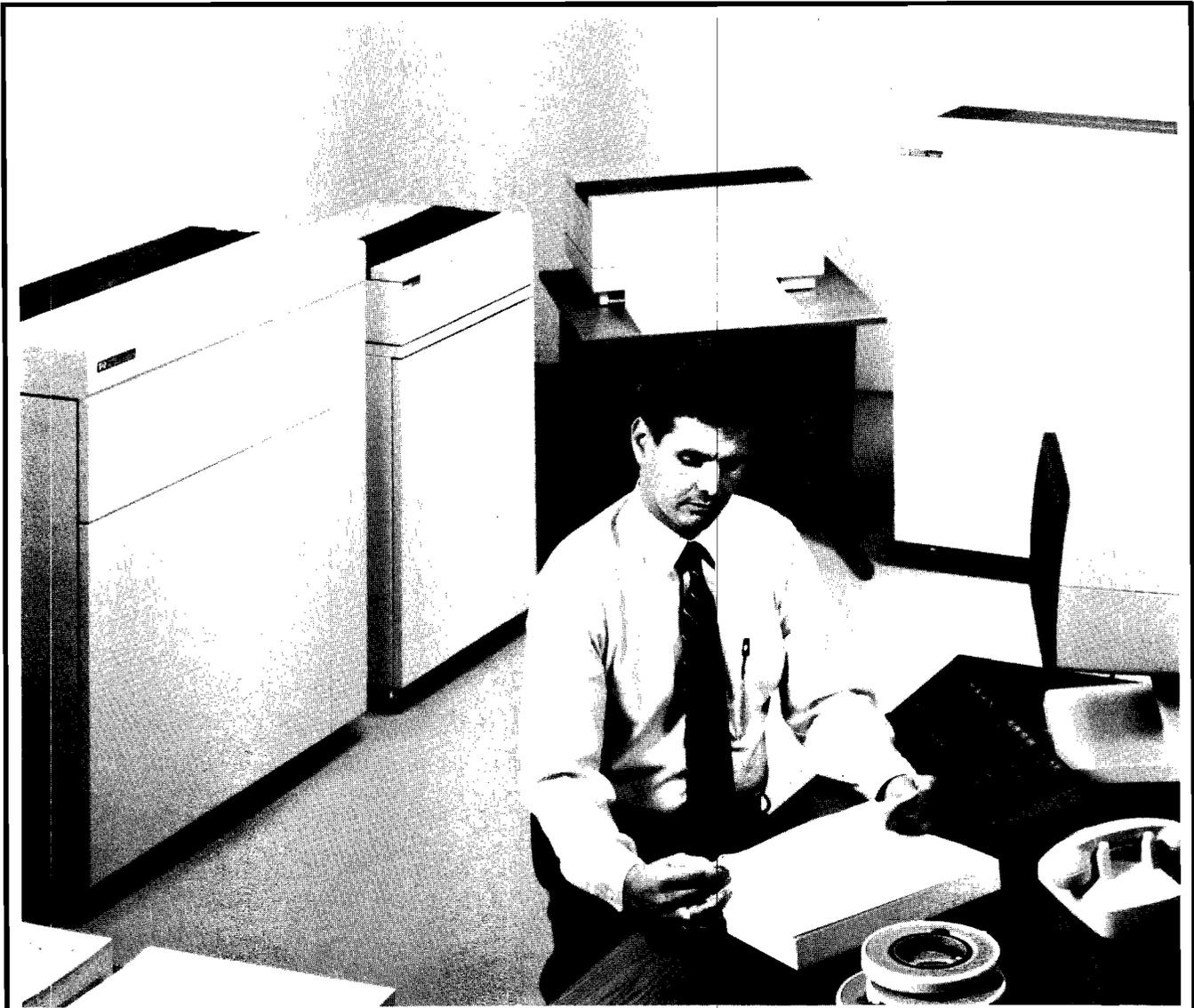


COMPUTER FOCUS

 HEWLETT
PACKARD

Computer News for HP OEMs and Independent Software Vendors

February 1986



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dot matrix printers**

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HP has announced two new dot matrix printers — the HP 2564B, a medium-duty 600 line-per-minute (lpm) printer and HP 2567B, a 1200 lpm printer with the capability of printing up to 1600 lpm ... an industry first. To make an even stronger family, the HP 2566A (900 lpm) printer has been enhanced and is now the HP 2566B printer. The original HP 2563A (300 lpm) printer rounds out this family of four. See articles beginning on page 12.



GENERAL

SUPPLIES

Service training for OEMs

Do you work with HP minicomputers? Do you write memos and reports with HP personal computers and output through HP printers? Do you believe, because of the nature of your business and your large computer inventory, that a successful self-support program is most economical and productive?

At Customer Service Training in Mountain View, California, we provide computer hardware maintenance courses covering HP 1000s, 3000s, desktops, controllers, personal computers, and associated peripherals. And with help from our Customer Cooperative Support group, we can deliver to you an excellent self-support program.

Because we have been working with many successful aerospace, energy, electronics, and automotive manufacturers over the years, our training quality and standards are high.

Our instructors are highly-trained professionals, our course materials contain the most up-to-date service information, our training facility is modern, and our support personnel are friendly and helpful.

Call us at 415-960-5300 and let us resolve your training concerns.

DMK DIRECT ORDER

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

Location	Telephone Number
Australia	(03) 895-2645 (03) 895-2615 (03) 895-2815 (03) 895-2861
Austria	(0222) 2500-615 (0222) 2500-616
Belgium/Luxembourg	(02) 762 32 00
Canada	
Toronto Local	416-671-8383
Ontario	1-800-387-3417
Quebec	1-800-387-3417
British Columbia	112-800-387-3154
Other Provinces	1-800-387-3154
Denmark	(02) 816640, ext. 258
Finland	(90) 887 2361
France	(1) 69 288 390
Greece	(01) 6726090
Italy	(02) 9236 9437 (02) 9236 9478 (02) 9236 9585
Middle East	
Athens	(01) 6828811
Norway	(02) 171180
South Africa	
Johannesburg	(011) 8025111
Cape Town	(021) 537954
Spain	(91) 6374013 (91) 6370011
Sweden	(08) 7502400 (08) 7502027 (08) 7502204
Switzerland	(057) 31 22 53 (057) 31 22 54 (057) 31 22 59
The Netherlands	(020) 547 6606
United Kingdom	(0734) 697201
United States	800-538-8787
Alaska, California, and Hawaii	408-738-4133
West Germany	(0130) 3322



HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

PORTABLE

The HP Portable PLUS and HP Vectra PC

Via the portable desktop link (HP 82973A), the HP Portable PLUS and HP Vectra PC can talk to each other in much the same way that communication can occur between the HP Portable PLUS and the HP Touchscreen, IBM PC, or other IBM-compatible personal computers. There are a few differences to keep in mind, however.

Due to an addressing limitation of MS-DOS 2.1, the HP Portable PLUS cannot address above 10 megabytes. Since the typical hard disc of the HP Vectra PC is larger than that, special considerations must be taken.

The simplest solution is to configure your HP Vectra PC (or compatible) as the controller of the link. To do this, create a file on the desktop called CONFIG.SYS which contains the following line:

```
DEVICE = HPIL.SYS
```

Place this file on the system disc of the desktop. Then, whenever you wish to transfer files between the HP Portable PLUS and the desktop, simply run HPLINK on the HP Portable PLUS, and issue the desired file command from the desktop. In this manner, the HP Portable PLUS will simply appear to the desktop as another external disc, allowing you to transfer data files, spreadsheets, reports, and so on between the HP Portable PLUS and your desktop.

Reflection 1 for the HP Portable PLUS

Reflection 1™, developed by Walker Richer & Quinn, Inc., is now available for the HP Portable PLUS. This powerful data communications product is the replacement product for PC 2622®, which was introduced on the HP Portable PLUS in July 1985. Reflection 1 adds several additional capabilities to those found in PC 2622. The major differences are: HP 2392A terminal emulation, ROMAN8 character support, ISO7 character substitution, and enhanced command language.

The command language enhancements include more capabilities in unattended operation and the ability to load and store configuration files. PC 2622 command files are upwards compatible with Reflection 1 command files. Command files can be created to automatically connect and logon to an HP 3000 and run HP DeskManager. Command files can even be set up to handle defender systems with call back option for remote communication with the HP 3000.

In addition to these capabilities, Reflection 1 also provides DEC VT102 terminal emulation and file transfer using either CRC-CCITT or XMODEM protocol. Reflection 1 has been designed specifically for the HP Portable Plus to enhance ease of use and performance.

The main reason for the introduction of Reflection 1 is the emulation of the HP 2392A terminal and the enhanced character support. Those users of PC 2622 in North America should see little difference between PC 2622 and Reflection 1, but European customers will now be able to buy similar data communications capabilities. Reflection 1 has been tested in several locations in Europe and can be purchased for use outside North America.

PC 2622 will be taken off the HP price list on April 1, 1986. Any orders for PC 2622 will be filled with existing stock of PC 2622 until this date. Reflection 1 will be substituted for PC 2622 when stock is depleted. All non-North American orders for PC 2622 will be filled automatically with Reflection 1.

Reflection 1 is P/N 82863K Opt. 400.

PC 2622 is a US registered trademark of Walker Richer & Quinn, Inc.

Reflection 1™ is a US trademark of Walker Richer & Quinn, Inc.

DEC and VT102 are US registered trademarks of Digital Equipment Corp.

HP-41 controls instruments and collects data in EPA research experiments

The Environmental Protection Agency (EPA) research lab in Corvallis, Oregon uses the HP-41 Advanced Calculator to control instruments used in experiments to determine the effect of airborne pollutants on the growth and yield of plant crops. In the past, lab technicians have manually controlled the flow of pollutant gas into plant growth chambers according to a complex time concentration profile over several months.

EPA researchers purchased several HP-41 systems hoping to automate data collection and reduce the number of transcription errors they were experiencing. With the HP-41 systems in place, researchers have more accurate control of the pollutant gas concentration. Technician time is reduced and costs cut because measuring instruments are connected directly to the HP-41. Data can be collected and transmitted to the host computer without error-producing manual entry or transcription. Even when data must be collected manually, the HP-41 is a valuable tool because of its portability, user-defined keys, and alphanumeric display.

Technicians customarily enter data in lab notebooks using tables with labeled columns; for example, "chamber number," "plant ID," and "leaf area." A custom data collection program in the HP-41 simulates the lab notebook with the following features:

- Each column label is displayed, prompting the technician for the correct data item.
- When the item is entered, the program automatically advances to the next column and displays that label.
- User-defined keys allow the technician to review and edit data by moving up, down, left, or right in the table.
- Other keys allow the operator to define a new data table with different column labels and store it for future use as part of the program.
- The operator can name these data templates and individual collections of data for future recall.

The data collection program uses the HP-41CV with the HP 82180A extended functions module and one or two HP 82181A extended memory modules to record data collected by the researchers.

In this application, technicians take the HP-41 into plant growth chambers. The custom program in the HP-41 prompts them for the correct data to be entered. The data are immediately validated and the transcription

step is eliminated because the HP-41 transmits data electronically to the host computer for final analysis. The HP-41 system used by the researchers consists of: HP-41CV — controls peripherals and instruments; HP 82160A HP-IL module — links the HP-41 to peripherals and instruments; HP 82162A thermal printer/plotter — logs operator and error messages; HP 82161A digital cassette drive — stores programs and data such as desired pollutant gas concentration profiles; HP 82165A HP-IL/GPIO interface — links the HP-41 system to the gas flow device; and HP 3468A digital multimeter — measures the pollutant gas concentration from a transducer in the growth chambers.

Gas concentration levels are stored on mini data cassettes. Once every hour, the time module in the HP-41 signals the calculator to automatically access the cassette drive to determine the desired pollutant gas concentration value. It then transmits that value, through the HP-IL/GPIO interface, to the gas flow device. The rest of the time, the HP-41 monitors the gas concentration measured by the digital multimeter and makes small adjustments to the gas flow to keep the concentration value accurate.

When the HP-41 is connected via HP-IL to the printer and digital cassette, the program and data tables can be printed and stored. An HP 82164A HP-IL/RS-232-C interface allows the program to transfer the data to the host computer exactly as if the operator was entering the values at the host computer's terminal, but without typing errors because no re-entry is necessary.

The flexibility of the data collection program and the HP-41 system is impressive. After the system was adopted, the EPA researchers decided to use bar codes to identify plant samples. Now, researchers use the HP 82153A bar code wand to enter this data without any change in the data collection program. An electronic scale was added to the HP-IL with the HP-IL/RS-232-C interface. The addition of the scale was integrated into the HP-41 program by simply defining one key to read the scale.

Technicians were initially wary of the new system, but are now enthusiastic. Errors have been greatly reduced and the efficiency of the researchers' efforts has been enhanced.

For more detailed information on this application, see the September 1985 issue of *American Laboratory*, page 134.

DESKTOP

Lotus 1-2-3 now supports the HP 7550 plotter

1-2-3® from Lotus® for the HP Touchscreen personal computer now supports the HP 7550 plotter. This plotter has been added to the device library on the 1-2-3 PrintGraph disc as part of the standard 1-2-3 product. You can now use the HP 7550 to plot the many charts and graphs that can be produced within 1-2-3.

Previously, we had advised users to designate the HP 7475 or 7470 plotter when using an HP 7550 plotter with 1-2-3's PrintGraph program. By using the new HP 7550 software driver, however, users will be able to take advantage of the HP 7550's larger pen capacity and rapid plotting speed. Please be aware that 1-2-3's PrintGraph does not support the HP 7550 automatic-feed feature.

The new PrintGraph disc is available through DMK (Direct Marketing Division) as a standard upgrade kit. The part number for the upgrade kit is 45482-63005. PrintGraph also became available on CompuServe starting in early December.

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

Announcing early shipment of AdvanceLink 2392

A key component of HP's office-automation strategy, AdvanceLink 2392, started shipping to users approximately one month earlier than announced.

AdvanceLink 2392, a data-communication and terminal-emulation software program, enables the HP Vectra PC to be integrated into the HP Personal Productivity Center. AdvanceLink 2392 provides block-mode terminal emulation so that the PC may be used as a terminal connected to the HP 3000; it can also emulate Digital Equipment Corp.'s VT100 terminal for communication with DEC minicomputers.

AdvanceLink 2392 also has general-purpose file-transfer and command-file capabilities for automating and simplifying communications. Sample command files for communication with HP 3000, IBM mainframes, and public information services, such as Dow Jones News Retrieval®, CompuServe™, and the Source™, are included with AdvanceLink 2392. These command files

eliminate many of the cumbersome steps normally required to access these services.

And remember, AdvanceLink 2392 is the only communications product that is fully compatible with HP's overall data-communications strategy — AdvanceNet. As such, it enables the HP Vectra PC to act as a terminal or transfer files over HP's new, high-speed (802.3-compatible), OfficeShare personal-computer local-area network (LAN).

AdvanceLink 2392 replaces AdvanceLink/IBM PC

AdvanceLink 2392, our latest communications software for the HP Vectra PC or IBM/PC/XT/AT, will replace AdvanceLink/IBM PC. AdvanceLink 2392 has more features (such as block-mode terminal emulation) than its predecessor for the same price. AdvanceLink/IBM PC will be removed from the HP Price List on March 1, 1986, with customer orders being satisfied through March 31, 1986. HP Vectra PC and IBM/PC/XT/AT users should be encouraged to buy AdvanceLink 2392. For users who have our current AdvanceLink/IBM PC product, an upgrade to AdvanceLink 2392 is available from Direct Marketing Division (DMK).

AdvanceLink 2392 includes the features you need most:

- HP 2392 block-mode terminal capabilities.
- VT100 terminal capabilities.
- File transfer (using Monitor or XMODEM for reliability).
- Command files for automating and simplifying communications.
- AdvanceNet compatibility — works with the OfficeShare LAN.
- AdvanceLink and DSN/Link compatibility.
- Superior terminal display, keyboard use, and performance.

Ordering information

P/N	Description
68333F	AdvanceLink 2392
68333-65001	Upgrade from AdvanceLink/IBM PC to AdvanceLink 2392



HP 1000

Increased storage at lower prices

On February 3, 1986, HP announced the 20-Mbyte version of the Micro/1000. This product features:

- More storage than previous 15-Mbyte discs.
- Increased configurability allows the HP 9144A cartridge-tape device to be used as a software-loading device instead of microflops.
- Double-sided microflops with 630 Kbytes of storage.
- Improved shock resistance for the manufacturing environment.

Roll-over plans

To accommodate users, for three months beginning February 3, 1986, and ending April 30, 1986, either 15-Mbyte discs or 20-Mbyte discs can be ordered. Keep in mind that 15-Mbyte discs only come with single-sided microflops, and 20-Mbyte discs come with double-sided microflops. The floppy-disc drive can only be deleted with the 20-Mbyte disc.

Why a roll-over?

The 15-Mbyte disc drive used in the Micro/1000 was discontinued by the manufacturer. The 20-Mbyte drive was selected due to its lower cost and higher level of compatibility with the current integrated disc than other alternatives.

Revised ordering procedure

Ordering of integrated discs from HP is more flexible than ever before. Users who wish to delete microflops can now be accommodated. They can choose between two products, depending on whether they want an integrated double-sided floppy disc or not. Here is the new ordering method:

I. New products

Product	Features
12120A	19.4-Mbyte disc, 630-Kbyte microfloppy, and disc controller
12121A	19.4-Mbyte disc and disc

You also must order Option 150 or 151 to your Micro/1000 to modify the computer for factory installation of the disc drive(s).

II. Factory modification options for Micro/1000 integrated disc products

Factory modification option	Description	Credit
A) HP 2486A, 2487A, and 2489A		
Option 150	Modifies the Micro/1000 for factory installation of the 12120A integrated disc product. Deletes 12009A HP-IB interface card from the SPU in favor of integrated disc controller included with 12120A.	Credit for deletion of HP-IB card (applied to Micro/1000)
Option 151	Modifies the Micro/1000 for factory installation of the 2121A integrated disc product. Leaves 12009A HP-IB card in place to connect the Micro/1000 to the 9144A cartridge tape device (which must be ordered with the Micro/1000 system).	No credit
B) HP 2436A, 2436E, 2437A, and 2439A		
Option 151	Modifies the Micro/1000 for factory installation of the 12120A or 12121A integrated disc product. (For 12121A, users should order 12009A HP-IB interface card to use the HP 9144A cartridge tape device.)	No credit

For more information about the 20-Mbyte version of the Micro/1000, contact your HP sales rep.

HP 9000

Introducing HPtoday computer-assisted programming

Do you need better software development and maintenance tools for your HP-UX systems? Do you want to develop vertical-market applications for the HP 9000 Series 300, but need a friendly end-user environment and system-administration facilities?

HPtoday from Hewlett-Packard provides the solution to these and many other needs. It's a computer-

assisted programming system that helps programmers create transaction-oriented applications in much less time than with conventional languages. It's also a complete, menu-driven user environment with easy-to-use system-administration functions. And it runs on all HP 9000 systems with HP-UX.



By prototyping applications with HPtoday, you can reduce design time considerably and get user feedback during the development cycle.

Two versions of HPtoday are now on the HP Price List — the HPtoday Developer Package for creating applications, and the HPtoday Run-Time Environment for end users.

The Developer Package

The HPtoday Developer Package has a complete set of facilities for defining, testing, and maintaining applications. All Developer facilities are integrated into a single cohesive package that requires no additional editors, compilers, or debugging utilities. They include: a dictionary for defining data items, messages, and help screens; a Screen Painter for creating and customizing screen forms and menus; a Report Writer that includes a visual report painter; a comprehensive set of Logic Commands for defining any special program logic; a set of Utilities for testing and maintaining applications; and all of the Run-Time Environment facilities.

The Run-Time Environment

The HPtoday Run-Time Environment has everything needed to run HPtoday applications, including all the standard program logic, screen processing, and report logic. It also has Administrator facilities for print-spooler management, file/system backup and recovery, transaction logging, security control, and so on.

Unique benefits of HPtoday

HPtoday has many unique benefits to offer you. Here's a few of them:

- The version tailoring feature allows VARs to quickly customize an application for each client, without changing or copying the original.
- HPtoday is ideal for prototyping the user interface of an application to get feedback from clients before or during the development cycle.
- Training mode lets new users learn HPtoday applications without any danger of corrupting data files.
- The external program interface lets HPtoday control other programs from a single menu structure. It also makes it easy to include routines written in conventional languages with HPtoday applications.

Ordering information

HPtoday can now be ordered for the HP 9000 Series 200, 300, and 500. Note that one of the media options, Option 022 or 045, must be ordered with each product.

P/N	Description
98111A	HPtoday Developer Package for HP 9000 Series 200
98112A	HPtoday Developer Package for HP 9000 Series 300
98113A	HPtoday Developer Package for HP 9000 Series 500
98117A	HPtoday Run-Time Environment for HP 9000 Series 200
98118A	HPtoday Run-Time Environment for HP 9000 Series 300
98119A	HPtoday Run-Time Environment for HP 9000 Series 500
Opt. 002	Software supplied on 1/4-inch cartridge tape
Opt. 045	Software supplied on 3 1/2-inch double-sided discs

Contact your HP sales rep for more information.

HP 9000 Series 300 now offers AI development system

The Development Environment for Common Lisp has just recently been introduced. Two new bundled systems using this software are now available for the development of artificial intelligence (AI) tools and applications.



Development Environment For Common Lisp, P/N 98678A Option 022

This is a new language and integrated toolset to allow solution creators to build better applications. This software product runs on the HP 9000 Series 300 under HP-UX 5.1 operating system. An HP-HIL ID Module (P/N 46084A) is required to run this software.

The software is provided on a 1/4-inch tape cartridge and must be ordered as Option 022. It is possible to delete the manuals for users ordering multiple copies with Option 100.

Common Lisp is the defacto standard of Lisp dialects and Lisp is the preferred computer language in North America for developing AI applications.

An integrated development environment allows rapid access to the combination of editing, code execution via interpreting or compiling, debugging, and system access which will increase the productivity of the software developer.

Compiled performance of Lisp code on the Series 300 approaches that of specialized Lisp machines. This level of performance is obtained by combining a pre-processor with an optimizing compiler which takes full advantage of Common Lisp.

By building Common Lisp on HP-UX, a solution creator can leverage the tools and libraries of a standard operating system.

Also, HP has provided access from Common Lisp to code written in any of the traditional languages which run on HP-UX. This allows a solution creator to leverage any existing code they may have already developed or allow the development of an application in multiple languages.

Since it runs on the Series 300, the wide range of available workstation configurations allows the solution creator to tailor the delivery workstation to the needs of the application created.

Execution license for Common Lisp, P/N 98679A

This is a license to execute an application which is written using Common Lisp. Common Lisp is different from other languages in that it requires a certain amount of run time support code which is supplied by HP. The

execution license gives a user the right to execute that code without having to purchase the entire development product. HP-UX 5.1 Application Execution Environment (P/N 98515A) and an HP-HIL ID Module (P/N 46084A) are also required to run a Common Lisp application.

Two bundled development systems are available and contain all the required pieces except discs and a mouse.

Monochrome AI Development System, P/N 98584A

It includes the Series 300 Model 320, high-res monitor and video board, RAM, interfaces, HP-UX execution, HP-UX programming environment, the Common Lisp development environment, keyboard, two-channel DMA and I/O expander.

Color AI Development System, P/N 98585A

This bundle contains the same components as the above with the exception of a high-res color monitor and video board.

The following additional items must be ordered to complete the above bundled systems.

P/N	Description	Quantity
46060A	Mouse	1
7945A	55.5-Mbyte hard disc	2
9144A	1/4-inch tape cartridge drive	1

The mouse is used as a selection device for the development environment and windowing system, and therefore, is strongly recommended. More than 100 Mbytes of mass storage is recommended for the development environment. An HP 7946A could be substituted for one of the HP 7945As required and the HP 9144A. An HP 7914P could also be substituted for all three mass storage components but it is larger and less suitable for a personal workstation.



HP 3000

LAN products now orderable for HP 3000

LAN/3000, OfficeShare LAN/3000, and NS/3000 are now supported on the HP 3000 Series 42XP and 58. These products will begin shipment with U-MIT shipments. The product options are as follows:

P/N	Description
30240A	OfficeShare LAN/3000 Link
Opt. 100	For Series 37
Opt. 300	For Series 39/40/42/42XP
Opt. 400	For Series 44/48/58
Opt. 500	For Series 64/68
30242A	LAN/3000 Link
Opt. 100	For Series 37
Opt. 300	For Series 39/40/42/42XP
Opt. 400	For Series 44/48/58
Opt. 500	For Series 64/68
32344A	NS/3000
Opt. 310	For Series 37
Opt. 320	For Series 39/40/42/42XP/ 44/48/64/68

Announcing remarketed HP 3000 Series 40R system bundle

Entry-level system users can now purchase a complete remarketed system package. Effective February 1, 1986, HP's Finance and Remarketing Division (FRD) offers Icecube — a bundled remarketed HP 3000 Series 40R package.

P/N	Description
34240AR (for the US)	Series 40R with 1 Mbyte and 2 GICs 7925MR with HP-IB 7970ER with HP-IB 30018AR (quantity 1) 2624BR with cable (quantity 3)
34260AR (for non-European countries)	
Opt. 001	Adds 7925SR
Opt. 002*	Adds four 2624BR with cable and one 30019AR

*Only one option may be ordered

Remember, FRD also carries a wide range of reconditioned workstation products like terminals, printers, and plotters to complete your remarketed system solution.

Note: Icecube not yet available in all countries. Contact your sales rep for more information.

New products added to Cooperative Support Program

The HP 3000 Series 58 and Series 68, HP 7978A/B mag tape, and the HP Vectra PC were recently added to the Cooperative Support Program.

Under the Cooperative Support Program, HP provides products and services to assist users in performing self-maintenance for their HP products. These products and services include recommended spare parts lists, service notes, board exchange, and maintenance training.

For more information regarding the Cooperative Support Program, please contact your HP sales rep.

Correction

A remarketed HP 3000 system bundle was announced in the January 1986 issue of *Computer Focus* in the article on page 13 entitled "HP announces the System Solution package."

Please note that the product numbers listed were entered incorrectly. The correct product numbers are:

34200AR (for US)
and 34250AR (for non-European countries)

We regret any inconvenience this may have caused for you.



MASS STORAGE

Enhanced portable microfloppy disc drive

Major enhancements to the current HP 9114A 3½-inch portable microfloppy have resulted in a brand new "B" version of this product with immediate availability effective February 1. Longer battery life, faster access to data, and a "fuel gauge" to take the "guess work" out of battery life add much value without adding a penny to the old price.

Increased battery life

The HP 9114B's new "power miser" slimline drive substantially increases battery life. For instance, under 100 percent duty (continuous usage), you can expect a battery life of 1.8 hours with the recharger (90 percent improvement over the "A") and 1 hour without the recharger (50 percent improvement). The majority of users with typical usage (5 percent duty cycle) will be able to have continuous AC usage not possible before.

Faster access to information

This slimline drive gets to the information you need twice as fast as before. The HP 9114B boasts an access time of 225 msec (on) which is twice the speed of the 9114A with 497 msec (on). The drive saves power and time.

Battery charge indicator

No more guessing about when to replace your battery. A "fuel gauge" on the front panel lets you always know how much juice you have left. Three indicators display whether the battery is "2/3 to FULL," "1/3 to 2/3," or "1/3 or less." When you're down to 10 minutes of battery life left, a flashing light alerts you to plug in your recharger and keep on going.

Additional features

Other features include data exchange from the HP Touchscreen personal computer, HP Portable, and HP Portable Plus to the IBM PC and PC/XT via the HP 9114B and the HP 82973A Portable Desktop Link; data exchange between single- and double-sided drives; and up to 710,000 bytes (formatted) of storage capacity in a compact five-pound package. It's designed to stack neatly under your HP ThinkJet printer or easily travel with you on the road.

Ordering information

The HP 9114B is supported on the HP Portable and Portable Plus, and HP Series 40 and 70. Effective February 1, 1986, please order:

P/N	Description
HP 9114B	Portable 3½ microfloppy
HP 88014B	Battery pack for 9114A and 9114B

NETWORKS

Announcing NS/1000 networking software

HP Network Services for the HP 1000 (NS/1000) provides high-performance, user-friendly networking between HP 1000 A-Series computers and HP 3000 and HP 9000 systems. NS/1000 is the first networking product for the HP 1000 A-Series that supports the high-speed LAN/1000 Link. Users and programmers can easily transfer files between processors without worrying about all the technical details of error checking and message routing. NS/1000 also allows peer-to-peer interprocess communication between HP 1000 A-Series features.

NS/1000 features

NS/1000 reaffirms HP's commitment to designing networking products in accordance with industry standards. Besides supporting LAN/1000 Link (which is based on the IEEE 802.2/802.3 standard), NS/1000 was designed in accordance with the International Standards Organization Open System Interconnect seven-layer model. In addition, the transport and network layers of NS/1000 are based on the Defense Advanced Research Projects Agency (DARPA) Transport Control Protocol (TCP) and Internet Protocol (IP). (NS/1000 has not been *certified* DARPA compatible.)

NS/1000 is backward compatible with DS/1000-IV (P/N 91750A/R) except in those configurations including HP Data Link. Applications that currently make use of DS/1000-IV calls over HDLC links will operate over NS/1000 and LAN/1000 Link with little or no reprogramming. Applications utilizing HP Data Link may use NS/1000 on the master node only.

NS/1000 users will realize a substantial performance improvement compared with DS/1000-IV. A Program-

to-Program Communication application running over DS/1000-IV and an HDLC local connect link has maximum throughput of about 20 Kbytes/second. A comparable Network Interprocess Communication application running over NS/1000 and LAN/1000 Link has maximum throughput of 45-49 Kbytes/second, a 150 percent improvement.

Release schedule

NS/1000 will be on the February 1 HP Price List, but will have a phased release.

- Release 1, which will ship in late March, will support LAN connections between HP 1000 A-Series systems. It will also support use of the DS/1000-IV Backward Compatible Services over HDLC links configured as routers and X.25 Links.
- Release 2, which will ship in late Spring, will support HDLC links between HP 1000s configured as router or gateway links. (Router links connect a small number of systems in a single network. Gateway links interconnect a number of small networks into larger networks.)
- Release 3 will include support of Network File Transfer between HP 1000 A-Series, HP 3000, and HP 9000 systems connected via LAN. Release 3 will ship in the second half of calendar-year 1986.

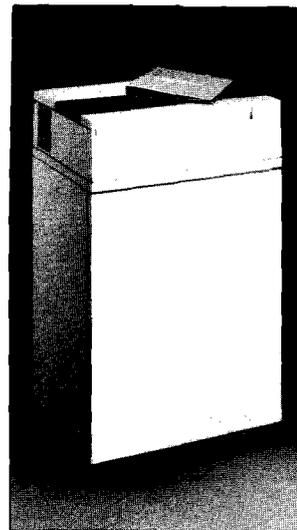
For more information on NS/1000, contact your HP sales rep.

NS/1000 upgrade program

NS/1000 is the most advanced networking product ever created for the HP 1000 A-Series computer family. As no product sells itself, however, HP is offering a special price to those users wishing to replace DS/1000-IV with NS/1000 in order to take advantage of its improved performance characteristics and feature set. Between February 1 and August 1, 1986, users may upgrade their systems from DS/1000-IV to NS/1000.

P/N option	Description
91790A/R-602	Upgrade of an A600 system
91790A/R-702	Upgrade of an A700 system
91790A/R-892	Upgrade of an A900 system

New HP 2564B and 2567B enhance HP's family of dot-matrix printers



On February 3, HP introduced two dot-matrix line printers to the HP 256X family of system printers.

The HP 2564B (600 lpm) printer is a medium-duty, lower-cost alternative to the original HP 2565A (600 lpm) heavy-duty printer. The HP 2564B US list price is nearly half the price of the HP 2565A and offers more capabilities.

In addition, HP will introduce the industry's first 1200 lpm dot-matrix line printer — the HP 2567B. The 2567B printer provides high-

end users a work-horse, data-processing printer and adds value of graphics, bar codes, and optical character recognition (OCR) print features. Available with an optional "high-speed draft" character set, the HP 2567B prints USASCII upper case alpha characters, numerals and special characters at 1600 lines per minute.

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Family enhancements

These two new printers round out the already well-accepted and field-proven HP 256X family and provide users a range of choices from 300 to 1200 lines per minute. The family now consists of the HP 2563A (300 lpm), HP 2564B (600 lpm), HP 2566B (900 lpm), and HP 2567B (1200 lpm) printers. Designed to interface



identically with the user via a common control panel and with the system through the commonly-implemented Printer Command Language (PCL), HP makes it easy for users to configure any combination of these printers without software or operating system changes. Each member of the printer family also provides bar codes and OCR printing capabilities.

Pricing and usage level information

Printer	Speed (lpm)	Usage level
HP 2563A	300	Medium
HP 2564B	600	Medium
HP 2566B	900	Heavy
HP 2567B	1200*	Heavy

*Optional 1600 lpm high-speed, draft-quality character set

Ordering information

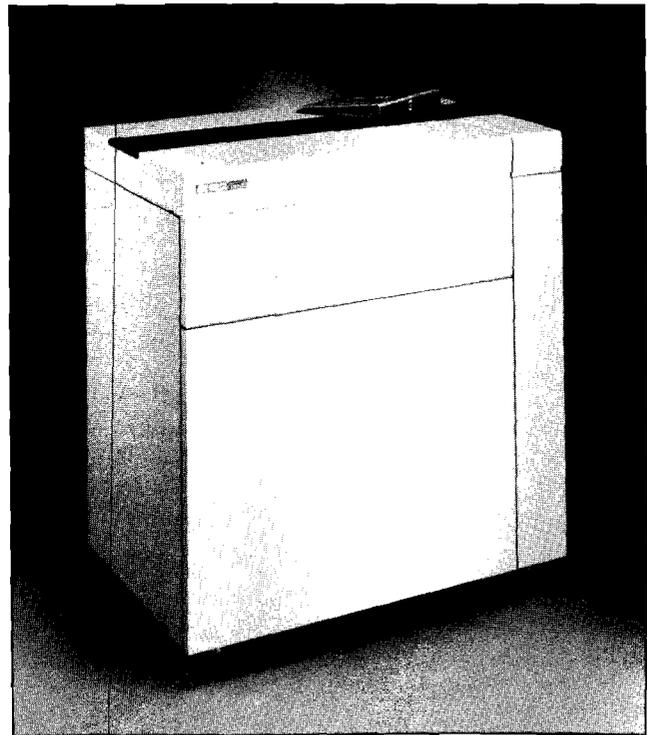
Every member of the HP 256X printer family may be ordered from the February 1 HP Price List. In addition, the following product literature is now available:

P/N	Description
5954-2289	HP 256X family brochure
5953-7140	HP 2563A data sheet
5954-2283	HP 2564B data sheet
5954-2284	HP 2566B data sheet
5954-2285	HP 2567B data sheet

HP 2567B high-speed draft character set

The newly-announced HP 2567B is rated as a 1200 lpm dot-matrix impact printer — a leader in the industry. One of its most unique features is the high-speed, draft character set, Option 011. Once shifted into this character set, the HP 2567B will print at 1600 lpm.

The advantage is that this character set allows users to quickly print lengthy program lists, database reports, or accounting reports. Shorter, higher-quality jobs can be printed at 1200 lpm. Another advantage is that printer usage levels and maintenance charges are not affected.



HP 2567B high speed draft character set

Option 011 is a draft-quality character set available only with the HP 2567B. It is labeled “draft” because the characters are formed using a sparse dot matrix of 4 x 5 instead of the standard 5 x 7 dot cell. This reduced dot matrix size character cell prints fewer dots increasing print speed to 1600 lpm. Only USASCII upper case characters are available (an HP Roman 8 high speed draft is under investigation).

With Option 011, the user can access three additional character sets, for a total of four character sets:

- High speed draft — 1600 lpm
- Line draw — 1200 lpm
- Math — 1200 lpm
- Block characters at reduced speed

Except for the high-speed draft character set (1600 lpm), all other character sets and print modes (graphics, bar code, etc.) print at their rated speeds.

Power stackers for the HP 2565A, 2566A-B, and 2567B printers

Over the past year, there have been numerous requests for powered paper pullers (stackers) for use with the high-speed HP 2566A printer. These requests and the announcement of the HP 2567B (1200 lpm) printer have prompted HP to test third-party power stackers and recommend the Centronics/ATI model 301HP for use with the HP 2565A, 2566A, 2566B, and 2567B printers.

HP is recommending the Centronics/ATI model 301HP stacker because it operates consistently with the HP 2565A, 2566A, 2566B, and 2567B printers. Since HP does not have an OEM contract with Centronics, Centronics will be responsible for receipt of orders and stacker distribution. The customer or equipment integrator will be responsible for meeting regulatory requirements, HP printer integration, and any stacker support.

For more details on the Centronics/ATI model 301HP power stacker, refer to Application Note 416, "Power Stackers for the HP 2565A/66A-B/67B Printers." This application note describes how to select a power stacker, what to test for before purchasing, regulatory requirements, and how to order the recommended stacker.

Contact your sales rep for a copy of the application note.

New printer upgrade program

The current printer upgrade program offered by HP has been replaced with a new upgrade program. This new program, valid through July 31, 1986, provides a cost-effective upgrade path for HP 2611A and 2619A users who are purchasing an HP 2566B, 2567B, or 2680A printer.

When you purchase one of these new printers, you can receive a return credit on your used printer. To qualify, the used printer must be less than five years old (an HP service contract is not required).

You can take advantage of this upgrade program by ordering your new printer with Options U11 or U19 off the HP Price List.

If you have any questions, please call your HP sales rep.

Upgrade from	Upgrade to	Order
HP 2611A	HP 2566B HP 2567B HP 2680A	New printer with Option U11
HP 2619A	HP 2566B HP 2567B HP 2680A	New printer with Option U19

HP LaserJet PLUS printer option change

Effective February 1, 1986, there will be a new interface (Option 300) for the HP 2686A/AB/AU LaserJet PLUS printers (all voltages). Option 300 is a combined I/O port including both RS-232-C and parallel interfaces and is 100 percent compatible with the existing HP LaserJet PLUS printers (Options 200 and 210). The user must select one or the other (RS-232-C or parallel) when installing the HP LaserJet PLUS printer and use only one when operating the printer.

Option 300 replaces the existing HP LaserJet PLUS printers (Options 200 and 210) and provides significant advantages to HP users. By combining the existing two products into one, it will allow both HP and our dealers to ensure a higher service level while reducing the amount of inventory at no additional cost to users.

HP has discontinued manufacturing Options 200 and 210 and is converting the existing backlog to Option 300. When placing an HP 2686A LaserJet PLUS printer order, please order Option 300. Effective February 1, the HP 2686A (Options 200 and 210, 115 volt) will be removed from the HP Price List. Effective March 1, Options 200 and 210 for the 2686AB and 2686AU (220 volt and 240 volt) will be removed from the HP Price List.

Ordering information

P/N	Description
2686A/AB/AU*	115V LaserJet printer
Opt. 300	115V LaserJet PLUS printer with combined RS-232-C and parallel interfaces
26051A*	LaserJet to LaserJet PLUS printer (RS-232-C) upgrade kit (does not include dual I/O)
26052A*	LaserJet PLUS printer parallel interface cable (used in conjunction with 26051A)

*Cable must be ordered separately.



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: db.VISTA is a network model database management system (DBMS) consisting of a Data Definition Language (DDL) processor and a library of C functions. The product runs on the HP 9000 Series, as well as The Portable (HP 110), Touchscreen (HP 150), and the newly announced HP Vectra PC, plus the Integral PC.

The multi-user version has the ability to handle more than 16,000,000 records per file, includes transaction processing and B-Tree indexing. db.VISTA includes a royalty-free, run-time license, 90 days extended applications development support, and a 30-day, money-back guarantee.

Company Name: Raima Corporation

Address: 12201 S.E. Tenth Street
Bellevue, WA 98005
USA

Phone Number: (206) 747-5570 or 1-800-843-3313
(touch 700-992 at the tone)

Contact Person: Pamela A. Miller

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Building sector — Architecture*

Abstract: Star Architecture is a series of applications for design and description of all kinds of buildings for use by architects, engineers, or building companies. automatic generation of plans, ground plans, cross sections, front views, projections with elimination of hidden lines, and rast shadows. Exploitation of building components catalogued for the automatic plotting of symbols, calculation of quantities, and management of an architectural office or company.

Company Name: Star Informatic SA

Address: Chaussee de Tongres 75
4420 Rocourt - Liege
Belgium

Phone Number: (32) - 41 - 25 14 04

Contact Person: J. P. Cornil

Type of Distributor Wanted: OEMs, dealers, distributors

Geographic Coverage: Worldwide

Industry: *Cross industry*

Abstract: DDACS/1000 is a turnkey software system for data acquisition and measurement and control applications using HP 1000 hardware. The system acquires, stores, displays in real time (graphics and tabulation), and recalls measurement data for analysis and reporting. It also provides for control via real-time data calculations and output control signals. Data access routines are included for user developed custom code if desired. The system can be operational in one day.

Company Name: Demand Systems, Inc.

Address: 6279 Variel Ave., Suite D
Woodland Hills, CA 91367
USA

Phone Number: (818) 710-8851

Contact Person: Ronald De Muri

Type of Distributor Wanted: Open

Geographic Coverage: Worldwide

Industry: *Telex Management*

Abstract: Datalex 250/260 is a telex management system for the HP 250/260. It handles incoming and outgoing telex messages and works with several telex interfaces such as Hasler, Distel 1000 of Telindus, etc. Advantages of Datalex include:

- Simple and quick wording of a telex message by means of a full screeneditor on the computer terminal
- Use of standard telex messages and clauses
- Automatic transmission of telexes at the appropriate moment
- No more telexiste is needed because every computer user can send a telex from his/her workstation
- Multiple addressing of one and the same message
- Provides data per subscriber and statistics for tracking.

Company Name: Datakor

Address: Dam 9
B 8500 Kortrijk
Belgium

Phone Number: 056/222651
056/222652

Contact Person: Daniel Pappyn

Type of Distributor Wanted: Open

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 entries are shaded. Be sure to send the information in at least one month before you wish it to appear.

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