NTSC	Umatic
99074HA + 49A	Magnetic Tape	NTSC	VHS
99074HB + 49A	Magnetic Tape	NTSC	Beta
99074HD + 49A	Magnetic Tape	NTSC	Umatic

NTSC (National Television Standard Committee) USA, Canada, Japan, South Korea, Taiwan, Philippines, and Burma.

PAL (Phase Alternate Lines) England, China, Australia, W. Germany, Saudi Arabia, Singapore, India and Pakistan.

HP 3000

NEW POWER SUPPLY OPTION FOR "A" SERIES 70 FIELD UPGRADES

A new option (number 550) is on the HP Price List for HP 3000 Series 70 Field Upgrades from Series 64As and Series 68As (PIN 30443A and 30444A) as well as for the Auxiliary I/O Bay and Intermodule Bus (IMB) products (PIN 30464A and 30143A). Option 550 allows replacement of the $-5.2V$ power supplies with a single supply of larger current capacity.

Option 550 is *required* for Series 6X "A" systems (PIN 32460A and 32468A) having three IMBs and the Series 70 boards. If the system was originally a Series 64A and Series 68A, and the addition of a Series 70 Field Upgrade, or an Auxiliary I/O Bay, or an IMB will result in a system with three IMBs and Series 70 boards, then Option 550 *must* be ordered.

IF...
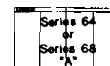
Series 64 or Series 68 "A" **+ 3 IMBs + Series 70 Field Upgrade**

THEN,..

ORDER OPTION 550
Available on: 30443A
30444A
30464A
30143A

Availability of the new power supply is October 1986. All orders which meet the above requirements *must* include

Option 550 at list price effective October 1.

Orders for Series 70 "A" Field Upgrades, "A" Auxiliary I/O Bays, or IMBs for "A" systems which were placed prior to October 1, 1986, will receive the new power supply at no charge. Also, if users reconfigured to two IMBs in order to install the Series 70 upgrade on an "A" system, they will receive the power supply at no charge.

Contact your HP sales rep for ordering information.

HP 3000

HP COPYCAT/3000 PRICE REDUCTION

Copycat is now more affordable. Effective October 1, the first copy of HP Copycat/3000 (PIN 19550A) will cost about 25 percent less. At the same time, the price of the "right to copy" Copycat (P/N 19550R) is being adjusted to about 70 percent of the first copy.

Since the price of the HP 7935 removable media disc drive is also being reduced, the Copycat disc-to-disc backup solution costs less than ever.

Keep HP Copycat/3000 in mind when looking for high system availability. Remember, Copycat also offers excellent, flexible file copying capabilities.

HP 1000

HP 1000 I/O EXTENDER OPTIONS DISCONTINUED

Effective January 1, 1987, Options 001 and 002 for the HP 1000 I/O extender PIN 12025A and PIN 12025B will be discontinued. These options were originally created to permit A700 and A900 users, who purchased their systems prior to 1985, to upgrade their systems to be compatible with the I/O extender.

Please note: A700 and A900 users who have not upgraded their systems will need to do so within the next 90 days if they want to purchase an I/O extender in the future.

HP 9000

HP 9000 SERIES 500 HP-UX UPDATED

The HP 9000 Series 500 HP-UX operating systems are to be updated from revision 5.05 to 5.1, with shipments beginning September 18. This is a full release, superseding all previous revisions. It is object-code compatible, so current users will not see any differences between the 5.0 release and this new 5.1 release except for the new features. These include:

- Support for the 2-Mbyte memory board (PIN 97048A)
- Virtual terminal capabilities (via LAN)
- Increased table sizes in C, FORTRAN, and Pascal
- HP-15 (Native Language Support) in C, FORTRAN, and Pascal
- Namelist in FORTRAN
- Kernel enhancements such as "#!"

- Core files with support in cbd
- Support for the 35401A multiple DC tape cartridge drive

The HP-UX product structure will not be changing. Because of the compatibility with the 5.0 product, we will be able to simply substitute the 5.1 revision for the 5.015.05 revision within the current products.

As of September 18, all Series 500 HP-UX products will contain revision 5.1. Revision 5.0/5.05 will no longer be available.

All users on support services will be updated.

HP 9000

MONITROL SUPPORTS HP 3852A

The HP 3852A can now be controlled by a low-cost monitoring and control software package called MONITROL/200 that runs on the HP 9000 Series 200 and 300 computers. Hewlett-Packard and Hilco Technologies have signed an agreement to distribute MONITROL in the US. MONITROL also supports the HP 48000 and programmable controllers from Allen-Bradley, Gould Modicon, and General Electric.

Markets

MONITROL is designed to fill the gap between the personal-computer-based monitoring-and-control solutions that sell for less than $15,000 and the powerful, minicomputer-based solutions that start around $50,000. A MONITROL solution will range between $20,000 and $40,000 including the software, a Series 300, and the HP 3852A. Because MONITROL offers an easy-to-use, menu-driven solution, it does not require a computer

expert to implement. However, it will offer the performance and features associated with minicomputer-based solutions.

MONITROL's primary applications include continuous and batch process monitoring, batch process control, statistical process and quality control (SPC and SQC), and cell control for discrete fabrication or assembly.

Applications

Raychem uses the HP 3852A and the MONITROL software in their research-and-development department to characterize new processes for their plastic extrusion facility. The HP 3852A measures a number of parameters in the process, and controls several others. Raychem hopes to use the HP 3852A and MONITROL in their manufacturing department to monitor and control their final manufacturing process.

Gulf States Utilities uses an HP 3852A, Series 310, and MONITROL to perform quality tests on its power plants. The equipment is mounted in the back of a van so that it can be driven up to any of its power plants. The HP 3852A measures temperature at various points on the steam turbines while MONITROL displays the results on the Series 310. Using the HP 3852A, they hope to identify whether the equipment running the power plant is operating correctly. In the future, Gulf States Utilities may purchase additional HP 3852As to monitor and control portions of the plant.

Some of the other customers currently using MONITROL are Proctor and Gamble, Monsanto, Allied Chemical, General Tire, St. Joe Minerals, and HP Labs.

Features

- Menu-driven link from HP Series 2001300 to HP 3852A and HP 48000
- Database collection of production data
- Recipe management

Alarm management

Trend and bar charts

- Statistical analysis charts
- Process graphics
- Report generation
- Link to plant-host MRP systems
- Computer-aided drafting

MONITROL/200 integrates data captured by the HP 3852A, HP 48000, and PLCs from the plant floor to company-wide information systems. The menu-driven program allows the HP Series 2001300 to act as a supervisor to program instruments and gather data from these front ends for use in management reports. MONITROL is a turnkey solution for those users who do not want to write software.

MONITROL offers many easy-to-use reporting capabilities. Trend charts give the user a history of data in the form of a colored graph over a user-defined time frame. Bar charts with multiple bars in any size, shape, scale, or color can depict the variables being monitored in the front end. Statistical Quality Control Charts (X and R bar charts) can be displayed or printed as a representation of system performance. Reports based on time, events, alarms, or on demand offer the operator a complete record of the process.

A real-time annotation subsystem provides commented ladder logic documentation either on-line or off-line using softkeys. In on-line mode, the logic diagram offers "real-time" status of the program elements. Color process graphics gives the operator a visual picture using symbols of valves, pumps, motors, etc. The graphics editor draws these pictures "CAD-style" using a "mouse" or cursor control knob on the keyboard. When not being used for system diagnostics or program documentation, MONITROL offers a full-capability 2-D drafting system.

Support

Hilco Technologies was founded in 1979 to do system integration work for process industries. Located in St. Louis, Missouri, the company provides consulting and system integration services in addition to their standard product development. MONITROL includes over 15 man years in development and is currently installed in over 35 locations.

MONITROL was placed on the August HP Price List and was introduced in September during the Manufacturing '86 – Part 3.

If you have any questions regarding MONITROL, please contact your HP sales rep.

Ordering information

Product No.	Description
91813JA	MONITROL Base Product Number
Opt. 001	MONITROL Monitoring and Control Base System
Opt. 002	Statistical Graphics Subsystem
Opt. 003	Process Graphics Subsystem

MONITROL will be on display with an HP 3852A at the ISA trade show in Houston, Texas on October 13 to 16.

HP 9000

HP 9000 SERIES 300 UPGRADE KIT REVISED

The HP 9000 Series 300 CPU upgrade kit (PIN 98243A) is being revised and repriced to be more in line with the new Model 320 prices. It now includes 1 Mbyte of RAM standard and

has been reduced in price as well. Model 310 users have never had a better incentive to move up to the power of a 32-bit processor.

Product No.	Description
982438	Series 300 Processor Upgrade Kit
	Includes Model 320 processor board (with new 16.6 MHz floating point coprocessor), HP-IBI HP-H1L/RS-232/battery-backed clock interface board, and 1-Mbyte RAM board.
Opt. 002	Delete I-Mbyte RAM board

HP 9000

NEW TCE LITERATURE PACKAGE AVAILABLE

An attractive new literature package for the HP 9000 product line has been prepared for your use. Introduced as part of the "Technical Computing Environment" (TCE) event in May, the package includes a number of new products and enhancements to the HP 9000 computer line – the new Model 840, HP-UX 5.1, ARPA and Berkeley networking services, and others.

The package consists of three main elements:

Folder – A three-panel folder with silver embossing and center panel for holding literature. Entitled "HP and Your Technical Computing Environment," it overviews HP 9000 hardware, HP-UX, languages, graphics standards, and software. The piece itself is geared to the overview of an "economic buyer" – one who authorizes a purchase – but can also be used as part of a total package containing other literature, PIN 5954-7071.

■ *Workstation brochure* – This 16-page brochure covers HP 9000 computers: the new Series 800 (HP Precision Architecture), Series 500, Series 300, plus HP Vectra and Integral PCs. Entitled "HP 9000 Technical Computers," it discusses in depth the HP 9000 hardware, plus graphics, networking, HP-UX, artificial intelligence, and other related subjects. This is now the definitive "range" brochure for the HP 9000 line. Aimed primarily at the economic buyer. PIN 5954-8247.

■ *HP-UX brochure* – Entitled "The HP-UX Operating System," this 14-page brochure outlines HP's commitment to the UNIX™ System V operating system and discusses the various enhancements HP has made to the system – graphics, windowing, conventional language compilers, artificial intelligence, Personal Applications Manager, and other enhancements. Aimed at the economic buyer. PIN 5954-7060.

Also recommended for inclusion in the package are: the Model 840 brochure (PIN 5953-8784), NS-ARPA Services flyer (PIN 5954-7057), Model 320 Workstation flyer (PIN 5954-8243), plus the various publications appropriate for "technical buyers" who specify the actual system – data sheets, price lists, technical supplements, and so on.

Contact your HP sales rep for copies of the literature.

UNIX is a trademark of AT&T Bell Laboratories.

General

SOFTWARE FOR THE HP TOUCHSCREEN/ VECTRA/PORTABLE AND IBM PCs TO BE OBSOLETED

The following HP software products will be obsoleted on November 1, 1986.

Product No.	Product
For the HP Touchscreen (T)and Portable (P):	
35161D	(P) MindProber
92243BA	(T) Milky Way
92243D	(T,P) Adventure
92243DA	(T,P) Starcross
92243FA	(T,P) Suspended
92243GA	(T) Temple of Apshai
92243GB	(T) Ricochet
92243HA	(T) Tycoon
92243JA	(T) Millionaire
92243KA	(T) Baron
92243NA	(T) Cyborg
92243PA	(T,P) Planetfall
92243QA	(T,P) Witness
92243RA	(T,P) Zork II
92243SA	(T) SpelBound
92243TA	(T,P) Zork III
92243UA	(T,P) Enchanter
92243VA	(T,P) Deadline
92243WA	(T,P) Infidel
92243YA	(T,P) Sorcerer
92243ZA	(T,P) Seastalker
92244AA	(T,P) Cutthroats
92244CA	(T,P) Suspect
For HP Vectra and IBM PCs:	
92245AA	IBM Baron
92245BA	IBM Millionaire
92245DA	IBM List Manager
92245EA	IBM Tycoon
92245NA	IBM Calendar
92245PA	Planner
92245QA	IBM Speller
92245RA	IBM Writer

If you want any of these products, please order before November 1.

Portable

ELECTRONIC MAIL

FOR THE

PORTABLE PLUS

HP recently announced the Advance-Mail for the Portable PLUS. Advance-Mail has been designed with the Portable PLUS in mind. While the user interface is consistent with Advance-Mail for the HP Vectra PC and the HP Touchscreen PC, AdvanceMail for the Portable PLUS is not a desktop application ported to the Portable PLUS.

AdvanceMail for the Portable PLUS is a portable-computer mailing application that enhances the integration of the Portable PLUS into the HP Personal Productivity Center. AdvanceMail provides the user with offline address to HP DeskManager. AdvanceMail merges offline mail generation and review with unattended transfer to the HP 3000. The product design is closely coupled with the expected usage of a Portable PLUS. The transfer location can be changed to meet the needs of the user: for example, simple modem connection, GTE Telenet with X.25, or direct serial connection while in the office.

An installation of AdvanceMail for the Portable PLUS will provide invaluable electronic mail for professionals or salespeople on the move. The access methodology for a specific installation is required prior to use by the person on the road. This installation procedure is site specific so that the data communications procedures can be tailored to your company's needs. Once these procedures are developed, they can be installed into each Portable PLUS. These procedures are actually REFLECTION 1 command files. When the professional or salesperson changes location, the data communication procedures can be selected from those

installed in the computer. It's as easy as changing the phone number to call when you go from one area code to another.

Special ordering considerations: A typical AdvanceMail for the Portable

PLUS installation may include Portable PLUS systems with different configurations. You should refer to the following table to determine the configuration for your system.

If you are . . .	Then order . .
An existing Portable PLUS user with REFLECTION 1 installed	82870K, Opt. 400
A new user for **AdvanceMail**	82870A, Opt. 400
A user for AdvanceMail and also want terminal emulation	82870K, Opt. 400 and 82863K, Opt. 400
A system administrator responsible for the installation of **AdvanceMail**	82870K, Opt. 400 and 82863K, Opt. 400

Ordering information

Product No.	Opt.	Product
HP 82870A	400	AdvanceMail (with REFLECTION 1 ROM)
HP 82870K	400	AdvanceMail System Administrator (without REFLECTION I ROM)
HP 82863K	400	REFLECTION 1 Terminal Emulation
		Site licensed software:
HP 82870S	400	AdvanceMail HP supplies all copies
HP 82870T		Five sets of manuals (including Setting Up AdvanceMail for the System Administrator)
HP 82863S	400	REFLECTION I Terminal Emulation HP supplies all copies
HP 82863T		Five sets of manuals

Portable

WORD PERFECT AND dBIII FOR THE

PORTABLE PLUS

WordPerfect, the popular word processing software, and dBIII Compiler, the dBASE III programming language compiler, are now available for the Portable PLUS.

With unsurpassed business features, WordPerfect turns out professional documents in record time. Features include a thesaurus, spelling dictionary, and columns displayed side by side. For more information and pricing, contact WordPerfect Corporation, 288 West Center Street, Urem, Utah 84057; 801-227-4000.

WordTech Systems publishes dBIII Compiler. Applications written in the dBASE III command language are transformed into programs that can be directly executed by the Portable PLUS without the presence of dBASE III. The compiler recognizes report, label, and index files and requires only 128 Kbytes. Also, there are several other related products coming soon. To get a copy of dBIII Compiler, contact Word-Tech Systems, Inc., P.O. Box 1747, Orinda, CA 94563; 415-254-0900.

INTRODUCING VECTRA 3000 AND VECTRA OFFICE

In today's competitive PC market, offering powerful standalone PC capabilities isn't enough. Office workers also need to gather, manipulate, and communicate information that may exist either inside or outside their workgroups. Providing easy, powerful access to the resources of a minicomputer is equally important.

With Popular HP Vectra PC components, AdvanceLink 2392 software, and choice of monitor, Vectra 3000 is a complete PC workstation to connect to the HP 3000. Two models are available: monochrome and EGA.

Normally, putting together the separate pieces of a personal computer can be time consuming. To make installation a snap, the preassembled Vectra 3000 amves in three convenient boxes. A handy user's guide also walks users through getting the system started.

Vectra Office consists of a Vectra 3000 and either of two versatile software bundles: the Professional Software Pack or the Assistant Software Pack. These software packs feature all of the core applications needed for a basic office workstation: word processing, spreadsheet, graphics, data management, and communications.

Vectra 3000 and Vectra Office will help you capitalize on a growing trend, the migration of office applications from terminals to personal computers. Many applications, especially word processing, graphics, and spreadsheets, offer higher, more predictable performance on a personal computer, which does not depend on host availability. Offloading these functions also reduces the minicomputer's CPU load and provides a more cost-effective solution for the user.

With preassembled hardware, bundled software, discounted prices, and ease of orderinglinstallation. users can have true added value in their PC-based solution.

VECTRA 3000: NEW PC WORKSTATION FOR THE HP 3000

For those users who need PC-based flexibility and access to minicomputer resources, the Vectra 3000 provides an excellent solution.

Vectra 3000 is a preassembled HP Vectra PC with AdvanceLink 2392 software. You can order a complete system (including the monitor) with just one product number. And users pay less for the bundle than for the sum price of the individual components (building from a Model 45).

Users can select either of two basic configurations:

Vectra 3000

Monochrome model PIN 72458A	EGA model PIN 72459A	
SPU with 640 Kbytes of RAM	SPU with 640 Kbytes of RAM	
1.2-Mbyte drive	1.2-Mbyte drive	
20-Mbyte hard disc system	20-Mbyte hard disc system	
Serial/parallel card	Serial/parallel card	
MS-DOS	MS-DOS	
AdvanceLink 2392	AdvanceLink 2392	
Multimode adapter	EGA adapter	
Monochrome monitor	EGA monitor	

With the Vectra 3000, users benefit from convenient installation, simplified ordering, attractive pricing, and a powerful PC workstation to connect to the HP 3000.

VECTRA OFFICE: INTEGRATED OFFICE WORKSTATION

The new Vectra Office is a complete personal computing workstation designed to meet the needs of a broad range of office workers. It is a key component of HP's Personal Productivity Center Strategy. It contains a pre-assembled Vectra 3000 with monitor, HP Mouse, and software. The Vectra Office can be obtained by ordering either the Vectra 3000 EGA or monochrome model, and one of the packages below.

Product No.	Description
68300F	Vectra Office Professional Software Pack Executive MemoMaker 1-2-3® from Lotus® Executive Card Manager Graphics Gallery Collection AdvanceMail HP Mouse
68301F	Vectra Office Assistant Software Pack AdvanceWrite III 1-2-3 from Lotus Executive Card Manager Graphics Gallery Collection AdvanceMail HP Mouse

With the choice of these Vectra Office Systems, users can get a solution to many of their needs. They will benefit from access to the Personal Productivity Center as well as stand-alone PC applications.

These products are being discounted as much as 17 percent less than the sum price of the individual components. And ordering is simple, as a complete system may be obtained with only two product numbers.

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NEW HP VECTRA PC BUNDLES

HP recently introduced bundled HP Vectra PC systems. These bundles incorporate new hard disc subsystems that feature greater IBM AT-compatibility (see "New Options for HP Vectra PC Mass Storage"). The bundles ship preassembled, and, best of all, they are priced below the sum of their components. (These models are based on the Vectra Model 45 PC, HP 72445A, for component versus system pricing comparisons.)

■ *Vectra Model 50 PC (HP 72450A).* Includes the new 20-Mbyte, IBM PC AT-compatible, hard disc subsystem (HP 45896A), a serial/parallel interface card (HP 24540A), 640 Kbytes of memory, and a 1.2-Mbyte flexible disc drive.

■ *Vectra Model 60 PC (HP 72460A).* Same as the Model 50, except substitute the new 40-Mbyte, IBM PC AT-compatible, hard disc subsystem (HP 45897A).

■ *Vectra 3000 Monochrome PC (HP 72458A).* Same as the Model 50 above, plus the Multimode Video Adapter, monochrome monitor, and DOS. AdvanceLink 2392 communications software is provided at no extra charge.

■ *Vectra 3000 EGA PC (HP 72459A).* Same as the Model 50 above, plus the Enhanced Graphics Display System (EGDS) (EGA adapter and monitor), and DOS. AdvanceLink 2392 communications software is provided at no extra charge.

■ *Vectra Office* consists of a Vectra 3000 (Monochrome or EGA) and either of two powerful software bundles: a Professional Software Pack or an Assistant Software Pack that is provided at a substantial discount.

NEW OPTIONS FOR HP VECTRA PC MASS STORAGE

HP has introduced an array of new HP Vectra PC products. At the heart of these products is a new IBM PC AT-compatible hard disc controller. The earlier products remain on the HP Price List; so there will be two hard disc controller kits, two 20-Mbyte disc subsystems and two 40-Mbyte subsystems available for the HP Vectra PC. Each of these products meets specific user needs.

The recent Vectra System Update enables current Vectra PCs to use a fully IBM PC AT-compatible hard disc controller. Such a controller is now available from HP. It is contained in all of the new Vectra PC bundled systems (see the preceding four articles), as well as in the disc products described below.

Product summaries

■ *IBM PC AT-Compatible Hard Disc Controller Kit (HP 45895A).* Includes controller card, hard disc mounting bracket, cabling, and documentation (all that you need to add a third-party hard disc).

■ *20-Mbyte Internal Hard Disc Subsystem (HP 45896A).* Includes IBM PC AT-Compatible Controller Kit (HP 45895A) above, and a 65ms-average-access-time, half-height hard disc. (Provided in the Vectra Model 50, the Vectra 3000, and the Vectra Office.)

■ *40-Mbyte Internal Hard Disc Subsystem (HP 45897A).* Includes IBM PC AT-Compatible Controller Kit (HP 45895A) above, and a 40ms-average-access-time, full-height hard disc. (Provided in the Vectra Model 60.)

Note: All of the above products are based on the new hard disc controller present in the HP 45895A kit, and they will only operate in Vectras with serial number prefixes of 2623A or later.

The current hard disc controller (HP 45815A), 20-Mbyte (HP 45816A), and 40-Mbyte (HP 45817A) hard disc subsystems will remain available. The HP 45816A provides an exceptionally high degree of ruggedness, and its compact size permits two drives (40-Mbytes total capacity) to be mounted in a single half-height slot. In addition, the HP 45815A, HP 45816A, and HP 45817A subsystems are supported in all versions of the Vectra PC.

VECTRA OFFICE DEBUTS

The Vectra Office is a complete personal computing workstation designed to meet the needs of a broad range of office workers.

The Vectra Office and the Vectra 3000 are being introduced as strategic components of the Personal Productivity Center (PPC). They provide
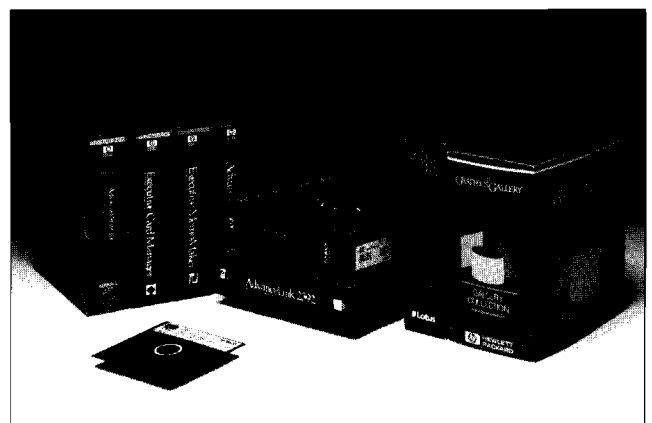
HP with the ability to distribute CPU power and functionality from the HP 3000 to the Vectra PC while maintaining a very high degree of integration. This is one of the key competitive advantages of the PPC strategy.

The Vectra Office includes a preassembled Vectra 3000 and either the Professional Software Pack or the Assistant Software Pack. Some of the key benefits are:

▪ Preassembled systems with AdvanceLink.

  Easy to present, order, and sell.

▪ Attractively priced (save up to $1,500 on combined hardware and software).

▪ Coupled with the Terminal Trade-in Program (save up to $500).

▪ Complete Office Software offering.

▪ Access to HP 3000 applications.

▪ VEU purchase agreement discountable.

Please remember that both the Professional Software Pack (PIN 68300F) and the Assistant Software Pack (PIN 68301F) include the HP Mouse for added convenience when using the Graphics Gallery products. And, don't forget that the two software packs must be accompanied by an order for a Vectra 3000 – either the EGA model (PIN 72459A), or the monochrome model (PIN 72458A).

Desktop

ADVANCEMAIL IN THE NEW VECTRA OFFICE

One of the components of the new Vectra Office software bundles is AdvanceMail, a new product being introduced by HP. AdvanceMail is a full-function electronic-mail system that runs on the Vectra Office in con-

junction with HP DeskManager (version B.OO.OO or later).

AdvanceMail will be available in early October. So that users can begin using their Vectra Office, we will be including a special return card in each Professional Software Pack and Assistant Software Pack. Users will be instructed to fill in their name and address and send the coupon to HP's Personal Software Division (PSD). PSD will ship the AdvanceMail software directly to them as soon as it is available.

In the interim, there are several things to keep in mind:

▪ Users can begin using 1-2-3® from Lotus[a], the Gallery Collection, and other software immediately.

  They can use the Vectra Office with AdvanceLink 2392 to log onto HP DeskManager.

▪ In many cases, users will not have the latest version of HP DeskManager installed. They should get their system managers to install HP DeskManager version B.OO.OO on the HP 3000 so that they can use AdvanceMail.

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

Desktop

VECTRA 3000 – MORE VALUE FOR YOUR PC DOLLAR

In a world where PC users want convenience, better value, and enhanced information sharing, what if HP offered a system that came preassembled for easy installation, provided Advance-Link 2392 at no extra charge, was orderable with just one product number, and allowed an attractive terminal trade-in?

The Vectra 3000 makes the perfect partner for HP's minicomputers. It is a preassembled Vectra with DOS, AdvanceLink 2392 software, and a monitor to satisfy user needs.

AdvanceLink 2392 is the bridge to the HP 3000. You can run many applications written for the HP 3000 or other computers from your PC. Users can exchange important documents quickly and reliably across the country.

Also, for more details, see the preceding articles.

Desktop

ADVANCELINK 2392 ADDS NEW FEATURES

AdvanceLink 2392 kicks off this fall with new features and an important role in the new office program. HP's basic office system consists of an HP 3000 running HP DeskManager with Vectra Office workstations connected to it. Each Vectra Office combines a set of key software applications (the Professional or Assistant software packs) and a Vectra 3000 (a preassembled Vectra workstation). Data communications is such an integral part of the office that we are including AdvanceLink and a serial/parallel card with every Vectra 3000 workstation. AdvanceLink connects the Vectra Office to the HP 3000, for running HP 3000 programs, transferring data, and automating communication tasks.

In addition, AdvanceLink will debut new features that give you a more powerful connection between the PC and the HP 3000. These features further extend the power of the HP 3000 to your personal computer giving you better terminal and data transfer functions. The new features are "type ahead," a

wide screen, more terminal memory and enhanced local editing.

Type ahead

When connected to the HP 3000, you no longer need to wait for the host or application to prompt you for input. With type ahead you can type continuously and AdvanceLink will save your keystrokes, sending them when the HP 3000 is ready. This is a real productivity boost.

Wide screen

AdvanceLink makes long lines of text readable on your terminal screen by giving you a wide terminal display without wrapping lines. You can now read 132-column text on your 80-column Vectra PC screen using horizontal scroll. You can even pick the number of columns you want to scroll, one at a time for a smooth scroll up to 80 at a time for a quick jump.

Increased terminal memory

For those who want pages and pages of terminal memory, AdvanceLink has it – up to 20 pages.

Enhanced local editing

AdvanceLink now has enhanced local editing of text where your terminal display memory acts as a clipboard for quickly moving text between your PC and the HP 3000. You can save all or part of terminal memory in MS™-DOS files. You can read MS DOS files into terminal memory for editing or send them to the HP 3000.

These features are part of AdvanceLink 2392 Version A.05.04, which will ship with every Vectra Office and Vectra 3000 bundle and will be available as a stand-alone product as of mid September. If you have already purchased AdvanceLink and want the new

features, you can buy an update kit from HP's Direct Marketing Division (DMK).

Ordering information

Product No.	Product
68333F	AdvanceLink 2392
68333-65001	**AdvanceLink** 2392 **Update Kit** (DMK only)

Also this Fall, look forward to continuing print advertising promoting the AdvanceLink strengths and importance of data communications from Hewlett-Packard.

Desktop

VECTRA 3000 AND VECTRA OFFICE QUESTIONS AND ANSWERS

Does Vectra 3000 include the new IBM PC AT-compatible hard disc controller and 20-Mbyte hard disc drive?

Yes.

Can a user take its normal purchase agreement discount on the Vectra 3000 and Vectra Office bundles?

Yes. The user not only benefits from lower than sum-of-the-components pricing, but can also take advantage of the standard VEU discounts.

What if I want to buy a Vectra 3000, but want to substitute a 360-Kbyte for the 1.2-Mbyte flexible disc drive?

Buy the Vectra 3000 (with the 1.2-Mbyte drive) and add a 360-Kbyte flexible disc drive. You will get more for less.

The user also benefits from pre-assembly, a savings over buying separate pieces, and two flexible disc drives instead of just one.

Can users order a "CGA" Vectra 3000 instead of EGA?

No. The Vectra 3000 Comes only in monochrome and EGA color configurations. You can still order the pieces separately for a comparable "CGA" configuration. However, the EGA Vectra 3000 provides greater savings and IBM compatibility. HP's EGA video subsystem also supports CGA mode.

When will AdvanceMail be available?

AdvanceMail will ship in October. Until then, the Vectra Office software packs will contain a special return card that must be returned to HP. HP will ship AdvanceMail directly to users as soon as it is available.

What version of HP DeskManager must be on the HP 3000 to work with AdvanceMail?

AdvanceMail requires the B.00.00 or later version of HP DeskManager.

Desktop

EXECUTIVE MEMOMAKER OFFERS WORD PROCESSING FOR PROFESSIONAL SOFTWARE PACK

Executive MemoMaker, the best selling word processing product on HP personal computers, is included in the Vectra Office Professional Software Pack. Managers and professionals will

find all of the features they require in this easy-to-learn, easy-to-use product.

Executive MemoMaker offers full-screen editing capabilities, block text operations, bold and underline enhancements, right justification of text, and a find-and-replace feature. In addition, a spelling verifier/corrector with an 85,000-word dictionary is fully integrated with the software.*

With the availability of Graphics Gallery on the HP Vectra PC, Executive MemoMaker now merges Gallery charts, pictures, and drawings with your memos and reports. The result can be previewed on screen or printed on a variety of printers, including the HP LaserJet, QuietJet, or ThinkJet printers.

Other new features are automatic page numbering and customized format files for use with the HP LaserJet printer. All of Executive MemoMaker's capabilities can be easily accessed through function keys; there are no commands to remember, and help is always available at the touch of a key.

With Executive MemoMaker, Vectra Office users will be creating professional-quality memos and reports as soon as their software is installed.

Spelling Software developed by Houghton Mifflin Company, publishers of The American Heritage Dictionary.

Desktop

EXECUTIVE CARD MANAGER INCLUDED IN VECTRA OFFICE SOFTWARE PACKS

Executive Card Manager provides powerful data-management capabilities with a simple interface for all Vectra Office users. Cardfiles can be easily created, modified, searched, and sorted using the function-key interface. A built-in report writer also allows information to be presented in columnar fashion.

For the office assistant, Executive Card Manager can be used for simple form letters or to easily print mailing labels. Mass mailings can also be produced by merging Executive Card Manager lists with AdvanceWrite III documents of any kind.

The office professional will appreciate the automatic dialing features that will accommodate long distance access codes and can be used with any modem. Executive Card Manager can merge information from other cardfiles or exchange data files with popular spreadsheets and databases such as 1-2-3® from Lotus[B], dBASE II[B] and III®, and R:BASE™ 5000.

Executive Card Manager's storage capacities will handle the needs of its most sophisticated users. Each cardfile can store up to 64,000 cards and each card may contain up to 11 screens of information.

Vectra Office users will also want to know about Executive Card Manager: Templates (PIN 68335F), a collection of modifiable cardfile and report formats representing 21 business environments. The templates equate to fill-in-the-blank instant productivity and will add to the total software solution provided by Vectra Office.

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dBASE II and dBASE III are US registered trademarks of Ashton-Tate

R:BASE is a US trademark of Microrim Inc.

Desktop

VECTRA OFFICE FEATURES 1-2-3 FROM LOTUS RELEASE 2.01

When users order the Vectra Office Professional or Assistant Software Packages, they will receive 1-2-3® from Lotus® Release 2.01, the world's most popular spreadsheet package. A key component of Vectra Office, 1-2-3 Release 2.01 provides all of the features users have been enjoying in 1-2-3 Release 2, plus additional improvements they will find particularly helpful.

New features of 1-2-3 Release 2.01 include:

- Faster File Retrieve time

- Simplified installation procedure. You can install 1-2-3 on your hard disc system during the First Time Installation procedure.

- Labels equate to zero in mixed formula references

- Financial functions allow negative arguments

- Reads Release 1A, Release 2.0 and Symphony[B] files

These are just a few of the technical improvements users will enjoy when they purchase 1-2-3 Release 2.01.

With the Vectra Office, users can read their data and worksheet graphs

created in 1-2-3 into Graphics Gallery. Charting Gallery can be used to produce colorful bar, pie, line, and scatter charts. Drawing Gallery can enhance these charts with text, drawings, and pictures to produce presentation-quality graphics on paper, overhead transparencies or 35mm slides.

The Vectra Office and 1-2-3 from Lotus offer users a winning combination of office productivity tools.

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

Deskrop

PROFESSIONAL-QUALITY GRAPHICS IN VECTRA OFFICE

The new Vectra Office software bundles let you create bold, professional-quality presentations and reports. Both the Assistant and Professional Software Packs include the Gallery Collection, which consists of Drawing Gallery for text and illustrations; Charting Gallery for pie, bar, and line charts; and an additional Gallery Portfolio of illustrations and templates to enhance your graphics. The Assistant and Professional packs also include the HP Mouse, to make creating graphics fast and easy.

Software that works together

It's easy to take graphs and data from 1-2-3® from Lotus @(part of both the Professional and Assistant packs) directly into Charting Gallery for enhanced, professional-quality presentations. Your Charting Gallery pictures

can be edited and enhanced with text, pictures, and drawings with Drawing Gallery. And any of your Graphics Gallery pictures can be read into Executive MemoMaker (part of the Professional pack) to add letter-quality pictures, charts, and illustrations into your reports.

Off to a terrific start

Graphics Gallery has been enormously well received. Bob Lefkowits of Infocorp has said, "With Graphics Gallery, HP is introducing a comprehensive solution for graphics creation, editing, and high-quality output that other hardware and software vendors will find difficult to match." Several major accounts have already selected Graphics Gallery as the graphics package of choice for both HP Vectra PCs and IBM-compatible personal computers. Orders this summer were fantastic, making the Gallery Collection HP's best-selling software package.

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

Desktop

SERIES 1001 DESKLINK TO BE OBSOLETED

On October 31, 1986, Series 1001 DeskLink is being removed from the HP Price List. This product provides a personal computer interface to HP DeskManager A.01.03 for both the HP 120 and HP 125. As both of these personal computers were obsoleted and there is now little demand for the DeskLink product, the obsolescence plan for the software will commence on November 1, 1986, with HP providing a support life of five years.

Desktop

PRICE DECREASE FOR HP 150/ TOUCHSCREEN PC MEMORY ACCESSORY

Effective September 1, 1986, the price of the HP 150/Touchscreen PC 256-Kbyte memory accessory (PIN 45631A) was reduced. The HP 150 memory accessories enable users to add to their CPU's base 256 Kbytes of memory. This is particularly beneficial for software applications which require more memory than comes standard with the HP 150/Touchscreen PC. Application software such as 1-2-3® from Lotus™, OfficeShare, Graphics Gallery, and ExecuDesk recommend a minimum additional 256 Kbytes of memory. Users desiring to take advantage of the HP Touchscreen PC's RAM disc feature must install additional memory to their SPU

Memory for the HP 150/Touchscreen personal computer is available in the following configurations:

Product No.	Description
45631A	256-Kbyte memory accessory
45632A	384-Kbyte memory accessory
45915A	384-Kbyte memory accessory with HP-HIL

User installable, these boards require no configuration after installation and increase the performance of applications or files which occupy large amounts of memory.

HP VECTRA INDUSTRIAL PC AND ENVIRONMENTAL SPECIFICATIONS

The HP Vectra Industrial PC tackles the toughest jobs and delivers performance and reliability you can count on. How? The Vectra Industrial PC is designed to withstand environmental specifications far exceeding standard PC ranges. But what do these specs really mean? What benefits will users experience by having a product designed for rough treatment? A brief description of the evils of harsh environments, what they do, and how the Vectra Industrial PC can help is described below:

Temperature: Products subjected to temperatures consistently exceeding design specifications may show IC failures or malfunctions and a significant reduction in overall product reliability. A general rule of thumb: For every 9 degrees Celsius (exceeding the designed specification), the reliability of the product is halved. The HP Vectra Industrial PC is fully supported to 60 degrees Celsius, a full 20 degrees over most standard PCs.

Dust and particulates: Depending on their makeup, particles can cause severe damage to computer equipment. In their simplest state, particles settle on components inhibiting efficient cooling. In more severe cases, moist or corrosive particles may result in irreversible damage to components. The HP Vectra

Industrial PC incorporates an air filter that filters out many harmful particles.

Vibration and shock: Vibration is a measure of the product's durability. Over time, vibration can result in excessive wear of moving mechanical parts and metal fatigue. Shock is a measure of the product's strength and characterizes its ability to withstand sudden, violent motion. The HP Vectra Industrial PC specs both vibration and shock tolerance. Standard PCs test for shock and vibration, but only for shipping purposes, and do not spec for operation.

In conclusion, harsh environmental conditions can cause severe damage to products not designed to withstand the evils of temperature, humidity, shock, vibration, and particulate matter. The Vectra Industrial PC, while maintaining 100 percent compatibility with the standard HP Vectra PC, has increased this tolerance significantly. Providing a product that can withstand harsh environments means quality, reliability, The HP Way, and minimized user downtime.

MS-DOS 3.2 AVAILABLE FOR HP 150/ TOUCHSCREEN PC

The recently released MS-DOS 3.2 operating system is now available with the HP 150/Touchscreeen personal computer. Touchscreen's version of the DOS release contains those features available with the standard DOS 3.2 product plus a variety of enhancements to complement the HP 150/Touchscreen PC features. MS-DOS 3.2 offers:

Support for non-HP 3M-inch disc formats from major PC vendors

■ Read and write capability of IBM-compatible format

■ MS-DOS command line on your P.A.M. screen

■ 12 new DOS commands

■ STORE CONFIG feature

MS-DOS 3.2 has added network and general commands such as ATTRIB, SHARE, ASSIGN, LABEL, JOIN, and SUBST, giving DOS capabilities which did not previously exist. P.A.M. enhancements have also been made. A DOS command line on the P.A.M. screen now allows you to access MS-DOS commands without leaving P.A.M. The dedicated DOS user, however, can continue to bypass P.A.M. and go directly to DOS commands.

STORE CONFIG, another added feature, allows users to store one or more PC and terminal configurations as files on disc. A site standardized on a particular HP Touchscreen II PC system can store configurations as files and share them with other users. STORE CONFIG also comes in handy when the CPU battery has not been replaced in a timely manner. The lost configuration can be easily restored by retrieving the file containing the desired configuration.

IBM's 3%-inch disc format, which was recently released, has raised the question of whether the HP Touchscreen PC can read and write IBM data files. IBM read, write, and format capabilities are now executable without the requirement of an IBM or IBM compatible computer. This capability only requires DOS 3.2 and your HP double-sided disc drive. A more significant capability of this version of DOS

is that the HP Touchscreen PC can format to IBM's format. In fact, the HP Touchscreen PC's ability to read and write to either the IBM or HP format is transparent to the user. With DOS 3.2, the HP Touchscreen PC can automatically differentiate HP format from IBM format when either disc is inserted into the system. The user is not required to make that determination ahead of time. This new operating system also contains extensions to support upcoming HP 150/Touchscreen products. These products will be announced in upcoming issues of HP *Channels.*

Touchscreen firmware revisions have been made to address some reported "bugs" related to the terminal functionality of the HP Touchscreen PC.

MS-DOS 3.2 is compatible with all versions of the HP Touchscreen PC (i.e., HP 150A, HP 150B, and HP 150C Rev. B firmware or greater). All software is supported with the exception of Series 100 Graphics (which is discontinued), CONDOR, and old versions of WordStar® (versions 3.30, 3.3A, 3.3B, 3.33). Users that want to use WordStar (version 3.34) with DOS 3.2 can upgrade their WordStar application by purchasing P/N 45400-63031 through HP's Direct Marketing Division (DMK). CONDOR support is being addressed and will be communicated in the near future.

Shipments to HP Touchscreen II PC users are scheduled to commence October 1, 1986. We will continue to make the 150A/B to Touchscreen II upgrade kit (PIN 45849-63006) available through December 31, 1986.

Mass Storage

HP ANNOUNCES STEPS TOWARD IBM 3½-INCH MICROFLOPPY COMPATIBILITY

Hewlett-Packard pioneered the 3½-inch microfloppy in 1982 and is committed to maintaining its leadership role in the 3⅝-inch marketplace in the future.

With IBM's recent announcement and validation of the 3½-inch format, Hewlett-Packard recognizes the need for compatibility with IBM to continue our success in the personal computer market.

Steps toward IBM compatibility have been taken with the recent introduction of two Hewlett-Packard products: the HP MS-DOS 3.2 150 operating system

and the HP 88500A software. Detailed new product information is outlined on pages 15 and 17.

Future product introductions and revisions this year will further strengthen Hewlett-Packard's data and software compatibility with IBM. (This corporate goal will be achieved without compromising HP compatibility.)

Below, a comprehensive IBM compatibility matrix is available for your convenience. For additional questions on compatibility, contact your HP sales rep.

IBM formatted discs in HP computers

HP host	Read/Write	Notes
HP Vectra PC/88500A/B/HP 9122D	Yes	
HP 150A/Touchscreen PC	No	Upgrade to 150C/MS-DOS 3.2 150 O/S
HP 150B/Touchscreen PC	Yes	With MS-DOS 3.2 150 O/S
HP 150C/Touchscreen II PC	Yes	With MS-DOS 3.2 150 O/S
HP Portable	No	No planned support, use PDL for exchange.
HP Portable PLUS	Yes	

Note: Only the HP 150B/C with MS-DOS 3.2 150 operating system can IBM format a 3⅝-inch.

Due to the different logical, format, and sparing techniques employed by IBM, IBM cannot read HP formatted discs except on the Vectra and Portable PLUS PCs if the media did not have any spared tracks. Typically, only two percent of the media is ever spared, and only a portion of that two percent would be using it within an HPIIBM exchange environment.

HP 1000 SUPPORT AVAILABLE FOR HP 35401A AUTOCHANGER TAPE DRIVE

The HP 35401A cartridge auto-changer tape drive is now supported by RTE-A 4.1 using a simple patch tape. The HP 35401A is a cost-effective solution for backup on systems with up to 536 Mbytes of storage. It offers all the benefits of unattended backup, eliminating the expenses of operator overtime (for after-hours backup) or the system downtime that results when backups must be performed during working hours.

We also have a couple of special programs for the HP 35401A tape drive.

■ *The Trade-up Program* offers a return credit when the user trades in an HP 9144A cartridge tape drive for the HP 35401A tape drive. (Note – this is valid even when the HP 9144A has been included as part of the HP 7914CT disc/tape combination.) Trading up is simple because the HP 35401A uses the same cartridge and format that has already proved popular with the HP 794216 and HP 9144A cartridge tape drives, so there is no need to rewrite a large library of tapes. (See following article for more information.)

■ *The Try It Out* program gives large users the opportunity to borrow a unit before committing to volume purchases.

When you order the HP 35401A for an HP 1000 system, you also need to order HP 35401A Option 100 which will ensure that we send you the patch tape with the operating software. Please note that HP 1000 systems support only the Sequential mode of operation.

HP 35401A TRADE-UP PROGRAM ANNOUNCED TO HP 9144A USERS

During the first week of September, a mailer announcing the trade-up program for the HP 35401A was sent to all HP 9144A users in the US. The program offers a return credit when a user trades in an HP 9144A cartridge tape drive for the HP 35401A tape drive. We are also pleased to announce an extension to this program until November 30.

HEWLETT-PACKARD

If you require any further copies of the mailer or did not receive a copy, please contact your HP sales rep.

HP ANNOUNCES NEW VERSION OF THE 88500A INTERFACE CARD

Effective October 1, 1986, HP will introduce the new "Version 3.0" of the 88500A Interface Card.

The new version allows users to interface with HP 7907 removable drives supported on the HP Vectra PC. In addition, it provides IBM 3%-inch data interchange with HP's floppy drives.

Designed for users who already have an HP-IB solution for their personal computer, the HP 88500B (software-only product) will be released October 1, 1986. This product will also run HP-IB instruments on the Vectra PC when used in conjunction with the HP 82990A card.

PRICE INCREASE FOR HP 9133H/9134H 20-MBYTE DISC DRIVES

Effective October 1, 1986, the HP 9133H/9134H 20-Mbyte disc drives will increase in price. Rising production costs due to lower volumes and the fluctuation in the Japanese currency have contributed to the need for this price increase.

A planned obsolescence of the HP 9133H and 9134H will occur over the next six months beginning with the

introduction of the new 20-Mbyte 9153B and 9154B disc drives November 1, 1986. The new drives will be priced comparably to the 1986 prices for the HP 9133H and 9134H. The last day to order the drives will be April 30, 1987.

The new 20-Mbyte disc drives feature the new Initialize and Write Protection features to ensure data integrity. In addition, the HP 9153B and 9154B will offer increased ruggedness and reliability. They will both be well suited for the automated test-and-measurement market, as well as for everyday applications such as word processing, business graphics, and spreadsheets.

Mass Storage

404-MBYTE DISC DRIVE PRICE REDUCTIONS

Effective October 1, the prices of HP's 404-Mbyte disc drives (HP 7933H, 7933XP, 7935H, and 7935XP) are being reduced.

The new prices represent cuts of up to 20 percent in the prices of the product family and can result in tremendous savings.

Please note that the "Three, Four or More Sale" has been extended through the end of December. Since this promotion is available with the new prices, users wishing to order three or more drives can save even more.

Remember – the "Three, Four or More Sale" will expire on December 31, 1986, so place those orders soon.

Printers

LASERJET FAMILY TRAINING MATERIAL NOW AVAILABLE

The LaserJet Family Workbook is now available from HP's PCG Training.

This workbook is a hands-on tutorial on how to use the HP LaserJet family of printers. This workbook can either be used as a self-paced course, or can be the focus of an instructor lead hands-on course.

The workbook includes training on:

- Connecting the HP LaserJet printer to a variety of computers

- Understanding escape sequences and PCL

- Page formatting

- Fonts and how to use them

The LaserJet Family Workbook is free of charge and can be obtained by contacting your HP sales rep. Ask your rep to send an HP Desk message to Sue Golden/HP6650/02 to request the workbook, and a copy will be mailed out to you.

We hope that this new training material will assist you in training on the HP LaserJet family of printers.

Printers

HP 2603A PRINTER FULLY SUPPORTED ON HP WORD/3000

Long awaited support for the HP 2603A on HP Word/3000 is here. With the newest version, A.05.04 UB Delta-1 MIT, HP now offers a fully functional, office-automated printer, capable of printing envelopes with HP's key word-processing package. Using the HP 2603A daisywheel printer with the HP 26030E triple-bin sheetfeeder (one bin for envelopes), your full mailer can be printed and collated with minimal operator intervention. Offering full-font, letter-quality character printing, the HP 2603A is still the solution for any user who needs versatility and forms flexibility with office applications. With this new level of HP Word support, specific HP 2603A printwheel environment files exist, eliminating problems with using those of the HP 2601A. If you're looking for professional word-processing printing, and

superior handling of your automated needs, the HP 2603A is your solution.

Terminals

THREE-TRACK MAGNETIC STRIPE READER FOR THE HP 2394A

The HP 2394A Option F25 upgrade kit adds a magnetic stripe reader capable of reading three tracks of data from cards or badges conforming to the ANSI X4.16-1976/ANSI X4.16a-1977 standard for magnetic stripe encoding for credit cards.

Option F25 provides a reliable means to input data from a magnetic stripe on cards or badges to a computer. When a card is passed through the reader head, the contents of the card are read by the terminal and stored in an internal buffer. The contents of this buffer are maintained by the terminal until:

- The buffer is requested by and sent to the host computer

- The host computer requests the buffer to be cleared

- A hard reset is performed at the terminal

- A new card pass overwrites the old data

- The terminal is powered off.

For operator convenience, the magnetic stripe reader head has three color LEDs to inform the user of the reader's status. The magnetic stripe reader option is made up of three components:

- A magnetic stripe reader interface module to be installed in the terminal's port 2 slot

- A magnetic stripe reader head with 0.6-meter (2-foot) cable connecting the head to the interface module

- An HP 2394A reference manual supplement (PIN 02394-92003), which describes the option in detail.

Contact your HP sales rep for more information about the stripe reader.

ULTIMATE SECURITY IN A COMPACT PACKAGE

Security has become a buzzword inside and outside HP. Internal and external auditors demand that confidential data and programs stored on PC memory or magnetic media be securely protected. The data lock (P/N 92172F) prevents unwanted access to vital information – whether it's software, test statistics, business data, or personal information. Twist the key to the locked position and this tiny device, which piggybacks on the HP-IB interface, shuts off data transmission through the interface (by shorting the data ready pin to ground). When the key is not in the lock, it's impossible to remove the data lock without damaging the interface.

Designed primarily for data protection, the data lock also prevents unauthorized usage and discourages theft of any HP-IB device (plotter, printer, or instrument).

Installation is simple. The data lock comes with a small screwdriver that can be used to screw the lock into the back of the HP-IB connector stack on a peripheral. With the key in locked position, a steel shutter prevents access to the screws. Available through Direct Marketing Division (Direct Marketing Operation in Europe), the data lock is dealer discountable.

Ordering information

Product No.	Description
92172F	Data lock

NEW FLOPPY DISC FIVE-YEAR WARRANTY

To be more competitive in the marketplace, HP's Direct Marketing Division (DMK) is offering a new five-year warranty on blank floppy disc media beginning October 1, 1986. The warranty program covers the 3%-inch, 5¼-inch and the 8-inch discs on a worldwide basis.

HP warrants its floppy discs to be free from defects in material and workmanship for five years after shipment, or HP will replace the discs for free. Users who need to return a disc should return it to the place where it was purchased.

The warranty is limited to blank media. It does not pertain to software or the disc drive, both of which carry separate warranties. If you have any questions, please call your HP sales rep.

DMK direct order phone numbers

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

Location	Telephone Number
Australia	(03) 895-2645
	(03) 895-2615
	(03) 895-2815
	(03) 895-2861
Austria	(0222) 2500-615
	(0222) 2500-616
Belgium/Luxembourg	(02) 761 31 11
Canada	
Toronto Local	416-671-8383
Ontario	1-800-387-3417
Quebec	1-800-387-3417
Bntish Columbia	112-800-387-3154
Other Provinces	1-800-387-3154
Denmark	(02) 816640, ext. 258
Finland	(90) 887 2361
France	(1) 69 28 32 64
Greece	(01) 6726090
Italy	(02) 9236 9702
Japan	
Sagamihara	0427 59 1311
Osaka	06 304 6021
Middle East	
Athens	(01) 6828811
Norway	(02) 24 60 90
South Africa	
Johannesburg	(011) 8025111
Cape Town	(021) 537954
Spain	(91) 6374013
	(91) 6370011
Sweden	(08) 7502400
Switzerland	(057) 31 22 53
	(057) 31 22 54
	(057) 31 22 59
The Netherlands	(020) 547 6606
United Kingdom	(0734) 697201
United States	800-538-8787
Alaska, California, and Hawaii	408-738-4133
West Germany	(0130) 3322

SOFTWARE PACKAGES
AVAILABLE AND WANTED

If you have a software package available for cross-licensing, or are looking for a package to cross-license, this section will help you. Your entry will appear for two months; the most recent additions are shaded. To list your company in the Cross-Licensing Classifieds (at no charge), see the address at the end of this section.

Software Packages Available

Industry: *Cross industry*

Abstract: UniWare cross assemblers generate relocatable code for a variety of popular microprocessors. Each assembler features macros, file inclusion, versatile listing control, cross reference listings, and manufacturer compatibility in instruction mnemonics and operand formats. Code and data areas can easily be separated into "regions" to fit your hardware configuration. Symbol names may be arbitrarily long and symbol capacity is unlimited.

The following target processors are supported: Intel 8086/186/286, 8051, 8048, 8080/5, 8041; Motorola 68000/10/20, 68HC11, 6809, 6805, 6801, 6800; Hitachi HD64180, 6305, 6301; Zilog Z80, Z8; and others 6502/c02, 1802, TMS7000, 3870/F8.

The complete package also includes: link editor, debugging aids. and communications programs.

A period of free telephone and update support is included. Site licenses, discounts on purchases of multiple products, and ongoing support is available.

Industry: *Cross industry*

Abstract: The Uniware 68020 C cross compiler generates optimized code for all members of the Motorola 68000 family. Available for the HP Vectra, HP 9000 series 300 and 500.

The compiler supports K&R with standard extensions and new language features such as function prototyping, lint-like type checking, and the "const" type specifier. Programs can be written in any combination of C and assembly language, and users have complete control over placement of program parts (e.g. into ROM and RAM). The sizes of "ints", "pointers" and other types are user-selectable.

Optimizations include combining constants at compilation time, converting multiplications to "shifts" wherever possible, elimination of superfluous "test" instructions by using already-set condition codes, and using minimum required precision in calculations. The compiler comes with the full 68020 assembler package.

Company Name: Software Development Systems, Inc.

Address: 3110 Woodcreek Drive
Downers Grove, IL 60515
USA

Phone: 312-971-8170

Contact Person: Dave Ziffer

Europe:
UNIT-C Ltd.
Dominion Way West, Broadwater
Worthing, West Sussex BN14 8NT
England (UK)

Phone: (0903) 205233; Telex: 946240, Easylink 19007665

Contact Person: Peter Vos

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Manufacturing*

Abstract. CRIBSITE is a tool crib inventory control product for HP 3000 Systems. Features of the product include touch screen capability and bar coding for automated tracking of tools, gages, fixtures and shop supplies. CRIBSITE tracks these items as they are stored in cribs, loaned to individuals and vendors, removed for repair or calibration, or deleted from inventory. Program satisfies contractual requirements imposed in DOD on defense contracts and for government-supplied equipment. It is a valuable addition to an existing job shop or MRP software system

Company Name: ONSITE SYSTEMS
A Division of Engineenng Planning and
Management, Inc.

Address: 3 Speen Street
Framingham, MA 01701
USA

Phone: 617-875-2121

Contact Person: William S. Roman

Type of Distributor Wanted: Leading software supplier to defense and aerospace industries

Geographic Coverage: North America

Industry: *Educational administration*

Abstract: SMARTS (System for Management of Administrative Records in Today's Schools) is an educational software package written for the HP 3000 systems. Purchase options include any combination of several modules: budgetary accounting, student recordkeeping, personnel recordkeeping, scheduling, and word processing – a complete administrative package for both the high school and board of education offices.

SMARTS is both easy to run and cost efficient. In the board office, it prints purchase orders, checks, and up-to-the-minute reports as well as providing instant access to accounting information. In the student recordkeeping office, reports are generated on student-teacher schedules, class rosters, attendance, bus passes, report cards, transcripts, and more. Employee data is always easily accessible, including salary guides, vacation, attendance, and an up-to-date seniority list.

Company Name: Computer Solutions, Inc.

Address: 397 Park Avenue
Orange, NJ 07050
USA

Phone: 201-672-6000

Contact Person: Peter J. Nash

Type of Distributor Wanted: Open

Geographic Coverage: Continental United States

Industry: *Cross industry – utility software*

Abstract: *The LARC Laser Package* is a formatter for the Hewlett-Packard LaserJet PLUS laser printer. It is a stored command formatter similar in command structure to TDP/3000. The package handles full page formatting, multi-column output, and utilizes all the features of the LaserJet PLUS to approximate a typeset appearance in the final document.

The package runs on the HP 3000 (any model). The LaserJet PLUS can be connected directly to the HP 3000 or can be driven through the second port on an HP 262x type terminal (or PC emulation).

Company Name: LARC Computing Inc

Address: 339 South San Antonio Road
  Los Altos, CA 94022
  USA

Phone: 415-941-9310

Contact Person: Martin Gorfinkel

Type of Distributor Wanted: One able to provide some support on the HP 3000 for users.

Geographic Coverage: Worldwide

Industry: *Cross industry*

Abstract: DOCUMENTATION13000 automatically documents existing programs written in any language available on HP 3000 computers. The system scans through the source files and extracts such valuable information as: IMAGE databases and sets used by the program, VPLUS/3000 forms files and forms, MPE and KSAM files, data elements, CALLs, COPYLIBs, $INCLUDE files, etc.

DOCUMENTATION13000 stores the information in its own IMAGE database and simplifies the conventional process of writing specifications for new programs.

Company Name: Diamond Optimum Systems, Inc

Address: 5837 Wilkinson Avenue
  North Hollywood, CA 91607
  USA

Phone: 818-980-5854

Contact Person: Igor Yasnogorodsky

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Manufacturing/Distribution*

Abstract: TMRS is a transportation control and distribution management system. It's a powerful new software system that cuts corporate transportation costs by 20 to 60 percent. TMRS is tailored to the manufacturing industry's need to contain transportation and distribution costs. The on-line system provides accurate, up-to-date, systemized information that allows companies to organize and develop least-cost transportation networks, evaluate existing distribution methods, monitor and track products, inbound and outbound traffic flows, mode of transportation, volume of business, and costs in any way they want. The system generates information for decisions regarding distribution and marketing, cost accounting, pricing, purchasing, inventory control, and warehousing.

Company Name: Ford & Associates, Inc.

Address: 402 4th Street
  Box 59
  Savanna, IL 61074
  USA

Phone: 815-273-3616

Contact Person: Kenneth G. Ford

Type of Distributor Wanted: Open

Geographic Coverage: Continental United States

The following listing appeared in the August and September issues of HP Channels with the wrong Telex number. The listing below shows the correct number.

Industry: *Cross industry – network management*

Abstract: MIMNAC is a totally integrated, distributed information system for microwave networks. Based on HP 1000, MIMNAC gives microwave network operators the tools to plan, implement, and operate a microwave service for today's and tomorrow's telecommunication needs. MIMNAC utilizes its own or customer-specified outstations. The MIMNAC system logs analog and digital alarms at microwave networks transmitter, receiver, and repeater stations throughout a network, grouping these alarms into related dockets for ease of operator handling. MIMNAC provides reliable telecontrol facilities for remote switching.

Company Name: Bothma, Searle & Wilk (Telecoms) CC

Address: P.O. Box 365
  Halfway House
  1685
  Republic of South Africa

Phone: (27) (11) 805-1843, Telex: (SA) 4-30551

Contact Person: Neville Searle or Deon Bothma

Type of Distributor Wanted: HP 1000 real-time system supplier/integrator

Geographic Coverage: Worldwide

You can list your company in the **Cross-Licensing Classifieds** (either Software Packages Available or Software Packages Wanted) by sending the information in the format used here to:

  Hewlett-Packard Company
  Value Added Solutions Marketing
  Attn: Marilyn Rauchle
  10520 Ridgeview Court
  Building 49C
  Cupertino, CA 95014
  USA

Entries will run for two months. The most recent additions are shaded. Be sure to send the information in at least one month before you wish it to appear.

ADDRESS CORRECTION REQUESTED
RETURN POSTAGE GUARANTEED

HEWLETT
PACKARD