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HP Series 100 Communicator



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The *Series 100 Communicator* is the heart of the Series 100 support program. It contains application information, operational tips, programming techniques, information on software updates, manual corrections, and data on known software problems and their solution. The *Communicator* is both a reference to everything current on the system and your window into the continually expanding world of the Series 100.

Some sections contain information which is updated for every *Communicator* issue. This material is located in the Current Information insert—placed in the center of the magazine so that it may be removed when you receive the next issue.

The *Communicator* has a 5½" by 8½" page size, so that it can be kept with your Series 100 manuals.

Subscriptions and Back Issues

In many countries, *Communicator* subscriptions and back issues are orderable by telephone. See "Ordering *Communicator* Subscriptions" and "Ordering Back Issues" in the Current Information insert at the center of this issue.

Becoming a Contributor

Much of the material in this issue came from users and HP field support people. If you would like to contribute, address your article, program, suggestion or question to:

Series 100 Communicator Editor
Hewlett-Packard Company
P.O. Box 486
Sunnyvale, CA 94086 USA

If you submit an article or program to the *Communicator*, you agree that the material is not confidential and that HP may use, duplicate, modify, publish, or sell it without obligation or liability to you or anyone else. If HP publishes the item in the *Communicator*, we will acknowledge you as the author. Material that you send to us may not be returned.

We look forward to bringing your ideas to the attention of the worldwide Series 100 user community through the *Communicator*.



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Introducing the HP 150

Elaine Hander/Curt Gowan

The new HP 150, a 16-bit personal computer featuring a touchscreen display, is designed to be the easiest computer for first-time computer users to learn and operate.

With HP Touch, HP 150 users can run programs with the touch of a finger or a pen. Instead of memorizing commands, typing in menu-selection numbers or using a mouse, one simply touches the display screen to operate this new personal computer and its application programs.

As an intelligent workstation, the HP 150 is an HP 2623 alpha block-mode and graphics terminal, which operates with all HP 3000 software without modification. The standard 262x screen-labeled soft keys are now touch sensitive – with no program changes.



The Hardware

The HP 150 uses an industry-standard Intel 8088 16-bit microprocessor run at 8 MHz instead of the more common 5 MHz. The MS-DOS 2.0 operating system is included – many existing programs are being enhanced to run on the HP 150.

The HP 150 with storage devices and built-in printer takes little more space than an in-basket ... therefore requiring no extra office furniture. An accessory built-in thermal printer fits in the top of the display, occupying no additional space. Two fixed disc options are available: a 5-megabyte disc drive and a 15-megabyte disc drive (both with 3½ inch flexible disc backup). Either fits on your desk neatly under the HP 150.

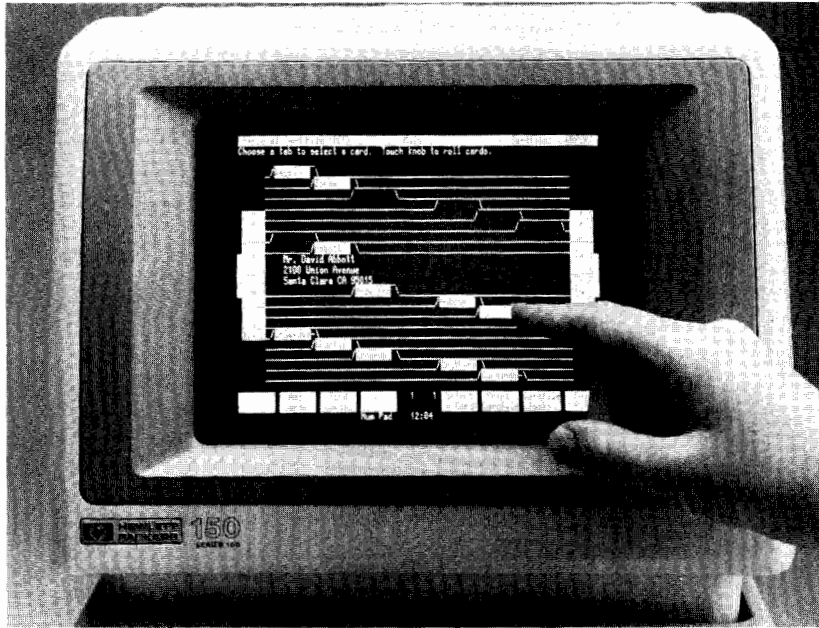
The green-phosphor display is 80 columns by 24 rows with user-adjustable focus and brightness. The new thin keyboard has an adjustable tilt, a tactile home row for touch typists, clustered cursor-control keys for convenient cursor movement, and a numeric pad for calculator-type number entry.

The Software

The VisiCalc® spread sheet, the WordStar® word processor, and the Condor™ data base manager have been enhanced to take advantage of the power of HP Touch. By touching the screen or special function keys, rather than memorizing complex commands, users of the HP 150 can interact easily with these programs.

The HP 150 runs several unique software packages designed to maximize the benefits of touchscreen technology:

- Personal Card File is a filing system designed to be as easy to use as a desk-top file with the additional capability of searching and sorting according to user-supplied criteria.



- MemoMaker, a “what you see is what you print” word processor, lets you cut-and-paste and make on-screen corrections. MemoMaker files can be used in WordStar and vice versa.
- Graphics/150 is a business graphics tool that lets the user customize pie, bar, line, and text charts with line drawings and automatic positioning, for example. The user can type the data directly into Graphics or transfer it from Condor, VisiCalc or other sources.

More than thirty other software programs developed by independent software vendors are being modified for the HP 150. Currently available packages include: MicroPlan™, dBase II™, BPI General Ledger, Picture Perfect™, and Diagraph™.

In addition to the capabilities included for data transfer between programs on the HP 150, data may be transferred between the HP 150 and the HP 12x. This is described in an article in the “System Management” section of this issue.

**Data
Communications**

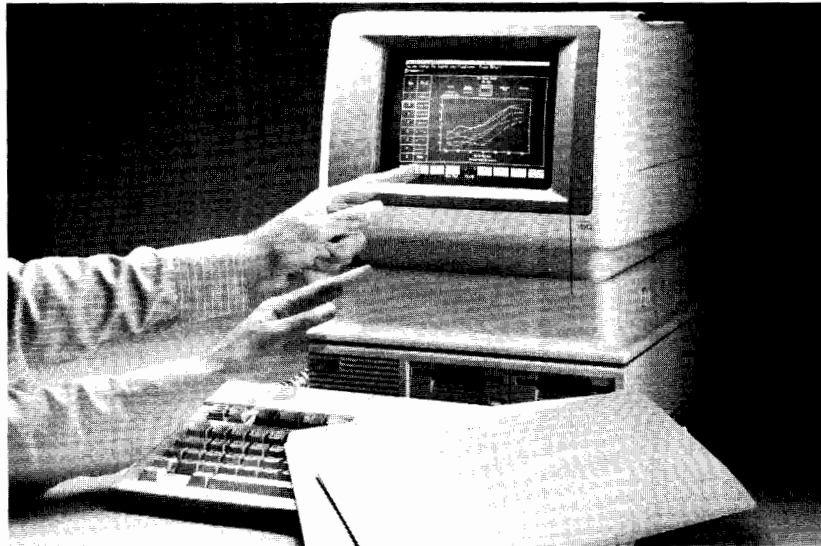
Built-in terminal features let the HP 150 act as a full-featured, intelligent workstation. There are two RS-232 data-communications ports and one HP-IB port to accommodate a full range of system peripherals and mainframes.

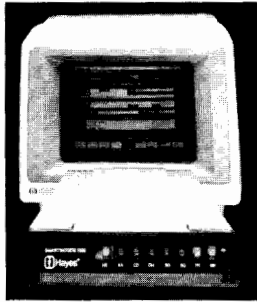
DSN/Link, the HP 150 communications package, not only transfers files between the HP 150 and mainframes like the HP 3000, but also between the HP 150 and other microcomputers. This program also allows the user to customize the interface with commercial information services such as *The Source*SM and the *Dow Jones News/Retrieval Service*[®].

**Touch the HP
150 Yourself!**

HP Touch eliminates the barrier between the personal-computer owner and the desired solution. We believe that the power to use programs by simply touching the screen makes the HP 150 the world's easiest computer to learn and use. *Once you touch it, you'll believe it.*

To see the HP 150, contact your Authorized HP Dealer or HP Sales and Service Office. In the U.S., you may call 800-FOR-HPPC for information and the name of your dealer.





In the U.S. and Canada, the Hayes Smartmodem 1200 can be used with an RS-232C port on your Series 100 to communicate with other computers, timesharing systems, or information utilities using conventional telephone lines. The Smartmodem is compatible with 103/113-type and 212-type modems ... and communicates asynchronously in full-duplex at rates of 300 or 1200 baud.

Other features include:

- Automatic answering.
- Automatic dialing in pulse or tone mode.
- Direct-connect – eliminates the data loss and distortion experienced with acoustic couplers.
- Repeat command – automatically redials the last number.
- Hardware/software switchable operating parameters – for example, you can set the dialing speed or number of rings before the modem answers a call.
- Indicator lights on the front panel – so you can check the modem's status.

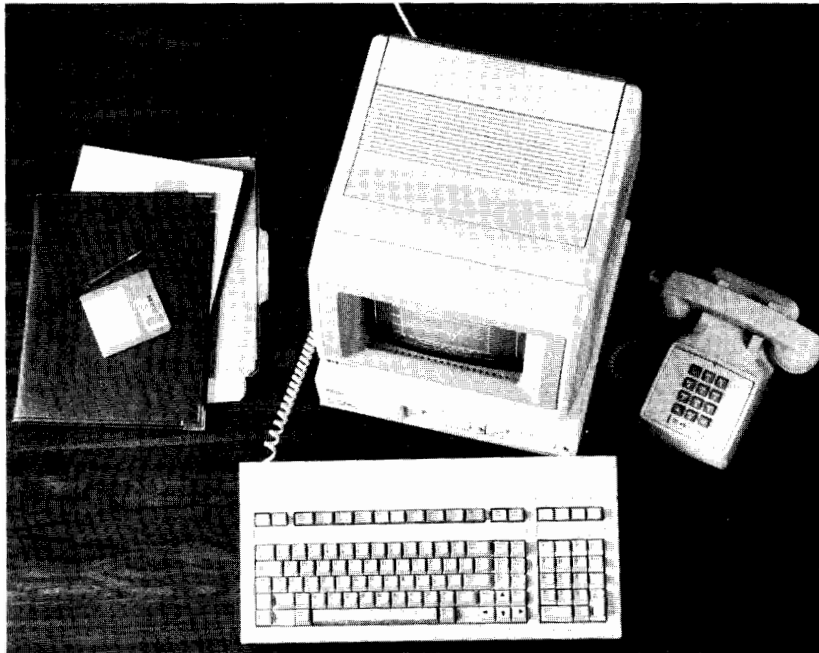
Many HP Personal Computer Dealers in the U.S. and Canada carry the Hayes product. If it is not available locally, you may order the Smartmodem 1200 from Hewlett-Packard – either through HP's Direct Phone Order Service (See the "How to Order" section in the Current Information Insert in this issue) or through your local HP Sales and Service Office. The HP product number is 92205A.

3½ Inch Disc News

Due to high quality, reliability, and customer acceptance, we have been able to reduce the price of the 3½ inch micro flexible disc drives.

The HP 9121D dual 3½ inch microdisc system, offering 540 kilobytes of formatted storage, and the HP 9121S single 3½ inch microdrive (270 kilobytes formatted) have been significantly reduced in price.

The 3½ inch disc, introduced in November 1982, has been proven to be more reliable than the 5¼ inch format – our warranty data shows that mechanism reliability is almost four times better. The smaller-format discs also have proven a clear favorite among HP customers. As a result, we have selected the 3½ inch format as the standard for our personal computers.



**Media
Protection
System**

One of the reasons for this acceptance is HP's unique media protection system – which helps to protect your data from damage and loss. This system consists of two main elements:

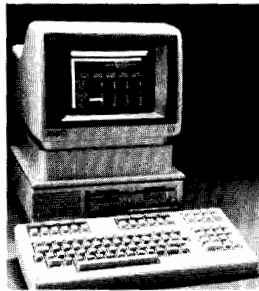
- The media is packaged in a hard polymer jacket with an auto shutter and hard center. The jacket and auto shutter provide protection from contamination caused by fingerprints, smoke particles, and dust; the hard center firmly positions the disc to read and write accurately and reliably.
- Disc life is maximized with our exclusive media monitor. The media monitor signals the user before the disc reaches the end of its useful life so that it can be replaced with a new disc.

**For More
Information**

To see or order one of these disc drives contact your HP Personal Computer Dealer or your HP Sales and Service Office.

Senior Management: "I wouldn't have known what questions to ask if someone else were doing the analysis"

Paul Ely



It's easy to get caught up in the "how" of personal computing and lose sight of the "why". This new section of the Communicator shows how Series 100 users get results through the application of a computer in their work. Your comments and experiences are invited.

Hewlett-Packard Executive Vice President Paul Ely talks about personal computing at the senior management level:

"I've met numerous executives who don't want to have anything to do with a keyboard; they don't want to see a personal computer and are not even sure their secretary needs one.

Immediacy

"My own experience is that by taking some problem and using VisiCalc, I can get answers almost immediately. And because it's so easy to recalculate when I change an assumption here and there, including going to extremes, I begin to understand how things work because it happens in front of me.

"For instance, I was studying HP discounts and made a simple little model at home one evening. I sat there and stared at it for a couple of hours while it changed things. I came back with a whole new perspective on how to make sure that we can offer the best possible discounts, but still maintain our current profits.

"I wouldn't have known what questions to ask if someone else were doing the analysis. I didn't have to become a computer programming expert, yet the model was very sophisticated in terms of helping me understand what happens when we change our discount, selling, and pricing assumptions.

Staff Productivity

"You should hear my secretary talk about her personal computer. She does all of her word processing on it. It's connected to the Corporate HPMail/3000 system. She also uses VisiCalc. The routine part of her job is easier, so she has more time to help me do things that are more complicated. *She loves it.*

"For example, when we made some announcements about our organization recently, I sent personal letters to about 150 executives in other companies. She was able to do that in a day and a half – part time.

"I make presentations often and frequently need slides. She used to make rather simple slides using a large-type letter ball on her typewriter, or we would have to get a marketing department to do it. Now, making a four-color slide using an HP plotter – not just with graphs on it but complex figures – is easy.

**Personal
Productivity**

"Some slides are not just words and they're not just graphs; they're *sketch-illustrated concepts*. I have a plotter and a personal computer at home. It's hooked up by a modem to the company's data center. I do many of the slides that I used to have my secretary make, because it's actually easier than sketching it so that she can do it. The problem is usually what words to use and how to get them in the right place so that you really communicate what you intend – and that I always had to do in the first place. It just makes it easier.

"As far as typing is concerned, I'm not a good typist, but the things I do don't require much typing. It turns out that if you're building a worksheet by just punching numbers in, it's as easy as using a hand calculator. The amount of time spent typing, even in using HPMAIL to send a little message, is insignificant when compared to having to write it down.

"The difference to me is not that great, and when I press the key the job is done. When I hand-write it the job is just starting.

"...one benefit I've found from doing some typing myself is that you can really express yourself better. Using a dictating machine is the least concise. Writing something is the next best. If I type it, particularly when it's very easy to change a sentence, edit or change a word, this is the most concise – it communicates the most with the least number of words. Since I am not a very good typist, I don't want to spend any more time typing than I have to.

Ease of Use

"...we haven't done as many things as we *can* do, but the first thing we have done is to eliminate the need to 'program' the computer. Although because of my background I know how to program, in the last two years of using a personal computer *I have not written a single program*, because I haven't had to. You certainly don't have to understand computers to make a slide. You type it in and literally fill in a menu. If you want a bar chart it asks you enough questions that are quite obvious; it's not difficult.

"My secretary and I use the same machine. We even use some of the same software packages. I use maybe five percent of the capabilities of WordStar because I don't do a lot of typing. She uses 95 percent of the capabilities because she is doing reports, letters, mailing lists, and so on. So even though the product is the same, it can be used in many different ways.

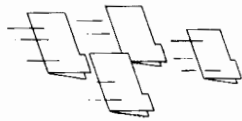
For the Senior Manager

"I know personal computers will be useful for senior managers; *in the long run, most senior managers will use them*. In the short run, some senior managers will use them and the people on their staffs will increasingly use them.

"The benefits I get come from using things like WordStar, HPMail and HPINFORM, which is a way for me to get information from the company's data files. None of those things is a computer language. If you know how to use a sheet of paper with a pencil, then you can use VisiCalc. It takes an hour or two to get started, but once you do, it's easy to learn and you become powerful very quickly. The threshold is starting to try it."

Transferring Files Between the HP 120/125 and HP 150

Susan Dininni
Bruce Fujinami



To provide flexibility and data portability among systems, the HP 150 offers two methods for transfer of data between HP 120/125 and HP 150 systems.

HP 150 Copy/Backup Disc Application

On the HP 150, the Copy/Backup program (on the Disc Applications disc) is included with the standard system software. This utility allows the user to copy one or several files from a standard format HP 120/125 disc (CP/M®) to a standard format disc for the HP 150 (MS-DOS). In addition, this utility provides for the copying of standard HP 150 files (MS DOS) to standard HP 120/125 format files (CP/M) that can be later used on the HP 120/125 systems.

Series 100 DSN/Link

Series 100 DSN/Link software is now available for the HP 150. It provides file transfer between the HP 150 and a host computer system. Included in this software package is a program called DSN/Monitor. Using DSN/Monitor along with DSN/Link provides the capability of file transfer between two HP 150 personal computers. A similar DSN/Monitor is available with Version A.01.01 of DSN/Link for the HP 12x, which provides for file transfer between an HP 150 and an HP 120 or HP 125.

Limitations

- HP 120/125 files with non-contiguous allocation of file extents (random files) are not supported by the MS-DOS operating system and cannot be transferred to the HP 150.
- Series 100 "Compact" backup files cannot be transferred between HP 120/125 and HP 150 systems. These files must be restored on the original system and may then be transferred among the systems.

Data Compatibility Between HP 12x and HP 150 Applications

Susan Dininni

Many enhancements have been made to existing HP 120/125 application software products to take advantage of the new HP 150 feature set. Here's a summary of the data portability between HP 12x and HP 150 applications.

BASIC

BASIC/150 is an upgraded version of BASIC/12x. Any program written in BASIC on the HP 12x should run on the HP 150 with little or no modification. The only obvious changes would be to these routines:

1. Assembly language subroutines.
2. PEEK / POKE / OUT routines.
3. Non-standard file accessing routines.
4. Routines which perform unsupported terminal control functions.

Due to operating system differences between the HP 12x and the HP 150, *compiled* BASIC programs cannot be transferred between the systems.

[Refer to the article "HP 12x BASIC Compared to HP 150 BASIC," later in this issue.]

Condor

Condor data files are completely compatible for both HP 12x and HP 150 versions of the software.

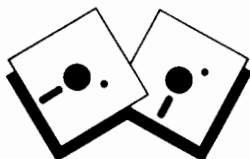
Graphics

Graphics/150 has much more capability than Graphics/12x. Files are not compatible between these software packages.

MemoMaker

MemoMaker is only available on the HP 150. MemoMaker files are stored in the same format as WordStar files. MemoMaker/150 files can be used with WordStar software on HP 12x systems.

Personal Card File	Personal Card File is only available on the HP 150. Data files can, however, be converted into Condor on the HP 150 and then transferred to HP 12x systems.
VisiCalc	VisiCalc/150 is a superset of VisiCalc/12x. Spreadsheets developed on the HP 12x systems are completely portable to HP 150 systems. Due to the additional features provided on the HP 150, some functions defined in VisiCalc/150 cannot be transferred to the HP 12x. Consult the VisiCalc/150 reference manual for information on the commands which are not available on HP 12x systems.
Word/12x	Word is not available on the HP 150. Word data files can be transferred into WordStar format on the HP 12x and then transferred to the HP 150. Formatting commands are lost when converting Word files to WordStar format. Refer to "Interchangeability of Word and WordStar Text" in <i>Communicator</i> Issue #5 for additional information.
WordStar	WordStar data files are completely portable between HP 12x and HP 150 systems for U.S. English versions.



Three file copy utilities are available on the HP 120/125: the PIP utility, the COPY utility, and the BACKUP utility. All three utilities can be used to copy an individual file, a group of selected files, or all files on a disc. However, each utility also has its own unique personality. Depending on the specific task that you are performing, you may want to choose one over the other two. Here is a table which compares the three utilities:

	PIP	COPY	BACKUP
User Interface			
Menu-driven		X	X
Command-driven	X		
Number of Files			
Single File	X	X	X
Group of Selected Files	X	X	X
All Files	X	X	X
Devices			
Single Disc	X	X	
Disc-to-Disc same size and format (e.g. 5¼ to 5¼)	X	X	X
different sizes and format (e.g. 5¼ to 3½)	X	X*	X
Disc to Logical Device (e.g. disc to printer)	X		
Logical Device to Logical Device (e.g. console to printer)	X		
Types of Files			
Operating System		X	
Random Access Files		X	X
Sequential Files	X	X	X
Partial Files	X		
Hidden System Files (e.g. Graph125.COM)	X	X*	
Large Files (> 248K)			X
Other Features			
Combines several files into one file	X		
Offers compressed copy as well as regular copy			X
Adds files to the destination disc without erasing existing files	X	X*	

*These features were added to Revision A.02.00 of the copy utility, which is included with Operating System revision A.01.40 and later.

Condor/12x: HELP Menu from a WELCOME Menu SoftKey Bruce Fujinami/Joanne Piziali



Do you have any Condor/12x applications that begin with a help menu? Did you ever wish that you could get to any help menu without having to load Condor and type in the "help" command? Have you ever forgotten the help menu filename and wished that it could be loaded into your softkeys? Well, if you answered "yes" to any of the above questions, then this article will help.

Pressing a softkey from the Welcome Menu can prompt the user with the choice of help menus, load Condor into the system, and display the selected Condor help menu. Two small programs need to be generated using Word/12x or WordStar/12x. The first is a welcome file that will label a softkey in the Welcome Menu and execute the CP/M SUBMIT command. The second is a submit file that loads Condor and executes the selected help command. Here are the steps to add this capability.

1. Copy SUBMIT.COM from the Operating System disc to the Condor work disc. Now the SUBMIT command can be executed from the Condor work disc.
2. Create an installation file using Word/12x or WordStar/12x in the following format. Remember, when using WordStar, to open the file as a non-document.
 - line 1 Header: to be displayed during installation.
 - line 2 Softkey label: will be shown when the system is booted up (16 characters maximum).
 - line 3 Command to be Executed: Submit command

Example:

```
INSTALLING CONDOR HELP FILE  
PROGRAM  
SAMPLE HELPFIELD  
SUBMIT SAMPLE
```



3. Save this file as a welcome file in the following format:

<filename>.WEL

Example:

EXAMPLE.WEL

Remember when using Word/12x to save the file using the "/1" option.

4. Use the Install Mode softkey from the Welcome Menu to install the EXAMPLE.WEL file. This will create a softkey on the Welcome Menu.
5. Next, using Word or WordStar, create a SUBMIT file that contains the commands to load Condor and display the help menu. The following file lists the minimum commands necessary in the SUBMIT file. Other CP/M or Condor commands can be included in this file for additional enhancements.

line 1 DBMS (DBMS2 or DBMS3 for
20-2 Revision A.02.00 and 20-3
Revision A.01.00)

line 2 HELP <filename>

<filename> = the help filename of type
.HLP

6. Save this file as a SUBMIT file in the following format:

<filename>.sub

Example:

SAMPLE.SUB

Remember when using Word/12x to save the file using the "/1" option.

7. Copy this file to the Condor work disc.
8. Now in the Welcome Menu there should be a softkey that is labeled for a specific help menu. Press this softkey and Condor should be loaded and the help menu will be displayed.

HP 12x: The Ten Most Frequently-Asked Questions

Joanne Piziali



[One of our telephone assistance experts answers the ten most common questions . . .]

Word/12x

- My HP 2601A printer only prints in the left-most column; one character prints over the next.

The printer needs to be reset. Any abnormal exit from Word (such as hard reset; a normal exit with the printer turned off; or a normal exit after the Format-Y Table has been changed to a non-type-0 printer)—any of these non-standard exits will leave the printer in “column-one” mode. To reset the printer, use one of the following statements in the corresponding program:

VisiCalc/12x	/PP^E^ZI
Word/12x	enter this in edit mode: then send to printer: #27/#26/#73/ BASIC/125
	LPRINT CHR\$(27)+ CHR\$(26)-“I”

- How can I save my Format-Y Table entries and my tab stops permanently so the next time I use Word it will default to my settings?

Peel off the “protect data” sticker from your Word work disc (not the master disc) so it is no longer write-protected. Enter Word, change the Format-Y Table and set the tabs as you desire. Depress the “help/exit” softkey and then the “SAVE NEW WORD” softkey. You will be prompted to answer yes or no to saving the new configuration on disc; answer yes, and your entries and tab stops will be saved on the disc.

- I can't get the bold print enhancement to work from Word/12x to my HP 2601A printer.

The first two entries in the Format-Y table must be set as follows:

```
PRINTER TYPE 0  
DESTINATION 2
```

VisiCalc/12x

- When using the replicate command in VisiCalc/12x, it over-duplicates a column. For example, when replicating cells A1 through A5 to B1 through B5, cell A5 is duplicated several times below B5.

The workaround?

When the replicate command prompts you for the target range, only enter the first parameter and hit the return key for the second . . . VisiCalc automatically calculates the number of rows necessary to replicate the source range.

Graphics/12x

- How can I plot more than 23 rows of data from the Linear Chart Menu?

Enter your data into VisiCalc and save it (using /PF command) with a filetype of .PRF (Print Format File). Then fill-in Linear Charts menu – including the DATA FROM field with the print format filename.

- How can I do vertical text slides on my HP 7470A and HP 7225B plotters?

Upgrade your Graphics/125 software to Graphics/12x, Version A.01.02. (See "Software Updates and Upgrades" in the Current Information insert of this issue.)

Condor/12x

- In the Condor manual, page 4-9, an example is shown for search conditions. However, when I use those procedures, it returns a syntax error message, "MISSING LITERAL OR A WORD EXCEEDS 15 CHARACTERS."

You must search for strings shorter than 15 characters. Workaround: Use the asterisk character as a wild card in the search condition.

CP/M

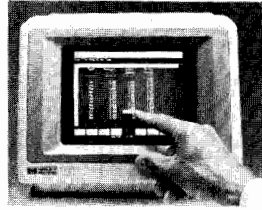
- What is the difference between copy ALL, copy DATA, and copy SYSTEM in the disc copy utility?

Refer to the article "HP 12x - PIP, COPY, and BACKUP" in this issue.

- When I use the DIR command in CP/M, why is only one file displayed?

The AUTO LINEFEED softkey is enabled. Simply disable the key by depressing f8 once to remove the asterisk from the label on the screen.

- I am attempting to transfer a file from one disc to another using PIP in CP/M. The system returns the message "NO DIRECTORY SPACE."
 - Check to be sure the AUTO LINEFEED softkey is disabled.
 - The version of the Format Utility on your operating system may be version A.01.00. If so, you must upgrade your format program. You can check the version by loading the Format Utility. The version is shown in the top right-hand corner of the menu. (See "HP 12x Software Updates and Upgrades" in the Current Information Insert of this issue.)



VisiCalc and MicroPlan are both spreadsheet applications – both of them available on the 120/125 and 150 systems. What are the differences between them? . . . and how does one decide what package is best for a particular application? This article discusses both packages and then summarizes the applications which are best suited to each package.

Visicalc

VisiCalc is a popular, easy to use package. A spreadsheet is displayed on the screen, and the user builds a model by entering data and formulas directly into the spreadsheet cells. VisiCalc remembers all formulas and data so that when you change any value, the spreadsheet is instantly updated.

Building a VisiCalc spreadsheet is a free-form process. A VisiCalc table is a matrix of cells organized in rows and columns. There is very little structure to a VisiCalc worksheet – the user may enter text, numbers, or formulas anywhere in the spreadsheet. Commands are provided to aid in this data entry process. For example, a replicate function is provided for “propagating” formulas across multiple cells.

When building or editing a VisiCalc spreadsheet, the entire spreadsheet must reside in the computer’s memory. No functions are provided for selectively bringing in data from other spreadsheets stored on disc. This imposes a size constraint on applications which use VisiCalc.

MicroPlan

MicroPlan is also an interactive package in which the spreadsheet is displayed on the screen. All functions except cursor motion – including entry of data and formulas – are performed by selecting a command number from a command menu.

MicroPlan provides a wide variety of built-in formulas for financial, statistical, and mathematical functions. These include functions such as depreciation, loan amortization, savings calculations, mean, standard deviation, etc.

MicroPlan has two features that make it suited for more sophisticated modeling applications. The optional MicroPlan Consolidation package provides the ability to bring in and perform functions on data from other spreadsheets stored on disc. Problems can be logically broken into small, well defined pieces – then consolidation can be used to combine data from the pieces to produce totals or summaries. A second advanced modeling function is the MicroPlan programming capability. An application designer can build prompting models by saving MicroPlan command sequences in a file on the disc.

In addition to the functions mentioned above, MicroPlan allows you to pass data from other applications to (or from) MicroPlan tables. Specific commands are provided for interfacing with Series 100 Graphics and VisiCalc. More general commands allow you to interface with a wide variety of applications – from data base packages to word processors.

Which Package for Which Applications?

Because of the nature of their user interfaces and their capabilities, MicroPlan and VisiCalc are best suited for very different types of applications. VisiCalc is ideal for small, self-contained problems in which there is little regularity of the data across rows or columns. If a different formula is needed for each cell, then VisiCalc is an excellent tool. If formulas apply across entire rows or columns, then MicroPlan may be a better tool.

MicroPlan works well for applications which are larger and more sophisticated in nature. It also works well when a job is to be performed periodically, such as every month, quarter, etc. MicroPlan's programming ability can automate these repetitive tasks, and it can even prompt users to enter specific data values. If the application requires a formal modeling environment where nice looking reports are produced or where formal documentation of the table is produced, then MicroPlan is a good tool. Finally, if the application requires that data be passed back and forth between applications, then MicroPlan is a better tool.

Application Type	Recommended Package
Ad-hoc, quick calculations	VisiCalc
Problems in which formulas differ on a cell-by-cell basis. (i.e., more than one formula is used to calculate a row or column)	VisiCalc
Small, self-contained applications which do not need to bring in data from other programs	VisiCalc
Large problems where it is desirable to break the problem into sub-problems and then merge the pieces to get totals or other summary information	MicroPlan
Tasks which are performed periodically such as monthly budgeting or forecasting	MicroPlan
Row- or column-oriented models	MicroPlan
Formal modeling situations where it is necessary to produce professional quality reports or documentation of the model logic	MicroPlan
Applications that need to pass data to or from other applications such as database, general ledger, graphics, etc., packages	MicroPlan

On the Series 100, we are pleased to sell *and support* both of these respected packages – so that you can choose the alternative which best suits your application.

The “Current Information” insert in this issue gives details on how to order either or both of these packages for your HP 12x or HP 150 system.



If you're using a printer capable of incremental spacing, such as the HP 2601A or HP 2602A, you may wish some clarification of microspace justification. WordStar will remove the "soft" spaces used to justify formed lines on the screen, and add space in units of 1/120th inch between words (and possibly between characters) to produce an evenly spaced line without large gaps between words.

Microspace Justification is applied to the area between the left and right margin of lines "formed" with word wrap or paragraph reformat.

Standard Defaults

If you use WordStar as it starts up – without changing any of the defaults – you'll have the following:

Right justification ON
Word wrap ON
Microspace justification ON

Ragged Right Margin

If you turn off Right Justify, using the softkey under 'Help and Modes' to obtain a ragged right margin, you'll have the following defaults:

Right justify OFF
Word wrap ON
Microspace justification ON

With the above settings you may notice what appear to be extra spaces between the letters in words and between the words themselves. This is because microspace justification is still adding spaces in your finished text. If this isn't the finished look you'd like, you can turn off microjustification with the dot command (.uj off). Place this dot command at the top of each document file. This will make your text appear like regular typewriter copy. (There is no softkey method of permanently disabling microjustification—you must specify .uj OFF in each document.)



We have discovered that the procedure for running the printer customization routine for WordStar/150 as outlined in the *WordStar Installation Guide*, pages 1-2 through 1-5, is incorrect.

The correct procedure for running WINSTALL can be found in your *WordStar Self-Paced Training Manual* on page A-9 (Appendix A, entitled "Installation Procedures").

[This correction is listed in the "Manual Corrections and Updates" section of the Current Information insert in this issue. Each time you receive a Communicator, check for new entries in this section - then your manual will always be up-to-date.]



In using Condor, as with any powerful package, a few subtle aspects of the product may not be obvious to the user. Here are the most common:

Defining Numeric or Dollar Items

Do not attempt to define a numeric or dollar item larger than four bytes in size. Many people equate the number of underscores on the form to the number of bytes required for the field. This is true of alphanumeric, alphabetic and Julian items, but not numeric or dollar items. Numeric and dollar items are stored as binary values. As four bytes contains 32 bits, a dollar item can be $\pm \$21,483,736.47$ and a numeric item can be $\pm 2,148,373,647$.

Subtracting Julian Dates

If you subtract Julian dates with the COMPUTE command, the field to receive the result must be numeric—remember, the result is in number of days.

Copying a Database

If you copy a database with the PIP command, no dictionary is copied to the destination disc. Condor will not be able to find the database on that disc without a dictionary entry. Always use the Condor COPY command.

"ALL" is Reserved

The word "ALL" is a reserved word. This is not documented in the manual distributed with Condor Version A.01.00. "ALL" functions much the same as an "*" in the search criteria.

TITLE Command Options

The "TOP" and "SKIP" options of the TITLE command are mutually exclusive—you cannot select both options for the command.

Wild Card "*"**

Using the wild card "*" in the leading position (*ABC) selects everything, not just item values ending in the characters to the right of the asterisk. Similarly, if the asterisk is used in the middle of a search item value, Condor assumes that anything to the right of the asterisk satisfies the search criteria.

The Condor 20-1 and 20-2 relational data base manager for the HP 120/125 has been updated from release A.01.00 to release A.02.00. Here is a summary of the changes.

Problems Fixed

The following problems in Release A.01.00 of Condor/12x (20-1 and 20-2) have been fixed in Release A.02.00:

1. Extent boundary problem no longer exists. This bug manifested itself in a variety of ways—most commonly by a “file full” or “disc full” error message or by just refusing to enter any more records when in actuality there was plenty of space on the disc or in the file.
2. PROJECT command no longer garbles and shifts data: After using the PROJECT command, the user would notice that data would be garbled or shifted out of position in the fields.
3. Options for commands no longer have to be upper case.
4. Print options of UPDATE and ENTER commands no longer produce illegible output.
5. Revise function of the UPDATE command no longer locks up system with certain databases—this was probably another manifestation of the extent boundary problem.
6. The print option of the EDIT command works normally. Also, stray characters on the prompt line after exiting from the EDIT command no longer occur.

Problems Remaining

The following problems still exist in Rev. 2.00:

1. Although a field can be defined to be 127 characters long, the inverse video will only show on the first line when entering data. This is only cosmetic—data may be entered on the second line even though no inverse video is displayed.
2. Returning to the operating system from a procedure file doesn't bring up the WELCOME screen when executed from drive A.
3. The READ command still treats commas as delimiters unless the data for a field is enclosed in quotation marks. This means that the user should write the data out of a database in BASIC format "[B]" if intending to read it back in for purposes of restructuring the database. Also, data transferred from a host machine should also be in Condor's "[B]" format if the user intends to put it into a Condor database.
4. The following form of the TITLE command causes an infinite loop on the printer:

TITLE "text", SKIP,2

New Feature

In release A.02.00, the 127K byte limit on sort file size has been increased to a maximum of 4.4 megabytes.

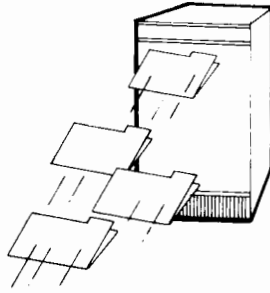
Obtaining the New Version

If you wish to obtain the latest version of Condor there are two alternatives:

- You can *update* your 20-1 or 20-2 at a nominal charge, as described in "HP 12x Software Updates and Upgrades" in this issue's Current Information insert.
- Or, you may want to take this opportunity to *upgrade* to Condor 20-3. If so, order 45550N (the 20-2 to 20-3 Upgrade Kit) or 45550P (the 20-1 to 20-3 Upgrade Kit) from HP or your dealer. See the "How To Order" section in the Current Information insert of this issue.

Transferring Files between HP 3000s Using DSN/Link/12x

Larry L. Thomas



Here's a procedure to transfer a program or data file from one HP 3000 system to another HP 3000 using DSN/Link/12x. Within HP, we have found that this procedure comes in very handy in emergency situations where someone needs a patch, does not have DSN/DS 3000, and is miles away. We have also found this procedure useful for copying files to systems which have a cartridge tape drive.

This article assumes that you know how to log-on to the two HP 3000 systems, and that you are familiar enough with DSN/Link/12x to copy binary files from and to a host HP 3000. You must have a host HP 45534B Series 100/DSN/Link on your HP 12x, not HP 45534A Link/125, since Link/125 does not provide a binary transfer capability.

1. Check that each of the HP 3000s has the file LINK100.PUB.SYS. If necessary, follow the Upload procedure in DSN/Link to load this file.
2. Put the HP 12x in Remote Mode.
3. Log-on to the first HP 3000 using the HELLO command. This is the system from which you are going to retrieve the program, utility, or data.
4. Put the HP 12x in Local Opsys mode.
5. Load DSN/Link.
6. Fill in the "Transfer from Host" menu - making sure that the destination disc has the capacity to accept the file, that the file name on the HP 3000 is correct, and the file type is "Binary".
7. Begin transfer from the host - press the function key labeled "START TRANSFER".
8. After the transfer is completed, go back to the "main menu" and use the LISTF command to get the characteristics of the file that you just copied. We specifically need to know the number of records and format. Use the command as follows: "LISTF filename,2". Take all this information down, you will need it later, when transferring from the HP 12x to the other HP 3000.

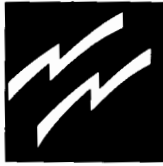
9. Log-off from the first HP 3000 computer system.
10. Log-on to the second HP 3000 computer system, using the HELLO command.
11. Use the BUILD command to build a file with the exact file characteristics of the file copied in step 7 above. The length is 128 words, one record per block, fixed, binary format. The "Disc" parameter should give the number of records that you recorded in step 8 above, one extent, with maximum extents as one also. Finally, give the file a code of "PROG", if it is a program. Here is an example of the Build command:

```
BUILD UTILITY:REC=128,1,F,BINARY;  
DISC=74,1,1;CODE=PROG
```

12. Fill in the "Transfer to Host" Menu.
13. The local source file name is what ever the name of the file is on your HP 12x disc, the host destination file name is "TEMPDSN", the host record size is "256" (this is specified in bytes) and the type is BINARY.
14. Press the "START TRANSFER" function key to transfer the file to the HP 3000 computer system.
15. After the transfer is complete, go back to the DSN/Link main menu.
16. On the second HP 3000, do a file copy from the file "TEMPDSN" to the file that you created in step 11 above. Use the FCOPY command to do this:

```
FCOPY FROM=TEMPDSN;TO=UTILITY
```

Correction: Remote Access to the HP 120/125



The last issue, Issue #6, of the *Communicator* carried an article by Stan Helmle of Advanced Systems Design (Lodi, California) on how to control an HP 120/125 located at a remote site. The program given in the article provides for control of an HP 120/125 from a terminal connected to the system via modem. The user can run simple applications not requiring device mapping.

The program listing has some typographical errors:

- Line 510—should be “CHR” not “CRH”
- Line 800—should be numbered line 900
- Line 950—should be “Z\$” not “Z4”
- Line 1030—should be “sl6d” not “sl5d”
- Line 2060—should be “&i0s24d8M” (no semicolon).

HP 12x BASIC Compared to HP 150 BASIC

Brian Rainie



What are the differences between the BASIC interpreters on the HP 12x and the HP 150? Both packages were originally written by Microsoft. The HP 12x BASIC is generally known as BASIC80. The HP 150 BASIC is HP's implementation of Microsoft BASIC86 for the 8086 microprocessor.

Use of Long Values

There was a BASIC80 problem concerning the use of long values. Due to BASIC's method of storing numbers in memory, not all values can be handled without rounding problems. For instance, the value of 1.73 might be stored as 1.7299999999999999, which is a very close approximation. The only drawback is seen when the value is printed. The workaround when using BASIC80 was simply to use formatted output (PRINT USING) instead of the standard PRINT statement. In BASIC86, the standard PRINT statement was modified to compensate automatically.

Upgraded Statements

CALL	Works in conjunction with DEF SEG to allow a program to call a subroutine in any segment. Arguments passed can now be either variables or constants.
COMMON	Will allow numeric indexes in array definitions but will not act upon them.
OPEN	The original OPEN format is still available, but a new format allows APPEND access.

Upgraded Functions

EOF	Originally, EOF would only work with sequential access files. It will now work with random access as well.
INP	Port values may now range from 0 to 65535.
OUT	Port values may now range from 0 to 65535.
USR	Works in conjunction with DEF SEG to allow a program to call a subroutine in any segment.

New Statements

BLOAD	Loads a memory image containing subroutines, etc., from a file into memory.
BSAVE	Stores a memory image from memory to a file.
CALLS	Similar to CALL, but passes segmented addresses for the arguments.
DATE\$	Sets the current date.
DEF SEG	Defines the current base segment address for use with CALL, CALLS, PEEK, POKE, and USR.
FILES	Generates a disc directory listing.
RESET	Closes all files on all drives.
TIME\$	Sets the current time.

New Functions

DATE\$	Returns the current date (MM/DD/YYYY).
LOF	Returns the length of a file in bytes.
TIME\$	Returns the current time (HH:MM:SS)

As you can see BASIC/150 is very compatible with BASIC/12x - with the addition of some excellent new capabilities.

Subtle Differences Between HP 12x/150 BASIC and Other BASICs

Brian Rainie



For the individual who wishes to write BASIC programs on the HP 12x or HP 150, and feels that all BASICs are alike, please read the Series 100 BASIC manual anyway. HP's Series 100 BASIC is Microsoft BASIC – the standard of the personal computer industry. Compared to traditional time-share BASICs, such as those available on larger HP systems, there are many differences in both statement and function syntax, as well as general operation. Here are some examples demonstrating language differences which you may not discover right away while simply browsing through the manual.

Syntax Checking

Series 100 BASIC performs very little syntax checking when a statement is entered. This allows you to enter dummy lines, or incomplete lines, and come back later to clean them up. This can result in faster coding. Please remember that although BASIC accepted your line, it may still cause a syntax error when your program runs.

String Allocation

You will notice that there is no default dimension size for simple string variables. This is due to the fact that string space is dynamically allocated. String variables can range in size from 0 to 255 characters. Also, keep in mind that string arrays do not reserve string space. You may be able to create a string array of 5000 entries, but probably won't be able to fill it.

Sub-String Designators

Unlike HP 3000 BASIC which uses brackets to specify sub-strings, Series 100 BASIC uses the MID\$ statement and the MID\$ function. Please refer to the BASIC manual.

Numeric Precision

The precision of short (real) and long numbers/variables may be different from what you are used to. Short numbers have seven significant digits, instead of just 6, but the exponent range is from -38 to +38. The long format also has more significant digits, but its exponent range is also -38 to +38.

Arithmetic Operators

These operators are fairly standard. Double asterisks (**) are not used to indicate exponentiation; The ^ symbol is used instead. Integer-type division is available with the back slash (Ex: A=B\C).

Relational Operators

Most BASIC interpreters require that combinations of logical operators must appear in specific order. The test for less-than-or-equal-to must appear as `<=` rather than `=<`. Series 100 BASIC will accept either. There is one *very significant* difference between most BASICs and Series 100 BASIC: Series 100 BASIC will return the standard ZERO for FALSE, but it returns a NEGATIVE-ONE for true instead of the traditional POSITIVE ONE. This ties in with the bit manipulations explained below.

Logical Operators

Logical operations in Series 100 BASIC do not necessarily return a TRUE/FALSE answer. These logical operations are actually bit manipulations on integer values. If the expected TRUE and FALSE values of -1 and 0 are used, the result will still be a -1 or 0. Other integer values return values outside of this range. Please refer to the manual for a much more comprehensive explanation. If you think that an AND of any two TRUE values will return a TRUE, guess again. "4 AND 2" returns 0.

Multiple Assignments in a Single LET

Series 100 BASIC will not allow you to perform multiple assignments in a single LET statement. The following statement will not execute properly:

```
100 LET A=B=C=0
```

You should use this statement instead:

```
100 LET A=0 : LET B=0 : LET C=0
```

Converting Numbers to strings

The STR\$ function is a very efficient method of converting numbers to strings. Unlike most BASICs, this function will return one preceding blank to hold the position of a plus sign if the number is positive. If you don't know if the number will be positive or negative, but wish to remove the blank if it is positive, the following statement will perform the operation:

```
100 LET A$=MID$(STR$(X), 1-(X>=0))
```

Remarks

Two formats for remark statements are allowed. The first is the standard REM statement. The second is a method of appending a remark to the end of a line by simply adding a single apostrophe and the remark you wish (Ex: 100 PRINT X/Y ' Output final value). Remember that everything after REM or ' is taken as a remark. The PRINT statement at the end of the following line is actually part of the preceding remark and will not be executed:

```
100 LET X=Y/2 : REM PRINT RESULT : PRINT X
```

**Formatted Output
(PRINT USING)**

The IMAGE statement is not allowed in Series 100 BASIC. All image strings must be string expressions. The format of the image items has also changed. Please see the BASIC manual for the correct syntax. If you discover the fact that the carriage control option in the image string is not available, don't panic. If you append a semi-colon to the end of the print list you won't get a CARRIAGE-RETURN/LINE-FEED at the end of the printed line
(Ex: 100 PRINT USING I\$;X,Y,Z;).





It is easy to accept block mode transfers using BASIC/150 as long as you follow three simple rules:

1. Make sure that AUTO LINE FEED is disabled
2. Insure you are using the correct form of handshaking
3. Decide which method of data input is appropriate

Disable Auto Line Feed

When Auto Line Feed is enabled, all block transfers are preceded by a line feed character. This can cause misalignment of the cursor before the transfer begins. It can also cause great difficulties when it comes to reading the data transmitted.

Proper Handshaking

Unlike BASIC on the HP 3000, BASIC/150 does not output a DC1 as a signal that it is ready to receive data. If the terminal configuration is set for the default handshaking scheme of DC1/DC2 when using block mode, and a BASIC program outputs an escape sequence asking for a block mode transmission, the terminal will lock up waiting for a DC1 trigger. To eliminate this problem, many people disable handshaking entirely. This works for most cases, but can cause some data overruns. The other disadvantage is that the user must re-enable handshaking each time he wishes to access the host system.

The easiest and safest approach is to leave DC1/DC2 handshaking enabled and have the BASIC program output the DC1 trigger itself. A sample of this is shown below:

```
1000 REM Read one line from the display
1010 PRINT CHR$(27);"d";CHR$(17);
1020 LINE INPUT TEXT$
```

The PRINT statement outputs an ESCd to request the transfer of one line from the display and then outputs a DC1 to inform the terminal that the program is ready to receive.

As far as compatibility goes, if a program does not output its own DC1s, it must be run on a system with handshaking disabled. If it does output its own DC1 it will run whether or not handshaking is disabled. If the DC1/DC2 handshaking is disabled and the terminal sees the DC1 outputted by your program, it will simply ignore it.

What's the appropriate way to receive data?

The most common block mode transmissions are generated by one of the three escape sequence groups shown below:

1. ESCd (simulates enter key)
2. Status Request (this includes device control status)
3. Function-Key/Device-Read

For the first one, the example shown above is your best approach. As for the other two, you must use a procedure which will keep BASIC from echoing the transmitted information onto the display—this is difficult. Here are two procedures to accomplish this feat—the choice is dependent upon whether the length of the transmission is known to the program or whether it may vary. Most status requests return a fixed number of characters dependent upon the request used. The function keys and device-reads may return a text line of any length.

If the length is known, the following example works well. It uses the INPUT\$ function to read the information. INPUT\$ will not echo the information back, but must know how many characters to read:

```
1000 REM Get the current alpha cursor position
1010 PRINT CHR$(27);"a";CHR$(17);
1020 TEXT$ = INPUT$(12)
```

If the length can fluctuate according to the item's current definition, a more interesting approach must be implemented. The LINE INPUT statement in BASIC will echo characters if it is reading from the standard input device. If it is reading from a file it has no need to display the information on the screen. The following example assigns the CONSOLE (terminal) as an input file and uses LINE INPUT # to read the information:

```
1000 REM Read the text in softkey #1
1010 PRINT CHR$(27);"&f1E";CHR$(17);
1020 OPEN "T",1,"CON"
1030 LINE INPUT #1, TEXT$
1040 CLOSE 1
```

NOTE: The text in softkey 1 must be terminated with a carriage return.

Series 100 Newsline

Free Phone-In Software Assistance is now available for Series 100 applications marketed by HP. The special telephone number for Canada is 1-800-267-6115; for the U.K., 0344-777110. In other countries, call your HP Sales and Service Office -- ask for "Personal Computer Phone-In Assistance."

The touchscreen HP 150 has been introduced in the U.S. and Canada. The system has a 16-bit processor and uses the MS-DOS operating system. (See page 1 of this issue for details.) The HP 150 will shortly be introduced world-wide -- with 17 international keyboards plus operating system and application software in nine languages.

Peripheral news: The HP 7475A six-pen plotter is now available. The HP 2602A daisy-wheel printer list price has dropped by 21%; the HP 7470A two-pen plotter price has been reduced by 30%.

Disc drives -- The HP 9121D dual 3-1/2" flexible disc drive list price has been reduced by 28%. The HP 9133V 5-megabyte hard disc and the 9121S single 3-1/2" flexible disc drive have also been reduced in price.

HP 120 and HP 125B list prices have been reduced by 31%.

New standards: A green display tube is now standard for both the HP 120 and HP 125. The extended keyboard -- with numeric keypad -- is now standard on the HP 120 as well as the HP 125.

Last chance for the HP 125 with integral thermal printer (option 050) and the HP 120 with white display tube (option 069) or mini-keyboard (option 199). As part of our price reduction program, machines with these less-popular options are no longer being built. Your dealer or local HP office may still have a few.

continued...

Picture Perfect for the HP 120/125 is now available from HP. This powerful presentation graphics package was described in Issue #6 of the Communicator -- page 1.

The new HP 150 Financial Calculator provides a touch-sensitive HP-12C advanced financial calculator right on your screen ... with the ability to transfer programs and registers to and from HP 150 files and to VisiCalc.

Games for the HP 150: Temple of Apshai ... a very popular English-language "adventure" game with screen graphics (92243GA); Ricochet ... a billiards-like strategy game (92243GB); Type Attack ... an arcade-style game which is also a typing tutor (92243EA -- U.S. keyboard only). These products available in 3-1/2" media only.

New training courses for the HP 120/125 and the HP 150 are now available from HP -- details on page 5 of the Current Information Insert in this issue.

For information on these products, or to locate your HP dealer, call your local HP Sales and Service Office.

HP's commitment: "Hewlett-Packard believes that the personal computer market and the computer market in general are rapidly coming together -- and that success in personal computers is an important element of our future. We are committed to becoming a leader in this field."
... HP president John Young

It's been a very exciting time for us -- we hope that your year has been as rewarding and fulfilling as ours. Best wishes for the new year from all of us at HP!

Price comparisons are based on HP's suggested list prices and are subject to change.

Insert-2

We stand behind every product we sell—including not only the software developed by Hewlett-Packard but also the industry-standard software packages we provide.

The level of capability provided by advanced personal computer software—together with the rapid evolution of this field—means that you will occasionally have questions which are not answered in the product manuals or in the *Communicator*.

Depending on how your system is purchased and how it is used, the optimum source of assistance may be Hewlett-Packard, your dealer, or your own organization:



Your Direct Line to Hewlett-Packard

To provide answers to your questions on software distributed by Hewlett-Packard, HP's Phone-In Software Assistance service is available to you at no charge. You call a Phone-In Software Assistance Center in your region or country; a phone-in coordinator determines the type of question and arranges for the appropriate HP support representative to call you. Using a full set of Series 100 software and documentation— together with computer knowledge, problem-solving skills, and access to further assistance via HP's worldwide telecommunications network—the support representative works with you to resolve your question.

For software assistance:

- In Canada, call 1-800/267-6115.
- In the U.K., call 0344-777110
- In the U.S., call 800/HPCOACH (800/472-6224)
- In other countries, call your HP Sales and Service Office—ask for "Personal Computer Phone-In Assistance."

Assistance from Your Local Dealer

If your system is purchased from a dealer or system house, they have worked with you to define your application and configure your system—perhaps selecting software or peripherals not supplied or supported by HP. Here, your dealer is the best source of assistance—knowing you, your needs, and your configuration well. Of course, your dealer is backed up by special support resources within HP.

Optimized Assistance from Your Own Organization

If yours is a large organization using Series 100 systems in a networking environment, the best software support source may be your central MIS or data processing department. They have full knowledge of your organization's overall system: your internally developed programs, your unique operating and networking procedures ... plus your specific hardware and software configuration. The central support personnel, in turn, can call on special resources within Hewlett-Packard.

Software from Third Parties

Some Series 100 software packages were designed by other companies but are marketed and supported by Hewlett-Packard. There are many other products for the Series 100 which are marketed by independent organizations—referred to as "third parties" or "independent software vendors." Support for these products comes from the software vendor or the dealer who supplied the software.

Insert-4

Training Courses



The Series 100 and its application programs are designed for ease of use and ease of learning. Classroom training courses can help your first-time computer users rapidly build confidence and gain new skills in a supportive environment away from the day-to-day job.

HP-Conducted Introductory Courses

Hewlett-Packard provides Series 100 training courses at HP Customer Training Centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP Sales and Service Office.

- *Introduction to Personal Computers*

For managers and professionals with limited knowledge of personal computers. Content: General personal computer usage including basic computer literacy, lots of hands-on use of VisiCalc, some hands-on use of word processing and graphics; summary of how PCs can work for you.

35119A (1 day)



- *Getting Started on the HP 150*

For any user of the HP 150. Content: Introduction to the HP 150 and its operation, including utility programs, system start-up and MS-DOS operating system.

35036A (1 day)

This course, or equivalent knowledge, is a prerequisite for all applications and programming training on the HP 150.

- *HP 12x User Course*

For any user of the HP 120/125. Content: Introduction to the HP 12x and the use of Word/12x; second day covers Graphics/12x, VisiCalc/12x, and DSN/Link/12x.

35042B (2 days)

This course, or equivalent knowledge, is a prerequisite for all applications and programming training on the HP 12x.

HP-Conducted Application Courses

We have structured the curriculum for maximum flexibility. You can attend whatever functional area course you want – spreadsheet analysis, word processing, data base management, or integrated software – without having to go through material you are not interested in. For further efficiency, *Series 100 WordStar* and *Learning Series 100 Condor* are each divided into two modules, allowing you to choose the depth of understanding you wish to attain.

All of these classes stress hands-on work with the HP 150 during class time for maximum effectiveness.



■ *Learning VisiCalc/150*

For business professionals, and managers who use the HP 150. Content: In-depth training on VisiCalc. Covers all of the VisiCalc commands and introduces students to the electronic worksheet through a series of hands-on labs. Upon completion of this course, you will be able to perform basic spreadsheet analysis and use the reference manuals for complex applications.

35125A (1 day)



■ *Learning WordStar/100*

For HP 12x and HP 150 word processing users. Content: Comprehensive training on word processing with the WordStar package. Hands-on lab exercises concentrate on creating, editing, and printing business letters. Also included are exercises in document formatting and enhanced printing.

35123B (½ day)



■ *SpellStar/100 and MailMerge/100*

For HP 12x and HP 150 word processing users. Content: An introduction to use of MailMerge/100 to create customized documents and chain printing. Also included are exercises in use of SpellStar/100 to check spelling in a document. Prerequisite: WordStar/100 course.

35123C (½ day)

■ *WordStar/100 and SpellStar/MailMerge/100* are available as a single unit.

35123A (1 day)



■ *Learning Condor/100 20-1*

For business professionals using the HP 12x or HP 150. Content: An introduction to data management using Condor 20-1. You will learn how to create data bases and use Condor commands to accomplish tasks such as sorting information and creation of reports.

35124B (1 day)



■ *Learning Condor/100 20-3*

For advanced Condor users on the HP 12x or HP 150. Content: A continuation of data management using Condor 20-3. Topics include: Indexing, Project command, Join command, and Report Writer. Prerequisite: Condor/100 20-1 course.

35124C (½ day)

- *Learning Condor/100 20-1 and 20-3 can be ordered as a single unit.*

35124A (1½ days)



■ *Software Integration/150*

For HP 150 users. Content: Through a series of lab exercises, you will learn how to use HP 150 software integration capabilities to share or transfer information between software packages. The course covers Condor-to-MailMerge, VisiCalc-to-Graphics, and Condor-to-Graphics. Prerequisites: *SpellStar/100*, *MailMerge/100*, *VisiCalc/150*, and *Condor/100*.

35037A (½ day)

**HP-Conducted
Programming Courses**

Refer to "Books on Personal Computing", just before this section, for self-study texts on programming.

- HP 12x Programmer training is provided by the *HP 12x Program Development Course*, which covers CP/M, the specifics of Series 100/BASIC, and the assembly language. This course is designed for those who have programming experience in both BASIC and an assembly language.

34043A (5 days)

**HP Customized
Training**

These course can be taught at your facility using your own systems – or training to suit your specific needs can be designed and given through HP's Business Computer Consulting Service. Contact your HP Sales and Service Office for details.

**Dealer-Conducted
Courses**

An HP Personal Computer Dealer may teach similar courses or may arrange for a Hewlett-Packard instructor to teach courses in your area. Contact your dealer for details.



The *Series 100 Communicator* is the heart of the Series 100 support program. It contains application information, operational tips, programming techniques, information on software updates, manual corrections, and data on known software problems and their solution. The *Communicator* is both a reference to everything current on the system and your window into the continually expanding world of the Series 100.

You can order a subscription just as you order supplies and accessories—through your dealer, by using HP's special telephone orderlines, or through your local HP office. (See the "How To Order" section in this insert for the special HP telephone number for your area.)



- Series 100 *Communicator*—
U.S. Edition45530A \$24/yr.
- Series 100 *Communicator*—
Canada/Mexico45530B \$33/yr.
- Series 100 *Communicator*—
International45530C \$43/yr.

(Subscriptions outside the U.S. are sent by accelerated mail.)

Note: We are unable to start your subscription with an issue which has already been mailed; to complete your set of Communicator issues, order individual copies as described in the next section.

Ordering *Communicator* Back Issues



The application information, operational tips, and programming techniques included in the *Communicator* make back issues valuable—to increase your productivity and improve your system knowledge.

To order, refer to the “How to Order” section at the end of this insert.

The following back issues are currently available:

Issue #1 includes the following major articles:

- “Single and Multi-line Page Headings with Word”
- “Searching for Enhanced Text in Word”
- “Making Invisible Characters Visible in Word”
- “Directory Scrolling in VisiCalc”
- “Sending Escape and Control Codes to a Printer from VisiCalc”
- “Warning: PASCAL”
- “Things you should Know About Random Access Files”
- “HP 9895 to HP 9135 File Transfer”
- “Electronically Reading a Disc Reference Number”

Communicator Issue #1 5955-3937 *

Issue #2 includes the following major articles:

- “Making Graphs from VisiCalc Worksheets”
- “Word and VisiCalc Go Together”
- “Printing Formulas from VisiCalc Worksheets”
- “Printing Multiple Copies From Word”
- “More on Search and Replace in Word”
- “Chaining from One Executable Program File to Another”
- “A BASIC Subroutine Library”
- “Sort and Back Up Operations with Large Data Bases”
- “Using COPY DISC to Back Up Data Files on Drive B”
- “Computing Internal Rate of Return in VisiCalc”

Communicator Issue #2-U.S. . 5955-3943 *

Communicator Issue #2-Intl. . 5955-3947 *

Issue #3 includes the following major articles:

- “Disc Formats on the HP Series 100”
- “Non-CP/M Programs–Will They Run?”
- “Long Documents with Series 100/Word”
- “Series 100/Word: Y Table Gymnastics”
- “Using Graphics to Your Advantage”
- “Condor Tips”
- “Adding Your Application Program to the WELCOME Menu”
- “Using Softkeys on Non-HP Systems”
- “Changing Printer Characters”
- “Using the HP 2121 Disc Drive with Your HP 125A”

Communicator Issue #3 5957-6213 *

Issue #4 includes the following major articles:

- “International System Summary”
- “Condor News”
- “Comparing BPI and Peachtree Accounting”
- “Printing Mailing Labels from Condor”
- “More on HPMAIL and the Series 100”
- “File Transfers Using PIP”
- “Accessing a Plotter from BASIC”

Communicator Issue #4–U.S. . 5957-6204 *

Communicator Issue #4–Intl. . 5957-6214 *

Issue #5 includes the following major articles:

- “Enhanced Installation Program Available”
- “Video Display Interface for the HP 125”
- “Comparing Condor and dBASE II”
- “Sending Escape Codes to Printers from WordStar and Condor”
- “Interchangeability of Word and WordStar Text”
- “Two-Column Print in WordStar”
- “WordStar Quick Tips and Defaults”
- “Getting VisiCalc to Round Dollar Values to Two Places”
- “Word–Wandering HP 2601A Printer Margins with the Sheet Feeder”
- “DSN/Link–Enhanced File Transfer Capabilities over Link/125”
- “Connecting Two Series 100 Systems for ASCII File Transfer”

- “Transferring IMAGE/3000 Data to a Condor Database”
- “Transferring Data to the HP 2700 Color Graphics Terminal”
- “Installing the Operating System on Your Fixed Disc”
- “Using the HP 2631B HP-IB Printer with Series 100”
- “Programming Challenge-Bypassing WELCOME”

Communicator Issue #5-U.S. . 5957-6205 *
 Communicator Issue #5-Intl. . 5957-6215 *

Issue #6 includes the following major articles:

- “CSC Graphics Available on the Series 100”
- “New Auto Shutter for 3½ inch Micro Flexible Discs”
- “Introducing Enhanced DSN/Link”
- “Microsoft BASIC Compiler”
- “Using Block/Format on the Series 100”
- “Correction-Printing Mailing Labels From Condor”
- “WordStar/100 Multiple Column Print Update”
- “Remote Access to the HP 125”
- “Using the 92911A Bar Code Reader on the HP 125”
- “Configuring the Series 100 for use with the Diablo 630 Printer”
- “An Alternative to ALPHASORT for Series 100/Word”

Communicator Issue #6-U.S. . 5957-6206 *
 Communicator Issue #6-Intl. . 5957-6216 *



Additional copies of this current issue are also available:

Communicator Issue #7-U.S. . 5957-6207 *
 Communicator Issue #7-Intl. . 5957-6217 *

Binders

Three-ring binders are available to organize your *Communicator* back issues and other 8½ x 11½ inch information.

Binder-8½ x 11½" page size; 1½" capacity
 5955-3982

**If 10 or more copies of a single Communicator issue are ordered from HP at the same time, the price is discounted by 25%.*

Books on Personal Computing



This section lists several personal computer books which we have found helpful.

For ordering information, refer to the "How to Order" section at the end of this insert.

Applications

VisiCalc Programs Made Easy

Castlewitz; Osborne-McGraw Hill, 1983

For first time users of VisiCalc, this step-by-step tutorial uses a series of "hands on" lessons that introduce the program's format and its many commands. In the final section, advanced uses and special tricks are covered that extend the capabilities of VisiCalc programs.

HP Product Number 92233Q

VisiCalc: Home and Office Companion

Castlewitz and Chisausky with Kronberg;
Osborne-McGraw Hill, 1982

A book for both beginners and experts. For the novice, it contains 50 models that can be used immediately for personal and business applications. For the experienced user, it is a source of new ideas and techniques. Arranged by application, the book provides models for loans and investments, advertising and sales, inventory control, personnel, household aids, and more. Each model includes the VisiCalc entry grid, a descriptive narrative, and sample printed report.

HP Product Number 92233Z



Writing in the Computer Age: Word Processing Skills and Style for Every Writer

Fluegelman and Hewes;
Anchor Press/Doubleday, 1983

This book demystifies word processing and explains how it can be the ultimate tool in creating and refining your work. Topics include: hardware and software—what they are and what they do; the mechanics of working on word processors; screen and print formatting; setting up, organizing, and maintaining file systems; techniques for editing and polishing; styles and strategies; and more. This is a generic book on word processing that thoroughly covers the subject without being directed at any one word processor.

HP Product Number 92233N

**Everyman's Database Primer:
Featuring dBASE II**

Byers; Ashton-Tate, 1982

Written for the novice, this book is a tutorial on relational database management systems on a personal computer. It features dBASE II™ as the database management system used to illustrate the main points.

HP Product Number 92233R

**Data Base Management Systems:
A Guide to Microcomputer Software**

Krugliniski; Osborne-McGraw Hill, 1983

This book provides an introduction to data bases on personal computers. It presents information which will enable you to select a data base management system to meet your requirements. A number of packages are examined in detail—including Condor and dBASE II.

HP Product Number 92234A

System Management**CP/M User Guide**

Hogan; Osborne-McGraw Hill, 1981

Written for all levels of expertise, this book introduces the reader to CP/M's function within a microcomputer system as well as the use of built-in and transient commands, assembly language utilities, high-level languages and applications programs.

HP Product Number 92233Y

Networking**Touring Datacomm: A Data Communications Primer**

Hewlett-Packard, 1983

This is an introductory text which guides you through the basic concepts of data communications. It begins with a discussion of simple communications concepts and gradually introduces increasingly more complex topics. Topics include hardware and software; transmission methods and channels; line configurations and interfaces; signal conversion; multiplexing; common carrier services; and networks. Designed for readers with little or no previous knowledge of data communications.

HP Product Number 5957-4622

Computer Networks

Tanenbaum; Prentice-Hall, 1981

This introduction to computer networks emphasizes network architectures and protocols from the physical layer to the application layer, and from local networks to satellite networks. No prior background in computer networks is assumed, though a general familiarity with computer systems and programming is desirable.

HP Product Number 92233V

Programming**BASIC For Home Computers**

Albrecht, Finkel, and Brown; Wiley, 1978

Teach yourself Microsoft™ BASIC with this step-by-step self-teaching guide. (Series 100/BASIC is a version of Microsoft BASIC.) This book is suitable for the novice who has never programmed before. Commands are explained using a short working program and then illustrated in a variety of applications.

HP Product Number 92234D

Microsoft BASIC

Knecht; Dilithium Press, 1983

This book is appropriate for a person who already programs in another version of BASIC or another language and who wants to learn this version of BASIC. This book is not as elementary as *BASIC for Home Computers* and it covers more of the advanced features of Microsoft BASIC.

HP Product Number 92234E

The Investor's Computer Handbook

Packer; Hayden Books, 1982

This book gives programs and examples directed toward the stock market, which are transferable to other types of dynamic markets and portfolios. Types of programs explained: portfolio management and trading, research filing and retrieval, chart generation and portfolio management. The demonstration programs are written in Microsoft BASIC.

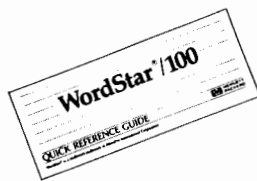
HP Product Number 92234G

HP 12x Application Software	Product No.†	Media Option†		
		630	650	680
VisiCalc®/12x	45531B			
Graphics/12x	45532B			
Word/12x	45533B			
DSN/Link/12x	45534B			
BASIC/12x	45535A			
Programming Package/12x	45536A			
Condor™ 20-1/12x**	45550A			
Condor 20-2/12x**	45550E			
Condor 20-3/12x*	45550H			
Condor 20-1 to 20-2/12x Upgrade Kit**	45550K			
Condor 20-2 to 20-3/12x Upgrade Kit*	45550N			
Condor 20-1 to 20-3/12x Upgrade Kit*	45550P			
BPI General Accounting/12x*	45552A			
BPI Payroll/12x*	45553A			
WordStar®/12x	45560A			
SpellStar™/12x*	45561A			
MailMerge™/12x	45562A			
Picture Perfect™/12x*	45603A			
MicroPlan®/12x*	45670A			
MicroPlan Consolidation/12x	45671A			
Standard CP/M Application Software for the HP 12x				
Milestone™	45580A			
Datebook II™	45581A			
Personal Datebook™**	45582A			
dBASE II™	45583A			
Aardvark Professional Tax Plan	45585A			
Aardvark Personal Tax Plan	45586A			
Peachtree General Ledger*	45589A			
Peachtree Accounts Receivable*	45590A			
Peachtree Sales Invoicing*	45591A			
Peachtree Inventory Control*	45592A			
Peachtree Accounts Payable*	45593A			
PeachPay™ Payroll*	45594A			

*Not supported on single disc drive system

**Not recommended for use on single disc drive system

†Media option must be specified with product number (630 for 3.5" disc; 650 for 5.25" Disc; 680 for 8" disc)



Quick Reference Guides for most application packages are available for the HP 120/125 ... as well as Reference, Owner's, and Installation manuals for the system.

Application manuals are available only with the associated discs in complete software packages. (Please disregard "Kit Numbers" given on some HP 12x binders—these items are not orderable.)

To update your current documentation, refer to "HP 12x Manual Corrections and Updates", later in this *Communicator*.

To order Quick Reference Guides and Manuals, refer to the "How To Order" section at the end of this insert.

HP 12x Quick Reference Guides

Most HP 12x software packages include a Quick Reference Guide. This is a pocket-sized booklet or foldout card providing a summary of the program's commands and functions—for use once you are familiar with the application. Additional copies for the other users of your system are available from your dealer or HP:

- VisiCalc/12x Quick Reference Kit
(5 cards) 45531-60002
- Graphics/12x Quick Reference Kit
(5 cards) 45532-60002
- Word/12x Quick Reference Kit
(5 cards) 45533-60004
- BASIC/12x Quick Reference Kit
(5 cards) 45535-60001
- Condor/12x Quick Reference Kit
(5 cards) 45550-60001
- WordStar/12x Quick Reference Kit
(5 booklets) 45560-60001
- MicroPlan/12x Quick Reference Kit
(5 booklets) 45670-60001

System Reference Manual

The *HP 125 System Reference Manual* (included in the 45536A Series 100 Programming Package) may be ordered separately. It applies to both the HP 120 and the HP 125.

- HP 125 System
Reference Manual 45536-90000

System Owner's and Installation Manuals

Additional copies of the Owner's and Installation Manuals are available. If you do not have Operating System A.01.20 or a newer version, we recommend that you purchase the entire Software Update Kit—so that your new manuals will match your software. These are listed in the *Communicator* under "HP 12x Software Update and Upgrade Kits."

Series 100 Owner's Manual Kit
(120/125)5061-3211
HP 125B Installation Guide Kit . . .5061-3212
HP 120A Installation Guide Kit . . .5061-3213

Binders

Three-ring Series 100 binders are available to organize your *Communicator* back issues (through Issue #6) and other 8½" x 11" Series 100 information.

Series 100 Binder—8½" x 11" page size;
1½" capacity5955-3982

HP 12x Manual Corrections and Updates



This section presents corrections to the HP 120/125 ("HP 12x") manuals. Just write in these corrections to update your manuals. **New entries since the last Communicator are marked with a star.**

**HP 120
Installation
Guide
HP 125B
Installation
Guide
(11/82)**

Page 7-20 incorrectly lists the steps used to copy an operating system to your fixed disc. Use the following steps:

24. Press CHANGE COPY (f3) until SYSTEM appears in the COPY field at the top of the screen.
 25. Press *start copying* (f5).
 26. Press PROCEED (f5).
 27. Press CHANGE COPY (f3) until FILES appears in the copy field.
 28. Press *start copying* (f5).
 29. Press PROCEED (f5). When the Names of files are requested, type *.* [RETURN].
 30. Press the EXIT function key (f8) when the files have finished copying.
 31. Remove the flexible discs from the drive.
 32. Turn the drive off.
 33. Change your disc drives address as shown.
-

**Getting Started
With the
HP125
(7/81; Updated
2/82)**

Page 4-6: Table 4 states that the 2601A printer should be configured with the Xon/Xoff field set to "Recv". Change "Recv" to "Xmit".

**VisiCalc/125
Reference
Manual (7/81;
Updated 2/82)**

[Order the VisiCalc/12x Software Update Kit to obtain the new manuals plus the latest software.]

Page 1-11: Under the paragraph "Cells and Cell Contents" it states that a VisiCalc cell can contain up to 255 characters. Wrong; a cell can contain up to 125 characters.

Page 5-8: Change the exponentiation example on the top of the page to read 2^5 [RETURN]).

Page 5-16: The first example incorrectly describes the use of the NPV function. The example should read "@NPV(B8,B2..B6)+B1" not "@NPV(B8,B1..B6)". Also the result at B10 on the worksheet should read "288.2545" not "250.6561".

Page 6-3: Incorrectly states that the [CTRL] E command can be used to edit replicate commands. In fact, replicate commands cannot be edited with [CTRL] E. Delete the sentence "As with any other entry...by using [CTRL] E."

Page 9-3: States that the "^E" causes the character that follows to be an escape character. This is not true. Modify the text to say the "^E" sends an escape character.

Page A-3: The @IF function description should end with "the value w if b is false" *not* "the value w if v is false".

Page A-3: Change the description of the @NOT function to read "Results in the logical not of the Boolean value b."

Page B-11: Should read:
"1020 OPEN "I",1,F\$" instead of "1020 OPEN F\$"

Page B-11: Line 1130 should be "INPUT T". Line 1150 should end with a "J" not an "I". Line 3030 should have a semicolon before "NV" not a colon.

Page B-12: Line 5030 should read "OPEN,2,F\$". The REM statement after line 6620 should be line 7000. Line 7020 should read "IF T1 <> -1 THEN 9000".

**Graphics/125
Reference
Manual (7/82;
Updated 3/82)**

[Order the Graphics/12x Software Update Kit to obtain the new manuals plus the latest software.]

Page 6-12: Fourth line, and the following line before the sentence that begins "now the 24 months...": "Units between X Tics should be changed to 1". Also delete the 24th row of data shown in the example—only 23 rows can be entered on the screen.

**Word/125
Reference
Manual
(7/81; Updated
2/82)**

[Order the Word/12x Software Update Kit to obtain the new manuals plus the latest software.]

Page 1-13: Artwork is missing from the bottom of the page. Drawings for the "up arrow" and "down arrow" cursor control keys should be inserted in the blank spaces at the bottom of the page. Draw the keys in, using the keys on page 1-7 of the WORD/125 manual as examples.

Page 2-9: In the middle of the page, the text reads: "See the information on marks in Chapter 5 for more information". Change the reference to Chapter 6 instead of Chapter 5.

**BASIC/12x
Reference
Manual (7/81)**

A BASIC/125 Reference Manual Update Package, part number 45535-99001, is available through your dealer or HP. It applies to HP 120 and HP 125 systems.

Page 3-64: Line 100 in the example should be: "100 PUT #1, CK%" rather than "100 PUT #1,CK#"

Page 3-80: Default text width on the screen is 72 characters. Change the number to 80 characters instead of 72.

Page H-4: On lines 1020 and 1030 in the example, place a "\$" after the "ESC".

**HP 12x System
Reference
Manual
(7/81)**

Page 9-41: Table 9-5 should read:

"04H Seek to Unwritten extent; 06H Seek
past end-of-disc" instead of "04H Seek to
unwritten data;6H Seek past end-of-file."

Page 10-11: Change the maximum length of
Subfunction 123 (window message string) from
80 to 79 .

Page 15-18: In the table listing XTHL and its
definition, delete the word "Data" (beside it)
and change the definition to read "Exchange the
data on top of the stack with the contents of
the HL register pair".

Page A-7: Change the Key Code A9 from
"enhance Linergins" to "Enhance Line".

**Condor Series
20 User's
Manual (2/82)**

Page 6-11: Delete the comma just after
"ORDERS" in the JOIN command. In the two
PROJECT commands, change "TOTAL" to
"AMOUNT". In the second PROJECT command
change "COMPANY" to "FIRM".

Page 8-5: First paragraph, last sentence
should have the words "Bar charts and"
deleted. Add a sentence to this paragraph as
follows: "For Bar charts, the database to be
plotted may contain a label item and up to 5
value items per record."

Page 8-5: The tabulate command in the first
example should read: "TABULATE ORDERS BY
REGION AND COMPUTE TOTAL
AMOUNTS[S]"

Page 8-5: Include the following between the
PROJECT and SORT commands of the second
example: "NOTE: The item MONTH must be
numeric because the linear charts program
accepts numeric values only."

HP 120/125 Software Problem Reports



The software Status Bulletin is a cumulative list of all software problems that have been reported on the HP 120/125. **New entries since the last issue are marked with a star.**

Operating System Release A.01.20

Problem: Upon using extended system function call 125 to send an 80-character message to message window, the 80th character is lost and the window is displayed in inverse video.

Workaround: Limit messages to 79 characters.

Problem: A file with a leading "\$" in the name causes WELCOME not to load on bootup.

Workaround: Don't use "\$" in file names.

Problem: When the Series 100 encounters a deleted file on an IBM 3740 type disc, it displays a "worn disc" error message and the disc operation is aborted after a number of retries.

Workaround: Fixed in Release A.01.40

Problem: From BASIC, when successive read and write record operations are made to two random files that begin at the same physical location in different disc drives, incorrect data gets read or written to these two files.

Workaround: Fixed in Release A.01.40

★Problem: The operating system over-writes records between two files that are located in the same physical sectors in separate discs. The operating system does not remember the drive designator and gets confused as to which drive to act on.

Workaround: Fixed in Release A.01.40

WELCOME Release A.01.20 (on Operating System A.01.20 discs marked "HP 125")

Problem: When WELCOME is Read Only, an attempt to install an application will cause WELCOME to fail with a write to R/O file error.

Workaround: Change WELCOM.COM to a R/W file (i.e. STAT WELCOM.COM\$R/W). Fixed in *Series 100* Operating System-Software Update Kit available.

Problem: WELCOME does not update the softkey label if the application is reinstalled with a changed label.

Workaround: First delete application with original label. (CTRL-SHIFT-DEL function of WELCOME) and then re-install it. The delete function will remove the label. Fixed in *Series 100* Operating System-Software Update Kit available.

Problem: If application disc has a "R/W" file with the same name as an "R/O" file on the work disc, WELCOME fails on a "WRITE TO R/O" file error. Because WELCOME will keep aborting each time it is run.

Workaround: Change file to a R/W file using STAT. Fixed in *Series 100* Operating System-Software Update Kit available.

WELCOME Release A.02.00 (on Operating System A.01.20 discs marked "Series 100")

Problem: If you attempt to install an application onto a disc which has a full directory, you get a misleading error message-"Operation aborted. File open error."

Workaround: If you get this message, delete a file (or files) then attempt installation again. If the problem persists, install the application on another disc.

Block-Format Release A.02.00

Problem: After Block-format has loaded, the loader program quits without resetting the User Key labels.

Workaround: Reset them yourself in the User Key menu.

Problem: If a space terminates a value entry, only 2 backspaces instead of 3 are required to clear the line.

Workaround: If value entry is accidentally terminated by typing a space, use /E or Ctrl-E to edit the number.

Problem: When replicating a column and the target range is smaller than the source range and at the edge of the worksheet, the replicate will wraparound and destroy the data in the target column.

Workaround: Always avoid replicating more data than the target range can accommodate.

Problem: An equation that is larger than the VisiCalc edit line will not replicate properly. Only half the equation is replicated.

Workaround: Do not attempt to replicate equations longer than the edit line.

Problem: When saving a VisiCalc file to a bad or worn-out disc, the system will hang until a hard reset is performed, thus losing all the data.

Workaround: Verify that the disc can be written to before entering VisiCalc.

Problem: Sending a set-up string to an HP-IB printer which is turned off or disconnected may cause VisiCalc to hang. Reset may not be able to clear the condition.

Workaround: Ensure that printer is on and ready before sending setup string.

Problem: VisiCalc fails if escape sequences are turned off prior to VisiCalc being invoked.

Workaround: If escape sequence processing is disabled, it must be re-enabled before other applications or programs are invoked.

Problem: Entering a non-digit character during value entry causes VisiCalc to assume that entry mode is being transmitted.

Workaround: This is consistent with information in the manual, including the function of the ";" key. If a non-digit is accidentally pressed during value entry then /E for Ctrl-E can be used to allow further editing.

Problem: Certain cell definitions which are syntactically incorrect can be entered. This is inconsistent with most cases, where incorrect syntax is not accepted.

e.g. ● NPV(1,2)
● Lookup (eq...cl.)

Ranges are accepted for values and vice versa.

Workaround: If an incorrect definition is accepted, ERROR is displayed in the cell to warn the user that a problem exists.

Problem: If the RETURN key is held down after the /SL command, VisiCalc will load the first VisiCalc file on disc but not display the filename.

Workaround: The first RETURN sent on the blank edit line causes a catalog of the disc to be requested. Since the RETURN is an auto-repeat key, another RETURN character is sent, before the first filename is displayed, and causes the first file to be loaded. Don't hold down the RETURN key.

Problem: Illegal exponents result in incorrect values.

Workaround: Don't use exponents larger than 127.

★**Problem:** Attempt to backspace over a value and enter a "(" enters a "0" instead.

Workaround: None

Problem: Repeating label fields are not saved and retrieved correctly in DIF™ files.

Workaround: This may not be a serious problem if the labels are cosmetic (i.e., dashed lines) but it would be best not to use the "/"- command if the data is to be stored in a DIF file.

Problem: Saving to an existing file on a full disc results in a corrupt file.

Workaround: "ERROR:DISK FULL" message is displayed if the disc does not have enough space. When this appears, try saving the file to a different disc before exiting from VisiCalc or reloading the file.

Graphics Release
A.01.00 and A.01.01



Problem: Allows embedded blanks in filenames, but these files cannot be processed with CP/M commands DIR,ERA.

Workaround: The blank must be substituted with a question mark. Example: ERA FILE 1 should be ERA FILE?1. Fixed in release A.01.02.

Problem: Allows the user to specify pen number 9 when only 8 pens are valid.

Workaround: Treat pen 9 as a valid pen number. This allows the user to specify up to 9 pen numbers on the HP 7225 and 7470. The user will have to change the pens manually as required. Specifying pen 9 when using the HP 9872C causes pen 1 to be selected. Fixed in Release A.01.02.

Pie

Problem: Pie segment labels are not positioned properly when the segment approaches 0.5%.

Workaround: Sort the segments with the sort option. Fixed in Release A.01.02.

Problem: In pie charts, the labels will be plotted over exploded segments in certain instances.

Workaround: Use the auto sort option or avoid exploding segments. Fixed in Release A.01.02.

Bar

Problem: When using stacked bar charts, small solid slices are not always drawn in the correct place on the bar chart. The slice is most often drawn too high on the chart or, if small enough, may not be drawn at all. This problem occurs because solid slices in stacked bar charts are drawn a "fraction of an inch" short, so that the solid portion does not bleed on the other sections of the bar chart. If the small slice is smaller than this "fraction of an inch", the slice is positioned in the wrong place.

Workaround: Avoid graphing bar chart segments of very small size. Fixed in Release A.01.02.

Problem: If a solid (shade #7) segment of a stacked bar chart is less than 0.5% of the chart's range, the small solid segment may be drawn to high—causing the segment above to be drawn on top of the smaller segment.

Workaround: Rescale your y-axis so that the smallest segment is greater than 0.5% of the chart's range. Fixed in Release A.01.02.

Problem: In bar charts, if the x-axis labels are too long they will write over one another when plotted.

Workaround: Either use fewer bars per chart or use shorter text in your labels. Fixed in Release A.01.02.

Problem: The top of a bar on a bar chart touches the border on some normal and comparative charts.

Workaround: Define the Y-axis labels such that the bars don't reach the border. Fixed in Release A.01.02.

Problem: The default Y-axis scaling on some normal bar charts is too large, therefore the bars may be very small.

Workaround: User can set own scaling to values that will produce satisfactory results. Fixed in Release A.01.02.

Problem: Bar charts won't plot when YMAX is less than 20% greater than YMIN.

Workaround: Choose values with greater than 20% differential. Fixed in Release A.01.02.

Problem: Bar Charts gives an ambiguous error message if Ymin and Ymax are equal.

Workaround: Check that Ymin does not equal Ymax. Error message is more definitive in Rev. A.01.02.

Linear

Problem: The labels on the linear charts are rounded to the nearest tenth. For example the values 0, 0.25, and 0.50 will be plotted as 0, 0.3, and 0.5.

Workaround: Use numbers which are accurate to one decimal place. Fixed in Release A.01.01.

Problem: Part of the last letter of a label on a linear chart may not be drawn on the X-axis.

Workaround: Use a label with fewer characters. Fixed in Release A.01.02.

Problem: If only two points are specified for line type 6 in a linear chart (left and right border points only), the line does not plot all the way across the graph because of an HP-IB timeout.

Workaround: Line type 6 takes too long to plot, so use a different line type or insert an additional data point in the middle of the graph. Timeout is increased in version A.01.02.

★**Problem:** If local echo is on in the terminal configuration, an attempt to plot a linear chart (Plot or Axis softkey) will give a "too many tics" error.

Workaround: Graphics now turns local echo off before loading linear charts. Fixed in release A.01.02.

Slide

Problem: After plotting many slides, SLIDE loses inverse video and seems to lock up.

Workaround: EXIT from GRAPHICS by typing 'EXIT' then re-enter to do the slide over again. Improved in Release A.01.02.

Problem: Italic characters (from slide) are considerably shorter than other characters of the same designated size.

Workaround: Fixed in Release A.01.01.

Problem: The SLIDE program will ask for pen number 0 when using the one-pen plotter (7225).

Workaround: Ignore message and press return. Fixed in Release A.01.02.

Problem: In SLIDE, when Roman characters are plotted on the same line with normal characters, they are slightly raised above the normal characters.

Workaround: Fixed in version A.01.01.

Problem: Backslash and underscore aren't plotted in Roman or Italic fonts by Slide.

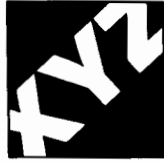
Workaround: Use normal or slanted Font for these characters. Fixed in Release A.01.02.

Problem: All slides must be plotted on 8½ by 11 inch media.

Workaround: Fixed in Release A.01.02.

Problem: Vertical slides could not be made on the 7470A or 7225B plotter.

Workaround: Fixed in Release A.01.02.



Problem: Print format table entries go to "32" when filename is too long. Word does not reject filenames or filetypes that are longer than CP/M filenaming conventions allow. Entering a too-long filename results in the following:

1. The size of the file is listed in the directory as an impossibly high number (e.g. 520K on a 256K byte disc.)
2. All of the Y Table values are changed to 32.

Workaround: Make sure that all filenames follow CP/M filenaming conventions. Fixed in Release A.02.02.

Problem: A line is printed at the wrong location with two column print. The two column print macro will occasionally print the last line of the first column in the second column. Also, dot commands are not always handled correctly.

Workaround: Some of the two column macro problems can be avoided by using a "manual method" for creating two columns of text rather than using the macro. "Manual method" instructions are as follows:

1. Imbed a .Y command at the top of the document to specify the width and length of the first column.
2. Use the J command to find the start of the second column.
3. Imbed a .T (to reposition the page) and a .Y (to format the second column) at the beginning of the second column. The .T command works only with printers capable of negative line feed, such as the HP 2601A.
4. Repeat steps 1, 2, and 3 for the entire document.

Problem: Bottom of screen filled with unwanted characters if the cursor is on the line below the last line of text (not in column one) and the cursor is homed down (moved to column 1 with the home key).

Workaround: To clear the unwanted characters from the screen, complete the following steps:

1. Go to Command Mode.
2. Type "Z" and then press the RETURN key. This will display the screen to set tabs.
3. Press the ESC key to exit from the tab screen.
4. Go to Edit mode.

Problem: Tabs set past column 80 on the screen are not always set correctly. If the screen is set to a line length of 150 and tabs are set between 80 and 150, the tabs will not stay where they are set on the screen. Most often an extra tab appears at column 81 on the screen.

Workaround: If you must set tabs past column 80, realize that you will have an extra tab at column 81.

Problem: When printing decimal tabs in proportional spacing, the right margin is no longer aligned.

Workaround: Place a .Y statement before and after the tabbed section. Replace each value (except the proportional spacing value) in the .Y statement with a slash. In the .Y statement before the tabbed section, turn the proportional spacing "off" (0); after the tabbed section, turn proportional spacing back "on" (1).

Problem: When using a character-oriented print routine, hyphenated phrases (e.g., phone numbers) may be split at the end of a line.

Workaround: Enhance the hyphen, then turn off the enhancement with the !7 command prior to the hyphen. Remember to reset the enhancements after the hyphen.

Problem: There is a discrepancy between file sizes reported by WORD and those reported by the CP/M command "DIR".

Workaround: The file sizes reported by CP/M are correct.

Problem: With the line length set to 70, approx 75 characters are entered on a line, some wrap to next line. This 2nd line ends with a carriage return. There is an unindented 3rd line. Changing the line length to 79 pulls up the 2nd line to the end of the first (properly), but doesn't get rid of the "INDENT TO TAB", as the 3rd line is now the 2nd line, "INDENTED".

Workaround:

1. Start with line length set to where you intend it ultimately to be.

OR

2. Fix it up afterwards with "CLEAR INDENT".

Problem: When WORD/125 encountered the sequence "?!?" in a document "?!?" was used as a value for the Y-Table Special Character entry. The entry was changed from 0 (bold) to 15. (This is illegal—no 15 entry exists).

Workaround: Don't use characters immediately after "!" or (2) replace "?! ?!" with "? ! ? !" or (3) replace "?!?" with "?!H?!".

Problem: Cursor motion keys don't work as expected on "Indent to tab" lines when changes have been made on the line.

Workaround: Watch the cursor and position it where you would like it.

Problem: The MAILMERGE macro will not allow any item to be used more than 9 times within a letter. A letter with 11 references to @1 will print only 9 of them.

Workaround: Use 9 references or less. Or, change line 66 of file "mmerge.wmp" that starts off "9s/@%4". Change the "9" to a number greater than or equal to the number of times a variable is referenced.

Problem: Decimal tab does not always terminate properly. Simple case to show problem:

1. Type on screen: 123456789 <
2. Put cursor on middle "6" 6
3. Type ?Z followed by "aaa" 1234567890 <
4. Hit down arrow once
5. Go to Command mode, type Z, ESCAPE
6. The "aaa" is gone type Z, ESCAPE (6) the "aaa" is gone.

Workaround: Terminate Decimal tab with other than up or down arrow.

★**Problem:** In edit mode when you have a long word towards the end of a sentence, it truncates the word—putting the remaining part on the next line rather than the whole word as it should do with wraparound. This problem only occurs with words that are 16 characters or more in length.

Workaround: Try to limit words that might exceed the line margins to 15 characters.

Link
Release A.02.00



Problem: Link does not handle the page break conventions used by MicroPro's WordStar. The first character of each page is lost. If the first line of the page is empty, the transfer may hang.

Workaround:

1. Make a copy of the file using PIP option (Z) to clear the 8th bit.
2. Leave a dummy blank at the start of each page.
Fixed in series 100/DSN/Link.

DSN/Link/12x
Release A.01.00

Problem: If a file transfer is attempted with an HP 3000 Series 64 to a device with Device Reference Table (DRT) number greater than 127, the file transfer will be aborted. The error message you see is "Host Pascal error".

Workaround: None. Fixed in Release A.01.01.

Problem: If you answer a Yes/No question with characters other than Y, N, y, or n, DSN/Link hangs.

Workaround: Answer with "Yes" or "No". Fixed in Release A.01.01.

Problem: In command mode, if you press 'stop command' and then 'CONFIRM STOP' softkeys after you entered a command, all softkey labels will be cleared.

Workaround: Press the 'MODES' key to restore the command mode softkey labels. Fixed in Release A.01.01.

Problem: DSN/Link cannot work across an X.25 communication line.

Workaround: None.

Problem: If the HP 3000 is sending data to the screen when DSN/Link is exited, Remote Mode appears not to work.

Workaround: Press the RESET key to clear the data communication line. Fixed in Release A.01.01.



Problem: In the "Transfer-To-Host" menu, if you press the 'host rec size' softkey and then press the 'ASCII/BINARY' key before entering a record size, the 'ASCII/BINARY' key request is ignored.

Workaround: Press the 'ASCII/BINARY' key twice. Fixed in Release A.01.01.

Problem: If a command file contains two &DSCOPY commands in a row and the HP 3000 used is a Series 64, the second &DSCOPY may fail.

Workaround: Insert a "&PAUSE 1" command between the two &DSCOPY commands. Fixed in Release A.01.01.

Problem: If you set the block size to 1, the first file transfer works, but following file transfers may fail.

Workaround: Use a block size greater than 1.

Problem: If you define a softkey label with more than 16 characters using the &KEY command, the excess characters will appear on the screen when that softkey is pressed.

Workaround: Do not use more than 16 characters in a softkey label.

Problem: If you specified a record size greater than 512 in a &DSCOPY command, unpredictable results will occur.

Workaround: Use a record size less than or equal to 512. Fixed in Release A.01.01.

Problem: If you press the 'STOP TRANSFER' key to abort a file transfer that was initiated by a &DSCOPY command and then press the 'TIMEOUT EXIT' key twice, the 'Waiting for host response' message will be left on the screen. However, control is returned to the Main Menu.

Workaround: After pressing the 'CONFIRM STOP' key, wait for a normal termination response from the host.

Problem: DSN/Link returns an error message "Host arithmetic error" if you perform the following sequence of operations: press 'transfer to host', enter a local filename, enter a non-existent host filename, press 'main menu', press 'transfer to host', change to Binary file transfer, and press 'START TRANSFER'.

Workaround: Enter the host filename again before pressing the 'START TRANSFER' key. Fixed in Release A.01.01.

**BPI General
Accounting/12x**
Release A.01.00

Problem: Unable to create a company (command 71) when using a hard disc drive (9133A, 9134A, 9135A).

Workaround: Install disc 2 – posting and listing, then install disc 1 – data entry and maintenance. This is opposite to the recommended procedure in the manual.

Problem: Unable to install BPI General Accounting on a hard disc (9133A, 9134A, 9135A) using WELCOME A.02.00.

Workaround: Install with WELCOME A.01.20.

BASIC/12x
Release A.05.21



Problem: Overflow error 'hangs' basic. "Print 2^127" intermittently hangs, reports syntax error, or reports overflow. "Print 2^128" works, and larger numbers seem OK.

Workaround: Avoid this value.

★**Problem:** Using the Chain Merge command inside a subroutine appears to affect the subroutine return information.

Workaround: A possible solution to the problem is to place the entire subroutine in the file being CHAINED rather than only putting a piece of the subroutine in it.

Condor/12x
Release A.01.00

[Order a Condor/12x Software Update Kit to obtain the latest software and manuals.]



Problem: Extra characters are left on the command line after leaving EDIT.

Workaround: Backspace to the Condor prompt. Fixed in Release A.02.00.

Problem: The PROJECT command can lose, shift, or garble data in certain databases.

Workaround: Add an extra character to the definition of an alphanumeric field. Fixed in Release A.02.00.

Problem: With some databases, the UPDATE command locks the system and forces a reboot.

Workaround: Add an extra character to the definition of an alphanumeric field. Fixed in Release A.02.00.

Problem: If a format name has more than 7 characters, REORG will not assume the extension is .FRM.

Workaround: Fixed in Release A.02.00.

Problem: Options on many commands are not accepted if in lowercase letters (i.e., write filename [b] the "[b]" will not be accepted.)

Workaround: Use uppercase letters for options. Fixed in Release A.02.00.

★Problem: Return to system from procedure file doesn't bring up WELCOME screen when executed from drive "A".

Workaround: Place procedure file on drive B or alternate drive this is good practice since there is very little space left on the A drive with 5¼ or 3½ inch discs.

★**Problem:** Print options of UPDATE and ENTER commands produce illegible output on printout.

Workaround: Select records to be printed to RESULT and use print option of LIST command. Fixed in Release A.02.00.

★**Problem:** Extent errors occur indicating disc or file full for no apparent reason.

Workaround: Append two or three records from an identical database to the original database – this will increase the size of the original database so that it crosses the 16K boundary that caused the extent error. Fixed in Release A.02.00.

★**Problem:** READ command treats commas as item delimiters. This means that if an item contains embedded commas, the READ command will assume that character strings separated by commas are separate items – the result is a corrupt database.

Workaround: Write out data in BASIC [B] format.

★**Problem:** “DEL LINE” and “INS CHAR” are overbuffered – easy to delete too many lines.

Workaround: Pause when repeating these keys.

★**Problem:** ENTER command does not continue inverse video on next line.

Workaround: This is cosmetic only – you may still enter up to 127 characters in the field.

Condor
Release A.02.00

★**Problem:** When deleting an item from an indexed database, the index may become corrupt.

Workaround: Re-index the database.

HP 12x Firmware

Problem: Soft reset doesn't set "DC1 received" flag.

Workaround: None

Problem: The HP 125 may fail to send the second DC2 if two block transfers are stacked up, such as when the user presses ENTER and the host program issues a cursor position request. Some host programs send a cursor position request after an ENTER to better understand what data is being sent. Does not occur when Block/Format is loaded.

Workaround: Use Block/Format utility. (Available with Operating System Update Kit).

Problem: There are cases where the keyboard is locked by a host program and is released by the firmware prematurely. This happens when the host requests status bytes or cursor position. There is an unconditional keyboard unlock after these short block transfers.

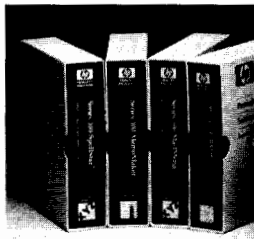
Workaround: None.

Problem: The NEXT PAGE key does not disable enhancements set for the previous page.

Workaround: Disable or set enhancements for next page.

Problem: The "Esc d" escape sequence is processed incorrectly. (The "Esc d" sequence allows emulation of the ENTER key function). This problem is not clearly visible when trying to execute the escape sequence from a BASIC/125 program. The cursor stays on any blank line.

Workaround: Press the RETURN or ENTER key to clear the cursor from the blank line.



The set of software for the HP 120/125 is revised as needed to add new features, to work with new peripherals, or to correct problems.

Software Update or Upgrade Kits contain the latest software and any new manuals or manual updates issued since the original manual. Kits are provided at a nominal charge—your original master disc is returned as proof of purchase. (You continue operating as usual with your work copy of the software.)

To replace damaged media, Software Update Kits are available for all software packages—including the products which have not been updated. Refer to the next section of this *Communicator* for media replacement ordering information.

Refer to the “HP 12x Software Problem Reports” section of this *Communicator* for details on the problems fixed in the latest version of each software product.

To order:

- In the U.S., updated software and manuals are available through your Series 100 Dealer or they may be ordered by mail from HP’s Computer Supplies Distribution Center using the form given later in this section.
- Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.

Operating System (Current Version A.02.00)

- Operating System and Utility *Upgrade Kit*
If you have an A.01.20 Operating System disc labeled “HP 125” (rather than “Series 100”), order this kit to obtain the following items:
 - The new 5½” x 8” Owner’s Manual, with slipcase.
 - The new 5½” x 8” HP 125B Installation Manual, with slipcase.
 - An A.02.00 Operating System disc, which includes the improved A.02.00 WELCOME utility, the single-disc A.02.00 COPY utility, and the single-disc INSTALL utility.
 - A Utility Disc, containing the new fixed-disc BACKUP utility.
 - The new Computer Tutor Disc, a computer-aided introduction to the 120/125 system for the first-time user.

If you have Operating System A.01.10; ordering this kit will also add support of the 9134/9135 fixed disc drive to your system, and provide the BACKUP Utility.

HP 12x Op Sys & Utility Upgrade Kit

Software on: 3.5" Disc 45900-13800 *
5.25" Disc 45900-15800 *
8" Disc 45900-18800 *

One original **HP 125** Operating System disc must be exchanged for each Op Sys and Utility Upgrade Kit ordered. (This kit includes the current Utility and Computer Tutor discs—but only the Op Sys disc will have to be returned.)

■ **Operating System and Utility Update Kit**

If you have a A.01.20 version labeled "**Series 100**", we have an Operating System Update Kit which provides an A.02.00 Operating System disc (with the single-disc A.02.00 COPY utility), plus the corresponding updates to the Series 100 Owner's, the HP 120 Installation, and HP 125B Installation Manuals.

HP 12x Op Sys & Utility Update Kit

Software on: 3.5" Disc 45900-13810 *
5.25" Disc 45900-15810 *
8" Disc 45900-18810 *

For each kit ordered, return an original **Series 100** A.01.20 Operating System disc. (This kit includes the current Utility and Computer Tutor discs—but only the Op Sys disc will have to be returned.)

**For each kit ordered, submit one original master disc as described in the text. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc. Orders submitted without the correct master disc cannot be accepted. If 20 or more copies of a single Software Update or Upgrade Kit are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*

VisiCalc/12x (45531B—Current Version A.02.00)	<p>Order this kit to obtain <i>Getting Started With Series 100/VisiCalc</i>, the <i>VisiCalc Reference Manual</i>, the <i>VisiCalc Quick Reference Card</i>, and the latest version of the software.</p> <p>VisiCalc/12x Upgrade Kit Software on: 3.5" Disc 45531-13800 * 5.25" Disc 45531-15800 * 8" Flexible Disc . 45531-18800 *</p> <p>For each kit ordered, return an original VisiCalc/125 disc. (Use your working copy until the new disc arrives.)</p>
Graphics/12x (45532B—Current Version A.01.02)	<p>If you have version A.01.01, order this kit to obtain the <i>Graphics Reference Manual</i>, the <i>Graphics Quick Reference Card</i>, and the latest version of the software.</p> <p>If you have version A.01.00, ordering this kit will also add the ability to use the 7470A plotter to your system.</p> <p>Graphics/12x Upgrade Kit Software on: 3.5" Disc 45532-13800 * 5.25" Disc 45532-15800 * 8" Disc 45532-18800 *</p> <p>For each kit ordered, return as original Graphics/125 disc. (Use your working copy until the new disc arrives.)</p>
Word/12x (45533B—Current Version A.02.02)	<p>Order this kit to obtain <i>Getting Started With Series 100/Word</i>, the <i>Word Reference Manual</i>, the <i>Word Quick Reference Card</i>, and the latest version of the software.</p> <p>Word/12x Upgrade Kit Software on: 3.5" Disc 45533-13800 * 5.25" Disc 45533-15800 * 8" Disc 45533-18800 *</p> <p>For each kit ordered, return an original Word/125 disc. (Use your working copy until the new disc arrives.)</p>

**Condor/12x
(45550—Current
Version A.02.00)**



- If you have Condor 20-1, you may wish to *update* your copy. If so, order:

Condor/12x 20-1 Update Kit:

Software on: 3.5" Disc 45550-13800 *
5.25" Disc 45550-15800 *
8" Disc 45550-18800 *

For each kit ordered, return one original Condor/12x 20-1 disc. (Use your working copy until the new disc arrives.)

- If you wish to *upgrade* your copy to Condor 20-3, refer to the section "HP 12x Software Available from HP," earlier in this issue.



- If you have Condor 20-2, you may wish to *update* your copy. If so, order:

Condor/12x 20-2 Update Kit:

Software on: 3.5" Disc 45550-13801 *
5.25" Disc 45550-15801 *
8" Disc 45550-18801 *

For each kit ordered, return one original Condor/12x 20-2 disc. (Use your working copy until the new disc arrives.)

- If you wish to *upgrade* your copy to Condor 20-3, refer to the section "HP 12x Software Available from HP," earlier in this issue.

**DSN/Link/12x
(45534B—Current
Version A.01.01)**

- If you have **Link/125**, you may wish to *upgrade* to Series 100/DSN/Link for the HP 12x.

In order to use DSN/Link, verify with your system manager that your HP 3000 has operating system MPE IV C.00.20 (or later) installed. On an HP 3000 Series 64, the MPE Version must be D.00.20 or later. (Refer to the article under "New Products" in *Communicator* Issue #3 for details).

These Upgrade Kits include a second disc containing the program DSN/MONITOR. This software allows files to be transferred between two Series 100 products in either ASCII or binary mode with error checking.

DSN/Link/12x *Upgrade Kit*:

Software on: 3.5" Disc 45534-13810
5.25" Disc 45534-15810
8" Disc 45534-18810

For each kit ordered, return one original **Link/125** disc. (Use your working copy until the new disc arrives.)

- If you have **Series 100/DSN/Link** for the HP 12x, you may wish to *update* your copy to the A.01.01 level, plus add a second disc containing the program DSN/MONITOR. This software allows files to be transferred between two Series 100 products in either ASCII or binary mode with error checking.

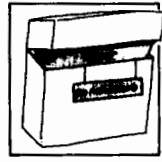
DSN/Link/12x *Update Kit*

Software on: 3.5" Disc 45534-13820 *
5.25" Disc 45534-15820 *
8" Disc 45534-18820 *

For each kit ordered, return one original **Series 100/DSN/Link** disc. (Use your working copy until the new disc arrives.)

**For each kit ordered, submit one original master disc as described in the text. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc. Orders submitted without the correct master disc cannot be accepted. If 20 or more copies of a single Software Update or Upgrade Kit are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*

HP 12x: Replacing Damaged Software Discs Curt Gowan



The master-copy/work-copy technique used by the Series 100 is designed to minimize the risk of damage to your master software due to handling or human error. Should this occur, Software Update Kits are available for Series 100 software packages—including the products which are still at the originally-released revision level. The kits contain the latest software and any new manuals or manual updates issued since the original manual; the kits are available at a nominal charge upon return of your original master disc as proof of purchase.

To order:

- In the U.S., Software Update Kits are available through your Series 100 Dealer or they may be ordered by mail from HP's Computer Supplies Distribution Center using the form given later in this section.
- Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.

Product	Rev.†	Order Part Number			Price Code, Notes
		3.5" Disc	5.25" Disc	8" Disc	
Op Sys	A.02.00	45900-13810	45900-15810	45900-18810	A,1
VisiCalc	A.02.00	45531-13800	45531-15800	45531-18800	A
Graphics	A.01.02	45532-13800	45532-15800	45532-18800	A
Word	A.02.02	45533-13800	45533-15800	45533-18800	A
Link/125	A.02.00	45534-13800	45534-15800	45534-18800	A,2
DSN/Link	A.01.01	45534-13820	45534-15820	45534-18820	A,3
BASIC	A.05.21	45535-13800	45535-15800	45535-18800	A
Prog. Pkg.	A.01.00	45536-13800	45536-15800	45536-18800	A
Condor 20-1	A.02.00	45550-13800	45550-15800	45550-18800	A
Condor 20-2	A.02.00	45550-13801	45550-15801	45550-18801	A,4
Condor 20-3	A.02.00	45550-13802	45550-15802	45550-18802	A,5
BPI G/A	A.01.00	45552-13800	45552-15800	45552-18800	C
BPI Payroll	A.01.00	45553-13800	45553-15800	45553-18800	B
WordStar	A.01.00	45560-13800	45560-15800	45560-18800	A
SpellStar	A.01.00	45561-13800	45561-15800	45561-18800	A
MailMerge	A.01.00	45562-13800	45562-15800	45562-18800	A
MicroPlan	A.01.00	45670-13800	45670-15800	45670-18800	A
MicroPlan Cons.	A.01.00	45671-13800	45671-15800	45671-18800	A

Key to Price Codes:

A— *
 B— *
 C— *

See notes on next page.

†Revision number shown in **bold** if revised since original release.

Notes:

- 1—This kit is to *update* an A.01.20 version of the **Series 100** Op Sys; an *upgrade* kit to move from earlier **HP 125** versions is also available—refer to details under “Ordering Software Update or Upgrade Kits,” earlier in this section. This kit includes the current Operating System disc, the current Utility Disc, (A.02.01) the current Computer Tutor Disc, and all Owner’s and Installation manual updates issued since the initial 5½ x 8” editions.
- 2—Link/125 disc exchanged for Link/125 disc. Refer to “Ordering Software Update or Upgrade Kits” to *upgrade* Link/125 to Series 100 DSN/Link.
- 3—Series 100/DSN/Link disc exchanged for Series 100/DSN/Link. Refer to “Ordering Software Update or Upgrade Kits” to *upgrade* Link/125 to Series 100 DSN/Link.
- 4—Either a Condor 20-2 disc or a Condor 20-1 to 20-2 Upgrade disc may be exchanged for the Condor 20-2 disc.
- 5—A Condor 20-3 disc, a Condor 20-2 to 20-3 Upgrade disc, or a Condor 20-1 to 20-3 Upgrade disc may be exchanged for the Condor 20-3 disc.

**For each kit ordered, submit one original master disc as described in the text. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc. Orders submitted without the correct master disc cannot be accepted. If 20 or more copies of a single Software Update or Upgrade Kit are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*

HP 150 Software Status

HP 150 Software Available from HP

Editor

HP 150 Application Software	Product No.†	Media†	
		3.5" Standard	5.25" Option 650
WordStar®/150	45400A		
MailMerge™/150	45401A		
SpellStar™/150	45402A		
WordStar, MailMerge, and SpellStar	45404A		
VisiCalc®/150	45405A		
Graphics/150	45410A		
Condor™ 20-1/150	45415A		
Condor 20-3/150	45416A		
Condor 20-1 to 20-3 Upgrade/150	45417A		
MemoMaker/150	45420A		
Personal Card File/150	45422A		
DSN Link/150	45425A		
BASIC/150	45445A		
BPI General Ledger/150	45455A		
Picture Perfect™/150	45462A		
Diagraph™/150	45463A		
MicroPlan®/150	45465A		
MicroPlan Consolidation/150	45466A		
dBaseII™/150	45468A		

†Media option must be specified with product number for 5.25" Disc.





Quick Reference Guides for most application packages are available for the HP 150 ... as well as the Owner's and Terminal manuals for the system.

Application manuals are available only with the associated discs in complete software packages.

To update your current documentation, refer to "HP 150 Manual Corrections and Updates", later in this *Communicator*.

To order Quick Reference Guides and Manuals, refer to the "How To Order" section at the end of this insert.

HP 150 Quick Reference Guides



Most HP 150 software packages include a Quick Reference Guide. This is a pocket-sized booklet or foldout card providing a summary of the program's commands and functions—for use once you are familiar with the application. Additional copies for the other users of your system are available from your dealer or HP.

WordStar/150 Quick Reference Guide	45400-90000	*
VisiCalc/150 Quick Reference Guide	45405-90000	*
Graphics/150 Quick Reference Guide	45410-90000	*
Condor/150 Quick Reference Guide	45415-90000	*
MemoMaker/150 Quick Reference Guide	45420-90000	*
PCF/150 Quick Reference Guide	45422-90000	*
DSN/Link/150 Quick Reference Guide	45425-90000	*
BASIC/150 Quick Reference Guide	45445-90000	*

**If 50 or more copies of a single Quick Reference Guide are ordered from HP at the same time, the price is discounted by 20%.*

HP 150 Manuals



HP 150 Personal Computer Owner's Guide (Contains System Software on 3.5" discs)	45621A	\$110
HP 150 Terminal User's Guide	45623A	50

HP 150 Manual Corrections and Updates



This section presents corrections to the HP 150 manuals. Just write in these corrections to update your manuals. **New entries since the last *Communicator* are marked with a star.**

Wordstar/150 Installation Guide (9/83)

- ★Page 1-2. "Copying Wordstar." Change the file called WSU.COM to WS.COM.
 - ★Page 1-3 through and including 1-5. Incorrectly lists the steps for running WINSTALL Program. For the correct procedure, refer to your *Self-Paced Training Manual*, Appendix A ("Installation Procedures").
-

DSN/Link/150 Manual (9/83)

- ★Page 3-1. Installing the SDTODIF Utility. The files SDTODIF.COM, SDTODIF, CSDTODIF must be on the currently selected drive. It is suggested that you install UPLOAD and DSN/Link on the same disc, and later delete UPLOAD.
- ★Page 6-4. Logging to a printer: By default, DSN/Link talks to the device PRN. (PRN is the HP-IB printer, if you do not have one, the logging attempt will produce a printer error message). You can change this by going into File Manager prior to logging and performing a "set printer" function.
- ★Page 9-4. Addition to "Software Requirements". The Series 100/DSN/Monitor program includes RUN.EXE and SYSLIB.PAS, used in uploading Monitor.
- ★Page 9-6. Note in "Setting Up a Password" implies that "Enter Password" comes up automatically after touching Time/Out Exit. The message appears only after you press Return.
- ★Page 9-20. Message in note should read "directory of remote drive X:"
- ★Page B-1. Add missing ampersand (&) in reference to &ASSIGN command.
- ★Page B-2. Under "HP 150 Commands" correct command to read: &CHAIN filename {parameter 1, parameter 2, . . .etc}

HP 150 Software Problem Reports



DSN/Link/150
Revision A.01.01

★**Problem:** If the Upload program is run over a modem, the file is not transferred to the host.

Workaround: If you are using a modem to run the UPLOAD program, you must be logged onto the HP 3000 as TERMTYPE 10. For example:

```
HELLO user.account/password;TERM = 10
```

★**Problem:** When transferring a binary file from an HP 150 to an HP3000, an error message indicating that lines have been truncated appears at the top of the screen and the file is not transferred.

Workaround: The user must change the ASCII/BINARY field to BINARY. It is not sensed automatically.

★**Problem:** If an HP 3000 program file is transferred to an HP 150 and then transferred back to an HP 3000, it no longer has the parameters of a program file and therefore cannot be run.

Workaround: A file equation must be used on the HP 3000 to which the file is transferred and the filename must be back-referenced on the DSN/Link screen.

on the HP 3000:

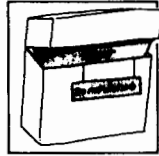
```
FILE filename;REC = 128,,F,  
BINARY;DISC = ,1,1;CODE = PROG
```

on the DSN/Link screen:

```
*filename
```

★**Problem:** Why can't just any RS-232 cable be used to connect two Series 100 computers?

Workaround: Any cable with pins 2 & 3 crossed and pin 7 to pin 7 can be used. Crossing pins 2 & 3 connects the transmit pin to the receive pin in both directions.



The master-copy/work-copy technique used by the Series 100 is designed to minimize the risk of damage to your master software due to handling or human error. Should this occur, Software Update Kits are available for Series 100 software packages—including the products which are still at the originally-released revision level. The kits contain the latest software and any new manuals or manual updates issued since the original manual; the kits are available at a nominal charge upon return of your original master disc as proof of purchase.

To order:

- In the U.S., Software Update Kits are available through your Series 100 Dealer or they may be ordered by mail from HP's Computer Supplies Distribution Center using the form given later in this section.
- Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.

Product	Rev.†	Order Part Number		Price Code, Notes
		3.5" Disc	5.25" Disc	
Op Sys:		45621-63001	45621-65001	B
Sys Master	A.01.03			
Disc Applic	A.01.01			
Tutor-A	1.0			
Tutor-B	1.0			
WordStar	3.30	45400-63001	45400-65001	A
SpellStar	3.30	45402-63001	45402-65001	A
MailMerge	3.30	45401-63001	45401-65001	A
VisiCalc	A.01.01	45405-63001	45405-65001	A
Graphics:		45410-63001	45410-65001	C
Bar	A.01.01			
Pie	A.01.01			
Line	A.01.01			
Text	A.01.01			
Examples	A.01.01			
Condor 20-1	A.02.10	45415-63001	45415-65001	A
Condor 20-3:		45416-63001	45416-65001	A,1
Build Commands	A.02.10			
Run Commands	A.02.10			
MemoMaker	A.01.06	45420-63001	45420-65001	A
PCF	A.01.02	45422-63001	45422-65001	A
DSN/Link:		45425-63001	45425-65001	A
DSN/Monitor	A.01.01			
Upload	A.01.01			
BASIC	A.05.28	45445-63001	45445-65001	A

If the product is not listed, contact your Phone-In Software Assistance Center for information.

See notes on next page.

†Revision number shown in **bold** if revised since original release.

Key to Price Codes:

A *

B *

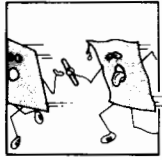
C *

1—Either a Condor 20-3 disc or a Condor 20-1 to 20-3 Upgrade disc may be exchanged for the Condor 20-3 disc.

**For each kit ordered, submit one original master disc as described in the text. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc. Orders submitted without the correct master disc cannot be accepted. If 20 or more copies of a single Software Update or Upgrade Kit are ordered at the same time, the price is discounted by 35%; no other discounts apply to these kits.*



Supplies and Accessories



Here is a list of the most popular Series 100 supplies and accessories.

A full list of HP computer supplies matched to your system for optimum performance is shown in the HP Personal Computer User's Catalog.

For ordering information—or to obtain a copy of the User's Catalog—refer to the "How To Order" section in this insert.

For Computers

HP 120 Personal Computer

13269P	Carrying Case (for HP 120 with short keyboard plus 9121 disc drive; or HP 120 with extended keyboard.)
92171K	Keyboard Park
92171T	System Turntable
92240C	Display Tilt Unit
92240D	Display Swivel Unit
92250D	Dust Cover
92220R	Right-Angle HP-IB Cable

HP 125 Personal Computer

92160A	Thermal Paper, Blue Print (Box of 24 rolls)
92160B	Thermal Paper, Black Print (Box of 24 rolls)
92171R	Keyboard Palm Rest (for extended keyboard)
92171T	System Turntable
92207A	Anti-Glare Filter
92250B	Dust Cover

HP 150 Personal Computer

92160A	Thermal Paper, Blue Print (Box of 24 rolls)
92160B	Thermal Paper, Black Print (Box of 24 rolls)
92160C	Thermal Paper, (Page perforated, box of 24 rolls)
13269C	Carrying Case (for HP 150 and 9121 disc drive)
92250F	Dust Cover
92171J	Large (extended) Keyboard Park
92240A	Light Gray Tilt Unit
92240B	Light Gray Swivel Unit
92220R	Right-Angle HP-IB Cable

For Disc Drives

HP 82901M/S, 82902M/S, 9130A, 9135A 5.25 inch Disc Drives

92251A	Dust Cover (82901M/S)
92190A	5.25 inch Flexible Discs, Double Sided (Box of 10 discs)
92193K	5.25 inch Flexible Disc Drive Cleaning Kit
92251B	Dust Cover (82902M/S)

HP 9121D/S, 9133A/B, 9133V/XV, 9134 3.5 inch Disc Drives

92251D	Dust Cover (9121 D/S)
13269T	Disc Drive Case (for 9121)
92191A	3.5 inch Flexible Discs (Box of 10 discs)

For Printers

HP 2601A Daisywheel Printer

92151C	Multistrike Ribbon Cartridges (Box of 12 cartridges)
92151D	Fabric Ribbon Cartridges (Box of 12 cartridges)
92157A	Printer Paper, Fan Fold (Box of 2400 sheets)
92157C	Printer Paper, Microperforated Fan Fold (Box of 2400 sheets)
92252 Series	Plastic Print Wheels, 96 character (Box of 6 wheels)
92153 Series	Metal Print Wheels (1 each)

HP 2602A Daisywheel Printer

92151H	Multistrike Ribbon Cartridges (Box of 12 cartridges)
92157A	Printer Paper, Fan Fold (Box of 2400 sheets)
92157C	Printer Paper, Microperforated Fan Fold (Box of 2400 sheets)
92262 Series	Plastic Print Wheels, 98 character, USASCII
92263 Series	Plastic Print Wheels, 98 character, International

HP 2631 A/B Dot Matrix Printer

92155A	Ribbon Cartridges (Box of 3 cartridges)
92157A	Printer Paper, Fan Fold (Box of 2400 sheets)
92157C	Printer Paper, Microperforated Fan Fold (Box of 2400 sheets)

HP 2671A/G, 2673A Thermal Printers

92160A	Thermal Paper, Blue Print (Box of 24 rolls)
92160B	Thermal Paper, Black Print (Box of 24 rolls)
92160C	Thermal Paper, Blue Print, Page Perforated (Box of 24 rolls)
92160M	Thermal Paper, Blue Print (Box of 1320 Fan Fold sheets)
92160N	Thermal Paper, Black Print (Box of 1320 Fan Fold sheets)

HP 82905A/B Dot Matrix Printer

92156A	Ribbon Cartridges (Box of 2 cartridges)
92157A	Printer Paper, Fan Fold (Box of 2400 sheets)
92157C	Printer Paper, Microperforated Fan Fold
92154P	Print Head
92171S	Desktop Printer Stand
92250T	Dust Cover

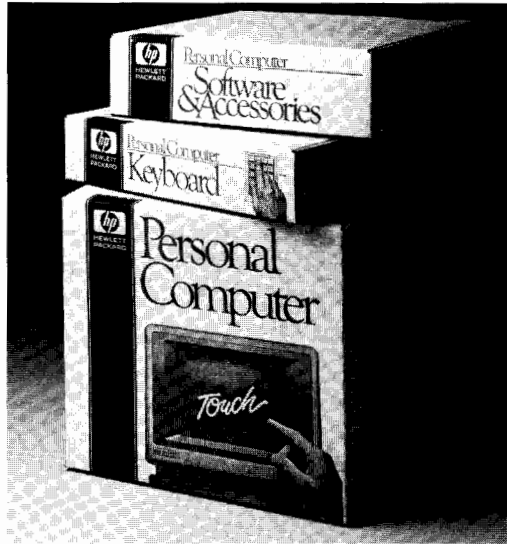
HP 82906A Dot Matrix Printer

92156A	Ribbon Cartridges (Box of 2 cartridges)
92154N	Print Head
2171N	Forms tractor unit
92157A	Printer Paper, Fan Fold (Box of 2400 sheets)
92157C	Printer Paper, Microperforated Fan Fold (Box of 2400 sheets)

For Plotters**HP 7225A/B, 7470A, 7476A Plotters**

5050-6810	Multi-Color Pen Package (Pkg of 4 pens; 1 each red, blue, green, and black)
9280-0589	Plotter Paper, English (Pad of 50 sheets)
9280-0588	Plotter Paper, Metric (Pad of 50 sheets)
92250N	Dust Cover (7470A)

Ordering HP-Conducted Training Courses	Hewlett-Packard provides Series 100 training courses at HP Customer Training Centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP Sales and Service Office.
Ordering Software Update and Upgrade Kits	<p>Your original master disc must accompany an order for software update or upgrade kits. Therefore, they are available only through your local dealer or from HP by mail:</p> <ul style="list-style-type: none"> ■ In the U.S., updated software and manuals are available through your Series 100 Dealer or they may be ordered by mail from HP's Computer Supplies Distribution Center using the form given later in this section. ■ Outside the U.S., they are available through your Series 100 Dealer or your HP Sales and Service Office.
HP Internal Users	Have your purchasing department enter an I2 order on the supplying entity shown for the item on the Corporate Price List or the Parts Price List.
HP Employees	Check with the Employee Computer Program Coordinator in your personnel department for ordering instructions.



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